



MUNICIPAL and INDUSTRIAL PRODUCTS CATALOG INDEX

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Monitor units are NSF/ANSI 61 & 372 certified and conform to the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, and Water Systems Council PAS-97(2012) standards.

WARRANTY STATEMENT

Baker warrants the goods manufactured by it to be free from defects in material or workmanship under normal use or service, for a period of one year from date of shipment.

This warranty does not apply to goods or parts not manufactured by Baker, instead Baker's obligation for these goods or parts is limited to the actual warranty extended to Baker by the manufacturer. **This warranty does not include installation.**

All warranties herein are void and do not apply if: 1) the goods or parts have been altered or repaired by others; 2) the goods have not been installed or used in accordance with any applicable instructions or limitations provided by Baker, or the manufacturer of the good or part; 3) the goods or parts have not been installed or used in accordance with the goods' or parts' normal use and service; or 4) the goods are used in nuclear facility applications.

BAKER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES OF ANY KIND WITH RESPECT TO THE GOODS, PARTS AND MATERIALS, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY AS TO MERCHANTABILITY OR AS TO THE FITNESS OF THE MERCHANDISE FOR A PARTICULAR USE AND SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, DIRECTLY OR INDIRECTLY, ARISING FROM THE USE OF SUCH MERCHANDISE OR FOR CONSEQUENTIAL DAMAGES.

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MUNICIPAL/INDUSTRIAL PRODUCTS



WHY A PITLESS UNIT?

The above ground “well house” or “well pit” left much to be desired in terms of sanitation, convenience, and freeze protection.

Monitor, a division of Baker Manufacturing Company, LLC., developed the first solution to eliminate the “well house” and “well pit”. This design is called the Pitless Unit.

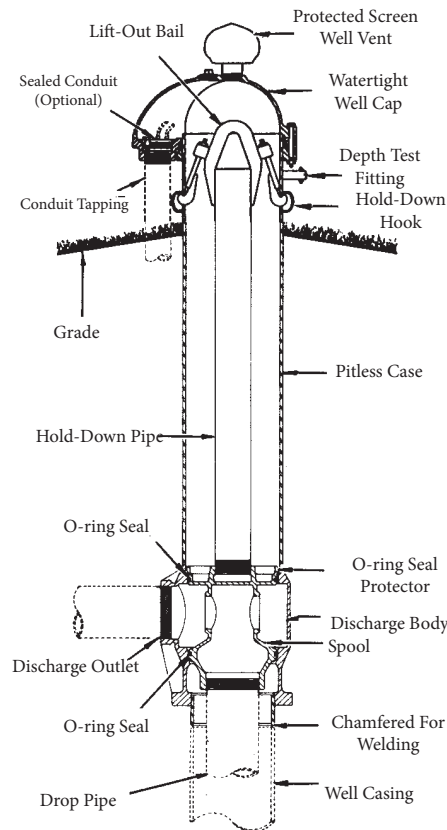
The Monitor Pitless Unit eliminates the need for a costly pump house and is designed so the submersible pump can be removed without disturbing any of the external piping in the well system.

The Pitless Unit allows the water to be discharged below the frost line, to the water treatment facility, thus preventing any form of surface contamination.

Monitor units are NSF/ANSI 61 & 372 certified and conform to the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, and Water Systems Council PAS-97(2012) standards.



STANDARD INDUSTRIAL PITLESS UNITS



The Monitor PS Industrial Pitless Unit for submersible pumps forms a watertight extension of the well casing. The Industrial Pitless Unit connection to the well casing starts below the frost line. From the connection point, it extends upward finishing 12 inches or more above grade. The casing extension above grade is then completed with a watertight cap.

Monitor units are NSF/ANSI 61 & 372 certified and conform to the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, and Water Systems Council PAS-97(2012) standards.

Made in the U.S.A.





INDUSTRIAL PITLESS UNITS FOR SUBMERSIBLE PUMPS

6", 6.6", 8", 10", 12" 14" and 16" WELL SIZES

ALL INDUSTRIAL PITLESS UNITS ARE AVAILABLE IN STAINLESS STEEL UPON REQUEST

FEATURES:

CORROSION PROTECTION

All water passages are either hot-dipped lead free galvanized or constructed of corrosion resistant material.

EASY TO SERVICE

Well cap can be removed without disconnecting cables. O-ring seals on spool permit withdrawal of the entire inner assembly simply by lifting. Replacement is equally simple. Spool support eliminates vertical adjustment and any possibility of dropping the inner assembly into the well.

RELIABLE SEAL

Neoprene O-rings between precisely machined, hot-dipped lead free galvanized surfaces on the spool and within the unit provide positive seals.

O-RING SEAL PROTECTION

Monitor seal protection prevents seal damage during installation and service.

FROST PROOF

No heating is required. All water passages are below the frost line.

QUICK TO INSTALL

A quality pump installation can be made easily and economically without delay for masonry or building construction.

WATERTIGHT WELL CAP WITH SCREENED AIR VENT

Designed to permit removal without disconnecting cables. Watertight cable and conduit sealing is optional.

PROTECTED SCREEN VENT

Standard on all units.

HOLD-DOWN ASSEMBLY

Supplied with each unit (spider or hooks). Hold-down pipe also serves as lift-out pipe for installation and servicing.

TO INSTALL AN INDUSTRIAL PITLESS UNIT:

An excavation around the well casing below the frost line is made and well casing cut off at a prescribed level. The well cap is removed and the spool assembly lifted out of the pitless case with a hoist and set aside.* The pitless case is then welded or threaded tightly onto the well casing. The submersible motor, pump, and cable are attached to the drop pipe which is lowered into the well with a hoist; when the top of the last section of the drop pipe is one foot or more above the pitless case, the spool assembly is screwed onto the drop pipe. The spool assembly and drop pipe with motor, pump and cable are lowered into place; then finally the electrical service and well cap are installed.

* The spool assembly includes: A spool with pressure equalizing passages; two O-ring seals and hold-down hooks. Spools are supplied with tapping for either a pressure relief valve, or a pressure control.

REINFORCED O-RING LANDS

Cast in to prevent discharge body from becoming out of round.

DEPTH TEST BLOCK

Standard on all units.

LOCKING BOLTS

Supplied for 10 inch wells and larger. Optional bolts on 8 inch.

OPTIONS:

SEALED CONDUIT CONNECTION

Watertight conduit seals made of neoprene are available for most common cable sizes (round cable). Please specify cable size with order.

EPOXY PAINTING

For extra protection in certain soil types.

ADDITIONAL TAPPING(S) IN SPOOL

Accommodate air release valve, pressure transducers, etc.

TRANSITION SLEEVE FOR MECHANICAL JOINT DISCHARGE

Transition sleeve for mechanical joint discharge from steel pipe to ductile iron pipe or PVC.

PROBE TUBE

On 8 inch and larger sizes.

WATER SAMPLER VALVE

On 8 inch and larger well sizes.

FLOWING WELL UNITS

For all sizes. Flowing well spool includes cable seals rated for 150 psi.

HIGH EFFICIENCY PITLESS SPOOL

Patented wedge profile to effectively transfer water from the submersible pump to the discharge pipe. Pressure loss reduction of over 60 %.

IN-LINE CHECK VALVE

Rated for VFD controlled pumps.

API 8 ROUND THREADS

Deep well applications. Please contact factory.



SAMPLE ENGINEERING SPECIFICATIONS FOR PITLESS UNITS

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:

Complete assembled Pitless Unit System including well cap, lift-out bail, hold down hooks, lift-out pipe, discharge body with support rings or ribs, spool with pressure equalizing passages, and certified to NSF/ANSI 61 & 372.

1.01.1.1 SUBMITTALS

A. All bidders shall submit as part of their bid:

1. The manufacturer and model of the Pitless Unit to be installed.
2. Detailed specifications with drawings of the system furnished by the manufacturer.

PART 2 PRODUCTS

2.01 PITLESS UNIT

The Pitless Unit must be Certified to NSF/ANSI 61 & 372, equal to Baker Manufacturing Company, LLC., Monitor Division, model _____ . The unit should be factory assembled, before shipping to the site. The pitless unit must conform to the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, Albany, NY, and/or Water Systems Council PAS-97(2012) standards.

2.01.01 WELL CAP

The watertight cap shall be secured to the pitless casing with a compression gasket. The top of the cap can be removed without affecting the sealed conduit or wiring. The heavy duty watertight cap will have a separate protected downward facing stainless steel screened well vent with pipe nipple. Construction of the cap and well vent will be of heavy duty gray cast iron and E-coated with a green enamel finish.

2.01.02 UPPER CASING

The upper casing must be factory assembled to the discharge body, and the lift-out and hold down mechanism are factory assembled to the spool. Upper casing thickness must conform to the Recommended Standards for Water Works, and be coated with a rust protective coating. The upper casing must provide a watertight connection from the discharge body to the well cap. The discharge port centerline to be _____ feet below grade, and the pitless upper casing to extend _____ feet above grade.

2.01.03 SPOOL

The spool shall include _____ NPT per ANSI B 1.20.1 male or female drop pipe connection and shall be constructed of lead-free galvanized heavy duty gray cast iron, ductile iron, or steel with a lead-free galvanized plating on the wetted surface of over .010 inches thick. The spool will have O-ring grooves machined into the spool retaining the O-rings when setting or pulling the system.

The positive pressure O-ring seals shall be constructed of neoprene or equivalent. Spool shall be designed to accommodate probe tubes and provide NPT ports for discharge pressure taps. O-ring protection shall be provided to prevent the seals from dragging on the upper casing when the pump is installed or removed.

2.01.04 DISCHARGE BODY

The discharge body shall be constructed of lead-free galvanized ductile iron or lead-free galvanized steel. O-ring seat to be designed to prevent crevice and galvanic corrosion, dissimilar metals should be avoided. Discharge body designed with reinforcement rings or ribs to prevent distortion due to vertical movement of discharge pipe, preventing the spool from binding inside the discharge body. Minimum I.D. of the discharge body to be equal to or greater than I.D. of the well casing for ease in well servicing.

2.01.05 HOLD-DOWN MECHANISM

The Pitless Unit spool shall have a hold down mechanism, factory assembled to spool and capable of preventing rotation of the pitless spool relative to the discharge body, at full rated locked rotor torque of the submersible pump motor. The spool must also have a factory assembled lift out pipe and bail, or spider capable of _____ lb rated load, to allow lifting a water filled drop pipe and pump out of the well for service. Components to be constructed of ductile iron or steel with a corrosion resistant coating.

2.01.06 IN-LINE CHECK VALVE

Manufacturer: Flomatic Model number: _____

Check valve body and follower to be constructed of ductile iron. Valve guide and spring constructed of 316 stainless steel. Maximum pressure rating to be 400 psi. All internal parts to be made from corrosion resistant material. Check valve designed to operate with variable frequency drive (VFD) controlled pumps.



SHIPPING WEIGHTS

Ordering No.	Bury Depth	Shipping Weight
PS67WBWE03T3 (6" I.D.)	3 ft	211 lb
	4 ft	235 lb
	5 ft	258 lb
	6 ft	282 lb
	7 ft	305 lb
	8 ft	329 lb
	9 ft	352 lb
PS67NBWE03T3 (6" I.D.)	3 ft	211 lb
	4 ft	235 lb
	5 ft	258 lb
	6 ft	282 lb
	7 ft	305 lb
	8 ft	329 lb
	9 ft	352 lb
PS6.67WBWE03T3 (For welding to 7" O.D. only)	3 ft	210 lb
	4 ft	234 lb
	5 ft	257 lb
	6 ft	281 lb
	7 ft	304 lb
	8 ft	328 lb
	9 ft	351 lb
PS810WBWE04T4 (8" I.D.)	3 ft	428 lb
	4 ft	468 lb
	5 ft	508 lb
	6 ft	548 lb
	7 ft	588 lb
	8 ft	628 lb
	9 ft	668 lb
PS810NBWE04T4 (8" I.D.)	3 ft	428 lb
	4 ft	468 lb
	5 ft	508 lb
	6 ft	548 lb
	7 ft	588 lb
	8 ft	628 lb
	9 ft	668 lb

Ordering No.	Bury Depth	Shipping Weight
PS1012WBWE06T6E (10" I.D.)	3 ft	532 lb
	4 ft	598 lb
	5 ft	664 lb
	6 ft	730 lb
	7 ft	796 lb
	8 ft	862 lb
	9 ft	928 lb
PS1214WBWE06T6E (12" I.D.) Standard Model	3 ft	606 lb
	4 ft	680 lb
	5 ft	754 lb
	6 ft	828 lb
	7 ft	902 lb
	8 ft	976 lb
	9 ft	1050 lb
PS1418WBWE08T8E (14" O.D.) Standard Model	3 ft	920 lb
	4 ft	1007 lb
	5 ft	1094 lb
	6 ft	1181 lb
	7 ft	1268 lb
	8 ft	1355 lb
	9 ft	1442 lb
PS1618WBWE08T8E (16" O.D.) Standard Model	3 ft	855 lb
	4 ft	942 lb
	5 ft	1029 lb
	6 ft	1116 lb
	7 ft	1203 lb
	8 ft	1290 lb
	9 ft	1377 lb

FLOWING WELL SPOOLS ARE AVAILABLE ON ALL INDUSTRIAL UNITS.



SPOOLS, SPOOL CABLE SEALS & REDUCER BUSHINGS

CAP CABLE SEALS		
<i>10" - 20" Monitor Premium Watertight Caps</i>		
Model	Cable OD Range	Cable Size
53UK4	.125-.187"	#14, #12, #10
54UK4	.187-.312"	#8, #6
55UK4	.312-.437"	#4, #3, #2
56UK4	.437-.500"	#1, #1/0
57UK4	.500-.625"	#2/0, #3/0
58UK4	.625-.750"	#4/0, 250MCM., 300MCM

* Cable sizes based on type XHHW-2 cable

** Other configurations available upon request

SPOOL CABLE SEALS			
Part No.	NPT	Cable OD Range	Pressure Rating
CG382	3/8"	.08-.24"	150 psi
CG384	3/8"	.16-.31"	150 psi
CG125	1/2"	.20-.35"	150 psi
CG126	1/2"	.24-.47"	150 psi
CG349	3/4"	.35-.63"	150 psi
CG3413	3/4"	.51-.71"	150 psi
CG1013	1"	.51-.79"	150 psi
CG1018	1"	.71-.98"	150 psi

* All spool cable seals are NSF 61 Certified

FLANGED DISCHARGE KITS	
Ordering No.	Discharge Size
3UC	3"
4UG	4"
6UJ	6"
8UM	8"

*Flanged discharge kits convert discharge on 6 x 7 through 16 x 18 (Standard Model) Industrial Pitless Units from threaded to flanged. Each kit includes 150 lbs. raised flange. Swagged nipples also available.

GALVANIZED REDUCER BUSHINGS	
Ordering No.	Size
PC335	3" x 2"
UK254X29	4" x 2"
G18.4X3	4" x 3"
UL168	6" x 3"
G18.6X4	6" x 4"
UL254	6" x 5"
UQ66	8" x 6"

FLOWING WELL SPOOLS	
Ordering No.	Upper Case Well
7E0PS3F	7"
10E0PSF	10"
12E0PSF	12"
14E0PSF	14"

STANDARD SPOOLS	
Ordering No.	Upper Case Well
7E0PS3	7"
10E0PSA	10"
12E0PSA	12"
14E0PSA	14"

FOR FURTHER INFORMATION ON ORDER NUMBERS SEE UNIT SPECIFICATIONS.



O-RING SELECTION GUIDE FOR FULL PITLESS UNITS

Model Well Size x Upper Case Size	O-ring Part No.	Inside Diameter	Thickness
2 x 3	NA115	2.350 ± .018	.210 ± .005
3 x 4	NB15	3.350 ± .024	.210 ± .005
4 x 5	UB15	4.10 ± .028	.210 ± .005
4 x 8	UB15	4.10 ± .028	.210 ± .005
5 x 6	NC15	5.10 ± .037	.275 ± .006
5 x 8	NC15	5.10 ± .037	.275 ± .006
5.6 x 7	UC15	5.975 ± .037	.275 ± .006
6 x 7	UC15	5.975 ± .037	.275 ± .006
6.6 x 7	UC15	5.975 ± .037	.275 ± .006
6 x 8	UH15	6.975 ± .040	.275 ± .006
7 x 8	UH15	6.975 ± .040	.275 ± .006
8 x 10	UG15	8.475 ± .055	.275 ± .006
10 x 12	UJ15	10.550 ± .030	.375 ± .010
12 x 14	UK15	11.540 ± .030	.375 ± .010
14 x 16	UL15	13.110 ± .030	.500 ± .020
16 x 18	UM15	14.900 ± .030	.625 ± .022
18 x 20	UN15	16.840 ± .030	.625 ± .022
20 x 22	UQ15A	18.550 ± .030	.625 ± .022
24 x 26	UR15A	22.430 ± .030	.625 ± .022
26 x 28	US15A	24.600 ± .030	.625 ± .022
28 x 30	UV15	26.724 ± .030	.625 ± .022



INSTALLATION INSTRUCTIONS

STANDARD INDUSTRIAL PITLESS UNITS FOR SUBMERSIBLE PUMPS 6" through 16" WELL SIZES

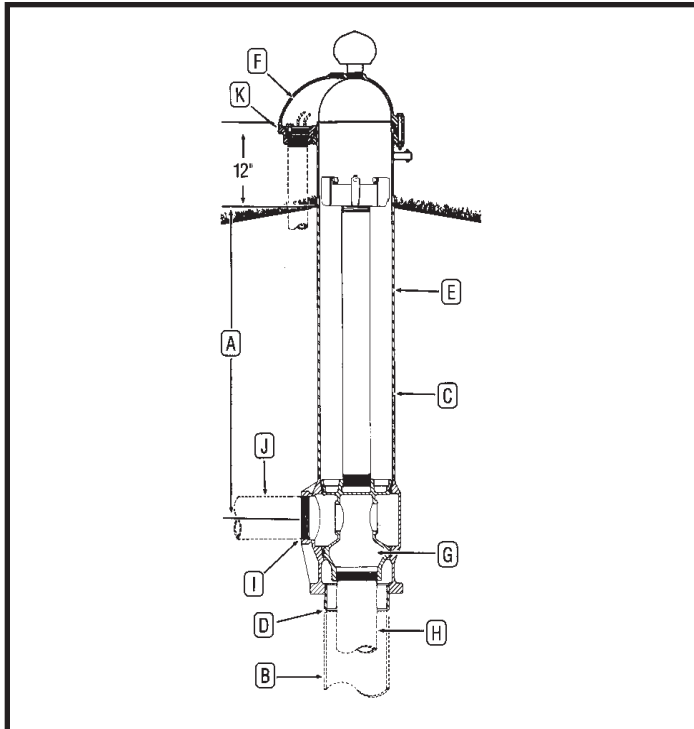
1. All pitless unit cases are joined by welding or threading the unit to the well casing, or kwikonect style by slipping the unit onto the top of the well casing and tightening the bolts.
2. Establish ground level at the well location. It is desirable to have the ground slope away in all directions from the pitless unit case.
3. The pitless unit upper casing should extend above the ground level according to state well code. To accomplish this, the well casing must be cut off at a distance below the ground level equal to the overall pitless unit length, less the length the pitless unit upper casing is to extend above the ground.
4. Excavate around the well casing according to government regulations where well casing is to be cut off.
5. Cut off the well casing PERPENDICULAR to the well casing centerline.
6. Remove the pitless unit cap, loosen the hold-down hooks or spider, and remove spool assembly. THE SPOOL ASSEMBLY INCLUDES A SPOOL WITH PRESSURE EQUALIZING PASSAGES, TWO O-RING SEALS, LIFT-OUT PIPE AND BAIL, HOLD DOWN HOOKS, OR SPIDER.
7. Lower the pitless unit into place and rotate the discharge outlet to the desired location and weld the pitless unit to the well casing. THIS JOINT MUST BE WATERTIGHT AND IT IS ESSENTIAL THAT THE CENTERLINE OF THE PITLESS CASE AND THE CENTERLINE OF THE WELL CASING BE THE SAME.
8. The submersible motor, pump and cable are attached to the drop pipe and then lowered into the well. When the top of the last section of the drop pipe is one foot or more above the pitless case, screw the spool assembly onto the drop pipe.
9. Wipe the rubber O-ring seals with a clean cloth and then coat with a heavy layer of petroleum jelly (Vaseline) for proper seating of rings. Lower the spool assembly, drop pipe with motor, pump and cable into place.
10. Install and tighten hold-down hooks/hold down spider.
11. Complete electrical service and install pitless cap.
12. Connect discharge outlet to distribution line and complete all wiring.
13. The unit is now ready to operate under power and should be run a sufficient amount of time to see that there are no leaks present.
14. The hole should not be filled in until the unit is running satisfactorily. Care should be exercised to fill under discharge line properly before back filling.

NOTE: Dissimilar metals should be avoided.

OM5011(05/08)



6" I.D. STANDARD INDUSTRIAL PITLESS UNITS



DESCRIPTION-ORDERING NUMBERS

A	3	Bury depth in feet	
	PS	Pitless Unit for Submersible Pump	
B	6	Well Size - inches	
C	7	Upper Case Size - inches	
D	W	Attachment to Well Casing (W-Welded/N-Compression)	
E	B	Black Upper Case	
F	W	Watertight Cap w/ Screened Air Vent	
	E	Pressure Equalizing Spool Passages	
G	0	No. of In-line Check Valves: (0 or 1)	
H	3	Drop Pipe I.D. - inches	
I	T	Threaded NPT Std. Connection	Accessory Discharge Connections
		Flange, ASA	
		Welded	
		Mechanical Joint (Plain End)	
		MS=Mech. Joint w/Transition Sleeve	
J	3	Discharge I.D. - inches	
K	S	Elec. Cable Seals (S) O.D. 3 Wire ____ O.D. Grounding Wire ____	
OPTIONS		Flowing Well (F)	
		Special Provision (X)	

EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

The diagram illustrates the meaning of the various letters and numerals used in Monitor® Standard Industrial Pitless Unit ordering numbers. A typical order number and the Pitless Unit it stands for are shown.

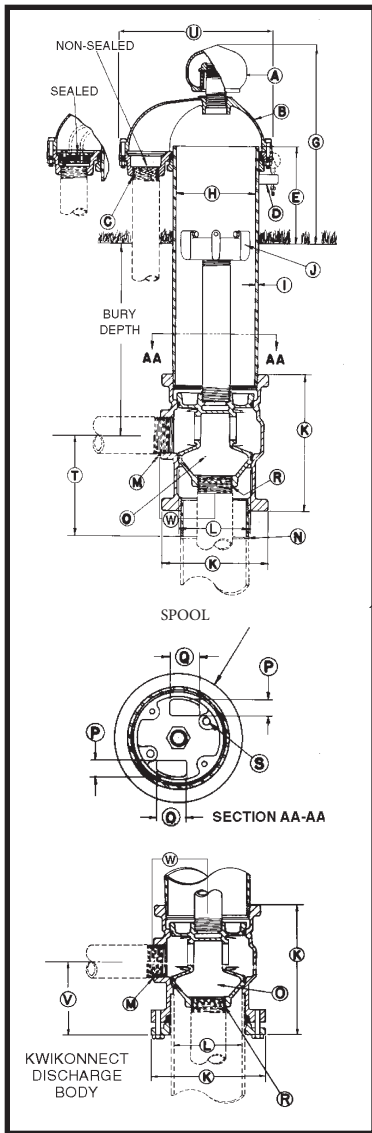
Typical Order Number

3PS67WBWE03T3S

- 3** A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.
- PS** These letters indicate the type of pump the Pitless Unit is designed for. The unit shown is a PS for submersible pumps.
- 6** B. This numeral indicates the well casing size, 6" I.D.
- 7** C. This numeral indicates the upper pitless case size, 7" I.D.
- W** D. Indicates the attachment to the well casing is a welded joint ("N" for KwiKonect - 6" I.D. & 8" I.D. only).
- B** E. Indicates the upper pitless case is black pipe.
- W** F. Indicates the Pitless Unit has a watertight cap with screened vent installed.
- E** G. Indicates spool has pressure equalizing passages.
- 0** This numeral indicates the number of in-line check valves the Pitless Unit has. In this case it has zero in-line check valves (0 or 1).
- 3** H. Indicates the size of drop pipe in inches.
- T** I. Indicates the discharge connection is threaded.
- 3** J. Indicates the size of discharge pipe in inches.
- S** K. Sealed cap conduit connection (optional).



6" I.D. STANDARD INDUSTRIAL SPECIFICATION



A	Screened well vent tap size:	1½" NPT
B	Seal Cap: <i>The watertight cap bolts to a compression seal ring securing around the pitless case and comes with the screened well vent installed.</i>	
C	Conduit tapping size	1½" NPT
	<i>Watertight conduit seals for most common cable sizes are available for watertight cap.</i>	
D	Depth tester tapping:.....	¼" NPT
E	Distance from ground level to top of pitless case:	12"
G	Distance from ground level to top of screened well vent:	19½"
H	Pitless case I.D. size:	7"
I	Pitless case wall thickness:.....	0.300"
J	Hold-down, lift-out mechanism	
	<i>Three set screws in a spider atop the hold-down, lift-out pipe brace against the interior of the pitless casing, locking the spool in place.</i>	
	Hold-down, lift-out pipe size (Schedule 80):	2" NPT
	Designed lift-out mechanism load:	15,000 lb
Discharge body-threaded		
K	Discharge body outside diameter:	9 ¹¹ / ₁₆ "
K	Discharge body length:	11 ¹ / ₄ "
Discharge body-Kwikonect		
K	Discharge body outside diameter:.....	10"
K	Discharge body length:.....	12 ⁷ / ₃₂ "
L	Pitless unit minimum inside diameter:.....	6 ³ / ₈ "
M	Discharge connection tapping size:.....	3" NPT
N	Pitless unit to well casing connection I.D.:.....	6" weld
O	Spool assembly	
	Spool design load:.....	15,000 lb
P	Motor cable passages through spool	1 ³ / ₁₆ "
Q	Motor cable passages through spool	1 ³ / ₄ "
R	Spool to drop pipe connection:.....	3" NPT
S	Pressure zone tapping (2) available:	¾" NPT
T	Dimension from center of discharge outlet to bottom of weld nipple:	9 ³ / ₈ "
U	Overall length of seal cap:	12 ⁷ / ₈ "
V	Dimension from center of discharge to bottom of discharge body:	7 ³ / ₄ "
W	Dimension from center of well casing to end of discharge outlet:.....	5 ²⁵ / ₃₂ "

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

*For flowing well spool concept, please see *Booster Station* section.

*Optional flange, weld or mechanical joint available upon request.

Monitor units are NSF/ANSI 61 & 372 certified and conform to the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, and Water Systems Council PAS-97(2012) standards.

COMPONENT MATERIALS

Well vent-cast iron, green.
 Cap-cast iron, green.
 Hold-down spider-cast iron, green enamel finish.
 Hold-down pipe, 2"-steel Sch. 80, black.
 Pitless case-steel, black.
 Spool-cast iron, lead-free galvanized.
 Discharge body-cast iron, lead-free galvanized.
 Electrical conduit cable seal-Neoprene.
 Maximum rated discharge pressure: 300psi
 (Higher pressures can be accommodated with backup rings, please contact factory)

BB-1-6 (03-2014)



6" I.D. STANDARD INDUSTRIAL PARTS BREAKDOWN

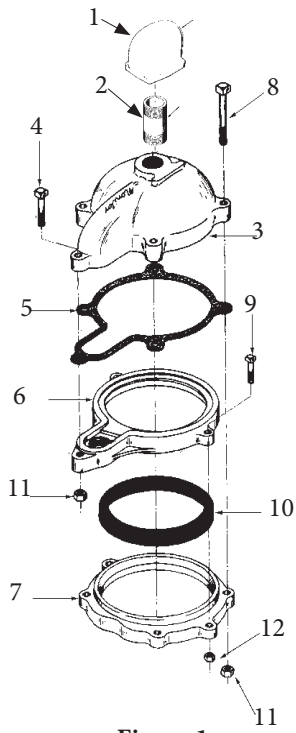


Figure 1

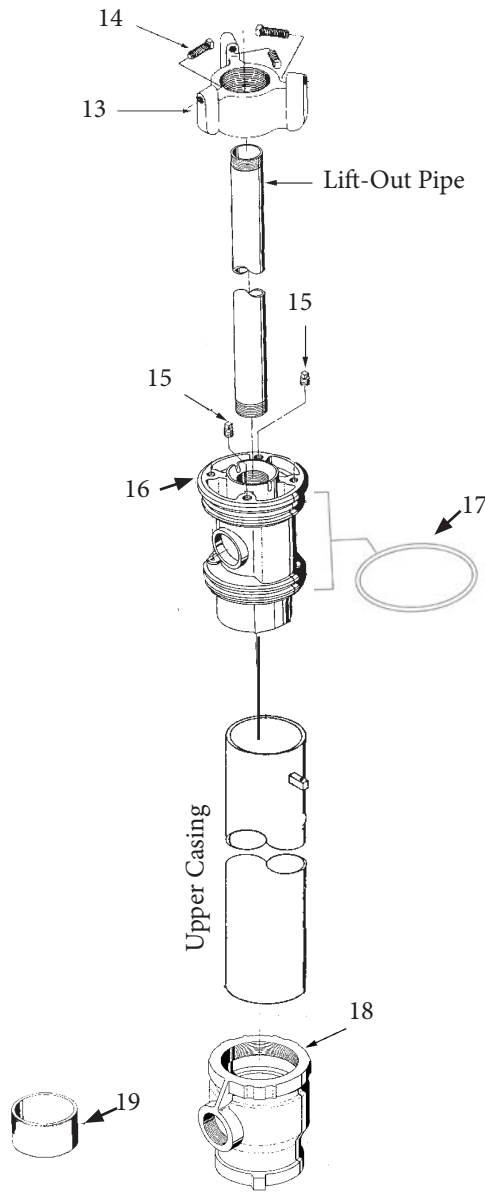


Figure 2

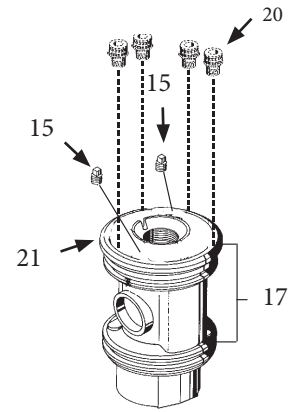


Figure 3-Flowing Well Spool

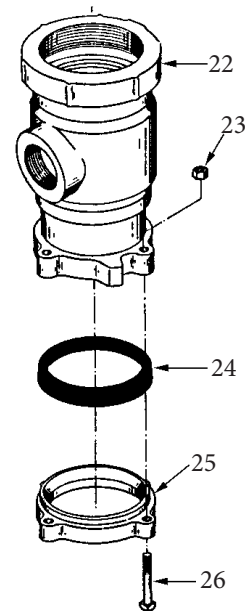


Figure 4

All Industrial cap bolts are made of stainless steel

OM1422-6 (00-2014)

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 Phone: 800-356-5130 • Fax: 608-882-3777 • Website: www.bakermonitor.com



6" I.D. STANDARD INDUSTRIAL PARTS BREAKDOWN

The drawings and parts list apply to the model numbers listed below. See drawing on previous page.

Note: Add (F) at end of model number for flowing well spool.

Bury Depth	Unit	Well Size I.D.	Case Size	Well Casing Attachment	Upper Case	Cap Style	Spool	Drop Pipe I.D.	Drop Discharge Connection	Discharge I.D.
1' and up	PS	6"	7"	W	B	W	E0	3	T	3
1' and up	PS	6"	7"	N	B	W	E0	3	T	3

All units have a watertight cap with screened vent.

Monitor Pitless Units listed above are equipped with one of the following types of spools:

- E0 Standard spool, Figure No. 2
- E0 Flowing well spool, Figure No. 3

Figure 1			
No.	Ordering No.	Description	Qty
---	7WPSM	Watertight Cap, includes Nos. 1-12	1
---	WBAG2	Pkg: of S.S. Bolts and Nuts for Cap	1
1	PS150	Vent Assembly	1
2	PS263	Pipe Nipple	1
3	PS217	Seal Cap and Plug Assembly	1
4	PS93S	Machine Bolt, 3/8"-16NC x 2 1/2"L.	1
5	PS197	Gasket	1
6	PS377	Retainer Ring	1
7	PS187	Depression Ring	1
8	PS94S	Machine Bolt, 3/8"-16NC x 3 1/2"L.	6
9	PS132S	Machine Bolt, 5/16"-18NC x 2"L.	2
10	PS167	Seal Ring	1
11	UB17S	Hex Nut, 3/8"-16 NC	7
12	PC434S	Hex Nut, 5/16"-18 NC	2

Figure 3			
No.	Ordering No.	Description	Qty
15	UN122	Pipe Plug, 3/8"-18 NPT	2
17	UC15	O-ring	2
20	---	Cable Seals (See Spool Cable Seals p.7)	
21	7E0PS3F	Flowing Well Spool Assembly Includes Nos. 15, 17, and 21	1

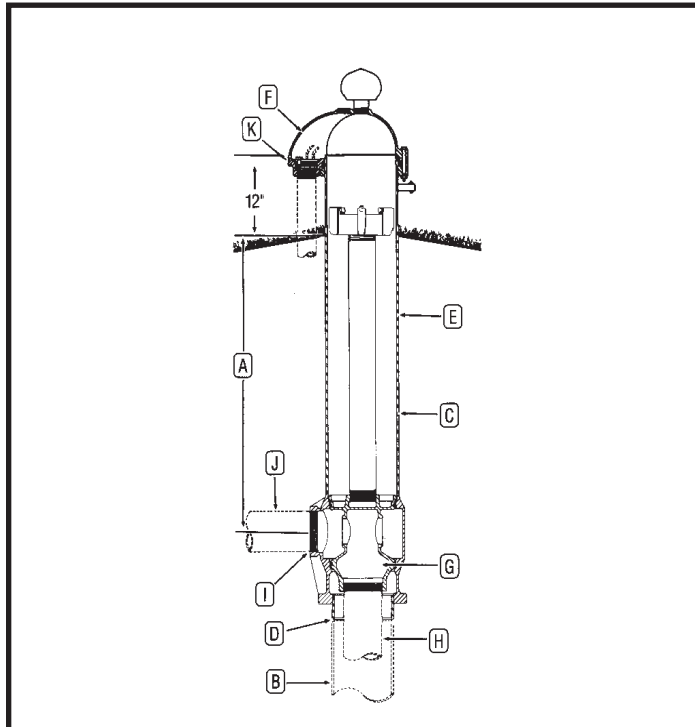
Figure 4			
No.	Ordering No.	Description	Qty
22	UC491	Discharge Body for Kwikonect	1
23	PC433	Hex Nut, 1/2"-13NC	6
24	PS166	Seal Ring	1
25	UC285	Depression Ring	1
26	UB201	Machine Bolt, 1/2" x 13NC x 3"L.	6

Figure 2			
No.	Ordering No.	Description	Qty
13	UC129	Hold-Down Assy. includes Nos. 13-14	1
14	UC139	Set Screw, 7/16"-14NC x 1 3/4"L.	3
15	UN122	Pipe Plug, 3/8"-18 NPT	2
16	7EOPS3	Spool Assembly Includes Nos. 15, 16, and 17	1
17	UC15	O-ring	2
18	UC291	Discharge Body	1
19	6AWN	Welding Nipple	1

OM1422-6(03-2014)



6.6" I.D. STANDARD INDUSTRIAL PITLESS UNITS



EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

The diagram illustrates the meaning of the various letters and numerals used in Monitor® Standard Industrial Pitless Unit ordering numbers. A typical order number and the Pitless Unit it stands for are shown.

Typical Order Number

3PS6.67WBWE03T3S

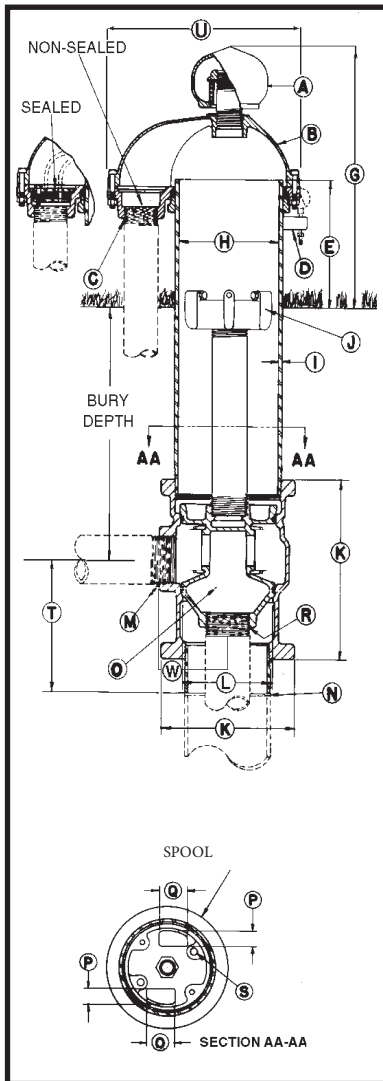
- 3** A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.
- PS** These letters indicate the type of pump the Pitless Unit is designed for. The unit shown is a PS for submersible pumps.
- 6.6** B. This numeral indicates the well casing size, 6.6" I.D.
- 7** C. This numeral indicates the upper pitless case size, 7" I.D.
- W** D. Indicates the attachment to the well casing is a welded joint.
- B** E. Indicates the upper pitless case is black pipe.
- W** F. Indicates the Pitless Unit has a watertight cap with screened vent installed.
- E** G. Indicates spool has pressure equalizing passages.
- 0** This numeral indicates the number of in-line check valves the Pitless Unit has. In this case it has zero in-line check valves (0 or 1).
- 3** H. Indicates the size of drop pipe in inches.
- T** I. Indicates the discharge connection is threaded.
- 3** J. Indicates the size of discharge pipe in inches.
- S** K. Sealed cap conduit connection (optional).

DESCRIPTION-ORDERING NUMBERS

A	3	Bury depth in feet	
	PS	Pitless Unit for Submersible Pump	
B	6.6	Well Size - inches	
C	7	Upper Case Size - inches	
D	W	Attachment to Well Casing is welded	
E	B	Black Upper Case	
F	W	Watertight Cap w/ Screened Air Vent	
	E	Pressure Equalizing Spool Passages	
G	0	No. of In-line Check Valves: (0 or 1)	
H	3	Drop Pipe I.D. - inches	
I	T	Threaded NPT Std. Connection	Accessory Discharge Connections
		Flange, ASA 150 lb	
		Welded	
		Mechanical Joint (Plain End)	
		MS=Mech. Joint w/Transition Sleeve	
J	3	Discharge I.D. - inches	
K	S	Elec. Cable Seals (S) O.D. 3 Wire _____ O.D. Grounding Wire _____	
OPTIONS		Flowing Well (F)	
		Special Provision (X)	



6.6" I.D. STANDARD INDUSTRIAL SPECIFICATIONS



- A Screened well vent tap size: 1½" NPT
- B Seal Cap: *The watertight cap bolts to a compression seal ring securing around the pitless case and comes with the screened well vent installed.*
- C Conduit tapping size 1½" NPT
Watertight conduit seals for most common cable sizes are available for watertight cap.
- D Depth tester tapping:..... ¼" NPT
- E Distance from ground level to top of pitless case: 12"
- G Distance from ground level to top of screened well vent: 19½"
- H Pitless case I.D. size: 7"
- I Pitless case wall thickness:..... 0.300"
- J Hold-down, lift-out mechanism
Three set screws in a spider atop the hold-down, lift-out pipe brace against the interior of the pitless casing, locking the spool in place.
Hold-down, lift-out pipe size (Schedule 80): 2" NPT
Designed lift-out mechanism load: 15,000 lb
- Discharge body-threaded**
- K Discharge body outside diameter: 9¹/₁₆"
- K Discharge body length: 11¼"
- L Pitless unit minimum inside diameter:..... 6³/₈"
- M Discharge connection tapping size:..... 3" NPT
- N Pitless unit to well casing connection I.D.:..... 7" weld
- O Spool assembly
Spool design load:..... 15,000 lb
- P Motor cable passages through spool 1³/₁₆"
- Q Motor cable passages through spool 1¾"
- R Spool to drop pipe connection:..... 3" NPT
- S Pressure zone tapping (2) available: ¾" NPT
- T Dimension from center of discharge outlet to bottom of weld nipple: 9³/₈"
- U Overall length of seal cap: 12⁷/₈"
- V Dimension from center of discharge to bottom of discharge body: 7³/₄"
- W Dimension from center of well casing to end of discharge outlet:..... 5²/₃₂"

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

*For flowing well spool concept, please see *Booster Station* section.

*Optional flange, weld or mechanical joint available upon request.

Monitor units are NSF/ANSI 61 & 372 certified and conform to the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, and Water Systems Council PAS-97(2012) standards.

COMPONENT MATERIALS

- Well vent-cast iron, green.
- Cap-cast iron, green.
- Hold-down spider-cast iron, green enamel finish.
- Hold-down pipe, 2"-steel Sch. 80, black.
- Pitless case-steel, black.
- Spool-cast iron, lead-free galvanized.
- Discharge body-cast iron, lead-free galvanized.
- Electrical conduit cable seal-Neoprene.
- Maximum rated discharge pressure:300psi
(Higher pressures can be accommodated with backup rings, please contact factory)

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6.6" I.D. STANDARD INDUSTRIAL PARTS BREAKDOWN

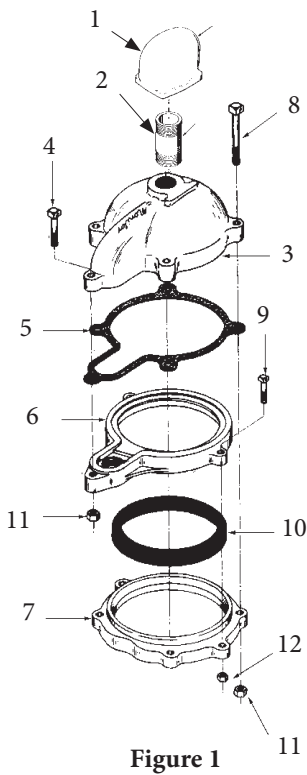


Figure 1

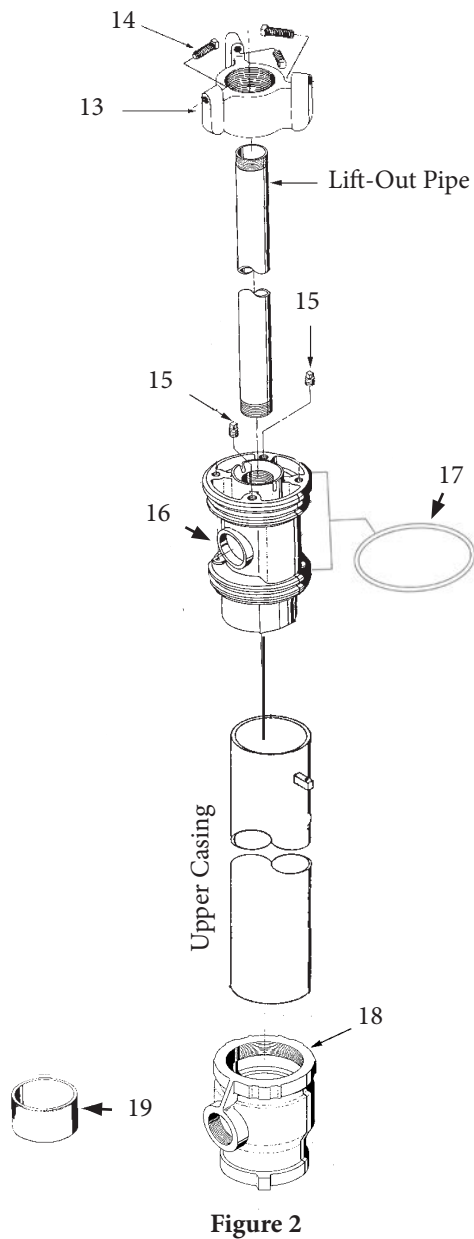


Figure 2

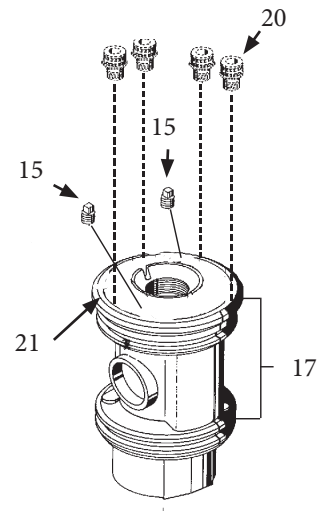


Figure 4-Flowing Well Spool



6.6" I.D. STANDARD INDUSTRIAL PARTS BREAKDOWN

The drawings and parts list apply to the model numbers listed below. See drawing on previous page.

Note: Add (F) at end of model number for flowing well spool.

Bury Depth	Unit	Well Size I.D.	Case Size	Well Casing Attachment	Upper Case	Cap Style	Spool	Drop Pipe I.D.	Drop Discharge Connection	Discharge I.D.
1' and up	PS	6.6"	7"	W	B	W	E0	3	T	3

All units have a watertight cap with screened vent.

Monitor Pitless Units listed above are equipped with one of the following types of spools:

- E0 Standard spool, Figure No. 2
- E0 Flowing well spool, Figure No. 3

Figure 1			
No.	Ordering No.	Description	Qty
---	7WPSM	Watertight Cap, includes Nos. 1-12	1
---	WBAG2	Pkg: of S.S. Bolts and Nuts for Cap	1
1	PS150	Vent Assembly	1
2	PS263	Pipe Nipple	1
3	PS217	Seal Cap and Plug Assembly	1
4	PS93S	Machine Bolt, 3/8"-16NC x 2 1/2"L.	1
5	PS197	Gasket	1
6	PS377	Retainer Ring	1
7	PS187	Depression Ring	1
8	PS94S	Machine Bolt, 3/8"-16NC x 3 1/2"L.	6
9	PS132S	Machine Bolt, 5/16"-18NC x 2"L.	2
10	PS167	Seal Ring	1
11	UB17S	Hex Nut, 3/8"-16 NC	7
12	PC434S	Hex Nut, 5/16-18 NC	2

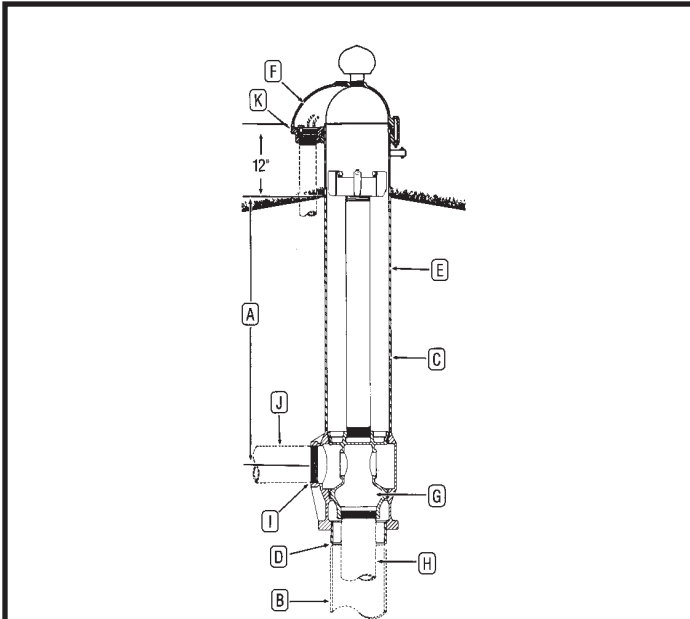
Figure 3			
No.	Ordering No.	Description	Qty
15	UN122	Pipe Plug, 3/8"-18 NPT	2
17	UC15	O-ring	2
20	---	Cable Seals (See Spool Cable Seals p.7)	
21	7E0PS3F	Flowing Well Spool Assembly Includes Nos. 15, 17, and 21	1

Figure 2			
No.	Ordering No.	Description	Qty
13	UC129	Hold-Down Assy., includes No. 13	1
14	UC139	Set Screw, 7/16"-14NC x 1 3/4"L.	3
15	UN122	Pipe Plug, 3/8"-18 NPT	2
16	7E0PS3	Spool Assembly Includes Nos. 15, 16, and 17	1
17	UC15	O-ring	2
18	UC391	Discharge Body	1
19	7AWN	Welding Nipple	1

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8" I.D. STANDARD INDUSTRIAL PITLESS UNITS



EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

The diagram illustrates the meaning of the various letters and numerals used in Monitor® Standard Industrial Pitless Unit ordering numbers. A typical order number and the Pitless Unit it stands for are shown.

Typical Order Number

3PS810WBWE04T4S

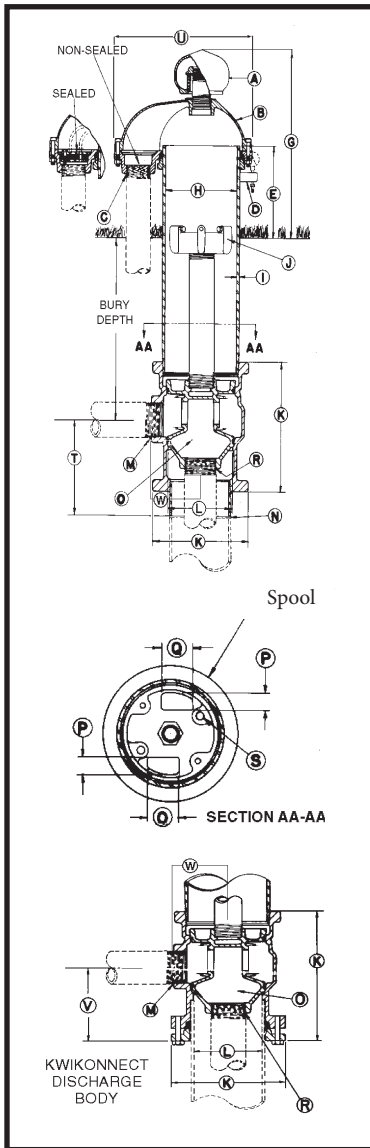
- 3** A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.
- PS** These letters indicate the type of pump the Pitless Unit is designed for. The unit shown is a PS for submersible pumps.
- 8** B. This numeral indicates the well casing size, 8" I.D.
- 10** C. This numeral indicates the upper pitless case size, 10" I.D.
- W** D. Indicates the attachment to the well casing is a welded joint ("N" for KwiKonec - 6" I.D. and 8" I.D. only).
- B** E. Indicates the upper pitless case is black pipe.
- W** F. Indicates the Pitless Unit has a watertight cap with screened vent installed.
- E** G. Indicates spool has pressure equalizing passages.
- 0** This numeral indicates the number of in-line check valves the Pitless Unit has. In this case it has zero in-line check valves (0 or 1).
- 4** H. Indicates the size of drop pipe in inches.
- T** I. Indicates the discharge connection is threaded.
- 4** J. Indicates the size of discharge pipe in inches.
- S** K. Sealed cap conduit connection (optional).

DESCRIPTION-ORDERING NUMBERS

A	3	Bury depth in feet	
	PS	Pitless Unit for Submersible Pump	
B	8	Well Size - inches	
C	10	Upper Case Size - inches	
D	W	Attachment to Well Casing (W-Welded/N-Compression/T-Male Threaded)	
E	B	Black Upper Case	
F	W	Watertight Cap w/ Screened Air Vent	
	E	Pressure Equalizing Spool Passages	
G	0	No. of In-line Check Valves: (0 or 1)	
H	4	Drop Pipe I.D. - inches	
I	T	Threaded NPT Std. Connection	Accessory Discharge Connections
		Flange, ASA 150 lb	
		Welded	
		Mechanical Joint (Plain End)	
	MS=Mech. Joint w/Transition Sleeve		
J	4	Discharge I.D. - inches	
K	S	Elec. Cable Seals (S) O.D. 3 Wire _____ O.D. Grounding Wire _____	
OPTIONS		Probe Tube (P)	
		Water Sampler Valve (H)	
		Flowing Well (F)	
		Special Provision (X)	



8" I.D. STANDARD INDUSTRIAL SPECIFICATIONS



A	Screened well vent tap size:	2½" NPT
B	Seal Cap: <i>The watertight cap bolts to a compression seal ring securing around the pitless case and comes with the screened well vent installed.</i>	
C	Conduit tapping size	3" NPT
	<i>Watertight conduit seals for most common cable sizes are available for watertight cap.</i>	
D	Depth tester tapping:.....	¼" NPT
E	Distance from ground level to top of pitless case:	12"
G	Distance from ground level to top of screened well vent:	25⅞"
H	Pitless case I.D. size:	10"
I	Pitless case wall thickness:.....	0.365"
J	Hold-down, lift-out mechanism	
	<i>Three set screws in a spider atop the hold-down, lift-out pipe brace against the interior of the pitless casing, locking the spool in place.</i>	
	Hold-down, lift-out pipe size (Schedule 80):	3" NPT
	Designed lift-out mechanism load:	30,000 lb
	Discharge body-welded	
K	Discharge body outside diameter:	13½"
K	Discharge body length:	15⅞"
	8 inch pipe extends from bottom of discharge body.....	5"
	Discharge body-Kwikonect	
K	Discharge body outside diameter	13.197"
K	Discharge body length	15½"
L	Pitless unit minimum inside diameter:.....	9⅞"
M	Discharge connection tapping size:.....	4" NPT
N	Pitless unit to well casing connection I.D.:.....	8" weld
O	Spool assembly	
	Spool design load:.....	30,000 lb
P	Motor cable passages through spool	1¾"
	Will clear rigid rod parallel to casing.....	1.49"
Q	Motor cable passages through spool.....	3⅜"
R	Spool to drop pipe connection:.....	4" NPT
S	Pressure zone tapping (2) available:	⅜" NPT
T	Dimension from center of discharge outlet to bottom of weld nipple:	12"
U	Overall length of seal cap:	19½"
V	Dimension from center of discharge to bottom of discharge body:	10½"
W	Dimension from center of well casing to end of discharge outlet:.....	6⅜"

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

*For flowing well spool concept, please see *Booster Station* section.

*Optional flange, weld or mechanical joint available upon request.

Monitor units are NSF/ANSI 61 & 372 certified and conform to the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, and Water Systems Council PAS-97(2012) standards.

COMPONENT MATERIALS

Well vent-cast iron, green.
 Cap-cast iron, green.
 Hold-down spider-cast iron, green enamel finish.
 Hold-down pipe, 2"-steel Sch. 80, black.
 Pitless case-steel, black.
 Spool-cast iron, lead-free galvanized.
 Discharge body-cast iron, lead-free galvanized.
 Electrical conduit cable seal-Neoprene.
 Maximum rated discharge pressure:300psi
 (Higher pressures can be accommodated with backup rings, please contact factory)

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8" I.D. STANDARD INDUSTRIAL PARTS BREAKDOWN

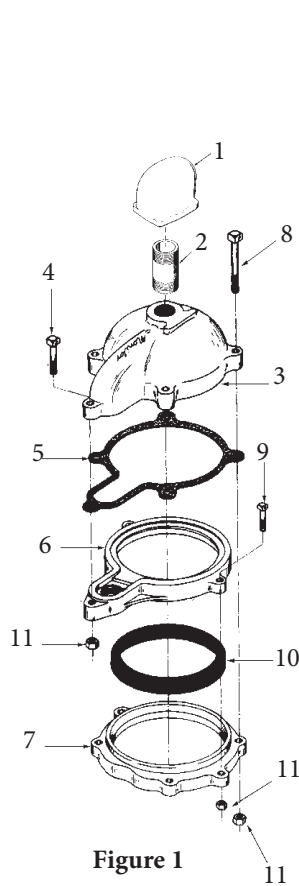


Figure 1

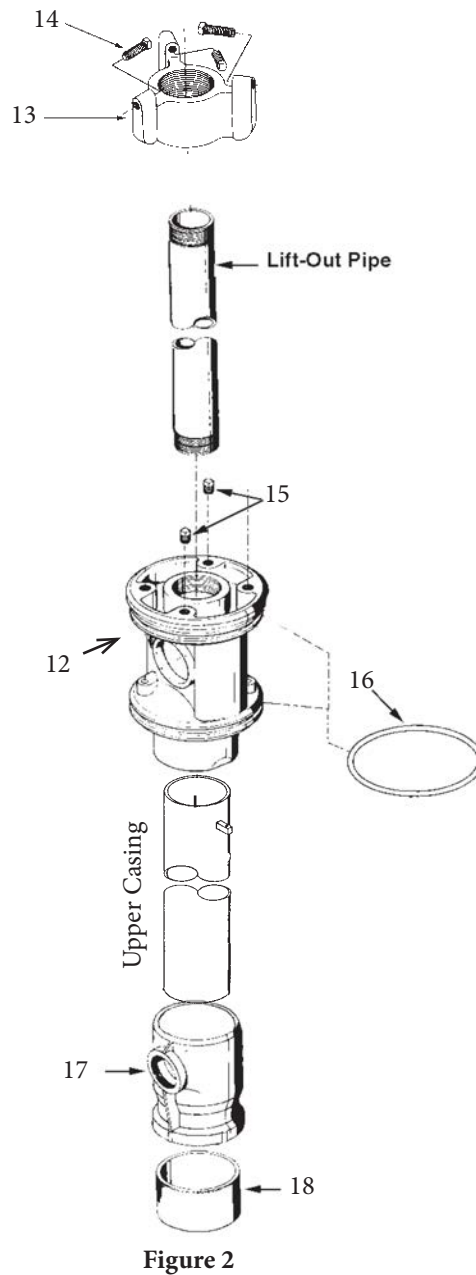


Figure 2

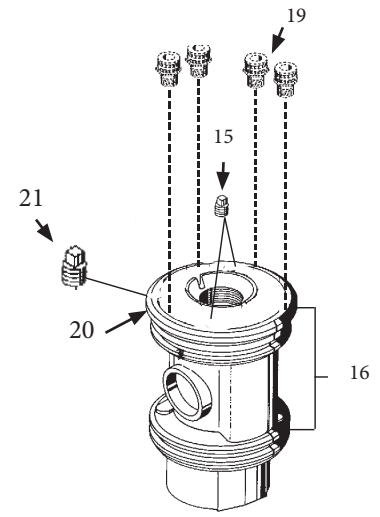


Figure 3-Flowing Well Spool

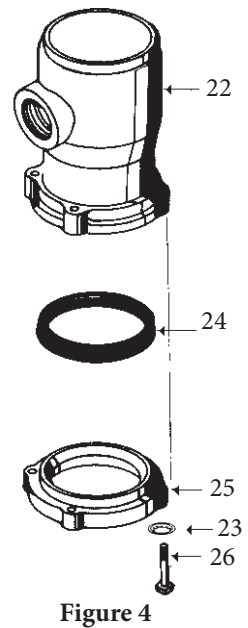


Figure 4

OM1421(03-2014)



8" I.D. STANDARD INDUSTRIAL PARTS BREAKDOWN

The drawings and parts list apply to the model numbers listed below. See drawing on previous page.

Note: Add (F) at end of model number for flowing well spool.

Bury Depth	Unit	Well Size I.D.	Case Size	Well Casing Attachment	Upper Case	Cap Style	Spool	Drop Pipe I.D.	Drop Discharge Connection	Discharge I.D.
1' and up	PS	8"	10"	W	B	W	E0	4	T	4
1' and up	PS	8"	10"	N	B	W	E0	4	T	4

All units have a watertight cap with screened vent.

Monitor Pitless Units listed above are equipped with one of the following types of spools:

- E0 Standard spool, Figure No. 2
- E0 Flowing well spool, Figure No. 3

Figure 1			
No.	Ordering No.	Description	Qty
---	10W	Watertight Cap, includes Nos. 3-12	
1	PS155	Vent Assembly	1
2	PS365	Pipe Nipple	1
3	PS350	Seal Cap	1
4	APC7S	Bolt, ½ x 3"L.	1
5	PS342	Gasket	1
6	PS341	Retainer Ring	1
7	PS189	Depression Ring	1
8	PS221S	Bolt, ½x 4½"L.	6
9	PS111S	Bolt, ½ x 2½"L.	3
10	PS170	Seal Ring	1
11	PC433S	Nut, ½-13NC	10

Figure 2			
No.	Ordering No.	Description	Qty
12	10E0PSA	Spool Assembly Includes Nos. 12, 15, and 16	1
13	UG260	Hold-Down Assy., includes Nos. 13-14	1
14	UG191	Set Screw 7/16"-14NC x 2¼"L.	3
15	UN122	Pipe Plug ¾"-18NPT Galvanized	2
16	UG15	O-ring	2
17	UG3A	Discharge Body	1
18	UG335	Pipe	1

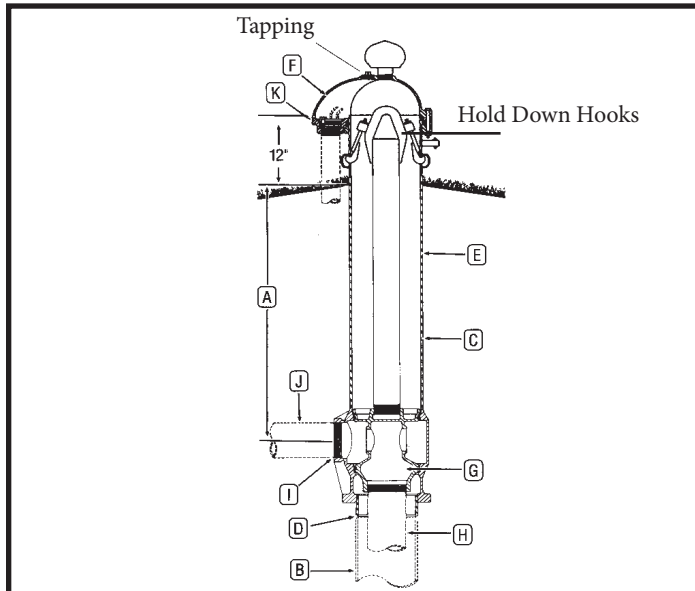
Figure 3			
No.	Ordering No.	Description	Qty
15	UN122	Pipe Plug ¾"-18 NPT galvanized	2
16	UG15	O-ring	2
19	---	Cable Seals (See Spool Cable Seals p.7)	
20	10E0PSF	Flowing Well Spool Assembly Includes Nos. 15, 16, 20, and 21	1
21	UN120	1" Pipe Plug	1

Figure 4			
No.	Ordering No.	Description	Qty
22	UG333B	Discharge Body for Kwiconect	1
23	KG255	Lockwasher	8
24	PS168	Seal Ring	1
25	PS188	Depression Ring	1
26	PS111	Screw, ½" x 13NC x 2½"L.	8

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10" I.D. STANDARD INDUSTRIAL PITLESS UNITS



EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

The diagram illustrates the meaning of the various letters and numerals used in Monitor® Standard Industrial Pitless Unit ordering numbers. A typical order number and the Pitless Unit it stands for are shown.

Typical Order Number

3PS1012WBWE06T6ES

3 A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.

PS These letters indicate the type of pump the Pitless Unit is designed for. The unit shown is a PS for submersible pumps.

10 B. This numeral indicates the well casing size, 10" I.D.

12 C. This numeral indicates the upper pitless case size, 12" I.D.

W D. Indicates the attachment to the well casing is a welded joint.

B E. Indicates the upper pitless case is black pipe.

W F. Indicates the unit has a watertight cap with screened vent installed.

E G. Indicates spool has pressure equalizing passages.

0 This numeral indicates the number of in-line check valves the Pitless Unit has. In this case it has zero in-line check valves (0 or 1).

6 H. Indicates the size of drop pipe in inches.

T I. Indicates the discharge connection is threaded.

6 J. Indicates the size of discharge pipe in inches.

E Indicates Standard Industrial Pitless Unit

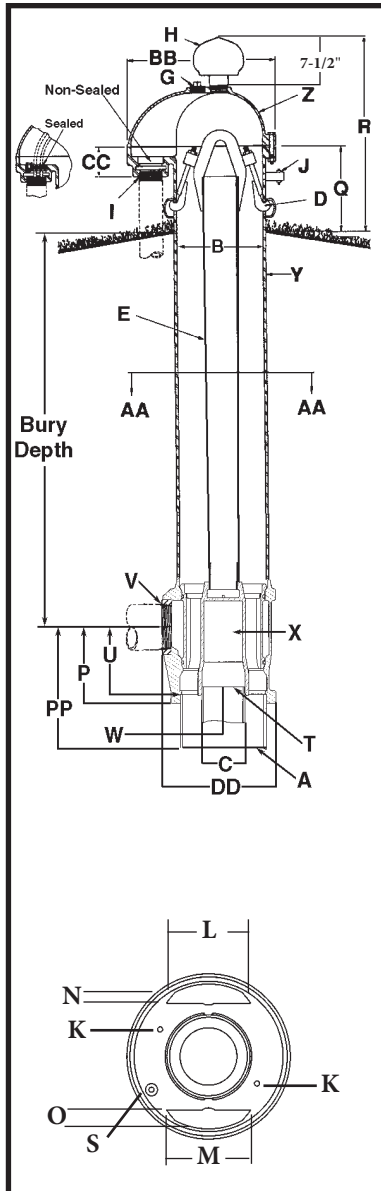
S K. Sealed cap conduit connection (optional).

DESCRIPTION-ORDERING NUMBERS

A	3	Bury depth in feet	
	PS	Pitless Unit for Submersible Pump	
B	10	Well size - inches	
C	12	Upper Case size - inches	
D	W	Attachment to Well Casing is welded	
E	B	Black Upper Case	
F	W	Watertight Cap w/ Screened Air Vent	
	E	Pressure Equalizing Spool Passages	
G	0	No. of In-line Check Valves: (0 or 1)	
H	6	Drop Pipe I.D. - inches	
I	T	Threaded NPT Std. Connection	Accessory Discharge Connections
		Flange, ASA 150 lb	
		Welded	
		Mechanical Joint (Plain End)	
		MS=Mech. Joint w/Transition Sleeve	
J	6	Discharge I.D. - inches	
	E	Std. Industrial	
K	S	Elec. Cable Seals (S) O.D. 3 Wire _____ O.D. Grounding Wire _____	
		Probe Tube (P)	
OPTIONS		Water Sampler Valve (H)	
		Flowing Well (F)	
		Special Provision (X)	



10" I.D. STANDARD INDUSTRIAL SPECIFICATIONS



A	Pitless unit to well casing connection:	Chamfered for butt weld
B	Pitless unit with black upper case:.....	12" I.D. x 12¾" O.D.
C	Discharge body minimum I.D.	11"
D	Hold-down mechanism: Locks spool in place and prevents lifting and turning during pump start-up. Two adjustable hooks on lift-out pipe hook into side of pitless case.	
E	Lift-out pipe with lifting bail:	4" NPT assembly designed for a 48,000 lb load
G	Tap size:.....	2" NPT
H	Well vent:	Screws into a 2½" NPT tap
I	Conduit tappings:	3" NPT
	<i>Watertight conduit seals for most common cable sizes are available for watertight cap.</i>	
J	Depth tester block tappings:	¼" NPT
K	Pressure zone tappings (2) available:	⅜" NPT
L	MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)	
	Will clear rigid rod parallel to casing.....	1.39"
M	Some restrictions apply.....	.6"
N	Some restrictions apply.....	1⅜"
O	Some restrictions apply.....	1⅜"
P	Dimension from center of discharge outlet to bottom of discharge body:	11⅞"
PP	Dimension from center of discharge outlet to bottom of weld nipple:	15⅞"
Q	Distance from ground level to top of the pitless case: .....	.12"
R	Distance from ground level to top of the screened well vent:.....	28½"
S	Water sampler tapping:	Optional
T	Spool to drop pipe connection: .....	.6" NPT tapping
	<i>Spool designed for 48,000 lb load</i>	
U	Dimension from center of discharge outlet to bottom of spool:	9⅝"
V	Discharge connection tapping size:	6" NPT
W	Dimension from center of well casing to the end of discharge outlet:	9⅞"
X	Spool assembly	
Y	Pitless case wall thickness:	0.375"
Z	Seal cap:	Watertight cap bolts to a gasket surface securing around the pitless casing and comes installed with 2½" screened well vent.
BB	Overall length of seal cap:.....	22½"
CC	.....	2⅜"
DD	.....	.17"

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

COMPONENT MATERIALS

- Well vent:** cast iron, green enamel finish.
- Cap:** cast iron, green enamel finish.
- Hold-down & lift-out mechanism:** black steel
- Hold-down pipe:** steel, corrosion resistant coating.
- Pitless case:** steel, corrosion resistant coating.
- Spool:** lead-free galvanized ductile iron.
- Discharge body:** lead-free galvanized ductile iron.
- Electrical conduit cable seal:** Neoprene
- Maximum rated discharge pressure:** 300 psi
(Higher pressures can be accommodated with backup rings, please contact factory)

*For flowing well spool concept, please see *Booster Station* section.

*Optional flange, weld or mechanical joint available upon request.

Monitor units are NSF/ANSI 61 & 372 certified and conform to the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, and Water Systems Council PAS-97(2012) standards.

BB-3-10(03-2014)



10" I.D. STANDARD INDUSTRIAL PARTS BREAKDOWN

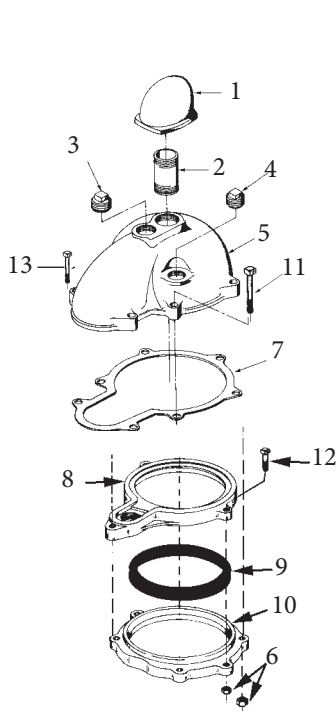


Figure 1

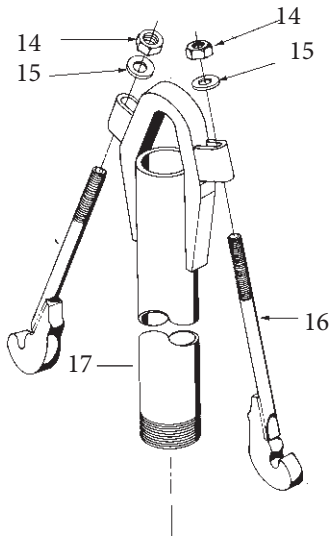


Figure 2

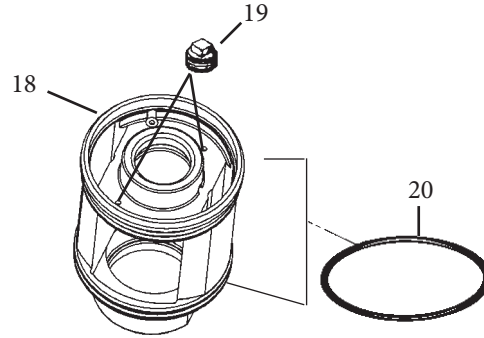


Figure 3

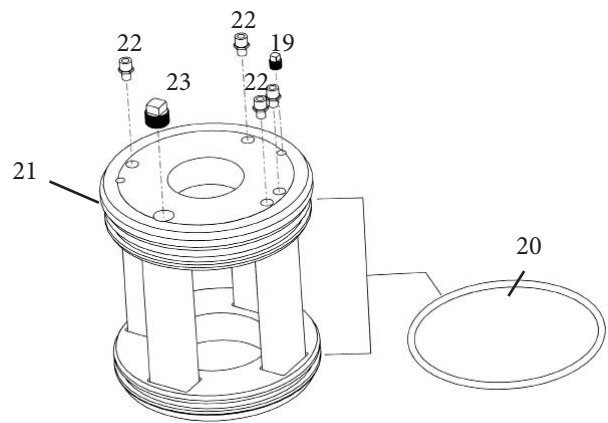


Figure 4

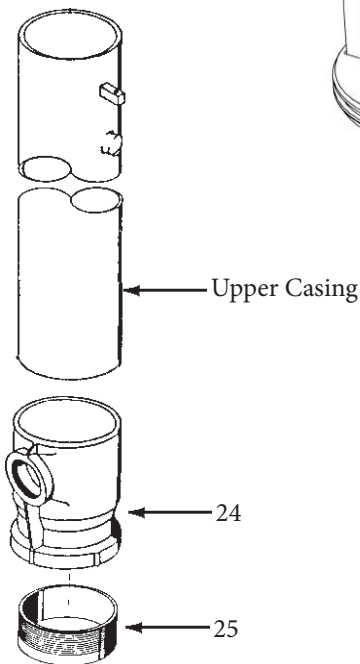


Figure 5



10" I.D. STANDARD INDUSTRIAL PARTS BREAKDOWN

The drawings and parts list apply to the model numbers listed below. See drawing on previous page.

Note: Add (F) at end of model number for flowing well spool.

Bury Depth	Unit	Well Size I.D.	Case Size	Well Casing Attachment	Upper Case	Cap Style	Spool	Drop Pipe I.D.	Drop Discharge Connection	Discharge I.D.	Std. Model
1' and up	PS	10"	12"	W	B	W	E0	6	T	6	E

All units have a watertight cap with screened vent.

Monitor Pitless Units listed above are equipped with one of the following types of spools:

- E0 Standard spool, Figure No. 3
- E0 Flowing well spool, Figure No. 4

Figure 1			
No.	Ordering No.	Description	Qty
---	12W	Watertight Cap, includes Nos. 3-13, Plus (1) 74PS Vent	
1	PS155	Vent Assembly	1
2	PS365	Pipe Nipple, 2½"NPT x 6"L.	1
3	UJ50	Pipe Plug, 2"NPT	1
4	UG54	Pipe Plug, 1½"NPT	1
5	UK12	Seal Cap	1
6	PC286S	Hex Nut, ⅝"-11NC, SS	10
7	UK72	Gasket	1
8	UJ174	Retainer Ring	1
9	UJ176	Seal Ring	1
10	UJ175	Depression Ring	1
11	KP145S	Hex Head Cap Screw, ⅝"-11NC x 6"L.	5
12	UJ177S	Hex Head Cap Screw, ⅝"-11NC x 3½"L.	3
13	LK4S	Hex Head Cap Screw, ⅝"-11NC x 4¾"L.	2

Figure 3			
No.	Ordering No.	Description	Qty
18	12E0PSA	Spool Assembly Includes Nos. 18, 19, and 20	1
19	UN122	Pipe Plug ⅝"-18NPT	2
20	UJ15	O-ring	2

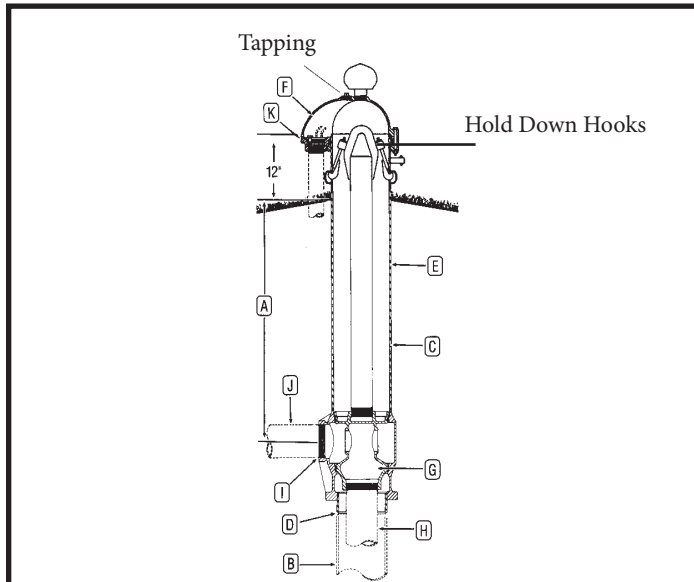
Figure 4			
No.	Ordering No.	Description	Qty
21	12E0PSF	Flowing Well Spool Assembly Includes Nos. 19, 20, 21, and 23	1
19	UN122	Pipe Plug ⅝"-18NPT	1
22	---	Cable Seals (See Spool Cable Seals p.7)	
23	UN120	Pipe Plug 1"	1

Figure 5			
No.	Ordering No.	Description	Qty
24	UJ140	Discharge Body	1
25	10AWN	Weld Nipple	1

Figure 2			
No.	Ordering No.	Description	Qty
14	PC286S	Hex Nut, ⅝"-11NC	2
15	PC417	Washer	2
16	UK7M	Hold-Down Hook	2
17	---	Lift-Out Pipe/Bail Assembly (Order by Bury Depth)	1



12" I.D. STANDARD INDUSTRIAL PITLESS UNITS



EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

The diagram illustrates the meaning of the various letters and numerals used in Monitor® Standard Industrial Pitless Unit ordering numbers. A typical order number and the Pitless Unit it stands for are shown.

Typical Order Number

3PS1214WBWE06T6ES

A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.

3

PS These letters indicate the type of pump the Pitless Unit is designed for. The unit shown is a PS for submersible pumps.

PS

B. This numeral indicates the well casing size, 12" I.D.

12

C. This numeral indicates the upper pitless case size, 14" O.D.

14

D. Indicates the attachment to the well casing is a welded joint.

W

E. Indicates the upper pitless case is black pipe.

B

F. Indicates the unit has a watertight cap with screened vent installed.

W

G. Indicates spool has pressure equalizing passages.

E

This numeral indicates the number of in-line check valves the Pitless Unit has. In this case it has zero in-line check valves (0 or 1).

0

H. Indicates the size of drop pipe in inches.

6

I. Indicates the discharge connection is threaded.

T

J. Indicates the size of discharge pipe in inches.

6

Indicates Standard Industrial Pitless Unit

E

K. Sealed cap conduit connection (optional).

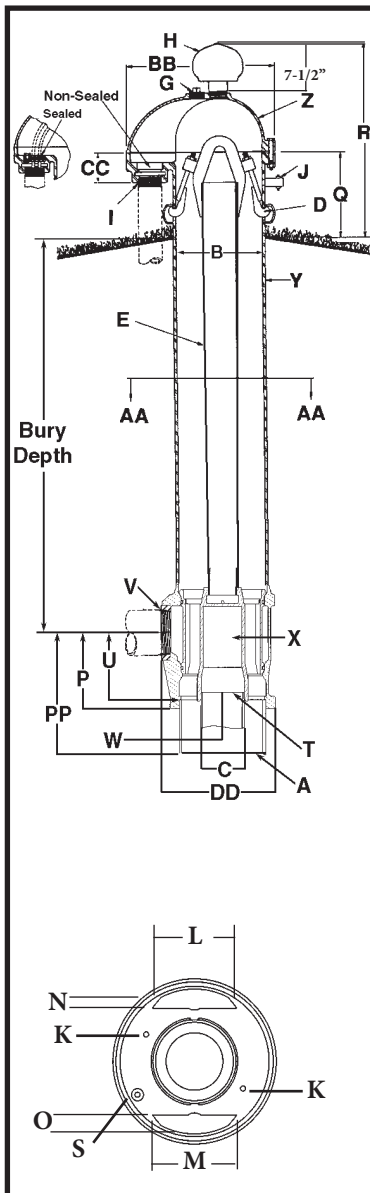
S

DESCRIPTION-ORDERING NUMBERS

A	3	Bury depth in feet	
	PS	Pitless Unit for Submersible Pump	
B	12	Well size - inches	
C	14	Upper Case size - inches	
D	W	Attachment to Well Casing is welded	
E	B	Black Upper Case	
F	W	Watertight Cap w/ Screened Air Vent	
	E	Pressure Equalizing Spool Passages	
G	0	No. of In-line Check Valves: (0 or 1)	
H	6	Drop Pipe I.D. - inches	
I	T	Threaded NPT Std. Connection	Accessory Discharge Connections
		Flange, ASA 150 lb	
		Welded	
		Mechanical Joint (Plain End)	
		MS=Mech. Joint w/Transition Sleeve	
J	6	Discharge I.D. - inches	
	E	Std. Industrial	
K	S	Elec. Cable Seals (S) O.D. 3 Wire _____ O.D. Grounding Wire _____	
		Probe Tube (P)	
OPTIONS		Water Sampler Valve (H)	
		Flowing Well (F)	
		Special Provision (X)	



12" I.D. STANDARD INDUSTRIAL SPECIFICATIONS



A	Pitless unit to well casing connection:	Chamfered for butt weld
B	Pitless unit with black upper case:.....	13¼" I.D. x 14" O.D.
C	Discharge body minimum I.D.	12"
D	Hold-down mechanism: Locks spool in place and prevents lifting and turning during pump start-up. Two adjustable hooks on lift-out pipe hook into side of pitless case.	
E	Lift-out pipe with lifting bail:	4" NPT assembly designed for a 48,000 lb load
G	Tap size:.....	2" NPT
H	Well vent:	Screws into a 2½" NPT tap
I	Conduit tapplings:	2" x 1" NPT Std.
	<i>Also available with single 2", 3", or 4" NPT</i>	
J	Depth tester block tapplings:	¼" NPT
K	Pressure zone tapplings (2) available:	⅜" NPT
L	MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)	
	Will clear rigid rod parallel to casing.....	1.77"
M	Some restrictions apply.....	4½"
N	Some restrictions apply.....	1½"
O	Some restrictions apply.....	1½"
P	Dimension from center of discharge outlet to bottom of discharge body:	11⅞"
PP	Dimension from center of discharge outlet to bottom of weld nipple:	17¼"
Q	Distance from ground level to top of the pitless case:	12"
R	Distance from ground level to top of the screened well vent:.....	27⅞"
S	Water sampler tapping:	Optional
T	Spool to drop pipe connection:.....	6" male NPT tapping Spool designed for 48,000 lb load
U	Dimension from center of discharge outlet to bottom of spool:	10½"
V	Discharge connection tapping size:	6" NPT
W	Dimension from center of well casing to the end of discharge outlet:	9⅞"
X	Spool assembly	
Y	Pitless case wall thickness:	⅜"
Z	Seal cap:	Watertight cap bolts to a gasket surface securing around the pitless casing and comes installed with 2½" screened well vent.
BB	Overall length of seal cap:.....	22½"
CC	.....	4⅝"
DD	.....	17"

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

COMPONENT MATERIALS

- Well vent - cast iron, green enamel finish.
- Cap - cast iron, green enamel finish.
- Conduit box - steel, corrosion resistant coating.
- Electrical cable seal - cast iron, green enamel finish.
- Combination hold-down & lift-out mechanism - lead free galvanized.
- Hold-down pipe - steel, corrosion resistant coating.
- Pitless case - steel, corrosion resistant coating.
- Discharge body - steel, lead free galvanized.
- Spool - steel, lead free galvanized.
- Probe tube - 1" PVC

NOTE: Any combination between drop pipe and discharge outlet size is possible, if required.

NOTE: Maximum rated discharge pressure: 300 psi (Higher pressures can be accommodated with backup rings, please contact factory)

*For flowing well spool concept, please see *Booster Station* section.

*Optional flange, weld or mechanical joint available upon request.

Monitor units are NSF/ANSI 61 & 372 certified and conform to the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, and Water Systems Council PAS-97(2012) standards.

BB-3-12(03-2014)



12" I.D. STANDARD INDUSTRIAL PARTS BREAKDOWN

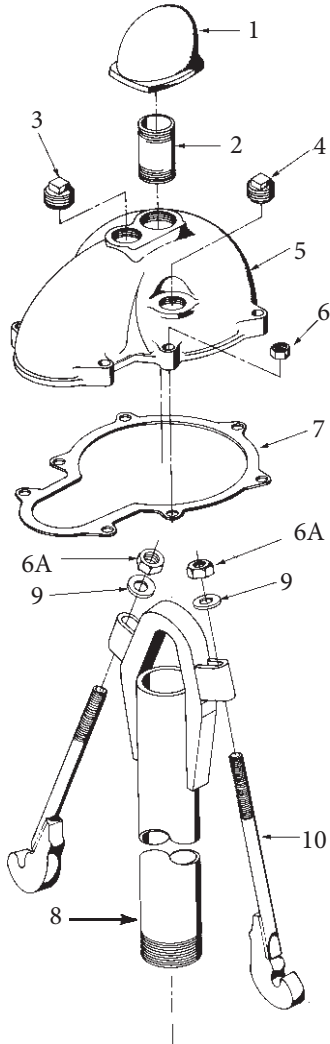


Figure 1

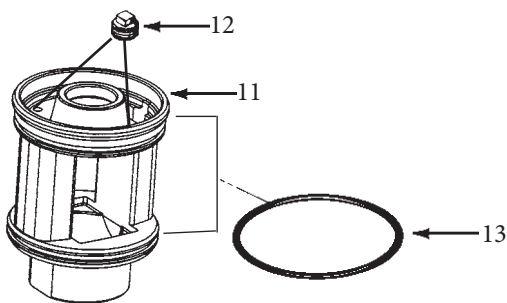


Figure 2

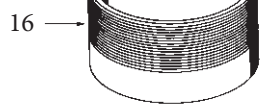
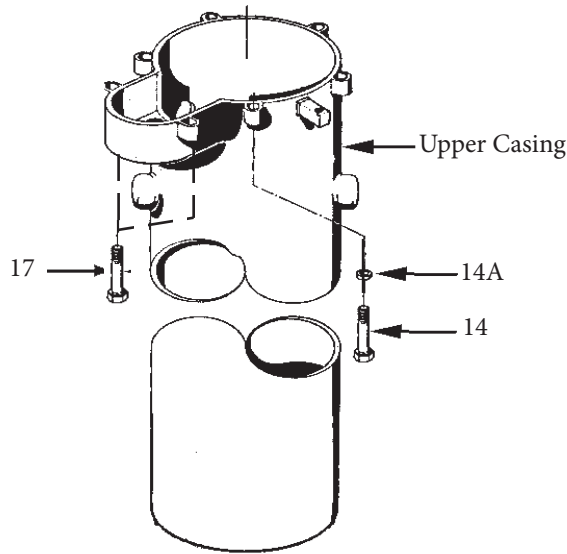


Figure 3

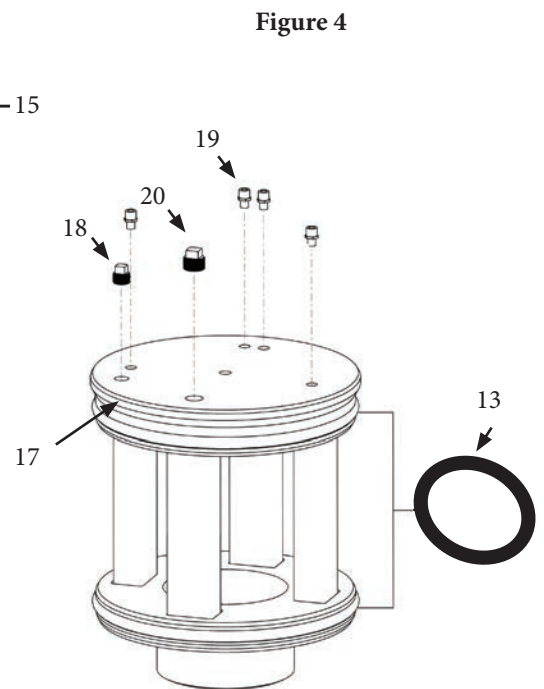


Figure 4

OM1424-12(03-2014)



12" I.D. STANDARD INDUSTRIAL PARTS BREAKDOWN

The drawings and parts list apply to the model numbers listed below. See drawing on previous page.

Note: Add (F) at end of model number for flowing well spool.

Bury Depth	Unit	Well Size I.D.	Case Size	Well Casing Attachment	Upper Case	Cap Style	Spool	Drop Pipe I.D.	Drop Discharge Connection	Discharge I.D.	Std. Model
1' and up	PS	12"	14"	W	B	W	E0	6	T	6	E

All units have a watertight cap with screened vent.

Monitor Pitless Units listed above are equipped with one of the following types of spools:

- E0 Standard spool, Figure No. 2
- E0 Flowing Well Spool, Figure No. 4

Figure 1			
No.	Ordering No.	Description	Qty
1	PS155	Protected Screen Vent 2 1/2"NPT	1
2	PS365	Pipe Nipple 2 1/2"NPT x 6"L.	1
3	UJ50	Pipe Plug 2" NPT	1
4	UG54	Pipe Plug 1 1/2"NPT	1
5	UK12	Seal Cap	1
6	PC286S	Hex Nut 5/8"-11NPT, SS	7
6A	PC286	Hex Nut 5/8"-11NPT	2
7	UK72	Gasket	1
8	---	Lift-Out Pipe/Bail Assembly (Order by Bury Depth)	1
9	PC417	Washer	2
10	UJ7	Hold-Down Hook	2

Figure 2			
No.	Ordering No.	Description	Qty
11	14E0PSA	Spool Assembly Includes Nos. 11, 12, and 13	1
12	UN122	Pipe Plug, 3/8"-18NPT	2
13	UK15	O-ring	2

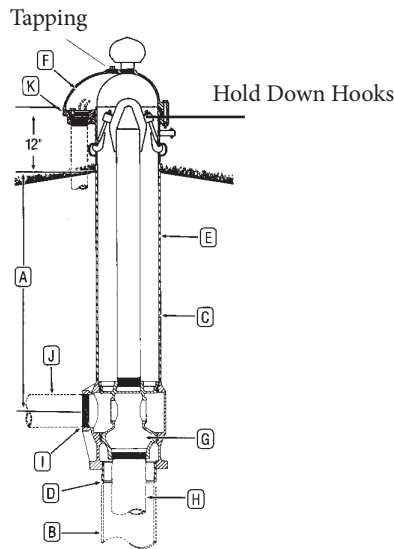
Figure 3			
No.	Ordering No.	Description	Qty
14	UN73S	Hex Head Cap Screw 3/8"-11NC x 4 3/4"L.	5
14A	UN81	Washer	5
15	UK60E	Discharge Body Only	1
16	12AWN	Welding Nipple	1
17	LK4S	Locking Bolt-5/8" x 4 3/4"L.	2

Figure 4			
No.	Ordering No.	Description	Qty
13	UK15	O-ring	2
17	14E0PSF	Flowing Well Spool Assembly Includes Nos. 13, 17, 18, and 20	1
18	UN122	Pipe Plug-3/8"-18NPT	1
19	---	Cable Seals (See Spool Cable Seals p.7)	
20	UN120	Pipe Plug-1"	1

OM1424-12(03-2014)



14" O.D. STANDARD INDUSTRIAL PITLESS UNITS



EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

The diagram illustrates the meaning of the various letters and numerals used in Monitor® Standard Industrial Pitless Unit ordering numbers. A typical order number and the Pitless Unit it stands for are shown.

Typical Order Number

3PS1418WBWE08T8ES

A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.

3

PS These letters indicate the type of pump the Pitless Unit is designed for. The unit shown is a PS for submersible pumps.

PS

B. This numeral indicates the well casing size, 14" O.D.

14

C. This numeral indicates the upper pitless case size, 18" O.D.

18

D. Indicates the attachment to the well casing is a welded joint.

W

E. Indicates the upper pitless case is black pipe.

B

F. Indicates the unit has a watertight cap with screened vent installed.

W

G. Indicates spool has pressure equalizing passages.

E

0 This numeral indicates the number of in-line check valves the Pitless Unit has. In this case it has zero in-line check valves (0 or 1).

0

H. Indicates the size of drop pipe in inches.

8

I. Indicates the discharge connection is threaded.

T

J. Indicates the size of discharge pipe in inches.

8

E Indicates Standard Industrial Pitless Unit

E

S K. Sealed cap conduit connection (optional).

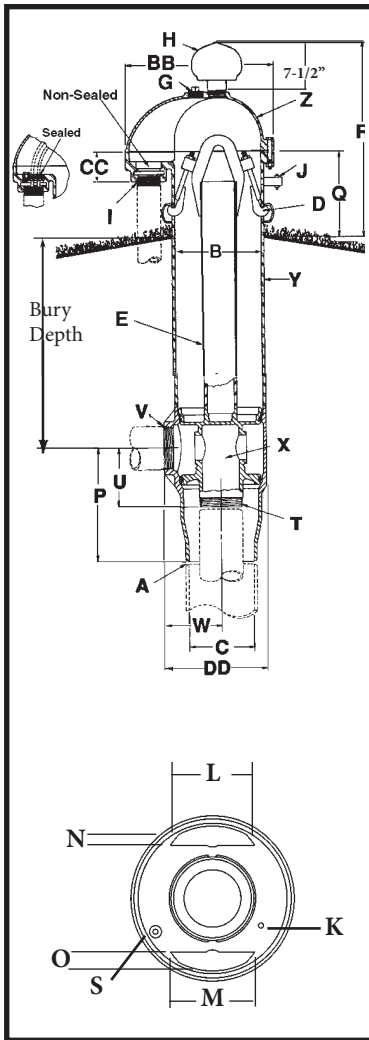
S

DESCRIPTION-ORDERING NUMBERS

A	3	Bury depth in feet	
	PS	Pitless Unit for Submersible Pump	
B	14	Well size - inches	
C	18	Upper Case size - inches	
D	W	Attachment to Well Casing is welded	
E	B	Black Upper Case	
F	W	Watertight Cap w/ Screened Air Vent	
	E	Pressure Equalizing Spool Passages	
G	0	No. of In-line Check Valves: (0 or 1)	
H	8	Drop Pipe I.D. - inches	
I	T	Threaded NPT Std. Connection	Accessory Discharge Connections
		Flange, ASA 150 lb	
		Welded	
		Mechanical Joint (Plain End)	
		MS=Mech. Joint w/Transition Sleeve	
J	8	Discharge I.D. - inches	
	E	Std. Industrial	
K	S	Elec. Cable Seals (S) O.D. 3 Wire _____ O.D. Grounding Wire _____	
		Probe Tube (P)	
OPTIONS		Water Sampler Valve (H)	
		Flowing Well (F)	
		Special Provision (X)	



14" O.D. STANDARD INDUSTRIAL SPECIFICATIONS



A	Pitless unit to well casing connection:	Chamfered for butt weld
B	Pitless unit with black upper case:.....	17 1/4" I.D. x 18" O.D.
C	Discharge body minimum I.D.	14"
D	Hold-down mechanism: Locks spool in place and prevents lifting and turning during pump start-up. Four adjustable hooks on lift-out pipe hook into side of pitless case.	
E	Lift-out pipe with lifting bail:	5" welded assembly designed for a 103,000 lb load
G	Tap size:.....	2" NPT
H	Well vent:	Screws into a 2 1/2" NPT tap
I	Conduit tappings:	2" and 1" NPT
	<i>Also available with single 2", 3", or 4" NPT</i>	
J	Depth tester block tappings:	1/4" NPT
K	Pressure zone tappings (1) available:	3/8" NPT
L	MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)	
	Will clear rigid rod parallel to casing.....	1.93"
M	Some restrictions apply.....	4 9/16"
N	Some restrictions apply.....	1 1/8"
O	Some restrictions apply.....	2"
P	Dimension from center of discharge outlet to bottom of discharge body:	23 1/16"
Q	Distance from ground level to top of the pitless case:	12"
R	Distance from ground level to top of the screened well vent:.....	28 1/4"
S	Water sampler tapping:.....	3/4" NPT
T	Spool to drop pipe connection:	8" male NPT tapping Spool designed for 103,000 lb load
U	Dimension from center of discharge outlet to bottom of spool:	12 5/16"
V	Discharge connection tapping size:	8" NPT
W	Dimension from center of well casing to the end of discharge outlet: 1/8"	11"
X	Spool assembly	
Y	Pitless case wall thickness:	3/8"
Z	Seal cap:	Watertight cap bolts to a gasket surface securing around the pitless casing and comes installed with 2 1/2" screened well vent.
BB	Overall length of seal cap:.....	25 3/8"
CC	.....	6 1/4"
DD	.....	20 1/8"

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

*For flowing well spool concept, please see *Booster Station* section.

*Optional flange, weld or mechanical joint available upon request.

Monitor units are NSF/ANSI 61 & 372 certified and conform to the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, and Water Systems Council PAS-97(2012) standards.

COMPONENT MATERIALS

Well vent: cast iron, green enamel finish.

Cap: cast iron, green enamel finish.

Hold-down & lift-out mechanism: black steel

Hold-down pipe: steel, corrosion resistant coating.

Pitless case: steel, corrosion resistant coating.

Spool: lead-free galvanized ductile iron.

Discharge body: lead-free galvanized ductile iron.

Electrical conduit cable seal: Neoprene

Maximum rated discharge pressure: 300 psi

(Higher pressures can be accommodated with backup rings, please contact factory)

BB-3-14(03-2014)



14" O.D. STANDARD INDUSTRIAL PARTS BREAKDOWN

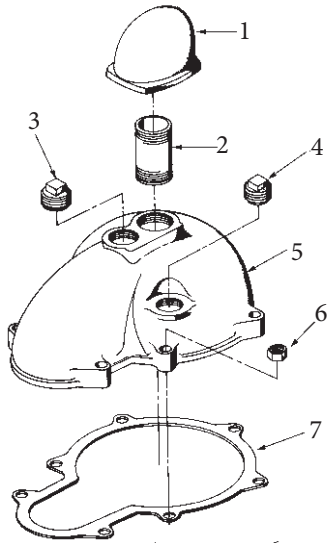


Figure 1

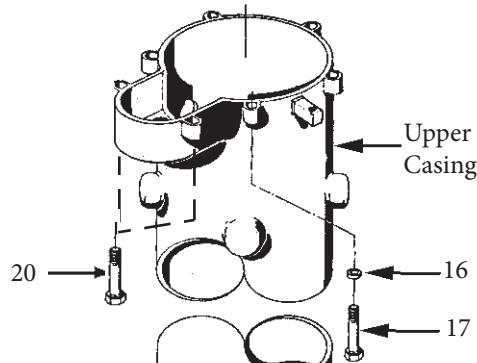


Figure 2

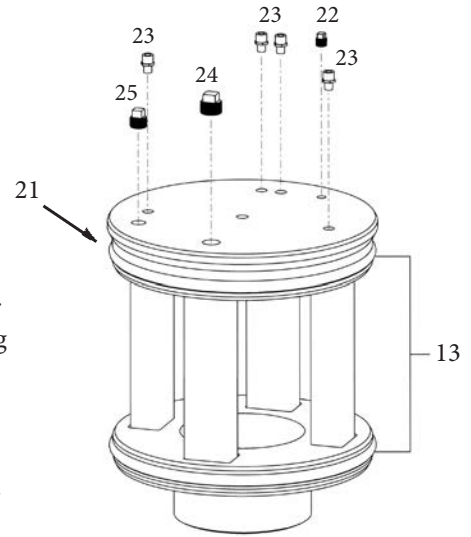


Figure 3

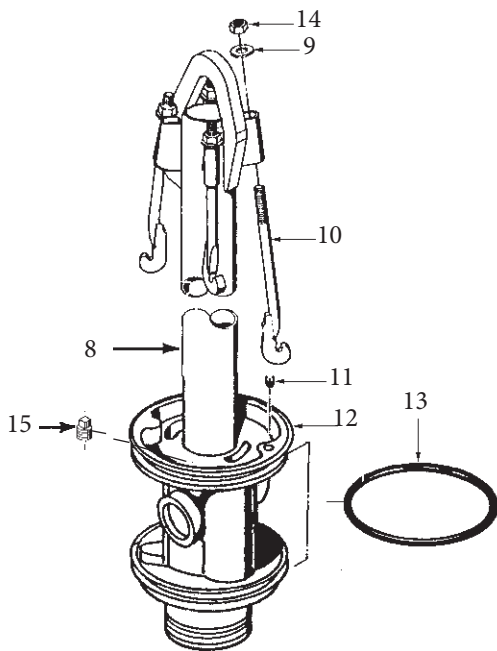


Figure 4

OM5004-14(03-2014)



14" O.D. STANDARD INDUSTRIAL PARTS BREAKDOWN

The drawings and parts list apply to the model numbers listed below. See drawing on previous page.

Note: Add (F) at end of model number for flowing well spool.

Bury Depth	Unit	Well Size O.D.	Case Size	Well Casing Attachment	Upper Case	Cap Style	Spool	Drop Pipe I.D.	Drop Discharge Connection	Discharge I.D.	Std. Model
1' and up	PS	14"	18"	W	B	W	E0	8	T	8	E

All units have a watertight cap with screened vent.

Monitor Pitless Units listed above are equipped with one of the following types of spools:

- E0 Standard spool, Figure No. 2
- E0 Flowing Well Spool, Figure No. 4

Figure 1

No.	Ordering No.	Description	Qty
1	PS155	Protected Screen Vent 2½"NPT	1
2	PS365	Pipe Nipple, 2½"NPT x 6"L.	1
3	UJ50	Pipe Plug, 2"NPT	1
4	UG54	Pipe Plug, 1½"NPT	1
5	UM1	Seal Cap	1
6	PC286S	Hex Nut, ⅝-11NC, SS	8
7	UM72	Gasket	1

Figure 3

No.	Ordering No.	Description	Qty
16	UN81	Washer	8
17	UN73S	Hex Head Cap Screw, ⅝-11NC x 4¾"L.	6
18	UM60E	Discharge Body	1
19	UJ32X22	16" x 14" Concentric Reducer	1
20	LK4S	Lock Bolt-⅝" x 5½"L.	2

Figure 2

No.	Ordering No.	Description	Qty
8	---	Spool and Lift-Out Assembly (Order by Bury Depth)	1
9	PC417	Washer	4
10	UM7	Hold-Down Hook	4
11	UN122	Pipe Plug ⅝-18NPT	1
12	UM854E	Spool	1
13	UM15	O-ring	2
14	PC286	Hex Nut, ⅝-11NC	4
15	UJ91	Pipe Plug ¾"	1

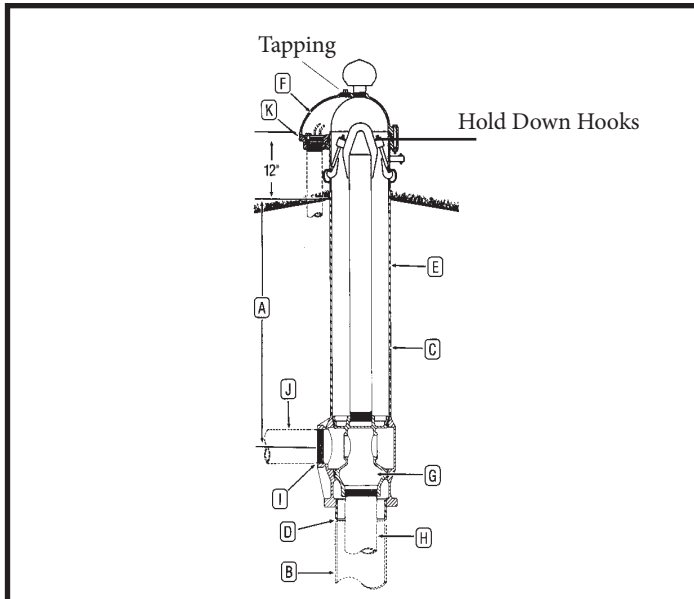
Figure 4

No.	Ordering No.	Description	Qty
13	UM15	O-ring	2
21	---	Flowing Well Spool and Lift-Out Assembly (Please Order By Bury Depth)	1
22	UN122	Pipe Plug ⅝-18NPT	1
23	---	Cable Seals (See Spool Cable Seals p.7)	
24	UN120	Pipe Plug 1"	1
25	UJ91	Pipe Plug ¾"	1

OM5004-14(03-2014)



16" O.D. STANDARD INDUSTRIAL PITLESS UNITS



EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

The diagram illustrates the meaning of the various letters and numerals used in Monitor® Standard Industrial Pitless Unit ordering numbers. A typical order number and the Pitless Unit it stands for are shown.

Typical Order Number

3PS1618WBWE08T8ES

A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.

3

PS These letters indicate the type of pump the Pitless Unit is designed for. The unit shown is a PS for submersible pumps.

PS

B. This numeral indicates the well casing size, 16" O.D.

16

C. This numeral indicates the upper pitless case size, 18" O.D.

18

D. Indicates the attachment to the well casing is a welded joint.

W

E. Indicates the upper pitless case is black pipe.

B

F. Indicates the unit has a watertight cap with screened vent installed.

W

G. Indicates spool has pressure equalizing passages.

E

0 This numeral indicates the number of in-line check valves the Pitless Unit has. In this case it has zero in-line check valves (0 or 1).

0

H. Indicates the size of drop pipe in inches.

8

I. Indicates the discharge connection is threaded.

T

J. Indicates the size of discharge pipe in inches.

8

E Indicates Standard Industrial Pitless Unit

E

S K. Sealed cap conduit connection (optional).

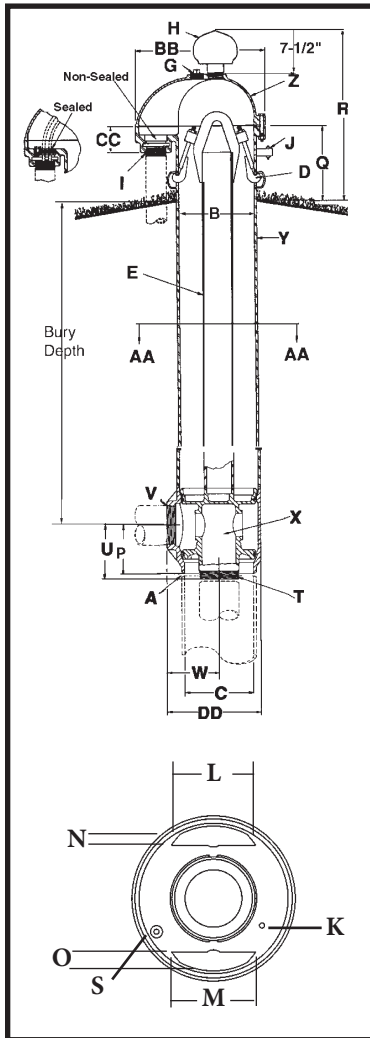
S

DESCRIPTION-ORDERING NUMBERS

A	3	Bury depth in feet	
	PS	Pitless Unit for Submersible Pump	
B	16	Well size - inches	
C	18	Upper Case size - inches	
D	W	Attachment to Well Casing is welded	
E	B	Black Upper Case	
F	W	Watertight Cap w/ Screened Air Vent	
	E	Pressure Equalizing Spool Passages	
G	0	No. of In-line Check Valves: (0 or 1)	
H	8	Drop Pipe I.D. - inches	
I	T	Threaded NPT Std. Connection	Accessory Discharge Connections
		Flange, ASA 150 lb	
		Welded	
		Mechanical Joint (Plain End)	
		MS=Mech. Joint w/Transition Sleeve	
J	8	Discharge I.D. - inches	
	E	Std. Industrial	
K	S	Elec. Cable Seals (S)	
		O.D. 3 Wire _____ O.D. Grounding Wire _____	
OPTIONS		Probe Tube (P)	
		Water Sampler Valve (H)	
		Flowing Well (F)	
		Special Provision (X)	



16" O.D. STANDARD INDUSTRIAL SPECIFICATIONS



A	Pitless unit to well casing connection:	Chamfered for butt weld
B	Pitless unit with black upper case:.....	17¼" I.D. x 18" O.D.
C	Discharge body minimum I.D.	15¼"
D	Hold-down mechanism: Locks spool in place and prevents lifting and turning during pump start-up. Four adjustable hooks on lift-out pipe hook into side of pitless case.	
E	Lift-out pipe with lifting bail:	5" welded assembly designed for a 103,000 lb load
G	Tap size:.....	2" NPT
H	Well vent:	Screws into a 2½" NPT tap
I	Conduit tappings:	2" and 1" NPT
	<i>Also available with single 2", 3", or 4" NPT</i>	
J	Depth tester block tappings:	¼" NPT
K	Pressure zone tappings (1) available:	⅜" NPT
L	MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)	
	Will clear rigid rod parallel to casing.....	1.93"
M	Some restrictions apply.....	4⅞"
N	Some restrictions apply.....	1⅝"
O	Some restrictions apply.....	2"
P	Dimension from center of discharge outlet to bottom of weld ring:	13⅛"
Q	Distance from ground level to top of the pitless case:	12"
R	Distance from ground level to top of the screened well vent:.....	28¼"
S	Water sampler tapping:.....	¾" NPT
T	Spool to drop pipe connection:	8" male NPT tapping Spool designed for 103,000 lb load
U	Dimension from center of discharge outlet to bottom of spool:	12⅞"
V	Discharge connection tapping size:	8" NPT
W	Dimension from center of well casing to the end of discharge outlet: ⅛	11"
X	Spool assembly	
Y	Pitless case wall thickness:	⅜"
Z	Seal cap:	Watertight cap bolts to a gasket surface securing around the pitless casing and comes installed with 2½" screened well vent.
BB	Overall length of seal cap:.....	25⅜"
CC	.....	6¼"
DD	.....	20⅞"

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

*For flowing well spool concept, please see *Booster Station* section.

*Optional flange, weld or mechanical joint available upon request.

Monitor units are NSF/ANSI 61 & 372 certified and conform to the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, and Water Systems Council PAS-97(2012) standards.

COMPONENT MATERIALS

Well vent: cast iron, green enamel finish.

Cap: cast iron, green enamel finish.

Hold-down & lift-out mechanism: black steel

Hold-down pipe: steel, corrosion resistant coating.

Pitless case: steel, corrosion resistant coating.

Spool: lead-free galvanized ductile iron.

Discharge body: lead-free galvanized ductile iron.

Electrical conduit cable seal: Neoprene

Maximum rated discharge pressure: 300 psi

(Higher pressures can be accommodated with backup rings, please contact factory)

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16" O.D. STANDARD INDUSTRIAL PARTS BREAKDOWN

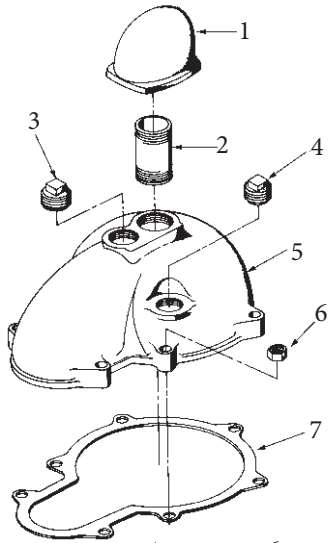


Figure 1

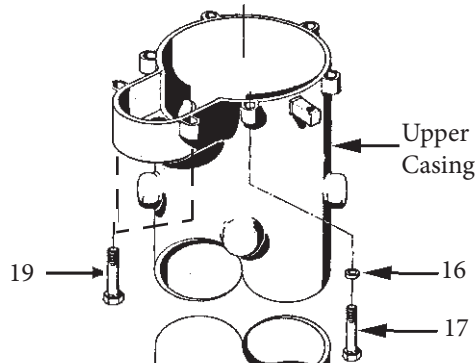


Figure 3

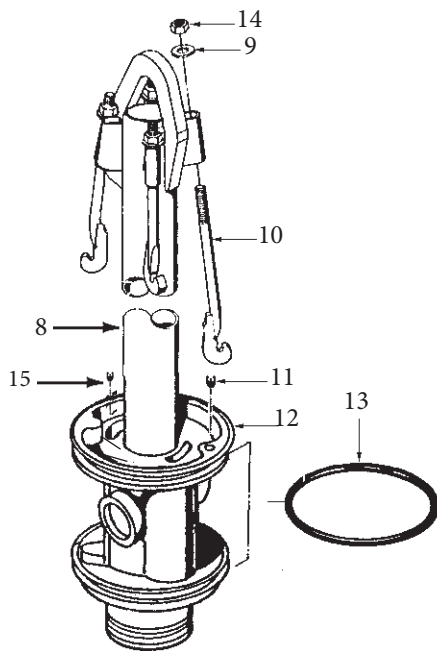


Figure 2

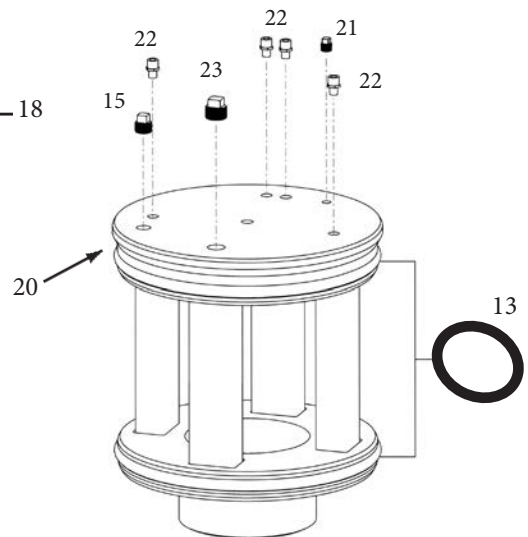


Figure 4

OM5004-16(03-2014)



16" O.D. STANDARD INDUSTRIAL PARTS BREAKDOWN

The drawings and parts list apply to the model numbers listed below. See drawing on previous page.

Note: Add (F) at end of model number for flowing well spool.

Bury Depth	Unit	Well Size O.D.	Case Size	Well Casing Attachment	Upper Case	Cap Style	Spool	Drop Pipe I.D.	Drop Discharge Connection	Discharge I.D.	Std. Model
1' and up	PS	16"	18"	W	B	W	E0	8	T	8	E

All units have a watertight cap with screened vent.

Monitor Pitless Units listed above are equipped with one of the following types of spools:

- E0 Standard Spool, Figure No. 2
- E0 Flowing Well Spool, Figure No. 4

Figure 1			
No.	Ordering No.	Description	Qty
1	PS155	Protected Screen Vent 2½"NPT	1
2	PS365	Pipe Nipple, 2½"NPT x 6"L.	1
3	UJ50	Pipe Plug, 2"NPT	1
4	UG54	Pipe Plug, 1½"NPT	1
5	UM1	Seal Cap	1
6	PC286S	Hex Nut, ⅝-11NC, SS	8
7	UM72	Gasket	1

Figure 3			
No.	Ordering No.	Description	Qty
16	UN81	Washer	8
17	UN73S	Hex Head Cap Screw, ⅝-11NC x 4¾"L.	6
18	UM60E	Discharge Body	1
19	LK4S	Lock Bolt-⅝ x 4¾"L.	2

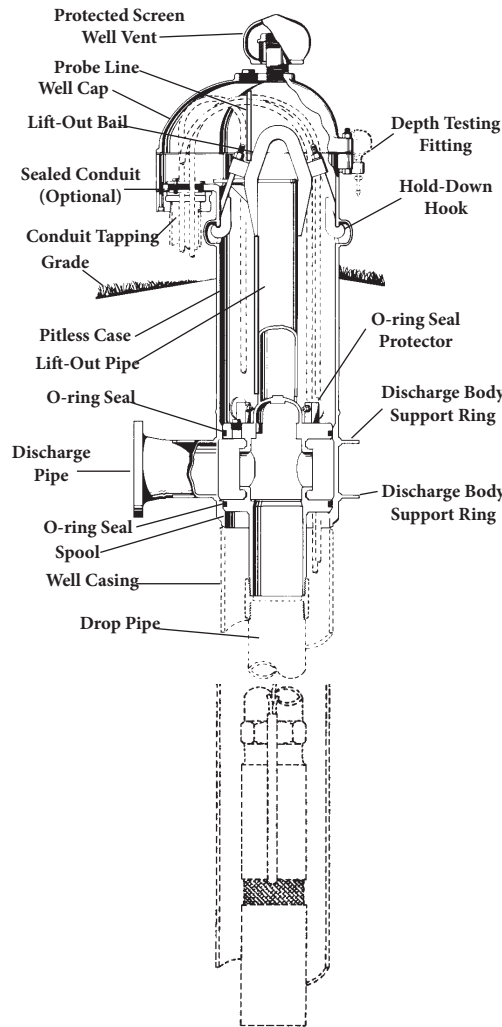
Figure 2			
No.	Ordering No.	Description	Qty
8	---	Spool and Lift-Out Assembly (Order by Bury Depth)	1
9	PC417	Washer	4
10	UM7	Hold-Down Hook	4
11	UN122	Pipe Plug ⅜-18NPT	1
12	E0188EFR	Spool	1
13	UM15	O-ring	2
14	PC286	Hex Nut, ⅝-11NC	4
15	UJ191	Pipe Plug ¾"	1

Figure 4			
No.	Ordering No.	Description	Qty
13	UM15	O-ring	2
20	---	Flowing Well Spool and Lift-Out Assembly (Please Order By Bury Depth)	1
21	UN122	Pipe Plug -⅜-18NPT	1
22	---	Cable Seals (See Spool Cable Seals p.7)	
23	UN120	Pipe Plug 1"	1
15	UJ191	Pipe Plug ¾"	1

OM5004-16(03-2014)



CUSTOM INDUSTRIAL PITLESS UNITS



The Monitor® PS Custom Industrial Pitless Unit for submersible pumps forms a watertight extension of the well casing. The Pitless Unit connection to the well casing starts below the frost line. From the connection point, it extends upward finishing 12 inches or more above grade. The casing extension above grade is then completed with a watertight cap.



Certified to
NSF/ANSI 61 & 372

Monitor units are NSF/ANSI 61 & 372 certified and conform to the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, and Water Systems Council PAS-97(2012) standards.



**CUSTOM INDUSTRIAL PITLESS UNITS
FOR SUBMERSIBLE PUMPS
10" THROUGH 36" WELL SIZES**

FEATURES:

FROST PROOF

No heating is required. All water passages are below the frost line.

QUICK TO INSTALL

A quality pump installation can be made easily and economically without delay for masonry or building construction.

EASY TO SERVICE

Well cap can be removed without disconnecting electric cables. O-ring seals on spool permit withdrawal of the entire inner assembly simply by releasing hold-downs and lifting out. Replacement is equally simple. Spool support eliminates vertical adjustment and any possibility of dropping the inner assembly into the well.

RELIABLE SEALS

Neoprene O-rings between accurately machined hot-dipped lead free galvanized surfaces on the spool and within the unit provide positive seals.

O-RING SEAL PROTECTION

Monitor seal protection prevents seal damage during installation and servicing.

WATERTIGHT WELL CAP WITH SCREENED VENT & LOCKING BOLTS

Designed to permit removal without disconnecting cables. Separate Junction Box is eliminated. Watertight cable and conduit sealing is optional.

WATER SAMPLING VALVE-FROST PROOF (Optional).

PROBE TUBE

Standard on all units.

CORROSION PROTECTION

All water passages are either hot-dipped lead free galvanized or constructed of corrosion resistant material.

LIFT-OUT BAIL

Standard on all units.

DEPTH TESTS BLOCKS

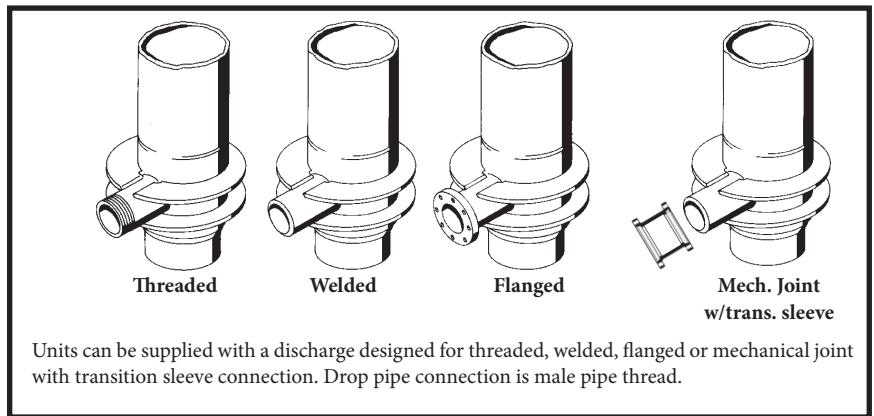
Standard on all units.

**ALL CUSTOM PITLESS UNITS ARE AVAILABLE IN
STAINLESS STEEL UPON REQUEST**

To install a Custom Industrial Pitless Unit: See installation instructions.

The spool assembly includes: A spool with pressure equalizing passages; two O-ring seals, lift-out pipe/bail, and hold down hooks.

ALTERNATIVE DISCHARGE CONNECTIONS



HOLD-DOWN

Supplied with each unit. Hold-down pipe also serves as lift-out pipe for installation and servicing.

PROTECTED SCREEN VENT

Standard on all units.

LOCKING BOLTS

On all units.

SUPPORT RINGS

Prevent distortion of the Discharge Body due to vertical movement of Discharge Pipe.

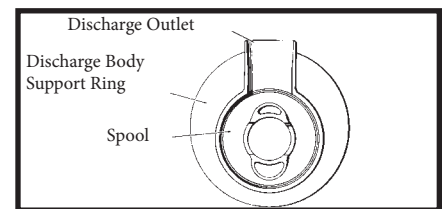
FLOWING WELLS

Available for most well sizes.

API 8 ROUND THREADS

Deep well applications. Please contact factory (optional).

SPOOL STYLE



NO VALVES SPOOL



INSTALLATION INSTRUCTIONS

CUSTOM INDUSTRIAL PITLESS UNITS FOR SUBMERSIBLE PUMPS 10" through 36" WELL SIZES

1. All pitless unit cases are joined by welding or threading the unit to the well casing, or kwikonect style by slipping the unit onto the top of the well casing and tightening the bolts.
2. Establish ground level at the well location. It is desirable to have the ground slope away in all directions from the pitless unit case.
3. The pitless unit upper casing should extend above the ground level according to state well code. To accomplish this, the well casing must be cut off at a distance below the ground level equal to the overall pitless unit length, less the length the pitless unit upper casing is to extend above the ground.
4. Excavate around the well casing according to government regulations where well casing is to be cut off.
5. Cut off the well casing PERPENDICULAR to the well casing centerline.
6. Remove the pitless unit cap, loosen the hold-down hooks, and remove spool assembly.
NOTE: The spool assembly includes: A spool with pressure equalizing passages; two O-ring seals, lift-out pipe/bail, and hold down hooks.
7. Lower the pitless unit into place and rotate the discharge outlet to the desired location and weld the pitless unit to the well casing. THIS JOINT MUST BE WATERTIGHT AND IT IS ESSENTIAL THAT THE CENTERLINE OF THE PITLESS CASE AND THE CENTERLINE OF THE WELL CASING BE THE SAME.
8. The submersible motor, pump and cable are attached to the drop pipe and then lowered into the well. When the top of the last section of the drop pipe is one foot or more above the pitless case, screw the spool assembly onto the drop pipe.
9. Wipe the rubber O-ring seals with a clean cloth and then coat with a heavy layer of petroleum jelly (Vaseline) for proper seating of rings. Lower the spool assembly, drop pipe with motor, pump and cable into place.
10. Install and tighten hold-down hooks.
11. Complete electrical service and install pitless cap.
12. Connect discharge outlet to distribution line and complete all wiring.
13. The unit is now ready to operate under power and should be run a sufficient amount of time to see that there are no leaks present.
14. The hole should not be filled in until the unit is running satisfactorily. Care should be exercised to fill under discharge line properly before back filling.

NOTE: Dissimilar metals should be avoided.

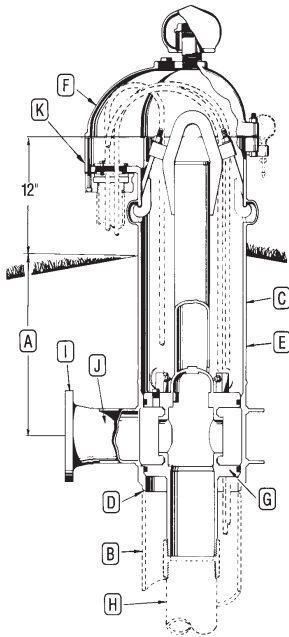
OM5012(03-2014)

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Certified to
NSF/ANSI 61 & 372

10" CUSTOM PITLESS UNIT



DESCRIPTION-ORDERING NUMBERS

A	3	Bury depth in feet	
	PS	Pitless Unit for Submersible Pump	
B	10	Well size - inches	
C	14	Upper Case size - inches	
D	W	Attachment to Well Casing-Welded	
E	B	Black Upper Case	
F	W	Watertight Cap w/ Screened Air Vent	
	E	Pressure Equalizing Spool Passages	
G	0	No. of In-line Check Valves: (0 or 1)	
H	6	Drop Pipe I.D. - inches (4", 5", or 6")	
I		Threaded NPT Std. Connection	Accessory Discharge Connections
	F	Flange, ASA 150 lb	
		Welded	
		Mechanical Joint (Plain End)	
		MS=Mech. Joint w/Transition Sleeve	
J	6	Discharge I.D. - inches (4", 5", or 6")	
K	S	Elec. Cable Seals (S) O.D. 3 Wire _____ O.D. Grounding Wire _____	
OPTIONS		Water Sampler Valve (H)	
		Flowing Well (F)	
		Special Provision (X)	

EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

The diagram illustrates the meaning of the various letters and numerals used in Monitor® Custom Industrial Pitless Unit ordering numbers. A typical order number and the Pitless Unit it stands for are shown.

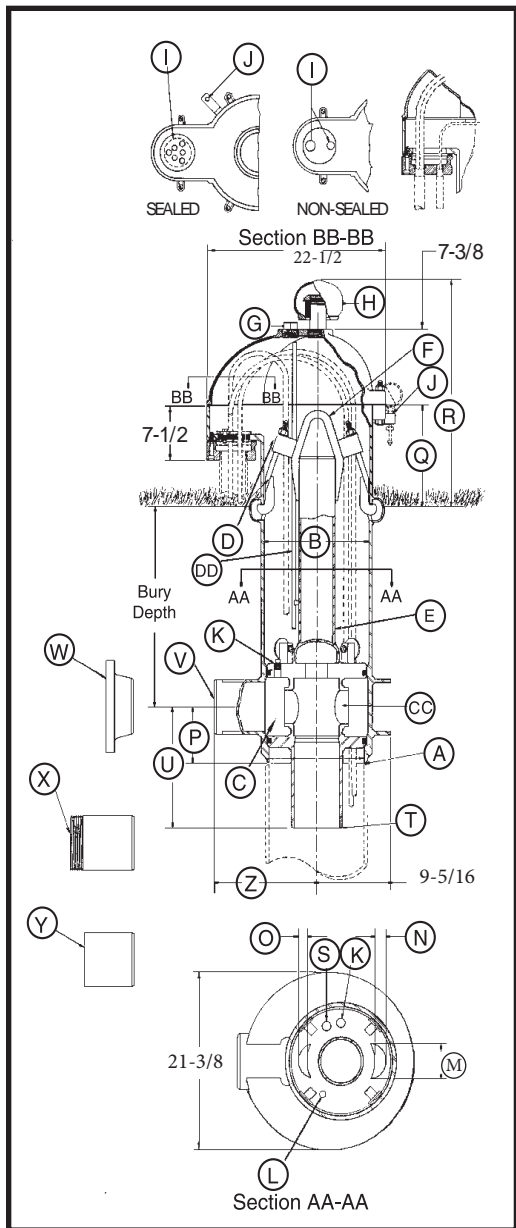
Typical Order Number

3PS1014WBWE06F6S

- 3** A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.
- PS** These letters indicate the type of pump the Pitless Unit is designed for. The unit shown is a PS for submersible pumps.
- 10** B. This numeral indicates the well casing size is 10" I.D.
- 14** C. This numeral indicates the upper pitless case size is 14" O.D.
- W** D. Indicates the attachment to the well casing is a welded joint.
- B** E. Indicates the upper pitless case is black pipe.
- W** F. Indicates the Pitless Unit has a watertight cap with screened vent installed.
- E** G. Indicates spool has pressure equalizing passages.
- 0** This numeral indicates the number of in-line check valves the Pitless Unit has. In this case it has zero in-line check valves (0 or 1).
- 6** H. Indicates the size of drop pipe in inches.
- F** I. Indicates the discharge connection is flanged. Other options are welded, threaded, and mechanical joint with or without transition sleeve.
- 6** J. Indicates the size of discharge pipe in inches.
- S** K. Sealed cap conduit connection (optional).



10" CUSTOM PITLESS SPECIFICATIONS



A	Pitless unit to well casing connection:	Chamfered for butt weld
B	Pitless unit with black upper case:	13 1/8" I.D. x 14" O.D.
C	Discharge body minimum I.D.	10"
<i>Large enough to permit insertion of 10" O.D. pipe to this point for well servicing.</i>		
D	Hold-down mechanism: Locks spool in place and prevents lifting and turning during pump start-up. Two adjustable hooks on lift-out pipe hook into side of pitless case.	
DD	Probe tube standard 1" PVC pipe	
E	Lift-out pipe:	4" Welded
F	Lift-out bail:	assembly designed for a 68,000 lb load
G	Tap size:	2" NPT
H	Well vent:	Screws into a 2 1/2" NPT tapping
CAP CABLE SEALS (SECTION BB-BB)		
I	Conduit tappings:	2" and 1" NPT
<i>Also available with single 2", 3", or 4" NPT (All tapping sizes available with or without electrical cable seal)</i>		
J	Depth tester block tappings:	1/4" NPT
K	Pressure zone tappings:	1" NPT tappings ported to drop pipe
L	Pressure zone tappings:	3/8" NPT
MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)		
M	.....	4"
N	.....	1 1/2"
O	.....	1"
P	Dimension from center of discharge outlet to bottom of discharge body:	15 3/4"
Q	Distance from ground level to top of the pitless case:	12"
R	Distance from ground level to top of the screened vent cap:	28 1/2"
<i>Vent height may be increased if necessary.</i>		
S	Water sampler tapping:	3/4" NPT
T	SPOOL TO DROP PIPE THREAD SIZES:	4" NPT 5" NPT 6" NPT
U	Dimension from center of discharge outlet to bottom of spool:	13 7/16" 14 7/16" 14 1/2"
DISCHARGE CONNECTIONS AND SIZES:		
V	Butt weld:	4" I.D. 5" I.D. 6" I.D.
W	Flanged A.S.A. standard 150 lb:	4" I.D. 5" I.D. 6" I.D.
X	Threaded NPT:	4" I.D. 5" I.D. 6" I.D.
Y	Transition sleeve:	4" I.D. NA 6" I.D.
Z	Dimension from center of well casing to the end of discharge outlet	
(V) Butt weld discharge:		
(W) Flanged discharge:		
(X) Threaded discharge:		
(Y) Transition sleeve:		
CC	SPOOL ASSEMBLY WITHOUT CHECK VALVES:	
Area of water passage(s):		
Percent area of water passage(s) to area of drop pipe:		

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

COMPONENT MATERIALS

- Well vent - cast iron, green enamel finish.
- Cap - cast iron, green enamel finish.
- Conduit box - steel, corrosion resistant coating.
- Electrical cable seal - cast iron, green enamel finish.
- Combination hold-down & lift-out mechanism - lead free galvanized.
- Hold-down pipe - steel, corrosion resistant coating.
- Pitless case - steel, corrosion resistant coating.
- Discharge body - steel, lead free galvanized.
- Spool - steel, lead free galvanized.
- Probe tube - 1" PVC

NOTE: Any combination between drop pipe and discharge outlet size is possible, if required.
 NOTE: Maximum rated discharge pressure: 300 psi
 (Higher pressures can be accommodated with backup rings, please contact factory)

Monitor units are NSF/ANSI 61 & 372 certified and conform to the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, and Water Systems Council PAS-97(2012) standards.

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10" CUSTOM PITLESS PARTS BREAKDOWN

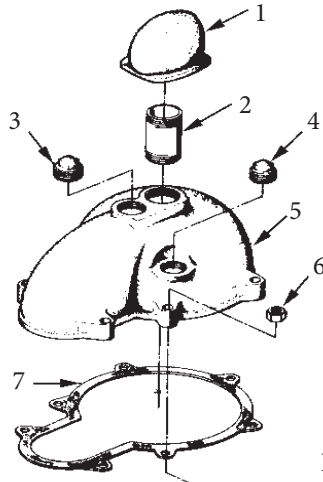


Figure 1

Figure 1			
No.	Ordering No.	Description	Qty
1	PS155	Protected Screen Well Vent 2 1/2"NPT	1
2	PS365	Pipe Nipple 2 1/2"NPT x 6"L.	1
3	UJ50	Pipe Plug 2" NPT	1
4	UG54	Pipe Plug 1 1/2"NPT	1
5	UK12	Seal Cap	1
6	PC286S	Hex Nut 5/8-11NC, SS	7
7	UK72	Gasket	1

Figure 2			
No.	Ordering No.	Description	Qty
8	PC286	Hex Nut, 5/8-11NC	2
9	PC417	Washer	2
10	UJ7	Hold-Down Hook	2
11	---	*Spool & Lift-Out Assy. (Serial No. Required)	1
12	UB17	Hex Nut 3/8-16NC	4
13	TX31	Lockwasher	4
14	UK15	O-ring	2
15	SW68	Washer	4
16	UL95	Washer	4
17	UM222	Machine Screw, 3/8-16NC x 2 1/4"L.	4
18	UN81	Washer	7
19	UN73S	Hex Head Cap Screw, 5/8-11NC x 5"L.	5
19A	LK4S	Lock Bolt, 5/8-11NC x 4 3/4"L.	2
20	---	Discharge Body/Upper Casing Assembly (Serial No. Required)	1
21		(4) Different Discharge Connections are available: (A) Welded, (B) Flanged, (C) Threaded, or (D) Mechanical Joint with or without Transition Sleeve.	

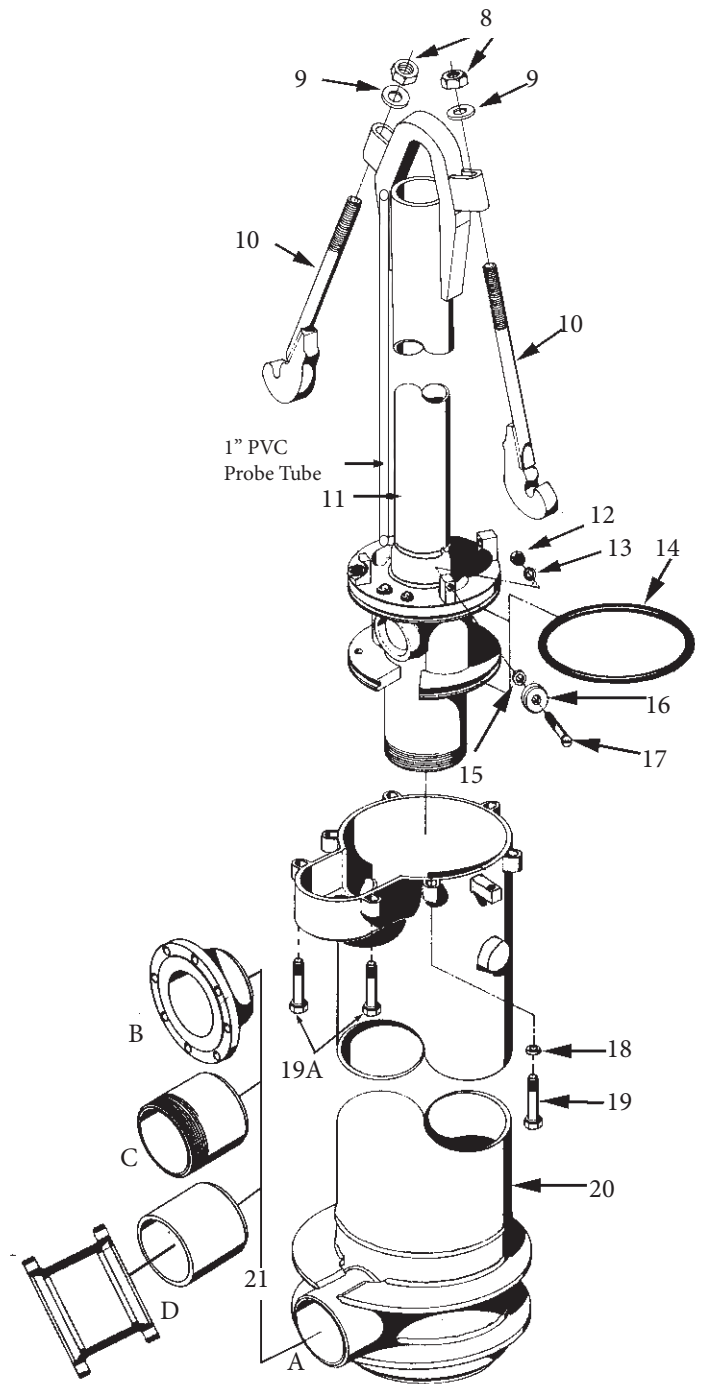


Figure 2

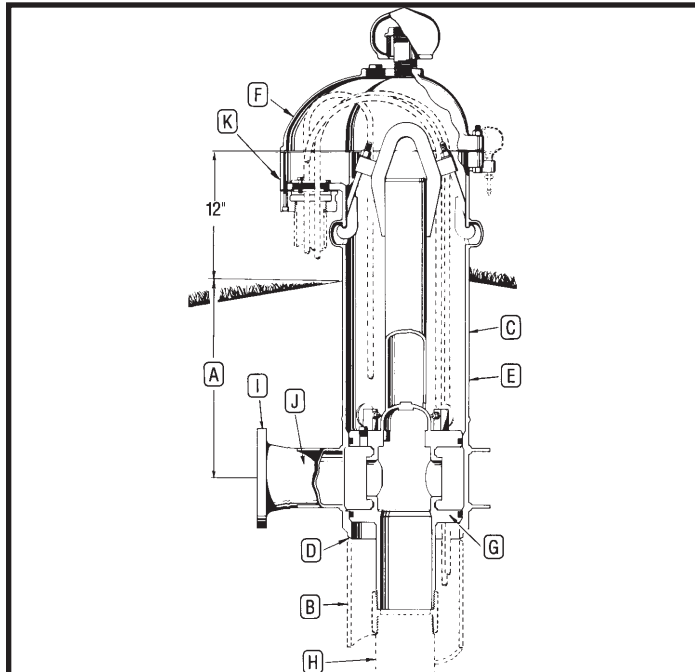
ANY ORDER FOR REPAIR PARTS MUST BE ACCOMPANIED BY THE PITLESS UNIT SERIAL NUMBER AND ORDER NUMBER

*Flowing Well Spools available upon request

OM5000-10(03-2014)



12" CUSTOM PITLESS UNIT



EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

The diagram illustrates the meaning of the various letters and numerals used in Monitor® Custom Industrial Pitless Unit ordering numbers. A typical order number and the Pitless Unit it stands for are shown.

Typical Order Number

3PS1214WBWE06F6S

3 A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.

PS These letters indicate the type of pump the Pitless Unit is designed for. The unit shown is a PS for submersible pumps.

12 B. This numeral indicates the well casing size is 12" I.D.

14 C. This numeral indicates the upper pitless case size is 14" O.D.

W D. Indicates the attachment to the well casing is a welded joint.

B E. Indicates the upper pitless case is black pipe.

W F. Indicates the Pitless Unit has a watertight cap with screened vent installed.

E G. Indicates spool has pressure equalizing passages.

0 This numeral indicates the number of in-line check valves the Pitless Unit has. In this case it has zero in-line check valves (0 or 1).

6 H. Indicates the size of drop pipe in inches.

F I. Indicates the discharge connection is flanged. Other options are welded, threaded, and mechanical joint with or without transition sleeve.

6 J. Indicates the size of discharge pipe in inches.

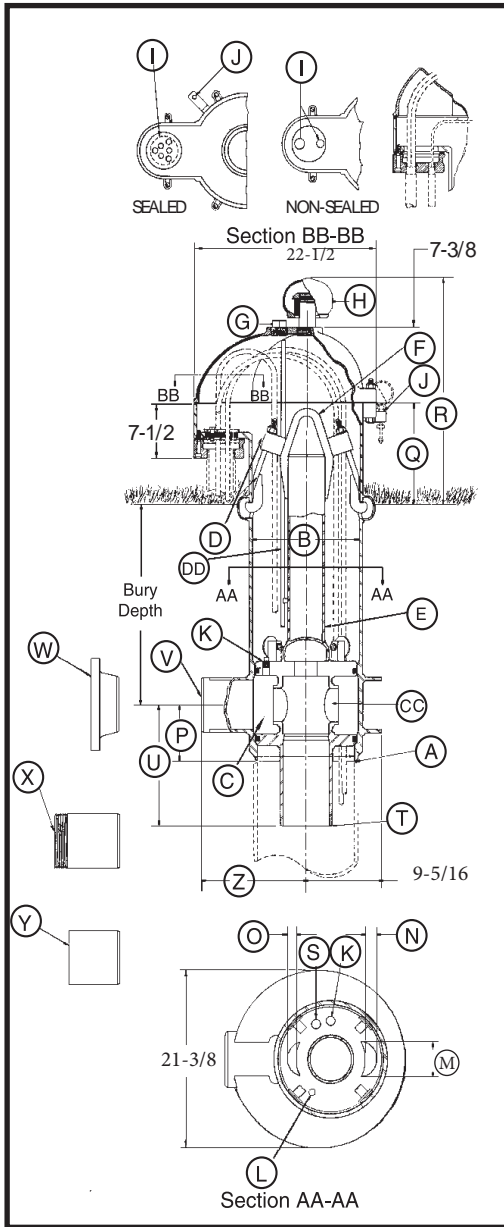
S K. Sealed cap conduit connection (optional).

DESCRIPTION-ORDERING NUMBERS

A	3	Bury depth in feet	
	PS	Pitless Unit for Submersible Pump	
B	12	Well size - inches	
C	14	Upper Case size - inches	
D	W	Attachment to Well Casing-Welded	
E	B	Black Upper Case	
F	W	Watertight Cap w/ Screened Air Vent	
	E	Pressure Equalizing Spool Passages	
G	0	No. of In-line Check Valves: (0 or 1)	
H	6	Drop Pipe I.D. - inches (4", 5", or 6")	
I		Threaded NPT Std. Connection	Accessory Discharge Connections
	F	Flange, ASA 150 lb	
		Welded	
		Mechanical Joint (Plain End)	
		MS=Mech. Joint w/Transition Sleeve	
J	6	Discharge I.D. - inches (4", 5", or 6")	
K	S	Elec. Cable Seals (S) O.D. 3 Wire _____ O.D. Grounding Wire _____	
OPTIONS		Water Sampler Valve (H)	
		Flowing Well (F)	
		Special Provision (X)	



12" CUSTOM PITLESS SPECIFICATIONS



A	Pitless unit to well casing connection:	.....	Chamfered for butt weld
B	Pitless unit with black upper case:	.....	13 1/8" I.D. x 14" O.D.
C	Discharge body minimum I.D.:	.....	12"
	<i>Large enough to permit insertion of 12 1/4" O.D. x 3/8" wall tube during well servicing.</i>		
D	Hold-down mechanism: Locks spool in place and prevents lifting and turning during pump start-up. Two adjustable hooks on lift-out pipe hook into side of pitless case.		
DD	Probe tube standard 1" PVC pipe		
E	Lift-out pipe:	.....	4" Welded
F	Lift-out bail:	.....	assembly designed for a 68,000 lb load
G	Tap size:	.....	2" NPT
H	Well vent:	.....	Screws into a 2 1/2" NPT tapping
CAP CABLE SEALS (SECTION BB-BB)			
I	Conduit tapings:	.....	2" and 1" NPT
	<i>Also available with single 2", 3", or 4" NPT (All tapping sizes available with or without electrical cable seal)</i>		
J	Depth tester block tapings:	.....	1/4" NPT
K	.....	.....	1 inch NPT tapings ported to drop pipe
L	Pressure zone tapings:	.....	3/8" NPT
MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)			
M	.....	.....	4"
N	.....	.....	1 1/2"
O	.....	.....	1"
P	Dimension from center of discharge outlet to bottom of discharge body:	.....	15 3/4"
Q	Distance from ground level to top of the pitless case:	.....	12"
R	Distance from ground level to top of the screened vent cap:	.....	28 1/2"
	<i>Vent height may be increased if necessary.</i>		
S	Water sampler tapping:	.....	3/4" NPT
T	SPOOL TO DROP PIPE THREAD SIZES:		
U	Dimension from center of discharge outlet to bottom of spool:	.....	4" NPT 5" NPT 6" NPT
		.....	13 7/16" 14 7/16" 14 1/2"
DISCHARGE CONNECTIONS AND SIZES:			
V	Butt weld:	.....	4" I.D. 5" I.D. 6" I.D.
W	Flanged A.S.A. standard 150 lb:	.....	4" I.D. 5" I.D. 6" I.D.
X	Threaded NPT:	.....	4" I.D. 5" I.D. 6" I.D.
Y	Transition sleeve:	.....	4" I.D. NA 6" I.D.
Z	Dimension from center of well casing to the end of discharge outlet		
	(V) Butt weld discharge:	.....	18 1/2" 18 1/2" 12 1/2"
	(W) Flanged discharge:	.....	21 1/2" 22" 16 7/16"
	(X) Threaded discharge:	.....	21 7/16" 21 7/16" 16 1/2"
	(Y) Transition sleeve:	.....	30 1/2" NA 24 1/2"
CC	SPOOL ASSEMBLY WITHOUT CHECK VALVES:		
	Area of water passage(s):	.....	25.12 in ² 25.12 in ² 25.12 in ²
	Percent area of water passage(s) to area of drop pipe:	.....	195% 125% 87%

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

COMPONENT MATERIALS

- Well Vent - cast iron, green enamel finish.
- Cap - cast iron, green enamel finish.
- Conduit Box - steel, corrosion resistant coating.
- Electrical Cable Seal - cast iron, green enamel finish.
- Combination Hold-Down & Lift-Out Mechanism - lead free galvanized.
- Hold-Down Pipe - steel, corrosion resistant coating.
- Pitless Case - steel, corrosion resistant coating.
- Discharge Body - steel, lead free galvanized.
- Spool - steel, lead free galvanized.
- Probe Tube - 1" PVC

NOTE: Any combination between drop pipe and discharge outlet size is possible, if required.

NOTE: Maximum rated discharge pressure: 300 psi
(Higher pressures can be accommodated with backup rings, please contact factory)

Monitor units are NSF/ANSI 61 & 372 certified and conform to the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, and Water Systems Council PAS-97(2012) standards.

BB111-12(03-2014)



12" CUSTOM PITLESS PARTS BREAKDOWN

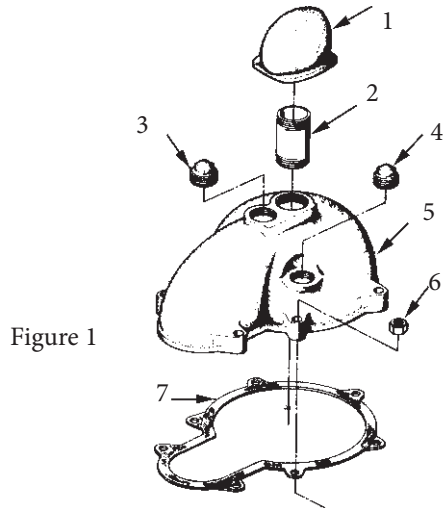


Figure 1

Figure 1			
No.	Ordering No.	Description	Qty
1	PS155	Protected Screen Well Vent 2½"NPT	1
2	PS365	Pipe Nipple 2½"NPT x 6"L.	1
3	UJ50	Pipe Plug 2" NPT	1
4	UG54	Pipe Plug 1½"NPT	1
5	UK12	Seal Cap	1
6	PC286S	Hex Nut ⅝-11NC,SS	7
7	UK72	Gasket	1
Figure 2			
No.	Ordering No.	Description	Qty
8	PC286	Hex Nut, ⅝-11NC	2
9	PC417	Washer	2
10	UJ7	Hold-Down Hook	2
11	---	*Spool & Lift-Out Assy. (Serial No. Required)	1
12	UB17	Hex Nut ⅜-16NC	4
13	TX31	Lockwasher	4
14	UK15	O-ring	2
15	SW68	Washer	4
16	UL95	Washer	4
17	UM222	Machine Screw, ⅜-16NC x 2¼"L.	4
18	UN81	Washer	7
19	UN73S	Hex Head Cap Screw, ⅝-11NC x 5"L.	5
19A	LK4S	Lock Bolt, ⅝-11NC x 4¾"L.	2
20	---	Discharge Body/Upper Casing Assembly (Serial No. Required)	1
21	(4) Different Discharge Connections are available: (A) Welded, (B) Flanged, (C) Threaded, or (D) Mechanical Joint with or without Transition Sleeve.		

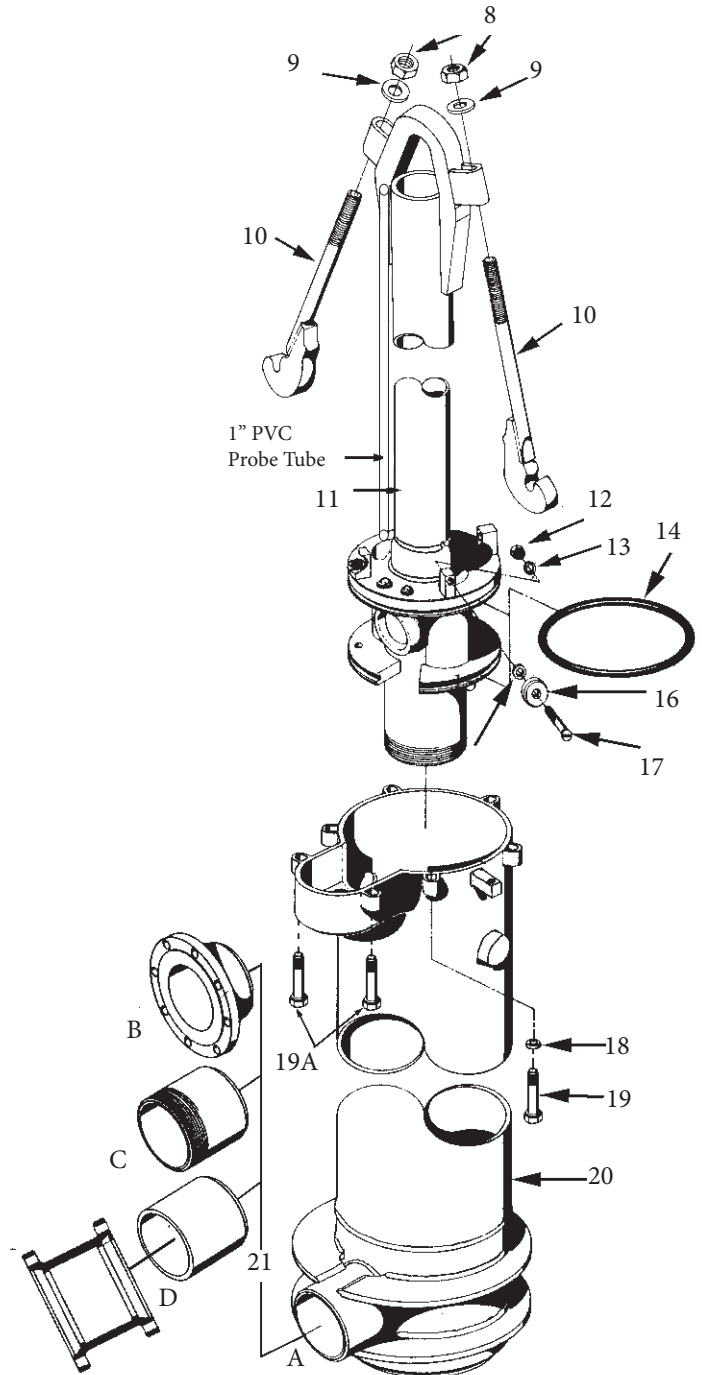


Figure 2

ANY ORDER FOR REPAIR PARTS MUST BE ACCOMPANIED BY THE PITLESS UNIT SERIAL NUMBER AND ORDER NUMBER
*Flowing Well Spools available upon request

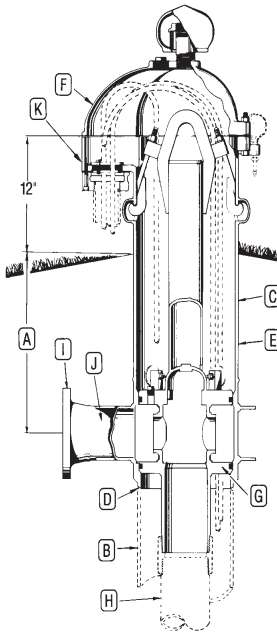
OM5000-12(03-2014)

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Certified to
NSF/ANSI 61 & 372

14" CUSTOM PITLESS UNIT



EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

The diagram illustrates the meaning of the various letters and numerals used in Monitor® Custom Industrial Pitless Unit ordering numbers. A typical order number and the Pitless Unit it stands for are shown.

Typical Order Number

3PS1416WBWE08F8S

A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.

3

PS These letters indicate the type of pump the Pitless Unit is designed for. The unit shown is a PS for submersible pumps.

PS

B. This numeral indicates the well casing size is 14" O.D.

14

C. This numeral indicates the upper pitless case size is 16" O.D.

16

D. Indicates the attachment to the well casing is a welded joint.

W

E. Indicates the upper pitless case is black pipe.

B

F. Indicates the Pitless Unit has a watertight cap with screened vent installed.

W

G. Indicates spool has pressure equalizing passages.

E

This numeral indicates the number of in-line check valves the Pitless Unit has. In this case it has zero in-line check valves (0 or 1).

0

H. Indicates the size of drop pipe in inches.

8

I. Indicates the discharge connection is flanged. Other options are welded, threaded, and mechanical joint with or without transition sleeve.

F

J. Indicates the size of discharge pipe in inches.

8

K. Sealed cap conduit connection (optional).

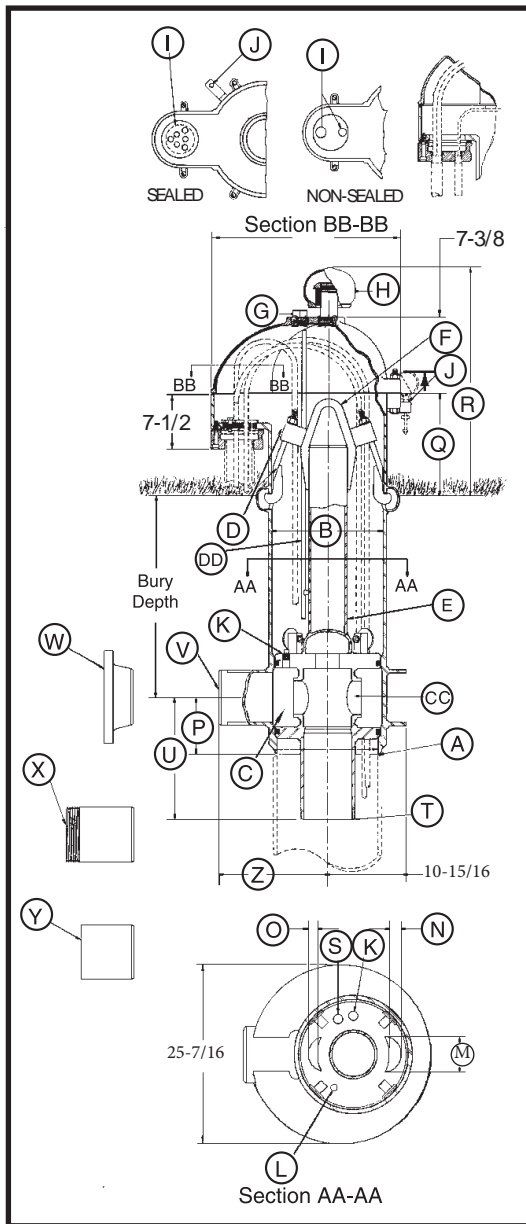
S

DESCRIPTION-ORDERING NUMBERS

A	3	Bury depth in feet	
	PS	Pitless Unit for Submersible Pump	
B	14	Well size - inches	
C	16	Upper Case size - inches	
D	W	Attachment to Well Casing-Welded	
E	B	Black Upper Case	
F	W	Watertight Cap w/ Screened Air Vent	
	E	Pressure Equalizing Spool Passages	
G	0	No. of In-line Check Valves: (0 or 1)	
H	8	Drop Pipe I.D. - inches (5", 6", or 8")	
I		Threaded NPT Std. Connection	Accessory Discharge Connections
	F	Flange, ASA 150 lb	
		Welded	
		Mechanical Joint (Plain End)	
		MS=Mech. Joint w/Transition Sleeve	
J	8	Discharge I.D. - inches (5", 6", or 8")	
K	S	Elec. Cable Seals (S) O.D. 3 Wire _____ O.D. Grounding Wire _____	
OPTIONS		Water Sampler Valve (H)	
		Flowing Well (F)	
		Special Provision (X)	



14" CUSTOM PITLESS SPECIFICATIONS



A	Pitless unit to well casing connection:	Chamfered for butt weld
B	Pitless unit with black upper case:	15 1/4" I.D. x 16" O.D.
C	Discharge body minimum I.D.	13 3/4"
	<i>Large enough to permit insertion of 14" O.D. pipe to this point for well servicing.</i>	
D	Hold-down mechanism: Locks spool in place and prevents lifting and turning during pump start-up. Two adjustable hooks on lift-out pipe hook into side of pitless case.	
DD	Probe tube standard 1" PVC pipe	
E	Lift-out pipe:	5" Welded
F	Lift-out bail lift-out pipe assembly:.....	designed for a 110,000 lb load
G	Tap size:	2" NPT
H	Well vent:	Screws into a 2 1/2" NPT tapping
CAP CABLE SEALS (SECTION BB-BB)		
I	Conduit tappings:.....	2" and 1" NPT
	<i>Also available with single 2", 3", or 4" NPT (All tapping sizes available with or without electrical cable seal)</i>	
J	Depth tester block tappings:	1/4" NPT
K	.....	(2) 1" NPT tappings ported to drop pipe
L	Pressure zone tappings:	3/8" NPT
MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)		
M	.....	4"
N	.....	1 7/8"
O	.....	1 1/4"
P	Dimension from center of discharge outlet to bottom of discharge body:	11 1/4"
Q	Distance from ground level to top of the pitless case:	12"
R	Distance from ground level to top of the screened vent cap:	28 1/4"
	<i>Vent height may be increased if necessary.</i>	
S	Water sampler tapping:.....	3/4" NPT
T SPOOL TO DROP PIPE THREAD SIZES:		
U	Dimension from center of discharge outlet to bottom of spool.....	5" NPT 6" NPT 8" NPT 16 3/16" 21 13/16" 15 13/16"
DISCHARGE CONNECTIONS AND SIZES:		
V	Butt weld.....	5" I.D. 6" I.D. 8" I.D.
W	Flanged A.S.A. standard 150 lb	5" I.D. 6" I.D. 8" I.D.
X	Threaded NPT	5" I.D. 6" I.D. 8" I.D.
Y	Transition sleeve.....	5" I.D. 6" I.D. 8" I.D.
Z	Dimension from center of well casing to the end of discharge outlet	
	(V) Butt weld discharge.....	20 9/16" 20 9/16" 14 1/2"
	(W) Flanged discharge	24 1/16" 24 1/16" 18 1/2"
	(X) Threaded discharge.....	23 9/16" 24 9/16" 18 1/2"
	(Y) Transition sleeve.....	NA 32 9/16" 26 1/2"
CC SPOOL ASSEMBLY WITHOUT CHECK VALVES:		
	Area of water passage(s).....	19.6 in ² 39.2 in ² 39.2 in ²
	Percent area of water passage(s) to area of drop pipe.....	100% 138% 78.2%

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

COMPONENT MATERIALS

- Well vent - cast iron, green enamel finish.
- Cap - cast iron, green enamel finish.
- Conduit box - steel, corrosion resistant coating.
- Electrical cable seal - cast iron, green enamel finish.
- Combination hold-down & lift-out mechanism - lead free galvanized.
- Hold-down pipe - steel, corrosion resistant coating.
- Pitless case - steel, corrosion resistant coating.
- Discharge body - steel, lead free galvanized.
- Spool - steel, lead free galvanized.
- Probe tube - 1" PVC

NOTE: Any combination between drop pipe and discharge outlet size is possible, if required.
 NOTE: Maximum rated discharge pressure: 300 psi
 (Higher pressures can be accommodated with backup rings, please contact factory)

Monitor units are NSF/ANSI 61 & 372 certified and conform to the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, and Water Systems Council PAS-97(2012) standards.

BB113-14(03-2014)

14" CUSTOM PITLESS PARTS BREAKDOWN

Figure 1

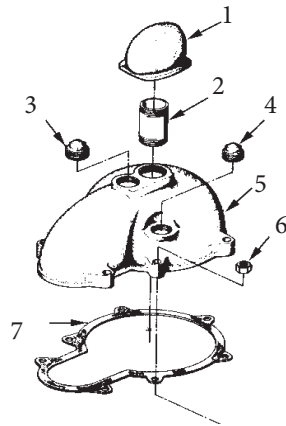


Figure 1			
No.	Ordering No.	Description	Qty
1	PS155	Protected Screen Well Vent 2½"NPT	1
2	PS365	Pipe Nipple 2½"NPT x 6"L.	1
3	UJ50	Pipe Plug 2" NPT	1
4	UG54	Pipe Plug 1½"NPT	1
5	UL1	Seal Cap	1
6	PC286S	Hex Nut ⅝-11NC, SS	7
7	UL102	Gasket	1

Figure 2			
No.	Ordering No.	Description	Qty
8	PC286	Hex Nut, ⅝-11 NC	2
9	PC417	Washer	2
10	UK7	Hold-Down Hook	2
11	---	*Spool & Lift-Out Assy. (Serial No. Required)	1
12	UB17	Hex Nut ⅜-16NC	4
13	TX31	Lockwasher	4
14	UL15	O-ring	2
15	SW68	Washer	4
16	UL95	Washer	4
17	UM222	Machine Screw, ⅜-16NC x 2¼"L.	4
18	UN81	Washer	7
19	UN73S	Hex Head Cap Screw, ⅝-11NC x 5"L.	5
19A	LK45	Lock Bolt, ⅝-11NC x 4¾"L.	2
20	---	Discharge Body/Upper Casing Assembly (Serial No. Required)	1
21	(4) Different Discharge Connections are available: (A) Welded, (B) Flanged, (C) Threaded, or (D) Mechanical Joint with or without Transition Sleeve.		

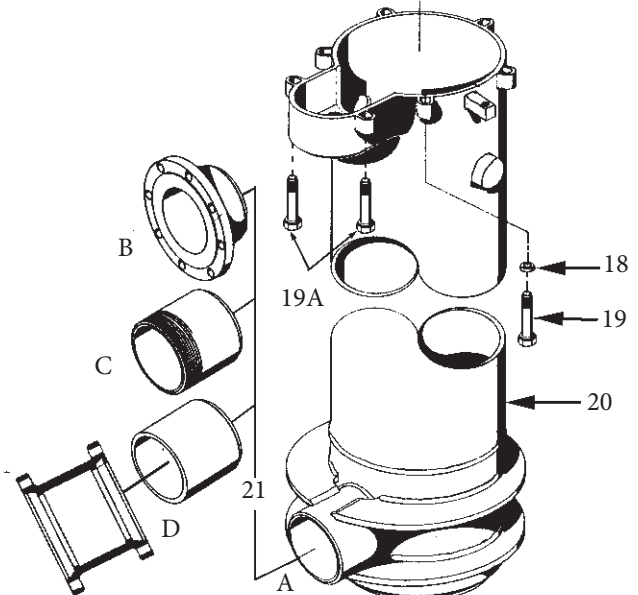
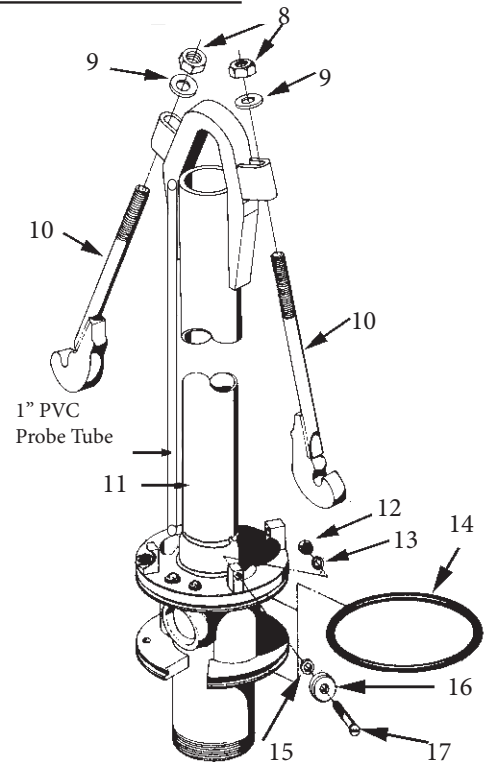
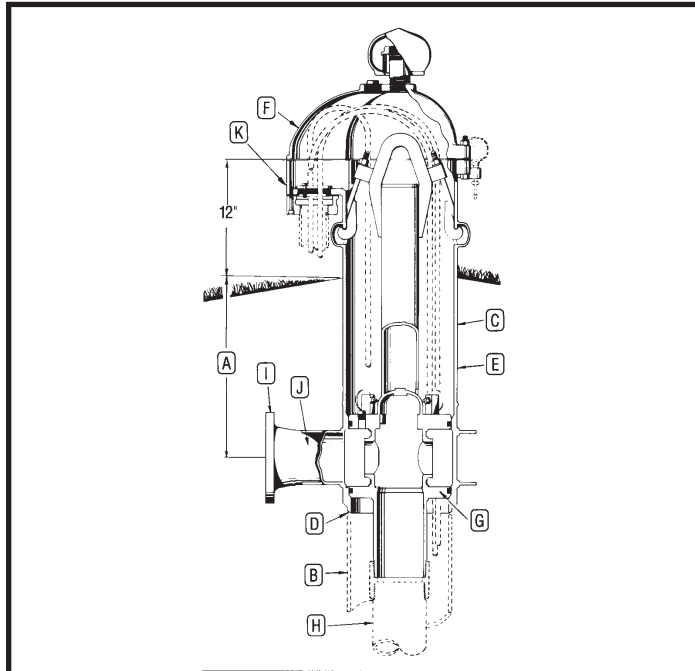


Figure 2

ANY ORDER FOR REPAIR PARTS MUST BE ACCOMPANIED BY THE PITLESS UNIT SERIAL NUMBER AND ORDER NUMBER
*Flowing Well Spools available upon request



16" CUSTOM PITLESS UNIT



EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

The diagram illustrates the meaning of the various letters and numerals used in Monitor® Custom Industrial Pitless Unit ordering numbers. A typical order number and the Pitless Unit it stands for are shown.

Typical Order Number

3PS1618WBWE08F8S

A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.

3

PS These letters indicate the type of pump the Pitless Unit is designed for. The unit shown is a PS for submersible pumps.

PS

B. This numeral indicates the well casing size is 16" O.D.

16

C. This numeral indicates the upper pitless case size is 18" O.D.

18

D. Indicates the attachment to the well casing is a welded joint.

W

E. Indicates the upper pitless case is black pipe.

B

F. Indicates the Pitless Unit has a watertight cap with screened vent installed.

W

G. Indicates spool has pressure equalizing passages.

E

This numeral indicates the number of in-line check valves the Pitless Unit has. In this case it has zero in-line check valves (0 or 1).

0

H. Indicates the size of drop pipe in inches.

8

I. Indicates the discharge connection is flanged. Other options are welded, threaded, and mechanical joint with or without transition sleeve.

F

J. Indicates the size of discharge pipe in inches.

8

K. Sealed cap conduit connection (optional).

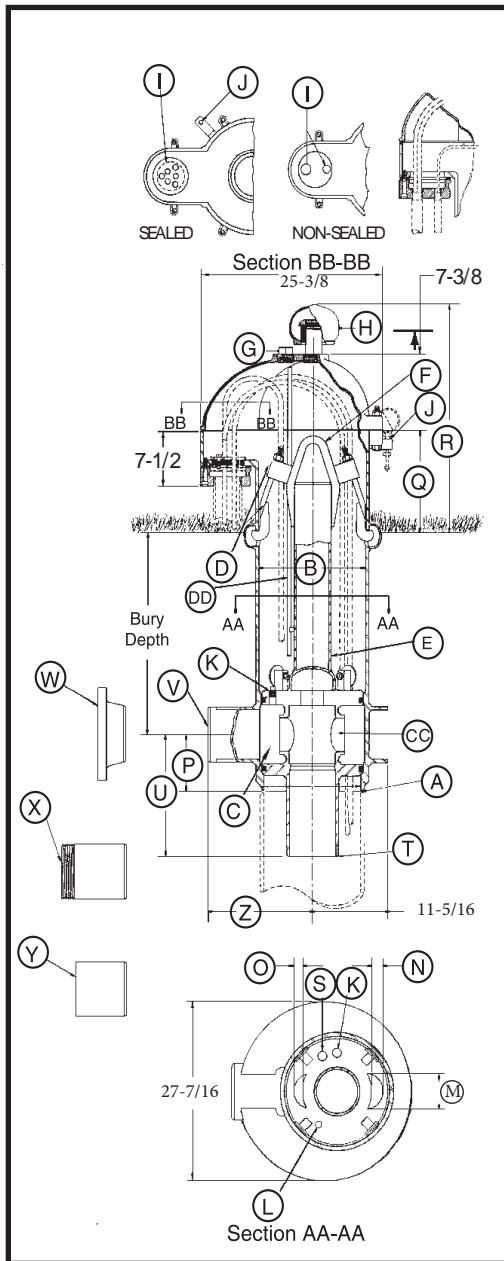
S

DESCRIPTION-ORDERING NUMBERS

A	3	Bury depth in feet	
	PS	Pitless Unit for Submersible Pump	
B	16	Well size - inches	
C	18	Upper Case size - inches	
D	W	Attachment to Well Casing-Welded	
E	B	Black Upper Case	
F	W	Watertight Cap w/ Screened Air Vent	
	E	Pressure Equalizing Spool Passages	
G	0	No. of In-line Check Valves: (0 or 1)	
H	8	Drop Pipe I.D. - inches (5", 6", or 8")	
I		Threaded NPT Std. Connection	Accessory Discharge Connections
	F	Flange, ASA 150 lb	
		Welded	
		Mechanical Joint (Plain End)	
		MS=Mech. Joint w/Transition Sleeve	
J	8	Discharge I.D. - inches (5", 6", or 8")	
K	S	Elec. Cable Seals (S) O.D. 3 Wire _____ O.D. Grounding Wire _____	
OPTIONS		Water Sampler Valve (H)	
		Flowing Well (F)	
		Special Provision (X)	



16" CUSTOM PITLESS SPECIFICATIONS



- A Pitless unit to well casing connection: Chamfered for butt weld
- B Pitless unit with black upper case: 17 1/4" I.D. x 18" O.D.
- C Discharge body minimum I.D. 15 1/4"
Large enough to permit insertion of 16" O.D. pipe to this point for well servicing.
- D Hold-down mechanism: Locks spool in place and prevents lifting and turning during pump start-up. Four adjustable hooks on lift-out pipe hook into side of pitless case.
- DD Probe tube standard 1" PVC pipe
- E Lift-out pipe: 5" Welded
- F Lift-out bail lift-out pipe assembly: designed for a 110,000 lb load
- G Tap size: 2" NPT
- H Well vent: Screws into a 2 1/2" NPT tapping
- CAP CABLE SEALS (SECTION BB-BB)**
- I Conduit tappings: 2" and 1" NPT
Also available with single 2", 3", or 4" NPT (All tapping sizes available with or without electrical cable seal)
- J Depth tester block tappings: 1/4" NPT
- K (2) 1" NPT tappings ported to drop pipe
- L Pressure zone tappings: 3/8" NPT
- MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)**
- M 5"
- N 2 1/4"
- O 1 1/4"
- P Dimension from center of discharge outlet to bottom of discharge body: 11 1/16"
- Q Distance from ground level to top of the pitless case: 12"
- R Distance from ground level to top of the screened vent cap: 28 1/4"
Vent height may be increased if necessary.
- S Water sampler tapping: 3/4" NPT
- T SPOOL TO DROP PIPE THREAD SIZES:** 5" NPT 6" NPT 8" NPT
- U Dimension from center of discharge outlet to bottom of spool: 16 1/4" 21 7/8" 15 13/16"
- DISCHARGE CONNECTIONS AND SIZES:**
- V Butt weld: 5" I.D. 6" I.D. 8" I.D.
- W Flanged A.S.A. standard 150 lb: 5" I.D. 6" I.D. 8" I.D.
- X Threaded NPT: 5" I.D. 6" I.D. 8" I.D.
- Y Transition sleeve: 5" I.D. 6" I.D. 8" I.D.
- Z Dimension from center of well casing to the end of discharge outlet
(V) Butt weld discharge: 23" 23" 17"
(W) Flanged discharge: 26 1/2" 26 1/2" 21"
(X) Threaded discharge: 27" 27" 21"
(Y) Transition sleeve: NA 35" 29"
- CC SPOOL ASSEMBLY WITHOUT CHECK VALVES:**
- Area of water passage(s): 19.6 in² 39.2 in² 39.2 in²
- Percent area of water passage(s) to area of drop pipe: 100% 138% 78.2%

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

COMPONENT MATERIALS

- Well vent - cast iron, green enamel finish.
- Cap - cast iron, green enamel finish.
- Conduit box - steel, corrosion resistant coating.
- Electrical cable seal - cast iron, green enamel finish.
- Combination hold-down & lift-out mechanism - lead free galvanized.
- Hold-down pipe - steel, corrosion resistant coating.
- Pitless case - steel, corrosion resistant coating.
- Discharge body - steel, lead free galvanized.
- Spool - steel, lead free galvanized.
- Probe tube - 1" PVC

NOTE: Any combination between drop pipe and discharge outlet size is possible, if required.
NOTE: Maximum rated discharge pressure: 300 psi
(Higher pressures can be accommodated with backup rings, please contact factory)

Monitor units are NSF/ANSI 61 & 372 certified and conform to the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, and Water Systems Council PAS-97(2012) standards.

BB114-16(03-2014)



16" CUSTOM PITLESS PARTS BREAKDOWN

Figure 1

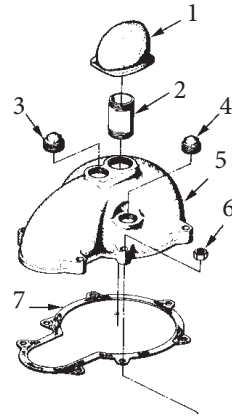


Figure 1			
No.	Ordering No.	Description	Qty
1	PS155	Protected Screen Well Vent 2½"NPT	1
2	PS365	Pipe Nipple 2½"NPT x 6"L.	1
3	UJ50	Pipe Plug 2" NPT	1
4	UG54	Pipe Plug 1½"NPT	1
5	UM1	Seal Cap	1
6	PC286S	Hex Nut ⅝-11NC, SS	8
7	UM72	Gasket	1

Figure 2			
No.	Ordering No.	Description	Qty
8	PC 286	Hex Nut, ⅝-11NC	4
9	PC417	Washer	4
10	UM7	Hold-Down Hook	4
11	---	*Spool & Lift-Out Assy. (Serial No. Required)	1
12	UB17	Hex Nut ⅜-16NC	4
13	TX31	Lockwasher	4
14	UM15	O-ring	2
15	SW68	Washer	4
16	UL95	Washer	4
17	UM222	Machine Screw, ⅜-16NC x 2¼"L.	4
18	UN81	Washer	8
19	UN73S	Hex Head Cap Screw, ⅝-11NC x 5"L.	6
19A	LK4S	Lock Bolt, ⅝-11NC x 4¾"L.	2
20	---	Discharge Body/Upper Casing Assembly (Serial No. Required)	1
21	(4) Different Discharge Connections are available: (A) Welded, (B) Flanged, (C) Threaded, or (D) Mechanical Joint with or without Transition Sleeve.		

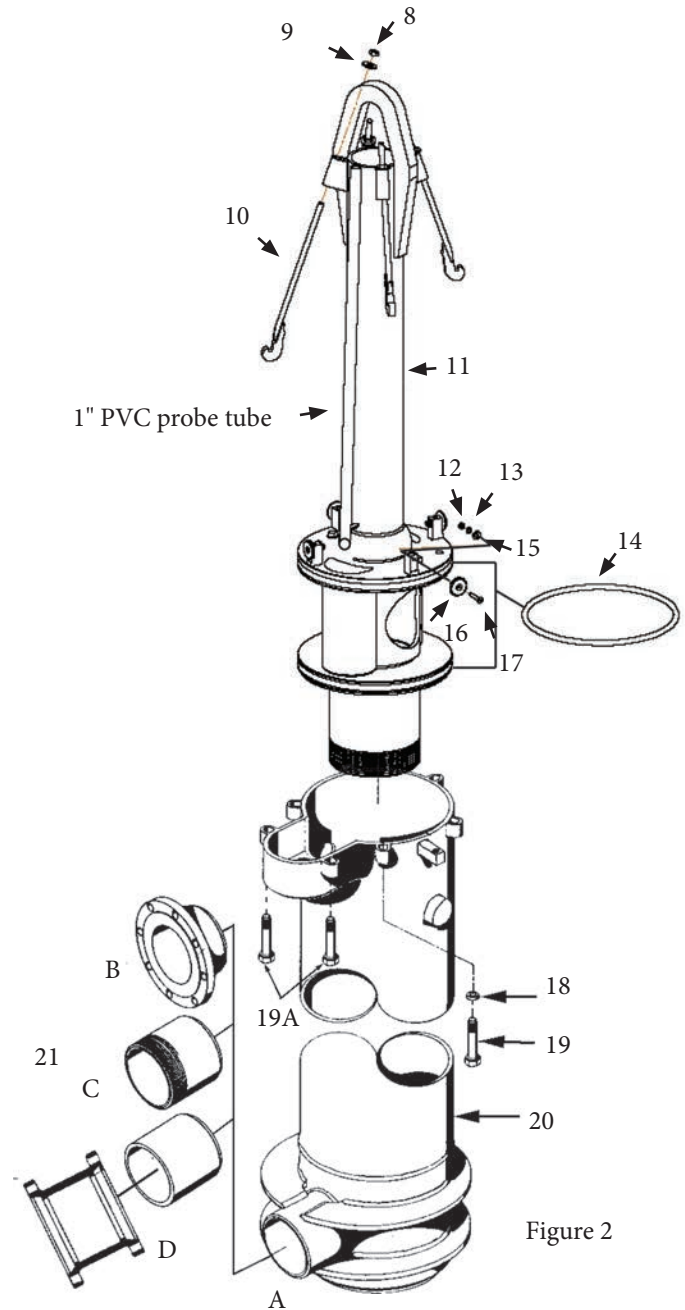


Figure 2

ANY ORDER FOR REPAIR PARTS MUST BE ACCOMPANIED BY THE PITLESS UNIT SERIAL NUMBER AND ORDER NUMBER

*Flowing Well Spools available upon request

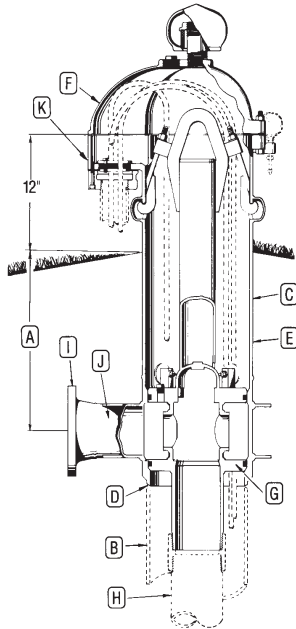
OM5001-16(03-2014)

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Certified to
NSF/ANSI 61 & 372

18" CUSTOM PITLESS UNIT



EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

The diagram illustrates the meaning of the various letters and numerals used in Monitor® Custom Industrial Pitless Unit ordering numbers. A typical order number and the Pitless Unit it stands for are shown.

Typical Order Number

3PS1820WBWE010F10S

3 A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.

PS These letters indicate the type of pump the Pitless Unit is designed for. The unit shown is a PS for submersible pumps.

18 B. This numeral indicates the well casing size is 18" O.D.

20 C. This numeral indicates the upper pitless case size is 20" O.D.

W D. Indicates the attachment to the well casing is a welded joint.

B E. Indicates the upper pitless case is black pipe.

W F. Indicates the Pitless Unit has a watertight cap with screened vent installed.

E G. Indicates spool has pressure equalizing passages.

0 This numeral indicates the number of in-line check valves the Pitless Unit has. In this case it has zero in-line check valves (0 or 1).

10 H. Indicates the size of drop pipe in inches.

F I. Indicates the discharge connection is flanged. Other options are welded, threaded, and mechanical joint with or without transition sleeve.

10 J. Indicates the size of discharge pipe in inches.

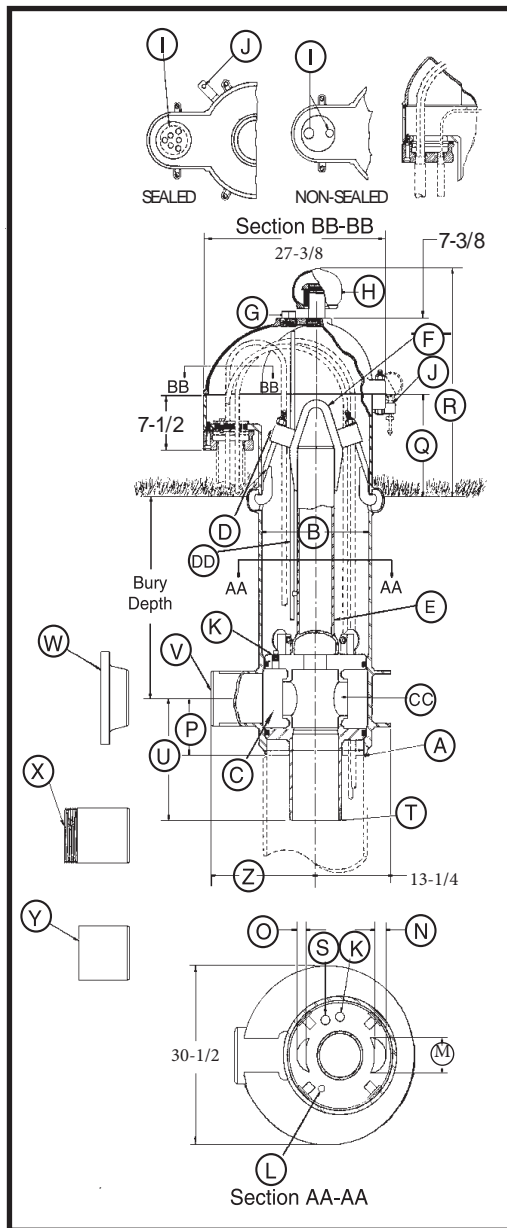
S K. Sealed cap conduit connection (optional).

DESCRIPTION-ORDERING NUMBERS

A	3	Bury depth in feet	
	PS	Pitless Unit for Submersible Pump	
B	18	Well size - inches	
C	20	Upper Case size - inches	
D	W	Attachment to Well Casing-Welded	
E	B	Black Upper Case	
F	W	Watertight Cap w/ Screened Air Vent	
	E	Pressure Equalizing Spool Passages	
G	0	No. of In-line Check Valves: (0 or 1)	
H	10	Drop Pipe I.D. - inches (6", 8", or 10")	
I		Threaded NPT Std. Connection	Accessory Discharge Connections
	F	Flange, ASA 150 lb	
		Welded	
		Mechanical Joint (Plain End)	
		MS=Mech. Joint w/Transition Sleeve	
J	10	Discharge I.D. - inches (6", 8", or 10")	
K	S	Elec. Cable Seals (S) O.D. 3 Wire _____ O.D. Grounding Wire _____	
OPTIONS		Water Sampler Valve (H)	
		Flowing Well (F)	
		Special Provision (X)	



18" CUSTOM PITLESS SPECIFICATIONS



A	Pitless unit to well casing connection:	Chamfered for butt weld		
B	Pitless unit with black upper case:	19 1/4" I.D. X 20" O.D.		
C	Discharge body minimum I.D.	17 1/4"		
	<i>Large enough to permit insertion of 18" O.D. tubing to this point for well servicing.</i>			
D	Hold-down mechanism: Locks spool in place and prevents lifting and turning during pump start-up. Four adjustable hooks on lift-out pipe hook into side of pitless case.			
DD	Probe tube standard 1" PVC pipe			
E	Lift-out pipe:	6" welded Sch. 80		
F	Lift-out bail lift-out pipe assembly:.....	designed for a 142,000 lb load		
G	Tap size:	2" NPT		
H	Well vent:	Screws into a 2 1/2" NPT tapping		
	CAP CABLE SEALS (SECTION BB-BB)			
I	Conduit tappings:.....	2" and 1" NPT		
	<i>Also available with single 2", 3", or 4" NPT (All tapping sizes available with or without electrical cable seal)</i>			
J	Depth tester block tappings:	1/4" NPT		
K	.....	(2) 1" NPT tappings ported to drop pipe	
L	Pressure zone tappings:	3/8" NPT		
	MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)			
M	.....	6"	
N	.....	2 5/8"	
O	.....	1 1/2"	
P	Dimension from center of discharge outlet to bottom of discharge body:	12 3/4"		
Q	Distance from ground level to top of the pitless case:	12"		
R	Distance from ground level to top of the screened vent cap:	28 1/4"		
	<i>Vent height may be increased if necessary.</i>			
S	Water sampler tapping:.....	3/4" NPT		
T	SPOOL TO DROP PIPE THREAD SIZES:	6" NPT 8" NPT 10" NPT		
U	Dimension from center of discharge outlet to bottom of spool.....	24 1/16" 24 1/16" 19 3/32"		
	DISCHARGE CONNECTIONS AND SIZES:			
V	Butt weld.....	6" I.D.	8" I.D.	10" I.D.
W	Flanged A.S.A. standard 150 lb.....	6" I.D.	8" I.D.	10" I.D.
X	Threaded NPT.....	6" I.D.	8" I.D.	10" I.D.
Y	Transition sleeve.....	6" I.D.	8" I.D.	10" I.D.
Z	Dimension from center of well casing to the end of discharge outlet			
	(V) Butt weld discharge.....	25 1/2"	25 1/2"	18 1/2"
	(W) Flanged discharge	29"	29 1/2"	22 1/2"
	(X) Threaded discharge.....	29 1/2"	29 1/2"	23 5/8"
	(Y) Transition sleeve.....	37 9/16"	37 9/16"	30 9/16"
CC	SPOOL ASSEMBLY WITHOUT CHECK VALVES:			
	Area of water passage(s).....	33.18 in ²	66.36 in ²	66.36 in ²
	Percent area of water passage(s) to area of drop pipe.....	115%	132%	85%

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

COMPONENT MATERIALS

Well vent - cast iron, green enamel finish.
 Cap - cast iron, green enamel finish.
 Conduit box - steel, corrosion resistant coating.
 Electrical cable seal - cast iron, green enamel finish.
 Combination hold-down & lift-out mechanism - lead free galvanized.
 Hold-down pipe - steel, corrosion resistant coating.
 Pitless case - steel, corrosion resistant coating.
 Discharge body - steel, lead free galvanized.
 Spool - steel, lead free galvanized.
 Probe tube - 1" PVC

NOTE: Any combination between drop pipe and discharge outlet size is possible, if required.

NOTE: Maximum rated discharge pressure: 300 psi
 (Higher pressures can be accommodated with backup rings, please contact factory)

Monitor units are NSF/ANSI 61 & 372 certified and conform to the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, and Water Systems Council PAS-97(2012) standards.

BB115-18(03-2014)

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18" CUSTOM PITLESS PARTS BREAKDOWN

Figure 1

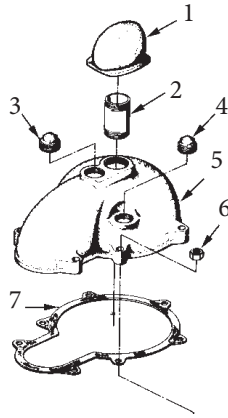
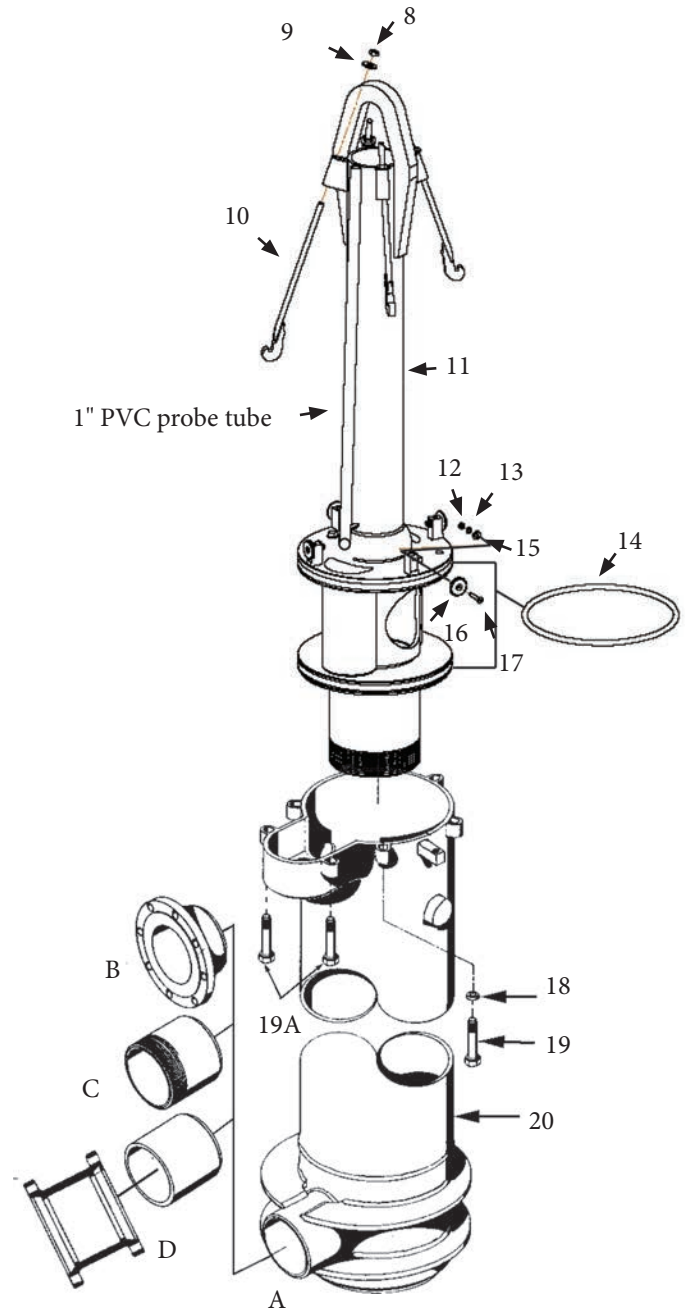


Figure 1			
No.	Ordering No.	Description	Qty
1	PS155	Protected Screen Well Vent 2½"NPT	1
2	PS365	Pipe Nipple 2½"NPT x 6"L.	1
3	UJ50	Pipe Plug 2" NPT	1
4	UG54	Pipe Plug 1½"NPT	1
5	UN1	Seal Cap	1
6	PC286S	Hex Nut ⅝-11NC, SS	7
7	UN72	Gasket	1

Figure 2			
No.	Ordering No.	Description	Qty
8	PC286	Hex Nut, ⅝-11NC	4
9	PC417	Washer	4
10	UN7	Hold-Down Hook	4
11	---	*Spool & Lift-Out Assy. (Serial No. Required)	1
12	UB17	Hex Nut ⅜-16NC	4
13	TX31	Lockwasher	4
14	UN15	O-ring	2
15	SW68	Washer	4
16	UL95	Washer	4
17	UM222	Machine Screw, ⅜-16NC x 2¼"L.	4
18	UN81	Washer	7
19	UN73S	Hex Head Cap Screw, ⅝-11NC x 5"L.	5
19A	LK4S	Lock Bolt, ⅝-11NC x 4¾"L.	2
20	---	Discharge Body/Upper Casing Assembly (Serial No. Required)	1
21	(4) Different Discharge Connections are available: (A) Welded, (B) Flanged, (C) Threaded, or (D) Mechanical Joint with or without Transition Sleeve.		



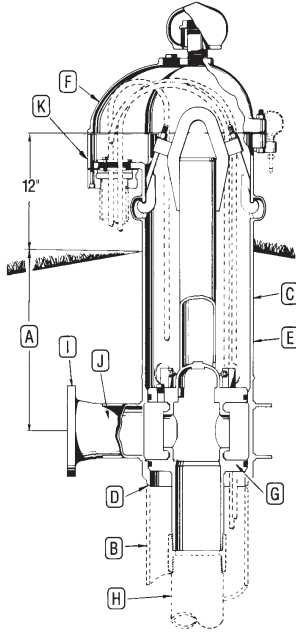
ANY ORDER FOR REPAIR PARTS MUST BE ACCOMPANIED BY THE PITLESS UNIT SERIAL NUMBER AND ORDER NUMBER

*Flowing Well Spools available upon request



Certified to
NSF/ANSI 61 & 372

20" CUSTOM PITLESS UNIT



EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

The diagram illustrates the meaning of the various letters and numerals used in Monitor® Custom Industrial Pitless Unit ordering numbers. A typical order number and the Pitless Unit it stands for are shown.

Typical Order Number

3PS2022WBWE010F10S

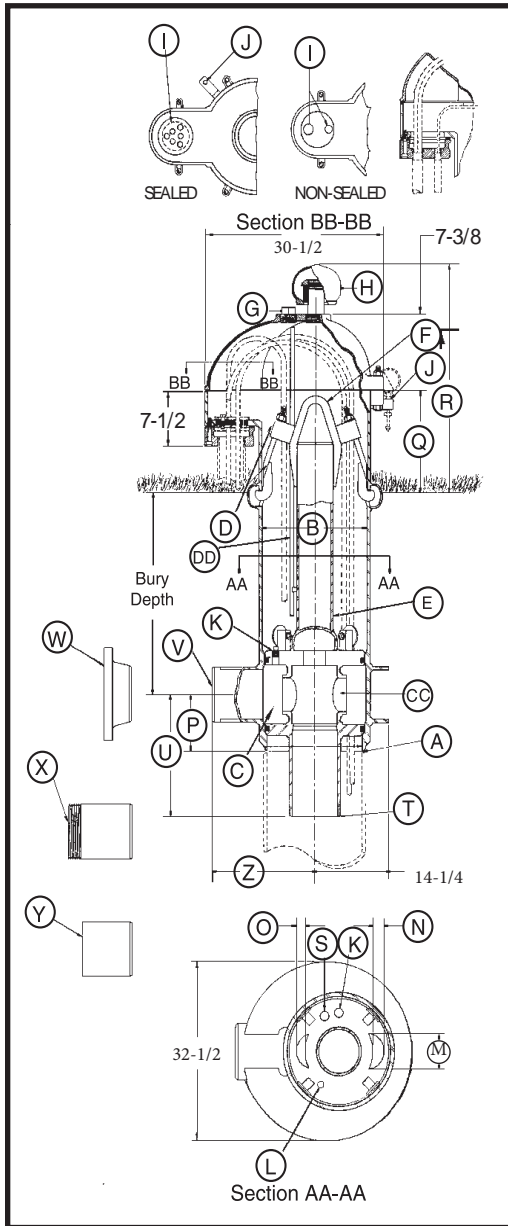
- 3** A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.
- PS** These letters indicate the type of pump the Pitless Unit is designed for. The unit shown is a PS for submersible pumps.
- 20** B. This numeral indicates the well casing size is 20" O.D.
- 22** C. This numeral indicates the upper pitless case size is 22" O.D.
- W** D. Indicates the attachment to the well casing is a welded joint.
- B** E. Indicates the upper pitless case is black pipe.
- W** F. Indicates the Pitless Unit has a watertight cap with screened vent installed.
- E** G. Indicates spool has pressure equalizing passages.
- 0** This numeral indicates the number of in-line check valves the Pitless Unit has. In this case it has zero in-line check valves (0 or 1).
- 10** H. Indicates the size of drop pipe in inches.
- F** I. Indicates the discharge connection is flanged. Other options are welded, threaded, and mechanical joint with or without transition sleeve.
- 10** J. Indicates the size of discharge pipe in inches.
- S** K. Sealed cap conduit connection (optional).

DESCRIPTION-ORDERING NUMBERS

A	3	Bury depth in feet	
	PS	Pitless Unit for Submersible Pump	
B	20	Well size - inches	
C	22	Upper Case size - inches	
D	W	Attachment to Well Casing-Welded	
E	B	Black Upper Case	
F	W	Watertight Cap w/ Screened Air Vent	
	E	Pressure Equalizing Spool Passages	
G	0	No. of In-line Check Valves: (0 or 1)	
H	10	Drop Pipe I.D. - inches (6", 8", or 10")	
I		Threaded NPT Std. Connection	Accessory Discharge Connections
	F	Flange, ASA 150 lb	
		Welded	
		Mechanical Joint (Plain End)	
		MS=Mech. Joint w/Transition Sleeve	
J	10	Discharge I.D. - inches (6", 8", or 10")	
K	S	Elec. Cable Seals (S) O.D. 3 Wire _____ O.D. Grounding Wire _____	
OPTIONS		Water Sampler Valve (H)	
		Flowing Well (F)	
		Special Provision (X)	



20" CUSTOM PITLESS SPECIFICATIONS



A	Pitless unit to well casing connection:	Chamfered for butt weld		
B	Pitless unit with black upper case:	21" I.D. x 22" O.D.		
C	Discharge body minimum I.D.	19"		
D	Hold-down mechanism: Locks spool in place and prevents lifting and turning during pump start-up. Four adjustable hooks on lift-out pipe hook into side of pitless case.			
DD	Probe tube standard 1" PVC pipe			
E	Lift-out pipe:	6" Welded sch. 80		
F	Lift-out bail lift-out pipe assembly:	designed for a 142,000 lb load		
G	Tap size:	2" NPT		
H	Well vent:	Screws into a 2 1/2" NPT tapping		
CAP CABLE SEALS (SECTION BB-BB)				
I	Conduit tapplings:	2" and 1" NPT		
<i>Also available with single 2", 3", or 4" NPT (All tapping sizes available with or without electrical cable seal)</i>				
J	Depth tester block tapplings:	1/4" NPT		
K	.....	(3) 1" NPT tapplings ported to drop pipe	
L	Pressure zone tapplings:	3/8" NPT		
MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)				
M	.....	6 3/4"	
N	.....	3 3/8"	
O	.....	2"	
P	Dimension from center of discharge outlet to bottom of discharge body:	13 3/4"		
Q	Distance from ground level to top of the pitless case:	12"		
R	Distance from ground level to top of the screened vent cap:	28 1/4"		
<i>Vent height may be increased if necessary.</i>				
S	Water sampler tapping:	3/4" NPT		
T SPOOL TO DROP PIPE THREAD SIZES:				
T	6" NPT	8" NPT	10" NPT
U	Dimension from center of discharge outlet to bottom of spool:	24 9/16"	24 9/16"	19 1/16"
DISCHARGE CONNECTIONS AND SIZES:				
V	Butt weld.....	6" I.D.	8" I.D.	10" I.D.
W	Flanged A.S.A. standard 150 lb.....	6" I.D.	8" I.D.	10" I.D.
X	Threaded NPT.....	6" I.D.	8" I.D.	10" I.D.
Y	Transition sleeve.....	6" I.D.	8" I.D.	10" I.D.
Z	Dimension from center of well casing to the end of discharge outlet			
(V)	Butt weld discharge.....	26 1/2"	26 1/2"	19 1/2"
(W)	Flanged discharge.....	30"	30 1/2"	23 1/2"
(X)	Threaded discharge.....	30 9/16"	30 9/16"	31 1/16"
(Y)	Transition sleeve.....	38 9/16"	38 9/16"	31 1/2"
CC SPOOL ASSEMBLY WITHOUT CHECK VALVES:				
CC	Area of water passage(s).....	33.18 in ²	66.36 in ²	66.36 in ²
	Percent area of water passage(s) to area of drop pipe.....	115%	132%	85%

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

COMPONENT MATERIALS

- Well vent - cast iron, green enamel finish.
- Cap - cast iron, green enamel finish.
- Conduit box - steel, corrosion resistant coating.
- Electrical cable seal - cast iron, green enamel finish.
- Combination hold-down & lift-out mechanism - lead free galvanized.
- Hold-down pipe - steel, corrosion resistant coating.
- Pitless case - steel, corrosion resistant coating.
- Discharge body - steel, lead free galvanized.
- Spool - steel, lead free galvanized.
- Probe tube - 1" PVC

NOTE: Any combination between drop pipe and discharge outlet size is possible, if required.

NOTE: Maximum rated discharge pressure: 300 psi
(Higher pressures can be accommodated with backup rings, please contact factory)

Monitor units are NSF/ANSI 61 & 372 certified and conform to the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, and Water Systems Council PAS-97(2012) standards.

BB116-20(03-2014)



20" CUSTOM PITLESS PARTS BREAKDOWN

Figure 1

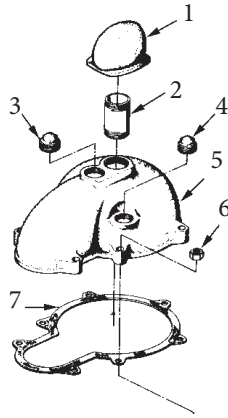
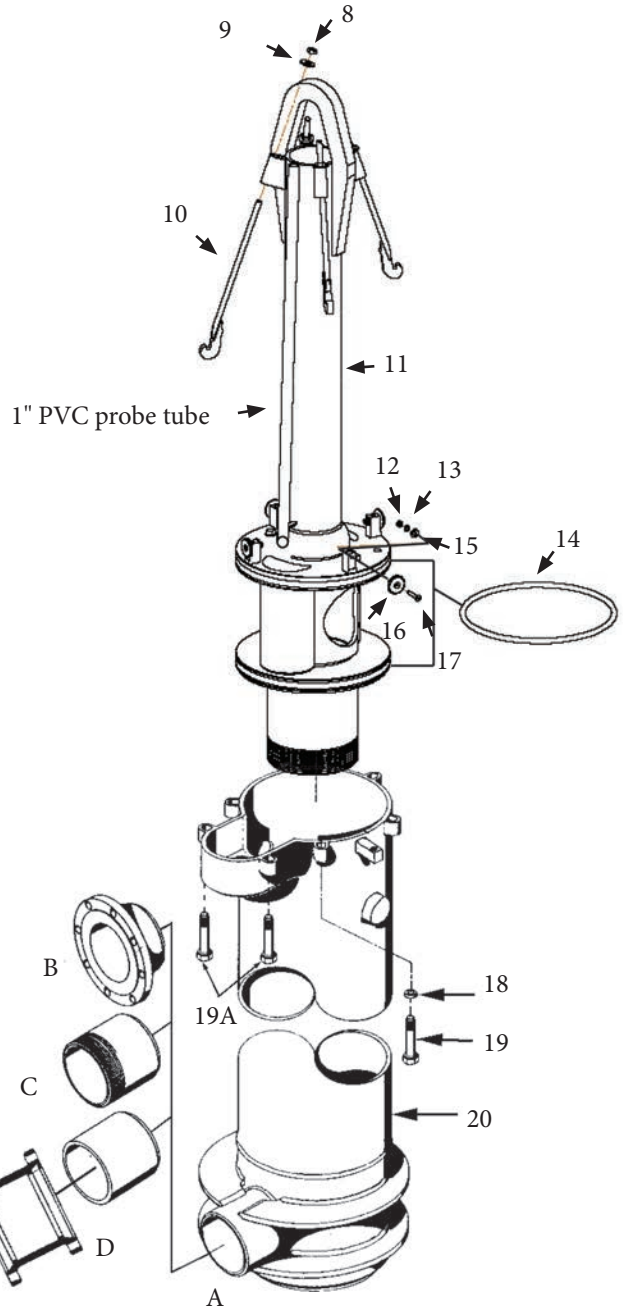


Figure 1			
No.	Ordering No.	Description	Qty
1	PS155	Protected Screen Well Vent 2½"NPT	1
2	PS365	Pipe Nipple 2½"NPT x 6"L.	1
3	UJ50	Pipe Plug 2" NPT	1
4	UG54	Pipe Plug 1½"NPT	1
5	UQ1	Seal Cap	1
6	PC286S	Hex Nut ⅝-11NC, SS	9
7	UQ72	Gasket	1

Figure 2			
No.	Ordering No.	Description	Qty
8	PC286	Hex Nut, ⅝-11NC	4
9	PC417	Washer	4
10	UQ7A	Hold-Down Hook	4
11	---	*Spool & Lift-Out Assy. (Serial No. Required)	1
12	UB17	Hex Nut ⅜-16NC	4
13	TX31	Lockwasher	4
14	UQ15A	O-ring	2
15	SW68	Washer	4
16	UL95	Washer	4
17	UM222	Machine Screw, ⅜-16NC x 2¼"L.	4
18	UN81	Washer	9
19	UN73S	Hex Head Cap Screw, ⅝-11NC x 5"L.	7
19A	LK4S	Lock Bolt, ⅝-11NC x 4¾"L.	2
20	---	Discharge Body/Upper Casing Assembly (Serial No. Required)	1
21		(4) Different Discharge Connections are available: (A) Welded, (B) Flanged, (C) Threaded, or (D) Mechanical Joint with or without Transition Sleeve.	



ANY ORDER FOR REPAIR PARTS MUST BE ACCOMPANIED BY THE PITLESS UNIT SERIAL NUMBER AND ORDER NUMBER

*Flowing Well Spools available upon request

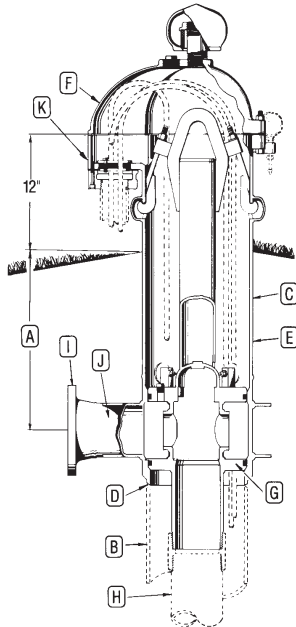
OM5001-16(03-2014)

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Certified to
NSF/ANSI 61 & 372

24" CUSTOM PITLESS UNIT



DESCRIPTION-ORDERING NUMBERS

A	3	Bury depth in feet	
	PS	Pitless Unit for Submersible Pump	
B	24	Well size - inches	
C	26	Upper Case size - inches	
D	W	Attachment to Well Casing-Welded	
E	B	Black Upper Case	
F	W	Watertight Cap w/ Screened Air Vent	
	E	Pressure Equalizing Spool Passages	
G	0	No. of In-line Check Valves: (0 or 1)	
H	12	Drop Pipe I.D. - inches (8", 10", or 12")	
I		Threaded NPT Std. Connection	Accessory Discharge Connections
	F	Flange, ASA 150 lb	
		Welded	
		Mechanical Joint (Plain End)	
		MS=Mech. Joint w/Transition Sleeve	
J	12	Discharge I.D. - inches (8", 10", or 12")	
K	S	Elec. Cable Seals (S) O.D. 3 Wire _____ O.D. Grounding Wire _____	
OPTIONS		Water Sampler Valve (H)	
		Flowing Well (F)	
		Special Provision (X)	

UNITS AVAILABLE BY QUOTATION ONLY
10" THROUGH 36" WELL SIZES

EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

The diagram illustrates the meaning of the various letters and numerals used in Monitor® Custom Industrial Pitless Unit ordering numbers. A typical order number and the Pitless Unit it stands for are shown.

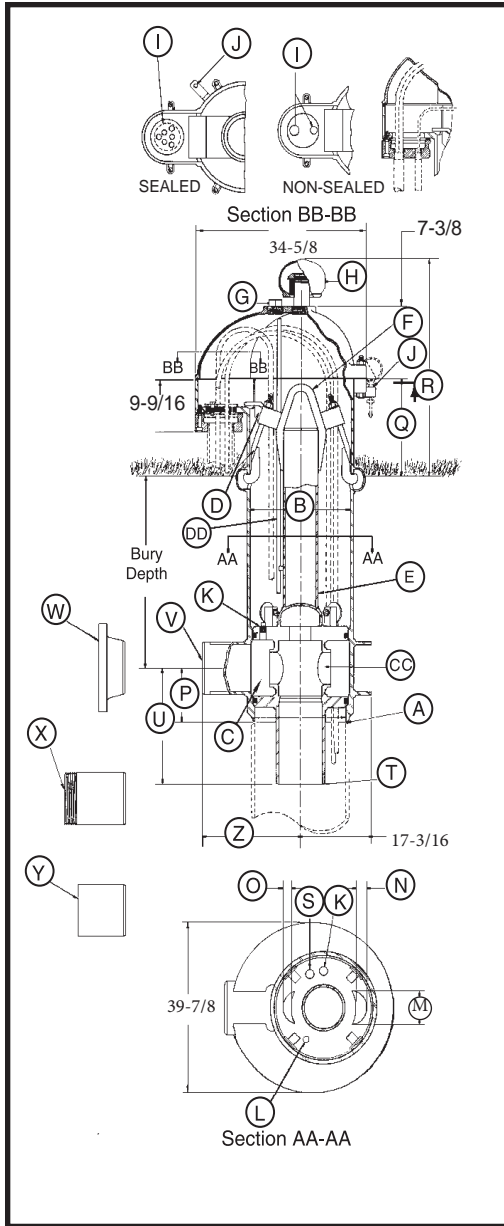
Typical Order Number

3PS2426WBWE012F12S

- 3** A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.
- PS** These letters indicate the type of pump the Pitless Unit is designed for. The unit shown is a PS for submersible pumps.
- 24** B. This numeral indicates the well casing size is 24" O.D.
- 26** C. This numeral indicates the upper pitless case size is 26" O.D.
- W** D. Indicates the attachment to the well casing is a welded joint.
- B** E. Indicates the upper pitless case is black pipe.
- W** F. Indicates the Pitless Unit has a watertight cap with screened vent installed.
- E** G. Indicates spool has pressure equalizing passages.
- 0** This numeral indicates the number of in-line check valves the Pitless Unit has. In this case it has zero in-line check valves (0 or 1).
- 12** H. Indicates the size of drop pipe in inches.
- F** I. Indicates the discharge connection is flanged. Other options are welded, threaded, and mechanical joint with or without transition sleeve.
- 12** J. Indicates the size of discharge pipe in inches.
- S** K. Sealed cap conduit connection (optional).



24" CUSTOM PITLESS SPECIFICATIONS



A	Pitless unit to well casing connection:	Chamfered for butt weld
B	Pitless unit with black upper case:	25" I.D. x 26" O.D.
C	Discharge body minimum I.D.	23"
D	Hold-down mechanism: Locks spool in place and prevents lifting and turning during pump start-up. Four adjustable hooks on lift-out pipe hook into side of pitless case.	
DD	Probe tube standard 1" PVC pipe	
E	Lift-out pipe:	8" Welded sch. 80
F	Lift-out bail lift-out pipe assembly:	designed for a 218,000 lb load
G	Tap size:	2½" NPT
H	Well vent:	Screws into a 2½" NPT tapping
CAP CABLE SEALS (SECTION BB-BB)		
I	Conduit tapplings:	2" and 1" NPT Also available with single 2", 3", or 4" NPT (All tapping sizes available with or without electrical cable seal)
J	Depth tester block tapplings:	¼" NPT
K	Pressure zone tapplings:	(3) 1" NPT tapplings ported to drop pipe
L	MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)	¾" NPT
M	.....	7/16"
N	.....	3/16"
O	.....	2 1/8"
P	Dimension from center of discharge outlet to bottom of discharge body:	17½"
Q	Distance from ground level to top of the pitless case:	12"
R	Distance from ground level to top of the screened vent cap:	29 1/16"
	<i>Vent height may be increased if necessary.</i>	
S	Water sampler tapping:	¾" NPT
T	SPOOL TO DROP PIPE THREAD SIZES:	8" NPT 10" NPT 12" NPT
U	Dimension from center of discharge outlet to bottom of spool:	18 1/16" 20 1/16" 22 1/16"
DISCHARGE CONNECTIONS AND SIZES:		
V	Butt weld:	8" I.D. 10" I.D. 12" I.D.
W	Flanged A.S.A. standard 150 lb:	8" I.D. 10" I.D. 12" I.D.
X	Threaded NPT:	8" I.D. 10" I.D. 12" I.D.
Y	Transition sleeve:	8" I.D. 10" I.D. 12" I.D.
Z	Dimension from center of well casing to the end of discharge outlet	
	(V) Butt weld discharge:	32½" 32½" 24 1/16"
	(W) Flanged discharge:	36½" 36½" 29"
	(X) Threaded discharge:	36½" 37½" 31½"
	(Y) Transition sleeve:	44½" 44½" 36½"
CC	SPOOL ASSEMBLY WITHOUT CHECK VALVES:	
	Area of water passage(s)	102.26 in ² 120.26 in ² 120.26 in ²
	Percent area of water passage(s) to area of drop pipe:	240% 152% 106%

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

COMPONENT MATERIALS

- Well Vent - cast iron, green enamel finish.
- Cap - cast iron, green enamel finish.
- Conduit Box - steel, corrosion resistant coating.
- Electrical Cable Seal - cast iron, green enamel finish.
- Combination Hold-Down & Lift-Out Mechanism - lead free galvanized.
- Hold-Down Pipe - steel, corrosion resistant coating.
- Pitless Case - steel, corrosion resistant coating.
- Discharge Body - steel, lead free galvanized.
- Spool - steel, lead free galvanized.
- Probe Tube - 1" PVC

NOTE: Any combination between drop pipe and discharge outlet size is possible, if required.

NOTE: Maximum rated discharge pressure: 300 psi
(Higher pressures can be accommodated with backup rings, please contact factory)

Monitor units are NSF/ANSI 61 & 372 certified and conform to the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, and Water Systems Council PAS-97(2012) standards.

BB117-24(03-2014)

24" CUSTOM PITLESS PARTS BREAKDOWN

Figure 1

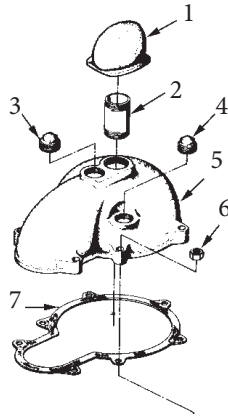
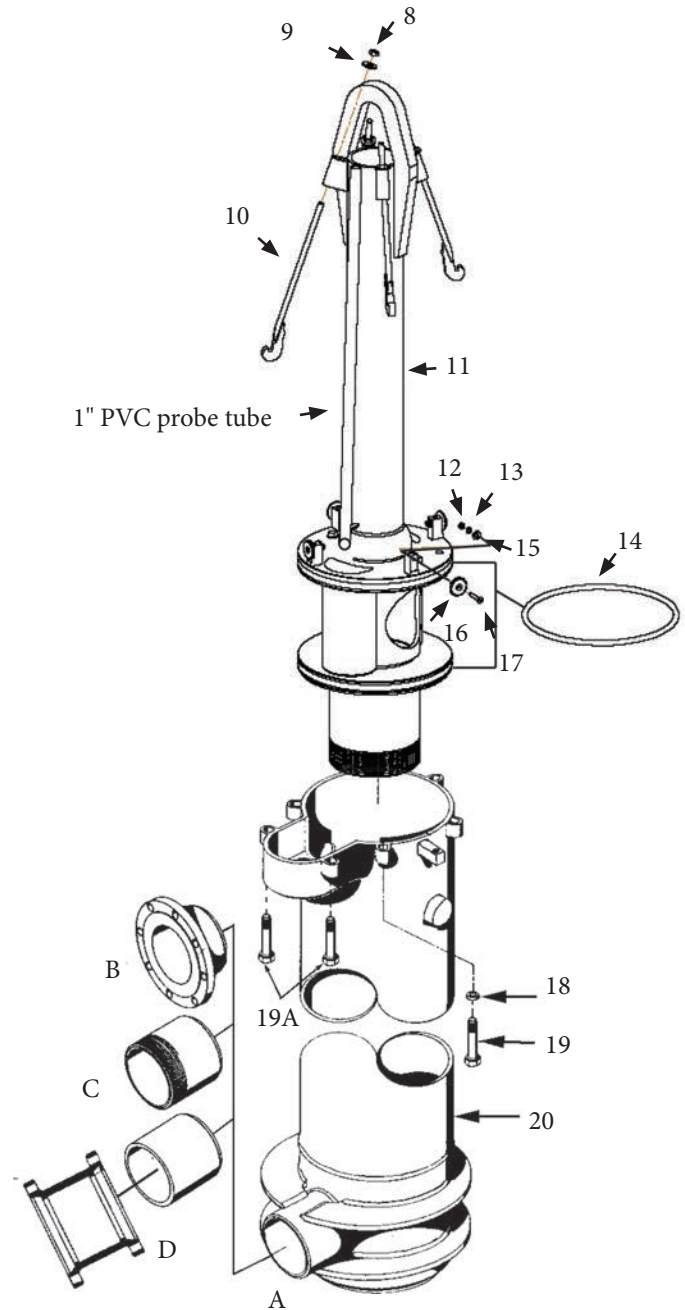


Figure 1			
No.	Ordering No.	Description	Qty
1	PS155	Protected Screen Well Vent 2½"NPT	1
2	PS365	Pipe Nipple 2½"NPT x 6"L.	1
3	UJ50	Pipe Plug 2" NPT	1
4	UG54	Pipe Plug 1½"NPT	1
5	UR1	Seal Cap	1
6	PC286S	Hex Nut ⅝-11NC, SS	11
7	UR72	Gasket	1

Figure 2			
No.	Ordering No.	Description	Qty
8	PC286	Hex Nut, ⅝-11NC	4
9	PC417	Washer	4
10	UJR7A	Hold-Down Hook	4
11	---	*Spool & Lift-Out Assy. (Serial No. Required)	1
12	UB17	Hex Nut ⅜-16NC	4
13	TX31	Lockwasher	4
14	UR15A	O-ring	2
15	SW68	Washer	4
16	UL95	Washer	4
17	UM222	Machine Screw, ⅜-16NC x 2¼"L.	4
18	UN81	Washer	11
19	UN73S	Hex Head Cap Screw, ⅝-11NC x 5"L.	9
19A	LK4S	Lock Bolt, ⅝-11NC x 4¾"L.	2
20	---	Discharge Body/Upper Casing Assembly (Serial No. Required)	1
21		(4) Different Discharge Connections are available: (A) Welded, (B) Flanged, (C) Threaded, or (D) Mechanical Joint with or without Transition Sleeve.	



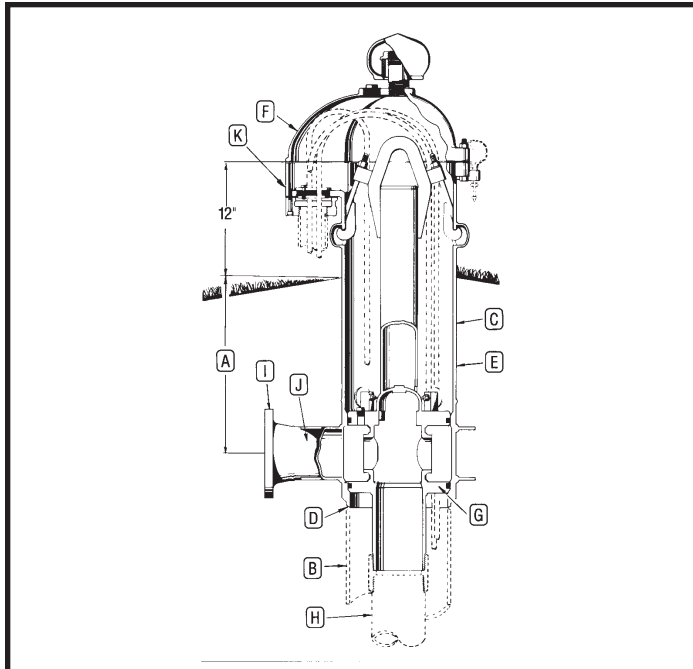
ANY ORDER FOR REPAIR PARTS MUST BE ACCOMPANIED BY THE PITLESS UNIT SERIAL NUMBER AND ORDER NUMBER

*Flowing Well Spools available upon request



Certified to
NSF/ANSI 61 & 372

26" CUSTOM PITLESS UNIT



DESCRIPTION-ORDERING NUMBERS

A	3	Bury depth in feet	
	PS	Pitless Unit for Submersible Pump	
B	26	Well size - inches	
C	28	Upper Case size - inches	
D	W	Attachment to Well Casing-Welded	
E	B	Black Upper Case	
F	W	Watertight Cap w/ Screened Air Vent	
	E	Pressure Equalizing Spool Passages	
G	0	No. of In-line Check Valves: (0 or 1)	
H	12	Drop Pipe I.D. - inches (8", 10", or 12")	
I		Threaded NPT Std. Connection	Accessory Discharge Connections
	F	Flange, ASA 150 lb	
		Welded	
		Mechanical Joint (Plain End)	
		MS=Mech. Joint w/Transition Sleeve	
J	12	Discharge I.D. - inches (8", 10", or 12")	
K	S	Elec. Cable Seals (S) O.D. 3 Wire _____ O.D. Grounding Wire _____	
OPTIONS		Water Sampler Valve (H)	
		Flowing Well (F)	
		Special Provision (X)	

UNITS AVAILABLE BY QUOTATION ONLY
10" THROUGH 36" WELL SIZES

EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

The diagram illustrates the meaning of the various letters and numerals used in Monitor® Custom Industrial Pitless Unit ordering numbers. A typical order number and the Pitless Unit it stands for are shown.

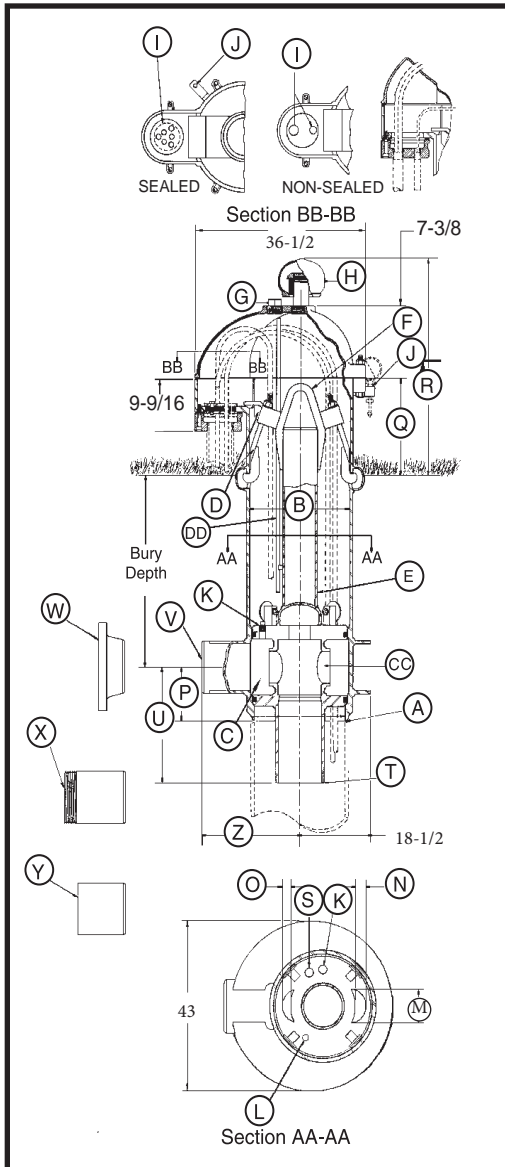
Typical Order Number

3PS2628WBWE012F12S

- 3** A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.
- PS** These letters indicate the type of pump the Pitless Unit is designed for. The unit shown is a PS for submersible pumps.
- 26** B. This numeral indicates the well casing size is 26" O.D.
- 28** C. This numeral indicates the upper pitless case size is 28" O.D.
- W** D. Indicates the attachment to the well casing is a welded joint.
- B** E. Indicates the upper pitless case is black pipe.
- W** F. Indicates the Pitless Unit has a watertight cap with screened vent installed.
- E** G. Indicates spool has pressure equalizing passages.
- 0** This numeral indicates the number of in-line check valves the Pitless Unit has. In this case it has zero in-line check valves (0 or 1).
- 12** H. Indicates the size of drop pipe in inches.
- F** I. Indicates the discharge connection is flanged. Other options are welded, threaded, and mechanical joint with or without transition sleeve.
- 12** J. Indicates the size of discharge pipe in inches.
- S** K. Sealed cap conduit connection (optional).



26" CUSTOM PITLESS SPECIFICATIONS



A	Pitless unit to well casing connection:	Chamfered for butt weld
B	Pitless unit with black upper case:	27" I.D. x 28" O.D.
C	Discharge body minimum I.D.	25"
D	Hold-down mechanism: Locks spool in place and prevents lifting and turning during pump start-up. Four adjustable hooks on lift-out pipe hook into side of pitless case.	
DD	Probe tube standard 1" PVC pipe	
E	Lift-out pipe:	8" Welded sch. 80
F	Lift-out bail lift-out pipe assembly:	designed for a 218,000 lb load
G	Tap size:	2 1/2" NPT
H	Well vent:	Screws into a 2 1/2" NPT tapping
CAP CABLE SEALS (SECTION BB-BB)		
I	Conduit tappings:	2" and 1" NPT Also available with single 2", 3", or 4" NPT (All tapping sizes available with or without electrical cable seal)
J	Depth tester block tappings:	1/4" NPT
K	.....	(3) 1" NPT tappings ported to drop pipe
L	Pressure zone tappings:	3/8" NPT
MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)		
M	.....	7 3/16"
N	.....	3 3/8"
O	.....	2"
P	Dimension from center of discharge outlet to bottom of discharge body:	17 1/16"
Q	Distance from ground level to top of the pitless case:	12"
R	Distance from ground level to top of the screened vent cap:	30 1/16"
	<i>Vent height may be increased if necessary.</i>	
S	Water sampler tapping:	3/4" NPT
T	SPOOL TO DROP PIPE THREAD SIZES:	8" NPT 10" NPT 12" NPT
U	Dimension from center of discharge outlet to bottom of spool:	18 1/16" 20 1/16" 22 1/16"
DISCHARGE CONNECTIONS AND SIZES:		
V	Butt weld:	8" I.D. 10" I.D. 12" I.D.
W	Flanged A.S.A. standard 150 lb:	8" I.D. 10" I.D. 12" I.D.
X	Threaded NPT:	8" I.D. 10" I.D. 12" I.D.
Y	Transition sleeve:	8" I.D. 10" I.D. 12" I.D.
Z	Dimension from center of well casing to the end of discharge outlet	
(V)	Butt weld discharge:	34 1/4" 34 1/4" 26 1/4"
(W)	Flanged discharge:	38 3/16" 38 3/16" 30 3/4"
(X)	Threaded discharge:	38 3/16" 39 3/16" 33 3/16"
(Y)	Transition sleeve:	46 1/4" 46 1/4" 38 1/4"
CC	SPOOL ASSEMBLY WITHOUT CHECK VALVES:	
	Area of water passage(s):	120.26 in ² 120.26 in ² 120.26 in ²
	Percent area of water passage(s) to area of drop pipe:	240% 152% 106%

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

COMPONENT MATERIALS

- Well vent - cast iron, green enamel finish.
- Cap - cast iron, green enamel finish.
- Conduit box - steel, corrosion resistant coating.
- Electrical cable seal - cast iron, green enamel finish.
- Combination hold-down & lift-out mechanism - lead free galvanized.
- Hold-down pipe - steel, corrosion resistant coating.
- Pitless case - steel, corrosion resistant coating.
- Discharge body - steel, lead free galvanized.
- Spool - steel, lead free galvanized.
- Probe tube - 1" PVC

NOTE: Any combination between drop pipe and discharge outlet size is possible, if required.

NOTE: Maximum rated discharge pressure: 300 psi
(Higher pressures can be accommodated with backup rings, please contact factory)

Monitor units are NSF/ANSI 61 & 372 certified and conform to the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, and Water Systems Council PAS-97(2012) standards.

BB118-26(03-2014)



26" CUSTOM PITLESS PARTS BREAKDOWN

Figure 1

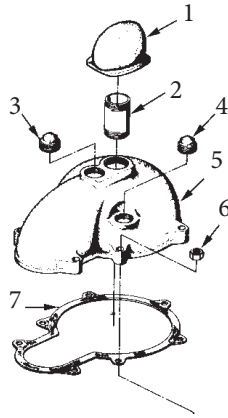
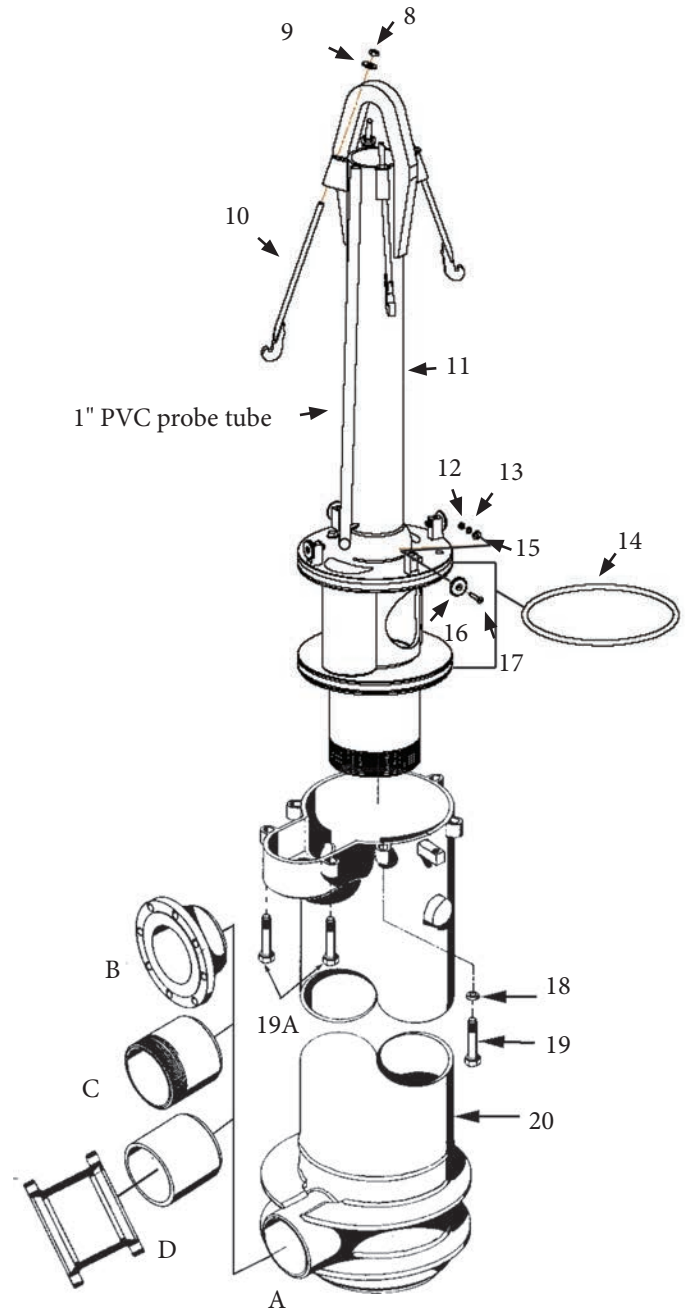


Figure 1			
No.	Ordering No.	Description	Qty
1	PS155	Protected Screen Well Vent 2½"NPT	1
2	PS365	Pipe Nipple 2½"NPT x 6"L.	1
3	UJ50	Pipe Plug 2" NPT	1
4	UG54	Pipe Plug 1½"NPT	1
5	US1	Seal Cap	1
6	PC286S	Hex Nut ⅝"-11NC, SS	13
7	US72	Gasket	1

Figure 2			
No.	Ordering No.	Description	Qty
8	PC286	Hex Nut, ⅝"-11NC	4
9	PC417	Washer	4
10	US7A	Hold-Down Hook	4
11	---	*Spool & Lift-Out Assy. (Serial No. Required)	1
12	UB17	Hex Nut ⅜"-16NC	4
13	TX31	Lockwasher	4
14	US15	O-ring	2
15	SW68	Washer	4
16	UL95	Washer	4
17	UM222	Machine Screw, ⅜"-16NC x 2¼"L.	4
18	UN81	Washer	13
19	UN73S	Hex Head Cap Screw, ⅝"-11NC x 5"L.	11
19A	LK4S	Lock Bolt, ⅝"-11NC x 4¼"L.	2
20	---	Discharge Body/Upper Casing Assembly (Serial No. Required)	1
21	(4) Different Discharge Connections are available: (A) Welded, (B) Flanged, (C) Threaded, or (D) Mechanical Joint with or without Transition Sleeve.		



ANY ORDER FOR REPAIR PARTS MUST BE ACCOMPANIED BY THE PITLESS UNIT SERIAL NUMBER AND ORDER NUMBER

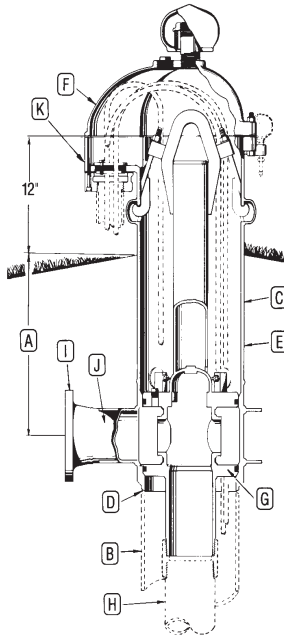
*Flowing Well Spools available upon request

OM5001-16(03-2014)



Certified to
NSF/ANSI 61 & 372

30" CUSTOM PITLESS UNIT



DESCRIPTION-ORDERING NUMBERS

A	3	Bury depth in feet	
	PS	Pitless Unit for Submersible Pump	
B	30	Well size - inches	
C	36	Upper Case size - inches	
D	W	Attachment to Well Casing-Welded	
E	B	Black Upper Case	
F	W	Watertight Cap w/ Screened Air Vent	
	E	Pressure Equalizing Spool Passages	
G	0	No. of In-line Check Valves: (0 or 1)	
H	12	Drop Pipe I.D. - inches (8", 10", or 12")	
I		Threaded NPT Std. Connection	Accessory Discharge Connections
	F	Flange, ASA 150 lb	
		Welded	
		Mechanical Joint (Plain End)	
		MS=Mech. Joint w/Transition Sleeve	
J	12	Discharge I.D. - inches (8", 10", or 12")	
K	S	Elec. Cable Seals (S) O.D. 3 Wire _____ O.D. Grounding Wire _____	
OPTIONS		Water Sampler Valve (H)	
		Flowing Well (F)	
		Special Provision (X)	

UNITS AVAILABLE BY QUOTATION ONLY
10" THROUGH 36" WELL SIZES

EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

The diagram illustrates the meaning of the various letters and numerals used in Monitor® Custom Industrial Pitless Unit ordering numbers. A typical order number and the Pitless Unit it stands for are shown.

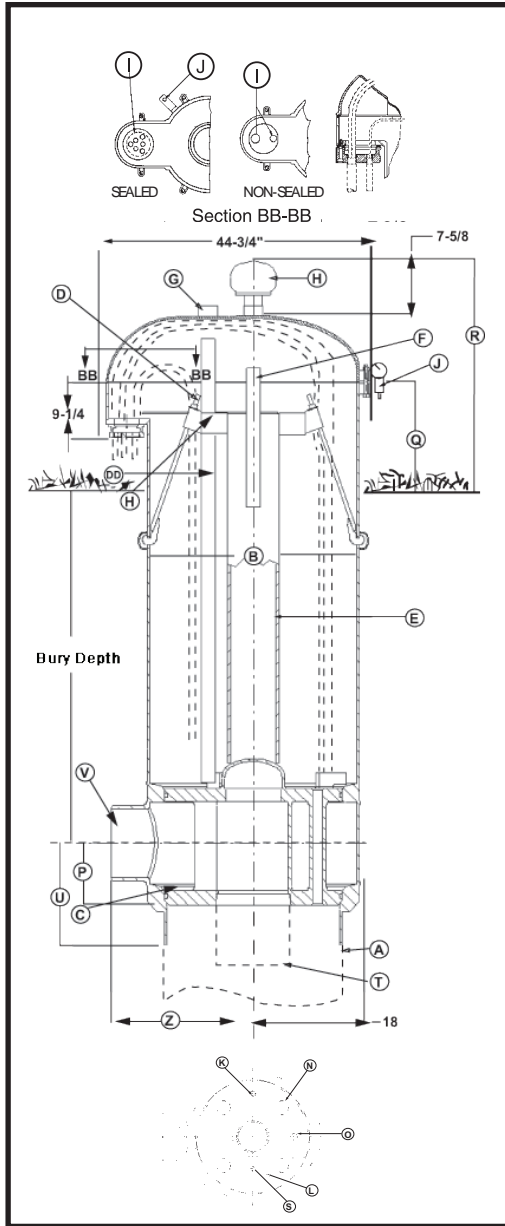
Typical Order Number

3PS3036WBWE012F12S

- 3** A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.
- PS** These letters indicate the type of pump the Pitless Unit is designed for. The unit shown is a PS for submersible pumps.
- 30** B. This numeral indicates the well casing size is 30" O.D.
- 36** C. This numeral indicates the upper pitless case size is 36" O.D.
- W** D. Indicates the attachment to the well casing is a welded joint.
- B** E. Indicates the upper pitless case is black pipe.
- W** F. Indicates the Pitless Unit has a watertight cap with screened vent installed.
- E** G. Indicates spool has pressure equalizing passages.
- 0** This numeral indicates the number of in-line check valves the Pitless Unit has. In this case it has zero in-line check valves (0 or 1).
- 12** H. Indicates the size of drop pipe in inches.
- F** I. Indicates the discharge connection is flanged. Other options are welded, threaded, and mechanical joint with or without transition sleeve.
- 12** J. Indicates the size of discharge pipe in inches.
- S** K. Sealed cap conduit connection (optional).



30" CUSTOM PITLESS SPECIFICATIONS



A	Pitless unit to well casing connection:	Chamfered for butt weld		
B	Pitless unit with black upper case:	35" I.D. x 36" O.D.		
C	Discharge body minimum I.D.	29"		
D	Hold-down mechanism: Locks spool in place and prevents lifting and turning during pump start-up. Four adjustable hooks on lift-out pipe hook into side of pitless case.			
DD	Probe tube standard 1" PVC pipe			
E	Lift-out pipe:	8" Welded sch. 80		
F	Lift-out bail lift-out pipe assembly:	designed for a 218,000 lb load		
G	Tap size:	2 1/2" NPT		
H	Well vent:	Screws into a 2 1/2" NPT tapping		
CAP CABLE SEALS (SECTION BB-BB)				
I	Conduit tapings:	2" and 1" NPT <i>Also available with single 2", 3", or 4" NPT (All tapping sizes available with or without electrical cable seal)</i>		
J	Depth tester block tapings:	1/4" NPT		
K	Pressure zone tapings:	(1) 1" NPT tapings ported to drop pipe		
L	Motor cable passages through spool	3/8" NPT		
N	Motor cable passages through spool	3/16"		
O	Dimension from center of discharge outlet to bottom of discharge body:	1 3/4"		
P	Dimension from center of discharge outlet to bottom of discharge body:	17 1/16"		
Q	Distance from ground level to top of the pitless case:	12"		
R	Distance from ground level to top of the screened vent cap:	32 1/16" <i>Vent height may be increased if necessary.</i>		
S	Water sampler tapping:	3/4" NPT		
SPOOL TO DROP PIPE THREAD SIZES:				
T	8" NPT	10" NPT	12" NPT	
U	Dimension from center of discharge outlet to bottom of spool:	10 1/2"	10 1/2"	10 1/2"
DISCHARGE CONNECTIONS AND SIZES:				
V	Butt weld	8" I.D.	10" I.D.	12" I.D.
W	Flanged A.S.A. standard 150 lb	8" I.D.	10" I.D.	12" I.D.
X	Threaded NPT	8" I.D.	10" I.D.	12" I.D.
Y	Transition sleeve	8" I.D.	10" I.D.	12" I.D.
Z	Dimension from center of well casing to the end of discharge outlet			
(V)	Butt weld discharge	24"	24"	24"
(W)	Flanged discharge	28 1/16"	28 1/16"	28 1/16"
(X)	Threaded discharge	28 1/16"	29 1/16"	29 1/16"
(Y)	Transition sleeve	36 1/16"	36 1/16"	36 1/16"

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

COMPONENT MATERIALS

- Well vent - cast iron, green enamel finish.
- Cap - cast iron, green enamel finish.
- Conduit box - steel, corrosion resistant coating.
- Electrical cable seal - cast iron, green enamel finish.
- Combination hold-down & lift-out mechanism - lead free galvanized.
- Hold-down pipe - steel, corrosion resistant coating.
- Pitless case - steel, corrosion resistant coating.
- Discharge body - steel, lead free galvanized.
- Spool - steel, lead free galvanized.
- Probe tube - 1" PVC

NOTE: Any combination between drop pipe and discharge outlet size is possible, if required.
NOTE: Maximum rated discharge pressure: 300 psi
(Higher pressures can be accommodated with backup rings, please contact factory)

Monitor units are NSF/ANSI 61 & 372 certified and conform to the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, and Water Systems Council PAS-97(2012) standards.

BB119-30(03-2014)

**CUSTOM INDUSTRIAL PITLESS UNITS
FOR SUBMERSIBLE PUMPS 10"-36"
OPTIONAL SEALED CONDUIT**

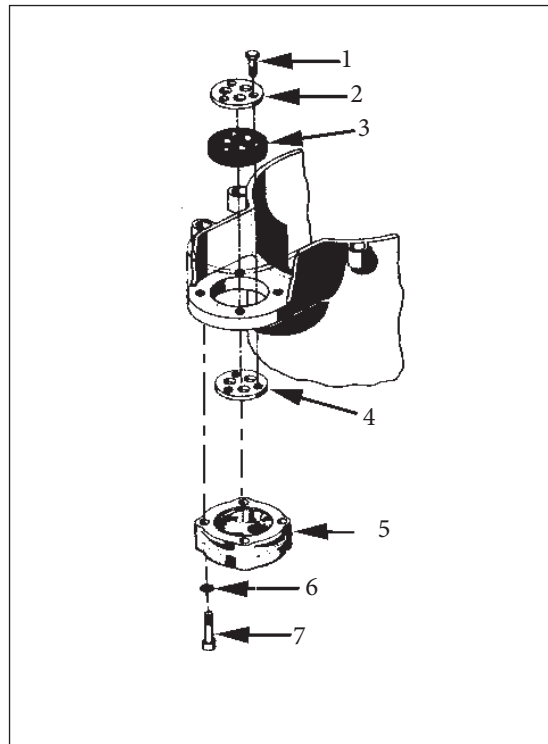


Figure 1

No.	Ordering No.	Description	Qty
1	PS171	Hex Head Cap Screw, 3/8-16NC x 1 1/2"L.	3
2	----	Upper Compression Plate	1
3	----	Cable Seal Gasket	1
4	----	Lower Compression Plate	1
5	----	Conduit Seal Adapter	1
6	UK355	Gasket	4
7	----	Hex Socket Cap Screw	4

NOTE: All of the above parts must be ordered by description and unit serial number. Please specify pump wire size.



WATER SAMPLER VALVE

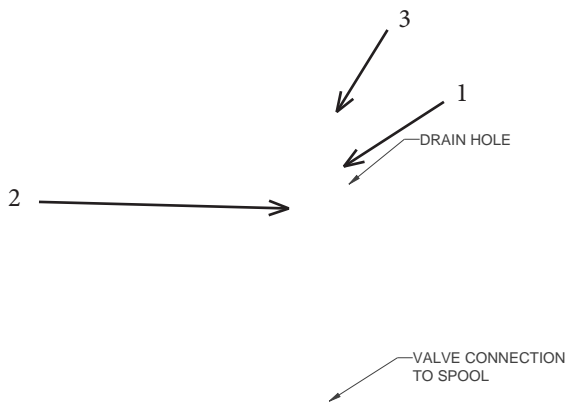
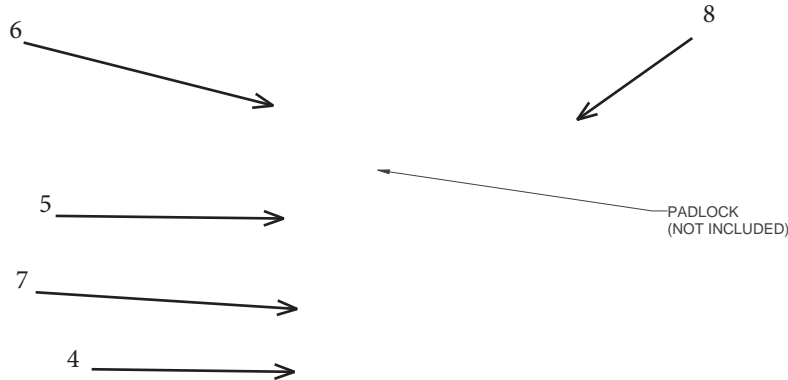
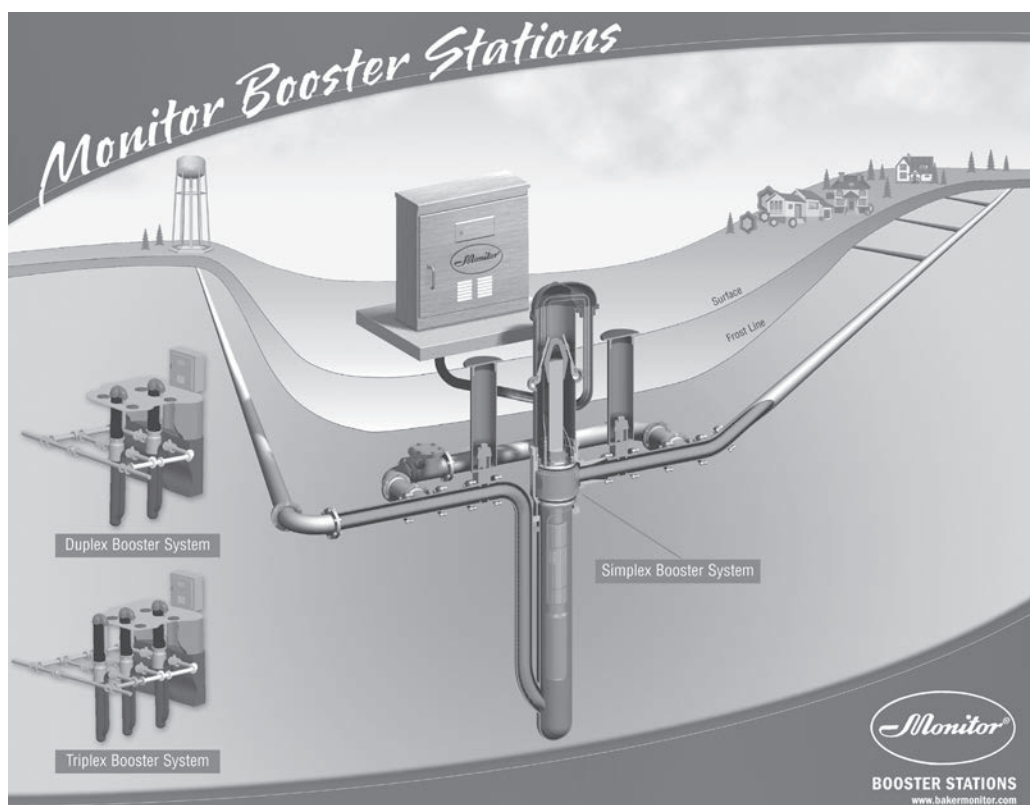


Figure 1			
No.	Ordering No.	Description	Qty
1	WA11C	Brass Valve Body	1
2	WA14C	Plunger	1
3	WA13	Hex Bushing	1
4	WA8	Water Sampler Top	1
5	UK308	Spout	1
6	UN320A	Cap	1
7	SE2012N70	O-ring	1
8	WA9	Rod	1

PITLESS BOOSTERS



The Monitor Pitless Booster Station is a unique and cost effective solution for boosting water pressure. The Monitor Pitless Booster is perfect for potable, non-potable, irrigation, and snow making applications. The unique design houses the submersible pump below ground within the pitless booster tank reservoir. Pitless Booster Stations are sized according to the submersible pump required for the application. The Pitless Boosters can be set up as a simplex units or installed in a manifold format for the purpose of adding more pumping capacity or redundancy.

There are many benefits in using a Pitless Booster:

- Very Quiet - With the submersible pump housed below ground, motor noise is eliminated.
- Obscure - Very low profile, small footprint.
- Economical - Eliminates the need for a costly pump house.
- Easy Maintenance - For access to the pump, remove seal cap, pull up lift out assembly.
- Safe - No confined space entry.



Certified to
NSF/ANSI 61 & 372



PITLESS BOOSTER UNITS FOR SUBMERSIBLE PUMPS 5", 6", 8", 10", 12", AND 16" TANK SIZES

FEATURES:

EASY ACCESS TO SERVICE

Well cap can be removed without disconnecting cables. O-ring seals on spool permit withdrawal of the entire inner assembly simply by lifting. Replacement is equally simple. Spool support eliminates vertical adjustment allowing service above ground.

CORROSION PROTECTION

Spool and Discharge Body are either lead free hot-dipped galvanized or constructed of corrosion resistant material for longer life, less service.

RELIABLE SEAL

Neoprene O-rings between accurately machined lead free hot-dipped galvanized surfaces on the spool and within the unit provide positive seals to ensure maintenance free performance.

O-RING SEAL PROTECTION

Monitor seal protection prevents seal damage during installation and service eliminating potential service costs.

QUICK TO INSTALL

A quality booster pump installation can be made easily and economically without delay for masonry or building construction creating a sound cost savings solution.

WATERTIGHT WELL CAP

Designed to permit removal without disconnecting cables. Watertight cable and conduit sealing is available for additional protection.

HOLD DOWN

Supplied with each unit. Hold-down pipe also serves as lift-out pipe for installation and allowing speedy service.

FROST PROOF

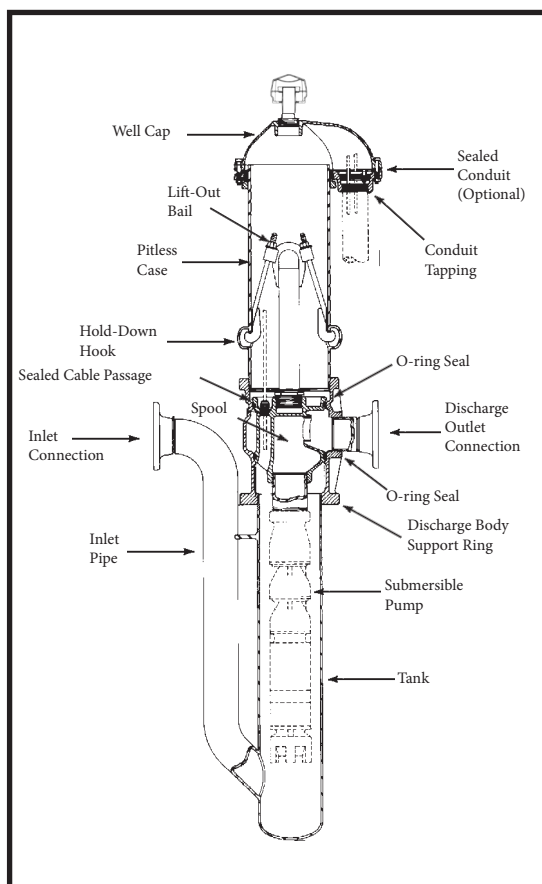
No heating is required. All water passages are below the frost line.

ALTERNATIVE DISCHARGE & INLET CONNECTIONS

Are available to meet your requirements.

**BOOSTER UNITS ARE AVAILABLE 5" THROUGH
36" TANK SIZES UPON REQUEST**

**ALL PITLESS BOOSTER UNITS ARE AVAILABLE IN
STAINLESS STEEL UPON REQUEST**





**SAMPLE ENGINEERING SPECIFICATIONS
PITLESS BOOSTER UNIT**

SUMMARY

Completely assembled & pressure tested, NSF/ANSI 61 & 372 certified, Monitor Pitless _____ (simplex, Duplex, Triplex) Booster Station including submersible pump, well cap, lift-out bail, hold down hooks, lift-out pipe, spool, specified inlet and outlet connections, reservoir tank, and in-line check valve. All equipment specified to be provided by Baker Manufacturing Company, LLC.

SUBMITTALS

All bidders shall submit as part of their bid:

1. The manufacturer and model of the Pitless Booster Unit to be installed.
2. Detailed specifications with drawings of the Pitless Booster Unit furnished by the manufacturer.
3. Detailed specifications on the submersible pump and submersible wire to be used in conjunction with the Pitless Booster Unit.
4. System to be assembled and pressure tested without submersible pump prior to shipping.

SUBMERSIBLE PUMP

Pump manufacturer: _____ Model number: _____ Stages: ___

Motor manufacturer: _____ Model number: _____

The submersible pump will be designed for _____ GPM @ _____' TDH with a _____ HP, _____ Volt, _____ phase, _____ RPM motor. Motor shall be rated for operation with a variable frequency drive (VFD), and have a service factor of 1.15. The submersible motor will provide _____ ft of No. _____ AWG submersible wire for the power cables and _____ ft of No. _____ AWG submersible wire for the ground cable.

SUBMERSIBLE PITLESS BOOSTER UNIT

The Pitless Booster Unit must be certified to NSF/ANSI 61 & 372 Standards and manufactured by Baker Manufacturing Company, LLC – Monitor Division, Model number _____. The unit shall be factory assembled, and tested before shipping to the site. The Monitor Pitless Booster Unit must be rated for 300 psi discharge pressure, and 150 psi inlet pressure. All wall thickness, including upper casing and reservoir to conform to steel well casing per the Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, Albany, NY.

WELL CAP

The watertight cap shall be secured to the pitless casing with a compression gasket. The top of the cap can be removed without affecting the sealed conduit or wiring. The watertight cap shall be sloped to shed water and snow. Construction of the cap and well vent will be of heavy duty gray cast iron and E-coated with a green enamel finish. The cap must include a cable seal assembly, capable of sealing around the electrical wires where they enter the cap. The cap cable seal assembly will seal _____ wires of _____ inches O.D., and _____ wire of _____ inch O.D. The cap shall have provision for one or more padlocks to prevent removal of the cap from the upper casing without removing the padlocks.

UPPER CASING

The upper casing is factory assembled to the discharge body, and the lift-out and hold down mechanism are factory assembled to the spool. The upper casing thickness must conform to the Recommended Standards for Water Works. The upper casing must provide a watertight connection from the discharge body to the well cap. The inlet and discharge port center line to be _____ feet below grade. The upper casing will extend _____ foot above grade.

SPOOL

The spool shall include _____ inch NPT per ANSI B1.20.1 male drop pipe connection and shall be constructed of heavy duty gray cast iron, ductile iron, or steel with a lead-free galvanized plating on the wetted surface over .010 inches thick. The spool will have two O-ring grooves machined into the spool, retaining the O-rings when setting or pulling the system. The O-ring seals shall be constructed of neoprene or equivalent. Spool to include NSF 61 certified cable glands that seal on the cable O.D. by compression. The cable glands are rated for 150 psi. The cable glands will seal _____ wires of _____ inches O.D., and _____ wire of _____ inch O.D.

(continued)



SAMPLE ENGINEERING SPECIFICATIONS
PITLESS BOOSTER UNIT
(continued)

DISCHARGE BODY

The discharge body shall be constructed of ductile iron, or steel with a lead-free galvanized coating. O-ring seat to be designed to prevent crevice and galvanic corrosion, dissimilar metals should be avoided. Discharge outlet port to be ___ inch, type: Class 150 lb ANSI B16.5 flange, threaded, welded, or transition.

HOLD-DOWN MECHANISM

The Pitless Booster Unit spool shall have a hold down hooks, factory assembled to the spool, capable of preventing rotation of the pitless spool relative to discharge body at full rated locked rotor torque of the submersible pump motor. The spool must also have a factory assembled lift out pipe and bail capable of _____ lb rated load, to allow lifting a water filled drop pipe and pump out of the reservoir tank for service.

RESERVOIR TANK

The reservoir tank is to be constructed of heavy duty steel, coated with a rust protective coating of non-toxic black paint. The I.D. of the tank to be ___ inches. Inlet connection of the reservoir tank to be ___ inch, type: Class 150 lb ANSI B16.5 flange, threaded, welded, or transition. Tank length to accommodate a submersible pump, motor and check valve equal to ___ feet . Tank length to be ___ feet. Reservoir tank to include 1 inch weld coupling for air release line.

CHECK VALVE

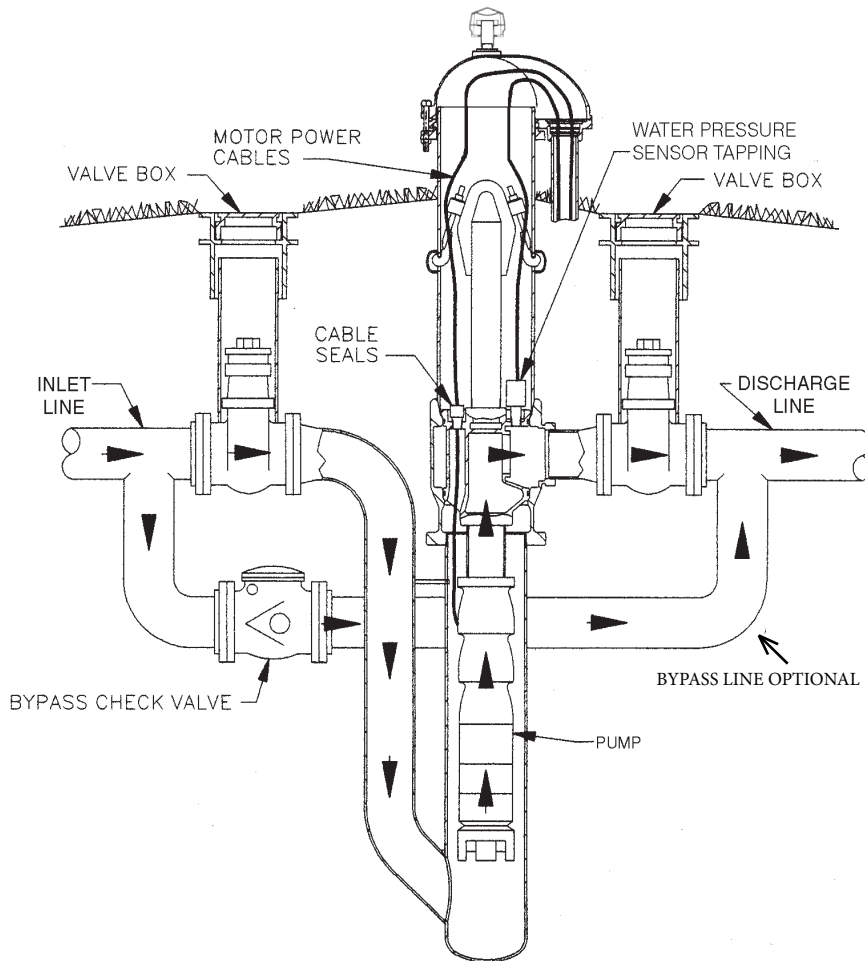
Manufacturer: Flomatic

Model number: _____

Check valve body and follower to be constructed of ductile iron. Valve guide and spring constructed of 316 stainless steel. Maximum pressure rating to be 400 psi. All internal parts to be made from corrosion resistant material. Check valve designed to operate with variable frequency drive (VFD) controlled pumps.

TYPICAL PITLESS BOOSTER INSTALLATION

PITLESS BOOSTER UNITS FOR SUBMERSIBLE PUMPS
5" through 36" TANK SIZES



OM-5013(03-2014)

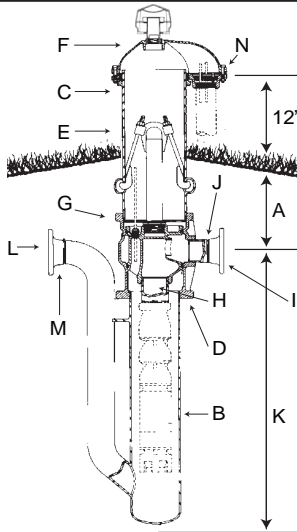


5" PITLESS BOOSTER UNIT

UNITS AVAILABLE BY QUOTATION ONLY
5" THROUGH 36" TANK SIZES

EXPLANATION OF PITLESS BOOSTER UNIT ORDERING NUMBERS

The diagram illustrates the meaning of the various letters and numerals used in Monitor® Standard Industrial Pitless Booster Unit ordering numbers. A typical order number and the Pitless Booster Unit it stands for are shown.



DESCRIPTION-ORDERING NUMBERS

A	6	Bury Depth in Feet	
	PS	Pitless Booster for Submersible Pump	
B	5	Reservoir Tank Size - inches	
C	6	Upper Case Size - inches	
D	T	Threaded Joint	
E	B	Black Upper Case	
F	W	Watertight Cap	
G	X	Motor Cable Passages-Sealed	
	0	Check Valves	
H	2	Size of Drop Pipe in inches (2" std)	
I		Welded	Accessory Discharge Connects
	F	Flange, ASA 150 lb	
		Threaded NPT	
		Mechanical Joint (Plain End)	
	MS=Mech. Joint w/Transition Sleeve		
J	2	Size of Discharge Pipe - inches (2" std)	
K	6	Length of Reservoir Tank-Feet	
L	2	Inlet Pipe Size-Ins. (2" std)	
M		Welded	Accessory Inlet Pipe Connects
	F	Flange, ASA 150 lb	
		Threaded NPT	
		Mechanical Joint (Plain End)	
	MS=Mech. Joint w/Transition Sleeve		
N	S	Elec. Cable Seals (S) O.D. 3 Wire _____ O.D. Grounding Wire _____	
		Special Provision (X)	

Typical Order Number

6PS56TBWX02F262FS

A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all Pitless Booster Units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.

6

PS These letters indicate the type of pump the Pitless Booster Unit is designed for. The unit shown is a PS for submersible pumps.

PS

5

B. This numeral indicates the reservoir tank size is a 5" I.D.

6

C. This numeral indicates the upper pitless case size is a 6" I.D.

T

D. Indicates the attachment to the tank is threaded.

B

E. Indicates the upper pitless case is black pipe.

W

F. Indicates the Pitless Booster Unit has a watertight cap with screened vent installed.

X

G. Indicates motor cable passages are sealed.

0

This numeral indicates the number of in-line check valves the Pitless Booster Unit has. In this case it has zero in-line check valves (0 or 1).

2

H. Indicates the size of drop pipe in inches.

F

I. Indicates the discharge connection is flanged. Other options are welded, threaded, and mechanical joint with or without transition sleeve.

2

J. Indicates the size of discharge pipe in inches.

6

K. Indicates the length of the reservoir tank in feet; is measured from the center of the discharge line to the bottom of the Pitless Booster Unit.

2

L. Indicates the inlet connection diameter in inches.

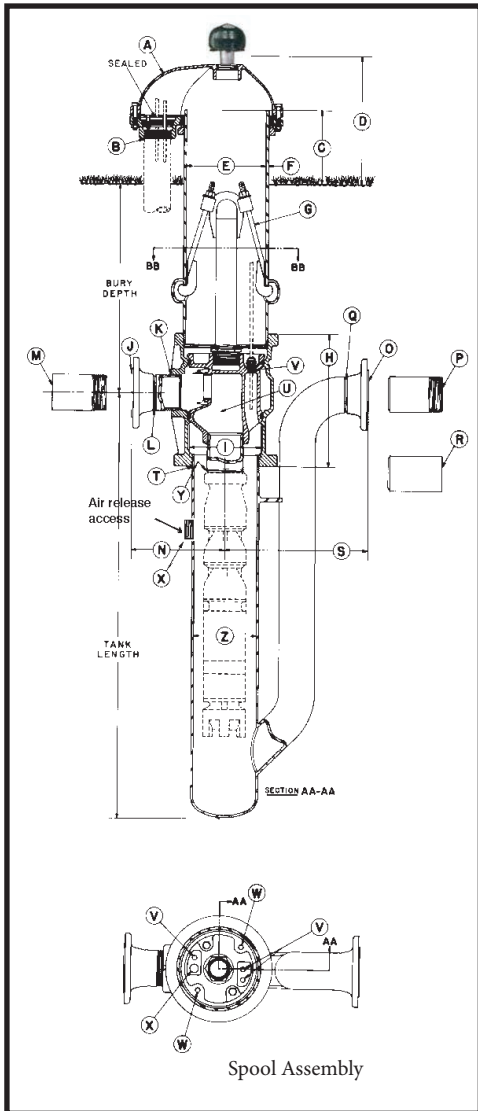
F

M. Indicates the inlet pipe connection is flanged.

S

N. Sealed conduit connection.

5" PITLESS BOOSTER SPECIFICATIONS



A	Seal cap: The watertight cap bolts to a compression seal ring securing around the pitless casing.
B	Conduit tapping size (standard) 1½"
C	Distance from ground level to top of pitless case:..... 12"
D	Distance from ground level to top of well cap:..... 14¾"
E	Pitless case size:..... 6"
F	Pitless case wall thickness:..... 0.280"
G	"Hold-down-lift-out assembly": Positions and clamps spool to discharge body to prevent rotation during pump start up Hold-down-lift-out pipe size:..... 1¼" Designed "lift-out" assembly load:..... 4,700 lb
H	Discharge body length: 8¾" O.D. x 8½½"
I	Pitless unit minimum I.D.: 6"
DISCHARGE CONNECTIONS AND SIZES	
J	Flanged A.S.A. standard 150 lb..... 2" I.D.
K	Threaded nipple NPT..... 2" I.D.
L	Butt weld..... 2" I.D.
M	Transition sleeve 2" I.D.
N	Dimension from center of Pitless Booster Unit to end of discharge outlet (J) Flanged discharge..... 9¼" (K) Threaded discharge: 4⅞" (L) Welded discharge: 6¾" (M) Transition discharge: 15¾"
INLET CONNECTIONS AND SIZES	
O	Flanged A.S.A. standard 150 lb..... 2" I.D.
P	Threaded nipple NPT..... 2" I.D.
Q	Butt weld..... 2" I.D.
R	Transition sleeve 2" I.D.
S	Dimension from center of Pitless Booster Unit to end of inlet connection (O) Flanged inlet..... 10⅝" (P) Threaded inlet..... 11⅝" (Q) Welded inlet 8⅝" (R) Transition inlet..... 20⅝"
T	Discharge body to tank pipe connection..... 5" NPT
U	SPOOL ASSEMBLY Spool design load:..... 4200 lb
V	Motor cable tappings through spool <i>with cable connectors</i> (4) ¾" NPT Maximum allowable..... (4) ¾" NPT
W	Tapping into pressure zone <i>furnished with square head plug</i> ¾" NPT
X	Tapping into suction zone- <i>Air release access furnished with square head plug</i> 1"
Y	Spool to drop pipe nipple connection..... 2" NPT
Z	Tank pipe size:..... 5" I.D.

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

COMPONENT MATERIALS

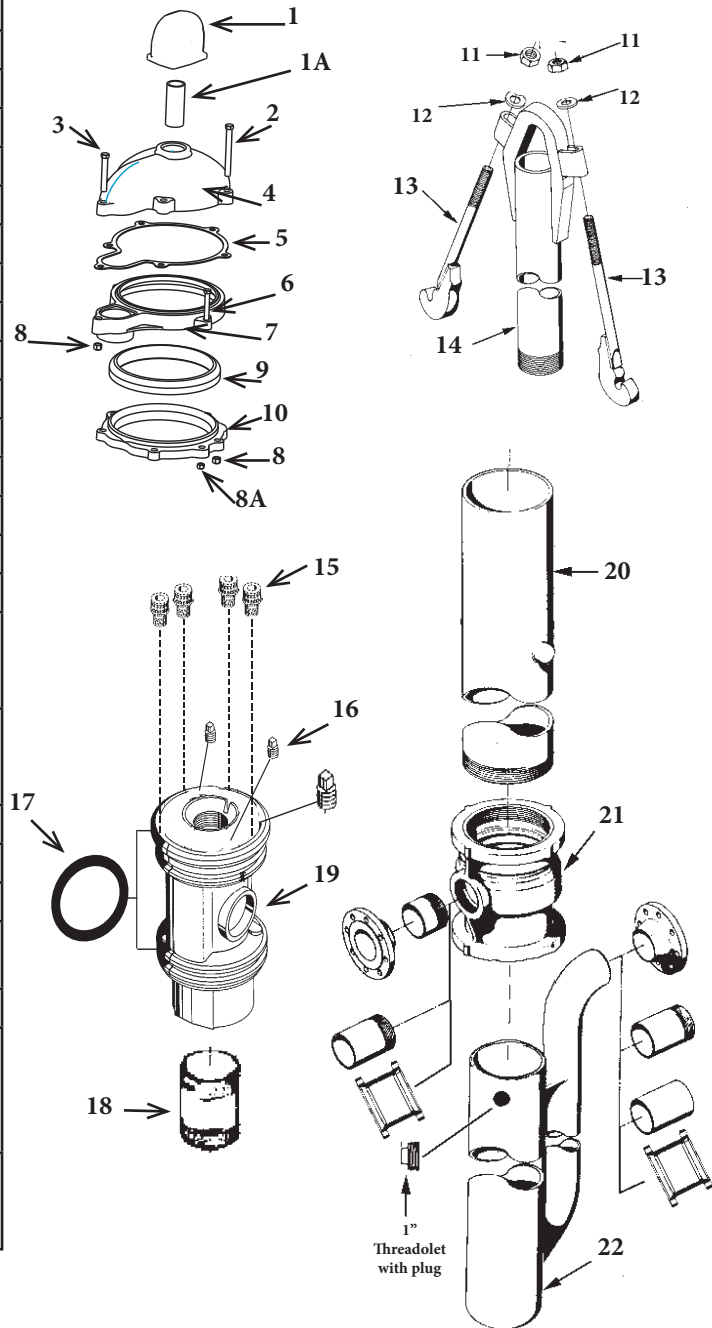
- Cap - Cast iron, Green enamel finish.
 - Combination hold-down & lift-out mechanism -
 - Hold-down pipe - Steel, corrosion resistant coating.
 - Pitless case - Steel, black corrosion resistant coating.
 - Spool - Cast iron, lead free galvanized.
 - Discharge body - Cast Iron, lead free galvanized.
 - Conduit seal & O-rings - Neoprene.
 - Tank & inlet pipes - Steel, black corrosion resistant coating.
- NOTE: Inlet pipe & tank pipe tested to 200 psi, spool discharge pressure tested to 300 psi (Higher pressures can be accommodated with backup rings, please contact factory)

BB137-5(03-2014)



5" PITLESS BOOSTER PARTS BREAKDOWN

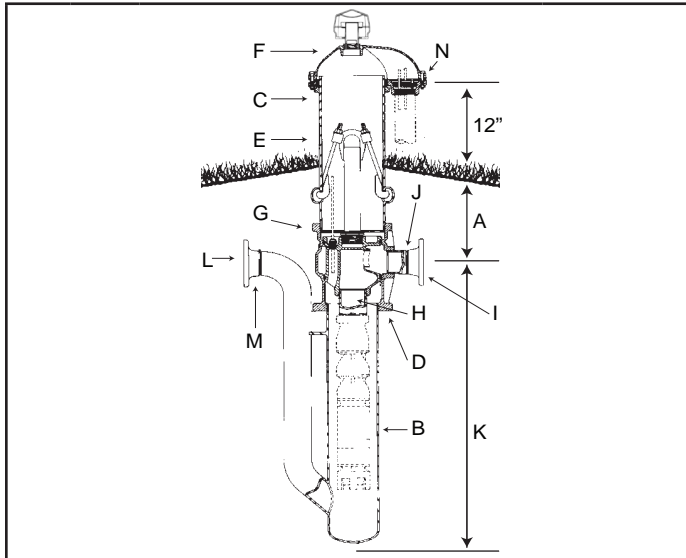
No.	Order No.	Description	Qty
1	71PS	Vent	1
1A	PS262	1¼" x 3" Nipple	1
2	PS94S	Machine Bolt, ¾-16NC x 3½"L.	5
3	PS93S	Machine Bolt, ¾-16NC x 2½"L.	1
4	PS136	Seal Cap	1
5	PS196	Gasket	1
6	PS132S	Machine Bolt, ½-18NC x 2"L.	2
7	PS376	Retainer Ring	1
8	UB17S	Hex Nut, ¾-16NC	6
8A	PC434S	Hex Nut, ½-11NC	2
9	PS166	Seal Ring	1
10	PS186	Depression Ring	1
11	NA75	Hex Nut, ¾-10NC	2
12	WA75	Washer	2
13	UJ7BH	Hold-Down Hook	2
14	----	Lift-Out Pipe/Bail Assembly Note: Must be ordered by description/unit serial number	1
15	----	Cable Connectors Note: Must be ordered by description/unit serial number	4
16	UN122	Pipe Plug, ¾-18NPT	2
17	NC15	O-ring	2
18	PS265	Pipe Nipple, 2"NPT x 4"L.	1
19	6S4PSF	Spool Assy., includes nos. 16, 17, and 19	1
20	----	Casing	1
21	UE44	Discharge Body, FIP discharge outlet std. Note: Must be ordered by description/unit serial number	1
22	----	Tank/inlet Pipe Assembly Note: Must be ordered by description/unit serial number	1



ANY ORDER FOR REPAIR PARTS MUST BE ACCOMPANIED BY THE PITLESS UNIT SERIAL NUMBER AND ORDER NUMBER

OM5150(03-2014)

6" PITLESS BOOSTER UNIT



DESCRIPTION-ORDERING NUMBERS

A	6	Bury Depth in Feet	
	PS	Pitless Booster for Submersible Pump	
B	6	Reservoir Tank Size - inches	
C	7	Upper Case Size - inches	
D	T	Threaded Joint	
E	B	Black Upper Case	
F	W	Watertight Cap	
G	X	Motor Cable Passages-Sealed	
	0	Check Valves	
H	3	Size of Drop Pipe in inches (3" std)	
I		Welded	Accessory Discharge Connects
	F	Flange, ASA 150 lb	
		Threaded NPT	
		Mechanical Joint (Plain End)	
		MS=Mech. Joint w/Transition Sleeve	
J	3	Size of Discharge Pipe - inches (3" std)	
K	6	Length of Reservoir Tank-Feet	
L	3	Inlet Pipe Size-Ins. (3" std)	
M		Welded	Accessory Inlet Pipe Connects
	F	Flange, ASA 150 lb	
		Threaded NPT	
		Mechanical Joint (Plain End)	
		MS=Mech. Joint w/Transition Sleeve	
N	S	Elec. Cable Seals (S) O.D. 3 Wire _____ O.D. Grounding Wire _____	
		Special Provision (X)	

UNITS AVAILABLE BY QUOTATION ONLY
5" THROUGH 36" TANK SIZES

EXPLANATION OF PITLESS BOOSTER UNIT ORDERING NUMBERS

The diagram illustrates the meaning of the various letters and numerals used in Monitor® Standard Industrial Pitless Booster Unit ordering numbers. A typical order number and the Pitless Booster Unit it stands for are shown.

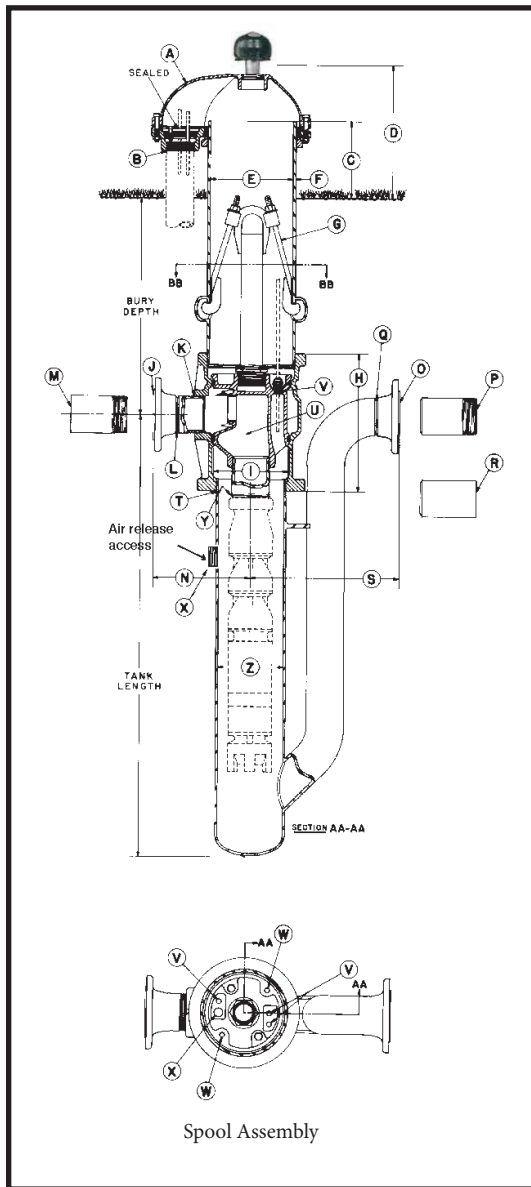
Typical Order Number

6PS67TBWX03F363FS

- 6** A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all Pitless Booster Units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.
- PS** These letters indicate the type of pump the Pitless Booster Unit is designed for. The unit shown is a PS for submersible pumps.
- 6** B. This numeral indicates the reservoir tank size is a 6" I.D.
- 7** C. This numeral indicates the upper pitless case size is a 7" I.D.
- T** D. Indicates the attachment to the tank is threaded.
- B** E. Indicates the upper pitless case is black pipe.
- W** F. Indicates the Pitless Booster Unit has a watertight cap with screened vent installed.
- X** G. Indicates motor cable passages are sealed.
- 0** This numeral indicates the number of in-line check valves the Pitless Booster Unit has. In this case it has zero in-line check valves (0 or 1).
- 3** H. Indicates the size of drop pipe in inches.
- F** I. Indicates the discharge connection is flanged. Other options are welded, threaded, and mechanical joint with or without transition sleeve.
- 3** J. Indicates the size of discharge pipe in inches.
- 6** K. Indicates the length of the reservoir tank in feet; is measured from the center of the discharge line to the bottom of the Pitless Booster Unit.
- 3** L. Indicates the inlet connection diameter in inches.
- F** M. Indicates the inlet pipe connection is flanged.
- S** N. Sealed conduit connection.



6" PITLESS BOOSTER SPECIFICATIONS



A	Seal cap: The watertight cap bolts to a compression seal ring securing around the pitless casing.
B	Conduit tapping size (standard).....1½" NPT
C	Distance from ground level to top of pitless case:..... 12"
D	Distance from ground level to top of well cap:..... 14¾"
E	Pitless case size:..... 7"
F	Pitless case wall thickness:..... 0.300"
G	"Hold-down-lift out assembly": Positions and clamps spool to discharge body to prevent rotation during pump start up Hold-down-lift-out pipe size:..... 1¼" Designed "lift-out" assembly load:..... 4,700 lb
H	Discharge body size: 9 ¹¹ / ₁₆ " O.D. x 11¼" long
I	Pitless unit minimum I.D.: 6 ³ / ₈ "
DISCHARGE CONNECTIONS AND SIZES	
J	Flanged A.S.A. standard 150 lb..... 3" I.D.
K	Threaded nipple NPT..... 3" I.D.
L	Butt weld..... 3" I.D.
M	Transition sleeve 3" I.D.
N	Dimension from center of Pitless Booster Unit to end of discharge outlet (J) Flanged discharge..... 10 ⁵ / ₈ " (K) Threaded discharge: 5 ²⁵ / ₃₂ " (L) Welded discharge: 7 ⁷ / ₈ " (M) Transition discharge: 18"
INLET CONNECTIONS AND SIZES	
O	Flanged A.S.A. standard 150 lb..... 3" I.D.
P	Threaded nipple NPT..... 3" I.D.
Q	Butt weld..... 3" I.D.
R	Transition sleeve 3" I.D.
S	Dimension from center of Pitless Booster Unit to end of inlet connection (O) Flanged inlet..... 15 ⁵ / ₈ " (P) Threaded inlet..... 15 ⁷ / ₈ " (Q) Welded inlet 12 ⁷ / ₈ " (R) Transition inlet..... 25"
T	Discharge body to tank pipe connection..... 6" NPT
U	SPOOL ASSEMBLY Spool design load:..... 64,000 lb Area of water passages: 10 in ² Percent of area of water passages to area of drop pipe..... 135%
V	Motor cable tappings through spool <i>with cable connectors</i> (4) ¾" NPT Maximum allowable..... (4) ¾" NPT
W	Tapping into pressure zone <i>furnished with square head plug</i> ¾" NPT
X	Tapping into suction zone- <i>Air release access furnished with square head plug</i> 1"
Y	Spool to drop pipe nipple connection..... 3" NPT
Z	Tank pipe size:..... 6" I.D.

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

COMPONENT MATERIALS

Cap-cast iron, green enamel finish.

Combination hold-down & lift-out mechanism -

Hold-down pipe-steel, corrosion resistant coating.

Pitless case-steel, black corrosion resistant coating.

Spool-cast iron, lead free galvanized.

Discharge body-ductile or cast Iron, lead free galvanized.

Conduit seal & O-rings-Neoprene.

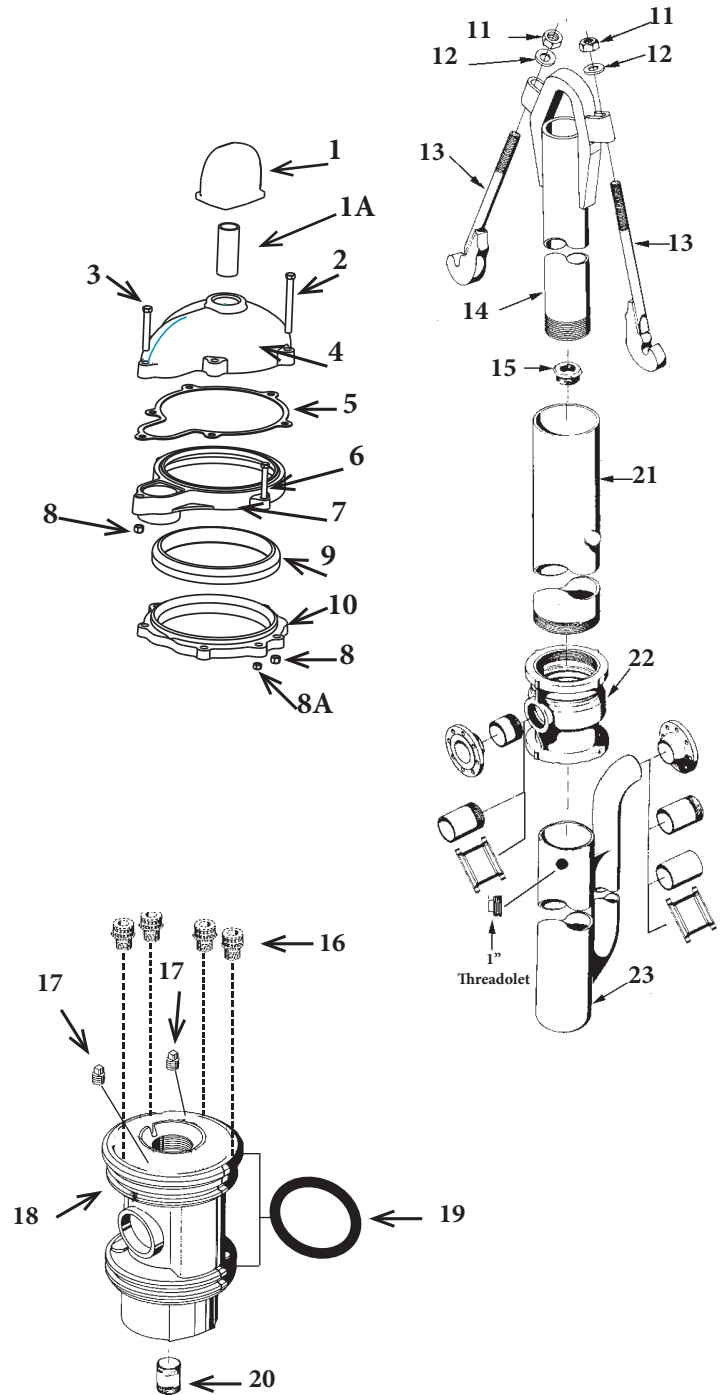
Tank & inlet pipes-steel, black corrosion resistant coating.

NOTE: inlet pipe & tank pipe tested to 200 psi, spool discharge pressure tested to 300 psi (Higher pressures can be accommodated with backup rings, please contact factory)

BB134-6(03-2014)

6" PITLESS BOOSTER PARTS BREAKDOWN

No.	Order No.	Description	Qty
1	72PS	Vent	1
1A	PS263	1½" x 3" Nipple	1
2	PS94S	Machine Bolt, ¾-16NC x 3½"L.	6
3	PS93S	Machine Bolt, ¾-16NC x 2½"L.	1
4	PS217	Seal Cap/Plug Assembly	1
5	PS197	Gasket	1
6	PS132S	Machine Bolt, ½-18NC x 2"L.	2
7	PS377	Retainer Ring	1
8	UB17S	Hex Nut, ¾-16NC	7
8A	PC434S	Hex Nut, ½-18NC	2
9	PS167	Seal Ring	1
10	PS187	Depression Ring	1
11	N75	Hex Nut, ¾-10NC	2
12	WA75	Washer	2
13	UJ7BH	Hold-Down Hook	2
14	----	Lift-Out Pipe/Bail Assembly Note: Must be ordered by description/unit serial number	1
15	PC330	Reducer Bushing, 2 x 1½	1
16	----	Cable Connectors Note: Must be ordered by description/unit serial number	4
17	UN122	Pipe Plug, ¾-18NPT	2
18	7E0PS3F	Spool Assembly Includes Nos. 17, 18, and 19	1
19	UC15	O-ring	2
20	UK351	Pipe Nipple, 3" NPT x 6"L.	1
21	----	Casing	1
22	UC291	Discharge Body, FIP discharge outlet standard. Note: Must be ordered by description/unit serial number	1
23	----	Tank/Inlet Pipe Assembly Note: Must be ordered by description/unit serial number	1

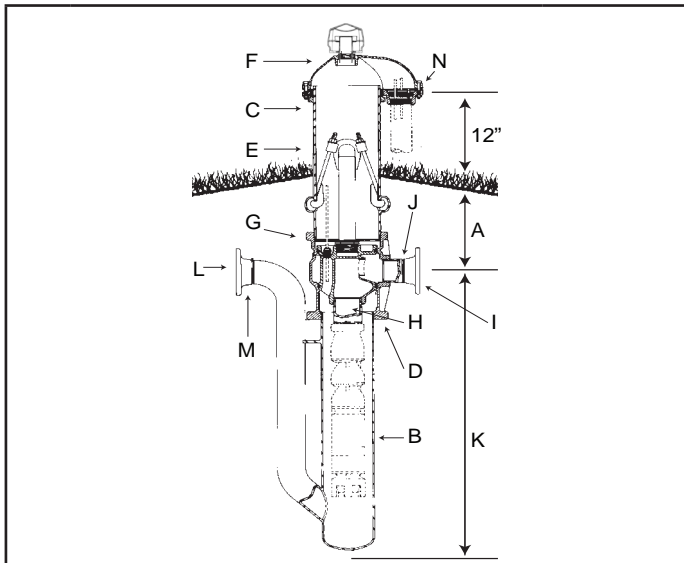


ANY ORDER FOR REPAIR PARTS MUST BE ACCOMPANIED BY THE PITLESS UNIT SERIAL NUMBER AND ORDER NUMBER

OM5200-6(03-2014)



8" PITLESS BOOSTER UNIT



DESCRIPTION-ORDERING NUMBERS

A	6	Bury Depth in Feet	
	PS	Pitless Booster for Submersible Pump	
B	8	Reservoir Tank Size - inches	
C	10	Upper Case Size - inches	
D	W	Welded Joint	
E	B	Black Upper Case	
F	W	Watertight Cap	
G	X	Motor Cable Passages-Sealed	
	0	Check Valves	
H	4	Size of Drop Pipe in inches (4" std)	
I		Welded	Accessory Discharge Connects
	F	Flange, ASA 150 lb	
		Threaded NPT	
		Mechanical Joint (Plain End)	
	MS	Mech. Joint w/Transition Sleeve	
J	4	Size of Discharge Pipe - inches (4" std)	
K	6	Length of Reservoir Tank-Feet	
L	4	Inlet Pipe Size - inches (4" std)	
M		Welded	Accessory Inlet Pipe Connects
	F	Flange, ASA 150 lb	
		Threaded NPT	
		Mechanical Joint (Plain End)	
	MS	Mech. Joint w/Transition Sleeve	
N	S	Elec. Cable Seals (S) O.D. 3 Wire _____ O.D. Grounding Wire _____	
		Special Provision (X)	

UNITS AVAILABLE BY QUOTATION ONLY
5" THROUGH 36" TANK SIZES

EXPLANATION OF PITLESS BOOSTER UNIT ORDERING NUMBERS

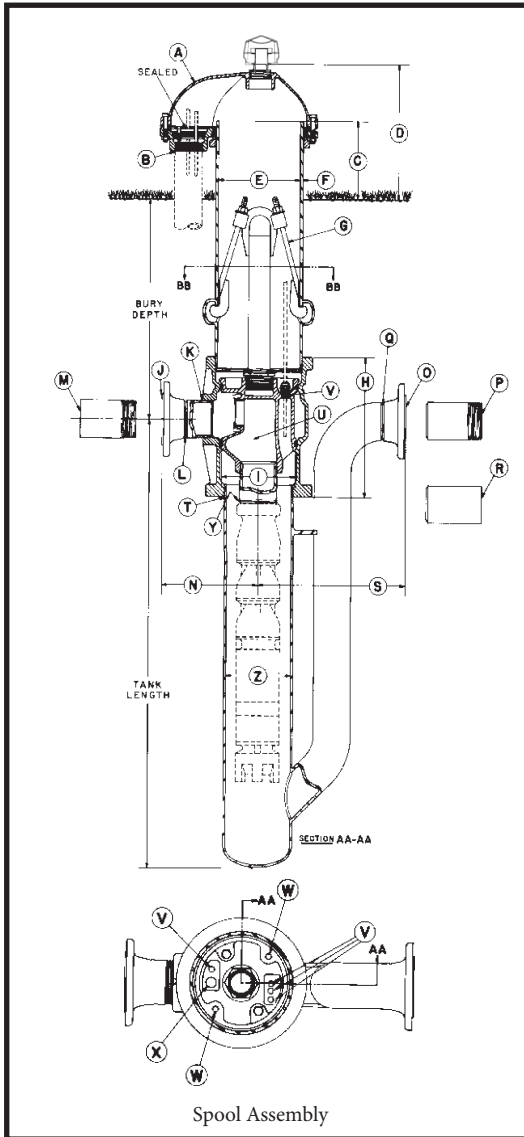
The diagram illustrates the meaning of the various letters and numerals used in Monitor® Standard Industrial Pitless Booster Unit ordering numbers. A typical order number and the Pitless Booster Unit it stands for are shown.

Typical Order Number

6PS810WBWX04F464FS

- 6** A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all Pitless Booster Units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.
- PS** These letters indicate the type of pump the Pitless Booster Unit is designed for. The unit shown is a PS for submersible pumps.
- 8** B. This numeral indicates the reservoir tank size is a 8" I.D.
- 10** C. This numeral indicates the upper pitless case size is a 10" I.D.
- W** D. Indicates the attachment to the tank is a welded joint.
- B** E. Indicates the upper pitless case is black pipe.
- W** F. Indicates the Pitless Booster Unit has a watertight cap with screened vent installed.
- X** G. Indicates motor cable passages are sealed.
- 0** This numeral indicates the number of in-line check valves the Pitless Booster Unit has. In this case it has zero in-line check valves (0 or 1).
- 4** H. Indicates the size of drop pipe in inches.
- F** I. Indicates the discharge connection is flanged. Other options are welded, threaded, and mechanical joint with or without transition sleeve.
- 4** J. Indicates the size of discharge pipe in inches.
- 6** K. Indicates the length of the reservoir tank in feet; is measured from the center of the discharge line to the bottom of the Pitless Booster Unit.
- 4** L. Indicates the inlet connection diameter in inches.
- F** M. Indicates the inlet pipe connection is flanged.
- S** N. Sealed conduit connection.

8" PITLESS BOOSTER SPECIFICATIONS



A	Seal cap: The watertight cap bolts to a compression seal ring securing around the pitless casing.
B	Conduit tapping size (standard)..... 3"
C	Distance from ground level to top of pitless case:..... 12"
D	Distance from ground level to top of well cap:..... 18 ⁷ / ₈ "
E	Pitless case size:..... 10"
F	Pitless case wall thickness:..... 0.365"
G	"Hold-down-lift out assembly": Positions and clamps spool to discharge body to prevent rotation during pump start up Hold-down-lift-out pipe size:..... 2" Designed "lift-out" assembly load:..... 15,000 lb
H	Discharge body length: 14 ¹ / ₈ " O.D. x 13 ¹ / ₂ "
I	Pitless unit minimum I.D.:..... 9 ⁷ / ₈ "
DISCHARGE CONNECTIONS AND SIZES	
J	Flanged A.S.A. standard 150 lb..... 4" I.D.
K	Threaded nipple NPT..... 4" I.D.
L	Butt weld..... 4" I.D.
M	Transition sleeve..... 4" I.D.
N	Dimension from center of Pitless Booster Unit to end of discharge outlet (J) Flanged discharge..... 12" (K) Threaded discharge: 6 ³ / ₁₆ " (L) Welded discharge: 9" (M) Transition discharge: 20"
INLET CONNECTIONS AND SIZES	
O	Flanged A.S.A. standard 150 lb..... 4" I.D.
P	Threaded nipple NPT..... 4" I.D.
Q	Butt weld..... 4" I.D.
R	Transition sleeve..... 4" I.D.
S	Dimension from center of Pitless Booster Unit to end of inlet connection (O) Flanged inlet..... 18 ³ / ₁₆ " (P) Threaded inlet..... 18 ³ / ₁₆ " (Q) Welded inlet..... 15 ³ / ₁₆ " (R) Transition inlet..... 27"
T	Discharge body to tank pipe connection..... Welded
U	SPOOL ASSEMBLY Spool design load:..... 88,000 lb Area of water passages: 15.8 in ² Percent area of water passages to area drop pipe:..... 124 %
V	Motor cable tappings through spool <i>with cable connectors</i> (4) 1/2" NPT Maximum allowable..... (6) 1/2" NPT
W	Tapping into pressure zone <i>furnished with square head plug</i> 3/8" NPT
X	Tapping into suction zone- <i>Air release access furnished with square head plug</i> 1"
Y	Spool to drop pipe nipple connection..... 4" NPT
Z	Tank pipe size:..... 8" I.D.

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

COMPONENT MATERIALS

Cap-cast iron, green enamel finish.

Combination Hold-Down & Lift-Out Mechanism -

Hold-Down Pipe-steel, corrosion resistant coating.

Pitless Case-steel, black corrosion resistant coating.

Spool-cast iron, lead free galvanized.

Discharge Body-ductile or cast Iron, lead free galvanized.

Conduit Seal & O-rings-Neoprene.

Tank & Inlet Pipes-steel, black corrosion resistant coating.

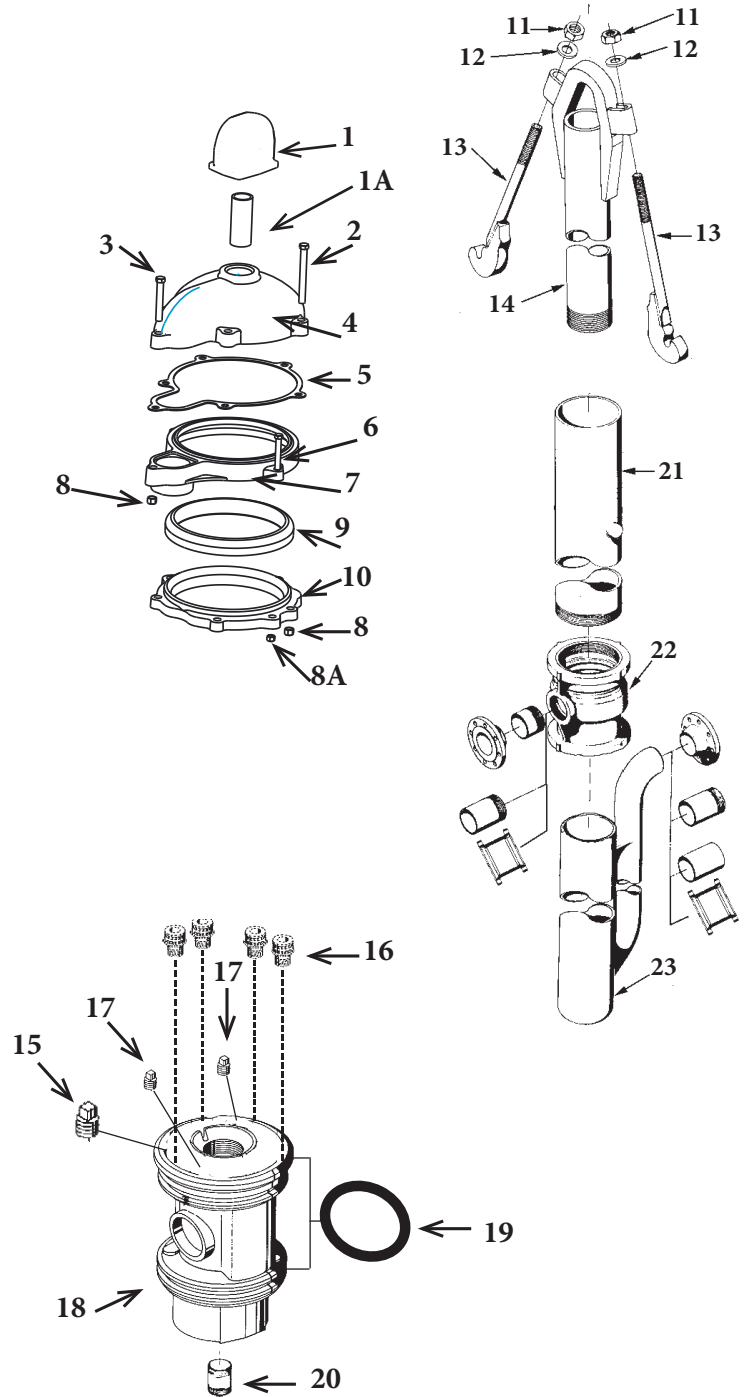
NOTE: inlet pipe & tank pipe tested to 200 psi, spool discharge pressure tested to 300 psi (Higher pressures can be accommodated with backup rings, please contact factory)

BB134-8(03-2014)



8" PITLESS BOOSTER PARTS BREAKDOWN

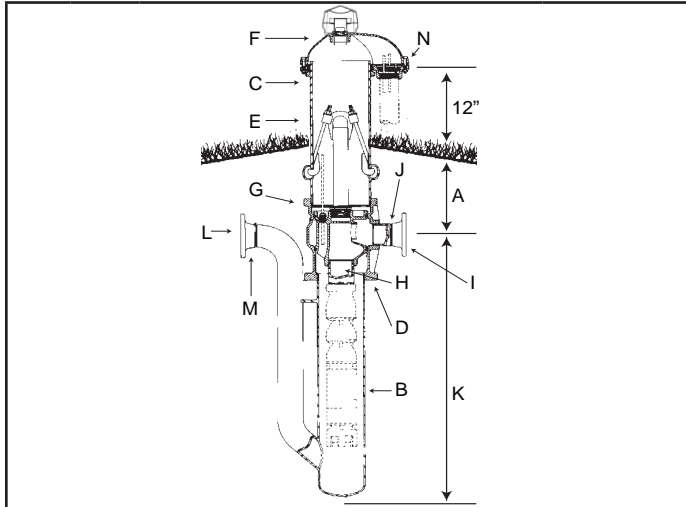
No.	Order No.	Description	Qty
1	74PS	Vent	1
1A	PS365	2½" x 6" Nipple	1
2	PS221S	Machine Bolt, ½-13NC x 4½"L.	6
3	APC7S	Machine Bolt, ½-13NC x 3"L.	1
4	PS350	Seal Cap/Plug Assembly	1
5	PS342	Gasket	1
6	PS111S	Machine Bolt, ½-13NC x 2½"L.	3
7	PS341	Retainer Ring	1
8	PC433S	Hex Nut, ½-13NC	10
8A	PC434S	Hex Nut, ¾-18NC	2
9	PS170	Seal Ring	1
10	PS189	Depression Ring	1
11	N75	Hex Nut, ¾-10NC	2
12	WA75	Washer	2
13	UG7BH	Hold-Down Hook	2
14	----	Lift-Out Pipe/Bail Assembly Note: Must be ordered by description/unit serial number	1
15	UN120	Pipe Plug, 1" NPT-Galvanized	1
16	----	Cable Connectors Note: Must be ordered by description/unit serial number	4
17	UN122	Pipe Plug, ¾-18NPT	2
18	10E0PSF	Spool Assembly Includes Nos. 15, 17, 18, and 19	1
19	UG15	O-ring	2
20	UK251	Pipe Nipple, 4"NPT x 6"L.	1
21	----	Casing	1
22	UG3	Discharge Body, FIP discharge outlet standard Note: Must be ordered by description/unit serial number	1
23	----	Tank/Inlet Pipe Assembly Note: Must be ordered by description/unit serial number	1



ANY ORDER FOR REPAIR PARTS MUST BE ACCOMPANIED BY THE PITLESS UNIT SERIAL NUMBER AND ORDER NUMBER

OM-5200-8(03-2014)

10" PITLESS BOOSTER UNIT



DESCRIPTION-ORDERING NUMBERS

A	6	Bury Depth in Feet	
	PS	Pitless Booster for Submersible Pump	
B	10	Reservoir Tank Size - inches	
C	12	Upper Case Size - inches	
D	W	Welded Joint	
E	B	Black Upper Case	
F	W	Watertight Cap	
G	X	Motor Cable Passages-Sealed	
	0	Check Valves	
H	6	Size of Drop Pipe in inches (6" std)	
I		Welded	Accessory Discharge Connects
	F	Flange, ASA 150 lb	
		Threaded NPT	
		Mechanical Joint (Plain End)	
		MS=Mech. Joint w/Transition Sleeve	
J	6	Size of Discharge Pipe - inches (6" std)	
K	6	Length of Reservoir Tank-Feet	
L	6	Inlet Pipe Size - inches (6" std)	
M		Welded	Accessory Inlet Pipe Connects
	F	Flange, ASA 150 lb	
		Threaded NPT	
		Mechanical Joint (Plain End)	
		MS=Mech. Joint w/Transition Sleeve	
	E	Standard Unit	
N	S	Elec. Cable Seals (S) O.D. 3 Wire _____ O.D. Grounding Wire _____	
		Special Provision (X)	

UNITS AVAILABLE BY QUOTATION ONLY
5" THROUGH 36" TANK SIZES

EXPLANATION OF PITLESS BOOSTER UNIT ORDERING NUMBERS

The diagram illustrates the meaning of the various letters and numerals used in Monitor® Standard Industrial Pitless Booster Unit ordering numbers. A typical order number and the Pitless Booster Unit it stands for are shown.

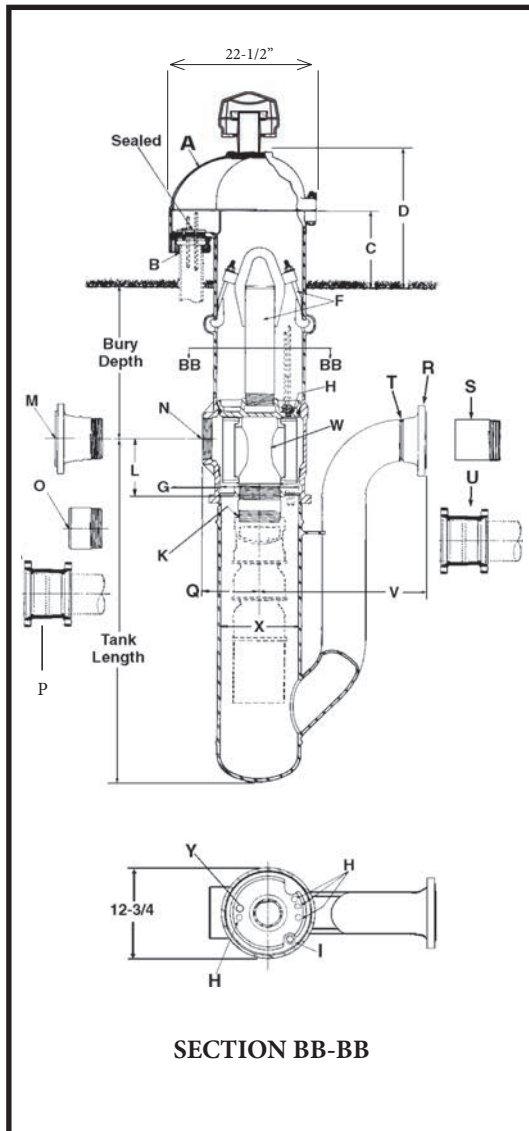
Typical Order Number

6PS1012WBWX06F666FES

- 6** A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all Pitless Booster Units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.
- PS** These letters indicate the type of pump the Pitless Booster Unit is designed for. The unit shown is a PS for submersible pumps.
- 10** B. This numeral indicates the reservoir tank size is a 10" I.D.
- 12** C. This numeral indicates the upper pitless case size is a 12" I.D.
- W** D. Indicates the attachment to the tank is a welded joint.
- B** E. Indicates the upper pitless case is black pipe.
- W** F. Indicates the Pitless Booster Unit has a watertight cap.
- X** G. Indicates spool passages are closed.
- 0** This numeral indicates the number of in-line check valves the Pitless Booster Unit has. In this case it has zero in-line check valves (0 or 1).
- 6** H. Indicates the size of drop pipe in inches.
- F** I. Indicates the discharge connection is flanged. Other options are welded, threaded, and mechanical joint with or without transition sleeve.
- 6** J. Indicates the size of discharge pipe in inches.
- 6** K. Indicates the length of the reservoir tank in feet; is measured from the center of the discharge line to the bottom of the Pitless Booster Unit.
- 6** L. Indicates the inlet connection diameter in inches.
- F** M. Indicates the inlet pipe connection is flanged.
- E** Indicates this is a standard unit.
- S** N. Sealed conduit connection.



10" PITLESS BOOSTER SPECIFICATIONS



A	Seal cap: The watertight cap bolts to a compression seal ring securing around the pitless casing.		
B	Conduit tappings:	3" NPT	
C	Distance from ground level to top of pitless case:	12"	
D	Distance from ground level to top of seal cap:	23"	
E	Pitless case size:	12" I.D. 12 3/4" O.D.	
F	"Hold-down lift out assembly": Positions and clamps spool to discharge body to prevent rotation during pump start up		
	Hold-down lift-out pipe size:	4" NPT	
	Designed "lift-out" assembly load:	60,000 lb	
	<i>(2) hold-down hooks supplied</i>		
G	Pitless Unit minimum I.D.:	10"	
H	Motor cable tappings through spool <i>with cable connectors</i> :	(4) 1/2"	
I	Tapping into pressure zone <i>furnished with square head plug</i> :	3/8" NPT	
K	SPOOL TO DROP PIPE THREAD SIZES:	4" NPT	5" NPT 6" NPT
L	Dimension from center of discharge outlet to bottom of spool	12 1/8"	12" 11 1/8"
	DISCHARGE CONNECTIONS AND SIZES:		
M	Flanged A.S.A. standard 150 lb	4" I.D.	5" I.D. 6" I.D.
N	Threaded nipple NPT	4" I.D.	5" I.D. 6" I.D.
O	Butt weld	4" I.D.	5" I.D. 6" I.D.
P	Transition sleeve	4" I.D.	NA 6" I.D.
Q	Dimension from center of Pitless Booster Unit to the end of discharge outlet		
	(M) Flanged discharge	15 1/4"	15 1/2" 15 5/16"
	(N) Threaded discharge	10 5/32"	10 5/32" 9 1/8"
	(O) Welded Discharge	12 7/32"	12 1/2" 12 1/16"
	(P) Transition discharge	24"	NA 22"
	INLET CONNECTIONS AND SIZES		
R	Flanged A.S.A. standard 150 lb	4" I.D.	5" I.D. 6" I.D.
S	Threaded nipple NPT	4" I.D.	5" I.D. 6" I.D.
T	Butt weld	4" I.D.	5" I.D. 6" I.D.
U	Transition sleeve	4" I.D.	NA 6" I.D.
V	Dimension from center of Pitless Booster Unit to end of inlet connection		
	(R) Flanged inlet:	30 3/16"	30 11/16" 25 3/16"
	(S) Threaded inlet:	30 3/16"	30 3/16" 25 11/16"
	(T) Welded inlet:	27 3/16"	27 3/16" 21 11/16"
	(U) Transition inlet:	39"	NA 34"
W	SPOOL ASSEMBLY		
	Area of water passages	25.12 in ²	25.12 in ² 25.12 in ²
	Percent area of water passages to area of drop pipe	197%	125% 87%
X	Tank pipe size:	10" I.D.	10" I.D. 10" I.D.
Y	Tapping into suction zone-air release access	1" NPT	1" NPT 1" NPT

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

COMPONENT MATERIALS

Tank & inlet pipes-steel, black corrosion resistant coating.
Cap-cast iron, green enamel finish.

Conduit connector-cast iron, green enamel finish.

Combination hold-down & lift-out assembly-galvanized

Hold-down pipe-steel, black corrosion resistant coating.

Pitless case-steel, black corrosion resistant coating.

Discharge body-ductile iron, lead free galvanized.

Spool-steel, lead free galvanized.

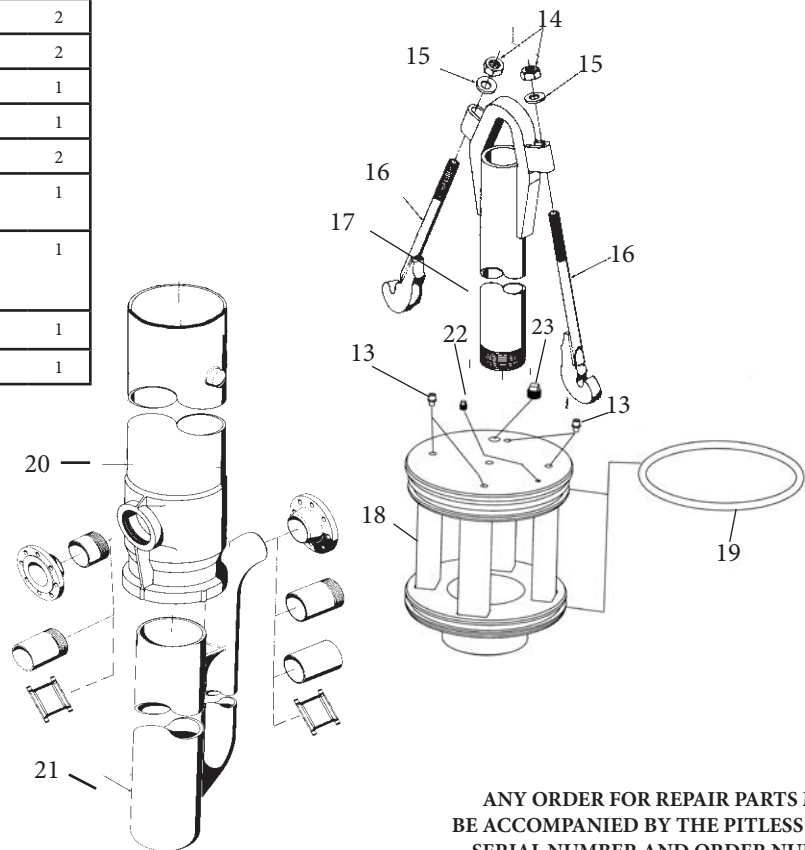
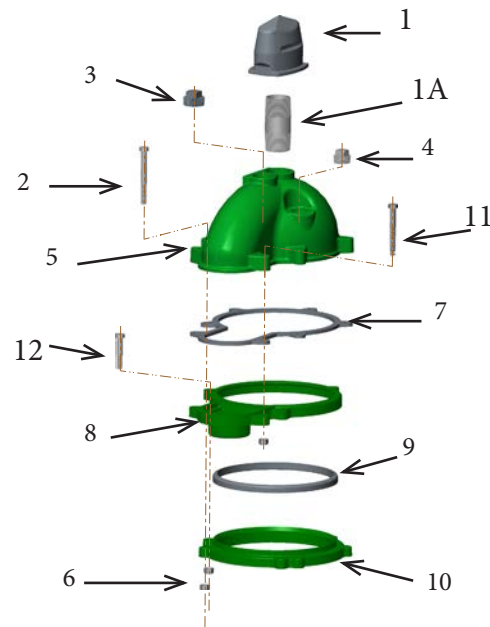
NOTE: Inlet pipe & tank pipe tested to 200 psi, spool discharge pressure tested to 300 psi (Higher pressures can be accommodate with backup rings, please contact factory)

NOTE: Any combination between drop pipe and discharge outlet size is possible if required.

BB132-10(03-2014)

10" PITLESS BOOSTER PARTS BREAKDOWN

No.	Order No.	Description	Qty
1	74PS	Vent	1
1A	PS365	2½" x 6" Nipple	1
2	LK4S	Lock Bolt, ⅝"-11NC x 4¼"L.	2
3	UJ50	Pipe Plug, 2"NPT	1
4	UG54	Pipe Plug, 1½"NPT	1
5	UK12	Seal Cap (UK850)	1
6	PC286S	Hex Nut, ⅝"-11NC	10
7	UK72	Gasket	1
8	UJ174	Retainer Ring	1
9	UJ176	Seal Ring	1
10	UJ175	Depression Ring	1
11	KP145S	Hex Head Cap Screw, ⅝"-11NC x 6"L.	5
12	UJ177S	Hex Head Cap Screw, ⅝"-11NC x 3½"L.	3
13	----	Cable Connectors Note: Must be ordered description/unit serial number	4
14	N75	Hex Nut, ¾"-10NC	2
15	WA75	Washer	2
16	UJ7BH	Hold Down Hook	2
17	----	Lift-Out Pipe/Bail Assembly (order by bury depth)	1
18	12E0PSF	Spool Assembly Includes Nos. 18, 19, 22, and 23	1
19	UJ15	O-ring	2
20	----	Discharge Body/Upper Case Assembly (order by bury depth)	1
21	----	Tank/Inlet Pipe Assembly Note: Must be ordered by description/unit serial number	1
22	UN122	Pipe Plug, ⅜"-18NPT	1
23	UN120	Pipe Plug, 1"NPT	1

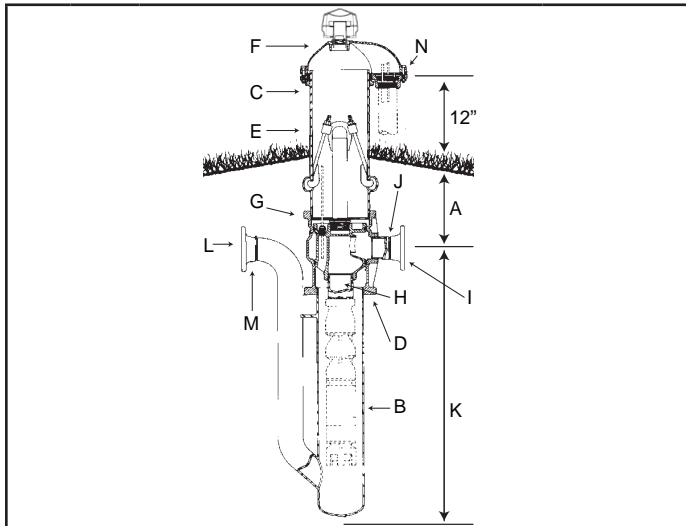


**ANY ORDER FOR REPAIR PARTS MUST
BE ACCOMPANIED BY THE PITLESS UNIT
SERIAL NUMBER AND ORDER NUMBER**

OM1427-10(03-2014)



12" PITLESS BOOSTER UNIT



DESCRIPTION-ORDERING NUMBERS

A	6	Bury Depth in Feet	
	PS	Pitless Booster for Submersible Pump	
B	12	Reservoir Tank Size - inches	
C	14	Upper Case Size - inches	
D	W	Welded	
E	B	Black Upper Case	
F	W	Watertight Cap	
G	X	Motor Cable Passages-Sealed	
	0	Check Valves	
H	6	Size of Drop Pipe in inches (6" std)	
I		Welded	Accessory Discharge Connects
	F	Flange, ASA 150 lb	
		Threaded NPT	
		Mechanical Joint (Plain End)	
		MS=Mech. Joint w/Transition Sleeve	
J	6	Size of Discharge Pipe - inches (6" std)	
K	6	Length of Reservoir Tank-Feet	
L	6	Inlet Pipe Size - inches (6" std)	
M		Welded	Accessory Inlet Pipe Connects
	F	Flange, ASA 150 lb	
		Threaded NPT	
		Mechanical Joint (Plain End)	
		MS=Mech. Joint w/Transition Sleeve	
	E	Standard Unit	
N	S	Elec. Cable Seals (S)	
		O.D. 3 Wire _____ O.D. Grounding Wire_____	
		Special Provision (X)	

UNITS AVAILABLE BY QUOTATION ONLY
5" THROUGH 36" TANK SIZES

EXPLANATION OF PITLESS BOOSTER UNIT ORDERING NUMBERS

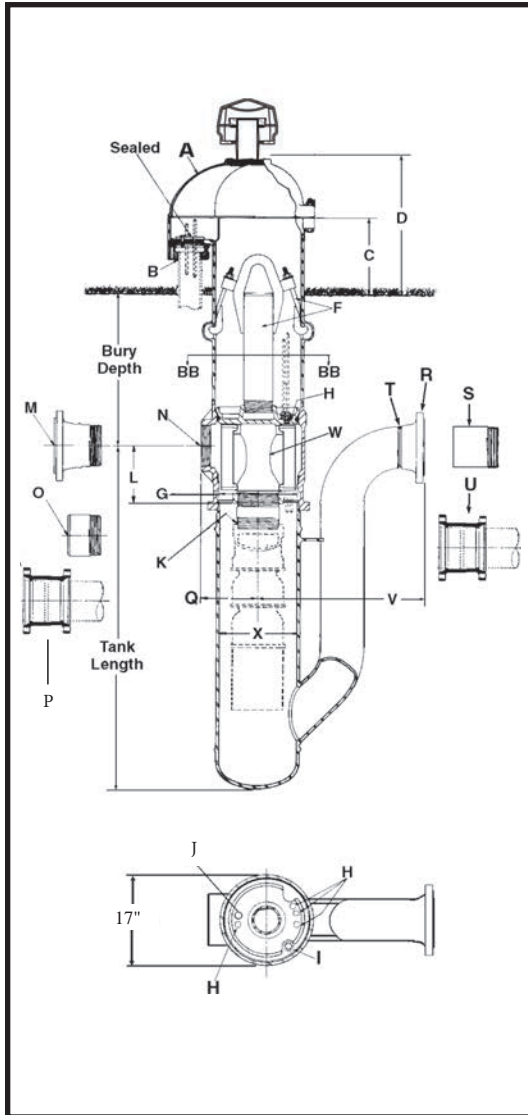
The diagram illustrates the meaning of the various letters and numerals used in Monitor® Standard Industrial Pitless Booster Unit ordering numbers. A typical order number and the Pitless Booster Unit it stands for are shown.

Typical Order Number

6PS1214WBWX06F666FES

- 6** A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all Pitless Booster Units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.
- PS** These letters indicate the type of pump the Pitless Booster Unit is designed for. The unit shown is a PS for submersible pumps.
- 12** B. This numeral indicates the reservoir tank size is a 12" I.D.
- 14** C. This numeral indicates the upper pitless case size is a 14" O.D.
- W** D. Indicates the attachment to the tank is a welded joint.
- B** E. Indicates the upper pitless case is black pipe.
- W** F. Indicates the Pitless Booster Unit has a watertight cap.
- X** G. Indicates spool passages are closed.
- 0** This numeral indicates the number of in-line check valves the Pitless Booster Unit has. In this case it has zero in-line check valves (0 or 1).
- 6** H. Indicates the size of drop pipe in inches.
- F** I. Indicates the discharge connection is flanged. Other options are welded, threaded, and mechanical joint with or without transition sleeve.
- 6** J. Indicates the size of discharge pipe in inches.
- 6** K. Indicates the length of the reservoir tank in feet; is measured from the center of the discharge line to the bottom of the Pitless Booster Unit.
- 6** L. Indicates the inlet connection diameter in inches.
- F** M. Indicates the inlet pipe connection is flanged.
- E** Indicates this is a standard unit.
- S** N. Sealed conduit connection.

12" PITLESS BOOSTER SPECIFICATIONS



A	Seal cap: The watertight cap bolts to a compression seal ring securing around the pitless casing.		
B	Conduit tapplings:	2" and 1" NPT	
	Also available with single 2", 3", or 4" NPT		
C	Distance from ground level to top of pitless case:	12"	
D	Distance from ground level to top of seal cap:	22 1/16"	
E	Pitless case size:	13 1/8" I.D. 14" O.D.	
F	"Hold-down lift out assembly": Positions and clamps spool to discharge body to prevent rotation during pump start up		
	Hold-down lift-out pipe size:	4" NPT	
	Designed "lift-out" assembly load:	60,000 lb	
	(2) hold-down hooks supplied		
G	Pitless Unit minimum I.D.:	12"	
H	Motor cable tapplings through spool with cable connectors:	(4) 1/2"	
I	Tapping into pressure zone-air release access furnished with square head plug:	3/8" NPT	
J	Tapping into suction zone-air release access furnished with square head plug:	1" NPT	
K	SPOOL TO DROP PIPE THREAD SIZES:	4" NPT	5" NPT 6" NPT
L	Dimension from center of discharge outlet to bottom of spool	12 7/8"	12" 11 3/4"
	DISCHARGE CONNECTIONS AND SIZES:		
M	Flanged A.S.A. standard 150 lb	4" I.D.	5" I.D. 6" I.D.
N	Threaded nipple NPT	4" I.D.	5" I.D. 6" I.D.
O	Butt weld	4" I.D.	5" I.D. 6" I.D.
P	Transition sleeve	4" I.D.	5" I.D. 6" I.D.
Q	Dimension from center of Pitless Booster Unit to the end of discharge outlet		
	(M) Flanged discharge	21 1/2"	22" 16 7/16"
	(N) Threaded discharge	21 7/16"	21 7/16" 16 15/16"
	(O) Welded Discharge	18 1/2"	18 1/2" 12 15/16"
	(P) Transition discharge	30"	NA 25"
	INLET CONNECTIONS AND SIZES		
R	Flanged A.S.A. standard 150 lb	4" I.D.	5" I.D. 6" I.D.
S	Threaded nipple NPT	4" I.D.	5" I.D. 6" I.D.
T	Butt weld	4" I.D.	5" I.D. 6" I.D.
P	Transition sleeve	4" I.D.	5" I.D. 6" I.D.
V	Dimension from center of Pitless Booster Unit to end of inlet connection		
	(R) Flanged inlet:	30 5/8"	30 5/8" 25 1/16"
	(S) Threaded inlet:	30 5/8"	30 5/8" 25 9/16"
	(T) Welded inlet:	27 1/16"	27 1/16" 21 9/16"
	(U) Transition inlet:	39"	NA 34"
W	SPOOL ASSEMBLY		
	Area of water passages	25.12 in ²	25.12 in ² 25.12 in ²
	Percent area of water passages to area of drop pipe	100%	125% 87%
X	Tank pipe size:	12" I.D.	12" I.D. 12" I.D.

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

COMPONENT MATERIALS

Tank & Inlet Pipes-steel, black corrosion resistant coating.

Cap-cast iron, green enamel finish.

Conduit Connector-cast iron, green enamel finish.

Combination Hold-Down & Lift-Out Assembly-galvanized

Hold-Down Pipe-steel, black corrosion resistant coating.

Pitless Case-steel, black corrosion resistant coating.

Discharge Body-ductile iron, lead free galvanized.

Spool-steel, lead free galvanized.

NOTE: Inlet pipe & tank pipe tested to 200 psi, spool discharge pressure tested to 300 psi (Higher pressures can be accommodate with backup rings, please contact factory)

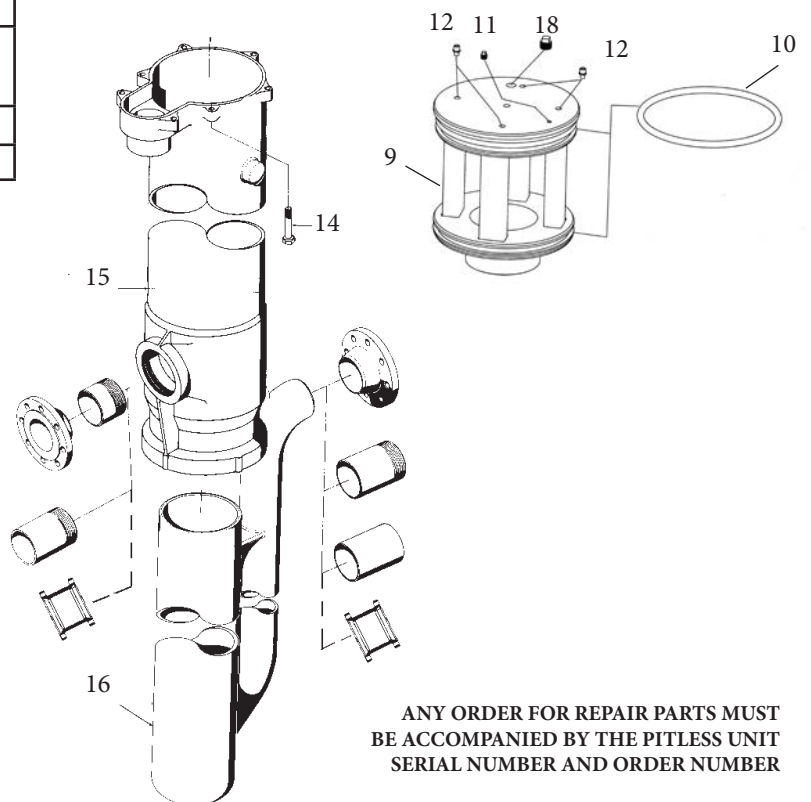
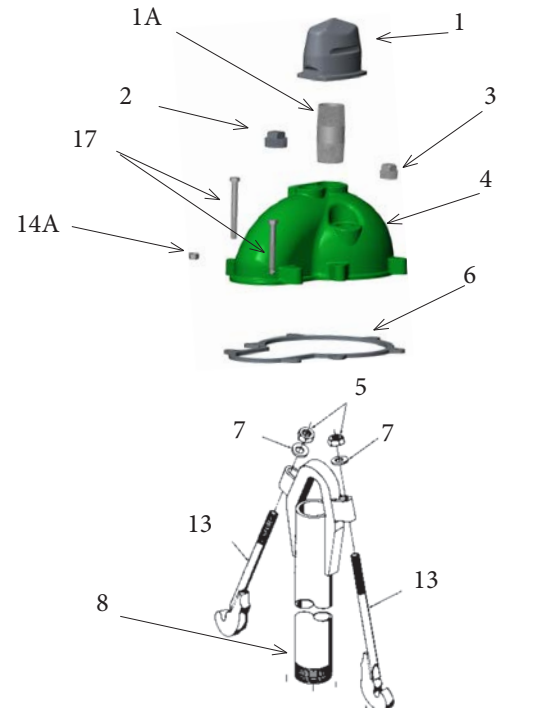
NOTE: Any combination between drop pipe and discharge outlet size is possible if required.

BB136-12(03-2014)



12" PITLESS BOOSTER PARTS BREAKDOWN

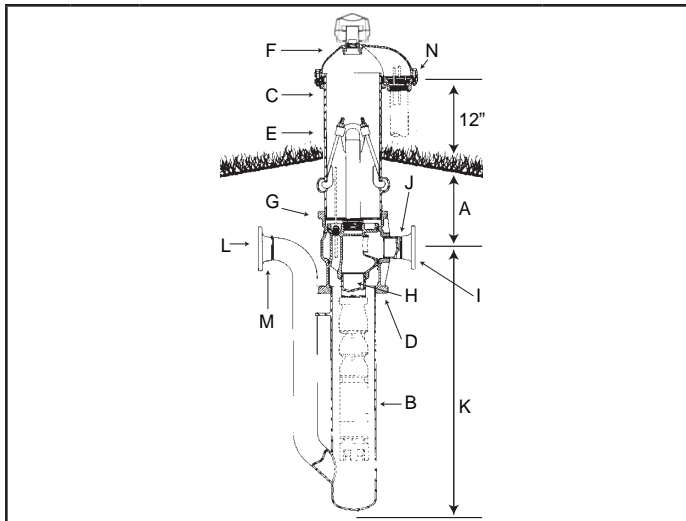
No.	Order No.	Description	Qty
1	74PS	Vent	1
1A	PS365	2½" x 6" Nipple	1
2	UJ50	Pipe Plug, 2"NPT	1
3	UG54	Pipe Plug, 1½"NPT	1
4	UK12	Seal Cap (UK850)	1
5	N75	Hex Nut, ¾-10NC	2
6	UK72	Gasket	1
7	WA75	Washer	2
8	----	Lift Out Bail/Lift Out Pipe Assembly (order by bury depth)	1
9	14E0PSF	Spool Assembly Includes Nos. 9, 10, 11, and 18	1
10	UK15	O-ring	2
11	UN122	Pipe Plug, ¾-18NPT	1
12	----	Cable Connectors Note: Must be ordered by description/unit serial number	4
13	UJ7BH	Hold-Down Hook	2
14	UN73	Hex Hd. Cap screw, ⅝-11HC x 5"L.	5
14A	PC2865	Hex Nut, ⅝-11NC	7
15	----	Discharge Body/Upper Casing Assembly (order by bury depth)	1
16	----	Inlet Pipe/Tank Assembly Note: Must be ordered by description/unit serial number	1
17	LK4	Lock Bolt, ⅝ x 4¾"L.	2
18	UN120	Pipe Plug, 1"NPT	1



ANY ORDER FOR REPAIR PARTS MUST BE ACCOMPANIED BY THE PITLESS UNIT SERIAL NUMBER AND ORDER NUMBER

OM5208-12(03-2014)

16" PITLESS BOOSTER UNIT



DESCRIPTION-ORDERING NUMBERS

A	6	Bury Depth in Feet	
	PS	Pitless Booster for Submersible Pump	
B	16	Reservoir Tank Size - inches	
C	18	Upper Case Size - inches	
D	W	Welded	
E	B	Black Upper Case	
F	W	Watertight Cap	
G	X	Motor Cable Passages-Sealed	
	0	Check Valves	
H	8	Size of Drop Pipe in inches (8" std)	
I		Welded	Accessory Discharge Connects
	F	Flange, ASA 150 lb	
		Threaded NPT	
		Mechanical Joint (Plain End)	
	MS=Mech. Joint w/Transition Sleeve		
J	8	Size of Discharge Pipe - inches (8" std)	
K	6	Length of Reservoir Tank-Feet	
L	8	Inlet Pipe Size - inches (8" std)	
M		Welded	Accessory Inlet Pipe Connects
	F	Flange, ASA 150 lb	
		Threaded NPT	
		Mechanical Joint (Plain End)	
	MS=Mech. Joint w/Transition Sleeve		
	E	Standard Unit	
N	S	Elec. Cable Seals (S) O.D. 3 Wire _____ O.D. Grounding Wire_____	
		Special Provision (X)	

UNITS AVAILABLE BY QUOTATION ONLY
6" THROUGH 36" TANK SIZES

EXPLANATION OF PITLESS BOOSTER UNIT ORDERING NUMBERS

The diagram illustrates the meaning of the various letters and numerals used in Monitor® Standard Industrial Pitless Booster Unit ordering numbers. A typical order number and the Pitless Booster Unit it stands for are shown.

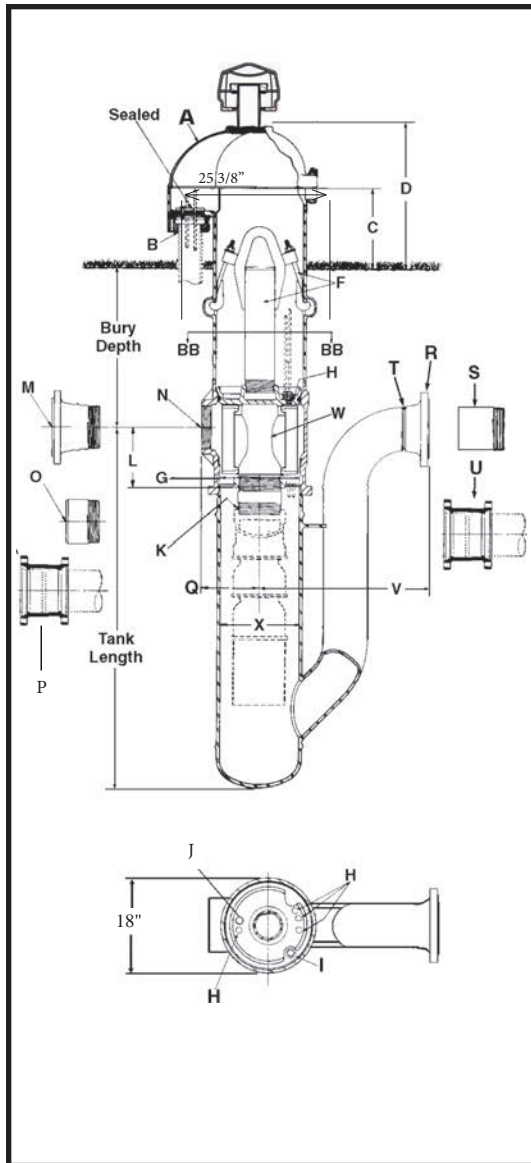
Typical Order Number

6PS1618WBWX08F868FES

- 6** A. The first numeral in the order number indicates the bury depth in feet. Bury depth on all Pitless Booster Units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes. However, any length can be manufactured.
- PS** These letters indicate the type of pump the Pitless Booster Unit is designed for. The unit shown is a PS for submersible pumps.
- 16** B. This numeral indicates the reservoir tank size is a 16" O.D.
- 18** C. This numeral indicates the upper pitless case size is a 18" O.D.
- W** D. Indicates the attachment to the tank is a welded joint.
- B** E. Indicates the upper pitless case is black pipe.
- W** F. Indicates the Pitless Booster Unit has a watertight cap.
- X** G. Indicates spool passages are closed.
- 0** This numeral indicates the number of in-line check valves the Pitless Booster Unit has. In this case it has zero in-line check valves (0 or 1).
- 8** H. Indicates the size of drop pipe in inches.
- F** I. Indicates the discharge connection is flanged. Other options are welded, threaded, and mechanical joint with or without transition sleeve.
- 8** J. Indicates the size of discharge pipe in inches.
- 6** K. Indicates the length of the reservoir tank in feet; is measured from the center of the discharge line to the bottom of the Pitless Booster Unit.
- 8** L. Indicates the inlet connection diameter in inches.
- F** M. Indicates the inlet pipe connection is flanged.
- E** Indicates this is a standard unit.
- S** N. Sealed conduit connection.



16" PITLESS BOOSTER SPECIFICATIONS



A	Seal cap: The watertight cap bolts to a compression seal ring securing around the pitless casing.		
B	Conduit tappings: 2" and 1" NPT		
C	Distance from ground level to top of pitless case: 12"		
D	Distance from ground level to top of seal cap: 21 13/16"		
E	Pitless case size: 17 1/4" I.D. 18" O.D.		
F	"Hold-down-lift out assembly": Positions and clamps spool to discharge body to prevent rotation during pump start up		
	Hold-down-lift-out pipe size: 5" Welded		
	Designed "lift-out" assembly load: 110,000 lb		
	(4) hold-down hooks supplied		
G	Pitless Unit minimum I.D.: 15 1/4"		
H	Motor cable tappings through spool with cable connectors: (4) 1/2"		
I	Tapping into pressure zone furnished with square head plug: 3/8" NPT		
J	Tapping into suction zone-air release access furnished with square head plug: 1" NPT		
K	SPOOL TO DROP PIPE THREAD SIZES: 4" NPT	6" NPT	8" NPT
L	Dimension from center of discharge outlet to bottom of spool 15 5/8"	16 5/8"	10 5/8"
	DISCHARGE CONNECTIONS AND SIZES:		
M	Flanged A.S.A. standard 150 lb 4" I.D.	6" I.D.	8" I.D.
N	Threaded nipple NPT 4" I.D.	6" I.D.	8" I.D.
O	Butt weld 4" I.D.	6" I.D.	8" I.D.
P	Transition sleeve 4" I.D.	6" I.D.	8" I.D.
Q	Dimension from center of Pitless Booster Unit to the end of discharge outlet		
	(M) Flanged discharge 18 23/32"	18 23/32"	17 13/16"
	(N) Threaded discharge 12 5/32"	15 5/32"	11"
	(O) Welded Discharge 14 7/16"	15 7/32"	13 13/16"
	(P) Transition discharge NA	25"	26"
	INLET CONNECTIONS AND SIZES		
R	Flanged A.S.A. standard 150 lb 4" I.D.	6" I.D.	8" I.D.
S	Threaded nipple NPT 4" I.D.	6" I.D.	8" I.D.
T	Butt weld 4" I.D.	6" I.D.	8" I.D.
U	Transition sleeve 4" I.D.	6" I.D.	8" I.D.
V	Dimension from center of Pitless Booster Unit to end of inlet connection		
	(R) Flanged inlet: 36 7/8"	36 7/8"	31 3/8"
	(S) Threaded inlet: 36 3/8"	37 3/8"	31 3/8"
	(T) Welded inlet: 33 3/8"	33 3/8"	27 3/8"
	(U) Transition inlet: NA	45"	39"
W	SPOOL ASSEMBLY		
	Area of water passages 41.25 in ²	41.25 in ²	41.25 in ²
	Percent area of water passages to area of drop pipe 206%	143%	82%
X	Tank pipe size: 15 1/4" I.D.	15 1/4" I.D.	15 1/4" I.D.

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

COMPONENT MATERIALS

Tank & Inlet Pipes-steel, black corrosion resistant coating.

Cap-cast iron, green enamel finish.

Conduit Connector-cast iron, green enamel finish.

Combination Hold-Down & Lift-Out Assembly-galvanized

Hold-Down Pipe-steel, black corrosion resistant coating.

Pitless Case-steel, black corrosion resistant coating.

Discharge Body-ductile iron, lead free galvanized.

Spool-steel, lead free galvanized.

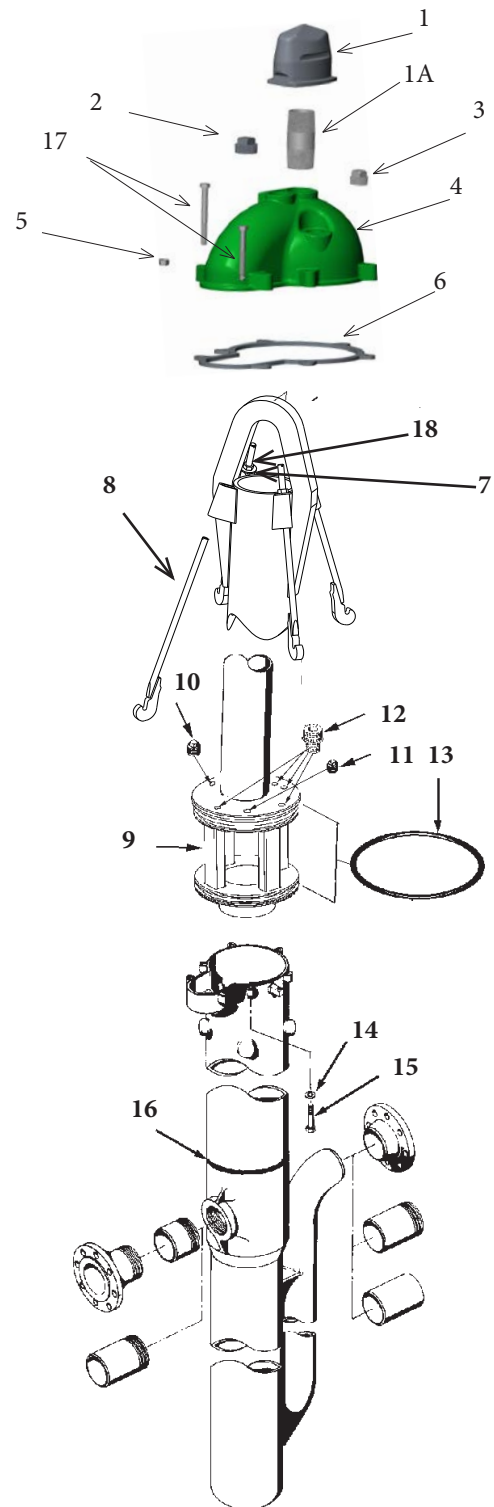
NOTE: Inlet pipe & tank pipe tested to 200 psi, spool discharge pressure tested to 300 psi (Higher pressures can be accommodate with backup rings, please contact factory)

NOTE: Any combination between drop pipe and discharge outlet size is possible if required.

BB135-16(03-2014)

16" PITLESS BOOSTER PARTS BREAKDOWN

No.	Order No.	Description	Qty
1	74PS	Vent	1
1A	PS365	2½" x 6" Nipple	1
2	UJ50	Pipe Plug, 2"NPT	1
3	UG54	Pipe Plug, 1½"NPT	1
4	UM1	Seal Cap (UM850)	1
5	PC286S	Hex Nut, ¾"-11NC, SS	8
6	UM72	Gasket	1
7	WA75	Washer	4
8	UM7BH	Hold-Down Hook	4
9	----	Spool/Lift-Out Assembly Note: Must be ordered by description/unit serial number	1
10	UN120	Pipe Plug, 1" x 11½"NPT	1
11	UN122	Pipe Plug, ¾"-18NPT	1
12	----	Cable Connectors Note: Must be ordered by description/unit serial number	4
13	UM15	O-ring	2
14	UN81	Washer	8
15	UN73S	Head Cap Screw, ¾"-11NC x 5"L.	6
16	----	Inlet Pipe, Tank, Discharge Body/Upper Case Assembly	1
17	LK4S	Lock Bolt-¾ x 4¾"L.	2
18	N75	¾" Nut	4



ANY ORDER FOR REPAIR PARTS MUST BE ACCOMPANIED BY THE PITLESS UNIT SERIAL NUMBER AND ORDER NUMBER

OM5202-16(03-2014)



WELD-ON PITLESS ADAPTER



C USA
NSF / ANSI 372
LEAD FREE



Tear drop shaped bottom design for easy welding onto a steel casing
available in 8", 10" and 12" I.D. well sizes.

8123BEZLF Weld-On Pitless Adapter Pressure Drop Test (using an 80 GPM pump to supply water flow)			
Flow Rate (GPM)	Inlet Pressure (psi)	Outlet Pressure (psi)	Pressure Drop (psi)
40	4	3	1
60	5.5	4.5	1
80	8.5	7	1.5

8-20-2002 Data

WELD-ON PITLESS ADAPTERS



C USA
NSF / ANSI 372
LEAD FREE

WELD-ON PITLESS ADAPTER FOR 8", 10" & 12" I.D. WELL SIZES

FEATURES

- Durable fabricated steel housing - brass elbow, stainless steel discharge, large drain hole in the pull pipe port, 3" FIP pull pipe, 3" FIP drop pipe, 3" stainless steel MIP discharge and large O-ring seal.
- Designed to be welded onto 8", 10" and 12" I.D. steel casing.
- Designed for shallow or deep settings and high working pressures up to 300 psi.
- Durable steel housing with tear drop design for EZ bottom welding.
- Water contacts only 304 stainless steel and brass elbow for long term corrosion protection.
- No obstruction in the casing I.D. when the brass elbow is removed.
- Stainless steel 10° tapered slip fitting design on the elbow for easy installation and removal at time of servicing.
- Large O-ring neoprene seal.
- Large drain hole in the 3" FIP pull pipe port.
- Designed for 10,000 lb load.
- Also available factory welded to casing.

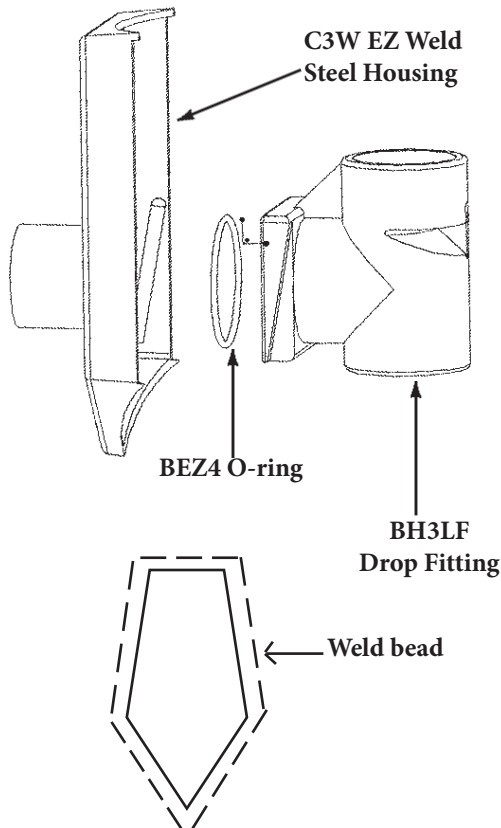


Weld-On Pitless Adapter				
Order No.	Well Size	Drop Pipe Size	Discharge Size	Weight (lbs.)
8123BEZLF	8", 10", 12" I.D.	3" Female NPT	3" Male NPT	27
83BEZLF	Kit for 8" x 18" L.	3" Female NPT	3" Male NPT	75
83BEZ6LF	Kit for 6"	3" Female NPT	3" Male NPT	90
103BEZLF	Kit for 10" x 18" L.	3" Female NPT	3" Male NPT	95
123BEZLF	Kit for 12" x 18" L.	3" Female NPT	3" Male NPT	115
8123BEZ6LF	8"-12" w/nipple 6" L.	3" Female NPT	3" Male NPT	30



WELD-ON PITLESS ADAPTERS

WELD-ON PITLESS ADAPTER FOR 8", 10" & 12" I.D. WELL SIZES



INSTALLATION INSTRUCTIONS

- Locate the template (provided) over the installation location on the steel pipe where you want to install the Monitor EZ Weld Pitless Adapter.
- Center punch at points A on the template.
- Connect all A points with A lines.
- Flame cut over lines. Note: Cut must be parallel with center line of pipe.
- After opening has been cut, pry out the cut casing at the bottom corner.
- BH3LF drop fitting must fit through the cut hole.
- Clean off all slag and burrs on the cut casing opening. Place the C3W EZ weld steel housing onto the opening. Tac the corners to hold the steel housing in place. Weld the top and sides to the steel casing. Note: See diagram.

8123BEZLF Weld-On Pitless Adapter Pressure Drop Test (using an 80 GPM pump to supply water flow)			
Flow Rate (GPM)	Inlet Pressure (psi)	Outlet Pressure (psi)	Pressure Drop (psi)
40	4	3	1
60	5.5	4.5	1
80	8.5	7	1.5

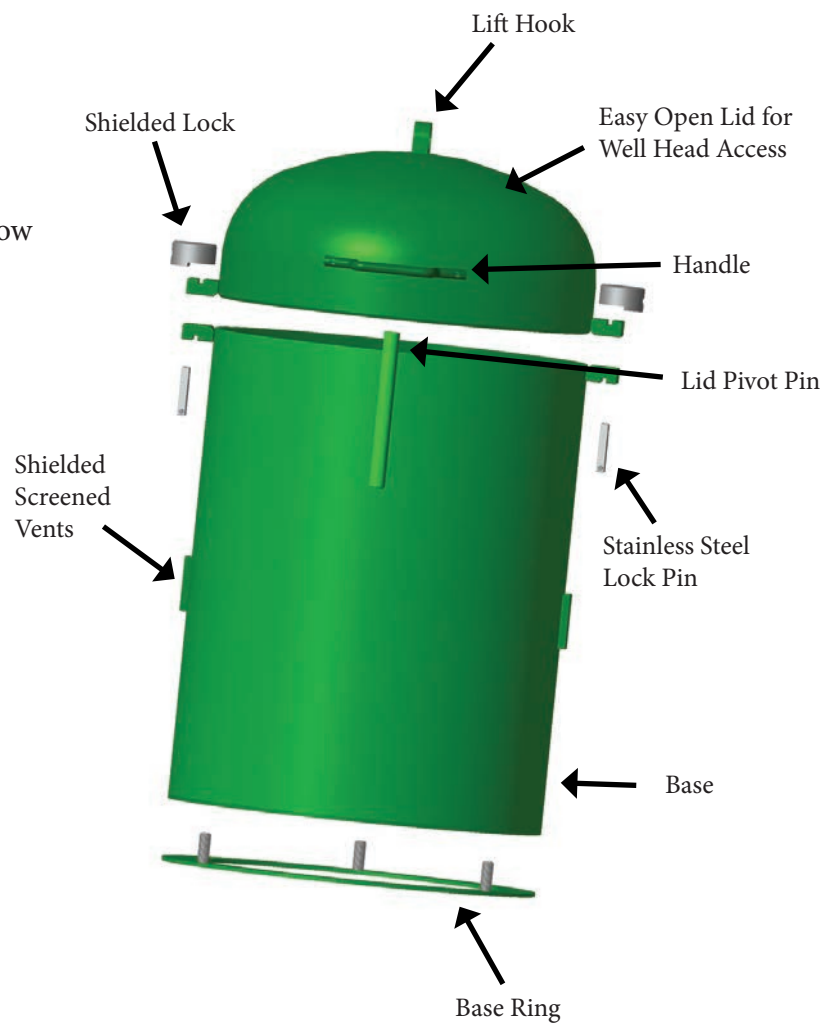
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PROTECTIVE WELL ENCLOSURE

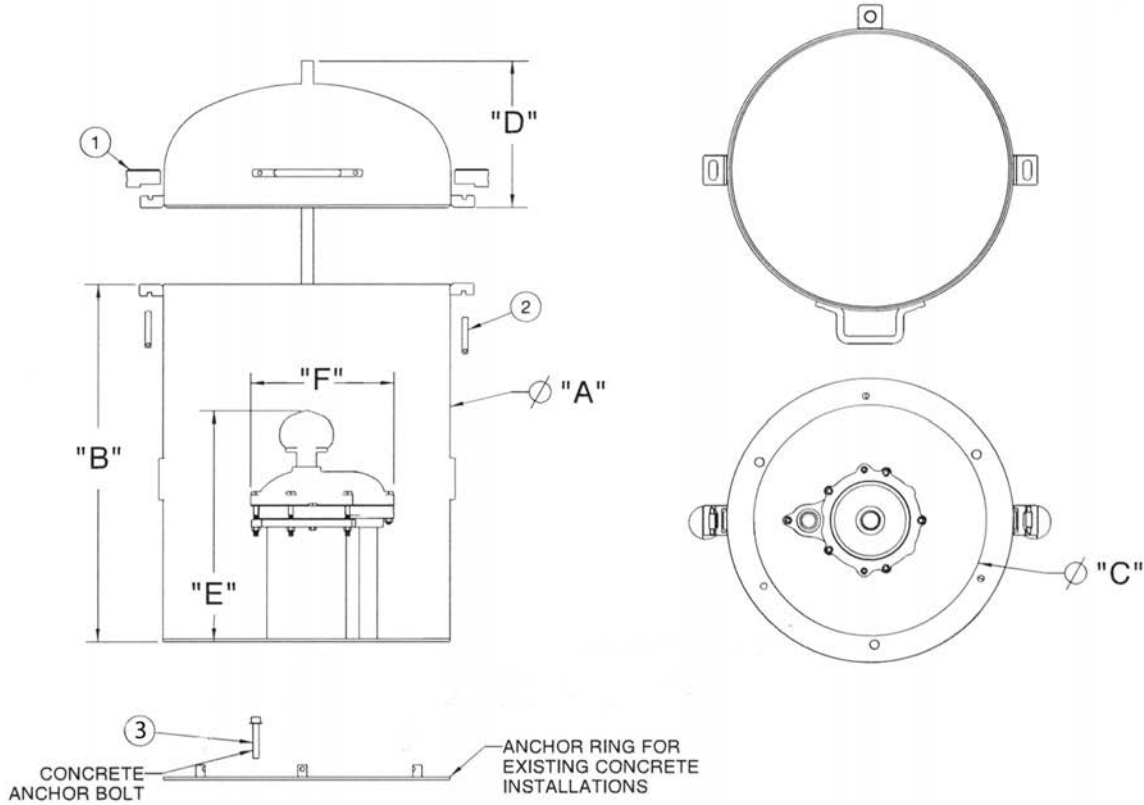
Product Features:

- ❖ Durable Steel Construction
- ❖ Stainless Steel Lock Pins
- ❖ Shielded Locks
- ❖ Easy Open Lid
- ❖ Lift Hook for Easy Removal
- ❖ Base Ring for Easy Cement Installation
- ❖ Shielded Screened Vents for Proper Airflow
- ❖ Powder Coat Painted Interior & Exterior





PROTECTIVE WELL ENCLOSURES

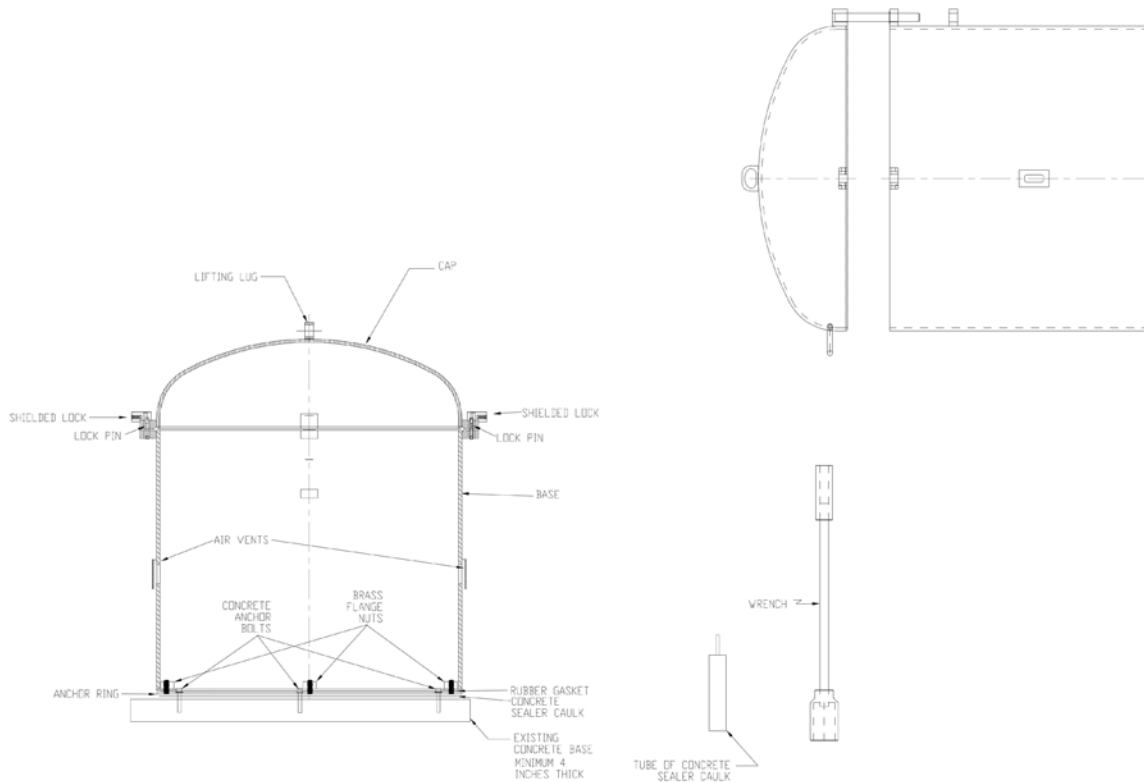


Model No.	DIA "A"	DIM "B"	DIA "C"	DIM "D"
PWE610E36	24"	36"	19.5"	12.5"
PWE1216E36	30"	36"	25.5"	12.5"
PWE1820E36	36"	36"	31.5"	12.5"
PWE2226E36	42"	36"	37.5"	14.5"

Baker Monitor Industrial Pitless Unit Models with Monitor Cap		
Well Case, Upper Case	DIM "E"	DIM "F"
6" x 7"	19.5"	12.9"
6.6" x 7"	19.5"	12.9"
8" x 10"	28.5"	18.5"
10" x 12"	28.5"	22.5"
10" x 14"	28.5"	22.5"
12" x 14"	28.5"	22.5"
14" x 16"	28.8"	24.5"
16" x 18"	28.3"	25.4"
18" x 20"	28.3"	27.4"
20" x 22"	28.3"	30.5"
22" x 26"	29.5"	34.6"

ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1	2	PWE538	Shielded lock keyed alike
2	2	PWE465	Lock pins stainless steel
3	3	PWE6	Concrete anchor bolt

PROTECTIVE WELL ENCLOSURES INSTALLATION INSTRUCTIONS



Cut steel banding straps and remove cap using lifting lug. Remove anchor ring. Remove wrench and box of parts. Check box for following items:

- (3) Concrete anchor bolts
- (3) Brass flange nuts
- (1) Tube of concrete sealant caulk
- (1) Weather resistant Neoprene foam

Center anchor ring over well cap and place on existing concrete base. Mark and drill (3) ½" diameter holes for the anchor bolts. Apply concrete sealer between anchor ring and concrete base. Position anchor ring and install anchor bolts and tighten. Place weather resistant Neoprene foam on top of anchor ring and install base. Install brass flange nuts and tighten using wrench. Install cap, lock pins, and shielded locks.