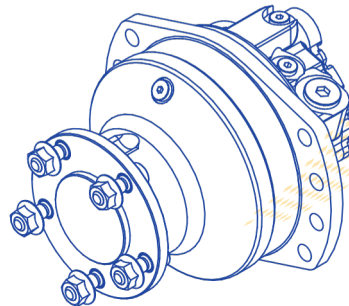
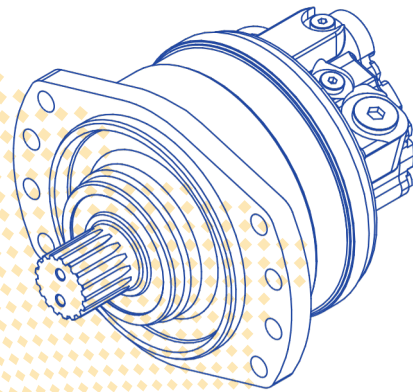




**TWIN ROCK TOOLS**

# FEED DRIVE MOTOR



## Corporate Profile

TRT focuses on bringing the highest-performance products for drilling and exploration, with commitment to continuous improvement and quality.

We act as a partner who offer innovative products, with increased productivity and lower costs, that meet the specific needs of drilling industry, while providing excellent customer service and 24\*7 technical support.


## Our Promise:

We promise to deliver tools that enhance productivity, profitability and sustainability across the drilling industries.

## Our Vision:

 To be a dedicated partner for the drilling and exploration industry.


## Our Mission:

 Offering customers, the very best service, selection, quality and value.

 Constantly achieving operational excellence and improving our quality management system.

 To be updated on the latest innovation and technology in the drilling industry.

## Our Core Values:

 Value creation

 Communication

 Excellence

 Focus on Happy customers

 Passion to win

 Integrity

 Fair play

 Commitment

 Customer-centricity

## Our product range:

 Core drilling tools

 RC Drilling tools

 Horizontal Directional Drilling tools


 Piling Bits

 Drill rods

 PDC and Rock Roller Bits

 Rotary Actuator

 Feed Drive Motor

 Air Cooled oil cooler  
(ACE Authorized Distributor)



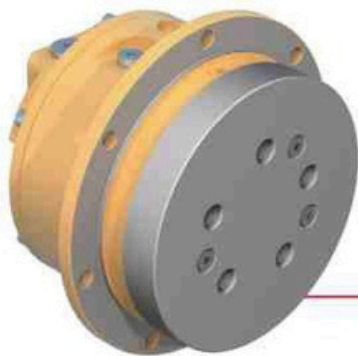
**BM Series**



**BM<sup>HF</sup> Series**



**BMP Series**



**BMC Series**



# BM Hydraulic Motor Specification

Measurement Unit	displacement	max torque	max pressure	max speed	max power
Metric Unit	cm <sup>3</sup> /r	Nm	bar	RPM	kW
US Unit	[cu.in/rev]	[lb.ft]	[PSI]		[HP]

	BM02				BME02		
displacement	172 [10.5]	213 [13.0]	235 [14.3]	255 [15.6]	332 [20.2]	364 [22.2]	398 [24.3]
max torque (th.)*	1200 [900]	1500 [1120]	1680 [1240]	1800 [1330]	2100 [1550]	2300 [1700]	2500 [1850]
max pressure	450[6530]				400[5800]		
max speed	390	310	285	260	200	182	165
max power	18[24]				22[30]		
max speed(HF)	700	570	520	480	370	340	310
max power(HF)	18[24]				22[30]		

	BM05					BME05				
displacement	260 [15.9]	376 [22.9]	468 [28.5]	515 [31.4]	560 [34.2]	530 [32.3]	625 [38.1]	688 [42.0]	750 [45.7]	820 [50.0]
max torque (th.)*	1850 [1370]	2700 [1980]	3350 [2460]	3680 [2700]	4000 [2950]	3360 [2480]	4000 [2950]	4380 [3220]	4750 [3500]	5200 [3840]
max pressure	450[6530]					400[5800]				
max speed	265	250	240	220	200	200	190	175	160	145
max power	29[39]									
max speed(HF)	700	520	420	370	340	380	300	270	250	230
max power(HF)	50[67]									

	BM08						BME08		
displacement	467 [28.5]	627 [38.2]	702 [42.8]	780 [47.6]	857 [52.3]	934 [57.0]	1043 [63.6]	1146 [69.9]	1248 [76.1]
max torque (th.)*	3330 [2460]	4480 [3300]	5000 [3700]	5580 [4100]	6120 [4500]	6630 [4920]	6680 [4880]	7180 [5370]	7950 [5850]
max pressure	450[6530]						400[5800]		
max speed	210	210	185	170	155	140	130	110	105
max power	41[55]								
max speed(HF)	450	340	310	280	250	230	210	185	170
max power(HF)	41[55]								

	BM11						BME11			
displacement	730 [44.5]	837 [51.0]	943 [57.5]	1048 [63.9]	1147 [70.0]	1259 [76.8]	1263 [77]	1404 [85.7]	1536 [93.6]	1687 [102.9]
max torque (th.)*	5220 [3850]	6000 [4400]	6750 [4970]	7500 [5520]	8200 [6050]	9000 [6640]	8040 [5920]	8920 [6580]	9800 [7200]	10700 [7900]
max pressure	450[6530]						400[5800]			
max speed	200	195	190	185	180	170	170	155	140	130
max power	50[67]									

# BM Hydraulic Motor Specification

Measurement Unit	displacement	max torque	max pressure	max speed	max power
Metric Unit	cm <sup>3</sup> /r	Nm	bar	RPM	kW
US Unit	[cu.in/rev]	[lb.ft]	[PSI]		[HP]

	BM18						BME18		
displacement	1091 [66.5]	1395 [85.1]	1572 [95.9]	1747 [106.5]	1911 [116.6]	2099 [128.0]	2340 [142.7]	2560 [156.1]	2812 [171.5]
max torque (th.)*	7800 [5750]	10000 [7350]	11250 [8280]	12500 [9210]	13650 [10080]	15000 [11070]	14900 [10960]	16300 [12000]	17900 [13180]
max pressure	450[6530]						400[5800]		
max speed	172	164	160	155	150	145	140	125	115
max power	70[94]								

	BM25				BM35			
displacement	2004 [122.2]	2498 [152.4]	2752 [167.8]	3006 [183.3]	2439 [148.8]	3143 [191.7]	3494 [213.1]	4198 [256.0]
max torque (th.)*	14300 [10550]	17850 [13150]	19700 [14500]	21500 [15850]	17450 [12860]	22500 [16580]	25000 [18400]	30000 [22100]
max pressure	450[6530]				450[6530]			
max speed	145	137	125	115	140	140	130	110
max power	90[121]				110[148]			

	BM50				
displacement	3500 [213.5]	4008 [244.4]	4997 [304.8]	5504 [335.7]	6011 [366.6]
max torque (th.)*	25050 [18460]	28700 [21150]	35750 [26350]	39370 [29040]	43000 [31700]
max pressure	450[6530]				
max speed	148	138	111	101	92
max power	140[188]				

	BM83			BM125			BM250
displacement	6679 [407.4]	8328 [507.9]	10019 [611.4]	1000 [609.9]	12500 [762.4]	15000 [914.9]	25000 [1526]
max torque (th.)*	47800 [35200]	60000 [44200]	71500 [52700]	71500 [52700]	77000 [56750]	77000 [56750]	165000 [122200]
max pressure	450[6530]			450 [6530]	380 [5510]	320 [4640]	415 [6000]
max speed	70	60	50	50	40	30	75
max power	200[268]			240[322]			500[680]
max speed(HF)	200	160	130	130	105	85	
max power(HF)	200[268]			240[322]			

# BMP Hydraulic Motor Specification

Measurement Unit	displacement	max torque	max pressure	max speed	max power
Metric Unit	cm <sup>3</sup> /r	Nm	bar	RPM	kW
US Unit	[cu.in/rev]	[lb.ft]	[PSI]		[HP]

	BMP11					BMP20					
<b>displacement</b>	933 [56.9]	1050 [64.1]	1167 [71.2]	1284 [78.4]	1401 [85.5]	1416 [86.4]	1630 [99.5]	1821 [111.1]	2029 [123.8]	2228 [135.9]	2427 [148.1]
<b>max torque (th.)*</b>	6686 [4921]	7524 [5541]	8362 [6161]	9200 [6775]	10039 [7395]	11274 [8303]	12978 [9558]	14498 [10675]	16154 [11893]	17739 [13061]	19323 [14228]
<b>max pressure</b>	450[6527]					500[7252]					
<b>max speed</b>	324	291	264	241	222	505	420	395	345	325	290
<b>max power</b>	95 [127]	99 [133]	102 [137]	104 [139]	104 [139]	200 [268]	185 [248]	178 [239]	170 [228]	160 [215]	150 [201]

	BMP27								
<b>displacement</b>	1893 [115.5]	2179 [132.9]	2434 [148.5]	2712 [165.5]	2978 [181.7]	3245 [198]	3526 [215.2]		
<b>max torque (th.)*</b>	15072 [11102]	17349 [12778]	19379 [14272]	21592 [15904]	23711 [17463]	25835 [19029]	28073 [20675]		
<b>max pressure</b>	500[7252]								
<b>max speed</b>	340	310	280	245	230	210	190		
<b>max power</b>	280 [375]	250 [335]	230 [308]	210 [282]	200 [268]	190 [255]	180 [241]		

# BMP Hydraulic Motor Specification

	BMC04			BMC05			
<b>displacement</b>	272 [16.6]	340 [20.7]	408 [24.9]	272 [16.6]	447 [27.3]	558 [34.0]	670 [40.9]
<b>max torque (th.)*</b>	1730 [1275]	2164 [1318]	2600 [1917]	1730 [1275]	2840 [2094]	3550 [2618]	4250 [3134]
<b>max pressure</b>	400[5800]			400[5800]			
<b>max speed</b>	120	110	100	130	80	65	55
<b>max power</b>	18[24]			22.5[30]			

	BMC12					BMCE12			
<b>displacement</b>	627 [38.2]	702 [42.8]	780 [47.6]	857 [52.3]	934 [57.0]	1043 [63.6]	1146 [69.9]	1248 [76.1]	1356 [82.7]
<b>max torque (th.)*</b>	4480 [3304]	5000 [3687]	5580 [4115]	6120 [4513]	6680 [4926]	6630 [4890]	7280 [5369]	7950 [5863]	8630 [6365]
<b>max pressure</b>	450[6527]								
<b>max speed</b>	100[100]								
<b>max power</b>	41[55]								

	BMC18					BMCE18		
<b>displacement</b>	1395 [85.1]	1571 [95.8]	1747 [106.6]	1911 [116.6]	2099 [128.0]	2340 [142.7]	2560 [156.1]	2812 [171.5]
<b>max torque (th.)*</b>	10000 [7375]	11250 [8297]	12500 [9219]	13650 [10067]	15000 [11063]	14900 [10989]	16370 [12073]	17950 [13239]
<b>max pressure</b>	450[6530]					400[5800]		
<b>max speed</b>	155	140	125	115	100	90	85	75
<b>max power</b>	70[94]							

# BMF Hydraulic Motor Specification

Measurement Unit	displacement	max torque	max pressure	max speed	max power
Metric Unit	cm <sup>3</sup> /r	Nm	bar	RPM	kW
US Unit	[cu.in/rev]	[lb.ft]	[PSI]		[HP]

	BMF02				BMFE02		
displacement	172 [10.5]	213 [13.0]	235 [14.3]	255 [15.6]	332 [20.2]	364 [22.2]	398 [24.3]
max torque (th.)*	1200 [900]	1500 [1120]	1680 [1240]	1800 [1330]	2100 [1550]	2300 [1700]	2500 [1850]
max pressure	450[6530]				400[5800]		
max speed	390	310	285	260	200	182	165
max power	18[24]				22[30]		

	BMF05					BMFE05			
displacement	260 [15.9]	376 [22.9]	468 [28.5]	514 [31.3]	560 [34.2]	503 [30.7]	626 [38.2]	687 [41.9]	749 [45.7]
max torque (th.)*	1858 [1370]	2694 [1984]	3354 [2467]	3683 [2715]	4013 [2956]	3204 [2361]	3987 [2936]	3980 [3220]	4771 [3516]
max pressure	450[6527]					400[5802]			
max speed	420	305	250	220	205	225	185	165	150
max power	29[39]								

	BMF11						BMFE11			
displacement	730 [44.5]	837 [51.0]	943 [57.5]	1048 [63.9]	1147 [70.0]	1259 [76.8]	1263 [77]	1404 [85.6]	1536 [93.7]	1687 [102.9]
max torque (th.)*	5220 [3850]	6000 [4400]	6750 [4970]	7500 [5520]	8200 [6050]	9000 [6640]	8040 [5920]	8920 [6580]	9800 [7200]	10700 [7900]
max pressure	450[6530]						400[5800]			
max speed	200	195	190	185	180	170	170	155	140	130
max power	50[67]									

	BMF21						
displacement	1674 [102.1]		1855 [115.0]		2096 [127.8]	2294 [139.9]	2519 [153.6]
max torque (th.)*	10648 [7853]		11400 [8839]		12730 [9831]	13860 [10759]	16020 [11815]
max pressure	400[5800]						
max speed	138		122		110	100	91
max power	80[107]						

# BM Brake

## Multiple disc brake

- Emergency protection: by spring, release by hydraulic way
- Complete closure
- The same spec. Motor can choose different brake torque
- Can be used as vehicle brake when emergency

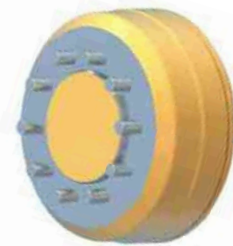


Brake	Parking braking Nm [lb.ft]	Emergency braking Nm [lb.ft]	02	05	08	11	18	25	35	50	83	125
F02	1400[1030]	910[670]	•									
F03	2500[1840]	1625[1200]	•									
F04	4220[3110]	2740[2020]		•								
F05	3060[2255]	1990[1470]		•								
F08	5620[4150]	3650[2690]			•							
F09	9000[6630]	5850[4310]			•							
F11	7280[5370]	4730[3490]				•	•		•			
F12	11840[8730]	7700[5675]				•	•		•			
F19	18600[13700]	12800[8905]					•		•			
F42	25000[18500]	16250[11985]						•	•	•		
F50	30000[22130]	22200[14380]						•	•	•	•	•
F83	42000[30950]	27300[20100]								•	•	•

# BM Drum Brake

## Drum Brake

- Service brake and parking brake
- Packed in heavy duty bearing support
- Hydraulic control



Drum brake	Continuous braking torque Nm [lb.ft]	Max braking torque Nm [lb.ft]	02	05	08	11	18	25	35	50
200*40	780[575]	1300[959]	•							
200*60	1650[1217]	2750[2028]	•							
250*60	3000[2213]	5000[3688]		•						
270*60	3600[2655]	6000[4425]			•					
315*80	7200[5310]	12000[8851]			•	•				
350*60	6600[4868]	11000[8113]					•			
432*102	16200[11948]	27000[19914]					•	•	•	•



# BM Motor Output Type

- Double-row conical bearings are used to bear high radial and high axial loads.
- Standard splines and wheel flange structures are available.

## Output Type



Wheel Motor



Spline Shaft Motor

BM		02	03	05	08	11	18	25	35	50	83	125
Wheel Motor		•	•	•	•	•	•	•	•	•	•	•
Spline Shaft Motor		•		•	•	•	•	•	•	•	•	•
Wheel motor, short shaft				•	•	•	•	•	•	•	•	•
Flat key shaft	Gear installation			•	•						•	
Internal thread shaft	For drum brake							•	•	•	•	
Pinion shaft	For slewing drive			•	•	•	•					
	For skid steer loader's double sprocket	•		•								

## BM Motor Distribution

- Alternative oil port type
- Single displacement or double displacement
- Wheel mounting and chassis mounting for choice

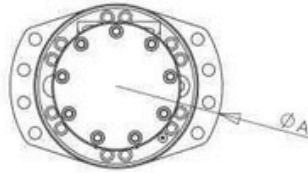
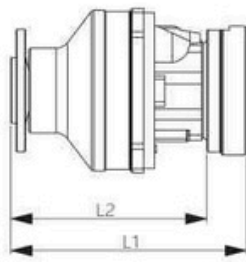


## Distribution Type

BM		02	03	05	08	11	18	25	35	50	83	125
Single displacement		•	•	•	•	•	•	•	•	•	•	•
Double displacement		•		•	•	•	•	•	•	•		
Double displacement symmetrical distribution							•	•	•	•	•	•
Heat exchange	Hot oil shuttle valve	•		•	•	•	•					
Chassis mounting	On the distribution plate	•	•	•	•	•	•	•	•	•		
	No (the chassis mounting position is on the shaft)	•		•	•	•	•	•	•	•	•	•

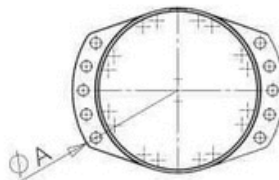
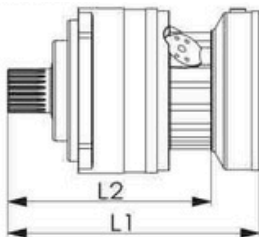
# BM Hydraulic Motor Outline Drawing

## Wheel Motor



BMC	02	05	08	11	18	25	50	83	125
<b>Diameter A mm [in]</b>	238 [9.37]	300 [11.81]	335 [13.19]	375 [14.76]	425 [16.73]	485 [19.09]	485 [19.09]	555.5 [21.87]	555.5 [21.87]
<b>L1 mm [in]</b>	310 [12.2]	335 [13.18]	367 [14.45]	412 [16.22]	476 [18.74]	565 [22.24]	713 [28.07]	797 [31.38]	865 [34.05]
<b>L2 mm [in]</b>	218 [8.58]	280 [11.02]	311 [1.24]	349 [13.74]	395 [15.55]	455 [17.91]	590 [23.23]	665 [26.18]	732 [28.82]
<b>weight kg [lb]</b>	31 [68]	50 [110]	79 [174]	112 [247]	150 [330]	270 [596]	415 [915]	503 [1109]	563 [1241]
<b>L1(HF) mm[in]</b>	255.7 [10.07]	332 [13.07]	295 [11.61]						
<b>L2(HF) mm[in]</b>	318.2 [12.53]	400.5 [15.77]	383.2 [15.09]						
<b>weight kg [lb]</b>	32 [70]	60 [132]	79 [174]						

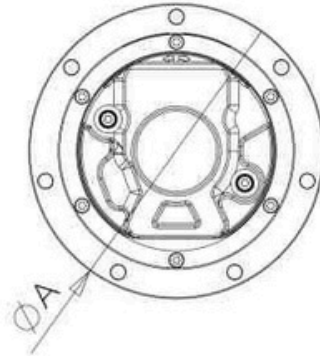
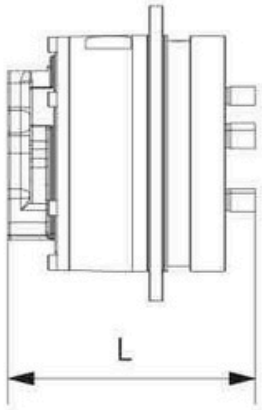
## Spline Shaft Motor



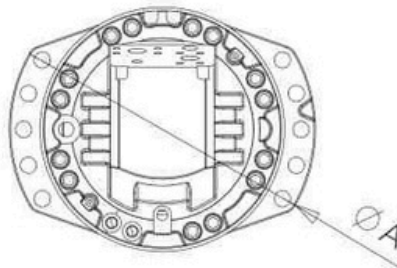
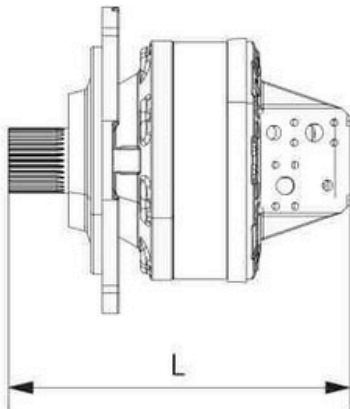
BMC	02	05	08	11	18	25	50	83	125
<b>Diameter A mm [in]</b>	238 [9.37]	300 [11.81]	335 [13.19]	375 [14.76]	425 [16.73]	485 [19.09]	395 [15.55]	565 [22.24]	565 [22.24]
<b>L1 mm [in]</b>	310 [12.2]	366 [14.41]	392 [15.43]	443 [17.4]	517 [20.35]	635 [25]	810 [31.89]	890 [35.04]	957 [37.68]
<b>L2 mm [in]</b>	255 [10.04]	308 [12.13]	336 [13.22]	380 [14.96]	432 [17.00]	525 [20.67]	678 [26.70]	757 [29.80]	825 [32.48]
<b>weight kg [lb]</b>	21 [46.3]	41 [90.4]	62 [136]	88 [194]	112 [247]	195 [430]	265 [584]	410 [904]	470 [1036]
<b>L1(HF) mm[in]</b>	255.7 [10.07]	332 [13.07]	295 [11.61]						
<b>L2(HF) mm[in]</b>	318.2 [12.53]	400.5 [15.77]	383.2 [15.09]						
<b>weight kg [lb]</b>	32 [70]	60 [132]	79 [174]						

# BMC& BMC Hydraulic Motor Outline Drawing

## BMC



## BMP



BMC	04	05	12	18	BMP	11	20	27
<b>Diameter A mm [in]</b>	205 [8.07]	216 [8.50]	327 [12.87]	330 [12.99]	<b>Diameter A mm [in]</b>	377 [14.84]	425 [16.73]	425 [16.73]
<b>L mm [in]</b>	173 [6.81]	175 [6.89]	306 [12.05]	346 [13.62]	<b>L mm [in]</b>	380 [14.97]	567 [22.32]	567 [22.32]
<b>weight kg [lb]</b>	31 [68]	40 [88]	82 [181]	122 [269]	<b>weight kg [lb]</b>	110 [242]	136 [299]	136 [299]



# TWIN ROCK TOOLS



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