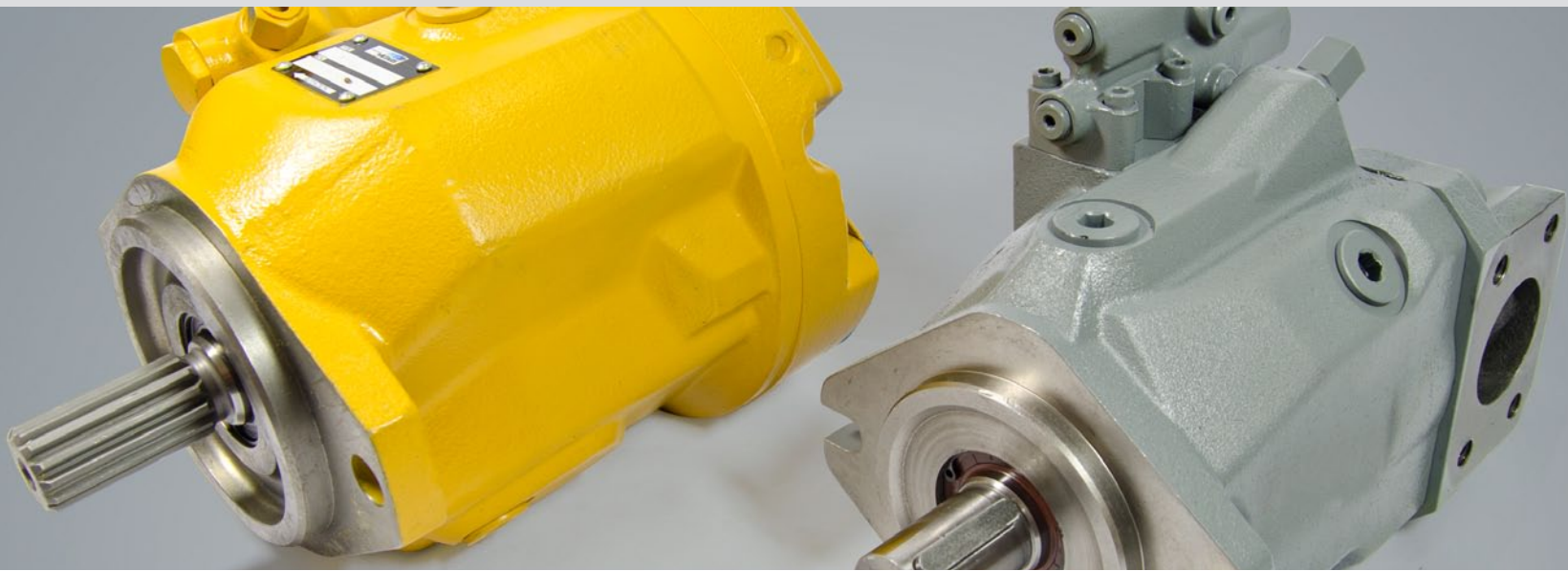


Genuine Metaris MA10VO/VSO Series Piston Pumps

A10V Series 31 & 52 Replacement Pumps



Performance When You Need it Most

The Metaris MA10V(S)O open loop piston pump has proven itself in many applications. Rear and side ported, through drive auxiliary pump mounting flanges and a large selection of flow and pressure controls makes this pump a strong, versatile alternative in both industrial and mobile applications. Low noise levels, excellent control repeatability, short response times and pressure ratings up to 4000 psi are just a few of the performance characteristics this pump has to offer. Controllers available: Pressure, Pressure/Flow, Load Sensing/Pressure/Flow/Power. Our units are easily serviceable and most all components are replaceable and stocked by Hydraulex Global. These units and parts are fit, form and function replacements for Rexroth® A10VO series components.

- Suitable for a variety of applications
- 31 and 52 Series Designs available
- Multiple displacements and options available
- Single and Through-drive shaft models
- Low operating noise level
- Multiple drive shaft options
- Controller options include: DR, DRG, DFR, DFR1 & DFLR
- SAE and metric flange options
- Replacement parts also available
- Direct replacements for Rexroth® A10VO series



Variable Displacement Pumps

Model Code Breakdown

MA10V(S) - O - 71 - DR - 31 - R - P - S - C - 62 - N00

Axial Piston Unit

MA10V = Swash Plate Variable Pump

MA10VS = Swash Plate Variable Pump, for Industrial

Modes of Operation

O = Pump, Open Circuit

Displacement Size

cm³/r (in³/r)

| 18 | 28 | 45 | 60 | 71 | 100 | 140 |
|--------|--------|--------|--------|--------|--------|--------|
| (1.10) | (1.71) | (2.75) | (3.66) | (4.33) | (6.10) | (8.54) |

Control Devices

| | 18 | 28 | 45 | 60 | 71 | 100 | 140 |
|---|----|----|----|----|----|-----|-----|
| DR = Pressure Control | | | | | | | |
| DRG = G - Remote Control | • | • | • | • | • | • | • |
| DFR = Pressure and Flow Control | | | | | | | |
| DFR1 = X Channel Plugged | • | • | • | • | • | • | • |
| DFLR = Pressure, Flow and Power Control | - | • | • | - | • | • | • |

Series

31 Series

52 Series (45 & 60 Displacements Available)

Rotation

R = Clockwise CW

L = Counter-Clockwise CCW

Seals

P = Buna-N (NBR per DIN ISO 1629)

V = FPM (Fluorocarbon) Viton

Shafts

| | 18 | 28 | 45 | 60 | 71 | 100 | 140 |
|---|------|------|------|------|------|------|------|
| S = SAE Splined Shaft | ¾" | 7⁄8" | 1" | 1¼" | 1½" | 1½" | 1¾" |
| R = SAE Splined Shaft, Reinforced (Higher Through-drive Torques) | ¾" | 7⁄8" | 1" | 1¼" | 1½" | 1½" | - |
| U = SAE Splined Shaft, Smaller Size (not for pumps w/Through-drive) | 5⁄8" | - | 7⁄8" | 1" | - | 1¼" | - |
| W = SAE Splined Shaft, Reinforced U-type Shaft | - | - | 7⁄8" | 1" | - | 1¼" | - |
| K = SAE Keyed Shaft | ¾" | 7⁄8" | 1" | 1¼" | 1½" | 1½" | 1¾" |
| P = Parallel w/Key DIN 6885 | 18mm | 22mm | 25mm | 32mm | 32mm | 40mm | 45mm |

Mounting Flange

| | 18 | 28 | 45 | 60 | 71 | 100 | 140 |
|----------------|------|-------|-------|----|-------|-------|-------|
| C = SAE 2-Bolt | 3¼" | 4" | 4" | 4" | 5" | 5" | - |
| A = ISO 2-Bolt | 80mm | 100mm | 100mm | - | 125mm | 125mm | - |
| D = SAE 4-Bolt | - | - | - | 5" | - | - | 6" |
| B = ISO 4-Bolt | - | - | - | - | - | - | 180mm |

Through-drive

| | 18 | 28 | 45 | 60 | 71 | 100 | 140 |
|-----------------------------|----|----|----|----|----|-----|-----|
| N00 = Without Through-drive | • | • | • | • | • | • | • |

With through-drive to accept axial piston or gear pump

| Mtg. Flange / Shaft/Coupling | 18 | 28 | 45 | 60 | 71 | 100 | 140 |
|--|----|----|----|----|----|-----|-----|
| K04 = 101-2 (B) 1" 15T (B-B) A10V45(S,R), 60(U,W) | - | • | • | • | • | • | • |
| K01 = 82-2 (A) 5⁄8" 9T (A) A10V18(U,W) | • | • | • | • | • | • | • |
| K02/K68 = 101-2 (B) 7⁄8" 13T (B) A10V28(S,R), 45(U,W) | - | • | • | • | • | • | • |
| K07 = 127-2 (C) 1¼" 14T (C) A10V71(S,R), 100(U,W) | - | - | - | - | • | • | • |
| K24 = 127-2 (C) 1½" 17T (C-C) A10V100(S,R), 85(S) | - | - | - | - | - | • | • |
| K17 = 152-4 (D) 1¾" 13T (D) A10V140(S,R) | - | - | - | - | - | - | • |
| KB7 = ISO 3019-2 1¾" 13T (D) A10V140(S,R) | - | - | - | - | - | - | • |

Service Ports

| Pressure Port B & Suction Port S | 18 | 28 | 45 | 60 | 71 | 100 | 140 |
|--|----|----|----|----|----|-----|-----|
| 61 = Rear Ports, UNC Mounting Screws ^{1 2} | - | • | • | • | • | • | • |
| 62 = Opposite Side Ports, UNC Mounting Screws ² | • | • | • | • | • | • | • |
| 11 = Rear Ports, Metric Mounting Screws ¹ | - | • | • | • | • | • | • |
| 12 = Opposite Side Ports, Metric Mounting Screws | • | • | • | • | • | • | • |
| 91 = Rear Ports, UNC Mounting Screws ¹ | - | - | - | - | • | - | - |
| 92 = Opposite Side Ports, UNC Mounting Screws | - | - | - | - | • | - | - |
| 41 = Rear Ports, Metric Mounting Screws ¹ | - | - | - | - | • | - | - |
| 42 = Opposite Side Ports, Metric Mounting Screws | - | - | - | - | • | - | - |
| 64 = Rear Ports, UNC Mounting Screws ³ | - | - | • | - | - | - | - |

Port pos. 61, 11 only for version without Through-drive

¹ All rear porting, non Through-drive only

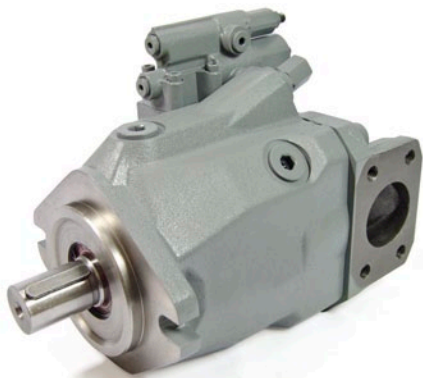
² MA10VO71 = 8 threaded holes on pressure port code 11, 61, 12 & 62

³ 52 Series only

Proven Performance

A10V(S)O 18-140, Series 31

| Pump Series | Displacement (in ³ / cm ³) | Max RPM | Flow at 1800 RPM (gpm / lpm) | Operating Pressure (psi) |
|-------------|--|---------|---------------------------------|-----------------------------|
| MA10VO-18 | 1.10 / 18 | 3000 | 8.5 / 32 | 4000 |
| MA10VO-28 | 1.71 / 28 | 3000 | 13 / 50 | 4000 |
| MA10VO-45 | 2.75 / 45 | 2600 | 21 / 81 | 4000 |
| MA10VO-71 | 4.33 / 71 | 2200 | 33.5 / 127 | 4000 |
| MA10VO-100 | 6.10 / 100 | 2000 | 47.5 / 179 | 4000 |
| MA10VO-140 | 8.54 / 140 | 1800 | 66.5 / 251 | 4000 |



A10V(S)O 45 & 60, Series 52

| Pump Series | Displacement (in ³ / cm ³) | Max RPM | Flow at 1800 RPM (gpm / lpm) | Operating Pressure (psi) |
|-------------|--|---------|---------------------------------|-----------------------------|
| MA10VO-45 | 2.75 / 45 | 2600 | 21 / 81 | 3600 |
| MA10VO-60 | 3.66 / 60 | 2700 | 28.3 / 107 | 3600 |

Replacement Parts

We also carry a complete line of replacement parts for A10V style pumps. These parts are interchangeable with OEM and are available for most all displacement sizes. Our lineup of parts includes:

- Rotating Groups
- Cylinder Blocks
- Piston Sets
- Lens Plates
- Cradles
- Shafts
- Seal Kits
- Bearings



Reman Options Available

In addition to our aftermarket line of A10V style pumps, we also remanufacture OEM Rexroth® A10V pumps. These units are like-new with new parts installed where necessary, and provide OEM level performance. All units are tested and set to OEM spec before leaving any of our facilities and are backed by our industry leading 18 month from time of purchase, 12 month from time of install, warranty.

Hydraulex - A Recognized Global Leading Provider of High Quality Hydraulic Components



Products We Offer

- Inline Piston Pumps
- Radial Piston Pumps & Motors
- Bent Axis Piston Pumps & Motors
- Fixed Volume Vane Pumps
- Variable Volume Vane Pumps
- Gear Pumps
- Vane Motors
- Axial Piston Motors
- High Speed Motors
- Servo Motors
- Orbital Motors
- Directional Valves
- Flow Control Valves
- Pressure Control Valves
- Relief Valves
- Check Valves
- Stack Valves
- Servo Valves
- Proportional Valves
- PTOs (Power Take-offs)
- Cylinders



Hydraulex Corporate
48175 Gratiot Ave
Chesterfield, MI 48051
Toll Free: 800.422.4279
Tel: 586.949.4240

www.hydraulex.com

Hydraulex Detroit
Hydraulex Jackson
Hydraulex Seattle
Hydraulex Memphis

Tel: 586.949.4240
Tel: 601.469.1987
Tel: 253.604.0400
Tel: 901.794.2462

sales@hydraulex.com
sales@metarisusa.com
hrdsales@hydraulex.com
fhisales@hydraulex.com



Connect with us:



All manufacturers names, symbols and descriptions in this document are used for reference purposes only, and it is not implied that any parts listed is the product of these manufacturers.