



SECTION 10 TURF IRRIGATION



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RPS75

RPS75™ Rotor

The RPS75™ gear drive is designed for basic residential and light commercial applications and is a direct replacement for Hunter® PGP® rotors. The reversing mechanism, a K-Rain patented feature, is the same mechanism used in the Hunter PGP (K-Rain currently licenses this patent to Hunter.) With K-Rain's wide selection of standard and low angle nozzles, the RPS75 provides even water distribution.

Features:

- Direct Replacement for Hunter® PGP®.
- Right Position Start - Rotor rotates counterclockwise from fixed right start position.
- Riser Fits in Existing Hunter PGP Cans - Simply unscrew the existing riser from the PGP can and replace with the RPS75 riser.
- Top Adjustment - No training necessary, the RPS75 has the same adjustment procedure as the Hunter PGP.
- Full and Part Circle Rotation - Provides a full range of adjustment from 40° to 360°
- Non-Flushing Wiper Seal - Reduces leaks caused by debris trapped under seal.
- 3/4" Inlet - Replaces all standard rotors.
- Ideal for Low Flow Applications.
- Universal Adjustment Tool - Compatible with existing Hunter products.
- Rubber Cover - Seals out dirt and increases product durability.
- Wide Selection of Nozzles - Including standard and low angle, provides flexibility in system design.
- **Key and check disc also included in master cases.**
- **FULL 5 YEAR WARRANTY.** Subject to all standard warranty conditions that apply to all K-Rain rotors.



ARC selection 40° - 360°.
Adjusts from RIGHT start.



Find performance data on following page.

Specifications:

- Inlet 3/4" female threaded NPT
- Arc Adjustment Range: 40° to 360°
- Flow range: 0.75 - 8.2 GPM
- Pressure Rating: 30-70 PSI
- Precipitation Rate: 0.12 to 1.16 inches/hour
- Overall height popped down : 7 3/8"
- Recommended spacing: 25' to 45'
- Radius: 22' to 51'
- Nozzle trajectory: 25° standard or 11° low angle
- 8 standard and 4 low angle nozzles included
- Riser Height: 4"

Part Number	Description	Ctn Qty	List Price
RPS75	RPS Standard Rotor	20	\$ 22.20

K-Rain products are not available for sale in NC, SC, TN, or MA.



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K-Rain® Rotors



RPS75™ Rotor Performance Data



STANDARD ANGLE

Nozzle	Pressure PSI	Radius Ft.	Flow Rate GPM
#0.75	30	29	0.7
	40	30	0.8
	50	30	0.9
	60	31	1.0
#1	30	30	0.9
	40	31	1.0
	50	31	1.2
	60	32	1.3
#1.5	30	32	1.2
	40	33	1.4
	50	34	1.6
	60	34	1.8
#2	30	34	1.6
	40	36	1.8
	50	38	2.0
	60	38	2.2
#3 preinstalled	30	36	2.0
	40	38	2.4
	50	40	2.7
	60	40	2.9
#4	30	36	2.6
	40	40	3.0
	50	42	3.4
	60	42	3.7
#6	30	38	4.2
	40	43	4.9
	50	46	5.5
	60	47	6.0
#8	40	45	6.0
	50	48	6.8
	60	49	7.6
	70	51	8.2

LOW ANGLE

#1	30	22	1.2
	40	24	1.7
	50	26	1.8
	60	28	2.0
#3	30	29	3.0
	40	32	3.1
	50	35	3.5
	60	37	3.8
#4	30	31	3.4
	40	34	3.9
	50	37	4.4
	60	38	4.7
#6	40	38	6.5
	50	40	7.3
	60	42	8.0
	70	44	8.6

Data represents test results in zero wind.

Adjust for local conditions.

Radius may be reduced with nozzle retention screw.

K-Rain products are not available for sale in NC, SC, TN, or MA.



K-Rain® Rotors



13003

MiniPro™ Rotor

Perfect for small lawn and landscape areas and for replacing fixed sprays.
Direct replacement for the Toro Mini8.



Features:

- Gear driven, rotary type sprinkler capable of covering an area of 17' to 30'.
- Revolutionary patented easy arc set is easily adjusted from the top with a flat blade screwdriver. Stainless steel radius adjustment screw.
- Adjustable rotation provides a full range of adjustments from 40° to 360°. Patented arc set degree markings clearly indicate current watering pattern and simplifies adjustment
- Adjustable in all phases of installation - before, after while static or while in operation.
- Time proven patented reversing mechanism assures continuous reverse and return.
- Ratcheting riser easily adjusts your left start position by turning the riser.
- Supplied with 5 numerically coded interchangeable nozzles. Wide selection of nozzles provides flexibility in system design to achieve matched precipitation.
- Heavy duty rubber cover seals out dirt and increases durability.
- **FULL 5 YEAR WARRANTY. Subject to all standard warranty conditions that apply to all K-Rain rotors.**



Specifications:

- Inlet 1/2" NPT
- Arc adjustment range 40° to 360°
- Flow range: 0.75 - 3.3 GPM
- Pressure Rating: 20-70 PSI
- Precipitation Rate: 0.22 to 0.41 inches/hour (depending on spacing and nozzle used)
- Overall height popped down : 6"
- Recommended spacing: 17' to 28'
- Radius: 17' to 30'
- Nozzle trajectory: 26°
- Riser Height: 4", 6" or 12".



Find performance data on following page.



ARC selection 40° - 360°.
Adjusts from LEFT start.

Part Number	Description	Ctn Qty	List Price
13003	MiniPro short range rotor 4"	25	\$ 20.06
13006	MiniPro short range rotor 6"	20	30.30
13012	MiniPro short range rotor 12"	12	45.47

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MiniPro™ Rotor Performance Data

STANDARD ANGLE

Red Nozzle

Performance Data:			
Nozzle	Pressure PSI	Radius Ft.	Flow Rate GPM
#0.75	30	17'	.75
	40	17'	.8
	50	18'	.9
#1	30	20'	.9
	40	21'	1.2
	50	21'	1.3
#1.5 preinstalled	30	23'	1.4
	40	24'	1.7
	50	24'	1.9
#2	30	25'	1.8
	40	27'	2.1
	50	27'	2.4
#3	30	28'	2.7
	40	30'	3.0
	50	30'	3.3

K-Rain products are not available for sale in NC, SC, TN, or MA.



K-Rain® Rotors



11003

ProPlus™ 11003 Rotor

Appropriate for medium to large landscape areas with high level risers and shrubs.

Direct replacement for the Toro Super800.

Features:

- Gear driven, rotary type sprinkler capable of covering an area of 22' to 50'.
- Revolutionary patented easy arc set is easily adjusted from the top with a flat blade screwdriver. Stainless steel radius adjustment screw.
- 2N1 adjustable or continuous rotation provides a full range of adjustments from 40° to a full 360°. Patented arc set degree markings show the degree of adjustment with the point of an arrow on the top cover.
- Arc memory clutch returns rotor to its preset position automatically even after being tampered with. Time proven patented reversing mechanism assures continuous reverse and return.
- Ratcheting riser easily adjusts your left start position by turning the riser.
- Supplied with 9 numerically coded interchangeable nozzles including 4 low angle nozzles. Wide selection of nozzles provides flexibility in system design to achieve matched precipitation.
- Heavy duty rubber cover seals our dirt and increases durability.
- **FULL 5 YEAR WARRANTY. Subject to all standard warranty conditions that apply to all K-Rain rotors.**



Specifications:

- Inlet 3/4" threaded NPT
- Arc Adjustment Range: 40° to continuous 360°
- Flow range: 0.5 - 10.0 GPM
- Pressure Rating: 20-70 PSI
- Precipitation Rate: 0.06 to 0.50 inches/hour (depending on spacing and nozzle used)
- Overall height popped down : 7 1/2" 17" for High pop
- Recommended spacing: 28' to 44'
- Radius: 22' to 50'
- Nozzle trajectory: 26° standard or 12° low angle
- Riser Height: 5"



ARC selection 40° to continuous 360°. Adjusts from LEFT start.

Part Number	Description	Ctn Qty	List Price
11003	ProPlus mid-range rotor	20	\$ 24.34
11003-SH	ProPlus shrub head	20	24.34
11003-HP	ProPlus 12" high pop	12	55.84

Find performance data on following page.

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ProPlus™ 11003 Rotor Performance Data

STANDARD ANGLE

Red Nozzle

Nozzle	Pressure PSI	Radius Ft.	Flow Rate GPM	
#0.5	30	28	0.5	
	40	29	0.6	
	50	29	0.7	
	60	30	0.8	
#0.75	30	29	0.7	
	40	30	0.8	
	50	31	0.9	
	60	32	1.0	
#1	30	32	1.3	
	40	33	1.5	
	50	34	1.6	
	60	35	1.8	
#2	30	37	2.4	
	40	40	2.5	
	50	42	3.0	
	60	43	3.3	
#2.5	30	38	2.5	
	preinstalled	40	39	2.8
	50	40	3.2	
	60	41	3.5	
#3	30	38	3.6	
	40	39	4.2	
	50	41	4.6	
	60	42	5.0	
#4	30	43	4.4	
	40	44	5.1	
	50	46	5.6	
	60	49	5.9	
#6	40	45	5.9	
	50	46	6.0	
	60	48	6.3	
	70	49	6.7	
#8	40	42	8.0	
	50	45	8.5	
	60	49	9.5	
	70	50	10.0	

LOW ANGLE

Green Nozzle

Nozzle	Pressure PSI	Radius Ft.	Flow Rate GPM
#1	30	22	1.2
	40	24	1.7
	50	26	1.8
	60	28	2.0
#3	30	29	3.0
	40	32	3.1
	50	35	3.5
	60	37	3.8
#4	30	31	3.4
	40	34	3.9
	50	37	4.4
	60	38	4.7
#6	40	38	6.5
	50	40	7.3
	60	42	8.0
	70	44	8.6

K-Rain products are not available for sale in NC, SC, TN, or MA.



10003

SuperPro™ 10003 Rotor

With flow control, appropriate for residential or light commercial.
Direct replacement for the Toro Super 800.



Features:

- Riser fits in existing Toro Super800 cans.
- Gear driven, rotary type sprinkler capable of covering an area of 26' to 49'.
- Patented flow control valve inside the rotor allows individual head to be turned off or be partially closed to reduce the distance by up to 75%. Additionally it simultaneously reduces the flow rate creating an added water savings.
- Revolutionary patented easy arc set is easily adjusted from the top with a flat blade screwdriver. Stainless steel radius adjustment screw.
- 2N1 adjustable or continuous rotation provides a full range of adjustments from 40° to continuous 360°. Patented arc set degree markings show the degree of adjustment with the point of an arrow on the top cover.
- Arc memory clutch returns rotor to its preset position automatically even after being tampered with. Time proven patented reversing mechanism assures continuous reverse and return.
- Ratcheting riser easily adjusts your left start position by turning the riser.
- Supplied with 9 numerically coded interchangeable nozzles including 4 low angle nozzles.
- Heavy duty rubber cover seals our dirt and increases durability.
- 5 year limited warranty.



Specifications:

- Inlet 3/4" threaded NPT
- Arc Adjustment Range: 40° to continuous 360°
- Flow range: 0.5 - 10.0 GPM
- Pressure Rating: 20-70 PSI
- Precipitation Rate: 0.05 to 0.74 inches/hour (depending on spacing and nozzle used)
- Overall height popped down : 7 1/2"
- Recommended spacing: 28' to 44'
- Radius: 26' to 49'
- Nozzle trajectory: 26° standard or 12° low angle
- Riser Height: 5"

Part Number	Description	Ctn Qty	List Price
10003	SuperPro rotor	20	\$ 26.49
10003-HP	SuperPro 12" high pop	12	61.59



ARC selection 40° to continuous 360°. Adjusts from LEFT start.

Find performance data on following page.

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SuperPro™ 10003 Rotor Performance Data

STANDARD ANGLE

Nozzle	Pressure PSI	Radius Ft.	Flow Rate GPM	
#0.5	30	30	0.45	
	40	29	0.5	
	50	26	0.6	
	60	26	0.7	
#0.75	30	32	0.7	
	40	32	0.8	
	50	33	0.9	
	60	33	1.0	
#1	30	30	1.1	
	40	32	1.3	
	50	33	1.5	
	60	33	1.6	
#2	30	38	2.3	
	40	38	2.5	
	50	40	2.7	
	60	42	3.0	
#2.5	30	35	2.5	
	preinstalled	40	36	2.8
	50	37	3.2	
	60	38	3.6	
#3	30	35	3.4	
	40	36	3.8	
	50	38	4.2	
	60	39	4.8	
#4	30	42	4.1	
	40	44	4.6	
	50	45	5.1	
	60	46	5.7	
#6	40	46	5.8	
	50	48	6.4	
	60	49	7.0	
	70	49	7.5	
#8	40	42	7.5	
	50	45	8.2	
	60	48	9.0	
	70	48	9.5	

LOW ANGLE

Nozzle	Pressure PSI	Radius Ft.	Flow Rate GPM
#1	30	26	1.3
	40	27	1.5
	50	27	1.7
	60	28	1.9
#3	30	29	2.9
	40	30	3.3
	50	31	3.4
	60	33	4.0
#4	30	28	4.0
	40	31	4.7
	50	34	5.0
	60	36	6.0
#6	40	30	6.0
	50	34	7.0
	60	37	7.8
	70	38	8.2

K-Rain products are not available for sale in NC, SC, TN, or MA.



K Spray Series

K-Spray Series Spray Bodies

Ideal for watering smaller areas, ground cover and shrub areas.

Features:

- Available in 3", 4" 6" and 12" models which provide flexibility in design.
- **Accepts MALE threaded nozzles.**
- Stainless steel retraction spring provides reliable retraction of the riser in all soil conditions.
- Ratchet riser allows for easy pattern alignment by turning the riser.
- Heavy duty wiper seal ensures leak free, full pop-up operation even under low pressure situations.



Specifications:

- Inlet 1/2" NPT female thread
- Flow range: 0.5 - 4.6 GPM
- Pressure Rating: 20-50 PSI
- Precipitation Rate: 0.4 to 1.91 inches/hour

Part Number	Description	Ctn Qty	List Price
73001	3" Pop-up Spray body (less nozzles)	100	\$ 3.90
74001	4" Pop-up Spray body (less nozzles)	50	4.03
76001	6" Pop-up Spray body (less nozzles)	50	8.10
71201	12" Pop-up Spray body (less nozzles)	25	16.84



RPS Series

RPS Series Spray Bodies

Narrow profile pop-up spray heads are ideal for watering smaller areas, ground cover and shrub areas.

Features:

- Available in 2" and 4" models which provides flexibility in design.
- **Accepts FEMALE threaded nozzles.**
- Narrow profile body is easy to retrofit with existing systems.
- Stainless steel retraction spring provides reliable retraction of the riser in all soil conditions.
- Ratchet riser allows for easy pattern alignment by turning the riser.
- Co-molded wiper seal ensures leak free, full pop-up operation even under low pressure situations.
- Alternate to Hunter® PS Series sprays.

Specifications:

- Inlet 1/2" NPT female thread
- Flow range: 0.5 - 4.6 GPM
- Pressure Rating: 20-50 PSI
- Precipitation Rate: 0.3 to 4.0 inches/hour

Part Number	Description	Ctn Qty	List Price
RPS2	Narrow profile 2" spray body (less nozzles)	100	\$ 3.73
RPS4	Narrow profile 4" spray body (less nozzles)	50	3.90

K-Rain products are not available for sale in NC, SC, TN, or MA.



PRO-S Spray

Pro-S Pop-Up Sprays

A rugged, contractor friendly spray line designed to be compatible with ALL standard female threaded nozzles.
Direct replacement for RainBird® 1800 Series sprays.

Features:

- Available in 2", 3", 4" 6" and 12" models which provide flexibility in design.
- **Accepts FEMALE threaded nozzles.**
- Co-Molded wiper seal ensures a leak free, full pop up operation under low pressure situations. Cartridge design allows for easy removal and cleaning. Treated with UV inhibitors for long life. Seal is microbe resistant to reduce degradation and stick ups.
- Ratcheting riser allows for easy pattern alignment by turning the riser.
- Heavy duty retraction spring for positive retraction in all soil conditions.
- Side and bottom inlet on 6" and 12" models.
- Pre-installed flush cap.
- 5 year Limited Warranty.



Specifications:

- Inlet 1/2" NPT Female Thread
- Flo range: 0 @ 8 psi, 0.10 gpm
- Pressure Rating: 20-70 psi
- Precipitation Rate: 0.4-4 inches/hour
- Overall Body Height: 2" pop up - 4"
3" pop up - 4 7/8"
4" pop up - 6"
6" pop up - 9 3/8"
12" pop up - 16"



Part Number	Description	Ctn Qty	List Price
78002	2" Pop up spray	50	\$ 3.73
78003	3" Pop up spray	50	3.90
78004	4" Pop up spray	50	3.90
78004-PR	4" Pop up spray w/ pressure regulator	50	11.23
78006	6" Pop up spray	50	8.10
78006-PR	6" Pop up spray w/ pressure regulator	50	16.16
78012	12" Pop up spray	25	16.84
78012-PR	12" Pop up spray w/ pressure regulator	50	27.00
P53428	ProS Spray Check Disk	25	2.41



Co-molded wiper seal

K-Rain products are not available for sale in NC, SC, TN, or MA.



RN Rotary Nozzle



Fixed Pattern Rotary Nozzle

Provides increased uniform coverage over conventional fixed spray nozzles while delivering matched precipitation.

Features:

- Perfect for upgrading old irrigation systems by solving low pressure and coverage problems.
- Matched precipitation across various radii and patterns.
- Low precipitation rate reduces run off.
- Low flow rate means less material and fewer zones.
- 25% radius reduction for patented flow control, no tools required.
- Unique speed control maintains the speed of rotation over varying pressure ranges.
- Any pattern can be combined in the same zone with matched precipitation.
- Larger filter prolongs product life.
- 2 year Limited Warranty.






Specifications:

- Spacing: 13-17 ft
- Pressure Rating: 20-45 psi
- Precipitation Rate: 0.67 - 0.99 inches/hour depending on head spacing.

Part Number	Description	Color	Ctn Qty	List Price
RN200-90	Rotary Nozzle - 90° Fixed pattern	Black	25	\$ 16.02
RN200-180	Rotary Nozzle - 180° Fixed pattern	Green	25	16.02
RN200-360	Rotary Nozzle - 360° Fixed pattern	Red	25	16.02



FIXED PATTERN ROTARY NOZZLES - PERFORMANCE SPECS

Part Number	Nozzle Pattern	Pressure PSI	Radius Ft.	Flow Rate GPM	Flow GPH	Precip	Precip
 RN200-90	90°	25	13	0.38		0.99	0.86
		30	14	0.41		0.93	0.81
		35	15	0.45		0.89	0.77
		40	16	0.48		0.84	0.72
		45	17	0.51		0.78	0.68
 RN200-180	180°	25	13	0.74		0.97	0.84
		30	14	0.81		0.92	0.80
		35	15	0.90		0.89	0.77
		40	16	0.96		0.83	0.72
		45	17	1.00		0.77	0.67
 RN200-360	270°	25	13	1.50		0.99	0.85
		30	14	1.70		0.96	0.83
		35	15	1.80		0.89	0.77
		40	16	2.00		0.87	0.75
		45	17	2.10		0.81	0.70

K-Rain products are not available for sale in NC, SC, TN, or MA.



KV Nozzles

KV Variable Arc Nozzles

KV adjustable nozzles have a MALE thread configuration to fit K-Spray bodies.

Features:

- Superior spray pattern ensures proper precipitation rates throughout the adjustment.
- Color coded by distance.
- Extra long filters provide longer time between cleaning.



Find performance data on following page.

Part Number	Description	Color	Ctn Qty	List Price
KV8	8' Variable arc nozzle male thread	Green	25	\$ 2.28
KV10	10' Variable arc nozzle male thread	Blue	25	2.28
KV12	12' Variable arc nozzle male thread	Brown	25	2.28
KV15	15' Variable arc nozzle male thread	Black	25	2.28
KV17	17' Variable arc nozzle male thread	Gray	25	2.28



KVF Nozzles

KVF Variable Arc Nozzles

KVF adjustable nozzles have a FEMALE thread configuration to fit RPS and PRO-S spray bodies.

Features:

- Superior spray pattern ensures proper precipitation rates throughout the adjustment.
- Color coded by distance.
- Extra long filters provide longer time between cleaning.

Find performance data on following page.

Part Number	Description	Color	Ctn Qty	List Price
KVF8	8' Variable arc nozzle female thread	Green	25	\$ 2.28
KVF10	10' Variable arc nozzle female thread	Blue	25	2.28
KVF12	12' Variable arc nozzle female thread	Brown	25	2.28
KVF15	15' Variable arc nozzle female thread	Black	25	2.28
KVF17	17' Variable arc nozzle female thread	Black	25	2.28

K-Rain products are not available for sale in NC, SC, TN, or MA.

K-Rain® Nozzles

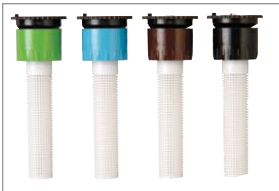


VARIABLE ARC NOZZLES - PERFORMANCE SPECS FOR KV NOZZLES



Arc	Pressure PSI	8' GREEN Radius Ft.	Flow GPM	10' BLUE Radius Ft.	Flow GPM	12' BROWN Radius Ft.	Flow GPM	15' BLACK Radius Ft.	Flow GPM	17' GRAY Radius Ft.	Flow GPM
90°	20	9	0.7	12	0.7	12	1.1	15	1.3	18	1.7
	30	9	1.1	12	1.1	13	1.3	17	1.6	18	1.8
	40	10	1.4	13	1.4	14	1.5	18	1.8	19	2.0
	50	11	1.5	14	1.5	15	1.7	19	2.0	20	2.2
180°	20	8	1.4	11	1.4	11	1.6	14	1.8	17	1.9
	30	8	1.6	11	1.6	12	1.8	15	2.3	18	2.4
	40	9	1.8	12	1.8	13	2.2	16	2.6	19	2.6
	50	10	2.0	13	2.0	14	2.4	18	2.8	19	2.6
270°	20	8	1.7	10	1.7	11	1.9	14	2.7	16	2.9
	30	8	2.0	10	2.0	12	2.4	15	3.2	17	3.4
	40	8	2.3	11	2.3	12	2.6	16	3.6	18	4.0
	50	9	2.6	12	2.6	13	3.0	16	4.0	18	4.0
360°	20	8	2.2	10	2.2	11	2.8	13	3.4	15	3.5
	30	8	2.7	10	2.7	12	3.1	15	4.2	17	4.4
	40	8	3.0	11	3.0	12	3.5	15	4.7	17	4.9
	50	8	3.5	12	3.5	13	3.9	16	5.3	18	5.4

VARIABLE ARC NOZZLES - PERFORMANCE SPECS FOR KVF NOZZLES



Arc	Pressure PSI	8' GREEN Radius Ft.	Flow GPM	10' BLUE Radius Ft.	Flow GPM	12' BROWN Radius Ft.	Flow GPM	15' BLACK Radius Ft.	Flow GPM	17' GRAY Radius Ft.	Flow GPM
90°	20	9	0.40	9	0.40	10	0.45	13	0.55	17	0.80
	25	9	0.42	9	0.42	11	0.52	14	0.63	18	0.94
	30	10	0.45	10	0.45	12	0.55	15	0.70	19	1.05
	40	10	0.50	10	0.50	12	0.60	16	0.80	19	1.30
180°	20	9	1.00	9	1.00	9	1.10	13	1.30	17	1.70
	25	9	1.10	9	1.10	10	1.21	14	1.49	17	1.92
	30	10	1.20	10	1.20	10	1.35	15	1.65	19	2.15
	40	10	1.25	10	1.25	11	1.53	16	2.00	19	2.50
270°	20	9	1.40	9	1.40	9	1.60	13	1.90	16	2.40
	25	10	1.59	10	1.59	10	1.74	15	2.15	16	2.82
	30	10	1.75	10	1.75	10	1.95	15	2.35	17	3.00
	40	10	2.05	10	2.05	11	2.05	16	2.70	18	3.50
360°	20	9	2.30	9	2.30	9	2.40	13	2.80	16	2.90
	25	10	2.51	10	2.51	10	2.61	14	3.26	17	3.40
	30	10	2.65	10	2.65	11	2.78	15	3.60	17	3.80
	40	11	2.75	11	2.75	12	3.03	15	4.10	17	4.40

K-Rain products are not available for sale in NC, SC, TN, or MI.



K-Rain® Nozzles



Fixed Nozzles

Fixed Pattern Female Nozzles

Matched precipitation female nozzles are compatible with ALL available male threaded bodies.

Features:

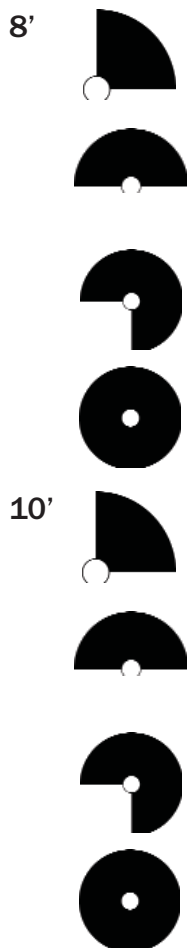
- Color coded for easy identification.
- Four distances plus eight fixed patterns provides an array of configurations.
- Matched precipitation allows for even water distribution.



Series Number	Description	Color	Ctn Qty	List Price
FN8 *	8' Fixed pattern female nozzle	Green	25	\$ 2.28
FN10 *	10' Fixed pattern female nozzle	Blue	25	2.28
FN12 *	12' Fixed pattern female nozzle	Brown	25	2.28
FN15 *	15' Fixed pattern female nozzle	Black	25	2.28

* Add nozzle pattern reference letter to complete part number.

Fixed Pattern FEMALE THREADED Nozzles Performance & Pricing



Pattern Letter*	Nozzle Pattern	Pressure PSI	Radius Ft.	Flow Rate GPM	Ctn Qty	Part Number	List Price
Q	90°	15	5	0.18	25	FN8Q	\$ 2.28
		20	6	0.21			
		25	7	0.24			
		30	8	0.26			
H	180°	15	5	0.37	25	FN8H	2.28
		20	6	0.41			
		25	7	0.47			
		30	8	0.52			
TQ	270°	15	5	0.55	25	FN8TQ	2.28
		20	6	0.63			
		25	7	0.71			
		30	8	0.78			
F	360°	15	5	0.74	25	FN8F	2.28
		20	6	0.86			
		25	7	0.95			
		30	8	1.05			
Q	90°	15	7	0.29	25	FN10Q	2.28
		20	8	0.33			
		25	9	0.36			
		30	10	0.39			
H	180°	15	7	0.58	25	FN10H	2.28
		20	8	0.65			
		25	9	0.72			
		30	10	0.79			
TQ	270°	15	7	0.87	25	FN10TQ	2.28
		20	8	0.98			
		25	9	1.08			
		30	10	1.18			
F	360°	15	7	1.16	25	FN10F	2.28
		20	8	1.30			
		25	9	1.44			
		30	10	1.58			

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K-Rain® Nozzles



Fixed Pattern THREADED Nozzles Performance & Pricing

	Pattern Letter*	Nozzle Pattern	MALE (P)			FEMALE (FN)			Ctn Qty	MALE/FEMALE Part No	List Price
			Pressure PSI	Radius Ft.	Flow Rate GPM	Pressure PSI	Radius Ft.	Flow Rate GPM			
12'	Q	90°	20	11	0.5	15	9	0.45	25	P12Q	\$ 2.28
			25	12	0.7	20	10	0.53		FN12Q	2.28
			40	13	0.8	25	11	0.60			
			50	14	0.9	30	12	0.65			
	H	180°	20	11	0.9	15	9	0.90	25	P12H	2.28
			25	12	1.1	20	10	1.05		FN12H	2.28
			40	13	1.4	25	11	1.20			
			50	14	1.5	30	12	1.30			
	TQ	270°	20	12	1.2	15	9	1.35	25	P12TQ	2.28
			25	12	1.4	20	10	1.58		FN12TQ	2.28
			40	14	1.7	25	11	1.80			
			50	15	2.0	30	12	1.95			
F	360°	20	10	1.6	15	9	1.80	25	P12F	2.28	
		25	12	1.8	20	10	2.10		FN12F	2.28	
		40	13	2.1	25	11	2.40				
		50	14	2.4	30	12	2.60				
15'	Q	90°	20	15	0.7	15	11	0.65	25	P15Q	2.28
			30	16	0.9	20	12	0.75		FN15Q	2.28
			40	17	1.1	25	14	0.82			
			50	18	1.2	30	15	0.92			
	H	180°	20	14	1.4	15	11	1.30	25	P15H	2.28
			30	15	1.7	20	12	1.50		FN15H	2.28
			40	16	2.0	25	14	1.65			
			50	17	2.2	30	15	1.85			
	TQ	270°	20	13	2.0	15	11	1.95	25	P15TQ	2.28
			30	15	2.5	20	12	2.25		FN15TQ	2.28
			40	16	2.9	25	14	2.48			
			50	16	3.2	30	15	2.78			
F	360°	20	13	2.9	15	11	2.60	25	P15F	2.28	
		30	15	3.6	20	12	3.00		FN15F	2.28	
		40	16	4.1	25	14	3.30				
		50	17	4.6	30	15	3.70				

Part Number	Description	Ctn Qty	List Price
PFRM	Filter for Fixed Nozzle	25	\$ 0.74

Special Pattern Nozzles Performance & Pricing

Pattern Letter*	Nozzle Pattern	Pressure PSI	Radius Ft.	Flow Rate GPM	Ctn Qty	MALE Part No	FEMALE Part No.	List Price
CS	CENTER	20	4' X 24'	0.8	25	P15CS	FN15CS	\$ 2.28
	STRIP	30	4' X 30'	1.0				2.28
ES	END	20	4' X 12'	0.4	25	P15ES	FN15ES	2.28
	STRIP	30	4' X 15'	0.5				2.28
SS	SIDE	20	4' X 28'	1.1	25	P15SS	FN15SS	2.28
	STRIP	30	4' X 32'	1.3				2.28
HL	HIGH	20	H 14' X L4'X28'	2.5	25	P15HL	FN15HL	2.28
	LOW	30	H 15' X L5'X32'	3.0				2.28

K-Rain products are not available for sale in NC, SC, TN, or MA.



K-Rain® Solenoid Valves



7001 Series



7001-NFC Series



7001-MXB Series

Designed for polyethylene piping systems, requires fewer fittings and can be installed quickly.



Flow Through

Self Cleaning Screen

Pro Series 100 Solenoid Valves

A contemporary tilt diaphragm makes this the perfect choice for residential, light commercial and dirty water applications.

Features:

- Heavy duty, corrosion & UV resistant PVC construction increases the life of the valve.
- Combination 1" and 1 1/4" connections provide the option to increase the pipe size to the valve increasing the flow rate.
- Tilted diaphragm/piston assembly allows for a straight flow path of the water increasing the flow rate while reducing the friction loss.
- Debris tolerant design provides flexibility for use in potable or dirty water applications.
- Manual external bleed through bleed screw allows for manual operation in system start-up.
- Manual internal bleed through solenoid allows for manual operation without leaking water.
- Flow control with removable handle allows for precise flow adjustment, manual shut-off and allows you to remove the handle to prevent tampering.
- Captured plunger solenoid allows for the solenoid to be removed without losing the plunger.
- Self cleaning metering screen is in the turbulent flow of water allowing self cleaning action during operation.
- 5 year Limited Warranty.

Specifications:

- Dimensions: 4" H x 3" W x 5 1/4" L
- Flow range: 0.75-35 GPM
- Pressure Rating: 20-150 PSI
- Pressure Loss @ 30 gpm - 5 psi
- Solenoid: 24 VAC 60 cycle
- Inrush Current: 0.43 Amps
- Holding Current: 0.25 Amps

Part Number	Description	Ctn Qty	List Price
7001	1" Female thread or 1 1/4" Male slip	12	\$ 36.86
7001-SL	1" Female slip or 1 1/4" Male slip	12	36.86
7001-NFC	1" Female th or 1 1/4" Male sl NO FLOW CONTROL	12	35.10
7001-SL-NFC	1" Female sl or 1 1/4" Male sl NO FLOW CONTROL	12	35.10
7001-MXB	1" Male x Barb	12	36.86
7001-MXB-NFC	1" Male x Barb NO FLOW CONTROL	12	35.10

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K-Rain® Solenoid Valves



7101 and 7101-J Series

Pro Series 150 1" Solenoid Valves

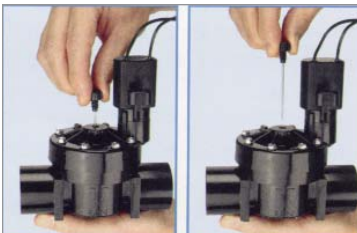
Offer the professional a wide array of features and benefits. Use for residential, light commercial, dirty water applications.

Features:

- Heavy duty, corrosion & UV resistant PVC construction increases the life of the valve.
- External bleed screw with removable metering pin allows for cleaning of the pin without disassembling the valve.
- **Threaded jar top** allows for quick removal of the cap for easy servicing. The glass filled nylon screw cap increases durability.
- **7101-J Series is direct replacement for Irritrol 2400.**
- Manual external bleed screw allows for manual operation in system start-up.
- Manual internal bleed through solenoid allows for manual operation without leaking water.
- Captured plunger solenoid allows for the solenoid to be removed without losing the plunger.
- 5 year Limited Warranty.



No tools needed with Jar Top



Manual External Bleed Screw

Specifications:

- Dimensions: 5 1/4" H x 3 1/8" W x 5"
5 1/4" H x 3" W x 4 3/8" Jar Top
- Flow range: 0.25-30 GPM
- Pressure Rating: 10-150 PSI
- Solenoid: 24 VAC 60 cycle
- Inrush Current: 0.4 Amps
- Holding Current: 0.2 Amps

Performance Data:

GPM	5	10	15	20	30
ProSeries 150 1" valve					
PSI LOSS	2.9	2.1	1.8	3.0	5.0
ProSeries 150 1" valve with jar top					
PSI LOSS	3.3	3.9	2.9	3.2	6.1

Part Number	Description	Ctn Qty	List Price
7101	1" Female thread NPT	12	\$ 31.71
7101-SL	1" Female Slip	12	31.71
7101-J	1" Female Thread Jar Top, NPT	12	31.71
7101-J-SL	1" Female Slip Jar Top	12	31.71

K-Rain products are not available for sale in NC, SC, TN, or MA.



K-Rain® Solenoid Valves



7102 and 7115 Series

Pro Series 150 1 1/2" and 2" Solenoid Valves

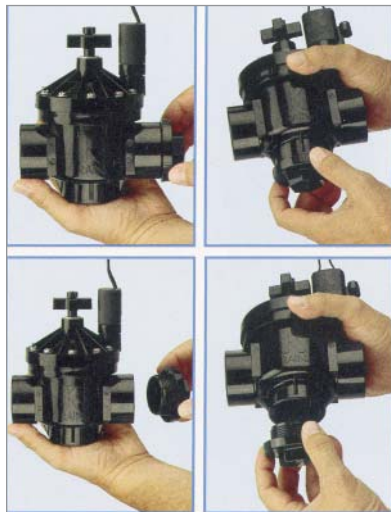
Feature a removable inlet cap to easily modify the configuration from globe to angle style.

Alternate to Irritrol 216b and 217b.



Features:

- Heavy duty, corrosion & UV resistant PVC construction increases the life of the valve.
- External bleed screw with removable metering pin allows for cleaning of the pin without disassembling the valve.
- Manual external bleed screw allows for manual operation in system start-up.
- Manual internal bleed through solenoid allows for manual operation without leaking water.
- Removable inlet cap allows for easy conversion from globe to angle style valve.
- Flow control allows for precise flow adjustment and manual shutoff.
- Captured plunger solenoid allows for the solenoid to be removed without losing the plunger.
- Heavy duty santoprene diaphragm design improves durability.
- 5 year Limited Warranty.



System Flexibility

Specifications:

- Dimensions: 1 1/2" valve: 8" H x 4 1/4" W x 5 1/2" L
2" valve: 8 7/8" H x 4 7/8" W x 6 1/3" L
- Flow range: 5-120 GPM
- Pressure Rating: 20-150 PSI
- Solenoid: 24 VAC 60 cycle
- Inrush Current: 0.4 Amps
- Holding Current: 0.2 Amps

Performance Data:

GPM		20	30	40	50	60	80	100	120
ProSeries 150 1 1/2" valve									
PSI LOSS	globe	3.0	2.6	2.3	2.9	4.1	5.5		
	angle	2.7	2.2	1.9	2.2	3.0	4.4		
ProSeries 150 2" valve									
PSI LOSS	globe	2.0	1.9	1.7	1.5	1.6	2.9	4.8	6.2
	angle	1.9	1.9	1.7	1.5	1.5	2.1	3.2	4.6

Part Number	Description	Ctn Qty	List Price
7115	1 1/2" Female Thread, NPT	6	\$ 92.31
7102	2" Female Thread, NPT	6	129.34

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K-Rain® Controllers



RPS46 Series

RPS46 Controller

Designed for residential applications the RPS46 has four individual programs to allow for efficient watering on separate programs.

Features:

- 4 and 6 station models for residential lawns.
- 4 fully independent programs allowing up to 4 starts per program, maximum of 16 starts per day.
- Indoor models with external transformer and plug.
- Seasonal adjustment allows adjustment of watering durations from 25% to 150%.
- Rain sensor ready - accepts rain sensor signal and is controlled by a bypass switch.
- Flexible manual operations to run a program, station or test.
- Battery back-up holds programs during power outages.
- 2 year Limited Warranty.

Specifications:

- Dimensions: 5.7" H x 4.5" W x 1.7" D
- Station run times: 1 min - 12 hours 59 min.
- Programs: 4
- Start Times: 4 per program
- Water Schedules:
 - 7 day calendar w/ individual day selection
 - Odd/Even day or interval watering.
- Rain sensor ready inhibits automatic watering when wet conditions are detected by a rain sensor.
- Master valve / pump start signal.
- Automatic, semi-automatic and single station manual operation.

Electrical Specifications:

- Electrical Power Supply: 110-120 VAC/ 60 Hz/ 230 VAC 50 Hz.
- Electrical Outputs: 24 Volt AC, 0.85 amp.
- To Solenoid Valves: 24 VAC 50/60 Hz 0.5 amp max.
- Total output load must not be exceeded by the valves and pump requirements.
- Overload protection: Standard 20mm 1 amp fuse.
- Power failure: 9 volt standard alkaline battery maintains clock and programs for up to 2 weeks.
- Wiring: The output circuits should be installed and protected in accordance with wiring rules.

Part Number	Description	Ctn Qty	List Price
3504	4 station, 110 volt external transformer	1	\$ 93.71
3504-220	4 station, 220 volt external transformer	1	93.71
3506	6 station, 110 volt external transformer	1	96.16
3506-220	6 station, 220 volt external transformer	1	96.16

K-Rain products are not available for sale in NC, SC, TN, or MA.



K-Rain® Controllers



RPS469 Series



RPS469 Mid-Sized Controller

Designed for residential and light commercial applications the RPS469 has six individual programs to allow for efficient watering on separate programs.

Features:

- 4, 6 and 9 station models for residential and light commercial lawns.
- 6 fully independent programs allowing up to 6 starts per program, maximum of 36 starts per day.
- Indoor/Outdoor.
- Water conservation allows for quick adjustment of watering durations in 10% increments, from 10% to 200.
- Rain sensor ready - accepts rain sensors and allows individual stations to be set and controlled by the sensor.
- Flexible manual operations to run a program, station or test.
- System test allows for a full system check for valve operation.
- Battery back-up holds programs during power outages.
- Weatherproof enclosure ensures long product life.
- 2 year Limited Warranty.

Specifications:

- Dimensions: 8.8" H x 7.9" W x 2.9" D
- Station run times: 1 min - 12 hours 59 min.
- Programs: 6
- Start Times: 6 per program
- Water Schedules:
 - 7 day calendar w/ individual day selection or 1-15 day interval watering, or 365 day calendar for Odd/Even day watering.
- Rain sensor ready inhibits automatic watering when wet conditions are detected by a rain sensor.
- Master valve / pump can be enabled or disabled by station or program.
- Automatic, semi-automatic and single station manual operation.
- Capable of programming remotely using a standard 9 volt battery. Permanent memory saves all programs during power outages.

Electrical Specifications:

- Electrical Power Supply: 110-120 VAC/ 60 Hz/ 230 VAC 50 Hz.
- Electrical Outputs: 24 VOLT AC, 1 amp.
- To Solenoid Valve: 24 VAC 50/60 Hz 0.75 amp max.
- Total output load must not be exceeded by the valves and pump requirements.
- Overload protection: Standard 20mm 1 amp fuse.
- Power failure: 9 volt standard alkaline battery permanently maintains clock and programs. Has permanent memory so the data is always backed up during power outages.
- Wiring: The output circuits should be installed and protected in accordance with wiring rules.

Part Number	Description	Ctn Qty	List Price
3604	4 station, 110 volt internal transformer	1	\$ 178.53
3604-220	4 station, 220 volt internal transformer	1	178.53
3606	6 station, 110 volt internal transformer	1	198.84
3606-220	6 station, 220 volt internal transformer	1	198.84
3609	9 station, 110 volt internal transformer	1	219.69
3609-220	9 station, 220 volt internal transformer	1	219.69

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K-Rain® Controllers



RPS1224 Series

RPS1224 Controller

Designed for residential and light commercial applications the RPS1224 covers all your needs regardless of the size or complexity of the project.



Features:

- 12, 18 and 24 station models for residential and light commercial applications.
- 8 fully independent programs allowing up to 8 starts per program, maximum of 64 starts per day.
- Indoor/Outdoor.
- Water conservation allows for quick adjustment of watering durations in 10% increments, from 10% to 200.
- Rain sensor ready - accepts rain sensors and allows individual stations to be set and controlled by the sensor.
- Flexible manual operations - automatic, semi-automatic and single station manual.
- System test allows for a full system check for valve operation.
- Permanent memory saves programs during power outages.
- Weatherproof enclosure ensures long product life.
- 2 year Limited Warranty.

Specifications:

- Dimensions: 9 3/8" H x 10 1/4" W x 4 1/8" D
- Station run times: 1 min - 12 hours 59 min.
- Programs: 8
- Start Times: 8 per program
- Water Schedule:
 - 7 day calendar w/ individual day selection or 1-15 day interval watering, or 365 day calendar for Odd/Even day watering.
- Rain sensor ready inhibits automatic watering when wet conditions are detected by a rain sensor.
- Two master valve / pump can be enabled or disabled by station or program.
- Automatic, semi-automatic and single station manual operation.
- Capable of programming remotely using a standard 9 volt battery. Permanent memory saves all programs during power outages.

Electrical Specifications:

- Electrical Power Supply: 110-120 VAC/ 60 Hz/ 230 VAC 50 Hz.
- Electrical Outputs: 24 Volt AC, 1.25 amp.
- To Solenoid Valve: 24 VAC 50/60 Hz 0.75 amp max.
- Total output load must not be exceeded by the valves and pump requirements.
- Overload protection: Standard 20mm 1 amp fuse.
- Power failure: 9 volt standard alkaline battery permanently maintains clock and programs. Has permanent memory so the data is always backed up during power outages.
- Wiring: The output circuits should be installed and protected in accordance with wiring rules.

Part Number	Description	Ctn Qty	List Price
3712	12 station, 110 volt internal transformer	1	\$ 394.55
3718	18 station, 110 volt internal transformer	1	446.38
3724	24 station, 110 volt internal transformer	1	507.28

K-Rain products are not available for sale in NC, SC, TN, or MA.



K-Rain® Controllers



2000 Series

2000 Series Single Station Controller

Single station controllers stay safe with rain-tight enclosures.



Features:

- 24 hour programmable time dial with multiple start times and a wide variety of timing periods including skip-a-day 14 day program.
- UL approved components.
- Perfect for nursery or mist applications.
- 2200 models have 10 minute programmable dial with a wide variety of timing periods in multiples of 1.5, 3 and 6 seconds and multiple start times.
- 2500 models are prewired for easy connection of a rainswitch and allows manual override of rainswitch from controller face.
- 2520 model allows operation of 24 volt rainswitch and 2 hp 220 volt pump with same controller.
- 2 year Limited Warranty.

Part Number	Voltage Input	Voltage Output	Rating	Ctn Qty	List Price
2100 Single Station Controllers					
2110	110 VAC, 60 Hz	110 VAC, 60 Hz	Single Pole, up to 1 HP	6	\$ 197.95
2112	110 VAC, 60 Hz	110 VAC, 60 Hz	Double Pole, up to 2 HP	6	229.42
2114	110 VAC, 60 Hz	24 VAC, 30 VA	Built in Transformer	6	226.34
2120	220 VAC, 60 Hz	220 VAC, 60 Hz	Double Pole, up to 2 HP	6	229.42
2200 Short Duration Single Station Controllers					
2210	110 VAC, 60 Hz	110 VAC, 60 Hz	up to 1 HP	6	259.02
2214	110 VAC, 60 Hz	24 VAC, 30 VA	Built in transformer	6	264.60
2500 Rainswitch Ready Controllers					
2510	110 VAC, 60 Hz	110 VAC, 60 Hz	Double Pole, up to 2 HP	6	258.44
2514	110 VAC, 60 Hz	24 VAC, 30 VA	Built in transformer	6	345.27
2520	220 VAC, 60 Hz	220 VAC, 60 Hz	Double Pole, up to 2 HP	6	298.21

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K-Rain® Pump Start Relays



1500 Series

1500 Series Pump Start Relays

Features:

- Industrial, rain tight, secure, rustproof industrial grade enclosure ensures long product life and deters tampering. UV resistant and shockproof.
- UL approved components.
- Large easy access enclosure provides easy accessibility during wiring.
- Enclosure has 8 recessed knock-outs to provide easy connections from any direction.
- 24 or 110 VAC coils for applications up to 10 hp.
- 4 plastic inset cover screws provide extra system security reduces liability and deters tampering.
- 2 year Limited Warranty.



Specifications:

- Dimensions: 7" H x 5" W x 4 5/8" D
- 24 VAC, 60 Hz or 110 VAC, 60 Hz
- Double pole, single throw

	<u>Model #1522</u>	<u>Model #1521</u>	<u>Model #1552</u>	<u>Model #1551</u>
• Inrush:	35 VA	42 VA	60 VA	77 VA
• Sealed:	7.0 VA, 3 watts	8.5 VA, 3.6 watts	7 VA, 2.3 watts	10 VA, 4 watts
• Resistance (+10%):	11 ohms	210 ohms	5.61 ohms	89.5 ohms
• Inductive:	20 amp	20 amp	40 amp	40 amp
• Resistive:	30 amp	30 amp	50 amp	50 amp
• Input 120 V:	up to 3 hp	up to 3 hp	up to 3 hp	up to 3 hp
• Input 240 V:	up to 3 hp	up to 3 hp	up to 5 hp	up to 5 hp



Part Number	Description	Volts	Ctn Qty	List Price
1522	3 hp pump start relay	24 VAC	8	\$ 107.10
1521	3 hp pump start relay	110 VAC	8	160.89
1552	5 hp pump start relay	24 VAC	8	184.07
1551	5 hp pump start relay	110 VAC	8	184.07

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K-Rain® Rain Sensor



R200

R200 Rain Sensor Features:

- Sensor provides conservation, convenience and flexibility to a fully automatic watering system.
- After a set amount of rain has fallen, sensor engages switch to prevent the controller from watering. Once the sensor has dried, the controller returns to normal sprinkler operation.
- Works in a variety of climates.
- Gutter and surface mount options.
- Compatible with all K-Rain controllers.



Part Number	Description	Ctn Qty	List Price
R200	Rain Sensor	5	\$ 37.95

Installation Instructions:

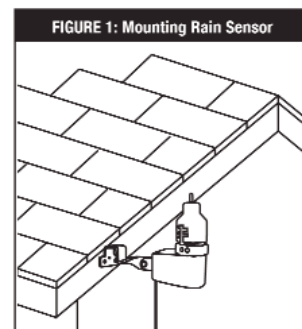
MOUNTING

Mount the rain sensor where it will be exposed to direct, unobstructed rainfall, but away from sprinkler spray. The switch-housing portion must be upright. 2 mounting options:

1. Rain Gutter
2. Flat Surface

Hints:

- Mount as close as possible to the timer. This will cause the wire run to be shorter, which minimizes the possibility of wire breaks.
- Mount in the highest possible position where rain can fall directly upon the rain sensor.
- As described in the "Adjustment and Operation" section, "reset rate" refers to the amount of time it takes the rain sensor to dry out sufficiently for the sprinkler system to be allowed to come back on. The mounting location will affect this rate and should be taken into consideration should extreme conditions exist. For example, mounting the rain sensor on a very sunny, southeastern end of a building may cause the rain sensor to dry out sooner than desired. Similarly, mounting on the northern end of a building with constant shade may keep the rain sensor from drying soon enough. Some experimentation and use of the vent ring will usually yield satisfactory results.



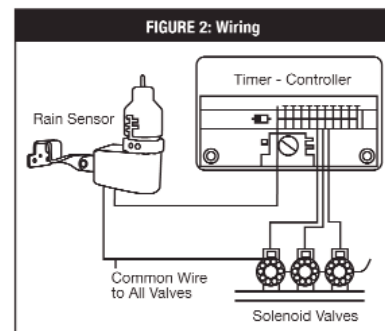
Once the rain sensor is mounted, run the wire to the controller using wire clips every few feet to fasten. If an extension to the wire provided is needed, use the following table to determine the minimum wire gauge needed:

Extension needed:	25-50 ft	50-100 ft	100 ft or more
then use:	20 AWG	18 AWG	16 AWG

WIRING

IMPORTANT: The rain sensor is sold and designed for 24-VAC irrigation controllers only. All wiring must conform to applicable local codes. The two most common wiring situations are detailed below for controllers that do not have direct rain sensor & pump start relay wiring capabilities. For non-standard wiring situations please consult your distributor.

A. 24-VAC Solenoid Valves only - NO pump start relay (Figure 2) With the two wires from the rain sensor at the controller, locate the "common ground" wire of the solenoid valves. If it is connected to the common terminal on the controller, disconnect it. Attach one wire of the rain sensor to the "common" terminal (usually marked COM) on the controller. Attach the other wire of the rain sensor to the common wire leading to the valves. Note: The common wire to the valves does not have to be interrupted at the controller. The rain sensor may be wired anywhere along the common wire line.



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K-Rain® Rain Sensor

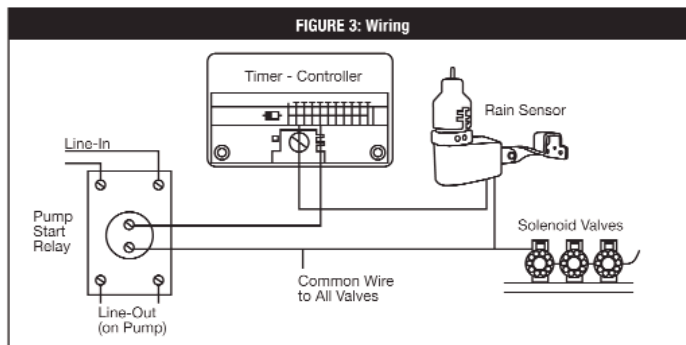


B. 24-VAC Solenoid Valve WITH Pump Start Relay (Figure 3)

Locate the common wire to the solenoid valves and the common wire lead to the coil of the relay that starts the pump. If these two wires are connected to the “common” terminal on the controller, disconnect both of them. Twist these two wires together along with one wire from the rain sensor and secure with a wire nut. Attach the other wire of the rain sensor to the “common” terminal on the controller.

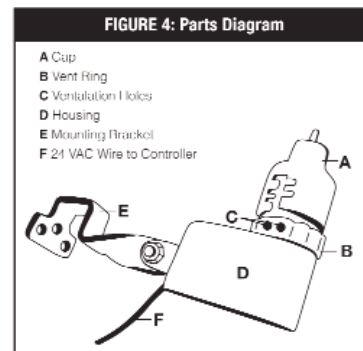
Check to verify correct wiring:

Turn on one zone of the sprinkler system that is visible while you are in reach of the rain sensor. Manually depress the spindle at the top of the rain sensor until you hear the switch click off. The sprinkler zone should stop instantly. If it does not, check wiring for correct installation.



ADJUSTMENTS and OPERATION

The rain sensor can keep the irrigation system from starting or continuing after rainfall quantities of 1/8", 1/4", 1/2", 3/4" or 1". To adjust it to the desired quantity of rainfall, rotate the cap on the switch housing so that the pins are located in the proper slots. (Figure 4) Do not forcibly twist the cap as this might break the pins. The time that it takes the rain sensor to reset for normal sprinkler operation after the rain has stopped is determined by weather conditions (wind, sunlight, humidity). These conditions will determine how fast the hygroscopic discs will dry out, and since the landscape will also be experiencing the same conditions, the irrelative drying rates will roughly parallel each other. Note that there is an adjustment capability on the rain sensor that will slow down the reset rate. By turning the “vent ring” to completely or partially cover the ventilation holes, the hygroscopic discs will dry more slowly. This adjustment can compensate for an overly sunny installation location or peculiar soil conditions. Experimenting with the vent ring will best determine the ideal vent setting.



BYPASSING THE SENSOR

Should you desire to bypass the operation of rain sensor for any reason there is an easy way to do this. Simply go to the rain sensor and raise the quantity “cap” setting higher, or completely remove it altogether. This takes the pressure off the switch button, which allows the valve circuit to close again.

MAINTENANCE

There is no required maintenance for the unit. The rain sensor does not have to be removed or covered for winterizing purposes.

TROUBLESHOOTING

Follow these simple checks before replacing your rain sensor.

System does not come on at all:

- Check to see that the rain sensor discs are dry and the switch clicks on and off freely by pressing the top of the spindle.
- Look for breaks in the wire leading to the rain sensor and check all wire junctions.
- If the rain sensor is dry and the wire leading to it is good, check the rain sensor switch by nicking the insulation of the two outer wires near the unit to expose copper. Turn one sprinkler zone on, and apply a jumper wire across the two exposed wires. If the sprinkler now comes on, the switch is bad. Wrap all nicked wires with electrical tape.
- The rain sensor is wired to function with most controllers (normally closed). If you are unable to make the sensor work with the suggestions above you may have a unique controller (normally open).

System will not shut off even after heavy rainfall:

- Check wiring for correct installation.
- Check sensitivity on rain sensor, and move the cap to a more sensitive setting. The rain sensor is an accurate rain gauge and can be verified by setting up a “tube” type rain gauge in the same vicinity and making periodic readings.
- Check for obstructions to rainfall such as overhangs, trees or walls.



K-Rain® Indexing Valves



4000 Series



4000 Series Indexing Valves

Features:

- Automates multiple zoned residential and small commercial irrigations systems.
- Ideally suited for both city water and pump applications.
- ABS Polymer body construction is high strength, non-corrosive for long product life.
- Available in 4 and 6 outlet models to easily change from two to six watering zones.
- Operates at low 10 gpm at pressures of 25-75 psi.
- Simplicity of design and few moving parts ensures easy maintenance and long life.
- 2 year Limited Warranty.

Specifications:

- ABS polymer construction
- Dimensions: 5 3/4" H x 5 3/4" W
- Flow Range: 10-40 gpm
- Pressure rating: 25-75 psi
- Pressure Loss

4 outlet valve	Flow gpm	10	20	30	40
	PSI loss	2.0	3.0	4.5	6.4
6 outlet valve	Flow gpm	10	20	30	
	PSI loss	2.5	4.5	7.5	

Part Number	Description	Zones	Ctn Qty	List Price
4400	4 outlet index valve	NO cam	8	\$ 104.44
4402	4 outlet index valve	2 zones	8	117.21
4403	4 outlet index valve	3 zones	8	117.21
4404	4 outlet index valve	4 zones	8	117.21
P6107042	2 zone cam only		5	17.36
P6107043	3 zone cam only		5	17.36
P6107044	4 zone cam only		5	17.36
4600	6 outlet index valve	NO cam	8	104.44
4602	6 outlet index valve	2 zones	8	117.21
4603	6 outlet index valve	3 zones	8	117.21
4604	6 outlet index valve	4 zones	8	117.21
4605	6 outlet index valve	5 zones	8	117.21
4606	6 outlet index valve	6 zones	8	117.21
P6107063	3 zone cam only		5	17.36
P6107064	4 zone cam only		5	17.36
P6107065	5 zone cam only		5	17.36
P6107066	6 zone cam only		5	17.36
P6200400	Cam screws - set of 2 per bag		5	2.49

K-Rain products are not available for sale in NC, SC, TN, or MA.



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K-Rain® Indexing Valves



KR6000 Series

KR6000 Series Indexing Valves

Features:

- Automates multiple zoned residential and small commercial irrigations systems with high pressure.
- Recommended for pump fed or high-flow city water systems.
- Metal die-cast body is durable, long lasting and capable of high pressure applications.
- Available in 4 and 6 outlet models to easily change from two to six watering zones.
- Operates at 15 gpm at pressures of 25-150 psi.
- Built-in atmospheric vacuum breaker releases any vacuum created between the pump and valve on shut down.
- 2 year Limited Warranty.



Specifications:

- Die-cast metal valve top/housing, ABS polymer outlets.
- Dimensions: 7" H x 8" W
- Inlet: 1 1/2" threaded NPT connection
- Outlet: Slip and glue connections to 1 1/2" PVC pipe
- Flow Range: 15-150 gpm
- Pressure rating: 25-150 psi
- Pressure Loss

4 outlet valve	Flow gpm	20	40	60	80	100
	PSI loss	2.5	3.5	5.0	7.5	10.0
6 outlet valve	Flow gpm	20	40	60	80	100
	PSI loss	3.0	4.0	6.0	9.0	11.0

Part Number	Description	Zones	Ctn Qty	List Price
KR6402	4 outlet index valve	2 zones	4	\$ 281.79
KR6403	4 outlet index valve	3 zones	4	281.79
KR6404	4 outlet index valve	4 zones	4	281.79
KR6605	6 outlet index valve	5 zones	4	281.79
KR6606	6 outlet index valve	6 zones	4	281.79

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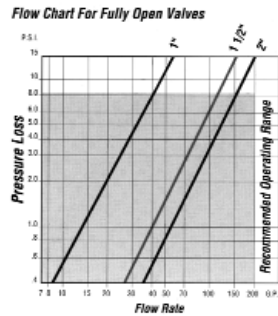
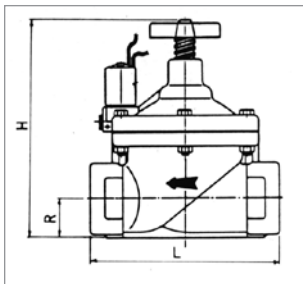
Irrigation Solenoid Valves



TFV Series

TFV Series Features:

- Rugged glass-reinforced nylon construction.
- For residential, commercial and agricultural irrigation systems.
- High strength, long life natural rubber diaphragm.
- In line globe design.
- Normally closed valve provides slow and smooth opening and closing.
- Quarter turn downstream bleed lever allows manual operation without external water spills.
- High flow rate with low head loss.
- Flow control available for exact water flow adjustment.
- Accurate operation over a wide range of pressure flows.
- In line maintenance - No need to remove valve from line for service.
- Standard and flow control models available.
- Available with standard 24 volt or optional 110 volt solenoid.
- Normally open valves are also available on a special order basis. Call for special pricing.
- **NOT for use in ultraviolet disinfection systems.**



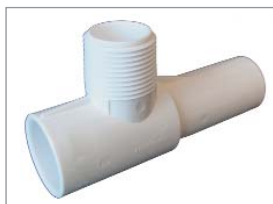
Specifications:

- Voltage24 Volts AC 3 Watts
- CurrentInrush .48 AMPS;
.....Holding .24 AMPS
- Max. Working Temp180°F
- Max. Operating Pressure150 PSI
- Min. Operating Pressure10 PSI
- Recommended minimum pressure differential7 PSI
- Valve BodyGlass reinforced Nylon
- Inner Plastic PartsAcetal
- DiaphragmNatural rubber
- SealsBuna-N
- Metal Parts and ScrewsStainless Steel 303

Part Number	Size (FPT)	Volts	Flow Control	Weight	Dimensions				Ctn Qty	List Price
					L	H	R	Width		
TFV100T	1"	24	No	12.5 oz	4 5/16	2 1/2	7/8	3 1/16	20	\$ 69.20
TFV100T110V	1"	110	No	12.5 oz	4 5/16	2 1/2	7/8	3 1/16	20	85.48
TFV100TF	1"	24	Yes	12.5 oz.	4 5/16	4 1/2	7/8	3 1/16	20	76.00
TFV100TF110V	1"	110	Yes	12.5 oz.	4 5/16	4 1/2	7/8	3 1/16	20	93.87
TFV150TF	1 1/2"	24	Yes	2.2 lbs.	6 5/16	7 3/16	15/16	5	5	212.36
TFV150TF110V	1 1/2"	110	Yes	2.2 lbs.	6 5/16	7 3/16	15/16	5	5	225.12
TFV200TF	2"	24	Yes	2.2 lbs.,	6 3/4	7 3/8	1 1/2	5	5	282.93
TFV200TF110V	2"	110	Yes	2.2 lbs.,	6 3/4	7 3/8	1 1/2	5	5	292.42

Replacement Solenoid Assemblies

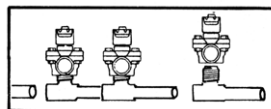
H701-24	24 volt	32.35
H701-110	110 volt	51.99



94-11

Irrigation Valve Manifold Tee Features:

- Uniformly spaced installation of manifolds for 1" irrigation valves.
- Designed to be mounted horizontally for electric globe valves or installed with the threaded outlet upright to accommodate angle valves.
- Schedule 40 PVC.



1376-010

94-11, 1376 Series Manifold Tees:

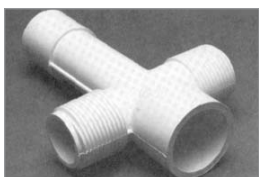
- Aligns valves with integral notch and key design on 1376-010.
- Preset spacing of valves.
- Sch 40 wall thickness.
- Full flow 1" main line with 1" mpt (94-11) or 1" fpt (1376-010).
- Pressure rated at 315 psi, tested to over 1000 psi.



HMT70-1G

HMT70-1G Manifold Tee:

- 1" IPS threads compatible with all 1" valves.
- Hand tight assembly in series for a uniformly spaced sprinkler manifold.
- Riser always positions correctly, self aligning when tightened until threads no longer show.
- Schedule 40 PVC with Buna N o-ring seal.



91-11

91 Series PVC Cross Tee Manifold:

- Uniformly spaced side by side installation.
- 1" mpt connections.
- Schedule 40 PVC.

Part Number	Description	Ctn Qty	List Price
94-11	1" soc x 1" slip x 1" mpt	50	\$ 3.91
1376-010	1" soc x 1" slip x 1" fpt	6	6.38
HMT70-1G	1" fpt x 1" mpt x 1" mpt	12	3.53
91-11	1" soc x 1" mpt x 1" slip x 1" mpt	8	6.78



HMRA1/2x3/4

HMRA Adapter Features:

- 1/2" x 3/4" mipt Reducing Adapter

Part Number	Description	Ctn Qty	List Price
HMRA 1/2 x 3/4	1/2" x 3/4" MIPT Reducing Adapter	50	\$ 1.39



Irrigation Installation Accessories



Lasco Ultra Zone Manifold Fitting Features:

- Designed for FPT and MPT turf valves.
- Telescoping connector allows for easy valve installation or removal.
- Accommodates replacing valves (with different lay lengths) without any cutting or adding new parts.
- Bigger o-rings to insure no leaking.
- Parts are all hand tightened, except for glued connections.
- No Teflon tape needed for assembly.
- Pressure rated at 150 psi, tested to over 480 psi.



1301-010



1301-210



1303-010



1" SOCKET
(1 1/4" SPIGOT)

1304-010



1306-010



1312-010



1320-010



1" SOCKET
(1 1/4" SPIGOT)

1321-010

Part Number	Description	Ctn Qty	List Price
1301-010	Tee - NUT x MTHD x VCONN	25	12.65
1301-210	Double Tee - NUT x MTHD x VCONN x VCONN	25	24.77
1303-010	Tee - VCONN x VCONN x NUT	20	12.64
1304-010	Elbow - SLIP x MTHD x VCONN	20	12.34
1306-010	Elbow - MTHD x VCONN	25	10.81
1312-010	Elbow - NUT x VCONN	25	11.96
1320-010	Cross - NUT x MTHD x VCONN x VCONN	15	16.84
1321-010	Cross - SLIP x MTHD x VCONN x VCONN	15	16.55



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Irrigation Installation Accessories



1" SOCKET
(1 1/4" SPIGOT)

1329-010



1330-010



1335 Series



1" SOCKET
(1 1/4" SPIGOT)

1336-010



1348-010



1359-010

Part Number	Description	Ctn Qty	List Price
1329-010	Adapter - 1" SLIP x NUT	40	\$ 6.90
1330-010	Valve Adapter - FTSD + O-RING	100	2.78
1335-005	Adapter - 1/2" INSERT x VCONN	50	6.64
1335-007	Adapter - 3/4" INSERT x VCONN	50	7.35
1335-010	Adapter - 1" INSERT x VCONN	50	6.96
1336-010	Valve Adapter - 1" SLIP x VCONN	40	7.13
1348-010	Cap - FTSD x O-RING	100	2.76
1359-010	Union - 1" UNION	25	12.98



Irrigation Installation Accessories

P73 Cut-off Nipples Features:

- Patented design 4 in 1 nipple allows choice of length, excess becomes additional useable nipples.
- 100 PSI (max) and 201 °F max temperature.
- Green

Poly Cut-off Nipple, Riser Extension and Poly Nipple Features:

- Black poly

SW500 Nipple Extractor Features:

- For 1/2" or 3/4" plastic nipples.
- Easy to remove broken plastic riser from sprinkler pipe and fittings.
- Insert tip and turn.



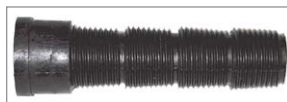
P-73 Series



PCO Series



RE Series



RECO Series



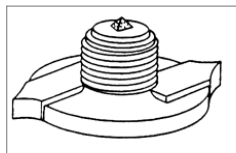
PN Series



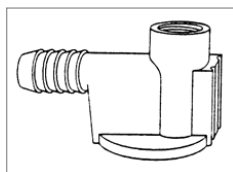
SW500C

Part Number	Description	Ctn Qty	List Price
Cut-off Nipples			
P73-1/2	1/2" MIPT X 1/2" MIPT X 6"	50	\$ 1.09
P73-3/4	3/4" mipt x 3/4" mipt x 6"	25	2.60
P73-3/4x1/2	Reducing, 3/4" mipt x 1/2" mipt, 6"	40	2.05
Poly Cut-off Nipples			
PCO1/2X4	1/2" x 4" MPT X MPT	500	0.43
PCO1/2X6	1/2" x 6" mpt x mpt	500	0.50
PCO1/2X3/4X4	1/2" x 3/4" x 4" mpt x mpt	500	0.66
PCO1/2X3/4X6	1/2" x 3/4" x 6" mpt x mpt	400	0.78
PCO3/4X4	3/4" x 4" mpt x mpt	400	0.61
PCO3/4X6	3/4" x 6" mpt x mpt	400	0.95
Riser Extensions			
RE1/2X1	1/2" x 1" fpt x mpt	1000	0.29
RE1/2X1 1/2	1/2" x 1 1/2" fpt x mpt	1000	0.30
REC01/2X4	1/2" x 4" fpt x mpt	500	0.64
REC03/4XSHORT	3/4" x Short fpt x mpt	500	0.74
REC03/4X4	3/4" x 4" fpt x mpt	400	0.85
Poly Nipples			
PN1/2XCLOSE	1/2" x close	1000	0.22
PN1/2X3/4XCLOSE	1/2" x 3/4" x close	1000	0.30
PN3/4XCLOSE	3/4" x close	1000	0.33
PN1/2X2	1/2" x 2"	1000	0.23
PN1/2X3	1/2" x 3"	500	0.29
PN1/2X4	1/2" x 4"	500	0.32
PN1/2X5	1/2" x 5"	500	0.43
PN1/2X6	1/2" x 6"	500	0.50
PN1/2X8	1/2" x 8"	50	1.66
PN1/2X10	1/2" x 10"	50	1.91
PN1/2X12	1/2" x 12"	50	2.15
PN1/2X18	1/2" x 18"	50	3.01
PN1/2X24	1/2" x 24"	50	3.91
Nipple Extractors			
SW500C	Stub Wrench	50	6.43

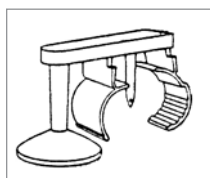
Irrigation Installation Accessories



HP2000



HP1500



SD1000

HP Series Drain and Adapter Features:



- Freeze protection.
- Easy installation without tools.
- Dirt stopper screen keeps sand, dirt and sediment out of system.
- Hammer slug for easy installation on reducing elbows.
- Recessed wicking pad.

SD1000 Siphon Drain Features:

- Freeze protection. Protects mainlines, sprinkler heads, pipe, low spots, and end lines.
- New or existing irrigation systems. 3 sec. installation, no tools necessary.
- One drain for 1/2" thru 1" polyethylene and PVC pipe.

Part Number	Description	Use For	Ctn Qty	List Price
Drains				
HP2000	1/2" MPT Drain	Lateral line	25/500	\$ 5.39
HP3000	3/4" MPT Drain	Lateral line	25/400	5.72
HP4000	1/2" MPT Drain	Main line	25/500	5.36
SD1000	Fits 1/2" thru 1" pipe	Siphon Drain	25/200	8.82
Reducing Elbows				
HP1500	3/4" ins x 1/2" fpt Elbow	Poly end of line	10/250	7.54
HP1600	1" ins x 1/2" fpt Elbow	Poly end of line	10/250	7.54
HP1700	1" ins x 3/4" fpt Elbow	Poly end of line	10/250	7.54



500

ISO 9001



Mini Trol® Water Hammer Arrestor Features:



- Mini Trol takes the bang out of water lines.
- Effectively intercepts surges in water lines.
- Prevents damage and shock waves by quick closing valves.
- Designed with pre-pressurized, permanent air chamber separated from water by a sealed-in heavy duty diaphragm.
- Chamber is polypropylene lined. Water never touches steel.
- Guaranteed not to waterlog or lose air.
- Manufactured for AGI in a ISO9001 facility.

Precharge Pressure:	22 psi
Max. Working Pressure:	125 psi
Max. Shock Pressure:	200 psi
Max. Operating Pressure:	200° F
Max. Velocity:	100 FPS

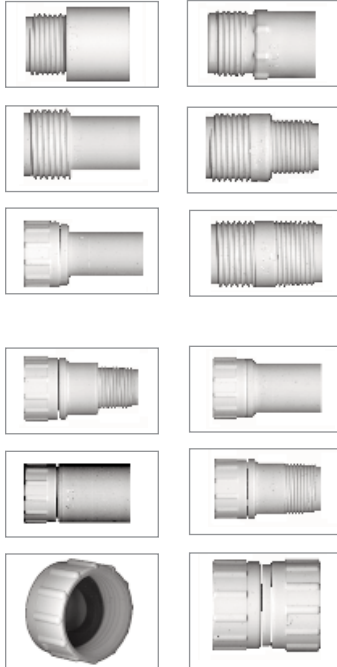
Part Number	Description	Ctn Qty	List Price
500	Mini-Trol 4 1/2" H x 3 3/8" W x 1/2" MPT	24	\$ 82.21



Irrigation Installation Accessories

Garden Hose Thread Fittings

- Material: PVC Type I White



Part Number	Size	Connections	Ctn Qty	List Price
Garden Hose Thread Fittings - MALE				
MHT-101	3/4" x 1/2"	MHT x Slip	25/200	\$ 1.03
MHT-102	3/4" x 1/2"	MHT x FIPT	25/200	1.03
MHT-103	3/4"	MHT x Slip	25/200	1.03
MHT-104	3/4" x 1/2"	MHT x MIPT	25/200	1.03
MHT-105	3/4" x 1/2"	MHT x Spigot	25/200	1.03
MHT-106	3/4"	MHT x MIPT	25/200	1.03
Garden Hose Thread Fittings - FEMALE				
FHT-201	3/4" x 1/2"	FHT x Spigot	25/200	1.58
FHT-202	3/4" x 1/2"	FHT x Slip	25/200	1.58
FHT-203	3/4" x 1/2"	FHT x MIPT	25/200	1.58
FHT-204	3/4"	FHT x MIPT	25/200	1.58
FHT-205	3/4"	FHT x Slip	25/200	1.58
FHT-206	3/4"	FHT x FIPT Swivel	25/200	1.82
FHT-207	3/4"	FHT x FHT swivel	20/500	1.77
FHT-301	3/4"	FHT CAP	25/200	0.52



BFV Series

Bronze Float Valve Features:

- Cast bronze body
- Buna-N Disc
- Heavy Duty
- Tapped for 1/4"-20SAE rod
- Threaded outlet
- Rated at 125 psi

Part Number	Size	Inlet	Outlet	Tapped	Ctn Qty	List Price
BFV1/2	1/2"	1/2" mpt	1/2" mpt	1/4"-20SAE	10/100	\$ 29.70
BFV3/4	3/4"	3/4" mpt	3/4" mpt	1/4"-20SAE	10/80	35.83
BFV1	1"	1" mpt	1" mpt	1/4"-20SAE	10/40	54.00



BFVR Series

Brass Rods Features:

- Brass SAE
- Male thread both ends

Part Number	Length	Thread	Fits Valve Size	Ctn Qty	List Price
BFVR8	8"	1/4"-20SAE	1/2" - 1"	50/400	\$ 6.97
BFVR10	10"	1/4"-20SAE	1/2" - 1"	50/300	8.07
BFVR12	12"	1/4"-20SAE	1/2" - 1"	50/300	9.04



BFVFP Series

Plastic Float Features:

- PVC
- Corrosion resistant
- Lightweight
- Up to 175°F
- For open tank service only

Part Number	Float Diam.	Buoyancy	Female Connection	Ctn Qty	List Price
BFVFP5	5"	2.17 lbs.	1/4"-20SAE	100	\$ 22.35
BFVFP6	6"	3.8 lbs.	1/4"-20SAE	100	26.32
BFVFP8	8"	9.87 lbs.	1/4"-20SAE	20	31.08



Saddle Tees - Bronze, Plastic for Poly Pipe



DST Saddle Tee

HARVARD CONTRACTOR'S Plastic Saddle Tees for Polyethylene Pipe:

- Heavy duty PVC saddle tee bodies with glass-reinforced nylon T-bolts and nuts.
- Molded barb seal for superior sealing to poly pipe. Barb seals deeper and tighter as the poly pipe pressurizes. No o-rings or gaskets needed.
- Withstands over 400 psi without leaking.
- 2 1/2" length protects seal area if pipe is kinked or damaged near saddle tee.
- **NO FLOW RESTRICTION**
- **NOT for use on RIGID PVC Pipe.**



Part Number	Pipe Size	Color	Outlet FPT	Bag/Ctn Qty	List Price
HARVARD CONTRACTOR'S Plastic Saddle Tees					
DST3/4x1/2	3/4"	Gray	1/2"	10/250	\$ 2.65
DST3/4x3/4	3/4"	Gray	3/4"	10/250	2.76
DST1x1/2	1"	White	1/2"	10/250	2.81
DST1x3/4	1"	White	3/4"	10/250	3.00
DST11/4x1/2	1-1/4"	White	1/2"	10/250	4.25
DST11/4x3/4	1-1/4"	White	3/4"	10/200	4.45



ND Series

HARVARD CONTRACTOR'S Plastic Saddle Tee Installation Tool Features:

ND Series Nut Driver:

- Glass-reinforced nylon for durability and strength.

HC Series Coring Tool:

- Spring-loaded self-retracting blade.
- Cuts a clean, burr-free, sawdust-free hole in seconds.



HC Series

Part Number	Description	Ctn Qty	List Price
Coring Tools/Nut Driver (for DST Series)			
ND375	9/16" Nut Driver	1	\$ 4.11
HC45	Coring Tool for DST Saddle Tees w/1/2" fipt outlet	1	18.84
HC55	Coring Tool for DST Saddle Tees w/3/4" fipt outlet	1	18.84



HBST Saddle Tee

HARVARD BRONZE Saddle Tees for Polyethylene Pipe:

- Bronze (81% copper) body to prevent material breakdown when buried.
- Stainless steel slotted screws.
- Leakproof, rubber gasket seal.
- **NOT for use on RIGID PVC pipe.**



Part Number	Pipe Size	Color	Outlet FPT	Bag/Ctn Qty	List Price
HARVARD Bronze Saddle Tees					
HBST 3/4x1/2	3/4"		1/2"	200	\$ 8.01
HBST 3/4x3/4	3/4"		3/4"	200	8.75
HBST 1x1/2	1"		1/2"	200	9.00
HBST 1x3/4	1"		3/4"	200	10.21
HBST 11/4x1/2	1-1/4"		1/2"	120	14.96
HBST 11/4x3/4	1-1/4"		3/4"	100	15.64
HBST 11/2x1/2	1-1/2"		1/2"	100	19.03
HBST 11/2x3/4	1-1/2"		3/4"	100	19.49
HBST 11/2x1	1-1/2"		1"	72	22.14
HBST 2x1/2	2"		1/2"	80	24.44
HBST 2x3/4	2"		3/4"	60	25.05

Saddle Tees - Plastic Self-Tap for Poly Pipe



BS Series Blazing Saddle Manufactured by TOM KING HARMONY PRODUCTS



BS Saddle Tees



- Less flow restriction than an insert fitting.
- **BS Series for use on Polyethylene Pipe**
- **BS-PVC Series for use on PVC Pipe**
- Labor savings. No tools required. 10 sec installation w/ minimal digging.
- Withstands over 400 psi without leaking. Tested over 700,000 cycles at 60 psi.
- All plastic construction, no gaskets, seals, moving parts or clamps.
- Slip over pipe, apply pressure to top to lock in place, thread spike into saddle until locked.

Part Number	Pipe Size	Outlet FPT	Ctn Qty	List Price
Blazing Saddle				
BS4000	3/4"	Swing Pipe Barb	25/250	\$ 4.80
BS5000	3/4"	1/2"	25/250	4.54
BS6000	3/4"	3/4"	25/250	4.54
BS7000	1"	1/2"	25/250	4.42
BS8000	1"	3/4"	25/250	4.42
BS9000	1"	Swing Pipe Barb	25/250	4.63
BS5PVC	3/4"	1/2"	25/250	4.55
BS6PVC	3/4"	3/4"	25/250	4.55
BS7PVC	1"	1/2"	25/250	4.64
BS8PVC	1"	3/4"	25/250	4.64



Saddle Tees - PVC for Rigid Plastic Pipe



Clamp-It™ PVC Saddle Tees for Rigid Pipe Features:

- Use for turf and irrigation systems, golf courses, athletic fields.
- Use for water service lines, mines, landfills.
- Provides full and equal support around the entire circumference of the pipe.
- Easy to install hinge and clamping wedge eliminates need for metal screws.
- Made of high impact type II PVC.
- EPDM O-ring seal.
- Rated at 200 PSI at 72 °F.
- For use on cold water lines only, 2" - 8" PVC.



Clamp-It™ PVC Saddle Tee



1. Place saddle on desired location and mark. Drill hole according to Drill Chart and deburr.



2. Place saddle over hole and attach easy clamping hinge around pipe.



3. Apply wedge half way by hand and finish off with a slight tap of a rubber mallet. Ideal for new installations or additions.



4. Saddle should be pressure tested prior to burial to assure system integrity. Long lasting EPDM o-ring seal assures a leak free installation. Note: wedge does not need to be flush with saddle body to seal.

Saddle Drill Sizes:

Outlet size	Drill Size
over 2 1/2" pipe	
3/4" IPS Slip & Fipt	3/4"
1" IPS Slip & Fipt	1"
1 1/4" IPS Slip & Fipt	1 1/4"
1 1/2" IPS Slip & Fipt	1 3/8"

* For 2 1/2" IPS saddle with a 2" outlet - Drill size must be 1 3/4" due to pipe restriction.

Part Number	IPS Pipe Size	Tap Size	Ctn Qty	List Price
Clamp-It™ PVC Saddle Tees				
422007	2	3/4 fipt	5	\$ 47.94
422010	2	1 fipt	5	47.94
422012	2	1-1/4 fipt	5	47.94
422015	2	1-1/2 fipt	5	47.94
432010	2	1 slip	5	42.89
432012	2	1-1/4 slip	5	42.89
432015	2	1-1/2 slip	5	42.89
422507	2-1/2	3/4 fipt	5	54.85
422515	2-1/2	1-1/2 fipt	5	54.85
422520	2-1/2	2 fipt	5	54.85
432507	2-1/2	3/4 slip	5	58.18
432510	2-1/2	1 slip	5	58.18
432515	2-1/2	1-1/2 slip	5	58.18
432520	2-1/2	2 slip	5	58.18

See next page for 3" - 8" CLAMP IT Saddle Tees.

Saddle Tees - PVC for Rigid Plastic Pipe



Part Number	IPS Pipe Size	Tap Size	Ctn Qty	List Price
453007	3	3/4 slip	5	\$ 58.18
453010	3	1 slip	5	58.18
453012	3	1-1/4 slip	5	58.18
453015	3	1-1/2 slip	5	58.18
453020	3	2 slip	5	58.18
443007	3	3/4 fipt	5	65.56
443010	3	1 fipt	5	65.56
443012	3	1-1/4 fipt	5	65.56
443015	3	1-1/2 fipt	5	65.56
443020	3	2 fipt	5	65.56
454007	4	3/4 slip	5	74.54
454010	4	1 slip	5	74.54
454015	4	1-1/2 slip	5	74.54
454020	4	2 slip	5	74.54
444007	4	3/4 fipt	5	82.54
444010	4	1 fipt	5	82.54
444012	4	1-1/4 fipt	5	82.54
444015	4	1-1/2 fipt	5	82.54
444020	4	2 fipt	5	82.54
456007	6	3/4 slip	5	120.33
456010	6	1 slip	5	120.33
456015	6	1-1/2 slip	5	120.33
456020	6	2 slip	5	120.33
446007	6	3/4 fipt	5	120.33
446010	6	1 fipt	5	120.33
446012	6	1-1/4 fipt	5	120.33
446015	6	1-1/2 fipt	5	120.33
446020	6	2 fipt	5	120.33
458010	8	1slip	5	146.03
458015	8	1-1/2 slip	5	146.03
458020	8	2 slip	5	146.03
448007	8	3/4 fipt	5	146.03
448010	8	1 fipt	5	146.03
448020	8	2 fipt	5	146.03



Clamp-It™ PVC Saddle Tee



Part Number	Description	Ctn Qty	List Price
WEDGE 225	Wedge, Fits 2" and 2-1/2" Saddles	1	\$ 14.03
WEDGE 380	Wedge, Fits 3" and 4" Saddles	1	21.07
WEDGE 480	Wedge, Fits 6" and 8" Saddles	1	21.07

Replacement O-rings available for all size PVC Saddle Tees.
Contact your customer service representative for sizing and pricing.



Funny Pipe, MARLEX™ Fittings



Swing Riser Fittings for Funny Pipe

- For use with Funny Pipe and other thick walled 1/2" ID tubing.
- Use in drip irrigation, home sprinkler systems & other residential irr. applications.
- Spiral barb design allows quicker twist-on installation.
- Made of Celcon® plastic resin providing long term durability.

Part Number	Size	Connections	Ctn Qty	List Price
90° Elbow				
SRE1/2	1/2" x 1/2"	MIPT x funny pipe barb (FPB)	100/1500	\$ 0.35
SRE3/4	3/4" x 1/2"	MIPT x FPB	50/1000	0.35
Male Adapter				
SRMA1/2	1/2" x 1/2"	MIPT x FPB	100/500	0.35
SRMA3/4	3/4" x 1/2"	MIPT x FPB	50/500	0.35
Coupling				
SRC1/2	1/2" x 1/2"	FPB x FPB	50/500	0.35
Tee				
SRT1/2	1/2" x 1/2"	FPB x FPB x FPB	50/250	0.95

Lasco Swing Riser Fittings for Funny Pipe with Double Helix design

Part Number	Size	Connections	Ctn Qty	List Price
90° Elbow				
3300-005	1/2" x 1/2"	MIPT x funny pipe barb	500	\$ 0.65
3300-007	3/4" x 1/2"	MIPT x funny pipe barb	500	0.65
Male Adapter				
3400-005	1/2" x 1/2"	MIPT x funny pipe barb	100	0.68
3400-007	3/4" x 1/2"	MIPT x funny pipe barb	100	0.68



TRANSITION FITTINGS MARLEX™ STREET ELBOWS

- Ideal for use in swing joints.
- More than 27% heavier than other elbows, providing added strength & durability.

Part Number	Size	Connection	Ctn Qty	List Price
MSE1/2	1/2" x 1/2"	mipt x fipt	50/500	\$ 0.43
MSE3/4	3/4" x 3/4"	mipt x fipt	25/350	0.85
MSE1	1" x 1"	mipt x fipt	25/100	2.47



Transition Fittings for Irrigation Applications

- Save money on material and labor cost.
- Faster, easier installation.
- Retaining spikes to prevent movement on Dawn fittings.
- Double helix design on LASCO fittings.



LASCO Double Helix SW Series

LASCO Double Helix / KWIKADAPT SW Series Fitting Features:

- One piece design to go from Poly to swing/funny pipe.
- Use instead of a combo insert tee and a swing elbow.
- Available in 3/4" and 1".
- LASCO double helix fitting pipe connection.

Part Number	Description	Ctn Qty	List Price
LASCO - Poly to Swing/Funny Pipe Double Helix Design			
1429-099	3/4" Insert x Swing /Funny Pipe Coupling	10	\$ 1.63
1429-129	1" Insert x Swing /Funny Pipe Coupling	10	1.71
1401-099	3/4" Insert x Swing/Funny Pipe Tee	10	1.79
1401-129	1" Insert x Swing/Funny Pipe Tee	10	1.93



Swing Joint Assemblies, Poly Swing Pipe



SWING JOINT ASSEMBLIES

- Fully assembled swing assemblies with funny pipe.
- Includes marlex elbow.
- Available in additional lengths or without marlex elbow by special order.

Part Number	Size x Length	Connection	Ctn Qty	List Price
SA125050	1/2" x 1/2" x 12"	mipt x mipt (marlex ell)	50	\$ 2.73
SA125075	1/2" x 3/4" x 12"	mipt x mipt (marlex ell)	50	3.17
SA127575	3/4" x 3/4" x 12"	mipt x mipt (marlex ell)	50	3.27



POLY SWING PIPE

- Highly flexible.
- Use with swing riser fittings for a flexible swing joint assembly.
- LLDPE for increased flexibility.
- Up to 100 psi working pressure at 72°F.
- Shrink wrapped coils.



Part Number	Size	Ctn Qty	List Price
PSP50-100	1/2" x 100' roll	1	\$ 56.97



Direct Bury Splice Connectors



ISO 9002

3M® DBR/Y-6 Direct Burial Splice Connector

Features:

UL Listed for Direct Burial, Rated for 600V.

Replaces existing 3M DBY, DBR, DBY6, DBR6, DBR/Y.



HDBR/Y-6 Splice Tube and Connector

- Electrically connects two or more pre-stripped copper wires
- Provides moisture seal of the connections for the direct burial.
- Ideal for splicing wires and cables in irrigation and low voltage lighting systems.
- For residential, commercial, golf and other green industry applications.
- May be installed above or below ground, inside a valve box or buried next to a valve-in-head sprinkler or light fixture.
- Not recommended for submersible applications.
- Each kit includes a 3M Performance Plus quick biting wire connector R/Y+ and a high impact, UV resistant polypropylene tube prefilled with moisture-resistant grease.
- The gel filled tube includes a lid that compresses the wire insulation when closed. This applies pressure, known as "strain relief" that keeps the connection inside the tube when the wires are pulled-upon. The connector tube includes channels for three sets of wires.
- 3M Electrical products are manufactured for AGI in an ISO 9002 facility.



Specifications:

Maximum voltage rating:
600 volts.

UL Listed, File No. E102356

UL Listed 98U1

UL Standard 486D

Application temperature:
32°F to 120°F

Operating temperature:
-40°F to 221°F.

Construction:

Tube: Impact and UV

Resistant Polypropylene

Grease: Mineral Oil Based, EG3

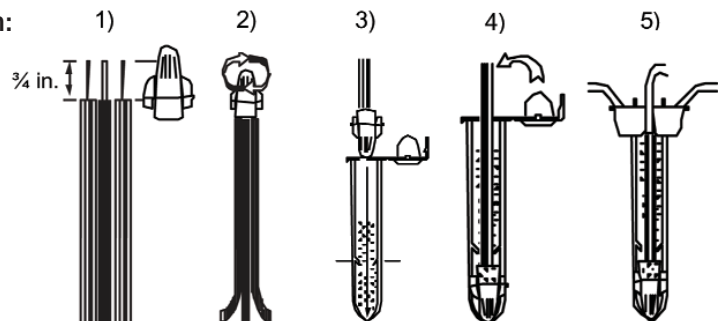
R/Y+ Connector: Steel Spring,
Flame Retardant Insulator

Wire Combinations - Copper wire only solid or stranded

2 - 7 #18	1-3 #12 w/ 1 #18
2 - 6 #16	1-2 #10 w/ 1 #18
2 - 4 #14	1-3 #12 w/ 1 #16
2 - 4 #12	1-2 #10 w/ 1 #12
2 - 3 #10	1-2 #14 w/ 1 #18

See complete chart of combinations on reverse.

Installation:



Part Number	Description	Ctn Qty	Pallet Qty	List Price
CHDBR/Y-6	3M® Direct Bury Splice Kit, Bulk	100	7500	\$ 3.06
HDBR/Y2-6	3M® Direct Bury Splice Kit, 2 per package	25	-	7.32



In the United States: Phone (800) 776-2266 Fax (800) 729-3299
In Canada: Phone (866) 503-5523 Fax (888) 562-2095

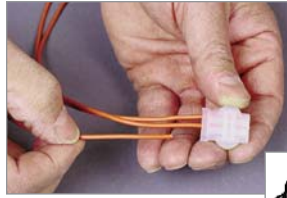
www.americangranby.com

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Electrical Installation Accessories



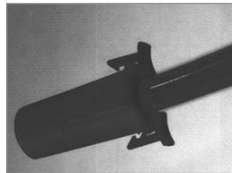
SSP314



3M® SSP Series Insulation Displacement Connector

Features:

- Used to electrically connect two or three wire ends & insulate the connection.
- #22-#14 AWG range on SSP314. SSP314 is UL and CSA listed.
- #22-#16 AWG range on SSP316.
- Also used for pigtail 2- and 3-wire splicing.
- Connector provides a moisture-resistant seal and is flame retardant.



LV9000

Tom King Harmony Snaplock Wire Connector Features:

- Gel-filled 100% waterproof.
- Double o-ring, double-latch locking system.
- For low voltage connections.



Part Number	Description	Ctn Qty	List Price
SSP314	3M® Insulation Displacement Connectors #22-#14 AWG	1000	\$ 1.77
SSP316	3M® Insulation Displacement Connectors #22-#16 AWG	300	1.65
Snaplock Gel-filled Wire Connector			
LV9000	Small- fits two #24 - seven #18 AWG	24/720	1.42
LV9500	Large - Fits two #18 - three #10 & one #18 AWG	12/432	2.07



82-A

Scotchcast™ 82-A Series Inline Resin Splice Kit Features:

- Insulate and seal single conductor, unshielded cable splices & multiple conductor cables.
- Connector is not included.

Part Number	Conductor	Cable OD	Conn OD	Ctn Qty	List Price
82-A1	Up to 2 AWG	0.0625"	0.406"	10	\$ 91.55
82-A2	2-3/0 AWG	1"	0.625"	10	143.90



ET1983



ET1983 Electrical Tester Features:

- Checks 120, 240, 440VAC and 150, 300, 500VDC
- Handy, economical, durable.
- Ideal for any electrical installation or repair.
- Extra long insulated lead with test probe for added convenience.
- Easy to read, bright indicator light.
- Requires no batteries.
- Packaged in slide blister card.
- Meets CE requirements.
- UL listed.

Part Number	Description	Ctn/Case Qty	List Price
ET1983	120, 240, 440V tester	10/120	\$ 10.18



VL1

CLICK-IT™ Valve Locator Features:

- Water resistant.
- Compact design.
- For location of solenoid valve quickly and easily.
- Practical and cost effective.

Part Number	Description	Ctn Qty	List Price
VL1	Click-It Valve Locator	10	\$ 113.69



Electrical Installation Accessories



PTC163-6ST



PTC163-6RA

HARVARD CONTRACTOR'S Power Cord Features:

- Three prong straight (115V) or right angle (115V, 220V) molded plugs.
- 16 gauge, 3 conductor, 13 amp, 125 Volt rating.
- 14 gauge, 3 conductor, 15 amp, 250 Volt rating.
- Six foot cord length.
- Free end is split, stripped 3/8".
- UL and CSA listed in US and Canada.



PTC143-6RA220



Part Number	Description	Wire Gauge	Volt Rating	Ctn Qty	List Price
PTC163-6ST	Straight plug cord	16	125 V	50	\$ 6.61
PTC163-6RA	Right angle plug cord	16	125 V	50	12.07
PTC143-6RA220	Right angle plug cord	14	250 V	50	14.11



HARVARD CONTRACTOR'S Anchor Kit Features:

- Anchor kits complete with 100 plastic anchors, 100 screws and 1/4" masonry drill bit in a plastic case.
- Plastic gray ribbed anchors with lip design for electronic timer, pump start relay installations. Use with concrete block, brick and wallboard.
- Anchors have internal ribs for better centering of screws, locking lugs against pull and twist. Exterior design prevents fall out in overhead holes.
- Kit available with combination slotted/phillips head or tri-combination, slotted/phillips/hex head #10 x 1" screws.
- Kits complete with 1/4" x 4" masonry drill bit.
- Clear, unbreakable plastic case with molded-in hanging tab.



Combo Head



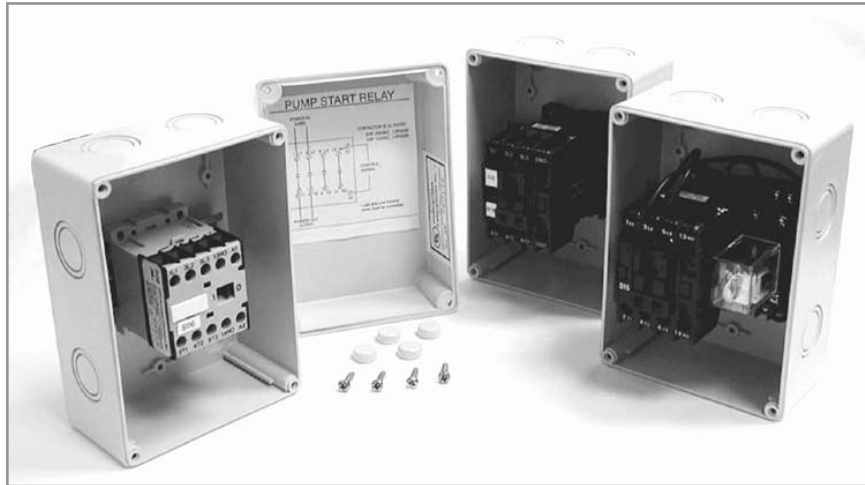
Tri Combo Head



Part Number	Description	Ctn Qty	List Price
AK10CSPR	Ribbed Combo Head	36	\$14.11
AK10TCR	Ribbed Tri Combo Head	36	15.00







Pump Start Relay Features:

- Contactors are UL and UL Canada rated.
- Wide coil operating range, +10% to -30% of rated 60 hz coil voltage.
Contactors will start on low voltage as follows:
Single phase: 24 VAC coil will pull in at 17 volts.
120 VAC coil will pull in at 84 volts.
230 VAC coil will pull in at 161 volts.
- Finger safe design.
- One normally open auxiliary contact for powering a pilot light or alarm.
- Pressure screw terminals accept 18 through 10 AWG wire.
- Interposing relay units accept 24 through 10 AWG wire.
- Mechanical life up to 10 million operations.
- Long electrical life.
- PSR567 Series with interposing relay designed for low voltage and low controller output.

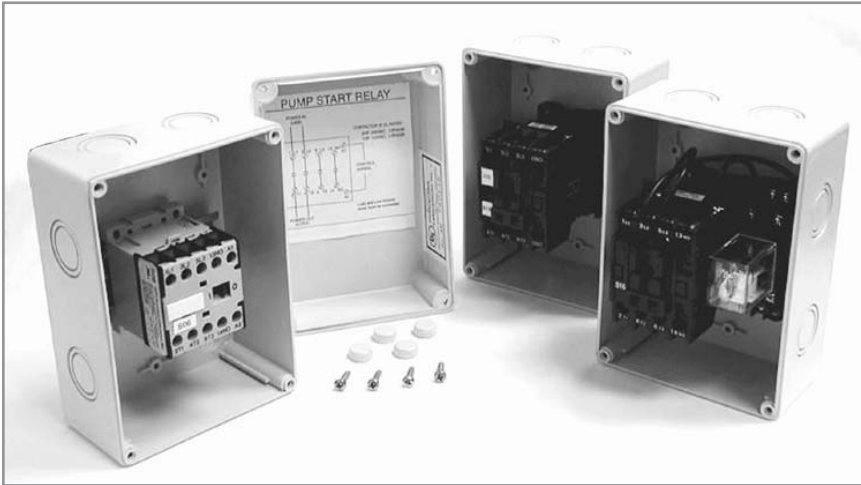


Industrial Non-metallic Enclosure Features:

- Gray enclosures are UL, CSA listed.
- Rated NEMA 4X for indoor or outdoor use.
- To maintain 4X enclosure rating use required 4X connectors.
- Watertight, dust tight, oil tight and rain tight.
- High impact, durable insulated Noryl thermoplastic.
- Neoprene gasketed cover.
- Resistant to shock, corrosion, chemicals and atmospheric agents.
- 8 conduit knockouts (1/2", 3/4" NPT combination.)
- Service temperature -40° to 260°F.
- Stainless steel cover screws (max tightening torque: 7 in-lbs.)
- Sealing plugs provided to waterproof mounting screws.
- 5.9" H x 4.3" W x 3.9" D



Pump Start Relays



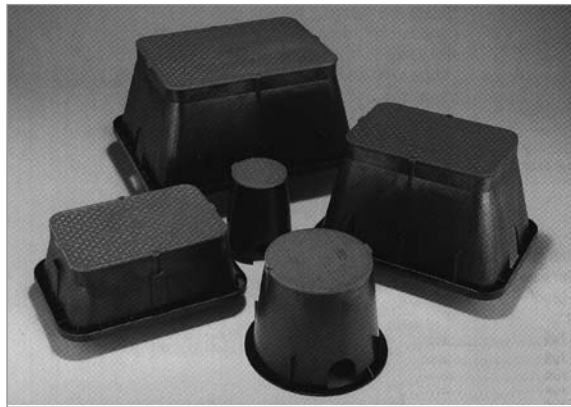
Part Number	INPUT- PUMP START RELAY			CONTACTOR Coil Voltage	PUMP MOTOR HP (MAX)				LIST PRICE
	Volts VAC	Req'd Close	Coil Power Hold		Single Phase*		Three Phase **		
					120 v	230 v	200/230v	460 v	
Direct Control Style Contactor									
PSR123-24	24	26 VA	4.2 VA	24	1 HP	2 HP	3 HP	5 HP	\$ 132.03
PSR123-120	120	26 VA	4.2 VA	120	1 HP	2 HP	3 HP	5 HP	132.03
PSR123-230	230	26 VA	4.2 VA	230	1 HP	2 HP	3 HP	5 HP	132.03
Direct Control Style Contactor									
PSR575-24	24	70 VA	12 VA	24	2 HP	5 HP	7.5 HP	15 HP	183.26
PSR575-120	120	70 VA	12 VA	120	2 HP	5 HP	7.5 HP	15 HP	183.26
PSR575-230	230	70 VA	12 VA	230	2 HP	5 HP	7.5 HP	15 HP	183.26
Interposing Relay Style Contactor for low voltage/controller output applications.									
PSR576-230-24	24	1.2 VA	1.2 VA	260	-	5 HP	7.5 HP	-	334.26

Notes:

1. Direct Control Style: The **input volts** must match the controller output voltage.
The **contactor coil voltage** must match the controller voltage.
2. Interposing Relay Style: The **input volts** must match the controller output voltage.
The **contactor coil voltage** must match the controller voltage.
3. VA=Volt Amps. To determine the operating amperage needed by the coil, divide the VA by the controller output voltage.

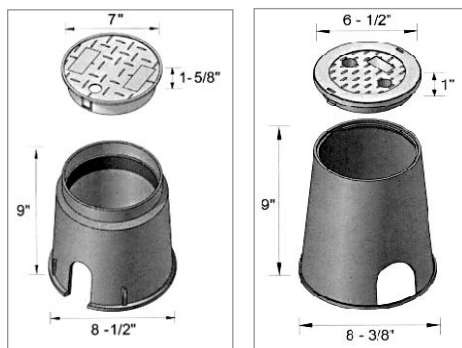
* Single Phase systems require **motor overload protection** within the motor.

** Three phase systems: May require **motor overload protection** within the motor. For proper **overload protection** consult the NEC (National Electrical Code) and local building codes before installation.



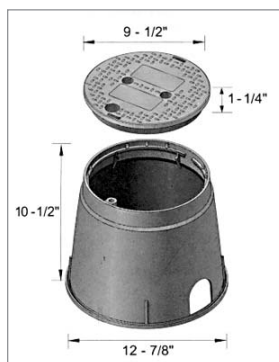
Valve Box Features:

- Bodies made from structural polyolefin.
- Covers made with UV inhibitors to prevent discoloration and deterioration.
- Nestable for easy storage.
- 10" round and all rectangular boxes include brass insert so bolts may be added for easy lock down.
- ICV cover design, green covers for water applications.



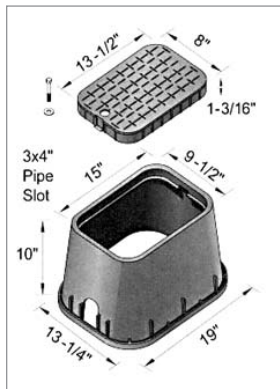
6" Round Economy

7" Round



10" Round Box

Part Number	Description	Pallet Qty	List Price
6" Round Economy Box with overlapping lip snap-on green cover			
D109-G	Box w/ cover	600	\$ 8.04
D109GL	Cover only	1	3.10
7" Round Box with overlapping lip snap-on green cover			
107BCH	Box w/ cover	250	7.98
107CH	Cover only	1	3.79
107BCS	Box w/ sewer cover	250	9.44
107BC	ICV Box w/ cover	250	7.98
107C	ICV cover only	800	4.16
10" Round Box with bayonet twist-on overlapping lip green cover			
111BC	Box w/ cover	180	26.27
111C	Cover Only	1	8.39
111BCS	Box w/ sewer cover	180	27.66

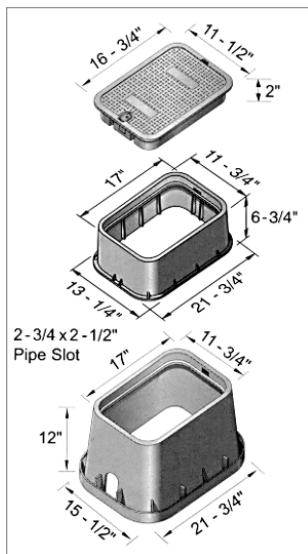


10" Standard Rectangular Box

10" x 15" Standard Rectangular Valve Box

- Standard drop-in green cover

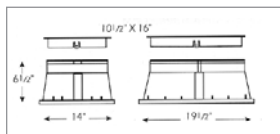
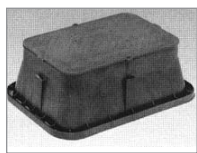
Part Number	Description	Pallet Qty	List Price
10" x 15" Rectangular Valve Box			
D1000-SG	10" x 15" Box w/ Cover	96	\$ 37.20
D1000-SGL	Cover Only	1	14.47



12" x 17" Standard Rectangular Valve Box

- Overlapping lip snap-on green cover

Part Number	Description	Pallet Qty	List Price
12" x 17" Standard Rectangular Valve Box			
113BC	12" x 17" Box w/ cover	78	\$ 58.19
113C	Cover Only	1	23.78
113-6	Extension - no cover	49	31.88

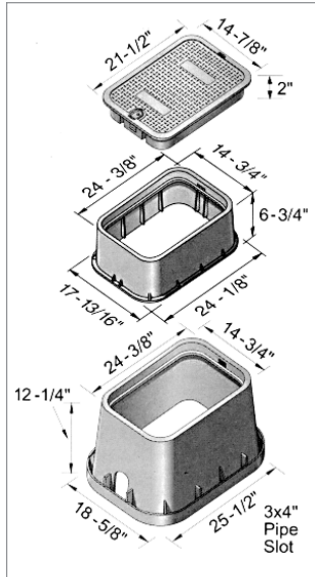


6" Tapered Box

12" x 17" x 6" Tapered Low Profile Rectangular Valve Box

- Overlapping lip snap-on green cover

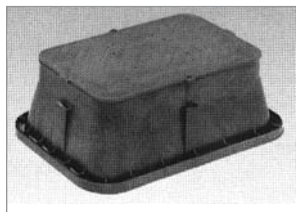
Part Number	Description	Pallet Qty	List Price
12" x 17" x 6" Tapered (Low Profile) Rectangular Box			
115TBC	12" x 17" x 6" Tapered Box w/ cover	96	\$ 45.41
115	12" x 17" x 6" Tapered Extension w/ cover	49	45.96



12" x 20" Jumbo Rectangular Valve Box

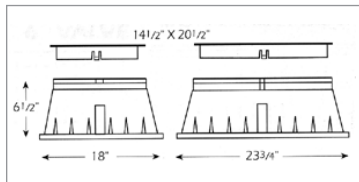
- Overlapping lip snap-on green cover
- "Water Meter" labeled cover available.

Part Number	Description	Pallet Qty	List Price
12" x 20" Jumbo Rectangular Valve Box			
117BC	12" x 20" Jumbo Box w/ cover	56	\$ 85.34
217C	Jumbo cover only	1	51.20
117CW	Jumbo Black "WATER METER" cover only	1	55.14
117B	12" x 20" Jumbo Box only	56	58.55
117-6	Jumbo Extension - no cover	32	53.32

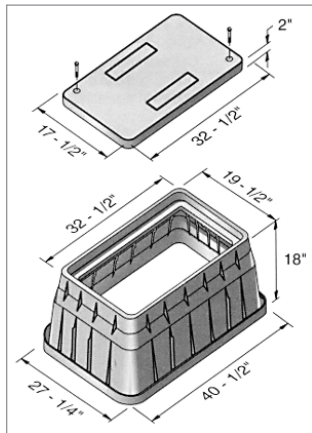


12" x 20" x 6" Tapered Low Profile Jumbo Valve Box

- Overlapping lip snap-on green cover



Part Number	Description	Pallet Qty	List Price
12" x 20" x 6" Tapered Low Profile Jumbo Valve Box			
119TBC	12" x 20" x 6" Tapered Jumbo Box w/ cover	56	\$ 88.24
119	12" x 20" x 6" Tapered Jumbo Extension w/ cover	32	95.18



17" x 30" x 18" Jumbo Rectangular Valve Box

- Overlapping lip green cover
- Locking stainless steel bolt

Part Number	Description	Pallet Qty	List Price
17" x 30" x 18" Jumbo Rectangular Box			
126BCB	17" x 30" x 18" Jumbo Box w/ cover	10	\$ 564.52





Expandable Repair Couplings



117 Series



118 Series



Flo Span Expandable Repair Coupling Features:

- Double EPDM o-ring seal gives more protection from possible leakage due to deflection of piston in the extended position.
- EPDM o-ring seal also protects against contamination on the cylinder wall.
- Solvent cement trap located in cap to capture excess solvent cement.
- Made from PVC type I grade I material meeting ASTM D-1784
- 117 Series has union end, 118 Series does not have union end.

Part Number	IPS Size	Body Length	Ctn Qty	List Price
PVC Flo-Span Expansion Couplings				
w/ union	no union			
117-05	118-05	1/2"	5-3/4"	28 \$ 7.71
117-07	118-07	3/4"	6-3/4"	24 8.03
117-10	118-10	1"	7-3/4"	15 9.50
117-12	118-12	1-1/4"	9"	10 17.50
117-15	118-15	1-1/2"	10"	16 19.18
117-20	118-20	2"	10-1/2"	12 29.94
	118-25	2-1/2"	13"	3 50.45
	118-30	3"	14-1/2"	3 63.09
	118-40	4"	14-1/2"	3 110.26



PSC Series



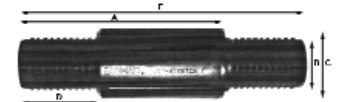
Poly-Stretch Repair Coupling Features:

- For repair of polyethylene irrigation pipe.
- Avoid extra digging and buckled pipe.
- Couplings are made of ABS
- O-ring seal is made of Buna 70
- Pressure rated at 160 psi.
- Designed for irrigation operation pressures of polyethylene pipe and more.

Instructions for Installation:

- Cut out approximately 4" of pipe where repair is needed.
- Place clamps over ends of pipe
- Insert end marked with "END FIRST" arrow by pushing and turning at same time.
- Insert other end by pushing & turning.
- Place clamps over ribbed ends & tighten.

Dimensions:



	A	B	C	D	E
3/4"	4.0	.575	.820	1.50	5.625
1"	4.0	.770	1.075	1.50	5.625
1 1/4"	5.0	1.109	1.415	1.755	6.70
1 1/2"	5.0	1.310	1.63	1.755	6.70
2"	5.0	1.825	2.125	1.755	6.70

Part Number	Description	Ctn Qty	List Price
PSC07	3/4" Poly-stretch coupling	50	\$ 11.13
PSC10	1" Poly-stretch coupling	50	11.53
PSC12	1 1/4" Poly-stretch coupling	25	17.28
PSC15	1 1/2" Poly-stretch coupling	25	19.98
PSC20	2" Poly-stretch coupling	20	31.19

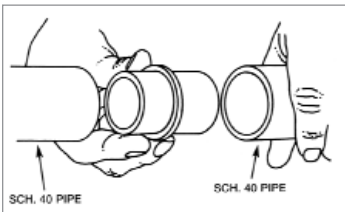
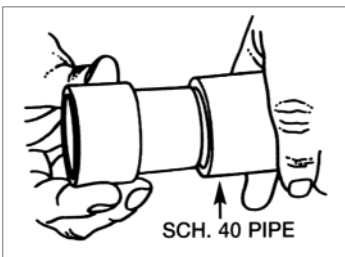
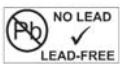
Repair Fittings for Sch 40 Pipe



PEX Series



PIC Series



Pipe Extender and Inside Connector Repair Fitting Features:

- For Sch 40 pipe.
- Saves labor.
- Invisible after installation.
- Permanent repair.
- Insignificant flow restriction.
- PVC Construction.
- PIC Series connects two pieces of Sch 40 pipe with flush joint.

Part Number	Description	IPS Size	Ctn Qty	List Price
Pipe Extender Repair Fitting				
PEX50	Pipe Extender	1/2"	48	\$ 2.00
PEX75	Pipe Extender	3/4"	48	2.49
PEX100	Pipe Extender	1"	48	3.19
PEX125	Pipe Extender	1 1/4"	48	3.77
PEX150	Pipe Extender	1 1/2"	48	4.46
PEX200	Pipe Extender	2"	48	5.07
PEX250	Pipe Extender	2 1/2"	96	6.89
PEX300	Pipe Extender	3"	96	10.05
PEX400	Pipe Extender	4"	48	11.62
Inside Connector Repair Fitting				
PIC100	Inside Connector	1"	48	3.19
PIC150	Inside Connector	1 1/2"	48	4.46
PIC200	Inside Connector	2"	48	5.07



IDEAL



Single ear pinch clamp Features and Benefits:

- 300 series stainless steel material for excellent corrosion resistance.
- Welded construction provides superior strength.
- Quick, easy installation provides a uniform 360° seal.
- Permanent seal is tamper proof.
- Ideal 61-0 series clamps are compatible with most clinching tools.
- Fits most popular polyethylene and polybutylene water service lines.
- Perfect for irrigation applications.



61001-51

Part Number	Nominal Size	Open Diameter	Closed Diameter	Bag Qty	Ctn Qty	List Price per 100
61198	3/4"	0.779	0.669	100	2000	\$ 51.36
61210	13/16"	0.827	0.716	100	2000	52.43
61256	1"	1.008	0.898	250	2500	52.43
61271	1 1/16"	1.067	0.945	250	2500	52.43
61316	1 1/4"	1.244	1.122	250	2500	52.43
61331	1 5/16"	1.303	1.181	250	2500	52.43
61346	1 3/8"	1.362	1.240	250	2500	54.90
61410	1 5/8"	1.614	1.492	100	2000	60.99
61425	1 11/16"	1.673	1.551	100	2000	65.27
61485	1 7/8"	1.909	1.787	100	2000	80.25
61001-51	Pinch tool for all size pinch clamps (EACH)				15	67.45

To identify proper clamp size:

Measure actual OD of the hose on the fitting. Select the nominal size clamp nearest but always larger than the OD of the hose on the fitting.

Quantities:

Bag quantities required.

Drop Ship Programs:

Minimum 5000 piece assorted pinch clamps required if ordered in combination with a 5000 piece worm drive clamp drop ship order. Minimum 25,000 piece assorted pinch clamps required if ordered separately. Standard customer pricing on pinch clamps applies.

Freight & Terms:

Standard AGI freight, terms and conditions apply.



91025 & 91330

Submersible Utility Pump Features:

- 1/5 & 1/3 HP motors, 120 v, 60 Hz
- Corrosion resistant construction.
- 8' waterproof power cord.
- Clog resistant open type impeller.
- Capacities of 26 & 40 gpm.
- 1 year limited warranty.

Specifications:

Discharge: 1 1/4" MNPT
or 3/4" GHT

Housing & Base: Glass reinforced ABS

Impeller: Non-clogging open type

Bearing: Permanently lubricating

Motors: Permanent split capacitor,
continuous duty, thermally protected



Model No.	HP	Gallons per minute at discharge height in feet						Max. Head	Min. Amps	List Price
		0'	5'	10'	15'	20'	25'			
SP91025	1/5	26	21	14	10	7	1	25'	3.6	\$ 176.12
SP91330	1/3	40	34	28	22	12	2	25'	4.1	223.41

NOTE: Use of smaller diameter pipe, or long runs of pipe, will result in lower flow rates than those shown.