



whitedriveproducts



SERIES

125 -

126 -



LIGHT DUTY
Hydraulic Motor

WM



WM (All Series)
For Light Duty Applications

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OVERVIEW

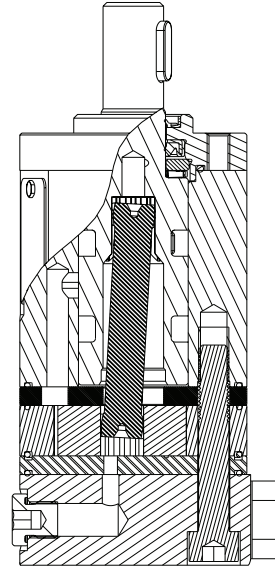
The WM product line with spool valve design is an economical motor with enhanced rotor technology. Intended for light-duty applications, the WM series offers many advantages such as compact size, high speed, medium torque and extreme low weight. The WM series motors are used primarily in the mobile,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

SERIES DESCRIPTIONS

125/126 - Hydraulic Mini Motor
Standard

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

SPECIFICATIONS

CODE	Displacement cm ³ [in ³ /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. Running at intermittent ratings should not exceed 10% of every minute of operation.



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DISPLACEMENT PERFORMANCE

008

8 cm³ [0.5 in³] / 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

Max. Max. Inter. Cont.	Flow - lpm [gpm]	2 [0.5]	3 [25]	5 [44]	7 [62]	10 [89]	11 [97]	14 [124]	Theoretical rpm	
		4 [1]	226	219	196	166	141	117		
		8 [2]	3 [25]	5 [44]	8 [71]	10 [89]	12 [106]	12 [106]		351
		12 [3]	476	455	435	402	384	351		949
		16 [4]		5 [44]	7 [62]	10 [89]	12 [106]	14 [124]		778
		20 [5]		5 [41]	7 [62]	11 [97]	12 [106]	14 [124]		1423
		1390	1366	1328	1292	1268	1898			
		4 [35]	7 [58]	10 [89]	12 [106]	13 [115]	1771			
		1864	1847	1815	1792	1771	2372			
		4 [35]	6 [53]	9 [80]	12 [106]	12 [106]	2190			
		2293	2277	2272	2245	2190				

Intermittent Ratings - 10% of Operation

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

Theoretical Torque - Nm [lb-in]

4 [36]	7 [59]	9 [83]	13 [119]	17 [148]	19 [166]
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Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]

Rotor Width: 3.3 [1.30] mm [in]

► Performance data is typical. Performance of production units varies slightly from one motor to another.

012

13 cm³ [0.8 in³] / 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

Max. Max. Inter. Cont.	Flow - lpm [gpm]	3 [0.8]	5 [44]	8 [71]	11 [97]	16 [142]		Theoretical rpm		
		5 [1.3]	220	212	195	176				
		10 [2.6]	6 [53]	9 [80]	12 [106]	17 [150]	19 [168]		383	
		15 [4.0]	367	362	351	320	304		766	
		20 [5.3]	5 [44]	9 [80]	11 [97]	16 [142]	19 [168]		22 [195]	1149
		25 [6.6]	757	748	728	703	659		609	1533
		4 [35]	8 [71]	11 [97]	16 [142]	18 [159]	21 [186]			
		1134	1124	1106	1072	1049	1026			
		3 [27]	6 [53]	10 [89]	14 [124]	17 [150]	21 [186]			
		1521	1511	1498	1480	1449	1413			
			5 [44]	9 [80]	13 [115]	17 [150]	19 [168]			
			1871	1858	1850	1840	1793			

Intermittent Ratings - 10% of Operation

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

Theoretical Torque - Nm [lb-in]

6 [55]	10 [92]	15 [129]	21 [184]	25 [221]	29 [257]
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Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]

Rotor Width: 5.2 [2.05] mm [in]

020

20 cm³ [1.2 in³] / 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

Max. Max. Inter. Cont.	Flow - lpm [gpm]	3 [0.8]	8 [12]	13 [115]	13 [115]		Theoretical rpm			
		5 [1.3]	143	133	133			149		
		10 [2.6]	8 [71]	13 [115]	18 [159]	25 [221]		31 [274]	248	
		15 [4.0]	241	233	223	204		185	497	
		20 [5.3]	7 [62]	12 [106]	18 [159]	26 [230]		29 [257]	34 [301]	745
		25 [6.6]	489	479	470	454		454	454	994
		6 [29]	12 [106]	18 [159]	25 [221]	29 [257]	34 [301]			
		731	714	692	670	648	613			
		5 [44]	11 [97]	16 [142]	24 [212]	28 [248]	33 [292]			
		989	974	962	941	941	941			
		4 [35]	10 [89]	14 [124]	22 [195]	26 [230]	31 [274]			
		1229	1216	1224	1182	1132	1104			

Intermittent Ratings - 10% of Operation

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

Theoretical Torque - Nm [lb-in]

10 [85]	16 [142]	22 [199]	32 [284]	38 [336]	45 [397]
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Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]

Rotor Width: 8.0 [3.16] mm [in]

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PERFORMANCE

► Performance data is typical. Performance of production units varies slightly from one motor to another.

032	Pressure - bar [psi]		Max. Cont.		Max. Inter.				
	30 [435]	50 [725]	70 [1015]	100 [1450]	120 [1740]	140 [2030]			
32 cm ³ [1.9 in ³] / rev									
Max. Max. Inter. Cont.	Torque - Nm [lb-in], Speed rpm		Intermittent Ratings - 10% of Operation				Theoretical rpm		
	3 [0.8]	12 [106] 84						94	
	5 [1.3]	12 [106] 148	21 [186] 139	28 [248] 113				157	
	10 [2.6]	12 [106] 301	20 [177] 293	28 [248] 284	39 [345] 269	46 [407] 254		55 [487] 234	314
	15 [4.0]	11 [97] 456	19 [168] 448	28 [248] 437	40 [354] 423	44 [389] 412		52 [460] 396	472
	20 [5.3]	9 [80] 622	18 [159] 610	26 [230] 601	38 [336] 589	42 [372] 547		51 [451] 514	629
	25 [6.6]	7 [62] 767	16 [142] 754	24 [212] 741	35 [310] 718	42 [372] 679		48 [425] 633	786
Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input type="checkbox"/>									
Rotor Width									
Theoretical Torque - Nm [lb-in]									
Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]									
mm [in]									

040	Pressure - bar [psi]		Max. Cont.		Max. Inter.				
	30 [435]	50 [725]	70 [1015]	100 [1450]	130 [1885]	140 [2030]			
40 cm ³ [2.5 in ³] / rev									
Max. Max. Inter. Cont.	Torque - Nm [lb-in], Speed rpm		Intermittent Ratings - 10% of Operation				Theoretical rpm		
	3 [0.8]	15 [133] 71						75	
	5 [1.3]	16 [142] 116	25 [221] 110	33 [292] 102					124
	10 [2.6]	16 [142] 238	24 [212] 237	35 [310] 224	47 [416] 209	54 [478] 167		64 [566] 142	249
	15 [4.0]	14 [124] 367	24 [212] 359	34 [301] 354	49 [434] 345	53 [469] 300		62 [549] 277	373
	20 [5.3]	11 [97] 495	22 [195] 487	33 [292] 479	48 [425] 465	52 [460] 434		59 [522] 416	498
	25 [6.6]	9 [80] 620	18 [159] 609	29 [257] 602	44 [389] 576	50 [443] 558		58 [513] 528	622
Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input type="checkbox"/>									
Rotor Width									
Theoretical Torque - Nm [lb-in]									
Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]									
mm [in]									



HOUSINGS

► Dimensions shown are without paint. Paint thickness can be up to 0.13 [0.05].

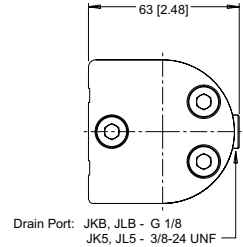
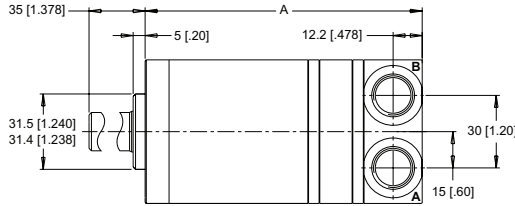
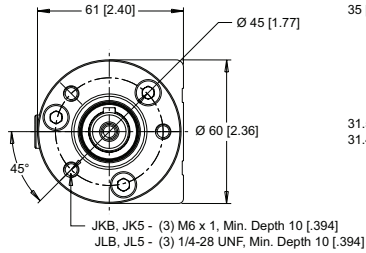
3-HOLE, ROUND MOUNT, ALIGNED SIDE PORTS

JKB G 3/8

JK5 9/16-18 UNF

JLB G 3/8

JL5 9/16-18 UNF



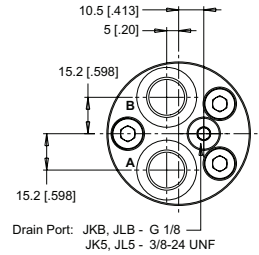
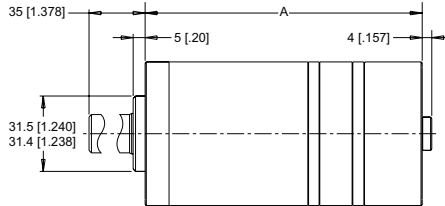
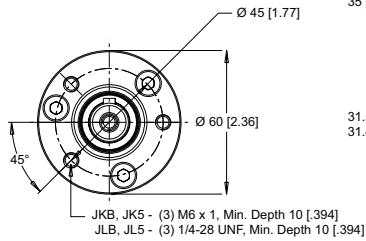
3-HOLE, ROUND MOUNT, ALIGNED END PORTS

JMB G 3/8

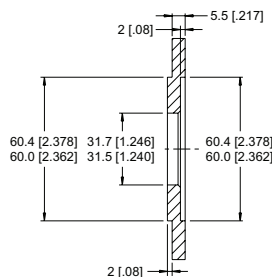
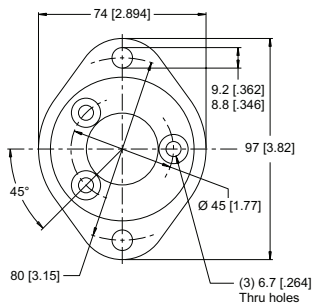
JM5 9/16-18 UNF

JNB G 3/8

JN5 9/16-18 UNF



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. The recommended mounting flange bolt torque is 10 ±1 Nm [88.5 ±9 lb-in].

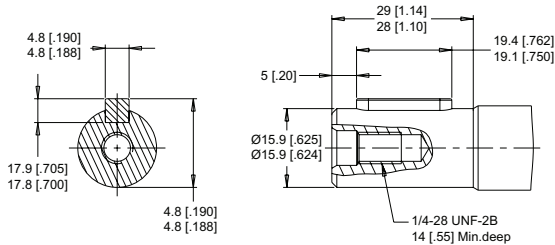
WM (125/126 Series) Light Duty Hydraulic Motor

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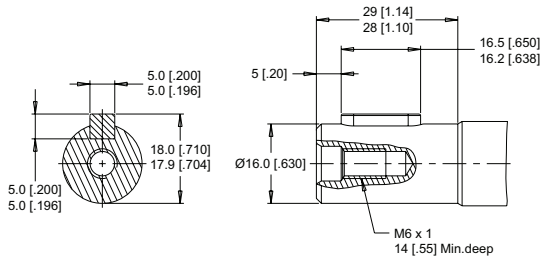


SHAFT & TECHNICAL INFORMATION

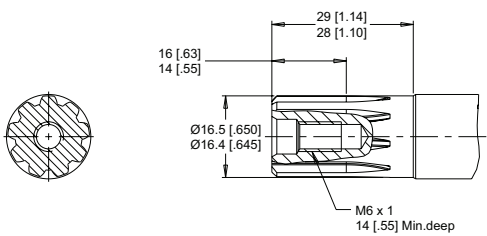
C3 5/8" Straight



C4 16mm Straight

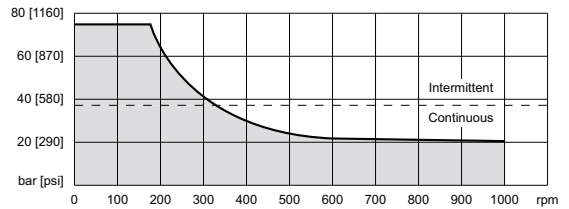


C5 16mm, 9 Tooth Spline



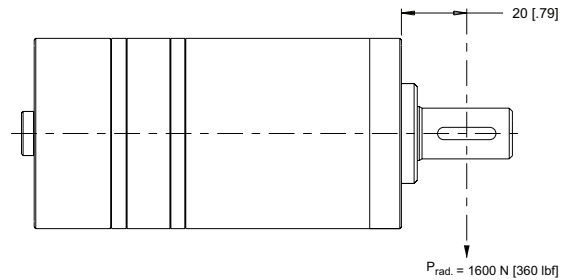
PERMISSIBLE SHAFT SEAL PRESSURE

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.

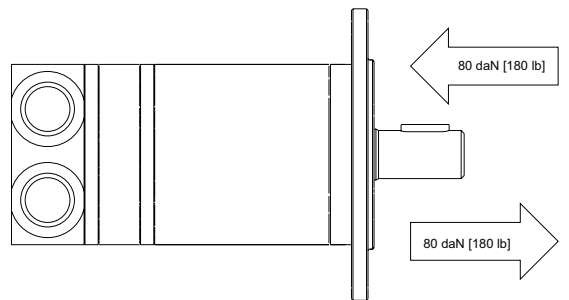


► With check valves and drain connection, the shaft seal pressure equals pressure in the drain line.
With check valves and no drain connection, shaft seal pressure is identical to output pressure.

PERMISSIBLE SHAFT SIDE LOAD / AXIAL LOAD



THRUST LOAD



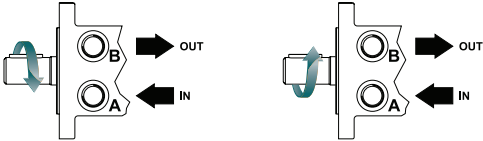


125 & 126 SERIES MODEL CODE BUILDER



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 ³ /rev [0.5 in ³ /rev]	032 32 cm ³ /rev [1.9 in ³ /rev]
012 13 cm ³ /rev [0.8 in ³ /rev]	040 40 cm ³ /rev [2.5 in ³ /rev]
020 20 cm ³ /rev [1.2 in ³ /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 **C5** 16mm, 9 Tooth Spline
C4 16mm Straight

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