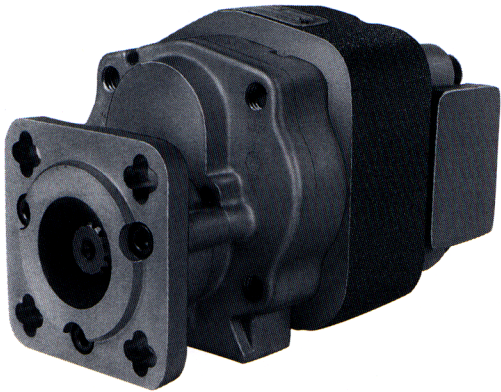


# Model **UM16**



Description . . . . . Gear Motors  
 Flow Range . . . . . To 42 GPM (158.9 LTR)  
 Displacements . . . . . To 3.90 C.I.R. (63.98 CC's/REV.)  
 Maximum Pressure to . . . . . 3000 PSI (207 BAR)  
 Maximum Speed to . . . . . 3600 RPM  
 Rotation . . . . . Uni-(Single) Direction  
 Bearings . . . . . Journal  
 Construction . . . . . Aluminum Flange & Cover  
 with Cast Iron Gear Section

## Performance Data

MOTOR MODELS	DISPLACEMENT/REVOLUTION (Theoretical)					Torque Per 1000 PSID				Power at Max. RPM & Max.PSID		Maximum Limits				
	US Gallons	Cubic Inches	Liters	Cubic Imperial Cm's Gallons	Start		Run		H.P.	KW	Relief Setting		Continuous Pressure		Speed	
					Lb.In.	Nm	Lb.In.	Nm			PSI	BAR	PSI	BAR	RPM	
UM16 - 45	0.0038	0.878	0.014	14.39	0.003	108	146	125	169	21	15.6	3000	207	1700	117	3600
UM16 - 65	0.0055	1.270	0.021	20.81	0.005	156	211	181	245	30	22.4	3000	207	1700	117	3600
UM16 - 85	0.0072	1.663	0.027	27.25	0.006	205	277	236	319	38	28.3	3000	207	1700	117	3400
UM16 - 100	0.0085	1.964	0.032	32.18	0.007	241	326	279	378	43	32.1	3000	207	1700	117	3300
UM16 - 115	0.0097	2.241	0.037	36.72	0.008	276	374	318	431	47	35.0	3000	207	1700	117	3100
UM16 - 150	0.0127	2.934	0.048	48.08	0.011	361	489	417	565	55	41.0	3000	207	1700	117	2800
UM16 - 180	0.0152	3.511	0.058	57.54	0.013	432	585	499	676	59	44.0	2200	152	1700	117	2500
UM16 - 200	0.0169	3.904	0.064	63.98	0.014	480	651	555	752	66	49.2	2000	138	1700	117	2500

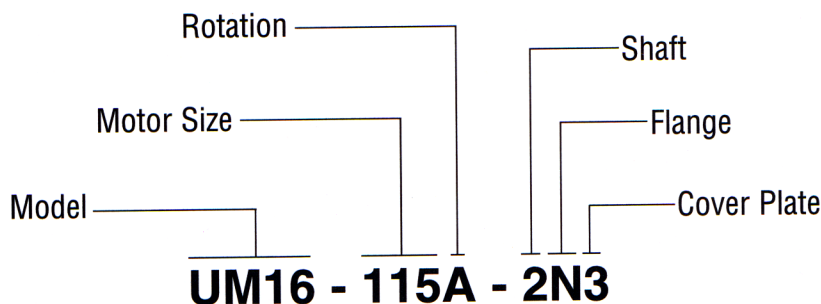
Notes: (1) All data based on SAE 10W Oil at 135°F. (2) All motors are available with Viton Seals for use with phosphate ester base fluids.  
 (3) M16 motor seals are not suitable for series operation.

**CAUTION:** UM16 Motors do not have an external bearing drain, therefore return line pressure should not exceed 20 PSIG.

When sizing motors, refer to the performance charts in the back of the catalog to determine the volumetric efficiency and input horsepower requirements.

## How To Order

'A' denotes counterclockwise rotation  
 'C' denotes clockwise rotation  
 When viewed from drive shaft end



Note: Add prefix 'V' to pump model number (VUM16) when ordering pumps with Viton Seals for use with phosphate ester base fluids.

# Shafts Available

<p><b>2</b> <b>7/8" Dia. 13-Tooth Spline Flat Root Side Fit</b> Torque Limit 184 Lbs. Ft. (249,4 Nm)</p> <p><b>Spline Data</b>          Diametral Pitch . . . . . 16/32          Pressure Angle . . . . . 30°          No. Of Teeth . . . . . 13</p>	<p><b>5</b> <b>7/8" Straight Shaft Flat Root Side Fit</b> Torque Limit 184 Lbs. Ft. (249,4 Nm)</p>	<p><b>6</b> <b>3/4" Straight Shaft</b> Torque Limit 105 Lbs. Ft. (142,3 Nm) Not Available In Sizes Larger Than - 115</p>
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# Mounting Flanges Available

<p><b>D</b> <b>SAE 'A' 2-Bolt</b></p>	<p><b>E</b> <b>6-Bolt Round</b> Available with No. 2 or 5 Shaft Only</p>
<p><b>F</b> <b>Pad Mount</b></p>	<p><b>J</b> <b>SAE 'B' 4-Bolt</b> Available with No. 2 or 5 Shaft Only (Typ.)</p>
<p><b>N</b> <b>SAE 'B' 2-Bolt</b></p>	<p><b>S</b> <b>P.T.O. Direct Mount</b> Available with No. 2 Shaft Only</p>

# Cover Plates Available

<p><b>2</b> Rear Ported NPTF</p> <p><b>7</b> Rear Ported BSPT</p>	<p><b>3</b> Side Ported SAE 4-Bolt</p>	<p><b>4</b> Side Ported NPTF</p> <p><b>8</b> Side Ported BSPT</p>
<p><b>5</b> Side Ported Straight Thread</p>	<p><b>6</b> Rear Ported Straight Thread</p>	

\* These dimensions locate  $C$  of bolt pattern only

SAE 4-Bolt NPT Connectors are available. See Accessory Section

# Dimensional Data

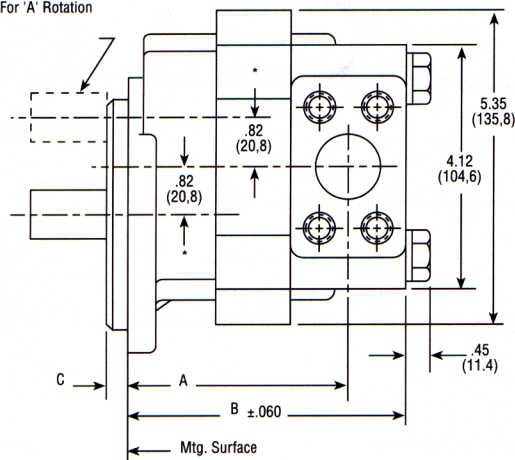
## Mounting Dimensions

MOTOR MODEL	FLANGE TYPE						SHIPPING WEIGHTS (Approx.)	
	D		E		F			
	A	B	A	B	A	B	lbs.	kgs.
UM16-45	3.54 (89,9)	4.55 (115,6)	4.66 (118,4)	5.67 (144,1)	3.66 (92,9)	4.67 (118,6)	8	3.5
UM16-65	3.75 (95,3)	4.77 (121,2)	4.88 (123,6)	5.89 (149,6)	3.88 (98,6)	4.89 (124,2)	8	3.5
UM16-85	3.97 (100,9)	4.98 (126,5)	5.09 (129,3)	6.10 (154,9)	4.09 (103,9)	5.10 (129,5)	8	3.5
UM16-100	4.13 (104,9)	5.14 (130,6)	5.25 (133,3)	6.26 (159,0)	4.25 (107,9)	5.26 (133,6)	9	4.0
UM16-115	4.29 (108,9)	5.30 (134,6)	5.41 (137,4)	6.42 (163,1)	4.41 (112,0)	5.42 (137,7)	9	4.0
UM16-150	4.66 (118,4)	5.67 (144,1)	5.78 (146,8)	6.79 (172,5)	4.78 (121,4)	5.79 (147,1)	9	4.0
UM16-180	4.98 (126,5)	5.99 (152,2)	6.10 (154,9)	7.11 (180,6)	5.10 (129,5)	6.11 (155,2)	10	4.5
UM16-200	5.19 (131,8)	6.20 (157,5)	6.31 (160,3)	7.32 (185,9)	5.31 (134,9)	6.32 (160,5)	10	4.5

## Mounting Dimensions

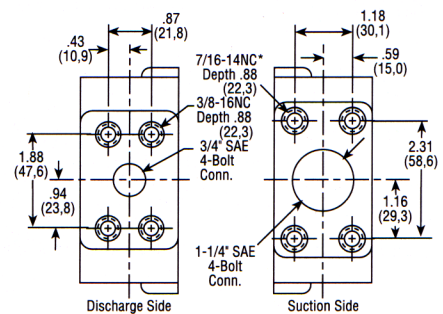
MOTOR MODEL	FLANGE TYPE						SHIPPING WEIGHTS (Approx.)	
	J		N		S			
	A	B	A	B	A	B	lbs.	kgs.
UM16-45	4.66 (118,4)	5.67 (144,1)	3.42 (86,9)	4.43 (112,5)	5.22 (132,6)	6.23 (158,2)	8	3.5
UM16-65	4.88 (123,6)	5.89 (149,6)	3.63 (92,2)	4.65 (118,1)	5.44 (138,2)	6.45 (163,8)	8	3.5
UM16-85	5.09 (129,3)	6.10 (154,9)	3.85 (97,8)	4.86 (123,4)	5.65 (143,5)	6.66 (169,2)	8	3.5
UM16-100	5.25 (133,3)	6.26 (159,0)	4.01 (101,8)	5.02 (127,5)	5.81 (147,6)	6.82 (173,2)	9	4.0
UM16-115	5.41 (137,4)	6.42 (163,1)	4.17 (105,9)	5.18 (131,6)	5.97 (151,6)	6.98 (177,3)	9	4.0
UM16-150	5.78 (146,8)	6.79 (172,5)	4.54 (115,3)	5.55 (140,9)	6.34 (161,0)	7.35 (186,7)	9	4.0
UM16-180	6.10 (154,9)	7.11 (180,6)	4.86 (123,4)	5.87 (149,1)	6.66 (169,2)	7.67 (194,8)	10	4.5
UM16-200	6.31 (160,3)	7.32 (185,9)	5.07 (128,8)	6.08 (154,4)	6.87 (174,5)	7.88 (200,1)	10	4.5

Shaft Location For 'A' Rotation



## C Dimensions

FLANGE TYPE	IN	MM
D	.250	(6,35)
E	.187	(4,74)
F	—	—
G	.250	(6,35)
J	.250	(6,35)
N	.375	(9,52)
S	.200	(5,08)



\* These dimensions locate  $\bar{C}$  of bolt pattern only