

DATA SHEET

INLET PRESSURE STABILISERS



Stainless Steel Models:

711500, 714500, 717500



Model 711500 Shown
(Fittings Sold Separately)

FEATURES

- Absorbs energy from a turbulent inlet to create a smooth, laminar flow into the pump, significantly reducing the risk of cavitation and potentially damaging system surges or pressure spikes.
- Eliminates wear-producing shocks to the system components, especially when high-temperature, booster pump feed, long inlet lines or quick-coupling fittings exist.
- Multiple-sized fitting options allow for easier inlet plumbing installations.
- Compact, simple design permits versatile, easy installation and requires minimal maintenance.

SELECTION

Select an inlet pressure stabiliser with a flow range to match the system flow and choose adapter fittings that match the pump and system inlet connections.

INSTALLATION

For optimum performance, install the inlet pressure stabiliser directly into the pump's inlet port and support it from the base plate. Select the correct adapter fitting that matches the pump inlet size.

Note: Elbow fitting requires a standard adapter to connect properly to pump.

Apply Liquid Gasket (PN 6124) to the O-ring groove and press the flanged end of the adapter (O-ring and retaining ring come on the adapter) into the inlet pressure stabiliser until completely seated. Secure the retaining ring in the groove of the inlet pressure stabiliser. Apply sealant to the adapter threads. With a wrench thread assembly into the pump inlet port.

NOTICE

Do not over-tighten. Because the adapter rotates within the inlet pressure stabiliser end, there is no risk of twisting the internal hose.

SPECIFICATIONS

711500

	U.S.	Metric
Flow Range	0–16 gpm	0–60 lpm
Weight (Without Fittings)	1.3 lbs	0.60 kg

714500

Flow Range	0–45 gpm	0–170 lpm
Weight (Without Fittings)	4.0 lbs	1.80 kg

717500

Flow Range	0–75 gpm	0–284 lpm
Weight (Without Fittings)	4.8 lbs	2.20 kg

COMMON SPECIFICATIONS

	U.S.	Metric
Inlet Pressure Range	2–50 psi	0.1–3.5 bar
Maximum Temperature	208° F	98° C

Note: The inlet stabiliser will not function with a negative suction inlet.

OPERATION

The inlet pressure stabiliser helps maintain a consistent inlet pressure to the pump and prevent pressure fluctuations that can occur with long feed lines, high-temperature liquids or booster pumps. The inlet pressure stabiliser will not eliminate or correct starvation (lack of sufficient liquid to the pump) and will not function unless there is a positive inlet pressure.

MAINTENANCE

During routine pump maintenance, check all fitting connections for any leaks. Low pressure, fluctuating pressure or vibration are often the result of poor connections. Use PTFE thread tape or pipe thread sealant, but stop before the last thread

INLET PRESSURE STABILISER SELECTION

All Measurements (in / mm)

Part Number	A	B	C
711500	9.44 / 239.75	2.21 / 56.06	2.85 / 72.36
714500	15.95 / 405.24	3.28 / 83.27	4.21 / 106.92
717500	19.07 / 484.31	3.55 / 90.13	4.59 / 116.50

711500 Inlet Pressure Stabiliser, Fitting Selection Chart

Description	Fitting (NPT)	Part Number
Adapter, Straight	1/2"	711502
Adapter, Straight	3/4"	711503
Adapter, Straight	1"	711504
Adapter, Straight	1 1/4"	711505
Adapter, Straight	1 1/2"	711506
Elbow	—	701818

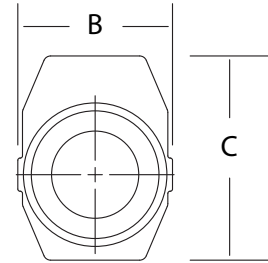
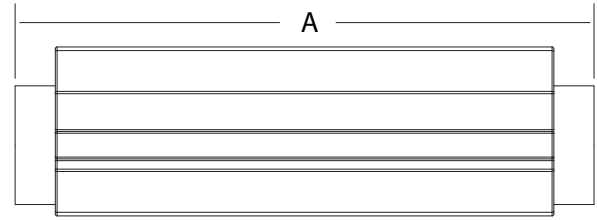
714500 Inlet Pressure Stabiliser, Fitting Selection Chart

Description	Fitting (NPT)	Part Number
Adapter, Straight	1"	714504
Adapter, Straight	1 1/4"	714505
Adapter, Straight	1 1/2"	714506
Adapter, Straight	2"	714508
Elbow	—	701828

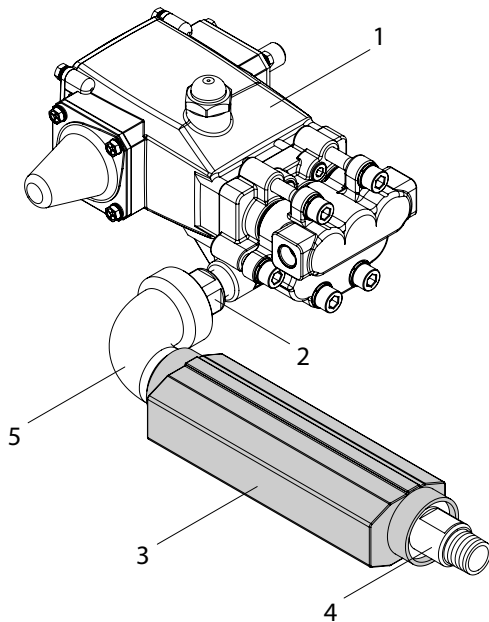
717500 Inlet Pressure Stabiliser, Fitting Selection Chart

Description	Fitting (NPT)	Part Number
Adapter, Straight	2"	717508
Adapter, Straight	2 1/2"	717510
Elbow	—	701833

DIMENSIONAL

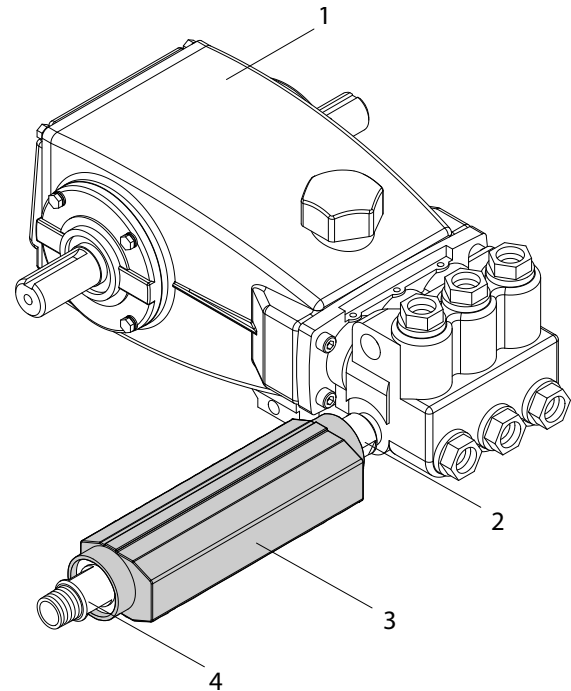


TYPICAL INSTALLATION



Typical Installation (Elbow)

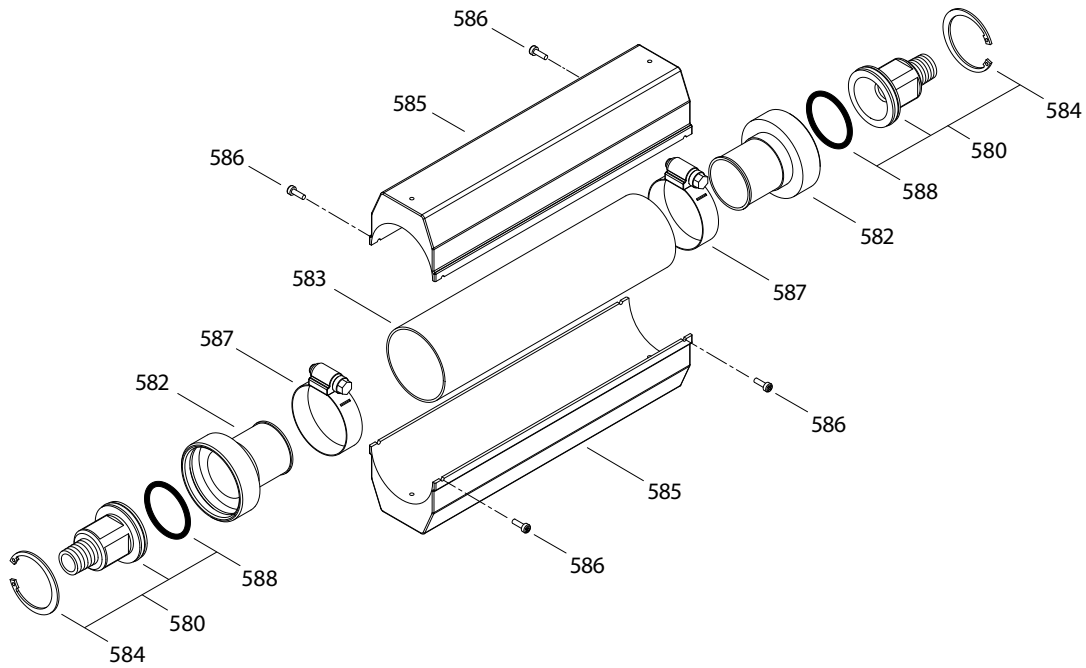
1. Plunger pump
2. Straight adapter – matches pump inlet
3. Inlet pressure stabiliser
4. Straight adapter – matches system line
5. Elbow adapter



Typical Installation (Straight)

1. Plunger pump
2. Straight adapter – matches pump inlet
3. Inlet pressure stabiliser
4. Straight adapter – matches system line

EXPLODED VIEW



PARTS LIST

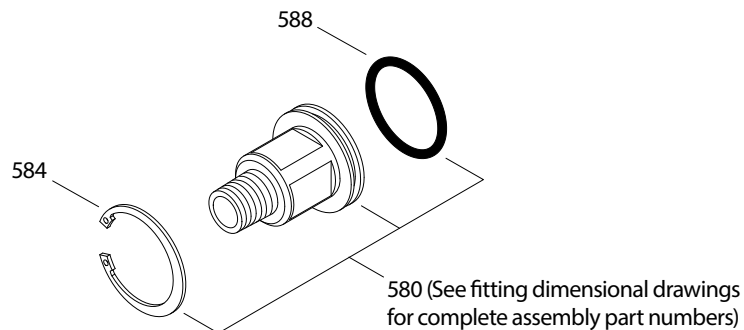
ITEM	DESCRIPTION	MODEL 711500	MATL	MODEL 714500	MATL	MODEL 717500	MATL	QTY
582	Barb, Hose, Internal	701816	SS	701826	SS	701831	SS	2
583	Hose, Internal (1.5" x 7.48")	701819	PPB	—	—	—	—	1
	Hose, Internal (2.5" x 12.87")	—	—	701829	PPB	—	—	1
	Hose, Internal (3.0" x 16.55")	—	—	—	—	701839	PPB	1
585	Cover, Pair	701815	PVC	701825	PVC	701830	PVC	1
586	Screw, Self Tapping (M3 x 8, M3 x 10)	701766	SS	701877	SS	701877	SS	4
587	Hose Clamp	701810	S	701820	S	701840	S	2

Material Codes (Not Part of Part Number):

PPB=PVC+Polyester+Butyl PVC=Polyvinyl Chloride S=304SS SS=316SS

Note: Elbow requires standard straight fitting to connect properly.

EXPLODED VIEW



PARTS LIST

ITEM	DESCRIPTION	MODEL 711500	MATL	MODEL 714500	MATL	MODEL 717500	MATL	QTY
584	Ring, Retainer	701767	STNP	701768	STNP	701769	STNP	1
588	O-Ring, Adapter	701817	NBR	701827	NBR	701832	NBR	1

Material Codes (Not Part of Part Number):

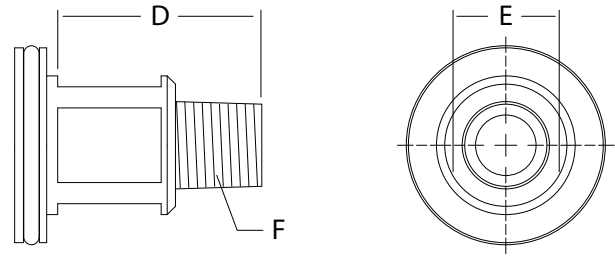
NBR=Medium Nitrile (Buna-N) STNP=Steel/Nickel Plated

FITTING SELECTION

Nominal Dimensions (in / mm)

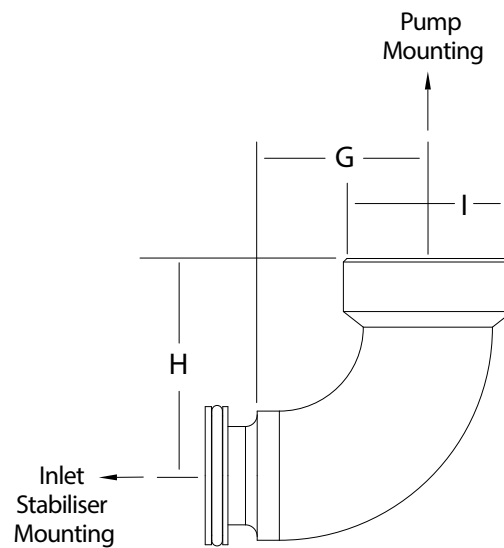
To Fit 711500	D	E	F
711502	1.6/40	1.1/27	1/2" NPT
711503	1.6/40	1.1/27	3/4" NPT
711504	1.6/40	1.1/27	1" NPT
711505	1.9/48	1.4/36	1 1/4" NPT
711506	1.9/48	1.4/36	1 1/2" NPT
To Fit 714500			
714504	2.0/50	1.8/45	1" NPT
714505	2.0/50	1.8/45	1 1/4" NPT
714506	2.0/50	1.8/45	1 1/2" NPT
714508	2.0/50	1.8/45	2" NPT
To Fit 717500			
717508	2.2/56	2.1/55	2" NPT
717510	2.2/56	2.4/60	2 1/2" NPT

FITTING DIMENSIONAL



Nominal Dimensions (in / mm)

To Fit 711500	G	H	I
701818	2.4/60	2.7/68	1.9/48
To Fit 714500			
701828	2.6/66	3.4/87	3.0/76
To Fit 717500			
701833	3.2/82	4.1/104	3.5/89



NOTE:
Must have straight adapter to fit into pump inlet port.

TROUBLESHOOTING

Water leaking at adapter connection	<ul style="list-style-type: none"> Worn or missing O-ring
Water leaking from the cover ends	<ul style="list-style-type: none"> Cracked or worn hose, or improperly tightened clamps

⚠ CAUTIONS AND WARNINGS

All high-pressure systems require a primary pressure regulating device (e.g. regulator, unloader) and a secondary pressure relief device (e.g. pop-off valve, relief valve). Failure to install such relief devices could result in personal injury or damage to pump or property. Cat Pumps does not assume any liability or responsibility for the operation of a customer's high-pressure system.

Read all CAUTIONS and WARNINGS before commencing service or operation of any high-pressure system. The CAUTIONS and WARNINGS are included in each Service Manual and with each Accessory Data sheet. CAUTIONS and WARNINGS can also be viewed online at www.catpumps.com/dynamic-literature/cautions-and-warnings or can be requested directly from Cat Pumps.

WARRANTY

View the Limited Warranty online at www.catpumps.com/literature/cat-pumps-limited-warranty