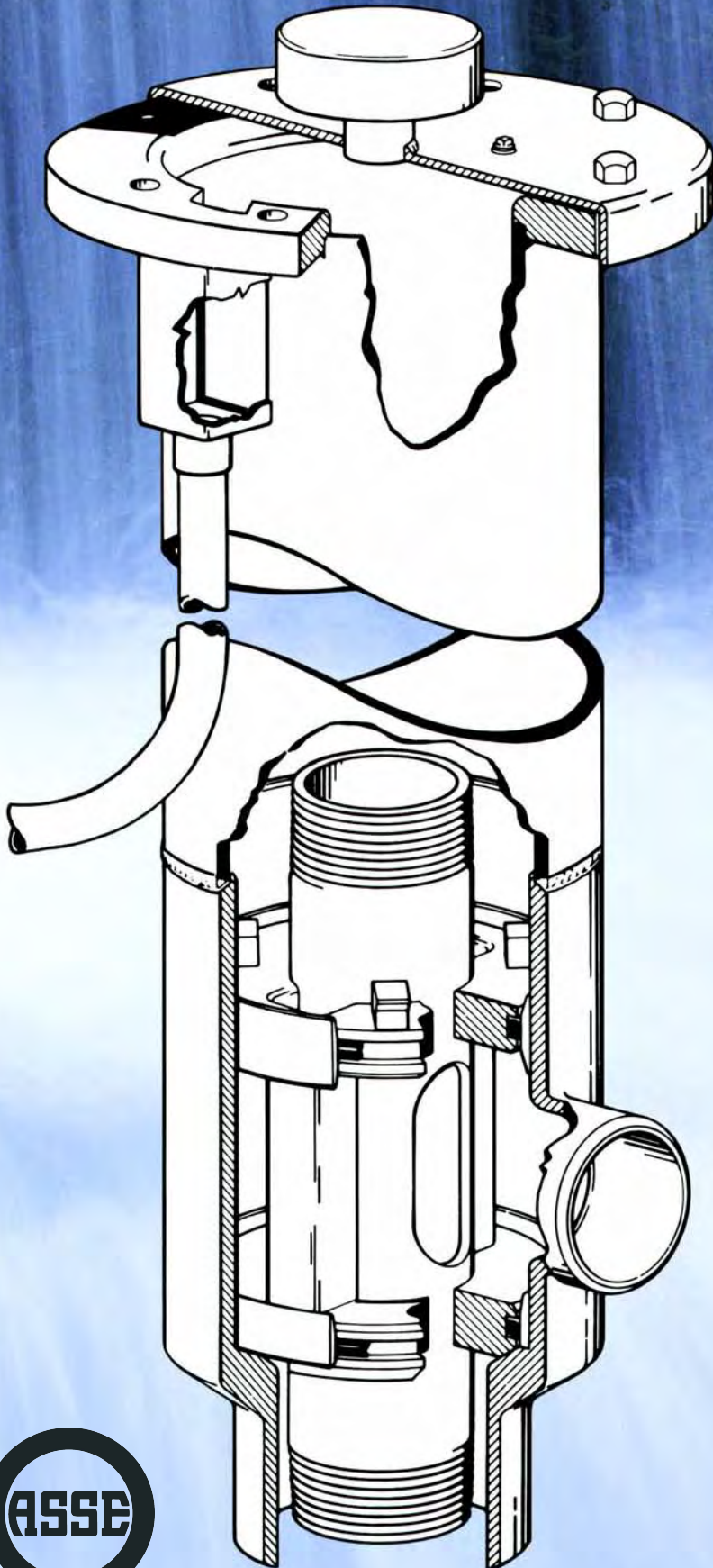






MODEL MB PITLESS UNIT



Made in the USA



The Model MB pitless units are spool-type adapters with flexible design concepts for quick delivery and ease of installation.

-  *Designed for ease in setting and servicing pumps.*
-  *Rugged construction with 304 stainless steel O-ring and spool seats.*
-  *Durable FDA and NSF approved coating for protection.*
-  *Available as a complete bury unit or in "kit" form.*



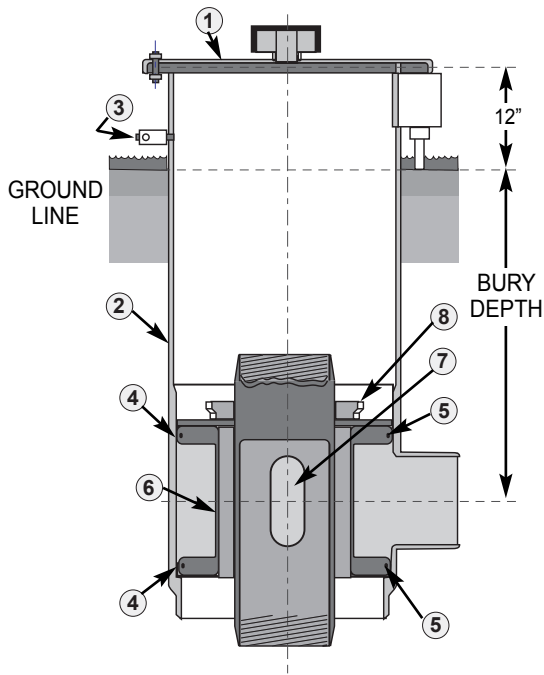
NSF 61/372

MAASS
MIDWEST™

Specification #100-E

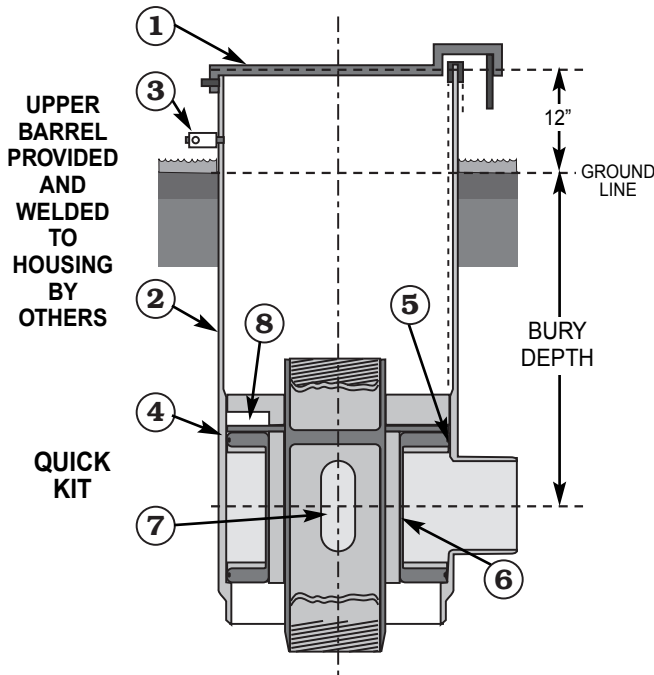
HEAVY DUTY (HD) MODEL MB PITLESS UNITS

The "HD" type unit is designed for high capacity pumps, deeper settings and turbine units. All MB units feature 304 stainless steel o-ring seats. "HD" type units are available for well casings from 8" through 24" and discharge diameters of 3" through 14". They include a vented water tight well cap and an electrical junction box. "HD" units have 1/2" or thicker housing. Spool pipe is "XS" or schedule 120.



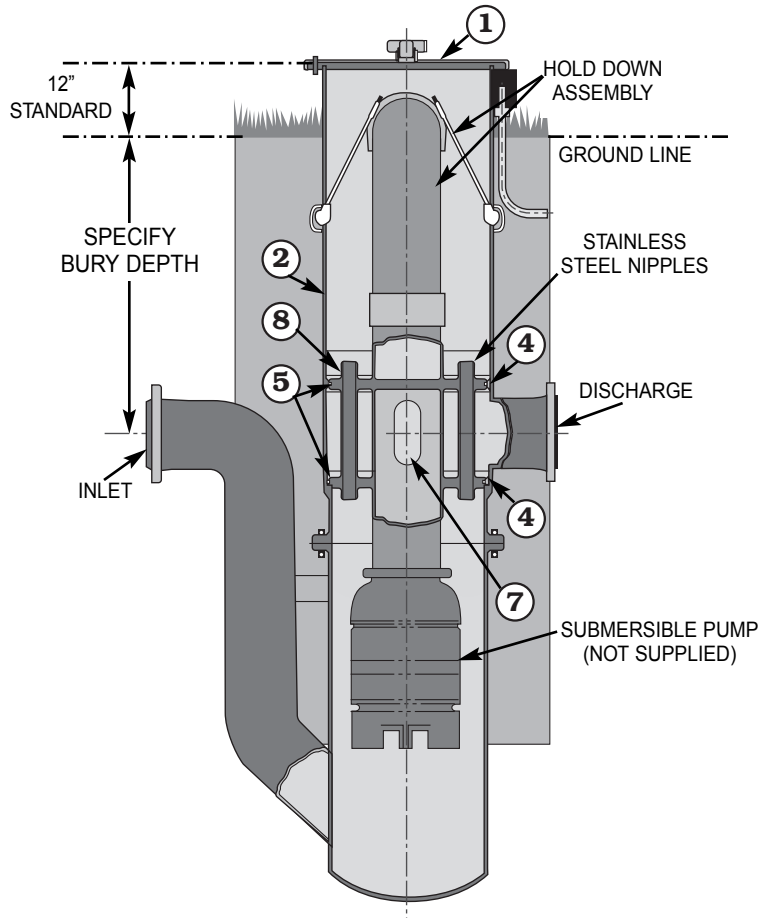
QUICK KIT MODEL MB PITLESS UNITS

Quick Kits for 8" and 10" well casing include spool, housing, and sealed vermin proof cast aluminum (AWT) cap. Upper barrel casing supplied by installer. Quick Kits may be ordered with cast aluminum submersible (AL) or sealed steel vermin proof (WT) cap. AWT and WT model caps have 2" NPT electrical conduit fittings as standard. Larger size MB Kits available with steel vermin-proof cap.



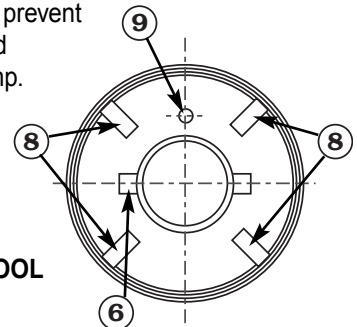
MODEL MB BOOSTER STATION (MB)

Maass Midwest Booster Station units are ideal for applications where pressures need to be increased along a pipe line or where fluids must be circulated within a storage vessel. These units have the same features as the "HD" type units and are furnished complete with tank inlet and discharge pipes, hold-down clamps, lift-out bail, and sealed wire connections.



MODEL MB FEATURES

1. Well Cap
2. Upper Barrel (Optional)
3. Airline Test Block (Optional)
4. 304 Stainless Steel rings and seat to defeat rust, corrosion and electrolysis
5. O-Rings - 3/8" cross section
6. Large wire access channels through the spool. For flowing wells, replace with optional stainless steel tubes for sealed wire connections.
7. Spool discharge openings are 100% or greater than spool pipe used.
8. Spool centering Blocks prevent damage to O-Rings and seats when setting pump.
9. Hydrant Sampling Port (Optional)



TOP VIEW OF SPOOL

MODEL MB OPTIONS

The following features may be included with the pitless adapters to meet specific application requirements and to facilitate pump installation and well monitoring.

AIR LINE TEST BLOCK (ATB)

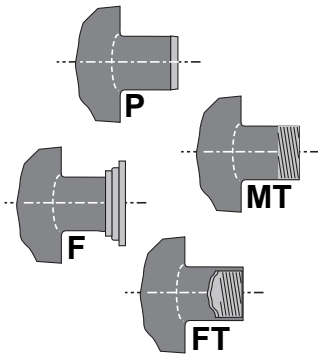
A four-way tee fitting with 1/4" NPT female tapings. It is normally welded to the upper barrel - just under the well cap flange. It provides three taps for well monitoring. (Shown on "MB" unit on opposite page).

HYDRANT SAMPLING PORT (HYD)

A female threaded port is fitted to the top plate of the adapter spool. A line or hydrant can be attached to this port from which water samples can be collected. (See "Top View of Spool" on opposite page).

LOCKING BOLTS (LB)

Two over size bolts are provided which permit padlocks to be attached thus securing the well cap. Note: Padlocks which are keyed alike are available from Maass Midwest. Ask for part number LJ2.



HOUSING DISCHARGE ENDS:

P = Plain end. For mechanical joint or transition coupling.

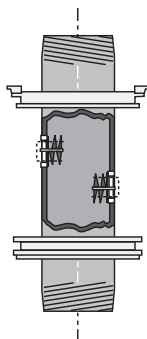
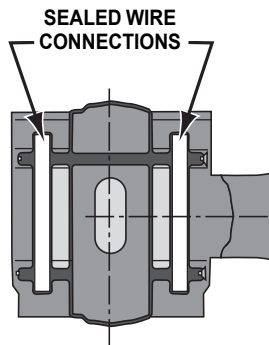
F = Flanged fitting.

MT = Male thread.

FT = Female thread.

SEALED WIRE CONNECTIONS (SWC)

Stainless steel nipples pass through both spool plates to provide access to the base of the well. In flowing (artesian) wells, the spool access channels are replaced with these pipes. By feeding the pump control cables through these pipes, the water from below can be sealed off. Specify the size and number of nipples (SWC) required.



SPOOL CHECK VALVES (CVS)

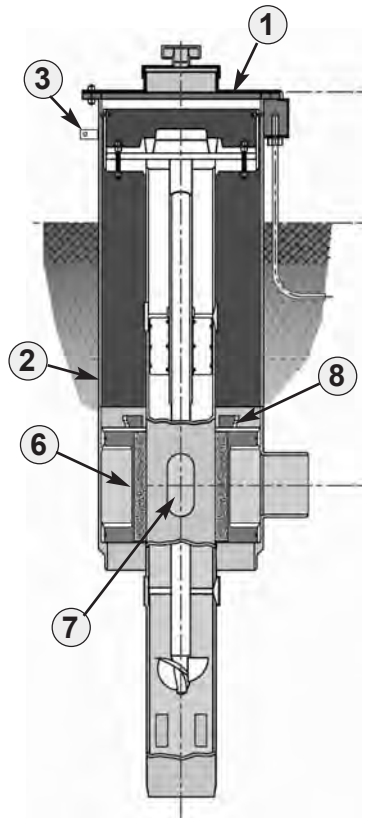
Check valves replace the spool discharge openings in the spool. The valves are of stainless steel and brass construction for long, trouble-free service.

UPPER BARREL

The upper barrel is made from standard well casing. When specified, this changes all units from a "kit" to a "bury unit". Note: Maass Midwest assumes a "stick-up" of 12" above grade on all MB units. If your application is different, adjust the bury depth specification accordingly. When supplied by the factory, the upper barrel is fitted to MB housing. The water tight well cap flange and other accessories are assembled to produce a complete unit. This saves installation time at the well site.

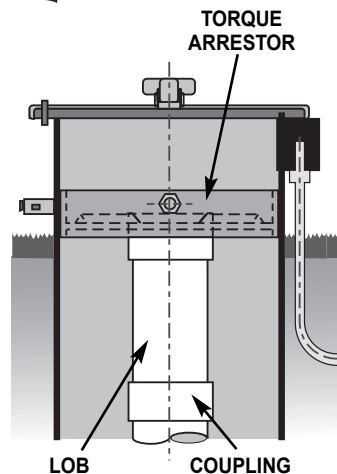
FLOW METER (FM)

All units can be furnished with an internal water meter. The Maass Midwest design features a water tight well cap with an access port for inspecting and reading the water meter. The water meter can be removed without disturbing the spool or pump. We recommend and use Water Specialties/ Micrometer vertical upflow meters. Meter options available are: indicator (GPM), totalizer, transmitter and remote read-out.



TORQUE ARRESTOR (TA)

For applications where pump torque may cause the pump and adapter spool to rotate within the well. The torque arrestor fits inside the upper barrel just below the electrical junction box and is attached to the top of the spool using a threaded coupling and a **LIFT-OUT BAIL (LOB)**. The lift-out bail facilities setting of the pump. When the upper barrel is supplied by the factory, the lift-out bail and bail coupling are included with the torque arrestor.



ALL STAINLESS STEEL, ALL WETTED PARTS STAINLESS STEEL AND LINE SHAFT TURBINE PUMP ADAPTERS AVAILABLE UPON REQUEST

Sales: 1-800-323-6259

FAX: 1-847-669-3230

MAASS
MIDWEST

The Model MB pitless unit can be supplied as a fully assembled "bury" unit or as a "kit". A kit consists of all components except the upper barrel. The upper barrel is purchased separately and assembled at the job site to reduce shipping costs.

Prices apply to basic Model MB Submersible Units having a butt-weld casing attachment and a plain end discharge.

	Bury Depth	Well Casing Diameter					
		8"	10"	12"	14"	16"	18" & up
Type "HD" Submersible Units with steel water tight cap, "WT"	Kit	\$3,020	\$3,920	\$4,760	\$7,515	\$9,110	Price Quoted Upon Request
	2'	3,338	4,315	5,510	8,310	10,475	
	3'	3,501	4,435	5,670	8,525	10,695	
	4'	3,613	4,555	5,830	8,740	10,915	
	5'	3,725	4,675	5,990	8,955	11,135	
	6'	3,837	4,795	6,150	9,170	11,355	
	7'	3,949	4,915	6,310	9,385	11,575	
		<i>Add \$112/ft. for deeper bury depth</i>	<i>Add \$120/ft. for deeper bury depth</i>	<i>Add \$160/ft. for deeper bury depth</i>	<i>Add \$215/ft. for deeper bury depth</i>	<i>Add \$220/ft. for deeper bury depth</i>	
Quick Kit Type "HD" with cast aluminum water tight cap "AWT"		\$2,720	\$3,621	Not Available	Not Available	Not Available	Not Available
Pump & Discharge Pipe Sizes	Standard	4"	6"	6"	6"	6"	6"
	Optional	3", 5"	3", 4", 5"	4", 5"	4", 5", 8"	5", 8", 10"	8", 10", 12", 14"

* Estimated list price for Standard Heavy Duty Unit

Meets: Minnesota State Standards

New York State Standards

Great Lakes Upper Mississippi River Board of Sanitary Engineers Standards

** A steel water tight well cap (WT) is optional on Quick Kits. For 8" wells, add \$324. For 10" wells, add \$427.

Submersible cast aluminum cap (AL) is also available. For 8" wells, deduct \$155. For 10" wells, deduct \$225.

Cast Aluminum Watertight Cap (AWT) for 8" and 10" well has 2" NPT electrical opening.

All prices are quoted U.S. funds, F.O.B., Huntley, Illinois, U.S.A.

Call or write for specifications, prices and delivery on options, custom features, Booster Stations and Turbine pump units.

Other sizes not listed can be fabricated. FDA and NSF approved epoxy coating is standard. Special coatings and materials are available. Contact the factory with your requirements.

**ALL STAINLESS STEEL, ALL WETTED PARTS
STAINLESS STEEL AND LINE SHAFT TURBINE PUMP
ADAPTERS AVAILABLE ON REQUEST**

EXAMPLE OF ADAPTER SPECIFICATION

MB, HD, S -10, 12 - 6, P - 6, NPT - WT - 5 - ATB

Type: HD = Heavy Duty.
Style: S = Submersible. B = Booster Station. T = Turbine.
Well Casing Diameter: (Specify 8" - 26").
Upper Barrel diameter: (2" larger than well casing is standard).
Discharge Diameter: (See price list for sizes available).
Discharge Type: P = Plain End. F = Flanged End. MT = Male Thread. FT = Female Thread.
Spool Pipe Diameter: (3" - 12").
Spool Pipe End: NPT = Threaded. F = Flanged, lower end. APIR = API Round Threads.
Well Cap: WT = Steel Water tight. AL = Aluminum Submersible. AWT = Aluminum Water tight
Bury Depth: (Feet) - if upper barrel is supplied. ("O" if kit).
Options: See description of options. Include all that are required.

MODEL NUMBER ORDERING GUIDE

Prices and specifications subject to change without notice.

PATENTED



11283 DUNDEE ROAD • P.O. BOX 547

HUNTLEY, IL 60142-0547

800-323-6259 • IL AREA 847-669-5135

FAX: 847-669-3230

www.maassmidwest.com

MAASS™ MODEL MB “QUICK KIT”

An economical, high quality, pitless unit featuring quick delivery for larger submersible pumps and 8” or 10” wells.

Available for municipal, commercial and industrial water well systems.



MADE in
the USA

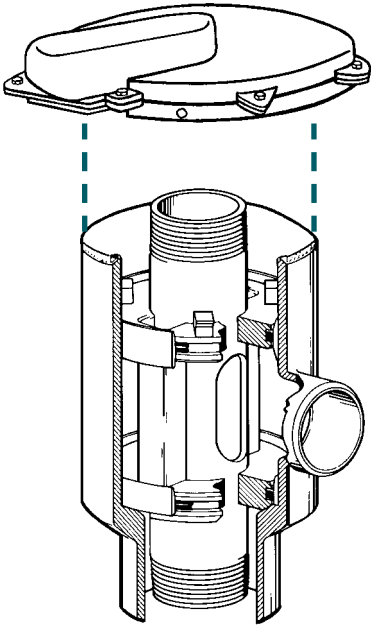


NSF 61/372

MAASS
MIDWEST

MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES
© MAASS Midwest Manufacturing, Inc. All rights reserved.
Specification #200-B

Introducing: The NEW Model MB "QUICK KIT" Pitless Unit!



- Easy assembly • only one weld
- For larger submersible pumps
- FDA and NSF approved coating, buff color.
- 304 Stainless Steel o-ring & spool seats
- Made in the U.S.A.
- Convenient • UPS and Air freight shippable
- Meets Great Lake Upper Mississippi River Board of State Sanitary Engineers Standards

Simple and easy to assemble. Only one weld is needed to attach the upper barrel to the housing. Upper barrel can be made for any length bury depth needed. Watertight style aluminum cap is easily bolted to top of the upper barrel.

The Maass Model MB Quick Kit is comprised of three components:



1 WATERTIGHT CAP
of strong, lightweight cast aluminum, with 2" NPT electrical conduit tapping.



2 SPOOL
with buna-n o-ring seals and NPT threads on spool pipe.



3 HOUSING
with .50 thick wall and 304 Stainless Steel o-ring and spool seats.

Spool and housing coated with FDA and NSF approved catalytic epoxy.

Only the upper barrel, made from standard well casing, has to be added.

The Model MB Quick Kit gives you a quality, competitive pitless unit for your commercial, industrial or municipal submersible pump applications. The MB Quick Kit will save you freight and material cost, giving you the competitive edge. Future well service will be assured with Maass Midwest's use of 304 stainless steel o-ring and spool seats. When spool is pulled there is no restriction of well casing I.D. to impede well service.

Your Model MB Quick Kit can quickly and economically be shipped via UPS or air freight. Your distributor or Maass Midwest can quickly ship two standard size kits; MB for 8" well casing with 4" spool pipe and 4" plain end discharge or 10" well casing with 6" spool pipe and 6" plain end discharge.

MB pitless units are available with "all wetted parts" or 100% Stainless Steel by special order. Maass Midwest can also custom design full pitless units up to 30" well casing to meet your water system needs. Booster Pump Stations and Line Shaft Turbine Pump units are also available. Contact Maass Midwest.

MODEL:	WEIGHT:
MB, HD S - 8, 10, 4, P - 4, NPT - AWT - 0	168 #
MB, HD, S - 10, 12, 6, P - 6, NPT - AWT - 0	255 #

MODEL	HOUSING	SPOOL	CAP	OPTIONS
MB				
HD	Heavy Duty			
S	Submersible			
	Casing Diameter = (8" or 10")			
	Upper Barrel Diameter = (10" or 12")			
	Discharge Diameter = (4" or 6")			
	Discharge Type:			
	MT = Male Thread	P = Plain End		
	FT = Female Thread	F = Flanged		
	Pump Pipe = (4" or 6")			
	Thread = NPT			
	Well Cap: AL = Aluminum Cap			
	AWT = Aluminum Watertight Cap			
	Bury depth (if upper casing is ordered)			
	ATB = Airline Test Block			
	TA = Torque Arrestor			

OPTIONS:

- ATB Airline Test Block
- TA Torque Arrestor*
- AL Aluminum Sub. Cap
- F Flanged 150# Steel
- MT Male NPT Thread
- FT Female NPT Thread

* Lift out bail between spool and torque arrestor provided by fabricator.

Patented #4,298,065; 4,416,328; 4,531,664

©2007, MAASS Midwest Manufacturing, Inc.



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

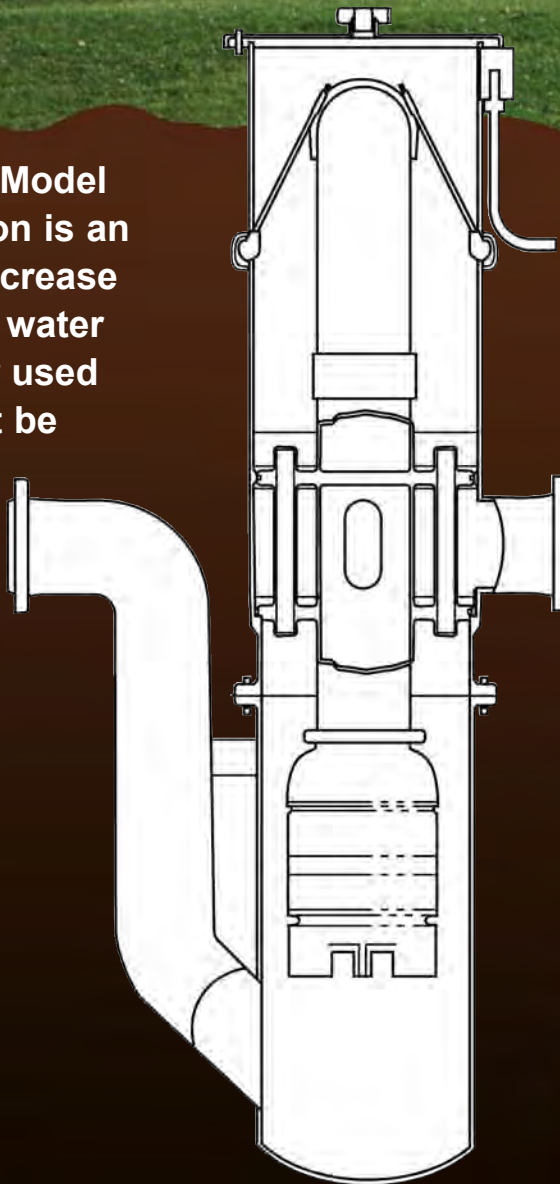
MEMBER:



LISTED PAS-97(04)
PITLESS ADAPTER STANDARD

Model MB BOOSTER STATION

The Maass-Baski Model MB Booster Station is an efficient way to increase water pressure in water lines, pipelines or used where fluids must be circulated within a storage vessel.



- *Eliminates above ground construction (No costly vaults or well houses!)*
- *Easily serviced from ground level*
- *FDA and NSF approved coating, buff color*
- *304 Stainless Steel o-ring & spool seats*
- *Unique 304 Stainless Steel wire connections*
- *Made in the U.S.A.*



NSF 61/372

MAASS
MIDWEST

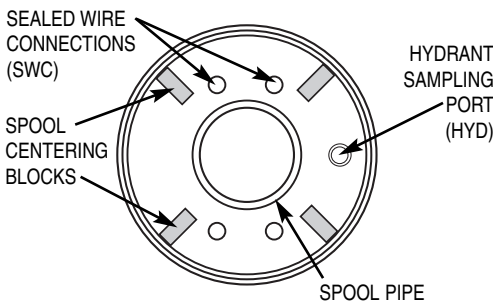
Model MB BOOSTER STATION

The Maass-Baski Model MB Booster Station is an efficient way to increase water pressure in water lines, pipelines or used where fluids must be circulated within a storage vessel.

MODEL MB BOOSTER STATION FEATURES:

1. Heavy Duty Steel Well Cap
2. 304 Stainless Steel rings and seat to defeat rust, corrosion and electrolysis
3. 304 Stainless Steel sealed wire connections
4. O-Rings - 3/8" cross section
5. Spool Centering Blocks prevent damage to O-Rings and seats when setting pump
6. Adjustable hold down hooks
7. Electrical Conduit, 2" NPT Standard

TOP VIEW OF SPOOL PIPE



Reservoir Tank 8" or larger diameter. Booster Station coated internally and externally with FDA and NSF approved catalytic epoxy.

**EXAMPLE OF BOOSTER STATION SPECIFICATIONS
MB, HD, B-10, 12, 4, F-4, NPT, 4, 1/2, SWC-WT-4-6, F-3/4" HPD**

MODEL	HOUSING	SPOOL	CAP	BURY	RESERVOIR	OPTIONS
MB	Type: HD = Heavy Duty ST = Standard Style: B = Booster Station Reservoir Diameter = (8" or larger) Upper Barrel Diameter (2" larger than reservoir is standard) Discharge Diameter Discharge Pipe Type: P = Plain End F = Flanged MT = Male Thread FT = Female Thread Pump Pipe Size = Thread = NPT Sealed Wire Connections = Number, pipe size & SWC		Booster Cap is Water Tight = WT	Bury Depth = Center of Waterline Below Grade	Reservoir Length = Center of Waterline to Bottom of Reservoir Inlet Pipe Diameter Inlet Pipe Type P, F, MT or FT	Hydrant Sampling Port = Pipe size & HYD Check valve is spool = CVS Please describe other options

The Model MB Booster Station gives you a quality, competitive pitless booster unit for your commercial, industrial or municipal submersible pump applications. The MB Booster Station will save you installation and maintenance cost, giving you the competitive edge.

The Model MB pitless Booster Station is easily installed into below grade water lines. No vaults or well houses need to be constructed or maintained. The submersible booster pump is easily serviced from ground level. No excavation or entry into a vault is needed to provide frost-free below ground discharge.

Future well service will be assured with Maass Midwest's use of 304 stainless steel o-ring, spool seats and wire connections.

- **Eliminates above ground construction (No costly vaults or well houses!)**
- **Easily serviced from ground level**
- **FDA and NSF approved coating, buff color**
- **304 Stainless Steel o-ring & spool seats**
- **Unique 304 Stainless Steel wire connections**
- **Made in the U.S.A.**

Booster Pump Stations are available with "all wetted parts" or 100% Stainless Steel by special order. Maass Midwest can also custom design units to meet your specific water system needs. MB pitless units and Line Shaft Turbine Pump units are also available.

OPTIONS:

- Inlet and Outlet:
 P = Plain end
 F = Flanged 150# Steel
 MT = Male NPT Thread
 FT = Female NPT Thread
- SWC = Sealed Wire Connections
 CVS = Check Valve in Spool
 HYD = Hydrant Sampling Port
 LB = Locking Bolts

See Maass Midwest Mfg., Inc.

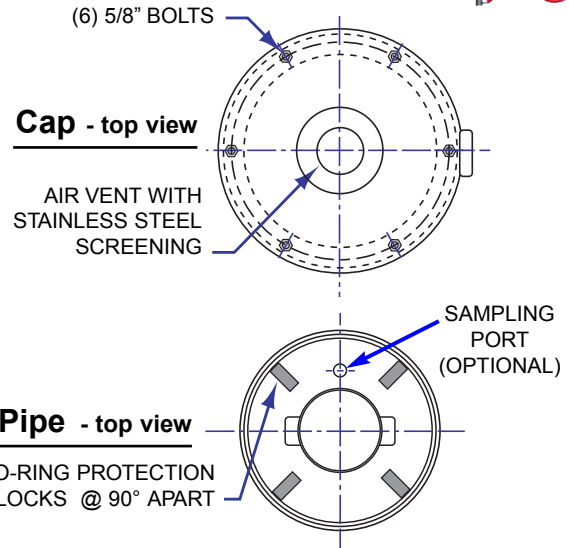
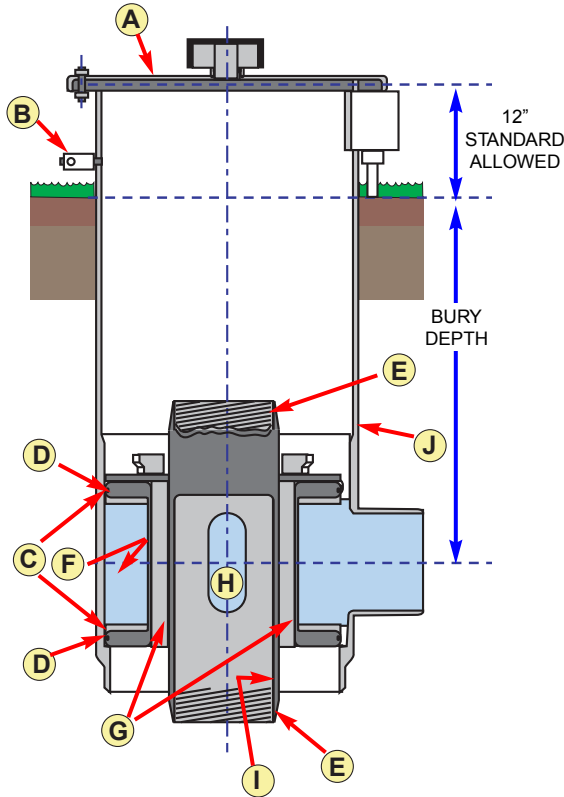


**MANUFACTURERS OF QUALITY
WATER WELL ACCESSORIES**

11283 Dundee Rd • P. O. Box 547
Huntley, IL 60142-0547

Phone: 800-323-6259
IL area 847-669-5135

www.maassmidwest.com



- A. Steel watertight cap shown for Heavy Duty Units.
- B. Airline Test Block - optional.
- C. 304 stainless steel rings and seat.
- D. O-Rings - 3/8" cross section.
- E. Male NPT threads on spool pipe, API threads or flanges optional. (both ends)
- F. Heavy Duty Units have 1/2" or thicker housing wall.
- G. Large access channels. Stainless steel nipples for sealed wire connections, flowing wells, or probes available.
- H. Spool discharge openings 100% or greater than spool pipe used.
- I. Spool Pipe XS wall.
- J. Upper casing barrel 3/8" thick.

OPTIONS:

FM = Flow Meter **TA** = Torque Arrestor and Lift-out Bail
ATB = Airline Test Blocks **LOB** = Lift-out Bail only
CVS = Check Valve in Spool **HYD** = Hydrant tapping or sampling port
LB = Locking Bolts **SWC** = Stainless steel nipple

Other options, please describe.

MODEL	HOUSING	SPOOL	CAP	OPTIONS
MB	(ST) = Standard (HD) = Heavy Duty (S) = Submersible (B) = Booster Station (T) = Turbine Casing Diameter (8" - 24") Upper Barrel Diameter (10" - 26") Discharge Diameter (2" - 12")	(MT) = Male Thread (FT) = Female Thread (P) = Plain End (F) = Flanged Pump Pipe (2" - 12")	(WT) = Watertight (AL) = Aluminum (WWT) = Steel Watertight (AWT) = Aluminum Watertight (AL) = Aluminum Submersible	Bury Depth (if upper casing is ordered) Custom Features (Please describe) (See options)

HOW TO ORDER MB PITLESS UNITS:

MODEL	HOUSING	SPOOL	CAP	OPTIONS
MB , HD , S	10 , 12 , 6 , P	4 , NPT	WT	ATB

©2011, MAASS Midwest Manufacturing, Inc.



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

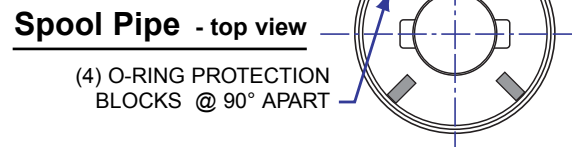
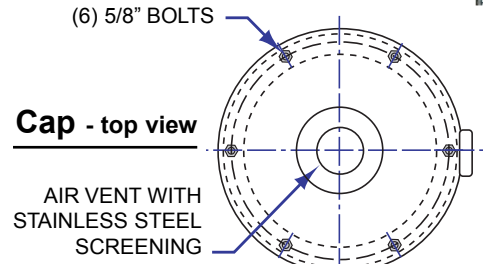
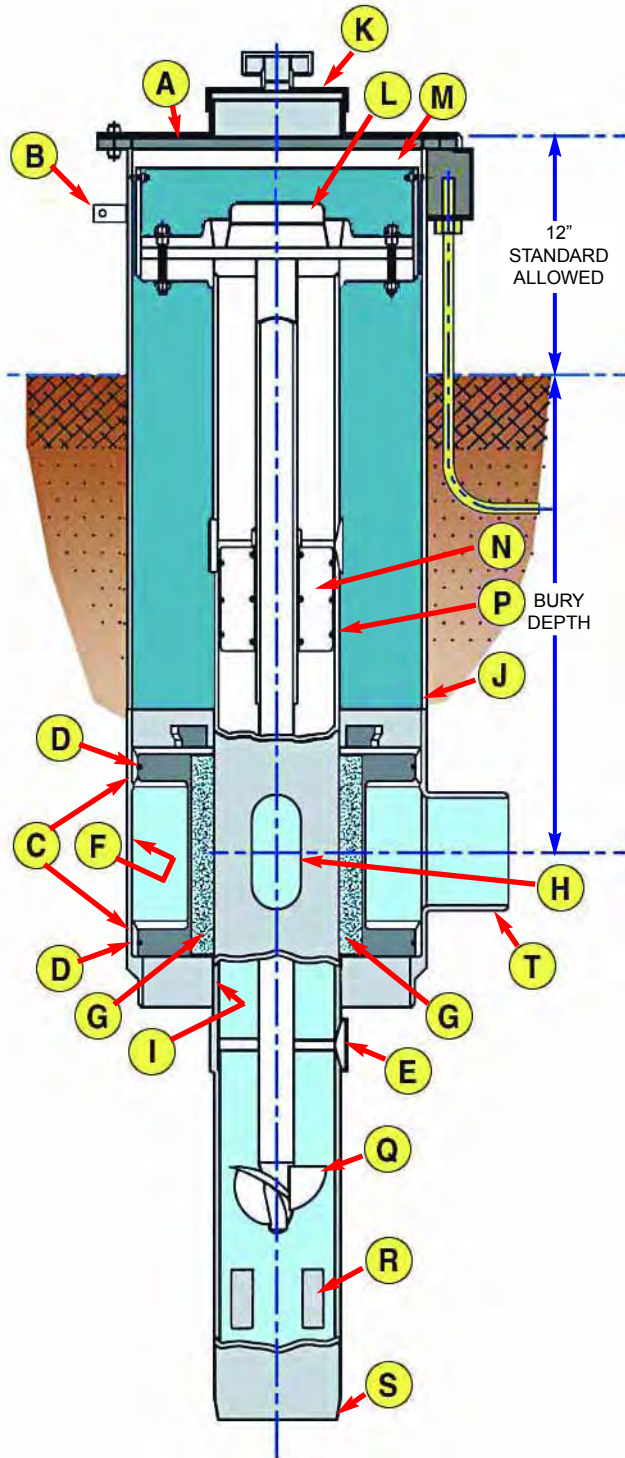
U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

MEMBER:



LISTED PAS-97(04)
PITLESS ADAPTER STANDARD



- A. Steel watertight cap shown for Heavy Duty Units.
- B. Airline Test Block - optional.
- C. 304 stainless steel rings and seat.
- D. O-Rings - 3/8" cross section.
- E. Male NPT threads on spool pipe, API threads or flanges optional. (both ends)
- F. Heavy Duty Units have 1/2" or thicker housing wall.
- G. Large access channels. Stainless steel nipples for sealed wire connections, flowing wells, or probes available.
- H. Spool discharge openings 100% or greater than spool pipe used.
- I. Spool Pipe XS wall.
- J. Upper casing barrel 3/8" thick.
- K. 4" Screw-off Access Cap with stainless steel vent.
- L. Vertical upflow meter with totalizer. Optional indicator totalizer, transmitter and remote read-outs available.
- M. Anti-spin/hold down ring assembly - optional.
- N. Water meter plug with 6 O-rings. Water meter may be removed for service without removing the spool assembly and pump.
- P. 304 stainless steel sleeve.
- Q. Flow meter propeller.
- R. Straightening vanes.
- S. NPT inlet pipe standard. API threads or flanges - optional.
- T. Plain end discharge pipe standard. NPT or API threads or flanges - optional.

©2011, MAASS Midwest Manufacturing, Inc.

MEMBER:



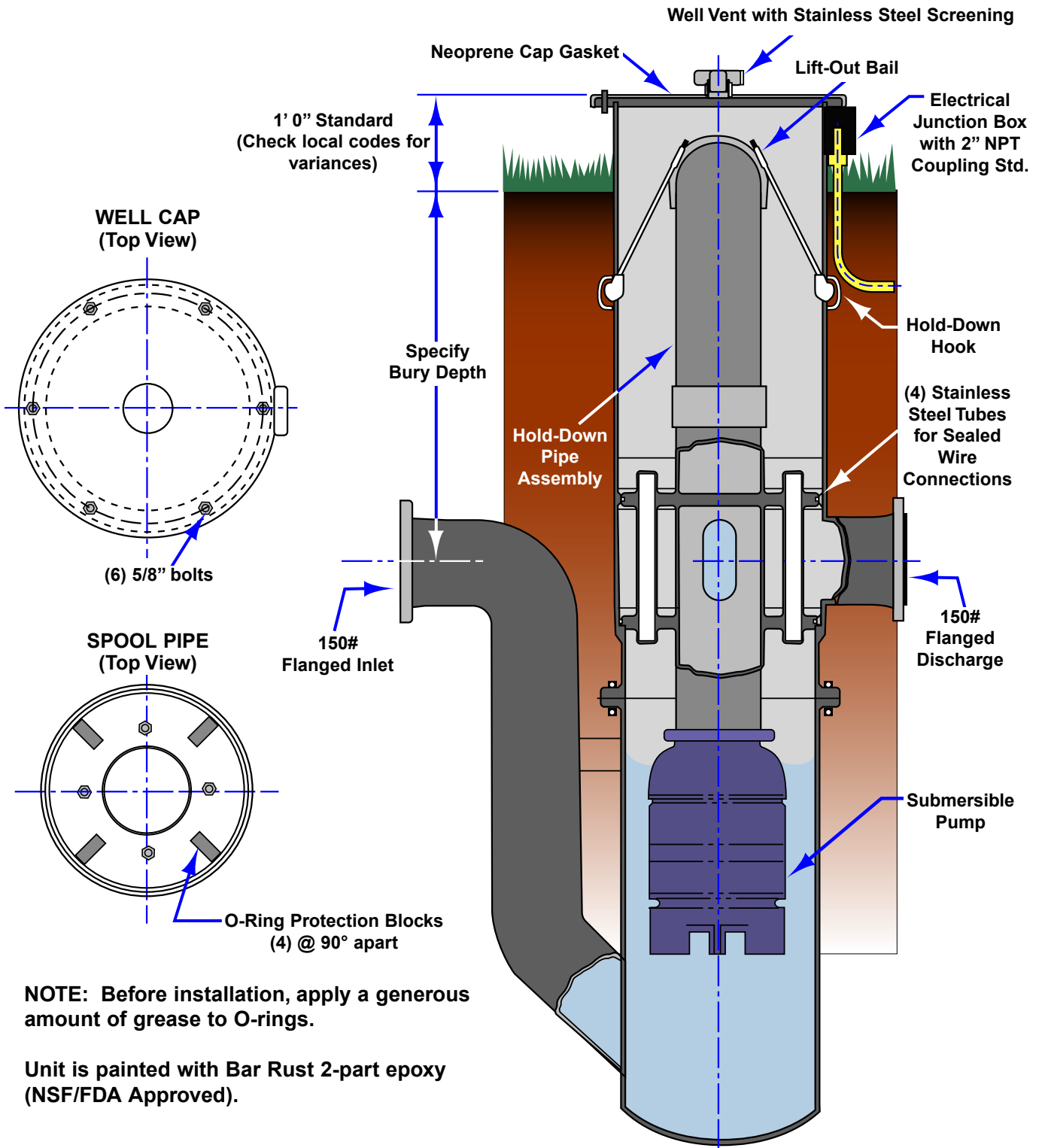
MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES



U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

LISTED PAS-97(04)
PITLESS WATER FLOW METER



©2011, MAASS Midwest Manufacturing, Inc.

MAASS MIDWEST MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

MEMBER:



LISTED PAS-97(04)
FITLESS ADAPTER STANDARD

U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

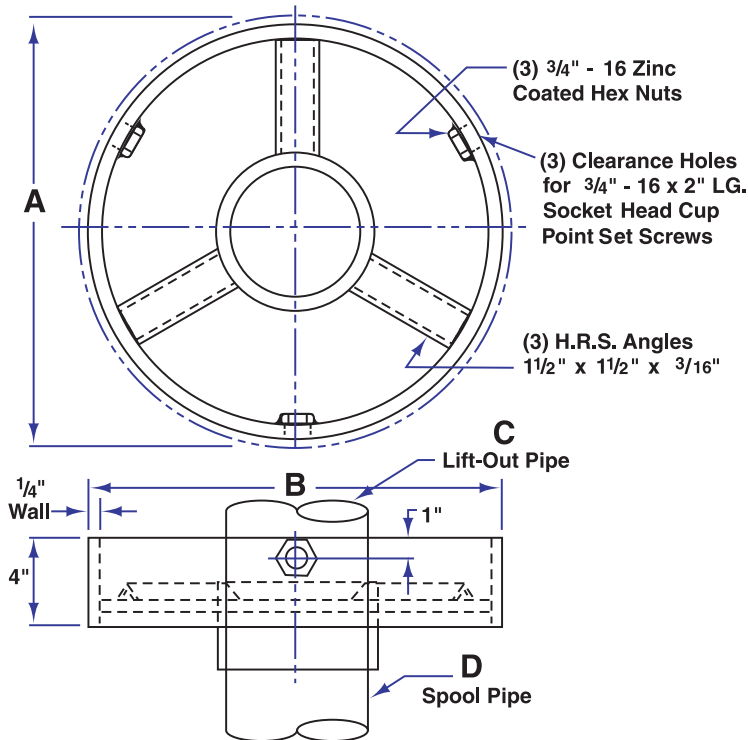
P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

MODEL MB TORQUE ARRESTOR

STANDARD SIZES SHOWN, BUT OTHERS SIZES ARE AVAILABLE.

TORQUE ARRESTOR (TA)

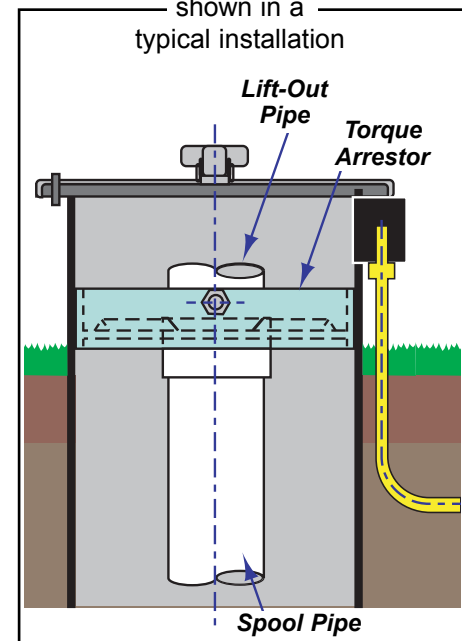
For applications where pump torque may cause the pump and adapter spool to rotate within the well. The torque arrestor fits inside the upper barrel just below the electrical junction box and is attached to the top of the spool using a threaded coupling and a LIFT-OUT BAIL (LOB). The lift-out bail facilitates setting of the pump. When the upper barrel is supplied by the factory, the lift-out bail and bail coupling are included with the torque arrestor.



WELL CASING (REF.)	UPPER BARREL OD. (REF.)	UPPER BARREL ID. A	HOLD-DOWN RING OD. B	LIFT-OUT PIPE N.P.T. C	SPOOL PIPE N.P.T. D
8"	10 3/4"	10"	9"	4"	4"
10"	12 3/4"	12"	11"	6"	6"
14"	16"	13 1/4"	12 1/4"	6"	6"
16"	18"	17 1/4"	16 1/4"	6"	6"
18"	20"	19 1/4"	18 1/4"	6"	6"
20"	22"	21 1/4"	20 1/4"	6"	6"
22"	24"	23 1/4"	22 1/4"	6"	6"
24"	26"	25 1/4"	24 1/4"	6"	6"

TORQUE ARRESTOR

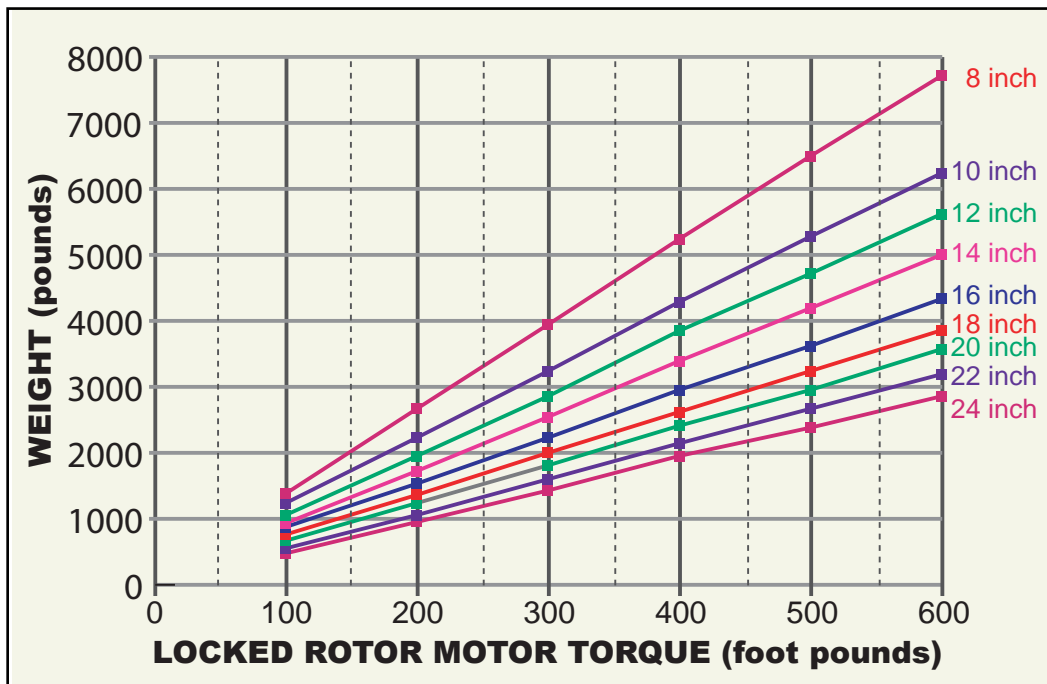
shown in a typical installation





MIDWEST™

MODEL MB PITLESS ADAPTER TORQUE ARRESTOR CHART



Instructions:

NOTE: In the above chart, "Weight" = the total weight of the motor, pump, wire, adapter and the water column.

1. From the Locked Rotor torque of the motor used, go up to the line for the well casing size.
2. Move left to the vertical "Weight" axis and read the minimum weight required to prevent torsional slipping of the adapter within the well casing.
3. If the system weight is less than the minimum value obtained from the graph, a torque arrestor is needed to prevent rotation of the system within the well casing. Otherwise, the pump wires will wrap around the pump pipe.

NOTE: This information is presented as a guide only to assist in determining if a torque arrestor is needed. Factors such as different materials for the seat and spool, or foreign materials on the seat, may affect the torsional resistance thus requiring different minimum weight for adequate friction.

MAASS-MIDWEST is not responsible or liable for damages arising out of, or in connection with, the use or misuse of the information provided herein, whether direct, indirect, or consequential.

©2011, MAASS Midwest Manufacturing, Inc.



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

U.S. & CANADA 1-800-323-6259 • IL AREA 1-847-669-5135 • FAX 1-847-669-3230
P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • www.maassmidwest.com

MEMBER:



LISTED PAS-97(04)
PITLESS ADAPTER STANDARD

During the starting of a submersible pump, the torque developed by the motor must be supported through the pump, delivery pipe or other supports. Most pumps rotate in the direction which causes unscrewing torque on right hand threaded pipe or pump stages. All threaded joints, pumps and other parts of the pump support system must be capable of withstanding the maximum torque repeatedly without loosening or breaking. Unscrewing joints will break the electrical cable and may cause loss of the pump-motor unit.

To safely withstand maximum unscrewing torques with a minimum safety factor of 1.5, tightening all threaded joints to at least 10 lb. ft. per motor horsepower is recommended. It may be necessary to tack weld, strap weld, or set screw pipe joints on high horsepower pumps, especially at shallower settings. On deeper settings, the mass of the pipe and water column will absorb more pump-motor torque.

Motor Horsepower Rating	X 10 Lb. Ft.	Minimum Safe Torque Load
≤1 HP	1 X 10	10 Lb. Ft.
20 HP	20 X 10	200 Lb. Ft.
75 HP	75 X 10	750 Lb. Ft.
200 HP	200 X 10	2,000 Lb. Ft.

Note: This information is presented as a guide only. Other factors may affect the torsional resistance.

MAASS MIDWEST is not responsible or liable for damages arising out of, or in connection with, the use or misuse of the information provided herein, whether direct, indirect or consequential.



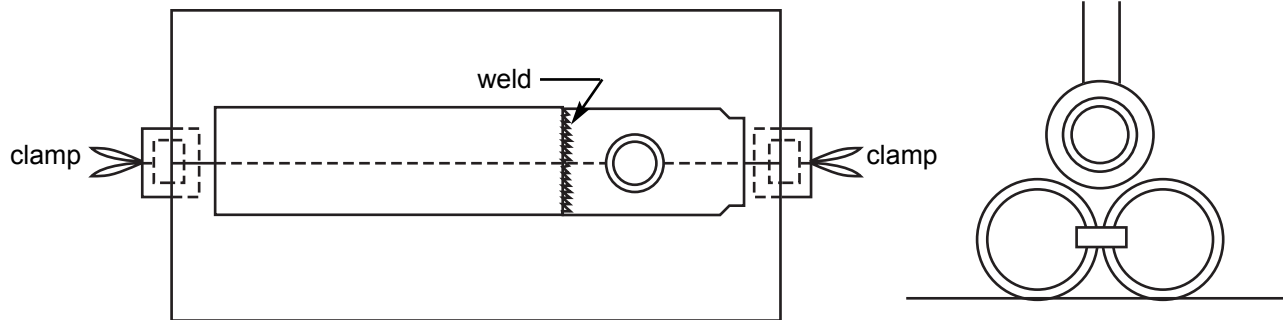
MAASS MIDWEST™ Model MB Pitless Unit Installation Instructions



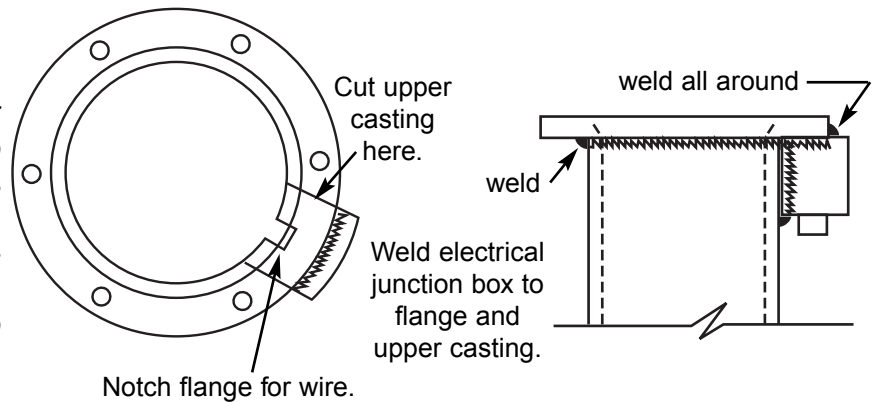
MADE in the USA

INSTALLATION OF UPPER BARREL CASING, WATER TIGHT WELL CAP, AND ELECTRICAL JUNCTION BOX

- A. Align the MB upper casing barrel and the MB housing by laying both pieces on the two lengths of well casing which are clamped together. (See diagram below.)



- B. If, and only if, the unit which is to be installed includes a water tight well cap, mark and cut an opening in the top end of the upper casing barrel for passage of the electrical wires into the electrical junction box. Make this cut where it is convenient for the electrical junction box to be positioned relative to the discharge pipe. Smooth the edges of the cutout to prevent damage to the electrical cables. (See diagram at right.)



- C. Place the flange ring on top of the upper barrel casing. The flange has a machined recess in one side. This should fit over the upper barrel casing. Before welding in place, rotate the flange until the wire notch is centered over the cutout in the barrel for the electrical junction box. Position flange bolt holes so electrical cutout is centered between the two bolt holes to prevent well cap bolts from interfering with electrical junction box. On outside of casing barrel, tack and weld flange to casing.
- D. Position electrical junction box over cutout. Tack and weld completely around the electrical junction box, welding to casing and to underside of flange ring.

Attach Pitless Unit to Well Casing (See reverse side.)

Limited Warranty

All Maass-Midwest pitless adapters are made with finest quality materials and workmanship. Maass-Midwest assumes no liability for improper installation, use, or maintenance of the pitless unit. Maass-Midwest assumes no liability for labor, expenses or losses, consequential, or inconsequential damages in connection with or by reason of defective materials and/or workmanship. Liability shall be limited to the repair and/or replacement of said defective parts. See catalog for complete limited warranty terms.

©2011, MAASS Midwest Manufacturing, Inc.



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

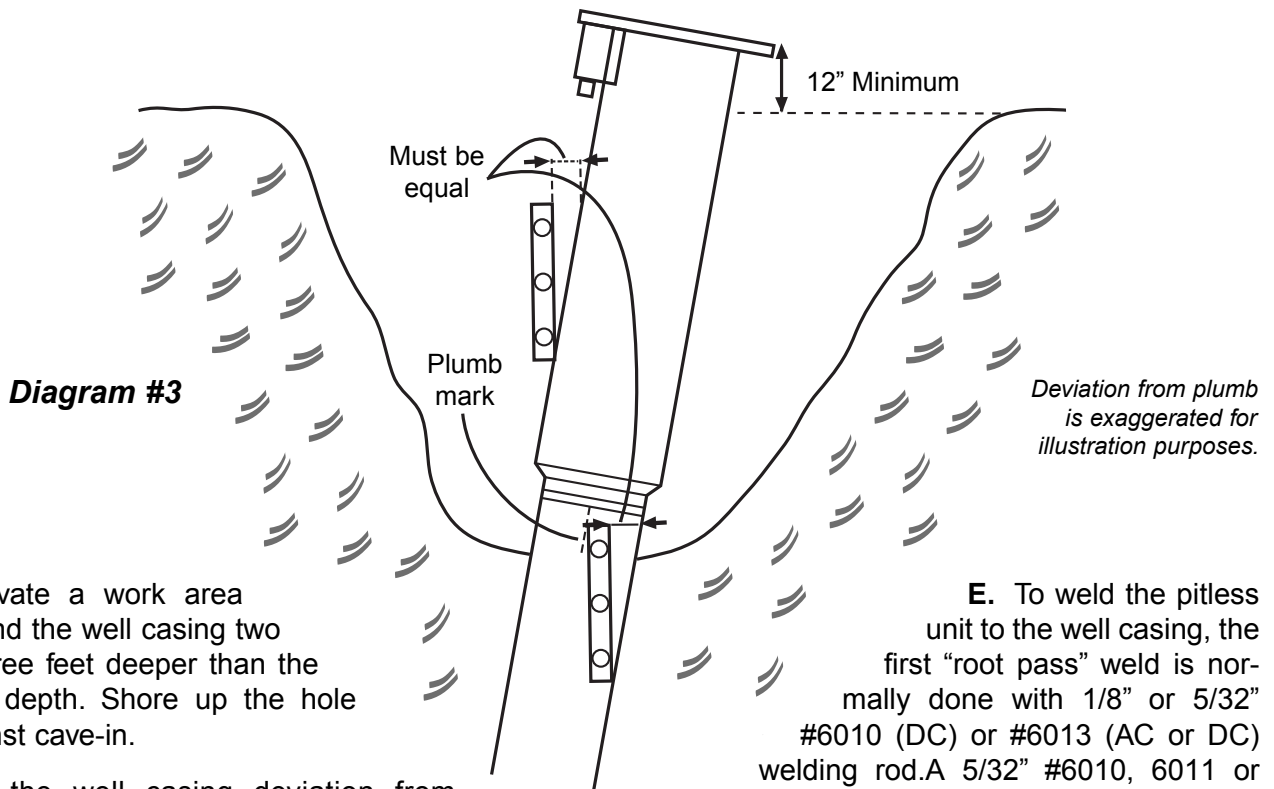
P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

MEMBER:



LISTED PAS-97(04)
PITLESS ADAPTER STANDARD

ATTACH PITLESS UNIT TO WELL CASING



- A. Excavate a work area around the well casing two to three feet deeper than the bury depth. Shore up the hole against cave-in.
- B. Find the well casing deviation from plumb. There will be two places on opposite sides of the well casing where the well casing will indicate plumb. Locate and mark these two places on the well casing using a level that is at least four feet long. Then, 90 degrees from your plumb marks, determine the well casing's deviation from plumb. Well casings are out of plumb by typically 1/16 inch to 1/2 inch. Occasionally the casing is perfectly plumb. Only in this case should the pitless unit be installed plumb. (See Diagram #3.)
- C. Cut off well casing so the top of the pitless unit will be at the proper height.
- D. Position the pitless unit over the cut-off well casing. Align the discharge pipe with the water line. Use the level to assure the pitless is plumb in the direction of the two "plumb marks". Tack weld the pitless unit to the well casing at the two "plumb marks". Now tilt the pitless unit until its deviation from plumb equals the casing deviation. This procedure is necessary to prevent the pump pipe from bending and causing stress. Tack weld in several places.
- E. To weld the pitless unit to the well casing, the first "root pass" weld is normally done with 1/8" or 5/32" #6010 (DC) or #6013 (AC or DC) welding rod. A 5/32" #6010, 6011 or 6013 (fast freeze) or #7018 (low hydrogen) may be used on subsequent welding passes. One to three passes are required depending upon conditions.
- F. Prior to seating the spool, cover the O-rings and the stainless steel O-ring seats with the silicone grease provided with the pitless unit. This silicone grease is not water soluble. It provides excellent lubrication and is FDA approved for potable water and food processing applications.
- G. Once the electrical connections are completed, the electrical junction box wire inlet can be sealed with silicone caulking.
- H. Position the well cap gasket and the well cap so all holes are in alignment. Secure the well cap with the bolts and nuts provided. Note: In applications where there are high water tables combined with shallow pump settings, additional weight may have to be applied downward to properly seat the spool.
- I. Backfill the hole around the casing and pitless unit per specifications.

©2011, MAASS Midwest Manufacturing, Inc.



MIDWEST

MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

MEMBER:



LISTED PAS-97(04)
PITLESS ADAPTER STANDARD

ALLIED LABORATORIES, LTD.

PHONE 279-0390
AREA CODE 312



716 NORTH IOWA AVENUE, VILLA PARK, ILLINOIS 60181

REPORT NO. 101884-1

DATE October 18, 1984

LABORATORY REPORT

SAMPLE DESCRIPTION

TO [Maass Pitless Adapters]
Div. of Surinak Engr. and Mfg. Inc.
582 W19246 Apollo Drive
Muskego, WI 53150

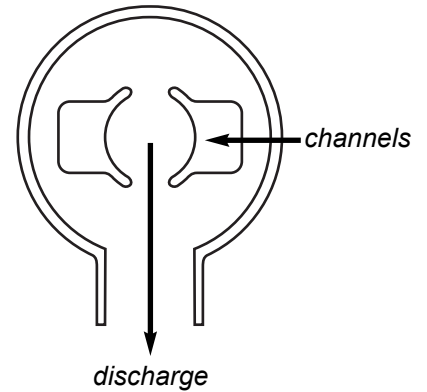
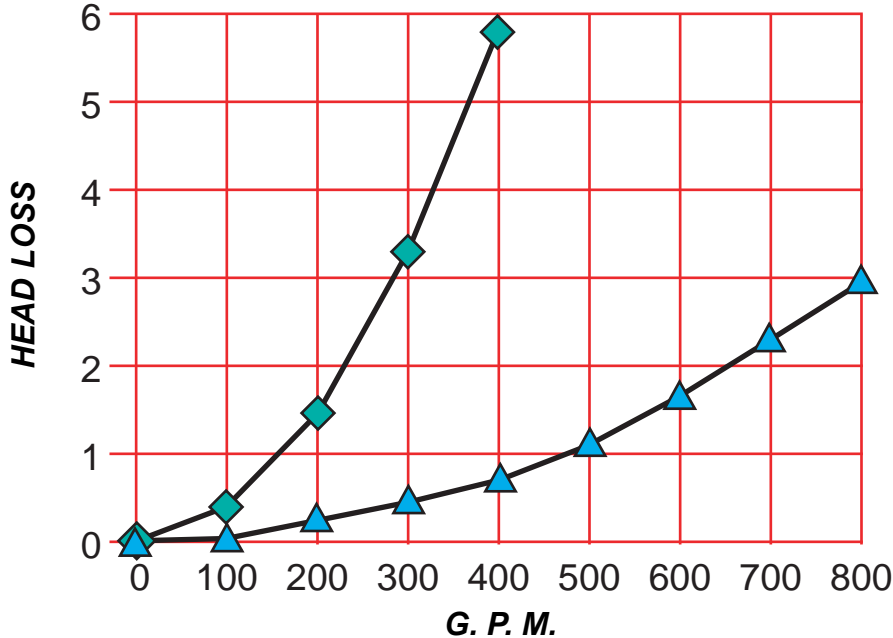
ATTN: John J. Surinak]

RECEIVED

This is to certify that, on October 15, 1984, the following two models of pitless adapters were tested. Both models were subjected to an internal pressure of 350 PSI for thirty minutes. No leakage could be observed in either adapter. Therefore, both models pass the Internal Hydrostatic Test.

1. Model #HB,HD,S-10,12,6,T-6NPT-WT
Description: 10" well casing, 12" upper barrel,
6" discharge, 6" spool pipe
2. Model #MB,HD,S-8,10,4,T-4NPT-WT
Description: 8" well casing, 10" upper barrel,
4" discharge, 4" spool pipe

Irving I. Domskey / I.I.D.
Irving I. Domskey
Laboratory Director



- ◆ Heavy Duty (HD) MB Pitless Unit for 8" well casing with 4" spool and discharge pipes.
- ▲ Heavy Duty (HD) MB Pitless Unit for 12" well casing with 6" spool and discharge pipes.

Head loss calculations are based on spool/discharge alignment as shown above for maximum efficiency (minimum head loss).

NOTE: This information is presented only as a guide to assist in predicting head loss. Factors such as wire channel size, sealed wire connectors, check valves in the spool, air entrapment, modifications, etc. may affect the head loss. MAASS-MIDWEST is not responsible or liable for damages arising from, or in connection with, the use or misuse of the information provided herein, whether direct, indirect, or consequential.

SPECIFICATION OF SUPPLIES

Pitless unit will be a Model MB as manufactured by Maass Midwest Mfg., Inc. or equivalent spool style, with two O-rings sealed against 304 non-magnetic stainless steel seats. The unit is to be coated with an FDA/NSF approved catalytic epoxy paint. The unit will be a heavy duty model for a submersible pump. (_____) inch well casing diameter, (_____) inch discharge, with a (plain end / flanged / male threaded / female threaded) discharge pipe. The pump pipe will be (_____) inch (NPT / APIR) threads. The well cap will be (steel watertight / aluminum watertight) cap with a screened down-turned vent. Pitless Unit shall meet the recommended standard for Water Works, Great Lakes Upper Mississippi River Board of State Public Health and Environmental Managers. (Custom features may be listed as necessary.)

MODEL			HOUSING				SPOOL		CAP		OPTIONS
MB	(HD) = Heavy Duty	(S) = Submersible (B) = Booster Station (T) = Turbine	Casing Diameter (8" - 26")	Upper Barrel Diameter (10" - 28")	Discharge Diameter (2" - 14")	DISCHARGE TYPE		Pump Pipe (2" - 14")	NPT = Thread APIR = API Round	(WT) = Steel Watertight (AWT) = Aluminum Watertight (AL) = Aluminum Submersible	Bury Depth (If upper casing is ordered) Custom Features (Please describe) (See options)
						(MT) = Male Thread (FT) = Female Thread (P) = Plain End (F) = Flanged					

HOW TO ORDER MB PITLESS UNITS:

MODEL	HOUSING	SPOOL	CAP	OPTIONS
MB , HD , S	12 , 14 , 6 , P	6 , NPT	WT	5-ATB

OPTIONS:

- FM = Flow Meter
- ATB = Airline Test Blocks
- CVS = Check Valve in Spool
- LB = Locking Bolts
- TA = Torque Arrestor and Lift-out Bail
- LOB = Lift-out Bail only
- HYD = Hydrant tapping or sampling port
- SWC = Stainless steel nipple
- CL = Chlorine Adapter

Other options, please describe.

Maass MB Pitless Unit Patented

4,298,065 4,416,328 4,531,664

NOTE: Meets recommended standards for Water Works of Great Lakes Upper Mississippi River Board of State Public Health and Environmental Managers.

SPECIFICATION OF SUPPLIES

The Booster Station will be a Model MB as manufactured by Maass Midwest Mfg., Inc. or equivalent spool style, with two O-rings sealed against 304 non-magnetic stainless steel seats. The unit will be a heavy duty model for a submersible pump with (___) inch upper casing diameter, (___) inch discharge and inlet and a (plain end / flanged / male threaded / female threaded) discharge and inlet pipe. The pump pipe will be (___) inch NPT male threads. The well cap will be a (steel watertight / aluminum watertight) vermin resistant cap with a compression gasket seal and screened down-turned vent. Booster Station shall meet the recommended standard for Water Works, Great Lakes Upper Mississippi River Board of State Public Health and Environmental Managers. (Custom features may be listed as necessary.) The spool to is to have (___) 304 stainless steel sealed wire connections (SWC) through the spool, (___) inch diameter, for pump electrical cables and cable seals. The discharge and inlet shall be (___) feet below grade. The reservoir tank is to be constructed of heavy duty steel. The I.D. of the tank to be (___) inches. The length of the reservoir tank to be (___) feet. The Booster Station shall be coated with FDA/NSF Approved Catalytic Epoxy conforming to AWWA C210 standards.

Example of Booster Station Specifications

MB,HD,B-10,12,4,FL-4,NPT-WT-4-(4)1"SWC -CVS -3/4"HYD-6,4,FL

MODEL	HOUSING			SPOOL		CAP	BURY	OPTIONS		RESERVOIR					
MB	Type: HD = Heavy Duty	Style: B = Booster Station	Reservoir Diameter = (8" or larger)	Upper Barrel Diameter = (2" larger than reservoir is standard)	Discharge Diameter	Discharge Type: P = Plain End FL = Flanged MT = Male Thread FT = Female Thread	Pump Pipe Size = Thread = NPT	Sealed Wire Connections = Number, Pipe Size & SWC	Booster Cap is Water Tight = WT Water Tight Aluminum (10" or 12") = AWT	Bury Depth = Center of Waterline Below Grade	Hydrant Sampling Port = Pipe Size & HYD	Check Valve in Spool = CVS Please describe other options	Reservoir Length = Center of Waterline to Bottom of Reservoir	Inlet Pipe Diameter	Inlet Pipe Type: P, FL, MT or FT

Options: Inlet and Outlet

P = Plain End SWC = Sealed Wire Connectors
 FL = Flanged CVS = Check Valves in Spool
 MT = Male NPT Thread HYD = Hydrant Sampling Port
 FT = Female NPT Thread LB = Locking Bolts

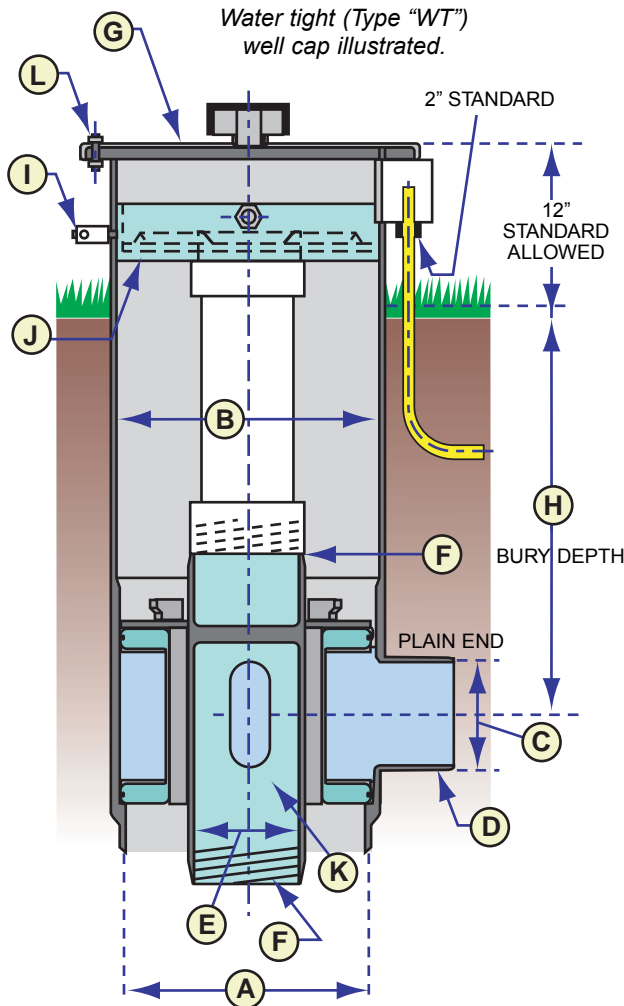
Maass MB Booster Unit Patented

NOTE: Meets recommended standards for Water Works of Great Lakes Upper Mississippi River Board of State Public Health and Environmental Managers.

Date: _____ Quote # _____
 Attention: _____ Fax: _____
 Company: _____ Phone: _____
 City/State/Zip: _____ Reference: _____
 Project: _____

We are pleased to submit for your consideration, a quotation on our Model MB Pitless Unit as described below:

Model No: _____



Heavy Duty (HD) Standard (ST)
 Submersible (S) Other: _____

A. Casing Diameter: _____
 B. Upper Barrel Diameter: _____
 C. Discharge Diameter: _____
 D. Discharge Type: _____
 E. Pump Pipe: _____
 F. Thread: _____
 G. Well Cap: _____
 H. Bury Depth: _____

OPTIONS:

I. Airline Test Block.....(ATB): Yes No
 J. Torque Arrestor *.....(TA): Yes No
 K. Check Valve in Spool(CVS): Yes No
 L. Locking Bolts(LB): Yes No

Other Options: _____

* LIFT-OUT BAIL AND COUPLING ARE NOT INCLUDED WITH TORQUE ARRESTOR - IF KIT IS ORDERED.

Price(each) U.S. Funds. F.O.B. Factory: \$ _____ Signed: _____

Estimated Delivery (A.R.O.): _____ Title: _____

This quotation is valid for 60 days from date shown above.

MEMBER:



MODEL JX1 PITLESS UNIT QUOTATION

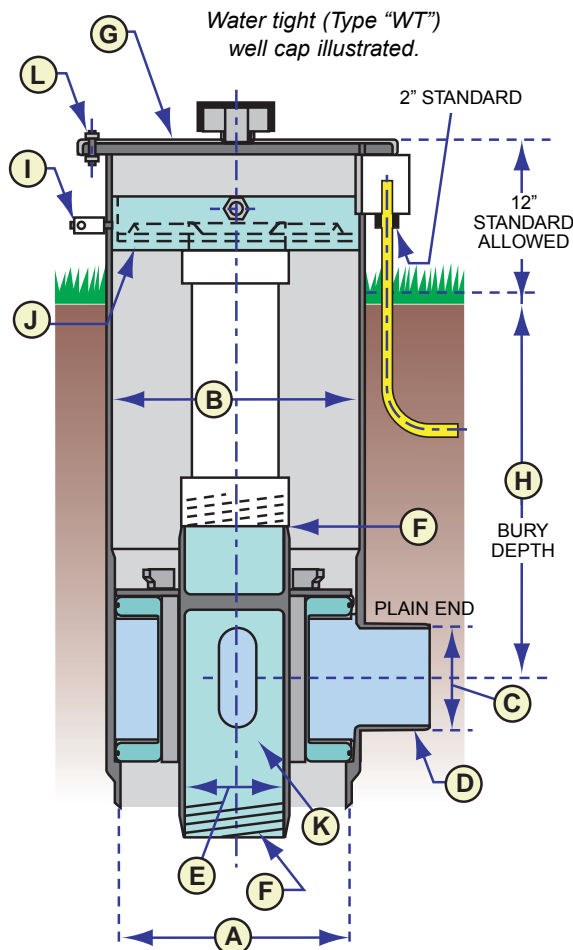
MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

Date: MARCH 25, 1996 Quote # 032596-1
 Attention: JOHN DOE Fax: 123-456-7890
 Company: XYZ COMPANY Phone: 123-456-7891
 City/State/Zip: SOMEWHERE, ID, 12345 Reference: PHONE CALL 03/24/96
 Project: ABC

We are pleased to submit for your consideration, a quotation on our Model JX1 Pitless Unit as described below:

MODEL	HOUSING	SPOOL	CAP	OPTIONS
MB, HD, S	A, B, C & D below	E & F below	G & H below	I, J, K, L & OTHERS
Model No: MB, HD, S, 10, 12, 6, P	10, 12, 6, P	6, NPT	WT - 5	ATB - TA



- Heavy Duty (HD) Standard (ST)
 Submersible (S) Other _____

- A.** Casing Diameter: 10 INCHES
B. Upper Barrel Diameter: 12 INCHES
C. Discharge Diameter: 6 INCHES
D. Discharge Type: PLAIN END (P)
E. Pump Pipe: 6 INCHES
F. Thread: NPT
G. Well Cap: WATERTIGHT (WT)
H. Bury Depth: 5 FEET

OPTIONS:

- I.** Airline Test Block.....(ATB): Yes No
J. Torque Arrestor*.....(TA): Yes No
K. Check Valve in Spool(CVS): Yes No
L. Locking Bolts(LB): Yes No

Other Options: _____

* LIFT-OUT BAIL AND COUPLING ARE NOT INCLUDED WITH TORQUE ARRESTOR - IF KIT IS ORDERED.

Price(each) U.S. Funds. F.O.B. Factory: \$ _____ Signed: _____
 Estimated Delivery (A.R.O.): _____ Title: _____

This quotation is valid for 60 days from date shown above.

MEMBER:



JX1 PITLESS BURY UNIT



MODEL JX1 PITLESS BURY UNIT FEATURES:

- Construction in Schedule 40 steel pipe
- Factory welded and Wisconsin, Michigan and New York State approved for public use
- Can come threaded or plain end for welding
- PA Option and PSP Package available on 1" discharge models for pressure switch in the well in 5" or larger casing
- JX1 units have standard male NPT threads for attachment at base
- **NOTE:** All brass components are water works grade **lead free ($\leq 0.25\%$ lead) Biwalite® Brass.**

All Maass™ Model J Series Pitless Units and Adapters Feature:

- Innovative design which limits water contact to 304 stainless steel and lead free brass, eliminating rust, corrosion and electrolysis in the water system
- Durable cast steel housing
- Tapered 8° slip fitting for easy installation and removal of lead free brass insert
- No obstruction left in well casing when lead free brass insert is pulled
- Designed for shallow or deep settings and high working pressures
- Water Systems Council listed - Standard PAS-97 (04).

JX1 ORDERING INFORMATION

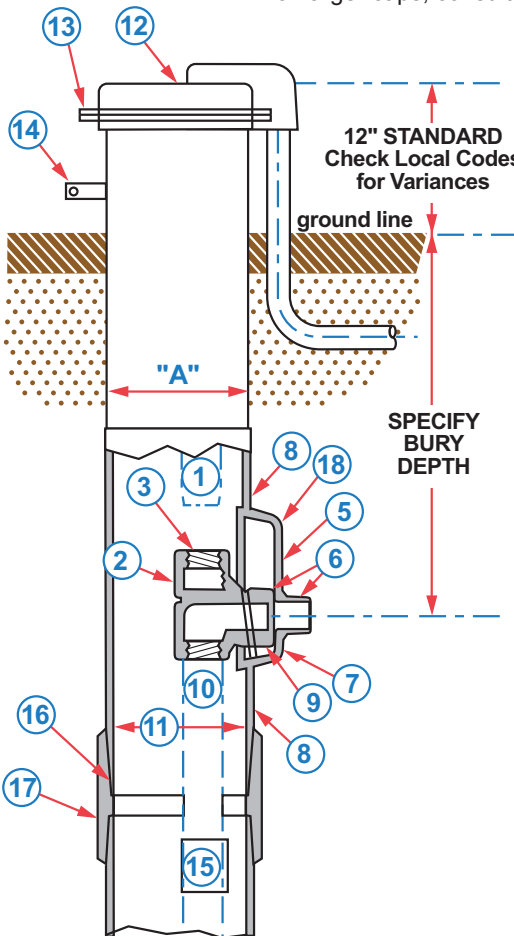
- Casing sizes: 4" to unlimited.
- Discharge Sizes: 1", 1 1/4", 1 1/2", 2", 2 1/2", 3", 4"
- Consult factory for special options.
- WTCC caps up to 8", WT caps up to 12". For larger caps, consult factory.

When ordering the JX1 Pitless Unit please specify:

1. Casing Size 2. Bury Depth 3. Discharge Size

Note: Drop pipe and Lift-out pipe will be the same size for equal lifting strength.

HOW TO ORDER THE JX1 PITLESS BURY UNIT				
CASING SIZE	+ BURY DEPTH	+ MODEL	+ DROP & DISCHARGE	= PART NUMBER
4"	4'	JX1	1	4"x 4'JX1-1



1. Removable drop pipe for installation or pulling pump.
2. Condensation drain from drop pipe cup.
3. Lead free brass casting threaded same as inlet and outlet of drop pipe.
4. Lead free brass casting held rigid by two 8 degree guides in housing.
5. Cast steel housing welded to casing.
6. **Look!** Stainless steel flange nipple non-magnetic 304 stainless steel eliminates electrolytic corrosion.
7. Neoprene O-ring seal.
8. Top and bottom housing lip sets into well casing for positive welding.
9. Angled seating lip eliminates condensation pockets.
10. Lead free brass casting holds pump pipe rigid and vertical for even strain on pipe threads.
11. Well casing. **Note:** No condensation crevice or pockets in pitless housing. No obstruction in well casing when lead free brass casting is removed.
12. Maass-Midwest Model WT or WTCC watertight well cap with screened vent.
13. Neoprene cap gasket.
14. (Optional) air line test block with (3) 1/4" NPT tappings.
15. Midwest #530 Lead Free Brass Check Valve in drop pipe as specified.
16. Threaded NPT connection standard. Plain end optional.
17. Maass Full Weld Coupling. Model FWC. (Optional)
18. Maass Model J Pitless Adapter

WELL CASING "A" DIAMETER	WATER OUTLET AND DROP PIPE SIZE
4" or larger	1"
4" or larger	1-1/4"
4" or larger	1-1/2"
5" or larger	2"
6" or larger	2-1/2"
8" or larger	3"
10" or larger	4"

MEMBER:



©2013, MAASS Midwest Mfg., Inc.

ENGINEERING SPECIFICATION

The Pitless Unit will be a Model JX1, as manufactured by Maass-Midwest Manufacturing, and shall be constructed of Schedule 40 steel pipe to fit a (_____) inch well casing. The pitless unit will have either male threads or a plain end for attachment to the well casing and shall have a (_____) foot bury depth for water lines, with one foot projecting above finished grade level. Internal working parts for connecting the pump will have an eight degree, lead free ($\leq 0.25\%$ lead) Biwalite® Brass locking type wedge with an o-ring forced against a non-magnetic 304 stainless steel flanged nipple. The pitless adapter housing is of cast steel and shall be welded to the well casing. The pitless unit will have a (_____) inch drop and discharge pipe.

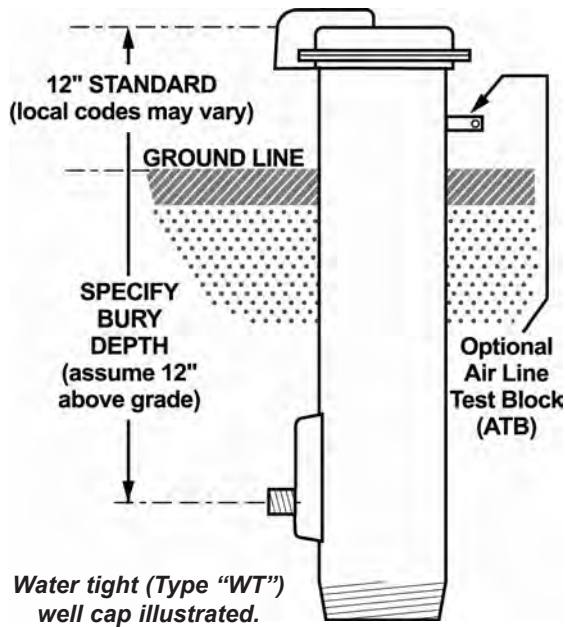
Quote Date: _____ Quote #: _____
 Attention: _____ Fax: _____
 Company: _____ Phone: _____
 City/State/Zip: _____ Reference: _____
 Project: _____

We are pleased to submit for your consideration, a quotation on our Model JX1 Pitless Unit as described below:

Specifications:

Model No: _____

Casing Diameter: _____
 Bury Depth: _____
 Discharge & Pipe Size: _____
 Casing Attachment: _____



Options:

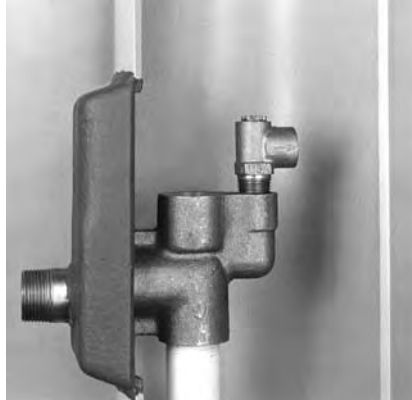
Well Cap: Yes No
 Well Cap Type: WT WTCC
 Submersible
 Airline Test Block (ATB): Yes No
 Full Weld Coupling: Yes No
 Other Options: _____

Ship Via: _____
 Freight Charges: Collect Prepay & Add
 Terms of Order: _____

Quantity: _____ Price(each) U.S. Funds: \$ _____ Signed: _____
 Estimated Delivery (A.R.O.): _____ Title: _____

This quotation is valid for 60 days from Quote Date shown above.

MAASS™ Model J and JC Style PITLESS ACCESSORY OPTIONS



**PA Option with
#370 Pressure Relief Valve**

PA (PITLESS ACCESSORY) OPTION

Now available for Maass™ 1" Model J or JC Style Adapters, a 1/2" NPT accessory outlet for the brass insert located in the well.

ASK FOR THE PA (PITLESS ACCESSORY) OPTION.

For in well placement of:

- ◆ Pressure Relief Valve
- ◆ Drain Valve
- ◆ Pressure Switch
- ◆ Transducers

Available for Model J Weld-on adapters, JC Clamp-on adapters, and JX Style pitless units with 1" outlet. The PA Option fits 5" ID or larger well casings.

PART NUMBER	MODEL NUMBER
928000	5J1-PA
928002	6J1-PA
928006	5JC1-PA
928003	5ODJC1-PA
928004	6JC1-PA



**PA Option with Pressure
Switch and PSP Package**

PSP (PRESSURE SWITCH PACKAGE)

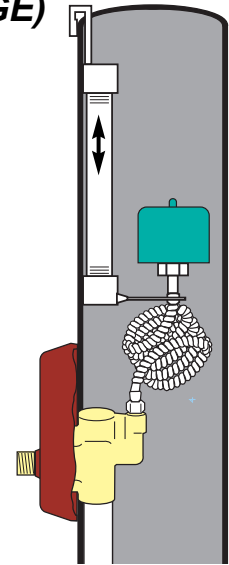
For locating the pressure switch in the well, use Maass Midwest's PSP (Pressure Switch Package). Our PSP allows for easy, economical installation and removal of the pressure switch in the well.

Ask for the PSP (Pressure Switch Package).

Pressure Switch Package includes:

- ◆ 1/4" x 9' (usable length) coiled waterline with 1/4" NPT male ends.
- ◆ 1/4" x 1/2" brass bushing.
- ◆ 1" NPT coupling with SS bracket for pressure switch.
- ◆ 1" NPT coupling with SS hanger bracket.
- ◆ Pulsation plug for pressure switch.

Package is for 5" ID or larger well casing. PSP package to be used in conjunction with Maass' PA Option shown above.



PART NUMBER	MODEL NUMBER
928005	PSP Pressure Switch Package



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547

(800) 323-6259 • IL AREA (847) 669-5135

www.maassmidwest.com

MEMBER:



LISTED PAS-97(04)
PITLESS ADAPTER STANDARD

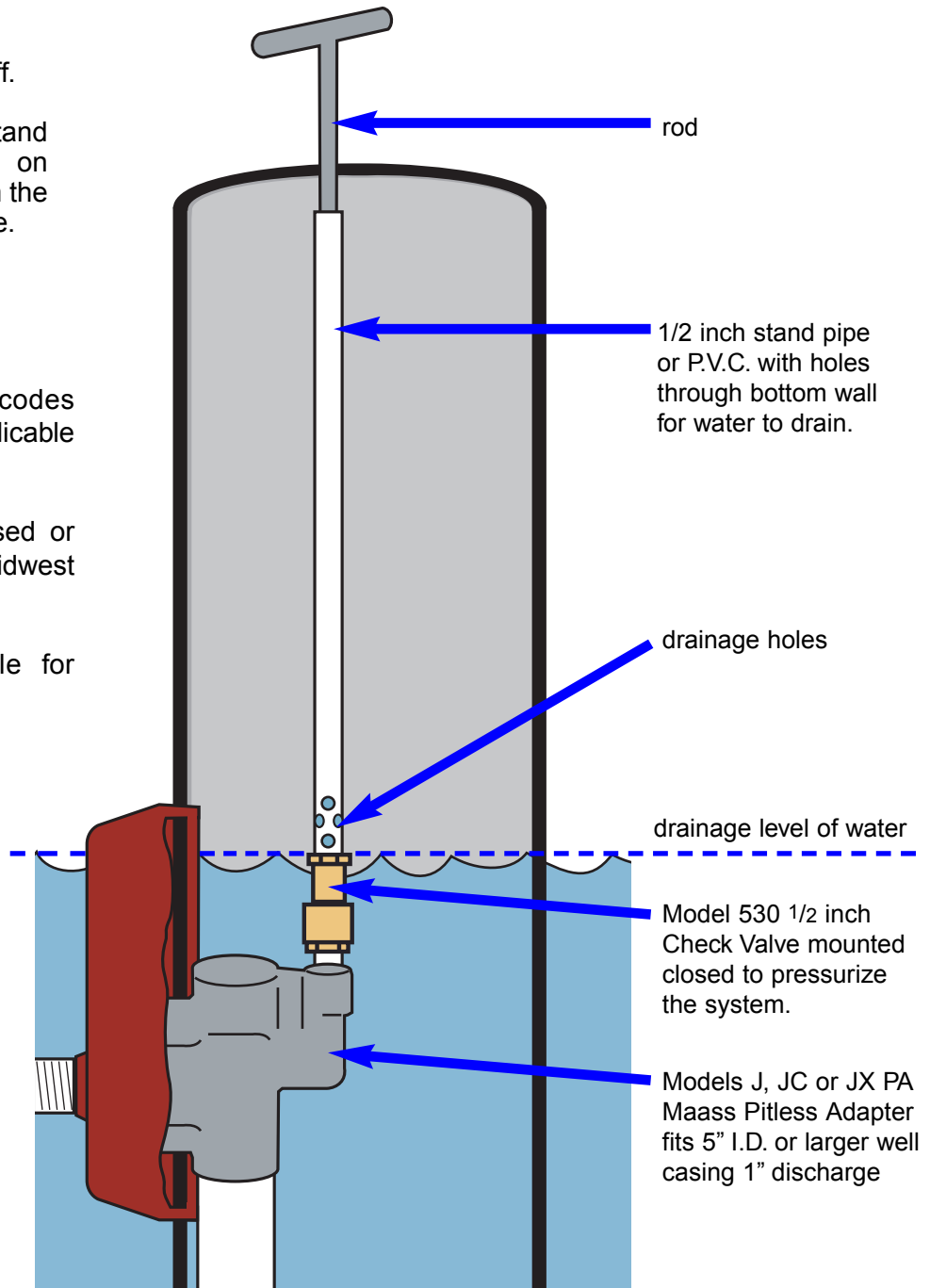
SYSTEM DRAINAGE

- Shut pressure pump off.
- Insert a rod into the stand pipe and push down on valve to open and drain the system above the valve.

IMPORTANT: Local codes vary. Check local applicable codes before installing.

No warranties, expressed or implied, by Maass Midwest Mfg., Inc.

Installer is responsible for meeting local codes.



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547

(800) 323-6259 • IL AREA (847) 669-5135

www.maassmidwest.com

MEMBER:



LISTED PAS-97(04)
PITLESS ADAPTER 07/04/00

©2011, MAASS Midwest Manufacturing, Inc.

ALLIED

PHONE 631-1553

AREA CODE 312



LABORATORIES

7009 W. HIGGINS AVENUE CHICAGO, ILLINOIS 60656

LABORATORY REPORT

TO

Herb Maass Service
10940 W. Congress St.,
Milwaukee, Wisc. 53225

REPORT NO.

DATE June 6, 1968

SAMPLE DESCRIPTION:

TS-326-A

MODEL 5 JIA Pitless Unit

RECEIVED:

A test was made to determine the ability of the Pitless Unit described above to support the weight of pump, drop pipe and other materials which might be suspended from the unit insert in actual use. 30 psi water pressure was applied to the unit thru its normal outlet, and a hydraulic piston used to apply force between a capped pipe screwed into the bottom of the insert, and the bottom of the casing.

The pitless unit withstood a force equal to 4000 pounds of weight on the insert without any evidence of leakage or failure.

A pressure drop curve was run with the unit in its normal service arrangement, according to standard test procedures, with the following results:

Flow Rate gpm	Pressure Drop psi
10	0.13
15	0.34
20	0.66
30	1.7
40	3.3

Richard R. Weickart, P.E.
Director

ALLIED

PHONE 631-1553

AREA CODE 312



LABORATORIES

7009 W. HIGGINS AVENUE CHICAGO, ILLINOIS 60656

March 29, 1973

John J. Surinak
Maas Lifetime Pitless Adaptors
Div. of Surinak Engr. & Mfg. Inc.
13100 W. Cleveland Ave.
New Berlin, Wisc. 53151

Re: Test Series 468

This is to certify that on March 7, 1973, loading tests were conducted with hydraulic pistons to determine the dead weights which could be supported by weld-on pitless adaptors and over-the-top well caps installed on standard well casings. The following are the results of these tests:

Model Number	Pitless Adaptor Description	Yielded at
6 J 2	2" outlet adaptor on 6" casing	12 + tons
6 J 2 1/2	2 1/2" outlet adaptor on 6" casing	12 tons
8 J 3	3" outlet adaptor on 8" casing	15 tons
10 J 4	4" outlet adaptor on 10" casing	25 tons

Examinations of the above adaptors following the tests showed that the yields occurred in the threads of the adaptors supporting the drop pipes.

Similar loading tests on over-the-top well caps gave the following results:

Cap for 6" and 7" casings: yielded and fractured at 17 tons

Cap for 8" casing: yielded and fractured at 15 tons.

Richard R. Weickart, P.E.
Director

NOTE: STANDARD PRODUCT RECOMMENDED SAFETY FACTOR IS 1/3 OF YIELD FACTOR DESIGNATED IN TEST SERIES 468.

TESTED FOR DEAD WEIGHT ONLY; SHOCK, PUMP TORQUE, HYDRAULIC PRESSURE, VIBRATION, ETC., WERE NOT FACTORED.



MAASS™ MODEL J WELD-ON PITLESS ADAPTER



FEATURES:

- Permanently installed by welding for increased strength and durability
- J Series of adapters and units available with stainless steel, nickel-bronze inserts, stainless steel housings, and Viton or Teflon O-rings for monitoring/remediation applications
- Only two one inch outlet size Model J Pitless needed to fit all well casing sizes

ENGINEERING SPECIFICATION

MAASS™ MODEL J WELD ON PITLESS ADAPTER

The Pitless Adapter will be a Model J field - weld type, as manufactured by Maass-Midwest Manufacturing, using an eight degree bronze locking type wedge with an O-ring forced against a non-magnetic, type 304 stainless steel flanged nipple. The Pitless Adapter housing shall be of cast steel and shall be welded to the well casing. Model J (_____) inch well casing and (_____) inch outlet.

MODEL J WELD ON PITLESS ADAPTER SIZES

WELL CASING SIZE	MODEL	WATER OUTLET and DROP PIPE SIZE	WEIGHT (APPROX.)	WORKING LOAD • (LBS.)
4" - 5"	J	1"	6 lbs.	4,000
4" - 5"	J	1 1/4"	7 lbs.	5,000
4" - 5"	J	1 1/2"	8 1/2 lbs.	5,000
5"	J	2"	12 lbs.	6,000
6" or larger	J	1"	6 lbs.	4,000
6" or larger	J	1 1/4"	7 lbs.	5,000
6" or larger	J	1 1/2"	8 1/2 lbs.	5,000
6" or larger	J	2"	12 lbs.	6,000
6" or larger	J	2 1/2"	18 lbs.	8,000
8" or larger	J	3"	32 lbs.	10,000
10" or larger	J	4"	50 lbs.	16,000

NOTE: The weight of the pump, pipe and water column should not exceed the working load of the adapter nor the NPT joint strength of the pipe.

HOW TO ORDER MODEL J WELD ON PITLESS ADAPTER

CASING SIZE +	MODEL +	DROP & DISCHARGE +	PART NUMBER
6"	J	2"	6J2

©2011, MAASS Midwest Manufacturing, Inc.

MAASS MIDWEST MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

MEMBER:



U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

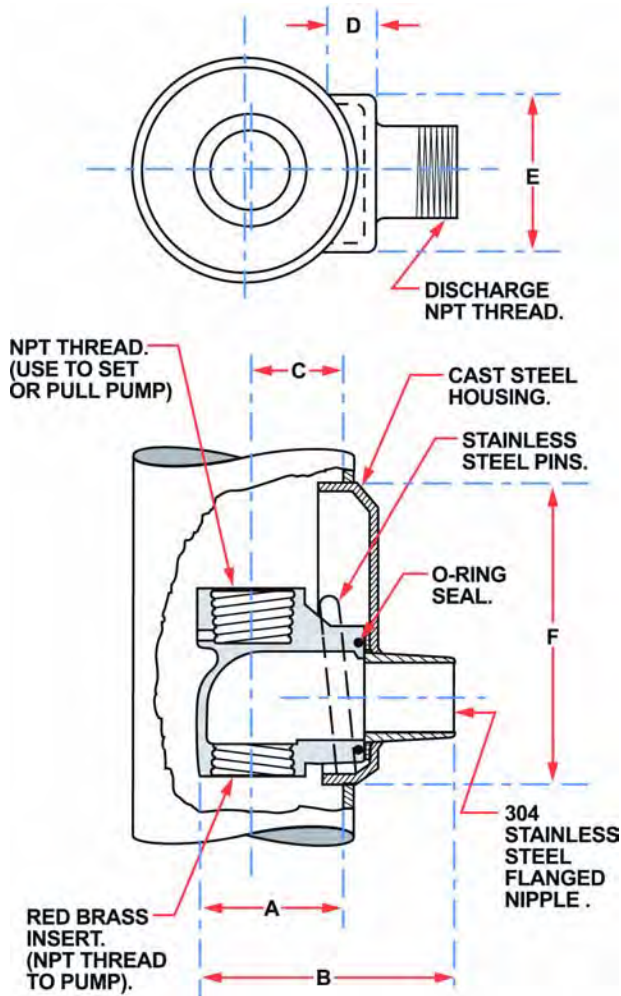
P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

MAASS™ MODEL J SERIES PITLESS ADAPTERS

MADE in the USA



MAASS™ MODEL J WELD-ON PITLESS ADAPTER



NOTE:

1. THE REMOVEABLE BRASS INSERT PERMITS EASY PUMP REMOVAL FOR SERVICE OR REPLACEMENT.
2. DIMENSIONS AND WEIGHTS MAY VARY SLIGHTLY DUE TO INDIVIDUAL CASTING AND WEIGHT VARIANCES.

WEIGHT (LBS)	F	E	D	C	B	A	DROP DISCHARGE NPT & PIPE SIZE	FITS WELL CASING	PITLESS ADAPTER MODEL
6	7 ⁵ / ₁₆	3 ¹ / ₄	1 ¹ / ₄	1 ³ / ₄	5 ¹ / ₈	2 ³ / ₄	1"	4" & 5"	4J1
7	8	3 ¹¹ / ₁₆	1 ¹ / ₄	1 ¹¹ / ₁₆	5 ¹ / ₈	2 ³ / ₁₆	1 ¹ / ₄ "	4" & 5"	4J1 ¹ / ₄
8 ¹ / ₂	8	3 ¹¹ / ₁₆	1 ¹ / ₄	1 ¹¹ / ₁₆	5 ⁵ / ₁₆	3	1 ¹ / ₂ "	4" & 5"	4J1 ¹ / ₂
12	8 ⁷ / ₈	4 ⁷ / ₁₆	1 ¹ / ₂	2 ⁵ / ₁₆	6 ⁵ / ₈	3 ³ / ₄	2"	5"	5J2
6	7 ¹ / ₄	3 ¹ / ₄	1 ¹ / ₄	1 ⁵ / ₈	5 ¹ / ₈	2 ¹ / ₂	1"	6", 7", 8"+	6J1
7	8	3 ⁵ / ₈	1 ¹ / ₄	1 ⁹ / ₁₆	5 ¹ / ₈	2 ⁵ / ₈	1 ¹ / ₄ "	6", 7", 8"+	6J1 ¹ / ₄
8	8	3 ¹¹ / ₁₆	1 ¹ / ₄	1 ¹¹ / ₁₆	5 ⁵ / ₁₆	2 ⁷ / ₈	1 ¹ / ₂ "	6", 7", 8"+	6J1 ¹ / ₂
12	8 ⁷ / ₈	4 ⁷ / ₁₆	1 ¹ / ₂	2 ³ / ₈	6 ³ / ₄	3 ⁷ / ₈	2"	6", 7", 8"+	6J2
18	10 ⁷ / ₈	5	1 ¹ / ₂	2 ³ / ₄	7 ¹ / ₂	4 ¹ / ₂	2 ¹ / ₂ "	6", 7", 8"+	6J2 ¹ / ₂
32	12 ⁹ / ₁₆	6 ¹ / ₈	1 ⁷ / ₈	3 ⁷ / ₈	9 ⁹ / ₁₆	6	3"	8", 10", 12"+	8J3
50	15 ¹ / ₄	7 ³ / ₈	2	4 ¹ / ₄	10 ¹ / ₂	7	4"	10", 12", 14"+	10J4

©2011, MAASS Midwest Manufacturing, Inc.



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

MEMBER:



LISTED PAS-97(04)
PITLESS ADAPTER STANDARD

U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135



WHEN ALL ELSE FAILS, PLEASE READ THESE INSTRUCTIONS.

INSTALLATION INSTRUCTIONS:



Using cutting guide, establish location of hole to be cut.



Trace outline of housing onto well casing.



Cut hole with cutting torch; pry out cut portion (shown below).



SAFETY FIRST: Properly shore-up trench to prevent cave-ins. Wear correct safety gear for installation conditions. The installer is responsible for safe installation of the product. The installer is responsible for installation and product meeting state, provincial, and local codes/regulations.

The trench along side of well casing should be dug deep enough to prevent frost penetration. The trench should be wide enough for comfortable working.

1. Establish location of hole to be cut: Snap cutting guide onto the well casing (1a) at the location where you wish to install the adapter by pushing cutting guide onto the well casing. Then set steel housing into the cutting guide and check for correct location of adapter.

1b. If no cutting guide is available, hold housing on O.D. of well casing in correct position, and mark around outside of housing. Cut casing on inside of rectangular mark.

2. Cut hole in well casing: After location has been established, remove adapter and proceed with cutting the opening in the well casing using one of the following methods:

2a. With cutting torch, cut a hole near the inside bottom corner of the cutting guide opening. Then move cutting torch to the cutting guide, resting the side of the tip on the cutting guide, and moving the cutting torch slowly along all four sides of the guide. After opening has been cut and cutting guide has been removed, pry out cut portion of casing at the bottom edge. (See photo at lower left.)

2b. Instead of a cutting torch, a 4 1/2" hand grinder with cutting wheel may be used to cut opening in steel well casing. Avoid cutting the rectangle oversize. Remove cut portion of well casing.

NOTE: With either method **2a** or **2b**, steel lips on top and bottom of housing must fit into cut hole. Do not cut too wide of a hole as gaps on side will be hard to fill. Brass insert face must fit through cut hole.

3. Remove all slag and burrs from cut opening.

— Continued on reverse side.



Maass™ Model J Pitless Adapter Weld-On Unit, Cutting Guide, and various items needed for installation.



Or use a 4 1/2" hand grinder to cut opening.



Remove slag and burrs.

©2008, MAASS Midwest Manufacturing, Inc.

INSTALLATION INSTRUCTIONS — continued



- 4. Set pitless housing into opening to check fit.** If it does not fit the opening, note where interference is and install the cutting guide again, and re-cut opening to fit, cleaning off all slag and burrs when finished.
- 5. Set pitless housing into opening** with the water flow opening on the bottom end of the housing. The housing must fit snugly against the well casing. Then tack top center of housing and both right and left bottom corners. This is done to keep the weld from pulling the housing out of place while welding the first pass.

SEE YOUR DISTRIBUTOR OR REPRESENTATIVE FOR ADDITIONAL INFORMATION.

We suggest using a 1/8" weld rod reverse polarity, which penetrates like Fleet Weld 5P or AWS E6010 with a D.C. Welder, starting from the bottom side and working up for the first pass.

Perform the first weld pass over the entire housing. Starting with the second pass, work from top to bottom with 1/8" rod (never larger than 5/32" rod). This weld must be 1/4" in size at all points (or the same thickness as well casing). The weld must be sound and water tight, free from pin holes/weld defects, as required by all state, provincial, and local codes/regulations.

If you have not achieved a 1/4" full weld at all areas, add a third pass.

We suggest using 1/8" rod with reverse polarity because it will result in better penetration, allowing better control over molten metal, making a smoother, stronger weld. When doing two or three passes, the average cutting and welding time is 20 minutes per unit.

INSTALLATION OF SUBMERSIBLE PUMP:

Assemble pump and pipes to pitless brass casting, as per state, provincial, and local codes/regulations.

IMPORTANT: "O" Ring must be lubricated with petroleum jelly (Vaseline) or silicone grease before installing. (DO NOT USE PIPE DOPE.)

After assembling pump and pipes to brass pitless casting, align assembled unit over well, with water flow opening facing desired direction. Lower the pump and pipes into well casing with a hoist or other means. When you are a short distance from the pitless housing, pull pipes against well casing, sliding along the casing as the pump is lowered, and the pitless brass casting will slip into the housing. Check for proper hook up, then tap down on lift-out pipe with hammer to seat "O" Ring against stainless steel base. Release from hoist mechanism **only after checking for proper hook up and tapping to seat "O" Ring.**

If pump with brass casting is pulled at a later date, it is recommended that the "O" Ring be replaced and the replacement "O" Ring be lubricated with petroleum jelly before resetting the pump. The stainless steel and brass in the **Maass™ Pitless Adapter** will defeat rust, corrosion and electrolysis, greatly easing serviceability.

No locking device is required on the Model J Pitless Adapter for plastic pipe or high water levels.

SERVICE TIP: When chlorinating a well, it is best to have the chlorine enter the well below the pitless adapter via a tube or spout, so the chlorine does not come into contact with the pitless adapter or well casing. After chlorination of the well, the pitless adapter and well casing should be thoroughly flushed with water to remove any chlorine residue. Chlorine will create a corrosive action on steel and brass, making future removal of a pitless adapter difficult.

LIMITED WARRANTY

All Maass Pitless Adapters are made with first quality materials and workmanship and when properly installed, used, and maintained, shall perform according to Water System Council Standards PAS-97(04). Should any part prove defective within one year it will be replaced F.O.B. our factory, providing permission is first obtained from our factory, and part is returned, shipping prepaid. Liability limited to Maass Pitless Adapter only. In no event shall Maass Midwest Mfg., Inc. be liable for incidental, special, or consequential damages in any way connected with the products for breach of warranty, expressed or implied. No other expressed or implied warranties shall apply, including but not limited to implied warranties of merchantability and fitness for a particular use.

See catalog or web site for complete limited warranty.

SPECIFICATION OF SUPPLIES

MAASS™ MODEL JC PITLESS ADAPTER

The Pitless Adapter will be a clamp-on type as manufactured by Maass-Midwest Manufacturing, using an eight degree bronze locking type wedge with an O-ring forced against a non-magnetic type 304 stainless steel flanged nipple. The housing of the adapter will be of cast steel and shall have two steel lips resting on the well casing to support the pitless adapter in position. The cast steel housing will have a neoprene gasket for sealing the housing to the outside of the well casing and the housing will be held in place with two 304 stainless steel straps and stainless steel hardware.

MODEL JC CLAMP-ON PITLESS ADAPTER SIZES

MODEL	ADAPTER HOUSING SIZE	WELL CASING O.D.	DISCHARGE AND DROP PIPE	WEIGHT (APPROX.)
4JC1	4"	4 1/2"	1"	11 lbs.
5ODJC1	5"OD	4.950" to 5"	1"	11 lbs.
5JC1	5"	5 9/16"	1"	11 lbs.
6ODJC1	6"OD	5.9" to 6"	1"	11 3/4 lbs.
6JC1	6"	6 5/8"	1"	11 3/4 lbs.
7JC1	7"	7"	1"	12 lbs.
4JC1 1/4	4"	4 1/2"	1 1/4"	13 3/4 lbs.
5ODJC1 1/4	5"OD	4.950" to 5"	1 1/4"	11 1/4 lbs.
5JC1 1/4	5"	5 9/16"	1 1/4"	11 1/4 lbs.
6ODJC1 1/4	6"OD	5.9" to 6"	1 1/4"	12 3/4 lbs.
6JC1 1/4	6"	6 5/8"	1 1/4"	12 3/4 lbs.
7JC1 1/4	7"	7"	1 1/4"	13 lbs.

NOTE: The rated working load of all Model JC Pitless Adapters is 4000 pounds. The weight of the pump, pipe and water column should not exceed the working load of the adapter nor that of the joint strength of the NPT pipe threads.

MONITORING AND REMEDIATION WELL APPLICATIONS

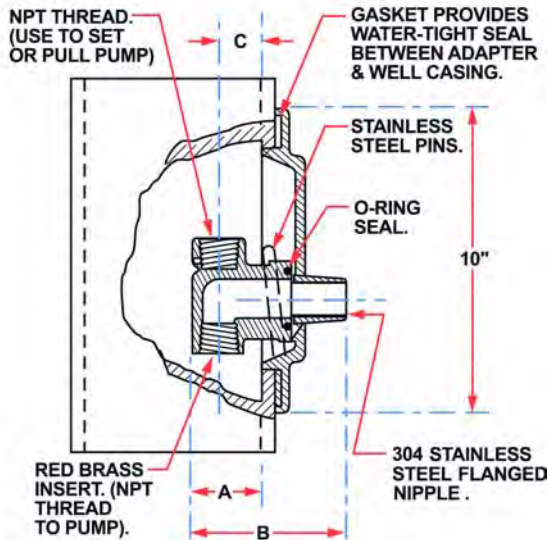
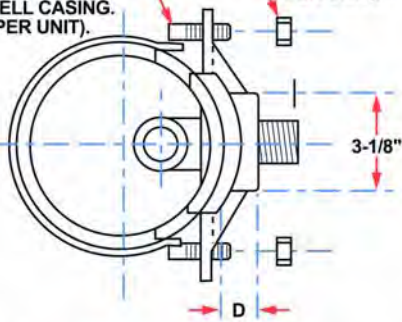
For well monitoring and remediation well applications, Maass-Midwest offers a specialized Model JC Pitless Adapter having an electroless nickel plated brass insert and a Viton O-ring seat. To specify this type of adapter, place a letter "N" after the Drop & Discharge" size, as in the example which follows:

HOW TO ORDER MODEL JC CLAMP-ON PITLESS ADAPTER								
WELL CASING SIZE	+	MODEL	+	DROP & DISCHARGE	+	OPTION	=	MODEL NUMBER
6 5/8"		JC		1 1/4"				6JC1 1/4
5"		JC		1"		N		5ODJC1-N

MIDWEST™ MODEL JC CLAMP-ON PITLESS ADAPTER

ALL STAINLESS STEEL STRAPS HOLD ADAPTER SECURELY TO THE WELL CASING. (TWO PER UNIT).

STAINLES STEEL HEX NUTS. (FOUR PER UNIT).



FEATURES:

- 304 stainless steel clamps and nuts
- Cast steel lips support adapter housing on wall of well casing; no lock needed
- Ideal for use on either plastic or steel well casing
- Buna N rubber gasket seals cast steel housing against O.D. of well casing at point of attachment
- Model JC available with nickel plated or stainless steel inserts and Viton or Teflon O-rings for monitoring/remediation applications

NOTE:

1. When the brass insert is removed from the adapter, the inside of the well casing is unobstructed, permitting easy pump removal during service or replacement.
2. Cast steel housing has two “lips” for positive placement on the well casing; to prevent vertical movement of the housing after installation; and to provide solid support for the pump and discharge pipes.
3. Dimensions and weights may vary slightly due to individual casting and weight variances.

WEIGHT (LBS)	D	C	B	A	DROP DISCHARGE NPT & PIPE SIZE	WELL CASING SIZE (O.D.)	PITLESS ADAPTER MODEL
11	7/8	15/8	5 1/8	2 13/16	1"	4 1/2"	4-JC1
11 3/4		11 1/16	5 1/4	2 3/4	1 1/4"		4-JC1 1/4
11	15/16	19/16	5 1/8	2 3/4	1"	5"	5OD-JC1
11 1/4		15/8	5 1/4	2 11/16	1 1/4"		5OD-JC1 1/4
11	15/16	19/16	5 1/8	2 3/4	1"	5 9/16"	5-JC1
11 1/4		15/8	5 1/4	2 11/16	1 1/4"		5-JC1 1/4
11 3/4	1 1/8	13/8	5 1/8	2 9/16	1"	6"	6OD-JC1
12 3/4		17/16	5 1/4	2 1/2	1 1/4"		6OD-JC1 1/4
11 3/4	1 1/8	13/8	5 1/8	2 9/16	1"	6 5/8"	6-JC1
12 3/4		17/16	5 1/4	2 1/2	1 1/4"		6-JC1 1/4
12	1 1/8	13/8	5 1/8	2 9/16	1"	7"	7-JC14
13		17/16	5 1/4	2 1/2	1 1/4"		7-JC1 1/4

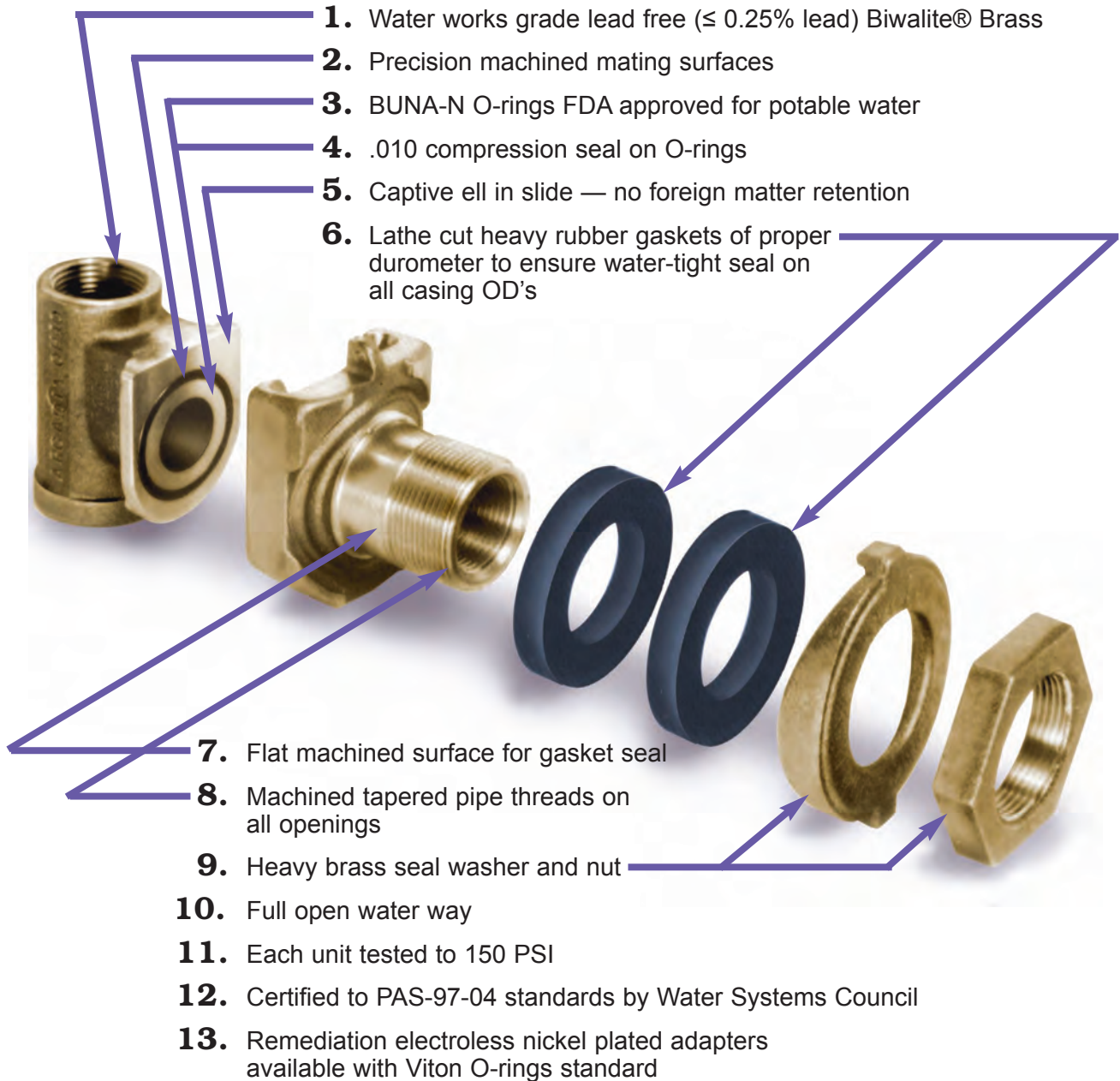
©2011, MAASS Midwest Manufacturing, Inc.

MEMBER:



Midwest-Dicken™ S, LDS & JRS Series Adapters

MADE in the USA



- 1. Water works grade lead free ($\leq 0.25\%$ lead) Biwalite® Brass
- 2. Precision machined mating surfaces
- 3. BUNA-N O-rings FDA approved for potable water
- 4. .010 compression seal on O-rings
- 5. Captive ell in slide — no foreign matter retention
- 6. Lathe cut heavy rubber gaskets of proper durometer to ensure water-tight seal on all casing OD's

- 7. Flat machined surface for gasket seal
- 8. Machined tapered pipe threads on all openings
- 9. Heavy brass seal washer and nut
- 10. Full open water way
- 11. Each unit tested to 150 PSI
- 12. Certified to PAS-97-04 standards by Water Systems Council
- 13. Remediation electroless nickel plated adapters available with Viton O-rings standard



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547

(800) 323-6259 • IL AREA (847) 669-5135

www.maassmidwest.com

MEMBER:



LISTED PAS-97(04)
PILES ADAPTER STANDARD

©2011, MAASS Midwest Manufacturing, Inc.

Midwest-Dicken™ Weld Process Driven Well Point



MADE in the USA

- 1.** Heavy ductile iron hex shaped point to prohibit turning or wandering in tough driving; electrolysis nickel plated head standard on monitoring points
- 2.** Electro-galvanized Schedule. 40 steel pipe body will not flake or peel; stainless steel pipe body standard on monitoring points
- 3.** Bronze MIG weld top and bottom to prohibit jacket shift or peeling. Stainless steel MIG weld standard on monitoring points
- 4.** 3/16" spot weld 1" center to prohibit seam opening
- 5.** Stainless steel jacket with 1/8" staggered perforations for maximum open area. Stainless steel jacket standard on monitoring points
- 6.** 60-80-100 mesh stainless steel gauze for long life screening; stainless steel gauze standard on monitoring points
- 7.** Precision machine NPT threads for correct solid make-up

- Rugged Schedule 40 pipe resists bending and collapsing of screen
- Cost effective alternative to wire wrapped screens
- Point may be driven or used with hollow stem flight auger



©2011, MAASS Midwest Manufacturing, Inc.



MIDWEST MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

MEMBER:



LISTED PAS-97(04)
PILES ADAPTER STANDARD



BRASS OR ELECTROLESS NICKEL PLATED BRASS DICKEN SERIES

SPECIFICATION

The pitless adapter shall consist of a slide type male ell with neoprene (Viton may be specified) o-ring seal for inserting into a female housing. The ell shall have a _____ NPT thread for attaching the pump pipe, and a _____ NPT thread for attaching a lift pipe. The housing will attach to the well casing by having the _____ NPT female discharge end inserted through a _____ hole in the well casing. The housing discharge end will be sealed inside and outside of the well casing by two neoprene rubber gaskets. The housing will be securely fastened in place by a curved washer and nut on the outside of the well casing. All parts, except gasket and O-ring, will be of cast lead free ($\leq 0.25\%$ lead) Biwalite® brass (and plated with an electroless nickel; may be specified). The pitless adapter will be capable of supporting weight of 250 lbs. of internal pressure. The pitless adapter will be Model _____ Dicken™ series as manufactured by Maass Midwest, Huntley, IL or equivalent.

See catalog for NPT, casing hole, and weight.

N series have Viton O-ring instead of neoprene and are electroless nickel plated for monitor/remediation applications.

MAASS

MIDWEST™

Model JD Stainless Steel Pitless Adapter

For Monitoring, Remediation, Leachate and Wastewater Piping Applications

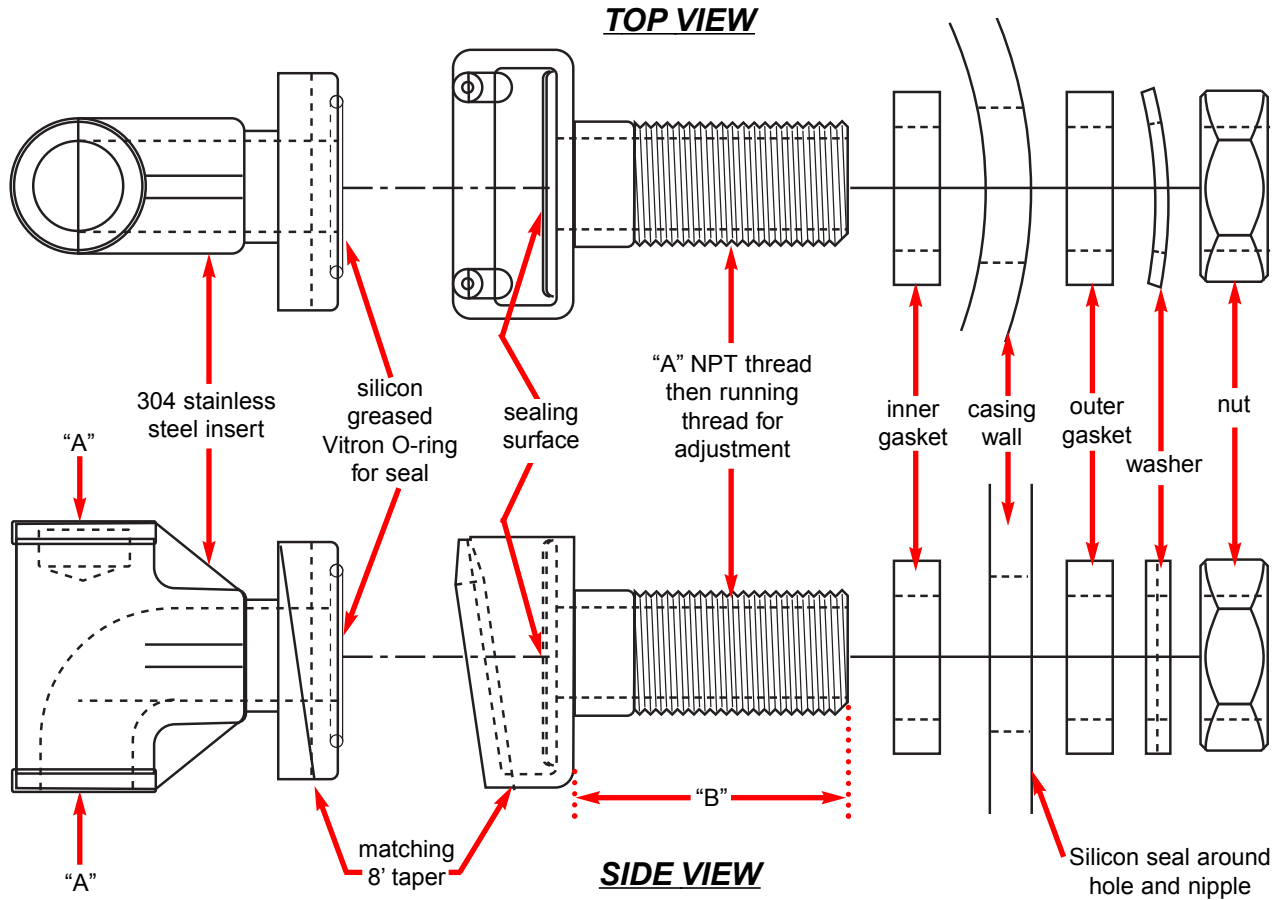
- ◆ 304 stainless steel construction
- ◆ Insert and housing have 8" taper for easy installation and removal.
- ◆ Viton O-ring seal
- ◆ Neoprene gasket for inner and outer casing seal.
- ◆ Extended length nipple on housing with running thread allows adapter to fit from 1/4" to 2" thick wall pipe. Models JS-2SS-6 and JD-3SS-8 fit 1/4" to 1 1/4" thick wall pipe.
- ◆ 1", 1 1/4", 2" or 3" NPT sized fittings for pump pipe, lift-out pipe and discharge pipe.
- ◆ Tube of Silicon seal supplied for seal between inner and outer gaskets.



MADE in the USA



Model	"A"	"B"	Min. Casing I.D.	Max. Pump O.D.	Casing Hole Size
JD-1SS	1" NPT	4"	6"	4"	1 3/8"
JD-1 1/4 SS	1 1/4" NPT	4"	6"	4"	1 3/4"
JD-1 1/2 SS	1 1/2" NPT	4"	6"	4"	2"
JD-2SS	2" NPT	4"	8"	6"	2 1/2"
JD-3SS	3" NPT	5"	10"	6"	3 5/8"
JD-2SS-6	2" NPT	3 1/2"	6"	4"	2 1/2"
JD-3SS-8	3" NPT	4 1/4"	8"	4"	3 5/8"



All examples for illustration purposes only. MAASS MIDWEST is not responsible or liable for damages arising out of, or in connection with, the use or misuse of the information provided herein whether direct, indirect, or consequential. **PATENTED**

©2011, MAASS Midwest Manufacturing, Inc.

MEMBER:



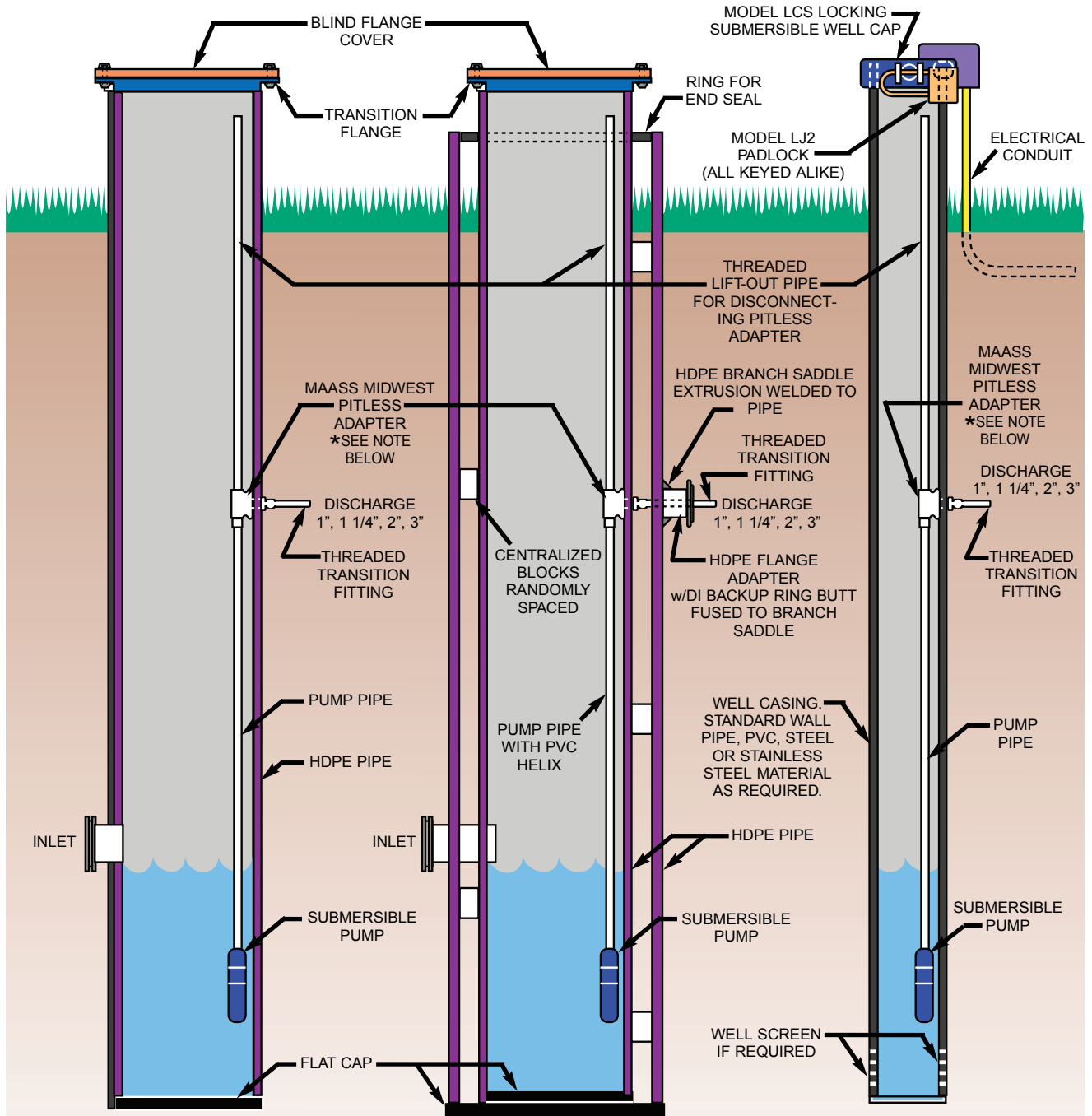
MAASS MIDWEST

MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

LISTED PAS-97(04)
PITLESS ADAPTER STANDARD



*The following Maass Midwest Pitless Adapter models can be used:
 Model 304 JD-SS, Electroless Nickel Plated Models LDS, J or JC - N series (all with Viton O-Rings).

All examples for illustration purposes only. MAASS MIDWEST is not responsible or liable for damages arising out of, or in connection with, the use or misuse of the information provided herein whether direct, indirect, or consequential. **PATENTED**

©2011, MAASS Midwest Manufacturing, Inc.

MEMBER:



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES



LISTED PAS-97(04)
 PITLESS ADAPTER STANDARD

U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

dicken™ PITLESS ADAPTERS



- Features:
- ◆ Brass insert is electroless nickel plated to resist harsh environment and contamination
 - ◆ Ideal for use in remediation wells
 - ◆ Precision machined all red brass castings with viton o'rings
 - ◆ Wrench grip on ell speeds installation
 - ◆ Large inner and outer gasket to seal out surface water contamination
 - ◆ Built-in lowering eyelet for easier installation
 - ◆ Pressure Tested to 150 PSI



Part Number	Model	Discharge Pipe(In.)	Supply Pipe(In.)	Casing Size(In.)	Hole Size(In.)	Shipping Wt. (Lbs-Oz)	Working Load(Lbs.)
952111	LD-S-10-N	1	1	5 to 12	1 3/4	4--8	2000
952113	LD-S-12-N	1 1/4	1 1/4	5 to 12	2 1/4	5--8	2000
952021	S-20-N	2	2	5 5/8 to 12	3 1/8	14--4	5000

* Note all stainless steel adapters available for leachate applications

MAASS™ MODEL JN SERIES OF PITLESS ADAPTERS AND UNITS

- Features:
- ◆ Ideal for remediation wells
 - ◆ Water contacts only 304 stainless steel nipple and electroless nickel plated brass insert
 - ◆ Tapered 8 degree slip fitting for easy installation and removal of electroless nickel plated brass insert
 - ◆ No obstruction left in well when insert is pulled
 - ◆ Viton O-rings standard
 - ◆ 304 stainless steel guide pins standard

MAASS™ MODEL JN WELD-ON PITLESS ADAPTERS

- Features:
- ◆ Permanently installed by welding for increased strength and durability

Part Number	Model	Discharge Pipe	Drop Pipe	I.D. Casing Size	Weight (Lbs.)
928101	4 J 1 N	1	1	4--5	6
928121	6 J 1 N	1	1	6--7--8+	6
928106	4 J 1 1/4 N	1 1/4	1 1/4	4--5	7
928126	6 J 1 1/4 N	1 1/4	1 1/4	6--7--8+	7
928136	6 J 2 N	2	2	6--7--8+	12
928146	8 J 3 N	3	3	8--10--12+	32



MAASS™ MODEL JCN CLAMP-ON PITLESS ADAPTERS

- Features:
- ◆ Ideal for use on either plastic or steel well casing
 - ◆ 304 stainless steel clamps and nuts
 - ◆ Electroless nickel plated brass insert and Viton o'rings standard

Part Number	Model	Discharge Pipe	Drop Pipe	O.D. Casing Size	Standard Clamp-On Weight
928302	4JC1 N	1	1	4 1/2	11.0
928307	5ODJC1 N	1	1	5	11.0
928312	5JC1 N	1	1	5 9/16	11.0
928322	6JC1 N	1	1	6 5/8	11.75



MEMBER:

©2011, MAASS Midwest Manufacturing, Inc.



MIDWEST MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES



U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

MIDWEST-DICKEN™ WELD PROCESS MONITOR WELL POINTS

- Features:
- ◆ Ideal for use in remediation wells
 - ◆ Points will not easily collapse while being driven
 - ◆ Rugged design with octagonal electroless nickel plated head to prohibit turning in tough driving
 - ◆ Easily extended in the field by removing head and coupling together with second well point for added capacity
 - ◆ Stainless steel mig weld top and bottom to prohibit jacket shift or peeling
 - ◆ 3/16" diameter spotweld on 1" centers to prevent seam opening
 - ◆ Stainless steel jacketed 1/8" staggered perforations for maximum open area
 - ◆ Available in 60-80-100 mesh stainless steel gauze for long life screening
 - ◆ Point may be driven or used with hollow stem flight auger



NOTE: 1 1/4" WELL POINT HAS 2" O.D. 2" WELL POINT HAS 3" O.D.

Part Number	Model Number	Gauze	Pipe Size	Pipe Lg. x Jacket	Weight (Lbs.)
918000	SS90M	60	1 1/4	24 x 18	6
918005	SS90M	80	1 1/4	24 x 18	6
918010	SS94M	60	1 1/4	30 x 24	7
918015	SS94M	80	1 1/4	30 x 24	7
918020	SS98M	60	1 1/4	36 x 30	8
918025	SS98M	80	1 1/4	36 x 30	8
918030	SS100M	60	1 1/4	42 x 36	10
918035	SS100M	80	1 1/4	42 x 36	10
918040	SS102M	60	1 1/4	48 x 42	11
918045	SS102M	80	1 1/4	48 x 42	11
918050	SS110M	60	1 1/4	60 x 54	13
918055	SS110M	80	1 1/4	60 x 54	13
918060	SS164M	60	2	30 x 24	12
918065	SS164M	80	2	30 x 24	12
918070	SS168M	60	2	36 x 30	14
918075	SS168M	80	2	36 x 30	14
918080	SS172M	60	2	48 x 42	18
918085	SS172M	80	2	48 x 42	18
918090	SS176M	60	2	60 x 54	22
918095	SS176M	80	2	60 x 54	22



DRIVE COUPLINGS — ELECTROLESS NICKEL PLATED

Part Number	Pipe Size	App. Weight (Lbs.)	Quantity per Box
941590	1 1/4	1.0	25
941592	2	1.5	15

DRIVE CAPS — BLACK MALLEABLE

Part Number	Pipe Size (Inches)	App. Weight (Lbs.)	Quantity per Box
930562	1 1/4	1.5	25
930568	2	3.25	10

©2011, MAASS Midwest Manufacturing, Inc.

MEMBER:



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES



U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135



MAASS™ LOCKING WELL CAP

Features:

- ◆ Moderate cost with corrosion resistant cast aluminum
- ◆ Suitable for use on monitoring wells
- ◆ Protection against vandalism
- ◆ Easy to install. Drill one hole for bolt to hold cap in place.
Bolt cap down. Lock padlock through locking tab on cap



Part Number	Model Number	O.D. Casing Size	Description
952770	4LCS	4 1/2	Submersible
952772	5LCS	5 9/16	Submersible
952774	6LCS	6 5/8	Submersible
952776	8LCS	8 3/4	Submersible
952769	LJ2	PADLOCK FOR CAPS - ALL KEYED ALIKE	

STAINLESS STEEL MALE ADAPTERS

Part Number	Trade Number	Pipe Size (Inches)	App. Weight per 100 Lbs.
406520	MASS-2	1/2	15
406523	MASS-3	3/4	22
406526	MASS-4	1	35
406529	MASS-5	1 1/4	52
406532	MASS-8	2	92



COUPLINGS 304 STAINLESS STEEL SCHEDULE 40

Part Number	Pipe Size (Inches)	App. Weight per 100 Lbs.	Quantity per Box
941594	1	.75	25
941595	1 1/4	1	25
941597	2	1.5	15



©2012, MAASS Midwest Manufacturing, Inc.



MIDWEST MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

MEMBER:



U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

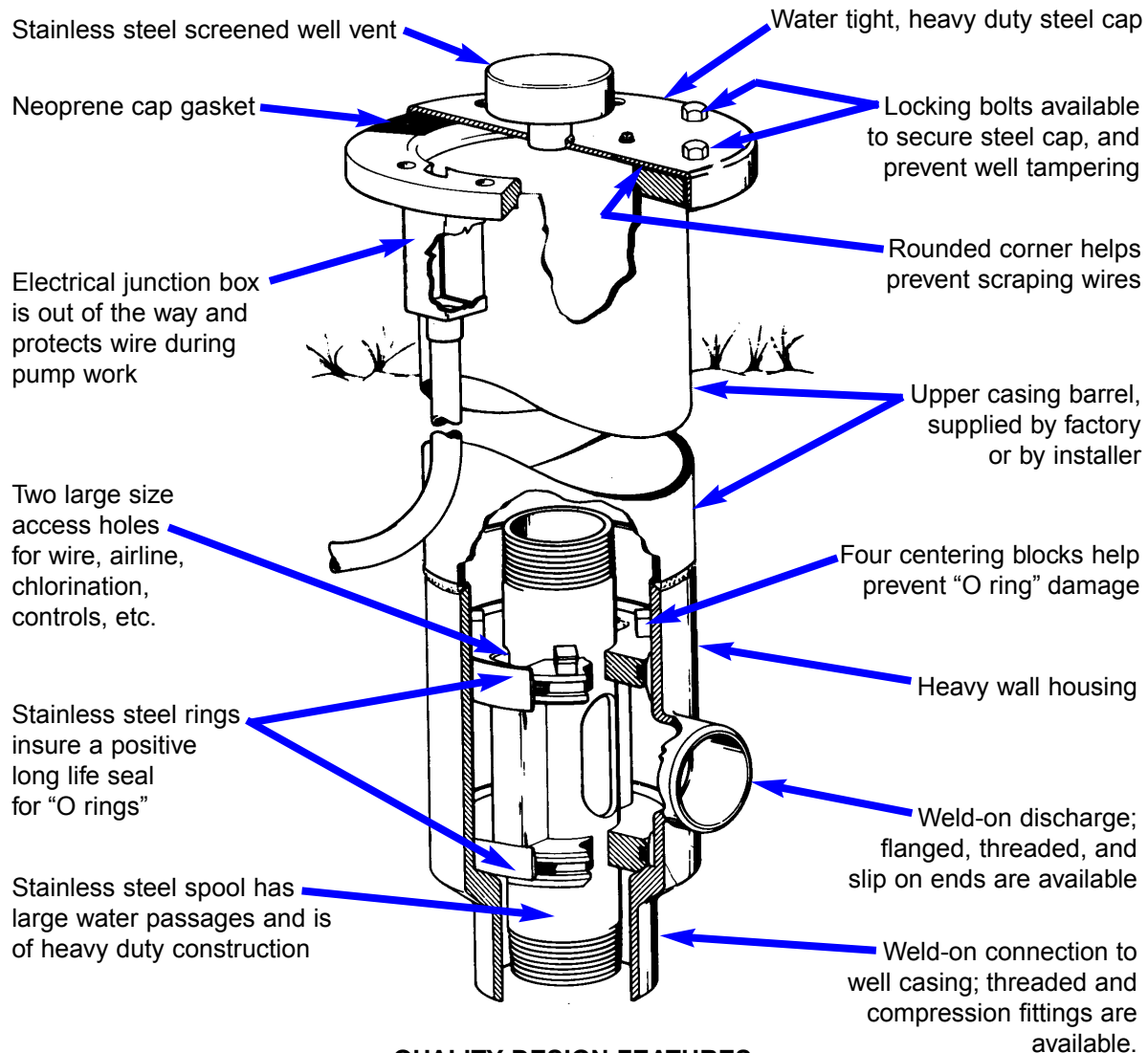
MAASS - BASKI MODEL MB PITLESS UNIT HEAVY DUTY MODEL

- ◆ EXCELLENT FOR LARGE REMEDIATION APPLICATIONS
- ◆ ALL WET PARTS 304 STAINLESS STEEL

Typical Submersible Pitless Unit

The Model MB™ Pitless Unit is designed for the driller, pump contractor and owner by incorporating new concepts for quick delivery, installation ease and convenience in setting and pulling pumps.

(Vertical Turbine and Booster Pump Station Units are available.)



Patented

QUALITY DESIGN FEATURES

For 8, 10, 12, 14, 16, 18, 20, 22, 24 inch and larger wells.
2" through 12" discharge.

©2011, MAASS Midwest Manufacturing, Inc.



MIDWEST

MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

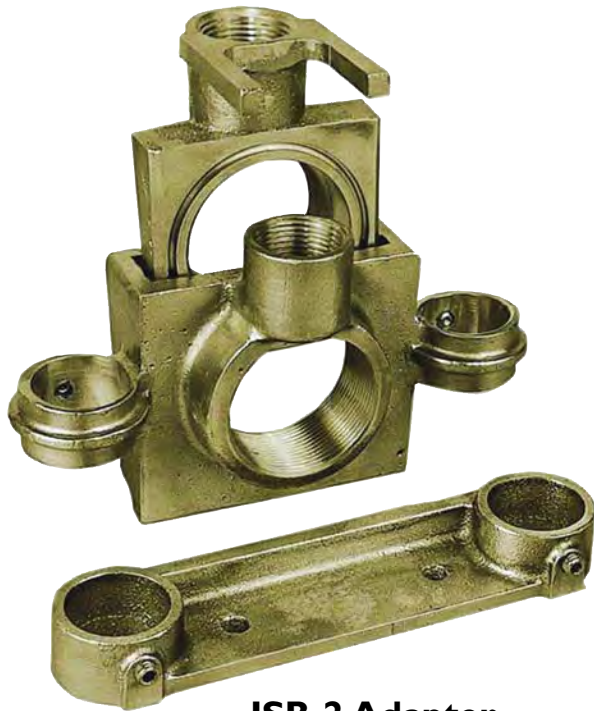
MEMBER:



LISTED PAS-97(04)
PITLESS UNIT BY DESIGN

MAASS™ Model JS-B Adapters

For Sewage, Waste and Sump Pump Installations



JSB-2 Adapter

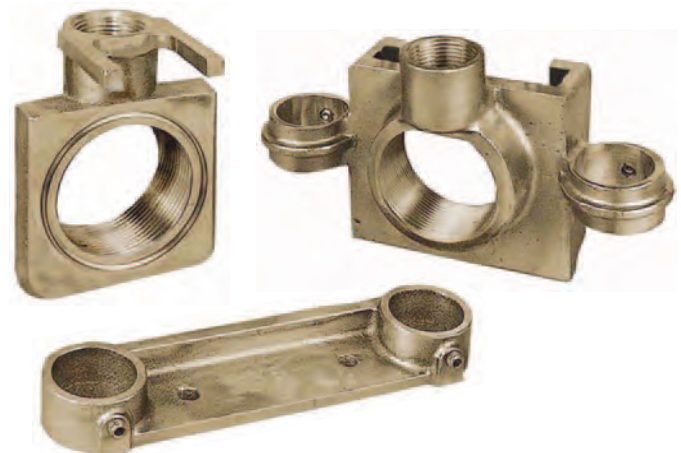
MAASS JS ADAPTERS ARE IDEAL for use in sewage basins, pressurized sewage systems, cisterns and sump pump installations.

- Allows for easy service to any submersible pump installation.
- All Naval Brass* construction to defeat rust, corrosion and electrolysis.
- Safe to use. Not necessary to climb into effluent tank to disconnect pump, risking danger of asphyxiation.
- Not necessary to pump tank to service pump.
- Brass insert with pump attached slides down 1" guide pipe (furnished by installer) into an all brass housing. Two matching 8 degree non-locking taper wedge parts (on both insert and housing) force O-ring in brass insert against brass machined housing for complete seal.
- No wires, nuts, levers, or triggers needed to complete seal or remove pump. A simple slip fitting does it.

JSB-2

- 2" NPT inlet and outlet
- 1" pipe used for guides and supports.

*Naval Brass is a superior brass for resisting the corrosive effects of chlorides and sulphates generally found in sewage effluents.



©2011, MAASS Midwest Manufacturing, Inc.



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

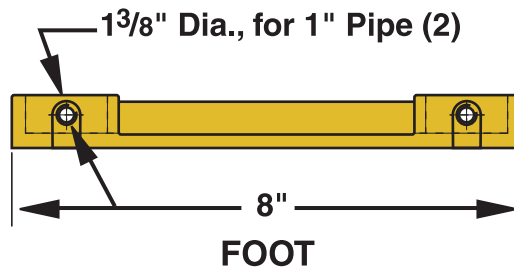
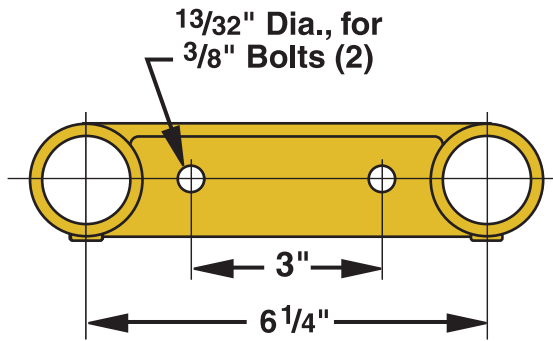
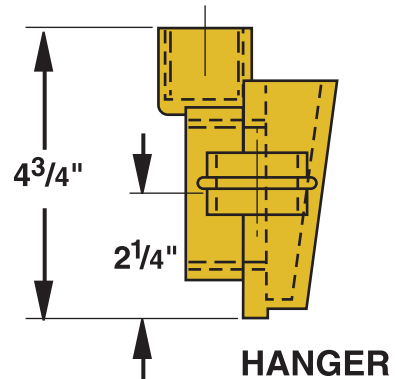
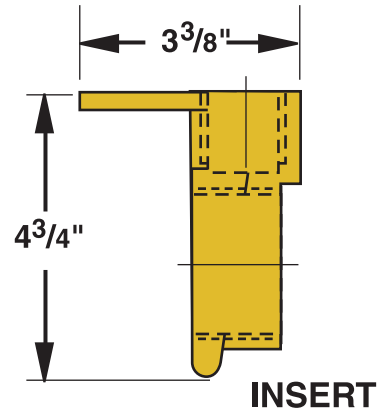
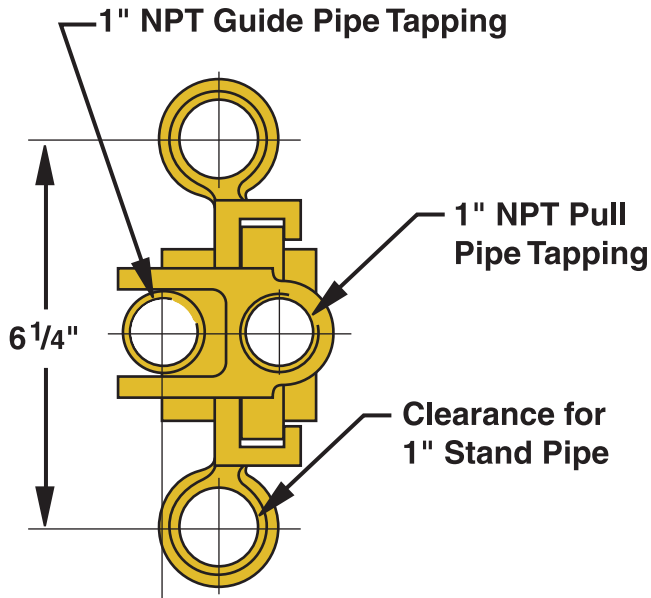
MEMBER:



LISTED PAS-97(04)
FITNESS ADAPTER STANDARD

Model JSB-2" SEWAGE ADAPTER

MADE in the USA 



©2011, MAASS Midwest Manufacturing, Inc.



MIDWEST

MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

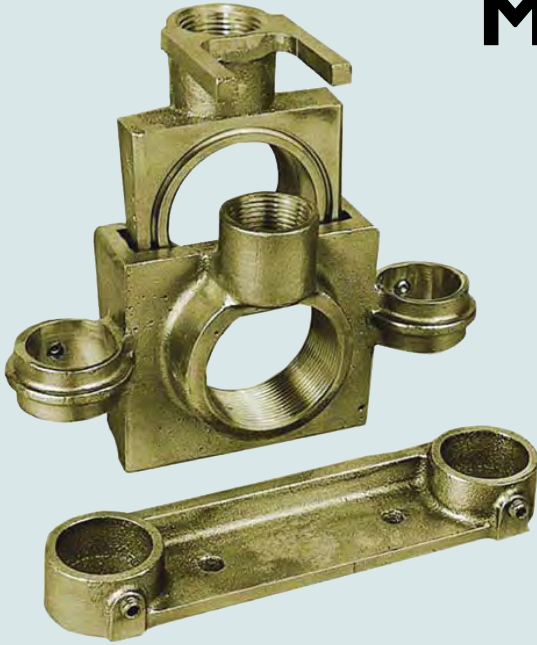
P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

MEMBER:



LISTED PAS-97(04)
IFLESS KAMPER STANDARD

MAASS™ Model JSB Sewage Adapters



FEATURES:

- ☐ Large 8° Taper Slide for ease of installation or removal
- ☐ 2" NPT inlet and outlet
- ☐ 1" pipe used for guides and support
- ☐ 100% naval brass construction for corrosion resistance
- ☐ Allows easy service to any submersible pump installation
- ☐ Not necessary to pump tank to service pump

Part Number	Model Number	NPT Size
928980	JSB-2	2

Sewage Adapter Brackets



JSB-2 Stand Off Bracket

FEATURES:

- ☐ 304 stainless steel to resist corrosion
- ☐ Easily installed beneath septic tank lid or off the wall
- ☐ Utilizes (2) 1/2" bolts for mounting

Part Number	For Model Number	Mounting Holes
928985	JSB-2	9/16"

JSB-2 Universal Stand Off Bracket



FEATURES:

- ☐ 19" overall length allows adjustment every 4 1/2"
- ☐ Durable two part epoxy coating
- ☐ Utilizes (2) 1/2" bolts for mounting

Part Number	For Model Number	Mounting Holes
928995	JSB-2	9/16"



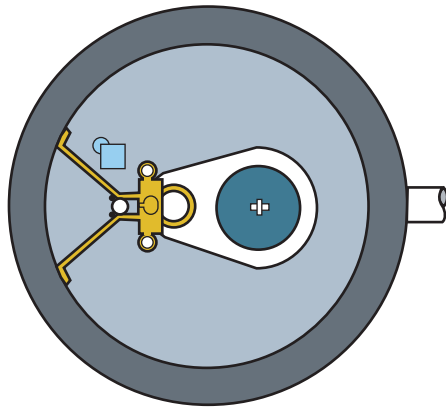
MADE in the **USA**



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

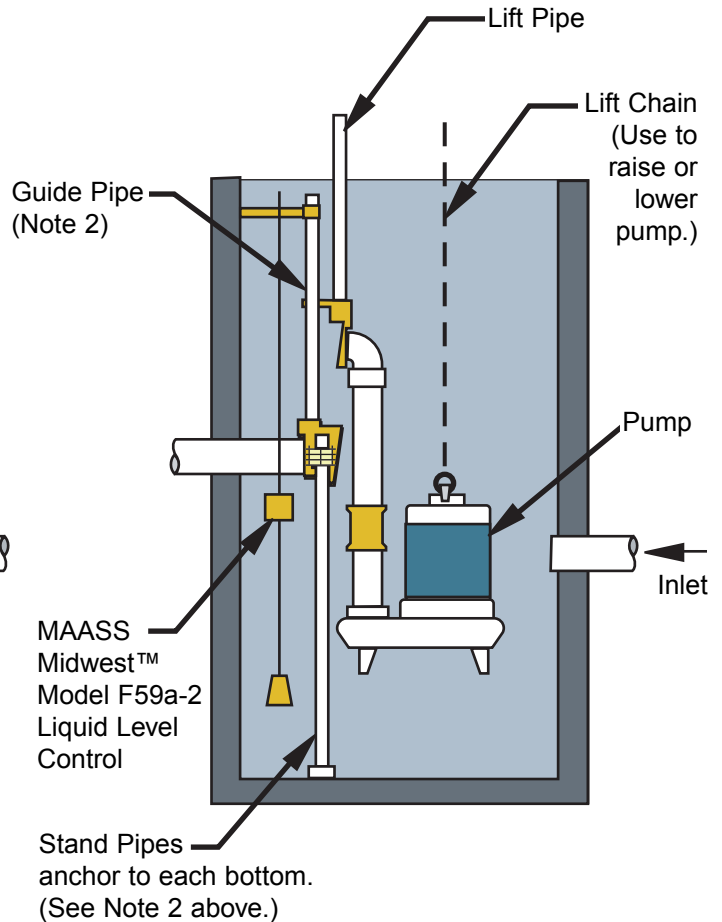
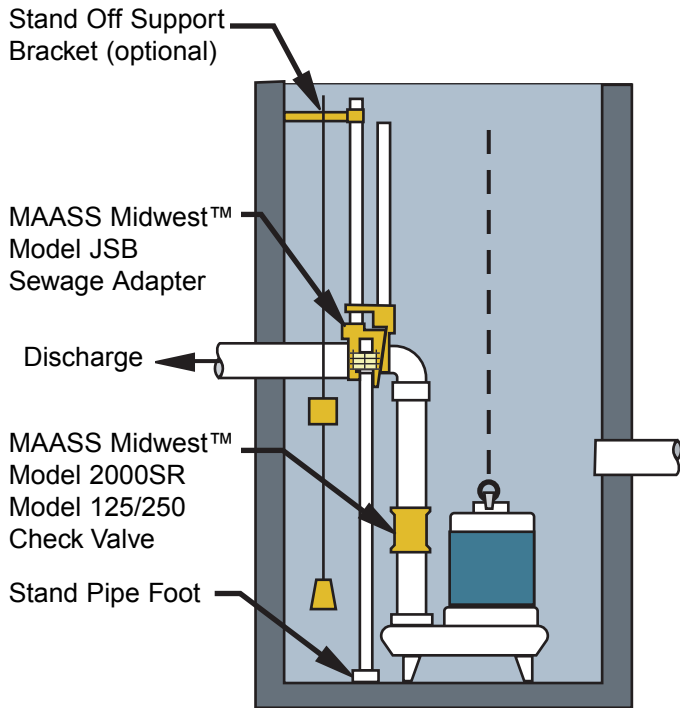
©2011, MAASS Midwest Manufacturing, Inc. All rights reserved.

MAASS™ Model JSB Sewage Adapters



NOTE:

1. Schedule 80 PVC or stainless steel pipe is recommended throughout.
2. For stand, guide and lift pipe, use 1" pipe for model JSB-2. Use 1.4" pipe for Model JSB-3 Sewage Adapter.
3. The material used in the series JSB Sewage Adapters is cast Navy Brass.



©2011, MAASS Midwest Manufacturing, Inc.



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

MEMBER:



LISTED PAS-97(04)
FITLESS ADAPTER STANDARD

MAASS™ Model JS Adapters



FOR SEWAGE, WASTE AND SUMP PUMP INSTALLATIONS

Maass JS Adapters are ideal for use in sewage basins, pressurized sewage systems, cisterns and sump pump installations.



Brass Insert and Cast Steel Housing featuring 304 stainless steel flanged nipple and guide pins

- ☐ Allows for easy service to any submersible pump installation.
- ☐ Brass and 304 stainless steel connection to defeat rust, corrosion and electrolysis.
- ☐ Rail System style can be fabricated by you or by Maass.
- ☐ Safe to use. **NOT** necessary to climb into effluent tank to disconnect pump, risking danger of asphyxiation.
- ☐ Not necessary to pump tank to service pump.
- ☐ Brass Insert, with the pump attached, slides down rail into cast steel housing with 304 stainless steel flanged nipple. Two matching 8 degree non-locking stainless steel taper wedge parts (on both insert and housing) force O-ring in brass insert against 304 stainless steel flanged nipple for complete seal. No wires, nuts, levers, or triggers needed to complete seal or remove pump. **A simple slip fitting does it!**

MAASS™ MODEL JS ADAPTERS						
MODEL	NPT SIZE	DIMENSIONS				APPROX. WEIGHT
		A	B	C	D	
JS1 ¹ / ₄	1 ¹ / ₄	4"	6"	5 ¹ / ₈ "	2 ¹ / ₈ "	6.0 lbs.
JS1 ¹ / ₂	1 ¹ / ₂	4 ¹ / ₄ "	6"	5 ¹ / ₄ "	2 ¹ / ₈ "	6.8 lbs.
JS2	2	5 ¹ / ₂ "	7"	6 ⁷ / ₈ "	2 ³ / ₄ "	11.0 lbs.
JS3	3	7 ¹ / ₂ "	10"	9 ¹ / ₂ "	3 ¹ / ₂ "	27.0 lbs.
JS4	4	7 ³ / ₄ "	12"	10 ¹ / ₂ "	4 ¹ / ₈ "	44.0 lbs.



ANGLE SLIDE RAIL SYSTEM (optional)

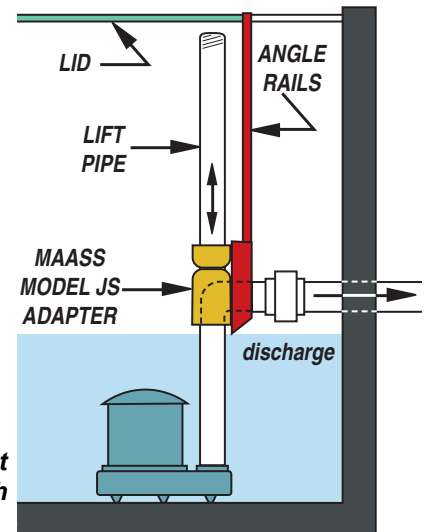
Model JS list price excludes Angle Slide Rail System. Angle Side Rails allow for easy access of JS Adapter for service, even though tank may be filled with effluent.

If needed, you may fabricate your own rails or order them as an option. Optional Angle Slide Rail System is welded to JS Adapter. When ordering, specify length of slide rails needed.

ANGLE SIZE	FOR MODELS
3/16" x 1" x 1"	JS1 ¹ / ₄ , JS1 ¹ / ₂ , JS2
3/16" x 1 ¹ / ₂ " x 1 ¹ / ₂ "	JS3, JS4

Model JS Adapter with Angle Slide Rail System attached

At right: Typical installation for effluent tank or basin using Model JS with Angle Slide Rail System installed.



©2011, MAASS Midwest Manufacturing, Inc.



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

MEMBER:

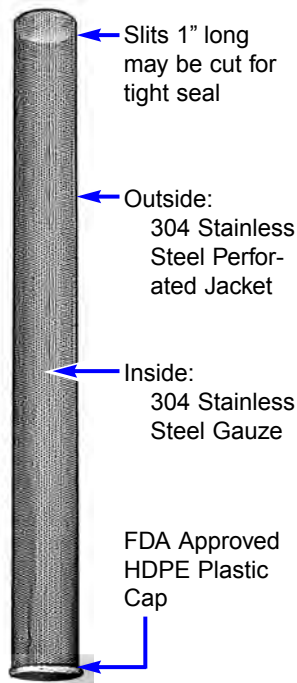


LISTED PAS-97(04)
WELLS ADAPTER STANDARD



MADE in the USA

Submersible Pump Strainer



1536-S

Features:

- ◆ Protects submersible pump from costly sand damage
- ◆ Stainless steel standard
- ◆ Bottom cap manufactured from FDA approved plastic
- ◆ Seams are spot-welded

Designed to protect submersible pumps from sand damage by encasing the pump completely inside the tubular structure of the strainer Maass Midwest 1536-S Submersible Pump strainers are manufactured from 305 stainless steel gauge encased in a 304 stainless steel perforated jacket. The bottom cap is fabricated from FDA approved HDPE plastic.

It is important to select a strainer length and diameter that will cover the motor and suction area of the submersible and tightly close the top around the pump end or discharge area with a stainless steel clamp. Slits approximately 1" long may be cut in the top of the Submersible Pump Strainer to allow it to seal tightly around the sub pump motor.

Submersible Pump Strainer for 3" diameter pumps will fit in 4" I.D. or larger well casing and 4" diameter will fit in 4.5" I.D. or larger well casing.

The strainer works by deflection and straining of the grains of sand during the pumping cycle. During the static cycle, the sand grains drop off and accumulate in the well. Wells which yield heavily will require occasional cleaning by the following steps:

- 1) removal of the submersible pump, and strainer, and
- 2) emptying by means of a bailer or a pump capable of handling sand.

©2004, MAASS Midwest Manufacturing, Inc.

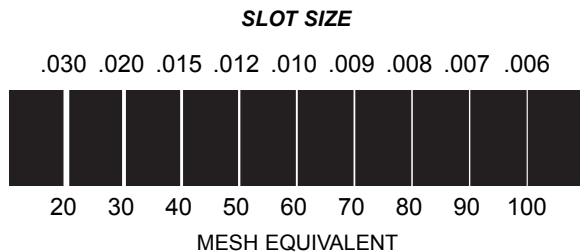
SUBMERSIBLE PUMP STRAINER

Part Number	Size (in. x ft.)	Gauze	Weight (lbs.)
915620	3 x 2	80	1.4
915622	3 x 2	100	1.4
915630	3 x 4	80	2.3
915632	3 x 4	100	2.3
915641	4 x 4	80	3.2
915642	4 x 4	100	3.2
915638	4 x 6	80	5.2
915639	4 x 6	100	5.2

* Please specify pump manufacturer when ordering 3" pump strainers.

SELECTING THE STRAINER GAUZE:

Selection of the strainer gauze is accomplished by comparison of the smaller grains of sand to the slot comparison chart below.



©2011, MAASS Midwest Manufacturing, Inc.



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

MEMBER:



LISTED PAS-97(04)
FITNESS ADAPTER 97(MAASD)

National Pipe Taper (NPT) Joint Strength

Nominal Size (inches OD)	Schedule	NPT Joint Strength (pounds)	Wall Size (inches)	Inside Diameter (inches)	Weight Per Foot (pounds)
3/8 (0.675)	40	540	0.091	0.493	0.573
	80	920	0.126	0.423	0.746
1/2 (0.840)	40	740	0.109	0.622	0.851
	80	1,250	0.147	0.546	1.088
	160	1,750	0.187	0.466	1.474
3/4 (1.050)	40	1,500	0.113	0.824	1.131
	80	1,800	0.154	0.742	1.474
	160	2,800	0.218	0.614	1.937
1 (1.315)	40	1,500	0.133	1.049	1.679
	80	2,600	0.179	0.957	2.172
	160	4,000	0.250	1.815	2.844
1 1/4 (1.660)	40	2,200	0.140	1.380	2.273
	80	3,800	0.191	1.278	2.997
	160	5,500	0.250	1.160	3.765
1 1/2 (1.900)	40	2,700	0.145	1.610	2.718
	80	4,700	0.200	1.500	3.631
	160	7,500	0.281	1.338	4.859
2 (2.375)	40	3,900	0.154	2.067	3.653
	80	7,000	0.218	1.939	5.022
	160	12,300	0.344	1.687	7.462
2 1/2 (2.875)	40	5,700	0.203	2.469	5.793
	80	9,800	0.276	2.323	7.661
	160	15,000	0.375	2.125	10.010
3 (3.500)	40	8,000	0.216	3.068	7.576
	80	13,900	0.300	2.900	10.250
	160	23,000	0.438	2.624	14.320
3 1/2 (4,000)	40	10,000	0.226	3.548	9.109
	80	17,500	0.318	3.364	12.510
4 (4,500)	40	12,500	0.237	4.026	10.790
	80	21,500	0.337	3.826	14.980
	160	38,500	0.531	3.438	22.510
5 (5.562)	40	18,300	0.258	5.047	14.620
	80	32,000	0.375	4.813	20.780
	160	58,500	0.625	4.312	32.960
6 (6.625)	40	25,000	0.280	6.065	18.970
	80	46,000	0.432	5.761	28.570
	160	83,500	0.719	5.187	45.350

The information and data presented herein are typical or average values and are not a guarantee of maximum or minimum values. No liability, either direct or indirect, is assumed for the correctness of this, or any other data in this publication. Applications specifically suggested are made only for the purpose of illustration, to enable the reader to make his/her own evaluation, and are not intended as warranties either expressed or implied of fitness for these or other uses.

©2011, MAASS Midwest Manufacturing, Inc.



MIDWEST

MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

MEMBER:



LISTED PAS-97(04)
PIELESS ADAPTER STANDARD

U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

Weight of Water and Pipe

Pipe	Nominal Size of Pipe (inches)	Pipe I.D. (inches)	Approx. Weight of Water (lbs./ft.)	Approx. Weight of Pipe (lbs./ft)	Approx. Total Weight (lbs./ft)
125 psi polyethylene	1	1.049	0.38	0.2	0.58
	1 1/4	1.38	0.65	0.33	0.98
160 psi polyethylene	1	1.049	0.38	0.26	0.64
	1 1/4	1.38	0.65	0.43	1.08
Schedule 80 PVC	1	0.957	0.31	0.4	0.71
	1 1/4	1.278	0.56	0.55	1.11
	1 1/2	1.5	0.77	0.66	1.43
	2	1.939	1.28	0.92	2.2
Steel Pipe	1	1.049	0.38	1.68	2.06
	1 1/4	1.38	0.65	2.28	2.93
	1 1/2	1.61	0.88	2.73	3.61
	2	2.067	1.45	3.68	5.13
	2 1/2	2.469	2.074	5.79	7.864
	3	3.068	3.202	7.58	10.782
	4	4.026	5.515	10.79	16.305
	6	6.065	12.52	18.97	31.49
	8	7.981	21.67	28.55	50.22
	10	10.02	34.16	40.18	74.34

N.P.S. and I.S.O. Equivalent Pipe Sizes

NPS	ISO	NPS	ISO	NPS	ISO	NPS	ISO	NPS	ISO
1/8	DN6	1 1/4	DN32	3 1/2	DN90	8	DN200	18	DN450
1/4	DN8	1 1/2	DN40	4	DN100	10	DN250	20	DN500
1/2	DN15	2	DN50	4 1/2	DN115	12	DN300	24	DN600
3/4	DN20	2 1/2	DN65	5	DN125	14	DN350	28	DN700
1	DN25	3	DN80	6	DN150	16	DN400	30	DN750

Nominal Pipe Sizes (NPS) and their metric equivalents (called "DN" or "Diameter Nominal"). The metric sizes conform to the International Standards Organization (ISO) usage and apply to all plumbing, natural gas, heating oil, drainage and miscellaneous piping used in building and civil works projects. (Note: A pipe of ISO DN150 is 150 mm in diameter.)

Water Conversions

1 Cubic Foot	=	7.48 gallons
	=	28.317 liters
	=	62.428 pounds
1 Gallon	=	8.345 pounds
	=	3.785 liters
	=	231 cubic inches
1 Liter	=	2.205 ounces
	=	0.2642 gallons
	=	61 cubic inches
1 Cubic Meter	=	2204.5 pounds
	=	1000 liters
	=	2.64.2 gallons
1 Pound	=	27.7 cubic inches

Volume of Water per Linear Foot of Schedule 40 Steel Pipe

PIPE DIAMETER	CUBIC FEET	GALLONS
1.0	.006	.045
1.25	.010	.078
1.5	.012	.106
2.0	.022	.174
2.5	.034	.26
3.0	.051	.384
4.0	.087	.65
5.0	.139	1.04
6.0	.196	1.47
8.0	.349	2.61
10.0	.545	4.08
12.0	.785	5.89

©2011, MAASS Midwest Manufacturing, Inc.



MIDWEST

MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

MEMBER:



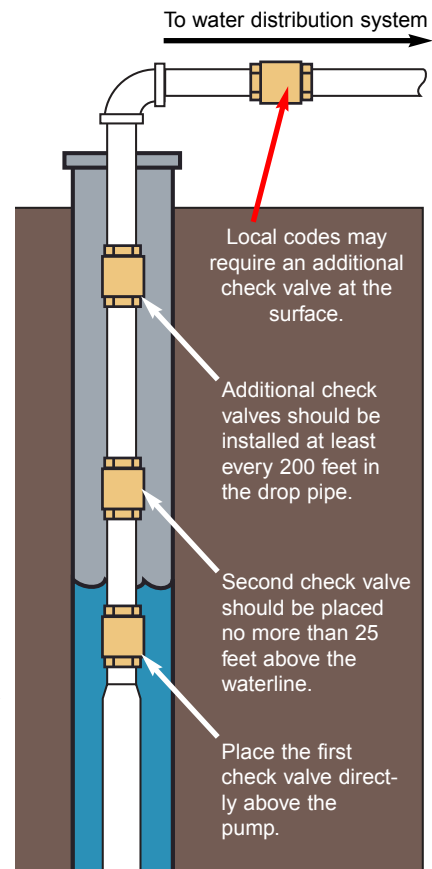
LISTED PAS-97(04)
FITLESS ADAPTER STANDARD

Check valves are designed to permit water flow in one direction only, and are generally recommended for all submersible installations. Some submersible pumps and motors may be suitable for operation with a check valve. Consult with each manufacturer concerning proper application and installation of their equipment. On submersible pump installations using a pressure tank, use a check valve to keep stored water from flowing back into the well.

Spring loaded, stem or cage poppet style check valves, such as the Maass Midwest Model Numbers 529, 530, or 531 check valves, should be used with submersible pumps. These are designed to close quickly as the water flow stops and begins to move in a reverse direction. Swing type check valves should not be used. When the pump stops, there is a sudden change in the velocity of the water.

It is important to correctly choose and install a check valve to help insure a trouble free water system. It should be properly sized to the pump's flow and pressure conditions. Prior to installing a check valve, be certain its mechanism is operating properly. Install the valve with the imprinted flow arrow in the correct direction.

The first check valve should be installed directly above the pump. A check valve should never be installed more than 25 feet (7.5 meters) above the lowest pumping level in the well. For deeper settings, it is recommended that a line check valve be installed every 200 feet. Another check valve may be installed in the horizontal piping at the surface or just below the well seal or pitless adapter, as required by local codes. There is risk of water hammer in the upper check valve if the lower check valves fails. (See diagram.)



Properly located and operating check valves hold water pressure in the system when the pump stops. They also extend the life of and assist in the smooth operation of the water system by preventing backspin, upthrust, and water hammer.

1. **backspin** — With no check valve or if the check valve fails, the water in the drop pipe and the water in the system can flow back down the discharge pipe when the motor stops. This can cause the pump to rotate in a reverse direction as the water flows back down the pipe. If the motor is started while this is happening, a heavy strain may be placed across the pump-motor assembly. It can also cause excessive thrust bearing wear because the motor is not turning fast enough to ensure an adequate film of water in the thrust bearing.

Continued on reverse side.

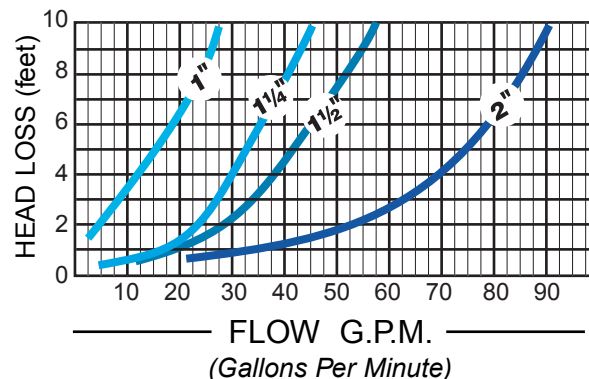
General Information on Installation of Check Valves

Continued from previous page.

2. **upthrust** — With no check valve, or with a leaking check valve, the unit starts each time under zero head conditions. With most pumps, this causes an uplifting or upthrust on the impellers-shaft assembly in the pump. This upward movement carries across the pump-motor coupling and creates an upthrust condition in the motor. Repeated upthrust at each start can cause premature wear and failure of either or both the pump and the motor.

3. **water hammer** — Water flowing through a piping system has kinetic energy (weight and velocity). When the pumping stops, the water continues to move. Its energy must be absorbed in some way. A rapid absorption of energy can cause noise and/or damage. This is called water hammer or shock. This shock can split pipes, break joints, and damage the pump. Water hammer varies in intensity depending on the velocity with which the water is traveling when the pump shuts off. For every foot per second of velocity, 54 psi of back pressure is created. A 1" pipe having a flow of 10 gallons per minute (gpm) could generate a back pressure of 350+ psi. In a 4" pipe, a flow of 350 gpm could create a back pressure of 860 psi. This does not consider the weight of the water column, which increases shock as the length of piping increases. When water hammer occurs, shut the system down and correct the problem. Maass Midwest Model Numbers 529, 530, and 531 in line check valves are designed to lessen the damaging effects of water hammer.

Flow Chart for MIDWEST™ Model #531 Check Valve



No liability, either direct or indirect, is assumed for the correctness of this, or any other data in this publication. Applications specifically suggested are made only for the purpose of illustration, to enable the reader to make his/her own evaluation, and are not intended as warranties either expressed or implied of fitness for these or other uses.

©2011, MAASS Midwest Manufacturing, Inc.



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

MEMBER:



LISTED PAS-97(04)
IFLBS ADAPTER STANDARD



**ALUMINUM
WELL CAP**

WTCC Series



MADE in the USA

ENGINEERING SPECIFICATION

The well cap will consist of cast aluminum top and base ring with neoprene gasket. The base ring will have a 1/4" bolt for mounting the ring to the well casing and have provision for _____" NPT thread tapping (see below for size) for the electrical conduit connection.

The neoprene gasket seal will slip over the _____" O.D. casing (see below) and act as a seal between cap top and base ring to exclude vermin. The gasket will have a #30 mesh stainless steel vent screen attached to it. The top will completely cover and extend over the well casing, also covering the gasket when assembled, so the gasket is not exposed to the elements. The assembly shall be held together by six stainless steel nuts and bolts. The completed assembly will have a minimum of a 3/4" diameter, downward facing screened vent area in the base ring. The cap shall be a Model WTCC as manufactured by MAASS-MIDWEST, Huntley, IL. or equivalent.

Part Number	Model	Casing O.D.	Electrical Conduit NPT
952800	WTCC-4	4 1/2"	1
952802	WTCC-5	5 9/16"	1
952804	WTCC-5.6	6"	1
952815	WTCC-6.15	6 5/8"	1 1/2
952805	WTCC-6.125	6 5/8"	1 1/4
952806	WTCC-6	6 5/8"	1
952808	WTCC-6.6	7"	1 1/4
952810	WTCC-8	8 5/8"	1 1/4
952813	WTCC-8.15	8 5/8"	1 1/2
952848	AWT-10	10 3/4"	2
952849	AWT-12	12 3/4"	2

©2011, MAASS Midwest Manufacturing, Inc.



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

MEMBER:

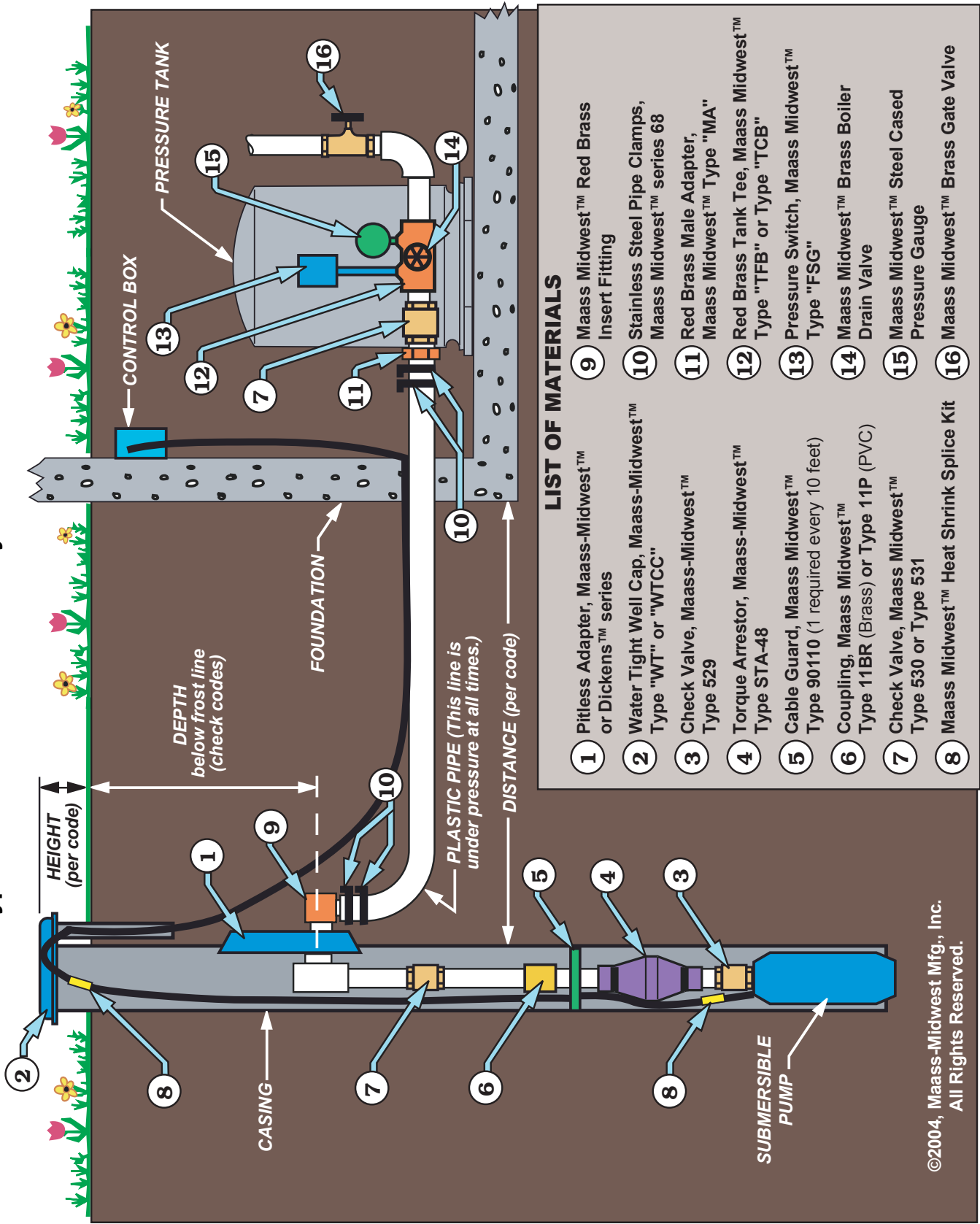


LISTED PAS-97(04)
PITLESS ADAPTER STANDARD

U.S. & CANADA 1-800-323-6259 • FAX 1-847-669-3230 www.maassmidwest.com

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • (800) 323-6259 • IL AREA (847) 669-5135

Typical Installation of Sanitary Well Accessories



LIST OF MATERIALS

- | | |
|---|--|
| 1 Pitless Adapter, Maass-Midwest™ or Dickens™ series | 9 Maass Midwest™ Red Brass Insert Fitting |
| 2 Water Tight Well Cap, Maass-Midwest™ Type "WT" or "WTCC" | 10 Stainless Steel Pipe Clamps, Maass Midwest™ series 68 |
| 3 Check Valve, Maass-Midwest™ Type 529 | 11 Red Brass Male Adapter, Maass Midwest™ Type "MA" |
| 4 Torque Arrestor, Maass-Midwest™ Type STA-48 | 12 Red Brass Tank Tee, Maass Midwest™ Type "TFB" or Type "TCB" |
| 5 Cable Guard, Maass Midwest™ Type 90110 (1 required every 10 feet) | 13 Pressure Switch, Maass Midwest™ Type "FSG" |
| 6 Coupling, Maass Midwest™ Type 11BR (Brass) or Type 11P (PVC) | 14 Maass Midwest™ Brass Boiler Drain Valve |
| 7 Check Valve, Maass Midwest™ Type 530 or Type 531 | 15 Maass Midwest™ Steel Cased Pressure Gauge |
| 8 Maass Midwest™ Heat Shrink Splice Kit | 16 Maass Midwest™ Brass Gate Valve |

©2004, Maass-Midwest Mfg., Inc.
All Rights Reserved.

SandBlocker™

Well Screens



MADE in the USA

FEATURES :

- Large inflow area of 32% provides twice the flow of wire wrap screens
- One size fits all, from comparable slot size of 3 and larger
- Rugged design, strongest stainless steel screen in market today
- Resistant to plugging and erosion, pore size distribution replicates sand size distribution
- Gravel pack not required, saving time and money
- All stainless steel construction
- Competitively priced



An Innovation in Sand Retention

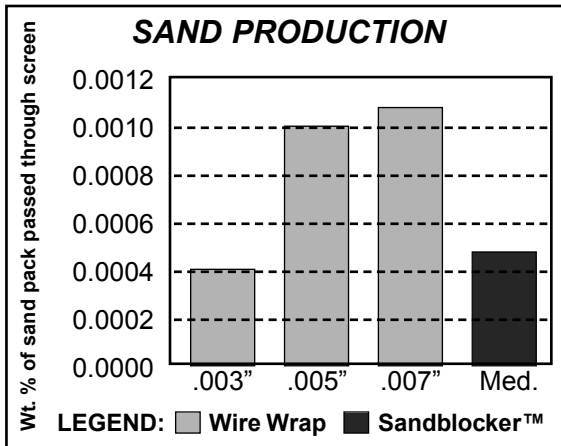


MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

©2011, MAASS Midwest Manufacturing, Inc. All rights reserved.

MAASS SandBlocker™

TEST REPORT



TRANSMITTING CAPACITY CHART
Gallons Per Minute Per Foot of Screen
at 0.1 Foot Per Second

SCREEN	1 1/4"	2"	3"	4"	5"	6"
GPM/FT	5	8	12	16	21	25

STAINLESS STEEL DRIVE POINTS

PIPE SIZE 3" NPT MALE X FEMALE

Part Number	Size	Screen O.D.	Screen Length	List Price Each
916800-3	1 1/4"	1.75	36"	See
916802-3	2"	2.50	36"	separate
916802-4	2"	2.50	48"	price list

Male X Point

STAINLESS STEEL DRIVE POINTS

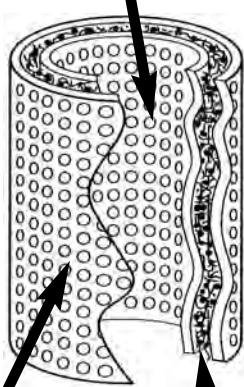
PIPE SIZE 3" NPT MALE X FEMALE

Part Number	Size	Screen O.D.	Screen Length	List Price Each
916810-3	1 1/4"	1.75	36"	See separate
916812-4	2"	2.50	48"	price list

NOTE: Male x Male, Female x Female and
ASTM Flush Fitting available.



304 Stainless Steel
Perforated Inner Tube



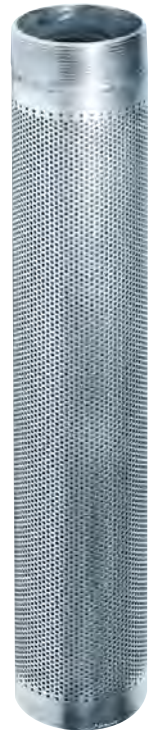
304 Stainless Steel
Perforated
Outer Tube

434 Stainless Steel
Fiberwool for Sand
Retention

WELL SCREENS

PIPE SIZE 3" NPT MALE X FEMALE				
Part Number	Size	Screen O.D.	Screen Length	List Price Each
916813-3	3"	3.50	3'	See separate
916813-4	3"	3.50	4'	price list
PIPE SIZE 3" NPT MALE X PLATE BOTTOM				
916833-3	3"	3.50	3'	
916833-4	3"	3.50	4'	
PIPE SIZE 4" NPT MALE X FEMALE				
916814-3	4"	4.50	3'	
916814-4	4"	4.50	4'	
PIPE SIZE 4" NPT MALE X PLATE BOTTOM				
916834-3	4"	4.50	3'	
916834-4	4"	4.50	4'	
PIPE SIZE 5" NPT MALE X FEMALE				
916815-3	5"	5.50	3'	
916815-4	5"	5.50	5'	
PIPE SIZE 5" NPT MALE X PLATE BOTTOM				
916835-3	5"	5.50	3'	
916835-5	5"	5.50	5'	
PIPE SIZE 5" WELDING X WELD RING				
916885-3	5"	5.50	3'	
916885-5	5"	5.50	5'	
PIPE SIZE 6" NPT MALE X PLATE BOTTOM				
916836-5	6"	6.50	5'	
PIPE SIZE 6" WELDING X WELD RING				
916886-5	6"	6.50	5'	

Note: Longer screen lengths available by splicing various standard lengths together. Contact factory for price and availability.



Patent No.
5833853



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547
(800) 323-6259 • IL AREA (847) 669-5135 • FAX (847) 669-3230

www.maassmidwest.com

SANDBLOCKER™ WELL SCREENS



SPECIFICATION

The filter well screen shall be constructed of two 304 stainless steel concentric tubes having a minimum wall thickness of 1.2 millimeters. The inner tube shall have a fiber stainless steel wool wrapped around it and the outer tube shall cover the fiber wool material. The 434 stainless steel fiber wool shall have a 92% porosity. Both tubes shall be perforated with 5-millimeter diameter holes. The total effective open area shall be a minimum of 30%. The filter well screen shall be able to retain sand grains of 50 microns or larger. The tubes and end fittings shall be made of corrosion resistant type 304 stainless steel material. End fittings, pipe size, and screen length, will be provided on the basis of the well design parameters and the drilling method. The filter well screen shall be manufactured by Maass Midwest Manufacturing, Inc., Huntley IL USA or equal.

SandBlocker™ pipe size _____

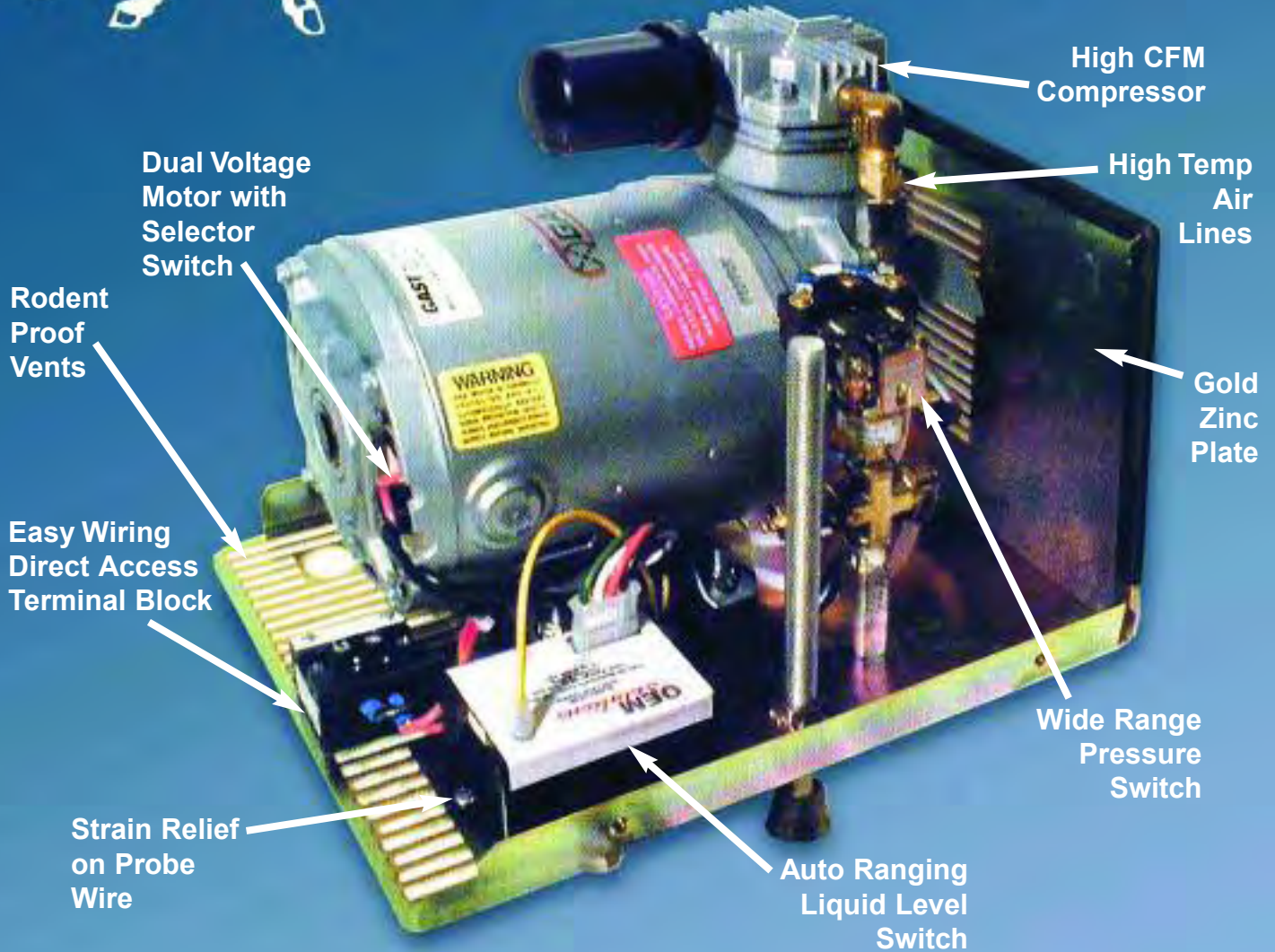
SandBlocker™ length _____

SandBlocker™ end fittings _____



CHARGE AIR2000

*Universal Aircharging System
for Hydropneumatic Tanks*



These innovative features and more.



MADE in the USA

MAASS
MIDWEST

MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

©2004, MAASS Midwest Manufacturing, Inc. All rights reserved.

www.maassmidwest.com

ChargeAir 2000 *Universal Aircharging System for Hydropneumatic Tanks* *Manufactured by MAASS Midwest Mfg.*

11283 DUNDEE ROAD • HUNTLEY, IL 60142-0547



- 1** Dual voltage motor, auto ranging 115v/230v liquid level control, and wide pressure range which means one unit does it all, reducing inventory requirements.
- 2** **NEW** Dual voltage selector switch allows for easy voltage selection 115v/230v.
- 3** Direct access terminal block means faster installation.
- 4** High capacity compressor means faster tank charging and larger tank capacity.
- 5** **NEW** More durable liquid level switch includes MOV surge arrestor, increasing switch life.
- 6** Strain relief on probe connection means no call backs from cables broken by waves into the tank.
- 7** Stainless steel fasteners and gold zinc plating means longer life in harsh environmental conditions.
- 8** **NEW** Improved air lines to handle higher temperatures and pressures.
- 9** Rodent proof air vents mean no down time from chewed wires or air hoses.
- 10** Durable heavy cover means your CA2000 will hold up better to sun exposure and harsh environments.

ChargeAir 2000

Model: CA 2000
Part Number: 992000
Description: 115/208/230 Volt, 50/60 Hz, single phase

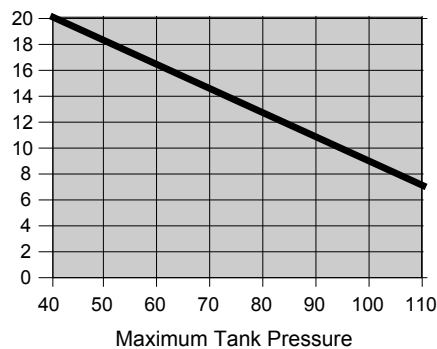
SPECIFICATIONS

Maximum tank size20,000 Gallons
 Pressure range (adjustable)40 to 110 PSI
 Pressure Switch factory setting45 PSI cut-off
 Operating current at 115 volts.....6 amps
 Operating current at 208 volts3.5 amps
 Operating current at 230 volts.....3 amps
 Tank Connection2" FPT
 Size (LxWxH)14" x 10" x 17"
 Shipping weight37 lbs.

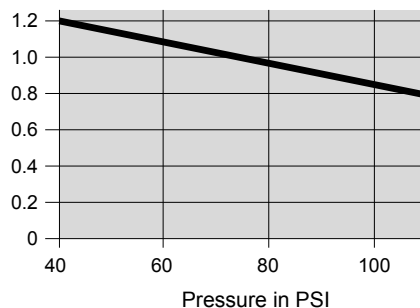
SPARE PARTS

DESCRIPTION	PART NUMBER
Compressor	000131
Cover	000133
Switch, liquid level - complete	000151

Maximum Operating Pressure for Various Tank Sizes



Compressor Output



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

P. O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547
 (800) 323-6259 • IL AREA (847) 669-5135 • FAX (847) 669-3230
www.maassmidwest.com

CHARGE AIR 2000 Specifications

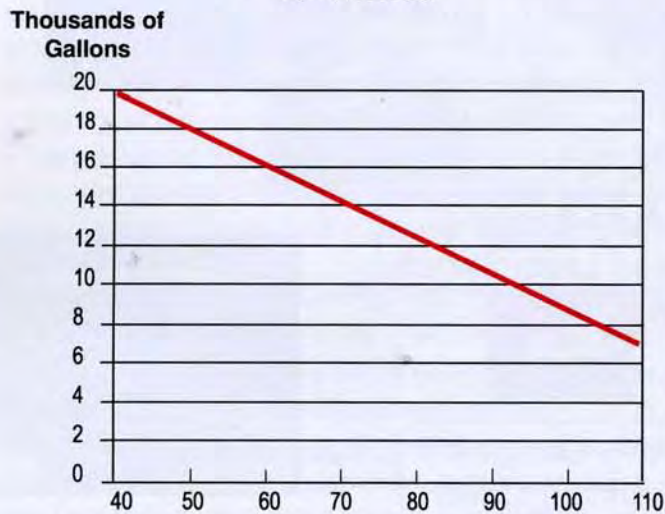
Manufactured by
MAASS Midwest Mfg.
Huntley, IL 60142-0547

Model CA 2000
P/N (992000)

115/208/230 Volt, 50/60 Hz
Single Phase

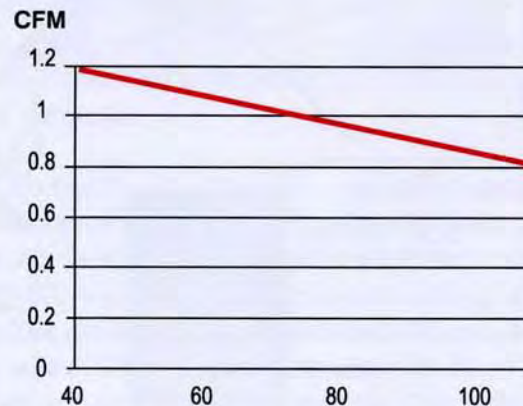
Maximum tank size	20,000 Gallons
Pressure range (adjustable)	40 to 110 PSI
Pressure Switch factory setting	45 PSI cut-off
Operating current at 115 volts	6 amps
Operating current at 208 volts	3.5 amps
Operating at 230 volts	3 amps
Tank Connection	2" FPT
Size (LxWxH)	14x10x17"
Shipping weight	37 Lbs.

Maximum Operating Pressure for Various Tank Sizes



Maximum Operating Pressure

Compressor Output



Pressure in PSI

SPARE PARTS

Description	Part Number
Compressor	000131
Cover	000133
Switch, liquid level - complete	000150

MAASS Midwest Mfg., P.O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547
Phone (800) 323-6259 IL Area (847) 669-5135 Fax (847) 669-3230
www.maassmidwest.com
Effective: 03/01/06






MAASS

MIDWEST

MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

CHARGE AIR 2000

Universal Aircharging System for Hydropneumatic Tanks

-  Dual Voltage System (115-240 VAC Single Phase)
-  Auto Ranging Solid State Liquid Level Control
-  Oil-less Long Life Compressor
-  Adjustable Pressure Switch (40-110 PSI)
-  One Year Warranty

CHARGE AIR Standard Features

Charge Air is an entirely self-contained dual voltage air charging system. All components are mounted on a corrosion resistant gold zinc plated base using stainless steel fasteners and enclosed within a heavy gauge high density polyethylene, weatherproof outer shell. The protected components include a long life oil-less compressor, auto ranging solid state liquid level control with isolated electrode circuit and time delay and an adjustable 40 to 110 P.S.I. pressure switch.

CHARGE AIR Operation...

Charge Air utilizes three primary components: a liquid level switch, a pressure switch, and an air compressor. Through an electrode suspended into the tank from the Charge Air system the liquid level control continuously monitors the water level of the tank. Simultaneously the pressure switch monitors the air pressure in the tank. When the water level is above the electrode and the air pressure in the tank drops below its setting the compressor will start and continue to run until the proper air pressure is reached or the water level drops below the electrode. This constant monitoring guarantees that the optimum air charge is maintained.



Charge Air Model CA2000 Air Volume Control Installation Instructions

1. Attaching the Water Level Probe: The bottom of the probe should hang half way from the top of the tank and the center of the outlet pipe at the bottom. Measure this distance, divide by two, and add 4 inches. Cut the white probe wire to this length, and strip 1/2" of insulation from the end of the wire. Also strip 1/2" of insulation from the end of the wire that is on the bottom of the **Charge Air**. Use the wire splicing kit that is provided to connect the probe wire.

2. Mounting Charge Air to the Tank: **Charge Air** should be located near the end of the tank if possible, for greater ease of installation and servicing, but not over the water inlet pipe where waves might disturb the probe readings. Attach **Charge Air** using a 2" steel pipe nipple 3" long. Use a good thread sealing compound or Teflon tape to assure an air tight seal. The vibration damper rod must be adjusted so it is snug against the tank, and lined up with the tank center-line if on a horizontal tank.

3. Connecting the Electrical Power: The **Charge Air** operates on either 115, 208 or 230 volts single phase. The motor is factory set for 115 volts, so if higher voltage is used, simply remove the cover on the back of the motor and flip the switch to desired voltage. The liquid level switch electronic module is auto ranging, which means it will operate on either 115, 208, or 230 volts without any adjustment. Power to the **Charge Air** should be a separately fused 15 amp circuit. Because **Charge Air** circuitry is surge protected, it can be powered from the pump control panel. Since it operates independently of the pump, it should be connected between the disconnect and the pump contactor.

4. Adjusting the pressure Switch: **Charge Air** pressure switch cut-out must be set 5 PSI below the pump pressure switch cut-out setting. For instance, if the pump pressure switch is set at 40-60, the **Charge Air** pressure switch must be set at 55 PSIG. The **Charge Air** switch is factory set at 45 PSIG, making it suitable, as shipped, for a pump pressure switch setting of 30-50. Any other pump pressure setting requires an adjustment of the **Charge Air** pressure switch. **(NOTE: The minimum set point on the Charge Air pressure switch is 40 PSI, so the minimum system pressure for which Charge Air is suitable is 25-45.)** The **Charge Air** pressure switch has a thumb wheel which is used to adjust its pressure setting. The pressure gauge must be used to make final adjustments. Before adjusting the setting, drain enough water out of the tank to make the pump cycle. Watch the pressure gauge and note the exact pressure reading when the pump shuts off at the end of the pumping cycle. Adjust the **Charge Air** pressure switch to turn the thumb wheel until the compressor turns on, then slowly increase the setting until the desired cut-out pressure is achieved. When adjusting the setting, make sure there is enough water in the tank to contact the probe so the compressor will run. Some means of bleeding air out of the tank without changing the water level makes setting the compressor cut-out pressure much quicker and more accurate.

(NOTE: Should the compressor not start as expected, remember the 15 second on-delay timer built into the water level control circuitry to prevent it from short cycling due to waves in the tank.)

Distributed by:



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

Trouble shooting guide for CA2000

Theory of Operation – The CA2000 is an air charging system that uses a pressure switch and water level probe to maintain the proper air charge in a hydro pneumatic tank. The unit is designed to turn on towards the end of the pump cycle to add a small amount of air just before the pump pressure switch turns off the pump. This is accomplished by setting the CA2000 pressure switch turn off setting 5-PSI below the pump pressure switch turn off setting.

As air is absorbed into the water, the air/water interface in the tank slowly raises over time. Eventually, toward the end of a pump cycle, water will touch the CA2000 probe. If the tank pressure has not yet exceeded the turn off setting of the CA2000 pressure switch, the compressor will turn on for a short period of time until it's pressure switch is satisfied, adding a small amount of air to the tank. During the next pump cycle, if water again touches the probe, more air will be added to the tank. Eventually, enough air will have been added that the water level does not reach the probe by the end of the pump cycle, and the compressor will not come on.

Trouble shooting

- **Unit puts too much air into tank**
 - o Symptoms - The water level in the tank drops low enough to allow air to escape from the tank into the piping system.
 - o Background – In order to the compressor to run, two conditions must be met.
 - The tank pressure must be below the upper set point of the CA2000 pressure switch (the turn off setting.)
 - The tank probe must be in contact with the water.
 - o Possible causes leading to too much air in the tank.
 - Probe set to low – The probe should be installed near the center of the tank. If it is set too low in the tank it is possible of the tank to essentially run out of water before the pump turns on allowing air to enter the water piping system. Raise the probe.
 - Bad pressure switch – If the CA2000 pressure switch does not switch off the compressor when its set point is reached, the compressor will continue to run and the tank pressure will reach the set point of the pressure relief valve, about 125 PSI. This runaway pressure condition could only occur if water was not drawn from the tank after the pump turned off because the probe would have to be in contact with the water for the compressor to keep running.
 - Short in the probe wiring – This would fool the water level monitor into thinking the probe was in contact with the water.
 - Bad water level monitor – The relay contacts in the water level monitor could become stuck closed due to a lightning strike or similar high voltage condition causing the compressor to come on even though the probe is not in contact with the water.
 - o Tests and solutions
 - Check the tank pressure gauge. If it reads a higher pressure than the setting of the pump pressure switch, replace the CA2000 Pressure switch.
 - Remove the yellow wire from the water level module while the compressor is running. If the compressor stops immediately, the probe is either in the water or the yellow wire is shorted to the tank. To determine which condition exists, perform the following test.
 - Measure the resistance between the yellow wire and the tank. If you get a reading close to 0 ohms, the yellow wire is shorted. A reading from 1,000 to 20,000 ohms means the probe wire is OK and the probe is in contact with water. A reading of infinity (no needle movement) means the probe is not in contact with water and the yellow wire is not shorted.
 - If the compressor does not stop running when the yellow wire is removed from the module, the module is defective and must be replaced.
- **Not enough air in the tank**
 - o Symptoms – Tank becomes water logged as indicated by the pump short cycling.
 - o Background



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

- The compressor output is about .8 CFM at 100 PSI.
- A 1000-gallon tank half full of air would have about 65 CF of air in it.
- It would take about 1.5 hours for a CA2000 completely charge a 1000-gallon hydro pneumatic tank half full of water.
- Under normal conditions, the compressor should only run for a minute or so at a time to keep the tank charged, depending on the pumping rate vs. the water usage rate.
- The tank can only become water logged if the air charging system does not pump enough air into the tank. If it does become water logged, either there is an air leak or the compressor does not run long enough because the probe is set too high or the CA2000 pressure switch is set too low or the compressor does not run at all.
- o Possible causes
 - There is a small air leak in the tank or CA2000 plumbing, which exceeds the charging capacity of the CA 2000 compressor.
 - Test – Isolate the tank by closing the tank outlet valves and look for a drop in pressure over time. If the pressure drops with not water draw there is an air leak in the tank or air charging system. Use a listening device or soap solution to locate the leak.
 - The water level probe is set too high. It should be set as the mid point of the tank. Adjust as necessary.
 - The compressor is not coming on because the circuit from the water level probe to the water level module is faulty. This would most likely occur due to the probe wire breaking inside the tank.
 - Test - Remove the yellow wire from the module and use a small jumper wire to create a short circuit between the CA2000 chassis and the socket where the yellow wire connects to the module. If the pressure in the tank is below the turn off setting of the CA2000 pressure switch, the compressor should come on approximately 15 seconds after the connection is made. (There is a 15-second delay built into the water level module circuitry to prevent the compressor from short cycling due to waves in the tank). If it does come on there is an open circuit in the probe wire circuit.
 - Solution - Check the integrity of the yellow wire from the module to the bulkhead connection where it enters the tank under the compressor. If the yellow wire looks to be intact, remove the CA2000 from the tank and check the rest of the circuit to the probe.
 - The compressor does not come on because the pressure switch is set too high or is defective.
 - Double check, the tank pressure is well below the turn off setting of the CA2000 pressure switch. Run a jumper wire across the two pressure switch terminals. If the compressor starts in 15 seconds, the pressure switch is either defective or is set above the present tank pressure. If the pressure setting is correct, replace the pressure switch.
 - The compressor does not come on because the compressor motor is not wired properly or is defective.
 - Check the wiring in the back of the compressor motor to make sure it is properly connected for the voltage being used and that the spade connectors are snug. If it is properly connected go on to the next test.
 - The compressor does not come on because the water level module is defective.
 - Double check, the tank pressure is well below the turn off setting of the CA2000 pressure switch. If it is, and the preceding checks have been successfully performed, the module may be defective.
 - Test - Run a jumper wire from either terminal on the pressure switch to where the back wire connects to the terminal block, thus by passing the module. If the motor starts immediately, the module is defective. If it does not and the preceding tests have been successfully performed, the compressor motor is defective and must be replaced.

ONE YEAR LIMITED WARRANTY

www.maassmidwest.com

- Features:**
- ◆ Heavy red brass body for maximum strength
 - ◆ Cage type brass spool poppet eliminates sticking
 - ◆ Designed to reduce sand packing or clogging with foreign matter
 - ◆ Buna-n rubber facing for water, oil or gas
 - ◆ Silent operation in horizontal or vertical position
 - ◆ Can be used with water, oil or gas

NOTE: All brass foot and check valves rated at 200 psi at 180° operating temperature

530

Female X Female IN-LINE CHECK	
PART NUMBER	SIZE
922579	1/2"
922582	3/4"
922585	1"
922588	1 1/4"
922591	1 1/2"
922594	2"
922597	2 1/2"
922600	3"
922603	4"



DUCTILE IRON CHECK VALVES

- Features:**
- ◆ Heavy Ductile Iron body for maximum strength
 - ◆ Cage type brass spool poppet eliminates sticking
 - ◆ Buna-n rubber facing for water, oil or gas
 - ◆ Lead free
 - ◆ Durable catalytic epoxy - NSF/FDA finish
 - ◆ Stainless steel spring

530D

Female X Female IN-LINE CHECK	
PART NUMBER	SIZE
922630	2 1/2"
922635	3"
922640	4"



530D CHECK VALVE with BREAK OFF PLUG

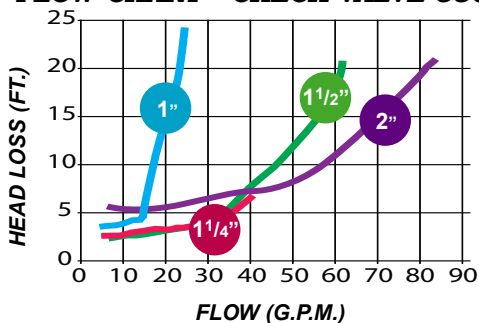
- Features:**
- ◆ Includes 1/2" stainless steel break off plug
 - ◆ When plug is broken, it allows water to drain from pipe

530D

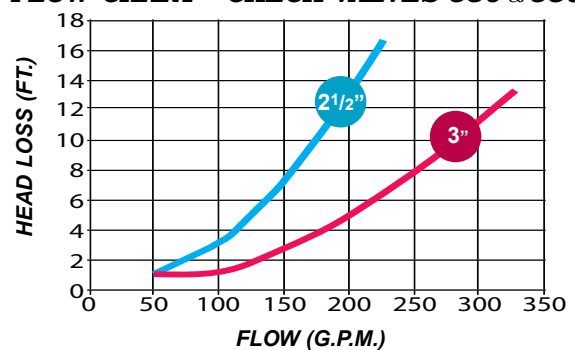
Female X Female IN-LINE CHECK WITH BREAK OFF PLUG	
PART NUMBER	SIZE
922620	4"



FLOW CHART • CHECK VALVE 530



FLOW CHART • CHECK VALVES 530 & 530D



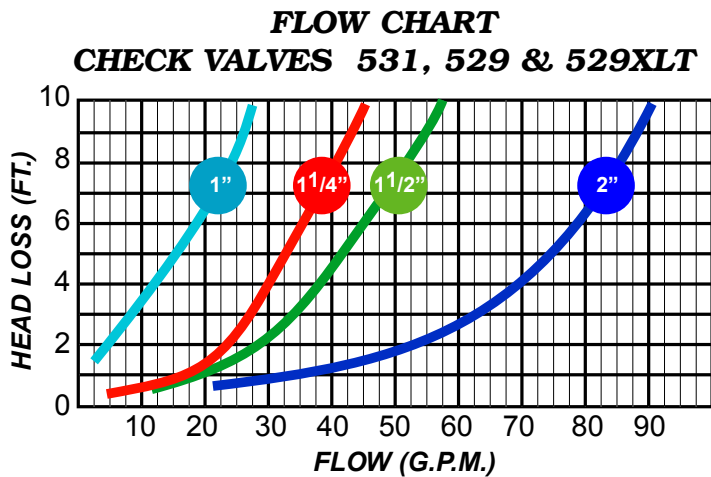
CHECK VALVES

CHECK VALVES

CHECK VALVES

Features:

- ◆ Quiet operation
- ◆ 40% to 60% greater flow than industry standard
- ◆ Cast brass body has wrenching lugs for easy installation
- ◆ Valve body is durable Grade 81 red brass casting
- ◆ Celcon poppet and guide of matching materials
- ◆ Stainless steel spring
- ◆ Mating pipe cannot block operation of valve
- ◆ Tapered coined seat provides smooth hardened surface
- ◆ Longer threads make for excellent valve when used with PVC
- ◆ Excellent for hot water systems; rated at 180°
- ◆ Model 531 1" and 1 1/4" available in No-Lead brass



531

Female X Female
In-line check

PART NUMBER	SIZE
-------------	------

922823	1"
922824	1 1/4"
922825	1 1/2"
922826	2"



529

Male X Female
In-line check
(pump head use)

PART NUMBER	SIZE
-------------	------

922605	1" x 1"
922606	1 1/4" x 1"
922607	1 1/4" x 1 1/4"
922608	2" x 2"

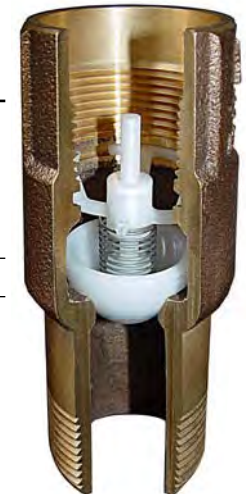


529XLT

Male X Female
In-line check
(bell socket PVC
drop pipe check)

PART NUMBER	SIZE
-------------	------

922700	1"
922702	1 1/4"
922704	2"



©2010, Maass Midwest Mfg., Inc.

MAASS**MIDWEST**

MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

NEW!**MANIFOLD****Features:**

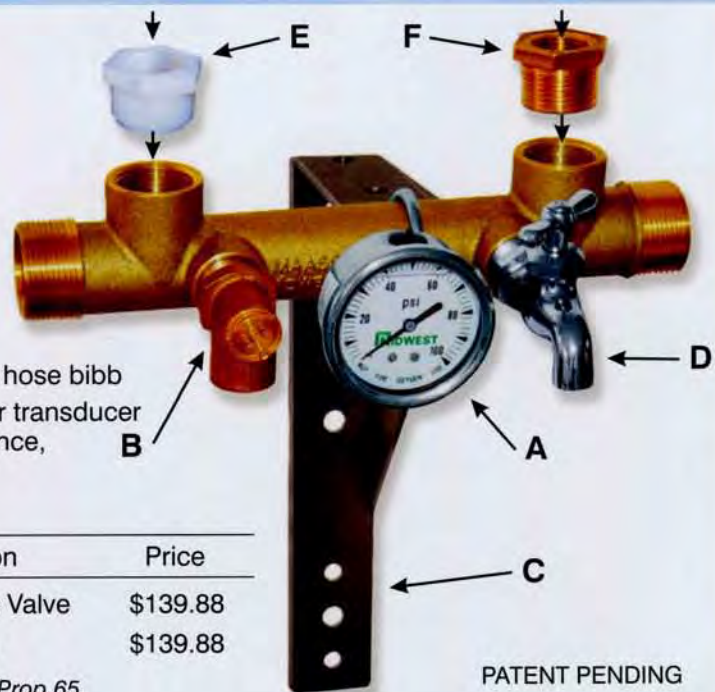
- **Versatile** - Fits 1" or 3/4" male tank fittings
- **No lead brass** - 0.05% or less
- Tapped with (2) 1", (2) 3/4" and (1) 1/4" threads
- Inlet and outlet tapped 1" female X 1-1/4" male



Part Number	Weight	Price
952280	2.4#	\$53.66

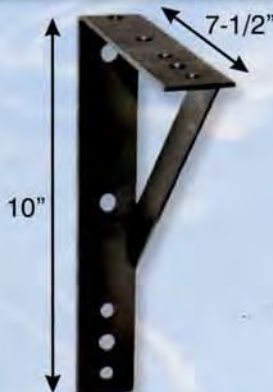
CONSTANT PRESSURE MANIFOLD PACKAGE**Package consists of:**

- A-** (1) 2-1/2" Stainless Steel Back Mounted Liquid Filled Gauge 0-100#
- B-** (1) Spring loaded Pressure Relief Valve, set at 100 PSI at the factory
- C-** (1) Steel mounting bracket
- D-** (1) Chrome plated sample valve or no lead brass hose bibb
- E-** (1) 1" X 1/2" and (1) 1/2" X 1/4" Nylon bushing for transducer connection. Reduces potential electrical interference, thus providing greater transducer accuracy
- F-** (1) 1" X 3/4" Brass Tank Adapter Bushing



PATENT PENDING

Part Number	Weight	Optional Connection	Price
952300	5.30#	Chrome Plated Sample Valve	\$139.88
952302	5.30#	Brass Hose Hub	\$139.88

Note: Not all components meet California Prop 65**WALL MOUNT BRACKET****Mount manifold, tank and fittings on wall for:**

- Neat appearance
- Easy service
- Includes steel U bolt for mounting
- Off floor for system protection

Bracket is steel construction. Will accept 3/8" bolts for mounting. Versatile Tank Discharge Center may be positioned 7-1/2" or 10" from wall.

Part Number	Weight	Price
952290	1.2#	\$36.26

U.S. FUNDS

MEMBER:

©2010, MAASS Midwest Manufacturing, Inc.

**MAASS MIDWEST**

MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

U.S. & CANADA 1-800-323-6259 • IL AREA 1-847-669-5135 • FAX 1-847-669-3230
 P.O. Box 547, 11283 Old Dundee Road, Huntley, IL 60142-0547 • www.maassmidwest.com

LISTED PAS-97(04)
WELLS HEADERS/ENGINEERS

**Flowing Wells are always a problem.
Time to solve that problem with the**

WELL BUSTER®

FLOWING WELL PACKER

For many years, artesian wells have caused massive amounts of wasted water and physical damage. Additional problems are created in colder climates with the excess water freezing and causing further damage and dangerous conditions. Well drillers, pump installers, and well owners alike have shared this problem. The solution our industry has been waiting for is now here.

Maass Midwest now offers the Well Buster® flowing well packer to prevent the wasteful discharge of water from flowing wells. The Well Buster® works by shutting off the flow of water below frost level. The unit is constructed of stainless steel, brass and medical grade EPDM rubber material.

Here's how it works: A rubber packer is installed above the pitless adapter, below the frost level. Submersible pump wires (4 - #10) are included and sealed into place at the packer, preventing water from flowing past the packer and pump wires. A vacuum air release at the bottom of the packer allows air to enter or be released from the well to accommodate fluctuations in the well's water level.

Sizes Available:

- 5" ID casing for up to 30 PSI water pressure
- 6" ID casing for up to 20 PSI water pressure
- 6-1/4" ID casing for up to 20 PSI water pressure

Other sizes available. See reverse side for ordering information.

MAASS
MIDWEST

MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

MAASS Midwest Manufacturing, Inc. All rights reserved.



Part Number	Casing Size I.D.	Bury Depth	Weight (Lbs.)
935628	5	4'	12.0
935630	5	5'	12.5
935632	5	6'	13.0
935638	6	4'	12.0
935640	6	5'	12.5
935642	6	6'	13.0
935648	6-1/4"	4'	12.0
935650	6-1/4"	5'	12.5
935652	6-1/4"	6'	13.0

Note: Contact factory for other bury depths.
5" I.D. wells, 30 psi maximum;
6" and 6-1/4" I.D. wells, 20 psi maximum

ORDERING INFORMATION

Measure well casing inside diameter. Determine the bury depth to pitless adapter. See diagram. Pressure test the flowing water before ordering the product through your water well systems distributor.

Unit includes stainless steel tube, four #10 pump wires sealed into place, eight Maass Midwest heat shrinks, air release valve, rubber sealing packer between two stainless steel plates.

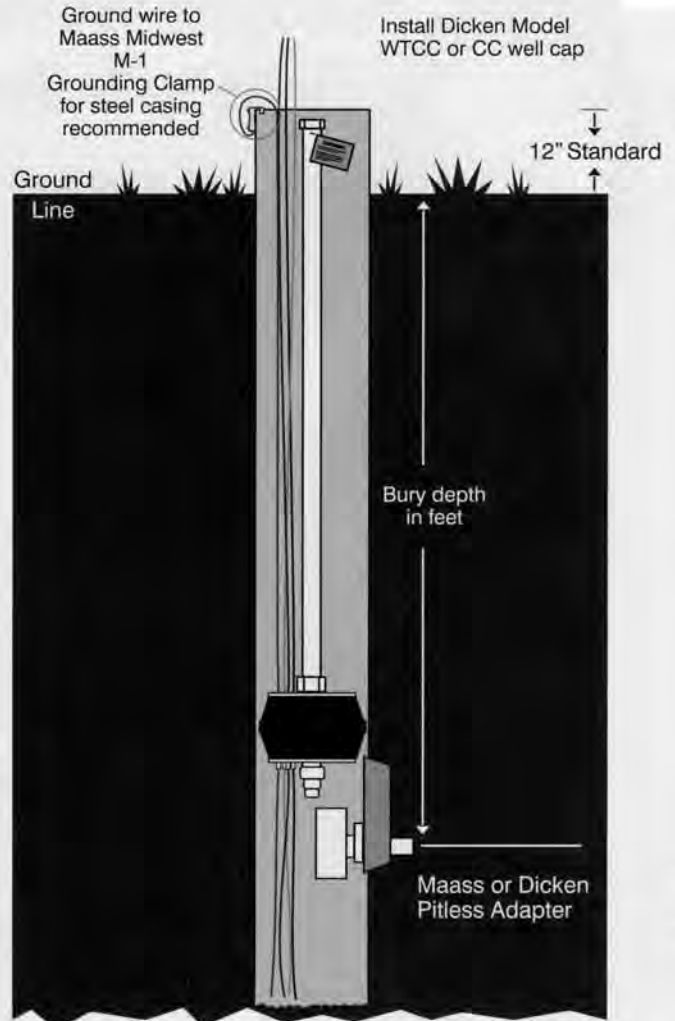
Unit is installed by splicing (#10, #12, #14) pump wires to #10 wires on Well Buster. The Well Buster is then pushed into place above pitless adapter and top nut is tightened securing sealing packer into place.

Note: Well Buster will work only on pitless adapters that **do not** have cables or shafts on them going to the top of the casing. The Well Buster is designed to be used with pitless adapters such as Maass or the Dicken slip style.

Due to various field conditions, well grouting, and seasonal pressure fluctuations beyond our control, Maass Midwest makes no warranties or guarantees that Well Buster will seal all flowing well situations. Installation and use is at installer's and owner's risk.

The installer and/or owner are responsible for safe installation and for the product meeting state, provincial, and local codes and/or regulations.

Well Buster® Installed Position



MEMBER:



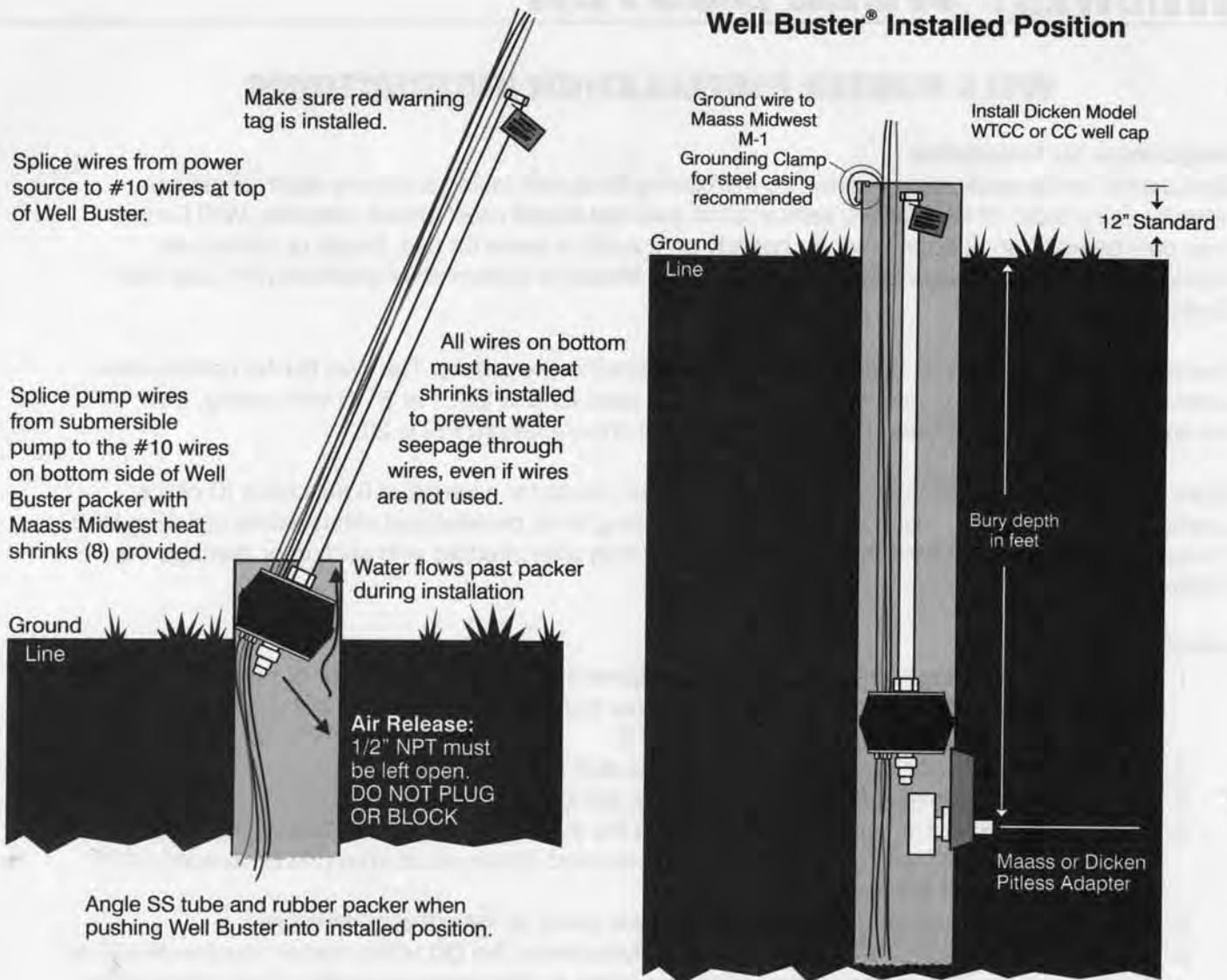
**MAASS
MIDWEST**

MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

U.S. & CANADA 1-800-323-6259 • IL AREA 1-847-669-5135 • FAX 1-847-669-3230
 P.O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • www.maassmidwest.com

0709

Well Buster® Installed Position



REMOVAL PROCEDURE

1. If applicable, turn the pump on to relieve some of the artesian pressure on the flowing well packer. Turn power off to pump before removing Well Buster.
2. Remove the vermin resistant well cap from the well casing.
3. Slowly loosen the top nut with wrench or socket to allow water to flow around packer. While loosening nut, move stainless steel tube back and forth to gradually break packer seal.
4. When loose, pull packer out of well.
5. If applicable, and you plan to change pump or permanently remove packer, turn power off and cut wires to pump.
6. If replacing pump, crimp and heat shrink wires on Well Buster to pump.
7. Re-install Well Buster per installation instructions.

Due to various field conditions, well grouting, and seasonal pressure fluctuations beyond our control, Maass Midwest makes no warranties or guarantees that Well Buster will seal all flowing well situations. Installation and use is at installer's and owner's risk.

The installer and/or owner are responsible for safe installation and for the product meeting state, provincial, and local codes and/or regulations.

MAASS

MIDWEST

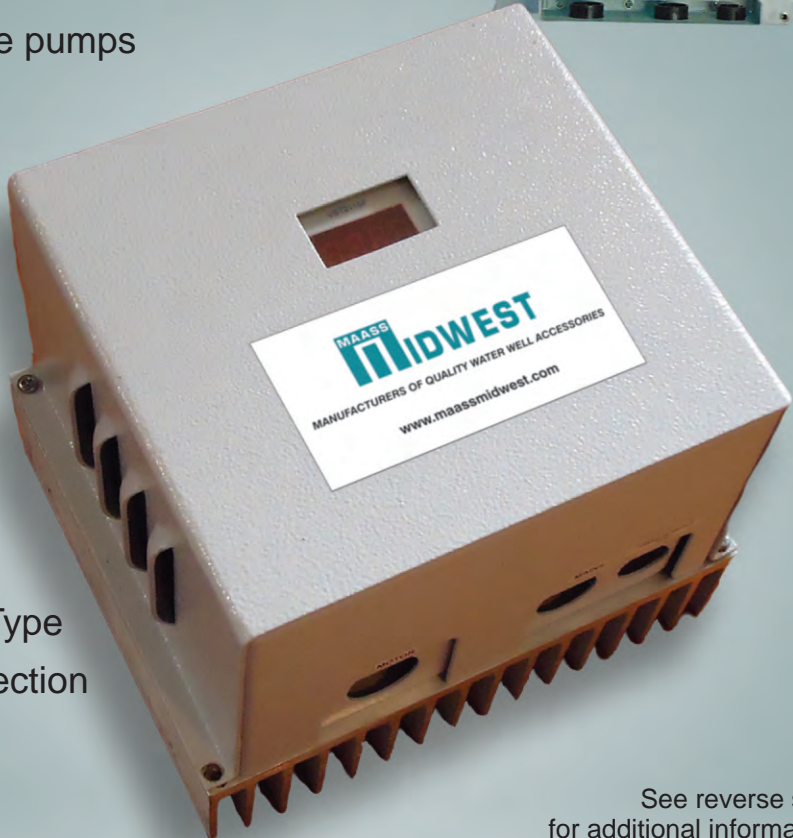
VERSA DRIVE



Operates
most
submersible
pumps from
 $\frac{1}{2}$ - $1 \frac{1}{2}$ hp



- For 4" 230 volt submersible pumps
- Controls $\frac{1}{2}$ - 1 hp Permanent Split Capacitor Motors (Two wire)
- Controls $\frac{1}{2}$ - 1 hp Split Phase Motors (Two Wire)
- Works with $\frac{1}{2}$ - 1 hp Three Wire Motors
- Can be Used with $\frac{1}{2}$ - $1 \frac{1}{2}$ hp Three Phase Motors
- Field Adjustable to Motor Type
- Over / Under Voltage Protection
- Dry Run Protection
- Ground Fault Protection



See reverse side
for additional information

MEMBER:



MAASS
MIDWEST

MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

U.S. & CANADA 1-800-323-6259 • IL AREA 1-847-669-5135 • FAX 1-847-669-3230
P.O. Box 547, 11283 Old Dundee Road, Huntley, IL 60142-0547 • www.maassmidwest.com



MIDWEST VERSA DRIVE

Complete Package is a Water System in a Box!

Easy Set-Up

Mount Package to Wall.

Hook up water lines and tighten pressure relief valve.

Hook up electrical.

Parameter selections for set-up.

- Pass code can be set by installer.
- Select a 4" Submersible Motor:
 - 1 Phase - 2 Wire
 - 1 Phase - 3 Wire
 - 3 Phase

Most Installations are now done!

Optional parameter selections.

- Maximum frequency: 5-80 HZ. (Default 60 HZ.)
- Start mode frequency: 5-60 HZ. (Default 50 HZ.)
- Acceleration & de-acceleration: 0.5-30 second.
- Control Method: Linear V/F or Quadratic V/F (default Quadratic).
- Dry run check and off time: .1-999 seconds (default 5 seconds).

Switch Pressure: 50-90 psi (Default 60 psi)

SEE INSTRUCTIONS FOR ADDITIONAL DETAILS.

System Components:

- | | | |
|---|---|---------------------|
| A. Lead free brass manifold (< .025% lead) | D. Lead free hose bib (< .025% lead) | F. Manifold bracket |
| B. Lead free relief valve (< .025% lead) | E. Lead free pressure sensor preset pressure at 60 psi, 50 to 90 psi range (< .025% lead) | G. VFD drive |
| C. Lead free stainless steel liquid filled gauge (< .025% lead) | | H. Expansion tank |

PART #	DESC	LIST PRICE
991000	Complete PKG	\$1,373.96
991010	DRIVE ONLY	\$900.58

U.S. Funds

EFFECTIVE May 5, 2012

MEMBER:



LISTED PAS-97(04)
REV. 02/07-10/08/09



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

Cycle Slayer

Plastic Fixed Pressure Series & In Well Adapters

Features:

- 1" valve can be used in a 4" or larger well adaptor, preset 40, 50 or 60 psi
- 1-1/4" valve can be used in a 5" or larger well with adaptor, preset 40 or 50 psi
- Tank fill rate 2.95 gpm
 - Thermoplastic construction
 - Extremely economical
 - Low or no pressure loss
 - Fixed Pressure
 - No Lead



Cast Iron Series

Features:

- Adjustable Bypass to easily control run time
- Liquid filled Stainless Steel gauge – Adjustment a one-man operation
- Proven valve technology for reliability
- Bronze body construction
- Can be easily field serviced without removal of the valve
- Stainless Steel control lines
- Adjustable: 25-85 psi

Brass/Stainless Series

Features:

- Metal cage
- Double union inlet and outlet connections
- Thermoplastic seat
- Bronze or Stainless Steel body construction
- Serviceable in line
- Bypass feature controls expansion pressure
- Sealed spring cage on all models for accessible outdoor or pit installations



See reverse side for Friction Loss Data

MAASS
MIDWEST

MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

MAASS Midwest Manufacturing, Inc. All rights reserved.

Cycle Slayer Pump Stop Valve Features:

- Controls pump cycling, reducing the amount of electricity used by the pump.
- Reduces the size of pressure tank necessary.
- Eliminates early pump failure and reduces pump cycling, increasing the life of pumps.
- Prevents and controls water hammer.
- Adjustable bypass valves easily control run-time.

Cycle Slayer Plastic Fixed Pressure Series & In Well Adapters

Friction Loss Data, Plastic Models: Flow Rates - GPM/Gallons per Minute

Part No.	Model	Size	Type	5	10	15	20	30	40	50	60	85	100	List Price
935822	PS-100P	1"			2.60	1.82	2.35	5.40						\$ 60.14
835824	PS-125-P	1-1/4"					3.04	2.66	2.33	2.97	4.14	5.62		\$ 103.57
935826	PS-WC	1"	Well Coupling Adapter											\$ 32.74
935828	PS-WC	1-1/4"	Well Coupling Adapter											\$ 58.42

Cycle Slayer Brass Series

Friction Loss Data, Brass Models: Flow Rates - GPM/Gallons per Minute

Part No.	Model	Size	5	10	15	20	30	40	50	60	80	100	List Price
935812	PS100B-1	1"		7.5		13	22						\$ 133.66
935814	PS125B-1-1/4"	1-1/4"		6		7.5	9	11	13	16	21		\$ 334.15
935834	PS100B-1	Adj. 20-90 PSI											\$ 253.96
935836	PS125B-1-1/4"	Adj. 20-90 PSI											\$ 494.54
935838	PS200B-2	Adj. 20-90 PSI											\$ 685.02

NOTE: PS100B-1 and PS125B-1-1/4 Adjustable 25 - 75 PSI

Cycle Slayer Stainless Series

Features Stainless Cage

Part No.	Model	Type	List Price
935838	PS-100SS-1	Adj. 20-90 PSI	\$ 270.66

Cycle Slayer Cast Iron Series

Friction Loss Data, Cast Iron Models: Flow Rates - GPM/Gallons per Minute

Part No.	Model	Size	Type	30	40	60	80	100	200	400	600	800	1000	List Price
935802	PS-200 CI	2"	Globe	.2	.33	.7	1.22	2.0	8.0					\$ 651.62
935804	PS-300 CI	3"	Globe			1.22	.2	.3	1.2	5.0	12.0	18.0		\$ 1019.20
935806	PS-400 CI	4"	Globe						4.0	4.0	8.0	15.0	24.0	\$ 2205.49

MEMBER:



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES



GRRR...

MADE in the USA 

Get the most heat exchange from your vertical bore!

THROW A BONE AT IT!

Get the most
Heat Transfer
possible with the

MAASS
MIDWEST



"DOG BONE"



"Dog Bone" & "Quad Bone"
installations are simple!
Just clip over the tremie,
snap your U-bend pipe in place
and send it down!

Advantages:

- 35% Less Drilling Costs.
- Less total grout needed by approximately 50%-60%.
- Less footprint needed for the geo field installation.
- 1/3 less Headering – Excavating. Vertical Bore connection and header trenches.
- The end costs are more affordable. More affordable means more installations.

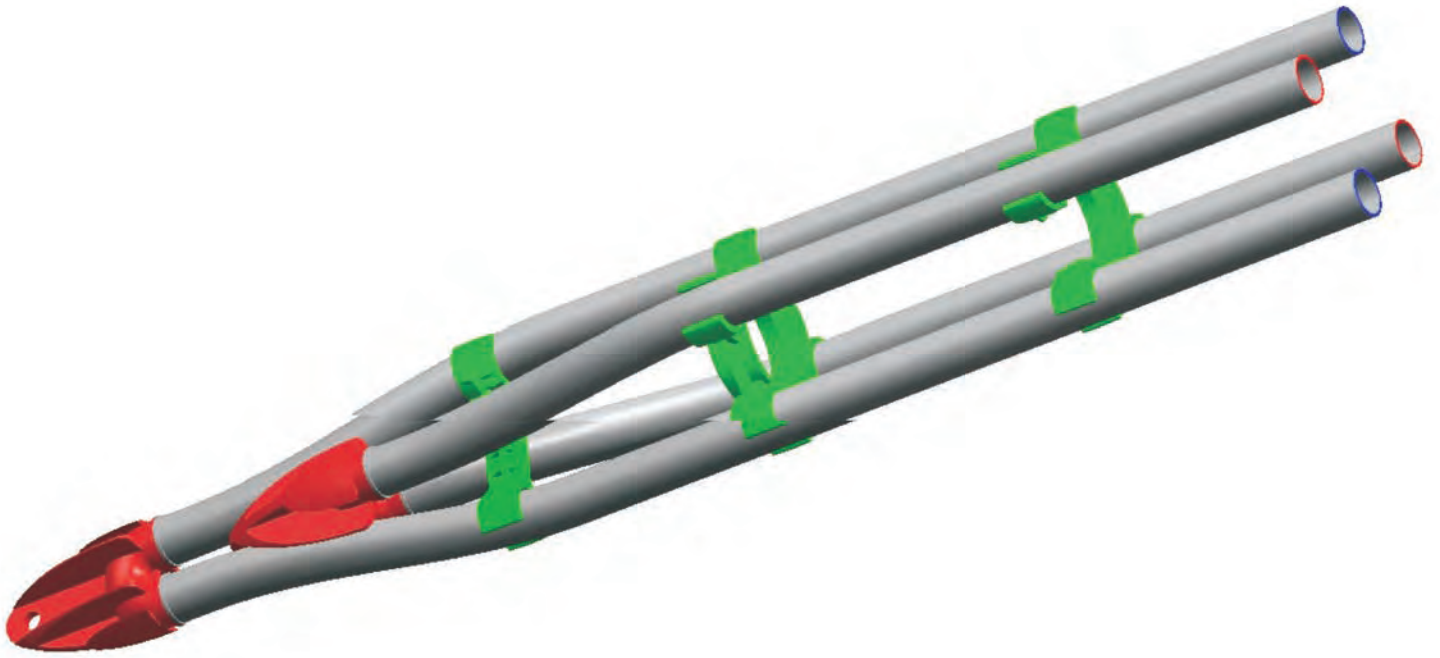
MEMBER:

MAASS
MIDWEST

MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES



U.S. & CANADA 1-800-323-6259 • IL AREA 1-847-669-5135 • FAX 1-847-669-3230
P.O. Box 547, 11283 Dundee Road, Huntley, IL 60142-0547 • www.maassmidwest.com



MAASS

MIDWEST SELF-FUSING

MADE in the USA



SILICONE TAPE



Specifications:

- NO ADHESIVE NEEDED!
Sticks to itself - No torch needed
- Insulates 400V/MIL 7 (dispenser and refill) –
No need for Heat Shrinks
- Stretches 300% - Conforms to irregular shapes
- Waterproof - Creates waterproof seal
- UL listed
- 12 month shelf life
- Maintains all characteristics and resistances from -65°F up to 500°F
- Approximately 6" of tape used to perform a wrap on a wire splice
- Made in the USA

See back side for application directions and pricing

MEMBER:

MAASS

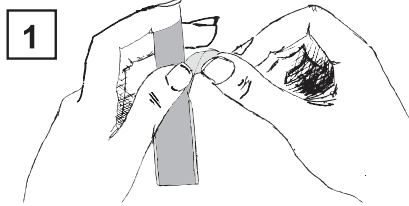
MIDWEST

MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

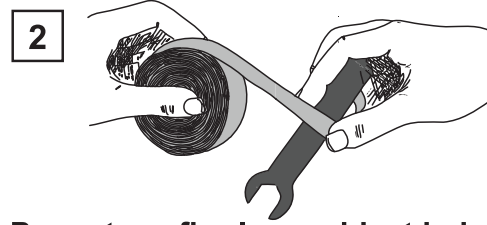


LISTED PAS-97(04)
WELL-CA-000000000000

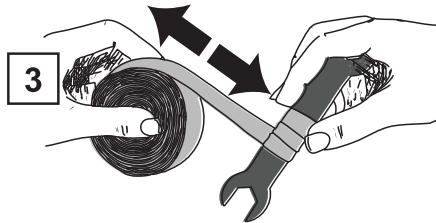
HOW TO USE:



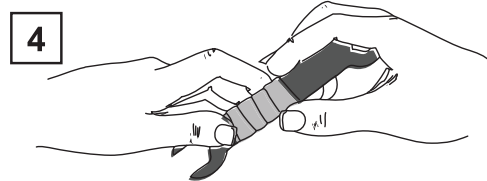
1
Begin by peeling liner away from silicone tape



2
Press tape firmly on object being wrapped, hold in place and begin first wrap completely over itself



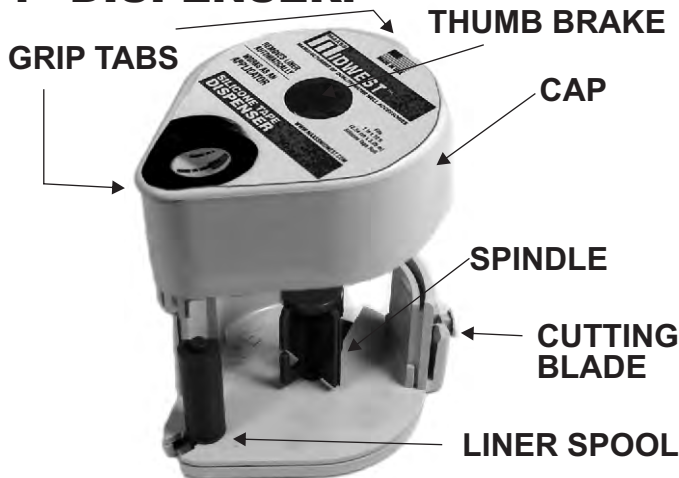
3
While holding tape in place, begin **STRETCHING** at 2 to 3 times it's length and wrap object with a 2/3 overlap to ensure a proper seal



4
To complete wrapping of object, wrap tape completely over previous layer and press firmly

* To ensure proper application, remember to completely overlap tape at the beginning and on the final wrap. Tape self-fuses together.

1" DISPENSER:



FEATURES:

- USE AS DISPENSER OR APPLICATOR
- MAKES SILICONE TAPE EASY TO USE
- ACCUMULATES LINER FOR EASY DISPOSAL
- KEEPS TAPE CLEAN & PROTECTED
- SUPERIOR HANDLING FOR CONTINUOUS WRAPS



Part Number	Description	Size	List Price U.S. Funds
943000	Tape Dispenser	1" x 10'	\$26.36
943100	Refill – Black - Triangular	1" x 12'	\$9.72
943300	Refill – Clear - Triangular	1" x 12'	\$9.72
943500	30 MIL Black Rectangular	2" x 30'	\$50.05

MEMBER:



MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES



SECURE YOUR WELL!



MAASS

MIDWEST PROTECTIVE WELL ENCLOSURE

For Maass JX1 and Model MB Pitless Units

- Welded air vent with stainless steel screen
- Stainless steel lock pins
- Shielded Locks
- Two lifting eyes on lid
- Detent pins for quick release of unit
- Specify base options: Cemented or Anchor bolt secured mounting base
- Catalytic epoxy coated
- Fits all sizes up to 26" well casing

PUCK LOCK



Additional Security Option for Maass JX1 and Model MB Pitless Units:

MAASS

MIDWEST LOCKING STEEL WELL CAP

- Fits from 8" to 26" well casing

See back side for diagrams and specifications

MADE in the USA 

MAASS
MIDWEST

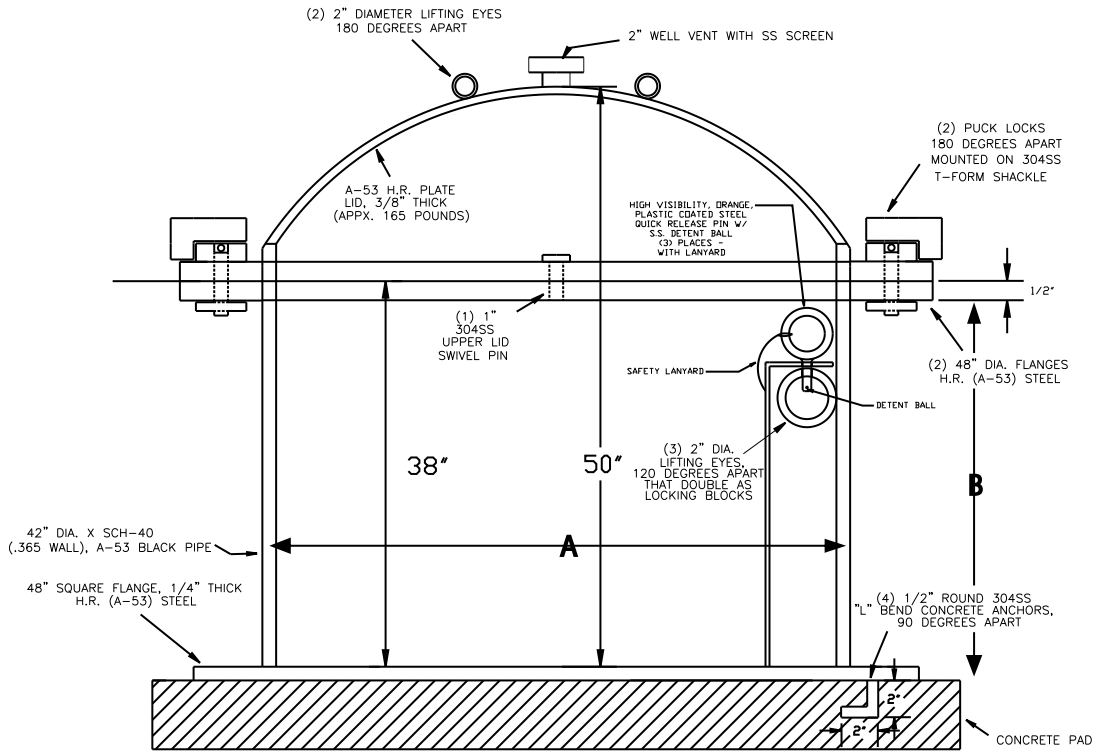
MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES

MEMBER:



U.S. & CANADA 1-800-323-6259 • IL AREA 1-847-669-5135 • FAX 1-847-669-3230
P.O. Box 547, 11283 Old Dundee Road, Huntley, IL 60142-0547 • www.maassmidwest.com

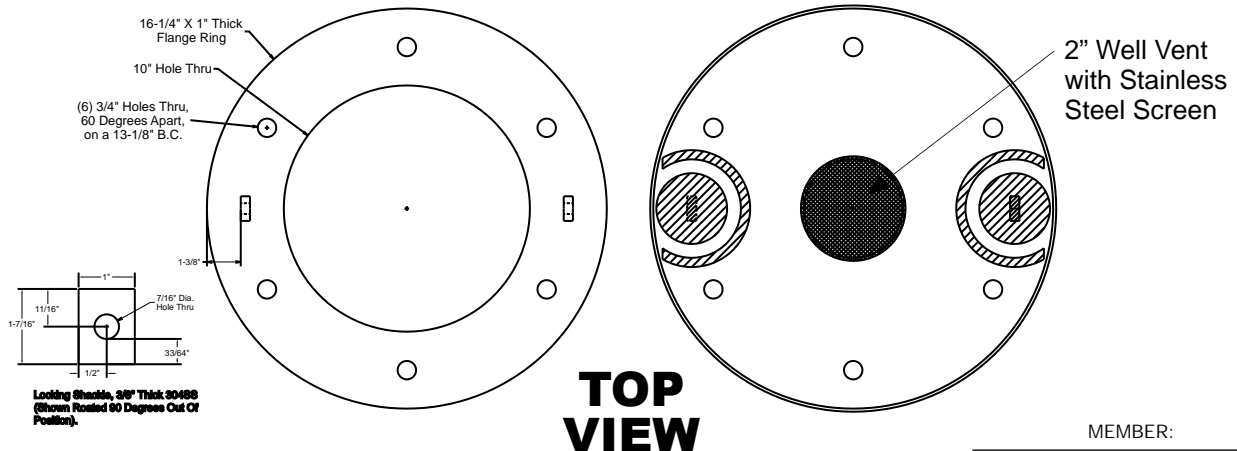
MIDWEST PROTECTIVE WELL ENCLOSURE



ALL MAASS MIDWEST MB UNITS ARE COATED WITH AN FDA / NSF-61 / AWWA C-210 APPROVED CATALYTIC EPOXY COATING.

PART NUMBER	A" DIM		B" DIM
927630	24"	X	30"
927635	30"	X	30"
927640	36"	X	30"
927645	42"	X	32"

MIDWEST LOCKING STEEL WELL CAP



TOP VIEW

MEMBER:



ALDERON MECHANICAL PUMP SWITCHES



Features:

- High amp rating eliminates 1/2 horsepower float switches
- Patented mechanical design eliminates hazardous mercury
- PVC float housing
- Heavy duty cable, 14 gauge, 2 conductor cable
- Omni-directional, not sensitive to rotation or turbulence
- Adjustable pumping range
- UL Listed

Part Number	Model Number	Description	Cord Length	Voltage	List Price Each
969005	7300	Piggyback, pump down	10'	120/230VAC	\$71.47
969010	7055	Piggyback, pump down	20'	120/230VAC	127.51
969015	7304	Piggyback, pump up	10'	120/230VAC	72.09
969020	7372	No plug, pump up	10'	120/230VAC	63.32
969025	7069	No plug, pump up	15'	120/230VAC	65.75

ALDERON SIMPLEX CONTROL AND ALARM PANELS

Features:

- Big Switch control panel utilizes a pump switch and a control float activating a high water alarm
- Hand/off/auto
- Alarm light
- Alarm buzzer - auto reset
- Green pump-run indicator light
- NEMA 4X
- UL Listed



Part Number	Model Number	Description	Voltage	List Price Each
969030	7173	Single Piggyback/8" to 22" pumping range	120/230VAC	\$573.84
969035	7185	Single Piggyback/2" to 60" pumping range	120VAC	633.77
969040	7186	Single Piggyback/2" to 60" pumping range	230VAC	633.77

ALDERON 7001 TANK ALARM SYSTEM

Features:

- Flashing light and buzzer
- Unique auto reset
- Battery backup protection
- Alarm auxiliary contact offers flexibility to remote sources
- Indicator lights/power and alarm status
- UL and CSA listed



Part Number	Model Number	Description	List Price Each
965040	7001	Type 1 Enclosure, high level w/15' cord	\$127.43

ALDERON 7008 WATERSPOTTER FLOOD SENSOR

Features:

- Works in conjunction with 7001 Tank Alarm

Part Number	Model Number	Description	Cord Length	Voltage	List Price Each
965041	7008	Flood Sensor	15'	120VAC	\$16.87

ALDERON 7004 TANK ALARM SYSTEM

Features:

- Automatic buzzer reset
- REC polycarbonate beacon
- 100db alarm buzzer
- UL and CSA listed



Part Number	Model Number	Description	List Price Each
965045	7004	NEMA 4X, Indoor/Outdoor high level 15'	\$226.47

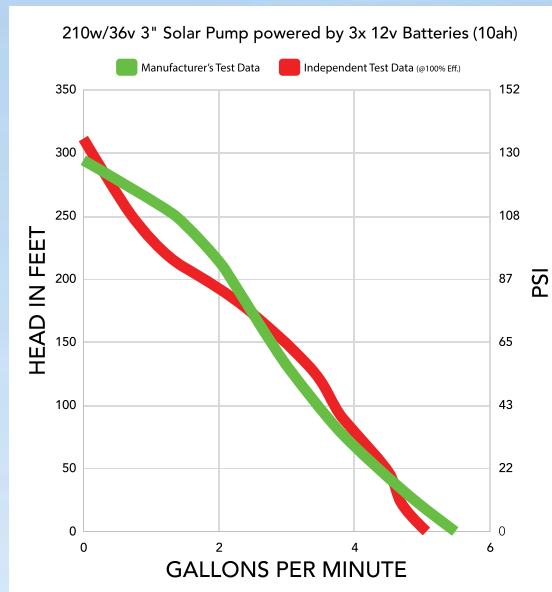
NEW!

MAASS MIDWEST

SOLAR PUMP SYSTEM



- 3" Submersible Pump
- Rated at 5.2 GPM (Max Flow)
- Rated at 262 ft. of lift (Max TDH)
- Helical Screw Type Impeiler
- 36 VDC Motor Rated at 210 Watts
- Solar Pump Controller
- Electronic Water Level Sensor for the Well
- High Pump Off Level Sensor for Water Trough
- Solar Panel Includes Solar Cable Harness
- Universal Mounting Bracket
- Nema 3R Control Panel Enclosure
- Two Year Warranty



MEMBER:

*NOTE: Optional Batteries NOT included. Requires (3) 12 VOLT X 10 AMP = 36 VOLTS
BASE MODEL. High Capacity model available.

Part Number	Model Number	Wt. Lbs.	List Price Each
960000	35P-260-36/210 CS	95	\$4181.73

MAASS MIDWEST

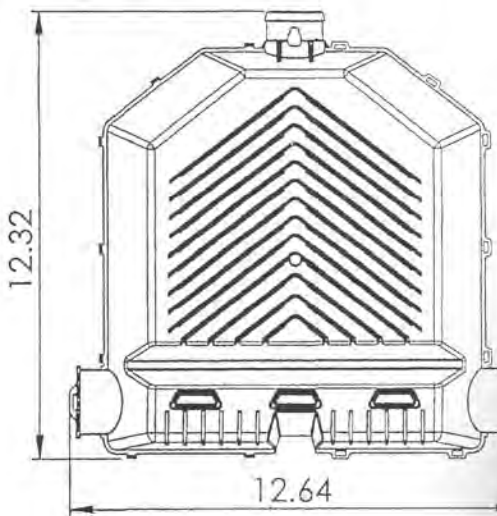
MANUFACTURERS OF QUALITY WATER WELL ACCESSORIES





MADE in the USA

NEW! Universal Hydrant "Drain Box"



Features:

- Eliminates gravel pack
- Provides drainage away from valve body
- External louvers retain soil from entering upper valve body
- Openings on sides and bottom allows water to percolate into ground
- Drainage equivalent to nine square feet of washed gravel, six inches thick
- 100% Recycled Material

Any bury depth frost-free hydrant

Hose Clamp X3

Drain Oriface

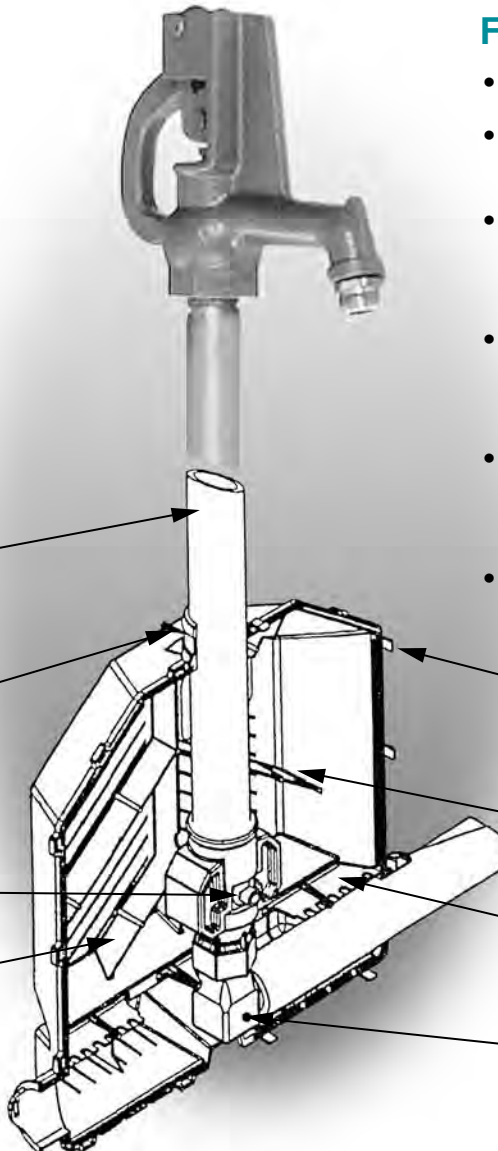
Water Drain Louvers

Locking Tabs

Structural Ribs

Soil impediment plate

T or 90° Connector



Part Number	Weight	List Price U.S. Funds
935350	2.0#	\$53.86

*Includes 3 Clamps

MEMBER:

