TRICKL-EEZ IRRIGATION INC

Irrigation Engineering & Equipment

Zirk AG SERVICES

2024 IRRIGATION CATALOG

Farmer's Early Buy Program inside!

Please turn to page 3 for details

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TERMS AND CONDITIONS OF SALE

TERMS: In order to service the needs of new customers who have not established credit, we will ship C.O.D. or you may charge to your VISA, MasterCard, Discover or American Express. Prepayment by check will save on C.O.D. charges and credit card fees. For those who have an approved credit line, our standard terms are Net 30 days. A finance charge of 1½% per month (18% per annum) is added on all overdue accounts. Payment in U.S. funds only. Any account 30 days past due will be put on a C.O.D. basis. If an account reaches 90 days past due, the account will be changed to a C.O.D. account permanently.

Credit cards (MasterCard, Visa, Discover and American Express) are gladly accepted for payment at the point of sale, up to $2500.00. There will be a 3% fee on any amount exceeding $2500.00. If you choose to pay towards an invoice after 15 days there will be a 3% fee.

SHIPPING: UPS is our primary shipper. We also ship via Common Carrier for orders larger than UPS will accept, freight collect. A handling charge of $5.00 per box and/or roll of tubing will automatically be added to the freight charges, or $15.00 per pallet. We will make every effort to ship on a timely basis. When an estimate is requested for freight charges, it should be understood that it is only an estimate. Actual freight costs can not be accurately figured until an order is processed.

FREIGHT: All prices are F.O.B. shipping location. Standard items are usually shipped the same day if order is recieved by 2:00pm EST.

CLAIMS: Claims for shortages, defective or damaged goods must be made within five (5) days from receipt of shipment. Damages occurring "in transit" are the responsibility of the freight company and should be noted on the bill of lading when shipment is recieved. Submit a claim directly to the carrier.

RETURNS: All sales are final when the customer takes receipt of the goods. However, certain returns may be allowed depending on the circumstances. All returned materials must have prior authorization from a regional office and be in original packing and in resalable condition. A copy of the original invoice must accompany the return. Restocking charges of 15% are applicable on normal items. A higher restocking charge, usually 25%, will be applied to those items special ordered or made to customer's specifications.

LIMITED WARRANTY: All products are subject specifically to the manufacturer's warranty. Replacement, repair, or credit for defective material is at the discretion of **TRICKL-EEZ IRRIGATION** and is subject to the terms of the manufacturer's policy.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE: All prices in this catalog are those in effect at the time of printing. If a supplier changes our prices, whether up or down, we will change our prices accordingly. We can not be held responsible for misprints or errors.

DISCOUNTS: There are discounts available to many of our customers if they purchase from us on an ongoing basis, or if you are working on a large project. Please consult your **TRICKL-EEZ IRRIGATION** representative for more information.

HOURS OF OPERATION: Our offices are open for business from 8:00am until 5:00pm Monday through Friday year round. We are open Saturdays from 9:00am until 11:00am from in April through July.

HOLIDAYS: Our offices will be closed for business for the following holidays:

• Good Friday - March 29 • Memorial Day - May 27 • Independence Day - July 4 •
• Labor Day - September 2 • Thanksgiving - November 28 & 29 •
• Christmas through New Years Day - December 24 - January 1 •

Farmer's Early Buy Program

Inside you'll find most of your supplies for the 2024 season.

Please take advantage of these Early Buy Specials:

Order and Pay By December 22, 2023
Deduct an Additional 5%

Order and Pay By January 26, 2024
Deduct an Additional 4%!

Order and Pay By February 23, 2024
Deduct an Additional 3%!

Be aware! '22 & '23 presented many challenges. COVID-19. Wildfires. Storms. We weathered them all as best we could. However, we are still very concerned about 2024. Suppliers continue to warn of Price Increases. Allocations. Shortages. We strongly encourage you to secure your supplies early. Waiting until you need it may result in going without or paying more!

We WANT to save you money! **Please take advantage of the above discounts.**

We WANT to get you your supplies... where you need them and when you need them! **Order early so we can assure your supplies will be available when you need them.**

Feel free to send us a list of what you will need and we will be happy to do all the calculating and get you a confirmation back very quick.

IMPORTANT: Due to extreme volatility in the price of resins in both the polyethylene and the PVC plastics industries, which includes mulch, drip tapes, layflat hose, etc., we may be forced to adjust this catalog's pricing before your order date. We will do our best to anticipate your needs for this program. However, should sales from this program exceed what commitments we have with our suppliers, we may find it necessary to adjust prices accordingly on orders that come in near the end of this program. Should that be the case, we will call you to let you know.

EOP Terms and Conditions: Payment must accompany order for the program discount to apply. Payment may be made in the form of a Check or Credit Card. Order should be submitted on enclosed order sheet. ***Discounts are off Catalog Prices only***. Please be sure to indicate when you will need the shipment to be at your farm. Please send the order form to our Michigan location. We will bill the freight at the time of shipment.

Sales Order

☐ 3550 Chambersburg Road
Biglerville, PA 17307
(717)337-3030 • Fax (717)337-1785

Please mail, fax or e-mail this form to:

☒ 4266 Hollywood Road
St. Joseph, MI 49085
(269)429-8200 • Fax (269)429-6669
info@trickl-eez.com

Customer's Number:_____ Telephone: (_____)_____

Name:_____ Ship To:_____

Address:_____ Address:_____

City:_____State:____Zip Code:_____ City:_____State:____Zip Code:_____

						PO #	
Terms		Ship Via		Todays Date		Ship Date	

Product Code	Description	U/M	Quantity Ordered	Price Each	Extension

I WISH TO PAY BY CREDIT CARD VISA ☐ MASTERCARD ☐ DISCOVER ☐ AMERICAN EXP ☐

Name of Cardholder Signature

- - - / /20

Card Number Expiration Date CVV2 Code

Total Materials	
Sales Tax	
Freight	
Total	

THIS FORM MAY BE PHOTOCOPIED - VOID UNLESS COMPLETE INFORMATION IS SUPPLIED

CHECK ONE: ☐ SALES TAX UNIT EXEMPTION CERTIFICATE
☐ SALES TAX BLANKET EXEMPTION CERTIFICATE

Property and services purchased or leased using this certificate are exempt from sales tax because:

1• Property or services will be directly used by purchaser in performing purchaser's operation as:

2• Property will be resold under license #_____

3• Other _____

I am authorized to execute this Certificate and claim this exemption. Misuse of this Certificate by seller, lessor buyer, lessee, or their representatives is punishable by fine and imprisonment. The provisions of this Certificate are a part of every transaction between the parties included.

Name of Purchaser or Lessee Street Address City State Zip Code

Signature Signer's Title Date EIN

CVV2 Code is found on the back of your card, on the strip where you sign your name. It is the **LAST NUMBERS.**

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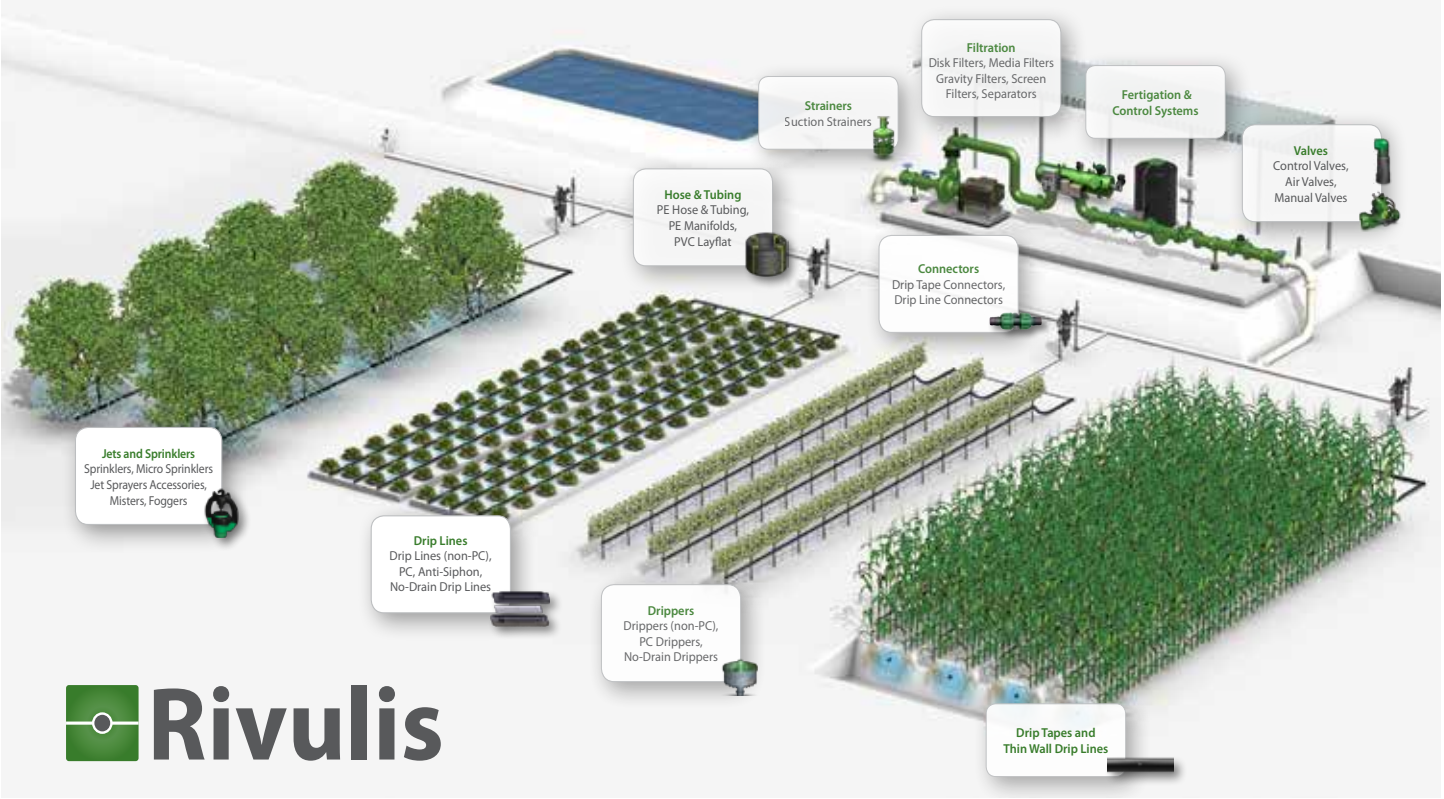

Drip irrigation systems can be thought of in two halves. First, the “headworks” portion of the system contains the water sources, pumps, filters, chemical injection equipment and controls. Second, the “field” portion of the system contains the transmission and emission devices used to deliver precise amounts of water, fertilizer, and other compounds directly to the crop. The illustration shows typical layouts for five different types of drip irrigation systems: field crop sub-surface drip irrigation (SDI), short term vegetable crop, longer term vegetable crop, vineyard and orchard.

Keys to Successful Drip Irrigation:

1. Obtain a soil and water analysis early in the design phase.
2. Determine soil texture and rooting depth.
3. Choose emitter flow rate and spacing carefully. (Closely spaced emitters often provide superior wetting patterns.)
4. Make sure your system has a flow meter and pressure gauges.
5. Make sure the valves are set for the proper flow and pressure.
6. Know the system application rate in inches per hour.
7. Obtain typical crop water use information for your area.
8. Record system vital signs on a regular basis.
9. Ensure chemicals are compatible.
10. Monitor lateral flush water often.
11. Schedule irrigation frequency and duration to maximize the utility of your system.
12. Monitor soil moisture and crop status regularly.
13. Leach salts beyond the rootzone as needed.

We would like to thank the **Rivulis Irrigation** for allowing us to include this "Typical Drip System Layout" in our catalog.
We feel it is a great representation of the various systems that **TRICKL-EEZ IRRIGATION** designs and sells on a daily basis. You will find the **Rivulis Irrigation** logo throughout our catalog, as well as the **T-Tape** logo, which is a division of **Rivulis Irrigation**. Their products are used in just about every system we design.

Zirk AG SERVICES

Tree Loppers

- Strong Alloy Steel
- Advanced Heat Treating Process
- Lightest Professional Pruning Tool
- Always "User Friendly"
- Made in the USA
- Lifetime Warranty

Model #	Price
28A	$79.00
32A	$83.00
36A	$86.00
Parts:	
400 Blade	$35.60
405 Hook/Bumper	$38.95
410 Bolt/Nut	$10.20
415	$7.80

Picking Buckets

- Jumbo Plastic Bucket
- Leather Padded Rim
- Foam Liner
- Holds ¾ Bushel (32 lbs)
- All Standard With 96" Strap
- 7P005 is same as 7P104 without foam liner.

Model #	Price
7P104	$67.00
7P005	$73.00

Standard Cherry Bucket

- Kidney Shaped
- Food Grade Safe
- 18qt Plastic Bucket

Model#	Price
89000	$20.45

K·LINE THE PERFECT GRASSLAND IRRIGATION SYSTEM

K LINE IRRIGATION NORTH AMERICA

The Perfect Grassland Irrigation System where the grass is always greener...

What is K-Line?

K-Line Irrigation is a revolutionary, specially formulated, flexible tubing line and pod sprinkler system designed to reduce the time and money you spend on irrigation installation, operation and repairs.

K-Lines can be shifted with a 4-wheel drive ATV, Gator or similar vehicle in minutes, efficiently irrigating 2, 20, or 2,000+ acres. K-Line adapts and grows with your needs.

The heart of the system is a series of extremely durable pods that protect a sprinkler that is firmly attached to the exceptionally strong and flexible linear low-density polyethylene tubing.

The low pressure system is designed to distribute water with a slow, efficient absorption method that eliminates the need to shift irrigation several times a day - saving time, labor and water resources. K-Line Irrigation uses less water more effectively.

K-Line Pop-Up Sprinkler

K-Lines using the pop-up sprinkler with low angle nozzles are used in orchards and vineyards to promote new plantings, support cover crops, and increase tree vigor and production in established orchards. K-Line is movable from zone to zone and removable during harvest and orchard maintenance.

K-Line Cornering Carousel

Coming soon!

K-Line's new Cornering Carousel allows K-Line to be used in vegetables, vineyards and orchards – anywhere that the typical K-Line shifting pattern cannot be used. The device allows the user to pull the line of pods around a square corner.

For more information see **www.k-linena.com**

info@k-linena.com

IRRIGATION SYSTEMS

IRRIGATION PERFORMANCE
LIKE NO OTHER.

For More Information Contact:
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Eau Claire, Mi 49111
269-944-1218
Fax 269-944-5141
zirkirr@gmail.com
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Steve Magin
Alan Wagner

IRRIGATION SINCE 1955 EXCELLENCE

T-L ... LIKE NO OTHER.
www.tlirr.com

T-L is the manufacturer of hydraulically powered pivot irrigation systems that undergo thousands of hours of product research and testing for quality and performance.

"The bottom line is 'they run' and with very little maintenance, after 34 years, it just keeps going. It still has the original gearboxes and motors."
– LaMoine Smith, Minden, Nebraska

"Our three electric center pivot irrigation units will give me more trouble this year and take up more of my time than all 13 of our T-L units combined. I just know they will, because that has certainly been the case in the past."
– Darren and Garrett Stallwitz, Dumas, Texas

GARDEN KITS

These kits are ideal for the beginner. They include all you need to get started.

KIT-A

This kit is designed for a 2,000sq' garden (15 rows of 100')

Part #	Description	Quantity
AGP-702	Filter 150 mesh FHTxMHT	1
PRLG10	Press Regulator .1-7gpm 10psi	1
PL-55-PHS-WW	Power-Loc Adaptor FHTx16mm	1
BS16-100	Hose 18mm x 100'	1
PL-55-P3T	Power-Loc Tee	1
PL-55-PELL	Power-Loc Elbow	2
PL-55-PC	Power-Loc Coupler	3
AGP-616	Figure 8 16mm Line End	2
PL-55-BV-PC	Power-Loc Valve 18mm	2
EA5081245-200	Toro 8mil 12" .45gpm/100' x 2000'	1
A2-TV5B250	Tape x .25 Barb Adaptor w/ Valve	15
AGP-001	Tape x Tape Loc Coupler	3
11897785	Hole Punch Tool 4mm	1
TWD-004	Netafim Tape End Closures	15
AGP-650	Goof Plugs	10

KIT-A PRICE $242.00

KIT-B

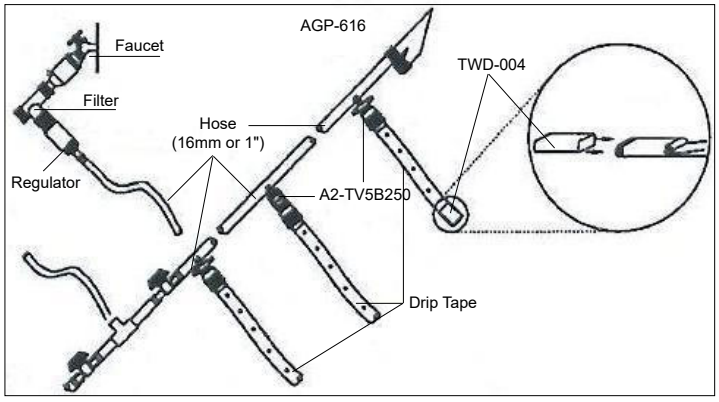
This kit is designed for a 16,000sq' garden (30 rows 225')

Part #	Description	Quantity
AGP-707	Filter 150 mesh w/ Flush ¾ MIPT	1
FHTXFPT	Adaptor ¾" FHT x FIPT Brass	1
SEN-2015	Press Regulator 2-20gpm 15psi	1
1436-102	Adaptor ¾" MIPT x 1" Insert	1
BS26-250	Toro Hose 1" x 250'	1
1401-010	Insert Tee 1"	1
1406-010	Insert Elbow 1"	2
1429-010	Insert Coupler 1"	2
1449-010	Insert End Plug 1"	2
6816	Clamps for 1" Hose	14
SPT-105	Spot Systems Valve 1" Insert	2
508-12-220	T-Tape 8mil 12" .22gpm x 7500'	1
A2-TV5B250	Tape x .25 Barb Adaptor w/ Valve	30
AGP-001	Tape x Tape Loc Coupler	3
11897785	Hole Punch Tool 4mm	1
TWD-004	Netafim Tape End Closures	30
AGP-650	Goof Plugs	10

KIT-B PRICE $525.25

Installation Instruction:

1• Screw together the garden faucet adaptor to the filter.
2• Screw the press regulator to the filter.
3• Screw the hose adaptor to the press regulator.
4• Screw the assembly to the faucet.
5• Insert the hose over the adaptor and secure with clamp.
6• Arrange hose as desired across the ends of the rows using the valves and fittings included. Secure w/ clamps. *Do not install the plugs or line ends yet.*
7• Punch hole at each row and connect the Tape-Loc x .250 Barb Adaptor.
8• Cut the tape to the desired length, install onto the adaptor and run down the row. The tape can be buried or layed on the surface.
9• Turn the water on and allow to flush any debris through the ends of the lines.
10• Turn off the water and install the plugs, or line ends on the hose.
11• Turn the water on and let it flush out the lines of tape.
12• Beginning with the closest line, begin closing the tape lines. Simply fold the end over two or three times and place the economy closure over the folds to keep them in place.
13• Your system is complete!



Selecting the right drip line / tape for your open field drip irrigation system

By Romeo Dragan

We want to touch on the importance of choosing the right drip line for your drip irrigation system. There are few key guidelines to be considered when selecting a drip line and drip tape. Understanding these guidelines can help avoid implementing a poorly functioning drip irrigation system.

When talking about drip lines, the multitude of options to choose from can make it a bit difficult to decide on the best product for your application. For this reason, on the Rivulis website we have implemented a product selection tool based on your needs and requirements.
(http://rivulis.com/category_product/products/drip-tapes-drip-lines/)

Wall Thickness

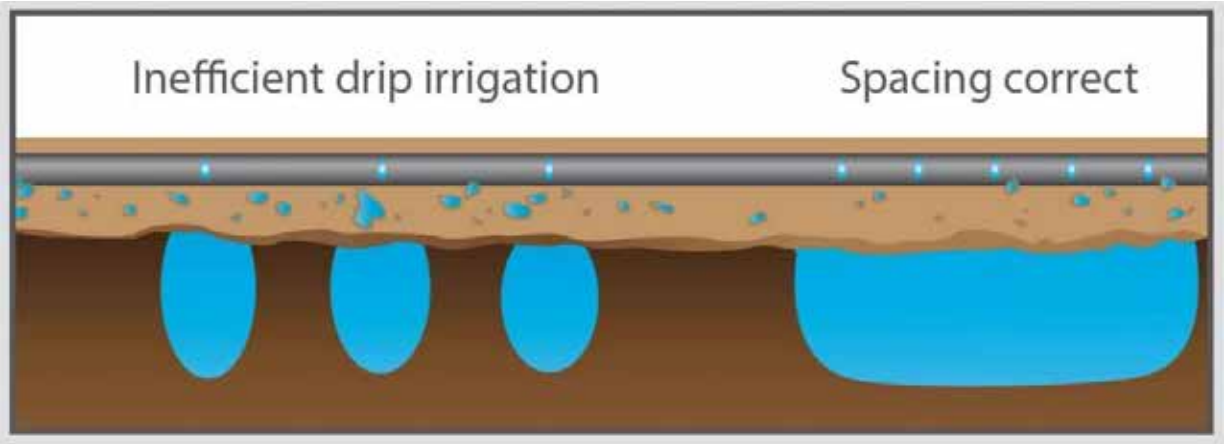
Drip lines are generally differentiated between single season or multi-season use determined by the thickness of the pipe's wall. The most common unit of measurement for wall thickness is "mil" (thousands of an inch)

In this way, farmers can go for a thin wall drip line ranging from 4 to 10 mil and only use it for one season and still be cost-effective for seasonal crops.

For perennial crops, multi-season reuse of single season crops and subsurface drip irrigation (SDI), it makes sense to install a drip line and use it long term and here the option is either to go for a medium wall thickness like -30 mil or the thickest possible 45-47 mil which will have the longest lifespan.

Dripper Spacing

When choosing the spacing of the drip line, we should consider the crop density, cultivation method and also the soil type. When irrigating, you want water to move laterally, not deep down through the soil profile where it is either lost (including any fertilizers added) or is harder for plant roots to ingest. By keeping drippers spaced at close intervals, water flows laterally more quickly, ensuring a continued wet strip along the row.



The spacing of the dripper influences the cost of the drip line, and the more drippers you have the more expensive the drip line becomes. This happens in all drip lines but not in tapes. Tapes are basically a drip line with no inserted molded emitter inside, which means that you can achieve closer emitter spacing with no additional cost, allowing you to experience the benefits without the extra cost.

Outlet

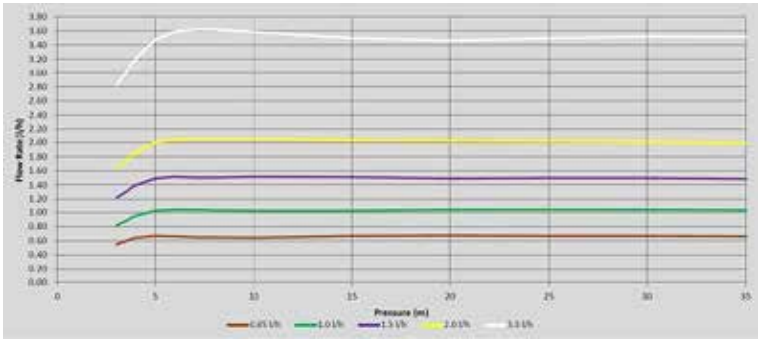
Drip line outlets can come in different options depending on the intended application . One hole is the most common you can find but multiple outlets are also available in cylindrical drippers. Here you can find 2 and even 4 outlets and this gives protection against clogging from the outside by soil particle ingestion.

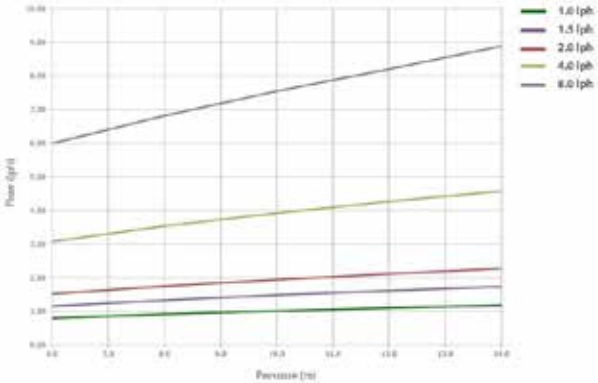
Another option mainly used in SDI (Subsurface Drip Irrigation) is slit or flap outlet. This is a mechanism that closes the drip line outlet once the irrigation has stopped and the pressure in the drip line has dropped and provides a mechanical barrier against outside intrusion of particles. A slit outlet is the most effective option for SDI as it provides the closest seal.

PC and Non-PC Dripper

Drippers are defined as either Non-PC or PC. PC stands for pressure compensation. Non-PC drip lines have a variable flow rate depending on the pressure applied. In the case of Non-PC drippers, generally the 2:1 principle is followed. This means, when there is 20% (+/-) variation in pressure, it affects the dripper flow rate by 10%. These drip lines are usually used on relatively flat surfaces.

PC drip lines deliver a stable flow rate regardless of the pressure applied, making it the ideal choice for uneven terrain applications or when extra-long run lengths are required.





Conclusion

If ever in doubt about choosing the correct drip line for your crops, we have invested efforts in making this decision easy for you. When browsing through all the different options available on Rivulis.com, we have provided a filter to help you easily access the most suitable drip line based upon your needs.

Whether you are looking for a single season or multi season solution, or your terrain is flat or sloppy you can easily find the drip line and drip tape products for your specific crop and field needs with just a few clicks.

JAIN Irrigation Inc
world leader in micro irrigation

CASCADE
Thin-Wall Emitter Line

Higher Clogging Resistance

Cascade Discrete Emitter Drip Tape is a premium product of modern drip technology. Cascade is manufactured with the most state-of-the-art equipment and machinery featuring computerized online quality control using powerful photo imaging technology. Flat emitters are designed and manufactured using the Cascade Labyrinth Technology, which guarantees higher clogging resistance and superior performance.

Product Features:
- Seamless drip tape with injection molded emitters
- Cascade is made with a special grade virgin polymer ensuring strength and durability
- All Cascade emitters have a turbulent flow and a wide cross-section flow path making the product highly clog resistant
- Consistency is ensured with an extremely low manufacturing variation (Cv)
- The most extensive range of emitter flow rates, emitter spacing, hose thicknesses and hose diameters; Cascade is designed to meet the needs of any row crop
- Cascade is manufactured with the most modern, state-of-the-art equipment. Computerized continuous online quality control ensures reliability and performance.
- Highly flexible, making coiling and uncoiling an easy task during installation or retrieval
- Two yellow parallel stripes “Twin Stripe” helps with keeping the product upright and straight during installation
- Manufactured with precision laser drilled outlet holes
- Suitable for surface and sub-surface applications

Available Flow Rates: 0.17gph, 0.26gph
Rates of 0.13gph, .22gph, .37gph Can Be Special Ordered

ECHELON TURBO TAPE
Features and Specifications:
- Seamless drip tape with integrated emitter strip welded inside.
- Manufactured from special grade virgin polymer ensuring close dimensional tolerance even at lower wall thickness.
- Manufactured with the most modern, state-of-the-art equipment.
- Precisely formed flow path resulting in an extremely low manufacturing coefficient of variation.
- Truly clog resistant design due to multiple, fine inlet filters.
- Dual entry filter segments allows water entry from two side maintains unobstructed water flow.
- Flexible bottom wall, expands and pushes any particulate matter that tend to block the flowpath.
- Innovative, laser drilled slit outlet closes when system is pressureless.

ECHELON
Turbo Tape

- Available in spacings of 4", 6", 8", 12", 16", 20" and 24"
- Available in flow rates of .07gph, .15gph, .20gph, .24gph, and .37gph at 10psi.
- Available in 5/8", 7/8", 9/8" and 1-3/8" nominal diameter.
- Available in wall thickness ranging from 6 to 25 mil (0.15 to 0.63 mm).
- Minimum 155 mesh filtration recommended.

Description	Spacing	Emitter Flow	Flow/ 100'	TE#	Price/ Reel 1 - 3	4 - 7	8 - 15	16+
CASCADE Thinwall Emitter Line								
8 mil x 8,000'	12"	.17 gph	.280 gpm	CD05081217-80	165.00	161.00	157.00	153.00
	12"	.26 gph	.450 gpm	CD05081226-80				
8 mil x 8,000'	16"	.17 gph	.212 gpm	CD05081617-80	165.00	161.00	157.00	153.00
	16"	.26 gph	.330 gpm	CD05081626-80				
ECHELON Turbo Tape								
8 mil x 7,500'	12"	.15 gph	.250 gpm	TTDX58081225-75		**Call for pricing**		
8 mil x 7,500'	12"	.24gph	.400 gpm	TTDX58081240-75				

Other Diameters and Wall Thicknesses are available. Please contact a Sales Rep for further information.
Prices valid on product we have on hand. Please consult our sales staff for pricing on product not on hand.

Looking to recycle your plastic? Try Padnos at padnos.com.

NETAFIM™
GROW MORE WITH LESS

THINWALL DRIPLINE

STREAMLINE™ X

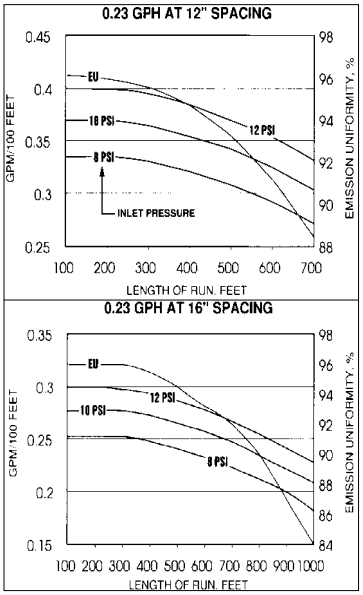
THE TOUGHEST THINWALL DRIPLINE EVER MADE

INDUSTRY'S HIGHEST QUALITY AND MOST DURABLE DRIPLINE

The new extra tough dripline with a unique ribbed surface acts as a barrier between the ground and the pipe, making installation and retrieval smoother than ever before.

Tough on the Outside
External ribs protect the pipe from installation damage with maximum abrasion resistance.

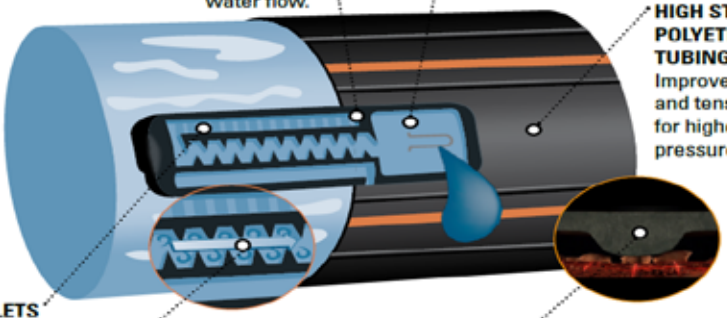
Tough on the Inside
Internal ribs minimize damage to dripper during installation.



INJECTION MOLDED DRIPPERS
Made of high quality polyethylene and welded into a wall of seamless tubing. Flow path is not affected by stretching during installation allowing for consistent water flow.

ADVANCED FLAP TECHNOLOGY
Reduces the risk of clogging by systematically opening and closing during start-up and shut-down to protect against root intrusion and soil ingestion.

HIGH STRENGTH POLYETHYLENE TUBING
Improved durability and tensile strength for higher operating pressures.



LARGER FILTER INLETS
Secondary filtration - reduces the risk of clogging while maintaining constant water flow

TURBONET
INCREASED FLOW PATH VELOCITY
Improves dripper performance by widening the tooth pattern, maximizing flow path velocity, allowing debris to pass easily through the dripper, eliminating clogging.

RIBBED INTERIOR AND EXTERIOR
Exterior ribs for maximum abrasion resistance during installation.

Interior ribs for minimizing damage to dripper during installation.

PRODUCT ADVANTAGES

- Ribs outside the pipe minimize the dripline abrasion during installation.
- Ribs inside the pipe protect the dripper from damage even in very harsh installations.
- Seamless construction is stronger and more durable than comparable drip tape.
- Flap outlet protection impedes soil ingestion and root intrusion.

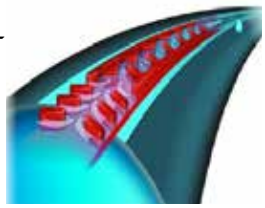
Description	Spacing/ Flow	Flow/ 100'	TE# & Netafim #	Price/ Reel			
				1 - 3	4 - 7	8 - 15	16 +
8 mil x 9,000'	12" / .16 gph	.267 gpm	SLXF63808.16-12	190.00	185.00	180.00	176.00
	12" / .24 gph	.400 gpm	SLXF63808.2-12				
	16" / .16 gph	.200 gpm	SLXF63808.16-16	185.00	178.50	174.00	170.00
	16" / .24 gph	.300 gpm	SLXF63808.2-16				

Looking to recycle your plastic? Try Padnos at padnos.com.

TORO Ag Irrigation

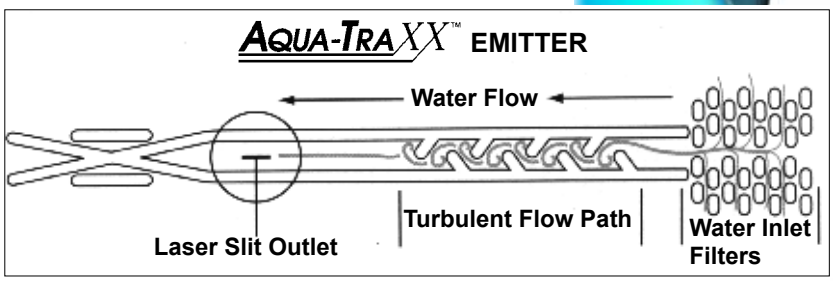
AQUA-TRAXX

Premium Drip Tape



Superior Design Features

- Ultra-high strength and durability
- Seamless construction. No more split seams and unglued overlaps. This adds great reliability.
- Highly resistant to plugging
- Laser slit outlet eliminates startup plugging and impedes root intrusion.
- Precision performance. An incredibly precise flow-path molding process results in an excellent Cv.
- Enhanced turbulent flow path. Better uniformity with reduced clogging.



Description	Spacing	Flow/ 100'	TE#	Price/ Reel			
				1 - 3	4 - 7	8 - 15	16 +
8 mil x 7,500'	12"	.22 gpm	EA508-12-220	216.25	210.85	205.60	200.50
	12"	.45 gpm	EA508-12-450				
8 mil x 2,000'	12"	.45 gpm	EA5081245-200B	92.50			

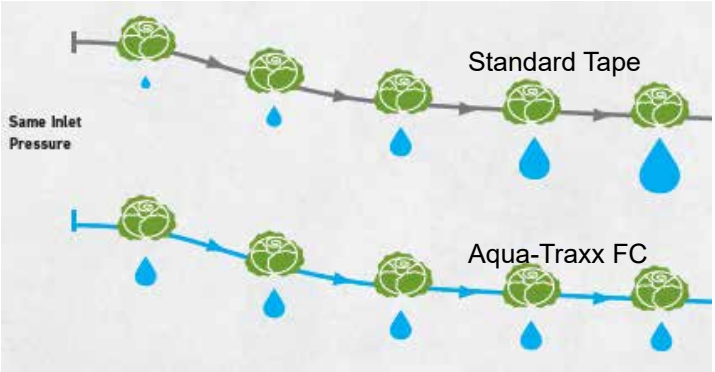
Prices valid on product we have on hand. Please consult our sales staff for pricing on product not on hand.

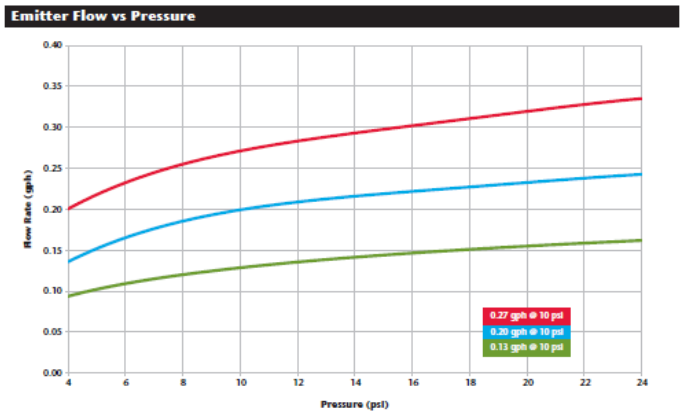
TORO Ag Irrigation

Aqua-Traxx® FC with the PBX Advantage

Toro Aqua-Traxx® Flow Control (FC) drip tape is the latest advancement in the evolution of precision drip irrigation. Aqua-Traxx FC is the only flow-controlling drip tape available — giving you more control and uniformity wherever you farm. The innovative flow-controlling design provides you with the flexibility to increase or decrease flow while maintaining a uniform output across changing elevations. Now you have more control over how much water your crops get, especially in long runs or hilly terrain, where water pressure can vary throughout the run.

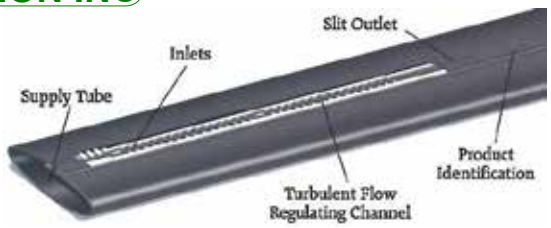
•Flexibility to increase and decrease flow without sacrificing uniformity
•Designed and molded with the PBX Advantage for increased durability, clog resistance and uniform output
•Emitter spacing from 6–24 inches with no cost increase, for precise placement and flexibility when designing your system





Description	Spacing	Flow/ 100'	TE#	Price/ Reel			
				1 - 3	4 - 7	8 - 15	16 +
8 mil x 7,500'	12"	.34 gpm	EAFC5081234-750	237.50	231.60	225.80	220.20
	12"	.45 gpm	EAFC5081245-750				
	16"	.25 gpm	EAFC5081625-750				
10 mil x 6,000'	12"	.22 gpm	EAFC5101222-600	237.50	231.60	225.80	220.20
	12"	.45 gpm	EAFC5101245-600				

T-Tape By Rivulis



A TRULY INTEGRATED EMITTER

• Water in the supply tube passes into the regulating channel through multiple filtering inlets.
• The water then passes through the turbulent flow regulating channel to regulate the discharge flow before exiting through the outlet.
• The regulating channel is part of a truly turbulent flow emitter integrated into the drip tape.
• The advanced turbulent flow design incorporates larger passageways which are less sensitive to plugging and provide more uniform discharge for longer lengths of run than other drip tape technologies.

STRONGER TAPE WITH SUPERIOR DESIGN.

• The **T-TAPE** material is significantly stronger and more durable than comparable materials of the same thickness.
• Slit outlet reduces insect damage, impedes root intrusion, and virtually eliminates start-up plugging from external contaminants.
• Advanced turbulent flow technology provides higher emission uniformity for longer lengths of run.
• Each outlet is part of a true drip emitter, providing true drip flow without the squirting that can erode beds and damage leaves.

Description	Spacing	Flow GPM Per 100'	Our#	Price / Reel			
				1 - 3	4 - 7	8 - 15	16 +
6 mil x 10,000'	8"	.340	506-08-340	194.65	190.75	186.95	183.20
	8"	.670	506-08-670				
	12"	.220	506-12-220				
	12"	.450	506-12-450				
8 mil x 7,500'	4"	1.0	508-04-1.0	174.45	171.00	167.50	164.20
	8"	.340	508-08-340				
	8"	.670	508-08-670				
	12"	.220	508-12-220				
	12"	.340	508-12-340				
	12"	.450	508-12-450				
	16"	.170	508-16-170				
	16"	.340	508-16-340				
10 mil x 6,000'	8"	.670	510-08-670	172.80	169.35	166.00	162.65
	12"	.220	510-12-220				
	12"	.450	510-12-450				
	16"	.340	510-16-340				
15 mil x 4,000'	12"	.450	515-12-450	164.21	161.00	157.70	154.55

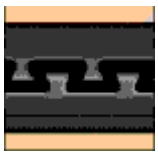
Rivulis RO-DRIP

RO-DRIP® provides the most reliable, cost-effective solution for all your sub-surface and above ground drip irrigation needs. **RO-DRIP** is the only drip tape specifically engineered to deliver uniform flow rates while addressing the most difficult maintenance issue faced by drip growers today: blockage during high-contaminant conditions.

Our patented **RO-DRIP** design employs two independent anti-plugging systems: **Vortex Flow Action**, which prevents clogs by keeping particulate in suspension; and our exclusive **Expanding Flow Channel**, which reacts to blockages by actually changing shape, often purging even the toughest particulate build-up. Additionally, our patented manufacturing process creates a precision-molded flow channel with a large cross-section, which can pass larger particulate and deliver the uniform flow rates you demand.

The Right Choice in Drip Tape

Vortex Flow Action
Designed-in turbulence keeps particles suspended and moving through every corner, twist, and turn of the flow channel. With no place to rest, particles are flushed out continuously, before they build into real problems.



Precision-Molded Channel
Precision engineering ensures large, uniform channels. Each contour is designed and molded to eliminate variability and deliver uniform flow rates. Other drip tapes simply can't match this level of performance - run after run.

Expanding Flow Channel
This exclusive **RO-DRIP** feature creates a truly remarkable "second line of defense" against plugging during high contaminant conditions. The flow channel can actually expand to purge an obstruction and restore flow.

Description	Spacing	Flow/ 100'	TE#	Price/ Reel			
				1 - 3	4 - 7	8 - 15	16 +
8mil x 7,500'	12"	.25 gpm	RO508-12-220	189.50	184.75	180.50	176.00
	12"	.40 gpm	RO508-12-450				

TRICKL-EEZ IRRIGATION INC

APPLICATION RATE (ACRE INCHES PER HOUR @ 8 PSI)
For DRIP TAPES

ROW SPACE (Inches)	FEET OF DRIP TAPE PER ACRE	PRODUCT 08" .340	08" .670	12" .220	12" .450	16" .170	16" .340	18" .440*	24" .280
30	17,424	0.131	0.258	0.085	0.173	0.065	0.131	0.170	0.108
32	16,335	0.123	0.242	0.079	0.162	0.061	0.123	0.159	0.101
34	15,374	0.115	0.228	0.075	0.153	0.058	0.115	0.150	0.095
36	14,520	0.109	0.215	0.071	0.144	0.055	0.109	0.141	0.090
38	13,756	0.103	0.204	0.067	0.137	0.052	0.103	0.137	0.085
40	13,068	0.098	0.193	0.064	0.130	0.049	0.098	0.127	0.081
42	12,446	0.093	0.184	0.060	0.124	0.047	0.093	0.121	0.077
44	11,880	0.089	0.176	0.058	0.118	0.045	0.089	0.115	0.073
46	11,363	0.085	0.168	0.055	0.113	0.043	0.085	0.110	0.070
48	10,890	0.082	0.161	0.053	0.108	0.041	0.082	0.106	0.067
50	10,454	0.079	0.155	0.051	0.104	0.039	0.079	0.102	0.065
52	10,052	0.076	0.149	0.049	0.100	0.038	0.076	0.098	0.062
54	9,680	0.073	0.143	0.047	0.096	0.036	0.073	0.094	0.060
56	9,334	0.070	0.138	0.045	0.093	0.035	0.070	0.091	0.058
58	9,012	0.068	0.133	0.044	0.090	0.034	0.068	0.088	0.056
60	8,712	0.065	0.129	0.042	0.087	0.033	0.065	0.085	0.054
62	8,431	0.063	0.125	0.041	0.084	0.032	0.063	0.082	0.052
64	8,168	0.061	0.121	0.040	0.081	0.031	0.061	0.079	0.051
66	7,920	0.059	0.117	0.038	0.079	0.030	0.059	0.077	0.049
68	7,687	0.058	0.114	0.037	0.076	0.029	0.058	0.075	0.048
70	7,467	0.056	0.111	0.036	0.074	0.028	0.056	0.073	0.046
72	7,260	0.055	0.107	0.035	0.072	0.027	0.055	0.071	0.045

CALCULATIONS BASED ON 0% SLOPE *ACRE INCHES PER HOUR @ 10 PSI

MODEL SELECTION

Normal Runs	Mil (MM)	Suggested Use	Common Crops
5 mil	5 (0.125)	For short season crops in light to medium textured soils where there is a minimum of rocks and clods, or under plastic mulch.	Strawberries Melons
6 mil	6 (0.150)	For minimum tilled soils, double cropping, heavy textured soils, or where rocks and previous crop residue is a factor.	Tomatoes Peppers Melons Strawberries
8 mil	8 (0.200)	For minimum tilled soils. double cropping, heavy textured soils. 8 mil has even more resistance to abrasion and insect damage than 6 mil.	Tomatoes Peppers Melons Vegetables
10 mil	10 (0.250)	For heavy or rocky soil, where insects and animals are a problem, where it is to be moved or for multi-year use.	Cotton Sugar Cane Vegetables
15 mil	15 (0.375)	For extremely rocky soils. or where insect and animal damage is a serious problem. Recommended for permanent crops.	Trees Vines

TRICKL-EEZ IRRIGATION INC

FLOW PER ACRE (GPM PER ACRE @ 8 PSI)
For DRIP TAPES

ROW SPACE (Inches)	PRODUCT 08" .340	08" .670	12" .220	12" .450	16" .170	16" .340	18" .440*	24" .280
30	59	117	38	78	30	59	77	49
32	56	109	36	74	28	56	72	46
34	52	103	34	69	26	52	67	43
36	49	97	32	65	25	49	64	41
38	47	92	30	62	23	47	62	39
40	44	88	29	59	22	44	57	37
42	42	83	27	56	21	42	55	35
44	40	80	26	53	20	40	52	33
46	39	76	25	51	19	39	50	32
48	37	73	24	49	19	37	48	30
50	36	70	23	47	18	36	46	29
52	34	67	22	45	17	34	44	28
54	33	65	21	44	16	33	42	27
56	32	63	21	42	16	32	41	26
58	31	60	20	41	15	31	39	25
60	30	58	19	39	15	30	38	24
62	29	56	19	38	14	29	37	24
64	28	55	18	37	14	28	36	23
66	27	53	17	36	13	27	35	22
68	26	52	17	35	13	26	34	22
70	25	50	16	34	13	25	33	21
72	25	49	16	33	12	25	32	20

CALCULATIONS BASED ON 0% SLOPE *GPM PER ACRE @ 10 PSI

LENGTHS OF RUN @ 0% SLOPE - FEET GPM PER 100 FEET @ 8 PSI

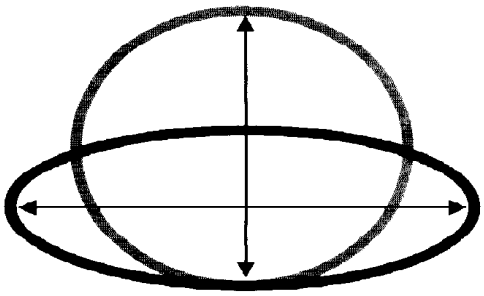
MODEL	EU	INLET PRESSURE (PSI) 6	8	10	12	15
8" spacing	90%	550	550	550	550	550
.340 gpm/100'	85%	725	725	700	700	700
8" spacing	90%	350	350	350	350	350
.670 gpm/100'	85%	460	450	450	450	450
12" spacing	90%	700	700	700	700	700
.220 gpm/100'	85%	933	933	933	933	933
12" spacing	90%	570	570	570	570	570
.363 gpm/100'	85%	735	735	720	720	720
12" spacing	90%	466	466	466	466	466
.450 gpm/100'	85%	600	600	600	600	600
16" spacing	90%	900	900	900	900	900
.170 gpm/100'	85%	1200	1200	1150	1150	1150
16" spacing	90%	710	710	710	710	710
.273 gpm/100'	85%	935	935	935	935	935
16" spacing	90%	600	600	600	600	600
.340 gpm/100'	85%	766	766	766	766	766
24" spacing	90%	650	650	650	650	650
.280 gpm/100'	85%	825	833	833	833	833

EU - Emission Uniformity

Rivulis TORO Ag Irrigation

Features:

• Larger diameters provide a cost effective alternative to flexible and rigid PVC mainlines and submains
• Manufactured from the highest quality resins
• Suitable for surface or subsurface installations
• Can be installed above ground without fear of damage when driving over it
• Uses standard insert fittings



TE# **21 PSI Working Pressure**	Hose Size nom"	I.D. Min. inch	O.D. Min. inch	Wall Thickness Min. inch	Coil Length	Coil Weight	Coil Diameter Width	Coil Diameter Length	Coil Height	Price Per
OH21-15300	1.50"	1.595	1.679	0.042	300	28.0	-------	------	------	117.75
OH21-15600	1.50"	1.595	1.679	0.042	600	55.0	20.0	20.0	16.0	194.85
OH21-20150	2.00"	2.052	2.162	0.055	150	24.0	-------	------	------	75.70
OH21-20450	2.00"	2.052	2.162	0.055	450	72.0	25.0	25.0	18.0	207.50
OH21-30200	3.00"	3.043	3.203	0.080	200	65.0	28.0	28.0	9.0	234.45
OH21-40130	4.00"	3.996	4.208	0.106	125	69.0	34.0	34.0	10.0	234.10

Jain Irrigation

Our#	Jain #	Hose Size nom" **16 PSI Working Pressure**	Inside Diameter inches	Outside Diameter inches	Coil Length feet	Coil Weight pounds	Coil Diameter OD inches	Coil Height inches	Price Per Roll
OH21-60100	F-6187-16-100	6.00"	5.955	6.187	100	87.0	------ 36.0	9.0	398.40

NETAFIM™ GROW MORE WITH LESS

PolyNet™ is an innovative sub-mainline piping solution that is easy to install, recoil and relocate for use in an alternate field or different configuration. Featuring leakage-free lateral connectors and integrated welded outlets, spaced according to customer requirements, **PolyNet's** advanced design provides growers with an easy-to-assemble, precise water delivery solution that lowers labor and maintenance costs and increases water savings.

Product Advantages

• Integral welded connectors ensure a secure, leak-free connection
• Thermostatic, collapsible irrigation pipe is construction from premium polyethylene with a low expansion rate
• Flexible and light-weight for maximum portability and quicker movement from field to field.
• Faster layout and retrieval processes results in decreased manpower costs.
• Requires no specialized tools for installation.

Specifications

• Sizes: 2", 3", 4", 6", and 8"
• Outlet Spacing: 30", 36", 40", 60", 72", or 80"
• Outlets: Integral Welded 1/2" Female Threaded
• Maximum Recommended Working Pressure at 122°F:
  2" - 29.0 psi 3" - 24.7 psi 4" - 21.8 psi
  6" - 17.4 psi 8" - 14.5 psi
• Coil Length: 328' (100 meters)
• UV and Chemical Resistant

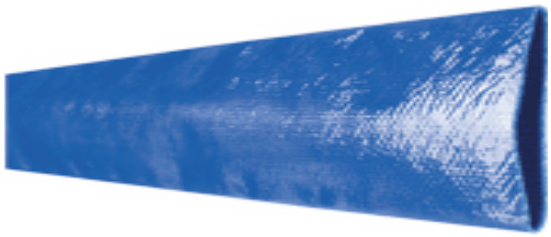
This product is available in many configurations.
Please call your rep for pricing and availability for the configuration that will fit your individual needs.

Looking to recycle your plastic? Try Padnos at padnos.com.

Kuriyama of America, Inc.

Vinylflow "Layflat"

GENERAL PURPOSE WATER DISCHARGE HOSE



FEATURES:
- Smooth tube provides low friction loss.
- Lays straight w/ minimal elongation under pressure.
- Ultraviolet inhibitors reduce aging & weather checking.
- Homogeneous tube & cover eliminates seperation.
- Coils flat for easy storage.
- 1½", 2" & 3" can be shipped UPS
- 4" & 6" are shipped motor freight.

TE Part #	Vinylflow Part #	ID (inches)	Working Pressure (psi)	Wall Thickness	Coil Length	lbs per 300' Roll	Price Per Roll
KUR-015	VF150x300	1.673	80	.0669	300 Ft	48	147.80
KUR-020	VF200x300	2.165	80	.0669	300 Ft	69	201.20
KUR-030	VF300x300	3.130	70	.0787	300 Ft	117	362.95
KUR-040	VF400x300	4.134	70	.0827	300 Ft	156	477.80
KUR-060	VF600x300	6.181	50	.0866	300 Ft	258	822.60

Kuriyama of America, Inc.

Ironsides

HEAVY DUTY WATER DISCHARGE HOSE

FEATURES:
- High Working Pressure.
- Resists Kinking and Twisting.
- Long Lengths (300 feet).
- May be coiled or racked when wet.

TE Part #	Ironsides Part #	ID (inches)	Working Pressure (psi)	Wall Thickness	Coil Length	lbs per 300 Roll	Price Per Roll
KUR-150	IS150x300	1.610	200	.0866	300 Ft	69	419.40
KUR-200	IS200x300	2.090	175	.0906	300 Ft	96	531.00
KUR-300	IS300x300	3.090	150	.0984	300 Ft	156	1047.60
KUR-400	IS400x300	4.100	125	.1102	300 Ft	228	1332.00
KUR-600	IS600x300	6.160	115	.1181	300 Ft	363	2547.00

Kuriyama of America, Inc.

tigerflex®

PVC SUCTION & MATERIAL HANDLING HOSE • Series "G"

FEATURES:
- Solid Orange Color.
- Smooth bore allows full flow
- PVC suction and transfer hose.
- Smooth cover on sizes 1½" through 4"
- Slightly convoluted cover on 6" & 8" size for greater flexibility.

TE Part #	Tigerflex Part #	ID (inches)	Working Pressure (psi)	Approx Bending Radius	Nominal OD (")	lbs per 100 ft.	Price Per Foot
KUR-011	Series G	1.50"	90	5"	1.83"	48	2.72
KUR-012	Series G	2.00"	90	7"	2.38"	71	4.02
KUR-013	Series G	3.00"	65	10"	3.44"	125	7.51
KUR-014	Series G	4.00"	55	15"	4.57"	195	12.48
KUR-016	Series G	6.00"	40	25"	6.77"	376	24.00

TAPE FITTINGS: For Use With Thin-Wall "Trickle Tapes" With Wall Thickness From .004" To .020"

TE #	AP #	Price
Tape Loc x ¾" FHT Swivel		
AGP-005	FHS-06-LS	2.86
Tape Loc x Lay Flat Connector		
AGP-010	FHC-06-LS	2.48
FHC-09-LS	7/8" Tape Loc	3.27
Tape Loc x ¾" MHT		
AGP-003	MHT-06-LS	2.08
Tape Loc x ½" MIPT		
AGP-002	MA-06-LS	1.38
Tape Loc x 710 Compression		
CSP-06-LS710	CSP-06-LS710	2.21
CSP-09-LS710	7/8" Tape Loc	3.19
Tape Loc x .250 Barb		
AGP-007	250B-06-LS	.93
Tape Loc x .400 Barb		
AGP-008	400B-06-LS	.96
Tape Loc x .700 Barb		
700B-09-LS	7/8" Tape Loc	1.90
Tape Loc x 420 series barb large handle Valve		
AGP-009	420BV-06-LS	3.81

TE #	AP #	Price
Tape Loc x Tape Loc Coupling		
AGP-001	CPT-06-LS	1.00
CPT-09-LSO	7/8" Tape Loc	1.68
Tape Loc x Tape Loc Elbow		
AGP-020	ELL-06-LS	3.28
Tape Loc x Tape Loc Tee		
AGP-025	TEE-06-LS	3.67
Tape Loc x ¾" FHT Tee		
AGP-031	LST-06-LS	2.81
Tape Loc x Threaded Cap		
AGP-004	END-06-LSC	1.96
Plugs Hole Made for 400 Series Barb Fittings		
AGP-651	MP-400	.77
MP-700	.700 Plug	1.28

JAIN® Irrigation Inc
world leader in micro irrigation

TE #		Price
Tape Plug		
T630END-B	5/8" Tape	.54
Tape Coupling		
T630CB-B	5/8" Tape	.43
T875CB-B	7/8" Tape	.88
Tape x .400 Barb		
T63036440170	5/8" Tape	.85

TE #		Price
Tape x 3/4" MIPT		
T6303620017D	5/8" Tape	.81
Tape Plug		
T63036600170	5/8" Tape	.60
T87536600220	7/8" Tape	1.26

NETAFIM™
GROW MORE WITH LESS

TE #	Irritec #	Price
Tape x Tape Coupling		
31-TC500	31-TC500	.50
A1-TC700Y	7/8" Tape	1.02
Tape x .400 Barb Adaptor		
31-T5B400A	31-T5B400A	.43
Tape x .400 Barb w/ Valve or x .250 Barb		
31-TV5B400 .400	31-TV5B400	2.13
31-TV5B250 .250	31-TV5B250	2.13
Tape x .710 Compression Adaptor		
31-T5C710	31-T5C710	1.45

TE #	Irritec #	Price
Tape x Tape Coupling w/ Valve		
31-TV55	31-TV55	2.13
Tape x Tape x Tape Tee		
31-TT555	31-TT555	2.01
Tape x 600 Hose (18mm) Adapter		
31-T5H6	31-T5H6	1.54

irritec™ USA

TE #	Price
Tape x .250 Barb w/ Valve	
FTV5-250B	1.38

TE #	Price
Tape x Layflat w/ Valve	
FTV5-LF	1.96
Tape Plug	
FTA5-END	.47

TORO

FLEX CONNECT Layflat Connection System

SIMPLE
Optimum-sized eye connection with locking nut provides secure, quick and easy installation:
• Minimizes installation time and labor costs
• Minimizes water leakage

QUICK INSTALLATION
Hexagon installation tool with wrench attachment helps tighten locking nut for secure connection to the Layflat hose:
• Easy-to-grip, hand-sized tool reduces fatigue
• Bright color improves visibility

RELIABLE
Secondary closure nut further secures the valve or adapter to the eye connection:
• Eliminates or reduces field leaks
• Available in both valve and adapter (no-valve) configurations

FLEXIBLE
The eye connection fits all tape connection sizes:
• Flexibility to change tape sizes depending on seasonal crop
• Reduces annual fitting costs

LONG-LASTING
Curved valve is ergonomically designed for easy turning and to provide a full flow:
• Manufactured to ISO standards with strong materials to withstand harsh weather conditions and increase life and durability of the product
• Ball valve construction reduces friction loss

Part Number	Description	Price
T-FTV5-LF	5/8" Tape x FlexConnect w/ Shutoff Valve	1.96
T-FTV7-LF	7/8" Tape x FlexConnect w/ Shutoff Valve	2.19
T-FTA5-LF	5/8" Tape x FlexConnect	.67
T-FTA7-LF	7/8" Tape x FlexConnect	.89
T-LF-INST	FlexConnect T-Handle Hex Tool	5.16

TAPE INSTALLATION ACCESSORIES

TE #	Price
Oval Hose Punch	
For 400B Barbed Fittings	
PG-HP-B400	34.20
DP-400S w/ Eject	75.00
Economy End Closer	
TRI-ECON	.08

TE #		Price
Layflat Punch - Deluxe		
PG-LFC-19 Cuts 19mm Hole		199.50
PG-LFC-14 Cuts 14mm Hole		168.50
Tee Handle Hex for FHC-06-LS 3/8"		
AGP-APH2	AP-H-2	53.60

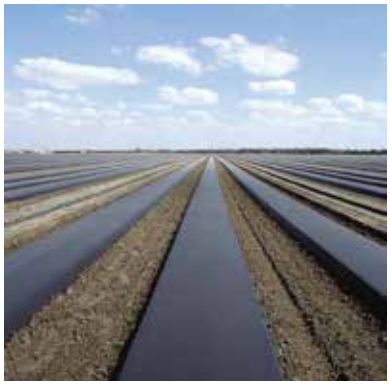
TRICKL-EEZ IRRIGATION INC

Berry

Ag Resource

Filmtech Corp.
of Sigma Plastics Group

Embossed Plastic Mulch



The question is often asked," what is embossed mulch, or what is the advantage of using embossed mulch?"

Embossed plastic mulch is run through an extra process that engraves the plastic. This process enables the mulch to have "memory." When plastic mulch is stretched over a bed, the daytime sun may balloon the mulch if the plastic does not have enough memory. There are many other reasons to use embossed plastic mulch.

Easier to lay • Hugs the ground and will not balloon

1 mil Embossed Black or 1 mil Embossed Clear

			1 - 3 Rolls	4 - 7 Rolls	8 - 15 Rolls	16 + Rolls
3 x 4,000	MCH-002	Black	119.00	116.00	113.00	110.50
4 x 2,400	MCH-003	Black	95.20	92.50	90.50	88.25
4 x 4,000	MCH-004	Black	158.70	154.75	151.00	147.00
5 x 2,400	MCH-005	Black	119.00	116.00	113.00	110.50
5 x 4,000	MCH-006	Black	198.25	193.50	188.50	184.00
3 x 4,000	MCH-009	Clear	162.20	158.00	154.00	150.00
4 x 4,000	MCH-011	Clear	216.20	211.00	205.50	200.50
5 x 4,000	MCH-013	Clear	270.25	263.50	257.00	250.50
		1.25ml Embossed				
4 x 4,000	MCH-229	Black	198.25	193.50	188.50	184.00
		1 mil Embossed Black and White				
4 x 4,000	MCH-021	Black/White	217.25	212.00	206.50	201.50
		1 mil Green Embossed				
3 x 4,000	MCH-116	Green	227.50	222.00	216.00	
4 x 4,000	MCH-017	Green	303.25	297.00	288.50	

** Berry Plastics will be introducing a new BioDegradable Mulch in 2023! **

FILMORGANIC
GROW MORE. GROW BETTER.

FilmOrganic.com

We provide the most complete line of certified soil-biodegradable mulch films available on the market. Simplify your job while improving your soil quality for your crops by using FilmOrganic. It's productive and economical.

Product name	Dimension	Lifespan	Application	Price/Roll
Black 3-3 (low 3" bed only)	48" x 4000' 60" x 4000'	2-3 months	Watermelon, Cux	Call For Pricing
Black 3-6	48" x 4000' 60" x 4000'	3-4 months	General Purpose	
Black 6-6	48" x 4000' 60" x 4000'	6 months	Tomatoes, Cantaloup	
Smart Stripes 6-6	48" x 4000' 59" x 4000'	6 months	Hemp	
CoolWhite 6-6	48" x 4000' 59" x 4000'	6 months	Late Tomatoes	
Clear 2-3	48" x 4000'	2 months	Sweet Corn	

• FOB Saratoga, NY if under 300 rolls. Multiples of 20 rolls, minimum 20 rolls.

TÜV AUSTRIA · OK compost · compostable · CERTIFIED NATURALLY GROWN

Biodegradable Plastic Mulch

			1 - 5 Rolls	6 - 10 Rolls	11 - 24 Rolls	25 + Rolls
48" x 5,000'	MCH-464	Black US1 S4	319.00	311.00	303.25	295.70

Perforated Plastic - 1mil; Clear; 3/8" Hole; 3" x 3" Pattern

		TE#	1-3 Rolls	4-7 Rolls	8+ Rolls
6 x 2,000	Clear	MCH-001	160.00	156.00	152.25

Wire Hoops for Tunnels

64"	SFG-064	100/ Bundle	$69.10 Bundle

Looking to recycle your plastic? Try Padnos at padnos.com.

TRICKL-EEZ IRRIGATION INC

Agribon®

FLOATING ROW COVER

Earlier Harvest • Better Yields • Frost Protection

AG-19... 10% stronger than other 0.5 oz/yd² offers added strength at no extra cost.

Agribon floating row cover is 100% polypropylene spunbond material. It has excellent seams and the characteristics of a row cover you need. Available in five weights:

Ag-15 (.45 oz./yd²), **Ag-19** (.55 oz./yd²) **Ag-30** (0.9 oz./yd²) **Ag-50** (1.5 oz./yd²), **Ag-70** (2.0 oz./yd²).

Description	Size	Item #	Weight	1-5 Rolls	6+ Rolls
AG-15 .45 oz/yd²	**118" x 2,000'**	**2102•**	**57**	**394.25**	**375.00**
Light Weight Insect Protection	19' x 2,000'	2104	114	710.65	675.00
AG-19 .55 oz/yd²	**83" x 250'**	**2110•**	**10**	**55.40**	**52.65**
Light Weight 2°-4°+F	**83" x 500'**	**2111•**	**18**	**95.40**	**90.65**
85% Light Transmission	**83" x 1,000'**	**2112•**	**35**	**182.40**	**173.30**
Prolongs growing seasons	**83" x 2,000'**	**2109•**	**66**	**361.85**	**343.80**
and increases yields	**10' x 500'**	**2117•**	**33**	**125.20**	**119.00**
Excellent wind & insect	**10' x 1,000'**	**2118•**	**66**	**246.50**	**234.20**
control	**14' x 1,000'**	**2120**	**65**	**352.80**	**326.00**
Strong, glued seams sup-	**20' x 1,000'**	**2121**	**113**	**488.50**	**464.00**
ported by the latest hot melt	30' x 1,000'	2123	171	718.05	682.00
technology	35' x 1,000'	2125	201	851.75	809.20
	45' x 1,000'	2126	245	1081.50	1027.50
	50' x 500'	2130	140	623.55	592.40
AG-30 .9 oz/yd²	**83" x 800'**	**2140•**	**35**	**222.00**	**211.00**
Medium Weight 4°-6°+F	**14' x 800'**	**2141**	**70**	**391.00**	**371.50**
70% Light Transmission	26' x 800'	2142	155	799.20	759.00
Gives overwintering protection	39' x 800'	2143	230	1158.10	1100.00
AG-50 1.5 oz/yd²	**83" x 500'**	**2150•**	**39**	**200.40**	**190.50**
Heavy Weight 6°-8°+F	**10' x 500'**	**2151•**	**59**	**295.00**	**280.25**
50% Light Transmission	**14' x 500'**	**2152•**	**79**	**383.00**	**364.00**
Excellent for overwintering	26' x 500'	2153	165	865.25	822.00
Provides emergency freeze	30' x 800'	2154	276	1574.00	1495.00
protection	45' x 500'	2155	265	1465.00	1392.00
	50' x 500'	2156	305	1597.00	1517.00
AG-70 2.0 oz/yd²	**13' x 100'**	**2165•**	**24**	**124.70**	**118.50**
Extra Heavy Weight 8°+F	**13' x 300'**	**2166•**	**65**	**317.40**	**301.50**
30% Light Transmission	26' x 100'	2167	45	239.20	227.25
Best overwintering	26' x 300'	2168	135	645.00	612.75

Where item # is followed by a bullet (•), that item can be shipped via UPS. All others sizes must be shipped via common carrier. Sizes that are Bold are stock sizes. All others sizes are shipped from Louisiana.

VEGETABLE GROWER SUPPLIES

PLASTIC TWINE

3lb. Ball (7500') INT-001 $10.75

TOMATO STAKES

Honduras Pine

All of our Tomato Stakes are CCA Treated

48"	INT-048	$1.63 ea.
	per 100	$1.47 ea.
54"	INT-054	$1.73 ea.
	per 100	$1.56 ea.

RUBBER BANDS

Cauliflower

Blue, Red, Green, Yellow

Per Pound $4.30

5 Pound Bag $20.50

Broccoli

Per Pound $4.20

Subsurface Drip Irrigation

Many areas of the country have experienced the worst drought conditions they've seen in more than half a century. Though a serious issue to most farmers, it is not necessarily the crop killer you might think it is. At **TRICKL-EEZ Company** we have a solution that is growing more popular every year because it is proving itself to be very valuable. It is **Subsurface Drip Irrigation (SDI)**, and **TRICKL-EEZ Company** is, once again, a leader in the field.

Why SDI? Here are a couple of reasons SDI is proving its value:

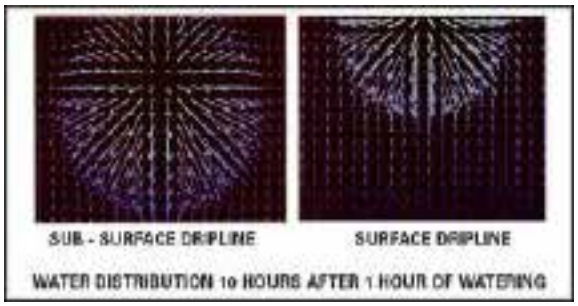
- Apply fertilizer through your system as well as water, directly to the roots
- Virtually eliminates evaporation, water is applied below the surface
- Increased yields compared to sprinkler or gravity irrigation
- Automatic systems make for simple and convenient operation
- Uniform, efficient water distribution compared to sprinkler or gravity systems
- Ability to uniformaly irrigate the entire field - no missing pivot corners
- Lower energy and water requirements for **SDI**.

How does SDI stack up compared to other types of systems? Flood irrigation is about 40% efficient. Center Pivots are 60% to 70% efficient. **SDI** systems are often over 90% efficient! That translates into more efficient application, and cost savings, of fertilizers as well as water.

You may see other savings as well. Some growers claim they save as much as 1/3 of labor costs compared to flood irrigation. Fertigation is easier to do and manage. You always have access to your fields 24/7, unlike when your pivots are running.

TRICKL-EEZ IRRIGATION INC
Irrigation Engineering & Equipment

Subsurface Drip Irrigation



Other advantages to a TRICKL-EEZ Company SDI System include sales and support from an industry leading staff. **TRICKL-EEZ Company** has been a leader in this for many years. We can take you from design to irrigation. We provide local support. We are able to pick and choose the best materials from all of the major manufacturers. Our systems are the most economical, efficient and state of the art systems available.

For those of you considering a TRICKL-EEZ Company SDI System, here are a few of the numbers you are probably most interested in:

- Approximate cost/acre for field materials for an **SDI System** is: less than most center pivots, but **SDI** is more efficient, and... we can do the corners!
- An **SDI System** covers 100% of the field. Compare that to a center pivot system which does not water the corners.
- Approx GPM needed per acre on the zone that is operating: 15 gpm - 20 gpm. Up to 5 zones on a single water source.
- Crops we have installed **SDI Systems** on: Corn, Asparagus, Wheat, Soybeans...
- How deep do I need the irrigation lines to be?: 14” to 16” (typically)
- Can apply 1.4" to 2.0" of water per week!

Subsurface Drip Irrigation Advantages:
- Eliminates surface evaporation
- Reduces crop stress
- Extends life of irrigation system
- Prevents weed germination
- Reduces herbicide wash-out
- Less salts from efficient irrigation
- Reduces labor requirements
- Reduces maintenance costs
- Safe & efficient delivery of fertilizer/chemicals

Of course your system may, or may not, share the same specifications listed above. Why? Because your system will be designed by one of our sales staff from the ground up. It will be uniquely yours, designed around your fields, your crops, your water source, your needs and desires. We have no “cookie cutter” systems to offer. Only the best custom systems possible.

So call today for the name of the sales rep in your area. You will not be disappointed!

TRICKL-EEZ IRRIGATION INC
4266 Hollywood Road • St Joseph, MI 49085
800-874-2553 • 269-429-8200 • Fax 269-429-6669
www.trickl-eez.com • info@trickl-eez.com

TRICKL-EEZ IRRIGATION is your distributor for, and we work closely with, the following manufacturers of quality dripper lines. We will quote you on the line that is appropriate to your situation, taking into account elevations, water quality, lengths of run, etc. You can rest assured that the line we have you bury on your farm is the best for your farm!

NETAFIM™ GROW MORE WITH LESS · Rivulis · JAIN Irrigation Inc world leader in micro irrigation · Eurodrip USA Install Confidence · TORO Ag Irrigation

SUBSURFACE DRIP IRRIGATION SYSTEMS

Tubing and Fittings Unique To Subsurface Drip Irrigation Systems

Subsurface Drip Irrigation Systems, though they operate much the same as other drip systems, are put together a little differently than a system above ground. Since they are buried they need some hardware that is appropriate to the conditions. What is listed here are components that are unique to our subsurface systems.

Feeder Lines:			
14052062	For 5/8" Tape	0.52" x 0.62" x 1000'	$140.00
14072084	For 7/8" Tape	0.72" x 0.84" x 1000'	$213.50
Header Line Connections:			
Antelco	For 5/8" Tape	45605 Take-Off	$.58
Antelco	For 5/8" Tape	45735 Grommet	$.42
Antelco	For 5/8" Tape	44305 Clamp	$.22
Antelco	For 7/8" Tape	45585 Take-Off	$.92
Antelco	For 7/8" Tape	45745 Grommet	$.56
Antelco	For 7/8" Tape	44315 Clamp	$.26
Better Wire	Loop Wire Tie	WT2816GA 8" 16 gauge S/S	$.30
Better Wire	Tie Handle	WTBPT Red Blitz Automatic	$57.75
Jain Irrigation	Tie Handle	AP-H Wooden Handle	$25.65

JAIN Irrigation Inc world leader in micro irrigation

TopDrip PC Thin-Wall Emitter Line

APPLICATIONS

- Row crops like Sugercane, vegetables etc.
- Subsurface drip irrigation (SDI)
- Variable topography
- Irrigation of long rows with high uniformity

STRUCTURE AND FEATURES

- Accurate pressure-compensating dripper
- Low CV: 3.0%
- Cascade labyrinth for maximal clog resistance
- Protection from root intrusion
- Unique double self-cleaning mechanism
- Allows longer laterals with EU of 95%
- Large water passages for optimal durability
- Multiple channel water inlet for operation under heavy dirt
- Close dripper spacing creates a continuous wetted strip

TECHNICAL DATA

- Flow rate: 0.26, 0.42, 0.53, 0.58 gallons/hour
- Pressure regulating range: 5.8 - 36.25 psi
- Operating pressure: 5.8 - 36.25 psi depending on wall thickness
- Wall thickness: 13 - 25 mil
- Recommended filtration: 120 mesh

TE Number	Nominal Flow Rate @8psi	Wall Thickness	Max PSI	ID	Outlet Spacing	Flow Per 100' @8psi	Reel Size	Price/ Reel
TD058152426-41	0.26 gph	15 mil	26	5/8"	24"	.217 gpm	4100'	552.00
TD078152426-26	0.26 gph	15 mil	26	7/8"	24"	.217 gpm	3600'	488.25

Turbo Cascade Thin-Wall Emitter Line

JAIN Irrigation Inc
world leader in micro irrigation

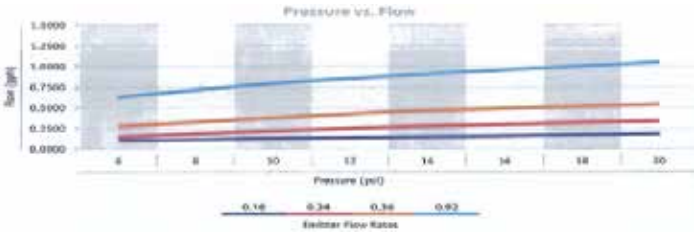
Higher clogging resistance and superior performance.

Product Features

- Seamless drip tape with injection molded emitters.
- Made with a virgin polymer ensuring durability.
- All emitters have a turbulent flow and a wide cross-section flow path making the product highly clog resistant.
- Consistency is ensured with an extremely low manufacturing variation (Cv).
- The most extensive range of emitter flow rates, emitter spacing, hose thicknesses and hose diameters:

  Hose diameters: 5/8", 7/8", 1", 1 1/8" and 1 3/8"
  Flow rates: .13gph, .17gph, .22gph, .26gph, .37gph
  Emitter spacings: 8", 12", 14", 16", 18", 20", 24"
  Common wall thicknesses (Mil.): 8, 10, 13, 15

- Highly flexible, making coiling and uncoiling an easy task during installation or retrieval.
- Two yellow parallel stripes "Twin Stripe" helps with keeping the product upright and straight during installation.
- Manufactured with precision laser drilled outlet holes.
- Suitable for surface and sub-surface applications.
- Minimum filtration is 120 mesh.



TE Number	Nominal Flow Rate @8psi	Wall Thickness	Max PSI	ID	Outlet Spacing	Flow Per 100' @8psi	Reel Size	Price/ Reel
CD058152417-40	0.17 gph	15 mil	43	5/8"	24"	.142 gpm	4000'	298.00
CD078152417-36	0.17 gph	15 mil	32	7/8"	24"	.142 gpm	3600'	340.50

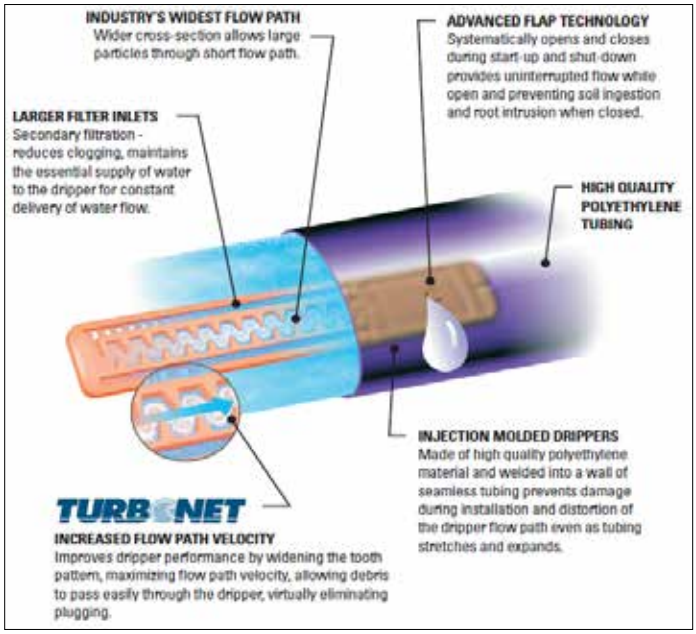
NETAFIM™
GROW MORE WITH LESS

TYPHOON THIN-WALL DRIPPERLINE

- *Typhoon* is stocked in 13, 15 & 20 mil thicknesses. Other spacings and mil thicknesses are available on a special order basis.

- *Typhoon has a very large, short water passage*; requiring less intensive filtration, and having less succeptibility to plugging from dirt, roots or fertilizers.

- *Typhoon has a built in self defense mechanism*; each dripper is individually protected by its own filters. Any particle small enough to pass these filters is easily passed through Typhoon's large turbulent flow path without clogging.



Typhoon Length of Run Charts
Length of Run @ 0% Slope

Dripper Spacing	GPM/100' @94% EU	Emission Uniformity (EU) 94%	92%	90%
58/" w/ 0.18 GPH DRIPPER (0.18 @ 10 psi)				
24"	0.138	851'	1031'	1173'
5/8" w/ 0.40 GPH DRIPPER (0.36 @ 10 psi)				
24"	0.281	529'	643'	733'
7/8" w/ 0.18 GPH DRIPPER (0.18 @ 10 psi)				
24"	0.138	1495'	1809'	2059'

SPECIFICATIONS Wall Thickness	Inside Dia.	Max Press.	Weight per Reel
Typhoon 630			
13 mil	0.636"	26 psi	53 lbs.
15 mil	0.636"	32 psi	54 lbs.
20 mil	0.636"	35 psi	72 lbs.
Python 875			
15 mil	0.875"	26 psi	70 lbs.

Description	ID	Spacing/Flow	Flow/100'	TE #	Netafim #	Price
Typhoon 13 mil x 5,000'	5/8"	24" / .36 gph	.28 gpm	NET-578	TPF63813.4-24	330.00
Typhoon 20 mil x 4,000'	5/8"	24" / .36 gph	.28 gpm	NET-676	TPF63820.4-24	425.00
Typhoon 15 mil x 4,100'	5/8"	24" / .18 gph	.14 gpm		TPF63815.18-24	301.80
Typhoon 15 mil x 3,900'	7/8"	24" / .18 gph	.14 gpm		TPF87515.18-24	338.40

Choosing the Right Emitterline

Author: Michael Derewenko (Edited)

Choosing the right irrigation product for an application can be difficult, especially when our industry presents so many similar options. With supply tubing and emitterline, the challenge is no different and the confusion is usually justified. To dispel a few myths, we thought it would be beneficial to list a few variables that should help make the decision between emitter line and supply tubing types easier.

Resin:

Like a lot of customers out there, we've been installing drip irrigation for years and had no idea how wrong we had been doing it. Not only were our decisions to use inline emitters over point source emitters incorrect but general decisions to install inferior quality tubing on projects that required long term product success.

One of the major differences in the tubing is the quality of resin a manufacturer uses to make the tubing and emitter line. If you bought tires that only had a 5-year warranty, would you feel safe with your family riding above, not likely. Fortunately, there are companies out there that don't compromise on quality resins and allow the product to do its job for more than 12 years guaranteed. A couple of questions to ask of your local distributor selling you the cheapest tubing possible:

- Were recycled resins used to make this tubing?
- Were foaming agents or fillers used to make this tubing?
- What is the manufacturer's warranty?

Like most products manufactured these days there are benefits to using recycled materials. Fittings, filter bodies, sprinkler bodies – there are plenty of places to put scraps but tubing is not one of them. Our emitterlinesare made with 95% pure virgin resin with only a small percentage of UV additive to protect the tubing when exposed to harsh UV light.

Emitter Type:

Emitters are super important to the longevity and efficiency of a drip system. This may come as a surprise to most customers but emitter line is more than a hole punched into tubing. Behind that hole is actually a fully functional emitter complete with a check valve, filtering labyrinth and sonically welded body that ensures water flows even with lines full of debris. Emitters are offered in a few different flow and spacing options but it's the magic of the design that does the dirty work. As water moves through the flow path, debris is trapped on the sides of a series of walls, this debris is collected throughout the cycle and flushed out the next time the system is run. A small silicone diaphragm, similar in design to a globe valve, works as a check valve to prevent excess water from exiting the line after the system is done running. If a project involves slopes then a check valve is a must!

Reliability:

First things first, we have one major obligation; to provide our customer with the best product solution for their project. The majority of us agree with this mantra. It is our job to inform you why and when a particular product should be used. Everyone loves talking about reclaimed valves, smart controllers, flow sensors, but when was the last time you heard a dealer convince a customer they should spend 5-10% more on better quality tubing and emitter line? Which, is if not more, equal to the expectation of quality from overhead emissions devices and valves.

Distribution:

Where can I buy higher quality tubing? TRICKL-EEZ Irrigation! All the major distributors across the United States have relationships with tubing manufacturers that sell higher quality tubing and emitter line. Understandably, it doesn't always make fiscal sense to stock only the highest quality of any product. Unfortunately, most distributors fall into a rut of rebates, point giveaways, and ease of inventory.

NETAFIM™
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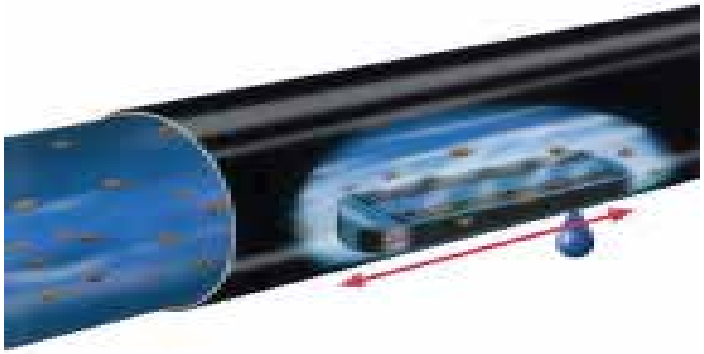
UniRam
Pressure Compensating Dripperline



Industry's Most Reliable Dripper

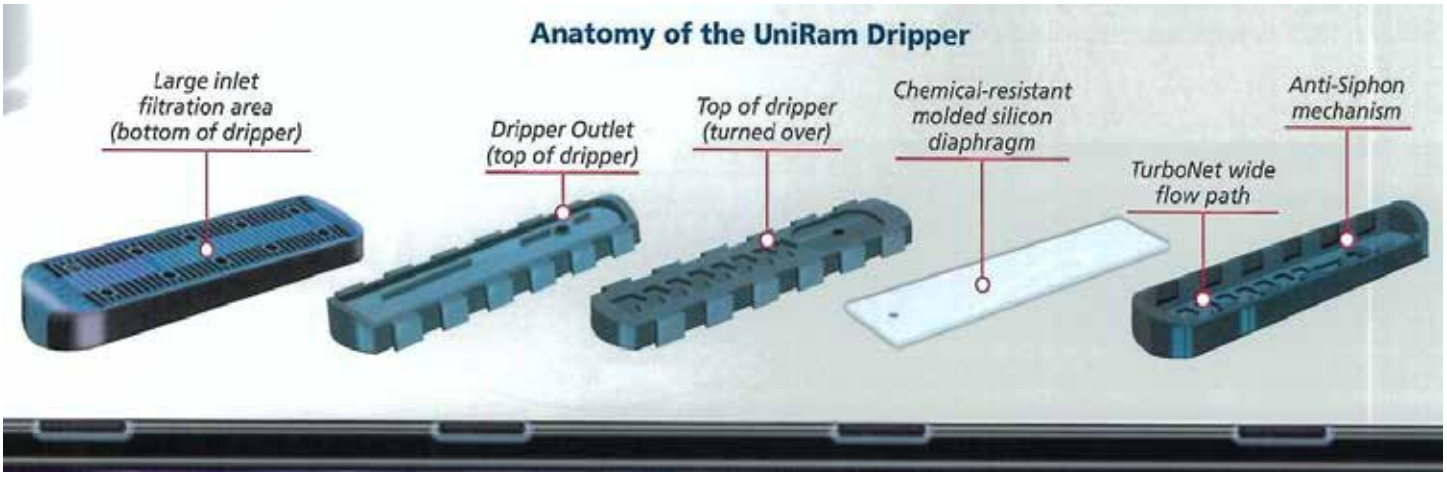
- Inlet filtration area is 13 times larger than nearest competitor.
- Widest dripper flow path, eliminates dirt build-up.
- Anti-siphon mechanism seals the dripper outlet at system shut-down, blocking debris from entering after irrigation.
- Continuous self-cleaning, self-flushing diaphram.

High Emission Uniformity

- Pressure compensating drippers provide higher uniformity on steeper fields and longer runs.
- Add together the lowest operating pressure (7psi) and reduced friction loss at each dripper equals the industry's greatest energy savings.
- With UniRam's wide range of flow rates, designers can better match the soil infiltration rates.

Unique Raised Dripper Design

- The raised position of the UniRam dripper points the inlet area toward the center of the tubing. Here it draws the cleanest possible water while larger particles travel along the walls of the tubing.

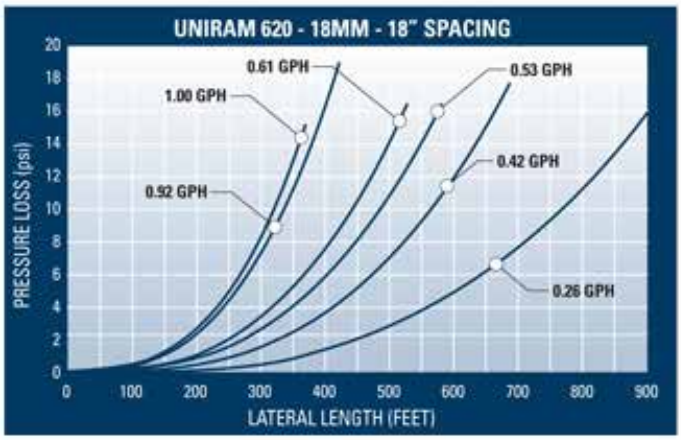


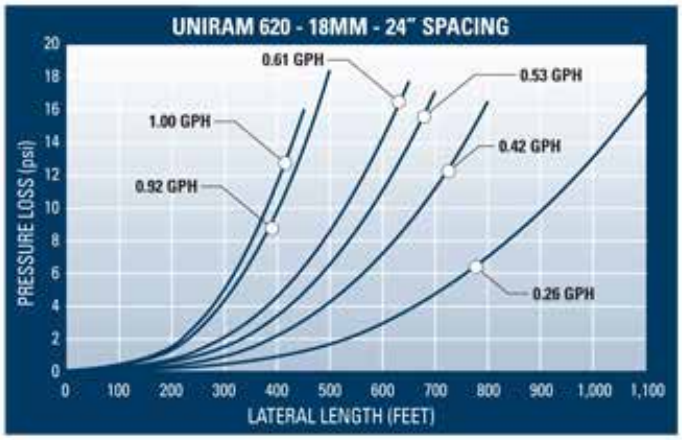
NOMINAL FLOW	FLOW PATH DIMENSIONS		
Discharge (GPH)	Depth (Inches)	Width (Inches)	Length (Inches)
0.42	0.028	0.050	1.574
0.61	0.039	0.050	1.574
0.92	0.045	0.063	1.574

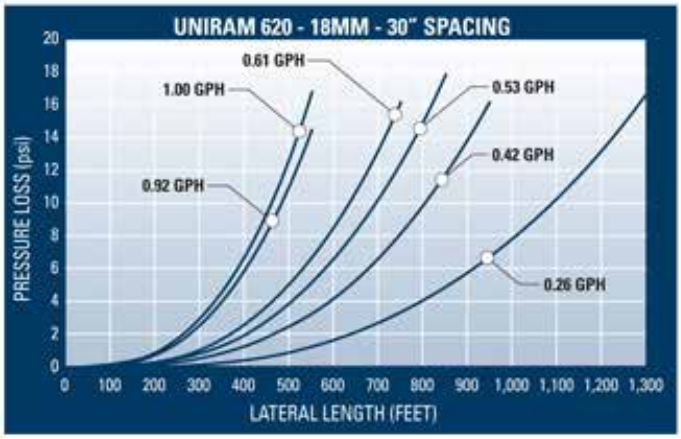
SPECIFICATIONS				
	Wall Thickness	Inside Diameter	Outside Diameter	Weight per Coil
16 mm	.045"	0.540"	0.630"	35 lbs.
17 mm	.045"	0.570"	0.660"	37 lbs.
18 mm	.045"	0.620"	0.710"	40 lbs.
20 mm	.048"	0.690"	0.786"	49 lbs.

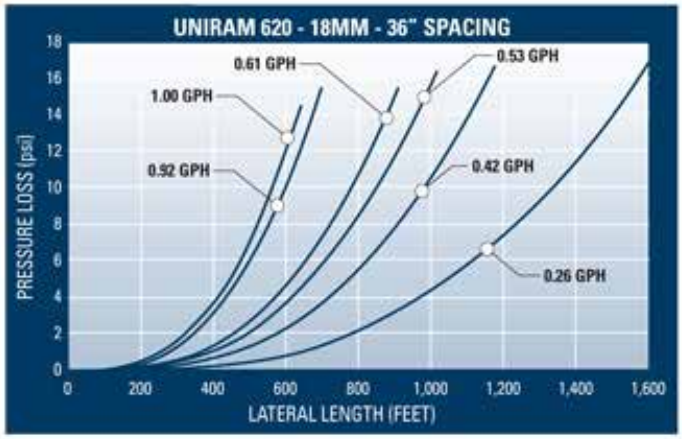
Description	Spacing/ Flow	gpm/100'	TE / Netafim #	Price/ Roll
18 mm x 1,000'	12.00" / .42 gph	.700	08UR18.4-12	271.20
	18.00" / .42 gph	.467	08UR18.4-18	220.85
	24.00" / .42 gph	.350	08UR18.4-24	193.75
	36.00" / .42 gph	.233	08UR18.4-36	178.80
	42.25" / .42 gph	.210	08UR18.4-42.25	171.60
18 mm x 1,000'	24.00" / .61 gph	.508	08UR18.6-24	193.75
	30.00" / .61 gph	.400	08UR18.6-30	187.00
	36.00" / .61 gph	.339	08UR18.6-36	178.80
	42.25" / .61 gph	.305	08UR18.6-42.25	171.60
	48.00" / .61 gph	.254	08UR18.6-48	166.55
18 mm x 1,000'	24.00" / .92 gph	.767	08UR18.9-24	193.75
	36.00" / .92 gph	.511	08UR18.9-36	178.80
	48.00" / .92 gph	.383	08UR18.9-48	166.55
Vineline Clip Only			H670780R	.11

UniRam Headloss and Lateral Length









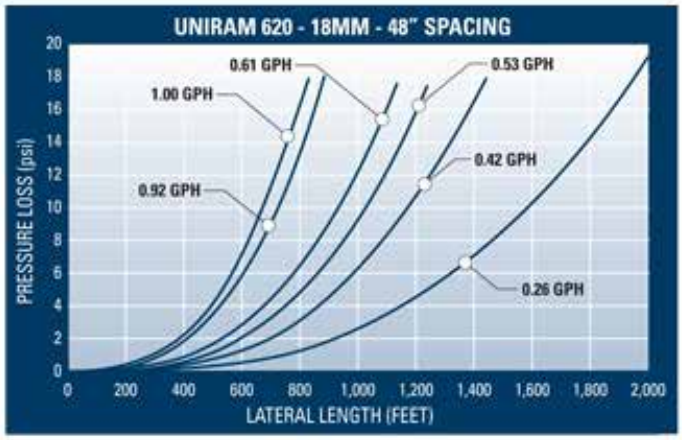
UniRam's Advanced Pressure Compensation Operation

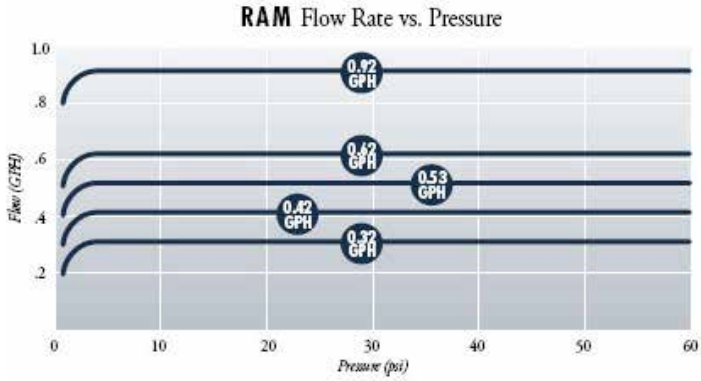
Particles that may accumulate at the dripper outlet can cause a reduction of flow.

Pressure above and below the diaphragm equalizes.

As the balance of pressure is achieved, the diaphragm is allowed to float freely, crushing, minimizing and flushing out any particles.

Dripper resumes normal operation.





NETAFIM™
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DripNet PC
Pressure Compensating Dripperline

PRESSURE COMPENSATING TECHNOLOGY TO IRRIGATE MULTI-SEASON CROPS WITH UNDULATING TERRAIN

Originally developed for the row crop market, DripNet PC provides an economical heavywall solution for irrigating permanent crops with long runs and steep topographies with high uniformity.

Ideal for slope and undulating terrain, surface or subsurface installations and most water quality conditions, DripNet PC features the same proven-performance of Netafim's leading heavywall dripline at an affordable price:

Virtually Clog-Free Dripper Design
•Largest filtration area prevents penetration of dirt particles into the dripper.
•Chemical resistant, self-cleaning, self-flushing dripper diaphragm removes debris throughout the irrigation cycle.
•Industry's widest and shortest dripper flow path. Wide cross-section allows large particles to pass easily through the short flow path virtually eliminating clogging.

Dependable, Reliable Dripper Performance
•Injection-molded drippers have the lowest co-efficient of variation – less than 3%, unlike other manufacturers. The same dripper is used in every dripline regardless of the tubing's inside diameter or wall thickness providing consistent, reliable performance.
•Pressure compensating – delivers precise water applications nearly everywhere in the field and operates at the industry's lowest regulating pressure.

Applications
•Sub-surface or surface applications.
•Tree, vine, row crops, greenhouse and nursery.
•Multi-seasonal use.
•Undulating fields.

Product Advantages
•Wide pressure range produces uniform dripper flow rates so longer runs and steep topographies are irrigated with high uniformity.
•Lowest coefficient of manufacturing variability (Cv) in the industry.
•One-piece construction prevents damage to drippers during installation and retrieval.
•Design flexibility is available in a range of dripper flows and spacings, allowing for specific application rates and controlling of wetting pattern in different soil types.
•Pressure compensating feature delivers precise water applications nearly everywhere in the field.

VINELINE VINEYARD SOLUTIONS
Adjustable Dripline Ring
• Easily adjustable – moves from one end of the dripline to the other preventing water migration
• Economical – saves labor costs
• Available for .540", .570", .620" and .690" sizes
• Can be pre-installed at Netafim USA

Description	Spacing/ Flow	gpm/100'	TE / Netafim #	Price/ Roll
18 mm x 1,000'	12" / .42 gph	.700	08D62045.42-12	317.15
	24" / .42 gph	.350	08D62045.42-24	217.00
	36" / .61 gph	.339	08D62045.61-36	190.25
	42.25"/ .61 gph	.289	08D62045.6-42	182.60
With "Vineline" Clips	24" / .42 gph	.350	08VD62045.4-24	252.00
Vineline Clip Only			H670780R	.11

D5000 PC DRIPPERLINE

Rivulis

THE NEXT EVOLUTION IN PRESSURE COMPENSATING DRIP TECHNOLOGY

EVOLUTION: ADVANCEMENT OF PC DRIP TECHNOLOGY

D5000 PC Drip Line represents the most significant advancement in PC drip technology in the past decade. After many years of research, the D5000 PC Drip Line was launched and set a new standard in pressure compensating drip line technology.

On multiple levels, the D5000 PC Drip Line has been engineered to outperform all pressure compensating drip line on the market. Starting from the manufacturing process, where state-of-the-art quality controls are used to continually output high quality product, to the uniquely designed dripper that provides maximum resistance to clogging. All designed to provide growers with the best tool available to maximize ROI in the field.

Length of Run Data (0% Slope)

	Dripper Flow gph	Dripper Spacing: 8"	12"	16"	20"	24"	30"
18 mm 45 mil	0.17	874	1225	1542	1836	2106	2485
	0.26	659	925	1167	1388	1594	1885
	0.40	505	711	898	1068	1228	1452
	0.53	419	590	744	886	1020	1206
	0.92	290	408	517	617	709	839

APPLICATIONS

- Subsurface or surface applications
- Agriculture, greenhouse and nursery applications
- Multi-season use
- Ideal for undulating terrains

PRODUCT FEATURES AND BENEFITS

- Pressure compensating for precise and uniform flow rates along the entire length of the lateral and in undulating terrain. Allows for longer run lengths (up to 50% longer when compared to non-PC drip lines)
- Anti-Siphon mechanism prevents a vacuum from forming inside the lateral upon water shut down to resist soil ingestion (Anti-Siphon models only)
- Wide range of pressure regulation from 7 to 51 psi maintains a uniform flow rate regardless of the water pressure to optimize irrigation and maximize crop yields
- Wide range of flow rates, diameters and spacings to match the soil infiltration rate, optimize irrigation and deliver the precise amount of water and nutrients to the root zone to maximize crop yields
- Continuously self-flushing mechanism reduces clogging

Description	Spacing	Emitter Flow Rate	Part #	Price/ Roll
18 mm x 1,000'	12.00"	All Flow Rates	D5000PC18.x12	203.50
	24.00"	All Flow Rates	D5000PC18.x24	175.60
	36.00"	All Flow Rates	D5000PC18.x36	166.00

Rivulis D5000 Dripperline is currently not stocked at our warehouses.
It would need to be special ordered and would likely ship from Rivulis's California facility.

JAIN Irrigation Inc
world leader in micro irrigation

Amnon PC Emitterline

Amnon—an innovative, pressure-compensating dripline with special anti-sypon and compensating non-leakage models, based on the cascade labyrinth. Special model include Amnon CNL (Pressure-compensated non-drainage design) and Amnon PC AS (Pressure-compensated anti-siphon design). Amnon emitterline is the choice for orchards, berries and vineyards.

Product Features

• Pressure-Compensating(PC) for maximum accuracy at variable topography and long laterals
• Cascade labyrinth provides strong self-cleaning turbulence
• Hydrodynamic dripper design ensures continuous flushing of sediments and small dirt particles
• Low CV for maximal uniformity
• Weir structure prevents root intrusion and sand separation
• Side water inlet structure improves clog resistance
• High-quality diaphragm

Applications

• High density fruit orchards
• Blueberries and other berry crops
• Nursery line-outs, Christmas trees, other ornamentals
• Landscaping
• Vineyards

Special Models

• CNL: Pressure-compensating non-drainage design reduces lateral filling time and facilitates pulse irrigation.
• AS: Pressure compensating anti-syphon design prevents suction at draining stage. Suitable for subsurface drip irrigation

Amnon
Heavy-Wall Emitterline

The Cascade Labyrinth

The Cascade Labyrinth signifies a breakthrough in low-volume dripline systems. The unique structure of the dripper facilitates intensified self-cleaning, preventing clogging and vastly improving durability.

Advantages

• Reliable use of low-volume drippers
• Unique self-cleaning operation
• Wider water passages
• Very high resistance to clogging
• Long-term fl ow accuracy and uniformity
• Longer laterals
• Lower costs per area
• Extended product life

Double Flow System

The Cascade labyrinth teeth create a double-flow regime that combines rapid central flow with cyclone turbulence, facilitating constant cleaning and flushing.
This prevents clogging and improves dripper durability.

Efficent Self-Cleaning

During the self-cleaning process, dirt and sand particles that penetrate the filtration system are washed away, preventing sedimentation and clogging.

Hydraulic Characteristic of the Labyrinth

The regulating ratio of the Cascade labyrinth is 1:2.2 - while the pressure is doubled, the flow rate changes by only 45%.

Available emitter outputs (gph): .13, .29, .42, .53, .58, 1.0

Description		Flow	gpm/100'	Flow	gpm/100'	Jain #	Price/ Roll
18 mm x 984'	24"	.42 gph	.350	.58 gph	.517	AP18-40-xx-24-300m	**CALL**
40mil	30"	.42 gph	.280	.58 gph	.413	AP18-40-xx-36-300m	**CALL**
	36"	.42 gph	.233	.58 gph	.344	AP18-40-xx-48-300m	**CALL**
	40"	.42 gph	.210	.58 gph	.310	AP18-40-xx-24-300m	**CALL**
	48"	.42 gph	.175	.58 gph	.258	AP18-40-xx-36-300m	**CALL**
20 mm x 984'	24"	.42 gph	.350	.58 gph	.517	AP20-40-xx-24-300m	**CALL**
40mil	30"	.42 gph	.280	.58 gph	.413	AP20-40-xx-36-300m	**CALL**
	36"	.42 gph	.233	.58 gph	.344	AP20-40-xx-48-300m	**CALL**
	40"	.42 gph	.210	.58 gph	.310	AP20-40-xx-24-300m	**CALL**
	48"	.42 gph	.175	.58 gph	.258	AP20-40-xx-36-300m	**CALL**
				This is a Non-Stock Item			

A5 PC™ Series PC Ag Dripline

Engineered, manufactured and tested with your needs in mind
You now have a choice when it comes to flat-emitter, pressure compensating heavywall dripline. Rain Bird engineers leveraged over 75 years of irrigation expertise to develop state-of-the-art Ag dripline that meets or exceeds the performance of any Ag dripline on the market.
Rain Bird® A5 PC™ Dripline is designed to address the key issues confronting growers today.

Reliable, Steady Flow

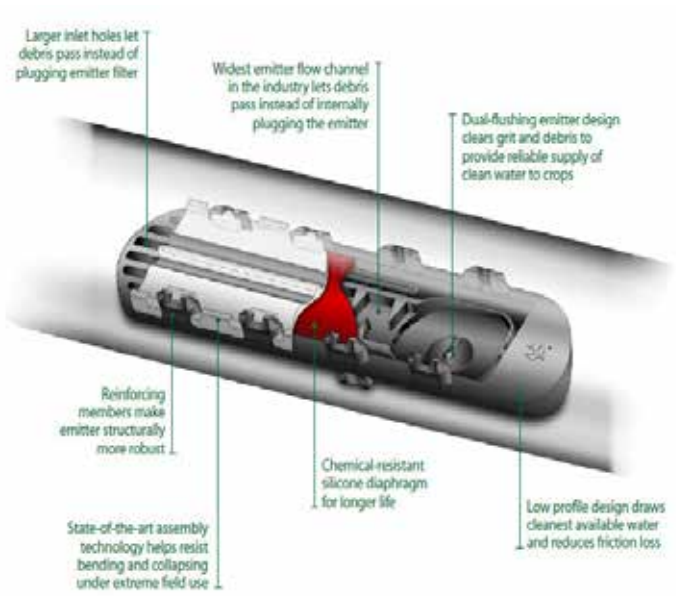
A5 PC's grit-tolerant, clog-resistant design ensures that water will keep flowing to your crops, whether it is being drawn from a well, pond, reservoir or canal. By minimizing clogging and maintenance, it saves you time and money.

High Uniformity and Efficiency

The technologically advanced pressure-compensating design of the A5 PC emitter maximizes uniformity and water-use efficiency, even with substantial elevation changes. By reducing the need for water, energy, chemicals and fertilizer, you get increased crop output with significantly lower input.

Maximum Durability

Growers demand reliable performance in the harshest conditions. A5 PC dripline is engineered and tested to stand up to harsh chemicals, UV radiation and damage that can be caused by farm equipment, giving you years of worry-free performance.

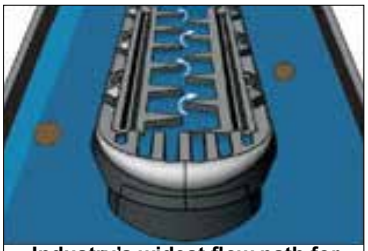


Application Versatility

A5 PC dripline is ideally suited for all above- and below-grade vineyard and orchard applications, including grapes, hops, stone fruits, almonds, walnuts, pecans and more.

Made in the USA

A5 PC is the first flat-emitter heavywall dripline for agricultural applications that is 100% designed, engineered, manufactured and tested in the USA.



Industry's widest flow path for superior clog resistance

	ID	OD	Press Range	Spacings	Flow Rates
A5 PC 16mm / 45 mil	.54"	.63"	7-60 psi	18", 24", 30", 36", 42", 48"	.42, .53, .61, 1.06 gph
A5 PC 18mm / 45 mil	.62"	.71"	7-60 psi	18", 24", 30", 36", 42", 48"	.42, .53, .61, 1.06 gph
A5 PC 20mm / 50 mil	.69"	.79"	7-60 psi	18", 24", 30", 36", 42", 48"	.42, .53, .61, 1.06 gph

Not all sizes or spacings in stock.
Custom spacings are available on a special order basis.

Description	Spacing/ Flow	gpm/100'	Color	RainBird#	Price/ Roll
18 mm x 1,000'	24.00" / .42 gph	.350	Black	A5-18-04-24	**CALL**
	30.00" / .61 gph	.407	Black	A5-18-06-30	**CALL**
	36.00" / .61 gph	.339	Black	A5-18-06-36	**CALL**
	42.00" / .61 gph	.291	Black	A5-18-06-42	**CALL**

NETAFIM™
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UniRam Heavywall Dripperline

UniRam is being offered as a replacement for the **Inline Dripperline**, which is being phased out. This product will include two (2) clips per dripper to assure the water drips where it is needed. It offers a far superior dripper which is inside the hose. No more coming apart!

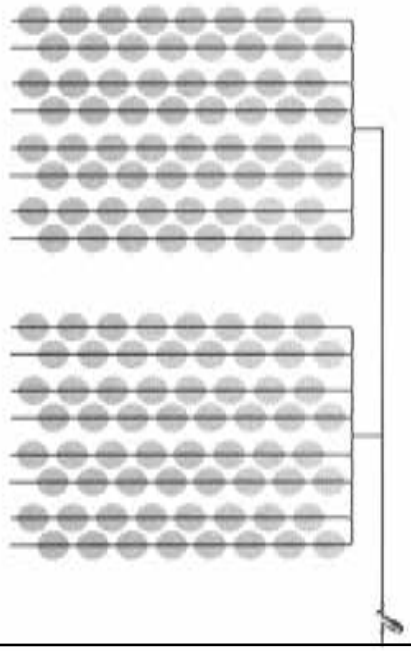
RECOMMENDED RUN LENGTHS

	Inlet Pressure (psi)	Spacing Between Drippers 18"	24"	30"
0.60 GPH	30	459	584	699
	45	548	699	837
	60	617	784	942

Description	Spacing/Flow	gpm/100'	TE #	Netafim #	Price/ Reel
18mm x 1,000'	18" / 0.61 gph	.666	NET-U42	08VUR.6-182E	387.50
	24" / 0.61 gph	.508	NET-U52	08VUR.6-242E	418.50
	30" / 0.61 gph	.400	NET-U57	08VUR.6-302E	231.00

UniRam Dripperline has been the standard for pot production for over many years! Mums, shrubs, hanging baskets, small potted trees, etc.

UniRam Dripperline is not a throw away product. Use it year after year after year!



Space-It™ Dripline

Netafim USA's Space-It™ Dripline is a drip system for watering potted plants. It's a thinwall dripline with pre-spaced drippers designed to be placed directly over the top of pots with the location of each dripper visibly marked on the tubing. Positioning of the pots (plants) is quick and easy - just place the pot under the mark on the dripline - saving up to 20% in installation labor costs.

Dripper is Visibly Marked
Mark on the tubing indicates the dripper's location.

Each Dripper is Visibly Marked Saving Time During and After Installation

Workers don't have to stoop or feel to find the dripper's position in the tubing. The visible mark allows them to quickly and easily identify where each plant should be positioned. This also saves time after installation - there is no need to recheck the dripper's position to make sure the water is dripping into the pot. Growers estimate that the time required to space out a potted crop can be reduced by 20% or more.

Description	Spacing/Flow	gpm/100'	TE # / Netafim #	Price/ Reel
8mil x 9,000'	12" / 0.4 gph	.700	06SL8636.4DM-12	441.50
	16" / 0.4 gph	.500	06SL8636.4DM-16	426.00
	18" / 0.4 gph	.467	06SL8636.4DM-18	419.70
	24" / 0.4 gph	.350	06SL8636.4DM-24	405.30

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Non-Pressure Compensating Drippers

Specifications

•BD (A) Outlet Hole Color and Flow:
Red 0.5 GPH, Black 1.0 GPH and Green 2.0 GPH
•Maximum Recommended Operating Pressure: 40 psi
•Recommended Filtration: 120 Mesh

Pressure Compensating Drippers

Specifications

• WPC (D) Base Color and Flow: Red 0.5 GPH, Black 1.0 GPH and Green 2.0 GPH
• WPCJ (B & C) Base and Body Color and Flow: Red 0.5 GPH, Gray 1.0 GPH and Green 2.0 GPH
• WPC Recommended Pressure Range: 7 – 58 psi
• WPCJ (With CNL) Recommended Pressure Range: 10.2 – 45 psi
• Recommended Filtration: 120 Mesh

Self-Piercing Emitters

Specifications

• SPCV (E) Flow rates: 0.5gph (blue), 1.0gph (black) and 2.0gph (red)
• Pressure compensation range: 10.15 to 58 psi
• Maximum pressure: 58 psi
• Uses 0.160” x 0.220” micro-tubing
• Barb size: Inlet 0.160” – 0.170” Outlet 0.160”
• Recommended minimum filtration: 120 mesh

TORO Ag Irrigation

TURBO - SC EMITTER

• Easy serviceability with screw-apart cleaning
• Barbed connection for use with microtubing and hose
• 10-50 psi recommended operating range
• Pressure compensating design
• Silicone pressure regulating diaphragm

Spot Systems

VORTEX EMITTER

• Pressure compensating without springs, moving parts, diaphragms, or flow passage constriction + Versatile in installation and use...install on lateral or on 1/8" tube riser
• Attach distribution tube directly to emitter
• Can be turned off completely

Description		GPH	TE #	Man #		Price
NETAFIM	Button Dripper **(A):**	0.5	NET-001	01BD2		.31
		1.0	NET-002	01BD4		
		2.0	NET-003	01BD8		
	Woodpecker PC Junior **(B)**	0.5	NET-016	01WPCJL2		.38
	w/ CNL Check Valve	1.0	NET-019	01WPCJL4		
		2.0	NET-018	01WPCJL8		
	Woodpecker PC Junior **(C)**	1.0	01WPCJL4N-B	01WPCJL4N-B		.40
	w/ Nipple Outlet (for manifolds)	2.0	01WPCJL8N-B	01WPCJL8N-B		
	PC Woodpecker Dripper**(D)**	0.5	NET-020	01WPC2		.46
		1.0	NET-021	01WPC4		
		2.0	NET-022	01WPC8		
	Self Piercing Dripper **(E)**	0.5	SPCV05-25	SPCV05-25		.35
		1.0	SPCV10-25	SPCV10-25		
		2.0	SPCV20-25	SPCV20-25		
TORO AG	Turbo SC	0.5	DPJ02	DPJ02		.51
	• PC 10-50psi	1.0	DPJ04	DPJ04		
	• 140 Mesh Minimum	2.0	DPJ08	DPJ08		
SPOT SYSTEMS	Vortex Emitter	0.5	SPT-005	3001-005	Grey	.32
	• Vortex Flow Control	1.0	SPT-010	3001-010	Black	
	• 150 Mesh Minimum		*** Discontinued While Supplies Last ***			

Rivulis

SUPERTIF PC ND/NDH

Pressure Compensating No-Drain Online Dripper

Advantages

- Multiple flow rates to match irrigation requirements
- Self-activating flushing mechanism to provide excellent clog resistance
- Built-in no-drain diaphragms, eliminating the draining of water when the system is shut off
- Ideal choice for pulse irrigation

Applications

- Greenhouses and nurseries

Grower Benefits

- Accurate delivery of water
- High uniformity and crop yield
- Reduces plugging and cleaning time

Available Configurations

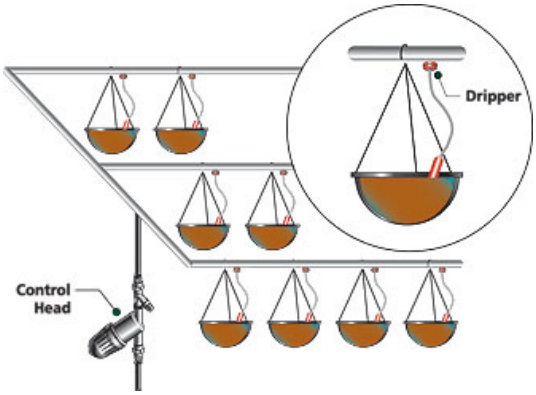
- Outlet Locations Side (SOL), Top (Conic & Barb)
- Flow Rates (gph): Supertif ND: 0.29, 0.58, 1.02, 2.06
  Supertif NDH: 0.42, 0.82, 1.40, 2.91
- Operating Guidelines Works with 3 x 5 mm (0.118” x 0.197”) micro tubes
- Operating Pressure Ranges (psi): Supertif ND: 14-50
  Supertif NDH: 17-50
- Sealing Pressures (psi): Supertif ND: 2.1
  Supertif NDH: 5.0

Pressure Compensating for constant flow over a wide pressure range. Color-Coded to easily identify flow rates. Barb fits 3x5mm tubing to be used with pegs. Conic & Barb outlet adapts to multi-branch adapters for delivery of water to multiple pots

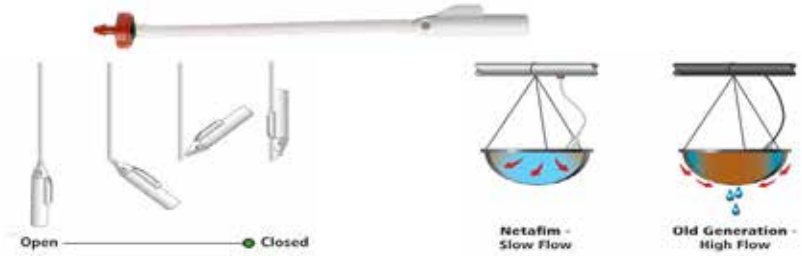
Description	Price	Description	Price
Supertif Emitter Only	.23	Supertif Grey Snapeg Only	.10
Supertif Assembly 36"	.80	Supertif Assembly 48"	1.80

NETAFIM™
GROW MORE WITH LESS

GREENHOUSE / NURSERY ASSEMBLIES

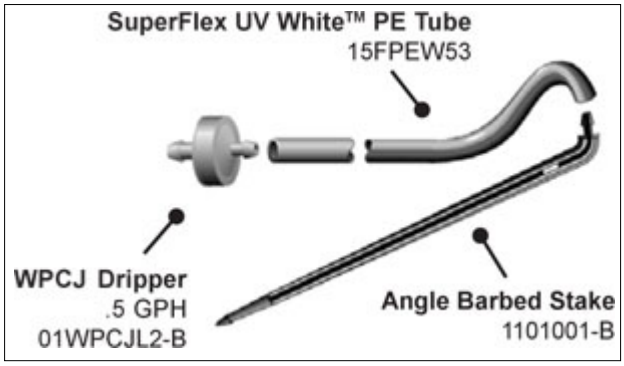


SlimLine EZ CLOSE™ Weight Assemblies



Units per Pack	Tube Length	gph	TE #	Price Each
200	18"	0.50	01HBA2W-18	1.22
200	24"	0.50	01HBA2W-24	1.24
200	36"	0.50	01HBA2W-36	1.39
200	18"	1.00	01HBA4W-18	1.22
200	24"	1.00	01HBA4W-24	1.24

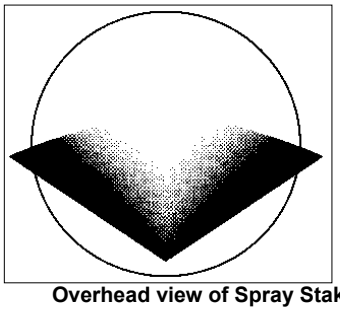
DRIPPER STAKE ASSEMBLY Pressure Compensating with Check Valve



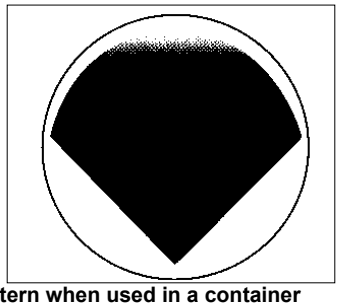
Units per Pack	Tube Length	gph	TE #	Price Each
200	24"	0.50	01WPCJL2AW-24	1.03

SPRAY STAKE ASSEMBLY For Containers

Old Generation Spray Stake



Netafim Spray Stake



Overhead view of Spray Stake pattern when used in a container

Units per Pack	Tube Length	gph	TE #	Netafim #	Price Each
200	36"	3.0	01SSAYL-36	01SSAYL-36	1.01
200	36"	5.0	01SSAGN-36	01SSAGN-36	1.01
200	36"	7.0	01SSABK-36	01SSABK-36	1.01

TORO Ag

JAIN Irrigation Inc
world leader in micro irrigation

- Low density polyethylene hose... excellent memory
- Blank hose for manual emitter installation,
  Spray stake systems, transition lines, etc.
- UV inhibitors built in for long life even in direct sunlight.
- **Sizes shown in bold can ship via UPS (extra charges will apply)**

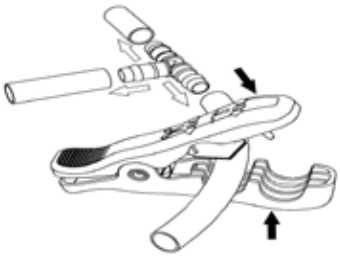
Linear low density polyethylene hose

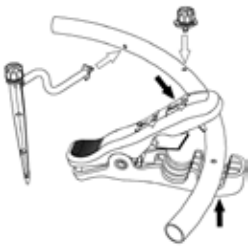
TE#	Hose Size mm	Nominal Inside Diameter	Nominal Wall Thickness	Nominal Outside Diameter	Coil Length feet	Avg Wt. lbs.	Working Pressure (psi)	Price Per Roll
BS16-100	**18 (5/8")**	**0.620"**	**0.045"**	**0.710"**	**100**	**4**	**51**	**24.50**
BS16-500	**18 (5/8")**	**0.620"**	**0.045"**	**0.710"**	**500**	**20**	**51**	**72.50**
BS16-1000	**18 (5/8")**	**0.620"**	**0.045"**	**0.710"**	**1000**	**40**	**51**	**138.00**
BS20-500	**0.75"**	**0.820"**	**0.060"**	**0.940"**	**500**	**35**	**51**	**101.00**
BS20-1000	0.75"	0.820"	0.060"	0.940"	1000	69	51	203.00
BS26-250	**1.00"**	**1.060"**	**0.070"**	**1.200"**	**250**	**26**	**47**	**99.00**
BS26-660	1.00"	1.060"	0.070"	1.200"	660	61	47	209.00

ANTELCO
Putting water where it counts!®

A combination tool that prepares poly tube for the installation of emitters and fittings in low pressure irrigation systems.
- Aligns the tube ensuring a clean, square cut.
- Angled piercing blade reduces cutting force.
- Suitable for cutting LPDE pipe tubes up to 3/4" OD.
- Punch a hole into 1/2" and 3/4" LDPE

TE#	Man#	Hole Size	Price
42378	42378	3mm	13.25





Simple Punch - A reliable and strong hole puncher designed with a comfortable grip handle.

TE#	Man#	Hole Size	Price
R3-3	R3-3	3mm	27.20

Oval Hose Punch
For 400B Barbed Fittings

TE #	Price
PG-HP-B400	34.20

ANTELCO
Putting water where it counts!®

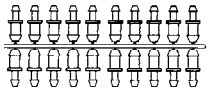
Key Punch™ makes 0.12" hole in tubing. Hexagonal base to install and remove spray jets and interchange their caps.

TE#	Man#	Hole Size	Price
42315	42315	.12"	.70

NETAFIM™
GROW MORE WITH LESS

Goof Plugs

Double ended, plugs most any emitter size



TE#	Man#	Price
AGP-650	MP-1	.07

Stackable 2 or 4-Way Manifold

For use with Netafim Woodpecker Emitters

Flat 4-Way & 2-Way Manifolds

Our#		Price
01ADP4WPF-B	4-Way	.29
01ADP4WPFS-B	4-Way Stack	.29
01ADP2WPF-B	2-Way	.32
01ADP2WPFS-B	2-Way Stack	.32

Dripper Stakes for 5mm Tubing

For use with Netafim Woodpecker Emitters
Rated for 1/2gph per stake

Our#		Price
NET-044A	6 3/8" Stake	.32
01MODS-A-ANGS	3 3/4" Stake	.27
NET-044	Straight Stake	.32

Angle Barbed Stakes

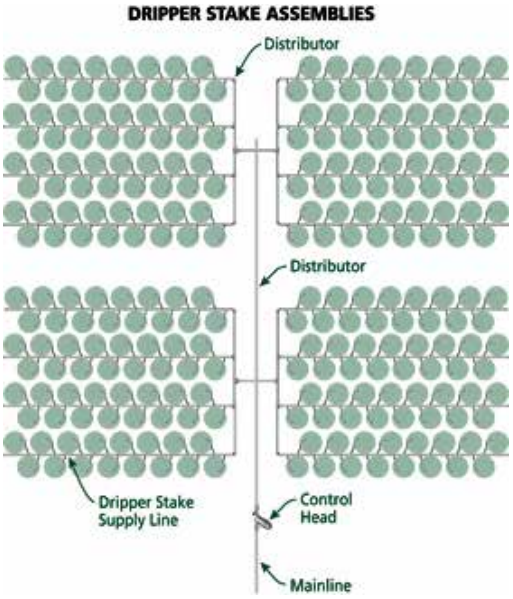
For use with Netafim Woodpecker Emitters
Non-Regulated Stake

Angle Arrow Dripper

Our#		Price
1101001-B	Angled Stake	.23

Netafim's Fittings for 5mm (Spaghetti) Tubing

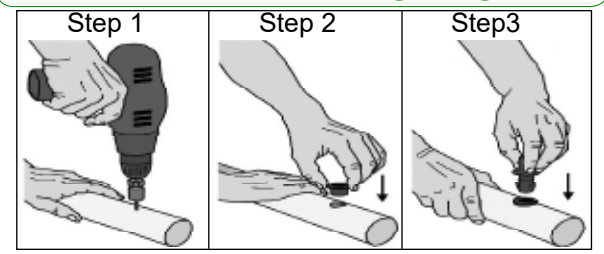
TE#	Man#	Price
Tee 5mm Model 2 Thread x Thread x Barb		
NET-365	11090552	.29
Nipple Model 1 Barb x Insert		
NET-363	1109006-B	.22
Coupling for 5mm (.125") Tube		
CON-C125-100		.10
Tee for 5mm (.125") Tube		
CON-T125-100		.18
SlimLine EZ Close Weight		
1107008SC-B		.62

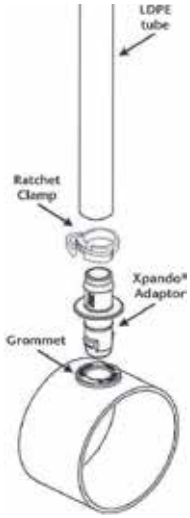


TE#	Man#	Hose Size mm	I.D. inch	O.D. inch	Wall Thick inch	Material	Coil Length Feet	Avg Wt. Lbs	Price Per Roll
BLANK TUBING									
Netafim									
NET-068	14052062-100	16	.520	.620	.050	PE	100	4	37.25
NET-066	14052062-05	16	.520	.620	.050	PE	500	20	83.10
NET-071	14057066-05	17	.570	.660	.045	PE	500	20	111.50
"Spaghetti" Tubings									
Netafim			**Use For All Spray Stakes**						
15FPE53-1	15FPE53-1000'	Black	.125	.197	.036	PE	1,000	8.0	81.15
15FPEW53	15FPEW53	White	.125	.197	.036	PE	1,000	8.0	76.30
JAIN Irrigation									
187x125V-1000	11190591	Black	.125	.187	.031	PVC	1,000	11.5	240.00
187x125V-100	11190172	Black	.125	.187	.031	PVC	100	1.04	18.20
220x160V-1000	11190597	Black	.160	.220	.030	PVC	1,000	12.5	147.50
250x170-1000	11190600	Black	.170	.250	.040	PE	1,000	25.0	205.50
350X250-500	11190621	Black	.250	.350	.050	PE	500	11.0	221.25
375x250-750	11190624	Black	.250	.375	.063	PE	750	21.0	383.50
455x375-500PE	11190531	Black	.375	.455	.040	PE	500	12.0	109.60

TRICKL-EEZ IRRIGATION INC

Putting water where it counts!®





Features and Benefits:

- Easy to install, reducing both time and cost of **installation on 2" or larger PVC Pipe**.
- Innovative Expando Take-Off Adapter with collapsible barb prevents pull-out
- Grommet with internal step combines with interference barb to hold take-off firmly in place.

CAPO® RUBBER GROMMET 16mm

XPANDO® 16mm Grommet Inlet x 16mm Take-Off

Ratchet Clamp

Units per Pack	Size	TE #		Price Each
25	18mm (16mm TORO)	45635	Expando Fitting for 18mm	.90
25	16mm	45745	Expando Grommet for 18mm	.56
100	.670"-.750" OD	44335	Ratchet Clamp for 18mm	.23
1	3/4"	10233	UniBit for 18mm Grommet	63.00
25	3/4" LDPE	45675	Expando Fitting for 3/4"	1.08
100	3/4"	44285	Ratchet Clamp for 3/4"	.28
25	1" LDPE	45685	Expando Fitting for 1"	1.38
100	1"	44325	Ratchet Clamp for 1"	.36
25	3/4" & 1"	45755	Expando grommet for 3/4" & 1"	.70
1	7/8"	10234	UniBit for 3/4" x 1" Grommet	73.60

SPECIALTY FITTINGS AND VALVES

PERMA-LOC Coupling Shut-off Valve

irritec USA

Description Size	TE #	MAN#	Price
For Inline, Drip-In, Ram			
500 Series	A2-HV55	A2-HV55	2.13
For 16mm Durapol			
600 Series	A2-HV66	A2-HV66	2.13
For 20mm Durapol			
800 Series	A2-HV88	A2-HV88	4.95

In Line Shut Off Valve for Tubing

Description Size		TE #	Price
16mm	.520"	45505	2.32
18mm	.570"x.620"	45515	2.46
20mm	.810"x.820"	45535	4.35
26mm	1.05"	45545	6.89

Round Top Support Staple; 11 Gauge; 6"

Description Size	TE #	Price
1000 per box	LAI-116	93.25
500 per box	LAI-115	51.60

Vineline Vineyard Solutions

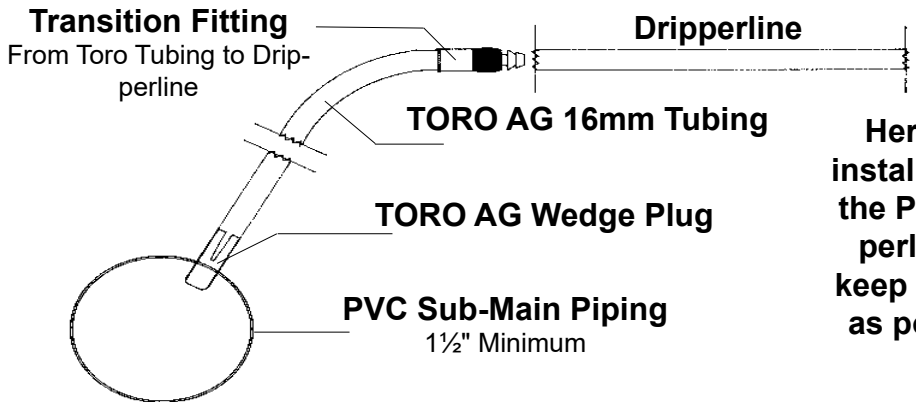
Can be pre-installed on Netafim Dripperlines.
•Easily adjustable - moves from one end of the dripline to the other preventing water migration

Description Size	TE #	Price
17 & 18mm	H670780R	.11
20mm	H790R-B	.11

Figure Eight Line End

Description Size	TE #	Price
17mm	AGP-616	.38
20mm & 3/4"	AGP-618	.62
1.00"	A5-A108	.78

TYPICAL DRIP IRRIGATION WEDGE PLUG CONNECTION



Here is a detail of a typical installation hof a hook-up from the PVC Sub-Main to the Drip-perline. As you can see, we keep the installation as simple as possible, as well as being cost effective.

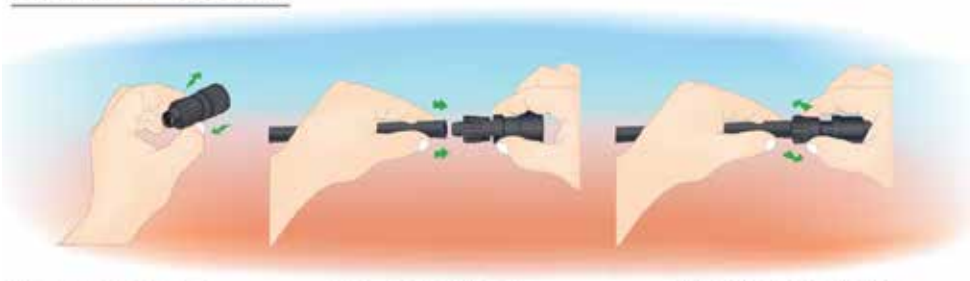
JAIN Irrigation Inc
world leader in micro irrigation

Power-Loc™ 55 Fittings

For use with polyethylene irrigation tubing. Power-Loc® Fittings are positive locking, insert type fittings with a threaded ring, available now in size 55, which fits 16mm (.52"ID x .62"OD), 17mm (.57"ID x .66"OD) & 18mm hose (.62"ID x .71"OD).

.• Very easy to install tubing over single barb
• Fits all 1/2" (5/8") hose
• Barb design ensures tubing will not blow off fitting
• Positive stop to assure tubing is fully installed
• Square thread ring quickly locks tubing - no tools needed
• Fits a wide range of diameter and wall thickness.

POWER-LOC™ FITTINGS



1. Twist collar clockwise toward center of fitting
2. Slide main line tubing over exposed barbed fitting
3. While holding tubing, twist collar counter-clockwise to secure tibing

Description	TE#	Price	Description	TE#	Price
Tee	PL-55-P3T	3.43	Adaptor x .400 Barb	PL-55-400B	3.41
Elbow	PL-55-PELL	2.68	MA x 1/2"mpt	PL-55-P1/2-MA	2.33
Coupling	PL-55-PC	1.43	MA x 3/4"mpt	PL-55-P3/4-MA	2.33
Coupling w/ Valve	PL-55-BV-PC	6.33	MA x 3/4"mht	PL-55-PMT	1.62
Tee x 3/4"fht Swivel	PL-55-PST-WW	4.25	Layflat Adaptor	PL-55-KMA	3.15
Adaptor x 3/4"fht Swivel	PL-55-PHS-WW	2.49			

irritec™ USA

Acceptable Inside Diameter	Acceptable Wall Thickness	
500 Series for 16mm or 17mm Tubing	.510" - .580"	.035" - .055"
600 Series for 18mm Tubing	.590" - .630"	.025" - .050"
700 Series for 20mm Tubing	.685" - .740"	.040" - .055"
800 Series for 3/4" Tubing	.790" - .845"	.045" - .065"

Description Size	TE #	Price
Coupling		
500	A1-HC500	.78
600	A1-HC600	.81
700	A1-HC700	1.11
800	A1-HC800	2.22
Reducing Coupling		
600 x 500	A1-HRC65	1.52
700 x 600	A1-HRC76	2.10
800 x 600	A1-HRC86	2.56
800 x 700	A1-HRC87	2.60
Tee		
500	A1-HT555	2.01
600	A1-HT666	2.01
Inline Valve		
500	A2-HV55	2.13
600	A2-HV66	2.13
800	A2-HV88	4.95

Description Size	TE #	Price
Barbed Adapter with Valve		
500 x .400	A2-HV5B400	2.01
600 x .400	A2-HV6B400	2.01
Threaded Adapter 3/4" FHT Swivel		
500 x ¾"fht	A1-H5S	1.33
600 x ¾"fht	A1-H6S	1.37
Threaded Adapter 3/4" MPT		
500 x ¾"mpt	A1-H5TH75	.73
600 x ¾"mpt	A1-H6TH75	.73
Threaded Adapter with Valve		
500 x ¾"mpt	A2-HV5TH75	2.01
600 x ¾"mpt	A2-HV6TH75	2.01

TRICKL-EEZ IRRIGATION INC

INSERT FITTINGS For Use With Low Density Tubing

Description Size	TE #	NET #	Price
Insert Coupling			
16mm	NET-401	H520IC-B	.50
17mm	NET-402	H540IC-B	.52
18mm	47025	47025	.40
Insert Tee			
16mm	NET-405	H520IT3-B	.98
17mm	NET-404	H540IT3-B	1.04
18mm	47425	47425	.70

Description Size	TE #	NET #	Price
Insert Elbow			
16mm	NET-410	H520IE-B	.85
17mm	NET-406	H540IE-B	.98
18mm	47225	47225	.59
Male Adaptor (¾" MPT)			
16mm	NET-407	H520IMA075-B	1.12
17mm	NET-408	H540IMA075-B	1.24
18mm x ½"MPT		48045	.45

20mm HOSE FITTINGS

Description Size	TE #	Price
irritec USA		
Insert Coupling	A1-BC20	.55
Insert x .425 Grommet	A1-B20TOG	.92
700 x 600 Reducer	A1-HRC76	2.10
700 Coupling	A1-HC700	1.11
NETAFIM GROW MORE WITH LESS		
Blank Tubing .69x.79	14069079	305.55
Insert Adaptor w/ Grom (Requires 16.5mm Drill Bit)	H680IAPVC-B	2.23

Description Size	TE #	Price
JAIN Irrigation Inc		
Power-Loc Coupling	PL-70-PC	1.84
Power-Loc x .700 Grom	A1-B20TOG	.92
Drill Bit for .700 (13/16")	700-DRILL	229.40
Figure 8 Line End	AGP-618	.62
IRWIN. Unibit.		
UniBit #4 ground 13/16"	10234	73.60

3/4" & 1" HOSE FITTINGS

Description Size	TE #	Price
irritec USA		
Coupling ¾"	A1-HC800	2.22
Coupling 1.00"	A1-HC1000	2.62
Tee 1.00"	A1-HT111	6.96
Figure 8 Line End 1.00"	A5-A108	.78

Description Size	TE #	Price
irritec USA		
Reducer ¾" x 18mm	A1-HRC86	2.56
Reducer 1" x 18mm	A1-HRC106	2.72
Reducer ¾" x 20mm	A1-HRC87	2.60
Reducer 1" x 3/4"	A1-HRC108	2.88
Elbow 1.00"	A1-HE11	5.14

SPOT-SPITTER®

HS FLOW RATE CHART

	PSI	15	20	25
High Flow Black	GPH	12.6	15.0	17.4
Medium Flow Green	GPH	9.6	11.4	13.2
Low Flow Light Green	GPH	5.4	6.6	7.2
Mini Flow Orange	GPH	3.6	4.2	4.8
Low Flow Brown	GPH	5.4	6.6	7.8
Mini Flow Grey	GPH	2.4	3.0	3.6
Medium Flow Blue	GPH	9.0	10.8	12.6

The SPOT-SPITTER controls water flow at the emitter, where it matters most. Other mini-sprayers require tedious, labor-intensive modifications of tube-lengths to develop the flow characteristics you can get in seconds using a SPOT-SPITTER. And unlike other mini-sprayers which tend to deform or break at the spray tip, the SPOT-SPITTER is made from premium resins, which resist tip damage and provide years of trouble-free operation.

TE#	PART#	PATTERN	FLOW	COLOR	PACKED	PRICE
SPOT-SPITTER HS						
ROB-007	SS-AG160BLK-100	160°	High	Black	100	.16
ROB-006	SS-AG160DGN-100	160°	Medium	Dark Green	100	.16
ROB-005	SS-AG160LGN-100	160°	Low	Light Green	100	.16
ROB-004	SS-AG160ORG-100	160°	Mini	Orange	100	.16
ROB-002	SS-AG90BRN-100	90°	Low	Brown	100	.16
ROB-001	SS-AG90GRY-100	90°	Mini	Grey	100	.16
ROB-009	SS-AG360BLU-100	360°	Medium	Blue	100	.16

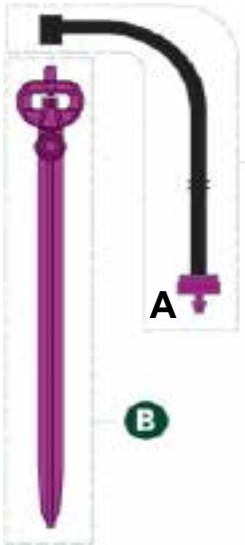
NETAFIM™
GROW MORE WITH LESS

CNL SPRAY STAKES

Netafim's new PCNL Spray Stake Assemblies are pressure compensating with a check valve for improved control of water and fertilizers. The efficient spray pattern evenly wets the soil surface to maximize water retention while misting is nearly eliminated and wind drift is prevented. Additional features include: simple construction, easy close-off mechanism, highly resistant to sunlight, fertilizers and chemicals, long-life reliability.

Spray Radius:	8" - 10"*
Plum Stake Spray Pattern:	Single 160°
Grey Stake Spray Pattern:	Single 160° Double

*Spray radius determined with stake inserted to 50% of length.



TE#	Color	Man#	Description		Price
NET-048P	Plum/Black	01PSD032-36	3.2gph Dripper Assy	"A"	.97
NET-048O	Orange/Grey	01PSD066-36	6.6gph Dripper Assy	"A"	.97
NET-049P	Plum Single	01PSDS-PL1	3.2gph Stake (3-5 gallon)	"B"	.39
NET-049G	Grey Single	01PSDS-GY1	6.6gph Stake (5-10 gallon)	"B"	.39
NET-049GD	Grey Double	01PSDS-GY2	6.6gph Stake (10-30 gallon)	"B"	.39

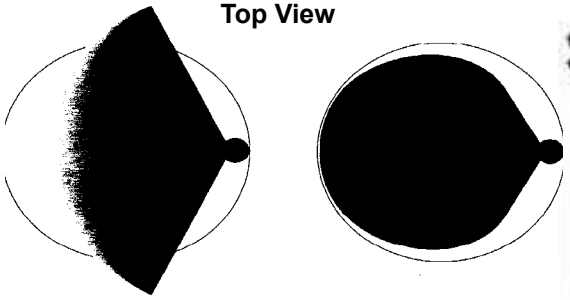
NETAFIM™
GROW MORE WITH LESS

SPRAY STAKE

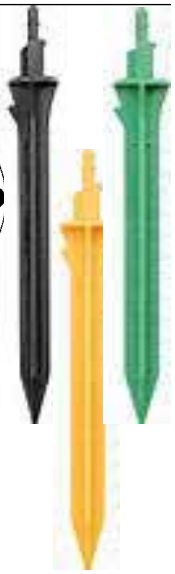
Recommended for containers 8" and larger.

- Unique Tube Connection is designed to keep spray pattern consistent even when tube is cut unevenly.
- Shut Off Nipple, connect tube when not in use for complete dirt free shut off.
- Spray Plate design shapes water into a uniform oval pattern to concentrate water inside round containers.
- Sturdy Plastic Stake for easy insertion into coarse media.

SPRAY PATTERN COMPARISON
Top View



Conventional Spray Stake **Netafim Spray Stake**



TE#	Color	Man#	Description		Price
NET-046Y	Yellow	01SSYL	3.0gph Stake	(3 - 5 gallon)	.30
NET-046	Green	01SSGN	5.0gph Stake	(5 - 10 gallon)	.30
NET-047	Black	01SSBK	7.0gph Stake	(10 - 30 gallon)	.30

PCNL Plum Spray Stake Assembly Maximum Row Length

Stake	Spacing (inches)	Pressure (psi)	PE Size (Nominal I.D.) 16mm .520" ID	1/2" .600" ID	3/4" .820" ID	1" 1.06" ID
3.2 GPH (Plum)	24	25	108'	142'	244'	390'
		30	178'	236'	410'	656'
		35	196'	262'	454'	726'
		40	212'	282'	490'	786'
		45	226'	300'	522'	838'
3.2 GPH (Plum)	36	25	144'	186'	321'	507'
		30	240'	312'	540'	858'
		35	264'	348'	600'	948'
		40	285'	375'	648'	1026'
		45	303'	399'	690'	1092'
3.2 GPH (Plum)	48	25	176'	228'	388'	612'
		30	292'	380'	656'	1032'
		35	324'	420'	724'	1144'
		40	348'	456'	784'	1236'
		45	372'	484'	836'	1320'
3.2 GPH (Plum)	72	25	234'	300'	510'	798'
		30	384'	498'	858'	1344'
		35	426'	552'	948'	1488'
		40	462'	600'	1026'	1608'
		45	492'	636'	1092'	1716'
3.2 GPH (Plum)	96	25	280'	360'	616'	960'
		30	472'	608'	1032'	1616'
		35	520'	672'	1144'	1792'
		40	560'	720'	1240'	1936'
		45	592'	768'	1320'	2064'

PCNL Grey Spray Stake Assembly Maximum Row Length

Stake	Spacing (inches)	Pressure (psi)	PE Size (Nominal I.D.) 16mm .520" ID	1/2" .600" ID	3/4" .820" ID	1" 1.06" ID
6.6 GPH (Grey)	24	25	68'	90'	154'	244'
		30	112'	148'	258'	412'
		35	124'	164'	284'	456'
		40	132'	176'	302'	492'
		45	142'	188'	324'	512'
6.6 GPH (Grey)	36	25	90'	117'	201'	318'
		30	150'	198'	339'	537'
		35	165'	219'	375'	594'
		40	180'	234'	405'	642'
		45	189'	249'	432'	684'
6.6 GPH (Grey)	48	25	112'	144'	244'	384'
		30	184'	240'	412'	648'
		35	204'	264'	456'	716'
		40	220'	284'	492'	776'
		45	232'	304'	524'	828'
6.6 GPH (Grey)	72	25	144'	186'	318'	498'
		30	246'	312'	540'	846'
		35	270'	348'	594'	936'
		40	288'	378'	642'	1008'
		45	306'	402'	684'	1074'
6.6 GPH (Grey)	96	25	176'	232'	384'	600'
		30	296'	384'	648'	1016'
		35	328'	424'	720'	1128'
		40	352'	456'	776'	1216'
		45	376'	488'	832'	1296'

Spray Stake Assembly Maximum Row Length

Stake	Spacing (inches)	PE Size (Nominal I.D.) 16mm .520" ID	1/2" .600" ID	3/4" .820" ID	1" 1.06" ID
Yellow	24	101'	135'	233'	371'
	36	137'	179'	305'	485'
	48	167'	215'	371'	583'
	72	221'	281'	485'	761'
	96	271'	343'	583'	911'
Green	24	81'	107'	187'	297'
	36	110'	143'	245'	389'
	48	135'	175'	299'	467'
	72	179'	227'	389'	611'
	96	215'	279'	471'	735'
Black	24	69'	91'	157'	251'
	36	92'	122'	209'	329'
	48	115'	147'	251'	399'
	72	149'	197'	329'	515'
	96	183'	239'	399'	623'

NETAFIM™
GROW MORE WITH LESS

NetBow™

An innovative user-friendly container irrigation ring with multi-outlet emitters. Featuring Typhoon™, our superior clog resistant emitter for maximum water distribution. Specially designed for irrigating containerized crops.

Benefits & Features:

- Superior clog resistance with Netafim Typhoon™ emitter.
- Specially designed micro-tubing with 8 evenly spaced emitters distributes water uniformily.
- Uniform surface wetting provides optimal rootzone development
- Quick action installation - place ring in the container, then connect the pre-cut micro tubing
- Flow Rate: 8 emitter outlets, .53gph each @ 14.5psi, 4.24gph
- Flow Rate: 4 emitter outlets, .53gph each @ 14.5psi, 2.12gph

TE#	Man#	Description	Price
NETBOW10-CART	77470-000106	4.24gph per ring	3.88
NETBOW5F-CART	77470-000142	2.12gph per ring	2.91

ANTELCO

Shrubbler® 360° Adjustable Flow

The original Shrubbler® with patented flow adjustment. When the cap is rotated, the flow and radius adjust from a gentle stream pattern, to drip and finally shut off.

FEATURES

- Simple finger-tip cap control for flow adjustment.
- Spike for positioning; side entry connection and break-off barb adapter.

APPLICATIONS

Suitable for small pots, big tubs, planter boxes, garden beds, landscaped gardens and nurseries. Under roses direct watering

Performance			360°
	PRESSURE (psi)	FLOW (gph)	DIAMETER (ft)
fully open (approx. 22 clicks)	15	8.7	1.2
	20	10.3	1.9
	30	13.0	3.0

ANTELCO Shrubbler	31495	31495	.67

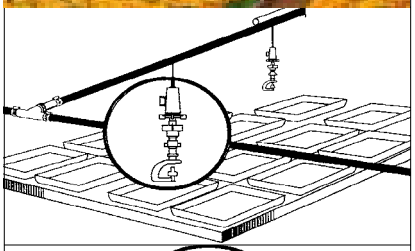
DRAMM

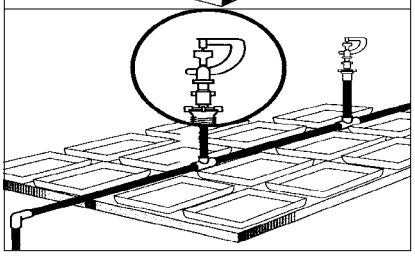
DRAMM DRIBBLE RINGS

The ring encircles the plant and water is emitted in 5 areas through 10 holes to ensure uniform watering in larger pot sizes. Dribble Rings come in 2 sizes, recommended for all plants in 16" containers (10" Dribble Ring), and in 18" - 20" containers (13" Dribble Ring). Each Dribble Ring will use about .15gpm at 40psi. You can run about 60 on a ¾" line, or about 80 on a 1" line at 40 psi. Note: Any reduction or increase in pressure will have an effect on the output. Minimum order 100 per size.

TE#	DRAMM #	Description	Price
DR13-60-075	DR13-60-075	Dribble Ring 13" w/ 60" Lead	1.56
DR10-60-075	DR10-60-075	Dribble Ring 10" w/ 60" Lead	1.58
DRM-DTL-E	DTL-E	Tubing Eyelet .075"	.06
DRM-HPT	HPT	Hand Pick Tool	18.35
DRM-075	075	Poly Tubing .075"ID x .125" OD x 2200'	474.77

NAANDANJAIN





GREENHOUSE SPRINKLER IRRIGATION

The traditional sprinkler layout commonly used for irrigating large open areas, when applied to greenhouse irrigation, leaves many areas either overly wet in the center or dry around the edges.

Recent advances in specialized greenhouse irrigation products and computer modeling have contributed to creating an optimized sprinkler layout specifically designed for greenhouse application. By creating highly uniform irrigated bands, benches, bays, tunnels, and greenhouses of varying widths, can be irrigated by a single band or by combining a number of bands laid out side-by-side.

The sprinkler selection tables on the next page represent an attempt to simplify a complicated decision making process while at the same time presenting alternatives. The table has been calculated using a 3 foot sprinkler spacing for bench crops. The charts show how you can achieve optimum results by balancing cost, Coefficient of Uniformity (CU), and the percentage of water falling within the designated band. Priority has been given to CU.

Bridge for all Sprinklers and Spreaders

NET-3000		1.38

Barbed Butterfly (For Poly Pipe)

NET-3060		.88

Male Adaptor (½" MIPT)

NET-3063		1.66

Antimist	**Color**	**Size**	
NET-3056	Green	.035"	.62
NET-3057	Orange	.047"	
NET-3058	Yellow	.055"	
NET-3059	Blue	.060"	

Leak Prevention Device

NET-320	Opens @ 25-27 psi	3.91

Nozzles	**Color**	**Size**	**gpm@40psi**	
NET-3030	Violet	.032"	.153	.44
NET-3031	Brown	.035"	.190	
NET-3032	Grey	.044"	.308	
NET-3033	Green	.055"	.462 (.177*)	
NET-3034	Orange	.060"	.528 (.308*)	
NET-3035	Yellow	.067"	.705 (.397*)	
NET-3036	Blue	.075"	.880 (.528*)	
NET-3037	Ivory	.079"	1.035	

(* Flow with Antimist)

Spreaders

NET-3044	Yellow Flat Spray	.60
NET-3042	Violet Spreader	

Spinners

NET-3051	Orange Oblong	.60
NET-3050	Black Round	
NET-3052	Green Kiwi	

Shut-Off Valve for 4/7

42155	4/7 barb x barb	.71

Agri-Connector

NET-3065	4mm Barb	1.59

Aluminum Sleeve for ¾" Tubing

NET-3085	20' Long	47.00

Tubing Support Hooks

31-A25H	¾" OD Hose	.64
31-A32H	1" OD Hose	.73

Punch for 4/7mm Tubing

11897785	R3-4	26.65

Stake 12"

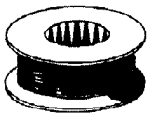
NET-3080	Black	1.40

Barb Connector for 4/7mm Flex Tubing

NET-3095		.23

Coil of Flex 4/7mm Tubing

NET-3098	1000'	275.81



Stabilized Hanging Sprinkler Tube Assembly

Includes Butterfly, 4/7mm Barb Connector, and Tubing.

NET-3186	24"	3.55
NET-3188	36"	3.84
NET-3189	48"	4.11

COMPLETE HANGING ASSEMBLIES

Includes: Stabilized Hanging Sprinkler Tube assembly • Bridge • Antimist • Leak Prevention Device • Nozzle • Spreader or Spinner. (Unassembled)

NET-xxx	**24" Long**	**10.50**
NET-xxx	**36" Long**	**10.79**
NET-xxx	**48" Long**	**11.06**

FOGGER COMPONENTS:

Fogger	**Color**	**gph@60psi**	
NET-339	Red	5.2	2.86
NET-338	Orange	3.2	
NET-337	Blue	1.6	

Fogger Cross NET-340	4-Way	3.26
Fogger Cross 11891020	2-Way	3.15

NAANDANJAIN IRRIGATION

Bench Crop Irrigation - Upside Down Sprinklers

		Bench Width															
		4'	5'	6'	7'	8'	8'	10'	12'	14'	14'	15'	16'	17'	18'	20'	22'
		Yellow Flat Spreader					Black Round Spinner				Green Kiwi Spinner						
	Ht.																
Low Flow	2'	**G**	**O**	**O**	**O**	**O**	**-**	**-**	**-**	**-**	**O**	**O**	**O**	**-**	**-**	**-**	**-**
		75	94	94	92	86	-	-	-	-	93	91	88	-	-	-	-
		68%	64%	75%	85%	92%	-	-	-	-	86%	90%	93%	-	-	-	-
		0.98	1.26	1.25	1.21	1.14	-	-	-	-	0.60	0.60	0.58	-	-	-	-
	4'	**G**	**O**	**O**	**O**	**O**	**-**	**G**	**O**	**-**	**O**	**O**	**O**	**O**	**Y**	**Y**	**-**
		96	96	94	90	85	-	93	88	-	95	95	94	93	94	91	-
		55%	60%	70%	79%	86%	-	88%	92%	-	70%	75%	80%	83%	85%	91%	-
		0.80	1.20	1.16	1.12	1.07	-	0.51	0.71	-	0.50	0.50	0.50	0.49	0.60	0.58	-
	6'	-	-	-	-	-	**G**	**G**	**G**	**-**	**O**	**O**	**O**	**O**	**Y**	**Y**	**Y**
		-	-	-	-	-	94	93	88	-	93	93	93	93	96	94	89
		-	-	-	-	-	63%	77%	87%	-	66%	70%	75%	79%	82%	90%	92%
		-	-	-	-	-	0.45	0.45	0.42	-	0.47	0.47	0.46	0.46	0.59	0.58	0.56
High Flow	2'	**Y**	**Y**	**Y**	**B**	**-**	**O**	**-**	**-**	**-**	**Y**	**Y**	**Y**	**-**	**-**	**-**	**-**
		95	95	93	92	-	89	-	-	-	93	92	90	-	-	-	-
		58%	73%	85%	78%	-	87%	-	-	-	85%	89%	93%	-	-	-	-
		1.78	1.77	1.72	1.93	-	1.08	-	-	-	0.78	0.76	0.75	-	-	-	-
	4'	**-**	**-**	**B**	**B**	**-**	**Y**	**Y**	**Y**	**-**	**B**	**B**	**B**	**B**	**B**	**B**	**-**
		-	-	96	94	-	91	91	89	-	95	95	95	95	95	93	-
		-	-	60%	68%	-	60%	73%	85%	-	67%	72%	77%	81%	85%	92%	-
		-	-	1.71	1.67	-	0.96	0.94	0.91	-	0.82	0.81	0.81	0.81	0.80	0.78	-
	6'	-	-	-	-	-	**Y**	**Y**	**Y**	**Y**	**-**	**B**	**B**	**B**	**B**	**B**	**B**
		-	-	-	-	-	93	90	89	88	-	94	94	94	94	93	92
		-	-	-	-	-	56%	68%	80%	90%	-	67%	71%	74%	79%	86%	92%
		-	-	-	-	-	0.90	0.87	0.85	0.82	-	0.75	0.75	0.75	0.74	0.73	0.71

G=Green nozzle & Antimist **Y**=Yellow nozzle & Antimist **O**=Orange nozzle & Antimist **B**=Blue nozzle & Antimist

- Top number is Coefficient of Uniformity (CU)
- Middle number is Percentage of Water Band
- Bottom number is Precipitaion Rate (In/Hr)

All figured on a 3' sprinkler spacing

Bench Crop Irrigation - Upright Sprinklers

		Bench Width															
		4'	5'	6'	7'	8'	7'	8'	10'	12'	12'	14'	15'	16'	18'	20'	22'
		Yellow Flat Spreader					Green Kiwi Spinner				Orange Oblong Spinner						
Low Flow		**G**	**G**	**O**	**O**	**O**	**O**	**O**	**O**	**-**	**O**	**O**	**O**	**Y**	**Y**	**Y**	**-**
		95	93	95	91	86	88	89	90	-	89	90	90	91	91	88	-
		63%	77%	70%	79%	87%	59%	69%	87%	-	72%	85%	91%	78%	89%	95%	-
		0.91	0.89	1.17	1.13	1.08	0.82	0.84	0.84	-	0.58	0.58	0.58	0.61	0.62	0.59	-
High Flow		**Y**	**Y**	**Y**	**B**	**B**	**-**	**-**	**Y**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	B
		98	98	96	97	93	-	-	91	84	96	95	94	93	91	91	88
		46%	57%	67%	70%	77%	-	-	87%	98%	51%	61%	66%	72%	83%	92%	97%
		1.47	1.46	1.43	1.69	1.64	-	-	1.08	1.36	0.71	0.73	0.75	0.75	0.77	0.77	0.74

G=Green nozzle & Antimist **Y**=Yellow nozzle & Antimist **O**=Orange nozzle & Antimist **B**=Blue nozzle & Antimist

- Top number is Coefficient of Uniformity (CU)
- Middle number is Percentage of Water Band
- Bottom number is Precipitaion Rate (In/Hr)

All figured on a 3' sprinkler spacing
Sprinkler 10" above crop

Cold Frame Irrigation - Upside Down Sprinklers

	Frame Width														
	10'	13'	14'	13'	14'	16'	16'	18'	20'	20'	21'	26'	30'	33'	39'
	Black Round			Green Kiwi Spinner								Black Rnd		Green Kiwi	
	G	**Y**	**Y**	**G**	**G**	**O**	**G**	**B**	**Y/O**	**B**	**Y/O**	**Y**	**B**	**G**	**B**
Coefficient of Uniformity	92	89	88	94	95	93	95	92	93	93	95	90	93	93	92
% of water in cold frame	90%	85%	90%	73%	84%	82%	91%	86%	90%	95%	91%	98%	92%	92%	90%
Head Spacing on line	20"	40"	40"	20"	20"	20"	20"	40"	20"	40"	20"	40"	40"	20"	40"
Height	4'	6'	6'	4'	4'	6'	4'	4'	6'	4'	6.8'	6'	6'	6'	6'
Precipitation Rate (in/hr)	0.95	0.75	0.77	0.67	0.64	0.91	0.63	0.75	0.87	0.75	0.83	0.79	0.98	0.59	0.71
Number of Lines	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2
Spacing between lines	-	-	-	-	-	-	-	-	-	-	-	14.7'	15.6'	17.2'	21.3'

G=Green nozzle & Antimist **Y**=Yellow nozzle & Antimist **O**=Orange nozzle & Antimist **B**=Blue nozzle & Antimist
Y/O= Yellow nozzle & Orange Antimist

NAANDANJAIN IRRIGATION

DRIPLESS MICRO-SPRINKLER

- Bridgless design eliminates dripping
- Flat Trajectory
- High distribution uniformity
- Fits all DAN parts & accessories
- Use Antimists from page 46

Bench Crop Irrigation - "DRIPLESS" (Bridgeless) Upside Down Sprinklers

	Ht.	Bench Width 8'	10'	12'	14'	15'	16'	17'	18'
Low Flow	2'	**O** 94 84% 1.50	**O** 93 99% 1.02	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
	4'	**G** 88 61% 0.44	**G** 88 75% 0.43	**O** 94 73% 0.61	**O** 91 82% 0.58	**O** 88 86% 0.57	- - - -	- - - -	- - - -
	6'	**G** 90 57% 0.41	**G** 90 73% 0.44	**G** 90 87% 0.42	**O** 95 85% 0.60	**O** 92 89% 0.59	**O** 89 93% 0.58	- - - -	- - - -
High Flow	2'	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
	4'	- - - -	- - - -	**Y** 94 73% 0.78	**B** 94 81% 1.00	**B** 93 86% 0.98	**B** 92 91% 0.96	**B** 90 94% 0.94	- - - -
	6'	- - - -	- - - -	**Y** 97 65% 0.70	**Y** 95 74% 0.68	**B** 95 79% 0.90	**B** 94 83% 0.89	**B** 92 87% 0.87	**B** 90 91% 0.86

G=Green nozzle & Antimist **Y**=Black nozzle & Yellow Antimist **O**=Orange nozzle & Antimist **B**=Blue nozzle & Antimist

- Top number is Coefficient of Uniformity (CU)
- Middle number is Percentage of Water Band
- Bottom number is Precipitaion Rate (In/Hr)

All figured on a 3' sprinkler spacing

TE#	NAAN/DAN#	Description	Price
11281102	11281102	"Dripless" w/ Green Nozzle	2.35
11281105	11281105	"Dripless" w/ Orange Nozzle	
11281108	11281108	"Dripless" w/ Black Nozzle	
11281103	11281103	"Dripless" w/ Blue Nozzle	

Senninger Irrigation Inc.

INVERTED MICRO SPRINKLER

Designed specifically to irrigate in an inverted position for greenhouses and hoop houses. Delivers gentle droplets in a consistent uniform pattern.

Precipitation & Uniformities at 30 psi (2.07 bar)	Flow Rate gph	10' x 10' "/Hr	CU	10' x 16' "/Hr	CU
#3 - Ice	20.4	0.339	96%	0.205	93%
#4 - Light Blue	36.6	0.602	96%	0.362	93%
#5 - Beige	57.0	0.941	98%	0.563	93%
#6 - Gold	81.6	1.354	95%	0.811	94%

PSI @ Sprinkler	20	30
#3 Nozzle - Ice (3/64")		
Flow (gph)	16.8	20.4
Diameter at 6.0' ht	30'	32'
#4 Nozzle - Light Blue (1/16")		
Flow (gph)	30.0	36.6
Diameter at 6.0' ht	33'	36'
#5 Nozzle - Beige (5/64")		
Flow (gph)	46.2	57.0
Diameter at 6.0' ht	38'	40'
#6 Nozzle - Gold (3/32")		
Flow (gph)	66.6	81.6
Diameter at 6.0' ht	39'	40'

TE#	Senninger#	Description	Price
MIS-IC500NPT030	MIS-IC500NPT030	Ice (3/64") Nozzle	2.30
MIS-IC500NPT040	MIS-IC500NPT040	Light Blue (1/16") Nozzle	
MIS-IC500NPT050	MIS-IC500NPT050	Beige (5/64") Nozzle	
MIS-IC500NPT060	MIS-IC500NPT060	Gold (3/32") Nozzle	

NETAFIM™
GROW MORE WITH LESS

MegaNet™

Product Advantages

- Perfectly balanced sprinkler with two equal water jets - no wobble.
- Closed and compact preventing insect penetration and protecting internal parts.
- Excellent distribution uniformity.
- Can be installed on solid sets or in removable field stands.
- Color-coded for easy identification.

SPECIFICATIONS

- Seven Nominal Flow Rates:
- Two Water Trajectory Angles:
  High - 24 degrees
  Low - 15 degrees (Special Order)
- Recommended Operating Pressure Range: 29 to 45 psi (at the sprinkler head)
- Inlet Connection: ½" Male Threaded

PERFORMANCE DATA

NOMINAL FLOW	NOZZLE COLOR	NOZZLE SIZE	K	X	WETTED DIAMETER 3.2' above ground with High Trajectory	WETTED DIAMETER 1.6' above ground with Low Trajectory
0.88 GPM	Yellow	0.070"	44.1	0.5	42.8'	42.8'
1.10 GPM	Purple	0.084"	55.7	0.5	44.2'	44.2'
1.54 GPM	Green	0.096"	72.3	0.5	45.9'	45.9'
1.98 GPM	Blue	0.109"	92.2	0.5	52.4'	45.9'
2.42 GPM	Brown	0.121"	110.5	0.5	55.7'	45.9'
2.86 GPM	Orange	0.132"	135.6	0.5	55.7'	49.2'
3.30 GPM	Red*	0.144"	157.0	0.5	55.7'	52.4'

*Red Nozzle available with high trajectory only.

TE#	Netafim's #	Trajectory	Description	Price
MGN24D-088HO	63600-001700	High - 24°	Yellow Nozzle, 24°	7.65
MGN24D-110HO	63600-001750		Purple Nozzle, 24°	
MGN24D-154HO	63600-001000		Green Nozzle, 24°	
MGN24D-198HO	63600-002000		Blue Nozzle, 24°	
MGN24D-242HO	63600-003000		Brown Nozzle, 24°	
MGN24D-286HO	63600-004000		Orange Nozzle, 24°	
MGN24D-330HO	63600-004500		Red Nozzle, 24°	
MGN15D-088HO	63600-004900	Low - 15°	Yellow Nozzle, 15°	7.65
MGN15D-110HO	63600-004950		Purple Nozzle, 15°	
MGN15D-154HO	63600-005000		Green Nozzle, 15°	
MGN15D-198HO	63600-006000		Blue Nozzle, 15°	
MGN15D-242HO	63600-007000		Brown Nozzle, 15°	
MGN15D-286HO	63600-008000		Orange Nozzle, 15°	

Low Trajectory Sprinklers are Special Order Only!

NAANDANJAIN
IRRIGATION

NAAN 501 & NAAN 502 LOW-ANGLE LOW CAPACITY TURBO SPRINKLER

- Turbo drive permits low start pressures and small capacities.
- Heavy-duty plastic for long life and trouble-free performance.
- ½" FIPT connection

501 Performance	.078" Blue Nozzle		.087" Yellow Nozzle	
PSI	GPM	DIA	GPM	DIA
15	0.64	32	0.69	33
25	0.80	37	0.90	38
35	0.95	43	1.06	43
45	1.08	47	1.21	49

502 Low-Angle Performance	.094" 10° Orange Nozzle		.110" 10° Brown Nozzle	
PSI	GPM	DIA	GPM	DIA
15	0.83	36	0.95	39
25	1.08	42	1.22	44
35	1.27	46	1.44	49
45	1.44	50	1.63	53

Height of jet above nozzle varying between 1.3 and 4.0 feet according to nozzle size and applied water pressure.

TE#	NAAN/DAN#	Description	Price
NAN-103	501-.078-BLUE	½" FIPT Turbo Hammer Sprinkler	15.10
NAN-106	501-.087-YELLOW	½" FIPT Turbo Hammer Sprinkler	
NAN-200	502-.094-ORANGE	½" FIPT Turbo Hammer Sprinkler; L/A	
NAN-201	502-.110-BROWN	½" FIPT Turbo Hammer Sprinkler; L/A	

Senninger Irrigation Inc.

mini-WOBBLER

- Unique off-center rotary action gives the mini-Wobbler outstanding uniformity and distance of throw in the 20 to 40 psi range.
- Low-angle trajectory and good droplet size reduce wind drift and distortion of spray pattern.
- 100% thermoplastic construction with only one moving part.

INVERTED mini-WOBBLER

- Designed specifically for overhead installation
- Low evaporative loss
- Multi-level throw approximate angle: 0°
- Connection is ½" mpt.

mini-WOBBLER	Nozzle Pressure (psi) 20	25	30	35	40
#4 Nozzle - Light Blue 1/16"					
Flow (gpm)	.50	.56	.62	.68	.72
Diameter at 1.5' height	28.0	29.2	30.0	30.4	30.8
#5 Nozzle - Beige 5/64"					
Flow (gpm)	.75	.84	.91	.99	1.06
Diameter at 1.5' height	33.6	34.8	35.6	36.0	36.4
#6 Nozzle - Gold 3/32"					
Flow (gpm)	1.10	1.25	1.36	1.47	1.58
Diameter at 1.5' height	36.0	36.8	37.2	37.6	38.0
#7 Nozzle - Lime 7/64"					
Flow (gpm)	1.51	1.69	1.86	2.01	2.14
Diameter at 1.5' height	37.6	38.4	38.8	39.0	39.2
#8 Nozzle - Lavender 1/8"					
Flow (gpm)	1.95	2.18	2.39	2.61	2.78
Diameter at 1.5' height	38.4	38.8	39.2	39.4	39.6
#9 Nozzle - Grey 9/64"					
Flow (gpm)	2.36	2.66	2.93	3.17	3.40
Diameter at 1.5' height	39.2	40.0	40.4	40.8	41.2
#10 Nozzle - Turquoise 5/32"					
Flow (gpm)	2.86	3.19	3.52	3.88	4.08
Diameter at 1.5' height	40.0	40.8	41.2	41.6	42.0

INVERTED mini-WOBBLER	Nozzle Pressure (psi) 20	25	30	35	40
#5 Nozzle - Beige 5/64"					
Flow (gpm)	0.75	0.84	0.91	0.99	1.08
Diameter at 6.0' height	31.8	32.4	32.8	33.2	33.6
#6 Nozzle - Gold 3/32"					
Flow (gpm)	1.10	1.25	1.36	1.47	1.58
Diameter at 6.0' height	33.8	34.4	34.8	35.2	35.6
#7 Nozzle - Lime 7/64"					
Flow (gpm)	1.51	1.69	1.86	2.01	2.14
Diameter at 6.0' height	35.0	35.6	36.0	36.4	36.8
#8 Nozzle - Lavender 1/8"					
Flow (gpm)	1.95	2.18	2.39	2.61	2.78
Diameter at 6.0' height	35.6	36.2	36.6	37.0	37.4

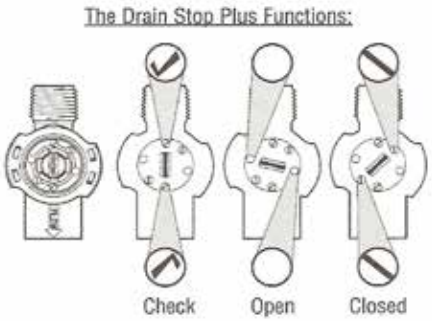
Model	Nozzle #	TE#	Senninger#	Price
mini-WOBBLER	4	SEN-MW4	mini-WOBBLER-4	$3.51
mini-WOBBLER	5	SEN-MW5	mini-WOBBLER-5	
mini-WOBBLER	6	SEN-MW6	mini-WOBBLER-6	
mini-WOBBLER	7	SEN-MW7	mini-WOBBLER-7	
mini-WOBBLER	8	SEN-MW8	mini-WOBBLER-8	
mini-WOBBLER	9	SEN-MW9	mini-WOBBLER-9	
mini-WOBBLER	10	SEN-MW10	mini-WOBBLER-10	
Model	**Nozzle #**	**TE#**	**Senninger#**	**Price**
Invertedmini-WOBBLER	5	SEN-MW5I	Inverted mini-WOBBLER-5	$3.51
Invertedmini-WOBBLER	6	SEN-MW6I	Inverted mini-WOBBLER-6	
Invertedmini-WOBBLER	7	SEN-MW7I	Inverted mini-WOBBLER-7	
Invertedmini-WOBBLER	8	SEN-MW8I	Inverted mini-WOBBLER-8	

Senninger Irrigation Inc.

NEW

Drain Stop Plus™

- Unique 3-mode design - open, check, closed
- Min Opening: 13.5psi
- Min Closing: 3.5psi
- Max Operating: 50psi
- Flow: 0.25gpm to 5gpm



Model	TE#	Senninger#	Price
Drain-Stop Plus	DSCV2	DSP2M2F	$7.92

NAANDANJAIN IRRIGATION

429-5WP-AG
PLASTIC FULLY ADJUSTABLE SPRINKLERS

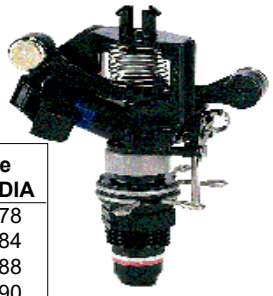
• Plastic sprinkler with splash-back preventor arm.
• Full and part-circle sprinkler with patented “ratchet” allowing fingertip adjustment for any required sector of the circle.
• Diffuser pin breaks up the jet into fine drops and the special Baffle Deflector, adjustable by a scaled regulator nut, enables changing both height and range of jet.
• Single nozzle, stainless steel axle, thrust spring and teflon washers.
• ½” MIPT connection.

	7/64" Nozzle		1/8" Nozzle		9/64" Nozzle		5/32" Nozzle	
PSI	GPM	DIA	GPM	DIA	GPM	DIA	GPM	DIA
20	1.52	65	2.00	73	2.25	74	2.68	75
25	1.71	67	2.23	75	2.52	77	3.01	79
30	1.87	69	2.44	77	2.76	80	3.30	82
35	2.02	71	2.63	78	2.99	83	3.57	85
40	2.17	72	2.81	79	3.20	85	3.83	87
45	2.30	73	2.98	81	3.39	88	4.06	89
50	2.43	74	3.14	82	3.58	89	4.29	91
55	2.55	75	3.29	82	3.76	89	4.50	93

TE#	NAAN/DAN#	Description	Nozzle Color	Price
NAN-302	429-5WP-7/64	½” MIPT Plastic Impact Sprinkler	Orange	23.50
NAN-300	429-5WP-1/8	½” MIPT Plastic Impact Sprinkler	Green	
NAN-303	429-5WP-9/64	½” MIPT Plastic Impact Sprinkler	Blue	
NAN-301	429-5WP-5/32	½” MIPT Plastic Impact Sprinkler	Black	

RAIN BIRD

MAXI-BIRD #2045 PJ



• ½" riser-mounted impact head.
• Powerful reverse action.
• Five color coded, interchangeable nozzles.
• Low pressure and low gallonage operation.

	#6 Nozzle		#7 Nozzle		#8 Nozzle		#10 Nozzle		#12 Nozzle	
PSI	GPM	DIA	GPM	DIA	GPM	DIA	GPM	DIA	GPM	DIA
25	---	---	2.2	72	2.8	72	4.2	76	5.5	78
35	2.0	74	2.7	74	3.3	76	4.8	82	6.3	84
45	2.3	76	3.0	78	3.7	80	5.4	84	7.1	88
55	2.5	76	3.3	82	4.1	82	6.0	86	7.9	90
60	2.6	76	3.5	82	4.2	84	6.4	88	8.4	90

Description	TE#	RainBird#	Price
RainBird 2045PJ w/ 08 Nozzle	RNB-100	2045 PJ	10.75

RAIN BIRD

LF800 / LF1200 / LF2400 LF Series Sprinklers

Built rugged to withstand the harsh conditions in agricultural applications, Rain Bird LF Series Sprinklers combine the advantages of an impact sprinkler with stream height flexibility, delivering precise, uniform water distribution. New expanded flow rates and 5-year extended warranty!

Specifications:

• ½" MIPT • Pressure: 25 to 60 psi • Flow Rate: 0.77 to 4.02 gpm

Nozzle Sizes:

• White 0.0703" (1.79mm) • Blue 0.078" (1.98mm) • Orange 0.086" (2.18mm) • Purple 0.094" (2.39mm) • Yellow 0.102" (2.59mm)
• Green 0.109" (2.76mm) • Tan 0.117" (2.97mm) • Red 0.125" (3.18 mm) • Black 0.133" (3.38 mm) • Silver 0.143" (3.63 mm)

Deflector trajectory outlets are:

• 6° (Dark Purple) • 9° (Purple) • 10° (White) • 10° (Lime) • 12° (Copper) • 12° (Cyan Blue) • 12° (Pink)
• 13° (Maroon) • 15° (Brown) • 15° (Tangerine) • 16° (Red) • 17° (Powder Blue) • 21° (Olive Grn) • 22° (Dark Green)

Description	TE#	RainBird#	Price
LF800 Sprinkler Complete (xx=deflector; yy=nozzle)	LF08Nxxyy	A85101Axxyy	Call
LF1200 Sprinkler Comlete (xx=deflector; yy=nozzle)	LF12Nxxyy	A85001Bxxyy	For
LF2400 Sprinkler Complete (xx=deflector; yy=nozzle)	LF24Nxxyy	A85201Cxxyy	Prices
LF Series Sprinkler Edge Guard	LFEG	118366	

25BPJ-FP-ADJ SERIES
½" Full or Part Circle Impact Sprinkler

• ½" riser-mounted impact head. • Proven impact drive
• Straight-through flow • Full circle or adjustable arc 20° to 340°
• Jet tube eliminates side splash • Stainless steel diffuser pin
• Rugged brass, bronze and stainless steel construction

Operating Range

• Spacing: 38 to 49 feet • Pressure: 30 to 50 psi

TE#	RB#	Price
A32901	25BPJ-FP-ADJ w/ Nozzle	40.90

25BPJ-ADJ Performance

Pressure (psi)	Nozzle	Radius (ft.)	Flow (gpm)
30	9	38	3.1
	10	39	3.8
40	9	39	3.6
	10	40	4.4
50	9	40	4.0
	10	41	5.0

35A-PJ-TNT SERIES
¾" Full or Part Circle Impact Sprinkler

• Longer wearing TNT bearing • Straight-through flow
• Rugged brass construction • Full circle or adjustable arc 20° to 340°
• Rugged brass construction • The highest point of stream is 9' above nozzle

Operating Range

• Spacing: 42 to 61 feet • Pressure: 30 to 60 psi

TE#	RB#	Price
A39400	35A-PJ-TNT Less Nozzle	76.70

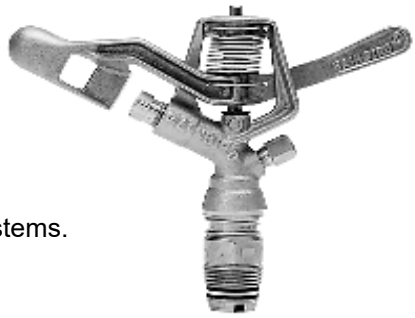
35A-PJ-TNT Performance

Pressure (psi)	Nozzle	Radius (ft.)	Flow (gpm)
30	10	42	3.9
	11	43	4.6
	12	44	5.5
40	10	44	4.5
	11	45	5.4
	12	47	6.4
50	10	45	5.0
	11	47	6.0
	12	49	7.2
60	10	46	5.4
	11	48	6.6
	12	51	7.8

Rain Bird Nozzle Conversion Chart
All nozzle combinations are given in xx/64 equivalents.

NEW	8	9	10	11	12	13	14
OLD	1/8	9/64	5/32	11/64	3/16	13/64	7/32
NEW	15	16	17	18	20	22	24
OLD	15/64	1/4	17/64	9/32	5/16	11/32	3/8

RAIN BIRD



30H ¾" Full Circle Impact Sprinkler

Designed for general field use on solid set, permanent set, or mechanically moved systems.

Common Spacings Range: 30' x 50' to 60' x 60' **Trajectory:** 27°

TE#	RB#	Price
RNB-130	30H Without Nozzle	41.75

30H / ST. BORE DRIVE NOZZLE
(3/32" - 7° SPREADER) Stream Height 9'

PSI@ Nozzle	Nozzle 9/64" Dia	gpm	Nozzle 5/32" Dia	gpm	Nozzle 11/64" Dia	gpm	Nozzle 3/16" Dia	gpm
25	80	4.2	82	4.8	83	5.6	85	6.4
30	81	4.6	85	5.3	88	6.1	91	7.0
35	82	4.9	87	5.7	90	6.6	94	7.5
40	83	5.2	88	6.1	92	7.0	95	8.1
45	84	5.6	89	6.5	93	7.4	98	8.5
50	85	5.9	90	6.8	95	7.9	100	9.0
55	86	6.1	91	7.1	96	8.2	101	9.4
60	87	6.4	92	7.4	97	8.6	102	9.9
65	88	6.7	93	7.8	98	8.9	103	10.2
70	89	6.9	94	8.1	99	9.3	104	10.7
75	90	7.2	95	8.3	100	9.6	105	11.0
80	91	7.5	96	8.7	101	10.0	106	11.5

30H / ST BORE DRIVE NOZZLE
(1/8" - 20° SPREADER) Stream Height 9'

PSI@ Nozzle	Nozzle 9/64" Dia	gpm	Nozzle 5/32" Dia	gpm	Nozzle 11/64" Dia	gpm	Nozzle 3/16" Dia	gpm
25	80	5.2	82	5.8	83	6.6	85	7.4
30	81	5.6	85	6.4	88	7.2	91	8.1
35	82	6.1	87	6.9	90	7.7	94	8.7
40	83	6.5	88	7.3	92	8.3	96	9.3
45	84	6.9	89	7.9	93	8.8	98	9.9
50	85	7.3	90	8.2	95	9.3	100	10.4
55	86	7.6	91	8.6	96	9.7	101	10.9
60	87	7.9	92	9.0	97	10.1	102	11.4
65	88	8.2	93	9.4	98	10.5	103	11.8
70	89	8.5	94	9.7	99	10.9	104	12.3
75	90	8.8	95	10.0	100	11.3	105	12.7
80	91	9.1	96	10.3	101	11.6	106	13.1

NELSON

R33 Rotator®

A DIRECT REPLACEMENT FOR 3/4" BRASS IMPACT SPRINKLERS

The NEW R33 Rotator® provides the longest throw distance and greatest flow in the Rotator Family of sprinklers. The R33 Rotator® utilizes Nelson's proven Rotator technology with new advancements in speed control. Nelson's break through design allows the sprinkler to move from slow mode back to fast mode throughout its rotation. By reducing the speed of rotation intermittently, a windfighting water pattern with maximum throw distance is produced. The fast mode assists in filling out the water pattern for high uniformity. The result is superior technology, unmatched performance.

Specifications:
3.6-8.2 GPM Single-Stream Rotating Sprinkler with Diffuser

Features & Benefits:
• Better uniformity • Easy to repair • Easy to clean • Long wear life • Lower cost • Proven technology

Applications:
The R33 is ideal for side roll (wheel line), portable pipe or permanent set applications for the irrigation of all types of crops including forage crops, vegetables, grains, pastures and tree & vine crops.

Frost Control:
Also available in a faster rotation version for use in frost control systems. Specify "LP" when ordering.

Units	Pressure in PSI												
Model / Plate	33TN Nozzle	40		45		50		55		60		65	
		GPM	R	GPM	R	GPM	R	GPM	R	GPM	R	GPM	R
R 33 Gold 18	9/64	3.64	44	3.86	45	4.07	45	4.27	45	4.46	46	4.65	45
R 33 Brown 20	5/32"	4.45	46	4.72	47	5.00	48	5.22	48	5.45	48	5.68	47
R 33 Gray 22	11/64"	5.37	48	5.70	49	6.01	50	6.30	50	6.57	49	6.83	48
R 33 Green 24	3/16"	6.38	49	6.78	50	7.16	51	7.52	51	7.85	51	8.18	50

Standard Version			Frost Control Version			
TE#	Nelson#	Nozzle	TE#	Nelson#	Nozzle	Price
R33-09	11466-1018	9/64"	R33-09-LP	11466-1118	9/64"	20.55
R33-10	11466-1020	5/32"	R33-10-LP	11466-1120	5/32"	
R33-11	11466-1022	11/64"	R33-11-LP	11466-1122	11/64"	
R33-12	11466-1024	3/16"	R33-12-LP	11466-1124	3/16"	

USING SPRINKLERS TO BATTLE FROST

OVERHEAD SPRINKLERS

For decades, tree fruit and blueberry growers have used overhead sprinkling as a way of protecting vital fruit buds from cold and frost damage. While many crops have been saved using overhead sprinklers, the practice is not without its drawbacks. The following list illustrates some of the challenges:

1. A lot of water is necessary-usually 60-75 gpm per acre. Saving the crop often requires sprinkling 6-8 hours per night and several consecutive nights of operation. Waterlogged soils are common.
2. The large amount of water applied requires either very large wells or storage reservoirs with good recharge.
3. If pumps fail or sprinklers freeze up during freezing temperatures, evaporative cooling takes place and the bud damage is far worse than had no water been applied.
4. Ice encasement of the branches and tree limbs can often create so much weight that the limbs break from the heavy load.
5. These sprinkler systems are relatively quite expensive.
6. Drawbacks aside, these systems can save crops on nights where the overnight temperatures drop to as low as 20 degrees Fahrenheit.

The adjacent picture shows typical ice formations formed from under tree sprinklers after operating during a night of sub-freezing temperatures.

Mike Wittenbach Orchard - Belding, Michigan

UNDER THE TREE SPRINKERS

In the Northwestern US (Washington, Oregon, etc.) most fruit growers now rely on their under tree sprinkler systems, often in combination with wind machines as their primary defense against spring frosts. Many Michigan growers are now following those same practices.

Continued on next page...

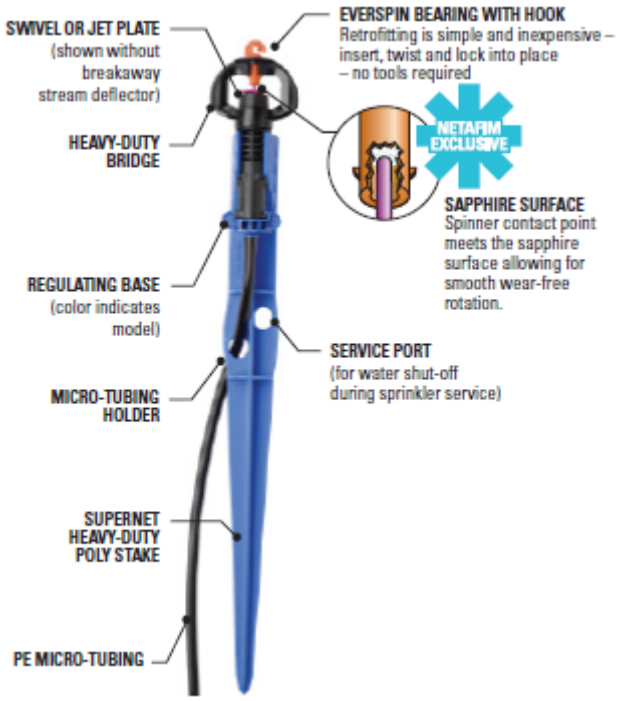
THE ADVANTAGES OF UNDER TREE SPRINKLING ARE:

1. Ice formed under the tree releases the “latent heat of energy” and increases humidity thereby raising the orchard temperature by several degrees.
2. Limbs are not broken since the ice is formed on the orchard floor.
3. If pumps fail, no additional damage to the fruit buds occur, but the heating process is finished for that night.
4. About 40 gal/min/acre of water is necessary in order to have a meaningful amount of heat and humidity released. Adequate pumps and/or reservoirs have to be planned.
5. For growers with drip/trickle irrigation systems already in place, the existing water supply can be used to convert to a zone of under the tree sprinklers for high value varieties or in some of the more cold susceptible low spots in the orchard.

NETAFIM™
GROW MORE WITH LESS

SUPERNET Pressure Regulated Micro-Sprinkler

Great For Under Tree Frost Control Sprinkling!



For orchard, vineyard and nursery micro-sprinkler installations where flow regulation and insect resistance is desired.

SPRAY OPTIONS

- LR (Long Range) - Designed for maximum coverage on wider spacings and larger root zones.
- SR (Short Range) - Designed for closer spacings and applications where dry middles are desired.
- LRD (Long Range with Breakaway Stream Deflector)
- SRD (Short Range with Breakaway Stream Deflector).

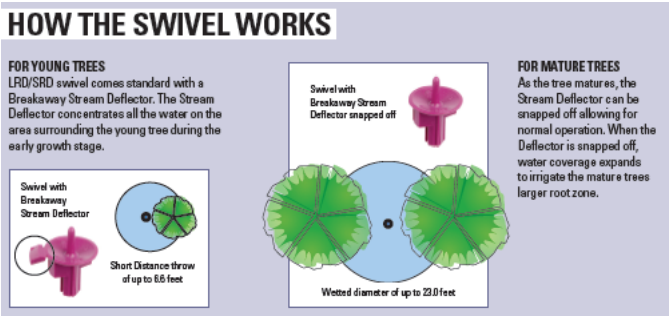
SPRINKLER MOUNTING OPTIONS

- Suspended from trellis wire by integral hook.
- Placed in the ground with one of two SuperNet stakes.

SPECIFICATIONS

- Base connection options: - Quick-Connect thread (standard)
  - Barb (special order)
- Flow range: 5.3 to 23.8 GPH • Wetted diameter: 5.0 to 23.0 feet
- Recommended pressure range: 25 - 50 psi
- Recommended filtration: 120 Mesh

NOZZLE SIZE	MODEL # NOZZLE COLOR	NOMINAL FLOW RATE	LR SWIVEL COLOR	WETTED DIAMETER (FT) LR	WETTED DIAMETER (FT) LRD	SR SWIVEL COLOR	WETTED DIAMETER (FT) SR	WETTED DIAMETER (FT) SRD
.035"	#20 Purple	5.3 GPH	Purple	14.8	4.9	Blue	8.2	5.9
.045"	#28 Light Green	7.4 GPH	Purple	19.7	4.9	Blue	11.5	5.9
.045"	#30 Brown	8.2 GPH	Purple	19.7	4.9	Blue	11.5	5.9
.047"	#35 Sky Blue	9.2 GPH	Purple	19.7	4.9	Blue	11.5	5.9
.050"	#40 Blue	10.6 GPH	Purple	19.7	4.9	Blue	11.5	5.9
.056"	#50 Green	13.2 GPH	Black	23.0	4.9	Blue	14.8	5.9
.061"	#58 Gray	15.3 GPH	Black	23.0	4.9	Blue	14.8	5.9
.068"	#70 Black	18.5 GPH	Black	23.0	6.6	Blue	16.4	5.9
.069"	#90 Orange	23.8 GPH	Black	23.0	6.6	Blue	16.4	6.6



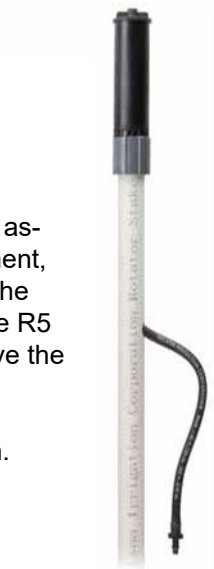
Part Number	Description	Price
031210350301E	Supernet w/ Sky Blue Noz, Full Circle w/ 30" Tube and Stake	4.15

Other sizes and configurations are available upon request.

More Under Tree Sprinklers on the Next Page...

NELSON

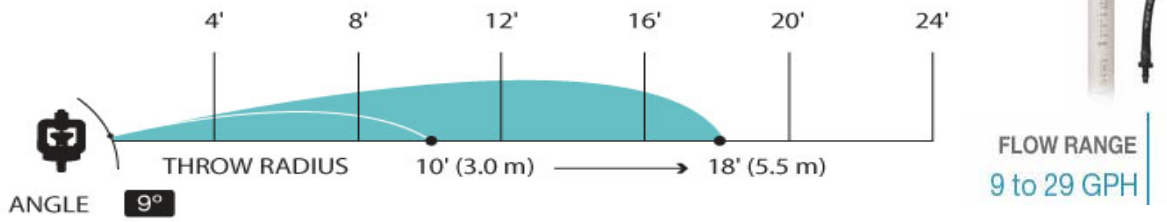
Our Most Popular Under Tree Frost Control Sprinkler



R5 Rotator

The R5 Rotator Pop-Up addresses every maintenance issue common to micro irrigation. A PVC Stake assembly and protective canister protects against damage and displacement caused by workers, equipment, insects and animals. Nozzle plugging is eliminated by an inlet screen and insect intrusion is halted by the protective canister. When used as part of a properly designed micro system with adequate filtration, the R5 Pop-Up dramatically reduces the time and cost of system operation and maintenance. You won't believe the difference until you try it!

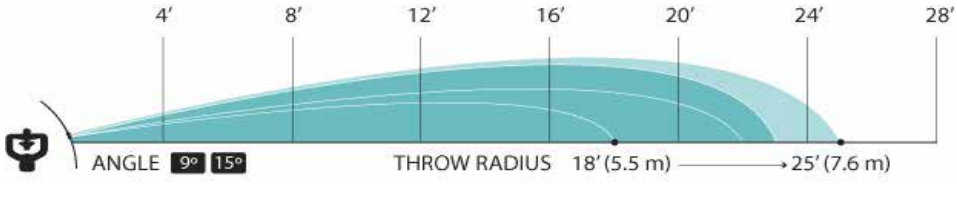
Can operate as low as 20°F and not freeze up. Purchase the parts pre-assembled for quick installation.



Part Number	Description		Price
R5 Rotator:			
11261-124	Pop-Up	Green Plate/ 24gph Nozzle	7.45
11261-111	Pop-Up	Green Plate/ 11gph Nozzle	7.45
11260-21224	R5 Riser	1/2PVC-4 ½" 12"PVC Stake, 24" Feed	2.80
11284-22130	R5 Riser	1/2PVC-5 ½" 21"PVC Stake, 30" Feed	4.50

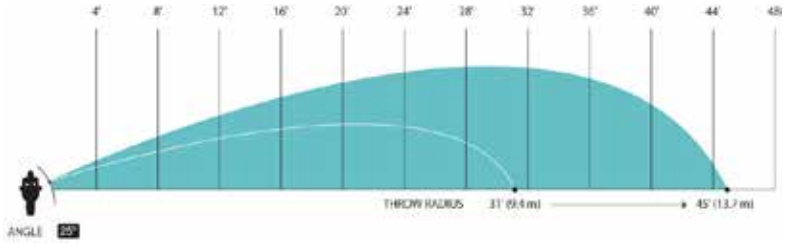
R10 Rotator

Filling the need for small, low-volume sprinklers that perform reliably in the mid-range between a micro- and regular-size sprinkler, the R10 Rotator® is right on target.
Choose from the P2 9° Red, P4 9° White, or new P4 15° Orange plates. Applications include: under-tree irrigation and environmental control of tree fruit, vine, and tree nut crops — as well as overhead irrigation, cooling, and environmental control in tree, vine, small fruit, and nursery crops.



R2000WF/LP

The R2000WF Rotator - the "Windfighter" - consistently delivers higher uniformity than impact sprinklers. The R2000WF forms a tight wind-penetrating stream that is systematically broken up by a diffuser, filling in the water pattern. Its sweeping action gently distributes water droplets to the ground preventing soil compaction. The R2000LP is a low-pressure version of the R2000WF. The R2000WF pressure range is 40-65 PSI (2.75-4.5 bar) while the R2000LP is 25-50 PSI (1.75-3.5 bar). Use the R2000WF and R2000LP for overhead irrigation, cooling, and environmental control for nursery crops, tree, vine, small fruit, and berry crops. It's also perfect for revegetation, mining, and other specialty uses.



Part Number	Description		Price
R10 Rotator:			
9587-502	Flow Control	White Plate/ .50 10FC Nozzle	5.40
R2000WF Rotator:			
9929-1616	Low Pressure	Red Plate/ Red 1/8" Nozzle	11.35
9928-1414	Standard	Green Plate/ Green 7/64" Nozzle	11.35
Risers:			
11284-22130	R5 & R10	1/2PVC-5 ½" 21" PVC Stake, 30" Feed	4.50

BIG GUN PERFORMANCE

NELSON 100 SERIES BIG GUNS - 24° TRAJECTORY

A wide variety of applications include travelers, pivot end guns, portable move, solid set and waste disposal systems.

100 T TAPER BORE NOZZLES

PSI@ Nozzle	Nozzle .65" Dia	gpm	Nozzle .70" Dia	gpm	Nozzle .75" Dia	gpm	Nozzle .80" Dia	gpm	Nozzle .85" Dia	gpm	Nozzle .90" Dia	gpm	Nozzle 1.0" Dia	gpm
40	222	78	230	91	240	103	250	118	256	134	262	152	-	-
50	235	87	245	100	256	115	265	130	273	150	280	165	300	204
60	250	96	260	110	270	125	280	143	288	164	295	172	316	224
70	263	103	275	120	283	136	295	155	302	177	310	197	338	243
80	273	110	285	128	295	146	305	165	314	199	325	210	354	256
90	283	117	295	135	306	155	315	175	326	201	335	223	362	274
100	283	123	306	143	316	163	325	185	336	212	345	235	372	209
110	303	129	315	150	324	171	335	195	344	222	355	247	380	304

100 Series	TE#	Nelson#	Description	Price
	F100	8211-046	Full Circle	$751.75
	SR100	8211-106	Part Circle w/reverse	$1044.40

NELSON 150 SERIES BIG GUNS - 24° TRAJECTORY

The 150 is ideally suited for all mid-capacity applications including traveler, pivot end gun, solid set, waste disposal.

150 T TAPER BORE NOZZLES

PSI@ Nozzle	Nozzle .7" Dia	gpm	Nozzle .8" Dia	gpm	Nozzle .9" Dia	gpm	Nozzle 1.0" Dia	gpm	Nozzle 1.1" Dia	gpm	Nozzle 1.2" Dia	gpm	Nozzle 1.3" Dia	gpm
50	250	100	270	130	290	165	310	205	330	255	345	300	360	350
60	265	110	285	143	305	182	325	225	345	275	365	330	380	385
70	280	120	300	155	320	197	340	245	360	295	380	355	395	415
80	290	128	310	165	335	210	355	260	375	315	395	380	410	445
90	300	135	320	175	345	223	365	275	390	335	410	405	425	475
100	310	143	330	185	355	235	375	290	400	355	420	425	440	500
110	320	150	340	195	365	247	385	305	410	370	430	445	450	525
120	330	157	350	204	375	258	395	320	420	385	440	465	460	545

150 Series	TE#	Nelson#	Description	Price
	F150	9455-024	Full Circle	$1399.30
	SR150	8463-224	Part Circle w/reverse	$1703.80

NELSON 200 SERIES BIG GUNS - 27° TRAJECTORY

Introduced in 1969, the 200 is the original BIG GUN and the real workhorse of the line.

200 T TAPER BORE NOZZLES

PSI@ Nozzle	Nozzle 1.2" Dia	gpm	Nozzle 1.3" Dia	gpm	Nozzle 1.4" Dia	gpm	Nozzle 1.5" Dia	gpm	Nozzle 1.6" Dia	gpm	Nozzle 1.75" Dia	gpm	Nozzle 1.9" Dia	gpm
60	375	330	380	385	410	445	430	515	445	585	470	695	495	825
70	395	355	410	415	430	480	450	555	465	630	495	755	515	890
80	410	380	430	445	450	515	470	590	485	675	516	805	535	960
90	425	405	445	475	465	545	485	625	505	715	535	855	555	1005
100	440	425	460	500	480	675	500	680	620	765	560	900	575	1060
110	450	445	470	525	495	605	515	695	535	790	565	945	590	1110
120	480	465	480	545	505	680	530	725	580	825	580	986	605	1160
130	465	485	485	565	515	655	540	755	560	860	590	1025	620	1210

200 Series	TE#	Nelson#	Description	Price
	F200	6000	Full Circle	$2355.50
	SR200	9192-024	Part Circle w/reverse	$3402.00

Nelson Sprinkler Prices Above do NOT include nozzles

komet economy guns

- komet 163 Part and full circle
- Nozzles 8-16mm
- Connection: 1½"

TE#	komet#	Price
NLT-163	komet 163	$279.00

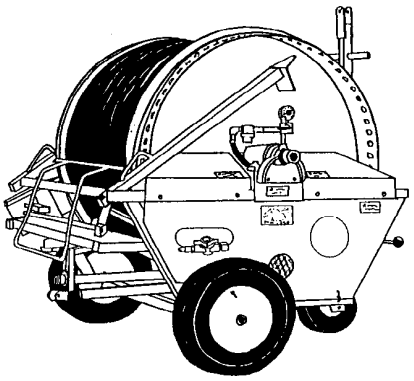
komet gun 163 18°/23°/30°
Trajectory 30°; Taper bore nozzle

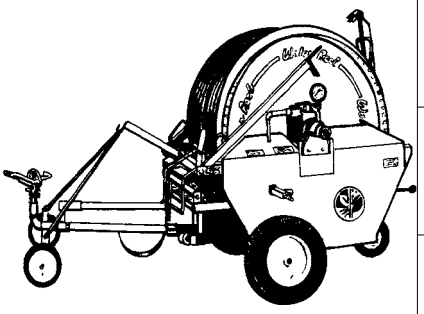
PSI@ Nozzle	Nozzle 8mm Dia	gpm	Nozzle 10mm Dia	gpm	Nozzle 12mm Dia	gpm	Nozzle 14mm Dia	gpm	Nozzle 16mm Dia	gpm
40	141	26	154	35	167	47	175	61	182	77
50	151	29	165	39	179	53	188	68	197	86
60	159	32	177	43	190	58	200	75	210	94
70	165	34	185	46	198	62	208	81	218	101
80	173	36	193	50	208	67	216	87	224	109

Experts on Travellers
Small • Large • Water • Manure

Travellers will not apply more water than solid set irrigation.
The advantage is even application and LABOR SAVINGS.
Other Models Available!

KIFCO





Performance Guide

			Machine Inlet	Sprinkler	Irrigated Area			
	Nozzle	Flow GPM	Press. PSI	Press. PSI	Sprinkler Dia. Ft.	Width Feet	Length (Max)ft.	Price
B140	10mm	28	60	44	135	108	404	CALL
w/SIME	10mm	33	80	59	144	115	408	
K1	12mm	41	76	44	138	110	405	
Sprinkler	12mm	47	100	59	154	123	412	
B140	.45"	35	64	40	160	128	414	CALL
w/Nelson	.45"	39	79	55	174	139	420	
SR75	.50"	43	76	40	171	137	418	
Sprinkler	.50"	48	93	50	186	149	424	
B140	.43"	34	62	40	174	139	420	CALL
w/Komet	.43"	38	78	50	188	150	425	
Twinmax	.47"	40	70	40	182	146	423	
Sprinkler	.47"	45	88	50	197	158	429	
	.51"	47	81	40	193	154	427	
	.55"	55	95	40	201	151	430	
T180	14mm	62	76	44	164	131	446	CALL
w/SIME	14mm	73	99	59	190	152	456	
HIDRA	14mm	82	121	74	203	162	461	
Sprinkler	16mm	93	115	59	197	158	459	
	16mm	100	107	44	184	147	454	
T180	.45"	39	69	50	188	150	455	CALL
w/ Nelson	.50"	48	74	50	207	166	463	
SR75	.55"	59	80	50	213	170	465	
Sprinkler	.65"	83	97	50	232	186	473	
	.75"	109	122	60	250	200	480	
T180	.39"	31	66	50	177	142	451	CALL
w/Komet	.43"	38	69	50	188	150	455	
Twinmax	.51"	53	76	50	207	166	463	
Big Gun	.55"	62	82	50	213	170	466	
	.63"	80	95	50	232	186	473	
	.71"	102	115	50	250	200	480	

Specifications

MODEL	B140	T180
Pe Tube I.D.	1.40"	1.80"
Pe Tube length	350'	380'
Dry weight (lbs.)	530	900
Weight with water (lbs.)	775	1340
Dimensions		
Length (Machine only)	5' 4"	6' 0"
Length (Machine w/cart)	6' 0"	8' 4"
Width	4' 0"	51.5"
Height	4' 6"	58"

FERTILIZER INJECTION PUMPS

Blue-White Industries, Ltd.

CHEM-FEED® C-1500N INJECTOR PUMP

The C-1500N comes standard with Blue White's popular heavy duty pump head assembled with chemically resistant internals such as: Teflon® coated EP diaphragms, Viton® "O" Ring seals, Hastelloy C valve springs and PVDF cartridge fittings.

In addition, each unit includes Blue White's best PVC anti-siphon check valve with Viton® seals and Polypropylene footvalve strainer. Also included is a molded acrylic flow indicator with glass float attached to suction tubing. The C-1500N's ball bearing motor provides smoother and stronger operation which can handle pressures up to a maximum of 100 psi.

- Pump head material: Standard Heavy Duty Acrylic, Optional: Polypropylene, Polyethylene, Nylon, Teflon®
- Diaphragm material: Standard Teflon® /EP. Optional: Teflon® /Viton, Ethylene Propylene, Viton® Cartridges - PVDF
- O-Ring material: Standard Viton®. Optional: EP, Silicone.
- Voltage:115V/60Hz. Options: 230V/60Hz
- Shelf or wall mount.
- Overall dimensions: 5½"w x 5"h x 93/8"d.
- Shipping weight: 8 lbs. (approx.)

ORDERING INFORMATION

Standard Models 115V/60Hz	rpm	Max gpd	Min gpd	Max gph	Max oz/min
C-15N302X	60	35.0	3.50	1.46	3.1
C-15N302X-000V11		Same as C-15N302X with PVDF pump head for use with Acid.			

Model	TE#	Price
C-15N302X	BLW-C15N3	513.65
C-15N302X-000V11 w/PVDF	BLW-C15N3T	689.65

Blue-White Industries, Ltd.

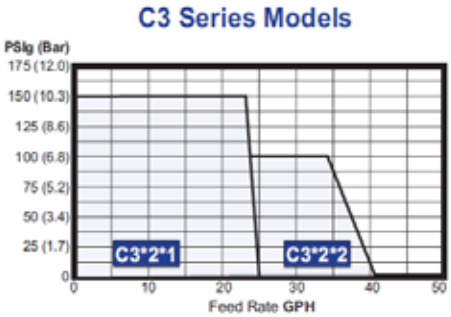
ProSeries® by Blue-White Ind.

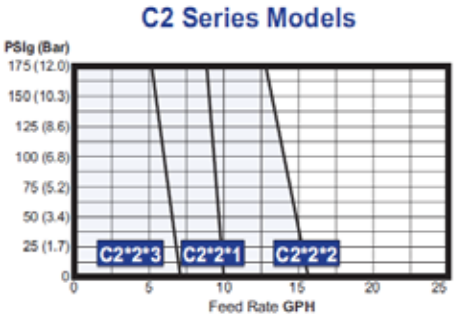
CHEM-PRO C2 ProSeries Diaphragm Pump

- Max Feed 15 GPH (55 LPH)
- Max feed rate: 15 GPH / 55 LPH
- 166 RPM (Max strokes per minute)
- Nema 4X washdown / IP 66
- Priming / Degassing Valve – Built-in
- Max Pressure 175 PSI (12 bar)
- Max pressure: 175 PSI / 12 bar
- Variable speed
- Back Lit LCD display
- Built-in Failure Detection (DFD)

CHEM-PRO C3 ProSeries Diaphragm Pump

- Max Feed 40 GPH (153 LPH)
- Max Feed Rate: 40 GPH / 153 LPH
- Variable Speed Drive
- Priming / Degassing Valve – Built-in
- Leak Detection – Built-in Diaphragm Failure Detection (DFD)
- Max Pressure 150 PSI (10.3 bar)
- Max Pressures: 150 PSI / 10.3 bar
- Washdown (NEMA 4X, IP66)
- Back Lit LCD display





Model	TE#	Price
C2F242XVC	C2F242XVC	1811.80
C3F242XVC	C3F242XVC	1827.40

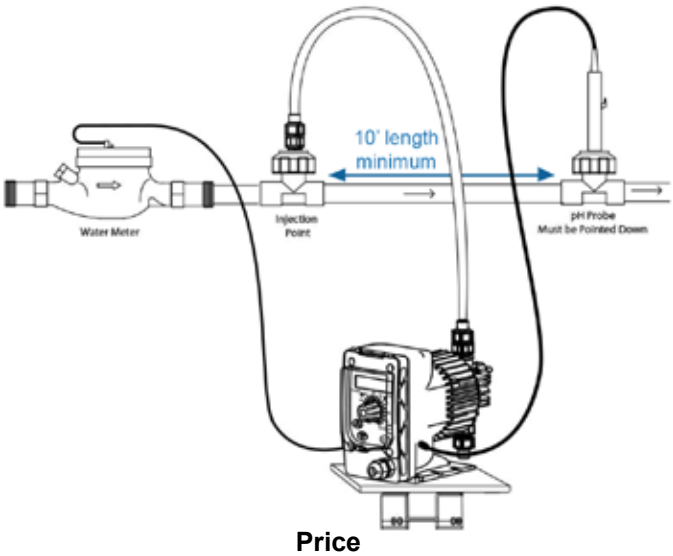
DEMA FlexFlow

Piston Diaphragm Pump for Acids and Other Chemicals

DEMA's FlexFlow is the ideal solution for greenhouses, orchards and other industrial applications to deliver acids and virtually any chemical directly into pressurized water lines. PDP is simple to use and program with state of the art technology that can vary chemical deliver volumes for changes in water flow and pressure for a precise downstream solution.

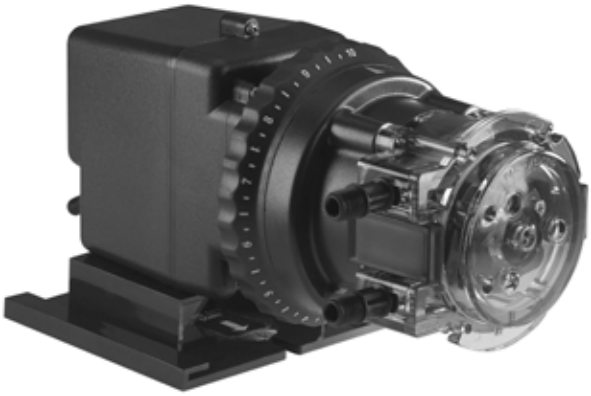
- Uses dry pulse from water meter for accurate proportional chemical injection
- Probe allows unit to display pH, multiple alarm options and probe based chemical injection
- Easily programs with keypad and LCD display
- Built-in priming valve eliminates air in chemical feed line and potential for inaccurate dilutions

gallons/hr treated by 1.25gal/hr of sulfuric acid		
Sample water pH 8	target residual alkalinity 100 ppm CaCO3	
1.25 gal/hr 35% sulfuric treats:		
Sample Alkalinity	Gallons of Water/hr	End point pH
200	5,500	6.33
250	3,700	6.16
300	2,800	6.05
1.25gal/hr 96% sulfuric treats:		
Sample Alkalinty	Gallons of Water/hr	End point pH
200	23,000	6.33
250	14,500	6.16
300	11,500	6.05



Model	TE#	Price
0960.A	0960.F & 0960.NANOP	$1625.00

STENNER PUMPS

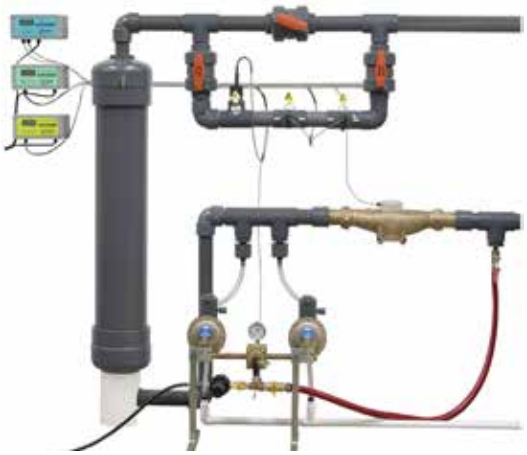


FEATURES

- 3-point roller design assists in anti-siphon protection
- Pump head requires no valves, allows for easy maintenance
- Self-priming against maximum working pressure,
foot valve not required
- Pump does not lose prime or vapor lock
- Pumps off-gassing solutions and can run dry
- Output volume is not affected by back pressure
- Injection check valve included with models rated
100 psi (6.9 bar) maximum
- Easy to change pump tube; lubrication is not required
- Pump tubes and pump heads interchange between models
- Models (Santoprene® only) tested by Water Quality Association
to conform to ANSI/NSF STD 61
- Adjustable models (Santoprene® only) tested by ETL to conform
to ANSI/NSF STD 50

H.E.Anderson COMPANY

www.heanderson.com



J-Plus Series Ratio:Feeder® Ideal for the professional grower who wants to simplify their injection needs. One injector can be configured for multiple chemicals, all at different ratios.

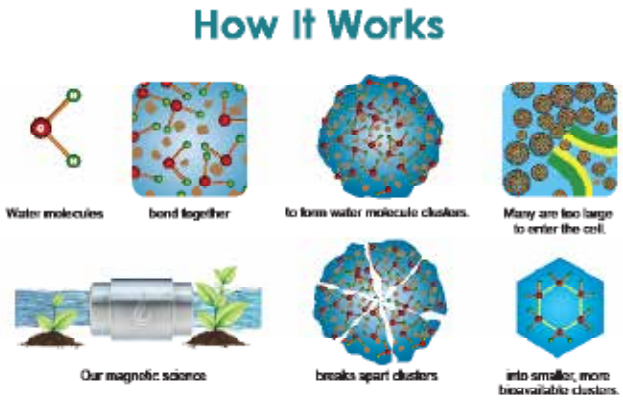
Features:

- Exact and accurate mixing and injecting
- Expandable from one to several solutions
- Positive displacement and volume proportioning
- Digital display panel
- Completely automatic
- Fine filter not required
- Very accurate feed, does not degrade with age
- Adjustable feed rate without recalibration
- ¼ to 3000 GPM flow capacities available
- Virtually no maintenance needed

Anderson J-Plus Series chemical injector packages contain the following items: J-Plus Controller, Water Meter, Pumper Manifold, Pumper (s), and Blend Tank. Packages listed below. Please contact your salesperson for custom systems to meet any specification required.

ITEM #	DESCRIPTION	PRICE
JP51-2	50 GPM - 1:100 RATIO PACKAGE	***Please contact your TRICKL-EEZ Irrigation rep for more information and pricing***
JP52-1	50 GPM - 1:200 RATIO PACKAGE	
JP102-2	100 GPM – 1:200 RATIO PACKAGE	
JP101-3	100 GPM – 1:100 RATIO PACKAGE	
JP162-2	160 GPM – 1:200 RATIO PACKAGE	
JP161-4	160 GPM – 1:100 RATIO PACKAGE	

Maximum H_2O



Improve the productivity of ANY water with magnetic science. Our systems utilize Nano science to reorganize water at the molecular level, revitalizing it, making it more bio-available and productive.

We work with municipalities, farms, golf courses, parks and homes throughout North America. Converting any water into an extremely effective delivery mechanism. Achieving superior hydration using less water, while delivering more oxygen and nutrients. Resulting in heathier soil, plants, and animals, producing greater yields naturally without electricity, chemicals, or additives.

Treats:

- Water Hardness – Calcium Magnesium (CaMg)
- Hydrogen Sulfide – (rotten egg smell)
- SAR's (Sodium Absorption ratio)
- Calcium Carbonate (CaCO3)
- Bicarbonates (HCO3)
- Acidity (pH)
- Iron Bacteria
- Boron toxicity

Addressing issues:

Poor water quality
Limited water supply
Unproductive / hydrophobic soil
Mineral Scale Buildup

Available in sizes ranging from ¾" to 16" pipe diameters. Please call for details.

Size	TE#	Price
1.00"	H2OM-1-PVC-NFF	CALL
1.50"	H2OM-1.5-PVCNFF	CALL
2.00"	H2OM-2-PVC-NFF	CALL

MixRite™

AGRICULTURE | GREENHOUSE | LANDSCAPE

DEMA®

How does it work?

- Water driven, non-electric
- Piston driven by water flow
- Solution is added in proportion to water flow for accurate mixing
- Solution constantly added as water flows through unit
- Ratio of additive remains constant
- Manual on/off; Optional Hydraulic on/off or Electric on/off
- Other additive flow rates available

	MixRite 571CW	MixRite TF5.002	MixRite TF10.002	MixRite TF25.002
Dosage Rate	0.3% - 2%	0.2% - 2%	0.2% - 2%	0.3% - 2.5%
ON OFF System	No [Air Release]	Yes	Yes	Yes
Material	Nylon	Nylon	Nylon	Nylon
Thread Type	Threaded	Threaded	Threaded	Threaded
Coupling	3/4"	1.00"	1.50"	2.00"
Dimensions	22" x 7.27"	10.6" x 21.0"	13.3" x 24.3"	13.3" x 33.6"
Flow Rate Range	0.04 to 11 gpm	0.08 to 22 gpm	2.00 to 45.0 gpm	9.00 to 110.0 gpm
Min Injection per Hour	0.16 gph	0.1 gph	0.26 gph	1.06 gph
Max Injection per Hour	13.22 gph	26.5 gph	53.00 gph	165.4 gph
Water Pressure	2.9 to 120 psi	14.7 to 120 psi	14.7 to 120 psi	14.7 to 120 psi
Min Pressure Loss	0.1	0.45	0.45	2.9
Max Pressure Loss	0.85	9.5	10.15	20.3
Chemical Resistance	Standard	Standard	Standard	Standard
With Legs	No	No	Optional	Yes
Foot Valve	Optional	Optional	Optional	Optional
Weight	4.22 pounds	13.2 pounds	16.3 pounds	34.2 pounds

TE#	MixRite #	Description	Price
MixRite Injectors			
571CW-ON/OFF	571CW	11 gpm Unit	446.25
TF5.002ON/OFF	TF5.002	22 gpm Unit	656.50
TF10.002ON/OFF	TF10.002	45 gpm Unit	1004.25
TF25.002ON/OFF	TF25.002	110 gpm Unit	2354.40

Dosmatic's SuperDos injectors are perfect for injecting chemicals at medium flow! These models are available in 2.5%. They handle flow rates between 0.03 – 45 gpm.

Some of the features and benefits include:

- Non-electric, water-driven
- Proportional
- Externally adjustable
- Easy to use and maintain
- Reliable
- Available as a mobile unit
- Corrosion resistant
- Accurate dosage rates
- Economical
- Chemicals do not enter the motor
- On/Off switch

The SuperDos is compatible with most chemicals and easy to install and maintain. Excellent for medium flow applications, this model is able to withstand a variety of chemicals. Dosmatic's outside ratio adjustment allows users to vary solution proportions even while the injector is in operation. The NEW On/Off Switch allows the user to discontinue the chemical injection by turning the switch to the off position, effectively letting water pass through.

Specifications:	**MiniDos-2.5%**	**SuperDos30-2.5%**	**SuperDos45-2.5%**
Maximum operating flow	12 gpm	30 gpm	45 gpm
Minimum operating flow	0.03 gpm	0.15 gpm	0.50 gpm
Min/Max operating press.	6-140 psi	5-100 psi	5-100 psi
Ratios available	1:40 to 1:200	1:40 to 1:500	1:40 to 1:500
Pipe size	¾" npt	1"npt	1¼" npt

TE#	DOS#	Description	Price
DOSMATIC USA INC.			
MINIDOS-2.5	112602	12 gpm Unit	586.10
SD30-2.5	113209W	30 gpm Unit	736.50
SD45-2.5	113212	45 gpm Unit	1135.65

FERTIGATION BY AMIAD

Fertilizer and Chemical Proportioning Injector

The Fertilizer and Chemical Injector needs no external power supply. Its linear hydraulic motor is powered by the hydraulic pressure of the irrigation system.

Technical Specifications:

- Injection Rate — Up to 1.4 gpm
- Minimum Pressure — 7 psi
- Maximum Pressure — 115 psi
- Water Consumption — 3 times the qty of chemical injected.

Total Quantity Injected

This is controlled in one of four ways:

- Supplied with an automatic cut-out which operates when the fertilizer level drops below the base of suction head.
- Water metering valve may be inserted in the drive water line following the hand control valve.
- By manually operating the cut-out.
- Using a hydraulic cut-out instead of an automatic cut-out unit.

Flow Regulators

Available as optional extras - a wide range of extremely accurate chemical resistant flow regulators. The complete regulator assembly contains an interchangeable color coded Flow Regulator and is easily inserted between the two parts of the plastic union coupler in the chemical injection line.

TE#	Amiad#	Description	Price
AMD-610	4-01	Suction Type Injector	924.00

Power Flush

Having quality drip tape and/or micro jet systems is great, until they become plugged with biologicals and minerals. Then both your crops and your profits can suffer.

Di-Oxy Flush™ from FLO-TEC™ is a new, optimized water treatment infusion product that goes right to the site of the blockage in your tape or emitters and clears them quickly and safely.

Environmentally Friendly. Unlike chlorine and acid-based products, Di-Oxy Flush™ is friendly to the environment. It is easy on drip systems and plants, and can help extend the effective life of your irrigation system.

Di-Oxy Flush™ is injected at recommended feed rates and then allowed to sit for two to eight hours, before going to a post-treatment flush cycle. After the flush cycle, your system should be restored to open operation. In addition, Di-Oxy Flush can also be used as a well flush for those wells heavily contaminated with biological growth.

FLO-TEC™ employs a scientific approach to the proper treatment of your specific irrigation requirements. In order to custom tailor a solution to your water delivery issues it's important to test a sample of your water for content, minerals and biologicals.

Take advantage of our service by calling us and requesting a FLO-TEC™ Water Sample Test kit. The results will enable us to provide the most efficient and cost-effective means to keep your lines, emitters, tape and heads clean and functioning optimally … best for your crops and your bottom line!

Matrix2

Matrix2 controls plugging in low volume irrigation systems in a cost-effective formula that reduces plugged drip tape, fouled valves and plugged emitters.

It employs fifth generation quaternary amines and phosphonates, which combine to make your irrigation system suitable for condition for optimal flow.

The ingredients provide the latest in surface reduction technology and prevent biological material from being able to adhere to the inside of most any irrigation system.

Additionally, this state-of-the-art product improves crop yield through proper irrigation and by ensuring uniform distribution of fertigation to plants.

Employed at a low usage rate, Matrix2 can be used with other irrigation additives. Ultimately, it will keep your drip tape and tube clog- free all season.

Matrix2 Features:
- Highly concentrated, stabilized liquid resulting in more convenient handling and greater shipping savings
- Safe and convenient liquid handling, not labeled as hazardous, unlike many other irrigation treatment amendments
- Available and ready to use in 5, 30 and 55-gallon sizes at a competitive price
- FLO-TEC employs a scientific approach to the proper treatment of your specific irrigation requirements.

In order to custom tailor a solution to your water delivery issues it's important to test a sample of your water for content, minerals, and biologicals. Take advantage of our service by calling us and requesting a FLO-TEC Water Sample Test kit.

Test Your Irrigation Water

To best maintain your irrigation system and ensure the vitality of your crops, you need to know what is in your water and the best way to maximize flow.

FLO-TEC™ can test your water and provide specific recommendations to clear and control both mineral and bacterial issues.

Call Customer Service at FLO-TEC™ to make arrangements for your Water Sample Test Kit!

800-335-6832

TE Number	Description	Size	Price
MATII05	Matrix II	5 gall	CALL
MATII30	Matrix II	30 gall	CALL
MATII55	Matrix II	55 gall	CALL
PF29	Power Flush	29 gall	CALL
PF53	Power Flush	53 gall	CALL

TRICKL-EEZ Irrigation does not stock these products.
Any orders will be shipped direct to your farm from Flo-Tec.

REGAL GAS CHLORINATOR

Chlorinators Incorporated & Regal Systems International manufacture devices for the safe, economical and reliable use of chlorine gas in a variety of applications.

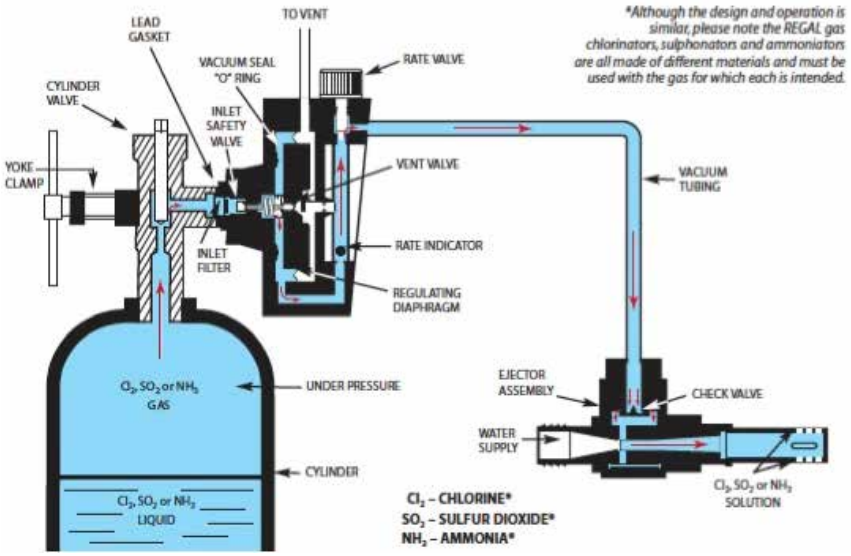
Used world-wide for municipal water treatment and wastewater treatment, REGAL products have a wide range of industrial, commercial and agricultural applications, and allow the use of chlorine gas, which is the most economical method of disinfection, without sacrificing safety or reliability.

Because of our quality products and famous support, REGAL is the foremost manufacturer of water treatment equipment in the world.

Direct-mount . . . the all vacuum REGAL gas chlorinator is the safest, most reliable way to be sure your water is bacteria free.

Simple . . . the REGAL's simple design (only 68 parts!) means faster servicing, less downtime, longer life, lower operating costs.

Capacities Available: 1.5, 4, 10, 25, 50, 100, 250, 500, 1000, and 2000 PPD.



AGRI-INJECT

Turn your irrigation system into the most effective, economical farm chemical applicators around with an Agri-Inject chemigation or fertigation system. Each Agri-Inject system comes as a complete unit, ready to install and operate. Our basic systems can be used to apply a broad spectrum of liquid fertilizer and chemical products to a wide array of crops... and it adapts to virtually any irrigation system. Chemigation has been praised around the world for the crop production benefits it offers. Now you can put chemigation to work on your farm quickly and easily with one of our standard chemigation systems

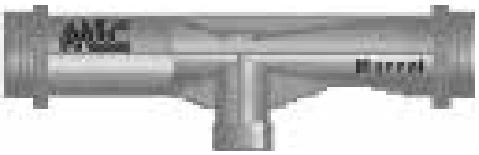
Our complete chemigation systems include all the hoses, valves and fittings you need to get up and running quickly and easily. Included with our chemigation systems is the Mister Mist'r™ injection valve with four-way release which delivers accurate amounts of concentrate right into the middle of the water supply line. The Mister Mist'r™ valve is also a check valve... preventing unwanted leakage or backflow contamination. Our versatile bleeder/needle valve assembly adds even more convenience, control and safety to the injection process.

Our large capacity chemigation systems offer increased flexibility in handling large amounts of products such as gypsum, ground limestone, potassium sulfate and other soluble compounds and slurried organic products. For more information regarding our standard chemigation units, please contact us.

Setting the standard for efficiency

mazzei injector corporation

FERTILIZER INJECTORS



EFFICIENT: Requires only 18% high/low differential pressure relationship to initiate a vacuum at the suction port. Approximately 50% or greater pressure differential will provide maximum injection capacity. Water powered: No external gas or electric power needed for most installations.

WATER POWERED: No external gas or electric power needed for most installations. Requires only 20% high/ low differential pressure relationship to initiate a vacuum at the suction port.

RELIABLE: No moving parts. Constructed of high quality thermoplastic with superior strength, high temperature capability and resistant to most chemicals.

VERSATILE: Suitable for applications in: Agricultural Irrigation Systems, Industrial & Commercial Water Treatment, Spray Systems, Pools & Spas. Injects fertilizers, pesticides, water conditioners (acids or alkalies), cleaning agents (chlorine, sulfuric acid, detergents), and many other industrial chemicals and gases.

MODEL 584 MAZZEI INJECTOR
INJECTION CAPACITY TO 25 GPH.
Inlet & Outlet: 3/4" MNPT
Suction Port: ¼" MNPTand ¼" Hose Shank.
Length: 5.9 inches
Uses Injector Kit Assembly #K-184B

MODEL 1078 MAZZEI INJECTOR
INJECTION CAPACITY TO 75 GPH
Inlet & Outlet: 1" MNPT
Suction Port: ½" MNPT & 3/8" Hose Shank
Length: 9 inches
Uses Injector Kit Assembly #K-181A

MODEL 1583 MAZZEI INJECTOR
INJECTION CAPACITY TO 180 GPH
Inlet & Outlet: 1½" MNPT
Suction Port: ½" MNPT & ½" Hose Shank
Length: 11.1 inches
Uses Injector Kit Assembly #K-183A

MODEL 2081-A MAZZEI INJECTOR
INJECTION CAPACITY TO 500 GPH
Inlet & Outlet: 2" MNPT
Suction Port: 1¼" MNPT
Length: 11.7 inches
Uses Injector Kit Assembly #K-282A

The following information and calculations are required to determine the proper size and model of Mazzei injector for liquid fertilizer injection.

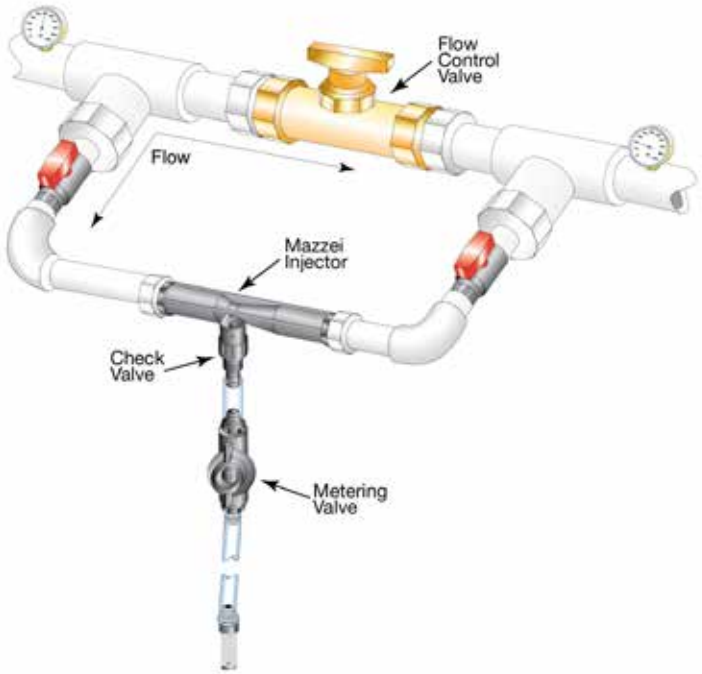
1. Determine total water flow (gpm): _____gpm
2. Determine rate of injection required (gph): _____gph
3. Determine pressure differntial across injector:
   a. System or pump pressure at inlet (psi) _____psi
   b. Pressure (back pressure) at outlet of injector (psi) _____psi
   c. Available pressure differential (3a-3b) (psi) _____psi
   d. Percentage pressure differential [(3c/3a)x(100)] _____%
4. Determine installation method:
   a. If the pressure differential (3d above) is 20% or greater, the injector can be utilized without a booster pump.
   b. If the pressure differential (3d above) is less than 20%, the injector must be installed in series with a booster pump.

TE#	Description	Price
584-PP	25 gph Unit	59.00
1078-02-PP	70 gph Unit	96.50
1583A-PP	180 gph Unit	121.20
2081A-PP	500 gph Unit	166.60
K184-B	Kit for #584	178.00
K181-A-02	Kit for #1078	230.00
K183-A	Kit for #1583	236.00
K282-A	Kit for #2081-A	433.50

INJECTOR PERFORMANCE TABLE

Operating Pressure		Model 584 - ¾"		Model 1078 - 1"		Model 1583 - 1½"		Model 2081 - 2"	
Injector Inlet (PSI)	Injector Outlet (PSI)	Motive Flow GPM	Liquid Suction GPH	Motive Flow GPM	Liquid Suction GPH	Motive Flow GPM	Liquid Suction GPH	Motive Flow GPM	Liquid Suction GPH
20	0	4.3	26	11.9	80	23.9	180	72.0	510
	5	4.2	23	11.9	75	22.9	170	72.0	510
	10	4.0	13	11.0	50	21.6	120	72.0	500
	12	3.9	9	10.7	37	21.1	95	66.5	330
	15	3.8	2	10.4	20	20.4	45	63.6	160
30	0-5	5.2	26	13.8	75	27.6	180	83.0	505
	10	5.0	23	13.8	75	27.0	172	83.0	505
	15	4.8	18	13.3	60	26.1	135	82.0	460
	20	4.6	9	12.8	38	25.3	85	78.0	300
	25	4.5	0	12.3	0	24.5	0	75.5	40
40	0-10	5.8	25	15.6	75	31.1	180	92	500
	15	5.7	25	15.6	75	30.7	180	92	500
	20	5.5	20	15.3	72	30.1	160	91	500
	25	5.4	13	15.0	52	30.0	105	89	405
	30	5.3	5	14.5	30	28.6	45	87	240
50	0-15	6.4	25	17.1	75	34.2	180	101	500
	20	6.3	25	17.1	75	34.0	180	101	500
	25	6.2	24	17.0	75	33.6	175	101	500
	30	6.1	19	16.9	66	33.0	140	99	410
	35	6.0	11	16.6	47	32.3	90	97	305
	40	5.9	2	16.1	16	31.7	15	95	55
60	0-30	6.9	25	18.5	75	37.0	180	111	500
	35	6.7	20	18.4	72	36.6	162	110	440
	40	6.6	15	18.2	60	35.8	125	109	410
	45	6.5	7	17.7	35	35.0	65	107	200
70	0-35	7.4	25	19.8	75	40.5	180	120	500
	40	7.3	23	19.7	70	40.0	165	120	500
	45	7.2	17	19.5	60	39.4	135	119	480
	50	7.1	11	19.3	40	38.8	85	117	370
	55	7.0	4	19.1	20	38.1	20	114	120
80	0-40	7.8	25	21.7	75	43.0	180	128	500
	45	7.7	24	21.7	75	42.8	175	128	500
	50	7.6	20	21.4	71	42.5	150	128	500
	55	7.5	14	21.2	61	42.0	125	127	460
	60	7.4	8	21.0	42	41.5	65	124	320
	65	7.3	1	20.7	13	41.0	15	123	110
100	0-60	8.9	25	24.3	75	48.0	180	144	500
	65	8.8	22	24.2	75	47.7	165	144	500
	70	8.7	16	24.0	65	47.0	135	143	470
	75	8.6	12	23.8	55	46.5	90	142	340
	80	8.5	4	23.4	30	46.0	35	140	180

Typical Installations for Irrigation Systems



Mazzei Injectors require differential pressure to create suction. The injector's outlet pressure (backpressure) must be sufficiently lower than the inlet pressure. For most models, significant suction occurs with 25-30% pressure differential.

Mazzei Injectors can be installed with the main body in a horizontal position or vertically with the outlet up. The injector suction port can be oriented in any position.

To insure consistent suction, the outlet side of the injector should be flooded or have some restriction downstream (backpressure).

Always use full flow isolation valves and non-restrictive fittings when connecting to the injector. These valves and fittings should be at least the same size as the inlet/outlet connections of the injector. Isolation valves are optional, but recommended.

Do not over-tighten the injector when attaching piping and fittings. The use of an appropriate thread sealant is recommended.

Install pressure gauges near the inlet and outlet of the injector to monitor operating conditions.

Diagram:

The injector is installed around a point of restriction, such as a regulator valve or a gate/ball valve. These create a differential pressure across the injector, thereby allowing the injector to produce a vacuum and draw in material.

Achieve Maximum Yields with Stoller

Growers face continual growing challenges — extreme temperatures, drought, flower or fruit loss, salty or sandy soils and more. Stoller experts view these conditions as opportunities for continued innovation and the advancement of Stoller technology. We are the leading provider of yield-enhancing solutions for both U.S. and global crop production challenges. Our experts utilize Stoller technology, biostimulants, micronutrients and advanced understanding of crop physiology to help farmers maximize their yield potential.

Plant Performance

Stoller was founded in Houston, Texas, with the objective of developing innovative solutions to increase the productivity of plants. Stoller is now the world leader in development and sales of crop health and plant perfomance products including biostimulants, micronutrients and specialty agricultural products.

AEROMIXER

Stabilizing pH is crucial for happy plants. Aeromixer makes it easy.

Aeromixer is a pump made specifically for growers, by growers, with a dual purpose: to mix nutrients and aerate feeding solutions with just one pump. Aeromixer makes feeding large and smaller gardens a breeze and reduces the need for air stones, air pumps, and pH up and down additives.

No wasted nutrients
Ensure that all of the money you spend on fertilizers and nutrients go directly where you want them. Never leave precious nutrients sitting at the bottom of your feed tank again! Get them evenly spread to all your garden for bigger yields and no more waste!

All in one
Mix and aerate with one pump. Stop breaking up floating nutrients and unclogging cheap sump pumps. Spend that time thinning, trellising, and caring for your plants. Work in your garden not in your fertilizer tank!

Technical specifications

- 3/4 horsepower motor
- Pumps at up to a 35 ft. lift
- Easily mixes tanks from 50-500 gallons
- Output Power: 3/4 HP
- Max Submersion Depth: 17 ft.
- Patented Aerojet Technology
- Moves 4,450 gallons per hour
- 8Effective in tanks up to 3,000 gallons
- Motor Full Load: 6.2A
- Max Conveying Amount: 4450 GPH
- Pulls 6.2 amps
- Pumps up to 1/4 inch solids
- Nominal Voltage: 115V/60HZ
- Max Height: 40 ft.

TE#	Description	Price
AERO20-100	Mixer for tanks under 3' tall	249.00
AERO50-3000	Mixer for tanks 3' to 5' tall	279.00
AERO50-3000TT	Mixer for tanks over 5' tall	289.00
AERO-B16A	AeroBrewer All-In-One Controller	79.00

EnviroMonitor®

Davis

MEASURE • MONITOR • MANAGE

EnviroMonitor, from Davis Instruments, has been engineered from the ground up to meet the needs of today's data-driven world. EnviroMonitor helps you measure, monitor and manage a wide range of environmental conditions.

EnviroMonitor is more than a weather station. It is a powerful, expandable, and surprisingly affordable mesh network. Supporting dozens of sensors from Davis and other leading sensor manufacturers – and this number will continue to grow.

Designed for flexibility, scalability, and mobile access, EnviroMonitor can be installed on a small farm or scaled to cover thousands of acres.

Supported sensor types:

GroWeather®
- Temperature
- Humidity
- Dew Point
- Wind Speed
- Wind Direction
- Rainfall
- Rain Rate
- Solar Radiation
- Evapotranspiration

Barometric Pressure is measured in the Gateway

- Temperature
- Wind Speed/Direction
- Rainfall
- Pressure Transducers
- Pressure Switches
- Soil Moisture
- Temperature/Humidity
- Solar Radiation
- Leaf Wetness
- Flow Meters
- Water Level
- Soil Salinity
- Soil Temperature

Advanced Tank TECHNOLOGIES

Cone Bottom Tanks are selected when a more complete drain out of stored chemical is required in indoor or outdoor installations. Tanks require stands to support the conical bottoms. Tanks are manufactured from medium- or high-density polyethylene with U.V. inhibitors. Tank walls are translucent for level viewing and equipped with gallon indicators. Up to 8,250 gallons.

Vertical Bulk Storage Tanks (dome top) are free standing with a flat bottom for indoor or outdoor installations. Ace Roto-Mold Vertical Storage Tanks conform to the requirements of NSF/ANSI Standard 61. Vertical Storage Tanks are manufactured from medium- or high-density polyethylene with U.V. inhibitors. The walls of our Vertical Storage Tanks are translucent for level viewing and equipped with gallon indicators. From 20 - 10,500 gallons.

Please contact your TRICKL-EEZ Irrigation rep for more information and pricing

Acid treatment of a drip system.

- Acids are dangerous chemicals: read all safety instructions before working with it and applying it to the water.
- The acid must be added to the water and not visa versa!
- The objective is to dissolve and decompose chemical sediments like carbonates, phosphates and hydroxide scales attached to the pipe and deposited in the drippers.
- Type of acid and concentration: the level of acid concentration in the irrigation water depends on the acid type, the percentage and its valence.

The acid type and percentage		Recommended concentration in the treated water
Hydrochloric	33 %	0.6 %
Phosphoric	85 %	0.6 %
Nitric Acid	60 %	0.6 %
Sulfuric Acid	66 %	0.6 %

If your acid is Sulfuric 98% you have to adjust the concentration in the water to (65 * 0.6) / 98% = 0.4 %

Application:

Rinse the system so that water without additives fill the system. Make sure the injection pump is capable of injecting the acid concentration. Pressurize and run the system, than inject acid for a time of 12-15 minutes. Stop the acid injection and run the system for another 30 minutes.

Calculation of Acid Quantity:

Assume that the flow rate of the system is 100 gpm, injecting acid at the rate of 0.6% means that the injection rate is 0.6 gpm. The injection time is 15 minutes and the total amount of acid required is 15 min x 0.6 gpm = 9.0 Gallons.

Flushing the system:

After running the system for 30 minutes without acid the header line and dripperlines should be flushed out. The header line for a short period of time like 10-15 seconds. Dripperlines are flushed by opening no more than 1/3 of the lines in a zone at the same time, so that the pressure in the system doesn't drop too much. Flush for a minimum of one (1) minute till the water is free from particles and has become clear. Longer lines may require more time it all depends on the size of the pipe and the velocity of the water in the pipe. If the pressure seems to drop too much flush only 5 lines at the time. Close the flushing lines and open the next five or ten lines.

Johan Oostenbrink • Netafim USA

T-Facts: How to handle high concentrations of iron in a T-Tape System

Iron in groundwater is often dissolved and will remain dissolved as the water is held at groundwater temperatures, pH, and pressure. After being pumped to the surface and distributed throughout a drip irrigation system, the water temperature, pH, and pressure may change, often causing the dissolved iron to precipitate from the water into a solid form, which appears as "rust". It is this precipitated iron that can physically clog emitters.

There is also a type of bacteria that "feeds" on dissolved iron. These bacteria secrete a slime called ochre that can combine with other solids and plug drip tubing and emitters. Chlorination is an effective treatment for both these types of plugging. Treating water with chlorine will cause the iron to precipitate out so that it can be filtered and removed from the system. Below are some tips to effective chlorination.

- Treatment should take place upstream of the filters; this allows the precipitated iron to be filtered out.
- 1 ppm of chlorine (either as sodium hypochlorite, a solid form or calcium hypochlorite a liquid form) is needed for every 1 ppm of iron. This will require the water to be tested by a certified lab to determine the amount of iron present.
- Chlorine should be injected continually. Adequate mixing is essential, for this reason chlorine injectors should be installed 50-100 feet upstream of the filters. An elbow between the injector and the filter will also help insure adequate mixing.

Required chlorine stock solution injection rate (ounces/hour) for:
positive displacement pumps.

Conc. of stock solution % chlorine	Desired irrigation water treatment level (ppm)					
	1	2	3	4	5	10
	oz/hour of injection per 100 gallon/min of irrig flow rate					
5.25	15	29	44	59	73	146
10	8	15	23	31	39	77
12.5	6	12	18	25	31	61
15	5	10	15	20	26	51
20	4	8	12	15	19	38

Required chlorine stock solution injection rate (ppm) for:
proportional injectors.

Conc. of stock solution % chlorine	Desired irrigation water treatment level (ppm)					
	oz/hour of injection per 100 gallon/min of irrig flow rate					
	1	2	3	4	5	10
5.25	19	38	57	76	95	190
10	10	20	30	40	50	100
12.5	8	16	24	32	40	80
15	7	13	20	27	33	67
20	5	10	15	20	25	50

Keith A. Patterson • District Sales Manager • T-Systems International, Inc.

Using Acid to Clean Up Iron In a Drip System

Amount to inject into the system is determined by the severity of the iron problem.

This example has about 3ppm of iron in the water. This is not severe, about a medium problem.

At this level we want to inject acid at a rate of about 1:360.

The acid we recommend is called 66° Sulfuric Acid. This is available through Haviland Chemical Company, probably in 5 gallon containers.

We want to inject the acid into the system for 1 hour. Then let the system stand idle for a couple of hours, allowing the acid to soak into the built up iron. Then run the system for another hour injecting acid again.

In our example we inject the acid at 1gph to accomplish the ratio of 1:360. We will supply the customer a Blue-White pump model C-15N302X-400V11 (TE# BLW-C15N3T) ordered with a Teflon pump head, a viton diaphragm, and a viton "O" ring. (Note: Standard pump head is polypropelene which is not good with acids. We used to get a PVC pump head, but that is no longer available, so a Teflon head is now required.)

John Nye • President • TRICKL-EEZ Company

Where to purchase some of these chemicals:

Haviland Chemical Company	800-333-0400
Wilbur-Ellis	800-442-9944 or 269-944-1401 (Local in SW Michigan)

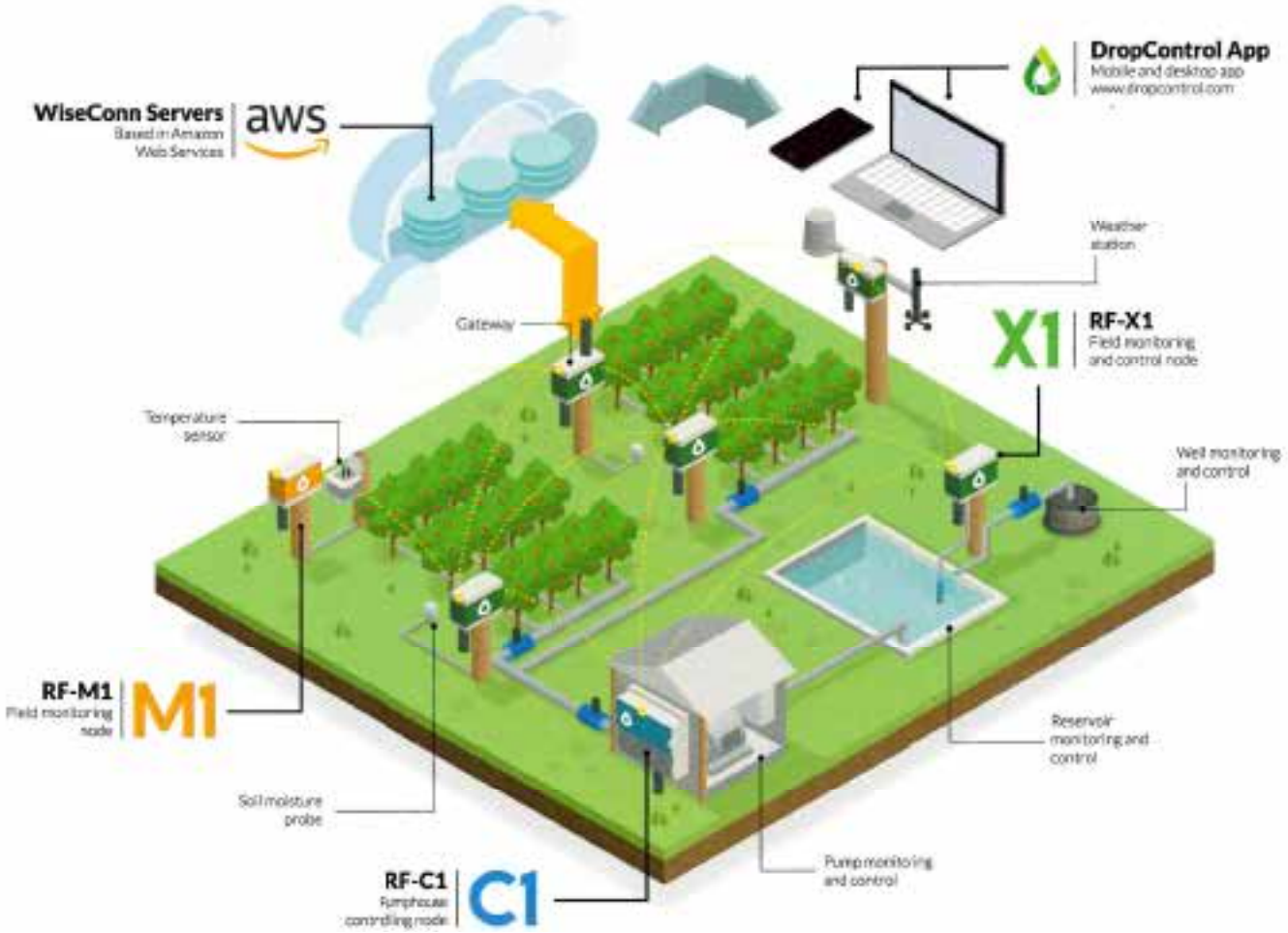
WiseConn®

Wireless monitoring and control platform, accessed through a web-based application. The in-field network is connected to sensors and actuators for weather conditions, soil moisture, pump and valve control, and irrigation data.

We work with irrigation companies who are trained to install and support our hardware. Our in-house support team helps configure the network and tracks its performance to help growers use the system efficiently.

HOW DOES IT WORK?

Nodes communicate with one another to **start or stop irrigation cycles and send feedback data to the Gateway Node, which connects to the central server.** The data is stored securely on the Cloud. The node-based radio network is connected to sensors and actuators in the field to control irrigation and injection systems.



More information can be found at www.wiseconn.com or contact one of our sales representatives at 800-874-2553.

ELECTRIC VALVES

Irritrol®

2400 Series Residential Valves

- 1-25 gpm flow rate
- Patented threaded bonnet assembly allows easy in-line servicing and eliminates screws
- High flow, low friction loss
- Slow and smooth opening and closing
- Highly efficient, totally encapsulated solenoid
- Manual bleed helps prevent valve oscillation
- Patented gear-drive flow control ("F" models only)
- Clean Water Applications Only!

TE#	Irritrol#	Description	Price
2400S	2400S	1" SxS	24.40
2400T	2400T	1" FPTxFPT	24.40
2400T-B	2400T-B	1" FPTxBARB	24.40
2400TF	2400TF	1"w/Flow TxT	26.00

CENTURY SERIES

- Globe or angle configuration
- 150 psi maximum working pressure
- Internal or external bleed
- Glass reinforced nylon body
- Great commercial valve
- Flow control standard on all sizes

TE#	Irritrol#	Description	Price
100P-10	100P-1.0	1" ThxTh	100.35
100P-15	100P-1.5	1½" ThxTh	140.40
100P-20	100P-2.0	2" ThxTh	198.50
100P-30	100P-3.0	3" ThxTh	351.00

ULTRAFLOW VALVES

- The Ultraflow valve is approximately 30% smaller than the typical valve of the same size. The compact size enables them to be installed in smaller valve boxes and in tighter spaces.
- Low pressure loss performance.
- You can size the valve based on gpm requirements rather than pipe size.
- Adjustable flow control
- Manual operation lever with internal bleed
- Filtered control water
- Sealed non-corrosive solenoid
- Compact size

TE#	Irritrol#	Description	Price
700-07	700-.75	¾" ThxTh	43.00
700-10	700-1.0	1" ThxTh	105.40
700-15	700-1.5	1½" ThxTh	147.55
700-20	700-2.0	2" ThxTh	198.50

Pressure Loss in PSI

Valve Model		Flow Rate (GPM) 2	5	10	15	20	30	40	50	60	80	100	120	140	160	180	200
2400	1.00"	-	3.50	4.00	2.97	3.26	6.20	-	-	-	-	-	-	-	-	-	-
100	1.00"	-	-	4.2	-	3.2	4.1	7.2	10.9	-	-	-	-	-	-	-	-
	1.50"	-	-	-	-	-	1.6	2.3	3.6	5.2	9.2	14.4	17.5	-	-	-	-
	2.00"	-	-	-	-	-	-	-	-	-	2.1	3.3	4.8	6.5	8.6	-	-
	3.00"	-	-	-	-	-	-	-	-	-	-	-	-	2.5	3.0	3.2	4.1
700	0.75"	0.38	0.86	1.22	2.03	3.27	6.75	-	-	-	-	-	-	-	-	-	-
	1.00"	1.59	1.80	2.41	2.23	1.84	3.22	5.58	8.59	-	-	-	-	-	-	-	-
	1.50"	-	-	-	0.19	0.36	0.69	1.13	1.49	2.13	3.85	6.06	8.72	11.89	-	-	-
	2.00"	-	-	-	-	-	0.64	0.83	0.98	1.17	2.07	3.06	3.96	5.21	6.50	8.23	10.13

FIVE REASONS TO PUT OMNIREG TO WORK IN YOUR SYSTEM

- Graduated Control Dial
- Ease of Use
- Modular Design
- Quality Construction
- Outstanding Performar

OMNIREG™

OPERATING SPECIFICATIONS

- Flow range: 1 to 300 GPM
- Inlet pressure range: Up to 200 psi
- Pressure regulation: 5 to 30 psi or 5 to 100 psi

Note.. To operate effectively; the OmniReg requires inlet pressure to be a minimum of 10 psi higher than the desired outlet pressure.

Description	Flow Range	PSI	TE#	Irritrol#	Price
OMNIREG30	1-300gpm	0-30	OMR30	OMR-30	87.55
OMNIREG100	1-300gpm	0-100	OMR100	OMR-100	87.55

075-DV & 100-DV Series

Plastic Residential Irrigation Valves

Primary Applications:
Economical irrigation valve for residential and light commercial applications.

Features and Benefits:
- Double-filtered pilot-flow design for maximum reliability.
- Balanced-pressure diaphragm for long life.
- External bleed to manually flush system of dirt and debris during installation and system start-up.
- Internal bleed for spray-free manual operation.
- Energy-efficient, low-power encapsulated solenoid with captured plunger and 90-mesh solenoid filter.
- Buna-N diaphragm with self-cleaning 90 mesh pilot water filter and captive spring.
- Operates in low-flow and Xerigation® applications when the RBY filter is installed upstream.
- 3/4" and 1" standard in-line configuration

Specifications:
- Pressure: 15 to 150 psi
- 075-DV Flow: 0.2 to 22 GPM
- 100-DV Flow: 0.2 to 40 GPM
- Temperature: Up to 110° F
- Ambient air temperature: Up to 125° F
- 24 VAC 50/60 Hz (cycles per second) solenoid power requirement:
- 0.30 A (7.2 VA) inrush current; 0.23 A (5.5 VA) holding current
- Solenoid coil resistance: 38 Ohms

Performance Charts

DV and PGA Series Valve Pressure Loss (psi)

Flow (GPM)	075-DV	100-DV	100PGA	150PGA	200PGA
1	3.2	3.3	4.3	-	-
5	4.2	3.8	5.0	-	-
10	5.0	3.8	5.5	-	-
20	7.7	5.1	5.6	-	-
30	-	6.4	5.5	1.3	-
40	-	8.6	7.5	2.0	1.0
50	-	-	-	3.0	0.9
75	-	-	-	6.5	1.7
100	-	-	-	11.7	3.0

PGA Series Valves

Plastic Residential/Commercial Irrigation Valves

Built for high-end residential and light commercial applications, Rain Bird® PGA series valves are the toughest, most reliable valves in their class. These long-lasting, easy-to-service valves are proven to perform at the highest level, even under harsh temperatures and intense pressure. For maximum peace of mind, PGA series valves also offer a best-in-class, three-year trade warranty. Because you care about your reputation—and so do we.

Extreme Durability
The PGA valve maintains a strong, worry-free seal between the body and bonnet, no matter the conditions. In Thermal Cycle Testing, hundreds of PGA valves were exposed to extreme temperature swings and intense pressures. The result—zero leaks.*

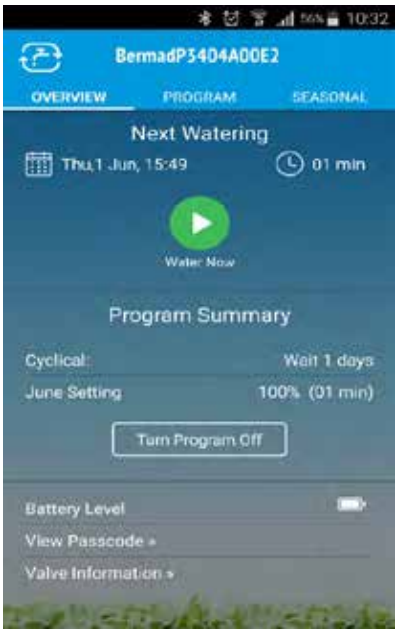
Pressure-Resistant Seal
The PGA valve's body-to-bonnet seal is built to overcome the intense water pressure common on many commercial sites. Faced with repeated pressure surges well into the triple digits, our valves outlasted the nearest competitor more than 2 ½ times to 1 in Cycle Surge Testing.*

Specifications:
- Pressure: 15 to 150 psi
- Flow without PRS-D option: 2 to 150 GPM
- Flow with PRS-D option: 5 to 150 GPM
- Temperature: Up to 110° F

Electrical Specifications:
- 24 VAC 50/60 Hz (cycles per second) solenoid
- Inrush current: 0.41A (9.9VA)
- Holding current: 0.14A (3.43VA)

Model	Description	TE#	Price
075-DV	¾" Valve FPTxFPT	75DV	28.20
100-DV	1" Valve FPTxFPT	100DV	28.20
100PGA	1" Valve FPTxFPT	100PGA	37.20
150PGA	1½" Valve FPTxFPT	150PGA	101.80
200PGA	2" Valve FPTxFPT	200PGA	131.65

NEW!



SMART IRRIGATION CONTROLLER

GreenApp™

- Easy to install, simple to operate
- Install the valve – the controller is already included
- Intuitive – intuitive app provides easy programming Perfect solution for hidden or underground box installation
- Change settings using the app from 30'-90'
- Fully water protected IP68 Durable in all conditions
- Low power consumption. Two standard replaceable 1.5v AA batteries, Bluetooth 4.0 communication require ultra-low energy. Up to three years of continuous operation
- Irrigation cycles control by days and hours
- Irrigation duration from 1 minute to 24 hours
- Weekly and cyclical programming
- Option of naming and managing multiple controllers
- Manual operations
- TRIO 3-position Manual override: Open, Automatic, Close Manual setting of valve maximum flow

Description	TE #	Bermad #	Price
1.00" Battery Operated Valve	IR-1.00	IR-1.00"	171.50
1.50" Battery Operated Valve	IR-1.50	IR-1.50"	211.50
2.00" Battery Operated Valve	IR-2.00	IR-2.00"	220.00
3.00" Battery Operated Valve	IR-3.00	IR-3.00"	418.10

Computerized Control Systems
The Science of Solutions

7101BT Bluetooth Single Station Controller with Integrated Inline Valve

Features:

- Program and manual operation of the controller from your Smartphone or Tablet with the use of the free App (Android and iOS)
- The controllers communicate with your device using Bluetooth 4.0
- Manage one to many valves from a single app with the ability to name each valve, capture an image
- Available in 1.50″ valves with DC latching solenoid
- Completely waterproof (IP68)
- Pressure range 8 - 145 PSI
- Only one 9V alkaline battery required
- Irrigation duration from 1 minute to 12 hours

Description	TE#	Galcon#	Price
1.50" Battery Operated Valve	GAR6S2332BT	7101BT-1.50"	227.00

TORO Ag Irrigation

Evolution® AG Series Controller

Irrigation and Fertigation Controller For Agriculture & Horticulture

Introducing a simple, intuitive and economical controller that gives agricultural and horticultural growers the features they need now! The **EVOLUTION® AG**, built on the award-winning Evolution platform, allows for modular expansion, fertilizer injection, pulse irrigation, propagation and misting schedules, along with the freedom to program valves to your specific needs: ***from 1 second to 24 hours***. Full Toro Support for programming questions: Please Call 877-345-8676 or email Tech.Support@toro.com

•Program valve runtime from 1 second to 24 hours
•Operate up to 4 valves at one time
•Manage 2 Fertilizer pumps
•Wireless Valve Remote Control with 1,000 ft. range

Specifications

Power: 120 VAC

Dimensions: 11¼" W x 7¾" H x 4¼" D

Weight: 4½ lbs

Number of Stations: 4 to 16 stations with 4- and 12-station hot-swappable modules

Number of Programs: 3

Number of Start Times: 4

Run Time: 1 second to 24 hours

Programming Options: Fertilizer Programming; Pulse Irrigation; Misting & Propogation (Looping)

Surge Protection: Output: 6.0 KV common, 3.5 KV normal; Input: 7.0 KV common,

Description	TE #	Toro #	Price
4 Valve Base Controller	EVO-4AG	EVO-4AG	385.30
4 Valve Expansion Module	A-EMOD-4	A-EMOD-4	53.65
12 Valve Expansion Module	A-EMOD-12	A-EMOD-12	179.85
Pump Start Relay	SR-1	A-SR-1	157.85
Wireless Weather Station	A-EVO-WS	A-EVO-WS	95.70
Wireless Soil Sensor Probe	A-PSS-SEN	A-PSS-SEN	107.25
Smart Connect Plug-In Receiver	A-EVO-SC	A-EVO-SC	106.45
Wireless Handheld Remote	A-EVO-HH	A-EVO-HH	96.55
Wirelsee Auxilliary Relay	A-EVO-AR	A-EVO-AR	152.65

Irritrol®

TOTAL CONTROL

FEATURES

Flexible Programming
- Four independent programs concurrent operation capability
- 7 day calendar, odd/even day or interval options of 1-30 days
- Excluded day option, when used with the odd/ even day option, allows selection of specific day(s) not to water
- Station run times of 1 min to 10 hours in 1-minute increments
- Sixteen total start times
- Start time stacking within each program
- Water budgeting feature changes from 10% to 200%

Quality Enhancements
- Self-diagnostic circuit breaker identifies and overrides an electrical malfunction of a valve
- Optimum two-stage primary and secondary surge protection
- Non-volatile memory holds program through power failures

STATIONS
- 6, 9, 12, 15, 18, and 24 station models (outdoor/ indoor)

ELECTRICAL SPECIFICATIONS
- Electronic circuit breaker: 1.25 minimum amps holding
- Maximum output per station: 12 VA, .5 amp
- Maximum output to valves: 24 VA, 1.25 amps
- Power failure backup accepts 9-volt alkaline battery

RAIN DIAL Series Hybrid

FEATURES
- Three independent programs
- 365 day calendar w/ auto weekday calculation for odd/even
- Station run times from 1-59 minutes in 1-minute increments or 1- 5.9 hours in .1-hour (6 min.) increments
- Three start times per program for up to 9 total
- Water budgeting option for each program (0% to 200%)

Quality Enhancements
- Electronic circuit breaker overrides malfunction of a valve
- Non-Volatile memory retains program during power failures

STATIONS
- 6, 9 and 12 station models (outdoor/indoor)

DIMENSIONS

Outdoor:	Height: 7¾”	Width: 10¾”	Depth: 4"
Indoor:	Height: 7¾”	Width: 7"	Depth: 3¾”

ELECTRICAL SPECIFICATIONS
- Transformer input: 120vac, 60 Hz
- Transformer output: 24vac, 1.25 amps
- Maximum output per station: 24vac, .5 amp
- Maximum total output to valves: 24vac, 1.0 amp (including master valve)
- Battery backup: 9-volt alkaline (not included)

TE#	Irritrol#	Description		Price
		TOTAL CONTROL		
TC6IN	TC-6IN-B	6 Zone	Indoor	385.60
TC6EX	TC-6EX-B	6 Zone	Outdoor	439.20
TC9IN	TC-9IN-B	9 Zone	Indoor	548.00
TC9EX	TC-9EX-B	9 Zone	Outdoor	536.80
TC12IN	TC-12IN-B	12 Zone	Indoor	576.00
TC12EX	TC-12EX-B	12 Zone	Outdoor	576.00
TC15EX	TC-15EX-B	15 Zone	Outdoor	670.40
TC18EX	TC-18EX-B	18 Zone	Outdoor	811.20
TC24EX	TC-24EX-B	24 Zone	Outdoor	1030.40
		RAIN DIAL		
RD600INT	RD600-INT	6 Zone	Indoor	23760
RD600EXT	RD600-EXT	6 Zone	Outdoor	271.20
RD900INT	RD900-INT	9 Zone	Indoor	358.40
RD900EXT	RD900-EXT	9 Zone	Outdoor	380.80
RD1200INT	RD1200-INT	12 Zone	Indoor	509.60
RD1200EXT	RD1200-EXT	12 Zone	Outdoor	524.00

Irritrol®

KwikDial Series Controllers

APPLICATIONS

• 4 and 6 Stations Residential Indoor

FEATURES AND BENEFITS

• Three independent programs
• Multiple watering day options
• Self-diagnostic, electronic circuit breaker

ELECTRICAL SPECIFICATIONS

• Transformer input: 120 V ac, 60HZ
• Transformer output: 24 V ac, .830 amps
• Maximum output per station: 24 V ac, .4 amp
• Maximum total output: 24 V ac, .8 amp
• Capacity: One station valve plus a master valve (or 24 V ac pump start relay) on at a time

DIMENSIONS: Height: 8-7/16" Width: 6-1/8" Depth: 3"

TE#	Irritrol#	Description		Price
KD4-INT	KD4-INT	4 Zone	Indoor	120.80
KD6-INT	KD6-INT	6 Zone	Indoor	134.10

SMRT LOGIC®

CLOUD BASED HUB

A SMRTSCAPE.COM™ DEVICE

SMRT Logic® is the connected solution for your outdoor space. When used in conjunction with a Climate Logic® Wireless Weather Sensing System (CL-100-WIRELESS) or CRR Series Mini Remote Receiver (CL-MR), it provides app-based control to the industry-leading lineup of controllers from Irritrol®. Simply plug the SMRT Logic into an available router port for network access and pair devices on the SMRTscape website. Experience up to 3 times the range of traditional Wi-Fi controllers along with added security and convenience features. Access irrigation, lighting, water features and pumps from a single interface through the same controller you have owned for years. All this and an industry-leading 5-year warranty make SMRT Logic the **ALL-PRO** solution for everyone.

TORO Ag Irrigation

DDC™WP Series Controller

Looking for a rugged waterproof controller ideal for remote or isolated installations? Toro's DDC™WP Series controller provides all that and more. Using the new potted DC latching solenoid, the DDC™WP is battery-operated using two 9V batteries.

• 2 or 4 station models

• Three independent programs

• Three start times per program

• Unique power feature that verifies sufficient power to turn off valves before turning on

TE#	Toro #	Description	Price
DDCWP-2-9V	DDCWP-2-9V	2 Station Controller	197.65
DDCWP-4-9V	DDCWP-4-9V	4 Station Controller	232.30
DCL	DCL	DC Latching Solenoid	46.40

Maximum wire length between DDC-WP controller and DCL	
Wire A.W.G.	Maximum Length (ft)
18	197
16	305
14	493

Phytotronics, Inc.®

Innovative Products for the Horticultural Industry™

Misting Systems

MODEL 1626ET

• 1x, 2x, 3x time extender toggle switch
• One connection for the common wire
• 24 hour digital clock, with 8 programmable events to turn controller off
• 6 Zones of Control: One zone at a time, not to exceed 20 watts per zone.
• One Zone Operation: System is designed so that not more than one zone will be in operation at a time, eliminating the possibility of reduced water pressure, uneven misting or solenoids being stuck in an open phase without enough water pressure to close them.
• Variable Misting Time per Zone: ON time and OFF can be set in a wide range of seconds or minutes.

Trident T3A Single Zone Controller

• Sturdy non-metallic enclosure, UV protected, resists moisture and chemicals
• Toggle switch to select ON/OFF time mode, second/minute, minute/minute, and minute/hour
• 2-to 60-second or minute ON time, and 2-to 180-minute or hour OFF time
• Extra bright LEDs show ON/OFF times when programing and when controller is in use
• 24 hour digital clock, with 8 programmable events to turn controller off

Model	Zones	TE#	Phytotronics#	Price
1626ET	6	1405	1626ET	768.00
T3A	1	1095	T3A	376.00

BASE·LINE™ IRRIGATION SOLUTIONS

Baseline is committed to providing you with superior irrigation control products designed to help you manage your landscape and agricultural watering. We bring a unique array of products and technologies to the irrigation control market, all designed to make your life easier.

Our mission: To forever change the way people water plants by providing the smartest, easiest, and most capable irrigation control products ever made.

Innovating in irrigation for over 10 years...

Please contact your closest Sales-Rep for more information and pricing on this product line...

NETAFIM™
GROW MORE WITH LESS

MODULAR, USER-FRIENDLY BACKFLUSH CONTROLLER FOR AUTOMATIC FILTERS

PRODUCT ADVANTAGES
- Modular controller is expandable from 1 to 10 outputs.
- Used w/ automatic disc filters, sand media filters and screen filters.
- Flush cycle is triggered by time or pressure differential.
- Design flexibility with an embedded PD gauge or an external PD gauge.
- Detection of continuous backflush cycles causes an alarm to sound.
- User-friendly LCD display and keyboard.
- Ability to manage a downstream pressure sustaining valve.
- Flexible settings for pre-dwell, dwell and flush times.

SPECIFICATIONS
- Outputs: 2,4,6,8 or 10
- Voltage: 12VDC Latching or 24VAC
- Inputs: 1 Analog PD Gauge or 1 Digital PD Gauge
- Power Source DC Model: 12V Battery or 4 'D' Alkaline Batteries
- High-Low PD Hydraulic Connectors
- Operating Temperature: 32 - 140°F
- Dimensions: 9.5"H x 5 5/8"L x 3.25"D - Weighs 1.3lbs.

TE#	NETAFIM #	Description	Price
31NBCAC2	73240-003188	2 station Selectable 24VAC	990.25
31NBCAC4	73240-001384	4 station Selectable 24VAC	1073.90
31NBCAC6	73240-003186	6 station Selectable 24VAC	1159.00
31NBCDC2	73240-003175	2 station Selectable 12VDC Latching	990.25
31NBCDC4	73240-003178	4 station Selectable 12VDC Latching	1073.90
31NBCDC6	73240-003179	6 station Selectable 12VDC Latching	1159.00

Alex-Tronix Controls

FILTER BACKWASH CONTROLLERS

FEATURES
- Powder coated locking outdoor case
- Pressure differential gauge
- Periodic, PD, and manual start
- Fixed PD delay eliminates false starts
- Periodic resets upon PD or manual flush
- Manual advance
- Selectable flush and dwell settings
- Master valve output
- Selectable 24VAC/12VDC output on 115VAC models.
- Circuit breaker protected

ELECTRICAL SPECIFICATIONS

Input:	115 volts AC
	12 volts DC
Output:	24 volts AC w/ 115 volts AC Input
	12 volts DC w/ 12 volts DC Input

MECHANICAL SPECIFICATIONS

Height:	8.25 inches
Width:	7.4 inches
Depth:	5.0 inches
Weight:	8 lb.

TE#	ALEX#	Description	Price
ALX-802	F2AC/DC-D/P	2 station Selectable 24VAC, 12VDC	1083.95
ALX-800	F3AC/DC/DCL-D	3 station Selectable 24VAC, 12VDC, 12VDCL	1332.85
ALX-807	F4AC/DC/DCL-D	4 station Selectable 24VAC, 12VDC, 12VDCL	1537.10

DeWitt
DOWN TO EARTH PROTECTION

Sunbelt Groundcover

Our best! DeWitt **Sunbelt Woven Ground Cover** consists of 3.2 oz. polypropylene, which resists tearing, puncturing and weed penetration. It is approved for most government weed control applications.

Sunbelt is ideal for greenhouses, outdoor displays and as a weed barrier for plantings without topical coverings where a weed free environment is a must. **DeWitt Sunbelt** is striped every 12 inches to aid in plant alignment and is UV stabilized to last even in direct sunlight.

Sunbelt Specifications

- Material: Polypropylene
- Construction: 22 x 11
- Tensile Strength (lbs): 175 x 110
- Trapezoid Tear (lbs): 80 x 60
- Puncture (lbs): 50
- Elongation (%): Warp 15% - Weft 18%
- Color: Black with gold stripe every 12”
- Weight (oz/SY): 3.2
- Burst (psi): 310
- Water Permeability (gal/min/SF): 15
- Thickness (mils): 17
- Ultraviolet Exposure (% Strength Retained): >70% after 2500 hrs. Xenon Arc Exposure

Size	Part Number	UPC#	Weight	Price
3' x 300'	SBLT3300	815715	22	105.25
4' x 300'	SBLT4300	815722	28	140.30
6' x 300'	SBLT6300	815739	44	217.20
6' x 500'	SBLT6500	815746	71	350.70
10' x 300'	SBLT10300	815661	75	369.00
12' x 300'	SBLT12300	815685	88	454.25
15'6" x 300'	SBLT15.5300	815692	115	565.55

We do not inventory ground covers at this time. Please allow about 3 days to ship.
Prices are FOB DeWitt Company

Spectrum® Technologies, Inc.
"To Measure Is To Know"

Weather & Environmental Monitoring

- WatchDog Weather Stations
- SpecWare Software
- WatchDog Data Loggers

WatchDog

Nutrient Management Tools

WATERSCOUT

- SPAD 502 Chlorophyll Meter
- Cardy Meters for pH, EC, NO3-, K+ and Na
- FieldScout CM-1000 Chlorophyll Meter

FIELDSCOUT

Integrated Pest Management (IPM) Tools

- Fifteen Plant Disease Forecast Models (SpecWare software)
- Degree-Day Recorders (WatchDog) and Software (SpecWare)
- Insect Modeling Software (SpecWare software)
- IPM Scope

LIGHTSCOUT

Soil Moisture & Quality Measurement

- FieldScout TDR 300 Soil Moisture Probe
- WaterScout SM 100 Soil Moisture Sensors
- FieldScout SC 900 Soil Compaction Meter
- WatchDog Soil Moisture Data Loggers

Spectrum's product line is too extensive to include it all in our catalog. If you are in need of any of these products please feel free to contact your sales representative, or call our office. You can also view their products on their web site at www.specmeters.com.

IRROMETER CO.®

Soil Moisture Indicators

MODEL "R" (Agriculture)

TE#	Irrometer #	Length	Price
IRR-L06	106	6"	96.00
IRR-L12	112	12"	99.50
IRR-L18	118	18"	103.00
IRR-L24	124	24"	106.50
IRR-L36	136	36"	113.50
IRR-148	148	48"	120.50

Standard IRROMETER for general use with row, tree and field crops. Shorter lengths for greenhouse and pots.

SERVICE UNIT: (Used for periodic evacuation of air from instrument to ensure maximum sensitivity and accuracy. **Includes:**

1 Hand Vacuum Pump — 1 Bottle IRROMETER Fluid
25 Monthly Chart Forms — 1 Reference Book

TE#	Irrometer #	Price
IRR-L50	1001	70.00

Includes reservoir, air free gauge chamber and hermetically sealed IRROMETER vacuum gauge. (0-100 centibar range.)

WATERMARK

Soil Moisture Sensor w/ 5' LeadModel 200SS (Basic Sensor)

TE#	Irrometer #	Price
IRR-W05	200SS-5	42.00

Basic **WATERMARK** Soil Moisture Sensor. For use with all crops. To be used with **WATERMARK** Meter. Reads electrical resistance in 10-200 centibar range. Easily interfaced with dataloggers.

Meter Digital Readout: Meter required to read all sensors

TE#	Irr#	Price
IRR-W11	30-KTCD	250.00

Sentek™ technologies

Drill & Drop

Encapsulated Soil Moisture, Salinity and Temperature Probe

The Drill & Drop is a fully encapsulated, easy to install soil measurement probe. Available with moisture, salinity and temperature sensors at every 10cm (4”) depth.

Features:

- Robust probe and easy installation
- Fully encapsulated electronics
- Tapered shape allows for extremely fast and quality undisturbed installation in majority of soil types
- Ability to measure the true soil profile, NOT slurry
- Buriable to any depth
- Sentek-proven quality soil moisture and salinity measurements
- Pre-normalised sensors with inbuilt default calibration equations
- Access soil profile data through IrriMAX Live
- Available in multiple lengths, and as a single point sensor

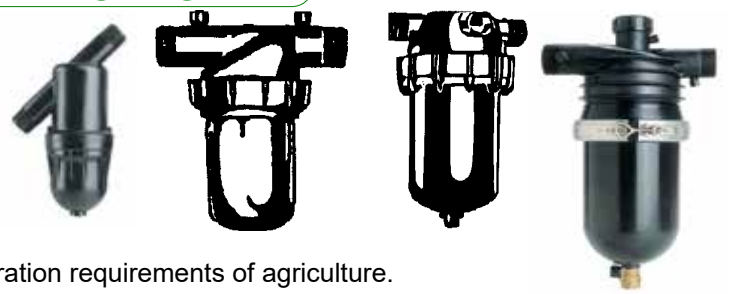
User Benefits:

- Great for short-term use, such as applications of monitoring vegetable crops
- Also designed for long-term use, as it can be installed and left untouched for many years
- Potential water, power, fertilizer and time savings, along with increased yields and quality
- Slurry-free installation procedure, increasing the reliability of soil moisture and salinity readings

Sentek Drill & Drop

TE#	Sentek Pkg #	Length	Price
PN00006	PN00006	24"	2495.00
PN00009	PN00009	36"	2672.65
PN00002	PN00002	48"	2850.90
PN00008	PN00008	Annual Renewal	334.00

NETAFIM™
GROW MORE WITH LESS



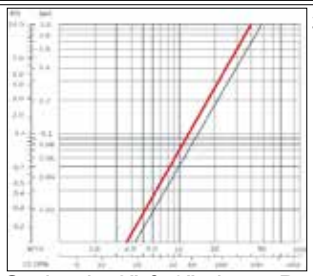
Arkal Plastic Disc Filters

- Arkal Disc Filters are well suited to meet the demanding filtration requirements of agriculture.
- The filtering element of a disc filter is flat grooved rings, tightened together, which form a cylindrical filtering body.
- Higher holding capacity - filtration takes place throughout the entire volume of the filter cylindrical element.
- Cleaning - the stack of rings are loosened, and then seperated. A spray of water cleans the element without scrubbing.
- Grooved disc filters are best suited where solids in the water are of an organic nature.
- Maximum Pressure 140 psi.

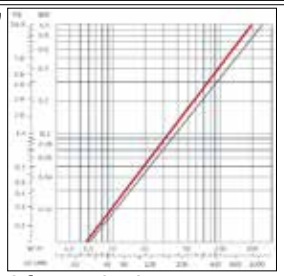
Filter Size	Flow Rate	Mesh	TE#	Netafim#	Price
¾"	12 gpm	140	NET-700	25A45-140	36.55
1"	26 gpm	140	NET-704	25A47-140	107.10
1½"	35 gpm	140	NET-706	25A15-140	164.90
2"	120 gpm	140	25A2DL-140	25A2DL-140	330.65

amiad®
WATER SYSTEMS

2.00"



3.00"



Introducing Amiad's Tagline Filter Series in 2" & 3" sizes. Designed for agriculture, nursery and greenhouse applications. Made of high grade polamid to withstand the toughest conditions. Maximum operating pressure is 120psi.

Filter Size	Max Flow	Mesh	TE#	Amiad #	Price
2"	110 gpm	120	AMD-T20S	011005-000016	171.50
3"	220 gpm	120	AMD-T30	011007-000017	362.90

TORO. Ag Irrigation

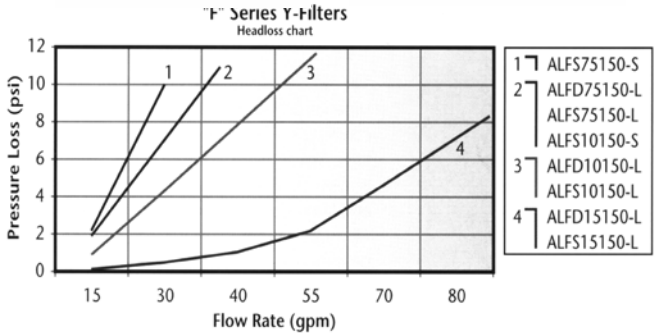
Screen Filter

Disc Filter

F Series Plastic Filters

Features:

- Plastic Y-model filters available in ¾", 1" and 1½" MPT
- Available in Plastic Disc and Stainless Steel Screen
- Easy element access for trouble free maintenance
- ½" male thread outlet w/ cap for quick flushing
- Working pressure range 5 to 142 psi
- Body and cap constructed of Nylon
- Locking ring constructed of glass reinforced Nylon
- O-ring constructed of Buna-N



	Filter Size	Max Flow	Mesh	TE#	TORO#	Price
Small Body Screen Filters:	¾"	18 gpm	150	ALFS75150-S	ALFS75150-S	11.90
	1"	25 gpm	150	ALFS10150-S	ALFS10150-S	15.20
Large Body Screen Filters:	¾"	25 gpm	150	ALFS75150-L	ALFS75150-L	25.24
	1"	35 gpm	150	ALFS10150-L	ALFS10150-L	18.70
	1½"	80 gpm	150	ALFS15150-L	ALFS15150-L	23.50
Disc Filters:	¾"	25 gpm	150	ALFD75150-L	ALFD75150-L	22.60
	1"	35 gpm	150	ALFD10150-L	ALFD10150-L	26.90
	1½"	80 gpm	150	ALFD15150-L	ALFD15150-L	37.40

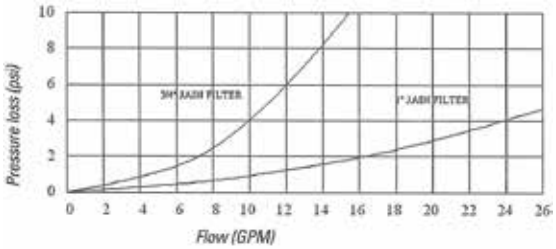
JAIN Irrigation Inc
world leader in micro irrigation

SPIN CLEAN® FILTERS

•Plastic filters are especially suitable for small emitter systems
•High Flow Rate Up to 115 gpm available from stock. Larger sizes available.

Spin Clean Action... How It Works... Jain Irrigation's "Spin Clean" filters are unique in that incoming dirty water is forced through a directional nozzle plate into the inside of the stainless steel screen. This creates a centrifugal action which rotates debris down the screen wall to the large debris holding basin. Debris is flushed out via a ball valve or unscrewing cap. Spinning action keeps more of the screen area clean, minimizing pressure losses caused by excessive dirt build-up.

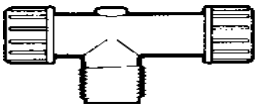
Jain's Super Flow Filters



- Available in ¾" & 1"
- Rated to 85 psi.
- Stainless Steel Screen
- Threaded hose cap to allow drainage of debris

Garden Valve Filter

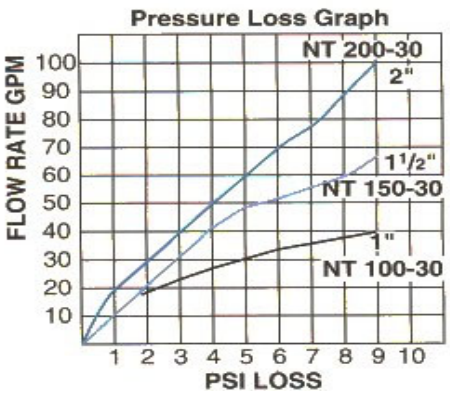
- ¾" Hose thread swivel inlet
- ¾" Male hose thread outlet
- Threaded cap for easy cleaning



Filter Size	Max Flow	Mesh	TE#	Jain #	Price
Spin Clean Filters:					
¾"	9 gpm	150	AGP-707	4E-¾-B-150	55.45
1"	18 gpm	150	AGP-712	4E-1-B-150	56.95
1½"	55 gpm	150	AGP-717	4E-1½P-150	527.30
2"	110 gpm	150	AGP-722	4E-2P-150	580.00
Super Flow Filters:					
¾"	12 gpm	150	JF-075-150	12130302	22.10
1"	30 gpm	150	JF-100-150	12130312	23.45
Garden Valve Filter:					
¾"	9 gpm	150	AGP-702	4E-¾T-150	14.30

VU-FLOW Screen Filters

- **VU-FLOW** Filters feature durable heavy-duty PVC/ Lexan construction.
- Instant visual inspection.
- Filter matter deposits on the outside of the screen for efficient cleaning, with a large storage area.
- All materials are non-corrosive, ultraviolet stabilized, and weather resistant.
- Polyester filter screens in standard meshes.
- Inlet and outlet are slip connections.
- Cleanable / reusable filter cartridges.
- Screen filters are particularly recommended where inorganic particles are present in the water.



Filter Size	Flow Rate	Mesh	TE#	VU-FLOW #	Price
1"	1 - 25 gpm	140	VUF-10140	NT100-140	52.80
1½"	10 - 50 gpm	140	VUF-15140	NT150-140	97.75
2"	18 - 100 gpm	140	VUF-20140	NT200-140	155.65

Rivulis

F3140 Metal Screen Filter (Manual)

F3140 Metal Screen Filters (Manual) are excellent filtration choices for removing heavy inorganic particulates from water, such as sand. Manual screen filters are designed to remove particles from the water by passing the water through an open area in the screen. The dirt particles are collected on the screen and can be removed when the filter is opened and the screen is cleaned manually.

The F3140 Metal screen filters is used in conjunction with sand separators and media filter arrays as a control filter and as a back up filter in the field. The F3140 Metal Screen Filter can be used with well water that is relatively clean.

Product Head Loss Chart (psi)

Size Inlet/ Outlet (inch)	Flow rate (gpm) 220	440	660	881
3"	5.8	18.9		
4"		2.6	5.8	16.0
6"		0.7	2.2	7.3

Model Number	Size	Max GPM	Style	Connection	Price
101043144	3.00"	264	Angled	Flanged	481.00
101043146	4.00"	881	Angled	Flanged	858.50
101043148	6.00"	1101	Angled	Flanged	2407.70
101043116	3.00"	264	In-Line	Flanged	573.30
101043118	4.00"	881	In-Line	Flanged	812.85
101043120	6.00"	1101	In-Line	Flanged	1389.10

Rivulis

Rivulis F6400 Plastic Screen Filter (Semi-Automatic)

The F6400 Plastic Screen Filter is an ideal choice as a primary filter in a small irrigation system or as a back-up field zone filter. The F6400 Plastic Screen Filter has several key features including a large stainless steel screen, a pressure differential sensor (clogging indicator), a stainless steel clamp and a simple to operate flushing mechanism. The large pressure differential sensor provides the user the ability to easily view the level of clogging or the pressure differential across the screen. The large 316 stainless steel screen reduces maintenance and provides longer service times before flushing intervals. The stainless steel clamp and the semi-auto flushing mechanism are both durable and easy to use.

Product Features:

- Semi-auto flushing
- Large stainless steel screen
- Large clogging indicator
- Stainless steel clamps

Operating Guidelines:

- Maximum working pressure: 150 psi
- Minimum flushing pressure: 22 psi

Head loss (psi) / flow rate (gpm) - 2"

Flow rate	Head loss (psi)		
gpm	80 mesh	120 mesh	150 mesh
44	0	0.58	0.87
66	0.29	1.305	1.74
88	0.725	2.03	2.465
110	1.305	2.9	3.335
132	2.03	3.77	4.205
154	3.045	4.64	5.22
176	4.06	5.655	6.38

Head loss (psi) / flow rate (gpm) - 3"

Flow rate	Head loss (psi)		
gpm	80 mesh	120 mesh	150 mesh
88	0	0.29	0.58
110	0.29	0.58	1.015
132	0.725	1.16	1.595
154	1.305	2.03	2.465
176	2.03	3.045	3.625
198	2.755	4.06	4.785
220	3.48	5.075	5.8

Model Number	Size	Max GPM	Style	Connection	Price
101047725	2.00"	110	In Line	MIPT	266.80
101047731	3.00"	175	In Line	MIPT	296.00

NEW!

MINI**SIGMA & SIGMA-**Pro Innovative Automatic Self-Cleaning Filters

MINI**SIGMA** Innovative Automatic Self-Cleaning Filter

Features:

- Reliable and durable
- Amiad's unique suction-scanner cleaning technology
- Modular design with various installation configurations
- Polymeric filter - corrosion free
- Low water and energy consumption
- Compact design and small footprint
- Easy installation and low maintenance
- Ideal for many landscape and agricultural irrigation applications
- Max Operating Pressure: 116psi. Min Pressure when Cleaning: 22psi
- Amiad's innovative and user friendly ADI-P electronic controller, operated by a mobile app for advanced

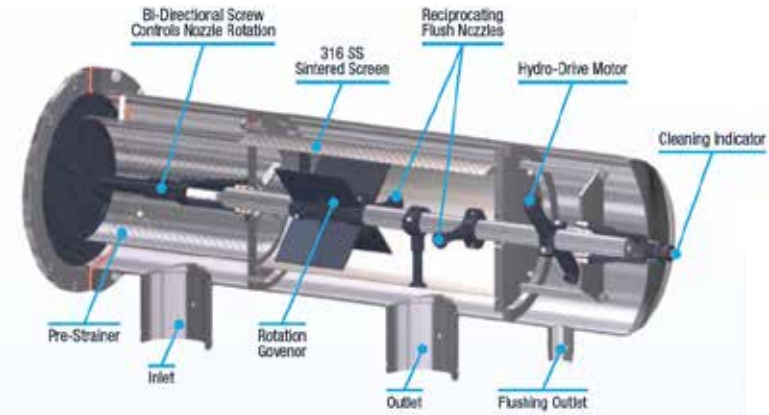
Description	Flow		TE# / Amiad's #	Configuration	Price
MINISIGMA:					
2" Self Cleaning Filter	110 gpm	120 mesh	055000-000002	On-Line	3002.50
3" Self Cleaning Filters	220 gpm	120 mesh	055001-000003	On-Line	3827.00
4" Self Cleaning Filters	352 gpm	120 mesh	055002-000018	On-Line	4390.20
2" Self Cleaning Filters	110 gpm	120 mesh	055000-000004	Angled	3002.50
3" Self Cleaning Filters	220 gpm	120 mesh	055001-000004	Angled	3827.00
4" Self Cleaning Filters	352 gpm	120 mesh	055002-000020	Angled	4390.20

VACLEEN®
Automatic Filters

MADE IN AMERICA

The VACLEEN™ Filter's modular mechanism can be removed for ease of maintenance.

The VACLEEN[a] filter features a new nozzle system which is a vast improvement over previous technology. Using older technology, the filter flush nozzles were large enough to cover 100% of the screen in one revolution. this required a relatively large flush valve. The VACLEEN[a] system uses small flush nozzles that reciprocate across the filter screen allowing the use of a small flush valve. A reversing screw causes the traversing of the nozzles back and forth across the element ensuring 100% screen coverage.



316 Stainless Steel and Non-Corrosive Construction

- provides longer equipment life
- minimizes maintenance
- has resistance to damage from most chemicals.

Stainless Steel Sintered Screen

- tolerates temperatures up to 180°F
- available to 15 microns;

Reverse-flow Reciprocating Flush Nozzles

- utilize a reversing screw that causes the nozzles to traverse back and forth across the screen ensuring 100% cleaning of the screen
- remove suspended solids and organic materials including algae
- use less than 10% of the filter capacity during the cleaning cycle
- allow the system to operate uninterrupted during the cleaning cycle.

Fully Automatic Cleaning

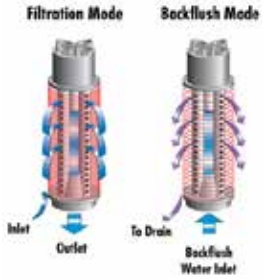
- with hydraulic, electronic or battery-operated controller;
- can be set for low pressure differential.

Description	Flow Range	TE#	VACLEEN #	Price
3" Filters w/ Hydraulic	30-370 gpm	5203-0250-xxx-x	5203-0250-xxx-x	CALL
4" Filters w/ Hydraulic	60-739 gpm	5204-0500-xxx-x	5204-0500-xxx-x	CALL
6" Filters w/ Hydraulic	60-1431 gpm	5206-0500-xxx-x	5206-0500-xxx-x	CALL
8" Filters w/ Hydraulic	90-2145 gpm	5208-1450-xxx-x	5208-1450-xxx-x	CALL

NETAFIM™
GROW MORE WITH LESS

DISC-KLEEN FULLY AUTOMATIC DISC FILTERS

Disc-Kleen filters belong to Netafim's family of Arkal Disk filters. Disk filters provide three dimensional filtration using stacks of compressed disks to capture debris instead of a screen, or sand media in a tank. With Disc-Kleen's innovative new back-flushing technology, the filter elements are cleansed very quickly and efficiently during the backflushing process utilizing a minimum of time and water. Agriculture and industry world wide uses Disc-Kleen filters where fully automated, precise, reliable, filtration is desired using a minimal amount of backflush water.



DISC-KLEEN	2" x 2 UNITS	2" x 3 UNITS	3" x 3 UNITS	3" x 4 Units
Maximum Pressure	140 psi	140 psi	140 psi	140 psi
Minimum Pressure	50 psi	50 psi	50 psi	50 psi
Rec Flow	90-175gpm	175-260gpm	260-390gpm	390-525gpm
Filtering Surface	292 sq"	438 sq"	870 sq"	1168 sq"
Flitering Volume	150 cubic"	225 cubic"	225 cubic"	300 cubic"
Length	20"	32"	32"	44"
Width	31"	31"	36"	36"
Height	40"	40"	48"	48"
Weight	198 lbs	275 lbs	275 lbs	352 lbs

Description	Flow Range	TE#	Netafim #	Price
2" x 2 Filters	30-180 gpm	NET-752	26LP2PP2120AC	6090.30
2" x 3 Filters	150-260 gpm	NET-753	26LP2PP3120AC	8279.20
3" x 3 Filters	300-450 gpm	NET-756	26LP3PP3120AC	12370.90
3" x 4 Filters	400-600 gpm	NET-757	26LP3PP4120AC	15743.66

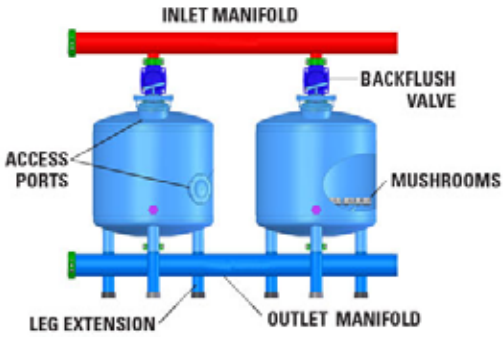
ALL DISC-KLEEN BATTERIES COME STANDARD WITH 24v AC SOLENOIDS. 12v DC OR DC LATCHING ARE AVAILABLE.

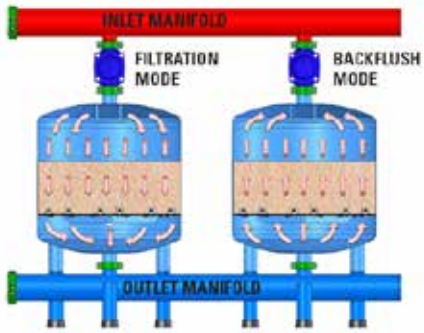
BACKFLUSH CONTROLLERS SOLD SEPERATELY. SEE PAGE 79.

ALL ITEM NUMBERS SHOWN ARE FOR 120 MESH. OTHER MESHES ARE AVAILABLE.

Top-Quality Epoxy-Coated Media Filters

- Great energy savings are achieved with a wide range of manifold sizes and reduced friction loss compared to other media filters.
- Revolutionary "mushrooms" underdrain structure, ensures maximum flow uniformity, minimum head loss, optimum performance.
- Remove contaminants such as algae, sand, silt and bulky organic material from irrigation water.
- Remove iron precipitates from well and river water.
- Filter large volumes of water efficiently.
- Result in minimal pressure losses.
- Provide uniform, thorough backflush action.





Specifications

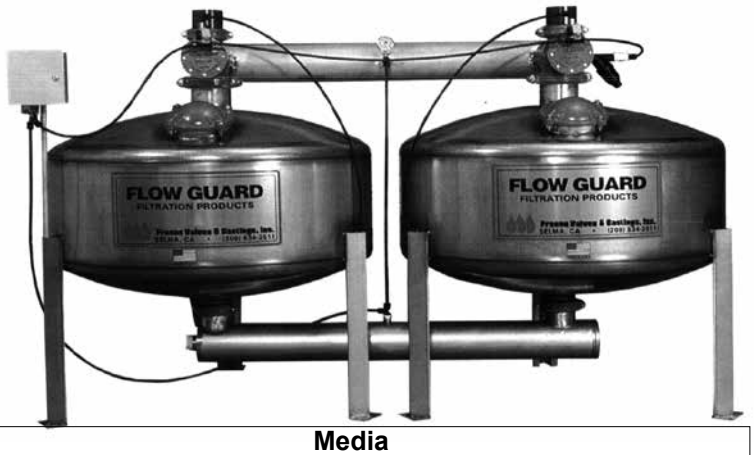
Media Tanks:				
Construction Material	Steel			
Coating	Fusion Epoxy Inside & Outside			
Pressure Rating	120 psi			
Underdrain Structure	High Impact Polystrene Strainers (Mushrooms)			
	20"	24"	36"	48"
Media Capacity(silica)	250lbs	360lbs	800lbs	1200lbs
Inlet / Outlet Ports	2" Grvd	2" Grvd	3" Grvd	4" Grvd
Media Recommendations:				
Standard Sand 6/20	100-140 Mesh			
U.S. silica 80	160-200 Mesh			
Crushed Silica 16	**150-200 Mesh**			
Crushed Silica 20	200-250 Mesh			

Description	Flow Range	TE#	Netafim#	Price
20" x 3 Filters	117-198 gpm	NET-723M	2SMFDBS2003AAC	7554.25
24" x 3 Filters	171.288 gpm	NET-725M	2SMFDBS2403AAC	8224.25
36" x 2 Filters	264-440 gpm	NET-732M	2SMFSBS3602AAC	8155.25
36" x 3 Filters	396-660 gpm	NET-733M	2SMFSBS3603AAC	10996.25
48" x 2 Filters	440-748 gpm	NET-742M	2SMFSBS4802AAC	12275.75
48" x 3 Filters	660-1122 gpm	NET-743M	2SMFSBS4803AAC	15700.50
48" x 4 Filters	880-1496 gpm	NET-744M	2SMFSBS4804AAC	19929.50

ALL FILTER BATTERIES COME STANDARD WITH 24v AC SOLENOIDS. 12v DC OR DC LATCHING ARE AVAILABLE.

BACKFLUSH CONTROLLERS SOLD SEPERATELY.

FLOW – GUARD
FILTRATION PRODUCTS



- Stainless Steel media tanks, manifolds, and underdrain assembly
- Epoxy coated cast iron backwash valves and port hole covers
- Connections standard grooved fittings
- 15" & 36" tanks rated for 100psi
- 45" & 48" tanks rated for 80psi

Minimum Backwash Flow Requirements	
Tank Model	Minimum Backwash Flow GPM
15	18
18	26
24	47
36	110
48	200

Media			
Media Material and No.	Mean Effective Media Size	Mean Uniformity Coefficient	Equivalent Mesh Size
#20 Crushed Silica	0.48	1.50	200-250
#16 Crushed Silica	0.68	1.50	150-200
#12 Crushed Silica	1.05	1.50	130 Avail-

		Semi-Automatic			Automatic		
Description	Flow Range	TE #	FRESNO #	Price	TE #	FRESNO #	Price
15" x 2 Filters	45-60 gpm	SSF-215	F011-150032	Call for Pricing	FRE-215	F011-150012	Call for Pricing
18" x 2 Filters	60-90 gpm	SSF-218	F011-180032		FRE-218	F011-180012	
24" x 2 Filters	110-160 gpm	SSF-224	F011-240032		FRE-224	F011-240012	
30" x 2 Filters	170-245 gpm	SSF-230	F011-300032		FRE-230	F011-300012	
36" x 2 Filters	240-350 gpm	SSF-236	F011-360032		FRE-236	F011-360012	
48" x 2 Filters	425-625 gpm	SSF-248	F011-480032		FRE-248	F011-480012	
48" x 3 Filters	638-938 gpm	SSF-348	F011-480033		FRE-348	F011-480013	
48" x 4 Filters	850-1250 gpm	SSF-448	F011-480034		FRE-448	F011-480014	

Rivulis

F1700 Media Filters

Exceptional Filtration

Drip irrigation improves crop yields by efficiently and precisely delivering water. However, algae and other organic matter can clog emitters and reduce yields. Rivulis F1700 Media Filter systems offer unparalleled performance that keeps drip emitters clean while using a minimal amount of backwash water. Select the best-in-class filtration for your drip irrigation to improve yields, reduce operating costs, and save water.

Exclusive Underdrain – Reduce Water And Energy Use

Precision-engineered underdrain with industry-best open area encourages optimum/even flow across the entire filter media bed – without dead spots or channeling. This helps capture more organic matter while allowing water to pass freely.

The benefits of this underdrain design extend to backwashing as well. A greater open area leads to consistent and efficient backwash, reducing pressure and clean water required to remove captured matter. No gravel media bed required.

System (size x No.)	Flow Range GPM	Inlet/Outlet Size Inches	Sand Media Requirement Pounds	Max PSI	Min Backflush GPM	Part Number	
21” X 2	75-120	4	600	150	36	101054449	Call for Pricing
21” X 3	110-180	4	900	150	36	101055379	
32” X 2	165-270	4	1400	125	81	101054451	
32” X 3	245-405	4	2100	125	81	101054456	
48” X 2	380-625	6	2600	80	188	101054462	
48” X 3	565-940	6	3900	80	188	101054471	
48” X 4	755-1255	8	5200	80	188	101054478	

All prices include Alex-Troix controller & 12VDC solenoids

NETAFIM™
GROW MORE WITH LESS

CentriForce™ SP Sand Separator

The CentriForce™ SP series is designed to allow for easy removal of sand, dirt and silt from groundwater and to provide superior protection for irrigation systems thanks to a unique patented Centrifugal Separator technology. CentriForce™ SP saves you labor, energy and maintenance.

Product Advantages:

Superior Separation – Tested to remove over 98% of settleable solids commonly found in groundwater down to 200 mesh at 2.6 SG

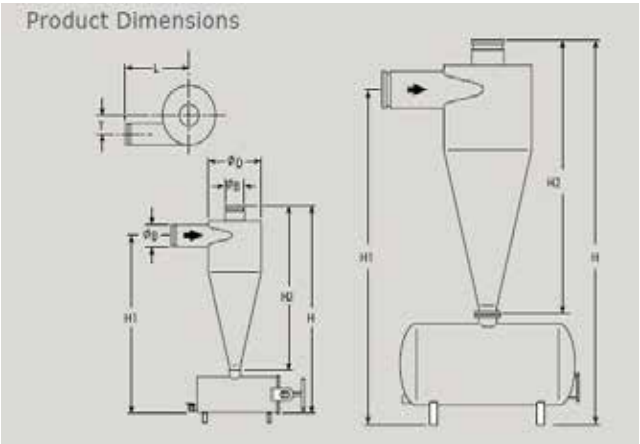
Low and steady pressure loss – CentriForce™ Separators operate at a consistent pressure loss as low as 5-12psi, sizes ¾"-3", and 3-12psi, sizes 4"-8".

Wide range of diameters covering flow rates up to 1,450gpm for single unit installations. Higher flow rate applications can be achieved by manifolding additional Separators in parallel.

Model Number	Size	Flow Range	Purge Size	Collection Capacity	Price
CSSILB-0100	1"NPT	19-32gpm	¾"	0.30gal	$1607.50
CSSILB-0125	1¼"NPT	28-48gpm	¾"	0.30gal	$1674.50
CSSILB-0150	1½"NPT	45-70gpm	¾"	0.30gal	$1809.00
CSSILB-0200	2"NPT	65-108gpm	¾"	0.80gal	$2096.50
CSSILB-0250	2½"NPT	95-155gpm	¾"	1.25gal	$2467.00
CSSILB-0300	3"NPT	148-250gpm	¾"	2.20gal	$3585.90
CSLGS-0400	4"VICT	225-500gpm	1½"	3.00gal	$7405.50
CSLGS-0600	6"VICT	385-850gpm	1½"	5.00gal	$8458.50
CSLGS-0800	8"VICT	750-1450gpm	1½"	12.0gal	$11181.00

Rivulis

The Rivulis F1000 Hydrocyclone Sand Separator creates a centrifugal action that moves the water around the edge of the body, throwing the sand and heavy materials to the outside or the cyclone. The heavy materials then fall into the underflow tank to be collected. Rivulis provides the proper sized underflow tank to match the performance of each size of Hydrocyclone Sand Separator, preventing the collected sand from moving back into the water flow.



Product Dimensions and Weights

Size (inch)	B (inch)	D (inch)	H (inch)	H1 (inch)	H2 (inch)	L (inch)	T (inch)	Weight (lbs)
3	3	8.0	33.0	26.0	24.6	12.0	3.0	60
4X3 out	4x3	12.0	52.0	44.5	28.5	20.0	4.0	146
4	4	16.0	68.0	58.3	38.2	23.6	5.7	276
6	6	20.0	75.0	63.4	45.3	24.0	7.0	379

F1000 Hydrocyclone Sand Separator - Product Information

Item Number	Inlet/outlet Size (inch)	Minimum Flow rate (gpm)	Maximum Flow rate (gpm)	Chamber Capacity (gallons)	Connection Type	Price
101043046	3	79	150	2.6	Flange	$929.75
101043054	4 x 3	154	229	16.0	Flange	$2334.20
101043050	4	229	361	32.0	Flange	$3398.00
101043058	6	431	704	58.0	Flange	$4571.00

FLOWMETERS

Blue-White Industries, Ltd.

FEATURES INCLUDE:
- A one-piece, impact resistant machined acrylic body
- Easy to read, permanent silk screened scales

SPECIFICATIONS:
- Materials of Construction: Acrylic
- Pressure Limits: 75 psi
- Mounting: Horizontal Pipe

TE#	BW#	GPM	Pipe Size	Price
BLW-0015	F-30150P	10 to70	1½"	104.60
BLW-002	F-30200P	20 to 120	2"	112.50
BLW-0025	F-30250P	29 to 150	2½"	128.35
BLW-003	F-30300P	45 to 240	3"	144.60
BLW-004	F-30400P	79 to 400	4"	157.75
BLW-006	F-30600P	250 to 1050	6"	255.15
BLW-008	F-30800P	500 to 1900	8"	283.60

Blue-White Industries, Ltd.

FEATURES INCLUDE:
- Tough machined acrylic meter body.
- Easy to read, white back reflector for easy reading.

SPECIFICATIONS:
- Materials of Construction (meter body): Acrylic
- Pressure Limits: 150 psi

TE#	BW#	GPM	Adapter Size	Price
BLW-025	F-40250LN-6	0.025 to 0.250	3/8" fipt	135.10
BLW-031	F-40375LN-8	0.1 to 1.0	½" fpt	115.55
BLW-050	F-40500LN-8	0.5 to 5.0	½" fpt	115.55
BLW-075	F-40750LN-16	1.0 to 10.0	1" fpt	222.60
BLW-047	F-41000LN-16	2.0 to 20.0	1" fpt	222.60

NETAFIM™ GROW MORE WITH LESS

THE MOST RELIABLE AND ACCURATE WATER METERS NETAFIM FAMILY OF WATER METERS

MEASUREMENT IS THE KEY TO GOOD, EFFECTIVE WATER MANAGEMENT

It is a fact that all crops are affected if irrigation is not consistent and accurate. The use of water meters ensures growers are able to measure and effectively manage the watering of their crops. Netafim Water Meters provide the confidence and assurance that the correct amount of water and fertilizer (nutrients) are being delivery to the crop maximizing yields and reducing energy costs.

- Measuring your irrigation water with a Water Meter is a more accurate way to deliver water to a crop.
- Water Meters monitor system performance and record total water applied.
- Water Meters ensure verification of water received versus water pumped or purchased.
- Provide accurate water measurement if required by private or governmental agency.

Determining the appropriate water meter for your application requires determining your water quality. The following information will help with the selection of the right water meter for your needs.

WATER QUALITY

The quality of irrigation water is an important consideration when choosing the right water meter for your system.

GOOD WATER CONDITIONS

- Water with minimal organic materials
- Well water with minimal sand

A full diameter impeller is recommended for good water conditions.

POOR WATER CONDITIONS

- Water with moderate organic materials
- Well water with sand

A water meter with a paddle wheel is recommended for poor water conditions. The water is measured with a paddle wheel located at the top of the water passage providing a free water passage eliminating clogging from debris. Paddle wheel water meters can also be used in good water conditions. However, water meters should always be installed downstream of a filter.

Senninger Irrigation Inc.

- Maintains Constant Outlet Pressure.
- No adjustment needed. • Regulator is preset.
- Will handle inlet pressures up to 150psi.

Description	Flow Range	Connection	PSI	TE #	SENNINGER #	Price
¾" x ¾"	.1 - 7 gpm	FHT x MHT	10, 20	PRLGxx	PRLGxx	10.80
Garden Hose Connections. Available in 10 & 20psi						
¾" x ¾"	.5 - 5 gpm	FIPT x FIPT	10	SEN-0510	PMR-10LF	12.15
¾" x ¾"	.1 - 8 gpm	FIPT x FIPT		SEN-08xx	PMR-xxLF	
¾" Female Thread Both Ends. Available in 15, 20, 25, 30, 40psi						
¾" x ¾"	4 - 16 gpm	FIPT x FIPT	10	SEN-1610	PMR-10MF	17.50
¾" x ¾"	2 - 20 gpm	FIPT x FIPT		SEN-20xx	PMR-xxMF	
¾" Female Thread Both Ends. Available in 15, 20, 25, 35, 40psi						
1" x 1"	2 - 20 gpm	FIPT x FIPT		SEN-20xx1FF	PMRxxMF1F1F	17.50
1" Female Thread Both Ends. Available in 15, 20, 30, 40psi						
1¼" x 1"	10 - 32 gpm	FIPT x FIPT		SEN-32xx	PR-xxHF-1¼Fx1F	36.70
1¼" x 1" Female Thread Both Ends. Available in 10, 15, 20, 40psi						
2" x 2"	20 - 100 gpm	FIPT x FIPT		PRUxx	PRUxx	154.80
2" Female Thread Both Ends. Available in 10, 15, 20, 25, 30, 40psi						
3" x 3"	20 - 80 gpm	Slip x Slip		SEN-100xx	PRXxx-3FSx3FS	211.50
3" PVC Slip Both Ends. Available in 10, 15, 40psi						
Other pressures available. Call for availability.						

NETAFIM™

GROW MORE WITH LESS

A B C D E

Accurate and Dependable!

- Instant response to variations in pressure assures that outlet pressure will remain constant regardless of inlet pressure.
- Netafim Pressure Regulators are preset up to 200 gpm.
- Netafim Pressure Regulators withstand all fertilizers and chemicals in common use.

Efficient Operation

- Serviceable in line, simple to service. Netafim Pressure Regulators are unique; interchangeable springs allow for flexibility in pressure output. Optional washers even allow for fine tuning adjustments in pressure output.

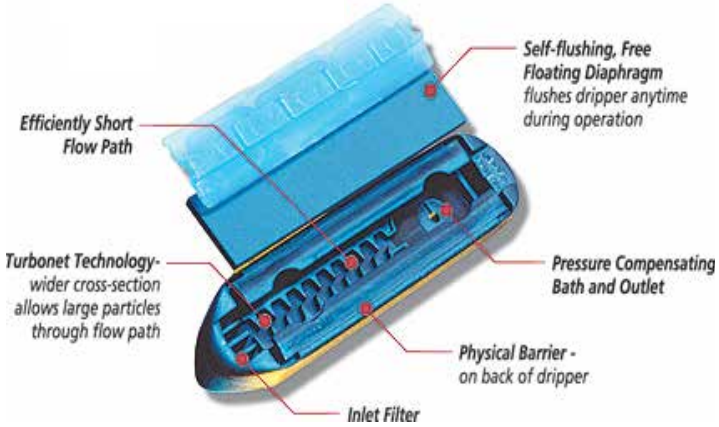
Description	Flow Range	# Springs	PSI	TE #	Netafim #	Graphic	Price
¾"	5.5 - 17.6	1	12	NET-948	32PRV.75-12	A	19.55
¾"	5.5 - 17.6	1	15	NET-952	32PRV.75-15	A	
¾"	5.5 - 17.6	1	20	NET-953	32PRV.75-20	A	
1½"	11 - 35	2	12	NET-961A	32PRV1.5-12	B	49.99
1½"	11 - 35	2	15	NET-962	32PRV1.5-15	B	
1½"	11 - 35	2	20	NET-963	32PRV1.5-20	B	
2" x 4	22 - 70	4	12	NET-971A	32PRV2-412	C	114.60
2" x 4	22 - 70	4	15	NET-972	32PRV2-415	C	
2" x 4	22 - 70	4	20	NET-973	32PRV2-420	C	
2" x 6	33 - 105.6	6	12	NET-981A	32PRV2-612	D	263.00
2" x 6	33 - 105.6	6	15	NET-982	32PRV2-615	D	
2" x 6	33 - 105.6	6	20	NET-983	32PRV2-620	D	
3" x 10	55 - 175	10	12	NET-991A	32PRV3-1012	E	479.10
3" x 10	55 - 175	10	15	NET-992	32PRV3-1015	E	
3" x 10	55 - 175	10	20	NET-993	32PRV3-1020	E	
OTHER PRESSURES ARE AVAILABLE, AT THE SAME PRICE. PLEASE SPECIFY 9, 25, 30, 35, or 43 PSI.							

NETAFIM™
GROW MORE WITH LESS

TECHLINE
Drip Irrigation in Landscaping

Techline Dripperline

Netafim's Techline Dripperline is considered to be the world's most accurate pressure compensating dripperline. Netafim utilizes a patented technology based on a unique pressure differential mechanism which provides high emission uniformity and a clog resistant design. Techline Dripperline has been used successfully by landscapers worldwide to apply water uniformly to trees, shrubs and turf. Available in two sizes, Techline Dripperline provides design flexibility and performance for almost any application.



Suggested Sizes and Spacings:			
		Turf, Annuals Groundcover	Shrub Beds
Sandy	Dripper Row Spacing	12" 12"	12" 16"
Loam	Dripper Row Spacing	12" 18"	18" 18"
Clay	Dripper Row Sapacing	18" 18"	18"

NOMINAL FLOW	FLOW PATH DIMENSIONS		
Dripper Discharge (GPH)	Depth (Inches)	Width (Inches)	Length (Inches)
0.61	0.048	0.048	0.610

SPECIFICATIONS				
	Wall Thickness	Inside Diameter	Outside Diameter	Weight per Coil
17 mm	.045"	0.570"	0.660"	20 lbs.

Description	Spacing/ Flow	gpm/100'	TE#	Netafim#	Price/ Roll
17 mm x 250'	12" / .62 gph	1.033	NTL-24225	TLDL6-12050	122.25
	18" / .62 gph	0.689	NTL-24825	TLDL6-18050	108.70

Use "Power-Loc" fitting Series found on page 41.

NETAFIM™
GROW MORE WITH LESS

Aqua Pro Controller

The Aqua Pro Controller is a DC single station controller. Operated by a 9 volt battery, this controller serves any application where power is not available or affordable. The reinforced nylon body and no internal metal parts result in long-life and low maintenance. Easy access, four button programming. Four program modes provide programming flexibility to meet any irrigation schedule. Can be used with a DC latching solenoid.

Aqua Pro Controller

- Operating Temperature - 32° to 122° F
- Storage Temperature - 14° to 140° F

Description	TE#	Netafim#	Price
Single Station Controller	AP-CONTROLLER	AP-CONTROLLER	100.25

PROFESSIONAL SERIES
Sprinklers for Turf and Landscapes

I-Pro SERIES SPRAY HEADS
THE NEW GENERATION OF SPRAY HEADS
Accepts Richdel, Rain Bird and Nelson nozzles - eases inventory problems.

- Matched precipitation rates across sets and patterns provide even coverage
- I-Pro nozzles deliver uniform distribution with the industry's highest CUs (Coefficient of Uniformity) and lowest SCs (Scheduling Coefficient)
- Large water droplet size inhibits misting, providing excellent coverage in windy conditions.
- Radius reduction screw permits up to 25% in-field reduction.
- Ratcheting riser permits easy arc adjustment in the field.

Specifications:
- Recommended working pressure: 20-50psi
- Precipitation rate (using Irritrol Systems I-Pro Series Nozzles): 1.3 to 2.2 inches per hour
- Spacing: 6'-15'
- Flow-by: 0 at 8psi or greater; .5gpm otherwise
- Inlet size: ½" female NPT threads
- Exposed diameter: 2¼"

Nozzle Performance Chart for Irritrol Systems' NEW I-Pro Series Nozzles

		IPN-8			IPN-10			IPN-12			IPN-15		
ARC	PSI	GPM	Radius	"/hour†	GPM	Radius	"/hour†	GPM	Radius	"/hour†	GPM	Radius	"/hour†
360	20	0.77	7	1.5/1.8	1.22	9	1.5/1.7	1.74	11	1.4/1.6	2.95	14	1.5/1.7
(F)	30	1.04	8	1.6/1.8	1.64	10	1.6/1.8	2.28	12	1.5/1.8	3.73	15	1.6/1.8
	40	1.21	9	1.4/1.7	1.77	11	1.4/1.6	2.45	13	1.4/1.6	4.35	16	1.6/1.9
	50	1.35	9	1.6/1.9	2.04	11	1.4/1.6	2.81	13	1.6/1.9	4.75	16	1.8/2.1
270	20							1.17	11	1.2/1.4	2.23	14	1.5/1.7
(TQ)	30							1.72	12	1.5/1.8	2.76	15	1.6/1.8
	40							1.83	13	1.4/1.6	3.18	16	1.6/1.8
	50							2.00	13	1.5/1.8	3.61	16	1.8/2.1
240	20							1.20	11	1.4/1.7	1.95	14	1.4/1.7
(TT)	30							1.55	12	1.6/1.8	2.41	15	1.6/1.8
	40							1.74	13	1.5/1.7	2.91	16	1.6/1.9
	50							1.92	13	1.6/1.9	3.11	16	1.8/2.0
180	20	0.38	8	1.5/1.8	0.68	9	1.6/1.9	1.00	11	1.6/1.8	1.51	14	1.5/1.7
(H)	30	0.52	8	1.6/1.8	0.81	10	1.6/1.8	1.15	12	1.5/1.8	1.82	15	1.6/1.8
	40	0.60	9	1.4/1.7	0.97	11	1.5/1.8	1.37	13	1.6/1.8	2.23	16	1.7/1.9
	50	0.68	9	1.6/1.9	1.13	12	1.5/1.7	1.64	14	1.9/2.2	2.36	16	1.8/2.1
120	20	0.26	7	1.5/1.8	0.43	9	1.5/1.8	0.59	11	1.4/1.6	1.03	14	1.5/1.8
(T)	30	0.34	8	1.5/1.8	0.53	10	1.5/1.8	0.75	12	1.5/1.7	1.19	15	1.5/1.8
	40	0.41	9	1.5/1.7	0.66	11	1.6/1.8	0.91	13	1.6/1.8	1.41	16	1.6/1.8
	50	0.45	9	1.6/1.9	0.76	12	1.5/1.8	1.01	13	1.7/2.0	1.57	16	1.8/2.0
90	20	0.18	7	1.5/1.7	0.30	9	1.4/1.7	0.46	11	1.5/1.7	0.73	14	1.4/1.7
(Q)	30	0.26	8	1.6/1.8	0.40	10	1.5/1.8	0.57	12	1.5/1.8	0.91	15	1.6/1.8
40	0.28	9	1.3/1.6	0.50	11	1.6/1.8	0.68	13	1.6/1.8	1.11	16	1.7/1.9	
	50	0.31	9	1.5/1.7	0.60	12	1.6/1.9	0.72	13	1.6/1.9	1.32	16	2.0/2.3

† = Precipitation in inches per hour. Reads as Square Spacing / Triangular Spacing. Spacings are based on 50% diameter of **throw.**

Model	Description	TE#	Price
I-PRO300	3" Pop-up	HS3	2.52
I-PRO400	4" Pop-up	HS4	2.52
I-PRO600	6" Pop-up	HS6	5.88
I-PRO1200-SI	12" Pop-up	HS12	17.32
HS100	Shrub Adaptor	HS1	1.32
IPN-xx	I-Pro Nozzles	xxx	1.50

Rain Sensor RS1000 & RS500

OPERATING SPECIFICATIONS
- Rain sensitivity: adjustable nominal 1/8"to 3/4" • Housing material: UV-resistant polymer
- Transmission up to 300' line of site (wireless only)

TE#	Irritrol #		Price
RS1000	RS1000	Wireless Model	127.65
RS500	RS500	Wired Model	42.00

Hunter®

PROFESSIONAL SERIES
Sprinklers for Turf and Landscape

MODEL PS FIXED SPRAY SPRINKLER

For Landscap and Small Turf Areas

- Integral Nozzle
- Ratcheting Riser
- G.P.M.: 0.2 to 5.3gpm
- Adjustable Arc
- 2-Year over the countr warranty
- Radius: 10',12',15',17', and strip

Hunter#	TE#	Description	Price
PS-04-10A	PS04-10A	4" Pop-up 10' Arc	5.95
PS-04-12A	PS04-12A	4" Pop-up 12' Arc	5.95
PS-04-15A	PS04-15A	4" Pop-up 15' Arc	5.95
PS-04-17A	PS04-17A	4" Pop-up 17' Arc	5.95
PS-04-5SS	PS04-5SS	4" Pop-up Strip	5.95

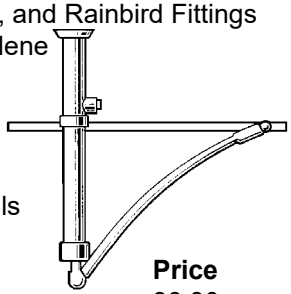
Performance Chart for Hunter PS-Type

Models	PSI	90° Rad	GPM	120° Rad	GPM	180° Rad	GPM	240° Rad	GPM	270° Rad	GPM	360° Rad	GPM
10-A 10° Trajectory	20	10'	0.4	10'	0.5	10'	0.7	10'	1.0	10'	1.1	10'	1.4
	25	10'	0.4	10'	0.6	10'	0.8	10'	1.2	10'	1.3	10'	1.6
	30	11'	0.5	11'	0.6	11'	1.0	11'	1.3	11'	1.5	11'	2.0
	35	11'	0.5	11'	0.7	11'	1.0	11'	1.4	11'	1.6	11'	2.1
12-A 28° Trajectory	20	12'	0.6	12'	0.8	12'	1.2	12'	1.5	12'	1.7	12'	2.1
	25	12'	0.8	12'	0.9	12'	1.3	12'	1.7	12'	1.9	12'	2.2
	30	14'	0.9	14'	1.0	14'	1.5	14'	1.9	14'	2.1	14'	2.8
	35	14'	0.9	14'	1.1	14'	1.6	14'	2.1	14'	2.3	14'	3.0
15-A 28° Trajectory	20	14'	0.7	14'	0.9	14'	1.4	14'	1.7	14'	2.0	14'	3.0
	25	15'	0.9	15'	1.1	15'	1.6	15'	1.9	15'	2.2	15'	3.4
	30	16'	1.0	16'	1.2	16'	1.8	16'	2.1	16'	2.4	16'	3.6
	35	16'	1.1	16'	1.3	16'	2.0	16'	2.3	16'	2.6	16'	4.0
17-A 28° Trajectory	20	16'	1.6	16'	1.6	16'	2.4	16'	2.6	16'	2.8	16'	3.7
	25	17'	1.8	17'	1.9	17'	2.7	17'	2.9	17'	3.1	17'	4.3
	30	18'	1.9	18'	2.1	18'	2.9	18'	3.2	18'	3.3	18'	4.6
	35	18'	2.1	18'	2.3	18'	3.1	18'	3.5	18'	3.9	18'	4.8
Data represents test results in zero wind. Adjust for local conditions. Optimum performance at 25 PSI													
5SS Side Strip	20	4'x28'	1.1										
	25	5'x30'	1.2										
	30	5'x30'	1.3										
	35	5'x33'	1.4										
Head to head spacing is recommended													

SWING PIPE & FITTINGS

Irritrol Systems Super Blue Flex™ Swing Pipe

- Also known as Flex Pipe or Funny Pipe
- For use as a flexible assembly under sprinkler heads
- Compatible with EZ-Ell, King, Toro, and Rainbird Fittings
- Durable, very low density polyethylene
- .490" Inside Diameter
- .095" Wall Thickness
- .680" Outside Diameter
- ½" Nominal Size
- Availible in shrink wrapped 100' rolls



Irritrol Systems#	Our#	Price
EHD1295-010	SP-100	39.30

Swing Pipe Fittings

- For use in conjunction with Swing Pipe as a flexible swing joint assembly.
- Spiral Barbed Fitting
- Allows for easy twist-in insertion of units into pipe
- Made of durable thermoplastic materials.
- Maximum working pressure of 80psi

TE#	Description		Price
RNB-072	Elbow	½"mpt	.39
RNB-073	Elbow	¾"mpt	.39
RNB-076	Tee		.77
RNB-077	Coupling		.34

3504PC Series Part-Circle Rotor Pop-Up Sprinklers

Primary Applications:
The 3504PC Rotor is a short to mid-range 1/2" gear-drive rotor. Utilizing a simple flat-bladed screwdriver, the 3504PC's arc adjustment is quick and easy.

Features and Benefits:
- Top-adjust arc adjustment requiring only a flat-blade screwdriver
- True 4" pop-up (measured from center of nozzle)
- 40- 360° Arc Part-Circle arc rotation and reversing Full-Circle rotation
- Attachable nozzle tree of six Rain Curtain™ nozzles
- Radius adjustment screw allows up to 35% radius reduction
- Arc setting factory preset at 180° for installation convenience
- Optional non-potable cover for easy identification of reclaimed water

Models:
3504-PC

Specifications:
- Precipitation rate: .37 to .72 inches per hour
- Radius: 15 to 35 feet
- Pressure: 25-55 psi
- Flow Rate: .54 to 4.6 gpm
- 1/2" NPT female bottom threaded inlet

Performance Charts
3504PC Series Rotor

PSI	Nozzle	Radius (Feet)	Flow (GPM)	In/hour square	In/hour triangle
25	0.75	15	0.54	0.46	0.53
	1	20	0.77	0.37	0.43
	1.5	23	1.06	0.39	0.45
	2	27	1.40	0.37	0.43
	3	29	2.17	0.50	0.57
	4	31	2.97	0.59	0.69
35	0.75	17	0.67	0.45	0.52
	1	21	0.92	0.40	0.46
	1.5	23	1.28	0.47	0.54
	2	27	1.69	0.45	0.52
	3	31	2.60	0.52	0.60
	4	33	3.58	0.63	0.73
45	0.75	17	0.77	0.51	0.59
	1	21	1.06	0.46	0.53
	1.5	24	1.48	0.49	0.57
	2	27	1.93	0.51	0.59
	3	31	3.00	0.60	0.69
	4	35	4.13	0.65	0.75
55	0.75	18	0.85	0.51	0.58
	1	22	1.18	0.47	0.54
	1.5	24	1.65	0.55	0.64
	2	28	2.15	0.53	0.61
	3	32	3.25	0.61	0.71
	4	35	4.60	0.72	0.83

Rain Bird 5004PC Series Rotor
Full- or Part-Circle Rotary Pop-Up Sprinkler

Primary Applications:
The 5004PC Series Rotor is a rugged mid-range gear-drive rotary sprinkler.

Features and Benefits:
- Standard Rubber Cover for extra protection and easy identification.
- Enhanced Rain Curtain™ Nozzles: Increased radius range w/ less flow
- Nozzle Extraction Feature for easy rotor maintenance
- Includes 4 low angle (10°) and 8 standard angle nozzles (25°)
- Top-adjust arc adjustment requiring only a flat-bladed screwdriver
- True 4" (10 cm) pop-up (measured from the case cover to the nozzle)

Specifications:
- Precipitation rate: .20 to 1.01 inches per hour
- Radius: 25 to 50 feet
- Pressure: 25h-65 psi
- Flow Rate: .73 to 9.63 gpm
- 3/4" NPT female bottom threaded inlet
- Reversing full-and part-circle adjustment 40° – 360°

Performance Charts
5004PC & 5004PLPC Series Rotor

PSI	Nozzle	Radius (Feet)	Flow (GPM)	In/hour square	In/hour triangle
25	1.5	33	1.12	0.20	0.23
	2.0	35	1.50	0.24	0.27
	2.5	35	1.81	0.28	0.33
	3.0	36	2.26	0.34	0.39
	4.0	37	2.91	0.41	0.47
	5.0	39	3.72	0.47	0.54
	6.0	39	4.25	0.54	0.62
	8.0	36	5.90	0.88	1.01
35	1.5	34	1.35	0.22	0.26
	2.0	36	1.81	0.27	0.31
	2.5	37	2.17	0.31	0.35
	3.0	38	2.71	0.36	0.41
	4.0	40	3.50	0.42	0.49
	5.0	41	4.47	0.51	0.59
	6.0	43	5.23	0.54	0.63
	8.0	43	7.06	0.74	0.85
45	1.5	35	1.54	0.24	0.28
	2.0	37	2.07	0.29	0.34
	2.5	37	2.51	0.35	0.41
	3.0	40	3.09	0.37	0.43
	4.0	42	4.01	0.44	0.51
	5.0	45	5.09	0.48	0.56
	6.0	46	6.01	0.55	0.63
	8.0	47	8.03	0.70	0.81
55	1.5	35	1.71	0.27	0.31
	2.0	37	2.30	0.32	0.37
	2.5	37	2.76	0.39	0.45
	3.0	40	3.47	0.42	0.48
	4.0	42	4.44	0.48	0.56
	5.0	45	5.66	0.54	0.62
	6.0	47	6.63	0.58	0.67
	8.0	50	8.86	0.68	0.79
65	1.5	34	1.86	0.31	0.36
	2.0	35	2.52	0.40	0.46
	2.5	37	3.01	0.42	0.49
	3.0	40	3.78	0.45	0.53
	4.0	42	4.83	0.53	0.61
	5.0	45	6.16	0.59	0.68
	6.0	48	7.22	0.60	0.70
	8.0	50	9.63	0.74	0.86

Model	Description	TE#	Price
3504PC	Mid-Range Rotor	3504PC	17.10
5004PC	Pro Rotor Adjustable	5004PC	14.80

Hunter®

PROFESSIONAL SERIES
Sprinklers for Turf and Landscape

MODEL PGP POP-UP

Versatile Gear-Driven Sprinklers With12 Interchangeable Nozzles

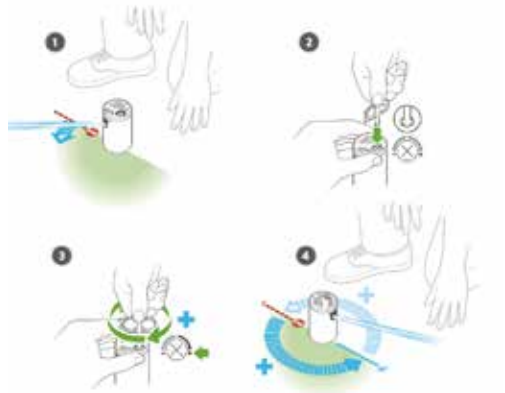
- Quiet vibration-free operation
- 4" Pop-up clears most grasses
- Adjustable and full circle models
- 2-Year warranty.
- Ratcheting riser
- 12 Interchangeable nozzles
- Vandal-Resistant
- G.P.M.: 0.4 to 14.4 gpm.

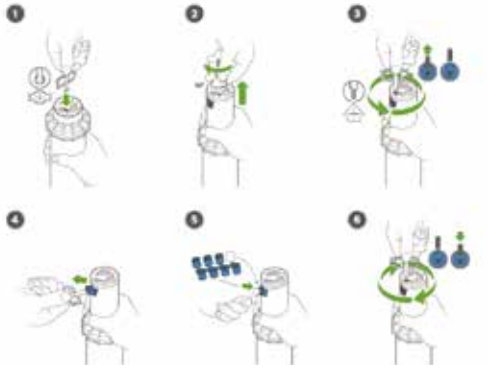
Radius: 27' to 50'

Hunter#	TE#	Description	Price
PGP-04ULTRA	PGP-ADJ	4" Pop-up Adjustable	21.25
PGP-12V-ULTRA	PGH-ADV	12" Pop-up Adjustable w/ Check Valve	52.15

Performance Chart for Hunter PGP

Nozzle Number	PSI	Radius	GPM	Nozzle Number	PSI	Radius	GPM
#1.5	35	31'	1.4	**#4.0**	35	39'	3.5
	45	31'	1.5		45	40'	4.0
	55	32'	1.8		55	41'	4.5
	65	32'	1.9		65	41'	4.8
#2.0	35	33'	1.7	**#5.0**	35	39'	4.5
	45	34'	2.0		45	42'	5.0
	55	34'	2.1		55	42'	5.7
	65	32'	2.3		65	42'	6.2
#2.5	35	25'	2.1	**#6.0**	35	40'	5.6
	45	35'	2.5		45	43'	6.0
	55	35'	2.6		55	44'	6.7
	65	35'	2.9		65	44'	7.3
#3.0	35	36'	2.7	**#8.0**	35	41'	7.0
	45	38'	3.0		45	44'	8.0
	55	39'	3.4		55	46'	9.0
	65	39'	3.7		65	56'	9.8
#2.0 Low Angle	30	25'	1.6	**#3.5 Low Angle**	30	29'	2.8
	40	27'	1.9		40	32'	3.1
	50	28'	2.1		50	35'	3.5
	60	30'	2.3		60	37'	3.8
#2.5 Low Angle	30	27'	2.1	**#4.5 Low Angle**	30	39'	3.4
	40	30'	2.5		40	32'	3.9
	50	33'	2.8		50	35'	4.4
	60	35'	3.0		60	37'	4.7





Matched Precipitation at 50 PSI						
Square Spacing	90° Nozzle#	90° GPM	180° Nozzle#	180° GPM	360° Nozzle#	360° GPM
25'	1	0.7	3	1.2	6	2.7
30'	2	0.9	5	2.0	8	4.2
35'	3	1.2	6	2.7	9	5.5
40'	4	1.6	7	3.4	10	6.8
45'	5	2.0	8	4.2	11	8.9

To Find Precipitation Rate

Square Spacing: Precipitation Rate = $\frac{\text{(Discharge of 360° sprinkler) x 96.25}}{\text{(Spacing)}^2}$

Equilateral Trianglular Spacing: Precipitation Rate = $\frac{\text{(Discharge of 360° sprinkler) x 96.25}}{\text{(Spacing)}^2 \text{ x .866}}$

TRICKL-EEZ IRRIGATION INC
Irrigation Engineering & Equipment

SUBSURFACE DRIP IRRIGATION

Why SDI? Here are a couple of reasons SDI is proving its value:

- Apply fertilizer through your system as well as water, directly to the roots
- Virtually eliminates evaporation, water is applied below the surface
- Increased yields compared to sprinkler or gravity irrigation
- Automatic systems make for simple and convenient operation
- Uniform, efficient water distribution compared to sprinkler or gravity systems
- Ability to uniformly irrigate the entire field - no missing pivot corners
- Lower energy and water requirements for **SDI**.

St Joseph, MI 49085 • 800-874-2553 • Fax 269-429-6669 • www.trickl-eez.com • info@trickl-eez.com

HAVILAND
DRAINAGE PRODUCTS

Haviland Drainage is able to provide a multitude of solutions in drainage. Some of those solutions are:

- Corrugated Tubing in 2” – 24”
- Sock Tubing
- Chambers
- Pipe Fittings and Accessories
- Storm Sewer Pipe in 4” – 60”
- Post Tensioning Duct
- Corrugated Metal Pipe
- Sewer and Drain Pipe
- Storm Water Quality Units
- Sumps

TE #	Description	Price	TE #	Description	Price
10030403	4" x 100' Corrugated Solid	64.55	10050416	4" Wye	9.75
10030408	4" x 250' Corrugated Solid	161.30	10050421	4" Snap Coupling	2.80
10030404	4" x 100' Corrugated Perforated	64.55	10050428	4" End Cap	2.85
10030409	4" x 250' Corrugated Perforated	161.30	10050628	6" End Cap	6.15
10030413	4" x 100' Corrugated Perf w/ Sock	92.10	10050425	4" Downspout Adapter	5.00
10030415	4" x 250' Corrugated Perf w/ Sock	230.20	10050419	4" S&D Adapter	2.85
10030600	6" x 100' Corrugated Solid	171.40	10050620	6" Internal Coupling	5.55
10030608	6" x 100' Corrugated Perf w/ Sock	219.25	10050615	6" Tee	14.10
10050420	4" Internal Coupling	2.80	10050617	6"x 6"x 5" x4" Reducing Tee	14.10
10050415	4" Tee	7.15	10050627	6" Blind Tee	14.10
10050417	4" 90° Elbow	7.15	10050616	6" Wye	20.60
			10050630	6"x 4" Reducer Coupling	5.35

Haviland Drainage products ship freight free for orders of at least 1/4 of a truckload. All other orders are for pick-up only.

BACKFLOW PREVENTION DEVICES

Pressure Vacuum Breaker

- Can be operated under pressure
- Isolation ball valves are standard
- Equivalent to Watts #800, #008

Reduced Pressure Assembly

- High hazard cross connection
- Isolation ball valves service.
- Equivalent to Watts #909, #009, **#995**

	Reduced Pressure Backflow Preventers RPZ			Pressure Vacuum Breakers PVB		
GPM	1"	1½"	2"	1"	1½"	2"
10	11.0	13.5	14.0	4.0	3.0	2.5
20	12.0	13.5	13.5	4.1	3.0	3.5
30	12.0	13.5	13.0	5.0	3.5	3.5
40	12.5	13.5	13.0	6.0	3.5	4.0
50	13.5	13.5	13.0	7.5	4.0	4.5
60	15.0	14.0	13.0	9.5	4.0	4.5
70	17.0	14.0	13.0	-	4.0	5.0
80	18.0	14.0	13.5	-	4.5	5.0
90	-	14.5	13.5	-	4.5	5.0
100	-	15.0	13.5	-	5.0	5.5
150	-	18.0	15.0	-	-	6.5
200	-	-	18.0	-	-	7.5

Item #	Description	TE#	Price
710-10	Pressure Vacuum Breaker 1" Economy	710-10	145.35
720A	Pressure Vacuum Breaker 1½"	720A-15	792.10
720A	Pressure Vacuum Breaker 2"	720A-20	898.70
375XL	Reduced Pressure Assembly 1"	375XL-10	724.70
375XL	Reduced Pressure Assembly 1½"	375XL-15	1349.80
375XL	Reduced Pressure Assembly 2"	375XL-20	1495.40

Chemigation Check Valves

- Specially designed to prevent backflow of chemically treated water from irrigation systems.
- Durable fabricated steel body.
- Simple, economical design. Flanged ends for easy installation.
- Inspection port provides easy access to internal components.
- Stainless steel hinge construction for added corrosion resistance.
- Precision machined seat & rubber coated cover provide positive seal.
- Galvanized steel body.
- Working Pressure - upto 150 psi

Item #	Description	Max Flow	TE#	Price
P1775-60	Chemigation Valve 3.00"	250gpm	P1775-60	498.60
P1775-61	Chemigation Valve 4.00"	580gpm	P1775-61	498.60
P1778-61	Chemigation Valve 6.00"	1320gpm	P1778-61	591.30
P1778-62	Chemigation Valve 8.00"	2350gpm	P1778-62	684.90

Need a Second Check Valve (Double Check)? Then add this Fresno Check Valve to the Chemigation Valve:

Item #	Description	TE#	Price
P1753-05	Flanged Check Valve 3.00"	P1753-05	282.60
P1755-01	Flanged Check Valve 4.00"	P1755-01	315.90
P1753-01	Flanged Check Valve 6.00"	P1753-01	368.10
P1753-02	Flanged Check Valve 8.00"	P1753-02	462.60
P1775-01	Flange Pack w/ Gasket 4.00"	P1775-01	35.00
P1775-03	Flange Pack w/ Gasket 6.00"	P1775-03	45.00
P1775-04	Flange Pack w/ Gasket 8.00"	P1775-04	53.00

VALVE BOXES

A - ECONOMY VALVE BOX w/ LID
- Ideal for single valve installations.
- Green lid.

B - 10" ROUND VALVE BOX w/ LID
- Sturdy Construction
- Green lid

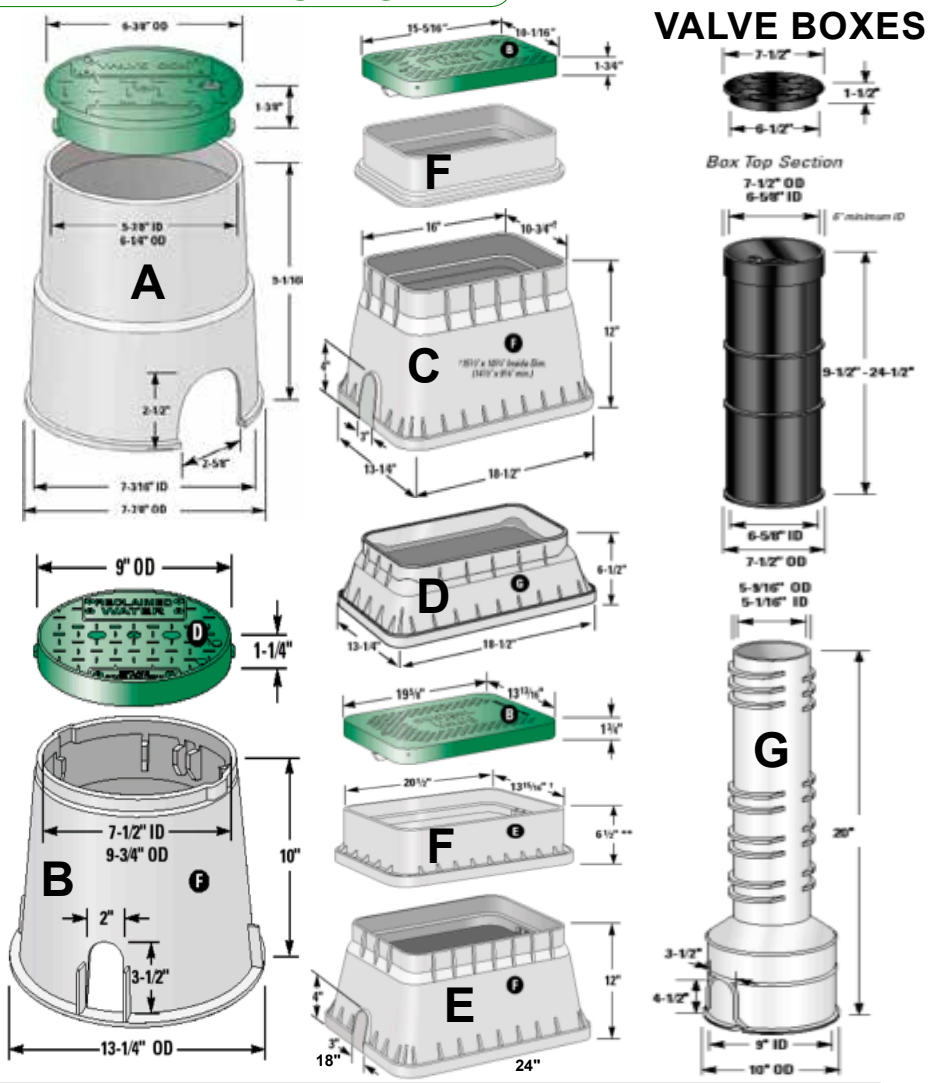
C - STANDARD VALVE BOX w/ LID
- Space to manifold several valves.
- Green lid, lockable.

D - 6" STANDARD VALVE BOX w/ LID
- Same as Standard Box, but shallower

E - JUMBO VALVE BOX w/ LID
- Extra large capacity.
- Green lid, lockable.

F - VALVE BOX EXTENSIONS
- Available for Standard or Jumbo Boxes.
- Designed to set directly over box.

G - 5¼" POLYIRON VALVE BOX
- Adjustable heights
- Magnetically locatable material
- Order the lid, top and bottom seperately



Description	TE#	Ametek #	Price
Economy Valve Box w/ Cover	AMT-500	182103	17.60
10" Round Valve Box w/ Cover	AMT-510	181104	52.15
Standard Valve Box w/ Cover	AMT-600	170106	87.05
6" Standard Valve Box w/ Cover	AMT-606F	170130	85.40
Standard Valve Box Extension, 6"	AMT-606	170103	46.25
Jumbo Valve Box w/ Cover	AMT-650	190106	187.90
Jumbo Valve Box Extension, 6"	AMT-651	190110	57.80
5¼" Polyiron Lid Only	AMT-569	111031	13.00
5¼" Polyiron 20" Bottom Only	AMT-562	111048	59.40
5¼" Polyiron 24" Top Only	AMT-568	111038	67.60

IRRIGATION WIRE

Single Conductor Underground Irrigation Wire

Description	Gauge	Spool Size	Price per 1,000'	Price Per Reel
• Solid Bare Copper	16	2500'	130.00	325.00
		500'	130.00	65.00
	14	2500'	175.00	437.60
		500'	175.00	87.55
	12	2500'	346.40	866.00

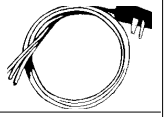
Available in Red, White, Black, Green, Yellow and Blue.

Heavy Duty Underground Multi-Strand Cable
- Solid Bare Copper #18
- Polyethelene Insulation

Strands	Spool Size	Price/Reel
2	250'	39.55
4	250'	70.15
5	250'	85.85
6	250'	101.25
7	250'	115.90
8	250'	134.80
9	250'	150.70
10	250'	167.85
13	250'	215.35
16	250'	317.45
19	250'	389.80

Power Supply Cords

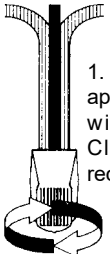
TE#	Man #	Length	Price
WIR-001	6'RA-16/3	6' (16-3 wire)	7.60



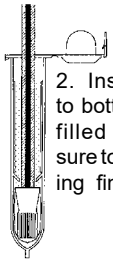
3M Direct Burial Splice Kit

- Gel Filled Tube insures waterproof connection
- Holds up to 3 #14 wires
- 100 Kits to a Box

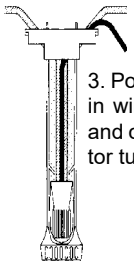
TE#	Man #	Desc.	Price
DBY	DBY	Yellow	2.00



1. Strip wire and apply yellow(Y) wire nuts in Clockwise direction.



2. Insert splice to bottom of gel-filled tube. Be sure to pass locking fingers.



3. Position wires in wire channels and close insulator tube cover.

WIRE CONNECTORS & ACCESSORIES

MARKING FLAGS

- Available in Red, Yellow, Blue, White.
- Custom Lettering available
- Priced in Bundles of 100

Part No.	Size	Color	Pack	Price
BLA-15B	2½ x 3½	Blue	100	11.00
BLA-15R	2½ x 3½	Red	100	11.00
BLA-15W	2½ x 3½	White	100	11.00
BLA-15Y	2½ x 3½	Yellow	100	11.00

KING AUTOMATIC DRAIN

- Drain Valve opens at 10psi
- Built in dispersing pad
- For Mains or Laterals!

Part No.	Size	Pack	Price
22163	½" mpt	25	3.45
23167	¾" mpt	25	3.68

NIPPLE EXTRACTORS

Part No.	Size	Price
SW500C	½" & ¾"	4.65

BLAZING™
BLAZING PRODUCTS BY TOM KING

BVS-1

Snap-Locking Waterproof Connectors with Pre-Filled Silicone

- Easy as 1-2-3!
- No Tools
- Saves time and labor
- No Stripping your wires!
- Completely waterproof
- Great for valve splices

For use with 16, 18, & 20 gauge TEW and TEM wire.

TE#	Part #	Color	Max Voltage	Temperature	Combinations Minimum	Maximum	Packed	Price
BVS-1	BVS-1	Clear/Blue	300V	-40°F - 400°F	1- #20	3- #16	25	1.72

KING INNOVATION®

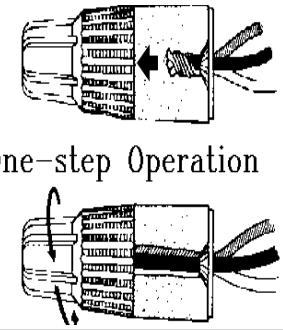
DRYCONN® WATERPROOF CONNECTORS

King's "One-Step" Saves Time and Money!

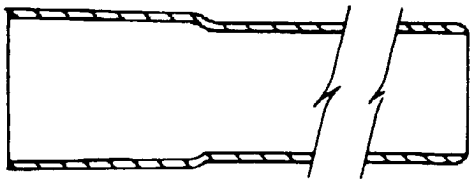
Advantages and Benefits:

- One-step operation saves time, and money.
- One-size convenience, less inventory
- No on-site assembly is required.
- No messy on-site filling is required.
- Spring cuts thread into wire on first turn .
- Retention fingers repack gel around wires for sure seal.
- Color coded to standardized colors.
- Twists easily without tools.

TE#	Part #	Color	Max Voltage	Size	Combinations Minimum	Maximum	Packed	Price
KIN-1011	10222B	Dark Blue	300V	1-1/8" x 9/16"	3- #20	3- #16	20	1.45
KIN-101	20111B	Tan	30V	2" x 13/16"	3- #22	4- #12 or 3- #10	15	1.74



PVC IRRIGATION PIPE



SDR -26 **160PSI** **ASTM D-2241** **NSF RATED**

SIZE	TE#	NOM O. D.	NOM I.D.	MIN WALL	Ft./PALLET	PRICE/100'
1¼"	SDR-2612	1.660	1.532	.064	4000	
1½"	SDR-2615	1.900	1.754	.073	3600	**Prices fluctuate frequently... Please call for current prices!**
2"	SDR-262	2.375	2.193	.091	2800	
2½"	SDR-2625	2.875	2.655	.110	2240	
3"	SDR-263	3.500	3.230	.135	1500	
4"	SDR-264	4.500	4.154	.173	580	

SDR -21 **200PSI** **ASTM D-2241** **NSF RATED**

SIZE	TE#	NOM. O.D.	NOM I.D.	MIN WALL	Ft./PALLET	PRICE/100'
¾"	SDR-2107	1.050	.930	.060	6600	
1"	SDR-211	1.315	1.189	.063	5400	
1¼"	SDR-2112	1.660	1.502	.079	4000	**Prices fluctuate frequently... Please call for current prices!**
1½"	SDR-2115	1.900	1.720	.090	3600	
2"	SDR-212	2.375	2.149	.113	2800	
2½"	SDR-2125	2.875	2.601	.137	2240	
3"	SDR-213	3.500	3.166	.167	1500	
4"	SDR-214	4.500	4.072	.214	580	

SCH-40 **ASTM D-1785** **NSF RATED**

SIZE	TE#	NOM. O.D.	NOM I.D.	MIN WALL	Ft./PALLET	PRICE/100'
¾"	SCH-0407	1.050	.824	.113	6600	
1"	SCH-041	1.315	1.049	.133	5400	
1¼"	SCH-0412	1.660	1.380	.140	4000	**Prices fluctuate frequently... Please call for current prices!**
1½"	SCH-0415	1.900	1.610	.145	3600	
2"	SCH-042	2.375	2.067	.154	2800	
2½"	SCH-0425	2.857	2.451	.203	2240	
3"	SCH-043	3.500	3.068	.216	1500	
4"	SCH-044	4.500	4.026	.237	580	

SCH-40 PVC Pipe Pressure Ratings:

½"	400psi	1½"	330psi	4"	220psi
¾"	400psi	2"	280psi	6"	180psi
1"	400psi	2½"	300psi		
1¼"	370psi	3"	260psi		

GASKET JOINT PVC IRRIGATION PIPE

SDR -26 GASKET JOINT		160PSI	ASTM D-2241		NSF RATED	
SIZE	TE#	NOM O. D.	NOM I.D.	MIN WALL	Ft./PALLET	PRICE/100'
4"	SDR-264G	4.500	4.133	.173	1140	
6"	SDR-266G	6.625	6.084	.255	520	**Prices fluctuate frequently... Please call for current prices!**
8"	SDR-268G	8.625	7.921	.332	300	
10"	SDR-2610G	10.750	9.874	.413	240	
12"	SDR-2612G	12.750	11.711	.490	120	

SDR -41 GASKET JOINT		100PSI	ASTM D-2241		NSF RATED	
SIZE	TE#	NOM. O.D.	NOM I.D.	MIN WALL	Ft./PALLET	PRICE/100'
6"	SDR-216G	6.625	6.301	.162	520	**Prices fluctuate frequently... Please call for current prices!**
8"	SDR-218G	8.625	8.205	.210	300	
10"	SDR-2110G	10.750	10.226	.262	240	
12"	SDR-2112G	12.750	12.128	.311	120	

Description	TE#	MAN#	Price
Gasket Lube, Quart	SDR-26L	81550	16.50

PVC PRESSURE PIPE

Resin: PVC 1120 (Polyvinyl Chloride)
General Characteristics: Rigid. Good impact strength. May be used for drinking water and is NSF approved. It has a variety of uses where corrosion is a problem.

SDR-26
Pressure Rating Per Sq. Inch @ 73.4°F: 160psi
Available Sizes: 1¼", 1½", 2", 2½", 3", 4", 6", 8", 10", 12" Solvent Weld & Gasket Joint.
Meets or Exceeds Following Standards: ASTM D-2241. NSF approval for drinking water.

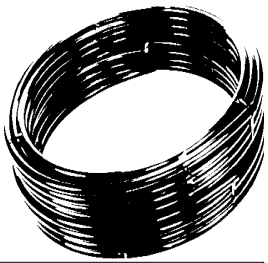
SDR-21
Pressure Rating Per Sq. Inch @ 73.4°F: 200psi
Available Sizes: ¾", 1", 1¼", 1½", 2", 2½", 3", 4", 6", 8", 10", 12" Solvent Weld & Gasket Joint.
Meets or Exceeds Following Standards: ASTM D-2241. NSF approval for drinking water.

SCHEDULE 40
Pressure Rating Per Sq. Inch @ 73.4°F: 130psi to 600psi depending on size of pipe. (See page 90)
Available Sizes: ¾", 1", 1¼", 1½", 2", 2½", 3", 4", 6", 8", 10", 12" Solvent Weld & Gasket Joint.
Meets or Exceeds Following Standards: ASTM D-1785. NSF approval for drinking water.

TRICKL-EEZ IRRIGATION INC

CRESLINE®
CRESLINE PLASTIC PIPE CO., INC.

POLY IRRIGATION PIPE



•Superb, high quality flexible irrigation pipe available in a wide range of sizes and resins to meet your specifications and price.

SDR 15 100PSI HIGH DENSITY NSF RATED PE 3408

(Stocked at both locations)

SIZE	TE#	I.D.	MIN. WALL	AVAILABLE COIL LENGTHS	PRICE /ROLL
¾"	HD100-07100	0.824	.060	100'	25.35
¾"	HD100-07400	0.824	.060	400'	101.25
1"	HD100-10100	1.049	.070	100'	29.20
1"	HD100-10300	1.049	.070	300'	87.55
1¼"	HD100-12100	1.380	.092	100'	49.30
1¼"	HD100-12300	1.380	.092	300'	147.85
1½"	HD100-15100	1.610	.107	100'	71.95
1½"	HD100-15250	1.610	.107	250'	179.85
2"	HD100-20100	2.067	.138	100'	105.90
2"	HD100-20200	2.067	.138	200'	211.80

HOSE THREAD FITTINGS

Part No.	Description		Price
MHTXMPT	MM67-1212	Brass	5.08
MHT-106	MHT-106	PVC	3.06
FHTXMPT	LMFS-1212	Brass	12.75
FHT-204	FHT-204	PVC	4.65
FHTXFPT	FS67-1212	Brass	5.55
FHT-206	FHT-206	PVC	4.65
3/4-MHT-CAP	FHT Cap w/ Washer		.76

Part No.	Description	Price
3/4-HW	Hose Washer	.25
3/4-SW	Washer w/ Screen	.60
3/4GB	Hose Shut-Off	2.90
3/4WYE	Hose "Y" w/ Shut-offs	4.95

POLY PIPE CUTTER

- Just squeeze and twist
- Cuts up to 1½" OD Pipe
- Economical

PVC SAW

- Aluminum handle
- Induction hardened teeth
- Cuts in both directions

PVC CUTTER

- Model HM42
- All metal construction
- Holds pipe as it cuts for smooth ends
- Cuts 1.00" through 1.25"

PVC CUTTER

- Model HL50
- All metal construction
- Holds pipe as it cuts for smooth ends
- Cuts 1.00" through 2.00"

Description	Mfg#	TE#	Price
Poly Pipe Cutter to 1¼"	T135	T135	12.45
Poly Pipe Cutter to 1½"	SS200	SS200	13.75
Blade for T135	T135B	T135B	5.50
Blade for SS200	SS200B	SS200B	4.85
PVC Saw 12"	PVCSAW12	SAW	13.25
PVC Ratchet Cutter 1.00" to 1.25"	HM42	HM42	28.10
PVC Ratchet Cutter 1.00" to 2.00"	HL50	HL50	112.25
Blade for HM42	HM42B	HM42B	15.25
Blade for HL50	HL50B	HL50B	56.50

TRICKL-EEZ IRRIGATION INC

United Elchem
UNI-WELD

Our solvents and primers are the highest quality available, and the manufacturing is consistant. Professional grade at a competative price.

IPS CORPORATION

Model	Color	Cure Speed	Temp Range	Max Pipe Size	ASTM #
SOLVENTS					
705 / 2200	Clear	Medium	60 - 100 Degrees	Through 6"	D-2564
725 / 2400	Aqua Blue	Fast	60 - 100 Degrees	Through 6"	D-2564
711 / 1700	Gray	Medium	0 - 100 Degrees	Through 12"	D-2564
727 Series	Clear	Medium	-10 - + 80 Degrees	Through 6"	D-2564-88
PRIMERS					
P70P / 8700	Purple		up to 100 Degrees	All Sizes	F-656
P70C / 9300	Clear		up to 100 Degrees	All Sizes	F-656-89A
P75 / 8000	Blue		up to 100 Degrees	All Sizes	F-656

PRICES	Gallon TE#		Quart TE#		Pint TE#		½ Pint TE #		¼ Pint TE #	
SOLVENTS										
IPS 705 Series	IPS-704	129.60	IPS-705	38.00	IPS-706	23.90	10097	13.62	IPS-708	9.45
UE 2200	1224	105.88	1236S	31.61	1246S	20.27	2256S	11.47		
IPS 725 Series			IPS-725	45.15	IPS-726	26.95				
UE 2400			2436S	42.25	2446S	23.40				
IPS 711 Series	IPS-714	165.90	IPS-715	49.10						
UE 1700	1724	151.63	1736S	43.43						
IPS 727 Series			IPS-728	53.60						
PRIMERS										
IPS P70P	IPS-804	143.25	IPS-805	43.60	IPS-806	26.95	IPS-807	13.60	IPS-808	9.90
UE 8700	8724	122.36	8736S	29.88	8746S	23.26	8756S	13.08		
IPS P70C			IPS-815	43.60	IPS-816	26.95	IPS-817	13.60	10228	9.90
UE 9300			9336S	26.15	9346S	18.49	9356S	10.93		
IPS P75			IPS-825	52.75						
UE 8000			8036S	46.84	8046S	26.41				

Average number of joints per Quart of Weld-On Cements:

Pipe Diameter:	½"	¾"	1"	1¼"	1½"	2"	2½"	3"	4"	6"	8"	10"
Number of Joints:	300	200	125	100	90	60	50	40	30	10	5	2-3

Empty Cans

Quart Can - Triple Tight Neck for 3" Roller
IPS-832 MT-653 6.73

Gallon Can - 2 7/8" Neck for 7" Roller
IPS-830 MT-648 19.73

Glue Tote II

Easy Quart/Pint Carrier
12891 12891 16.50

Daubers

½" for pipe diameter up to 3"
IPS-837 DQ150 1.19
1" for cleaners & primers
IPS-836 DP100 1.12

CAN-MATE Adjustable - ¾" for up to 1¼" pipe
IPS-835 CM-75 4.88
CAN-MATE Adjustable - 1½" for up to 3" pipe
IPS-838 CM-150 4.88

Rollers

Roll-A-Weld 3" Roller for 3" - 6" pipe.
IPS-833 3020 14.06
Jumbo Roll-A-Weld 7" for 6" and larger.
IPS-834 7020 17.16

Teflon Paste - Select Unyte

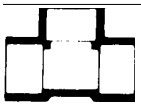
Soft set, white all purpose virgin teflon paste pipe joint compound. For use on plastic and metal thread systems carrying air, water, and many chemicals.
WHI-TF08 ½ Pint 11.20
WHI-TF16 Pint 18.50

Teflon Tape

TT05520 ½" x 520" Roll 1.70
TT07520 ¾" x 520" Roll 2.05

Blue Monster PTFE Thread Tape

70886 ¾" x 1429" Roll 6.80
70885 ½" x 1429" Roll 5.95

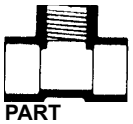


TEE SxSxS

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
401-005	½	50	1.08
401-007	¾	50	1.25
401-010	1	50	2.37
401-012	1¼	25	3.65
401-015	1½	25	4.44
401-020	2	25	6.50
401-025	2½	10	21.40
401-030	3	10	28.11
401-040	4	5	50.86
401-050	5	4	78.16
401-060	6	4	108.96
401-080	8	2	252.67

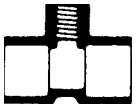
TEE REDUCING SxSxS

401-101	¾x¾x½	50	1.45
401-102	¾x¾x1	50	4.16
401-125	1x¾x¾	50	4.16
401-130	1x1x½	50	2.48
401-131	1x1x¾	50	2.70
401-166	1¼x1¼x½	25	4.03
401-167	1¼x1¼x¾	25	4.03
401-168	1¼x1¼x1	25	4.03
401-209	1½x1½x½	25	7.05
401-210	1½x1½x¾	25	7.05
401-211	1½x1½x1	25	7.05
401-212	1½x1½x1¼	25	7.05
401-213	1½x1½x2	25	10.09
401-247	2x2x½	10	6.94
401-248	2x2x¾	10	6.94
401-249	2x2x1	10	6.94
401-250	2x2x1¼	10	6.94
401-251	2x2x1½	10	6.94
401-287	2½x2½x½	10	21.35
401-288	2½x2½x¾	10	21.35
401-289	2½x2½x1	10	21.35
401-290	2½x2½x1¼	10	21.35
401-291	2½x2½x1½	10	21.35
401-292	2½x2½x2	10	21.35
401-333	3x3x½	10	30.59
401-334	3x3x¾	10	30.59
401-335	3x3x1	10	30.59
401-336	3x3x1¼	10	30.59
401-337	3x3x1½	10	30.59
401-338	3x3x2	10	30.59
401-341	3x3x4	10	52.48
401-416	4x4x¾	4	50.86
401-417	4x4x1	4	50.86
401-418	4x4x1¼	5	50.86
401-419	4x4x1½	5	50.86
401-420	4x4x2	5	50.86
401-422	4x4x3	5	50.86
401-486	5x5x2	5	75.89
401-488	5x5x3	5	75.89
401-490	5x5x4	5	75.89
401-528	6x6x2	5	105.54
401-530	6x6x3	5	108.96
401-532	6x6x4	5	108.96
401-582	8x8x4	2	252.67
401-585	8x8x6	2	252.67



TEE SxSxFIPT

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
402-005	½	50	1.45
402-007	¾	50	2.26
402-010	1	50	4.16
402-012	1¼	25	6.62
402-015	1½	25	8.63
402-020	2	10	10.93
402-030	3	10	42.31
402-040	4	5	64.67



TEE REDUCING SxSxFIPT

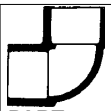
402-101	¾x¾x½	50	1.93
402-130	1x1x½	50	2.92
402-131	1x1x¾	50	4.16
402-166	1¼x1¼x½	25	6.94
402-167	1¼x1¼x¾	25	6.94
402-168	1¼x1¼x1	25	6.94
402-209	1½x1½x½	25	8.63
402-210	1½x1½x¾	25	8.63
402-211	1½x1½x1	25	8.63
402-212	1½x1½x1¼	25	8.63
402-247	2x2x½	10	10.83
402-248	2x2x¾	10	10.83
402-249	2x2x1	10	10.83
402-250	2x2x1¼	10	10.83
402-251	2x2x1½	10	10.83
402-287	2½x2½x½	10	23.44
402-288	2½x2½x¾	10	23.44
402-289	2½x2½x1	10	23.44
402-290	2½x2½x1¼	10	23.44
402-291	2½x2½x1½	10	23.44
402-292	2½x2½x2	10	23.44
402-333	3x3x½	10	33.53
402-334	3x3x¾	10	33.53
402-335	3x3x1	10	33.53
402-336	3x3x1¼	10	33.53
402-337	3x3x1½	10	33.53
402-338	3x3x2	10	33.53
402-416	4x4x¾	4	56.00
402-417	4x4x1	5	56.00
402-418	4x4x1¼	5	56.00
402-419	4x4x1½	5	56.00
402-420	4x4x2	5	56.00
402-422	4x4x3	5	56.00
402-528	6x6x2	5	120.79
402-530	6x6x3	5	120.79
402-532	6x6x4	5	120.79

TEE FIPTxFIPTxFIPT

405-005	½	50	4.01
405-007	¾	50	6.28
405-010	1	50	8.70
405-015	1½	25	12.44

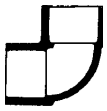
ADAPTER SxInsert

474-007	¾	50	3.37
474-010	1	50	3.56
474-015	1½	25	6.28



90° ELL SxS

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
406-005	½	50	.88
406-007	¾	50	1.00
406-010	1	50	1.77
406-012	1¼	25	3.14
406-015	1½	25	3.36
406-020	2	25	5.26
406-025	2½	10	16.01
406-030	3	10	19.16
406-040	4	5	34.25
406-050	5	5	56.34
406-060	6	4	69.34
406-080	8	3	178.55



90° ELL SxS REDUCING

406-101	¾x½	50	1.77
406-130	1x½	50	2.62
406-131	1x¾	50	3.16
406-168	1¼x1	25	4.99
406-211	1½x1	25	7.94
406-212	1½x1¼	25	7.94
406-251	2x1½	25	13.51

90° ELL SxFIPT

407-005	½	50	1.08
407-007	¾	50	1.25
407-010	1	50	2.37
407-012	1¼	25	3.94
407-015	1½	25	4.38
407-020	2	10	11.24
407-025	2½	10	27.83
407-030	3	10	41.68
407-040	4	5	63.19

90° ELL SxFIPT REDUCING

407-101	¾x½	50	1.30
407-130	1x½	50	3.60
407-131	1x¾	50	3.60
407-168	1¼x1	25	5.26
407-211	1½x1	25	8.76
407-212	1½x1¼	25	9.09
407-251	2x1½	10	15.08

90° ELL THREADED

408-005	½	50	2.13
408-007	¾	50	3.16
408-010	1	50	6.71
408-012	1¼	25	7.17
408-015	1½	25	9.09
408-020	2	10	13.77

LASCO® Fittings, Inc.

SPEARS

PVC SCHEDULE 40 FITTINGS

90° STREET ELL SPIGOTxSLIP

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
409-005	½	50	2.48
409-007	¾	50	3.04
409-010	1	50	5.26
409-012	1¼	25	6.28
409-015	1½	25	6.94
409-020	2	10	13.38

MIPTxSLIP

410-005	½	50	1.93
410-007	¾	50	2.26
410-010	1	50	3.77
410-012	1¼	25	5.26
410-015	1½	25	5.49
410-020	2	25	13.52

SPIGOTxFIPT

411-010	1	50	5.02
411-015	1½	25	7.60

MIPTxFIPT

412-005	½	50	2.58
412-007	¾	50	3.16
412-010	1	50	5.38
412-012	1¼	25	6.71
412-015	1½	25	7.27
412-020	2	10	8.49

11¼° ELL SxS

411-020	2	25	8.75
411-030	3	35	35.14
411-040	4	5	63.27
411-060F	6	8	89.46

15° ELL SxS

418-020F	2	25	36.58
418-030F	3	35	46.13
418-040F	4	20	55.54
418-060F	6	8	89.25

22½° ELL SxS

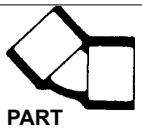
465-020	2	20	8.81
465-030	3	40	35.52
465-040	4	24	63.81
465-060	6	5	100.23

30° ELL SxS

415-020F	2	25	36.58
415-030F	3	20	46.13
415-040F	4	20	55.68
415-060F	6	5	89.25

Specialty PVC Fittings:

460-010	1	spigot x insert	4.24
460-015	1½	spigot x insert	4.68
461-010	1	spigot x mipt	2.71
461-015	1½	spigot x mipt	4.70
461-020	2	spigot x mipt	5.50
478-015	1½	spigot x fipt	18.10
478-020	2	spigot x fipt	23.52
478-030	3	spigot x fipt	29.82
478-040	4	spigot x fipt	36.14
1432-010	1	spigot x insert	4.34
1432-131	1x¾	spigot x insert	4.34



45° ELL SxS

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
417-005	½	50	1.45
417-007	¾	50	2.26
417-010	1	50	2.70
417-012	1¼	25	3.77
417-015	1½	25	4.71
417-020	2	25	6.17
417-025	2½	10	16.03
417-030	3	10	24.91
417-040	4	5	44.64
417-060	6	4	70.18
417-080	8	4	168.78

CROSS SxSxSxS

420-005	½	50	3.36
420-007	¾	50	5.57
420-010	1	50	6.94
420-015	1½	25	10.40
420-020	2	10	15.33
420-025	2½	10	32.52
420-030	3	10	39.88
420-040	4	5	59.11

COUPLING SxS

429-005	½	100	.57
429-007	¾	50	.79
429-010	1	50	1.39
429-012	1¼	25	1.93
429-015	1½	25	2.06
429-020	2	25	3.16
429-025	2½	10	6.94
429-030	3	10	10.85
429-040	4	5	15.72
429-050	5	4	17.74
429-060	6	5	31.64
429-080	8	4	59.08

THREADED COUPLING

430-005	½	100	1.09
430-007	¾	50	2.06
430-010	1	50	2.70

RISER EXTENDER

434-005	½	50	1.62
434-007	¾	50	2.70

FEMALE ADAPTER SxFIPT

435-005	½	50	1.00
435-007	¾	50	1.25
435-010	1	50	1.45
435-012	1¼	25	2.26
435-015	1½	25	2.58
435-020	2	25	3.45
435-025	2½	10	8.76
435-030	3	10	11.75
435-040	4	5	19.46
435-060	6	4	45.58
435-080	8	4	85.93

FEMALE ADAPTER REDUCING FIPTxS

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
435-074	¾x½	50	1.77
435-101	½x¾	50	1.77
435-102	1x¾	50	2.37
435-131	¾x1	50	2.37

MALE ADAPTER SxMIPT

436-005	½	100	.79
436-007	¾	50	.88
436-010	1	50	1.57
436-012	1¼	25	1.93
436-015	1½	25	2.58
436-020	2	25	3.26
436-025	2½	10	9.98
436-030	3	10	14.56
436-040	4	5	18.58
436-050	5	5	19.50
436-060	6	4	30.84
436-080	8	4	140.14

MALE ADAPTER REDUCING MIPTxS

436-074	½x¾	50	1.57
436-101	¾x½	50	1.45
436-102	¾x1	50	2.26
436-131	1x¾	50	4.83
436-132	1x1¼	25	5.26
436-168	1¼x1	25	5.93
436-169	1¼x1½	25	5.93
436-212	1½x1¼	25	7.17
436-213	1½x2	10	7.17
436-251	2x1½	10	8.16
436-252	2x2½	10	12.72
436-253	2x3	10	14.29
436-293	2½x3	10	15.38
436-341	3x4	10	24.62

REDUCER BUSHING SPIGxSLIP

437-101	¾x½	100	.92
437-130	1x½	100	1.67
437-131	1x¾	100	1.67
437-166	1¼x½	25	2.26
437-167	1¼x¾	25	2.26
437-168	1¼x1	25	2.26
437-209	1½x½	25	2.38
437-210	1½x¾	25	2.38
437-211	1½x1	25	2.38
437-212	1½x1¼	25	2.38
437-247	2x½	10	3.94
437-248	2x¾	10	3.94
437-249	2x1	10	3.94
437-250	2x1¼	10	3.94
437-251	2x1½	25	3.94
437-289	2½x1	10	6.29
437-290	2½x1¼	10	6.29
437-291	2½x1½	10	6.29
437-292	2½x2	10	6.29
437-335	3x1	10	9.31
437-336	3x1¼	10	9.31
437-337	3x1½	10	9.31
437-338	3x2	10	9.31
437-339	3x2½	10	9.31
437-420	4x2	5	20.79
437-421	4x2½	5	20.79

REDUCER BUSHING SPIGOTxSLIP

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
437-422	4x3	5	20.79
437-488	5x3	5	18.61
437-490	5x4	4	18.61
437-530	6x3	5	32.75
437-532	6x4	5	32.75
437-534	6x5	5	32.75
437-582	8x4	5	114.29
437-585	8x6	5	114.29

REDUCER BUSHING SPIGOTxFIPT

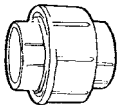
438-072	½x¼	100	1.93
438-098	¾x¼	50	1.93
438-101	¾x½	100	1.45
438-130	1x½	100	2.37
438-131	1x¾	100	2.37
438-166	1¼x½	25	3.60
438-167	1¼x¾	25	3.60
438-168	1¼x1	25	3.60
438-209	1½x½	25	4.16
438-210	1½x¾	25	4.16
438-211	1½x1	25	4.16
438-212	1½x1¼	25	4.16
438-247	2x½	10	5.57
438-248	2x¾	10	5.57
438-249	2x1	10	5.57
438-250	2x1¼	10	5.57
438-251	2x1½	10	5.57
438-289	2½x1	10	8.09
438-290	2½x1¼	10	8.09
438-291	2½x1½	10	8.09
438-292	2½x2	10	8.09
438-335	3x1	10	9.31
438-336	3x1¼	10	9.31
438-337	3x1½	10	9.31
438-338	3x2	10	9.31
438-339	3x2½	10	9.31
438-420	4x2	5	20.75
438-422	4x3	5	20.75
438-532	6x4	5	48.35

THREADED BUSHING MIPTxFIPT

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
439-072	½x¼	50	4.16
439-098	¾x¼	50	2.58
439-101	¾x½	50	2.58
439-130	1x½	50	3.50
439-131	1x¾	50	3.60
439-166	1¼x½	25	5.37
439-167	1¼x¾	25	5.37
439-168	1¼x1	25	5.37
439-209	1½x½	25	6.50
439-210	1½x¾	25	6.50
439-211	1½x1	25	6.50
439-212	1½x1¼	25	6.50
439-249	2x1	10	6.94
439-250	2x1¼	10	6.94
439-251	2x1½	10	6.94
439-292	2½x2	10	24.28
439-338	3x2	5	28.70

SLIP CAP

447-005	½	100	.79
447-007	¾	100	.92
447-010	1	50	1.45
447-012	1¼	25	2.06
447-015	1½	25	2.26
447-020	2	25	2.70
447-025	2½	10	8.63
447-030	3	10	9.39
447-040	4	5	21.40
447-050	5	5	22.88
447-060	6	5	31.63
447-080	8	4	82.01



UNION SxS

457-015	1½	5	33.88
457-020	2	5	45.64

THREADED CAP

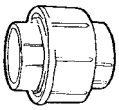
PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
448-005	½	100	1.67
448-007	¾	100	1.93
448-010	1	50	2.92
448-012	1¼	25	3.45
448-015	1½	25	3.60
448-020	2	10	6.39
448-025	2½	10	9.39
448-030	3	10	11.90
448-040	4	5	21.60

PLUG SPIGOT

449-005	½	50	1.93
449-007	¾	50	2.26
449-010	1	50	2.70
449-012	1¼	25	3.60
449-015	1½	25	4.60
449-020	2	10	5.70
449-025	2½	10	9.72
449-030	3	10	12.85
449-040	4	5	29.10

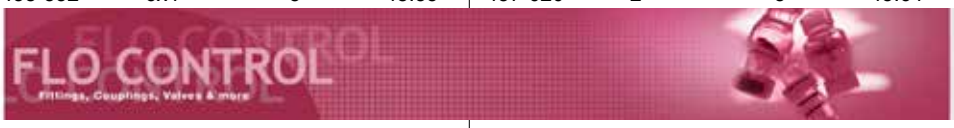
PLUG MIPT

450-005	½	50	2.38
450-007	¾	50	2.55
450-010	1	50	4.16
450-012	1¼	25	4.39
450-015	1½	25	4.68
450-020	2	10	6.05
450-025	2½	10	8.42



UNION THREADED

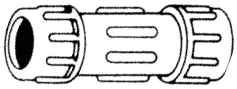
458-015	1½	5	38.60
458-020	2	5	47.43



FLO-SPAN PVC EXPANSION COUPLING

The Flo-Span Expansion Coupling is used for the repair of PVC pipe, and with the replacement of valves and fittings in an existing PVC system without digging up large sections of pipe. Double "O" Rings.

TE#	Size	Case	Price
117-07	¾"	24	9.04
117-10	1"	15	10.48
117-12	1¼"	10	19.71
117-15	1½"	16	21.62
117-20	2"	12	33.05
118-25	2½"	3	51.35
118-30	3"	3	64.14
118-40	4"	3	112.15
118-60	6"	1	289.43



PVC COMPRESSION COUPLING

The Compression Coupling is used for the repair of PVC pipe, and with the replacement of valves and fittings in an existing PVC system without digging up large sections of pipe. Buna-N Seals.

TE#	Size	Case	Price
110-07	¾"	24	9.17
110-10	1"	15	11.91
110-12	1¼"	10	18.29
110-15	1½"	16	18.88
110-20	2"	12	24.56
110-25	2½"	3	46.19
110-30	3"	3	60.46
110-40	4"	3	99.45
110-60	6"	1	231.00

Fernco

Water Activated Fiberglass Wrap

Pow-R

Pow-R Wrap is a strong, permanent and economical repair. Works on every kind of pipe and hose. It's an easy alternative to traditional methods. Works on wet, dry, clean, dirty or corroded pipes. Even works under water...salt or fresh.

Pow-R Wrap is a complete, self contained kit that includes a resin impregnated fiberglass tape in foil bag, Pow-R Stick epoxy putty to enhance repairs, protective gloves and complete instructions.

TE#	Desc	Pipe	Price
FPW248CS	2"x48"	½"-1"	9.90
FPW3132CS	3"x132"	1¼"-3"	27.02
FPW4252CS	4"x252"	3"-6"	55.61

LASCO® Fittings, Inc.

SPEARS

PVC NIPPLES

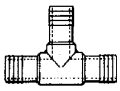
PVC SCHEDULE 80 NIPPLES

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
P05-001	½ x 1/8 (cl)	50	.85
P05-020	½ x 2	50	1.27
P05-030	½ x 3	50	1.46
P05-040	½ x 4	50	1.16
P05-050	½ x 5	50	1.88
P05-060	½ x 6	50	2.12
P05-080	½ x 8	50	2.45
P05-100	½ x 10	50	2.94
P05-120	½ x 12	50	3.32
P05-180	½ x 18	50	4.55
P05-240	½ x 24	50	5.47
P05-360	½ x 36	50	18.04
P05-480	½ x 48	50	21.00
882-101	½ x ¾ x Close	50	2.83
P07-001	¾ x 1 3/8 (cl)	50	1.27
P07-020	¾ x 2	50	1.32
P07-030	¾ x 3	50	1.55
P07-040	¾ x 4	50	1.86
P07-050	¾ x 5	50	2.20
P07-060	¾ x 6	50	2.51
P07-080	¾ x 8	50	2.99
P07-100	¾ x 10	50	3.59
P07-120	¾ x 12	50	4.01
P07-180	¾ x 18	50	5.38
P07-240	¾ x 24	50	6.85
P07-360	¾ x 36	25	15.80
P07-480	¾ x 48	25	20.68

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
P10-001	1 x 1½ (cl)	50	1.86
P10-020	1 x 2(short)	50	1.96
P10-030	1 x 3	50	2.26
P10-040	1 x 4	50	2.66
P10-060	1 x 6	50	3.66
P10-080	1 x 8	50	4.30
P10-100	1 x 10	50	5.14
P10-120	1 x 12	50	5.77
P10-180	1 x 18	50	8.26
P10-240	1 x 24	20	9.91
P10-360	1 x 36	20	50.23
P12-001	1¼ x cl	25	2.79
P12-020	1¼ x 2	25	2.91
P12-030	1¼ x 3	25	4.19
P12-040	1¼ x 4	25	3.43
P12-060	1¼ x 6	25	4.57
P12-080	1¼ x 8	25	5.47
P12-120	1¼ x 12	25	7.24
P15-001	1½ x cl	25	3.35
P15-020	1½ x 2	25	3.14
P15-030	1½ x 3	25	3.66
P15-040	1½ x 4	25	4.20
P15-060	1½ x 6	25	5.47
P15-080	1½ x 8	25	6.56
P15-120	1½ x 12	25	8.69

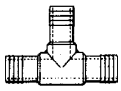
PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
P20-001	2 x cl	10	3.85
P20-025	2 x 2½	10	4.30
P20-030	2 x 3	10	4.57
P20-040	2 x 4	10	6.05
P20-050	2 x 5	10	6.23
P20-060	2 x 6	10	7.95
P20-080	2 x 8	10	8.52
P20-120	2 x 12	10	11.52
P20-240	2 x 24	10	48.26
P20-300	2 x 30	10	52.04
P25-001	2½ x cl	5	10.97
P25-030	2½ x 3	5	11.58
P25-040	2½ x 4	5	13.28
P25-060	2½ x 6	5	17.30
P25-080	2½ x 8	5	20.68
P25-120	2½ x 12	10	28.57
P30-001	3 x cl	5	12.54
P30-030	3 x 3	5	13.42
P30-040	3 x 4	5	20.56
P30-060	3 x 6	5	20.56
P30-080	3 x 8	5	25.52
P30-120	3 x 12	5	34.48
P40-001	4 x cl	5	20.56
P40-040	4 x 4	5	21.52
P40-060	4 x 6	5	24.49

INSERT FITTINGS



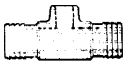
TEE

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
1401-005	½	50	3.14
1401-007	¾	50	3.43
1401-010	1	25	4.43
1401-012	1¼	10	6.92
1401-015	1½	10	7.85
1401-020	2	10	15.49
1401-030	3	5	55.75
1401-040	4	EA	94.52
1401-060	6	EA	311.01
1401-101	¾x¾x½	25	3.86
1401-130	1x1x½	25	4.52
1401-131	1x1x¾	25	4.55
1401-166	1¼x1¼x½	25	5.93
1401-167	1¼x1¼x¾	25	5.93
1401-168	1¼x1¼x1	25	5.93
1401-209	1½x1½x½	10	10.33
1401-210	1½x1½x¾	10	10.33
1401-211	1½x1½x1	10	10.33
1401-212	1½x1½x1¼	10	10.33
1401-247	2x2x½	10	14.71
1401-248	2x2x¾	10	14.71
1401-249	2x2x1	10	14.71
1401-250	2x2x1¼	10	15.40
1401-251	2x2x1½	10	15.86
1401-074	½x½x¾	25	8.48
1401-102	¾x¾x1	25	9.77
1401-132	1x1x1¼	25	13.63



TEE

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
1401-094	¾x½x½	25	4.22
1401-125	1x¾x¾	25	7.34
1401-157	1¼x1x¾	25	8.45
1401-158	1¼x1x1	25	8.45
1401-202	1½x1¼x1	5	10.60
1401-203	1½x1¼x1¼	5	10.60

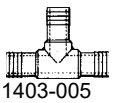


COMBINATION AND REDUCING TEE

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
1402-005	½x½x½	50	3.43
1402-101	¾x¾x½	25	4.22
1402-007	¾x¾x¾	50	5.11
1402-130	1x1x½	25	5.57
1402-131	1x1x¾	25	5.57
1402-010	1x1x1	25	6.04
1402-166	1¼x1¼x½	25	7.58
1402-167	1¼x1¼x¾	25	8.39
1402-168	1¼x1¼x1	25	8.86
1402-012	1¼x1¼x1¼	10	8.86
1402-209	1½x1½x½	10	11.68
1402-210	1½x1½x¾	10	13.87
1402-211	1½x1½x1	10	13.87
1402-212	1½x1½x1¼	10	14.21
1402-015	1½x1½x1½	10	15.40
1402-247	2x2x½	10	15.67
1402-248	2x2x¾	10	16.58
1402-249	2x2x1	10	18.22
1402-251	2x2x1½	10	19.10

COMBINATION AND REDUCING TEE

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
1402-094	¾x½x½	25	5.57
1402-124	1x¾x½	25	6.96
1402-125	1x¾x¾	25	8.27
1402-156	1¼x1x½	25	10.25
1402-157	1¼x1x¾	25	12.00
1402-199	1½x1¼x½	5	15.91
1402-201	1½x1¼x¾	5	17.71
1402-202	1½x1¼x1	5	20.27



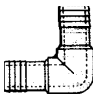
COMBINATION TEE (INSxMPT)

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
1403-005	½	50	4.34
1403-007	¾	50	5.93
1403-010	1	25	7.58
1403-012	1¼	10	9.91
1403-015	1½	10	11.06

90° ELBOW

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
1406-005	½	50	2.86
1406-007	¾	50	3.50
1406-010	1	25	3.88
1406-012	1¼	10	4.34
1406-015	1½	10	5.11
1406-020	2	10	7.18
1406-030	3	8	40.76
1406-040	4	Each	60.63
1406-060	6	Each	204.67

INSERT FITTINGS

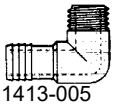


REDUCING 90° ELBOW

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
1406-101	¾x½	25	3.31
1406-131	1x¾	25	4.09
1406-168	1¼x1	25	6.04
1406-212	1½x1¼	10	7.18

COMBINATION 90° ELBOW

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
1407-005	½x½	50	3.24
1407-101	¾x½	50	3.31
1407-007	¾x¾	50	3.50
1407-130	1x½	25	3.50
1407-131	1x¾	25	4.09
1407-010	1x1	10	4.52
1407-166	1¼x½	25	6.04
1407-167	1¼x¾	25	6.04
1407-168	1¼x1	25	6.04
1407-012	1¼x1¼	10	6.68
1407-211	1½x1	10	6.85
1407-212	1½x1¼	10	7.46
1407-015	1½x1½	10	7.58
1407-251	2x1½	10	12.19
1407-020	2x2	10	12.86



COMBINATION 90° ELBOW

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
1413-005	½	50	3.61
1413-007	¾	50	5.00
1413-010	1	25	6.56
1413-012	1¼	10	8.71
1413-015	1½	10	11.58
1413-020	2	10	18.26

CROSS

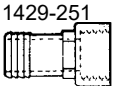
PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
1420-007	¾	25	8.24
1420-010	1	25	10.22

COUPLING

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
1429-005	½	50	1.19
1429-007	¾	50	1.76
1429-010	1	50	1.86
1429-012	1¼	25	2.71
1429-015	1½	25	3.22
1429-020	2	10	6.13
1429-030	3	10	22.06
1429-040	4	10	36.44

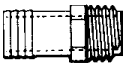
REDUCING COUPLING

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
1429-101	¾x½	50	2.38
1429-130	1x½	50	3.25
1429-131	1x¾	50	2.46
1429-167	1¼x¾	25	5.02
1429-168	1¼x1	25	3.88
1429-211	1½x1	25	5.86
1429-212	1½x1¼	25	4.55
1429-249	2x1	10	8.27
1429-250	2x1¼	10	7.69
1429-251	2x1½	10	7.33



FEMALE ADAPTER

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
1435-005	½	50	6.42
1435-007	¾	50	6.96
1435-010	1	50	7.69
1435-012	1¼	25	9.46
1435-015	1½	25	12.00
1435-020	2	10	15.26

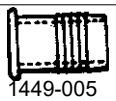


MALE ADAPTER

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
1436-005	½	50	1.46
1436-007	¾	50	1.76
1436-010	1	50	1.82
1436-012	1¼	20	2.89
1436-015	1½	25	3.22
1436-020	2	10	6.18
1436-030	3	10	24.04
1436-040	4	10	40.60

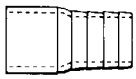
REDUCER MIPT x Insert

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
1436-101	¾x½	50	4.12
1436-131	1x¾	50	4.22
1436-167	1¼x¾	25	5.02
1436-168	1¼x1	25	5.38
1436-211	1½x1	25	6.56
1436-212	1½x1¼	25	6.56
1436-251	2x1½	10	11.02
1436-074	½x¾	50	4.55
1436-075	½x1	50	4.76
1436-102	¾x1	50	4.76
1436-132	1x1¼	25	5.74
1436-133	1x1½	25	8.66
1436-169	1¼x1½	10	8.66
1436-213	1½x2	10	11.10



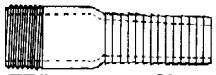
INSERT PLUG

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
1449-005	½	100	2.60
1449-007	¾	100	2.71
1449-010	1	50	3.66
1449-012	1¼	25	4.64
1449-015	1½	25	5.08
1449-020	2	10	8.93
1449-030	3	1	24.42
1449-040	4	1	27.42



SPIGOT ADAPTOR (Insert x Spigot)

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
460-020	2	EA	11.65
1460-030	3	EA	13.22
1460-040	4	EA	16.83
1460-060	6	EA	66.61
1460-080	8	EA	123.86



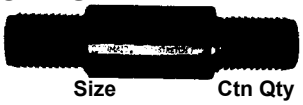
STEEL INSERT MALE ADAPTOR

TE#	Size	Ctn Qty	Price
1236-007	¾"	25	5.48
1236-010	1"	20	6.79
1236-012	1¼"	20	8.97
1236-015	1½"	20	9.95
1236-020	2"	10	14.37
1236-025	2½"	10	38.63
1236-030	3"	10	50.17
1236-040	4"	10	82.13

STEEL INSERT COUPLING

TE#	Size	Ctn Qty	Price
1229-015	1½"	20	12.64
1229-020	2"	10	22.94
1229-030	3"	10	27.06
1229-040	4"	10	78.00

POLY-STRETCH REPAIR



TE#	Size	Ctn Qty	Price
PSC-07	¾"	50	10.08
PSC-10	1"	50	10.73
PSC-12	1¼"	25	16.82
PSC-15	1½"	25	18.72
PSC-20	2"	20	28.10

IDEAL

STAINLESS STEEL SCREW CLAMPS

TE#	Ideal#	Size	Pack	Price
6806	6806	½"	10	1.53
6812	6812	½"-¾"	10	1.44
6816	6816	¾"-1"	10	1.44
6820	6820	1"-1¼"	10	1.46
6824	6824	1¼"-1½"	10	1.46
6832	6832	1½"-2"	10	1.48
6852	6852	3"	10	1.99
6872	6872	4"	10	2.28
68104	68104	6"	10	2.72

Kuriyama of America, Inc.

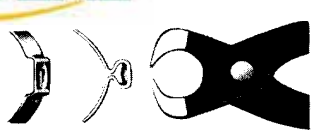
SUPER CLAMPS

Hose Size	Clamps for Suction	Clamps for Lay Flat
1½"	Non-Stock	40-43
2"	56-59	52-55
3"	86-91	80-85
4"	113-121	104-112
6"	162-174	149-161

Single Bolt Super Clamps
- Strong, reliable & durable
- Zinc plated mild steel
- Range ¾" to 10" diameter

When ordering clamps, please order by numbers shown for hose specs. For any high pressure job... these are the best. One clamp does the job of two stainless clamps.

TE#	Size		Pack	Price
ABA-015	1½"	Layflat	100	4.11
ABA-002	2"	Lay Flat	100	5.63
ABA-102		Suction	100	6.27
ABA-003	3"	Lay Flat	100	7.88
ABA-103		Suction	100	7.88
ABA-004	4"	Lay Flat	50	8.01
ABA-104		Suction	50	8.01
ABA-006	6"	Lay Flat	25	11.01
ABA-106		Suction	25	12.06



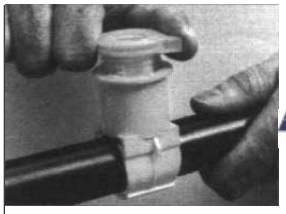
STAINLESS CRIMP CLAMPS

• The economical and easy way to install in the field. Close the ear with a pair of pincers and it's done!
• Withstands static pressure over 100 psi.

Part No.	Pipe Size	Bag Qty	TE#	Price Each
61271	¾"	250	OET-271R	.26
61331	1"	250	OET-331R	.28
61001-51			OET-1098M	23.21

POLY SADDLES

Description	TE#	Price
Poly ¾ x ½"fpt	DWN-075	2.35
Poly ¾ x ¾"fpt	DWN-076	2.65
Poly 1" x ½"fpt	DWN-100	2.60
Poly 1" x ¾"fpt	DWN-101	2.70
Hole Core Tool ½"	DWN-124	15.20
Hole Core Tool ¾"	DWN-125	15.20
Nut Driver	DWN-120	3.20

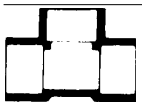


Blazing Saddle

No tools required! 10 second installation!
Simply slip over the pipe, apply pressure to top to lock in place, thread spike into saddle.

Description	TE#	Price
Poly ¾" x Swing Pipe	BS4000	4.49
Poly 1" x Swing Pipe	BS9000	3.95
Poly 1.25"x Swing Pipe	BS12900	7.20

PVC SCHEDULE 80 FITTINGS

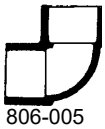


TEE SxSxS

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
801-005	½	25	9.61
801-007	¾	25	10.06
801-010	1	25	12.60
801-012	1¼	10	34.59
801-015	1½	10	34.59
801-020	2	10	43.26

TEE FIPTxFIPTxFIPT

805-005	½	25	9.34
805-007	¾	25	12.35
805-010	1	25	27.27
805-012	1¼	10	28.91
805-015	1½	10	35.04
805-020	2	10	37.67



90° ELL SxS

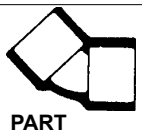
806-005	½	25	3.40
806-007	¾	25	4.32
806-010	1	25	7.03
806-012	1¼	10	9.39
806-015	1½	10	10.05
806-020	2	10	12.16

90° ELL THREADED

808-005	½	25	6.63
808-007	¾	25	9.83
808-010	1	25	12.35
808-012	1¼	10	13.31
808-015	1½	10	18.89
808-020	2	10	21.26

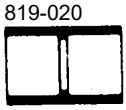
45° ELL SxS

817-005	½	25	6.40
817-007	¾	25	9.79
817-010	1	25	14.68
817-012	1¼	10	18.70
817-015	1½	10	22.12
817-020	2	10	28.66



45° ELL THREADED

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
819-005	½	25	12.64
819-007	¾	25	13.60
819-010	1	25	17.07
819-012	1¼	10	26.02
819-015	1½	10	32.71
819-020	2	10	48.52



COUPLING SxS

829-005	½	25	6.16
829-007	¾	25	8.35
829-010	1	25	8.58
829-012	1¼	10	13.06
829-015	1½	10	14.09
829-020	2	10	15.12

THREADED COUPLING

830-005	½	25	6.87
830-007	¾	25	9.85
830-010	1	25	10.55
830-012	1¼	10	13.06
830-015	1½	10	29.04
830-020	2	10	30.51

FEMALE ADAPTER SxFIPT

835-010	1	25	12.63
835-015	1½	10	25.08
835-020	2	10	43.77

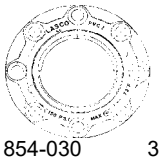
MALE ADAPTER Sx-MIPT

836-010	1	25	13.75
836-015	1½	10	23.09
836-020	2	10	33.40

LASCO® Fittings, Inc.

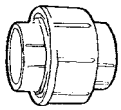
REDUCER BUSHING SPIGxSLIP

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
837-131	1x¾	25	5.70
837-249	2x1	10	17.31
837-335	3x1	5	47.72
837-338	3x2	5	47.72



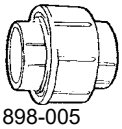
LOOSE RING FLANGE - SLIP

854-030	3	5	53.00
854-040	4	5	67.02
854-060	6	5	88.94
854-080	8	5	144.84



UNION SxS

897-005	½	10	12.36
897-007	¾	10	16.06
897-010	1	10	18.32
897-012	1¼	5	36.39
897-015	1½	5	41.20
897-020	2	5	55.84



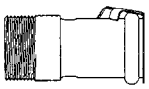
UNION THREADED

898-005	½	10	14.66
898-007	¾	10	20.53
898-010	1	10	27.28
898-012	1¼	5	52.05
898-015	1½	5	64.48
898-020	2	5	99.19

PIERCE FITTINGS

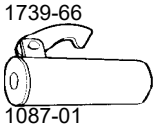
FRESNO Valves & Castings, Inc.

Universal Latch Fittings



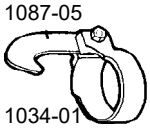
Discharge Adaptor MPT x Female Coup

TE NUMBER	SIZE (in.)	PRICE EACH
1739-63	2x2"	31.50
1740-63	2x3"	47.70
1739-65	3x3"	48.60
1740-67	3x4"	63.90
1739-66	4x4"	86.00



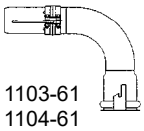
End Plug assembly

1087-01	2"	32.40
1087-02	3"	38.70
1087-03	4"	52.20
1087-05	6"	71.10



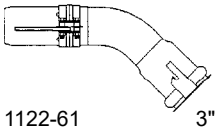
Band Assembly

1034-01	2"	9.90
1035-01	3"	9.90
1036-81	4"	16.20
1036-83	6"	22.50



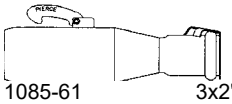
90° Elbow

1103-61	2"	81.00
1104-61	3"	90.90
1105-61	4"	128.70
1107-61	6"	207.00



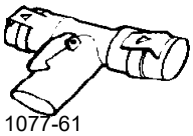
45° Elbow

1122-61	3"	91.80
1123-61	4"	126.90
1125-61	6"	189.00



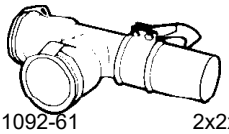
Reducer

1085-61	3x2"	58.50
1085-63	4x3"	76.50



End Tee

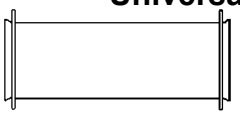
1077-61	3"	117.00
1077-62	4"	143.10



Line Tee

1092-61	2x2x2"	115.20
1091-62	3x3x3"	121.50
1090-62	4x4x3"	144.90
1090-63	4x4x4"	153.90
1089-64	6x6x6"	231.30

Universal Latch Fittings



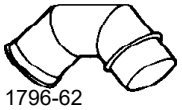
10" Wedge-Tite Repair Coupler

TE NUMBER	SIZE (in.)	PRICE EACH
9077-01	6"	126.90
9078-01	8"	162.90
9080-01	12"	252.00

Circle Lock Fittings

Circle Lock Clamps

2123-08	4"	17.10
2123-02	6"	22.50
2123-03	8"	22.50
2123-04	10"	27.00



90° Elbow

1796-62	4"	116.10
1797-61	6"	165.60

45° Elbow

1798-61	6"	135.90
1798-63	8"	211.50

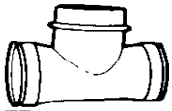
Gaskets

1618-01	4"	3.15
1620-01	6"	5.18
1622-01	8"	7.43
1625-01	12"	11.70

Line Tee

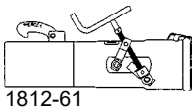
1504-62	4"	126.00
1506-64	6"	189.90

Circle Lock Fittings



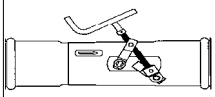
End Tee

TE NUMBER	SIZE (in.)	PRICE EACH
1181-61	4"	126.00



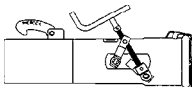
Butterfly Valve Plain Ends

1812-61	4"	261.00



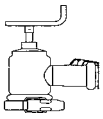
Butterfly Valve Circle Lock

1823-61	6"	314.10



VALVE BF UMxUB (Butterfly Valve)

1812-61	4"	261.00



Valve Opening Elbow Clamp-Lock

1694-61	3x2"	142.20
1694-62	3x3"	151.20
1694-64	4x3"	159.30
1694-65	4x4"	175.50
1694-72	6x4"	206.10
1694-74	6x6"	235.80
1699-65	8x8"	432.90

Ringlock:

1716-65	4x4"	164.70
1716-74	6x6"	230.40

Valve Opening Tee Clamp-Lock

1711-64	4x3x3"	197.10
1711-65	4x4x4"	219.60

PIERCE FITTINGS

FRESNO Valves & Castings, Inc.

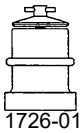
Irrigation Accessories

VALVE STUB MTxRL (Clamp-Lok Valve mpt)

TE NUMBER	SIZE (in.)	PRICE EACH
1729-01	3x3"	80.10
1729-02	4x4"	101.70
1729-04	6x6"	171.90

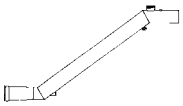
VALVE STUB RING LOK (Clamp-Lok Valve Stub)

1724-02	4x6"	63.90
1724-04	6x6"	104.40



VALVE STUB FTxRL (Clamp-Lok Valve fpt)

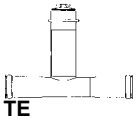
1726-01	3x3"	94.50
1726-02	4x4"	126.00
1726-04	6x6"	213.30



Z PExIB ¾, 3FT E
Z PExPB ¾, 3FT E

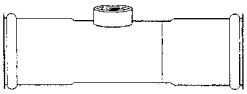
3706-03	6x52"	709.00
3706-04	8x52"	1224.00

Irrigation Accessories



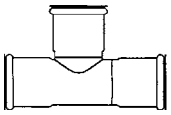
Riser Tee Epoxy Coated

TE NUMBER	SIZE (in.)	PRICE EACH
1220-04	4x4x30"	245.70
1220-05	4x4x36"	255.60
1220-06	4x4x42"	260.10
1223-05	6x4x36"	324.00
1223-06	6x4x42"	331.20
1226-05	8x4x36"	382.50
1226-06	8x4x42"	394.20



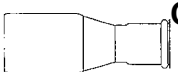
TEE IBxIBxFT (Service Tee)

1360-04	4x2"	101.70
1365-03	6x4"	182.70
1368-02	8x3"	225.90



TEE IBxIBxIB (Straight Tee)

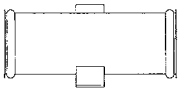
1457-06	3"	133.20
1457-09	4"	150.30
1459-07	6"	182.70
1459-13	8"	306.00



CONNECTOR IMxIB (Reducer)

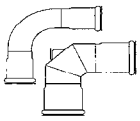
1532-10	8x6"	144.00

Irrigation Accessories



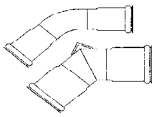
CON REPAIR IBxIB (Repair Coupler)

TE NUMBER	SIZE (in.)	PRICE EACH
1578-01	4"	73.80
1578-02	6"	114.30
1578-03	8"	144.00



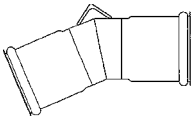
ELL 90° IBxIB (Elbow 90°)

1552-04	4"	144.90
1554-01	6"	201.60
1554-02	8"	266.40



ELL 45° IBxIB (Elbow 45°)

1555-01	6"	167.40
1555-02	8"	250.20



ELL 22½° IBxIB (Elbow 22½°)

1564-05	6"	167.40

PIERCE FITTINGS

CAM OPERATED FITTINGS
Aluminum Fittings for Quick Connections

Kuriyama of America, Inc.

PART A
Adaptor x FIPT

TE#	Size	Price
KUR-15A	1½"	6.60
KUR-20A	2"	7.65
KUR-30A	3"	13.60
KUR-40A	4"	23.05
KUR-60A	6"	59.05

PART B
Coupler x MIPT

KUR-15B	1½"	17.10
KUR-20B	2"	20.65
KUR-30B	3"	32.70
KUR-40B	4"	41.80
KUR-60B	6"	103.40

PART C
Coupler x Hose Shank

KUR-10C	1"	11.30
KUR-15C	1½"	17.05
KUR-20C	2"	21.20
KUR-30C	3"	45.10
KUR-40C	4"	74.35
KUR-60C	6"	125.60

PART D
Coupler x FIPT

TE#	Size	Price
KUR-15D	1½"	18.10
KUR-20D	2"	21.85
KUR-30D	3"	33.65
KUR-40D	4"	46.60
KUR-60D	6"	112.00

PART E
Adapter x Hose Shank

KUR-10E	1"	5.65
KUR-15E	1½"	7.35
KUR-20E	2"	10.05
KUR-30E	3"	21.55
KUR-40E	4"	44.80
KUR-60E	6"	92.85

PART F
Adapter x MIPT

KUR-10F	1"	7.25
KUR-15F	1½"	8.05
KUR-20F	2"	10.85
KUR-30F	3"	25.25
KUR-40F	4"	34.90
KUR-60F	6"	85.50

PART DC
Dust Cap

TE#	Size	Price
KUR-15DC	1½"	15.70
KUR-2DC	2"	19.05
KUR-3DC	3"	28.85
KUR-4DC	4"	41.15
KUR-6DC	6"	90.25

PART DP
Dust Plug

KUR-15DP	1½"	5.60
KUR-2DP	2"	6.85
KUR-3DP	3"	10.60
KUR-4DP	4"	18.70
KUR-6DP	6"	46.65

VICTAULIC (GROOVED) FITTINGS

PVC Nipple (Grooved x MIPT)

TE#	Size	Price
NET-512	2"	38.39
NET-501	3"	36.30

PVC Nipple (Grooved x Slip)

NET-502	2"	10.70
NET-503	3"	27.70
NET-504	4"	46.34
NET-505	6"	59.80

Victaulic Coupling with Seal

TE#	Size	Price
NET-522	2"	24.15
NET-523	3"	32.65
NET-524	4"	54.35
NET-525	6"	81.50

Victaulic Coupling Seal

TE#	Size	Price
NET-532	2"	6.95
NET-533	3"	10.60
NET-534	4"	14.25
NET-536	6"	24.50

CAM OPERATED FITTINGS
Poly-Glass Fittings for Quick Connections

PART D
Coupler x FIPT

TE#	Size	Price
FLO-P07D	¾"	7.35
FLO-P10D	1"	8.20
FLO-P15D	1½"	12.60
FLO-P20D	2"	14.45

PART F
Adapter x MIPT

FLO-P07F	¾"	2.50
FLO-P10F	1"	2.80
FLO-P15F	1½"	4.15
FLO-P20F	2"	4.50

PART DC
Dust Cap

TE#	Size	Price
FLO-P07DC	¾"	7.10
FLO-P10DC	1"	7.25
FLO-P15DC	1½"	11.00
FLO-P20DC	2"	13.60

PART DP
Dust Plug

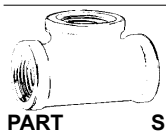
FLO-P07DP	¾"	2.35
FLO-P10DP	1"	2.55
FLO-P15DP	1½"	3.05
FLO-P20DP	2"	4.15

Working Pressure:

Through 1"	125 psi
1½" through 2"	100 psi

Kuriyama of America, Inc.

GALVANIZED STEEL FITTINGS

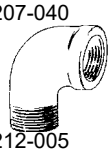


TEE FIPTxFIPTxFIPT

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
201-005	½	30	2.42
201-007	¾	20	4.07
201-010	1	12	6.64
201-012	1¼	15	10.50
201-015	1½	10	13.10
201-020	2	15	21.86
201-030	3	6	68.84
201-040	4	3	162.78

90° ELL FIPTxFIPT

207-005	½	50	1.98
207-007	¾	35	2.39
207-010	1	20	4.49
207-012	1¼	20	6.91
207-015	1½	8	9.11
207-020	2	8	15.19
207-030	3	5	63.60
207-040	4	4	110.09

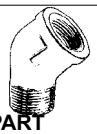


STREET ELL MIPTxFIPT

212-005	½	50	4.29
212-007	¾	35	4.14
212-010	1	20	5.64
212-012	1¼	15	9.49
212-015	1½	15	11.67
212-020	2	8	20.23
212-030	3	8	82.79

45° ELL FIPTxFIPT

217-005	½	50	4.47
217-007	¾	40	4.34
217-010	1	25	4.97
217-012	1¼	10	9.07
217-015	1½	10	10.81
217-020	2	8	16.13
217-030	3	8	79.46
217-040	4	4	133.15



45° STREET ELL MIPTxFIPT

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
219-005	½	50	4.47
219-007	¾	40	7.24
219-010	1	25	8.95
219-012	1¼	25	13.41
219-015	1½	15	16.23
219-020	2	10	90.21

COUPLING FIPTxFIPT

229-005	½	40	2.82
229-007	¾	40	3.25
229-010	1	25	5.36
229-012	1¼	15	7.36
229-015	1½	10	8.39
229-020	2	8	12.24
229-030	3	8	49.93
229-040	4	4	106.03

REDUCER COUPLING FIPTxFIPT

230-101	¾x½	50	3.27
230-130	1x½	30	5.49

CAP FIPT

247-010	1	25	3.31
247-012	1¼	25	4.79
247-015	1½	20	6.12
247-020	2	10	7.74
247-030	3	6	29.78

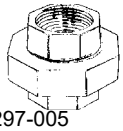
STAINLESS STEEL NIPPLES

****Recomended for installation of your manual drain valves.****

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
SS07-030	¾ x 3	50	5.11
SS07-060	¾ x 6	50	8.90

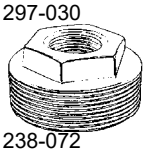
PLUG MIPT

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
250-005	½	100	.79
250-007	¾	70	.82
250-010	1	40	3.16
250-012	1¼	40	4.89
250-015	1½	40	6.59
250-020	2	40	8.36



UNION FIPTxFIPT

297-005	½	40	9.10
297-007	¾	30	10.81
297-010	1	25	13.45
297-012	1¼	15	18.28
297-015	1½	12	23.41
297-020	2	8	31.25
297-030	3	8	123.57



REDUCER BUSHING MIPTxFIPT

238-072	½x¼	25	4.23
238-098	¾x¼	25	4.36
238-101	¾x½	25	3.92
238-130	1x½	25	4.71
238-131	1x¾	25	4.44
238-166	1¼x½	25	6.58
238-167	1¼x¾	25	5.99
238-168	1¼x1	25	5.99
238-210	1½x¾	30	8.68
238-211	1½x1	30	7.83
238-212	1½x1¼	30	7.23
238-248	2x¾	20	10.09
238-249	2x1	20	9.55
238-250	2x1¼	20	9.55
238-251	2x1½	20	8.36
238-335	3x1	10	20.73
238-337	3x1½	10	20.32
238-338	3x2	10	18.41
238-420	4x2	10	38.32
238-422	4x3	10	40.56

GALVANIZED STEEL NIPPLES

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
G05-001	½ x 1/8 (cl)	25	1.04
G05-020	½ x 2	25	1.10
G05-030	½ x 3	25	1.30
G05-040	½ x 4	25	1.61
G05-060	½ x 6	25	2.18
G05-080	½ x 8	25	3.84
G07-001	¾ x 1 3/8 (cl)	25	1.28
G07-020	¾ x 2	25	1.37
G07-030	¾ x 3	25	1.54
G07-040	¾ x 4	25	1.96
G07-060	¾ x 6	25	2.83

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
G10-001	1 x 1½ (cl)	25	1.75
G10-020	1 x 2(short)	25	2.06
G10-030	1 x 3	25	2.24
G10-040	1 x 4	25	2.68
G10-060	1 x 6	25	3.74
G10-080	1 x 8	25	6.23
G10-120	1 x 12	25	8.29
G12-001	1¼ x cl	25	2.35
G12-020	1¼ x 2	25	2.55
G12-030	1¼ x 3	25	2.76
G12-040	1¼ x 4	25	3.28
G12-060	1¼ x 6	25	4.73
G12-080	1¼ x 8	25	7.65
G12-120	1¼ x 12	25	10.98
G15-001	1½ x cl	25	2.75
G15-030	1½ x 3	25	3.28
G15-040	1½ x 4	25	4.17
G15-080	1½ x 8	25	8.76
G15-120	1½ x 12	25	11.68

PART NUMBER	SIZE (in.)	QTY CTN.	PRICE EACH
G20-001	2 x cl	25	3.86
G20-030	2 x 3	25	4.35
G20-040	2 x 4	25	5.29
G20-060	2 x 6	25	7.85
G20-080	2 x 8	25	12.76
G20-120	2 x 12	25	17.14
G25-001	2½ x cl	25	11.51
G25-030	2½ x 3	25	11.96
G25-040	2½ x 4	25	13.88
G25-060	2½ x 6	25	16.98
G25-080	2½ x 8	25	21.88
G25-120	2½ x 12	25	27.88
G30-001	3 x cl	25	13.79
G30-030	3 x 3	25	15.70
G30-040	3 x 4	25	18.40
G30-060	3 x 6	25	22.70
G30-080	3 x 8	25	30.58

Franklin Electric

Founded in 1944, Franklin Electric has grown from a small motor manufacturing company into a leading global provider of complete water systems. Recognized as a technical leader in its specialties, Franklin products are found in residential, commercial, agricultural, industrial, municipal, and fueling applications.

Franklin Electric offers a full line of pumps for submersible and aboveground water systems applications. Typical installations for our pumps include residential clean water, residential wastewater, light commercial, agricultural, industrial, and municipal systems.

Franklin Electric offers a full line of water pumping systems to serve a wide variety of clean water applications.

• Pumps • Motors/Controls • Drives • Protection

Industrial Controls Division

From Cabinet to Complete Controller • We manufacture custom control systems for many diverse industries and specialize in pump and motor control systems.

Control Systems • Fralo manufactures control systems for municipal, industrial, agricultural, recreational and storm/wastewater applications. From standard to custom designs we provide our customers with an economical control system to meet their needs. We control costs and deliveries with our in-house metal fabrication and powder-coat capabilities.

Approvals-Listings • Fralo Control Systems meet or exceed the appropriate NEMA standards, the National Electric Code and are UL® listed under UL-508 and 508A.

Experience Matters • Fralo has manufactured enclosures since 1979. We fabricate standard and custom metal enclosures from small to medium runs for OEM and other customers. Fralo Controls Division engineers have combined control experience over 40 years. We will tailor a solution to meet your needs from an empty enclosure to a complete control system.

Starting with the enclosure:

• In-house Metal fabrication • Powder-coat Painting • Custom Engineering Design • Complete Assembly

Adding the Controls:

Fralo Control Systems offers a complete line of pump controls for the operation of water and sewage pump system. These systems range from small float switch operated pump controls offered in our standard line, to the custom controls designed and built to customer specifications. Our systems are easily integrated to such systems as SCADA, BMS, and DCS systems.

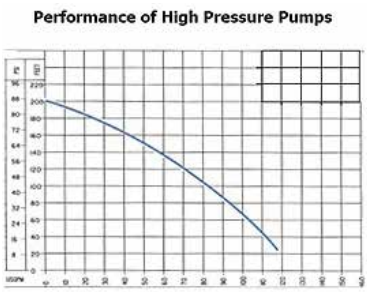
• Custom controls to meet site-specific requirements • Constant-speed or variable-speed drives • Auto dialer

• Manual or automatic transfer switches • Generator receptacle • Liquid-level control options • Communications links

GASOLINE ENGINE POWERED SELF PRIMING PUMPS

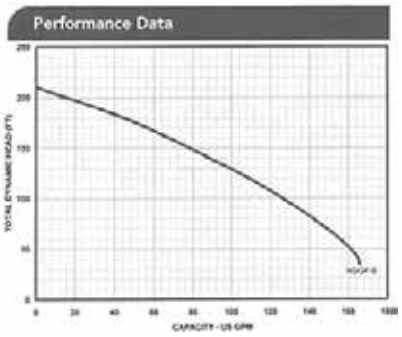
Honda is truly the best in small engines. Direct mounted to an IPT aluminum pump. Made in USA. It is an excellent pump for sprinklers, drip irrigation, small guns, filling tanks, etc. Runs 2.5 hour on a tank of gas.

HON-0656 6.5hp w/ 6 gall tank $1133.50



The self priming Monarch Pump unit with 9 HP Honda engine is base-mounted with carry handle and is a good choice for medium to high pressure application.

HON-090 9.0hp w/ 12 gall tank $2335.00

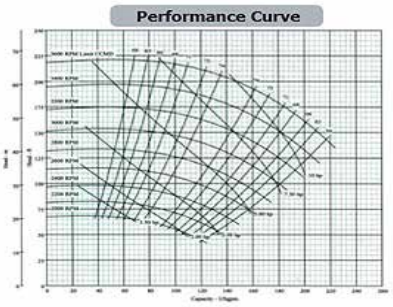


These high pressure water pumps are ideal for solid set irrigation, small to medium travelers, or drip irrigation.

FEATURES:

- Vanguard "V"-twin 16 HP engine.
- Over-head valve design for 20% less fuel.
- Quality BERKELEY pump with priming check valve, priming pump, and tack hour meter.
- Comes complete with heavy duty roll cage, 12 gallon gas tank, throttle, recoil rope start and 12 volt electric start.
- Approximately .9-1.3 gallon gas per hour

B15TQMS 16.0hp w/ 12 gall tank $4153.65



PIVOT POWER® INC.

PIVOT POWER is a custom packager of diesel generators and irrigation pump units. Our packages are rugged, reliable, affordable and we build our packages to order. We build what you want!

Call For Pricing

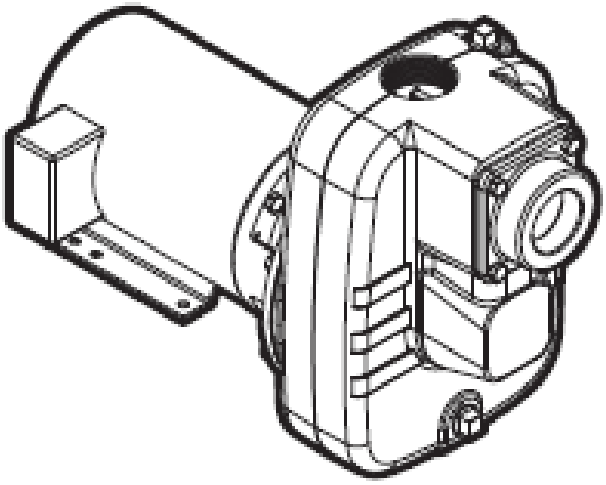
FPS Irrigation & Industrial

Centrifugal Pumps

Self-Priming Turf Boss 3 - 5 hp

Features:

• **Volute:** Built-in suction check valve facilitates priming and prevents back flow or siphoning.
• **Impeller:** Cast iron, combining efficient operation with durable construction to allow for use in a broad range of pumping applications.
• **Seal:** Standard carbon/ceramic faces, Viton elastomers, 300 series stainless components.
• **Diffuser:** Cast iron diffuser is utilized in all models, improving pump efficiency
• **Motor:** Standard JM Frame Motors.



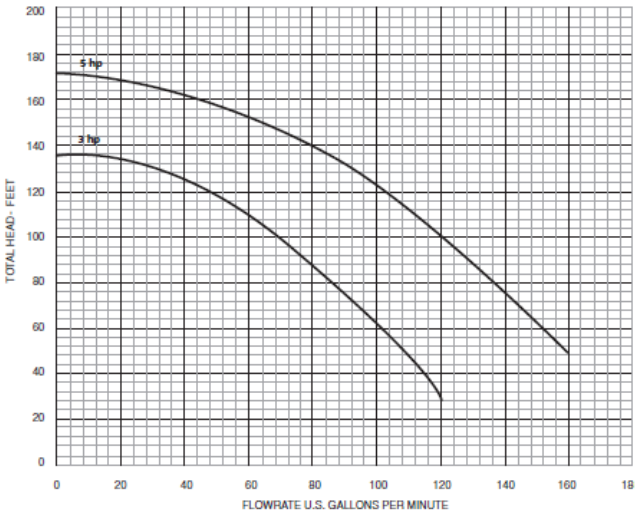
Specifications:

Capacities: to 160 gpm
Heads: to 170 feet
Working Pressure: 75 psi max
Temperature: 120°F max
Rotation: clockwise viewed from motor end
Pipe Connections: NPT

HP	Discharge	Suction	Motor Voltage	Phase	Max Load Amps	Approx Weight
3	2"	2"	230	1	17	134
3	2"	2"	230/460	3	9.6/4.8	110
5	2"	2½"	230	1	28	140
5	2"	2½"	230/460	3	15.2/7.6	130

Applications:

• Irrigation
• Construction
• Commercial
• Municipal
• Light Industrial
• Residential
• Water Transfer



TE#	Franklin#	HP	Phase	Price
TB31	FTB3CI	3	1	$2225.00
TB33	FTB3CI-3	3	3	$2086.00
TB51	FTB5CI	5	1	$2748.00
TB53	FTB5CI-3	5	3	$2323.50

STA-RITE

Self-Priming Centrifugal Pumps: "D" Design Series

Some of the fastest priming pumps on the market. Available in high head or medium head series. Feature leak-proof mechanical seals, easy service design, heavy-duty motors, rugged construction. Available in 1-5 HP.
Order suction flange with flapper check separately.

Applications:

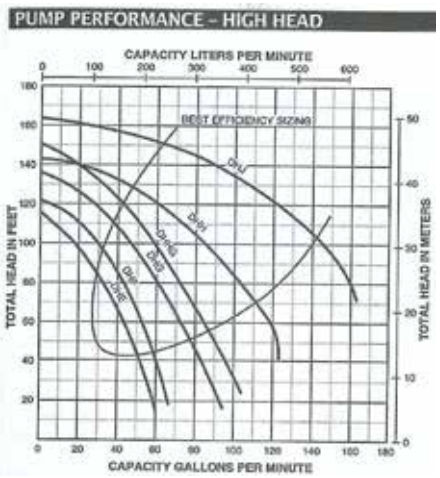
- Lawn sprinkling... operate from 1 to 30 or more heads. Can be safely operated by timer or other automatic device.
- Agriculture... seed bed and plot irrigation, stock watering
- Contractors... for dewatering excavation, jetting, water transfer and supply operations.
- Industrial... sump drainage, fire protection, marine pumping, liquid transfer and supply operations

Specifications:

- Body and Base: Close-grained cast iron
- Impeller: Noryl® on 1 through 2-1/2 HP, bronze on 3 and 5 HP
- Diffuser: Cast iron
- Shaft: Carbon steel inside removable shaft sleeve of stainless steel
- Motor: A.O. Smith 2 compartment

Ordering Information

Pump Number	HP	Pipe Tapping Sizes Suction	Pipe Tapping Sizes Discharge	Motor Voltage	Phase	Max. Load Amps	Approx. Wt. Lbs.
DHHG	2½	2"	2"	230	1	12.0	120
DHHG3	2½	2"	2"	208-230/460	3	8.5/4.25	120
DHH	3	2"	1½"	230	1	13.4	144
DHH3	3	2"	1½"	208-230/460	3	8.6/4.3	144
DHJ	5	2½"	2"	230	1	22	184
DHJ3	5	2½"	2"	208-230/460	3	13.2/6.6	184

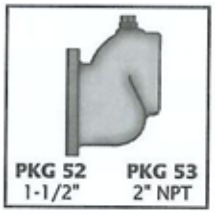


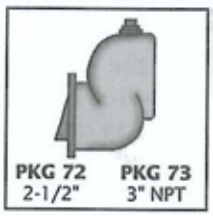
Pump Performance in Gallons Per Minute

Pump Number	HP	Discharge PSI	Discharge Feet Head	Suction Lift in Feet 5'	10'	15'	20'	25'
DHHG	2½	20	46.2	89	85	82	80	76
		30	69.3	75	72	68	64	60
		40	92.4	60	57	53	49	44
		50	115.5	42	37	31	25	17
		60	138.6	14	4	-	-	-
DHH	3	20	46.2	121	119	105	96	68
		30	69.3	106	103	98	92	66
		40	92.4	85	80	74	69	60
		50	115.5	58	51	42	32	13
DHJ	5	20	46.2	162	161	152	138	98
		30	69.3	160	158	150	136	98
		40	92.4	146	141	136	130	96
		50	115.5	119	114	105	95	85
		60	138.6	81	70	55	30	-

TE#	Sta-Rite#	HP	Price
DHHG	DHHG	2½	$2112.00
DHH	DHH	3	$3134.00
DHH3	DHH3	3	$3026.00
DHJ	DHJ	5	$4004.00
DHJ3	DHJ3	5	$3142.00

TE#	Sta-Rite#	Flange Size	Price
PKG-52	PKG52	1½"	$199.50
PKG-53	PKG53	2"	$306.00
PKG-72	PKG72	2½"	$224.20
PKG-73	PKG73	3"	$290.75





FPS Irrigation & Industrial

TURFBOSS

The **Turf Boss** from **Franklin Electric** is designed for residential or light commercial installations where it is necessary to maximize the volume of water being delivered while maintaining the ability to lift water from a source up to 25 feet below the pump.

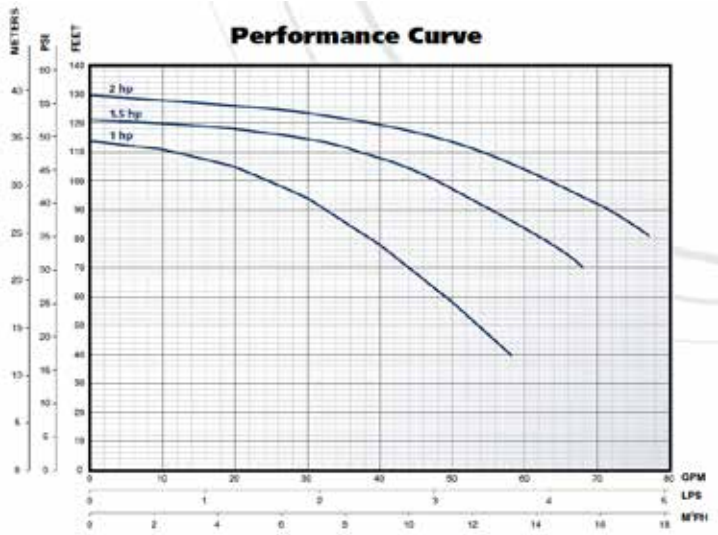
Suitable for:

- Agricultural Irrigation
- Industrial Dewatering
- Freshwater Pumping
- Lawn Sprinkling
- Water Transfer and Supply
- Commercial/Industrial Liquid Transfer

The **Turf Boss** excels when used to supply water to a timer operated irrigation system, but the rugged, easily serviced pump can be used in other areas as well. Some of which are residential water transfer, commercial dewatering, rainwater drainage, light agricultural irrigation, sump drainage, and industrial liquid transfer. As a premium self-priming sprinkler pump the Turf Boss is approved for indoor or outdoor operation through CSA and UL.

Features:

- Self-priming design, with the ability to lift water from a depth of 25'
- Easily serviced through a back pull-out design, which leaves all the plumbing and both the pump's base and case undisturbed in their original location
- Rugged pump case constructed with heavy-duty cast iron ensures optimum durability, quiet operation, and long life
- Hydraulic components molded with Noryl®* thermoplastic, when coupled with the floating stainless steel impeller eye-seal, ensures dependable and efficient operation
- Available with a 304 stainless steel impeller for maximum durability
- Industry proven indoor and outdoor 56J motors from A.O. Smith
- Single-phase: 1 and 1.5 hp motors are dual voltage, set to run with either 115 or 230 V power (2 hp is 230 V only)
- Mechanical shaft seal allows positive protection against leaking
- Built-in drain plug for easy winterizing and servicing
- Shut-off pressures up to 130 feet, and flow rates to 70 gpm
- Handles water temperatures up to 120 °F
- Integral 1" NPT priming plug
- 1.5" FNPT suction, 1.5" FNPT discharge



HP	Discharge	Suction	Motor Voltage	Phase	Max Load Amps	Approx Weight
1	1½"	1½"	115/230	1	16/8	50
1½	1½"	1½"	115/230	1	20/10	57
2	1½"	1½"	230	1	12	58

TE#	Franklin#	HP	Phase	Price
TB1	FTB1CI	1	1	$848.00
TB15	FTB15CI	1½	1	$863.00
TB2	FTB2CI	2	1	$1079.00

STA-RITE

Self-Priming Corrosion Resistant Centrifugal Pumps

PD Design Series

Quick-priming PD pumps feature lightweight construction in a self priming design. The 1 and 1½ HP models offer a new, stronger pump body with reinforcement ribs and also a new 2" suction that is designed for the professional.

Applications:

- Lawn & landscape sprinkling; self primer out of tanks or cisterns.
- Light chemical transfer for compatible fluids.

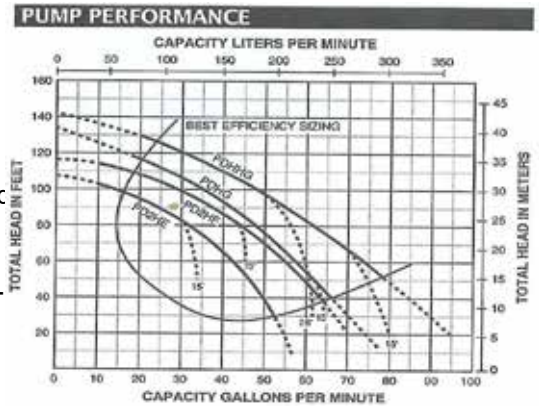
Specifications:

Body and base - Fiberglass reinforced thermoplastic.
Impeller - Engineered polymer
Diffuser - Polypropylene
Shaft - 416 stainless steel

			Total Head in Feet					
Model	**HP**		**20**	**40**	**60**	**80**	**100**	**120**
PD2HE	1	G	55	49	42	31	14	-
PD2HF	1½	P	70	63	55	45	30	-
PDHG	2	M	74	66	57	47	35	16

Features:

Quality Construction - Fiberglass reinforced thermoplastic provides total corrosion resistance and high resistance to sandy water
Lightweight Design - Space-age materials make these pumps more portable than convential cast iron pumps.
Composit Impeller - Highest performance and efficiency from ultra-smooth materials precision molded for perfect balance
Easily Serviced - Normal wearing parts are easily accessible for service and replacement, without disturbing piping or mounting
Dustproof Cover - Electrical components protected from dust and insects
Heavy-Duty Motor - Heavy duty 1hp through 2hp motors. Designed for continuous operation. Stainless steel shaft.
Dual Voltage Capability - 1hp and 1½hp motors have dual voltage motors and are shipped at the 230 volt setting. 2hp are 230 volt setting only.



TE#	Sta-Rite#	HP	Suction	Discharge	Motor	Amps	Weight	Price
PD2HE	PD2HE	1	2"	1½"	115/230	14.8/7.40	38	$999.20
PD2HF	PD2HF	1½	2"	1½"	115/230	19.9/9.95	41	$898.40
PDHG	PDHG	2	2"	2"	115/230	24.0/12.0	52	$1432.00

Cycle Stop Valves®

The CYCLE STOP VALVE model CSV3B is a pump control valve that automatically adjusts pump output to match variable flow requirements. Downstream of the CSV3B, pressure remains constant as long as demand on the system is between 5 gpm and the maximum pump output. As flow rates vary, the change in pressure causes the valve inside the CSV3B to modulate closer to or farther away from the valve seat. This enables the pressure downstream of the CSV3B to remain constant regardless of flow.

Model #	Max GPM	Size	Type	Wt	Price
CSV3A2T	150gpm	2.00"	Threaded	19lbs	780.00
CSV3A3T	300gpm	3.00"	Threaded	34lbs	1280.00
CSV3A3F	300gpm	3.00"	Flanged	43lbs	1480.00
CSV3B4F	500gpm	4.00"	Flanged	66lbs	2840.00
CSV3B6F	1200gpm	6.00"	Flanged	150lbs	3476.00

Creative Solutions For Any Irrigation Challenge...

KIFCO-CAPRARI PTO PUMPS

RUGGED TRACTOR DRIVEN CENTRIFUGAL PUMPS

Kifco-Caprari horizontal centrifugal PTO pumps are designed to suit all types of irrigation systems.

Line includes high head pumps suitable for all sizes of traveling irrigation machines.

Pumps are supplied with cart, PTO drive shaft and weld-on companion flanges or fitted with priming valve, primer pressure gauge and suction adapter.

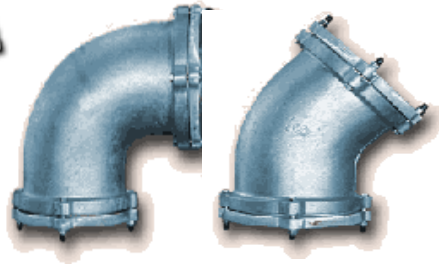
A very dependable step-up gearbox is an integral part of these well proven pumps. The gearbox shafts are supported by heavy-duty, widely-spaced bearings. The box is oil-lubricated and some models are also water cooled. A dipstick is used to check oil level.

Please call for prices.

Other sizes available.

PTO PUMP PERFORMANCE TABLE

Model	gpm	50	60	70	80	90	100	150	200	250	300	350	400	450	500	600	700	800	Discharge	Suction
D2/40	PSI HP	146 13	146 14	145 15	144 16	143 17	142 17	133 21											2" FPT	2" FPT
D3/50			PSI HP	170 24	170 25	170 26	170 26	167 30	160 35	150 38	133 41								2" FPT	2" FPT
D3/65							PSI HP	161 29	160 34	156 38	154 42	151 46	146 50	142 53	136 55				4" FPT	4" FPT
DMR 80-3/2								PSI HP	192 50	191 53	190 56	187 60	185 63	182 66	178 70	169 76	157 93	140 90	4" FPT	6" FPT



FOOT VALVES STANDARD

Combining an attachment coupling, a 45 degree elbow, a foot valve and a strainer, this SURE-FLO Aluminum Foot Valve fulfills every requirement. A half inch female pipe thread is provided for drainage.

Made entirely of aluminum except for the bolts, rubber gaskets and valve flapper, this valve is light in weight yet sturdy and efficient.

Ample space is provided for the valve flapper to get out of the water stream, and the full size opening means minimum friction loss.

TE#	SF#	Size	Price
PER-203	SFV3	3"	285.60
PER-204	SFV4	4"	340.00
PER-206	SFV6	6"	563.00

FOOTVALVES-THREADED

This SURE-FLO Aluminum foot valve is for use on hose, pipe or plastic pipe. The durable rubber flapper seats on a machined aluminum surface and provides a tight seal which minimizes leakage. Unlike the old fashioned leather flapper it does not dry out or shrink when out of service.

Ample space is provided for the flapper to fold back out of the liquid stream thus keeping friction loss to a minimum.

The hump on the body locates the tip of the flapper and should be placed at the top when the valve is used in a horizontal or near horizontal position.

TE#	SF#	Size	Price
PER-262	SFVV2FP	2"	210.00
PER-263	SFVV3FP	3"	276.00
PER-266	SFVV6FP	6"	725.50

SUCTION ELBOWS

SURE-FLO Aluminum Elbows are sealed by compression of a rubber gasket which is ample in size to assure a seal without excessive tightening. The elbow may be connected and disconnected repeatedly without replacement of the gasket.

TE#	SF#	Size	Price
90° Elbows			
PER-093	SFE93	3"	175.00
PER-094	SFE94	4"	216.50
PER-096	SFE96	6"	326.10
PER-098	SFE98	8"	498.00
45° Elbows			
PER-103	SFE43	3"	175.00
PER-104	SFE44	4"	200.50
PER-106	SFE46	6"	306.00

PRIMING PUMPS

5 DIAPHRAM PRIMER

• For 2", 3", and 4" Pumps.
• **¾"FPTx1¼"MPT Inlet • 5" Stroke**

PRO-050 **221.40**

7 DIAPHRAM PRIMER

• For 4", 5", and 6" Pumps.
• ¾"FPTx1½"MPT Inlet • 4" Stroke

PRO-070 **475.25**

9 DIAPHRAM PRIMER

• For 6", 8", and larger pumps.
• 3½" & 4½" stroke for maximum lift or capacity • ¾"FPTx1½"MPT **Inlet**

PRO-009 **614.70**

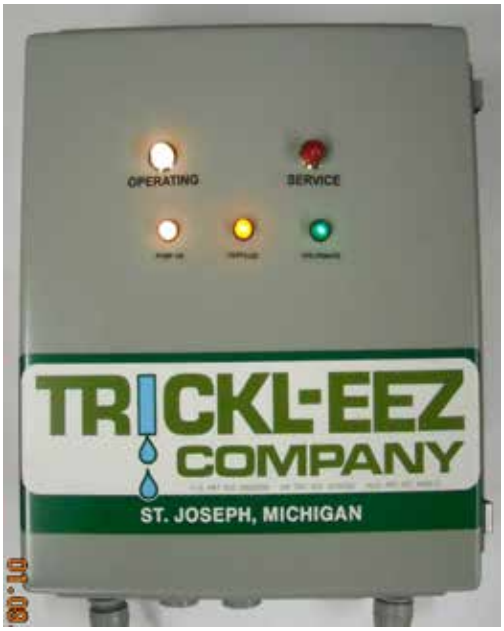
Also Available... Electric and Hydraulic Priming Pumps

ROUND HOLE STEEL STRAINERS

Round hole steel strainers can be used with all models of centrifugal pumps. The round hole with an "open" area of 50% allows KOA strainers to filter out damaging debris yet permits sufficient water passage to keep the pump functioning at full capacity.

Size	TE#	Price
1½"	KUR-115	16.85
2"	KUR-120	19.50
3"	KUR-130	27.30
4"	KUR-140	32.10
6"	KUR-160	89.70

TRICKL-EEZ Company's Pump Safety / Protection Unit



TRICKL-EEZ "E" UNIT

The **TRICKL-EEZ** Unit is designed to safely operate your pumps being used to run your **TRICKL-EEZ** Irrigation System. It will safely engage your water pump, fertilizer injector pump, and your chlorination pump. This is a long proven safety system that prevents damage to critical and expensive components of your **TRICKL-EEZ** System.

These unique units are built to specifications that are specific to your system. For that reason we require adequate lead time to ship them. If purchasing one for a system we are not installing, please call to find out what information is required to custom build one for your system.

TE#	MAN#	Description	Price
TRI-05	"E" Unit	Safety Control Unit	675.00
TRI-10	"J" Unit	Safety Control Unit	485.00

Slotted PVC Screens

Slotted screens are fabricated from SCH-40 PVC. They are 2" IPS Pipe that are 48" long. Slot sizes are .008. A row consists of slots, 8 slots per inch, cut perpendicular to the axis of the pipe and running from one end of the pipe to the other. Screens furnished with flush male iron pipe threaded on one end, plain slip joints on the other end.

TE#	MAN#	Description	Price
BGF-100	N/A	2" PVC Sch 40 x 4'	26.55

Big Foot Filters are designed to be used as an initial filter on the suction side of a pump using surface water sources. They are made of heavy duty PVC, plastic and stainless steel.

Filling the area between the two screens on these filters with pea gravel larger than 3/8" or other suitable filter material provides an effective means of keeping algae and other forms of marine life out of the pumping system. Contact TRICKL-EEZ Company for recommendations on large capacity systems.

40G FILTER

- Rated at 40 gallons per minute in clear water.
- 6" outside and 2" inside screen with 2" suction connection.
- 6" screen has approximately 680 ¼"
- 2" screen has 1/8" slots

80G FILTER

- Rated at 80 gallons per minute in clear water.
- 12" outside and 6" inside screen with 2" suction connection.
- 12" screen has app. 1600 ¼" holes
- 6" screen has app. 680 ¼" holes

TE#	MAN#	Description	Price
40GMCV	40GMCV	40 gpm Unit w/ Media & Check Valve	208.35
80GMCV	80GMCV	80 gpm Unit w/ Media & Check Valve	323.90

Hunter® Irritrol®

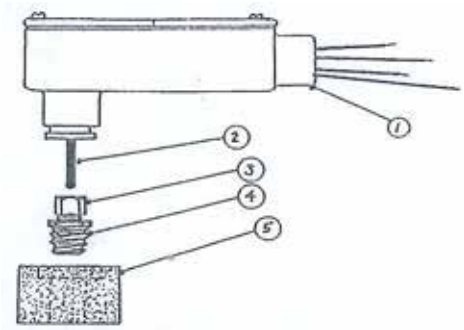
Pump Start Relay

The Pump Start Relay provides reliability at an economical price

Whether you require the use of a booster pump or pull water directly from a creek or pond, it is imperative that your irrigation system includes a relay that can be counted upon to activate your pump each and every time. The Pump Start Relays have been created to provide that reliability – as well as a lockable NEMA rated enclosure – at an economical price. Available in a choice of three models to accommodate a variety of power sources and landscape needs, the product is fully compatible with all standard 24VAC controllers. It's also designed with user-friendliness in mind, with flying leads that allow for effortless 24 volt connections plus a wide array of "knockouts" on the cabinet to make wiring easy, whatever your particular mounting considerations.

Manufacturer	TE#	Man#	HP@ 110v	HP@ 220v	Max Full Load Amps	Max Resistive Amps	Coil VA Inrush	Coil VA Holding	Price
Irritrol	SR-1	SR-1	1.0	2.0					157.85
Hunter	PR-122	PSR-22	2.0	5.0	22	22	31	7	164.50
Hunter	PR-152	PSR-52	5.0	7.5	40	50	56	6	229.00

HOT STOP MELTDOWN PROTECTOR™

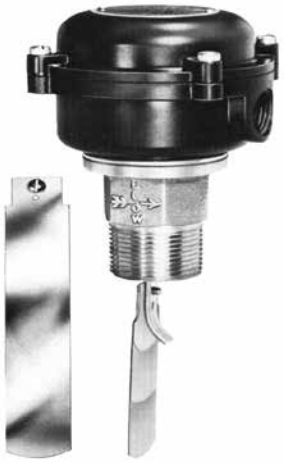


Hot Stop Model HS-1P is an Insertion Type Temperature Switch. Standard Switch Temperature is 120°F.

- Switch activates at 120°F
- Switch resets at 105°F
- Mechanical, Snap Action Auto Reset, UL Listed
- 125va Pilot Duty (eg 24v Relays)
- 25amps @ 120v Restive; 12.5amps @ 230v Restive; 1.5HP inductive
- 1.5" long copper probe
- Connection by 1/4"mpt x 1/4" OD Compression Fitting

TE#	Man#	Description	Price
HS-1P	HS-1P	Temperature Switch	102.40

McDonnell & Miller



General Purpose Flow Switch

- 1" mipt Connection
- Sealed Monel bellows
- Single pole, double throw snap switch
- Sensitivity adjusting screw makes flow adjustment easy
- Maximum operating pressure 150psi

Electrical Ratings

Motor	120V AC	240V AC	120V DC	240V DC
Full Load	7.4 Amps	3.7 Amps	0.3 Amps	0.15 Amps
Locked Rotor	44.4 Amps	22.2 Amps	N/A	N/A

TE#	Man#	Description	Price
ITT-124	FS-254	Flow Switch	399.99

MANUAL VALVES

BRASS GATE VALVES

- Full flow design, unobstructed flow.
- Working pressure to 200psi WOG.
- Heavy graphite and O-ring packing.
- Solid wedge disc.

TE#	Size	Price
BGV-05	½"	11.65
BGV-07	¾"	13.50
BGV-10	1"	18.95
BGV-12	1¼"	28.50
BGV-15	1½"	39.00
BGV-20	2"	48.25
BGV-25	2½"	106.50
BGV-30	3"	141.40
BGV-40	4"	243.50

EXTRA HEAVY DUTY BRASS GATE VALVES

- Extra Heavy Duty
- Recommended for your manual drains
- Comes equiped with cross handle

TE#	Size	Price
BGV-07HD	¾"	79.90
Keys to operate Heavy Duty Valve		
LEW-516	30" Long	24.25
LEW-552	52" Long	48.00

BRASS FULL-PORT BALL VALVES

- Cast Brass body with full unobstructed flow.
- Working pressure up to 600psi WOG
- Chrome plated Brass Ball with teflon seals and seats.

TE#	Size	Price
BBV-05	½"	9.90
BBV-07	¾"	16.70
BBV-10	1"	22.55
BBV-12	1¼"	33.20
BBV-15	1½"	53.10
BBV-20	2"	78.50

CAST IRON GATE VALVE

- Ring-Tite-Resilient Wedge
- Ring-Tite Gasket Ends
- Epoxy Coated
- Push-On for PVC Pipe

TE#	Man#	Size	Price
LUK-040	10RT-4"-SON	4"	680.25
LUK-060	10RT-6"-SON	6"	975.00
LUK-080	10RT-8"-SON	8"	1680.00
LUK-100	200RTD-10"SON	10"	3055.00
399	Valve Operating Key	2"	128.00

PVC BALL VALVES

- Low cost water valve made from high quality PVC for long durability.
- Teflon seats recommended for cold water applications.
- Permanetly assembled
- 150 psi working pressure

TE#	Size		Price
PBV-05S	½"	SlipxSlip	5.25
PBV-07S	¾"	SlipxSlip	7.00
PBV-10S	1"	SlipxSlip	7.10
PBV-12S	1¼"	SlipxSlip	11.25
PBV-15S	1½"	SlipxSlip	14.35
PBV-20S	2"	SlipxSlip	19.55
PBV-30SE	3"	SlipxSlip	58.00
PBV-40SE	4"	SlipxSlip	104.50
PBV-05T	½"	FIPTxFIPT	5.25
PBV-07T	¾"	FIPTxFIPT	7.00
PBV-10T	1"	FIPTxFIPT	7.10
PBV-12T	1¼"	FIPTxFIPT	11.25
PBV-15T	1½"	FIPTxFIPT	14.35
PBV-20T	2"	FIPTxFIPT	19.55
PBV-30TE	3"	FIPTxFIPT	58.00
PBV-40TE	4"	FIPTxFIPT	104.50

PLASTIC HOSE THREAD BALL VALV

- All purpose valves for garden hose thread

TE#		Size	Price
AGP-034	Ag Products	¾" mht x fht	2.90
AMD-875	Amiad (Black)	¾" mht x fpt	11.20

BRASS BOILER DRAIN

- All purpose drain valves for hose hookups or drainage

TE#	Size	Price
BBD-05	½" mpt	12.75
BBD-07	¾" mpt	13.10

CAST IRON BUTTERFLY VALVES

- Cast Iron Body.
- Bronze Disc.
- Phosphate-coated Steel Stem.
- EPDM seat with Phenolic Resin Hard Backing.

TE#	Granby#	Size	Price
BV-30I	HBFV3	3"	95.50
BV-40I	HBFV4	4"	141.60
BV-60I	HBFV6	6"	210.75
BV-80I	HBFV8	8"	359.50

Rivulis

PVC BUTTERFLY VALVES

- Corrosion Resistant
- EPDM Seals
- 150psi (3"-4"); 115psi (6"-8") rated
- Lever Operated
- Totally Repairable

TE#	Roberts#	Size	Price
017-02582	017-02582	3"	125.60
017-02583	017-02583	4"	140.10
017-02586	017-02586	6"	199.00
017-02587	017-02587	8"	297.00

PVC TRUE UNION BALL VALVES

Features:
- PVC construction.
- EPDM stem seal.
- 150 TO 240 PSI working pressure.
- Unique double union/ double block design permits in-line maintenance without disconnecting pipe and with no special tools.

Size (inches)	Pressure Rating (psi)	Box Quantity	Box Weight
¾"	240	30	13lbs
1"	240	20	13lbs
1¼"	240	15	14lbs
1½"	240	15	22lbs
2"	240	10	23lbs
3"	150	4	22lbs
4"	150	2	22lbs

EPDM O-RINGS

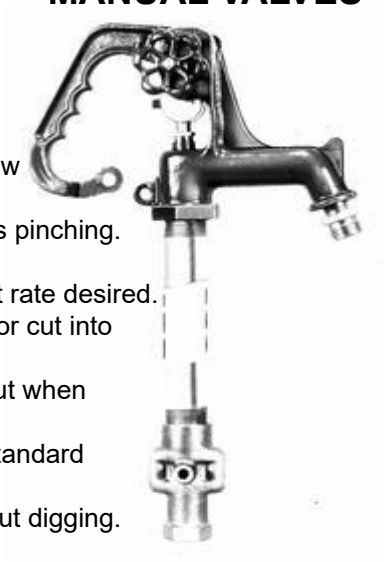
TE# (FPT)	TE# (SxS)	Size	Price
PBV-07TUT	PBV-07TUS	¾"	11.35
PBV-10TUT	PBV-10TUS	1"	15.05
PBV-12TUT	PBV-12TUS	1¼"	14.60
PBV-15TUT	PBV-15TUS	1½"	19.45
PBV-20TUT	PBV-20TUS	2"	30.55
PBV-30TUT	PBV-30TUS	3"	89.50
PBV-40TUT	PBV-40TUS	4"	122.35

NETAFIM QUICK COUPLING VALVES

- Simple one step operation
- All plastic construction
- Valve is ¾" MPT
- Key has ¾" MPT
- Many uses!

TE#	NETAFIM#	Description	Price
NET-800	593039075	¾" Valve	39.10
NET-801	593139075	¾" Key	15.30

MANUAL VALVES



YARD HYDRANTS

Features:
- Shut-off valve operates below the frost line.
- Pistol type handle eliminates pinching.
- Can be padlocked.
- Wheel controls water flow at rate desired.
- Solid brass rod will not rust or cut into packing.
- Water in standpipe drains out when hydrant is off
- Brass nozzle threaded for standard ¾" hose coupling.
- Inner ports removable without digging.

TE#	Model	Description	Price
FFH-4	H804	4 ft Bury	160.60
FFH-5	H805	5 ft Bury	168.00

WAFER SPLIT DISC CHECK VALVES

MATCO-NORCA™

Designed for simple flange-supported installation and will operate well in any position.

Features:
- Low Headloss
- Compact Size
- Reliable Service
- Resilient Seating
- PTFE Disc Bearings
- Flow Responsive Closure
- Maximum Temperature: 180°F
- Maximum Pressure: 200psi

TE#	Man#	Size	Price
3000	CVC-2.0"	2"	202.94
3002	CVC-3.0"	3"	278.30
3003	CVC-4.0"	4"	356.58
3005	CVC-6.0"	6"	534.86

WAFER CHECK VALVES

FLOMATIC® VALVES
High Quality Valves Built to Last...

Operation:
The convex inlet,double guided spring loaded poppet system maximizes efficiency and reduces water hammer.

Applications:
- General Utilities • Irrigation
- Booster pump Systems

Model 888:
- Double guided unleaded bronze disc
- Streamlined design Minimizes water hammer
- Epoxy coated internal and external

TE#	Size	Price
2435R	3"	483.10
2436R	4"	632.50
2437R	6"	1138.50

AIR VENT AND VACUUM RELIEF VALVES

MODEL AV-150

TE#	CAT#	Size	Price
WAT-150	048-00-001	1½”	32.35
WAT-200	048-01-000	2"	47.50
WAT-300	048-02-001	3"	99.30

M0DEL AVP-1 AIR VENT-VACUUM RELIEF VALVE

WAT-100	046-01-001	1"	22.00

AIR VACUUM RELIEF VALVES

TE#	Size & Description	Price
AVR0100	1” Air Vacuum Relief	18.25
CAV0200	2" Continuous Acting	81.25

PRESSURE RELIEF VALVE

MODEL AA-6B

PRESSURE TO BE SET AND ADJUSTED IN THE FIELD

TE#	CAT#	Size	Price
WAT-403	060-01-002	2" 66-120psi	182.37
WAT-111	060-03-121	3" 101-150psi	187.02
WAT-119	060-04-121	4" 106-150psi	245.89

QUICK REACTING PRESSURE RELIEF VALVES

15-200PSI

TE#	NET#	Size	Price
NET-917	61PR2AN-HP-R	2”	1671.29

KINETIC + AUTOMATIC AIR & VACUUM RELEASE VALVE

TE #	Netafim #	Description	Graphic	Price
NET-847	65ARIA075	¾" Air & Vacuum Release (Guardian)	A	39.00
NET-846	65ARIA100	1" Air & Vacuum Release (Guardian)	A	42.00
NET-843	65ARIA2	2" Air & Vacuum Release (Guardian)	B	51.75
NET-842	65ARIS1	1" Automatic Air Release	C	125.25
NET-844	65ARIB2	2" Kinetic+Air & Vacuum Release (Nylon Base)	D	266.25
NET-845	65ARIB2-B	2" Kinetic+Air & Vacuum Release (Brass Base)	D	354.75

A

B

C

D

PRESSURE GAUGES

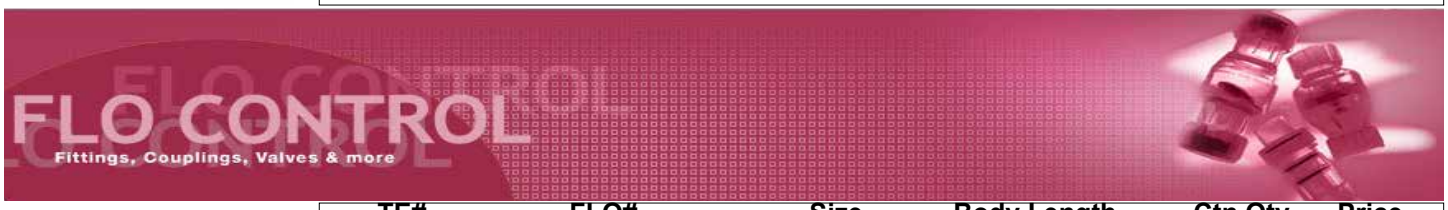
¼" STD PIPE THREAD STEMS
PRESSURE GAUGES
- Water tight, dust proof.
- Shatterproof face shock resistant.
- 2½" bottom connected gauge wlth ¼" brass standard pipe thread stem.

TE#	MAN#	PSI Range	Packed	Price
IRR-015	IPG01525-4L	0-15	Each	11.05
IRR-030	IPG03025-4L	0-30	Each	
IRR-060	IPG06025-4L	0-60	Each	
IRR-100	IPG10025-4L	0-100	Each	
IRR-200	IPG20025-4L	0-200	Each	

LIQUID FILLED PRESSURE GAUGES

¼" STD PIPE THREAD STEMS
PRESSURE GAUGES
- This liquid filled gauge has been designed to meet strong water surges and pulsations.
- 2½" bottom connected gauge wlth ¼" brass standard pipe thread stem.

TE#	MAN#	PSI Range	Packed	Price
TRI-030L	ILPG03025-4L	0-30	Each	13.45
TRI-060L	ILPG06025-4L	0-60	Each	
TRI-100L	ILPG10025-4L	0-100	Each	
TRI-160L	ILPG16025-4L	0-160	Each	



TE#	FLO#	Size	Body Length	Ctn Qty	Price
PVC Spring Loaded Check Valves (FIPT x FIPT)				**Spring Tension ½ lb**	
1001-05	PV1001-½	½"	4-1/8"	20	17.90
1001-07	PV1001-¾	¾"	4-1/8"	20	18.55
1001-10	PV1001-1	1"	5-1/4"	20	26.60
1001-12	PV1001-1¼	1¼"	6-3/16"	15	35.90
1001-15	PV1001-1½	1½"	6-3/16"	15	38.20
1001-20	PV1001-2	2"	7"	10	55.00
1001-30	PV1001-3	3"	8-3/4"	1	99.00

TE#	FLO#	Size	Body Length	Ctn Qty	Price
PVC Spring Loaded Check Valves (Slip x Slip)				**Spring Tension ½ lb**	
1011-05	PV1011-½	½"	4-1/8"	20	17.90
1011-07	PV1011-¾	¾"	4-1/8"	20	18.55
1011-10	PV1011-1	1"	5-1/4"	20	26.60
1011-12	PV1011-1¼	1¼"	6-3/16"	15	35.90
1011-15	PV1011-1½	1½"	6-3/16"	15	38.20
1011-20	PV1011-2	2"	7"	10	55.00
1011-30	PV1011-3	3"	8-3/4"	1	99.00

TE#	FLO#	Size	Body Length	Ctn Qty	Price
PVC Swing (Flap) Check Valves (Slip x Slip)					
1520-20	PV1520-2	2"	6"	12	45.20
1520-30	PV1520-3	3"	9"	4	81.50
1520-40	PV1520-4	4"	9-1/2"	4	114.00

PRESSURE LOSS TABLES

PVC CLASS 160 IPS PLASTIC PIPE (SDR-26)

Size	1¼"		1½"		2"		2½"		3"		4"		6"	
Flow GPM	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss
1	0.17	0.01	0.13	0.00										
2	0.34	0.02	0.26	0.01	0.16	0.00								
3	0.52	0.04	0.39	0.02	0.25	0.01								
4	0.69	0.07	0.53	0.04	0.33	0.01	0.23	0.00						
5	0.86	0.11	0.66	0.05	0.42	0.02	0.28	0.01						
6	1.04	0.15	0.79	0.08	0.50	0.03	0.34	0.01	0.20	0.00				
7	1.21	0.20	0.92	0.10	0.59	0.03	0.40	0.01	0.27	0.01				
8	1.39	0.25	1.06	0.13	0.67	0.04	0.46	0.02	0.31	0.01				
9	1.56	0.31	1.19	0.16	0.76	0.05	0.52	0.02	0.35	0.01				
10	1.73	0.38	1.32	0.20	0.84	0.07	0.57	0.03	0.39	0.01				
11	1.91	0.45	1.45	0.23	0.93	0.08	0.63	0.03	0.43	0.01				
12	2.08	0.53	1.59	0.28	1.01	0.09	0.69	0.04	0.46	0.01	0.28	0.00		
14	2.43	0.71	1.85	0.37	1.18	0.12	0.81	0.05	0.54	0.02	0.33	0.01		
16	2.78	0.91	2.12	0.47	1.35	0.16	0.92	0.06	0.62	0.02	0.37	0.01		
18	3.12	1.13	2.38	0.58	1.52	0.20	1.04	0.08	0.70	0.03	0.42	0.01		
20	3.47	1.37	2.65	0.71	1.69	0.24	1.15	0.09	0.78	0.04	0.47	0.01		
22	3.82	1.64	2.91	0.85	1.86	0.29	1.27	0.11	0.86	0.04	0.52	0.01		
24	4.17	1.92	3.18	1.00	2.03	0.34	1.38	0.13	0.93	0.05	0.56	0.02		
26	4.51	2.23	3.44	1.15	2.20	0.39	1.50	0.15	1.01	0.06	0.61	0.02		
28	4.86	2.56	3.71	1.32	2.37	0.45	1.62	0.18	1.09	0.07	0.66	0.02		
30	5.21	2.91	3.97	1.50	2.54	0.51	1.73	0.20	1.17	0.08	0.70	0.02		
35	6.08	3.87	4.64	2.00	2.96	0.68	2.02	0.27	1.36	0.10	0.82	0.03	0.38	0.00
40	6.95	4.95	5.30	2.56	3.39	0.86	2.31	0.34	1.56	0.13	0.94	0.04	0.43	0.01
45	7.82	6.16	5.96	3.19	3.81	1.08	2.60	0.42	1.75	0.16	1.06	0.05	0.49	0.01
50	8.69	7.49	6.63	3.88	4.24	1.31	2.89	0.52	1.95	0.20	1.18	0.06	0.54	0.01
55	9.56	8.93	7.29	4.62	4.66	1.56	3.18	0.62	2.15	0.24	1.30	0.07	0.60	0.01
60			7.95	5.43	5.09	1.83	3.47	0.72	2.34	0.28	1.41	0.08	0.65	0.01
65			8.62	6.30	5.51	2.12	3.76	0.84	2.54	0.32	1.53	0.09	0.70	0.01
70			9.28	7.23	5.93	2.44	4.05	0.96	2.73	0.37	1.65	0.11	0.76	0.02
75			9.94	8.21	6.36	2.77	4.34	1.09	2.93	0.42	1.77	0.12	0.81	0.02
80					6.78	3.12	4.63	1.23	3.12	0.47	1.89	0.14	0.87	0.02
85					7.21	3.49	4.91	1.38	3.32	0.53	2.00	0.16	0.92	0.02
90					7.63	3.88	5.20	1.53	3.51	0.59	2.12	0.17	0.98	0.03
95					8.05	4.29	5.49	1.69	3.71	0.65	2.24	0.19	1.03	0.03
100					8.48	4.72	5.78	1.86	3.91	0.72	2.36	0.21	1.09	0.03
110					9.33	5.63	6.36	2.22	4.30	0.86	2.60	0.25	1.20	0.04
120							6.94	2.61	4.69	1.01	2.83	0.30	1.30	0.05
130							7.52	3.03	5.08	1.17	3.07	0.34	1.41	0.05
140							8.10	3.47	5.47	1.34	3.31	0.39	1.52	0.06
150							8.68	3.94	5.86	1.52	3.54	0.45	1.63	0.07
160							9.26	4.45	6.25	1.71	3.78	0.50	1.74	0.08
170							9.83	4.97	6.64	1.92	4.01	0.56	1.85	0.09
180									7.03	2.13	4.25	0.63	1.96	0.10
190									7.43	2.35	4.49	0.69	2.07	0.11
200									7.82	2.59	4.72	0.76	2.18	0.12
225									8.79	3.22	5.31	0.95	2.45	0.14
250									9.77	3.91	5.91	1.15	2.72	0.18
275											6.50	1.37	3.00	0.21
300											7.09	1.61	3.27	0.25
325											7.68	1.87	3.54	0.29
350											8.27	2.15	3.81	0.33
375											8.86	2.44	4.09	0.37
400											9.45	2.75	4.36	0.42
425													4.63	0.47
450													4.90	0.52
475													5.18	0.58
500													5.45	0.63
550													6.00	0.76
600													6.54	0.89

We strongly suggest that you do not exceed velocities of 5 fps!

PRESSURE LOSS TABLES

PVC CLASS 200 IPS PLASTIC PIPE (SDR-21)

Size	¾"		1"		1¼"		1½"		2"		2½"		3"		4"		6"	
Flow	Vel	PSI	Vel	PSI	Vel	PSI	Vel	PSI	Vel	PSI	Vel	PSI	Vel	PSI	Vel	PSI	Vel	PSI
GPM	FPS	Loss	FPS	Loss	FPS	Loss	FPS	Loss	FPS	Loss	FPS	Loss	FPS	Loss	FPS	Loss	FPS	Loss
1	0.47	0.06	0.28	0.02	0.18	0.01	0.13	0.00										
2	0.94	0.22	0.57	0.07	0.36	0.02	0.27	0.01	0.17	0.00								
3	1.42	0.46	0.86	0.14	0.54	0.04	0.41	0.02	0.26	0.01	0.18	0.00						
4	1.89	0.79	1.15	0.24	0.72	0.08	0.55	0.04	0.35	0.01	0.24	0.01						
5	2.36	1.20	1.44	0.36	0.90	0.12	0.68	0.06	0.44	0.02	0.30	0.01						
6	2.83	1.68	1.73	0.51	1.08	0.16	0.82	0.08	0.53	0.03	0.36	0.01	0.24	0.00				
7	3.30	2.23	2.02	0.67	1.26	0.22	0.96	0.11	0.61	0.04	0.42	0.01	0.28	0.01				
8	3.77	2.85	2.30	0.86	1.44	0.28	1.10	0.14	0.70	0.05	0.48	0.02	0.32	0.01				
9	4.25	3.55	2.59	1.07	1.62	0.34	1.24	0.18	0.79	0.06	0.54	0.02	0.36	0.01				
10	4.72	4.31	2.88	1.30	1.80	0.42	1.37	0.22	0.88	0.07	0.60	0.03	0.40	0.01				
11	5.19	5.15	3.17	1.56	1.98	0.50	1.51	0.26	0.97	0.09	0.66	0.03	0.44	0.01				
12	5.66	6.05	3.46	1.83	2.17	0.59	1.65	0.30	1.06	0.10	0.72	0.04	0.48	0.02	0.29	0.00		
14	6.60	8.05	4.04	2.43	2.53	0.78	1.93	0.40	1.23	0.14	0.84	0.05	0.56	0.02	0.34	0.01		
16	7.55	10.30	4.61	3.11	2.89	1.00	2.20	0.52	1.41	0.17	0.96	0.07	0.65	0.03	0.39	0.01		
18	8.49	12.81	5.19	3.87	3.25	1.24	2.48	0.64	1.59	0.22	1.08	0.09	0.73	0.03	0.44	0.01		
20	9.43	15.58	5.77	4.71	3.61	1.51	2.75	0.78	1.76	0.26	1.20	0.10	0.81	0.04	0.49	0.01		
22			6.34	5.62	3.97	1.80	3.03	0.93	1.94	0.32	1.32	0.12	0.89	0.05	0.54	0.01		
24			6.92	6.60	4.34	2.12	3.30	1.09	2.12	0.37	1.44	0.15	0.97	0.06	0.59	0.02		
26			7.50	7.65	4.70	2.46	3.58	1.27	2.29	0.43	1.56	0.17	1.05	0.07	0.63	0.02		
28			8.08	8.87	5.06	2.82	3.86	1.46	2.47	0.49	1.68	0.19	1.13	0.07	0.68	0.02		
30			8.65	9.98	5.42	3.20	4.13	1.66	2.65	0.56	1.80	0.22	1.22	0.09	0.73	0.02	0.34	0.00
35					6.32	4.26	4.82	2.20	3.09	0.75	2.11	0.29	1.42	0.11	0.86	0.03	0.39	0.01
40					7.23	5.45	5.51	2.82	3.53	0.95	2.41	0.38	1.62	0.14	0.98	0.04	0.45	0.01
45					8.13	6.78	6.20	3.51	3.97	1.19	2.71	0.47	1.83	0.18	1.10	0.05	0.51	0.01
50					9.04	8.24	6.89	4.26	4.41	1.44	3.01	0.57	2.03	0.22	1.23	0.06	0.56	0.01
55					9.94	9.83	7.58	5.09	4.85	1.72	3.31	0.68	2.23	0.26	1.35	0.08	0.62	0.01
60							8.27	5.97	5.30	2.02	3.61	0.80	2.44	0.31	1.47	0.09	0.68	0.01
65							8.96	6.93	5.74	2.35	3.92	0.93	2.64	0.36	1.59	0.10	0.73	0.02
70							9.65	7.95	6.18	2.69	4.22	1.06	2.84	0.41	1.72	0.12	0.79	0.02
75									6.62	3.06	4.52	1.21	3.05	0.46	1.84	0.14	0.85	0.02
80									7.06	3.44	4.82	1.36	3.25	0.52	1.96	0.15	0.90	0.02
85									7.50	3.85	5.12	1.52	3.45	0.59	2.09	0.17	0.96	0.03
90									7.95	4.82	5.42	1.69	3.66	0.65	2.21	0.19	1.02	0.03
95									8.39	4.74	5.72	1.87	3.86	0.72	2.33	0.21	1.07	0.03
100									8.83	5.21	6.03	2.06	4.07	0.79	2.46	0.23	1.13	0.04
110									9.71	6.21	6.63	2.45	4.47	0.94	2.70	0.28	1.24	0.04
120											7.23	2.88	4.88	1.11	2.95	0.33	1.36	0.05
130											7.84	3.34	5.29	1.29	3.19	0.38	1.47	0.06
140											8.44	3.84	5.69	1.47	3.44	0.43	1.59	0.07
150											9.04	4.36	6.10	1.68	3.69	0.49	1.70	0.08
160											9.64	4.91	6.51	1.89	3.93	0.55	1.81	0.08
170													6.91	2.11	4.18	0.62	1.93	0.09
180													7.32	2.35	4.42	0.69	2.04	0.11
190													7.73	2.60	4.67	0.76	2.15	0.12
200													8.14	2.85	4.92	0.84	2.27	0.13
225													9.15	3.55	5.53	1.04	2.55	0.16
250															6.15	1.27	2.83	0.19
275															6.76	1.51	3.12	0.23
300															7.38	1.78	3.40	0.27
325															7.99	2.06	3.69	0.31
350															8.61	2.36	3.97	0.36
375															9.22	2.69	4.25	0.41
400															9.84	3.03	4.54	0.46
425																	4.82	0.52
450																	5.11	0.57
475																	5.39	0.63
500																	5.67	0.70
550																	6.24	0.83
600																	6.81	0.98

Note:
Vel FPS = Velocity in Feet per Second
PSI Loss = Pounds per Square Inch lost per 100 feet.

We strongly suggest that you do not exceed velocities of 5 fps!

PRESSURE LOSS TABLES

PVC SCHEDULE 40 IPS PLASTIC PIPE

Size	¾"		1"		1¼"		1½"		2"		2½"		3"		4"		6"	
Flow GPM	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss
1	0.60	0.11	0.37	0.03	0.21	0.01	0.15	0.00										
2	1.20	0.39	0.74	0.12	0.42	0.03	0.31	0.02	0.19	0.00								
3	1.80	0.84	1.11	0.26	0.64	0.07	0.47	0.03	0.28	0.01	0.20	0.00						
4	2.40	1.42	1.48	0.44	0.85	0.12	0.62	0.05	0.38	0.02	0.26	0.01						
5	3.00	2.15	1.85	0.66	1.07	0.18	0.78	0.08	0.47	0.02	0.33	0.01	0.21	0.00				
6	3.60	3.02	2.22	0.93	1.28	0.25	0.94	0.12	0.57	0.03	0.40	0.01	0.26	0.01				
7	4.20	4.01	2.59	1.24	1.49	0.33	1.10	0.15	0.66	0.05	0.46	0.02	0.30	0.01				
8	4.80	5.14	2.96	1.59	1.71	0.42	1.25	0.20	0.76	0.06	0.53	0.02	0.34	0.01				
9	5.40	6.39	3.33	1.97	1.92	0.52	1.41	0.25	0.85	0.07	0.60	0.03	0.39	0.01				
10	6.00	7.77	3.70	2.40	2.14	0.63	1.57	0.30	0.95	0.09	0.66	0.04	0.43	0.01				
11	6.60	9.27	4.07	2.86	2.35	0.75	1.73	0.36	1.05	0.11	0.73	0.04	0.48	0.02				
12	7.21	10.89	4.44	3.36	2.57	0.89	1.88	0.42	1.14	0.12	0.80	0.05	0.52	0.02	0.30	0.00		
14	8.41	14.48	5.19	4.47	2.99	1.18	2.20	0.56	1.33	0.17	0.93	0.07	0.60	0.02	0.35	0.01		
16	9.61	18.55	5.93	5.73	3.42	1.51	2.51	0.71	1.52	0.21	1.07	0.09	0.69	0.03	0.40	0.01		
18			6.67	7.13	3.85	1.88	2.83	0.89	1.71	0.23	1.20	0.11	0.78	0.04	0.45	0.01		
20			7.41	8.66	4.28	2.28	3.14	1.08	1.90	0.32	1.33	0.13	0.86	0.05	0.50	0.01		
22			8.15	10.33	4.71	2.72	3.46	1.29	2.10	0.38	1.47	0.16	0.95	0.06	0.55	0.01		
24			8.89	12.14	5.14	3.20	3.77	1.51	2.29	0.45	1.60	0.19	1.04	0.07	0.60	0.02		
26			9.64	14.08	5.57	3.17	4.09	1.75	2.48	0.52	1.74	0.22	1.12	0.08	0.65	0.02		
28					5.99	4.25	4.40	2.01	2.67	0.60	1.87	0.25	1.21	0.09	0.70	0.02		
30					6.42	4.83	4.72	2.28	2.86	0.68	2.00	0.29	1.30	0.10	0.75	0.03		
35					7.49	6.43	5.50	3.04	3.34	0.90	2.34	0.38	1.51	0.13	0.88	0.04	0.38	0.00
40					8.56	8.23	6.29	3.89	3.81	1.15	2.67	0.49	1.73	0.17	1.00	0.04	0.44	0.01
45					9.64	10.24	7.08	4.84	4.29	1.43	3.01	0.60	1.95	0.21	1.13	0.06	0.49	0.01
50							7.87	5.88	4.77	1.74	3.34	0.73	2.16	0.26	1.25	0.07	0.55	0.01
55							8.65	7.01	5.25	2.08	3.68	0.88	2.38	0.30	1.38	0.08	0.61	0.01
60							9.44	8.24	5.72	2.44	4.01	1.03	2.60	0.36	1.51	0.10	0.66	0.01
65									6.20	2.83	4.35	1.19	2.81	0.41	1.63	0.11	0.72	0.02
70									6.68	3.25	4.68	1.38	3.03	0.48	1.76	0.13	0.77	0.02
75									7.16	3.69	5.01	1.56	3.25	0.54	1.88	0.14	0.83	0.02
80									7.63	4.16	5.35	1.75	3.46	0.61	2.01	0.16	0.88	0.02
85									8.11	4.66	5.68	1.96	3.68	0.68	2.13	0.18	0.94	0.02
90									8.59	5.18	6.02	2.18	3.90	0.76	2.26	0.20	0.99	0.03
95									9.07	5.72	6.35	2.41	4.11	0.84	2.39	0.22	1.05	0.03
100									9.54	6.29	6.69	2.65	4.33	0.92	2.51	0.25	1.10	0.03
110											7.36	3.16	4.76	1.10	2.76	0.29	1.22	0.04
120											8.03	3.72	5.20	1.29	3.02	0.34	1.33	0.05
130											8.70	4.31	5.63	1.50	3.27	0.40	1.44	0.05
140											9.37	4.94	6.06	1.72	3.52	0.46	1.55	0.06
150													6.50	1.95	3.77	0.52	1.66	0.07
160													6.93	2.20	4.02	0.59	1.77	0.08
170													7.36	2.46	4.27	0.66	1.88	0.09
180													7.80	2.74	4.53	0.73	1.99	0.10
190													8.23	3.02	4.78	0.81	2.10	0.11
200													8.66	3.33	5.03	0.89	2.21	0.12
225													9.75	4.14	5.66	1.10	2.49	0.15
250															6.29	1.34	2.77	0.18
275															6.92	1.60	3.05	0.22
300															7.55	1.88	3.32	0.26
325															8.18	2.18	3.60	0.30
350															8.81	2.50	3.88	0.34
375															9.43	2.84	4.15	0.39
400																	4.43	0.44
425																	4.71	0.49
450																	4.99	0.54
475																	5.26	0.60
500																	5.54	0.66
550																	6.10	0.79
600																	6.65	0.92

Note:
Vel FPS = Velocity in Feet per Second
PSI Loss = Pounds per Square Inch lost per 100 feet.

We strongly suggest that you do not exceed velocities of 5 fps!

TRICKL-EEZ IRRIGATION INC

PRESSURE LOSS TABLE

Friction Loss Chart for ID Controlled Hose (Oval Hose & Layflat Hose)

Size		1”		1½”		2"		3”		4"		6"	
Flow GPM	Flow GPH	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss
1	60	0.38	0.04	0.16	0.01	0.10	0.00						
2	120	0.76	0.14	0.32	0.02	0.19	0.01						
3	180	1.13	0.30	0.48	0.04	0.29	0.01						
4	240	1.51	0.52	0.65	0.07	0.39	0.02						
5	300	1.89	0.79	0.81	0.10	0.49	0.03						
6	360	2.27	1.10	0.97	0.14	0.58	0.04						
7	420	2.64	1.46	1.13	0.19	0.68	0.05						
8	480	3.02	1.87	1.29	0.24	0.78	0.07						
9	540	3.40	2.33	1.45	0.30	0.88	0.09						
10	600	3.78	2.83	1.62	0.36	0.97	0.10	0.26	0.00	0.26	0.00		
12	720	4.53	3.97	1.94	0.50	1.17	0.15	0.31	0.01	0.31	0.01		
14	840	5.29	5.29	2.26	0.67	1.36	0.20	0.36	0.01	0.36	0.01		
16	960	6.04	6.77	2.59	0.86	1.56	0.25	0.41	0.01	0.41	0.01		
18	1080	6.80	8.42	2.91	1.06	1.75	0.31	0.46	0.01	0.46	0.01		
20	1200	7.55	10.23	3.23	1.29	1.95	0.38	0.51	0.01	0.51	0.01		
25	1500	9.44	15.47	4.04	1.96	2.44	0.57	0.64	0.02	0.64	0.02		
30	1800	11.33	21.68	4.85	2.74	2.92	0.80	0.77	0.03	0.77	0.03	0.35	0.00
35	2100	13.22	28.84	5.66	3.65	3.41	1.07	0.90	0.04	0.90	0.04	0.40	0.01
40	2400	15.11	36.94	6.46	4.67	3.90	1.37	1.03	0.05	1.03	0.05	0.46	0.01
45	2700	17.00	45.94	7.27	5.81	4.39	1.70	1.99	0.25	1.15	0.07	0.52	0.01
50	3000			8.08	7.06	4.87	2.06	2.21	0.30	1.28	0.08	0.58	0.01
55	3300			8.89	8.43	5.36	2.46	2.43	0.36	1.41	0.10	0.63	0.01
60	3600			9.70	9.90	5.85	2.89	2.66	0.42	1.54	0.11	0.69	0.02
65	3900			10.50	11.48	6.34	3.36	2.88	0.49	1.67	0.13	0.75	0.02
70	4200			11.31	13.17	6.82	3.85	3.10	0.56	1.80	0.15	0.81	0.02
75	4500			12.12	14.97	7.31	4.37	3.32	0.64	1.92	0.17	0.87	0.02
80	4800			12.93	16.87	7.80	4.93	3.54	0.72	2.05	0.19	0.92	0.03
85	5100			13.73	18.87	8.29	5.51	3.76	0.81	2.18	0.21	0.98	0.03
90	5400			14.54	20.98	8.77	6.13	3.98	0.90	2.31	0.24	1.04	0.03
100	6000					9.75	7.45	4.43	1.09	2.56	0.29	1.15	0.04
110	6600					10.72	8.89	4.87	1.30	2.82	0.34	1.27	0.05
120	7200					11.70	10.44	5.31	1.53	3.08	0.40	1.38	0.06
130	7800					12.67	12.11	5.75	1.77	3.33	0.47	1.50	0.07
140	8400					13.65	13.90	6.20	2.03	3.59	0.54	1.62	0.08
150	9000					14.62	15.79	6.64	2.31	3.85	0.61	1.73	0.09
160	9600					15.60	17.79	7.08	2.60	4.10	0.69	1.85	0.10
170	10200					16.57	19.91	7.52	2.91	4.36	0.77	1.96	0.11
180	10800					17.55	22.13	7.97	3.24	4.62	0.86	2.08	0.12
190	11400							8.41	3.58	4.87	0.95	2.19	0.14
200	12000							8.85	3.93	5.13	1.04	2.31	0.15
250	15000							11.07	5.95	6.41	1.57	2.88	0.23
300	18000							13.28	8.33	7.69	2.21	3.46	0.32
350	21000							15.49	11.09	8.89	2.94	4.04	0.42
400	24000							17.70	14.20	10.26	3.76	4.62	0.54
450	27000							19.92	17.66	11.54	4.68	5.19	0.67
500	30000							22.13	21.46	12.82	5.68	5.77	0.81
600	36000									15.39	7.97	6.92	1.14
700	42000									17.95	10.60	8.08	1.52
800	48000									20.52	13.57	9.23	1.94
900	54000									23.08	16.88	10.38	2.41
1000	60000									25.65	20.52	11.54	2.93
1200	72000											13.85	4.11
1300	78000											15.00	4.77
1400	84000											16.15	5.47
1500	90000											17.31	6.22
1600	96000											18.46	7.01
1700	102000											19.62	7.84
1800	108000											20.77	8.71
1900	114000											21.92	9.63
2000	120000											23.08	10.59

Note:
Vel FPS = Velocity in Feet per Second
PSI Loss = Pounds per Square Inch lost per 100 feet.

We strongly suggest that you do not exceed velocities of 5 fps!

PRESSURE LOSS TABLES

POLYETHYLENE (PE) SDR-PRESSURE RATED TUBE

Size	¾"		1"		1¼"		1½"		2"	
Flow GPM	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss
1	0.60	0.12	0.37	0.04	0.21	0.01	0.15	0.00	0.09	0.00
2	1.20	0.45	0.74	0.14	0.42	0.04	0.31	0.02	0.19	0.01
3	1.80	0.95	1.11	0.29	0.64	0.08	0.47	0.04	0.28	0.01
4	2.40	1.62	1.48	0.50	0.85	0.13	0.62	0.06	0.38	0.02
5	3.00	2.44	1.85	0.76	1.07	0.20	0.78	0.09	0.47	0.03
6	3.60	3.43	2.22	1.06	1.28	0.28	0.94	0.13	0.57	0.04
7	4.20	4.56	2.59	1.41	1.49	0.37	1.10	0.18	0.66	0.05
8	4.80	5.84	2.96	1.80	1.71	0.47	1.25	0.22	0.76	0.07
9	5.40	7.26	3.33	2.24	1.92	0.59	1.41	0.28	0.85	0.08
10	6.00	8.82	3.70	2.73	2.14	0.72	1.57	0.34	0.95	0.10
11	6.60	10.53	4.07	3.25	2.35	0.86	1.73	0.40	1.05	0.12
12	7.21	12.37	4.44	3.82	2.57	1.01	1.88	0.48	1.14	0.14
14			5.19	5.08	2.99	1.34	2.20	0.63	1.33	0.19
16			5.93	6.51	3.42	1.71	2.51	0.81	1.52	0.24
18			6.67	8.10	3.85	2.13	2.83	1.01	1.71	0.30
20			7.41	9.85	4.28	2.59	3.14	1.22	1.90	0.36
22					4.71	3.09	3.46	1.46	2.10	0.43
24					5.14	3.63	3.77	1.72	2.29	0.51
26					5.57	4.21	4.09	1.99	2.48	0.59
28					5.99	4.83	4.40	2.28	2.67	0.68
30					6.42	5.49	4.72	2.59	2.86	0.77
35					7.49	7.31	5.50	3.45	3.34	1.02
40							6.29	4.42	3.81	1.31
45							7.08	5.50	4.29	1.63
50									4.77	1.98
55									5.25	2.36
60									5.72	2.78
65									6.20	3.22
70									6.68	3.69
75									7.16	4.20

Note:
Vel FPS = Velocity in Feet per Second
PSI Loss = Pounds per Square Inch lost per 100 feet.

TYPE K COPPER WATER TUBE

Size	½"		5/8"		¾"		1"		1¼"		1½"		2"	
Flow GPM	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss	Vel FPS	PSI Loss
1	1.46	1.09	0.95	0.39	0.73	0.20	0.41	0.05	0.26	0.02	0.18	0.01	0.10	0.00
2	2.93	3.94	1.91	1.40	1.47	0.73	0.82	0.18	0.52	0.06	0.37	0.03	0.21	0.01
3	4.40	8.35	2.87	2.97	2.20	1.55	1.23	0.38	0.78	0.13	0.55	0.05	0.31	0.01
4	5.87	14.23	3.83	5.05	2.94	2.64	1.64	0.65	1.05	0.22	0.74	0.09	0.42	0.02
5	7.34	21.51	4.79	7.64	3.67	3.99	2.06	0.98	1.31	0.33	0.93	0.14	0.53	0.04
6			5.75	10.70	4.41	5.60	2.47	1.37	1.57	0.46	1.11	0.20	0.63	0.05
7			6.71	14.24	5.14	7.44	2.88	1.82	1.84	0.61	1.30	0.25	0.74	0.07
8			7.67	18.24	5.88	9.53	3.29	2.33	2.10	0.78	1.48	0.34	0.85	0.09
9					6.61	11.86	3.70	2.90	2.36	0.97	1.67	0.42	0.95	0.11
10					7.35	14.41	4.12	3.53	2.63	1.18	1.86	0.51	1.06	0.13
11							4.53	4.21	2.89	1.41	2.04	0.61	1.16	0.16
12							4.94	4.94	3.15	1.66	2.23	0.71	1.27	0.18
14							5.76	6.57	3.68	2.21	2.60	0.95	1.48	0.24
16							6.59	8.42	4.21	2.83	2.97	1.22	1.70	0.31
18							7.41	10.47	4.73	3.52	3.34	1.51	1.91	0.39
20									5.26	4.28	3.72	1.84	1.12	0.47
22									2.79	5.10	4.09	2.19	2.33	0.56
24									6.31	5.99	4.46	2.58	2.55	0.66
26									6.84	6.95	4.83	2.99	2.76	0.77
28									7.37	7.98	5.20	3.43	2.97	0.88
30											5.58	3.89	3.18	1.00
35											6.51	5.18	3.72	1.33
40											7.44	6.63	4.25	1.70
45													4.78	2.12
50													5.31	2.57
55													5.84	3.07
60													6.37	3.60
65													6.91	4.18
70													7.44	4.80

Note:
Vel FPS = Velocity in Feet per Second
PSI Loss = Pounds per Square Inch lost per 100 feet.

We strongly suggest that you do not exceed velocities of 5 fps!

PRESSURE LOSS THROUGH WATER METERS (AWWA STANDARD)

Size Flow GPM	5/8" PSI Loss	¾" PSI Loss	1" PSI Loss	1½" PSI Loss	2" PSI Loss
1	0.2	0.1			
2	0.3	0.2			
3	0.4	0.3			
4	0.6	0.5	0.1		
5	0.9	0.6	0.2		
6	1.3	0.7	0.3		
7	1.8	0.8	0.4		
8	2.3	1.0	0.5		
9	3.0	1.3	0.6		
10	3.7	1.6	0.7		
11	4.4	1.9	0.8		
12	5.1	2.2	0.9		
13	6.1	2.6	1.0		
14	7.2	3.1	1.1		
15	8.3	3.6	1.2		
16	9.4	4.1	1.4	0.4	
17	10.7	4.6	1.6	0.5	
18	12.0	5.2	1.8	0.6	
19	13.4	5.8	2.0	0.7	
20	15.0	6.5	2.2	0.8	
22		7.9	2.8	1.0	
24		9.5	3.4	1.2	
26		11.2	4.0	1.4	
28		13.0	4.6	1.6	
30		15.0	5.3	1.8	0.7
32			6.0	2.1	0.8
34			6.9	2.4	0.9
36			7.8	2.7	1.0
38			8.7	3.0	1.2
40			9.6	3.3	1.3
42			10.6	3.6	1.4
44			11.7	3.9	1.5
46			12.8	4.2	1.6
48			13.9	4.5	1.7
50			15.0	4.9	1.9
52				5.3	2.1
54				5.7	2.2
56				6.2	2.3
58				6.7	2.5
60				7.2	2.7
65				8.3	3.2
70				9.8	3.7
75				11.2	4.3
80				12.8	4.9
90				16.1	6.2
100				20.0	7.8
110					9.5
120					11.3
130					13.0
140					15.1
150					17.3
160					20.0

HOW MUCH WATER IS NEEDED FOR TRICKLE IRRIGATION?

Rule of thumb: Be able to deliver at least one acre inch of water per week to the root system of the plants.

One Acre Inch of Water is approx. 27,000 Gallons

For orchards with one or two emitters per tree that have been grower installed into polyethylene trickle tubing , the formula for calculating the number of hours of irrigation per week that is necessary to apply an acre inch of water is as follows:

Irrigation Hours Needed to Apply One Acre Inch of Water per Week =
27,000 /
(Number of trees per acre x Number of emitter per tree x GPH rate of emitters)

Example: If an orchard is planted with trees on a 20 x 16 spacing, there would be 43,560 / (20 x 16) = 136 trees/ acre Let's assume that 2 emitters per tree were used with each emitter delivering 2 gal/ hour of water.

Now solving the formula would be:

Irrigation Hours Needed to Apply Inch of Water per Week =
27,000 / (136 x 2 x 2) = 49.63 or 50 hours per week.

For orchards where tubing with "built-in" emitters is used the formula for calculating the number of hours per week needed to deliver one acre inch of water is as follows:

Irrigation Hours Needed to Apply One Acre Inch of Water per Week =
(Distance in feet between rows x distance in feet between emitters x 27, 000) /
(43,560 x GPH Rate of Emitters)

Example: If RAM tubing was used in an orchard planted with 15 feet between rows with emitters spaced every 3 feet with a .61 GPH emission rate, solving the formula would be:

Irrigation Hours Needed to Apply One Acre Inch of Water per Week =
(15 x 3 x 27,000) / (43,560 x .61) = 45.73 or 46 hours per week.

TRICKL-EEZ IRRIGATION INC

HOW MUCH WATER IS NEEDED FOR TRICKLE IRRIGATION?

Old rule of thumb: Be able to deliver at least one acre inch of water per week to the root system of the plants.

One Acre Inch of Water is approx 27,000 Gallons.

For vegetable fields or smaller fruits where a tape product is used, the formula for calculating the number of hours of irrigation per week that is necessary to apply an acre inch of water is as follows:

Irrigation Hours Needed to Apply One Acre Inch of Water per Week= $\frac{27{,}000 \text{ X feet between rows X } 100}{43{,}560 \text{ X flow rate of tape in gpm per 100 feet X } 60}$

Or use this simplified alternate formula:

Irrigation Hours Needed to Apply One Acre Inch of Water per Week= $\frac{1.03 \text{ X feet between rows}}{\text{flow rate of tape in gpm per 100 feet}}$

Example: If a field of vegetables was planted with a 5 foot row width and the flow rate of the tape was .38 gpm per 100 feet, solving the formula would be:

Irrigation Hours Needed to Apply One Acre Inch of Water per Week= $\frac{27{,}000 \text{ X } 5 \text{ X } 100}{43{,}560 \text{ X } .38 \text{ X } 60}$ = 13.59 or 14 hours per week

Or use the simplified alternate formula:

Irrigation Hours Needed to Apply One Acre Inch of Water per Week= $\frac{1.03 \text{ X } 5}{.38}$ = 13.55 or 14 hours per week

If the flow rate of each emitter is known and the spacing in inches between emitters, another simple formula can be used:

Irrigation Hours Needed to Apply One Acre Inch of Water per Week= $\frac{.052 \text{ X feet between rows X emitter spacing in inches}}{\text{flow rate of each emitter in gallons per hour}}$

Example: If a field of vegetables was planted with a 5 foot row spacing and a tape was used that has an emitter every 12 inches with a flow rate per emitter of .23 GPH, solving the formula would be:

Irrigation Hours Needed to Apply One Acre Inch of Water per Week= $\frac{.052 \text{ X} 5 \text{ X } 12}{.23}$ = 13.57 or 14 hours per week

---

PRECIPITATION RATE

Sprinkler Spacing Method...

Any Arc / Any Spacing

inches/hr= $\frac{\text{GPM (Any Arc) x } 34{,}650}{\text{Degree of Arc x Head Spacing (ft) x row spacing (ft)}}$

Equilateral Triangular Spacing:

inches/hr= $\frac{\text{GPM of 360 Arc x } 96.25}{(\text{Head Spacing})^2 \text{ x } .866}$

Total Area Method...

inches/hr= $\frac{\text{Total GPM x } 96.25}{\text{Total Area}}$

HEAD SPACING

Wind Velocity Of:	Maximum Spacing Of Square Pattern	Maximum Spacing Of Triangular Pattern
0 to 3 mph	55% of diameter	60% of diameter
3 to 6 mph	50% of diameter	55% of diameter
6 to 12 mph	45% of diameter	50% of diameter

10/16/2023

FILTRATION PERFORATION SIZES

Mesh	Inches	mm	Micron
20	.0280	.711	711
40	.0165	.420	420
80	.0071	.180	180
100	.0060	.152	152
120	.0049	.125	125
140	.0042	.105	105
155	.0039	.100	100
180	.0035	.089	89
200	.0030	.074	74
270	.0021	.053	53
325	.0017	.044	44
600	.0010	.025	25

VALVE WIRE SIZING

Maximum One-way Distance (ft.) Between Controller and Valve

Ground Wire	Control Wire 18	16	14	12	10	8	6
18	1020	1260	1470	1640	1770	1860	1930
16	1260	1630	2000	2330	2610	2810	2960
14	1470	2000	2590	3180	3710	4150	4480
12	1640	2330	3180	4120	5050	5900	6590
10	1770	2610	3710	5050	6540	8030	9380
8	1860	2810	4150	5900	8030	10400	12770
6	1930	2960	4480	6590	9380	12770	16540

Solenoid Model: 24vac — Pressure: 150psi — Voltage Drop: 4V
Min. Op. Voltage: 20V — Amperage (peak): 0.3A

CONVERTING PARTS PER MILLION TO PERCENTS OR RATIOS

PPM	Percent	Ratio	PPM	Percent	Ratio
100,000	10.00	10:1	10,000	1.000	100:1
75,000	7.500	13:1	5,000	0.500	200:1
56,000	5.600	18:1	4,000	0.400	250:1
50,000	5.000	20:1	2,500	0.250	400:1
25,000	2.500	40:1	2,000	0.200	500:1
23,000	2.300	44:1	1,000	0.100	1,000:1
22,000	2.200	45:1	500	0.050	2,000:1
20,000	2.000	50:1	250	0.025	4,000:1
11,000	1.100	91:1			

Conversion Factors

To Convert	Into	Multiply by
FLOW		
Acre-Inch/Hr	Gallons/Min (gpm)	452.6
Acre-Inch	Gallons	27,154
Cubic Feet	Gallons (US)	7.481
Cubic Feet/Sec	Gallons/Min (gpm)	448.831
Cubic Meters	Gallons (US)	264.2
Cubic Meters/Hr	Gallons/Min (gpm)	4.403
Cubic Meters/Hr	Liters/Sec (L/s)	0.278
Gallons	Liters	3.785
Gallons/Min (gpm)	Cubic Meter/Hr (m^3/hr)	0.227
Gallons/Min (gpm)	Liters/Sec (L/s)	0.063
Liters	Gallons (US)	0.264
Liters/Sec	Gallons/Min (gpm)	15.852
Liters/Sec	Cubic Meters/Hr (m^3/hr)	3.598
AREA & LINEAR		
Acres	Hectares	0.405
Acres	Square Feet	43,560
Centimeters	Inches	0.394
Feet	Meters	0.305
Hectares	Acres	2.471
Inches	Millimeters	25.40
Meters	Feet	3.281
Miles	Kilometers	1.609
Miles	Feet	5,280
Millimeters	Inches	0.0394
PRESSURE		
Atmospheres	Kg/Sq Cm	1.033
Atmospheres	Pounds/Sq In (psi)	14.70
Bars	Pounds/Sq In (psi)	14.50
Feet of Water	Pounds/Sq In (psi)	0.434
Gallons of Water	Pounds	8.33
Kilograms/Sq Cm	Pounds/Sq In (psi)	14.22
KiloPascals (kPa)	Pounds/Sq In (psi)	0.145
Pounds/Sq In (psi)	Atmospheres	0.068
Pounds/Sq In (psi)	Bars	0.069
Pounds/Sq In (psi)	Feet of Water	2.307
Pounds/Sq In (psi)	KiloPascals (kPa)	6.895
POWER		
Horsepower	Kilowatts	0.746
Kilowatts	Horsepower	1.341

FORMULAS & TABLES FOR WIRE SIZE CALCULATIONS

$$\text{Size of Wire (a)} = \frac{\text{AMPs (b)} \times 22 \times \text{wire length (c)}}{\text{Volts (d)} \times \text{\% of allowable voltage loss (e)} \times .8\ \text{(f)}}$$

a • Size of wire is in area circular mills; to determine proper wire size to use for the area of circular mills calculated, look in the second table and select the next large wire size (example: for an area circular mills calculation of 12400 - select a #8 wire size).

b • AMPS - select this information from the first table for the amperage draw of the motor being considered. Note the different figures for "single phase" and "three phase". For a TRICKL-EEZ control unit with a certain motor size, add 3 AMPS for the current draw of the the auxiliary timers and other equipment.

c • Wire Length - is the distance from power source to motor in linear feet.

d • Volts - is the incoming voltage of the power source.

e • Percentage (%) of allowable voltage loss - this figure should be between .025 and .05 for all calculations for 115 volt motors and larger. Our recommended allowable voltage drop is 2.5 - 3%. The maximum is 5%. The only exception is for 24 volt solenoid valve calculations where voltage drop may be as large as 20%

f • .8 factor - this factor is to be used only when calculations are being made for aluminum wire. For copper wire calculations use a factor of 1.

Normal Amperage Draw for Various Motors

	Alternating Current Motors					
	Single Phase		Three Phase 60 cycle			
	Ampere rating of Motor					
HP	115v	230v	200v	208V	230v	460v
½	9.8	4.9				
¾	13.8	6.9				
1	16.0	8.0	4.2	4.0	3.6	1.8
1½	20.0	10.0	6.0	5.7	5.2	2.6
2	24.0	12.0	7.8	7.5	6.8	3.4
3	34.0	17.0	11.0	10.6	9.6	4.8
5	56.0	28.0	17.5	16.7	15.2	7.6
7½	80.0	40.0	25.3	24.2	22.0	11.0
10	100.0	50.0	32.2	30.8	28.0	14.0
15			48.3	46.2	42.0	21.0
20			62.1	59.4	54.0	27.0
25			78.2	74.8	68.0	34.0
30			92.0	88.0	80.0	40.0
40			119.6	114.4	104.0	52.0
50			149.5	143.0	130.0	65.0
60			177.1	169.4	154.0	77.0
75			220.8	211.2	192.0	96.0
100			285.2	272.8	248.0	124.0

For 90% & 80% power factor- the above figures shall be multiplied by 1.1 & 1.25 respectively.

Wire Size AWG/MCM	Area Circular Mills
18	1620
16	2580
14	4110
12	6530
10	10380
8	16510
6	26240
4	41640
3	52620
2	66360
1	83690
0	105600
00	133100
000	167800
0000	211600
250	250000
300	300000
350	350000
400	400000
500	500000

HEAD & PRESSURE EQUIVALENTS

Ft in Head	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**20**	**30**	**40**	**50**	**60**	**70**
PSI	.4	.9	1.3	1.7	2.2	2.6	3.0	3.5	3.9	4.3	8.7	13.0	17.3	21.7	26.0	30.3
Ft in Head	**80**	**90**	**100**	**110**	**120**	**130**	**140**	**150**	**160**	**170**	**180**	**190**	**200**	**225**	**250**	**275**
PSI	34.7	39.0	43.3	47.7	52.0	56.3	60.6	65.0	69.3	73.6	78.0	82.3	86.6	97.5	108.5	119.1

TRICKL-EEZ IRRIGATION INC

NEED A SYSTEM DESIGNED?

If you would like us to design a system for you, we will be happy to do so. **(Sorry, we do not design systems for lawns or landscaping or small home or hobby gardens!)** Please send us all relevant information and we will get a design to you as quickly as possible. The information we will need is:

What are you growing? _____

What is the row spacing? _____

How long are the rows? _____

How many rows? _____

What is the plant/ tree spacing? _____

What are the dimensions of the fields? _____

What is the terrain like (elevation changes)? _____

What is your water source (well, municipal, pond, river, lake, etc.)? _____

If using a pump, what is the make and model of the pump? _____

Where is the water source in relation to the fields? _____

How many gallons per minute of water is available? _____

What is the available pressure in psi? _____

Do you want an automatic system, or a manually operated system? _____

Do you want a fertilizer injector factored in? _____

Do you have specific preferences you'd like us to consider? _____

_____

Please feel free to use the following page to make sketches that can aid us in designing your system, then you can simply mail this page to us for a design and materials list.

Please include:

Your Farm Name: _____

Your Name: _____

Address: _____

City, State, Zip: _____

Daytime Phone: _____

Fax Number: _____

Thank you for the opportunity to help you to irrigate you farm!

NOTES / DRAWING PAGE

NOTES

Michigan Department of Treasury
3372 (Rev. 03-16)

Please fill out form and return to TRICKL-EEZ IRRIGATION
FAX: 269-429-6669
or a-r@trickl-eez.com

Michigan Sales and Use Tax Certificate of Exemption

INSTRUCTIONS: DO NOT send to the Department of Treasury. Certificate must be retained in the seller's records. This certificate is invalid unless all four sections are completed by the purchaser.

SECTION 1: TYPE OF PURCHASE

☐ A. One-Time Purchase
Order or Invoice Number: _____

☐ B. Blanket Certificate, Recurring Business Relationship

☐ C. Blanket Certificate
Expiration Date (maximum of four years): _____

The purchaser hereby claims exemption on the purchase of tangible personal property and selected services made from the vendor listed below. This certifies that this claim is based upon the purchaser's proposed use of the items or services, OR the status of the purchaser.

Vendor's Name and Address
TRICKL-EEZ IRRIGATION, 4266 HOLLYWOOD ROAD, SAINT JOSEPH, MICHIGAN 49085

SECTION 2: ITEMS COVERED BY THIS CERTIFICATE

Check one of the following:

1. ☐ All items purchased.
2. ☐ Limited to the following items: _____

SECTION 3: BASIS FOR EXEMPTION CLAIM

FEIN# _____

Check one of the following:

1. ☐ For Lease. Enter Use Tax Registration Number: _____
2. ☐ For Resale at Retail. Enter Sales Tax License Number: _____

The following exemptions DO NOT require the purchaser to provide a number:

3. ☐ Agricultural Production. Enter percentage: _____%
4. ☐ Church, Government Entity, Nonprofit School, or Nonprofit Hospital (Circle type of organization).
5. ☐ Contractor (must provide *Michigan Sales and Use Tax Contractor Eligibility Statement* (Form 3520)).
6. ☐ For Resale at Wholesale.
7. ☐ Industrial Processing. Enter percentage: _____%
8. ☐ Nonprofit Internal Revenue Code Section 501(c)(3) or 501(c)(4) Exempt Organization (must provide IRS authorized letter with this form).
9. ☐ Nonprofit Organization with an authorized letter issued by the Michigan Department of Treasury prior to June 1994 (must provide copy of letter with this form).
10. ☐ Rolling Stock purchased by an Interstate Motor Carrier.
11. ☐ Qualified Data Center
12. ☐ Other (explain): _____

SECTION 4: CERTIFICATION

I declare, under penalty of perjury, that the information on this certificate is true, that I have consulted the statutes, administrative rules and other sources of law applicable to my exemption, and that I have exercised reasonable care in assuring that my claim of exemption is valid under Michigan law. In the event this claim is disallowed, I accept full responsibility for the payment of tax, penalty and any accrued interest, including, if necessary, reimbursement to the vendor for tax and accrued interest.

Business Name	Type of Business (see codes on page 2)
Business Address	City, State, ZIP Code
Business Telephone Number (include area code)	Name (Print or Type)
Signature and Title	Date Signed

Application for a TRICKL-EEZ IRRIGATION Credit Agreement

4266 Hollywood Road
St. Joseph, MI 49085
(269)429-8200 • (269)429-6669 Fax

For Office Use Only:

Approved By:_____ **Date Approved:**_____

Credit Limit:_____ **Customer #:**_____

Posted By:_____ **Date Posted:**_____

Date: _____

Name of Business _____ Number of years in business: _____

Business Address _____ Own _____ Rent _____ Lease _____

City_____ State _____ Zip _____ Business Phone _____

State Resale Tax Exempt #_____ Issuing State _____
(Certificate must be attached)

Fax Number _____

E-Mail _____

TYPE OF BUSINESS

Sole Proprietorship _____ Partnership _____ Corporation _____ Government _____

ESTIMATED MONTHLY PURCHASES

To $499 ☐ $500-$999 ☐ $1,000-$2,499 ☐ $2,500-$4,999 ☐ $5,000-$9,999 ☐ $10,000+ ☐

LIST NAME(S) AND ADDRESSES OF PARTNERS AND OFFICERS

Full Name_____ Telephone Number (____)_____

Address_____ Social Security Number_____

_____ Date of Birth_____

Full Name_____ Telephone Number (____)_____

Address_____ Social Security Number_____

_____ Date of Birth_____

BANK REFERENCE Last 4 Digits of Acct Number: _____

Bank _____ Contact _____

Address _____ City_____ State_____ Zip _____

Telephone Number (____)_____ Fax Number (____)_____

BUSINESS CREDIT REFERENCES

List trade related references with whom you have established credit and do business with on a regular basis:

Name _____ Name _____

Address _____ Address _____

City _____ State _____ Zip ____ City _____ State _____ Zip ____

Telephone _____ Telephone _____

Fax # Fax #

Name _____ Name _____

Address _____ Address _____

City _____ State _____ Zip ____ City _____ State _____ Zip ____

Telephone _____ Telephone _____

Fax # Fax #

Terms and Conditions

This is a summary of **TRICKL-EEZ IRRIGATION's** Terms and Conditions statement which is printed in our catalog. These terms and conditions are very important and should be read and understood prior to release of shipments.

Complete this credit agreement and please allow time for written varification. Until your credit agreement is approved, all shipments are C.O.D.

All orders are shipped F.O.B. **TRICKL-EEZ IRRIGATION's** premises freight prepaid. Invoices are due thirty (30) days after invoice date and past due on the thirty-first (31st) day. All past due invoices will be charged a 1½% service charge per month. Postmark will determine payment date. **TRICKL-EEZ IRRIGATION** will not ship to any account with an invoice over thirty (30) days. Such an account may be reopened by paying **TRICKL-EEZ IRRIGATION** for all amounts past due.

Should **TRICKL-EEZ IRRIGATION** have to take any action to collect any monies due from customer, **TRICKL-EEZ IRRIGATION** shall be entitled to attorney's fees and costs, service charges, and interest at the maximum legal rate from the date the monies are first due. Should any dispute arise regarding this agreement or any transactions between the parties exclusive jurisdiction for resolution of such dispute shall be the courts of Michigan and exclusive law applicable shall be that of Michigan.

TRICKL-EEZ IRRIGATION reserves the right to refuse service to anyone.

I have read the above requirements for terms and conditions, and I authorize **TRICKL-EEZ IRRIGATION** to check our/my credit history with the banking institution listed above, or any credit reporting firm. In signing this agreement I agree to the above terms and will abide with them.

Signature _____ Title _____

Name _____ Date _____

In consideration of the extension of credit terms, the undersigned solely and/or collectively do personally guarantee the payment of all charges made by and/or on behalf of the applicants, plus attorney fees, court and all other costs of collection should collection proceedings become necessary.

Signature _____ Title _____

Name _____ Date _____

Please include a copy of most current year-to-date and year end financial statements.

Sales Order

☐ 3550 Chambersburg Road
Biglerville, PA 17307
(717)337-3030 • Fax (717)337-1785

Please mail, fax or e-mail this form to:

☒ 4266 Hollywood Road
St. Joseph, MI 49085
(269)429-8200 • Fax (269)429-6669
info@trickl-eez.com

Customer's Number:_____ Telephone: (_____)_____

Name:_____ Ship To:_____

Address:_____ Address:_____

City:_____State:____Zip Code:_____ City:_____State:____Zip Code:_____

						PO #	
Terms		Ship Via		Todays Date		Ship Date	

Product Code	Description	U/M	Quantity Ordered	Price Each	Extension

I WISH TO PAY BY CREDIT CARD VISA ☐ MASTERCARD ☐ DISCOVER ☐ AMERICAN EXP ☐

Name of Cardholder Signature

- - - / /20

Card Number Expiration Date CVV2 Code

THIS FORM MAY BE PHOTOCOPIED - VOID UNLESS COMPLETE INFORMATION IS SUPPLIED

CHECK ONE: ☐ SALES TAX UNIT EXEMPTION CERTIFICATE
☐ SALES TAX BLANKET EXEMPTION CERTIFICATE

Property and services purchased or leased using this certificate are exempt from sales tax because:

1• Property or services will be directly used by purchaser in performing purchaser's operation as:

2• Property will be resold under license #_____

3• Other _____

I am authorized to execute this Certificate and claim this exemption. Misuse of this Certificate by seller, lessor buyer, lessee, or their representatives is punishable by fine and imprisonment. The provisions of this Certificate are a part of every transaction between the parties included.

Name of Purchaser or Lessee Street Address City State Zip Code

Signature Signer's Title Date EIN

Total Materials	
Sales Tax	
Freight	
Total	

CVV2 Code is found on the back of your card, on the strip where you sign your name. It is the **LAST NUMBERS.**

TRICKL-EEZ IRRIGATION INC
Irrigation Engineering & Equipment

4266 Hollywood Road
St Joseph, MI 49085