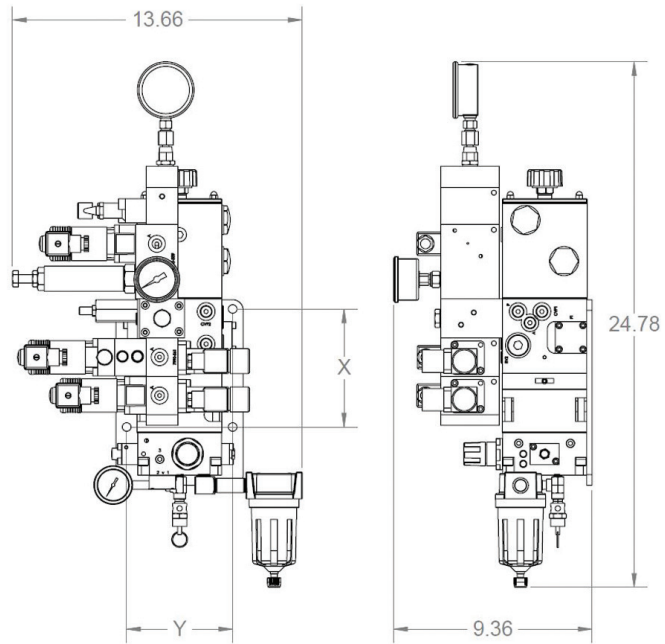
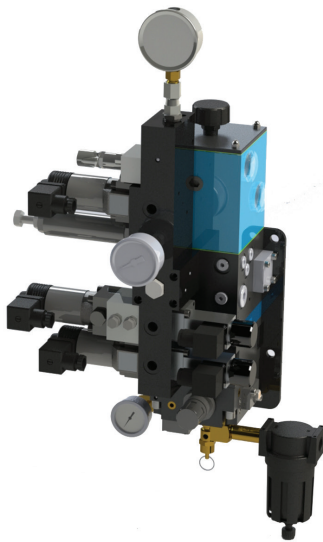




Air/hydraulic power unit ready for installation



HCR-PA-1-1110-4

Application:

This compact air/hydraulic power unit is a complete package ready for installation. With two pumps available, it is particularly well suited for low volume and medium volume die clamping systems.

Description:

The clamping circuits are activated by using either hand operated manual valves or convenient solenoid operated valves. A separate valve with pressure switch is provided for each clamp circuit. The pressure switch with each clamp valve provides the user with a signal indicating that a safe clamp pressure is achieved. The power unit is available with two pump sizes and with various configurations of control valves, including die lifter control valves in various pressure ranges. The pump is a simple air/oil intensifier, which operates intermittently with automatic pressure control, i.e. oil pressure is a ratio of the regulated air inlet pressure. The power unit may be connected to any compressed air system and includes an air pressure reducing valve to regulate incoming air pressure, air pressure gauge, oil level sight glass, valves as specified, air muffler, and convenient valve on pump assembly suitable for vertical mounting surfaces.

Advantages:

- ◆ modular unit ready for installation
- ◆ compact, light weight design
- ◆ zero leak, directional valves maintain clamping pressure in case of power failure
- ◆ sight glass for oil level control

Technical data	Series 1 pump	Series 2 pump
Max. operating pressure	5,800 psi	5,800 psi
Average pump displacement	150 in ³ /min	60 in ³ /min
Reservoir usable capacity	40 in ³	30 in ³
Reservoir total capacity	80 in ³	60 in ³
Mounting hole pattern (X,Y)	(7 in, 7 in)	(5 in, 5 in)
Air/oil ratio stage 1	20:1	75:1
Air/oil ratio stage 2	100:1	N/A
Air requirement for max hyd pressure	65 psi	85 psi
Hydraulic port(s)	G1/4 BSPP	G1/4 BSPP
Compressed air port	3/8" NPT	3/8" NPT

Electrical solenoid data	AC type	DC type
Voltage	120 VAC	24 VDC
Current	0.20 Amps	0.38 Amps
Duty cycle	100%	100%

Pressure switch data	
Adjustable pressure settings	750-5,800 psi
Avg. pressure differential at 1,450 psi	350 ± 73 psi
Avg. pressure differential at 7,250 psi	750 ± 116 psi
Switch NO/NC	5A at 250 VAC
Contact rating	3A at 30 VDC

Ordering example, pump displacement, control configuration



ROEMHELD
HILMA ■ STARK

Ordering example

HCR-PA-1-1110-2

Pump Type

Control Configuration

Double-acting clamp circuit

Single-acting clamp circuit

Low pressure die lifter circuit

High pressure die lifter circuit

Valve type/
Pressure switch

Pump Displacement

1	Hydraulic Unit, 150cu. in./min. @ 5800 PSI
2	Hydraulic Unit, 60cu. in./min. @ 5800 PSI

Control Configuration

	Double Acting Clamp Circuit	Single Acting Clamp Circuit	Die Lifter		Application, Special Features
			Low Pressure 550-5500 PSI	High Pressure 5800 PSI	
0100	0	1	0	0	1 single-acting clamp circuit
0101	0	1	0	1	1 single-acting clamp circuit and 1 high pressure die lift circuit
0110	0	1	1	0	1 single-acting clamp circuit and 1 low pressure die lift circuit
1000	1	0	0	0	1 double-acting clamp circuit
1001	1	0	0	1	1 double-acting clamp circuit and 1 high pressure die lift circuit
1010	1	0	1	0	1 double-acting clamp circuit and 1 low pressure die lift circuit
1100	1	1	0	0	1 double-acting clamp circuit and 1 single-acting clamp circuit
1101	1	1	0	1	1 double-acting clamp circuit, 1 single-acting clamp circuit and 1 high pressure die lift circuit
1110	1	1	1	0	1 double-acting clamp circuit, 1 single-acting clamp circuit and 1 low pressure die lift circuit
2000	2	0	0	0	2 double-acting clamp circuits
2001	2	0	0	1	2 double-acting clamp circuits and 1 high pressure die lift circuit
2010	2	0	1	0	2 double-acting clamp circuits and 1 low pressure die lift circuit

Valve Type/Pressure Switch

	Valve Voltage		Manual	Press Enable Pressure Switch(es)	Directional seat valves with HAWE hole patterns, mounting dimensions as per HAWE spec sheet D7300, size 1 Machine Safety Pressure switch connected to the press enable circuit. Switch setting is 15% (min.) below clamping pressure. Press operation is allowed only when set pressure is reached. If clamp pressure drops below setting, the press is automatically stopped.
	110 VAC	24 VDC			
0					
1	✓				
2	✓			✓	
3		✓			
4		✓		✓	
5			✓		
6			✓	✓	

Subject to technical modification

Carr Lane Roemheld Mfg Co.

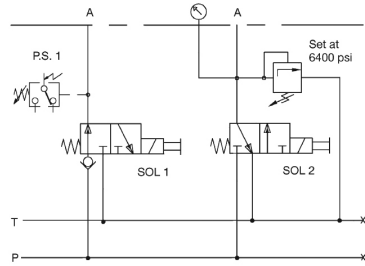
927 Horan Drive, Fenton, MO 63026

Phone 800-827-2526 Fax 636-386-8034 www.roemheld-usa.com

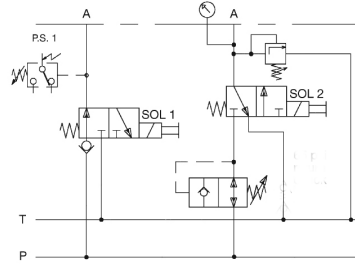
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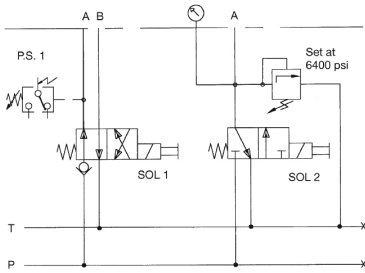
Hydraulic Schematics, Control Configurations



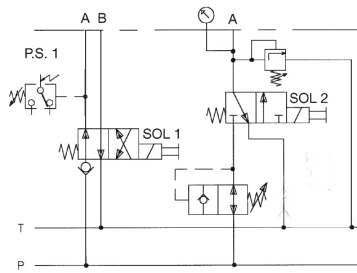
HCR-PA-X-0101-X
(1) Single acting clamp
(1) High pressure die lift



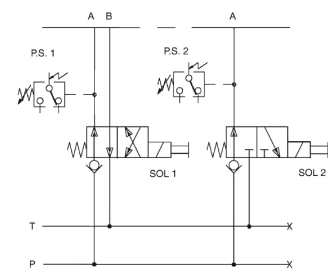
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(1) Single acting clamp
(1) Low pressure die lift



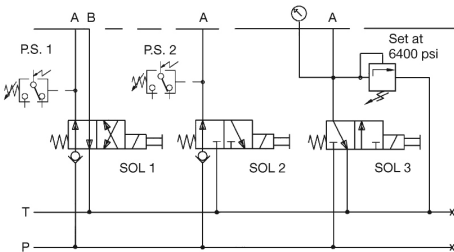
HCR-PA-X-1001-X
(1) Double acting clamp
(1) High pressure die lift



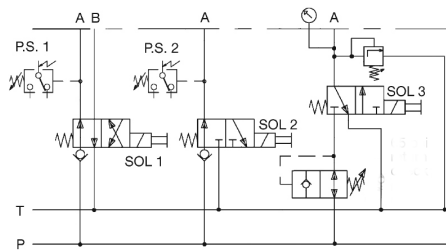
HCR-PA-X-1010-X
(1) Double acting clamp
(1) Low pressure die lift



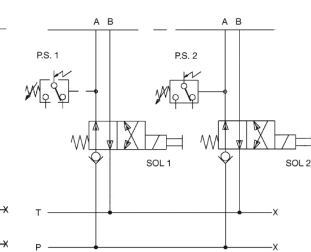
HCR-PA-X-1100-X
(1) Double acting clamp
(1) Single acting clamp



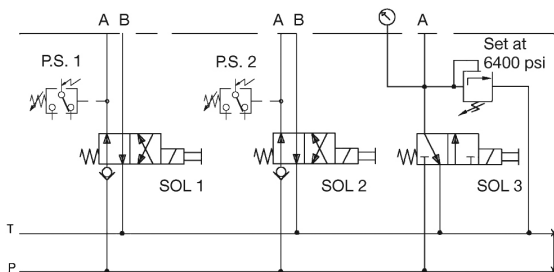
HCR-PA-X-1101-X
(1) Double acting clamp
(1) Single acting clamp
(1) High pressure die lift



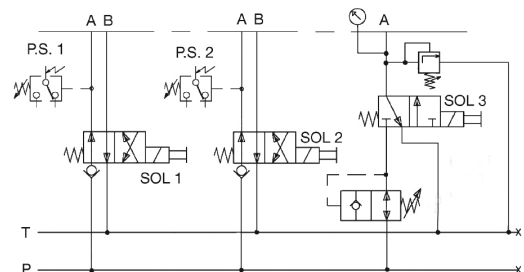
HCR-PA-X-1110-X
(1) Double acting clamp
(1) Single acting clamp
(1) Low pressure die lift



HCR-PA-X-2000-X
(2) Double acting clamp



HCR-PA-X-2001-X
(2) Double acting clamp
(1) High pressure die lift



HCR-PA-X-2010-X
(2) Double acting clamp
(1) Low pressure die lift