KTI HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

Table of Contents

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

KTI Hydraulics Inc., was established in 1997. The vision of our two founders, George King and Robert W. Habermann, was the KTI design philosophy for the original Universal Manifold® concept.

This concept has inherent integral features that are incorporated in the machined Universal Manifold®. It weighs less than 2 pounds, has eighteen basic hydraulic circuits, allows the use of an assortment of optional pumps with different displacements, a selection of reservoirs with different capacities and will mount to both AC and DC electric motors.

The basic four cavities (“H” concept) uses SAE O-ring cap plugs, cavity plugs or self contained functional cartridge valves. This hardware assortment allows the design to achieve any one of the six basic single acting hydraulic circuits.

An external mounting surface is also incorporated in the machined Universal Manifold® design. It allows for custom multiple valve circuits to be mounted on the basic power unit. Preformed cavities allow the use of hexagon or square steel nuts to lock the body in place for aluminum to aluminum retention.

In 2002, the Universal Manifold® II was conceived and developed for double acting applications. This design complemented the Universal Manifold® I design. The two designs greatly expanded our circuit selection. In 2004, the Universal Manifold® III was developed for dual double acting applications. Then it was adopted for standard snow plow circuit w/power angling, crossover relief & lift check, lower w/ float function. From the snow plow circuit, we were able to design a Double Acting & Single Acting Function in one manifold without requiring additional hydraulic manifold.

All KTI hydraulics power units are 100% fully inspected to stringent test specifications. The tests insure to our customers that they will receive reliable, high quality hydraulic power systems that will perform to our design specifications.

HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

How to order AC and DC Power Units

Circuit

1 ☐

A) 101
B) 102
G) 102A RV ONLY
H) 102B CV ONLY
C) 103
R) 103A
D) 104A
E) 104B
F) 105
I) 106
K) 108
L) 109
M) 110
N) 111
Q) 114
S) 114A
T) 208
U) 211
V) 215
X) 216

Pump

2 ☐

PL in³/r

M) PL-0.63 (0.0383)
L) PL-0.80 (0.0543)
B) PL-1.20 (0.0775)
C) PL-1.60 (0.1013)
D) PL-2.10 (0.1324)
E) PL-2.70 (0.1709)
G) PL-3.20 (0.2026)
H) PL-4.20 (0.2625)
I) PL-5.10 (0.3113)
J) PL-6.00 (0.3681)

Motor

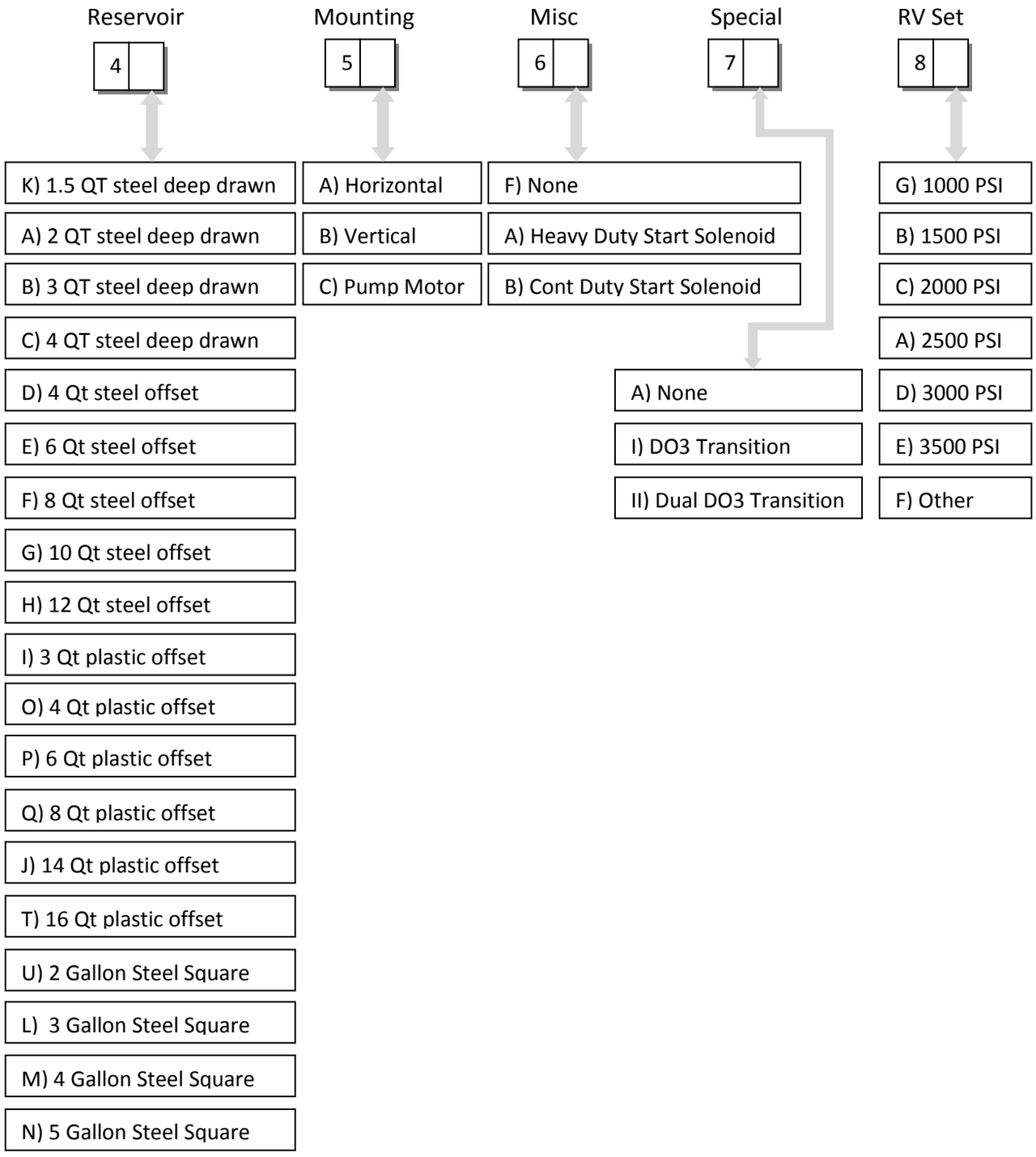
3 ☐

A) 12V DC, 4.5” OD 2 term
B) 12V DC, 3.0” OD 1 term
C) 24V DC, 4.5” OD 2 term
D) 0.5HP/1PH/115-230/TEFC/1750 RPM
E) 0.5HP/3PH/230-460/TEFC/1750 RPM
H) 1.0HP/1PH/115-230/TEFC/1750-3450 RPM
I) 1.0HP/3PH/230-460/TEFC/1750-3450 RPM
O) 1.5HP/1PH/115-230/TEFC/1750-3450 RPM
T) 1.5HP/3PH/230-460/TEFC/1750 RPM
L) 2.0HP/1PH/115-230/TEFC/1750-3450 RPM
M)2.0HP/3PH/230-460/TEFC/1750-3450 RPM
J) 3.0HP/1PH/230/TEFC/3450 RPM
K) 3.0HP/3PH/230-460/TEFC/3450 RPM
P) 12V DC, 4.5” OD 2 term, Saddle Mount
Q) 24V DC, 4.5” OD 2 term, Saddle Mount
R) 12/24V DC, 5.0” OD 2 term OEFC

HYDRAULICS INCORPORATED

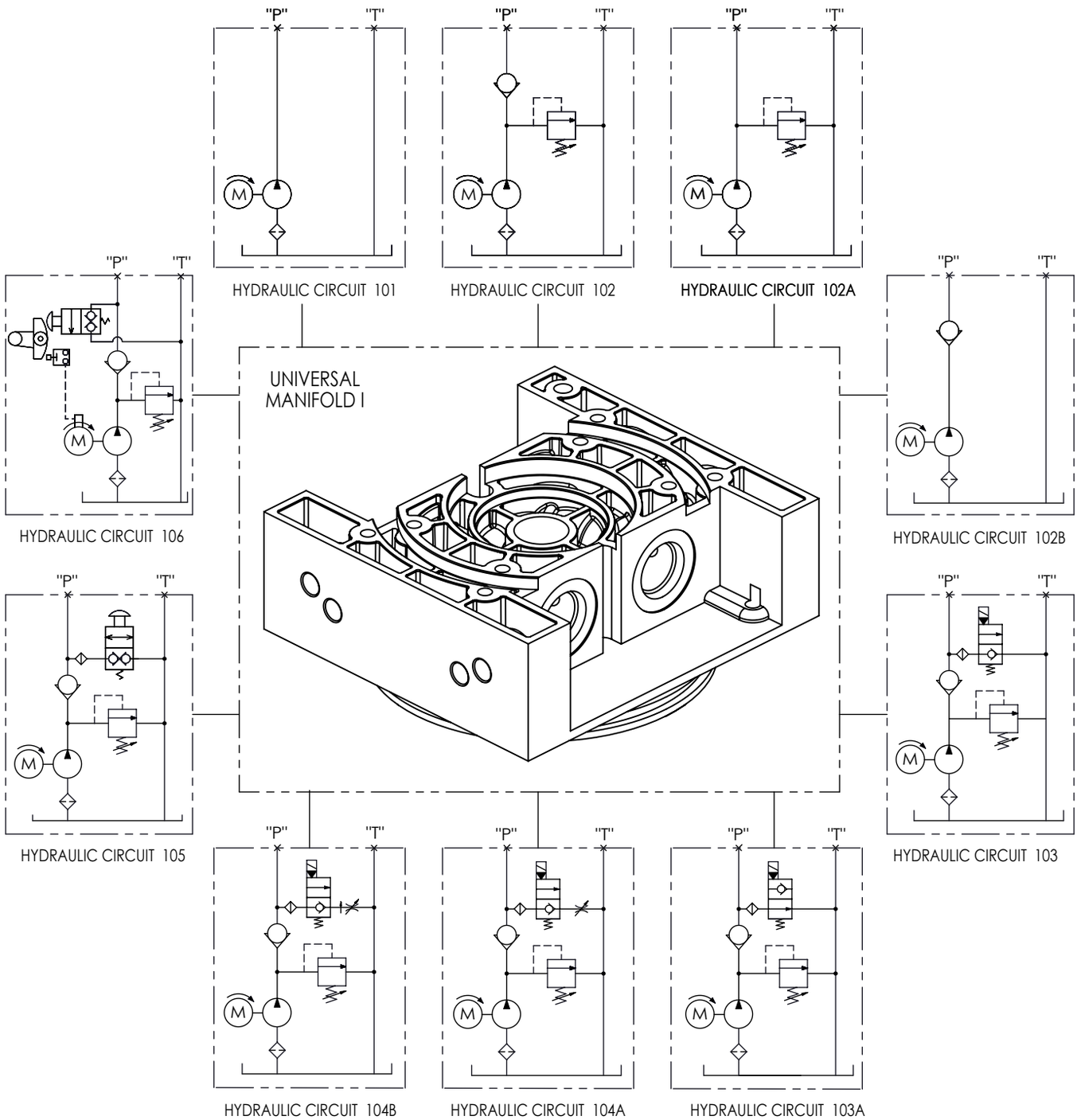
2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

How to order AC and DC Power Units



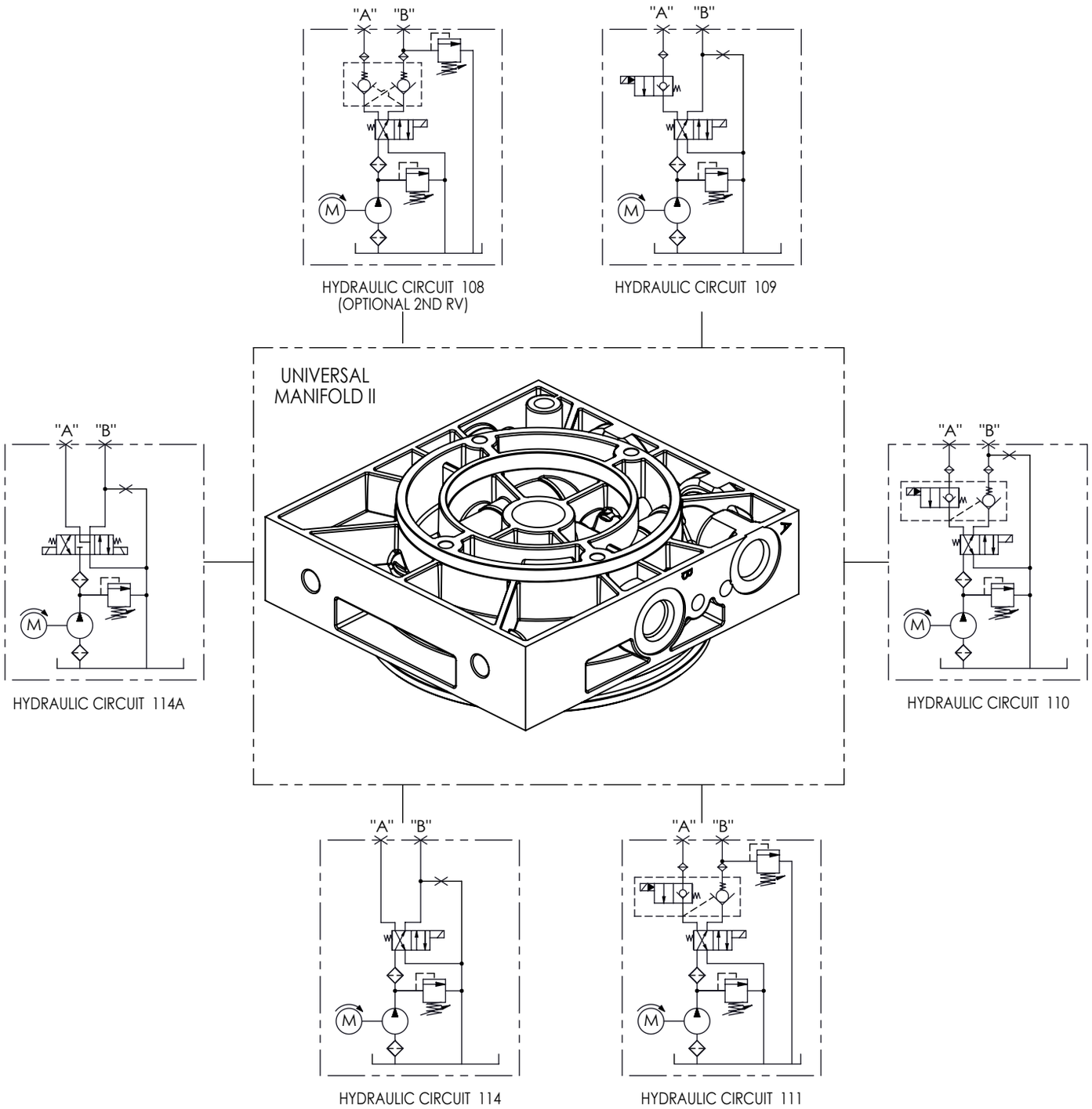
HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com



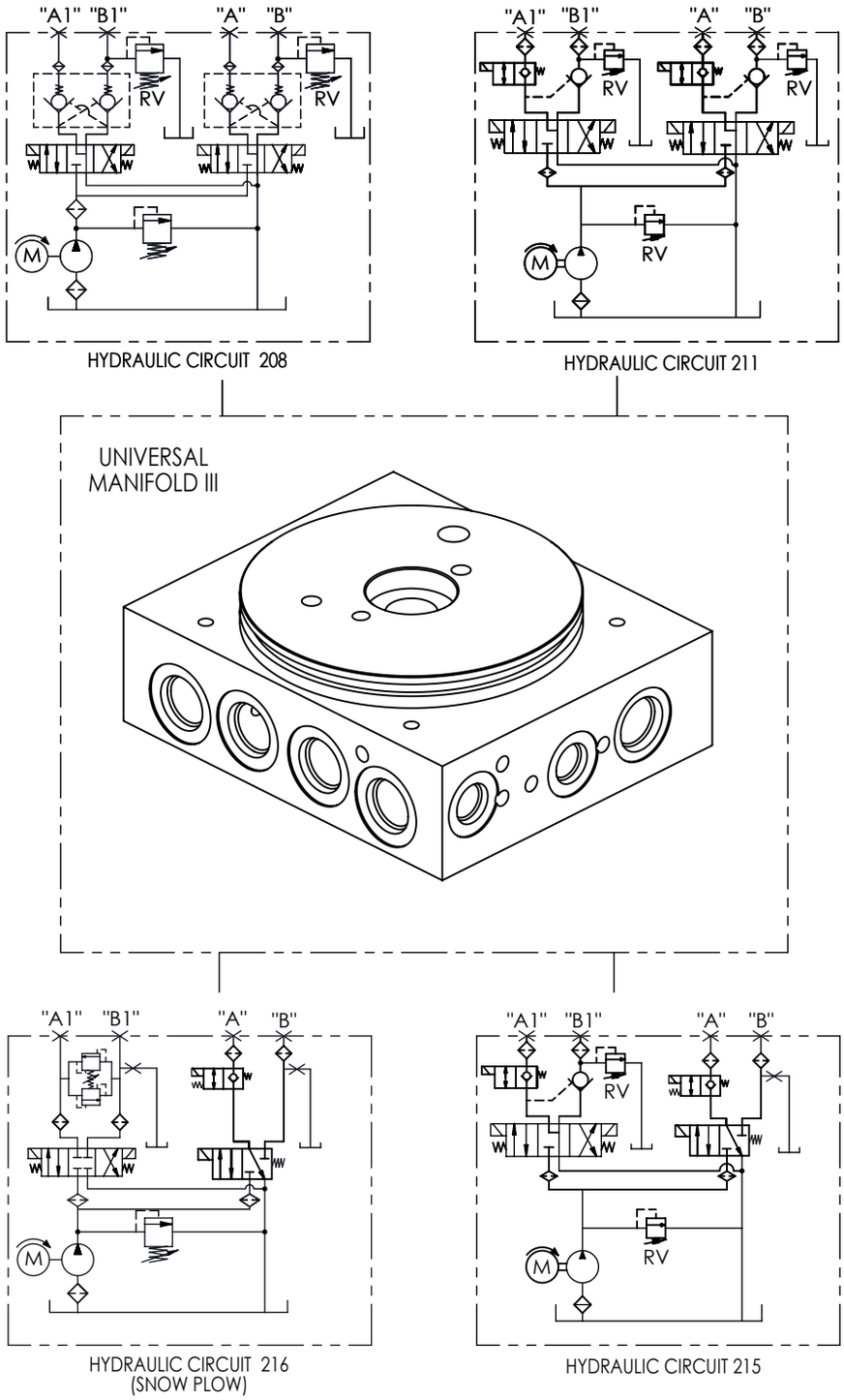
HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com



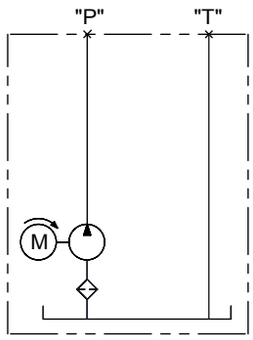
HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

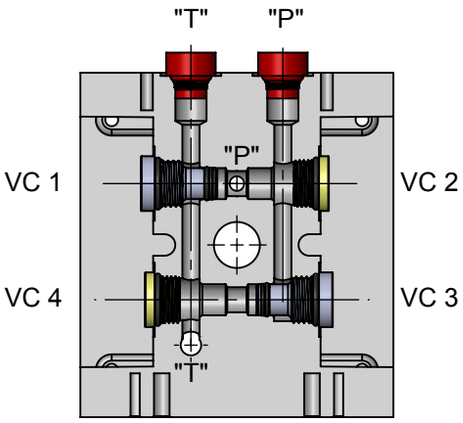


HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

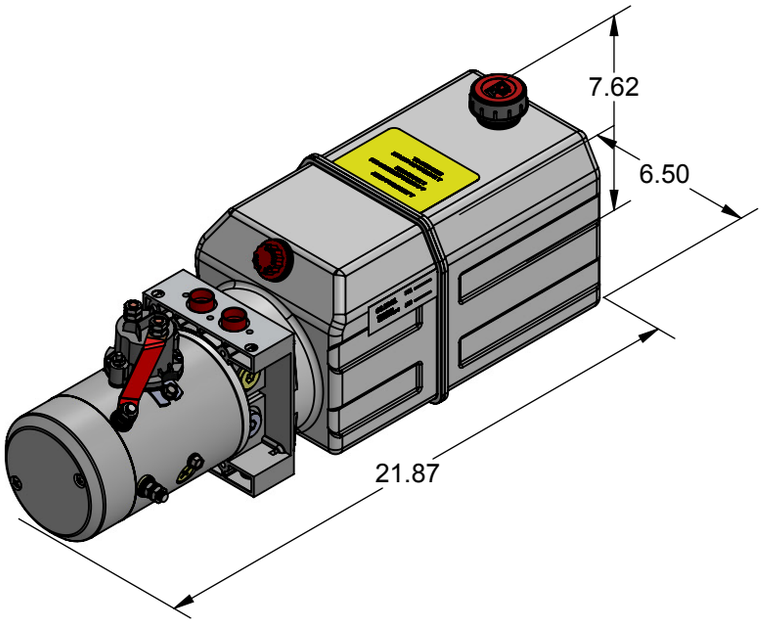


HYDRAULIC CIRCUIT 101



DESCRIPTION:

KTI Universal Manifold I, Hydraulic Circuit 101.
Most basic of all circuits.
Motor, KTI Universal Manifold I®, Pump, Tank,
no valves. “P” & “T” SAE #6(9/16-18) O-ring ports.



CAVITY 1: VALVE CAVITY PLUG
CAVITY 2: VALVE PLUG
CAVITY 3: VALVE CAVITY PLUG
CAVITY 4: VALVE PLUG

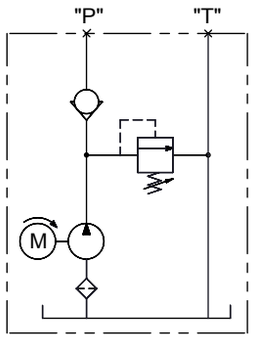
AS SHOWN:
MOTOR: 12V DC
MANIFOLD: KTI UNIVERSAL MANIFOLD I®.
PUMP: PL SERIES
RESERVOIR: 6 QT PLASTIC

HYDRAULIC CIRCUIT 101:

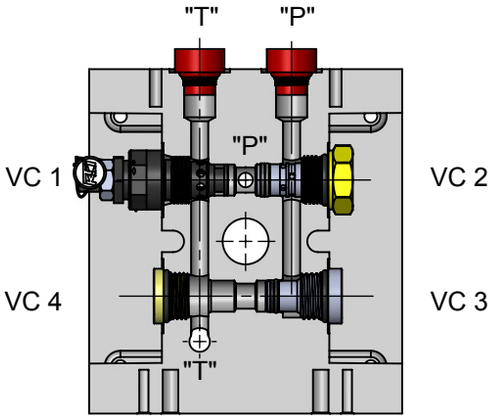
MOTOR	**PUMP**		**RESERVOIR**	**MOUNTING**
OD 3.0" 12V DC	PL	IN³	PLASTIC RESERVOIR	HORIZONTAL
OD 4.5" 12/24V DC	0.6	0.0384	3 QT-----14 QT	VERTICAL
OD 5.0" 12/24V DC	I	I		
1/2 HP--3 HP AC	I	I	STEEL RESERVOIR	**MISC**
	5.8	0.3593	1.5 QT-----20 QT	DC START SWITCH

HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

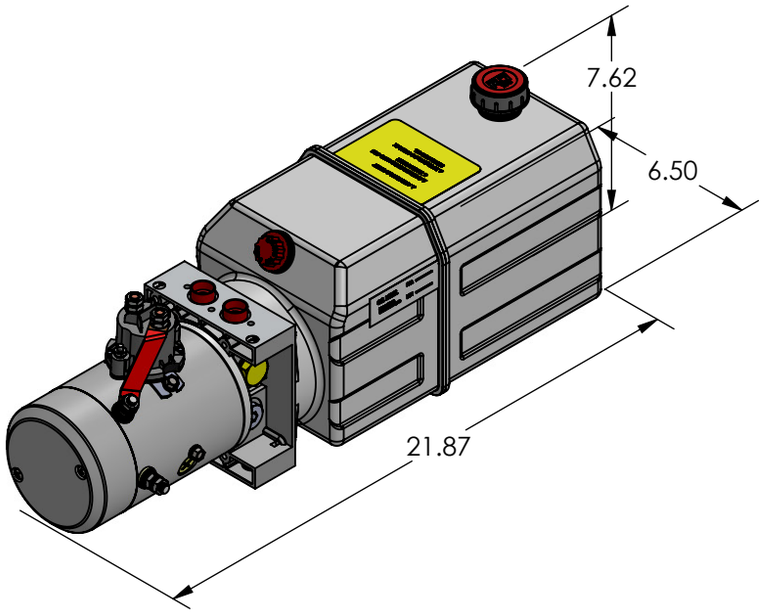


HYDRAULIC CIRCUIT 102



DESCRIPTION:

KTI Universal Manifold I, Hydraulic Circuit 102.
Base "P" & "T" power unit.
Motor, KTI Universal Manifold I® (with cartridge check and cartridge relief valve), Pump, Tank.
“P” & “T” SAE #6(9/16-18) O-ring ports.



CAVITY 1: CARTRIDGE RELIEF VALVE
CAVITY 2: CARTRIDGE CHECK VALVE
CAVITY 3: VALVE CAVITY PLUG
CAVITY 4: VALVE PLUG

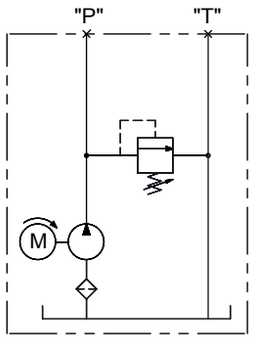
AS SHOWN:
MOTOR: 12V DC
MANIFOLD: KTI UNIVERSAL MANIFOLD I®.
PUMP: PL SERIES
RESERVOIR: 6 QT PLASTIC

HYDRAULIC CIRCUIT 102:

MOTOR	**PUMP**		**RESERVOIR**	**MOUNTING**
OD 3.0" 12V DC	PL	IN³	PLASTIC RESERVOIR	HORIZONTAL
OD 4.5" 12/24V DC	0.6	0.0384	3 QT-----14 QT	VERTICAL
OD 5.0" 12/24V DC	I	I		
1/2 HP--3 HP AC	I	I	STEEL RESERVOIR	**MISC**
	5.8	0.3593	1.5 QT-----20 QT	DC START SWITCH

HYDRAULICS INCORPORATED

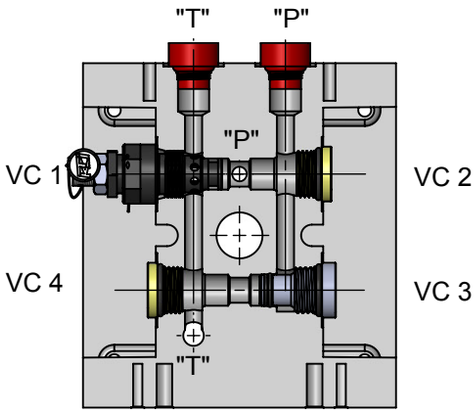
2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

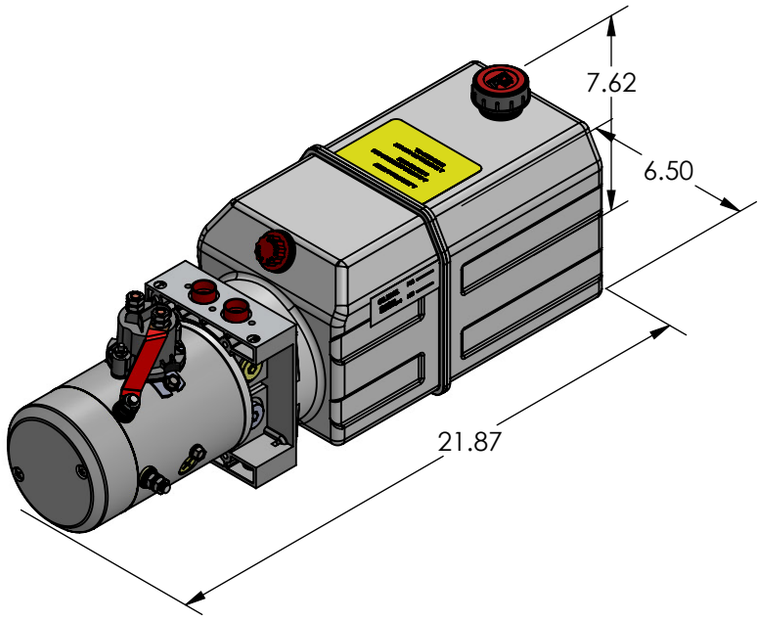


HYDRAULIC CIRCUIT 102A

DESCRIPTION:

KTI Universal Manifold I, Hydraulic Circuit 102A.
Base "P" & "T" power unit.
Motor, KTI Universal Manifold I® (with cartridge relief valve), Pump, Tank.
“P” & “T” SAE #6(9/16-18) O-ring ports.





CAVITY 1: CARTRIDGE RELIEF VALVE
CAVITY 2: VALVE PLUG
CAVITY 3: VALVE CAVITY PLUG
CAVITY 4: VALVE PLUG

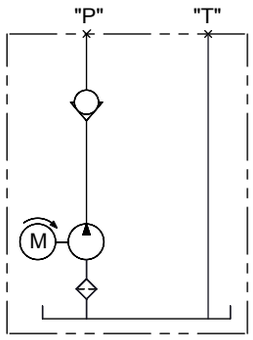
AS SHOWN:
MOTOR: 12V DC
MANIFOLD: KTI UNIVERSAL MANIFOLD I®.
PUMP: PL SERIES
RESERVOIR: 6 QT PLASTIC

HYDRAULIC CIRCUIT 102A:

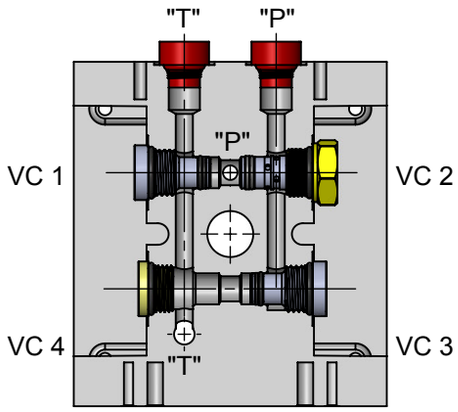
MOTOR	PUMP		RESERVOIR	MOUNTING
OD 3.0" 12V DC	PL	IN³	PLASTIC RESERVOIR	HORIZONTAL
OD 4.5" 12/24V DC	0.6	0.0384	3 QT-----14 QT	VERTICAL
OD 5.0" 12/24V DC	I	I		
1/2 HP--3 HP AC	I	I	STEEL RESERVOIR	**MISC**
	5.8	0.3593	1.5 QT-----20 QT	DC START SWITCH

HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

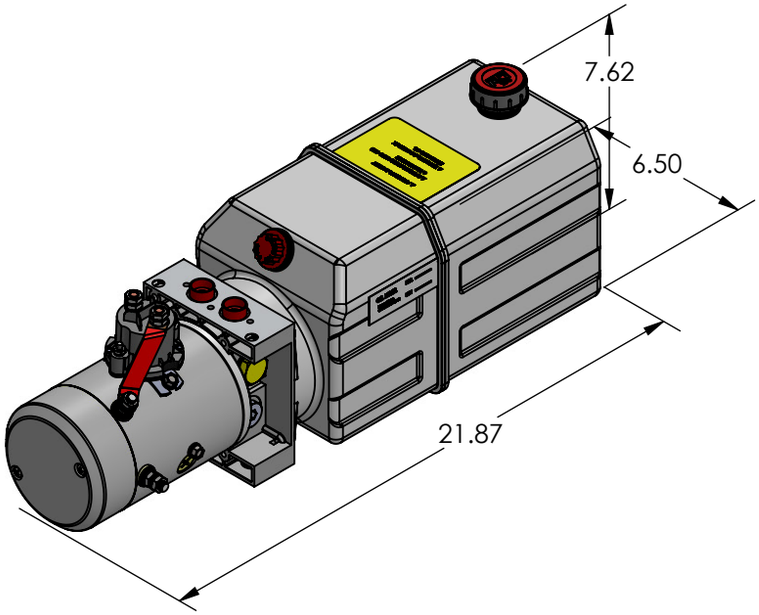


HYDRAULIC CIRCUIT 102B



DESCRIPTION:

KTI Universal Manifold I, Hydraulic Circuit 102B.
Base "P" & "T" power unit.
Motor, KTI Universal Manifold I® (with cartridge check valve), Pump, Tank.
“P” & “T” SAE #6(9/16-18) O-ring ports.



CAVITY 1: VALVE CAVITY PLUG
CAVITY 2: CARTRIDGE CHECK VALVE
CAVITY 3: VALVE CAVITY PLUG
CAVITY 4: VALVE PLUG

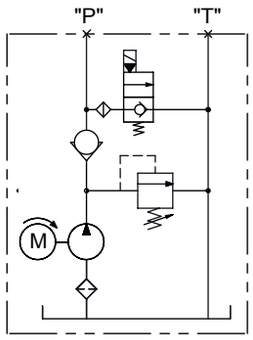
AS SHOWN:
MOTOR: 12V DC
MANIFOLD: KTI UNIVERSAL MANIFOLD I®.
PUMP: PL SERIES
RESERVOIR: 6 QT PLASTIC

HYDRAULIC CIRCUIT 102B:

MOTOR	**PUMP**		**RESERVOIR**	**MOUNTING**
OD 3.0" 12V DC	PL	IN³	PLASTIC RESERVOIR	HORIZONTAL
OD 4.5" 12/24V DC	0.6	0.0384	3 QT-----14 QT	VERTICAL
OD 5.0" 12/24V DC	I	I		
1/2 HP--3 HP AC	I	I	STEEL RESERVOIR	**MISC**
	5.8	0.3593	1.5 QT-----20 QT	DC START SWITCH

HYDRAULICS INCORPORATED

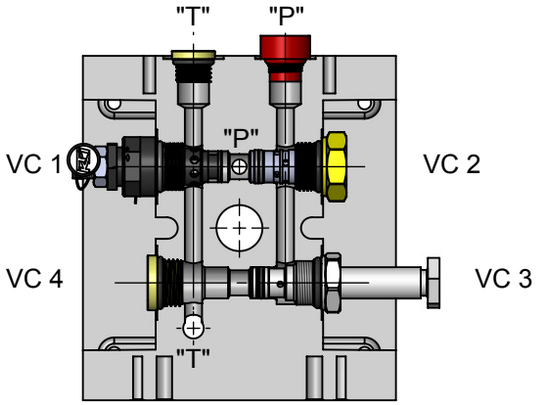
2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

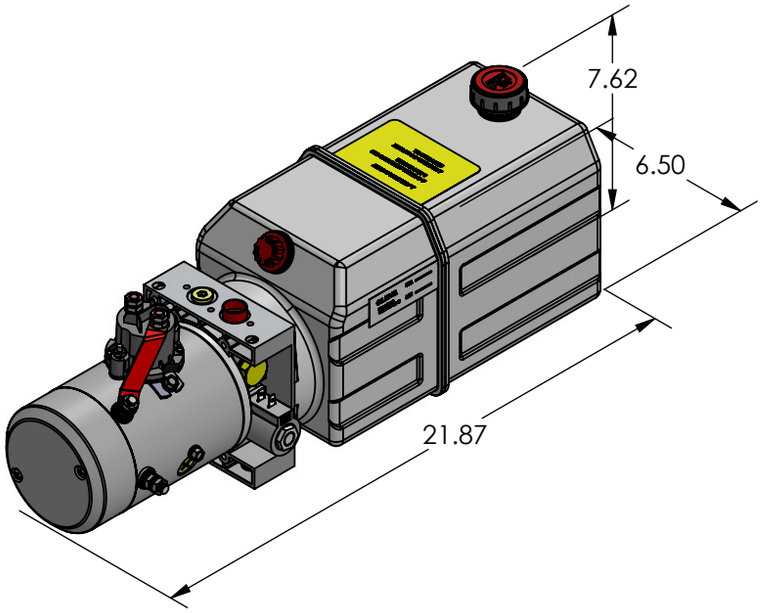


HYDRAULIC CIRCUIT 103

DESCRIPTION:

KTI Universal Manifold I, Hydraulic Circuit 103.
Base lift, check, and lowering circuit power unit.
Motor, KTI Universal Manifold I® (with cartridge relief valve, cartridge check valve, cartridge NC 2 way poppet valve), Pump, Tank.
“P” & “T” SAE #6(9/16-18) O-ring ports.





CAVITY 1: CARTRIDGE RELIEF VALVE
CAVITY 2: CARTRIDGE CHECK VALVE
CAVITY 3: NC 2W2P SOLENOID VALVE
CAVITY 4: VALVE PLUG

AS SHOWN:
MOTOR: 12V DC
MANIFOLD: KTI UNIVERSAL MANIFOLD I®.
PUMP: PL SERIES
RESERVOIR: 6 QT PLASTIC

HYDRAULIC CIRCUIT 103:

MOTOR
OD 3.0" 12V DC
OD 4.5" 12/24V DC
OD 5.0" 12/24V DC
1/2 HP--3 HP AC

PUMP

PL	IN³
0.6	0.0384
I	I
I	I
5.8	0.3593

RESERVOIR
PLASTIC RESERVOIR
3 QT-----14 QT

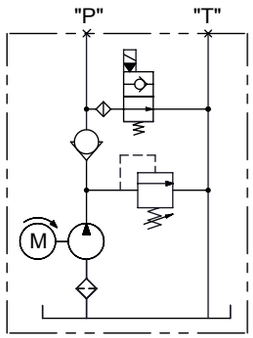
STEEL RESERVOIR
1.5 QT-----20 QT

MOUNTING
HORIZONTAL
VERTICAL

MISC
DC START SWITCH
REMOTE PENDANT

HYDRAULICS INCORPORATED

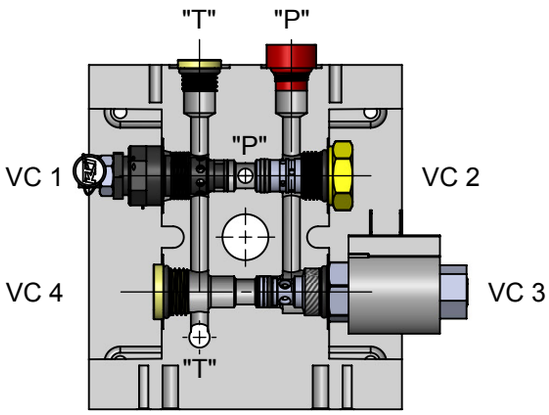
2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

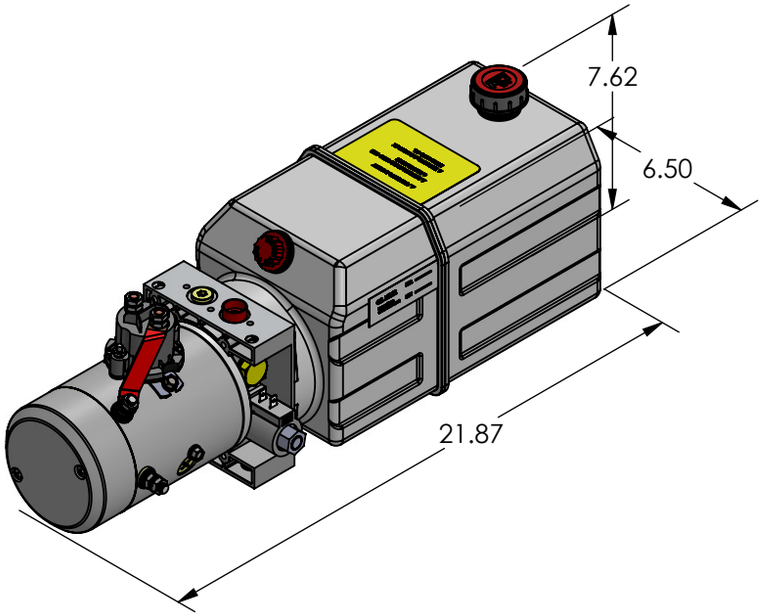


HYDRAULIC CIRCUIT 103A

DESCRIPTION:

KTI Universal Manifold I, Hydraulic Circuit 103A.
Base lift, check, and lowering circuit power unit.
Motor, KTI Universal Manifold I® (with cartridge relief valve, cartridge check valve, cartridge NO 2 way poppet valve), Pump, Tank.
“P” & “T” SAE #6(9/16-18) O-ring ports.





CAVITY 1: CARTRIDGE RELIEF VALVE
CAVITY 2: CARTRIDGE CHECK VALVE
CAVITY 3: NO 2W2P SOLENOID VALVE
CAVITY 4: VALVE PLUG

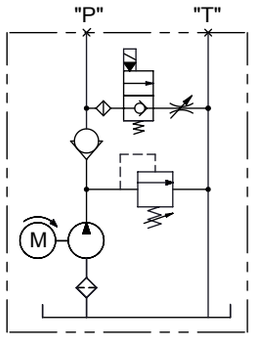
AS SHOWN:
MOTOR: 12V DC
MANIFOLD: KTI UNIVERSAL MANIFOLD I®.
PUMP: PL SERIES
RESERVOIR: 6 QT PLASTIC

HYDRAULIC CIRCUIT 103A:

MOTOR	PUMP		RESERVOIR	MOUNTING
OD 3.0" 12V DC	PL	IN³	PLASTIC RESERVOIR	HORIZONTAL
OD 4.5" 12/24V DC	0.6	0.0384	3 QT-----14 QT	VERTICAL
OD 5.0" 12/24V DC	I	I		
1/2 HP--3 HP AC	I	I	STEEL RESERVOIR	**MISC**
	5.8	0.3593	1.5 QT-----20 QT	DC START SWITCH
				REMOTE PENDANT

HYDRAULICS INCORPORATED

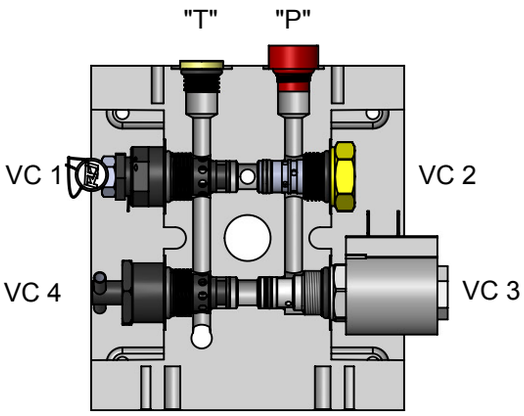
2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

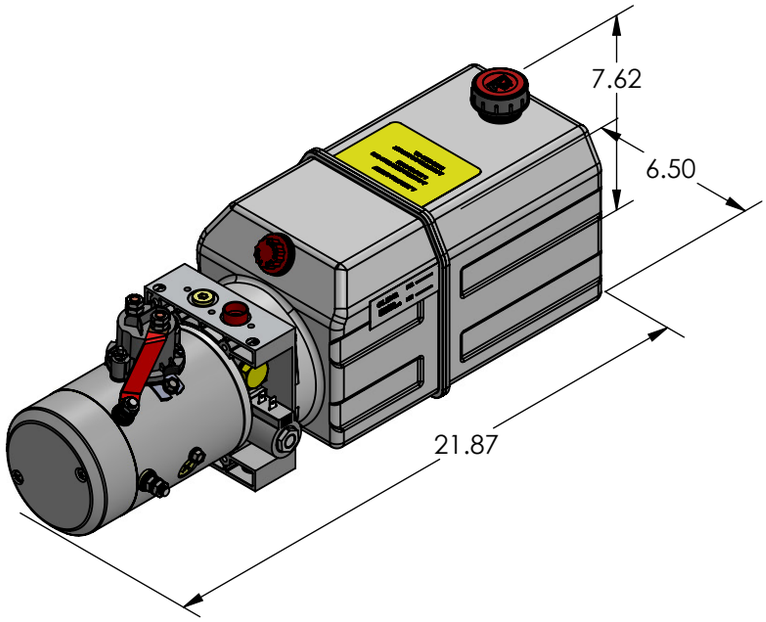


HYDRAULIC CIRCUIT 104A

DESCRIPTION:

KTI Universal Manifold I, Hydraulic Circuit 104A.
Base lift, check, and lowering with adjustable return flow power unit.
Motor, KTI Universal Manifold I® (with cartridge relief valve, cartridge check valve, cartridge NC 2 way valve, and adjustable flow control valve), Pump, Tank.
“P” & “T” SAE #6(9/16-18) O-ring ports.





CAVITY 1: CARTRIDGE RELIEF VALVE
CAVITY 2: CARTRIDGE CHECK VALVE
CAVITY 3: NC 2W2P SOLENOID VALVE
CAVITY 4: ADJUSTABLE FLOW CONTROL VALVE

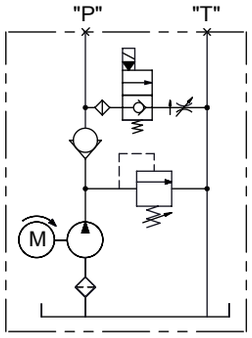
AS SHOWN:
MOTOR: 12V DC
MANIFOLD: KTI UNIVERSAL MANIFOLD I®.
PUMP: PL SERIES
RESERVOIR: 6 QT PLASTIC

HYDRAULIC CIRCUIT 104A:

MOTOR	**PUMP**		**RESERVOIR**	**MOUNTING**
OD 3.0" 12V DC	PL	IN³	PLASTIC RESERVOIR	HORIZONTAL
OD 4.5" 12/24V DC	0.6	0.0384	3 QT-----14 QT	VERTICAL
OD 5.0" 12/24V DC	I	I		
1/2 HP--3 HP AC	I	I	STEEL RESERVOIR	**MISC**
	5.8	0.3593	1.5 QT-----20 QT	DC START SWITCH
				REMOTE PENDANT

HYDRAULICS INCORPORATED

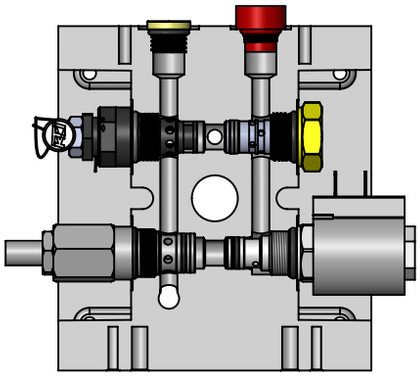
2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

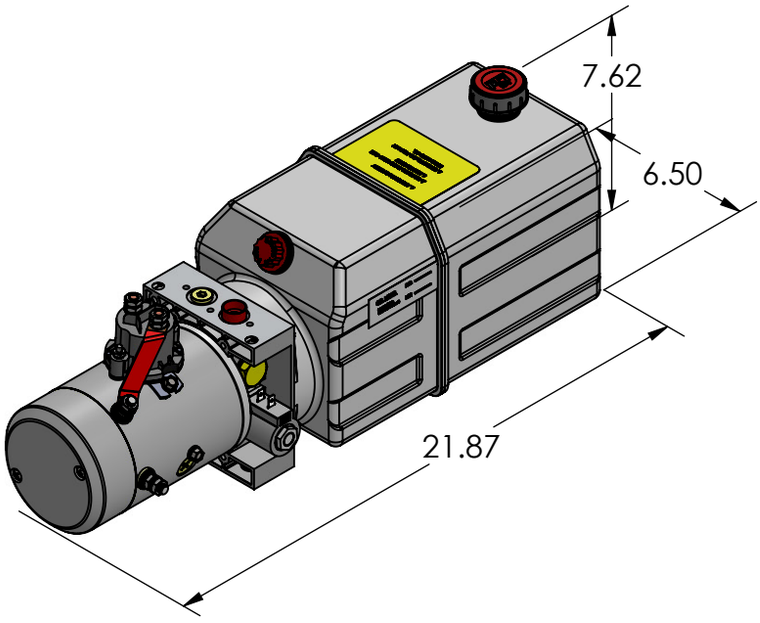


HYDRAULIC CIRCUIT 104B

DESCRIPTION:

KTI Universal Manifold I, Hydraulic Circuit 104B.
Base lift,check, and lowering with fully adjustable pressure compensated return flow power unit.
Motor, KTI Universal Manifold I® (with cartridge relief valve, cartridge check valve, cartridge NC 2 way valve, and pressure compensated adjustable flow control valve), Pump, Tank.
"P" & "T" SAE #6(9/16-18) O-ring ports.





CAVITY 1: CARTRIDGE RELIEF VALVE
CAVITY 2: CARTRIDGE CHECK VALVE
CAVITY 3: NC 2W2P SOLENOID VALVE
CAVITY 4: PRESSURE COMPENSATED ADJUSTABLE FLOW CONTROL VALVE

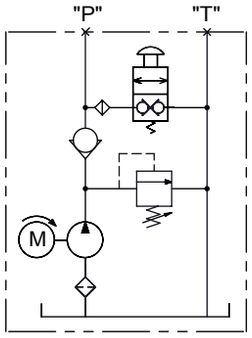
AS SHOWN:
MOTOR: 12V DC
MANIFOLD: KTI UNIVERSAL MANIFOLD I®.
PUMP: PL SERIES
RESERVOIR: 6 QT PLASTIC

HYDRAULIC CIRCUIT 104B:

MOTOR	**PUMP**		**RESERVOIR**	**MOUNTING**
OD 3.0" 12V DC	PL	IN³	PLASTIC RESERVOIR	HORIZONTAL
OD 4.5" 12/24V DC	0.6	0.0384	3 QT-----14 QT	VERTICAL
OD 5.0" 12/24V DC	I	I		
1/2 HP--3 HP AC	I	I	STEEL RESERVOIR	**MISC**
	5.8	0.3593	1.5 QT-----20 QT	DC START SWITCH
				REMOTE PENDANT

HYDRAULICS INCORPORATED

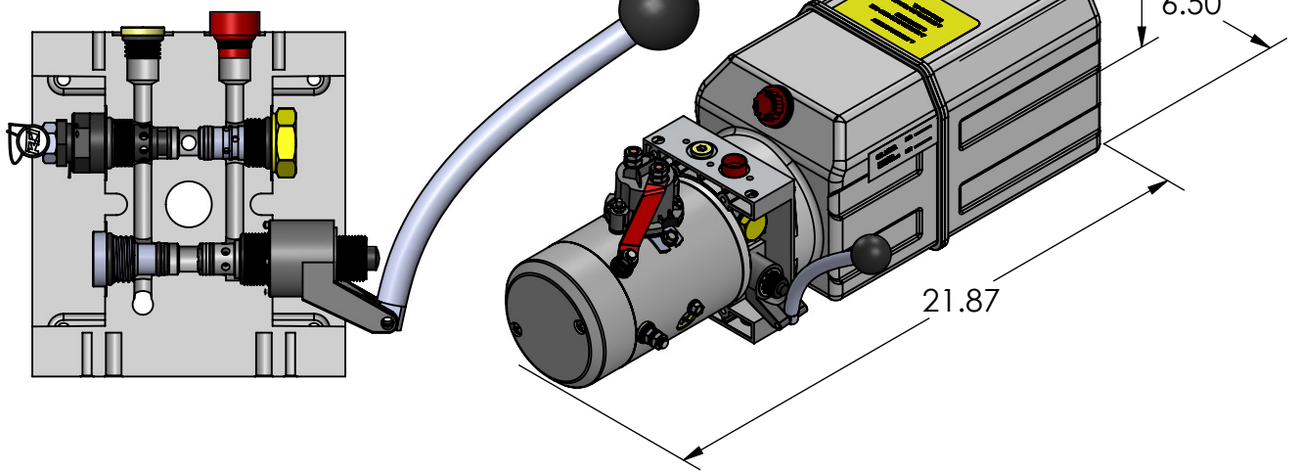
2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com



HYDRAULIC CIRCUIT 105

DESCRIPTION:

KTI Universal Manifold I, Hydraulic Circuit 105.
Base lift,check, and manual lowering valve.
Motor, KTI Universal Manifold I® (with cartridge relief valve, cartridge check valve, manual operate NC 2 way valve), Pump, Tank.
“P” & “T” SAE #6(9/16-18) O-ring ports.



CAVITY 1: CARTRIDGE RELIEF VALVE
CAVITY 2: CARTRIDGE CHECK VALVE
CAVITY 3: MANUAL LOWERING VALVE
CAVITY 4: 2WAY VALVE CAVITY PLUG

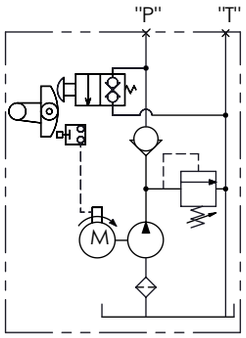
AS SHOWN:
MOTOR: 12V DC
MANIFOLD: KTI UNIVERSAL MANIFOLD I®.
PUMP: PL SERIES
RESERVOIR: 6 QT PLASTIC

HYDRAULIC CIRCUIT 105:

MOTOR	**PUMP**		**RESERVOIR**	**MOUNTING**
OD 3.0" 12V DC	PL	IN³	PLASTIC RESERVOIR	HORIZONTAL
OD 4.5" 12/24V DC	0.6	0.0384	3 QT-----14 QT	VERTICAL
OD 5.0" 12/24V DC	I	I		
1/2 HP--3 HP AC	I	I	STEEL RESERVOIR	**MISC**
	5.8	0.3593	1.5 QT-----20 QT	DC START SWITCH

HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com



HYDRAULIC CIRCUIT 106

DESCRIPTION:

KTI Universal Manifold I, Hydraulic Circuit 106.
Base lift,check, and manual three position valve.
Motor, KTI Universal Manifold I® (with cartridge relief valve, cartridge check valve, manual operate power up, regulated gravity down), Pump, Tank.
“P” & “T” SAE #6(9/16-18) O-ring ports.

CAVITY 1: CARTRIDGE RELIEF VALVE
CAVITY 2: CARTRIDGE CHECK VALVE
CAVITY 3: MANUAL OPERATE POWER UP, GRAVITY DOWN VALVE
CAVITY 4: 2WAY VALVE CAVITY PLUG

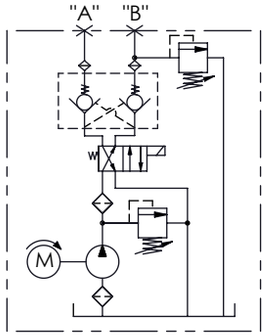
AS SHOWN:
MOTOR: 12V DC
MANIFOLD: KTI UNIVERSAL MANIFOLD I®.
PUMP: PL SERIES
RESERVOIR: 6 QT PLASTIC

HYDRAULIC CIRCUIT 106:

MOTOR	**PUMP**		**RESERVOIR**	**MOUNTING**
OD 3.0" 12V DC	PL	IN³	PLASTIC RESERVOIR	HORIZONTAL
OD 4.5" 12/24V DC	0.6	0.0384	3 QT-----14 QT	VERTICAL
OD 5.0" 12/24V DC	I	I		
1/2 HP--3 HP AC	I	I	STEEL RESERVOIR	**MISC**
	5.8	0.3593	1.5 QT-----20 QT	DC START SWITCH

HYDRAULICS INCORPORATED

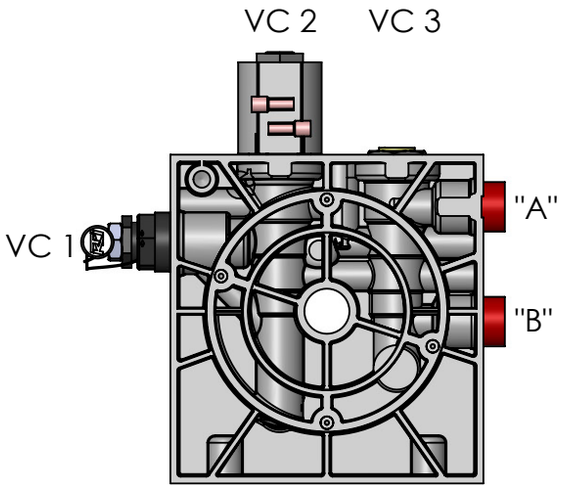
2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

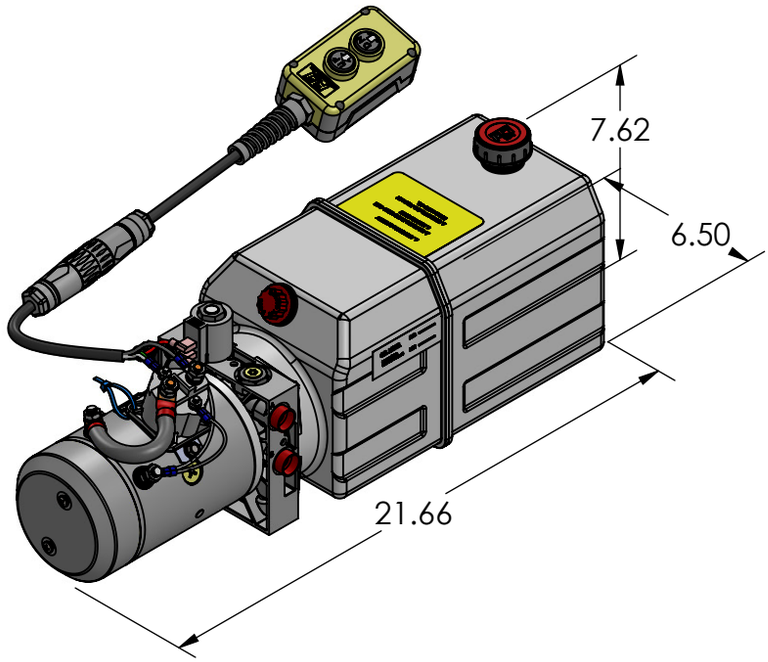


HYDRAULIC CIRCUIT 108
(OPTIONAL 2ND RV)

DESCRIPTION:

KTI Universal Manifold II, Hydraulic Circuit 108.
Double acting circuit for power up, power down operation.
Motor, KTI Universal Manifold II® (with cartridge relief valve, 4w2p valve, dual pilot operated check valve, optional secondary relief valve), Pump, Tank.
"A" & "B" SAE #6(9/16-18) O-ring ports.





CAVITY 1: CARTRIDGE RELIEF VALVE
CAVITY 2: 4W2P DIRECTION VALVE
CAVITY 3: DUAL PILOT OPERATED CHECK VALVE
CAVITY 4: (OPTIONAL 2ND RELIEF VALVE)

AS SHOWN:
MOTOR: 12V DC
MANIFOLD: KTI UNIVERSAL MANIFOLD II®.
PUMP: PL SERIES
RESERVOIR: 6 QT PLASTIC
2 BUTTON REMOTE PENDANT W/QD

HYDRAULIC CIRCUIT 108:

MOTOR
OD 3.0" 12V DC
OD 4.5" 12/24V DC

PUMP

PL	IN³
0.6	0.0384
I	I
I	I
5.8	0.3593

RESERVOIR
PLASTIC RESERVOIR
3 QT-----14 QT

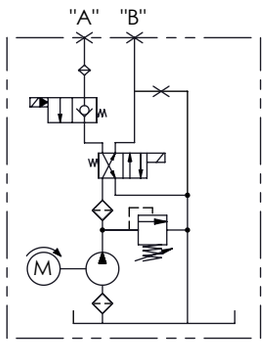
STEEL RESERVOIR
1.5 QT-----20 QT

MOUNTING
HORIZONTAL
VERTICAL

MISC
DC START SWITCH
REMOTE PENDANT

HYDRAULICS INCORPORATED

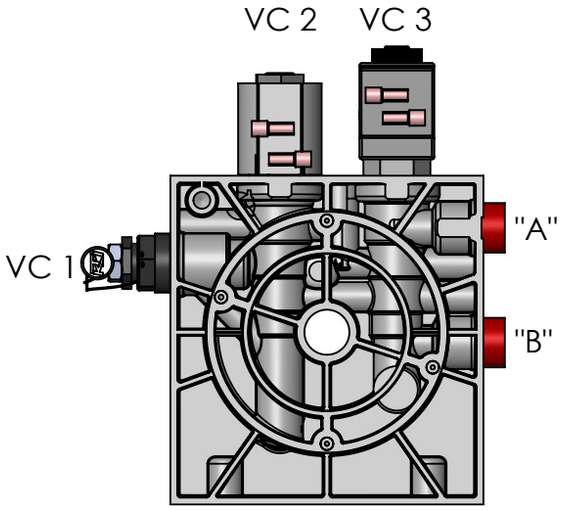
2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com



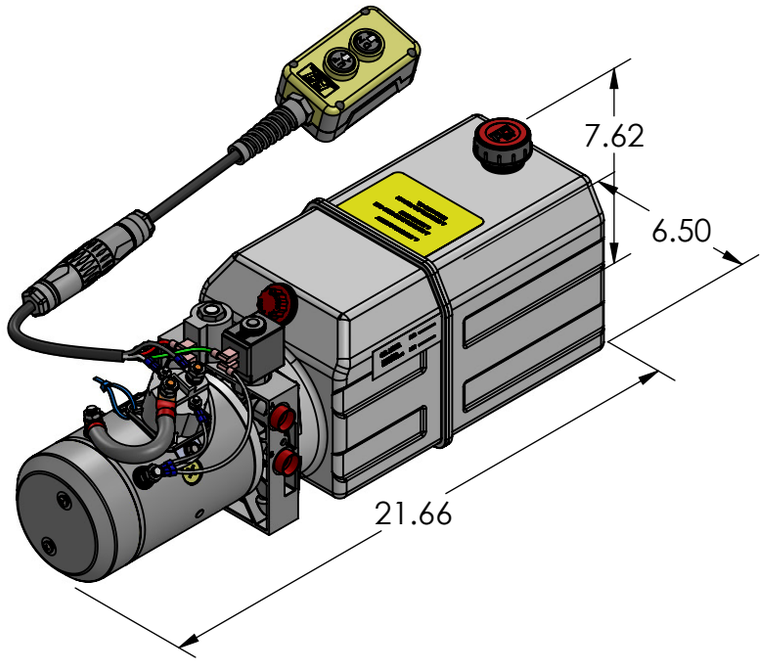
HYDRAULIC CIRCUIT 109

DESCRIPTION:

KTI Universal Manifold I, Hydraulic Circuit 109.
Double acting circuit for power up, power down operation.
Motor, KTI Universal Manifold II® (with cartridge relief valve, 4w2p valve, NC 2w valve), Pump, Tank.
"A" & "B" SAE #6(9/16-18) O-ring ports.



CAVITY 1: CARTRIDGE RELIEF VALVE
CAVITY 2: 4W2P DIRECTION VALVE
CAVITY 3: NC 2W VALVE
CAVITY 4: PLUG



AS SHOWN:
MOTOR: 12V DC
MANIFOLD: KTI UNIVERSAL MANIFOLD II®.
PUMP: PL SERIES
RESERVOIR: 6 QT PLASTIC
2 BUTTON REMOTE PENDANT W/QD

HYDRAULIC CIRCUIT 109:

MOTOR
OD 3.0" 12V DC
OD 4.5" 12/24V DC

PUMP

PL	IN³
0.6	0.0384
I	I
I	I
5.8	0.3593

RESERVOIR
PLASTIC RESERVOIR
3 QT-----14 QT

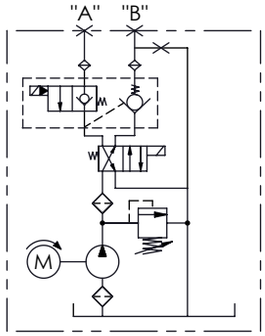
STEEL RESERVOIR
1.5 QT-----20 QT

MOUNTING
HORIZONTAL
VERTRICAL

MISC
DC START SWITCH
REMOTE PENDANT

HYDRAULICS INCORPORATED

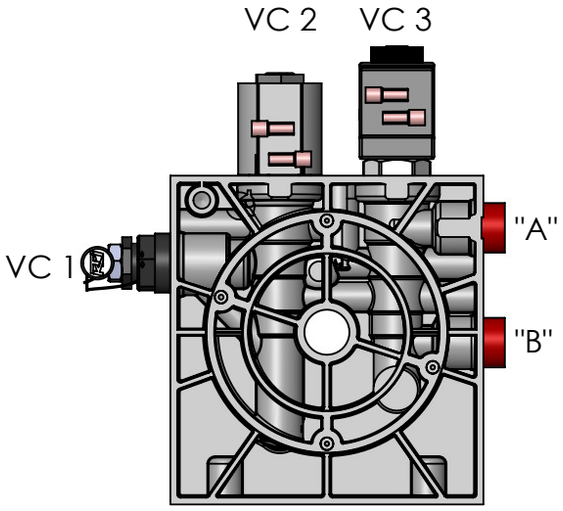
2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

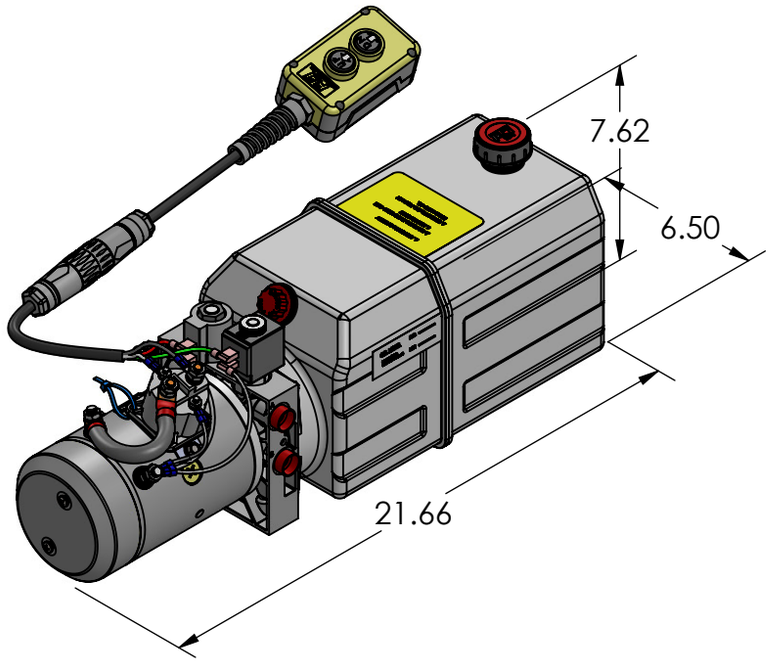


HYDRAULIC CIRCUIT 110

DESCRIPTION:

KTI Universal Manifold II, Hydraulic Circuit 110.
Double acting circuit for power up, power down operation.
Motor, KTI Universal Manifold II® (with cartridge relief valve, 4w2p valve, KTI proprietary load holding valve), Pump, Tank.
“A” & “B” SAE #6(9/16-18) O-ring ports.





CAVITY 1: CARTRIDGE RELIEF VALVE
CAVITY 2: 4W2P DIRECTION VALVE
CAVITY 3: KTI PROPRIETARY LOAD HOLDING VALVE
CAVITY 4: PLUG

AS SHOWN:
MOTOR: 12V DC
MANIFOLD: KTI UNIVERSAL MANIFOLD II®.
PUMP: PL SERIES
RESERVOIR: 6 QT PLASTIC
2 BUTTON REMOTE PENDANT W/QD

HYDRAULIC CIRCUIT 110:

MOTOR
OD 3.0" 12V DC
OD 4.5" 12/24V DC

PUMP

PL	IN³
0.6	0.0384
I	I
I	I
5.8	0.3593

RESERVOIR
PLASTIC RESERVOIR
3 QT-----14 QT

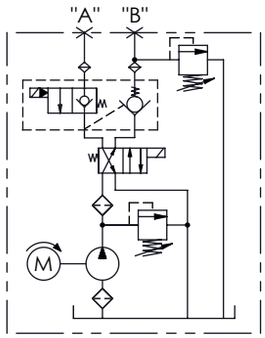
STEEL RESERVOIR
1.5 QT-----20 QT

MOUNTING
HORIZONTAL
VERTICAL

MISC
DC START SWITCH
REMOTE PENDANT

HYDRAULICS INCORPORATED

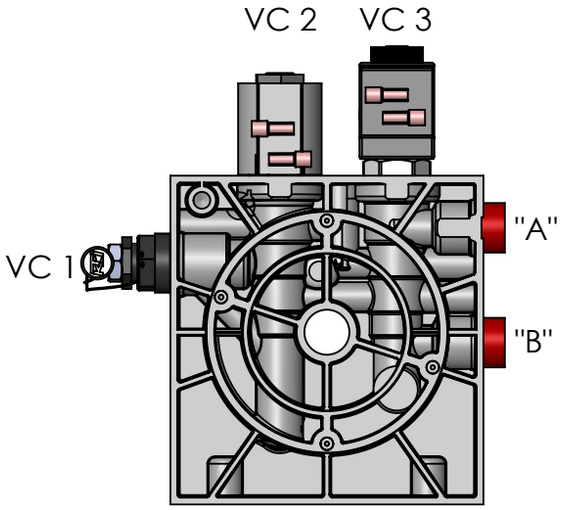
2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

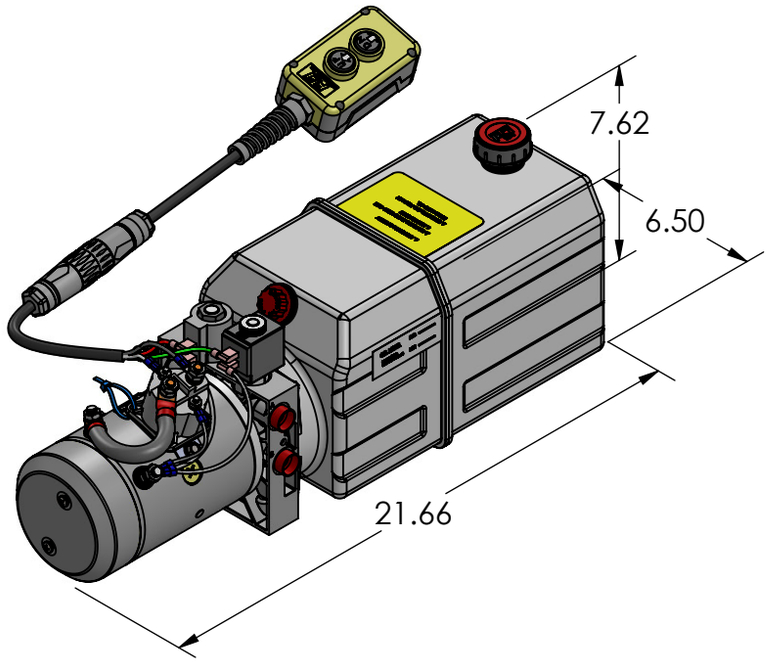


HYDRAULIC CIRCUIT 111

DESCRIPTION:

KTI Universal Manifold II, Hydraulic Circuit 111.
Double acting circuit for power up, power down operation.
Motor, KTI Universal Manifold II® (with cartridge relief valve, 4w2p valve, KTI proprietary load holding valve, secondary relief valve), Pump, Tank.
“A” & “B” SAE #6(9/16-18) O-ring ports.





CAVITY 1: CARTRIDGE RELIEF VALVE
CAVITY 2: 4W2P DIRECTION VALVE
CAVITY 3: KTI PROPRIETARY LOAD HOLDING VALVE
CAVITY 4: 2ND RELIEF VALVE

AS SHOWN:
MOTOR: 12V DC
MANIFOLD: KTI UNIVERSAL MANIFOLD II®.
PUMP: PL SERIES
RESERVOIR: 6 QT PLASTIC
2 BUTTON REMOTE PENDANT W/QD

HYDRAULIC CIRCUIT 111:

MOTOR
OD 3.0" 12V DC
OD 4.5" 12/24V DC

PUMP

PL	IN³
0.6	0.0384
I	I
I	I
5.8	0.3593

RESERVOIR
PLASTIC RESERVOIR
3 QT-----14 QT

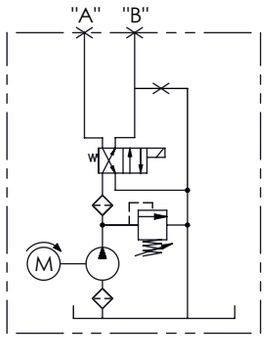
STEEL RESERVOIR
1.5 QT-----20 QT

MOUNTING
HORIZONTAL
VERTICAL

MISC
DC START SWITCH
REMOTE PENDANT

HYDRAULICS INCORPORATED

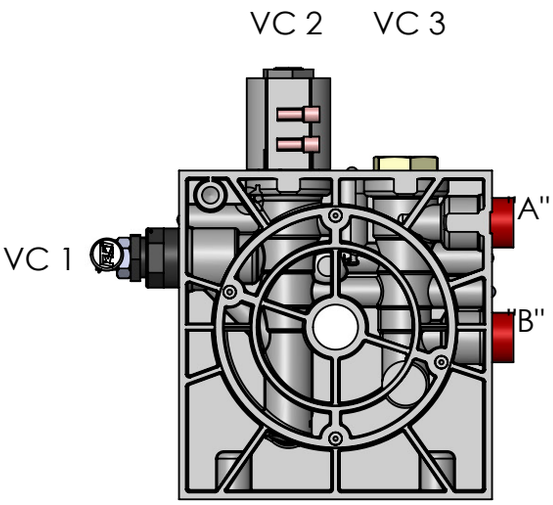
2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com



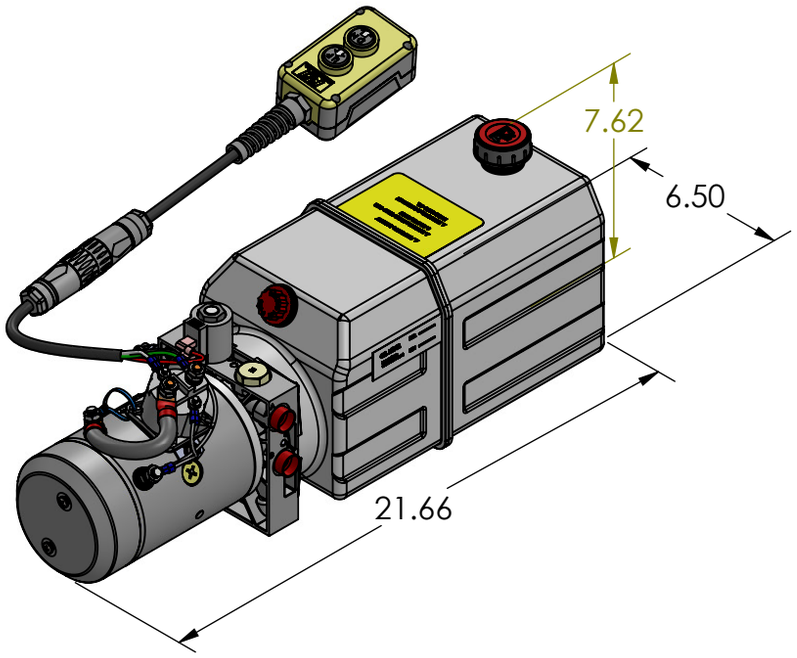
HYDRAULIC CIRCUIT 114

DESCRIPTION:

KTI Universal Manifold II, Hydraulic Circuit 114.
Double acting circuit for power up, power down operation.
Motor, KTI Universal Manifold II® (with cartridge relief valve, 4w2p valve, 4w cavity plug), Pump, Tank.
"A" & "B" SAE #6(9/16-18) O-ring ports.



CAVITY 1: CARTRIDGE RELIEF VALVE
CAVITY 2: 4W2P DIRECTION VALVE
CAVITY 3: 4W CAVITY PLUG
CAVITY 4: PLUG



AS SHOWN:
MOTOR: 12V DC
MANIFOLD: KTI UNIVERSAL MANIFOLD II®.
PUMP: PL SERIES
RESERVOIR: 6 QT PLASTIC
2 BUTTON REMOTE PENDANT W/QD

HYDRAULIC CIRCUIT 114:

MOTOR
OD 3.0" 12V DC
OD 4.5" 12/24V DC

PUMP

PL	IN³
0.6	0.0384
I	I
I	I
5.8	0.3593

RESERVOIR
PLASTIC RESERVOIR
3 QT-----14 QT

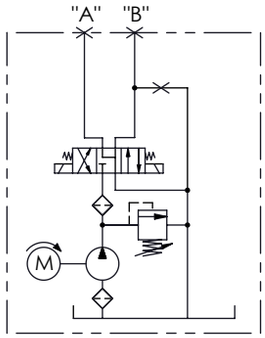
STEEL RESERVOIR
1.5 QT-----20 QT

MOUNTING
HORIZONTAL
VERTICAL

MISC
DC START SWITCH
REMOTE PENDANT

HYDRAULICS INCORPORATED

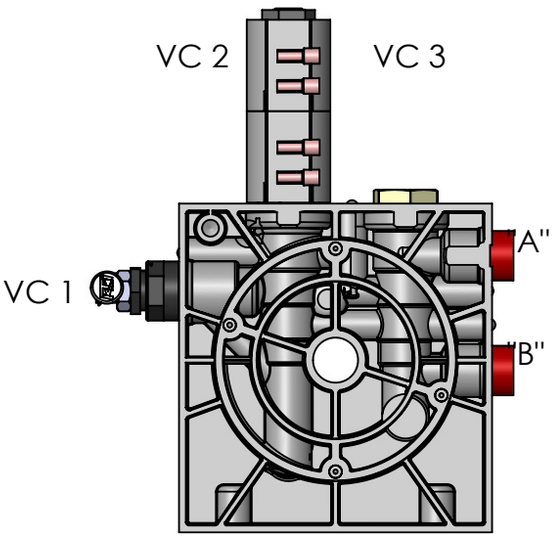
2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com



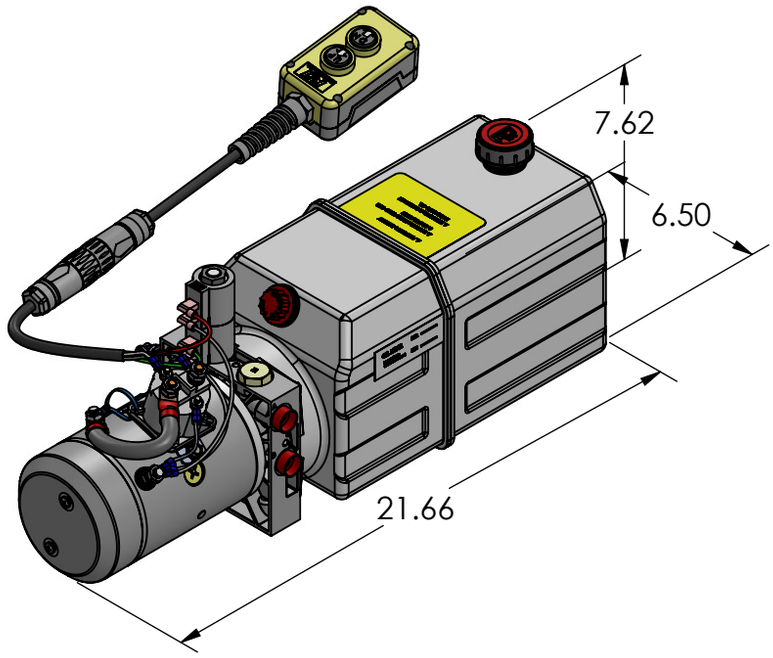
HYDRAULIC CIRCUIT 114A

DESCRIPTION:

KTI Universal Manifold II, Hydraulic Circuit 114A.
Double acting circuit for power up, power down operation.
Motor, KTI Universal Manifold II® (with cartridge relief valve, 4w3p valve, 4w cavity plug), Pump, Tank.
"A" & "B" SAE #6(9/16-18) O-ring ports.



CAVITY 1: CARTRIDGE RELIEF VALVE
CAVITY 2: 4W3P MOTOR CENTER VALVE
CAVITY 3: 4W CAVITY PLUG
CAVITY 4: PLUGGED



AS SHOWN:
MOTOR: 12V DC
MANIFOLD: KTI UNIVERSAL MANIFOLD II®.
PUMP: PL SERIES
RESERVOIR: 6 QT PLASTIC
2 BUTTON REMOTE PENDANT W/QD

HYDRAULIC CIRCUIT 114A:

MOTOR
OD 3.0" 12V DC
OD 4.5" 12/24V DC

PUMP

PL	IN³
0.6	0.0384
I	I
I	I
5.8	0.3593

RESERVOIR
PLASTIC RESERVOIR
3 QT-----14 QT

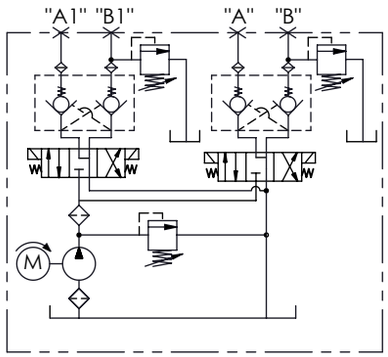
STEEL RESERVOIR
1.5 QT-----20 QT

MOUNTING
HORIZONTAL
VERTICAL

MISC
DC START SWITCH
REMOTE PENDANT

HYDRAULICS INCORPORATED

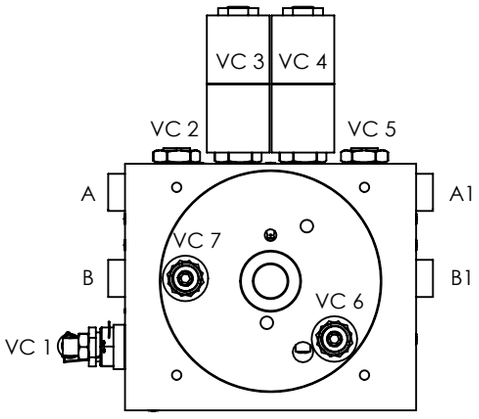
2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com



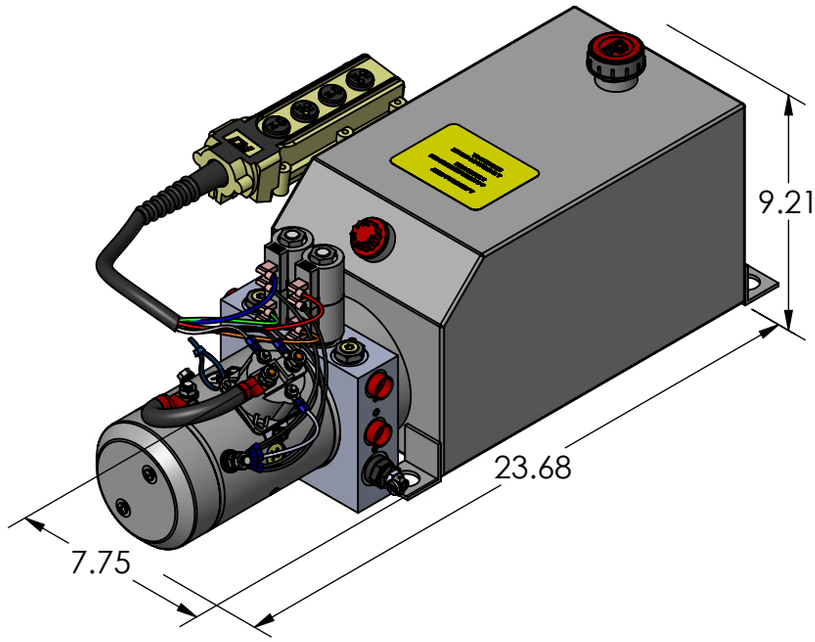
HYDRAULIC CIRCUIT 208

DESCRIPTION:

KTI Universal Manifold III, Hydraulic Circuit 208.
Dual double acting circuit for dual independent double acting operation.
Motor, KTI Manifold® (with cartridge relief valve, dual pilot operated check valve, 4w3p motor center cartridge solenoid valve, secondary relief valve), Pump, Tank.
“A” & “B” "A1" & "B1" SAE #6(9/16-18) O-ring ports.



VIEW FROM RESERVOIR SIDE



CAVITY 1: CARTRIDGE RELIEF VALVE
CAVITY 2: DUAL PILOT OPERATED CHECK VALVE
CAVITY 3: 4W3P MOTOR CENTER VALVE
CAVITY 4: 4W3P MOTOR CENTER VALVE
CAVITY 5: DUAL PILOT OPERATED CHECK VALVE
CAVITY 6: 2ND RELIEF VALVE
CAVITY 7: 2ND RELIEF VALVE

AS SHOWN:
MOTOR: 12V DC
MANIFOLD: KTI MANIFOLD III®.
PUMP: PL SERIES
RESERVOIR: 12 QT STEEL
4 BUTTON REMOTE PENDANT

HYDRAULIC CIRCUIT 208:

MOTOR
OD 3.0" 12V DC
OD 4.5" 12/24V DC

PUMP

PL	IN³
0.6	0.0384
I	I
I	I
5.8	0.3593

RESERVOIR
PLASTIC RESERVOIR
3 QT-----14 QT

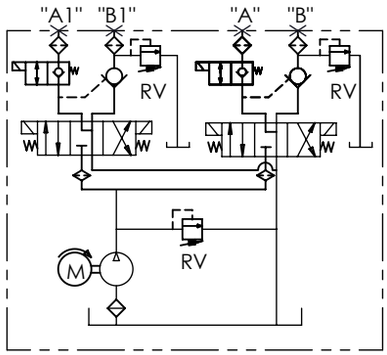
STEEL RESERVOIR
1.5 QT-----20 QT

MOUNTING
HORIZONTAL
VERTICAL

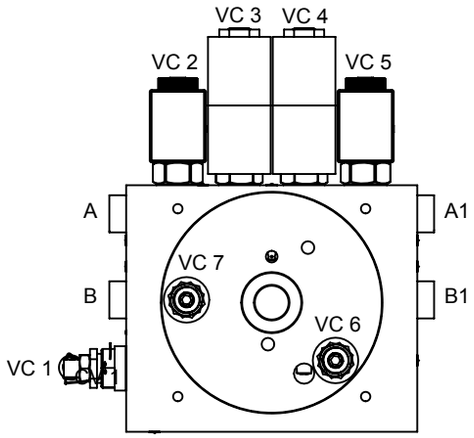
MISC
DC START SWITCH
REMOTE PENDANT

HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com



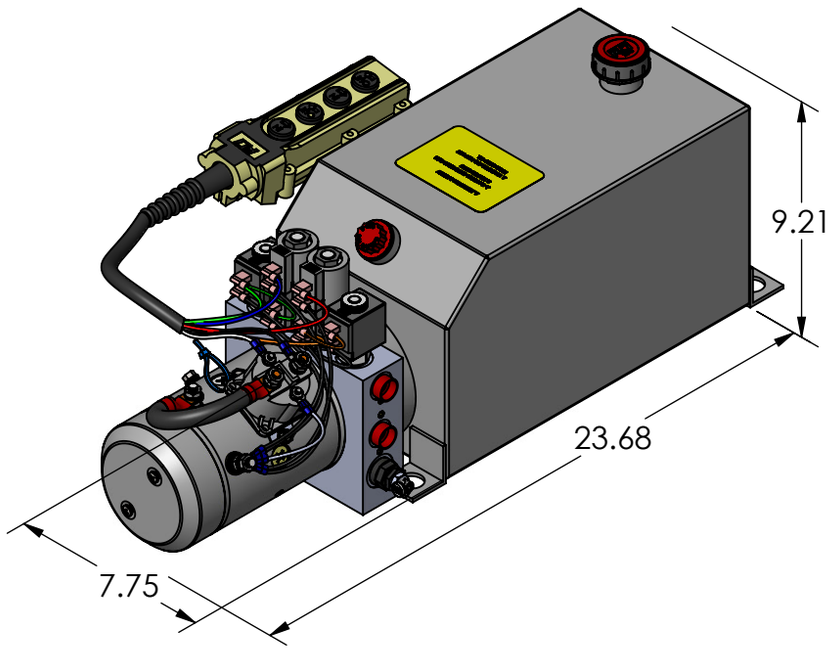
HYDRAULIC CIRCUIT 211



VIEW FROM RESERVOIR SIDE

DESCRIPTION:

KTI Universal Manifold III, Hydraulic Circuit 211.
Dual double acting circuit for dual independent double acting operation.
Motor, KTI Manifold® (with cartridge relief valve, KTI proprietary load holding valve, 4w3p motor center cartridge solenoid valve, secondary relief valve), Pump, Tank.
“A” & “B” "A1" & "B1" SAE #6(9/16-18) O-ring ports.



CAVITY 1: CARTRIDGE RELIEF VALVE
CAVITY 2: KTI PROPRIETARY LOAD HOLDING VALVE
CAVITY 3: 4W3P MOTOR CENTER, CARTRIDGE SOLENOID VALVE
CAVITY 4: 4W3P MOTOR CENTER, CARTRIDGE SOLENOID VALVE
CAVITY 5: KTI PROPRIETARY LOAD HOLDING VALVE
CAVITY 6: 2ND RELIEF VALVE
CAVITY 7: 2ND RELIEF VALVE

AS SHOWN:
MOTOR: 12V DC
MANIFOLD: KTI MANIFOLD III®.
PUMP: PL SERIES
RESERVOIR: 12 QT STEEL
4 BUTTON REMOTE PENDANT

HYDRAULIC CIRCUIT 211:

MOTOR
OD 3.0" 12V DC
OD 4.5" 12/24V DC

PUMP

PL	IN³
0.6	0.0384
I	I
I	I
5.8	0.3593

RESERVOIR
PLASTIC RESERVOIR
3 QT-----14 QT

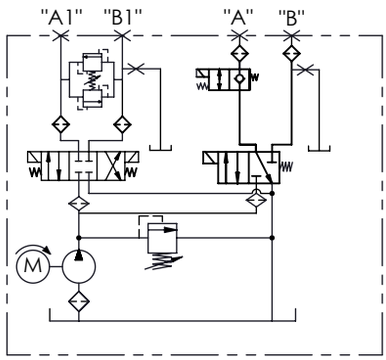
STEEL RESERVOIR
1.5 QT-----20 QT

MOUNTING
HORIZONTAL
VERTICAL

MISC
DC START SWITCH
REMOTE PENDANT

HYDRAULICS INCORPORATED

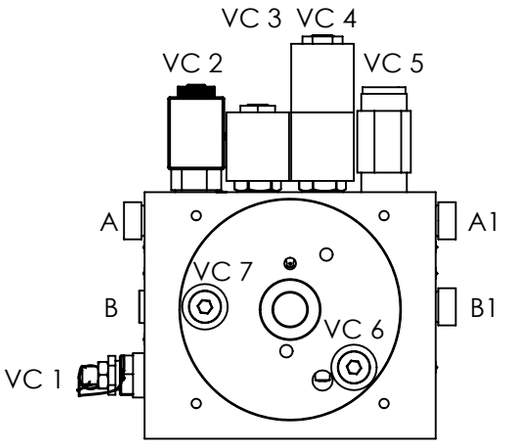
2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com



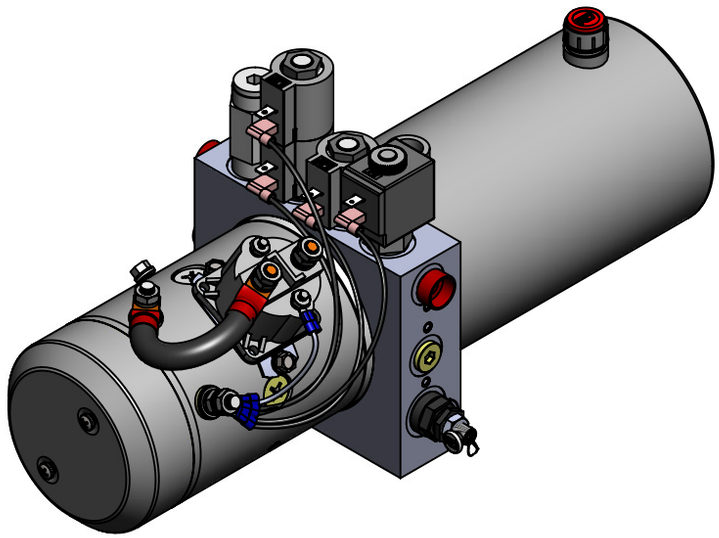
HYDRAULIC CIRCUIT 216

DESCRIPTION:

KTI Universal Manifold III, Hydraulic Circuit 216. (SNOW PLOW) Power angling, cross over relief w/lift, check, lower & float function.
Motor, KTI Manifold® (with cartridge relief valve, 4w2p spool type valve, 4w3p close center spool valve, adjustable directional, bi-directional relief valve), Pump, Tank.
“A” & “B” "A1" & "B1" SAE #6(9/16-18) O-ring ports.



VIEW FROM RESERVOIR SIDE



CAVITY 1: CARTRIDGE RELIEF VALVE
CAVITY 2: NC 2WAY VALVE
CAVITY 3: 4W2P SPOOL TYPE CARTRIDGE SOLENOID VALVE
CAVITY 4: 4W3P CLOSE CENTER SPOOL TYPE CARTRIDGE SOLENOID VALVE
CAVITY 5: ADJUSTABLE DIRECTIONAL, BI-DIRECTIONAL RELIEF VALVE
CAVITY 6: PLUG
CAVITY 7: PLUG

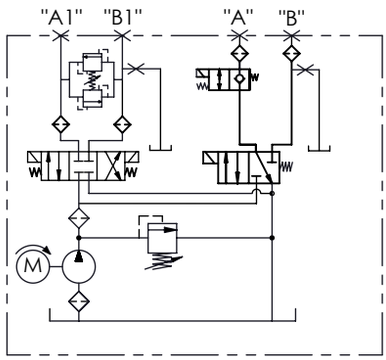
AS SHOWN:
MOTOR: 12V DC
MANIFOLD: KTI MANIFOLD® III.
PUMP: PL SERIES
RESERVOIR: 2 QT STEEL

HYDRAULIC CIRCUIT 216:

MOTOR	**PUMP**		**RESERVOIR**	**MOUNTING**
OD 3.0" 12V DC	PL	IN³	PLASTIC RESERVOIR	HORIZONTAL
OD 4.5" 12/24V DC	0.6	0.0384	3 QT-----14 QT	VERTICAL
	I	I		
	I	I	STEEL RESERVOIR	**MISC**
	5.8	0.3593	1.5 QT-----20 QT	DC START SWITCH

HYDRAULICS INCORPORATED

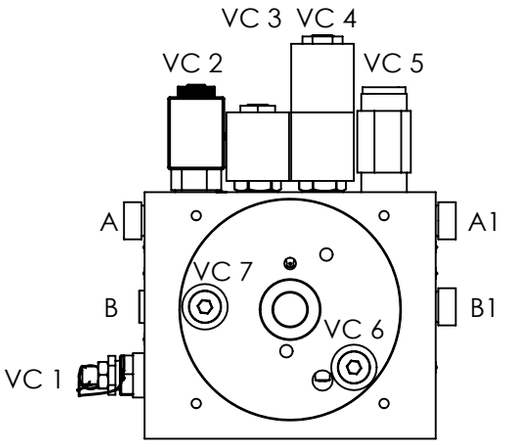
2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com



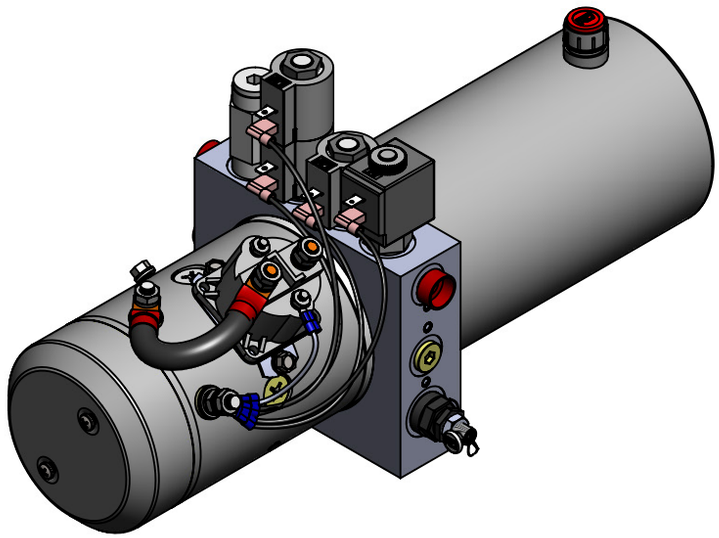
HYDRAULIC CIRCUIT 216

DESCRIPTION:

KTI Universal Manifold III, Hydraulic Circuit 216. (SNOW PLOW) Power angling, cross over relief w/lift, check, lower & float function.
Motor, KTI Manifold® (with cartridge relief valve, 4w2p spool type valve, 4w3p close center spool valve, adjustable directional, bi-directional relief valve), Pump, Tank.
“A” & “B” "A1" & "B1" SAE #6(9/16-18) O-ring ports.



VIEW FROM RESERVOIR SIDE



CAVITY 1: CARTRIDGE RELIEF VALVE
CAVITY 2: NC 2WAY VALVE
CAVITY 3: 4W2P SPOOL TYPE CARTRIDGE SOLENOID VALVE
CAVITY 4: 4W3P CLOSE CENTER SPOOL TYPE CARTRIDGE SOLENOID VALVE
CAVITY 5: ADJUSTABLE DIRECTIONAL, BI-DIRECTIONAL RELIEF VALVE
CAVITY 6: PLUG
CAVITY 7: PLUG

AS SHOWN:
MOTOR: 12V DC
MANIFOLD: KTI MANIFOLD® III.
PUMP: PL SERIES
RESERVOIR: 2 QT STEEL

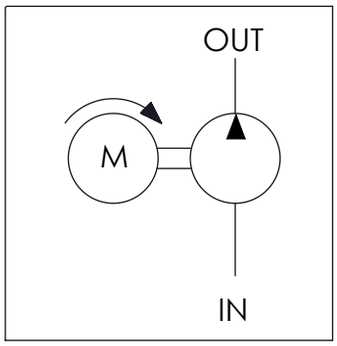
HYDRAULIC CIRCUIT 216:

MOTOR	**PUMP**		**RESERVOIR**	**MOUNTING**
OD 3.0" 12V DC	PL	IN³	PLASTIC RESERVOIR	HORIZONTAL
OD 4.5" 12/24V DC	0.6	0.0384	3 QT-----14 QT	VERTICAL
	I	I		
	I	I	STEEL RESERVOIR	**MISC**
	5.8	0.3593	1.5 QT-----20 QT	DC START SWITCH

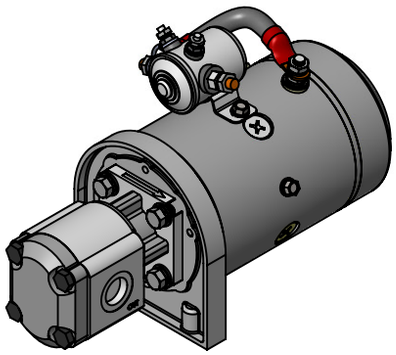
HYDRAULICS INCORPORATED

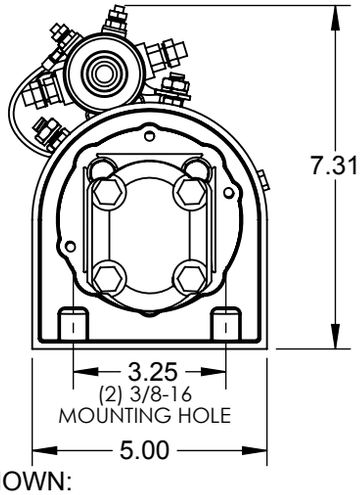
2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

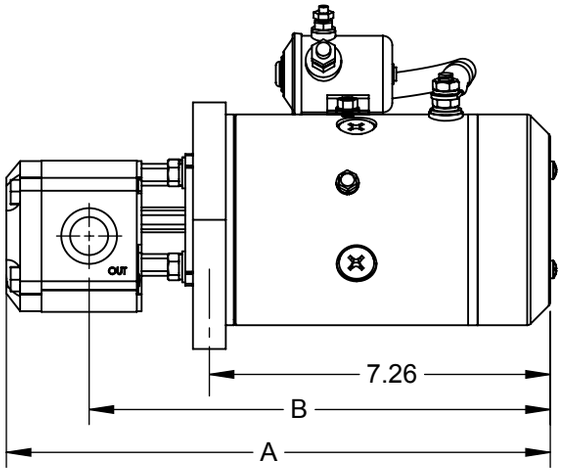
DESCRIPTION:
KTI 12/24V DC AUXILIARY PUMP & MOTOR ASSEMBLY.



HYDRAULIC CIRCUIT







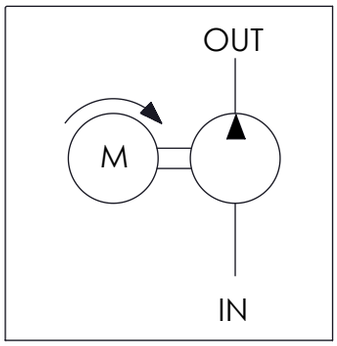
AS SHOWN:
MOTOR: 12/24V DC 4.5" DIAMETER MOTOR
STARTER: CONTINUOUS DUTY START SOLENOID
PUMP: STN PRESSURE LOADED GEAR PUMP

12V DC MODEL NUMBER	24V DC MODEL NUMBER	PUMP DISPL. in^4/r (mL/r)	DIM A (IN)	DIM B (IN)	INLET	OUTLET
DC 4002	DC 4012	0.083 (1.36)	15.33	9.75	SAE #10 7/8-14	SAE #8 3/4-16
DC 4003	DC 4013	0.125 (2.05)	15.41	9.79		
DC 4004	DC 4014	0.167 (2.74)	15.49	9.84		
DC 4005	DC 4015	0.209 (3.24)	15.57	9.87		
DC 4006	DC 4016	0.250 (4.10)	15.64	9.91		

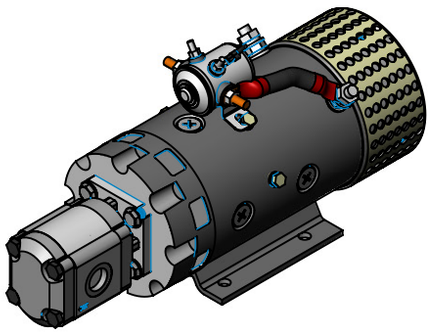
HYDRAULICS INCORPORATED

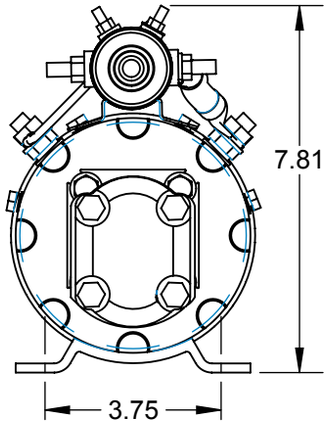
2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

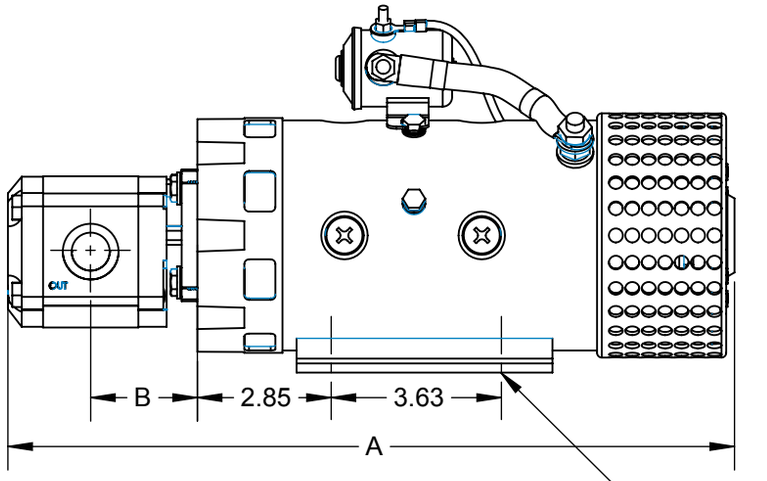
DESCRIPTION:
KTI 12/24V DC AUXILIARY PUMP & MOTOR ASSEMBLY.



HYDRAULIC CIRCUIT







AS SHOWN:
MOTOR: 12/24V DC 5.0" DIAMETER MOTOR
STARTER: CONTINUOUS DUTY START SOLENOID
PUMP: STN PRESSURE LOADED GEAR PUMP

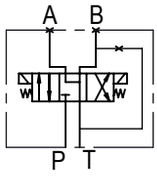
12V DC MODEL NUMBER	24V DC MODEL NUMBER	PUMP DISPL. in^4/r (mL/r)	DIM A (IN)	DIM B (IN)	INLET	OUTLET
DC 5002	DC 5012	0.083 (1.36)	15.33	2.31	SAE #10 7/8-14	SAE #8 3/4-16
DC 5003	DC 5013	0.125 (2.05)	15.41	2.35		
DC 5004	DC 5014	0.167 (2.74)	15.49	2.40		
DC 5005	DC 5015	0.209 (3.24)	15.57	2.43		
DC 5006	DC 5016	0.250 (4.10)	15.64	2.47		

HYDRAULICS INCORPORATED

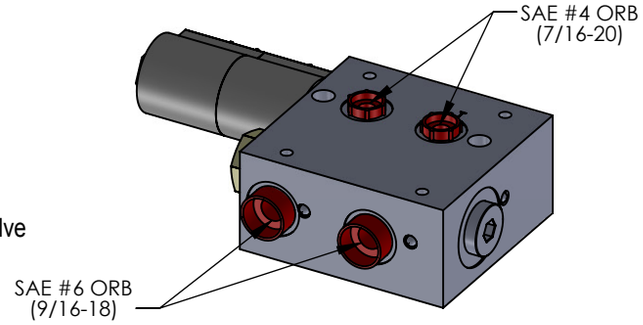
2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

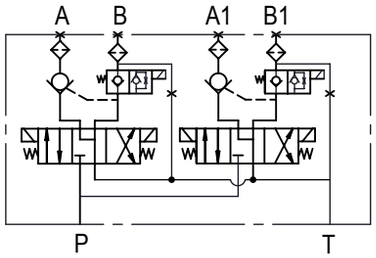
DESCRIPTION:

KTI stackable double acting manifold. Each manifold consists of (1) double acting circuit w/ or w/o load holding capabilities. the stackable manifold is for mounting on UM I to create functionally diverse circuits.
All connection ports are SAE #6(9/16-18) O-ring ports.

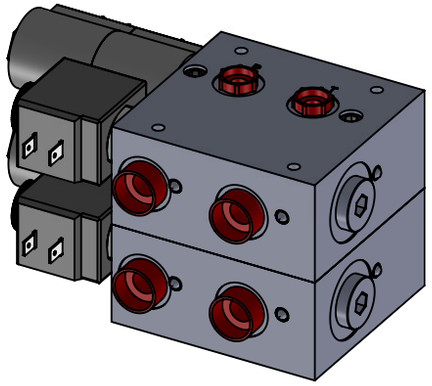


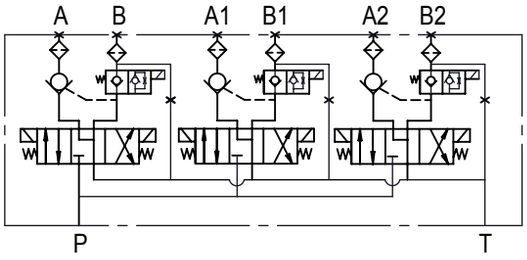
4w3p motor center cartridge solenoid valve
4way cavity plug



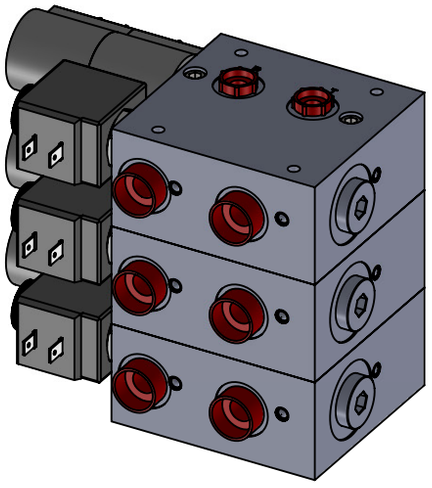


(2) 4w3p motor center cartridge solenoid valve
(2) KTI proprietary load holding valve





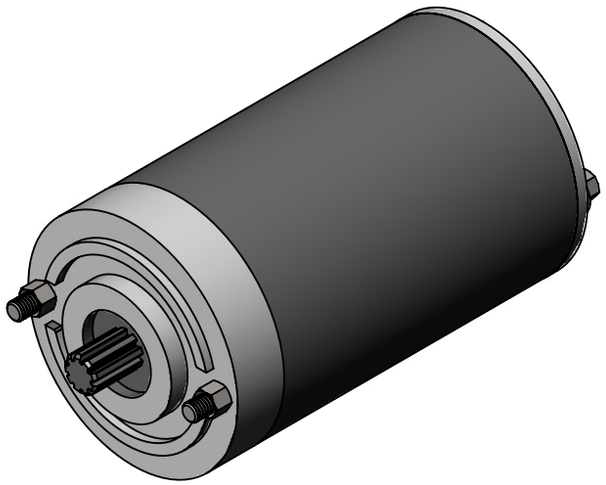
(3) 4w3p motor center cartridge solenoid valve
(3) KTI proprietary load holding valve

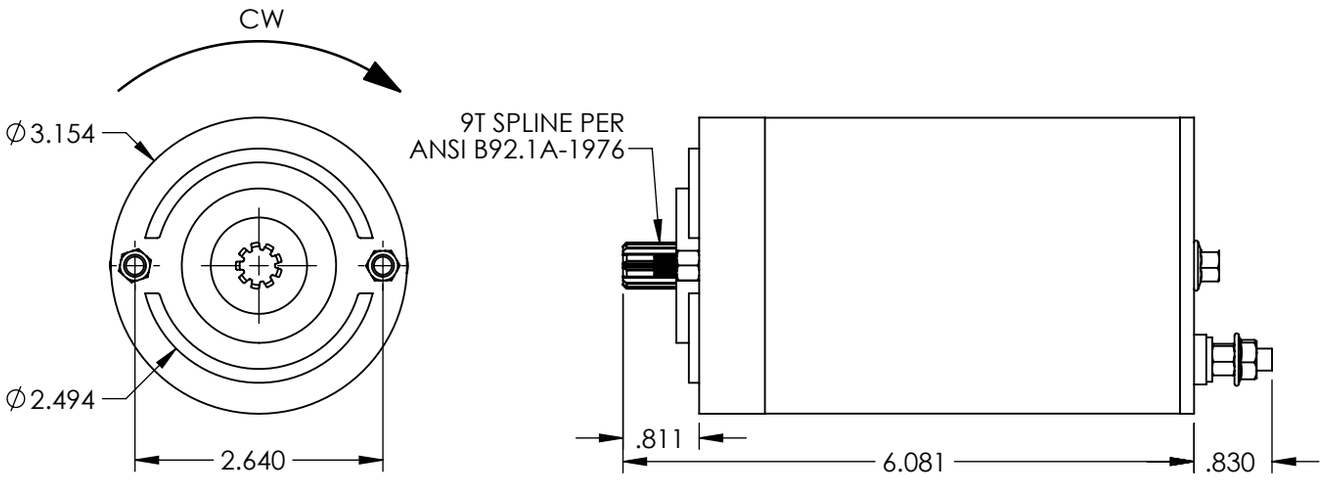


HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

DESCRIPTION:
3" O.D. PERMANENT MAGNET MOTOR WITH SPINE SHAFT. THIS MOTOR IS EXCELLENT FOR INTERMITTENT DUTY AND LOW PRESSURE APPLICATION.

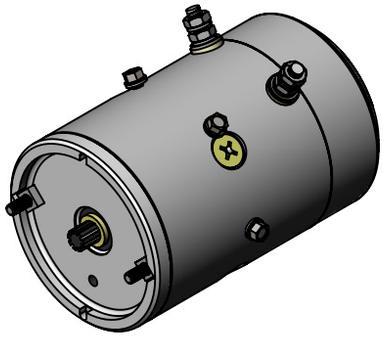


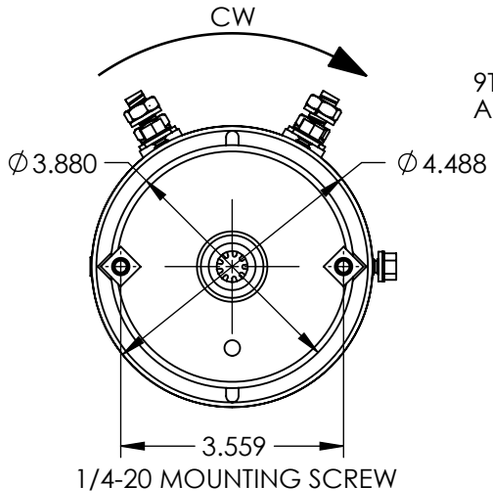


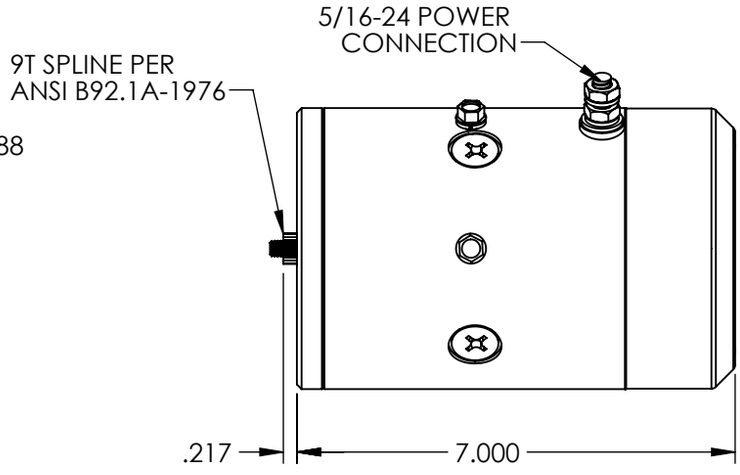
HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

DESCRIPTION:
4.5" O.D. 4 FIELDS, SERIES WOUND, HEAVY DUTY 12V & 24V DC ELECTRIC MOTOR.



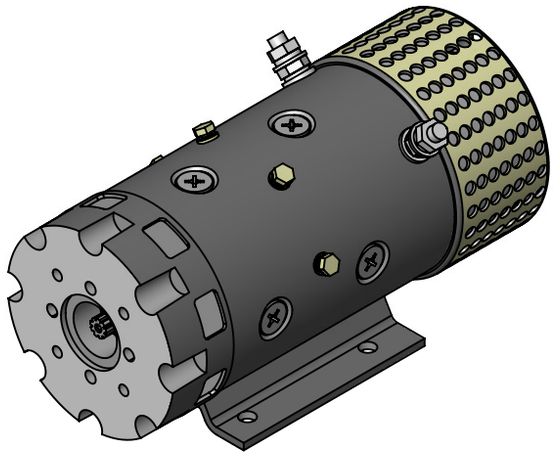


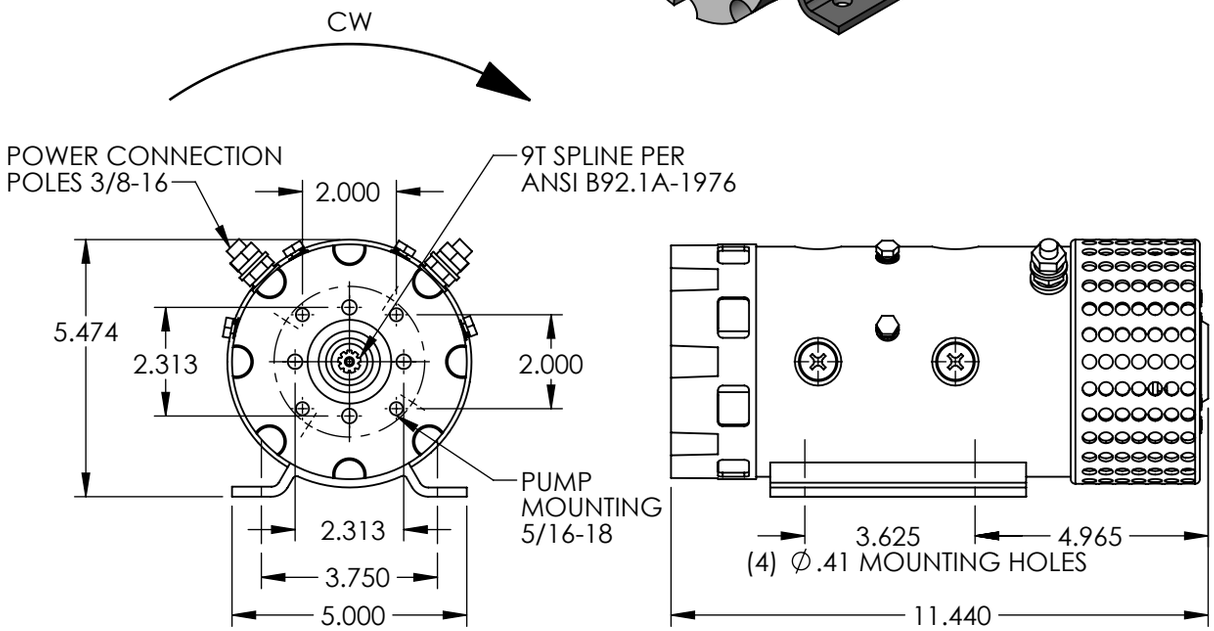


HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

DESCRIPTION:
5.0" O.D. HEAVY DUTY, OPEN END FAN COOLED, 12V & 24V DC ELECTRIC MOTOR. THIS IS FOR CONTINUOUS DUTY, HIGH PRESSURE APPLICATION.



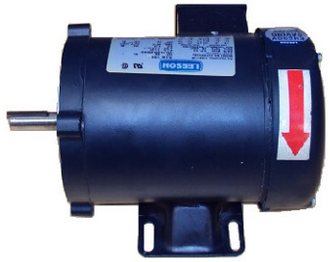


HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

DESCRIPTION:
KTI Hydraulics Inc uses US made motors for our AC power units. The available power range is from 0.5 HP to 3 HP; single phase to three phase; 1750 to 3450 rpm; 115V, 208V, 230V, 480V AC; 56 frame, C-face, 5/8" dia keyed shaft, CW rotation; Open Drip Proof (ODP), and Totally Enclosed Fan Cooled (TEFC).

KTI P/N	HP	Phz	RPM	Volt	Hz	Enclosure
4920-25	0.5	1	1725	115/208-230	60	TEFC
4920-64	0.5	1	1725	110/208-230	60	TEFC
4920-68	0.75	1	1725	115/208-230	60	ODP
4920-69	0.75	1	1725	115/208-230	60	ODP
4920-44	1	1	1750	115/208-230	60	TEFC
4920-72	1	1	1725	115/230	60	ODP
4920-28	1.5	1	1725	115/208-230	60	TEFC
4920-58	1.5	1	1725	115/208-230	60	TEFC
4920-75	2	1	1750	110/208-230	60	TEFC
4920-54	1	1	3450	115/208-230	60	TEFC
4920-80	1	1	3450	115/208-230	60	TEFC
4920-67	1.5	1	3450	115/208-230	60	TEFC
4920-46	2	1	3450	115/208-230	60	TEFC
4920-51	3	1	3450	208-230	60	TEFC

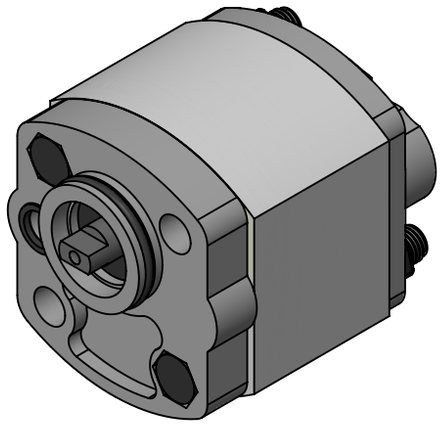


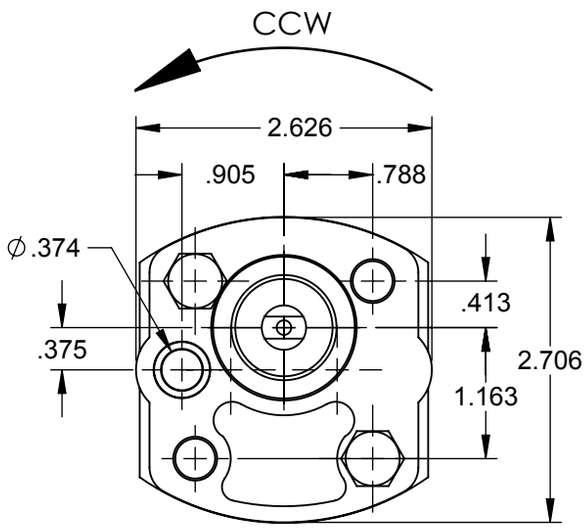
KTI P/N	HP	Phz	RPM	Volt	Hz	Enclosure
4920-41	0.5	3	1750	208/230-460	60	TEFC
4920-65	0.5	3	1800	575	60	TEFC
4920-76	1	3	1800	208/230-460	60	TEFC
4920-77	1	3	1800	575	60	TEFC
4920-59	1.5	3	1725	208/230-460	60	TEFC
4920-36	2	3	1750	208/230-460	60	TEFC
4920-71	2	3	1740	208/230-460	60	TEFC
4920-57	1	3	3450	208/230-460	60	TEFC
4920-81	1	3	3450	208/230-460	60	TEFC
4920-73	1	3	3450	575	60	TEFC
4920-34	2	3	3450	208/230-460	60	TEFC
4920-70	2	3	3450	208/230-460	60	TENV
4920-35	3	3	3450	208/230-460	60	TEFC

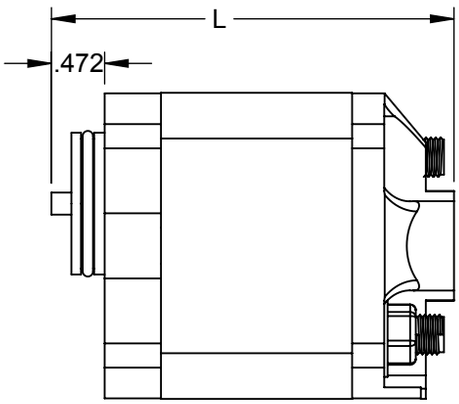
HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

DESCRIPTION:
The KTI PL series pressure loaded gear pump consists of a gear pair supported by two aluminum bearing blocks, center housing, front and rear cover. The PL series pump features high mechanical and volumetric efficiency, low noise level as well as high reliability.







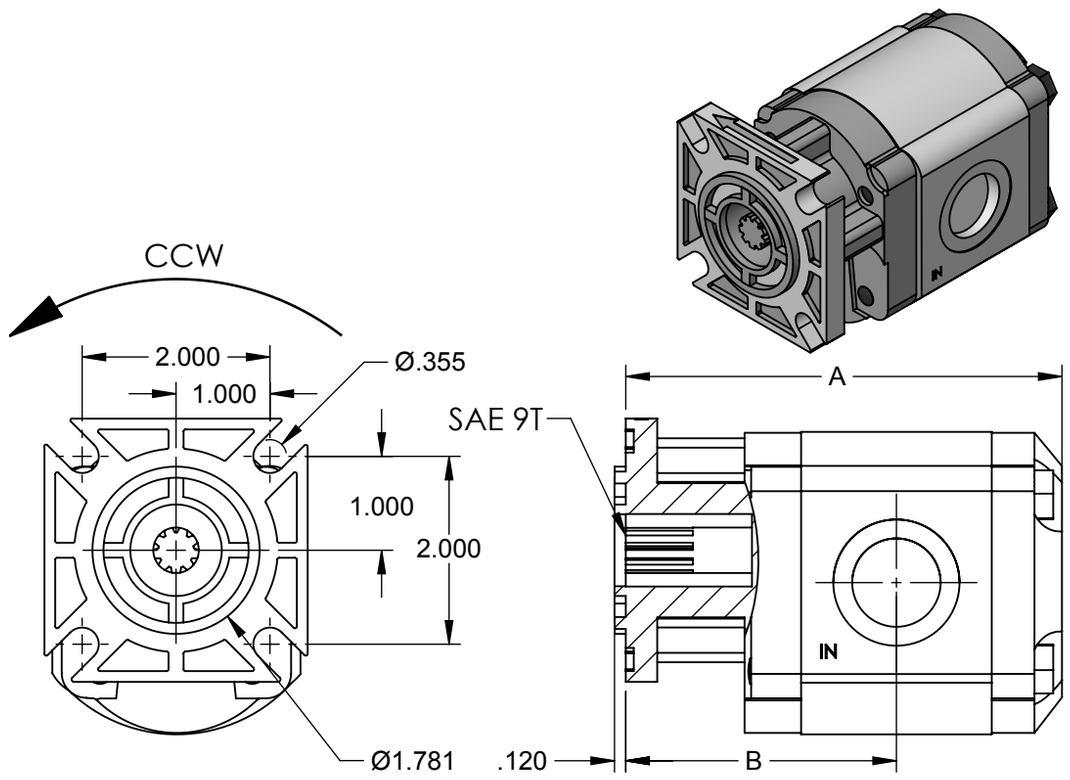
PART NO.	DISPLACEMENT (in^3/r)	PRESSURE (Bar/PSI)		L(IN)
		RATE	MAX	
PL-0.63	0.038	200/2900	280/4061	3.32
PL-0.80	0.054	200/2900	280/4061	3.36
PL-1.20	0.077	200/2900	280/4061	3.42
PL-1.50	0.090	200/2900	280/4061	3.45
PL-1.60	0.101	200/2900	280/4061	3.48
PL-2.10	0.132	200/2900	280/4061	3.56
PL-2.50	0.152	200/2900	280/4061	3.62
PL-2.70	0.170	200/2900	280/4061	3.66
PL-3.20	0.202	200/2900	280/4061	3.74
PL-4.20	0.263	180/2610	260/3770	3.89
PL-5.10	0.311	138/2000	227/3300	4.01
PL-6.00	0.368	138/2000	227/3300	4.15

PERFORMANCE:
1. DISPLACEMENT: 0.038-0.368 in^3/r.
2. WORKING PRESSURE: 2000 PSI, MAX PRESSURE: 4000 PSI.
3. ROTATING DIRECTION: COUNTERCLOCKWISE.

HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

DESCRIPTION:
The KTI STN series pressure load gear pump consists of a gear pair supported by two aluminum bearing blocks, center housing, front and rear cover with American Standard 4F17 mounting. The STN pump features simple structure, high mechanical and volumetric efficiency, low noise level as well as high reliability. It is widely used in the hydraulic system of truck, lift and transport machinery, mine machinery, and agriculture machinery, etc.



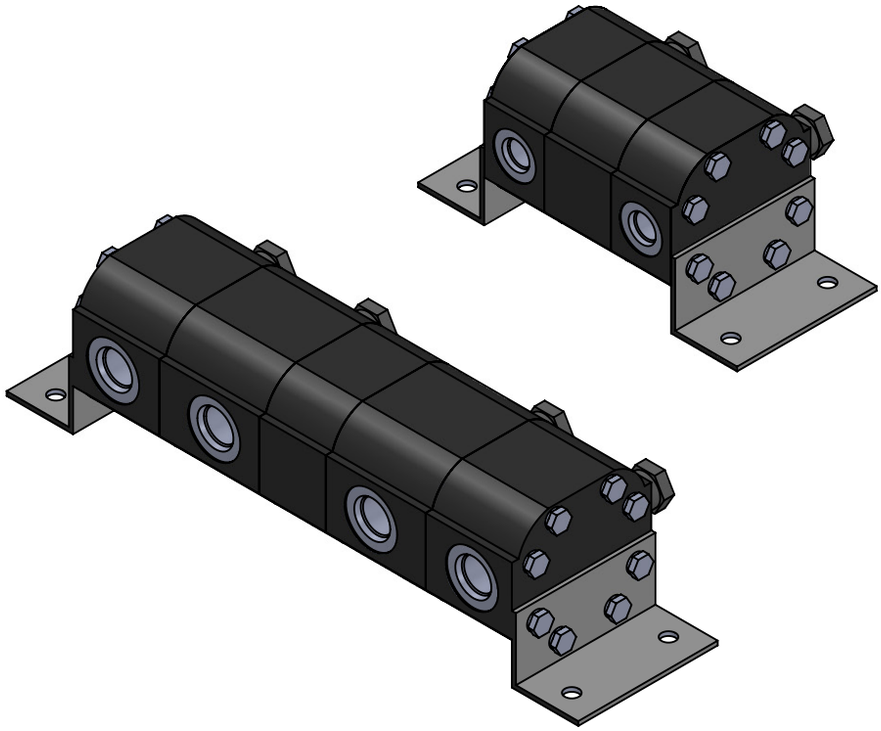
PART NO.	DISPLACEMENT in⁴/r (mL/r)	A(IN)	B(IN)	INLET	OUTLET
STN 2	0.083 (1.36)	3.89	2.31	SAE #10 7/8-14	SAE #8 3/4-16
STN 3	0.125 (2.05)	3.97	2.35		
STN 4	0.167 (2.74)	4.05	2.40		
STN 5	0.209 (3.42)	4.13	2.43		
STN 6	0.250 (4.10)	4.20	2.47		

PERFORMANCE:
1. DISPLACEMENT: 0.083-0.250 in³/r.
2. WORKING PRESSURE: 3626 PSI, MAX PRESSURE: 4050 PSI.
3. ROTATING SPEED: 2000-4000 rpm.
4. ROTATING DIRECTION: COUNTERCLOCKWISE.

HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

DESCRIPTION:
KTI Hydraulics Inc. FDA series gear type flow dividers. These flow dividers takes single hydraulic input, and divides the output into 2 or more equal circuits. Integrated rephrasing valve is standard on all FDA flow dividers.

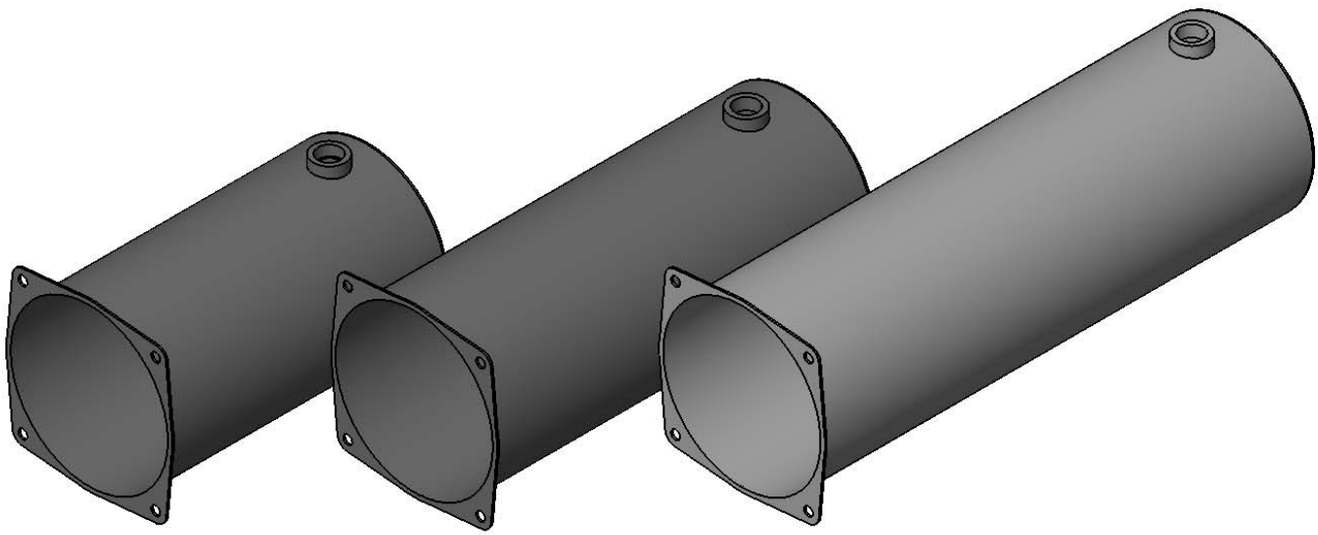


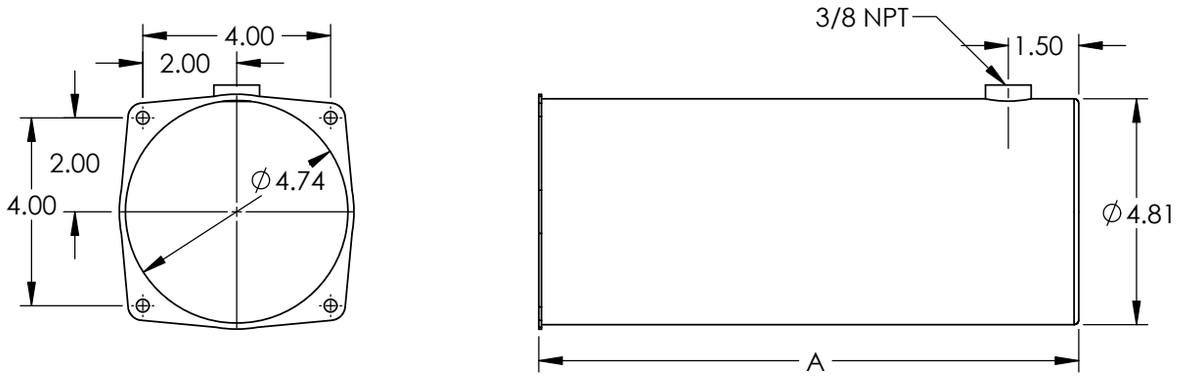
KTI HYDRAULIC INC FDA FLOW DIVIDERS							
PART NO.	DISPLACEMENT PER SECTION	MIN INLET FLOW	STANDARD INLET FLOW	MAXI INLET FLOW	MAXI OUTLET PRESSURE	PORTS	
	IN^3	750 RPM IN^3/M	1500 RPM IN^3/M	3000 RPM IN^3/M	PSI	SAE INLET	SAE OUTLET
FDA-2R1.0S	0.070	106	211	422	3625	3/4-16	9/16-18
FDA-2R2.1S	0.132	199	397	795			
FDA-2R3.0S	0.194	291	582	1164			
FDA-2R4.2S	0.265	397	794	1589		7/8-14	3/4-16
FDA-2R5.0S	0.298	447	895	1790			
FDA-2R6.3S	0.389	583	1166	2332			
FDA-2R8.8S	0.538	807	1615	3229			
FDA-4R2.1S	0.132	397	795	1589	3046	3/4-16	9/16-18
FDA-4R3.0S	0.194	582	1164	2329			
FDA-4R4.2S	0.265	795	1589	3178		7/8-14	3/4-16
FDA-4R5.0S	0.298	895	1790	3581			
FDA-4R6.3S	0.389	1166	2332	4665			
FDA-4R8.8S	0.538	1615	3229	6459			

HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

DESCRIPTION:
KTI Hydraulics Inc steel, deep drawn reservoir, black powder coated finish.



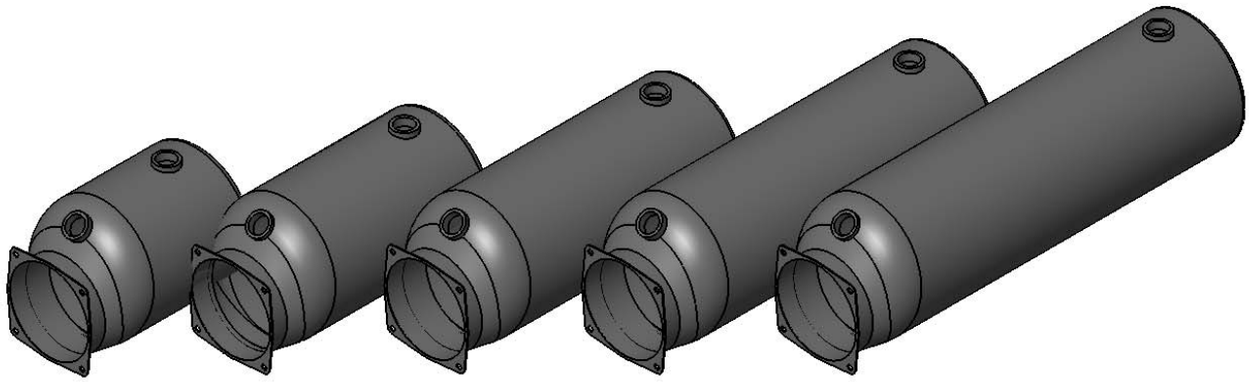


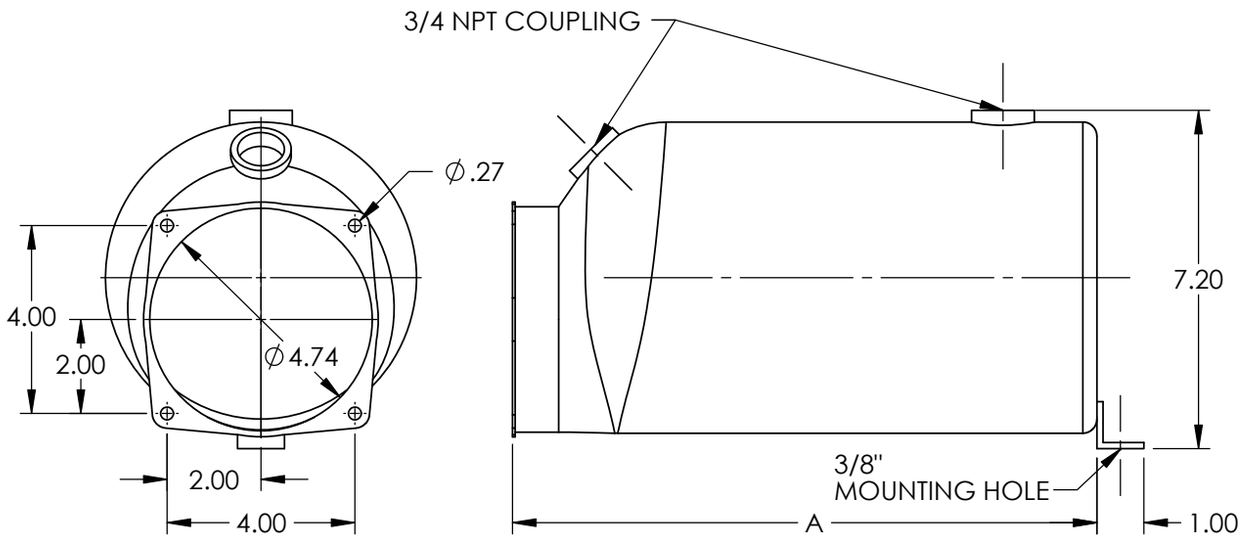
KTI HYDRAULIC INC DEEP DRAW STEEL RESERVOIRS		
PART NO.	USABLE VOLUME	LENGTH "A"
8080-2	2 QT	8.38
8080-3	3 QT	11.5
8080-4	4 QT	14.88

HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

DESCRIPTION:
KTI Hydraulics Inc steel, offset reservoir, black powder coated finish.



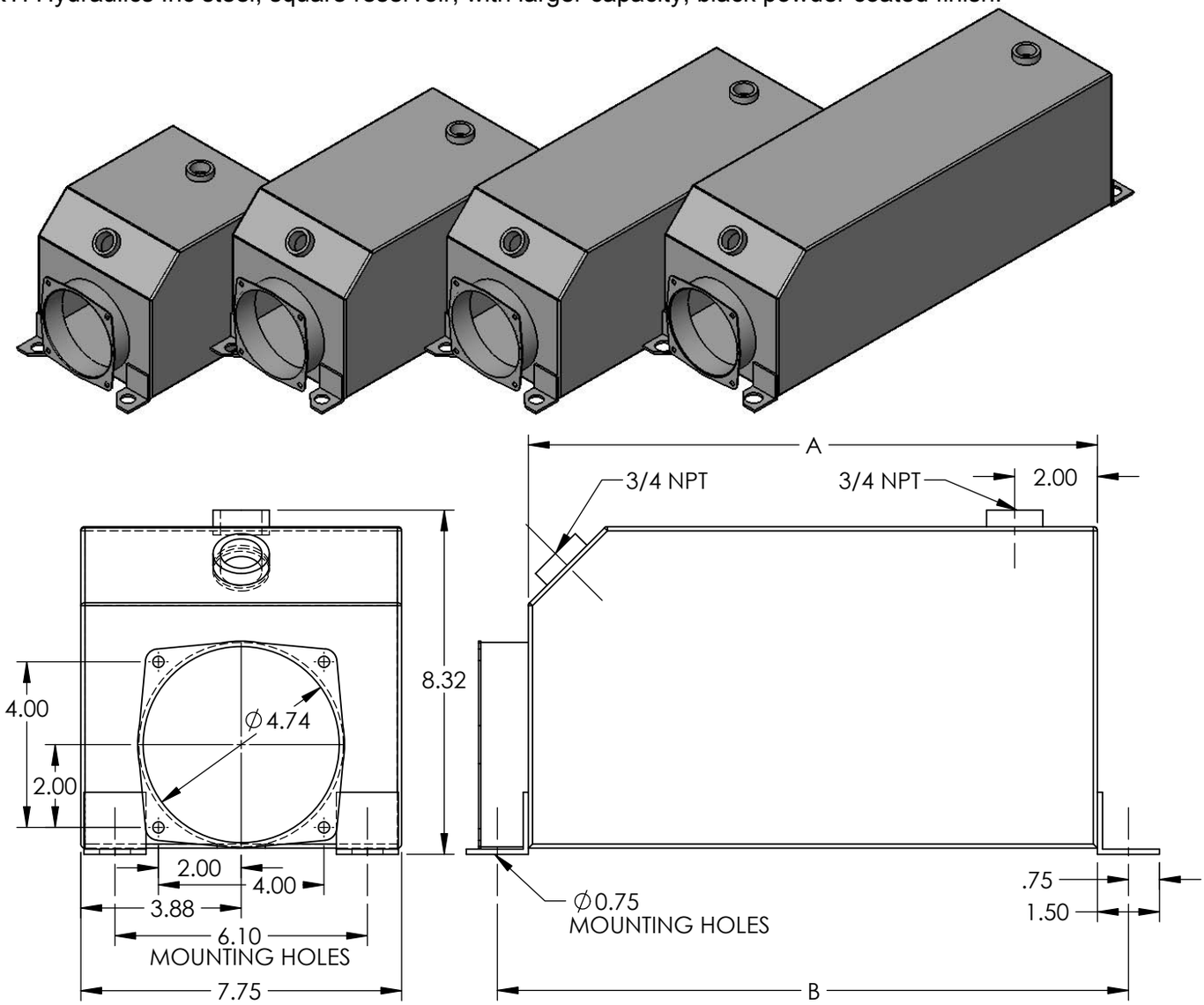


KTI HYDRAULIC INC STEEL OFFSET RESERVOIRS		
PART NO.	USABLE VOLUME	LENGTH "A"
8080-5	4 QT	9.13
8080-6	6 QT	12.50
8080-8	8 QT	15.88
8080-10	10 QT	19.25
8080-12	12 QT	22.63

HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

DESCRIPTION:
KTI Hydraulics Inc steel, square reservoir, with larger capacity, black powder coated finish.

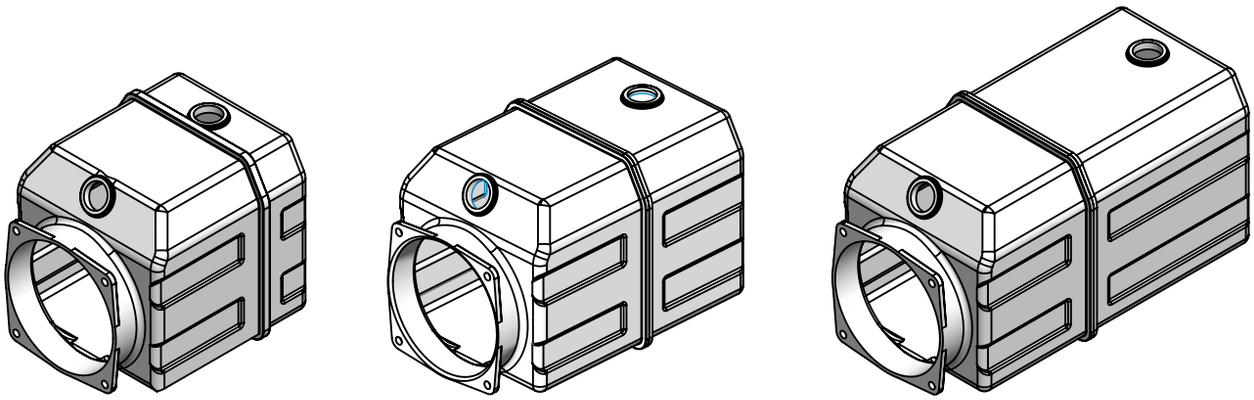


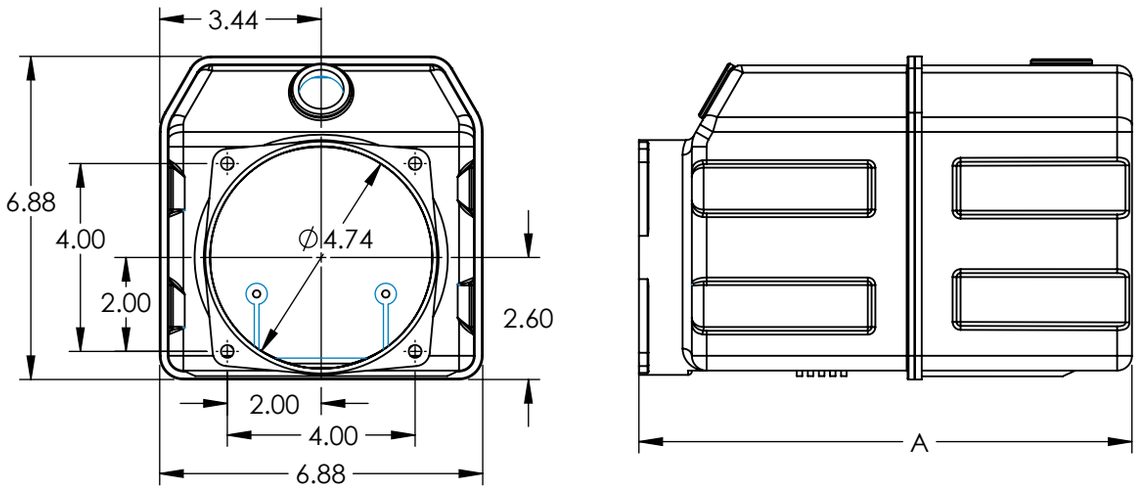
KTI HYDRAULIC INC STEEL SQUARE RESERVOIRS			
PART NO.	USABLE VOLUME	LENGTH "A"	LENGTH "B"
8080-8-S	8 QT	9.24	10.74
8080-13	12 QT	13.75	15.25
8080-16	16 QT	18.50	20.00
8080-20	20 QT	22.88	24.38

HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

DESCRIPTION:
KTI Hydraulics Inc plastic, square reservoir, with different capacity, white finish.



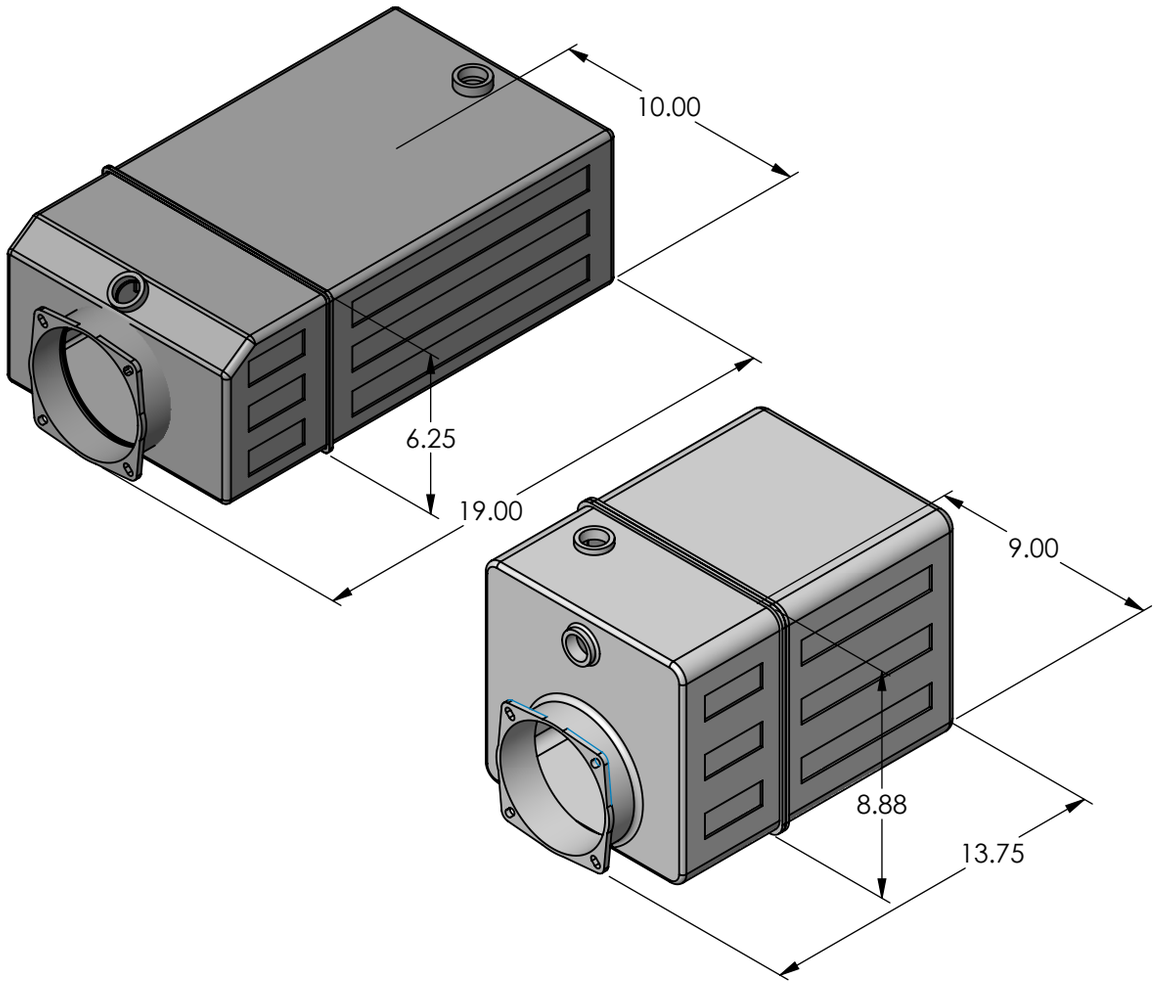


KTI HYDRAULIC INC PLASTIC SQUARE RESERVOIRS		
PART NO.	USABLE VOLUME	LENGTH "A"
8181-35	3 QT	8.00
8181-5	4 QT	10.50
8181-6	6 QT	13.25
8181-14	14 QT	24.875

HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

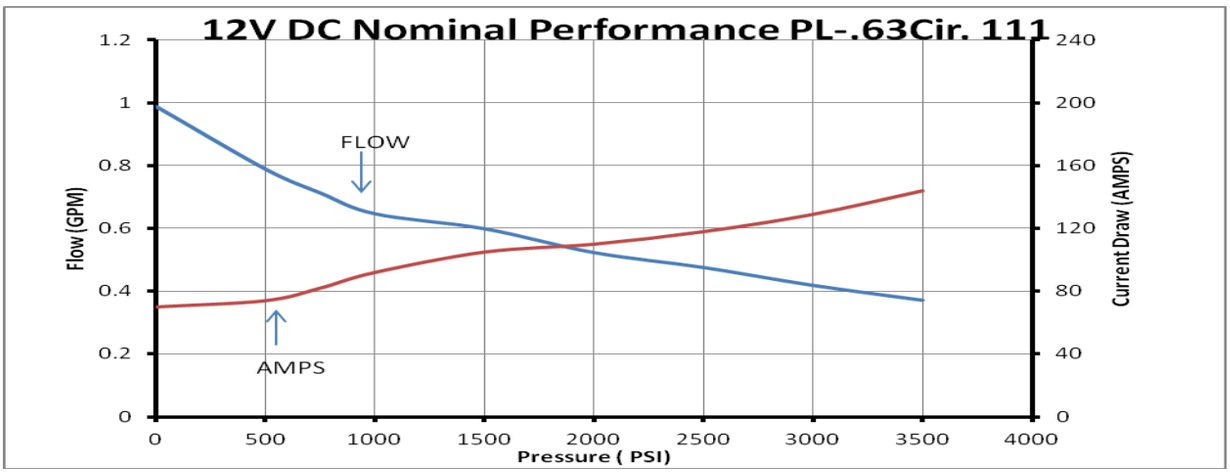
DESCRIPTION:
KTI Hydraulics Inc plastic, square reservoir, with large capacity, white finish.

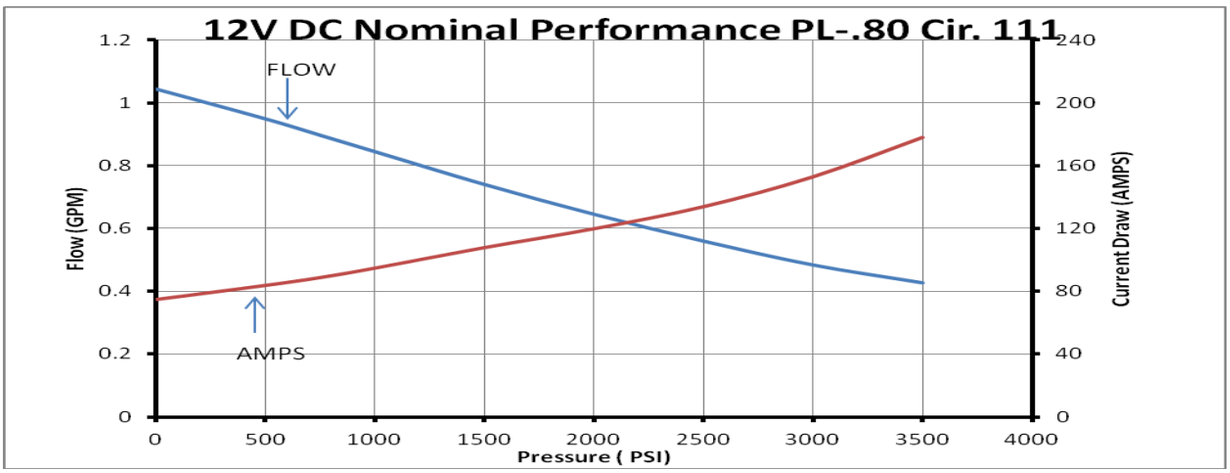


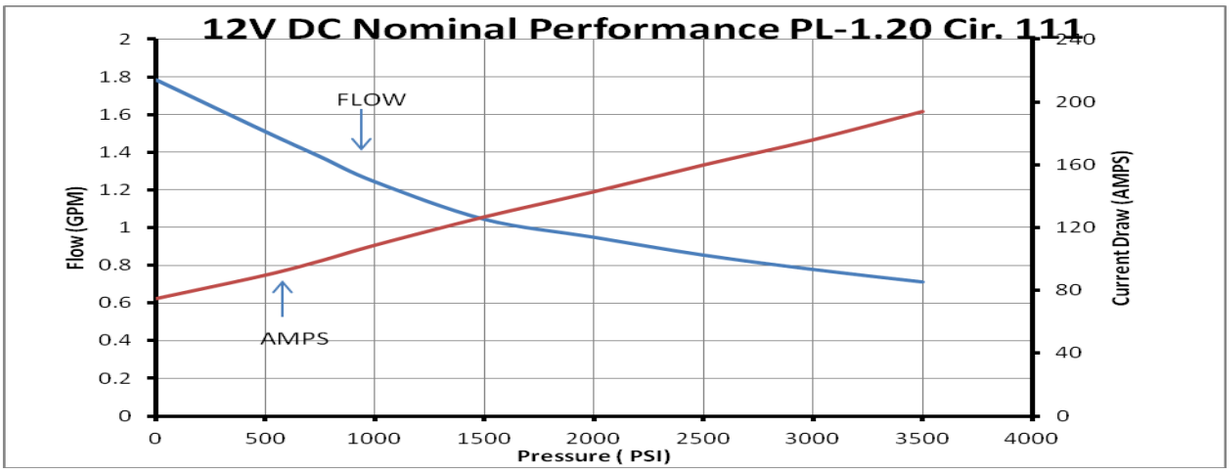
KTI HYDRAULIC INC PLASTIC RESERVOIRS	
PART NO.	USABLE VOLUME
8383-16	15 QT
8484-16	15 QT

HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

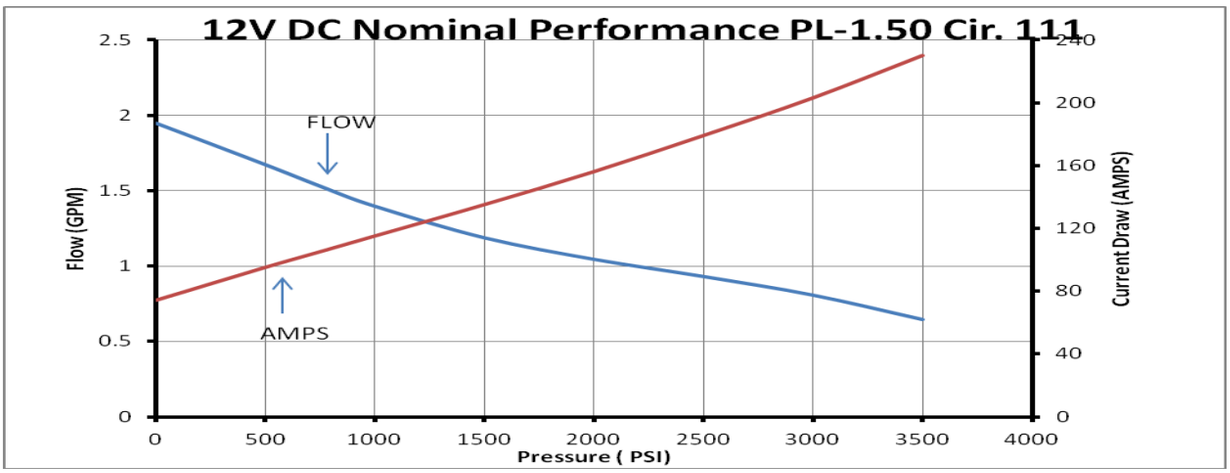


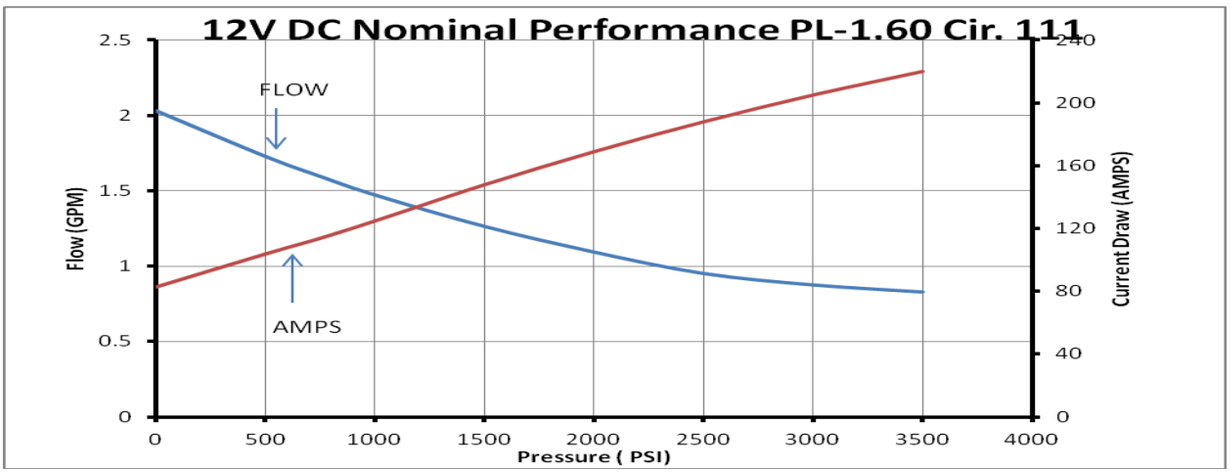


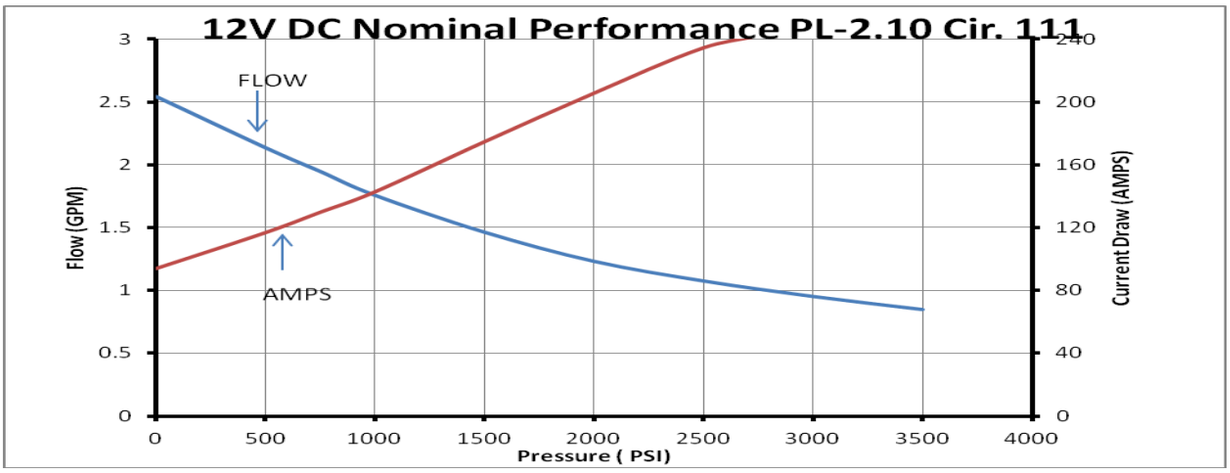


HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

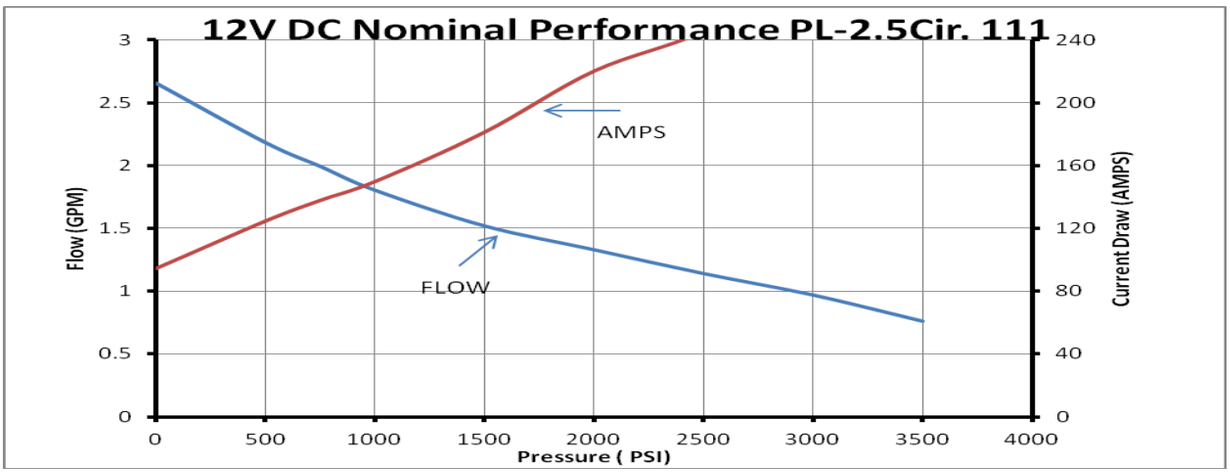


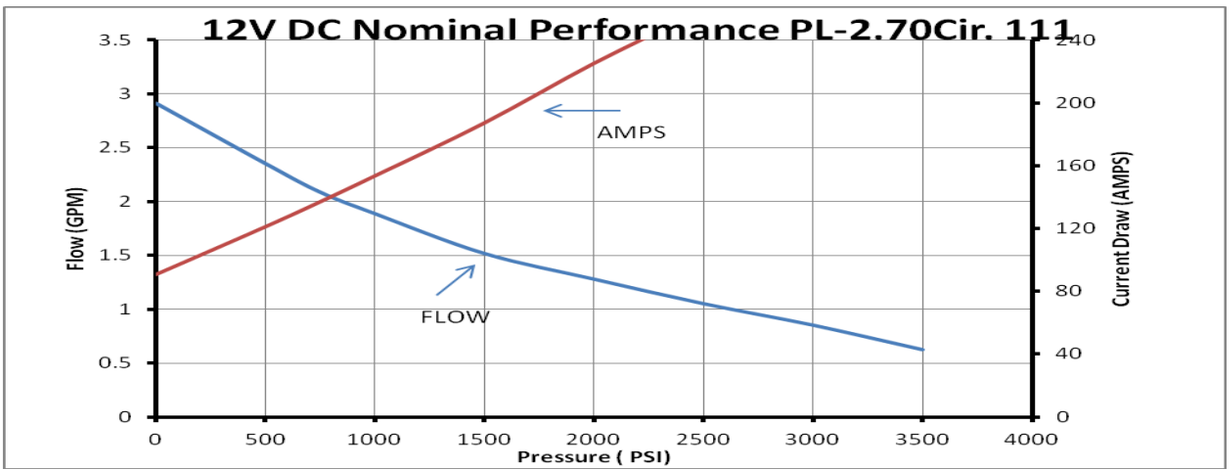


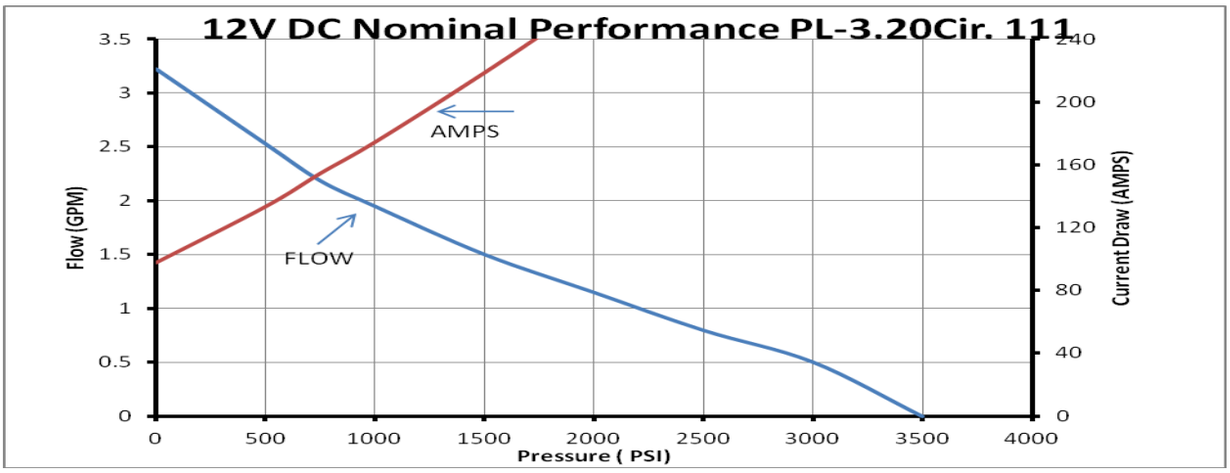


HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

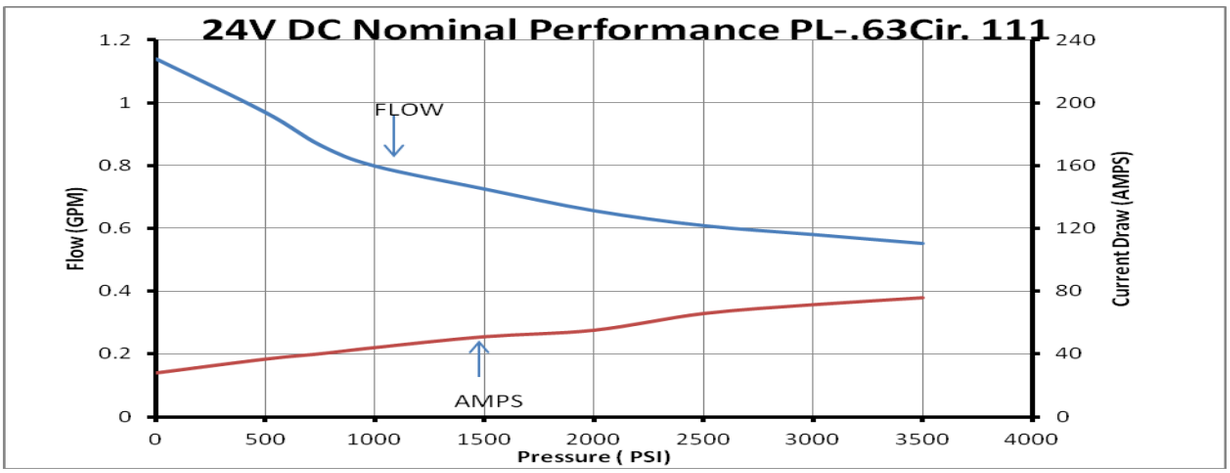


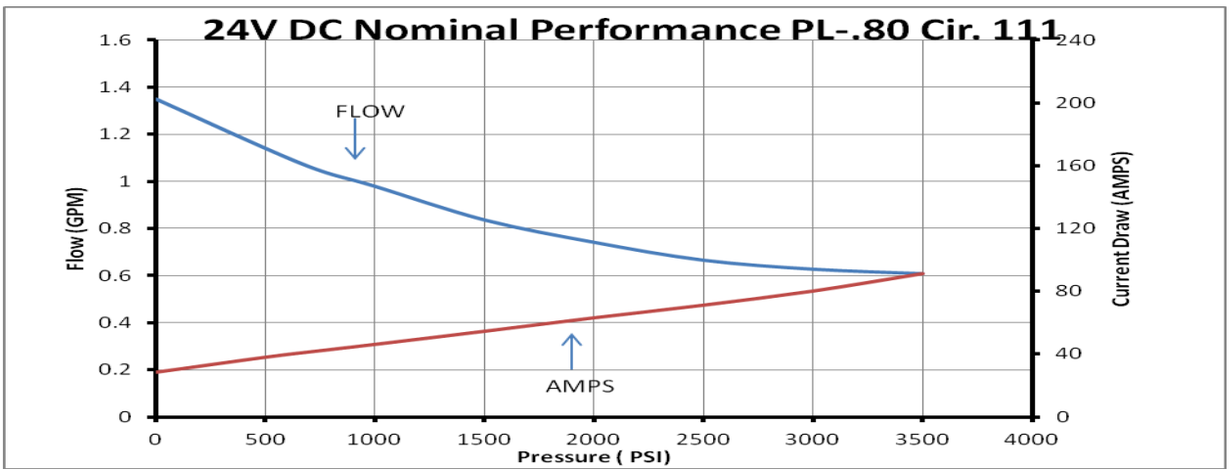


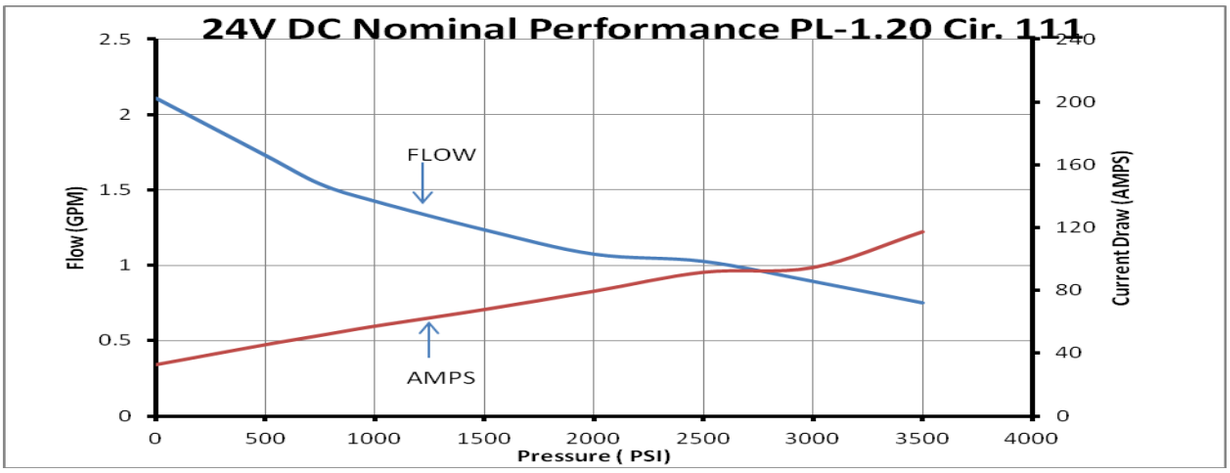


HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

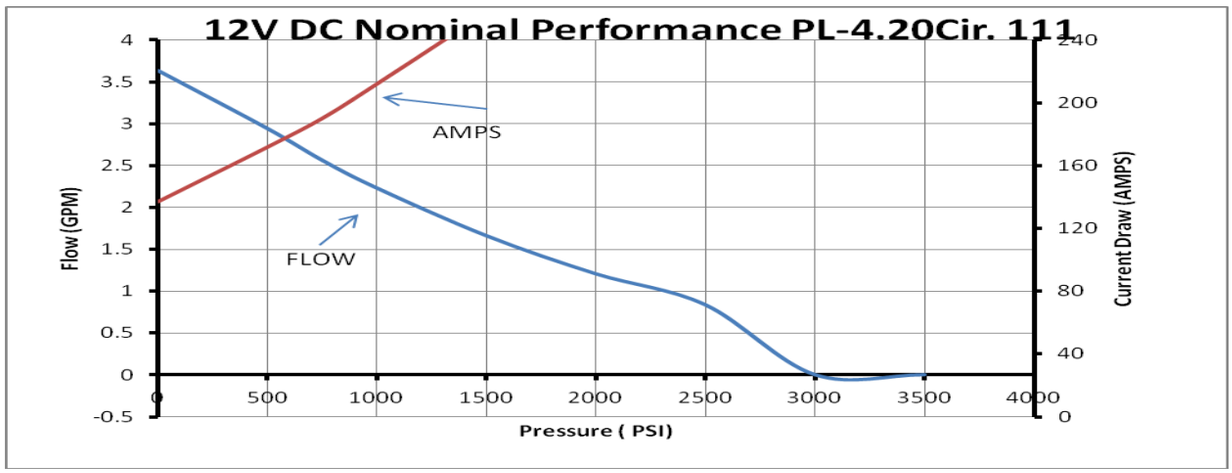


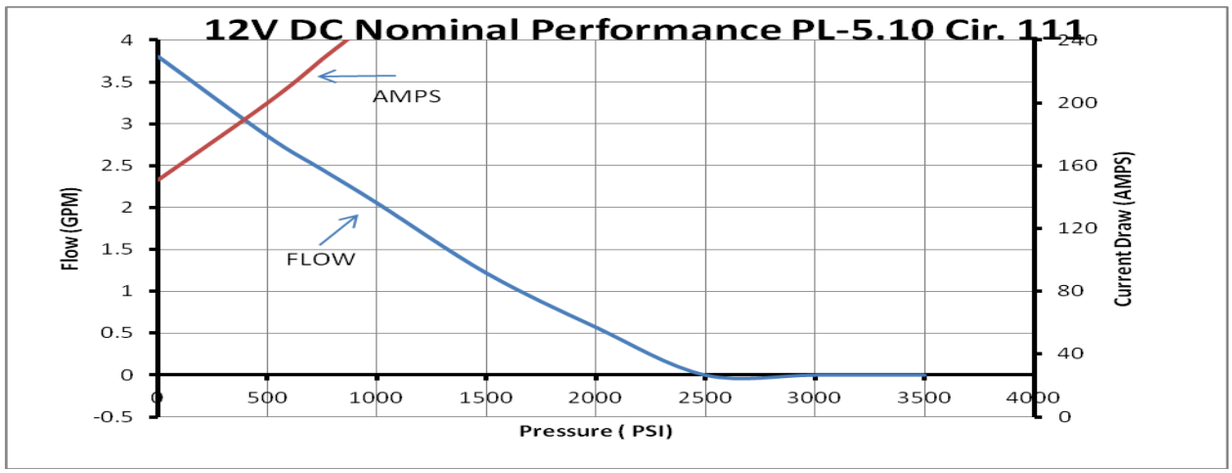


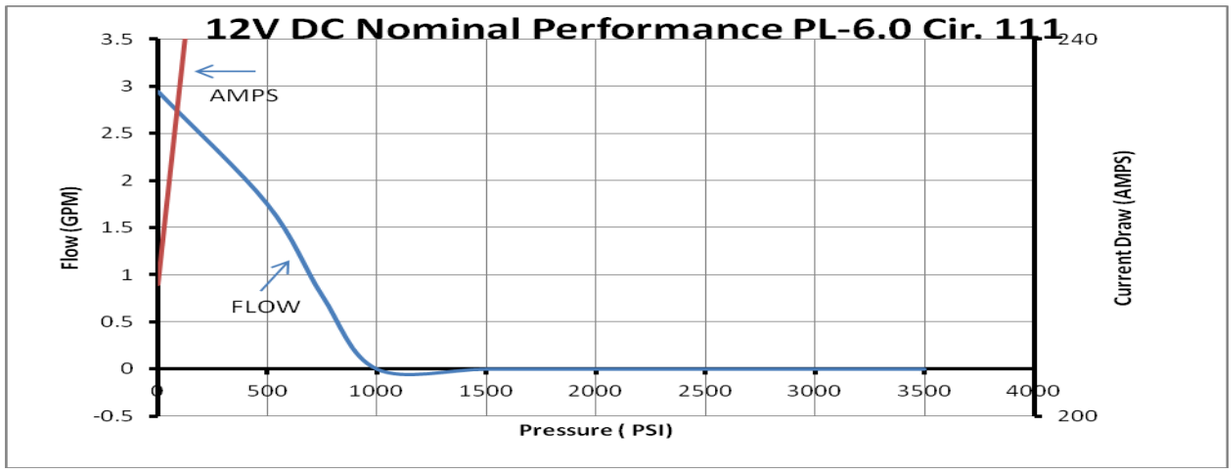


HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

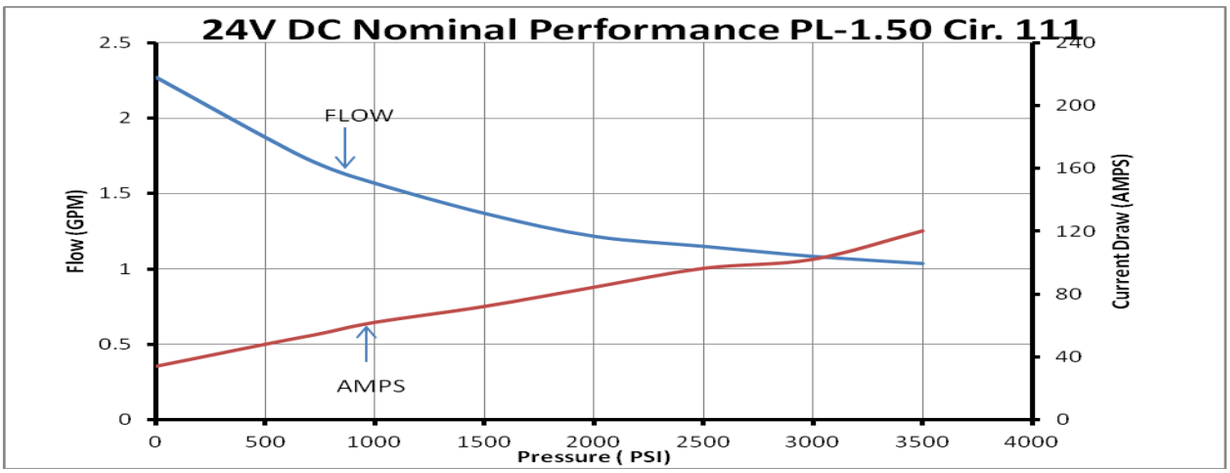


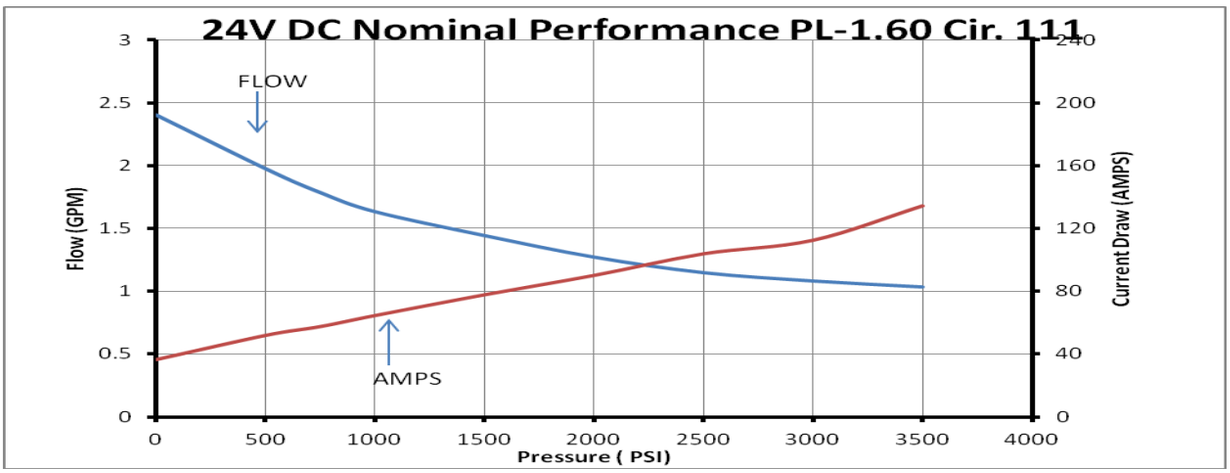


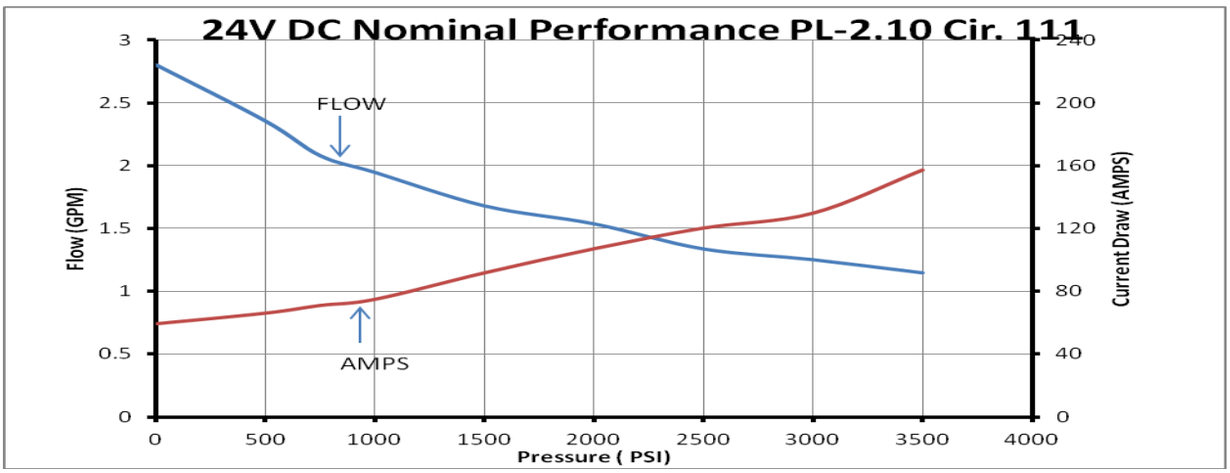


HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

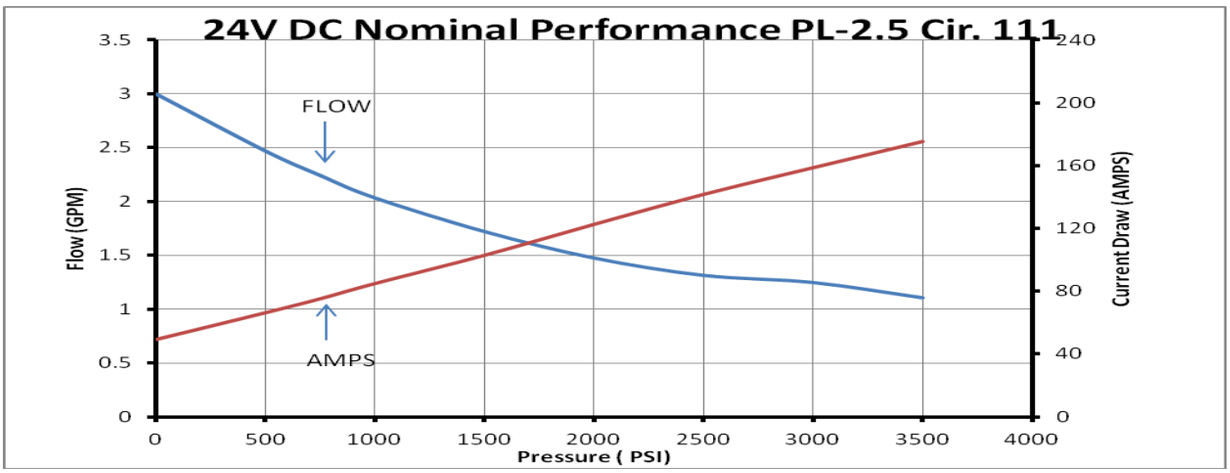


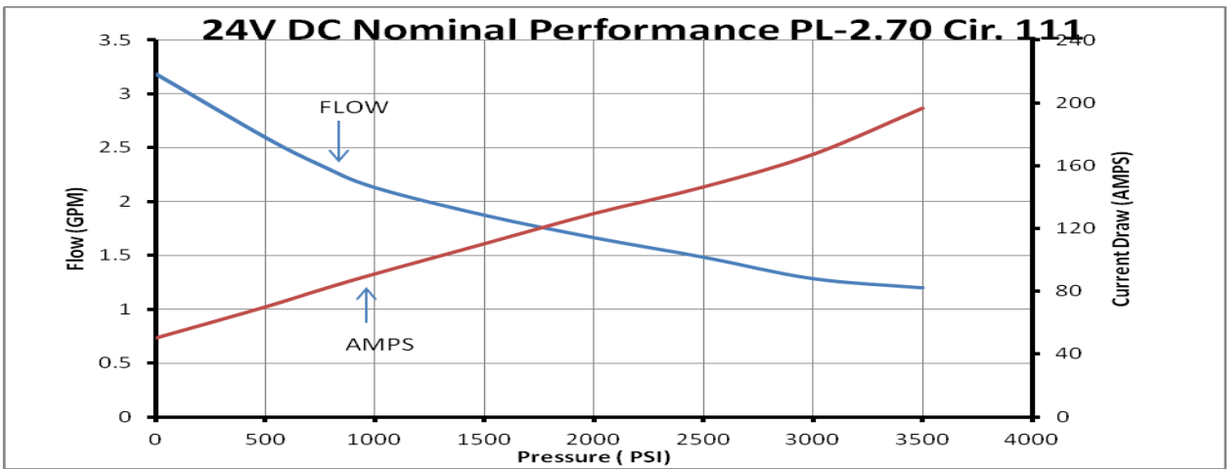


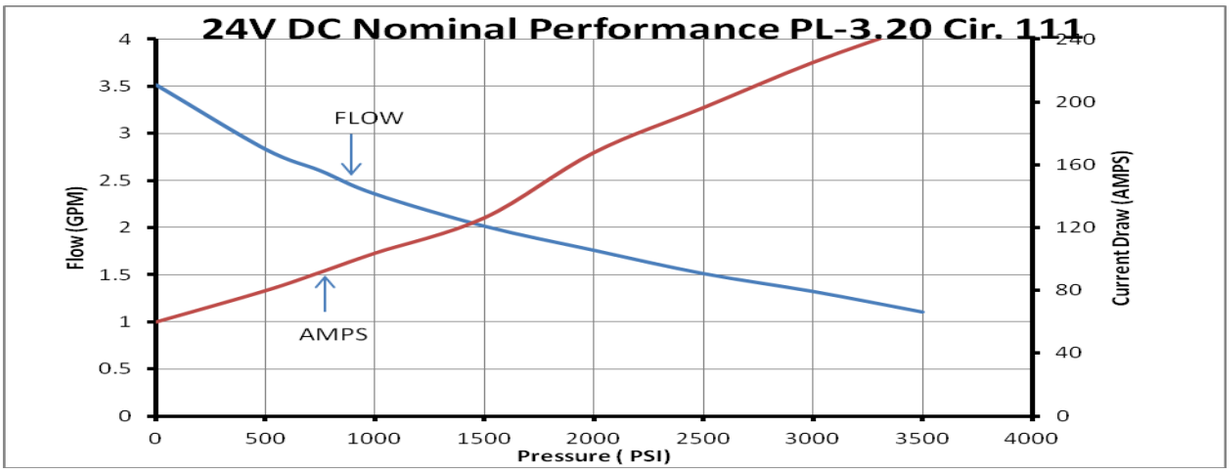


HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

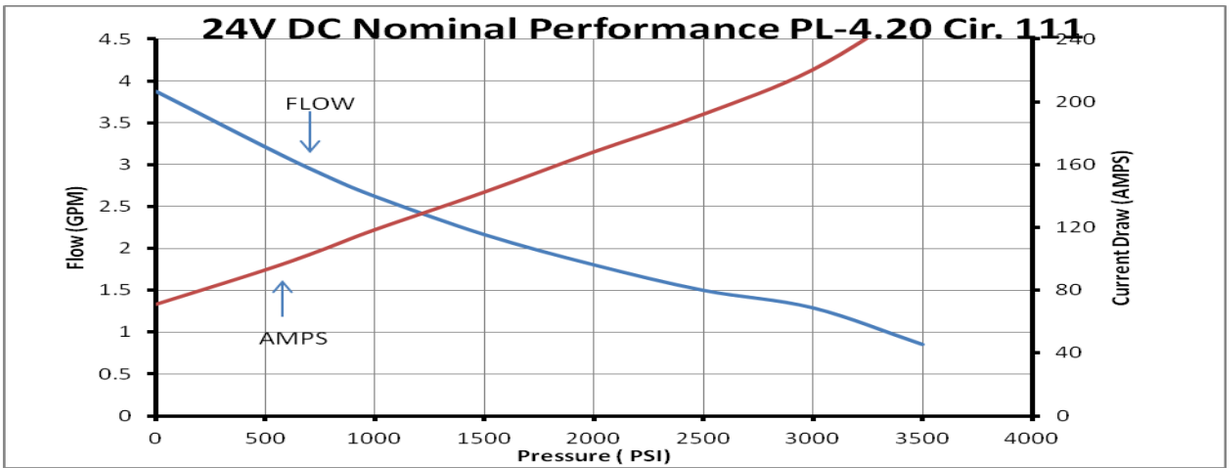






HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com



HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

INSTALLATION RECOMMENDATIONS

1) To avoid contamination, do not remove plastic port plugs until fittings are to be installed.
2) Power Unit mounting flange must make full contact with equipment mount; do not use the mounting bolts to force alignment of the power unit on to the equipment mount.
3) If pump fails to prime, remove Cartridge Check Valve and start the power unit until hydraulic oil flows from the valve cavity and reinstall the Cartridge Check Valve. *(does not apply to double acting units)*
4) Fluid temperature should not exceed 150°F, System reliability and component service life will be reduced.

INLET CONDITIONS

1) Positive pressure must be available at the pump inlet while it is operating, overrunning load can cause the pump to cavitate. Consult the factory for inlet pressure requirements and speed limitation.

FILTRATION

1) For maximum pump and system component life, the system should be protected from contamination at a level not to exceed 125 particles greater than 10 microns per milliliter of fluid (SAE Class 4 / ISO 16/13).

SERVICE

1) Clean fluid essential to system reliability and longer component service life.
2) It is recommended that for every 4,000 operating hours or once a year, whichever occurs first, the air filter/ breather cap and suction strainer should be replaced or thoroughly cleaned.
3) Every 4,000 operating hours, or once a year, whichever occurs first. Drain hydraulic oil from reservoir and remove reservoir from Manifold (end plate). Use WD-40 or similar product to wipe down and remove all debris inside the reservoir, also check the magnet for signs of metal particles. Lubricate reservoir O-ring with hydraulic fluid to remount the reservoir. Insure reservoir O-ring is not pinched or pushed out of groove during installation.
4) For TEFC motors, remove fan casing and wipe fan blade and casing.
5) For other service, please consult factory for proper procedures.

HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

Fluid Recommendations

KTI Hydraulics Inc. recommends using a premium hydraulic oil to ensure optimum performance and system life.

Select oil that has anti-wear properties, rust and oxidation inhibitors, foam inhibitors and good stability. Examples of premium grade hydraulic oils: Chevron Rando HDZ, Mobil DTE 10, and DTE 20 series, AMSOIL, and Shell Tellus.

Automotive Transmission Oils are acceptable under normal conditions.

Aviation Oils such as Valvoline ROYCO series or Mobil Aero HF or HFA may be used in **prolonged & extreme cold** environments.

Do Not Use Biodegradable Hydraulic Fluid. Do Not Mix Oils.

Ambient Temperature Range	**ISO Viscosity Grade**
- 20ºF to + 32ºF (- 29ºC to + 0ºC)	15
+ 14ºF to + 120ºF (- 10ºC to + 49ºC)	22, 32, ATF

Do not operate Power Unit above recommended Fluid Temperature Range.

Premium hydraulic oil with proper ISO Viscosity Grade and additives such as Chevron EP, Mobile DTE 10, DTE 20 series, or Shell Tell us would be acceptable.

In Most Applications Use ATF Dextron III

KTI Hydraulics Inc. Limited Warranty

KTI Hydraulics warrants its products free from defects in material, workmanship and design. The period of warranty for DC units is (2) two years and AC units is (1) year after the date of manufacture. Under no circumstances is there any warranty of fitness for a particular use.

KTI hydraulics cannot and does not accept responsibilities for any of its products that have been subjected to improper installation, application, negligence, tampering or abuse. All repairs must be authorized by KTI Hydraulics to reduce the risk of voiding the warranty. KTI Hydraulics liability warranty shall extend only to replacement or repair, f.o.b. KTI.

KTI Hydraulics makes no other warranties, expressed or implied, and is not responsible for any consequential damages resulting from use by any buyer or user. KTI Hydraulics Inc.'s liability is limited to the value of the product sold or obligated repair or replacement of a defective part.

For warranty request and repair please contact KTI Hydraulics Customer Service.

Power units without model & serial numbers will not be covered under warranty. When calling, please have the model and serial number of the power unit available to facilitate your request.

HYDRAULICS INCORPORATED

2621 S Daimler St
Santa Ana, Ca 92705
Tel. (714) 556-8818, Fax (714) 556-1520
www.ktihydraulicsinc.com

KTI Hydraulics Inc Limited Warranty and Return Goods Authorization (RGA) Procedures

KTI Hydraulics warrants its product free from defects in material, workmanship, and design for a period of two years after date of Manufacture on DC Units and one year from date of manufacturer on AC Units. Under no circumstances is there any warranty of fitness for a particular use and KTI Hydraulics cannot and does not accept responsibilities of any type or any of it's products that have been subjected to improper installation, improper application, negligence, tampering or abuse. All repairs must be authorized by factory to reduce the risk of voiding the warranty. KTI Hydraulics' liability warranty shall extend only to replacement or correction, f.o.b. KTI hydraulics. We make no other warranties, expressed or implied, and are not responsible for any consequential damages resulting from use by any buyer or user, our liability being limited to the value of product sold, or obligated to repair or replace a defective part.

For warranty information or warranty request please contact Customer Service.

Power units without model number & serial number will not be covered under warranty, when calling please have model number and serial number of the power unit.

Return Goods Authorization (RGA) Procedures:

The following requirements must be met by Buyer to return goods for warranty inspection.

1) Warranty request must be made via written / e-mail / voice by Buyer to KTI Hydraulics, Inc. with following information:
    a. KTI Hydraulics Model Number / P/N & Serial Number.
    b. If lacking Model or Serial Number, It is possible to cross reference through buyer's P.O or KTI Hydraulics Invoice Number.
    c. Quantities of unit/s under question.
    d. Reason for return – defect, warranty, or repair & suspected reasons for failure.
2) KTI Hydraulics, Inc will issue a RGA number and fax a RGA form with this number to the Buyer. All corresponding paper work will reference this RGA number.
3) All RGA numbers are effective 60 days from the issuing date. Buyer has the responsibility to insure proper documentation (item d), proper packaging and ship on prepaid basis unless obtaining prior written authorization from KTI Hydraulics. Return goods shipped to KTI freight collect, or C.O.D. will result in KTI Hydraulics, Inc.'s refusal of said shipment. Return goods received by KTI Hydraulics after the 60 days will be subject to repair and repair charges. KTI Hydraulics will take possession of said return goods when it arrives at KTI Hydraulics, Inc. premise in good order. KTI Hydraulics will refuse any returned goods shipment if it contains power units or parts not manufactured or sold by KTI Hydraulics, Inc. KTI Hydraulics will not be responsible for any extraneous parts that are not manufactured or sold by KTI Hydraulics, Inc.
4) All return goods are subject to KTI Hydraulics, Inc. incoming inspection.