



# MR Series Hydraulic Motor

The MR series motor adapts the advanced Geroler gear set design with shaft distribution flow, which can automatically compensate when operating at high pressure, providing reliable and smooth operation, high efficiency and long life.



HYDRA PART	MOTOR SERIES	CAPACITY	FLANGE TYPE	SHAFT TYPE	PORT
X	X	X	X	X	X

CODE SYSTEMS

### Characteristic features:

- \*Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth, reliable operation and high efficiency.
- \*Shaft seal can bear high pressure of back and the motor can be used in parallel or in series.
- \*Special design in the driver-linker and prolong operating life
- \*Special design for distribution system can meet the requirement of low noise of unit.
- \*Compact volume and easy installation

### Main Specification

Technical data for MR with 25 and 1 in and 1 in splined and 28.56 tapered shaft

Type		MR MRS 36	MR MRS 50	MR MRS 80	MR MRS 100	MR MRS 125	MR MRS 160	MR MRS 200	MR MRS 250	MR MRS 315	MR MRS 375
Geometric displacement (cm <sup>3</sup> /rev.)		36	51.7	81.5	102	127.2	157.2	194.5	253.3	317.5	381.4
Max. speed (rpm)	cont.	1085	960	750	600	475	378	310	240	190	155
	int.	1220	1150	940	750	600	475	385	300	240	190
Max. torque (N·m)	cont.	72	100	195	240	300	360	360	390	390	365
	int.	83	126	220	280	340	430	440	490	535	495
	peak	105	165	270	320	370	460	560	640	650	680
Max. output (kW)	cont.	8.5	9.5	12.5	13.0	12.5	12.5	10.0	7.0	6.0	5.0
	int.	9.8	11.2	15.0	15.0	14.5	14.0	13.0	9.5	9.0	8.0
Max. pressure drop (MPa)	cont.	14.0	14	17.5	17.5	17.5	16.5	13	11	9	7
	int.	16.5	17.5	20	20	20	20	17.5	15	13	10
	peak	22.5	22.5	22.5	22.5	22.5	22.5	22.5	20	17.5	15
Max. flow (L/min)	cont.	40	50	60	60	60	60	60	60	60	60
	int.	45	60	75	75	75	75	75	75	75	75
Weight (kg)		6.5	6.7	6.9	7	7.3	7.6	8.0	8.5	9.0	9.5

\* 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.



## Main Specification

Technical data for MR with 31.75 and 32 shaft

Type		MR	MR	MR	MR	MR	MR	MR	MR	MR	MR
		MRS 36	MRS 50	MRS 80	MRS 100	MRS 125	MRS 160	MRS 200	MRS 250	MRS 315	MRS 375
Geometric displacement (cm <sup>3</sup> /rev.)		36	51.7	81.5	102	127.2	157.2	194.5	253.3	317.5	381.4
Max. speed (rpm)	cont.	1250	960	750	600	475	378	310	240	190	155
	int.	1520	1150	940	750	600	475	385	300	240	190
Max. torque (N·m)	cont.	72	100	195	240	300	380	450	540	550	580
	int.	83	126	220	280	340	430	500	610	690	690
	peak	105	165	270	320	370	460	560	710	840	830
Max. output (kW)	cont.	8.5	9.5	12.5	13.0	12.5	12.5	11.0	10.0	9.0	7.5
	int.	9.8	11.2	15.0	15.0	14.5	14.0	13.0	12.0	10.0	9.0
Max. pressure drop (MPa)	cont.	14.0	14	17.5	17.5	17.5	17.5	17.5	17.5	13.5	11.5
	int.	16.5	17.5	20	20	20	20	20	20	17.5	15
	peak	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	21	17.5
Max. flow (L/min)	cont.	45	50	60	60	60	60	60	60	60	60
	int.	55	60	75	75	75	75	75	75	75	75
Weight (kg)		6.5	6.7	6.9	7	7.3	7.6	8.0	8.5	9.0	9.5

\* 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

MR 36 [36cm<sup>3</sup>/rev.]

Pressure (MPa)

		Max.cont. Max.int.								
		2	3	5	7	9	10	12.5	14.0	16.5
Flow (L/min)	4	10	16	25	37	46	50			
		<b>105</b>	<b>100</b>	<b>92</b>	<b>80</b>	<b>71</b>	<b>58</b>			
8		9	15	25	37	47	50	63	71	83
		<b>208</b>	<b>200</b>	<b>188</b>	<b>175</b>	<b>158</b>	<b>149</b>	<b>134</b>	<b>120</b>	<b>108</b>
15		8	14	23	36	45	51	64	72	82
		<b>403</b>	<b>392</b>	<b>380</b>	<b>365</b>	<b>348</b>	<b>326</b>	<b>318</b>	<b>302</b>	<b>274</b>
20		6	13	22	35	44	50	64	72	82
		<b>540</b>	<b>531</b>	<b>518</b>	<b>500</b>	<b>483</b>	<b>462</b>	<b>450</b>	<b>435</b>	<b>412</b>
30		6	12	21	32	42	47	63	70	80
		<b>810</b>	<b>798</b>	<b>780</b>	<b>763</b>	<b>742</b>	<b>722</b>	<b>705</b>	<b>694</b>	<b>668</b>
Max.cont. 40		5	11	19	30	41	45	61	68	79
		<b>1092</b>	<b>1080</b>	<b>1069</b>	<b>1056</b>	<b>1042</b>	<b>1028</b>	<b>1011</b>	<b>984</b>	<b>957</b>
Max.int. 45		4	10	17	29	40	44	59	66	77
		<b>1230</b>	<b>1215</b>	<b>1194</b>	<b>1170</b>	<b>1150</b>	<b>1128</b>	<b>1100</b>	<b>1070</b>	<b>1020</b>

MR 50 [51.7cm<sup>3</sup>/rev.]

Pressure (MPa)

		Max.cont. Max.int.								
		5	7	9	10	12	14	16	17.5	
Flow (L/min)	5	35	45	61	67	77	88			
		<b>93</b>	<b>84</b>	<b>76</b>	<b>73</b>	<b>69</b>	<b>46</b>			
10		36	46	62	69	80	95	108	120	
		<b>186</b>	<b>178</b>	<b>166</b>	<b>162</b>	<b>153</b>	<b>136</b>	<b>118</b>	<b>97</b>	
15		35	49	63	73	88	100	109	123	
		<b>283</b>	<b>277</b>	<b>269</b>	<b>261</b>	<b>250</b>	<b>230</b>	<b>211</b>	<b>185</b>	
20		34.5	47	61	69	83	96	109	126	
		<b>377</b>	<b>375</b>	<b>365</b>	<b>361</b>	<b>346</b>	<b>330</b>	<b>302</b>	<b>270</b>	
30		33	44	60	67	80	95	108	126	
		<b>576</b>	<b>569</b>	<b>561</b>	<b>554</b>	<b>542</b>	<b>531</b>	<b>500</b>	<b>465</b>	
40		30	41	58	66	79	92	106	122	
		<b>760</b>	<b>758</b>	<b>753</b>	<b>750</b>	<b>738</b>	<b>724</b>	<b>700</b>	<b>670</b>	
Max.cont. 45		29.5	40	57	65	78	90	105	121	
		<b>856</b>	<b>853</b>	<b>849</b>	<b>845</b>	<b>835</b>	<b>815</b>	<b>796</b>	<b>770</b>	
Max.int. 50		26	37	53	60	73	85	99	114	
		<b>950</b>	<b>940</b>	<b>925</b>	<b>906</b>	<b>880</b>	<b>852</b>	<b>832</b>	<b>801</b>	
Max.int. 60		20	33	48	56	69	81	95	109	
		<b>1138</b>	<b>1124</b>	<b>1100</b>	<b>1075</b>	<b>1056</b>	<b>1028</b>	<b>1006</b>	<b>970</b>	

MR 80 [81.5cm<sup>3</sup>/rev.]

Pressure (MPa)

		Max.cont. Max.int.								
		5	7	9	10	12	14	16	17.5	20
Flow (L/min)	5	50	64	88	108	133				
		<b>59</b>	<b>56</b>	<b>50</b>	<b>44</b>	<b>38</b>				
10		54	77	99	108	129	150	173		
		<b>118</b>	<b>113</b>	<b>106</b>	<b>97</b>	<b>86</b>	<b>79</b>	<b>56</b>		
20		57	78.0	102	111	134	155	177	196	225
		<b>238</b>	<b>234</b>	<b>227</b>	<b>216</b>	<b>203</b>	<b>190</b>	<b>178</b>	<b>154</b>	<b>135</b>
30		54	75	100	108	131	152	176	195	223
		<b>360</b>	<b>352</b>	<b>340</b>	<b>332</b>	<b>316</b>	<b>302</b>	<b>290</b>	<b>274</b>	<b>250</b>
40		48	73	96	105	127	148	172	190	220
		<b>480</b>	<b>470</b>	<b>458</b>	<b>445</b>	<b>430</b>	<b>418</b>	<b>403</b>	<b>388</b>	<b>359</b>
50		42	70	93	102	124	147	170	188	218
		<b>604</b>	<b>595</b>	<b>582</b>	<b>570</b>	<b>556</b>	<b>540</b>	<b>521</b>	<b>504</b>	<b>487</b>
Max.cont. 60		37	66	89	98	121	144	166	184	213
		<b>726</b>	<b>715</b>	<b>704</b>	<b>692</b>	<b>678</b>	<b>663</b>	<b>647</b>	<b>622</b>	<b>594</b>
70		32	60	83	95	116	140	160	177	208
		<b>845</b>	<b>834</b>	<b>820</b>	<b>802</b>	<b>789</b>	<b>767</b>	<b>754</b>	<b>730</b>	<b>705</b>
Max.int. 75		21	50	78	90	111	135	154	171	200
		<b>910</b>	<b>895</b>	<b>881</b>	<b>867</b>	<b>852</b>	<b>830</b>	<b>806</b>	<b>787</b>	<b>756</b>

MR 100 [102cm<sup>3</sup>/rev.]

Pressure (MPa)

		Max.cont. Max.int.								
		5	7	9	10	12	14	16	17.5	20
Flow (L/min)	5	66	92	120	135	156				
		<b>45</b>	<b>42</b>	<b>38</b>	<b>34</b>	<b>27</b>				
10		68	96	125	138	159	188	212		
		<b>93</b>	<b>90</b>	<b>86</b>	<b>81</b>	<b>74</b>	<b>57</b>	<b>42</b>		
20		65	94.0	123	137	155	186	210	238	274
		<b>189</b>	<b>185</b>	<b>180</b>	<b>173</b>	<b>165</b>	<b>158</b>	<b>150</b>	<b>139</b>	<b>118</b>
30		63	92	120	133	153	185	209	235	270
		<b>286</b>	<b>281</b>	<b>275</b>	<b>266</b>	<b>257</b>	<b>246</b>	<b>237</b>	<b>225</b>	<b>207</b>
40		57	88	117	130	152	185	208	233	267
		<b>385</b>	<b>378</b>	<b>365</b>	<b>355</b>	<b>345</b>	<b>332</b>	<b>320</b>	<b>314</b>	<b>297</b>
50		48	79	110	123	150	183	204	228	260
		<b>482</b>	<b>477</b>	<b>470</b>	<b>460</b>	<b>448</b>	<b>435</b>	<b>420</b>	<b>405</b>	<b>389</b>
Max.cont. 60		38	70	105	120	144	178	200	220	252
		<b>580</b>	<b>572</b>	<b>560</b>	<b>548</b>	<b>535</b>	<b>523</b>	<b>510</b>	<b>500</b>	<b>478</b>
70		32	65	100	118	141	176	197	215	246
		<b>678</b>	<b>670</b>	<b>660</b>	<b>648</b>	<b>638</b>	<b>626</b>	<b>615</b>	<b>606</b>	<b>580</b>
Max.int. 75		23	59	93	111	136	170	192	210	240
		<b>728</b>	<b>720</b>	<b>710</b>	<b>695</b>	<b>681</b>	<b>667</b>	<b>650</b>	<b>634</b>	<b>618</b>

Torque (N·m) 135  
Speed (rpm) 830

□ cont.  
■ int.



## Performance Data

MR 125 [127.2cm<sup>3</sup>/rev.]

Pressure (MPa)

		Max.cont.					Max.int.			
		5	7	9	10	12	14	16	17.5	20

Flow (L/min)	Pressure (MPa)									
	5	7	9	10	12	14	16	17.5	20	
5	76 <b>36</b>	110 <b>31</b>	145 <b>25</b>	167 <b>19</b>	189 <b>13</b>					
10	84 <b>73</b>	118 <b>70</b>	155 <b>60</b>	176 <b>48</b>	202 <b>36</b>	228 <b>25</b>	253 <b>19</b>			
20	82 <b>153</b>	117 <b>151</b>	153 <b>148</b>	174 <b>144</b>	200 <b>138</b>	230 <b>128</b>	259 <b>117</b>	294 <b>104</b>	332 <b>73</b>	
30	79 <b>231</b>	116 <b>228</b>	151 <b>224</b>	171 <b>218</b>	198 <b>210</b>	228 <b>201</b>	257 <b>183</b>	292 <b>168</b>	329 <b>137</b>	
40	72 <b>309</b>	114 <b>307</b>	148 <b>303</b>	168 <b>298</b>	196 <b>292</b>	226 <b>280</b>	256 <b>270</b>	290 <b>252</b>	327 <b>218</b>	
50	62 <b>389</b>	105 <b>386</b>	143 <b>382</b>	165 <b>378</b>	195 <b>370</b>	223 <b>360</b>	254 <b>344</b>	287 <b>328</b>	323 <b>292</b>	
Max.cont. 60	52 <b>467</b>	98 <b>463</b>	136 <b>459</b>	160 <b>456</b>	191 <b>448</b>	220 <b>427</b>	250 <b>410</b>	282 <b>399</b>	319 <b>352</b>	
70	41 <b>545</b>	90 <b>542</b>	130 <b>538</b>	156 <b>534</b>	187 <b>529</b>	215 <b>520</b>	242 <b>508</b>	278 <b>486</b>	313 <b>430</b>	
Max.int. 75	32 <b>586</b>	79 <b>583</b>	126 <b>578</b>	148 <b>570</b>	180 <b>560</b>	208 <b>546</b>	234 <b>532</b>	262 <b>520</b>	300 <b>480</b>	

MR 160 [157.2cm<sup>3</sup>/rev.]

Pressure (MPa)

		Max.cont.					Max.int.			
		5	7	9	10	12	14	16	17.5	20

Flow (L/min)	Pressure (MPa)									
	5	7	9	10	12	14	16	17.5	20	
5	104 <b>26</b>	146 <b>23</b>	190 <b>20</b>	210 <b>16</b>	245 <b>10</b>					
10	107 <b>59</b>	150 <b>56</b>	195 <b>50</b>	216 <b>45</b>	250 <b>37</b>	290 <b>30</b>	335 <b>22</b>			
20	102 <b>121</b>	151 <b>118</b>	198 <b>115</b>	220 <b>113</b>	257 <b>108</b>	298 <b>102</b>	342 <b>97</b>	370 <b>90</b>	420 <b>78</b>	
30	97 <b>184</b>	146 <b>178</b>	190 <b>173</b>	217 <b>170</b>	256 <b>164</b>	295 <b>155</b>	340 <b>143</b>	368 <b>128</b>	416 <b>103</b>	
40	89 <b>246</b>	140 <b>241</b>	185 <b>235</b>	210 <b>228</b>	252 <b>220</b>	290 <b>210</b>	335 <b>194</b>	363 <b>177</b>	412 <b>150</b>	
50	72 <b>310</b>	128 <b>307</b>	179 <b>300</b>	202 <b>295</b>	244 <b>287</b>	284 <b>278</b>	327 <b>262</b>	358 <b>247</b>	409 <b>210</b>	
Max.cont. 60	60 <b>374</b>	116 <b>367</b>	170 <b>359</b>	198 <b>354</b>	240 <b>346</b>	279 <b>338</b>	321 <b>323</b>	352 <b>306</b>	400 <b>265</b>	
70	49 <b>437</b>	107 <b>430</b>	164 <b>421</b>	193 <b>415</b>	233 <b>403</b>	271 <b>393</b>	309 <b>381</b>	344 <b>365</b>	390 <b>318</b>	
Max.int. 75	36 <b>472</b>	98 <b>463</b>	152 <b>450</b>	185 <b>441</b>	226 <b>431</b>	265 <b>420</b>	300 <b>405</b>	334 <b>389</b>	379 <b>365</b>	

MR 200 [194.5cm<sup>3</sup>/rev.]

Pressure (MPa)

		Max.cont.					Max.int.			
		5	7	9	10	12	14	16	17.5	20

Flow (L/min)	Pressure (MPa)									
	5	7	9	10	12	14	16	17.5	20	
5	132 <b>24</b>	181 <b>22</b>	238 <b>18</b>	262 <b>13</b>	310 <b>10</b>					
10	135 <b>49</b>	186 <b>47</b>	240 <b>45</b>	264 <b>43</b>	315 <b>38</b>	356 <b>33</b>	403 <b>24</b>			
20	131 <b>99</b>	183 <b>97</b>	238 <b>94</b>	260 <b>92</b>	314 <b>88</b>	358 <b>83</b>	404 <b>74</b>	438 <b>64</b>	498 <b>56</b>	
30	126 <b>149</b>	178 <b>147</b>	233 <b>144</b>	254 <b>141</b>	311 <b>135</b>	355 <b>126</b>	402 <b>113</b>	431 <b>105</b>	486 <b>91</b>	
40	112 <b>200</b>	169 <b>197</b>	228 <b>194</b>	250 <b>191</b>	307 <b>185</b>	352 <b>174</b>	400 <b>160</b>	426 <b>151</b>	477 <b>127</b>	
50	95 <b>252</b>	156 <b>249</b>	221 <b>246</b>	246 <b>243</b>	300 <b>238</b>	350 <b>228</b>	398 <b>212</b>	421 <b>194</b>	470 <b>161</b>	
Max.cont. 60	78 <b>304</b>	145 <b>301</b>	213 <b>298</b>	238 <b>294</b>	289 <b>286</b>	342 <b>276</b>	386 <b>262</b>	412 <b>243</b>	459 <b>218</b>	
70	67 <b>355</b>	135 <b>353</b>	206 <b>349</b>	228 <b>340</b>	277 <b>329</b>	336 <b>316</b>	375 <b>300</b>	408 <b>288</b>	453 <b>257</b>	
Max.int. 75	58 <b>382</b>	125 <b>379</b>	197 <b>373</b>	220 <b>362</b>	270 <b>350</b>	321 <b>337</b>	360 <b>322</b>	398 <b>312</b>	442 <b>278</b>	

MR 250 [253.5cm<sup>3</sup>/rev.]

Pressure (MPa)

		Max.cont.					Max.int.			
		5	7	9	10	12	14	16	17.5	20

Flow (L/min)	Pressure (MPa)									
	5	7	9	10	12	14	16	17.5	20	
5	175 <b>17</b>	243 <b>16</b>	304 <b>14</b>	342 <b>12</b>	407 <b>10</b>					
10	178 <b>37</b>	246 <b>35</b>	310 <b>31</b>	344 <b>28</b>	409 <b>23</b>	465 <b>18</b>	525 <b>11</b>			
20	175 <b>75</b>	244 <b>73</b>	308 <b>72</b>	340 <b>70</b>	408 <b>66</b>	463 <b>58</b>	520 <b>53</b>	558 <b>50</b>	636 <b>42</b>	
30	162 <b>114</b>	235 <b>111</b>	304 <b>108</b>	332 <b>106</b>	400 <b>100</b>	455 <b>92</b>	516 <b>83</b>	550 <b>77</b>	621 <b>65</b>	
40	143 <b>154</b>	223 <b>152</b>	300 <b>150</b>	329 <b>147</b>	396 <b>143</b>	447 <b>132</b>	512 <b>120</b>	546 <b>110</b>	617 <b>90</b>	
50	124 <b>193</b>	208 <b>190</b>	289 <b>187</b>	323 <b>174</b>	384 <b>168</b>	440 <b>160</b>	503 <b>149</b>	535 <b>140</b>	600 <b>116</b>	
Max.cont. 60	103 <b>233</b>	192 <b>230</b>	280 <b>227</b>	314 <b>224</b>	371 <b>218</b>	426 <b>205</b>	489 <b>190</b>	514 <b>181</b>	578 <b>155</b>	
70	88 <b>273</b>	178 <b>270</b>	264 <b>267</b>	301 <b>263</b>	356 <b>252</b>	418 <b>242</b>	479 <b>226</b>	498 <b>209</b>	560 <b>173</b>	
Max.int. 75	62 <b>294</b>	165 <b>291</b>	256 <b>287</b>	288 <b>283</b>	347 <b>274</b>	412 <b>263</b>	474 <b>249</b>	486 <b>236</b>	542 <b>211</b>	

□ cont.  
■ int.

Torque (N·m) 256  
Speed (rpm) 287



## Performance Data

MR 315 [317.5cm<sup>3</sup>/rev.]

Pressure (MPa)

	5	7	9	10	12	14	16	17.5

Flow (L/min)	Max.cont.								Max.int.
	5	7	9	10	12	14	16	17.5	
5	215 <b>13</b>	302 <b>11</b>							
10	218 <b>28</b>	305 <b>27</b>	383 <b>25</b>	422 <b>24</b>	488 <b>21</b>	551 <b>18</b>	622 <b>13</b>		
20	215 <b>60</b>	303 <b>59</b>	380 <b>57</b>	418 <b>55</b>	485 <b>52</b>	549 <b>49</b>	620 <b>45</b>	660 <b>42</b>	
30	204 <b>91</b>	296 <b>89</b>	375 <b>86</b>	413 <b>84</b>	480 <b>81</b>	542 <b>78</b>	613 <b>72</b>	654 <b>67</b>	
40	196 <b>122</b>	287 <b>120</b>	368 <b>117</b>	410 <b>112</b>	477 <b>106</b>	539 <b>100</b>	609 <b>94</b>	650 <b>85</b>	
50	176 <b>154</b>	270 <b>151</b>	356 <b>147</b>	393 <b>140</b>	461 <b>131</b>	526 <b>120</b>	597 <b>109</b>	645 <b>100</b>	
60	162 <b>185</b>	246 <b>182</b>	339 <b>177</b>	374 <b>172</b>	446 <b>163</b>	511 <b>152</b>	586 <b>140</b>	628 <b>134</b>	
70	143 <b>217</b>	235 <b>213</b>	324 <b>208</b>	358 <b>201</b>	430 <b>190</b>	493 <b>178</b>	562 <b>166</b>	614 <b>158</b>	
75	125 <b>232</b>	212 <b>228</b>	303 <b>222</b>	339 <b>216</b>	417 <b>208</b>	481 <b>200</b>	543 <b>183</b>	582 <b>171</b>	

Torque (N•m) 481  
Speed (rpm) 200

MR 375 [381.4cm<sup>3</sup>/rev.]

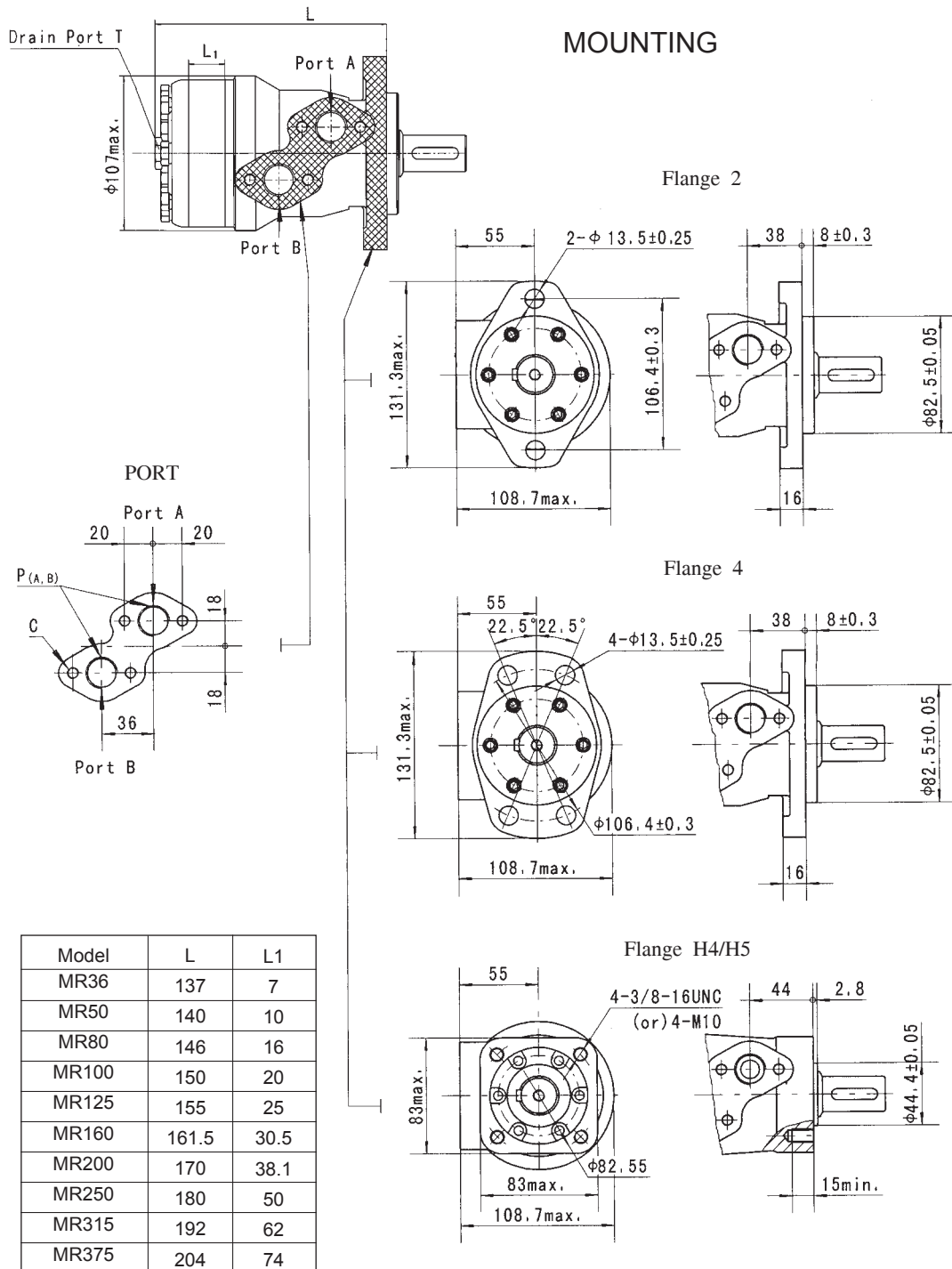
Pressure (MPa)

	3	4.5	5.5	6.5	8	10	12.5	14

Flow (L/min)	Max.cont.								Max.int.
	3	4.5	5.5	6.5	8	10	12.5	14	
5	153 <b>12</b>	232 <b>10</b>							
10	157 <b>24</b>	236 <b>23</b>	284 <b>22</b>	337 <b>21</b>	406 <b>19</b>	497 <b>17</b>	612 <b>15</b>	668 <b>12</b>	
20	150 <b>49</b>	232 <b>48</b>	280 <b>47</b>	332 <b>46</b>	401 <b>44</b>	490 <b>41</b>	606 <b>38</b>	660 <b>32</b>	
30	142 <b>76</b>	215 <b>75</b>	274 <b>74</b>	327 <b>73</b>	398 <b>71</b>	483 <b>67</b>	603 <b>63</b>	652 <b>50</b>	
40	126 <b>103</b>	212 <b>101</b>	268 <b>99</b>	320 <b>97</b>	393 <b>95</b>	477 <b>92</b>	593 <b>88</b>	635 <b>70</b>	
50	105 <b>128</b>	187 <b>126</b>	242 <b>124</b>	302 <b>121</b>	376 <b>118</b>	455 <b>115</b>	583 <b>111</b>	608 <b>96</b>	
60	90 <b>154</b>	167 <b>152</b>	229 <b>150</b>	281 <b>148</b>	362 <b>145</b>	444 <b>138</b>	566 <b>130</b>	600 <b>121</b>	
70	90 <b>180</b>	149 <b>179</b>	200 <b>178</b>	258 <b>176</b>	341 <b>173</b>	425 <b>168</b>	546 <b>160</b>	580 <b>148</b>	
75	56 <b>195</b>	125 <b>194</b>	182 <b>193</b>	241 <b>191</b>	320 <b>189</b>	408 <b>185</b>	524 <b>178</b>	565 <b>170</b>	

cont.  
int.

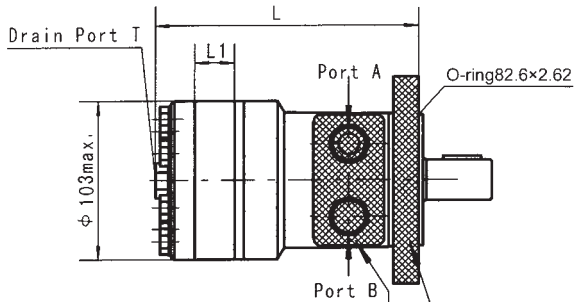
## MR DIMENSIONS AND MOUNTING DATA



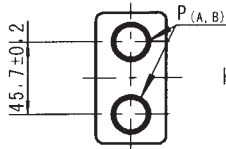
Code	D (depth)	M (depth)	S (depth)	P (depth)	R (depth)
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (17)	1/2-14NPTF (15)	PT(RC)1/2 (15)
C	4-M8 (13)	4-M8 (13)	4-5/16-18UNC(13)	4-5/16-18UNC(13)	4-M8 (13)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)

## MRS DIMENSIONS AND MOUNTING DATA

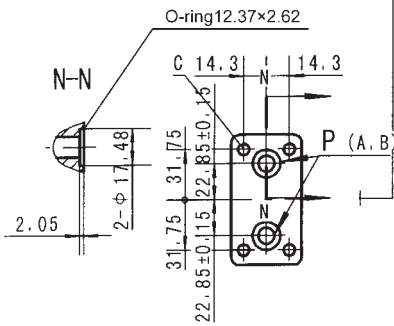
### MOUNTING



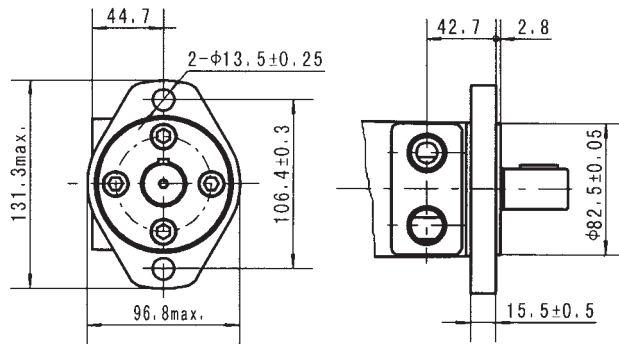
PORT: G, S, P, R, M1, M2, M3



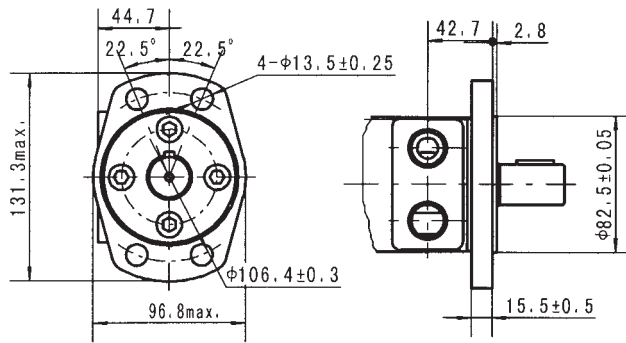
PORT: B4, B5



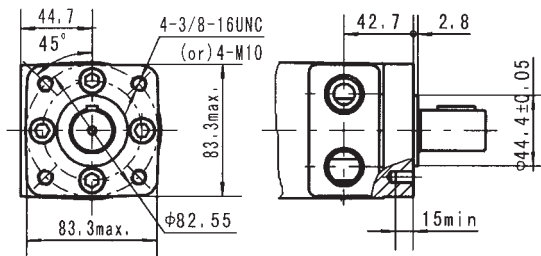
Flange H2



Flange H6



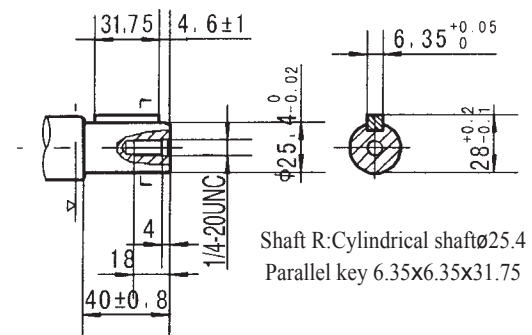
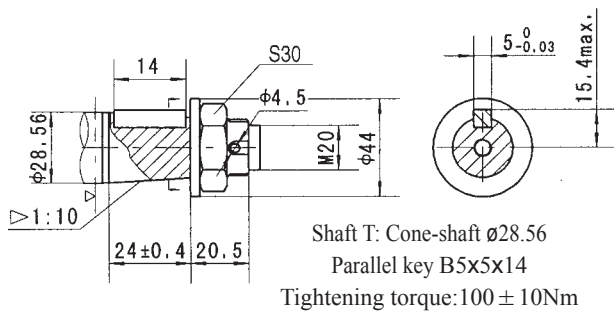
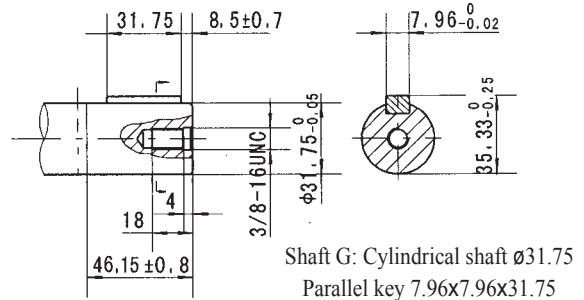
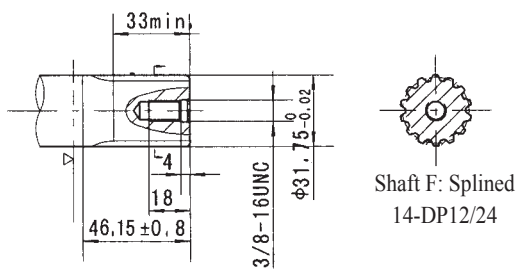
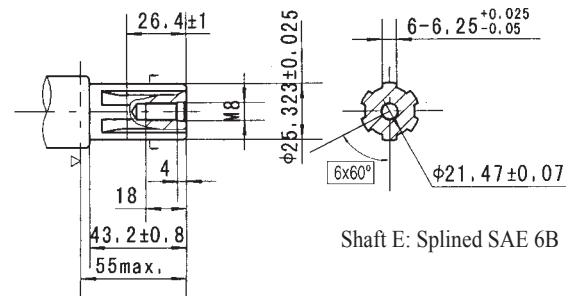
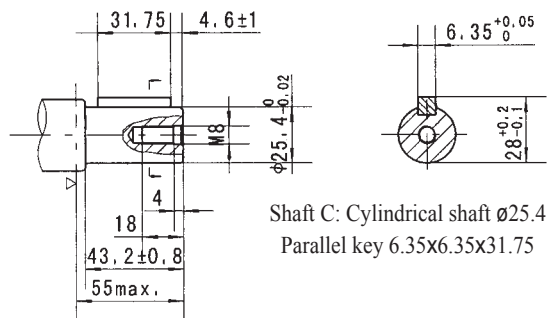
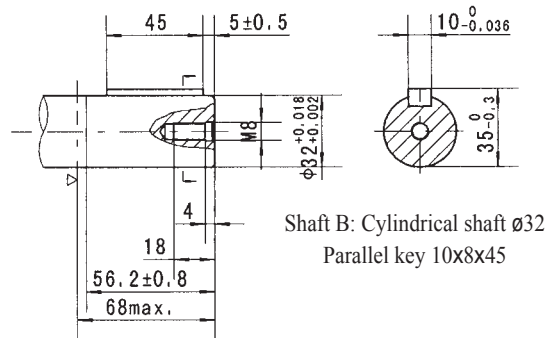
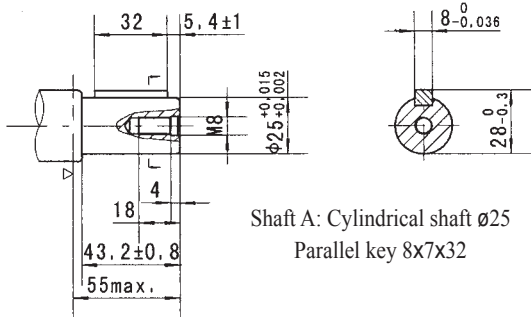
Flange H4/H5



Model	L	L1
MRS36	141	7
MRS50	144	10
MRS80	150	16
MRS100	154	20
MRS125	159	25
MRS160	165.5	30.5
MRS200	174	38.1
MRS250	184	50
MRS315	196	62
MRS375	208	74

Code Mounting	G (depth)	S (depth)	P (depth)	R (depth)	M1 (depth)	M2 (depth)	M3 (depth)	B4 (depth)	B5 (depth)
P(A,B)	G1/2 (15)	7/8-14 O-ring (17)	1/2-14NPTF (15)	PT(RC)1/2 (15)	M18 x 1.5 (15)	M20 x 1.5 (15)	M22 x 1.5 (15)	ø10	ø10
T	G1/4 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)	M10 x 1 (12)	M10 x 1 (12)	M10 x 1 (12)	7/16-20UNF(12)	G1/4(12)
C	-	-	-	-	-	-	-	4-5/16-18UNC(13)	4-M8(13)

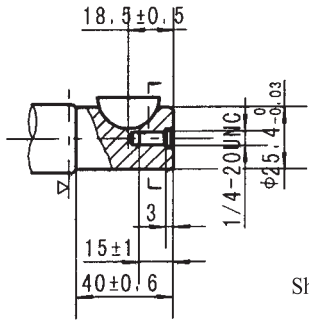
## MR SHAFT EXTENSIONS DIMENSIONS DATA



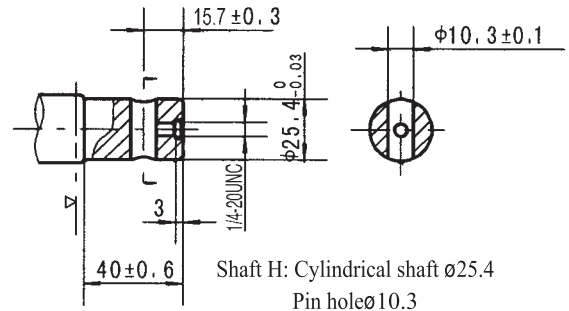




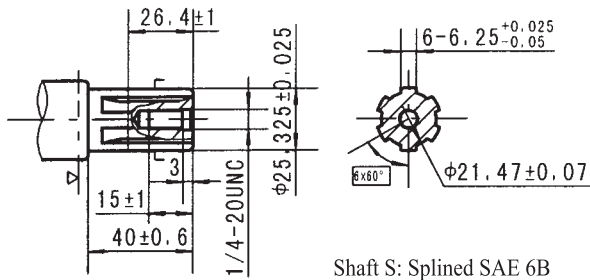
MRS SHAFT EXTENSIONS DIMENSIDNS DATA



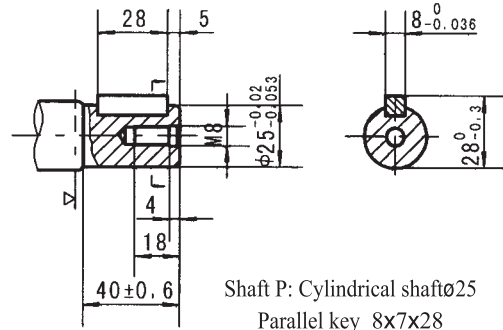
Shaft K: Cylindrical shaft  $\phi 25.4$   
Woodruff key  $\phi 25.4 \times 6.35$



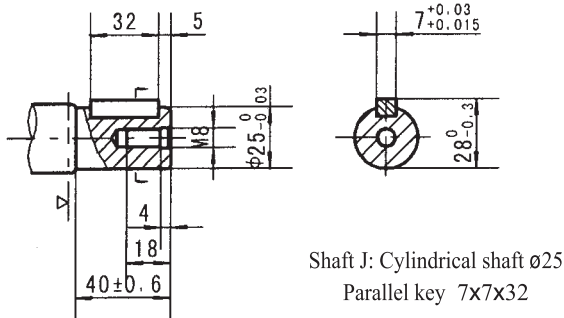
Shaft H: Cylindrical shaft  $\phi 25.4$   
Pin hole  $\phi 10.3$



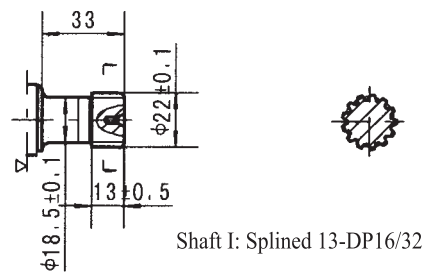
Shaft S: Splined SAE 6B



Shaft P: Cylindrical shaft  $\phi 25$   
Parallel key  $8 \times 7 \times 28$



Shaft J: Cylindrical shaft  $\phi 25$   
Parallel key  $7 \times 7 \times 32$

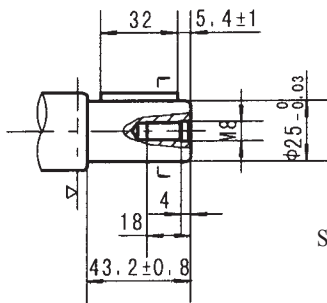


Shaft I: Splined 13-DP16/32

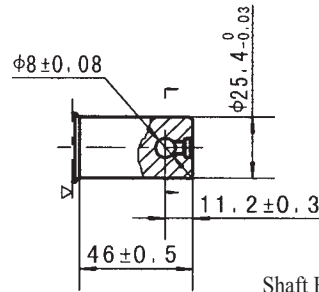
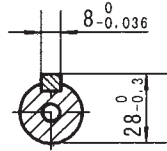
▷ Motor Mounting Surface



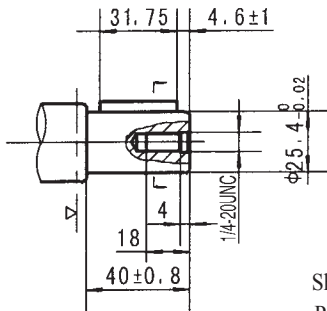
MRS SHAFT EXTENSIONS DIMENSIONS DATA



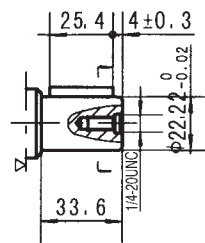
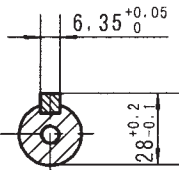
Shaft A: Cylindrical shaft ø25  
Parallel key 8x7x32



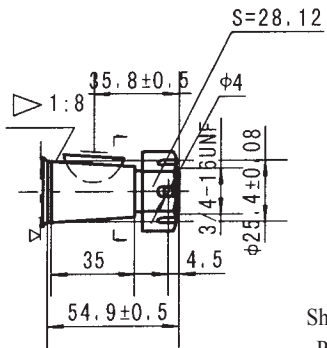
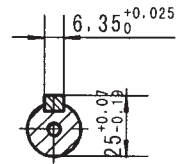
Shaft H1: Cylindrical shaft ø25.4  
Pin hole ø8



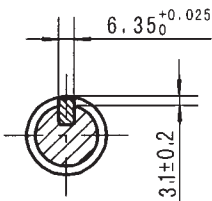
Shaft R: Cylindrical shaft ø25.4  
Parallel key 6.35x6.35x31.75



Shaft D: Cylindrical shaft ø22.22  
Parallel key 6.35x6.35x25.4



Shaft T2: Cone-shaft ø25.4  
Parallel key ø25.4x6.35  
Tightening torque: 200 ± 10Nm

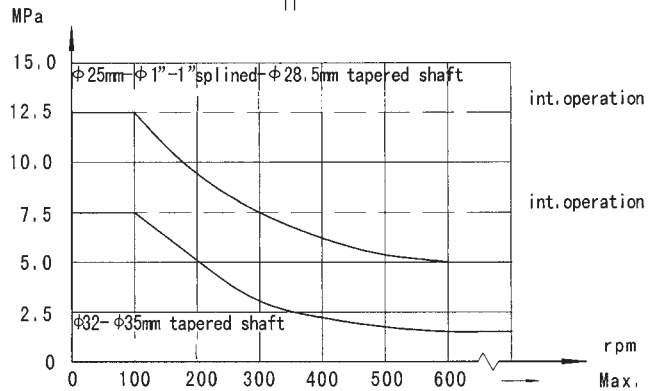
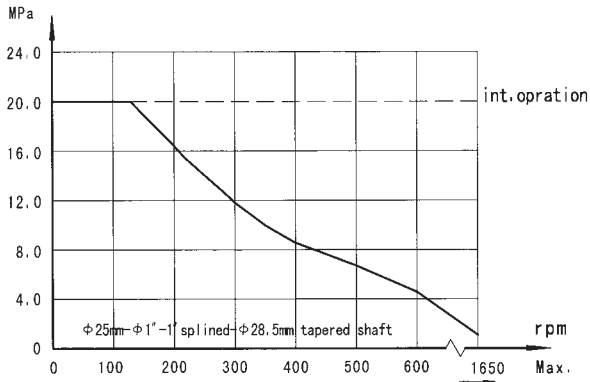
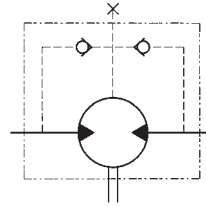


▷ Motor Mounting Surface



MR, MRS Series Hydraulic Motor

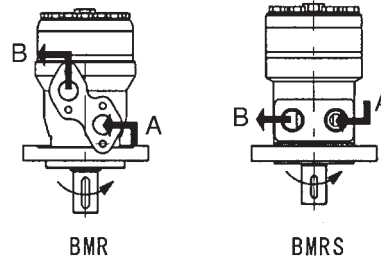
Permissible shaft seal pressure



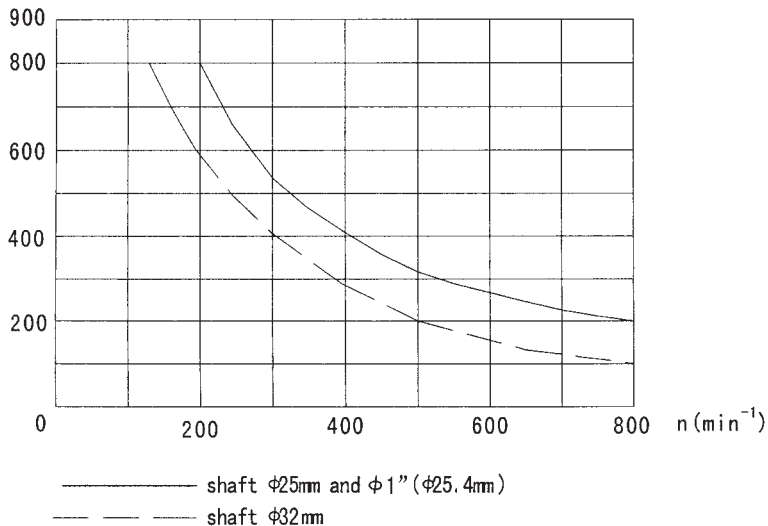
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Direction of shaft rotation: Standard

When facing shaft end of motor, shaft to rotate:  
 Clockwise when port "A" is pressurized.  
 Counter-clockwise port "B" is pressurized.



Status of the shaft's radial force



$$F_r = \frac{800}{n} \cdot \frac{25000}{95+L} \text{ daN}$$

$F_r$  =Radial Force (daN)  
 $L$  =Distance (mm)  
 $n$  =Speed (rpm)  
 Rhomb-flange  $L=30\text{mm}$   
 Square-flange  $L=24\text{mm}$



### Order Information

1  2  3  4  5  6  7  8

MR

Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange	Output Shaft	Port and Drain Port	Rotation Direction	Paint	Unusually Function
MR	36	2-Ø13.5Rhomb-flang pilot Ø82.5 × 8 4-Ø13.5Rhomb-flang pilot Ø82.5 × 8 H4 4-3/8-16 Square-flang pilot Ø44.4 × 2.8 H5 4-M10 Square-flang pilot Ø44.4 × 2.8	A Shaft Ø25,parallel Key 8x7x32	D G1/2 Manifold Mount 4-M8, G1/4	Omit R	No paint Blue Black Silver grey	Omit N Big radial force 0 No case drain F Free Running LS Low Speed
	50		B Shaft Ø32,parallel Key 10x8x45	M M22 × 1.5 Manifold Mount			
	80		C Shaft Ø25.4,parallel Key 6.35x6.35x31.75	S 7/8-14 O-ring manifold			
	100		E Shaft Ø25.4,spined tooth SAE 6B	P 1/2-14 NPTF			
	125		R Short shaft Ø25.4,parallel key 6.35x6.35x31.75	R Manifold 4-5/16-18UNC, 7/16-20UNF			
	160		F Shaft Ø31.75,spined tooth 14-DP12/24	PT(Rc)1/2 Manifold 4-M8, PT(Rc)1/4			
	200		FD Long shaft Ø31.75,spined tooth 14-DP12/24				
	250		G Shaft Ø31.75,parallel Key 7.96x7.96x31.75				
	315		T Cone-Shaft Ø28.56,parallel Key B5x5x14				
	375						

1  2  3  4  5  6  7  8

MRS

Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange	Output Shaft	Port and Drain Port	Rotation Direction	Paint	Unusually Function
MRS	36	2-Ø13.5Rhomb-flang pilot Ø82.5 × 2.8 H2 4-Ø13.5Rhomb-flang pilot Ø82.5 × 2.8 H6 4-3/8-16 Square-flang pilot Ø44.4 × 2.8 H4 4-M10 Square-flang pilot Ø44.4 × 2.8 H5	K Shaft Ø25.4,Woodruff Key Ø25.4 × 6.35	G G1/2, G1/4	Omit R	No paint Blue Black Silver grey	Omit N Big radial force 0 No case drain F Free Running LS Low Speed
	50		S Sub-shaft Ø25.4,spined tooth SAE 6B	S 7/8-14 O-ring 7/16-20UNF (G1/4)			
	80		A Shaft Ø25 , parallel key 8 × 7 × 32	P 1/2-14 NPTF, 7/16-20UNF (G1/4)			
	100		R Shaft Ø25.4, parallel key 6.35 × 6.35 × 31.75	T 3/4-16 O-ring, 7/16-20UNF			
	125		H Sub-shaft Ø25.4,Pin hole Ø10.3	R PT(Rc)1/2, PT(Rc)1/4			
	160		H1 Shaft Ø25.4, pin hole Ø8	B4 Ø10 O-ring manifold			
	200		D Shaft Ø22.22, parallel key 6.35 × 6.35 × 25.4	B5 4x5/16-18, 7/16-20UNF			
	250		I Shaft Ø22.22, spined tooth 13-DP16/32	G1/4			
	315		T2 Cone shaft Ø25.4 , woodruff key Ø25.4 × 6.35	M1 M18 × 1.5, M10 × 1			
	375		P Shaft Ø25,parallel Key 8 × 7 × 28	M2 M20 × 1.5, M10 × 1			
		J Shaft Ø25,parallel Key 7 × 7 × 32	M3 M22 × 1.5, M10 × 1				

Note:When the table is used, please fill the code of left rows in dash area 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 contact us.