



# MANIFOLD SOLUTIONS

**MFP** ---  
AUTOMATION  
ENGINEERING



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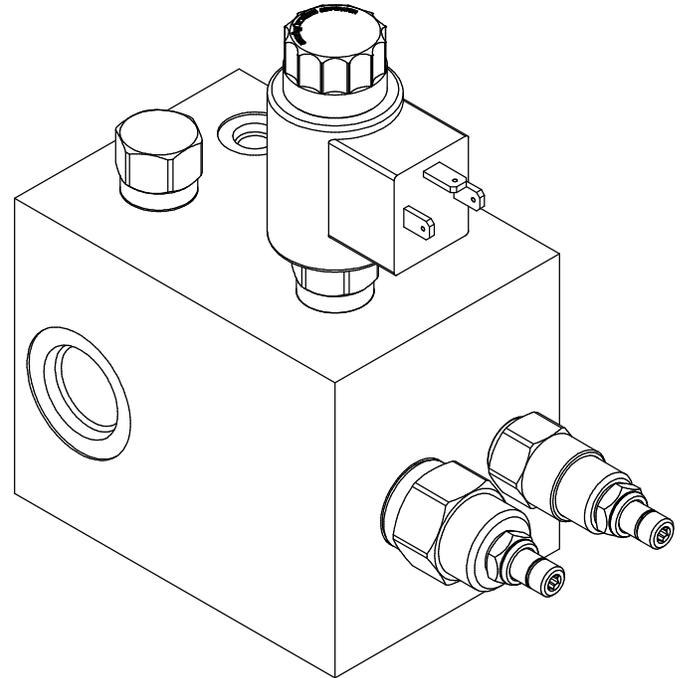
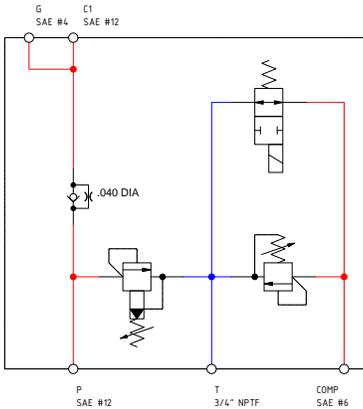
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# VPOM 079Y VARIABLE PUMP OUTLET MANIFOLD

15GPM Capacity



## PRODUCT DESCRIPTION

Variable pump outlet manifold assembly providing safety relief function, remote compensator pressure control, normally open solenoid valve for pump standby function, & gauge port. Choose from a manual or proportional controlled pressure valve. Outlet check has a bypass orifice for pressure bleed down at system shutdown. Provisions for vertical reservoir lid mounting or stand alone.

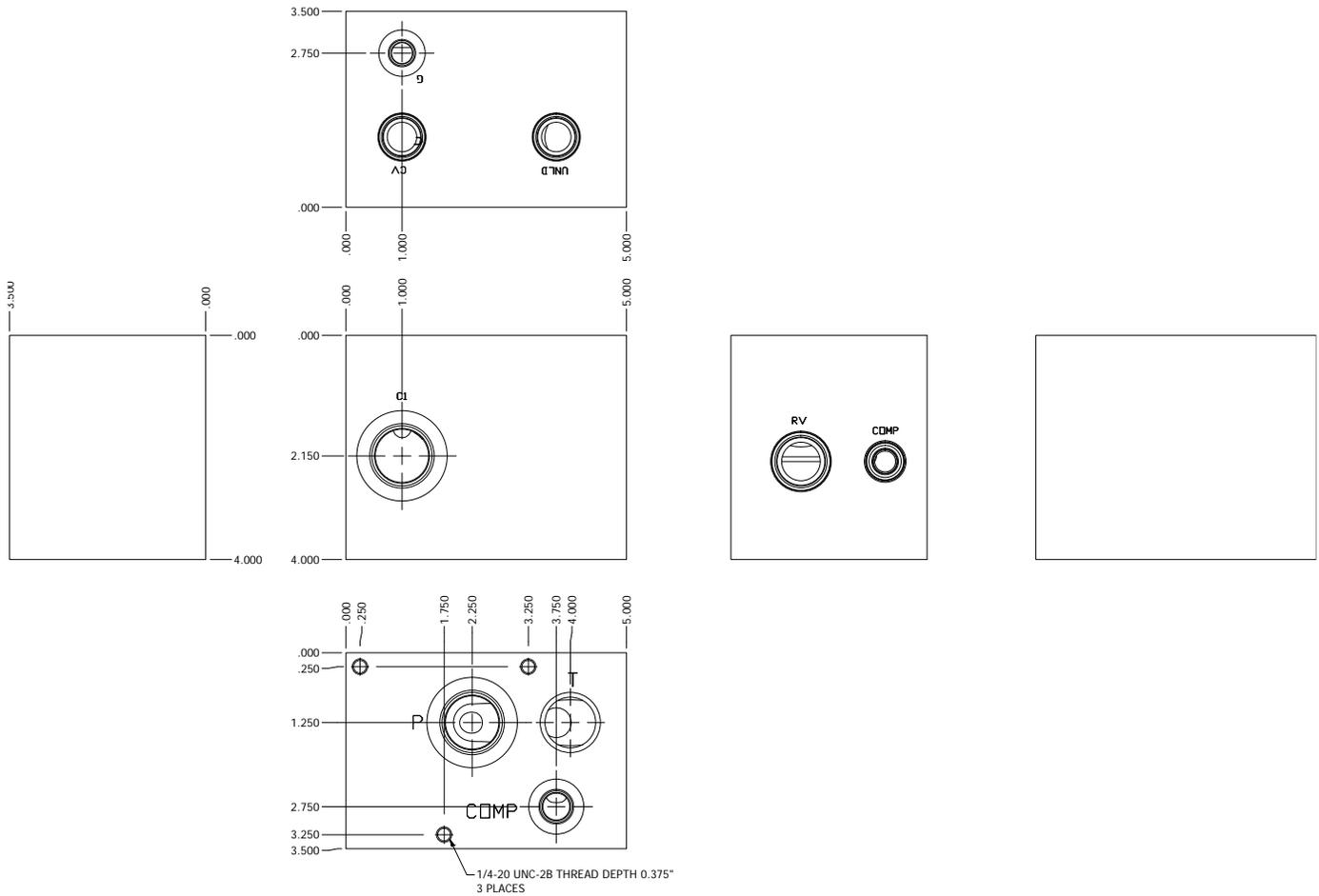
>> [Download drawings](#)

VPOM 079Y	OPTIONS	VOLTAGE	MATERIAL
<b>N</b>	No unloading valve, relief only	<b>N</b> No Coil	<b>A</b> Aluminum -6061-T6 3000*PSI-20.7 Mpa 0-3000 PSI pressure control valve supplied
<b>UV</b>	Unloading valve w/ relief	<b>24</b> 24 VDC DIN Coil	
<b>NPR</b>	Proportional pressure control valve Proportional control valve DC voltage only; no unloading valve required	<b>120</b> 120 VAC DIN Coil	
			<b>D</b> Ductile Iron -D4512 5000*PSI-34.5 Mpa 0-5000 PSI pressure control valve supplied
*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type			

Specifications, descriptions, and dimensional data are subject to change without notice. For additional options/custom features please contact MFP.

# VPOM 079Y VARIABLE PUMP OUTLET MANIFOLD

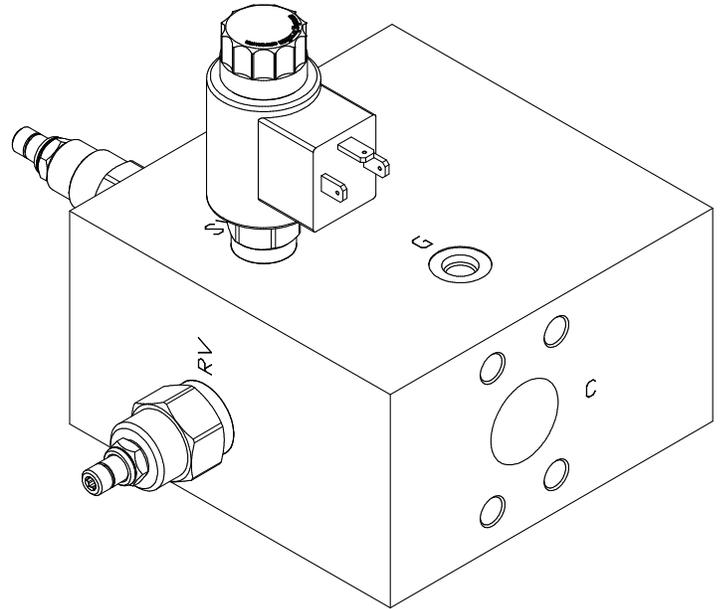
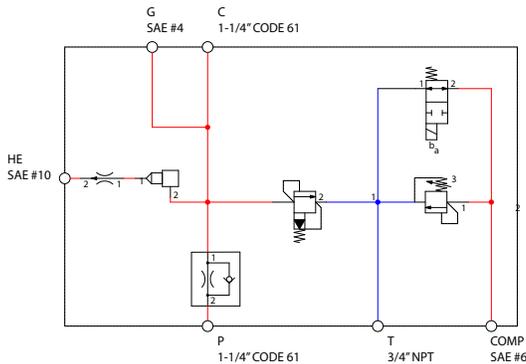
15GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# VPOM 049Y VARIABLE PUMP OUTLET MANIFOLD

25GPM Capacity



## PRODUCT DESCRIPTION

Variable pump outlet manifold assembly providing safety relief function, remote compensator pressure control, normally open solenoid valve for pump standby function, gauge port, & optional normally closed heat exchanger bypass solenoid valve for a dedicated cooling circuit in the standby condition. Choose from a manual or proportional controlled pressure valve. Outlet check has a bypass orifice for pressure bleed down at system shutdown. Provisions for vertical reservoir lid mounting or stand alone.

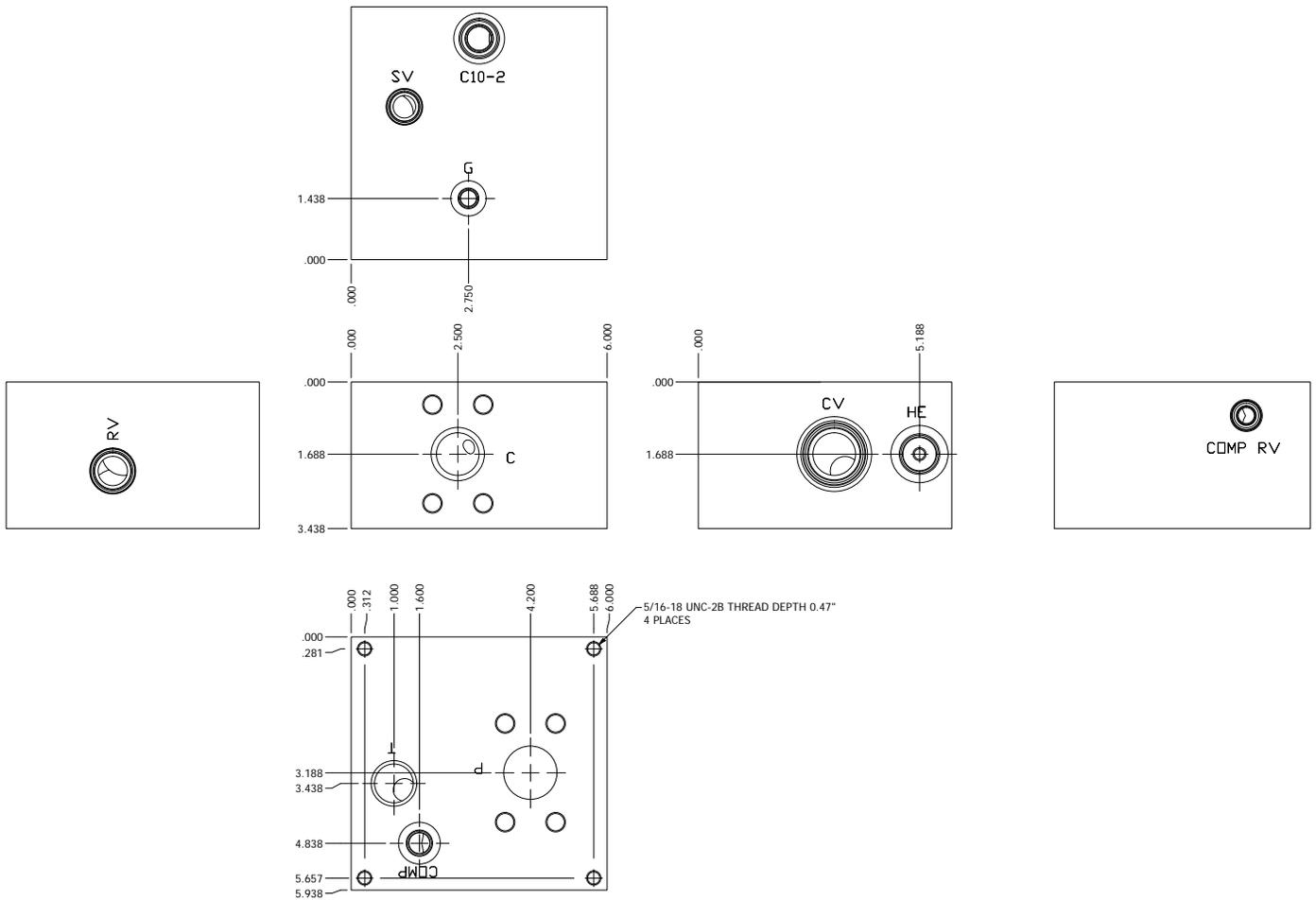
[>> Download drawings](#)

VPOM 049Y		OPTIONS		VOLTAGE		MATERIAL	
<b>N</b>	No unloading valve, relief only	<b>N</b>	No option	<b>N</b>	No Coil	<b>A</b>	Aluminum -6061-T6 3000*PSI-20.7 Mpa 0-3000 PSI pressure control valve supplied
<b>UV</b>	Unloading valve w/ relief	<b>HE</b>	Heat exchange bypass valve*	<b>24</b>	24 VDC DIN Coil		
<b>NPR</b>	Proportional pressure control valve <i>Proportional control valve DC voltage only; no unloading valve required</i>	*Heat exchange bypass valve only available with UV option		<b>120</b>	120 VAC DIN Coil	<b>D</b>	Ductile Iron -D4512 5000*PSI-34.5 Mpa 0-5000 PSI pressure control valve supplied
<p>*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type</p>							

Specifications, descriptions, and dimensional data are subject to change without notice. For additional options/custom features please contact MFP.

# VPOM 049Y VARIABLE PUMP OUTLET MANIFOLD

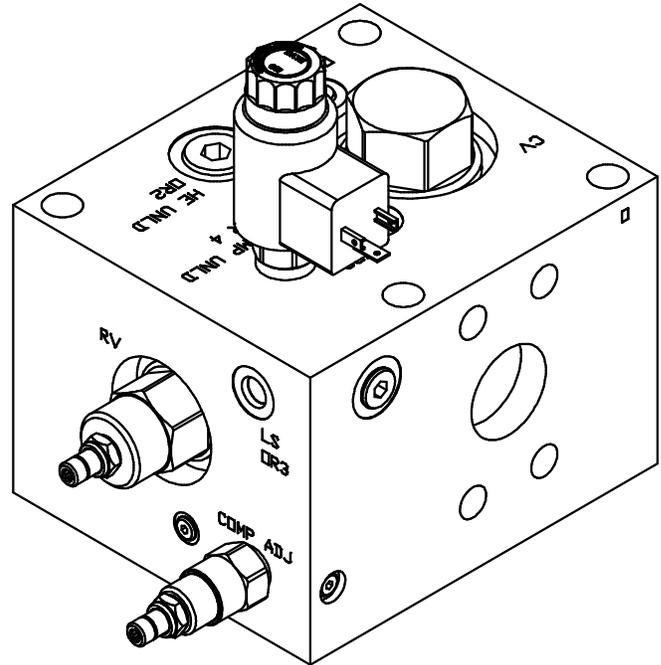
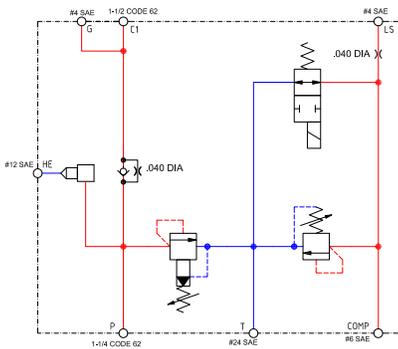
25GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# VPOM 4289 VARIABLE PUMP OUTLET MANIFOLD

80GPM Capacity



## PRODUCT DESCRIPTION

Variable pump outlet manifold assembly providing safety relief function, remote compensator pressure control, normally open solenoid valve for pump standby function, & gauge port. Choose from a manual or proportional controlled pressure valve. Outlet check has a bypass orifice for pressure bleed down at system shutdown. Provisions for vertical reservoir lid mounting or stand alone.

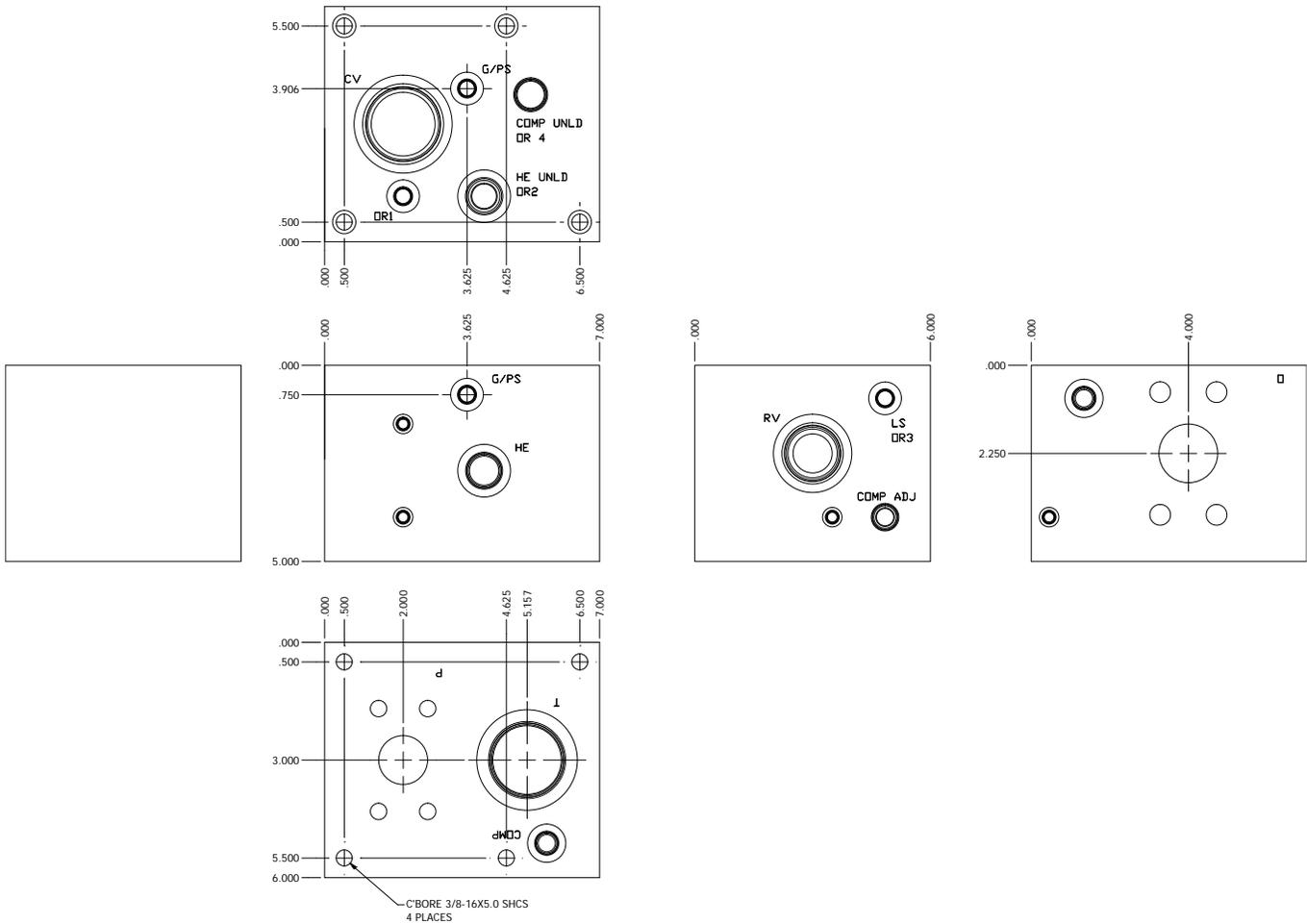
>> [Download drawings](#)

VPOM 4289		OPTIONS		VOLTAGE		MATERIAL	
<b>N</b>	No unloading valve, relief only	<b>N</b>	No Option	<b>N</b>	No Coil	<b>A</b>	Aluminum -6061-T6 3000*PSI-20.7 Mpa 0-3000 PSI pressure control valve supplied
<b>UV</b>	Unloading valve w/ relief	<b>HE</b>	Heat exchange bypass valve*	<b>24</b>	24 VDC DIN Coil	<b>D</b>	Ductile Iron -D4512 5000*PSI-34.5 Mpa 0-5000 PSI pressure control valve supplied
<b>NPR</b>	Proportional pressure control valve <i>Proportional control valve DC voltage only; no unloading valve required</i>	*Heat exchange bypass valve only available with UV option		<b>120</b>	120 VAC DIN Coil	*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type	

Specifications, descriptions, and dimensional data are subject to change without notice. For additional options/custom features please contact MFP.

# VPOM 4289 VARIABLE PUMP OUTLET MANIFOLD

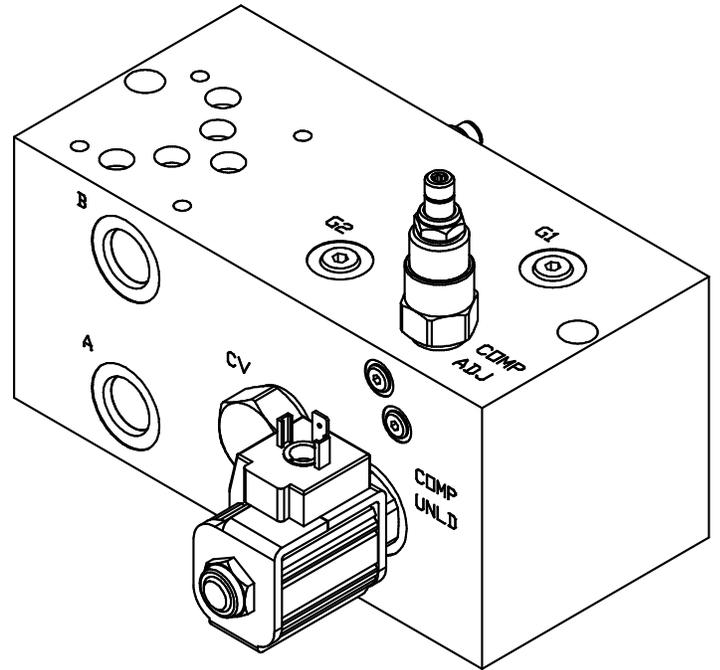
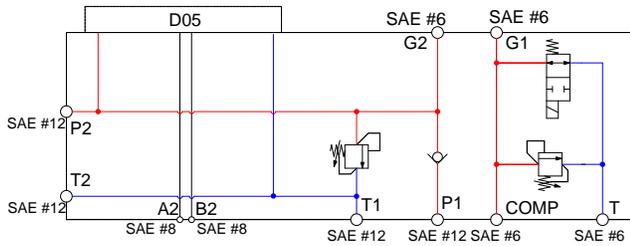
80GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# VPOM 4544 VARIABLE PUMP OUTLET MANIFOLD

20GPM Capacity



## PRODUCT DESCRIPTION

Variable pump outlet manifold assembly with a single D05 valve station providing safety relief function, remote compensator pressure control, normally open solenoid valve for pump standby function, gauge port. Choose from a manual or proportional controlled pressure valve. Outlet check has a bypass orifice for pressure bleed down at system shutdown. Provisions for vertical reservoir lid mounting or stand alone.

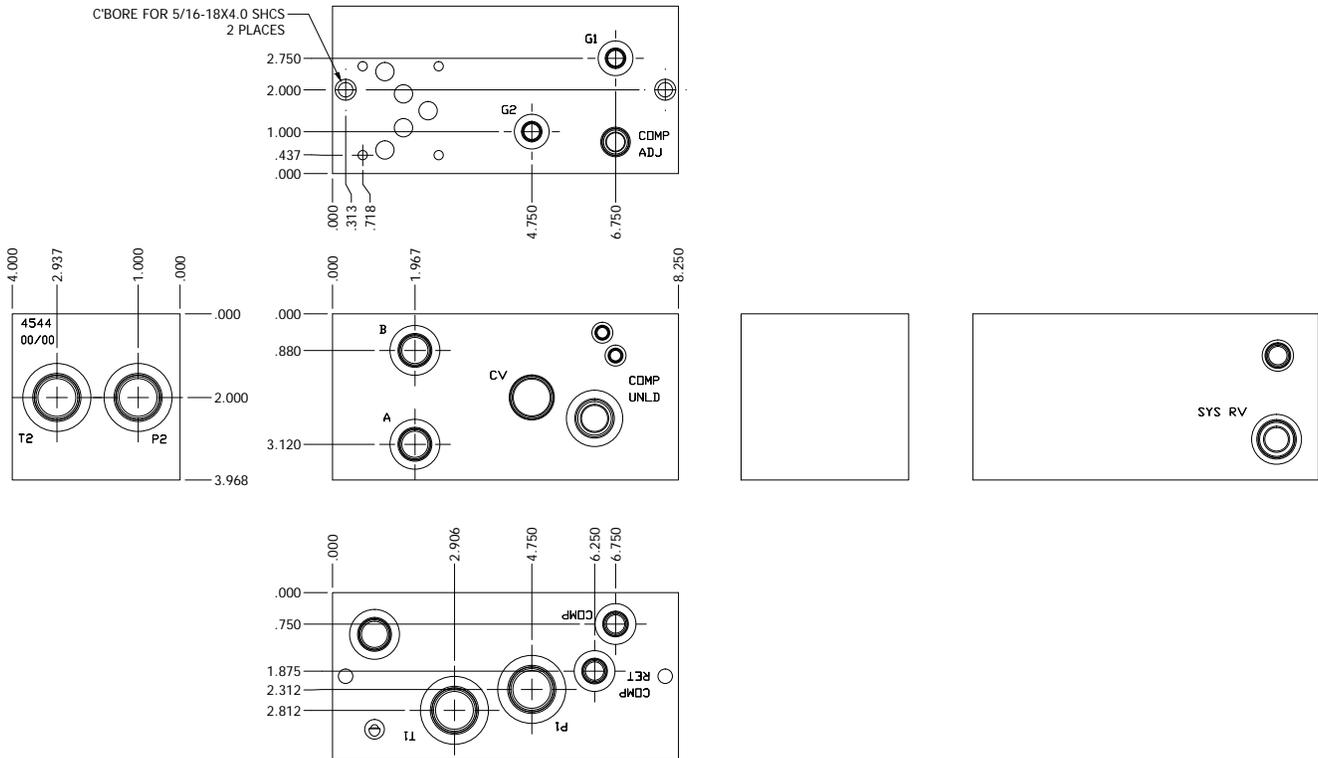
>> [Download drawings](#)

VPOM 4544	OPTIONS	VOLTAGE	MATERIAL
<b>N</b>	No unloading valve, relief only	<b>N</b> No Coil	<b>A</b> Aluminum -6061-T6 3000*PSI-20.7 Mpa 0-3000 PSI pressure control valve supplied
<b>UV</b>	Unloading valve w/ relief	<b>24</b> 24 VDC DIN Coil	
<b>NPR</b>	Proportional pressure control valve <i>Proportional control valve DC voltage only; no unloading valve required</i>	<b>120</b> 120 VAC DIN Coil	<b>D</b> Ductile Iron -D4512 5000*PSI-34.5 Mpa 0-5000 PSI pressure control valve supplied
<p>*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type</p>			

Specifications, descriptions, and dimensional data are subject to change without notice. For additional options/custom features please contact MFP.

# VPOM 4544 VARIABLE PUMP OUTLET MANIFOLD

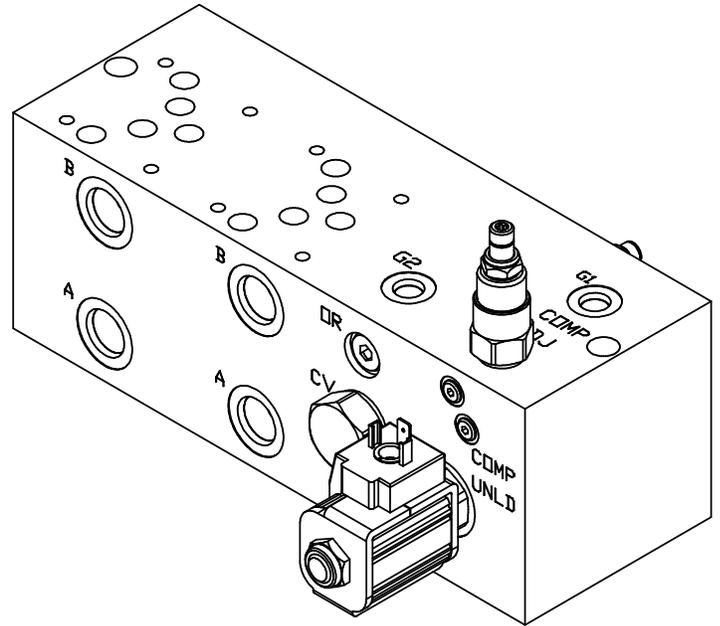
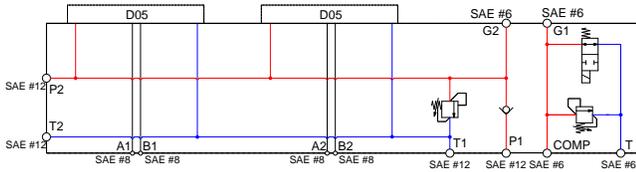
20GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# VPOM 4627 VARIABLE PUMP OUTLET MANIFOLD

20GPM Capacity



## PRODUCT DESCRIPTION

Variable pump outlet manifold assembly with a two station D05 integrated valve manifold providing safety relief function, remote compensator pressure control, normally open solenoid valve for pump standby function, gauge port. Choose from a manual or proportional controlled pressure valve. Outlet check has a bypass orifice for pressure bleed down at system shutdown. Provisions for vertical reservoir lid mounting or stand alone.

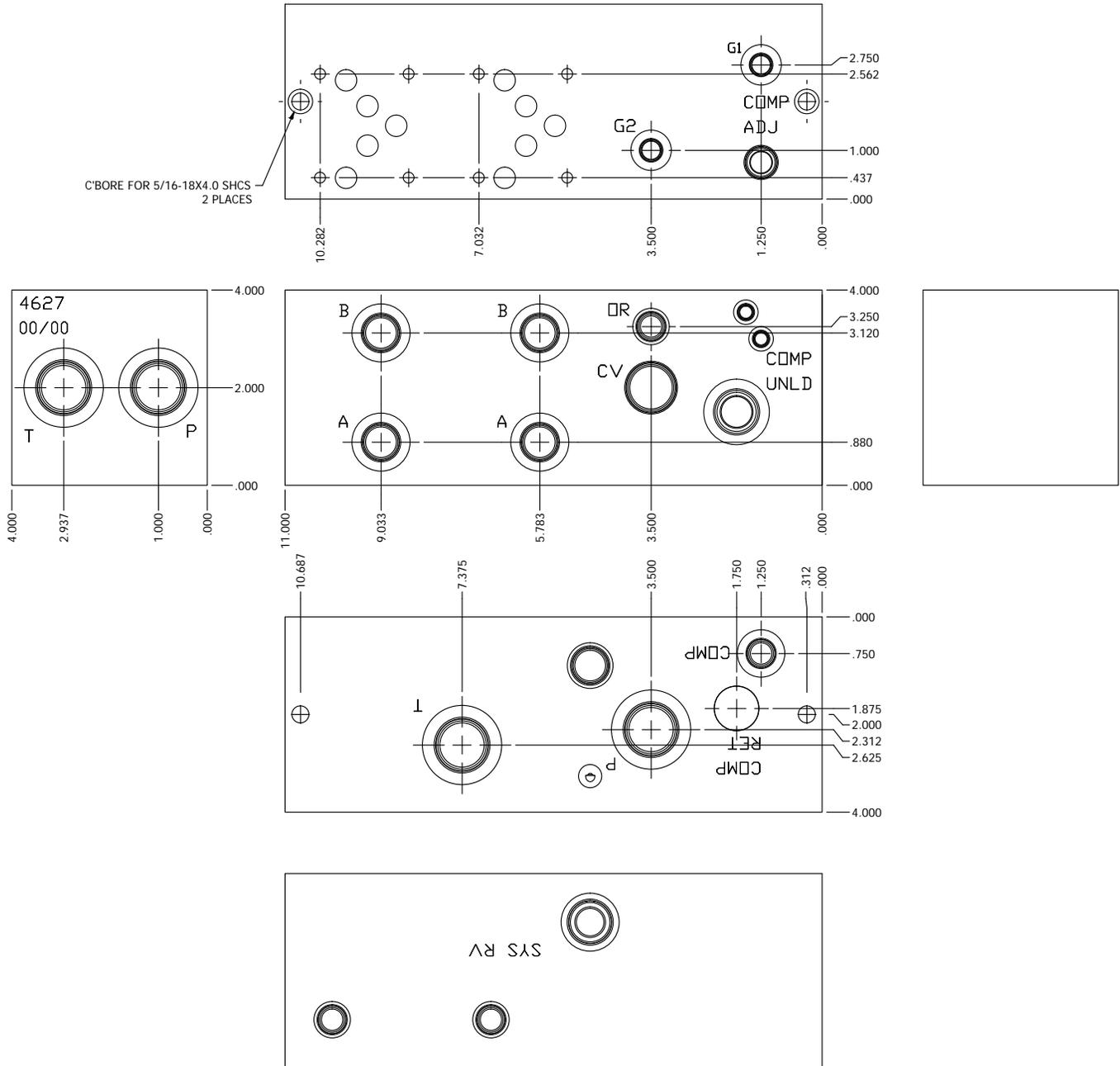
>> [Download drawings](#)

VPOM 4627	OPTIONS		VOLTAGE		MATERIAL	
	<b>N</b>	No unloading valve, relief only	<b>N</b>	No Coil	<b>A</b>	Aluminum -6061-T6 3000*PSI-20.7 Mpa 0-3000 PSI pressure control valve supplied
	<b>UV</b>	Unloading valve w/ relief	<b>24</b>	24 VDC DIN Coil		
	<b>NPR</b>	Proportional pressure control valve <i>Proportional control valve DC voltage only; no unloading valve required</i>	<b>120</b>	120 VAC DIN Coil		
					<b>D</b>	Ductile Iron -D4512 5000*PSI-34.5 Mpa 0-5000 PSI pressure control valve supplied
<p>*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type</p>						

Specifications, descriptions, and dimensional data are subject to change without notice. For additional options/custom features please contact MFP.

# VPOM 4627 VARIABLE PUMP OUTLET MANIFOLD

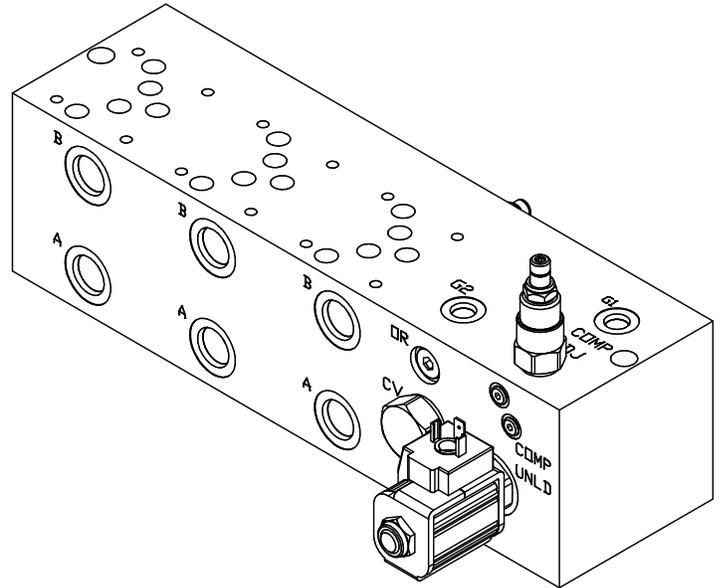
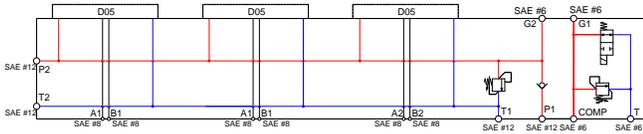
20GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# VPOM 4628 VARIABLE PUMP OUTLET MANIFOLD

20GPM Capacity



## PRODUCT DESCRIPTION

Variable pump outlet manifold assembly with a three station D05 integrated valve manifold providing safety relief function, remote compensator pressure control, normally open solenoid valve for pump standby function, gauge port. Choose from a manual or proportional controlled pressure valve. Outlet check has a bypass orifice for pressure bleed down at system shutdown. Provisions for vertical reservoir lid mounting or stand alone.

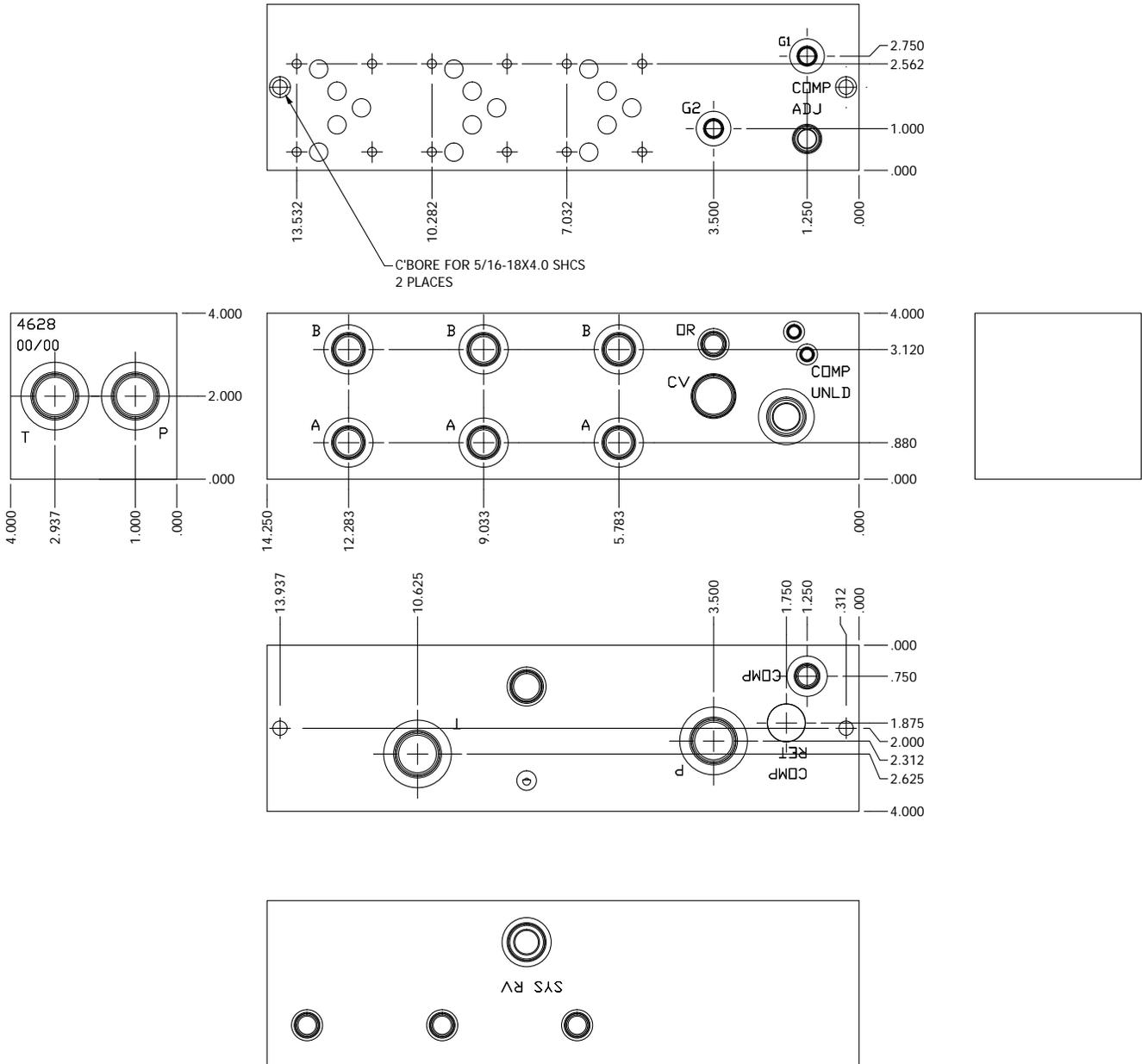
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VPOM 4628		OPTIONS		VOLTAGE		MATERIAL	
<b>N</b>	No unloading valve, relief only	<b>N</b>	No Coil	<b>24</b>	24 VDC DIN Coil	<b>A</b>	Aluminum -6061-T6 3000*PSI-20.7 Mpa 0-3000 PSI pressure control valve supplied
<b>UV</b>	Unloading valve w/ relief	<b>24</b>	24 VDC DIN Coil				<b>D</b>
<b>NPR</b>	Proportional pressure control valve <i>Proportional control valve DC voltage only; no unloading valve required</i>	<b>120</b>	120 VAC DIN Coil			*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type	

Specifications, descriptions, and dimensional data are subject to change without notice. For additional options/custom features please contact MFP.

# VPOM 4628 VARIABLE PUMP OUTLET MANIFOLD

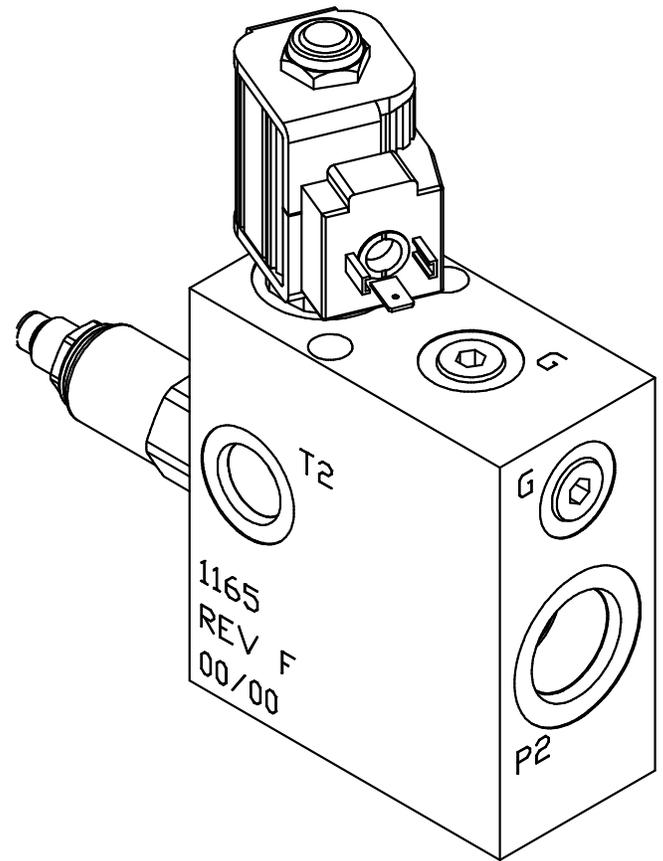
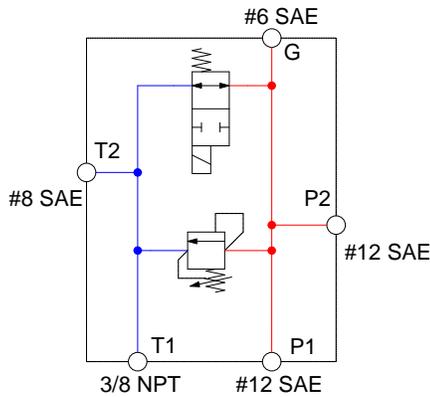
20GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# FPOM 1165 FIXED PUMP OUTLET MANIFOLD

8GPM Capacity



## PRODUCT DESCRIPTION

Fixed pump outlet manifold assembly providing safety relief function, normally open solenoid valve for pump unloading function, & gauge port. Provisions for vertical reservoir lid mounting or stand alone.

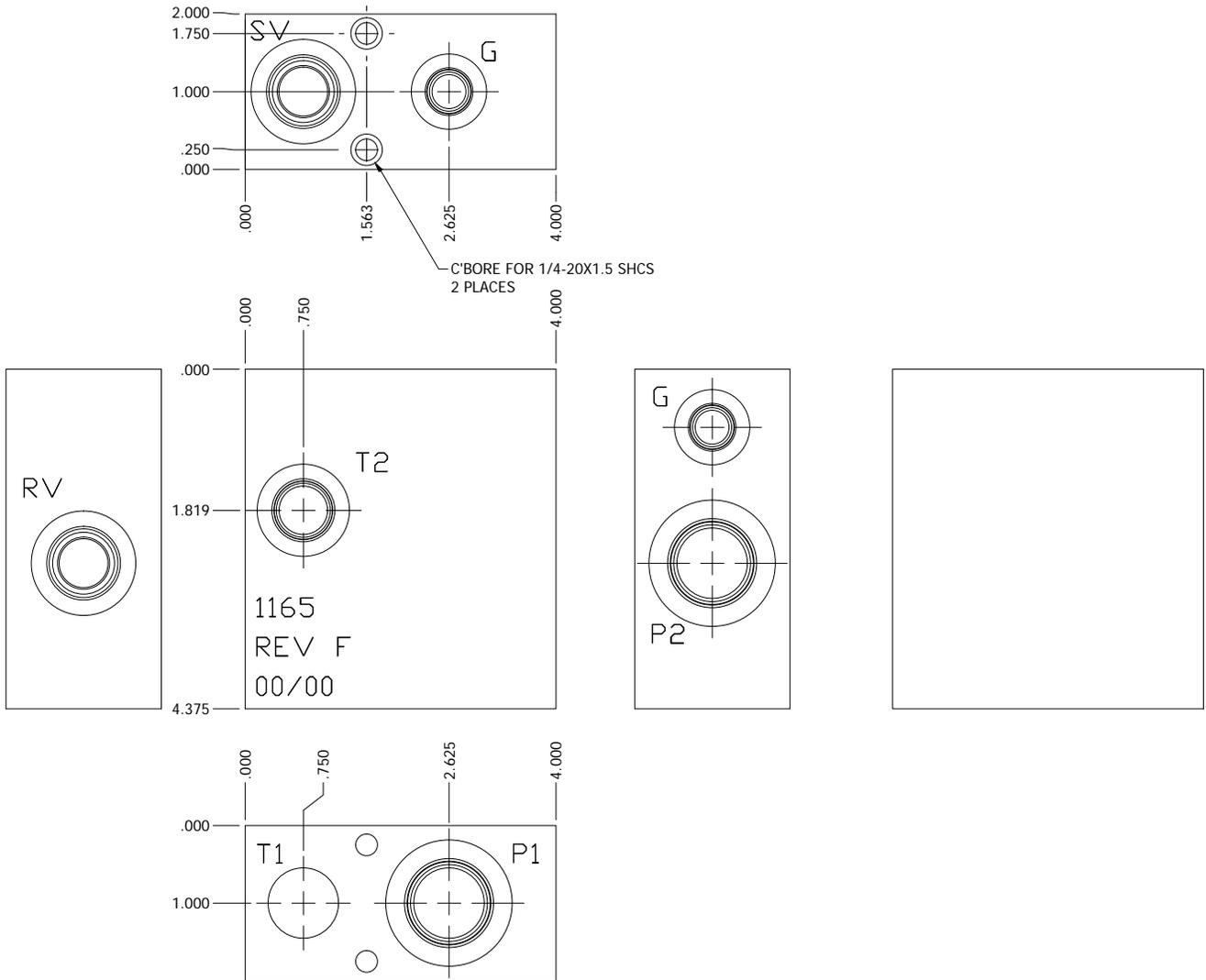
>> [Download drawings](#)

FPOM 1165	OPTIONS		VOLTAGE		MATERIAL	
	<b>N</b>	No unloading valve, relief only	<b>N</b>	No Coil	<b>A</b>	Aluminum -6061-T6 3000*PSI-20.7 Mpa 0-3000 PSI pressure control valve supplied
	<b>UV</b>	Unloading valve w/ relief	<b>24</b>	24 VDC DIN Coil		
			<b>120</b>	120 VAC DIN Coil		
					<b>D</b>	Ductile Iron -D4512 5000*PSI-34.5 Mpa 0-5000 PSI pressure control valve supplied
<p>*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type</p>						

Specifications, descriptions, and dimensional data are subject to change without notice. For additional options/custom features please contact MFP.

# FPOM 1165 FIXED PUMP OUTLET MANIFOLD

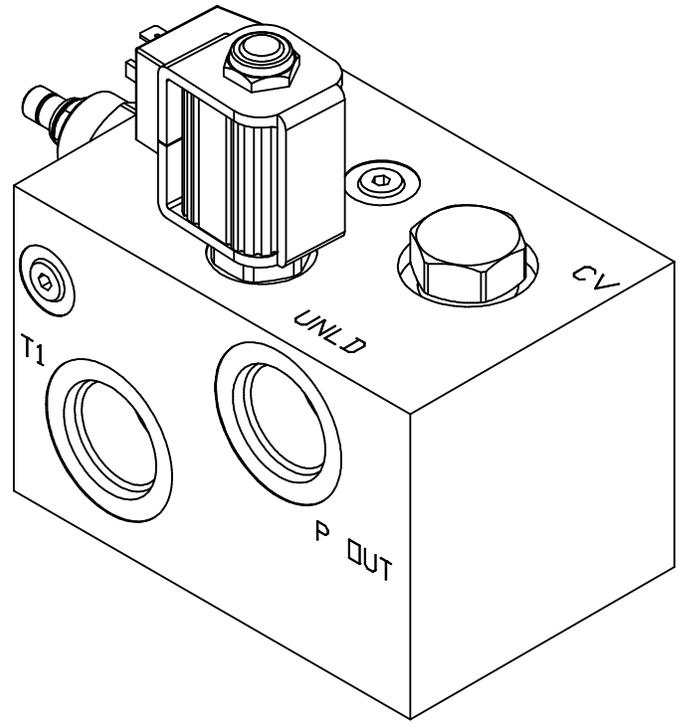
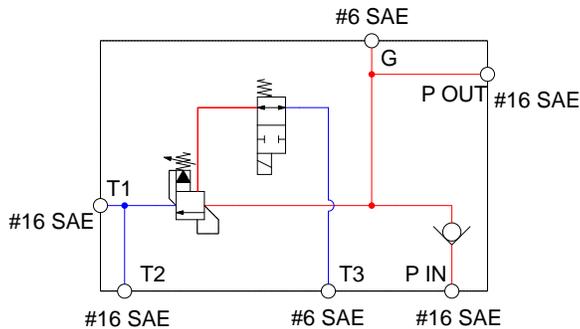
8GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# FPOM 3147 FIXED PUMP OUTLET MANIFOLD

35GPM Capacity



## PRODUCT DESCRIPTION

Fixed pump outlet manifold assembly providing safety relief function, normally open solenoid valve for pump unloading function, & gauge port. Provisions for vertical reservoir lid mounting or stand alone.

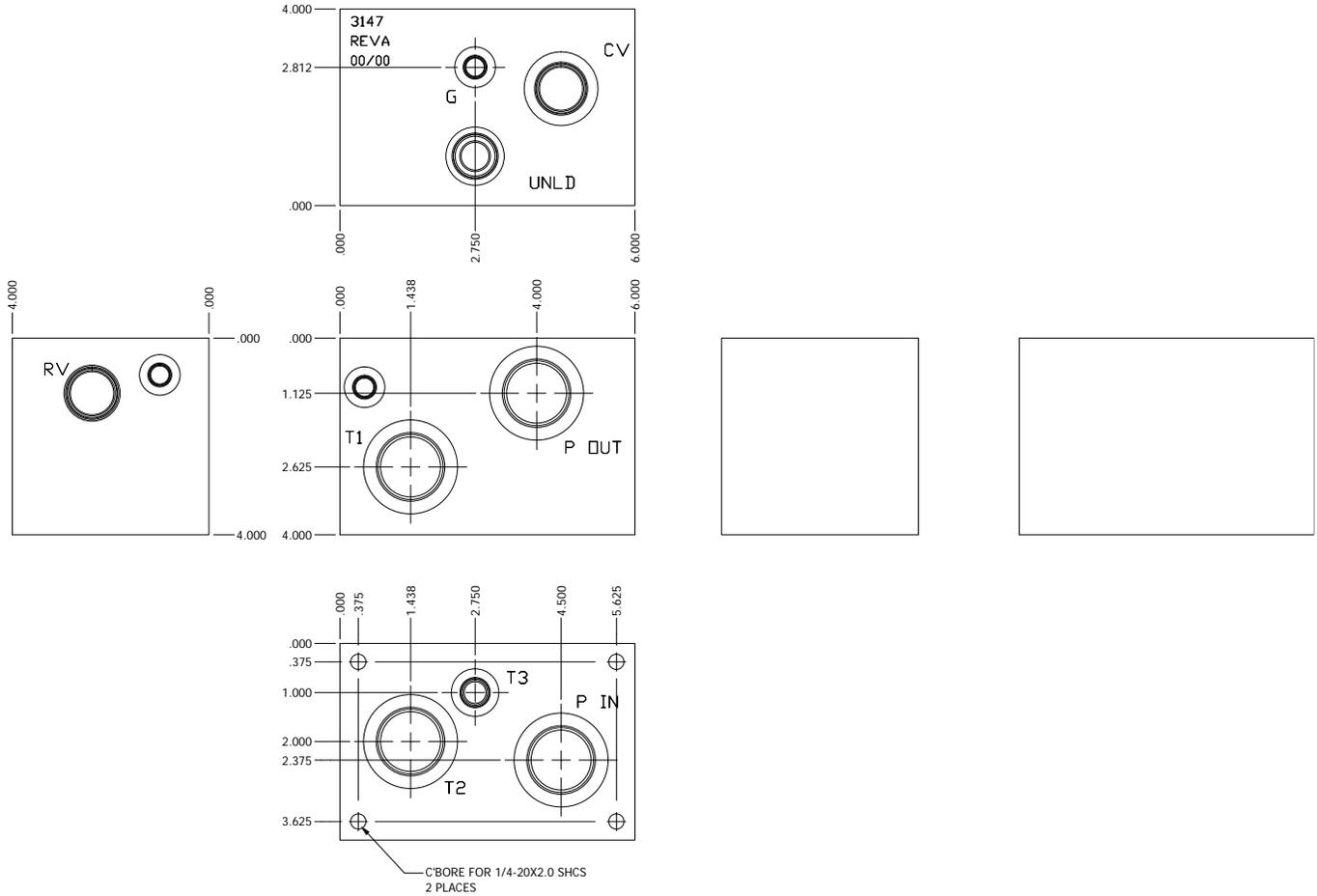
>> [Download drawings](#)

FPOM 3147	OPTIONS		VOLTAGE		MATERIAL	
<b>N</b>	No unloading valve, relief only		<b>N</b>	No Coil		<b>A</b> Aluminum -6061-T6 3000*PSI-20.7 Mpa 0-3000 PSI pressure control valve supplied
<b>UV</b>	Unloading valve w/ relief		<b>24</b>	24 VDC DIN Coil		
			<b>120</b>	120 VAC DIN Coil		<b>D</b> Ductile Iron -D4512 5000*PSI-34.5 Mpa 0-5000 PSI pressure control valve supplied
*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type						

Specifications, descriptions, and dimensional data are subject to change without notice. For additional options/custom features please contact MFP.

# FPOM 3147 FIXED PUMP OUTLET MANIFOLD

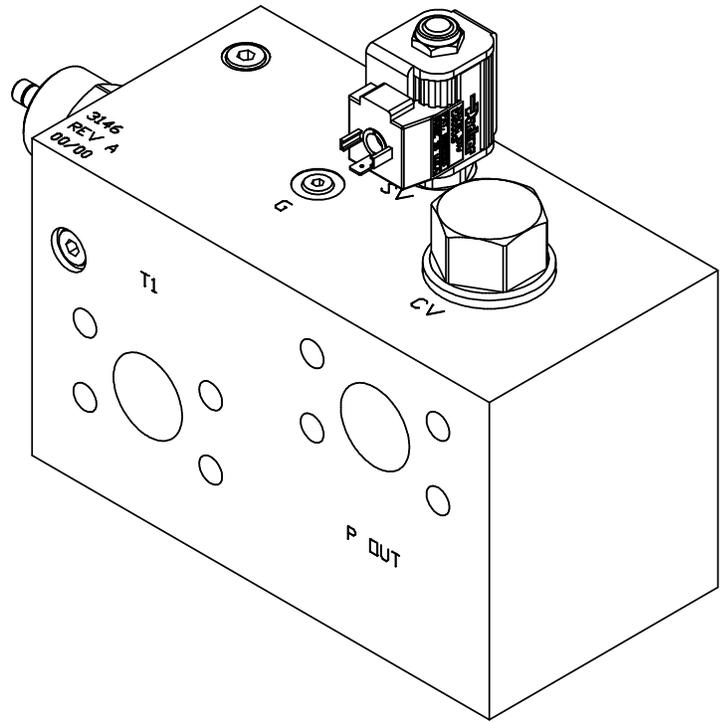
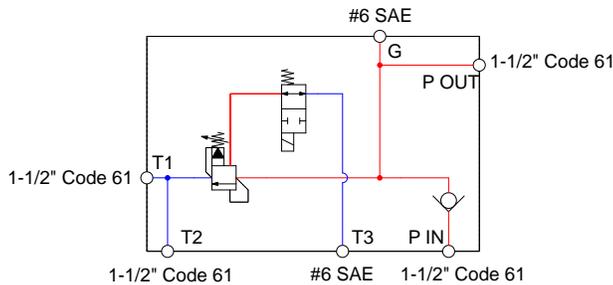
35GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# FPOM 3146 FIXED PUMP OUTLET MANIFOLD

55GPM Capacity



## PRODUCT DESCRIPTION

Fixed pump outlet manifold assembly providing safety relief function, normally open solenoid valve for pump unloading function, & gauge port. Provisions for vertical reservoir lid mounting or stand alone.

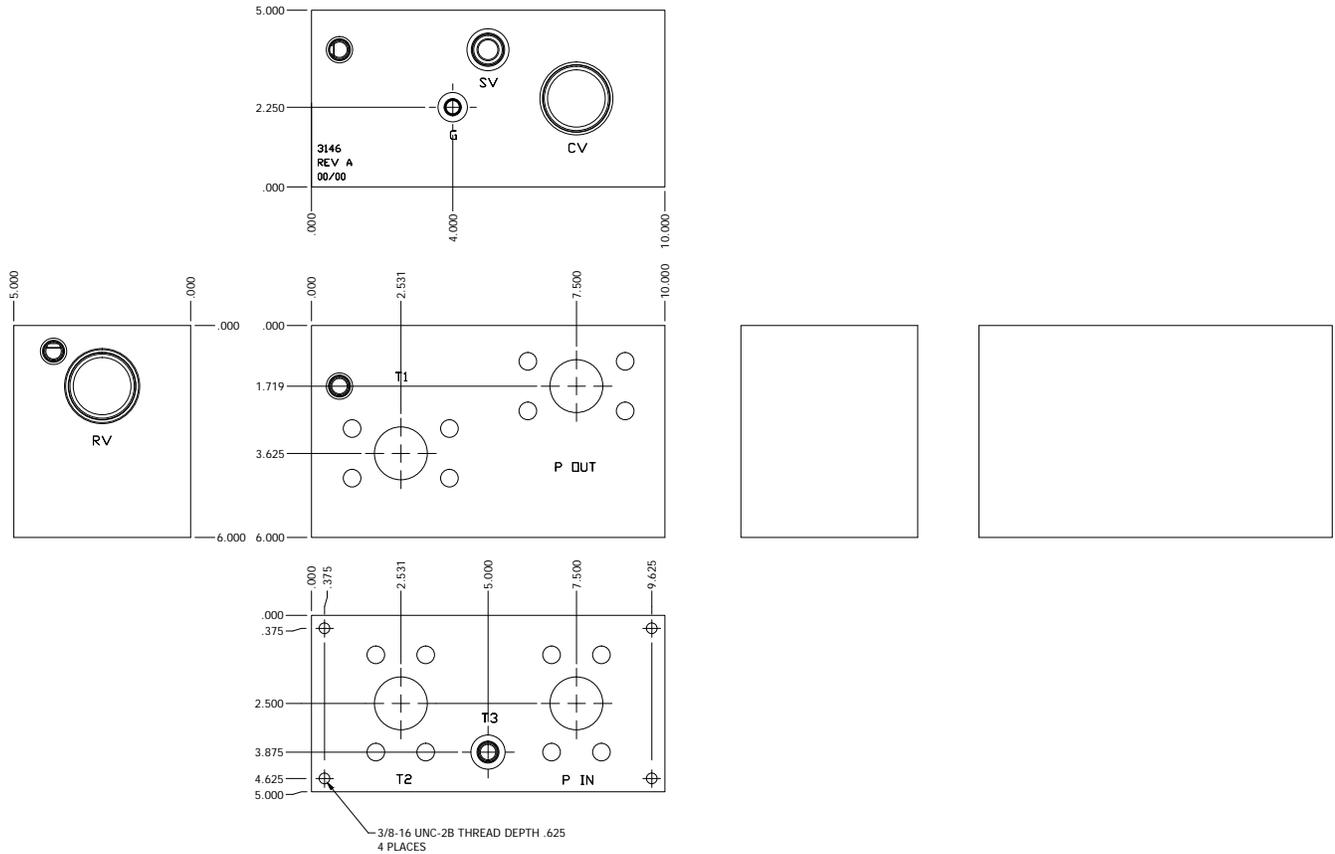
>> [Download drawings](#)

FPOM 3146	OPTIONS	VOLTAGE	MATERIAL
	<b>N</b> No unloading valve, relief only	<b>N</b> No Coil	<b>A</b> Aluminum -6061-T6 3000*PSI-20.7 Mpa 0-3000 PSI pressure control valve supplied
	<b>UV</b> Unloading valve w/ relief	<b>24</b> 24 VDC DIN Coil	
		<b>120</b> 120 VAC DIN Coil	<b>D</b> Ductile Iron -D4512 5000*PSI-34.5 Mpa 0-5000 PSI pressure control valve supplied
*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type			

Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# FPOM 3146 FIXED PUMP OUTLET MANIFOLD

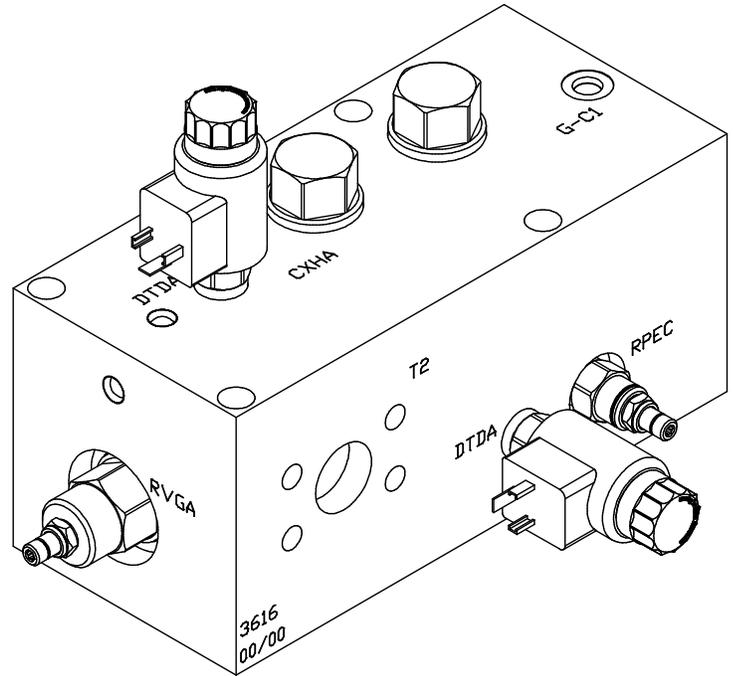
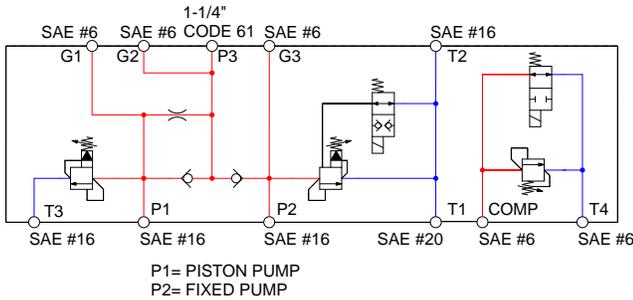
55GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# HLVPOM 3616 HIGH/LOW VARIABLE PUMP OUTLET MANIFOLD

35GPM Capacity



## PRODUCT DESCRIPTION

High/low variable pump outlet manifold assembly providing safety relief function, remote compensator pressure control, normally open solenoid valve for pump standby function, multiple gauge ports, outlet check valves, & fixed pump solenoid controlled unloading valve. Provisions for vertical reservoir lid mounting or stand alone. Combine pump flows for high speed function and de-energize the fixed pump unloading valve to build high pressure via the piston pump.

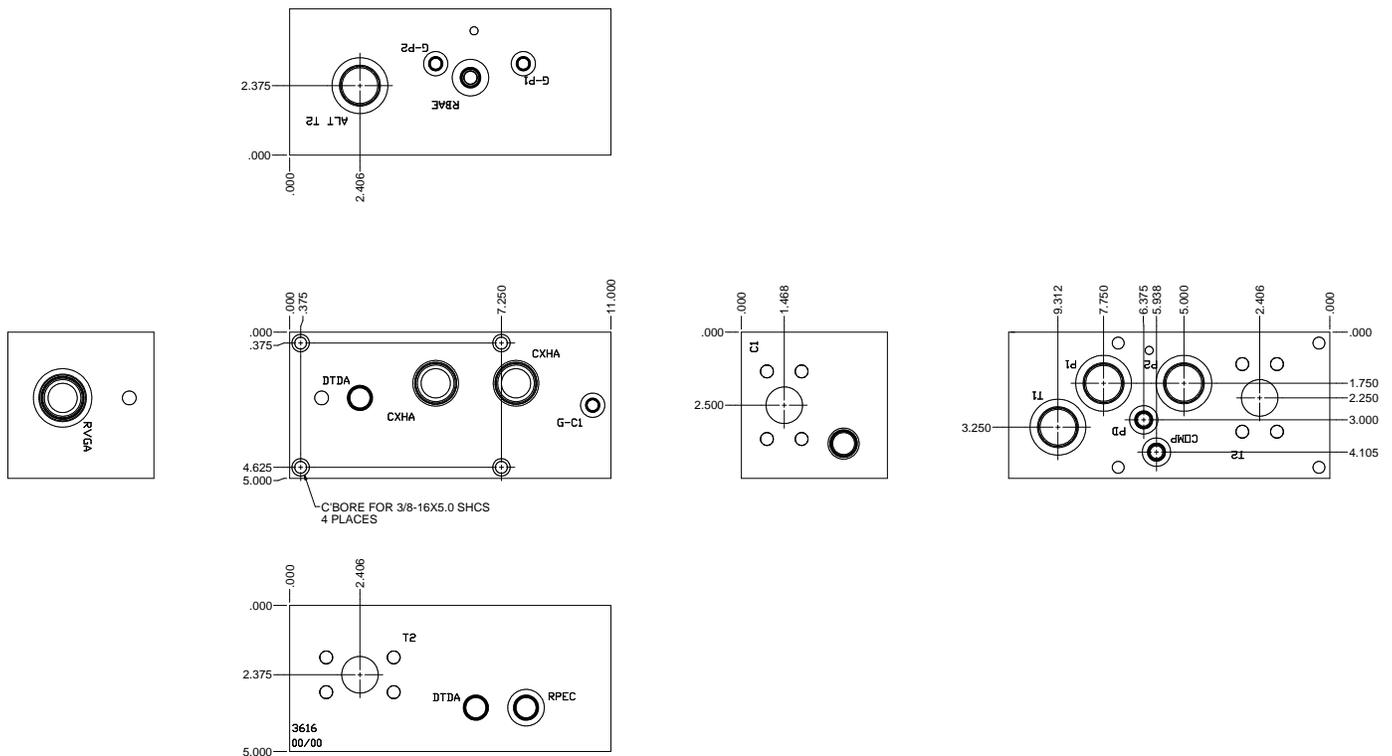
>> [Download drawings](#)

HLVPOM 3616	OPTIONS	VOLTAGE	MATERIAL
	<b>Piston Pump Control Options</b>		
	<b>N</b> No unloading valve, pressure control valve only	<b>N</b> No Coil	<b>A</b> Aluminum -6061-T6 3000*PSI-20.7 Mpa 0-3000 PSI pressure control valve supplied
	<b>UV</b> Unloading valve w/ pressure control valve	<b>24</b> 24 VDC DIN Coil	
	<b>NPR</b> Proportional pressure control valve <i>Proportional control valve DC voltage only; no unloading valve required</i>	<b>120</b> 120 VAC DIN Coil	
			<b>D</b> Ductile Iron -D4512 5000*PSI-34.5 Mpa 0-5000 PSI pressure control valve supplied
			<i>*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type</i>

Specifications, descriptions, and dimensional data are subject to change without notice. For additional options/custom features please contact MFP.

# HLVPOM 3616 HIGH/LOW VARIABLE PUMP OUTLET MANIFOLD

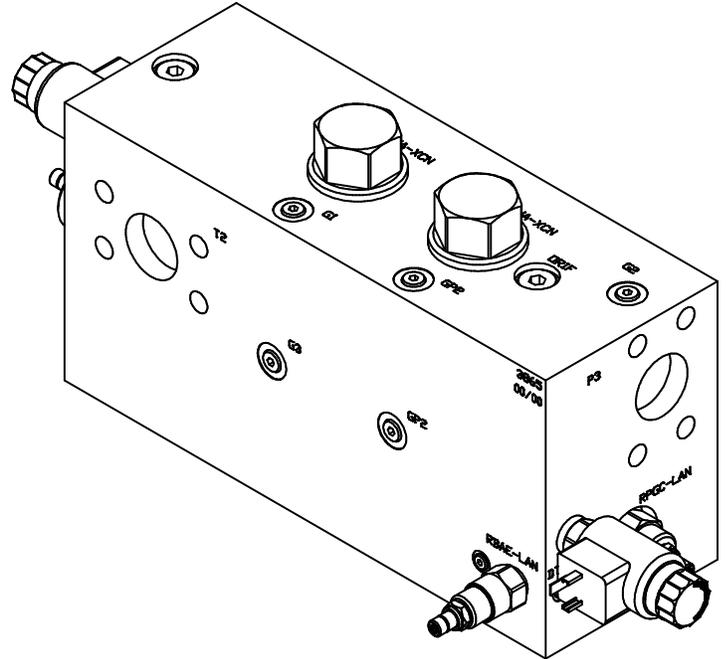
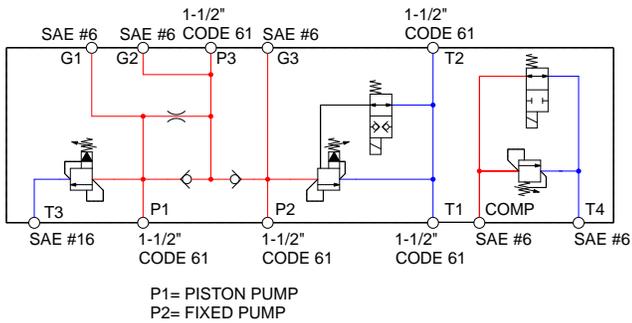
35GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# HLVPOM 3865 HIGH/LOW VARIABLE PUMP OUTLET MANIFOLD

80GPM Capacity



## PRODUCT DESCRIPTION

High/low variable pump outlet manifold assembly providing safety relief function, remote compensator pressure control, normally open solenoid valve for pump standby function, multiple gauge ports, outlet check valves, & fixed pump solenoid controlled unloading valve. Provisions for vertical reservoir lid mounting or stand alone. Combine pump flows for high speed function and de-energize the fixed pump unloading valve to build high pressure via the piston pump.

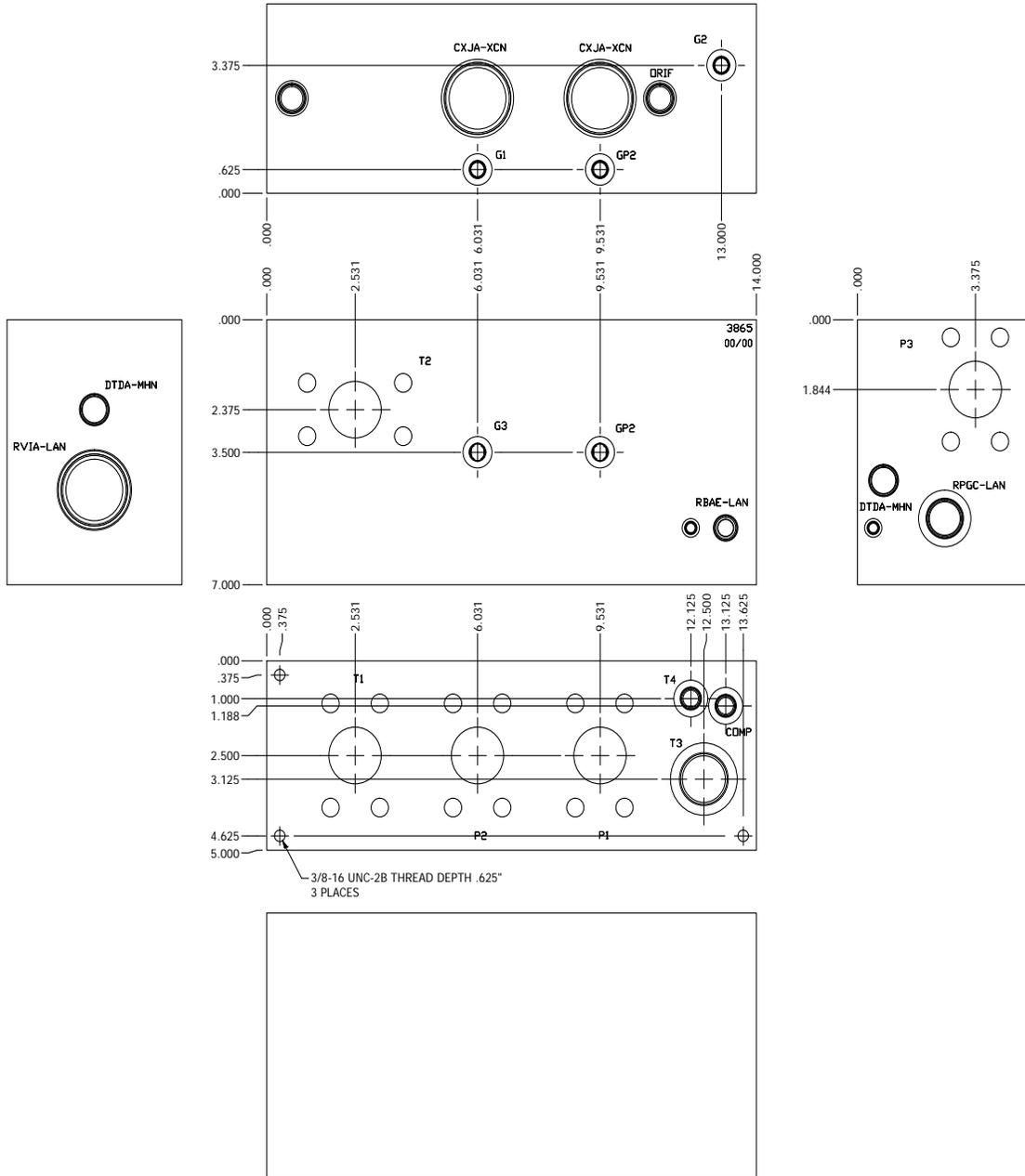
>> [Download drawings](#)

HLVPOM 3865	OPTIONS	VOLTAGE	MATERIAL
	<b>Piston Pump Control Options</b>		
	<b>N</b> No unloading valve, pressure control valve only	<b>N</b> No Coil	<b>A</b> Aluminum -6061-T6 3000*PSI-20.7 Mpa 0-3000 PSI pressure control valve supplied
	<b>UV</b> Unloading valve w/ pressure control valve	<b>24</b> 24 VDC DIN Coil	
	<b>NPR</b> Proportional pressure control valve <i>Proportional control valve DC voltage only; no unloading valve required</i>	<b>120</b> 120 VAC DIN Coil	
			<b>D</b> Ductile Iron -D4512 5000*PSI-34.5 Mpa 0-5000 PSI pressure control valve supplied
*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type			

Specifications, descriptions, and dimensional data are subject to change without notice. For additional options/custom features please contact MFP.

# HLVPOM 3865 HIGH/LOW VARIABLE PUMP OUTLET MANIFOLD

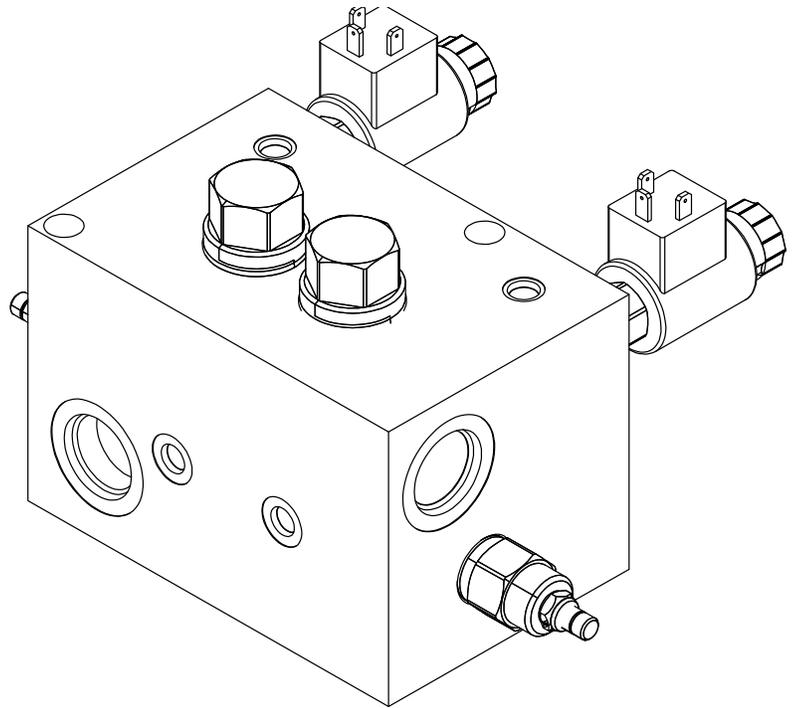
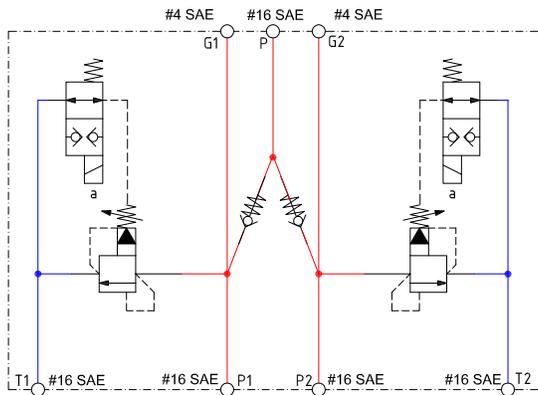
80GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# DFPCM 3799 DUAL FIXED PUMP COMBINER MANIFOLD

35GPM Capacity



## PRODUCT DESCRIPTION

Dual fixed pump combiner manifold assembly providing safety relief function, normally open solenoid valve for pump unloading function, & gauge port. Provisions for vertical reservoir lid mounting or stand alone. Combine both pumps for high flow. Can be used as a fixed pump high/low circuit.

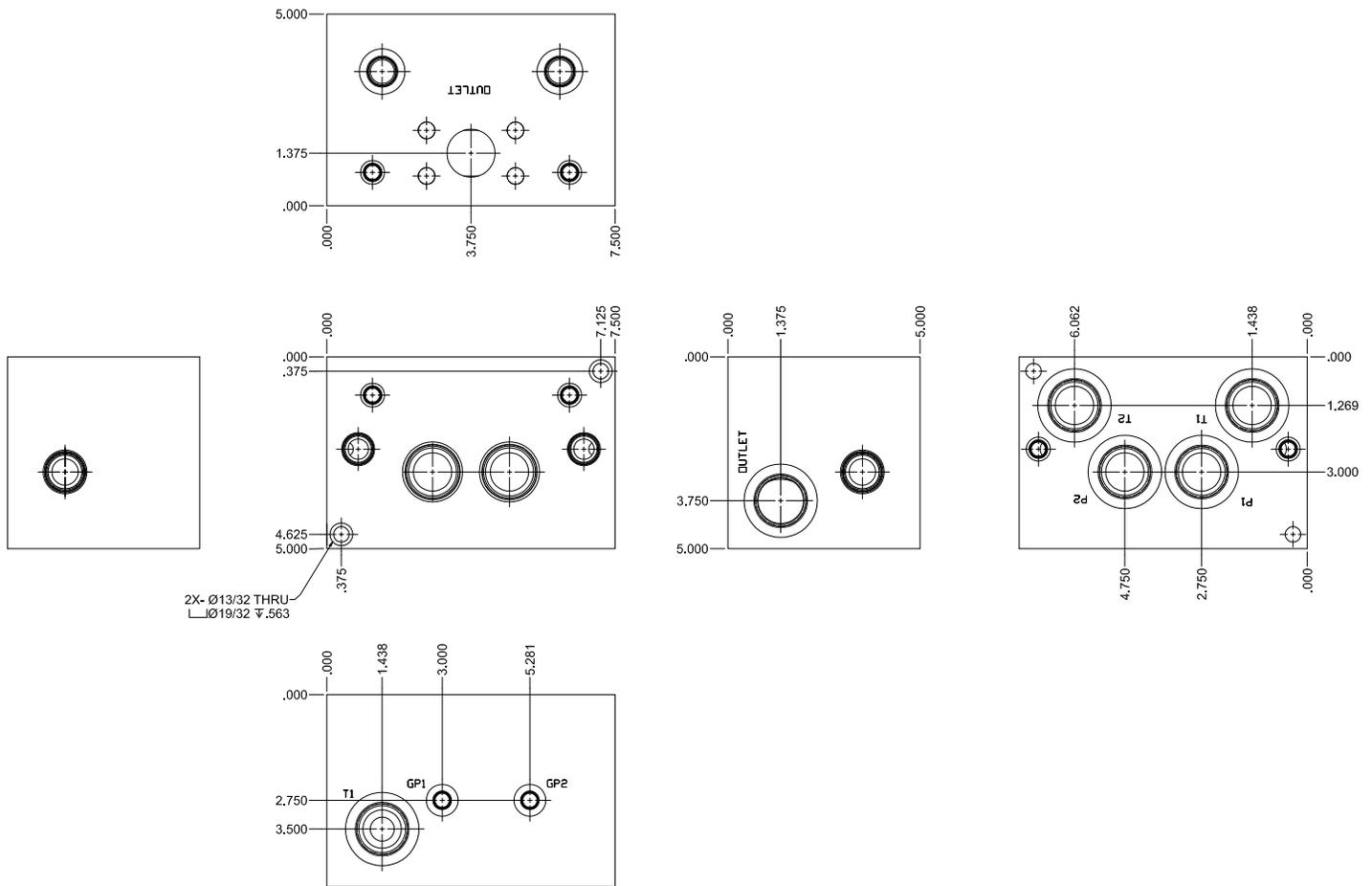
>> [Download drawings](#)

DFPCM 3799	OPTIONS		VOLTAGE		MATERIAL	
<b>N</b>	No unloading valve, relief only		<b>N</b>	No Coil		<b>A</b> Aluminum -6061-T6 3000*PSI-20.7 Mpa 0-3000 PSI pressure control valve supplied
<b>UV</b>	Unloading valve w/ relief		<b>24</b>	24 VDC DIN Coil		
			<b>120</b>	120 VAC DIN Coil		<b>D</b> Ductile Iron -D4512 5000*PSI-34.5 Mpa 0-5000 PSI pressure control valve supplied
*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type						

Specifications, descriptions, and dimensional data are subject to change without notice. For additional options/custom features please contact MFP.

# DFPCM 3799 DUAL FIXED PUMP COMBINER MANIFOLD

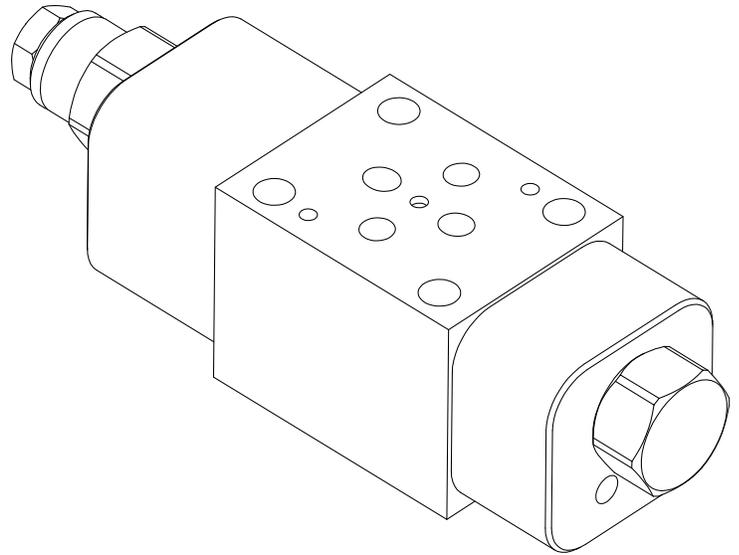
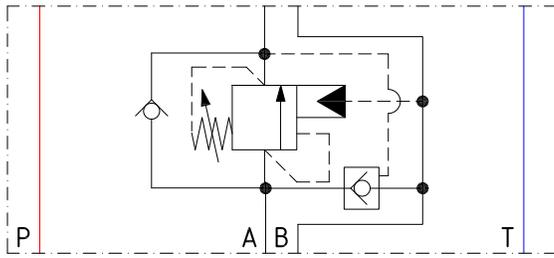
35GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# RGM YDCA REGEN MANIFOLD

10GPM Capacity, 1000 - 4000 PSI Pressure Range



## PRODUCT DESCRIPTION

NFPA D03 pressure sensitive regenerative valve assembly allows a double-acting, single rod cylinder to be extended more rapidly using the same pump flow. To achieve this, oil from the rod end of the cylinder is added to the pump flow to the blind end, increasing the rate of extension. It incorporates a pressure adjustable, counterbalance valve that provides a smooth transition when the load is engaged and pressure in the blind end rises to approximately 25% of the set point of the counterbalance valve, at which time the regenerative flow decreases smoothly until rod end flow is fully diverted to tank. Full pump pressure is then applied to the blind end area developing maximum force.

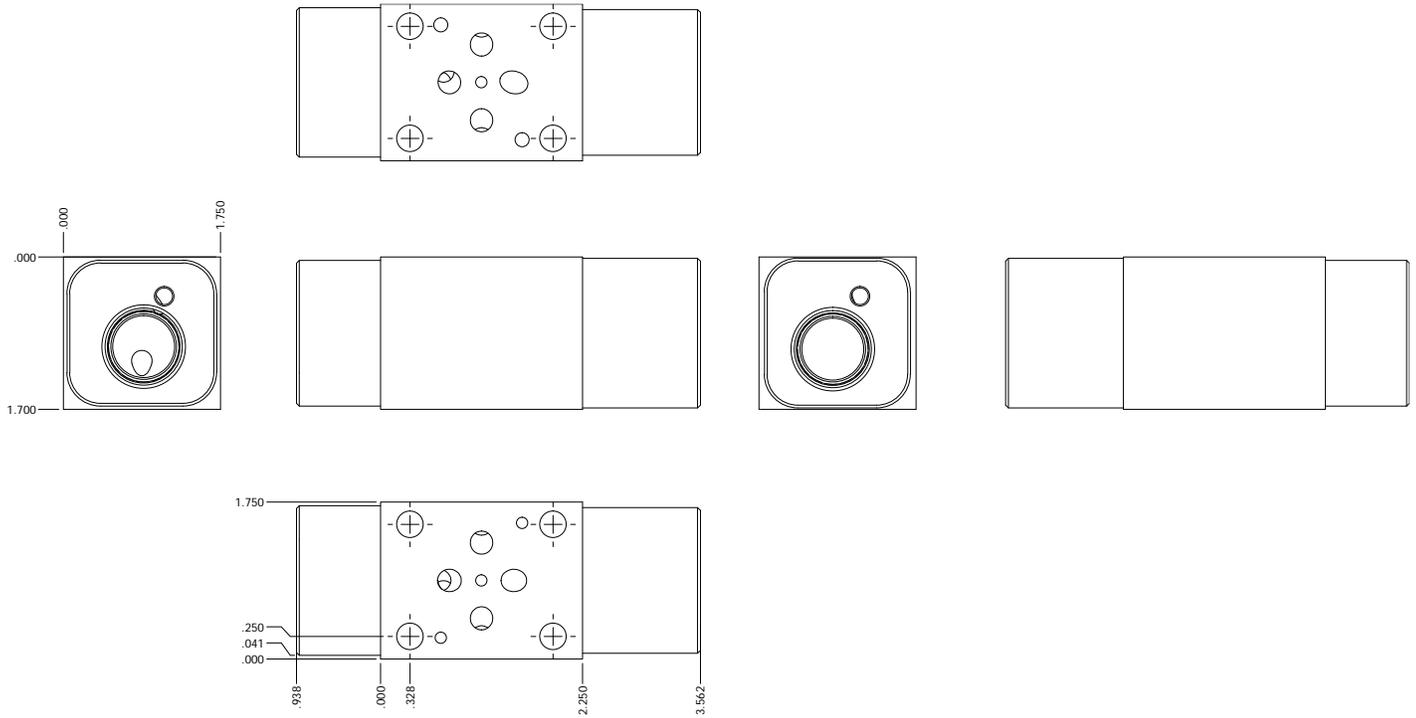
>> [Download drawings](#)

RGM YDCA		MATERIAL	
<b>A</b>	Aluminum -6061-T6 3000*PSI-20.7 Mpa	<b>D</b>	Ductile Iron -D4512 5000*PSI-34.5 Mpa
*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type			

Specifications, descriptions, and dimensional data are subject to change without notice. For additional options/custom features please contact MFP.

# RGM YDCA REGEN MANIFOLD

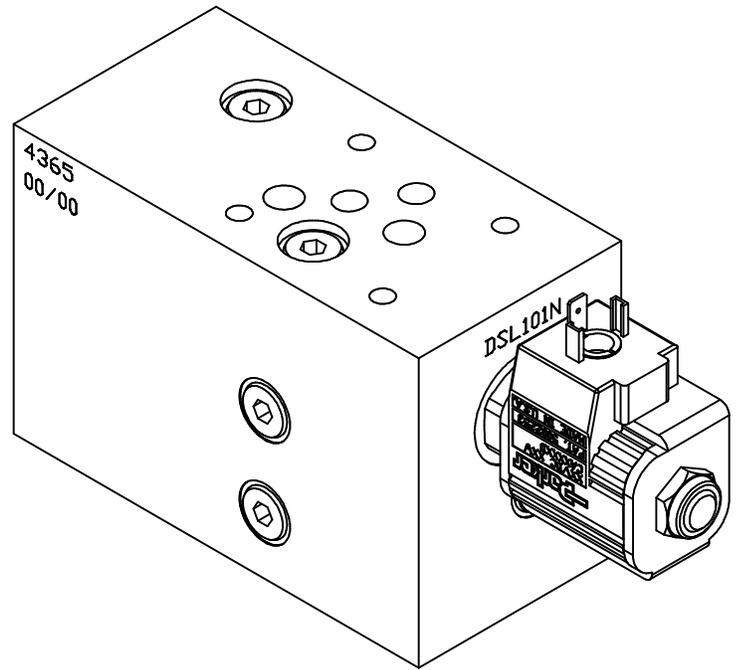
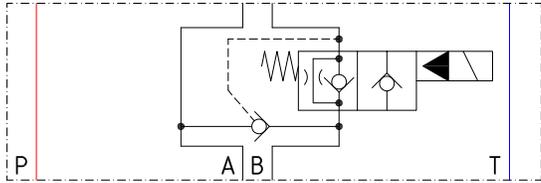
10GPM Capacity, 1000 - 4000 PSI Pressure Range



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# RGM 4365 REGEN MANIFOLD

15GPM Capacity



## PRODUCT DESCRIPTION

NFPA D05 regenerative valve assembly allows a double-acting, single rod cylinder to be extended more rapidly using the same pump flow. To achieve this, oil from the rod end of the cylinder is added to the pump flow to the blind end, increasing the rate of extension. A normally open solenoid valve switches to regenerative flow when energized. When de-energized, the rod end flow is diverted back to tank allowing full pump pressure to be applied to the blind end area developing maximum force.

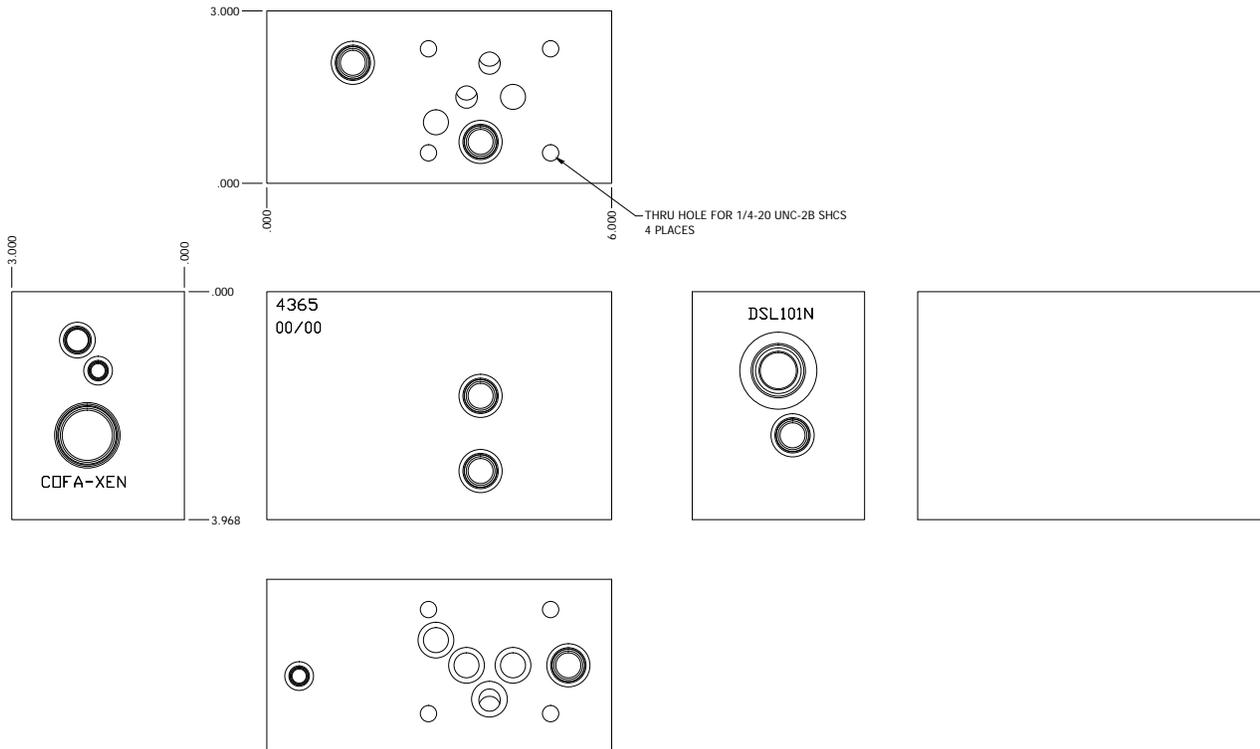
>> [Download drawings](#)

RGM 4365	VOLTAGE		MATERIAL	
	<b>N</b>	No Coil	<b>A</b>	Aluminum -6061-T6 3000*PSI-20.7 Mpa
	<b>24</b>	24 VDC DIN Coil		
	<b>120</b>	120 VAC DIN Coil		
			<b>D</b>	Ductile Iron -D4512 5000*PSI-34.5 Mpa
*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type				

Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# RGM 4365 REGEN MANIFOLD

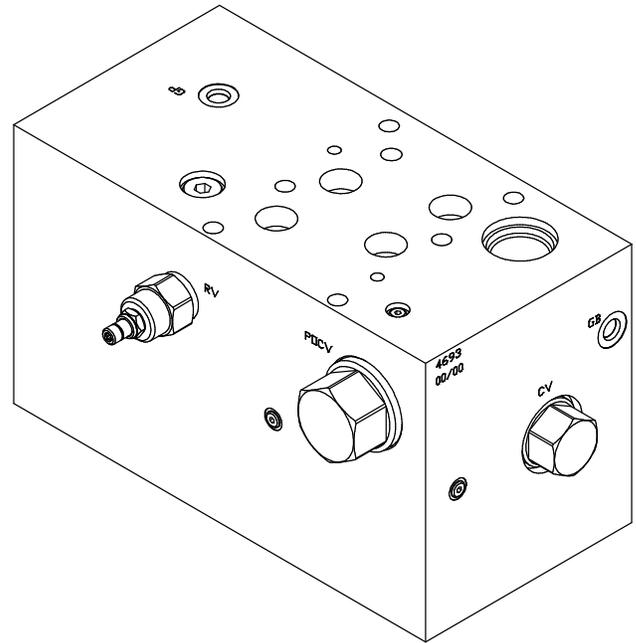
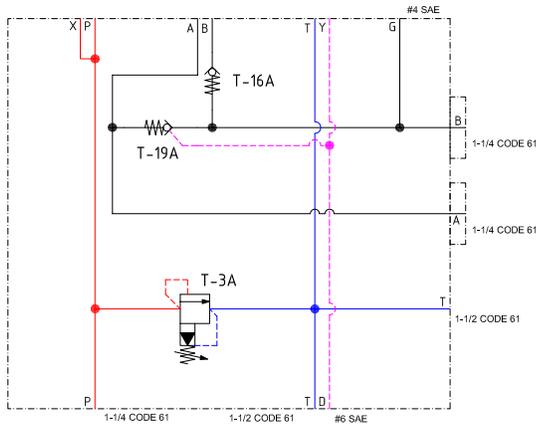
15GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# RGM 4693 D08 REGEN MANIFOLD

80GPM Capacity



## PRODUCT DESCRIPTION

Lid mounted full-time regenerative valve assembly allows a double-acting, single rod cylinder to be extended more rapidly using the same pump flow. To achieve this, oil from the rod end of the cylinder is added to the pump flow to the blind end, increasing the rate of extension.

[>> Download drawings](#)

## RGM 4693

## MATERIAL

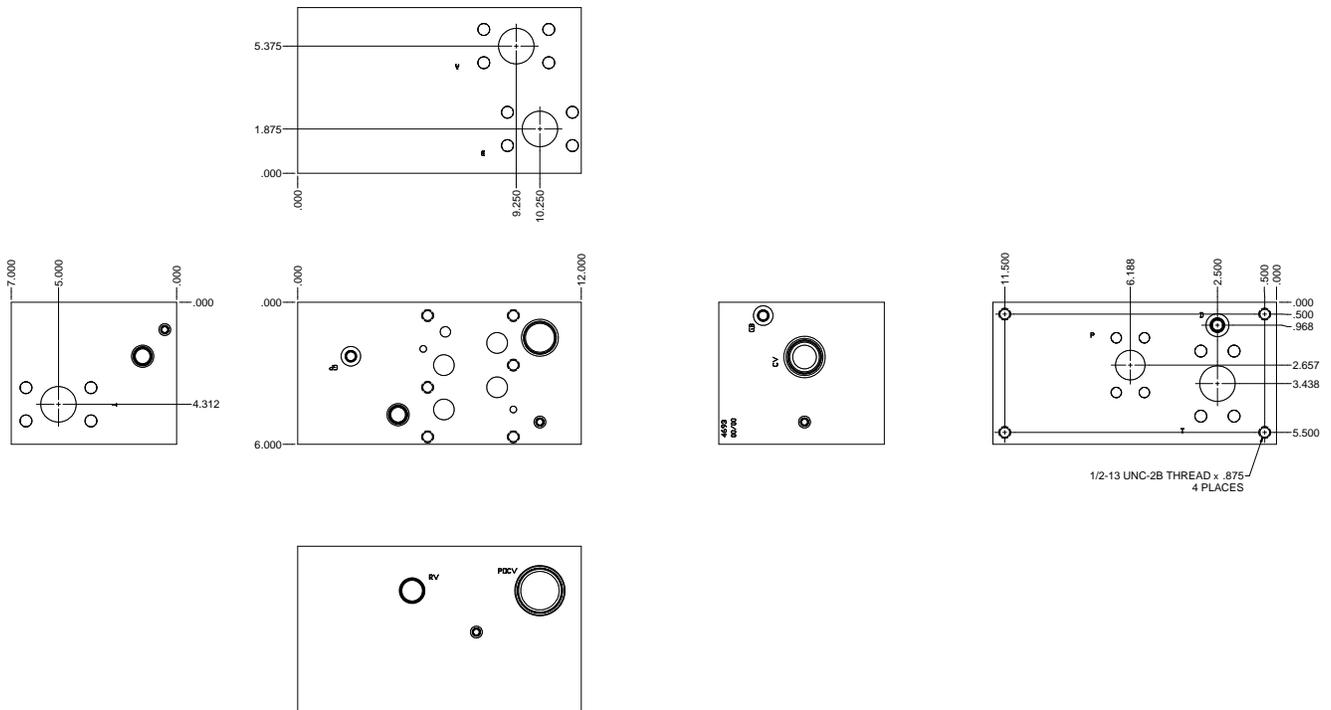
<b>A</b>	Aluminum -6061-T6 3000*PSI-20.7 Mpa
<b>D</b>	Ductile Iron -D4512 5000*PSI-34.5 Mpa

*\*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type*

Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# RGM 4693 D08 REGEN MANIFOLD

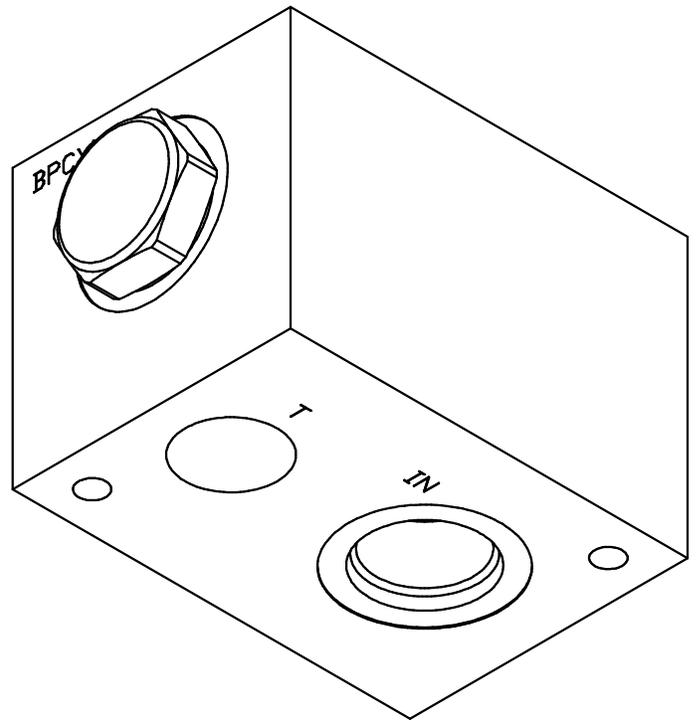
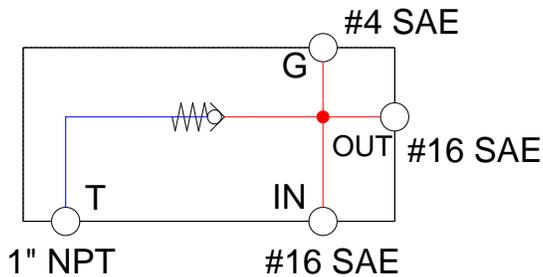
80GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# HEB 1521 HEAT EXCHANGER BYPASS BLOCK

35GPM Capacity



## PRODUCT DESCRIPTION

Heat exchanger bypass manifold providing heat exchanger protection from over pressurization on high return flows utilizing a 65 PSI bypass check valve. Can be used as a cooling loop protection with a dedicated cooling pump or system return flow protection. Provisions for vertical reservoir lid mounting or stand alone.

>> [Download drawings](#)

**HEB 1521**

**MATERIAL**

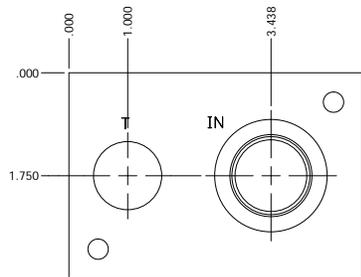
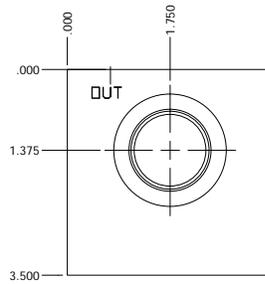
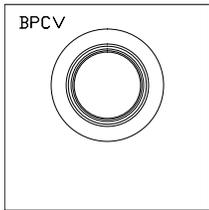
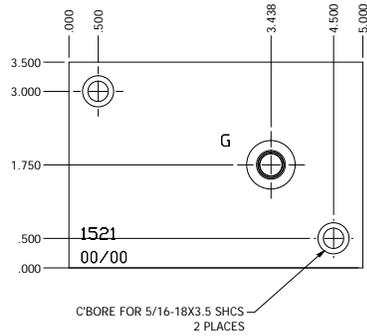
<b>A</b>	Aluminum -6061-T6 3000*PSI-20.7 Mpa
<b>D</b>	Ductile Iron -D4512 5000*PSI-34.5 Mpa

*\*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type*

Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

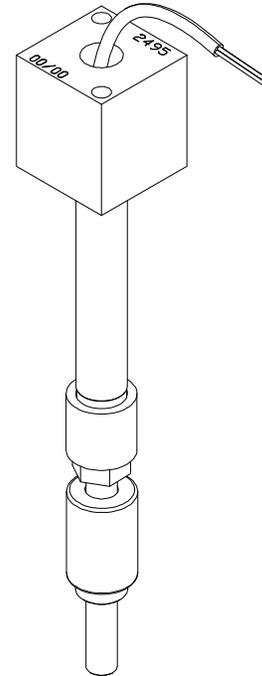
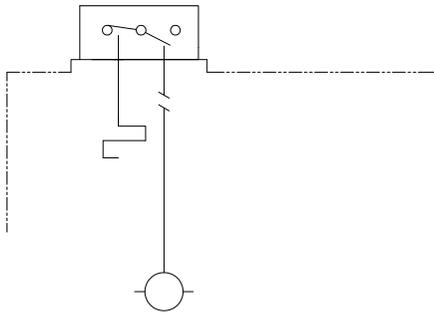
# HEB 1521 HEAT EXCHANGER BYPASS BLOCK

35GPM Capacity

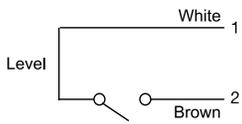


Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

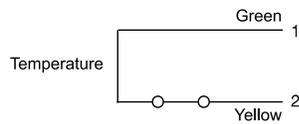
# TLSM 2495 TEMPERATURE AND FLUID LEVEL SWITCH ASSEMBLY



## WIRING COLOR/CODE



**N.O. AT LOW FLUID**



**N.C. AT LOW TEMP**

Contact Rating: max. 250V AC/DC, max. 3A

## PRODUCT DESCRIPTION

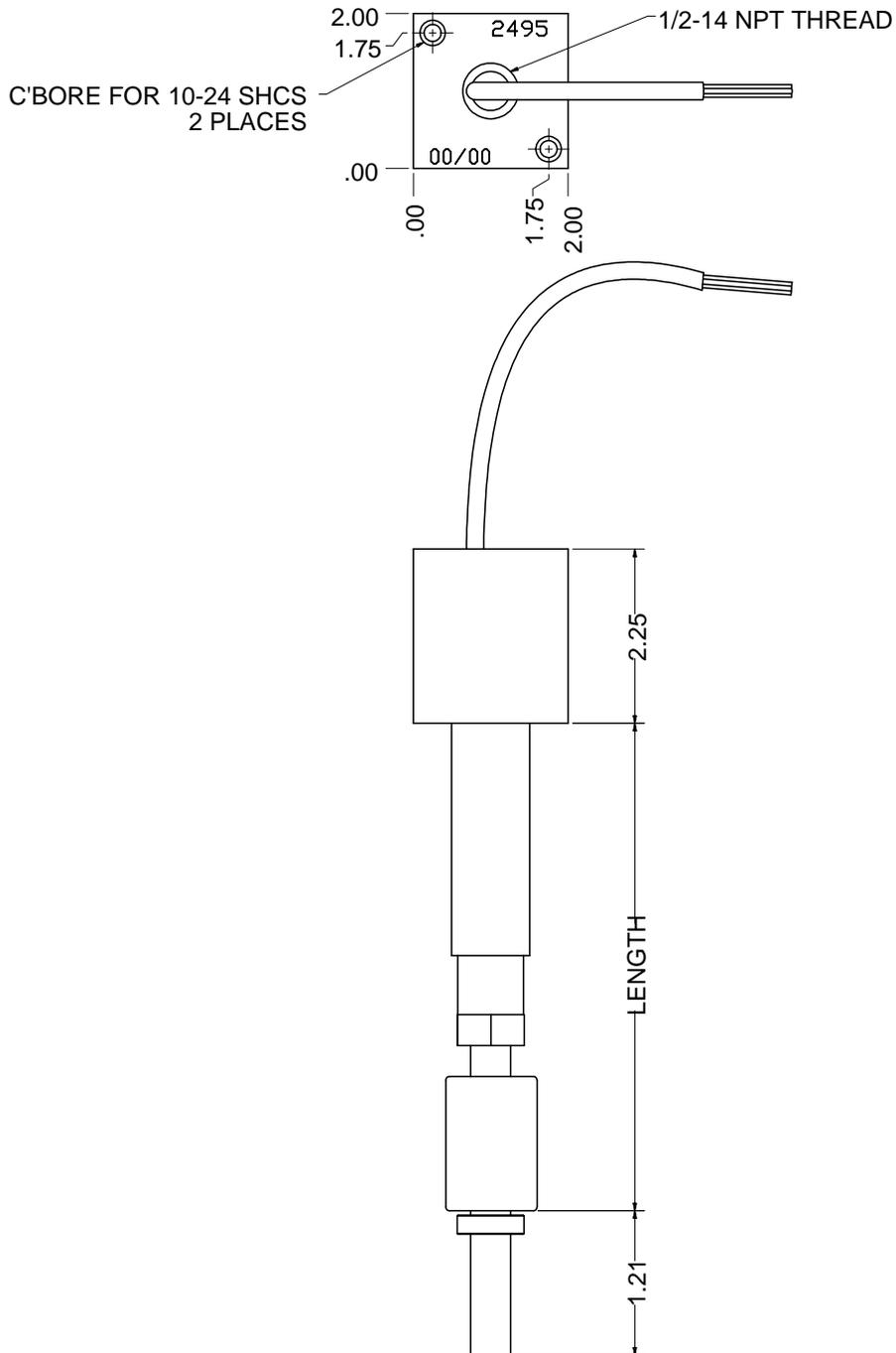
Combination temperature and fluid level switch assembly block.

[>> Download drawings](#)

TLSM 2495	TEMPERATURE	LENGTH (IN)
	<b>55C</b> 55°C (131°F) Setting	EXAMPLE 6.00 = 6 INCHES (see next page)
	<b>65C</b> 65°C (149°F) Setting	

Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

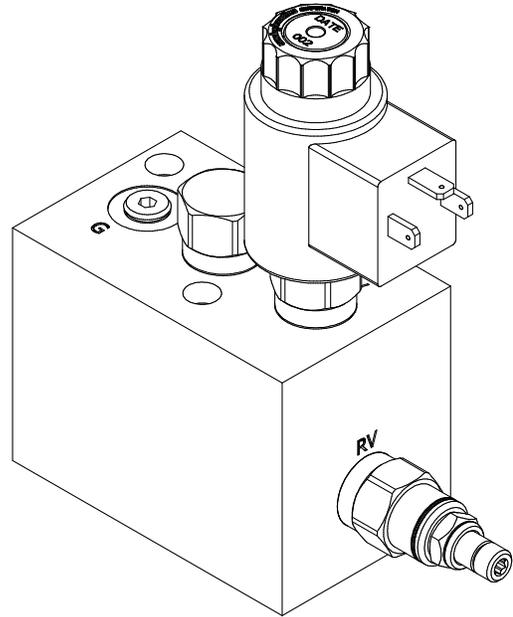
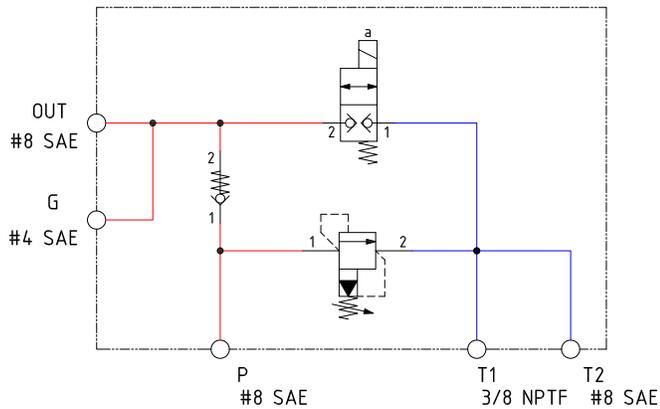
# TLSM 2495 TEMPERATURE AND FLUID LEVEL SWITCH ASSEMBLY



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# LGH A901 LIFT HOLD AND GRAVITY DOWN MANIFOLD

9GPM Capacity



## PRODUCT DESCRIPTION

Lift, hold, and gravity down outlet manifold assembly providing safety relief function, outlet check, and normally closed solenoid valve. Energize solenoid to allow cylinder to retract. Provisions for vertical reservoir lid mounting or stand alone.

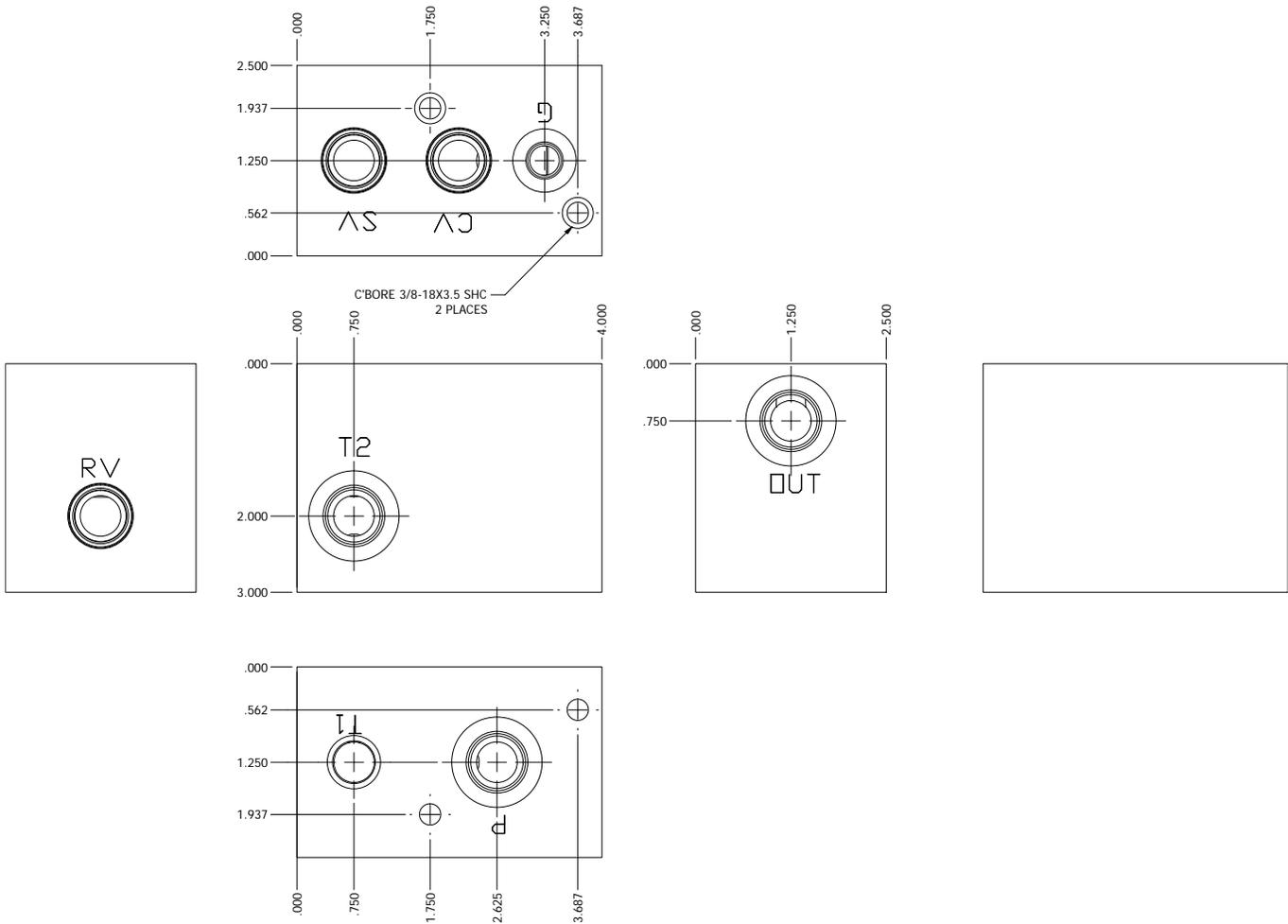
>> [Download drawings](#)

LHG A901	OPTIONS		VOLTAGE		MATERIAL		
<b>N</b>	No unloading valve, relief only		<b>N</b>	No Coil		<b>A</b>	Aluminum -6061-T6 3000*PSI-20.7 Mpa
<b>UV</b>	Unloading valve w/ relief		<b>24</b>	24 VDC DIN Coil			
			<b>120</b>	120 VAC DIN Coil		<b>D</b>	Ductile Iron -D4512 5000*PSI-34.5 Mpa
<p><i>*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type</i></p>							

Specifications, descriptions, and dimensional data are subject to change without notice. For additional options/custom features please contact MFP.

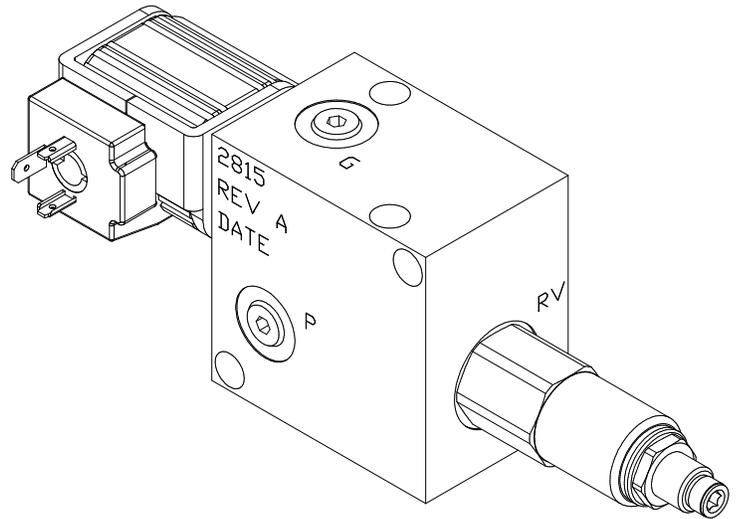
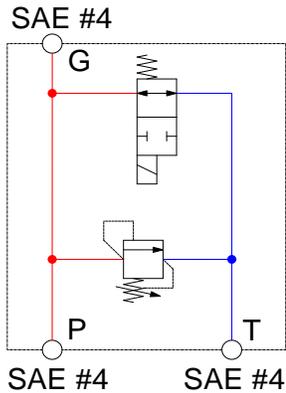
# LGH A901 LIFT HOLD AND GRAVITY DOWN MANIFOLD

9GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# RCM 2815 REMOTE COMPENSATOR MANIFOLD



## PRODUCT DESCRIPTION

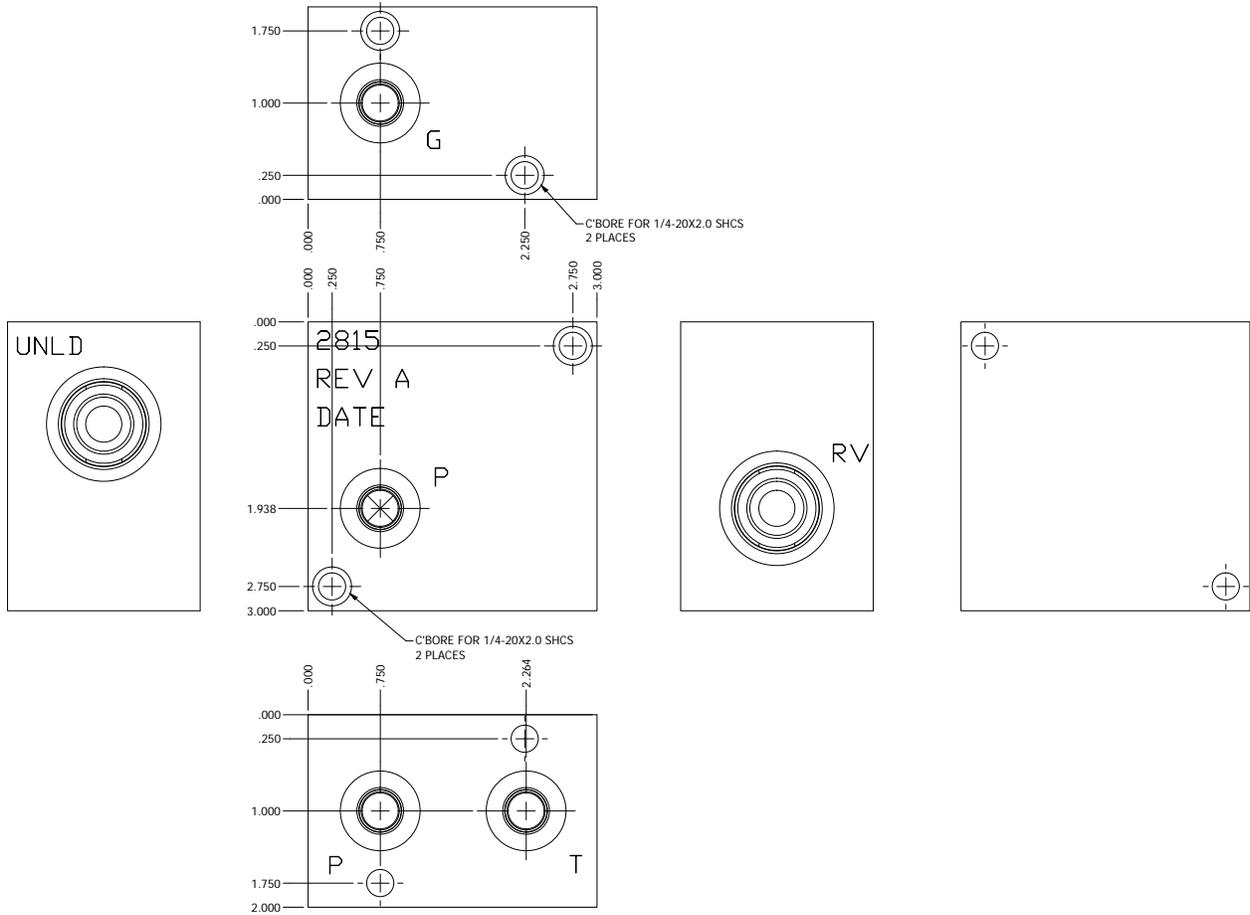
Remote compensator control manifold providing pressure control function and optional normally open solenoid valve for pump standby function. Choose from a manual or proportional controlled pressure valve. Provisions for vertical reservoir lid mounting or stand alone.

>> [Download drawings](#)

RCM 2815		OPTIONS		VOLTAGE		MATERIAL	
<b>N</b>	No unloading valve, relief only	<b>N</b>	No Coil	<b>A</b>	Aluminum -6061-T6 3000*PSI-20.7 Mpa 0-3000 PSI pressure control valve supplied		
<b>UV</b>	Unloading valve w/ relief	<b>24</b>	24 VDC DIN Coil				
<b>NPR</b>	Proportional relief valve <i>Proportional control valve DC voltage only; no unloading valve required</i>	<b>120</b>	120 VAC DIN Coil				
				<b>D</b>	Ductile Iron -D4512 5000*PSI-34.5 Mpa 0-5000 PSI pressure control valve supplied		
<p>*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type</p>							

Specifications, descriptions, and dimensional data are subject to change without notice. For additional options/custom features please contact MFP.

# RCM 2815 REMOTE COMPENSATOR MANIFOLD

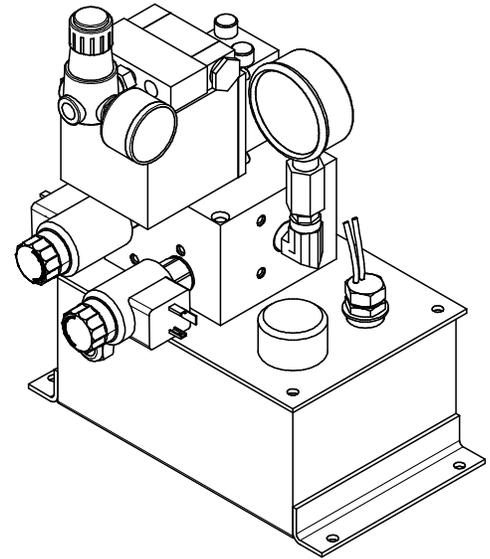
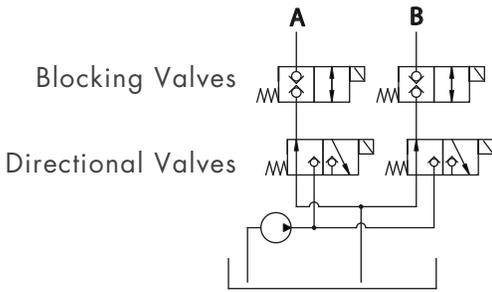


Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# HPC SERIES

## Air Powered Hydraulic Clamping Unit

## Single Station



### PRODUCT DESCRIPTION

The HPC Series hydraulic clamp unit from MFP Automation Engineering provides machinery builders and users a simple and compact solution for work holding offering long life, minimal maintenance, and low operating costs.

[>> Download drawings](#)

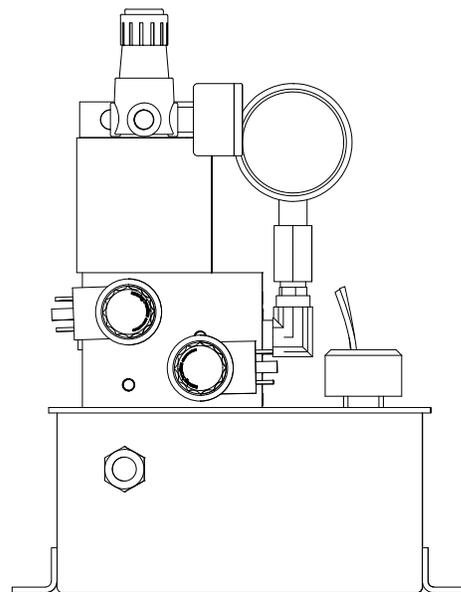
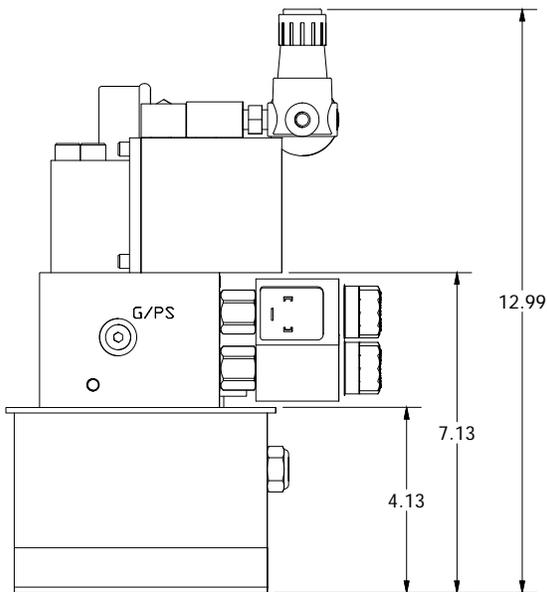
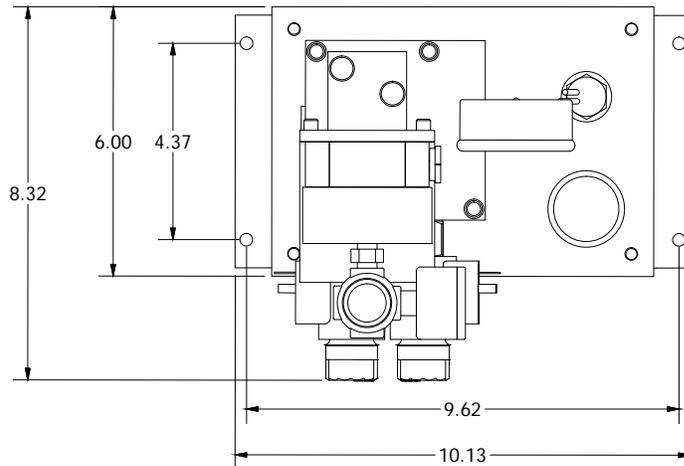
MFP HPC1	PUMP OPTIONS		CIRCUIT OPTIONS		VALVE COIL VOLTAGE	
	<b>1</b>	6:1 (600*PSI)	<b>A</b>	1 single-acting circuit	<b>24</b>	24 volt DC
	<b>2</b>	20:1 (2000*PSI)	<b>B</b>	2 single-acting circuits	<b>120</b>	120 volt AC
	<b>3</b>	40:1 (4000*PSI)	<b>C</b>	1 double-acting circuit		
	<b>4</b>	60:1 (6000*PSI)				

\*Approximate hydraulic pressure at 100 PSI air pressure. See flow and pressure performance guides on pg.45. Specifications, descriptions, and dimensional data are subject to change without notice. For additional options/custom features please contact MFP.

# HPC SERIES

Air Powered Hydraulic Clamping Unit

Single Station

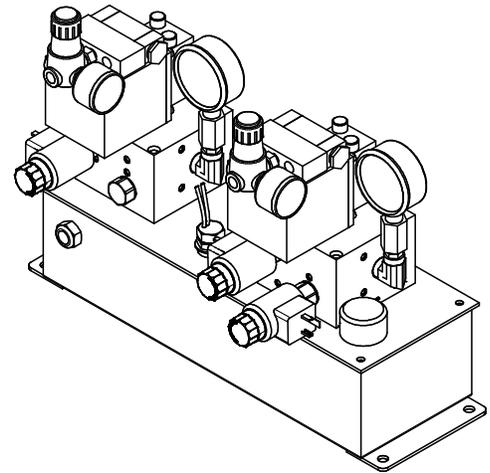
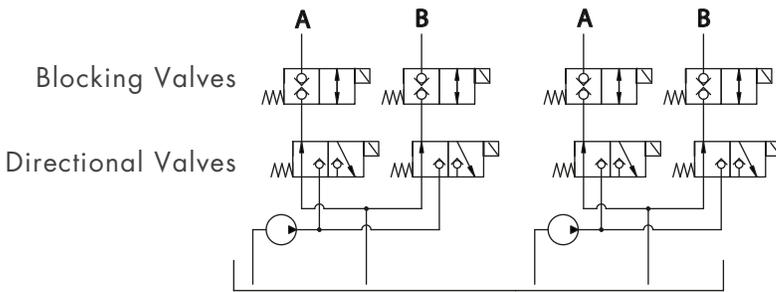


Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# HPC SERIES

## Air Powered Hydraulic Clamping Unit

## Double Station



### PRODUCT DESCRIPTION

The HPC Series hydraulic clamp unit from MFP Automation Engineering provides machinery builders and users a simple and compact solution for workholding offering long life, minimal maintenance, and low operating costs.

[>> Download drawings](#)

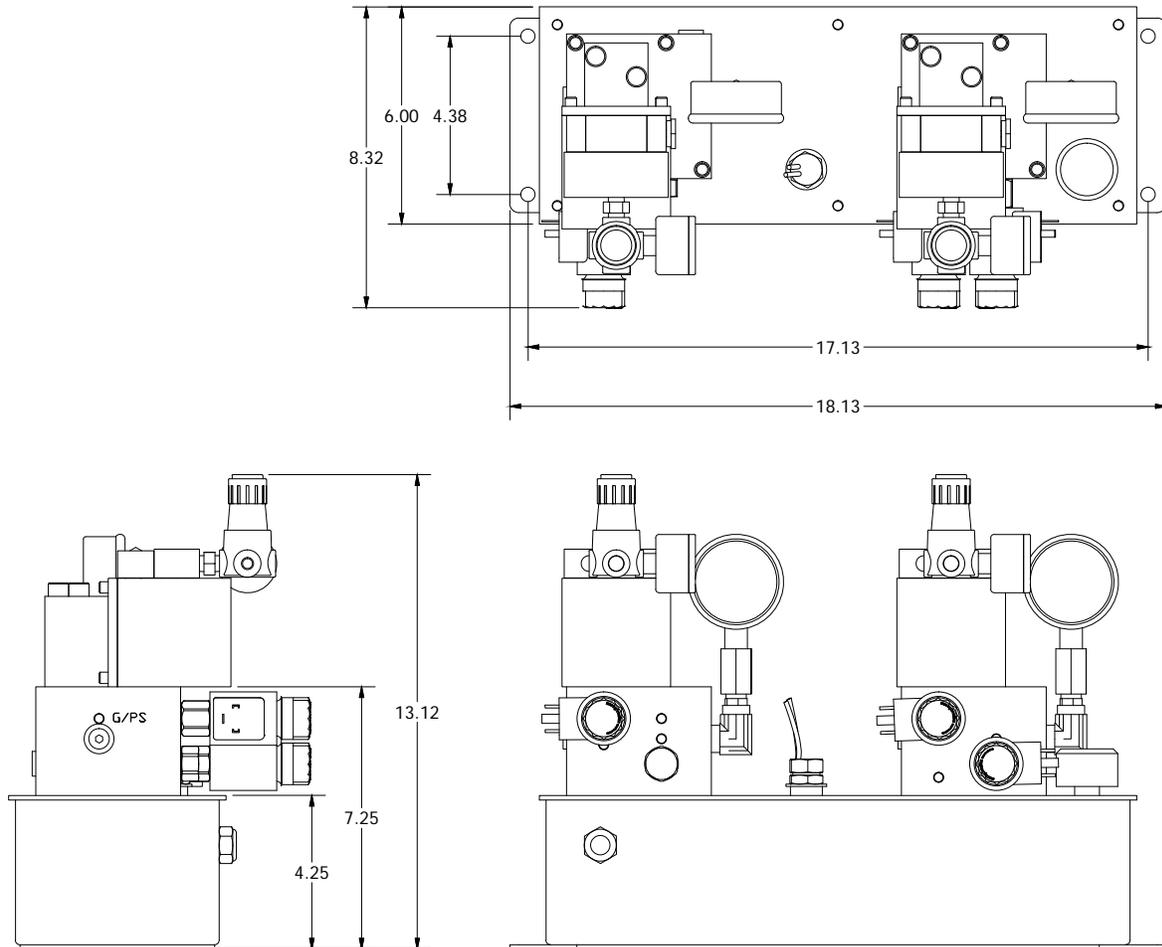
MFP HPC2		STATION 1 PUMP		STATION 2 PUMP		STATION 2 CIRCUIT		VALVE COIL VOLTAGE	
		<b>1</b>	6:1 (600*PSI)	<b>1</b>	6:1 (600*PSI)	<b>A</b>	1 single-acting circuit	<b>24</b>	24 volt DC
		<b>2</b>	20:1 (2000*PSI)	<b>2</b>	20:1 (2000*PSI)	<b>B</b>	2 single-acting circuits	<b>120</b>	120 volt AC
		<b>3</b>	40:1 (4000*PSI)	<b>3</b>	40:1 (4000*PSI)	<b>C</b>	1 double-acting circuit		
		<b>4</b>	60:1 (6000*PSI)	<b>4</b>	60:1 (6000*PSI)				
<b>STATION 1 CIRCUIT</b>									
<b>A</b>	1 single-acting circuit								
<b>B</b>	2 single-acting circuits								
<b>C</b>	1 double-acting circuit								

\*Approximate hydraulic pressure at 100 PSI air pressure. See flow and pressure performance guides on pg.45. Specifications, descriptions, and dimensional data are subject to change without notice. For additional options/custom features please contact MFP.

# HPC SERIES

Air Powered Hydraulic Clamping Unit

Double Station



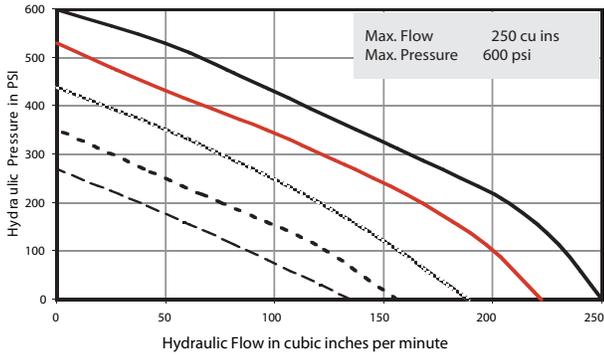
Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# HPC SERIES

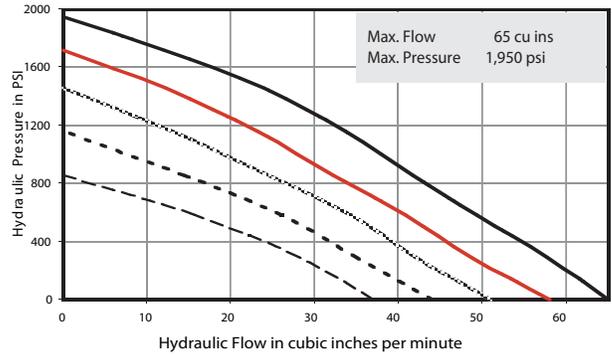
## Air Powered Hydraulic Clamping Unit

### FLOW AND PRESSURE PERFORMANCE GUIDES

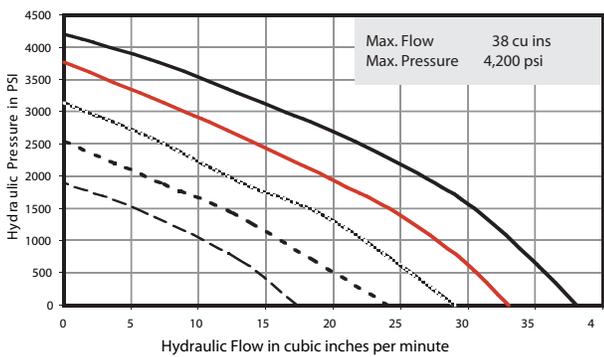
Fluid Flow Against Pressure (6:1 Pump)



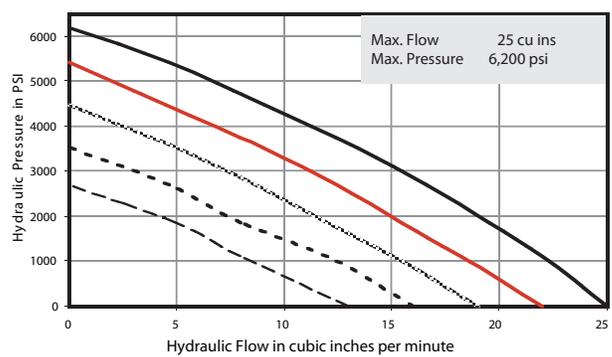
Fluid Flow Against Pressure (20:1 Pump)



Fluid Flow Against Pressure (40:1 Pump)



Fluid Flow Against Pressure (60:1 Pump)



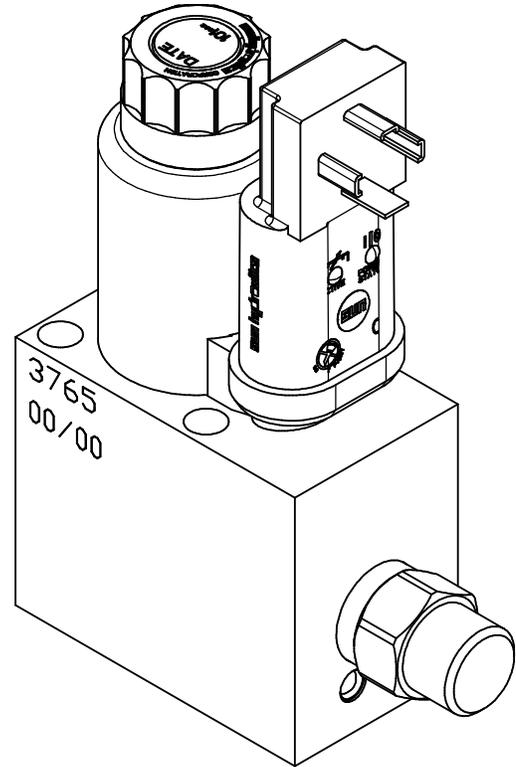
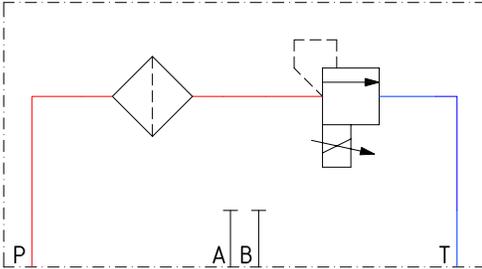
Air Pressures at:

- 100 psi ———
- 90 psi ———
- 75 psi ———
- 60 psi ·····
- 45 psi - - - -

Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# PCV 3765 PRESSURE CONTROL VALVE

0.25GPM Capacity



## PRODUCT DESCRIPTION

NFPA D03 mounted proportional pressure control valve. Drop in replacement for Vickers EHST 3 FVF or FIF valve. Includes wiring pigtail to mate up with Vickers MS3106 connector. Onboard electronics completely sealed from oil contamination. Applications include plastic injection mold machines and press controls.

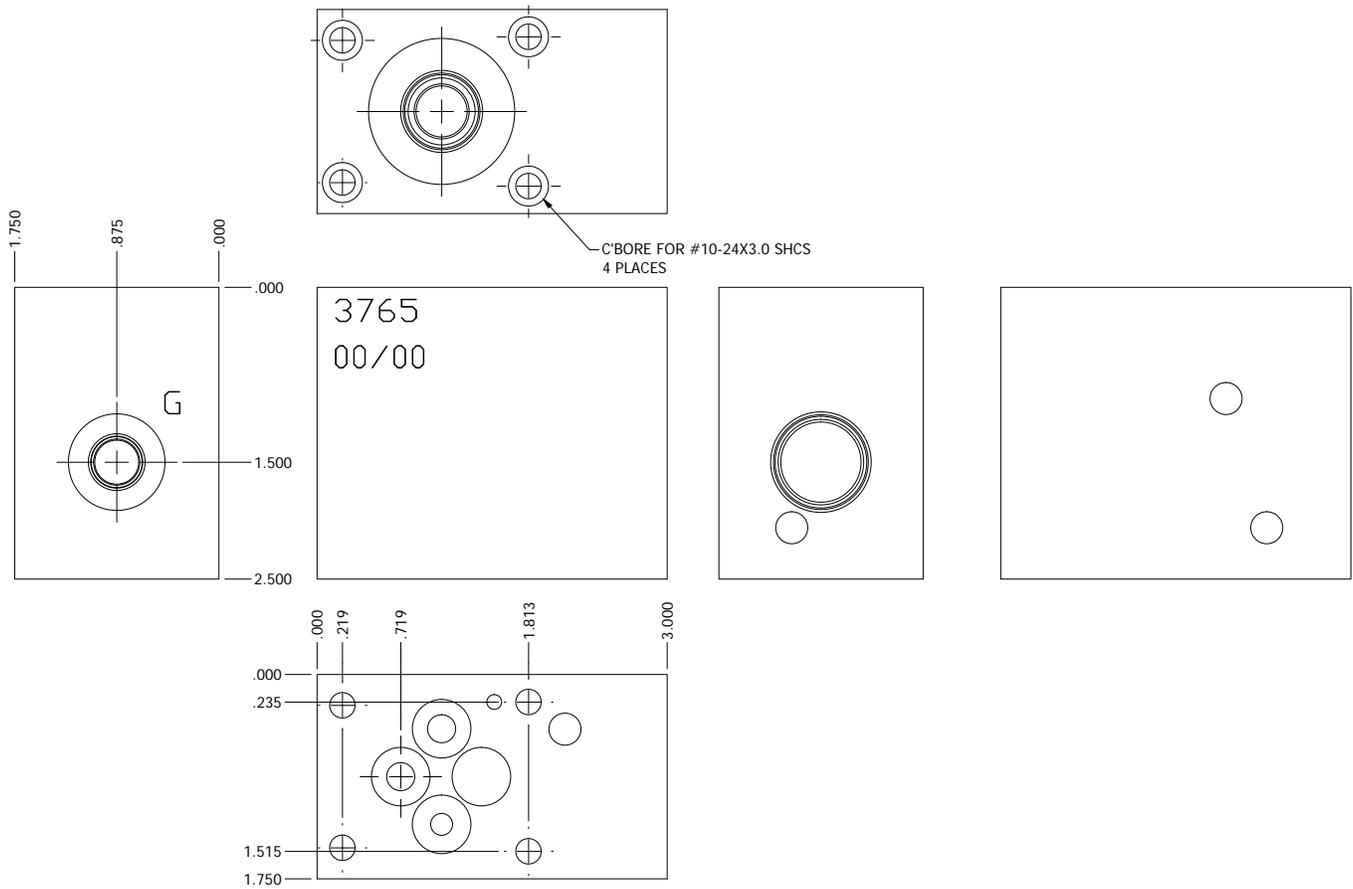
>> [Download drawings](#)

PCV 3765	COMMAND SIGNAL	MATERIAL						
	<table border="1"> <tr> <td><b>V</b></td> <td>0-10 VDC</td> </tr> <tr> <td><b>I</b></td> <td>4-20 mA</td> </tr> </table>	<b>V</b>	0-10 VDC	<b>I</b>	4-20 mA	<table border="1"> <tr> <td><b>A</b></td> <td>Aluminum -6061-T6 3000*PSI-20.7 Mpa 0-3000 PSI pressure control valve supplied</td> </tr> </table>	<b>A</b>	Aluminum -6061-T6 3000*PSI-20.7 Mpa 0-3000 PSI pressure control valve supplied
<b>V</b>	0-10 VDC							
<b>I</b>	4-20 mA							
<b>A</b>	Aluminum -6061-T6 3000*PSI-20.7 Mpa 0-3000 PSI pressure control valve supplied							
		<table border="1"> <tr> <td><b>D</b></td> <td>Ductile Iron -D4512 5000*PSI-34.5 Mpa 0-5000 PSI pressure control valve supplied</td> </tr> </table>	<b>D</b>	Ductile Iron -D4512 5000*PSI-34.5 Mpa 0-5000 PSI pressure control valve supplied				
<b>D</b>	Ductile Iron -D4512 5000*PSI-34.5 Mpa 0-5000 PSI pressure control valve supplied							
		<p>*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type</p>						

Specifications, descriptions, and dimensional data are subject to change without notice. For additional options/custom features please contact MFP.

# PCV 3765 PRESSURE CONTROL VALVE

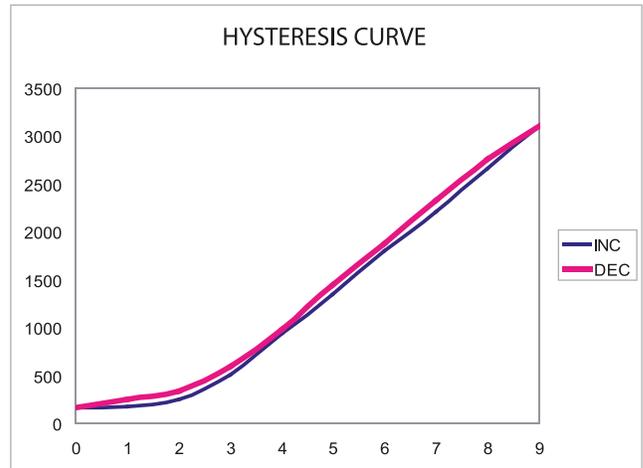
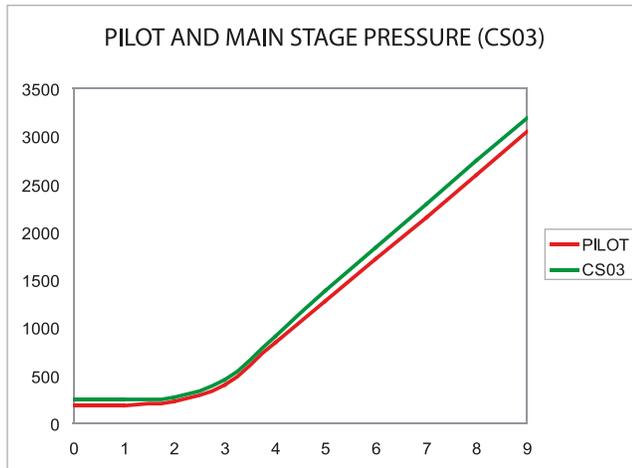
0.25GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# PCV 3765 PRESSURE CONTROL VALVE

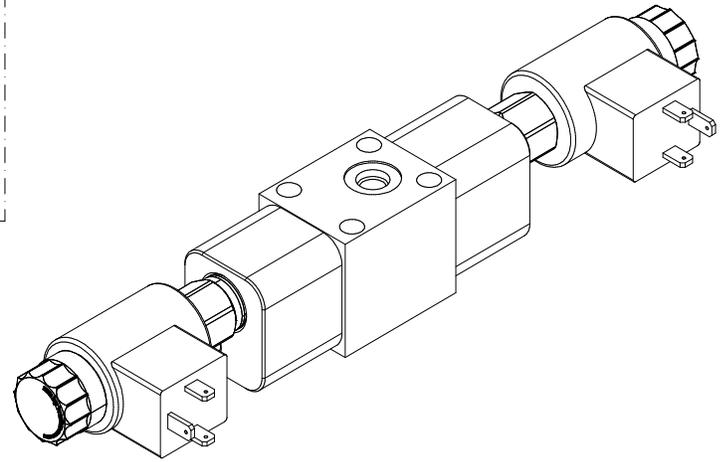
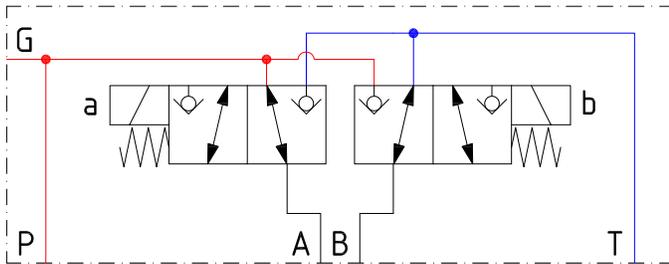
0.25GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# ZEROL 0U8A ZERO-LEAK DO3 VALVE

7.5 GPM Capacity



## PRODUCT DESCRIPTION

NFPA D03 low leak directional control valve. 4-way valve configuration. Maximum Valve Leakage at 110 SUS (24 cSt) 10 drops/min.@5000 psi.

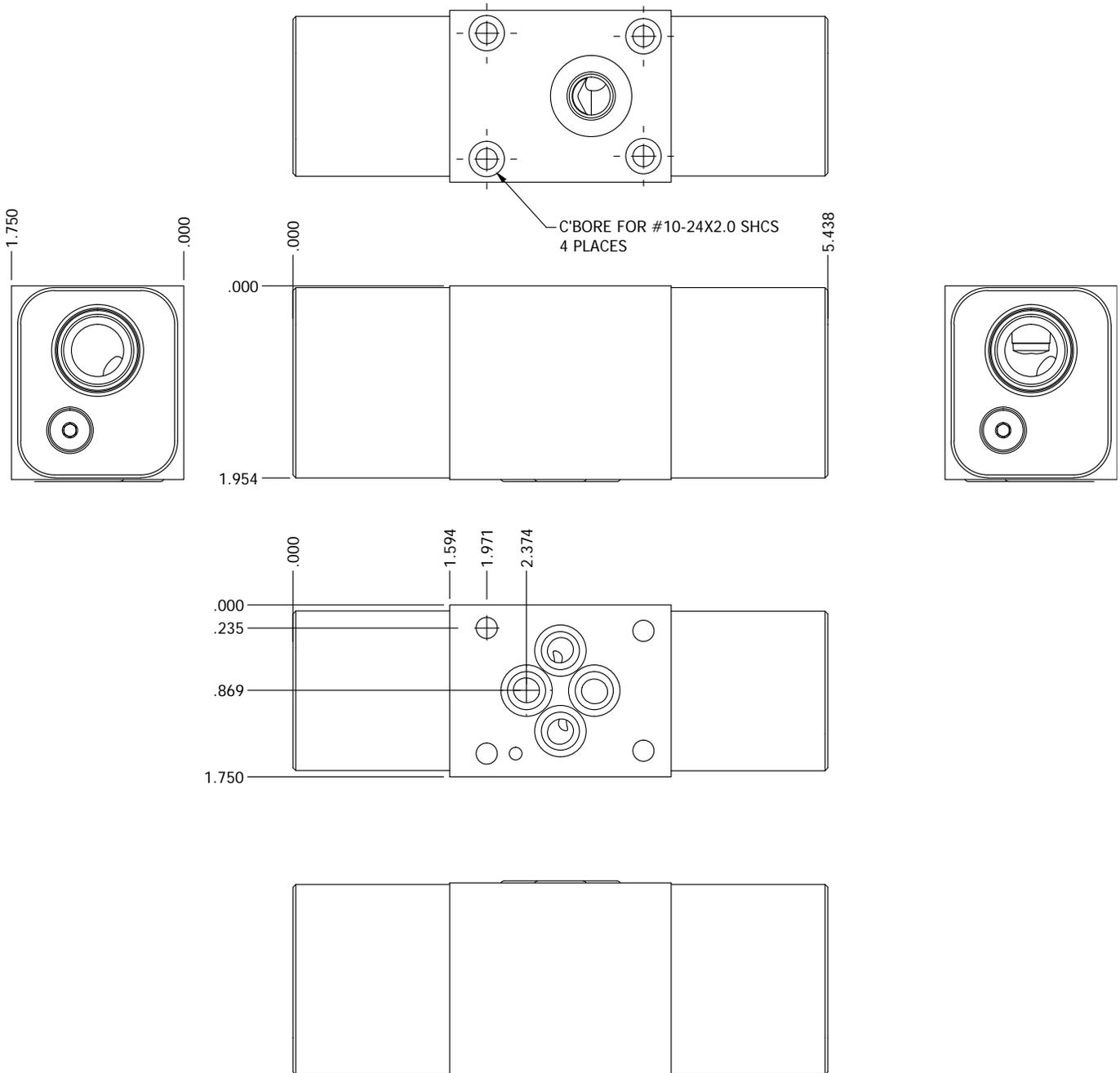
>> [Download drawings](#)

ZEROL 0U8A	VOLTAGE		MATERIAL	
	<b>N</b>	No Coil	<b>A</b>	Aluminum -6061-T6 3000*PSI-20.7 Mpa
	<b>24</b>	24 VDC DIN Coil	<b>D</b>	Ductile Iron -D4512 5000*PSI-34.5 Mpa
	<b>120</b>	120 VAC DIN Coil	*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type	

Specifications, descriptions, and dimensional data are subject to change without notice. For additional options/custom features please contact MFP.

# ZEROL OU8A ZERO-LEAK DO3 VALVE

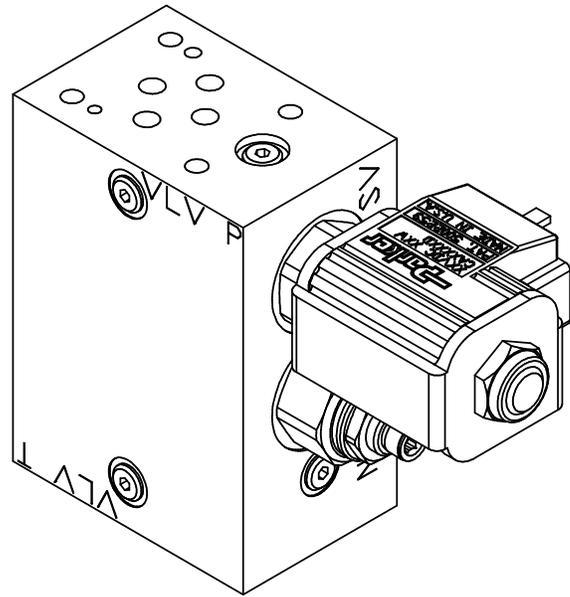
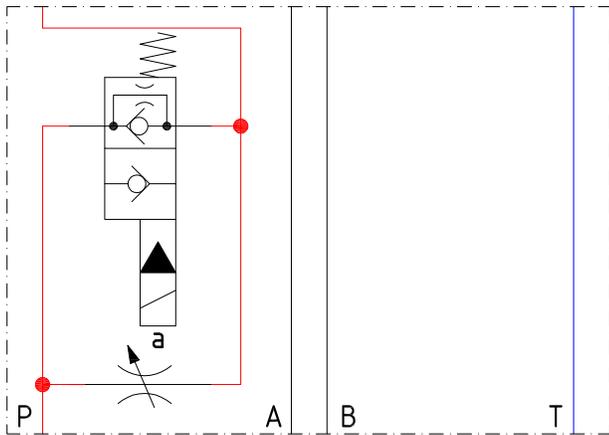
7.5 GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# TSM D03 1359 TWO-SPEED MANIFOLD

10GPM Capacity



## PRODUCT DESCRIPTION

Two speed stackable manifold includes solenoid operated blocking valve. Energizing the valve forces inlet flow through an adjustable needle valve metering the flow into the manifold stack. Assembly mounts to a NFPA D03 manifold.

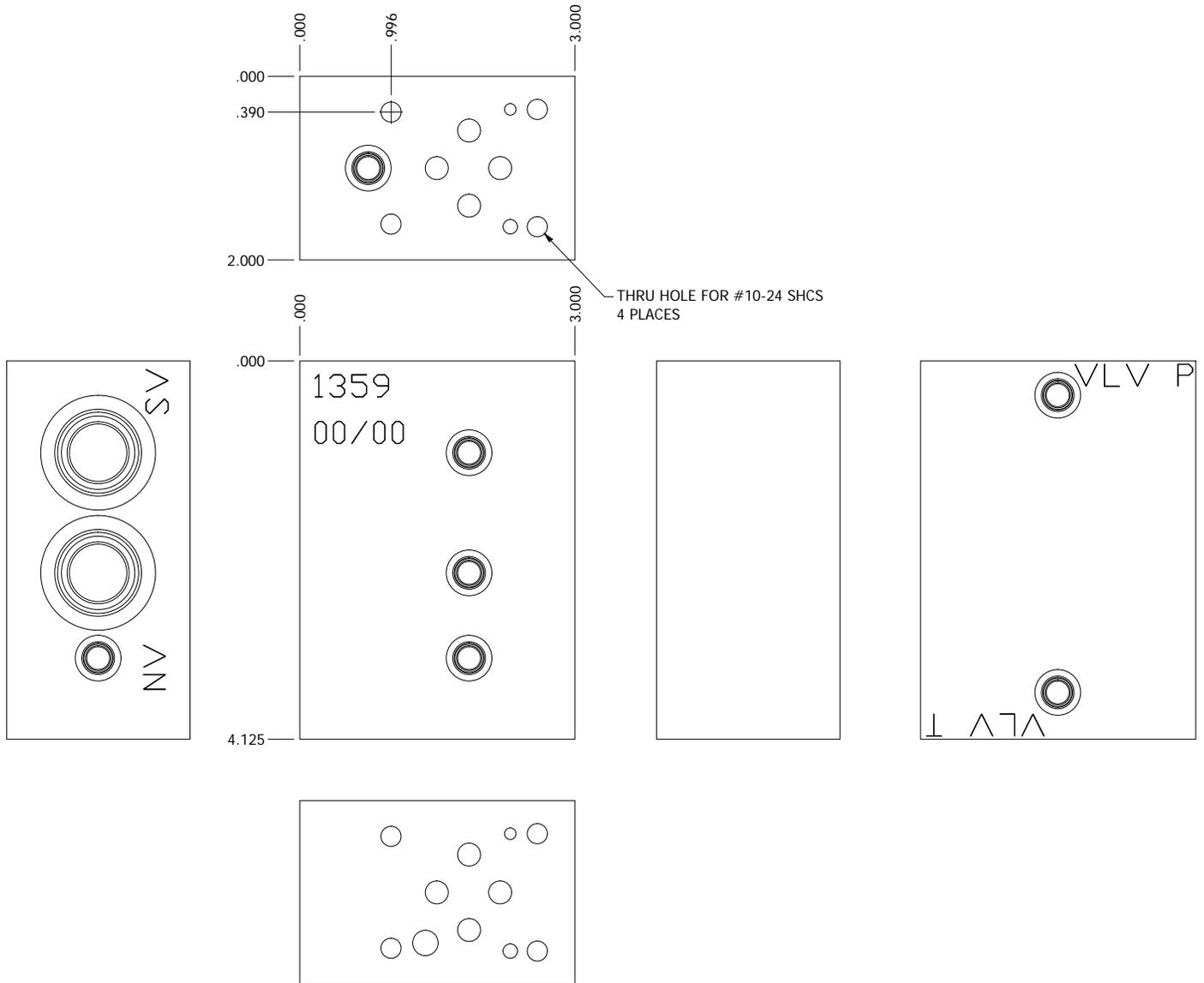
>> [Download drawings](#)

TSM 1359	VALVE OPTIONS		VOLTAGE		MATERIAL	
	<b>NO</b>	Normally Open	<b>N</b>	No Coil	<b>A</b>	Aluminum -6061-T6 3000*PSI-20.7 Mpa
	<b>NC</b>	Normally Closed	<b>24</b>	24 VDC DIN Coil	<b>D</b>	Ductile Iron -D4512 5000*PSI-34.5 Mpa
			<b>120</b>	120 VAC DIN Coil	*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type	

Specifications, descriptions, and dimensional data are subject to change without notice. For additional options/custom features please contact MFP.

# TSM D03 1359 TWO-SPEED MANIFOLD

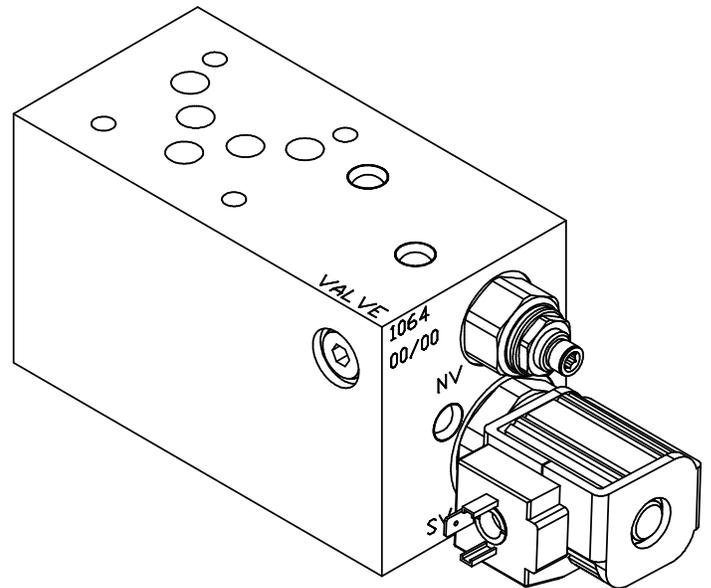
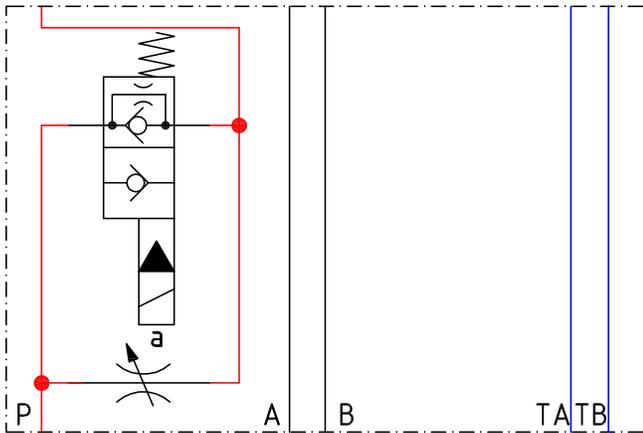
10GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# TSM D05 1064 TWO-SPEED MANIFOLD

20GPM Capacity



## PRODUCT DESCRIPTION

Two speed stackable manifold includes solenoid operated blocking valve. Energizing the valve forces inlet flow through an adjustable needle valve metering the flow into the manifold stack. Assembly mounts to a NFPA D05 manifold.

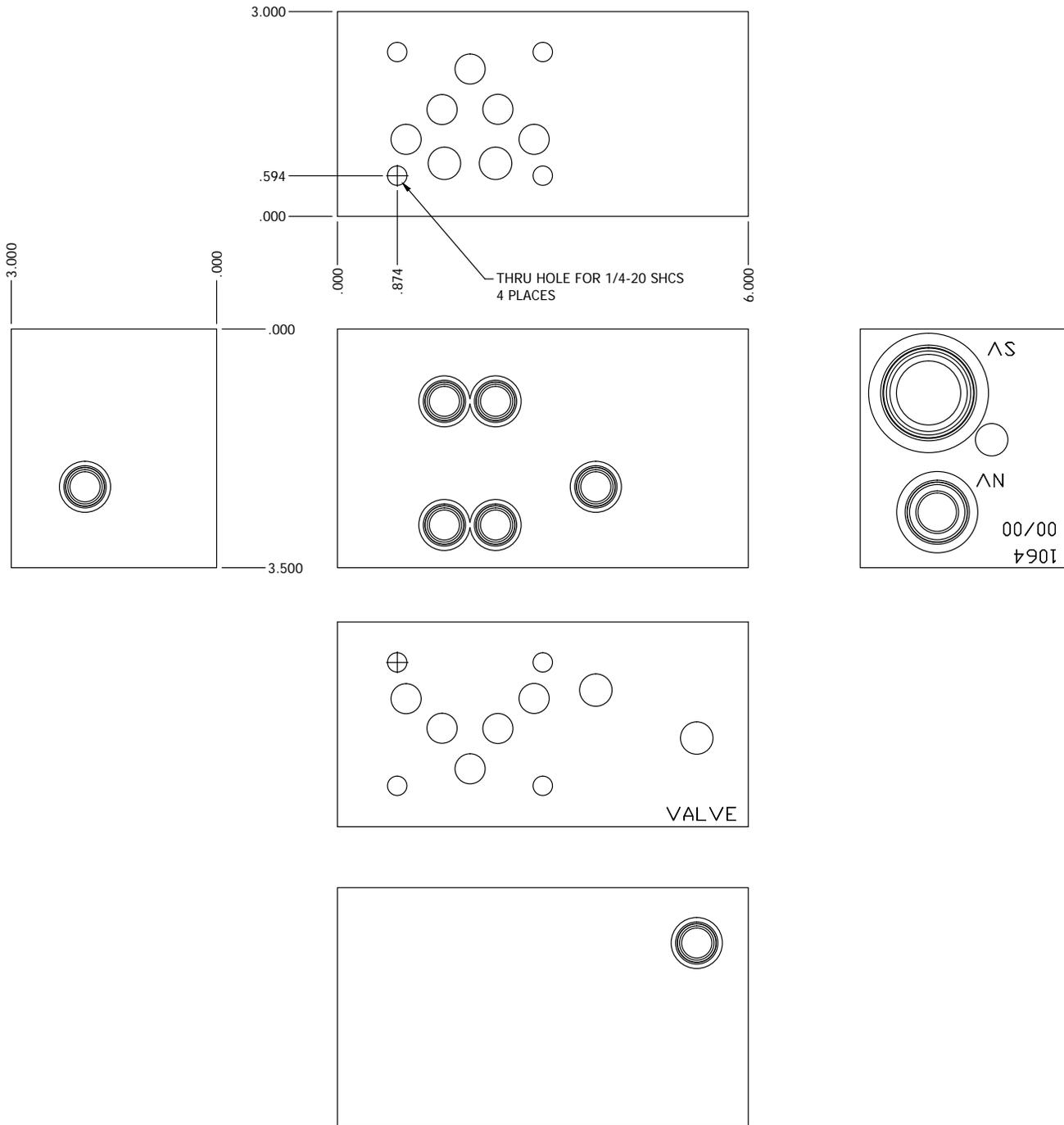
>> [Download drawings](#)

TSM 1064	VALVE OPTIONS		VOLTAGE		MATERIAL	
	<b>NO</b>	Normally Open	<b>N</b>	No Coil	<b>A</b>	Aluminum -6061-T6 3000*PSI-20.7 Mpa
	<b>NC</b>	Normally Closed	<b>24</b>	24 VDC DIN Coil	<b>D</b>	Ductile Iron -D4512 5000*PSI-34.5 Mpa
			<b>120</b>	120 VAC DIN Coil	*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type	

Specifications, descriptions, and dimensional data are subject to change without notice. For additional options/custom features please contact MFP.

# TSM D05 1064 TWO-SPEED MANIFOLD

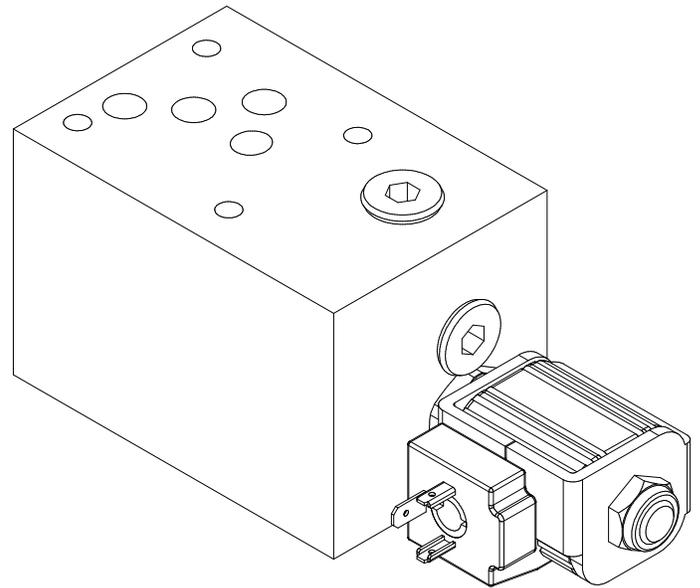
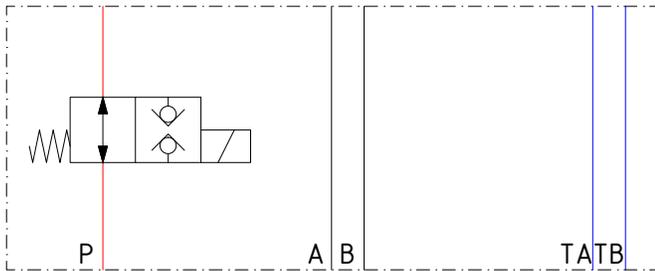
20GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# PPI 4363 D05 PRESSURE PORT INTERRUPT

20GPM Capacity



## PRODUCT DESCRIPTION

NFPA D05 stackable pressure port interrupt assembly with solenoid valve for pressure blocking.

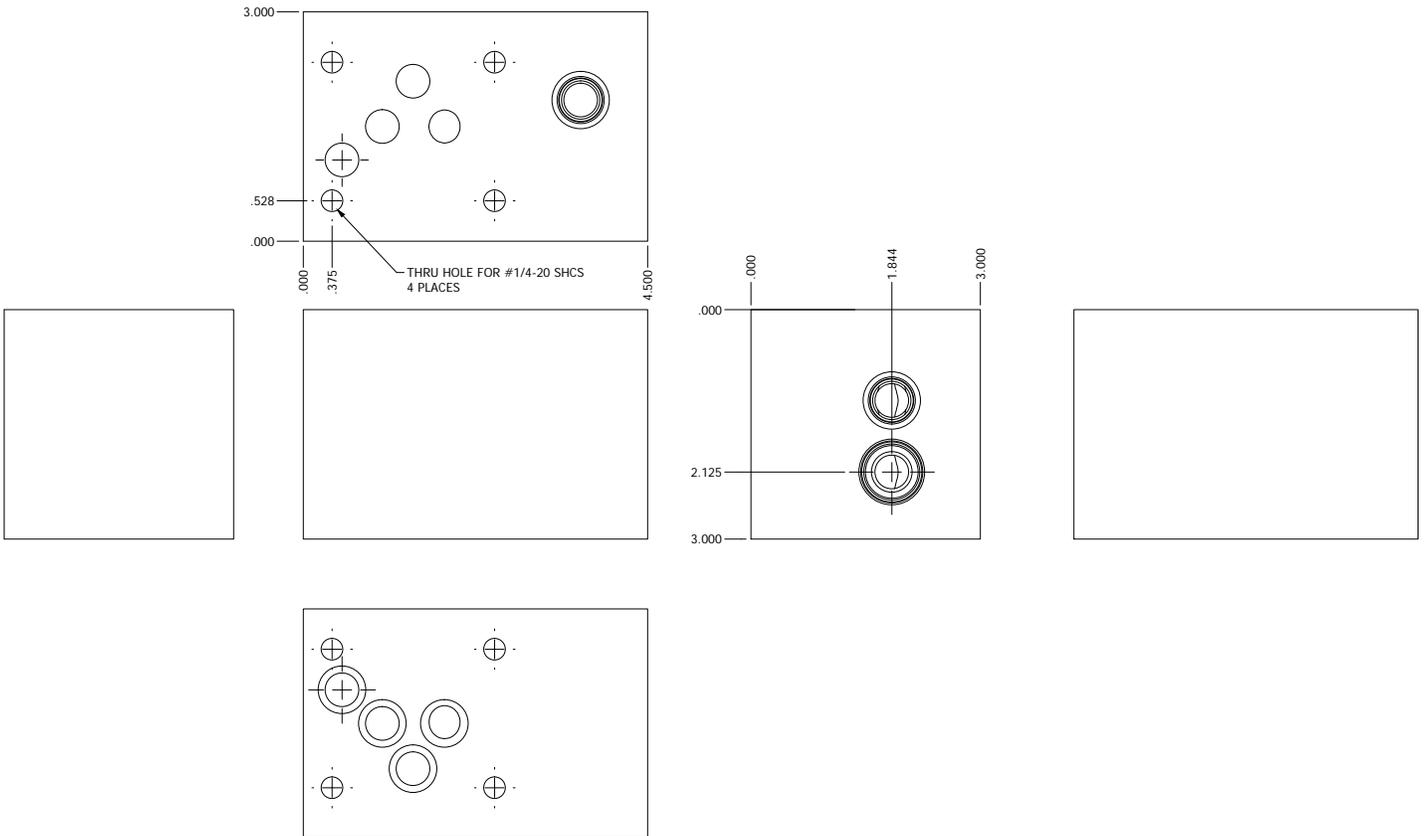
>> [Download drawings](#)

PPI 4363	VALVE OPTIONS		VOLTAGE		MATERIAL	
	<b>NO</b>	Normally Open	<b>N</b>	No Coil	<b>A</b>	Aluminum -6061-T6 3000*PSI-20.7 Mpa
	<b>NC</b>	Normally Closed	<b>24</b>	24 VDN DIN Coil	<b>D</b>	Ductile Iron -D4512 5000*PSI-34.5 Mpa
			<b>120</b>	120 VDN DIN Coil	*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type	

Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# PPI 4363 D05 PRESSURE PORT INTERRUPT

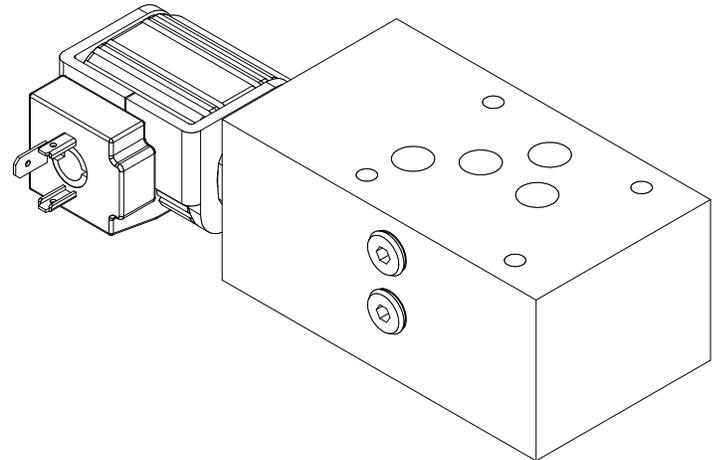
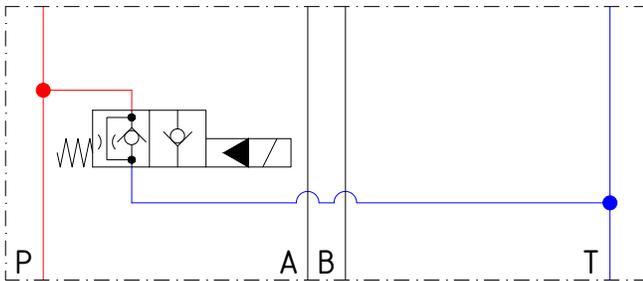
20GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# PTU 1892 D05 P TO T UNLOAD

20GPM Capacity



## PRODUCT DESCRIPTION

NFPA D05 stackable P to T assembly allows pressure to be unloaded to tank. Options include normally open solenoid valve for failsafe unload function in a power outage or normally closed solenoid valve for energize to unload function.

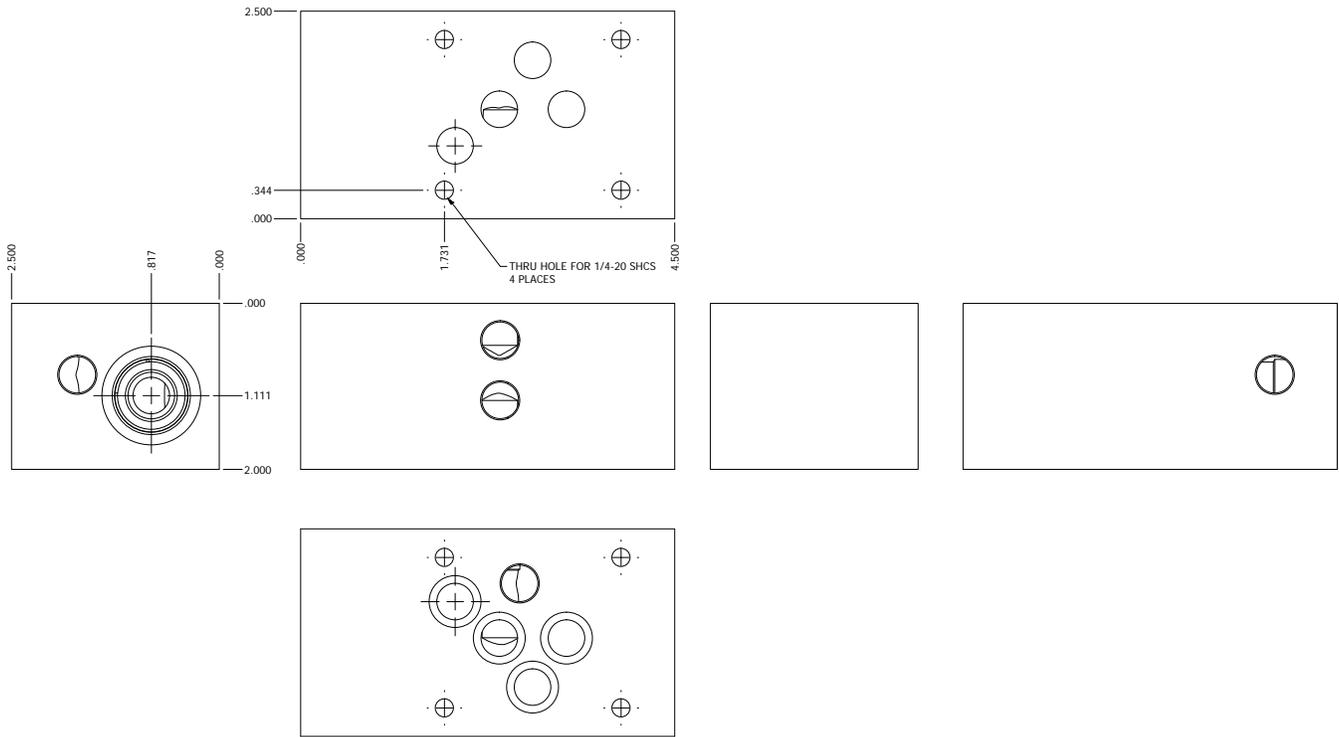
>> [Download drawings](#)

PTU 1892	VALVE OPTIONS		VOLTAGE		MATERIAL	
	<b>NO</b>	Normally Open	<b>N</b>	No Coil	<b>A</b>	Aluminum -6061-T6 3000*PSI-20.7 Mpa
	<b>NC</b>	Normally Closed	<b>24</b>	24 VDN DIN Coil	<b>D</b>	Ductile Iron -D4512 5000*PSI-34.5 Mpa
			<b>120</b>	120 VDN DIN Coil	*Working pressure should be considered in accordance with ISO 4413 to determine appropriate material type	

Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# PTU 1892 D05 P TO T UNLOAD

20GPM Capacity



Specifications, descriptions, and dimensional data are subject to change without notice.  
For additional options/custom features please contact MFP.

# ACCESSORIES

## SOLENOID VALVE CONNECTORS



Solenoid Valve Connector, Field Wireable, 3 Pole, Form A 18mm, 10A, LED w/MOV, PG9 opening

24V Part# **SQDIN-24V-L-P**

110V Part# **SQDIN-110V-L-P**



Solenoid Valve Connector, Cordset, 3 Pole, Form A 18mm, 2 Meters, 10A, LED w/MOV

24V Part# **SQDIN-24V-L-2M**

110V Part# **SQDIN-110V-L-2M**



Solenoid Valve Connector, Cordset, 3 Pole, Form A 18mm, 5 Meters, 10A, LED w/MOV

24V Part# **SQDIN-24V-L-5M**

110V Part# **SQDIN-110V-L-5M**

## DIGITAL DISPLAY PROPORTIONAL VALVE DRIVER



Single Amplifier  
DIN rail mount

The digital display proportional valve driver supplies a solenoid with current proportional to the input signal from a potentiometer, joystick, PLC or other control system.

Part# **LE PSX**

Specifications:

Operating Voltage: 9 to 36 VDC  
Maximum output current: 3.00Amps  
Input signal: 5V, 10V, 4 to 20mA  
Maximum ramp time: 99.5 Sec  
PWM / Dither frequency: 40-450Hz  
Linearity: 1%  
Operating Temperature: -40 to +80 Celsius

# ACCESSORIES

## BOURDON TUBE PRESSURE GAUGES



Stainless Steel Case  
Liquid Filled  
2 1/2" Diameter  
Male SAE-4 Stem Mount

0-2000 PSI Part# **LFG-25-2000S-SAE**

0-3000 PSI Part# **LFG-25-3000S-SAE**

0-5000 PSI Part# **LFG-25-5000S-SAE**

## GAUGE SNUBBERS



Adjustable gauge snubber,  
male SAE-4 to female SAE-4

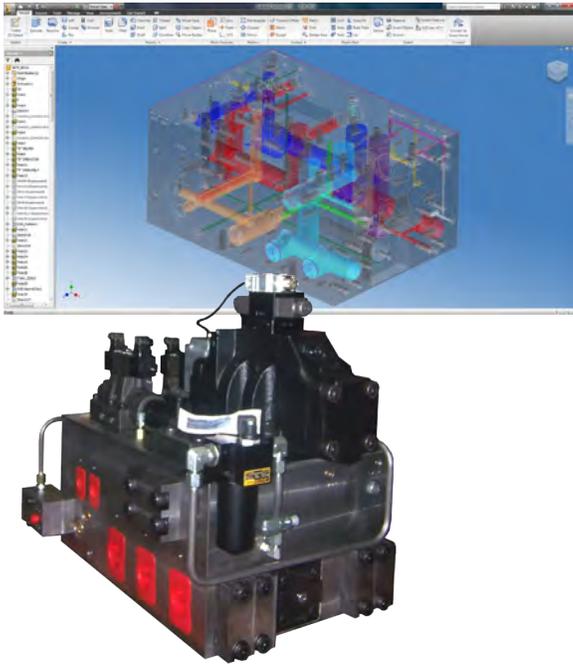
Part# **NSAB-KXN-HS**



Adjustable gauge snubber,  
female SAE-4 to female SAE-4

Part# **NSAB-KXN-HH**

# CUSTOM CAPABILITIES

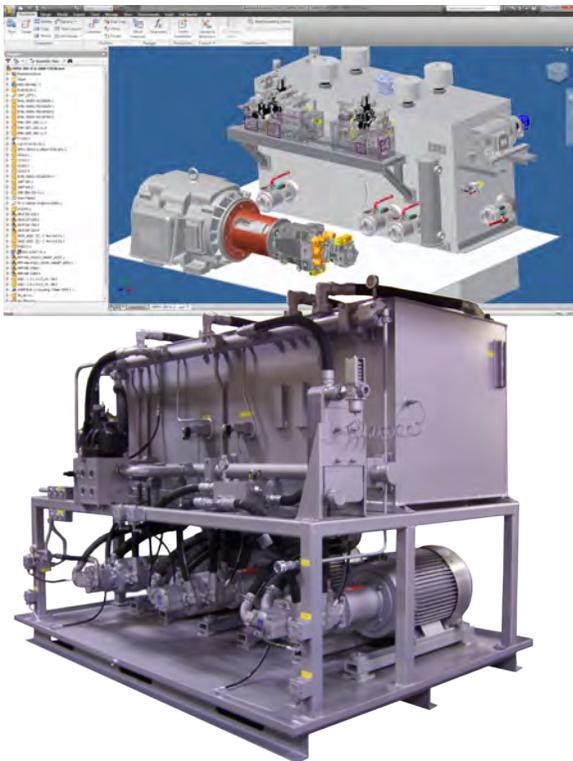


## MANIFOLDS

MFP has the experience and the capability to machine all types of hydraulic and pneumatic manifolds in our modern facility. We host a fully functioning machine shop staffed with expert craftsmen who will convert your specifications to a manifold that will meet your needs and exceed your expectations.

Our Capabilities:

- 3D design with Autodesk Inventor software
- Engineering and design assistance
- 4 CNC and 2 Bridgeport Vertical Mills
- SAE, Metric, BSPP, DIN, Sun, and other common cavities
- 1-piece prototypes to full production runs
- Pressure/Leak Testing
- Fully assembled manifold packages



## POWER UNITS

MFP can design and construct a custom power-unit to the exact specifications required for your hydraulic system. Our engineers and machinists have a wealth of experience in building virtually every type of hydraulic power unit you can think of. Before doing anything, they will take the time to gain a thorough knowledge of the system's goals. That enables them to properly build a power unit or other component to meet the most demanding standards. MFP has the experience, the equipment and the technology to completely satisfy your power unit or custom assembly requirements.

# ABOUT MFP

MFP was founded 1991 and has grown to become one of the Top 30 distributors in the country.

Today we represent the worldwide leaders in motion control and fluid power, including:

- Parker Hannifin - hydraulics, pneumatics, fluid connectors, and automation
- Lincoln Lubrication – industrial and mobile automatic lubricating systems
- Ace Controls - industrial shock absorbers and deceleration devices
- Sun Hydraulics – cartridge valves
- Yaskawa- AC drives

MFP maintains a singular focus on the automation industry. Our 47,000 sq. ft. facility includes complete capabilities for hydraulic power unit fabrication, an advanced machine shop and inventories in excess of a million dollars.

MFP is a manufacturing company that just happens to also sell America's finest lines of fluid power and automation components. Our turn-key design and manufacturing of hydraulic and pneumatic manifolds is supported by AutoCAD (Mechanical Desktop) and 3D Inventor software.

We have CNC vertical machining centers ranging from 5 spindle horsepower to 25 spindle horsepower.

The engineering department at MFP is staffed by certified fluid power specialists, mechanical engineers, and electrical engineers. Together, they bring you more than 100 years experience.



**Full-system solutions. Total flexibility.**

MFP Automation Engineering  
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Phone: (616) 538-5700 // Fax: (616) 538-0888 // [www.mifp.com](http://www.mifp.com)

