



# MUNICIPAL / INDUSTRIAL PRODUCTS CATALOG INDEX

	<i>Page No.</i>
WHY A PITLESS UNIT? .....	2
WELD ON PITLESS ADAPTER .....	112-114
PROTECTIVE WELL ENCLOSURE .....	115
 <b>STANDARD INDUSTRIAL UNITS</b> .....	 3-37
<i>6" thru 16" Well Sizes Available</i>	
<i>Units available for Flowing Wells</i>	
General Information.....	3
Engineering Specs .....	5
Shipping Weights.....	6
Spools, Spool & Cap Cable Seals .....	7
O-Ring Guide .....	8
Installation Instructions .....	9
Transition Sleeve .....	41
<b>Specifications &amp; Parts Breakdowns</b>	
6" .....	10-13
6.6" .....	14-17
8" .....	18-21
10" .....	22-25
12" .....	26-29
14" .....	30-33
16" .....	34-37
Protective Well Enclosure.....	116
 <b>CUSTOM INDUSTRIAL UNITS</b> .....	 38-66
<i>10" thru 30" Well Sizes Available</i>	
<i>Units available for Flowing Wells</i>	
General Information.....	38-39
Cap Cable Seals.....	67
Installation Instructions .....	40
O-Ring Guide .....	8
Water Sampler.....	68
Transition Sleeve .....	41
<b>Specifications &amp; Parts Breakdowns</b>	
10" .....	41-43
12" .....	44-46
14" .....	47-49
16" .....	50-52
18" .....	53-55
20" .....	56-58
24" .....	59-61
26" .....	62-64
30" .....	65-66
 <b>PITLESS BOOSTERS</b> .....	 69-90
<i>5" thru 16" Well Sizes Available</i>	
General Information.....	69-70
Engineering Specs .....	71

	<i>Page No.</i>
<b>O-Ring Guide</b> .....	8
<b>Specifications &amp; Parts Breakdowns</b>	
5" .....	73-75
6" .....	76-78
8" .....	79-81
10" .....	82-84
12" .....	85-87
16" .....	88-90
 <b>CUSTOM TURBINE UNITS</b> .....	 91-111
<i>10" thru 20" Well Sizes Available</i>	
<i>Units available for Flowing Wells</i>	
General Information.....	91-92
Installation Instructions .....	93
<b>Specifications &amp; Parts Breakdowns</b>	
10" .....	94-96
12" .....	97-99
14" .....	100-102
16" .....	103-105
18" .....	106-108
20" .....	109-111

Monitor Pitless units conform to the recommended Standards for Water Works, Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers and Water Systems Council PAS-97 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.

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 OR INCIDENTAL DAMAGES.

Printed in the USA Revised 5-08



## MUNICIPAL/INDUSTRIAL PRODUCTS



### WHY A PITLESS UNIT?

The above ground “Well House” or “Well Pit” left much to be desired as solutions to sanitation, convenience, and freeze protection.

Monitor (a division of Baker Manufacturing Company) developed the first solution to eliminate the “well house” and “well pit” – the Pitless Unit.

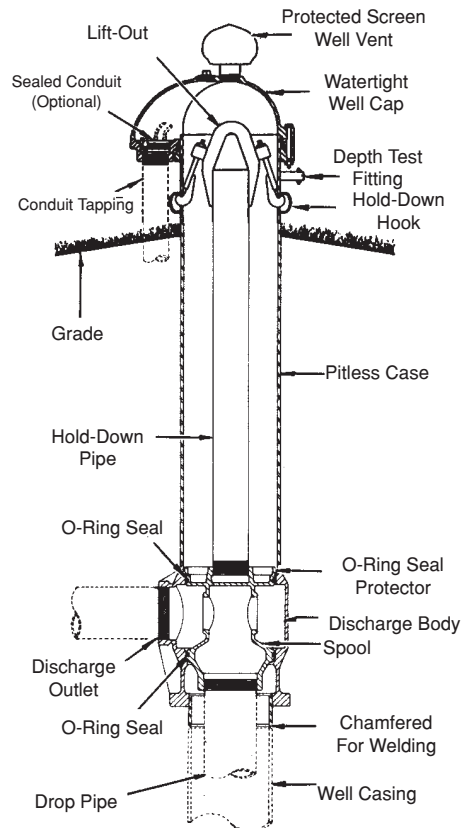
The Pitless Unit allows the water to be discharged below the frost line, to the water treatment facility, thus preventing any form of surface contamination.

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

**Monitor units conform to the Recommended Standards for Water Works,  
Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers,  
Water Systems Council and PAS-97 (04) Standards.**



## STANDARD INDUSTRIAL PITLESS UNITS



The Monitor PS 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 or more inches above grade. The casing extension above grade is then completed with a watertight cap.

**Monitor units conform to the Recommended Standards for Water Works, Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers, Water Systems Council and PAS-97 (04) Standards.**

100% Made in the U.S.A.



## INDUSTRIAL PITLESS UNITS FOR SUBMERSIBLE PUMPS 6", 6.6", 8", 10", 12" 14" and 16" WELL SIZES

The Monitor PS Industrial Pitless Unit for submersible pumps forms a watertight extension of the well casing which starts below the frostline, where it is buried permanently, and continues upward 12 or more inches above grade, where the pitless case is closed with a watertight cap.

### 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 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 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.

**ALTERNATIVE SPOOLS . . .** Are available on 6", 6.6" and 8" I.D. well sizes only. Spools are available plain (EO) or with silent check valves (E2-double).

### ALL INDUSTRIAL PITLESS UNITS ARE AVAILABLE IN STAINLESS STEEL UPON REQUEST

#### TO INSTALL A PS INDUSTRIAL 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 two or no silent check valves; two O-ring seals and hold-down assembly.

The Monitor Silent Check Valve has its operating parts automatically exposed when the spool is withdrawn. Complication and cost of installing separate check valve in the drop pipe are eliminated. Spools are supplied with tapping for either a pressure relief valve, or a pressure control.

**WATERTIGHT WELL CAP WITH SCREENED AIR VENT . . .** Designed to permit removal without disconnecting cables. Watertight cable and conduit sealing is optional.

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

**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 wire only)

**EPOXY PAINTING . . .** can be done, if required, for extra protection in certain soil types.

**ADDITIONAL TAPPING IN SPOOL**

**TRANSITION SLEEVE FOR MECHANICAL JOINT DISCHARGE.**

**PROBE TUBE . . .** on 8" and larger sizes.

**WATER SAMPLER VALVE . . .** on 8" and larger well sizes.

**FLOWING WELL UNITS . . .** for all sizes.



## 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 ring, spool with or without check valves and pressure equalizing passages.

#### 1.02 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 shall be equal to Baker Manufacturing Company, 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 Public Health & Environmental Managers, Health Education Services, Albany, NY., and/or Water Systems Council PAS-97 (04).

##### 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 painted with a green enamel finish.

##### 2.01.02 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. 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 center line 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 or water samplers and NPT ports for discharge pressure taps. O-ring protection should 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 to be strong enough to prevent distortion due to vertical movement of discharge pipe thereby allowing spool to bind in 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 should 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 \_\_\_\_\_ lbs. 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 CHECK VALVES (Optional)

Optional Check Valves may or may not be provided in the removable spool of the pitless unit. These should be low pressure drop, self cleaning, swing type check valves, with elastomer seal at seat, and constructed of corrosion resistant materials.



## SHIPPING WEIGHTS

Ordering No.	Bury Depth	Shpg. Wt.	Check Valves
<b>PS67WBWE03T3</b> (6 in. I.D.)	3	211	No
	4	235	
	5	258	
	6	282	
	7	305	
	8	329	
<b>PS67NBWE03T3</b> (6 in. I.D.) <b>Kwikonect</b>	3	211	No
	4	235	
	5	258	
	6	282	
	7	305	
	8	329	
<b>PS67WBWE23T3</b> (6 in. I.D.)	3	211	Yes
	4	235	
	5	258	
	6	282	
	7	305	
	8	329	
<b>PS67NBWE23T3</b> (6 in. I.D.) <b>Kwikonect</b>	3	211	Yes
	4	235	
	5	258	
	6	282	
	7	305	
	8	329	
<b>PS6.67WBWE03T3</b> (For welding to 7" O.D. only)	3	210	No
	4	234	
	5	257	
	6	281	
	7	304	
	8	328	
<b>PS6.67WBWE23T3</b> (For welding to 7" O.D. only)	3	210	Yes
	4	234	
	5	257	
	6	281	
	7	304	
	8	328	
<b>PS810WBWE04T4</b> (8 in. I.D.)	3	428	No
	4	468	
	5	508	
	6	548	
	7	588	
	8	628	
	9	668	
	3	428	

Ordering No.	Bury Depth	Shpg. Wt.	Check Valves
<b>PS810NBWE04T4</b> (8 in. I.D.) <b>Kwikonect</b>	4	468	No
	5	508	
	6	548	
	7	588	
	8	628	
	9	668	
<b>PS810WBWE24T4</b> (8 in. I.D.)	3	430	Yes
	4	470	
	5	510	
	6	550	
	7	590	
	8	630	
<b>PS810NBWE24T4</b> (8 in. I.D.) <b>Kwikonect</b>	9	670	Yes
	3	430	
	4	470	
	5	510	
	6	550	
	7	590	
<b>PS1012WBWE06T6E</b> (10" I.D.) <b>Standard Model</b>	8	630	No
	9	670	
	3	532	
	4	598	
	5	664	
	6	730	
<b>PS1214WBWE06T6E</b> (12 in. I.D.) <b>Standard Model</b>	7	796	No
	8	862	
	9	928	
	3	606	
	4	680	
	5	754	
<b>PS1418WBWE08T8E</b> (14 in. O.D.) <b>Standard Model</b>	6	828	No
	7	902	
	8	976	
	9	1050	
	3	920	
	4	1007	
<b>PS1618WBWE08T8E</b> (16 in. O.D.) <b>Standard Model</b>	5	1094	No
	6	1181	
	7	1268	
	8	1355	
	9	1442	
	3	855	
<b>PS1618WBWE08T8E</b> (16 in. O.D.) <b>Standard Model</b>	4	942	No
	5	1029	
	6	1116	
	7	1203	
	8	1290	
	9	1377	

Flowing Wells are available on all industrial units.



# SPOOLS, SPOOL CABLE SEALS & REDUCER BUSHINGS

## INDUSTRIAL SPOOL CABLE SEALS

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

Ordering No.	Cable Range	Cable Size	Cable Material
UG193	.125-.187	#14,12	4 wire Twstd Plastic
UG192	.187-.312	#10,8,6 #14, 12, 10	4 wire Twstd Plastic 4 wire Twstd Rubber
UG255	.312-.437	#8, 6, 4, 3	4 wire Twstd Rubber
UG355	.37-.50	#2	4 wire Twstd Rubber

SILENT CHECK VALVE SPOOLS	
Ordering No.	Upper Case Well
7E2PS3	7"
10E2PSA	10"

FLOWING WELL SILENT CHECK VALVE SPOOLS	
Ordering No.	Upper Case Well
7E2PS3F	7"
10E2PSF	10"

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

REDUCER BUSHINGS	
Ordering No.	Size
PC335 Galv.	3" x 2"
UK254x29 Galv.	4" x 2"
G18.4x3 Galv.	4" x 3"
UL168 Galv.	6" x 3"
G18.6x4 Galv.	6" x 4"
UL254 Galv.	6" x 5"
UQ66 Galv.	8" x 6"

FLANGED DISCHARGE KITS		Flange discharge kits convert discharge on 6 x 7 through 16 x 18 (Standard Model) Industrial Pittless Units from threaded to flanged. (Each kit includes 150 lb. raised flange). Swagged nipples also available.
Ordering No.	Discharge Size	
3UC	3"	
4UG	4"	
6UJ	6"	
8UM	8"	

CABLE SEALS For use with 10", 12" & 14" Monitor Premium Watertight caps.

Model	Cable Range	Cable Size	Cable Material
53UK4	.125-.187 O.D.	#14, 12	4 wire Twstd Plastic
54UK4	.187-.312 O.D.	#10, 8, 6 #14, 12, 10	4 wire Twstd Plastic 4 wire Twstd Rubber
55UK4	.312-.437 O.D.	#8, 6, 4, 3	4 wire Twstd Rubber
56UK4	.437-.500 O.D.	#2	4 wire Twstd Rubber
57UK4	.500-.625 O.D.	#1, 1/0, 2/0	4 wire Twstd Rubber
58UK4	.625-.750 O.D.	#3/0, 4/0	4 wire Twstd Rubber

FOR FURTHER INFORMATION ON ORDER NUMBERS SEE UNIT SPECIFICATIONS



## O-RING SELECTION GUIDE FOR FULL PITLESS UNITS

<b>Model</b> <i>(Well Size X Upper Case Size)</i>	<b>O-Ring Part No.</b>	<b>Inside Diameter</b>		<b>Thickness</b>	
2 x 3	NA115	2.350	.018	.210	.005
3 x 4	NB15	3.400	.015	.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



# INSTALLATION INSTRUCTIONS

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

NOTE: Pitless Units are attached to the well casing by welding.

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, from pitless unit case, in all directions.
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. In order to do work, 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 center line.
6. Remove the pitless unit cap, loosen the hold-down hooks or spider, and remove spool assembly.  
NOTE: (the spool assembly includes a spool with two or no silent check valves; two o-ring seals, lift-out pipe and bail, or hold down 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 CENTER LINE OF THE PITLESS CASE AND 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 sufficiently long 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)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com



# 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 3PS67WBWE23T3S

**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**

**6**

**B.** This numeral indicates the well casing size, 6" I.D.

**6**

**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 KwiKonec - 6" I.D. & 8" I.D. only).

**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, for venting well.

**2**

This numeral indicates the type of spool which the pitless unit has. In this case it is a spool having two silent check valves.

**3**

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

**T**

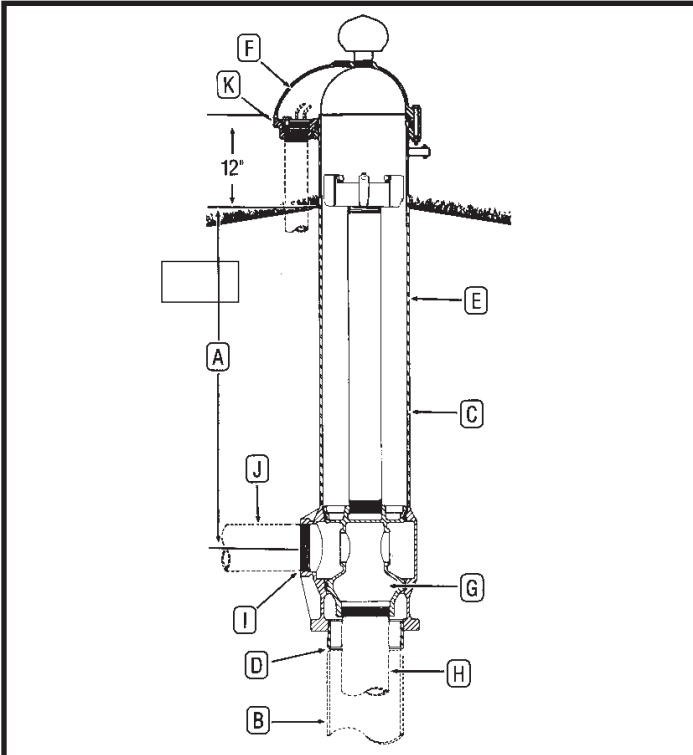
**I.** Indicates the discharge connection is threaded.

**3**

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

**S**

**K.** Sealed Conduit Connection. (Optional)

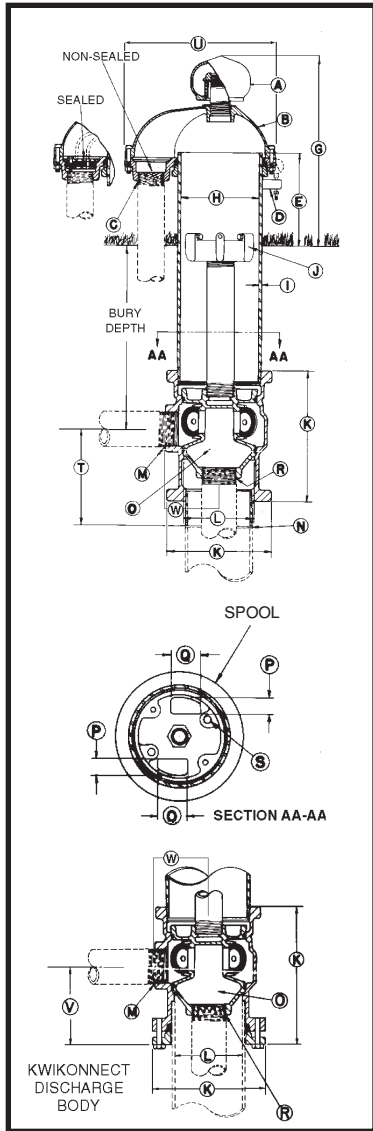


### DESCRIPTION - ORDERING NUMBERS

<b>A</b>	<b>3</b>	Bury Depth in Feet
	<b>PS</b>	Pitless Unit for Submersible Pump
<b>B</b>	<b>6</b>	Well Size - Ins.
<b>C</b>	<b>7</b>	Upper Case Size - Ins.
<b>D</b>	<b>W</b>	Attachment to Well Casing <small>W-Welded N-Compression</small>
<b>E</b>	<b>B</b>	Black Upper Case
<b>F</b>	<b>W</b>	Watertight Cap w/Screened Air Vent
	<b>E</b>	Pressure Equalizing Spool Passages
<b>G</b>	<b>2</b>	No. of Check Valves: (0 or 2)
<b>H</b>	<b>3</b>	Drop Pipe I.D. Ins.
<b>I</b>	<b>T</b>	Threaded NPT Std. Connection
		Flange, ASA 150#
		Welded
		Mech. Joint w/transition sleeve
		Accessory Discharge Connections
<b>J</b>	<b>3</b>	Discharge I.D. Ins.
<b>K</b>	<b>S</b>	Elec. Cable Seal (S) O.D. 3 Wire _____ O.D. Grounding Wire _____
<b>OPTIONS</b>		Flowing Well (F)
		Special Provision (X)



# 6" I.D. STANDARD INDUSTRIAL SPECIFICATION



- A Screened Well Vent tap size: ..... 1-1/2" 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: ..... 1-1/2" NPT  
*Watertight conduit seals for most common cable sizes are available for watertight cap.*
- D Depth Tester Tapping: ..... 1/4" NPT
- E Distance from ground level to top of Pitless Case: ..... 12"
- G Distance from ground level to top of Screened Well Vent: ..... 19-1/2"
- H Pitless Case I.D. size: ..... 7"
- I Pitless Case wall thickness: ..... .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 lbs.
- DISCHARGE BODY - THREADED**
- K Discharge Body outside diameter: ..... 9-11/16"
- K Discharge Body length: ..... 11-1/4"
- DISCHARGE BODY - KWIKONNECT**
- K Discharge Body outside diameter: ..... 10"
- K Discharge Body length: ..... 12-9/32"
- 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 lbs.
- P MOTOR CABLE PASSAGES THROUGH SPOOL** ..... 13/16"
- Q ..... 1-3/4"
- R Spool to Drop Pipe Connection: ..... 3" NPT
- S Pressure zone tapping: 3/8" NPT: ..... (2) available
- 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.*

## COMPONENT MATERIALS

- Well Vent - cast iron, green enamel finish.
- Cap & Conduit Box - cast iron, green enamel finish.
- 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.
- Check Valve Body & Arms - brass.
- Check Valve Seat - Brass.
- Check Valve Spring - Monel.
- Compression Seal Ring & Check Valve Facing - Neoprene.
- Electrical Conduit Cable Seal - Neoprene.
- Maximum Rated Discharge Pressure - 300PSI

\*For Flowing Well spool concept, see Booster Station section.

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

**Note: Pitless units conform to the Recommended Standards for Water works, Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers and Water Systems Council PAS-97 (04) Standards.**

BB-1-6 (05-08)



# 6" I.D. Standard Industrial Parts Breakdown

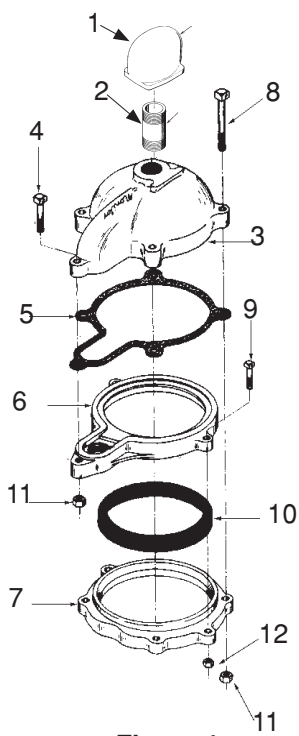


Figure 1

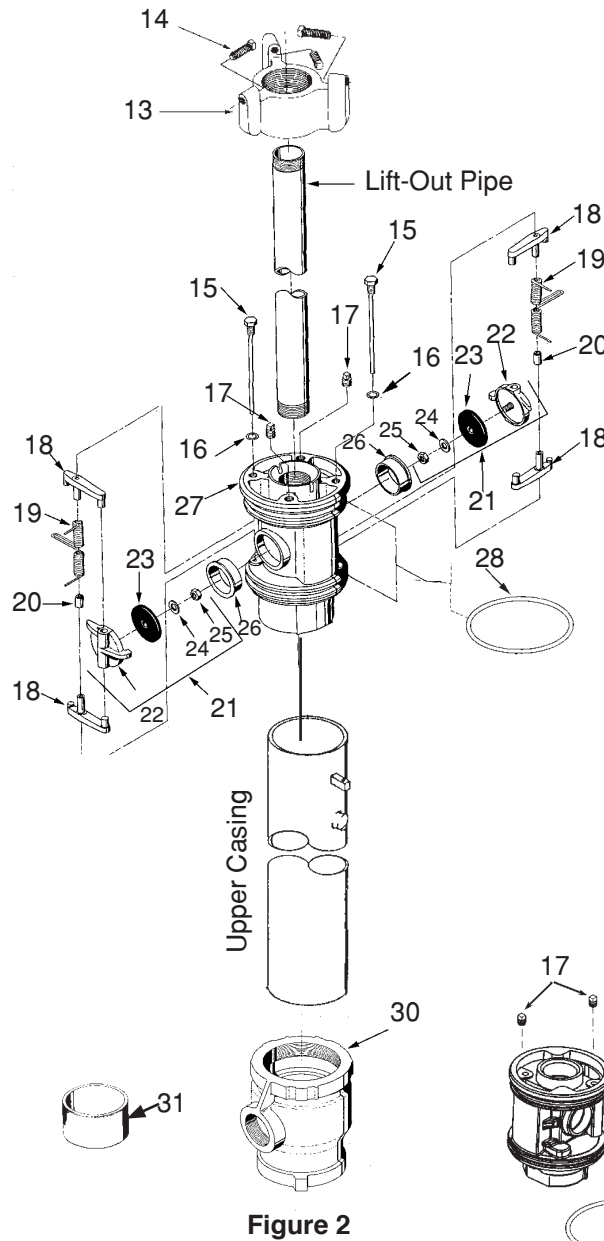


Figure 2

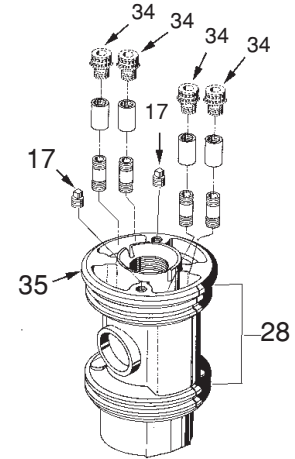


Figure 3-Flowing Well Spool with check Valves includes Key Nos. 15-28. (W/O Check Valves same as Fig. 3)

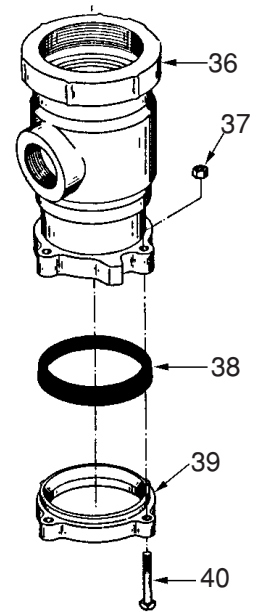


Figure 4

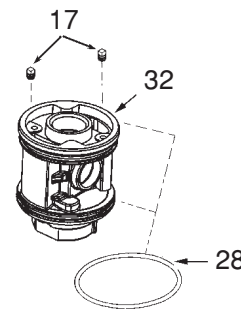


Figure 5

All Industrial Cap Bolts are made of Stainless Steel

OM1422-6 (05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
 Phone: 800-356-5130 • Fax: 608-882-3777 • Website: 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 unit.**

Bury Depth	Unit	Well Size Tap	Case Size	Well Casing Attach.	Upper Case	Cap Style	Spool	Drop Pipe I.D.	Drop Discharge Conn.	Discharge I.D.
1' & Up	PS	6"	7"	W	B	W	E0	3	T	3
1' & Up	PS	6"	7"	W	B	W	E2	3	T	3
1' & Up	PS	6"	7"	N	B	W	E0	3	T	3
1' & Up	PS	6"	7"	N	B	W	E2	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:

- E2 Spool with check valves, Figure No.2
- E0 Spool without check valves, Figure No. 3
- E2 Spool with check valves for Flowing Well, Figure 4
- E0 Spool without check valves for Flowing Well, Figure 4

**Note:** Optional Cable Seals available.

Key No.	Ordering Number	Description	Quantity
<b>FIGURE 1</b>			
-----	7WPSM	Watertight Cap, includes Key Nos. 1-12	
-----	WBAG2	Pkg. of S.S. bolts & Nuts for Cap	1
1	PS150	Vent Assembly	1
2	PS263	Pipe Nipple	1
3	PS217	Seal Cap & 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, 3/8-16NC	7
12	PC434S	Hex Nut, 5/16-18NC	2
<b>FIGURE 2</b>			
13	UC129	Hold-Down Assembly, includes Key Nos. 13 & 14 assembled	1
14	UC139	Set Screw, 7/16-14NC X 1 3/4" long	3
15	UC299	Hinge Pin	2
16	UC127	Hinge Pin Gasket	2
17	UN122	Pipe plug, 3/8-18 NPT	2
18	UC301	Valve Rocker Arm	4
19	UC302	Valve Spring	2
20	UC300	Center Coil Support	2
21	UC296	Check Valve Assembly, includes Key Nos. 22-25 assembled	
22	UC292	Valve Body	2
23	UC295	Rubber Check Valve Facing	2

Key No.	Ordering Number	Description	Quantity
24	PS158	Brass Washer	2
25	PS159	Brass Nut, 3/8-16NC x 1/4" thick	2
26	UC293	Check Valve Seat	2
27	UC290	Spool only	1
27	7E2PS3	Alternate spool with check valves includes Key Nos. 15-28 assembled.	
28	UC15	"O" Ring	2
30	UC291	Discharge Body	1
31	6AWN	Welding Nipple	1
<b>FIGURE 3</b>			
32	7E0PS3	Spool without check valves includes Key Nos. 17, 28, 32 assembled	
32	UC142	Spool, also includes Key No. 17 assembled.	1
<b>FIGURE 4</b>			
-----	UC392	Flowing Well Spool with check valves (7E2PS3F - Boxed)	1
34	-----	Cable Seals (See Spools & Cable Seals)	
35	UC393	Flowing Well Spool w/o check valves (7E0PS3F - Boxed)	1
<b>FIGURE 5</b>			
36	UC491	Discharge body for kwikonect Style Units-not available for 6.6"	1
37	PC433	Hex Nut, 1/2"-13NC	6
38	PS166	Seal Ring	1
39	UC285	Depression Ring	1
40	UB201	Machine bolt, 1/2" x 13NC x 4 1/2" L.	6

OM1422-6(05-08)



# 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

## 3PS6.67WBWE23T3S

**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, 6.6" I.D.

**6.6**

**C.** This numeral indicates the upper pitless case size, 7" I.D.

**7**

**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, for venting well.

**2**

This numeral indicates the type of spool which the pitless unit has. In this case it is a spool having two silent check valves.

**3**

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

**T**

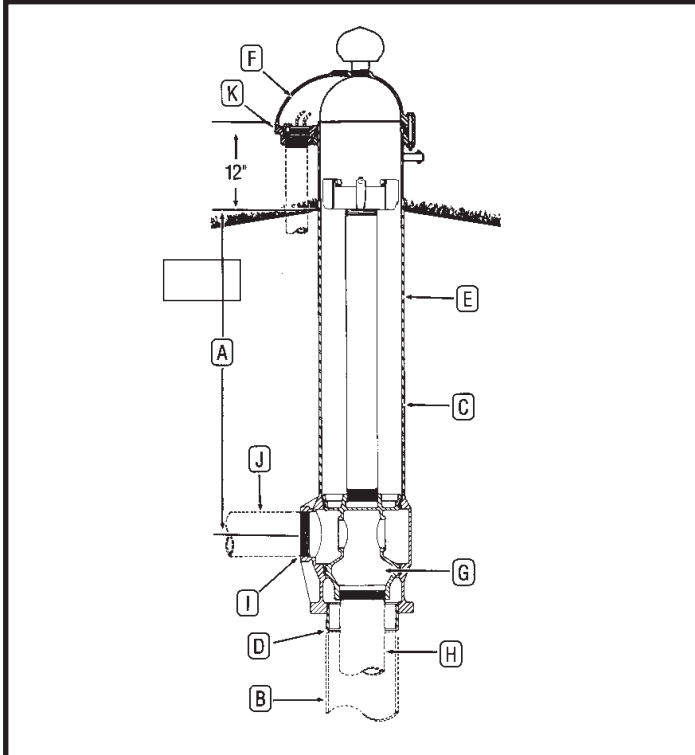
**I.** Indicates the discharge connection is threaded.

**3**

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

**S**

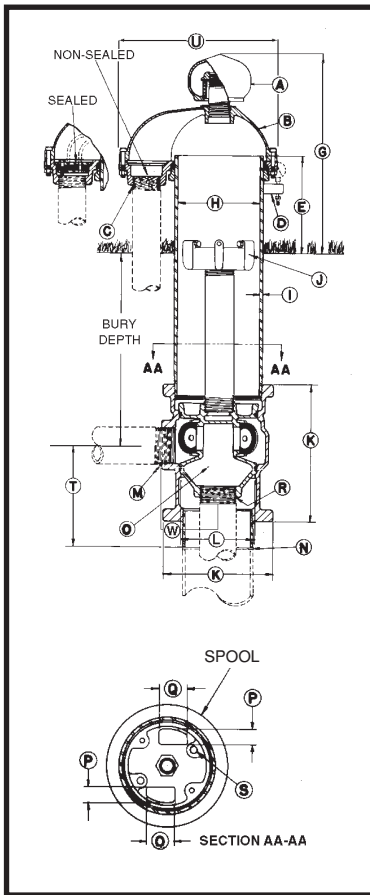
**K.** Sealed Conduit Connection. (Optional)



### DESCRIPTION - ORDERING NUMBERS

<b>A</b>	<b>3</b>	Bury Depth in Feet
	<b>PS</b>	Pitless Unit for Submersible Pump
<b>B</b>	<b>6.6</b>	Well Size - Ins.
<b>C</b>	<b>7</b>	Upper Case Size - Ins.
<b>D</b>	<b>W</b>	Attachment to Well Casing
<b>E</b>	<b>B</b>	Black Upper Case
<b>F</b>	<b>W</b>	Watertight Cap w/Screened Air Vent
	<b>E</b>	Pressure Equalizing Spool Passages
<b>G</b>	<b>2</b>	No. of Check Valves: (0 or 2)
<b>H</b>	<b>3</b>	Drop Pipe I.D. Ins.
<b>I</b>	<b>T</b>	Threaded NPT Std. Connection
		Flange, ASA 150#
		Welded
		Mech. Joint w/transition sleeve
		Accessory Discharge Connections
<b>J</b>	<b>3</b>	Discharge I.D. Ins.
<b>K</b>	<b>S</b>	Elec. Cable Seal (S) O.D. 3 Wire _____ O.D. Grounding Wire _____
		Flowing Well (F)
		Special Provision (X)
<b>OPTIONS</b>		

## 6.6" I.D. STANDARD INDUSTRIAL SPECIFICATIONS



\*For Flowing Well spool concept see Booster Station section.

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

**Note: Pitless units conform to the Recommended Standards for Water works, Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers and Water Systems Council PAS-97 (04) Standards.**

- A Screened Well Vent tap size: ..... 1-1/2" 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: ..... 1-1/2" NPT  
*Watertight conduit seals for most common cable sizes are available for watertight cap.*
- D Depth Tester Tapping: ..... 1/4" NPT
- E Distance from ground level to top of Pitless Case: ..... 12"
- G Distance from ground level to top of Screened Well Vent: ..... 19-1/2"
- H Pitless Case I.D. size: ..... 7"
- I Pitless Case wall thickness: ..... .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 lbs.
- DISCHARGE BODY - THREADED**
- K Discharge Body outside diameter: ..... 9-11/16"
- K Discharge Body length: ..... 11-1/4"
- 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.: ..... 6.6" Weld
- O SPOOL ASSEMBLY**  
Spool Design Load: ..... 15,000 lbs.
- P MOTOR CABLE PASSAGES THROUGH SPOOL** ..... 13/16"
- Q ..... 1-3/4"
- R Spool to Drop Pipe Connection: ..... 3" NPT
- S Pressure zone tapping: 3/8" NPT: ..... (2) available
- 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.*

### COMPONENT MATERIALS

- Well Vent - cast iron, green enamel finish.
- Cap & Conduit Box - cast iron, green enamel finish.
- 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.
- Check Valve Body & Arms - brass.
- Check Valve Seat - Brass.
- Check Valve Spring - Monel.
- Compression Seal Ring & Check Valve Facing - Neoprene.
- Electrical Conduit Cable Seal - Neoprene.
- Maximum Rated Discharge Pressure - 300PSI

BB-1-6.6(05-08)



## 6.6" I.D. Standard Industrial Parts Breakdown

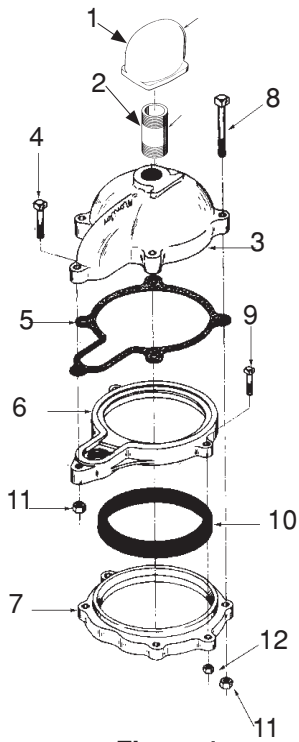
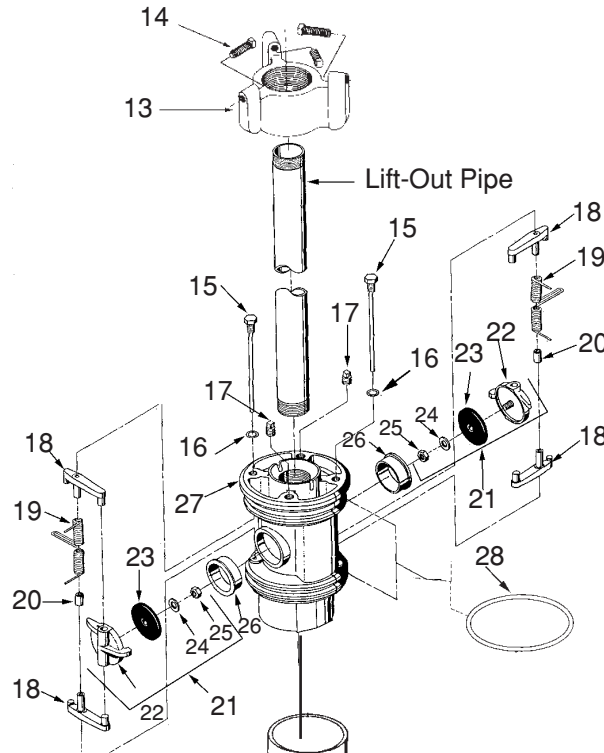


Figure 1



Upper Casing

Figure 2

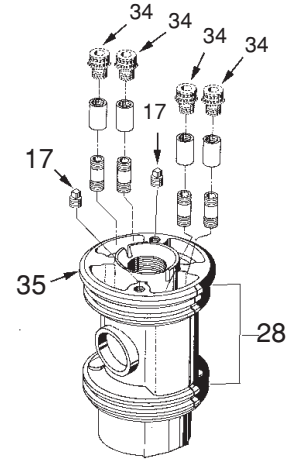


Figure 3-Flowing Well Spool with check Valves includes Key Nos. 15-26. (W/O Check Valves same as Fig. 3)

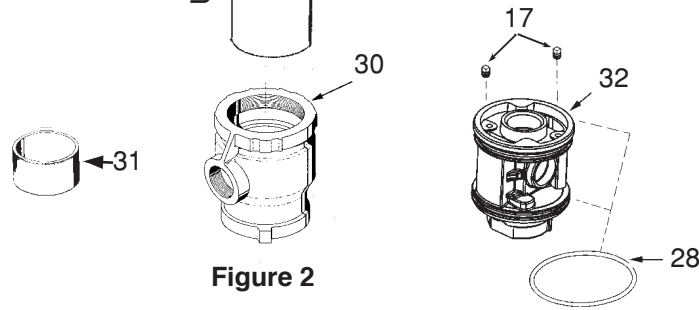


Figure 3

OM1422-6.6(05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com



## 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 unit.**

Bury Depth	Unit	Well Size Tap	Case Size	Well Casing Attach.	Upper Case	Cap Style	Spool	Drop Pipe I.D.	Drop Discharge Conn.	Discharge I.D.
1' & Up	PS	6.6"	7"	W	B	W	E0	3	T	3
1' & Up	PS	6.6"	7"	W	B	W	E2	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:

- E2 Spool with check valves, Figure No.2
- E0 Spool without check valves, Figure No. 3
- E2 Spool with check valves for Flowing Well, Figure 4
- E0 Spool without check valves for Flowing Well, Figure 4

**Note:** Optional Cable Seals available.

Key No.	Ordering Number	Description	Quantity
<b>FIGURE 1</b>			
-----	7WPSM	Watertight Cap, includes Key Nos. 1-12	
-----	WBAG2	Pkg. of S.S. bolts & Nuts for Cap	1
1	PS150	Vent Assembly	1
2	PS263	Pipe Nipple	1
3	PS217	Seal Cap & 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, 3/8-16NC	7
12	PC434S	Hex Nut, 5/16-18NC	2
<b>FIGURE 2</b>			
13	UC129	Hold-Down Assembly, includes Key Nos. 13 & 14 assembled	1
14	UC139	Set Screw, 7/16-14NC X 1 3/4" long	3
15	UC299	Hinge Pin	2
16	UC127	Hinge Pin Gasket	2
17	UN122	Pipe plug, 3/8-18 NPT	2
18	UC301	Valve Rocker Arm	4
19	UC302	Valve Spring	2
20	UC300	Center Coil Support	2
21	UC296	Check Valve Assembly, includes Key Nos. 22-25 assembled	
22	UC292	Valve Body	2
23	UC295	Rubber Check Valve Facing	2

Key No.	Ordering Number	Description	Quantity
24	PS158	Brass Washer	2
25	PS159	Brass Nut, 3/8-16NC x 1/4" thick	2
26	UC293	Check Valve Seat	2
27	UC290	Spool only	1
27	7E2PS3	Alternate spool with check valves includes Key Nos. 15-28 assembled.	
28	UC15	"O" Ring	2
30	UC391	Discharge Body	1
31	7AWN	Welding Nipple	1
<b>FIGURE 3</b>			
32	7E0PS3	Spool without check valves includes Key Nos. 17, 28, 32 assembled	
32	UC142	Spool, also includes Key No. 17 assembled.	1
<b>FIGURE 4</b>			
-----	UC392	Flowing Well Spool with check valves (7E2PS3F - Boxed)	1
34	-----	Cable Seals (See Spools & Cable Seals)	
35	UC393	Flowing Well Spool w/o check valves (7E0PS3F - Boxed)	1

OM1422-6.6(05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com



## 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 3PS810WBWE24T4S

**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**

**8**

**B.** This numeral indicates the well casing size, 8" I.D.

**8**

**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.

**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, for venting well.

**2**

This numeral indicates the type of spool which the pitless unit has. In this case it is a spool having two silent check valves.

**4**

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

**T**

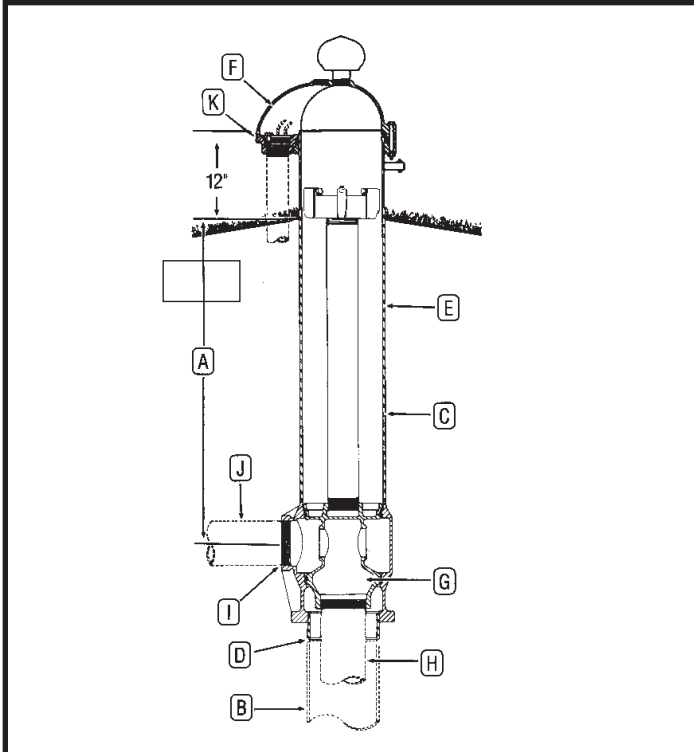
**I.** Indicates the discharge connection is threaded.

**4**

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

**S**

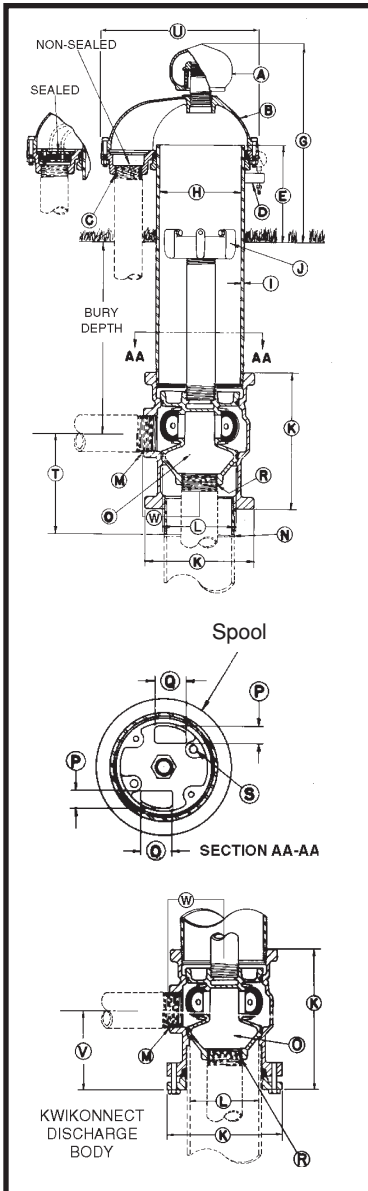
**K.** Sealed Conduit Connection. (Optional)



### DESCRIPTION - ORDERING NUMBERS

<b>A</b>	<b>3</b>	Bury Depth in Feet	
	<b>PS</b>	Pitless Unit for Submersible Pump	
<b>B</b>	<b>8</b>	Well Size - Ins.	
<b>C</b>	<b>10</b>	Upper Case Size - Ins.	
<b>D</b>	<b>W</b>	Attachment to Well Casing	W-Welded or N-Compression
<b>E</b>	<b>B</b>	Black Upper Case	
<b>F</b>	<b>W</b>	Watertight Cap w/Screened Air Vent	
	<b>E</b>	Pressure Equalizing Spool Passages	
<b>G</b>	<b>2</b>	No. of Check Valves: (0 or 2)	
<b>H</b>	<b>4</b>	Drop Pipe I.D. Ins.	
<b>I</b>	<b>T</b>	Threaded NPT Std. Connection	Accessory Discharge Connections
		Flange, ASA 150#	
		Welded	
		Mech. Joint w/transition sleeve	
<b>J</b>	<b>4</b>	Discharge I.D. Ins.	
<b>K</b>	<b>S</b>	Elec. Cable Seal (S)	
		O.D. 3 Wire _____ O.D. Grounding Wire _____	
<b>OPTIONS</b>		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: .....2-1/2" 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: .....3" NPT  
*Watertight conduit seals for most common cable sizes are available for watertight cap.*
- D Depth Tester Tapping: .....1/4" NPT
- E Distance from ground level to top of Pitless Case: .....12"
- G Distance from ground level to top of  
Screened Well Vent: .....25-5/16"
- H Pitless Case I.D. size: .....10"
- I Pitless Case wall thickness: .....3/65"
- 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): .....3" NPT  
Designed "Lift-Out" Mechanism load: .....30,000 lbs.
- DISCHARGE BODY - WELDED**
- K Discharge Body outside diameter: .....13-1/2"
- K Discharge Body length: .....15-11/16"  
8 inch pipe extends from bottom of discharge body .....5"
- DISCHARGE BODY - KWIKONNECT**
- K Discharge Body outside diameter: .....13.197"
- K Discharge Body length: .....15-1/2"
- L Pitless Unit minimum inside diameter: .....9-1/8"
- 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 lbs.
- P **MOTOR CABLE PASSAGES THROUGH SPOOL** .....1-3/4"  
Will clear rigid rod parallel to casing .....1.49"
- Q .....3-3/8"
- R Spool to Drop Pipe Connection: .....4" NPT
- S Pressure zone tapping: 3/8" NPT: .....(2) available
- T Dimension from center of discharge outlet  
to bottom of weld nipple: .....12"
- U Overall length of seal cap: .....18-1/2"
- V Dimension from center of discharge to  
bottom of discharge body: .....10-1/2"
- W Dimension from center of well casing to  
end of discharge outlet: .....6-15/16"

*Specifications are Subject to Change Without Notice.*

## COMPONENT MATERIALS

- Well Vent - cast iron, green enamel finish.
- Cap & Conduit Box - cast iron, green enamel finish.
- Hold-Down Spider - cast iron, green enamel finish.
- Hold-Down Pipe-3" - steel Sch. 80, black.
- Pitless Case - steel, black.
- Spool - ductile iron, lead-free galvanized.
- Discharge Body - ductile iron, lead-free galvanized.
- Check Valve Body & Arms - brass.
- Check Valve Seat - Brass.
- Check Valve Spring - Monel.
- Compression Seal Ring & Check Valve Facing - Neoprene.
- Electrical Conduit Cable Seal - Neoprene.
- Maximum Rated Discharge Pressure - 300PSI

\*For Flowing Well spool concept, see Booster Station section.

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

**Note: Pitless units conform to the Recommended Standards for Water works, Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers and Water Systems Council PAS-97 (04) Standards.**



## 8" I.D. Standard Industrial Parts Breakdown

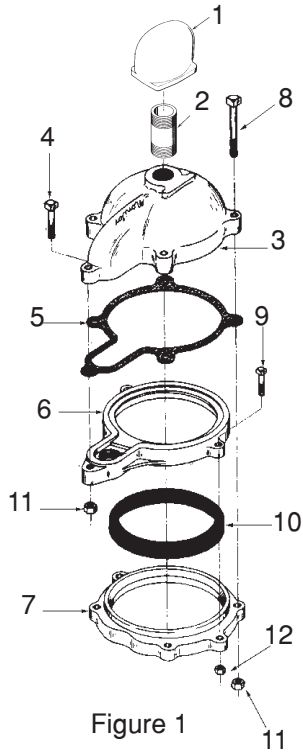
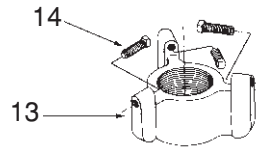


Figure 1



Lift-Out Pipe

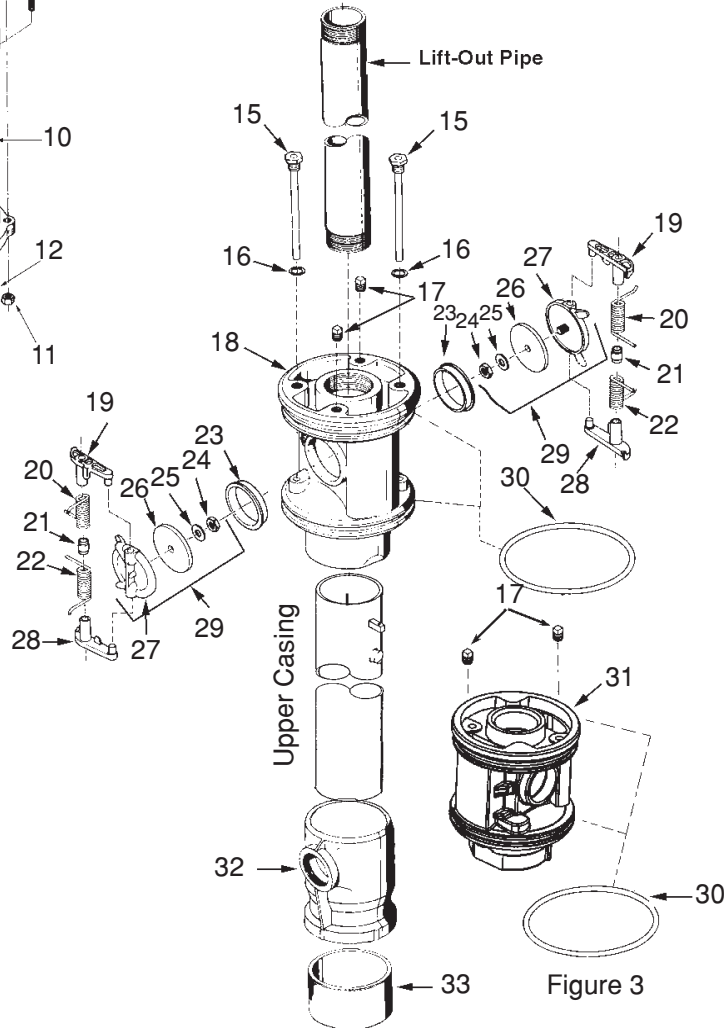


Figure 2

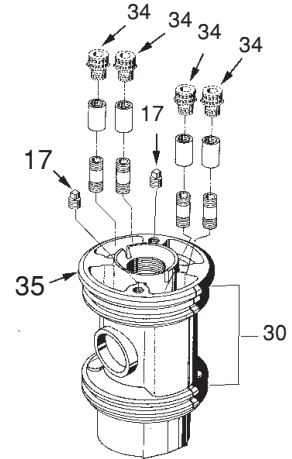


Figure 4-Flowing Well Spool with check valves include Key Nos. 15-29. (W/O Check Valves same as Fig. 3)

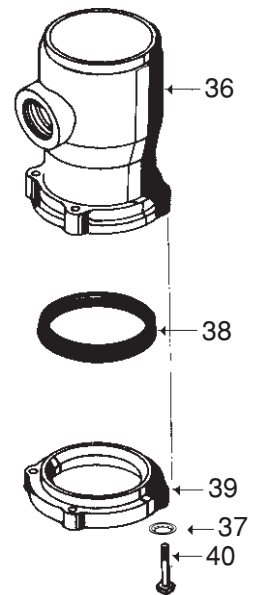


Figure 5

OM1421(05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
 Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com



## 8" I.D. Standard Industrial Parts Breakdown

The drawings and parts list apply to the model numbers listed below.

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

Bury Depth	Unit	Well Size Tap	Case Size	Well Casing Attach.	Upper Case	Cap Style	Spool	Drop Pipe I.D.	Drop Discharge Conn.	Discharge I.D.
1' & Up	PS	8"	10"	W	B	W	E0	4	T	4
1' & Up	PS	8"	10"	N	B	W	E0	4	T	4
1' & Up	PS	8"	10"	W	B	W	E2	4	T	4
1' & Up	PS	8"	10"	N	B	W	E2	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:

- E2 Spool with check valves, Figure No.2
- E0 Spool without check valves, Figure No. 3
- E2 Spool with check valves for Flowing Well, Figure 4
- E0 Spool without check valves for Flowing Well, Figure 4

**NOTE:** Optional Cap Cable Seals available.

Key No.	Ordering Number	Description	Quantity
<b>FIGURE 1</b>			
----	10W	Watertight Cap, includes Key Nos. 3-12	
1	PS155	Vent Assembly	1
2	PS365	Pipe Nipple	1
3	PS350	Seal Cap	1
4	APC7S	Bolt, 1/2 x 3" L.	1
5	PS342	Gasket	1
6	PS341	Retainer Ring	1
7	PS189	Depression Ring	1
8	PS221S	Bolt, 1/2 x 4 1/2" L.	6
9	PS111S	Bolt, 1/2 x 2 1/2" L.	3
10	PS170	Seal Ring	1
11 & 12	PC433S	Nut, 1/2 - 13NC	10
<b>FIGURE 2</b>			
13	UG260	Hold-Down Assembly, includes Key Nos. 13 & 14 assembled	1
14	UG191	Set Screw 7/16-14NC x 2 1/4" L.	3
15	UG29	Hinge Pin	2
16	SW84	Hinge Pin Gasket	2
17	UN122	Pipe plug 3/8-18NPT galvanized	2
18	UG209A	Spool	1
18	10E2PSA	Spool with check valves includes Key Nos. 15-30 assembled	
19	UG147	Rocker Arm Top	2
20	UG146	Valve Spring Top	2
21	UG150	Valve Spring Center	2
22	UG145	Valve Spring Bottom	2
23	UG22	Check Valve Seat	2
24	TP34	Brass Nut 1/2-13NC x 5/16 thick	2
25	UG68	Brass Washer	2
26	UG23	Rubber Check Valve Facing	2
27	UG149	Valve Body	2
28	UG148	Rocker Arm Bottom	2

Key No.	Ordering Number	Description	Quantity
29	UG323	Check Valve assembly includes Key Nos. 24-27 assembled	
30	UG15	O-Ring	2
32	UG3A	Discharge Body	1
33	UG335	Pipe	1
<b>FIGURE 3</b>			
31	UG42A	Spool	1
31	10E0PSA	Alternate Spool w/o check valves includes Key Nos. 17 & 30 assembled	
<b>FIGURE 4</b>			
34	-----	Spool Cable Seals (See Spools & Cable Seals)	
35	UG254	Flowing Well Spool with check valves (10E2PSF)	1
----	UG273	Flowing Well Spool without check valves (10E0PSF)	1
<b>FIGURE 5</b>			
36	UG333B	Discharge body for kwikonect Style Units	1
37	KG255	Lockwasher	8
38	PS168	Seal Ring	1
39	PS188	Depression Ring	1
40	PS111	Screw, 1/2" x 13NC x 2.5" L.	6

OM1422-6 (05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
 Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com



# 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

**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.

**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, for venting well.

**0**

This numeral indicates the type of spool which the pitless unit has. In this case it is a spool having no silent check valves.

**6**

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

**T**

**I.** Indicates the discharge connection is threaded.

**6**

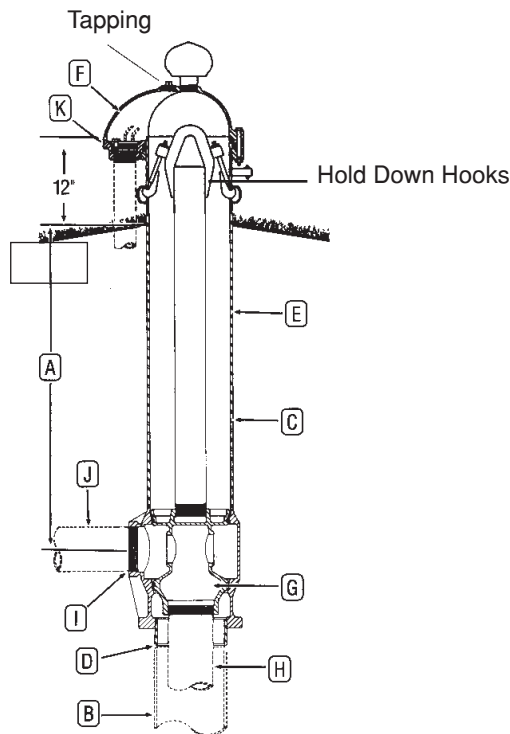
**J.** Indicates the size of discharge pipe in inches.

**E**

Indicates Standard Industrial

**S**

**K.** Sealed Conduit Connection. (Optional)

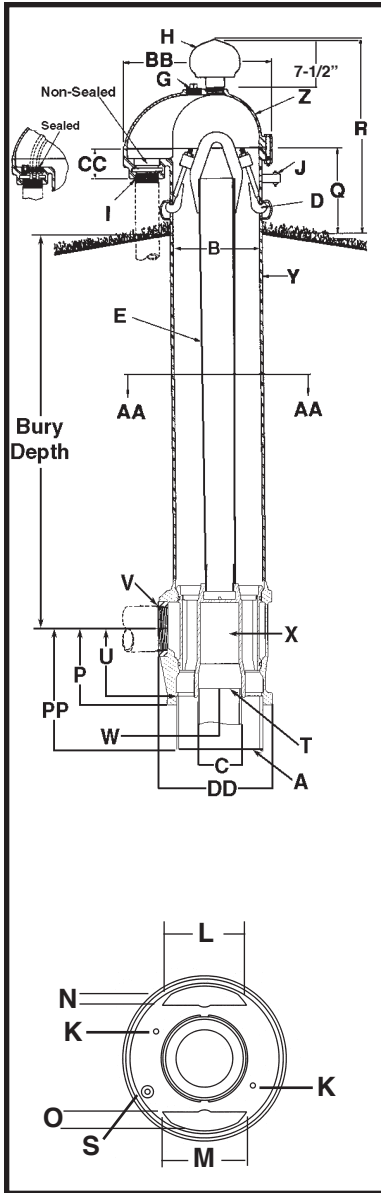


### DESCRIPTION - ORDERING NUMBERS

<b>A</b>	<b>3</b>	Bury Depth in Feet	
	<b>PS</b>	Pitless Unit for Submersible Pump	
<b>B</b>	<b>10</b>	Well Size - Ins.	
<b>C</b>	<b>12</b>	Upper Case Size - Ins.	
<b>D</b>	<b>W</b>	Attachment to Well Casing is Welded	
<b>E</b>	<b>B</b>	Black Upper Case	
<b>F</b>	<b>W</b>	Watertight Cap w/Screened Air Vent	
	<b>E</b>	Pressure Equalizing Spool Passages	
<b>G</b>	<b>0</b>	No. of Check Valves: (0)	
<b>H</b>	<b>6</b>	Drop Pipe I.D. Ins.	
	<b>T</b>	Threaded NPT Std. Connection	
<b>I</b>		Flange, ASA 150#	Accessory Discharge Connections
		Welded	
		Mech. Joint w/transition sleeve	
<b>J</b>	<b>6</b>	Discharge I.D. Ins.	
	<b>E</b>	Std. Industrial	
<b>K</b>	<b>S</b>	Elec. Cable Seal (S) O.D. 3 Wire _____ O.D. Grounding Wire _____	
<b>OPTIONS</b>		Probe Tube (P)	
		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 12-3/4" 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 2-1/2" NPT tap
- I Conduit tappings: ..... 3" NPT Watertight conduit seals for most common cable sizes are available.
- J Depth tester block tappings: ..... 1/4" NPT
- K Pressure zone tappings: ..... (2) 3/8" NPT
- L **MOTOR CABLE PASSAGES**  
**THROUGH SPOOL (SECTION AA-AA)**  
Will clear rigid rod parallel to casing ..... 1.39"
- M ..... 6"
- N Some restrictions apply } ..... 1-5/16"
- O ..... 1-5/16"
- P Dimension from center of discharge outlet to bottom of discharge Body: ..... 11-7/8"
- PP Dimension from center of discharge outlet to bottom of weld nipple: ..... 15-7/16"
- Q Distance from ground level to top of the pitless case: ..... 12"
- R Distance from ground level to top of the screened well vent: ..... 28-1/2"
- S Water sampler tapping: ..... Optional
- T **SPOOL TO DROP PIPE CONNECTION:** ...6" NPT tapping Spool designed for 48,000 lb. load
- U Dimension from center of discharge outlet to bottom of spool: ..... 9-5/8"
- V Discharge connection tapping size: ..... 6" NPT
- W Dimension from center of well casing to the end of discharge outlet: ..... 9-1/8"
- X **SPOOL ASSEMBLY**
- Y Pitless case wall thickness: ..... .375"
- Z **SEAL CAP:** ..... Watertight cap bolts to a gasketed surface securing around the pitless casing and comes installed with 2-1/2" screened well vent.
- BB Overall length of seal Cap: ..... 22-1/2"
- CC ..... 2-15/16"
- 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

\*For Flowing Well spool concept, see Booster Station section.  
\*Optional flange, weld or mechanical joint available upon request.

**Note: Pitless units conform to the Recommended Standards for Water works, Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers and Water Systems Council PAS-97 (04) Standards.**

BB-3-10(05-08)



# 10" I.D. Standard Industrial Parts Breakdown

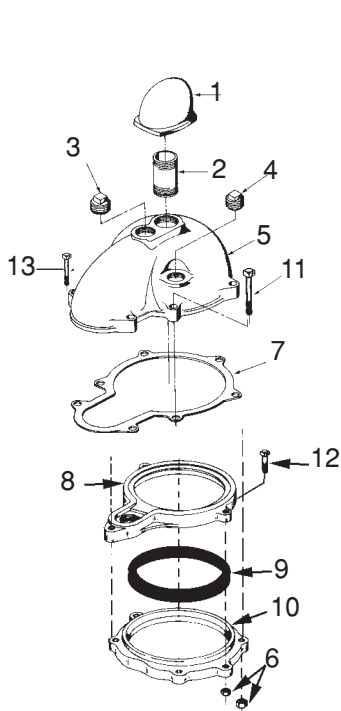


Figure 1

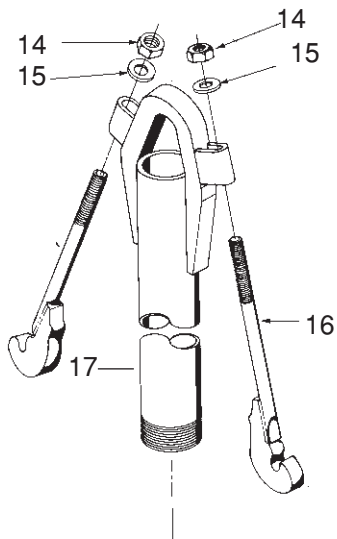


Figure 2

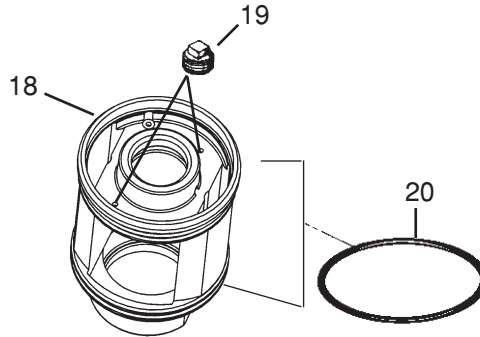


Figure 3

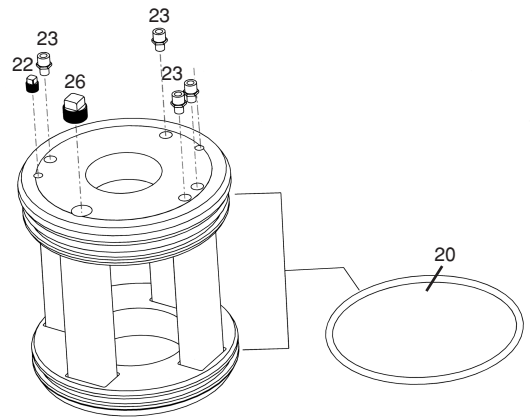


Figure 4

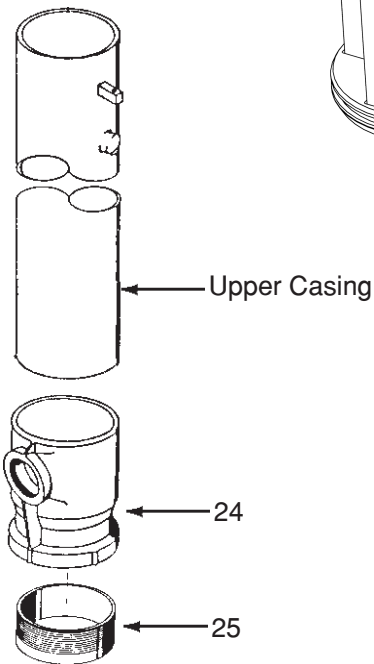


Figure 5



## 10" I.D. Standard Industrial Parts Breakdown

The drawings and parts list apply to the model numbers listed below.  
 Note: **Add (F) at end of model number for flowing well unit.**

Bury Depth	Unit	Well Size Tap	Case Size	Well Casing Attach.	Upper Case	Cap Style	Spool	Drop Pipe I.D.	Drop Discharge Conn.	Discharge I.D.	Std. Model
1' & Up	PS	10"	12"	W	B	W	E0	6	T	6	E

All units have a watertight cap with screened vent.  
 This Monitor Pitless Unit above is equipped with the following type of spool:  
 Spool without check valves, Figure No. 3  
 Spool without check valves for Flowing Well, Figure 4

**NOTE:** Optional Cap Cable Seals available.

Key No.	Ordering Number	Description	Quantity
<b>FIGURE 1</b>			
-----	12W	Watertight Cap, includes Key Nos. 3-13 plus (1) 74PS Vent	
1	PS155	Vent Assembly	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	PC286	Hex nut, 5/8-11NC	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, 5/8-11NC x 6" L.	5
12	UJ177S	Hex head cap screw, 5/8-11NC x 3 1/2" L.	3
13	LK4S	Hex head cap screw, 5/8-11NC x 4 3/4" L.	2
<b>FIGURE 2</b>			
14	PC286S	Hex nut, 5/8-11NC	2
15	PC417	Washer	2
16	UK7M	Hold-down hook	2
17	-----	Lift-out pipe & bail assembly (Order by bury depth)	1
<b>FIGURE 3</b>			
18	UJ141A	Spool - without check valves (12E0PSA)	1
19	UN122	Pipe plug 3/8-18 NPT	2
20	UJ15	O-ring	2
<b>FIGURE 4</b>			
21	UJ241X3	Flowing Well Spool-w/o check valves (12E0PSF)	1
22	UN122	Pipe plug 3/8-18 NPT	1
23	-----	Spool Cable Seals (See Spools & Cable Seals)	
<b>FIGURE 5</b>			
24	UJ140	Discharge Body	1
25	10AWN	Weld Nipple	1
26	UN120	Pipe Plug 1"	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**

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

**12**

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

**14**

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

**W**

**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, for venting well.

**0**

This numeral indicates the type of spool which the pitless unit has. In this case it is a spool having no silent check valves.

**6**

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

**T**

**I.** Indicates the discharge connection is threaded.

**6**

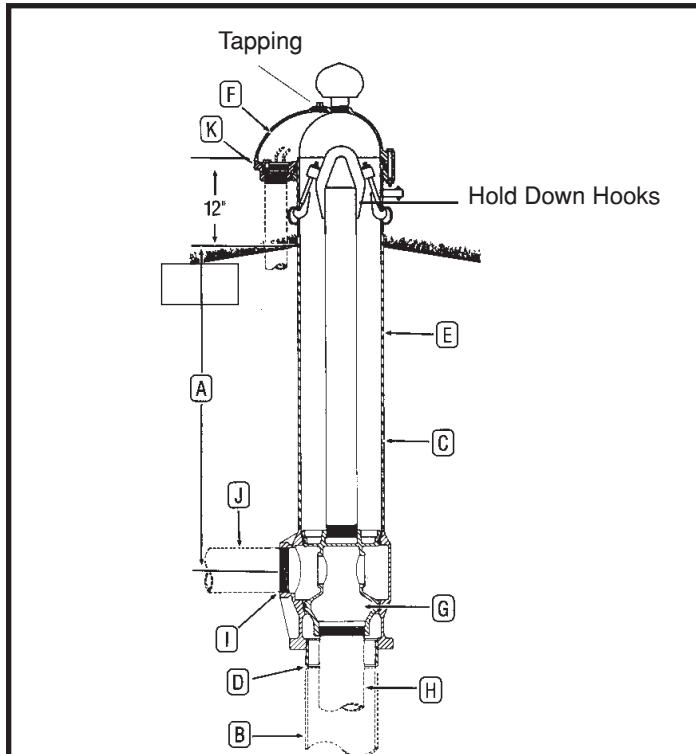
**J.** Indicates the size of discharge pipe in inches.

**E**

Indicates Standard Industrial

**S**

**K.** Sealed Conduit Connection. (Optional)

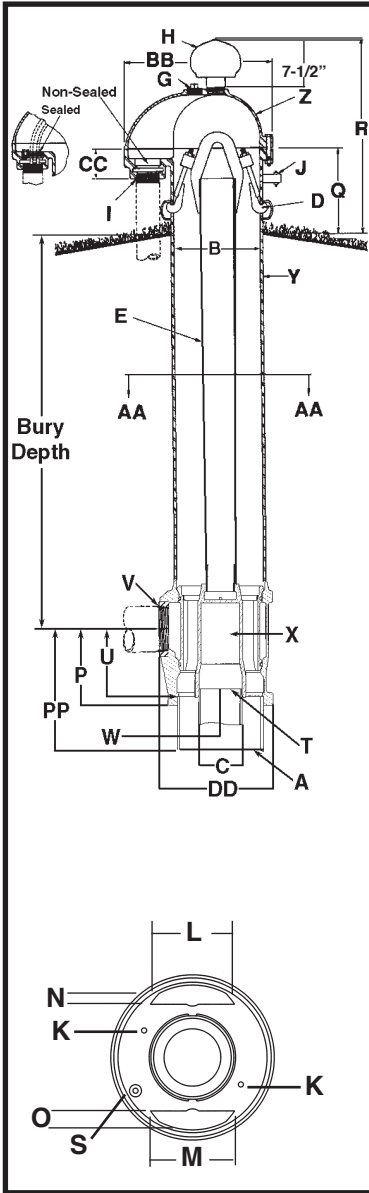


### DESCRIPTION - ORDERING NUMBERS

<b>A</b>	<b>3</b>	Bury Depth in Feet	
	<b>PS</b>	Pitless Unit for Submersible Pump	
<b>B</b>	<b>12</b>	Well Size - Ins.	
<b>C</b>	<b>14</b>	Upper Case Size - Ins.	
<b>D</b>	<b>W</b>	Attachment to Well Casing is Welded	
<b>E</b>	<b>B</b>	Black Upper Case	
<b>F</b>	<b>W</b>	Watertight Cap w/Screened Air Vent	
	<b>E</b>	Pressure Equalizing Spool Passages	
<b>G</b>	<b>0</b>	No. of Check Valves: (0)	
<b>H</b>	<b>6</b>	Drop Pipe I.D. Ins.	
<b>I</b>	<b>T</b>	Threaded NPT Std. Connection	Accessory Discharge Connections
		Flange, ASA 150#	
		Welded	
		Mech. Joint w/transition sleeve	
<b>J</b>	<b>6</b>	Discharge I.D. Ins.	
	<b>E</b>	Std. Industrial	
<b>K</b>	<b>S</b>	Elec. Cable Seal (S) O.D. 3 Wire _____ O.D. Grounding Wire _____	
<b>OPTIONS</b>		Probe Tube (P)	
		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: .....13-1/8" I.D., 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 2-1/2" NPT tap
- I Conduit tappings: .....2" & 1" NPT std. Also available with single 2", 3" or 4" NPT
- J Depth tester block tappings: .....1/4" NPT
- K Pressure zone tappings: ..... (2) 3/8" NPT
- L **MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)**  
Will clear rigid rod parallel to casing ..... 1.77"
- M ..... 4-1/2"
- N Some restrictions apply..... } ..... 1-1/2"
- O ..... 1-1/2"
- P Dimension from center of discharge outlet to bottom of discharge Body: ..... 11-7/8"
- PP Dimension from center of discharge outlet to bottom of weld nipple: ..... 17-1/4"
- Q Distance from ground level to top of the pitless case: ..... 12"
- R Distance from ground level to top of the screened well vent:.....27-9/16"
- S Water sampler tapping:.....Optional
- T **SPOOL TO DROP PIPE CONNECTION:** ...6" NPT tapping Spool designed for 48,000 lb. load
- U Dimension from center of discharge outlet to bottom of spool: ..... 10-1/2"
- V Discharge connection tapping size: .....6" NPT
- W Dimension from center of well casing to the end of discharge outlet: -1/8 .....9-1/16"
- X **SPOOL ASSEMBLY**
- Y Pitless case wall thickness: ..... .375"
- Z **SEAL CAP:** ..... Watertight cap bolts to a gasketed surface securing around the pitless casing and comes nstalled with 2-1/2" screened well vent.
- BB Overall length of seal Cap:.....22-1/2"
- CC .....4-5/8"
- 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 cast iron.
- Discharge Body: Lead-Free Galvanized ductile iron.
- Electrical Conduit Cable Seal: Neoprene
- Maximum rated discharge pressure - 300 PSI

\*For Flowing Well spool concept, see Booster Station section.  
\*Optional flange, weld or mechanical joint available upon request.

Note: Pitless units conform to the Recommended Standards for Water works, Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers and Water Systems Council PAS-97 (04) Standards.

BB-3-12(05-08)



# 12" I.D. Standard Industrial Parts Breakdown

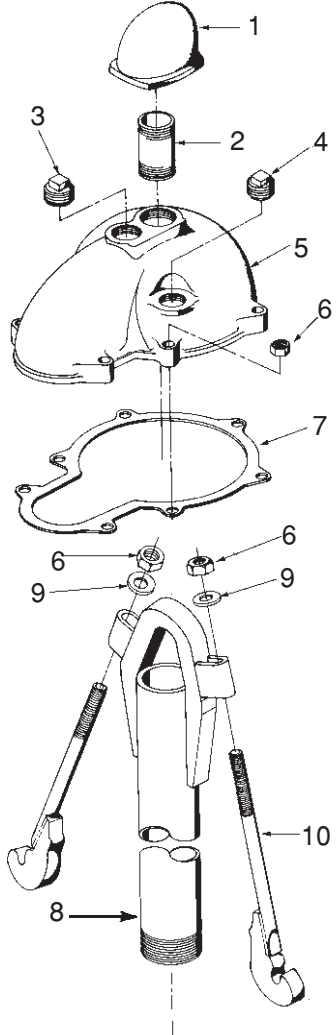


Figure 1

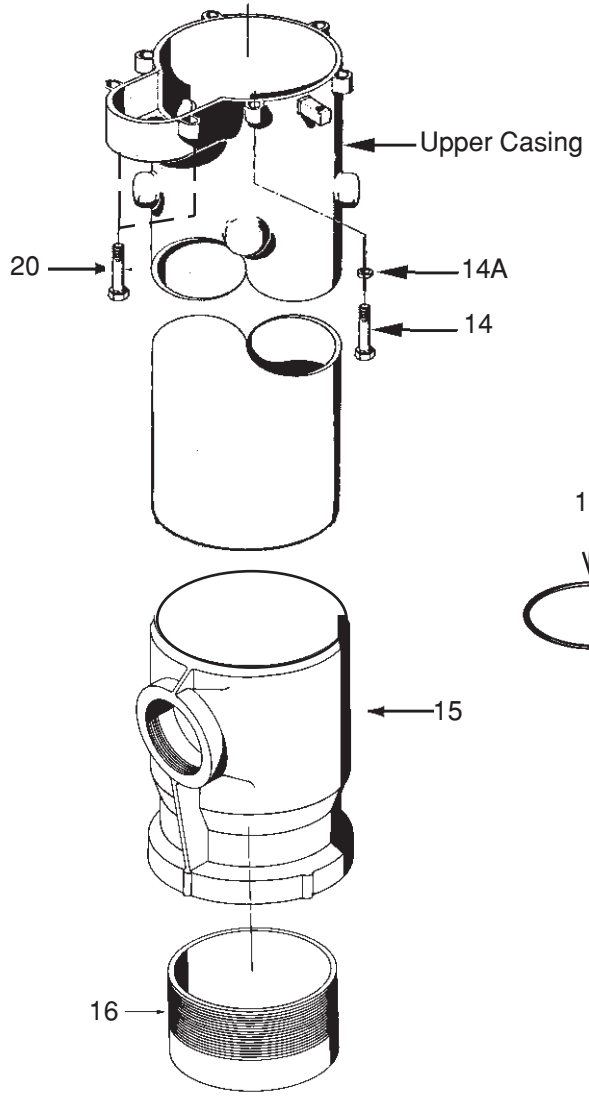


Figure 3

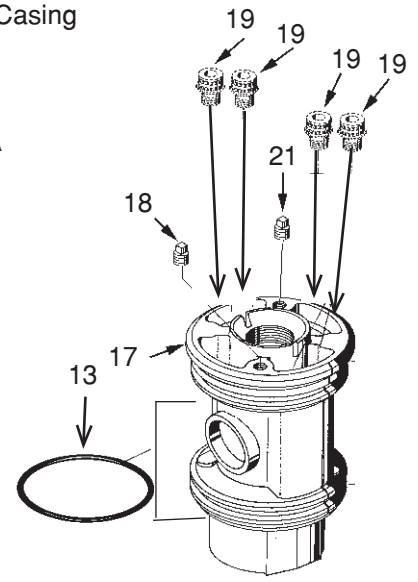


Figure 4

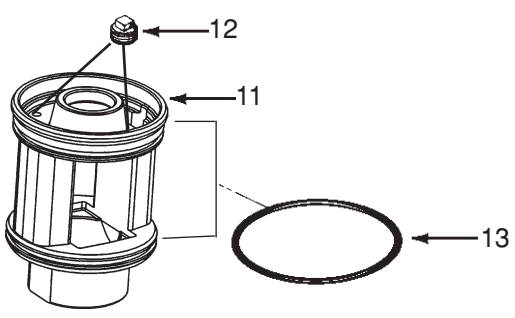


Figure 2

OM1424-12(05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com



## 12" I.D. Standard Industrial Parts Breakdown

The drawings and parts list apply to the model numbers listed below.  
 Note: **Add (F) at end of model number for flowing well unit.**

Bury Depth	Unit	Well Size Tap	Case Size	Well Casing Attach.	Upper Case	Cap Style	Spool	Drop Pipe I.D.	Drop Discharge Conn.	Discharge I.D.	Std. Model
1' & Up	PS	12"	14"	W	B	W	E0	6	T	6	E

All units have a watertight cap with screened vent.  
 This Monitor Pitless Unit listed above is equipped with the following type of spool:  
 Spool without check valves, Figure No. 2  
 Spool without check valves for Flowing Well, Figure 4

**NOTE:** See Index for Optional Cap Cable Seals

Key No.	Ordering Number	Description	Qty.
<b>FIGURE 1</b>			
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" - 11NC	9
7	UK72	Gasket	1
8	-----	Lift out bail & Lift out pipe assembly (Order by bury depth)	1
9	PC417	Washer	2
10	UJ7	Hold-down hook	2
<b>Figure 2</b>			
11	UK659A	Spool - without check valves (14E0PSA)	1
12	UN122	Pipe plug, 3/8" - 18 NPT	2
13	UK15	O-ring	2
<b>Figure 3</b>			
14	UN73S	Hex head cap screw 5/8" - 11NC x 4 3/4" L.	5
14A	UN81	Washer	5
15	UK60E	Discharge Body only	1
16	12AWN	Welding Nipple	1
20	LK4S	Locking Bolt - 5/8" x 4 3/4" L.	2
<b>Figure 4</b>			
17	UK6S4EF	Flowing Well Spool - without checks (14E0PSF)	1
18	UN122	Pipe plug - 3/8" - 18NPT	1
19	-----	Spool Cable Seals (See Spools & Cable Seals)	1
21	UN120	Pipe Plug - 1"	1



# 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.

**14**

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

**18**

**C.** This numeral indicates the upper pitless case size, 18" 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 unit has a watertight cap with screened vent installed.

**E**

**G.** Indicates spool has pressure equalizing passages, for venting well.

**0**

This numeral indicates the type of spool which the pitless unit has. In this case it is a spool having no silent check valves.

**8**

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

**T**

**I.** Indicates the discharge connection is threaded.

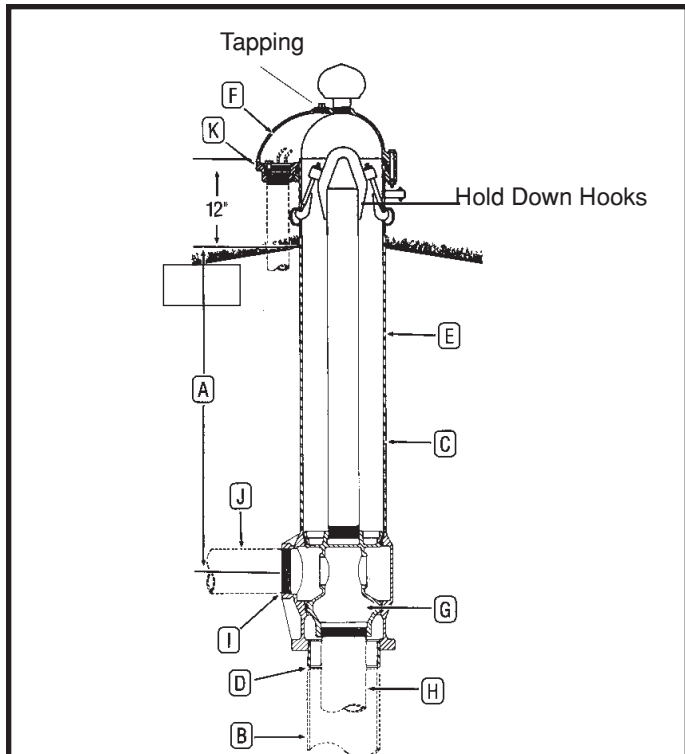
**8**

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

**E**

Indicates Standard Industrial

**S**

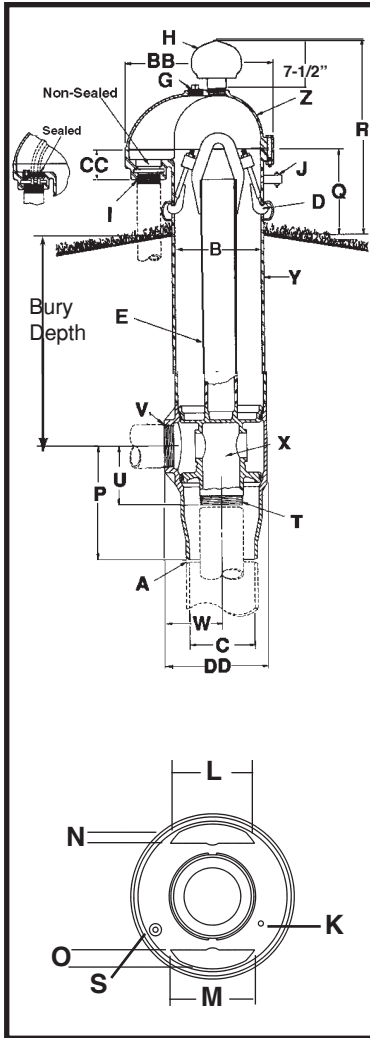


### DESCRIPTION - ORDERING NUMBERS

<b>A</b>	<b>3</b>	Bury Depth in Feet	
	<b>PS</b>	Pitless Unit for Submersible Pump	
<b>B</b>	<b>14</b>	Well Size - Ins.	
<b>C</b>	<b>18</b>	Upper Case Size - Ins.	
<b>D</b>	<b>W</b>	Attachment to Well Casing is Welded	
<b>E</b>	<b>B</b>	Black Upper Case	
<b>F</b>	<b>W</b>	Watertight Cap w/Screened Air Vent	
	<b>E</b>	Pressure Equalizing Spool Passages	
<b>G</b>	<b>0</b>	No. of Check Valves: (0)	
<b>H</b>	<b>8</b>	Drop Pipe I.D. Ins.	
<b>I</b>	<b>T</b>	Threaded NPT Std. Connection	Accessory Discharge Connections
		Flange, ASA 150#	
		Welded	
		Mech. Joint w/transition sleeve	
<b>J</b>	<b>8</b>	Discharge I.D. Ins.	
	<b>E</b>	Std. Industrial	
<b>K</b>	<b>S</b>	Elec. Cable Seal (S) O.D. 3 Wire _____ O.D. Grounding Wire _____	
<b>OPTIONS</b>		Probe Tube (P)	
		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., 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" & 1" NPT std. Also available with single 2", 3" or 4" NPT
- J Depth tester block tappings: ..... 1/4" NPT
- K Pressure zone tappings: ..... (1) 3/8" NPT
- L **MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)**  
Will clear rigid rod parallel to casing ..... 1.93"
- M ..... 4-9/16"
- N Some restrictions apply..... } ..... 1-1/8"
- O ..... 2"
- P Dimension from center of discharge outlet to bottom of discharge Body: ..... 23-11/16"
- 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: ..... .375"
- Z **SEAL CAP:** ..... Watertight cap bolts to a gasketed 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, see Booster Station section.

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

**Note: Pitless units conform to the Recommended Standards for Water works, Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers and Water Systems Council PAS-97 (04) 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**

BB-3-14(05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com



# 14" O.D. Standard Industrial Parts Breakdown

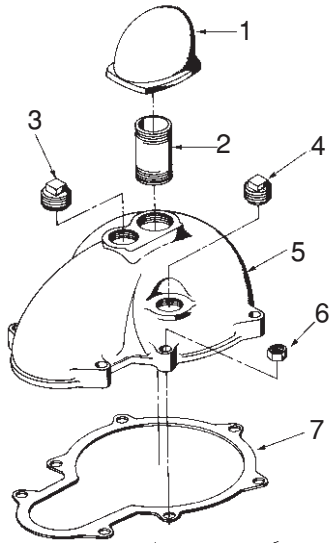


Figure 1

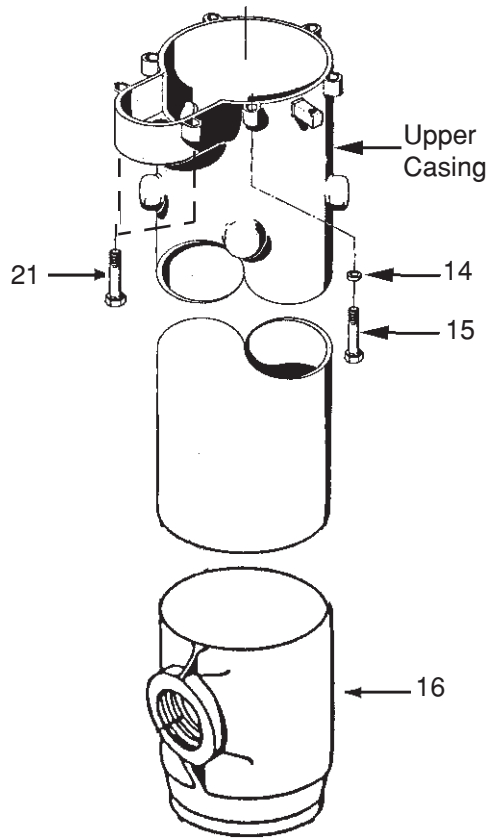


Figure 3

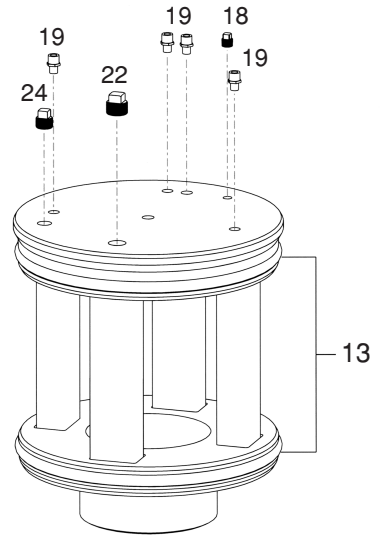


Figure 4

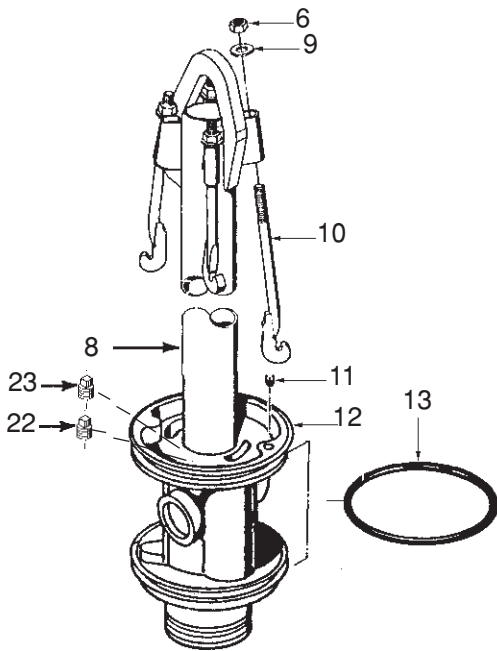


Figure 2

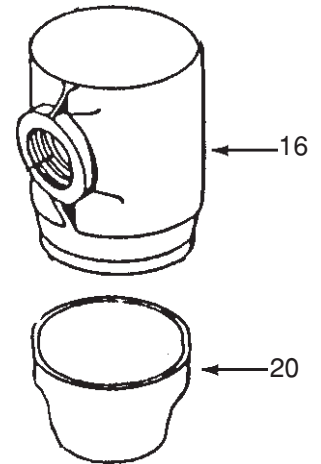


Figure 5

OM5004-14(05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com



## 14" O.D. Standard Industrial Parts Breakdown

The drawings and parts list apply to the model numbers listed below.  
 Note: Add (F) at end of model number for flowing well unit.

Bury Depth	Unit	Well Size Tap	Case Size	Well Casing Attach.	Upper Case	Cap Style	Spool	Drop Pipe I.D.	Drop Discharge Conn.	Discharge I.D.	Std. Model
3' to 8'	PS	14"	18"	W	B	W	E0	8	T	8	E

All units have a watertight cap with screened vent.  
 This Monitor Pitless Unit listed above is equipped with the following type of spool:  
 Spool without check valves, Figure No. 2  
 Spool without check valves for Flowing Well, Figure 4

**NOTE:** Optional Cap Cable Seals Available

Key No.	Ordering Number	Description	Quantity
<b>FIGURE 1</b>			
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	UM1	Seal Cap	1
6	PC286	Hex Nut, 5/8-11NC	12
7	UM72	Gasket	1
<b>FIGURE 2</b>			
8	-----	Spool & lift-out assembly w/o check valves. Order by bury depth	1
9	PC417	Washer	4
10	UM7	Hold-down hook	4
11	UN122	Pipe plug 3/8"-18NPT	1
12	E0188EFR	Spool without check valves	1
13	UM15	O-ring	2
<b>FIGURE 3</b>			
14	UN81	Washer	8
15	UN73S	Hex head cap screw, 5/8-11NC x 4 3/4" L	6
16	UM60E	Discharge Body	1
21	LK4S	Lock Bolt - 5/8" x 4 3/4" L.	2
<b>FIGURE 4</b>			
17	UM8S4EF	Flowing Well Spool without check valves (E0188EFR)	1
18	UN122	Pipe plug - 3/8"-18NPT	1
19	-----	Spool Cable Seals (See Spools & Cable Seals)	
22	UN120	Pipe Plug 1"	1
<b>FIGURE 5</b>			
20	UJ32X22	16"x14" Concentric Reducer	1
24	UJ91	Pipe Plug 3/4"	1



# 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**

**16**

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

**16**

**18**

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

**W**

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

**W**

**B**

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

**W**

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

**E**

**0**

**G.** Indicates spool has pressure equalizing passages, for venting well.

This numeral indicates the type of spool which the pitless unit has. In this case it is a spool having no silent check valves.

**8**

**T**

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

**8**

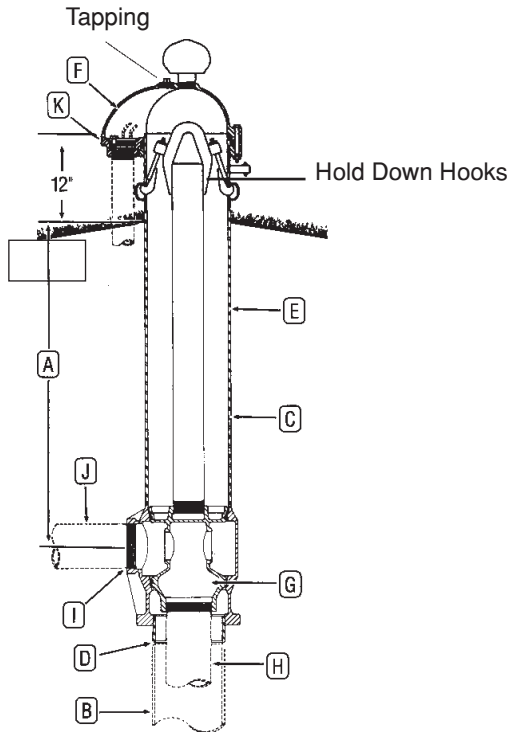
**I.** Indicates the discharge connection is threaded.

**E**

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

**S**

Indicates Standard Industrial

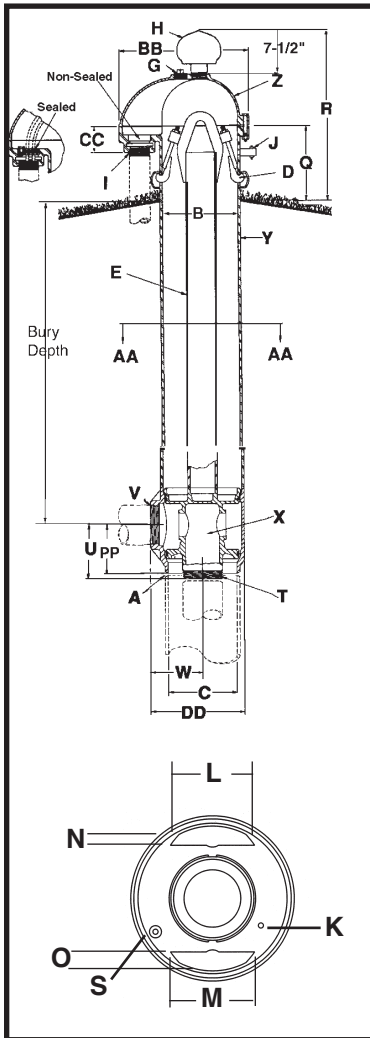


### DESCRIPTION - ORDERING NUMBERS

<b>A</b>	<b>3</b>	Bury Depth in Feet	
	<b>PS</b>	Pitless Unit for Submersible Pump	
<b>B</b>	<b>16</b>	Well Size - Ins.	
<b>C</b>	<b>18</b>	Upper Case Size - Ins.	
<b>D</b>	<b>W</b>	Attachment to Well Casing is Welded	
<b>E</b>	<b>B</b>	Black Upper Case	
<b>F</b>	<b>W</b>	Watertight Cap w/Screened Air Vent	
	<b>E</b>	Pressure Equalizing Spool Passages	
<b>G</b>	<b>0</b>	No. of Check Valves: (0)	
<b>H</b>	<b>8</b>	Drop Pipe I.D. Ins.	
	<b>T</b>	Threaded NPT Std. Connection	
<b>I</b>		Flange, ASA 150#	Accessory Discharge Connections
		Welded	
		Mech. Joint w/transition sleeve	
<b>J</b>	<b>8</b>	Discharge I.D. Ins.	
	<b>E</b>	Std. Industrial	
<b>OPTIONS</b>	<b>K</b>	<b>S</b>	Elec. Cable Seal (S) O.D. 3 Wire _____ O.D. Grounding Wire _____
			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: .....17-1/4" I.D., 18" O.D.
- C Discharge body minimum I.D. .... 15-1/4"
- 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" weld 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" & 1" NPT std. Also available with single 2", 3" or 4" NPT
- J Depth tester block tappings: ..... 1/4" NPT
- K Pressure zone tappings: ..... (1) 3/8" NPT
- L **MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)**  
Will clear rigid rod parallel to casing ..... 1.93"
- M ..... 4-9/16"
- N Some restrictions apply ..... 1-1/8"
- O ..... 2"
- PP Dimension from center of discharge outlet to bottom of weld ring: ..... 13-11/16"
- 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 (optional): ..... 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: ..... 11"
- X **SPOOL ASSEMBLY**
- Y Pitless case wall thickness: ..... .375"
- Z **SEAL CAP:** ..... Watertight cap bolts to a gasketed 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, see Booster Station section.

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

**Note: Pitless units conform to the Recommended Standards for Water works, Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers and Water Systems Council PAS-97 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**

BB-3-16(05-08)



# 16" O.D. Standard Industrial Parts Breakdown

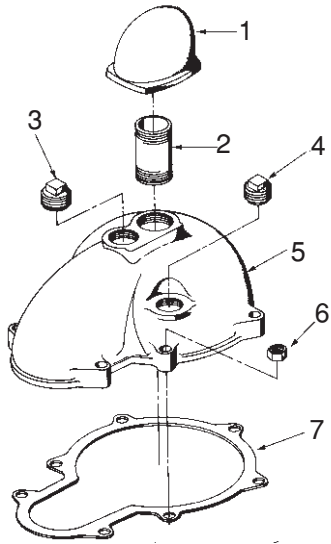


Figure 1

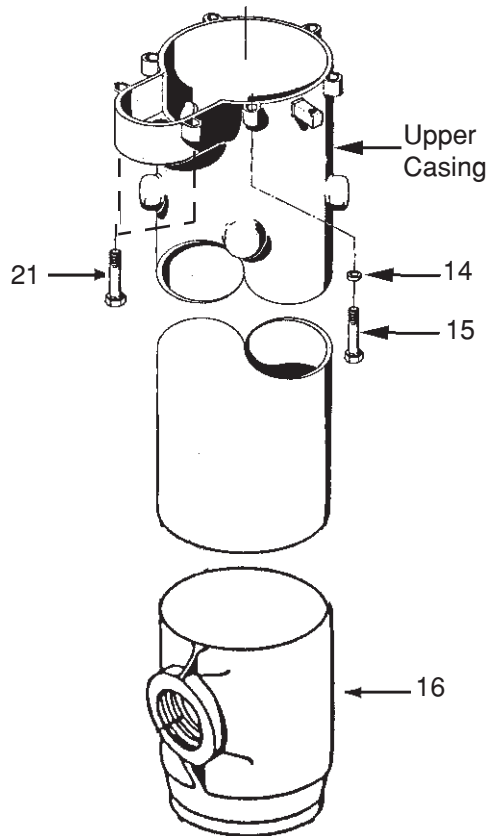


Figure 3

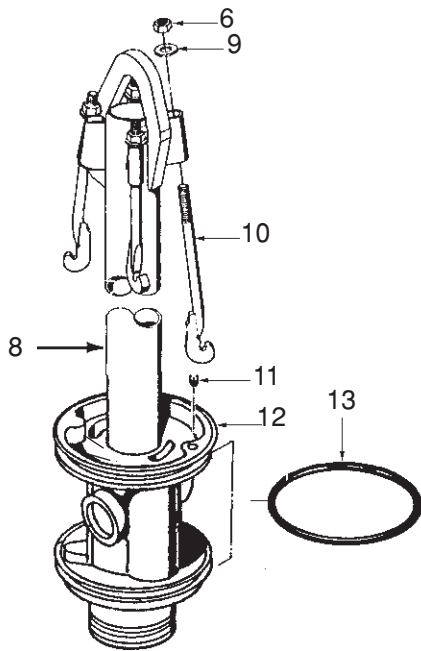


Figure 2

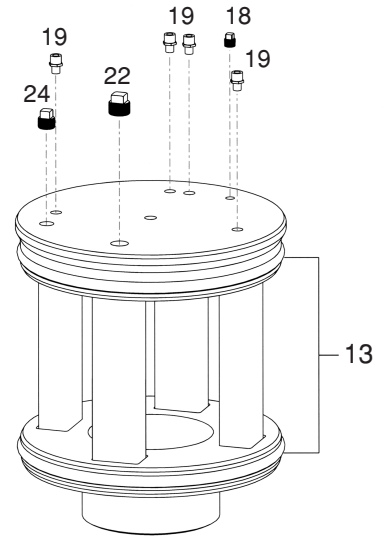


Figure 4

OM5004-16(05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com



## 16" O.D. Standard Industrial Parts Breakdown

The drawings and parts list apply to the model numbers listed below.  
 Note: **Add (F) at end of model number for flowing well unit.**

Bury Depth	Unit	Well Size Tap	Case Size	Well Casing Attach.	Upper Case	Cap Style	Spool	Drop Pipe I.D.	Drop Discharge Conn.	Discharge I.D.	Std. Model
3' to 8'	PS	16"	18"	W	B	W	E0	8	T	8	E

All units have a watertight cap with screened vent.  
 This Monitor Pitless Unit listed above is equipped with the following type of spool:  
 Spool without check valves, Figure No. 2  
 Spool without check valves for Flowing Well, Figure 4

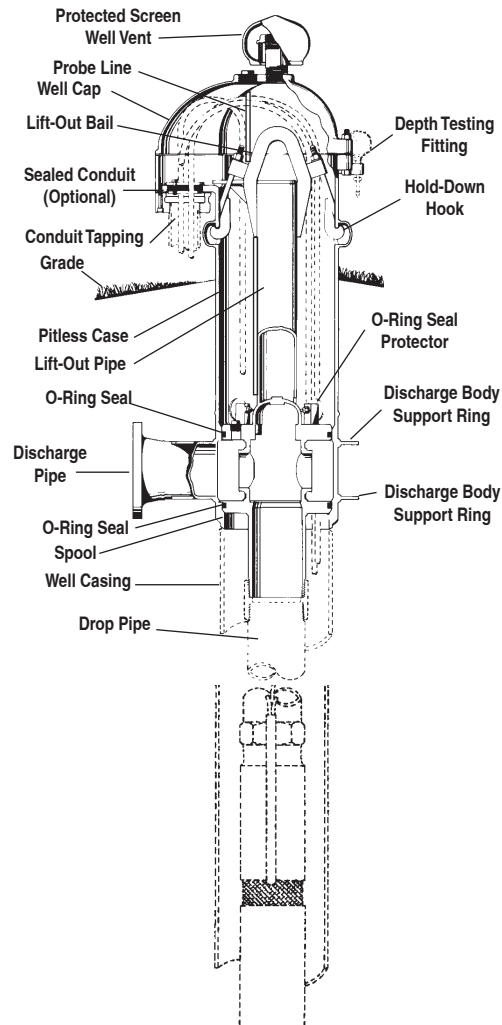
**NOTE:** Optional Cap Cable Seals Available

Key No.	Ordering Number	Description	Quantity
<b>FIGURE 1</b>			
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	UM1	Seal Cap	1
6	PC286S	Hex Nut, 5/8-11NC	12
7	UM72	Gasket	1
<b>FIGURE 2</b>			
8	-----	Spool & lift-out assembly w/o check valves. Order by bury depth	1
9	PC417	Washer	4
10	UM7	Hold-down hook	4
11	UN122	Pipe plug 3/8"-18NPT	1
12	E0188E	Spool without check valves	1
13	UM15	O-ring	2
<b>FIGURE 3</b>			
14	UN81	Washer	8
15	UN73S	Hex head cap screw, 5/8-11NC x 4 3/4" L	6
16	UM60E	Discharge Body	1
21	LK4S	Lock Bolt - 5/8" x 4 3/4" L.	2
<b>FIGURE 4</b>			
17	UM8S4EF	Flowing Well Spool without check valves (E0188EFR)	1
18	UN122	Pipe plug - 3/8"-18NPT	1
19	-----	Spool Cable Seals (See Spools & Cable Seals)	
22	UN120	Pipe Plug 1"	1

OM5004-16(05-08)



## 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 or more inches above grade. The casing extension above grade is then completed with a watertight cap.

**Monitor units conform to the Recommended Standards for Water Works, Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers, Water Systems Council and PAS-97 (04) Standards.**



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

The Monitor PS Custom Industrial Pitless Unit for submersible pumps forms a watertight extension of the well casing which starts below the frost line, where it is buried permanently, and continues upward 12 or more inches above grade, where the pitless case is closed with a watertight cap.

### 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).**

**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.

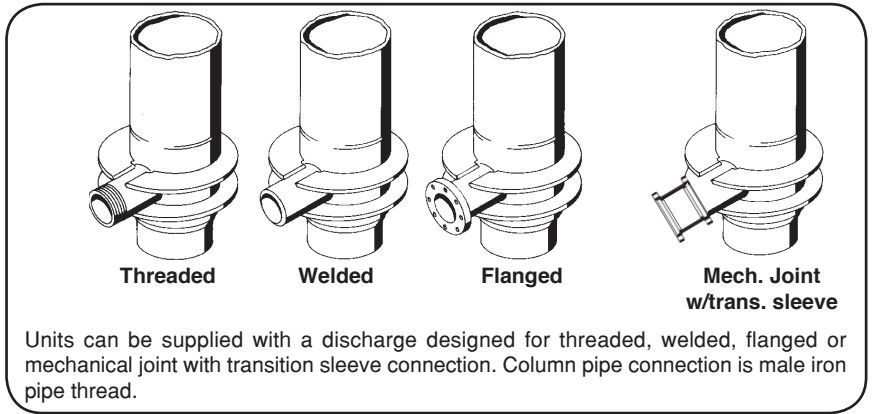
**HOLD-DOWN . . .** Supplied with each unit. Hold-down pipe also serves as lift-out pipe for installation and servicing.

### 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 two o-ring seals; lift-out pipe and bail.

### ALTERNATIVE DISCHARGE CONNECTIONS



**DEPTH TESTS BLOCKS . . .** Standard on all units.

**PROTECTED SCREEN VENT . . .** Standard on all units.

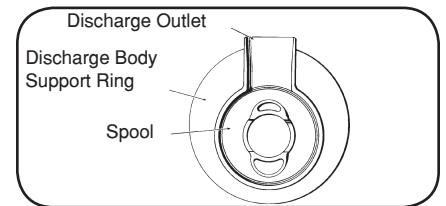
**PROBE TUBE . . .** Standard on all units.

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

**FLOWING WELLS . . .** Units available for most well sizes.

**LOCKING BOLTS** on all units.

### SPOOL STYLES



### NO VALVES SPOOL



## **INSTALLATION INSTRUCTIONS**

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

**NOTE:** Pitless Units are attached to the well casing by welding.

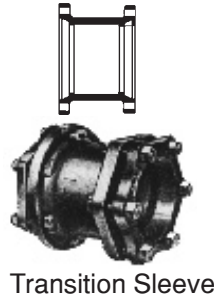
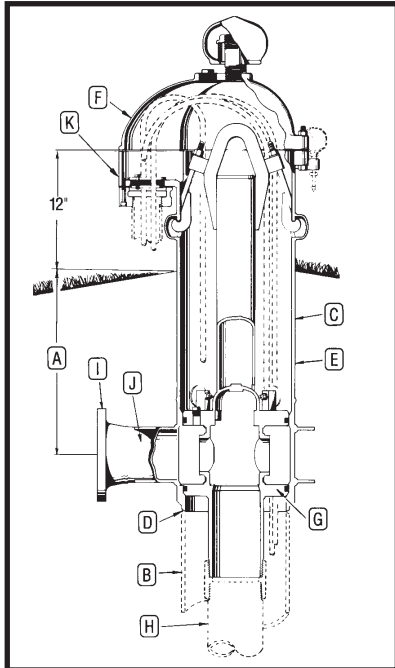
1. All pitless unit cases are joined by welding or threading the unit to the well casing, or kwikonect style by slipping the unit onto the top of the well casing and tightening the bolts.
2. Establish ground level at the well location. It is desirable to have the ground slope away, from pitless unit case, in all directions.
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. In order to do work, 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 center line.
6. Remove the pitless unit cap, loosen the hold-down hooks or spider, and remove spool assembly.  
**NOTE:** (the spool assembly includes a spool with two or no silent check valves; two o-ring seals, lift-out pipe and bail, or hold down 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 CENTER LINE OF THE PITLESS CASE AND 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 sufficiently long 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(05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com

# 10" CUSTOM PITLESS UNIT



**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  
3PS1014WBWE06F6S**

**A.** The first numeral in the order number indicates the bury depth, in feet, of the unit. 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.

**3**

**PS** These letters indicate the type of pump the pitless unit is designed for. The unit shown is a PS for submersible pump.

**PS**

**B.** Indicates the well casing size is 10"

**10**

**C.** Indicates the upper pitless case size is 14".

**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**

Indicates this type of spool has no check valves.

**0**

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

**6**

**I.** Indicates the discharge connection is Flanged. Other options are Welded, Threaded and Mechanical Joint with transition sleeve.

**F**

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

**6**

**K.** Sealed Conduit Connection. (Optional)

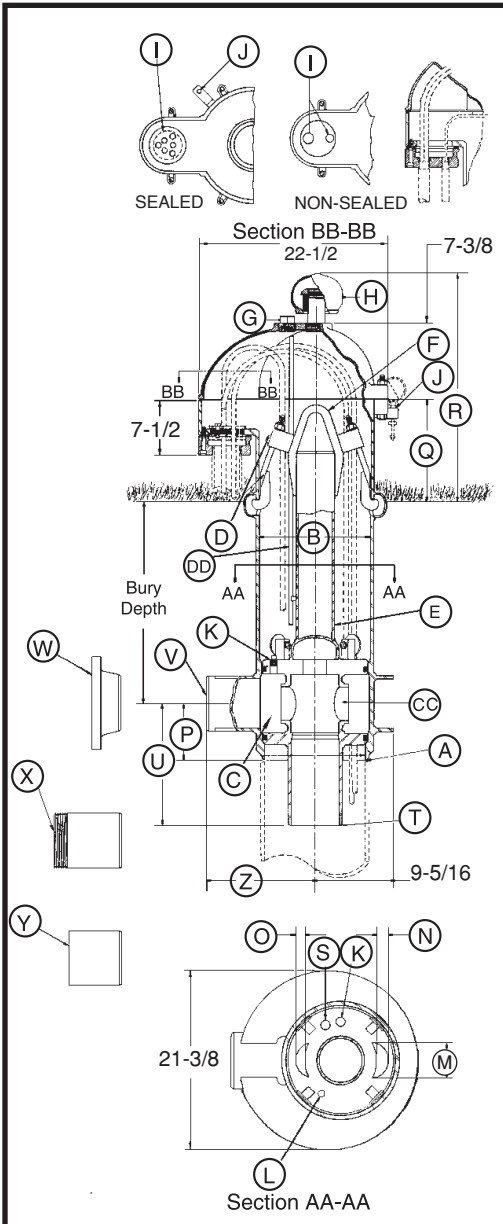
**S**

### DESCRIPTION - ORDERING NUMBERS

<b>A</b>	<b>3</b>	Bury Depth in Feet	
	<b>PS</b>	Pitless Unit for Submersible Pump	
<b>B</b>	<b>10</b>	Well Size - Ins.	
<b>C</b>	<b>14</b>	Upper Case Size - Ins.	
<b>D</b>	<b>W</b>	Attachment to Well Casing-Welded	
<b>E</b>	<b>B</b>	Black Upper Case	
<b>F</b>	<b>W</b>	Watertight Cap w/Screened Air Vent	
	<b>E</b>	Pressure Equalizing Spool Passages	
<b>G</b>	<b>0</b>	Standard Spool	
<b>H</b>	<b>6</b>	Drop Pipe I.D. Ins. (4", 5" or 6")	
<b>I</b>		<u>W</u> elded	Discharge Connection (Select One)
	<b>F</b>	<u>F</u> lange, ASA 150#	
		<u>T</u> hreaded NPT	
		<u>M</u> ech. Joint w/Transition Sleeve	
<b>J</b>	<b>6</b>	Discharge I.D. Ins. (4", 5" or 6")	
<b>K</b>	<b>S</b>	Elec. Cable Seal ( <b>S</b> )	
		O.D. 3 Wire ____ O.D. Grounding Wire ____	
<b>OPTIONS</b>		Water Sampler Valve ( <b>H</b> )	
		Flowing Well ( <b>F</b> )	
		Special Provision ( <b>X</b> )	



# 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 in. I.D., 14 in. O.D.
- C Discharge Body minimum I.D. 10": Large enough to permit insertion of 10 in. pipe during well servicing.
- 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 is Standard 1 in. PVC Pipe.
- E Lift-Out Pipe: 4 in. NPT with standard lift-out bail.
- F Lift-Out Bail: Lift-out pipe and bail assembly designed for a 68,000 lb. load.
- G 2 in. NPT Tapping.
- H Well Vent: Screws into a 2-1/2 in. NPT Tapping.

**CAP CABLE SEALS (SECTION BB-BB)**

- I Conduit Tapping: 2 in. and 1 in. Std. Also available with single 2 in., 3 in., or 4 in. NPT. All tapping sizes available with or without electrical cable seal.
- J Depth Tester Block Tappings: 1/4 in. NPT Std.
- K 1 in. NPT Tapping ported to Drop Pipe.
- L Pressure zone tapping: 3/8 in. NPT Std.

**MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)**

- M 4 in.
- N 1-1/2 in.
- O 1 in.
- P Dimension from center of Discharge Outlet to bottom of Discharge Body: 15-3/4 in.
- Q Distance from ground level to top of the pitless case: 12 in.
- R Distance from ground level to top of the vent cap: 28-1/2 in. (Vent height may be increased if necessary).

**S 3/4 in. NPT Tapping: used for optional Water Sampler.**

T SPOOL TO DROP PIPE THREAD SIZES:	4 IN. NPT	5 IN. NPT	6 IN. NPT
U Dimension from center of discharge outlet to bottom of Spool:	13-7/16 in.	14-7/16 in.	14-1/2 in.

**DISCHARGE CONNECTIONS AND SIZES:**

V For Butt Weld (IPS):	4 in. I.D.	5 in. I.D.	6 in. I.D.
W For Flanged (A.S.A. Std. 150 lb.):	4 in. I.D.	5 in. I.D.	6 in. I.D.
X For Threaded (NPT):	4 in. I.D.	5 in. I.D.	6 in. I.D.
Y For Transition Sleeve (IPS):	4 in. I.D.	Not Available	6 in. I.D.

Z Dimension from center of Well Casing to the end of Discharge Outlet.

With [V] Butt Weld Discharge:	18-1/2 in.	18-1/2 in.	12-15/16 in.
With [W] Flanged Discharge:	21-1/2 in.	22 in.	16-7/16 in.
With [X] Threaded Discharge:	21-7/16 in.	21-7/16 in.	16-15/16 in.
With [Y] Transition Sleeve:	30-1/2 in.	Not Available	24-15/16 in.

**CC SPOOL ASSEMBLY - WITHOUT CHECK VALVES -**

Area of Water Passage(s):	25.12 sq. in.	25.12 sq. in.	25.12 sq. in.
Percent area of water passages to area of drop pipe	195%	125%	87%

## 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

Note: Pitless units conform to the Recommended Standards for Water works, Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers and Water Systems Council PAS-97 (04) Standards.

BB111-10(05-08)

# 10" Custom Pitless Parts Breakdown

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

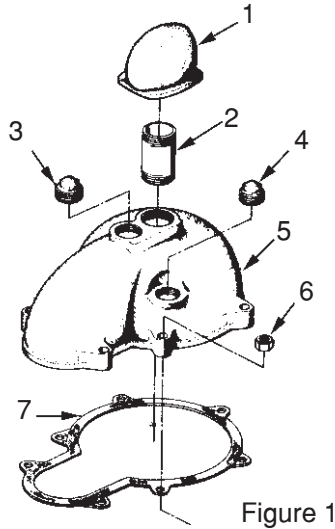


Figure 1

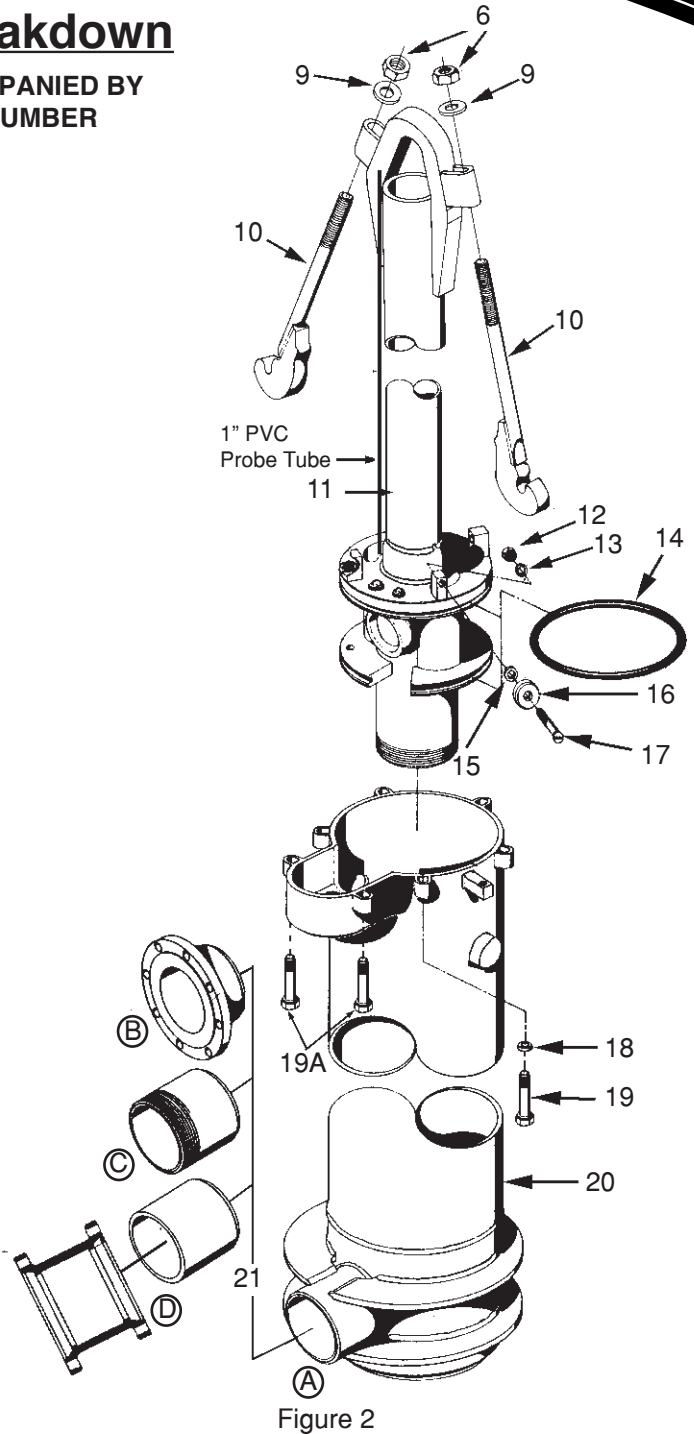


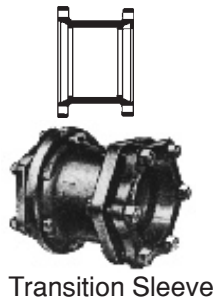
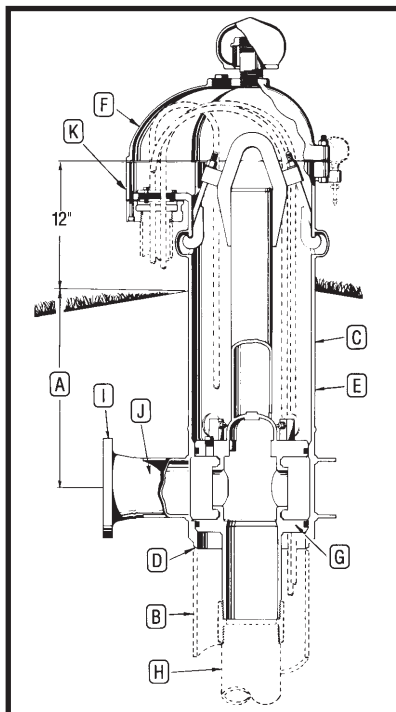
Figure 2

Key No.	Quantity	Description	Ord. No
<b>FIGURE 1</b>			
1	1	Protected Screen Well Vent 2 1/2" NPT	PS155
2	1	Pipe Nipple 2 1/2" NPT x 6" L.	PS365
3	1	Plug Plug 2" NPT	UJ50
4	1	Pipe Plug 1 1/2" NPT	UG54
5	1	Seal Cap	UK12
6	9	Hex Nut 5/8-11NC	PC286S
7	1	Gasket	UK72
<b>FIGURE 2</b>			
9	2	Washer	PC417
10	2	Hold-Down Hook	UJ7
11	1	*Spool & Lift-Out Assembly (Serial No. Required)	-----
12	4	Hex Nut 3/8-16NC	UB17
13	4	Lockwasher	TX31
14	2	O-Ring	UK15
15	4	Washer	SW68
16	4	Washer	UL95
17	4	Machine Screw, 3/8-16NC x 2 1/4" L.	UM222
18	7	Washer	UN81
19	5	Hex Head cap screw, 5/8-11NC x 5" L.	UN73S
19A	2	Lock Bolt, 5/8-11NC x 4 3/4" L.	LK4S
20	1	Discharge Body & Upper Casing Assembly----- (Serial No. Required)	-----
21	---	(4) different discharge connections are available, (A) Welded, (B) Flanged, (C) Threaded or (D) Mechanical Joint with or without Transition Sleeve	

\*Flowing Well Spools Available upon request



# 12" CUSTOM PITLESS UNIT



Transition Sleeve

**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 **3PS1214WBWE06F6S**

**A.** The first numeral in the order number indicates the bury depth, in feet, of the unit. 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.

**3**

**PS** These letters indicate the type of pump the pitless unit is designed for. The unit shown is a PS for submersible pump.

**PS**

**B.** Indicates the well casing size is 12"

**12**

**C.** Indicates the upper pitless case size is 14".

**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**

Indicates this type of spool has no check valves.

**0**

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

**6**

**I.** Indicates the discharge connection is Flanged. Other options are Welded, Threaded and Mechanical Joint with transition sleeve.

**F**

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

**6**

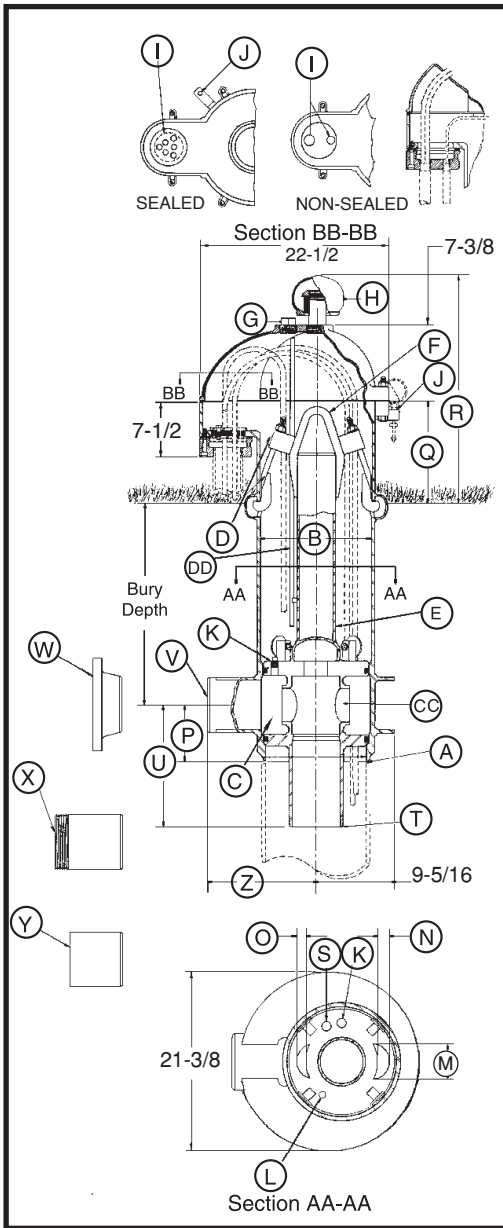
**K.** Sealed Conduit Connection. (Optional)

## DESCRIPTION - ORDERING NUMBERS

<b>A</b>	<b>3</b>	Bury Depth in Feet
	<b>PS</b>	Pitless Unit for Submersible Pump
<b>B</b>	<b>12</b>	Well Size - Ins.
<b>C</b>	<b>14</b>	Upper Case Size - Ins.
<b>D</b>	<b>W</b>	Attachment to Well Casing-Welded
<b>E</b>	<b>B</b>	Black Upper Case
<b>F</b>	<b>W</b>	Watertight Cap w/Screened Air Vent
	<b>E</b>	Pressure Equalizing Spool Passages
<b>G</b>	<b>0</b>	Standard Spool
<b>H</b>	<b>6</b>	Drop Pipe I.D. Ins. (4", 5" or 6")
<b>I</b>		Welded
	<b>F</b>	Flange, ASA 150#
		Threaded NPT
		Mech. Joint w/Transition Sleeve
		Discharge Connection (Select One)
<b>J</b>	<b>6</b>	Discharge I.D. Ins. (4", 5" or 6")
<b>K</b>	<b>S</b>	Elec. Cable Seal (S) O.D. 3 Wire ____ O.D. Grounding Wire ____
<b>OPTIONS</b>		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 in. I.D., 14 in. O.D.
- C Discharge Body minimum I.D. 12": Large enough to permit insertion of 12-1/4" O.D. X1/8" wall tube during well servicing.
- 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 in. PVC Pipe.
- E Lift-Out Pipe: 4 in. NPT with standard lift-out bail.
- F Lift-Out Bail: Lift-out pipe and bail assembly designed for a 68,000 lb. load.
- G 2 in. NPT Tapping.
- H Well Vent: Screws into a 2-1/2 in. NPT Tapping.
- CAP CABLE SEALS (SECTION BB-BB)**
- I Conduit Tapping: 2 in. and 1 in. Std. Also available with single 2 in., 3 in., or 4 in. NPT. All tapping sizes available with or without electrical cable seal.
- J Depth Tester Block Tappings: 1/4 in. NPT Std.
- K 1 in. NPT Tapping ported to Drop Pipe.
- L Pressure zone tapping: 3/8 in. NPT Std.
- MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)**
- M 4 in.
- N 1-1/2 in.
- O 1 in.
- P Dimension from center of Discharge Outlet to bottom of Discharge Body: 15-3/4 in.
- Q Distance from ground level to top of the pitless case: 12 in.
- R Distance from ground level to top of the vent cap: 28-1/2 in. (Vent Height may be increased if necessary).
- S 3/4 in. NPT Tapping: used for optional Water Sampler.
- SPOOL TO DROP PIPE THREAD SIZES:**

	4 in. NPT	5 in. NPT	6 in. NPT
U Dimension from center of discharge outlet to bottom of Spool:.....	13-7/16 in.	14-7/16 in.	14-1/2 in.

- DISCHARGE CONNECTIONS AND SIZES:**

	4 in. I.D.	5 in. I.D.	6 in. I.D.
V For Butt Weld (IPS):.....	4 in. I.D.	5 in. I.D.	6 in. I.D.
W For Flanged (A.S.A. Std. 150 lb.):.....	4 in. I.D.	5 in. I.D.	6 in. I.D.
X For Threaded (NPT):.....	4 in. I.D.	5 in. I.D.	6 in. I.D.
Y For Transition Sleeve (IPS):.....	4 in. I.D.	Not Available	6 in. I.D.

- Z Dimension from center of Well Casing to the end of Discharge Outlet.

With [V] Butt Weld Discharge:.....	18-1/2 in.	18-1/2 in.	12-15/16 in.
With [W] Flanged Discharge:.....	21-1/2 in.	21-1/2 in.	16-7/16 in.
With [X] Threaded Discharge:.....	21-7/16 in.	21-7/16 in.	16-15/16 in.
With [Y] Transition Sleeve:.....	30-1/2 in.	Not Available	24-15/16 in.

- CC **SPOOL ASSEMBLY - WITHOUT CHECK VALVES -**

Area of Water Passage(s):.....	25.12 sq. in.	25.12 sq. in.	25.12 sq. in.
Percent area of water passages to area of drop pipe.....	195%	125%	87%

## 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

Note: Pitless units conform to the Recommended Standards for Water works, Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers and Water Systems Council PAS-97 (04) Standards.

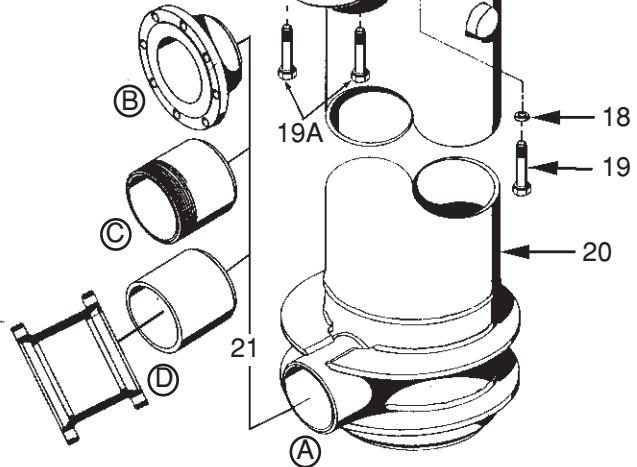
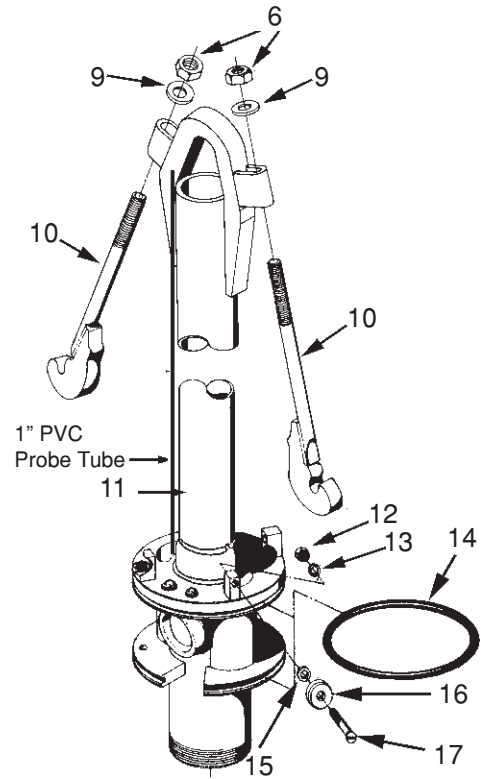
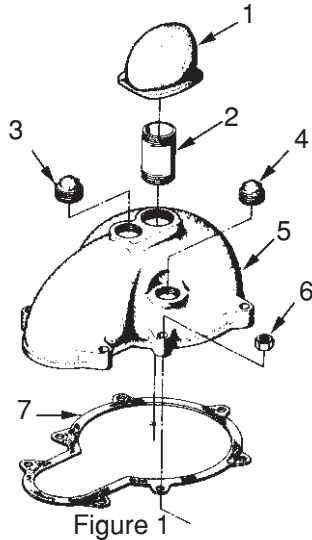
BB111-12(05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com



# 12" Custom Pitless Parts Breakdown

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



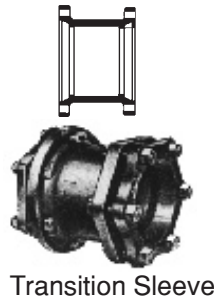
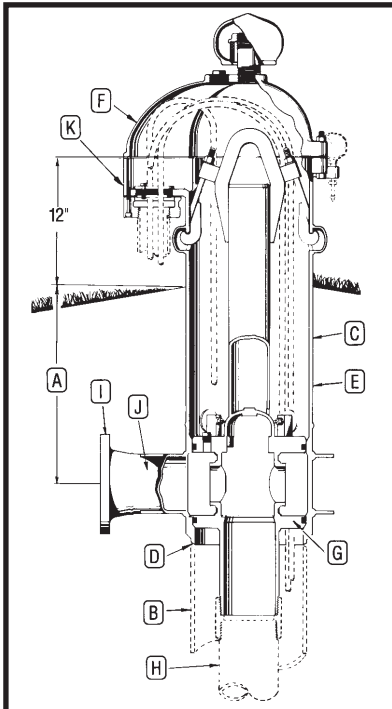
Key No.	Quantity	Description	Ord. No
<b>FIGURE 1</b>			
1	1	Protected Screen Well Vent 2 1/2" NPT	PS155
2	1	Pipe Nipple 2 1/2" NPT x 6" L.	PS365
3	1	Plug Plug 2" NPT	UJ50
4	1	Pipe Plug 1 1/2" NPT	UG54
5	1	Seal Cap	UK12
6	9	Hex Nut 5/8-11NC	PC286S
7	1	Gasket	UK72
<b>FIGURE 2</b>			
9	2	Washer	PC417
10	2	Hold-Down Hook	UJ7
11	1	*Spool & Lift-Out Assembly (Serial No. Required)	-----
12	4	Hex Nut 3/8-16NC	UB17
13	4	Lockwasher	TX31
14	2	O-Ring	UK15
15	4	Washer	SW68
16	4	Washer	UL95
17	4	Machine Screw, 3/8-16NC x 2 1/4" L.	UM222
18	7	Washer	UN81
19	5	Hex Head cap screw, 5/8-11NC x 5" L.	UN73S
19A	2	Lock Bolt, 5/8-11NC x 4 3/4" L.	LK4S
20	1	Discharge Body & Upper Casing Assembly----- (Serial No. Required)	-----
21	---	(4) different discharge connections are available, (A) Welded, (B) Flanged, (C) Threaded or (D) Mechanical Joint with or without Transition Sleeve	

\*Flowing Well Spools Available upon request

OM5000-12(05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com

# 14" CUSTOM PITLESS UNIT



**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

**3PS1416WBWE08F8S**

**3** A. The first numeral in the order number indicates the bury depth, in feet, of the unit. 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.

**PS** These letters indicate the type of pump the pitless unit is designed for. The unit shown is a PS for submersible pump.

**14** B. Indicates the well casing size is 14"

**16** C. Indicates the upper pitless case size is 16".

**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** Indicates this type of spool has no check valves.

**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 transition sleeve.

**8** J. Indicates the size of discharge pipe in inches.

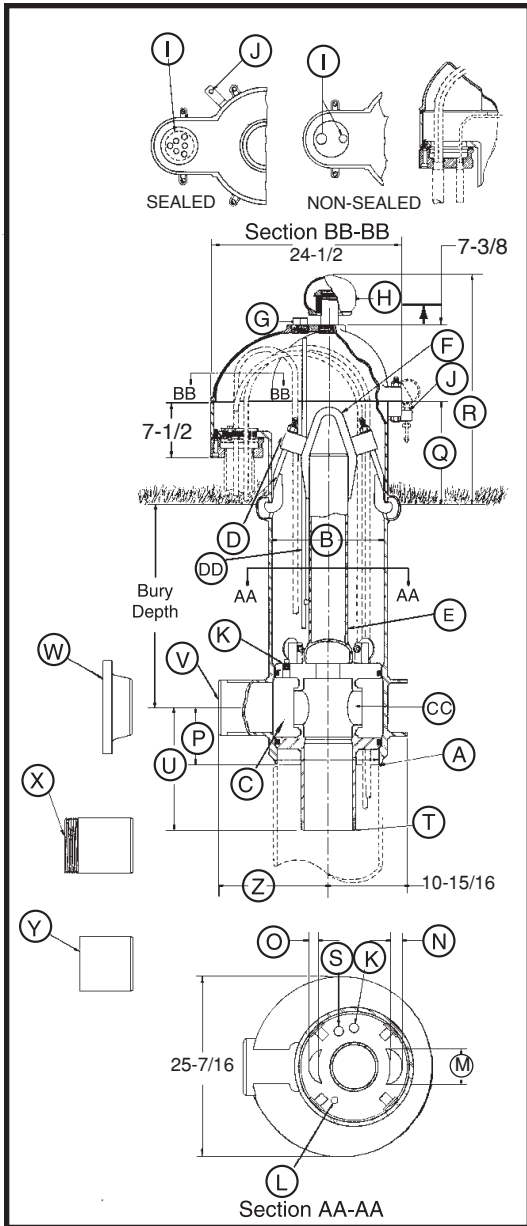
**S** K. Sealed Conduit Connection. (Optional)

## DESCRIPTION - ORDERING NUMBERS

<b>A</b>	<b>3</b>	Bury Depth in Feet
	<b>PS</b>	Pitless Unit for Submersible Pump
<b>B</b>	<b>14</b>	Well Size - Ins.
<b>C</b>	<b>16</b>	Upper Case Size - Ins.
<b>D</b>	<b>W</b>	Attachment to Well Casing-Welded
<b>E</b>	<b>B</b>	Black Upper Case
<b>F</b>	<b>W</b>	Watertight Cap w/Screened Air Vent
	<b>E</b>	Pressure Equalizing Spool Passages
<b>G</b>	<b>0</b>	Standard Spool
<b>H</b>	<b>8</b>	Drop Pipe I.D. Ins. (5", 6" or 8")
<b>I</b>		Welded
	<b>F</b>	Flange, ASA 150#
		Threaded NPT
		Mech. Joint w/Transition Sleeve
		Discharge Connection (Select One)
<b>J</b>	<b>8</b>	Discharge I.D. Ins. (5", 6" or 8")
<b>K</b>	<b>S</b>	Elec. Cable Seal (S) O.D. 3 Wire ____ O.D. Grounding Wire ____
<b>OPTIONS</b>		Water Sampler Valve (H)
		Flowing Well (F)
		Special Provision (X)



# 14" CUSTOM PITLESS SPECIFICATIONS



**Note: Pitless units conform to the Recommended Standards for Water works, Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers and Water Systems Council PAS-97 (04) Standards.**

- A Pitless Unit to well casing connection:** Chamfered for butt weld.
- B Pitless Unit with Black Upper Case:** 15-1/4 in. I.D., 16 in. O.D.
- C Discharge Body minimum I.D. 13-1/4":** Large enough to permit insertion of 14 in. O.D. tubing to this point for well servicing.
- 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 in. PVC Pipe.
- E Lift-Out Pipe:** 5 in. NPT with standard lift-out bail.
- F Lift-Out Bail:** Lift-out pipe and bail assembly designed for a 110,000 lb. load.
- G 2 in. NPT Tapping.**
- H Well Vent:** Screws into a 2-1/2 in. NPT Tapping.
- CAP CABLE SEALS (SECTION BB-BB)**
- I Conduit Tapping:** 2 in. and 1 in. Std. Also available with single 2 in., 3 in., or 4 in. NPT. All tapping sizes available with or without electrical cable seal.
- J Depth Tester Block Tappings:** 1/4 in. NPT Std.
- K Two 1 in. NPT Tappings ported to Drop Pipe.**
- L Pressure zone tapping:** 3/8 in. NPT Std.
- MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)**
- M 4 in.**
- N 1-7/8 in.**
- O 1-1/4 in.**
- P Dimension from center of Discharge Outlet to bottom of Discharge Body:** 11-1/16 in.
- Q Distance from ground level to top of the pitless case:** 12 in.
- R Distance from ground level to top of the vent cap:** 28-15/16 in. (Vent Height may be increased if necessary).
- S 3/4 in. NPT Tapping:** used for optional Water Sampler.

<b>T SPOOL TO DROP PIPE THREAD SIZES:</b>	<b>5 in. NPT</b>	<b>6 in. NPT</b>	<b>8 in. NPT</b>
<b>U Dimension from center of discharge outlet to bottom of Spool:</b>	16-3/16 in.	21-13/16 in.	15-13/16 in.
<b>DISCHARGE CONNECTIONS AND SIZES:</b>			
<b>V For Butt Weld (IPS):</b>	5 in. I.D.	6 in. I.D.	8 in. I.D.
<b>W For Flanged (A.S.A. Std. 150 lb.):</b>	5 in. I.D.	6 in. I.D.	8 in. I.D.
<b>X For Threaded (NPT):</b>	5 in. I.D.	6 in. I.D.	8 in. I.D.
<b>Y For Transition Sleeve (IPS):</b>	5 in. I.D.	6 in. I.D.	8 in. I.D.
<b>Z Dimension from center of Well Casing to the end of Discharge Outlet.</b>			
With <b>[V]</b> Butt Weld Discharge:	20-9/16 in.	20-9/16 in.	14-1/2 in.
With <b>[W]</b> Flanged Discharge:	24-1/16 in.	24-1/16 in.	18-1/2 in.
With <b>[X]</b> Threaded Discharge:	23-9/16 in.	24-9/16 in.	18-1/2 in.
With <b>[Y]</b> Transition Sleeve:	Not Available	32-9/16 in.	26-1/2 in.
<b>CC SPOOL ASSEMBLY - WITHOUT CHECK VALVES -</b>			
Area of Water Passage(s):	19.6 sq. in.	39.2 sq. in.	39.2 sq. in.
Percent area of water passages to area of drop pipe	100%	138%	78.2%

## 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

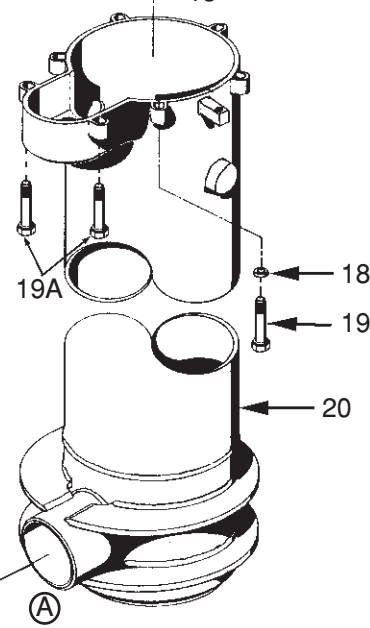
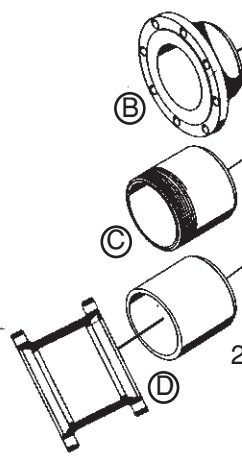
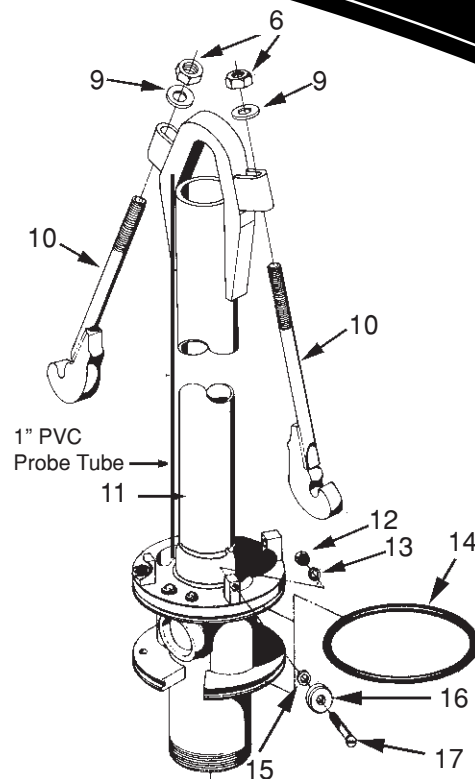
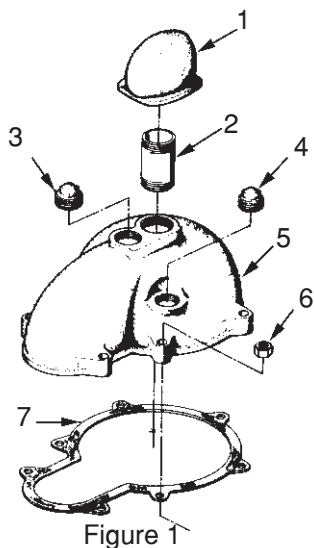
**NOTE:** Any combination between Drop Pipe and Discharge Outlet size is possible, if required.

**NOTE:** Maximum rated discharge pressure = 300 PSI

BB113-14(05-08)

# 14" Custom Pitless Parts Breakdown

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

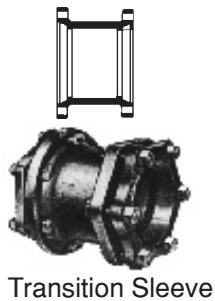
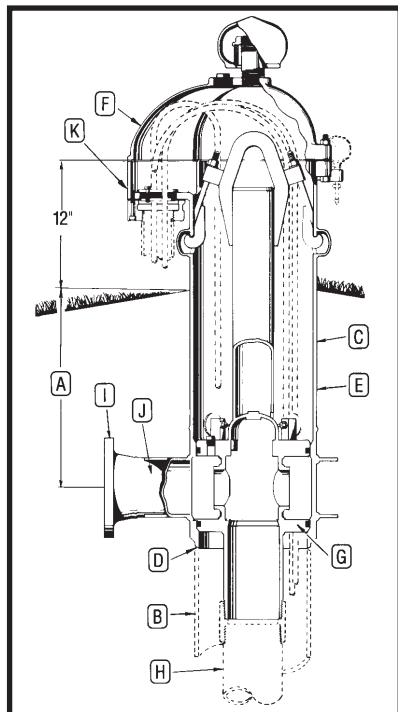


Key No.	Quantity	Description	Ord. No
<b>FIGURE 1</b>			
1	1	Protected Screen Well Vent 2 1/2" NPT	PS155
2	1	Pipe Nipple 2 1/2" NPT x 6" L.	PS365
3	1	Plug Plug 2" NPT	UJ50
4	1	Pipe Plug 1 1/2" NPT	UG54
5	1	Seal Cap	UL1
6	9	Hex Nut 5/8-11NC	PC286S
7	1	Gasket	UL102
<b>FIGURE 2</b>			
9	2	Washer	PC417
10	2	Hold-Down Hook	UK7
11	1	*Spool & Lift-Out Assembly (Serial No. Required)	-----
12	4	Hex Nut 3/8-16NC	UB17
13	4	Lockwasher	TX31
14	2	O-Ring	UL15
15	4	Washer	SW68
16	4	Washer	UL95
17	4	Machine Screw, 3/8-16NC x 2 1/4" L.	UM222
18	7	Washer	UN81
19	5	Hex Head cap screw, 5/8-11NC x 5" L.	UN73S
19A	2	Lock Bolt, 5/8-11NC x 4 3/4" L.	LK4S
20	1	Discharge Body & Upper Casing Assembly----- (Serial No. Required)	-----
21	---	(4) different discharge connections are available, (A) Welded, (B) Flanged, (C) Threaded or (D) Mechanical Joint with or without Transition Sleeve	

\*Flowing Well Spools Available upon request



## 16" CUSTOM PITLESS UNIT



Transition Sleeve

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.

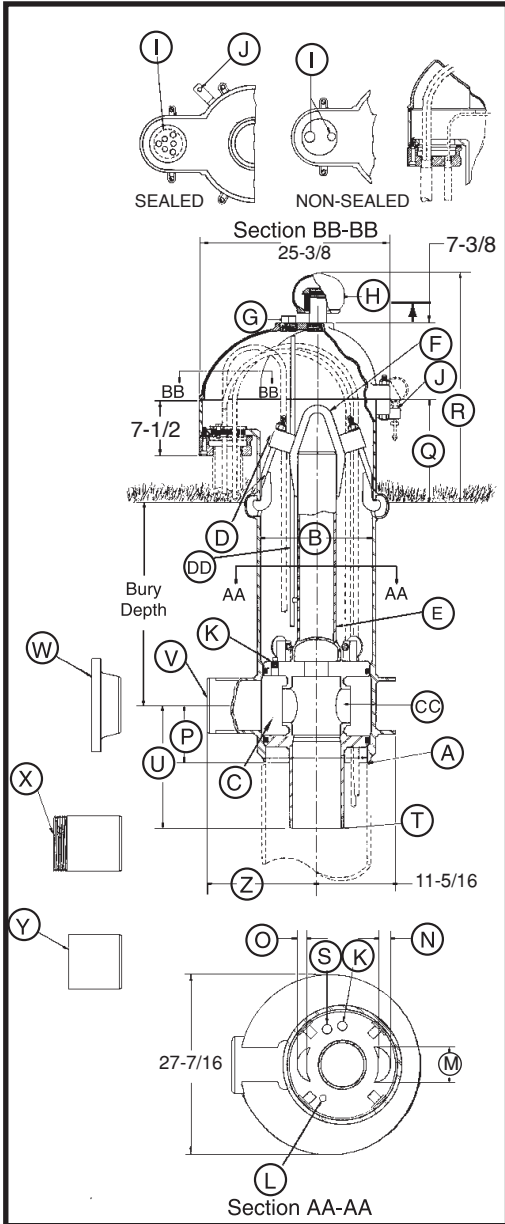
### Typical Order Number 3PS1618WBWE08F8S

- 3** A. The first numeral in the order number indicates the bury depth, in feet, of the unit. 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.
- PS** These letters indicate the type of pump the pitless unit is designed for. The unit shown is a PS for submersible pump.
- 16** B. Indicates the well casing size is 16"
- 18** C. Indicates the upper pitless case size is 18".
- 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** Indicates this type of spool has no check valves.
- 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 transition sleeve.
- 8** J. Indicates the size of discharge pipe in inches.
- S** K. Sealed Conduit Connection. (Optional)

### DESCRIPTION - ORDERING NUMBERS

<b>A</b>	<b>3</b>	Bury Depth in Feet
	<b>PS</b>	Pitless Unit for Submersible Pump
<b>B</b>	<b>16</b>	Well Size - Ins.
<b>C</b>	<b>18</b>	Upper Case Size - Ins.
<b>D</b>	<b>W</b>	Attachment to Well Casing-Welded
<b>E</b>	<b>B</b>	Black Upper Case
<b>F</b>	<b>W</b>	Watertight Cap w/Screened Air Vent
	<b>E</b>	Pressure Equalizing Spool Passages
<b>G</b>	<b>0</b>	Standard Spool
<b>H</b>	<b>8</b>	Drop Pipe I.D. Ins. (5", 6" or 8")
<b>I</b>		<u>W</u> elded
	<b>F</b>	<u>F</u> lange, ASA 150#
		<u>T</u> hreaded NPT
		<u>M</u> ech. Joint w/Transition Sleeve
		Discharge Connection (Select One)
<b>J</b>	<b>8</b>	Discharge I.D. Ins. (5", 6" or 8")
<b>K</b>	<b>S</b>	Elec. Cable Seal ( <b>S</b> )
		O.D. 3 Wire ____ O.D. Grounding Wire ____
<b>OPTIONS</b>		Water Sampler Valve ( <b>H</b> )
		Flowing Well ( <b>F</b> )
		Special Provision ( <b>X</b> )

# 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 in. I.D., 18 in. O.D.
- C Discharge Body minimum I.D. 15-1/4":** Large enough to permit insertion of 16 in. O.D. tubing 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 in. PVC Pipe.
- E Lift-Out Pipe:** 5 in. NPT with standard lift-out bail.
- F Lift-Out Bail:** Lift-out pipe and bail assembly designed for a 110,000 lb. load.
- G 2 in. NPT Tapping.**
- H Well Vent:** Screws into a 2-1/2 in. NPT Tapping.
- CAP CABLE SEALS (SECTION BB-BB)**
- I Conduit Tapping:** 2 in. and 1 in. Std. Also available with single 2 in., 3 in., or 4 in. NPT. All tapping sizes available with or without electrical cable seal.
- J Depth Tester Block Tappings:** 1/4 in. NPT. Std.
- K Two 1 in. NPT Tappings ported to Drop Pipe.**
- L Pressure zone tapping:** 3/8 in. NPT Std.
- MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)**
- M 5 in.**
- N 2-1/4 in.**
- O 1-1/4 in.**
- P Dimension from center of Discharge Outlet to bottom of Discharge Body:** 11-1/16 in.
- Q Distance from ground level to top of the pitless case:** 12 in.
- R Distance from ground level to top of the vent cap:** 28-1/4 in. (Vent Height may be increased if necessary).
- S 3/4 in. NPT Tapping:** used for optional Water Sampler.
- T SPOOL TO DROP PIPE THREAD SIZES:**

	5 in. NPT	6 in. NPT	8 in. NPT
<b>U Dimension from center of discharge outlet to bottom of Spool:</b>	16-1/4 in.	21-7/8 in.	15-13/16 in.

- DISCHARGE CONNECTIONS AND SIZES:**

	5 in. I.D.	6 in. I.D.	8 in. I.D.
<b>V For Butt Weld (IPS):</b>	5 in. I.D.	6 in. I.D.	8 in. I.D.
<b>W For Flanged (A.S.A. Std. 150 lb.):</b>	5 in. I.D.	6 in. I.D.	8 in. I.D.
<b>X For Threaded (NPT):</b>	5 in. I.D.	6 in. I.D.	8 in. I.D.
<b>Y For Transition Sleeve (IPS):</b>	5 in. I.D.	6 in. I.D.	8 in. I.D.

- Z Dimension from center of Well Casing to the end of Discharge Outlet.**

With [V] Butt Weld Discharge:	23 in.	23 in.	17 in.
With [W] Flanged Discharge:	26-1/2 in.	26-1/2 in.	21 in.
With [X] Threaded Discharge:	26 in.	27 in.	21 in.
With [Y] Transition Sleeve:	Not Available	35 in.	29 in.

- CC SPOOL ASSEMBLY - WITHOUT CHECK VALVES -**

Area of Water Passage(s):	19.6 sq. in.	39.2 sq. in.	39.2 sq. in.
Percent area of water passages to area of drop pipe	100%	138%	78.2%

## 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

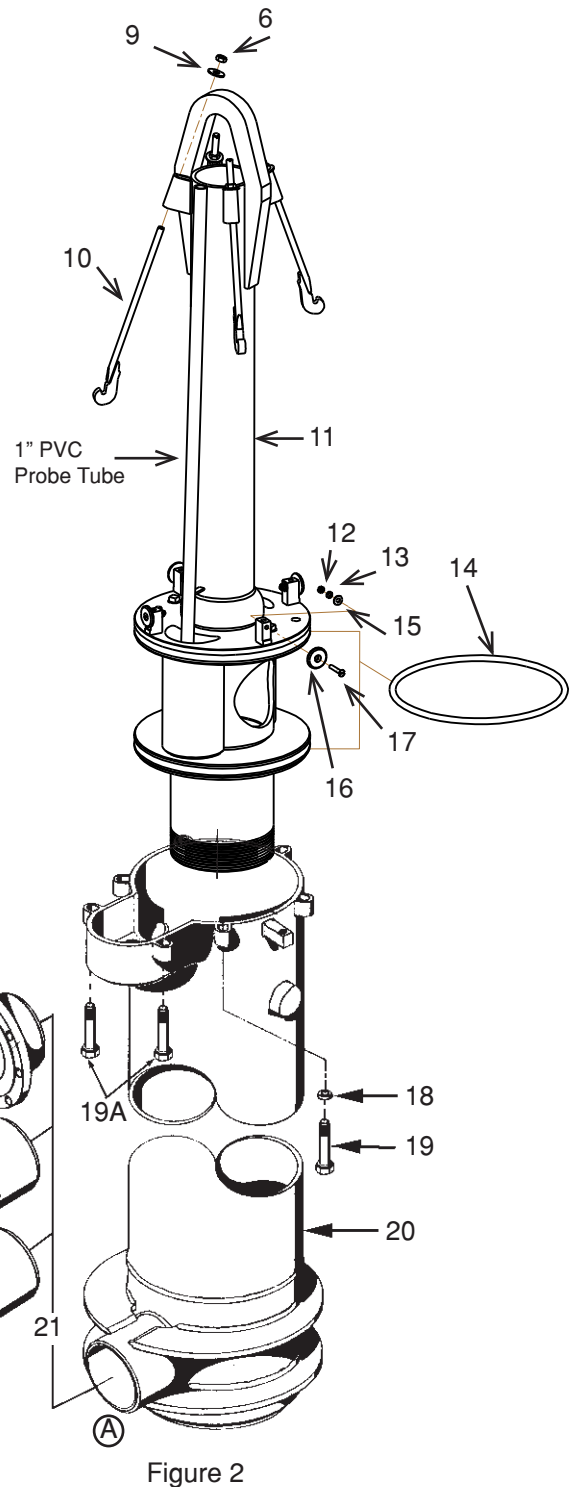
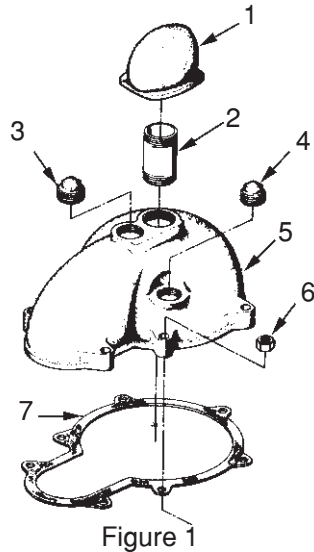
**Note:** Pitless units conform to the Recommended Standards for Water works, Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers and Water Systems Council PAS-97 (04) Standards.

BB114-16(05-08)



# 16" Custom Pitless Parts Breakdown

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



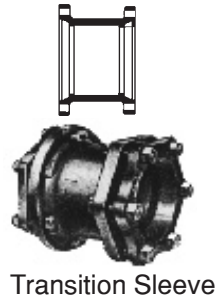
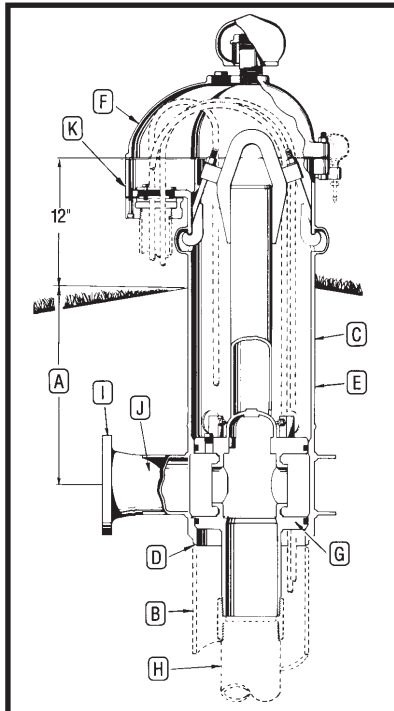
Key No.	Quantity	Description	Ord. No
<b>FIGURE 1</b>			
1	1	Protected Screen Well Vent 2 1/2" NPT	PS155
2	1	Pipe Nipple 2 1/2" NPT x 6" L.	PS365
3	1	Plug Plug 2" NPT	UJ50
4	1	Pipe Plug 1 1/2" NPT	UG54
5	1	Seal Cap	UM1
6	9	Hex Nut 5/8-11NC	PC286S
7	1	Gasket	UM72
<b>FIGURE 2</b>			
9	4	Washer	PC417
10	4	Hold-Down Hook	UM7
11	1	*Spool & Lift-Out Assembly (Serial No. Required)	-----
12	4	Hex Nut 3/8-16NC	UB17
13	4	Lockwasher	TX31
14	2	O-Ring	UM15
15	4	Washer	SW68
16	4	Washer	UL95
17	4	Machine Screw, 3/8-16NC x 2 1/4" L.	UM222
18	7	Washer	UN81
19	5	Hex Head cap screw, 5/8-11NC x 5" L.	UN73S
19A	2	Lock Bolt, 5/8-11NC x 4 3/4" L.	LK4S
20	1	Discharge Body & Upper Casing Assembly----- (Serial No. Required)	-----
21	---	(4) different discharge connections are available, (A) Welded, (B) Flanged, (C) Threaded or (D) Mechanical Joint with or without Transition Sleeve	

\*Flowing Well Spools Available upon request

OM5001-16(05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
 Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com

# 18" CUSTOM PITLESS UNIT



**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

## 3PS1820WBWE010F10S

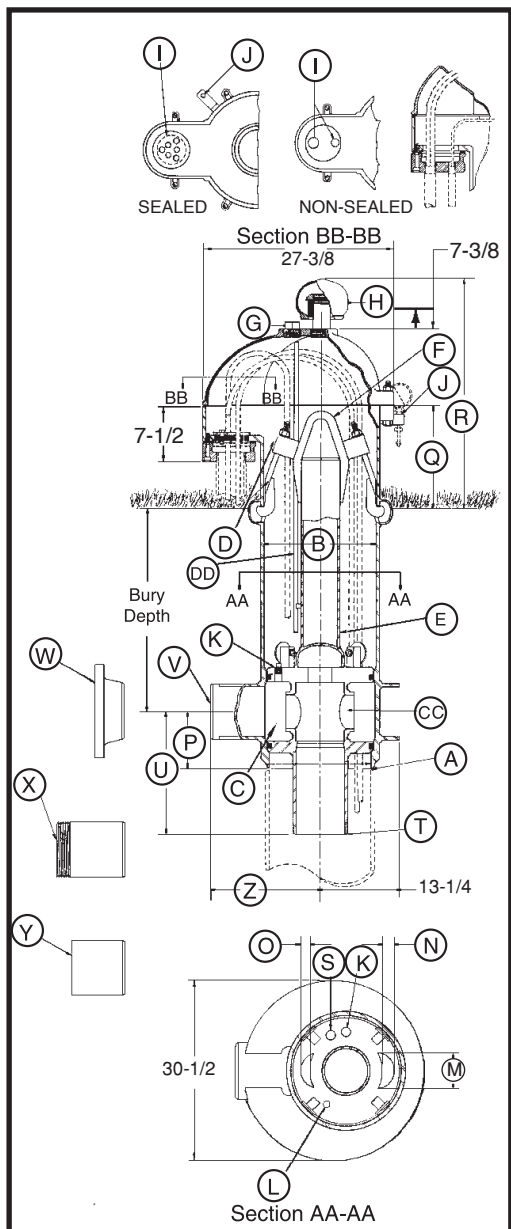
- 3** A. The first numeral in the order number indicates the bury depth, in feet, of the unit. Bury depth on all units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes.
- PS** These letters indicate the type of pump the pitless unit is designed for. The unit shown is a PS for submersible pump.
- 18** B. Indicates the well casing size is 18"
- 20** C. Indicates the upper pitless case size is 20".
- 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** Indicates this type of spool has no check valves.
- 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 transition sleeve.
- 10** J. Indicates the size of discharge pipe in inches.
- S** K. Sealed Conduit Connection. (Optional)

### DESCRIPTION - ORDERING NUMBERS

<b>A</b>	<b>3</b>	Bury Depth in Feet
	<b>PS</b>	Pitless Unit for Submersible Pump
<b>B</b>	<b>18</b>	Well Size - Ins.
<b>C</b>	<b>20</b>	Upper Case Size - Ins.
<b>D</b>	<b>W</b>	Attachment to Well Casing-Welded
<b>E</b>	<b>B</b>	Black Upper Case
<b>F</b>	<b>W</b>	Watertight Cap w/Screened Air Vent
	<b>E</b>	Pressure Equalizing Spool Passages
<b>G</b>	<b>0</b>	Standard Spool
<b>H</b>	<b>10</b>	Drop Pipe I.D. Ins. (6", 8" or 10")
<b>I</b>		Welded
	<b>F</b>	Flange, ASA 150#
		Threaded NPT
		Mech. Joint w/Transition Sleeve
		Discharge Connection (Select One)
<b>J</b>	<b>10</b>	Discharge I.D. Ins. (6", 8" or 10")
<b>K</b>	<b>S</b>	Elec. Cable Seal (S) O.D. 3 Wire ____ O.D. Grounding Wire ____
<b>OPTIONS</b>		Water Sampler Valve (H)
		Flowing Well (F)
		Special Provision (X)



# 18" CUSTOM PITLESS SPECIFICATIONS



Note: Pitless units conform to the Recommended Standards for Water works, Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers and Water Systems Council PAS-97 (04) Standards.

- A Pitless Unit to well casing connection: Chamfered for butt weld.
- B Pitless Unit with Black Upper Case: 19-1/4 in. I.D., 20 in. O.D.
- C Discharge Body minimum I.D. 17-1/4": Large enough to permit insertion of 18 in. O.D. tubing 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 in. PVC Pipe.
- E Lift-Out Pipe: 6 in. NPT with standard lift-out bail.
- F Lift-Out Bail: Lift-out pipe and bail assembly designed for a 142,000 lb. load.
- G 2 in. NPT Tapping.
- H Well Vent: Screws into a 2-1/2 in. NPT Tapping.
- CAP CABLE SEALS (SECTION BB-BB)**
- I Conduit Tapping: 2 in. and 1 in. Std. Also available with single 2 in., 3 in., or 4 in. NPT. All tapping sizes available with or without electrical cable seal.
- J Depth Tester Block Tappings: 1/4 in. NPT Std.
- K Two 1 in. NPT Tappings ported to Drop Pipe.
- L Pressure zone tapping: 3/8 in. NPT Std.
- MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)**
- M 6 in.
- N 2-5/8 in.
- O 1-1/2 in.
- P Dimension from center of Discharge Outlet to bottom of Discharge Body: 12-13/16 in.
- Q Distance from ground level to top of the pitless case: 12 in.
- R Distance from ground level to top of the vent cap: 28-1/4 in. (Vent Height may be increased if necessary).
- S 3/4 in. NPT Tapping: used for optional Water Sampler.
- T **SPOOL TO DROP PIPE THREAD SIZES:**

	6 in. NPT	8 in. NPT	10 in. NPT
U Dimension from center of discharge outlet to bottom of Spool:.....	24-1/16 in.	24-1/16 in.	19-3/32 in.

- DISCHARGE CONNECTIONS AND SIZES:**

	6 in. I.D.	8 in. I.D.	10 in. I.D.
V For Butt Weld (IPS):.....	6 in. I.D.	8 in. I.D.	10 in. I.D.
W For Flanged (A.S.A. Std. 150 lb.):.....	6 in. I.D.	8 in. I.D.	10 in. I.D.
X For Threaded (NPT):.....	6 in. I.D.	8 in. I.D.	10 in. I.D.
Y For Transition Sleeve (IPS):.....	6 in. I.D.	8 in. I.D.	10 in. I.D.

- Z Dimension from center of Well Casing to the end of Discharge Outlet.

	25-1/2 in.	25-1/2 in.	18-1/2 in.
With [V] Butt Weld Discharge:.....	25-1/2 in.	25-1/2 in.	18-1/2 in.
With [W] Flanged Discharge:.....	29 in.	29-1/2 in.	22-1/2 in.
With [X] Threaded Discharge:.....	29-1/2 in.	29-1/2 in.	23-5/8 in.
With [Y] Transition Sleeve:.....	37-9/16 in.	37-9/16 in.	30-9/16 in.

- CC **SPOOL ASSEMBLY - WITHOUT CHECK VALVES -**

	33.18 sq. in.	66.36 sq. in.	66.36 sq. in.
Area of Water Passage(s):.....	33.18 sq. in.	66.36 sq. in.	66.36 sq. in.
Percent area of water passages to area of drop pipe .....	115%	132%	85%

## 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

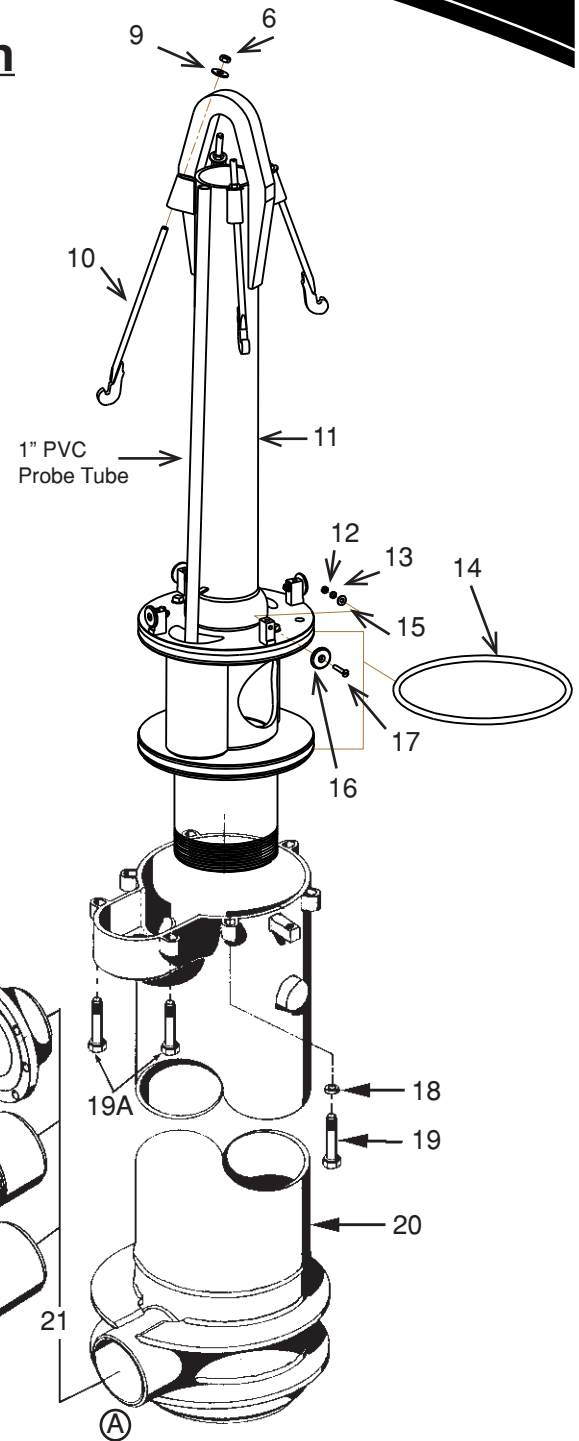
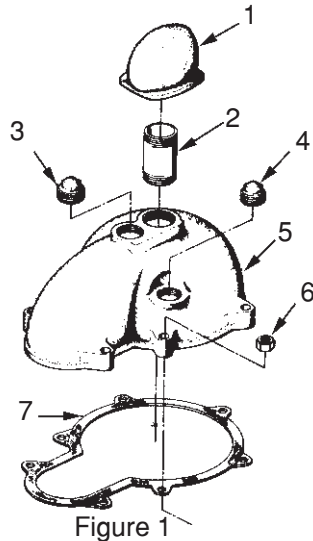
NOTE: Any combination between Drop Pipe and Discharge Outlet size is possible, if required.

NOTE: Maximum rated discharge pressure = 300 PSI

BB115-18(05-08)

# 18" Custom Pitless Parts Breakdown

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

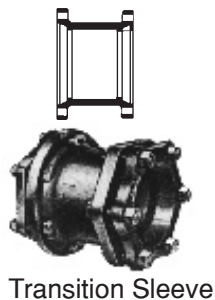
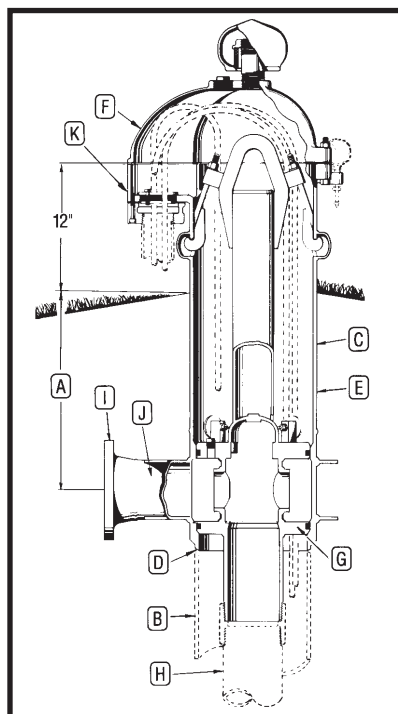


Key No.	Quantity	Description	Ord. No
<b>FIGURE 1</b>			
1	1	Protected Screen Well Vent 2 1/2" NPT	PS155
2	1	Pipe Nipple 2 1/2" NPT x 6" L.	PS365
3	1	Plug Plug 2" NPT	UJ50
4	1	Pipe Plug 1 1/2" NPT	UG54
5	1	Seal Cap	UN1
6	9	Hex Nut 5/8-11NC	PC286S
7	1	Gasket	UN72
<b>FIGURE 2</b>			
9	4	Washer	PC417
10	4	Hold-Down Hook	UN7
11	1	*Spool & Lift-Out Assembly (Serial No. Required)	-----
12	4	Hex Nut 3/8-16NC	UB17
13	4	Lockwasher	TX31
14	2	O-Ring	UN15
15	4	Washer	SW68
16	4	Washer	UL95
17	4	Machine Screw, 3/8-16NC x 2 1/4" L.	UM222
18	7	Washer	UN81
19	5	Hex Head cap screw, 5/8-11NC x 5" L.	UN73S
19A	2	Lock Bolt, 5/8-11NC x 4 3/4" L.	LK4S
20	1	Discharge Body & Upper Casing Assembly----- (Serial No. Required)	-----
21	---	(4) different discharge connections are available, (A) Welded, (B) Flanged, (C) Threaded or (D) Mechanical Joint with or without Transition Sleeve	

\*Flowing Well Spools Available upon request



## 20" CUSTOM PITLESS UNIT



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

## 3PS2022WBWE010F10S

**A.** The first numeral in the order number indicates the bury depth, in feet, of the unit. 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.

**3**

**PS**

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

**20**

**B.** Indicates the well casing size is 20"

**22**

**C.** Indicates the upper pitless case size is 22".

**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**

Indicates this type of spool has no check valves.

**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 transition sleeve.

**10**

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

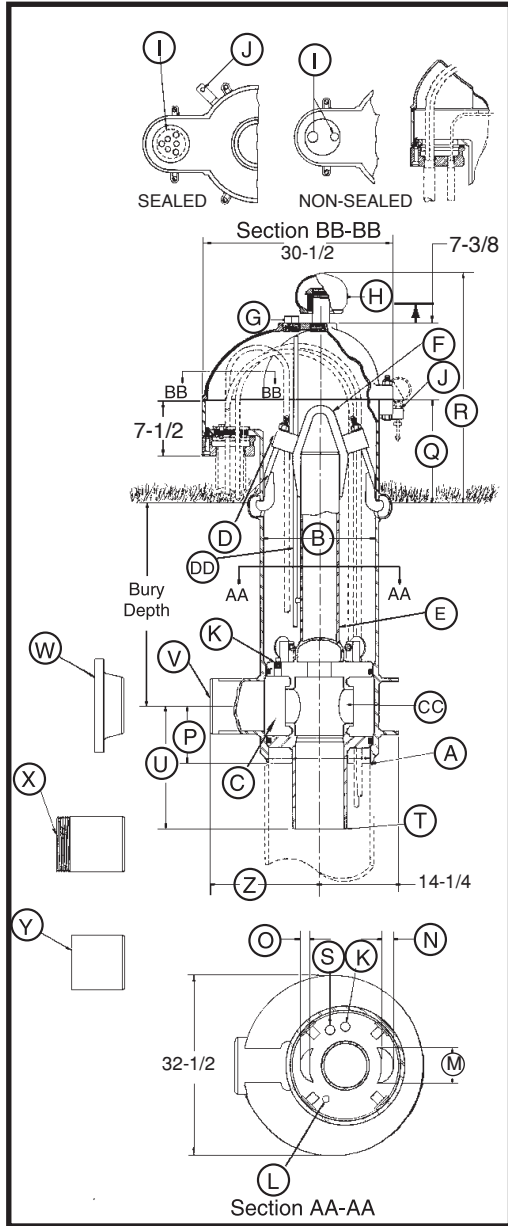
**S**

**K.** Sealed Conduit Connection. (Optional)

### DESCRIPTION - ORDERING NUMBERS

<b>A</b>	<b>3</b>	Bury Depth in Feet
	<b>PS</b>	Pitless Unit for Submersible Pump
<b>B</b>	<b>20</b>	Well Size - Ins.
<b>C</b>	<b>22</b>	Upper Case Size - Ins.
<b>D</b>	<b>W</b>	Attachment to Well Casing-Welded
<b>E</b>	<b>B</b>	Black Upper Case
<b>F</b>	<b>W</b>	Watertight Cap w/Screened Air Vent
	<b>E</b>	Pressure Equalizing Spool Passages
<b>G</b>	<b>0</b>	Standard Spool
<b>H</b>	<b>10</b>	Drop Pipe I.D. Ins. (6", 8" or 10")
<b>I</b>		Welded
	<b>F</b>	Flange, ASA 150#
		Threaded NPT
		Mech. Joint w/Transition Sleeve
		Discharge Connection (Select One)
<b>J</b>	<b>10</b>	Discharge I.D. Ins. (6", 8" or 10")
<b>K</b>	<b>S</b>	Elec. Cable Seal (S) O.D. 3 Wire ____ O.D. Grounding Wire ____
<b>OPTIONS</b>		Water Sampler Valve (H)
		Flowing Well (F)
		Special Provision (X)

# 20" CUSTOM PITLESS SPECIFICATIONS



**Note:** Pitless units conform to the Recommended Standards for Water works, Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers and Water Systems Council PAS-97 (04) Standards.

- A Pitless Unit to well casing connection:** Chamfered for butt weld.
- B Pitless Unit with Black Upper Case:** 21 in. I.D., 22 in. 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 in. PVC Pipe.
- E Lift-Out Pipe:** 6 in. IPS with standard lift-out bail.
- F Lift-Out Bail:** Lift-out pipe and bail assembly designed for a 142,000 lb. load.
- G 2 in. NPT Tapping.**
- H Well Vent:** Screws into a 2-1/2 in. NPT Tapping.
- CAP CABLE SEALS (SECTION BB-BB)**
- I Conduit Tapping:** 2 in. and 1 in. Std. Also available with single 2 in., 3 in., or 4 in. NPT. All tapping sizes available with or without electrical cable seal.
- J Depth Tester Block Tappings:** 1/4 in. NPT Std.
- K Three 1 in. NPT Tappings ported to Drop Pipe.**
- L Pressure zone tapping:** 3/8 in. NPT Std.
- MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)**
- M 6-3/4 in.**
- N 3-3/8 in.**
- O 2 in.**
- P Dimension from center of Discharge Outlet to bottom of Discharge Body:** 13-3/4 in.
- Q Distance from ground level to top of the pitless case:** 12 in.
- R Distance from ground level to top of the vent cap:** 28-1/4 in. (Vent Height may be increased if necessary).
- S 3/4 in. NPT Tapping:** used for optional Water Sampler.
- T SPOOL TO DROP PIPE THREAD SIZES:**

	6 in. NPT	8 in. NPT	10 in. NPT
<b>U Dimension from center of discharge outlet to bottom of Spool:</b>	24-9/16 in.	24-9/16 in.	19-11/16 in.

- DISCHARGE CONNECTIONS AND SIZES:**
- V For Butt Weld (IPS):** 6 in. I.D.      8 in. I.D.      10 in. I.D.
- W For Flanged (ASA Std. 150 lb.):** 6 in. I.D.      8 in. I.D.      10 in. I.D.
- X For Threaded (NPT):** 6 in. I.D.      8 in. I.D.      10 in. I.D.
- Y For Transition Sleeve (IPS):** 6 in. I.D.      8 in. I.D.      10 in. I.D.
- Z Dimension from center of Well Casing to the end of Discharge Outlet.**

With [V] Butt Weld Discharge:	26-1/2 in.	26-1/2 in.	19-1/2 in.
With [W] Flanged Discharge:	30 in.	30-1/2 in.	23-1/2 in.
With [X] Threaded Discharge:	30-9/16 in.	30-9/16 in.	31-9/16 in.
With [Y] Transition Sleeve:	38-9/16 in.	38-9/16 in.	31-1/2 in.

- CC SPOOL ASSEMBLY - WITHOUT CHECK VALVES -**

Area of Water Passage(s):	33.18 sq. in.	66.36 sq. in.	66.36 sq. in.
Percent area of water passages to area of drop pipe	115%	132%	85%

## 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

BB116-20(05-08)



## 20" Custom Pitless Parts Breakdown

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

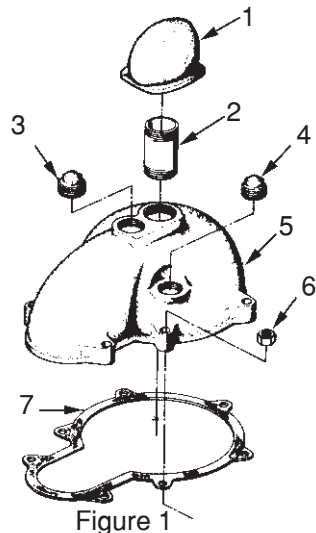


Figure 1

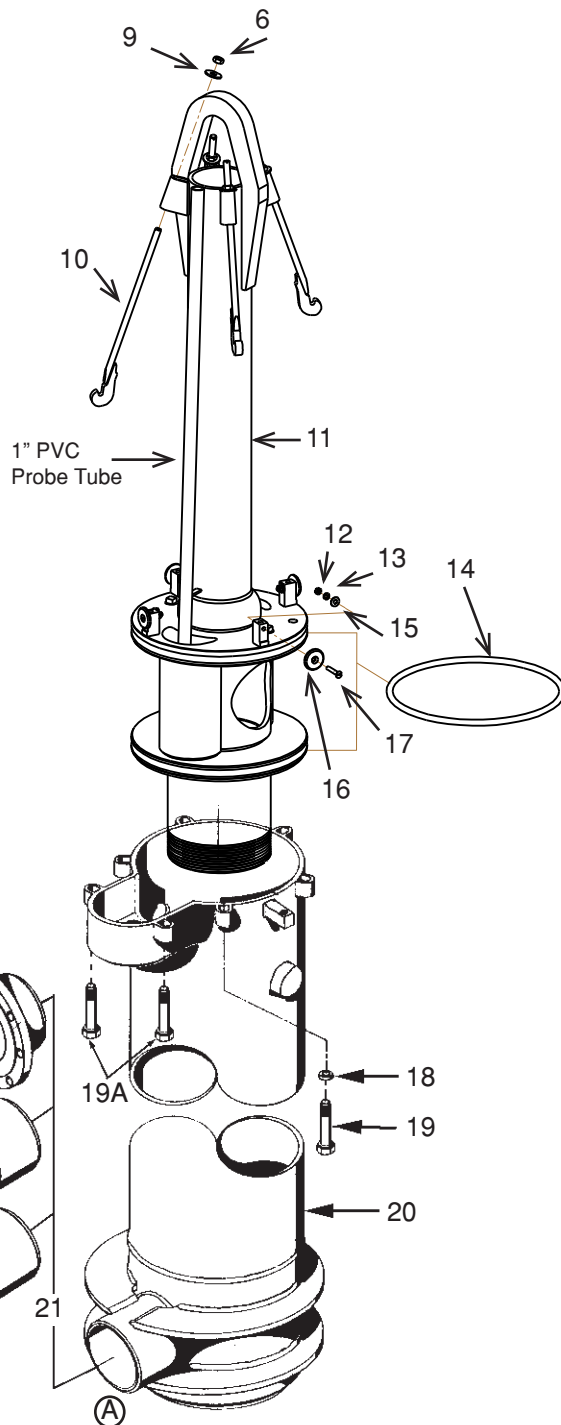


Figure 2

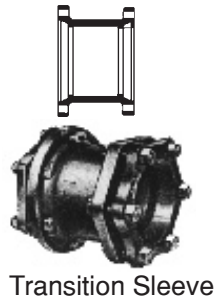
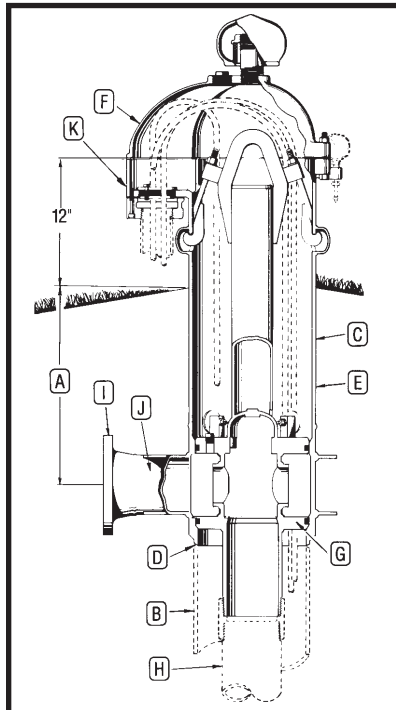
Key No.	Quantity	Description	Ord. No
<b>FIGURE 1</b>			
1	1	Protected Screen Well Vent 2 1/2" NPT	PS155
2	1	Pipe Nipple 2 1/2" NPT x 6" L.	PS365
3	1	Plug Plug 2" NPT	UK50
4	1	Pipe Plug 1 1/2" NPT	UG54
5	1	Seal Cap	UQ1
6	9	Hex Nut 5/8-11NC	PC286S
7	1	Gasket	UQ72
<b>FIGURE 2</b>			
9	4	Washer	PC417
10	4	Hold-Down Hook	UQ7A
11	1	*Spool & Lift-Out Assembly (Serial No. Required)	-----
12	4	Hex Nut 3/8-16NC	UB17
13	4	Lockwasher	TX31
14	2	O-Ring	UQ15A
15	4	Washer	SW68
16	4	Washer	UL95
17	4	Machine Screw, 3/8-16NC x 2 1/4" L.	UM222
18	7	Washer	UN81
19	5	Hex Head cap screw, 5/8-11NC x 5" L.	UN73S
19A	2	Lock Bolt, 5/8-11NC x 4 3/4" L.	LK4S
20	1	Discharge Body & Upper Casing Assembly----- (Serial No. Required)	-----
21	---	(4) different discharge connections are available, (A) Welded, (B) Flanged, (C) Threaded or (D) Mechanical Joint with or without Transition Sleeve	

\*Flowing Well Spools Available upon request

OM5001-20(05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com

# 24" CUSTOM PITLESS UNIT



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, of the unit. 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.

**PS**

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

**24**

B. Indicates the well casing size is 24"

**26**

C. Indicates the upper pitless case size is 26".

**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**

Indicates this type of spool has no check valves.

**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 transition sleeve.

**12**

J. Indicates the size of discharge pipe in inches.

**S**

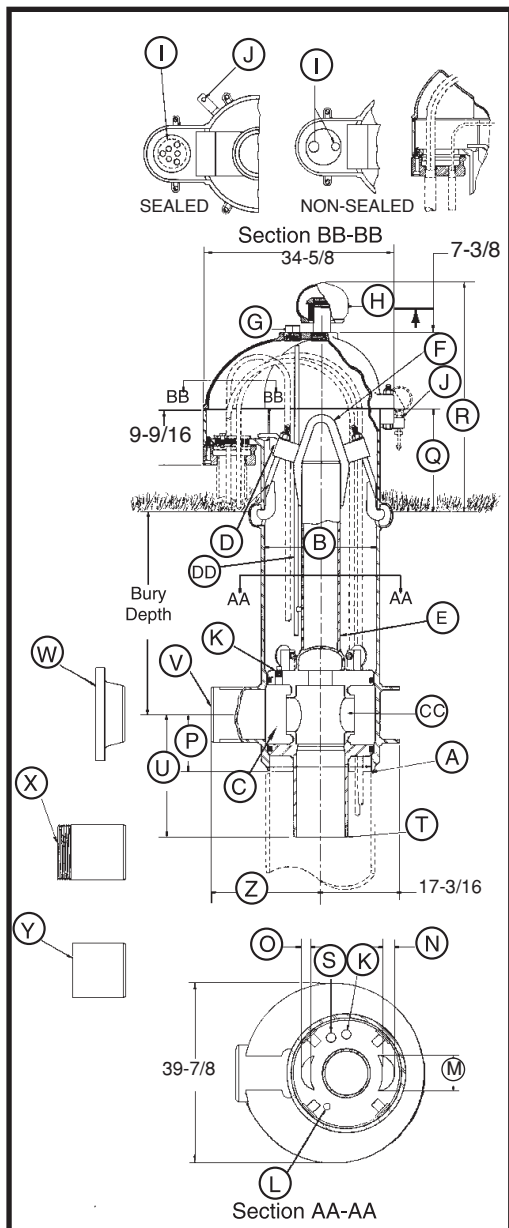
K. Sealed Conduit Connection. (Optional)

## DESCRIPTION - ORDERING NUMBERS

<b>A</b>	<b>3</b>	Bury Depth in Feet	
	<b>PS</b>	Pitless Unit for Submersible Pump	
<b>B</b>	<b>24</b>	Well Size - Ins.	
<b>C</b>	<b>26</b>	Upper Case Size - Ins.	
<b>D</b>	<b>W</b>	Attachment to Well Casing-Welded	
<b>E</b>	<b>B</b>	Black Upper Case	
<b>F</b>	<b>W</b>	Watertight Cap w/Screened Air Vent	
	<b>E</b>	Pressure Equalizing Spool Passages	
<b>G</b>	<b>0</b>	Standard Spool	
<b>H</b>	<b>12</b>	Drop Pipe I.D. Ins. (8", 10" or 12")	
<b>I</b>		Welded	Discharge Connection (Select One)
	<b>F</b>	Flange, ASA 150#	
		Threaded NPT	
		Mech. Joint w/Transition Sleeve	
<b>J</b>	<b>12</b>	Discharge I.D. Ins. (8", 10" or 12")	
<b>K</b>	<b>S</b>	Elec. Cable Seal (S) O.D. 3 Wire ____ O.D. Grounding Wire ____	
<b>OPTIONS</b>		Water Sampler Valve (H)	
		Flowing Well (F)	
		Special Provision (X)	



## 24" CUSTOM PITLESS SPECIFICATIONS



- A Pitless Unit to well casing connection:** Chamfered for butt weld.  
**B Pitless Unit with Black Upper Case:** 25 in. I.D., 26 in. 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 in. PVC Pipe.**  
**E Lift-Out Pipe:** 8 in. IPS with standard lift-out bail.  
**F Lift-Out Bail:** Lift-out pipe and bail assembly designed for a 218,000 lb. load.  
**G 2 -1/2 in. NPT Tapping.**  
**H Well Vent:** Screws into a 2-1/2 in. NPT Tapping.  
**CAP CABLE SEALS (SECTION BB-BB)**  
**I Conduit Tapping:** 2 in. and 1 in. Std. Also available with single 2 in., 3 in., or 4 in. NPT. All tapping sizes available with or without electrical cable seal.  
**J Depth Tester Block Tappings:** 1/4 in. NPT Std.  
**K Three 1 in. NPT Tappings ported to Drop Pipe.**  
**L Pressure zone tapping:** 3/8 in. NPT Std.  
**MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)**  
**M 7-1/16 in.**  
**N 3-7/16 in.**  
**O 2-1/8 in.**  
**P Dimension from center of Discharge Outlet to bottom of Discharge Body:** 17-1/2 in.  
**Q Distance from ground level to top of the pitless case:** 12 in.  
**R Distance from ground level to top of the vent cap:** 29-7/16 in. (Vent Height may be increased if necessary).  
**S 3/4 in. NPT Tapping:** used for optional Water Sampler.  
**T SPOOL TO DROP PIPE THREAD SIZES:**
- |                                                                        | 8 in. NPT    | 10 in. NPT   | 12 in. NPT   |
|------------------------------------------------------------------------|--------------|--------------|--------------|
| <b>U Dimension from center of discharge outlet to bottom of Spool:</b> | 18-13/16 in. | 20-15/16 in. | 22-15/16 in. |
- DISCHARGE CONNECTIONS AND SIZES:**
- |                                                                               | 8 in. I.D. | 10 in. I.D. | 12 in. I.D. |
|-------------------------------------------------------------------------------|------------|-------------|-------------|
| <b>V For Butt Weld (IPS):</b>                                                 | 8 in. I.D. | 10 in. I.D. | 12 in. I.D. |
| <b>W For Flanged (A.S.A. Std. 150 lb.):</b>                                   | 8 in. I.D. | 10 in. I.D. | 12 in. I.D. |
| <b>X For Threaded (NPT):</b>                                                  | 8 in. I.D. | 10 in. I.D. | 12 in. I.D. |
| <b>Y For Transition Sleeve (IPS):</b>                                         | 8 in. I.D. | 10 in. I.D. | 12 in. I.D. |
| <b>Z Dimension from center of Well Casing to the end of Discharge Outlet.</b> |            |             |             |
| With <b>[V]</b> Butt Weld Discharge:                                          | 32-1/2 in. | 32-1/2 in.  | 24-7/16 in. |
| With <b>[W]</b> Flanged Discharge:                                            | 36-1/2 in. | 36-1/2 in.  | 29 in.      |
| With <b>[X]</b> Threaded Discharge:                                           | 36-1/2 in. | 37-1/2 in.  | 31-1/2 in.  |
| With <b>[Y]</b> Transition Sleeve:                                            | 44-1/2 in. | 44-1/2 in.  | 36-1/2 in.  |
- CC SPOOL ASSEMBLY - WITHOUT CHECK VALVES -**  
Area of Water Passage(s):..... 120.26 sq. in. 120.26 sq. in. 120.26 sq. in.  
Percent area of water passages to area of drop pipe. 240% 152% 106%

### COMPONENT MATERIALS

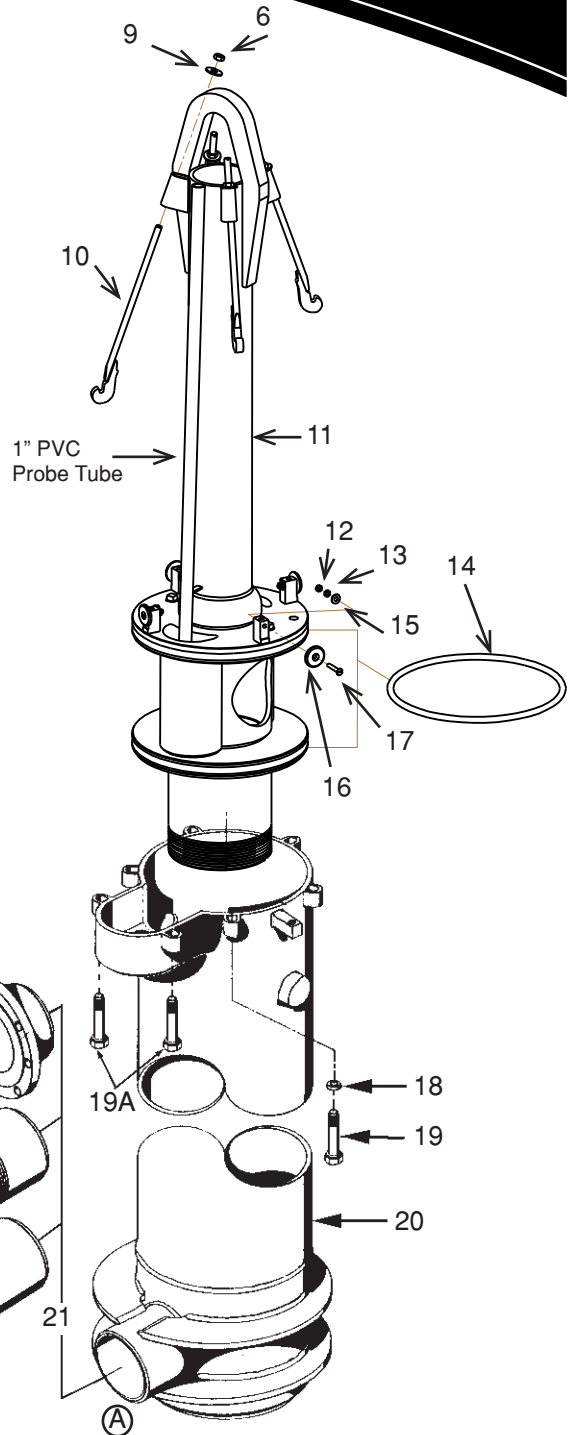
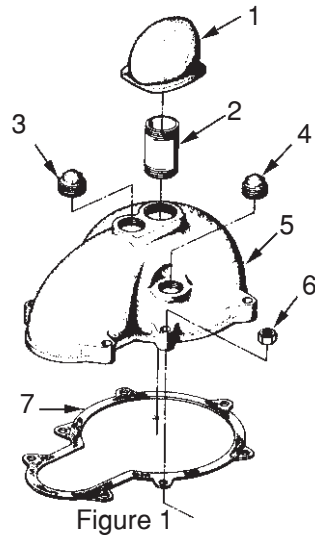
- Well Vent** - cast iron, green enamel finish.  
**Cap** - cast iron, green enamel finish.  
**Conduit Box** - steel, corrosion resistant coating.  
**Electrical Cable Seal** - cast iron, green enamel finish.  
**Combination Hold-Down & Lift-Out Mechanism** - lead free galvanized.  
**Hold-Down Pipe** - 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

Note: Pitless units conform to the Recommended Standards for Water works, Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers and Water Systems Council PAS-97 (04) Standards.

BB117-24(05-08)

# 24" Custom Pitless Parts Breakdown

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



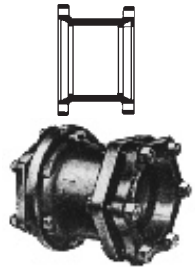
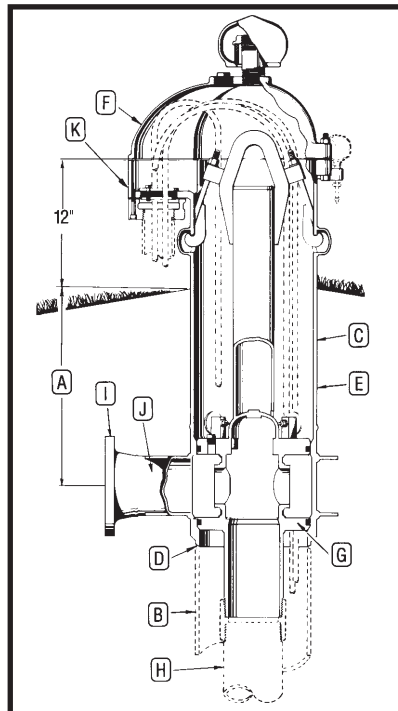
Key No.	Quantity	Description	Ord. No
<b>FIGURE 1</b>			
1	1	Protected Screen Well Vent 2 1/2" NPT	PS155
2	1	Pipe Nipple 2 1/2" NPT x 6" L.	PS365
3	1	Plug Plug 2" NPT	UK50
4	1	Pipe Plug 1 1/2" NPT	UG54
5	1	Seal Cap	UR1
6	9	Hex Nut 5/8-11NC	PC286S
7	1	Gasket	UR72
<b>FIGURE 2</b>			
9	4	Washer	PC417
10	4	Hold-Down Hook	UR7A
11	1	*Spool & Lift-Out Assembly (Serial No. Required)	-----
12	4	Hex Nut 3/8-16NC	UB17
13	4	Lockwasher	TX31
14	2	O-Ring	UR15A
15	4	Washer	SW68
16	4	Washer	UL95
17	4	Machine Screw, 3/8-16NC x 2 1/4" L.	UM222
18	7	Washer	UN81
19	5	Hex Head cap screw, 5/8-11NC x 5" L.	UN73S
19A	2	Lock Bolt, 5/8-11NC x 4 3/4" L.	LK4S
20	1	Discharge Body & Upper Casing Assembly----- (Serial No. Required)	-----
21	---	(4) different discharge connections are available, (A) Welded, (B) Flanged, (C) Threaded or (D) Mechanical Joint with or without Transition Sleeve	

\*Flowing Well Spools Available upon request



## 26" CUSTOM PITLESS UNIT

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



Transition Sleeve

### 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, of the unit. 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.

**PS** These letters indicate the type of pump the pitless unit is designed for. The unit shown is a PS for submersible pump.

**26** B. Indicates the well casing size is 26"

**28** C. Indicates the upper pitless case size is 28".

**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** Indicates this type of spool has no check valves.

**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 transition sleeve.

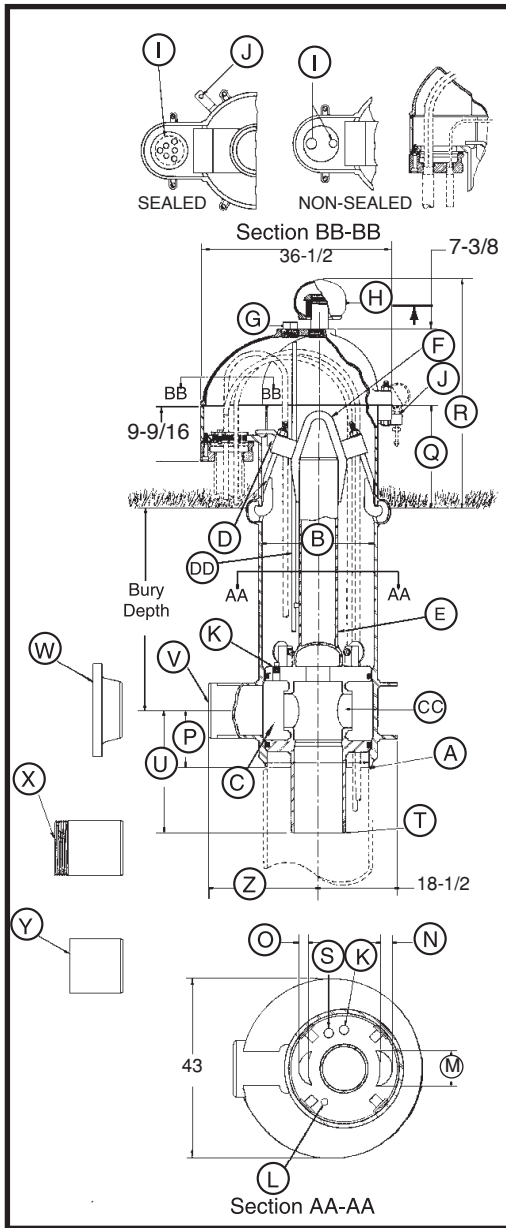
**12** J. Indicates the size of discharge pipe in inches.

**S** K. Sealed Conduit Connection. (Optional)

### DESCRIPTION - ORDERING NUMBERS

<b>A</b>	<b>3</b>	Bury Depth in Feet	
	<b>PS</b>	Pitless Unit for Submersible Pump	
<b>B</b>	<b>26</b>	Well Size - Ins.	
<b>C</b>	<b>28</b>	Upper Case Size - Ins.	
<b>D</b>	<b>W</b>	Attachment to Well Casing-Welded	
<b>E</b>	<b>B</b>	Black Upper Case	
<b>F</b>	<b>W</b>	Watertight Cap w/Screened Air Vent	
	<b>E</b>	Pressure Equalizing Spool Passages	
<b>G</b>	<b>0</b>	Standard Spool	
<b>H</b>	<b>12</b>	Drop Pipe I.D. Ins. (8", 10" or 12")	
<b>I</b>		Welded	Discharge Connection (Select One)
	<b>F</b>	Flange, ASA 150#	
		Threaded NPT	
		Mech. Joint w/Transition Sleeve	
<b>J</b>	<b>12</b>	Discharge I.D. Ins. (8", 10" or 12")	
<b>K</b>	<b>S</b>	Elec. Cable Seal (S) O.D. 3 Wire ____ O.D. Grounding Wire ____	
		Water Sampler Valve (H)	
		Flowing Well (F)	
		Special Provision (X)	

# 26" CUSTOM PITLESS SPECIFICATIONS



**Note: Pitless units conform to the Recommended Standards for Water works, Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers and Water Systems Council PAS-97 (04) Standards.**

- A Pitless Unit to well casing connection:** Chamfered for butt weld.
- B Pitless Unit with Black Upper Case:** 27 in. I.D., 28 in. 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 in. PVC Pipe.
- E Lift-Out Pipe:** 8 in. IPS with standard lift-out bail.
- F Lift-Out Bail:** Lift-out pipe and bail assembly designed for a 218,000 lb. load.
- G 2 -1/2 in. NPT Tapping.**
- H Well Vent:** Screws into a 2-1/2 in. NPT Tapping.
- CAP CABLE SEALS (SECTION BB-BB)**
- I Conduit Tapping:** 2 in. and 1 in. Std. Also available with single 2 in., 3 in., or 4 in. NPT. All tapping sizes available with or without electrical cable seal.
- J Depth Tester Block Tappings:** 1/4 in. NPT Std.
- K Three 1 in. NPT Tappings ported to Drop Pipe.**
- L Pressure zone tapping:** 3/8 in. NPT Std.
- MOTOR CABLE PASSAGES THROUGH SPOOL (SECTION AA-AA)**
- M 7-3/16 in.**
- N 3-3/8 in.**
- O 2 in.**
- P Dimension from center of Discharge Outlet to bottom of Discharge Body:** 17-7/16 in.
- Q Distance from ground level to top of the pitless case:** 12 in.
- R Distance from ground level to top of the vent cap:** 30-13/16 in. (Vent Height may be increased if necessary).
- S 3/4 in. NPT Tapping:** used for optional Water Sampler.
- T SPOOL TO DROP PIPE THREAD SIZES:**

	<b>8 in. NPT</b>	<b>10 in. NPT</b>	<b>12 in. NPT</b>
U Dimension from center of discharge outlet to bottom of Spool:	18-13/16 in.	20-15/16 in.	22-15/16 in.
- DISCHARGE CONNECTIONS AND SIZES:**

V For Butt Weld (IPS):	8 in. I.D.	10 in. I.D.	12 in. I.D.
W For Flanged (A.S.A. Std. 150 lb.):	8 in. I.D.	10 in. I.D.	12 in. I.D.
X For Threaded (NPT):	8 in. I.D.	10 in. I.D.	12 in. I.D.
Y For Transition Sleeve (IPS):	8 in. I.D.	10 in. I.D.	12 in. I.D.
- Z Dimension from center of Well Casing to the end of Discharge Outlet.**

With [V] Butt Weld Discharge:	34-1/4 in.	34-1/4 in.	26-1/4 in.
With [W] Flanged Discharge:	38-5/16 in.	38-5/16 in.	30-3/4 in.
With [X] Threaded Discharge:	38-5/16 in.	39-5/16 in.	33-5/16 in.
With [Y] Transition Sleeve:	46-1/4 in.	46-1/4 in.	38-1/4 in.
- CC SPOOL ASSEMBLY - WITHOUT CHECK VALVES -**

Area of Water Passage(s):	120.26 sq. in.	120.26 sq. in.	120.26 sq. in.
Percent area of water passages to area of drop pipe....	240%	152%	106%

## 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

BB118-26(05-08)



# 26" Custom Pitless Parts Breakdown

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

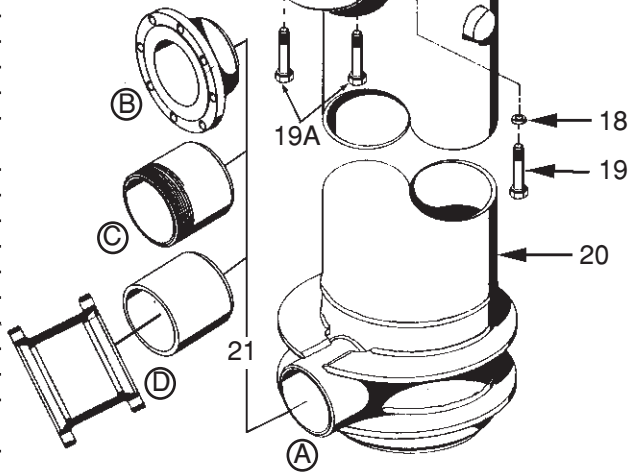
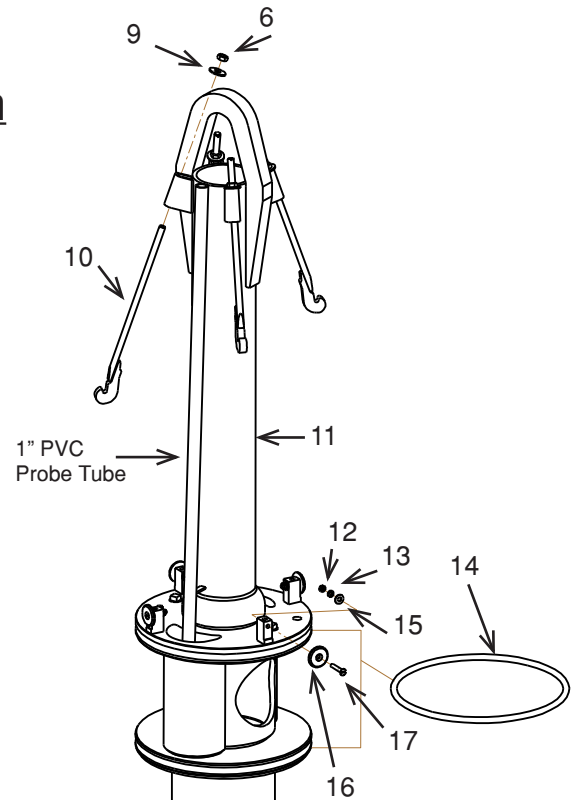
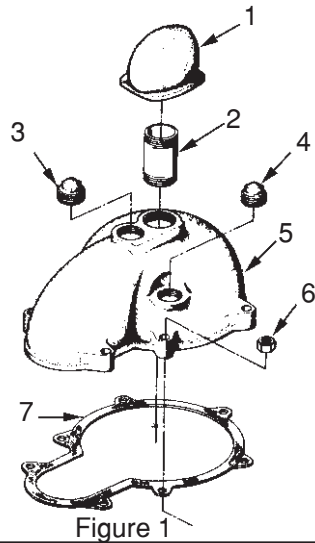


Figure 2

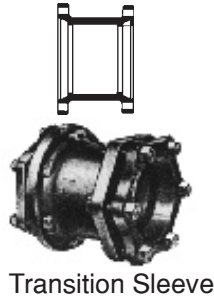
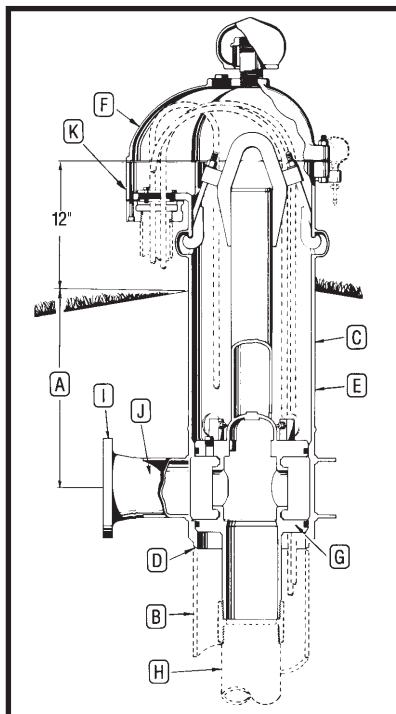
Key No.	Quantity	Description	Ord. No
<b>FIGURE 1</b>			
1	1	Protected Screen Well Vent 2 1/2" NPT	PS155
2	1	Pipe Nipple 2 1/2" NPT x 6" L.	PS365
3	1	Plug Plug 2" NPT	UK50
4	1	Pipe Plug 1 1/2" NPT	UG54
5	1	Seal Cap	US1
6	9	Hex Nut 5/8-11NC	PC286S
7	1	Gasket	US72
<b>FIGURE 2</b>			
9	4	Washer	PC417
10	4	Hold-Down Hook	US7A
11	1	*Spool & Lift-Out Assembly (Serial No. Required)	-----
12	4	Hex Nut 3/8-16NC	UB17
13	4	Lockwasher	TX31
14	2	O-Ring	US15
15	4	Washer	SW68
16	4	Washer	UL95
17	4	Machine Screw, 3/8-16NC x 2 1/4" L.	UM222
18	7	Washer	UN81
19	5	Hex Head cap screw, 5/8-11NC x 5" L.	UN73S
19A	2	Lock Bolt, 5/8-11NC x 4 3/4" L.	LK4S
20	1	Discharge Body & Upper Casing Assembly----- (Serial No. Required)	-----
21	---	(4) different discharge connections are available, (A) Welded, (B) Flanged, (C) Threaded or (D) Mechanical Joint with or without Transition Sleeve	

\*Flowing Well Spools Available upon request

OM5001-26(05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
 Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com

# 30" CUSTOM PITLESS UNIT



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

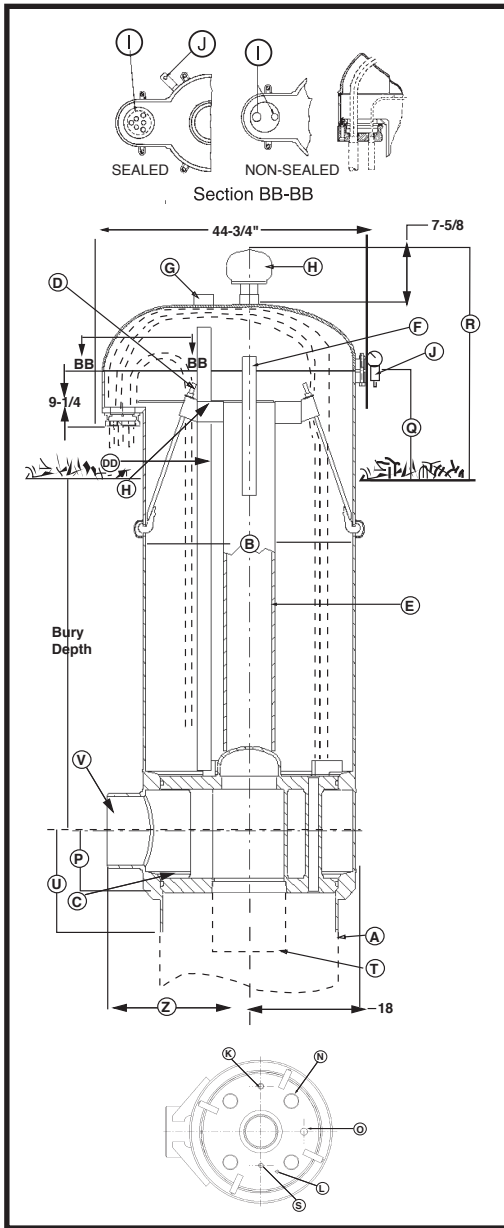
- 3** A. The first numeral in the order number indicates the bury depth, in feet, of the unit. Bury depth on all units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes.
- PS** These letters indicate the type of pump the pitless unit is designed for. The unit shown is a PS for submersible pump.
- 30** B. Indicates the well casing size is 30"
- 36** C. Indicates the upper pitless case size is 36".
- 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** Indicates this type of spool has no check valves.
- 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 transition sleeve.
- 12** J. Indicates the size of discharge pipe in inches.
- S** K. Sealed Conduit Connection. (Optional)

## DESCRIPTION - ORDERING NUMBERS

<b>A</b>	<b>3</b>	Bury Depth in Feet
	<b>PS</b>	Pitless Unit for Submersible Pump
<b>B</b>	<b>30</b>	Well Size - Ins.
<b>C</b>	<b>36</b>	Upper Case Size - Ins.
<b>D</b>	<b>W</b>	Attachment to Well Casing-Welded
<b>E</b>	<b>B</b>	Black Upper Case
<b>F</b>	<b>W</b>	Watertight Cap w/Screened Air Vent
	<b>E</b>	Pressure Equalizing Spool Passages
<b>G</b>	<b>0</b>	Standard Spool
<b>H</b>	<b>12</b>	Drop Pipe I.D. Ins. (8", 10" or 12")
<b>I</b>		Welded
	<b>F</b>	Flange, ASA 150#
		Threaded NPT
		Mech. Joint w/Transition Sleeve
		Discharge Connection (Select One)
<b>J</b>	<b>12</b>	Discharge I.D. Ins. (8", 10" or 12")
<b>K</b>	<b>S</b>	Elec. Cable Seal (S) O.D. 3 Wire ____ O.D. Grounding Wire ____
<b>OPTIONS</b>		Water Sampler Valve (H)
		Flowing Well (F)
		Special Provision (X)



## 30" CUSTOM PITLESS SPECIFICATIONS



- A Pitless Unit to well casing connection:** Chamfered for butt weld.
- B Pitless Unit with Black Upper Case:** 35 in. I.D., 36 in. O.D.
- C Discharge Body minimum I.D. 29".**
- D Hold-Down Mechanism and Locator:** 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 2 in. PVC Pipe.
- E Lift-Out Pipe:** 8 in. IPS with standard lift-out bail.
- F Lift-Out Bail:** Lift-out pipe and bail assembly designed for a 218,000 lb. load.
- G 2 -1/2 in. NPT Tapping.**
- H Well Vent:** Screws into a 2-1/2 in. NPT Tapping.
- CAP CABLE SEALS (SECTION BB-BB)**
- I Conduit Tapping:** 2 in. and 1 in. Std. Also available with single 2 in., 3 in., or 4 in. NPT. All tapping sizes available with or without electrical cable seal.
- J Depth Tester Block Tappings:** 1/4 in. NPT Std.
- K One 1 in. NPT Tapping ported to Discharge.**
- L Pressure zone tapping:** 3/8 in. NPT Std.
- N Motor Cable passages through spool - 3-7/16 in.**
- O 1-3/4 in.**
- P Dimension from center of Discharge Outlet to bottom of Discharge Body:** 17-7/16 in.
- Q Distance from ground level to top of the pitless case:** 12 in.
- R Distance from ground level to top of the vent cap:** 32-11/16 in. (Vent Height may be increased if necessary).
- S 3/4 in. NPT Tapping:** used for optional Water Sampler.
- | <b>T SPOOL TO DROP PIPE THREAD SIZES:</b>                              | <b>8 in. NPT</b> | <b>10 in. NPT</b> | <b>12 in. NPT</b> |
|------------------------------------------------------------------------|------------------|-------------------|-------------------|
| <b>U Dimension from center of discharge outlet to bottom of Spool:</b> | 10-1/2 in.       | 10-1/2 in.        | 10-1/2 in.        |
- DISCHARGE CONNECTIONS AND SIZES:**
- |                                                                               |             |             |             |
|-------------------------------------------------------------------------------|-------------|-------------|-------------|
| <b>V For Butt Weld (IPS):</b>                                                 | 8 in. I.D.  | 10 in. I.D. | 12 in. I.D. |
| <b>W For Flanged (A.S.A. Std. 150 lb.):</b>                                   | 8 in. I.D.  | 10 in. I.D. | 12 in. I.D. |
| <b>X For Threaded (NPT):</b>                                                  | 8 in. I.D.  | 10 in. I.D. | 12 in. I.D. |
| <b>Y For Transition Sleeve (IPS):</b>                                         | 8 in. I.D.  | 10 in. I.D. | 12 in. I.D. |
| <b>Z Dimension from center of Well Casing to the end of Discharge Outlet.</b> |             |             |             |
| With [V] Butt Weld Discharge:                                                 | 24 in.      | 24 in.      | 24 in.      |
| With [W] Flanged Discharge:                                                   | 28-1/16 in. | 28-1/16 in. | 28-9/16 in. |
| With [X] Threaded Discharge:                                                  | 28-1/16 in. | 29-1/16 in. | 29-1/16 in. |
| With [Y] Transition Sleeve:                                                   | 36-1/16 in. | 36-1/16 in. | 36-1/16 in. |

### COMPONENT MATERIALS

- Well Vent** - cast iron, green enamel finish.
- Cap** - steel, 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** - 2" PVC

**NOTE:** Any combination between Drop Pipe and Discharge Outlet size is possible, if required.

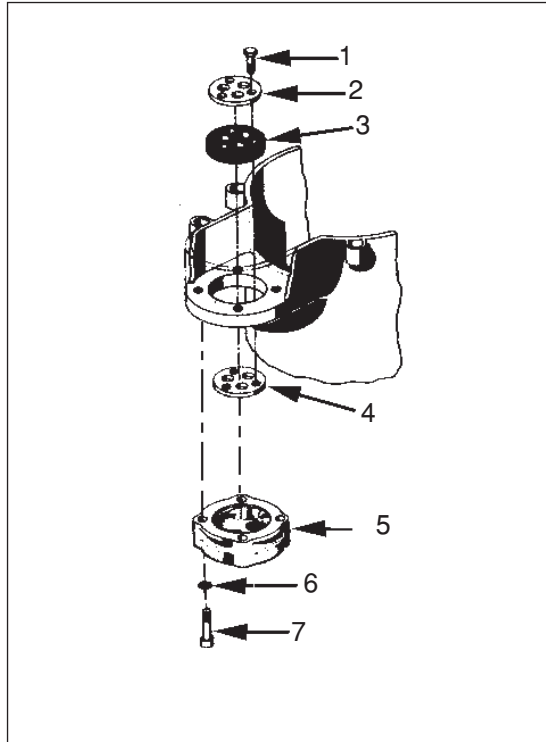
**NOTE:** Maximum rated discharge pressure = 300 PSI

**Note: Pitless units conform to the Recommended Standards for Water works, Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers and Water Systems Council PAS-97 (04) Standards.**

BB119-30(05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com

**CUSTOM INDUSTRIAL PITLESS UNITS  
FOR SUBMERSIBLE PUMPS - 10" - 30"  
OPTIONAL SEALED CONDUIT**

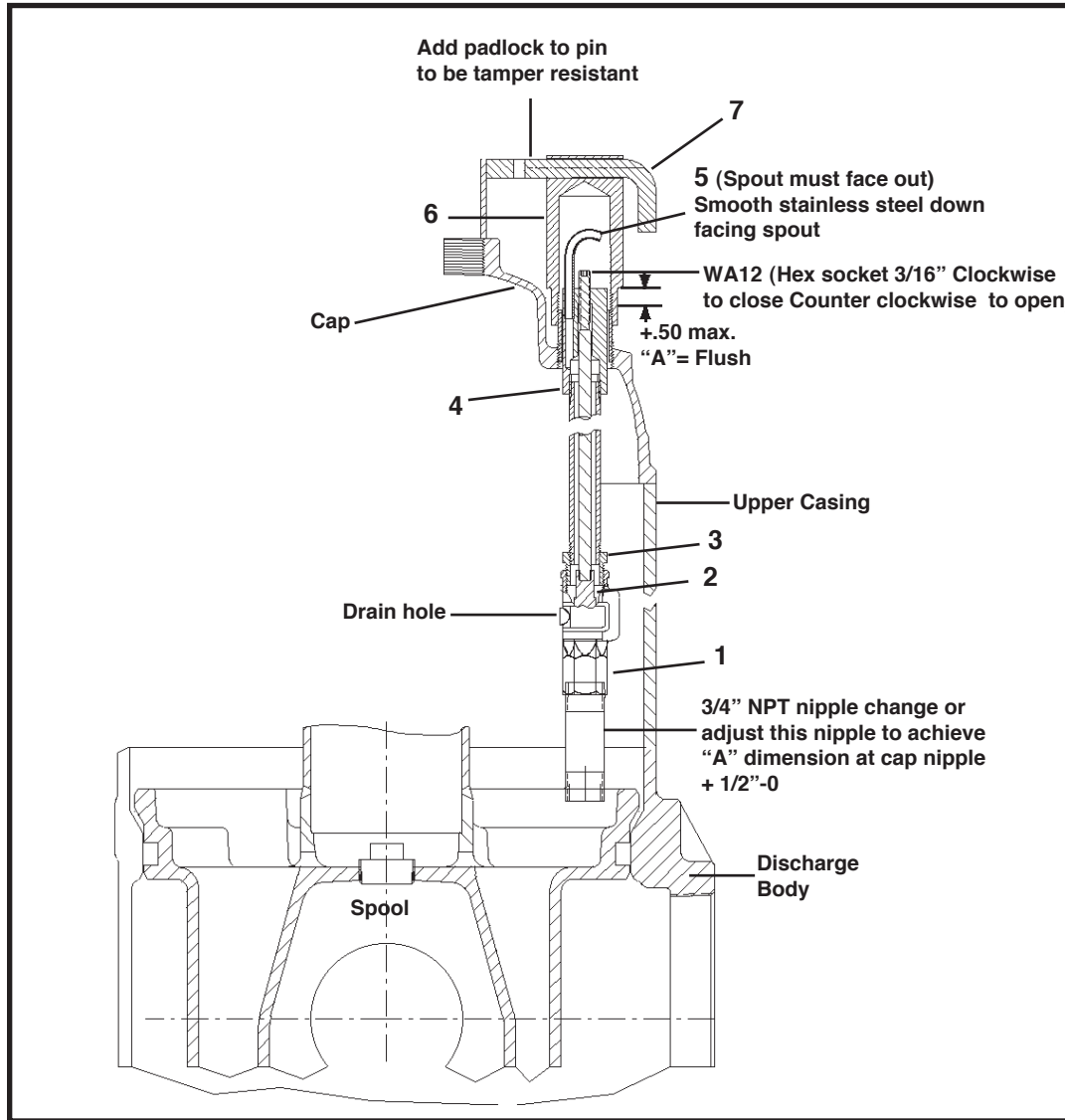


Key No.	Ordering Number	Description	Quantity
1	PS171	Hex head cap screw, 3/8-16NC x 1 1/2" L.	3
2	-----	Upper Compression Plate	1
3	-----	Cable seal gasket	1
4	-----	Lower compression plate	1
5	-----	Conduit seal adapter	1
6	UK355	Gasket	4
7	-----	Hex socket cap screw	4

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



## Water Sampler Parts Breakdown



Sample Part No.  
8UKWA7FR

### CAP REMOVAL INSTRUCTIONS WHEN WATER SAMPLER VALVE IS INSTALLED.

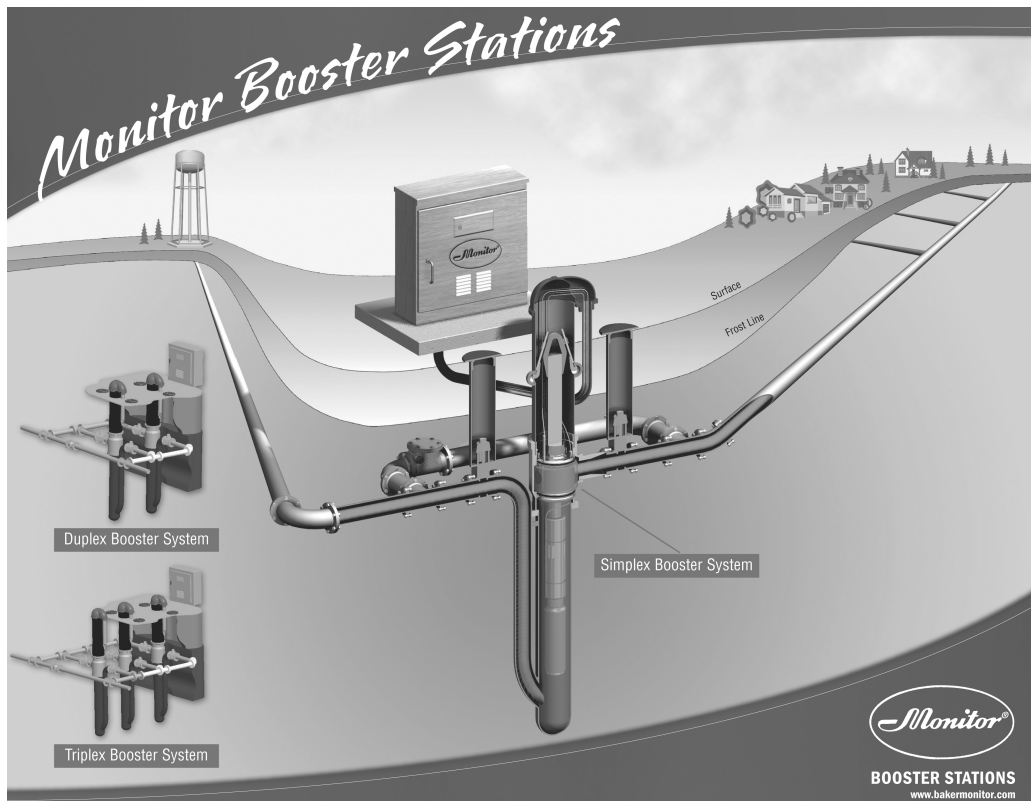
- STEP 1 Remove padlock from pin (item 7, WA9) and remove rod.
- STEP 2 Remove cap (item 6, UN320A) and stainless steel nipple by unscrewing.
- NOTE: Stainless nipple may remain attached to watertight cap, this is OK.
- STEP 3 Remove watertight cap bolts and remove cap.
- STEP 4 Reverse steps 3 through 1 to reinstall.

Item	Qty	Description	Ord. No.
1	1	Valve Body	WA11
2	1	Poppet	WA14
3	1	Hex Bushing	WA13
4	1	Water Sampler Top	WA8
5	1	Spout	UK308
6	1	Cap	UN320A
7	1	Pin	WA9

OM5205(05-08)



## 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 snowmaking 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. Pitless Boosters can be set up as 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, the motor noise is nearly undetectable.
- 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.



## 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.

**ALTERNATIVE SPOOLS (6x7 and 8x10 only) . . .** Spools are available plain or with silent check valves. The Monitor silent check valve has its operating parts automatically exposed when the spool is withdrawn. Spools are supplied with tappings for pressure controls.

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

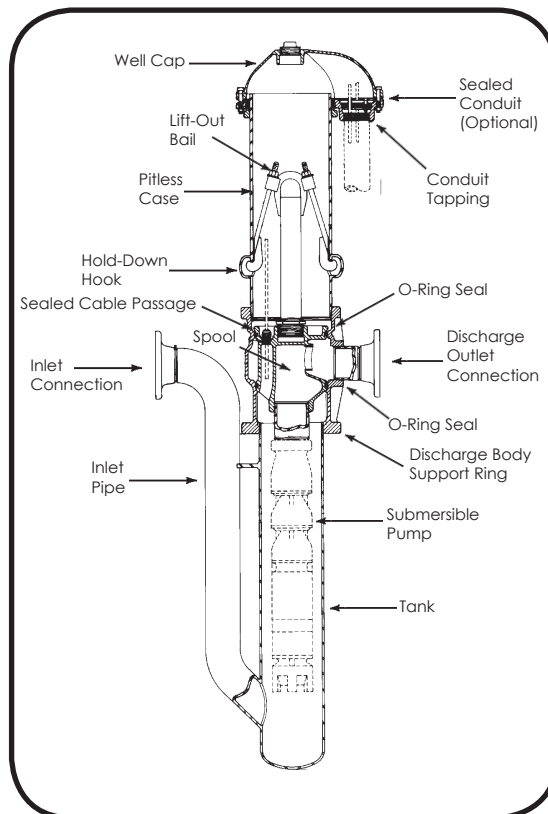
**HOLD DOWN . . .** Supplied with each unit. Hold-down pipe also serves as lift-out pipe for installation and allowing speedy service.

**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 THROUGH  
36" TANK SIZES UPON REQUEST**

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





## SAMPLE ENGINEERING SPECIFICATIONS PITLESS BOOSTER STATION

Completely assembled Pitless Booster Station for submersible pump including well cap, lift out bail, hold down hooks, lift out pipe, spool with or without check valves, specified inlet and outlet connections and reservoir tank.

**SUBMITTALS:** All bidders shall submit as part of their bid:

1. The Manufacturer and Model of the pitless booster station to be installed.
2. Detailed specifications with drawings of the Booster system furnished by the manufacturer.
3. Detailed specifications on the submersible pump and submersible wire to be used in conjunction with the Booster Station.
4. System to be assembled and pressure tested without submersible pump prior to shipping.

**SUBMERSIBLE PUMP:** Manufacturer \_\_\_\_\_ Model No. \_\_\_\_\_.

The submersible pump will be designed for \_\_\_\_\_ GPM @ \_\_\_\_\_ TDH (includes \_\_\_\_\_ # incoming pressure), with a \_\_\_\_\_ HP \_\_\_\_\_ Volt \_\_\_\_\_ phase motor. \_\_\_\_\_ ft. of No. \_\_\_\_\_ submersible wire will be furnished with the system. The unit should be factory assembled, and tested, before shipping to the site.

**SUBMERSIBLE BOOSTER STATION:** The Submersible Booster Station shall be equal to Baker Manufacturing Company, Monitor Division, Model \_\_\_\_\_.

**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. Construction of the cap will be of heavy duty gray cast iron and painted with a green enamel finish. The well cap will be watertight to 46 feet of head. 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 Public Health and Environmental Managers, Health Education Services, Albany, NY.

**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 must provide a water tight connection from the discharge body to the well cap. The inlet and discharge center line to be \_\_\_\_\_ feet below grade, and the booster station upper casing to extend \_\_\_\_\_ feet above grade.

**SPOOL:** The spool shall be \_\_\_\_\_ inches per ANSI B 1.20.1 with 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 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. Spool to include cable seals to seal specified wires up to the specified inlet pressure.

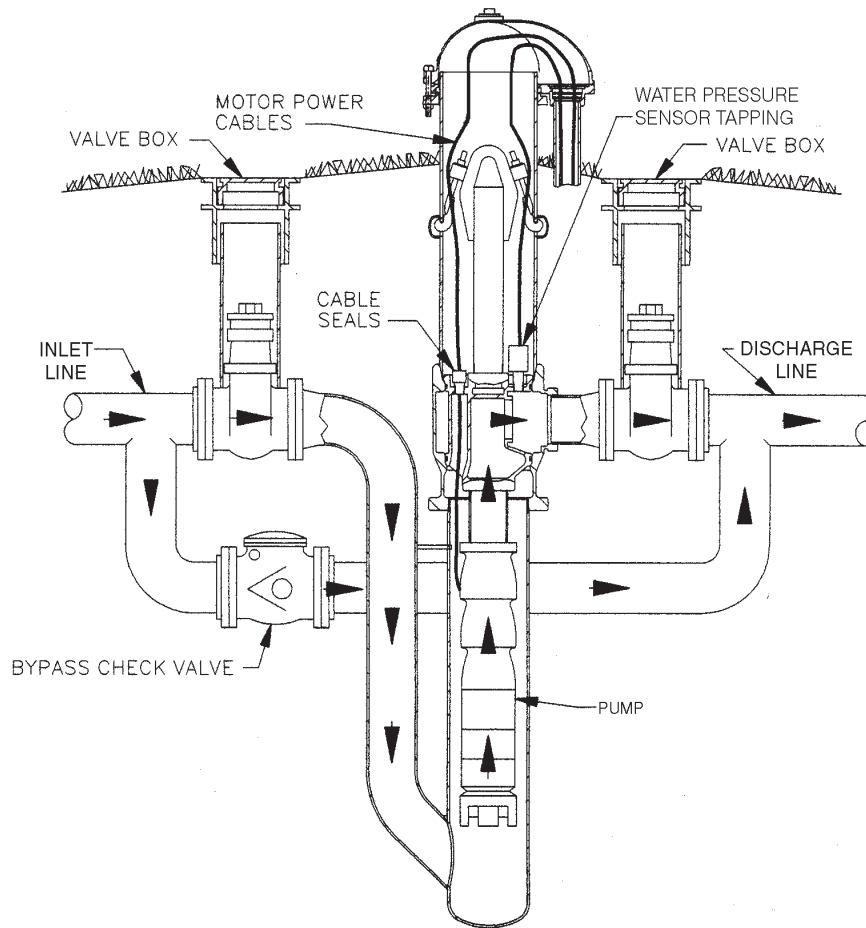
**DISCHARGE BODY:** The Discharge Body shall be constructed of lead-free galvanized ductile iron or lead-free galvanized steel. O-ring seat to be designed to prevent crevice and galvanic corrosion, dissimilar metals should be avoided. Discharge outlet port to be \_\_\_\_\_ inches, \_\_\_\_\_ type. (flanged, threaded, welded or transition)

**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. Suction inlet to be \_\_\_\_\_ inches, type. (flanged, threaded, welded or transition) Tank length to accommodate \_\_\_\_\_ ft. long pump and motor.



# TYPICAL PITLESS BOOSTER INSTALLATION

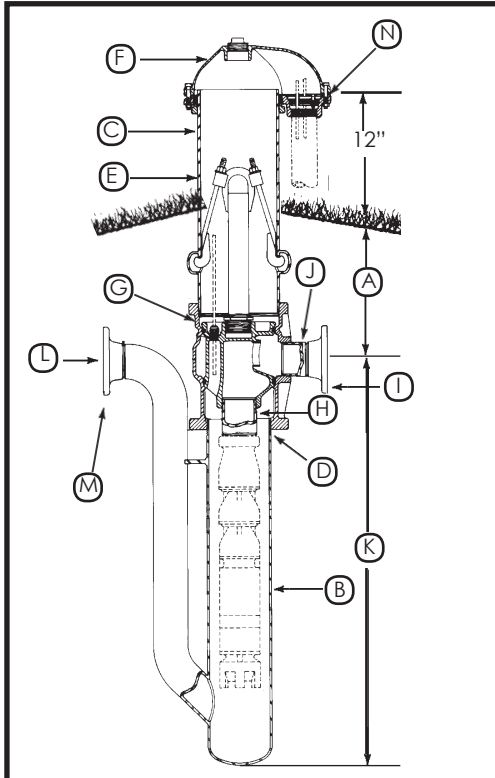
PITLESS BOOSTER UNITS FOR SUBMERSIBLE PUMPS  
5" through 36" TANK SIZES



OM-5013(05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com

# 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 Pitless Booster Unit ordering number. A typical order number and the pitless booster unit it stands for are shown.

### Typical Order Number

## 6PS56TBWX02F262FS

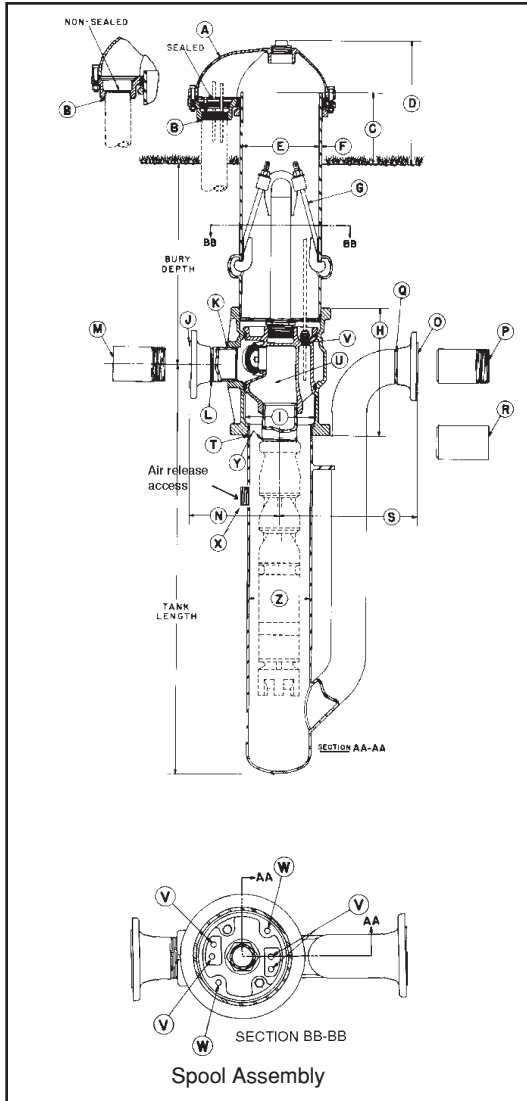
- 6** A. This first numeral in the order number indicates the bury depth, in feet, of the unit. Bury depth on all units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes.
- PS** These letters indicate the type of pump the Pitless Booster Station is designed for. The unit shown is a PS for Submersible Pumps.
- 5** B. This numeral indicates the reservoir tank size. 5 is for an 5" I.D. diameter tank.
- 6** C. This numeral indicates the upper pitless case size, 6 is for a 6" diameter case.
- T** D. This letter indicates the attachment to the reservoir tank is threaded.
- B** E. The presence of the letter "B" in the order number indicates the upper pitless case is black pipe.
- W** F. Indicates the unit has a watertight cap.
- X** G. Indicates spool passages are closed.
- 0** This numeral indicates the type of spool which the pitless unit has. In this case it is a spool that has no check valves.
- 2** H. Indicates the size of drop pipe in inches.
- F** I. Indicates the discharge connection is flanged.
- 2** J. Indicates the size of discharge pipe in inches.
- 6** K. Indicates the length of the reservoir tank in feet, and is measured from the center of the discharge line to the bottom of the unit.
- 2** L. Indicates the inlet connection diameter in inches.
- F** M. Indicates the inlet pipe connection is flanged.
- S** N. Sealed conduit connection. (Optional)

### DESCRIPTION - ORDERING NUMBERS

<b>A</b>	<b>6</b>	Bury Depth in Feet	
	<b>PS</b>	Pitless Booster for Submersible Pump	
<b>B</b>	<b>5</b>	Reservoir Tank Size - Ins.	
<b>C</b>	<b>6</b>	Upper Case Size - Ins.	
<b>D</b>	<b>T</b>	Threaded Joint	
<b>E</b>	<b>B</b>	Black Upper Case	
<b>F</b>	<b>W</b>	Watertight Cap	
<b>G</b>	<b>X</b>	Motor Cable Passages - Sealed	
	<b>0</b>	Check Valves	
<b>H</b>	<b>2</b>	Size of Drop Pipe in Ins.(2" std)	
<b>I</b>	<b>F</b>	Welded	Discharge Connection (Select One)
		Flange, ASA 150#	
		Threaded NPT	
		Mech. Joint w/trans. sleeve	
<b>J</b>	<b>2</b>	Size of Discharge Pipe - Ins.(2" std)	
<b>K</b>	<b>6</b>	Length of Reservoir Tank - Feet	
<b>L</b>	<b>2</b>	Inlet Pipe Size - Ins.(2" std)	
<b>M</b>	<b>F</b>	Welded	Inlet Pipe Connection (Select One)
		Flange, ASA 150#	
		Threaded NPT	
		Mech. Joint w. trans. sleeve	
<b>N</b>	<b>S</b>	Elec. Cable Seal(S)	
		O.D. 3 Wire _____ O.D. Ground Wire _____	
		Special Provision (X)	



## 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):.....1-1/2" NPT  
Watertight conduit seals for most common cable sizes are available.
- C** Distance from ground level to top of Pitless Case ..... 12 in.
- D** Distance from ground level to top of Well Cap ..... 14-3/4 in.
- E** Pitless Case Size .....6 in.
- F** Pitless Case wall thickness ..... .280 in.
- G** "Hold Down-Lift Out Assembly": positions & clamps spool to Discharge Body to prevent rotation during pump start up  
Hold-Down, Lift-Out Pipe size:..... 1-1/4"  
Designed "Lift-Out" assembly load:.....4700 lbs.
- H** Discharge Body Size:..... 8-3/4 in. O.D.x 8-15/16 in. long
- I** Pitless Unit minimum I.D.:.....6 in.
- DISCHARGE CONNECTIONS AND SIZES**
- J** For Flanged (ASA Std. 150 lbs.): ..... 2 in. I.D.
- K** For Threaded Nipple (NPT): ..... 2 in. I.D.
- L** For Butt Weld (IPS): ..... 2 in. I.D.
- M** For Transition Sleeve (IPS): ..... 2 in. I.D.
- N** Dimension from center of Booster Unit to end of discharge outlet.  
With **J** Flanged Discharge:..... 9-1/4 in.  
With **K** Threaded Discharge:..... 4-7/16 in.  
With **L** Welded Discharge: ..... 6-3/4 in.  
With **M** Transition Discharge:..... 15-3/4 in.
- INLET CONNECTIONS AND SIZES**
- O** For Flanged (ASA Std. 150 lbs.): ..... 2 in. I.D.
- P** For Threaded Nipple (NPT): ..... 2 in. I.D.
- Q** For Butt Weld (IPS): ..... 2 in. I.D.
- R** For Transition Sleeve (IPS): ..... 2 in. I.D.
- S** Dimension from center of Booster Unit to end of Inlet Connection.  
With **O** Flanged Inlet: ..... 10-21/32 in.  
With **P** Threaded Inlet: ..... 11-5/32 in.  
With **Q** Welded Inlet: ..... 8-5/32 in.  
With **R** Transition Inlet:..... 20-5/32 in.
- T** Discharge Body to tank pipe connection: ..... 5 in. NPT
- U** SPOOL ASSEMBLY  
Spool design load:.....4200 lbs.
- V** Motor Cable tappings through spool (w/cable connectors): ..... (4) 3/8 in. NPT  
Maximum allowable..... (4) 3/8 in. NPT
- W** Tapping into Pressure Zone: ..... 3/8 in. NPT  
(Furnished with square head plug)
- X** Tapping into Suction Zone ..... 1"  
(Furnished with square head plug)
- Y** Spool to drop pipe nipple connection:..... 2 in. NPT
- Z** Tank Pipe Size: ..... 5 in. I.D.

### COMPONENT MATERIALS

- Cap & Conduit Box** - 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 P.S.I., spool discharge pressure tested to 300 P.S.I.

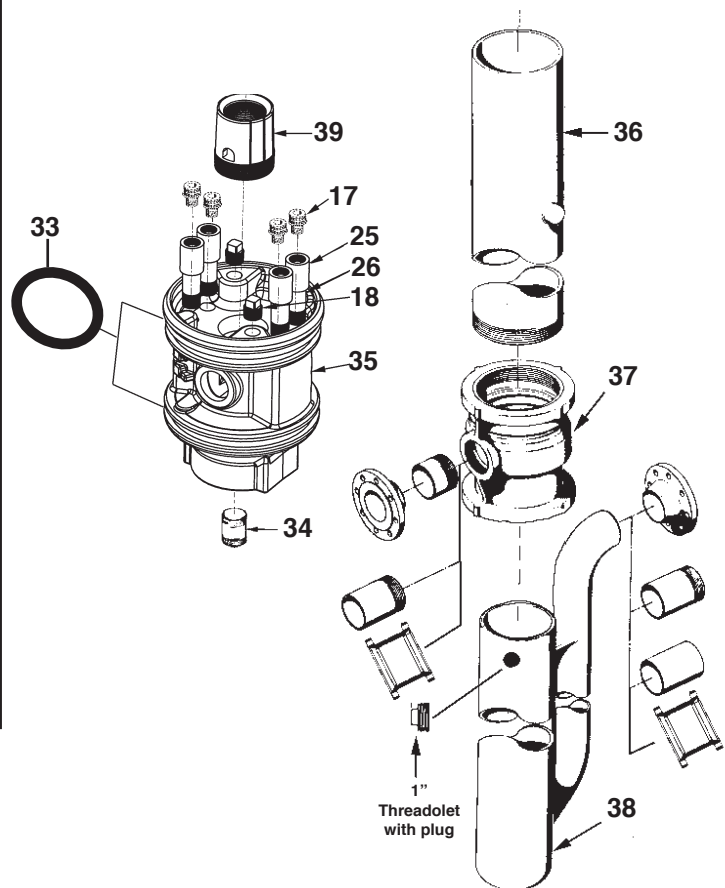
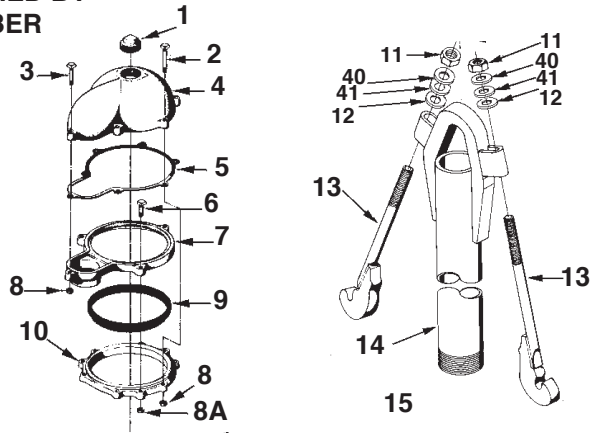
*Specifications subject to change without notice*

BB137-5(05-08)

## 5" Pitless Booster Parts Breakdown

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

Key No.	Qty	Description	Ord. No.
1	1	Pipe Plug, 1 1/4" NPT	HD71G
2	5	Machine Bolt, 3/8-16NCx3 1/2" L	PS94S
3	1	Machine Bolt, 3/8-16NCx2 1/2" L.	PS93S
4	1	Seal Cap	PS136
5	1	Gasket	PS196
6	2	Machine bolt, 5/16-18NCx2" L.	PS132S
7	1	Retainer Ring	PS376
8	6	Hex Nut, 3/8-16NC	UB17S
8A	2	Hex Nut, 5/16-18NC	PC434S
9	1	Seal Ring	PS166
10	1	Depression Ring	PS186
11	2	Hex Nut, 5/8-11NC	NA75
12	2	Washer	WA75
13	2	Hold-Down Hook	UJ7BH
14	1	Lift-Out Pipe & Bail Assembly Note: Must be ordered by description & unit Serial Number	-----
14	1	Lift-Out Pipe & Hold Down Assy Note: Must be ordered by description & unit Serial Number	-----
17	4	Cable Connectors Note: Must be ordered by description & unit Serial Number	-----
18	2	Pipe Plug, 3/8-18 NPT	UN122
25	4	Coupling 3/8-18NPT	PS182
26	4	Nipple 3/8x2-1/2 NPT	N3
33	2	O-Ring	NC15
34	1	Pipe Nipple, 2" NPT x 4" L.	PS265
35	1	Spool	YC321
---	1	Spool Assy. less check valves Includes key nos 18, 25, 26, 33, 35 & 39	6S4PSF
36	1	Casing	-----
37	1	Discharge Body, FIP discharge outlet standard. Note: Must be ordered by description & unit Serial Number.	UE44
38	1	Tank & Inlet Pipe Assy. Note: Must be ordered by description & unit Serial Number	-----
39	1	Spool Plug	YC218
40	8	5/8" Washer	PC286
41	4	5/8" Washer	PC417



OM5150(05-08)



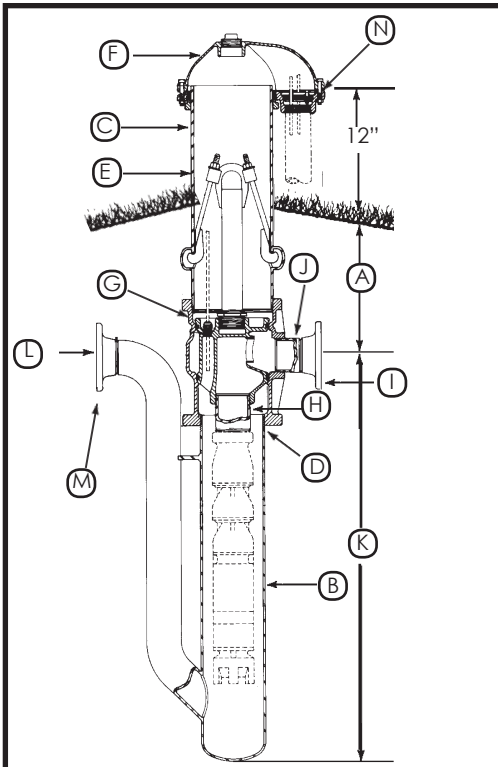
## 6" PITLESS BOOSTER UNIT

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 Pitless Booster Unit ordering number. A typical order number and the pitless booster unit it stands for are shown.

### Typical Order Number 6PS67TBWX23F363FS



#### DESCRIPTION - ORDERING NUMBERS

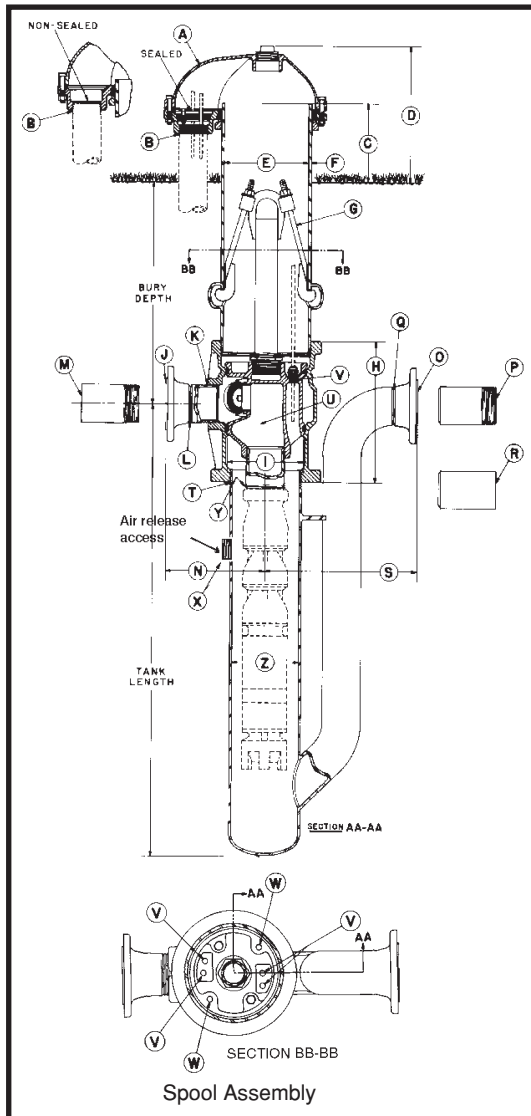
A	6	Bury Depth in Feet	
PS		Pitless Booster for Submersible Pump	
B	6	Reservoir Tank Size - Ins.	
C	7	Upper Case Size - Ins.	
D	T	Threaded Joint	
E	B	Black Upper Case	
F	W	Watertight Cap	
G	X	Motor Cable Passages - Sealed	
	2	Check Valves: 0 or 2	
H	3	Size of Drop Pipe in Ins.(3" std)	
I	F	Welded	Discharge Connection (Select One)
		Flange, ASA 150#	
		Threaded NPT	
		Mech. Joint w/trans. sleeve	
J	3	Size of Discharge Pipe - Ins.(3" std)	
K	6	Length of Reservoir Tank - Feet	
L	3	Inlet Pipe Size - Ins.(3" std)	
M	F	Welded	Inlet Pipe Connection (Select One)
		Flange, ASA 150#	
		Threaded NPT	
		Mech. Joint w. trans. sleeve	
N	S	Elec. Cable Seal(S)	
		O.D. 3 Wire	O.D. Ground Wire
		Special Provision (X)	

Add 2ft. to motor O.A.L

- 6** A. This first numeral in the order number indicates the bury depth, in feet, of the unit. 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.
- PS** These letters indicate the type of pump the Pitless Booster Station is designed for. The unit shown is a PS for Submersible Pumps.
- 6** B. This numeral indicates the reservoir tank size. 6 is for an 6" I.D. diameter tank.
- 7** C. This numeral indicates the upper pitless case size, 7 is for a 7" diameter case.
- T** D. This letter indicates the attachment to the reservoir tank is threaded.
- B** E. The presence of the letter "B" in the order number indicates the upper pitless case is black pipe.
- W** F. Indicates the unit has a watertight cap.
- X** G. Indicates spool passages are closed.
- 2** This numeral indicates the type of spool which the pitless unit has. In this case it is a spool having two silent check valves. Available with 6 and 8 inch tanks only.
- 3** H. Indicates the size of drop pipe in inches.
- F** I. Indicates the discharge connection is flanged.
- 3** J. Indicates the size of discharge pipe in inches.
- 6** K. Indicates the length of the reservoir tank in feet, and is measured from the center of the discharge line to the bottom of the unit.
- 3** L. Indicates the inlet connection diameter in inches.
- F** M. Indicates the inlet pipe connection is flanged.
- S** N. Sealed conduit connection. (Optional)



## 6" PITLESS BOOSTER SPECIFICATIONS



### COMPONENT MATERIALS

- Cap & Conduit Box** - Cast iron, Green enamel finish.
  - Combination Hold-Down & Lift-Out Mechanism** - lead free galvanized
  - 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.
  - Check Valve Body & Arms** - Brass.
  - Check Valve Seat** - Brass.
  - Check Valve Spring** - Monel.
  - Compression Seal Ring & Check Valve Facing** - Neoprene.
  - Conduit Seal & O-Rings** - Neoprene.
  - Tank & Inlet Pipes** - Steel, black corrosion resistant coating.
- NOTE:** Inlet pipe & tank pipe tested to 200 P.S.I., spool discharge pressure tested to 300 P.S.I.

- A** Seal Cap: The watertight cap bolts to a compression seal ring securing around the pitless casing.
  - B** Conduit Tapping Size (Standard):..... 1-1/2" NPT  
Watertight conduit seals for most common cable sizes are available.
  - C** Distance from ground level to top of Pitless Case ..... 12 in.
  - D** Distance from ground level to top of Well Cap ..... 14-3/4 in.
  - E** Pitless Case Size ..... 7 in.
  - F** Pitless Case wall thickness ..... .300 in.
  - G** "Hold Down-Lift Out Assembly": positions & clamps spool to Discharge Body to prevent rotation during pump start up  
Hold-Down, Lift-Out Pipe size:..... 1-1/4"  
Designed "Lift-Out" assembly load:..... 4700 lbs.
  - H** Discharge Body Size:..... 9-11/16 in. O.D.x 11-1/4 in. long
  - I** Pitless Unit minimum I.D.: ..... 6-3/8 in.
- DISCHARGE CONNECTIONS AND SIZES**
- J** For Flanged (ASA Std. 150 lbs.): ..... 3 in. I.D.
  - K** For Threaded Nipple (NPT): ..... 3 in. I.D.
  - L** For Butt Weld (IPS): ..... 3 in. I.D.
  - M** For Transition Sleeve (IPS): ..... 3 in. I.D.
  - N** Dimension from center of Booster Unit to end of discharge outlet.  
With **J** Flanged Discharge:..... 10-5/8 in.  
With **K** Threaded Discharge:..... 5-25/32 in.  
With **L** Welded Discharge: ..... 7-7/8 in.  
With **M** Transition Discharge:..... 18 in.
- INLET CONNECTIONS AND SIZES**
- O** For Flanged (ASA Std. 150 lbs.): ..... 3 in. I.D.
  - P** For Threaded Nipple (NPT): ..... 3 in. I.D.
  - Q** For Butt Weld (IPS): ..... 3 in. I.D.
  - R** For Transition Sleeve (IPS): ..... 3 in. I.D.
  - S** Dimension from center of Booster Unit to end of Inlet Connection.  
With **O** Flanged Inlet: ..... 15-5/8 in.  
With **P** Threaded Inlet: ..... 15-7/8 in.  
With **Q** Welded Inlet: ..... 12-7/8 in.  
With **R** Transition Inlet: ..... 25 in.
  - T** Discharge Body to tank pipe connection: ..... 6 in. NPT
- U SPOOL ASSEMBLY**
- Spool design load:..... 64,000 lbs.
  - **WITHOUT CHECK VALVES** -  
Area of water passages: ..... 10 sq. in.  
Percent area of water passages to area of Drop Pipe:..... 135%
  - **WITH TWO CHECK VALVES** -  
Area of valve passages:..... 6.28 sq. in.  
Percent area of valve passages to area of Drop Pipe: ..... 89%
- V** Motor Cable tappings through spool (w/cable connectors): ..... (4) 3/8 in. NPT  
Maximum allowable..... (4) 3/8 in. NPT
  - W** Tapping into Pressure Zone: ..... 3/8 in. NPT  
(Furnished with square head plug)
  - X** Tapping into Suction Zone ..... 1"  
(Furnished with square head plug)
  - Y** Spool to drop pipe nipple connection:..... 3 in. NPT
  - Z** Tank Pipe Size: ..... 6 in. I.D.

Specifications subject to change without notice

BB134-6(05-08)

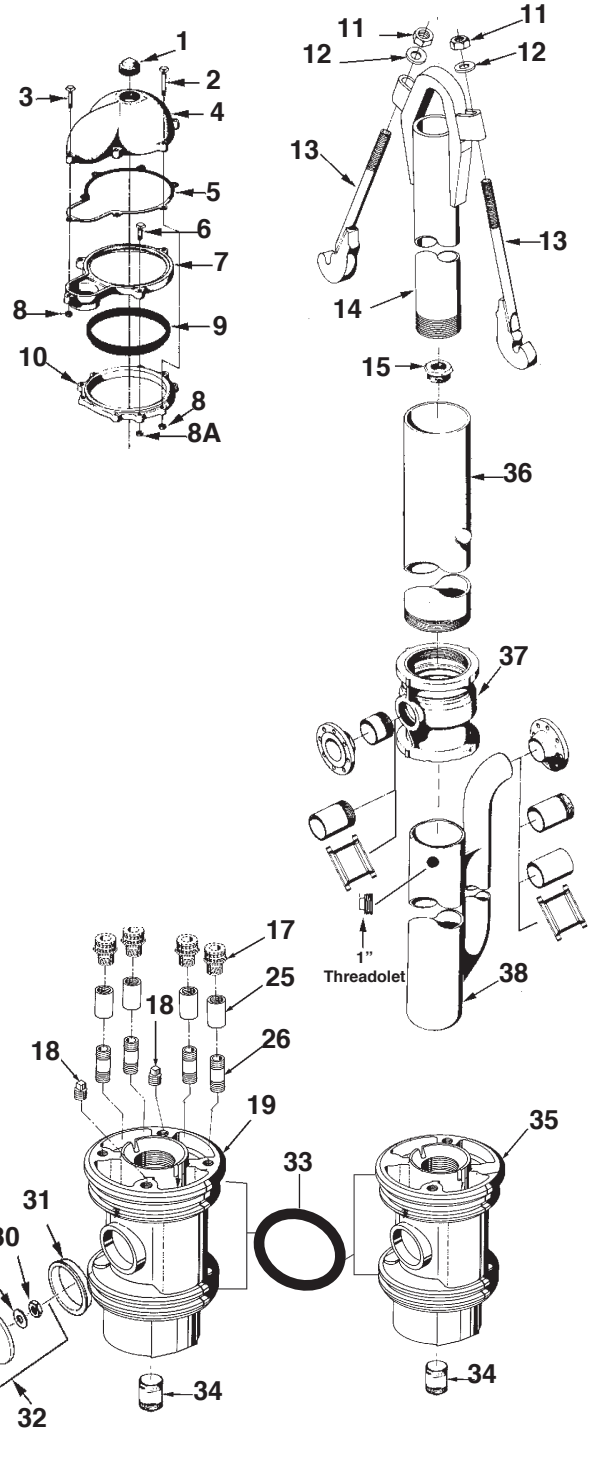
Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com



# 6" Pitless Booster Parts Breakdown

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

Key No.	Qty	Description	Ord. No.
1	1	Pipe Plug, 1 1/2" NPT	UG54
2	6	Machine Bolt, 3/8-16NCx3 1/2" L	PS94S
3	1	Machine Bolt, 3/8-16NCx2 1/2" L.	PS93S
4	1	Seal Cap & Plug Assy.	PS217
5	1	Gasket	PS197
6	2	Machine bolt, 5/16-18NCx2" L.	PS132S
7	1	Retainer Ring	PS377
8	7	Hex Nut, 3/8-16NC	UB17S
8A	2	Hex Nut, 5/16-18NC	PC434S
9	1	Seal Ring	PS167
10	1	Depression Ring	PS187
11	2	Hex Nut, 5/8-11NC	N75
12	2	Washer	WA75
13	2	Hold-Down Hook	UJ7BH
14	1	Lift-Out Pipe & Bail Assembly Note: Must be ordered by description & unit Serial Number	-----
15	1	Reducer Bushing, 2x1 1/4	PC330
17	4	Cable Connectors Note: Must be ordered by description & unit Serial Number	-----
18	2	Pipe Plug, 3/8-18 NPT	UN122
19	1	Spool (7E0PS3F)	UC271
--	1	Spool Assy. w/check valves, inc. Key Nos. 18 -33 except 25, 26,35 (7E2PS3F)	UC393
20	2	Hinge Pin	UC299
21	2	Hinge Pin Gasket	UC127A
22	4	Rocker Arm	UC301
23	2	Valve Spring	UC302
24	2	Valve Spring Center Support	UC300
25	4	Coupling 3/8-18NPT	PS182
26	4	Nipple 3/8-18 NPT	PS181
27	2	Valve Body	UC292
28	2	Rubber Check Valve Facing	UC295
29	2	Brass Washer	UG217
30	2	Brass Nut, 3/8-13NC	PS159
31	2	Check Valve Seat	UC293
32	2	Check Valve Assy. includes Key Nos. 27 thru 30	UC296
33	2	O-Ring	UC15
34	1	Pipe Nipple, 3" NPT x 6" L.	UK351
35	1	Spool	UC287
---	1	Spool Assy. less check valves Includes key nos 18, 25, 26, 33 & 35	UC392
36	1	Casing	-----
37	1	Discharge Body, FIP discharge outlet standard. Note: Must be ordered by description & unit Serial Number.	UC291
38	1	Tank & Inlet Pipe Assy. Note: Must be ordered by description & unit Serial Number	-----



OM5200-6(05-08)



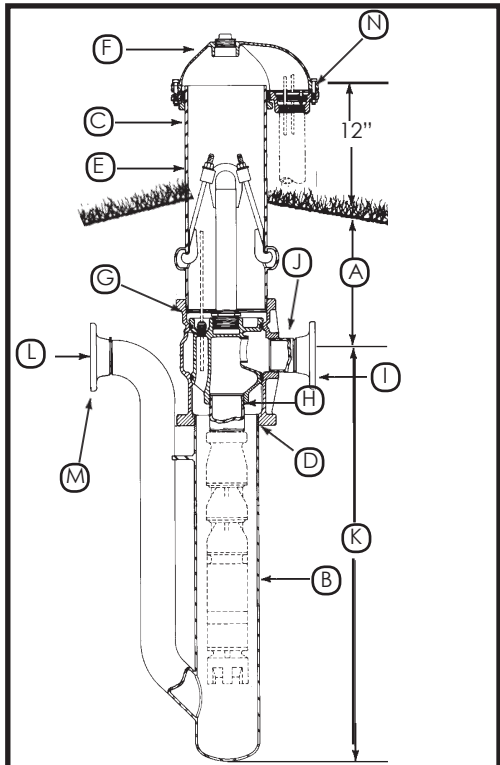
## 8" PITLESS BOOSTER UNIT

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 Pitless Booster Unit ordering number. A typical order number and the pitless booster unit it stands for are shown.

### Typical Order Number 6PS810WBWX24F464FS



#### DESCRIPTION - ORDERING NUMBERS

A	6	Bury Depth in Feet	
	PS	Pitless Booster for Submersible Pump	
B	8	Reservoir Tank Size - Ins.	
C	10	Upper Case Size - Ins.	
D	W (W)	Welded	
E	B	Black Upper Case	
F	W	Watertight Cap	
G	X	Motor Cable Passages - Sealed	
	2	Check Valves: 0 or 2	
H	4	Size of Drop Pipe in Ins.(4" std)	
I	F	Welded	Discharge Connection (Select One)
		Flange, ASA 150#	
		Threaded NPT	
		Mech. Joint w/trans. sleeve	
J	4	Size of Discharge Pipe - Ins.(4" std)	
K	6	Length of Reservoir Tank - Feet	
L	4	Inlet Pipe Size - Ins.(4" std)	
M	F	Welded	Inlet Pipe Connection (Select One)
		Flange, ASA 150#	
		Threaded NPT	
		Mech. Joint w. trans. sleeve	
N	S	Elec. Cable Seal(S)	
		O.D. 3 Wire _____ O.D. Ground Wire _____	
		Special Provision (X)	

**6**

A. This first numeral in the order number indicates the bury depth, in feet, of the unit. 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.

**PS**

These letters indicate the type of pump the Pitless Booster Station is designed for. The unit shown is a PS for Submersible Pumps.

**8**

B. This numeral indicates the reservoir tank size. 8 is for an 8" I.D. diameter tank.

**10**

C. This numeral indicates the upper pitless case size, 10 is for a 10" diameter case.

**W**

D. This letter indicates the attachment to the reservoir tank is a welded joint on 8" - 30".

**B**

E. The presence of the letter "B" in the order number indicates the upper pitless case is black pipe.

**W**

F. Indicates the unit has a watertight cap.

**X**

G. Indicates spool passages are closed.

**2**

This numeral indicates the type of spool which the pitless unit has. In this case it is a spool having two silent check valves. Available with 6 and 8 inch tanks only.

**4**

H. Indicates the size of drop pipe in inches.

**F**

I. Indicates the discharge connection is flanged.

**4**

J. Indicates the size of discharge pipe in inches.

**6**

K. Indicates the length of the reservoir tank in feet, and is measured from the center of the discharge line to the bottom of the unit.

**4**

L. Indicates the inlet connection diameter in inches.

**F**

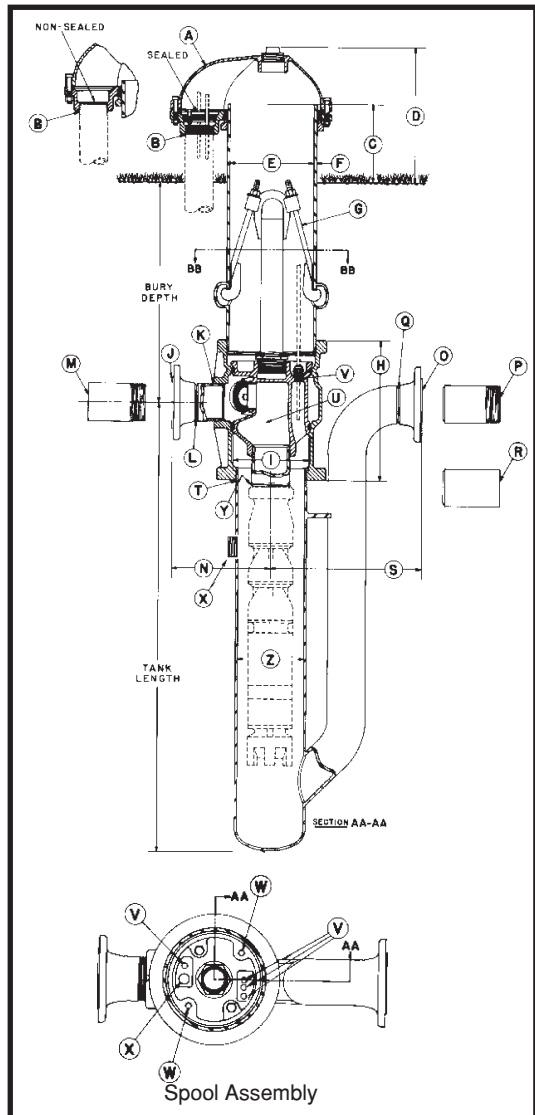
M. Indicates the inlet pipe connection is flanged.

**S**

N. Sealed conduit connection. (Optional)



## 8" PITLESS BOOSTER SPECIFICATIONS



### COMPONENT MATERIALS

**Cap & Conduit Box** - Cast iron, Green enamel finish.  
**Combination Hold-Down & Lift-Out Mechanism** - lead free galvanized  
**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.  
**Check Valve Body & Arms** - Brass.  
**Check Valve Seat** - Brass.  
**Check Valve Spring** - Monel.  
**Compression Seal Ring & Check Valve Facing** - Neoprene.  
**Conduit Seal & O-Rings** - Neoprene.  
**Tank & Inlet Pipes** - Steel, black corrosion resistant coating.  
**NOTE:** Inlet pipe & tank pipe tested to 200 P.S.I., spool discharge pressure tested to 300 P.S.I.

- A** Seal Cap: The watertight cap bolts to a compression seal ring securing around the pitless casing.
- B** Conduit Tapping Size (Standard): ..... 3" NPT  
 Watertight conduit seals for most common cable sizes are available.
- C** Distance from ground level to top of Pitless Case ..... 12 in.
- D** Distance from ground level to top of Well Cap ..... 18-7/8 in.
- E** Pitless Case Size ..... 10 in.
- F** Pitless Case wall thickness ..... .365 in.
- G** "Hold Down-Lift Out Assembly": positions & 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 lbs.
- H** Discharge Body Size: ..... 14-1/8 in. O.D. x 13-1/2 in. long
- I** Pitless Unit minimum I.D.: ..... 9-1/8 in.
- DISCHARGE CONNECTIONS AND SIZES**
- J** For Flanged (ASA Std. 150 lbs.): ..... 4 in. I.D.
- K** For Threaded Nipple (NPT): ..... 4 in. I.D.
- L** For Butt Weld (IPS): ..... 4 in. I.D.
- M** For Transition Sleeve (IPS): ..... 4 in. I.D.
- N** Dimension from center of Booster Unit to end of discharge outlet.  
 With **J** Flanged Discharge: ..... 12 in.  
 With **K** Threaded Discharge: ..... 6-15/16 in.  
 With **L** Welded Discharge: ..... 9 in.  
 With **M** Transition Discharge: ..... 20 in.
- INLET CONNECTIONS AND SIZES**
- O** For Flanged (ASA Std. 150 lbs.): ..... 4 in. I.D.
- P** For Threaded Nipple (NPT): ..... 4 in. I.D.
- Q** For Butt Weld (IPS): ..... 4 in. I.D.
- R** For Transition Sleeve (IPS): ..... 4 in. I.D.
- S** Dimension from center of Booster Unit to end of Inlet Connection.  
 With **O** Flanged Inlet: ..... 18-3/16 in.  
 With **P** Threaded Inlet: ..... 18-3/16 in.  
 With **Q** Welded Inlet: ..... 15-3/16 in.  
 With **R** Transition Inlet: ..... 27 in.
- T** Discharge Body to tank pipe connection: ..... Welded
- U** SPOOL ASSEMBLY  
 Spool design load: ..... 88,000 lbs.
- WITHOUT CHECK VALVES -**  
 Area of water passages: ..... 15.8 sq. in.  
 Percent area of water passages to area of Drop Pipe: ..... 124%
- WITH TWO CHECK VALVES -**  
 Area of valve passages: ..... 12.6 sq. in.  
 Percent area of valve passages to area of Drop Pipe: ..... 100%
- V** Motor Cable tappings through spool (w/cable connectors): ..... (4) 1/2 in. NPT  
 Maximum allowable ..... (6) 1/2 in. NPT
- W** Tapping into Pressure Zone: ..... 3/8 in. NPT  
 (Furnished with square head plug)
- X** Tapping into Suction Zone ..... 1 in. NPT  
 (Furnished with square head plug)
- Y** Spool to drop pipe nipple connection: ..... 4 in. NPT
- Z** Tank Pipe Size: ..... 8 in. I.D.

Specifications subject to change without notice

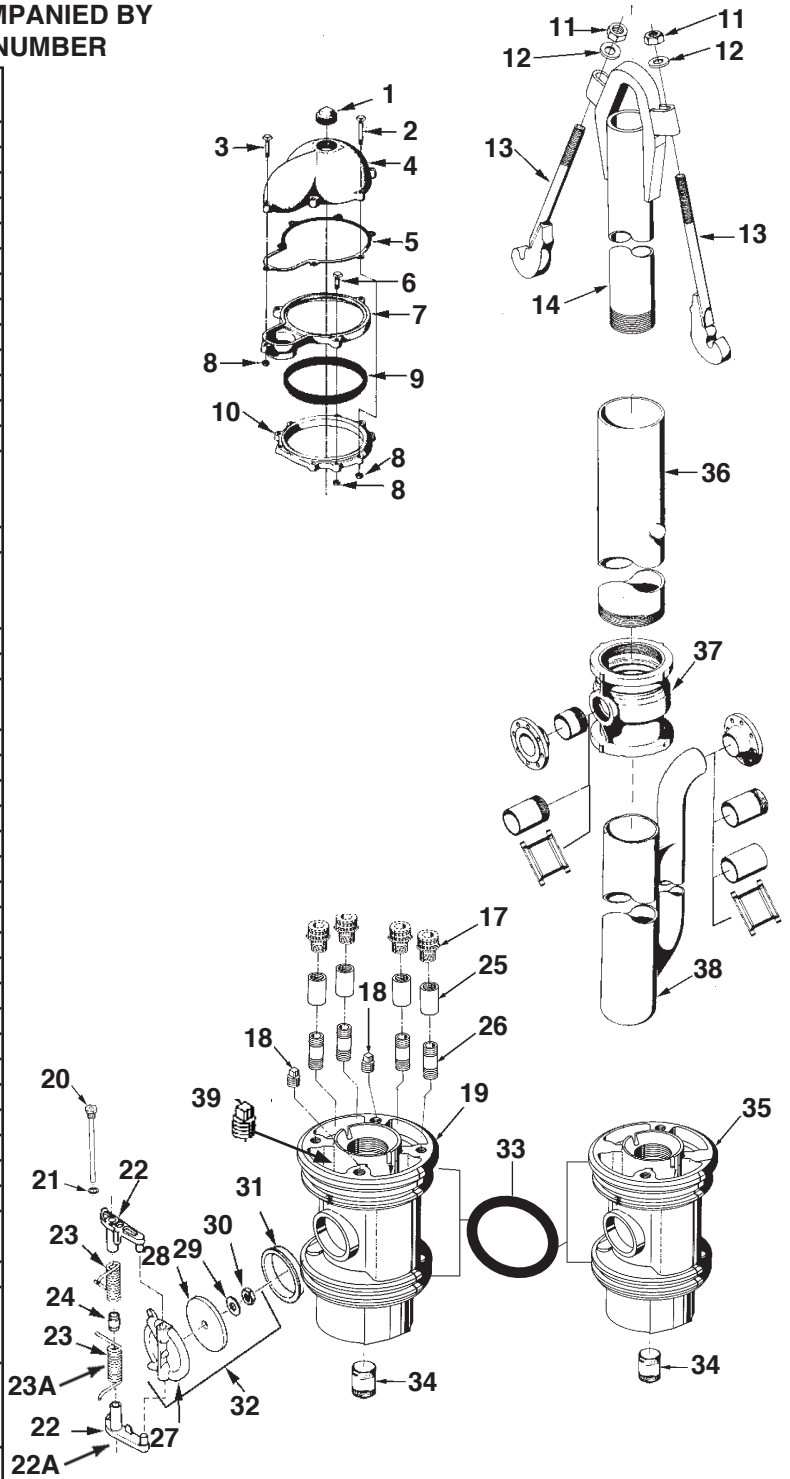
BB134-8(05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
 Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com

## 8" Pitless Booster Parts Breakdown

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

Key No.	Qty	Description	Ord. No.
1	1	Pipe Plug, 2 1/2" NPT	UK50
2	6	Machine Bolt, 1/2-13NCx4 1/2" L.	PS221S
3	1	Machine Bolt, 1/2-13NCx3" L.	APC7S
4	1	Seal Cap & Plug Assy.	PS350
5	1	Gasket	PS342
6	3	Machine bolt, 1/2-13NCx 2 1/2" L.	PS111S
7	1	Retainer Ring	PS341
8	10	Hex Nut, 1/2-13NC	PC433S
9	1	Seal Ring	PS170
10	1	Depression Ring	PS189
11	2	Hex Nut, 5/8-11NC	N75
12	2	Washer	WA75
13	2	Hold-Down Hook	UJ7BH
14	1	Lift-Out Pipe & Bail Assembly Note: Must be ordered by description & unit Serial Number	-----
16	1	Pipe Plug, 1" NPT-Galv.	UN120
17	4	Cable Connectors Note: Must be ordered by description & unit Serial Number	-----
18	2	Pipe Plug, 3/8-18 NPT	UN122
19	1	Spool (10E0PSF)	UG204
--	1	Spool Assy. w/check valves, includes Key Nos. 18 thru 33 (10E2PSF)	UG208
20	2	Hinge Pin	UG29
21	2	Hinge Pin Gasket	SW84
22	2	Rocker Arm-Right Hand	UG147
22A	2	Rocker Arm-Left Hand	UG148
23	2	Valve Spring-Right Hand	UG145
23A	2	Valve Spring-Left Hand	UG146
24	2	Valve Spring Center Support	UG150
25	2	Coupling 1/2-18NPT	PS182
26	2	Nipple 1/2-18NPT	PS181
27	2	Valve Body	UG149
28	2	Rubber Check Valve Facing	UG23
29	2	Brass Washer	UG68
30	2	Brass Nut, 1/2-13NC	TP34
31	2	Check Valve Seat	UG22
32	2	Check Valve Assy. includes Key Nos. 27 thru 30	UG323
33	2	O-Ring	UG15
34	1	Pipe Nipple, 4" NPTx6" L.	UK251
35	1	Spool	UG244
---	1	Spool Assy. less check valves Includes key nos 16-18, 25-26 & 35	UG253
36	1	Casing	-----
37	1	Discharge Body, FIP discharge outlet standard. Note: Must be ordered by description & unit Serial Number.	UG3
38	1	Tank & Inlet Pipe Assy. Note: Must be ordered by description & unit Serial Number	-----
39	1	Pipe Plug, 1" galvanized	UN120



OM-5200-8(05-08)



# 10" PITLESS BOOSTER UNIT

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

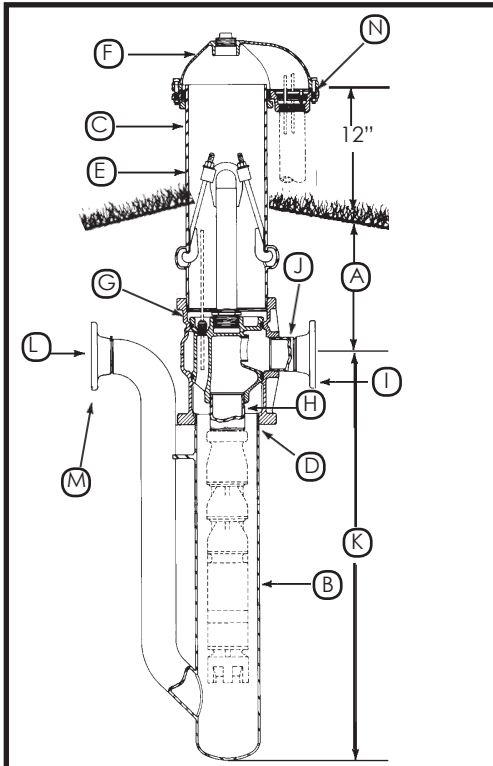
## EXPLANATION OF PITLESS BOOSTER UNIT ORDERING NUMBERS

The diagram illustrates the meaning of the various letters and numerals used in Monitor Pitless Booster Unit ordering number. A typical order number and the pitless booster unit it stands for are shown.

### Typical Order Number

## 6PS1012WBWX06F666FES

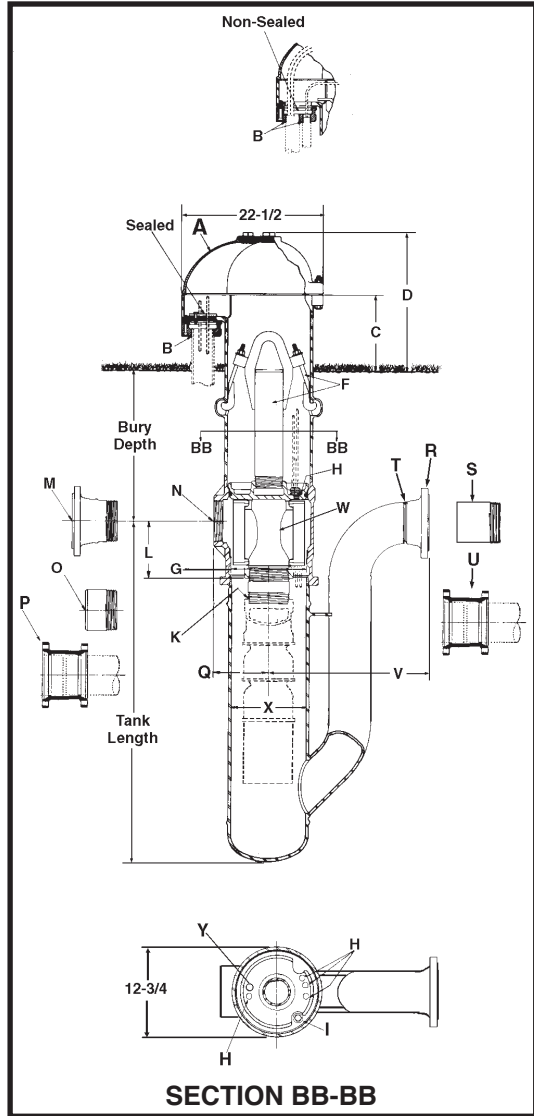
- 6** A. This first numeral in the order number indicates the bury depth, in feet, of the unit. Bury depth on all units is measured from the center of the discharge line to ground level. The top of the pitless case extends 12" above ground level as is required by many codes.
- PS** These letters indicate the type of pump the Pitless Booster Station is designed for. The unit shown is a PS for Submersible Pumps.
- 10** B. This numeral indicates the reservoir tank size. 10 is for an 10" I.D. diameter tank.
- 12** C. This numeral indicates the upper pitless case size, 12 is for a 12" diameter case.
- W** D. This letter indicates the attachment to the reservoir tank is a welded joint on 8" - 30".
- B** E. The presence of the letter "B" in the order number indicates the upper pitless case is black pipe.
- W** F. Indicates the unit has a watertight cap.
- X** G. Indicates spool passages are closed.
- 0** This numeral indicates the type of spool which the pitless unit has. In this case it is a spool that has no check valves.
- 6** H. Indicates the size of drop pipe in inches.
- F** I. Indicates the discharge connection is flanged.
- 6** J. Indicates the size of discharge pipe in inches.
- 6** K. Indicates the length of the reservoir tank in feet, and is measured from the center of the discharge line to the bottom of the 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. (Optional)



### DESCRIPTION - ORDERING NUMBERS

A	6	Bury Depth in Feet	
PS		Pitless Booster for Submersible Pump	
B	10	Reservoir Tank Size - Ins.	
C	12	Upper Case Size - Ins.	
D	W	Welded	
E	B	Black Upper Case	
F	W	Watertight Cap	
G	X	Motor Cable Passages - Sealed	
	0	Check Valves: 0	
H	6	Size of Drop Pipe in Ins. (4", 5" or 6")	
I	F	Welded	Discharge Connection (Select One)
		Flange, ASA 150#	
		Threaded NPT	
		Mech. Joint w/trans. sleeve	
J	6	Size of Discharge Pipe - Ins.	
K	6	Length of Reservoir Tank - Feet	
L	6	Inlet Pipe Size - Ins.	
M	F	Welded	Inlet Pipe Connection (Select One)
		Flange, ASA 150#	
		Threaded NPT	
		Mech. Joint w. trans. sleeve	
E		Standard Unit	
N	S	Elec. Cable Seal(S)	
		O.D. 3 Wire _____ O.D. Ground Wire _____	
		Special Provision (X)	

# 10" PITLESS BOOSTER SPECIFICATIONS



**SECTION BB-BB**

## COMPONENT MATERIALS

**Tank & Inlet Pipes** - Steel, black corrosion resistant coating.

**Cap** - Cast iron, green enamel finish.

**Conduit Box** - Steel, black corrosion resistant coating.

**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 P.S.I., spool discharge pressure tested to 300 P.S.I.

**NOTE:** Any combination between Drop Pipe and Discharge Outlet size is possible, if required.

<b>A</b>	Seal Cap: The watertight cap bolts on top of the upper casing forming a watertight connection with a gasket.		
<b>B</b>	Conduit Tapping Sizes: 3" NPT with sealed conduit connection. Watertight conduit seals for most common cable sizes are available..		
<b>C</b>	Distance from ground level to top of Pitless Case: 12".		
<b>D</b>	Distance from ground level to top of Seal Cap: 23".		
<b>E</b>	Pitless Case size: 12" I.D. 12-3/4" O.D.		
<b>F</b>	"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" IPS. Designed Lift-Out assembly load: 60,000 lbs. (2) Hold-Down hooks supplied.		
<b>G</b>	Pitless Unit minimum I.D.: 10"		
<b>H</b>	Motor cable tappings through spool: (4) 1/2" NPT (with cable connectors)		
<b>I</b>	Tapping into Pressure Zone: 3/8" NPT. (Furnished with square head plug)		
<b>K</b>	Spool to Drop Pipe connection sizes:.....	<b>4" NPT</b>	<b>5" NPT</b> <b>6" NPT</b>
<b>L</b>	Dimension from center of discharge outlet to bottom of spool:.....	12-1/8"	12"    11-1/8"
<b>DISCHARGE CONNECTIONS &amp; SIZES</b>			
<b>M</b>	For Flanged (ASA Std. 150 lbs.):.....	4" I.D.	5" I.D.    6" I.D.
<b>N</b>	For Threaded Nipple (NPT):.....	4" I.D.	5" I.D.    6" I.D.
<b>O</b>	For Butt Weld (IPS):.....	4" I.D.	5" I.D.    6" I.D.
<b>P</b>	For Transition Sleeve (IPS):.....	4" I.D.	N.A.    6" I.D.
<b>Q</b>	Dimension from center of Booster Unit to end of discharge outlet.		
	With <b>M</b> Flanged Discharge:.....	15-1/4"	15-1/2"    15-9/16"
	With <b>N</b> Threaded Discharge:.....	10-9/32"	10-5/32"    9-1/8"
	With <b>O</b> Welded Discharge:.....	12-7/32"	12-1/32"    12-1/16"
	With <b>P</b> Transition Discharge:.....	24"	N.A.    22"
<b>INLET CONNECTIONS &amp; SIZES</b>			
<b>R</b>	For Flanged (ASA Std. 150 lbs.):.....	4" I.D.	5" I.D.    6" I.D.
<b>S</b>	For Threaded Nipple (NPT):.....	4" I.D.	5" I.D.    6" I.D.
<b>T</b>	For Butt Weld (IPS):.....	4" I.D.	5" I.D.    6" I.D.
<b>U</b>	For Transition Sleeve (IPS):.....	4" I.D.	N.A.    6" I.D.
<b>V</b>	Dimension from center of Booster Unit to end of Inlet Connection.		
	With <b>R</b> Flanged Inlet:.....	30 3/16"	30-11/16"    25-3/16"
	With <b>S</b> Threaded Inlet:.....	30-3/16"	30-3/16"    25-11/16"
	With <b>T</b> Welded Inlet:.....	27-3/16"	27-3/16"    21-11/16"
	With <b>U</b> Transition Inlet:.....	39"	N.A.    34"
<b>W</b>	<b>SPOOL ASSEMBLY</b>		
	Area of water passages.....	25.12 Sq. In.	25.12 Sq. In.    25.12 Sq. In.
	Percent area of water passages to area of drop pipe.....	197%	125%    87%
<b>X</b>	Tank Pipe size:.....	10" I.D.	10" I.D.    10" I.D.
<b>Y</b>	Tapping into Suction Zone.....	1" NPT	1" NPT    1" NPT

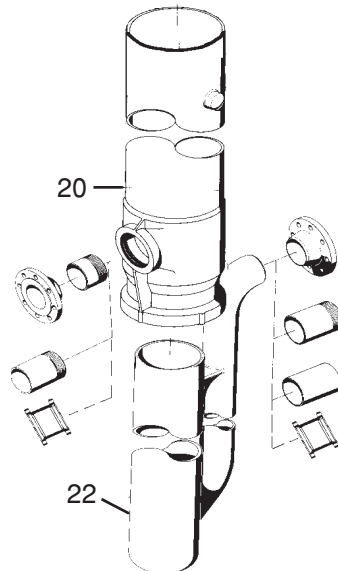
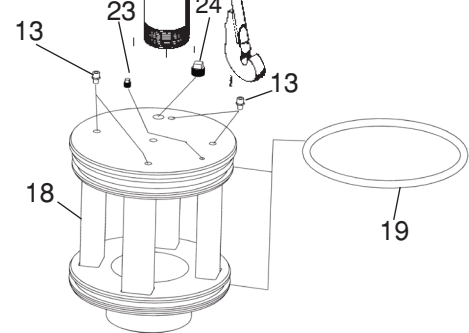
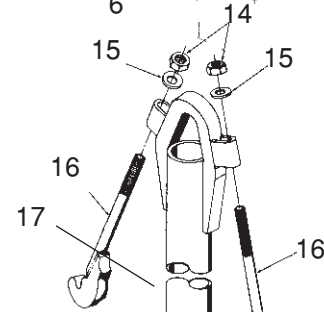
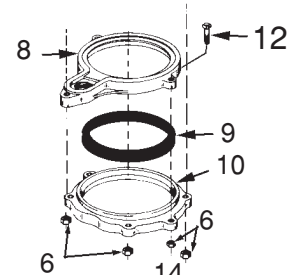
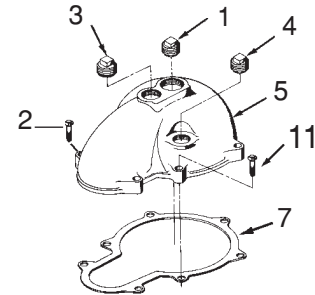
*Specifications subject to change without notice*



## 10" Pitless Booster Parts Breakdown

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

Key No.	Quantity	Description	Ord. No.
1	1	Pipe Plug, 2 1/2"	UK50
2	2	Lock Bolt, 5/8-11NC x 4 3/4" L.	LK4S
3	1	Pipe plug, 2" NPT	UJ50
4	1	Pipe plug, 1 1/2" NPT	UG54
5	1	Seal Cap (UK850)	UK12
6	10	Hex nut, 5/8-11NC	PC286
7	1	Gasket	UK72
8	1	Retainer Ring	UJ174
9	1	Seal Ring	UJ176
10	1	Depression Ring	UJ175
11	5	Hex head cap screw, 5/8-11NC x 6" L	KP145S
12	3	Hex head cap screw, 5/8-11NC x 3 1/2" L.	UJ177S
13	4	Cable Connectors (Note: Must be ordered by description & Unit Serial No.)	-----
14	2	Hex nut, 5/8-11NC	N75
15	2	Washer	WA75
16	2	Hold down Hook	UJ7BH
17	1	Lift-out pipe & bail assy. (Order by bury depth)	-----
18	1	Spool - without check valves (12E0PSF)	UJ241
19	2	O-ring	UJ15
20	1	Discharge body & upper case assy. (Order by bury depth)	-----
22	1	Tank & Inlet pipe Assy. (Note: Must be ordered by description & Serial No.)	-----
23	1	Pipe plug, 3/8-18 NPT	UN122
24	1	Pipe plug, 1" NPT	UN120

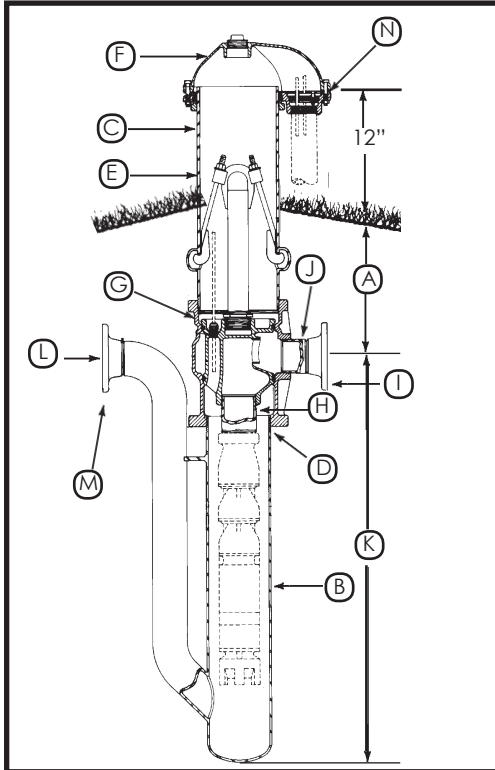


OM1427-10(05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
 Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com



# 12" 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 Pitless Booster Unit ordering number. A typical order number and the pitless booster unit it stands for are shown.

### Typical Order Number 6PS1214WBWX06F666FES

**6** A. This first numeral in the order number indicates the bury depth, in feet, of the unit. 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.

**PS** These letters indicate the type of pump the Pitless Booster Station is designed for. The unit shown is a PS for Submersible Pumps.

**12** B. This numeral indicates the reservoir tank size. 12 is for an 12" I.D. diameter tank.

**14** C. This numeral indicates the upper pitless case size, 14 is for a 14" diameter case.

**W** D. This letter indicates the attachment to the reservoir tank is a welded joint on 8" - 30".

**B** E. The presence of the letter "B" in the order number indicates the upper pitless case is black pipe.

**W** F. Indicates the unit has a watertight cap.

**X** G. Indicates spool passages are closed.

**0** This numeral indicates the type of spool which the pitless unit has. In this case it is a spool that has no check valves.

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

**F** I. Indicates the discharge connection is flanged.

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

**6** K. Indicates the length of the reservoir tank in feet, and is measured from the center of the discharge line to the bottom of the 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.

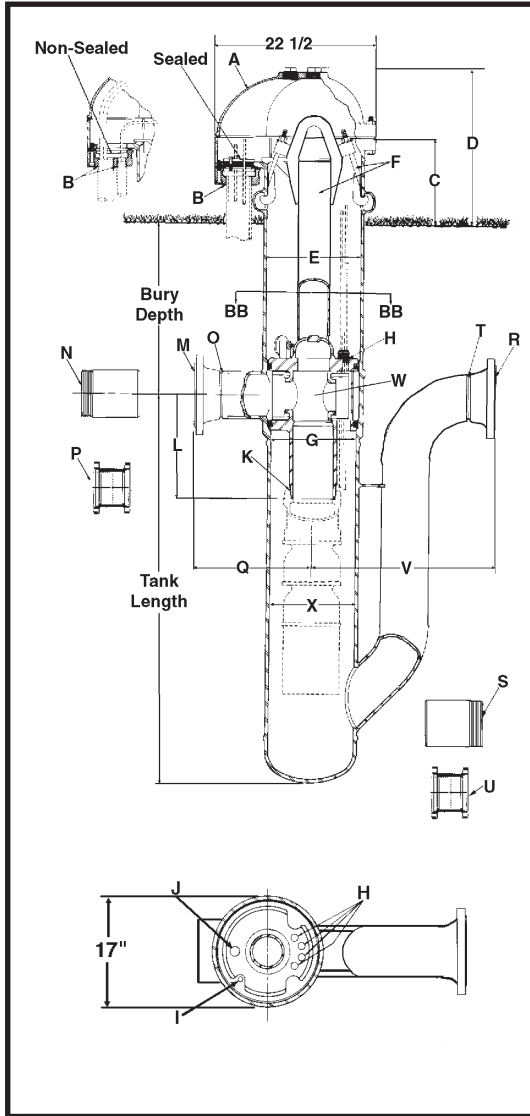
**S** N. Sealed conduit connection. (Optional)

#### DESCRIPTION - ORDERING NUMBERS

A	6	Bury Depth in Feet	
PS		Pitless Booster for Submersible Pump	
B	12	Reservoir Tank Size - Ins.	
C	14	Upper Case Size - Ins.	
D	W	Welded	
E	B	Black Upper Case	
F	W	Watertight Cap	
G	X	Motor Cable Passages - Sealed	
	0	Check Valves: 0	
H	6	Size of Drop Pipe in Ins. (4", 5" or 6")	
I	F	Welded	Discharge Connection (Select One)
		Flange, ASA 150#	
		Threaded NPT	
		Mech. Joint w/trans. sleeve	
J	6	Size of Discharge Pipe - Ins.	
K	6	Length of Reservoir Tank - Feet	
L	6	Inlet Pipe Size - Ins.	
M	F	Welded	Inlet Pipe Connection (Select One)
		Flange, ASA 150#	
		Threaded NPT	
		Mech. Joint w. trans. sleeve	
E		Standard Unit	
N	S	Elec. Cable Seal(S)	
		O.D. 3 Wire _____ O.D. Ground Wire _____	
		Special Provision (X)	



# 12" PITLESS BOOSTER SPECIFICATIONS



- A** Seal Cap: The watertight cap bolts on top of the upper casing forming a watertight connection with a gasket.
  - B** Conduit Tapping Sizes: 2" & 1" NPT without sealed conduit connection; 2" & 1", 2", 3", or 4" NPT with sealed conduit connection. Watertight conduit seals for most common cable sizes are available.
  - 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" IPS. Designed Lift-Out assembly load: 60,000 lbs. (2) Hold-Down hooks supplied.
  - G** Pitless Unit minimum I.D.: 12"
  - H** Motor cable tappings through spool: (4) 1/2" NPT. (with cable connectors)
  - I** Tapping into Pressure Zone: 3/8" NPT. (Furnished with square head plug)
  - J** Tapping into Suction Zone: 1" NPT. (Furnished with square head plug).
  - K** Spool to Drop Pipe connection 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 & SIZES**
- |                                                |         |         |         |
|------------------------------------------------|---------|---------|---------|
| <b>M</b> For Flanged (ASA Std. 150 lbs.):..... | 4" I.D. | 5" I.D. | 6" I.D. |
| <b>N</b> For Threaded Nipple (NPT):.....       | 4" I.D. | 5" I.D. | 6" I.D. |
| <b>O</b> For Butt Weld (IPS):.....             | 4" I.D. | 5" I.D. | 6" I.D. |
| <b>P</b> For Transition Sleeve (IPS):.....     | 4" I.D. | 5" I.D. | 6" I.D. |
- Q** Dimension from center of Booster Unit to end of discharge outlet.
- |                                         |          |          |           |
|-----------------------------------------|----------|----------|-----------|
| With <b>M</b> Flanged Discharge:.....   | 21-1/2"  | 22"      | 16-7/16"  |
| With <b>N</b> Threaded Discharge:.....  | 21-7/16" | 21-7/16" | 16-15/16" |
| With <b>O</b> Welded Discharge.....     | 18-1/2"  | 18-1/2"  | 12-15/16" |
| With <b>P</b> Transition Discharge..... | 30"      | N.A.     | 25"       |
- INLET CONNECTIONS & SIZES**
- |                                                |         |         |         |
|------------------------------------------------|---------|---------|---------|
| <b>R</b> For Flanged (ASA Std. 150 lbs.):..... | 4" I.D. | 5" I.D. | 6" I.D. |
| <b>S</b> For Threaded Nipple (NPT):.....       | 4" I.D. | 5" I.D. | 6" I.D. |
| <b>T</b> For Butt Weld (IPS):.....             | 4" I.D. | 5" I.D. | 6" I.D. |
| <b>U</b> For Transition Sleeve (IPS):.....     | 4" I.D. | 5" I.D. | 6" I.D. |
- V** Dimension from center of Booster Unit to end of Inlet Connection.
- |                                     |          |          |          |
|-------------------------------------|----------|----------|----------|
| With <b>R</b> Flanged Inlet:.....   | 30 1/8"  | 30-5/8"  | 25-1/16" |
| With <b>S</b> Threaded Inlet:.....  | 30-1/8"  | 30-1/8"  | 25-9/16" |
| With <b>T</b> Welded Inlet:.....    | 27-1/16" | 27-1/16" | 21-9/16" |
| With <b>U</b> Transition Inlet..... | 39"      | N.A.     | 34"      |
- W** **SPOOL ASSEMBLY**
- |                                                           |               |               |               |
|-----------------------------------------------------------|---------------|---------------|---------------|
| Area of water passages .....                              | 25.12 Sq. In. | 25.12 Sq. In. | 25.12 Sq. In. |
| 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.

**COMPONENT MATERIALS**

- Tank & Inlet Pipes** - Steel, black corrosion resistant coating.
- Cap** - Cast iron, green enamel finish.
- Conduit Box** - Steel, black corrosion resistant coating.
- 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 P.S.I., spool discharge pressure tested to 300 P.S.I.
- NOTE:** Any combination between Drop Pipe and Discharge Outlet size is possible, if required.

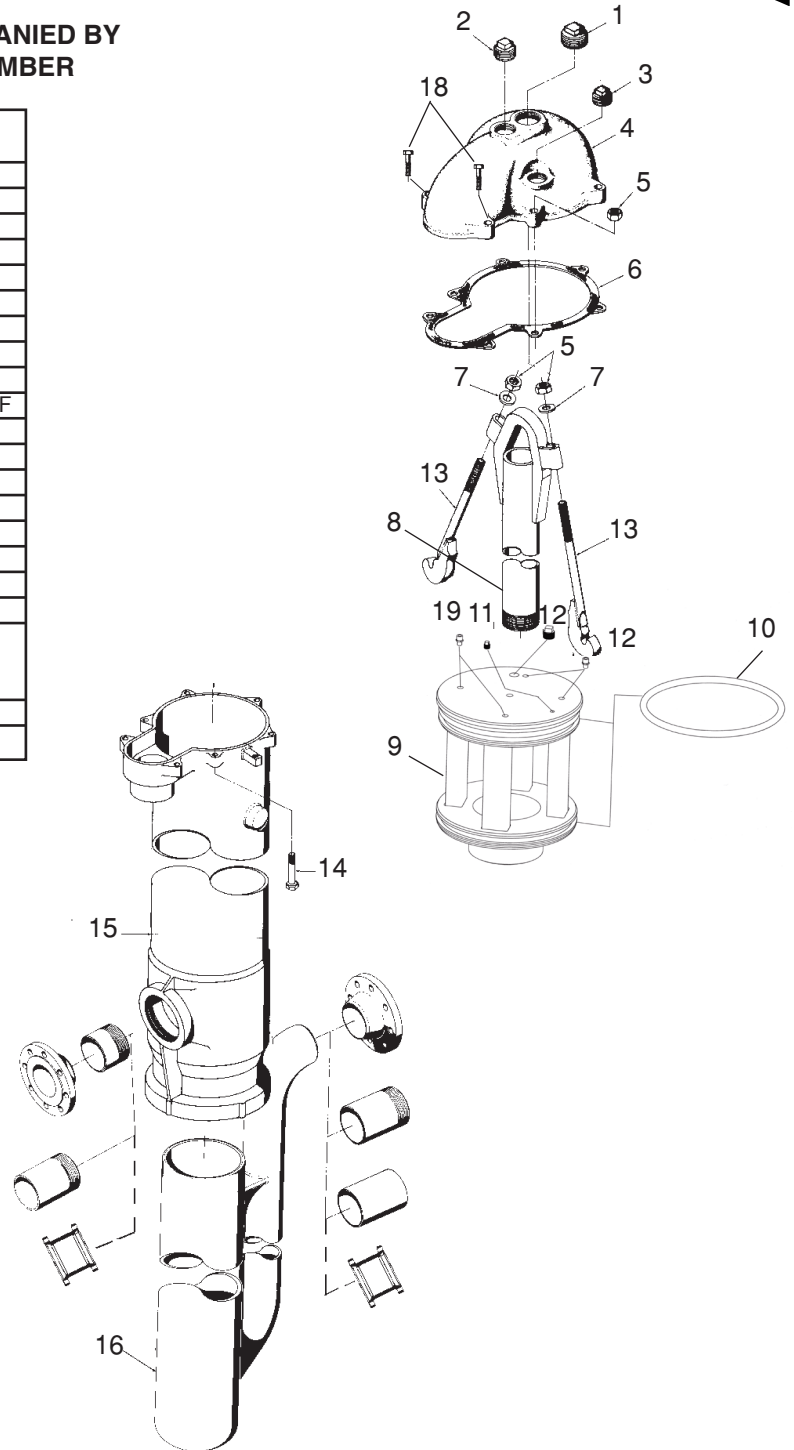
*Specifications subject to change without notice*

BB136-12(05-08)

## 12" Pitless Booster Parts Breakdown

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

Key No.	Quantity	Description	Ord. No.
1	1	Pipe Plug, 2 1/2"	UK50
2	1	Pipe Plug, 2" NPT	UJ50
3	1	Pipe Plug, 1 1/2" NPT	UG54
4	1	Seal Cap (UK850)	UK12
5	9	Hex Nut, 5/8-11NC	N75
6	1	Gasket	UK72
7	2	Washer	WA75
8	1	Lift Out Bail & Lift Out Pipe Assy. (Order by bury depth)	-----
9	1	Spool (14E0PSF)	UK6S4EF
10	2	O-Ring	UK15
11	1	Pipe Plug, 3/8-18 NPT	UN122
12	4	Cable Connectors (Note: Must be ordered by description & unit Serial No.)	-----
13	2	Hold-Down Hook	UJ7BH
14	5	Hex Hd. Cap Screw, 5/8-11HCx 5" L	UN73
15	1	Discharge Body & Upper Casing Assy. (Order by bury depth)	-----
16	1	Inlet pipe and tank assembly. (Note: Must be ordered by description & unit Serial No.)	-----
18	2	Lock Bolt - 5/8 x 4 3/4" L.	LK4
19	1	Pipe Plug - 1" NPT	UN120



OM5208-12(05-08)



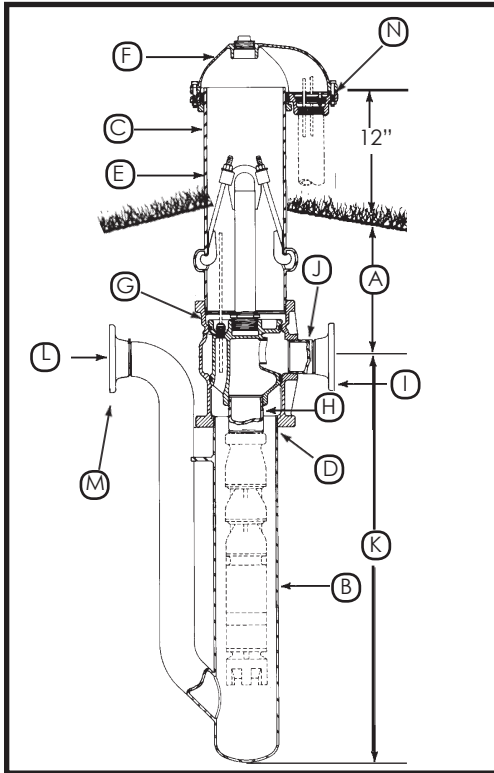
## 16" PITLESS BOOSTER UNIT

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 Pitless Booster Unit ordering number. A typical order number and the pitless booster unit it stands for are shown.

### Typical Order Number 6PS1618WBWX08F868FES



**6** A. This first numeral in the order number indicates the bury depth, in feet, of the unit. 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.

**PS** These letters indicate the type of pump the Pitless Booster Station is designed for. The unit shown is a PS for Submersible Pumps.

**16** B. This numeral indicates the reservoir tank size. 16 is for an 16" I.D. diameter tank.

**18** C. This numeral indicates the upper pitless case size, 18 is for a 18" diameter case.

**W** D. This letter indicates the attachment to the reservoir tank is a welded joint on 8" - 30".

**B** E. The presence of the letter "B" in the order number indicates the upper pitless case is black pipe.

**W** F. Indicates the unit has a watertight cap.

**X** G. Indicates spool passages are closed.

**0** This numeral indicates the type of spool which the pitless unit has. In this case it is a spool that has no check valves.

**8** H. Indicates the size of drop pipe in inches.

**F** I. Indicates the discharge connection is flanged.

**8** J. Indicates the size of discharge pipe in inches.

**6** K. Indicates the length of the reservoir tank in feet, and is measured from the center of the discharge line to the bottom of the 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.

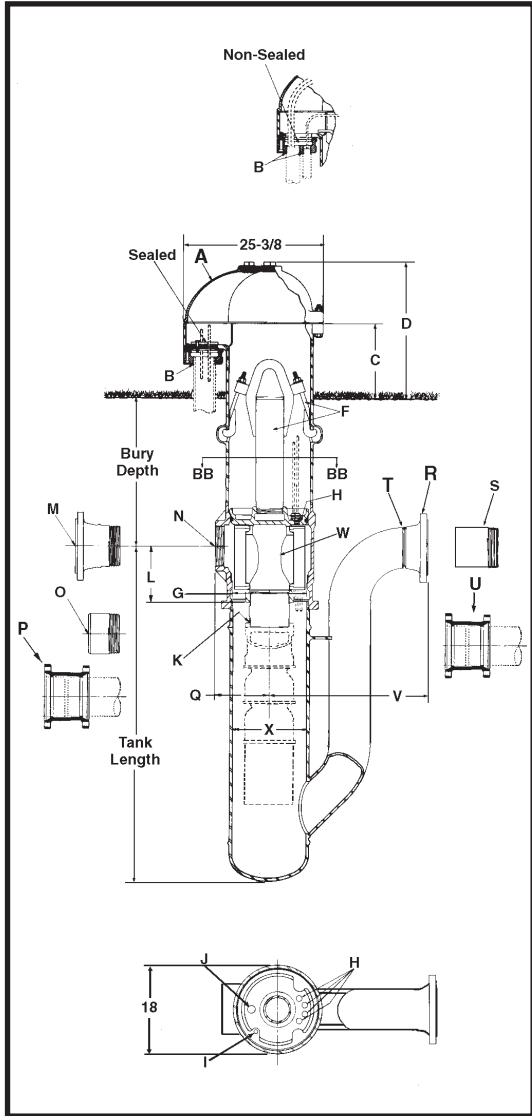
**S** N. Sealed conduit connection. (Optional)

#### DESCRIPTION - ORDERING NUMBERS

<b>A</b>	<b>6</b>	Bury Depth in Feet	
	<b>PS</b>	Pitless Booster for Submersible Pump	
<b>B</b>	<b>16</b>	Reservoir Tank Size - Ins.	
<b>C</b>	<b>18</b>	Upper Case Size - Ins.	
<b>D</b>	<b>W</b>	(T) Threaded Joint (W) Welded	
<b>E</b>	<b>B</b>	Black Upper Case	
<b>F</b>	<b>W</b>	Watertight Cap	
<b>G</b>	<b>X</b>	Motor Cable Passages - Sealed	
	<b>0</b>	Check Valves: 0	
<b>H</b>	<b>8</b>	Size of Drop Pipe in Ins. (5", 6" or 8")	
<b>I</b>	<b>F</b>	Welded	Discharge Connection (Select One)
		Flange, ASA 150#	
		Threaded NPT	
		Mech. Joint w/trans. sleeve	
<b>J</b>	<b>8</b>	Size of Discharge Pipe - Ins.	
<b>K</b>	<b>6</b>	Length of Reservoir Tank - Feet	
<b>L</b>	<b>8</b>	Inlet Pipe Size - Ins.	
<b>M</b>	<b>F</b>	Welded	Inlet Pipe Connection (Select One)
		Flange, ASA 150#	
		Threaded NPT	
		Mech. Joint w. trans. sleeve	
	<b>E</b>	Standard Unit	
<b>N</b>	<b>S</b>	Elec. Cable Seal(S)	
		O.D. 3 Wire                      O.D. Ground Wire	
		Special Provision (X)	



# 16" PITLESS BOOSTER SPECIFICATIONS



## COMPONENT MATERIALS

**Tank & Inlet Pipes** - Steel, black corrosion resistant coating.

**Cap** - Cast iron, green enamel finish.

**Conduit Box** - Steel, black corrosion resistant coating.

**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 P.S.I., spool discharge pressure tested to 300 P.S.I.

**NOTE:** Any combination between Drop Pipe and Discharge Outlet size is possible, if required.

<b>A</b>	Seal Cap: The watertight cap bolts on top of the upper casing forming a watertight connection with a gasket.		
<b>B</b>	Conduit Tapping Sizes: 2" & 1" NPT without sealed conduit connection; 2" & 1", 2", 3", or 4" NPT with sealed conduit connection. Watertight conduit seals for most common cable sizes are available.		
<b>C</b>	Distance from ground level to top of Pitless Case: 12".		
<b>D</b>	Distance from ground level to top of Seal Cap: 21-13/16".		
<b>E</b>	Pitless Case size: 17-1/4" I.D. 18" O.D.		
<b>F</b>	"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" IPS. Designed Lift-Out assembly load: 110,000 lbs. (4) Hold-Down hooks supplied.		
<b>G</b>	Pitless Unit minimum I.D.: 15-1/4"		
<b>H</b>	Motor cable tappings through spool: (4) 1/2" NPT. (with cable connectors)		
<b>I</b>	Tapping into Pressure Zone: 3/8" NPT. (Furnished with square head plug)		
<b>J</b>	Tapping into Suction Zone: 1" NPT. (Furnished with square head plug).		
<b>K</b>	Spool to Drop Pipe connection sizes: .....	<b>4" NPT</b>	<b>6" NPT</b> <b>8" NPT</b>
<b>L</b>	Dimension from center of discharge outlet to bottom of spool:.....	15-5/8"	16-5/8"      10-5/8"
<b>DISCHARGE CONNECTIONS &amp; SIZES</b>			
<b>M</b>	For Flanged (ASA Std. 150 lbs.):.....	4" I.D.	6" I.D.      8" I.D.
<b>N</b>	For Threaded Nipple (NPT): .....	4" I.D.	6" I.D.      8" I.D.
<b>O</b>	For Butt Weld (IPS): .....	4" I.D.	6" I.D.      8" I.D.
<b>P</b>	For Transition Sleeve (IPS):.....	4" I.D.	6" I.D.      8" I.D.
<b>Q</b>	Dimension from center of Booster Unit to end of discharge outlet.		
	With <b>M</b> Flanged Discharge:.....	18-23/32"	18-23/32"      17-13/16"
	With <b>N</b> Threaded Discharge:.....	12-9/32"	15-9/32"      11"
	With <b>O</b> Welded Discharge.....	14-7/16"	15-7/32"      13-13/16"
	With <b>P</b> Transition Discharge.....	N.A.	25"      26"
<b>INLET CONNECTIONS &amp; SIZES</b>			
<b>R</b>	For Flanged (ASA Std. 150 lbs.):.....	4" I.D.	6" I.D.      8" I.D.
<b>S</b>	For Threaded Nipple (NPT): .....	4" I.D.	6" I.D.      8" I.D.
<b>T</b>	For Butt Weld (IPS): .....	4" I.D.	6" I.D.      8" I.D.
<b>U</b>	For Transition Sleeve (IPS):.....	4" I.D.	6" I.D.      8" I.D.
<b>V</b>	Dimension from center of Booster Unit to end of Inlet Connection.		
	With <b>R</b> Flanged Inlet:.....	36-7/8"	36-7/8"      31-3/8"
	With <b>S</b> Threaded Inlet: .....	36-3/8"	37-3/8"      31-3/8"
	With <b>T</b> Welded Inlet:.....	33-3/8"	33-3/8"      27-3/8"
	With <b>U</b> Transition Inlet.....	N.A.	45"      39"
<b>W</b>	<b>SPOOL ASSEMBLY</b>		
	Area of water passages .....	41.25 Sq. In.	41.25 Sq. In.      41.25 Sq. In.
	Percent area of water passages to area of drop pipe .....	206%	143%      82%
<b>X</b>	Tank Pipe size: .....	15-1/4" I.D.	15-1/4" I.D.      15-1/4" I.D.

Specifications subject to change without notice

BB135-16(05-08)

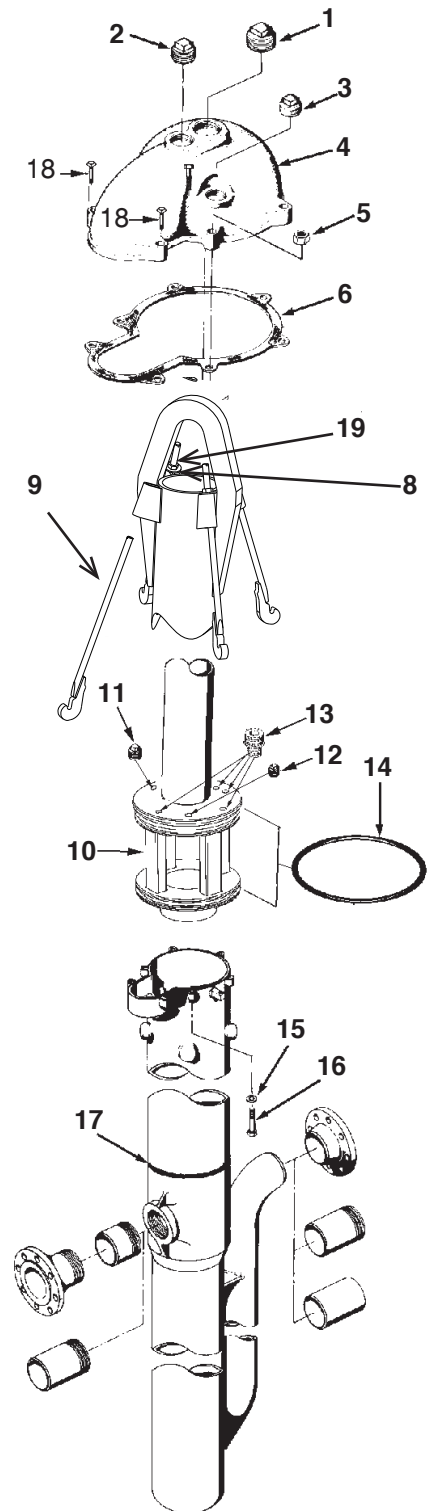
Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com



## 16" Pitless Booster Parts Breakdown

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

Key No.	Quantity	Description	Ord. No.
1	1	Pipe Plug, 2 1/2"	UK50
2	1	Pipe Plug, 2" NPT	UJ50
3	1	Pipe Plug, 1-1/2" NPT	UG54
4	1	Seal Cap (UM850)	UM1
5	12	Hex Nut, 5/8-11NC	PC286S
6	1	Gasket	UM72
8	4	Washer	WA75
9	4	Hold-Down Hook	UM7BH
10	1	Spool & Lift-Out Assy. (Order by descripton & serial no.)	-----
11	1	Pipe plug, 1" x 1 1/2 NPT	UN120
12	1	Pipe plug 3/8"-18 NPT	UN122
13	4	Cable Connectors (Note: Must be ordered by description & unit Serial No.)	-----
14	2	O-Ring	UM15
15	8	Washer	UN81
16	6	Head Head cap screw 5/8-11NC x 5" L	UN73S
17	1	Inlet pipe, tank, discharge body & upper case assembly	-----
18	2	Lock Bolt - 5/8 x 4 3/4" L.	LK4S
19	4	3/4" Nut	N75



OM5202-16(05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
 Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com

## TURBINE PITLESS UNITS



The Monitor PT Industrial Pitless Unit for Line Shaft Turbine Pumps forms a watertight extension of the well casing which starts below the frostline, where it is buried permanently, and continues upward 12 or more inches above grade, where the pitless case is flanged to receive a motor support and motor. The completed assembly of the motor support and motor closes the Pitless Case making a watertight installation.



## INDUSTRIAL PITLESS UNITS FOR LINE SHAFT TURBINE PUMPS 10", 12", 14", 16", 18" and 20" WELL SIZES

### FEATURES:

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

**EASY TO SERVICE** ... The inner parts of the pitless unit and the column pipe may be removed without digging up the discharge pipe. The Pitless unit and the pump or well may then be serviced. This easy removal, by lifting, is made possible due to the o-ring seals in the spool. Replacement is equally simple.

**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 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.

**PROTECTED SCREEN VENT**  
... standard on all units.

#### SUPPORT RINGS

... Prevent distortion of the discharge body due to vertical movement of discharge pipe.

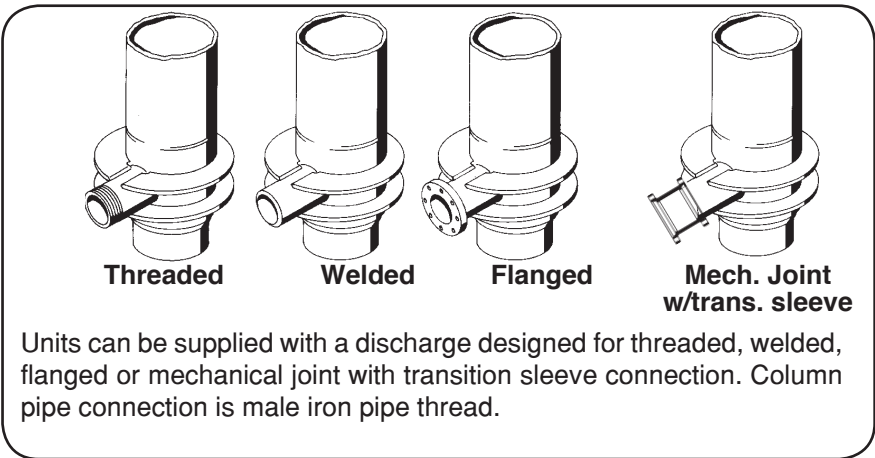
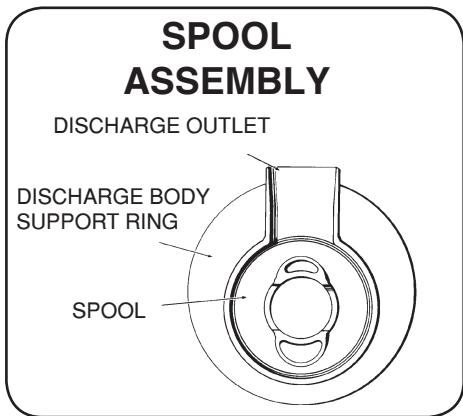
**ACCURATE ALIGNMENT.** . . Precision machining assures accurate alignment.

#### OPTIONS:

**EPOXY PAINTING** ... can be done, if required, for extra protection in certain soil types.

**ADDITIONAL TAPPING IN SPOOL** ... is available upon request.

**TRANSITION SLEEVE FOR MECHANICAL JOINT** ... is available upon request.





## **INSTALLATION INSTRUCTIONS**

### **INDUSTRIAL PITLESS UNITS FOR WATER LUBRICATED TURBINE PUMPS 14" UPPER CASE SIZE AND LARGER**

1. All pitless unit cases are joined by welding the unit to the well casing.
2. Establish ground level at the well location. It is desirable to have the ground slope away, from pitless unit case, in all directions.
3. The pitless unit case 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 unit is to be above the ground.
4. In order to do work, 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 center line.
6. Remove the motor support stand and then the spool assembly, using lift-out hooks assembled, and set aside. NOTE: (The spool assembly includes a spool with two o-ring seals, lift-out pipe and support plate.)
7. Lower the pitless case into place and rotate the discharge outlet to the desired location. Weld the pitless case to the well casing. THIS JOINT MUST BE WATERTIGHT AND IT IS ESSENTIAL THAT THE CENTER LINE OF THE PITLESS CASE AND WELL CASING BE THE SAME.
8. Attach the turbine pumps to the column pipe and lower into well making drive shaft etc., connections while lowering. When the last section of column pipe, shaft etc., is one foot or more above the pitless case, lower the spool assembly over the shaft and screw onto the column 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 into place.
10. Install motor support stand and upper shaft seal.
11. Connect discharge outlet to distribution line.
12. Mount turbine motor onto motor support plate making all necessary shaft assemblies.
13. After all wiring has been completed the unit is ready to operate under power and should be run a sufficiently long 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 the discharge line properly before back filling.

**NOTE: Dissimilar metals should be avoided.**



## 10" TURBINE PITLESS UNIT

UNITS AVAILABLE BY QUOTATION ONLY  
10" THROUGH 20" WELL SIZES

### EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

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

### Typical Order Number 3PT1014WBE06F6W

**A.** The first numeral in the order number indicates the bury depth, in feet, of the unit. 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.

**3**

**PT** The type of pump the pitless unit is designed for. The unit shown is a PT for Line Shaft Turbine Pumps.

**10**

**B.** The well casing size is for 10" wells.

**14**

**C.** The upper pitless case size is 14".

**W**

**D.** The attachment to the well casing is a welded joint.

**B**

**E.** The upper pitless case is black pipe.

**E**

**F.** The spool has pressure equalizing passages.

**0**

The type of spool has no silent check valves.

**6**

**G.** The size of column pipe in inches.

**F**

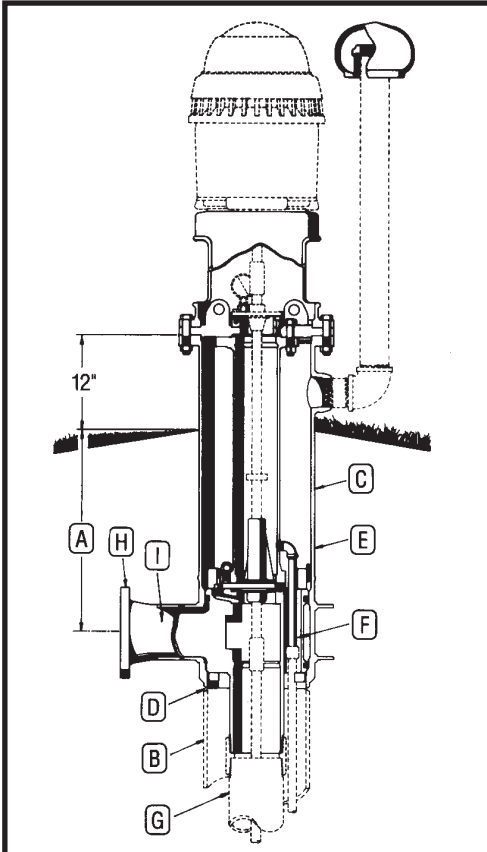
**H.** The discharge connection is flanged.

**6**

**I.** The size of discharge line in inches.

**W**

The type of Line Shaft Turbine the unit is designed for, "W" water-lubricated.

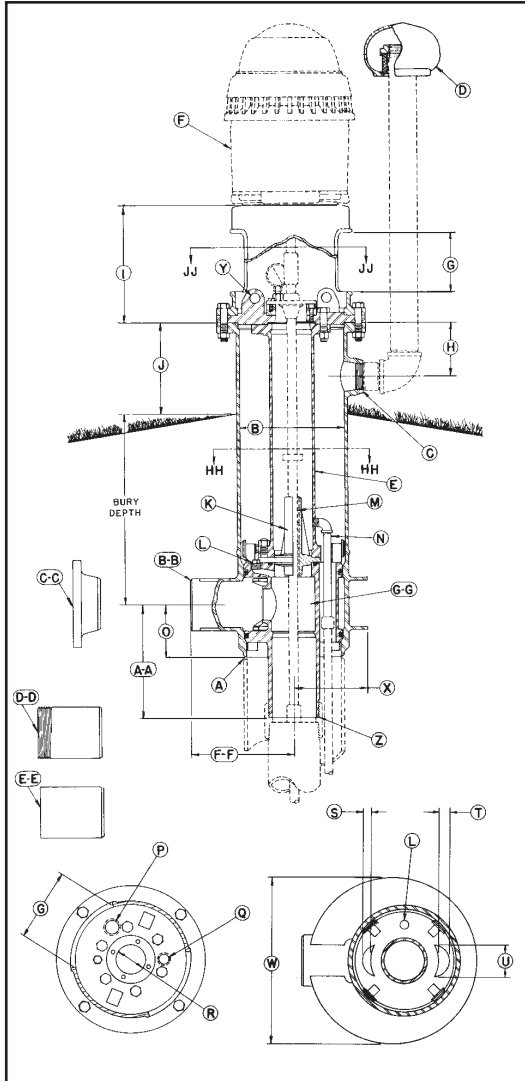


### DESCRIPTION - ORDERING NUMBERS

<b>A</b>	<b>3</b>	Bury Depth in Feet
	<b>PT</b>	Pitless Unit for Turbine Pump
<b>B</b>	<b>10</b>	Well Size - Ins.
<b>C</b>	<b>14</b>	Upper Case Size - Ins.
<b>D</b>	<b>W</b>	Attachment to Well Casing-Welded
<b>E</b>	<b>B</b>	Black Upper Case
<b>F</b>	<b>E</b>	Pressure Equalizing Spool Passages
	<b>0</b>	Standard Spool
<b>G</b>	<b>6</b>	Size of Column Pipe - Ins. (4", 5", or 6")
<b>H</b>	<b>F</b>	Welded
		Flange, ASA 150#
		Threaded NPT
		Mech. Joint
		Discharge Connection (Select One)
		Accessory - Transition Sleeve
<b>I</b>	<b>6</b>	Discharge Size-Ins. (4", 5", or 6")
	<b>W</b>	Waterlube
		Special Provision (X)



# 10" TURBINE PITLESS UNIT SPECIFICATIONS



- A Unit minimum I.D. 10 in.: chamfered for butt weld to well casing.
  - B Pitless Unit with Black Upper Case Std.: 13-1/4 in. I.D., 14 in. O.D.
  - C 2-1/2 in. NPT Tapping for Well Vent.
  - D 2-1/2 in. Protected Screen Well Vent.
  - E Lift-Out Pipe: 5 in. IPS.
  - F Turbine Motor having a maximum base diameter of 12 in. (Supplied by others)
  - G Motor Mount Access Openings: (2) openings measuring 9 in. wide x 8-1/2 in. high.
  - H 6-7/8 in.
  - I 15 in.
  - J 12 in.
  - K Shaft Bearing Housing.
  - L 1 in. N.P.T. Tapping ported to Column Pipe.
  - M Shaft Bearings (Supplied by pump manufacturer): Total length of bearing to be 10 in. and a maximum O.D. of 1-5/8 in.
  - N 3/4 in. drain.
  - O Dimension from center of Discharge Outlet to bottom of Discharge Body: 15-3/4 in.
  - P 1-1/2 in. NPT Tapping for optional Water Sampler.
  - Q 1 in. NPT Tapping.
  - R Rabbet Fit for Upper Grease Seal Bearing Housing: Minimum O.D. of 3 in. and maximum O.D. of 4 in.; maximum Bolt Circle of Bearing Housing - 5-1/4 in. (Bearing & Bearing Housing supplied by others)
  - S 1 in.
  - T 1-1/2 in.
  - U 4 in.
  - W 21-3/8 in.
  - X 9-5/16 in.
  - Y Lifting Lug: (2) Lugs for inserting or removal of inner well parts.
  - Z **SPOOL TO DROP PIPE CONNECTION SIZES:** 4 in. NPT    5 in. NPT    6 in. NPT  
The Standard Spool is designed for a 65,000 lb. ... (3/4 Taper)    (3/4 Taper)    (3/4 Taper)  
maximum load. Spools are available to sustain higher loads.
- |                                                                                |               |               |               |
|--------------------------------------------------------------------------------|---------------|---------------|---------------|
| <b>AA</b> Dimension from center of Discharge Outlet to bottom of Spool:.....   | 13-7/16 in.   | 14-7/16 in.   | 14-1/2 in.    |
| <b>DISCHARGE CONNECTIONS &amp; SIZES:</b>                                      |               |               |               |
| For <b>[BB]</b> Butt Weld (IPS):.....                                          | 4 in. I.D.    | 5 in. I.D.    | 6 in. I.D.    |
| For <b>[CC]</b> Flanged (ASA Std. 150 lb.):.....                               | 4 in. I.D.    | 5 in. I.D.    | 6 in. I.D.    |
| For <b>[DD]</b> Threaded Nipple (NPT):.....                                    | 4 in. I.D.    | 5 in. I.D.    | 6 in. I.D.    |
| For <b>[EE]</b> Transition Sleeve (IPS):.....                                  | 4 in. I.D.    | N.A.          | 6 in. I.D.    |
| <b>FF</b> Dimension from center of Well Casing to the end of Discharge Outlet. |               |               |               |
| With <b>[BB]</b> Butt Weld Discharge:.....                                     | 18-1/2 in.    | 18-1/2 in.    | 12-15/16 in.  |
| With <b>[CC]</b> Flanged Discharge:.....                                       | 21-1/2 in.    | 22 in.        | 16-7/16 in.   |
| With <b>[DD]</b> Threaded Discharge:.....                                      | 21-7/16 in.   | 21-7/16 in.   | 16-15/16 in.  |
| With <b>[EE]</b> Transition Sleeve Discharge:.....                             | 24-1/2 in.    | N.A.          | 18-15/16 in.  |
| <b>GG</b> <b>SPOOL ASSEMBLY</b>                                                |               |               |               |
| Area of Water Passage(s):.....                                                 | 12.56 sq. in. | 25.12 sq. in. | 25.12 sq. in. |
| Percent Area of Water Passage(s) to Area of Drop Pipe:.....                    | 100%          | 125%          | 87%           |

## COMPONENT MATERIALS

- Well Vent** - cast iron, green enamel finish.
- Motor Support** - cast iron, black corrosion resistant coating.
- Combination Hold-Down & Lift-Out Mechanism** - steel, black corrosion resistant coating.
- Hold-Down Pipe** - steel, black corrosion resistant coating.
- Pitless Case** - steel, corrosion resistant coating.
- Discharge Body** - steel, lead free galvanized.
- Spool** - steel, lead free galvanized.

**NOTE:** Provision for prelubrication not available.  
**NOTE:** Units are designed for motors having an RPM of 1800 or less and a 10" or 12" base diameter having a 9-1/8" bolt circle. Maximum bury depth will be 9 feet. For units requiring exceptions to these conditions of design, special specifications must be used.

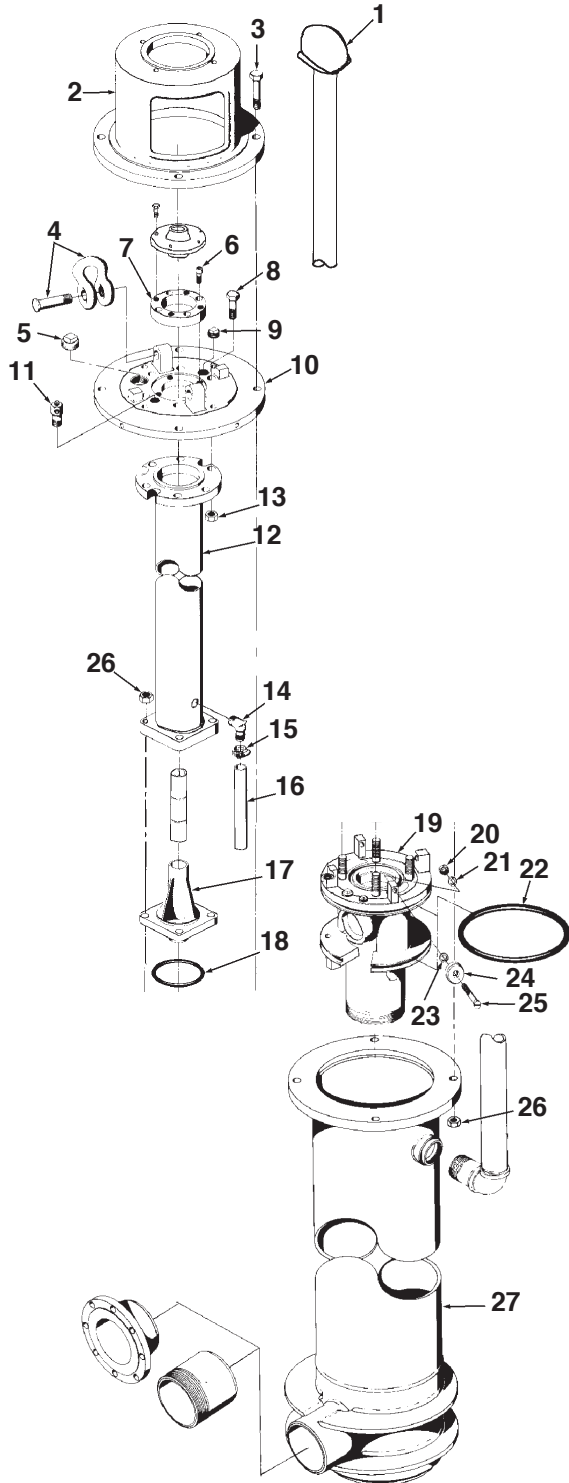
**NOTE:** Any combination between Column Pipe and Discharge Outlet size is possible, if required.

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

BB120-10(05-08)



## 10" Turbine Pitless Parts Breakdown



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

Key No.	Qty	Description	Ord. No.
1	1	Screen Well Vent 2 1/2" NPT	PS155
2	1	Motor Support Stand	UK400
3	4	Hex Head Cap Screw 3/4"-10NCx4" L.	UK470
4	2	Screw Pin Anchor Shackle-1 1/8" Bow Size	UK469
5	1	Pipe Plug 1 1/2x11 1/2" NPT	UG54
6	4	Hex Socket Cap Screw-1/2-13NCx 1 1/2" L.	UK468
7	1	Upper Bearing Seal Housing (Machined to customer specifications)	UK564
8	6	Hex Head Cap Screw-7/8-9NCx3 1/2" L.	UK471
9	1	Pipe Plug, 1"-11 1/2"NPT	SW33
10	1	Motor Support Plate	UK550
11	1	Air Test Adapter	UK180
12	1	Lift-Out Pipe Assembly	UK157
13	10	Hex Nut, 7/8-11NC	UK188
14	1	Elbow, 3/4" IPx 3/4"-Plastic	UM149
15	1	Pipe Clamp - 3/4"	UM147
16	1	Drain Pipe	UM142
17	1	Bearing Seal Housing	UK183
18	1	Static Seal Ring	PS575A
19	1	Spool Assembly (Order by description & Unit Serial No.)	-----
20	4	Hex Nut, 3/8-16NC	UB17
21	4	Lockwasher	TX31
22	2	Static Seal Rings for spool	UK15
23	4	Washer	SW68
24	4	Washer	UL95
25	4	Machine Screw, 3/8-16NCx2 1/4" L	UM222
26	4	Hex Nut, 3/4-10NC	UM33
27	1	Discharge Body & Upper Case Assembly (Order by description & Unit Serial No.)	-----

OM3000-10(05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
 Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com



## 12" TURBINE PITLESS UNIT

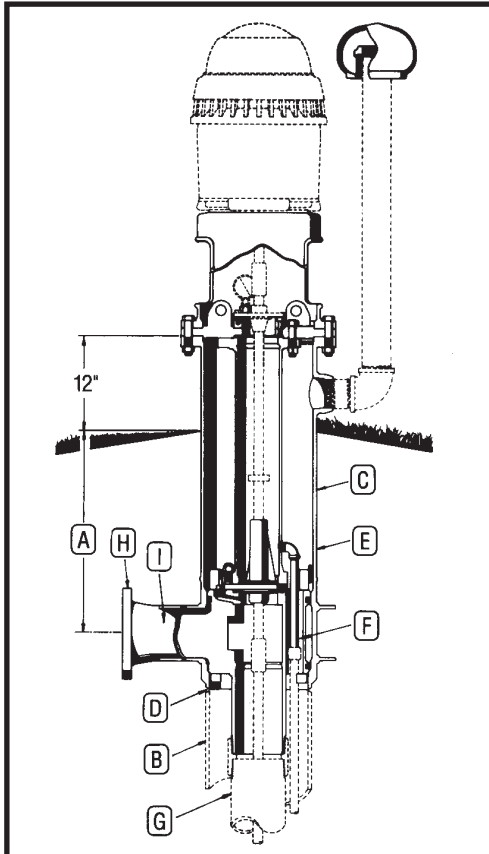
UNITS AVAILABLE BY QUOTATION ONLY  
10" THROUGH 20" WELL SIZES

### EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

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

### Typical Order Number

**3PT1214WBE06F6W**



### DESCRIPTION - ORDERING NUMBERS

A	3	Bury Depth in Feet	
	PT	Pitless Unit for Turbine Pump	
B	12	Well Size - Ins.	
C	14	Upper Case Size - Ins.	
D	W	Attachment to Well Casing - <b>W</b> elded	
E	B	Black Upper Case	
F	E	Pressure Equalizing Spool Passages	
	0	Standard Spool	
G	6	Size of Column Pipe - Ins. (4", 5", or 6")	
H	F	<b>W</b> elded	Discharge Connection (Select One)
		Flange, ASA 150#	
		Threaded NPT	
		Mech. Joint	
		Accessory - Transition Sleeve	
I	6	Discharge Size - Ins. (4", 5", or 6")	
	W	Waterlube	
		Special Provision (X)	

**3** A. The first numeral in the order number indicates the bury depth, in feet, of the unit. 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.

**PT** The type of pump the pitless unit is designed for. The unit shown is a PT for Line Shaft Turbine Pumps.

**12** B. The well casing size is for 12" wells.

**14** C. The upper pitless case size is 14".

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

**B** E. The upper pitless case is black pipe.

**E** F. The spool has pressure equalizing passages.

**0** The type of spool has no silent check valves.

**6** G. The size of column pipe in inches.

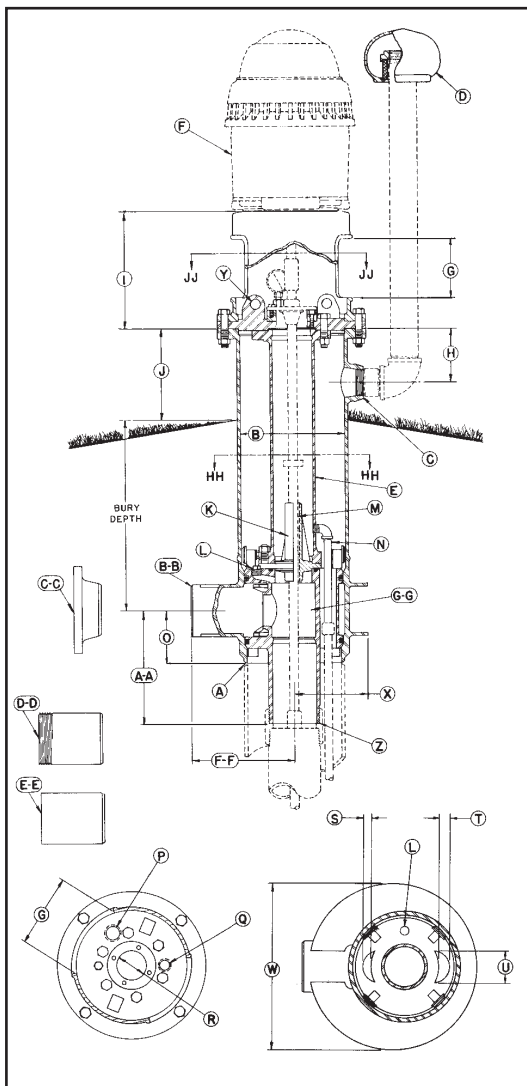
**F** H. The discharge connection is flanged.

**6** I. The size of discharge line in inches.

**W** The type of Line Shaft Turbine the unit is designed for, "W" water-lubricated.



## 12" TURBINE PITLESS UNIT SPECIFICATIONS



- A** Unit minimum I.D. 12 in.: chamfered for butt weld to well casing.
- B** Pitless Unit with Black Upper Case Std.: 13-1/4 in. I.D., 14 in. O.D.
- C** 2-1/2 in. NPT Tapping for Well Vent.
- D** 2-1/2 in. Protected Screen Well Vent.
- E** Lift-Out Pipe: 5 in. IPS.
- F** Turbine Motor having a maximum base diameter of 12 in. (Supplied by others)
- G** Motor Mount Access Openings: (2) openings measuring 9 in. wide x 8-1/2 in. high.
- H** 6-7/8 in.
- I** 15 in.
- J** 12 in.
- K** Shaft Bearing Housing.
- L** 1 in. NPT Tapping ported to Column Pipe.
- M** Shaft Bearings (Supplied by pump manufacturer): Total length of bearing to be 10 in. and a maximum O.D. of 1-5/8 in.
- N** 3/4 in. drain.
- O** Dimension from center of Discharge Outlet to bottom of Discharge Body: 7-11/16 in.
- P** 1-1/2 in. NPT Tapping for optional Water Sampler.
- Q** 1 in. NPT Tapping.
- R** Rabbet Fit for Upper Grease Seal Bearing Housing: Minimum O.D. of 3 in. and maximum O.D. of 4 in.; maximum Bolt Circle of Bearing Housing - 5-1/4 in. (Bearing & Bearing Housing supplied by others)
- S** 1 in.
- T** 1-1/2 in.
- U** 4 in.
- W** 21-3/8 in.
- X** 9-5/16 in.
- Y** Lifting Lug: (2) Lugs for inserting or removal of inner well parts.

**Z** **SPOOL TO DROP PIPE CONNECTION SIZES:** **4 in. NPT** **5 in. NPT** **6 in. NPT**  
 The Standard Spool is designed for a 65,000 lb. .... (3/4 Taper) (3/4 Taper) (3/4 Taper) maximum load. Spools are available to sustain higher loads.

**AA** Dimension from center of Discharge Outlet to bottom of Spool:..... 14-7/16 in. 14-7/16 in. 14-1/2 in.

### DISCHARGE CONNECTIONS & SIZES:

For <b>[BB]</b> Butt Weld (IPS): .....	4 in. I.D.	5 in. I.D.	6 in. I.D.
For <b>[CC]</b> Flanged (ASA Std. 150 lb.): .....	4 in. I.D.	5 in. I.D.	6 in. I.D.
For <b>[DD]</b> Threaded nipple (NPT): .....	4 in. I.D.	5 in. I.D.	6 in. I.D.
For <b>[EE]</b> Transition Sleeve (IPS):.....	4 in. I.D.	N.A.	6 in. I.D.

**FF** Dimension from center of Well Casing to the end of Discharge Outlet.

With <b>[BB]</b> Butt Weld Discharge: .....	18-1/2 in.	18-1/2 in.	12-15/16 in.
With <b>[CC]</b> Flanged Discharge:.....	21-1/2 in.	22 in.	16-7/16 in.
With <b>[DD]</b> Threaded Discharge:.....	21-7/16 in.	21-7/16 in.	16-15/16 in.
With <b>[EE]</b> Transition Sleeve Discharge:.....	24-1/2 in.	N.A.	18-15/16 in.

### GG SPOOL ASSEMBLY

Area of Water Passage(s):.....	12.56 sq. in.	25.12 sq. in.	25.12 sq. in.
Percent Area of Water Passage(s) to Area of Drop Pipe: .....	100%	125%	87%

### COMPONENT MATERIALS

- Well Vent** - cast iron, green enamel finish.
- Motor Support** - cast iron, black corrosion resistant coating.
- Combination Hold-Down & Lift-Out Mechanism** - steel, black corrosion resistant coating.
- Hold-Down Pipe** - steel, black corrosion resistant coating.
- Pitless Case** - steel, corrosion resistant coating.
- Discharge Body** - steel, lead free galvanized.
- Spool** - steel, lead free galvanized.

**NOTE:** Provision for prelubrication not available.  
**NOTE:** Units are designed for motors having an RPM of 1800 or less and a 10" or 12" base diameter having a 9-1/8" bolt circle. Maximum bury depth will be 9 feet. For units requiring exceptions to these conditions of design, special specifications must be used.

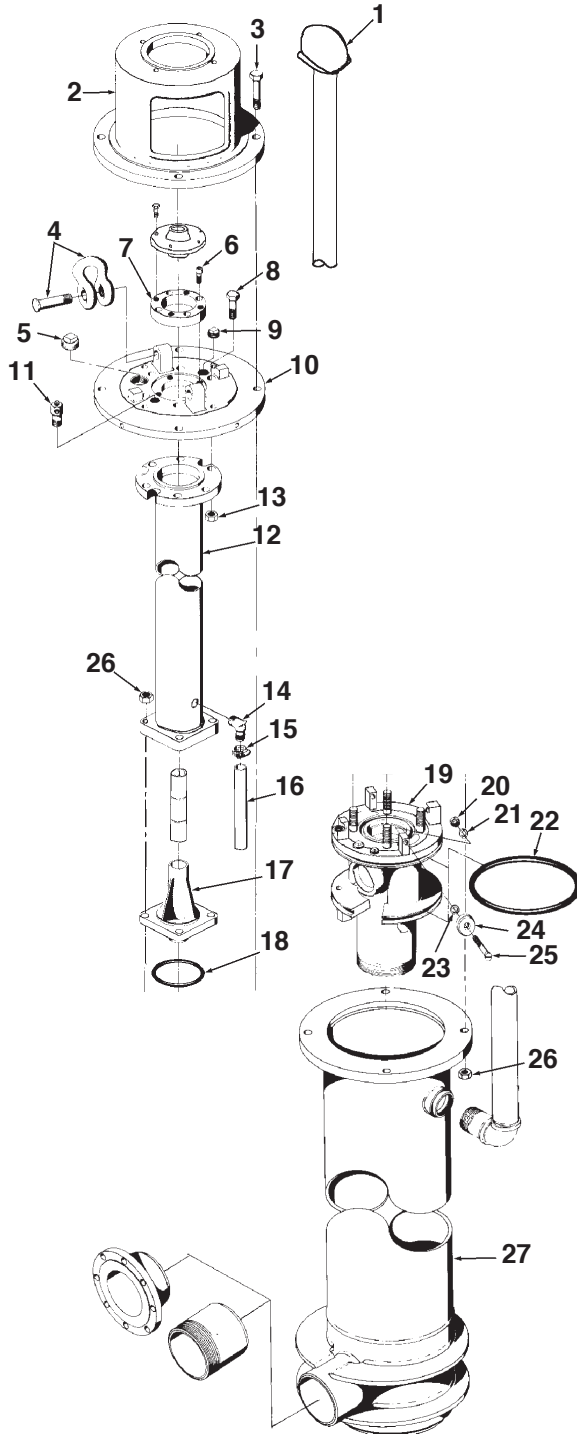
**NOTE:** Any combination between Column Pipe and Discharge Outlet size is possible, if required.

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

BB121-12(05-08)

## 12" Turbine Pitless Parts Breakdown

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



Key No.	Qty	Description	Ord. No.
1	1	Screen Well Vent 2 1/2" NPT	PS155
2	1	Motor Support Stand	UK400
3	4	Hex Head Cap Screw 3/4"-10NCx4" L.	UK470
4	2	Screw Pin Anchor Shackle-1 1/8" Bow Size	UK469
5	1	Pipe Plug 1 1/2x11 1/2" NPT	UG54
6	4	Hex Socket Cap Screw-1/2-13NCx 1 1/2" L.	UK468
7	1	Upper Bearing Seal Housing (Machined to customer specifications)	UK564
8	6	Hex Head Cap Screw-7/8-9NCx3 1/2" L.	UK471
9	1	Pipe Plug, 1"-11 1/2"NPT	SW33
10	1	Motor Support Plate	UK550
11	1	Air Test Adapter	UK180
12	1	Lift-Out Pipe Assembly	UK157
13	10	Hex Nut, 7/8-11NC	UK188
14	1	Elbow, 3/4" IPx 3/4"-Plastic	UM149
15	1	Pipe Clamp - 3/4"	UM147
16	1	Drain Pipe	UM142
17	1	Bearing Seal Housing	UK183
18	1	Static Seal Ring	PS575A
19	1	Spool Assembly (Order by description & Unit Serial No.)	-----
20	4	Hex Nut, 3/8-16NC	UB17
21	4	Lockwasher	TX31
22	2	Static Seal Rings for spool	UK15
23	4	Washer	SW68
24	4	Washer	UL95
25	4	Machine Screw, 3/8-16NCx2 1/4" L	UM222
26	4	Hex Nut, 3/4-10NC	UM33
27	1	Discharge Body & Upper Case Assembly (Order by description & Unit Serial No.)	-----



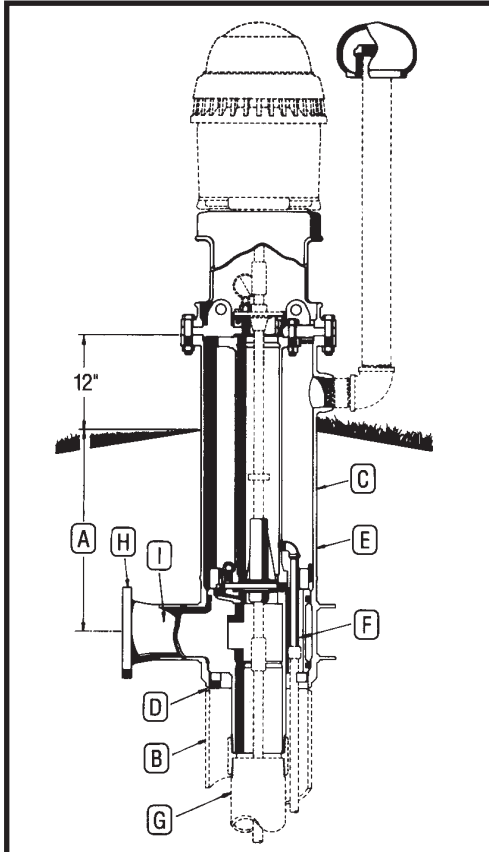
## 14" TURBINE PITLESS UNIT

UNITS AVAILABLE BY QUOTATION ONLY  
10" THROUGH 20" WELL SIZES

### EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

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

### Typical Order Number 3PT1416WBE06F6W



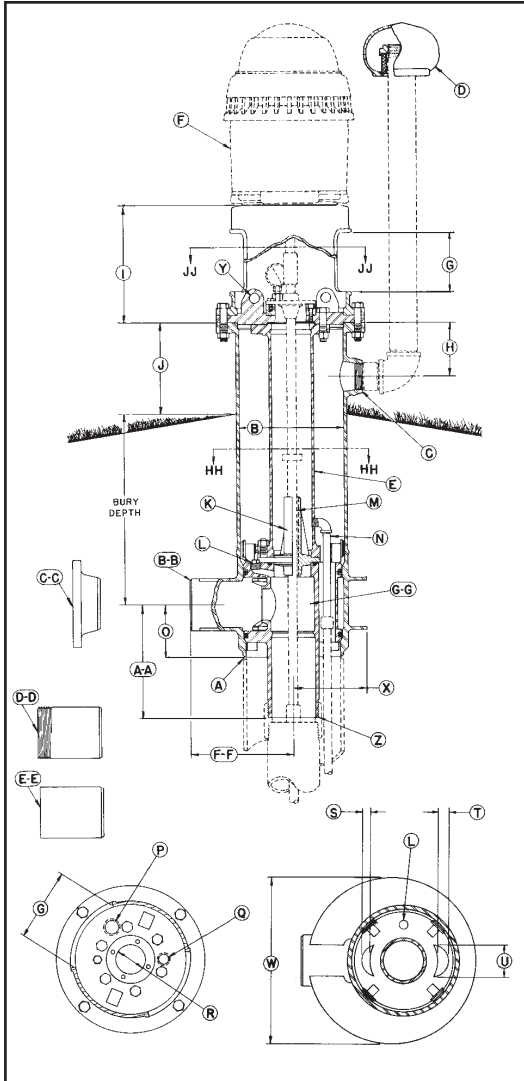
#### DESCRIPTION - ORDERING NUMBERS

A	3	Bury Depth in Feet	
	PT	Pitless Unit for Turbine Pump	
B	14	Well Size - Ins.	
C	16	Upper Case Size - Ins.	
D	W	Attachment to Well Casing - <b>W</b> elded	
E	B	Black Upper Case	
F	E	Pressure Equalizing Spool Passages	
	0	Standard Spool	
G	6	Size of Column Pipe - Ins. (5", 6", or 8")	
H	F	Welded	Discharge Connection (Select One)
		Flange, ASA 150#	
		Threaded NPT	
		Mech. Joint	
		Accessory - Transition Sleeve	
I	6	Discharge Size - Ins. (5", 6", or 8")	
	W	Waterlube	
		Special Provision (X)	

- 3** A. The first numeral in the order number indicates the bury depth, in feet, of the unit. 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.
- PT** The type of pump the pitless unit is designed for. The unit shown is a PT for Line Shaft Turbine Pumps.
- 14** B. The well casing size is for 14" wells.
- 16** C. The upper pitless case size is 16".
- W** D. The attachment to the well casing is a welded joint.
- B** E. The upper pitless case is black pipe.
- E** F. The spool has pressure equalizing passages.
- 0** The type of spool has no silent check valves.
- 6** G. The size of column pipe in inches.
- F** H. The discharge connection is flanged.
- 6** I. The size of discharge line in inches.
- W** The type of Line Shaft Turbine the unit is designed for, "W" water-lubricated.



# 14" TURBINE PITLESS UNIT SPECIFICATIONS



- A Unit minimum I.D. 13-1/4 in.: chamfered for butt weld to well casing.
- B Pitless Unit with Black Upper Case Std.: 15-1/4 in. I.D., 16 in. O.D.
- C 2-1/2 in. NPT Tapping for Well Vent.
- D 2-1/2 in. Protected Screen Well Vent.
- E Lift-Out Pipe: 6 in. IPS.
- F Turbine Motor having a maximum base diameter of 16-1/2 in. (Supplied by others)
- G Access Openings: (2) openings measuring 9 in. wide x 8-1/2 in. high.
- H 7-1/8 in.
- I 15 in.
- J 12 in.
- K Shaft Bearing Housing.
- L Two 1 in. NPT Tappings ported to Column Pipe.
- M Shaft Bearings (Supplied by pump manufacturer): Total length of bearing to be 10 in. and a maximum O.D. of 2-1/2 in.
- N 3/4 in. drain.
- O Dimension from center of Discharge Outlet to bottom of Discharge Body: 9-3/4 in.
- P 1-1/2 in. NPT Tapping for optional Water Sampler.
- Q 1 in. NPT Tapping.
- R Rabbet Fit for Upper Grease Seal Bearing Housing: Minimum O.D. of 3 in. and maximum O.D. of 4 in.; maximum Bolt Circle of Bearing Housing - 5-1/4 in. (Bearing & Bearing Housing supplied by others)
- S 1-1/4 in.
- T 2 in.
- U 4 in.
- W 25-7/16 in.
- X 10-15/16 in.
- Y Lifting Lug: (2) Lugs for inserting or removal of inner well parts.

**Z SPOOL TO DROP PIPE CONNECTION SIZES:** 5 in. NPT 6 in. NPT 8 in. NPT  
 The Standard Spool is designed for a 120,000 lb. (3/4 Taper) (3/4 Taper) (3/4 Taper) maximum load. Spools are available to sustain higher loads.

**AA** Dimension from center of Discharge Outlet to bottom of Spool: ..... 16-3/16 in. 21-13/16 in. 15-13/16 in.

**DISCHARGE CONNECTIONS & SIZES:**

For [BB] Butt Weld (IPS):.....	5 in. I.D.	6 in. I.D.	8 in. I.D.
For [CC] Flanged (ASA Std. 150 lb.):.....	5 in. I.D.	6 in. I.D.	8 in. I.D.
For [DD] Threaded Nipple (NPT):.....	5 in. I.D.	6 in. I.D.	8 in. I.D.
For [EE] Transition Sleeve (IPS):.....	N.A.	6 in. I.D.	8 in. I.D.

**FF** Dimension from center of Well Casing to the end of Discharge Outlet.

With [BB] Butt Weld Discharge:.....	20-9/16 in.	20-9/16 in.	14-1/2 in.
With [CC] Flanged Discharge:.....	24-1/16 in.	24-1/16 in.	18-1/2 in.
With [DD] Threaded Discharge:.....	23-9/16 in.	24-9/16 in.	18-1/2 in.
With [EE] Transition Sleeve Discharge:.....	N.A.	26-9/16 in.	20-1/2 in.

**GG SPOOL ASSEMBLY \*\***

Area of Water Passage(s):.....	19.6 sq. in.	39.2 sq. in.	39.2 sq. in.
Percent Area of Water Passage(s) to Area of Drop Pipe:.....	100%	138%	78.2%

**COMPONENT MATERIALS**

- Well Vent** - cast iron, green enamel finish.
- Motor Support** - cast iron, black corrosion resistant coating.
- Combination Hold-Down & Lift-Out Mechanism** - steel, black corrosion resistant coating.

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

**Pitless Case** - steel, corrosion resistant coating.

**Discharge Body** - steel, lead free galvanized.

**Spool** - steel, lead free galvanized.

**NOTE:** Provision for prelubrication not available.

**NOTE:** Units are designed for motors having an RPM of 1800 or less and a 16-1/2" base diameter having a 14-3/4" bolt circle. Maximum bury depth will be 9 feet. For units requiring exceptions to these conditions of design, special specifications must be used.

**NOTE:** Any combination between Column Pipe and Discharge Outlet size is possible, if required.

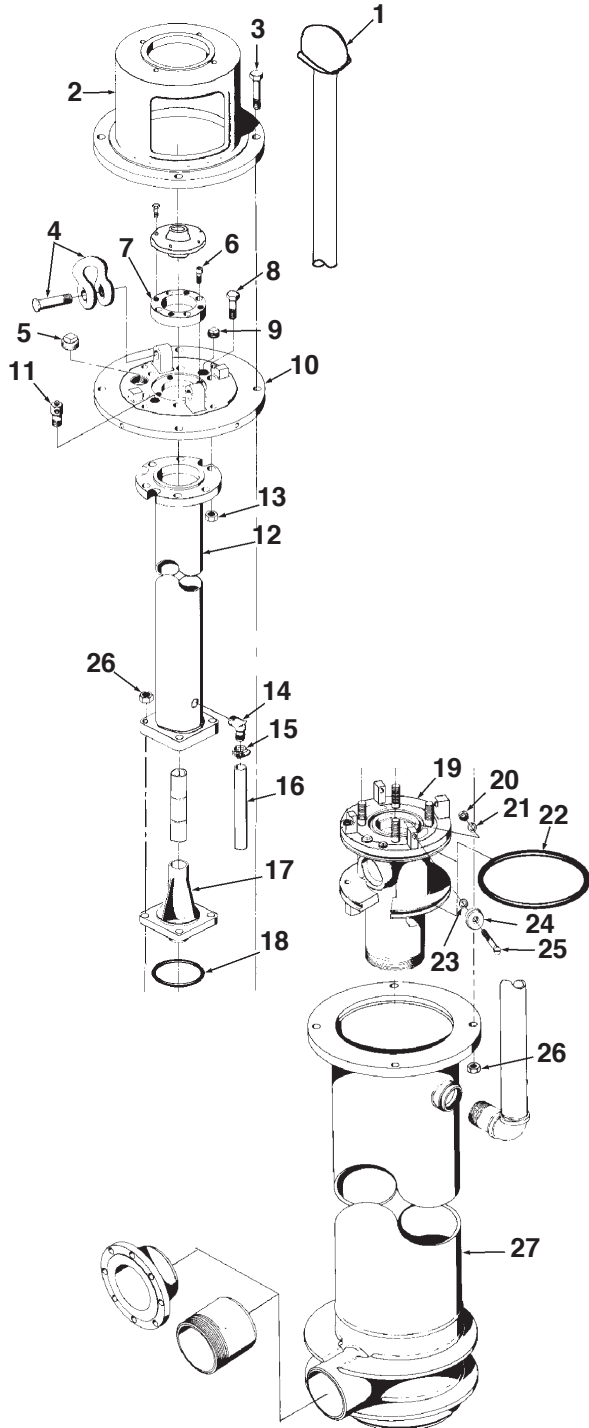
SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

BB122-14(05-08)



## 14" Turbine Pitless Parts Breakdown

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



Key No.	Qty	Description	Ord. No.
1	1	Screen Well Vent 2 1/2" NPT	PS155
2	1	Motor Support Stand	UL400
3	4	Hex Head Cap Screw 1"-8NCx4-1/2" L.	UL173
4	2	Screw Pin Anchor Shackle-1 3/8" Bow Size	UL175
5	1	Pipe Plug 1 1/2x11 1/2" NPT	UG54
6	4	Hex Socket Cap Screw-1/2-13NCx 1 1/2" L.	UK468
7	1	Upper Bearing Seal Housing (Machined to customer specifications)	UK564
8	6	Hex Head Cap Screw-7/8-9NCx3 1/2" L.	UK471
9	1	Pipe Plug, 1"-11 1/2"NPT	SW33
10	1	Motor Support Plate	UL550
11	1	Air Test Adapter	UK180
12	1	Lift-Out Pipe Assembly	UL563
13	10	Hex Nut, 7/8-11NC	UK188
14	1	Elbow, 3/4" IPx 3/4"-Plastic	UM149
15	1	Pipe Clamp - 3/4"	UM147
16	1	Drain Pipe	UL88
17	1	Bearing Seal Housing	UM83
18	1	Static Seal Ring	PS575A
19	1	Spool Assembly (Order by description & Unit Serial No.)	-----
20	4	Hex Nut, 3/8-16NC	UB17
21	4	Lockwasher	TX31
22	2	Static Seal Rings for spool	UL15
23	4	Washer	SW68
24	4	Washer	UL95
25	4	Machine Screw, 3/8-16NCx2 1/4" L	UM222
26	4	Hex Nut, 3/4-10NC	UM140
27	1	Discharge Body & Upper Case Assembly (Order by description & Unit Serial No.)	-----

OM3000-14(05-08)

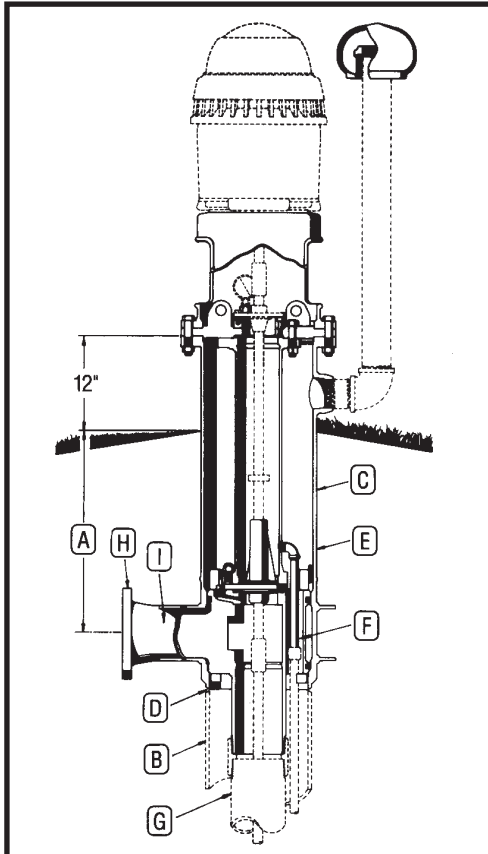
## 16" TURBINE PITLESS UNIT

UNITS AVAILABLE BY QUOTATION ONLY  
10" THROUGH 20" WELL SIZES

### EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

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

### Typical Order Number 3PT1618WBE06F6W



#### DESCRIPTION - ORDERING NUMBERS

A	3	Bury Depth in Feet	
	PT	Pitless Unit for Turbine Pump	
B	16	Well Size - Ins.	
C	18	Upper Case Size - Ins.	
D	W	Attachment to Well Casing-Welded	
E	B	Black Upper Case	
F	E	Pressure Equalizing Spool Passages	
	0	Standard Spool	
G	6	Size of Column Pipe - Ins.(5",6",or 8")	
H	F	Welded	Discharge Connection (Select One)
		Flange, ASA 150#	
		Threaded NPT	
		Mech. Joint	
		Accessory - Transition Sleeve	
I	6	Discharge Size-Ins. (5",6", or 8")	
	W	Waterlube	
		Special Provision (X)	

**3** A. The first numeral in the order number indicates the bury depth, in feet, of the unit. 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.

**PT** The type of pump the pitless unit is designed for. The unit shown is a PT for Line Shaft Turbine Pumps.

**16** B. The well casing size is for 16" wells.

**18** C. The upper pitless case size is 18".

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

**B** E. The upper pitless case is black pipe.

**E** F. The spool has pressure equalizing passages.

**0** The type of spool has no silent check valves.

**6** G. The size of column pipe in inches.

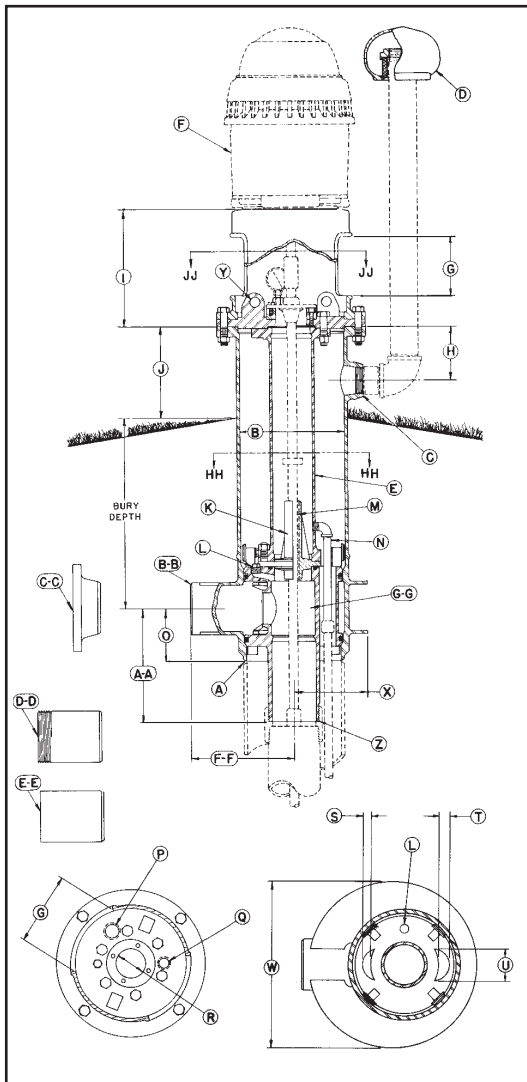
**F** H. The discharge connection is flanged.

**6** I. The size of discharge line in inches.

**W** The type of Line Shaft Turbine the unit is designed for, "W" water-lubricated.



# 16" TURBINE PITLESS UNIT SPECIFICATIONS



- A Unit minimum I.D. 15-1/4 in.: chamfered for butt weld to well casing.
- B Pitless Unit with Black Upper Case Std.: 17-1/4 in. I.D., 18 in. O.D.
- C 2-1/2 in. NPT Tapping for Well Vent.
- D 2-1/2 in. Protected Screen Well Vent.
- E Lift-Out Pipe: 6 in. IPS.
- F Turbine Motor having a maximum base diameter of 18-5/8 in. *(Supplied by others)*
- G Motor Mount Access Openings: (2) openings measuring 8-3/4 in. wide x 8-1/4 in. high.
- H 7-5/32 in.
- I 14 in.
- J 12 in.
- K Shaft Bearing Housing.
- L Two 1 in. NPT Tappings ported to Column Pipe.
- M Shaft Bearings *(Supplied by pump manufacturer)*: Total length of bearing to be 10 in. and a maximum O.D. of 2-1/2 in.
- N 3/4 in. drain.
- O Dimension from center of Discharge Outlet to bottom of Discharge Body: 11-1/16 in.
- P 1-1/2 in. NPT Tapping for optional Water Sampler.
- Q 1 in. NPT Tapping.
- R Rabbet Fit for Upper Grease Seal Bearing Housing: Minimum O.D. of 3 in. and maximum O.D. of 4 in.; maximum Bolt Circle of Bearing Housing - 5-1/4 in. *(Bearing & Bearing Housing supplied by others)*
- S 1-1/4 in.
- T 2-1/4 in.
- U 5 in.
- W 27-7/16 in.
- X 11-15/16 in.

**Z SPOOL TO DROP PIPE CONNECTION SIZES:**    **5 in. NPT**    **6 in. NPT**    **8 in. NPT**  
 The Standard Spool is designed for a 120,000 lb. (3/4 Taper)    (3/4 Taper)    (3/4 Taper)  
 maximum load. Spools are available to sustain  
 higher loads.

**AA** Dimension from center of Discharge Outlet to  
 bottom of Spool:..... 16-1/4 in.    21-7/8 in.    15-13/16 in.

**DISCHARGE CONNECTIONS & SIZES:**

For **[BB]** Butt Weld (IPS):..... 4 in. I.D.    5 in. I.D.    6 in. I.D.  
 For **[CC]** Flanged (ASA Std. 150 lb.):..... 4 in. I.D.    5 in. I.D.    6 in. I.D.  
 For **[DD]** Threaded nipple (NPT):..... 4 in. I.D.    5 in. I.D.    6 in. I.D.  
 For **[EE]** Transition Sleeve (IPS):..... N.A.    5 in. I.D.    6 in. I.D.

**FF** Dimension from center of Well Casing to the end  
 of Discharge Outlet.  
 With **[BB]** Butt Weld Discharge:..... 23 in.    23 in.    17 in.  
 With **[CC]** Flanged Discharge:..... 26-1/2 in.    26-1/2 in.    21 in.  
 With **[DD]** Threaded Discharge:..... 26 in.    27 in.    21 in.  
 With **[EE]** Transition Sleeve Discharge:..... N.A.    29 in.    23 in.

**GG SPOOL ASSEMBLY**  
 Area of Water Passage(s):..... 19.6 sq. in.    39.2 sq. in.    39.2 sq. in.  
 Percent Area of Water Passage(s) to Area of  
 Drop Pipe: ..... 100%    138%    78.2%

**COMPONENT MATERIALS**

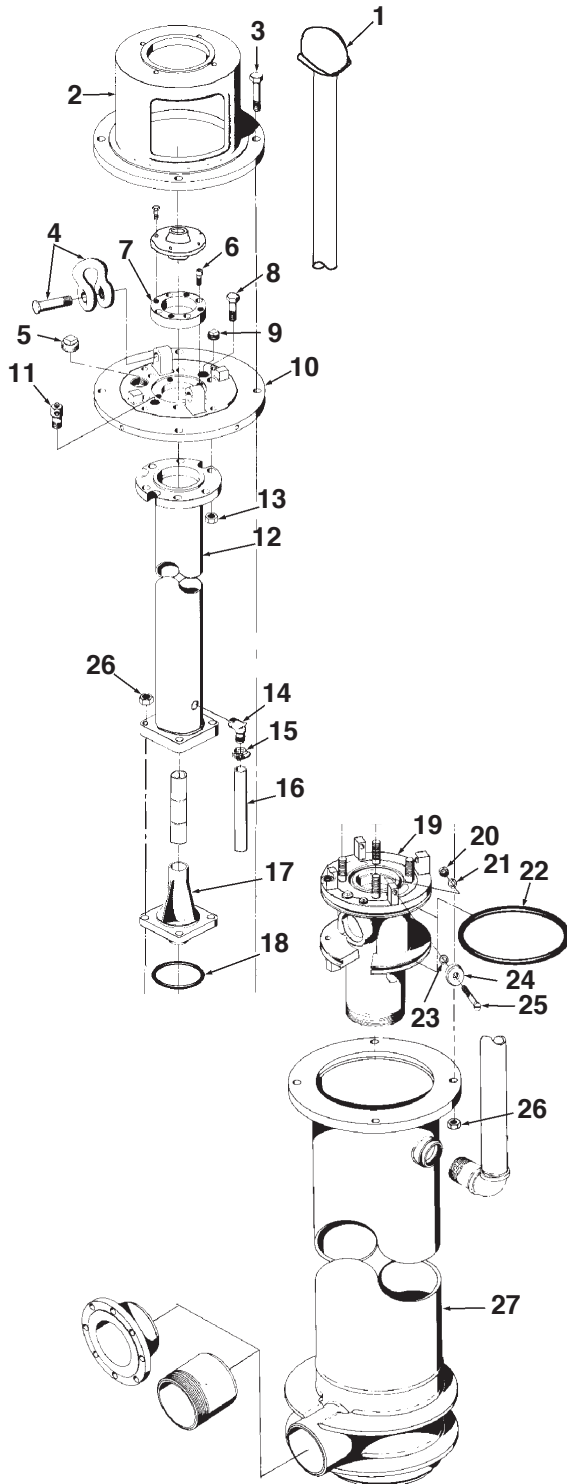
- Well Vent** - cast iron, green enamel finish.
- Motor Support** - cast iron, black corrosion resistant coating.
- Combination Hold-Down & Lift-Out Mechanism** - steel, black corrosion resistant coating.
- Hold-Down Pipe** - steel, black corrosion resistant coating.
- Pitless Case** - steel, corrosion resistant coating.
- Discharge Body** - steel, lead free galvanized.
- Spool** - steel, lead free galvanized.
- NOTE:** Provision for prelubrication not available.
- NOTE:** Units are designed for motors having an RPM of 1800 or less and a 18-5/8" base diameter having a 14-3/4" bolt circle. Maximum bury depth will be 9 feet. For units requiring exceptions to these conditions of design, special specifications must be used.
- NOTE:** Any combination between Column Pipe and Discharge Outlet size is possible, if required.

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

BB123-16(05-08)

## 16" Turbine Pitless Parts Breakdown

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



Key No.	Qty	Description	Ord. No.
1	1	Screen Well Vent 2 1/2" NPT	PS155
2	1	Motor Support Stand*	UM400
3	4	Hex Head Cap Screw 1"-8NCX4-1/2" L.	-----
4	2	Screw Pin Anchor Shackle-1 3/8" Bow Size	-----
5	1	Pipe Plug 1 1/2x11 1/2" NPT	UG54
6	4	Hex Socket Cap Screw-1/2-13NCx 1 1/2" L.	UK468
7	1	Upper Bearing Seal Housing (Machined to customer specifications)	UK564
8	6	Hex Head Cap Screw-7/8-9NCx3 1/2" L.	UK471
9	1	Pipe Plug, 1"-11 1/2"NPT	SW33
10	1	Motor Support Plate*	UM400
11	1	Air Test Adapter	UK180
12	1	Lift-Out Pipe Assembly	UM563
13	10	Hex Nut, 7/8-11NC	UK188
14	1	Elbow, 3/4" IPx 3/4"-Plastic	UM149
15	1	Pipe Clamp - 3/4"	UM147
16	1	Drain Pipe	UL88
17	1	Bearing Seal Housing	UM83
18	1	Static Seal Ring	PS575A
19	1	Spool Assembly (Order by description & Unit Serial No.)	-----
20	4	Hex Nut, 3/8-16NC	UB17
21	4	Lockwasher	TX31
22	2	Static Seal Rings for spool	UM15
23	4	Washer	SW68
24	4	Washer	UL95
25	4	Machine Screw, 3/8-16NCx2 1/4" L	UM222
26	4	Hex Nut, 3/4-10NC	UM140
27	1	Discharge Body & Upper Case Assembly (Order by description & Unit Serial No.)	-----

\*NOTE: On 16" units the Motor Support Stand and the Motor Support Plate are one piece construction. (Key Nos. 2 and 10)



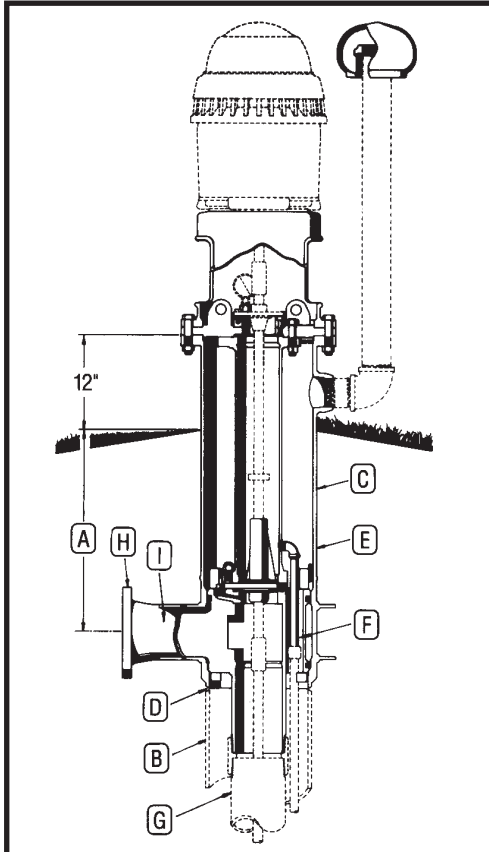
## 18" TURBINE PITLESS UNIT

UNITS AVAILABLE BY QUOTATION ONLY  
10" THROUGH 20" WELL SIZES

### EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

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

### Typical Order Number 3PT1820WBE06F6W



#### DESCRIPTION - ORDERING NUMBERS

A	3	Bury Depth in Feet	
	PT	Pitless Unit for Turbine Pump	
B	18	Well Size - Ins.	
C	20	Upper Case Size - Ins.	
D	W	Attachment to Well Casing - <u>W</u> elded	
E	B	Black Upper Case	
F	E	Pressure Equalizing Spool Passages	
	0	Standard Spool	
G	6	Size of Column Pipe - Ins. (6", 8", or 10")	
H	F	Welded	Discharge Connection (Select One)
		Flange, ASA 150#	
		Threaded NPT	
		Mech. Joint	
		Accessory - Transition Sleeve	
I	6	Discharge Size - Ins. (6", 8", or 10")	
	W	Waterlube	
		Special Provision (X)	

**3** A. The first numeral in the order number indicates the bury depth, in feet, of the unit. 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.

**PT** The type of pump the pitless unit is designed for. The unit shown is a PT for Line Shaft Turbine Pumps.

**18** B. The well casing size is for 18" wells.

**20** C. The upper pitless case size is 20".

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

**B** E. The upper pitless case is black pipe.

**E** F. The spool has pressure equalizing passages.

**0** The type of spool has no silent check valves.

**6** G. The size of column pipe in inches.

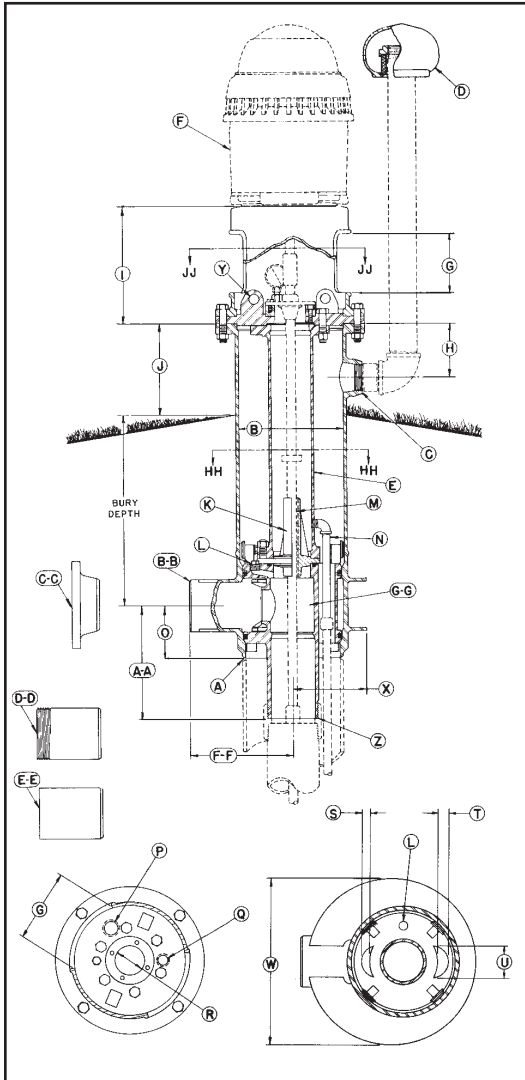
**F** H. The discharge connection is flanged.

**6** I. The size of discharge line in inches.

**W** The type of Line Shaft Turbine the unit is designed for, "W" water-lubricated.



# 18" TURBINE PITLESS UNIT SPECIFICATIONS



- A** Unit minimum I.D. 17-1/4 in.: chamfered for butt weld to well casing.
- B** Pitless Unit with Black Upper Case Std.: 19-1/4 in. I.D., 20 in. O.D.
- C** 2-1/2 in. NPT Tapping for Well Vent.
- D** 2-1/2 in. Protected Screen Well Vent.
- E** Lift-Out Pipe: 7 in. IPS.
- F** Turbine Motor having a maximum base diameter of 20 in. (*Supplied by others*)
- G** Motor Mount Access Openings: (2) openings measuring 12-3/8 in. wide x 8-1/2 in. high.
- H** 7-1/8 in.
- I** 15 in.
- J** 12 in.
- K** Shaft Bearing Housing.
- L** Two 1 in. NPT Tappings ported to Column Pipe.
- M** Shaft Bearings (*Supplied by pump manufacturer*): Total length of bearing to be 10 in. and a maximum O.D. of 3-1/4 in.
- N** 3/4 in. drain.
- O** Dimension from center of Discharge Outlet to bottom of Discharge Body: 10-15/16 in.
- P** 1-1/2 in. NPT Tapping for optional Water Sampler.
- Q** 1 in. NPT Tapping.
- R** Rabbit Fit for Upper Grease Seal Bearing Housing: Minimum O.D. of 3 in. and maximum O.D. of 4 in.; maximum Bolt Circle of Bearing Housing - 5-1/4 in. (*Bearing & Bearing Housing supplied by others*)
- S** 1-1/2 in.
- T** 2-5/8 in.
- U** 6 in.
- W** 30-1/2 in.
- X** 13-1/4 in.
- Y** Lifting Lug: (2) Lugs for inserting or removal of inner well parts.

**Z** **SPOOL TO DROP PIPE CONNECTION SIZES:**    **6 in. NPT**    **8 in. NPT**    **10 in. NPT**  
 The Standard Spool is designed for a 150,000 lb. (3/4 Taper)    (3/4 Taper)    (3/4 Taper)  
 maximum load. Spools are available to sustain higher loads.

**AA** Dimension from center of Discharge Outlet to bottom of Spool:..... 24-1/16 in.    24-1/16 in.    19-3/32 in.

**DISCHARGE CONNECTIONS & SIZES:**

For [BB] Butt Weld (IPS):.....	6 in. I.D.	8 in. I.D.	10 in. I.D.
For [CC] Flanged (ASA Std. 150 lb.):.....	6 in. I.D.	8 in. I.D.	10 in. I.D.
For [DD] Threaded nipple (NPT):.....	6 in. I.D.	8 in. I.D.	10 in. I.D.
For [EE] Transition Sleeve (IPS):.....	6 in. I.D.	8 in. I.D.	10 in. I.D.

**FF** Dimension from center of Well Casing to the end of Discharge Outlet.

With [BB] Butt Weld Discharge:.....	25-1/2 in.	25-1/2 in.	18-1/2 in.
With [CC] Flanged Discharge:.....	29 in.	29-1/2 in.	22-1/2 in.
With [DD] Threaded Discharge:.....	29-1/2 in.	29-1/2 in.	23-5/8 in.
With [EE] Transition Sleeve Discharge:.....	31-9/16 in.	31-9/16 in.	24-9/16 in.

**GG** **SPOOL ASSEMBLY**

Area of Water Passage(s):.....	33.18 sq. in.	66.36 sq. in.	66.36 sq. in.
Percent Area of Water Passage(s) to Area of Drop Pipe:.....	115%	132%	85%

**COMPONENT MATERIALS**

- Well Vent** - cast iron, green enamel finish.
- Motor Support** - cast iron, black corrosion resistant coating.
- Combination Hold-Down & Lift-Out Mechanism** - steel, black corrosion resistant coating.
- Hold-Down Pipe** - steel, black corrosion resistant coating.
- Pitless Case** - steel, corrosion resistant coating.
- Discharge Body** - steel, lead free galvanized.
- Spool** - steel, lead free galvanized.
- NOTE:** Provision for prelubrication not available.
- NOTE:** Units are designed for motors having an RPM of 1800 or less and a 20" base diameter having a 14-3/4" bolt circle. Maximum bury depth will be 9 feet. For units requiring exceptions to these conditions of design, special specifications must be used.
- NOTE:** Any combination between Column Pipe and Discharge Outlet size is possible, if required.

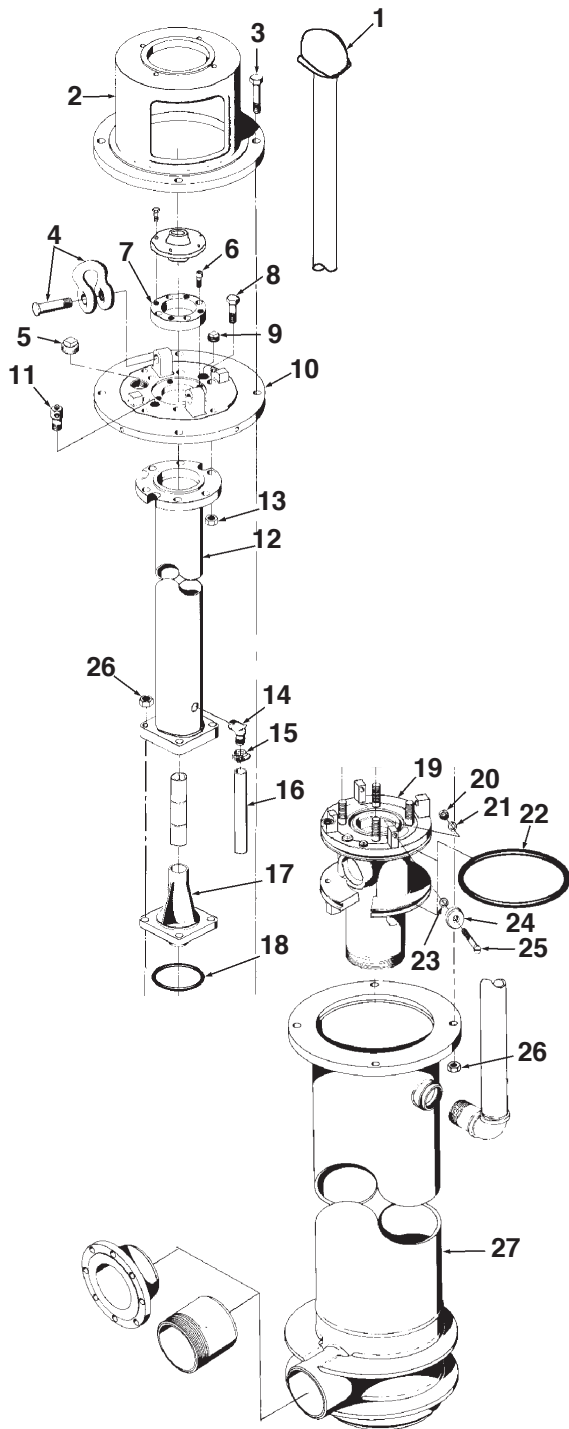
SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

BB124-18(05-08)



## 18" Turbine Pitless Parts Breakdown

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



Key No.	Qty	Description	Ord. No.
1	1	Screen Well Vent 2 1/2" NPT	PS155
2	1	Motor Support Stand	UN400
3	4	Hex Head Cap Screw 1"-8NCX4-1/2" L.	UL173
4	2	Screw Pin Anchor Shackle-1 3/8" Bow Size	UL175
5	1	Pipe Plug 1 1/2x11 1/2" NPT	UG54
6	4	Hex Socket Cap Screw-1/2-13NCx3 1/2" L.	UK468
7	1	Upper Bearing Seal Housing (Machined to customer specifications)	UK564
8	6	Hex Head Cap Screw-7/8-9NCx3 1/2" L.	UK471
9	1	Pipe Plug, 1"-11 1/2"NPT	SW33
10	1	Motor Support Plate	UN550
11	1	Air Test Adapter	UK180
12	1	Lift-Out Pipe Assembly	UN563
13	10	Hex Nut, 7/8-11NC	UK188
14	1	Elbow, 3/4" IPx 3/4"-Plastic	UM149
15	1	Pipe Clamp - 3/4"	UM147
16	1	Drain Pipe	UL88
17	1	Bearing Seal Housing	UN183
18	1	Static Seal Ring	UN170
19	1	Spool Assembly (Order by description & Unit Serial No.)	-----
20	4	Hex Nut, 3/8-16NC	UB17
21	4	Lockwasher	TX31
22	2	Static Seal Rings for spool	UN15
23	4	Washer	ZA81
24	4	Washer	UL95
25	4	Machine Screw, 3/8-16NCx2 1/4" L	UM222
26	4	Hex Nut, 3/4-10NC	UM140
27	1	Discharge Body & Upper Case Assembly (Order by description & Unit Serial No.)	-----

OM3000-18(05-08)

Baker Manufacturing Co., LLC/Monitor Division • Evansville, WI 53536  
 Phone: 800-356-5130 • Fax: 608-882-3777 • Website: bakermonitor.com

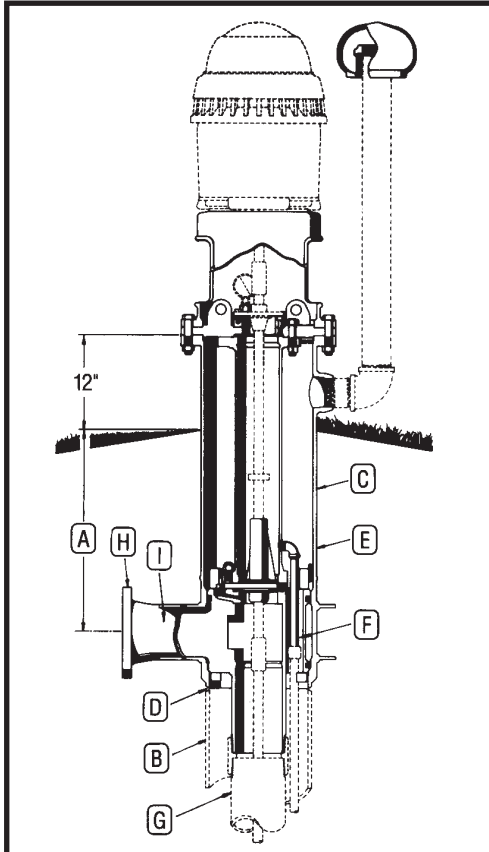
## 20" TURBINE PITLESS UNIT

UNITS AVAILABLE BY QUOTATION ONLY  
10" THROUGH 20" WELL SIZES

### EXPLANATION OF PITLESS UNIT ORDERING NUMBERS

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

### Typical Order Number 3PT2022WBE06F6W



#### DESCRIPTION - ORDERING NUMBERS

A	3	Bury Depth in Feet	
	PT	Pitless Unit for Turbine Pump	
B	20	Well Size - Ins.	
C	22	Upper Case Size - Ins.	
D	W	Attachment to Well Casing - <u>W</u> elded	
E	B	Black Upper Case	
F	E	Pressure Equalizing Spool Passages	
	0	Standard Spool	
G	6	Size of Column Pipe - Ins. (6", 8", or 10")	
H	F	<u>W</u> elded	Discharge Connection (Select One)
		Flange, ASA 150#	
		Threaded NPT	
		Mech. Joint	
		Accessory - Transition Sleeve	
I	6	Discharge Size - Ins. (6", 8", or 10")	
	W	Waterlube	
		Special Provision (X)	

**3** A. The first numeral in the order number indicates the bury depth, in feet, of the unit. 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.

**PT** The type of pump the pitless unit is designed for. The unit shown is a PT for Line Shaft Turbine Pumps.

**20** B. The well casing size is for 20" wells.

**22** C. The upper pitless case size is 22".

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

**B** E. The upper pitless case is black pipe.

**E** F. The spool has pressure equalizing passages.

**0** The type of spool has no silent check valves.

**6** G. The size of column pipe in inches.

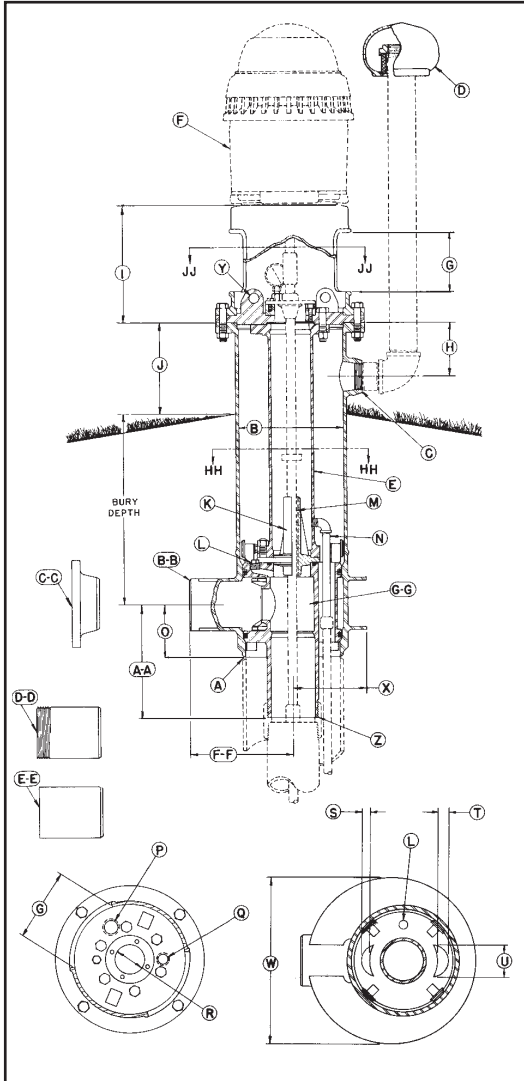
**F** H. The discharge connection is flanged.

**6** I. The size of discharge line in inches.

**W** The type of Line Shaft Turbine the unit is designed for, "W" water-lubricated.



## 20" TURBINE PITLESS UNIT SPECIFICATIONS



- A Unit minimum I.D. 19-1/4 in.: chamfered for butt weld to well casing.
- B Pitless Unit with Black Upper Case Std.: 21 in. I.D., 22 in. O.D.
- C 2-1/2 in. NPT Tapping for Well Vent.
- D 2-1/2 in. Protected Screen Well Vent.
- E Lift-Out Pipe: 7 in. IPS.
- F Turbine Motor having a maximum base diameter of 24-1/2 in. *(Supplied by others)*
- G Motor Mount Access Openings: (2) openings measuring 12-3/8 in. wide x 8-1/2 in. high.
- H 7-1/8 in.
- I 15 in.
- J 12 in.
- K Shaft Bearing Housing.
- L Three 1 in. NPT Tappings ported to Column Pipe.
- M Shaft Bearings *(Supplied by pump manufacturer)*: Total length of bearing to be 10 in. and a maximum O.D. of 3-1/4 in.
- N 3/4 in. drain.
- O Dimension from center of Discharge Outlet to bottom of Discharge Body: 13-3/4 in.
- P 1-1/2 in. NPT Tapping for optional Water Sampler.
- Q 1 in. NPT Tapping.
- R Rabbet Fit for Upper Grease Seal Bearing Housing: Minimum O.D. of 3 in. and maximum O.D. of 4 in.; maximum Bolt Circle of Bearing Housing - 5-1/4 in. *(Bearing & Bearing Housing supplied by others)*
- S 2 in.
- T 3-3/8 in.
- U 6-3/4 in.
- W 32-1/2 in.
- X 14-1/4 in.
- Y Lifting Lug: (2) Lugs for inserting or removal of inner well parts.
- Z **SPOOL TO DROP PIPE CONNECTION SIZES: 6 in. NPT    8 in. NPT    10 in. NPT**  
The Standard Spool is designed for a 150,000 lb. (3/4 Taper) (3/4 Taper) (3/4 Taper) maximum load. Spools are available to sustain higher loads.

AA	Dimension from center of Discharge Outlet to bottom of Spool:.....	24-9/16 in.	24-9/16 in.	19-11/16 in.
<b>DISCHARGE CONNECTIONS &amp; SIZES:</b>				
	For [BB] Butt Weld (IPS):.....	6 in. I.D.	8 in. I.D.	10 in. I.D.
	For [CC] Flanged (ASA Std. 150 lb.):.....	6 in. I.D.	8 in. I.D.	10 in. I.D.
	For [DD] Threaded nipple (NPT):.....	6 in. I.D.	8 in. I.D.	10 in. I.D.
	For [EE] Transition Sleeve (IPS):.....	6 in. I.D.	8 in. I.D.	10 in. I.D.
FF	Dimension from center of Well Casing to the end of Discharge Outlet.			
	With [BB] Butt Weld Discharge:.....	26-1/2 in.	26-1/2 in.	19-1/2 in.
	With [CC] Flanged Discharge:.....	30 in.	30-1/2 in.	23-1/2 in.
	With [DD] Threaded Discharge:.....	30-9/16 in.	30-9/16 in.	31-9/16 in.
	With [EE] Transition Sleeve Discharge:.....	32-9/16 in.	32-9/16 in.	25-1/2 in.
GG	<b>SPOOL ASSEMBLY</b>			
	Area of Water Passage(s):.....	33.18 sq. in.	66.36 sq. in.	66.36 sq. in.
	Percent Area of Water Passage(s) to Area of drop pipe .....	230%	132%	85%

### COMPONENT MATERIALS

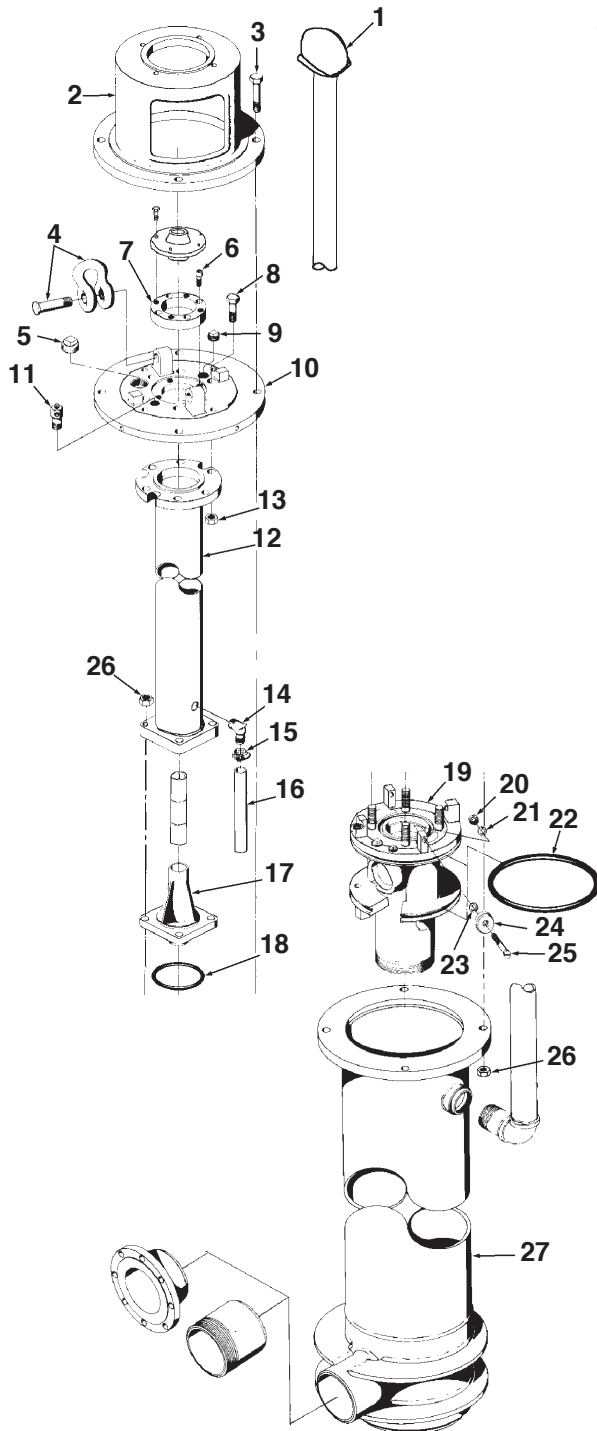
- Well Vent - cast iron, green enamel finish.
- Motor Support - cast iron, black corrosion resistant coating.
- Combination Hold-Down & Lift-Out Mechanism - steel, black corrosion resistant coating.
- Hold-Down Pipe - steel, black corrosion resistant coating.
- Pitless Case - steel, corrosion resistant coating.
- Discharge Body - steel, lead free galvanized.
- Spool - steel, lead free galvanized.
- NOTE: Provision for prelubrication not available.
- NOTE: Units are designed for motors having an RPM of 1800 or less and a 24-1/2" base diameter having a 14-3/4" bolt circle. Maximum bury depth will be 9 feet. For units requiring exceptions to these conditions of design, special specifications must be used.
- NOTE: Any combination between Column Pipe and Discharge Outlet size is possible, if required.

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

BB125-20(05-08)

## 20" Turbine Pitless Parts Breakdown

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



Key No.	Qty	Description	Ord. No.
1	1	Screen Well Vent 2 1/2" NPT	PS155
2	1	Motor Support Stand	UQ400
3	4	Hex Head Cap Screw 1"-8NCX4-1/2" L.	UL173
4	2	Screw Pin Anchor Shackle-1 3/8" Bow Size	UL175
5	1	Pipe Plug 1 1/2x11 1/2" NPT	UG54
6	4	Hex Socket Cap Screw-1/2-13NCx 1 1/2" L.	UK468
7	1	Upper Bearing Seal Housing (Machined to customer specifications)	UK564
8	6	Hex Head Cap Screw-7/8-9NCx3 1/2" L.	UK471
9	1	Pipe Plug, 1"-11 1/2"NPT	SW33
10	1	Motor Support Plate	UQ550
11	1	Air Test Adapter	UK180
12	1	Lift-Out Pipe Assembly	UN563
13	10	Hex Nut, 7/8-11NC	UK188
14	1	Elbow, 3/4" IPx 3/4"-Plastic	UM149
15	1	Pipe Clamp - 3/4"	UM147
16	1	Drain Pipe	UL88
17	1	Bearing Seal Housing	UN183
18	1	Static Seal Ring	UN170
19	1	Spool Assembly (Order by description & Unit Serial No.)	-----
20	4	Hex Nut, 3/8-16NC	UB17
21	4	Lockwasher	TX31
22	2	Static Seal Rings for spool	UA15A
23	4	Washer	ZA81
24	4	Washer	UL95
25	4	Machine Screw, 3/8-16NCx2 1/4" L	UM222
26	4	Hex Nut, 3/4-10NC	UM140
27	1	Discharge Body & Upper Case Assembly (Order by description & Unit Serial No.)	-----



## WELD ON PITLESS ADAPTER



Weld On tear drop designed bottom for easy welding onto a steel casing in 8", 10" and 12" I.D. well sizes.

### **8123BEZ Pitless Adapter Pressure Drop Test**

Using an 80gpm pump to supply water flow

8/20/02 data

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

## WELD ON PITLESS ADAPTERS

### WELD ON PITLESS ADAPTER FOR 8", 10" & 12" WELLS



#### 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 lbs. load.
- Also available factory welded to casing.

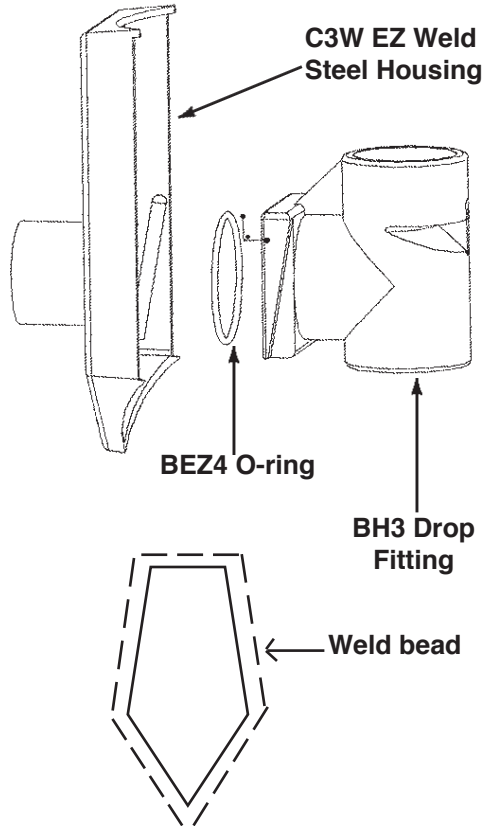
#### WELD ON PITLESS ADAPTER

Order No.	Well Size	Drop Pipe Size	Discharge Size	Weight (lbs)
<b>8123BEZ</b>	8", 10" & 12" I.D.	3" Female NPT	3" Male NPT	27
<b>83BEZ</b>	Kit for 8" x 18" L.	3" Female NPT	3" Male NPT	75
<b>83BEZ6</b>	Kit for 6"	3" Female NPT	3" Male NPT	90
<b>103BEZ</b>	Kit for 10" x 18" L.	3" Female NPT	3" Male NPT	95
<b>123BEZ</b>	Kit for 12" x 18" L.	3" Female NPT	3" Male NPT	115
<b>8123BEZ6</b>	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" WELLS



### INSTALLATION INSTRUCTIONS

- Locate the template (provided) over the installation location on the steel pipe where you want to install the Monitor E-Z 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 centerline of pipe.
- After opening has been cut, pry out the cut casing at the bottom corner.
- BH3 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.

#### **8123BEZ Pitless Adapter Pressure Drop Test**

Using an 80gpm pump to supply water flow

8/20/02 data

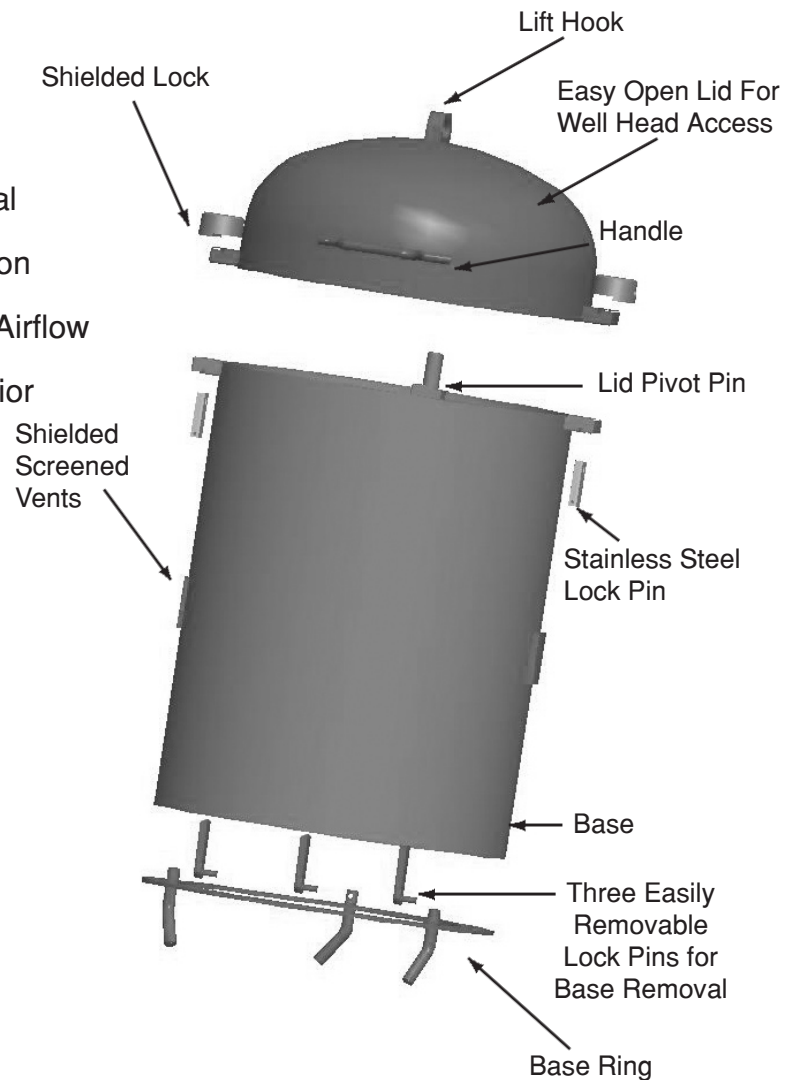
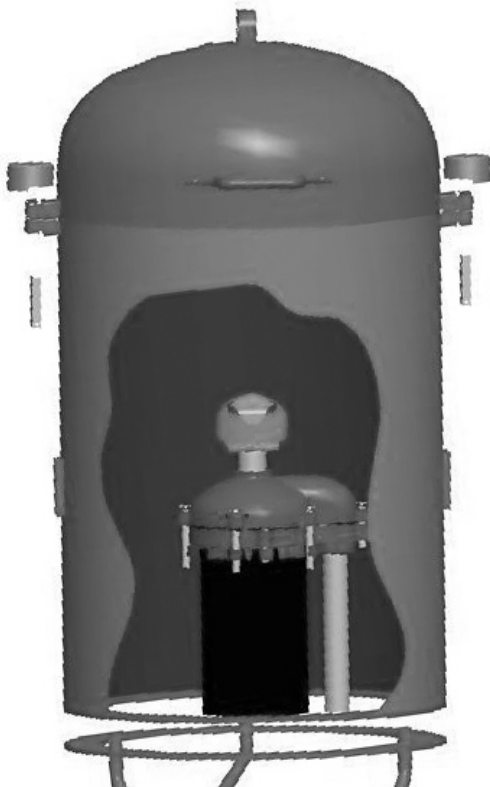
Flow Rate (GPM)	Inlet Pressure (PSI)	Outlet Pressure (PSI)	Pressure Drop (PSI)
40	4	3	1
60	5.5	4.5	1
80	8.5	7	1.5

OM5008(05-08)

## PROTECTIVE WELL ENCLOSURE

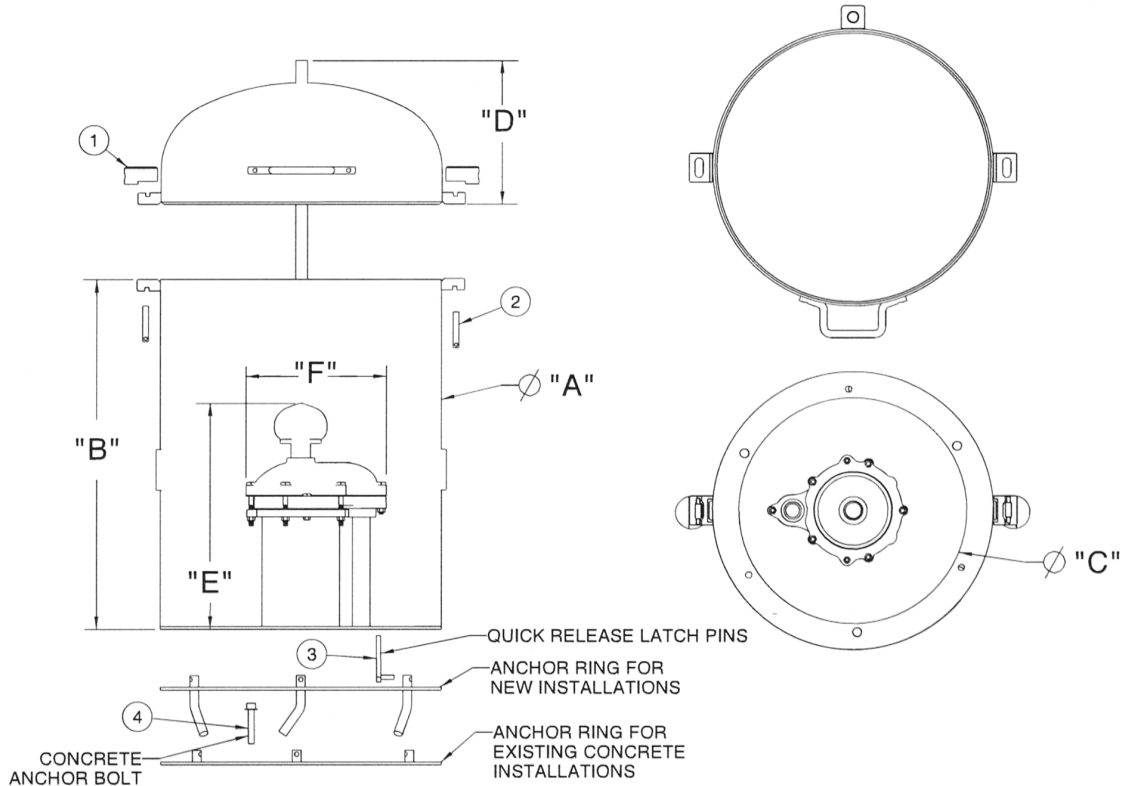
### Product Features:

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





# PROTECTIVE WELL ENCLOSURES



## REPAIR PARTS

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"
PWE2226E38	42"	38"	37.5"	14.5"

ITEM NO.	QUANTITY	PART NO.	DESCRIPTION
1	2	PWE538	SHIELDED LOCK KEYED ALIKE
2	2	PWE465	LOCK PINS STAINLESS STEEL
3	3	PWE445	QUICK RELEASE LATCH PINS
4	3	PWE6	CONCRETE ANCHOR BOLT

### 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"
24" X 26"	29.5"	34.6"