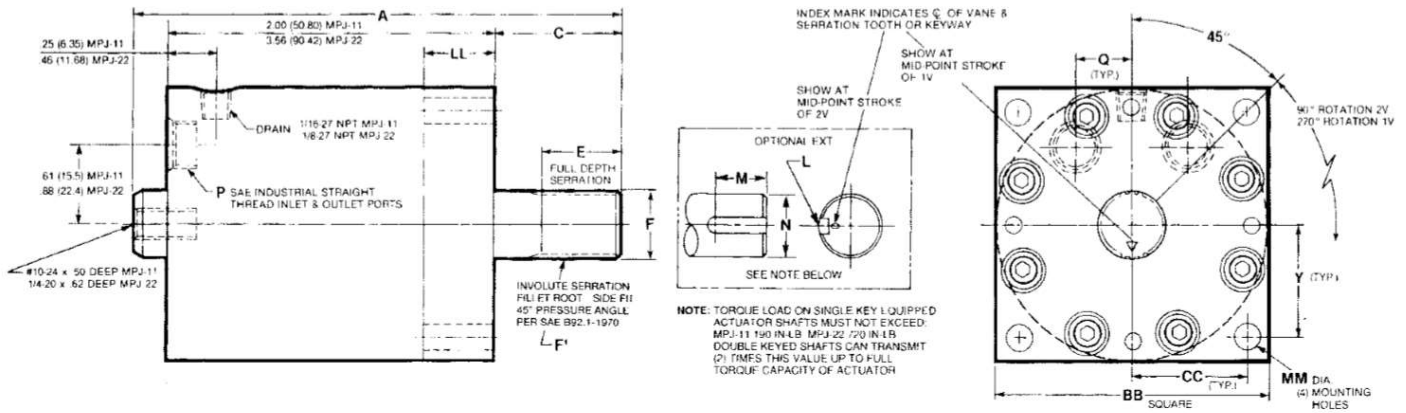


Rotac® Hyd-ro-ac® Products – Rotary Actuator: MPJ-11 & MPJ-22

MPJ-11 & MPJ-22



IMPORTANT NOTES TO AVOID ACTUATOR DAMAGE AND VOIDED WARRANTY:

1. Connections of drains will add significant life to the shaft seals. This is highly recommended.
2. Design considerations should be made to limit the axial and radial loading applied to the actuator. Contact factory if axial and/or radial loading must be applied to the actuator. Unapproved axial and/or radial loading will void the actuator's warranty.
3. External stops must be used to limit shaft rotation for most applications. Using the actuators internal components as rotational stops will cause damage and void the actuators warranty.
4. It is critical that the hydraulic system have pressure relief located in close proximity to the actuator to prevent pressure spikes from damaging the actuator. Hydraulic pressure spikes will rapidly cause damage and void the actuator's warranty.
5. It is recommended the hydraulic fluid be filtered to 5 microns or less (maximum of 10 microns).

DIMENSION IN INCHES (MILLIMETERS)		
	MPJ-11	MPJ-22
A	3.18 (81)	5.25 (133.4)
C	1.00 (25.4)	1.42 (36)
E	0.54 (13.7)	0.90 (22.9)
F ₄	∅0.4997 (12.692)	∅0.7497 (19.042)
F ₁	19T 40/80P 0.4750PD	29T 40/80P 0.7250PD
L ₂	1/8 X 1/16 (3 X 1.6)	3/16 X 3/32 (4.8 X 2.4)
M	0.60 (15.2)	1.00 (25.4)
N ₄	0.4985 (12.662)	0.7485 (19.012)
P ₃	3/8-24	1/2-20
Q	0.42 (10.67)	0.65 (16.51)

Y	0.84 (21.34)	1.25 (31.75)
BB	2" SQ. (50.8) SQ.	3" SQ. (76.20) SQ.
CC	0.84 (21.34)	1.25 (31.75)
LL	0.50 (12.70)	0.74 (18.80)
MM	0.22 (5.59)	0.28 (7.11)

- 1 SEE NOTE ABOVE FOR SPLINE TYPE
- 2 SEE BELOW FOR OPTIONAL SHAFT FEATURES
- 3 SEE BELOW FOR OTHER PORT OPTIONS
- 4 TOLERANCE ± 0.0005 (0.01)

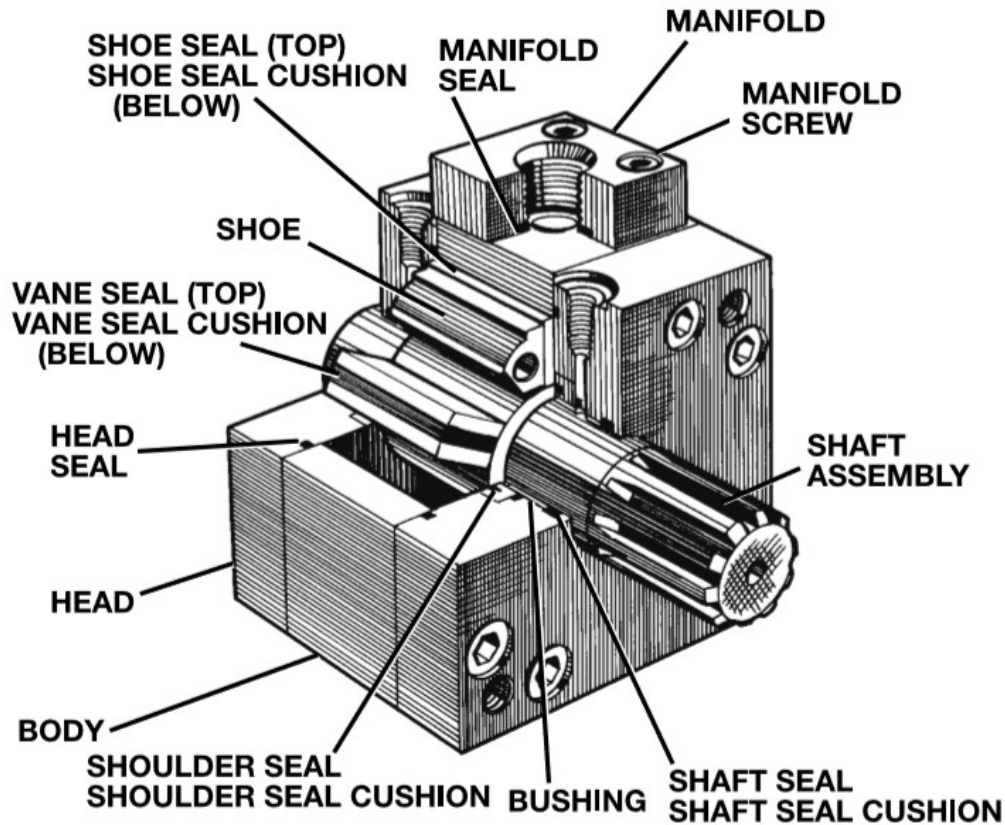
OPTIONAL NPT AND BSPP PORTING			OPTIONAL SHAFT HOLES	
MODEL	NATIONAL PIPE THREAD (NPT)	BRITISH STANDARD PIPE THREAD (BSPP)	POTENTIOMETER SHAFT HOLE (in)	SHAFT END TAPPED HOLE (in)
MPJ-11	1/8-27 NPT	1/8-28 BSPP	$\frac{0.187}{0.186}$ X 0.38 DP	10-32 UNF-2B X 0.38 DP
MPJ-22	1/4-18 NPT	1/4-19 BSPP	$\frac{0.187}{0.186}$ X 0.38 DP	10-32 UNF-2B X 0.38 DP

SINGLE VANE 270° ROTATION ($\pm 5^\circ$)						
MODEL	TORQUE in-lbs (N-m)			VOLUMETRIC DISPLACEMENT in ³ (cm ³)		APPROX. WEIGHT lb (kg)
	100 psi (6.9 bar)	500 psi (34.5 bar)	1000 psi (69.0 bar)	PER 270°	PER Radian	
MPJ-11	8 (0.90)	56 (6.33)	117 (13.22)	0.835 (13.69)	0.178 (2.92)	0.75 (0.34)
MPJ-22	56 (6.33)	333 (37.63)	679 (76.73)	3.82 (62.61)	0.815 (13.36)	3 (1.36)

DOUBLE VANE 90° ROTATION ($\pm 5^\circ$)						
MODEL	TORQUE in-lbs (N-m)			VOLUMETRIC DISPLACEMENT in ³ (cm ³)		APPROX. WEIGHT lb (kg)
	100 psi (6.9 bar)	500 psi (34.5 bar)	1000 psi (69.0 bar)	PER 90°	PER Radian	
MPJ-11	23 (2.60)	156 (17.63)	322 (36.39)	0.557 (9.13)	0.357 (5.85)	0.84 (0.38)
MPJ-22	121 (13.67)	728 (82.26)	1,487 (168.03)	2.56 (41.96)	1.63 (26.72)	3.2 (1.45)

TEST PARAMETERS - OIL			
MODEL	MAX BREAK IN psi (bar)	BY-PASS LEAKAGE-MAX ALLOWABLE	
		in³/min AT 3000 psi (206.9 bar)	cm³/min AT 3000 psi (206.9 bar)
MPJ-11	60 (4.14)	9	148
MPJ-22	50 (3.44)	11	180

HOW TO ORDER MPJ-11 & MPJ-22



HOW TO ORDER

Please fill in ALL blocks in accordance with the KEY numbers and letters shown below.

EXAMPLE: **MPJ** - **22** - **1V** - **SE** - **K** - **FLG** - **2**

- - - - - -

BLOCK # **1** **2** **3** **4** **6** **7** **8**

Block 1 (MODEL)

MPJ

Block 2 (SIZE)

11

22

Block 3 (VANES)

1V Single Vane

2V Double Vane

Block 4 (SHAFT EXTENSION)

SE Single Extension

Block 6 (SHAFT TYPE)

ISER 10-B Spline

K Keyed

Z Special

Block 7 (MOUNTING)

FLG Flange

Z Special

Block 8 (PORTING)

1 NPT

2 SAE Straight Threads (Standard)

0 BSPP Straight Threads

Z Special

NOTES: 1. Block "5" isn't used for MPJ models

2. All "Z" (non-standard feature request) requires a "Request a Quote" to be filled out for Micromatic to review requirements