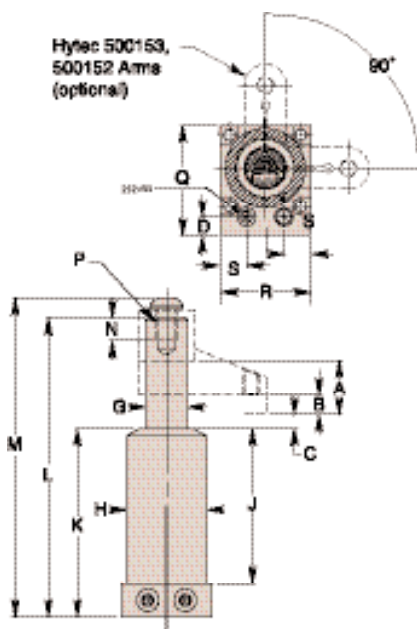


- Manifold design eliminates external plumbing and reduces fixture height
- “Live Roller” design provides industry’s most reliable swing/pull mechanism
 - o Piston/Cam combination provides solid path for clamping action
 - o Typical ball and groove mechanism has higher potential for clogging and for damage from mis-aligned work pieces
- Available in single and double acting versions
- Special rod wiper seal protects internal clamp components
- Unique drainage system channels

- contaminants away from clamp
- Corrosion resistant construction
- Heat treated, chrome plated piston rod
- Manifold mountable
- Unique “Live Roller” swing mechanism for increased service life
- Power-Tech™ treated body and hardened cam for long wear and corrosion resistance
- Single- and double-acting models are dimensionally interchangeable



W
V
T
(OPTIONAL CLEARANCE HOLE FOR "H" DIMENSION)

Cat. No.	Specifications							Dimensions (In Inches)							
	Oper.	Swing Direction	*Force (Lbs.)	Eff. Area (Sq. In.)		Oil Cap. (Cu. In.)		A Total Stroke	B Clamping Stroke	C	D Port Dia.	E Clamp Port	F Unclamp Port	††G Dia.	H Dia.
				Clamp	Unclamp	Clamp	Unclamp								
110089	Single-Acting	LH (Counterclockwise)	5,000	1.178	—	1.914	—	1.625	.600	.330	.340 MAX.	3/16"-20UNF SAE-4	Breather Plug 3/16"-20UNF SAE-4†	1.248	2.425
110090		RH (Clockwise)													
110091		Straight Pull													
110092	Double-Acting	LH (Counterclockwise)		2.405	3.908										
110093		RH (Clockwise)													
110094		Straight Pull													

Cat. No.	Dimensions (In Inches)												
	J	K	L	M	N Thread Min.	P Thread Size	Q	R	S	T	U	V Dia.	W Thread Size
110089	4.737	5.917	9.297	9.887	.690	%11 UNC	3.305	2.750	.570	1.085	.408	2.442 2.462	%18 UNC
110090													
110091													
110092		5.730	9.110	9.700									
110093													
110094													

Internal cam may be removed for an unguided straight pull.
See page 58 for maximum operating speeds and rotation options.