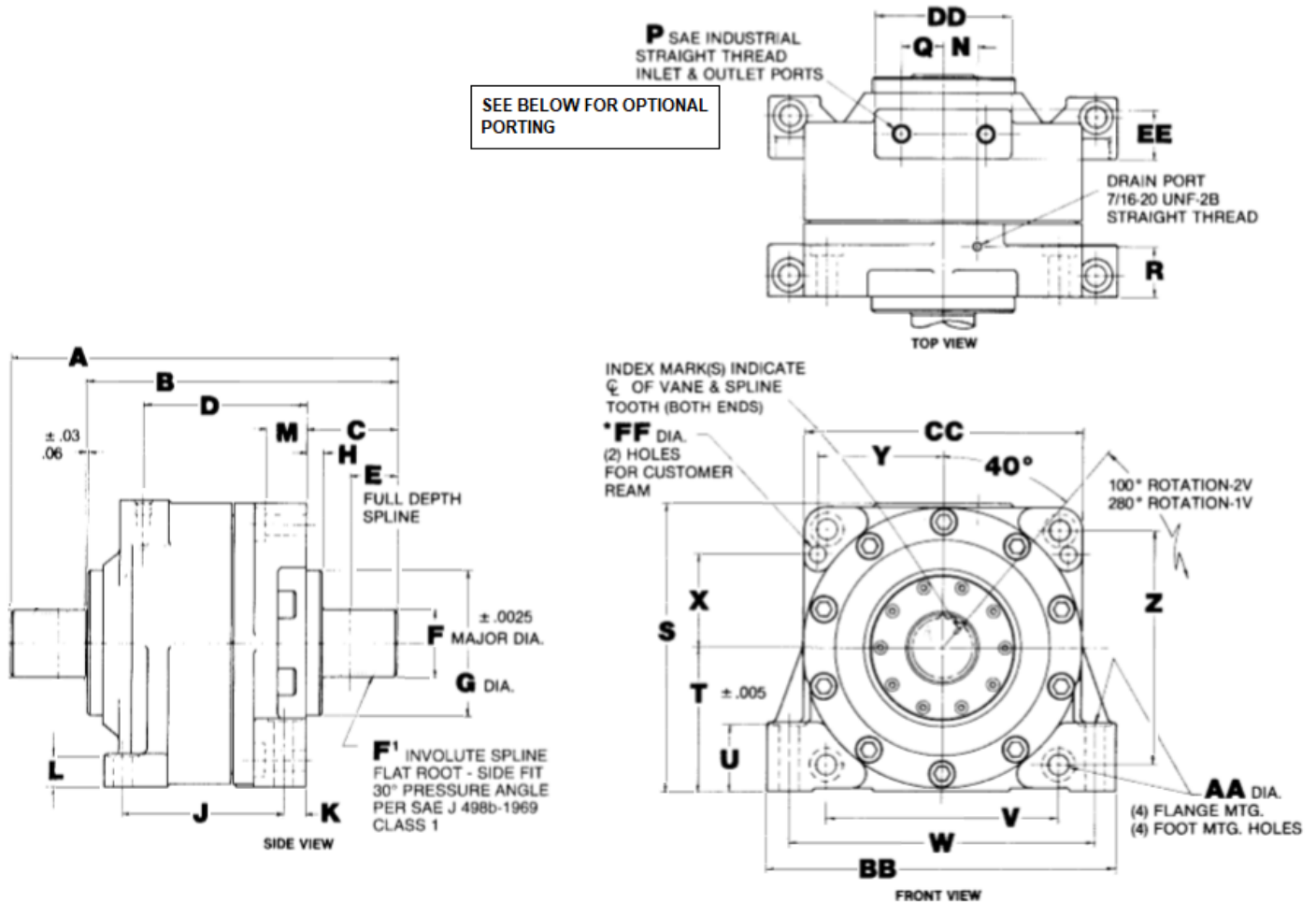


Rotac® Hyd-ro-ac® Products – Rotary Actuator: 26R-2 THRU 26R-124

(Dimensional Data) (Keyway Data) (Port Data) (Performance Data) (Test Parameters) (CPR Manifolds) (Couplings) (Product Catalog) (HS Order Form)



NOTE: Connection of drains will add significant life to shaft seals. *Their use is highly recommended.*

*NOTE: FOR FLANGE MTD. UNITS THESE HOLES SHOULD BE TRANSFER DRILLED AND REAMED AT INSTALLATION FOR INSERTION OF DOWEL PINS. (THIS WILL AID IN PREVENTING "RACKING" OF ACTUATOR ON MOUNTING BOLTS DUE TO TORSIONAL FORCES)

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. 2,000 psi maximum is recommended for severe duty applications, such as operating at maximum torque at high cycle rates for extended periods. Please consult factory for test applications beyond 2,000 psi. 3,000 psi can be used on intermittent shockless actuations.
3. 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.
4. 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.
5. 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. Micromatic offers Cross Port Relief (CPR) manifolds that can be used with the

actuator if the customer's hydraulic system does not have pressure relief (contact factory for details). Hydraulic pressure spikes will rapidly cause damage and void the actuator's warranty.

6. It is recommended the hydraulic fluid be filtered to 5 microns or less (maximum of 10 microns).

DIMENSION IN INCHES (MILLIMETERS)							
	26R-2	26R-5	26R-10	26R-17	26R-31	26R-62	26R-124
A	10.08 (256)	12.06 (306.3)	14.19 (360.4)	16.57 (420.9)	18.58 (471.9)	24.38 (619.3)	31.22 (792.9)
B	8.02 (203.7)	9.84 (249.9)	11.50 (292.1)	13.51 (343.2)	15.01 (383.3)	19.44 (493.8)	25.06 (636.5)
C	2.62 (66.5)	2.86 (72.6)	3.41 (86.6)	3.87 (98.3)	4.38 (111.3)	6.02 (152.9)	7.51 (190.8)
D	3.50 (88.9)	4.86 (123.4)	5.63 (143)	6.61 (167.9)	7.80 (198.1)	9.87 (250.7)	12.80 (325.1)
E	1.62 (41.1)	1.75 (44.4)	2.12 (53.8)	2.50 (63.5)	3.00 (76.2)	4.25 (107.9)	5.25 (133.4)
F ₆	Ø1.3335 (Ø 33.871)	Ø 1.6685 (Ø 42.380)	Ø 2.2268 (Ø 56.561)	Ø 2.6735 (Ø 67.907)	Ø 3.2735 (Ø 83.147)	Ø 4.0935 (Ø 103.975)	Ø 4.8435 (Ø 123.025)
F ₁	26T 20/40P 1.3000PD	26T 16/32P 1.6250PD	26T 12/24P 2.1667PD	26T 10/20P 2.6000PD	32T 10/20P 3.2000PD	32T 8/16P 4.0000PD	38T 8/16P 4.7500PD
G	3.38 (85.9)	4.25 (108)	5.00 (127)	6.00 (152.4)	7.00 (177.8)	9.13 (231.9)	10.50 (266.7)
H	0.50 (12.7)	0.57 (14.5)	0.64 (16.3)	0.76 (19.3)	0.76 (19.3)	1.02 (25.9)	1.27 (32.3)
J	3.56 (90.4)	4.62 (117.3)	5.37 (136.4)	6.69 (169.9)	7.75 (196.9)	9.31 (236.5)	12.19 (309.6)
K	0.63 (16)	0.86 (21.8)	1.01 (25.7)	1.07 (27.2)	1.04 (26.4)	1.51 (38.4)	2.01 (51.1)
L	0.56 (14.2)	0.81 (20.6)	0.94 (23.9)	1.12 (28.4)	1.50 (38.10)	1.69 (42.9)	2.06 (52.3)
M	0.75 (19.1)	1.25 (31.8)	1.50 (38.1)	1.75 (44.5)	2.00 (50.8)	2.68 (68.1)	4.00 (101.6)
N	0.77 (19.6)	1.01 (25.7)	1.19 (30.2)	1.47 (37.3)	1.68 (42.7)	2.17 (55.1)	2.44 (62)
P ₃	³ / ₄ - 16	³ / ₄ - 16	⁷ / ₈ - 14	1 ¹ / ₁₆ - 12	1 ⁵ / ₁₆ - 12	1 ⁵ / ₁₆ - 12	1 ⁷ / ₈ - 12
Q	0.88 (22.4)	1.06 (26.9)	1.25 (31.8)	1.62 (41.1)	2.06 (52.3)	2.62 (66.5)	2.75 (69.9)
R	1.29 (32.8)	1.80 (45.7)	1.82 (46.2)	2.17 (55.1)	2.42 (61.5)	2.79 (70.9)	3.67 (93.2)
S	6.00 (152.4)	8.00 (203.2)	9.76 (247.9)	11.26 (286)	13.76 (349.5)	17.13 (435.1)	20.50 (520.7)
T ₄	3.000 (76.20)	4.000 (101.60)	4.875 (123.83)	5.625 (142.88)	6.875 (174.63)	8.562 (214.47)	10.25 (260.35)
U	1.50 (38.1)	1.94 (49.3)	2.25 (57.2)	2.62 (66.5)	3.19 (81.0)	3.90 (99.1)	4.88 (123.9)
V	4.88 (123.9)	6.38 (162.1)	8.00 (203.2)	9.25 (234.9)	11.25 (285.8)	14.00 (355.6)	16.75 (425.5)

W	6.25 (158.8)	8.25 (209.6)	10.25 (260.4)	11.87 (301.5)	14.87 (377.7)	18.37 (466.6)	21.25 (539.8)
X	1.78 (45.2)	2.44 (61.9)	2.94 (74.7)	3.50 (88.9)	4.44 (112.8)	5.44 (138.2)	6.31 (160.3)
Y	2.61 (66.3)	3.41 (86.6)	4.28 (108.7)	4.94 (125.5)	6.06 (153.9)	7.44 (188.9)	8.81 (223.8)
Z	4.88 (123.9)	6.38 (162.1)	8.00 (203.2)	9.25 (234.9)	11.25 (285.8)	14.00 (355.6)	16.75 (425.5)
AA	0.41 (10.4)	0.53 (13.5)	0.69 (17.5)	0.81 (20.6)	0.94 (23.9)	1.06 (26.9)	1.31 (33.3)
BB	7.12 (180.8)	9.62 (244.3)	11.75 (298.5)	13.62 (345.9)	17.00 (431.8)	21.00 (533.4)	24.50 (622.3)
CC	5.75 (146.1)	7.62 (193.5)	9.50 (241.3)	11.00 (279.4)	13.50 (342.9)	16.75 (425.5)	19.75 (501.7)
DD	3.38 (85.85)	3.94 (100.1)	4.50 (114.3)	5.75 (146.1)	6.62 (168.1)	8.00 (203.2)	9.62 (244.3)
EE	1.62 (41.1)	1.81 (45.9)	2.00 (50.8)	2.50 (63.5)	2.50 (63.5)	2.75 (69.9)	4.12 (104.6)
FF₄	0.23 (5.8)	0.34 (8.6)	0.47 (11.9)	0.72 (18.3)	0.84 (21.3)	0.84 (21.3)	0.84 (21.3)

- 1 SEE NOTE ABOVE FOR SPLINE TYPE
3 SEE BELOW FOR OTHER PORT OPTIONS
4 TOLERANCE ± 0.005 (0.13)
6 TOLERANCE ± 0.0025 (0.064)

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)
26R-2	3/8-18 NPT	3/8-19 BSPP	$\frac{0.2491}{0.2486} \times 0.50DP$	5/16-18 UNC X 1/2 DP
26R-5	3/8-18 NPT	3/8-19 BSPP	$\frac{0.2491}{0.2486} \times 0.50DP$	3/8-16 UNC X 9/16 DP
26R-10	1/2-14 NPT	1/2-14 BSPP	$\frac{0.2491}{0.2486} \times 0.50DP$	1/2-13 UNC X 3/4 DP
26R-17	3/4-14 NPT	3/4-14 BSPP	$\frac{0.2491}{0.2486} \times 0.50DP$	1/2-13 UNC X 3/4 DP
26R-31	1-11.5 NPT	3/4-14 BSPP	$\frac{0.2491}{0.2486} \times 0.50DP$	3/4-10 UNC X 1-1/8 DP
26R-62	1-11.5 NPT	1-11 BSPP	$\frac{0.2491}{0.2486} \times 0.50DP$	1-8 UNC X 1-1/2 DP
26R-124	1-1/4-11.5 NPT	1-1/4-11 BSPP	$\frac{0.2491}{0.2486} \times 0.50DP$	1-8 UNC X 1-1/2 DP

OPTIONAL MANIFOLD PORTING
CONSULT FACTORY FOR OPTIONS

OPTIONAL CROSS PORT RELIEF MANIFOLDS

OPTIONAL SPLINED SHAFT COUPLINGS

SINGLE VANE 280° ROTATION (±1°)						
MODEL	TORQUE in-lbs (N-m)			VOLUMETRIC DISPLACEMENT in³ (cm³)		APPROX. WEIGHT lb (kg)
	1000 psi (69.0 bar)	2000 psi (137.9 bar)	3000 psi (206.9 bar)	PER 280°	PER Radian	
26R-2	1,720 (194.4)	3,440 (388.7)	5,160 (583.1)	9.35 (153.25)	19.1 (31.3)	32 (15)
26R-5	3,900 (440.7)	7,800 (881.4)	11,700 (1322.1)	21.20 (347.47)	4.34 (71.13)	67 (30)
26R-10	9,100 (1028.5)	18,200 (2056.6)	27,300 (3084.9)	49.50 (811.31)	10.12 (165.87)	115 (52)
26R-17	15,200 (1717.6)	30,400 (3435.2)	45,600 (5152.8)	82.60 (1353.81)	16.90 (276.99)	207 (94)
26R-31	27,500 (3107.5)	55,000 (6215)	82,500 (9322.5)	149.50 (2450.31)	30.60 (501.55)	334 (152)
26R-62	56,000 (6328)	112,000 (12656)	168,000 (18984)	304.00 (4982.56)	62.20 (1019.46)	680 (308)
26R-124	110,000 (12430)	220,000 (24860)	330,000 (37290)	598.00 (9801.22)	122.00 (1999.58)	1,221 (554)

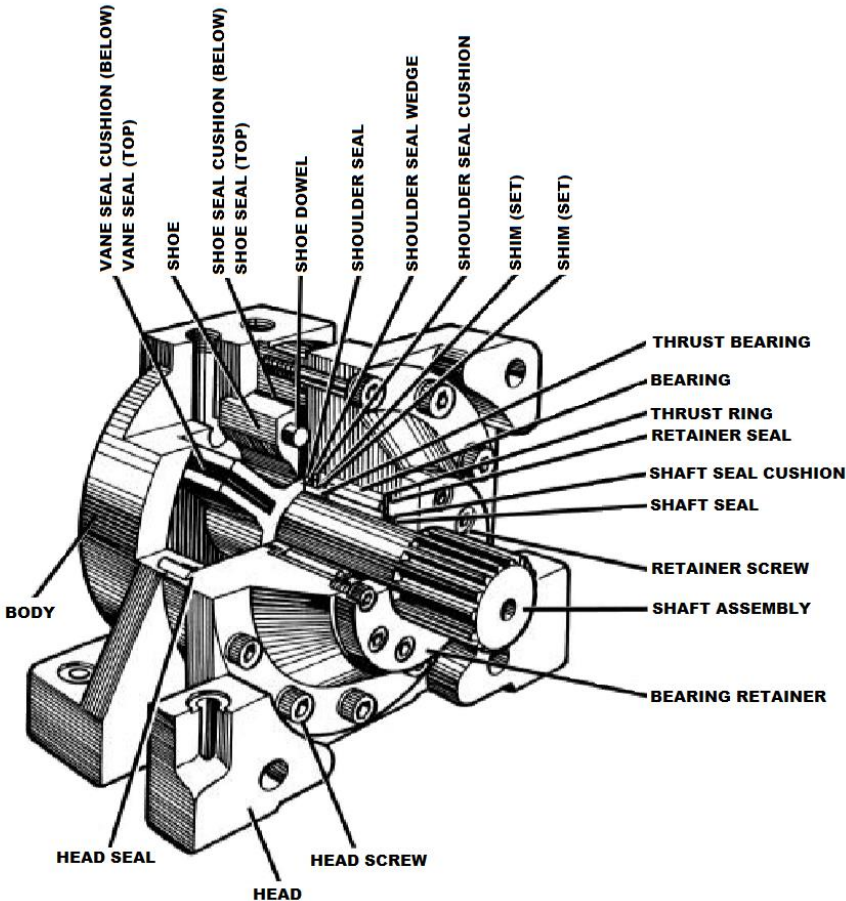
*2,000 psi maximum is recommended for severe duty applications, such as operating at maximum torque at high cycle rates for extended periods. Please consult factory for applications beyond 2,000 psi. 3,000 psi can be used on intermittent shockless actuations.

DOUBLE VANE 100° ROTATION (±1°)						
MODEL	TORQUE in-lbs (N-m)			VOLUMETRIC DISPLACEMENT in³ (cm³)		APPROX. WEIGHT lb (kg)
	1000 psi (69.0 bar)	2000 psi (137.9 bar)	3000 psi (206.9 bar)	PER 100°	PER Radian	
26R-2	3,650 (412.5)	7,300 (824.9)	10,950 (1237.4)	6.67 (109.32)	3.82 (62.61)	33 (15)
26R-5	8,240 (931)	16,450 (1858.9)	24,700 (2791.1)	15.10 (247.49)	8.68 (142.27)	70 (32)
26R-10	19,300 (2180.9)	38,600 (4361.8)	57,900 (6542.7)	35.40 (580.21)	20.24 (331.73)	124 (56)
26R-17	32,200 (3638.6)	64,400 (7277.2)	96,600 (10915.8)	59.00 (967.01)	33.80 (553.98)	225 (102)
26R-31	58,300 (6587.9)	116,600 (13175.8)	174,900 (19763.7)	106.80 (1750.45)	61.20 (1003.07)	363 (165)
26R-62	118,500 (13390.5)	237,000 (26781)	355,500 (40171.5)	217.00 (3556.63)	124.40 (2038.92)	730 (331)
26R-124	232,000 (26216)	464,000 (52432)	696,000 (78648)	427.00 (6998.53)	244.00 (3999.16)	1,318 (598)

*2,000 psi maximum is recommended for severe duty applications, such as operating at maximum torque at high cycle rates for extended periods. Please consult factory for applications beyond 2,000 psi. 3,000 psi can be used on intermittent shockless actuations.

TEST PARAMETERS - OIL					
	MAX INTERNAL BYPASS LEAKAGE				
MODEL	1V	1V	2V	2V	MAX BREAK IN psi (bar)
	(in³/min)	(cm³/min)	(in³/min)	(cm³/min)	
26R-2	6	98	8	131	150 (10.3)
26R-5	6	98	8	131	140 (9.7)
26R-10	8	131	10	164	130 (9.0)
26R-17	8	131	10	164	120 (8.3)
26R-31	10	164	12	197	110 (7.6)
26R-62	10	164	12	197	100 (6.9)
26R-124	12	197	15	246	90 (6.2)

HOW TO ORDER 26R-2 THRU 26R-124



HOW TO ORDER

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

EXAMPLE: **26R** - **62** - **1V** - **SE** - **IS** - **FT/FLG** - **2**

- - - - - - -

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

Block 1 (MODEL)

26R

Block 2 (SIZE)

2

5

10

17

31

62

124

Block 3 (VANES)

1V Single Vane

2V Double Vane

Block 4 (SHAFT EXTENSION)

SE Single Extension

DE Double Extension

Block 6 (SHAFT TYPE)

IS 30° Involute Spline

PL Plain

Z Special

Block 7 (MOUNTING)

FT/FLG Foot/Flange

Z Special

Block 8 (PORTING)

1 NPT

2 SAE Straight Threads (Standard)

7 Manifold Ports (Consult factory for information)

0 BSPP Straight Threads

Z Special

NOTES: 1. Block "5" isn't used for 26R models

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

Contact Micromatic Customer Service with special feature requests @ CustomerService@micromaticllc.com or 800.333.5752.