



STRENGTH SIMPLICITY DEPENDABILITY

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www.cadmanpower.com

Introduction

This catalogue has been designed to help you, the customer find and select the appropriate products needed for irrigation and application of liquid manure. In answer to our customer's expanding needs, our list of available components has grown dramatically. If you cannot find what you need in this catalogue, feel free to contact us and we will be happy to help you in finding what you are looking for.

Our motto at Cadman Power Equipment is Strength... Simplicity... Dependability. We apply it to every aspect of our business, whether it is to our equipment, our people, or our international network of dealers. Since 1952, Cadman has grown from a small irrigation retailer servicing the local market of Southwestern Ontario, Canada to the international manufacturer and distributor it is today. We also provide irrigation system design, nutrient management system design and custom equipment fabrication in our state-of-the-art facilities all as a means to address the wide variations in customer's needs.

As a means to consistently provide our customers the best return on their irrigation investment, we will remain steadfast in our pursuits to produce the best products at fair prices and backing those products with superior customer service. As time progresses, Cadman will continue to create new and innovative products for the irrigation and nutrient management markets, and keep ahead of a constantly changing landscape.

The staff at Cadman Power Equipment would like to thank all of the customers we have had the pleasure of serving throughout our history. To those who are first time customers, we extend a warm welcome and look forward to serving your needs.

Sincerely,

Wayne Cadman
President

Craig Cadman
V.P. Operations

Courtney Mitchell
V.P. Administration

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www.cadmanmini.com
www.hosedirect.net
www.cadmanenergy.com

Cadman on Social Media


TERMS & CONDITIONS OF SALE

Pricing:

Prices are subject to change without notice. Prices invoiced will be the price in effect at the time of shipping or pickup. All applicable taxes will be invoiced to Canadian customers. All customers outside of Canada are exempt from sales tax. Provincial Sales Tax exemptions are allowed if the customer provides an exemption form to keep on file.

Manner Of Payment:

We accept payment by cash or cheque. For leasing of equipment, please contact a Cadman representative. For large orders, or for items we normally do not stock, we require a deposit of 20%.

Warranty:

Items returned for a warranty exchange, replacement or repair, must be accompanied with an invoice. Our policy is to follow the manufacturer with regard to warranty claims. Updates of manufacturers warranty products are available upon request.

Returned Merchandise:

Our policy is not to accept returned goods. All sales are final when the customer takes receipt of the goods. However, products in new and re-saleable condition may be returned if:

1. Our office is aware of the return and authorization has been given,
2. Goods are returned with an original invoice,
3. An administration charge of 15% or minimum \$10.00 and delivery charge (if applicable) will be deducted from credit,
4. It is within three months of purchase,
5. Shipments are prepaid to the originating Cadman location.

Shipping:

All shipments are F.O.B. our warehouse. Delivery terms are available on request. Orders may be shipped by either Purolator, Cardinal Overnight Couriers, United Parcel Service, or Federal Express. For large and bulky orders, we also offer delivery by Cadman's own carriers.

Beautiful Game, Beautiful Grass



A quality product for a quality sport.

www.cadmanpower.com



Cadman Power Equipment is an engineering, manufacturer and global distributor of irrigation and manure management systems, and high-volume fluid transfer solutions within the oil and gas industry.

The Evolution of Cadman Power Equipment

Irrigation Systems

Cadman Power Equipment Limited, a third generation sole proprietorship, have been manufacturing and distributing reliable, high-quality irrigation equipment design since 1952. With many technical representatives, Cadman has the capabilities to design an irrigation system for any size project.

Cadman began manufacturing fluid transfer equipment specifically for the agricultural sector in the early 1980s when they fabricated their own design of irrigation travellers. These water travellers provided farmers with a simple method to deliver large volumes of water to their crops much easier and quicker than they could before. Through product demand and company innovation, Cadman continued to grow, improve, and refine their engineering process - producing and selling more units - year over year.

Manure Management

By the year 2000, Cadman expanded their agricultural product catalogue to enable their consumers to move heavier, denser, liquids even longer distances. They manufactured dynamic liquid manure transfer and application equipment including their own brand of hose and drag hose reels. Power units were equipped with larger engines, improved pumps, additional safety features, and the appropriate manure moving components for the agricultural sector.

In 2014 Cadman unveiled their innovative front-folding hydraulic manure injector which can be fit with custom tooling and built 30 or 40' wide.

In 2015 Cadman designed and engineered their first CMA. The CMA (Continuous Manure Applicator) was a concept which the Alig brothers of Ohio brought to Cadman.

The CMA enables farmers to apply manure virtually whenever it is required. Manure can be applied to crops before, after, and now during the crop cycle. Nutrient can be applied to the crop up until it reaches 3 to 4 feet tall.

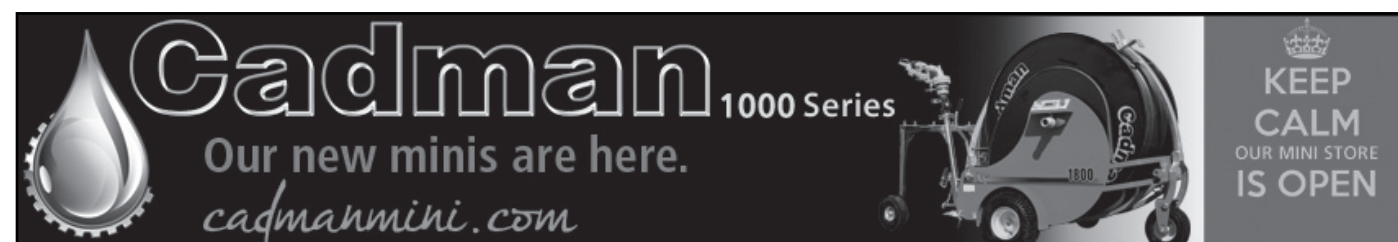
Applying manure with the Cadman CMA row crop unit could give a potential of a 200 bushel corn crop by basically using manure only.

Fluid Transfer

In 2011, Cadman started manufacturing high volume pumping and hose deployment equipment for the Oil & Gas industry with their industrial-sized water transfer solutions. Cadman developed their own brand of high volume fluid transfer pumping stations which produce enough power to efficiently move up to 6000 gallons of liquid per minute(145 bbl per minute), seamlessly and at the flick of a switch.

These Pump Stations can also be used as a mobile backup for municipal sewage emergencies and are currently being used as an added firefighting resource in eastern Canada.

Cadman's HC10 Hose Caddy engineered for endless miles of highway travel, the HC10 conveniently enables the operator to pull multiple reels behind truck, a flatbed tractor trailer, or can be mounted to the HC10T trailer. DOT rated, the HC10 Hose Caddy is in a class by itself enabling one to deliver massive volumes of fluid at a moment's notice from the pumping source. This sharp, sophisticated hose reel simplifies hose deployment and retrieval saving time, money, and minimizing problematic downtime.



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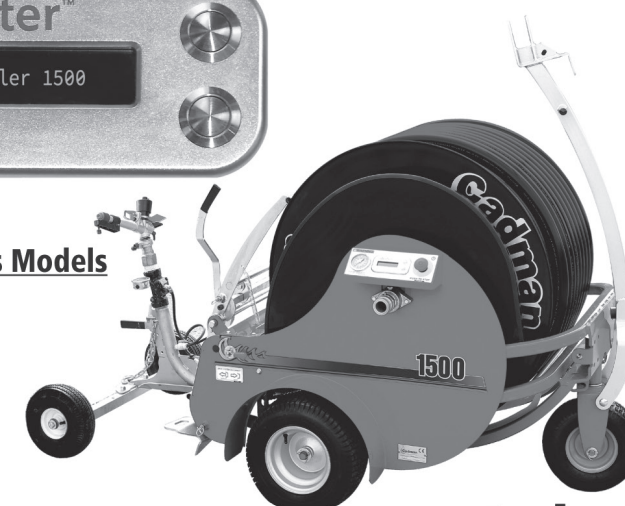
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Introducing the Mini Series



1000 Series Models

- 1100
- 1250
- 1500
- 1800
- 2000S
- 2000ST



Benefits

- One man operation
- Environmentally friendly
- Built to handle rough industrial terrain
- Built to outlast the competition
- Even water distribution
- Consistently higher yields

Features

- Simple two push button controls
- Solar power option available
- Strong tubular frame
- Well-protected electric drive system
- Control retrieval speed with iWater™
- Only make in the industry with accurate speed compensation

**Irrigation on this scale
has never been so easy!**



Irrigation Equipment

1000 Series

Models: 1100, 1250, 1500, 1800, 2000S



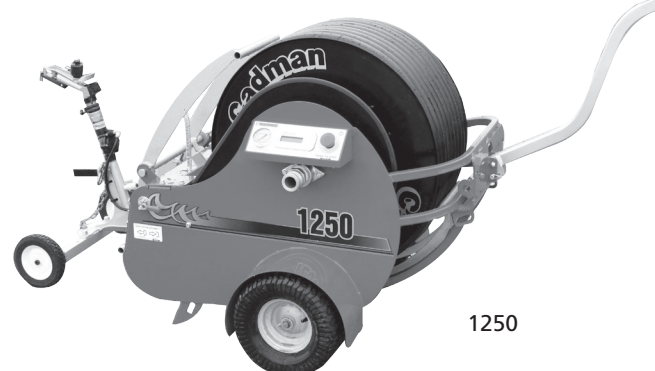
Benefits

- One man operation
- Environmentally friendly
- Built to handle rough terrain
- Built to outlast the competition
- Even water distribution
- Consistently higher yields

Features

- Simple two push button controls
- Solar power option available
- Strong tubular frame
- Well-protected electric drive system
- Cadman iWater™ accurately controls retrieval speed
- Only brand with accurate speed compensation

- ### Highlights:
- Battery Powered
 - Hand Portable
 - Low Pressure Operation
 - Automatic Sprinkler Shut-off Valve
 - Simple, Uncomplicated Operation
 - Extremely Efficient Use of Water
 - Quiet, Low Cost Operation
 - Precise Coverage in Tight Areas
 - Controlled Puddle-Free Application



These pint-sized irrigation travellers have a brilliant new design, are easy to maneuver, and packed with Cadman's own sophisticated iWater™ technology into a sleek yet rugged frame.

Cadman's extensive experience with large travellers in agricultural settings has been put to use in the design and manufacturing of the mini-travellers. Cadman minis have a wide variety of uses from watering gardens and estate lots; sports field irrigation and artificial turf cooling; industrial and arena dust suppression; engineered footing for equestrian events; and even cemetery irrigation.

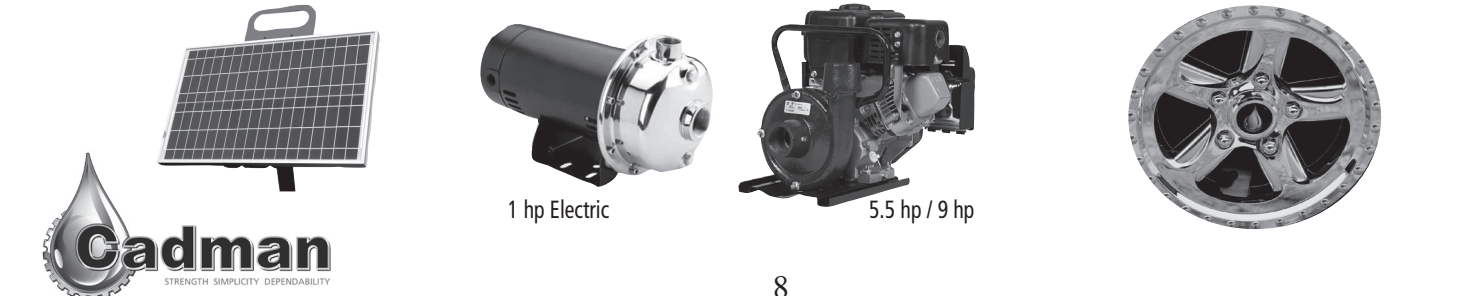


Options

Solar Panels

Booster Pumps

Chrome Hub Caps



Irrigation Equipment

1000 Series Travellers

1500

- ### Highlights:
- Three Wheel Heavy Duty Frame
 - 2 Wheel Gun Cart w/Adjustable Width
 - Wheels With Turf Style Tires
 - Lift Kit For Gun Cart 2" x 20' Feeder Hose
 - Automatic Sprinkler Shut-off Valve
 - Automatic Gun Cart Stop
 - 2406 Medium Density Hose w/5 Year
 - Hose Build-Up Safety Bar
 - Pro-Rated Warranty
 - Flip Down Stabilizers
 - Simple, Uncomplicated Operation
 - Extremely Efficient Water Use
 - Quiet, Low Cost Operation
 - Precise Coverage in Tight Areas
 - Controlled, Puddle-Free Application
 - Ideal for Arenas and Pastures



Why is the Electric Drive Better?

- The electric drive makes minimum operating pressure obsolete
- The mini now can essentially operate at any pressure (Minimum levels are required for gun efficiency.)
- Water no longer comes into contact with any moving parts
- Has the ability to operate at much slower and faster retrieval speeds (From as slow as 1"/l minute up to 150"/l minute.)
- Each mini comes with 2 batteries, each with a wiring harnesses and a trickle charger for the spare battery. They are fully charged and are good for 10 to 12 complete pulls of the machine.

1800 & 2000S

- ### Highlights:
- Three Wheel Heavy Duty Frame
 - 2 Wheel Gun Cart w/Adjustable Width
 - Wheels With Turf Style Tires
 - Lift Kit For Gun Cart 2" x 20' Feeder Hose
 - Automatic Sprinkler Shut-off Valve
 - Automatic Gun Cart Stop
 - 2406 Medium Density Hose w/5 Year
 - Hose Build-Up Safety Bar
 - Pro-Rated Warranty
 - Flip Down Stabilizers



Above: The 1250 mini with Komet 163 irrigation gun.

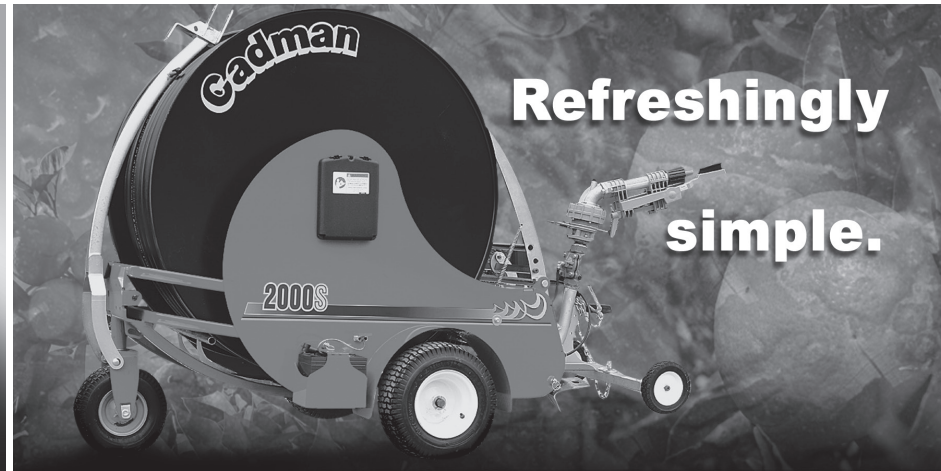
Model	Hose I.D.	Length	G.P.M.	Weight	Area Covered (Acres Per Pull)
1100	1.1"	250'	3 - 32	550 lbs.	0.3 - 0.7
1250	1.25"	230'	8 - 45	550 lbs.	0.3 - 0.8
1500	1.5"	350'	25 - 80	950 lbs.	0.5 - 1.5
1800	1.8"	400'	25 - 102	1,010 lbs.	0.6 - 2.1
2000S	2.0"	350'	25 - 150	1,056 lbs.	0.6 - 2.0

Sprinklers





Above: The 1800 mini with optional 32" high cart. The high cart is ideal for taller foliage and is available for the 1500, 1800, 2000S and 2000ST models.



Above: A side view of the 2000S mini with standard gun cart.

Advanced Synthetic Turf Cooling System

Cool off an entire football field with one flawless and precise pass in 30 to 60 minutes.

Simple, reliable, portable irrigation for sport fields, pastures, hobby farms, ranches and construction sites.

Features

- Pulls an entire field in 30 - 60 minutes
- Electric Drive
- 1 Pass field pull (covers an entire football field)
- Well protected drive system
- Dual sprinkler cart for even coverage with high speed retrieval
- Control retrieval speed with iWater
- Only brand in the industry with accurate speed compensation
- Battery powered
- Strong tubular frame
- Three wheeled chassis for extra stability and three large floatation tires make transport by small garden tractor or utility vehicle extra simple

Benefits

- Automatic shutoff allows for unattended operation
- No risk of fuel spillage
- Quick setup
- Improves yield



2000ST

- Details**
- Hose I.D: 2.0" & Length: 350'
 - G.P.M: 48 - 210
 - Axle: 2
 - Weight: 1,056 lbs.

**2000 Series Irrigation Reels
COMING SOON!**



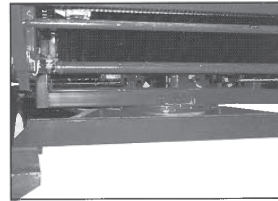
2000 Series Irrigation Reels
COMING SOON!



3000 Series Irrigation Reels

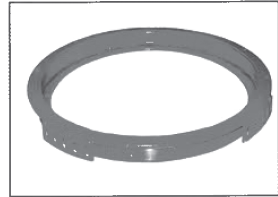
- 3000 WB
- 3000 WB-XL
- 3250 WB
- 3500 WB
- 3500 WB-XL





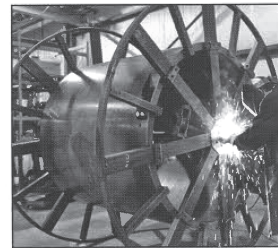
RUGGED FRAME

The lower frame is constructed of heavy wall 3 x 6 inch tubing. The upper frame is constructed of mainly 3 x 5 inch tubing. The use of steel tubing gives all Cadman Travellers higher torsional strength than typical I-beam constructions.



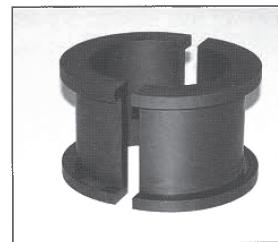
TURNTABLE

All Cadman Travellers are equipped with ball-bearing turntables. With multiple locking positions and a centrally located lock pin, positioning of the Traveller is made simple and easy.



HEAVY-DUTY DRUM

The one-piece drum core is made from 3/16" steel plate for continuous support. Cadman oversized its core diameter to prevent stress on the hose, promoting longer life and easier wrapping of the hose. With reinforcing ribs and welded construction, the Cadman drum is, by far, the strongest in the industry.



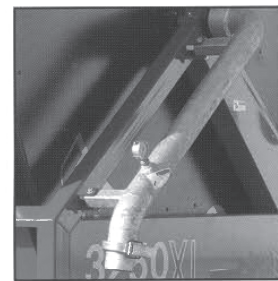
LONG-LASTING DRUM BEARINGS

The drum bearings are constructed of high strength lubricated nylon. Virtually maintenance free, these bearings will provide years of trouble-free service. The real advantage, however, is the ability to maintain oversized plumbing on the inlet side of the drum, giving you maximum efficiency. Competitors usually bottleneck the inlet so they can keep the cost of the ball bearing they use down.



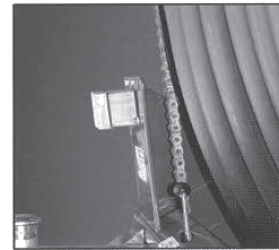
HIGH QUALITY HOSE

Cadman Travellers use only the best quality hose available. Our polyethylene hose is manufactured to ASTM and CSA standards for rough field use and long life.



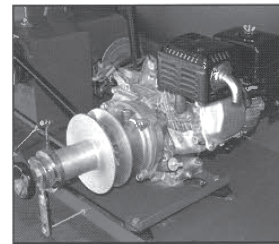
LARGE PLUMBING

Large 4" diameter plumbing is used on the reel to reduce pressure loss. Each elbow uses 2 pounds per square inch. The Cadman Traveller has far fewer elbows than used by others. We have no bottlenecks of smaller pipes and hoses. Our Traveller is not a pipefitter's nightmare! It is designed to utilize pressure to its fullest advantage in order to operate the reel easily and maintain an energy-efficient irrigation system.



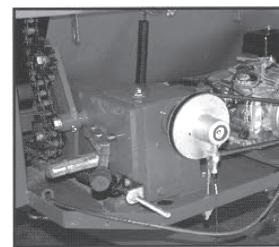
POSITIVE TRACTION CHAIN DRIVE

All Cadman Travellers are driven by a single No. 80 chain, running over the large diameter of the drum on traction pins. This gives Cadman the advantage of maximum torque amplification vs. smaller laser-cut sprockets used by others. By putting less strain on the drive system, less power is needed to rotate the drum, therefore giving you maximum efficiency.



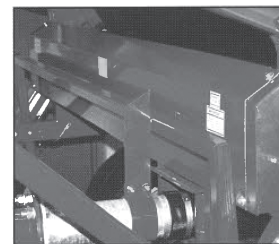
ENGINE DRIVE

The Cadman engine drive system loses "0" P.S.I. because it is self-contained and separate from the fluid irrigated, whereas pistons, bellows or turbines lose 5 to 20 P.S.I. This loss has to be overcome by a pump running harder. These other systems usually result in using less mainline or a smaller gun nozzle in order to keep the pump pressure within operating maximums.



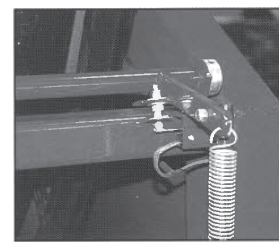
TRANSMISSION

A wide speed range is achieved in Cadman's engine drive system by using a combination of drive and driven variable speed pulleys and a clutch reduction transmission. Simply turn the knob to adjust the drive pulley to the desired speed and engage the transmission lever. There is no need to change gears to achieve a specific speed. As well, an alternate PTO wind-in is incorporated into the transmission. Very clean and easy to operate!



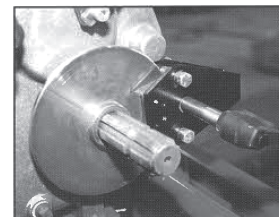
AUTO STOP

When the gun cart reaches the reel, a simple device activates two safety switches. If one switch fails, the second takes over, ensuring maximum safety for you and the machine.



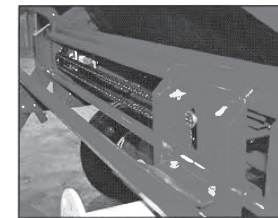
HOSE BUILD-UP SAFETY

If the hose guide malfunctions for any reason, a safety switch is activated by the speed compensator to shut off the engine. This prevents the hose from miswrapping and crushing itself.



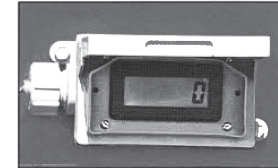
BRAKE

A disc brake ensures that proper tension is applied to the drum when unwinding the hose. This prevents recoil when the tractor comes to a stop at the end of the pull. When fully applied, the Traveller can then be moved safely from field to field without concern of recoil.



ACCURATE HOSE INDEXING

Cadman's hose guide system keeps the polyethylene hose in its place accurately and efficiently. With its rugged design, maintenance is kept to a minimum.



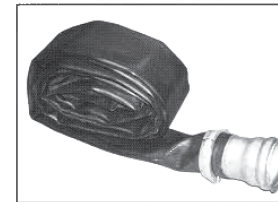
EASY-TO-READ SPEEDOMETER

All Cadman Travellers are equipped with an easy-to-read speedometer, displaying the hose retrieval rate.



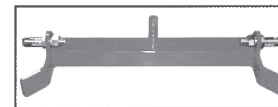
HEAVY-DUTY CRANK DOWN STABILIZERS

As standard equipment, the Cadman 3000 Series Travellers come with crank down stabilizer legs. The easy-to-use telescopic jacks are built to Cadman's specifications for rigid, trouble-free operation.



FEEDER HOSE

A standard 4" x 25' hose is supplied to connect the Traveller to your mainline. As with everything else, Cadman uses the best quality high pressure hose and clamps.



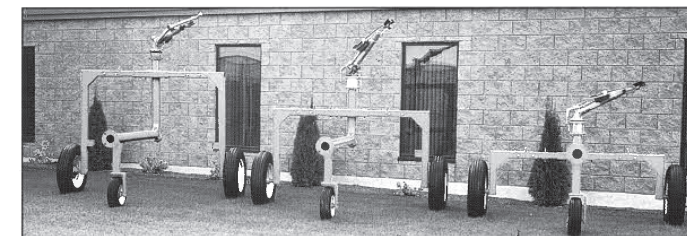
OPTIONAL FAST HITCH TOOL BAR

As an option, any single axle Cadman Traveller can be fitted with a pintle hitch and supplied with a fast hitch tool bar for your tractor. To make your work easier, a pin on the toolbar fits through the pintle hitch and lifts the tongue of the Traveller. By simply operating the tractor 3-point hitch control, the Traveller can be moved from field to field without ever getting off the tractor.

GUN AND CART

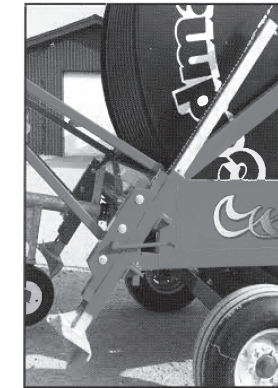
An appropriate sized quality gun is standard. Cadman offers a choice of three different carts for the 3000 Series Travellers. For low crops or manure application, a 28" clearance cart is available. For medium height crops we have a 46" clearance cart and for high crops a 62" clearance cart is available.

These rugged carts are made of steel tube construction. Based on three wheels (no skids), the carts have variable width adjustment to fit the plant rows. Riser extensions are also available as an option for orchard applications.



OPTIONAL CLOSE-IN SPRINKLER KIT

All Cadman Travellers are available with a sprinkler kit which allows irrigation of the area closest to the Traveller that might be missed by the primary gun on the cart.



OPTIONAL CHAIN-STYLE STABILIZERS

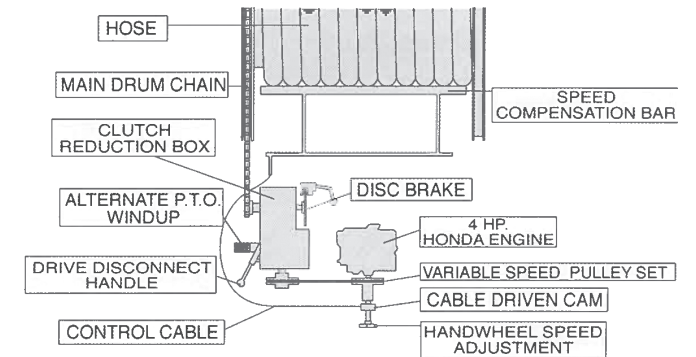
As an option, Cadman offers the rapid-drop chain-style stabilizers.



OPTIONAL HYDRAULIC STABILIZERS

For the ultimate in convenience, Cadman offers heavy duty hydraulic stabilizers.

TOP VIEW OF CADMAN MECHANICAL CAM DRIVE SPEED COMPENSATION



HOSE SPEED COMPENSATION

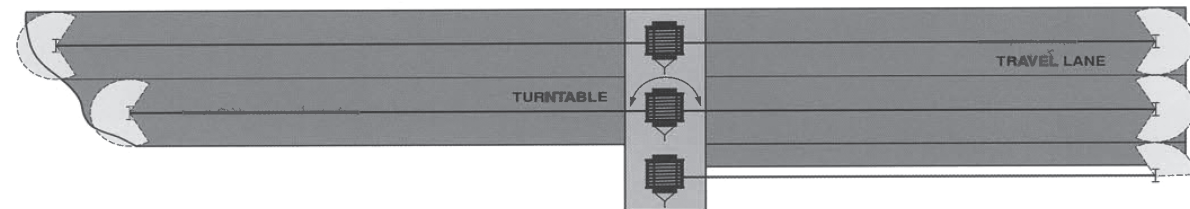
The Cadman MECHANICAL CAM DRIVE HOSE SPEED COMPENSATION SYSTEM has simplified the task of very accurately compensating the hose retrieve speed for the increase in drum diameter as hose is rewound onto the drum. Here's how it works. A sensor bar, riding against the hose as it winds onto the drum, operates a cam on the variable speed drive pulley by way of a cable. As the cam rotates, the pulley pitch is adjusted just enough to accurately compensate for changes in hose speed over the entire retrieve cycle. The result is an even application from beginning to end!





Model	Hose I.D.	Hose Length	Input P.S.I. at Traveller	Gun P.S.I.	Flow Rate GPM	Lane Spacing	Acres Per Pull	Time To Apply 1 Inch/Acre	Time per Pull
3000 Wide Body	3.0"	1075'	130	90	200	274'	6.8	2.3 hr	15.4 hr
			130	80	226	275'	6.8	2.0 hr	13.6 hr
			150	90	250	287'	7.1	1.8 hr	12.9 hr
			150	80	272	289'	7.1	1.7 hr	11.9 hr
3000XL Wide Body	3.0"	1390'	130	90	175	261'	8.3	2.6 hr	21.6 hr
			130	80	197	264'	8.4	2.3 hr	19.4 hr
			150	90	217	280'	8.9	2.1 hr	18.7 hr
			150	80	236	283'	9.0	1.9 hr	17.4 hr
3250 Wide Body	3.25"	975'	130	90	261	292'	6.5	1.7 hr	11.4 hr
			130	80	294	295'	6.6	1.5 hr	10.2 hr
			150	90	325	312'	7.0	1.4 hr	9.8 hr
			150	80	353	314'	7.0	1.3 hr	9.0 hr
3250XL Wide Body	3.25"	1250'	130	90	228	276'	7.9	2.0 hr	15.8 hr
			130	80	257	280'	8.0	1.8 hr	14.2 hr
			150	90	284	295'	8.5	1.6 hr	13.5 hr
			150	80	309	300'	8.6	1.5 hr	12.7 hr
3500 Wide Body	3.5"	925'	130	90	327	314'	6.7	1.4 hr	9.3 hr
			130	80	369	320'	6.8	1.2 hr	8.4 hr
			150	90	407	336'	7.1	1.1 hr	8.0 hr
			150	80	443	342'	7.3	1.0 hr	7.4 hr
3500XL Wide Body	3.5"	1150'	130	90	291	295'	7.8	1.6 hr	12.2 hr
			130	80	328	304'	8.0	1.4 hr	11.1 hr
			150	90	362	320'	8.4	1.3 hr	10.6 hr
			150	80	394	328'	8.7	1.2 hr	10.0 hr

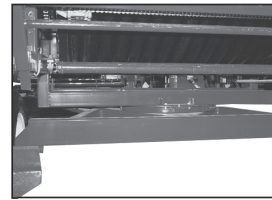
Performance is shown with appropriate Komet Twin Volume Gun. Lane spacing was obtained by taking 20% off of the published diameter of the gun. Performance data has been obtained under ideal test conditions and may be adversely affected by wind, trajectory of the gun or other factors. No representation regarding droplet condition, uniformity, or suitability for a particular application is made herein.



4000 Series Irrigation Reels

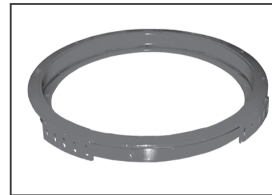
- 3750XL-WB
- 4000S WB
- 4500S WB





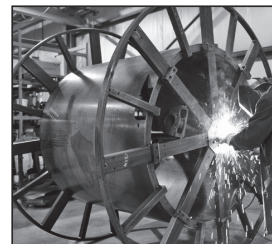
RUGGED FRAME

The lower frame is constructed of heavy wall 3 x 6 inch tubing. The upper frame is constructed of mainly 3 x 5 inch tubing. The use of steel tubing gives all Cadman Travellers higher torsional strength than typical I-beam constructions.



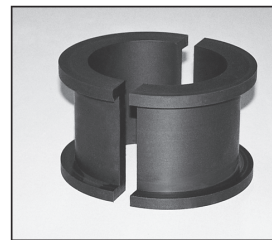
TURNTABLE

All Cadman Travellers are equipped with ball-bearing turntables. With multiple locking positions and a centrally located lock pin, positioning of the Traveller is made simple and easy.



HEAVY-DUTY DRUM

The one-piece drum core is made from 3/16" steel plate for continuous support. Cadman oversized its core diameter to prevent stress on the hose, promoting longer life and easier wrapping of the hose. With reinforcing ribs and welded construction, the Cadman drum is, by far, the strongest in the industry.



LONG-LASTING DRUM BEARINGS

The drum bearings are constructed of high strength lubricated nylon. Virtually maintenance free, these bearings will provide years of trouble-free service. The real advantage, however, is the ability to maintain oversized plumbing on the inlet side of the drum, giving you maximum efficiency. Competitors usually bottleneck the inlet so they can keep the cost of the ball bearing they use down.



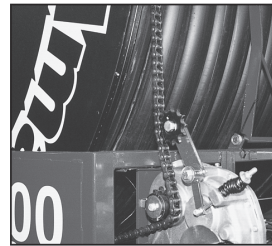
HIGH QUALITY HOSE

Cadman Travellers use only the best quality hose available. Our polyethylene hose is manufactured to ASTM and CSA standards for rough field use and long life.



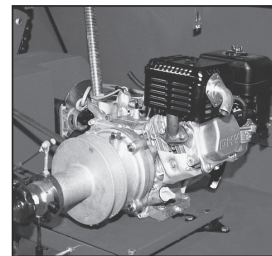
LARGE PLUMBING

Large 5" diameter plumbing is used on the reel to reduce pressure loss. Each elbow uses 2 pounds per square inch. The Cadman Traveller has far fewer elbows than used by others. We have no bottlenecks of smaller pipes and hoses. Our Traveller is not a pipefitter's nightmare! It is designed to utilize pressure to its fullest advantage in order to operate the reel easily and maintain an energy-efficient irrigation system.



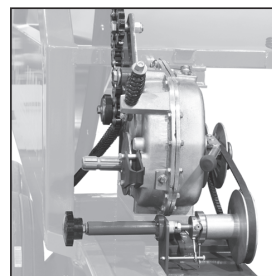
POSITIVE TRACTION CHAIN DRIVE

All Cadman Travellers are driven by a single No. 80 chain, running over the large diameter of the drum on traction pins. This gives Cadman the advantage of maximum torque amplification vs. smaller laser-cut sprockets used by others. By putting less strain on the drive system, less power is needed to rotate the drum, therefore giving you maximum efficiency.



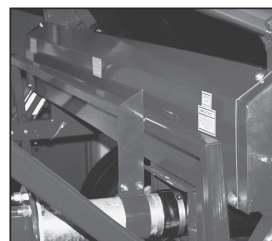
ENGINE DRIVE

The Cadman engine drive system loses "0" P.S.I. because it is self-contained and separate from the fluid irrigated, whereas pistons, bellows or turbines lose 5 to 20 P.S.I. This loss has to be overcome by a pump running harder. These other systems usually result in using less mainline or a smaller gun nozzle in order to keep the pump pressure within operating maximums.



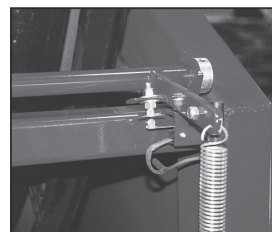
TRANSMISSION

A wide speed range is achieved in Cadman's engine drive system by using a combination of drive and driven variable speed pulleys and a clutch reduction transmission. Simply turn the knob to adjust the drive pulley to the desired speed and engage the transmission lever. There is no need to change gears to achieve a specific speed. As well, an alternate PTO wind-up is incorporated into the transmission. Very clean and easy to operate!



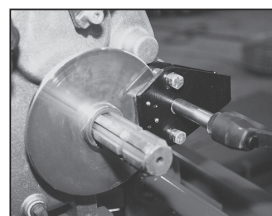
AUTO STOP

When the gun cart reaches the reel, a simple device activates two safety switches. If one switch fails, the second takes over, ensuring maximum safety for you and the machine.



HOSE BUILD-UP SAFETY

If the hose guide malfunctions for any reason, a safety switch is activated by the speed compensator to shut off the engine. This prevents the hose from miswrapping and crushing itself.



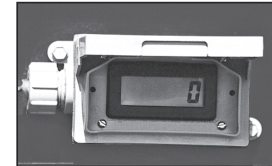
BRAKE

A disc brake ensures that proper tension is applied to the drum when unwinding the hose. This prevents recoil when the tractor comes to a stop at the end of the pull. When fully applied, the Traveller can then be moved safely from field to field without concern of recoil.



ACCURATE HOSE INDEXING

Cadman's hose guide system keeps the polyethylene hose in its place accurately and efficiently. With its rugged design, maintenance is kept to a minimum.



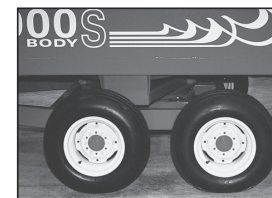
EASY-TO-READ SPEEDOMETER

All Cadman Travellers are equipped with an easy-to-read speedometer, displaying the hose retrieval rate.



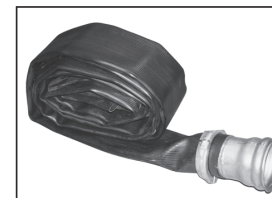
HEAVY-DUTY CRANK DOWN STABILIZERS

As standard equipment, the Cadman 4000 Series Travellers come with crank down stabilizer legs. The easy-to-use telescopic jacks are built to Cadman's specifications for rigid, trouble-free operation. As an option, hydraulic stabilizers can be installed.



TANDEM AXLE/HIGH FLOATATION TIRES

The 3750XL and 4000S Wide Body Travellers come standard with tandem axles. The tandem axle feature provides excellent maneuverability and stability. When operating in adverse conditions, weight can be transferred to the back of the tractor by using an 11-hole drawbar, while maintaining the best floatation.



FEEDER HOSE

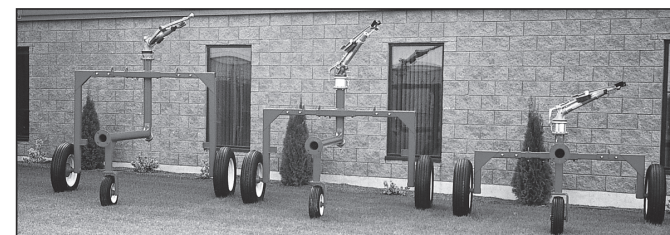
A standard 4" x 25' hose is supplied to connect the Traveller to your mainline. As with everything else, Cadman uses the best quality high pressure hose and clamps.



GUN AND CART

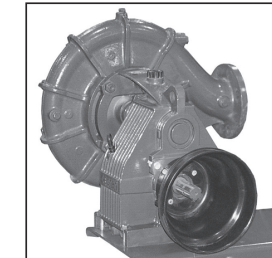
An appropriate sized quality gun is standard. Cadman offers a choice of three different carts for the 4000 Series Travellers. For low crops or manure application, a 28" clearance cart is available. For medium height crops we have a 46" clearance cart and for high crops a 62" clearance cart is available.

These rugged carts are made of steel tube construction. Based on three wheels (no skids), the carts have variable width adjustment to fit the plant rows. Riser extensions are also available as an option for orchard applications.



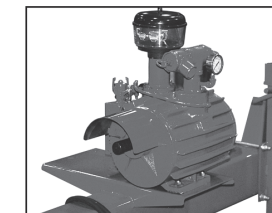
OPTIONAL CLOSE-IN SPRINKLER KIT

All Cadman Travellers are available with a sprinkler kit which allows irrigation of the area closest to the Traveller that might be missed by the primary gun on the cart.



OPTIONAL BOOSTER PUMP

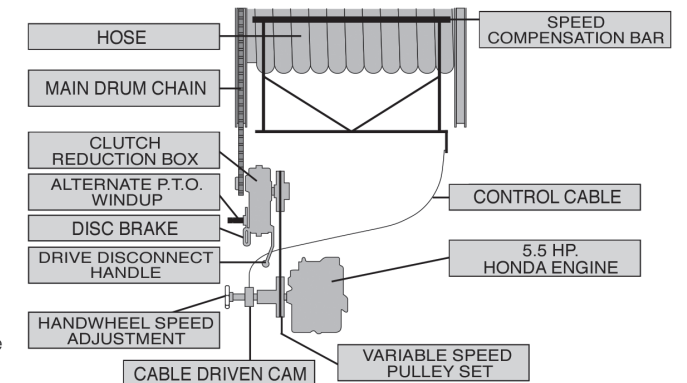
Cadman offers an appropriate-sized P.T.O. booster pump that is tongue-mounted for your convenience. This allows you to maintain a lower mainline pressure, yet still maximize the efficiency of the Traveller.



OPTIONAL AIR COMPRESSOR

Blowing the water out of the Traveller with air means up to 10,000 lbs less weight. This allows you to use smaller tractors to maneuver the machine and to pull out the polyethylene hose. Tongue-mounted for your convenience, the compressor can blow out a Traveller in less than five minutes.

TOP VIEW OF CADMAN MECHANICAL CAM DRIVE SPEED COMPENSATION



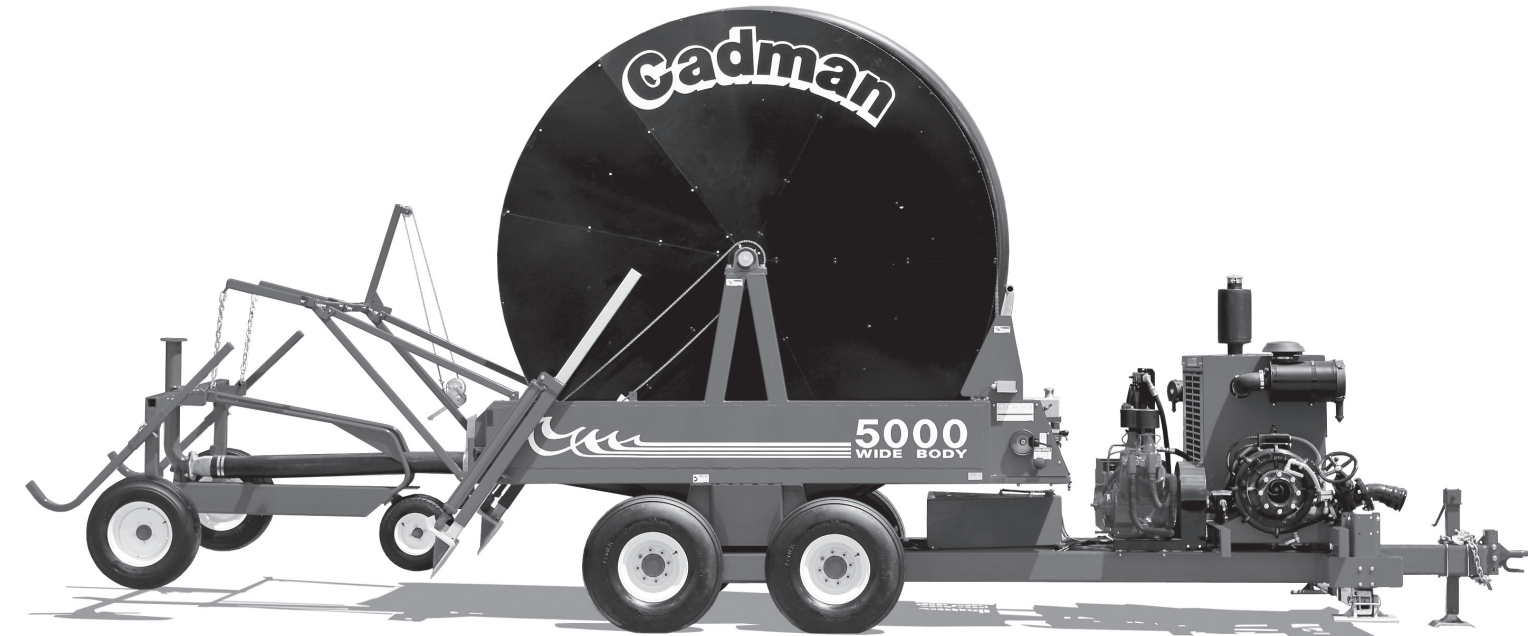
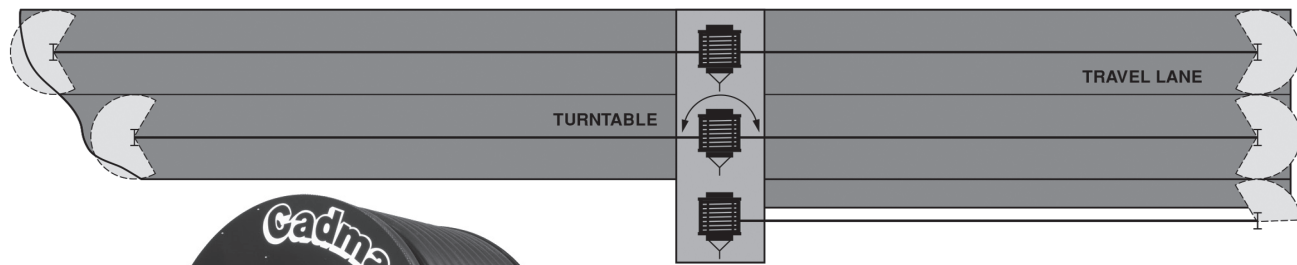
HOSE SPEED COMPENSATION

The Cadman MECHANICAL CAM DRIVE HOSE SPEED COMPENSATION SYSTEM has simplified the task of very accurately compensating the hose retrieve speed for the increase in drum diameter as hose is rewound onto the drum. Here's how it works. A sensor bar, riding against the hose as it winds onto the drum, operates a cam on the variable speed drive pulley by way of a cable. As the cam rotates, the pulley pitch is adjusted just enough to accurately compensate for changes in hose speed over the entire retrieve cycle. The result is an even application from beginning to end!



Model	Hose I.D.	Hose Length	Input P.S.I. At Traveller	Gun P.S.I.	Flow Rate G.P.M.	Lane Spacing	Acres Per Pull	Time to Apply 1 Inch /Acre	Time Per Pull
3750XL Wide Body	3.75"	1320'	130	90	321	316'	9.6	1.4 hr	13.6 hr
			130	80	362	324'	9.8	1.3 hr	12.3 hr
			150	90	400	337'	10.2	1.1 hr	11.6 hr
			150	80	434	343'	10.4	1.0 hr	10.9 hr
4000S Wide Body	4.09"	1250'	130	90	416	343'	9.8	1.1 hr	10.7 hr
			130	80	469	350'	10.0	1.0 hr	9.7 hr
			150	90	518	355'	10.2	.9 hr	8.9 hr
4500S Wide Body	4.5"	1175'	130	90	555	366'	9.9	.8 hr	8.1 hr
			130	80	627	370'	10.0	.7 hr	7.2 hr
			150	90	691	376'	10.1	.7 hr	6.7 hr
			150	80	752	381'	10.3	.6 hr	6.2 hr

Performance is shown with appropriate Komet Twin Volume Gun. Lane spacing was obtained by taking 20% off of the published diameter of the gun. Performance data has been obtained under ideal test conditions and may be adversely affected by wind, trajectory of the gun or other factors. No representation regarding droplet condition, uniformity, or suitability for a particular application is made herein.



Above: 3750XL-WB

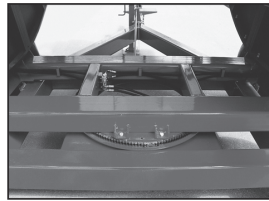
Right: 4000S-WB



5000 Series Irrigation Reels

- 3600 XL-B
- 4000 XL-WB
- 4500 WB
- 5000 WB





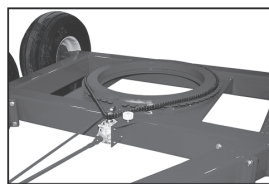
RUGGED FRAME

The lower frame is constructed of heavy wall 6 x 8 inch tubing. The upper frame is constructed of mainly 3 x 5 inch tubing. The use of steel tube gives all Cadman Travellers higher torsional strength than typical I-beam constructions.



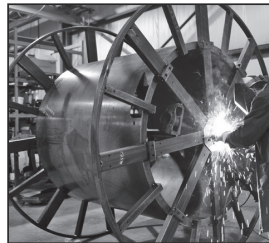
TANDEM AXLE/HIGH FLOATATION TIRES

Four 6,500 pound spindles support 14L x 16.1 inch rib implement tires. The tandem axle feature provides maneuverability and stability, far superior and safer than a 4-wheel wagon style or a single axle. When operating in adverse conditions, weight can be transferred to the back of the tractor by using an 11-hole drawbar, while maintaining the best floatation.



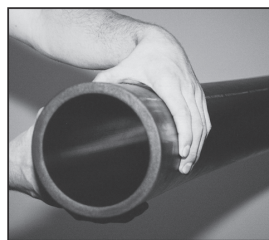
TURNTABLE

All Cadman Travellers are equipped with ballbearing turntables. With 44 different locking positions and centrally located controls, precise positioning of the Traveller is made simple and easy. Hydraulic turntable is optional.



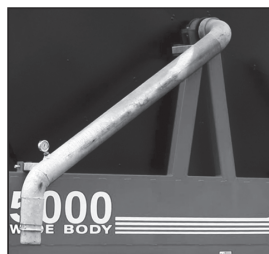
HEAVY-DUTY DRUM

The one-piece drum core is made from 1/4" steel plate for continuous support. Cadman oversizes its core diameter to prevent stress on the hose, promoting longer life and easier wrapping of the hose. With reinforcing ribs and welded construction, the Cadman drum is, by far, the strongest in the industry.



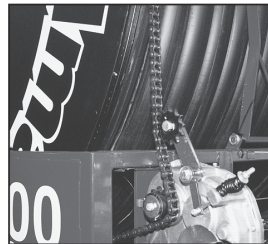
HIGH QUALITY HOSE

Cadman Travellers use only the best quality hose available. Our polyethylene hose is manufactured for rough field use and long life.



LARGE PLUMBING

Large 5.5" diameter plumbing is used on the reel to reduce pressure loss. Each elbow uses 2 pounds per square inch. The Cadman Traveller has far fewer elbows than used by others. We have no bottlenecks of smaller pipes and hoses. Our Traveller is not a pipefitter's nightmare! It is designed to utilize pressure to its fullest advantage in order to operate the reel easily and maintain an energy-efficient irrigation system.



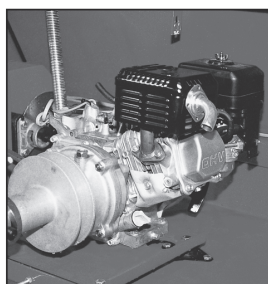
POSITIVE TRACTION CHAIN DRIVE

All Cadman Travellers are driven by a single No. 80 chain, running over the large diameter of the drum on traction pins. This gives Cadman the advantage of maximum torque amplification vs. smaller laser-cut sprockets used by others. By putting less strain on the drive system, less power is needed to rotate the drum, therefore giving you maximum efficiency.



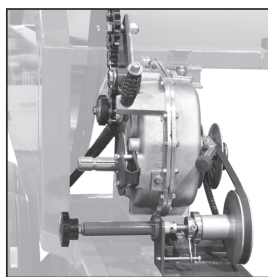
HYDRAULIC STABILIZER LEGS

Making your work easier, Cadman provides, as standard equipment, two hydraulic stabilizer legs to maintain stability when irrigating.



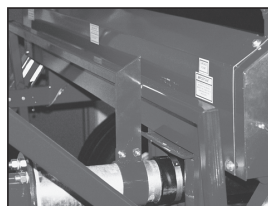
ENGINE DRIVE

The Cadman engine drive system loses "0" P.S.I. because it is self-contained and separate from the fluid irrigated, whereas pistons, bellows or turbines lose 5 to 20 P.S.I. This loss has to be overcome by a pump running harder. These other systems usually result in using less mainline or a smaller gun nozzle in order to keep the pump pressure within operating maximums.



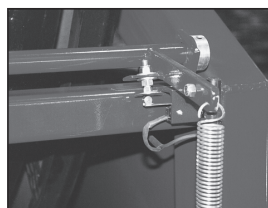
TRANSMISSION

A wide speed range is achieved in Cadman's engine drive system by using a combination of drive and driven variable speed pulleys and a clutch reduction transmission. Simply turn the knob to adjust the drive pulley to the desired speed and engage the transmission lever. There is no need to change gears to achieve a specific speed. As well, an alternate PTO wind-in is incorporated into the transmission. Very clean and easy to operate!



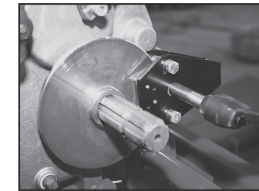
AUTO STOP

When the gun cart reaches the reel, a simple device activates two safety switches. If one switch fails, the second takes over, ensuring maximum safety for you and the machine.



HOSE BUILD-UP SAFETY

If the hose guide malfunctions for any reason, a safety switch is activated by the speed compensator to shut off the engine. This prevents the hose from miswrapping and crushing itself.



BRAKE

A disc brake ensures that proper tension is applied to the drum when unwinding the hose. This prevents recoil when the tractor comes to a stop at the end of the pull. When fully applied, the Traveller can then be moved safely from field to field without concern of recoil.



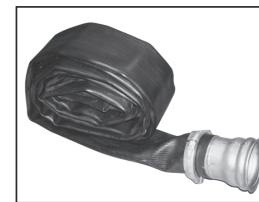
EASY-TO-READ SPEEDOMETER

All Cadman Travellers are equipped with an easy-to-read speedometer, displaying the hose retrieval rate.



ACCURATE HOSE INDEXING

Cadman's hose guide system keeps the polyethylene hose in its place accurately and efficiently. With its rugged design, maintenance is kept to a minimum.



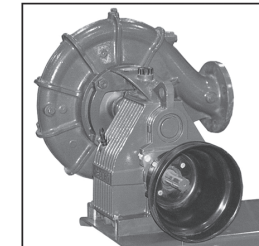
FEEDER HOSE

A standard 5" x 25' hose is supplied to connect the Traveller to your mainline. As with everything else, Cadman uses the best quality high pressure hose and clamps.



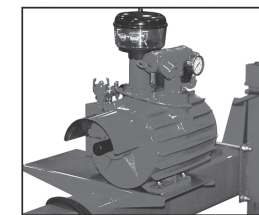
GUN AND CART

An appropriate sized quality gun is standard. Cadman offers a choice of either a 46" crop clearance cart or 62" crop clearance cart. These rugged carts are made of steel tube construction. Based on three wheels (no skids), the carts have variable width adjustment to fit the plant rows. To prevent damage to the crop by the water stream, the cart is self-leveling using two stabilizer legs. Riser extensions for orchard applications are optional.



OPTIONAL BOOSTER PUMP

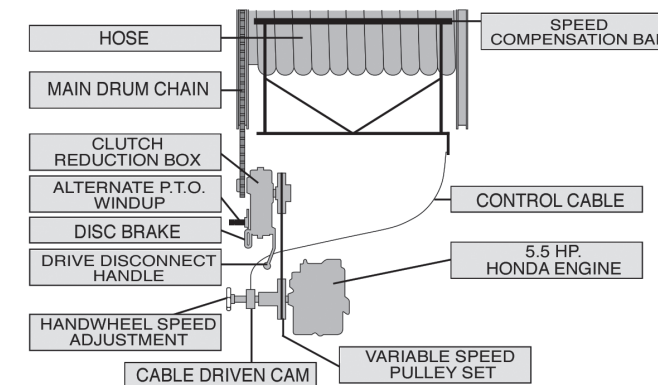
Cadman offers an appropriate-sized P.T.O. booster pump that is tongue-mounted for your convenience. This allows you to maintain a lower mainline pressure, yet still maximize the efficiency of the Traveller.



OPTIONAL AIR COMPRESSOR

Blowing the water out of the Traveller with air means up to 10,000 lbs less weight. This allows you to use smaller tractors to maneuver the machine and to pull out the polyethylene hose. Tongue-mounted for your convenience, the compressor can blow out a Traveller in less than five minutes.

TOP VIEW OF CADMAN MECHANICAL CAM DRIVE SPEED COMPENSATION

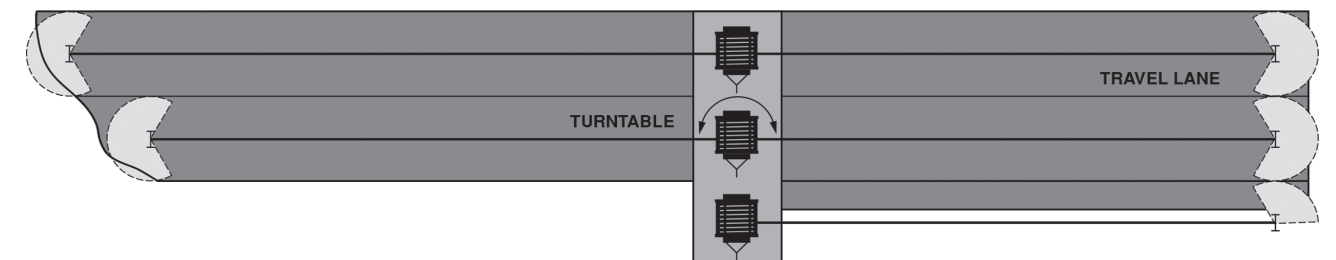


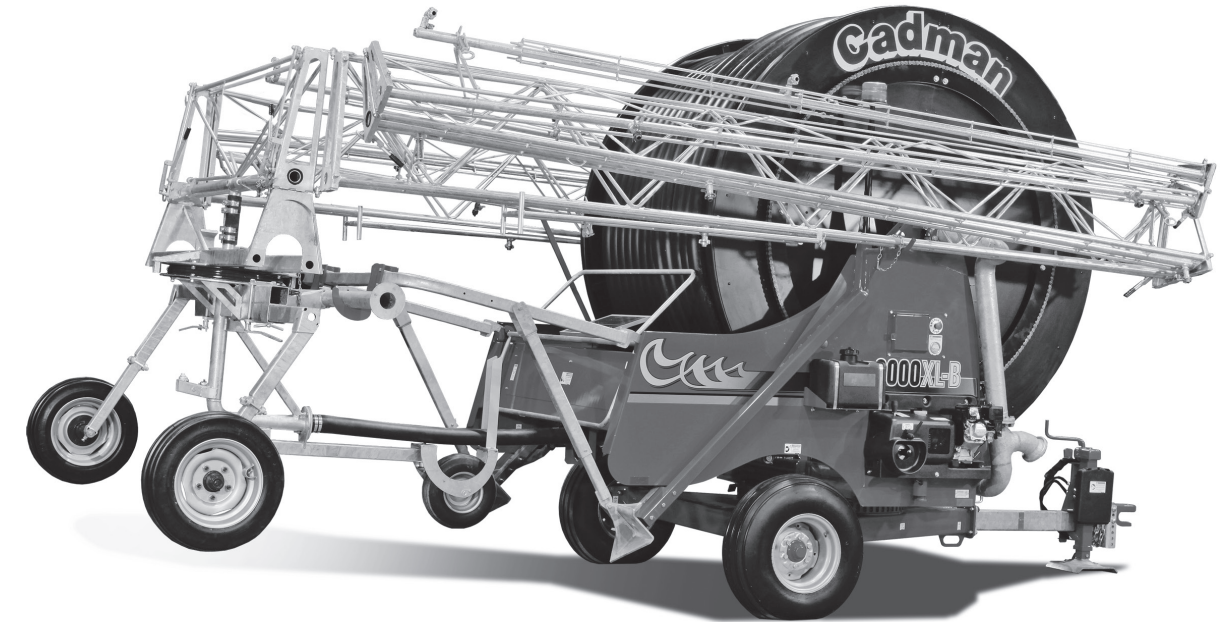
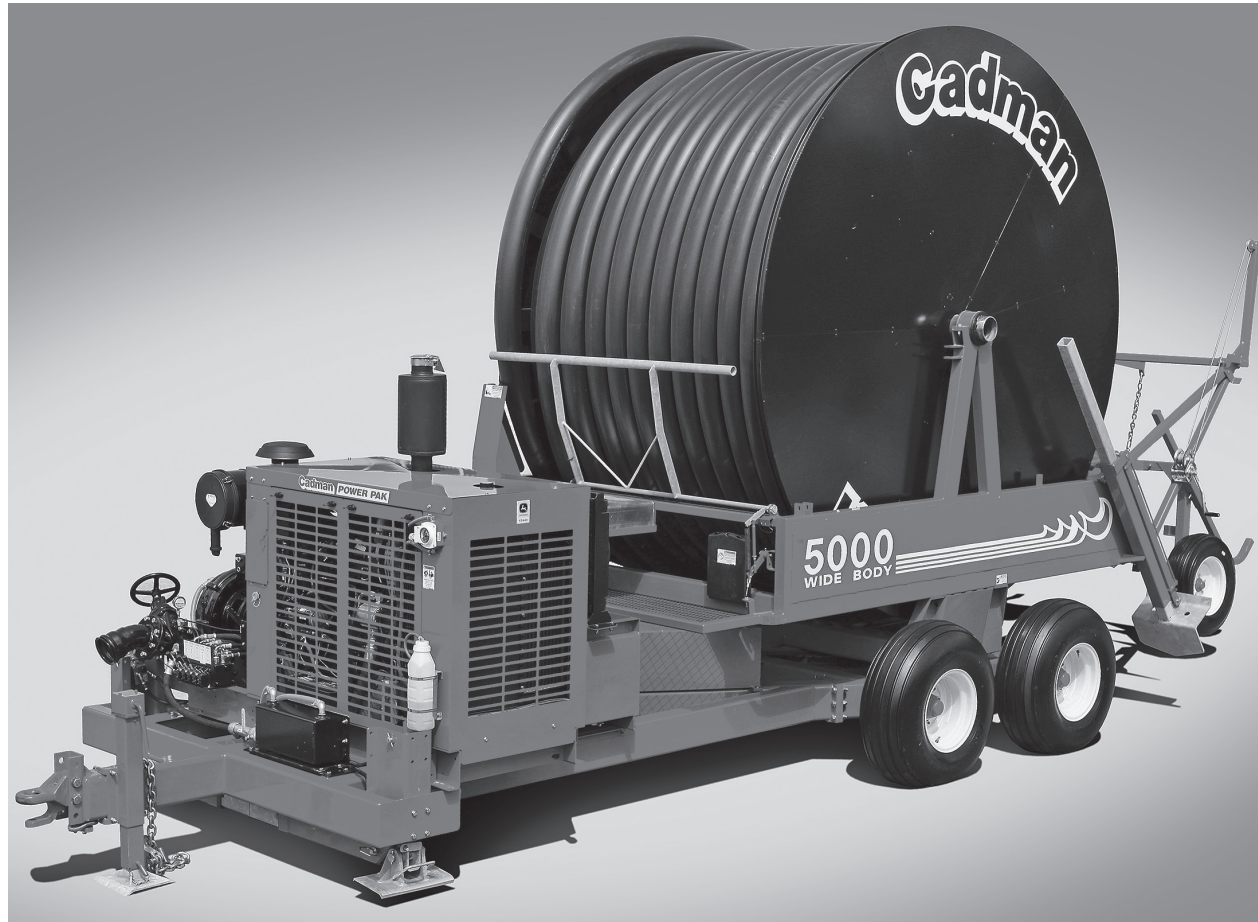
HOSE SPEED COMPENSATION

The Cadman MECHANICAL CAM DRIVE HOSE SPEED COMPENSATION SYSTEM has simplified the task of very accurately compensating the hose retrieve speed for the increase in drum diameter as hose is rewound onto the drum.

Here's how it works:

A sensor bar, riding against the hose as it winds onto the drum, operates a cam on the variable speed drive pulley by way of a cable. As the cam rotates, the pulley pitch is adjusted just enough to accurately compensate for changes in hose speed over the entire retrieve cycle. The result is an even application from beginning to end!





Model	Hose I.D.	Hose Length	Input P.S.I. At Traveller	Gun P.S.I.	Flow Rate G.P.M.	Lane Spacing	Acres Per Pull	Time to Apply 1 Inch /Acre	Time Per Pull
3600XL-B	3.6"	2250'	130	90	220	290'	15.0	2.1 hr	30.9 hr
			130	80	247	291'	15.0	1.8 hr	27.6 hr
			150	90	273	308'	15.9	1.7 hr	26.5 hr
			150	80	297	309'	16.0	1.5 hr	24.4 hr
4000XL Wide Body	4.0"	1400'	130	90	369	330'	10.6	1.2 hr	13.1 hr
			130	80	416	337'	10.8	1.1 hr	11.8 hr
			150	90	459	347'	11.2	1.0 hr	11.0 hr
4000XL Wide Body	4.0"	1550'	150	80	500	354'	11.4	.9 hr	10.3 hr
			130	90	349	320'	11.4	1.3 hr	14.8 hr
			130	80	394	328'	11.7	1.2 hr	13.5 hr
4000XL Wide Body	4.0"	1550'	150	90	434	343'	12.2	1.0 hr	12.8 hr
			150	80	472	349'	12.4	1.0 hr	12.0 hr
			130	90	317	316'	13.4	1.4 hr	19.2 hr
4000XL Wide Body	4.0"	1850'	130	80	357	324'	13.8	1.3 hr	17.5 hr
			150	90	394	332'	14.1	1.2 hr	16.3 hr
			150	80	429	340'	14.4	1.1 hr	15.3 hr
4500 Wide Body	4.5"	1320'	130	90	519	356'	10.8	.9 hr	9.4 hr
			130	80	585	362'	11.0	.8 hr	8.5 hr
			150	90	646	371'	11.2	.7 hr	7.9 hr
5000 Wide Body	5.0"	1200'	150	80	702	376'	11.4	.6 hr	7.4 hr
			130	90	719	404'	11.1	.6 hr	7.0 hr
			130	80	812	412'	11.3	.6 hr	6.3 hr
5000 Wide Body	5.0"	1200'	150	90	895	432'	11.9	.5 hr	6.0 hr
			150	80	973	436'	12.0	.5 hr	5.6 hr

Performance is shown with appropriate Komet Twin Volume Gun or Nelson Big Gun. Lane spacing was obtained by taking 20% off of the published diameter of the gun. Performance data has been obtained under ideal test conditions and may be adversely affected by wind, trajectory of the gun or other factors. No representation regarding droplet condition, uniformity, or suitability for a particular application is made herein.

Cadman Booms

- C-30
- C-40
- C-50
- C-64



Irrigation Equipment

Irrigation Booms

Three Wheel Carts

Ranging in size from 115 to 210 feet, Cadman four-wheel chassis booms are efficient, tough, reliable and surprisingly versatile.

All are easy to operate, can be folded by one person in just a few minutes for transport and can be operated with almost any make and size of hose reel.

Efficient

- Using a boom can reduce water consumption by 20% compared with raingun systems.
- High flow rates allow faster retraction enabling large areas to be covered in less time.
- Controlled droplet size reduces soil damage. Large droplets can be selected to reduce drift while fine droplets can be used to minimize damage to very delicate crops.
- Reduced impact from small droplets also reduces soil capping and soil erosion.
- Low pressure operation helps reduce pumping costs and puts less strain on the pipeline.

Tough

- Booms are fully galvanized and stainless steel pipework is an option for corrosive liquids.
- The irrigators can be towed and operated from either end and the unique offset hose feed keeps the hosereel pipe in the wheel track, alleviating traction problems.
- Models currently available include the C35, C50, C58 and C64 (numbers designate length in meters) Options developed in conjunction with farmers around the world make the booms highly versatile.

	C18	C24	C30
Boom length (L)	18 m (59')	24 m (79')	29 m (95')
Lane spacing (l)	18-32 m (59'-106')	24-42 m (79'-138')	30-48 m (95'-157')
Band width (D)	10-25 m (33'-82')		
Flow m ³ /hr (imp gpm)	14-30 (51-110)	14-44 (51-161)	14-50 (51-180)
Operating pressure	1-4 bar (15-60 psi)		
Number of outlets	9	11	13
Folded length	5m (16'5")		
Folded width	2.8 m (9'3")	3.4 m (11'2")	3.4 m (11'2")
Track width (T)	1.5 to 4m (60"-160")		
Weight	400 kg	450 kg	460kg



Figures are for reference purposes only are not binding. We reserve the right to alter specifications without prior notice.

Boom size/ lane spacing	Flow rate m ³ /hr (imp gpm)	Application rate (mm)							
		5	10	15	20	25	30	35	40
C18/24m (79')	16 (59)	136	68	45	34	28	22	19	17
	22 (81)	182	91	61	46	37	30	26	23
C24/30m (98')	22 (81)	145	73	48	37	29	24	21	18
	27 (99)	182	92	60	46	36	30	26	23
C30/36m (118')	27 (99)	152	76	51	38	30	25	22	19
	36 (132)	196	98	66	49	39	33	28	

These flow rates are examples only - there are a wide variety of flow rates for each model.

Irrigation Equipment

Irrigation Booms

Four Wheel Carts

Ranging in size from 115 to 210 feet, Cadman four-wheel chassis booms are efficient, tough, reliable and surprisingly versatile.

All are easy to operate, can be folded by one person in just a few minutes for transport and can be operated with almost any make and size of hose reel.

Efficient

- Using a boom can reduce water consumption by 20% compared with raingun systems.
- High flow rates allow faster retraction enabling large areas to be covered in less time.
- Controlled droplet size reduces soil damage. Large droplets can be selected to reduce drift while fine droplets can be used to minimize damage to very delicate crops.
- Reduced impact from small droplets also reduces soil capping and soil erosion.
- Low pressure operation helps reduce pumping costs and puts less strain on the pipeline.

Tough

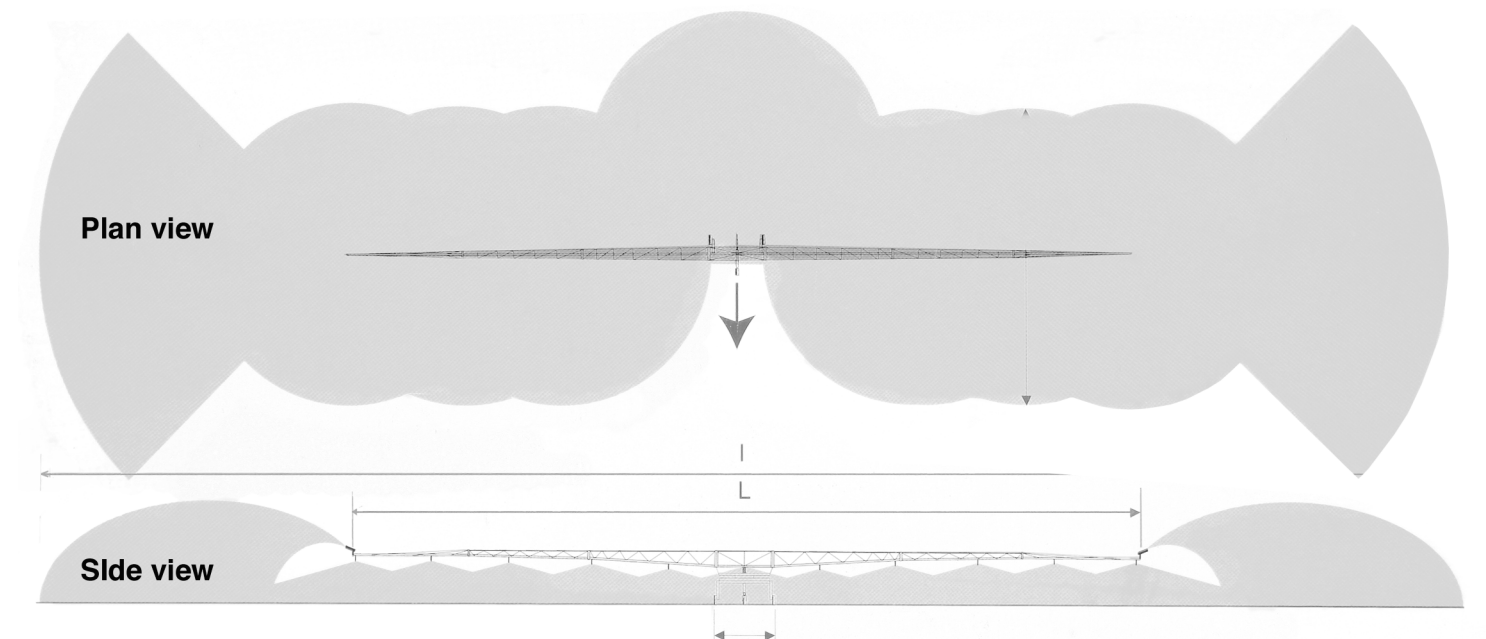
- Booms are fully galvanized and stainless steel pipework is an option for corrosive liquids.

- The irrigators can be towed and operated from either end and the unique offset hose feed keeps the hosereel pipe in the wheel track, alleviating traction problems.

- Models currently available include the C35, C50, C58 and C64 (numbers designate length in meters) Options developed in conjunction with farmers around the world make the booms highly versatile.

	35	50	58	R64
Boom length (L)	35m (115')	50m (154')	58m (190'2")	64m (210')
Lane spacing (l)	35-55m (115'-180')	50-80m (154'-262')	58-86m (190'-282')	64-72m (210'-236')
Band width (D)	10-25m (33'-82')			
Flow m ³ /hr (imp gpm)	22-50 (80-183)	22-82 (80-300)	22-82 (80-300)	22-82 (80-300)
Operating pressure	1-4 bar (15-60 psi)			
Number of outlets	12	16	18	20
Folded length	7.1m (23'3")	7.1m (23'3")	7.2m (23'7")	7.2m (23'7")
Folded width	2.3m (7'6")	3.5m (11'6")	4.15m (13'6")	4.15m (13'6")
Wheelbase	3.8m (12'6")			
Track width (T)	1.5 to 2.2m (60"-88")			
Weight	1120 kg	1350 kg	1430 kg	1470 kg
Turning circle	7.2m (23'6")			

Figures are for reference purposes only and are not binding. We reserve the right to alter specifications without prior notice.



Take Care of Your Soil



And it will take care of you.

Ask your local Cadman dealer about our quality manure handling products.

- Drag Reels • Hose Caddies • Power Units • Injectors • Booms • Pumps • Pump Trailers
- Storage • Ecodrum™ Composters • Hoses • Couplings, Fittings, & Accessories

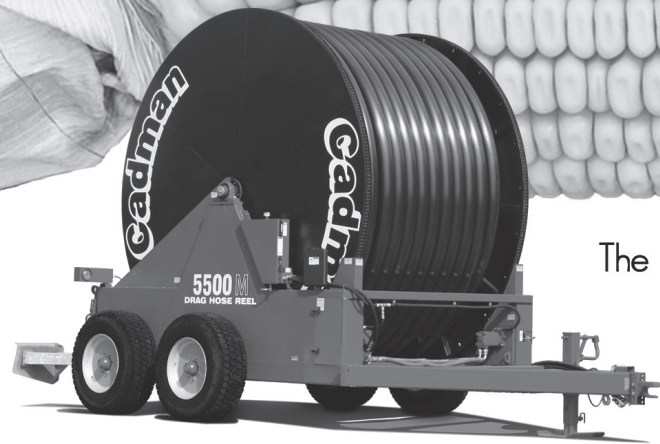


www.cadmanpower.com

Simple, Fast, Efficient... *Incredible Yields.*



The World's Most Advanced Drag Hose System.



www.cadmanpower.com



STRENGTH
SIMPLICITY
DEPENDABILITY



CMA (Continuous Manure Applicator)

Why the CMA?

- Use as standard drag hose in the spring
- Use for side-dressing row crops
- Irrigate crops when water is required
- Use as standard drag hose in the fall
- **Payback in two seasons or less!**

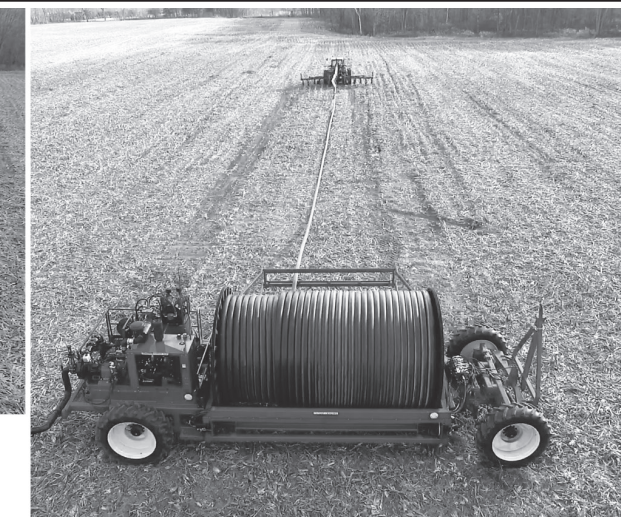
Details

- Hose I.D. & Length: 5.5" x 2700'(823m)
(Other sizes available upon request.)
- Capacity: 800-1300 GPM



Benefits

- One person operation
- Hose deployment and retrieval is controlled remotely from applicator tractor.
- Pull the Cadman Hard Hose (CHH) out as far as a 1/2 mile.
- Using CHH and a row crop applicator compacts the soil much less than a tanker.
- Put the manure nutrients in the soil when the crop can utilize it the most.
- Decrease or eliminate use of commercial fertilizers
- Get the most nutrients from your manure and side-dress your crop up to 4' tall.
- Increase yield by 7 to 15%



How it Works

- The tractor pulls an injector with swivel arm attached to it. The arm pulls out the 5.5" I.D. hard hose away from the CMA and injects 30 or 40' wide down a set of rows.
- When the tractor gets to the opposite end of the field, the tractor turns 180° and comes back down the field injecting another 30 or 40' strip.
- When the tractor turns, the swing arm - which is the same length as the injector, swivels on a pivoting wheel at the end of the arm and the hose returns to the CMA in the same row that it was pulled out.
- The tractor ground speed on the return trip is synchronized with the rate of speed that the CMA rewinds the hose.
- The operator controls the 4WD CMA reel and steering remotely from the tractor cab. Before the operator completes his return trip, the remote automatically moves the CMA forward another 60 or 80' in order to start another pass.

Injector Options

- Choose from 30 or 40' wide
- Galvanized wings and frame
- AerWay®, Dietrich, VTI and Yetter Avenger tooling available. For other tooling, please call.
- Vogelsang Dribble-Bar BackPac also available.



The CMA automatically moves ahead when the tractor turns to start another row.



Here a tractor with injector returns toward the CMA in a soy bean field.

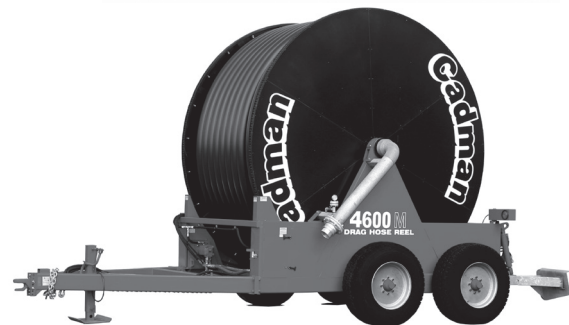


The hose guide can raise 4' above the ground keeping the hard hose from dragging over crops.





- 4500M**
- 4.5" x 1320' polyethylene hard hose
 - Covers up to 75 acres per set-up
 - Walking beam axle for smooth operation over rough fields
 - Cadman positive traction drive chain



- 4600M**
- 4.6" x 1550' polyethylene hard hose
 - Up to 60,000 gallons per hour
 - Covers up to 105 acres per set-up
 - Walking beam axle for smooth operation over rough fields
 - Cadman positive traction drive chain



- 5000M-XL**
- 5.0" x 2000' polyethylene hard hose
 - Up to 64,500 gallons per hour
 - Covers up to 160 acres per set-up
 - Walking beam axle for smooth operation over rough fields



- 5100M-XL**
- 5.1" x 1700' polyethylene hard hose
 - Up to 75,000 gallons per hour
 - Covers up to 140 acres per set-up
 - Walking beam axle for smooth operation over rough fields



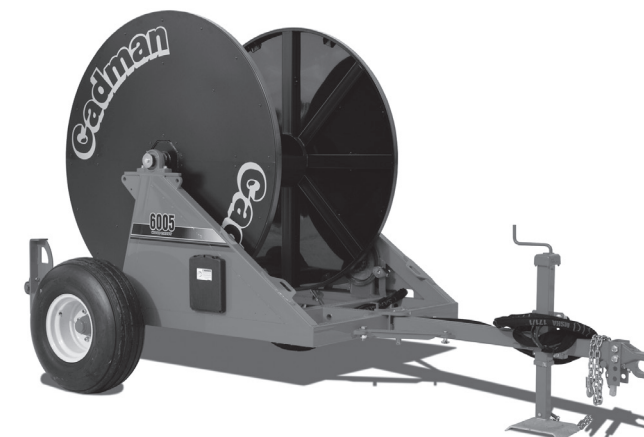
- 5500M**
- 5.5" x 1650' polyethylene hard hose
 - Up to 93,000 gallons per hour
 - Covers up to 140 acres per set-up
 - Walking beam axle for smooth operation over rough fields



- 6003**
- HOSE I.D. & LENGTH: Holds 3: 6" x 660' hoses
 - AXLE: 3 Point Hitch
 - WEIGHT: 1,500 lbs.

Highlights:

- Heavy Duty Frame
- Cadman Single Chain Traction
- Pin Drive System
- Hydraulic Drive
- Open Drum Design
- Quick Hitch
- Handy Storage Compartments



- 6005**
- HOSE I.D. & LENGTH: Holds 5 6" x 660' Hoses
 - AXLE: 1
 - WEIGHT: 2,288

Highlights:

- Holds up to 1 1/4 miles of 6" soft hose
- Available in either 5 or 10 hose capacity
- Heavy duty frame
- Cadman Positive Traction chain drive
- Optional tandem walking beam axle
- Optional rear hydraulic controls
- 16.5L x 16.1 High flotation tires, available with power implement or diamond tread pattern



- 6010**
- HOSE I.D. & LENGTH: Holds Will hold six 8" TPU hose sections*
 - AXLE: 1
 - WEIGHT: 3,580 lbs.

Highlights:

- Hi-floatation 44 x 18.00-20 Tires
- Impeller, stronger construction
- Corrosion-resistant drum sides
- Hydraulic drive hose retrieve w/ heavy duty hi-torque drive motor
- Hydraulic pivoting tongue
- Shift to float / free-wheel from tractor cab
- Optional rear hose roller -or- hose guide bar

* With an experienced operator wrapping the hose as tightly as possible using 8" Mandals Superman Hose and Cadlock Couplings.



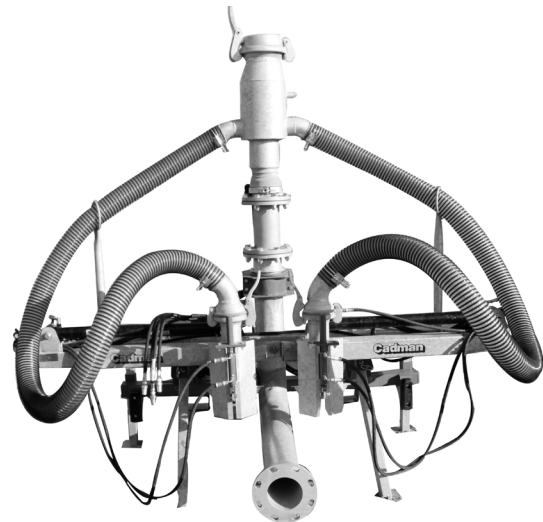
Two Nozzle Boom

The **Cadman Manure Boom System** is a simple and economical way to spread liquid manure. It can be used with either hard hose or soft hose systems. With a unique hydraulic splash plate system, the operator can raise or lower the plates to easily achieve the desired width and overlap in the center. All liquid components are galvanized for maximum endurance.

The Cadman two nozzle boom is designed to handle up to 1200 GPM and achieve a spread width of up to 30 feet.

The Cadman two nozzle boom features include:

- Manual fold-up for easy transport
- Ball catcher for use with a blow-out ball or pig
- Quick couplings on hoses for easy clean-out
- Splash plates can slide on main rail for easy width change
- Swing arm for use on both hard & soft hose systems
- Optional 4" flow meter



Two-Nozzle Boom

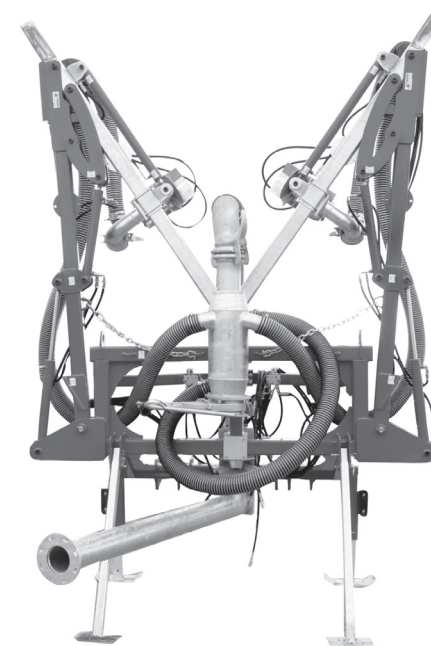


Three Nozzle Boom

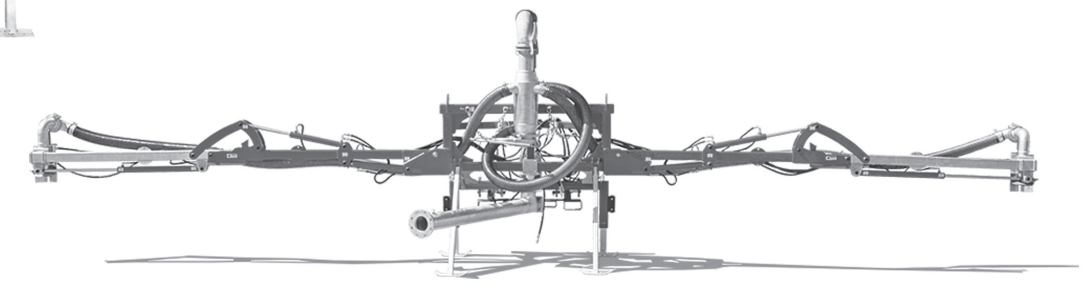
The Cadman three nozzle boom is just as easy and economical to use as the two nozzle boom, but with higher capacity. With its unique design, the Cadman three nozzle boom can handle up to 1800 GPM and achieve a spread width of up to 50 feet.

The Cadman three nozzle boom features include:

- Hydraulic fold-up for easy transport
- Ball catcher for use with a blow-out ball or pig
- Quick couplings on hoses for easy clean-out
- Splash plates can slide on main rail for easy width change
- Swing arm for use on both hard & soft hose systems
- Optional 6" flow meter



Three-Nozzle Boom



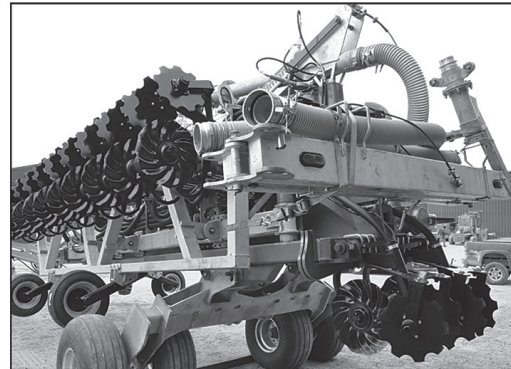


Cadman 40' Hydraulic Injector with custom galvanization.

Bigger Than The Old Boss.

Highlights:

- 30', 40' and 50' models available
- 11' wide when folded for convenient highway travel
- Built in Vogelsang ExaCut Distributor
- Versatile 2-point hitch
- Hydraulic tongue extends independently of the wings
- 2D Conventional grade control
- Blow-out ball catcher
- 6" Plumbing
- Hydraulically controlled outrigger stabilizers



The swing-arm folds nicely for storage.



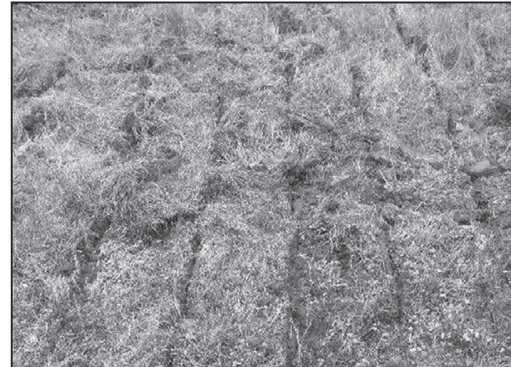
a



b



c



A field post-injection with Dietrich tooling.

Options:

- Galvanized wings and frame
- Krohne Flow Meter
- 8" Plumbing
- Dietrich, VTI and Yetter Avenger tooling available. For other tooling, please call.



Only 11.5' wide when folded.



30' Injector with Dietrich tooling.



40' Injector with VTI tooling.



Rear view of a 40' Injector with VTI tooling.

IT IS TIME TO RE-THINK
MANURE
APPLICATION



PATENT PENDING

CMA

Continuous Manure Applicator

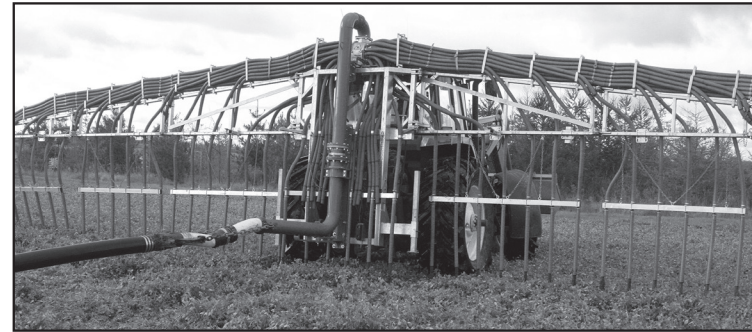




Highlights:

Benefits:

- Environmentally friendly
- Efficient and flexible spreading
- Compatible and easily configured
- Cutting-edge technology and superior quality
- Spread liquid manure at precisely the right place



Section Management:

- Reliable hose close-off for section switching, tramlines, close-off of individual groups
- Hose close-off customized to the field and the spreading system
- Quick operation by pressing a button and/or fully automated control from the cab
- Easy to retrofit on existing dribble bar systems

Section Switching

The right or left side arm can be turned off. This can be done pneumatically, hydraulically or manually. In addition, an individual pneumatic or manual shutoff can be installed for individual hoses.

Features:

- Works with both hard and soft hose systems
- Highly precise distribution with a dual symmetrical hose arrangement
- Transport position following the tractor
- Remote unlocking and folding of the side arms
- Mounted in a 3-point design
- The stable supporting frame can handle strong tension
- Evenly spaced lines of spread manure from the drain hoses promote optimum growth
- No additional accessories required for the tractor
- EasyPack preinstallation



BackPac Options:

- DropStop with the CFC hose shut-off
- Sectional shutoff
- Oscillation compensation (starting at 18 m)
- The system is folded up semi-hydraulically

Why Vogelsang?

Vogelsang is the inventor of close-to-the-ground spreading technique
Vogelsang is the market leading manufacturer of high performance dribble bar systems
The latest technology is highly accurate spreading systems at large working widths of 115 feet

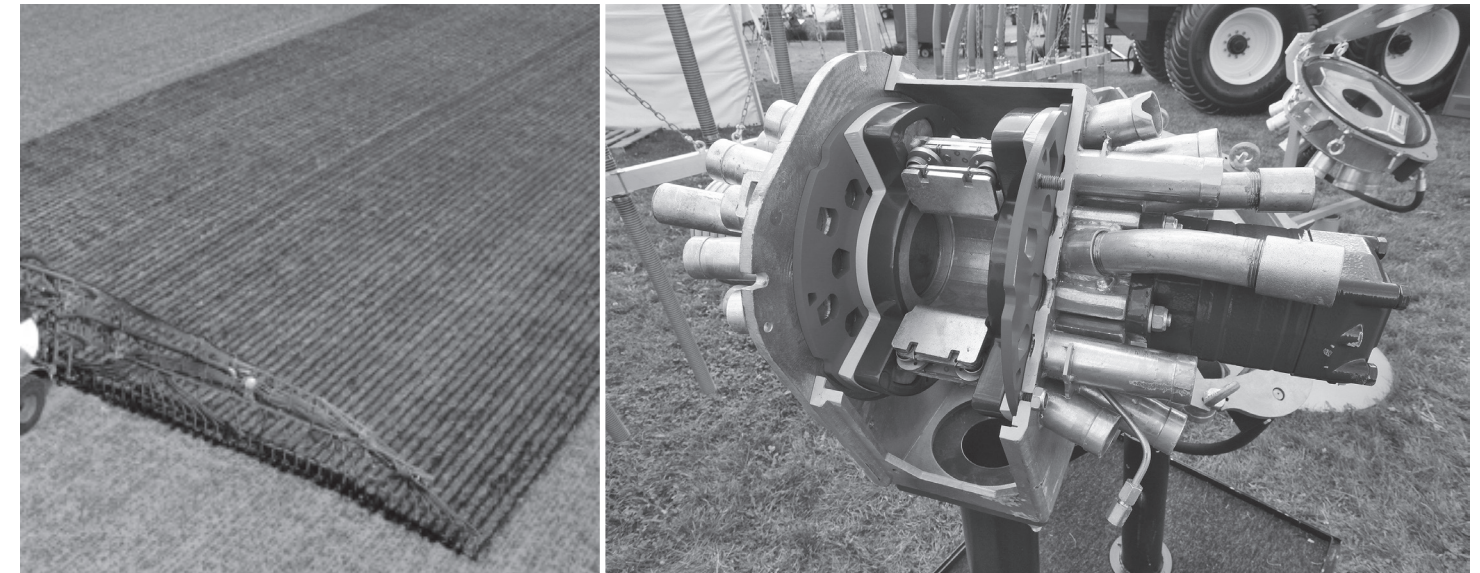
- High power of impact
- Long life period
- Low working costs
- High precision --> perfect application for efficient and flexible spreading

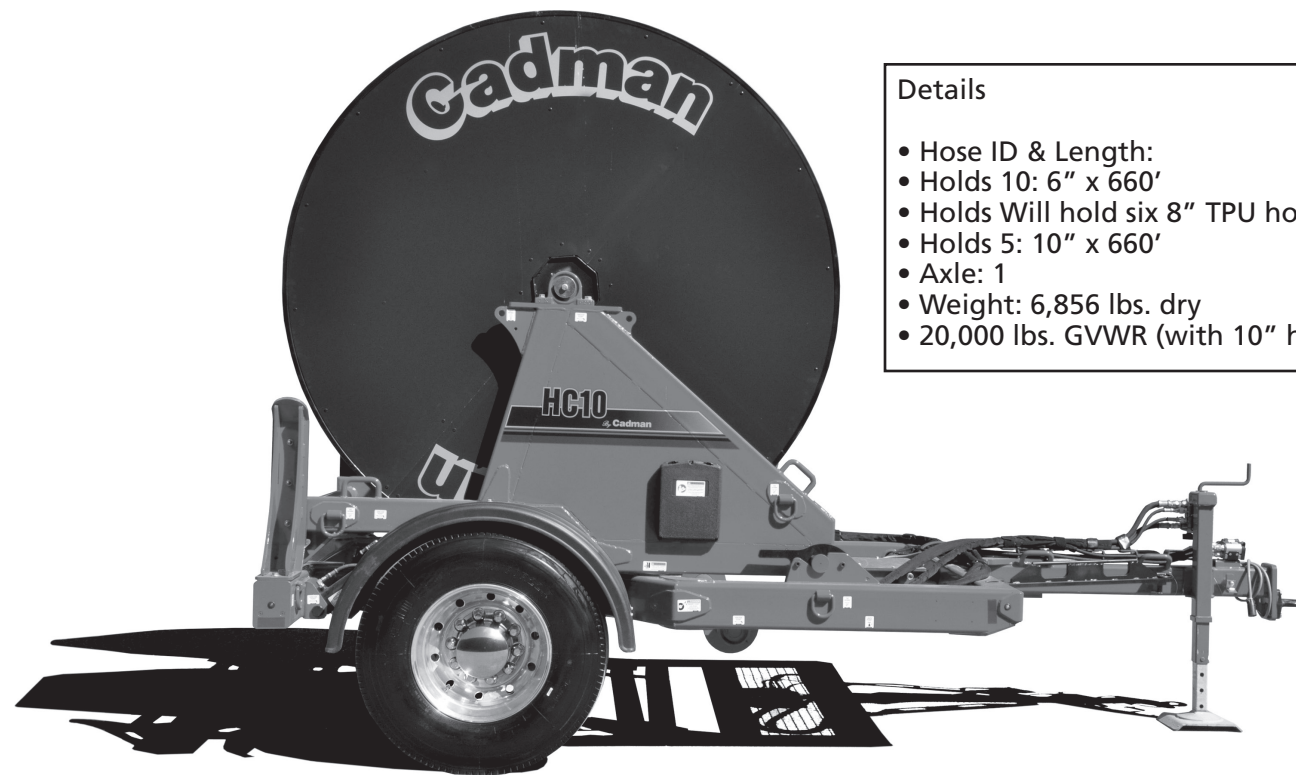
Why Vogelsang?

Vogelsang works continuously with independent agricultural and environmental organizations to further develop and improve its dribble bar systems

Vogelsang systems are tested under the harshest conditions for durability and accuracy

The systems are also designed to be easily mounted to any type of slurry tank vehicle. Mounting may be either fixed, or as a removable 4-point hitch.





Details

- Hose ID & Length:
- Holds 10: 6" x 660'
- Holds Will hold six 8" TPU hose sections*
- Holds 5: 10" x 660'
- Axle: 1
- Weight: 6,856 lbs. dry
- 20,000 lbs. GVWR (with 10" hose)

Meet the crème de la crème of hose reels. Engineered for endless miles of highway travel, the HC10 Hose Caddy conveniently enables the operator to pull multiple reels behind truck, a flatbed tractor trailer, or can be mounted to the HC10T trailer.

DOT rated, the HC10 Hose Caddy is in a class by itself enabling one to deliver massive volumes of fluid at a moments notice from the pumping source. This sharp, sophisticated hose reel simplifies hose deployment and retrieval saving time, money, and minimizing problematic downtime.

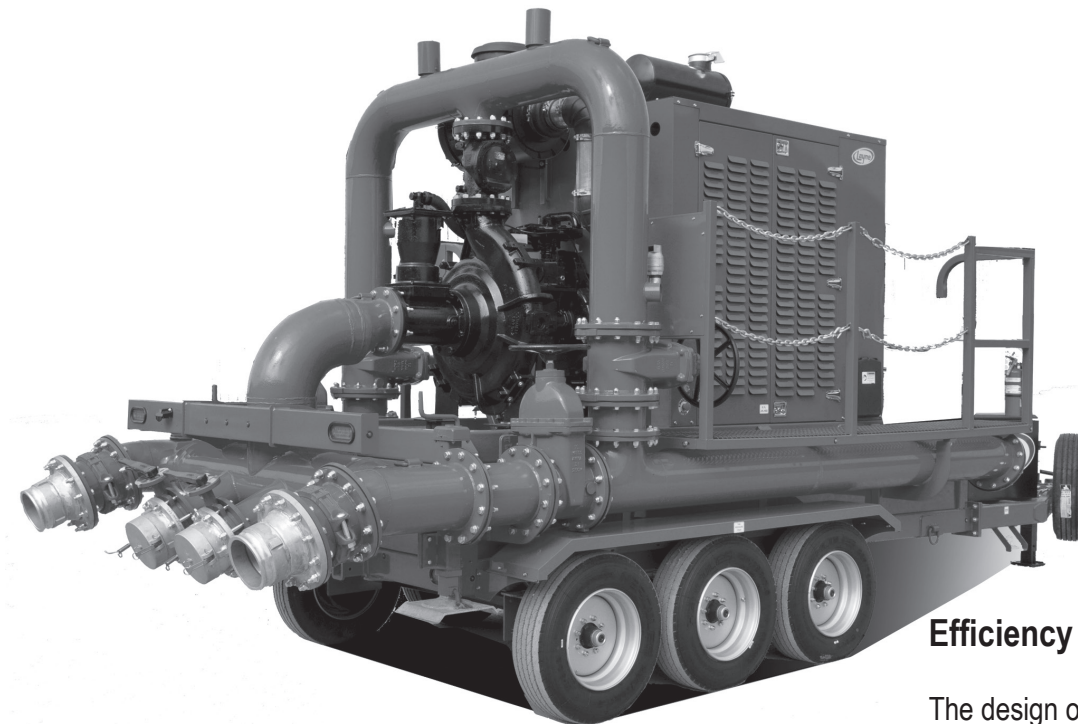
Benefits

- Equipped for highway travel
- Increase productivity and avoid high labor costs
- Accurately position hose where you want and avoid untimely hose damage
- Easy to hook-up/unhook multiple trailers for convenient travel
- Reduce routine maintenance, avoid expensive repairs and replacement costs
- Save on labor costs by allowing you to minimize your manpower
- Extend the life of your hose by preventing damage during retrieval

Features

- Meets highway markings and width requirements
- Corrosion-resistant drum sides
- Hydraulic drive hose retrieve with heavy duty hi-torque motor
- Simple one-lever connector for all hydraulic lines
- Shift to float / free-wheel from cab
- Hydraulic pivoting tongue has 3 different pivot points
- Drum can be separated from trailer to improve logistics
- LED lighting system
- The highway tires are for weight capacity and is North America DOT rated for highway

* With an experienced operator wrapping the hose as tightly as possible using 8" Mandals Superman Hose and Cadlock Couplings.



Engine & Pump Options*

- John Deere 375HP Cornell 8H
- John Deere 600HP Cornell 6822MX
- John Deere 600HP Cornell 8NHTH

Efficiency Advantage

The design of the pump allows the operator to launch a ball back through the system and return all unused water to source for future use. This is done without having to disconnect any hoses avoiding spillage of any "produced" water.

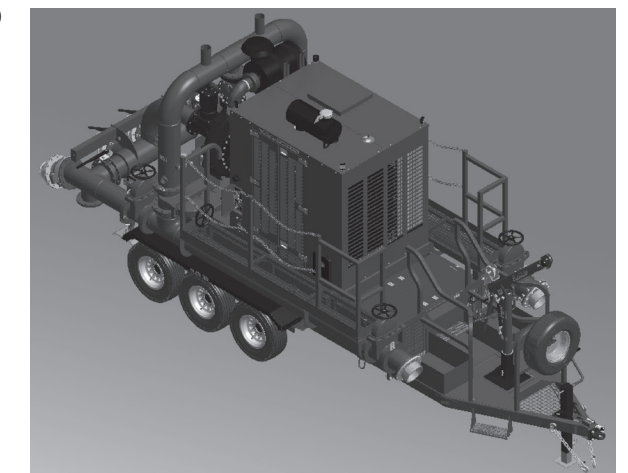
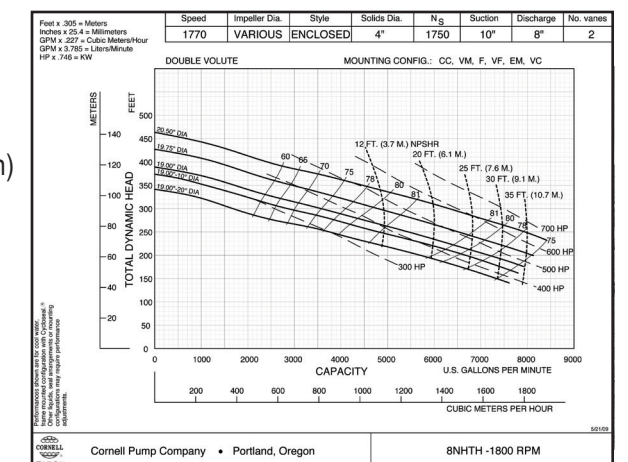
6008NHTH Pumping Station

Highlights

- Comes with a Cornell 6008NHTH Self-Priming Pump*
- Pump from 1500 up to 6000 gallons per minute (35-143 bbl / min)
- Three 8,000 lbs. axles fitted with electric brakes
- 300 gallon DOT rated fuel tank
- Four 2" air release valves
- 2 Levelling jacks
- Four 8" suction ports to avoid cavitation
- Suction ports are fitted with butterfly valves
- Gate valves are used to control discharge and main flow feeds
- Twin discharge ports to allow for maximum flow w/o restriction
- Plumbing is designed for use as either a source or booster pump
- Plumbing is designed for easy blowout with either a ball or bullet
- Optional manual crane that can be fitted on the front or back of the Pump Station to assist in lifting 10" or 12" hose fittings

Safety Features

- Low pressure audio and visual warning system
- Fire extinguishers and emergency shutoffs on each side
- Rugged LED lights to combat rough terrain and poor visibility
- Pressure gauges protected by steel collars
- Four vibrant night lights for after hours work and maintenance
- Engine control panel equipped with protection gauges



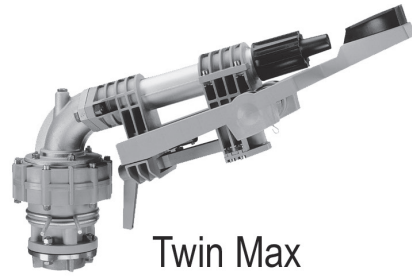


Cadman travellers come standard with Komet guns.

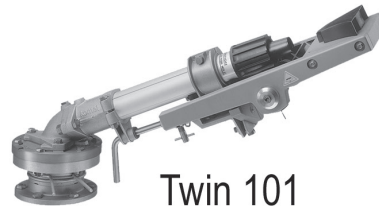
Komet Traveller Products are the result of decades of research, development and innovation in traveller products to enhance water distribution and uniformity for all models of travellers. Komet's unique operational advantages, combined with our high quality manufacturing standards provide users with exceptional products specifically designed for superior performance.



Big Volume Guns >>>
for Pivots, Travellers and Solid-Sets



Twin Max



Twin 101



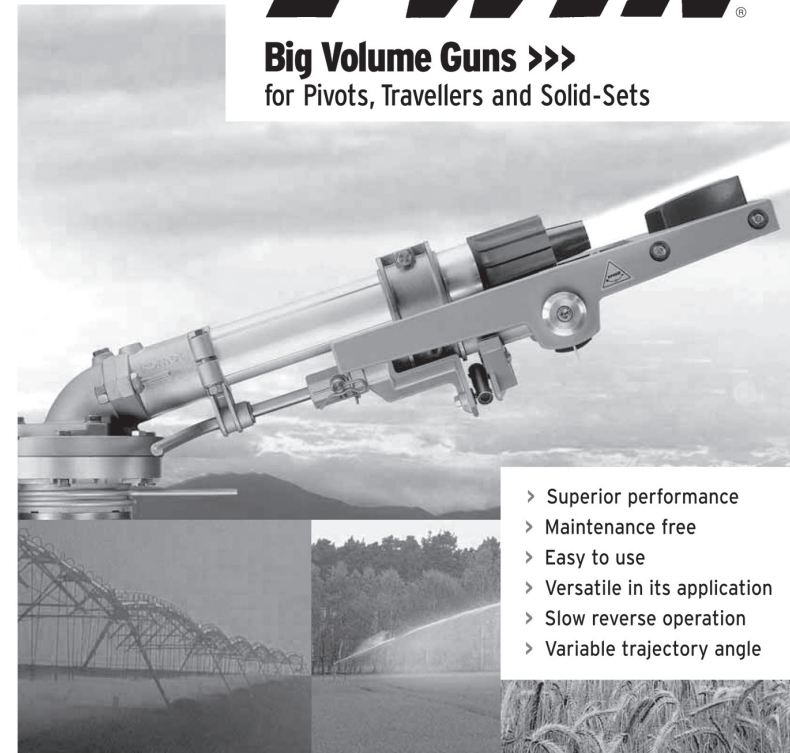
Twin 140



Twin 160



Twin 202 Pro



- > Superior performance
- > Maintenance free
- > Easy to use
- > Versatile in its application
- > Slow reverse operation
- > Variable trajectory angle

Optimal flexibility for all applications

Innovative drive system:
excellent response at any system pressure



Imperial



Twinmax
12°-18°-24°
Trajectory
Nozzles 0.39"-0.94"

TWIN 101
18°-24°
Trajectory
Nozzles 0.47"-0.94"

TWIN 140
24°
Trajectory
Nozzles 0.63"-1.18"

TWIN 160
24°
Trajectory
Nozzles 0.69"-1.38"

TWIN 202
24°
Trajectory
Nozzles 0.79"-1.58"

komet | Twin Max PERFORMANCE CHART

PSI	Nozzle / Boquilla 0.39"		Nozzle / Boquilla 0.43"		Nozzle / Boquilla 0.47"		Nozzle / Boquilla 0.51"		Nozzle / Boquilla 0.55"		Nozzle / Boquilla 0.59"		Nozzle / Boquilla 0.63"		Nozzle / Boquilla 0.67"		Nozzle / Boquilla 0.71"		Nozzle / Boquilla 0.75"		Nozzle / Boquilla 0.87"		Nozzle / Boquilla 0.94"			
	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	24	148	29	156	35	162	41	171	48	180	55	187	62	193	70	200	79	207	87	213	107	221	118	231	140	242
35	26	156	32	165	38	173	44	183	51	191	59	199	67	205	76	214	85	221	95	227	115	235	127	244	151	256
40	28	163	34	174	40	182	47	192	55	201	63	209	72	216	81	225	91	232	102	237	122	245	136	255	162	268
45	30	170	36	180	43	190	50	200	58	209	67	218	76	225	86	233	96	242	107	247	128	255	144	265	171	279
50	31	177	38	188	45	197	53	207	62	216	71	225	80	232	91	242	102	250	113	257	135	265	152	274	181	292
55	33	183	40	195	47	204	56	214	65	223	74	232	84	240	95	249	107	258	119	266	142	274	160	283	190	300
60	34	191	42	202	50	212	58	221	67	229	77	238	88	247	99	256	111	265	123	273	146	281	166	292	198	309
65	36	198	43	209	52	218	60	228	70	236	81	245	92	254	103	264	115	273	127	281	150	289	173	300	206	318
70	37	205	45	215	53	225	63	233	73	244	84	254	95	262	107	271	119	280	131	288	154	297	180	307	214	322
80	40	216	48	227	57	237	67	246	78	257	89	266	102	276	115	285	129	294	143	303	168	312	194	321	229	343
90	42	227	51	238	61	248	71	259	83	269	95	278	108	289	122	299	136	308	151	317	178	326	204	335	242	355
100	44	235	54	246	64	257	75	269	87	280	100	289	114	300	128	309	144	320	159	329	188	338	215	347	256	364
110	47	243	56	255	67	265	79	279	91	290	105	300	119	310	135	319	151	331	167	341	198	350	225	359	268	371

komet | Twin 101 PLUS PERFORMANCE CHART

PSI	Nozzle / Boquilla 0.47"		Nozzle / Boquilla 0.55"		Nozzle / Boquilla 0.63"		Nozzle / Boquilla 0.67"		Nozzle / Boquilla 0.71"		Nozzle / Boquilla 0.75"		Nozzle / Boquilla 0.79"		Nozzle / Boquilla 0.83"		Nozzle / Boquilla 0.87"		Nozzle / Boquilla 0.91"		Nozzle / Boquilla 0.94"					
	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.		
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
40	40	183	55	203	72	220	81	227	91	234	101	242	112	250	124	258	136	265	149	272	162	281	178	292	214	322
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70	54	225	73	244	95	262	107	271	120	280	134	289	149	297	164	306	180	314	196	323	212	331	229	344	271	391
80	57	237	78	257	102	276	115	285	129	294	143	303	159	312	175	321	192	329	210	337	229	347	247	354	291	407
90	61	248	83	269	108	289	122	299	137	308	152	317	169	326	186	335	204	343	223	351	243	359	263	367	311	427
100	64	257	87	280	114	300	128	310	144	320	160	330	178	339	196	348	215	357	235	366	256	374	276	382	321	437
110	67	265	91	290	119	310	135	321	151	331	168	341	186	351	205	360	225	369	246	378	268	386	289	394	335	451

komet | Twin 140 PLUS PERFORMANCE CHART

PSI	Nozzle / Boquilla 0.63"		Nozzle / Boquilla 0.71"		Nozzle / Boquilla 0.75"		Nozzle / Boquilla 0.79"		Nozzle / Boquilla 0.83"		Nozzle / Boquilla 0.87"		Nozzle / Boquilla 0.91"		Nozzle / Boquilla 0.94"		Nozzle / Boquilla 1.02"		Nozzle / Boquilla 1.10"		Nozzle / Boquilla 1.18"					
	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.		
30	62	200	70	209	79	217	88	225	97	232	107	240	118	247	129	254	140	260	151	269	162	279	174	289	190	300
40	72	220	81	227	91	234	101	242	112	250	124	258	136	265	149	272	162	279	174	289	190	299	202	307	214	318
50	80	232	91	241	102	250	113	259	125	267	138	275	152	283	166	292	181	300	212	315	226	320	234	330	243	343
60	88	247	99	257	111	266	124	274	138	282	152	290	167	298	182	307	198	315	233	337	247	347	261	357	271	367
70	95	262	107	271	120	280	134	289	149	297	164	306	180	314	196	323	214	333	251	347	261	362	276	371	286	376
80	102	276	115	285	129	294	143	303	159	312	175	321	192	329	210	337	229	344	269	361	281	376	296	381	306	391
90	108	289	122	299	137	308	152	317	169	326	186	335	204	343	223	351	243	359	285	376	299	381	314	396	324	407
100	114	300	128	307	144	316	160	325	178	333	196	342	215	351	235	360	256	374	300	390	318	407	333	412	343	422
110	119	310	135	321	151	331	168	341	186	351	205	360	225	369	246	379	268	388	315	404	335	421	351	430	361	441
120	125	318	141	330	158	341	176	352	195	362	214	371	235	380	257	390	280	400	329	418	351	437	377	456	387	466

komet | Twin 160 PRO PERFORMANCE CHART

PSI	Nozzle / Boquilla 0.69"		Nozzle / Boquilla 0.77"		Nozzle / Boquilla 0.81"		Nozzle / Boquilla 0.85"		Nozzle / Boquilla 0.89"		Nozzle / Boquilla 0.93"		Nozzle / Boquilla 1.01"		Nozzle / Boquilla 1.09"		Nozzle / Boquilla 1.17"		Nozzle / Boquilla 1.25"		Nozzle / Boquilla 1.33"					
	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.		
40	85	227	100	239	116	250	133	261	151	272	170	283	189	299	209	310	230	321	251	352	282	383	313	414	344	445
50	95	256	123	269	142	280	162	291	183	302	204	313	225	324	246	327	277	333	325	348	377	400	414	437	460	483
60	104	283	135	294	156	307	177	315	198	327	219	334	232	340	251	349	270	354	303	367	386	413	427	450	473	496
70	113	296	146	308	168	321	190	330	213	343	235	350	257	358	271	366	275	371	321	377	396	423	437	460	483	506
80	120	305	156	321	179	338	199	345	219	357	243	364	268	372	289	379	294	384	331	389	408	435	449	472	495	518
90	128	310	165	329	190	340	211	352	233	358	254	369	280	374	295	382	307	390	337	395	414	441	455	478	501	524
100	135	314	174	334	200	350	221	357	245	372	272	379	300	387	324	395	329	407	348	407	426	453	467	490	513	536
110	141	317	182	336	208	352	231	359	256	376	2															

Metric



Twinmax
12°-18°-24°
Trajectory
Nozzles 0.39"-0.94"

TWIN 101
18°-24°
Trajectory
Nozzles 0.47"-0.94"

TWIN 140
24°
Trajectory
Nozzles 0.63"-1.18"

TWIN 160
24°
Trajectory
Nozzles 0.69"-1.38"

TWIN 202
24°
Trajectory
Nozzles 0.79"-1.58"



Twinmax PERFORMANCE CHART Taper bore nozzle >>> Trajectory 24°

PSI	Nozzle 0.39"		Nozzle 0.43"		Nozzle 0.47"		Nozzle 0.51"		Nozzle 0.55"		Nozzle 0.59"		Nozzle 0.63"		Nozzle 0.67"		Nozzle 0.71"		Nozzle 0.75"		Nozzle 0.87"		Nozzle 0.94"	
	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.
25	-	-	-	-	32	148'	37	156'	43	163'	50	170'	57	177'	64	185'	72	191'	89	202'	107	213'	128	223'
30	24	148'	29	156'	35	162'	41	171'	48	180'	55	187'	62	193'	70	201'	79	207'	97	221'	118	231'	140	243'
35	26	156'	32	165'	38	173'	44	183'	51	191'	59	199'	67	205'	76	214'	85	221'	105	237'	127	244'	151	256'
40	28	163'	34	174'	40	182'	47	193'	55	201'	63	209'	72	216'	81	225'	91	233'	112	247'	136	255'	162	268'
45	30	170'	36	180'	43	190'	50	200'	58	209'	67	218'	76	225'	86	233'	96	242'	119	257'	144	265'	171	279'
50	31	177'	38	188'	45	197'	53	207'	62	213'	71	225'	80	232'	91	242'	102	250'	126	266'	152	274'	181	290'
55	33	183'	40	195'	47	204'	56	214'	65	221'	74	232'	84	240'	95	249'	107	258'	132	274'	159	285'	190	300'
60	34	191'	42	202'	50	212'	58	221'	67	229'	77	240'	88	247'	99	256'	111	266'	138	282'	166	292'	198	309'
65	36	198'	43	208'	52	218'	60	228'	70	236'	81	247'	92	254'	103	264'	116	273'	143	290'	173	300'	206	318'
70	37	205'	45	215'	53	225'	63	235'	73	244'	84	254'	95	262'	107	271'	120	280'	148	297'	180	307'	214	323'
80	40	216'	48	227'	57	237'	67	248'	78	257'	89	266'	102	276'	115	285'	129	294'	159	309'	192	318'	229	343'
90	42	227'	51	238'	61	248'	71	259'	83	269'	95	278'	108	289'	122	296'	136	308'	168	319'	204	331'	242	355'
100	44	235'	54	246'	64	257'	75	269'	87	280'	100	289'	114	300'	128	309'	144	320'	178	330'	215	341'	256	364'
110	47	243'	56	255'	67	265'	79	279'	91	290'	105	300'	119	310'	135	319'	151	331'	186	338'	225	350'	268	371'

Twin 101 PERFORMANCE CHART Taper bore nozzle >>> Trajectory 24°

PSI	Nozzle 0.47"		Nozzle 0.55"		Nozzle 0.63"		Nozzle 0.71"		Nozzle 0.79"		Nozzle 0.87"		Nozzle 0.94"	
	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.
30	-	-	48	187'	62	201'	79	217'	97	232'	118	247'	140	260'
40	40	183'	55	203'	72	220'	91	234'	112	250'	136	265'	162	279'
50	45	197'	62	215'	80	232'	102	250'	125	267'	152	283'	181	300'
60	50	212'	67	230'	88	247'	111	266'	138	282'	167	298'	198	315'
70	54	225'	73	244'	95	262'	120	280'	149	297'	180	314'	214	323'
80	57	237'	78	257'	102	276'	129	294'	159	312'	192	329'	229	344'
90	61	248'	83	269'	108	289'	137	308'	169	326'	204	343'	243	359'
100	64	257'	87	280'	114	300'	144	320'	178	339'	215	357'	256	374'
110	67	265'	91	290'	119	310'	151	331'	186	351'	225	369'	268	388'

Twin 140 PERFORMANCE CHART Taper bore nozzle >>> Trajectory 24°

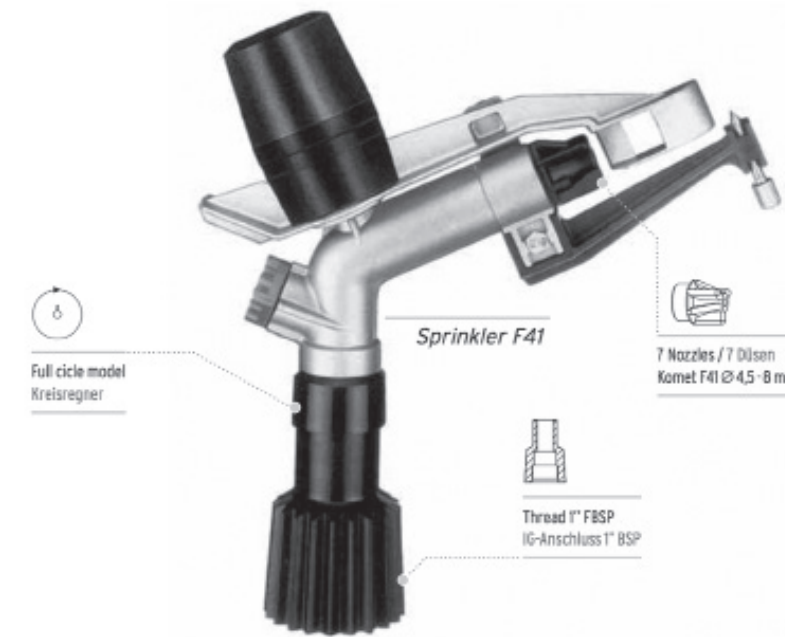
PSI	Nozzle 0.63"		Nozzle 0.71"		Nozzle 0.79"		Nozzle 0.87"		Nozzle 0.94"		Nozzle 1.02"		Nozzle 1.10"		Nozzle 1.18"	
	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.
30	62	201'	79	217'	97	232'	118	247'	140	260'	164	275'	191	286'	219	300'
40	72	220'	91	234'	112	250'	136	265'	162	279'	190	293'	220	307'	253	318'
50	80	232'	102	250'	125	267'	152	283'	181	300'	212	315'	246	330'	283	343'
60	88	247'	111	266'	138	282'	167	298'	198	315'	233	331'	270	347'	310	360'
70	95	262'	120	280'	149	297'	180	314'	214	323'	251	347'	291	362'	334	376'
80	102	276'	129	294'	159	312'	192	329'	229	344'	269	361'	311	376'	358	391'
90	108	289'	137	308'	169	326'	204	343'	243	359'	285	376'	330	392'	379	407'
100	114	300'	144	320'	178	339'	215	357'	256	374'	300	390'	348	407'	400	422'
110	119	310'	151	331'	186	351'	225	369'	268	388'	315	404'	365	421'	419	437'
120	125	318'	158	341'	195	362'	235	380'	280	400'	329	416'	381	432'	437	448'

Twin 160 PERFORMANCE CHART Taper bore nozzle >>> Trajectory 24°

PSI	Nozzle 0.69"		Nozzle 0.79"		Nozzle 0.89"		Nozzle 1.08"		Nozzle 1.18"		Nozzle 1.28"		Nozzle 1.38"			
	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.		
40	85	221'	110	229'	139	239'	172	254'	208	268'	248	279'	291	291'	337	301'
50	95	256'	123	269'	156	284'	192	302'	233	317'	277	333'	325	348'	377	364'
60	104	283'	135	294'	171	313'	211	334'	255	350'	303	367'	356	386'	413	401'
70	113	296'	146	308'	184	332'	227	350'	275	371'	328	390'	384	407'	446	422'
80	120	305'	156	321'	197	345'	243	364'	294	384'	350	404'	411	421'	476	436'
90	128	310'	165	329'	209	352'	258	374'	312	395'	371	413'	436	429'	506	444'
100	135	314'	174	334'	220	357'	272	379'	329	401'	392	418'	459	434'	533	450'
110	141	317'	182	336'	231	359'	285	382'	345	404'	411	421'	482	438'	559	453'
120	147	318'	191	339'	241	363'	298	385'	360	407'	429	424'	503	442'	584	456'

Twin 202 PERFORMANCE CHART Taper bore nozzle / Trajectory 24°

PSI	Nozzle 0.79"		Nozzle 0.89"		Nozzle 1.08"		Nozzle 1.18"		Nozzle 1.28"		Nozzle 1.38"		Nozzle 1.58"					
	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.	GPM	DIA.				
40	110	229'	139	239'	172	254'	208	268'	248	279'	291	291'	337	301'	387	309'	440	319'
50	123	269'	156	284'	192	302'	233	317'	277	333'	325	348'	377	364'	433	377'	492	388'
60	135	294'	171	315'	211	334'	255	350'	303	367'	356	386'	413	401'	474	414'	539	427'
70	146	308'	184	332'	227	350'	275	371'	328	390'	384	407'	446	422'	512	435'	582	447'
80	156	321'	197	345'	243	364'	294	384'	350	404'	411	421'	476	436'	547	450'	622	458'
90	165	329'	209	352'	258	374'	312	395'	371	413'	436	429'	506	444'	580	457'	660	465'
100	174	334'	220	357'	272	379'	329	401'	392	418'	459	434'	533	450'	612	461'	696	470'
110	182	336'	231	359'	285	382'	345	404'	411	421'	482	438'	559	453'	642	465'	730	473'
120	191	339'	241	363'	298	385'	360	407'	429	424'	503	442'	584	456'	670	469'	762	476'



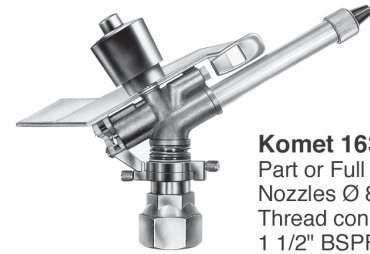
komet | Sprinkler F41 -F43

Nozzle Düse	Pressure Druck	Throw Wurfweite	Flow / Durchfluss		Surface Fläche	Precipitation rate Regenstärke	▲ Set-up / Verband			■ Set-up / Verband		
			m³/h	l/sec			Spacing Regenabstand	Surface Fläche	Precipitation rate Regenstärke	Spacing Regenabstand	Surface Fläche	Precipitation rate Regenstärke
mm	bar	m	m³/h	l/sec	m²	mm/h	max. m	m²	mm/h	max. m	m²	mm/h
4.5	2.0	13.8	1.05	0.29	998	1.76	20.7/23.9	494	2.12	19.5	380	2.76
	2.5	14.8	1.18	0.33	688	1.71	22.2/25.6	569	2.07	20.9	438	2.69
	3.0	15.7	1.29	0.36	774	1.67	23.5/27.2	640	2.00	22.2	493	2.62
	3.5	16.5	1.40	0.39	855	1.64	24.7/28.6	707	1.98	23.3	544	2.57
	4.5	17.8	1.58	0.44	995	1.59	26.7/30.8	823	1.92	25.1	633	2.49
5.0	2.0	14.2	1.30	0.36	633	2.05	21.3/24.6	521	2.48	20.1	403	3.22
	2.5	15.3	1.46	0.40	735	1.99	22.9/26.5	608	2.40	21.6	468	3.12
	3.0	16.2	1.59	0.44	824	1.93	24.3/28.0	681	2.33	22.9	524	3.03
	3.5	17.0	1.72	0.48	908	1.89	25.5/29.4	750	2.29	24.0	578	2.97
	4.5	18.4	1.95	0.54	1063	1.83	27.6/31.8	879	2.22	26.0	677	2.88
5.5	2.0	14.7	1.58	0.44	678	2.33	22.0/25.4	561	2.81	20.8	432	3.66
	2.5	15.7	1.76	0.49	774	2.27	23.5/27.2	640	2.75	22.2	492	3.57
	3.0	16.7	1.93	0.54	876	2.20	25.0/28.9	724	2.66	23		



Quality Sprinklers

Decades of experience in the wide field of sprinkler irrigation applications, combined with a superior know-how in production have placed Komet products among the top internationally. Starting with choice materials and applying the latest technology in manufacturing, we achieve the high quality and reliability of the Komet sprinklers. Our product line ranging over a wide array of sprinklers up to the big volume waterguns offers solutions to irrigation applications worldwide. A team of specialists is working constantly on developing innovative products to meet changing irrigation requirements in the years to come.

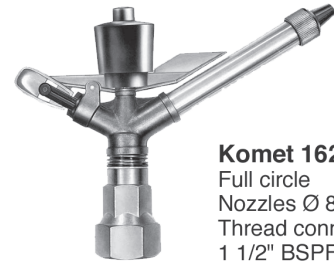


Komet 163
Part or Full circle
Nozzles Ø 8 - 16 mm
Thread connection
1 1/2" BSPF

Applications

This medium volume sprinkler is suitable for versatile use in general field irrigation on solid-set applications and mechanically moved systems such as travellers and center pivots. Changing from part circle to full circle operation is easy by adjusting the trip stops. **Model 163** shows good performance in windy conditions, and complements the full circle **model 162** where irrigation of roads or adjacent properties is not desired. Long wear life, high performance, proven design and maintenance free.

Nozzle Ø mm	Pressure PSI	Throw Feet	Flow GPM	Surface acre	Precipitation Rate inch/hr	Δ Setup			□ Setup		
						Spacing max ft.	Surface acre	Precipitation Rate inch/hr	Spacing max ft.	Surface acre	Precipitation Rate inch/hr
8	29	64	22	0.29	0.167	92/108	0.23	0.205	89	0.18	0.265
	43	72	26	0.36	0.161	105/121	0.29	0.200	98	0.22	0.263
	58	79	31	0.44	0.154	115/135	0.36	0.188	112	0.29	0.236
	73	84	34	0.51	0.148	125/144	0.41	0.182	118	0.32	0.235
10	29	71	30	0.34	0.193	102/118	0.28	0.238	98	0.22	0.297
	43	79	37	0.43	0.187	115/135	0.36	0.225	108	0.27	0.300
	58	87	42	0.52	0.178	128/148	0.43	0.216	121	0.34	0.276
	73	94	47	0.61	0.171	138/157	0.49	0.212	128	0.38	0.278
12	29	75	40	0.39	0.227	112/128	0.32	0.272	105	0.25	0.349
	43	85	49	0.50	0.216	124/144	0.41	0.261	118	0.32	0.338
	58	94	57	0.61	0.205	138/157	0.49	0.253	128	0.38	0.332
	73	100	63	0.71	0.197	148/171	0.58	0.241	141	0.46	0.306
14	29	79	52	0.43	0.270	115/131	0.34	0.335	108	0.27	0.426
	43	90	64	0.57	0.248	135/154	0.47	0.297	125	0.36	0.393
	58	98	73	0.67	0.242	144/167	0.56	0.292	135	0.42	0.39
	73	105	82	0.77	0.237	154/177	0.62	0.291	144	0.48	0.379
16	29	80	66	0.45	0.324	115/135	0.36	0.404	112	0.29	0.508
	43	94	80	0.61	0.292	138/157	0.49	0.361	128	0.38	0.472
	58	103	93	0.75	0.275	154/177	0.62	0.329	144	0.48	0.429
	73	110	104	0.84	0.274	161/187	0.69	0.330	151	0.52	0.439
87	113	114	0.91	0.277	167/194	0.74	0.337	157	0.57	0.441	



Komet 162
Full circle
Nozzles Ø 8 - 16 mm
Thread connection
1 1/2" BSPF

Applications

This medium volume impact sprinkler has full circle operation and the same performance features as model 163. Designed for use in general field irrigation mainly in extensive permanent and solid-set systems. Long life, reliability and maintenance free design. Jet breaker for adjustment of stream breakup available on request.

Nozzle Ø mm	Pressure PSI	Throw Feet	Flow GPM	Surface acre	Precipitation Rate inch/hr	Δ Setup			□ Setup		
						Spacing max ft.	Surface acre	Precipitation Rate inch/hr	Spacing max ft.	Surface acre	Precipitation Rate inch/hr
8	29	64	22	0.29	0.167	92/108	0.23	0.205	89	0.18	0.265
	43	72	26	0.36	0.161	105/121	0.29	0.200	98	0.22	0.263
	58	79	31	0.44	0.154	115/135	0.36	0.188	112	0.29	0.236
	73	84	34	0.51	0.148	125/144	0.41	0.182	118	0.32	0.235
10	29	71	30	0.34	0.193	102/118	0.28	0.238	98	0.22	0.297
	43	79	37	0.43	0.187	115/135	0.36	0.225	108	0.27	0.300
	58	87	42	0.52	0.178	128/148	0.43	0.216	121	0.34	0.276
	73	94	47	0.61	0.171	138/157	0.49	0.212	128	0.38	0.278
12	29	75	40	0.39	0.227	112/128	0.32	0.272	105	0.25	0.349
	43	85	49	0.50	0.216	124/144	0.41	0.261	118	0.32	0.338
	58	94	57	0.61	0.205	138/157	0.49	0.253	128	0.38	0.332
	73	100	63	0.71	0.197	148/171	0.58	0.241	141	0.46	0.306
14	29	79	52	0.43	0.270	115/131	0.34	0.335	108	0.27	0.426
	43	90	64	0.57	0.248	135/154	0.47	0.297	125	0.36	0.393
	58	98	73	0.67	0.242	144/167	0.56	0.292	135	0.42	0.39
	73	105	82	0.77	0.237	154/177	0.62	0.291	144	0.48	0.379
16	29	80	66	0.45	0.324	115/135	0.36	0.404	112	0.29	0.508
	43	94	80	0.61	0.292	138/157	0.49	0.361	128	0.38	0.472
	58	103	93	0.75	0.275	154/177	0.62	0.329	144	0.48	0.429
	73	110	104	0.84	0.274	161/187	0.69	0.330	151	0.52	0.439
87	113	114	0.91	0.277	167/194	0.74	0.337	157	0.57	0.441	



Proven Performance



Komet R20
Part or Full circle Nozzles
Ø 6 - 12 mm
Thread connection
1 1/4" BSPF

Nozzle Ø mm	Pressure PSI	Throw Feet	Flow GPM	Surface acre	Precipitation Rate inch/hr	Δ Setup			□ Setup		
						Spacing max ft.	Surface acre	Precipitation Rate inch/hr	Spacing max ft.	Surface acre	Precipitation Rate inch/hr
6	22	46	7.1	0.15	0.104	66/78	0.12	0.128	62	0.09	0.177
	36	54	9.2	0.21	0.096	79/92	0.17	0.121	75	0.13	0.156
	51	62	10.9	0.28	0.086	92/108	0.23	0.104	60	0.17	0.144
	65	69	12.4	0.34	0.080	102/118	0.28	0.099	95	0.21	0.131
7	29	54	11.2	0.21	0.117	79/92	0.17	0.148	75	0.13	0.190
	44	62	13.8	0.28	0.108	92/108	0.23	0.130	60	0.17	0.181
	58	69	15.9	0.34	0.102	102/118	0.28	0.127	95	0.21	0.169
8	29	59	14.7	0.25	0.129	85/102	0.23	0.158	82	0.15	0.210
	44	69	17.9	0.34	0.116	102/118	0.28	0.143	95	0.21	0.191
	58	74	20.8	0.39	0.117	108/128	0.32	0.141	102	0.23	0.193
10	29	64	22.9	0.29	0.172	92/108	0.23	0.218	89	0.18	0.281
	44	72	28.1	0.38	0.165	108/125	0.31	0.201	102	0.24	0.261
	58	79	32.4	0.45	0.160	115/135	0.36	0.199	112	0.29	0.250
12	36	72	36.9	0.38	0.217	108/125	0.31	0.264	102	0.24	0.343
	51	79	43.7	0.45	0.216	115/135	0.36	0.253	112	0.29	0.338
65	85	49.5	0.52	0.209	128/148	0.43	0.253	118	0.32	0.342	

Applications

This universal impact sprinkler in the medium to low volume range has part and full circle operation. Used for general applications in permanent and hand-move systems and in addition to model R8 where partial coverage is demanded. Reliability and performance are the special features of the model R20. Operates at medium to low pressure, reduced wear and no maintenance required.



Komet R8
Full circle Nozzles
Ø 6 - 12 mm
Thread connection
1 1/4" BSPF

Nozzle Ø mm	Pressure PSI	Throw Feet	Flow GPM	Surface acre	Precipitation Rate inch/hr	Δ Setup			□ Setup		
						Spacing max ft.	Surface acre	Precipitation Rate inch/hr	Spacing max ft.	Surface acre	Precipitation Rate inch/hr
6	22	46	7.1	0.15	0.104	66/78	0.12	0.128	62	0.09	0.177
	36	54	9.2	0.21	0.096	79/92	0.17	0.121	75	0.13	0.156
	51	62	10.9	0.28	0.086	92/108	0.23	0.104	60	0.17	0.144
	65	69	12.4	0.34	0.080	102/118	0.28	0.099	95	0.21	0.131
7	29	54	11.2	0.21	0.117	79/92	0.17	0.148	75	0.13	0.190
	44	62	13.8	0.28	0.108	92/108	0.23	0.130	60	0.17	0.181
	58	69	15.9	0.34	0.102	102/118	0.28	0.127	95	0.21	0.169
8	29	59	14.7	0.25	0.129	85/102	0.23	0.158	82	0.15	0.210
	44	69	17.9	0.34	0.116	102/118	0.28	0.143	95	0.21	0.191
	58	74	20.8	0.39	0.117	108/128	0.32	0.141	102	0.23	0.193
10	29	64	22.9	0.29	0.172	92/108	0.23	0.218	89	0.18	0.281
	44	72	28.1	0.38	0.165	108/125	0.31	0.201	102	0.24	0.261
	58	79	32.4	0.45	0.160	115/135	0.36	0.199	112	0.29	0.250
12	36	72	36.9	0.38	0.217	108/125	0.31	0.264	102	0.24	0.343
	51	79	43.7	0.45	0.216	115/135	0.36	0.253	112	0.29	0.338
65	85	49.5	0.52	0.209	128/148	0.43	0.253	118	0.32	0.342	

Applications

This universal impact sprinkler in the medium to low volume range delivers high performance and reliability. Designed for general irrigation the model R8 is mainly installed in solid set and hand-move systems. The available nozzle sizes allow to adapt the application rates to a large variety of different field conditions. Operate at medium to low pressure, heavy-duty construction, long wear life bearing and no maintenance required.



the original BIG GUN® SPRINKLER



NELSON

WWW.NELSONIRRIGATION.COM



ADJUSTABLE
TRAJECTORY
(15-45 DEGREES)

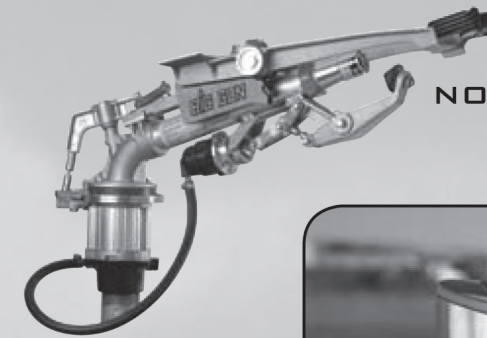
OPTIONS

- Adjustable Trajectory
- 800 Series Valve/Big Gun® Combination
- Nozzle Valve
- Quick Coupling Valve
- Special Coatings
- Add-on Kits: Secondary Nozzle, Wedge and Counterbalance

(See Big Gun® Add-on Kits literature for details.)



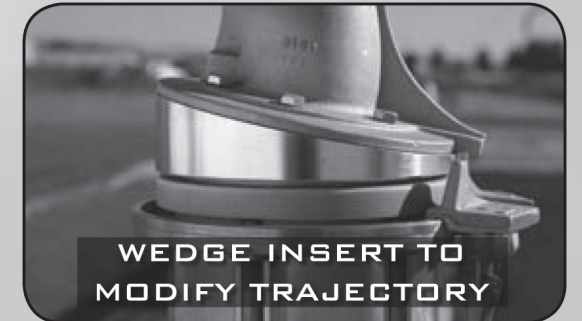
ANODIZED
& POWDER
COATED
BIG GUN



NOZZLE VALVE



COUNTERBALANCE KIT



WEDGE INSERT TO
MODIFY TRAJECTORY



800P END GUN
CONTROL VALVE*
*No electric solenoid required
for Big Gun® control when
used with a booster pump



QUICK
COUPLING
VALVE FOR
PORTABLE 75 &
100 SERIES BIG
GUN SPRINKLERS

BIG GUN® PERFORMANCE (U.S. UNITS)

Flow and diameter (feet) information at various pressures with different nozzle sizes. (See information at bottom of page 11.)

75 TAPER RING NOZZLE — 24° TRAJECTORY

PSI	0.4"		0.45"		0.5"		0.55"		0.6"		0.65"		0.7"		0.75"		0.8"	
	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.
25*	—	—	—	—	—	—	42	146	50	155	59	161	69	167	80	174	91	182
30*	—	—	—	—	37	158	45	158	55	165	64	172	75	182	87	187	99	192
35	—	—	32	154	40	164	49	172	59	178	69	191	81	196	93	202	106	208
40	27	149	35	160	43	171	52	180	63	190	74	198	87	204	98	213	112	221
45	29	155	37	167	46	180	56	189	67	198	79	206	91	214	104	223	118	230
50	30	161	39	174	48	186	59	195	70	203	83	212	95	220	109	230	123	237
55	32	165	41	179	50	193	62	203	74	213	87	221	100	230	115	239	130	247
60	33	169	42	184	53	198	64	208	77	220	91	228	104	237	120	245	136	254
65	35	172	44	189	55	205	67	216	80	227	95	237	109	247	125	254	142	263
70	36	175	45	194	57	210	69	221	83	232	98	243	113	254	129	260	147	270
75	37	179	47	201	59	217	72	228	86	239	101	250	117	261	134	268	153	277
80	39	182	49	207	61	222	74	234	89	244	105	256	121	266	138	274	158	283

*Operating at pressures above 30 PSI provides better performance.

100 TAPER BORE NOZZLE — 24° TRAJECTORY

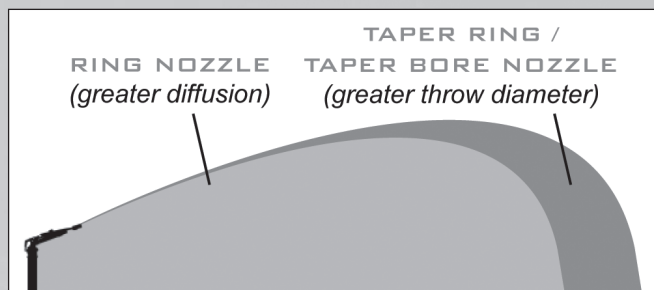
PSI	0.5"		0.55"		0.6"		0.65"		0.7"		0.75"		0.8"		0.85"		0.9"		1.0"	
	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.
40	47	191	57	202	66	213	78	222	91	230	103	240	118	250	134	256	152	262	—	—
50	50	205	64	215	74	225	87	235	100	245	115	256	130	265	150	273	165	280	204	300
60	55	215	69	227	81	240	96	250	110	260	126	270	143	280	164	288	182	295	224	316
70	60	225	75	238	88	250	103	263	120	275	136	283	155	295	177	302	197	310	243	338
80	64	235	79	248	94	260	110	273	128	285	146	295	165	305	189	314	210	325	258	354
90	68	245	83	258	100	270	117	283	135	295	155	306	175	315	201	326	223	335	274	362
100	72	255	87	268	106	280	123	293	143	305	163	316	185	325	212	336	235	345	289	372
110	76	265	92	278	111	290	129	303	150	315	171	324	195	335	222	344	247	355	304	380

150 TAPER BORE NOZZLE — 24° TRAJECTORY

PSI	0.7"		0.8"		0.9"		1.0"		1.1"		1.2"		1.3"		1.4"	
	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.
50	100	250	130	270	165	290	205	310	255	330	300	345	350	360	408	373
60	110	265	143	285	182	305	225	325	275	345	330	365	385	380	446	396
70	120	280	155	300	197	320	245	340	295	360	355	380	415	395	483	412
80	128	290	165	310	210	335	260	355	315	375	380	395	445	410	516	427
90	135	300	175	320	223	345	275	365	335	390	405	410	475	425	547	442
100	143	310	185	330	235	355	290	375	355	400	425	420	500	440	577	458
110	150	320	195	340	247	365	305	385	370	410	445	430	525	450	605	471
120	157	330	204	350	258	375	320	395	385	420	465	440	545	460	632	481

200 TAPER BORE NOZZLE — 27° TRAJECTORY

PSI	1.05"		1.1"		1.2"		1.3"		1.4"		1.5"		1.6"		1.75"		1.9"	
	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.	GPM	DIAM. FT.
60	250	345	285	355	330	375	385	390	445	410	515	430	585	445	695	470	825	495
70	270	360	310	380	355	395	415	410	480	430	555	450	630	465	755	495	890	515
80	290	375	330	395	380	410	445	430	515	450	590	470	675	485	805	515	950	535
90	310	390	350	410	405	425	475	445	545	465	625	485	715	505	855	535	1005	555
100	325	400	370	420	425	440	500	460	575	480	660	500	755	520	900	550	1060	575
110	340	410	390	430	445	450	525	470	605	495	695	515	790	535	945	565	1110	590
120	355	420	405	440	465	460	545	480	630	505	725	530	825	550	985	580	1160	605
130	370	425	425	445	485	465	565	485	655	515	755	540	860	560	1025	590	1210	620



See opposite page for nozzle descriptions.

RING NOZZLE

TAPER BORE NOZZLE

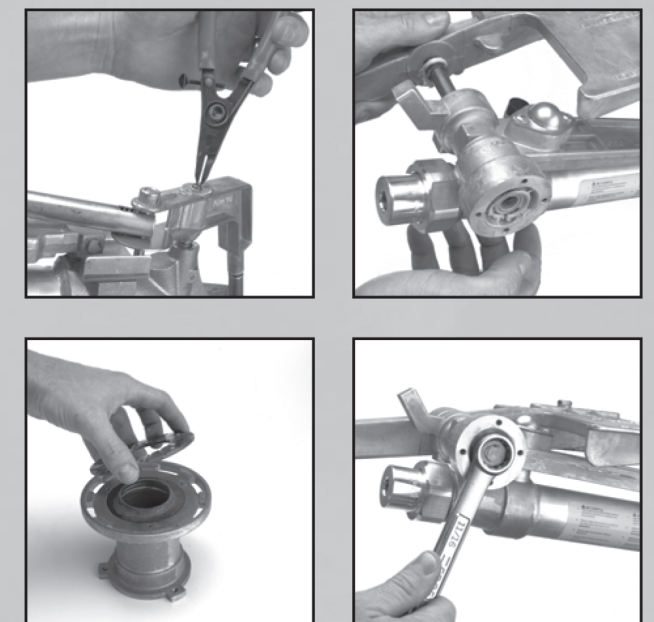
TAPER/RING NOZZLE

BIG GUN® FLANGE DETAILS

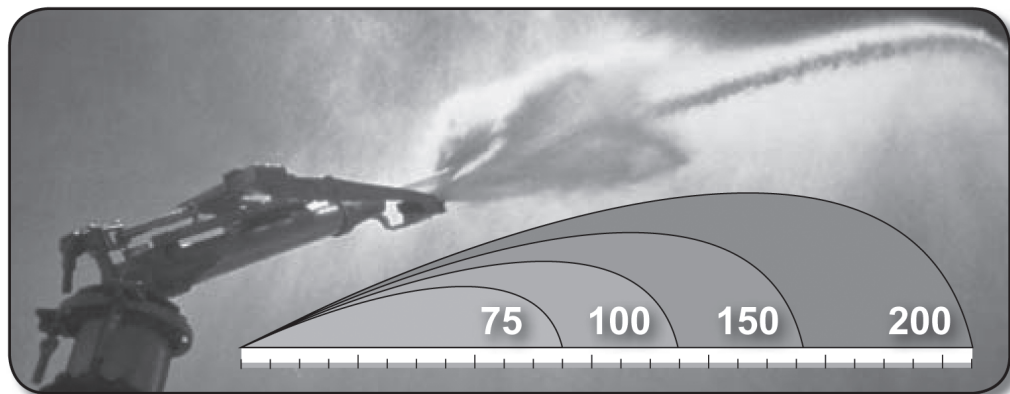
	75 & 100 SERIES	150 SERIES	200 SERIES
NELSON FLANGE	<p>5/16-18 UNC 2B Threaded Through</p> <p>Use 5/16-18 Bolts Connects to 2" Nelson Flange Bolt Pattern</p>	<p>.406" (10.3mm) Hole Drilled Through</p> <p>Use 3/8-16 Bolts & Nuts or M10 Bolts & Nuts Connects to 3" Nelson Flange Bolt Pattern</p>	<p>3/8-16 UNC Thread .75" (19mm) Deep</p> <p>Use 3/8-16 Bolts & Nuts Connects to 4" Nelson Flange Bolt Pattern (F200 has same bolt pattern as SR150.)</p>
ANSI/DIN COMPATIBLE FLANGE	<p>1/2-13 UNC 2B Threaded Through</p> <p>Use 1/2-13 Bolts Connects to 2" ANSI or 50mm DIN Flanges</p>	<p>1/2-13 UNC 2B Threaded Through</p> <p>Use 1/2-13 Bolts Connects to 3" ANSI or 80mm DIN Flanges</p>	<p>1/2-13 UNC 2B Threaded Through</p> <p>Use 1/2-13 Bolts Connects to 4" ANSI or 100mm DIN Flanges</p>
EURO FLANGE	<p>9.1mm Hole Drilled Through</p> <p>Use M8 Bolts & Nuts Connects to European Traveler Flange</p>	<p>M8 x 1.25 - 6H Threaded Through</p> <p>Use M8 x 1.25 Bolts Connects to European Traveler Flange</p>	<p>M8 x 1.25 - 6H Thread .75" (19mm) Deep</p> <p>Use M8 x 1.25 Bolts Connects to European Traveler Flange</p>

Contact the factory or go to www.nelsonirrigation.com for Parts Lists, Operation & Maintenance Guides, Repair Kits, Dimensional Drawings, Add-on Kit literature & Thrust Force information.

Nelson Big Guns
are easy to repair
with readily
available parts.



BIG GUN® OPTIONS AVAILABLE



TO ORDER BIG GUNS® SPECIFY THE FOLLOWING:

Model No., Trajectory, Connection Size & Type, Nozzle Size & Type, Optional Coatings (Anodized or Anodized and Powder Coated) NOTE: Extended lead time may be necessary for large quantities of anodized or anodized and powder coated products.

Specification Example: SR100 (24°), 2" FNPT, 100T-0.8"

	75 SERIES		100 SERIES			150 SERIES			200 SERIES	
PERFORMANCE	30-160 GPM (6.8-36.3 M ³ /H) 25-80 PSI (1.75-6 Kg/cm ²)		50-300 GPM (10-70 M ³ /H) 40-110 PSI (3.5-8 Kg/cm ²)			100-630 GPM (23-150 M ³ /H) 50-120 PSI (3.5-9 Kg/cm ²)			250-1200 GPM (55-275 M ³ /H) 60-130 PSI (4-9 Kg/cm ²)	
MODEL & TRAJECTORY	Full Circle F75	Part Circle SR75	Full Circle F100	Part Circle SR100	Part Circle SRA100	Full Circle F150	Part Circle SR150	Part Circle SRA150	Full Circle F200	Part Circle SR200
	21°, 24°	18°, 21°, 24°, 43°	18°, 21°, 24°, 43°	15-45° Adjustable		21°, 24°	21°, 24°, 27°, 43°	15-45° Adjustable	21°, 24°, 27°	
NOZZLE OPTIONS	Not Available		100T (Specify Size)			150T (Specify Size)			200T (Specify Size)	
	TR75 (Specify Size)		100TR (Specify Size)	NA for SRNV		150TR (Specify Size)			Not Available	
	Not Available		100R (Includes Set of Rings)	NA for SRNV		150R (Includes Set of Rings)			200R (Includes Set of Rings)	
SPECIAL OPTIONS	Not Available		Anodized & Powder Coated, Vaneless Range Tube*			Anodized & Powder Coated, Stainless Steel (SRA150 N/A), Vaneless Range Tube			Anodized & Powder Coated	
ADD-ON KITS	HD Lower Bearing, 12° Wedge Kit, Counterbalance Kit, Stream Straightener Vane		Low-Pressure Drive Vane Kit, Counterbalance Kit, Secondary Nozzle Kit, 12° Wedge Kit, Stream Straightener Vane			Counterbalance Kit, Secondary Nozzle Kit, Stream Straightener Vane			Secondary Nozzle Kit (standard), 12° Wedge Kit (SR200 only)	
MOUNTING DETAILS	Fits QC** & 2" 800 Series Valve		Fits QC** & 2" 800 Series Valve (QC NA for SRNV100)			Substantial thrust on riser, use 3" valve minimum			Substantial thrust on riser, use 4" valve minimum	
CONNECTION OPTIONS	1 1/2" or 2" FNPT or FBSP ANSI/DIN Nelson or Euro Flange		2" FNPT or FBSP, 2 1/2" FNPT ANSI/DIN, Nelson or Euro Flange	2" FNPT or FBSP for SRNV		Nelson, Euro or ANSI/DIN Flange Also, Nelson Flange to Female Adapters			Nelson, Euro or ANSI/DIN Flange Also, Nelson Flange to Female Adapters	

*Vaneless Range Tube option is for wastewater applications containing hair, straw, etc.

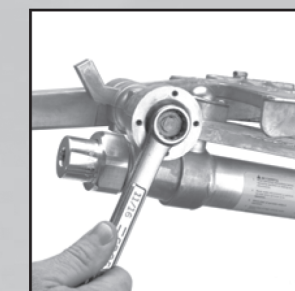
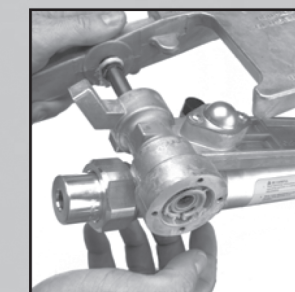
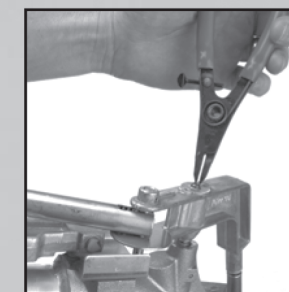
** The "Quick Coupling Valve" inlet is available in both 2" and 3" FNPT and FBSP for connection to the piping system. The "Quick Coupling Key" outlet is available in 2" FNPT, 2" FBSP, and Nelson Flange Connection for connection to the Big Gun.

BIG GUN® FLANGE DETAILS

	75 & 100 SERIES	150 SERIES	200 SERIES
NELSON FLANGE	<p>Use 5/16-18 Bolts Connects to 2" Nelson Flange Bolt Pattern</p>	<p>Use 3/8-16 Bolts & Nuts or M10 Bolts & Nuts Connects to 3" Nelson Flange Bolt Pattern</p>	<p>Use 3/8-16 Bolts & Nuts Connects to 4" Nelson Flange Bolt Pattern (F200 has same bolt pattern as SR150.)</p>
ANSI/DIN COMPATIBLE FLANGE	<p>Use 1/2-13 Bolts Connects to 2" ANSI or 50mm DIN Flanges</p>	<p>Use 1/2-13 Bolts Connects to 3" ANSI or 80mm DIN Flanges</p>	<p>Use 1/2-13 Bolts Connects to 4" ANSI or 100mm DIN Flanges</p>
EURO FLANGE	<p>Use M8 Bolts & Nuts Connects to European Traveler Flange</p>	<p>Use M8 x 1.25 Bolts Connects to European Traveler Flange</p>	<p>Use M8 x 1.25 Bolts Connects to European Traveler Flange</p>

Contact the factory or go to www.nelsonirrigation.com for Parts Lists, Operation & Maintenance Guides, Repair Kits, Dimensional Drawings, Add-on Kit literature & Thrust Force information.

Nelson Big Guns
are easy to repair
with readily
available parts.



BIG GUN® PERFORMANCE (METRIC)

Flow and diameter (meters) information at various pressures with different nozzle sizes. (See information at bottom of page.)

75 TAPER RING NOZZLE TR75 — 24° TRAJECTORY

Kg/cm ²	10.2 mm			11.4 mm			12.7 mm			14.0 mm			15.2 mm			16.5 mm			17.8 mm			19.1 mm			20.3 mm					
	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M			
1.75*	—	—	—	—	—	—	—	—	—	—	—	2.64	9.5	44	3.17	11.4	48	3.72	13.4	49	4.30	15.5	51	4.91	17.7	54	5.59	20.1	56	
2.00*	—	—	—	—	—	—	2.33	8.4	48	2.82	10.2	48	3.39	12.2	51	3.98	14.3	52	4.59	16.5	56	5.25	18.9	58	5.97	21.5	59	6.68	24.0	64
2.50	—	—	—	2.11	7.6	47	2.61	9.4	50	3.16	11.4	53	3.79	13.6	55	4.45	16.0	58	5.14	18.5	60	5.87	21.1	62	6.68	24.0	64	7.32	26.3	69
3.00	1.83	6.6	47	2.32	8.3	50	2.86	10.3	53	3.46	12.4	57	4.15	14.9	59	4.88	17.6	61	5.63	20.3	63	6.43	23.1	66	7.32	26.3	69	8.45	30.4	76
3.50	1.98	7.1	49	2.50	9.0	52	3.09	11.1	57	3.74	13.4	60	4.48	16.1	62	5.27	19.0	64	6.08	21.9	67	6.95	25.0	70	7.90	28.4	73	8.96	32.3	80
4.00	2.11	7.6	50	2.67	9.6	54	3.30	11.9	59	3.99	14.4	62	4.79	17.2	65	5.63	20.3	67	6.50	23.4	71	7.43	26.7	73	8.45	30.4	76	9.45	34.0	84
4.50	2.24	8.1	52	2.84	10.2	57	3.50	12.6	62	4.24	15.2	66	5.08	18.3	68	5.97	21.5	71	6.89	24.8	75	7.88	28.4	78	8.96	32.3	80	9.90	35.7	86
5.00	2.36	8.5	53	2.99	10.8	60	3.69	13.3	64	4.46	16.1	68	5.35	19.3	70	6.30	22.7	74	7.26	26.1	78	8.30	29.9	80	9.45	34.0	84	10.3	37.2	87
5.50	2.48	8.9	55	3.13	11.3	62	3.87	13.9	66	4.68	16.9	70	5.61	20.2	73	6.60	23.8	77	7.62	27.4	81	8.71	31.3	83	9.90	35.7	86	—	—	—
6.00	2.59	9.3	56	3.27	11.8	63	4.04	14.6	68	4.89	17.6	72	5.86	21.1	74	6.90	24.8	79	7.96	28.6	84	9.09	32.7	85	—	—	—	—	—	—

*Operating at pressures above 2 Kg/cm² provides better performance.

100 TAPER BORE NOZZLE — 24° TRAJECTORY

Kg/cm ²	12.7 mm			14.0 mm			15.2 mm			16.5 mm			17.8 mm			19.1 mm			20.3 mm			21.6 mm			22.9 mm			25.4 mm		
	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M
3.0	3.00	10.8	59.5	3.73	13.4	62.6	4.33	15.6	66.1	5.09	18.3	66.8	5.84	21.0	71.4	6.71	24.1	74.5	7.64	27.5	77.5	8.74	31.5	79.5	9.67	34.8	81.4	11.9	42.8	88.1
4.0	3.40	12.2	64.3	4.25	15.3	67.8	5.00	18.0	71.8	5.86	21.1	74.8	6.82	24.6	77.8	7.73	27.8	81.0	8.66	31.2	82.8	10.1	36.2	86.4	11.2	40.4	88.6	13.8	49.5	94.8
5.0	3.79	13.6	69.0	4.72	17.0	72.7	5.59	20.1	76.4	6.56	23.6	80.2	7.62	27.5	84.4	8.66	31.2	86.7	9.91	34.9	90.4	11.3	40.5	92.5	12.5	45.2	94.7	15.5	55.6	103
6.0	4.17	15.0	73.4	5.14	18.5	77.3	6.12	22.1	80.7	7.19	25.9	85.0	8.35	30.1	88.7	9.51	34.3	91.8	10.9	38.2	94.7	12.4	44.5	97.7	13.7	49.5	101	16.8	60.5	109
7.0	4.53	16.3	77.6	5.52	19.9	81.6	6.61	23.8	85.0	7.75	27.9	89.3	9.02	32.5	93.0	10.3	37.0	96.1	11.7	41.3	99.0	13.3	48.0	102.2	14.8	53.5	105	18.2	65.5	113
8.0	4.89	17.6	81.7	5.84	21.0	85.7	7.07	25.5	89.3	8.25	29.7	93.1	9.64	34.8	97.3	11.0	39.4	99.7	12.5	44.1	103	14.2	51.2	105.8	15.9	57.2	109	19.5	70.2	116

150 TAPER BORE NOZZLE — 24° TRAJECTORY

Kg/cm ²	17.8 mm			20.3 mm			22.9 mm			25.4 mm			27.9 mm			30.5 mm			33.0 mm			35.6 mm		
	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M
3.5	6.39	23.0	76.0	8.29	29.8	82.0	10.5	37.8	88.0	13.0	46.9	95.0	15.9	57.1	101	19.0	68.3	105	22.3	80.1	110	25.8	92.9	114
4.0	6.83	24.6	79.6	8.86	31.9	85.6	11.2	40.4	91.6	13.9	50.1	97.8	16.9	61.0	104	20.3	73.0	109	23.8	85.7	114	27.4	98.6	118
5.0	7.63	27.5	85.4	9.91	35.7	91.6	12.6	45.2	98.6	15.6	56.0	105	18.9	68.2	111	22.7	81.7	117	26.6	95.8	121	30.8	111	126
6.0	8.36	30.1	89.7	10.9	39.1	96.7	13.8	49.5	104	17.0	61.3	110	20.8	74.7	117	24.9	89.5	123	29.1	105	128	33.6	121	133
7.0	9.03	32.5	95.0	11.7	42.2	101	14.9	53.5	108	18.4	66.3	114	22.4	80.7	122	26.8	96.6	128	31.5	113	134	36.4	131	139
8.0	9.66	34.8	99.3	12.5	45.1	105	15.9	57.2	112	19.7	70.8	118	24.0	86.3	126	28.7	103	132	33.7	121	138	38.9	140	145
9.0	10.2	36.9	104	13.3	47.9	110	16.8	60.6	117	20.9	75.1	123	25.4	91.5	131	30.4	110	137	35.7	129	143	41.1	148	149

200 TAPER BORE NOZZLE — 27° TRAJECTORY

Kg/cm ²	26.7 mm			27.9 mm			30.5 mm			33.0 mm			35.6 mm			38.1 mm			40.6 mm			44.5 mm			48.3 mm		
	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M	L/S	M ³ /H	DIAM. M
4.0	15.5	55.7	104	17.8	63.9	106	20.3	73.1	112	23.8	85.8	117	27.5	98.9	123	32.2	116	129	36.1	130	134	42.9	154	141	50.7	183	149
5.0	17.3	62.3	111	19.9	71.5	117	22.7	81.7	121	26.7	96.0	126	30.7	111	132	36.0	130	138	40.3	145	143	48.0	173	152	56.7	204	158
6.0	19.0	68.2	115	21.8	78.3	121	24.9	89.5	126	29.2	105	132	33.7	121	138	39.4	142	144	44.2	159	149	52.6	189	158	62.1	224	164
7.0	20.5	73.7	122	23.5	84.6	128	26.9	96.7	134	31.5	114	140	36.3	131	146	42.6	153	152	47.7	172	159	56.8	204	168	67.1	241	175
8.0	21.9	78.8	126	25.1	90.4	132	28.7	103	138	33.7	121	144	38.9	140	152	45.5	164	159	51.0	184	165	60.7	218	174	71.7	258	182
9.0	23.2	83.6	130	26.6	95.9	136	30.4	110	142	35.8	129	148	41.2	148	157	48.3	174	164	54.1	195	170	64.4	232	180	76.0	274	188

Diameters are based on a 24° trajectory for the 75, 100 and 150 Series and a 27° trajectory for the 200 Series. The lower trajectory angles result in better wind fighting ability, but reduced throw distances. Throw reduction depends upon nozzle flow rate. In general, the throw distance is reduced approximately 3% with each 3° drop in trajectory angle. Use of the wedge insert to modify trajectory will affect distance. Big Gun® performance data has been obtained under ideal test conditions and may be adversely affected by wind, poor hydraulic entrance conditions or other factors. Test riser height of 3 feet (0.91 meters) above measurement surface. No representation regarding droplet condition, uniformity, application rate, or suitability for a particular application is made herein.

Additional nozzle options and sizes available. Go to www.nelsonirrigation.com or contact the factory for nozzle performance.

TAPER BORE NOZZLE. Most common nozzle type. Used where the available water flow and pressure are consistent. A nozzle size must be specified when ordering a Big Gun with a Taper Bore Nozzle. *The Nozzle Valve End Gun requires a Taper Bore Nozzle.*

RING NOZZLE SET. The Ring Nozzle Set is an easy and economic way of changing nozzles to match the available water flow and pressure. These are commonly used where the available water flow and pressure are variable and or when the Big Gun is shifted between various water sources with different capacities. The abrupt orifice of the nozzle is less efficient so the radius of throw is less than that achieved with an equivalent diameter Taper Bore nozzle. The abrupt orifice of the Ring Nozzle does break the stream of water up more, which can be an advantage in low pressure applications. The Ring Nozzle comes with a set of rings. *The Ring Nozzle should not be used with the Nozzle Valve End Gun.*

TAPER RING NOZZLE. This nozzle combines the changeability of a Ring Nozzle with some of the efficiency of a Taper Bore Nozzle. When ordering the Taper Ring Nozzle, specify the size as only one Taper Ring comes with the nozzle body and cap. Additional taper ring sizes can be purchased. *The Taper Ring Nozzle should not be used with the Nozzle Valve End Gun.*



NELSON BIG GUN SPRINKLERS

In the field of large-volume sprinklers, Nelson Big Guns® are recognized the world over as the leader in quality, performance and technical support. They are engineered and precision manufactured for heavy-duty reliability and long wear life. Every Nelson Big Gun® is subjected to the toughest inspection testing and quality control standards in the industry — including individual water testing of every gun at the factory.



WORKS RIGHT OUT OF THE BOX.

Nelson pioneered the concept of a slow, steady and uniform forward and reverse drive action. The drive vane automatically compensates through the full range of nozzle sizes and pressures.

SET IT & FORGET IT.

A simple, positive, reliable adjustment allows for setting the arc to within 1 degree, without overriding the stops. The setting will not change over time, a concept proven with years in the field.



BIG GUNS	
Part#	Description
SP-NEL-F75	Full Circle, 75 Series Gun
SP-NEL-SR75	Part Circle, 75 Series Gun/Slow Return
SP-NEL-F100	Full Circle, 100 Series Gun
SP-NEL-SR100	Part Circle, 100 Series Gun/Slow return
SP-NEL-F150	Full Circle, 150 Series Gun
SP-NEL-SR150	Part Circle, 150 Series Gun/Slow Return
SP-NEL-SR150A	Part Circle, 150 Series Gun/Slow return, & Adj. Traj.
SP-NEL-F200	Full Circle, 200 Series Gun
SP-NEL-SR200	Part Circle, 200 Series Gun/Slow Return

RING NOZZLES		
Part#	Gun Series	Description
SP-NEL-6749	100	7 Rings, Sizes 0.71" - 0.93"
SP-NEL-6790	150	7 Rings, Sizes 0.86" - 1.41"
SP-NEL-6789	200	7 Rings, Sizes 1.29" - 1.93"

TAPER BORE NOZZLES					
Part#	Gun	Size	Part#	Gun	Size
SP-NEL-10208-040	75	0.40"	SP-NEL-6278	150	0.70"
SP-NEL-10208-045	75	0.45"	SP-NEL-6279	150	0.80"
SP-NEL-10208-050	75	0.50"	SP-NEL-6280	150	0.90"
SP-NEL-10208-055	75	0.55"	SP-NEL-6281	150	1.00"
SP-NEL-10208-060	75	0.60"	SP-NEL-6282	150	1.10"
SP-NEL-10208-065	75	0.65"	SP-NEL-6283	150	1.20"
SP-NEL-10208-070	75	0.70"	SP-NEL-6284	150	1.30"
SP-NEL-10208-075	75	0.75"	SP-NEL-6033	200	1.05"
SP-NEL-10208-080	75	0.80"	SP-NEL-6034	200	1.10"
SP-NEL-8434	100	0.50"	SP-NEL-6035		



3000 Series Sprinklers

> an irrigation SYSTEM — it's greater than the sum of its parts

S 3000 spinner

GENTLE RAIN AT LOW PRESSURE. The free-spinning action of the S3000 Spinner provides a gentle, rain-like droplet for sensitive soils and crops.

SUPERIOR UNIFORMITY AT LOW PRESSURE. A low pressure alternative to fixed sprayheads, the S3000 provides higher uniformity with better overlap and lower application rates.



R 3000 rotator®

GREATER THROW RADIUS. As a rotating type sprinkler the R3000 Rotator® produces a wider pattern resulting in a lower application rate, reduced runoff and longer soak time.

HIGHER UNIFORMITY. The R3000 greatly improves uniformity because of the increased overlap from adjacent sprinklers.

REDUCED WIND DRIFT AND EVAPORATIVE LOSS. The R3000 more than meets the challenge of putting a rotating type sprinkler on drop tubes — down out of the wind — to minimize wind drift and evaporative loss.

NEW!
PATENTED
PLATE
TECHNOLOGY



> 3TN



THE 3TN NOZZLE
IS THE CENTER
OF THE 3000
SERIES PIVOT
PRODUCT LINE

A 3000 accelerator

DESIGNED FOR IN-CANOPY WATER APPLICATION. A hybrid sprinkler using both Rotator® and Spinner technology, the Accelerator increases rotation speed as the nozzle size increases. This maximizes throw distance and minimizes evaporative losses at low flow rates. At the end of the system it transforms into a Spinner to lower instantaneous application rates while treating the soil correctly.

MAXIMUM APPLICATION EFFICIENCY. Operating at 10 psi (.7 BAR) the A3000 maintains the lowest possible trajectory angle without sacrificing throw distance.



3000 Series Sprinklers

N 3000 nutator®

DESIRED DROPLETS AT LOW PRESSURE. The N3000 Nutator® is designed for operation at 10-15 psi (.7-1.0 BAR). Choose from two plate designs to best fit specific irrigation needs.

HIGH UNIFORMITY. Designed for optimal performance from the pivot point to the end of the machine, the N3000 Nutator provides uniformity through the nozzle range.

WIND-FIGHTING DROPLET. By maintaining the lowest possible trajectory angle without sacrificing throw distance, the N3000 Nutator provides unsurpassed wind-fighting ability for maximum application efficiency.



NOZZLE

EXPANDED
NOZZLE RANGE

QUICK-CHANGE

COLOR-CODED

COMMON TO
ALL 3000 SERIES
SPRINKLERS

HIGH WEAR-
RESISTANCE

PRECISION
ACCURACY

D 3000 sprayhead

GERMINATE, IRRIGATE & CHEMIGATE. The flip-over dual spray cap allows easy conversion of the spray pattern. Choose from spray plate options to germinate, irrigate, and chemigate.

"LOW ENERGY DOWN IN THE CROP". The sleek, crop-guarded body design provides durability for dragging the D3000 Sprayhead down in tall growing crops like corn.

OPTIONAL LEPA ACCESSORIES. The hose drag adapter allows simple conversion of the D3000 to a hose drag system while the bubbler clip transforms the D3000 into a LEPA "bubbler" device.



T 3000 trashbuster

FLOW CONTROL NOZZLE. The 3000FC Nozzle not only eliminates the need for pressure regulators, but also passes debris more easily. It is not to be used on flexible hose drop assemblies.







BODY DESIGNED FOR WASTEWATER. The open architecture design of the body allows for debris to pass through more easily, alleviating build up of material on the plate and body.

By operating on drop tubes you can distribute effluent more days of the year, keep corrosive water off the pivot structure, eliminate excess wind/pathogen drift, and reduce odor. The T3000 Trashbuster can be configured into either a spray or rotator sprinkler.





3000 Series Sprinklers

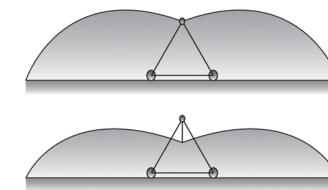
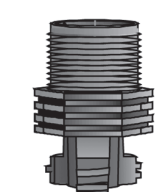
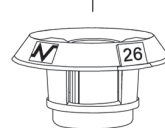
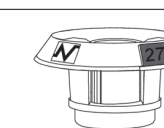
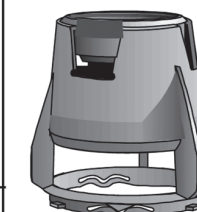

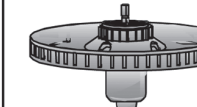
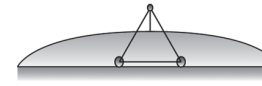
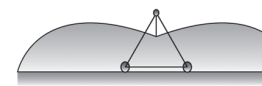
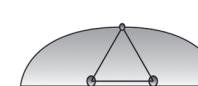
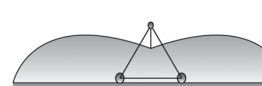
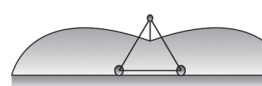
> 3000 series		DESCRIPTION	NOZZLE TYPE	OPERATING RANGE	APPLICATION RATE
R R3000	 rotator®	The R3000 Rotator® features the greatest throw distance available on drop tubes. The wide water pattern from rotating streams equates to lower average application rates, longer soak time and reduced runoff. More overlap from adjacent sprinklers improves uniformity.	3TN	15-50 PSI (1-3.4 BAR)	LOW
S S3000	 spinner	The S3000 Spinner utilizes a free-spinning action to produce a gentle, rain-like water pattern. Designed for more sensitive crops and soils, low instantaneous application rates and reduced droplet kinetic energy help maintain proper soil structure.	3TN	10-20 PSI (.7-1.4 BAR)	LOW - MEDIUM
N N3000	 nutator®	The N3000 Nutator® combines a spinning action with a continuously offset plate axis for a highly uniform pattern even in the wind. Larger, wind-penetrating droplets and low trajectory angles reduce wind exposure for maximum application efficiency.	3TN	10-15 PSI (.7-1 BAR)	LOW - MEDIUM
D D3000	 sprayhead	The D3000 Sprayhead is a fixed spray designed with future needs in mind. As irrigation requirements change throughout the season, the D3000 features a flip-over cap to change spray patterns. The D3000 is easily convertible to LEPA or other 3000 Series sprinklers.	3TN	6-40 PSI (.41-2.8 BAR)	HIGH
A A3000	 accelerator	The A3000 Accelerator maximizes performance of in-canopy water application. Designed as a hybrid of Rotator and Spinner technology, the Accelerator increases rotation speed through the nozzle range.	3TN	10-15 PSI (.7-1 BAR)	MEDIUM
T T3000	 trashbuster	Developed for the land application of wastewater, the T3000 Trashbuster features an open-architecture body design to pass debris more easily. Available with the 3000 FC, a plug-resistant, flow compensating sprinkler package can simplify maintenance.	3TN or 3000 FC	Depends on sprinkler selection	LOW - HIGH

*Careful selection of pressure and sprinkler configuration must be taken into account to optimize droplet size.

**Throw Distance Varies with Pressure, Nozzle Size, Mounting Height and Hydraulic Conditions.



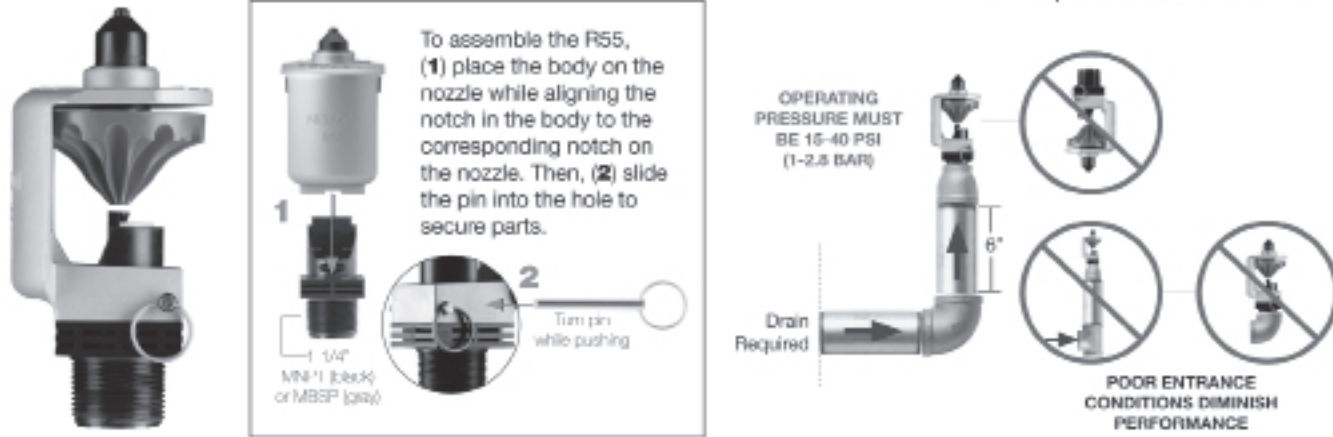
3000 Series Sprinklers

MOUNTING	RELATIVE THROW DIAMETER**	FEATURES & BENEFITS
Up Top or On Drops	50-74' (15.2-22.6M) 	<p>MODULARITY = ECONOMY & EFFICIENCY</p> <p>Nelson 3000 Series Pivot Products are easy to change/inter-change to give you the best configuration for your ever-changing conditions.</p>  <p>A square thread fitting or a square thread Universal Regulator are a great way to connect sprinkler & hose</p> <p>3TN NOZZLES</p> <ul style="list-style-type: none"> ▪ Quick-Change ▪ Color-Coded ▪ Easily Identifiable   <p>(Odd-numbered nozzles have a color marking the color of the next size nozzle.)</p>  <p>All 3000 Series Pivot Products Bodies have a "CROP-GUARDED" design to prevent hang-ups when the sprinkler is down in the crop.</p>  <p>The 3000 Series high-performance plates are engineered to provide the optimal droplet size for various conditions.</p> 
On Drops	42-54' (12.8-16.5M) 	
On Drops (flex hose)	44-52' (13.4-15.9M)  <small>IMPORTANT! To properly install the N3000 Nutator and maintain warranty, it is necessary to mount with a minimum of 12" (30 cm) of reinforced flexible drop hose. Do not use slip over weights that are secured by the hose clamp.</small>	
Up Top or On Drops	16-40' (4.9-12.2M) 	
On Drops	30-46' (9.1-14.0M) 	
Up Top or On Drops	Depends on sprinkler selection  <small>IMPORTANT! Do not use 3000FC with hose drops.</small>	





R55 Installation Requirements
for Optimal Performance



R75 End of Pivot Sprinkler
Installation & Performance Details

IMPORTANT: NOZZLE NEEDS TO BE INSTALLED BEFORE OPERATION!



Relax. We have you covered.



Up to 90 meters or 236 feet at a time.



Full Circle Brass Impact Sprinklers

Rain Bird brass impact sprinklers provide the best value of any comparable sprinkler on the market. Rain Bird impacts remain in a class of their own, and customers will continue to choose Rain Bird over competitors for decades to come, just as they have for decades in the past.



SP-RBD-14VH

14VH
1/2" Full Circle, Brass, Wedge Drive Impact Sprinkler
Bearing: 1/2" Male NPT, Brass
Trajectory Angle: 23°
Operating Range: 20-80 psi
Flow Rate: .56-2.68 GPM
Radius: 29-39 ft.

Used in undertree, overtree, overvine and row crop solid set and permanent systems. Excellent frost-protection/irrigation sprinkler.

Straight Bore Nozzle (SBN-1) (Stream Height: 6 ft.)

PSI @ Nozzle	NOZZLE SIZE													
	1/16"		51 DRILL		50 DRILL		5/64"		44 DRILL		3/32"		7/64"	
	Rad.	GPM	Rad.	GPM	Rad.	GPM	Rad.	GPM	Rad.	GPM	Rad.	GPM	Rad.	GPM
20	-	-	29	0.59	29	0.62	30	0.79	32	0.97	33	1.14	34	1.55
25	29	0.56	29	0.65	30	0.70	31	0.88	32	1.07	33	1.27	35	1.73
30	29	0.62	30	0.71	30	0.78	31	0.97	33	1.17	34	1.39	35	1.90
35	30	0.66	30	0.77	31	0.84	32	1.05	33	1.27	34	1.50	36	2.05
40	30	0.72	31	0.83	31	0.90	32	1.12	34	1.36	35	1.61	37	2.19
45	31	0.75	31	0.87	32	0.95	33	1.19	34	1.44	35	1.71	37	2.32
50	31	0.80	32	0.92	32	1.00	34	1.25	35	1.51	36	1.80	38	2.45
55	32	0.84	32	0.96	33	1.05	34	1.31	35	1.57	36	1.89	38	2.57
60	32	0.88	33	1.01	33	1.10	34	1.37	36	1.62	37	1.97	38	2.68

Straight Bore Nozzle (SBN-1) (Stream Height: 6 ft.)

PSI @ Nozzle	NOZZLE SIZE							
	7/64"		1/8"		9/64"		5/32"	
	Rad.	GPM	Rad.	GPM	Rad.	GPM	Rad.	GPM
35	38	2.05	38	2.68	39	3.39	39	4.19
40	38	2.19	39	2.86	40	3.62	39	4.47
45	39	2.32	39	3.03	40	3.84	40	4.73
50	39	2.45	39	3.20	40	4.05	40	5.00
55	39	2.57	40	3.35	40	4.24	40	5.23
60	39	2.68	40	3.50	41	4.43	41	5.47

Straight Bore Nozzle (SBN-1) (Stream Height: 2.5 ft.)

PSI @ Nozzle	NOZZLE SIZE					
	7/64"		1/8"		9/64"	
	Rad.	GPM	Rad.	GPM	Rad.	GPM
25	28	1.73	29	2.26	30	2.86
30	29	1.90	30	2.48	31	3.14
35	30	2.05	31	2.68	33	3.39
40	31	2.19	32	2.86	33	3.62
45	32	2.32	33	3.03	34	3.84
50	32	2.45	34	3.20	35	4.05

Low Pressure Nozzle (LPN-1-3) Down (Stream Height: 2 ft.)

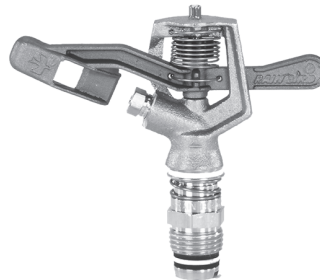
PSI @ Nozzle	NOZZLE SIZE			
	7/64"		1/8"	
	Rad.	GPM	Rad.	GPM
25	24	1.81	24	2.36
30	25	1.98	25	2.58
35	26	2.14	26	2.79
40	27	2.28	27	2.98
45	28	2.42	28	3.17
50	28	2.55	29	3.34

Low Pressure Nozzle (LPN-1-3) Up (Stream Height: 3 ft.)

PSI @ Nozzle	NOZZLE SIZE			
	7/64"		1/8"	
	Rad.	GPM	Rad.	GPM
25	28	1.81	28	2.36
30	29	1.98	30	2.58
35	30	2.14	31	2.79
40	31	2.28	32	2.98
45	32	2.42	32	3.17
50	32	2.55	33	3.34

Rain Flow Nozzle (RFN-1)

BASE PRESSURE PSI	RADIUS		
	2.0 GPM		2.5 GPM
30	28	29	
40	29	31	
50	-	31	
60	-	32	
70	-	32	
80	-	32	



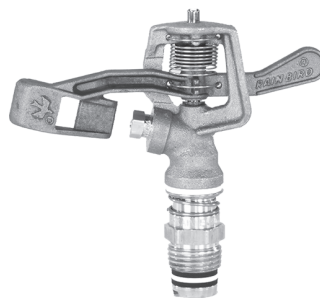
SP-RBD-20JH

20JH
1/2" Full Circle, Brass Impact Sprinkler
Bearing: 1/2" Male NPT, Brass
Trajectory Angle: 23°
Operating Range: 35-80 psi
Flow Rate: 2.0-5.47 GPM
Radius: 35-44 ft.

Widely used on solid set systems, center pivots, & in general field applications. Excellent performance in low to medium application rates.

Low Pressure Nozzle (LPN-1-3) Down (Stream Height: 2 ft.)

PSI @ Nozzle	NOZZLE SIZE			
	7/64"		1/8"	
	Rad.	GPM	Rad.	GPM
25	24	1.81	24	2.36
30	25	1.98	25	2.58
35	26	2.14	26	2.79
40	27	2.28	27	2.98
45	28	2.42	28	3.17
50	28	2.55	29	3.34



SP-RBD-L20H

L20H
1/2" Full Circle, Brass Impact Sprinkler
Bearing: 1/2" Male NPT, Brass
Trajectory Angle: 10°
Operating Range: 25-80 psi
Flow Rate: 1.73-4.05 GPM
Radius: 24-35 ft.

Used primarily in undertree permanent systems. Excellent frost protection.

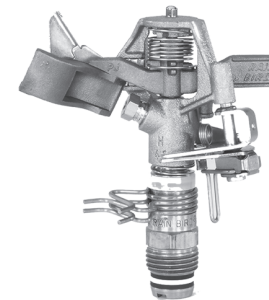


*Part Circle Impact Sprinklers



SP-RBD-2045-PJ

2045-PJ
1/2" Full or Part Circle, Plastic Impact Sprinkler
Bearing: 1/2" Male NPT, Plastic
Trajectory Angle: 23°
Operating Range: 25-60 psi
Flow Rate: 1.5-6.4 GPM
Radius: 22-44 ft.



SP-RBD-25-BPJ

25BPJ-FP-ADJ
25BPJ-FP-ADJ-DA
25B-FP-ADJ
1/2" Full or Part Circle, Brass Impact Sprinklers
Bearing: 1/2" Male NPT, Brass
Trajectory Angle: 25°
Operating Range: 30-50 psi
Flow Rate: 3.1-5.0 GPM
Radius: 38-41 ft.



Sprinkler & Nozzle w/difusser

SP-RBD-35A-PJ

35A-TNT
35A-PJ
3/4" Full or Part Circle, Brass Impact Sprinklers
Bearing: 3/4" Male NPT, Brass
Trajectory Angle: 27°
Operating Range: 30-60 psi
Flow Rate: 3.9-7.8 GPM
Radius: 42-51 ft.

Used in a wide range of applications. Adjustable trip slip pin converts the sprinkler from part circle to full circle operation. Models are available with keyhole, straight bore, adjustable pin and distance control style nozzles. Used primarily on Row Crops, Field Crops, Wheel Line Systems, Permanent Systems, Solid Systems, and end-of-line/edge-of-field positions.

Straight Bore Nozzle (SBN-1) (Stream Height: 6 ft.)

PSI @ Nozzle	NOZZLE SIZE			
	3/32"		5/32"	
	Rad.	GPM	Rad.	GPM
25	-	-	22	2.20
35	37	2.00	37	2.70
45	38	2.30	39	3.00
55	38	2.50	41	3.30
60	38	2.60	41	3.50

Low Angle Nozzle (LAN-1) (Stream Height: 3 ft.)

PSI @ Nozzle	NOZZLE SIZE			
	7/64"		5/32"	
	Rad.	GPM	Rad.	GPM
25	-	-	22	2.20
35	37	2.00	37	2.70
45	38	2.30	39	3.00
55	38	2.50	41	3.30
60	38	2.60	41	3.50

Designed for a variety of uses where full circle sprinklers should not overthrow water into restricted areas. The body, arm, bearing sleeve and nipple are made of durable Delrin™ plastic.

Straight Bore Nozzle (SBN-1) (Stream Height: 7 ft.)

PSI @ Nozzle	NOZZLE SIZE			
	9/64"		5/32"	
	Rad.	GPM	Rad.	GPM
30	38	3.10	39	3.80
35	38	3.40	39	4.10
40	39	3.60	40	4.40
45	39	3.80	40	4.70
50	40	4.00	41	5.00

Designed for a variety of uses where full circle sprinklers should not overthrow water into restricted areas. Used for such applications on Orchards, Vineyards, Row Crops, Permanent Systems, Solid Set Systems and for end-of-the line/edge-of-field positions.

NOTE:
2045-PJ comes with a built-in difusser screw
25BPJ comes with difusser screw & directional control.

Brass Straight Bore Nozzle (ADJN-3) or (DAN-3) (Stream Height: 9 ft.)

PSI @ Nozzle	NOZZLE SIZE					
	5/32"		11/64"		3/16"	
	Rad.	GPM	Rad.	GPM	Rad.	GPM
30	42	3.90	43	4.60	44	5.50
35	43	4.20	44	5.00	46	6.00
40	44	4.50	45	5.40	47	6.40
45	44	4.70	46	5.70	48	6.80
50	45	5.00	47	6.00	49	7.20
55	45	5.20	48	6.30	50	7.50
60	46	5.40	48	6.60	51	7.80

*Part Circle Sprinklers may also be set to water full circle.

**Difusser screws & directional control reduce the distance a sprinklers throws as well as altering the stream characteristics.

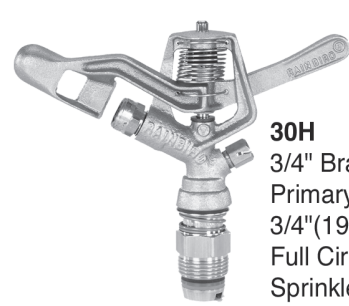


Irrigation Equipment

Rain Bird Sprinklers



Full Circle Brass Impact Sprinklers



30H
3/4" Brass Impact Sprinkler
Primary Applications:
3/4" (19mm)
Full Circle, Brass Impact
Sprinkler

SP-RBD-30H

Designed for general field use on hand lines, solid set, permanent set, or mechanically moved systems. May be used with plastic non-clog vanes for better range and wind resistance.

Brass Straight Bore Nozzle (SBN-3) with Plug (Stream Height: 9 ft.)

PSI @ Nozzle	NOZZLE SIZE			
	9/64"	5/32"	11/64"	3/16"
25	40 2.90	41 3.50	41 4.30	42 5.10
30	40 3.10	42 3.90	44 4.70	45 5.60
35	41 3.40	43 4.20	45 5.10	47 6.00
40	41 3.60	44 4.50	46 5.40	48 6.40
45	42 3.80	44 4.70	46 5.70	49 6.80
50	42 4.10	45 5.00	47 6.10	50 7.20
55	43 4.20	45 5.20	48 6.30	50 7.60
60	43 4.40	46 5.50	48 6.60	51 7.90
65	44 4.60	46 5.80	49 6.90	51 8.20
70	44 4.80	47 5.90	49 7.20	52 8.50
75	45 5.00	47 6.10	50 7.40	52 8.80
80	45 5.10	48 6.30	50 7.70	53 9.10

Brass Straight Bore Nozzle (SBN-3) with Spreader (LAN-1) (Stream Height: 9 ft.)

PSI @ Nozzle	NOZZLE SIZE				
	9/64" x 3/32-7"	5/32" x 3/32-7"	11/64" x 3/32-7"	3/16" x 3/32-7"	3/16" x 1/8-20"
25	40 4.20	41 4.80	41 5.60	42 6.40	42 7.40
30	40 4.60	42 5.30	44 6.10	45 7.00	45 8.10
35	41 4.90	43 5.70	45 6.60	47 7.50	47 8.70
40	41 5.20	44 6.10	46 7.00	48 8.10	48 9.30
45	42 5.60	44 6.50	46 7.40	49 8.50	49 9.90
50	42 5.90	45 6.80	47 7.90	50 9.00	50 10.40
55	43 6.10	45 7.10	48 8.20	50 9.40	50 10.90
60	43 6.40	46 7.40	48 8.60	51 9.90	51 11.40
65	44 6.70	46 7.80	49 8.90	51 10.20	51 11.80
70	44 6.90	47 8.10	49 9.30	52 10.70	52 12.30
75	45 7.20	47 8.30	50 9.60	52 11.00	52 12.70
80	45 7.50	48 8.70	50 10.00	53 11.50	53 13.10

Brass Straight Bore Nozzle with Vane (SBN-3V) with Plug (Stream Height: 10 ft.)

PSI @ Nozzle	NOZZLE SIZE			
	9/64"	5/32"	11/64"	3/16"
25	42 2.90	44 3.50	45 4.30	46 5.10
30	43 3.10	45 3.90	46 4.70	47 5.60
35	44 3.40	46 4.20	47 5.10	49 6.00
40	45 3.60	47 4.50	48 5.40	50 6.40
45	46 3.80	48 4.70	49 5.70	52 6.80
50	46 4.10	49 5.00	50 6.10	53 7.20
55	47 4.20	50 5.20	51 6.30	54 7.60
60	47 4.40	50 5.50	51 6.60	54 7.90
65	48 4.60	51 5.80	52 6.90	55 8.20
70	48 4.80	51 5.90	53 7.20	55 8.50
75	49 5.00	52 6.10	54 7.40	56 8.80
80	50 5.10	52 6.30	55 7.70	56 9.10

Brass Straight Bore Nozzle with Vane (SBN-3V) with Spreader (LAN-1) (Stream Height: 10 ft.)

PSI @ Nozzle	NOZZLE SIZE				
	9/64" x 3/32-7"	5/32" x 3/32-7"	11/64" x 3/32-7"	3/16" x 3/32-7"	3/16" x 1/8-20"
25	42 4.20	44 4.80	45 5.60	45 6.40	46 7.40
30	43 4.60	45 5.30	46 6.10	47 7.00	47 8.10
35	44 4.90	46 5.70	47 6.60	49 7.50	49 8.70
40	45 5.20	47 6.10	48 7.00	50 8.10	50 9.30
45	46 5.60	48 6.50	49 7.40	52 8.50	52 9.90
50	46 5.90	49 6.80	50 7.90	53 9.00	53 10.40
55	47 6.10	50 7.10	51 8.20	54 9.40	54 10.90
60	47 6.40	50 7.40	51 8.60	54 9.90	54 11.40
65	48 6.70	51 7.80	52 8.90	55 10.20	55 11.80
70	48 6.90	51 8.10	53 9.30	55 10.70	55 12.30
75	49 7.20	52 8.30	54 9.60	56 11.00	56 12.70
80	50 7.50	52 8.70	55 10.00	56 11.50	56 13.10

Troubleshooting: Debris in nozzles - Use proper screening at the pump and, or, flush out header and lateral lines.
Oil & pipe dope on threads - Do not use oil sprinklers. They are water lubricated.
Improper preassure - Do not exceed the appropriate number of sprinklers for which the system is designed.
Damaged & worn parts - Aged and bent sprinkler arms can be bent back to true. Repalce other worn parts promptly.



30FH
3/4" Full Circle,
Brass Impact Sprinkler
Bearing: 3/4" Male NPT, Brass
Trajectory Angle: 27°
Operating Range: 25-80 psi
Flow Rate: 2.26-6.47 GPM
Radius: 39-43 ft.

SP-RBD-30FH

Straight Bore Nozzle (SBN-3) (Stream Height: 9 ft.)

PSI @ Nozzle	NOZZLE SIZE	
	Rad.	GPM
25	39	2.26
30	39	2.48
35	40	2.68
40	40	2.86
45	41	3.03
50	41	3.20
55	42	3.35
60	44	3.50
65	43	3.65
70	43	3.78
75	43	3.91
80	43	4.04

Straight Bore Nozzle (SBN-3) with Spreader (LAN-1-20) (Stream Height: 9 ft.)

PSI @ Nozzle	NOZZLE SIZE	
	Rad.	GPM
25	39	3.52
30	39	3.87
35	40	4.19
40	40	4.49
45	41	4.77
50	41	5.02
55	42	5.27
60	42	5.51
65	43	5.75
70	43	5.99
75	43	6.23
80	43	6.47

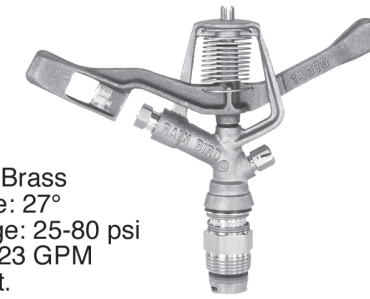
Designed to operate for frost protection and irrigation using a single 1/8 inch nozzle or dual nozzle with 1/8 inch and 3/32 inch 20 degree spreader nozzle.

Irrigation Equipment

Rain Bird Sprinklers



Full Circle Brass Impact Sprinklers



14070H
Bearing:
3/4" Male NPT, Brass
Trajectory Angle: 27°
Operating Range: 25-80 psi
Flow Rate: 4.2-23 GPM
Radius: 44-71 ft.

SP-RBD-14070

The 14070H is designed for general use, or for mechanically-moved systems - especially center pivot machines. A wide range of nozzles are available.

Common set-ups for irrigation:
9/32" nozzle & 1/8" 20° spreader.

Frost Protection: 7/32" nozzle w/ 1/8" plug

Straight Bore Nozzle (SBN-3) with Spreader (LAN-1-20) (Stream Height: 10 ft.)

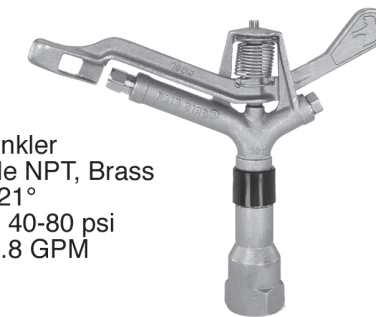
PSI @ Nozzle	NOZZLE SIZE							
	3/16" x 1/8-20"	13/64" x 1/8-20"	7/32" x 1/8-20"	15/64" x 1/8-20"	1/4" x 1/8-20"	17/64" x 1/8-20"	9/32" x 1/8-20"	
25	44 7.40	45 8.30	46 9.20	46 10.30	47 11.40	47 12.50	48 13.80	
30	47 8.10	48 9.10	49 10.10	50 11.20	51 12.40	51 13.70	52 15.10	
35	49 8.70	50 9.80	51 10.90	52 12.10	52 13.40	53 14.80	54 16.30	
40	50 9.30	51 10.50	52 11.70	53 13.00	54 14.40	55 15.80	56 17.40	
45	51 9.90	52 11.10	54 12.40	55 13.80	56 15.20	57 16.80	58 18.50	
50	52 10.40	53 11.70	55 13.10	56 14.50	57 16.10	58 17.70	59 19.50	
55	53 10.90	54 12.30	56 13.70	57 15.20	59 16.90	59 18.60	61 20.40	
60	53 11.40	55 12.80	57 14.30	58 15.90	60 17.60	61 19.40	62 21.30	
65	54 11.90	56 13.30	58 14.90	59 16.50	61 18.30	62 20.20	63 22.20	
70	55 12.40	57 13.80	59 15.40	60 17.20	62 19.00	63 21.00	65 23.00	
75	55 12.80	58 14.30	60 16.00	61 17.80	63 19.70	-	-	
80	56 13.20	58 14.80	61 16.50	62 18.40	64 20.30	-	-	

Straight Bore Nozzle (SBN-3V) with Plug (Stream Height: 10 ft.)

PSI @ Nozzle	NOZZLE SIZE									
	5/32"	11/64"	3/16"	13/64"	7/32"	15/64"	1/4"	17/64"	9/32"	
25	-	-	-	44 5.10	45 6.00	46 7.00	46 8.00	47 9.10	48 10.30	48 11.50
30	-	-	-	47 5.60	48 6.60	49 7.60	50 8.80	51 10.00	51 11.20	52 12.60
35	46 4.20	47 5.10	49 6.10	50 7.10	51 8.20	52 9.50	52 10.80	53 12.10	54 13.60	
40	46 4.50	48 5.40	50 6.50	51 7.60	52 8.80	53 10.10	54 11.50	55 13.00	56 14.60	
45	47 4.80	49 5.80	51 6.90	52 8.10	54 9.30	55 10.70	56 12.20	57 13.80	58 15.40	
50	48 5.00	50 6.10	52 7.20	53 8.50	55 9.80	56 11.30	57 12.90	58 14.50	59 16.30	
55	48 5.30	50 6.40	53 7.60	54 8.90	56 10.30	54 11.80	59 13.50	59 15.20	61 17.10	
60	49 5.50	51 6.70	53 7.90	55 9.30	57 10.80	58 12.40	60 14.10	61 15.90	62 17.80	
65	49 5.70	52 6.90	54 8.30	56 9.70	58 11.20	59 12.90	61 14.70	62 16.50	63 18.50	
70	50 5.90	52 7.20	55 8.60	57 10.00	59 11.60	60 13.40	62 15.20	63 17.20	65 19.20	
75	50 6.20	53 7.40	55 8.90	58 10.40	60 12.10	61 13.80	63 15.70	-	-	
80	50 6.40	53 7.70	56 9.10	58 10.70	61 12.40	62 14.30	64 16.30	-	-	

Straight Bore Nozzle (SBN-4) with Plug (Stream Height: 8 ft.)

PSI @ Nozzle	NOZZLE SIZE						
	7/32"	1/4"	9/32"	15/16"	11/32"	3/8"	13/32"
40	57 8.80	60 11.50	62 14.60	65 17.70	66 21.10	68 24.40	70 28.50
45	58 9.40	61 12.20	64 15.50	66 18.90	68 22.50	70 26.00	72 30.40
50	59 9.90	62 12.90	65 16.30	68 20.00	70 23.80	71 27.50	73 32.30
55	60 10.40	63 13.60	66 17.20	70 21.00	71 25.00	73 29.10	75 34.00
60	61 10.90	64 14.20	67 18.00	71 22.00	73 26.20	74 30.60	77 35.70
65	62 11.40	65 14.80	68 18.80	72 23.00	74 27.40	76 32.00	78 37.30
70	63 11.80	66 15.40	70 19.50	73 23.90	76 28.50	77 33.20	79 38.90
75	64 12.20	67 16.00	71 20.30	74 24.80	77 29.60	78 34.50	81 40.40
80	65 12.60	68 16.50	72 20.90	75 25.70	78 30.60	80 35.70	82 41.80



70H
1" Full Circle,
Brass Impact Sprinkler
Bearing: 1" Female NPT, Brass
Trajectory Angle: 21°
Operating Range: 40-80 psi
Flow Rate: 8.8-45.8 GPM
Radius: 57-82 ft.

SP-RBD-70H

The 70H is designed for general field use and for use on mechanically moved systems, especially center pivot machines. Primarily uses on Field Crops, Row Crops, Vegetables, Nurseries, Permanent Systems, Solid Systems, Portable Systems and Wheel Lines.

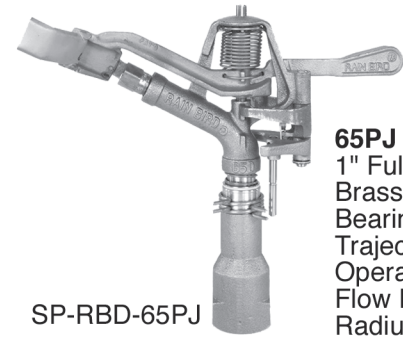
Ideal for high flow rates & max distance.
Common spacings: 60 x 80' up to 90 x 120'

Straight Bore Nozzle (SBN-4) with Spreader (LAN-1-20) (Stream Height: 8 ft.)

PSI @ Nozzle	NOZZLE SIZE							
	7/32" x 1/8-20"	1/4" x 1/8-20"						



Part Circle Brass Impact Sprinklers

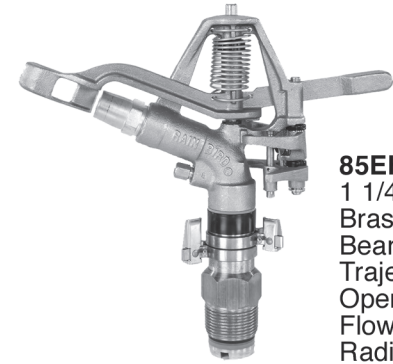


65PJ
1" Full or Part Circle, Brass Impact Sprinkler
Bearing: 1" Female NPT, Brass
Trajectory Angle: 27°
Operating Range: 50-80 psi
Flow Rate: 12.9-16.5 GPM
Radius: 57-65 ft.

Adjustable Straight Bore Nozzle (ADJ-4) (Stream Height: 10 ft.)

PSI @ Nozzle	NOZZLE SIZE	
	1/4"	
	Rad.	GPM
50	57	12.90
55	57	13.60
60	58	14.20
65	62	14.80
70	63	15.40
75	64	16.00
80	65	16.50

Ideal for a wide range of applications. Added versatility comes from an adjustable trip slip-pin that converts the sprinkler to full circle applications. The PJ precision jet arm eliminates side splash.



85EHD
1 1/4" Full or Part Circle, Brass Impact Sprinklers
Bearing: 1 1/4" Male NPT, Brass
Trajectory Angle: 27°
Operating Range: 25-100 psi
Flow Rate: 17.1-127.7 GPM
Radius: 61-116 ft.

85 EHD Performance, Nozzle & Plug

PSI@ Nozzle	3/8"		7/16"		1/2"		17/32"		5/8"	
	Rad'	GPM	Rad'	GPM	Rad'	GPM	Rad'	GPM	Rad'	GPM
40	69	22	77	34	83	43	83	47	86	65
45	71	23	79	36	85	46	88	50	92	70
50	73	24	81	38	87	48	90	53	95	73
55	75	26	83	40	89	50	92	57	99	77
60	77	26	86	42	91	53	94	59	101	80
65	79	27	87	43	93	55	96	61	102	84
70	81	28	89	45	94	58	98	64	104	88
75	82	29	90	47	96	60	99	66	105	91
80	83	30	92	48	97	62	101	68	107	94
85	85	32	93	50	99	64	102	70	108	97
90	86	33	95	52	100	65	104	72	110	100
95	87	34	96	53	101	67	105	74	111	103
100	88	34	97	55	102	69	106	76	112	105

85 EHD Performance, Nozzle & 7/32" 20° Spreader

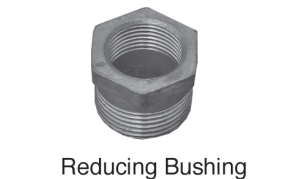
PSI@ Nozzle	3/8"		7/16"		1/2"		17/32"		5/8"	
	Rad'	GPM	Rad'	GPM	Rad'	GPM	Rad'	GPM	Rad'	GPM
40	71	34	77	42	83	51	83	55	86	73
45	73	36	79	44	85	54	88	58	92	78
50	75	38	81	47	87	57	90	62	95	82
55	77	40	83	49	89	60	92	65	99	87
60	79	41	86	52	91	63	94	68	101	90
65	81	43	87	54	93	65	96	71	102	94
70	83	45	89	56	94	68	98	74	104	99
75	84	47	90	58	96	71	99	77	105	102
80	86	48	92	60	97	73	101	80	107	106
85	87	50	93	62	99	75	102	82	108	109
90	89	51	95	64	100	78	104	85	110	112
95	90	53	96	66	101	80	105	87	111	115
100	91	55	97	68	102	82	106	90	112	119

The 85EHD has a wide range of uses but are widely used as end guns on center pivot machines. All models have an improved bearing with features similar to Rain Bird's superior "H" bearing. Common applications include Field Crops, Row Crops, Vegetables, Pivots & Linears, Permanent Systems, Solid Set Systems and Portable Systems.



Accessories for Impact Sprinklers

Part #	Size	Model	Description
SP-RBD-206592-06	3/32"	2045-PJ	Red Nozzle
SP-RBD-206592-07	7/64"	2045-PJ	Black Nozzle
SP-RBD-206592-08	1/8"	2045-PJ	Blue Nozzle
SP-RBD-206592-10	5/32"	2045-PJ	Yellow Nozzle
SP-RBD-115902-07	7/64"	2045-PJ	Black Noz. (Low Angle)
SP-RBD-101092-08	1/8"	20 & 25	Noz. with Vane & Adj. Diffuser
SP-RBD-101092-10	5/32"	20 & 25	Noz. with Vane & Adj. Diffuser
SP-RBD-101092-11	11/64"	20 & 25	Noz. with Vane & Adj. Diffuser
SP-RBD-101092-12	3/16"	20 & 25	Noz. with Vane & Adj. Diffuser
SP-RBD-101092-14	7/32"	20 & 25	Noz. with Vane & Adj. Diffuser
SP-RBD-101093-10	5/32"	20 & 25	Noz. with Dir. Control
SP-RBD-106131-09	9/64"	30 & 14070	Nozzle with Vane
SP-RBD-106131-10	5/32"	30 & 14070	Nozzle with Vane
SP-RBD-106131-11	11/64"	30 & 14070	Nozzle with Vane
SP-RBD-106131-12	3/16"	30 & 14070	Nozzle with Vane
SP-RBD-106131-13	13/64"	30 & 14070	Nozzle with Vane
SP-RBD-106131-14	7/32"	30 & 14070	Nozzle with Vane
SP-RBD-106131-16	1/4"	30 & 14070	Nozzle with Vane
SP-RBD-106131-18	9/32"	30 & 14070	Nozzle with Vane
SP-RBD-100332-10	5/32"	35	Noz. with Dir. Control
SP-RBD-100332-12	3/16"	35	Noz. with Dir. Control
SP-RBD-100328-10	5/32"	35	Noz. with Adj. Diffuser
SP-RBD-100328-11	11/64"	35	Noz. with Adj. Diffuser
SP-RBD-100328-12	3/16"	35	Noz. with Adj. Diffuser
SP-RBD-100385	1/4"	65	Noz. with Adj. Diffuser
SP-RBD-100382-12	3/16"	65 & 70	Nozzle
SP-RBD-100382-14	7/32"	65 & 70	Nozzle
SP-RBD-100382-16	1/4"	65 & 70	Nozzle
SP-RBD-100382-18	9/32"	65 & 70	Nozzle
SP-RBD-100382-20	5/16"	65 & 70	Nozzle
SP-RBD-100382-22	11/32"	65 & 70	Nozzle
SP-RBD-100382-24	3/8"	65 & 70	Nozzle
SP-RBD-103043-24	3/8"	85	Nozzle
SP-RBD-103043-26	13/32"	85	Nozzle
SP-RBD-103043-28	7/16"	85	Nozzle
SP-RBD-103043-32	1/2"	85	Nozzle
SP-RBD-103043-34	17/32"	85	Nozzle
SP-RBD-103043-40	5/8"	85	Nozzle
SP-RBD-202141		2045-PJ	Vane
SP-RBD-101618		20 & 25	Vane
SP-RBD-105816		30 & 14070	Vane
SP-RBD-100695		70	Vane
SP-RBD-101275		85	Vane
SP-RBD-100225-06	3/32"	30 & 14070	7° Spreader
SP-RBD-100225-08	1/8"	30 & 14070	7° Spreader
SP-RBD-100226-08	1/8"	30, 14070 & 70	20° Spreader
SP-RBD-100226-14	7/32"	85	20° Spreader
SP-RBD-100418		70	Reducing Bushing
SP-RBD-100255	1/8"	30, 14070, 70, 85	Plug



HN WEBSTER MANUFACTURING, INC.

"MAKERS OF QUALITY IRRIGATION PRODUCTS SINCE 1964"

Providing irrigation and frost protection, sprinkler systems are made up of three components:

Main Lines - supply water from the pump to the field.

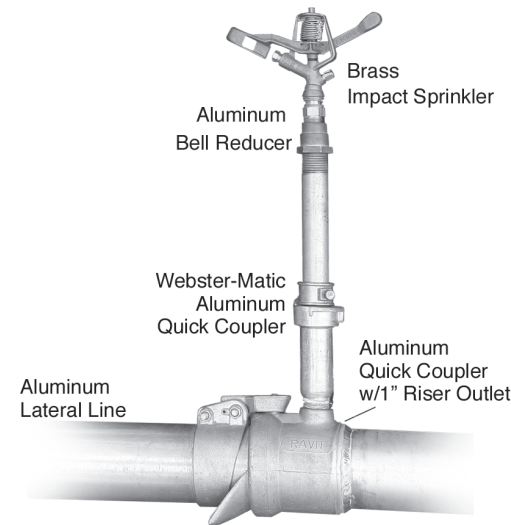
Header Lines - move water across the field.

Lateral Lines - spray water over the field.

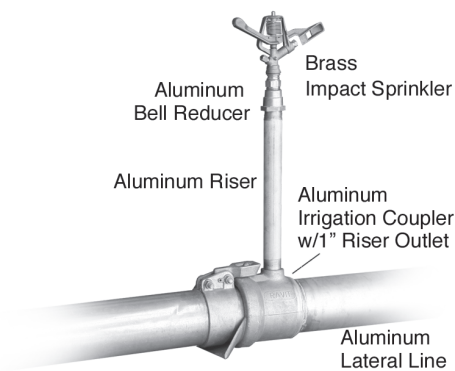
Lateral lines may be set in place seasonally as in a Solid-Set Permanent System or laid out at evenly spaced intervals and hand moved as in a Hand Move Portable/ Semi-Permanent System.

Though labor intensive, a Solid Set Hand Move System saves on the number of lateral lines and sprinklers, Permanent Systems require additional material and have improved flexibility with water application rates & volumes that may be applied more frequently.

Sprinkler Riser with Webster

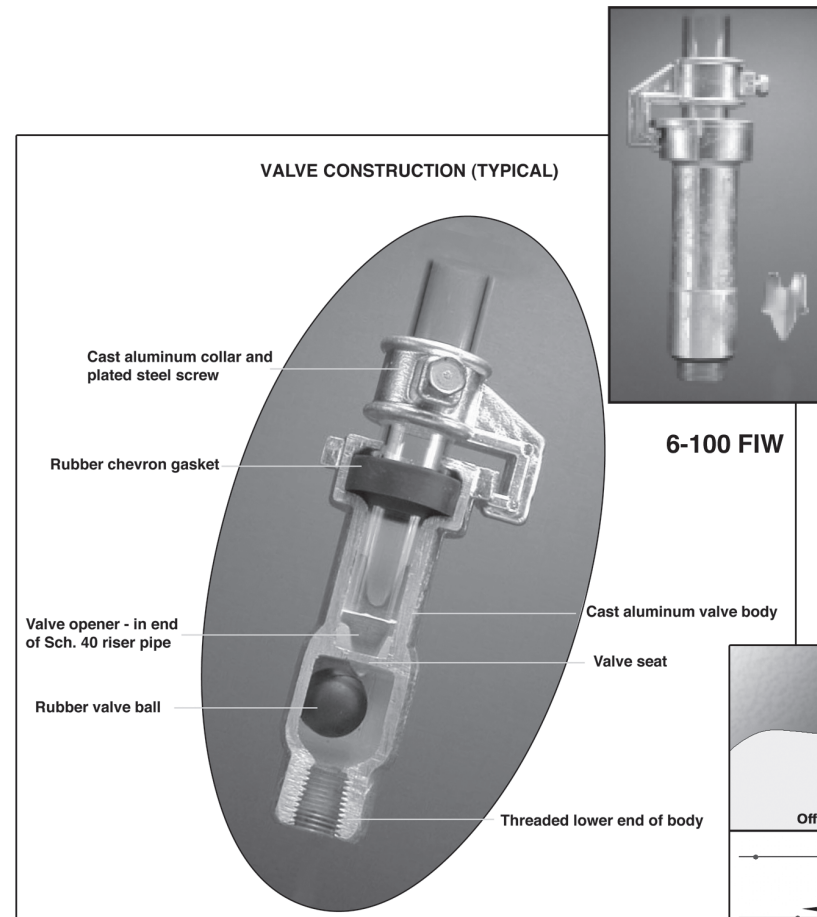
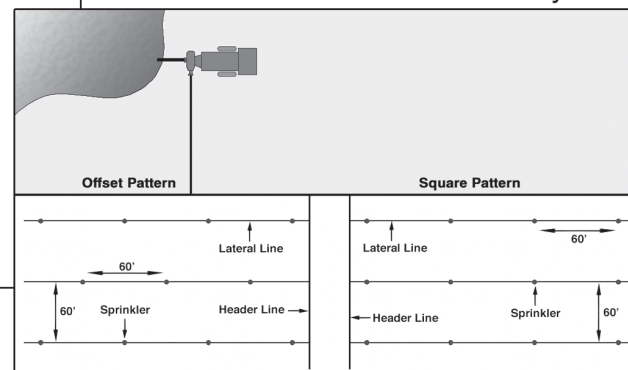


Sprinkler Riser



Warning: Pipe dope, anti-seize compound, or teflon tape on a sprinkler's threads causes damage.

Solid Set Permanent System



HN WEBSTER MANUFACTURING, INC.

"MAKERS OF QUALITY IRRIGATION PRODUCTS SINCE 1964"

1" Aluminum Riser Tubing

Part #	Description	Length
IR-RSR-1X6	Threaded One End MIPT	6"
IR-RSR-1X12	Threaded One End MIPT	12"
IR-RSR-1X18	Threaded One End MIPT	18"
IR-RSR-1X24	Threaded One End MIPT	24"
IR-RSR-1X36	Threaded One End MIPT	36"
IR-RSR-1X48	Threaded One End MIPT	48"
IR-RSR-1X6TT	Threaded Both Ends, MIPT x MIPT	6"
IR-RSR-1X8TT	Threaded Both Ends, MIPT x MIPT	8"
IR-RSR-1X12TT	Threaded Both Ends, MIPT x MIPT	12"
IR-RSR-1X16TT	Threaded Both Ends, MIPT x MIPT	16"
IR-RSR-1X18TT	Threaded Both Ends, MIPT x MIPT	18"
IR-RSR-1X24TT	Threaded Both Ends, MIPT x MIPT	24"
IR-RSR-1X48TT	Threaded Both Ends, MIPT x MIPT	48"
IR-RSR-1X60TT	Threaded Both Ends, MIPT x MIPT	60"
IR-RSR-1X72TT	Threaded Both Ends, MIPT x MIPT	72"

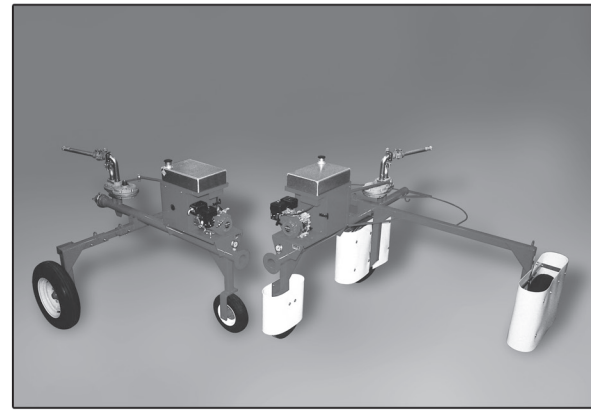
Use Risers that are Threaded One End for a Webster and Risers that are Threaded Both Ends to connect straight to an irrigation coupler. Riser tubing is also available in custom cut and threaded lengths and in 1/2" & 3/4" diameter.

Cast Zinc/Aluminum Alloy Fittings

Part #	Description	
40-NPT-PLG050AL	Plug, 1/2"	
40-NPT-PLG075AL	Plug, 3/4"	
40-NPT-PLG100AL	Plug, 1"	
40-NPT-PLG125AL	Plug, 1 1/4"	
40-NPT-RC075X050AL	Reducing Coupler, 3/4" x 1/2"	
40-NPT-RC100X050AL	Reducing Coupler, 1" x 1/2"	
40-NPT-RC100X075AL	Reducing Coupler, 1" x 3/4"	
40-NPT-RC125X100AL	Reducing Coupler, 1 1/4" x 1"	
40-NPT-RB075X050AL	Reducing Bushing, 3/4" x 1/2"	
40-NPT-RB100X050AL	Reducing Bushing, 1" x 1/2"	
40-NPT-RB100X075AL	Reducing Bushing, 1" x 3/4"	
40-NPT-CPL050AL	Coupling, 1/2"	
40-NPT-CPL075AL	Coupling, 3/4"	
40-NPT-CPL100AL	Coupling, 1"	

Webstermatic quick couplers have been in use in North America and overseas for over 30 years. Use of our quick couplers greatly increases the operating efficiency of a sprinkler irrigation system. When a sprinkler riser is removed from a quick coupler, the valve ball inside the unit shuts off the flow of water until the riser is re-inserted. This permits the continuous operation of the system while performing maintenance or while moving sprinkler risers from one part of a system to another.

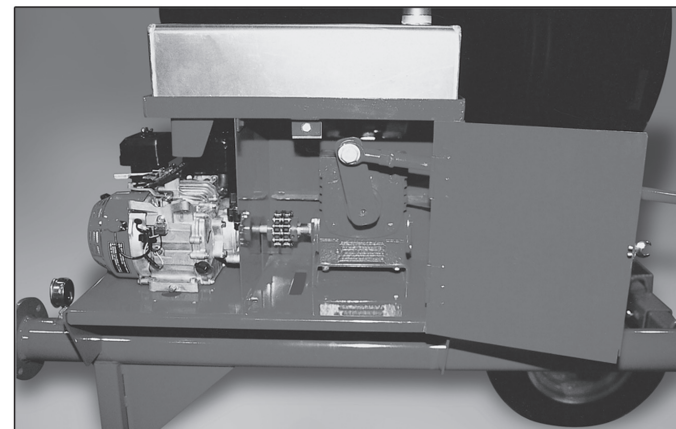
Irrigation Equipment



The Cadman Broadcast Cart is excellent for watering crops grown under a shade or canopy, or for areas that are subject to high wind. An alternative to high-cost/high-maintenance boom, the Broadcast Cart operates in the same manner as a regular traveller gun cart. Simply pull out the cart on your traveller and begin to wind in the hose. The cart will provide even distribution with a spread pattern between 120 to 200 feet in width.

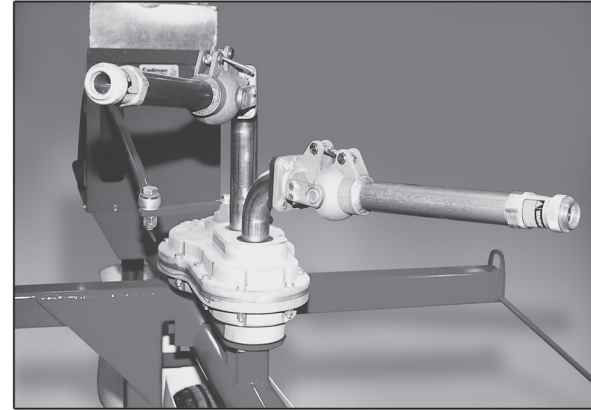


Each Broadcast Cart has a heavy duty gear box that operates two 1" sprinkler tubes. Each tube comes with a set of seven rings to change flow and diameter. As well, the trajectory of the tubes can be changed from -15° to +15° by simply turning the adjustment screws.



Run by a 4HP Honda motor, a reduction gear box provides power to operate the two sprinkler tubes.

Broadcast Carts



Asymmetrical Broadcast Cart in operation at a ginseng farm.

Irrigation Equipment

caprari SINGLE STAGE TRACTOR DRIVEN PUMPS



Pumps

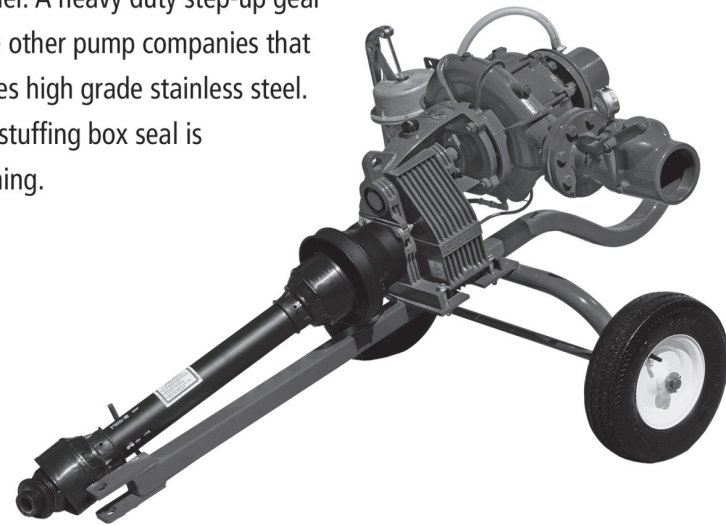
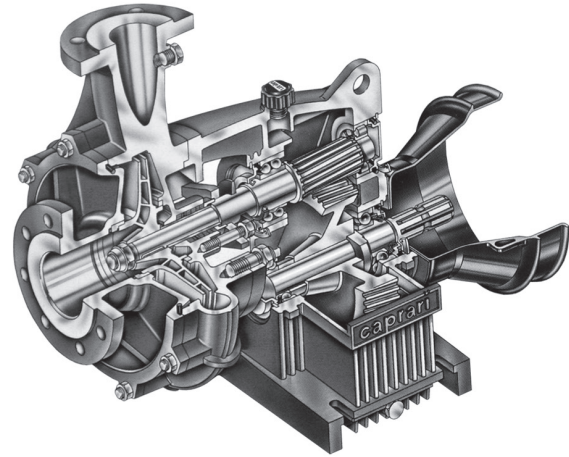
Caprari pumps are known world-wide for their quality construction, reliability, and high efficiency. Since 1984, Cadman has teamed up with Caprari to provide you with these high quality products. Cadman has thirteen different single stage models to offer, from 50 GPM to 2,300 GPM. These pumps are available in bare and fitted forms. Bare pumps are supplied with counterflanges, gaskets and bolts. Fitted pumps come complete with a heavy duty two wheel cart, PTO shaft, liquid pressure gauge, priming check valve, and NPT thread for the suction port. All pumps come with the discharge port facing horizontal left (when standing behind suction side.) Upon request, pump volutes can be rotated to vertical or horizontal right.

MODEL	GPM	50	60	70	80	90	100	150	200	250	300	350	400	450	500	600	700	800	1000	1200	1400	1700	2000	2300
D2/40 A 540 RPM	H ft	337	337	335	333	330	328	307																
	PSI	146	146	145	144	143	142	133																
	HP	13	14	15	16	17	17	21																
D1/50 A 540 RPM	H ft	208	208	210	210	210	213	208	208	189	171													
	PSI	90	90	91	91	91	92	90	89	82	74													
	HP	8	9	9.5	10	10	11	13	15	17	19													
D2/50 A 540 RPM	H ft	331	331	331	331	329	329	328	315	292	282													
	PSI	143	143	143	143	142	142	141	136	126	114													
	HP	18	18	19	19	20	21	25	27	30	31													
D3/50 A 540 RPM	H ft			393	393	393	393	386	370	347	307													
	PSI			170	170	170	170	167	160	150	133													
	HP			23	24	25	25	30	35	38	41													
D2/65 A 540 RPM	H ft						247	250	250	247	243	238	231	224										
	PSI						107	108	108	107	105	103	100	97										
	HP						18	21	23	27	29	31	34	36										
D3/65 B 540 RPM	H ft						372	370	360	356	349	337	328	314										
	PSI						161	160	156	154	151	146	142	136										
	HP						29	34	36	42	46	50	53	55										
D2/80 A 540 RPM	H ft						254	252	252	249	249	247	243	238	229									
	PSI						110	109	109	108	108	107	106	103	99									
	HP						28	31	33	36	38	40	43	47	51									
D04/80 C 540 RPM 1000 RPM	H ft						390	390	389	387	384	382	379	371	328									
	PSI						169	169	168	167	166	165	164	161	142									
	HP						42	46	52	56	60	66	70	77	82									
D04/80 E 540 RPM	H ft						336	335	331	328	322	315	308	292	289									
	PSI						146	145	143	142	139	136	134	126	116									
	HP						36	40	44	48	52	56	58	64	70									
D03/100 A 540 RPM	H ft						271	271	269	269	267	267	259	254	240									
	PSI						117	117	116	116	115	115	112	110	104									
	HP						42	46	48	50	54	58	64	69	78									
D3/101 A 1000 RPM	H ft						367	360	358	354	348	331	312											
	PSI						159	156	155	153	151	143	135											
	HP						67	76	84	92	98	111	122											
D01/125 A 540 RPM	H ft						84	82	77	70	59	48												
	PSI						37	36	35	34	30	26	21											
	HP						18	19	20	21	23	24	26											
BHD 200 A 540 RPM	H ft						58	57	58	58	58	58	53	47	40									
	PSI						24	24.5	25	25	25	24	23	20	17									
	HP						18	19	21	22	24	26	29	30	31									



caprari MULTIPLE STAGE TRACTOR DRIVEN PUMPS

Single and two stage pumps are constructed from close grained cast iron. The balanced impellers have two replaceable wear rings on each impeller. A heavy duty step-up gear box has hardened helical spur gears running in oil. Unlike other pump companies that use chromed steel for their pumps shafts, Caprari only uses high grade stainless steel. The two shafts are supported by high quality bearings. A stuffing box seal is incorporated with a replaceable chromed steel shaft bushing.

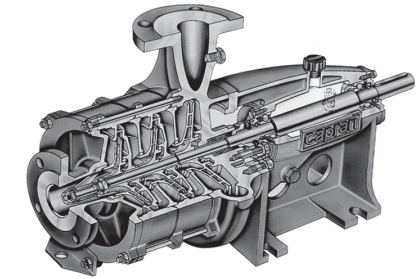
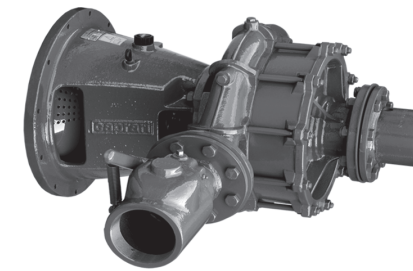


For overall efficiency, nothing compares to Caprari's line of multiple stage PTO pumps. With five different models to choose from, Cadman can fine tune the perfect pump for you. Multiple gear box ratios and the ability to trim impellers makes this possible.

For those rough, hot summer days, Caprari has incorporated a cooling coil, on some models, constructed from stainless steel.

MODEL	GPM	200	250	300	350	400	450	500	600	700	800
DMR 65-2/2 A 540 RPM	H ft	518	205	492	472	446	413	381			
	PSI	224	219	213	205	193	179	165			
	HP	45	50	55	60	64	68	71			
DMR 80-3/2 C 540 RPM 1000 RPM	H ft	446	440	436	430	427	420	413	387	361	322
	PSI	193	190	189	186	185	182	179	168	156	139
	HP	49	53	56	60	62	66	70	76	83	90
DMR 80-3/2 E 540 RPM	H ft	400	394	390	384	377	374	361	338	302	262
	PSI	173	170	169	166	163	162	156	146	131	114
	HP	44	46	50	54	56	59	62	67	73	78
DMR 83-3/2 A 1000 RPM	H ft	535	532	525	522	518	512	505	489	463	430
	PSI	232	230	227	226	224	222	219	212	200	186
	HP	62	66	70	76	80	84	89	97	104	112

caprari MULTIPLE STAGE ENGINE

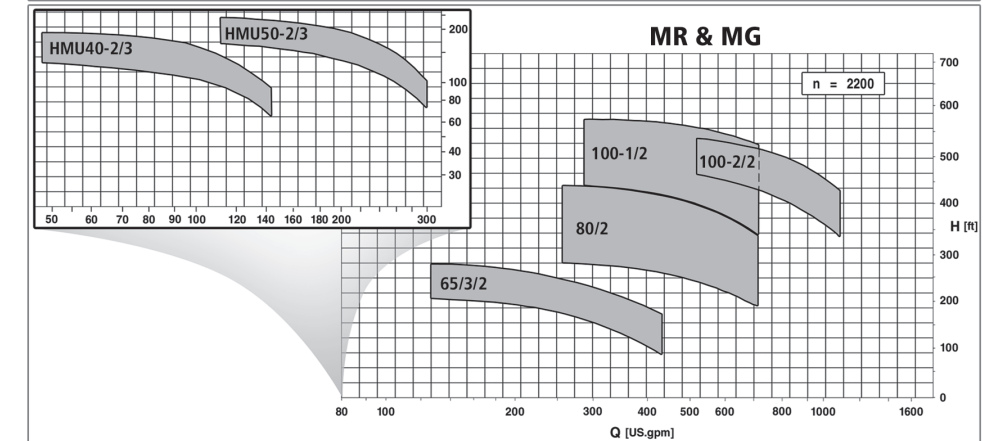
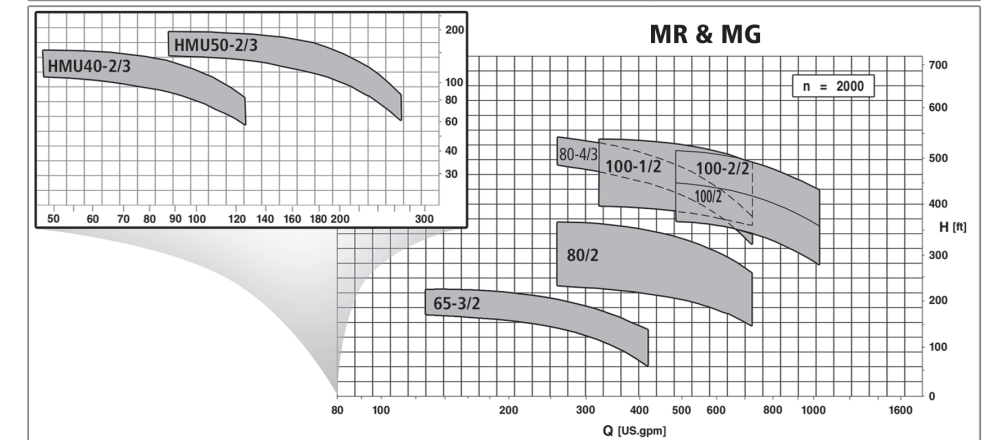
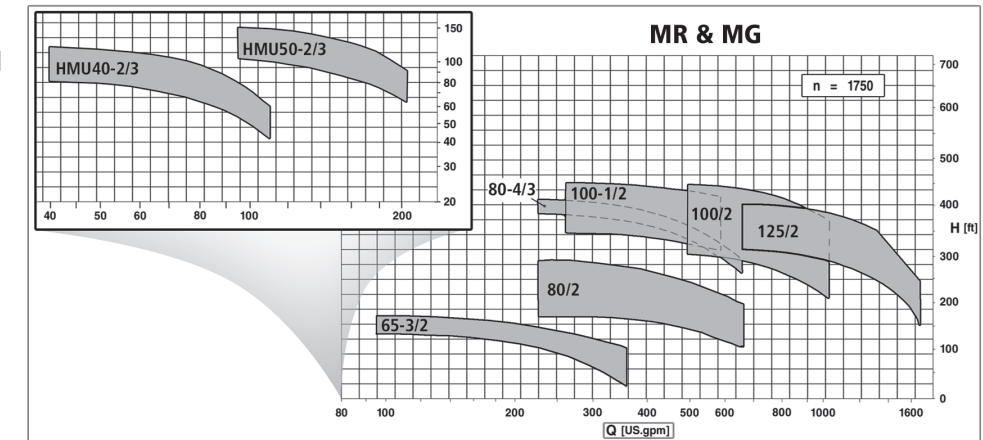


Caprari offers a full lineup of multiple stage horizontal shaft centrifugal pumps for connection to gasoline or diesel engines, or an electric motor.

These pumps are equipped with oversized bearings to provide superior coupling, dependability and long life of the pump.

MG series pumps are flanged for SAE 3 engines, however, adapter rings are available for SAE 1, 2 and 4 engines. For use with a clutch, Caprari has its MR and HMU series pumps.

All three series of pumps are composed of a suction cover, flow directing blade diffusers, volute shaped casing, bearing housing, grey cast iron impellers.



& FRAME MOUNTED PUMPS

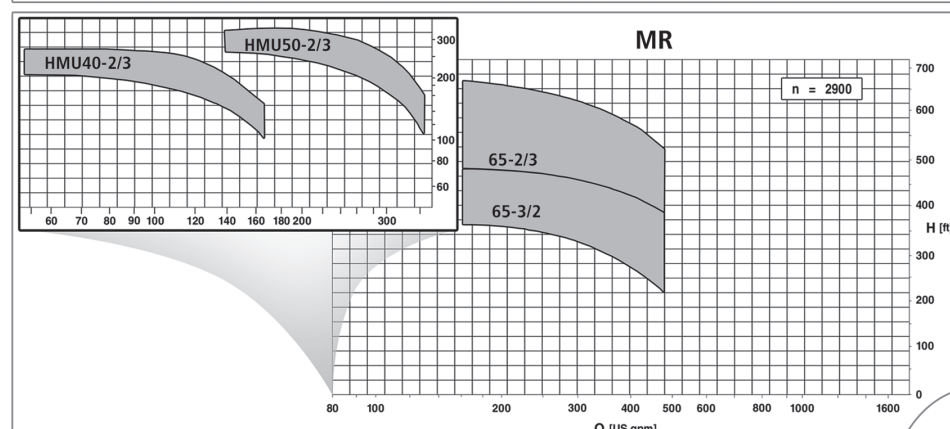
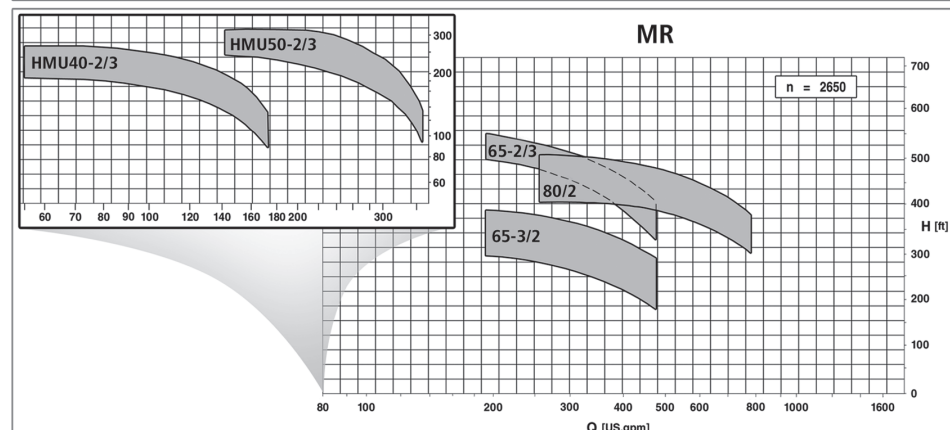
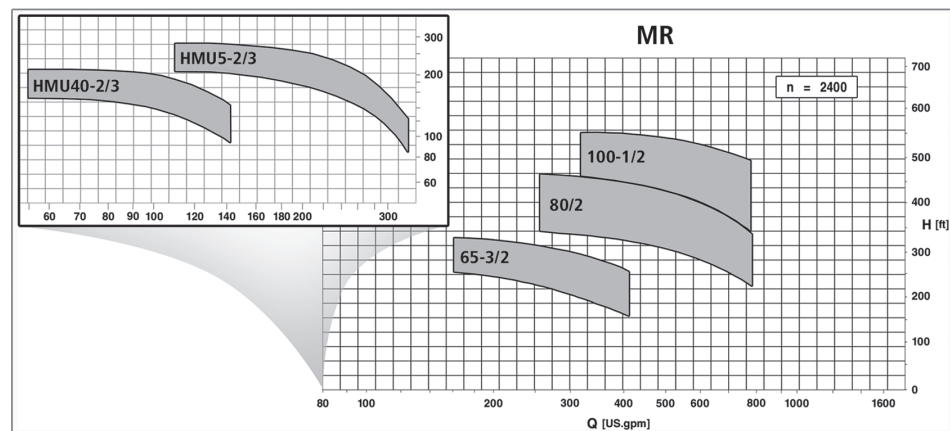


Stainless steel shaft and external carbon steel tie bolts to securely fasten the pump assembly.

Two replaceable wear rings are provided for each impeller. The shaft is supported by two oil-lubricated roller bearings.

Three and four stage pumps incorporate an additional support of the shaft in the form of a bronze journal bearing located in the suction cover, equipped with a mounting bracket.

The pump shaft is protected by a replaceable, chromed steel sleeve which is situated in the packing gland area.



caprari

SINGLE STAGE FRAME



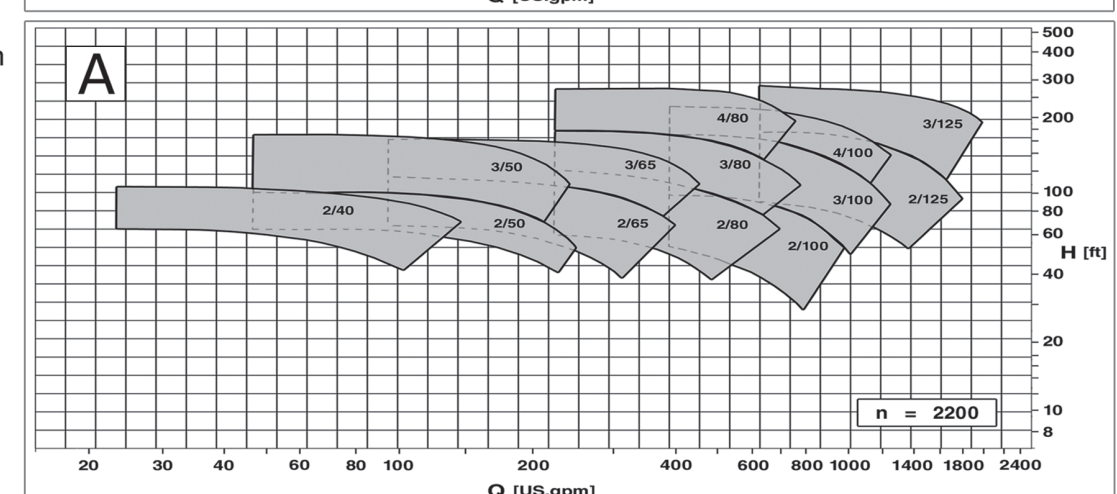
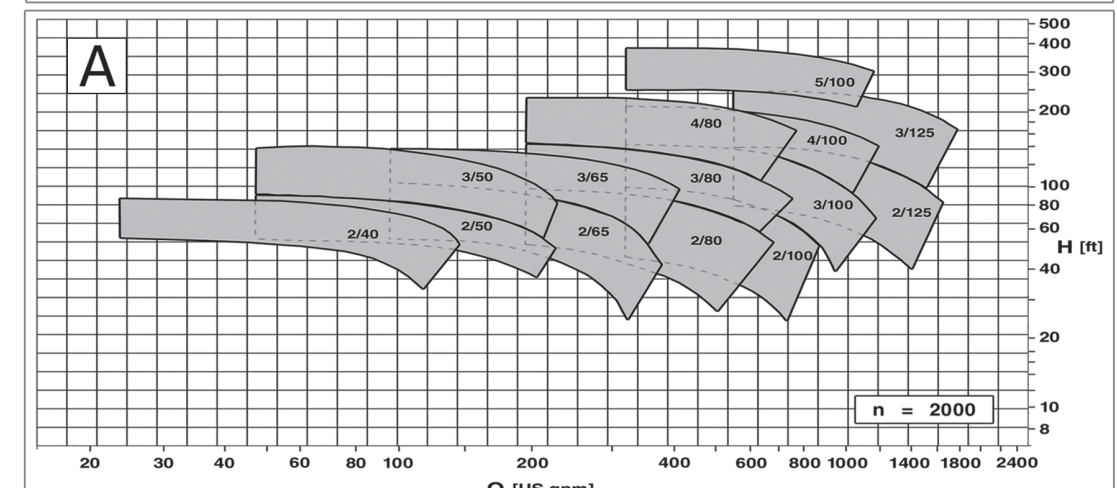
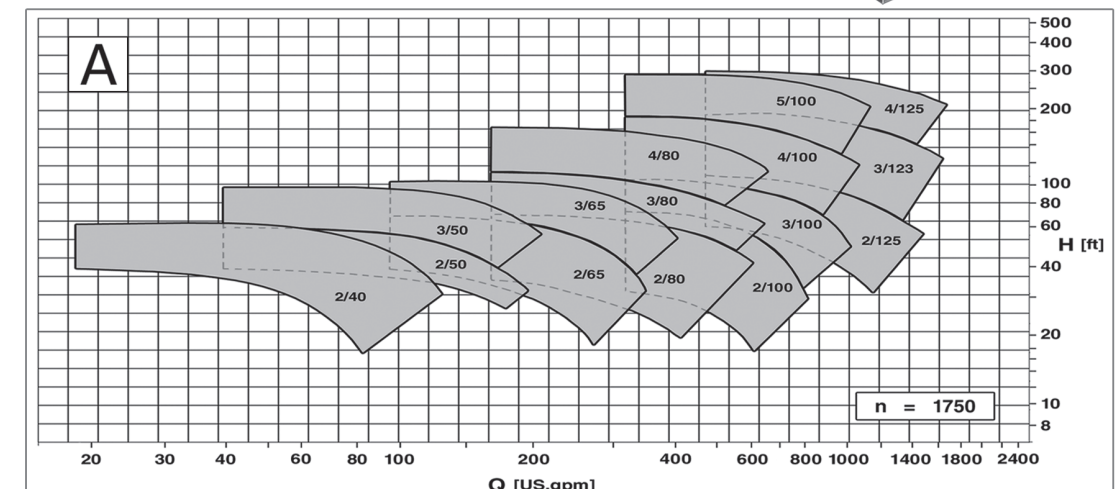
The A series of Caprari pumps are horizontal, single stage centrifugal fitted with a heavy duty pedestal.

The high strength pedestal frame allows for coupling to diesel or gasoline engines, but is also suitable for an electric motor.

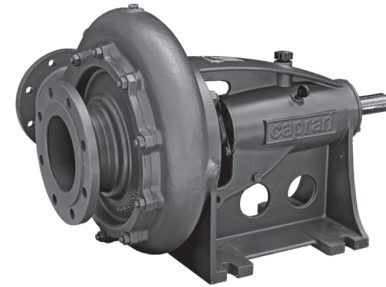
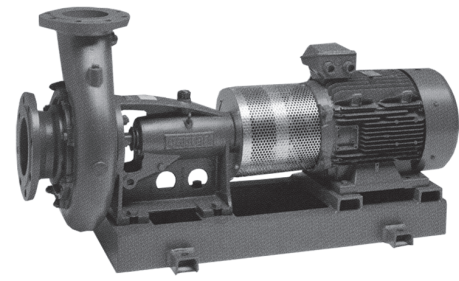
These pumps are ideal for situations where the high-head pressures available on the multiple stage pumps are not needed.

All A series pumps are constructed with cast iron impellers, volute and suction cover.

The shaft is guided and supported by two oil-lubricated ball bearings, which are over-sized for durability.



MOUNTED PUMPS



PRIME YOUR PUMP

Cadman can fit your new Caprari pump with the primer of your choice.

We have a complete line of hand primers and for maximum efficiency, Cadman offers its 12 volt Power Primer.

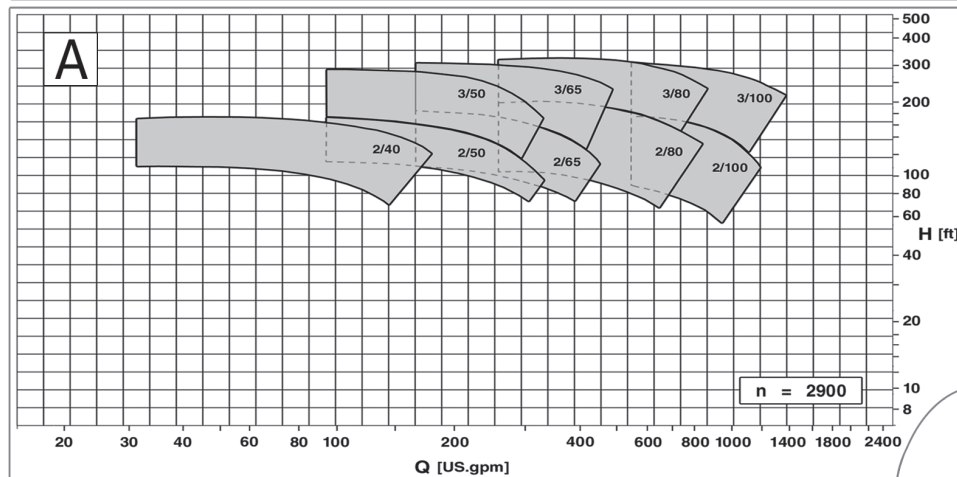
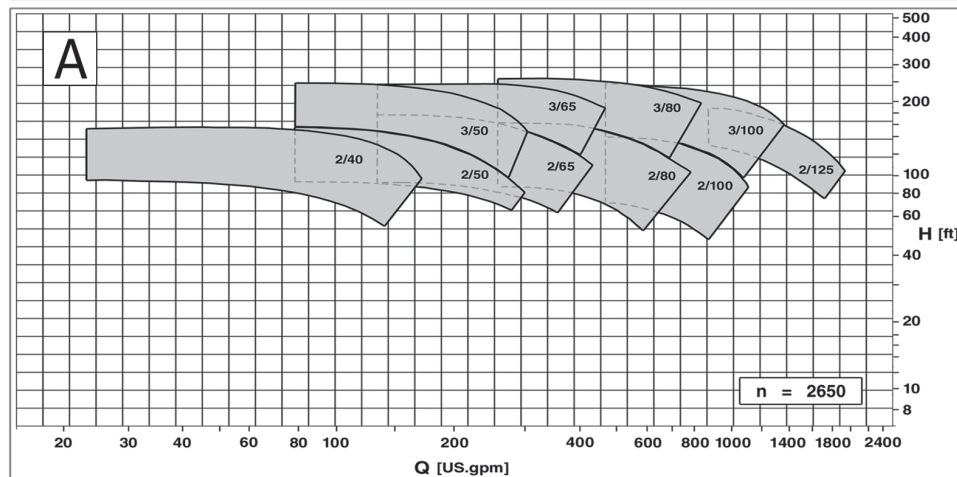
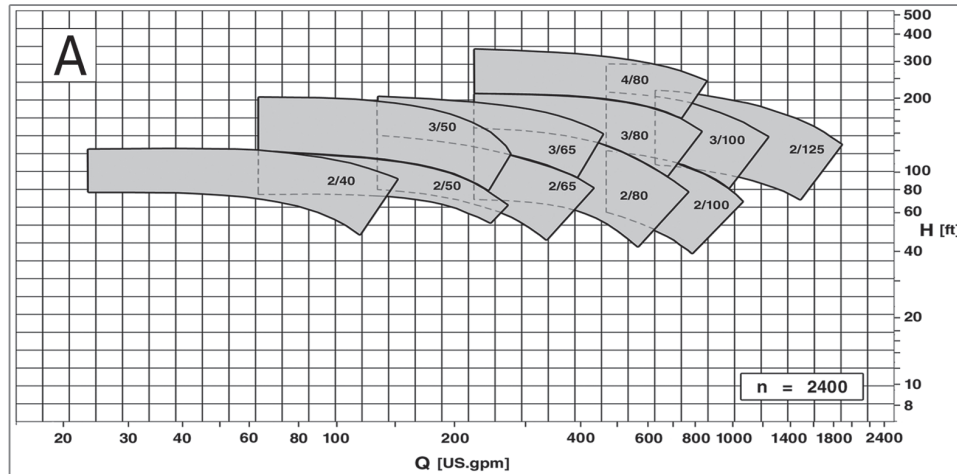
With the Cadman Power Primer, you can prime your pump in seconds with minimal effort!



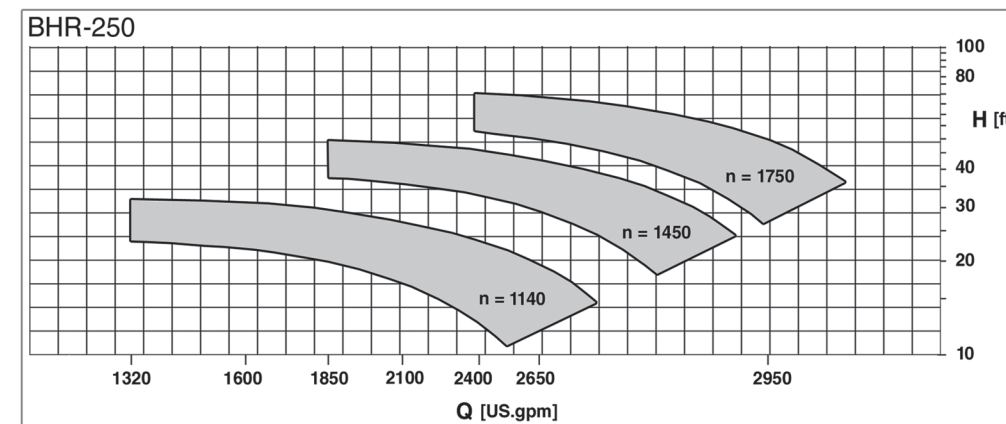
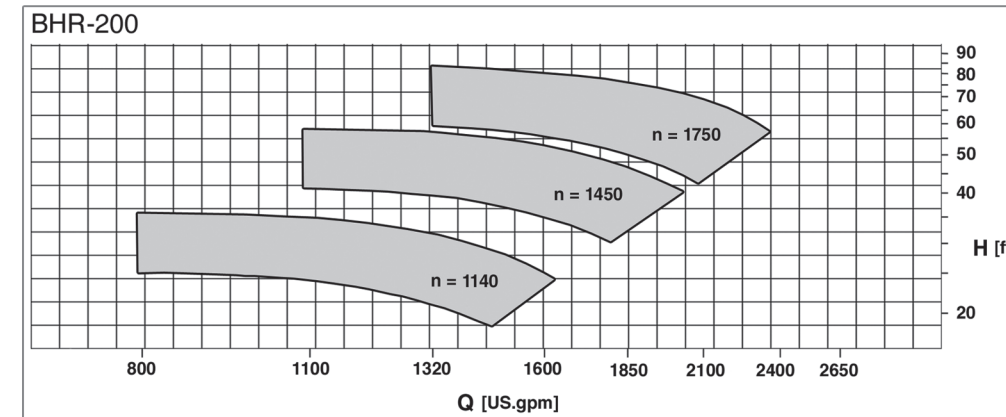
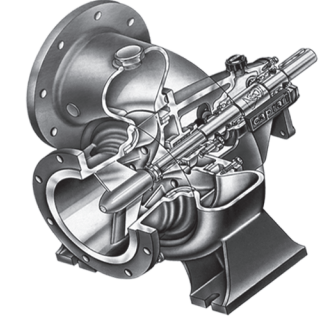
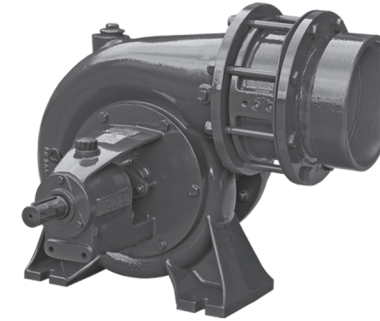
Hand Primer



Power Primer



SINGLE STAGE FRAME MOUNTED PUMPS



Caprari's BHR series of pumps are optimal for high volume, low pressure applications such as flood irrigation or rapid fluid transfer.

The tough monolithic structure is sized to ensure a high degree of rigidity for use with diesel or gasoline engines.

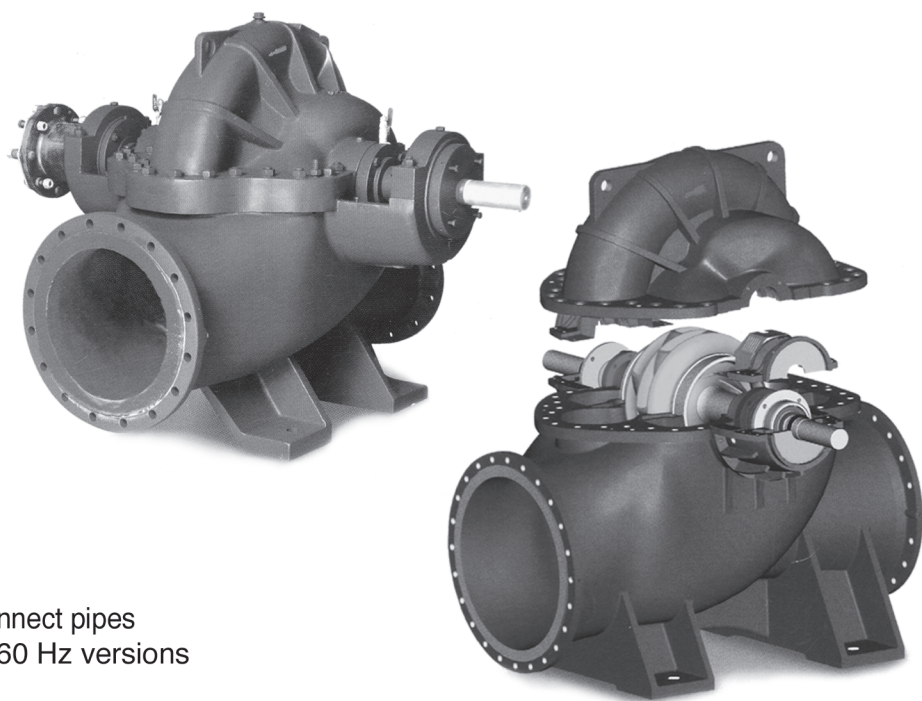


caprari

SCC SPLIT-CASE SERIES

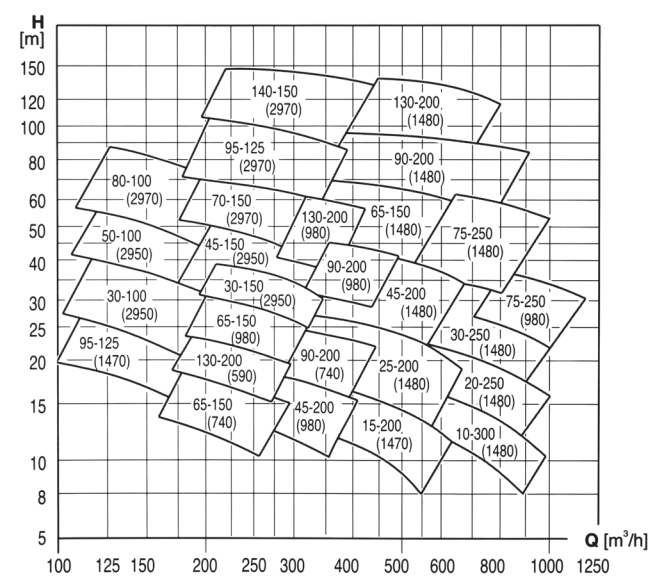
SCC Series Split Case Pumps provide high efficiency and fadeless reliability throughout their entire life cycle with very low running costs. They are ideal for heavy duty applications and continuous service. Their robust and compact structure guarantees long-lasting performance with very low maintenance and flexibility.

- Applications:**
 Water systems
 Civil and industrial water supplies
 Land reclamation
 Irrigation
 Industry
 Large heating/conditioning systems



- Technical Specifications:**
 Double suction pumps
 Suction and delivery ports in line
 Easily serviced without the need to disconnect pipes
 Flow rates of up to 1000m³ /h to 50 & 60 Hz versions
 Up to 570 ft. head
 Thirty high efficient models all with balanced impellers
 Temperatures -10° to +90°C
 Counter-clockwise rotation viewed from shaft projection
 (with suction or w/suction port on left & delivery on right)
 Available in an assembly with electric motors and internal combustion engines

- Materials:**
 Pump casting in grey cast iron GG250
 Impeller in grey cast iron GG250 (bronze on request)
 Shaft in stainless steel AISI 420
 Impeller wear ring in grey cast iron GG250 (bronze on request)
 Brushes and feather keys in stainless steel AISI 420
 Mechanical steel or packing gland
 Bearings with permanent grease or oil lubrication, depending on the model



caprari

VERTICAL LINESHAFT PUMPS FOR DEEP WELLS

P SERIES PUMPS

P Series Pumps are the outcome of almost a half century of Caprari's experience in manufacturing vertical pumps; initially designed for water raising then later for water mains and industrial systems. P Series Vertical Line Shaft pumps in their standard construction, now have the ability to reach deeper and deeper ground water tables as requested from around the globe. In comparison to previous types, installation depths of 120 m are quite usual. Specially engineered pump installations now reach depths of 250 meters.

Caprari means high quality. They are the leading European manufacturer of vertical lineshaft pumps; a position acquired by modern designs, precision machining and rigid quality controls. This all results in top quality, cost effective, reliable pumps capable of outstanding on-demand performance with low maintenance.

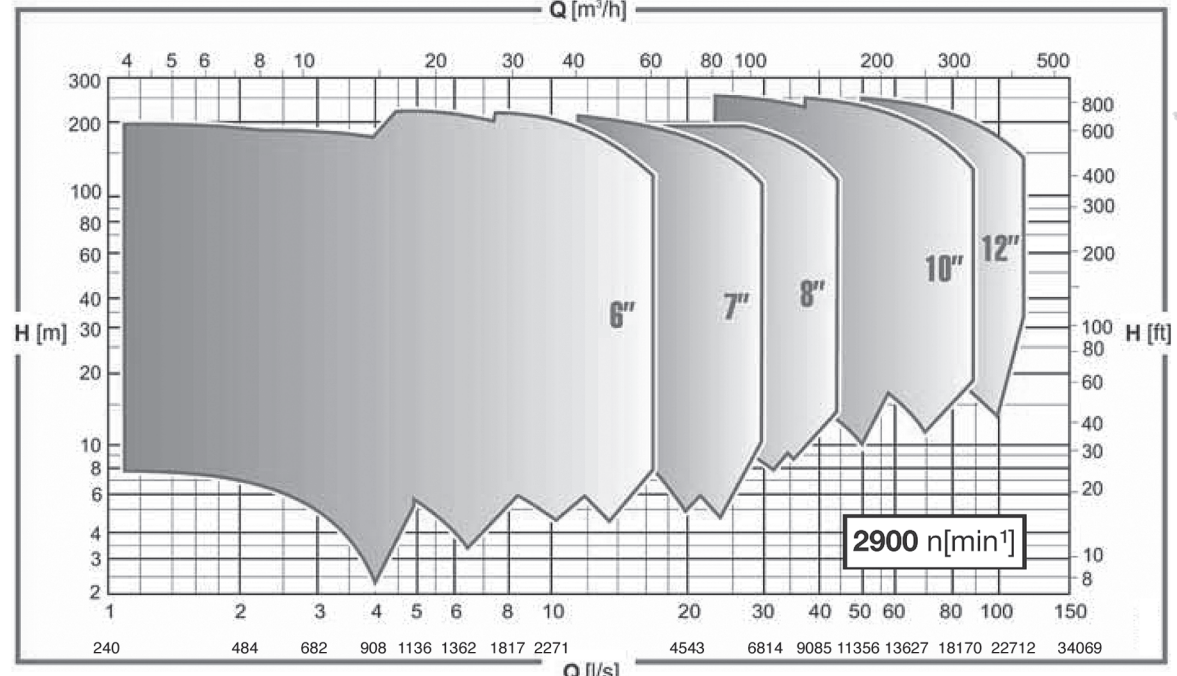
Caprari pumps are also available in non-standard specialty metals and custom constructed for specific applications such as submersible bowl assemblies of a narrower diameter and many types of drive heads.

- Applications include:**
 Water raising from bore holes and deep wells for irrigation, water mains, industrial systems, wellpointing, firefighting and cooling etc.

- These vertical lineshafts are primarily composed of:
 - Bowl Assembly: single or multistage
 - Lineshaft column: shafts and rising pipes
 - Drive head for pump holding and driving.

A delivery outlet in the discharge base is provided for the connection to the piping system for over foundation level or a pump version with delivery outlet under the foundation level directly on the column pipe is also available.

A wide selection of drive heads is available to drive the pumps by most common prime movers.



caprari DS - MS SERIES ELECTRIC SUBMERSIBLE PUMPS

The DM series electric submersible pumps are for handling surface drainage water. Thanks to their user-friendly design and high operating efficiency, they offer unbeatable service to both man and environment. A wide range of models ensures that every requirement can be satisfied: from specially designed lightweight and easily handled domestic use pumps, to robust construction site use pumping units capable of handling even the most arduous jobs. The user-friendly DM series electric submersible pumps: just connect the power cord to the control and protection circuit, the delivery pipe to the fitting on the pump body, and it's ready to go.

SERIES D-DS

Series D-DS electric pumps are to be used for pumping clean or slightly dirty water provided it is non-aggressive and free from fibrous or stringy matter that could clog the suction screen or impeller.

SERIES M-MS

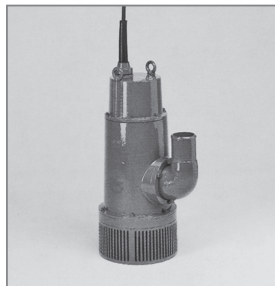
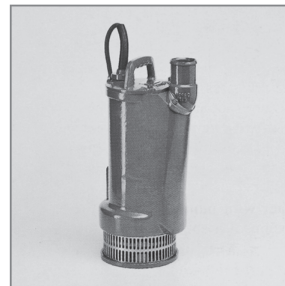
Series M-MS electric pumps are designed with ample free passages and can thus be used for pumping screened drainage water containing suspended particulate matter whose grain size is within the limits of the free passages through the pump.

TYPE DX/DSX - DA/DSA



Electric pumps designed for all domestic needs (DX/DSX) or for normally heavy duty professional use (DA/DSA such as pumping out basements, irrigating gardens, emptying rain water cisterns or transferring clean or slightly dirty water. They are available for the following power supplies:
 - Single phase 230V - 10% +6%, 50Hz, 220V +5%, 60Hz complete with capacitor, overload cut-out, circuit breaker.
 - Three phase 400V +10%, 50Hz 380V +5%, 60Hz.
 Motor in oil bath, insulation class F, protection degree IP68. Bolts are stainless steel.

TYPE DRN/DSRN - DRH-L/DSRH-L



Submersible electric pumps ideal for the exacting demands of construction and work sites and wherever continuous operation must be guaranteed even under extreme working conditions. Sturdy construction, abrasion-resistant materials for parts in contact with pumped liquid and the inclusion of a special device to overcome induced leakage at the pump inlet: these features coupled with a sensible design to facilitate routine maintenance are a guarantee of ongoing high performance and long working life. The motor is enclosed in a housing with Class F insulation, three phase 400V +10%, 50Hz; 380V +5%, 60Hz.
 Bolts are stainless steel.

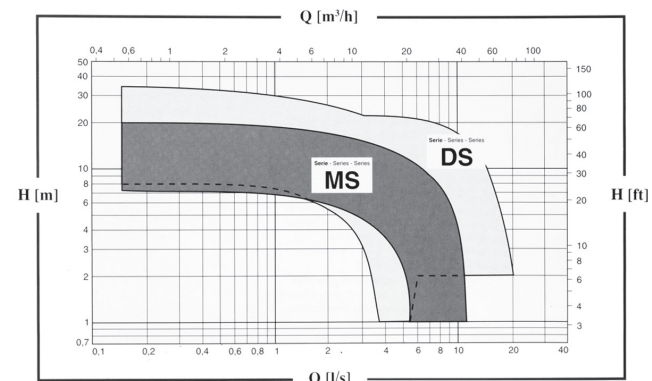
TYPE MX/MSX - MA/MSA



Electric pumps with set back opening impeller or vortex type and with generous free passages are ideal for handling screened water, effluent or emptying small community septic tanks. Vortex type impeller versions are recommended where the liquids pumped contain solid matter in suspension of fibre. On request MA/MSA pumps can be supplied complete with an automatic coupling at the discharge for use in effluent or septic tank installations. The following power supplies are available:

- Single phase 230V - 10% +6% 50Hz 220V +5% 60Hz complete with capacitor, overload cut out, circuit breaker.
 - Three phase 400V +10% 50Hz 380V +5% 60Hz.
- Motor in oil bath, insulation class F, protection degree P68. Stainless steel bolts.

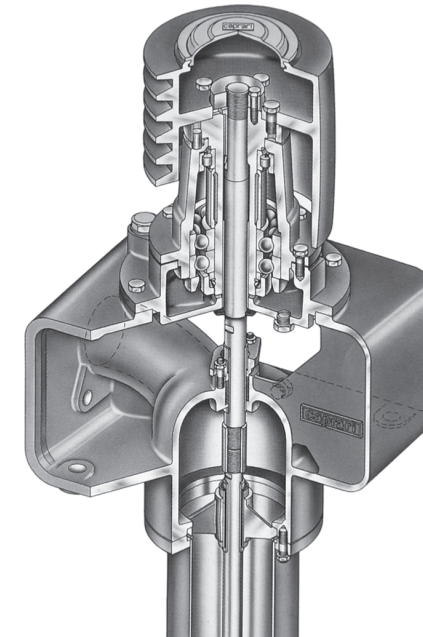
DS/MS - 60Hz



caprari VERTICAL LINESHAFT PUMPS FOR DEEP WELLS

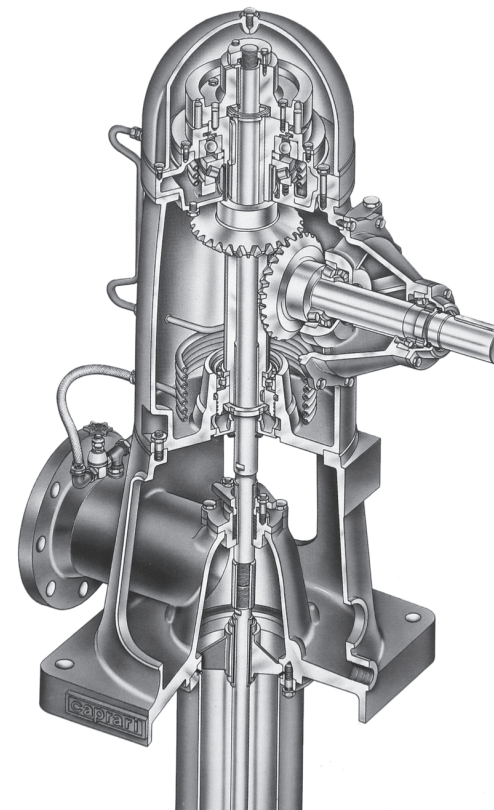
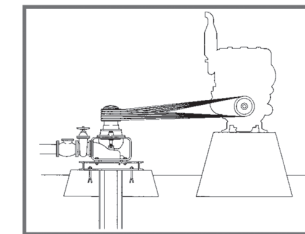
P SERIES DRIVE UNITS

P-Series drive units support the pump weight while connecting the lineshaft column to the discharge port. The pumps are driven by internal combustion engines through a vertical pulley and or a right angle gear head. As well, a vertical electric motor option is available. All drive units are fitted with a non-reverse ratchet. This is essential in automatic control installations to avoid the risk of starting the pump when in counter-rotation due to the column emptying.



With Vertical Pulley: "VG-VP" Series

Available with grooved pulley driven by V-belts or with a band pulley driven by a flat belt. Easy to be coupled to internal combustion engines. These pumps are very flexible to match different hydraulic features under various working conditions. The simple construction and the effective lubrication system are internationally patented.



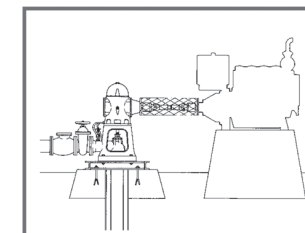
With angle gears: "R-RR" Series

Numerous available ratios with a range of power up to 200kW and optional double shaft protection. This allows the vertical lineshaft pumps to be driven by the largest range of power sources.

The gear drive head series has been designed with large tolerances for every component. The hardened steel gears are always in close contact even under heavy working conditions. Gears and bearings are oil-lubricated by means of a screw pump.

Cooling is achieved by pumping water through a contact chamber.

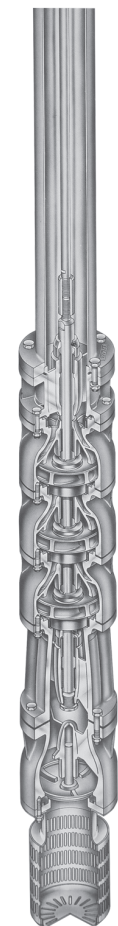
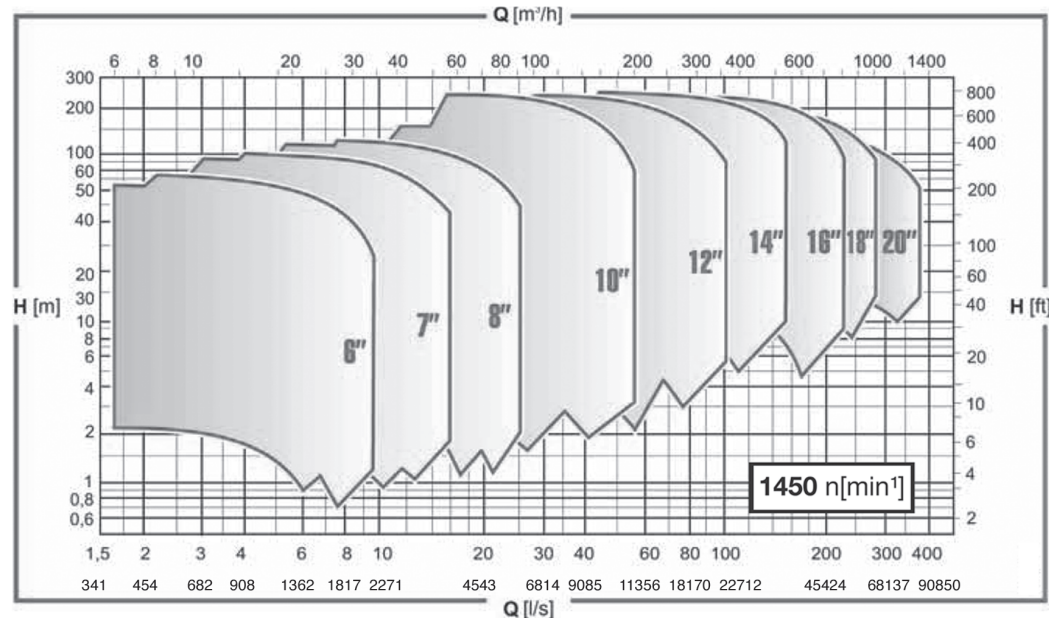
The thrust bearing will allow any axial thrust generated by the pump.





VERTICAL LINESHAFT PUMPS FOR DEEP WELLS

P SERIES PUMPS



LINESHAFT COLUMN

Connects the drive head to the pump bowl allowing power transmission to the impellers, discharge of the raised liquid and setting of the pump at the required depth.

The raising main is composed of cold laminated steel pipes with flanges welded at both ends. Constant quality controls during manufacturing and testing assure correct alignment of transmission shafts.

These shafts are supported by rubber bearings at each column end. The lineshaft is composed of carbon steel bars with a chromed wearsleeve at the bearing contact point.

Lineshaft bars come in standard lengths of 2, 3 and 5 metres.

Different lengths are available on request.



BOWL ASSEMBLY

Modular assembly of mixed-flow stages with high hydro-dynamic efficiency to respond to different requirements of capacity, head and power.

It's usually fitted with a foot valve to keep the column filled up, thus assuring correct water lubrication to the pump and lineshaft rubber bearings as well as having the pump primed and ready to run.

Impellers are individually dynamically balanced for vibration-free rotation while the rotating assembly is supported at both ends by wide bearings, usually rubber made.

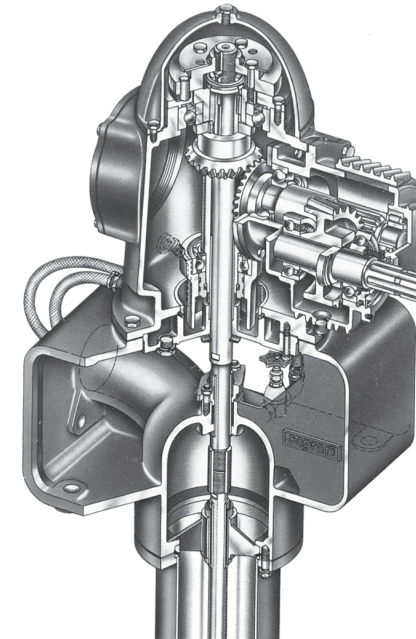
Every stage is fitted with a sand resistant rubber bearing. Bowl assembly, impellers and foot valves are made of cast iron. The pump shaft is heated hard chromed steel and/or stainless steel.

A galvanized steel strainer prevents solids entering the suction inlet.



VERTICAL LINESHAFT PUMPS FOR DEEP WELLS

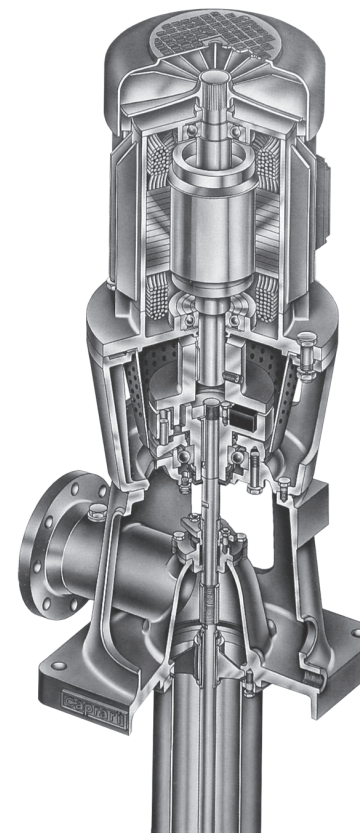
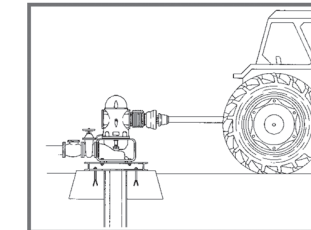
P SERIES DRIVE UNITS



With right-angle and step-up gears: "M-MR" Series

The drive head is connected by fitting the horizontal shaft end of the angle gear head to a step-up gear. This is connected to the tractor by a standard PTO shaft.

Machining of structural components such as bevel gear sets is precise. This assures the closest gear contact, effective lubrication and cooling to minimize noise.



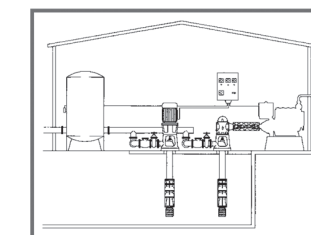
Electric Motor: "E-EP" Series

Used for connecting the discharge head of the pump to an electric motor.

Configured as totally enclosed or protected. Motors are available up to 430kW.

Pump and motor shafts are connected through an elastic coupling. The drive head is fitted with thrust bearings to withstand the pump's rotor assembly.

Bearings are ball type, angular contact, grease-lubricated in the low-to-medium power heads and roller type, oil-lubricated in high power heads.



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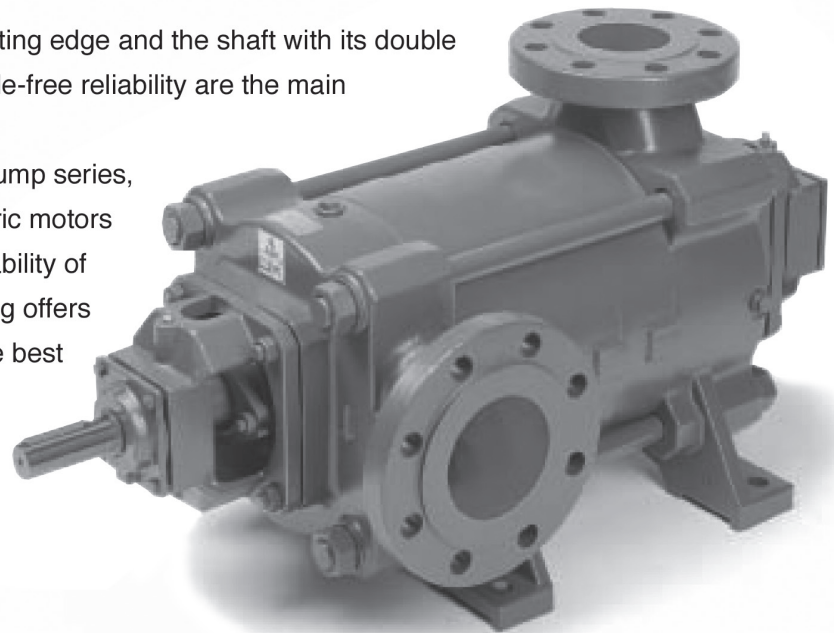
PM MULTI-STAGE CENTRIFUGAL PUMPS

THE UTMOST IN RELIABILITY, PERFORMANCE AND LONG LIFE

The result of a large experience acquired in pump design and manufacture for uses in the most varied applications, the high pressure multi-stage centrifugal pumps of the PM series represent the best that state-of-the-art technology is able to offer in this particular field.

High performances, efficiency at the cutting edge and the shaft with its double support for a tough construction and fade-free reliability are the main characteristics.

The extended model range of the PM pump series, the possibility of direct coupling to electric motors or to combustion engines and the availability of special versions on demand are enabling offers for each of the different applications, the best solution for dependability, efficiency and energy saving.

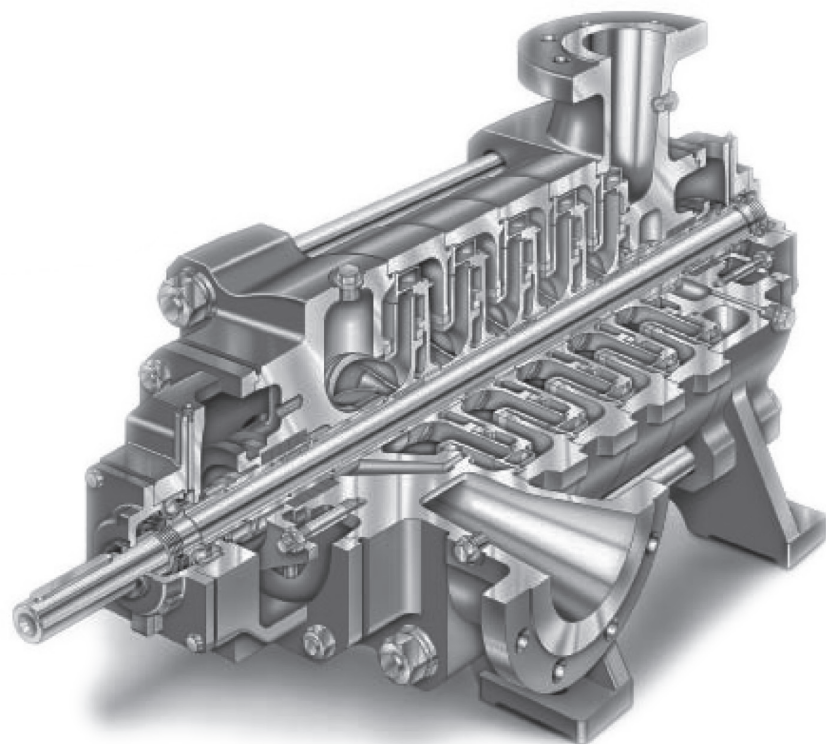


Main fields of use:

- Aqueducts
- Water supply
- Civil engineering

Industrial applications

- Irrigation
- Firefighting
- Leisure parks
- Artificial snow production

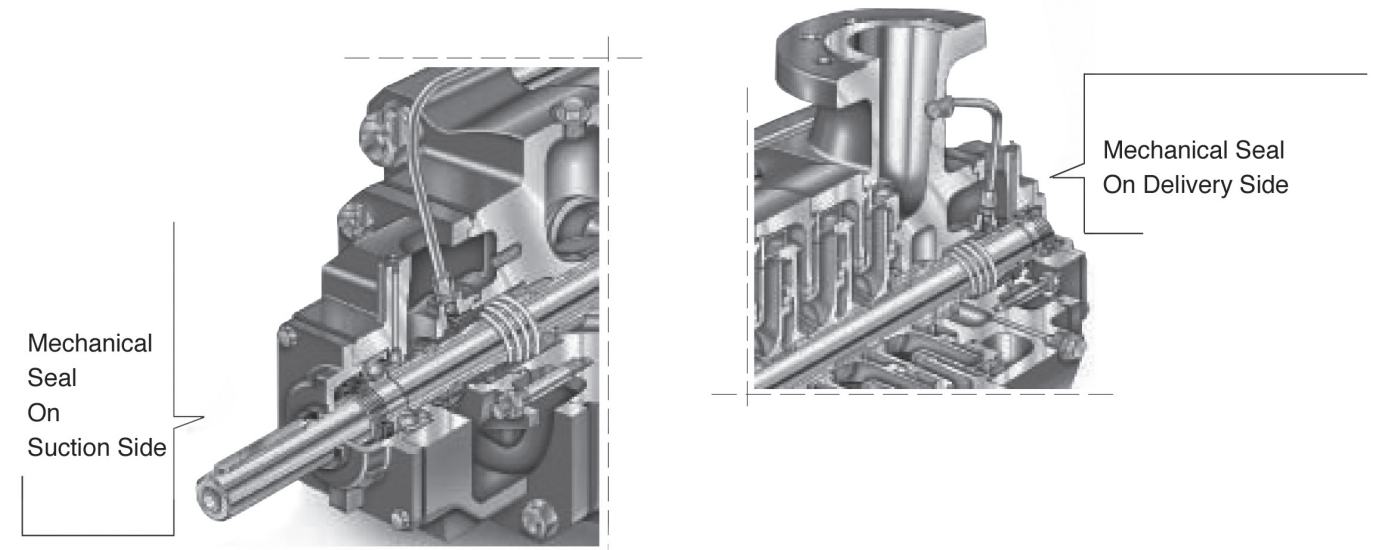


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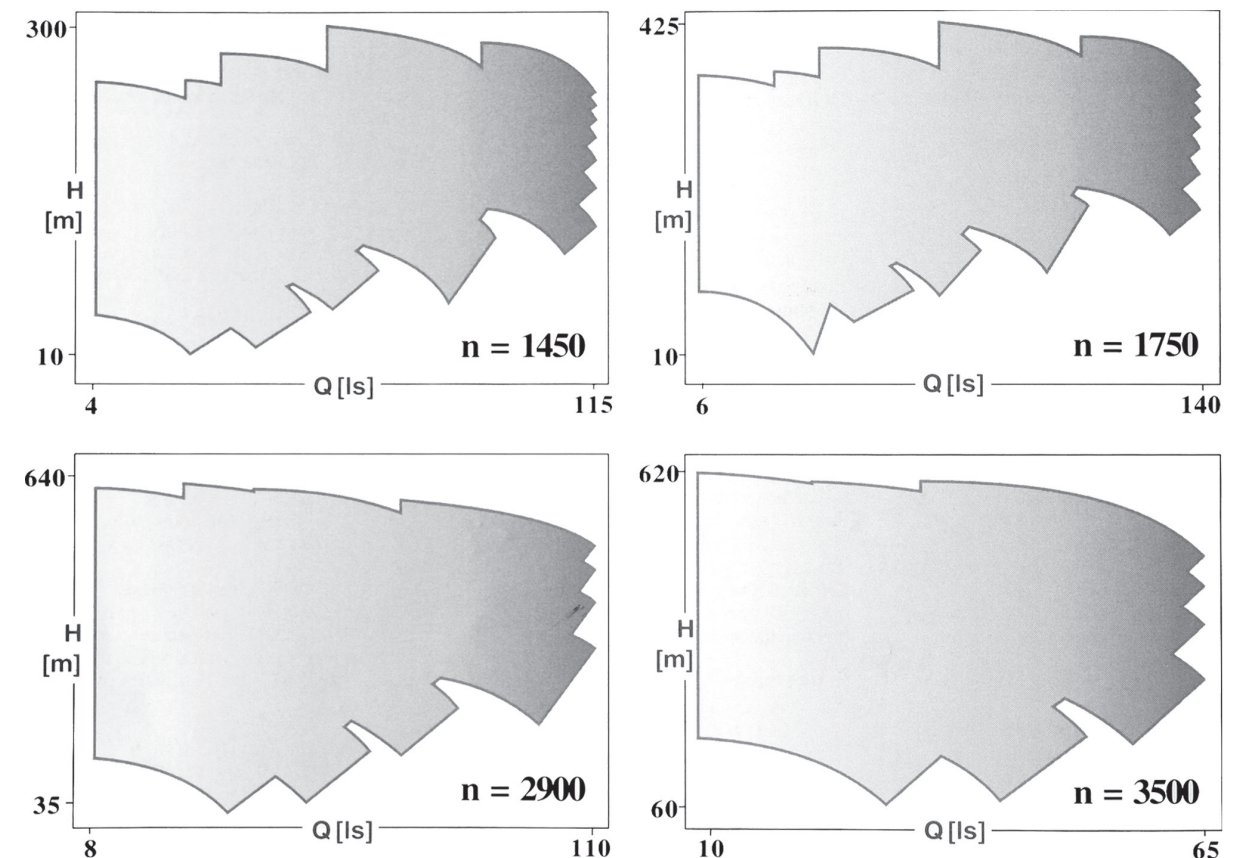
PM MULTI-STAGE CENTRIFUGAL PUMPS

Versions on demand:

- Bronze impellers.
- Anticlockwise rotation with shaft projection on delivery side.
- Double shaft projection.
- Suction port pointing upwards or towards the left.
- Balanced mechanical seals to DIN 24960 and ISO 3069 standards (for PM/PMS - PMH versions)



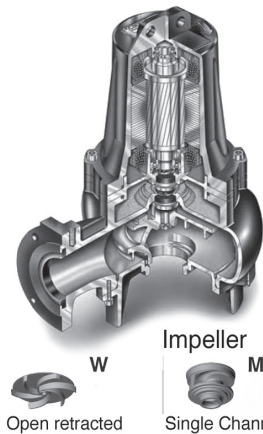
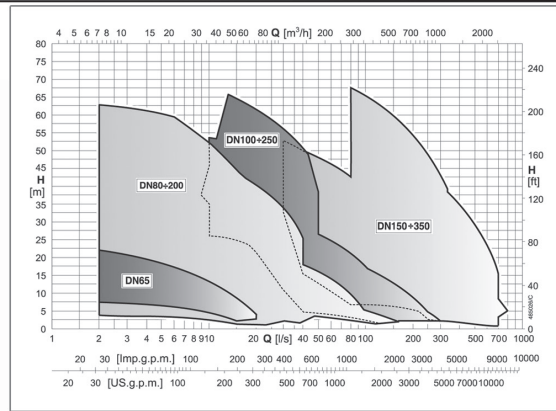
Performance Range Charts



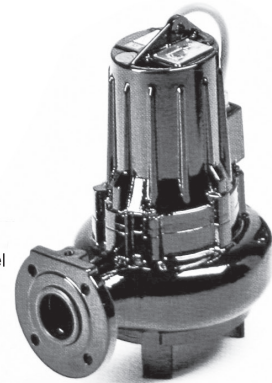
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KS+ SERIES ELECTRIC SUBMERSIBLE PUMPS

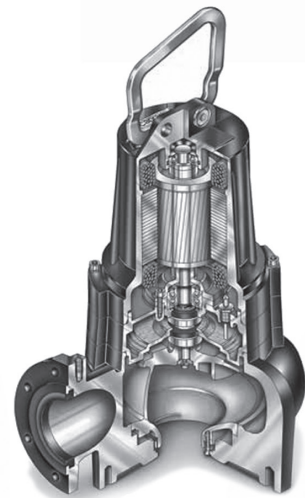
The KS+ series electric pumps for sewage represent Caprari's answer to today's pressing environmental needs. The KS+ electric pumps have been specifically designed for lifting water from civilian drains into sewage lifting stations and into water treatment plants. As well, these pumps are rugged enough for transfer of fluids on the farm. In addition to single channel non-clogging impeller pumps, we can also supply vortex pumps with open setback impellers. Both series achieve the highest level of reliability. While the single channel impeller offers better efficiency, the vortex impeller is better able to move liquids with high concentrations of dissolved gas. Apart from this are a number of other criteria to be taken into account which will determine the impeller type.



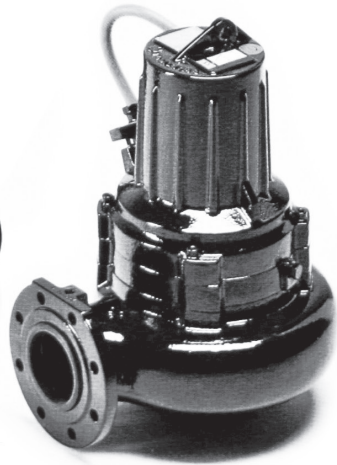
DN 65



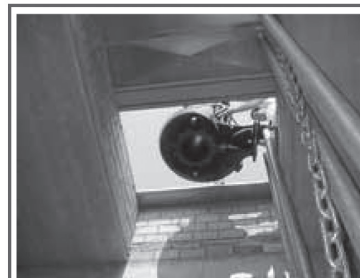
This model has the same basic technical solutions as the higher range in a simplified casing, giving it the same reliability, working life and quality performance but in a power range more commonly found in models designed for domestic and similar uses.



DN 80 - 200



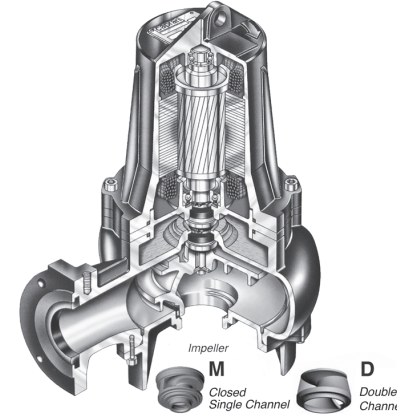
The compact construction, carefully designed hydraulics, perfect mechanical proportions, generously scaled electrical fittings and standard supply safety devices give the range a high level of reliability and long life, putting the product at the top end of the market in terms of quality.



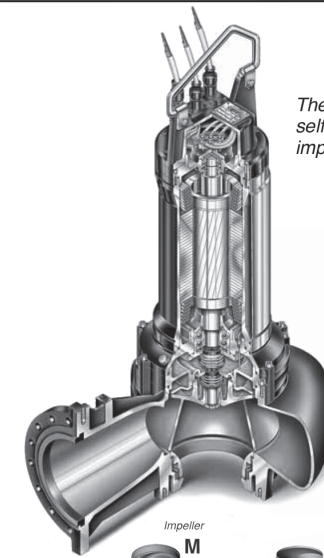
caprari

KS+ SERIES ELECTRIC SUBMERSIBLE PUMPS

DN 100 - 250



It combines the newly upgraded winning technical concepts of the lower range with a number of technical innovations specially devised for continuous heavy-duty use, which, in addition to the standard requirements, also calls for maximum versatility, ease of maintenance and reliability in use.



The innovative design of these pumps feature self-cleaning hydraulics and double-channel impellers guaranteeing reliability and efficiency.



The electric pumps of the K series in the "EX" version have been specifically designed for use in environments in which there is a risk of explosion. They are certified in compliance with EEx dIIB T4 class.

Possible Installations



FIXED WITH CONNECTING FOOT
This is the best solution for permanent pumping stations. No particular building works are required and the system is easy to install. The rapid connection capability makes the pump quick and easy to remove from the tank and reinstall and means that routine or special maintenance can be carried out in complete safety without having to go into the accumulation tank. Connecting foot, guide pipes, chain, etc. are available for this type of installation.



MOBILE WITH BASE FRAME
This type of installation is particularly suitable for:
- all infrequent or non-routine uses
- use on building sites or where mobile systems are required
- remodelling of existing stations with architectural constraints.
Support frame, delivery hose pipe holder, chain, etc. available on request.



DRY CHAMBER
This is a horizontal or vertical installation that requires a dry chamber next to the fluid accumulation tank to house the electric pump unit. Compared to conventional non-submersible systems, this system gives maximum operating reliability and is entirely risk-free, even if the dry chamber is submerged in liquid. Base frames available on request.



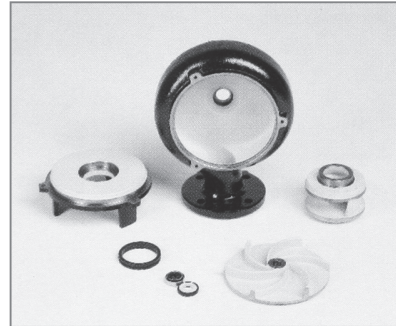


KS SERIES ELECTRIC SUBMERSIBLE PUMPS

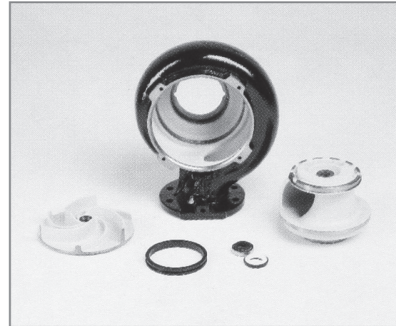
KC - KS HYDRAULIC SPECIFICATIONS

The hydraulic section consists of the impeller and the pump casing.
Two mechanical seals installed in series prevent ingress from the pump casing to the motor chamber.

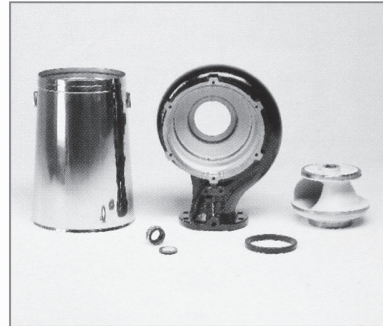
K series electric pumps have three different hydraulic systems with the following characteristics:



RETRACTED OPEN IMPELLER: W
The impeller has wide through-passages to prevent clogging and good wear resistance because of the absence of shimming. The slightly lower efficiency is made up for by the impeller's versatility: it can be reduced in size to give different operating characteristics and the open impeller can be operated at any point of the Q/H characteristic curve.
Specially recommended for water containing a large amount of solids and long-fibre and sewage with a high gas and sludge content.

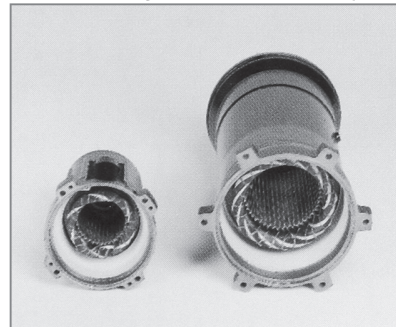


SINGLE-CHANNEL IMPELLER: M
Wide through-passages to prevent clogging, good wear resistance, low mechanical action on the fluid and high hydraulic efficiency. The hydraulics are designed so that erroneous operating peaks out of the normal range will not overload the motor (self-limiting hydraulics).
Particularly suitable for clean water, water containing solid and fibrous solids, cloacal water, sewage and sludge.
Low vibrations thanks to the dynamically balanced impeller.

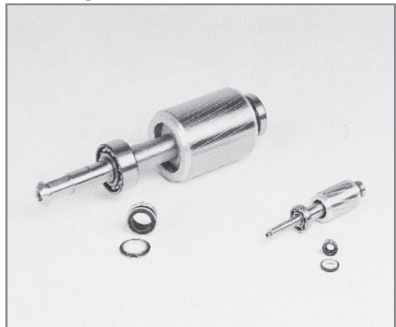


DOUBLE CHANNEL IMPELLER: D
Wide through-passages to prevent clogging, good wear resistance, low mechanical action on the fluid and high hydraulic efficiency at high flow rates.
Particularly suitable for clean water, water containing solids and fibrous solids, cloacal water, sewage and sludge. Low vibration even in presence of wearing thanks to the symmetric and dynamically balanced impeller.

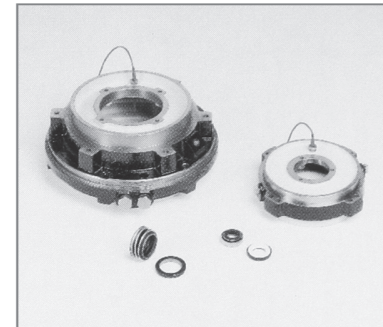
MOTOR: Asynchronous, three-phase with squirrel-cage rotor.



The motor is cooled by the fluid in which it is submerged or by a forced cooling system (for electric pumps supplied with casing).
The motor is separated from the pump by a large chamber partially filled with oil that acts as a lubricant for the mechanical seals and as a heat exchanger. Ensure compliance with a minimum head value given with the dimensions of each individual electric pump in order to ensure that the motor is correctly cooled, the exception being made for motors with forced cooling.



SUPPORTS:
The shaft of the motor, on the extension of which the impeller is mounted, is guided by two bearings pre-lubricated with grease; The lower one supports the axial thrust.
The rotating assembly is very compact, with a short overhung pump shaft which reduces bearing loads and ensures reliability and long life.



MECHANICAL SEALS:
The double mechanical seal (mounted in series) is a dual guarantee safeguarding the electric motor. If the seal on the pump side becomes faulty, the motor will not be damaged thanks to the second seal on the motor side. These seals are made of materials able to withstand heavy-duty conditions; the pump side seal is made with abrasion-proof materials.

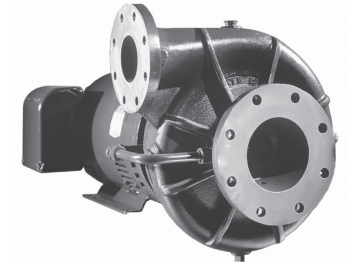
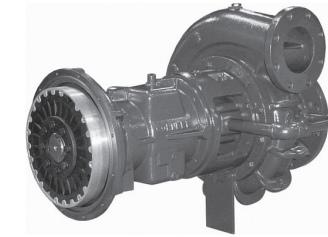
SAFE OPERATION:

Conductivity Sensor - (only on certain models) The conductivity sensor in the oil chamber warns if there is water in the oil and transmits the signal to the mechanical seal on the pump side.

Thermite Probes - (only on certain models) The motor has thermic probes connected in series and installed in the stator winding. Connected in series with the power supply of the remote control switch coil, these probes activate in the event of over temperatures exceeding 132°C, cutting off the power until the temperature drops by at least 15°C.



Water Pumps



External Hydraulic Balance Line

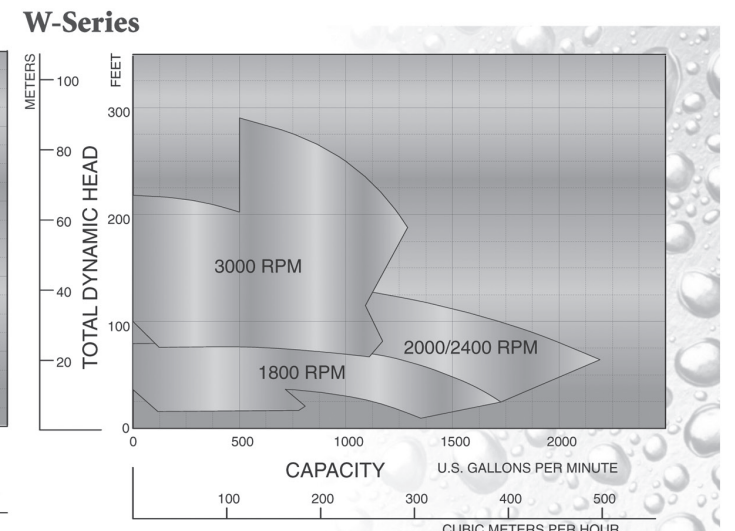
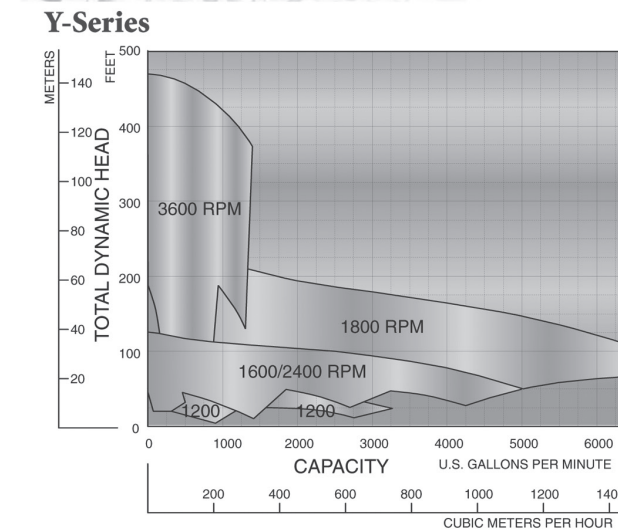
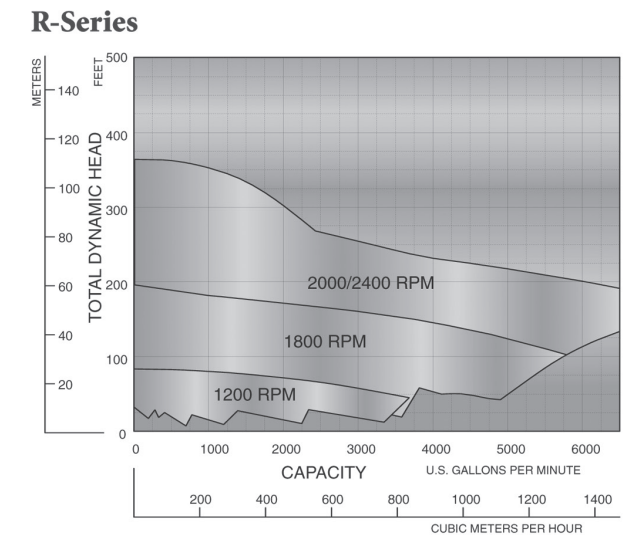
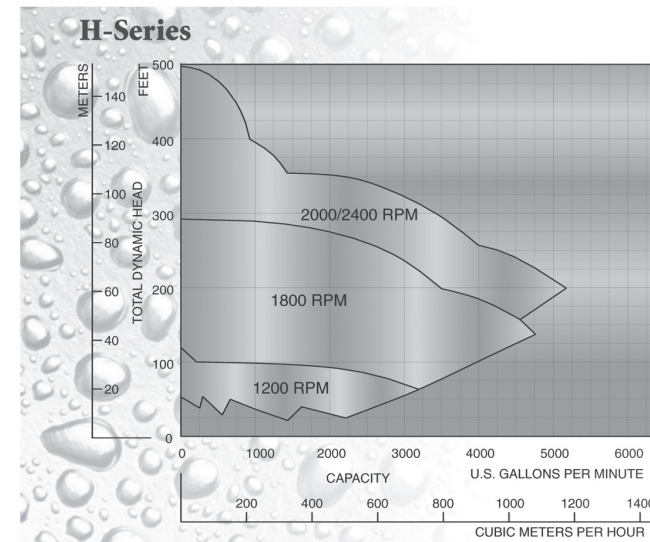
Cornell's external hydraulic balance line equalizes pressure between the impeller hub area and the pump suction to reduce axial loading acting on the impeller, shaft and bearings. The balance line also assists in moving sand and silt from the stuffing box to the low pressure area at the pump suction reducing wear of the wetted parts.

Materials of Construction

All Cornell irrigation pumps are constructed with top quality materials. Cornell irrigation pumps are cast iron, bronze fitted or all iron construction. Optional materials are available for abrasive or caustic applications. Standard features include balanced impellers, heavy-duty shafts, replaceable shaft sleeves, and replaceable wear rings.

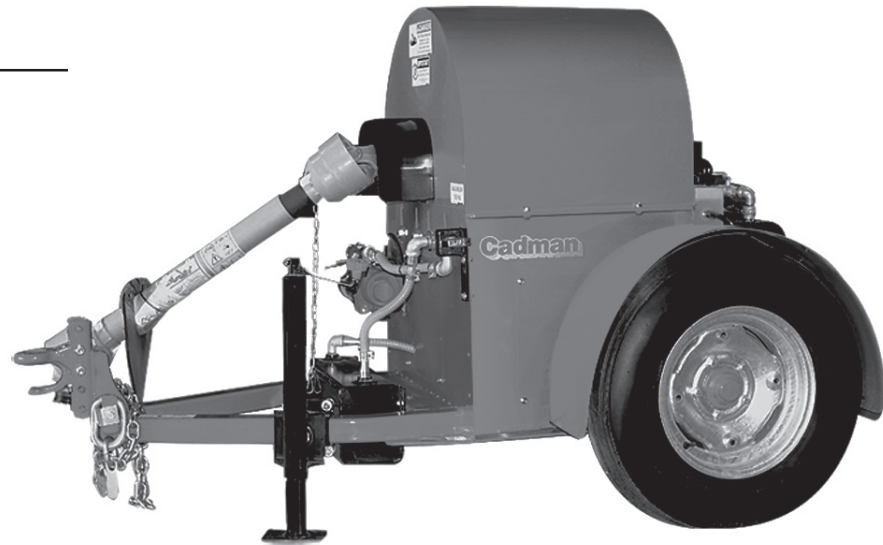
Double Volute

Cornell introduced the double volute as an industry first more than 30 years ago. The double volute system effectively balances forces within the pump to reduce radial load, shaft deflection and fatigue. This eliminates shaft breakage and extends the service life of packing and mechanical seals, wear rings and bearings while maintaining high hydraulic efficiency.



Cornell PTO Pump

Pump Model: 4514T
Suction: 5"
Discharge: 4"
Flow / Range: 250 - 2000 GPM
Impeller: Enclosed, 2 vane: handles 3" solids
Volute: Right and left hand tangential or centerline discharge, eight positions
Mechanical Seal: Single type 2 tungsten silicon mechanical seal: Cycloseal® design, Run-Dry™ available

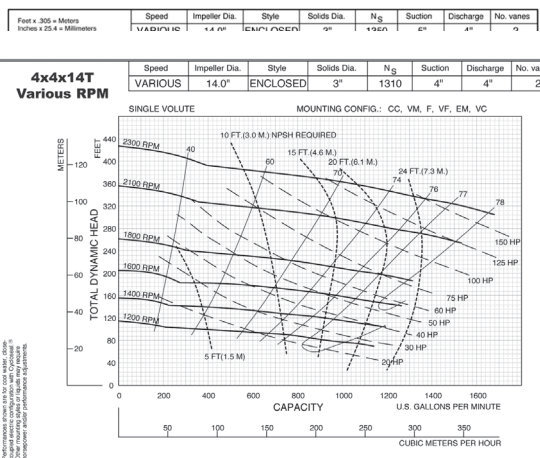
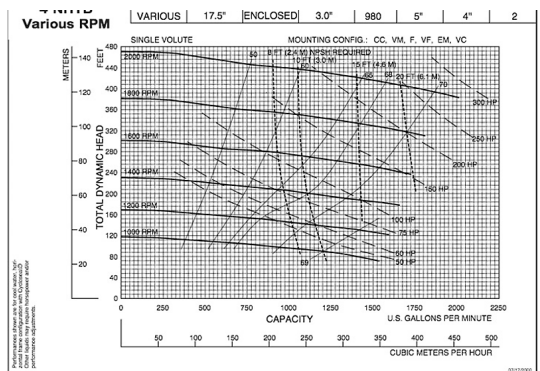
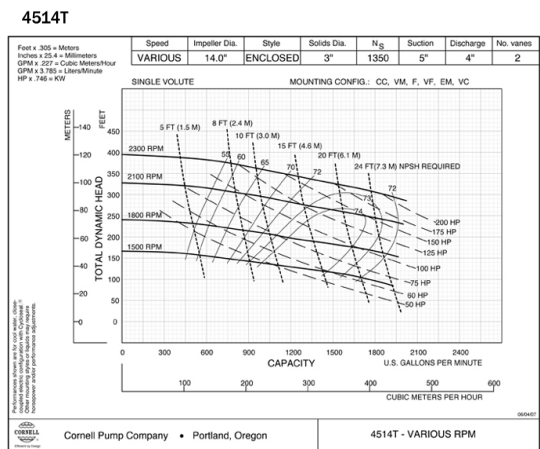


Pump Model: 4NHTB
Suction: 5"
Discharge: 4"
Flow / Range: 500 - 1600 GPM
Impeller: Enclosed, threaded, 2 vane: handles 3" solids
Volute: Right and left hand tangential discharge, in twelve positions
Mechanical Seal or Traditional Packing: Single type 2 tungsten silicon mechanical seal: Cycloseal® design, Run-dry available

Pump Model: 4414T
Suction: 4"
Discharge: 4"
Flow / Range: 400 - 1200 GPM
Impeller: Enclosed, threaded, 2 vane: handles 3" solids
Volute: Right and left hand tangential discharge, eight positions (twelve positions for F18 and engine mount pumps)
Mechanical Seal or Traditional Packing: Single type 2 tungsten silicon mechanical seal: Cycloseal® design, Run-dry available

Benefits & Features

- Highest quality products
- Experience
 - Over 50 years in the centrifugal pump business
- Optimum Hydraulics
 - In house engineering staff and test lab facilities
- Strong Local Dealer Support
 - Our agricultural products are sold only through authorized dealerships
 - Dealerships provide full service to customers from sales to replacement parts
- Exceptional Design:
 - Effectively converts energy into fluid flow and pressure
- Efficiency
- Long Product Life
 - Thick walled castings
 - Heavy duty shafts
 - 20,000 hour bearings - minimum
 - Replaceable wear rings and shaft sleeves



PRODUCT DATA SHEET

CORNELL PUMP COMPANY

750 - 3500 GPM **Model 6NHTB** 100 - 325 Feet TDH

STANDARD SPECIFICATION

Discharge - 6 inch discharge
Suction - 10 inch suction
Impeller - Enclosed, threaded, 2 vane: handles 3.38" solids
Volute - Right hand tangential discharge, eight positions
Mechanical Seal or Traditional Packing - Single type 2 tungsten silicon mechanical seal: Cycloseal® design, Run-dry available
Materials of Construction

- Cast iron casing, cast iron impeller
- Other materials available

MOUNTING OPTIONS

- **Frame Mount**
 - Cornell F18
 - Cornell F18DB
- **Engine Bracket**
 - Cornell EM18 (SAE 1, 2, 3, 4)
 - Cornell EM18DB (SAE 1, 2, 3, 4)
- **Oil Filled Bearing Frame**
 - Optional
- **Redi-Prime Self Priming System**
 - Optional

AVAILABILITY

- **Quick Ship**
 - Finished Product Regularly Stocked (48 Hours)
- **Preferred Pump**
 - Finished Components Regularly Stocked (10 business days)
- **Specialty Pump**
 - Cornell Pump Company will design and manufacture a variation of this pump specifically designed for your application

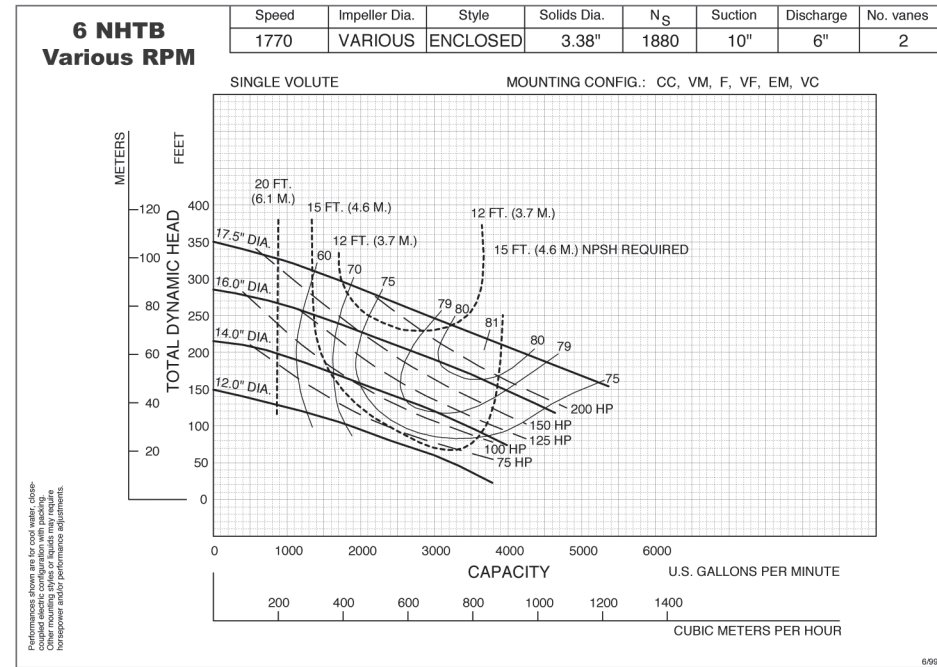


FEATURES & BENEFITS

- **Cornell's Tradition of Excellence:**
 - **Highest Quality Products**
 - **Experience**
 - Over 50 years in the centrifugal pump business
 - **Optimum Hydraulics**
 - In house engineering staff and test lab facilities
 - **Strong Local Dealer Support**
 - Our agricultural products are sold only through authorized dealerships
 - Dealerships provide full service to customers from sales to replacement parts
 - Dealers maintain and improve their knowledge at educational activities like Cornell's "Pump School"
- **Exceptional Design:**
 - **Efficiency**
 - Effectively converts energy into fluid flow and pressure
 - **Long Product Life**
 - Thick walled castings
 - Heavy duty shafts
 - 20,000 hour bearings
 - Replaceable wear rings and shaft sleeves



PERFORMANCE CURVES



PRODUCT DATA SHEET

CORNELL PUMP COMPANY
Model 6NHTB-F Redi-Prime®

PUMP SPECIFICATIONS

- **Size:** 6NHTB - 6" discharge x 10" suction with 125# cast iron flanges.
- **Casing:** Cast Iron.
- **Impeller:** Enclosed - 2 vane. Handles 3.38" diameter solids.
- **Wear Rings:** Replaceable. (Double wear rings available).
- **Seal:** Cornell's patented Cycloseal® design with Run-Dry oil lubrication system. John Crane T-2 single mechanical seal with Viton® elastomers, stainless steel hardware and tungsten- vs. silicon-carbide seal faces for abrasion resistance.
- **Check Valve:** SwingFlex® Val-Matic®.
- **Shaft Sleeve:** Heat treated 416 stainless steel.
- **Bearings:** Heavy duty, grease lubricated, deep groove ball bearings, with a minimum of 50,000 hours bearing life.
- **Hardware:** Stainless steel float linkage. A positive seating vacuum priming valve prevents water carry-over to the vacuum, pump or atmosphere.
- **Vacuum Pump** - 50 SCFM Maximum.

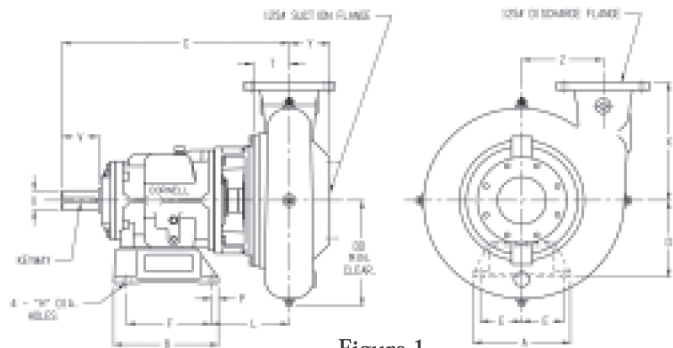


Figure 1

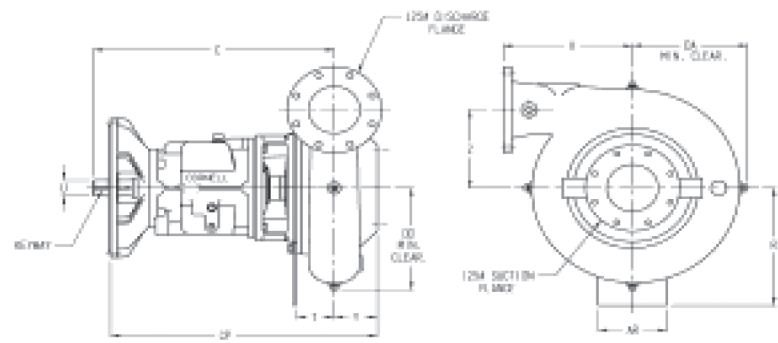
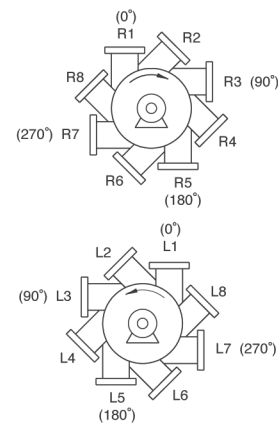
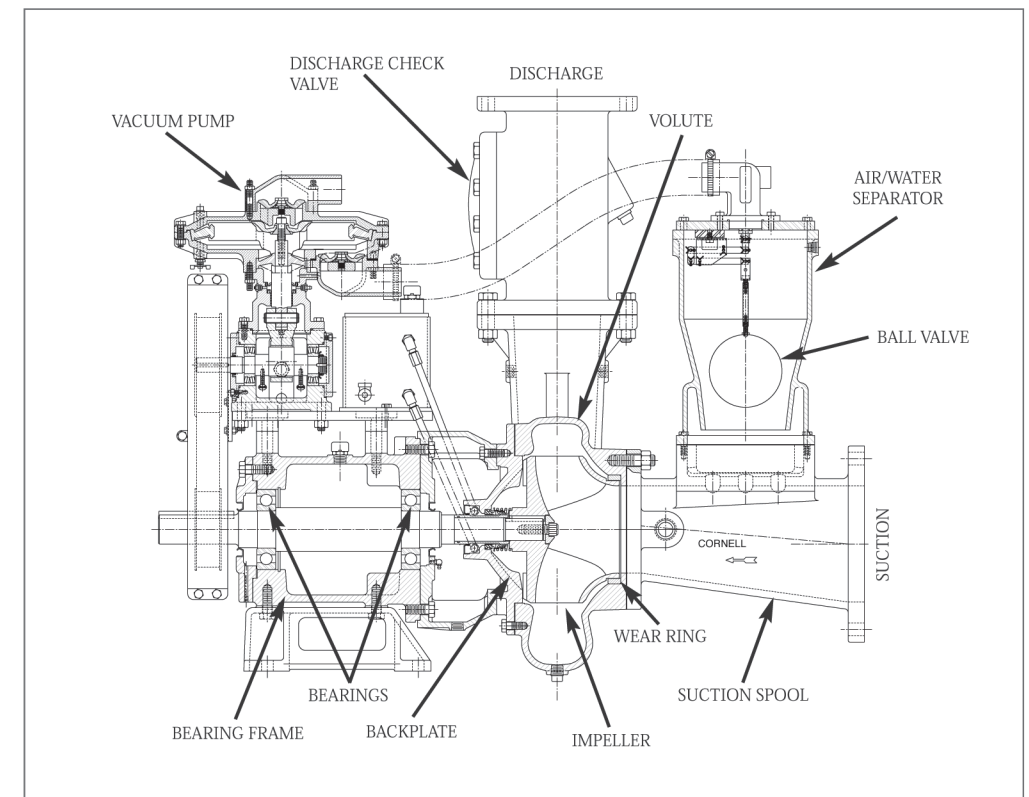
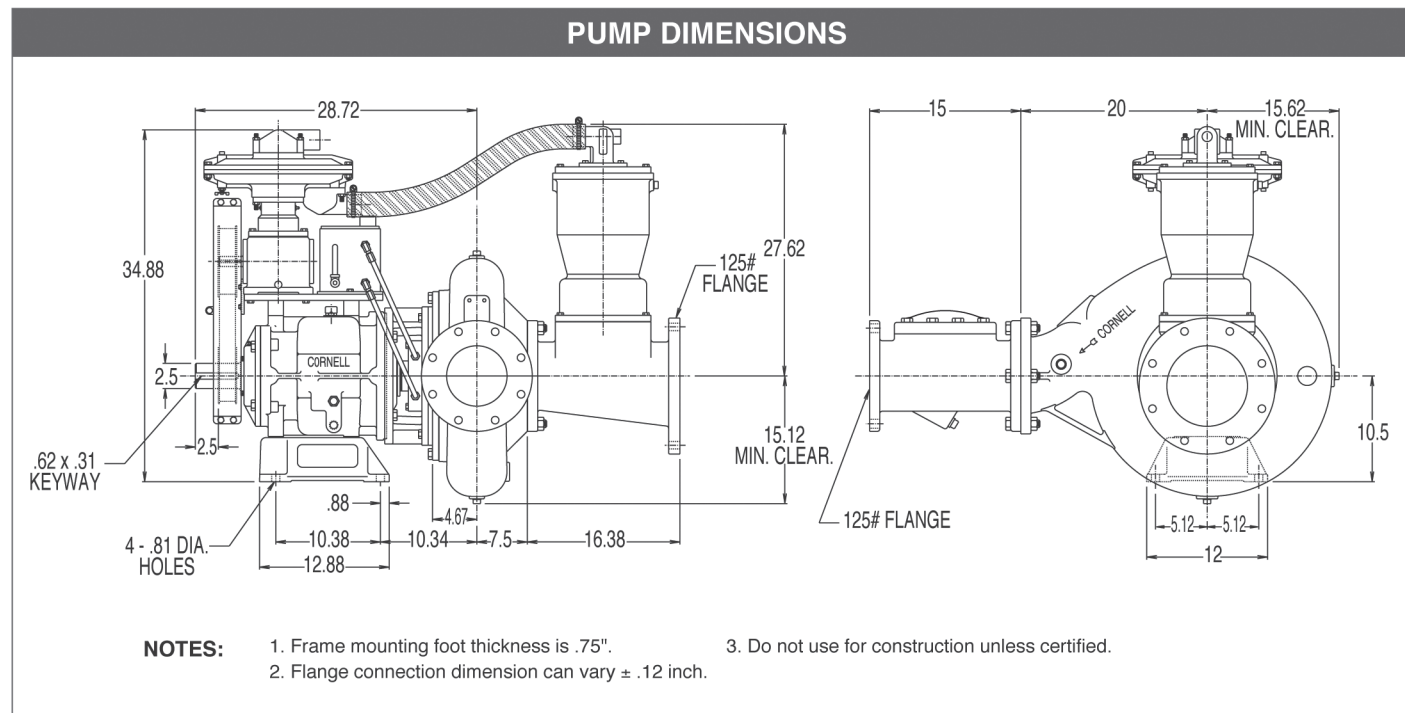


Figure 2

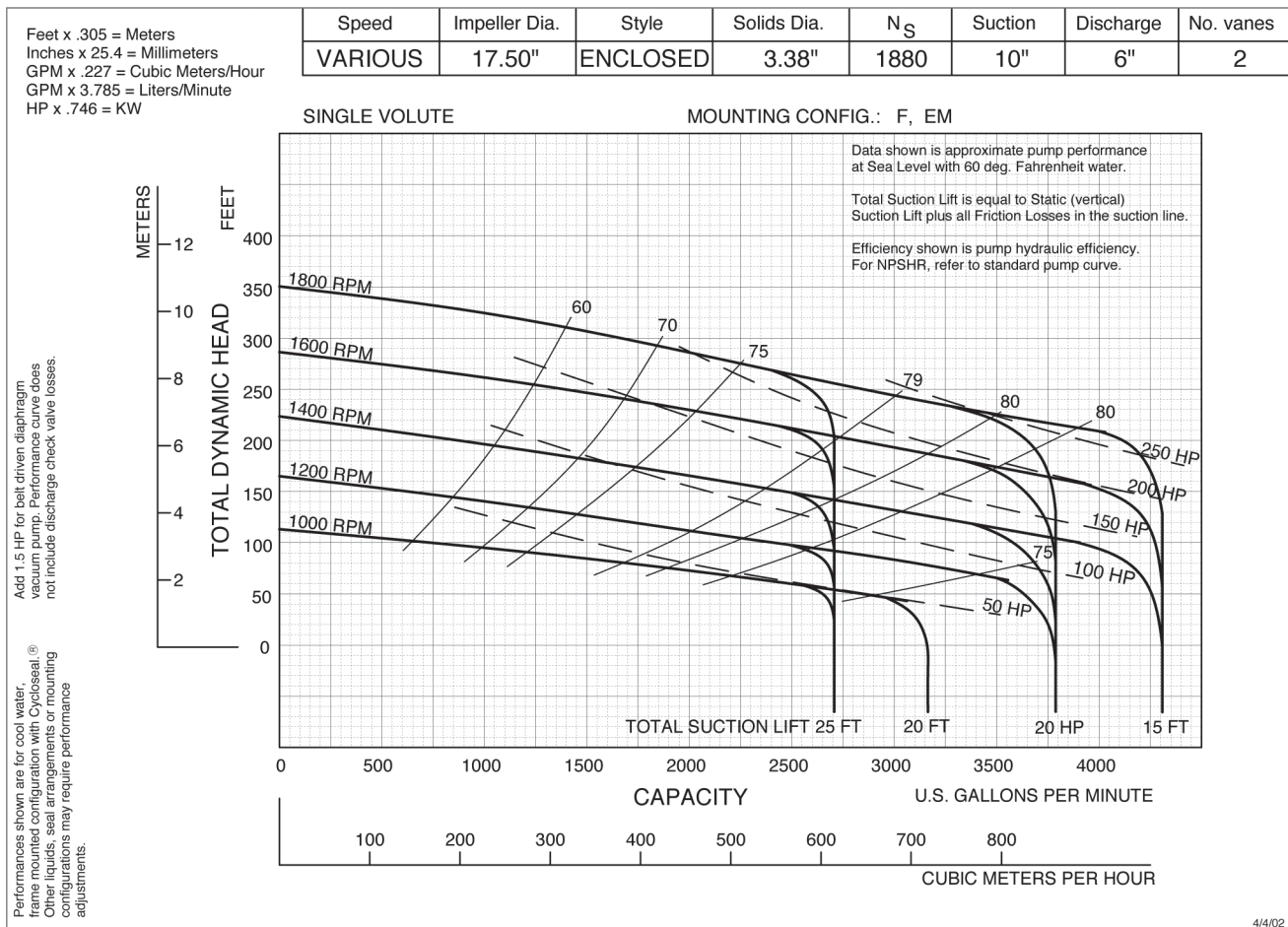
PUMP DIMENSIONS

MOUNT	Fig.	A	AR	B	C	CP	D	DA	DD	E	F	H	L	LP	P	R	T	U	V	X	Y	Z	KEYWAY
F18	1	12	-	12.88	28.44	-	10.5	-	13.12	5.12	10.38	0.81	10.09	-	0.88	-	4.41	2.5	4.5	15.5	5	10.25	.62 X .31
EM18	2	-	6	-	28.44	31.44	-	13.12	13.12	-	-	-	-	-	-	19.38	4.41	2.5	-	15.5	5	10.25	.62 X .31





PERFORMANCE CURVES



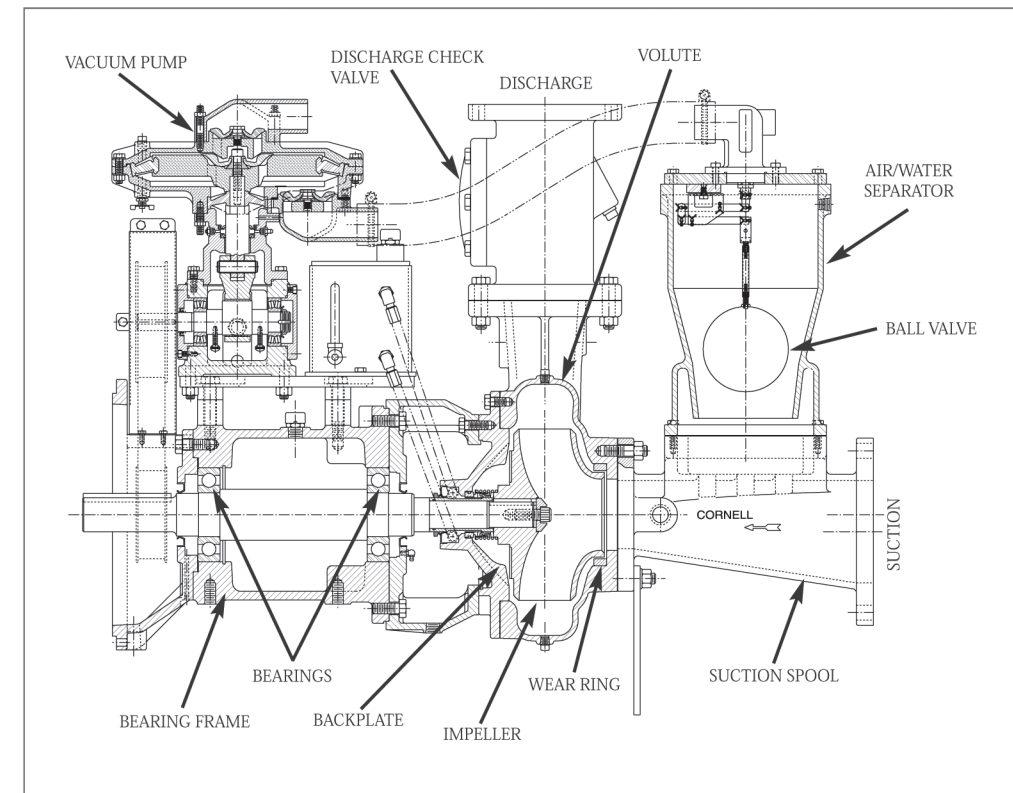
PRODUCT DATA SHEET

CORNELL PUMP COMPANY

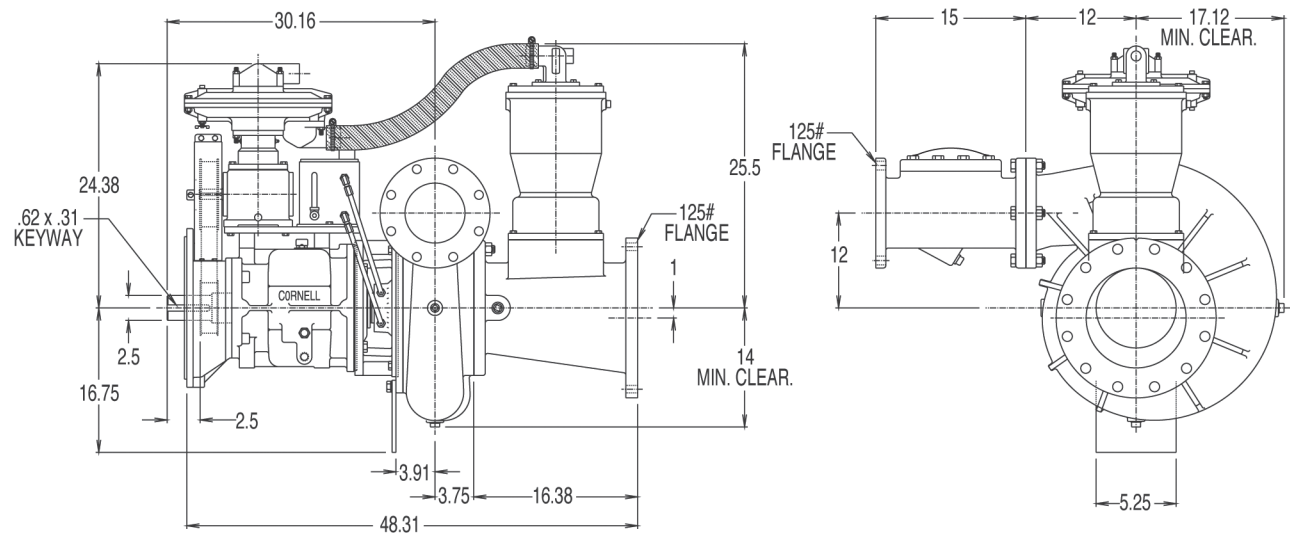
Model 8H-EM Redi-Prime®

PUMP SPECIFICATIONS

- **Size:** 8H - 8" discharge x 10" suction with 125# cast iron flanges.
- **Casing:** Cast Iron.
- **Impeller:** Enclosed - 6 vane. Handles 1.25" diameter solids.
- **Wear Rings:** Replaceable. (Double wear rings available).
- **Seal:** Cornell's patented Cycloseal® design with Run-Dry oil lubrication system. John Crane T-2 single mechanical seal with Viton® elastomers, stainless steel hardware and tungsten- vs. silicon-carbide seal faces for abrasion resistance.
- **Check Valve:** SwingFlex® Val-Matic®.
- **Shaft Sleeve:** Heat treated 416 stainless steel.
- **Bearings:** Heavy duty, grease lubricated, deep groove ball bearings, with a minimum of 50,000 hours bearing life.
- **Hardware:** Stainless steel float linkage. A positive seating vacuum priming valve prevents water carry-over to the vacuum, pump or atmosphere.
- **Vacuum Pump** - 50 SCFM Maximum.



PUMP DIMENSIONS



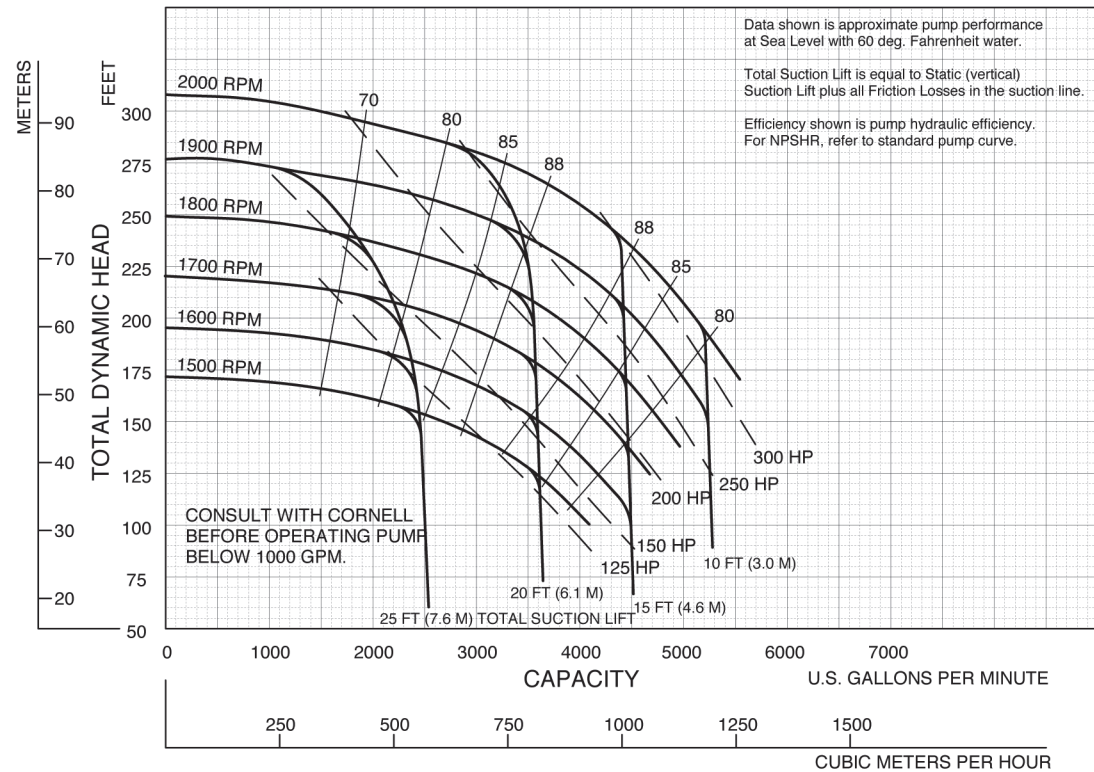
- NOTES:**
1. Flange connection dimension can vary ± .12 inch.
 2. Do not use for construction unless certified.

PERFORMANCE CURVES

Feet x .305 = Meters
 Inches x 25.4 = Millimeters
 GPM x .227 = Cubic Meters/Hour
 GPM x 3.785 = Liters/Minute
 HP x .746 = KW

Speed	Impeller Dia.	Style	Solids Dia.	N _S	Suction	Discharge	No. vanes
VARIOUS	15.22"	ENCLOSED	1.25"	2081	10"	8"	6

DOUBLE VOLUTE MOUNTING CONFIG.: F, EM



Performances shown are for cool water, frame mounted configuration with Cycloesel[®] vacuum pump. Performance curve does not include discharge check valve losses. Other liquids or mounting configurations may require performance adjustments.

Data shown is approximate pump performance at Sea Level with 60 deg. Fahrenheit water. Total Suction Lift is equal to Static (vertical) Suction Lift plus all Friction Losses in the suction line. Efficiency shown is pump hydraulic efficiency. For NPSHR, refer to standard pump curve.

CONSULT WITH CORNELL BEFORE OPERATING PUMP BELOW 1000 GPM.

2/15/01

Cornell Pump Company

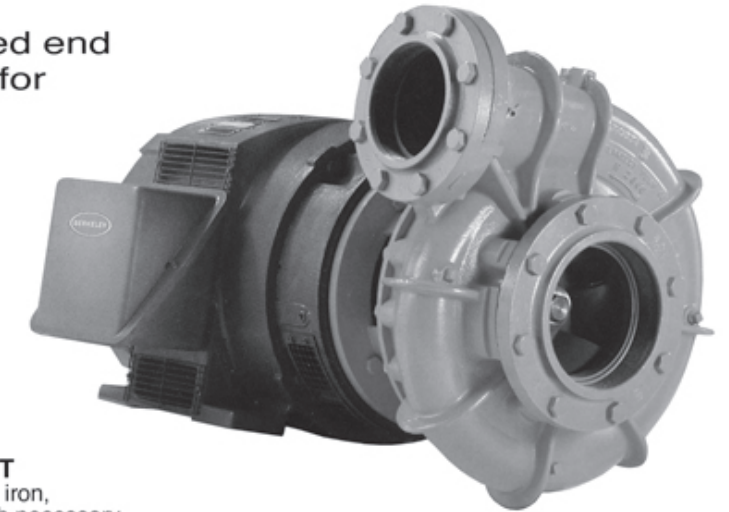
P.O. Box 6334 • Portland, Oregon 97228-6334

Web: www.cornellpump.com • Phone (503) 653-0330 • Fax (503) 653-0338

ISO9001:2000 CERTIFIED

BERKELEY ELECTRIC PUMPS

Berkeley's Type B close-coupled end suction centrifugal pumps are ideal for most applications requiring high performance, easy maintenance and moderate initial cost. Cast iron construction with unique back pull-out design permits access to the impeller without disturbing the piping.

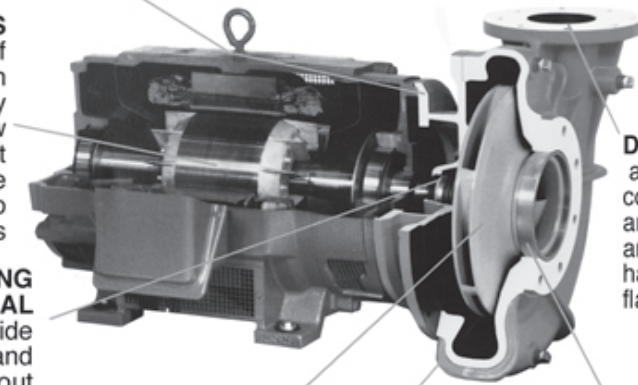


MOTOR BRACKET is close-grained cast iron, providing the strength necessary to minimize deflection and maintain positive alignment. Precision machined to assure proper component sealing.

NEMA STANDARD MOTORS carefully selected by our team of engineers, to meet our high standards of durability, reliability and longevity. High efficiency, low maintenance and smooth quiet performance are but a few of the many criteria we use to select motors

HIGH QUALITY, SELF LUBRICATING MECHANICAL SHAFT SEAL With corrosion-resistant parts provide maintenance-free operation and maximum abrasion resistance without leaking. Optional seals available for special applications.

ENCLOSED IMPELLER designed and machined to optimize performance and operating efficiencies. Mechanically balanced to reduce bearing loads and increase life. Keyed and locked to motor shaft Trimmed for maximum efficiency of both pump and motor.



DISCHARGE may be rotated to any of four positions for piping convenience. Smaller models are equipped with threaded suction and discharge. Larger models have standard ANSI 125# flat-face flange.

REPLACEABLE BRONZE WEAR RING available on some models.

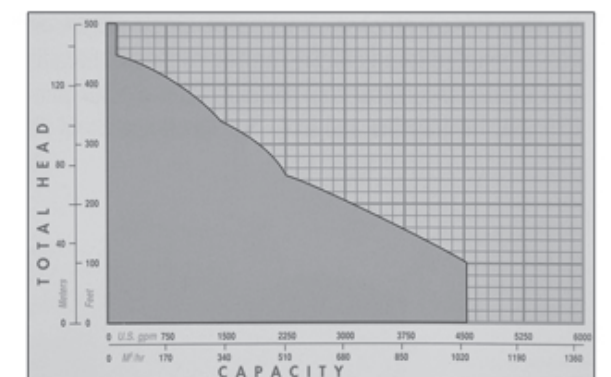
VOLUTE CASE incorporates precise design for increased hydraulic efficiency. Made from thick-walled close-grained cast iron to handle the stresses of everyday use. Back pull-out design allows easy removal and repair without disturbing piping connections, and completely exposes the impeller for flushing or service.

MULTIPLE TAPS supplied for easy priming and draining.

HIGH-QUALITY, LEAD-FREE/CHROMATE-FREE PRIMER AND PAINT provide durable finish.

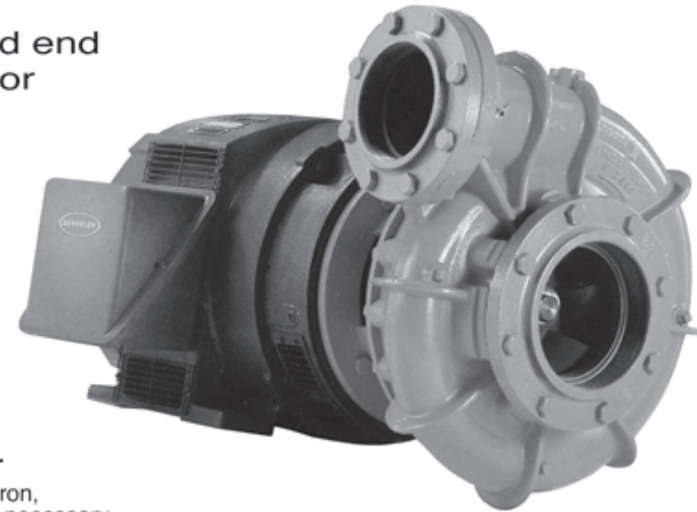
GRAPHITE IMPREGNATED PTFE PACKING eases break-in, and accomodates a wide temperature operating range.

REPLACEMENT STAINLESS STEEL SHAFT SLEEVE provides maximum corrosion resistance and protects shaft from wear.



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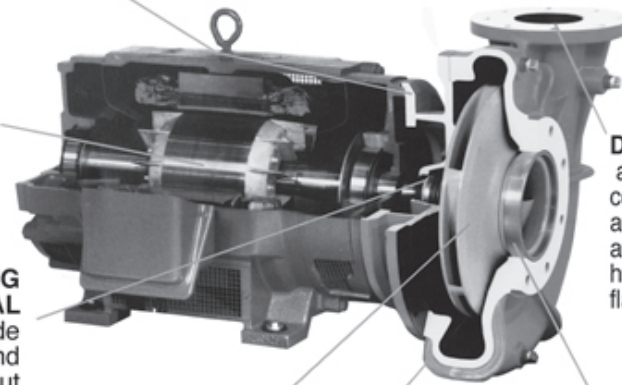


MOTOR BRACKET
Is close-grained cast iron, providing the strength necessary to minimize deflection and maintain positive alignment. Precision machined to assure proper component sealing.

NEMA STANDARD MOTORS
carefully selected by our team of engineers, to meet our high standards of durability, reliability and longevity. High efficiency, low maintenance and smooth quiet performance are but a few of the many criteria we use to select motors

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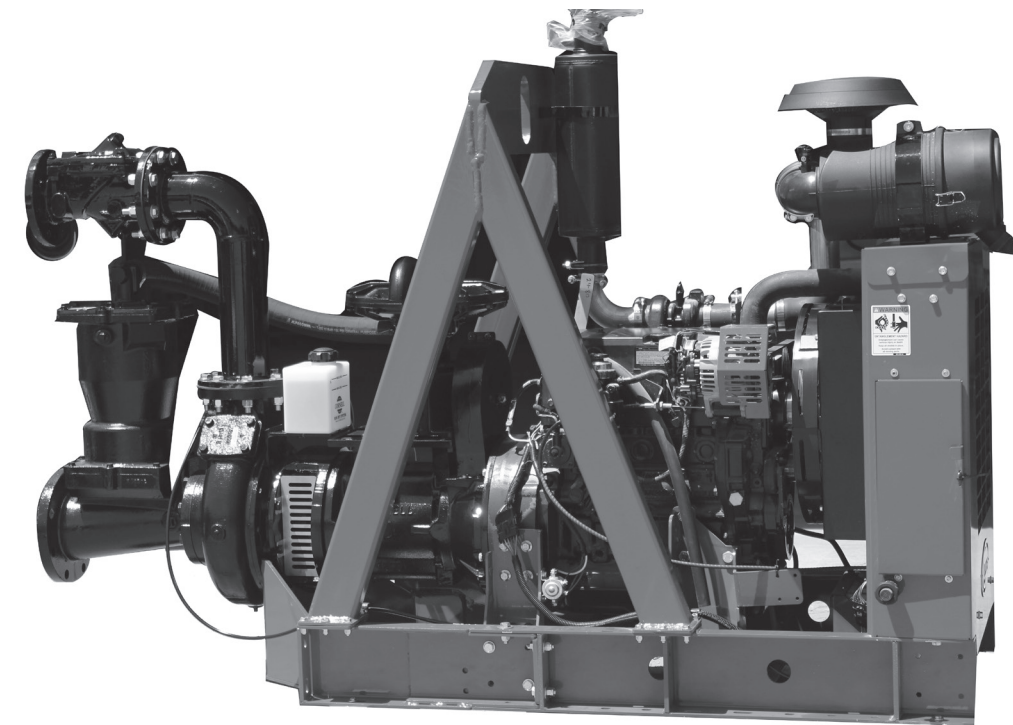
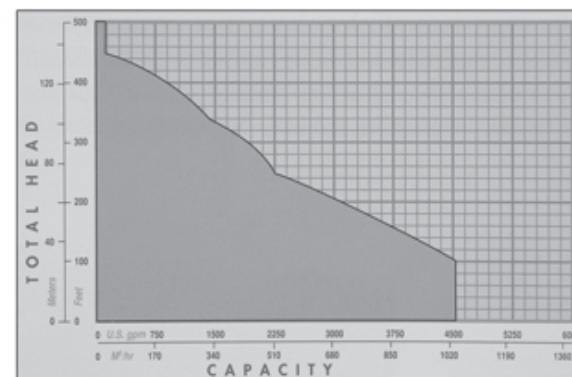
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GRAPHITE IMPREGNATED PTFE PACKING eases break-in, and accomodates a wide temperature operating range.

REPLACEMENT STAINLESS STEEL SHAFT SLEEVE provides maximum corrosion resistance and protects shaft from wear.



Power Units



Kubota

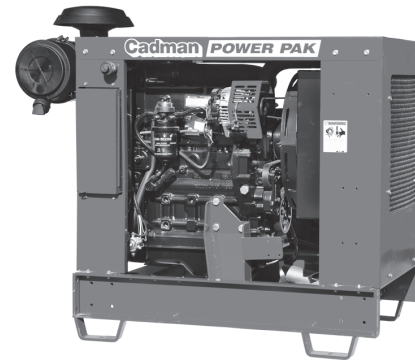


John Deere Power Units



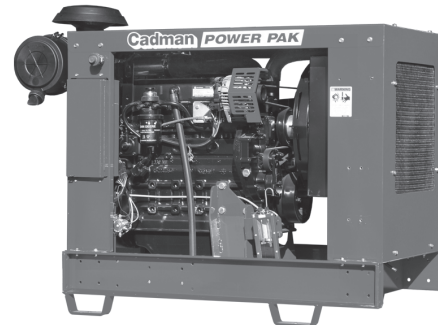
If there is one thing you can count on in the off-highway industry, it's every application having different power demands. The jobs that our family of Power Tech™ engines tackle every day are as varied as the equipment they power. You might have minimal horsepower demands. Or you might need an engine that can be pushed to the limits without increasing your fuel costs. Either way, John Deere has an engine platform to fit your performance needs, while meeting emissions regulations.

Part Number	Max Int' HP	Cont' HP @ 1800	Cont' HP @ 2200	Cont' HP @ 2400	Cont' HP @ 2800
JD-ASY-4024T-49PP	49@2800	35	39	40	41
JD-ASY-4024T-66PP	66@2800	46	52	54	56



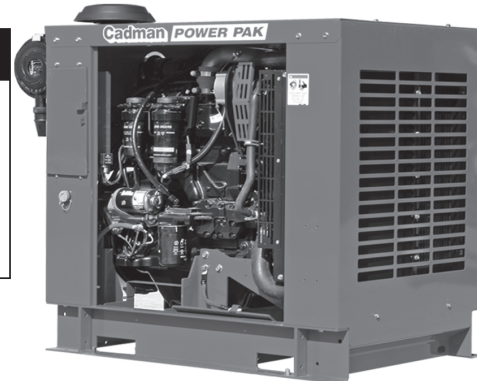
JD 4024

Part Number	Max Int' HP	Cont' HP @ 1800	Cont' HP @ 2200	Cont' HP @ 2400	Cont' HP @ 2800
JD-ASY-5030T-75PP	75@2800	54	60	62	64
JD-ASY-5030T-84PP	84@2800	59	66	68	70



JD 5030

Part Number	Max Int' HP	Cont' HP @ 1800	Cont' HP @ 2000	Cont' HP @ 2200	Cont' HP @ 2400
JD-ASY-4045T-80PP	80@2400	63	68	71	72
JD-ASY-4045H-99PP	99@2400	82	89	89	89
JD-ASY-4045H-115PP	115@2400	95	99	103	104
JD-ASY-4045H-125PP	125@2400	104	108	113	113
JD-ASY-4045H-140PP	140@2400	116	122	126	126

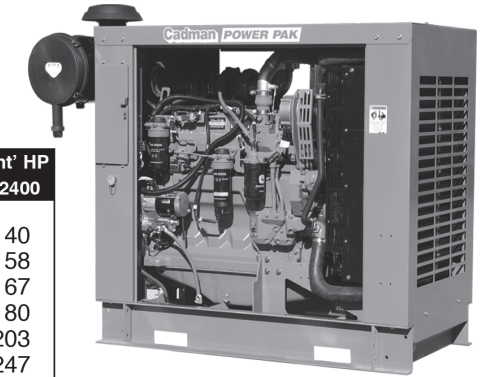


JD 4045

John Deere Power Units

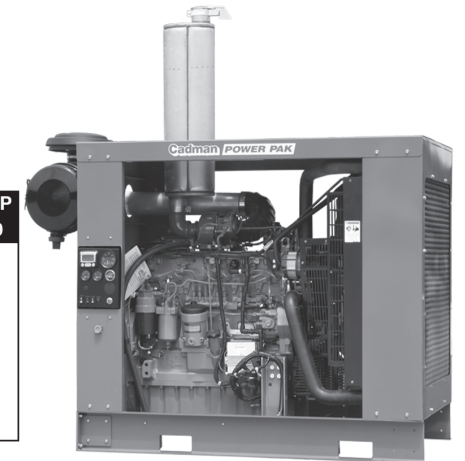


Part Number	Max Int' HP	Cont' HP @ 1800	Cont' HP @ 2000	Cont' HP @ 2200	Cont' HP @ 2400
JD-ASY-6068H3-156PP	156@2400	126	140	140	140
JD-ASY-6068H3-173PP	173@2400	144	153	158	158
JD-ASY-6068H3-185PP	185@2400	153	162	167	167
JD-ASY-6068H3-200PP	200@2400	162	175	180	180
JD-ASY-6068H3-225PP	225@2400	180	198	203	203
JD-ASY-6068H3-275PP	275@2400	225	238	247	247



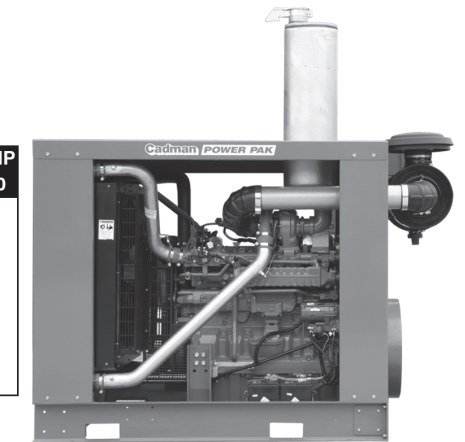
JD 6068

Part Number	Max Int' HP	Cont' HP @ 1600	Cont' HP @ 1800	Cont' HP @ 2000	Cont' HP @ 2200
JD-ASY-6090H3-300PP	300@2200	261	270	270	270
JD-ASY-6090H3-325PP	325@2200	279	292	292	292
JD-ASY-6090H3-350PP	350@2200	306	315	315	315
JD-ASY-6090H3-375PP	375@2200	306	338	338	338



JD 6090

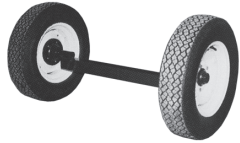
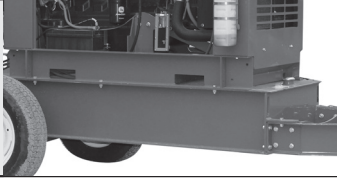



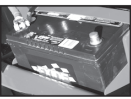

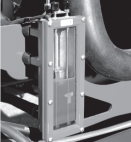

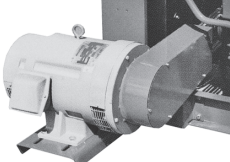
Part Number	Max Int' HP	Cont' HP @ 1600	Cont' HP @ 1800	Cont' HP @ 2000	Cont' HP @ 2100
JD-ASY-6135H3-400PP	400@2100				
JD-ASY-6135H3-450PP	450@2100	400	405	405	405
JD-ASY-6135H3-500PP	500@2100	432	450	450	450
JD-ASY-6135H3-550PP	550@2100	484	495	495	495
JD-ASY-6135H3-600PP	600@2100	513	540	540	540



JD 6135

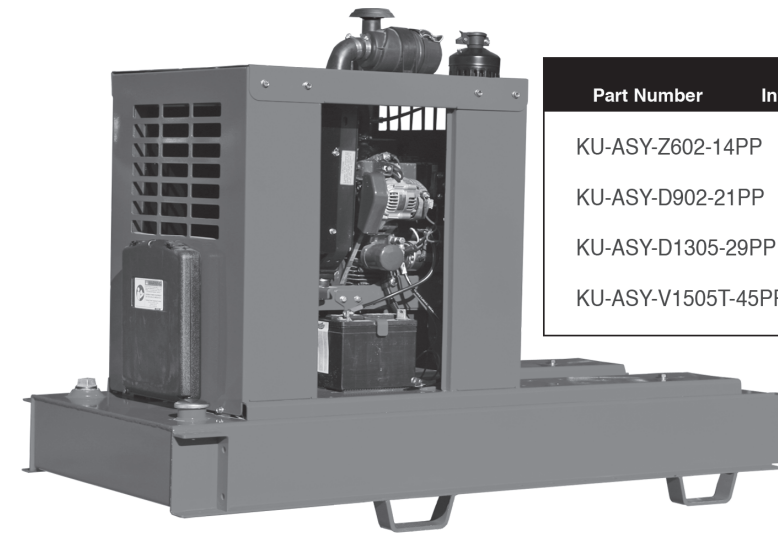


John Deere Power Unit Accessories

Part #	Description	
60-KIT-ST	Standard Towing Axle	
60-KIT-TT	140 Gallon Belly Tank	
NA-411-256AMKIT NA-434-510AMKIT NA-434-845AMKIT NA-434-210AMKIT NA-435-469AMKIT	SAE #4 Clutch w/10" Drive SAE #3 Clutch w/11.5" Drive SAE #3 Double Face Clutch w/11.5" Drive SAE #2 Double Face Clutch w/11.5" Drive SAE #1 Double Face Clutch w/14" Drive	
JD-PRT-RE20224KIT JD-PRT-42193KIT JD-PRT-42209KIT	49 - 84 HP Muffler 80 - 200 HP Muffler 225 - 300 HP Muffler	
JD-KIT-ES	Exhaust Silencer	
40-327	Standard Battery	
42-106	Heavy Duty Battery	
60-KIT-LOM18	Oil Level Safety Gauge	
IR-MPY-EL150K1KIT	Coolant Level Safety Gauge	
MA-250-MDL1238 MA-280-MDL0054 MA-280-MDL0055 MA-280-MDL0056 MA-360-MDL0057	7.5 kW Generator for Pivot Application 10 kW Generator for Pivot Application 12 kW Generator for Pivot Application 15 kW Generator for Pivot Application 20 kW Generator for Pivot Application	

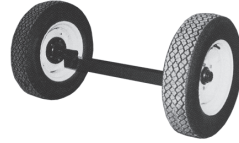
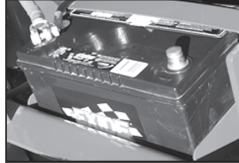
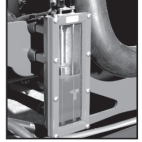

Kubota Power Units & Accessories

Kubota is a world-leading manufacturer of compact multi-cylinder liquid cooled diesel engines. Cadman is proud to carry the Kubota line up to 45 HP. Kubota Corporation was established in 1890 in Osaka, Japan and sold its first engine in 1922. Kubota introduced its first compact diesel engines to the United States in 1976. At that time, the gasoline engine was a mainstream trend in the U.S. as a power source for industrial applications. Kubota's compact diesel engine reversed that trend and broke through the market. Cadman fits all of its Kubota power units with an array of standard features including, ¾ enclosure, muffler and 50 gallon fuel tank. Also included is a deluxe gauge panel with Murphy safety gauges.

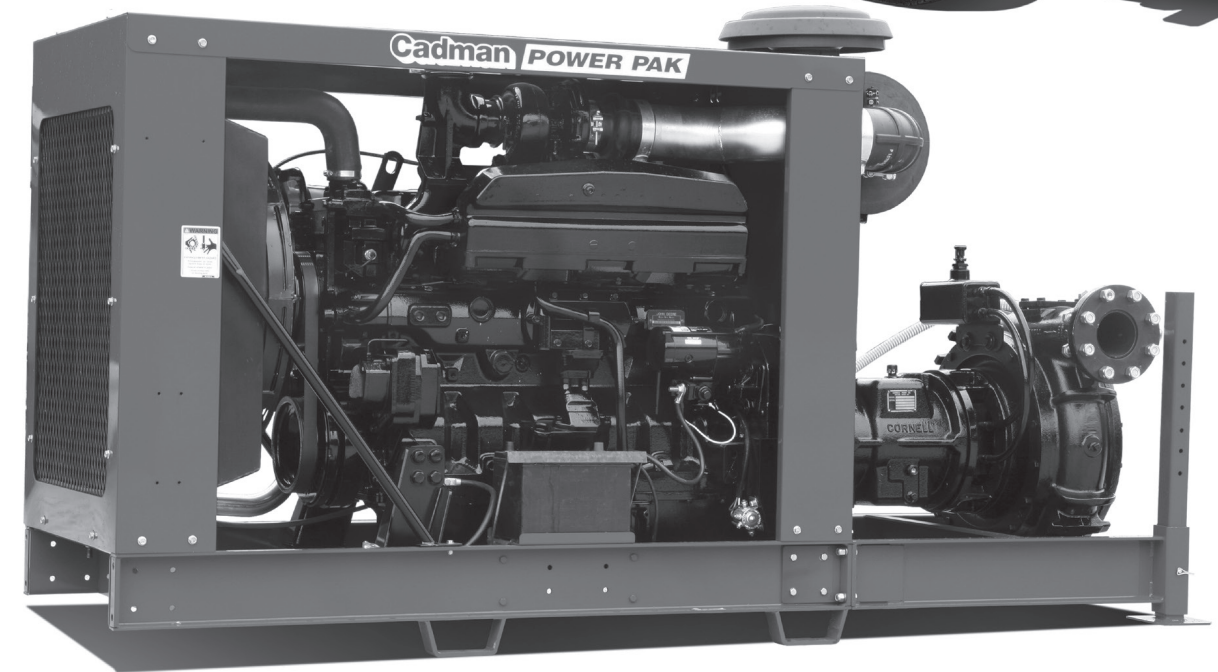


Part Number	Max Intermittent HP	Cont' HP @ 1800	Cont' HP @ 2400	Cont' HP @ 3000
KU-ASY-Z602-14PP	14.4	7.9	12.7	13
KU-ASY-D902-21PP	21.5	12	18.7	19
KU-ASY-D1305-29PP	29	18	26	27
KU-ASY-V1505T-45PP	45	29	38.7	41



Part #	Description	
KU-KIT-TA	Standard Towing Axle	
42-238	Standard Battery	
60-KIT-LOM18	Oil Level Safety Gauge	
IR-MPY-EL150K1KIT	Coolant Level Safety Gauge	





Pump Set Packages



Power Units

John Deere Pump-Set Packages



MODEL	JD-PKG-49MR6532C	JD-PKG-66MR6532A	JD-PKG-75BHR200A	JD-PKG-84MG802C	JD-PKG-99BHR250A
Flow Range (GPM)	100 - 300	100 - 400	500 - 2300	250 - 750	1000 - 4400
Pressure Range (PSI)	48 - 175	48 - 175	10 - 37	65 - 175	10 - 30
Suction Size	4" NPT	4" NPT	8" NPT	4" NPT	10" Flange
Discharge Size	4" NPT	4" NPT	8" NPT	4" NPT	10" Flange
Engine Model	John Deere 4024T	John Deere 4024T	John Deere 5030T	John Deere 5030T	John Deere 4045H
H.P.	49	66	75	84	99
Fuel Consumption (G.P.H.)	0.4 - 2.9	0.5 - 3.6	1.2 - 2.7	0.9 - 4.5	1.7 - 3.3
Solids Handling	N/A	N/A	N/A	Minimal	N/A
Seal Type	Packing	Packing	Packing	Packing	Packing
Impeller Diameter	240mm	260mm	230mm	310mm	273mm
Pump Type	Two Stage Enclosed	Two Stage Enclosed	Single Stage Enclosed	Two Stage Enclosed	Single Stage Enclosed
Primer	12 Volt	12 Volt	12 Volt	12 Volt	12 Volt
Height w/ Muffler (w/o muffler)	78" (54")	78" (54")	78" (54")	78" (54")	99" (63")
Length	165"	165"	169"	174"	176"
Width	53"	53"	53"	53"	53"

Power Units

John Deere Pump-Set Packages



MODEL	JD-PKG-99MG802A	JD-PKG-125MG8043A	JD-PKG-185MG1002B	JD-PKG-200MG10022C	JD-PKG-225MR1252C
Flow Range (GPM)	250 - 750	200 - 750	400 - 1000	400 - 1100	800 - 1600
Pressure Range (PSI)	70 - 184	87 - 238	95 - 195	150 - 225	90 - 175
Suction Size	4" NPT	4" NPT	6" NPT	6" NPT	6" NPT
Discharge Size	4" NPT	4" NPT	4" NPT	4" NPT	6" NPT
Engine Model	John Deere 4045H	John Deere 4045H	John Deere 6068H	John Deere 6068H	John Deere 6068H
H.P.	99	125	185	200	225
Fuel Consumption (G.P.H.)	1.1 - 4.6	1.4 - 5.3	2.5 - 6.5	3 - 9	3.2 - 8.3
Solids Handling	Minimal	Minimal	Minimal	Minimal	Minimal
Seal Type	Packing	Packing	Packing	Packing	Packing
Impeller Diameter	330mm	330mm	400mm	380mm	380mm
Pump Type	Two Stage Enclosed	Three Stage Enclosed	Two Stage Enclosed	Two Stage Enclosed	Two Stage Enclosed
Primer	12 Volt	12 Volt	12 Volt	12 Volt	12 Volt
Height w/ Muffler (w/o muffler)	99" (63")	99" (63")	91" (69")	91" (69")	98" (71")
Length	173"	176"	189"	189"	197"
Width	53"	53"	53"	53"	56"



Power Units

John Deere Pump-Set Packages



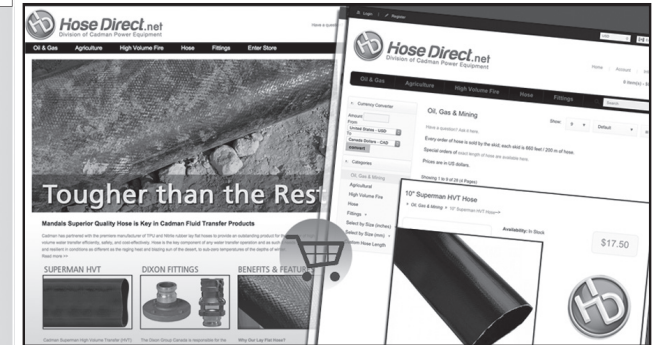
MODEL	JD-PKG-140AFIL35	JD-PKG-115B3JQBM	JD-PKG-140B4JQBH	JD-PKG-200B4EYQBH	JD-PKG-225B5EXQBHS
Flow Range (GPM)	300 - 1100	200 - 1100	400 - 1500	400 - 1400	800 - 1700
Pressure Range (PSI)	50 - 185	45 - 156	45 - 162	70 - 208	70 - 195
Suction Size	6" Quick Coupling	4" NPT	5" NPT	5" NPT	6" NPT
Discharge Size	4" NPT	4" NPT	4" NPT	4" NPT	5" NPT
Engine Model	John Deere 4045H	John Deere 4045H	John Deere 4045H	John Deere 6068H	John Deere 6068H
H.P.	140	115	140	200	225
Fuel Consumption (G.P.H.)	1.8 - 6.9	1.8 - 5.7	1.8 - 6.9	3 - 9	3.2 - 12.1
Solids Handling	1"	Minimal	Minimal	Minimal	Minimal
Seal Type	Run Dry Mechanical	Packing	Packing	Packing	Packing
Impeller Diameter	350mm	13.5"	13.5"	17.88"	15.5"
Pump Type	Single Stage Semi-Open	Single Stage Enclosed	Single Stage Enclosed	Single Stage Enclosed	Single Stage Enclosed
Primer	12 Volt	12 Volt	12 Volt	12 Volt	12 Volt
Height w/ Muffler (w/o muffler)	99" (63")	99" (63")	99" (63")	91" (69")	98" (71")
Length	185"	159"	158"	173"	171"
Width	53"	53"	53"	53"	56"

Power Units

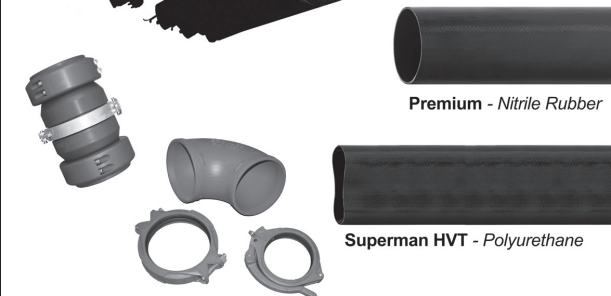
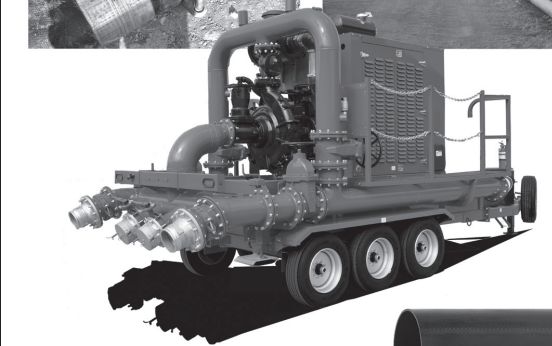
Kubota Pump-Set Packages



MODEL	KU-PKG-16HMU4013	KU-PKG-16A240A
Flow Range (GPM)	48 - 143	40 - 300
Pressure Range (PSI)	40 - 176	13 - 108
Suction Size	2"	2"
Discharge Size	2"	2"
Engine Model	Kubota Z602	Kubota Z602
H.P.	16	16
Fuel Consumption (G.P.H.)	0.34 - 1.03	0.34 - 1.03
Solids Handling	minimal	minimal
Seal Type	packing	packing
Impeller Diameter	160 mm	205 mm
Pump Type	Three Stage	Single Stage
Primer	12 Volt	12 Volt
Height w/ Muffler (w/o muffler)	71" (51")	71" (51")
Length	112"	112"
Width	52"	52"



Fluid Transfer Solutions



• Pump Stations • Hose • Fittings

www.CadmanEnergy.com

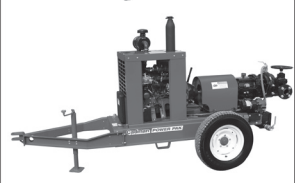
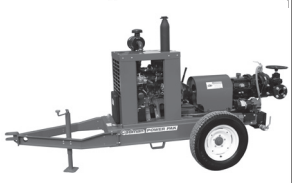

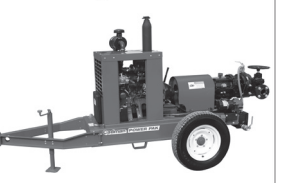


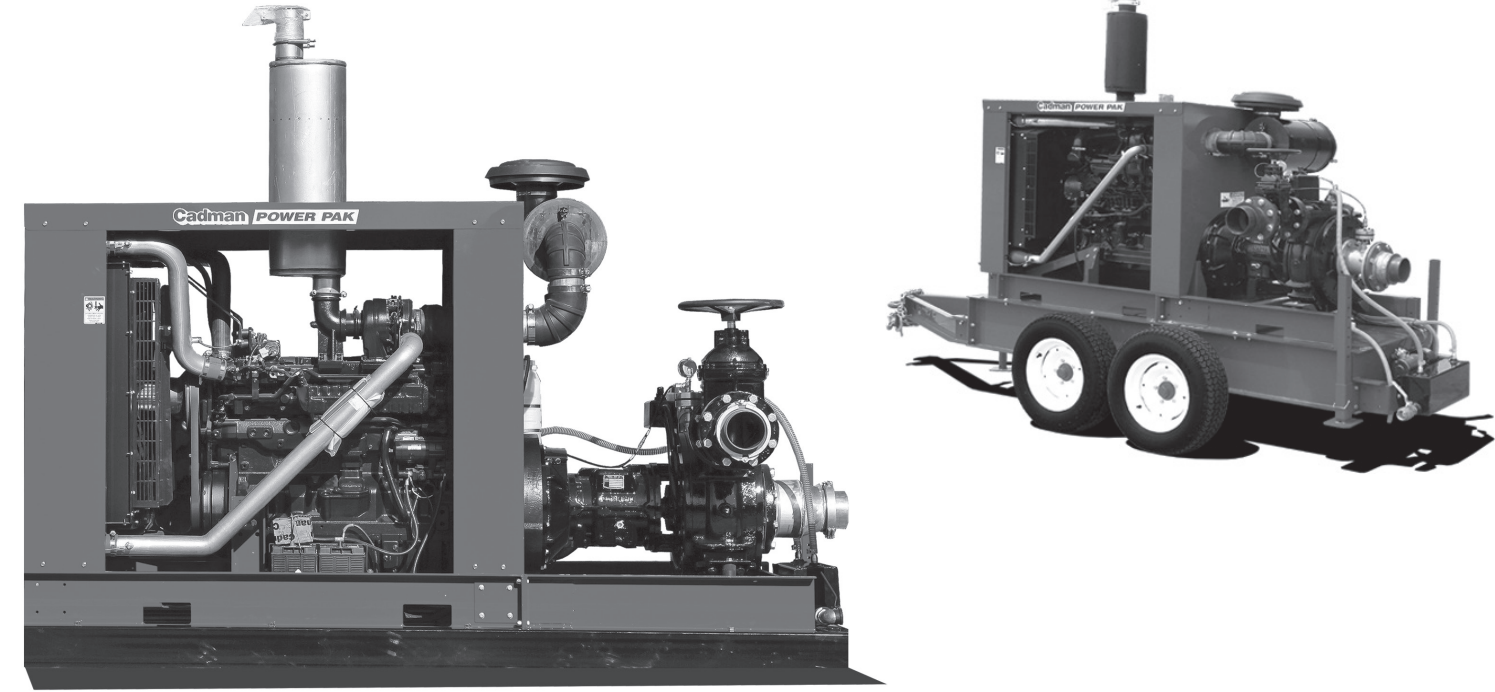
Power Units

Pump-Set Packages

Power Units

Remote Controls

				
MODEL	KU-PKG-29HMU5013	KU-PKG-29A365D	KU-PKG-45HMU5023	KU-PKG-45A380E
Flow Range (GPM)	55 - 211	60 - 450	60 - 396	150 - 800
Pressure Range (PSI)	40 - 196	17 - 97	50 - 187	17 - 95
Suction Size	4"	4"	4"	4"
Discharge Size	3"	4"	3"	4"
Engine Model	Kubota D1305	Kubota D1305	Kubota V1505T	Kubota V1505T
H.P.	29	29	45	45
Fuel Consumption (G.P.H.)	0.67 - 1.26	0.67 - 1.26	1.12 - 2.60	1.12 - 2.60
Solids Handling	minimal	minimal	minimal	minimal
Seal Type	packing	packing	packing	packing
Impeller Diameter	180 mm	230 mm	180 mm	220 mm
Pump Type	Three Stage	Three Stage	Three Stage	Three Stage
Primer	12 Volt	12 Volt	12 Volt	12 Volt
Height w/ Muffler (w/o muffler)	71" (51")	71" (51")	71" (51")	71" (51")
Length	112"	112"	112"	112"
Width	52"	52"	52"	52"



Cadman offers a full line of John Deere and Kubota engines that can be matched to the appropriate pump for your application. All pump sets are available with customizable trailers, pump and storage options which are designed to get the maximum efficiency and safety in the field.

Remote Controls

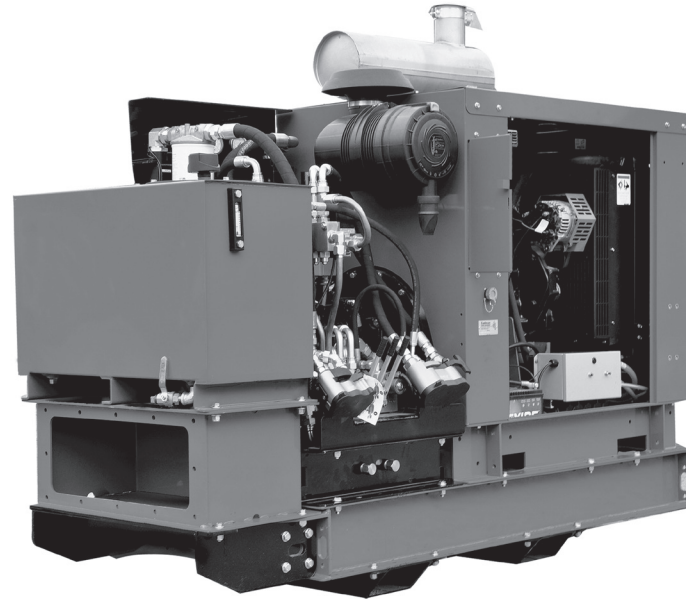
Magnetek Enrange™ CHTX Transmitter Remote

- Rated IP65, sealed to withstand harsh, industrial environments
- Durable housing is made to withstand shock
- Connected to heavy-duty chest plate to prevent operator fatigue
- Built on a proven technology platform with a long track record for success in the field

Sunova Remote Engine Controller

- Manure Outlet Pressure (PSI) Displayed on Remote LCD
- Operator Set Value: MAX Allowable PSI & MAX Allowable PSI Drop
- Manure Inlet Pressure (PSI) Displayed on Remote LCD
- 2nd Actuator / 2 Position Control (End to End)
- 2nd Actuator / 3 Position Control (Programmable Position)
- Engine Temperature
- Engine Oil Pressure
- Hydraulic Control of Up to 3 Functions
- External Emergency Engine Stop
- Multiple Remote Controllers
- Remote Engine Start
- Remote System Power Down





If you crave a powerful, dependable, yet safe and long-lasting hydraulic power source, look no further than Cadman. Cadman builds rugged, dependable Hydraulic Power Units focusing on quality, durability, and safety packed with more than enough power for the job. They are designed to withstand the harshest of conditions and can be easily mounted to the back of a truck or trailer allowing for quick transportation to the work site.

Details

- 82 HP diesel engine with Rexroth AV10VO
- Hydraulic flow of 45 GPM at 3600 PSI
- Peak pressure available at 4600 PSI

Benefits

- Filtering efficiency increases with usage
- Heavy-duty pump provides durability
- Murphy gauges to ensure engine is running at peak performance
- Quieter than other power units
- Remote on/off capability enhances operational safety
- Hydraulic fluid is environmentally safe

Features

- Dual element air cleaner
- Customizable engine and pump options
- Instant emergency shut-off switch in the case of emergency
- Customizable engine and pump options
- Low coolant/high temp shutdown
- Automatic shut down
- Electric start
- Comes standard with Magnetek Enrange™ CHTX Transmitter Remote



Murphy Gauges



20P & 25P Series Pressure Swichgauge®

The 20 Series (2 inch/51 mm dial) and the 25 Series (2-1/2 inch/64 mm dial) Swichgauge® models are diaphragm-actuated, pressure-indicating gages, with built-in electrical switches. These switches are used for tripping alarms and/or shutdown devices.

Features:

Combination indicating gauge and limit switch.
Critical pressure limit switch is visible and adjustable (most models)
Switch can activate alarms and/or shutdown equipment.
Exceeds SAE standards.

Part #	Description
IR-MPY-20-P7/15	15 PSI
IR-MPY-20-P7/75	75 PSI
IR-MPY-20-P7/100	100 PSI
IR-MPY-20-P7/150	150 PSI
IR-MPY-20-P7/200	200 PSI
IR-MPY-20-P7/300	300 PSI

OPL Series Pressure Gauge and Switchgauge®

The OPL Series Pressure Swichgauge® instruments are combination pressure indicating gauges with adjustable low and high limit switches. Limit switches can be wired directly to electric pilot circuits to operate alarms, shutdown or start/stop of engines and electric motors.



Features:

Combination indicating gauge and critical pressure limit switches.
High and low pressure limit contacts are visible and adjustable. Panel and surface mount versions.
Indicating-only Murphygauge® instruments available.
Latching control relay versions available.

Part #	Description
IR-MPY-OPLCA200	12V 200
IR-MPY-OPLCA300	12V 300
IR-MPY-OPLCA200-24V	24V 200
IR-MPY-OPLCA300-24V	24V 300

20T & 25T Series Temperature Swichgauge®

The 20 Series (2 inch/51 mm dial) and the 25 Series (2-1/2 inch/64 mm dial) Swichgauge models are diaphragm-actuated, temperature-indicating gauges, with built-in electrical switches for tripping alarms and/or shutdown devices.

Features:

Combination indicating gauge and limit switch
Critical/high temperature limit switch is visible.
Chart and adjustable (most models).
Switch can activate alarms and/or shut down equipment.
Contact grounds through case.



Part #	Description
IR-MPY-20T/250	250° Temp Gauge

L129 Lube Level Swichgauge®

The L129 Series Lube Level Swichgauge is a combination lube level indicating gauge and adjustable low and high limit switches. It provides protection against low oil level or high level caused by overfill or fuel or water seepage into the crankcase. A 6-3/4 inch (171 mm) deep sight gauge allows you check the condition and level of your oil without shutting down the equipment. Fingertip adjustable limit contacts, thru 4-7/8 inch (122 mm) range, make it simple to set high and low limit contacts. If the float touches the high or low limit contact, a normally open circuit will be completed which can activate alarms and/or shutdown the equipment.



Features: Check Lube Level Without Shutting Down
Use On Engines, Pumps, And Compressors
Combination Indicating Gauge with Low and high limit switch
float operated

Part #	Description
IR-MPY-L129	Oil Level Safety Gauge

EL150K1 Level Swichgauge® For Engine Liquids

The L150 Series Level Swichgauge instrument is a combination liquid level gauge and low limit switch; each unit includes a chamber with pivotal float, an indicating dial with pointer and a low level contact.



When properly installed and maintained, the float operates the pointer which, in turn, both indicates level during normal operation, and closes a switching circuit if the level falls to the low-limit set point.

Part #	Description
IR-MPY-EL150K1	Coolant Level Gauge

Murphy Gauges

MAGNETIC SWITCHES AND Tattletale ANNUNCIATORS

TATTLETALE® annunciators and Magnetic Switches are the nerve centers that translate Swichgauge® contact operations into decisions and operate the alarm or shutdown device. They are the electrical load carrying devices for the alarm or shutdown device.



Tattletale® annunciators have an additional feature that indicates which monitored function failed leading to the alarm or shutdown.

Part #	Description
IR-MPY-117	External Ground
IR-MPY-518PH	Internal Ground

ENGINE PANELS

WD100 Series Swichgauge® Kits for Engines

The WD100 Series Swichgauge kits provide engine monitoring that shuts down farm, construction, or other engine powered equipment when dangerous pressures or temperatures occur. The control center for each of these kits is the compact and adjustable, Universal Mounting Panel.



This panel holds two Swichgauge® instruments and a Tattletale® magnetic switch, and comes with all fittings and accessories for an easy installation.

Part #	Description
IR-MPY-20-WD-300	Panel Assembly

A91 Murphymatic® Engine Micro-Controller

The A91 is a completely unattended startup/shutdown and run controller for engine-driven equipment. This user friendly, compact, state-of-the-art microprocessor based controller, covers all basic start/stop operations, plus other features only found on more expensive controllers.



The A91 is designed to operate from a 12 or 24 volt battery, and requires a magnetic sensor (pickup) for speed detection. It includes features, such as crank and rest cycles, time delay lockouts, sensing circuit for crank disconnect and overspeed, time delays before start and stop.

Part #	Description
IR-MPY-A91	12V Controller



VDO Tachometer

Cadman carries the VDO line of tachometers. Each tachometer features a built-in hour meter. Different RPM ranges are available, however, 0 to 4000 rpm is commonly stocked.

Part #	Description
40-580	0 TO 4000 RPM

5T, 15T, 12T, 24T Time Switches

Murphy Time Switches can automatically start or stop engines or electrical motors after a predetermined time. These time switches can be wired for an open or closed circuit when time expires. They require no electrical current to operate and have an SPDT contact arrangement. These switches feature a precision movement that gives years of reliable service.

Features:

Two versions available:
Hour switch for setting run time and shutdown of equipment
Minute switch for a short interruption of Swichgauge® circuits on test or start-up
Spring wound, no electric power required
Precision movement can be set to zero at any time
Built-in stop prevents overwinding

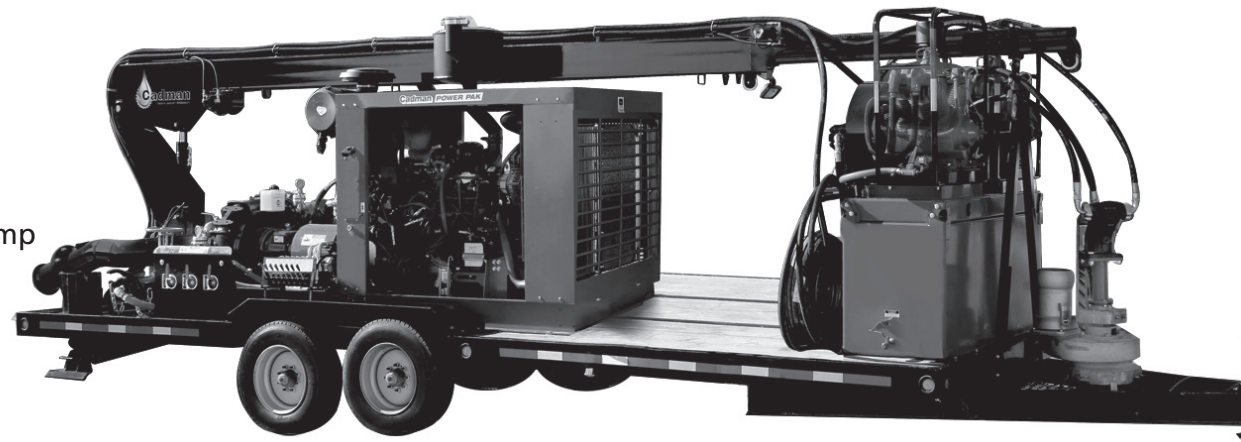
Part #	Description
IR-MPY-5T	5 Min. Timer
IR-MPY-15T	15 Min. Timer
IR-MPY-12T	12 Hour Timer
IR-MPY-24T	24 Hour Timer



Manure Management Equipment

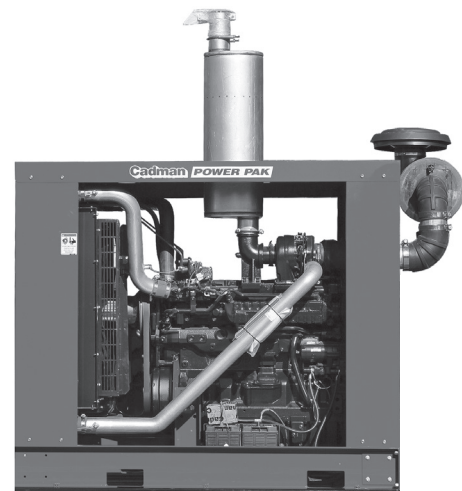
Pump Trailers

- Trailer
- Power Unit
- Pump
- Hydraulic Boom
- Air Compressor
- Ball Launcher
- Submersible Pump
- Fuel Tank



Trailer

- 18' & 24' Heavy duty avail.
- 20,000 GVWR
- Tandem axles
- Oak deck
- Binkley tow-ready jack
- V-tongue with pintle hitch
- Electric over hydraulic disc brakes
- Certified / engineered to support overhead lifting crane



Power Unit

- Exhaust silencer
- Heavy duty air cleaner with safety element
- Available with oil & coolant level safety gauges

Submersible Pump

- Designed by Cornell and built by Cadman
- 8NHM
- 14" Impeller
- 1200 RPM

Fuel Tank

- 250 Gallon
- DOT Approved
- Double Wall
- Includes electric fuel sender for fuel gauge



Manure Management Equipment

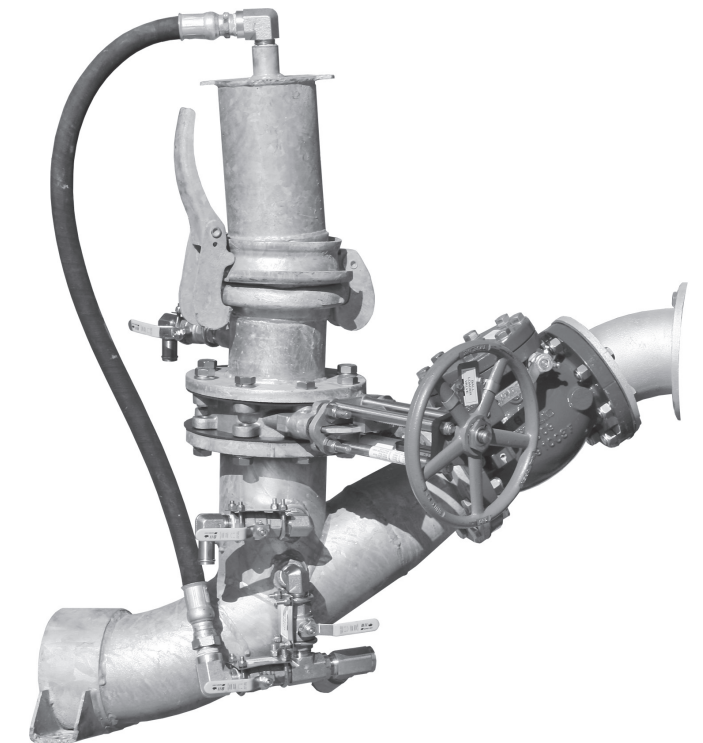
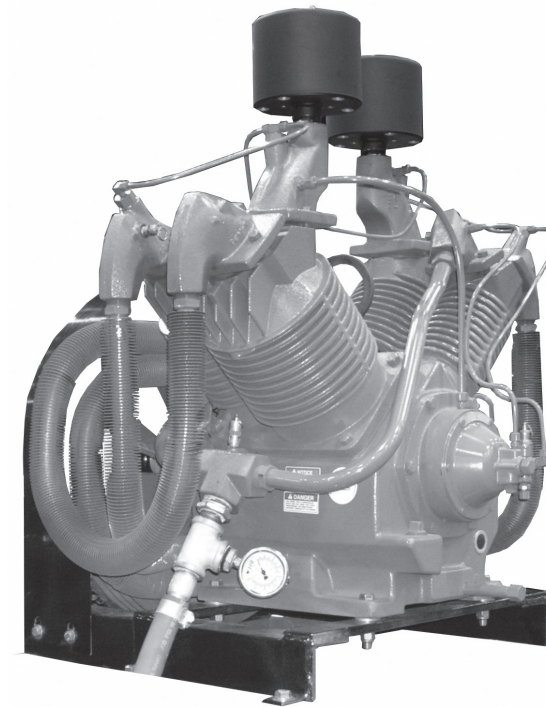
Pump Trailers

Booms

- 32' Hydraulic Boom (at full extension)
- Hydraulic winch
- Properly designed slewing ring
- Only certified crane in the liquid manure industry
- Meets all OSHA regulations

Air Compressors

- 105 CFM Champion
- 300 CFM Gardener Denver



Ball Launchers

- 6" & 8" Available
- Straight shot ball launcher eliminating elbow clogs
- Cadman is the only ball launcher which is equipped with a check valve preventing air from re-entering the system resulting in serious injury or death



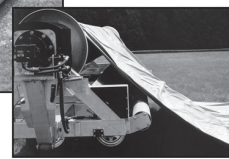
Cadman-Albers Alligator Winsystem® & Winbag®

Store Liquid Manure - Potable Water - Municipal Waste - Industrial Waste - Fire Protection

Flexible - Temporary Storage of Liquids - Use of the internationally patented CADMAN-ALBERS ALLIGATOR WINSYSTEM® and the WINBAG® provides safe, affordable, temporary storage of liquids. The Alligator WINBAG® is made from a polyester fabric, coated on both sides with P.V.C. It is suitable for all non-aggressive liquids and can be used on almost any flat surface. The strong fabric easily withstands the mechanical forces that occur during use of the WINBAG®. The material-weld seams and fixing points have been designed using generous safety margins based on stringent strength calculations.



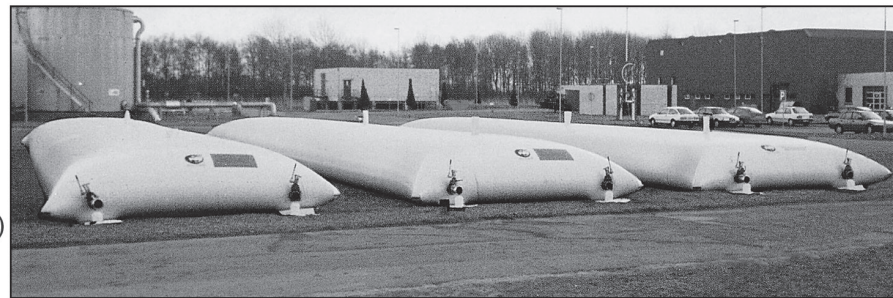
The highly portable system can be moved with a half ton truck. No need for a semi or C.D.L. licensed driver.



The WINBAG® unwinds easily on-site. It re-winds by means of a hydraulic system powered by a 5.5 h.p. Honda engine.

WINSYSTEM® Advantages:

- Safe, affordable - enclosed storage.
- Easily transported
- After initial pump-down, re-rolling will empty the WINBAG® completely
- Capacities from 100 m³ (26,420 U.S. gal.)
200 m³ (52,830 U.S. gal.)



WINSYSTEM® SPECIFICATIONS

- Length: 24'
- Width: 7'4"
- Height: 6'
- Weight: 4,035 lbs.
- Tires size: 235/75R15
- Total weight w/empty 200 m³ WINBAG®
2300 kg (5,578 lbs)
- Tandem Axle



The 100 m³ (26,420 U.S. gal.) WINBAG® comes standard with two 6" ANSI flanges and brass knife gate valves. The 200 m³ (52,830 U.S. gal.) WINBAG® comes standard with two ANSI flanges and one 8" on the centre port and brass knife gate valves.



WINBAG® SPECIFICATIONS:

P.V.C. coated polyester fabric - P.E.S. - P.V.C. - R.M. Type II			
Technical Properties			
	DIN	Type II P.E.S. *	
Fabric	60001	280 g/m² (0.92 oz/ft²)	
Weight of Fabric	53854	P.V.C.	
Type of Coating			
Total Weight	53352	1,100 g/m² (3.6 oz/ft²)	
Tensile Strength	53354	4,200 N/50 mm (479 psi)	
Tear Strength	53363	600 N (134.9 lbs)	
Physical Properties*			
Colour		Grey	
U.V. Resistance		Excellent	
Crack Resistance		Excellent	
Temperature Resistance		Good	
Chemical Resistance		Good	
*All properties are indications only			
Capacity	U.S. Gallons	Dimensions	Length
m³		Width	Length
100	26,420	5.7 m (18.7 ft)	21 m (69 ft)
200	52,830	5.7 m (18.7 ft)	35 m (115 ft)

Extra drums and WINBAG®s can be stored until required, allowing for better system utilization.



Cadman-Albers Alligator L-Tank® & Bag-Tank®

The Alligator L-TANK® is a storage system for all non-aggressive liquids and potable water up to 500 m³ (132,100 U.S. gal.) Unlike the WINBAG® the L-TANK® is moved by hand from location to location. The L-TANK® is available in many custom sizes.



L-TANK® being unfolded.



L-TANK® filled

The Alligator BAGTANK® is a permanent storage solution that can provide up to 5,000 m³ (1,320,000 U.S. gal.) liquid capacity. Unlike the WINBAG® or the L-TANK® an excavated site must be prepared to support the BAGTANK® in order to support the higher capacity. This is a very cost-effective method for covered storage of any non-aggressive liquid. For liquids containing solids such as dairy or hog manure, optional agitators can be installed.



Two BAGTANKS® empty



Single BAGTANK® full

Pipe, Hose & Fittings

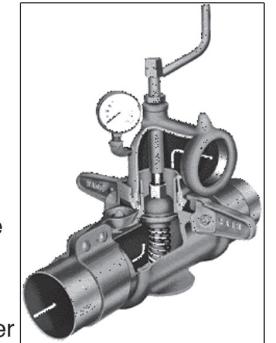
WADE RAIN

HANDMOVE

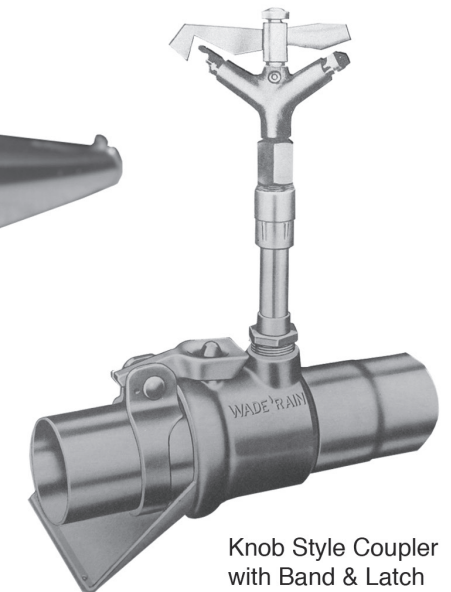
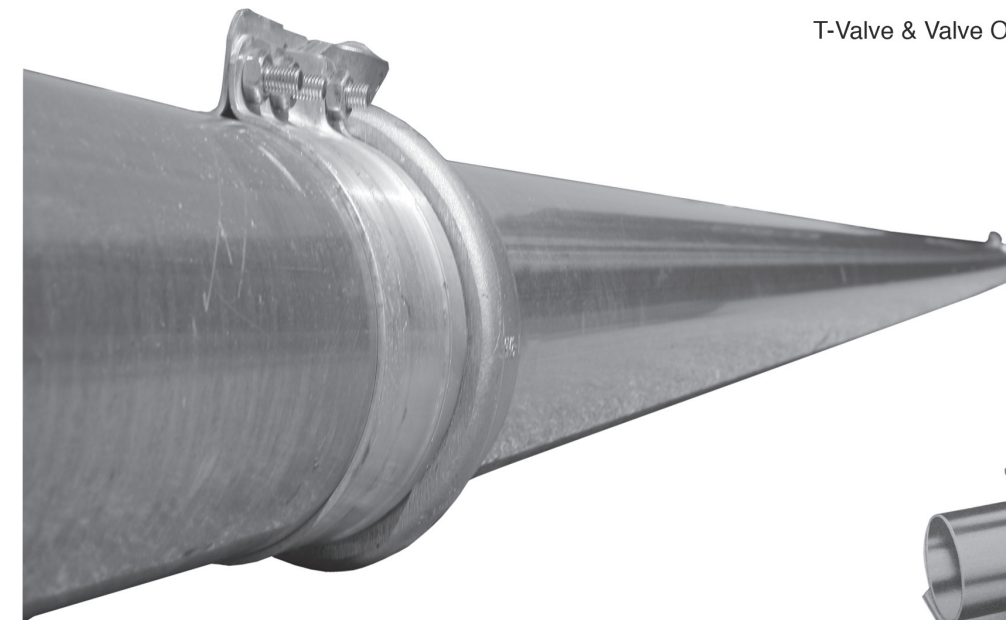
Handmove irrigation systems fit your farm and crop no matter what you grow. Field crops, pastures, row crops, fruits and berries - you can boost yields, improve quality and lower crop production costs over flood irrigation. Farmers have proved that timely moisture with sprinkler irrigation, assures full production year after year with a minimum of water and labour when compared with flood irrigation.

Wade Rain also makes valves for its irrigation systems. The valves connect the mainline to the lateral lines which irrigate the field. All our valves are made of aluminum and PERM-MOLD processed for light-weight long-lasting strength. In this picture we see a mainline tee valve with an elbow latched onto the top.

Mainline T-Valves come in several pipe diameters and includes our patented gasket. A portable valve opening elbow attaches in seconds to the valve.



T-Valve & Valve Opener



Knob Style Coupler with Band & Latch

Wade Rain Pipe and Mainline

Find out about our standard aluminum pipe and the sizes they come in. Also find out about mainlines and how they integrate the whole handmove system and allow it to work.





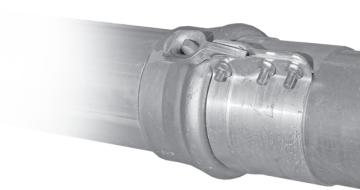
COUPLERS

Wade Rain handmove systems offer several advantages over other handmove systems. Our couplers are made of a special light-weight aluminum to allow easy portability and structural strength. Our couplers are specially designed to allow one to easily move the pipes and reattach them to each other.

30' Aluminum Irrigation Tubing w/ Wade Rain Couplers

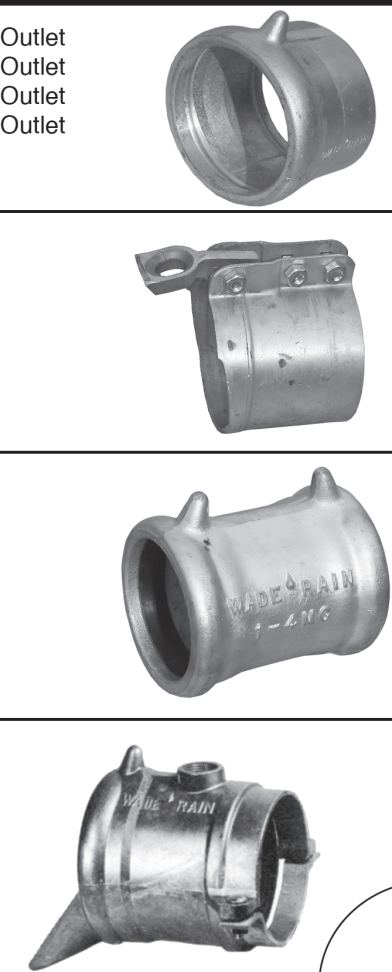
Knob style coupler with Gasket & 1" Plug for Coupler with Riser Outlet One End Rolled and Band & Latch

Part #	Outside Diameter	Wall Thickness	Features
IR-PIP-WR2	2"	0.050"	1" Riser Outlet
IR-PIP-WR3	3"	0.050"	1" Riser Outlet
IR-PIP-WR4	4"	0.050"	1" Riser Outlet
IR-PIP-WR5OUTLET	5"	0.052"	1" Riser Outlet
IR-PIP-WR5	5"	0.052"	
IR-PIP-WR6	6"	0.058"	



Wade Rain Couplers (includes gasket)

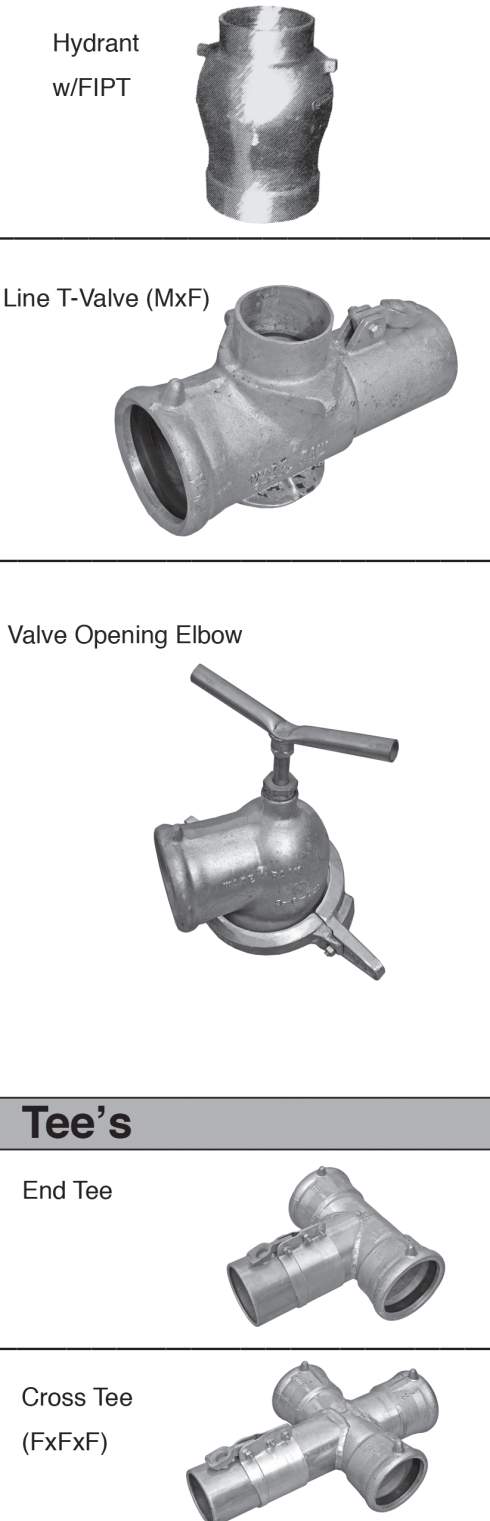
Part #	Description	Size	Features
IR-CPL-WR2	Weld-On Coupler	2"	1" Riser Outlet
IR-CPL-WR3	Weld-On Coupler	3"	1" Riser Outlet
IR-CPL-WR4	Weld-On Coupler	4"	1" Riser Outlet
IR-CPL-WR5OUTLET	Weld-On Coupler	5"	1" Riser Outlet
IR-CPL-WR5	Weld-On Coupler	5"	
IR-CPL-WR6	Weld-On Coupler	6"	
IR-TUE-WR2	Band & Latch	2"	
IR-TUE-WR3	Band & Latch	3"	
IR-TUE-WR4	Band & Latch	4"	
IR-TUE-WR5	Band & Latch	5"	
IR-TUE-WR6	Band & Latch	6"	
IR-CPL-WR2LOOSE	Loose Coupling	2"	
IR-CPL-WR3LOOSE	Loose Coupling	3"	
IR-CPL-WR4LOOSE	Loose Coupling	4"	
IR-CPL-WR5LOOSE	Loose Coupling	5"	
IR-CPL-WR6LOOSE	Loose Coupling	6"	
IR-CPL-WR2BOLTON	Bolt-On Coupler	2"	
IR-CPL-WR3BOLTON	Bolt-On Coupler	3"	
IR-CPL-WR4BOLTON	Bolt-On Coupler	4"	
IR-CPL-WR5BOLTON	Bolt-On Coupler	5"	




KNOB STYLE FITTINGS

Hydrant, T-Valves and Valve Openers

	Part #	Description	Pipe Size	Valve Size
Hydrant w/FIPT	IR-TVT-WR3X3	Threaded Hydrant	3"	3"
	IR-TVT-WR4X4	Threaded Hydrant	4"	4"
	IR-TVT-WR6X6	Threaded Hydrant	6"	6"
Line T-Valve (MxF)	IR-LVT-WR3X3	Line T Valve	3"	3"
	IR-LVT-WR4X3	Line T Valve	4"	3"
	IR-LVT-WR5X4	Line T Valve	5"	4"
	IR-LVT-WR6X4	Line T Valve	6"	4"
	IR-LVT-WR6X6	Line T Valve	6"	6"
Valve Opening Elbow	IR-VOE-WR3X2	Valve Opening Elbow	2"	3"
	IR-VOE-WR4X2	Valve Opening Elbow	2"	4"
	IR-VOE-WR3X3	Valve Opening Elbow	3"	3"
	IR-VOE-WR4X3	Valve Opening Elbow	3"	4"
	IR-VOE-WR3X4	Valve Opening Elbow	4"	3"
	IR-VOE-WR4X4	Valve Opening Elbow	4"	4"
	IR-VOE-WR4X5	Valve Opening Elbow	5"	4"
	IR-VOE-WR6X4	Valve Opening Elbow	4"	6"
	IR-VOE-WR6X5	Valve Opening Elbow	5"	6"
	IR-VOE-WR6X6	Valve Opening Elbow	6"	6"
Tee's	End Tee	IR-ENT-WR2	End T	2"
		IR-ENT-WR3	End T	3"
		IR-ENT-WR4	End T	4"
		IR-ENT-WR5	End T	5"
		IR-ENT-WR6	End T	6"
		Cross Tee (FxFxF)	IR-CRS-WR2	Cross T
IR-CRS-WR3	Cross T		3"	
IR-CRS-WR4	Cross T		4"	
IR-CRS-WR5	Cross T		5"	
IR-CRS-WR6	Cross T		6"	





KNOB STYLE FITTINGS

Elbows, Reducers & Plugs		
Part #	Description	Size
IR-ELB-WR2X90 IR-ELB-WR3X90 IR-ELB-WR4X90 IR-ELB-WR5X90 IR-ELB-WR6X90	90° Elbow 90° Elbow 90° Elbow 90° Elbow 90° Elbow	2" 3" 4" 5" 6"
		Reversible 90° Elbow (MxF)
IR-ELB-WR2X90EXT IR-ELB-WR3X90EXT IR-ELB-WR4X90EXT IR-ELB-WR5X90EXT IR-ELB-WR6X90EXT	90° Elbow 90° Elbow 90° Elbow 90° Elbow 90° Elbow	2" 3" 4" 5" 6"
		Reversible 90° Elbow w / extension
IR-ELB-WR2X45 IR-ELB-WR3X45 IR-ELB-WR4X45 IR-ELB-WR5X45 IR-ELB-WR6X45	45° Elbow 45° Elbow 45° Elbow 45° Elbow 45° Elbow	2" 3" 4" 5" 6"
		Reversible 45° Elbow (MxF)
IR-ELB-WR2X45EXT IR-ELB-WR3X45EXT IR-ELB-WR4X45EXT IR-ELB-WR5X45EXT IR-ELB-WR6X45EXT	45° Elbow 45° Elbow 45° Elbow 45° Elbow 45° Elbow	2" 3" 4" 5" 6"
		Reversible 45° Elbow w/ Extension (MxF)
IR-ELB-WR2X90L IR-ELB-WR3X90L IR-ELB-WR4X90L IR-ELB-WR5X90L IR-ELB-WR6X90L	90° Loose Elbow 90° Loose Elbow 90° Loose Elbow 90° Loose Elbow 90° Loose Elbow	2" 3" 4" 5" 6"
		Loose 90° Elbow (FxF)
IR-RED-WR3-2 IR-RED-WR4-2 IR-RED-WR4-3 IR-RED-WR5-3 IR-RED-WR5-4 IR-RED-WR6-4 IR-RED-WR6-5	3" To 2" Reducer 4" To 2" Reducer 4" To 3" Reducer 5" To 3" Reducer 5" To 4" Reducer 6" To 4" Reducer 6" To 5" Reducer	
		Reducer (MxF)
IR-RED-WR3-2L IR-RED-WR4-2L IR-RED-WR4-3L IR-RED-WR5-3L IR-RED-WR5-4L IR-RED-WR6-4L IR-RED-WR6-5L	3" To 2" Reducer 4" To 2" Reducer 4" To 3" Reducer 5" To 3" Reducer 5" To 4" Reducer 6" To 4" Reducer 6" To 5" Reducer	
		Reducer (FxF)
IR-PLG-WR2 IR-PLG-WR3 IR-PLG-WR4 IR-PLG-WR5 IR-PLG-WR6	End Plug End Plug End Plug End Plug End Plug	2" 3" 4" 5" 6"
		End Plug (Male)



The Wil-loc Comparison

Couplings That Reduce Operating Cost..

Wide handle for a firm grip. Provides better leverage and resistance to breaking.

Precision crafted from galvanized steel. Provides long life and lower operating cost.

Wil-loc's ball & socket couplings (**Bauer Compatible**) have an advanced design double pin locking lever for smoother closing action.

O-rings seat securely in socket with no leakage. Increase pump performance by providing excellent vacuum sealing.

Hoses are securely fastened to coupling by integral rib design. Allows easy hose changes and reduced kinking.

Ball and socket shanks decrease wear, kinking and binding of hoses, increasing hose longevity and pump performance.

Quick connections decrease setup time and make coupling easy even in adverse conditions such as mud and snow. **Lock and go.**

Secured pivot points prevent binding of clamping jaws and makes lever field repairable.

No threads to clean. Decreases set up time and ensures efficiency.

30° socket flexibility in all directions. Pump and hose do not have to be perfectly aligned.

Wil-loc Competition Comparisons

Wil-loc Vs. Cam-lock

Wear points for locking mechanism

Flat Gasket can cause leakage

- Hose & pump must be in line
- Connections must be cleaned each time during set up
- Low pressure rating
- Locking arms wear out
- Locking levers can bind with dirt
- Can freeze up in cold

Wil-loc Vs. spanner

Wrench needed for tightening

Flat Gasket can cause leakage

- Hose & pump must be in line
- Threaded pieces take time to assemble
- Threads must be cleaned each time during set-up
- Threads bind in mud and dirt
- Can freeze up in cold

Wil-loc Vs. Bauer

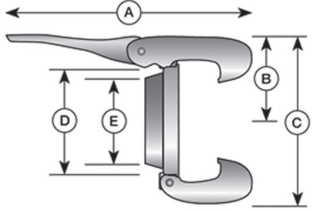
Limited locking jaw rotation

Wear points for locking mechanism

- Limited locking jaw rotation
- Locking lever must be free from debris during set-up
- Lever holding straps are more likely to fail than Wil-loc pin design
- Lever can't be field repaired

A-01 GALVANIZED B-STYLE HOSE SETS			
	SIZE	PART NUMBER	WEIGHT
GALVANIZED HOSE SET ASSEMBLY*			
	2"	IR-HSA-WL2	02.60 lbs
	3"	IR-HSA-WL3	05.10 lbs
	4"	IR-HSA-WL4	11.55 lbs
	5"	IR-HSA-WL5	16.60 lbs
	6"	IR-HSA-WL6	21.85 lbs
	8"	IR-HSA-WL8	35.15 lbs
GALVANIZED BALL / MALE HOSE END*			
	2"	IR-HT2-TUE2WL	0.80 lbs
	3"	IR-HT3-TUE3WL	1.45 lbs
	4"	IR-HT4-TUE4WL	3.45 lbs
	5"	IR-HT5-TUE5WL	4.75 lbs
	6"	IR-HT6-TUE6WL	5.90 lbs
	8"	IR-HT8-TUE8WL	10.45 lbs
GALVANIZED SOCKET / FEMALE HOSE END*			
	2"	IR-HT2-CPL2WL	0.80 lbs
	3"	IR-HT3-CPL3WL	1.04 lbs
	4"	IR-HT4-CPL4WL	3.60 lbs
	5"	IR-HT5-CPL5WL	5.40 lbs
	6"	IR-HT6-CPL6WL	6.65 lbs
	8"	IR-HT8-CPL8WL	11.55 lbs
*Only Wil-loc has the wedge shaped barb on the 4", 6" & 8" sizes.			
GALVANIZED LOCKING LEVER			
	2"	IR-FCL-WL2	1.00 lbs
	3"	IR-FCL-WL3	2.25 lbs
	4"	IR-FCL-WL4	4.40 lbs
	5"	IR-FCL-WL5	6.45 lbs
	6"	IR-FCL-WL6	9.35 lbs
	8"	IR-FCL-WL8	13.15 lbs
O-RING			
	2"	IR-GKT-WL2	0.05 lbs
	3"	IR-GKT-WL3	0.10 lbs
	4"	IR-GKT-WL4	0.20 lbs
	5"	IR-GKT-WL5	0.20 lbs
	6"	IR-GKT-WL6	0.45 lbs
	8"	IR-GKT-WL8	0.55 lbs
GALVANIZED DOUBLE HOSE CONNECTION			
	2"	IR-BRB-WL2	1.00 lbs
	3"	IR-BRB-WL3	1.15 lbs
	4"	IR-BRB-WL4	3.95 lbs
	6"	IR-BRB-WL6	6.80 lbs
	8"	IR-BRB-WL8	14.70 lbs

GALVANIZED B-STYLE HOSE SETS				A-02	
VACUUM RATING	PRESSURE RATING	NUMBER OF RIBS			
30 inches hg	2 & 3 inch = 290 psi 4 - 8 inch = 175 psi	2 & 3 inch = 2 4 - 8 inch = 3			
LEVER MECHANICAL SPECS Specifications to 1/100th of an Inch // Specs Subject to Change					
SIZE	A	B	C	D	E
2" 50mm x 50mm	7.09	3.35	4.92	3.94	2.44
3" 76mm x 76mm	9.25	3.54	7.09	5.31	3.43
4" 108mm x 100mm	10.83	6.69	9.25	7.48	5.20
5" 133mm x 125mm	11.41	5.51	10.83	8.07	5.91
6" 159mm x 150mm	13.39	6.30	11.81	9.06	6.69
8" 194mm x 200mm	13.19	9.06	13.98	10.04	8.66



SIZE	A	B	C	D	E	F	G	H	I
2" 50mm x 50mm	6.50	0.06	4.33	0.98	1.38		2.09	1.97	1.85
3" 76mm x 76mm	8.07	0.06	5.31	1.38	1.38		3.11	2.99	2.87
4" 108mm x 100mm	11.42	0.07	7.28	1.38	1.77	1.77	4.09	3.94	3.80
5" 133mm x 125mm	11.61	0.07	7.87	1.38	1.77	1.77	5.08	4.92	4.78
6" 159mm x 150mm	12.40	0.07	8.46	1.57	1.97	1.97	6.06	5.91	5.77
8" 194mm x 200mm	14.96	0.08	9.84	1.97	2.36	2.36	8.11	7.87	7.71

Only Wil-loc has the wedge shaped hose barb on the 4", 6" & 8" sizes.


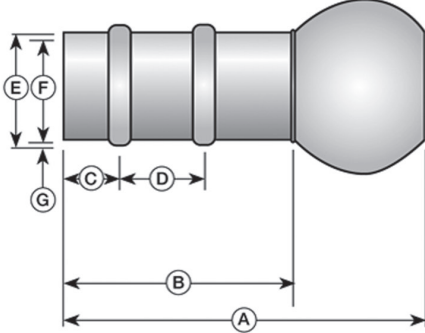


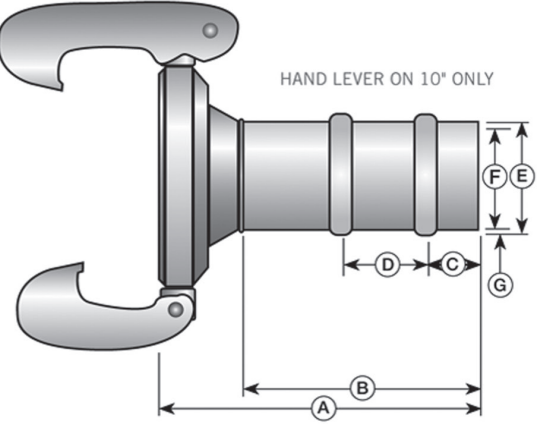
MALE MECHANICAL SPECS Hose Set Specifications to 1/100th of an Inch // Specifications Subject to Change										
SIZE	A	B	C	D	E	F	G	H	I	
2" 50mm x 50mm	6.50	0.06	4.33	0.98	1.38		2.09	1.97	1.85	
3" 76mm x 76mm	8.07	0.06	5.31	1.38	1.38		3.11	2.99	2.87	
4" 108mm x 100mm	11.42	0.07	7.28	1.38	1.77	1.77	4.09	3.94	3.80	
5" 133mm x 125mm	11.61	0.07	7.87	1.38	1.77	1.77	5.08	4.92	4.78	
6" 159mm x 150mm	12.40	0.07	8.46	1.57	1.97	1.97	6.06	5.91	5.77	
8" 194mm x 200mm	14.96	0.08	9.84	1.97	2.36	2.36	8.11	7.87	7.71	





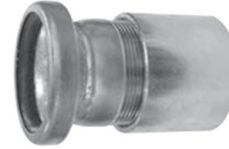
FEMALE MECHANICAL SPECS Hose Set Specifications to 1/100th of an Inch // Specifications Subject to Change										
SIZE	A	C	D	E	F	G	H	I	S	
2" 50mm x 50mm	5.51	4.33	0.98	1.38		2.09	1.97	1.85	0.06	
3" 76mm x 76mm	6.69	5.31	1.38	1.38		3.11	2.99	2.87	0.06	
4" 108mm x 100mm	9.45	7.28	1.38	1.77	1.77	4.09	3.94	3.80	0.07	
5" 133mm x 125mm	10.04	7.87	1.38	1.77	1.77	5.08	4.92	4.78	0.07	
6" 159mm x 150mm	10.43	8.46	1.57	1.97	1.97	6.06	5.91	5.77	0.07	
8" 194mm x 200mm	12.99	9.84	1.97	2.36	2.36	8.11	7.87	7.71	0.08	

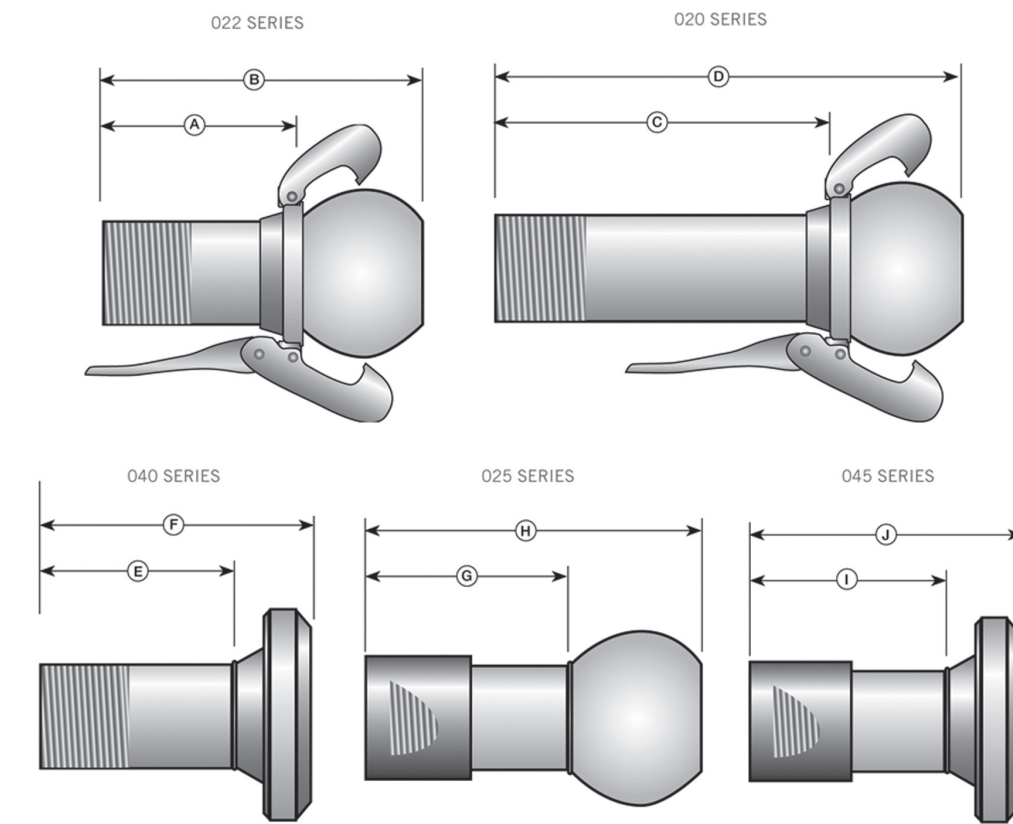
TECH TIP
Wil-loc couplings have a higher working pressure rating than typical cam-lock or other quick action couplings. Typical cam-lock: 2" = 250psi, 3" = 125psi, 4" = 100psi, 5" = 75psi and 6" = 75psi. Check with your manufacturer for specific ratings.








A-03		GALVANIZED A-STYLE HOSE SETS		
	SIZE	PART NUMBER	WEIGHT	
 <p>10" HOSE SET SHOWN</p>	GALVANIZED HOSE SET ASSEMBLY			
	10"	IR-HSA-WL10	54.60 lbs	
	12"	IR-HSA-WL12	88.80 lbs	
12" Hose Set Assembly comes with a locking bar				
	GALVANIZED BALL / MALE HOSE TAIL W/ LOCKING RING			
	10"	IR-HTA-TUE10WL	20.75 lbs	
	12"	IR-HTA-TUE12WL	30.40 lbs	
All 10" and 12" A-Style Hose Sets come with a locking ring				
 <p>10" FEMALE SHOWN</p>	GALVANIZED SOCKET / FEMALE HOSE TAIL W/ O-RING			
	10"	IR-HTA-CPL10WL	25.55 lbs	
	12"	IR-HTA-CPL12WL	44.50 lbs	
12" Hose Set Assembly comes with a locking bar				
	GALVANIZED LOCKING RING (O-RING SOLD SEPERATELY)			
	10"	IR-FCL-WL10	8.35 lbs	
	12"	IR-FCL-WL12	13.90 lbs	
	O-RING			
	10"	IR-GKT-WL10	1.05 lbs	
	12"	IR-GKT-WL12	1.55 lbs	
	GALVANIZED DOUBLE END HOSE CONNECTION			
	10"	IR-BRB-WL10		
	12"	IR-BRB-WL12	22.45 lbs	

A-04		GALVANIZED A-STYLE HOSE SETS						
VACUUM RATING	PRESSURE RATING	NUMBER OF RIBS						
30 inches hg	88 psi	2						
 <p>A-STYLE LOCKING RING</p>								
MALE MECHANICAL SPECS								
Hose Set Specifications to 1/100th of an Inch // Specifications Subject to Change								
SIZE		A	B	C	D	E	F	G
10"	250mm x 150mm	18.54	11.81	3.54	4.72	10.08	9.84	0.98
12"	300mm x 300mm	18.54	11.81	3.54	4.72	12.05	11.81	0.98
 <p>12" FEMALE HOSE TAIL</p>		 <p>10" FEMALE HOSE TAIL</p>		 <p>HAND LEVER ON 10" ONLY</p>				
FEMALE MECHANICAL SPECS								
Hose Set Specifications to 1/100th of an Inch // Specifications Subject to Change								
SIZE		A	B	C	D	E	F	G
10"	250mm x 150mm	16.14	11.81	3.54	4.72	10.08	9.84	0.98
12"	300mm x 300mm	16.89	11.81	3.54	4.72	12.05	11.81	0.98
TECH TIP								
For easier coupling (especially of larger sizes) lubricate O-rings with Wil-lube (as seen in Specialty section). This will allow the ball to seat into the socket easier during first time usage.								
Double hose connections provide a quick, inexpensive way to repair leaks in the field. Cut the leak area out of the lay-flat hose, insert the double hose connection and use two Wil-loc T-Bolt clamps per end to clamp the lay-flat onto double connection.								

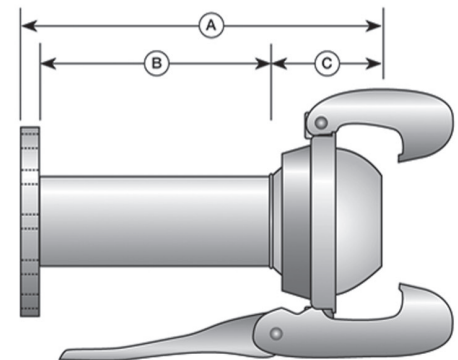
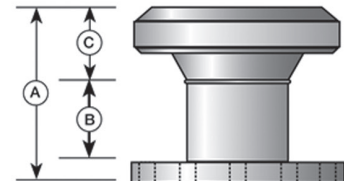
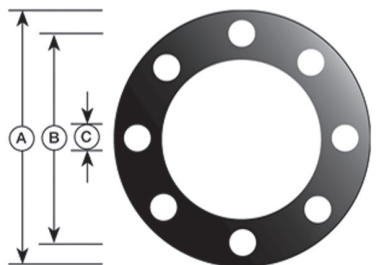
A-05 GALVANIZED NPT THREADED		SIZE	PART NUMBER	WEIGHT
GALVANIZED MALE THREADED LONG BALL / MALE W/ LOCKING LEVER				
	2"	IR-TT2-WL2	3.00 lbs	
	3"	IR-TT3-WL3	6.70 lbs	
	4"	IR-TT4-WL4	10.40 lbs	
	6"	IR-TT6-WL6	22.45 lbs	
	8"	IR-TT8-WL8	37.55 lbs	
GALVANIZED MALE THREADED SHORT BALL / MALE W/ LOCKING LEVER				
	2"	IR-TT2-WL2S	2.00 lbs	
	3"	IR-TT3-WL3S	4.05 lbs	
	4"	IR-TT4-WL4S	7.70 lbs	
	6"	IR-TT6-WL6S	15.90 lbs	
	8"	IR-TT8-WL8S	25.15 lbs	
GALVANIZED FEMALE THREADED SHORT BALL / MALE W/ LOCKING LEVER				
	2"	IR-TT2-WL2C	3.00 lbs	
	3"	IR-TT3-WL3C	6.02 lbs	
	4"	IR-TT4-WL4C	12.25 lbs	
	6"	IR-TT6-WL6C	26.20 lbs	
	8"	IR-TT8-WL8C	50.60 lbs	
GALVANIZED MALE THREADED SOCKET / FEMALE				
	2"	IR-TC2-WL2	1.10 lbs	
	3"	IR-TC3-WL3	1.75 lbs	
	4"	IR-TC4-WL4	3.50 lbs	
	6"	IR-TC6-WL6	6.80 lbs	
	8"	IR-TC8-WL8	14.05 lbs	
GALVANIZED FEMALE THREADED SOCKET / FEMALE				
	2"	IR-TC2-WL2C	2.05 lbs	
	3"	IR-TC3-WL3C	5.10 lbs	
	4"	IR-TC4-WL4C	8.05 lbs	
	6"	IR-TC6-WL6C	17.10 lbs	
	8"	IR-TC8-WL8C	39.50 lbs	

GALVANIZED NPT THREADED		A-06								
VACUUM RATING	PRESSURE RATING	THREADED PATTERN								
30 inches hg	2 - 3" = 290 psi 4 - 8" = 175 psi	NPT								
										
NPT MECHANICAL SPECS Specifications to 1/8th of an Inch // Specifications subject to change										
SIZE	A	B	C	D	E	F	G	H	I	J
2" 50mm x 50mm	2.76	4.92	5.51	7.67	2.76	3.98	4.35	6.50	4.35	5.50
3" 76mm x 76mm	2.76	5.59	6.69	9.53	2.76	4.13	4.62	7.50	4.62	6.00
4" 108mm x 100mm	2.76	7.00	6.69	10.94	2.76	4.92	5.42	9.63	5.42	7.50
6" 159mm x 150mm	3.94	8.03	9.45	13.54	3.94	5.91	6.89	11.00	6.89	8.87
8" 194mm x 200mm	3.94	9.17	9.06	14.29	3.94	7.17	8.22	13.50	8.22	11.50
TECH TIP										
Wil-loc offers two different threaded shanks for the male connections. The O20 Series allows the locking ring lever to close above the male NPT threads. The O22 Series locking lever closes below the male NPT threads. Check application clearance before choosing the correct fit.										
Before installing a Wil-loc threaded fitting, apply an all-purpose anti-seize product to threads. If the fitting should have to be removed from the pump, the anti-seize product can prevent seizure of the threads.										







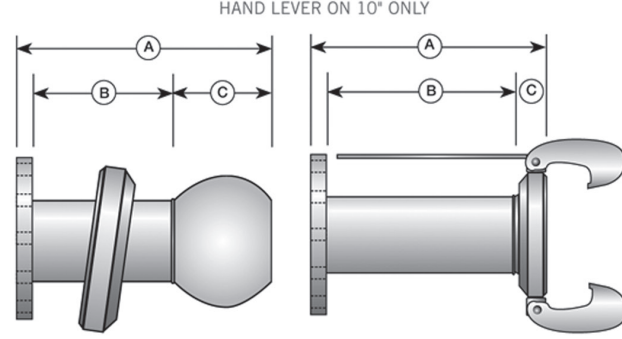
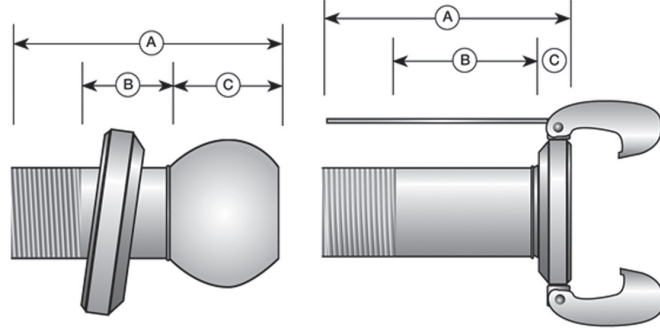
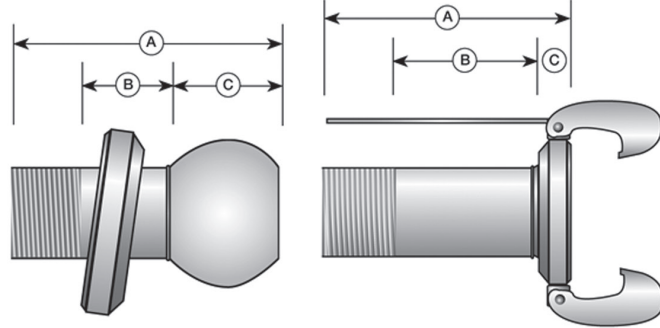
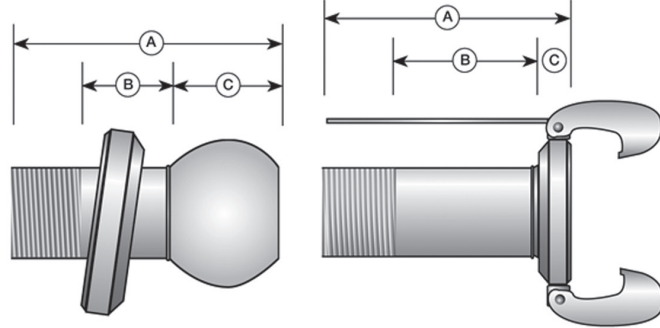
A-07		GALVANIZED PUMP FLANGES		
	SIZE	PART NUMBER	WEIGHT	
	GALVANIZED DISCHARGE FLANGE BALL / MALE			
	3"	IR-FL3-TUE3WL	11.60 lbs	
	4"	IR-FL4-TUE4WL	17.15 lbs	
	6"	IR-FL6-TUE6WL	27.90 lbs	
	8"	IR-FL8-TUE8WL	39.85 lbs	
All flanges are designed to ASA 150 series hole specifications.				
	GALVANIZED SUCTION FLANGE SOCKET / FEMALE			
	3"	IR-FL3-CPL3WL	8.90 lbs	
	4"	IR-FL4-CPL4WL	12.05 lbs	
	6"	IR-FL6-CPL6WL	16.00 lbs	
	8"	IR-FL8-CPL8WL	24.30 lbs	
All flanges are designed to ASA 150 series hole specifications.				
	GALVANIZED REDUCING FLANGE - MALE			
	5" x 4"	IR-FL5-TUE4WL	23.25 lbs	
	6" x 4"	IR-FL6-TUE4WL	43.75 lbs	
	8" x 4"	IR-FL8-TUE4WL	14.00 lbs	
	8" x 6"	IR-FL8-TUE6WL	22.00 lbs	
All flanges are designed to ASA 150 series hole specifications.				
	GALVANIZED REDUCING FLANGE - FEMALE			
	5" x 4"	IR-FL5-CPL4WL	16.00 lbs	
	6" x 4"	IR-FL6-CPL4WL	51.75 lbs	
	8" x 4"	IR-FL8-CPL4WL	26.75 lbs	
	8" x 6"	IR-FL8-CPL6WL	21.00 lbs	
All flanges are designed to ASA 150 series hole specifications.				
	FLANGE NEOPRENE GASKET			
	3"	IR-GKT-FL3	0.20 lbs	
	4"	IR-GKT-FL4	0.30 lbs	
	6"	IR-GKT-FL6	0.35 lbs	
	8"	IR-GKT-FL8	0.35 lbs	
	10"	IR-GKT-FL10	0.50 lbs	
	12"	IR-GKT-FL12	0.65 lbs	
1/8th inch thickness. 1/4th inch thickness available / full faced.				








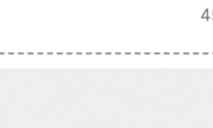
GALVANIZED PUMP FLANGES			A-08	
VACUUM	PRESSURE RATING	NUMBER OF HOLES	FLANGE PATTERN	
30 inches hg	3" = 290 psi 4 - 8" = 175 psi	3" has 4 bolt holes 4 - 8" has 8 bolt holes	ASA 150	
	MALE FLANGE SPECS Specs to 1/8" & subject to change			
	SIZE	A	B	C
	3"	10.00	6.50	2.88
	4"	11.88	7.00	3.50
	6"	13.63	9.00	4.00
8"	15.63	9.88	5.25	
	FEMALE FLANGE SPECS Specs to 1/8" & subject to change			
	SIZE	A	B	C
	3"	4.63	2.75	1.38
	4"	6.50	4.00	2.25
	6"	6.50	4.00	2.25
8"	7.75	4.00	3.25	
	ASA FLANGE SPECS Specs to 1/8" & subject to change			
	SIZE	A	B	C
	3"	7.50	6.00	0.75
	4"	9.00	7.50	0.75
	6"	11.00	9.50	0.875
8"	13.50	11.95	0.875	
TECH TIP Wil-loc flange fittings are manufactured to ASA 150 pattern specifications. Gaskets should be used when mounting the flange fittings to a pump. If your pumps require other flange types or sizes, please contact your Wil-loc representative or dealer.				
Wil-loc increasing flanges allow quick connection of high flow pumps to larger discharge lines. Higher flows can be achieved because larger diameter pipe decreases friction losses.				

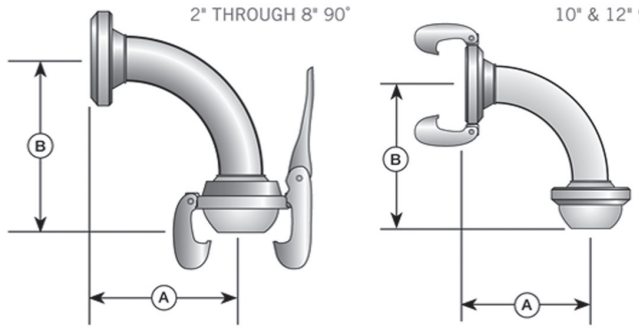
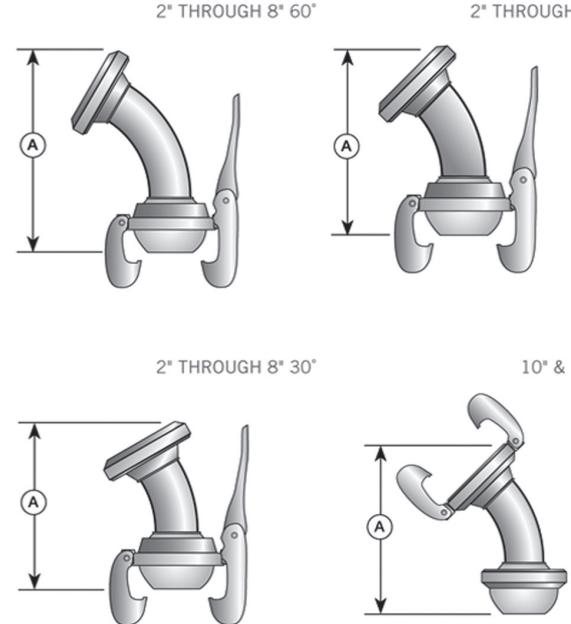


A-09 GALVANIZED A-STYLE PUMP FITTINGS			
	SIZE	PART NUMBER	WEIGHT
	GALVANIZED DISCHARGE FLANGE BALL / MALE		
	10"	IR-FLG-TUE10WL	41.60 lbs
	12"	IR-FLG-TUE12WL	64.35 lbs
All flanges are designed to ASA hole specifications.			
	GALVANIZED SUCTION FLANGE SOCKET / FEMALE		
	10"	IR-FLG-CPL10WL	39.20 lbs
	12"	IR-FLG-CPL12WL	78.80 lbs
All flanges are designed to ASA hole specifications.			
 B-STYLE COUPLING SHOWN	INCREASING & REDUCING FLANGE BALL / MALE		
	10"		90.00 lbs
	12"		54.75 lbs
All flanges are designed to ASA hole specifications.			
 B-STYLE COUPLING SHOWN	INCREASING & REDUCING FLANGE SOCKETS / FEMALE		
	10"		93.00 lbs
	12"		53.50 lbs
All flanges are designed to ASA hole specifications.			
	GALVANIZED MALE THREADED DISCHARGE BALL / MALE		
	10"	IR-T10-TUE10WL	35.50 lbs
	12"	IR-T12-TUE12WL	63.80 lbs
Threads are cut to NPT specifications.			
	GALVANIZED MALE THREADED SUCTION SOCKET / FEMALE		
	10"	IR-T10-CPL10WL	30.00 lbs
	12"	IR-T12-CPL12WL	N/A
Price includes locking ring.			


GALVANIZED A-STYLE PUMP FITTINGS				A-10	
VACUUM	PRESSURE RATING	FLANGE PATTERN	NUMBER OF HOLES		
30 inches hg	88 psi	ASA 150	12 bolt holes		
			THREAD PATTERN NPT		
		A-STYLE FLANGE BALL SPECS Specs to 1/8" & subject to change			
		SIZE	A	B	C
		10"	12.75	6.00	6.00
12"	13.75	5.00	8.00		
		A-STYLE FLANGE SOCKET SPECS Specs to 1/8" & subject to change			
		SIZE	A	B	C
		10"	11.75	7.00	4.00
12"	21.75	16.00	5.00		
		A-STYLE NPT THRD BALL SPECS Specs to 1/8" & subject to change			
		SIZE	A	B	C
		10"	17.75	8.50	6.75
12"	19.75	8.50	8.75		
		A-STYLE NPT THRD SOCKET SPECS Specs to 1/8" & subject to change			
		SIZE	A	B	C
		10"	15.75	9.25	4.00
12"	17.00	9.25	5.25		
<p>TECH TIP The quick action and flexibility of 10" and 12" Wil-loc Couplings provides the end user with significant advantages over Victaulic or flanged methods previously used on large line applications.</p> <p>Wil-loc full-face neoprene gaskets provide superior sealing and longevity compared to half-face flange gaskets.</p> <p>For easier coupling (especially of larger sizes) lubricate O-rings with Wil-lube (as seen in Specialty section). This will allow the ball to seat into the socket easier during first time usage.</p>					



A-11		GALVANIZED ELBOWS		
	SIZE	PART NUMBER	WEIGHT	
	GALVANIZED 90° ELBOW			
	2"	IR-ELB-WL2X90	2.65 lbs	
	3"	IR-ELB-WL3X90	5.20 lbs	
	4"	IR-ELB-WL4X90	10.85 lbs	
	6"	IR-ELB-WL6X90	22.15 lbs	
	8"	IR-ELB-WL8X90	32.45 lbs	
	GALVANIZED 60° ELBOW			
	2"	IR-ELB-WL2X60	2.30 lbs	
	3"	IR-ELB-WL3X60	4.65 lbs	
	4"	IR-ELB-WL4X60	10.05 lbs	
	6"	IR-ELB-WL6X60	20.00 lbs	
	8"	IR-ELB-WL8X60	26.00 lbs	
	GALVANIZED 45° ELBOW			
	2"	IR-ELB-WL2X45	2.15 lbs	
	3"	IR-ELB-WL3X45	4.40 lbs	
	4"	IR-ELB-WL4X45	9.30 lbs	
	6"	IR-ELB-WL6X45	18.20 lbs	
	8"	IR-ELB-WL8X45	28.10 lbs	
	GALVANIZED 30° ELBOW			
	2"	IR-ELB-WL2X30	2.00 lbs	
	3"	IR-ELB-WL3X30	4.50 lbs	
	4"	IR-ELB-WL4X30	10.00 lbs	
	6"	IR-ELB-WL6X30	17.75 lbs	
	8"	IR-ELB-WL8X30	30.00 lbs	
	GALVANIZED A-STYLE 90° ELBOW			
	10"	IR-ELB-WL10X90	50.00 lbs	
	12"	IR-ELB-WL12X90	81.00 lbs	
12" sockets come with a closing bar.				
	GALVANIZED A-STYLE 45° ELBOW			
	10"	IR-ELB-WL10X45	44.00 lbs	
	12"	IR-ELB-WL12X45	71.75 lbs	
12" sockets come with a closing bar.				
45° A-STYLE ELBOW				

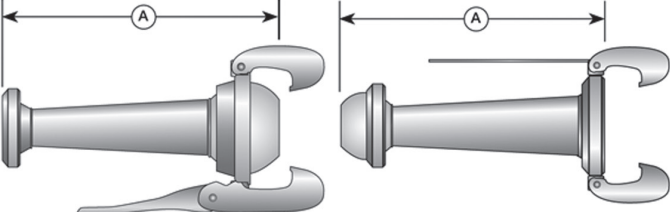
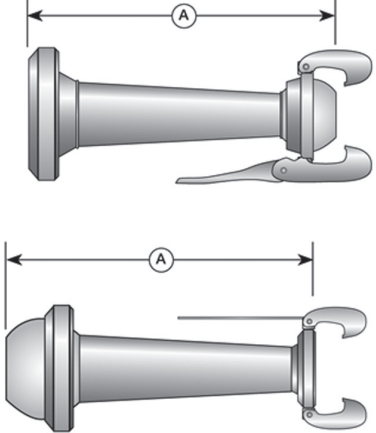
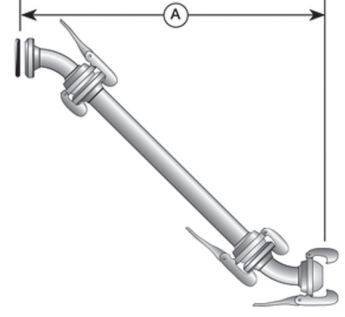
A-12		GALVANIZED ELBOWS																																
	VACUUM 30 inches hg	PRESSURE RATING 2 - 3" = 290 psi 4 - 8" = 175 psi 10 - 12" = 88 psi	90° ELBOW SPECS Specifications to 1/8" & subject to change																															
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TECH TIP When connecting ball and socket coupled hoses and fittings to a pump, position the locking jaws of the lever locking ring as close to 12 o'clock and 6 o'clock (in other words, top and bottom) as possible. Wil-loc elbows allow smooth transitions through bends and turns on suction or discharge lines. Using Wil-loc elbows will reduce the wear of your hose and eliminate flow restrictions caused by kinking of lay-flat hose. For easier coupling (especially of larger sizes) lubricate O-rings with Wil-lube (as seen in Specialty section). This will allow the ball to seat into the socket easier during first time usage.																																		



A-13 GALVANIZED INCREASERS & REDUCERS			
	SIZE	PART NUMBER	WEIGHT
	GALVANIZED INCREASER W/ LOCKING LEVER		
	2" x 3"	IR-INC-WL2X3	3.70 lbs
	2" x 4"	IR-INC-WL2X4	7.90 lbs
	3" x 4"	IR-INC-WL3X4	7.50 lbs
	3" x 6"	IR-INC-WL3X6	14.75 lbs
	3" x 8"	IR-INC-WL3X8	23.40 lbs
	4" x 6"	IR-INC-WL4X6	15.25 lbs
	4" x 8"	IR-INC-WL4X8	24.55 lbs
	6" x 8"	IR-INC-WL6X8	25.45 lbs
	GALVANIZED A-STYLE INCREASER		
	8" x 10"	IR-INC-WL8X10	50.00 lbs
	8" x 12"	IR-INC-WL8X12	74.00 lbs
	10" x 12"	IR-INC-WL10X12	98.50 lbs
	12" sockets come with a closing bar.		
	GALVANIZED REDUCER		
	3" x 2"	IR-RED-WL3X2	2.65 lbs
	4" x 3"	IR-RED-WL4X3	5.70 lbs
	6" x 2"	IR-RED-WL6X2	6.55 lbs
	6" x 3"	IR-RED-WL6X3	9.65 lbs
	6" x 4"	IR-RED-WL6X4	10.95 lbs
	8" x 2"	IR-RED-WL8X2	9.30 lbs
	8" x 3"	IR-RED-WL8X3	16.20 lbs
	8" x 4"	IR-RED-WL8X4	18.15 lbs
	8" x 6"	IR-RED-WL8X6	21.85 lbs
	GALVANIZED A-STYLE REDUCER		
	10" x 8"	IR-RED-WL10X8	71.30 lbs
	12" x 8"	IR-RED-WL12X8	102.50 lbs
	12" x 10"	IR-RED-WL12X10	160.00 lbs
	12" sockets come with a closing bar.		
	GALVANIZED MODULAR S-BEND		
	4"	IR-ZED-WL4	68.00 lbs
	6"	IR-ZED-WL6	81.00 lbs
	8"	IR-ZED-WL8	125.00 lbs

B-STYLE COUPLING SHOWN

B-STYLE COUPLING SHOWN






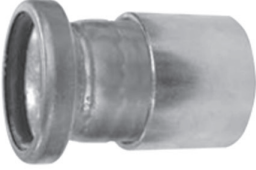
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TECH TIP Wil-loc reducers and increasers are manufactured with a cone-shaped pipe, which allows for less flow restriction and smoother transition from one size to another.																											
Wil-loc modular S-Bends provide a smooth transition from a pump's discharge outlet to ground level. Combination of two 45-degree elbows and short pipe allows for maximum flexibility to accommodate unique job sites and ground conditions.																											







A-15		GALVANIZED T's & Y's		WWW.WILLOC.COM	
SIZE	PART NUMBER	WEIGHT			
GALVANIZED STND T's WITH MALE / BALL CONNECTION					
2"	IR-LIT-WL2	4.70 lbs			
3"	IR-LIT-WL3	9.00 lbs			
4"	IR-LIT-WL4	22.00 lbs			
6"	IR-LIT-WL6	34.25 lbs			
8"	IR-LIT-WL8	55.45 lbs			
10"	IR-LIT-WL10	N/A			
12"	IR-LIT-WL12	135.00 lbs			
*All 12" T's come with a closing bar.					
GALVANIZED T's WITH FEMALE / SOCKET CONNECTION					
2"	IR-ENT-WL2	3.25 lbs			
3"	IR-ENT-WL3	6.60 lbs			
4"	IR-ENT-WL4	13.60 lbs			
6"	IR-ENT-WL6	24.30 lbs			
8"	IR-ENT-WL8	43.00 lbs			
10"	IR-ENT-WL10	N/A			
12"	IR-ENT-WL12	125.00 lbs			
*All 12" T's come with a closing bar.					
GALVANIZED INLINE T's WITH MALE / BALL CONNECTION					
2"	IR-INT-WL2	3.65 lbs			
3"	IR-INT-WL3	6.65 lbs			
4"	IR-INT-WL4	13.90 lbs			
6"	IR-INT-WL6	26.40 lbs			
8"	IR-INT-WL8	43.90 lbs			
10"	IR-INT-WL10	N/A			
12"	IR-INT-WL12	125.00 lbs			
*All 12" T's come with a closing bar.					
GALVANIZED DOUBLE FEMALE Y's – MALE / BALL					
4"	IR-WYE-WL4	19.15 lbs			
6"	IR-WYE-WL6	32.40 lbs			
8"	IR-WYE-WL8	43.45 lbs			
10"	IR-WYE-WL10	117.00 lbs			
12"	IR-WYE-WL12	204.00 lbs			
*12" Y sockets come with a closing bar.					
GALVANIZED DOUBLE FEMALE Y's – INCREASING MALE / BALL					
2 - 4" x 6"	IR-WYE-WL4X6	43.00 lbs			
2 - 6" x 8"	IR-WYE-WL6X8	66.00 lbs			
2 - 8" x 10"	IR-WYE-WL8X10	79.00 lbs			
2 - 8" x 12"	IR-WYE-WL8X12	114.00 lbs			
2 - 10" x 12"	IR-WYE-WL10X12	165.00 lbs			
*12" Y sockets come with a closing bar. Product not shown here.					

A-16		GALVANIZED T's & Y's																																	
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10"	30.75	18.00	6.00																																
12"	34.25	20.50	6.00																																
TECH TIP When setting up a sewer by-pass pumping application, T or Y connections can be used to tie in a back-up pump's suction and discharge lines to the primary system. Using two Wil-loc flange check valve assemblies and one Y allows both the primary and the back-up pump in a by-pass application to be quickly and easily connected to a single discharge line.																																			




C-03		ALUMINUM B-STYLE FITTINGS		
NON-STOCK ITEM	SIZE	PART NUMBER	WEIGHT	
	ALUMINUM DISCHARGE BALL / MALE FLANGE			
	3"	IR-FL3-TUE3WLA	8.85 lbs	
	4"	IR-FL4-TUE4WLA	15.60 lbs	
	6"	IR-FL6-TUE6WLA	29.75 lbs	
	8"	IR-FL8-TUE8WLA	14.40 lbs	
All flanges are designed to meet ASA specifications.				
	ALUMINUM SUCTION SOCKET / FEMALE FLANGE			
	3"	IR-FL3-CLP3WLA	4.70 lbs	
	4"	IR-FL4-CLP4WLA	9.40 lbs	
	6"	IR-FL6-CLP6WLA	13.55 lbs	
	8"	IR-FL8-CLP8WLA	19.15 lbs	
All flanges are designed to meet ASA specifications.				
	ALUMINUM MALE THREADED LONG BALL / MALE			
	2"	IR-TT2-WL2A	4.50 lbs	
	3"	IR-TT3-WL3A	8.85 lbs	
	4"	IR-TT4-WL4A	17.60 lbs	
	8"	IR-TT8-WL8A	45.40 lbs	
All threads are cut to NPT specifications.				
	ALUMINUM FEMALE THREADED SHORT BALL / MALE			
	2"	IR-TT2-WL2AC	2.90 lbs	
	3"	IR-TT3-WL3AC	5.05 lbs	
	4"	IR-TT4-WL4AC	8.85 lbs	
	6"	IR-TT6-WL6AC	16.00 lbs	
All threads are cut to NPT specifications.				
	ALUMINUM MALE THREADED SOCKET / FEMALE			
	2"	IR-TC2-WL2A	4.50 lbs	
	3"	IR-TC3-WL3A	5.70 lbs	
	4"	IR-TC4-WL4A	6.40 lbs	
	8"	IR-TC8-WL8A	21.15 lbs	
All threads are cut to NPT specifications.				
	ALUMINUM FEMALE THREADED SOCKET / FEMALE			
	2"	IR-TC2-WL2AC	1.85 lbs	
	3"	IR-TC3-WL3AC	2.70 lbs	
	4"	IR-TC4-WL4AC	4.40 lbs	
	6"	IR-TC6-WL6AC	6.75 lbs	
All threads are cut to NPT specifications.				


C-04		ALUMINUM B-STYLE FITTINGS		
NON-STOCK ITEM	SIZE	PART NUMBER	WEIGHT	
	ALUMINUM 90° ELBOW			
	2"	IR-ELB-WL2X90A	5.00 lbs	
	3"	IR-ELB-WL3X90A	8.55 lbs	
	4"	IR-ELB-WL4X90A	16.00 lbs	
	8"	IR-ELB-WL8X90A	47.50 lbs	
	ALUMINUM 45° ELBOW			
	2"	IR-ELB-WL2X45A	5.00 lbs	
	3"	IR-ELB-WL3X45A	8.55 lbs	
	4"	IR-ELB-WL4X45A	15.00 lbs	
	8"	IR-ELB-WL8X45A	44.50 lbs	
	ALUMINUM INCREASER			
	2" x 3"	IR-INC-WL2X3A	7.70 lbs	
	3" x 4"	IR-INC-WL3X4A	14.30 lbs	
	4" x 6"	IR-INC-WL4X6A	27.30 lbs	
	6" x 8"	IR-INC-WL6X8A	42.00 lbs	
	ALUMINUM REDUCER			
	3" x 2"	IR-RED-WL3X2A	5.00 lbs	
	4" x 3"	IR-RED-WL4X3A	10.25 lbs	
	6" x 4"	IR-RED-WL6X4A	16.50 lbs	
	8" x 6"	IR-RED-WL8X6A	34.50 lbs	
TECH TIP				
Certain chemicals may cause extensive acceleration of aluminum corrosion. It is important to check chemical compatibility charts before using aluminum fittings or pipe in certain applications.				
For easier coupling (especially of larger sizes) lubricate O-rings with Wil-lube (as seen in Specialty section). This will allow the ball to seat into the socket easier during first time usage.				





F-01		PIPE SPECIFICATIONS & USAGE			WWW.WILLOC.COM	
	SIZE	PART NUMBER	WEIGHT			
 <p>B-STYLE GALVANIZED PIPE SHOWN</p>	FOUR INCH GALVANIZED PIPE					
	4" x 6'	IR-PIP-WL4X6	21.00 lbs			
	4" x 10'	IR-PIP-WL4X10	33.00 lbs			
	4" x 20'	IR-PIP-WL4X20	60.00 lbs			
	SIX INCH GALVANIZED PIPE					
	6" x 3'	IR-PIP-WL6X3	28.00 lbs			
	6" x 6'	IR-PIP-WL6X6	35.00 lbs			
	6" x 10'	IR-PIP-WL6X10	55.00 lbs			
	6" x 20'	IR-PIP-WL6X20	93.00 lbs			
	EIGHT INCH GALVANIZED PIPE					
	8" x 3'	IR-PIP-WL8X3	43.00 lbs			
	8" x 6'	IR-PIP-WL8X6	52.00 lbs			
	8" x 10'	IR-PIP-WL8X10	78.00 lbs			
8" x 20'	IR-PIP-WL8X20	120.00 lbs				
TEN INCH GALVANIZED PIPE						
10" x 10'	IR-PIP-WL10X10	63.00 lbs				
10" x 20'	IR-PIP-WL10X20	209.00 lbs				
All 10" pipe has A-Style couplings.						
TWELVE INCH GALVANIZED PIPE						
12" x 10'	IR-PIP-WL10X20	173.00 lbs			IR-PIP-WL12X10	
12" x 20'	IR-PIP-WL10X20	278.00 lbs				
All 12" pipe has A-Style couplings.						
GALVANIZED PIPE SPECS						
	I.D. (in)	WALL (in)	WALL (mm)	MAX (P.S.I.)	VACUUM	
4"	4.25	0.059	1.5	175	30	
6"	6.00	0.059	1.5	175	30	
8"	8.00	0.059	1.5	175	30	
10"	10.00	0.079	2.0	88	30	
12"	12.00	0.079	2.0	88	30	
Specifications to 1/8th of an inch // Specifications subject to change						



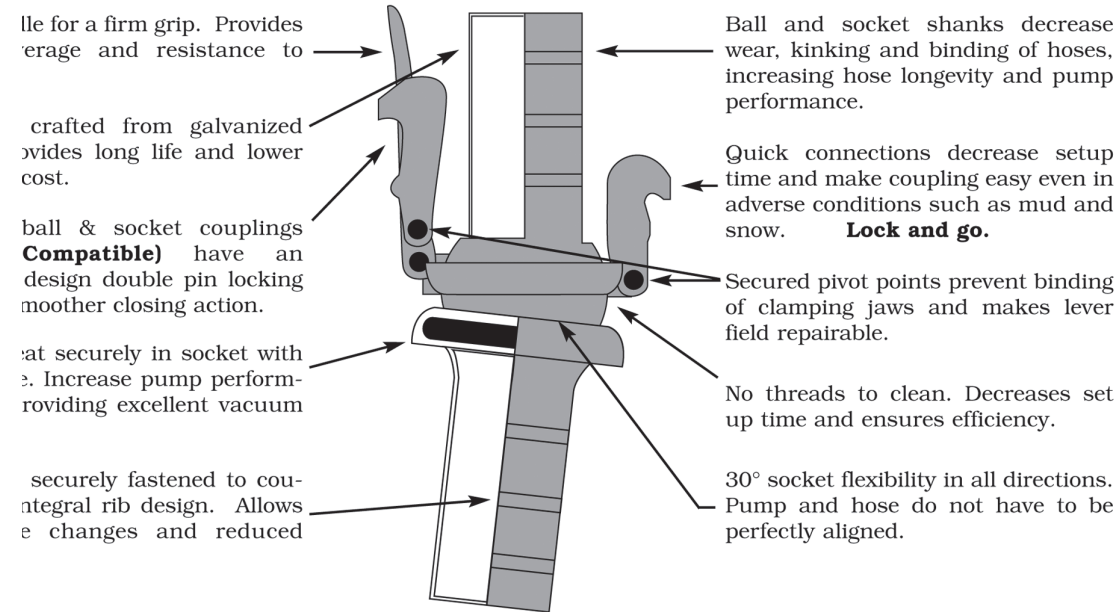
1.800.801.0123		PIPE SPECIFICATIONS & USAGE			F-02	
NON-STOCK ITEM	SIZE	PART NUMBER	WEIGHT			
 <p>B-STYLE ALUMINUM PIPE SHOWN</p>	THREE INCH ALUMINUM PIPE					
	3" x 10'	IR-PIP-WLA3X10	15.00 lbs			
	3" x 20'	IR-PIP-WLA3X20	22.00 lbs			
	3" x 30'	IR-PIP-WLA3X30	29.00 lbs			
	Custom lengths available upon request.					
	FOUR INCH ALUMINUM PIPE					
	4" x 10'	IR-PIP-WLA4X10	24.00 lbs			
	4" x 20'	IR-PIP-WLA4X20	35.00 lbs			
	4" x 30'	IR-PIP-WLA4X30	46.00 lbs			
	Custom lengths available upon request.					
	SIX INCH ALUMINUM PIPE					
	6" x 10'	IR-PIP-WLA6X10	46.00 lbs			
	6" x 20'	IR-PIP-WLA6X20	64.00 lbs			
6" x 30'	IR-PIP-WLA6X30	82.00 lbs				
Custom lengths available upon request.						
EIGHT INCH ALUMINUM PIPE						
8" x 10'	IR-PIP-WLA8X10	68.00 lbs				
8" x 20'	IR-PIP-WLA8X20	96.00 lbs				
Custom lengths available upon request.						
ALUMINUM PIPE SPECS						
	FITTINGS	I.D. (in)	WALL (mm)	MAX (P.S.I.)	VACUUM	
3"	Cast Aluminum	3.00	0.065	290	30	
4"	Cast Aluminum	4.00	0.072	175	30	
6"	Cast Aluminum	6.00	0.083	175	30	
8"	Cast Aluminum	8.00	0.090	175	30	
Specifications to 1/8th of an inch // Specifications subject to change						
TECH TIP						
Wil-loc's industrial-grade galvanized and aluminum pipe is fully vacuum rated. Vacuum ratings are dependent on the wall thickness of the pipe. For thinner walled pipe, vacuum relief valves should be used to prevent pipe from collapsing.						
For easier coupling (especially of larger sizes) lubricate O-rings with Wil-lube (as seen in Specialty section). This will allow the ball to seat into the socket easier during first time usage.						





The Wil-loc Comparison

Couplings That Reduce Operating Cost..



Wil-loc Competition Comparisons

Wil-loc Vs. Cam-lock

Wrench or locking mechanism

Leakage
Leakage can cause leakage

Hose must be in line
 Threads must be cleaned
 Wrenching set up
 Re-rating
 Straps wear out
 Straps can bind with dirt
 Hose can slip in cold

Wil-loc Vs. spanner

Wrench needed for tightening

Flat Gasket can cause leakage

- Hose & pump must be in line
- Threaded pieces take time to assemble
- Threads must be cleaned each time during set-up
- Threads bind in mud and dirt
- Can freeze up in cold

Wil-loc Vs. Bauer

Limited locking jaw rotation

Wear points for locking mechanism

- Limited locking jaw rotation
- Locking lever must be free from debris during set-up
- Lever holding straps are more likely to fail than Wil-loc pin design
- Lever can't be field repaired

B-STYLE ASSEMBLY INSTRUCTIONS

1

STEP ONE
Insert the ball into the socket so that the ball seats loosely against the O-ring inside the socket.

2

STEP TWO
Reach around the socket with the "short" locking jaw and seat its gripping edge securely into the grooved lip on the back side of the socket.

3

STEP THREE
While keeping tension on the "short" locking jaw so that it remains in place, open the lever arm attached to the "long" locking jaw so that it extends to reach behind the socket and seat securely into the groove lip.

4

STEP FOUR
Finally, ensure that the leading edge of the ball is aligned just enough so that it does not cut into the O-ring surface, then close the lever arm (or pull towards the barbed hose shank) and lock the ball into the socket.

A-STYLE ASSEMBLY INSTRUCTIONS

1

STEP ONE
Insert the ball into the socket so that the ball seats loosely against the O-ring inside the socket.

2

STEP TWO
Reach around the locking ring with the "short" locking jaw and seat its gripping edge securely into the grooved lip on the back side of the locking ring.

3

STEP THREE
While keeping tension on the "short" locking jaw so that it remains in place, extend the "long" locking jaw forward to reach behind the locking ring and seat the gripping edge securely into the grooved lip.

4

STEP FOUR*
Finally, ensure that the leading edge of the ball is aligned enough so that it does not cut into the O-ring surface, then (with 12" fittings) insert the leverage bar into the hole provided on the base of the "long" jaw and pull back toward the barbed shank to lock the ball into the socket.

*NOTE: 10" A-Style Wil-loc female/socket fittings have lever locking handles permanently attached to the "long" jaw mechanism. Locking action is similar to the B-Style lever arm.





Product recognition for quality, dependability, durability and overall excellence is only achieved after years of use in all types of jobs and situations and under a multitude of conditions which affect the product both externally and internally. That's why for half a century Hastings Irrigation Pipe Company and Hastings

Aluminum Tubing have become names you can rely on to fulfill your requirements and specifications for practically any job or project requiring quality aluminum tubing.

Steel Tubing & Pipe			
Part #	Size	Length	Wall
Tubing			
92-DOM-063X0083	5/8"	22'	0.083"
92-DOM-075X0083	3/4"	22'	0.083"
92-DOM-100X0083	1"	22'	0.083"
92-DOM-125X0083	1.25"	22'	0.083"
92-DOM-150X0083	1.50"	22'	0.083"
92-DOM-200X0083	2"	22'	0.083"
92-DOM-250X0083	2.50"	22'	0.083"
92-DOM-300X0083	3"	22'	0.083"
92-DOM-400X0083	4"	22'	0.083"
92-DOM-500X0083	5"	22'	0.083"
92-DOM-600X0083	6"	22'	0.083"
92-DOM-800X0083	8"	22'	0.083"
Schedule 40, Glavanized Pipe			
92-GIP-050	1/2"	21'	IPS
92-GIP-075	3/4"	21'	IPS
92-GIP-100	1"	21'	IPS
92-GIP-125	1 1/4"	21'	IPS
92-GIP-150	1 1/2"	21'	IPS
92-GIP-200	2"	21'	IPS
Schedule 40, Black Pipe			
92-BIP-050	1/2"	21'	IPS
92-BIP-075	3/4"	21'	IPS
92-BIP-100	1"	21'	IPS
92-BIP-125	1 1/4"	21'	IPS
92-BIP-150	1 1/2"	21'	IPS
92-BIP-200	2"	21'	IPS
92-BIP-250	2 1/2"	21'	IPS
92-BIP-300	3"	21'	IPS
92-BIP-400	4"	21'	IPS
92-BIP-500	5"	21'	IPS
92-BIP-600	6"	21'	IPS
92-BIP-800	8"	21'	IPS
92-BIP-1000	10"	21'	IPS
92-BIP-1200	12"	21'	IPS

Aluminum Tubing & Pipe			
Part #	Size	Length	Wall
Tubing			
IR-TUB-2	2"	30'	0.050"
IR-TUB-3	3"	30'	0.050"
IR-TUB-4	4"	30'	0.050"
IR-TUB-5	5"	30'	0.052"
IR-TUB-6	6"	30'	0.058"
IR-TUB-6S	6"	30'	0.083"
IR-TUB-7	7"	30'	0.064"
IR-TUB-8	8"	30'	0.074"
IR-TUB-8S	8"	30'	0.094"
IR-TUB-10	10"	30'	0.064"
IR-TUB-10S	10"	30'	0.094"
* For 40' lengths add "X40" to part number.			
Tubing, Seamless			
94-TUB-AL400X125	4"	20'	0.125"
94-TUB-AL500X125	5"	20'	0.125"
94-TUB-AL600X125	6"	20'	0.125"
94-TUB-AL200X250	2"	24'	0.250"
94-TUB-AL300X250	3"	24'	0.250"
94-TUB-AL400X250	4"	24'	0.250"
94-TUB-AL500X250	5"	24'	0.250"
94-TUB-AL600X250	6"	24'	0.250"
Schedule 40 Pipe, Seamless			
93-PIP-AL050S40	1/2"	20'	IPS
93-PIP-AL075S40	3/4"	20'	IPS
93-PIP-AL100S40	1"	20'	IPS
93-PIP-AL125S40	1 1/4"	20'	IPS
93-PIP-AL150S40	1 1/2"	20'	IPS
93-PIP-AL200S40	2"	20'	IPS
93-PIP-AL250S40	2 1/2"	20'	IPS
93-PIP-AL300S40	3"	20'	IPS
93-PIP-AL400S40	4"	20'	IPS
93-PIP-AL500S40	5"	20'	IPS
93-PIP-AL600S40	6"	20'	IPS
For dimension, pipe is measured Inside Diameter .			
Tubing is measured with Outside Diameter .			
Pipe & Tubing are available in custom cut lengths.			

CAM - LOCKS

Aluminum Quick-Acting Couplings

Agriculture • Chemicals/Petroleum • Construction • Material Handling

Aluminum Part A Male Adapter x Female NPT Aluminum Part E Male Adapter x Hose Shank

Part Number	Size	Weight Each	Standard Carton	Part Number	Size	Weight Each	Standard Carton
AL-A050	1/2" X 1/2"	0.10	100	AL-E050	1/2" X 1/2"	0.08	100
AL-A075	3/4"	0.13	50	AL-E075	3/4"	0.11	50
AL-A100	1"	0.12	70	AL-E100	1"	0.20	50
AL-A125	1 1/4"	0.20	40	AL-E125	1 1/4"	0.26	30
AL-A150	1 1/2"	0.28	30	AL-E150	1 1/2"	0.38	40
AL-A200	2"	0.38	40	AL-E200	2"	0.60	50
AL-A250	2 1/2"	0.58	50	AL-E250	2 1/2"	0.86	20
AL-A300	3"	0.70	35	AL-E300	3"	1.32	18
AL-A400	4"	1.34	20	AL-E400	4"	2.10	20
AL-A500	5"	1.62	4	AL-E500	5"	3.56	4
AL-A600	6"	2.00	15	AL-E600	6"	6.16	6
* AL-A800	8"	10.90	2	* AL-E800	8"	10.00	2
* HDAL-A801	8"	12.10	2	* HDAL-E801	8"	11.75	2

Aluminum Part B Female Coupler x Male NPT

AL-B050†	1/2" X 1/2"	0.18	100
AL-B075●	3/4"	0.24	50
AL-B100●	1"	0.36	30
AL-B125●	1 1/4"	0.62	45
AL-B150●	1 1/2"	0.70	30
AL-B200●	2"	0.86	50
AL-B250●	2 1/2"	1.02	40
AL-B300●	3"	1.56	25
AL-B400●	4"	2.42	25
AL-B500●	5"	3.34	4
AL-B600●	6"	4.98	10

Aluminum Part C Female Coupler x Hose Shank

AL-C050†	1/2" X 1/2"	0.20	100
AL-C075●	3/4"	0.26	50
AL-C100●	1"	0.42	60
AL-C125●	1 1/4"	0.68	35
AL-C150●	1 1/2"	0.74	30
AL-C200●	2"	0.98	40
AL-C250●	2 1/2"	1.28	30
AL-C300●	3"	2.20	15
AL-C400●	4"	3.16	15
AL-C500●	5"	3.88	4
AL-C600●	6"	7.70	6
AL-C800●	8"	15.50	1
HDAL-C801	8"	18.25	1

Aluminum Part D Female Coupler x Female NPT

AL-D050†	1/2" X 1/2"	0.18	100
AL-D075●	3/4"	0.22	50
AL-D100●	1"	0.42	30
AL-D125●	1 1/4"	0.68	40
AL-D150●	1 1/2"	0.80	30
AL-D200●	2"	0.92	40
AL-D250●	2 1/2"	1.18	35
AL-D300●	3"	1.80	20
AL-D400●	4"	2.82	10
AL-D500●	5"	3.42	4
AL-D600●	6"	5.11	10
*† AL-D800●	8"	9.50	2

Aluminum Part F Male Adapter x Male NPT

AL-F050	1/2" X 1/2"	0.14	100
AL-F075	3/4"	0.16	50
AL-F100	1"	0.20	45
AL-F125	1 1/4"	0.34	30
AL-F150	1 1/2"	0.46	50
AL-F200	2"	0.68	60
AL-F250	2 1/2"	0.96	30
AL-F300	3"	1.30	20
AL-F400	4"	2.32	25
AL-F500	5"	2.94	4
AL-F600	6"	3.92	10

Aluminum Part DC Dust Cap

AL-DC050†	1/2" X 1/2"	0.18	100
AL-DC075●	3/4"	0.22	50
AL-DC100●	1"	0.34	40
AL-DC125●	1 1/4"	0.58	25
AL-DC150●	1 1/2"	0.64	40
AL-DC200●	2"	0.80	60
AL-DC250●	2 1/2"	0.94	50
AL-DC300●	3"	1.44	30
AL-DC400●	4"	2.34	15
AL-DC500●	5"	3.06	4
AL-DC600●	6"	4.66	6
*† AL-DC800●	8"	9.04	4

Aluminum Part DP Dust Plug

AL-DP050	1/2" X 1/2"	0.07	100
AL-DP075	3/4"	0.08	50
AL-DP100	1"	0.10	80
AL-DP125	1 1/4"	0.18	50
AL-DP150	1 1/2"	0.25	50
AL-DP200	2"	0.38	60
AL-DP250	2 1/2"	0.54	40
AL-DP300	3"	0.74	50
AL-DP400	4"	1.22	25
AL-DP500	5"	1.46	4
AL-DP600	6"	2.53	20

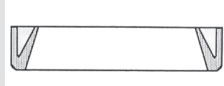
Note: Dust Caps & Dust Plugs are NOT DESIGNED FOR PRESSURE APPLICATIONS.

● These couplers are supplied with locking feature . . . safety clips may be inserted to lock handles, preventing disconnection during product transfer.
 † Size 1/2" x 1/2" supplied with one forged brass handle. † Supplied with 4 locking handles, safety clips, pull rings and chains.

Rubber Gaskets

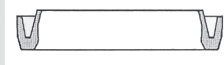
Akron Gaskets

Part Number	Size
IR-GKT-AK4	4"
IR-GKT-AK5	5"



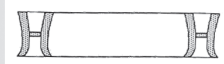
Ames "ABC-Q" Gaskets

Part Number	Size
IR-GKT-AMES4	4"
IR-GKT-AMES5	5"
IR-GKT-AMES6	6"



Ames Suction Gaskets

Part Number	Size
IR-GKT-AMES4S	4"
IR-GKT-AMES5S	5"
IR-GKT-AMES6S	6"



Ames Grip Coils

Part Number	Size
IR-GCL-AMES4	4"
IR-GCL-AMES5	5"
IR-GCL-AMES6	6"



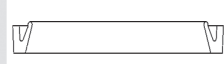
A & M Gaskets

Part Number	Size
IR-GKT-AM3	3"
IR-GKT-AM4	4"
IR-GKT-AM5	5"
IR-GKT-AM6	6"




Cad-lock Gaskets

Part Number	Size
IR-GKT-IPS6	6"
IR-GKT-RW8	8"



Dresser (Perfection) Gaskets

Part Number	Size
IR-GKT-PERF3	3"
IR-GKT-PERF4	4"
IR-GKT-PERF5	5"
IR-GKT-PERF6	6"
IR-GKT-PERF8	8"



McDowell Gaskets

Part Number	Size
IR-GKT-MCD2	2"
IR-GKT-MCD3	3"
IR-GKT-MCD4	4"
IR-GKT-MCD5	5"
IR-GKT-MCD6	6"




McDowell Grip Coils

Part Number	Size
IR-GCL-MCD2	2"
IR-GCL-MCD3	3"
IR-GCL-MCD4	4"
IR-GCL-MCD5	5"
IR-GCL-MCD6	6"



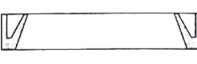
Pierce Gaskets

Part Number	Size
IR-GKT-PIERCE4	4"
IR-GKT-PIERCE5	5"
IR-GKT-PIERCE6	6"
IR-GKT-PIERCE8	8"



Rainway Gaskets

Part Number	Size
IR-GKT-RW3	3"
IR-GKT-RW4	4"
IR-GKT-RW5	5"
IR-GKT-RW6	6"
IR-GKT-RW8	8"



Rainbow Gaskets

Part Number	Size
IR-GKT-RBOW4	4"
IR-GKT-RBOW5	5"
IR-GKT-RBOW6	6"



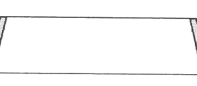
Ravit Gaskets

Part Number	Size
IR-GKT-RVT2	2"
IR-GKT-RVT3	3"
IR-GKT-RVT4	4"
IR-GKT-RVT5	5"
IR-GKT-RVT6	6"



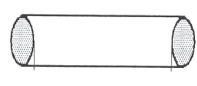
Wade Rain Gaskets

Part Number	Size
IR-GKT-WR2	2"
IR-GKT-WR3	3"
IR-GKT-WR4	4"
IR-GKT-WR5	5"
IR-GKT-WR6	6"



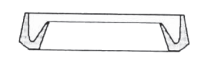
Wil-loc (Bauer) Gaskets

Part Number	Size
IR-GKT-WL2	2"
IR-GKT-WL3	3"
IR-GKT-WL4	4"
IR-GKT-WL5	5"
IR-GKT-WL6	6"
IR-GKT-WL8	8"



Wyss Gaskets


Part Number	Size
IR-GKT-WYSS4	4"
IR-GKT-WYSS5	5"
IR-GKT-WYSS6	6"



DISCHARGE HOSE


Aluminum Ringlock x 20' (6 m)

Part Number	Size
IR-ASY-4X20RLWAY	4"
IR-ASY-5X20RLWAY	5"
IR-ASY-6X20RLWAY	6"
IR-ASY-8X20RLWAY	8"




Steel Ringlock x 20' (6 m)

Part Number	Size
IR-ASY-4X20RLP	4"
IR-ASY-5X20RLP	5"
IR-ASY-6X20RLP	6"
IR-ASY-8X20RLP	8"



Aluminum Wil-loc x 20' (6 m)

Part Number	Size
IR-ASY-2X20WLA	2"
IR-ASY-3X20WLA	3"
IR-ASY-4X20WLA	4"
IR-ASY-5X20WLA	5"
IR-ASY-6X20WLA	6"
IR-ASY-8X20WLA	8"



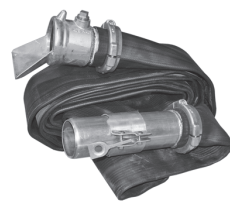
Steel Wil-loc x 20' (6 m)

Part Number	Size
IR-ASY-3X20WL	3"
IR-ASY-4X20WL	4"
IR-ASY-5X20WL	5"
IR-ASY-6X20WL	6"
IR-ASY-8X20WL	8"



Wade Rain x 20' (6 m)

Part Number	Size
IR-ASY-2X20WR	2"
IR-ASY-3X20WR	3"
IR-ASY-4X20WR	4"
IR-ASY-5X20WR	5"
IR-ASY-6X20WR	6"




Ames x 20' (6 m)

Part Number	Size
IR-ASY-4X20AMES	4"
IR-ASY-5X20AMES	5"
IR-ASY-6X20AMES	6"




McDowell x 20' (6 m)

Part Number	Size
IR-ASY-4X20MCD	4"
IR-ASY-5X20MCD	5"
IR-ASY-6X20MCD	6"



Cam-lock x 20' (6 m)

Part Number	Size
IR-ASY-2X20CAM	2"
IR-ASY-3X20CAM	3"
IR-ASY-4X20CAM	4"
IR-ASY-5X20CAM	5"
IR-ASY-6X20CAM	6"
IR-ASY-8X20CAM	8"



Hook x 20' (6 m)


Part Number	Size
IR-ASY-4X20HOOK	4"
IR-ASY-5X20HOOK	5"
IR-ASY-6X20HOOK	6"




DISCHARGE ADAPTORS


Aluminum Ringlock

Part Number	NPT Size	Coupling Size
IR-TC3-4RWAYRL	3"	4"
IR-TC3-5RWAYRL	3"	5"
IR-TC3-6RWAYRL	3"	6"
IR-TC4-4RWAYRL	4"	4"
IR-TC4-5RWAYRL	4"	5"
IR-TC4-6RWAYRL	4"	6"
IR-TC4-8RWAYRL	4"	8"
IR-TC5-5RWAYRL	5"	5"
IR-TC5-6RWAYRL	5"	6"
IR-TC5-8RWAYRL	5"	8"
IR-TC6-4RWAYRL	6"	4"
IR-TC6-5RWAYRL	6"	5"
IR-TC6-6RWAYRL	6"	6"
IR-TC6-8RWAYRL	6"	8"
IR-TC8-8RWAYRL	8"	8"




Steel Ringlock

Part Number	NPT Size	Coupling Size
IR-TC3-4PIERCE	3"	4"
IR-TC3-5PIERCE	3"	5"
IR-TC3-6PIERCE	3"	6"
IR-TC4-4PIERCE	4"	4"
IR-TC4-5PIERCE	4"	5"
IR-TC4-6PIERCE	4"	6"
IR-TC4-8PIERCE	4"	8"
IR-TC5-5PIERCE	5"	5"
IR-TC5-6PIERCE	5"	6"
IR-TC5-8PIERCE	5"	8"
IR-TC6-4PIERCE	6"	4"
IR-TC6-5PIERCE	6"	5"
IR-TC6-6PIERCE	6"	6"
IR-TC6-8PIERCE	6"	8"
IR-TC8-8PIERCE	8"	8"




Aluminum Hook Style

Part Number	NPT Size	Coupling Size
IR-TC2-2HOOK	2"	2"
IR-TC2-3HOOK	2"	3"
IR-TC2-4HOOK	2"	4"
IR-TC3-3HOOK	3"	3"
IR-TC3-4HOOK	3"	4"
IR-TC3-5HOOK	3"	5"
IR-TC3-6HOOK	3"	6"
IR-TC4-4HOOK	4"	4"
IR-TC4-5HOOK	4"	5"
IR-TC4-6HOOK	4"	6"
IR-TC5-5HOOK	5"	5"
IR-TC5-6HOOK	5"	6"
IR-TC6-4HOOK	6"	4"
IR-TC6-5HOOK	6"	5"
IR-TC6-6HOOK	6"	6"



Wade Rain

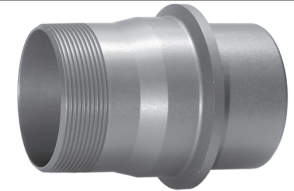
Part Number	NPT Size	Coupling Size
IR-TC2-2WR	2"	2"
IR-TC2-3WR	2"	3"
IR-TC2-4WR	2"	4"
IR-TC3-3WR	3"	3"
IR-TC3-4WR	3"	4"
IR-TC3-5WR	3"	5"
IR-TC3-6WR	3"	6"
IR-TC4-4WR	4"	4"
IR-TC4-5WR	4"	5"
IR-TC4-6WR	4"	6"
IR-TC5-5WR	5"	5"
IR-TC5-6WR	5"	6"
IR-TC6-4WR	6"	4"
IR-TC6-5WR	6"	5"
IR-TC6-6WR	6"	6"



DISCHARGE ADAPTORS


Cad-lock

Part Number	NPT Size	Coupling Size
IR-TT4-6CL	4"	6"
IR-TT5-6CL	5"	6"
IR-TT6-6CL	6"	6"
IR-TT4-8CL	4"	8"
IR-TT5-8CL	5"	8"
IR-TT6-8CL	6"	8"
IR-TT8-8CL	8"	8"




McDowell

Part Number	NPT Size	Coupling Size
IR-TC2-3MCD	2"	3"
IR-TC3-3MCD	3"	3"
IR-TC3-4MCD	3"	4"
IR-TC3-5MCD	3"	5"
IR-TC3-6MCD	3"	6"
IR-TC4-4MCD	4"	4"
IR-TC4-5MCD	4"	5"
IR-TC4-6MCD	4"	6"
IR-TC5-5MCD	5"	5"
IR-TC5-6MCD	5"	6"
IR-TC6-4MCD	6"	4"
IR-TC6-5MCD	6"	5"
IR-TC6-6MCD	6"	6"



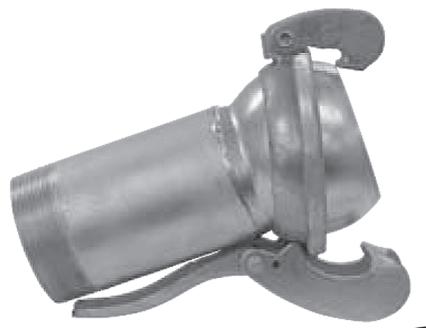
Ames

Part Number	NPT Size	Coupling Size
IR-TC2-2AMES	2"	2"
IR-TC2-3AMES	2"	3"
IR-TC2-4AMES	2"	4"
IR-TC3-3AMES	3"	3"
IR-TC3-4AMES	3"	4"
IR-TC3-5AMES	3"	5"
IR-TC3-6AM ES	3"	6"
IR-TC4-4AMES	4"	4"
IR-TC4-5AMES	4"	5"
IR-TC4-6AMES	4"	6"
IR-TC4-8AMES	4"	8"
IR-TC5-5AMES	5"	5"
IR-TC5-6AMES	5"	6"
IR-TC5-8AMES	5"	8"
IR-TC6-4AMES	6"	4"
IR-TC6-5AMES	6"	5"
IR-TC6-6AMES	6"	6"
IR-TC6-8AMES	6"	8"
IR-TC8-8AMES	8"	8"



Wil-loc Steel


Part Number	NPT Size	Coupling Size
IR-TT2-2WL	2"	2"
IR-TT2-3WL	2"	3"
IR-TT2-4WL	2"	4"
IR-TT3-3WL	3"	3"
IR-TT3-4WL	3"	4"
IR-TT3-5WL	3"	5"
IR-TT3-6WL	3"	6"
IR-TT4-4WL	4"	4"
IR-TT4-5WL	4"	5"
IR-TT4-6WL	4"	6"
IR-TT4-8WL	4"	8"
IR-TT5-5WL	5"	5"
IR-TT5-6WL	5"	6"
IR-TT5-8WL	5"	8"
IR-TT6-4WL	6"	4"
IR-TT6-5WL	6"	5"
IR-TT6-6WL	6"	6"
IR-TT6-8WL	6"	8"
IR-TT8-8WL	8"	8"




HIGH PRESSURE HOSE ENDS

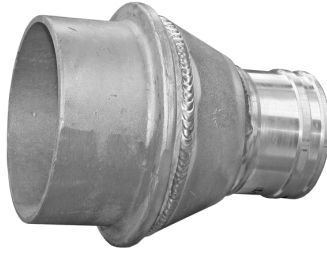
Aluminum Ringlock Style Female

Part Number	Barb Size	Coupling Size
IR-HE4-CPL4RWAYRL	4"	4"
IR-HE4-CPL5RWAYRL	4"	5"
IR-HE4-CPL6RWAYRL	4"	6"
IR-HE5-CPL4RWAYRL	5"	4"
IR-HE5-CPL5RWAYRL	5"	5"
IR-HE5-CPL6RWAYRL	5"	6"
IR-HE6-CPL5RWAYRL	6"	5"
IR-HE6-CPL6RWAYRL	6"	6"
IR-HE6-CPL8RWAYRL	6"	8"
IR-HE8-CPL8RWAYRL	8"	8"
IR-HE8-CPL10RWAYRL	8"	10"



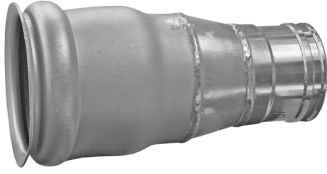
Aluminum Ringlock Style Male

Part Number	Barb Size	Coupling Size
IR-HE4-TUE4RWAYRL	4"	4"
IR-HE4-TUE5RWAYRL	4"	5"
IR-HE4-TUE6RWAYRL	4"	6"
IR-HE5-TUE4RWAYRL	5"	4"
IR-HE5-TUE5RWAYRL	5"	5"
IR-HE5-TUE6RWAYRL	5"	6"
IR-HE6-TUE5RWAYRL	6"	5"
IR-HE6-TUE6RWAYRL	6"	6"
IR-HE6-TUE8RWAYRL	6"	8"
IR-HE8-TUE8RWAYRL	8"	8"
IR-HE8-TUE10RWAYRL	8"	10"




Steel Ringlock Style Female

Part Number	Barb Size	Coupling Size
IR-HE4-CPL4PIERCE	4"	4"
IR-HE4-CPL5PIERCE	4"	5"
IR-HE4-CPL6PIERCE	4"	6"
IR-HE5-CPL4PIERCE	5"	4"
IR-HE5-CPL5PIERCE	5"	5"
IR-HE5-CPL6PIERCE	5"	6"
IR-HE6-CPL5PIERCE	6"	5"
IR-HE6-CPL6PIERCE	6"	6"




Steel Ringlock Style Male

Part Number	Barb Size	Coupling Size
IR-HE4-TUE4PIERCE	4"	4"
IR-HE4-TUE5PIERCE	4"	5"
IR-HE4-TUE6PIERCE	4"	6"
IR-HE5-TUE4PIERCE	5"	4"
IR-HE5-TUE5PIERCE	5"	5"
IR-HE5-TUE6PIERCE	5"	6"
IR-HE6-TUE5PIERCE	6"	5"
IR-HE6-TUE6PIERCE	6"	6"
IR-HE6-TUE8PIERCE	6"	8"




Steel Ames Style Female

Part Number	Barb Size	Coupling Size
IR-HE4-CPL4AMES	4"	4"
IR-HE4-CPL5AMES	4"	5"
IR-HE4-CPL6AMES	4"	6"
IR-HE5-CPL4AMES	5"	4"
IR-HE5-CPL5AMES	5"	5"
IR-HE5-CPL6AMES	5"	6"
IR-HE6-CPL5AMES	6"	5"
IR-HE6-CPL6AMES	6"	6"




Steel Ames Style Male

Part Number	Barb Size	Coupling Size
IR-HE4-TUE4AMES	4"	4"
IR-HE4-TUE5AMES	4"	5"
IR-HE4-TUE6AMES	4"	6"
IR-HE5-TUE4AMES	5"	4"
IR-HE5-TUE5AMES	5"	5"
IR-HE5-TUE6AMES	5"	6"
IR-HE6-TUE5AMES	6"	5"
IR-HE6-TUE6AMES	6"	6"




Steel McDowell Style Female

Part Number	Barb Size	Coupling Size
IR-HE4-CPL4MCD	4"	4"
IR-HE4-CPL5MCD	4"	5"
IR-HE4-CPL6MCD	4"	6"
IR-HE5-CPL4MCD	5"	4"
IR-HE5-CPL5MCD	5"	5"
IR-HE5-CPL6MCD	5"	6"
IR-HE6-CPL5MCD	6"	5"
IR-HE6-CPL6MCD	6"	6"
IR-HE6-CPL8PIERCE	6"	8"




Steel McDowell Style Male

Part Number	Barb Size	Coupling Size
IR-HE4-TUE4AMES	4"	4"
IR-HE4-TUE5AMES	4"	5"
IR-HE4-TUE6AMES	4"	6"
IR-HE5-TUE4AMES	5"	4"
IR-HE5-TUE5AMES	5"	5"
IR-HE5-TUE6AMES	5"	6"
IR-HE6-TUE5AMES	6"	5"
IR-HE6-TUE6AMES	6"	6"



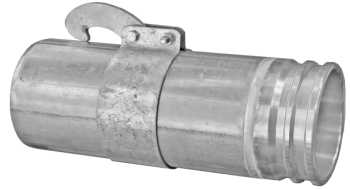
Aluminum Hook Style Female

Part Number	Barb Size	Coupling Size
IR-HE4-CPL4HOOK	4"	4"
IR-HE4-CPL5HOOK	4"	5"
IR-HE4-CPL6HOOK	4"	6"
IR-HE5-CPL4HOOK	5"	4"
IR-HE5-CPL5HOOK	5"	5"
IR-HE5-CPL6HOOK	5"	6"
IR-HE6-CPL5HOOK	6"	5"
IR-HE6-CPL6HOOK	6"	6"




Aluminum Hook Style Male

Part Number	Barb Size	Coupling Size
IR-HE4-TUE4HOOK	4"	4"
IR-HE4-TUE5HOOK	4"	5"
IR-HE4-TUE6HOOK	4"	6"
IR-HE5-TUE4HOOK	5"	4"
IR-HE5-TUE5HOOK	5"	5"
IR-HE5-TUE6HOOK	5"	6"
IR-HE6-TUE5HOOK	6"	5"
IR-HE6-TUE6HOOK	6"	6"




Aluminum Wade Rain Style Female

Part Number	Barb Size	Coupling Size
IR-HE4-CPL4WR	4"	4"
IR-HE4-CPL5WR	4"	5"
IR-HE4-CPL6WR	4"	6"
IR-HE5-CPL4WR	5"	4"
IR-HE5-CPL5WR	5"	5"
IR-HE5-CPL6WR	5"	6"
IR-HE6-CPL5WR	6"	5"
IR-HE6-CPL6WR	6"	6"



Aluminum Wade Rain Style Male

Part Number	Barb Size	Coupling Size
IR-HE4-TUE4WR	4"	4"
IR-HE4-TUE5WR	4"	5"
IR-HE4-TUE6WR	4"	6"
IR-HE5-TUE4WR	5"	4"
IR-HE5-TUE5WR	5"	5"
IR-HE5-TUE6WR	5"	6"
IR-HE6-TUE5WR	6"	5"
IR-HE6-TUE6WR	6"	6"



Three Piece Hose Clamps


Part Number	Clamp Size
IR-MIS-20063	4"
IR-MIS-20064	5"
IR-MIS-20065	6"
IR-MIS-20066	8"




SUCTION ADAPTORS


Aluminum Tube Adaptor

Part Number	NPT Size	Tube Size
IR-TT2-2X12	2"	2"
IR-TT2-3X12E	2"	3"
IR-TT2-4X12E	2"	4"
IR-TT3-3X12	3"	3"
IR-TT3-4X12E	3"	4"
IR-TT3-5X12E	3"	5"
IR-TT4-4X12	4"	4"
IR-TT4-5X12E	4"	5"
IR-TT4-6X12E	4"	6"
IR-TT4-8X12E	4"	8"
IR-TT5-5X12	5"	5"
IR-TT5-6X12E	5"	6"
IR-TT5-8X12E	5"	8"
IR-TT6-6X12	6"	6"
IR-TT6-8X12E	6"	8"
IR-TT6-10X12E	6"	10"
IR-TT8-8X12	8"	8"
IR-TT8-10X12E	8"	10"




Steel Tube Adaptor (Plated)

Part Number	NPT Size	Tube Size
IR-TT2-2X12S	2"	2"
IR-TT2-3X12ES	2"	3"
IR-TT2-4X12ES	2"	4"
IR-TT3-3X12S	3"	3"
IR-TT3-4X12ES	3"	4"
IR-TT3-5X12ES	3"	5"
IR-TT4-4X12S	4"	4"
IR-TT4-5X12ES	4"	5"
IR-TT4-6X12ES	4"	6"
IR-TT4-8X12ES	4"	8"
IR-TT5-5X12S	5"	5"
IR-TT5-6X12ES	5"	6"
IR-TT5-8X12ES	5"	8"
IR-TT6-6X12S	6"	6"
IR-TT6-8X12ES	6"	8"
IR-TT6-10X12ES	6"	10"
IR-TT8-8X12S	8"	8"
IR-TT8-10X12ES	8"	10"



Wil-loc Style Aluminum


Part Number	NPT Size	Coupling Size
IR-TC2-2WLAL	2"	2"
IR-TC2-3WLAL	2"	3"
IR-TC2-4WLAL	2"	4"
IR-TC3-3WLAL	3"	3"
IR-TC3-4WLAL	3"	4"
IR-TC3-5WLAL	3"	5"
IR-TC3-6WLAL	3"	6"
IR-TC4-4WLAL	4"	4"
IR-TC4-5WLAL	4"	5"
IR-TC4-6WLAL	4"	6"
IR-TC4-8WLAL	4"	8"
IR-TC5-5WLAL	5"	5"
IR-TC5-6WLAL	5"	6"
IR-TC5-8WLAL	5"	8"
IR-TC6-6WLAL	6"	6"
IR-TC6-8WLAL	6"	8"
IR-TC8-8WLAL	8"	8"



SUCTION ADAPTORS


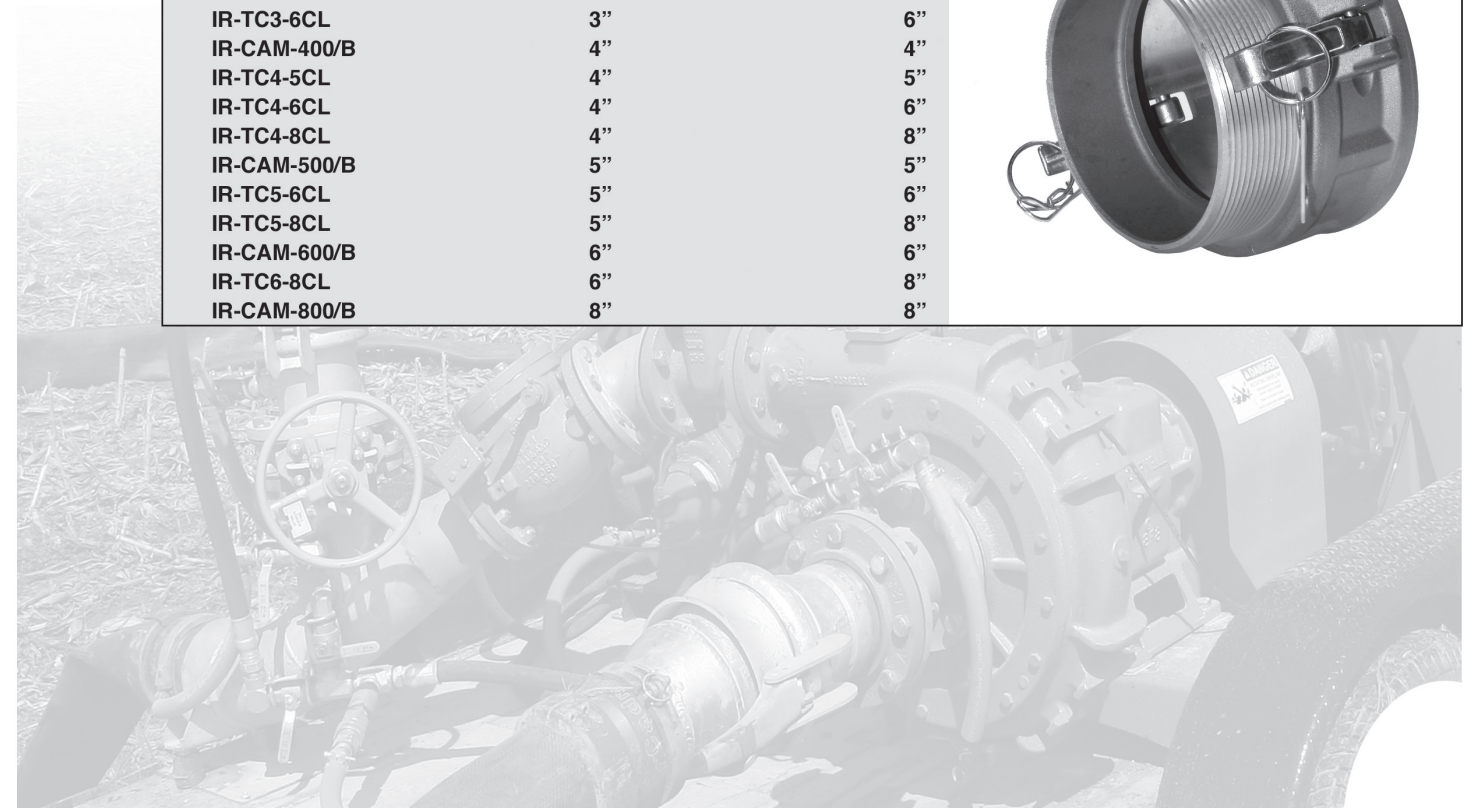
Wil-loc Style Galvanized Steel

Part Number	NPT Size	Coupling Size
IR-TC2-2WL	2"	2"
IR-TC2-3WL	2"	3"
IR-TC2-4WL	2"	4"
IR-TC3-3WL	3"	3"
IR-TC3-4WL	3"	4"
IR-TC3-5WL	3"	5"
IR-TC3-6WL	3"	6"
IR-TC4-4WL	4"	4"
IR-TC4-5WL	4"	5"
IR-TC4-6WL	4"	6"
IR-TC4-8WL	4"	8"
IR-TC5-5WL	5"	5"
IR-TC5-6WL	5"	6"
IR-TC5-8WL	5"	8"
IR-TC6-6WL	6"	6"
IR-TC6-8WL	6"	8"
IR-TC8-8WL	8"	8"



Cam-lock Style Aluminum

Part Number	NPT Size	Coupling Size
IR-CAM-100/B	1"	1"
IR-CAM-200/B	2"	2"
IR-TC2-3CL	2"	3"
IR-TC2-4CL	2"	4"
IR-CAM-300/B	3"	3"
IR-TC3-4CL	3"	4"
IR-TC3-5CL	3"	5"
IR-TC3-6CL	3"	6"
IR-CAM-400/B	4"	4"
IR-TC4-5CL	4"	5"
IR-TC4-6CL	4"	6"
IR-TC4-8CL	4"	8"
IR-CAM-500/B	5"	5"
IR-TC5-6CL	5"	6"
IR-TC5-8CL	5"	8"
IR-CAM-600/B	6"	6"
IR-TC6-8CL	6"	8"
IR-CAM-800/B	8"	8"

SURE-FLO®

Foot Valves



SFV

OD Tubing

Part No.	OD Tubing Size	Weight lbs.	Screen Open Area
IR-SUC-SFV2	2"	5.0	17 sq. in.
IR-SUC-SFV3	3"	7.0	34 sq. in.
IR-SUC-SFV4	4"	11.0	59 sq. in.
IR-SUC-SFV5	5"	14.0	78 sq. in.
IR-SUC-SFV6	6"	17.0	97 sq. in.
IR-SUC-SFV8	8"	26.5	191 sq. in.
IR-SUC-SFV10	10"	46.0	360 sq. in.

OD Tubing

Part No.	OD Tubing Size	Weight lbs.	Screen Open Area
IR-SUC-SFVV3	3"	8.5	34 sq. in.
IR-SUC-SFVV4	4"	13.0	59 sq. in.
IR-SUC-SFVV5	5"	17.0	78 sq. in.
IR-SUC-SFVV6	6"	23.0	97 sq. in.
IR-SUC-SFVV8	8"	33.0	191 sq. in.
IR-SUC-SFVV10	10"	51.0	360 sq. in.



SFVV

Horizontal Foot Valve

4", 6", and 8" foot valves:
Any body type.

Screen size: 11" wide, 17" long
1/8", 1/4", or 1/2" hole size

Total open area: 470 sq. in.



SFSHV

SURE-FLO®

Intake Strainers & Suction Line Fittings



SFS

Basic

Part No.	OD Tubing Size	Weight lbs.	Screen Open Area
IR-SUC-SFS2	2"	1.5	15 sq. in.
IR-SUC-SFS3	3"	2.0	24 sq. in.
IR-SUC-SFS4	4"	3.5	42 sq. in.
IR-SUC-SFS5	5"	4.5	66 sq. in.
IR-SUC-SFS6	6"	6.0	97 sq. in.
IR-SUC-SFS8	8"	11.0	192 sq. in.
IR-SUC-SFS10	10"	15.0	332 sq. in.

Horizontal



SFSH

Part No.	OD Tubing Size	Weight lbs.	Screen Open Area
IR-SUC-SFSH4	4"	20.5	470 sq. in.
IR-SUC-SFSH6	6"	22.0	470 sq. in.
IR-SUC-SFSH8	8"	23.5	470 sq. in.

Available with or without slide.

Couplers

For joining two pieces of irrigation tubing with an air tight suction joint. This fitting is made from three aluminum castings and is sealed by the compression of two rubber gaskets. Easily and quickly tightened without damage to the tubing. Light in weight and free from rust. Tubing must be supported on both sides of the coupler.



SFC

Part No.	OD Tube Size	Weight lbs.
IR-SUC-SFC2	2"	2.5
IR-SUC-SFC3	3"	3.0
IR-SUC-SFC4	4"	4.0
IR-SUC-SFC5	5"	5.0
IR-SUC-SFC6	6"	5.5
IR-SUC-SFC8	8"	7.0
IR-SUC-SFC10	10"	9.5



SURE-FLO[®]

Self Cleaning Strainers

Rotating screen with stationary spray nozzles

Uses a small amount of pressurized discharge water to continually rotate the screen and blast the screen clean.

•**Single Drive Models:** For typical applications. Requires from 60-65 psi and 8-77 gpm for cleaning.

•**Dual Drive Models:** For lower pressure or especially heavy cleaning requirements. Requires from 45-55 psi and 14-96 gpm for cleaning.



Single Drive

Dual Drive

Part No.	Capacity gpm	Part No.	Capacity gpm
IR-SUC-SCS2	50	IR-SUC-SCS3-DD	200
IR-SUC-SCS3	160	IR-SUC-SCS4-DD	400
IR-SUC-SCS4	325	IR-SUC-SCS6-DD	725
IR-SUC-SCS6	625	IR-SUC-SCS8-DD	1450
IR-SUC-SCS8	1150	IR-SUC-SCS10-DD	1875
IR-SUC-SCS10	1500	IR-SUC-SCS10BB-DD	2350
IR-SUC-SCS10BB	1900	IR-SUC-SCS10XL-DD	2950
IR-SUC-SCS10XL	2500	IR-SUC-SCS12XL-DD	2950
IR-SUC-SCS12XL	2500		

Screens:

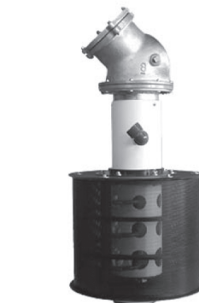
- SCS2:** high-density polyethylene, .075" hole size
- SCS2-A:** epoxy-coated aluminum, .062" hole size
- 3"-12" standard:** epoxy-coated aluminum, 3/32" hole size
- 3"-12" optional:** standard screen wrapped with ss 18 mesh
- 3"-12" optional:** standard screen wrapped with ss 32 mesh
- 3"-12" optional:** perforated stainless steel screen
- 3"-12" optional:** .117" perf 16GA 316SS

Shallow Water

Stationary screen with rotating spray-bar

Part No.	Strainer Capacity gpm	Screen Open Area	Backwash Pressure Required
IR-SUC-SWS6	625	270 sq. in.	60
IR-SUC-SWS8	975	442 sq. in.	60

Screen: epoxy-coated aluminum, 3/32" hole size



Can be used with any Sure-Flo foot valve



SCS2 and SCS2A 50 GPM
Requires 35 psi



SURE-FLO[®]

Suction Line Fittings & Gun Outlets

Sure-Flo aluminum elbows are sealed by the compression of a rubber gasket which is ample in size to assure a seal without excessive tightening. The elbow may be connected and disconnected repeatedly without replacement of the gasket.

Part No.	OD Tubing Size	Type	Weight lbs.
IR-SUC-SFE92	2"	90°	4.0
IR-SUC-SFE93	3"	90°	5.0
IR-SUC-SFE94	4"	90°	7.0
IR-SUC-SFE95	5"	90°	8.5
IR-SUC-SFE96	6"	90°	10.5
IR-SUC-SFE98	8"	90°	14.5
IR-SUC-SFE910	10"	90°	23.0
IR-SUC-SFE42	2"	45°	3.5
IR-SUC-SFE43	3"	45°	4.5
IR-SUC-SFE44	4"	45°	6.0
IR-SUC-SFE45	5"	45°	7.0
IR-SUC-SFE46	6"	45°	9.0
IR-SUC-SFE48	8"	45°	12.0
IR-SUC-SFE410	10"	45°	17.0



SFE9

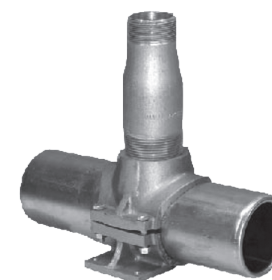


SFE4

Fittings



5-48GO



4-48GO Assy

Gun Outlets

Universal Attachable Outlets

Available with 2 1/2" riser pipe threads and for 4", 5", or 6" O.D. pipe. Simply clamp on the pipe with Permatex under the top half and then cut out the pipe with a hole saw. Small "Guns" may be used on this sturdy outlet. The base is drilled for attaching a board for support of the sprinkler. If the gun has a larger opening than 2 1/2", this may be bushed down to fit.

The usual procedure is to provide a number of outlets, each with a gate valve, and then to move the gun or guns from outlet to outlet along the line. This method saves much time and labor and permits continuous operation of the pump, if one extra gun is available.

May be attached to full lengths of pipe, thus, less expensive than special short lengths with outlets.

For use with tall risers, as for corn, the riser may be supported by a tripod attached to a support board under the outlet and to a band around the pipe.

Part No.	OD Tube Size	Weight lbs.
IR-SUC-4-48GO	4"	3.5
IR-SUC-5-48GO	5"	4.5
IR-SUC-6-48GO	6"	5.5

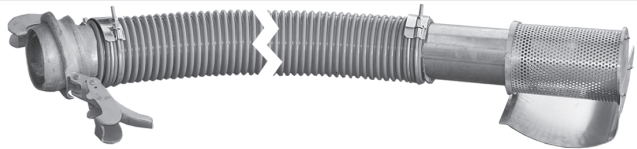
2 1/2" x 2" cadmium plated steel reducing nipple 7" long



Suction Hose & Assemblies

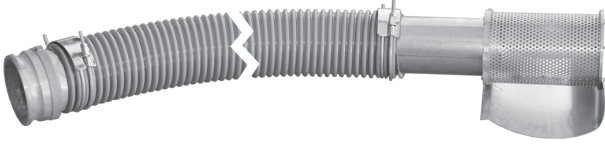
Wil-loc Fitting w/30' of Tigerflex Hose & Suction Strainer

Part #	Size
IR-SUC-3x30WL	3"
IR-SUC-4x30WL	4"
IR-SUC-5x30WL	5"
IR-SUC-6x30WL	6"
IR-SUC-8x30WL	8"



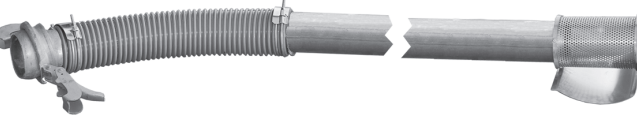
Cam-lock Fitting w/30' of Tigerflex Hose & Suction Strainer

Part #	Size
IR-SUC-3x30CL	3"
IR-SUC-4x30CL	4"
IR-SUC-5x30CL	5"
IR-SUC-6x30CL	6"
IR-SUC-8x30CL	8"



Wil-loc Fitting w/10' of Tigerflex Hose and 30' of Aluminum Pipe with Suction Strainer

Part #	Size
IR-SUC-3x10x30WL	3"
IR-SUC-4x10x30WL	4"
IR-SUC-5x10x30WL	5"
IR-SUC-6x10x30WL	6"
IR-SUC-8x10x30WL	8"




Cam-lock Fitting w/10' of Tigerflex Hose and 30' of Aluminum Pipe with Suction Strainer

Part #	Size
IR-SUC-3x10x30CL	3"
IR-SUC-4x10x30CL	4"
IR-SUC-5x10x30CL	5"
IR-SUC-6x10x30CL	6"
IR-SUC-8x10x30CL	8"



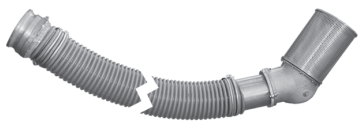
Wil-loc Fittings w/30' of Tigerflex Hose and Foot Valve Strainer

Part #	Size
IR-SUC-3x30WLFV	3"
IR-SUC-4x30WLFV	4"
IR-SUC-5x30WLFV	5"
IR-SUC-6x30WLFV	6"
IR-SUC-8x30WLFV	8"




Cam-lock Fittings w/30' of Tigerflex Hose and Foot Valve Strainer

Part #	Size
IR-SUC-3x30CLFV	3"
IR-SUC-4x30CLFV	4"
IR-SUC-5x30CLFV	5"
IR-SUC-6x30CLFV	6"
IR-SUC-8x30CLFV	8"



Wil-loc Fitting w/10' of Tigerflex Hose and 30' of Aluminum Pipe with Foot Valve Strainer

Part #	Size
IR-SUC-3X10x30WLFV	3"
IR-SUC-4X10x30WLFV	4"
IR-SUC-5X10x30WLFV	5"
IR-SUC-6X10x30WLFV	6"
IR-SUC-8X10x30WLFV	8"



Cam-lock Fitting w/10' of Tigerflex Hose and 30' of Aluminum Pipe with Foot Valve Strainer


Part #	Size
IR-SUC-3X10x30CLFV	3"
IR-SUC-4X10x30CLFV	4"
IR-SUC-5X10x30CLFV	5"
IR-SUC-6X10x30CLFV	6"
IR-SUC-8X10x30CLFV	8"



Suction Hose & Fittings

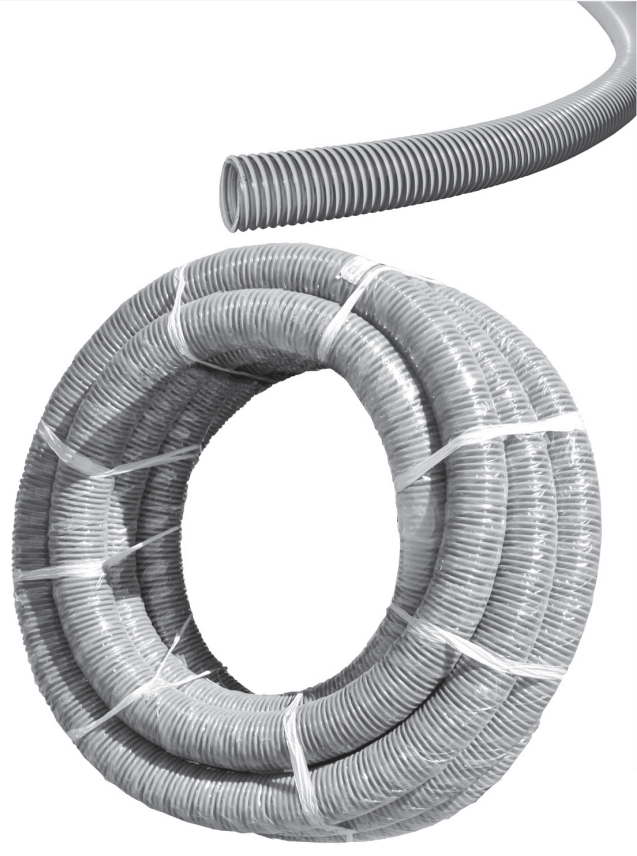
Clamps for TigerFlex Hose

Part #	Size
50-063	3"
50-023	4"
50-022	5"
50-021	6"
50-050	8"
50-091	10"



Tigerflex Suction Hose

Part #	Size
IR-HO2SUC050	1/2"
IR-HO2SUC063	5/8"
IR-HO2SUC075HD	3/4"
IR-HO2SUC200TF	2"
IR-HO2SUC300TF	3"
IR-HO2SUC400TF	4"
IR-HO2SUC500TF	5"
IR-HO2SUC600TF	6"
IR-HO2SUC800TF	8"
IR-HO2SUC1000TF	10"




WELD FITTINGS


Aluminum High Pressure Hose Barbs

Part Number	Barb Size
15-076-A	4"
15-078-A	5"
15-080-B	6"
15-158	8"




Steel High Pressure Hose Barbs

Part Number	Barb Size
15-077-A	4"
15-079-A	5"
15-081-B	6"




Three Piece Hose Clamps (for above barbs)

Part Number	Clamp Size
IR-MIS-20063	4"
IR-MIS-20064	5"
IR-MIS-20065	6"
IR-MIS-20066	8"




Aluminum Weld Nipple

Part Number	Nipple Size
IR-WLD-NPLAL050	1/2"
IR-WLD-NPLAL075	3/4"
IR-WLD-NPLAL100	1"
IR-WLD-NPLAL125	1-1/4"
IR-WLD-NPLAL150	1-1/2"
IR-WLD-NPLAL200	2"
IR-WLD-NPLAL300	3"
IR-WLD-NPLAL400	4"
IR-WLD-NPLAL500	5"
IR-WLD-NPLAL600	6"
IR-WLD-NPLAL800	8"




Steel Weld Nipple

Part Number	Nipple Size
IR-WLD-NPLST050	1/2"
IR-WLD-NPLST075	3/4"
IR-WLD-NPLST100	1"
IR-WLD-NPLST125	1-1/4"
IR-WLD-NPLST150	1-1/2"
IR-WLD-NPLST200	2"
IR-WLD-NPLST300	3"
IR-WLD-NPLST400	4"
IR-WLD-NPLST500	5"
IR-WLD-NPLST600	6"
IR-WLD-NPLST800	8"
IR-WLD-NPLST1000	10"




Steel Weld Coupling

Part Number	Coupling Size
IR-WLD-CPL150	1-1/2"
IR-WLD-CPL200	2"
IR-WLD-CPL300	3"
IR-WLD-CPL400	4"
IR-WLD-CPL500	5"
IR-WLD-CPL600	6"
IR-WLD-CPL800	8"




Aluminum 90 Degree Weld Elbow

Part Number	Elbow Size
IR-WLD-ELBAL3X90	3"
IR-WLD-ELBAL4X90	4"
IR-WLD-ELBAL5X90	5"
IR-WLD-ELBAL6X90	6"
IR-WLD-ELBAL8X90	8"




Steel 90 Degree Weld Elbow

Part Number	Elbow Size
IR-WLD-ELBST3X90	3"
IR-WLD-ELBST4X90	4"
IR-WLD-ELBST5X90	5"
IR-WLD-ELBST6X90	6"
IR-WLD-ELBST8X90	8"




Aluminum 45 Degree Weld Elbow

Part Number	Elbow Size
IR-WLD-ELBAL3X45	3"
IR-WLD-ELBAL4X45	4"
IR-WLD-ELBAL5X45	5"
IR-WLD-ELBAL6X45	6"
IR-WLD-ELBAL8X45	8"




Steel 45 Degree Weld Elbow

Part Number	Elbow Size
IR-WLD-ELBST3X45	3"
IR-WLD-ELBST4X45	4"
IR-WLD-ELBST5X45	5"
IR-WLD-ELBST6X45	6"
IR-WLD-ELBST8X45	8"




Aluminum Concentric Weld Reducer

Part Number	Cone Size
IR-WLD-REDAL32	3" x 2"
IR-WLD-REDAL42	4" x 2"
IR-WLD-REDAL43	4" x 3"
IR-WLD-REDAL53	5" x 3"
IR-WLD-REDAL54	5" x 4"
IR-WLD-REDAL64	6" x 4"
IR-WLD-REDAL65	6" x 5"
IR-WLD-REDAL86	8" x 6"



Steel Concentric Weld Reducer

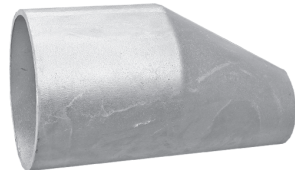
Part Number	Cone Size
IR-WLD-REDST32	3" x 2"
IR-WLD-REDST42	4" x 2"
IR-WLD-REDST43	4" x 3"
IR-WLD-REDST53	5" x 3"
IR-WLD-REDST54	5" x 4"
IR-WLD-REDST64	6" x 4"
IR-WLD-REDST65	6" x 5"
IR-WLD-REDST86	8" x 6"



WELD FITTINGS

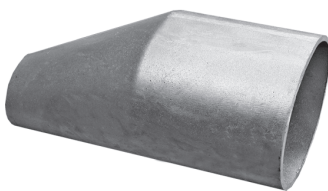
Aluminum Eccentric Weld Reducer

Part Number	Cone Size
IR-WLD-REDAL32E	3" x 2"
IR-WLD-REDAL42E	4" x 2"
IR-WLD-REDAL43E	4" x 3"
IR-WLD-REDAL53E	5" x 3"
IR-WLD-REDAL54E	5" x 4"
IR-WLD-REDAL64E	6" x 4"
IR-WLD-REDAL65E	6" x 5"
IR-WLD-REDAL86E	8" x 6"



Steel Eccentric Weld Reducer

Part Number	Cone Size
IR-WLD-REDST32E	3" x 2"
IR-WLD-REDST42E	4" x 2"
IR-WLD-REDST43E	4" x 3"
IR-WLD-REDST53E	5" x 3"
IR-WLD-REDST54E	5" x 4"
IR-WLD-REDST64E	6" x 4"
IR-WLD-REDST65E	6" x 5"
IR-WLD-REDST86E	8" x 6"



Aluminum Weld Tee

Part Number	Tee Size
IR-WLD-TAL400	4"
IR-WLD-TAL500	5"
IR-WLD-TAL600	6"
IR-WLD-TAL800	8"




Steel Weld Tee

Part Number	Tee Size
IR-WLD-TST400	4"
IR-WLD-TST600	6"
IR-WLD-TST800	8"




Aluminum Weld Flange

Part Number	Flange Size
IR-WLD-WFL2AL	2"
IR-WLD-WFL3AL	3"
IR-WLD-WFL4AL	4"
IR-WLD-WFL5AL	5"
IR-WLD-WFL6AL	6"
IR-WLD-WFL8AL	8"



Steel Weld Flange

Part Number	Flange Size
IR-WFL-2	2"
IR-WFL-3	3"
IR-WFL-4	4"
IR-WFL-5	5"
IR-WFL-6A	6"
IR-WFL-8	8"
CA-PRT-DFL40X200	40mm
CA-PRT-DFL50X200	50mm
CA-PRT-DFL65X300	65mm
CA-PRT-DFL80X300	80mm
CA-PRT-SFL100X400	100mm
CA-PRT-SFL125X600	125mm
CA-PRT-SFL150X600	150mm






Ball & Stem Valves

Part #	Description	Size	
DR-VLV-050BLLSF	Economy PVC Ball Valve (Slip x Slip)	1/2"	
DR-VLV-075BLLSF	Economy PVC Ball Valve (Slip x Slip)	3/4"	
DR-VLV-100BLLSF	Economy PVC Ball Valve (Slip x Slip)	1"	
DR-VLV-150BLLSF	Economy PVC Ball Valve (Slip x Slip)	1-1/2"	
DR-VLV-200BLLSF	Economy PVC Ball Valve (Slip x Slip)	2"	
DR-VLV-050BLLFT	Economy PVC Ball Valve (FIPT x FIPT)	1/2"	
40-NPT-VLV050GATE	Brass Gate Valve (FIPT x FIPT)	1/2"	
40-NPT-VLV075GATE	Brass Gate Valve (FIPT x FIPT)	3/4"	
40-NPT-VLV100GATE	Brass Gate Valve (FIPT x FIPT)	1"	
40-NPT-VLV125GATE	Brass Gate Valve (FIPT x FIPT)	1-1/4"	
40-NPT-VLV150GATE	Brass Gate Valve (FIPT x FIPT)	1-1/2"	
40-NPT-VLV200GATE	Brass Gate Valve (FIPT x FIPT)	2"	
40-NPT-VLV250GATE	Brass Gate Valve (FIPT x FIPT)	2-1/2"	
40-NPT-VLV300GATE	Brass Gate Valve (FIPT x FIPT)	3"	
40-NPT-VLV400GATE	Brass Gate Valve (FIPT x FIPT)	4"	
UI-VLV-GATEWEDGE6SL	Cast Iron Ring Tite Gate Valve (Gasket x Gasket)	6"	
UI-VLV-GATWEDGE4FL	Cast Iron Gate Valve (Flange x Flange)	4"	
UI-VLV-GATWEDGE6FL	Cast Iron Gate Valve (Flange x Flange)	6"	
40-NPT-VLV025BLLFF	Full Port Brass Valve (FIPT x FIPT)	1/4"	
40-NPT-VLV038BLLFF	Full Port Brass Valve (FIPT x FIPT)	3/8"	
40-NPT-VLV050BLLFF	Full Port Brass Valve (FIPT x FIPT)	1/2"	
40-NPT-VLV075BLLFF	Full Port Brass Valve (FIPT x FIPT)	3/4"	
40-NPT-VLV100BLLFF	Full Port Brass Valve (FIPT x FIPT)	1"	
40-NPT-VLV125BLLFF	Full Port Brass Valve (FIPT x FIPT)	1-1/4"	
40-NPT-VLV150BLLFF	Full Port Brass Valve (FIPT x FIPT)	1-1/2"	
40-NPT-VLV200BLLFF	Full Port Brass Valve (FIPT x FIPT)	2"	
40-NPT-VLV250BLLFF	Full Port Brass Valve (FIPT x FIPT)	2-1/2"	
40-NPT-VLV300BLLFF	Full Port Brass Valve (FIPT x FIPT)	3"	
40-NPT-VLV400BLLFF	Full Port Brass Valve (FIPT x FIPT)	4"	
UI-VLV-BFLY-TRAVIS	Travis Butterfly Valve - Weldable Plain Ends	6"	
IR-INV-RL6-PIERCE	Pierce Butterfly Valve - Weldable Plain Ends	6"	



Black & Galvanized Fittings










Part #	Size		
Reducing Bushing (MIPTxFIPT)			
40-NPT-RB025X013	1/4" x 1/8"		
40-NPT-RB038X013	3/8" x 1/8"		
40-NPT-RB038X025	3/8" x 1/4"		
40-NPT-RB050X025	1/2" x 1/4"		
40-NPT-RB050X038	1/2" x 3/8"		
40-NPT-RB075X013	3/4" x 1/8"		
40-NPT-RB075X025	3/4" x 1/4"		
40-NPT-RB075X038	3/4" x 3/8"		
40-NPT-RB075X050	3/4" x 1/2"		
40-NPT-RB100X025	1" x 1/4"		
40-NPT-RB100X075	1" x 3/4"		
40-NPT-RB125X100	1 1/4" x 1"		
40-NPT-RB150X100	1 1/2" x 1"		
40-NPT-RB150X125	1 1/2" x 1 1/4"		
40-NPT-RB200X075	2" x 3/4"		
40-NPT-RB200X125	2" x 1 1/4"		
40-NPT-RB250X100	2-1/2" x 1"		
40-NPT-RB250X200	2-1/2" x 2"		
40-NPT-RB300X200	3" x 2"		
40-NPT-RB300X250	3" x 2 1/2"		
40-NPT-RB350X200	3-1/2" x 2"		
40-NPT-RB350X250	3-1/2" x 2 1/2"		
40-NPT-RB400X200	4" x 2"		
40-NPT-RB400X300	4" x 3"		
40-NPT-RB500X400	5" x 4"		
40-NPT-RB600X400	6" x 4"		
40-NPT-RB600X500	6" x 5"		
Cap (FIPT)			
40-NPT-CAP013	1/8"		
40-NPT-CAP025	1/4"		
40-NPT-CAP038	3/8"		
40-NPT-CAP050	1/2"		
40-NPT-CAP075	3/4"		
40-NPT-CAP100	1"		
40-NPT-CAP125	1-1/4"		
40-NPT-CAP150	1-1/2"		
40-NPT-CAP200	2"		
40-NPT-CAP300	3"		
40-NPT-CAP400	4"		
40-NPT-CAP600	6"		
Plug (MIPT)			
40-NPT-PLG025	1/4"		
40-NPT-PLG038	3/8"		
40-NPT-PLG050	1/2"		
40-NPT-PLG075	3/4"		
40-NPT-PLG100	1"		
40-NPT-PLG125	1-1/4"		
40-NPT-PLG150	1-1/2"		
40-NPT-PLG200	2"		

* For Galvanized finish, add a "G" to the end of the part number.

Part #	Size	
Nipple (MIPT x MIPT)		
40-NPT-NPL013X600	1/8"X6"LG	
40-NPT-NPL025X100	1/4"X1"LG	
40-NPT-NPL025X150	1/4"X1 1/2"LG	
40-NPT-NPL025X200	1/4"X2"LG	
40-NPT-NPL025X250	1/4"X2.5"LG	
40-NPT-NPL025X400	1/4"X4"LG	
40-NPT-NPL025X450	1/4"X4 1/2"LG	
40-NPT-NPL025X6	1/4"X6"LG	
40-NPT-NPL038X150	3/8"X1 1/2"LG	
40-NPT-NPL038X200	3/8"X2"LG	
40-NPT-NPL038X250	3/8"X2 1/2"LG	
40-NPT-NPL038X400	3/8"X4"LG	
40-NPT-NPL038X450	3/8"X4 1/2"LG	
40-NPT-NPL038X600	3/8"X6"LG	
40-NPT-NPL050X250	1/2"X2 1/2"LG	
40-NPT-NPL050X300	1/2"X3"LG	
40-NPT-NPL050X400	1/2"X4"LG	
40-NPT-NPL050X500	1/2"X5"LG	
40-NPT-NPL050X600	1/2"X6"LG	
40-NPT-NPL075X250	3/4"X2 1/2"LG	
40-NPT-NPL075X325	3/4"X3 1/4"LG	
40-NPT-NPL075X600	3/4"X6"LG	
40-NPT-NPL075X700	3/4"X7"LG	
40-NPT-NPL075X800	3/4"X8"LG	
40-NPT-NPL075X250	3/4"X2 1/2"LG	
40-NPT-NPL100X300	1"X3"LG	
40-NPT-NPL100X350	1"X3 1/2"LG	
40-NPT-NPL100X400	1"X4"LG	
40-NPT-NPL100X600	1"X6"LG	
40-NPT-NPL150X175	1-1/2"X1 3/4"LG	
40-NPT-NPL150X250	1-1/2"X2 1/2"LG	
40-NPT-NPL150X275	1-1/2"X2 3/4"LG	
40-NPT-NPL150X600	1-1/2"X6"LG	
40-NPT-NPL200X400	2"X4"LG	
40-NPT-NPL200X600	2"X6"LG	
40-NPT-NPL250X500	2-1/2"X5"LG	
40-NPT-NPL250X1200	2-1/2"X12"LG	
40-NPT-NPL250X1800	2-1/2"X18"LG	
40-NPT-NPL250X3600	2-1/2"X36"LG	
40-NPT-NPL300X400	3"X4"LG	
40-NPT-NPL300X450	3"X4 1/2"LG	
40-NPT-NPL300X600	3"X6"LG	
40-NPT-NPL400X600	4"X6"LG	
40-NPT-NPL400X2000	4"X20"LG	
40-NPT-NPL600X800	6"X8"LG	
40-NPT-NPL800X600	8"X6"LG	
Close Nipples		
40-NPT-NPLC013	1/8"	
40-NPT-NPLC025	1/4"	
40-NPT-NPLC038	3/8"	
40-NPT-NPLC050	1/2"	
40-NPT-NPLC075	3/4"	
40-NPT-NPLC100	1"	
40-NPT-NPLC125	1/4"	
40-NPT-NPLC150	1-1/2"	
40-NPT-NPLC200	2"	



Black & Galvanized Fittings

Part #	Size		Part #	Size	
Tee (FIPT x FIPT)			Cross (FIPTxFIPTxFIPTxFIPT)		
40-NPT-TEE013	1/8"		40-NPT-CRS100	1"	
40-NPT-TEE025	1/4"		40-NPT-CRS125	1 1/4"	
40-NPT-TEE625	3/8"		40-NPT-CRS150	1-1/2"	
40-NPT-TEE050	1/2"		40-NPT-CRS200	2"	
40-NPT-TEE075	3/4"		40-NPT-CRS400	4"	
40-NPT-TEE100	1"		Union (FIPTxFIPT)		
40-NPT-TEE125	1-1/4"		40-NPT-UNION025	1/4"	
40-NPT-TEE150	1-1/2"		40-NPT-UNION038	3/8"	
40-NPT-TEE200	2"		40-NPT-UNION050	1/2"	
40-NPT-TEE250	2-1/2"		40-NPT-UNION075	3/4"	
40-NPT-TEE300	3"		40-NPT-UNION100	1"	
40-NPT-TEE400	4"		40-NPT-UNION125	1-1/4"	
40-NPT-TEE600	6"		40-NPT-UNION150	1-1/2"	
90° Elbow (FIPTxFIPT)			Coupler (FIPTxFIPT)		
40-NPT-ELB013X90	1/8"		40-NPT-CPL013	1/8"	
40-NPT-ELB025X90	1/4"		40-NPT-CPL025	1/4"	
40-NPT-ELB038X90	3/8"		40-NPT-CPL038	3/8"	
40-NPT-ELB050X90	1/2"		40-NPT-CPL050	1/2"	
40-NPT-ELB075X90	3/4"		40-NPT-CPL075	3/4"	
40-NPT-ELB100X90	1"		40-NPT-CPL100	1"	
40-NPT-ELB125X90	1-1/4"		40-NPT-CPL125	1-1/4"	
40-NPT-ELB150X90	1-1/2"		40-NPT-CPL150	1-1/2"	
40-NPT-ELB200X90	2"		40-NPT-CPL200	2"	
40-NPT-ELB250X90	2-1/2"		40-NPT-CPL250	2-1/2"	
40-NPT-ELB300X90	3"	40-NPT-CPL300	3"		
40-NPT-ELB400X90	4"	40-NPT-CPL400	4"		
40-NPT-ELB600X90	6"	40-NPT-CPL500	5"		
45° Elbow (FIPT x FIPT)			40-NPT-CPL600	6"	
40-NPT-ELB050X45	1/2"		Reducing Coupling (FIPTxFIPT)		
40-NPT-ELB075X45	3/4"		40-NPT-RC025X013	1/4" x 1/8"	
40-NPT-ELB100X45	1"		40-NPT-RC038X025	3/8" x 1/4"	
40-NPT-ELB125X45	1-1/4"		40-NPT-CPL050x025	1/2" x 1/4"	
40-NPT-ELB150X45	1-1/2"		40-NPT-CPL050x038	1/2" x 3/8"	
40-NPT-ELB200X45	2"	40-NPT-CPL075x038	3/4" x 3/8"		
40-NPT-ELB300X45	3"	40-NPT-CPL075x050	3/4" x 1/2"		
90° Street Elbow (FIPT x MIPT)			40-NPT-CPL100x075	1" x 3/4"	
40-NPT-ELS013X90	1/8"		40-NPT-CPL125x100	1-1/4" x 1"	
40-NPT-ELS025X90	1/4"		40-NPT-CPL150x075	1-1/2" x 3/4"	
40-NPT-ELS038X90	3/8"		40-NPT-CPL150x100	1-1/2" x 1"	
40-NPT-ELS050X90	1/2"		40-NPT-CPL150x125	1-1/2" x 1-1/4"	
40-NPT-ELS075X90	3/4"		40-NPT-CPL200x075	2" x 3/4"	
40-NPT-ELS100X90	1"		40-NPT-CPL200x125	2" x 1-1/4"	
40-NPT-ELS125X90	1-1/4"		40-NPT-CPL200x150	2" x 1-1/2"	
40-NPT-ELS150X90	1-1/2"		40-NPT-CPL250x200	2-1/2" x 2"	
40-NPT-ELS200X90	2"	40-NPT-CPL300x200	3" x 2"		
45° Street Elbow (FIPT x MIPT)			40-NPT-CPL300x250	3" x 2-1/2"	
40-NPT-ELS050X45	1/2"		40-NPT-CPL400x300	4" x 3"	
40-NPT-ELS100X45	1"		40-NPT-CPL500x400	5" x 4"	
40-NPT-ELS125X45	1-1/4"				

* For Galvanized fittings, add a "G" to the end of the part number.

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Product information

- OIL & GAS
- MINING
- PIPE REHABILITATION
- AGRICULTURE
- HYDRAULIC FRACTURING
- WATER SUPPLY
- CONSTRUCTION
- EMERGENCY RESPONSE

TPU hoses by mandals

Mandals TPU hoses are among the most innovative world class hoses, made from extruded thermoplastic polyether based polyurethane (TPU) with excellent wear and tear properties. The TPU is extruded through the reinforcement made from circular woven high tenacity filament polyester yarn. This method gives a very strong bonding between cover and lining as well as firmly encapsulating the woven polyester. The abrasion resistance of the Mandals TPU hoses is among the highest available, and our TPU hoses also have excellent resistance against the most commonly used chemicals, UV radiation, hydrolysis and fungus degradation.

The textile reinforcement ensures very high tensile strength combined with maximum 2% extension in length at recommended working pressures. This prevents "snaking" of the hose when pressurized. Similarly, the interlocking weave gives exceptionally high pressure ratings. Mandals TPU hoses can operate in a temperature range from -50°C to +75°C (-58°F to +167°F), intermittent use up to +80°C (176°F). Standard lengths are available up to 200 meters, while longer lengths are possible on request for many diameters.

SUPERMAN - HVT



- FRACTURING / MINING / WATER / AGRICULTURE / EMERGENCY

This hose is intended for "High Volume Transfer" of fluids at higher than normal working pressures, yet is light weight and easy to deploy. The excellent abrasion resistance prevents the hose from being damaged when deployed in rugged terrain where other types of outer cover would be worn off quickly due to the pulsations of the flow combined with the weight of the filled hose. The heavily reinforced weave ensures minimum extension in length and minimum "snaking" of the deployed hose. Available up to 200 meters in dimensions 8", 10" and 12".

SUPERMAN

SIZE	WORKING PRESSURE		BURST PRESSURE	WEIGHT
	2 : 1	3 : 1		
8"	300 PSI	200 PSI	600 PSI	1380 # per 660'
10"	254 PSI	169 PSI	507 PSI	1821 # per 660'
12"	218 PSI	145 PSI	435 PSI	2198 # per 660'

ULTRAMAN



- MINING / WATER / AGRICULTURE

This is a more lightweight hose ideal for f. ex. dewatering, fluid transfer, as a supply hose or as a temporary bypass line for sewage or slurry. A high quality multi purpose industrial hose with a long service life. Ultraman is available from 1" to 12" in 200 meter lengths or longer.

MANDALS ULTRAMAN MAINLINE HOSE

SIZE	WORKING PRESSURE		BURST PRESSURE	WEIGHT
	2 : 1	3 : 1		
2"	508 PSI	338 PSI	1015 PSI	224 # per 660'
3"	350 PSI	233 PSI	700 PSI	330 # per 660'
4"	263 PSI	175 PSI	525 PSI	488 # per 660'
5"	218 PSI	145 PSI	435 PSI	653 # per 660'
6"	230 PSI	153 PSI	460 PSI	732 # per 660'
8"	189 PSI	126 PSI	377 PSI	977 # per 660'
10"	153 PSI	101 PSI	305 PSI	1261 # per 660'
12"	110 PSI	73 PSI	220 PSI	1551 # per 660'

DRAGMAN



- SLURRY, WASTE WATER & MINE DEWATERING

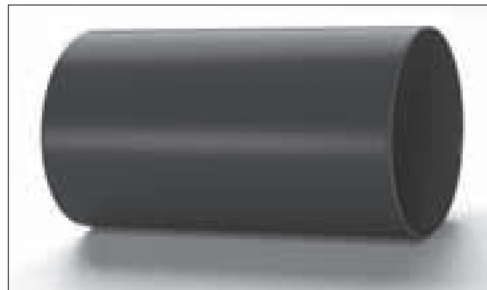
This hose is intended for use with umbilical drag systems and is especially designed, with substantially increased abrasion resistance and tensile strength, to withstand the continuous severe stress from the pulling and abrasion. Dragman is available in three different versions for normal, demanding and extreme use - ask us for details. Note - never tow one part of the hose across another. The tensile strength and abrasion resistance also makes it an alternative for transport of abrasive substances in the construction industry. Available up to 8", some dimensions in longer than 200 m lengths.



CADMAN DRAG PRO HOSE

SIZE	WORKING PRESSURE		BURST PRESSURE	WEIGHT
	2 : 1	3 : 1		
-----			-----	
4"	276 PSI	184 PSI	552 PSI	588 # per 660'
4.5"	255 PSI	170 PSI	510 PSI	670 # per 660'
5"	236 PSI	155 PSI	465 PSI	720 # per 660'
5.5"	236 PSI	155 PSI	465 PSI	780 # per 660'
6"	236 PSI	155 PSI	465 PSI	838 # per 660'

AQUAMAN



● WATER / CONSTRUCTION

Aquaman is used for potable water bypass systems both after disasters as well as for planned construction projects or for bunkering drinking water in the ship industry. Excellent abrasion resistance enables a very thin and lightweight hose so that large diameters can be quickly deployed and retrieved. Dimensions from 1" to 12" are available in 200 meter or longer lengths. Fewer couplings mean fewer problems. The hose is resistant to ozone, most chemicals, hydrocarbons, mildew, rotting and more, and is very kink resistant even in tight bends.

Aquaman has the following potable water certifications:
 WRAS approved to BS 6920, UK.
 KTW-DVGW approval, Germany.
 W270 approval, Germany.
 NSF 61 listing, USA.

AQUAMAN

SIZE	WORKING PRESSURE		BURST PRESSURE	WEIGHT
	2 : 1	3 : 1		
-----			-----	
1"	363 PSI	243 PSI	725 PSI	73 # per 660'
1-1/2"	325 PSI	217 PSI	650 PSI	125 # per 660'
2"	325 PSI	217 PSI	650 PSI	165 # per 660'
3"	300 PSI	200 PSI	600 PSI	310 # per 660'
4"	260 PSI	173 PSI	520 PSI	462 # per 660'
6"	230 PSI	153 PSI	460 PSI	733 # per 660'
8"	190 PSI	127 PSI	380 PSI	977 # per 660'
10"	145 PSI	97 PSI	290 PSI	1261 # per 660'
12"	110 PSI	73 PSI	220 PSI	1551 # per 660'

mandals

TPU hoses by mandals

MANTEX HP



● CONSTRUCTION / MINING / OIL & GAS

This is a lightweight yet sturdy double jacket hose developed for more demanding use of compressed air tools. Both the inner and outer cover is extruded with oil resistant thermoplastic polyurethane, which gives excellent abrasion and puncture resistance combined with a very high burst pressure. The hose can be supplied with different kinds of couplings or screw connections, assembled at Mandals. For safety the hose will always tear longitudinal in case of burst. Available in 2" in maximum 40 meter lengths. Operating temperature range is -50°C to +100°C (-58°F to +212°F).

MANTEX HP

SIZE	WORKING PRESSURE		BURST PRESSURE	WEIGHT
	2 : 1	3 : 1		
-----			-----	
2"	1088 PSI	725 PSI	2175 PSI	48 # per 100'

FLEXITEX EXTRA



● OIL & GAS / AGRICULTURE / WATER / MINING

Mandals Flexitex Extra is intended for more demanding fluid transfer, f. ex. for drill water supply to onshore rigs, as a feeder hose for larger irrigation and slurry units in the agricultural sector or as a general transfer hose for non-flammable liquids in construction, mining and industry. It is easy to store and deploy/retrieve, adapts well to the terrain and can be routed around obstacles. The design ensures minimum stretching and a very high pressure rating to wall thickness ratio. The rubber blend has excellent chemical resistance and little or no reaction to H₂S or saline content. Lengths up to 200 meters means less couplings and less pressure drop.

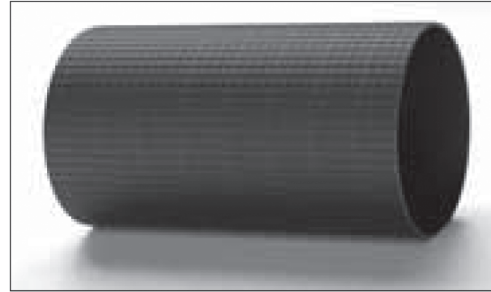
FLEXITEX EXTRA / KOPER

SIZE	WORKING PRESSURE		BURST PRESSURE	WEIGHT
	2 : 1	3 : 1		
-----			-----	
4"	276 PSI	184 PSI	552 PSI	588 # per 660'
4.5"	255 PSI	170 PSI	510 PSI	670 # per 660'
5"	236 PSI	155 PSI	465 PSI	720 # per 660'
5.5"	236 PSI	155 PSI	465 PSI	780 # per 660'
6"	236 PSI	155 PSI	465 PSI	838 # per 660'



FLEXITEX STANDARD

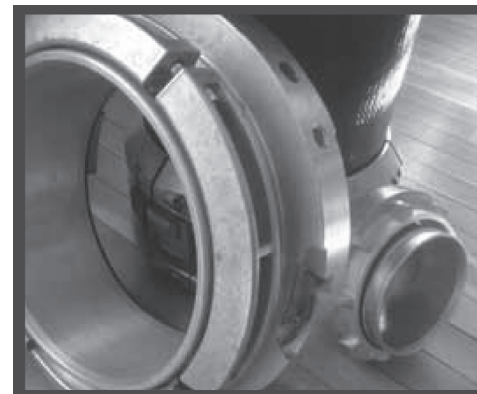
● AGRICULTURE / CONSTRUCTION / WATER



This lightweight general purpose hose can be used f. ex. as a feeder hose for smaller irrigation and slurry units in the agricultural sector, or as a light weight wash down or transfer hose for water based and non-polar liquids in construction and general industry. Lengths up to 200 meters means less couplings and less pressure drop.

FLEXITEX STANDARD

SIZE	WORKING PRESSURE		BURST PRESSURE	WEIGHT
	2 : 1	3 : 1		
-----	2 : 1	3 : 1	-----	
2"	325 PSI	217 PSI	650 PSI	165 # per 660'
3"	290 PSI	194 PSI	580 PSI	310 # per 660'
4"	250 PSI	167 PSI	500 PSI	462 # per 660'
6"	263 PSI	175 PSI	525 PSI	752 # per 660'



COUPLINGS

Cadlock Coupling Sets



Sexless Cadlock Coupling Set with hose barbs, clamps & sleeve:

- 6" available
- 8" available



Gruvlok Coupling Sets



Gruvlok® Fittings:

- From 4" up to 12" available

Dixon Cam & Groove Coupler Fittings



Dixon Anderson Fittings:

- From 4" up to 12" available



Hose Swivels



Straight Hose Swivel

Straight Hose Swivel

Weight: 156 lbs.
Available Diameter: 8", 10", 12"

90° Hose Swivel

Weight: 380 lbs.
Available Diameter: 8", 10", 12"

90° Hose Swivel

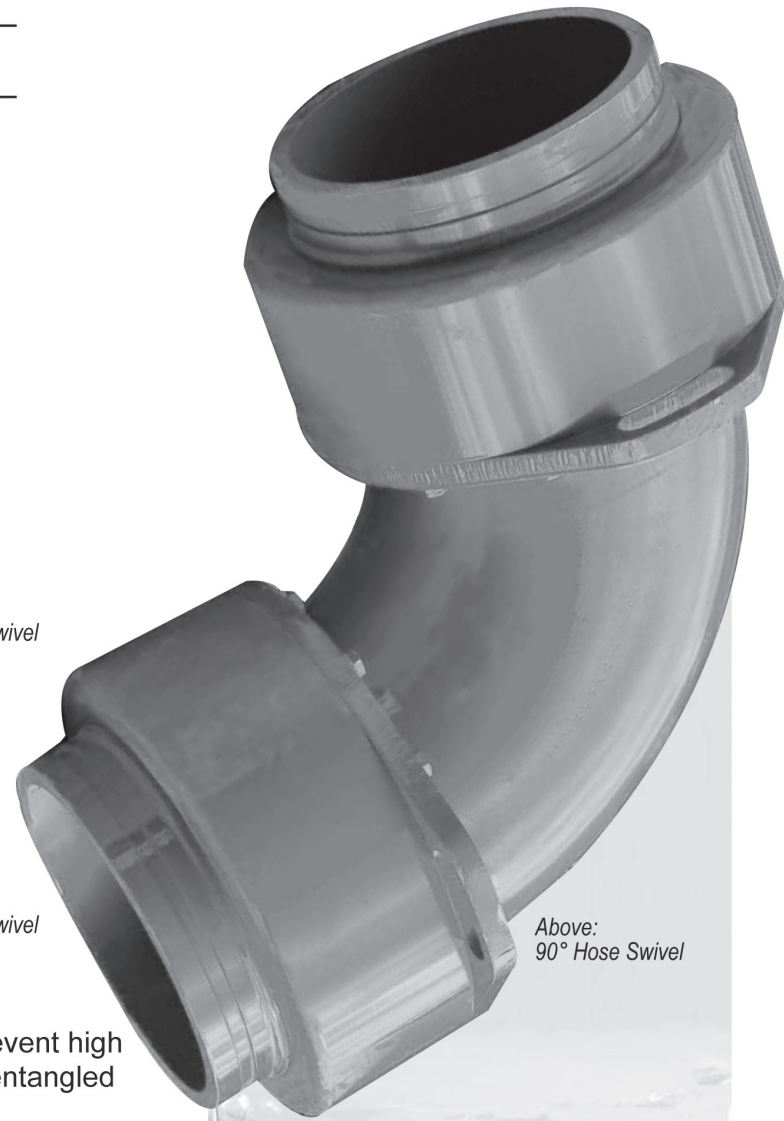
Above: 90° Hose Swivel

Cadman hose swivels are engineered to prevent high pressure hose from binding and becoming entangled during usage and deployment.

Each hose swivel is fitted with a long-lasting O-ring seal to prevent any leaks which otherwise may occur.

Benefits

- Eliminates leaks
- Extends lifetime of your hose
- Designed for use in harsh environments
- Eliminates waste



Friction Loss Calculator App 

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