

## Section 6 Pump Manifolds

RA 09 907/07.04

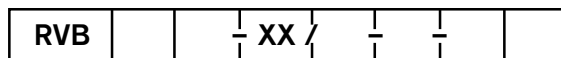
The Drive & Control Company



## Section 6 Index

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# Pump Manifolds Pressure Relief Block



<b>Flange Size</b>	= 3/4 = 1 = 1-1/4 = 1-1/2'		
<b>Pressure Range</b>		= N = H	
Standard Pressure Line (Code 61) High Pressure Line (Code 62) (Available in ductile iron only)			
<b>Revision</b>		= XX	
<b>Material</b>			= A = D
Aluminum 6061-T6, 3000 psi Ductile Iron <sup>2</sup> 65-45-12, 5000 psi			

See page 76 for dimensional information.

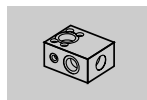
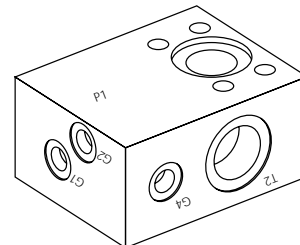
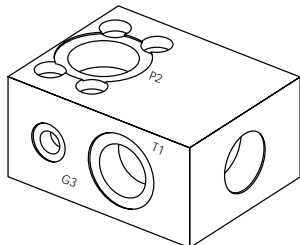
- 1) 1-1/2 Flange is only available in H (Code 62) version
- 2) Blackening

<b>M =</b>	<b>Sealing Material</b>
<b>V =</b>	Buna Viton

<b>01 =</b>	<b>Threaded Port Style</b>
<b>07 =</b>	BSP Threaded Ports
<b>12 =</b>	SAE Flanged SAE O-Ring

<b>12 =</b>	for Port Size see chart on Page 2
<b>16 =</b>	
<b>20 =</b>	
<b>3/4 =</b>	For SAE Flanged port— identical to pressure port size
<b>1 =</b>	
<b>1-1/4 =</b>	
<b>Omit =</b>	

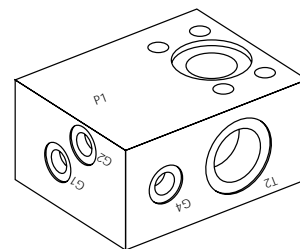
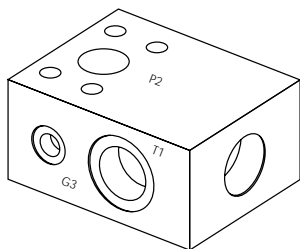
## SAE & BSPP Model



Assemblies include mounting bolts, O-rings, and plugs for G ports and T2

Pressure relief valve must be ordered separately.

## Flanged Model



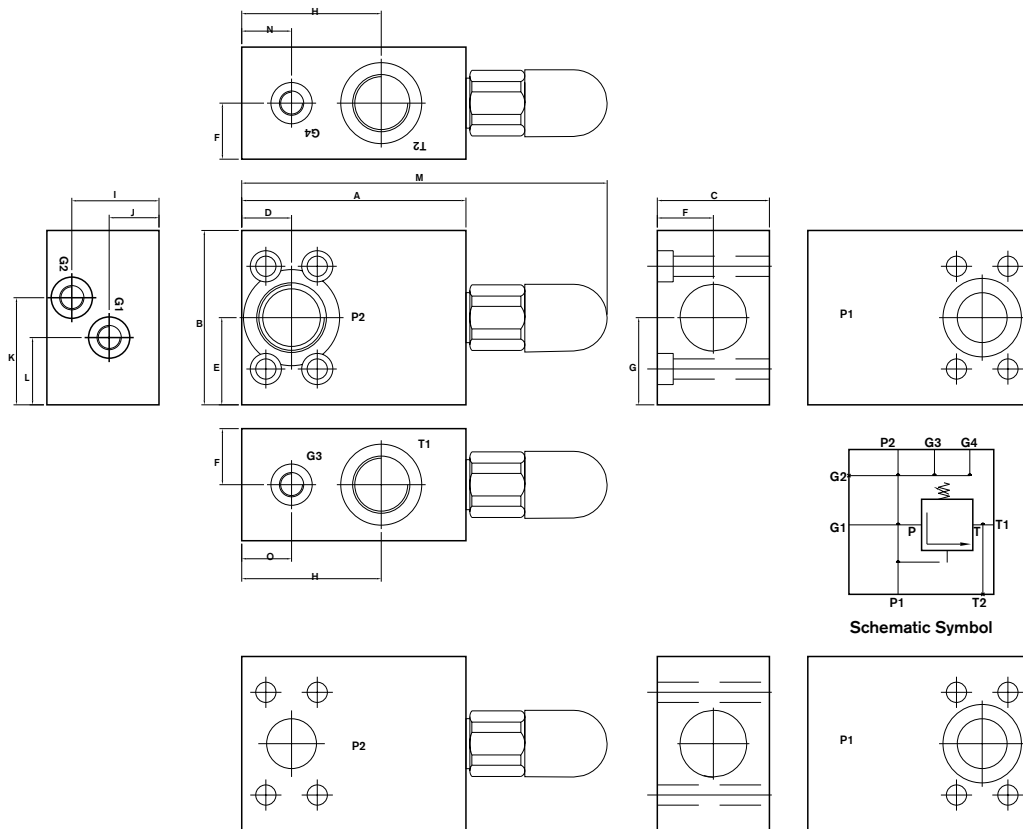
Assemblies include O-rings and plugs for G ports and T2

Pressure relief valve must be ordered separately.

All dimensions in inches

## Pump Manifolds

### Pressure Relief Block



Dimension	A	B	C	D	E	F	G	H	I	J	K	L	M <sup>3</sup>	N <sup>1</sup>	O <sup>1</sup>	Relief Valve <sup>2</sup>	T1,T2	G1,G2,G3',G4'	P2
RVB3/4N...12	4.50	3.00	2.25	0.88	1.50	1.13	1.50	2.80	1.75	1.00	1.80	1.20	7.18	-	-	DBDS10	SAE-8	SAE-4	SAE-12
RVB3/4N...01	4.50	3.00	2.25	0.88	1.50	1.13	1.50	2.80	1.75	1.00	1.80	1.20	7.18	-	-	DBDS10	1/2" BSPP	1/4" BSPP	3/4" BSPP
RVB3/4N...07	4.50	3.00	2.25	0.88	1.50	1.13	1.50	2.80	1.75	1.00	1.80	1.20	7.18	-	-	DBDS10	SAE-8	SAE-4	-
RVB1N...12	4.50	3.50	2.25	1.00	1.75	1.13	1.75	2.80	1.75	1.00	2.15	1.35	7.18	1.00	1.00	DBDS10	SAE-12	SAE-4	SAE-16
RVB1N...01	4.50	4.00	2.25	1.00	2.00	1.13	2.0	2.80	1.75	1.00	2.40	1.60	7.18	1.00	1.00	DBDS10	3/4" BSPP	1/4" BSPP	1" BSPP
RVB1N...07	4.50	3.50	2.25	1.00	1.75	1.13	1.75	2.80	1.75	1.00	2.15	1.35	7.18	1.00	1.00	DBDS10	SAE-12	SAE-4	-
RVB1-1/4N...12	5.00	3.50	2.25	1.25	1.75	1.13	1.75	3.30	1.75	1.00	2.15	1.35	7.68	-	-	DBDS10	SAE-12	SAE-4	SAE-20
RVB1-1/4N...01	5.00	4.00	2.50	1.25	2.00	1.25	2.00	3.30	1.75	1.00	2.40	1.60	7.68	-	-	DBDS10	3/4" BSPP	1/4" BSPP	1-1/4" BSPP
RVB1-1/4N...07	5.00	3.50	2.25	1.25	1.75	1.13	1.75	3.30	1.75	1.00	2.15	1.35	7.68	-	-	DBDS10	SAE-12	SAE-4	-
RVB3/4H...12	4.50	3.00	2.25	0.88	1.50	1.13	1.50	2.80	1.75	1.00	1.80	1.20	7.18	-	-	DBDS10	SAE-8	SAE-4	-
RVB3/4H...01	4.50	3.50	2.25	0.88	1.75	1.13	1.75	2.80	1.75	1.00	2.15	1.45	7.18	-	-	DBDS10	1/2" BSPP	1/4" BSPP	3/4" BSPP
RVB3/4H...07	4.50	3.00	2.25	0.88	1.50	1.13	1.50	2.80	1.75	1.00	1.80	1.20	7.18	-	-	DBDS10	SAE-8	SAE-4	-
RVB1H...12	4.50	3.00	2.25	1.00	1.75	1.13	1.75	2.80	1.75	1.00	2.15	1.35	7.18	1.00	1.00	DBDS10	SAE-12	SAE-4	SAE-16
RVB1H...01	4.50	3.00	4.25	1.00	1.75	2.13	1.75	2.13	1.75	1.00	2.15	2.53	1.73	1.00	1.00	DBDS10	3/4" BSPP	1/4" BSPP	1" BSPP
RVB1H...07	4.50	3.00	3.50	1.00	1.75	1.75	1.75	1.75	1.75	1.00	2.15	2.15	1.35	1.00	1.00	DBDS10	SAE-12	SAE-4	-
RVB1-1/4H...12	6.00	3.75	2.25	1.38	1.88	1.13	1.88	3.70	1.75	1.00	2.40	1.35	8.56	-	-	DBDS20	SAE-12	SAE-4	SAE-20
RVB1-1/4H...01	6.00	3.75	2.25	1.38	1.88	1.13	1.88	3.70	1.75	1.00	2.40	1.35	8.56	-	-	DBDS20	3/4" BSPP	1/4" BSPP	1-1/4" BSPP
RVB1-1/4H...07	6.00	3.75	2.25	1.38	1.88	1.13	1.88	3.70	1.75	1.00	2.40	1.35	8.56	-	-	DBDS20	SAE-12	SAE-4	-
RVB1-1/2H...07	7.00	5.00	2.75	1.38	2.50	1.38	2.50	4.64	2.00	1.25	2.90	2.10	10.27	-	-	DBDS30	SAE-24	SAE-4	-

1) Ports G3 and G4 available only on RVB1... for use with AA10VSO71 Series 31

2) Pressure Relief Valve must be ordered separately

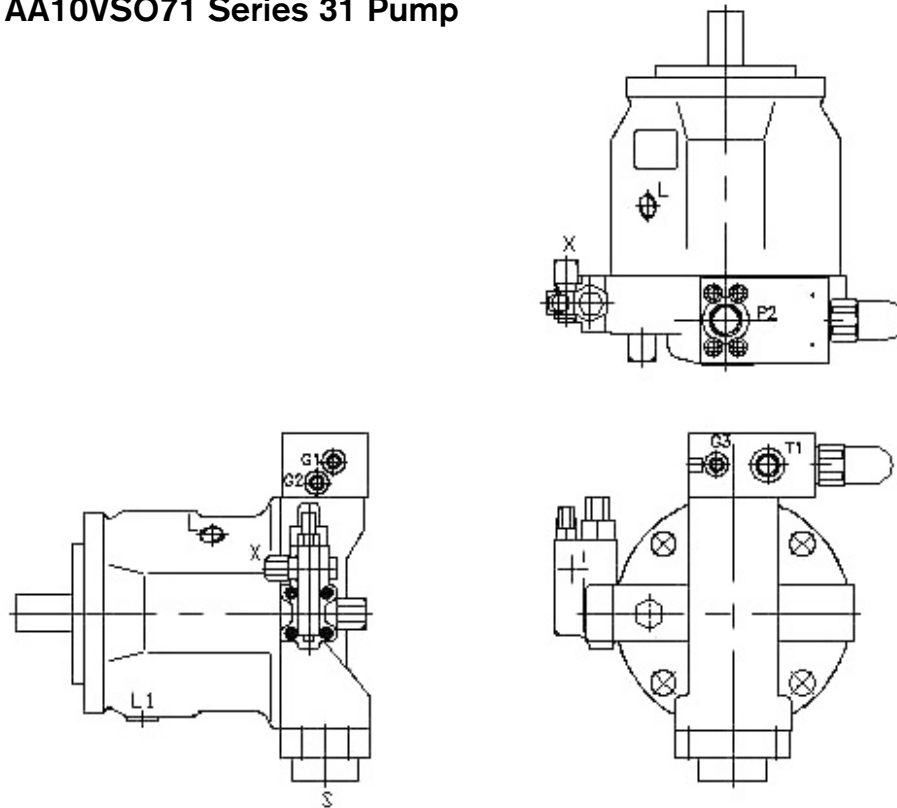
3) Dimension "M" shown for S Type adjustment

4) 1-1/2 Flange is only available in H (Code 62) version

All dimensions in inches

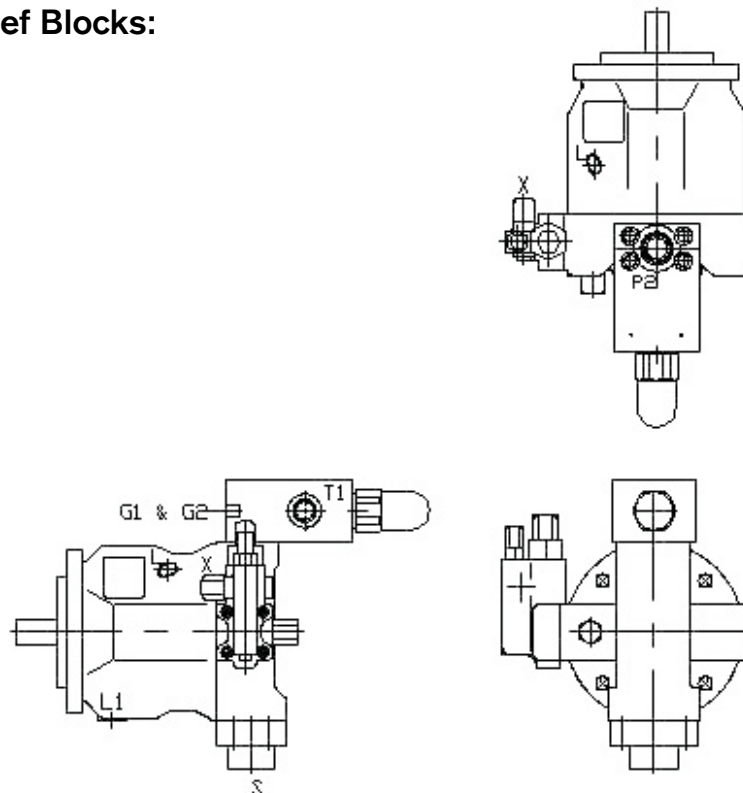
## Pump Manifolds Pressure Relief Block

### Orientation for AA10VS071 Series 31 Pump RVB1...

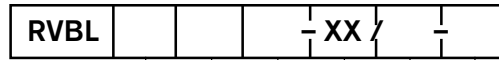


### Orientation for Relief Blocks:

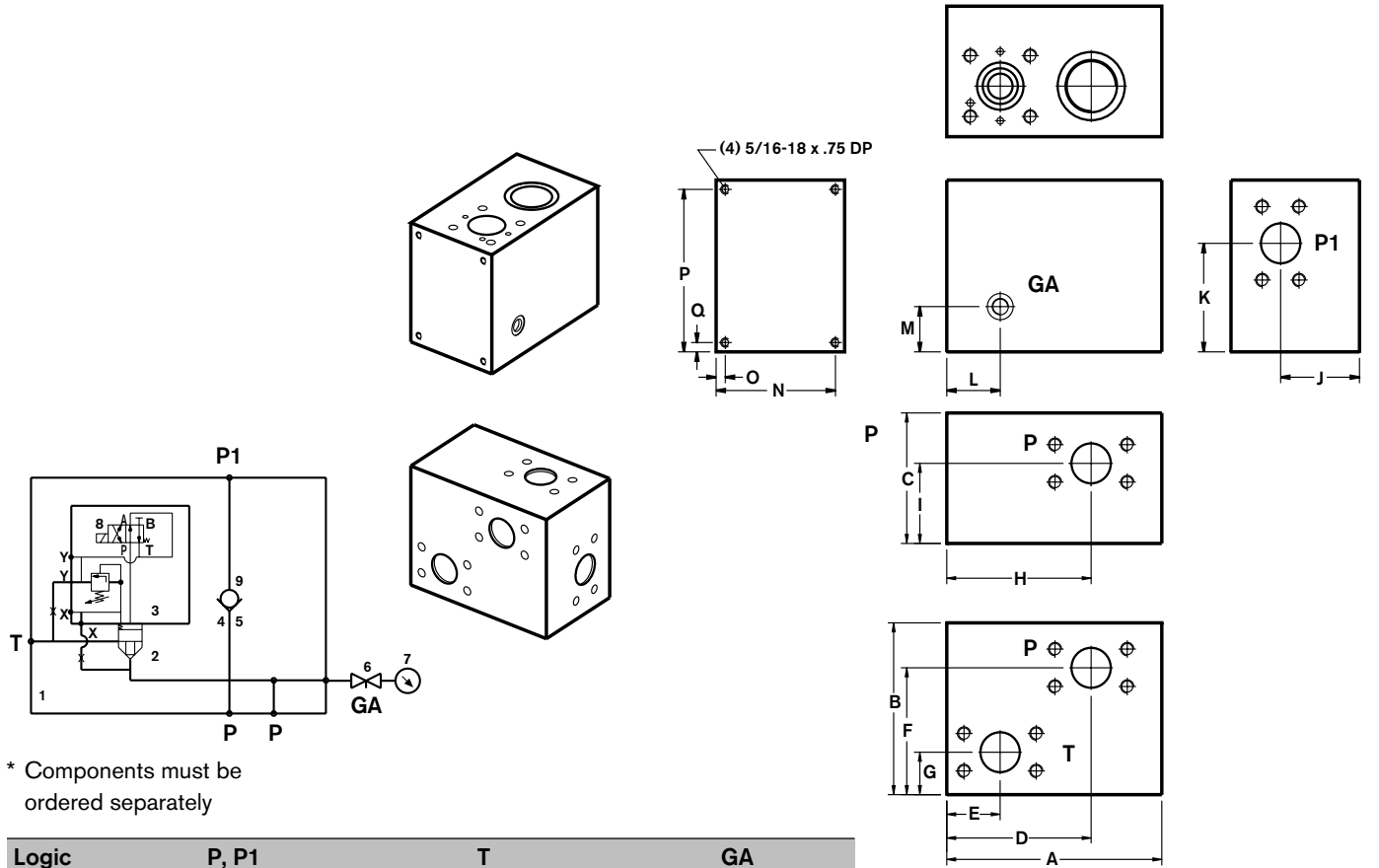
- RVB3/4...
- RVB1...
- RVB1-1/4...
- RVB1-1/2...



# Pump Manifolds Unloading



<b>Flange Size</b>	= 1-1/2 = 2																			<b>Port Style</b> SAE Flanged
<b>Pressure Range</b>																				<b>Material</b> Ductile Iron <sup>1</sup> 64-45-12, 5000 psi
Standard Pressure Line (Code 61)																				
High Pressure Line (Code 62)																				
<b>Logic Size</b>																				
<b>Revision</b>																				



\* Components must be ordered separately

Logic	P, P1	T	GA
Size 25	1-1/2" SAE 3000 PSI (Code 61 Flange)	1-1/2" SAE 3000 PSI (Code 61 Flange)	SAE-6 (9/16-18UNF)
Size 25	1-1/2" SAE 6000 PSI (Code 62 Flange)	1-1/2" SAE 3000 PSI (Code 61 Flange)	SAE-6 (9/16-18UNF)
Size 32	2" SAE 3000 PSI (Code 61 Flange)	2" SAE 3000 PSI (Code 61 Flange)	SAE-6 (9/16-18UNF)
Size 32	2" SAE 6000 PSI (Code 62 Flange)	2" SAE 3000 PSI (Code 61 Flange)	SAE-6 (9/16-18UNF)

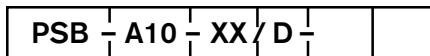
Logic	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
Size 25	8.20	6.45	4.90	5.50	2.04	4.75	1.59	5.50	3.01	3.01	4.08	2.04	1.70	4.55	0.35	6.10	0.35	12.75	14.00
Size 32	9.90	6.95	5.40	6.65	2.43	5.25	1.89	6.65	3.11	3.11	4.15	2.43	1.70	5.05	0.35	6.60	0.35	13.25	14.50

1) Blackening

All dimensions in inches

# Pump Manifold

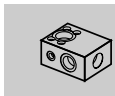
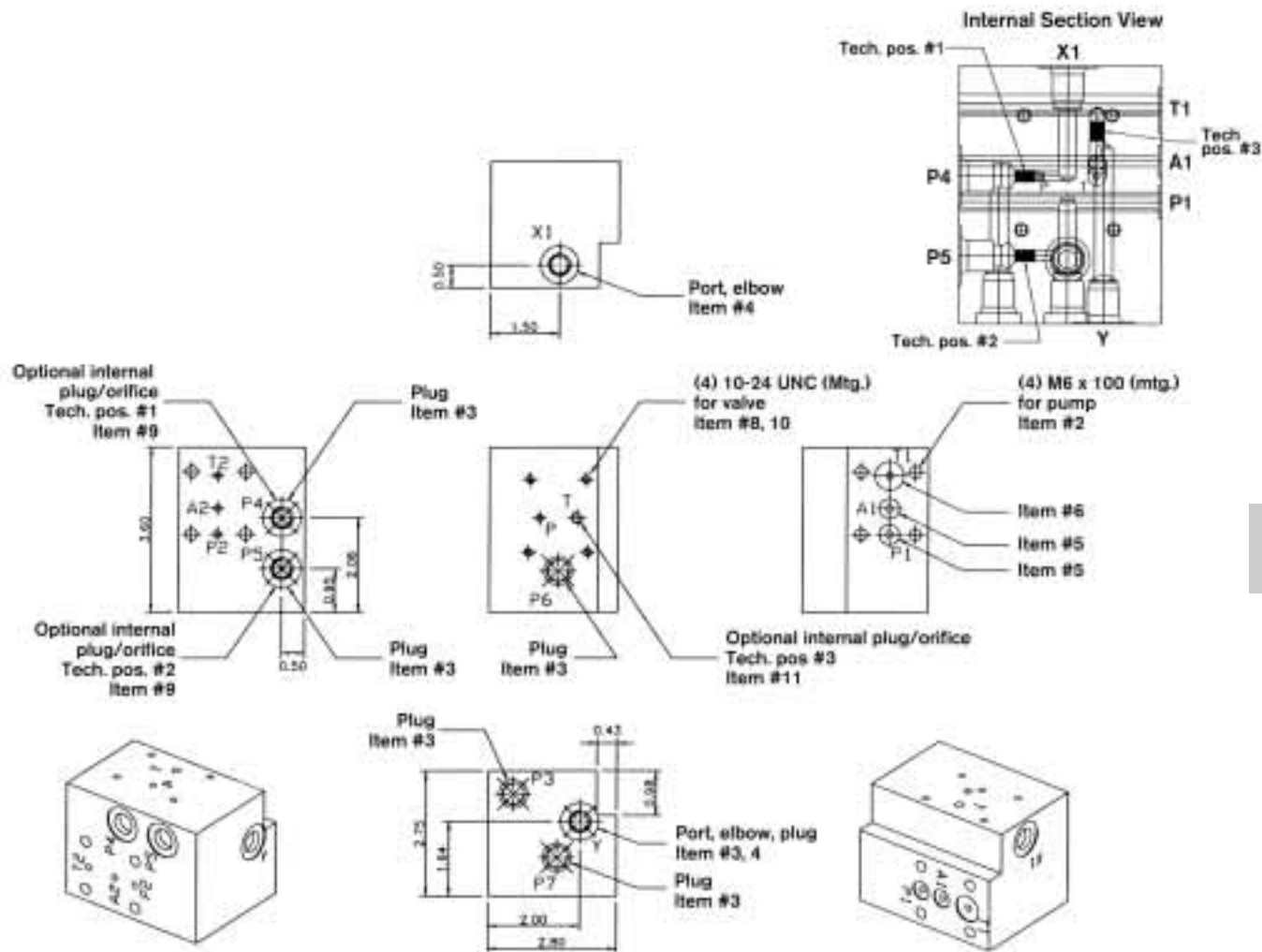
## Size 18 through 100, AA10VSO with Unloading Control



**Pump** = A10  
**Revision** = XX  
**Material** Ductile Iron<sup>1</sup> 65-45-12, 5000 psi = D

DR-R =  
 DR-L =  
 DFR-R =  
 DFR-L =  
 12 = Threaded Ports SAE

1) Blackening



Item	Part No.	Quantity	Description
1	US00 811978	1	Manifold Block
2	RR00 003038	4	M6x100 SHCS D912-8.8 A3C
3	US00 800151	6	4HP50N-S Plug HOLHEX/SH
4	US00 800087	2	STR THRD EL90 4-4S SAE 37 PUA20
5	US00 800180	2	O-RG Sz 2-011 NBR 70SH WAS 0044
6	US00 800496	1	O-RG Sz 2-014 NBR 70SH WAS 0090

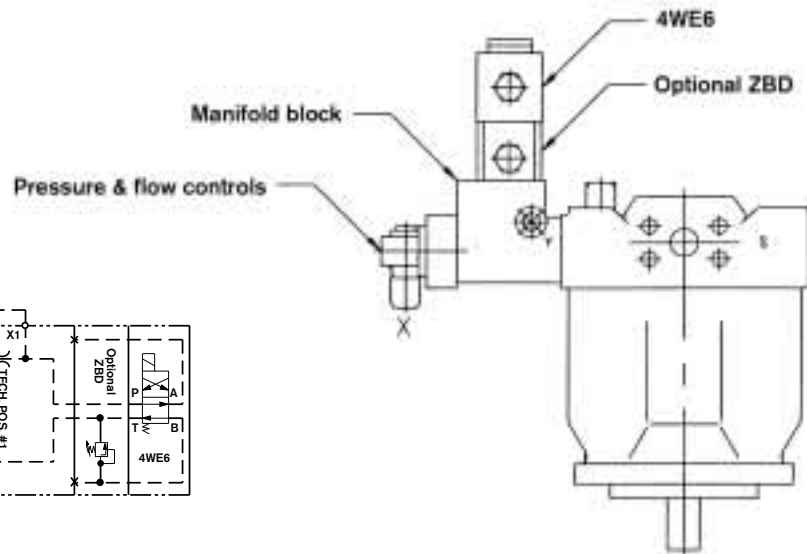
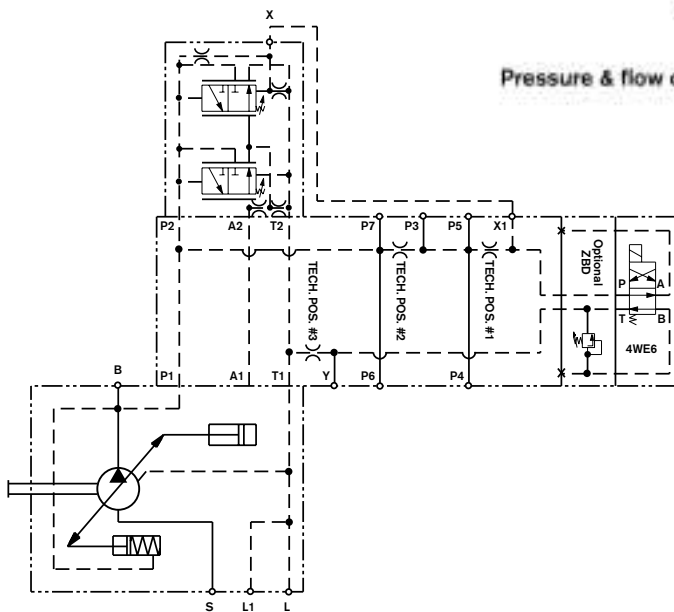
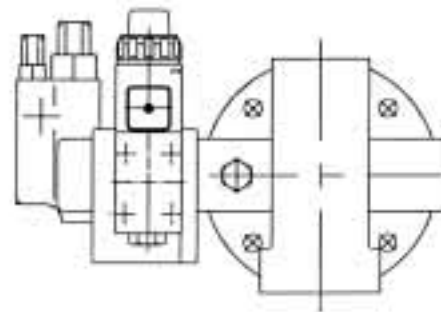
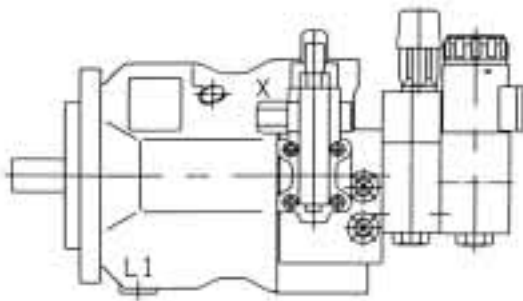
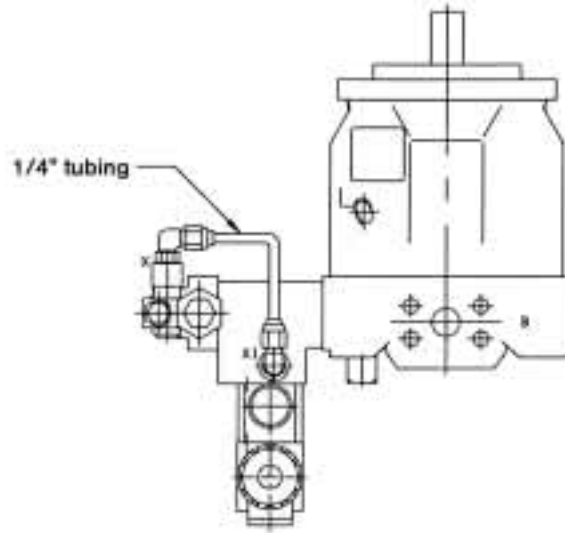
Item	Part No.	Quantity	Description
7	RR00 008838	2	Setscrew M4X06-5.8 D427
8	US00 800693	4	SHCS 10-24X2 ASTM A574
9	RR00 0005527	1	Jet 1.0 M4X7 MS RN115.38
10	US00 802879	4	SHCS 10-24X1 1/4 ASTM A574
11	US00 802658	1	Socket Setscrew 1/4-20 UNC

All dimensions in inches

# Pump Manifold

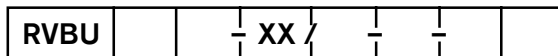
## Size 18 through 100, AA10VSO with Unloading Control

For information on variable displacement pumps please refer to Rexroth Pump and Motor Catalog



All dimensions in inches

# Pump Manifold Pressure Relief Block with Unloading



**Flange Size (P1)**

= 3/4  
= 1  
= 1-1/4

**Pressure Range**

Standard Pressure Line (Code 61)  
High Pressure Line (Code 62)  
(Available in Ductile Iron Only)

= N  
= H

**Revision**

= XX

**Material**

Aluminum 6061-T6, 3000 psi  
Ductile Iron<sup>1</sup> 65-45-12, 5000 psi

= A  
= D

See pages 83  
for dimensional information.

1) Blackening

M =  
V =

**Sealing Material**

Buna  
Viton

**Threaded Port Style**

12 = SAE  
01 = BSPP  
07 = SAE Flanged

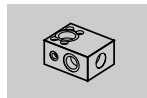
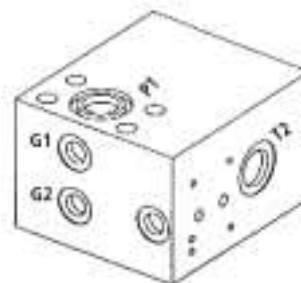
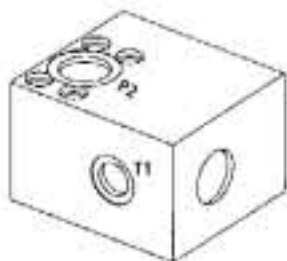
**Port Size (P2)**

12 = SAE Ports  
16 =  
20 =

3/4 = BSPP Ports  
1 =  
1-1/4 =

Omit = SAE Flanged Port  
identical to press. port size (P1)  
(Sandwich Plate Design)

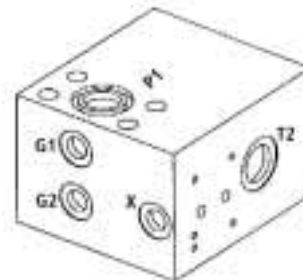
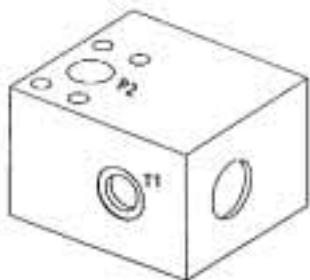
## SAE & BSPP Model



Assemblies include mounting bolts, o-rings, and plugs for "G" ports and T2.

Pressure relief valve and directional valve ("B" solenoid only). Must be ordered separately.

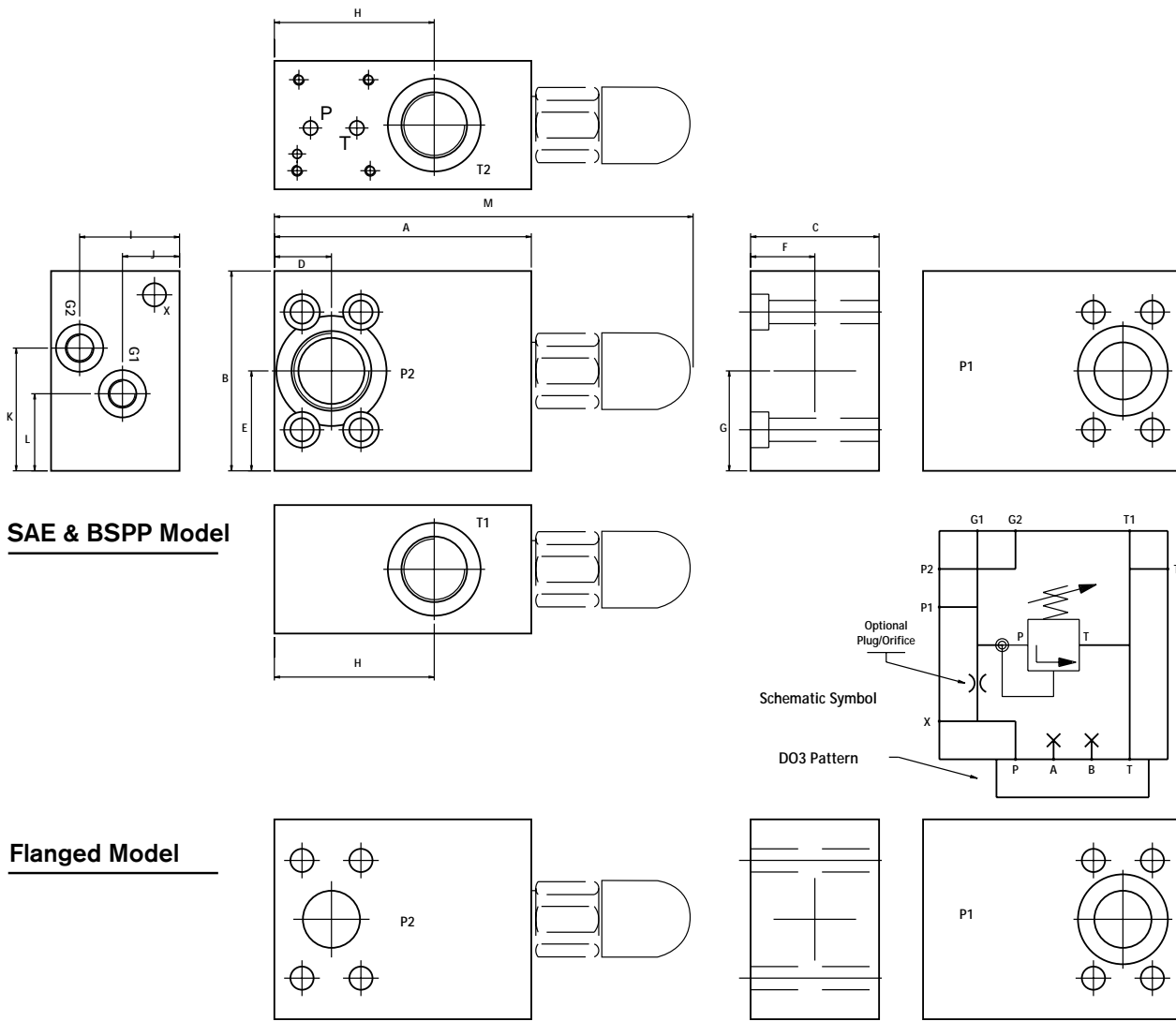
## Flanged Model



Assemblies include o-rings, and plugs for "G" ports and T2.

Pressure relief valve and directional valve ("B" solenoid only). Mounting flange, and bolts must be order separately.

# Pump Manifold Pressure Relief Block with Unloading



See page 83 for dimensional information.

## Pump Manifold Pressure Relief Block with Unloading

Dimension	A	B	C	D	E	F	G	H	I	J	K	L	M <sup>3</sup>	N <sup>1</sup>	O <sup>1</sup>	Relief Valve <sup>2</sup>	T1,T2	G1,G2, G3 <sup>1</sup> ,G4 <sup>1</sup>	P2	
RVBU3/4N...12	4.50	4.00	3.00	0.88	1.50	1.13	1.50	2.80	1.75	1.00	1.80	1.20	7.18	-	-	DBDS10	SAE-8	SAE-4	SAE-12	
1/2" BSPP																	1/4" BSPP	3/4" BSPP		
SAE-8																	SAE-4	-		
RVBU1N...12	4.75	4.50	2.25	1.00	1.75	1.13	1.75	2.80	1.75	1.00	2.15	1.35	7.18	1.00	1.00	DBDS10	SAE-12	SAE-4	SAE-16	
5.00		2.00			2.00		2.40				1.60	2.15					1.35	3/4" BSPP	1/4" BSPP	1" BSPP
4.50		1.75			1.75		2.15				1.35	SAE-12					SAE-4	-		
RVBU1-1/4N...12	5.00	4.50	3.00	1.25	1.75	1.13	1.75	3.30	1.75	1.00	2.15	1.35	7.68	-	-	DBDS10	SAE-12	SAE-4	SAE-20	
RVBU1-1/4N...01		5.00	3.25		2.00	1.25	2.00				2.40	1.60					3/4" BSPP	1/4" BSPP	1-1/4" BSPP	
RVBU1-1/4N...07		4.50	3.00		1.75	1.13	1.75				2.15	1.35					SAE-12	SAE-4	-	
RVBU3/4H...12	4.50	4.00	2.25	0.88	1.50	1.13	1.50	2.80	1.75	1.00	1.80	1.20	7.18	-	-	DBDS10	SAE-8	SAE-4	-	
RVBU3/4H...01		4.50			1.75		1.75				2.15	1.45					1/2" BSPP	1/4" BSPP	3/4" BSPP	
RVBU3/4H...07		4.00			1.50		1.50				1.80	1.20					SAE-8	SAE-4	-	
RVBU1H...12	4.50	4.50	3.00	1.00	1.75	1.13	1.75	2.13	1.75	1.00	2.15	1.35	7.18	1.00	1.00	DBDS10	SAE-12	SAE-4	SAE-16	
RVBU1H...01		5.25			2.13		2.13				2.53	1.73					3/4" BSPP	1/4" BSPP	1" BSPP	
RVBU1H...07		4.5			1.75		1.75				2.15	1.35					SAE-12	SAE-4	-	
RVBU1-1/4H...12	6.00	4.75	2.25	1.38	1.88	1.13	1.88	3.70	1.75	1.00	2.40	1.35	8.56	-	-	DBDS20	SAE-12	SAE-4	SAE-20	
RVBU1-1/4H...01																	3/4" BSPP	1/4" BSPP	1-1/4" BSPP	
RVBU1-1/4H...07																	SAE-12	SAE-4	-	

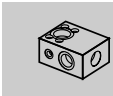
1) Ports G3 and G4 available only on RVB1... for use with AA10VSO71 Series 31

All dimensions in inches

2) Pressure relief valve must be ordered separately

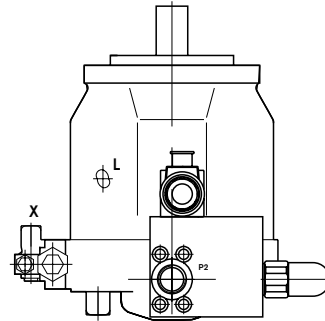
3) Dimension "M" shown for S type adjustment

See page 82 (MS-06-0400, page 4 of 4) for mounting orientations.

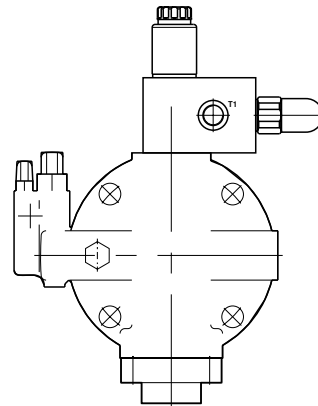
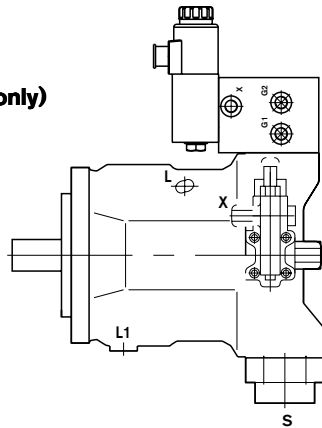


# Pump Manifold Pressure Relief Block with Unloading

Orientation for AA10VSO71 Series 31  
Pump RVBU1...



Directional Valve ("B" solenoid only)



Orientation for relief blocks:  
RVBU3/4...  
RVBU1...  
RVBU1-1/4...

