

## OVERVIEW

The WM product line with spool valve design is an economical motor with enhanced rotor technology. Intended for light-duty applications, the WM series offers many advantages such as compact size, high speed, medium torque and extreme low weight. The WM series motors are used primarily in the mobile, industrial and agricultural markets.

## FEATURES / BENEFITS

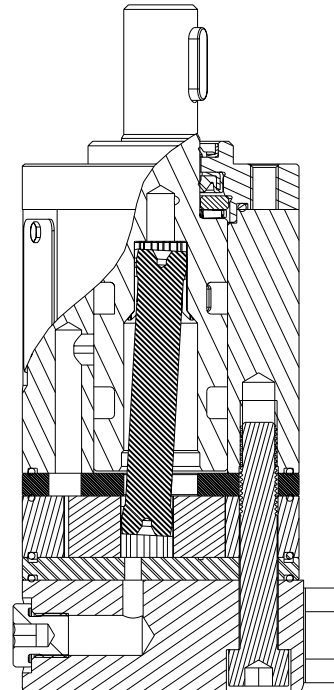
- Built-in check valves offer versatility and increased seal life.
- Bolt-on mounting flange relates to easy serviceability.
- Spool valve design gives superior performance and smooth operation over a wide speed and torque range.
- Enhanced rotor design provides smooth performance, compact volume and low weight.

## TYPICAL APPLICATIONS

agriculture equipment, conveyors, carwashes, sweepers, food processing, grain augers, spreaders, feed rollers, augers, brush drives and more

## SERIES DESCRIPTIONS

**125/126** - Hydraulic Mini Motor  
*Standard*



## SPECIFICATIONS

CODE	Displacement cm <sup>3</sup> [in <sup>3</sup> /rev]	Max. Speed rpm		Max. Flow lpm [gpm]		Max. Torque Nm [lb-in]		Max. Pressure bar [psi]		
		cont.	inter.	cont.	inter.	cont.	inter.	cont.	inter.	peak
008	8.4 [0.5]	1864	2293	16 [4]	20 [5]	11 [97]	14 [124]	100 [1450]	140 [2030]	200 [2900]
012	13.1 [0.8]	1521	1871	20 [5]	25 [7]	17 [150]	22 [195]	100 [1450]	140 [2030]	200 [2900]
020	20.1 [1.2]	989	1229	20 [5]	25 [7]	26 [230]	34 [301]	100 [1450]	140 [2030]	200 [2900]
032	31.8 [1.9]	622	767	20 [5]	25 [7]	40 [354]	55 [487]	100 [1450]	140 [2030]	160 [2320]
040	40.2 [2.5]	495	620	20 [5]	25 [7]	49 [434]	64 [566]	100 [1450]	140 [2030]	160 [2320]

► Performance data is typical. Performance of production units varies slightly from one motor to another. See page 9 for additional information on product testing. Running at intermittent ratings should not exceed 10% of every minute of operation.

**DISPLACEMENT PERFORMANCE**

► Performance data is typical. Performance of production units varies slightly from one motor to another. See page 9 for additional information on product testing.

<b>008</b>		Pressure - bar [psi]			Max. Cont.		Max. Inter.	
		30 [435]	50 [725]	70 [1015]	100 [1450]	120 [1740]	140 [2030]	
8 cm <sup>3</sup> [0.5 in <sup>3</sup> ] / rev								
Max. Max. Inter. Cont.		Torque - Nm [lb-in], Speed rpm		Intermittent Ratings - 10% of Operation				
		2 [0.5]	3 [25] 226	5 [44] 219	7 [62] 196	10 [89] 166	11 [97] 141	14 [124] 117
Flow - lpm [gpm]	4 [1]	3 [25] 476	5 [44] 455	7 [62] 435	10 [89] 402	12 [106] 384	12 [106] 351	474
	8 [2]		5 [44] 915	7 [62] 893	10 [89] 850	12 [106] 816	14 [124] 778	949
	12 [3]		5 [41] 1390	7 [62] 1366	11 [97] 1328	12 [106] 1292	14 [124] 1268	1423
	16 [4]		4 [35] 1864	7 [58] 1847	10 [89] 1815	12 [106] 1792	13 [115] 1771	1898
	20 [5]		4 [35] 2293	6 [53] 2277	9 [80] 2272	12 [106] 2245	12 [106] 2190	2372
Rotor Width		Theoretical Torque - Nm [lb-in]						
3.3 [130]		4 [36]	7 [59]	9 [83]	13 [119]	17 [148]	19 [166]	
mm [in]		Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]						

<b>012</b>		Pressure - bar [psi]			Max. Cont.		Max. Inter.	
		30 [435]	50 [725]	70 [1015]	100 [1450]	120 [1740]	140 [2030]	
13 cm <sup>3</sup> [0.8 in <sup>3</sup> ] / rev								
Max. Max. Inter. Cont.		Torque - Nm [lb-in], Speed rpm		Intermittent Ratings - 10% of Operation				
		3 [0.8]	5 [44] 220	8 [71] 212	11 [97] 195	16 [142] 176		
Flow - lpm [gpm]	5 [1.3]	6 [53] 367	9 [80] 362	12 [106] 351	17 [150] 320	19 [168] 304		383
	10 [2.6]	5 [44] 757	9 [80] 748	11 [97] 728	16 [142] 703	19 [168] 659	22 [195] 609	766
	15 [4.0]	4 [35] 1134	8 [71] 1124	11 [97] 1106	16 [142] 1072	18 [159] 1049	21 [186] 1026	1149
	20 [5.3]	3 [27] 1521	6 [53] 1511	10 [89] 1498	14 [124] 1480	17 [150] 1449	21 [186] 1413	1533
	25 [6.6]		5 [44] 1871	9 [80] 1858	13 [115] 1850	17 [150] 1840	19 [168] 1793	1916
Rotor Width		Theoretical Torque - Nm [lb-in]						
5.2 [205]		6 [55]	10 [92]	15 [129]	21 [184]	25 [221]	29 [257]	
mm [in]		Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]						

<b>020</b>		Pressure - bar [psi]			Max. Cont.		Max. Inter.	
		30 [435]	50 [725]	70 [1015]	100 [1450]	120 [1740]	140 [2030]	
20 cm <sup>3</sup> [1.2 in <sup>3</sup> ] / rev								
Max. Max. Inter. Cont.		Torque - Nm [lb-in], Speed rpm		Intermittent Ratings - 10% of Operation				
		3 [0.8]	8 [12] 143	13 [115] 133	13 [115] 133			
Flow - lpm [gpm]	5 [1.3]	8 [71] 241	13 [115] 233	18 [159] 223	25 [221] 204	31 [274] 185		248
	10 [2.6]	7 [62] 489	12 [106] 479	18 [159] 470	26 [230] 454	29 [257] 454	34 [301] 454	497
	15 [4.0]	6 [29] 731	12 [106] 714	18 [159] 692	25 [221] 670	29 [257] 648	34 [301] 613	745
	20 [5.3]	5 [44] 989	11 [97] 974	16 [142] 962	24 [212] 941	28 [248] 941	33 [292] 941	994
	25 [6.6]	4 [35] 1229	10 [89] 1216	14 [124] 1224	22 [195] 1182	26 [230] 1132	31 [274] 1104	1242
Rotor Width		Theoretical Torque - Nm [lb-in]						
8.0 [316]		10 [85]	16 [142]	22 [199]	32 [284]	38 [336]	45 [397]	
mm [in]		Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]						



**PERFORMANCE**

► Performance data is typical. Performance of production units varies slightly from one motor to another. See page 9 for additional information on product testing.

**032**

32 cm<sup>3</sup> [1.9 in<sup>3</sup>] / rev

Pressure - bar [psi]		Max. Cont.			Max. Inter.	
30 [435]	50 [725]	70 [1015]	100 [1450]	120 [1740]	140 [2030]	

Torque - Nm [lb-in], **Speed rpm** Intermittent Ratings - 10% of Operation

Max. Max. Inter. Cont.	Flow - lpm [gpm]	3 [0.8]	12 [106] 84					94	Theoretical rpm	
		5 [1.3]	12 [106] 148	21 [186]	28 [248]			157		
		10 [2.6]	12 [106] 301	20 [177]	28 [248]	39 [345]	46 [407]	55 [487]		314
		15 [4.0]	11 [97] 456	19 [168]	28 [248]	40 [354]	44 [389]	52 [460]		472
		20 [5.3]	9 [80] 622	18 [159]	26 [230]	38 [336]	42 [372]	51 [451]		629
		25 [6.6]	7 [62] 767	16 [142]	24 [212]	35 [310]	42 [372]	48 [425]		786

**Overall Efficiency** - 70 - 100%  40 - 69%  0 - 39%

**Rotor Width**

12.7 [501]	15 [134]	25 [224]	35 [314]	51 [448]	61 [538]	71 [627]
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Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]

**040**

40 cm<sup>3</sup> [2.5 in<sup>3</sup>] / rev

Pressure - bar [psi]		Max. Cont.			Max. Inter.	
30 [435]	50 [725]	70 [1015]	100 [1450]	130 [1885]	140 [2030]	

Torque - Nm [lb-in], **Speed rpm** Intermittent Ratings - 10% of Operation

Max. Max. Inter. Cont.	Flow - lpm [gpm]	3 [0.8]	15 [133] 71					75	Theoretical rpm	
		5 [1.3]	16 [142] 116	25 [221]	33 [292]			124		
		10 [2.6]	16 [142] 238	24 [212]	35 [310]	47 [416]	54 [478]	64 [566]		249
		15 [4.0]	14 [124] 367	24 [212]	34 [301]	49 [434]	53 [469]	62 [549]		373
		20 [5.3]	11 [97] 495	22 [195]	33 [292]	48 [425]	52 [460]	59 [522]		498
		25 [6.6]	9 [80] 620	18 [159]	29 [257]	44 [389]	50 [443]	58 [513]		622

**Overall Efficiency** - 70 - 100%  40 - 69%  0 - 39%

**Rotor Width**

16.0 [631]	19 [170]	32 [283]	45 [397]	64 [567]	83 [736]	90 [793]
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Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]

**HOUSINGS**

► Dimensions shown are without paint. Paint thickness can be up to 0.13 [.005].

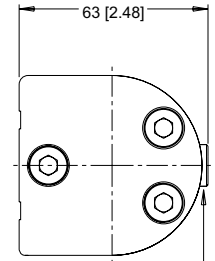
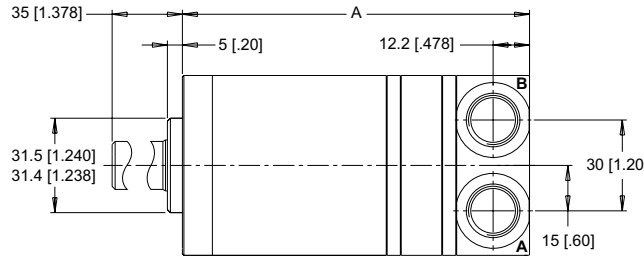
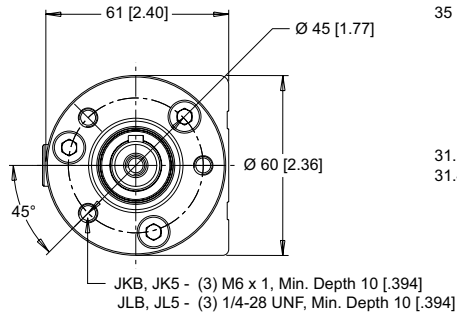
**3-HOLE, ROUND MOUNT, ALIGNED SIDE PORTS**

**JKB** G 3/8

**JK5** 9/16-18 UNF

**JLB** G 3/8

**JL5** 9/16-18 UNF



Drain Port: JKB, JLB - (3) M6 x 1, Min. Depth 10 [.394]  
JK5, JL5 - (3) 1/4-28 UNF, Min. Depth 10 [.394]

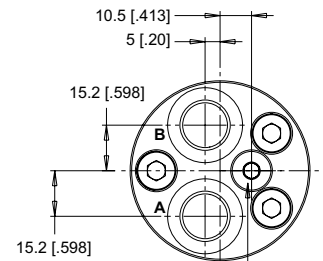
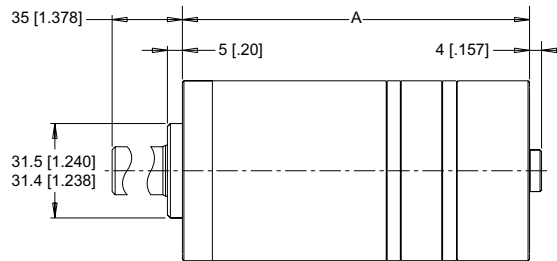
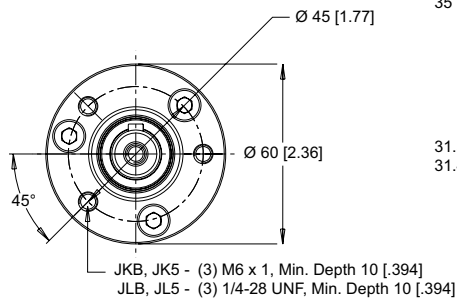
**3-HOLE, ROUND MOUNT, ALIGNED END PORTS**

**JMB** G 3/8

**JM5** 9/16-18 UNF

**JNB** G 3/8

**JN5** 9/16-18 UNF



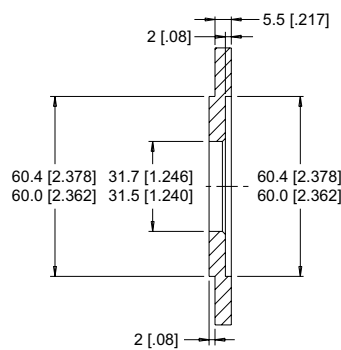
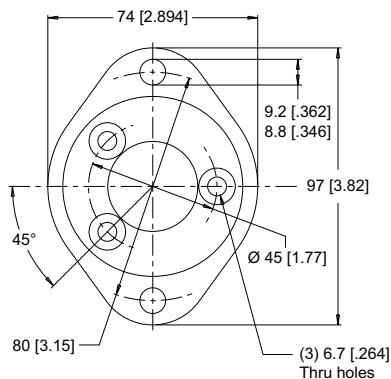
Drain Port: JKB, JLB - (3) M6 x 1, Min. Depth 10 [.394]  
JK5, JL5 - (3) 1/4-28 UNF, Min. Depth 10 [.394]

**2-HOLE FLANGE MOUNTING KIT (OPTIONAL)**

**LENGTH & WEIGHT CHART**

Dimension A is the overall motor length from the rear of the motor to the mounting flange surface and is referenced on detailed housing drawings above.

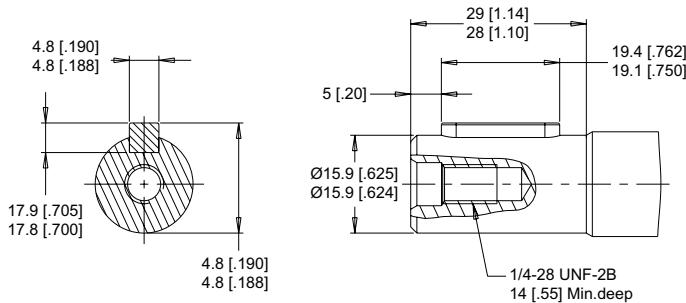
A	Length	Weight
#	mm [in]	kg [lb]
008	106 [4.16]	2.2 [4.8]
012	108 [4.23]	2.2 [4.9]
020	110 [4.34]	2.3 [5.0]
032	115 [4.53]	2.3 [5.1]
040	118 [4.66]	2.4 [5.2]



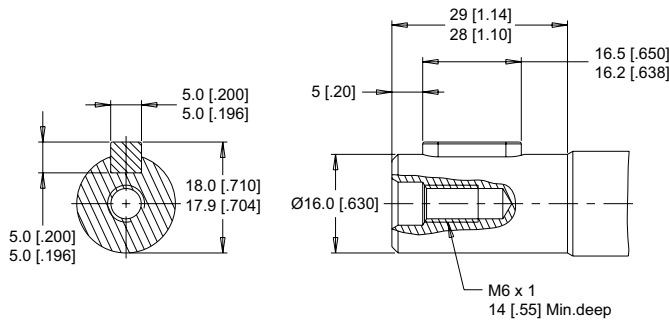
► Reference part number 125017004 when ordering the 2-Hole flange mounting kit. The kit contains three M6 and three 1/4" bolts to accommodate either thread type.

**SHAFT & TECHNICAL INFORMATION**

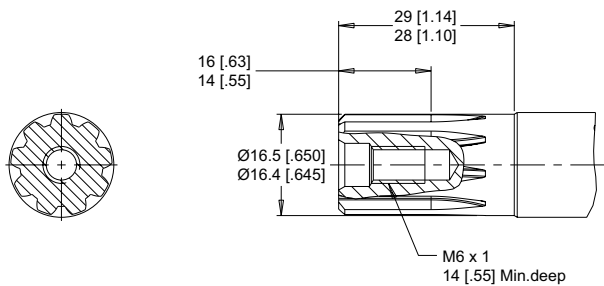
**C3** 5/8" Straight



**C4** 16mm Straight

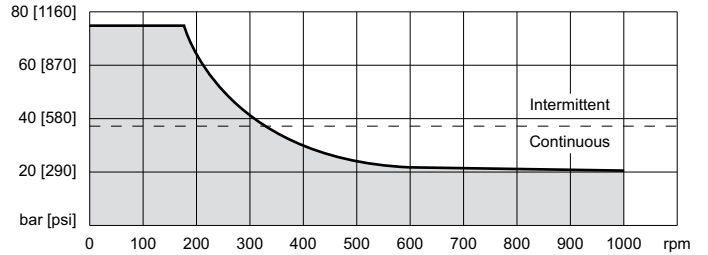


**C5** 16mm, 9 Tooth Spline



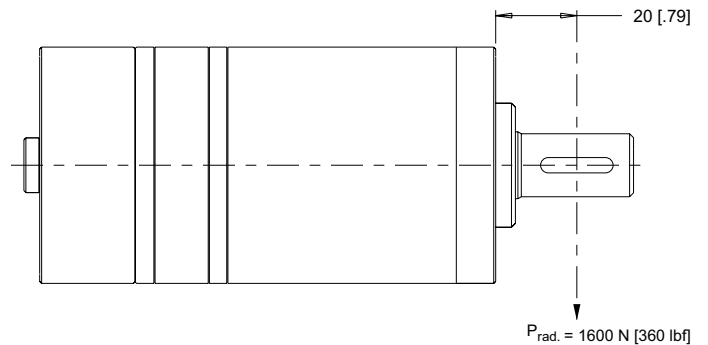
**PERMISSIBLE SHAFT SEAL PRESSURE**

The curve below represents allowable seal pressure at various speeds. Operation in the gray area results in maintaining the rated life of the shaft seal. Actual shaft seal pressure depends on motor configuration.

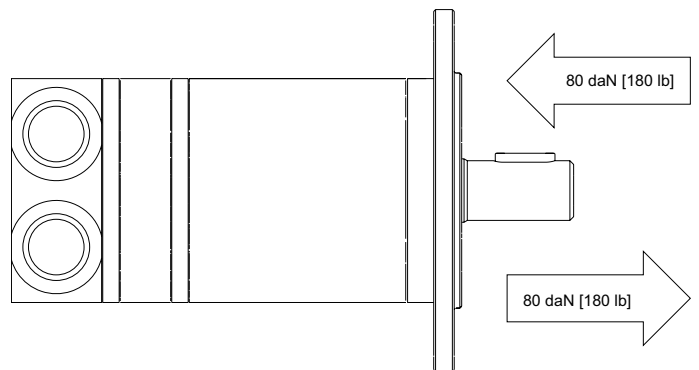


▶ With check valves and drain connection, the shaft seal pressure equals pressure in the drain line. With check valves and no drain connection, shaft seal pressure is identical to output pressure.

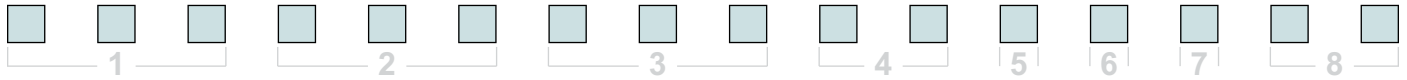
**PERMISSIBLE SHAFT SIDE LOAD / AXIAL LOAD**



**THRUST LOAD**

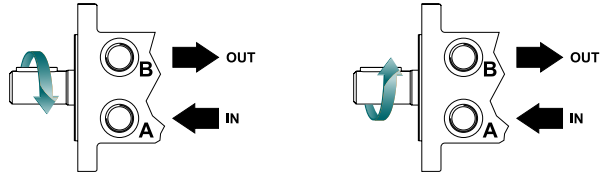


**125 & 126 SERIES MODEL CODE BUILDER**



**1. CHOOSE SERIES DESIGNATION**

- 125** Clockwise Rotation
- 126** Counterclockwise Rotation



► The 125 & 126 series are bi-directional. Reversing the inlet hose will reverse shaft rotation.

**2. SELECT A DISPLACEMENT OPTION**

- 008** 8 cm<sup>3</sup>/rev [0.5 in<sup>3</sup>/rev]
- 012** 13 cm<sup>3</sup>/rev [0.8 in<sup>3</sup>/rev]
- 020** 20 cm<sup>3</sup>/rev [1.2 in<sup>3</sup>/rev]
- 032** 32 cm<sup>3</sup>/rev [1.9 in<sup>3</sup>/rev]
- 040** 40 cm<sup>3</sup>/rev [2.5 in<sup>3</sup>/rev]

**3. SELECT A MOUNT & PORT OPTION**

- JKB** 3-Hole, M6 Round Mount, Side Ports, G 3/8
- JK5** 3-Hole, M6 Round Mount, Side Ports, 9/16-18 UNF
- JLB** 3-Hole, 1/4" Round Mount, Side Ports, G 3/8
- JL5** 3-Hole, 1/4" Round Mount, Side Ports, 9/16-18 UNF
- JMB** 3-Hole, M6 Round Mount, End Ports, G 3/8
- JM5** 3-Hole, M6 Round Mount, End Ports, 9/16-18 UNF
- JNB** 3-Hole, 1/4" Round Mount, End Ports, G 3/8
- JN5** 3-Hole, 1/4" Round Mount, End Ports, 9/16-18 UNF

**4. SELECT A SHAFT OPTION**

- C3** 5/8" Straight
- C4** 16mm Straight
- C5** 16mm, 9 Tooth Spline

**5. SELECT A PAINT OPTION**

- A** Black
- B** Black, Unpainted Mounting Surface

**6. SELECT A VALVE CAVITY / CARTRIDGE OPTION**

- A** None

**7. SELECT AN ADD-ON OPTION**

- A** Standard

**8. SELECT A MISCELLANEOUS OPTION**

- AA** None