DATA SHEET
INDUSTRIAL HOSES

CAT PUMPS®
The Pumps with Nine Lives

Flexible Inlet & Discharge Hose Models: 990801 – 990860

SELECTION

Always select a hose to meet or exceed the pressure requirements of the system. These hoses are intended to connect from the inlet line to the pump's inlet port or to connect the discharge line to the system. Review the operating flow and pressure of the system before selecting the proper hose.

The inlet hose size can be equal to or one size larger than the pump's inlet port size. The inlet hoses are reinforced and suitable for negative suction inlet systems. Do not exceed the pump's inlet pressure rating. If the supply line to the pump exceeds the six feet of these standard hoses, a booster pump and inlet stabilizer may be required.

Note: Maximum recommended velocity is 4 feet per second for inlet lines. Formula: Maximum Flow = $10L^2$ (L = Hose inside diameter in inches)

The discharge hose size can equal the pump's discharge port size and may be less dependent on the flow and friction loss (see Hose Friction Loss Chart).

3 Feet High-Pressure Hose – Steel

Fitting Size	Fitting Type	Fitting Material	Hose ID	Maximum PSI	Hose Material	Hose Reinforcement	Part Number
⅜"	B	STL	⅜"	3000	NE	1-Braid–STL	990834
½"	B	STL	½"	3000	NE	1-Braid–STL	990836
¾"	B	STL	¾"	3000	NE	2-Braid–STL	990832
¾"	A	STL	¾"	6000	NE	4-Spiral–STL	990837
1"	B	STL	1"	3000	NE	2-Braid–STL	990833
1¼"	A	STL	1¼"	3000	NE	4-Spiral–STL	990839

3 Feet High-Pressure Hose – 316 Stainless Steel

Fitting Size	Fitting Type	Fitting Material	Hose ID	Maximum PSI	Hose Material	Hose Reinforcement	Part Number
⅜"	A	316SS	⅜"	3000	NE	1-Braid–STL	990859
½"	A	316SS	½"	3000	NE	1-Braid–STL	990852
½"	A	316SS	½"	5000	Polyester	2-Braid–STL	990857
¾"	D	304SS	¾"	1200	FDA	FDA–PTFE–INNER	990801
¾"	A	316SS	¾"	3000	NE	2-Braid–STL	990853
¾"	A	316SS	¾"	5000	NE	4-Spiral–STL	990858
1"	D	304SS	1"	1000	FDA	FDA–PTFE–INNER	990802
1"	A	316SS	1"	3000	NE	2-Braid–STL	990854
1¼"	A	316SS	1¼"	3000	RBR	4-Spiral–STL	990855

6 Feet Low-Pressure Hose – Steel * = 5 Feet

Fitting Size	Fitting Type	Fitting Material	Hose ID	Maximum PSI	Hose Material	Hose Reinforcement	Part Number
½"	A	STL	½"	200	EPDM	2-Textile Spiral	990860
¾"	A	STL	¾"	200	EPDM	4-Textile Spiral	990840
1"	A	STL	1"	200	EPDM	4-Textile Spiral	990841
1½"	A	STL	1½"	200	EPDM	2-Double Braid	990843
2"	E	STL	2"	80	RBR	1-Textile Spiral	990844*

6 Feet Low-Pressure Hose – 316 Stainless Steel * = 5 Feet

Fitting Size	Fitting Type	Fitting Material	Hose ID	Maximum PSI	Hose Material	Hose Reinforcement	Part Number
½"	E	316SS	½"	200	EPDM	2-Textile Spiral	990845
¾"	E	316SS	¾"	200	EPDM	4-Textile Spiral	990846
1"	E	316SS	1"	200	EPDM	4-Textile Spiral	990849
1¼"	E	316SS	1¼"	200	EPDM	2-Double Braid	990848
1½"	E	316SS	1½"	200	EPDM	2-Double Braid	990847
2"	E	316SS	2"	80	RBR	1-Textile Spiral	990850*
2½"	E	316SS	2½"	80	RBR	1-Textile Spiral	990851*

Material Codes: EPDM=Ethylene Propylene Diene Monomer NE=Neoprene PTFE=Polytetrafluoroethylene RBR=Rubber STL=Steel

INSTALLATION

After selecting the correct size and pressure-rated hose, review the Hose Fitting Style Chart for the proper fittings. Install the low-pressure hose directly to the pump's inlet port, or install the discharge hose from the pump's discharge port or primary regulating device. Use appropriate thread sealant for the fitting material and operating pressure.

OPERATION

Check to ensure that the hose connections are tight and not leaking to ensure optimum performance.

MAINTENANCE

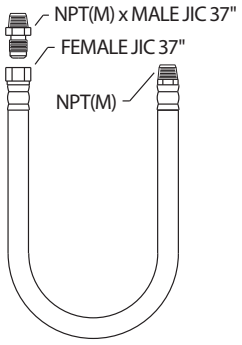
During regularly scheduled pump maintenance, check the hose for cracks or worn surfaces and replace it as needed. Check all connections for water leaks.

HOSE FRICTION LOSS

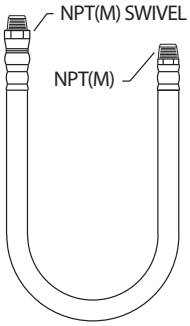
Water Flow (GPM)	Pressure Drop per 100 ft of Hose (PSI) Hose Inside Diameter (Inches)						
	¼"	5⁄16"	3⁄8"	½"	5⁄8"	¾"	1"
2	180	60	25	6	2		
3	380	120	50	13	4	2	
4		220	90	24	7	3	
5		320	130	34	10	4	
7			265	70	22	10	2
10			450	120	38	14	3
15			900	250	80	30	7
20			1600	400	121	50	12
25				650	200	76	19
30					250	96	24
40					410	162	42
50					600	235	62
60						370	93

Note: The pressure drop will be directly proportional to the hose length with a fixed flow rate. Example: The pressure drop across a 50 ft hose will equal approximately one-half the pressure drop the same diameter of a 100 ft hose.

HOSE FITTING STYLE



Type A



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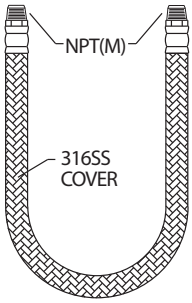

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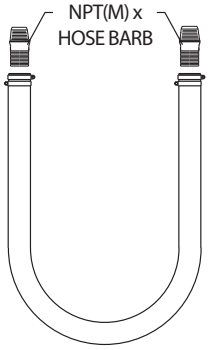

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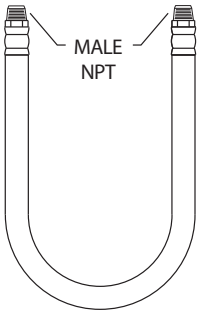

Type F

⚠ CAUTION

IMPROPER USE OF FITTINGS HAZARD

Do not operate the pump with improperly-connected, sized, worn or loose fittings, pipes or hoses. Operating the pump under these conditions could result in personal injury and property damage.

1. Ensure all fittings, pipes and hoses are properly rated for the maximum pressure rating and flow of the pump.
2. Check all fittings and pipes for cracks or damaged threads.
3. Check all hoses for cuts, wear, leaks, kinks or collapse before each use.
4. Ensure all connections are tight and secure.
5. Use PTFE thread tape or pipe thread sealant (sparingly) to reconnect plumbing. Do not wrap tape beyond the last thread, this will prevent loose tape from becoming lodged in the pump or accessories.
6. Apply proper sealants to assure secure fit or easy disassembly when servicing.

⚠ 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

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