



## Adjustable Inlet Pressure Regulator

**Model** 7075

### FEATURES

- Convenient in-line style mounts either horizontally or vertically.
- Wide range capacity to handle local water supply pressures and adjust to specific pump specifications.
- Easy access for pressure adjustment or flushing and cleaning.
- Heavy-duty bronze lower body and cast iron upper body construction for durability.

**SELECTION:** Select an Inlet Pressure Regulator to match the system flow and local inlet pressure. This regulator handles a wide range of inlet pressure conditions up to 300 PSI for systems up to 70 GPM. ***Do not operate this regulator in systems with less than 40 PSI inlet pressure or cavitation will result.***

**INSTALLATION:** This Inlet Pressure Regulator can be installed in either a vertical or horizontal position whichever allows for easy access of pressure adjustment and flushing. This regulator can be used with pumps up to a 2" inlet port without restricting the flow. An inlet filter should be installed prior to the Inlet

### SPECIFICATIONS

	U.S. Measure	Metric Measure
Flow Range .....	15 to 70 GPM	(57 to 265 L/M)
Regulator Inlet Pressure Range		
Minimum.....	40 PSI	(2.8 BAR)
Maximum.....	300 PSI	(21 BAR)
Pump Inlet Pressure Range		
Minimum.....	20 PSI	(1.4 BAR)
Maximum* .....	100 PSI	(7.0 BAR)
Maximum Temperature** .....	160°F	(71°C)
Inlet Fitting .....	1-1/4" NPTF	(1-1/4" NPTF)
Discharge Fitting .....	1-1/4" NPTF	(1-1/4" NPTF)
Clean Out Fitting .....	1-1/4" NPTF	(1-1/4" NPTF)
Weight .....	8.85 lbs.	(4.0 kg)
Dimensions.....	8.75x 5.0x4.75"	(222x127x120.6 mm)

\*Do not exceed individual pump inlet pressure rating.

\*\*Above 160°F contact CAT PUMPS for pressure setting recommendations.

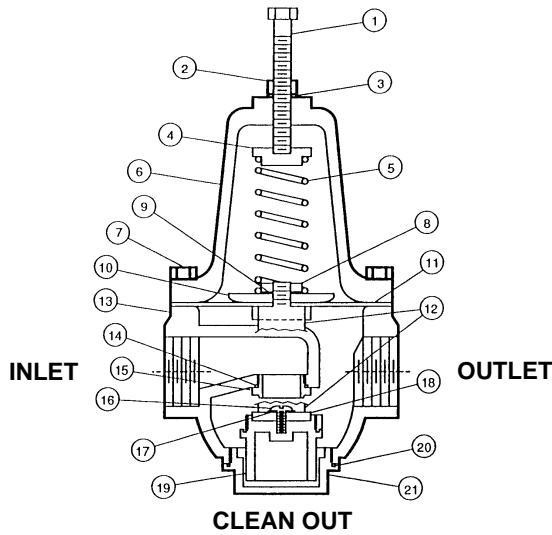
Pressure Regulator to assure optimum performance and minimize wear to the valve and seat.

**OPERATION:** To set the pressure on this regulator, loosen the locking nut and turn the adjusting screw ***clockwise to raise the pressure setting and counterclockwise to lower the pressure setting.***

**MAINTENANCE:** Periodically check and clean the Inlet Pressure Regulator on a similar schedule with the inlet filter. Remove the bottom plug and flush with water. Inspect the diaphragm, valve and seat on a similar schedule to servicing the **pump valves and seals.**

*“Customer confidence is our greatest asset”*

## EXPLODED VIEW



## PARTS LIST

ITEM	P/N	MATL	DESCRIPTION	QTY.
1	—	ZP	Screw, Adjusting	1
2	—	BB	Locknut	1
3	—	NY	Gasket	1
4	—	STL	Retainer, Spring	1
5	—	STL	Spring	1
6	—	F	Body, Upper	1
7	—	ZP	Bolt, Retaining	6
8	—	BB	Nut, Diaphragm	1
9	—	ZP	Lockwasher	1
10	—	ZP	Plate, Diaphragm	1
11	—	NBR	Diaphragm	1
12	—	BZ	Clevis, Seal	1
13	—	BZ	Body, Lower	1
14	—	NBR	Gasket, Seat	1
15	—	S	Seat	1
16	—	S	Screw, Seal	1
17	—	BZ	Washer, Seal	1
18	—	NBR	Seal	1
19	—	BZ	Seal Support	1
20	—	NBR	Gasket, Bottom Plug	1
21	—	BZ	Plug, Bottom	1
—	33017	NBR	Kit, O-Ring (Incls: 11, 14, 15, 16, 18, 20)	1

*Italics are optional items.*

MATERIAL CODES (Not Part of Part Number):

BB=Brass BZ=Bronze F=Cast Iron NBR=Medium Nitrile (Buna-N) NY=Nylon S=304SS  
STL=Steel ZP=Zinc Plated

Recommended Pump Inlet Pressure Range at Selected Water Supply Pressures PSI [BAR]								
GPM	L/M	40 [1.4]	60 [4]	80 [5.5]	100 [7]	150 [10]	200 [14]	300 [21]
15	57	20-30	20-50	20-70	20-90	20-100	20-100	20-100
20	76	20-30	20-50	20-70	20-90	20-100	20-100	20-100
25	95	20-30	20-50	20-70	20-90	20-100	20-100	20-100
30	114	20-25	20-45	20-65	20-85	20-100	20-100	20-100
35	133	20-25	20-45	20-65	20-85	20-100	20-100	20-100
40	152	N/A	20-40	20-60	20-80	20-100	20-100	20-100
50	189	N/A	20-35	20-55	20-75	20-100	20-100	20-100
60	230	N/A	20-32	20-52	20-72	20-90	20-100	20-100
70	260	N/A	20-30	20-50	20-70	20-80	20-90	20-100

NOTE: Regulator can be adjusted to below 0 PSI at all flows. However, the system is at high cavitation risk and is not recommended for optimum CAT PUMP performance.

## Servicing the Diaphragm

1. Remove the six retaining bolts fastening the upper and lower body.
2. Remove the upper body and main spring.
3. Remove the diaphragm nut, lockwasher, diaphragm plate and diaphragm from the seal clevis screw.
4. Examine the diaphragm for cracks, tears or deterioration and replace as needed. Place the new diaphragm onto the seal clevis.
5. Position the diaphragm plate with the *curved side down* onto the diaphragm. NOTE: Align the six body holes with the six diaphragm holes.
6. Reinstall the lockwasher and diaphragm nut and torque to 90 in. lbs. (10 Nm).
7. Reinstall the main spring and upper body. Replace the six retaining screws and torque to 130 in. lbs. (15 Nm).

## Servicing the Seat and Seal

1. Remove bottom plug and gasket.
2. Remove seal support from the seal clevis.
3. Using a screwdriver, remove the seal from the seal support.
4. Examine the seal for cuts or wear and replace as needed.
5. With the seal removed, use a 1.25" socket to remove the seat.
6. Examine the seat gasket for cuts or wear and replace as needed.
7. Examine the seat for pitting, cuts or wear and replace as needed.
8. Install the new seat gasket under the seat.
9. Install the new seat into the lower body and torque to 200 in. lbs. (23 Nm).
10. Install the new seal into the seal support. Then thread the seal support onto the seal clevis and torque to 200 in. lbs. (23 Nm).
11. Reinstall the bottom plug and torque to 240 in. lbs. (26.5 Nm).

## TROUBLESHOOTING

Problem	Probable Cause	Solution
Water leaking out top adjusting bolt	<ul style="list-style-type: none"> <li>• Worn diaphragm.</li> </ul>	<ul style="list-style-type: none"> <li>• Replace diaphragm as outlined under "Servicing the Diaphragm".</li> </ul>
Low inlet pressure to pump	<ul style="list-style-type: none"> <li>• Improper adjustment of screw setting.</li> <li>• Inadequate water supply.</li> </ul>	<ul style="list-style-type: none"> <li>• Turn top adjusting screw clockwise to increase inlet pressure to pump.</li> <li>• Minimum 40 PSI to pump and regulator. Inlet line should be equal or one size larger than pump inlet port. Minimize elbows and line length.</li> </ul>
Excessive inlet pressure to pump	<ul style="list-style-type: none"> <li>• Debris in regulator.</li> <li>• Improper adjustment screw setting.</li> </ul>	<ul style="list-style-type: none"> <li>• Remove bottom plug and flush regulator.</li> <li>• Turn top adjusting screw counterclockwise to reduce inlet pressure to pump.</li> </ul>

## WARRANTY

### 90 Day Warranty

Refer to complete CAT PUMPS Warranty for further information.

Products described hereon are covered by one or more of the following U.S. patents 3558244, 3652188, 3809508, 3920356, 3930756 and 5035580

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