



BME2 SERIES HYDRAULIC MOTOR

BME2 series motor adapt the advanced Geroler gear set designed with high speed distribution flow and high pressure, and have good stability in low speed , and can keep high volume efficiency. The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.

Characteristic features:

- * Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.

- * The output shaft adapts in needle roller bearings that permit high axial and radial forces. The case can offers capacities of high pressure and high torque in the wide of applications.

- * Advanced design in high speed distribution flow, which can automatically compensate in operating with high volume efficiency and long life , provide smooth and reliable operation.

- * Lowest leakage rate, most accurate timing methods. Commutator rotates 6x faster than shaft speed. It make the distribution in a high precision reduces life-cycle cost, maintain high volume efficiencies and can run very smoothly at low speed, gear box not required.

Main Specification

Type		BME2 65	BME2 80	BME2 100	BME2 125	BME2 160	BME2 200	BME2 230	BME2 250	BME2 295	BME2 315	BME2 375
Geometric displacement (cm ³ /rev.)		66.8	81.3	101.6	127	157.2	193.6	226	257	287.8	314.5	370
Max. speed (rpm)	cont.	667	543	439	350	283	229	247	216	196	178	152
	int.	842	689	553	441	355	289	328	287	254	235	199
Max. torque (N·m)	cont.	126	157	191	245	307	382	378	381	393	448	439
	int.	176	215	268	335	422	520	528	543	547	587	613
Max. output (kW)	cont.	8.3	8.8	7.9	8.9	8.9	9	9.9	9.3	8.7	8	7.6
	int.	13.9	14.4	13.5	14.1	15.6	15.7	17.9	16.5	15.6	14.3	14
Max. pressure drop (MPa)	cont.	14	14	14	14	14	14	12	11	10	10	9
	int.	19	19	19	19	19	19	165	15.5	14.5	13.5	12.5
	peak	20	20	20	20	20	20	18	18	17	16	16
Max. flow (L/min)	cont.	45	45	45	45	45	45	57	57	57	57	57
	int.	57	57	57	57	57	57	75	75	75	75	75

* Continuous pressure:Max. value of operating motor continuously.

* Intermittent pressure:Max. value of operating motor in 6 seconds per minute.

* Peak pressure:Max. value of operating motor in 0.6 second per minute.

Performance Data

BME2 65 [66.8 cm³/rev.]

Pressure (MPa)

		Max.cont. Max.int.				
		3.5	7	10.5	14	19
Flow (L/min)	2	26 22	54 16	83 4		
	5	27 69	56 62	87 53	118 42	
	10	29 145	60 141	91 132	123 122	171 95
	15	30 221	62 216	94 207	126 196	176 149
	20	28 295	58 290	91 279	122 261	174 232
	25	24 368	55 365	90 352	121 341	172 312
	34	22 501	54 493	89 478	119 457	171 423
	Max.cont. 45	20 667	52 660	85 642	115 621	168 587
	Max.int. 57	15 842	46 835	80 814	112 789	163 735

BME2 80 [81.3 cm³/rev.]

Pressure (MPa)

		Max.cont. Max.int.				
		3.5	7	10.5	14	19
Flow (L/min)	2	33 18	70 14	106 4		
	5	35 55	72 51	111 44	150 25	
	10	36 121	75 118	114 113	155 107	215 88
	15	37 181	77 178	116 171	157 162	215 148
	20	35 242	74 238	112 231	151 223	206 205
	25	35 303	71 298	108 289	148 275	202 261
	34	31 411	69 407	105 396	145 382	198 373
	Max.cont. 45	23 543	62 537	100 521	139 513	12 501
	Max.int. 57	18 689	55 681	98 665	134 649	186 618

BME2 100 [101.6 cm³/rev.]

Pressure (MPa)

		Max.cont. Max.int.				
		3.5	7	10.5	14	19
Flow (L/min)	2	40 15	82 11	126 4		
	5	41 44	83 36	150 28	206 12	
	10	42 97	91 95	138 94	177 81	230 54
	15	42 147	91 144	138 137	185 124	257 93
	20	38 195	88 192	136 182	180 169	244 138
	25	39 244	89 241	142 230	191 221	268 194
	34	31 331	79 328	131 323	179 308	250 273
	Max.cont. 45	21 439	70 436	119 433	168 419	241 383
	Max.int. 57	10 553	60 545	109 534	158 527	232 491

BME2 125 [127 cm³/rev.]

Pressure (MPa)

		Max.cont. Max.int.				
		3.5	7	10.5	14	19
Flow (L/min)	2	52 12	150 9	158 3		
	5	55 35	112 31	170 22	221 15	290 10
	10	57 78	117 75	180 69	242 63	335 46
	15	56 116	118 113	180 109	245 99	331 76
	20	55 155	117 153	178 147	242 136	331 110
	25	52 593	111 188	177 182	238 172	325 151
	34	43 264	105 262	169 254	231 244	326 220
	Max.cont. 45	38 350	95 348	159 346	219 331	314 301
	Max.int. 57	21 441	176 439	141 431	280 417	302 384

Torque (N·m) 158
Speed (rpm) 527

cont.
int.

Performance Data

BME2 160 [157.2 cm³/rev.]

		Pressure (MPa)						
		3.5	7	10.5	14	19	Max.cont.	Max.int.
Flow (L/min)	2	64 10	132 8	199 2				
	5	68 28	138 26	208 19	281 10			
	10	71 62	147 60	221 56	303 53	419 38		
	15	72 93	148 91	225 87	307 79	426 61		
	20	71 126	148 123	223 118	305 110	422 95		
	25	62 157	140 155	218 152	296 141	415 129		
	34	56 214	134 211	211 206	287 197	408 181		
	45	47 283	127 281	205 275	281 266	391 241	Max.cont.	
	57	36 355	97 352	182 346	260 336	370 311	Max.int.	

BME2 200 [193.6 cm³/rev.]

		Pressure (MPa)						
		3.5	7	10.5	14	19	Max.cont.	Max.int.
Flow (L/min)	2	80 9	163 7	245 3				
	5	88 23	178 21	266 18	352 12			
	10	89 49	181 48	275 43	378 39	517 27		
	15	91 76	188 73	280 68	382 63	520 44		
	20	89 101	182 98	275 95	374 86	517 69		
	25	78 127	170 125	271 121	376 113	518 101		
	34	64 173	158 171	268 165	363 156	502 143		
	45	51 229	157 227	252 221	351 212	494 196	Max.cont.	
	57	36 289	138 286	231 279	330 271	469 256	Max.int.	

BME2 230 [226 cm³/rev.]

		Pressure (MPa)						
		3.5	7	10.5	12	16.5	Max.cont.	Max.int.
Flow (L/min)	2	97 7	191 4	280 2				
	5	101 18	199 14	301 8	348 4			
	10	103 43	214 42	325 40	378 36	527 29		
	15	104 65	215 63	327 59	375 52	528 47		
	20	101 86	210 84	321 81	371 75	524 66		
	25	95 108	201 106	316 102	364 94	511 87		
	34	82 147	188 145	308 141	358 135	501 128		
	45	55 197	158 195	276 191	329 186	485 176		
	57	19 247	130 244	256 240	301 230	451 221	Max.cont.	
	75		65 328	183 323	250 311	401 303	Max.int.	

BME2 250 [257 cm³/rev.]

		Pressure (MPa)						
		3.5	7	10.5	11	15.5	Max.cont.	Max.int.
Flow (L/min)	2	112 6	207 3	309 1				
	5	115 18	218 14	320 8	348 4			
	10	113 39	235 38	358 35	379 31	543 23		
	15	113 58	234 56	357 53	381 45	542 3		
	20	111 77	233 75	356 72	376 65	541 48		
	25	109 97	228 95	354 89	371 81	532 69		
	34	91 131	213 128	346 123	364 116	521 103		
	45	89 174	211 172	345 165	361 157	518 135		
	57	73 216	208 213	339 205	342 197	487 184	Max.cont.	
	75		74 287	198 284	301 278	441 267	Max.int.	

Torque (N·m) 250
Speed (rpm) 311

cont.
int.

Performance Data

BME2 295[287.8 cm³/rev.]

Pressure (MPa)

Max.int.

3.5	7	11	14.5
-----	---	----	------

Flow (L/min)	5	121 15	243 14	368 10	509 5
	10	125 33	253 31	381 27	529 20
	15	129 51	261 50	393 47	547 41
	20	127 68	259 67	390 63	545 55
	25	126 86	255 84	386 80	539 69
	34	123 116	248 114	380 110	531 98
	45	115 154	234 153	368 148	522 136
	Max.cont.	108 196	227 194	359 187	514 176
	Max.int.	75	211 254	349 246	506 231

Torque (N·m) 506
Speed (rpm) 231

BME2 315[314.5 cm³/rev.]

Pressure (MPa)

Max.int.

3.5	7	11	13.5
-----	---	----	------

Flow (L/min)	5	136 11	281 8	427 3	
	10	139 30	287 29	438 26	574 20
	15	141 47	295 46	448 43	587 40
	20	138 62	287 61	442 58	587 53
	25	131 78	280 75	431 71	567 66
	34	117 106	269 104	423 98	557 91
	45	114 141	253 138	397 132	535 125
	Max.cont.	86 178	219 173	383 168	505 162
	Max.int.	75	108 235	287 231	416 219

BME2 375[370 cm³/rev.]

Pressure (MPa)

Max.int.

3.5	7	9	12.5
-----	---	---	------

Flow (L/min)	5	151 10	315 7	412 3	
	10	155 25	324 24	427 21	606 18
	15	162 40	331 39	439 37	613 32
	20	158 53	326 52	434 49	602 45
	25	151 67	316 65	424 62	589 58
	34	141 91	309 89	417 85	580 80
	45	138 121	300 119	408 115	572 107
	Max.cont.	118 152	281 150	393 144	550 136
	Max.int.	75	258 199	369 191	518 183

cont.
int.

BME2 DIMENSIONS AND MOUNTING DATA

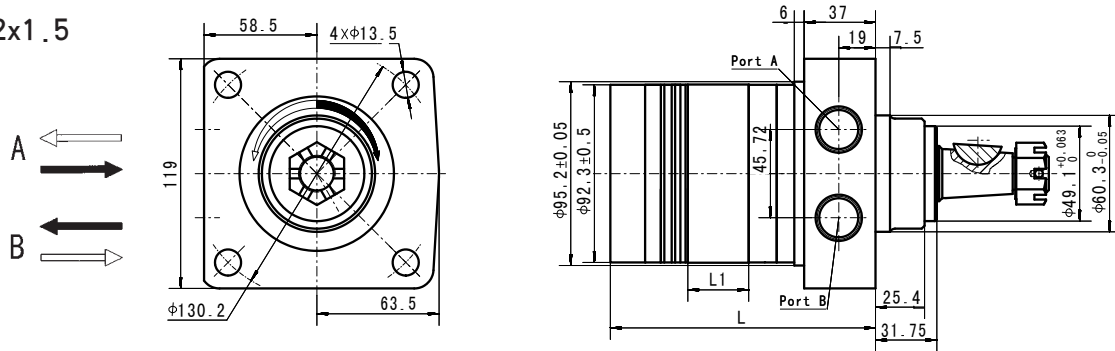
Wheel Mount

Code: Port A、B

WS 7/8-14 O-ring

WD G1/2

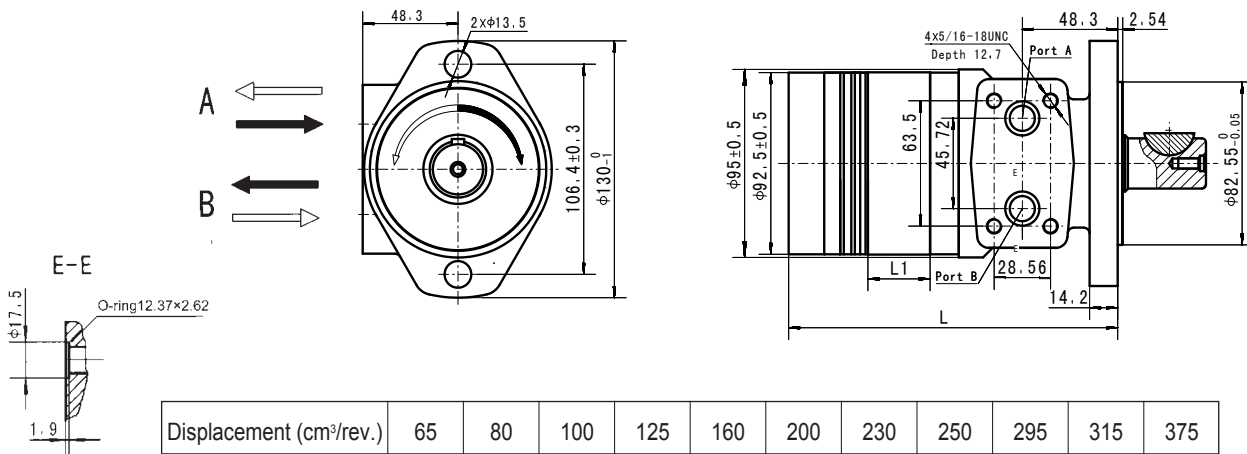
WM M22x1.5



Displacement (cm ³ /rev.)	65	80	100	125	160	200	230	250	295	315	375
L1(mm)	13	16	20	25	30.5	38.1	44	50	56	62	74
L(mm)	119	122	126	131	136.5	144	150	156	162	168	180
Weight(kg)	7.4	7.5	7.8	8	8.3	8.7	9.2	9.6	10	10.3	10.8

Code:HM Manifold

A、B Port Ø12.7



Displacement (cm ³ /rev.)	65	80	100	125	160	200	230	250	295	315	375
L1(mm)	13	16	20	25	30.5	38.1	44	50	56	62	74
L(mm)	149	152	156	161	166.5	174	180	186	192	198	210
Weight(kg)	6.4	6.5	6.8	7	7.3	7.7	8.2	8.6	9	9.3	9.8

BME2 DIMENSIONS AND MOUNTING DATA

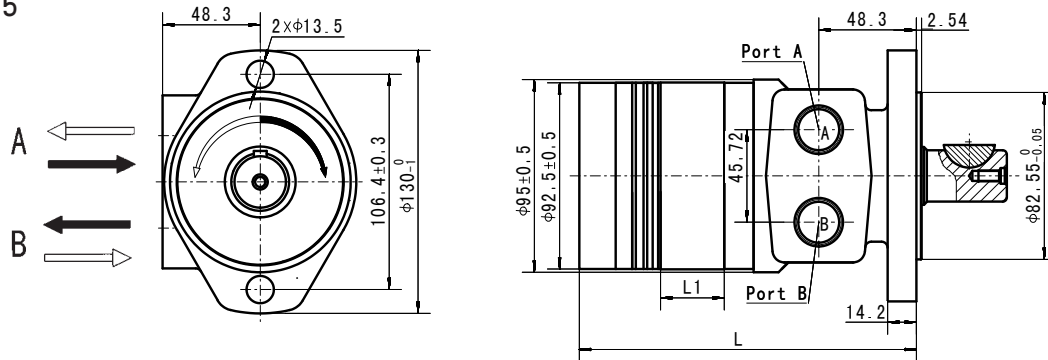
Code: Port A、B

HS 7/8-14UNF

HP 1/2-14NPTF

HD G1/2

HG M22x1.5



Displacement (cm ³ /rev.)	65	80	100	125	160	200	230	250	295	315	375
L1(mm)	13	16	20	25	30.5	38.1	44	50	56	62	74
L(mm)	149	152	156	161	166.5	174	180	186	192	198	210
Weight(kg)	6.4	6.5	6.8	7	7.3	7.7	8.2	8.6	9	9.3	9.8

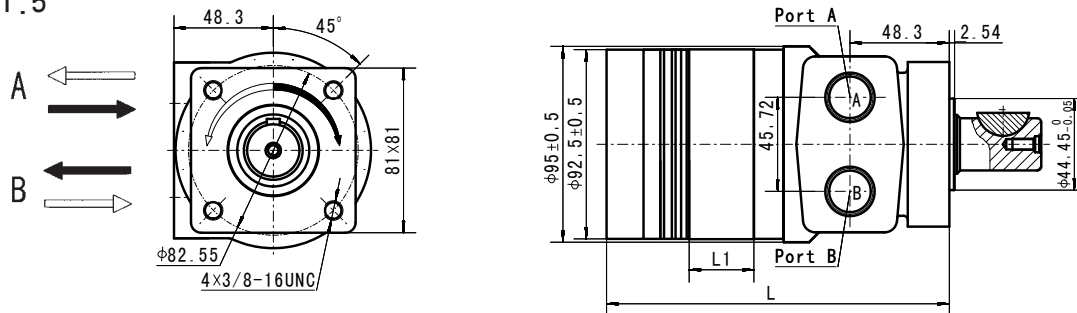
Code: Port A、B

H4S 7/8-14UNF

H4P 1/2-14NPTF

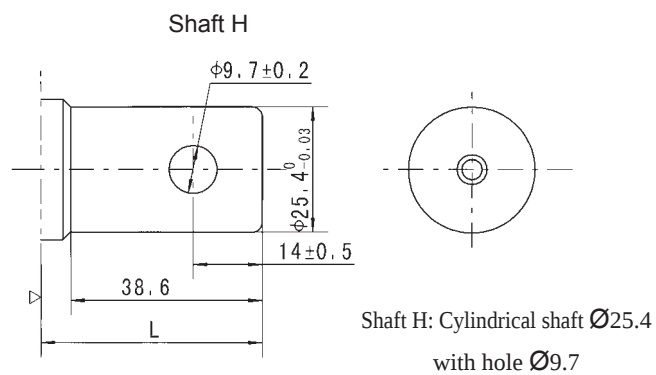
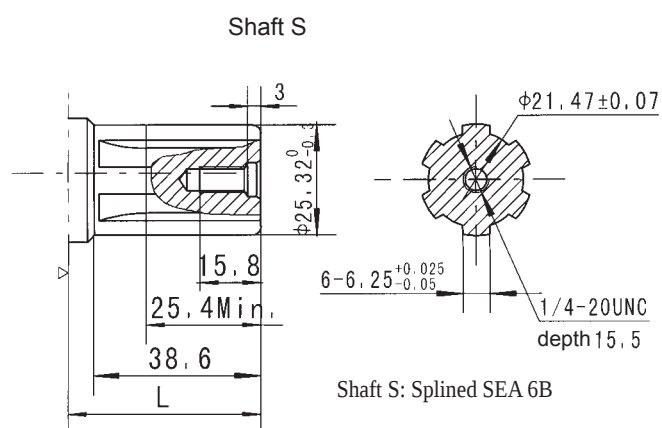
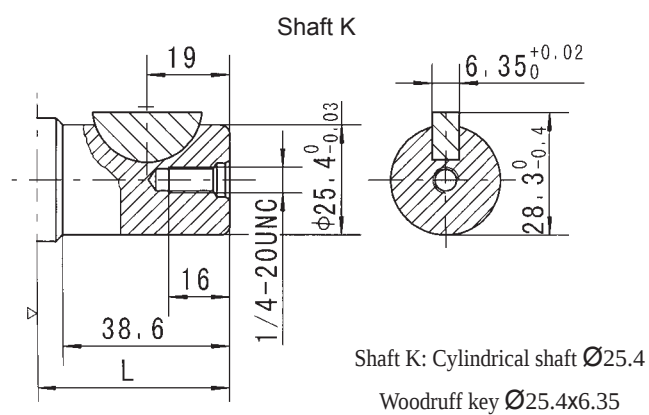
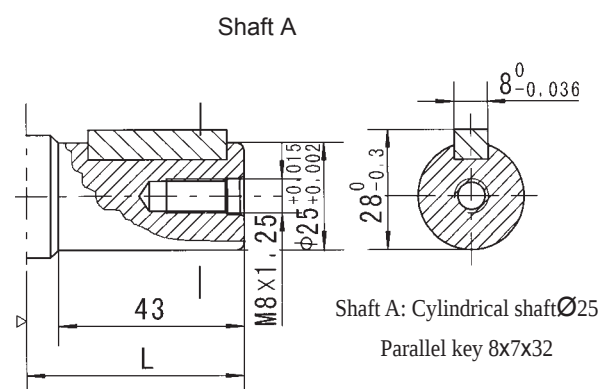
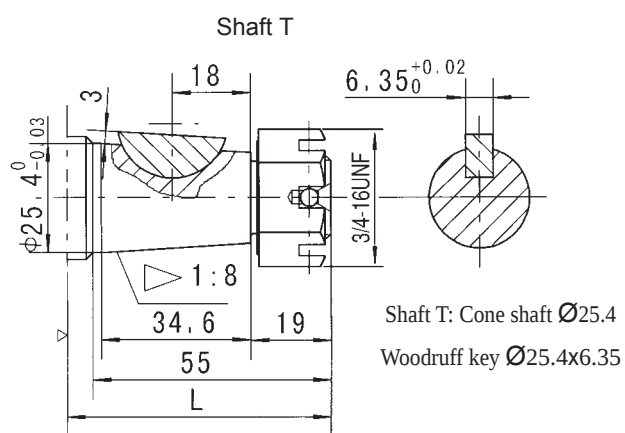
H4D G1/2

H4G M22x1.5



Displacement (cm ³ /rev.)	65	80	100	125	160	200	230	250	295	315	375
L1(mm)	13	16	20	25	30.5	38.1	44	50	56	62	74
L(mm)	149	152	156	161	166.5	174	180	186	192	198	210
Weight(kg)	6.4	6.5	6.8	7	7.3	7.7	8.2	8.6	9	9.3	9.8

BME2 SHAFT EXTENSIONS DIMENSIONS DATA



Dimension L

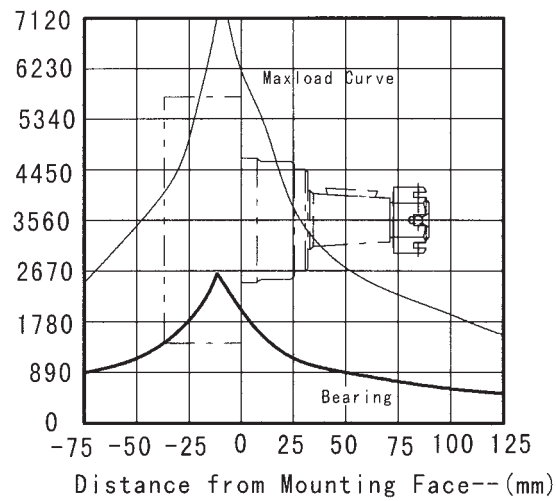
Shaft Mounting	T	A	K	S	H
WS	90.2	78.2	73.9	73.9	73.9
HS/HP					
H4S/H4P	61	49	44.7	44.7	44.7
HM					

▷ Motor Mounting Surface

Permissible Shaft Loads

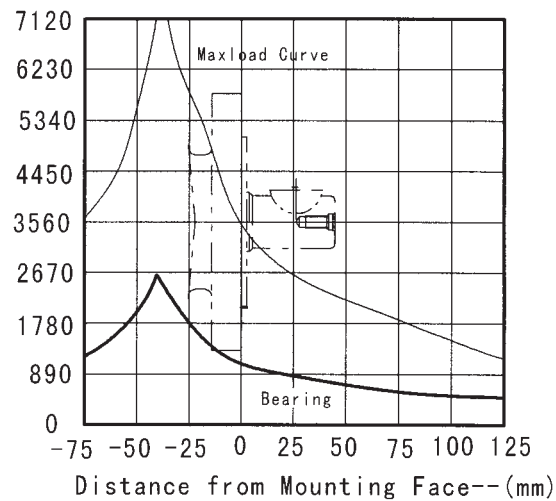
BME2 for Wheel Mounting

Side Load-(daN)



BME2 for Other Mounting

Side Load-(daN)



The bearing curve represents allowable bearing loads for an L_{10} bearing life at 3×10^6 revolutions. The maximum load curve is defined by bearing static load capacity. This curve should not be exceeded at any time including shock loads.

Order Information

1	2	3	4	5	6	7
BME2						

Pos.1	2	3	4	5	6	7
Code	Disp.	Flange,Pilot, Ports	Output Shaft	Rotation Direction	Paint	Unusually Function
Omit		WS 4-Ø13.5 Wheel - flange,Pilot Ø60.3×7 Port 7/8-14 O-ring	T Cone-Shaft Ø25.4, Woodruff key Ø25.4×6.35 A Cylindrical Shaft Ø25, Parallel key 8×7×32 K Cylindrical Shaft Ø25.4, Woodruff key Ø25.4×6.35 S Shaft Ø25.4, Splined key SAE 6B H Cylindrical Shaft Ø25.4, Pin Hole Ø9.7	Omit Standard R Opposite	00 Omit B S No paint Blue Black Silver grey	Omit Standard
		WD 4-Ø13.5 Wheel -flange,Pilot Ø60.3×7 Port G1/2				
		WM 4-Ø13.5 Wheel -flange,Pilot Ø60.3×7 Port M22×1.5				
	65	HM 2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port 1/2" Manifold mount 4×5/8-18				
	80	HS 2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port 7/8-14 O-ring				
	100	HP 2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port 1/2-14 NPFT Pipe				
	125	HD 2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port G1/2				
	160	HG 2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port M22×1.5				
	200	H4S 4-3/8-16 Square- flange,Pilot Ø44.4×2.54 Port 7/8-14 O-ring				
	230	H4P 4-3/8-16 Square- flange,Pilot Ø44.4×2.54 Port 1/2-14 NPFT Pipe				
	250	H4D 4-3/8-16 Square- flange,Pilot Ø44.4×2.54 Port G1/2				
	295	H4G 4-3/8-16 Square- flange,Pilot Ø44.4×2.54 Port M22×1.5				
	315					
	375					

Note:When the table is used, please fill the code of left rows in the table and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports. If the specification is not in the table or you have specific requirements, please contract us.