

MAC Pulse Valve PV03 Series **MAC**[®]

The MAC Pulse Valve series is designed to be a direct drop-in replacement for existing pulse technology. The MAC solution utilizes a long life, bonded-spool design, instead of the traditional diaphragm style. MAC also uses a balanced pilot valve that isolates the solenoid from airline contamination. Available with integral solenoid pilot as well as bleed pilot configurations.

Direct Drop-In

The MAC Pulse Valve is available with various adapter options. These adapter options allow the MAC valve to directly replace the diaphragm technology with our bonded spool technology without disturbing plumbing. The MAC bleed configuration works with existing remotely located solenoids.

Harsh Environment Compatible

An aluminum die-cast body, nitrile seals and an environmentally protected solenoid are standard features. Viton[®] seals are also available for extreme temperature environments and chemical resistance.

Maintenance

Lower cost of ownership through reduction in downtime due to high reliability. When necessary, maintenance is simplified with available spool kits.

Base Adapters*

M-PV001-01 - ASCO[®] / Flex-Kleen[®] 3/4" Adapter
M-PV002-01 - Goyen[™] 3/4" Adapter
M-PV003-01 - ASCO[®] 1" Adapter
M-PV004-01 - Turbo[™] 1" Adapter
M-PV005-01 - Goyen[™] 1" Adapter
M-PV009-01 - ASCO[®] 3/4" External Adapter

* Additional configurations available upon request

Spool Kits

| Kit |
|-------------------------------|
| Viton [®] K-PV001-05 |

Product Characteristics and Performance

| Flow | Temp. Range Nitrile | Temp Range Viton | Pressure Range |
|-------|-----------------------------|--------------------------------|---------------------------------|
| 24 Cv | 0°F - 140°F -18°C - 60°C | -20°F - 230°F -29°C - 110°C | 30 - 120 PSI 2.07 - 8.27 bar |



MAC Pulse Valve PV03 Series



Configuration Options

Integral Pilot **PV03B - XXX - 46L - DXXX - XXX = XXXX**

Remote Bleed **PV03B - XXX - 46L - RBXX = XXXX**

Modifications
see below

| Spool Type | Base Port Size & Thread Type | Int / Ext Pilot | Remote Bleed |
|--|------------------------------|--------------------------------|------------------|
| 0 Base Only | 0 Basic Valve No Base | 0 Base Only | 11 NPTF threads |
| A N.C. Main W/Memory Spring Viton® Seals Thru-out | A 3/4" NPTF MAC Base | A Internal Pilot | 14 BSPPL threads |
| | B 1" NPTF MAC Base | B External Pilot NPTF threads | 15 BSPTR threads |
| | C 3/4" BSPPL MAC Base | C External Pilot BSPPL threads | |
| | D 1" BSPPL MAC Base | D External Pilot BSPTR threads | |
| | E 3/4" BSPTR MAC Base | E Internal Pilot BSPPL threads | |
| | F 1" BSPTR MAC Base | F Internal Pilot BSPTR threads | |

Solenoid Valve Options

46L - DXXX - XXX

| Voltage | Lead Wire Length | Manual Operator | Electrical Connector |
|----------------------------|----------------------------|-----------------|-----------------------------------|
| DC | A 18" | 0 No Operator | BA* Grommet |
| DA 24 VDC (5.4 W) | B 24" | 1 Non Locking | BK Grommet w/Diode |
| EW 24 VDC(8.0 W) | C 36" | | CM* Metal Conduit 1/2" |
| AC (Requires Modification) | D 48" | | CN* Metal Conduit w/Ground 1/2" |
| DD 24 VAC (7.3 W) | E 72" | | JA* Square Plug-in |
| DP 48 VAC (5.8 W) | F 96" | | JB Rectangular Plug-in |
| EM 120 VAC (6.2 W) | J External Plug-In Lead | | JC* Square Plug-in w/Light |
| GD 220 VAC (7.3 W) | | | JD Rectangular Plug-in w/Light |
| | | | JJ* Square Male Only |
| | | | JM Rectangular Male Only |
| | | | KA* Mini Plug-in |
| | | | KB Mini Plug-in w/Diode |
| | | | KD Mini Plug-in w/Light |
| | | | KE Mini Plug-in w/Light & Diode |
| | | | KC Mini Plug-in w/LED & Diode |
| | | | KJ* Mini Plug-in Male Only |
| | | | KK Mini Plug-in Male Only w/Diode |

Pilot Only Options - Bodies and Assemblies

- 46LB-LR0-RBXX=XXXX (bleed pilot valve)
See options above and modifications below
- 46LB-LP0-DXXX-XXX=XXXX (solenoid operated pilot valve)
See options above and modifications below

Modifications - One Selection Required

- PVVT Viton Seals
- PVVR Viton Seals and AC Voltage - Rectified
- PV01 Viton Seals, Silicone free grease
- PV02 Viton Seals, Silicone free grease and AC Voltage - Rectified
- PV03 Viton Seals, FDA food grade grease
- PV04 Viton Seals, FDA food grade grease and AC Voltage - Rectified

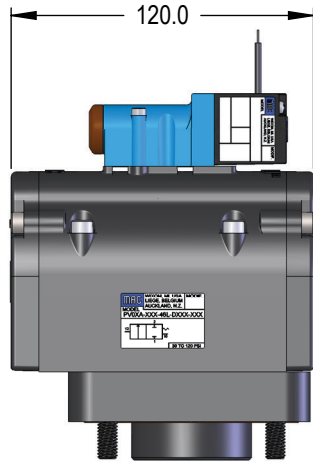
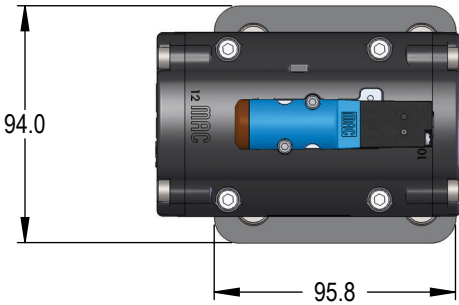
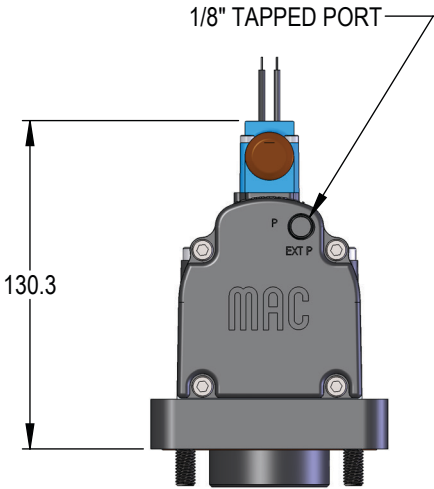
* (Connectors available with AC voltage-
requires modification)

Spool and Adapter Kits

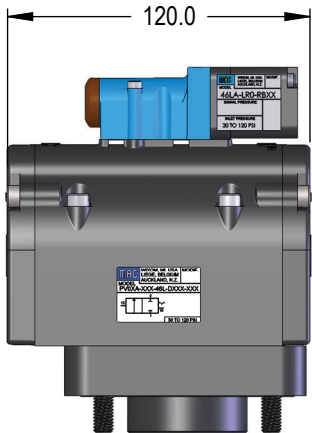
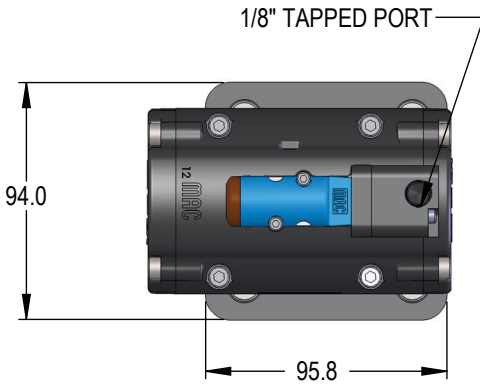
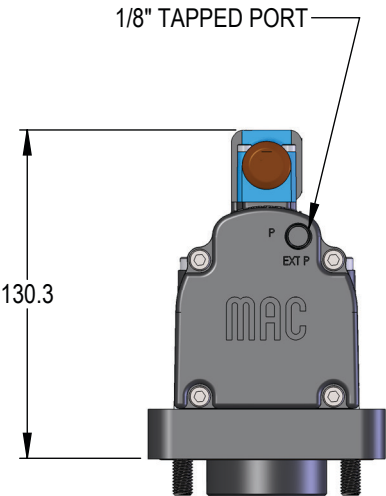
- K-PV001-05 Viton® (includes seals and spring)
- N-PV001-01 Solenoid Adapter Plate
- N-PV001-02 Remote Bleed Adapter Plate
- N-PV002-01 PV03 Check Stem Kit

MAC Pulse Valve PV03 Series **MAC**[®]

PV03 with Solenoid Pilot on
M-PV005-01 Adapter

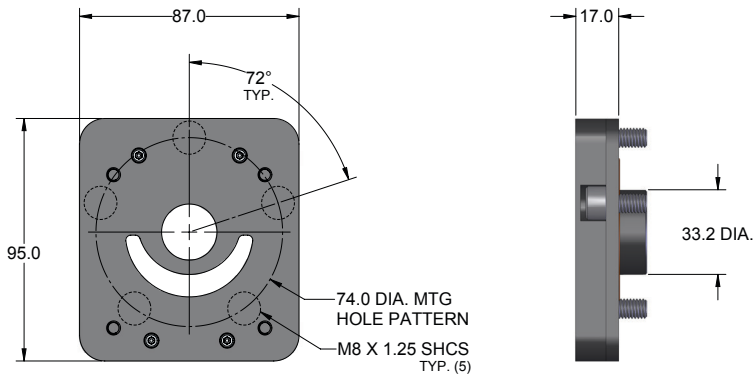


PV03 with Remote Bleed Pilot on
M-PV005-01 Adapter

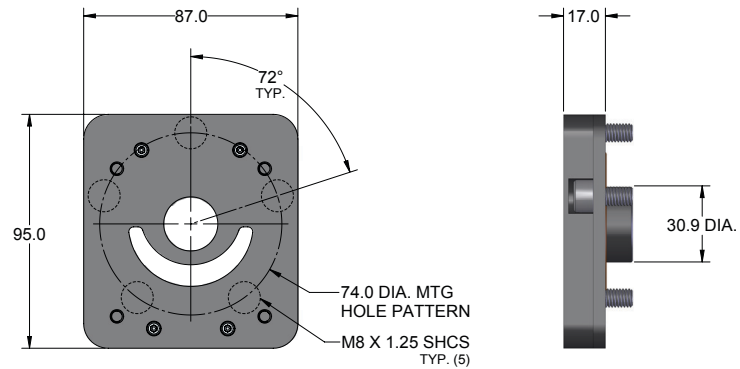


MAC Pulse Valve PV03 Series **MAC**[®]

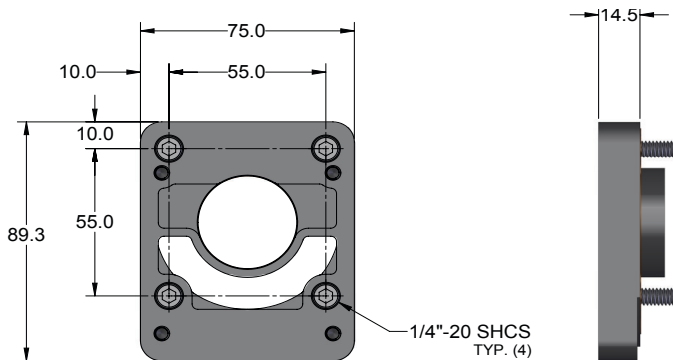
M-PV001-01
ASCO[®]/ Flex-Kleen[®] 3/4" Adapter
Tested on C030 and C033 Bases



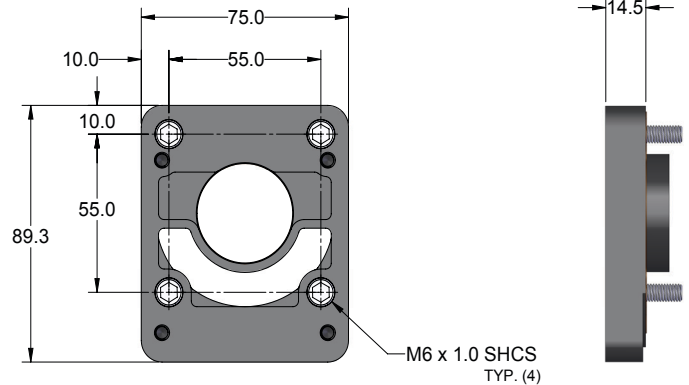
M-PV002-01
Goyen[™] 3/4" Adapter
Tested on 20T Base



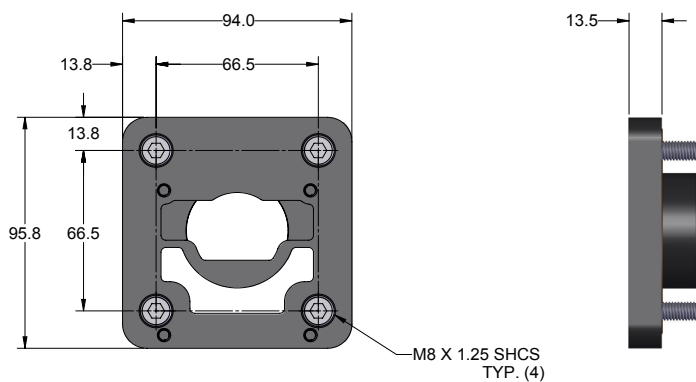
M-PV003-01
ASCO[®] 1" Adapter
Tested on C035 Base



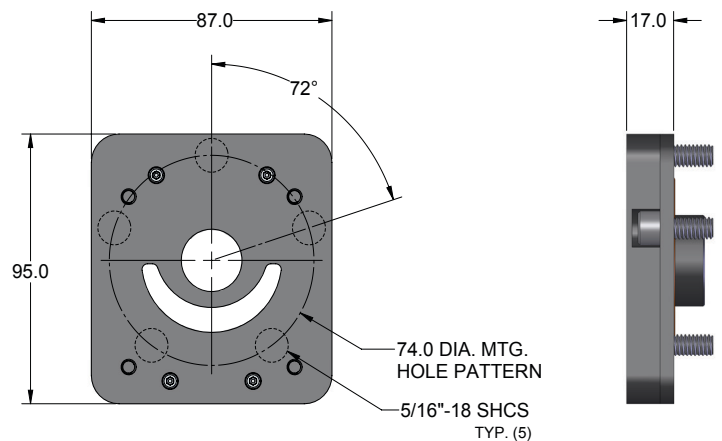
M-PV004-01
Turbo[™] 1" Adapter
Tested on FM25 and FP25 Bases



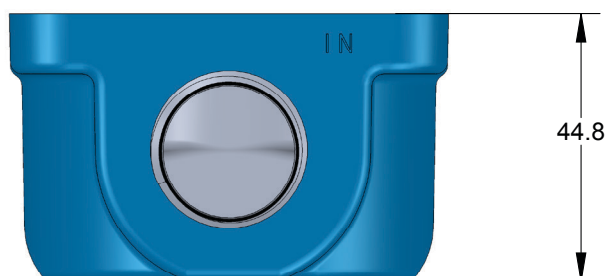
M-PV005-01
Goyen[™] 1" Adapter
Tested on 25T Base



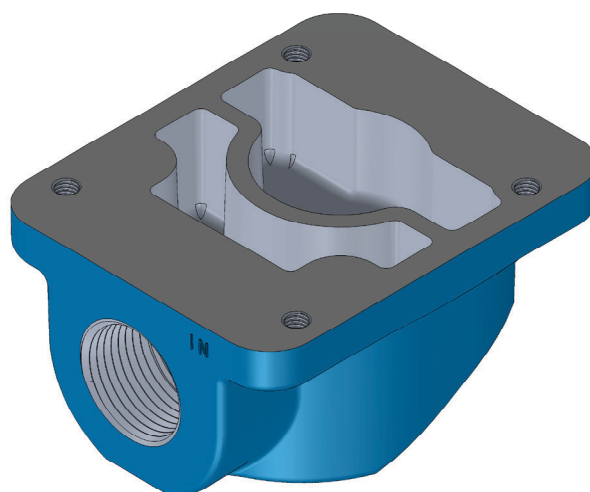
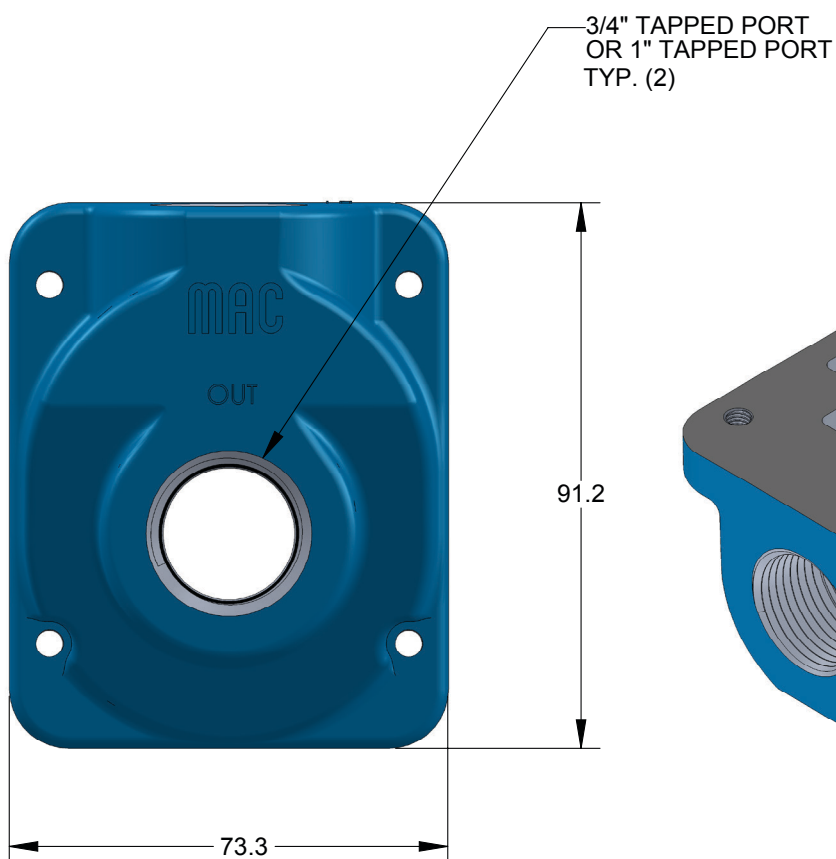
M-PV009-01
ASCO[®] 3/4" Extended Adapter
Tested on C004 Base



MAC Pulse Valve PV03 Series



MAC 3/4" or 1" Base



MAC Pulse Valve PV06 Series **MAC**[®]

The MAC Pulse Valve series is designed to be a direct drop-in replacement for existing pulse technology. The MAC solution utilizes a long life, bonded-spool design, instead of the traditional diaphragm style. MAC also uses a balanced pilot valve that isolates the solenoid from airline contamination. Available with integral solenoid pilot as well as bleed pilot configurations.

Direct Drop-In

The MAC Pulse Valve is available with various adapter options. These adapter options allow the MAC valve to directly replace the diaphragm technology with our bonded spool technology without disturbing plumbing. The MAC bleed configuration works with existing remotely located solenoids.

Harsh Environment Compatible

An aluminum die-cast body, nitrile seals and an environmentally protected solenoid are standard features. Viton[®] seals are also available for extreme temperature environments and chemical resistance.

Maintenance

Lower cost of ownership through reduction in downtime due to high reliability. When necessary, maintenance is simplified with available spool kits.

Base Adapters*

M-PV006-01 - 1 1/2" Goyen[™] Adapter
M-PV007-01 - 1 1/2" ASCO[®] Adapter
M-PV008-01 - 1 1/2" Norgren[®] Adapter
M-PV010-01 - 1 1/2" Turbo[™] D-Series Adapter
M-PV011-01 - 1 1/2" Turbo[™] F-Series Adapter

* Additional configurations available upon request

Spool Kits

Kit

Viton[®] K-PV002-05



Product Characteristics and Performance

| Flow | Temp. Range Nitrile | Temp Range Viton | Pressure Range |
|---------|-----------------------------|--------------------------------|---------------------------------|
| 53.2 Cv | 0°F - 140°F -18°C - 60°C | -20°F - 230°F -29°C - 110°C | 30 - 120 PSI 2.07 - 8.27 bar |

MAC Pulse Valve PV06 Series



Configuration Options

Integral Pilot **PV06B- XXX - 46L - DXXX - XXX = XXXX**

Remote Bleed **PV06B - XXX - 46L - RBXX = XXXX**

Modifications
see below

| Spool Type | Base Port Size & Thread Type | Int / Ext Pilot | Remote Bleed |
|--|------------------------------|--------------------------------|------------------|
| 0 Base Only | 0 Basic Valve No Base | 0 Base Only | 11 NPTF threads |
| A N.C. Main W/Memory Spring Viton® Seals Thru-out | A 1 1/2" NPTF MAC Base | A Internal Pilot | 14 BSPPL threads |
| | C 1 1/2" BSPPL MAC Base | B External Pilot NPTF threads | 15 BSPTR threads |
| | E 1 1/2" BSPTR MAC Base | C External Pilot BSPPL threads | |
| | | D External Pilot BSPTR threads | |
| | | E Internal Pilot BSPPL threads | |
| | | F Internal Pilot BSPTR threads | |

Solenoid Valve Options

46L - DXXX - XXX

| Voltage | Lead Wire Length | Manual Operator | Electrical Connector |
|----------------------------|------------------|-----------------|-----------------------------------|
| DC | A 18" | 0 No Operator | BA * Grommet |
| DA 24 VDC (5.4 W) | B 24" | 1 Non Locking | BK Grommet w/Diode |
| EW 24 VDC(8.0 W) | C 36" | | CM* Metal Conduit 1/2" |
| AC (Requires Modification) | D 48" | | CN* Metal Conduit w/Ground 1/2" |
| DD 24 VAC (7.3 W) | E 72" | | JA * Square Plug-in |
| DP 48 VAC (5.8 W) | F 96" | | JB Rectangular Plug-in |
| EM 120 VAC (6.2 W) | J External | | JC * Square Plug-in w/Light |
| GD 220 VAC (7.3 W) | Plug-In Lead | | JD Rectangular Plug-in w/Light |
| | | | JJ * Square Male Only |
| | | | JM Rectangular Male Only |
| | | | KA * Mini Plug-in |
| | | | KB Mini Plug-in w/Diode |
| | | | KD Mini Plug-in w/Light |
| | | | KE Mini Plug-in w/Light & Diode |
| | | | KC Mini Plug-in w/LED & Diode |
| | | | KJ * Mini Plug-in Male Only |
| | | | KK Mini Plug-in Male Only w/Diode |

Pilot Only Options - Bodies and Assemblies

46LB-LR0-RBXX=XXXX (bleed pilot valve)

See options above and modifications below

46LB-LP0-DXXX-XXX=XXXX (solenoid operated pilot valve)

See options above and modifications below

Modifications - One Selection Required

PVVT Viton Seals

PVVR Viton Seals and AC Voltage - Rectified

PV01 Viton Seals, Silicone free grease

PV02 Viton Seals, Silicone free grease and AC Voltage - Rectified

PV03 Viton Seals, FDA food grade grease

PV04 Viton Seals, FDA food grade grease and AC Voltage - Rectified

* (Connectors available with AC voltage-
requires modification)

Spool and Adapter Kits

K-PV002-05 Viton® (includes seals and spring)

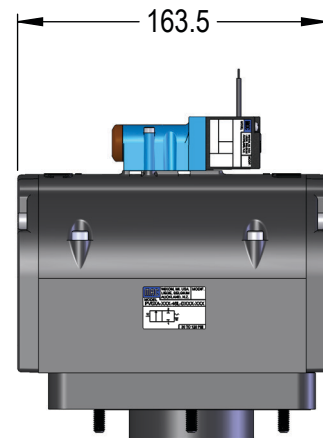
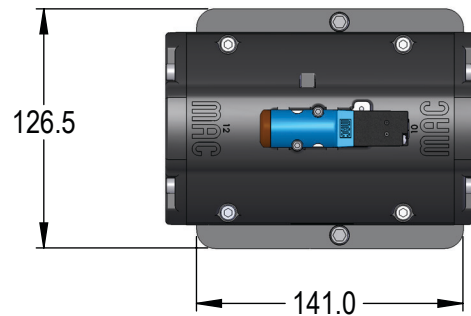
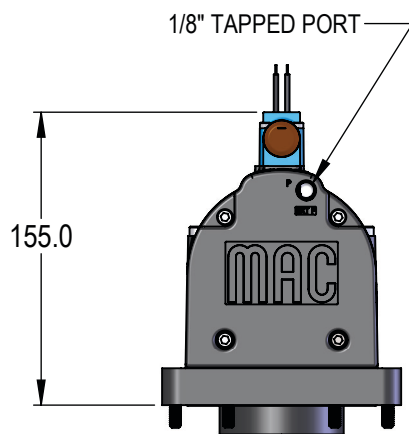
N-PV001-01 Solenoid Adapter Plate

N-PV001-02 Remote Bleed Adapter Plate

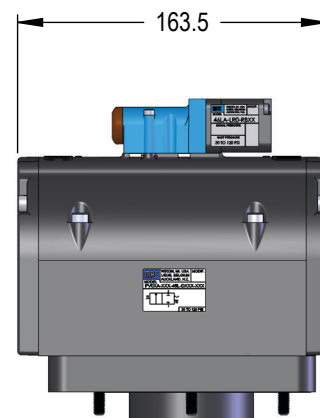
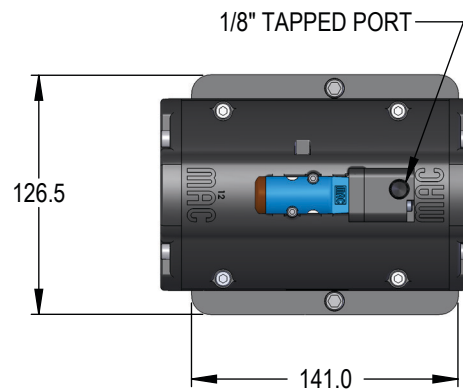
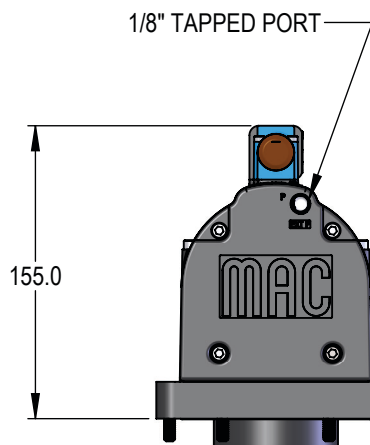
N-PV002-02 PV06 Check Stem Kit

MAC Pulse Valve PV06 Series **MAC**[®]

PV06 with Solenoid Pilot on
M-PV006-01 Adapter

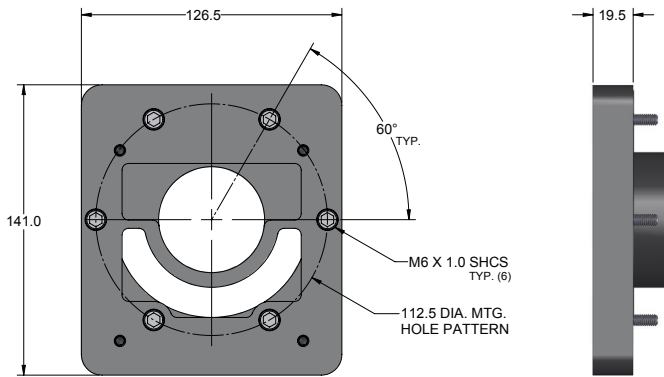


PV06 with Remote Bleed Pilot on
M-PV006-01 Adapter

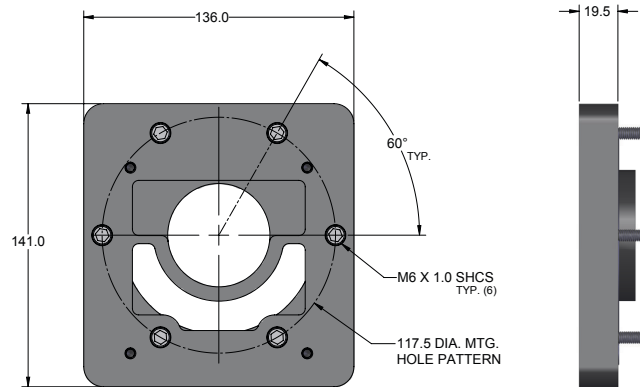


MAC Pulse Valve PV06 Series **MAC**[®]

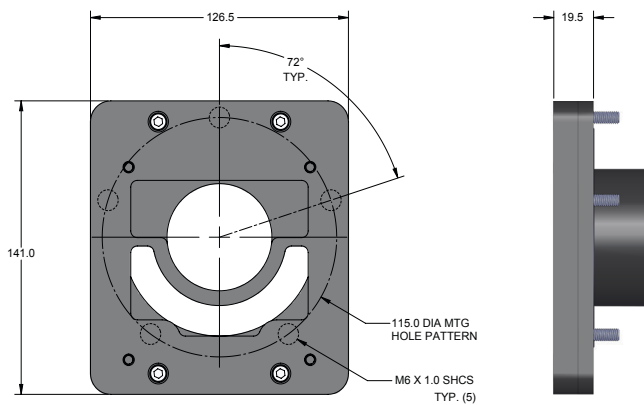
M-PV006-01
1 1/2" Goyen[™] Adapter
Tested on 35T, 45T, and 45DD Bases



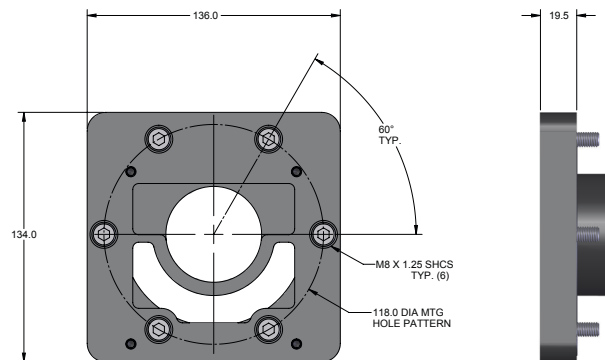
M-PV007-01
1 1/2" Asco[®] Adapter
Tested on J039 Base



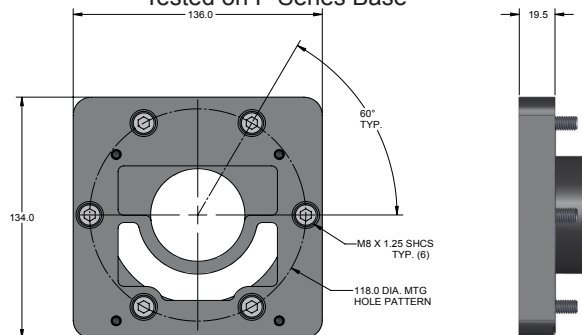
M-PV008-01
1 1/2" Norgren[®] Adapter
Tested on 82960 Base



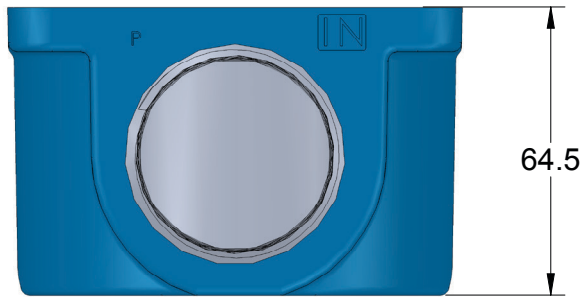
M-PV010-01
1 1/2" Turbo[™] D-Series Adapter
Tested on D-Series Base



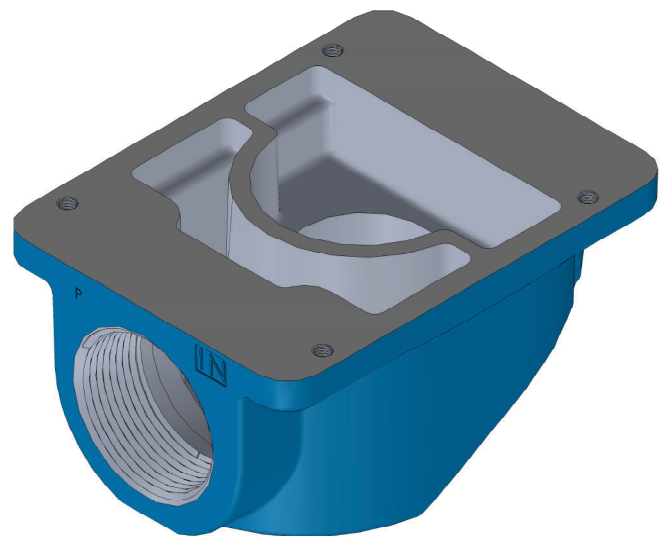
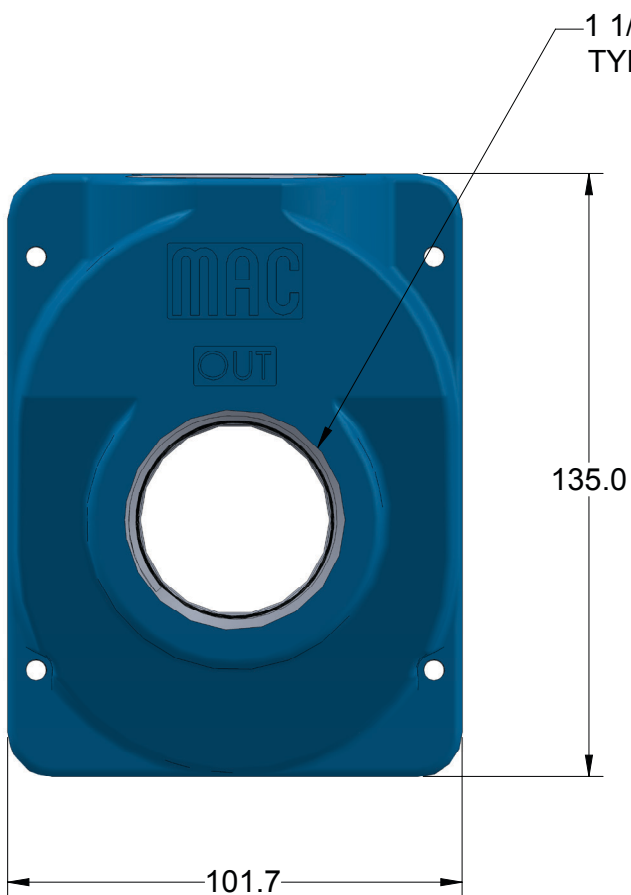
M-PV011-01
1 1/2" Turbo[™] F-Series Adapter
Tested on F-Series Base



MAC Pulse Valve PV06 Series



MAC 1 1/2" Base



MAC PV09 Pulse Valve



The MAC Pulse Valve Series is designed to surpass the performance and reliability of existing pulse valve technology. The MAC solution utilizes a long life, bonded-spool design, instead of the traditional diaphragm style. MAC also uses a balanced pilot valve that isolates the solenoid from airline contamination. Available with integral solenoid pilot as well as bleed pilot configurations.

Ease of Installation

The MAC Pulse Valve can conveniently be installed in virtually any application. A traditional 90° base or optional adapter plate allows the MAC valve to directly replace diaphragm technology with our bonded spool technology without disturbing existing plumbing. You can even use existing remote solenoids or our integral solenoid pilot for the ultimate performance and reliability.

Harsh Environment Compatible

An aluminum die-cast body, Viton® seals and an environmentally protected solenoid are standard features, making the MAC valve chemical resistant and suitable for extreme temperature environments.

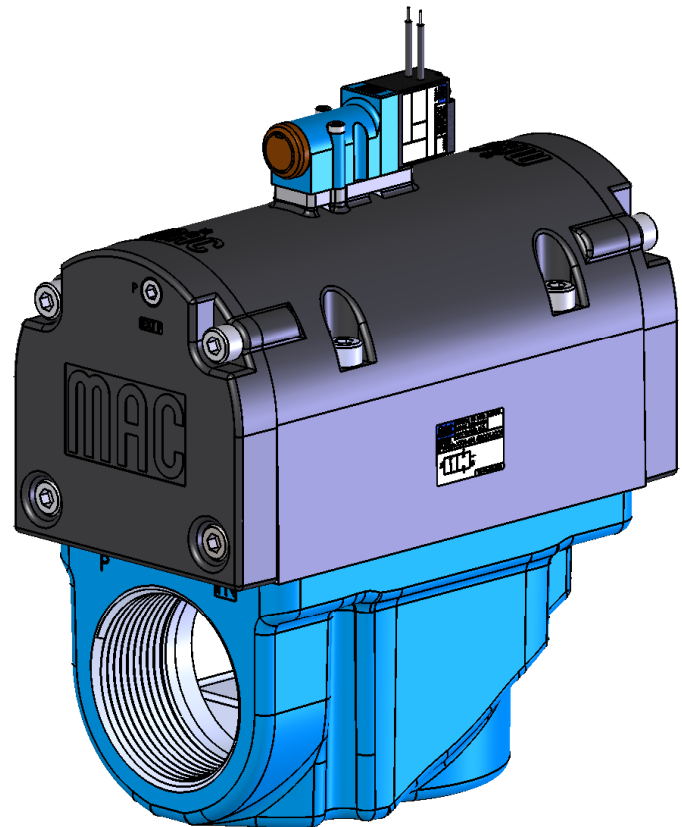
Maintenance & Efficiency

The MAC bonded spool pulse valves delivers lower cost of ownership through reduction in downtime and lower air consumption. When necessary, maintenance is simplified with available spool kits.

Spool Kits

Kit

Viton® S-PV003-05



Product Characteristics and Performance

| Flow | Temp Range Viton | Pressure Range |
|--------|--------------------------------|---------------------------------|
| 100 Cv | -20°F - 230°F -29°C - 110°C | 30 - 120 PSI 2.07 - 8.27 bar |

MAC PV09 Pulse Valve



Configuration Options

Integral Pilot **PV09B - XXX - 46L - DXXX - XXX = XXXX**

Remote Bleed **PV09B - XXX - 46L - RBXX = XXXX**

Modifications
see below

| Spool Type | Base Port Size & Thread Type | Int / Ext Pilot | Remote Bleed |
|--|------------------------------|--------------------------------|------------------|
| 0 Base Only | 0 Basic Valve No Base | 0 Base Only | 11 NPTF threads |
| A N.C. Main W/Memory Spring Viton® Seals Thru-out | A 2" NPTF MAC Base | A Internal Pilot NPTF threads | 14 BSPPL threads |
| | B 2 1/2" NPTF MAC Base | B External Pilot NPTF threads | 15 BSPTR threads |
| | C 2" BSPPL MAC Base | C External Pilot BSPPL threads | |
| | D 2 1/2" BSPPL MAC Base | D External Pilot BSPTR threads | |
| | E 2" BSPTR MAC Base | E Internal Pilot BSPPL threads | |
| | F 2 1/2" BSPTR MAC Base | F Internal Pilot BSPTR threads | |

Solenoid Valve Options

46L - DXXX - XXX

| Voltage | Lead Wire Length | Manual Operator | Electrical Connector |
|----------------------------|----------------------------|-----------------|-----------------------------------|
| DC | A 18" | 0 No Operator | BA* Grommet |
| DA 24 VDC (5.4 W) | B 24" | 1 Non Locking | BK Grommet w/Diode |
| EW 24 VDC (8.0 W) | C 36" | | CM* Metal Conduit 1/2" |
| AC (Requires Modification) | D 48" | | CN* Metal Conduit w/Ground 1/2" |
| DD 24 VAC (7.3 W) | E 72" | | JA* Square Plug-in |
| DP 48 VAC (5.8 W) | F 96" | | JB Rectangular Plug-in |
| EM 120 VAC (6.2 W) | J External Plug-In Lead | | JC* Square Plug-in w/Light |
| GD 220 VAC (7.3 W) | | | JD Rectangular Plug-in w/Light |
| | | | JJ* Square Male Only |
| | | | JM Rectangular Male Only |
| | | | KA* Mini Plug-in |
| | | | KB Mini Plug-in w/Diode |
| | | | KD Mini Plug-in w/Light |
| | | | KE Mini Plug-in w/Light & Diode |
| | | | KC Mini Plug-in w/LED & Diode |
| | | | KJ* Mini Plug-in Male Only |
| | | | KK Mini Plug-in Male Only w/Diode |

Pilot Only Options - Bodies and Assemblies

46LB-LR0-RBXX=XXXX (bleed pilot valve)
See options above and modifications below
46LB-LP0-DXXX-XXX=XXXX (solenoid operated pilot valve)
See options above and modifications below

Modifications - One Selection Required

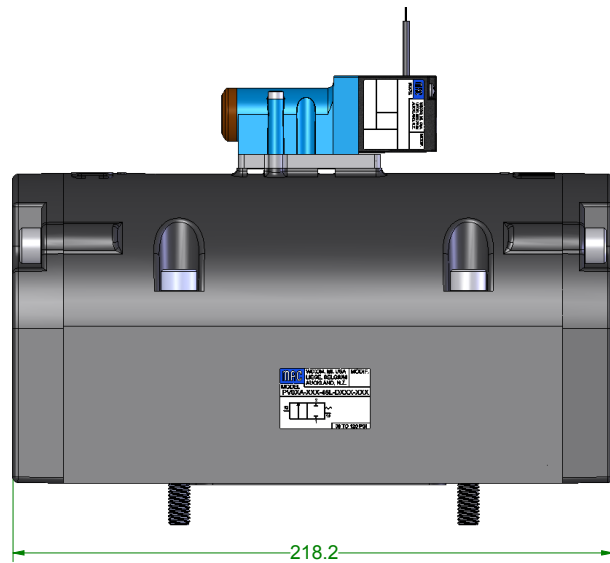
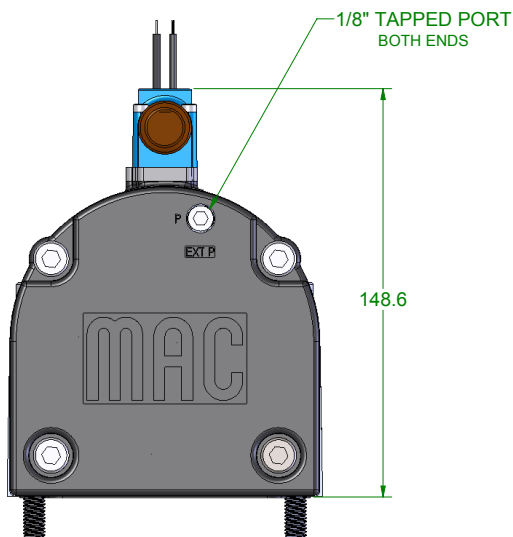
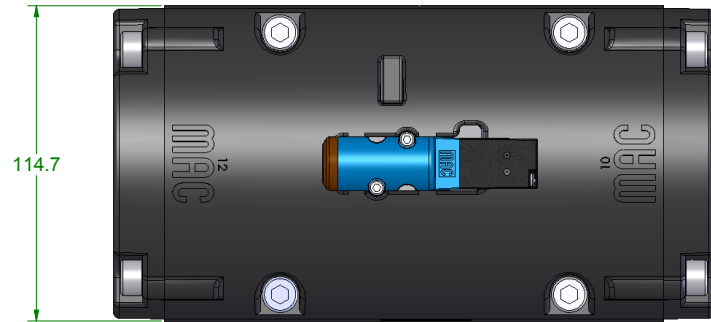
PVVT Viton Seals
PVVR Viton Seals and AC Voltage - Rectified
PV01 Viton Seals, Silicone free grease
PV02 Viton Seals, Silicone free grease and AC Voltage - Rectified
PV03 Viton Seals, FDA food grade grease
PV04 Viton Seals, FDA food grade grease and AC Voltage - Rectified

Spool and Adapter Kits

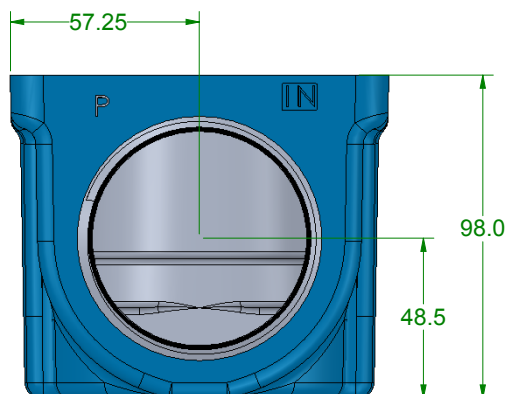
K-PV003-05 Viton® (includes seals and spring)
N-PV001-01 Solenoid Adapter Plate
N-PV001-02 Remote Bleed Adapter Plate
N-PV002-02 PV09 Check Stem Kit

* (Connectors available with AC voltage-
requires modification)

MAC PV09 Pulse Valve



MAC PV09 Pulse Valve



MAC 2" & 2.5" BASE

