Hydraulic Intensifiers

SPX HYTEC

Intensifiers are used in applications where an existing low pressure hydraulic source is available. They amplify low pressure to a range better suited to workholding systems

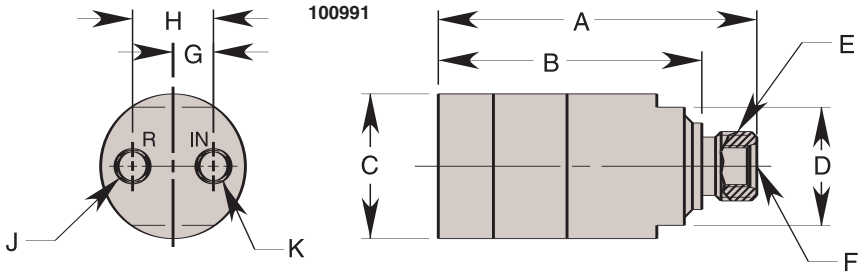
Intensifiers use a reciprocating pumping mechanism to generate the high pressure flow so their volume is not limited as with piston style intensifiers. This allows the intensifier to compensate for any oil consumption on the high pressure side. The outlet pressure is directly proportional to the inlet pressure. High pressure adjustment is achieved by varying the inlet pressure.

Flow from the low pressure source is directed through the intensifier to the downstream circuit. As system pressure increases, the intensifier begins to cycle and intensifies the system pressure by the ratio specified.

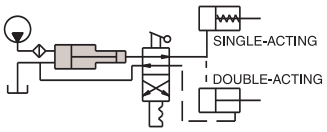
Models without a dump valve do not allow reverse flow so directional control must take place downstream in the high pressure circuit. Models with the dump valve allow directional control in the low pressure supply circuit. The optional directional valve manifold block has a standard Vickers C-10-4 cavity to accept a variety of manual and solenoid valves. Fitting No. 253288 can be used with part No. 100997. See page 126 for specs.

Features:

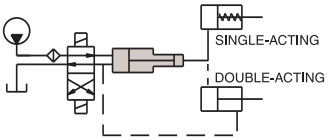
- 5,000 psi max.
- 3.2, 4 and 5.1 ratios available
- Optional valve manifold
- Extremely compact size

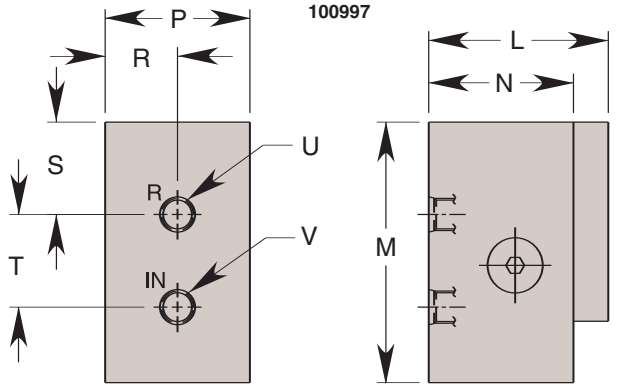


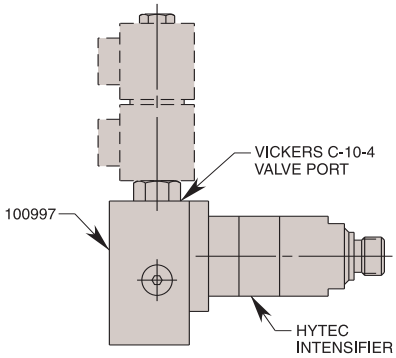
WITHOUT DUMP VALVE



WITH DUMP VALVE







Cat No.		Specifications					Dimensions (In Inches)					
With Dump Valve	W/O Dump Valve	Pressure Intensification Ratio	Inlet Flow Max. (Cu. in./min.)	Outlet Flow Max. (Cu. in./min.)	Inlet Pressure Min. (psi)	Inlet Pressure Max. (psi)	A	B	C Dia.	D Flats	E Thread Size	F Outlet Thread Size
100991	100994	3.2 to 1	610	150	300	1,560	4.331	3.583	1.968	1.606	M24 x 1.5	9/16-18 UNF SAE-6
100992	100995	4.0 to 1	580	120		1,250						
100993	100996	5.0 to 1	550	95		1,000						

Cat No.		Dimensions (In Inches)			
With Dump Valve	W/O Dump Valve	G	H	J Return Thread Size	K Inlet Thread Size
100991	100994	.551	1.102	7/16-20 UNF SAE-4	7/16-20 UNF SAE-4
100992	100995				
100993	100996				

Cat No.	Dimensions (In Inches)								
	L	M	N	P	R	S	T	U Return Thread Size	V Inlet Thread Size
100997	2.441	3.543	1.968	1.968	.984	1.256	1.260	¼ BSPP	¼ BSPP

NOTE: Approximate inlet to outlet leakage is 1 cu. in./min. Requires 10 micron nominal filtration. Hytec filter 100919 is ideal for protecting the inlet port. M24-1.5 nut included.

IMPORTANT: Demands created by the addition of this device to an existing hydraulic system can cause fluctuations in available pressure and flow to that system. The effects of these fluctuations on the original system must be evaluated by the designer of that system.