OMR SERIES HYDRAULIC MOTOR

OMR series motor adapt the advanced Geroler gear set design with shaft distribution flow, which can automatically compensate in operating with high pressure, provide reliable and smooth operation, high efficiency and long life.

Characteristic features:

*Advanced manufacturing devices for the Gerolor 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 OMR with 25 and 1 in and 1 in splined and 28.56 tapered shaft

Type		OMR OMRS 36	OMR OMRS 50	OMR OMRS 80	OMR OMRS 100	OMR OMRS 125	OMR OMRS 160	OMR OMRS 200	OMR OMRS 250	OMR OMRS 315	OMR OMRS 375
Geometric displacement (cm^3/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 OMR with 31.75 and 32 shaft

Type		OMR OMRS 36	OMR OMRS 50	OMR OMRS 80	OMR OMRS 100	OMR OMRS 125	OMR OMRS 160	OMR OMRS 200	OMR OMRS 250	OMR OMRS 315	OMR OMRS 375
Geometric displacement (cm^3/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

OMR 36 [36cm³/rev.]

Pressure (MPa)

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

OMR 50 [51.7cm³/rev.]

Pressure (MPa)

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

OMR 80 [81.5cm³/rev.]

Pressure (MPa)

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

Torque (N•m) 135
Speed (rpm) **830**

OMR 100 [102cm³/rev.]

Pressure (MPa)

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

cont.
int.

Performance Data

OMR 125 [127.2cm³/rev.]

Pressure (MPa)

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

OMR 160 [157.2cm³/rev.]

Pressure (MPa)

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

OMR 200 [194.5cm³/rev.]

Pressure (MPa)

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

OMR 250 [253.5cm³/rev.]

Pressure (MPa)

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

Torque (N•m) 256
Speed (rpm) **287**

cont.

int.

Performance Data

OMR 315 [317.5cm³/rev.]

Pressure (MPa)

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

Torque (N•m) 481
Speed (rpm) **200**

OMR 375 [381.4cm³/rev.]

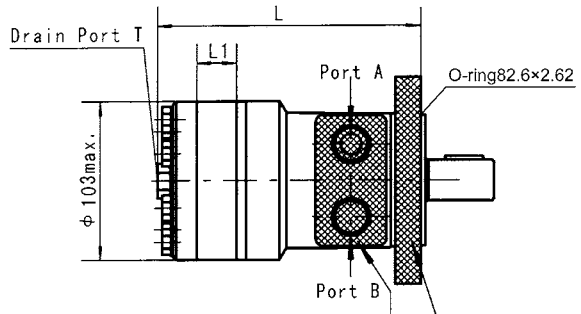
Pressure (MPa)

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

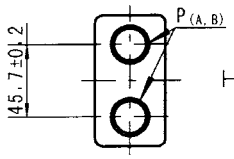
cont.
int.

OMRS DIMENSIONS AND MOUNTING DATA

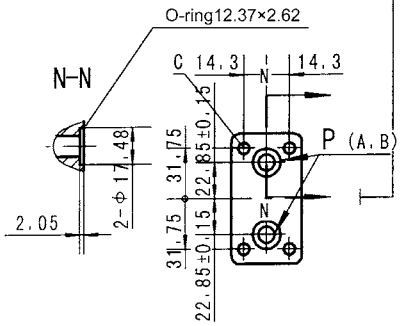
MOUNTING



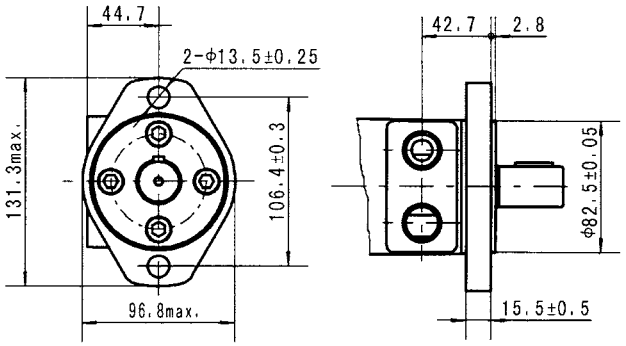
PORT: G、S、P、R、M1、M2、M3



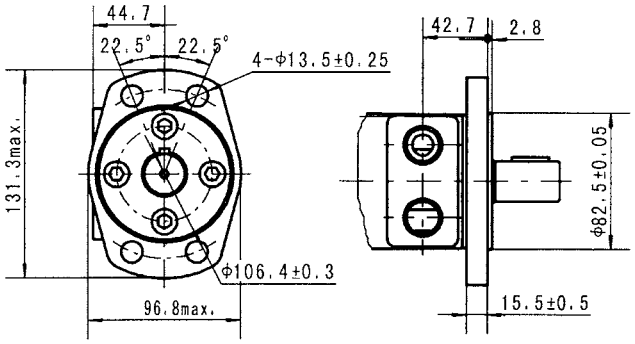
PORT: B4、B5



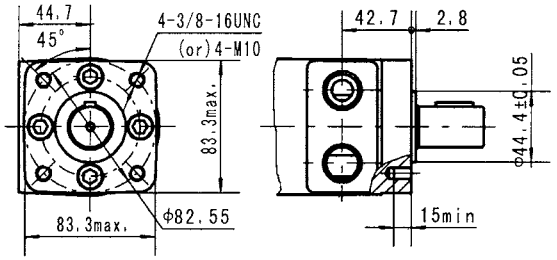
Flange H2



Flange H6



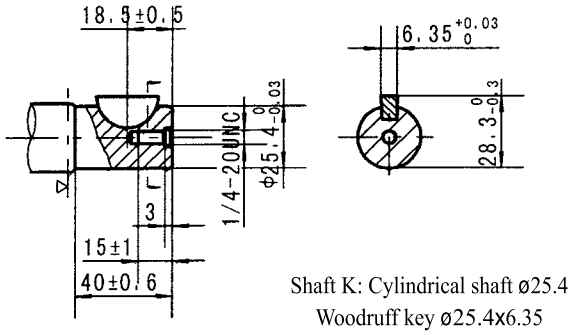
Flange H4/H5



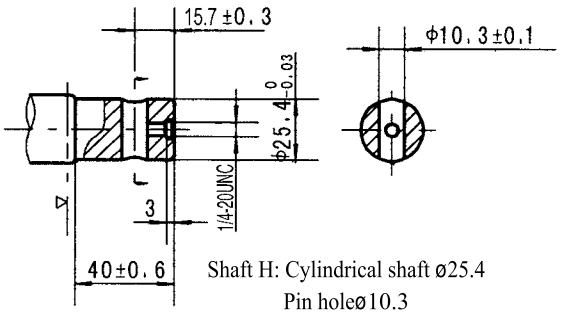
Model	L	L1
OMRS36	141	7
OMRS50	144	10
OMRS80	150	16
OMRS100	154	20
OMRS125	159	25
OMRS160	165.5	30.5
OMRS200	174	38.1
OMRS250	184	50
OMRS315	196	62
OMRS375	208	74

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)

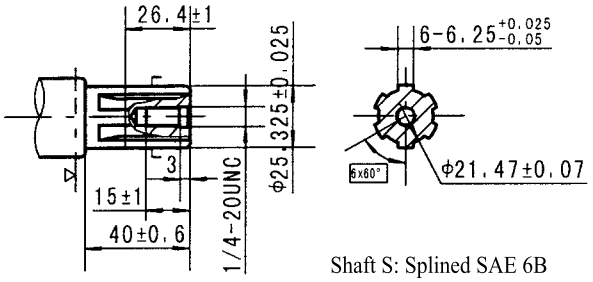
BMRS SHAFT EXTENSIONS DIMENSIDNS DATA



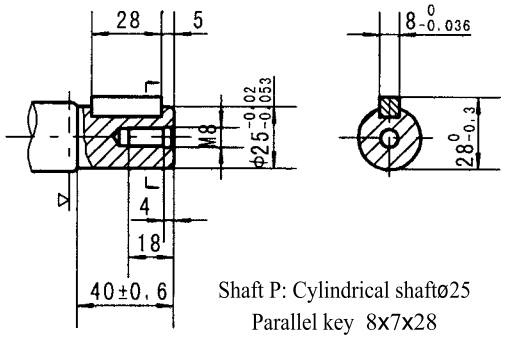
Shaft K: Cylindrical shaft ø25.4
Woodruff key ø25.4x6.35



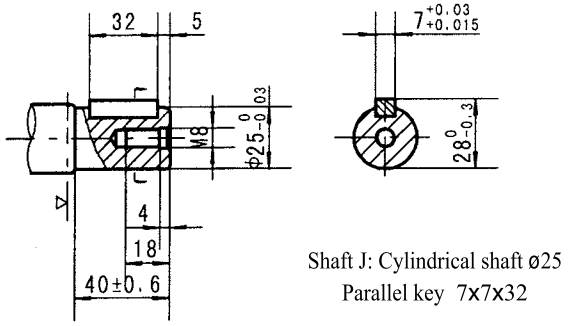
Shaft H: Cylindrical shaft ø25.4
Pin holeø10.3



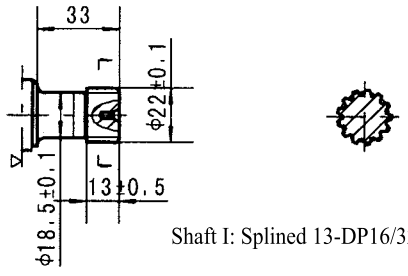
Shaft S: Splined SAE 6B



Shaft P: Cylindrical shaftø25
Parallel key 8x7x28



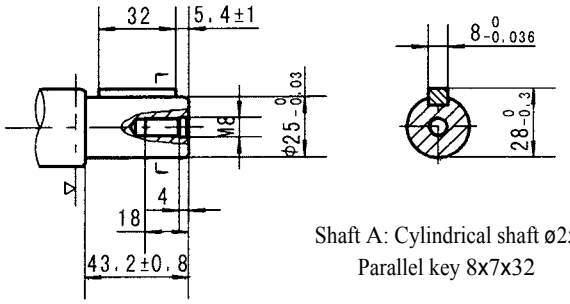
Shaft J: Cylindrical shaft ø25
Parallel key 7x7x32



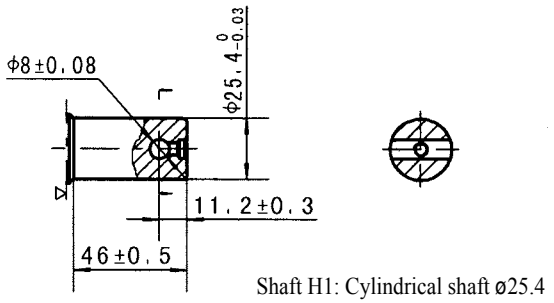
Shaft I: Splined 13-DP16/32

▷ Motor Mounting Surface

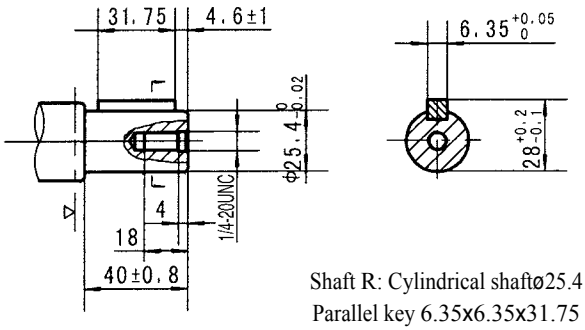
OMRS SHAFT EXTENSIONS DIMENSIONS DATA



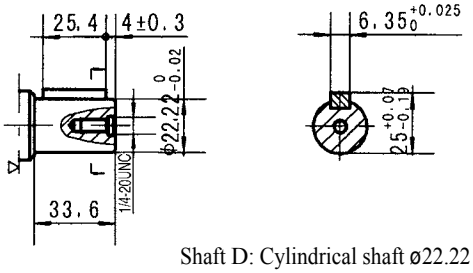
Shaft A: Cylindrical shaft ø25
Parallel key 8x7x32



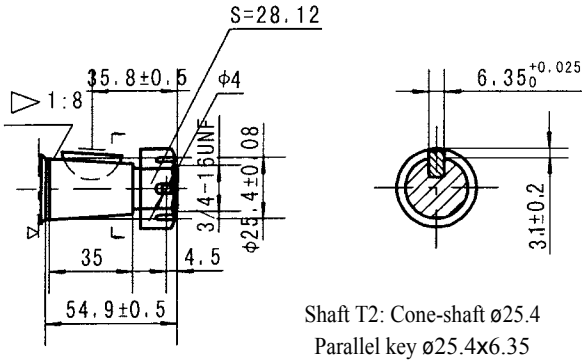
Shaft H1: Cylindrical shaft ø25.4
Pin hole ø8



Shaft R: Cylindrical shaftø25.4
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