Part number:

HYDROMA
HYDRAULICKÉ SYSTÉMY

HIDROMA SISTEMS
UKŁADY HYDRAULICZNE

HYDROMA
ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ



SERIES

125 -
126 -



LIGHT DUTY
Hydraulic Motor

WM

WM (All Series)

For Light Duty Applications

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

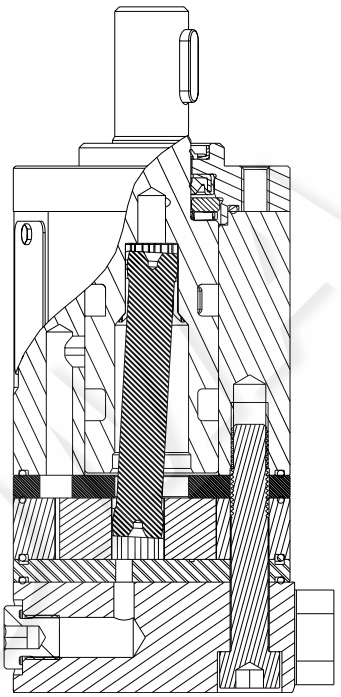
- Built-in check valves offer versatility and increased seal life.
- Bolt-on mounting flange relates to easy serviceability.
- Spool valve design gives superior performance and smooth operation over a wide speed and torque range.
- Enhanced rotor design provides smooth performance, compact volume and 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^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]
050	50.3 [3.0]	397	487	20 [5]	25 [7]	59 [531]	81 [708]	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.

DISPLACEMENT PERFORMANCE

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

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]

Intermittent Ratings - 10% of Operation

Torque - Nm [lb-in], **Speed rpm**

Flow - lpm [gpm]	Max. Max. Inter. Cont.						Theoretical rpm
2 [0.5]		3 [25] **226**	5 [44] **219**	7 [62] **196**	10 [89] **166**	11 [97] **141**	14 [124] **117**	237
4 [1]		3 [25] **476**	5 [44] **455**	8 [71] **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

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

Rotor Width

3.3 [.130] mm [in]

Theoretical Torque - Nm [lb-in]

4 [36]	7 [59]	9 [83]	13 [119]	17 [148]	19 [166]

Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]

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]

Intermittent Ratings - 10% of Operation

Torque - Nm [lb-in], **Speed rpm**

Flow - lpm [gpm]	Max. Max. Inter. Cont.						Theoretical rpm
3 [0.8]		5 [44] **220**	8 [71] **212**	11 [97] **195**	16 [142] **176**			230
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

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

Rotor Width

5.2 [.205] mm [in]

Theoretical Torque - Nm [lb-in]

6 [55]	10 [92]	15 [129]	21 [184]	25 [221]	29 [257]

Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]

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]

Intermittent Ratings - 10% of Operation

Torque - Nm [lb-in], **Speed rpm**

Flow - lpm [gpm]	Max. Max. Inter. Cont.						Theoretical rpm
3 [0.8]		8 [12] **143**	13 115] **133**	13 [115] **133**				149
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

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

Rotor Width

8.0 [.316] mm [in]

Theoretical Torque - Nm [lb-in]

10 [85]	16 [142]	22 [199]	32 [284]	38 [336]	45 [397

Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]

WM (All Series)

For Light Duty Applications

PERFORMANCE

032

32 cm³ [1.9 in³] / rev

Flow - lpm [gpm]	Pressure - bar [psi] 30 [435]	50 [725]	70 [1015]	Max. Cont. 100 [1450]	120 [1740]	Max. Inter. 140 [2030]	Theoretical rpm
	Torque - Nm [lb-in], **Speed 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] Max. Inter.	9 [80] **622**	18 [159] **610**	26 [230] **601**	38 [336] **589**	42 [372] **547**	51 [451] **514**	629
25 [6.6] Max. Cont.	7 [62] **767**	16 [142] **754**	24 [212] **741**	35 [310] **718**	42 [372] **679**	48 [425] **633**	786

Intermittent Ratings - 10% of Operation

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

Rotor Width	Theoretical Torque - Nm [lb-in]					
12.7 [.501] mm [in]	15 [134]	25 [224]	35 [314]	51 [448]	61 [538]	71 [627]

Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]

040

40 cm³ [2.5 in³] / rev

Flow - lpm [gpm]	Pressure - bar [psi] 30 [435]	50 [725]	70 [1015]	Max. Cont. 100 [1450]	130 [1885]	Max. Inter. 140 [2030]	Theoretical rpm
	Torque - Nm [lb-in], **Speed 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] Max. Inter.	11 [97] **495**	22 [195] **487**	33 [292] **479**	48 [425] **465**	52 [460] **434**	59 [522] **416**	498
25 [6.6] Max. Cont.	9 [80] **620**	18 [159] **609**	29 [257] **602**	44 [389] **576**	50 [443] **558**	58 [513] **528**	622

Intermittent Ratings - 10% of Operation

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

Rotor Width	Theoretical Torque - Nm [lb-in]					
16.0 [.631] mm [in]	19 [170]	32 [283]	45 [397]	64 [567]	83 [736]	90 [793]

Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]

050

50 cm³ [3.1 in³] / rev

Flow - lpm [gpm]	Pressure - bar [psi] 30 [435]	50 [725]	70 [1015]	Max. Cont. 100 [1450]	125 [1815]	Max. Inter. 140 [2030]	Theoretical rpm
	Torque - Nm [lb-in], **Speed rpm**						
3 [0.8]	20 [178] **53**						60
5 [1.3]	19 [169] **90**	32 [284] **85**	44 [391] **77**				99
10 [2.6]	17 [151] **195**	29 [257] **190**	41 [364] **176**	59 [524] **155**	73 [348] **132**	81 [719] **114**	198
15 [4.0]	13 [115] **297**	25 [222] **289**	38 [337] **279**	55 [488] **257**	68 [604] **236**	77 [684] **220**	298
20 [5.3] Max. Inter.	7 [62] **397**	20 [178] **393**	33 [293] **383**	50 [444] **366**	63 [559] **347**	73 [648] **332**	398
25 [6.6] Max. Cont.		14 [124] **487**	26 [231] **485**	44 [391] **472**	57 [506] **457**	65 [577] **445**	497

Intermittent Ratings - 10% of Operation

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

Rotor Width	Theoretical Torque - Nm [lb-in]					
20.0 [.787] mm [in]	23 [334]	39 [566]	55 [798]	79 [1146]	99 [1436]	111 [1610]

Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]

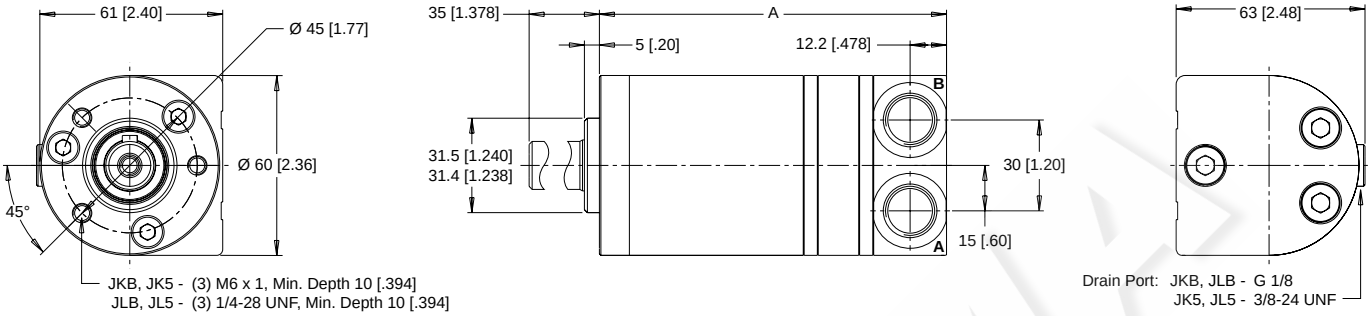
- Performance data is typical. Performance of production units varies slightly from one motor to another.

HOUSINGS

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

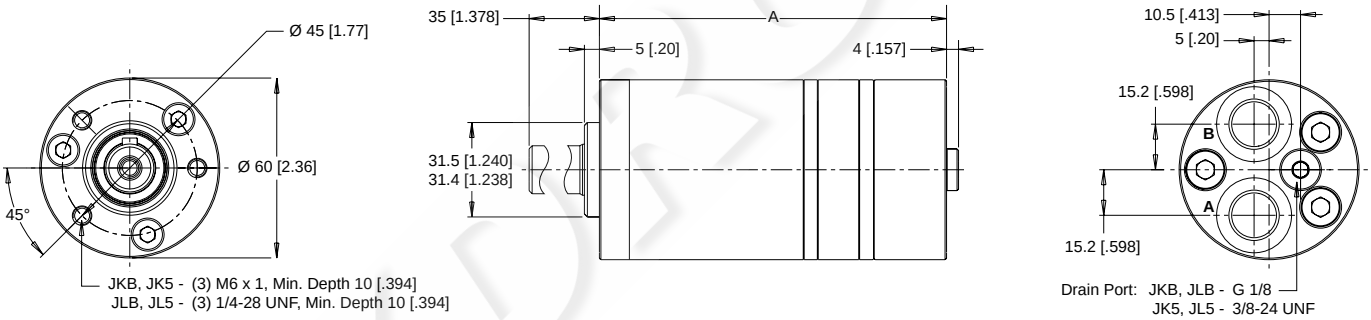
3-HOLE, ROUND MOUNT, ALIGNED SIDE PORTS

JKB G 3/8 **JK5** 9/16-18 UNF **JLB** G 3/8 **JL5** 9/16-18 UNF

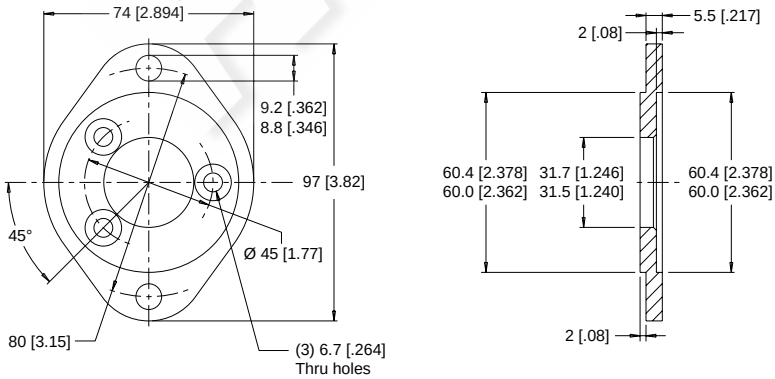


3-HOLE, ROUND MOUNT, ALIGNED END PORTS

JMB G 3/8 **JM5** 9/16-18 UNF **JNB** G 3/8 **JN5** 9/16-18 UNF



2-HOLE FLANGE MOUNTING KIT (OPTIONAL)



▶ Reference part number 125017004 when ordering the 2-Hole flange mounting kit. The kit contains three M6 and three 1/4" bolts to accomodate either thread type. The recommended mounting flange bolt torque is 10 ±1 Nm [88.5 ±9 lb-in].

LENGTH & WEIGHT CHART

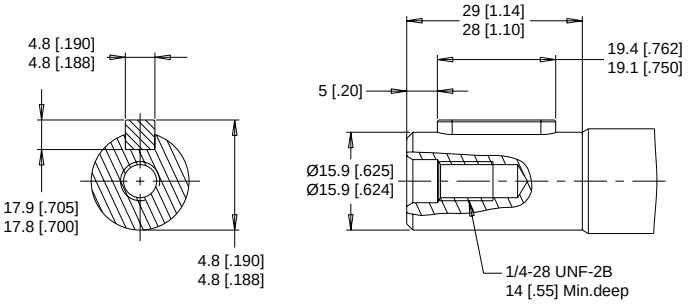
Dimension A is the overall motor length from the rear of the motor to the mounting flange surface and is referenced on detailed housing drawings above.

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]
050	122 [4.80]	2.5 [5.5]

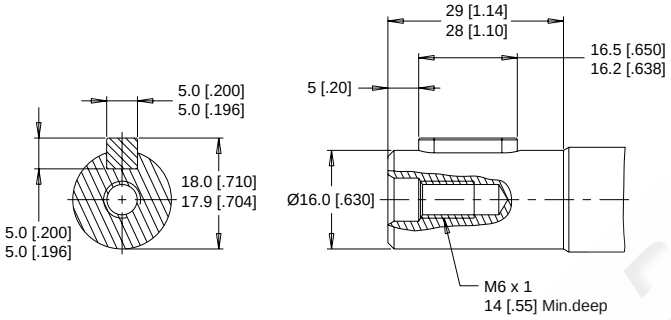
Page last updated: 11/11/2013

SHAFT & TECHNICAL INFORMATION

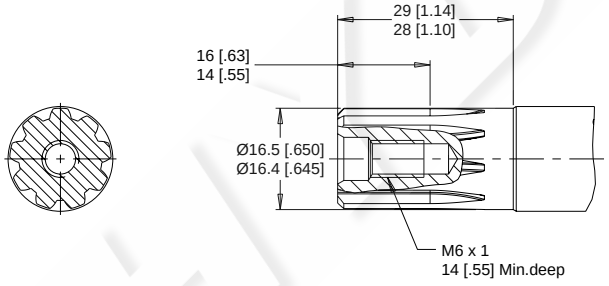
C3 5/8" Straight



C4 16mm Straight

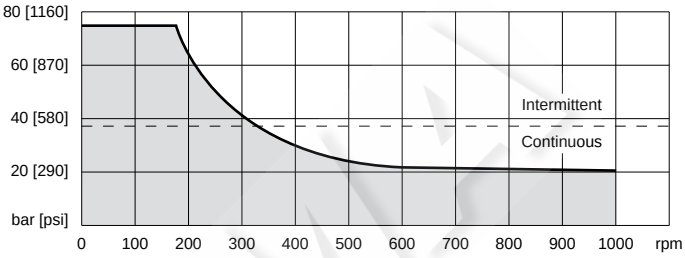


C5 16mm, 9 Tooth Spline



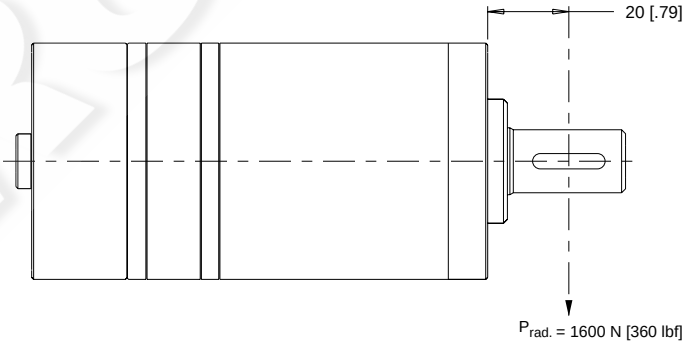
PERMISSIBLE SHAFT SEAL PRESSURE

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.

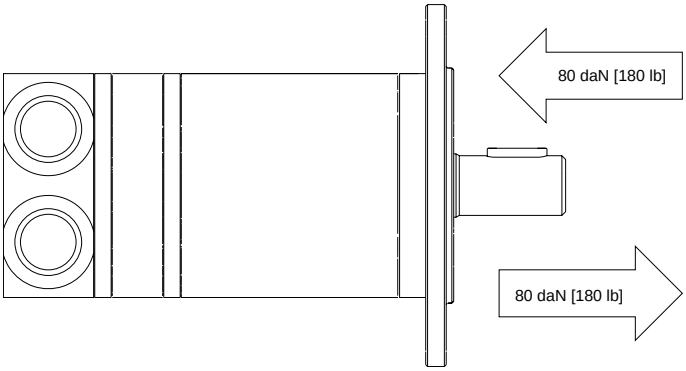


▶ With check valves and drain connection, the shaft seal pressure equals pressure in the drain line. With check valves and no drain connection, shaft seal pressure is identical to output pressure.

PERMISSIBLE SHAFT SIDE LOAD / AXIAL LOAD



THRUST LOAD

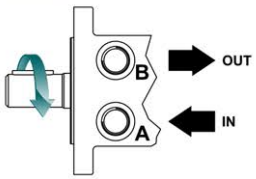


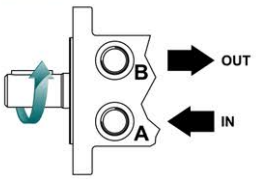
125 & 126 SERIES MODEL CODE BUILDER

1	2	3	4	5	6	7	8

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]	**050**	50 cm^3/rev	[3.1 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