

Power Units and Valves

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Milwaukee Cylinder Vertical Power Units are powerful performers for your general hydraulic power unit needs. Available in either Gear Pump (3000 psi) or Vane Pump (2000 psi) designs, these units really deliver with standard features and options needed to do the job right. These units are fully featured to give you the performance and value that you need. Available options and directional valves help you to customize the power unit for your application.

STANDARD FEATURES

Vertical Steel Reservoir with Sight Glass and In-tank Filter

- Return filter / breather with indicator gauge
- Locating the pump inside of the reservoir reduces noise

TEFC Motor

- Quality motor with fan cooling for durable performance

Pump Mounted Manifold

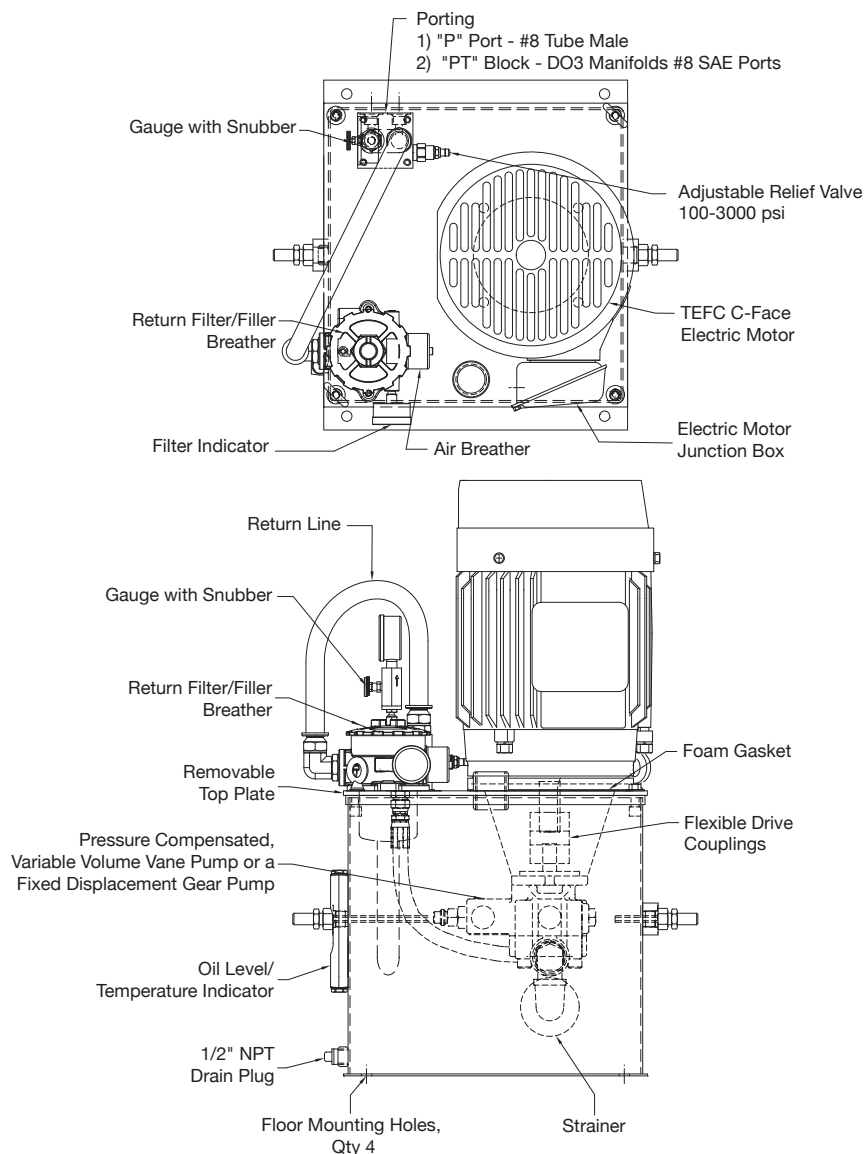
- P & T manifold for use with remote mounted valves
- D03 valve manifolds: 1, 2 or 4 station
- Manifold mounted gauge and snubber

Pressure Control

- Gear Pump Units have a relief valve in the valve manifold
- Vane Pumps Units have tank mounted pressure and volume controls

POPULAR OPTIONS

- Low oil level switch with high temperature (140° F)
- Heat exchanger



GEAR PUMPS

Maximum Pressure:

3000 psi

Flow Rates:

.545-10.00 gpm

Reservoir Capacities:

10-30 gallons

Standard Motor:

TEFC 1725 rpm

VANE PUMPS

Maximum Pressure:

2000 psi

Flow Rates:

4-8 gpm

Reservoir Capacities:

20 gallons

Standard Motor:

TEFC 1725 rpm



Due to manufacturing processes and product improvements, please check website for the latest updates of products.

Series H

Series MH

Series LH

Series A

Series MN

Hyd-Pneu Devices

Cyl Accessories

Manipulators

Power Units/Valves

Max. Operating Pressure:

3000 psi

Flow Rates:

.545-10.00 gpm

Reservoir Capacities:

10-30 gallons

Standard Motor:

1725 rpm

For additional details on gear pump and vane pump designs see:

Page 190

VERTICAL GEAR PUMP POWER UNITS

A **Vertical Gear Pump Power Unit** from *Milwaukee Cylinder* provides an effective solution for your production requirements. With a pressure range up to 3000 psi, these units serve as powerful partners for our H Series tie rod cylinders. Available flow ranges are .5 gpm, 1 gpm, 2 gpm, 5 gpm and 10 gpm. Other models with higher flow are available upon request (see Power Unit Matrix, page 166).

▼ SINGLE-STAGE GEAR PUMP POWER UNITS

* Model Number	HP	Electrical	GPM	Reservoir (gal)	Valve Manifold -Relief valve standard - #8 SAE porting standard
MCVEG-15-1-.5-10-PT	1.5	120/240/1/60	0.545	10	P & T
MCVEG-15-3-.5-10-PT	1.5	208/230/460/3/60	0.545	10	P & T
MCVEG-15-1-.5-10-D31	1.5	120/240/1/60	0.545	10	Single Station D03
MCVEG-15-3-.5-10-D31	1.5	208/230/460/3/60	0.545	10	Single Station D03
MCVEG-15-1-.5-10-D32	1.5	120/240/1/60	0.545	10	Two Station D03
MCVEG-15-3-.5-10-D32	1.5	208/230/460/3/60	0.545	10	Two Station D03
MCVEG-15-1-.5-10-D34	1.5	120/240/1/60	0.545	10	Four Station D03
MCVEG-15-3-.5-10-D34	1.5	208/230/460/3/60	0.545	10	Four Station D03
MCVEG-30-3-1-10-PT	3	208/230/460/3/60	1.14	10	P & T
MCVEG-30-3-1-10-D31	3	208/230/460/3/60	1.14	10	Single Station D03
MCVEG-30-3-1-10-D32	3	208/230/460/3/60	1.14	10	Two Station D03
MCVEG-30-3-1-10-D34	3	208/230/460/3/60	1.14	10	Four Station D03
MCVEG-50-3-2-10-PT	5	208/230/460/3/60	1.96	10	P & T
MCVEG-50-3-2-10-D31	5	208/230/460/3/60	1.96	10	Single Station D03
MCVEG-50-3-2-10-D32	5	208/230/460/3/60	1.96	10	Two Station D03
MCVEG-50-3-2-10-D34	5	208/230/460/3/60	1.96	10	Four Station D03
MCVEG-100-3-5-20-PT	10	208/230/460/3/60	5.01	20	P & T
MCVEG-100-3-5-20-D31	10	208/230/460/3/60	5.01	20	Single Station D03
MCVEG-100-3-5-20-D32	10	208/230/460/3/60	5.01	20	Two Station D03
MCVEG-100-3-5-20-D34	10	208/230/460/3/60	5.01	20	Four Station D03
MCVEG-200-3-10-30-PT	20	208/230/460/3/60	10.02	20	P & T
MCVEG-200-3-10-30-D31	20	208/230/460/3/60	10.02	20	Single Station D03
MCVEG-200-3-10-30-D32	20	208/230/460/3/60	10.02	20	Two Station D03
MCVEG-200-3-10-30-D34	20	208/230/460/3/60	10.02	20	Four Station D03

*Please refer to Power Unit Matrix, page 166, for non catalog configurations.

Available Options (add option code to the end of the power unit model number):

HEG Heat Exchanger for Gear Style Pump

LOL Low Oil Level Switch with High Temperature (140° F)

MS Motor Starter (specify voltage)

VERTICAL VANE PUMP POWER UNITS

A **Vertical Vane Pump Power Unit** from *Milwaukee Cylinder* provides a flexible solution for your hydraulic power unit needs.

When the system is at pressure and the volume requirement falls to zero, the pump automatically adjusts the output volume –

- Less heat
- Less wear and tear on the pump

Set Your Pressure!

- Pressure Compensated Pump
- Pump can be adjusted to provide the pressure that your system requires
 - Externally accessible user adjustable pressure setting
 - Maximum pressure 2000 psi

Set Your Flow!

- Variable Displacement Pump
- Pump can be adjusted to provide the flow that your system requires
 - Externally accessible user adjustable flow volume setting

Max. Operating Pressure:

2000 psi

Flow Rates:

4-8 gpm

Reservoir Capacities:

20 gallons

Standard Motor:

1725 rpm



For additional details on gear pump and vane pump designs see:

Page 190

▼ SINGLE-STAGE VANE PUMP POWER UNITS

* Model Number	HP	Electrical	GPM	Reservoir (gal)	Valve Manifold - Relief valve standard - #8 SAE porting standard
MCVEV-50-3-4-20-PT	5	208/230/460/3/60	4	20	P & T
MCVEV-50-3-4-20-D31	5	208/230/460/3/60	4	20	Single Station D03
MCVEV-50-3-4-20-D32	5	208/230/460/3/60	4	20	Two Station D03
MCVEV-50-3-4-20-D33	5	208/230/460/3/60	4	20	Four Station D03
MCVEV-75-3-6-20-PT	7.5	208/230/460/3/60	6	20	P & T
MCVEV-75-3-6-20-D31	7.5	208/230/460/3/60	6	20	Single Station D03
MCVEV-75-3-6-20-D32	7.5	208/230/460/3/60	6	20	Two Station D03
MCVEV-75-3-6-20-D34	7.5	208/230/460/3/60	6	20	Four Station D03
MCVEV-100-3-8-20-PT	10	208/230/460/3/60	8	20	P & T
MCVEV-100-3-8-20-D31	10	208/230/460/3/60	8	20	Single Station D03
MCVEV-100-3-8-20-D32	10	208/230/460/3/60	8	20	Two Station D03
MCVEV-100-3-8-20-D34	10	208/230/460/3/60	8	20	Four Station D03

*Please refer to Power Unit Matrix, page 166, for non catalog configurations.
Available Options (add option code to the end of the power unit model number):

HEV Heat Exchanger for Vane Style Pump

LOL Low Oil Level Switch with High Temperature (140° F)

MS Motor Starter (specify voltage)

Series H

Series MH

Series LH

Series A

Series MN

Hyd-Pneu Devices

Cyl Accessories

Manipulators

Power Units/Valves

GEAR PUMP

Max. Operating Pressure:

3000 psi

Flow Rates:

.545-10.00 gpm

Reservoir Capacities:

10-30 gallons

Standard Motor:

1725 rpm

VANE PUMP

Max. Operating Pressure:

2000 psi

Flow Rates:

4-8 gpm

Reservoir Capacities:

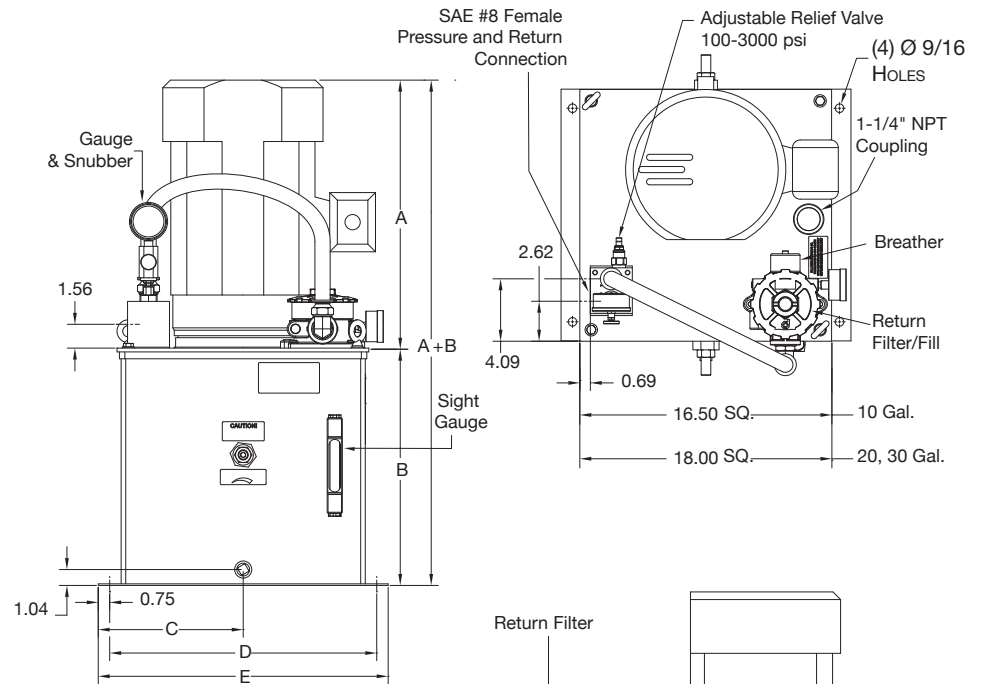
20 gallons

Standard Motor:

1725 rpm

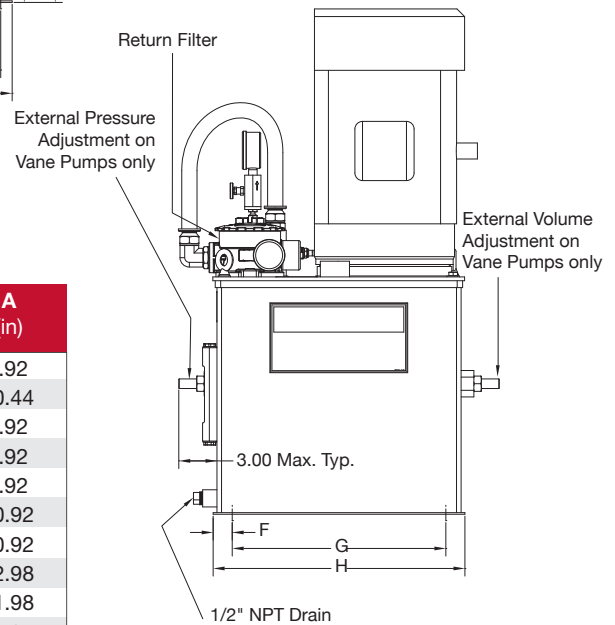
POWER UNIT WITH P & T MANIFOLDS

For use with remote mounted valves.



▼ POWER UNIT WITH P & T CONNECTIONS

Motor hp	Voltage	A (in)
0.5	115/208/230/1/60	9.92
0.5	208/230/460/3/60	10.44
0.75	115/208/230/1/60	9.92
0.75	208/230/460/3/60	9.92
1	115/208/230/1/60	9.92
1	208/230/460/3/60	10.92
1.5	115/208/230/1/60	10.92
1.5	208/230/460/3/60	12.98
2	115/208/230/1/60	11.98
2	208/230/460/3/60	12.97
3	115/208/230/1/60	13.37
3	208/230/460/3/60	14.43
5	208/230/460/3/60	15.06
7.5	208/230/460/3/60	17.56
10	208/230/460/3/60	17.56
15	230/460/3/60	23.03
20	230/460/3/60	23.03



▼ POWER UNIT RESERVOIRS

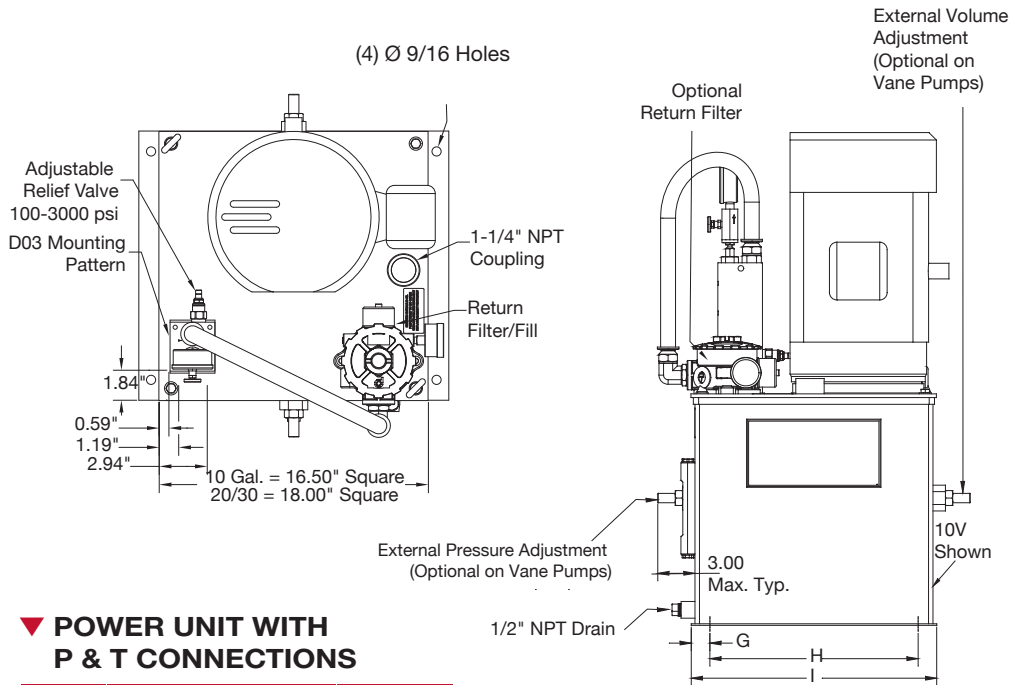
Reservoir Size (gal)	B (in)	C (in)	D (in)	E (in)	F (in)	G (in)	H (in)
10	15.44	9.50	17.50	19.00	1.25	14.00	16.50
20	18.44	10.25	19.00	20.50	1.50	15.00	18.00
30	26.44	10.25	19.00	20.50	1.50	15.00	18.00

Due to manufacturing processes and product improvements, please check website for the latest updates of products.

Vertical Power Units With D03 Manifold

POWER UNIT WITH D03 MANIFOLD

For use with 1, 2, or 4 station.



▼ POWER UNIT WITH P & T CONNECTIONS

Motor hp	Voltage	A (in)
0.5	115/208/230/1/60	9.92
0.5	208/230/460/3/60	10.44
0.75	115/208/230/1/60	9.92
0.75	208/230/460/3/60	9.92
1	115/208/230/1/60	9.92
1	208/230/460/3/60	10.92
1.5	115/208/230/1/60	10.92
1.5	208/230/460/3/60	12.98
2	115/208/230/1/60	11.98
2	208/230/460/3/60	12.97
3	115/208/230/1/60	13.37
3	208/230/460/3/60	14.43
5	208/230/460/3/60	15.06
7.5	208/230/460/3/60	17.56
10	208/230/460/3/60	17.56
15	230/460/3/60	23.03
20	230/460/3/60	23.03

▼ D03 MANIFOLD

No. of Stations	B (in)
1	10.25
2	12.38
4	16.63

▼ POWER UNIT RESERVOIRS

Reservoir Size (gal)	C (in)	D (in)	E (in)	F (in)	G (in)	H (in)	I (in)
10	15.44	9.50	17.50	19.00	1.25	14.00	16.50
20	18.44	10.25	19.00	20.50	1.50	15.00	18.00
30	26.44	10.25	19.00	20.50	1.50	15.00	18.00

Due to manufacturing processes and product improvements, please check website for the latest updates of products.
www.milwaukeekeycylinder.com

GEAR PUMP

Max. Operating Pressure:

3000 psi

Flow Rates:

.545-10.00 gpm

Reservoir Capacities:

10-30 gallons

Standard Motor:

1725 rpm

VANE PUMP

Max. Operating Pressure:

2000 psi

Flow Rates:

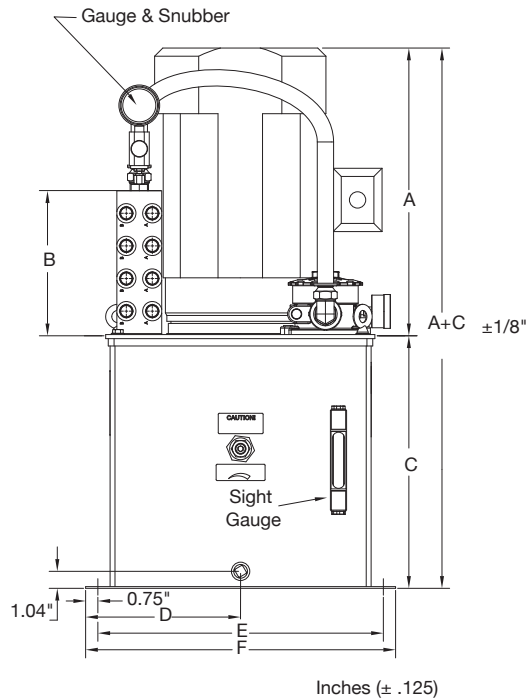
4-8 gpm

Reservoir Capacities:

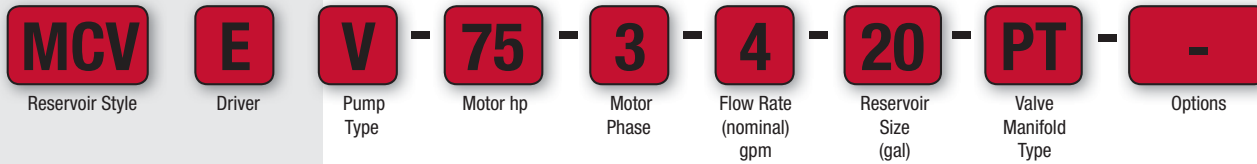
20 gallons

Standard Motor:

1725 rpm



▼ CONFIGURE YOUR POWER UNIT



RESERVOIR STYLE	DRIVER	PUMP TYPE	MOTOR HP	MOTOR PHASE	FLOW RATE (NOMINAL) GPM	RESERVOIR SIZE (GAL)	VALVE MANIFOLD TYPE	OPTIONS
MCV = Vertical MCH = NFPA/JIC (Horizontal) MCLP = Low Profile MCL = L-shaped	E = Electric D = Diesel G = Gas	G = Gear V = Vane P = Piston	05 = .5 075 = .75 10 = 1.0 15 = 1.5 20 = 2.0 30 = 3.0 50 = 5.0 75 = 7.5 100 = 10 150 = 15 200 = 20 250 = 25 300 = 30 400 = 40 500 = 50 600 = 60 750 = 75 1000 = 100 1250 = 125	1 = Single (.5-3.0 hp) 3 = Three	.5 = .545 0.75 = .769 1 = 1.14 1.5 = 1.59 2 = 1.96 2.25 = 2.28 3 = 2.87 3.5 = 3.44 3.75 = 3.78 4 = 4.0 5 = 5.01 6 = 6.0 7 = 6.83 8 = 8.0 8.5 = 8.65 10 = 10.0 12 = 11.84	03 05 10 20 30 35 ♦ 40 50 60 75 100 125	PT = Pressure and Tank Connections D31 = D03 Single Station D32 = D03 Two Station D34 = D03 Four Station D51 = D05 Single Station D52 = D05 Two Station D54 = D05 Four Station	HEG = Heat Exchanger for Gear Style Pump HEV = Heat Exchanger for Vane Style Pump LOL = Low Oil Level Switch with High Temp MS = (Voltage) – Motor Starter (specify voltage)

* Not all configuration combinations are possible with every reservoir style. Other configurations also available. Please consult factory for assistance.

- Available on vane pumps only.
- ♦ Available on gear pumps only.

Calculating hp Requirement

$$\text{hp} = \frac{\text{Pressure (psi)} \times \text{Flow (gpm)}}{1457}$$

Recommended Reservoir Size

$$\text{Gal} = \text{Flow rate (gal)} \times 3$$

Example:

$$\text{hp} = \frac{2500 \text{ (psi)} \times 10 \text{ (gpm)}}{1457}$$

Example:

$$10 \text{ gpm} \times 3 = 30 \text{ gallon reservoir}$$

$$\text{hp} = \frac{2500}{1457}$$

$$\text{hp} = 17.16$$

Motor size recommendation:

20 hp

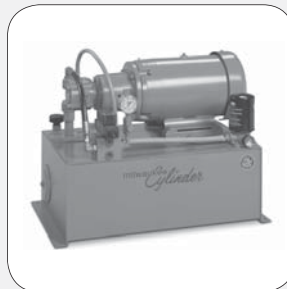
Contact *Milwaukee Cylinder* for a quote on the power unit configuration that meets your application.



Vertical



NFPA/JIC Style



Low Profile



L-Shaped

D03 VALVES

For a complete Power Unit solution, use *Milwaukee Cylinder* D03 spool valves and accessory valves. Choose the valve style required for each circuit and add the accessory valves required to control flow rate, circuit pressure or hold pressure in a circuit.

- Mounting Pattern: **D03**
- Solenoid Connection: **DIN**



For additional details on D03 and D05 valves see:

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D03 VALVES				
MODEL NUMBER	MAXIMUM PRESSURE	FUNCTION	SCHEMATIC SYMBOL	ELECTRICAL REQUIREMENTS
MCSV3-43C-24	5000	4 Way, 3 Position, Closed Center		24 VDC
MCSV3-43C-120	5000	4 Way, 3 Position, Closed Center		120 VAC
MCSV3-43O-24	5000	4 Way, 3 Position, Open Center		24 VDC
MCSV3-43O-120	5000	4 Way, 3 Position, Open Center		120 VAC
MCSV3-43F-24	5000	4 Way, 3 Position, Float Center		24 VDC
MCSV3-43F-120	5000	4 Way, 3 Position, Float Center		120 VAC
MCSV3-43T-24	5000	4 Way, 3 Position, Tandem Center		24 VDC
MCSV3-43T-120	5000	4 Way, 3 Position, Tandem Center		120 VAC
MCSV3-42-24	5000	4 Way, 2 Position		24 VDC
MCSV3-42-120	5000	4 Way, 2 Position		120 VAC

Series H

Series MH

Series LH

Series A

Series MN

Hyd-Pneu Devices

Cyl Accessories

Manipulators

Power Units/Valves

D03 ACCESSORY VALVES

Add accessory valves to your valve stack to:

- Control flow
- Reduce pressure in a valve circuit
- Lock pressure in a valve circuit
- Aluminum body rated to 3000 psi maximum
- Ductile body rated to 5000 psi maximum

D03 ACCESSORY VALVES

MODEL NUMBER	MAXIMUM PRESSURE	FUNCTION	SCHEMATIC SYMBOL
ALUMINUM			
MCCV3-P-A	3000	Pressure Port Check Valve	
MCCV3-AB-A	3000	Dual Pilot Operated Check Valve	
MCFC3-AB-A	3000	Dual Flow Control Valve (A & B ports) Pressure Compensated with Reverse Check Valve	
MCFCP3-P-A	3000	Proportional Flow Control (solenoid operated, P port)	
MCRRV3-P4003-A	3000	Reducing/Relieving Valve on Pressure Port (400-3000 psi)	
DUCTILE			
MCCV3-P-D	5000	Pressure Port Check Valve	
MCCV3-AB-D	5000	Dual Pilot Operated Check Valve	
MCFC3-AB-D	5000	Dual Flow Control Valve (A & B ports) Pressure Compensated with Reverse Check Valve	
MCRRV3-P4003-D	5000	Reducing/Relieving Valve on Pressure Port (400-3000 psi)	

D03 MOUNTING KITS AND MANIFOLDS

MODEL NUMBER	DESCRIPTION
MCSV3-BK100	Valve Mounting Kit, 1.00"
MCSV3-BK250	Valve Mounting Kit, 2.50"
MCSV3-BK300	Valve Mounting Kit, 3.00"
MCSV3-BK4125	Valve Mounting Kit, 4.125"
MCSV3-BK450	Valve Mounting Kit, 4.50"
MCSV3-BK575	Valve Mounting Kit, 5.75"
ALUMINUM MANIFOLD, 3000 PSI MAXIMUM	
MCVM3-01A	D03 Parallel Valve Manifold, One Station, Aluminum, SAE ports (#10 P & T, #8 A & B), 3000 psi Max.
MCVM3-02A	D03 Parallel Valve Manifold, Two Station, Aluminum, SAE ports (#10 P & T, #8 A & B), 3000 psi Max.
MCVM3-03A	D03 Parallel Valve Manifold, Three Station, Aluminum, SAE ports (#10 P & T, #8 A & B), 3000 psi Max.
MCVM3-04A	D03 Parallel Valve Manifold, Four Station, Aluminum, SAE ports (#10 P & T, #8 A & B), 3000 psi Max.
MCVM3-05A	D03 Parallel Valve Manifold, Five Station, Aluminum, SAE ports (#10 P & T, #8 A & B), 3000 psi Max.
MCVM3-06A	D03 Parallel Valve Manifold, Six Station, Aluminum, SAE ports (#10 P & T, #8 A & B), 3000 psi Max.
MCVM3-COPA	D03 Cross-over Cover Plate, Aluminum (P to A, T to B)
MCVM3-CPA	D03 Parallel Manifold Cover Plate, Aluminum, 3000 psi Max.
DUCTILE MANIFOLD, 5000 PSI MAXIMUM	
MCVM3-01D	D03 Parallel Valve Manifold, One Station, Ductile, SAE ports (#10 P & T, #8 A & B), 5000 psi Max.
MCVM3-02D	D03 Parallel Valve Manifold, Two Station, Ductile, SAE ports (#10 P & T, #8 A & B), 5000 psi Max.
MCVM3-03D	D03 Parallel Valve Manifold, Three Station, Ductile, SAE ports (#10 P & T, #8 A & B), 5000 psi Max.
MCVM3-04D	D03 Parallel Valve Manifold, Four Station, Ductile, SAE ports (#10 P & T, #8 A & B), 5000 psi Max.
MCVM3-05D	D03 Parallel Valve Manifold, Five Station, Ductile, SAE ports (#10 P & T, #8 A & B), 5000 psi Max.
MCVM3-06D	D03 Parallel Valve Manifold, Six Station, Ductile, SAE ports (#10 P & T, #8 A & B), 5000 psi Max.
MCVM3-CPD	D03 Parallel Manifold Cover Plate, Ductile, 5000 psi Max.

Series H

Series MH

Series LH

Series A

Series MN

Hyd-Pneu Devices

Cyl Accessories

Manipulators

Power Units/Valves

D03 VALVE MOUNTING KITS

Select the proper valve mounting kit from the chart below. Combine the directional and sandwich valves to determine the required kit. Using these kits simplifies the installation of the valve stack components onto the manifold, whether pump or remote mounted.

▼ D03 VALVE MOUNTING KIT SELECTION CHART

D03 DIRECTIONAL VALVES AND ACCESSORY VALVES						
RECOMMENDED MOUNTING KIT	MCCV3-P-A-P PORT CHECK	MCCV3-AB-D DUAL P.O. CHECK	MCFC3-AB-A DUAL FLOW CONTROL	MCFCP3-P-A PROPORTIONAL FLOW CONTROL	MCRRV3-P1530-A REDUCING/ RELIEVING VALVE	MCRRV3-P0415-A REDUCING/ RELIEVING VALVE
MCSV3-BK100*						
MCSV3-BK250	■					
MCSV3-BK250		■				
MCSV3-BK250			■			
MCSV3-BK317				■		
MCSV3-BK250					■	
MCSV3-BK250						■
MCSV3-BK4125	■		■			
MCSV3-BK575	■		■		■	
MCSV3-BK575	■		■			■
MCSV3-BK460	■			■		
MCSV3-BK4125		■	■			
MCSV3-BK575		■	■		■	
MCSV3-BK575		■	■			■
MCSV3-BK460		■		■		
MCSV3-BK4125			■		■	
MCSV3-BK4125			■			■
MCSV3-BK460				■	■	
MCSV3-BK460				■		■

EXAMPLE: D03 Spool Valve with Dual P.O. Check (MCCV3-AB-D) and Dual Flow Control (MCFC3-AB-A)= MCSV3-BK4125 Mounting Kit

* Mounting kit included with D03 directional valve.

D05 VALVES

For a complete Power Unit solution for higher flow systems, use *Milwaukee Cylinder* D05 spool valves and accessory valves. Choose the valve style required for each circuit and add the accessory valves required to control flow rate, circuit pressure or hold pressure in a circuit.

- ◆ Mounting Pattern: **D05**
- ◆ Solenoid Connection: **DIN**



For additional details on D03 and D05 valves see:

Page 191

D05 VALVES				
MODEL NUMBER	MAXIMUM PRESSURE	FUNCTION	SCHEMATIC SYMBOL	ELECTRICAL REQUIREMENTS
MCSV5-43C-24	4600	4 Way, 3 Position, Closed Center		24 VDC
MCSV5-43C-120	4600	4 Way, 3 Position, Closed Center		120 VAC
MCSV5-43O-24	4600	4 Way, 3 Position, Open Center		24 VDC
MCSV5-43O-120	4600	4 Way, 3 Position, Open Center		120 VAC
MCSV5-43F-24	4600	4 Way, 3 Position, Float Center		24 VDC
MCSV5-43F-120	4600	4 Way, 3 Position, Float Center		120 VAC
MCSV5-43T-24	4600	4 Way, 3 Position, Tandem Center		24 VDC
MCSV5-43T-120	4600	4 Way, 3 Position, Tandem Center		120 VAC
MCSV5-42-24	4600	4 Way, 2 Position		24 VDC
MCSV5-42-120	4600	4 Way, 2 Position		120 VAC

D05 ACCESSORY VALVES

Add accessory valves to your valve stack to:

- Control flow
- Reduce pressure in a valve circuit
- Lock pressure in a valve circuit
- Aluminum body rated to 3000 psi maximum
- Ductile body rated to 5000 psi maximum

Series H
Series MH
Series LH
Series A
Series MN
Hyd-Pneu Devices
Cyl Accessories
Manipulators
Power Units/Valves

D05 ACCESSORY VALVES				
MODEL NUMBER	MOUNT	MAX PRESSURE	FUNCTION	SCHEMATIC SYMBOL
ALUMINUM				
MCCV5-P-A	D05	3000	Pressure Port Check Valve	
MCCV5-AB-A	D05	3000	Dual Pilot Operated Check Valve	
MCFC5-AB-A	D05	3000	Dual Flow Control Valve (A & B ports) Pressure Compensated with Reverse Check Valve	
MCFCP5-P-A	D05	3000	Proportional Flow Control (solenoid operated, P port)	
MCRRV5-P1753-A	D05	3000	Reducing/Relieving Valve on Pressure Port (175-3000 psi)	
DUCTILE				
MCCV5-P-D	D05	5000	Pressure Port Check Valve	
MCCV5-AB-D	D05	5000	Dual Pilot Operated Check Valve	
MCFC5-AB-D	D05	5000	Dual Flow Control Valve (A & B ports) Pressure Compensated with Reverse Check Valve	
MCRRV5-P1753-D	D05	5000	Reducing/Relieving Valve on Pressure Port (175-3000 psi)	

D05 MOUNTING KITS & MANIFOLDS

When using accessory valves with your *Milwaukee Cylinder* D05 directional valves, use the proper mounting kits for each valve stack. For remote mounted valve applications at 3000 psi maximum pressure, choose an aluminum manifold with the number of valve stations required. For pressures up to 5000 psi maximum pressure, use the ductile iron manifolds.

D05 MOUNTING KITS & MANIFOLDS	
MODEL NUMBER	DESCRIPTION
MCSV5-BK175	Valve Mounting Kit, 1.75"
MCSV5-BK4.00	Valve Mounting Kit, 4.00"
MCSV5-BK6125	Valve Mounting Kit, 6.125"
MCSV5-BK825	Valve Mounting Kit, 8.25"
ALUMINUM MANIFOLD, 3000 PSI MAXIMUM	
MCVM5-01A	D05 Parallel Valve Manifold, One Station, Aluminum, SAE ports (#12 P & T, #8 A & B), 3000 psi Max.
MCVM5-02A	D05 Parallel Valve Manifold, Two Station, Aluminum, SAE ports (#12 P & T, #8 A & B), 3000 psi Max.
MCVM5-03A	D05 Parallel Valve Manifold, Three Station, Aluminum, SAE ports (#12 P & T, #8 A & B), 3000 psi Max.
MCVM5-04A	D05 Parallel Valve Manifold, Four Station, Aluminum, SAE ports (#12 P & T, #8 A & B), 3000 psi Max.
MCVM5-05A	D05 Parallel Valve Manifold, Five Station, Aluminum, SAE ports (#12 P & T, #8 A & B), 3000 psi Max.
MCVM5-06A	D05 Parallel Valve Manifold, Six Station, Aluminum, SAE ports (#12 P & T, #8 A & B), 3000 psi Max.
MCVM5-COPA	D05 Cross-over Cover Plate, Aluminum (P to A, T to B)
MCVM5-CPA	D05 Parallel Manifold Cover Plate, Aluminum, 3000 psi Max.
DUCTILE MANIFOLD, 5000 PSI MAXIMUM	
MCVM5-01D	D05 Parallel Valve Manifold, One Station, Ductile Iron, SAE ports (#12 P & T, #8 A & B), 5000 psi Max.
MCVM5-02D	D05 Parallel Valve Manifold, Two Station, Ductile Iron, SAE ports (#12 P & T, #8 A & B), 5000 psi Max.
MCVM5-03D	D05 Parallel Valve Manifold, Three Station, Ductile Iron, SAE ports (#12 P & T, #8 A & B), 5000 psi Max.
MCVM5-04D	D05 Parallel Valve Manifold, Four Station, Ductile Iron, SAE ports (#12 P & T, #8 A & B), 5000 psi Max.
MCVM5-05D	D05 Parallel Valve Manifold, Five Station, Ductile Iron, SAE ports (#12 P & T, #8 A & B), 5000 psi Max.
MCVM5-06D	D05 Parallel Valve Manifold, Six Station, Ductile Iron, SAE ports (#12 P & T, #8 A & B), 5000 psi Max.
MCVM5-CPD	D05 Parallel Manifold Cover Plate, Ductile, 5000 psi Max.

D05 VALVE MOUNTING KITS

Select the proper valve mounting stud kit from the chart below. Combine the directional and sandwich valves to determine the required kit. Using these kits simplifies the installation of the valve stack components onto the manifold, whether pump or remote mounted.

▼ D05 Valve Mounting Kit Selection Chart

D05 DIRECTIONAL VALVES AND ACCESSORY VALVES						
RECOMMENDED MOUNTING KIT	MCCV5-P-A-P PORT CHECK	MCCV5-AB-D DUAL P.O. CHECK	MCFC5-AB-A DUAL FLOW CONTROL	MCFCP5-P-A PROPORTIONAL FLOW CONTROL	MCRRV5-P1530-A REDUCING/RELIEVING VALVE	MCRRV5-P0415-A REDUCING/RELIEVING VALVE
MCSV5-BK175						
MCSV5-BK400	■					
MCSV5-BK400		■				
MCSV5-BK400			■			
MCSV5-BK400				■		
MCSV5-BK400					■	
MCSV5-BK400						■
MCSV5-BK6125	■		■			
MCSV5-BK825	■		■		■	
MCSV5-BK825	■		■			■
MCSV5-BK6125		■	■			
MCSV5-BK825		■	■		■	
MCSV5-BK825		■	■			■
MCSV5-BK6125		■		■		
MCSV5-BK825		■		■	■	
MCSV5-BK825		■		■		■
MCSV5-BK6125		■	■		■	
MCSV5-BK6125			■			■
MCSV5-BK6125				■	■	
MCSV5-BK6125				■		■

EXAMPLE: D03 Spool Valve with Dual P.O. Check (MCCV5-AB-D) and Dual Flow Control (MCFC5-AB-A)= MCSV5-BK6125 Mounting Kit

* Mounting kit included with D05 directional valve.

▼ CONFIGURE YOUR VALVE*

MCSV

Valve Type Series

3

Size

43

Function

[Red Box]

Adjustment Range
(for MCRRV only)

C

Center Function or Body Material

24

Solenoid Voltage

VALVE TYPE	SERIES	SIZE	FUNCTION	ADJUSTMENT RANGE	CENTER FUNCTION OR BODY MATERIAL	SOLENOID VOLTAGE
DIRECTIONAL VALVE	MCSV = Solenoid Valve	3 = D03 5 = D05	43 = 4 Way/3 Pos. 42 = 4 Way/2 Pos.	N/A	Center Function C = Closed O = Open F = Float T = Tandem	24 = 24 VDC Solenoid 120 = 120 VAC Solenoid 24D = 24 VDC Detented Solenoid 120D = 120 VAC Detented Solenoid SC = Spring to Center (Manual Valve or Air PO) DSC = Detented/Spring to Center (Manual Valve or Air PO)
	MCMV = Manual Valve MCAV = Air Pilot Operated					
CHECK VALVE	MCCV = Check Valve	3 = D03 5 = D05	P = P Port (inlet) AB = A & B Ports (dual PO)	N/A	Body Material A = Aluminum (3000 psi max) D = Ductile Iron (5000 psi max)	N/A
FLOW CONTROL VALVE	MCFC = Flow Control	3 = D03 5 = D05	P = P Port (inlet) AB = A & B Ports	N/A	A = Aluminum D = Ductile Iron (not available with MCFCP)	N/A 24 = 24 VDC Solenoid
	MCFCP = Flow Control Proportional					
REDUCING / RELIEVING VALVE	MCRRV = Reducing / Relieving	3 = D03 5 = D05	P = P Port	4003 = 400-3000 psi 1753 = 175-3000 psi	A = Aluminum (3000 psi max) D = Ductile Iron (5000 psi max)	N/A

* For additional valve needs please contact the factory.

▼ CONFIGURE YOUR MANIFOLD (Remote Mount)

MCVM

Manifold Series

3

Size

01

Function

A

Body Material

SERIES	SIZE	FUNCTION	BODY MATERIAL
MCVM = Valve Manifold	3 - D03 5 - D05	01 = Single Station 02 = Two Station 03 = Three Station 04 = Four Station 05 = Five Station 06 = Six Station	A - Aluminum D - Ductile Iron

Series H

Series MH

Series LH

Series A

Series MN

Hyd-Pneu Devices

Cyl Accessories

Manipulators

Power Units/Valves

MILWAUKEE CYLINDER POWER UNIT WORKSHEET

(PLEASE REFER TO MATRIX PAGES AS AN EXAMPLE OF HOW THE UNIT IS BUILT)

▼ COMPLETE THE FOLLOWING INFORMATION TO CHOOSE THE RIGHT UNIT

DATE: _____	PROJECT TITLE: _____
REQUESTOR: _____	CUSTOMER DRAWING #: _____
DISTRIBUTOR: _____	USER: _____
DISTRIBUTOR CONTACT: _____	USER CONTACT: _____
PHONE #: _____	USER PHONE#: _____
EMAIL: _____	USER EMAIL: _____

▼ CHOOSE YOUR POWER UNIT

BASIC POWER UNIT SPECIFICATIONS

Reservoir Style: _____	Pressure: _____	Load: _____
Driver: _____	Fluid to be Used: _____	
Pump Type: _____	Space Dimensions: _____	
Motor hp: _____		
Motor Electrical: Volts: _____ Phase: _____ Hz: _____	OPTIONS OR SPECIAL FEATURES: _____	
Flow Rate (nominal) GPM: _____	_____	
Reservoir Size (gal): _____	_____	
Valve Manifold Type (if pump mount): _____	_____	
Email: sales@milwaukeeecylinder.com	Fax: 414-769-0157	_____

▼ CHOOSE YOUR VALVE STACKS

VALVE STACK #	MC MODEL NUMBER	FUNCTION
Manifold Model # (if remote mount):		
VALVE STACK #1	Directional Valve:	
	Module #1:	
	Module #2:	
	Module #3:	
	Bolt Kit:	
VALVE STACK #2	Directional Valve:	
	Module #1:	
	Module #2:	
	Module #3:	
	Bolt Kit:	
VALVE STACK #3	Directional Valve:	
	Module #1:	
	Module #2:	
	Module #3:	
	Bolt Kit:	
VALVE STACK #4	Directional Valve:	
	Module #1:	
	Module #2:	
	Module #3:	
	Bolt Kit:	