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# Orbit Motors

## Technical Catalogue





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## OTMM Orbit Hydraulic Motor With Spool Valve

### INTRODUCTION



This series of motor, with its shell made of ductile cast iron of adequate intensity, can be applied to situations with less load and interval operation, widely to agriculture, forestry, plastics, machine tools and minmachines etc.

### CHARACTERISTICS

1. With the axial oil distribution structure, it is of smaller, high efficiency and long life.
2. Shaft seal can bear high pressure of motor of which can be used in parallel or in series.

### TECHNICAL DATA

Type		OTMM-8	OTMM-12.5	OTMM-20	OTMM-32	OTMM-40	OTMM-50
Displacement.(ml/r)		8.2	12.9	19.9	31.6	39.8	50.3
Max.Pressure. Drop (Mpa)	cont.	10	10	10	10	9	7
	int.	14	14	14	14	14	14
	peak.	20	20	20	16	16	16
Max.torque (Nm)	cont.	11	16	25	40	45	46
	int.	15	23	35	57	70	88
	peak.	21	33	51	64	82	100
Speed.Range(cont.)(r/min)		1950	1550	1005	630	500	395
Max.Flow(cont.)(L/min)		16	20	20	20	20	20
Max.Output.Power(cont.)		1.8	2.4	2.4	2.4	2.2	1.8
Weight(Kg)		1.9	2	2.1	2.2	2.3	2.4

Intermittent operation the permissible values may occur for max.10% of every minute,  
 Peak load:the permissible values may occur for max.1% of every minute.

## OTMM Orbit Hydraulic Motor With Spool Valve

**PERFORMANCE DATA**

OTMM 8(8.2ml/r)

		Pressure(Mpa)					
		3.5	5	7	10	12	14
Flow(L/min)	2	3	5	8	10	12	14
	4	3	5	7	11	13	15
	8	3	5	7	11	13	15
	12	2	5	7	10	13	15
	16		4	7	10	12	14
	20			6	10	11	14
Max.cont.							
Max.int.							
		228	218	206	156	111	58
		474	471	463	426	391	331
		953	946	926	884	855	816
		1444	1426	1402	1360	1324	1288
			1912	1900	1861	1833	1780
				2395	2350	2328	2281

OTMM12.5(12.9ml/r)

		Pressure(Mpa)					
		3.5	5	7	10	12	14
Flow(L/min)	2	6	8	11	15	19	
	4	6	8	12	16	19	23
	8	5	8	12	16	20	24
	12	5	8	11	16	20	24
	15	5	7	11	16	19	23
	20	3	7	10	15	19	22
Max.cont.							
Max.int.							
		140	136	119	68	35	
		296	289	274	229	200	145
		605	596	583	543	514	469
		912	905	895	859	834	784
		1152	1144	1136	1102	1078	1036
		1542	1532	1521	1500	1482	1437
		2	6	9	14	18	22
		1910	1891	1878	1848	1828	1788

OTMM 20(19.9ml/r)

		Pressure(Mpa)						
		1.7	3.5	5	7	10	12	14
Flow(L/min)	2	4	9	14	19	24	30	
	4	4	9	14	19	24	31	36
	8	4	9	13	19	25	31	36
	12	3	8	13	18	25	31	37
	15	3	8	12	17	25	30	36
	20	1	6	11	19	24	29	35
Max.cont.								
Max.int.								
		99	96	89	74	42	21	
		197	191	182	178	134	112	74
		398	395	391	377	340	319	288
		596	594	588	579	545	523	493
		745	741	738	728	695	684	660
		998	995	991	985	962	916	885
			4	9	14	23	28	33
			1247	1245	1242	1189	1180	1176

OTMM 32(31.6ml/r)

		Pressure(Mpa)						
		2	3.5	5	7	10	12	14
Flow(L/min)	2	7	15	21	28	39		
	4	7	15	21	29	40	48	57
	8	7	15	21	29	40	49	58
	12	6	13	20	28	40	48	58
	15	4	12	18	27	39	47	57
	20	3	10	17	25	37	46	55
Max.cont.								
Max.int.								
		61	57	52	47	39	16	
		126	121	114	106	82	67	49
		250	244	239	231	207	194	167
		378	374	369	362	338	322	297
		474	472	468	462	441	429	406
		631	630	627	619	601	585	566
		1	8	15	23	35	43	52
		791	789	787	783	766	753	732

OTMM 40(39.8ml/r)

		Pressure(Mpa)					
		3	5	7	9	10	12
Flow(L/min)	2	16	27	36	44	51	
	4	16	27	37	45	52	62
	8	15	26	36	45	52	63
	12	14	25	35	43	51	62
	15	13	24	34	42	50	62
	20	10	21	31	39	48	59
Max.cont.							
Max.int.							
		45	40	34	28	17	
		96	93	85	79	65	52
		197	195	182	176	166	154
		293	287	282	277	268	257
		371	365	360	355	347	338
		497	492	487	480	472	463
		7	19	29	37	44	56
		622	617	612	607	600	591

OTMM50(50.3ml/r)

		Pressure(Mpa)				
		1.5	3	5	7	10
Flow(L/min)	2	9	18	32	45	
	4	9	19	33	46	64
	8	9	19	33	46	64
	12	9	18	32	46	63
	15	8	17	31	42	62
	20	6	13	27	40	59
Max.cont.						
Max.int.						
		37	33	27	22	
		76	73	68	63	55
		157	154	149	145	137
		237	234	231	226	218
		296	295	294	288	282
		395	395	393	390	381
		4	11	25	37	58
		497	496	494	490	484

( Torque ) : 44Nm  
 ( Speed ) : 600r/min

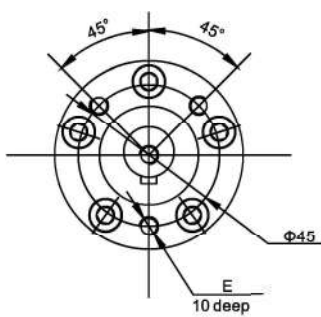
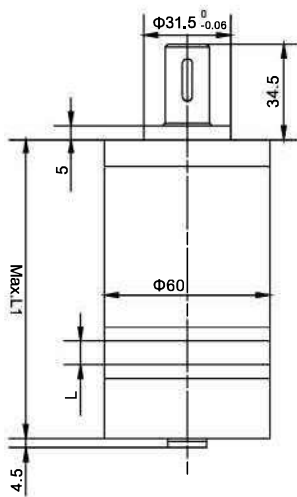
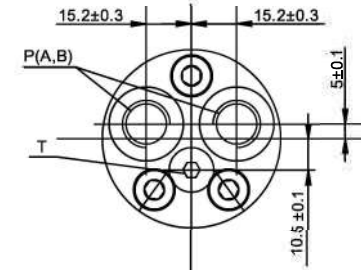
□ Cont.  
 ■ Int.



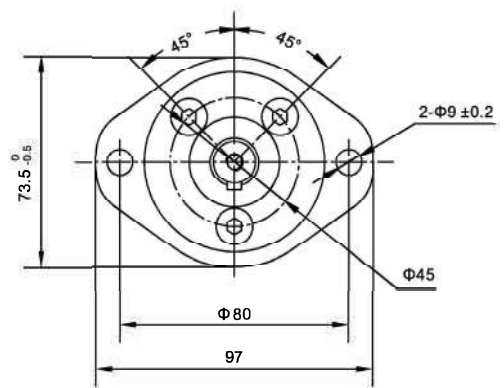
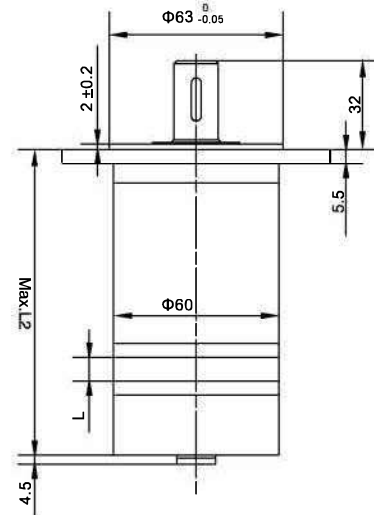
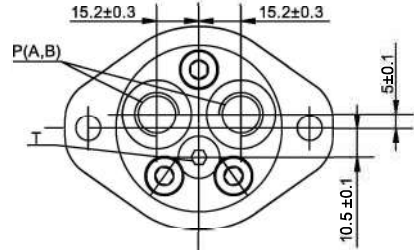
**OTMM Installation**

Y\* ( End port Y\* )

Flange C,C1

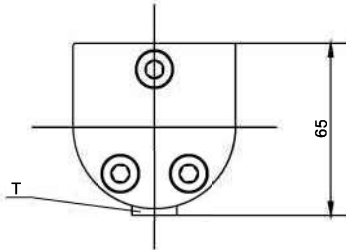
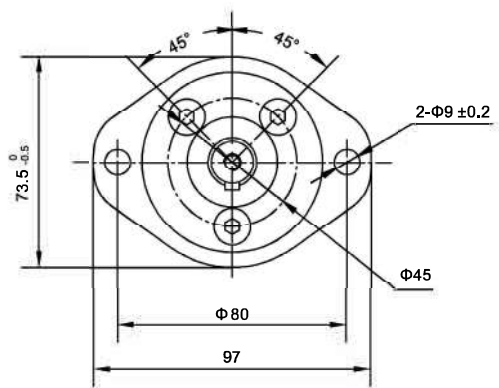
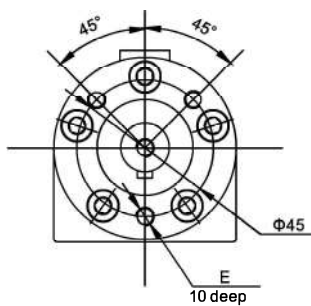
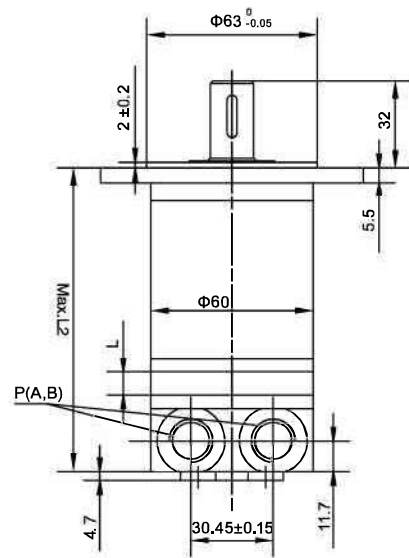
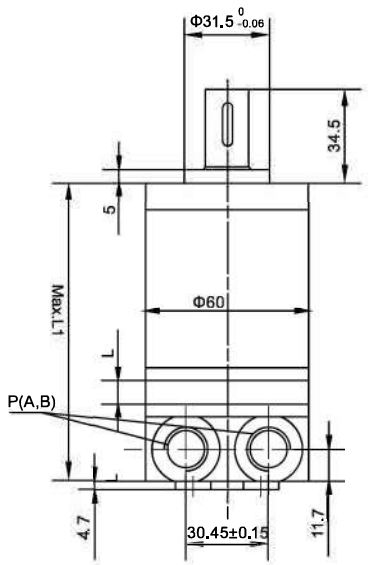
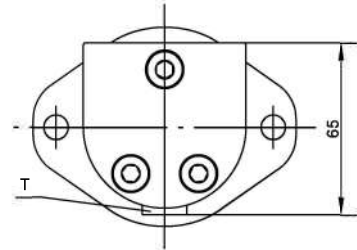


All 2-hole oval flange All



Flange	E
C	3-M6
C1	3-1/4-28UNF

Type	OTMM-8	OTMM-12.5	OTMM-20	OTMM-32	OTMM-40	OTMM-50
L	3.5	5.5	8.5	13.5	17	21.5
L1	104.5	106.5	109.5	114.5	118	122.5
L2	107	109	112	117	120.5	125

**OTMM Installation**
**S\* ( Side port S\* )**
**Flange C,C1**

**All 2-hole oval flange All**


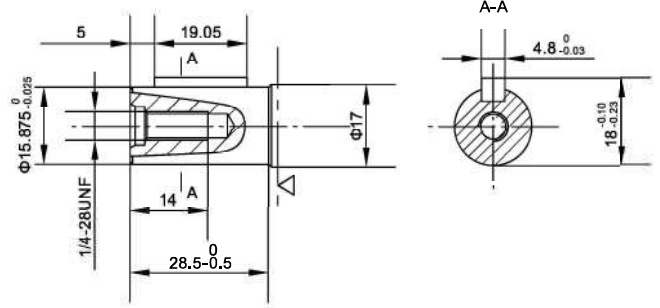
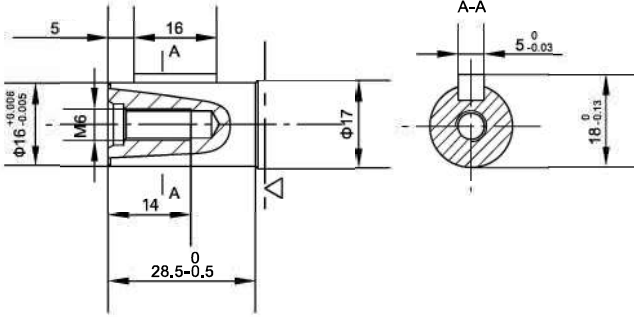
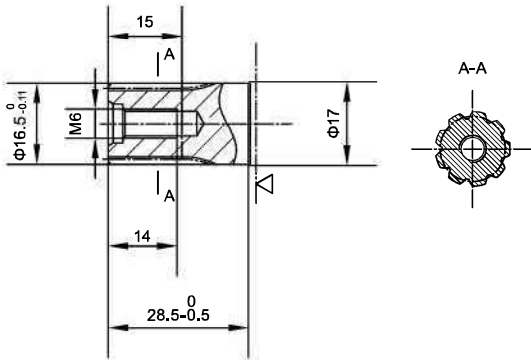
Flange	E
C	3-M6
C1	3-1/4-28UNF

Type	OTMM-8	OTMM-12.5	OTMM-20	OTMM-32	OTMM-40	OTMM-50
L	3.5	5.5	8.5	13.5	17	21.5
L1	106	108	111	116	119.5	124
L2	108.5	110.5	113.5	118.5	122	126.5

## OTMM Orbit Hydraulic Motor With Spool Valve

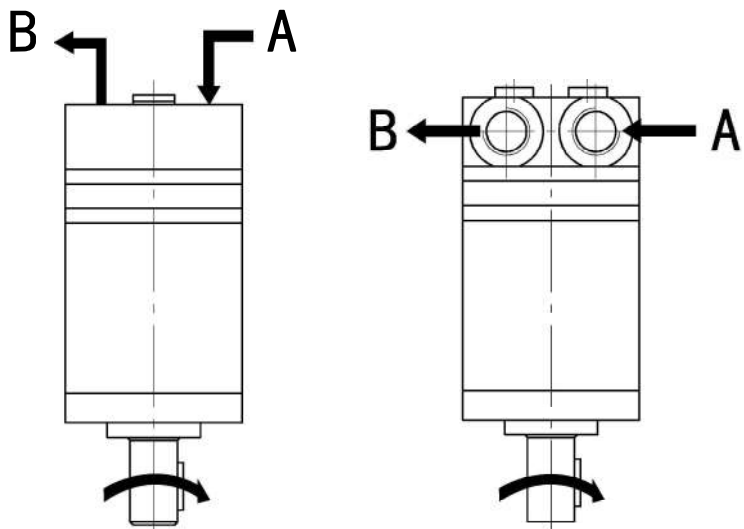
**SHAFT VERSION**

 P1:  $\Phi 16$  Cylindrical shaft, parallel key  $5 \times 5 \times 16$ 

 P2:  $\Phi 15.875$  Cylindrical shaft, parallel key  $4.8 \times 4.8 \times 19.05$ 

 K1:  $\Phi 16.5$  involute splined shaft B17  $\times 14$  DIN5482

 : Motor mounting surface

**DIRECTION OF SHAFT ROTATION: STANDARD**

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.


## OTMM Orbit Hydraulic Motor With Spool Valve

**ORDERING CODE**

1	2	3	4	5	6	7
OTMM	—				/	—

Pos.1	2	3			4	
Series	Disp	Output			Flange	
OTMM	8 12.5 20 32 40 50	P1	Φ 16 Cylindrical shaft, parallel key 5 × 5 × 16		C	3-M6 Flange, pilot Φ 31.5
		P2	Φ 15.875 Cylindrical shaft, parallel key 4.8 × 4.8 × 19.05		C1	3-1/4-28UNF Flange, pilot Φ 31.5
		K1	Φ 16.5 involute splined shaft, B17 × 14 DIN5482		A II	2-Φ 9 Oval flange, pilot Φ 63

5		6		7		
Code	Ports		Special features		Rotation direction	
	Ports(A,B)(deep)	Drain port T(deep)				
	(End port Y★)					
Y1	G3/8(12),G1/8(8)		Omit	Standard	Omit	Standard
Y2	9/16-18UNF(12),3/8-24UNF(8)					
	S★(Side port S★)					
S1	G3/8(12),G1/8(8)				L	Opposite
S2	9/16-18UNF(12),3/8-24UNF(8)					

## OTMR Orbit Hydraulic Motor With Spool Valve

### OTMR INTRODUCTION



This series of motor, with its shell made of ductile cast iron of adequate intensity, can be applied to situations with less load and interval operation, widely to agriculture, forestry, plastics, machine tools and min machines, such as the mould height adjustment of the injection molding machine, the cleaner, the sawmill the worktable etc.

### OTMR CHARACTERISTICS

1. The output shaft, with the deep groove ball bearing, can bear certain axial force and radial force.
2. With the axial oil distribution structure, it is of smaller size and less weight.
3. With two inner check valves, no drain connection.
4. With cycloid group with the roller, it has a small friction and high mechanical efficiency.

### OTMR TECHNICAL DATA

Type	OTMR OTMRW OTMRS OTMRE 50	OTMR OTMRW OTMRS OTMRE 80	OTMR OTMRW OTMRS OTMRE 100	OTMR OTMRW OTMRS OTMRE 125	OTMR OTMRW OTMRS OTMRE 160	OTMR OTMRW OTMRS OTMRE 200	OTMR OTMRW OTMRS OTMRE 250	OTMR OTMRW OTMRS OTMRE 315	OTMR OTMRW OTMRS OTMRE 400	
Displacement.(ml/r)	51.7	80.5	100.5	126.3	160.8	200.9	252.6	321.5	401.9	
Max.Pressure. Drop (Mpa)	cont.	14	14	14	14	14	14	11	9	7
	int.	17.5	17.5	17.5	17.5	17.5	17.5	14	11	9
	peak.	20	20	20	20	20	20	16	13	11
Max.torque (Nm)	cont.	93	152	194	237	310	369	380	380	380
	int.	118	189	236	296	378	450	470	470	470
	peak.	135	216	270	338	433	509	540	540	540
Max.Speed(cont.)(r/min)	770	745	595	475	370	295	235	185	150	
Max.Flow(cont.)(L/min)	40	60	60	60	60	60	60	60	60	
Max.Output.Power(cont.)(Kw)	7	10	10	10	10	8	6	5	4	
Weight(Kg)	6.5	6.9	7.0	7.3	7.5	8.0	8.5	9.0	11	

Intermittent operation the permissible values may occur for max.10% of every minute,  
 Peak load:the permissible values may occur for max.1% of every minute.





## OTMR Orbit Hydraulic Motor With Spool Valve

**OTMR PERFORMANCE DATA**

 TMR 100[100.5ml/r]  
 Pressure (Mpa)

		Max.cont.								Max.int.	
		5	7	9	10	12	14	16	17.5		
Flow(L/min)	5	64	90	118	134	154					
		<b>49</b>	<b>48</b>	<b>46</b>	<b>42</b>	<b>38</b>					
Flow(L/min)	10	65	93	122	134	155	183	210			
		<b>96</b>	<b>94</b>	<b>93</b>	<b>91</b>	<b>80</b>	<b>60</b>	<b>48</b>			
Flow(L/min)	20	62	93	121	135	153	184	208	236		
		<b>192</b>	<b>188</b>	<b>184</b>	<b>178</b>	<b>171</b>	<b>168</b>	<b>158</b>	<b>146</b>		
Flow(L/min)	30	61	90	118	130	150	180	200	232		
		<b>296</b>	<b>294</b>	<b>290</b>	<b>290</b>	<b>288</b>	<b>282</b>	<b>270</b>	<b>258</b>		
Flow(L/min)	40	55	86	115	126	146	181	206	228		
		<b>387</b>	<b>380</b>	<b>369</b>	<b>361</b>	<b>356</b>	<b>348</b>	<b>338</b>	<b>320</b>		
Flow(L/min)	50	46	77	108	121	146	181	200	221		
		<b>484</b>	<b>479</b>	<b>472</b>	<b>463</b>	<b>452</b>	<b>445</b>	<b>428</b>	<b>410</b>		
Max.cont.	60	34	62	98	110	136	170	186	199		
		<b>583</b>	<b>567</b>	<b>569</b>	<b>555</b>	<b>540</b>	<b>536</b>	<b>528</b>	<b>516</b>		
Max.int.	70	30	63	97	110	138	170	190	210		
		<b>680</b>	<b>672</b>	<b>662</b>	<b>650</b>	<b>640</b>	<b>635</b>	<b>620</b>	<b>606</b>		
Max.int.	75	20	54	90	106	130	165	188	200		
		<b>728</b>	<b>720</b>	<b>710</b>	<b>695</b>	<b>681</b>	<b>667</b>	<b>650</b>	<b>634</b>		

 OTMR 125[126.3ml/r]  
 Pressure (Mpa)

		Max.cont.								Max.int.	
		5	7	9	10	12	14	16	17.5		
Flow(L/min)	5	74	106	140	163						
		<b>37</b>	<b>32</b>	<b>27</b>	<b>21</b>						
Flow(L/min)	10	81	114	152	172	200	220	250			
		<b>78</b>	<b>77</b>	<b>74</b>	<b>59</b>	<b>45</b>	<b>29</b>	<b>20</b>			
Flow(L/min)	20	80	114	150	170	200	221	254	292		
		<b>157</b>	<b>156</b>	<b>154</b>	<b>151</b>	<b>146</b>	<b>142</b>	<b>120</b>	<b>114</b>		
Flow(L/min)	30	78	112	149	169	198	220	252	290		
		<b>232</b>	<b>230</b>	<b>228</b>	<b>222</b>	<b>220</b>	<b>218</b>	<b>199</b>	<b>170</b>		
Flow(L/min)	40	77	111	147	168	196	218	250	288		
		<b>312</b>	<b>311</b>	<b>307</b>	<b>300</b>	<b>298</b>	<b>284</b>	<b>270</b>	<b>252</b>		
Flow(L/min)	50	62	105	143	165	195	223	254	287		
		<b>391</b>	<b>388</b>	<b>384</b>	<b>380</b>	<b>372</b>	<b>362</b>	<b>346</b>	<b>330</b>		
Max.cont.	60	52	98	136	160	191	220	250	282		
		<b>470</b>	<b>468</b>	<b>464</b>	<b>459</b>	<b>448</b>	<b>434</b>	<b>412</b>	<b>405</b>		
Max.int.	70	41	90	130	156	187	215	242	278		
		<b>548</b>	<b>544</b>	<b>540</b>	<b>541</b>	<b>538</b>	<b>535</b>	<b>530</b>	<b>496</b>		
Max.int.	75	32	79	126	148	180	208	234	262		
		<b>586</b>	<b>583</b>	<b>578</b>	<b>570</b>	<b>560</b>	<b>546</b>	<b>532</b>	<b>520</b>		

 OTMR 160[160.8ml/r]  
 Pressure (Mpa)

		Max.cont.								Max.int.	
		5	7	9	10	12	14	16	17.5		
Flow(L/min)	5	100	142	188	207						
		<b>29</b>	<b>26</b>	<b>21</b>	<b>19</b>						
Flow(L/min)	10	104	146	191	211	245	282	330			
		<b>62</b>	<b>60</b>	<b>58</b>	<b>49</b>	<b>45</b>	<b>32</b>	<b>25</b>			
Flow(L/min)	20	102	148	194	218	251	290	338	368		
		<b>124</b>	<b>120</b>	<b>118</b>	<b>114</b>	<b>109</b>	<b>104</b>	<b>99</b>	<b>94</b>		
Flow(L/min)	30	96	141	186	215	248	288	335	364		
		<b>183</b>	<b>181</b>	<b>179</b>	<b>176</b>	<b>166</b>	<b>158</b>	<b>144</b>	<b>132</b>		
Flow(L/min)	40	87	136	180	206	248	286	330	358		
		<b>246</b>	<b>242</b>	<b>240</b>	<b>235</b>	<b>231</b>	<b>219</b>	<b>200</b>	<b>181</b>		
Flow(L/min)	50	70	126	172	198	238	278	320	350		
		<b>309</b>	<b>307</b>	<b>300</b>	<b>295</b>	<b>287</b>	<b>278</b>	<b>262</b>	<b>247</b>		
Max.cont.	60	58	111	168	191	232	271	312	342		
		<b>371</b>	<b>367</b>	<b>359</b>	<b>354</b>	<b>346</b>	<b>338</b>	<b>323</b>	<b>306</b>		
Max.int.	70	47	104	160	190	228	267	301	338		
		<b>435</b>	<b>430</b>	<b>421</b>	<b>415</b>	<b>403</b>	<b>393</b>	<b>381</b>	<b>365</b>		
Max.int.	75	34	91	150	180	221	261	291	328		
		<b>470</b>	<b>463</b>	<b>450</b>	<b>441</b>	<b>431</b>	<b>420</b>	<b>405</b>	<b>389</b>		

( Torque ) : 150Nm  
 ( Speed ) : 450r/min

□ Cont.  
 ■ Int.

 OTMR 200[200.9ml/r]  
 Pressure (Mpa)

		Max.cont.								Max.int.	
		5	7	9	10	12	14	16	17.5		
Flow(L/min)	5	129	176	230	256						
		<b>24</b>	<b>22</b>	<b>18</b>	<b>13</b>						
Flow(L/min)	10	133	182	236	261	310	352	400			
		<b>49</b>	<b>47</b>	<b>45</b>	<b>43</b>	<b>38</b>	<b>33</b>	<b>24</b>			
Flow(L/min)	20	131	181	232	256	308	354	400	431		
		<b>99</b>	<b>97</b>	<b>94</b>	<b>92</b>	<b>88</b>	<b>83</b>	<b>74</b>	<b>64</b>		
Flow(L/min)	30	126	176	229	252	308	353	400	430		
		<b>149</b>	<b>147</b>	<b>144</b>	<b>141</b>	<b>135</b>	<b>126</b>	<b>113</b>	<b>105</b>		
Flow(L/min)	40	112	168	224	248	304	350	393	423		
		<b>200</b>	<b>197</b>	<b>194</b>	<b>191</b>	<b>185</b>	<b>174</b>	<b>160</b>	<b>151</b>		
Flow(L/min)	50	94	154	220	243	294	343	384	414		
		<b>252</b>	<b>249</b>	<b>246</b>	<b>243</b>	<b>238</b>	<b>228</b>	<b>212</b>	<b>194</b>		
Max.cont.	60	78	144	213	236	287	339	382	410		
		<b>304</b>	<b>301</b>	<b>298</b>	<b>294</b>	<b>286</b>	<b>276</b>	<b>262</b>	<b>243</b>		
Max.int.	70	67	135	206	228	277	336	375	408		
		<b>355</b>	<b>353</b>	<b>349</b>	<b>340</b>	<b>329</b>	<b>316</b>	<b>300</b>	<b>288</b>		
Max.int.	75	58	125	197	220	270	321	360	398		
		<b>382</b>	<b>379</b>	<b>373</b>	<b>362</b>	<b>350</b>	<b>337</b>	<b>322</b>	<b>312</b>		

## OTMR Orbit Hydraulic Motor With Spool Valve

**OTMR PERFORMANCE DATA**

OTMR 250[252.6ml/r]  
Pressure (Mpa)

		Max.cont.				Max.int.		
		5	7	9	10	11	12	14
Flow(L/min)	5	172 <b>20</b>	240 <b>19</b>	300 <b>18</b>	338 <b>16</b>	352 <b>15</b>		
	10	173 <b>42</b>	242 <b>38</b>	308 <b>36</b>	340 <b>33</b>	351 <b>33</b>	405 <b>28</b>	462 <b>22</b>
	20	170 <b>79</b>	238 <b>77</b>	301 <b>75</b>	339 <b>72</b>	350 <b>71</b>	402 <b>69</b>	460 <b>61</b>
	30	160 <b>117</b>	231 <b>114</b>	298 <b>111</b>	330 <b>109</b>	347 <b>108</b>	398 <b>103</b>	455 <b>95</b>
Max.cont.	40	141 <b>157</b>	221 <b>155</b>	298 <b>153</b>	327 <b>150</b>	342 <b>148</b>	394 <b>146</b>	445 <b>135</b>
	50	122 <b>196</b>	206 <b>193</b>	287 <b>190</b>	321 <b>177</b>	332 <b>175</b>	382 <b>170</b>	438 <b>163</b>
	60	101 <b>236</b>	190 <b>233</b>	278 <b>230</b>	312 <b>227</b>	328 <b>225</b>	369 <b>221</b>	424 <b>208</b>
	70	86 <b>276</b>	176 <b>273</b>	262 <b>270</b>	298 <b>266</b>	302 <b>264</b>	353 <b>255</b>	416 <b>245</b>
Max.int.	75	60 <b>297</b>	163 <b>294</b>	254 <b>290</b>	286 <b>286</b>	291 <b>282</b>	345 <b>277</b>	410 <b>266</b>

OTMR 315[321.5ml/r]  
Pressure (Mpa)

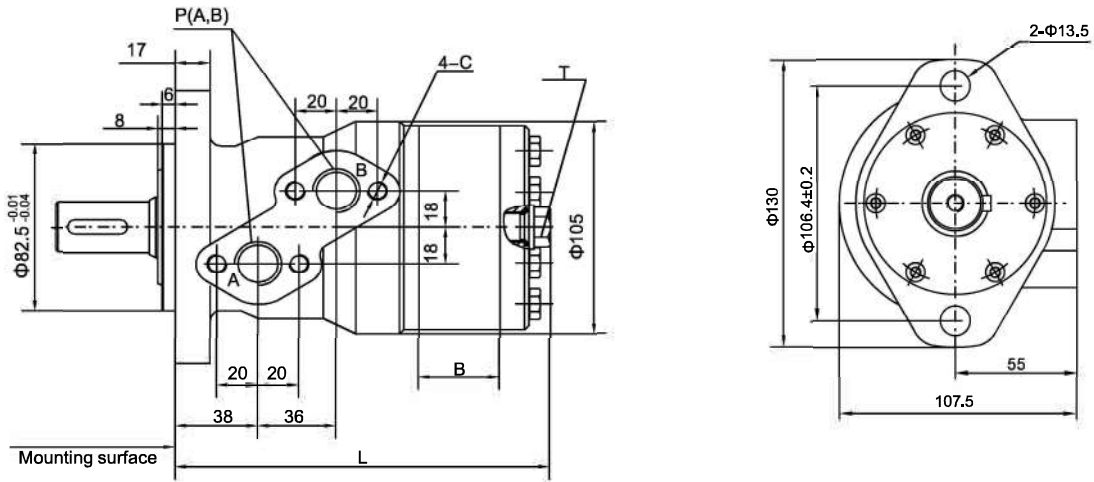
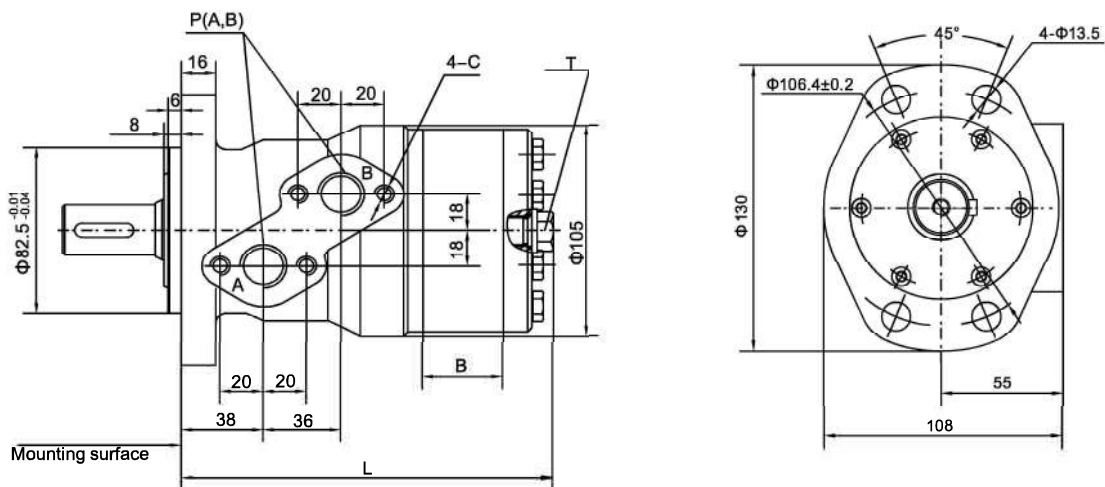
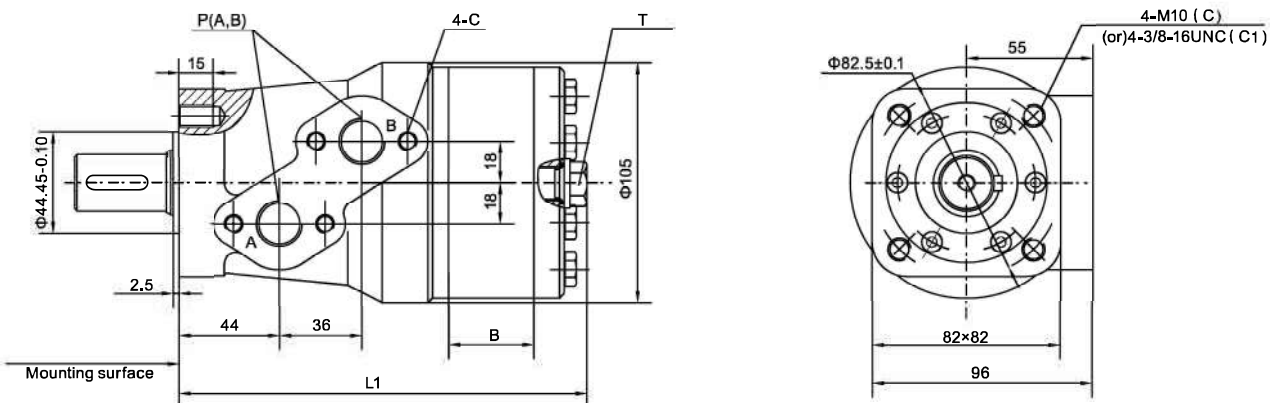
		Max.cont.				Max.int.	
		3	5	7	9	10	11
Flow(L/min)	5	110 <b>14</b>	199 <b>12</b>				
	10	108 <b>31</b>	190 <b>30</b>	272 <b>29</b>	360 <b>28</b>	400 <b>26</b>	451 <b>25</b>
	20	110 <b>61</b>	196 <b>60</b>	279 <b>59</b>	356 <b>57</b>	398 <b>55</b>	448 <b>53</b>
	30	106 <b>91</b>	186 <b>90</b>	270 <b>89</b>	355 <b>86</b>	390 <b>84</b>	442 <b>82</b>
Max.cont.	40	100 <b>123</b>	179 <b>122</b>	262 <b>120</b>	350 <b>117</b>	382 <b>112</b>	436 <b>110</b>
	50	92 <b>154</b>	169 <b>153</b>	252 <b>151</b>	342 <b>147</b>	373 <b>140</b>	432 <b>136</b>
	60	86 <b>185</b>	159 <b>184</b>	241 <b>182</b>	339 <b>177</b>	369 <b>172</b>	428 <b>170</b>
	70	77 <b>217</b>	146 <b>216</b>	235 <b>213</b>	324 <b>208</b>	342 <b>201</b>	412 <b>200</b>
Max.int.	75	66 <b>232</b>	132 <b>231</b>	212 <b>228</b>	303 <b>222</b>	332 <b>216</b>	402 <b>214</b>

OTMR 400[401.9ml/r]  
Pressure (Mpa)

		Max.cont.				Max.int.	
		3	4	6	7	8	9
Flow(L/min)	5	152 <b>12</b>					
	10	154 <b>24</b>	205 <b>21</b>	308 <b>18</b>	349 <b>17</b>		
	20	150 <b>49</b>	201 <b>48</b>	302 <b>47</b>	340 <b>46</b>	392 <b>44</b>	441 <b>41</b>
	30	146 <b>73</b>	198 <b>74</b>	296 <b>73</b>	331 <b>72</b>	387 <b>70</b>	438 <b>67</b>
Max.cont.	40	140 <b>98</b>	191 <b>97</b>	290 <b>96</b>	321 <b>95</b>	381 <b>94</b>	421 <b>92</b>
	50	132 <b>122</b>	182 <b>121</b>	281 <b>118</b>	315 <b>115</b>	376 <b>112</b>	402 <b>110</b>
	60	128 <b>146</b>	176 <b>145</b>	272 <b>143</b>	312 <b>140</b>	362 <b>138</b>	389 <b>132</b>
	70	110 <b>170</b>	171 <b>168</b>	259 <b>166</b>	301 <b>162</b>	341 <b>160</b>	379 <b>154</b>
Max.int.	75	98 <b>182</b>	162 <b>180</b>	232 <b>178</b>	292 <b>176</b>	320 <b>174</b>	356 <b>170</b>

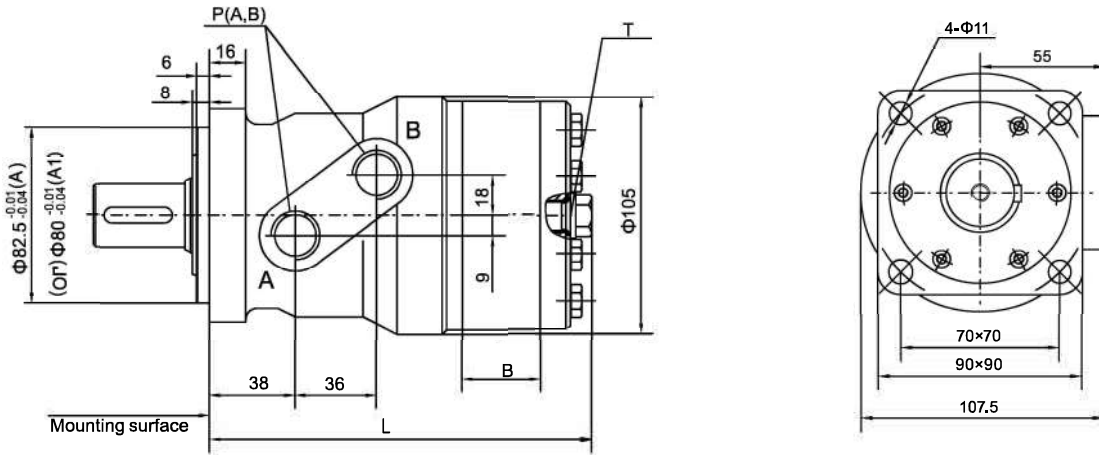
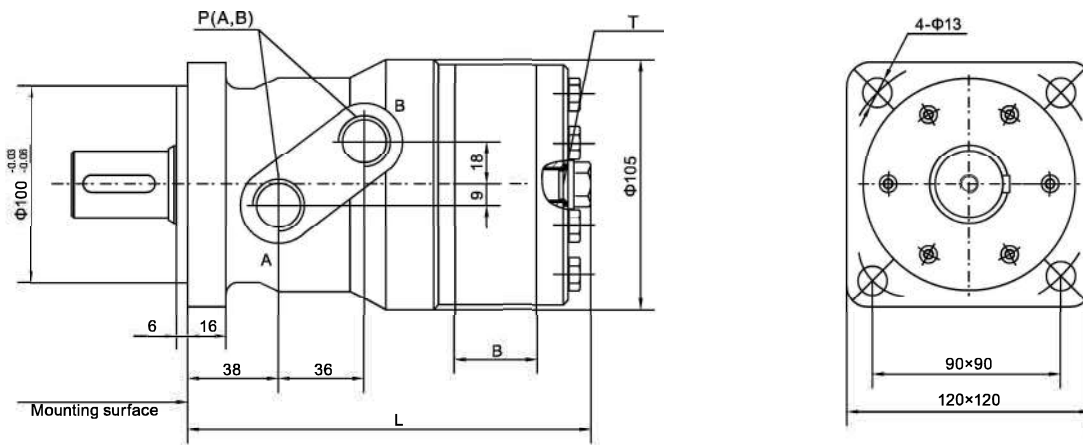
( Torque ) : 232Nm  
( Speed ) : 178r/min

□ Cont.  
■ Int.

**OTMR, OTMRE Installation**
**2-hole oval flange A II**

**4-hole oval flange A IV**

**Square flange C, C1**


Note: C, C1 mounting are assembling to BMRS shaft

## OTMR Orbit Hydraulic Motor With Spool Valve

**■ OTMR, OTMRE Installation**
**Square flange A, A 1**

**Square flange A2 III**


Type	OTMR - 50	OTMR - 80	OTMR - 100	OTMR - 125	OTMR - 160	OTMR - 200	OTMR-250	OTMR-315	OTMR-400
L	143	148	151.5	156	162	169	178	190	204
L1	151	156	159.5	164	170	177	186	198	212
B	9	14	17.5	22	28	35	44	56	70

**■ OTMRY Installtion**

Type	OTMRY - 50	OTMRY - 80	OTMRY - 100	OTMRY - 125	OTMRY - 160	OTMRY - 200	OTMRY-250	OTMRY-315	OTMRY-400
L	150	155	158.5	163	169	176	185	197	211
L1	158	163	166.5	171	177	184	193	205	219
B	9	14	17.5	22	28	35	44	56	70

**OTMR Orbit Hydraulic Motor With Spool Valve**
**OTMR, TMRE PORTS CODE**

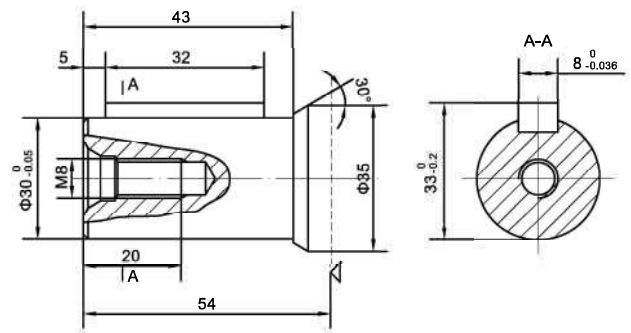
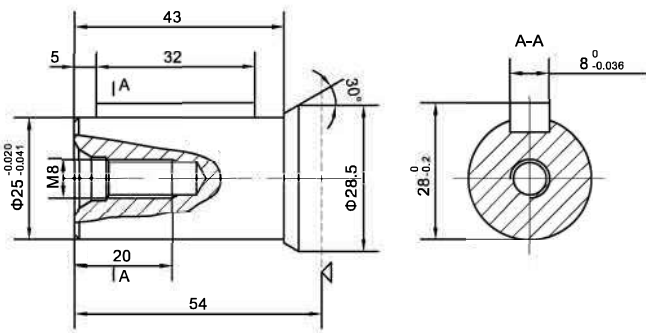
Code	Ports	P(A, B)(deep)	C ( deep )	T ( deep )
Y		G1/2 (15)	M8 (13)	M14 × 1.5 (12)
Y1		M18 × 1.5 (15)	M8 (13)	M14 × 1.5 (12)
Y2		M22 × 1.5 (15)	M8 (13)	M14 × 1.5 (12)
Y4		ZG3/8 (15)	M8 (13)	M14 × 1.5 (12)
Y5		7/8–14UNF (15)	—	M14 × 1.5 (12)
Y7		ZG1/2 (15)	M8 (13)	M14 × 1.5 (12)
Y8		NPT1/2 (15)	M8 (13)	M14 × 1.5 (12)
Y9		NPTF1/2 (15)	5/16–18UNC (13)	7/16–20UNF (12)
Y10		G1/2 (15)	M8 (13)	G1/4 (12)
Y15		7/8–14UNF (15)	5/16–18UNC (13)	7/16–20UNF (12)

Note:P(A, B)—Ports, C—Mounting Thread ( —Indicates no this thread ), T—Drain connection

**OTMR, OTMRE — SHAFT VERSION**

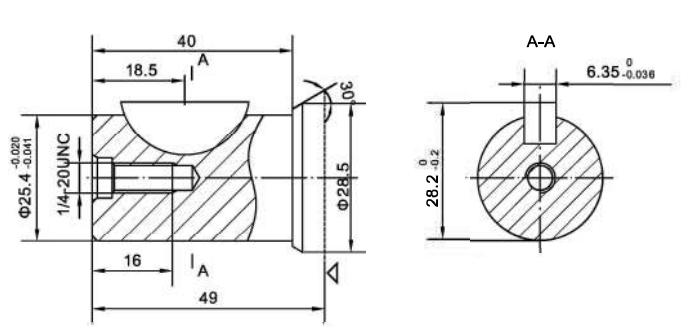
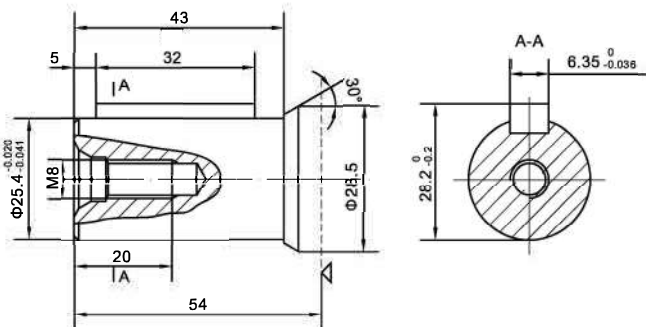
P1:  $\Phi 25$  Cylindrical shaft, parallel key  $8 \times 7 \times 32$

P2:  $\Phi 30$  Cylindrical shaft, parallel key  $8 \times 7 \times 32$



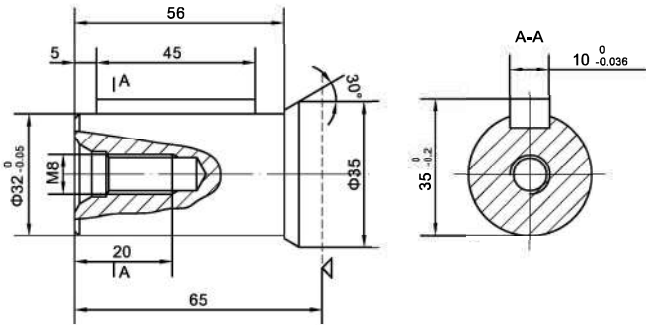
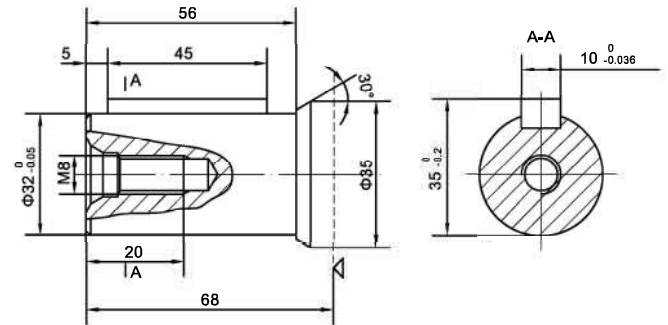
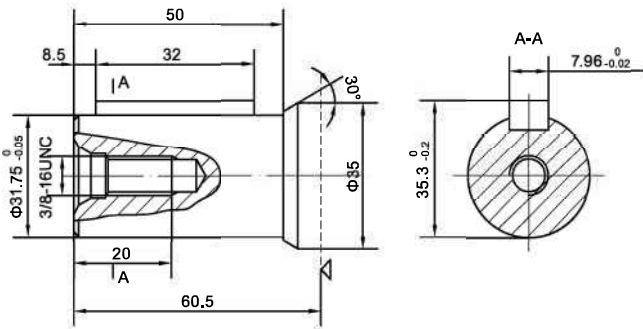
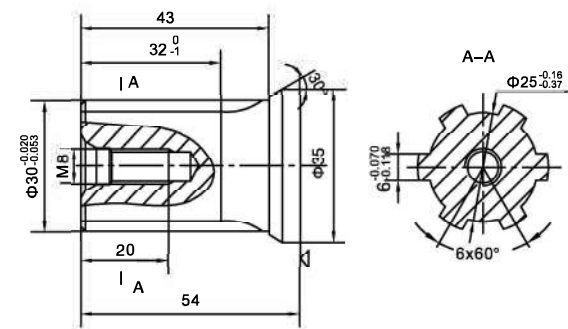
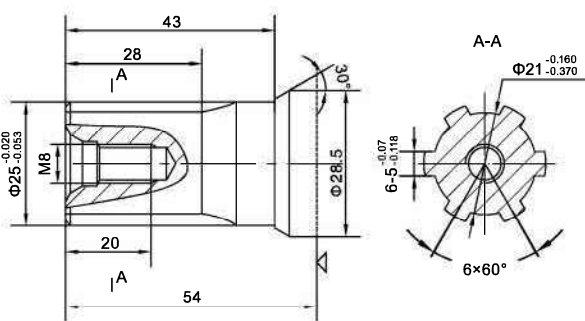
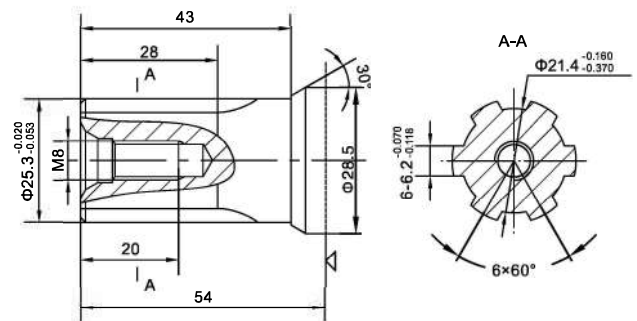
P3:  $\Phi 25.4$  Cylindrical shaft, parallel key  $6.35 \times 6.35 \times 32$

P4:  $\Phi 25.4$  Cylindrical shaft, Woodruff key  $\Phi 25.4 \times 6.35$



 : Motor mounting surface



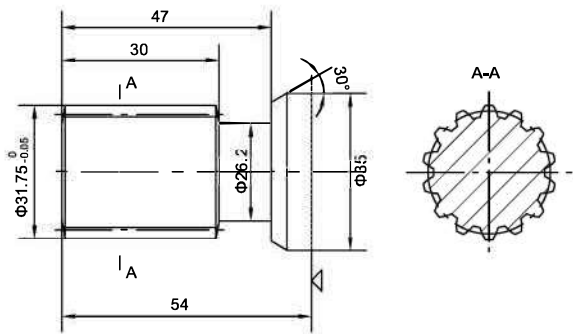
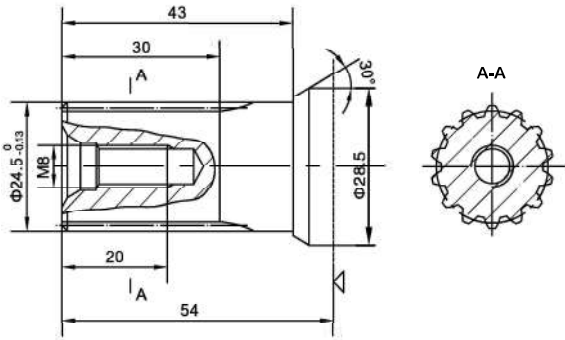
**■ OTMR, OTMRE — SHAFT VERSION**
**P5:  $\Phi 32$  Cylindrical shaft, parallel key  $10 \times 8 \times 45$** 

**P52:  $\Phi 32$  Cylindrical shaft, parallel key  $10 \times 8 \times 45$** 

**P6:  $\Phi 31.75$  Cylindrical shaft, parallel key  $7.96 \times 7.96 \times 32$** 

**H1:  $\Phi 30$  Splined shaft, 6-30  $\times$  25  $\times$  6**

**H2:  $\Phi 25$  Splined shaft, 6-25  $\times$  21  $\times$  5**

**H3:  $\Phi 25.3$  Splined shaft, 6-25.3  $\times$  21.4  $\times$  6.2**

 : Motor mounting surface



■ OTMR, TMRE — SHAFT VERSION

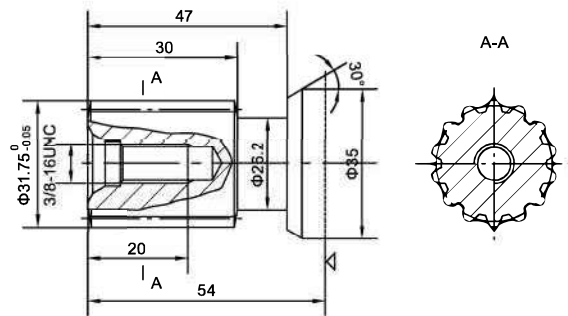
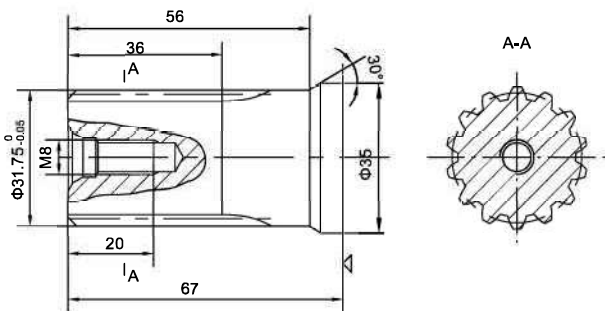
K4:  $\Phi 24.5$  involute splined shaft B25 x 22 DIN5482 m: 1.6 Z:14

K10:  $\Phi 31.75$  involute splined shaft 14-DP12/24  $\alpha=30^\circ$




K13:  $\Phi 31.75$  involute splined shaft 14-DP12/24  $\alpha=30^\circ$

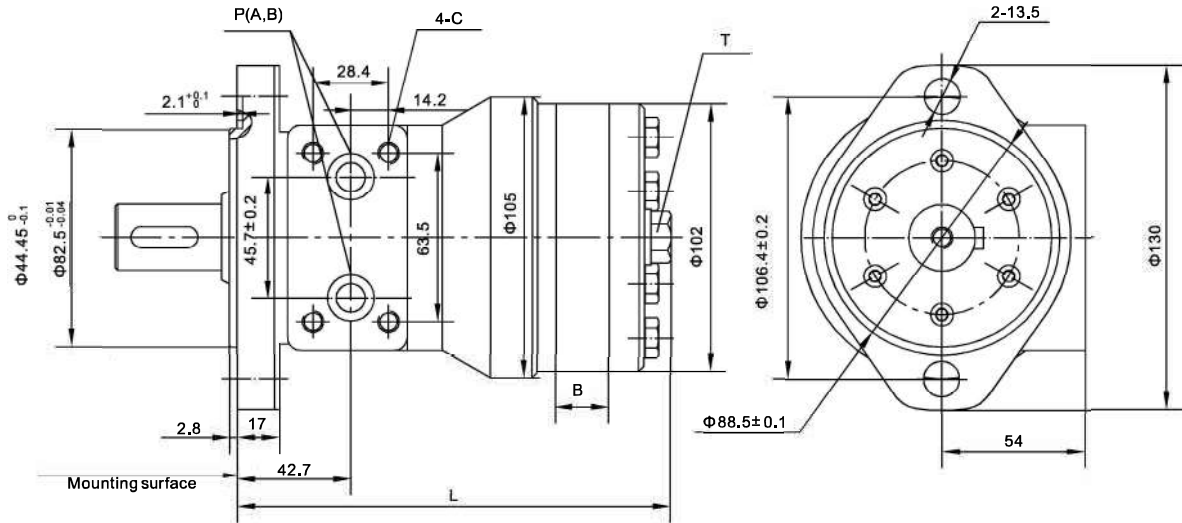
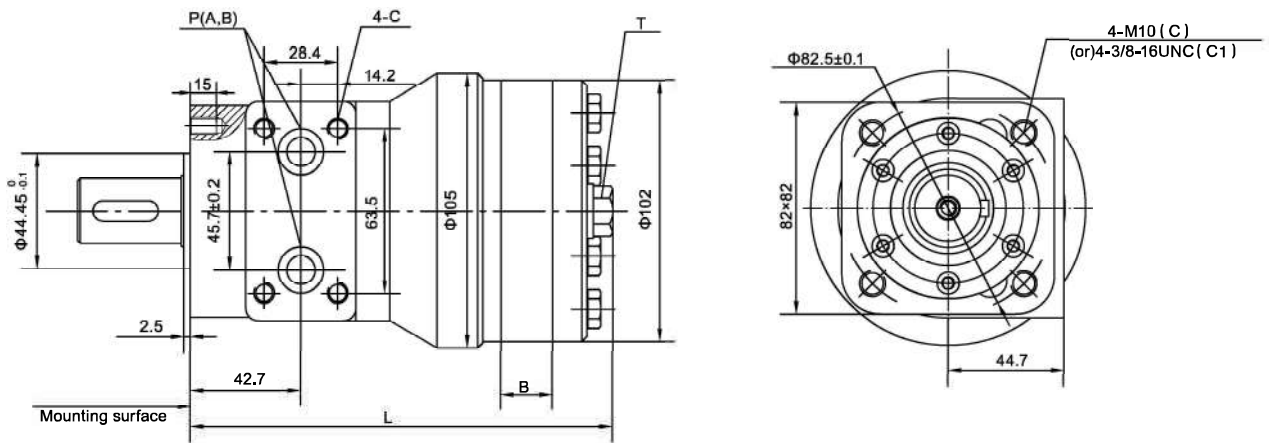
K14:  $\Phi 31.75$  involute splined shaft 14-DP12/24  $\alpha=30^\circ$



Note: OTMRE series motors don't include the following output shafts: P2, P5, P52, P6, H1, K4, K10, K13, K14.

 : Motor mounting surface

## OTMRS Orbit Hydraulic Motor With Spool Valve

**OTMRS Installation**
**2-hole oval flange A II**

**C,C1 Square flange**


Type	OTMRS-50	OTMRS-60	OTMRS-100	OTMRS-125	OTMRS-160	OTMRS-200	OTMRS-250	OTMRS-315	OTMRS-400
L	151	156	159.5	164	170	177	186	198	212
B	9	14	17.5	22	28	35	44	56	70

## OTMRS Orbit Hydraulic Motor With Spool Valve

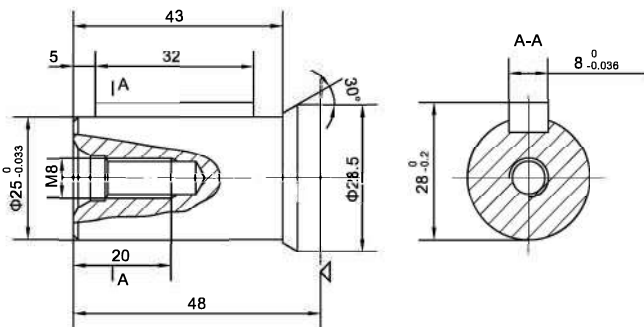
**OTMRS PORTS CODE**

Code	Ports	P(A, B)(deep)	C ( deep )	T ( deep )
Y		G1/2 (15)	—	M14 × 1.5(12)
Y5		7/8–14UNF(15)	—	7/16–20UNF(12)
Y7		ZG1/2(15)	—	G1/4(12)
Y9		NPTF1/2(15)	—	7/16–20UNF(12)
Y10		G1/2(15)	—	G1/4(12)
Y17		3/4–16UNF(15)	—	7/16–20UNF(12)
Y19		Φ11(15)	5/16–18UNC(13)	7/16–20UNF(12)
Y20		M18 × 1.5(15)	M8 (13)	G1/4(12)

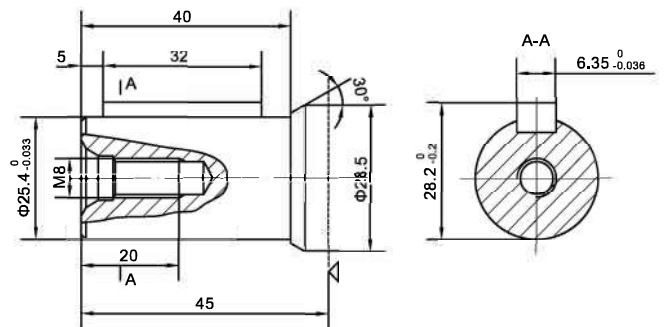
P(A, B)—Ports, C—Mounting Thread ( —Indicates no this thread ), T—Drain connection

**OTMRS SHAFT VERSION**

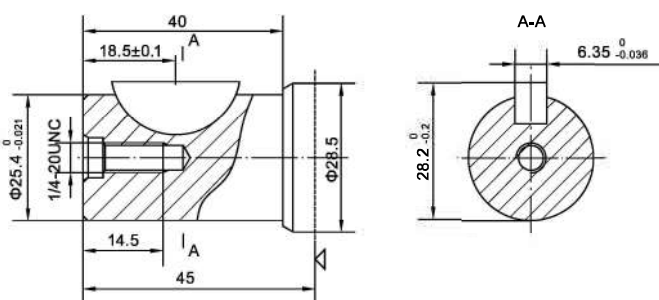
P1: Φ25 Cylindrical shaft, parallel key8 × 7 × 32



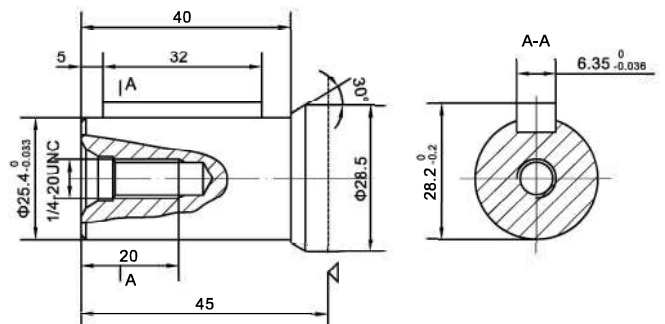
P3: Φ25.4 Cylindrical shaft, parallel key6.35 × 6.35 × 32



P4: Φ25.4 Cylindrical shaft, Woodruff keyΦ25.4 × 6.35



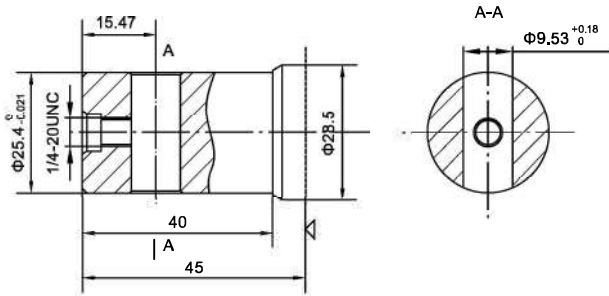
P33: Φ25.4 Cylindrical shaft, parallel key6.35 × 6.35 × 32



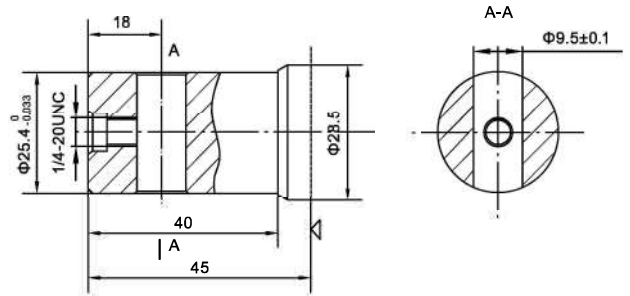
△ : Motor mounting surface

■ OTMRS SHAFT VERSION

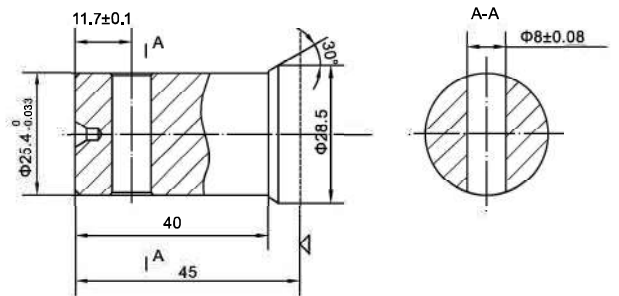
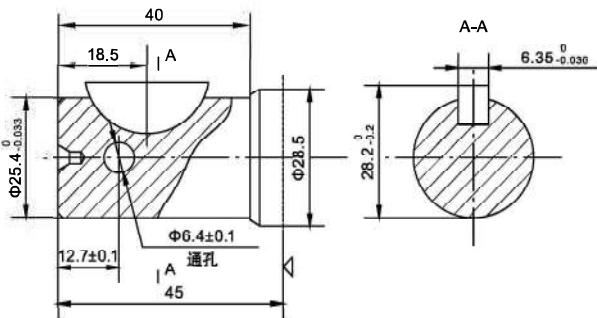
P89:  $\Phi 25.4$  Cylindrical shaft pin hole  $\Phi 9.53$



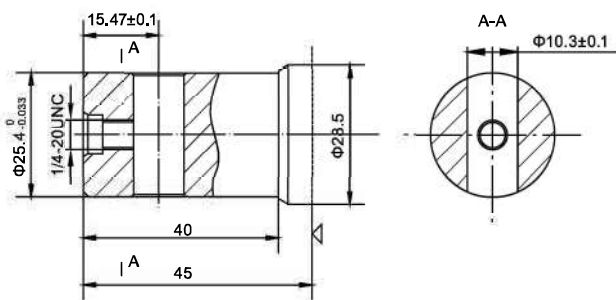
P93:  $\Phi 25.4$  Cylindrical shaft pin hole  $\Phi 9.5$



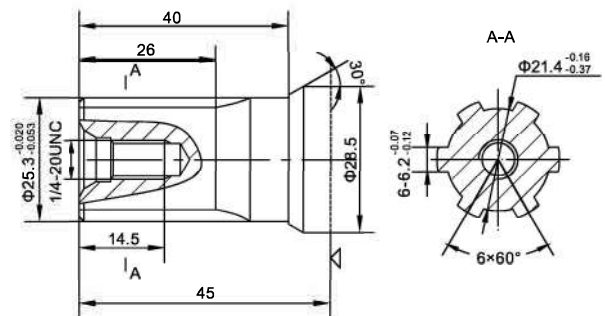
P95:  $\Phi 25.4$  Cylindrical shaft pin hole  $\Phi 6.4$ , Woodruff key  $\Phi 25.4 \times 6.35$  P96:  $\Phi 25.4$  Cylindrical shaft pin hole  $\Phi 8$



P97:  $\Phi 25.4$  Cylindrical shaft pin hole  $\Phi 10.3$



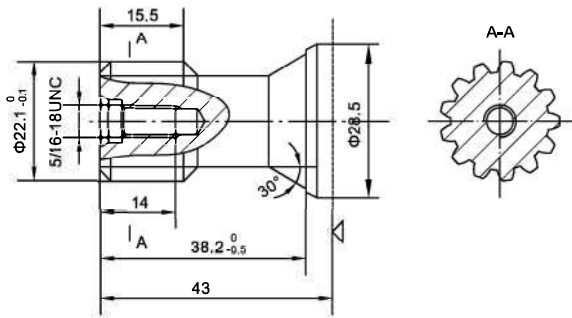
H4:  $\Phi 25.3$  Splined shaft, 6-25.3 x 21.4 x 6.2



: Motor mounting surface

■ OTMRS SHAFT VERSION

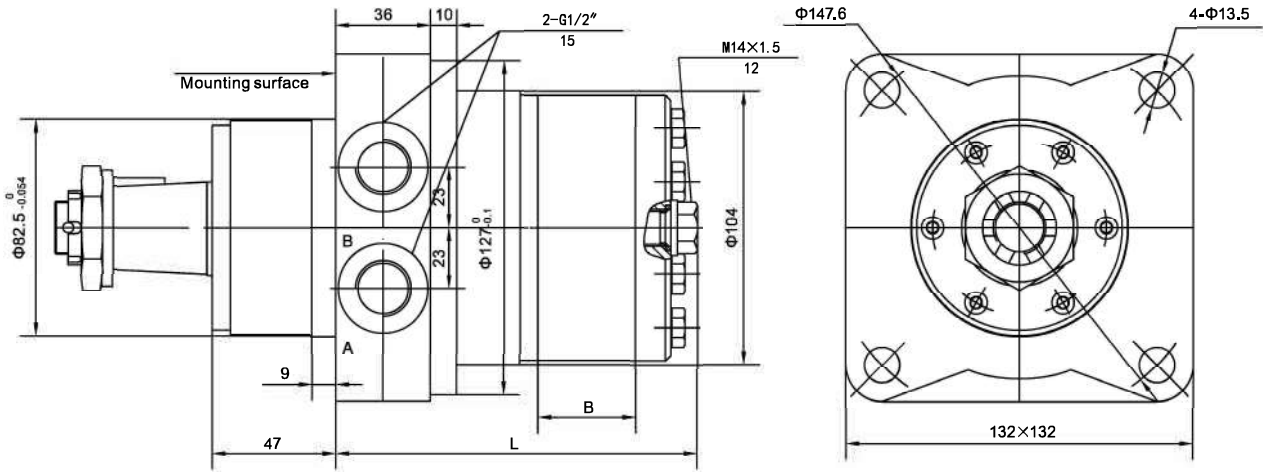
K8:  $\Phi 22.1$  involute splined shaft, 13-DP16/32



◁ : Motor mounting surface

## OTMRW Orbit Hydraulic Motor With Spoor Valve

### OTMRW Installation



Type	OTMRW-50	OTMRW-80	OTMRW-100	OTMRW-125	OTMRW-160	OTMRW-200	OTMRW-250	OTMRW-315	OTMRW-400
L	108	113	117	121	127	134	143	155	169
B	9	14	17.5	22	28	35	44	56	70

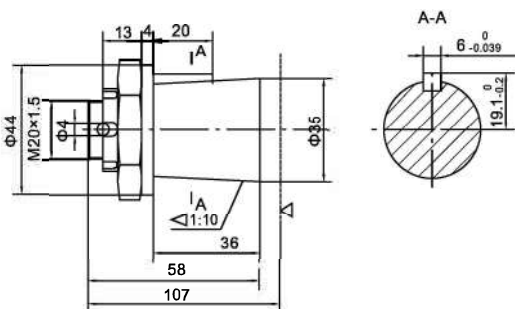
### OTMRW PORTS CODE

Code	Ports	P(A, B)(deep)	C ( deep )	T ( deep )
Y		G1/2 (15)	—	M14 × 1.5(12)

P(A, B)—Ports, C—Mounting Thread ( —Indicates no this thread ) , T—Drain connection

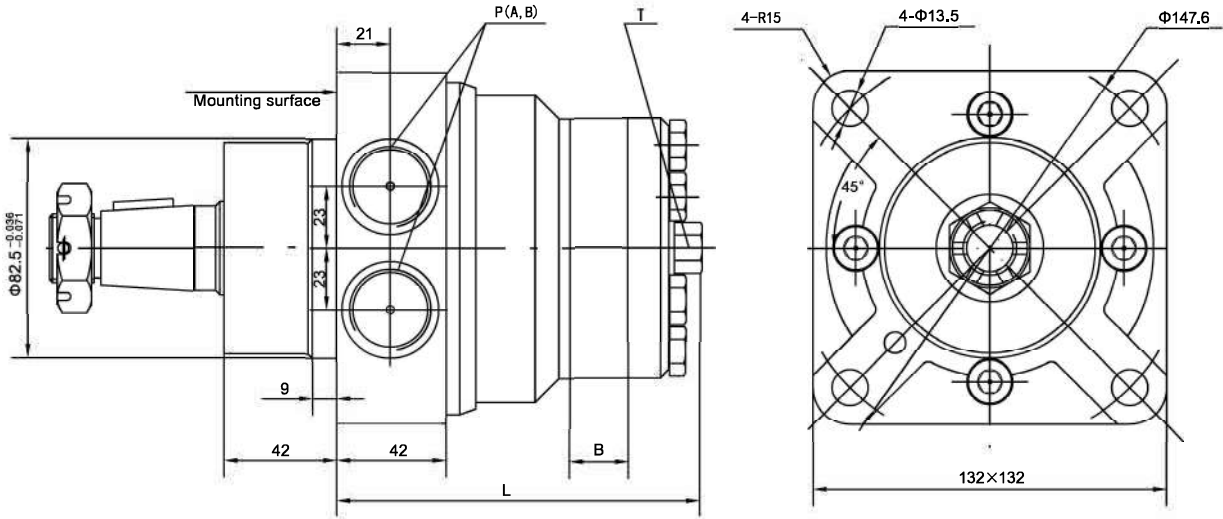
### OTMRW

Z:  $\Phi 35$  Tapered shaft, taper1:10, parallel key B6 × 6 × 20



$\Delta$  : Motor mounting surface



**OTMRW Orbit Hydraulic Motor With Spool Valve**
**OTMRW1 Installation**


Type	OTMRW1-50	OTMRW1-80	OTMRW1-100	OTMRW1-125	OTMRW1-160	OTMRW1-200	OTMRW1-250	OTMRW1-315	OTMRW1-400
L	125	130	134	138	144	151	160	172	186
B	9	14	17.5	22	28	35	44	56	70

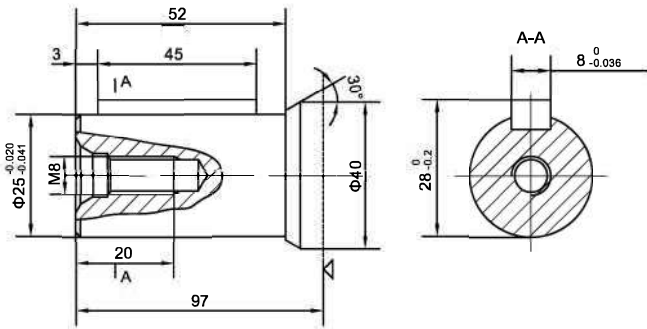
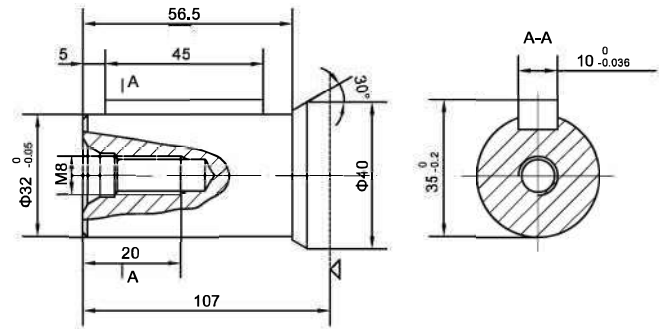
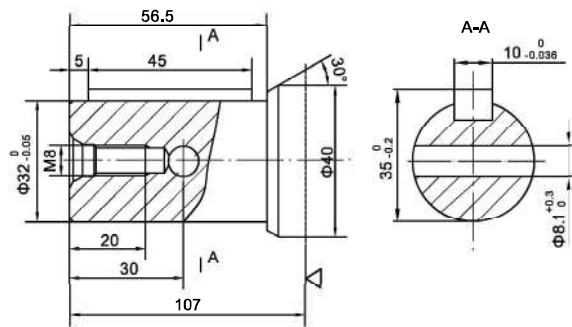
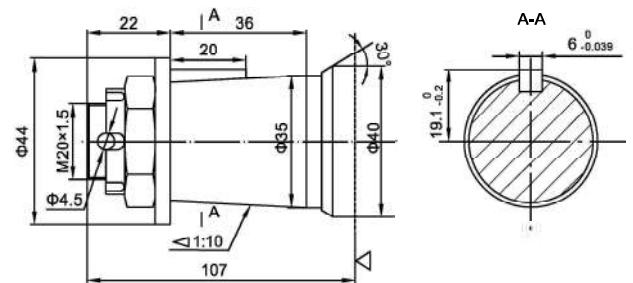
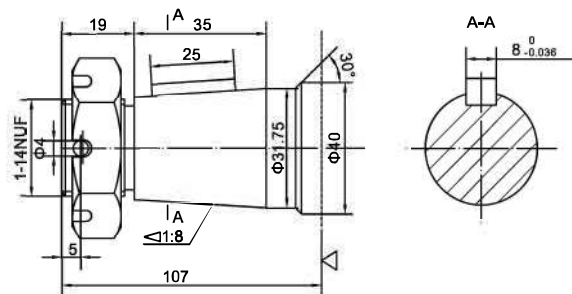
**OTMRW1 PORTS CODE**

Code	Ports	P(A, B)(deep)	C ( deep )	T ( deep )
Y		G1/2 (15)	—	M14 × 1.5(12)
Y5		7/8-14UNF(15)	—	M14 × 1.5(12)
Y10		G1/2 (15)	—	G1/4 (12)

P(A, B)—Ports, C—Mounting Thread ( —Indicates no this thread ) , T—Drain connection

## OTMRW1 Orbit Hydraulic Motor With Spool Valve

**OTMRW1 SHAFT VERSION**

 P1:  $\Phi 25$  Cylindrical shaft, Parallel key  $8 \times 7 \times 45$ 

 P5:  $\Phi 32$  Cylindrical shaft, parallel key  $10 \times 8 \times 45$ 

 P6:  $\Phi 32$  Cylindrical shaft, Cylindrical shaft pin hole  $\Phi 8.1$ , parallel key  $10 \times 8 \times 45$ 

 Z:  $\Phi 35$  Tapered shaft, taper 1:10, parallel key  $B6 \times 6 \times 20$ 

 Z1:  $\Phi 31.75$  Tapered shaft, taper 1:8, parallel key  $8 \times 7 \times 25$ 

 : Motor mounting surface

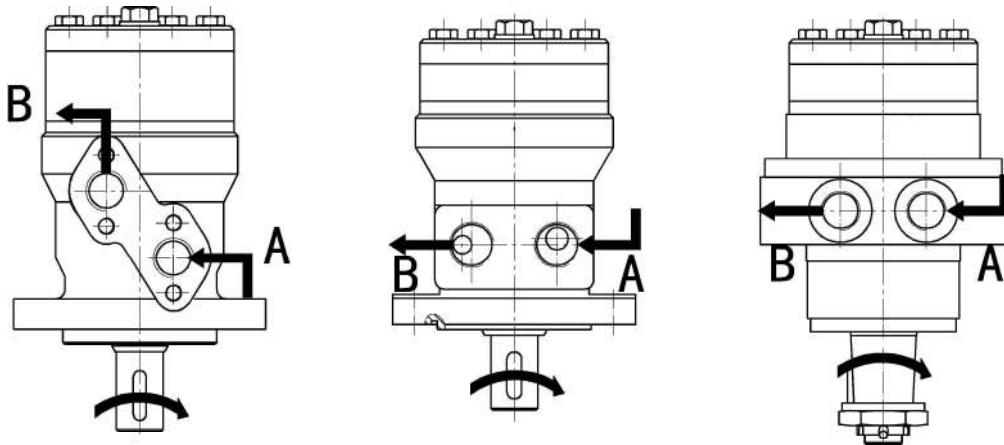
**OTMR, OTMRS, OTMRW Series Motor**

Direction of shaft rotation: Standard

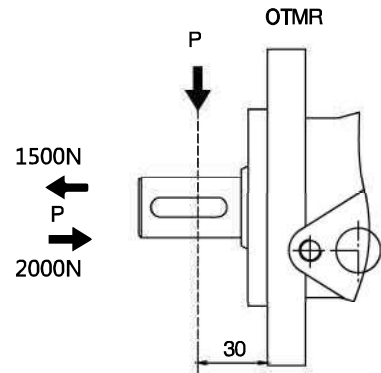
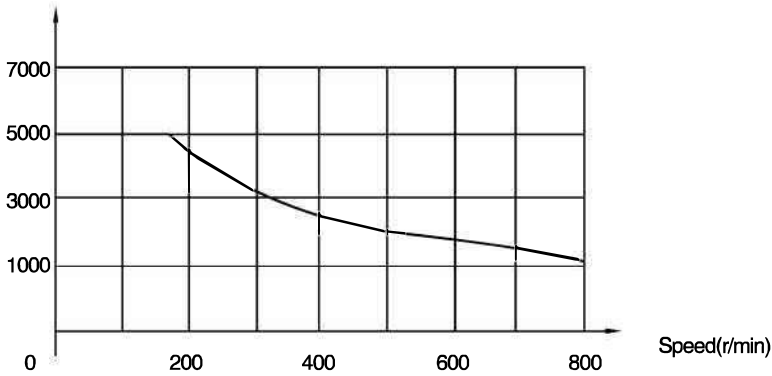
When facing shaft end of motor, shaft to rotate:

Clockwise when port "A" is pressurized.

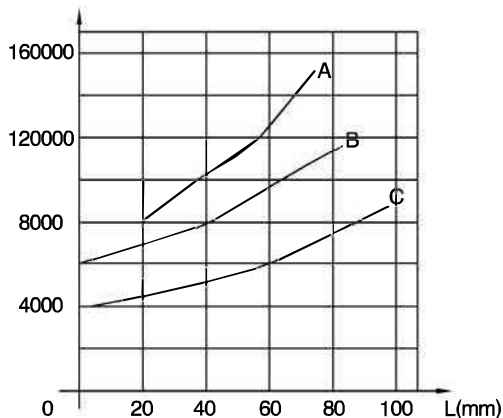
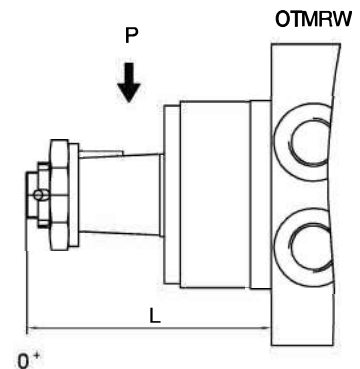
Counter-clockwise when port "B" is pressurized.


**OTMR, OTMRW PERMISSIBLE SHAFT LOADS**

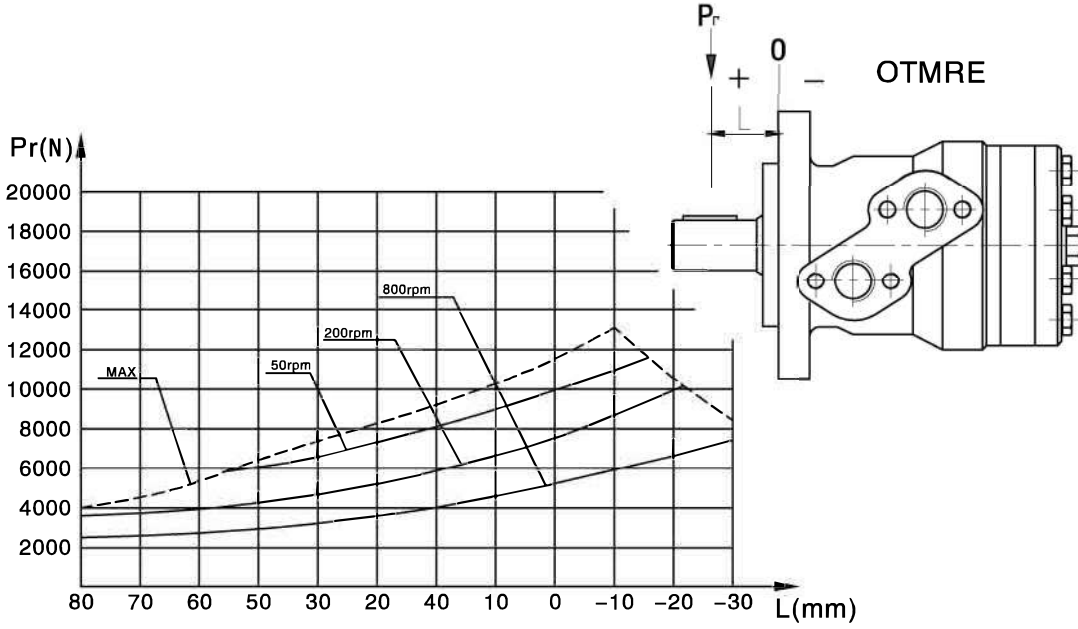
P (N) Radial force



P (N) Radial force


 A: n=50 r/min  
 B: n=200 r/min  
 C: n=800 r/min


■ OTMRE PERMISSIBLE SHAFT LOADS



**■ OTMR, OTMRE, OTMRS, OTMRW ORDERING CODE**

1	2	3	4	5	6	7
OTMR/ OTMRE	—				/	—

Pos.1	2	3		4		
Series	Disp	Output		Flange		
OTMR/ OTMRE	50	P1	Φ25 Cylindrical shaft, parallel key 8 × 7 × 32		A II	2-Φ 13.5 Oval flange, pilot Φ 82.5 × 6
		P2	Φ30 Cylindrical shaft, parallel key 8 × 7 × 32			
	80	P3	Φ25.4 Cylindrical shaft, parallel key 6.35 × 6.35 × 32		A IV	4-Φ 13.5 Oval flange, pilot Φ 82.5 × 6
		P4	Φ25.4 Cylindrical shaft, Woodruff key Φ 25.4 × 6.35			
	100	P5	Φ32 Cylindrical shaft, parallel key 10 × 8 × 45		C	4-M10 Square flange, pilot Φ 44.45 × 2.5
		P52	Φ32 Cylindrical shaft, parallel key 10 × 8 × 45			
	125	P6	Φ31.75 Cylindrical shaft, parallel key 7.96 × 7.96 × 32		C1	4-3/8-16UNC Square flange, pilot Φ 44.45 × 2.5
		H1	Φ30 Splined shaft, 6-30 × 25 × 6			
	160	H2	Φ25 Splined shaft, 6-25 × 21 × 5		A	4-Φ 11 Square flange, pilot Φ 82.5 × 6
		H3	Φ25.3 Splined shaft, 6-25.3 × 21.4 × 6.2			
	200	K4	Φ24.5 involute splined shaft, B25 × 22 DIN5482		A1	4-Φ 11 Square flange, pilot Φ 80 × 6
		K10	Φ31.75 involute splined shaft, 14-DP12/24 a=30°			
	250	K13	Φ31.75 involute splined shaft, 14-DP12/24 a=30°		A2 III	4-Φ 13 Square flange, pilot Φ 100 × 6
		K14	Φ31.75 involute splined shaft, 14-DP12/24 a=30°			
315	Z1	Φ28.56 Tapered shaft, taper 1:10, parallel key 5 × 5 × 14				
400						

OTMRE series motors don't include the following output shafts : P2, P5, P52, P6, H1, K4, K10, K13, K14

5			6		7	
Code	Ports		Special features		Rotation direction	
	Ports(A,B)(deep)	Drain port T(deep)				
Y	G1/2(15)	M14 × 1.5(12)				
Y1	M18 × 1.5(15)	M14 × 1.5(12)				
Y2	M22 × 1.5(15)	M14 × 1.5(12)				
Y4	ZG3/8(15)	M14 × 1.5(12)	Omit	Standard	Omit	Standard
Y5	7/8-14UNF(15)	M14 × 1.5(12)	T7	With dustproof ring	L	Opposite
Y7	ZG1/2(15)	M14 × 1.5(12)	T10	With high pressure seals		
Y8	NPT1/2(15)	M14 × 1.5(12)				
Y9	NPTF1/2(15)	7/16-20UNF(12)				
Y10	G1/2(15)	G1/4(12)				
Y15	7/8-14UNF(15)	7/16-20UNF(12)				



**■ OTMR, OTMRS, OTMRW ORDERING CODE**

1	2	3	4	5	6	7
OTMRS	—				/	—

Pos.1	2	3		4		
Series	Disp	Output		Flange		
OTMRS	50	P1	Φ25 Cylindrical shaft, parallel key 8 × 7 × 32		A II	2- Φ 13.5 Oval flange, pilot Φ 82.5 × 2.8
	80	P3	Φ25.4 Cylindrical shaft, parallel key 6.35 × 6.35 × 32			
		P4	Φ25.4 Cylindrical shaft, Woodruff key Φ 25.4 × 6.35			
	100	P33	Φ25.4 Cylindrical shaft, parallel key 6.35 × 6.35 × 32		C	4-M10 Square flange, pilot Φ 44.45 × 2.8
	125	P89	Φ 25.4 Cylindrical shaft pin hole Φ 9.53			
	160	P93	Φ 25.4 Cylindrical shaft pin hole Φ 9.5			
	200	P95	Φ 25.4 Cylindrical shaft pin hole Φ 6.4, Woodruff key Φ 25.4 × 6.35		C1	4-3/8-16UNC Square flange, pilot Φ 44.45 × 2.8
	250	P96	Φ 25.4 Cylindrical shaft pin hole Φ 8			
	315	P97	Φ 25.4 Cylindrical shaft pin hole Φ 10.3			
	400	H4	Φ 25.3 Splined shaft, 6-25.3 × 21.4 × 6.2			
		K8	Φ 22.1 involute splined shaft, 13-DP16/32			

5			6		7	
Code	Ports		Special features		Rotation direction	
	Ports(A,B)(deep)	Drain port T(deep)				
Y	G1/2(15)	M14 × 1.5(12)				
Y5	7/8–14UNF(15)	7/16–20UNF(12)				
Y7	ZG1/2(15)	G1/4(12)	Omit	Standard	Omit	Standard
Y9	NPTF1/2(15)	7/16–20UNF(12)	T21	No case drain	L	Opposite
Y10	G1/2(15)	G1/4(12)				
Y17	3/4–16UNF(15)	7/16–20UNF(12)				
Y19	Φ 11(15)	7/16–20UNF(12)				
Y20	M18 × 1.5(15)	G1/4(12)				

## OTMR, OTMRS, OTMRW Series Mortor

## ■ OTMR, OTMRS, OTMRW ORDERING CODE

1	2	3	4	5	6	7
OTMRW	—				/	—

Pos.1	2	3		4
Series	Disp	Output		Flange
OTMRW	50 80 100 125 160 250 315 400 200	Z	Φ35 Tapered shaft, taper1:10, parallel key B6 × 6 × 20	A 4-Φ13.5 Square flange, pilot Φ82.5 × 9

5		6		7
Code	Ports		Special features	Rotation direction
	Ports(A,B)(deep)	Drain port T(deep)		
Y	G1/2(15)	M14 × 1.5(12)	Omit Standard	Omit L Standard Opposite

1	2	3	4	5	6	7
OTMRW1	—				/	—

Pos.1	2	3		4		
Series	Disp	Output		Flange		
OTMRW1	50	P1	Φ25 Cylindrical shaft, parallel key 8 × 7 × 45		A	4- Φ 13.5 Square flange, pilot Φ 82.5 × 9
	80	P5	Φ32 Cylindrical shaft, parallel key 10 × 8 × 45			
	100		Φ32 Cylindrical shaft, Cylindrical shaft pin hole Φ 8.1, parallel key 10 × 8 × 45			
	125	P6	Φ32 Cylindrical shaft, Cylindrical shaft pin hole Φ 8.1, parallel key 10 × 8 × 45			
	160		Φ32 Cylindrical shaft, Cylindrical shaft pin hole Φ 8.1, parallel key 10 × 8 × 45			
	200		Φ32 Cylindrical shaft, Cylindrical shaft pin hole Φ 8.1, parallel key 10 × 8 × 45			
	250	Z	Φ35Tapered shaft, taper1:10, parallel key B6 × 6 × 20			
315	Z1	Φ31.75Tapered shaft, taper1:8, parallel key 8 × 7 × 25				
400		Φ31.75Tapered shaft, taper1:8, parallel key 8 × 7 × 25				

5			6		7	
Code	Ports		Special features		Rotation direction	
	Ports(A,B)(deep)	Drain port T(deep)				
Y	G1/2(15)	M14 × 1.5(12)				
Y5	7/8-14UNF(15)	M14 × 1.5(12)	Omit	Standard	Omit	Standard
			T7	With dustproof ring	L	Opposite
Y10	G1/2(15)	G1/4(12)				

## OTS Orbit Hydraulic Motor With Spool Valve

### ■ OTS INTRODUCTION



This series of motor is with spool valve design, with the advanced geroler gear set and ductile iron of adequate intensity. It can be applied to the situation with less load and interval operation, and widely to agricultural machines, forestry machinery, plastic injection machinery, mining machines, metal working machines, conveyors etc.

### ■ OTS CHARACTERISTICS

- 1、 Compact volume, easy installation, especially for limited space working condition.
- 2、 Using geroler gear set design, with the function of low friction, low starting pressure, high efficiency, smooth working and longer working life.
- 3、 Spool valve design with less side and weight.
- 4、 With two inner check valves, drain line can be closed.
- 5、 With high pressure seal, the motor can be used in parallel or in series.

### ■ OTS TECHNICAL DATA

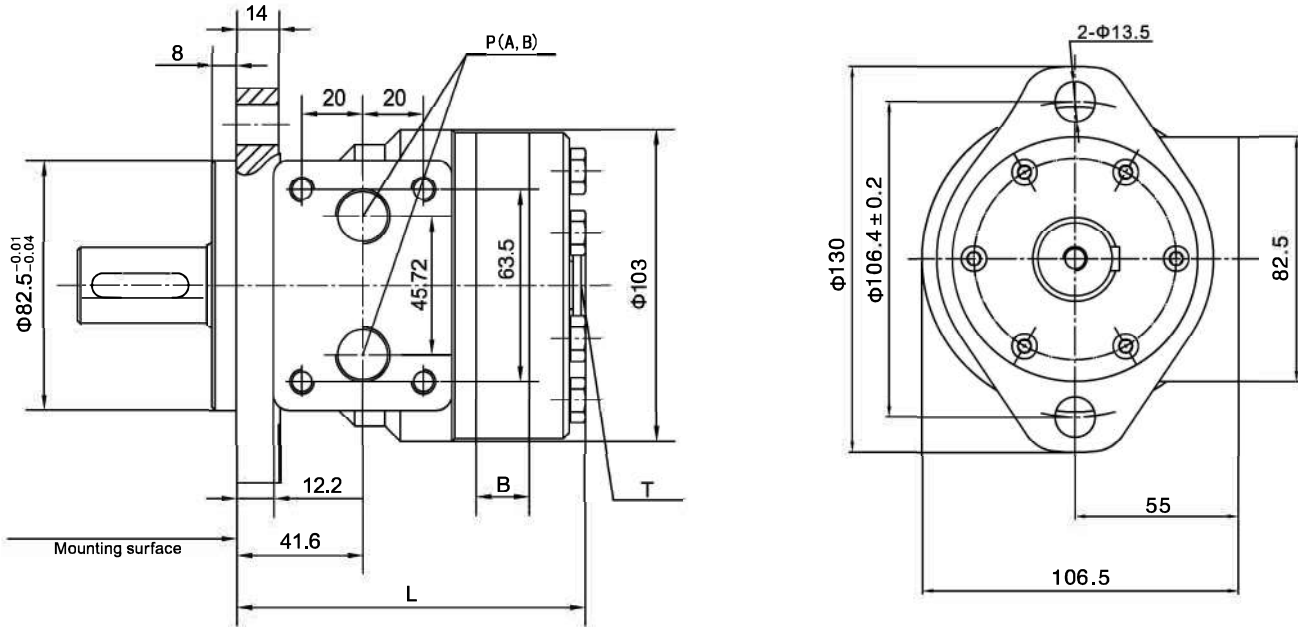
TYPE		OTS-50	OTS-80	OTS-100	OTS-125	OTS-160	OTS-200	OTS-250	OTS-315	OTS-400
Displacement(ml/r)		51.7	80.5	100.5	126.3	160.8	200.9	252.6	321.5	401.9
Max.Pressure.Drop (Mpa)	cont.	14	14	14	14	14	12.5	11	9	7
	int.	17.5	17.5	17.5	17.5	17.5	15.5	14	11	9
	peak.	20	20	20	20	20	18	16	13	11
Max.torque (N.m)	cont.	93	152	194	237	310	320	380	380	380
	int.	118	189	236	296	378	398	470	470	470
	peak.	135	216	270	338	433	460	540	540	540
Max.Speed(cont.)(r/min)		770	745	595	475	370	295	235	185	150
Max.Flow(L/min )		40	60	60	60	60	60	60	60	60
Max.Output.Power(cont.)(Kw)		7	10	10	10	10	7	6	5	4

Intermittent operation the permissible values may occur for max. 10% of every minute  
 Peak load: the permissible values may occur for max. 1% of every minute

## OTS Orbit Hydraulic Motor With Spool Valve

### ■ OTS INSTALLATION

2- $\phi$ 13.5hole oval flange AII



TYPE	OTS-50	OTS-80	OTS-100	OTS-125	OTS-160	OTS-200	OTS-250	OTS-315	OTS-400
L	107	112	115.5	120	126	133	142	154	168
B	9	14	17.5	22	28	35	44	56	70

### ■ OTS Ports Code

Code	Ports	P ( A , B ) ( deep )	C ( deep )	T ( deep )
Y		G1/2 ( 15 )	M8 ( 13 )	M14x1.5 ( 12 )
Y1		M18x1.5 ( 15 )	M8 ( 13 )	M14x1.5 ( 12 )
Y2		M22x1.5 ( 15 )	M8 ( 13 )	M14x1.5 ( 12 )
Y9		NPTF1/2 ( 15 )	5/6-18UNC ( 13 )	7/16-20UNF ( 12 )
Y10		G1/2 ( 15 )	M8 ( 13 )	G1/4 ( 12 )
Y15		7/8-14UNF ( 15 )	5/6-18UNC ( 13 )	7/16-20UNF ( 12 )

Note:P(A, B)—Ports, C—Mounting Thread ( —Indicates no this thread ) , T—Drain connettion

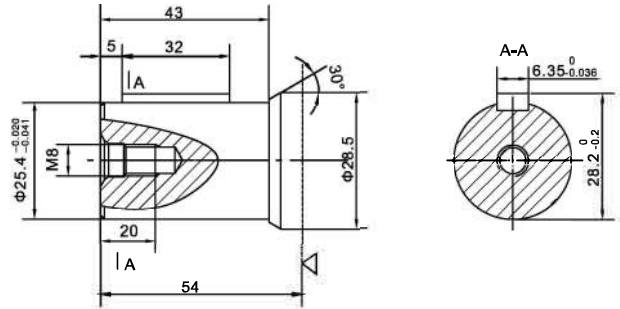
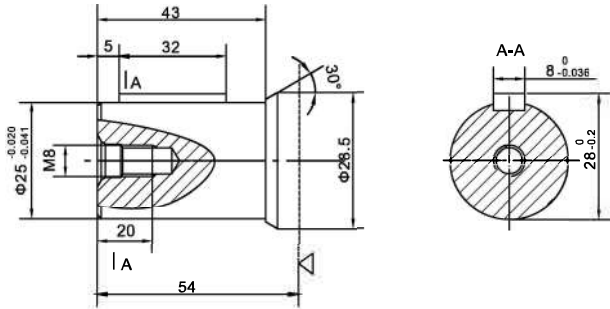


OTS Orbit Hydraulic Motor With Spool Valve

■ OTS SHAFT VERSION

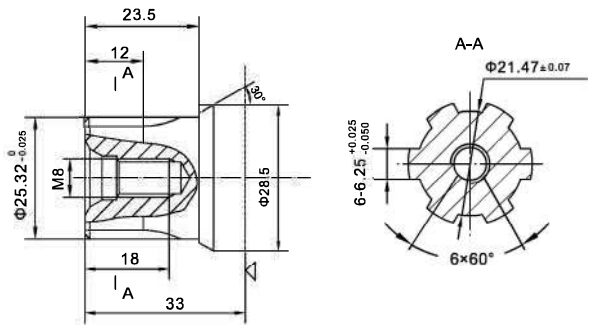
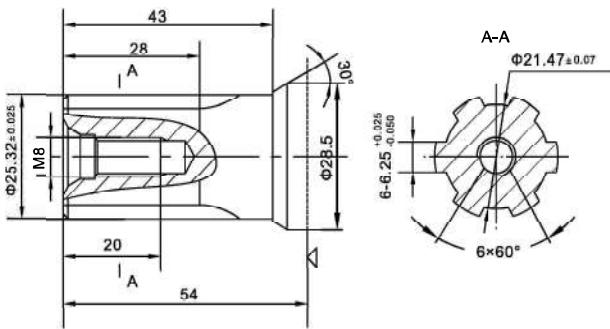
P1:  $\Phi 25$  Cylindrical shaft, parallel key 8x7x32

P3:  $\Phi 25.4$  Cylindrical shaft, parallel key 6.35x6.35x32



H3:  $\Phi 25.3$  Splined shaft, 6-25.32x21.47x6.25

H5:  $\Phi 25.3$  Splined shaft, 6-25.32x21.47x6.25



: Motor mounting surface

**OTS Orbit Hydraulic Motor With Spool Valve**
**■ OTS**

1	2	3	4	5	6	7
OTS	—				/	—

Pos.1	2	3		4		
Series	Disp	Output Shaft		Flange		
OTS	50	P1	Φ 25Cylindrical shaft, parallel key 8x7x32		A II	2-Φ13.5 Oval flange polit Φ82.5x8
	80					
	100	P3	Φ 25.4 Cylindrical shaft, parallel key 6.35x6.35x32			
	125					
	160	H3	Φ25.3Splined shaft, 6-25.32x21.47x6.25			
200						
250						
315	H5	Φ25.3Splined shaft, 6-25.32x21.47x6.25				
400						

5			6		7	
Code	Ports		Special features		Rotation direction	
	Ports(A,B)(deep)	Drain port T(deep)				
Y	G1/2 ( 15 )	M14x1.5 ( 12 )	Omit	Standard	Omit	Standard
Y1	M18x1.5 ( 15 )	M14x1.5 ( 12 )				
Y2	M22x1.5 ( 15 )	M14x1.5 ( 12 )				
Y9	NPTF1/2 ( 15 )	7/16-20UNF ( 12 )			L	Opposite
Y10	G1/2 ( 15 )	G1/4 ( 12 )				
Y15	7/8-14UNF ( 15 )	7/16-20UNF ( 12 )				

## OTMH Orbit Hydraulic Motor With Spool Valve

### OTMH INTRODUCTION



This series of motor, with its shell made of ductile cast iron of adequate intensity, can be applied to situations with less load and interbval operation, widely to agriculture, forestry, plastics, machine tools and min machines, such as the mould height adjustment of the injection molding machine, the cleaner, the sawmill the worktable etc.

### OTMH CHARACTERISTICS

1. The output shaft, with the deep groove ball bearing, can bear certain axial force and radial force.
2. With the axial oil distribution structur, it is of smaller size and less weight.
3. With two inner check valves, no drain connection.
4. With cycloid group with the roller, it has a small friction and high mechanical efficiency.

### OTMH TECHNICAL DATA

TYPE		OTMH-200	OTMH-250	OTMH-315	OTMH-400	OTMH-500
Displacement(ml/r)		203	253.7	318.9	405.9	471.1
Max.Pressure.Drop (Mpa)	cont.	16	16	15	14	12
	int.	19	19	18	17	15
	peak.	22	22	21	20	18
Max.torque (N.m)	cont.	425	530	610	825	720
	int.	510	635	750	900	910
	peak.	590	735	875	1055	1090
Max. Cont. Speed (r/min)		365	295	235	180	155
Max.Flow(cont.)(L/min)		75	75	75	75	75
Max.Output.Power(cont.)(Kw)		13.8	13.8	12.5	11.5	9.8
Weight(kg)		10.5	11	11.5	12.5	13

Intermittent operation the permissible values may occur for max. 10% of every minute  
 Peak load: the permissible values may occur for max. 1% of every minute

## OTMH Orbit Hydraulic Motor With Spool Valve

**OTMH PERFORMANCE DATA**

OTMH 200(203ml/r)

Pressure (Mpa) Max.cont. Max.int.

3.5 7 10.5 14 16 19

Flow(L/min)	Pressure (Mpa)					
	3.5	7	10.5	14	16	19
5	91 <b>25</b>	192 <b>24</b>	284 <b>23</b>			
10	92 <b>46</b>	191 <b>47</b>	282 <b>48</b>	344 <b>44</b>	440 <b>42</b>	520 <b>38</b>
20	90 <b>96</b>	188 <b>95</b>	280 <b>94</b>	342 <b>92</b>	438 <b>90</b>	516 <b>88</b>
30	88 <b>144</b>	181 <b>143</b>	278 <b>139</b>	388 <b>130</b>	435 <b>114</b>	511 <b>101</b>
40	86 <b>193</b>	172 <b>192</b>	270 <b>191</b>	384 <b>188</b>	432 <b>186</b>	506 <b>171</b>
50	83 <b>241</b>	168 <b>240</b>	264 <b>238</b>	380 <b>234</b>	428 <b>230</b>	498 <b>228</b>
60	80 <b>290</b>	156 <b>289</b>	258 <b>287</b>	375 <b>284</b>	420 <b>271</b>	492 <b>264</b>
70	75 <b>334</b>	149 <b>333</b>	249 <b>331</b>	362 <b>329</b>	419 <b>324</b>	489 <b>320</b>
Max.cont.	69 <b>362</b>	132 <b>360</b>	240 <b>359</b>	351 <b>358</b>	408 <b>351</b>	478 <b>342</b>
80	53 <b>382</b>	124 <b>381</b>	231 <b>380</b>	338 <b>374</b>	395 <b>385</b>	453 <b>360</b>
Max.int.	41 <b>434</b>	119 <b>433</b>	228 <b>431</b>	324 <b>429</b>	387 <b>418</b>	446 <b>411</b>

OTMH 250(253.7ml/r)

Pressure (Mpa) Max.cont. Max.int.

3.5 7 10.5 14 16 19

Flow(L/min)	Pressure (Mpa)					
	3.5	7	10.5	14	16	19
5	118 <b>19</b>	242 <b>19</b>	311 <b>18</b>			
10	126 <b>38</b>	251 <b>37</b>	326 <b>38</b>	421 <b>34</b>	550 <b>30</b>	
20	124 <b>85</b>	250 <b>84</b>	325 <b>83</b>	414 <b>81</b>	542 <b>78</b>	640 <b>71</b>
30	118 <b>115</b>	243 <b>113</b>	321 <b>111</b>	410 <b>105</b>	538 <b>95</b>	634 <b>84</b>
40	111 <b>153</b>	238 <b>152</b>	315 <b>150</b>	402 <b>143</b>	530 <b>139</b>	629 <b>132</b>
50	106 <b>190</b>	231 <b>188</b>	310 <b>187</b>	395 <b>186</b>	523 <b>183</b>	621 <b>172</b>
60	101 <b>230</b>	223 <b>229</b>	302 <b>227</b>	390 <b>224</b>	518 <b>217</b>	613 <b>209</b>
70	96 <b>268</b>	218 <b>267</b>	294 <b>266</b>	381 <b>262</b>	512 <b>257</b>	602 <b>241</b>
Max.cont.	84 <b>287</b>	210 <b>285</b>	284 <b>284</b>	375 <b>280</b>	506 <b>275</b>	596 <b>270</b>
80	76 <b>306</b>	201 <b>305</b>	271 <b>303</b>	368 <b>301</b>	497 <b>297</b>	581 <b>286</b>
Max.int.	56 <b>347</b>	182 <b>345</b>	268 <b>341</b>	351 <b>337</b>	481 <b>333</b>	562 <b>328</b>

OTMH 315(318.9ml/r)

Pressure (Mpa) Max.cont. Max.int.

3.5 7.5 10 15 18

Flow(L/min)	Pressure (Mpa)				
	3.5	7.5	10	15	18
10	148 <b>31</b>	312 <b>30</b>	416 <b>28</b>	650 <b>23</b>	
20	142 <b>61</b>	308 <b>60</b>	411 <b>58</b>	645 <b>51</b>	765 <b>46</b>
30	140 <b>91</b>	301 <b>90</b>	402 <b>89</b>	639 <b>86</b>	751 <b>78</b>
40	131 <b>122</b>	294 <b>121</b>	398 <b>120</b>	631 <b>117</b>	732 <b>107</b>
50	128 <b>152</b>	289 <b>151</b>	391 <b>149</b>	623 <b>144</b>	715 <b>135</b>
60	121 <b>183</b>	281 <b>181</b>	382 <b>179</b>	611 <b>174</b>	703 <b>170</b>
70	110 <b>215</b>	273 <b>214</b>	372 <b>211</b>	600 <b>207</b>	692 <b>200</b>
Max.cont.	98 <b>228</b>	261 <b>226</b>	357 <b>224</b>	586 <b>221</b>	679 <b>214</b>
80	72 <b>243</b>	258 <b>240</b>	346 <b>237</b>	571 <b>233</b>	666 <b>222</b>
Max.int.	62 <b>274</b>	243 <b>272</b>	332 <b>270</b>	559 <b>263</b>	643 <b>252</b>

OTMH 400(405.9ml/r)

Pressure (Mpa) Max.cont. Max.int.

3.5 5.5 7 10.5 14 17

Flow(L/min)	Pressure (Mpa)					
	3.5	5.5	7	10.5	14	17
10	186 <b>24</b>	284 <b>22</b>	370 <b>20</b>			
20	184 <b>48</b>	282 <b>47</b>	365 <b>45</b>	541 <b>41</b>	760 <b>34</b>	920 <b>28</b>
30	182 <b>72</b>	280 <b>71</b>	361 <b>70</b>	538 <b>64</b>	751 <b>59</b>	911 <b>48</b>
40	178 <b>96</b>	274 <b>95</b>	356 <b>93</b>	532 <b>91</b>	740 <b>85</b>	899 <b>78</b>
50	175 <b>119</b>	270 <b>118</b>	351 <b>116</b>	530 <b>111</b>	731 <b>106</b>	882 <b>99</b>
60	171 <b>143</b>	261 <b>141</b>	342 <b>138</b>	522 <b>135</b>	712 <b>129</b>	870 <b>116</b>
70	164 <b>167</b>	248 <b>165</b>	338 <b>161</b>	513 <b>158</b>	703 <b>152</b>	857 <b>146</b>
Max.cont.	152 <b>179</b>	240 <b>177</b>	332 <b>175</b>	510 <b>171</b>	689 <b>166</b>	841 <b>159</b>
80	141 <b>193</b>	223 <b>192</b>	330 <b>190</b>	497 <b>187</b>	670 <b>181</b>	823 <b>172</b>
Max.int.	120 <b>217</b>	218 <b>215</b>	320 <b>211</b>	480 <b>208</b>	645 <b>202</b>	800 <b>185</b>

 ( Torque ) : 320Nm  
 ( Speed ) : 211r/min

OTMH500(471.1ml/r)

Pressure (Mpa) Max.cont. Max.int.

2.5 4 6 8.5 12 15

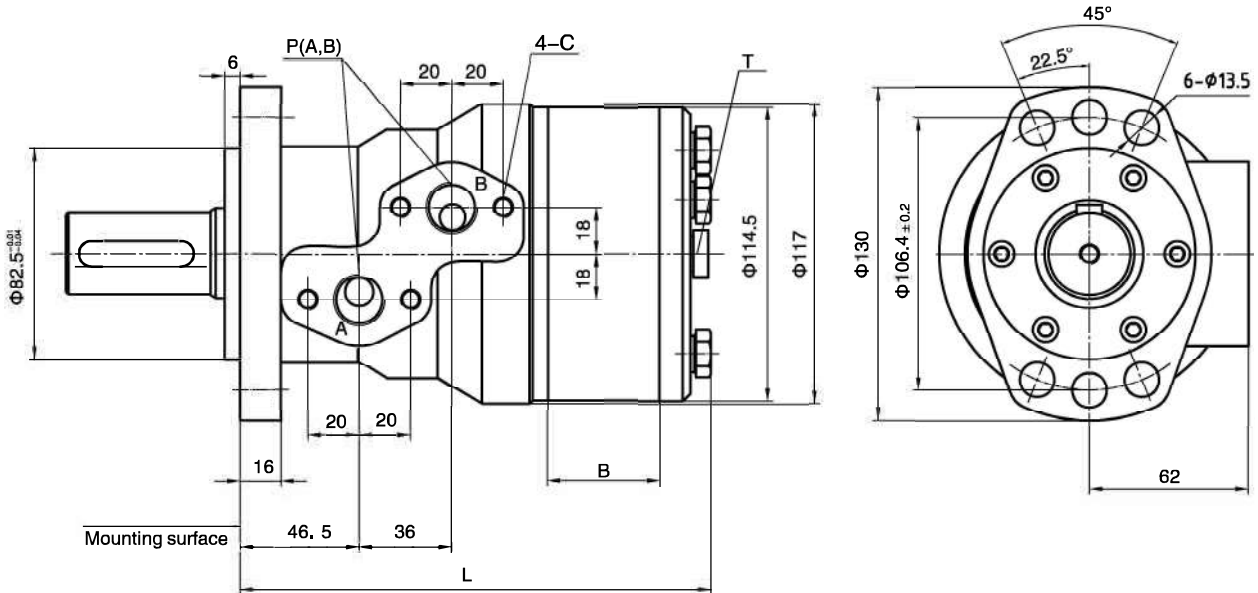
Flow(L/min)	Pressure (Mpa)					
	2.5	4	6	8.5	12	15
10	153 <b>21</b>	249 <b>20</b>				
20	152 <b>42</b>	242 <b>41</b>	370 <b>40</b>	650 <b>34</b>	755 <b>29</b>	940 <b>23</b>
30	150 <b>62</b>	236 <b>61</b>	361 <b>60</b>	645 <b>55</b>	742 <b>49</b>	931 <b>45</b>
40	147 <b>82</b>	230 <b>81</b>	352 <b>80</b>	640 <b>74</b>	731 <b>69</b>	922 <b>65</b>
50	145 <b>104</b>	224 <b>102</b>	340 <b>100</b>	637 <b>96</b>	720 <b>90</b>	911 <b>84</b>
60	142 <b>124</b>	212 <b>122</b>	331 <b>120</b>	632 <b>114</b>	703 <b>110</b>	899 <b>104</b>
70	140 <b>146</b>	202 <b>143</b>	328 <b>140</b>	621 <b>136</b>	689 <b>131</b>	887 <b>125</b>
Max.cont.	130 <b>154</b>	197 <b>152</b>	324 <b>150</b>	612 <b>142</b>	682 <b>136</b>	879 <b>130</b>
80	121 <b>165</b>	183 <b>163</b>	310 <b>161</b>	601 <b>150</b>	661 <b>142</b>	865 <b>138</b>
Max.int.	110 <b>185</b>	172 <b>184</b>	294 <b>182</b>	583 <b>172</b>	654 <b>167</b>	848 <b>161</b>

 □ Cont.  
 ■ Int.

## OTMH Orbit Hydraulic Motor With Spool Valve

## ■ OTMH Installation

## 6-hole oval flange ATV



TYPE	OTMH-200	OTMH-250	OTMH-315	OTMH-400	OTMH-500
L	168	175	184	196	205
B	28	35	44	56	65

## ■ OTMH PORTS CODE

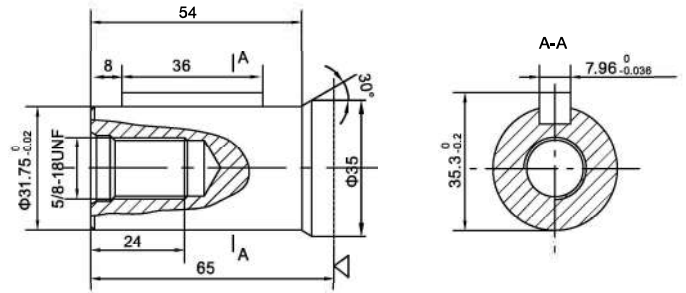
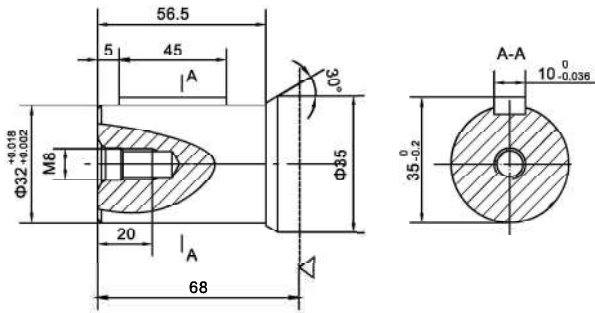
Code	Ports	P(A, B)(deep)	C ( deep )	T ( deep )
Y		G1/2 (15)	M8 (13)	G1/4 (12)
Y5		7/8-14UNF (15)	3/8-16UNC (13)	7/16-20UNF (12)
Y8		NPT1/2 (15)	5/16-18UNC (13)	7/16-20UNF (12)
Y25		7/8-14UNF (15)	M8 (13)	7/16-20UNF (12)

Note: P(A, B)---Ports, C---Mounting Thread ( —Indicates no this thread ) , T---Drain connettion

■ OTMH SHAFT VERSION

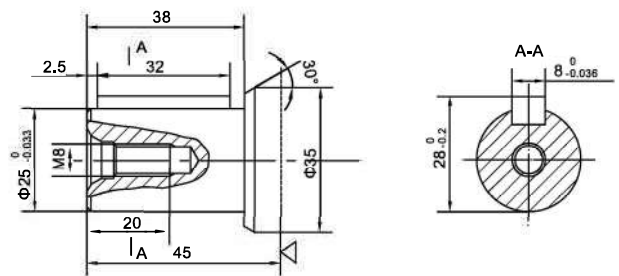
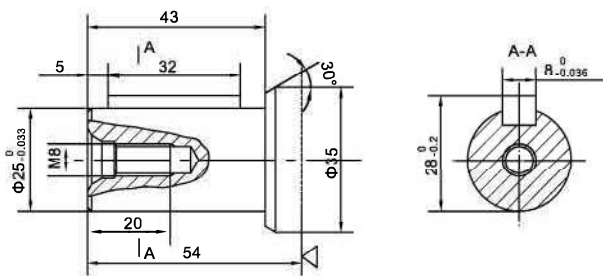
P1:  $\Phi 32$  Cylindrical shaft, parallel key  $10 \times 8 \times 45$

P2:  $\Phi 31.75$  Cylindrical shaft, parallel key  $7.96 \times 7.96 \times 36$

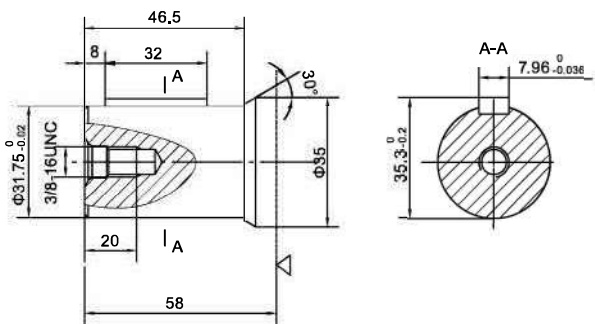



P3:  $\Phi 25$  Cylindrical shaft, parallel key  $8 \times 7 \times 32$

P4:  $\Phi 25$  Cylindrical shaft, parallel key  $8 \times 7 \times 32$



P5:  $\Phi 31.75$  Cylindrical shaft, parallel key  $7.96 \times 7.96 \times 32$

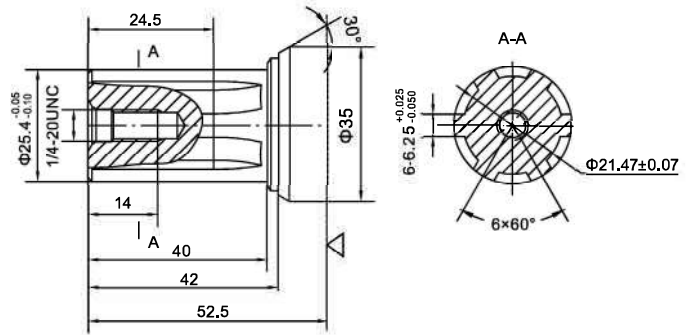
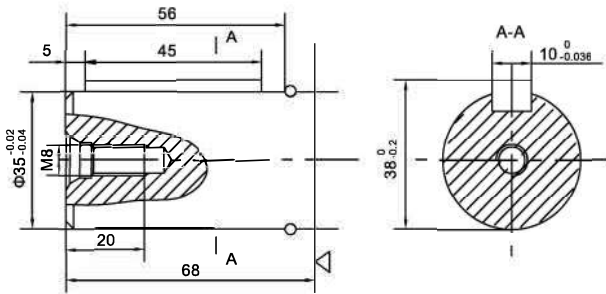


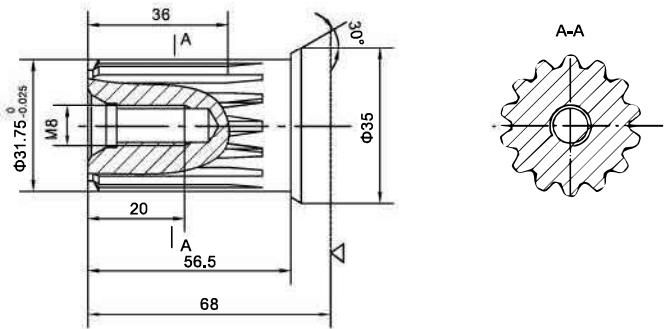
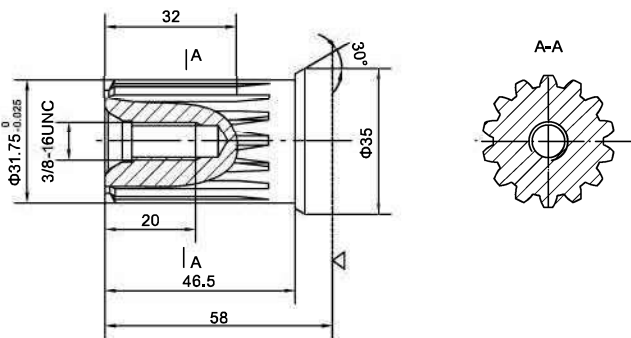
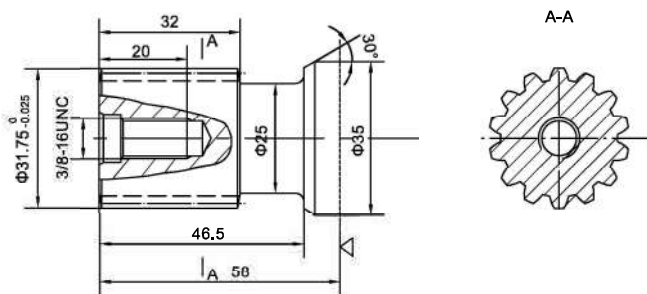

 : Motor mounting surface

## OTMH Orbit Hydraulic Motor With Spool Valve

**OTMH SHAFT VERSION**

 P7:  $\Phi 35$  Cylindrical shaft, parallel key  $10 \times 8 \times 45$ 

 H3:  $\Phi 25.4$  Splined shaft, 6-25.4  $\times$  21.47  $\times$  6.25

 K1:  $\Phi 31.75$  involute splined shaft 14-DP12/24  $a=30^\circ$ 

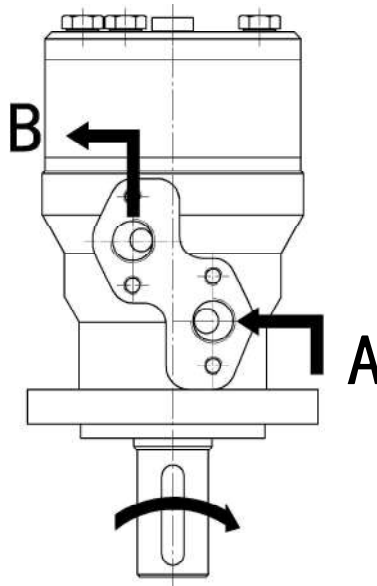
 K2:  $\Phi 31.75$  involute splined shaft 14-DP12/24  $a=30^\circ$ 

 K11:  $\Phi 31.75$  involute splined shaft 14-DP12/24  $a=30^\circ$ 

 : Motor mounting surface



■ OTMH Series Motor

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.



## OTMH Orbit Hydraulic Motor With Spool Valve

## ■ OTMH ORDERING CODE

1	2	3	4	5	6	7
OTMH	—				/	—

Pos.1	2	3		4			
Series	Disp	Output		Flange			
OTMH	200	P1	Φ32 Cylindrical shaft, parallel key10 × 8 × 45		AIV	6-Φ 13.5 Oval flange, pilot Φ 82.5 × 6	
		P2	Φ31.75 Cylindrical shaft, parallel key7.96 × 7.96 × 36				
		P3	Φ25 Cylindrical shaft, parallel key8 × 7 × 32				
	250	P4	Φ25 Cylindrical shaft, parallel key8 × 7 × 32				
		P5	Φ31.75 Cylindrical shaft, parallel key7.96 × 7.96 × 32				
	315	P6	Φ32 Cylindrical shaft, parallel key10 × 8 × 45				
		P7	Φ35 Cylindrical shaft, parallel key10 × 8 × 45				
	400	H3	Φ25.4 Splined shaft, 6-25.4 × 21.47 × 6.25				
		500	K1	Φ31.75 involute splined shaft, 14-DP12/24 a=30°			
			K2	Φ31.75 involute splined shaft, 14-DP12/24 a=30°			
			K11	Φ31.75 involute splined shaft, 14-DP12/24 a=30°			

5			6		7	
Code	Ports		Special features		Rotation direction	
	Ports(A,B)(deep)	Drain port T(deep)				
Y	G1/2(15)	G1/4(12)	Omit	Standard	Omit	Standard
Y5	7/8-14UNF(15)	7/16-20UNF(12)				
Y8	NPTF1/2(15)	7/16-20UNF(12)			L	Opposite
Y25	7/8-14UNF(15)	7/16-20UNF(12)				

## OTMP Orbit Hydraulic Motor With Spool Valve

### INTRODUCTION



This series of motor are small volume,economical type,which is designed with Spool Valve,which adapt the gerotor gear set design and provide compact volume,high power and low weight.

### CHARACTERISTICS

- 1 Advanced manufacturing devices for the Gerotor gear set, which provide small volume, high efficiency and long life.
- 2 Shaft seal can bear high pressure of motor of which can be used in parallel or in series.
- 3 Advanced construction design,high power and low weight.

### OTMP TECHNICAL DATA

TYPE		OTMP 50	OTMP 80	OTMP 100	OTMP 125	OTMP 160	OTMP 200	OTMP 250	OTMP 315	OTMP 400
Displacement(ml/r)		52.9	79.3	98.2	120.9	158.7	196.4	241.8	317.3	392.9
Max.Pressure.Drop (Mpa)	cont.	14	14	14	14	14	14	12	10	8
	int.	17.5	17.5	17.5	17.5	17.5	17.5	14	12	10
	peak.	22	22	22	22	22	22	20	15	13
Max.torque (N.m)	cont.	97	148	183	229	295	364	369	404	416
	int.	125	189	238	292	382	470	444	501	531
	peak.	149	222	276	340	445	532	568	555	596
Max.Speed(cont.)(r/min)		755	750	610	490	375	305	245	185	150
Max.Flow(cont.)(L/min)		40	60	60	60	60	60	60	60	60
Max.Output.Power(cont.)(Kw)		6.5	10	10	10	10	10	8	7	5.7
Weight (kg)		5.6	5.7	5.9	6	6.2	6.4	6.6	6.9	7.4

Intermittent operation the permissible values may occur for max. 10% of every minute

Peak load: the permissible values may occur for max. 1% of every minute

## OTMP Orbit Hydraulic Motor With Spool Valve

**OTMP PERFORMANCE DATA**

OTMP 50(52.9ml/r)

		Pressure (Mpa)							
		3	6	8	10	12.5	14	16	17.5
Flow(L/min)	8	18 148	38 140	55 123	69 102	87 83	100 61	115 42	
	15	19 277	39 264	56 251	70 242	87 233	102 219	116 202	128 188
Max.cont.	20	19 370	39 359	54 348	69 337	89 328	100 320	115 301	127 282
	30	18 556	38 541	53 529	68 516	88 509	98 500	114 487	126 461
Max.int.	35	17 649	37 629	52 619	67 608	86 601	97 595	113 578	125 559
	40	16 741	36 725	50 718	66 710	85 695	96 688	111 673	123 627
Max.int.	50	13 927	31 919	47 910	59 900	81 888	94 874	104 856	115 837
	60	9 1122	25 1101	42 1094	50 1082	76 1075	90 1064	98 1042	106 1011

OTMP 80(79.3ml/r)

		Pressure (Mpa)							
		3	6	8	10	12.5	14	16	17.5
Flow(L/min)	8	33 99	60 91	81 79	103 67	133 56	148 42	172 32	
	15	36 185	61 172	82 163	104 152	133 134	149 125	173 117	192 94
Max.cont.	20	34 247	62 238	83 230	105 220	134 205	150 197	174 189	192 172
	30	33 370	60 363	82 355	104 342	133 327	149 316	172 302	190 285
Max.int.	35	32 433	59 417	80 406	102 398	121 390	148 384	170 367	189 365
	40	30 494	57 484	78 478	101 471	129 461	147 453	169 443	188 411
Max.int.	50	29 617	56 604	77 597	100 590	128 578	145 571	168 558	186 519
	60	28 741	55 726	76 718	99 710	127 700	144 686	167 673	184 624
Max.int.	75	22 926	48 906	71 896	93 887	120 867	134 857	160 838	175 779

OTMP 100(98.2ml/r)

		Pressure (Mpa)							
		3	6	8	10	12.5	14	16	17.5
Flow(L/min)	8	37 80	73 68	98 59	128 50	164 163	186 33		
	15	38 150	74 139	99 129	129 117	165 102	187 96	218 87	240 69
Max.cont.	20	39 200	75 189	100 180	130 171	166 159	188 150	219 136	241 119
	30	37 299	73 286	98 279	127 270	163 259	185 250	216 234	239 219
Max.int.	35	36 349	71 338	97 333	126 329	161 318	183 309	214 299	238 281
	40	35 399	70 391	96 387	124 383	160 375	182 370	213 363	236 338
Max.int.	50	34 499	69 489	95 484	123 479	159 468	181 463	211 453	235 423
	60	33 599	68 587	94 580	122 574	158 562	180 556	210 544	233 507
Max.int.	75	27 748	61 733	86 726	111 718	149 703	168 695	198 680	202 634

OTMP 125(120.9ml/r)

		Pressure (Mpa)							
		3	6	8	10	12.5	14	16	17.5
Flow(L/min)	8	44 65	90 61	123 51	158 44	205 36	231 30		
	15	45 122	91 118	124 112	159 105	206 99	232 91	265 79	294 61
Max.cont.	20	46 165	90 152	125 143	160 133	206 126	233 112	266 106	295 98
	30	45 243	88 238	123 236	158 231	204 224	230 217	264 206	293 191
Max.int.	35	43 284	86 278	121 275	156 272	202 266	229 263	263 258	292 240
	40	42 342	85 323	120 314	154 311	200 304	226 201	262 294	290 274
Max.int.	50	41 405	84 397	118 393	152 389	197 380	223 376	261 368	288 343
	60	40 486	83 476	116 470	150 465	195 465	221 452	259 441	286 412
Max.int.	75	31 608	78 596	107 589	139 583	187 571	211 564	241 552	272 515

OTMP 160(158.7ml/r)

		Pressure (Mpa)							
		3	6	8	10	12.5	14	16	17.5
Flow(L/min)	8	57 49	117 46	160 41	206 34	261 29			
	15	58 93	118 84	161 79	207 72	262 64	298 58	349 50	385 41
Max.cont.	20	59 123	119 118	162 115	208 111	263 104	299 99	350 93	386 82
	30	58 185	117 181	160 177	205 173	261 168	298 165	348 159	384 148
Max.int.	35	57 216	115 211	159 209	203 207	260 202	295 200	346 196	382 183
	40	55 247	114 241	156 238	201 236	259 231	293 228	344 220	380 207
Max.int.	50	53 309	111 302	154 299	199 296	258 289	292 286	342 280	378 261
	60	52 370	109 363	152 359	197 355	256 348	290 344	340 336	376 314
Max.int.	75	43 463	101 453	143 448	190 444	249 430	282 420	322 410	358 383

OTMP 200(196.4ml/r)

		Pressure (Mpa)							
		3	6	8	10	12.5	14	16	17.5
Flow(L/min)	8	69 40	140 33	193 29	248 25				
	15	70 75	141 70	194 64	249 58	324 50	366 41	428 32	
Max.cont.	20	71 100	142 92	195 83	250 75	325 69	367 58	428 52	472 47
	30	70 150	141 140	193 136	248 129	324 120	323 112	366 101	426 93
Max.int.	35	69 175	140 170	191 164	247 160	321 154	364 148	425 140	470 129
	40	67 199	138 194	190 191	246 188	320 183	362 179	423 171	468 159
Max.int.	50	66 249	136 244	189 241	244 239	318 234	361 230	422 226	466 211
	60	65 299	135 293	187 290	243 287	316 281	359 278	420 255	465 238
Max.int.	75	58 374	127 366	179 362	234 358	308 351	348 347	408 339	456 317

( Torque ) : 143Nm  
( Speed ) : 448r/min

□ Cont.  
■ Int.

## OTMP Orbit Hydraulic Motor With Spool Valve

**OTMP PERFORMANCE DATA**
**OTMP 250(241.8ml/r)**
**Pressure (Mpa)**

		Max.cont. Max.int.					
		3	6	8	10	12	14
Flow(L/min)	8	86 32	172 30	234 26			
	15	87 61	173 59	235 54	297 49	368 40	443 33
	20	88 81	174 78	236 73	298 68	369 62	444 56
	30	86 123	173 120	235 118	297 116	368 112	443 103
	35	85 142	171 138	234 132	296 125	366 117	442 108
Max.cont.	40	83 162	169 159	232 154	294 150	364 144	440 135
	50	82 203	167 198	230 195	293 193	362 191	438 186
	60	81 243	166 238	228 236	292 233	360 230	437 221
Max.int.	75	74 304	153 297	212 294	281 291	349 288	423 277

**OTMP 315(317.3ml/r)**
**Pressure (Mpa)**

		Max.cont. Max.int.					
		3	5	7	9	10	12
Flow(L/min)	8	114 25	191 22	270 19			
	15	115 46	192 42	271 38	355 34	403 29	500 21
	20	116 62	193 59	272 55	356 51	404 45	501 40
	30	114 93	191 90	270 86	354 80	403 76	499 65
	35	112 108	189 105	268 103	352 101	400 100	497 95
Max.cont.	40	110 123	187 121	266 119	350 116	398 114	495 109
	50	108 154	184 151	264 148	348 144	396 142	493 137
	60	106 185	182 181	262 179	346 176	394 174	491 171
Max.int.	75	100 231	175 226	156 222	339 219	387 215	482 209

**OTMP 400(392.9ml/r)**
**Pressure (Mpa)**

		Max.cont. Max.int.					
		3	4	5	7	8	10
Flow(L/min)	8	155 20	204 18				
	15	156 37	205 34	262 31	366 27	428 24	544 19
	20	157 50	208 47	264 44	368 39	434 37	549 32
	30	152 75	204 72	258 69	362 66	424 64	540 60
	35	148 87	198 84	252 81	356 77	416 74	531 69
Max.cont.	40	142 100	193 97	246 94	348 90	406 88	523 84
	50	136 125	186 122	238 120	341 117	398 115	515 111
	60	131 150	180 148	231 146	333 142	390 140	506 137
Max.int.	75	123 187	168 183	215 179	312 172	371 169	492 162

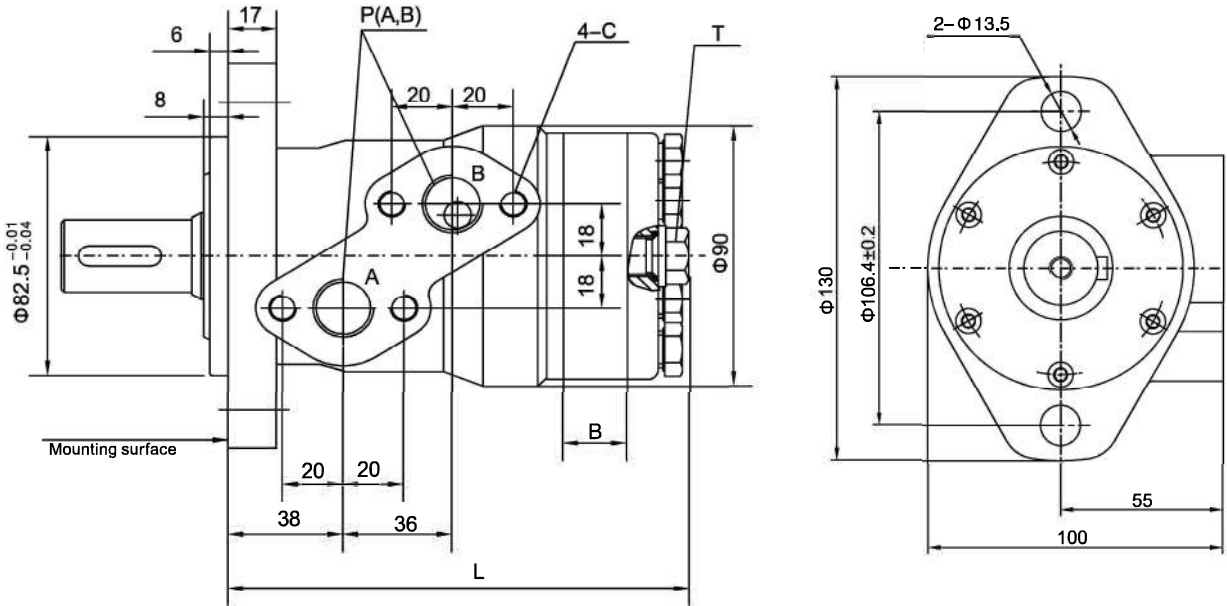
( Torque ) : 312Nm  
 ( Speed ) : 172r/min

□ Cont.  
 ■ Int.

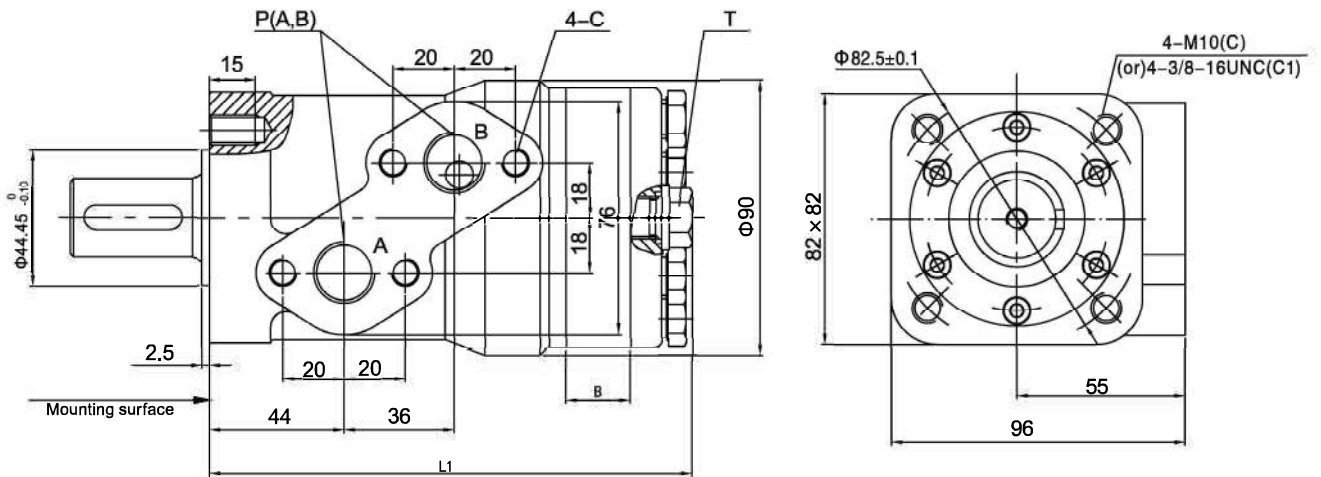
OTMP Orbit Hydraulic Motor With Spool Valve

■ OTMP Installation

2-hole oval flange A II



Square flange C,C1



Note: C, C1 mounting are assembling to OTMPH shaft.

TYPE	OTMP-50	OTMP-80	OTMP-100	OTMP-125	OTMP-160	OTMP-200	OTMP-250	OTMP-315	OTMP-400
L	143.5	145	147	150	155	160	166	176	186
L1	151.5	153	155	158	163	168	174	184	194
B	7	11	13	16	21	26	32	42	52



## OTMP Orbit Hydraulic Motor With Spool Valve

**OTMP PORTS CODE**

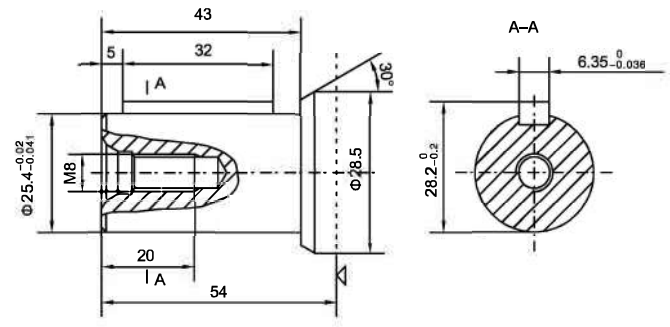
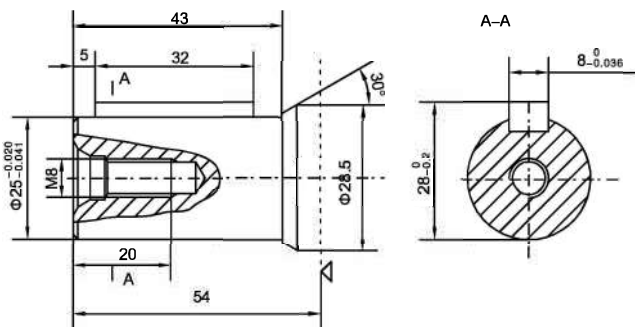
Code	Ports	P(A, B)(deep)	C ( deep )	T ( deep )
Y		G1/2 (15)	M8 (10)	M14 × 1.5 (12)
Y1		M18 × 1.5 (15)	M8 (10)	M14 × 1.5 (12)
Y2		M22 × 1.5 (15)	M8 (10)	M14 × 1.5 (12)
Y4		ZG3/8 (15)	M8 (10)	M14 × 1.5 (12)
Y5		7/8-14UNF (15)	—	M14 × 1.5 (12)
Y7		ZG1/2 (15)	M8 (10)	M14 × 1.5 (12)
Y8		NPT1/2 (15)	M8 (10)	M14 × 1.5 (12)
Y9		NPTF1/2 (15)	5/16-18 UNC(10)	7/16-20UNF(12)
Y10		G1/2 (15)	M8 (10)	G1/4 (12)
Y15		7/8-14UNF (15)	5/16-18UNC (10)	7/16-20UNF (12)


Note:P(A, B)—Ports, C—Mounting Thread ( —Indicates no this thread ) , T—Drain connettion

**OTMP SHAFT VERSION**

P1:  $\Phi 25$  Cylindrical shaft, parallel key  $8 \times 7 \times 32$

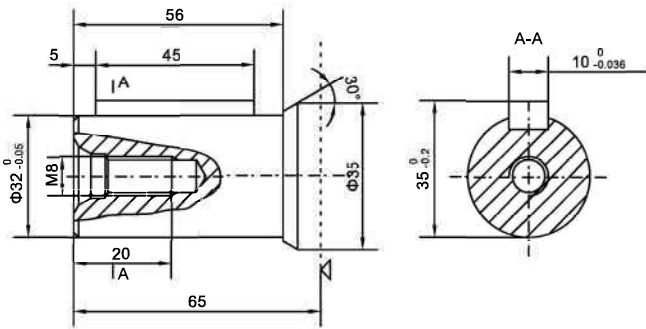
P3:  $\Phi 25.4$  Cylindrical shaft, parallel key  $6.35 \times 6.35 \times 32$



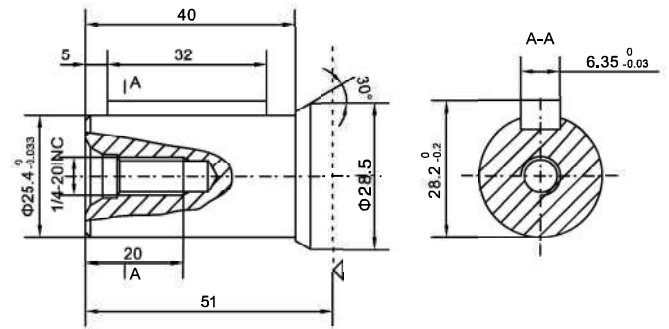
 : Motor mounting surface

■ OTMP SHAFT VERSION

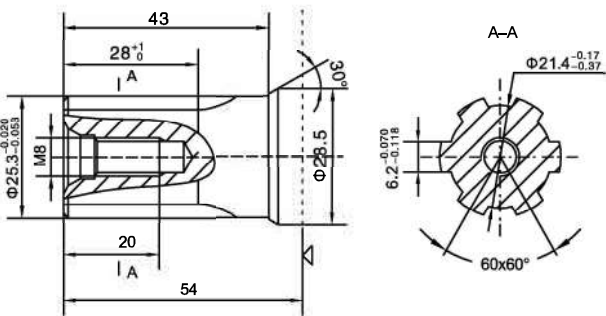
P5:  $\Phi 32$  Cylindrical shaft, parallel key  $10 \times 8 \times 45$



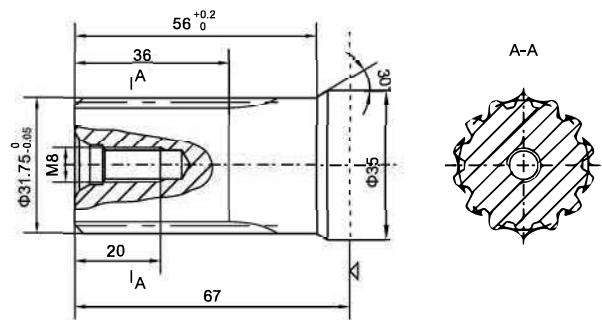
P33:  $\Phi 25.4$  Cylindrical shaft, parallel key  $6.35 \times 6.35 \times 32$



H3:  $\Phi 25.3$  Splined shaft, 6-25.3  $\times$  21.4  $\times$  6.2

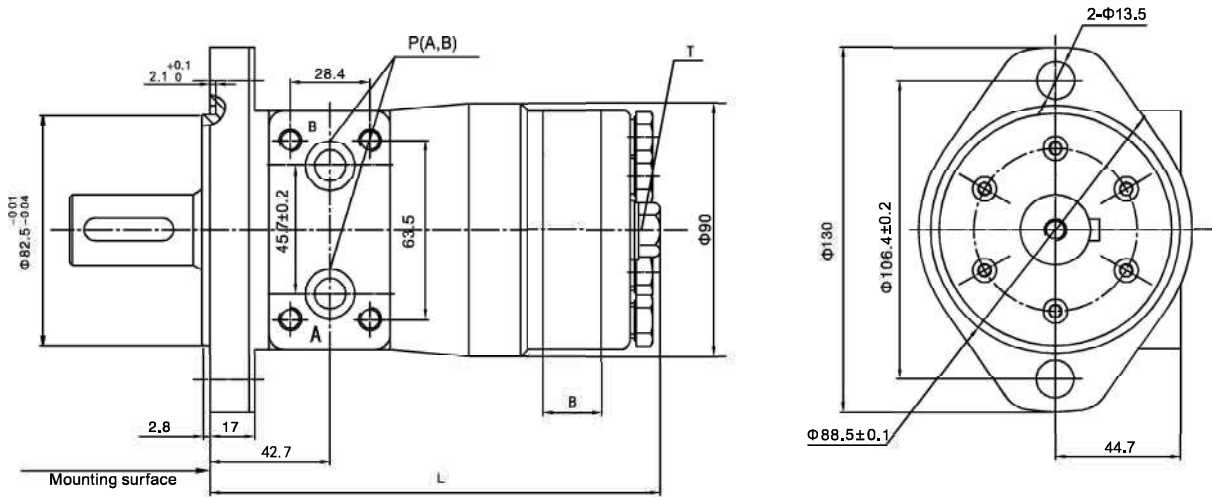
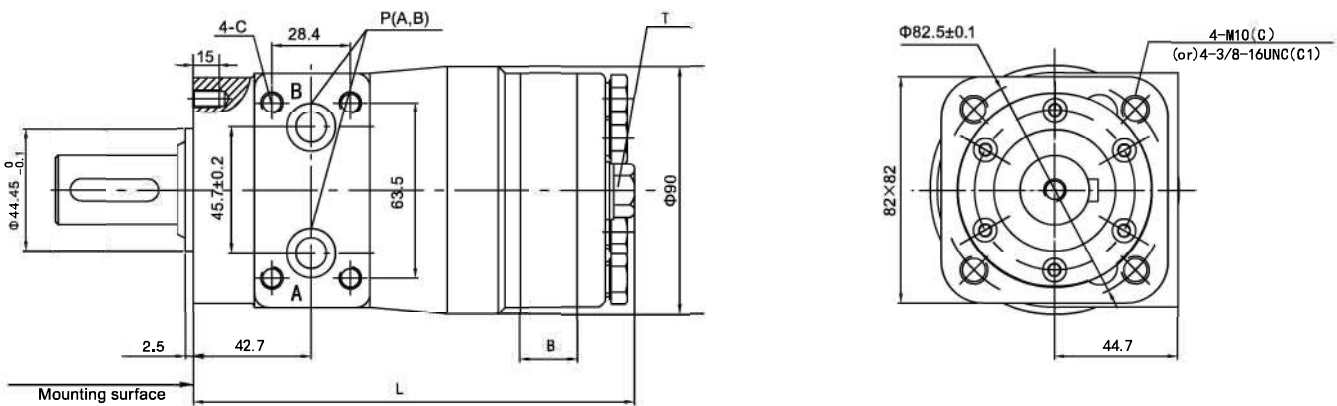


K13:  $\Phi 31.75$  involute splined shaft 14-DP12/24  $a=30^\circ$



◁ : Motor mounting surface

## OTMPH Orbit Hydraulic Motor With Spool Valve

**OTMPH Installation**
**2-hole oval flange A II**

**Square flange C,C1**


TYPE	OTMPH-50	OTMPH-80	OTMPH-100	OTMPH-125	OTMPH-160	OTMPH-200	OTMPH-250	OTMPH-315	OTMPH-400
L	151.5	153	155	158	163	168	174	184	194
B	7	11	13	16	21	26	32	42	52

OTMPH Orbit Hydraulic Motor With Spool Valve

■ OTMPH PORTS CODE

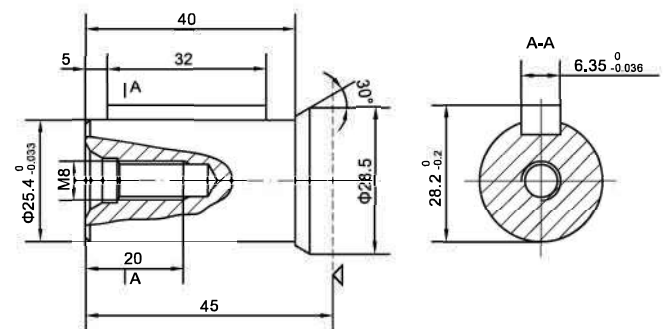
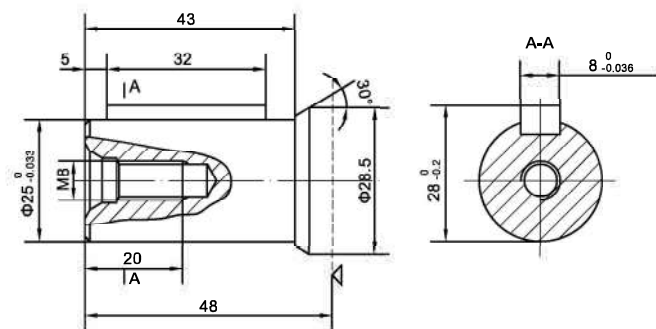
Code	Ports	P(A, B)(deep)	C ( deep )	T ( deep )
Y		G1/2 (15)	—	M14 × 1.5(12)
Y5		7/8–14UNF(15)	—	7/16–20UNF(12)
Y7		ZG1/2(15)	—	G1/4(12)
Y9		NPTF1/2(15)	—	7/16–20UNF(12)
Y10		G1/2(15)	—	G1/4(12)
Y17		3/4–16UNF(15)	—	7/16–20UNF(12)
Y19		Φ 11(15)	5/16–18UNC(13)	7/16–20UNF(12)
Y20		M18 × 1.5(15)	M8 (13)	G1/4(12)

P(A, B)—Ports, C—Mounting Thread ( —Indicates no this thread ) , T—Drain connettion

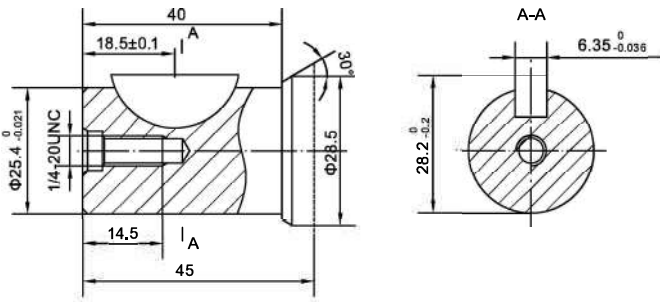
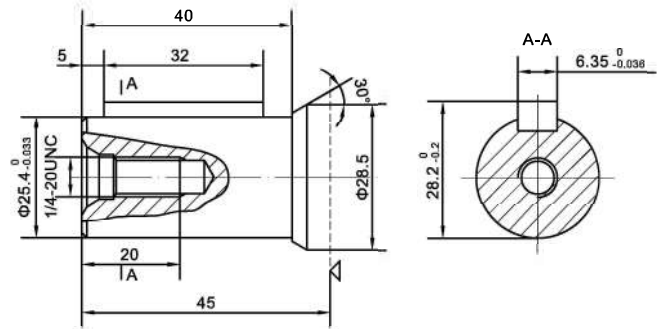
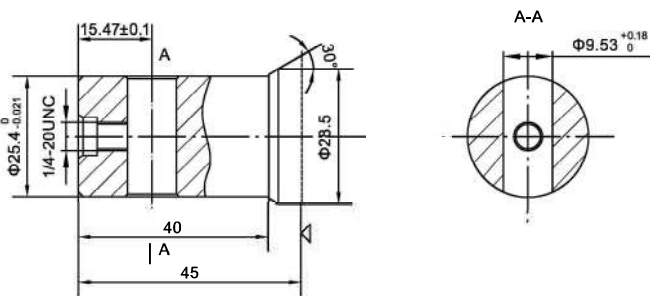
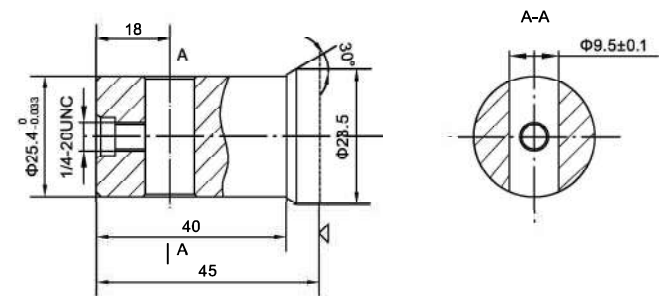
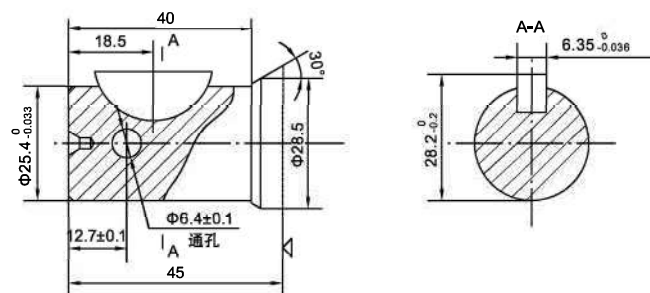
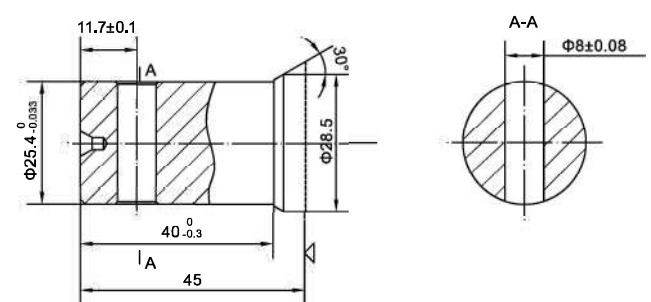
■ OTMPH SHAFT VERSION

P1: Φ25 Cylindrical shaft, parallel key 8 × 7 × 32

P3: Φ25.4 Cylindrical shaft, parallel key 6.35 × 6.35 × 32



◁ : Motor mounting surface

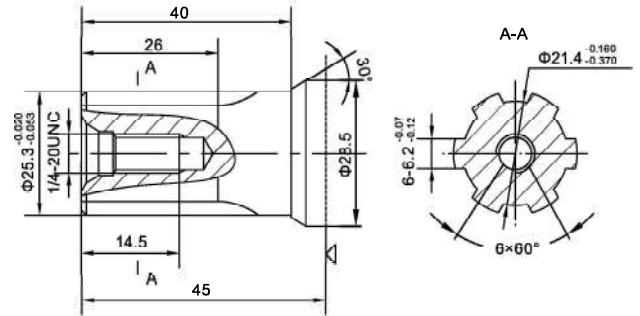
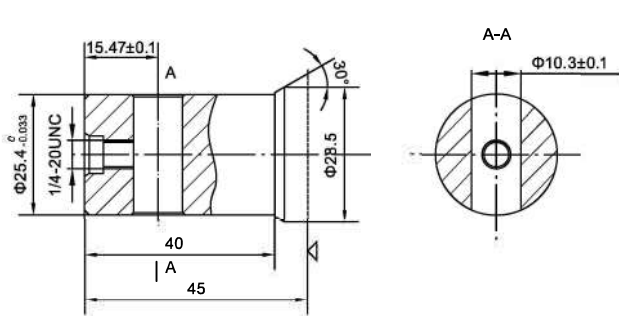
**OTMPH SHAFT VERSION**
**P4:  $\Phi 25.4$  Cylindrical shaft, Woodruff key  $\Phi 25.4 \times 6.35$** 

**P33:  $\Phi 25.4$  Cylindrical shaft, parallel key  $6.35 \times 6.35 \times 32$** 

**P89:  $\Phi 25.4$  Cylindrical shaft pin hole  $\Phi 9.53$** 

**P93:  $\Phi 25.4$  Cylindrical shaft pin hole  $\Phi 9.5$** 

**P95:  $\Phi 25.4$  Cylindrical shaft pin hole  $\Phi 6.4$ ,  
Woodruff key  $\Phi 25.4 \times 6.35$** 

**P96:  $\Phi 25.4$  Cylindrical shaft pin hole  $\Phi 8$** 

 : Motor mounting surface

OTMPH Orbit Hydraulic Motor With Spool Valve

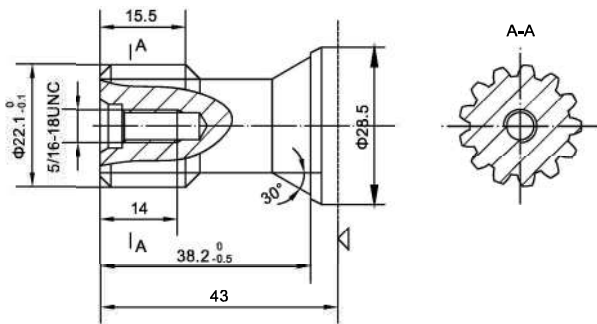
■ OTMPH SHAFT VERSION

P97:  $\Phi 25.4$  Cylindrical shaft pin hole  $\Phi 10.3$

H4:  $\Phi 25.3$  Splined shaft, 6-25.3 x 21.4 x 6.2



K8:  $\Phi 22.1$  involute splined shaft 13-DP16/32

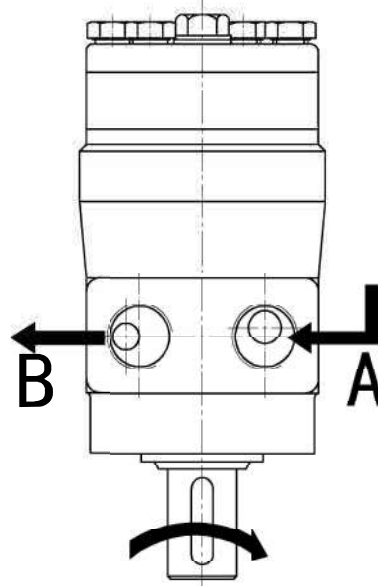
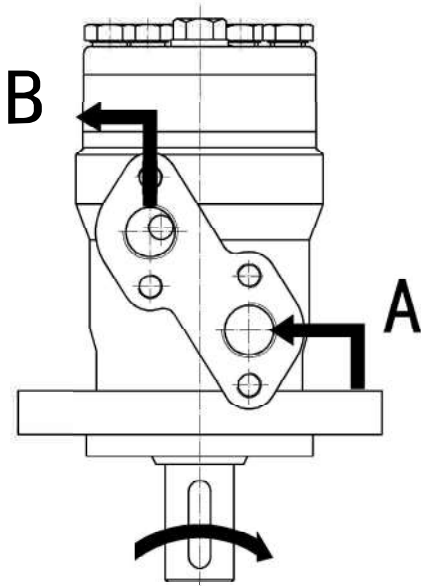


 : Motor mounting surface

■ OTMP、OTMPH Series Motor

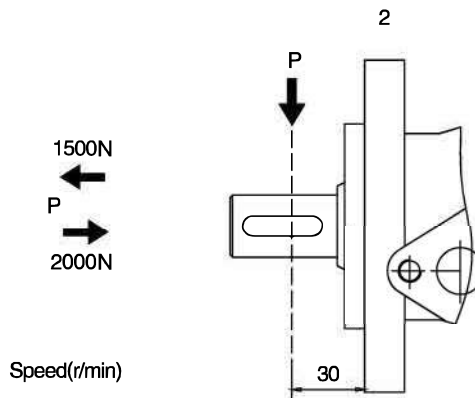
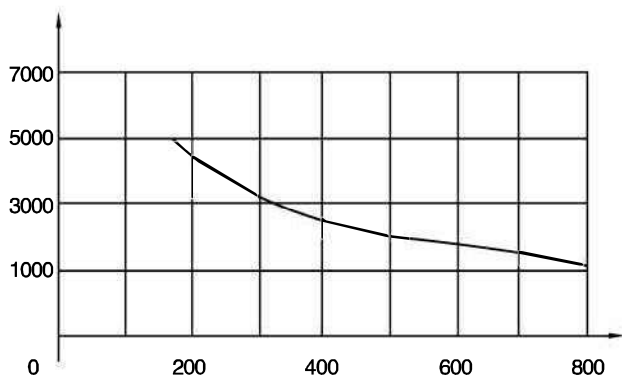
Direction of shaft rotation: Standard

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



■ PERMISSIBLE SHAFT LOADS

P (N) Radial force





## OTMP, OTMPH ORDERING CODE

## ■ OTMP OTMPH ORDERING CODE

1	2	3	4	5	6	7
OTMP	—				/	—

Pos.1	2	3			4		
Series	Disp	Output			Flange		
OTMP	50	P1	Φ25 Cylindrical shaft, parallel key 8 × 7 × 32			A II	2-Φ13.5 Oval flange, pilot Φ82.5 × 8
	80	P3	Φ25.4 Cylindrical shaft, parallel key 6.35 × 6.35 × 32				
	100	P5	Φ32 Cylindrical shaft, parallel key 10 × 8 × 45				
	125						
	160	P33	Φ25.4 Cylindrical shaft, parallel key 6.35 × 6.35 × 32			C	4-M10 Square flange, pilot Φ44.45 × 2.5
	200	H3	Φ25.3 Splined shaft, 6-25.3 × 21.4 × 6.2				
	250						
	315	H33	Φ25.3 Splined shaft, 6-25.3 × 21.4 × 6.2			C1	4-3/8-16UNC Square flange, pilot Φ44.45 × 2.5
	400	K13	Φ31.75 involute splined shaft, 14-DP12/24 a=30°				

5			6		7	
Code	Ports		Special features		Rotation direction	
	Ports(A,B)(deep)	Drain port T(deep)				
Y	G1/2(15)	M14 × 1.5(12)	Omit	Standard	Omit	Standard
Y1	M18 × 1.5(15)	M14 × 1.5(12)				
Y2	M22 × 1.5(15)	M14 × 1.5(12)				
Y4	ZG3/8(15)	M14 × 1.5(12)				
Y5	7/8-14UNF(15)	M14 × 1.5(12)	T7	With dustproof ring	L	Opposite
Y7	ZG1/2(15)	M14 × 1.5(12)	T10	With high pressure seals		
Y8	NPT1/2(15)	M14 × 1.5(12)				
Y9	NPTF1/2(15)	7/16-20UNF(12)				
Y10	G1/2(15)	G1/4(12)				
Y15	7/8-14UNF(15)	7/16-20UNF(12)				

Note: C、C1 mounting are assembling to OTMPH shaft.

## OTMP、OTMPH ORDERING CODE

## ■ OTMP, OTMPH ORDERING CODE

	1	2	3	4	5	6	7
OTMPH	—				/		—

Pos.1	2	3			4			
Series	Disp				Flange			
OTMPH	50	P1	Φ25 Cylindrical shaft, parallel key 8 × 7 × 32		A II	2-Φ 13.5 Oval flange, pilot Φ 82.5 × 2.8		
	80	P3	Φ25.4 Cylindrical shaft, parallel key 6.35 × 6.35 × 32					
		P4	Φ25.4 Cylindrical shaft, Woodruff key Φ 25.4 × 6.35					
	100	P33	Φ25.4 Cylindrical shaft, parallel key 6.35 × 6.35 × 32					
	125	P89	Φ25.4 Cylindrical shaft pin hole Φ 9.53					
		P93	Φ25.4 Cylindrical shaft pin hole Φ 9.5					
	160	P95	Φ25.4 Cylindrical shaft pin hole Φ 6.4, Woodruff key Φ 25.4 × 6.35		C	4-M10 Square flange, pilot Φ 44.45 × 2.8		
		200	P96	Φ25.4 Cylindrical shaft pin hole Φ 8				
	250	P97	Φ25.4 Cylindrical shaft pin hole Φ 10.3					
		315	H4	Φ25.3 Splined shaft, 6-25.3 × 21.4 × 6.2				
	400	K8	Φ22.1 involute splined shaft, 13-DP16/32				C1	4-3/8-16UNC Square flange, pilot Φ 44.45 × 2.8

5			6		7					
Code	Ports		Special features		Rotation direction					
	Ports(A,B)(deep)	Drain port T(deep)								
Y	G1/2(15)	M14 × 1.5(12)	Omit	Standard	Omit	Standard				
Y5	7/8-14UNF(15)	7/16-20UNF(12)								
Y7	ZG1/2(15)	G1/4(12)								
Y9	NPTF1/2(15)	7/16-20UNF(12)								
Y10	G1/2(15)	G1/4(12)					T21	No case drain	L	Opposite
Y17	3/4-16UNF(15)	7/16-20UNF(12)								
Y19	Φ 11(15)	7/16-20UNF(12)								
Y20	M18 × 1.5(15)	G1/4(12)								

## OTH Orbit Hydraulic Motor With Spool Valve

### OTH INTRODUCTION



This series of motor, with its shell made of ductile cast iron of adequate intensity, can be applied to situations with less load and interval operation, widely to agriculture, forestry, plastics, machine tools and minmachines etc.

### OTH CHARACTERISTICS

- 1、With the axial oil distribution structure, it is of smaller, high efficiency and long life.
- 2、shaft seal can bear high pressure of motor of which can be used in parallel or in series.

### OTH TECHNICAL DATA

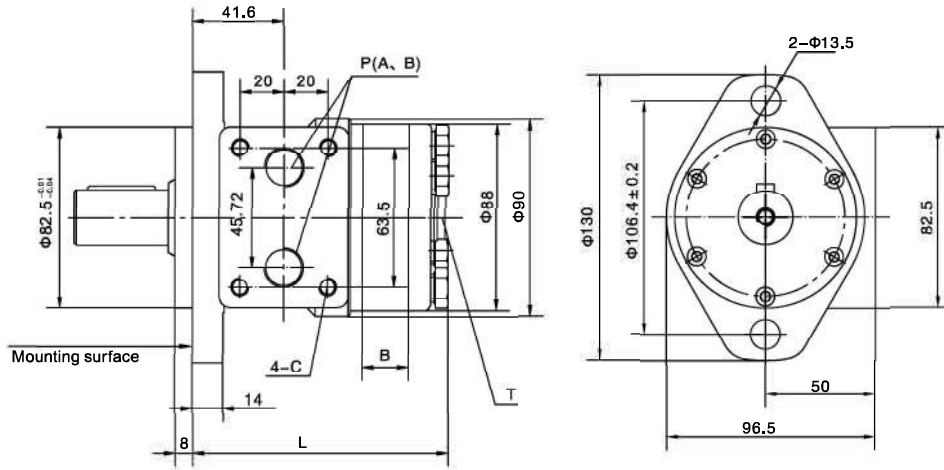
TYPE		OTH-50	OTH-80	OTH-100	OTH-125	OTH-160	OTH-200	OTH-250	OTH-315	OTH-400
Displacement(ml/r)		49.3	76.6	95.8	120.4	153.2	191.6	240.8	306.5	383.1
Max.Pressure.Drop (Mpa)	cont.	10.5	10.5	10.5	10.5	10.5	10.5	9	7	7
	int.	14	14	14	14	14	14	11.5	10.5	9
	peak.	18	18	18	18	18	18	15	14	11
Max.torque (N.m)	cont.	65	105	130	160	205	255	275	305	335
	int.	90	140	175	220	280	350	360	410	429
	peak.	115	180	225	285	365	455	475	560	550
Max.Speed ( cont.)(r/min )		810	520	415	330	260	205	165	125	100
Max.Flow(L/min )		40	40	40	40	40	40	40	40	40
Max.Output.Power(cont.)(Kw)		4.5	4.8	4.8	4.8	4.8	4.6	4	3.5	3

Intermittent operation the permissible values may occur for max. 10% of every minute

Peak load: the permissible values may occur for max. 1% of every minute

## OTH Orbit Hydraulic Motor With Spool Valve

### OTH INSTALLATION



TYPE	OTH-50	OTH-80	OTH-100	OTH-125	OTH-160	OTH-200	OTH-250	OTH-315	TH-400
L	107	112	115.5	120	126	133	142	154	168
B	9	14	17.5	22	28	35	44	56	70

### OTHPORTS CODE

Code	Ports	P ( A, B ) ( deep )	C ( deep )	T ( deep )
Y		G1/2 ( 15 )	M8 ( 13 )	M14x1.5 ( 12 )
Y1		M18x1.5 ( 15 )	M8 ( 13 )	M14x1.5 ( 12 )
Y2		M22x1.5 ( 15 )	M8 ( 13 )	M14x1.5 ( 12 )
Y9		NPTF1/2 ( 15 )	5/16-18UNC ( 13 )	7/16-20UNF ( 12 )
Y10		G1/2 ( 15 )	M8 ( 13 )	G1/4 ( 12 )
Y15		7/8-14UNF ( 15 )	5/16-18UNC ( 13 )	7/16-20UNF ( 12 )

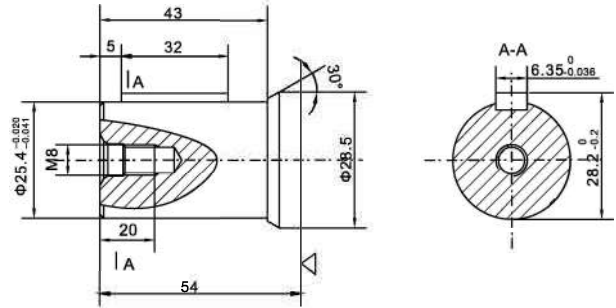
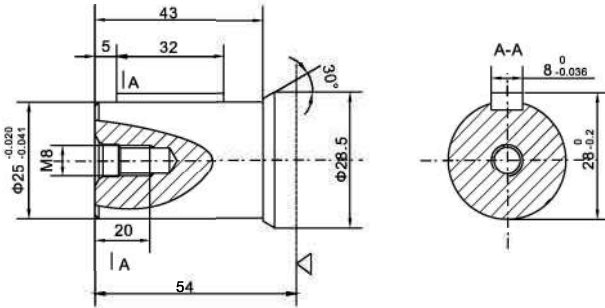
Note:P(A, B)--Ports, C--Mounting Thread ( —Indicates no this thread ), T--Drain connettion

OTH Orbit Hydraulic Motor With Spool Valve

OTH SHAFT VERSION

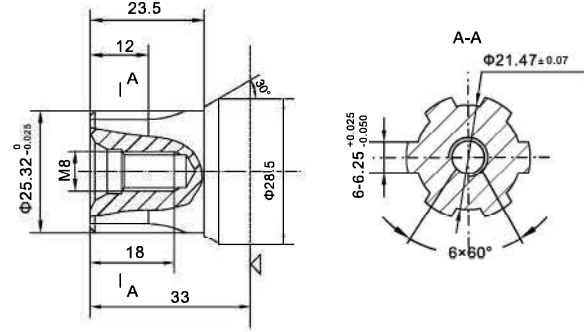
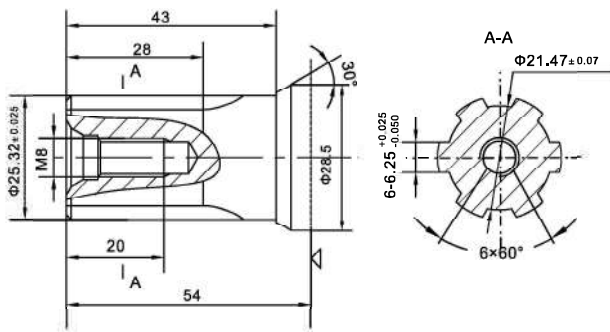
P1:  $\Phi 25$  Cylindrical shaft, parallel key 8x7x32

P3:  $\Phi 25.4$  Cylindrical shaft, parallel key 6.35x6.35x32



H3:  $\Phi 25.3$  Splined shaft, 6-25.32x21.47x6.25

H5:  $\Phi 25.3$  Splined shaft, 6-25.32x21.47x6.25



 : Motor mounting surface

**OTH Orbit Hydraulic Motor With Spool Valve**
**OTH ORDERING CODE**

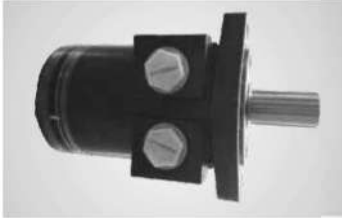
1	2	3	4	5	6	7
OTH	—				/	—

Pos.1	2	3			4	
Series	Disp	Output Shaft			Flange	
OTH	50	P1	Φ 25Cylindrical shaft, parallel key 8x7x32		A II	2-Φ13.5 Oval flange polit Φ82.5x8
	80					
	100	P3	Φ 25.4 Cylindrical shaft, parallel key 6.35x6.35x32			
	125					
	160	H3	Φ25.3Splined shaft, 6-25.32x21.47x6.25			
200	H5	Φ25.3Splined shaft, 6-25.32x21.47x6.25				
250						
	315					
	400					

5			6		7	
Code	Ports		Special features		Rotation direction	
	Ports(A,B)(deep)	Drain port T(deep)				
Y	G1/2 ( 15 )	M14x1.5 ( 12 )	Omit	Standard	Omit	Standard
Y1	M18x1.5 ( 15 )	M14x1.5 ( 12 )				
Y2	M22x1.5 ( 15 )	M14x1.5 ( 12 )				
Y9	NPTF1/2 ( 15 )	7/16-20UNF ( 12 )				
Y10	G1/2 ( 15 )	G1/4 ( 12 )				
Y15	7/8-14UNF ( 15 )	7/16-20UNF ( 12 )			L	

## OTMPH Orbit Hydraulic Motor With Spool Valve

### INTRODUCTION



OTMPH series motors is a compact, economical and spool valve type of hydraulic motor. Suitable for working conditions with small load and intermittent operation. Widely used in agriculture, forestry, plastics, machine tools and mining machinery. Such as in jecton plastic machine's mold ad justment, sweeping car, sawmill and other work platforms.

### CHARACTERISTICS

1. Due to the geroler type, it has low friction, high mechanical efficiency and long lifetime.
2. High shaft seal could be used in parallel and in series.
3. With two inside check valves, it needn't to connect the case drain.
4. Same performance with BMR series motor, similar size with BMP series motor.
5. The mounting flange and the front housing are separated, so it is easy to replace the flange.

### OTMPH TECHNICAL DATA

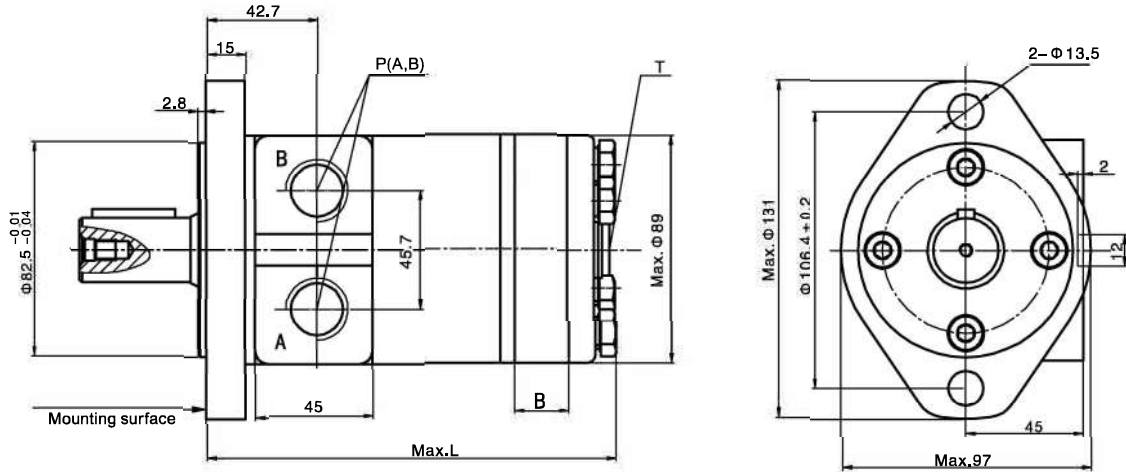
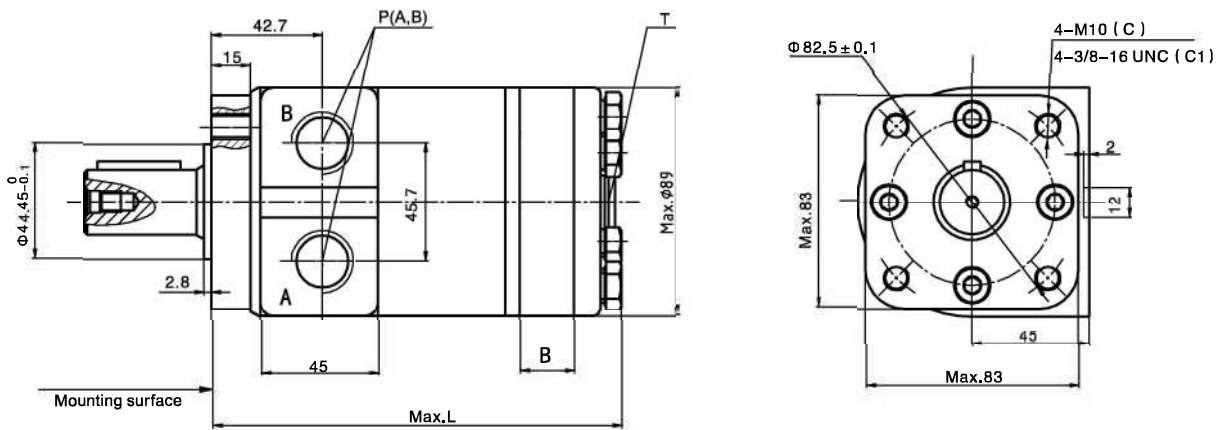
TYPE		OTMPH-50	OTMPH-80	OTMPH-100	OTMPH-125	OTMPH-160	OTMPH-200	OTMPH-250	OTMPH-315	OTMPH-400
Displacement(ml/r)		49.3	76.6	95.8	120.4	153.2	191.6	240.8	306.5	383.1
Max.Pressure.Drop (Mpa)	cont.	14	14	14	14	14	14	11	9	7
	int.	17.5	17.5	17.5	17.5	17.5	17.5	14	11	9
	peak.	20	20	20	20	20	20	16	13	11
Max.torque (N.m)	cont.	90	140	175	220	280	350	350	360	350
	int.	115	175	220	275	355	440	445	445	455
	peak.	130	205	255	320	410	510	515	530	555
Max.Speed ( cont.)(r/min )		810	780	625	495	390	310	245	195	155
Max.Flow(L/min )		40	60	60	60	60	60	60	60	60
Max.Output.Power(cont.)(Kw)		6.4	9.5	9.5	9.5	9.5	9.5	7.4	6	4.8

1. Intermittent operation the permissible vavles may occur for max.10%of every minute  
Peak load:the permissible valves may occur for max.1% of every minute

2. to use under max.speed & maxpressure at the same time is not recommended



## OTMPH Orbit Hydraulic Motor With Spool Valve

**OTMPH Installation**
**2-Ø13.5hole oval flange AII**

**Square flange C, C1**


TYPE	OTMPH-50	OTMPH-80	OTMPH-100	OTMPH-125	OTMPH-160	OTMPH-200	OTMPH-250	OTMPH-315	OTMPH-400
L	148	153	156.5	161	167	174	183	195	209
B	9	14	17.5	22	28	35	44	56	70

## OTMPH Orbit Hydraulic Motor With Spool Valve

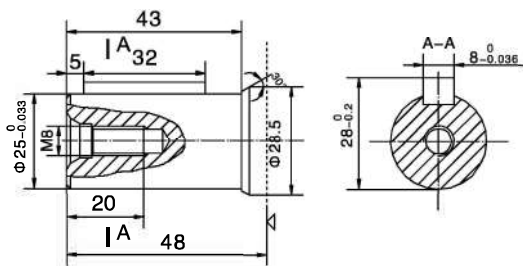
**OTMPH Ports Code**

Code	Ports	P(A, B)(deep)	C ( deep )	T ( deep )
Y		G1/2 (15)	—	M14 × 1.5 (12)
Y7		ZG1/2 (15)	—	G1/4 (12)
Y9		NPTF1/2 (15)	—	7/16–20 UNF(12)
Y10		G1/2 (15)	—	G1/4 (12)
Y15		7/8–14UNF (15)	—	7/16–20 UNF(12)

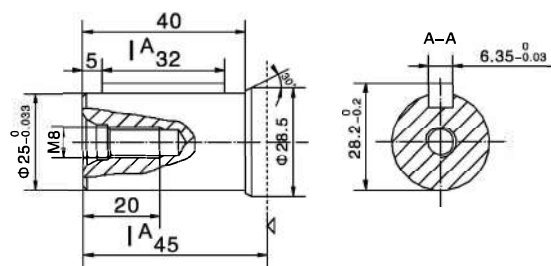
P(A, B)—Ports, C—Mounting Thread ( —Indicates no this thread ) , T—Drain connettion

**OTMPH SHAFT VERSION**

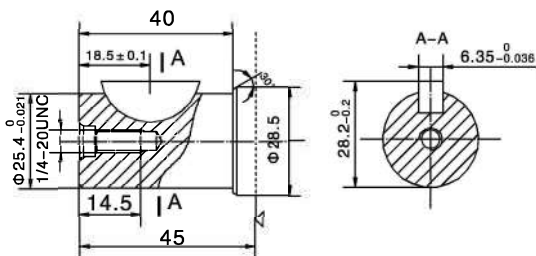
P1:  $\phi 25$  Cylindrical shaft, parallel key  $8 \times 7 \times 32$



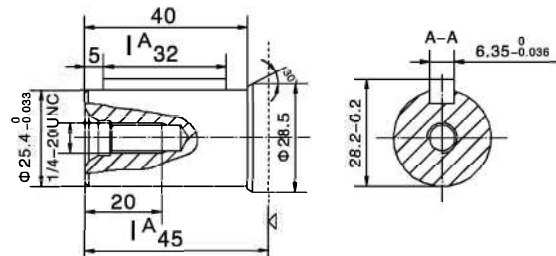
P3:  $\phi 25.4$  Cylindrical shaft, parallel key  $6.35 \times 6.35 \times 32$



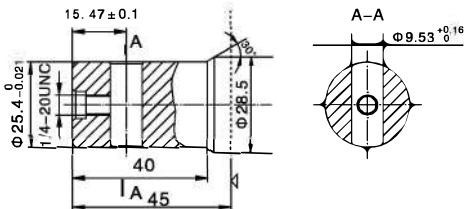
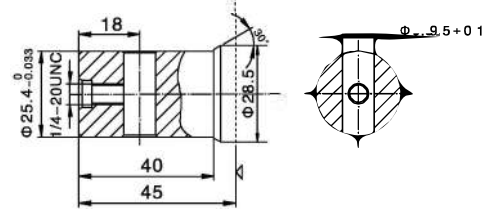
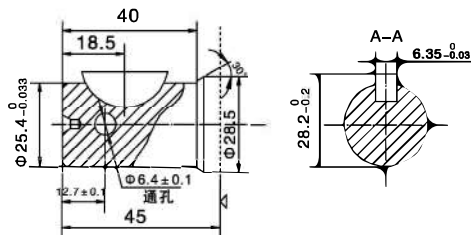
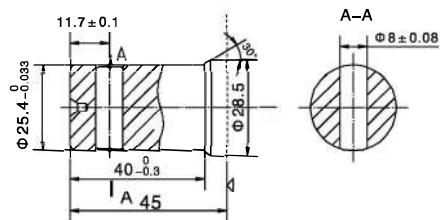
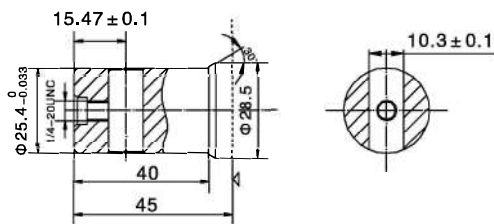
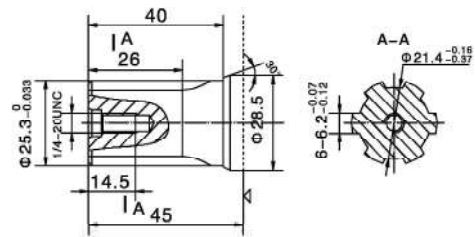
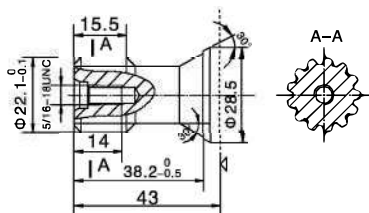
P4:  $\phi 25.4$  Cylindrical shaft, Woodruff key  $\phi 25.4 \times 6.35$



P33:  $\phi 25.4$  Cylindrical shaft, parallel key  $6.35 \times 6.35 \times 32$



◁: Motor mounting surface

**OTMPH SHAFT VERSION**
**P89:  $\Phi 25.4$  Cylindrical shaft pin hole  $\Phi 9.53$** 

**P93:  $\Phi 25.4$  Cylindrical shaft pin hole  $\Phi 9.5$** 

**P95:  $\Phi 25.4$  Cylindrical shaft pin hole  $\Phi 6.4$   
Woodruff key  $\Phi 25.4 \times 6.35$** 

**P96:  $\Phi 25.4$  Cylindrical shaft pin hole  $\Phi 8$** 

**P97:  $\Phi 25.4$  Cylindrical shaft pin hole  $\Phi 10.3$** 

**H4:  $\Phi 25.3$  Splined Shaft, 6-25.3  $\times$  21.4  $\times$  6.2**

**K8:  $\Phi 22.1$  involute cylindrical shaft, 13-DP 16/32**


&lt;: Motor mounting surface

## OTMPH Orbit Hydraulic Motor With Spool Valve

**OTMPH**

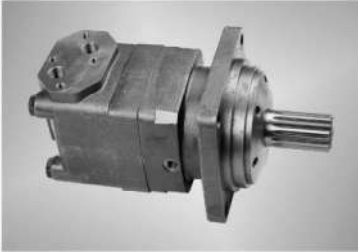
1	2	3	4	5	6	7
OTMPH	—				/	—

Pos.1	2	3		4		
Series	Disp	Output		Flange		
OTMPH	50	P1	Φ 25 Cylindrical shaft, parallel key 8 × 7 × 32		A II	2-Φ 13.5 Oval flange, pilot Φ 82.5 × 6
	80	P3	Φ 25.4 Cylindrical shaft, parallel key 6.35 × 6.35 × 32			
		P4	Φ 25.4 Cylindrical shaft, Woodruff key Φ 25.4 × 6.35			
	100	P33	Φ 25.4 Cylindrical shaft, parallel key 6.35 × 6.35 × 32			
	125	P89	Φ 25.4 Cylindrical shaft pin hole Φ 9.53			
	160	P93	Φ 25.4 Cylindrical shaft pin hole Φ 9.5			
	200	P95	Φ 25.4 Cylindrical shaft pin hole Φ 6.4, Woodruff key Φ 25.4 × 6.35			
		P96	Φ 25.4 Cylindrical shaft pin hole Φ 8			
	250	P97	Φ 25.4 Cylindrical shaft pin hole Φ 6.4, Woodruff key Φ 25.4 × 6.35			
	315	H4	Φ 25.3 Splined shaft, 6-25.3 × 21.4 × 6.2		C1	4-3/8-16UNC Square flange, pilot Φ 44.45 × 2.8
	400	K8	Φ 22.1 involute splined shaft, 13-DP16/32			

Code	5		6	7
	Ports			
	Ports(A,B)(deep)	Drain port T(deep)	Special features	Rotation direction
Y	G1/2(15)	M14 × 1.5(12)		
Y7	ZG1/2(15)	G1/4(12)	Omit	Standard
Y9	NPTF1/2(15)	7/16-20UNF(12)	T21	No case drain
Y10	G1/2(15)	G1/4(12)	T26	Flange face is vertical ports
Y15	7/8-14UNF(15)	7/16-20UNF(12)		

## INTRODUCTION

### FEATURES AND APPLICATIONS

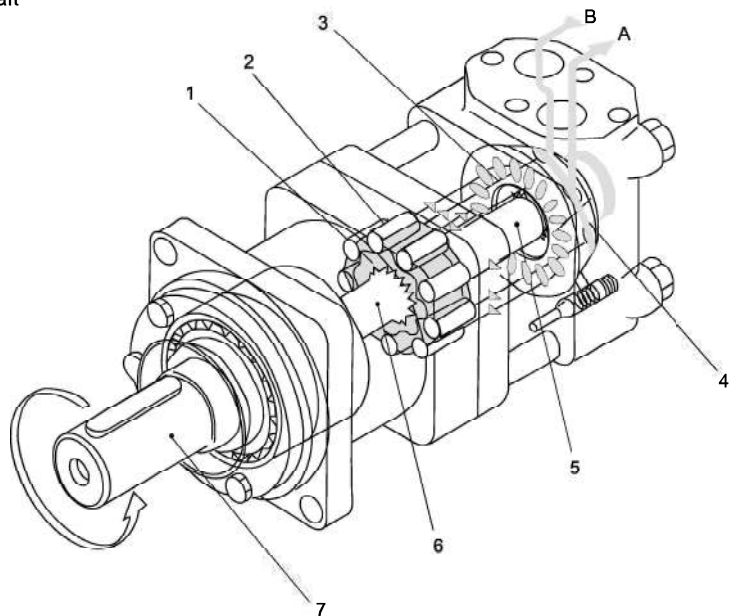


OTM hydraulic motor is one type of high torque low speed hydraulic motors, with high efficiency and long life. OTM motor has a wide Speed range, high starting torque and rotating stable at high speed Compact and light, it can be connected to working machine directly, adapted to all kinds of low speed heavy load facilities.

OTM hydraulic motors are widely applied in agriculture machinery, fishing machinery, plastic industry, mining, and construction machinery.

### WORKING PRINCIPLE

1 orbit cam 2 roll 3 distributor 4 auxiliary plate  
5 distributor shaft 6 transmission shaft 7 output shaft



Shown as the drawing, high pressure oil goes into the motor's housing through the inlet, passing the auxiliary plate, distributor, then the working space between the orbit cam and rolls. Pressed by the high pressure oil, orbit cam rotates from the high pressure side to the low pressure side. The orbit cam makes rotation and revolution against the rolls, at the same time, high pressure oil is distributed continuously, thus, the output shaft can also rotate continuously.

The output speed can be controlled by adjusting the inlet flow capability of the motor, and the rotating direction can be changed by exchanging the flow direction.

**OTM3Y Orbit Hydraulic Motor With Disk Valve**
**OTM3Y TECHNICAL DATA**

TYPE	OTM3Y OTM3SY OTM3S3Y OTM3WY 80	OTM3Y OTM3SY OTM3S3Y OTM3WY 100	OTM3Y OTM3SY OTM3S3Y OTM3WY 125	OTM3Y OTM3SY OTM3S3Y OTM3WY 160	OTM3Y OTM3SY OTM3S3Y OTM3WY 200	OTM3Y OTM3SY OTM3S3Y OTM3WY 250	OTM3Y OTM3SY OTM3S3Y OTM3WY 315	OTM3Y OTM3SY OTM3S3Y OTM3WY 400	OTM3Y OTM3SY OTM3S3Y OTM3WY 500	
Displacement(ml/r)	80.5	100.5	126.3	160.8	200.9	252.6	321.5	401.9	476.5	
Max.Pressure. Drop (Mpa)	cont.	20.5	20.5	20.5	20.5	20	20	15.5	12	
	int.	27.5	27.5	27.5	26	25	24	19	14	
	peak.	29.5	29.5	29.5	28	27	27	26	16	
Max.torque (N.m)	cont.	226	282	355	451	564	684	870	813	728
	int.	293	365	459	559	672	845	1032	1021	903
	peak.	306	383	481	588	708	891	1091	1141	1044
Max.Speed(cont.)(r/min)	805	745	590	465	370	295	230	185	155	
Max.Flow(cont.)(L/min)	65	75	75	75	75	75	75	75	75	
Max.Output.Power(cont.)(Kw)	16	18	18	18	18	18	17	11	9	
Weight (kg)	9.8	10.0	10.3	10.7	11.1	11.6	12.3	13.2	14.3	

Intermittent operation the permissible values may occur for max. 10% of every minute

Peak load: the permissible values may occur for max. 1% of every minute

OTM3Y Orbit Hydraulic Motor With Disk Valve

■ OTM3Y PERFORMANCE DATA

OTM3Y 80(80.5ml/r)  
Pressure(Mpa)

		3.5	7	10.5	14	17.5	20.5	22.5
							Max.cont.	Max.int.
Flow(L/min)	15	35	75	114	150	187	220	239
		<b>181</b>	<b>177</b>	<b>170</b>	<b>165</b>	<b>158</b>	<b>151</b>	<b>141</b>
	30	35	75	115	152	190	222	240
		<b>363</b>	<b>355</b>	<b>346</b>	<b>340</b>	<b>330</b>	<b>322</b>	<b>310</b>
	40	33	75	115	155	193	226	240
	<b>485</b>	<b>479</b>	<b>464</b>	<b>453</b>	<b>444</b>	<b>437</b>	<b>415</b>	
50		30	73	113	153	190	223	237
		<b>610</b>	<b>602</b>	<b>594</b>	<b>580</b>	<b>565</b>	<b>556</b>	<b>530</b>
60		28	70	110	150	188	220	235
		<b>735</b>	<b>724</b>	<b>714</b>	<b>698</b>	<b>680</b>	<b>670</b>	<b>642</b>
Max.cont.	65	27	68	108	148	186	215	233
		<b>801</b>	<b>790</b>	<b>775</b>	<b>760</b>	<b>742</b>	<b>727</b>	<b>704</b>
Max.int.	80	23	66	104	140	176	205	213
		<b>988</b>	<b>975</b>	<b>955</b>	<b>938</b>	<b>915</b>	<b>897</b>	<b>870</b>

OTM3Y 100(100.5ml/r)  
Pressure(Mpa)

		3.5	7	10.5	14	17.5	20.5	22.5
							Max.cont.	Max.int.
Flow(L/min)	15	44	94	142	187	233	275	298
		<b>145</b>	<b>142</b>	<b>136</b>	<b>132</b>	<b>127</b>	<b>121</b>	<b>113</b>
	30	42	93	144	190	237	278	300
		<b>291</b>	<b>284</b>	<b>277</b>	<b>272</b>	<b>264</b>	<b>258</b>	<b>248</b>
	40	41	92	144	194	241	282	300
	<b>388</b>	<b>384</b>	<b>372</b>	<b>363</b>	<b>356</b>	<b>350</b>	<b>332</b>	
50		37	91	141	191	237	278	296
		<b>489</b>	<b>482</b>	<b>476</b>	<b>465</b>	<b>453</b>	<b>445</b>	<b>425</b>
60		35	87	137	187	235	273	293
		<b>589</b>	<b>580</b>	<b>572</b>	<b>559</b>	<b>545</b>	<b>537</b>	<b>514</b>
Max.cont.	75	34	85	135	185	232	268	291
		<b>740</b>	<b>730</b>	<b>716</b>	<b>702</b>	<b>686</b>	<b>672</b>	<b>651</b>
Max.int.	90	29	82	130	175	222	258	266
		<b>890</b>	<b>879</b>	<b>861</b>	<b>845</b>	<b>825</b>	<b>808</b>	<b>784</b>

OTM3Y 125(126.3ml/r)  
Pressure(Mpa)

		3.5	7	10.5	14	17.5	20.5	22.5
							Max.cont.	Max.int.
Flow(L/min)	15	54	117	179	235	293	348	375
		<b>115</b>	<b>113</b>	<b>108</b>	<b>105</b>	<b>101</b>	<b>96</b>	<b>90</b>
	30	55	118	180	238	298	351	377
		<b>231</b>	<b>226</b>	<b>221</b>	<b>217</b>	<b>210</b>	<b>205</b>	<b>198</b>
	40	54	120	180	243	303	355	377
	<b>309</b>	<b>305</b>	<b>296</b>	<b>289</b>	<b>283</b>	<b>279</b>	<b>265</b>	
50		51	118	177	240	298	351	372
		<b>389</b>	<b>384</b>	<b>379</b>	<b>370</b>	<b>360</b>	<b>354</b>	<b>338</b>
60		48	114	173	235	295	347	369
		<b>468</b>	<b>461</b>	<b>455</b>	<b>445</b>	<b>433</b>	<b>427</b>	<b>409</b>
Max.cont.	75	42	109	169	232	292	342	366
		<b>589</b>	<b>581</b>	<b>570</b>	<b>559</b>	<b>546</b>	<b>535</b>	<b>518</b>
Max.int.	90	38	103	163	220	279	327	334
		<b>708</b>	<b>699</b>	<b>685</b>	<b>673</b>	<b>656</b>	<b>643</b>	<b>624</b>

OTM3Y 160(160.8ml/r)  
Pressure(Mpa)

		3.5	7	10.5	14	17.5	20.5	22.5
							Max.cont.	Max.int.
Flow(L/min)	15	70	147	228	300	374	444	477
		<b>91</b>	<b>89</b>	<b>85</b>	<b>83</b>	<b>79</b>	<b>76</b>	<b>71</b>
	30	72	150	230	304	380	447	479
		<b>182</b>	<b>178</b>	<b>173</b>	<b>170</b>	<b>165</b>	<b>161</b>	<b>155</b>
	40	74	151	230	310	386	451	479
	<b>243</b>	<b>240</b>	<b>232</b>	<b>227</b>	<b>222</b>	<b>219</b>	<b>208</b>	
50		71	147	226	306	380	447	473
		<b>305</b>	<b>301</b>	<b>297</b>	<b>290</b>	<b>283</b>	<b>278</b>	<b>265</b>
60		68	143	220	300	376	442	469
		<b>368</b>	<b>362</b>	<b>357</b>	<b>349</b>	<b>340</b>	<b>335</b>	<b>321</b>
Max.cont.	75	64	138	216	296	372	437	465
		<b>463</b>	<b>456</b>	<b>448</b>	<b>439</b>	<b>429</b>	<b>420</b>	<b>407</b>
Max.int.	90	60	133	208	280	352	416	425
		<b>556</b>	<b>549</b>	<b>538</b>	<b>528</b>	<b>515</b>	<b>505</b>	<b>490</b>

( Torque ) : 163Nm  
( Speed ) : 685r/min

□ Cont.  
■ Int.



OTM3Y Orbit Hydraulic Motor With Disk Valve

■ OTM3Y PERFORMANCE DATA

OTM3Y 200(200.6ml/r)

		Pressure(Mpa)					Max.cont.	Max.int.
		3.5	7	10.5	14	17.5	20.5	22.5
Flow(L/min)	15	87	184	285	374	467	557	596
		<b>73</b>	<b>71</b>	<b>68</b>	<b>66</b>	<b>63</b>	<b>61</b>	<b>56</b>
30		89	187	287	379	474	560	599
		<b>145</b>	<b>142</b>	<b>139</b>	<b>136</b>	<b>132</b>	<b>129</b>	<b>124</b>
40		92	187	287	387	482	564	599
		<b>194</b>	<b>192</b>	<b>186</b>	<b>182</b>	<b>178</b>	<b>175</b>	<b>166</b>
50		88	182	282	382	474	560	591
		<b>244</b>	<b>241</b>	<b>238</b>	<b>232</b>	<b>226</b>	<b>223</b>	<b>212</b>
60		84	175	275	374	469	555	586
		<b>295</b>	<b>290</b>	<b>286</b>	<b>280</b>	<b>272</b>	<b>268</b>	<b>257</b>
Max.cont.	75	77	170	270	369	464	550	581
		<b>370</b>	<b>365</b>	<b>358</b>	<b>351</b>	<b>343</b>	<b>336</b>	<b>325</b>
Max.int.	90	68	165	260	349	434	510	532
		<b>445</b>	<b>440</b>	<b>430</b>	<b>423</b>	<b>412</b>	<b>404</b>	<b>392</b>

OTM3Y 250(252.6ml/r)

		Pressure(Mpa)					Max.cont.	Max.int.
		3.5	7	10.5	14	17.5	20	22.5
Flow(L/min)	15	114	234	358	469	584	377	742
		<b>58</b>	<b>56</b>	<b>54</b>	<b>53</b>	<b>50</b>	<b>48</b>	<b>45</b>
30		115	235	361	471	587	680	746
		<b>116</b>	<b>113</b>	<b>110</b>	<b>108</b>	<b>105</b>	<b>103</b>	<b>100</b>
40		115	235	355	473	591	684	751
		<b>155</b>	<b>153</b>	<b>148</b>	<b>144</b>	<b>141</b>	<b>139</b>	<b>136</b>
50		114	230	355	474	587	680	746
		<b>194</b>	<b>192</b>	<b>189</b>	<b>185</b>	<b>180</b>	<b>175</b>	<b>169</b>
60		112	225	352	471	583	675	741
		<b>234</b>	<b>231</b>	<b>228</b>	<b>224</b>	<b>219</b>	<b>214</b>	<b>208</b>
Max.cont.	75	109	220	349	467	578	669	735
		<b>295</b>	<b>290</b>	<b>285</b>	<b>279</b>	<b>273</b>	<b>267</b>	<b>260</b>
Max.int.	90	103	213	343	460	568	654	715
		<b>354</b>	<b>350</b>	<b>342</b>	<b>334</b>	<b>326</b>	<b>320</b>	<b>310</b>

OTM3Y 315(321.5ml/r)

		Pressure(Mpa)					Max.cont.	Max.int.
		3.5	7	10.5	14	17.5	20	22.5
Flow(L/min)	15	140	284	433	583	745	863	947
		<b>45</b>	<b>44</b>	<b>43</b>	<b>41</b>	<b>40</b>	<b>38</b>	<b>35</b>
30		140	288	437	586	748	866	951
		<b>91</b>	<b>89</b>	<b>87</b>	<b>85</b>	<b>83</b>	<b>81</b>	<b>78</b>
40		138	290	440	588	752	870	956
		<b>121</b>	<b>120</b>	<b>116</b>	<b>113</b>	<b>111</b>	<b>109</b>	<b>106</b>
50		136	291	439	587	748	866	951
		<b>153</b>	<b>151</b>	<b>149</b>	<b>145</b>	<b>141</b>	<b>139</b>	<b>136</b>
60		134	286	435	583	744	862	947
		<b>184</b>	<b>181</b>	<b>179</b>	<b>175</b>	<b>170</b>	<b>166</b>	<b>160</b>
Max.cont.	75	131	280	431	580	738	856	939
		<b>231</b>	<b>228</b>	<b>224</b>	<b>220</b>	<b>214</b>	<b>210</b>	<b>204</b>
Max.int.	90	125	272	421	570	718	826	899
		<b>278</b>	<b>275</b>	<b>269</b>	<b>264</b>	<b>258</b>	<b>253</b>	<b>243</b>

OTM3Y 400(401.9ml/r)

		Pressure(Mpa)					Max.cont.	Max.int.
		3.5	7	10.5	14	15.5	17.5	
Flow(L/min)	15	172	347	522	705	806	926	
		<b>36</b>	<b>35</b>	<b>34</b>	<b>33</b>	<b>32</b>	<b>30</b>	
30		174	350	526	708	809	930	
		<b>73</b>	<b>71</b>	<b>69</b>	<b>68</b>	<b>66</b>	<b>64</b>	
40		173	352	529	710	813	935	
		<b>97</b>	<b>96</b>	<b>93</b>	<b>91</b>	<b>89</b>	<b>86</b>	
50		171	350	531	710	809	930	
		<b>122</b>	<b>121</b>	<b>119</b>	<b>116</b>	<b>113</b>	<b>110</b>	
60		168	343	522	705	801	924	
		<b>147</b>	<b>145</b>	<b>143</b>	<b>140</b>	<b>136</b>	<b>130</b>	
Max.cont.	75	164	339	517	700	791	916	
		<b>185</b>	<b>183</b>	<b>179</b>	<b>176</b>	<b>171</b>	<b>163</b>	
Max.int.	90	160	325	503	680	766	886	
		<b>223</b>	<b>220</b>	<b>215</b>	<b>211</b>	<b>206</b>	<b>196</b>	

( Torque ) : 503Nm  
( Speed ) : 215r/min

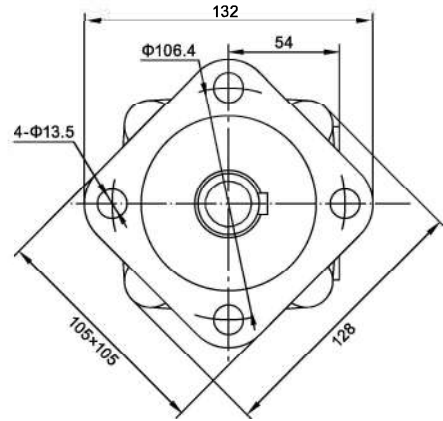
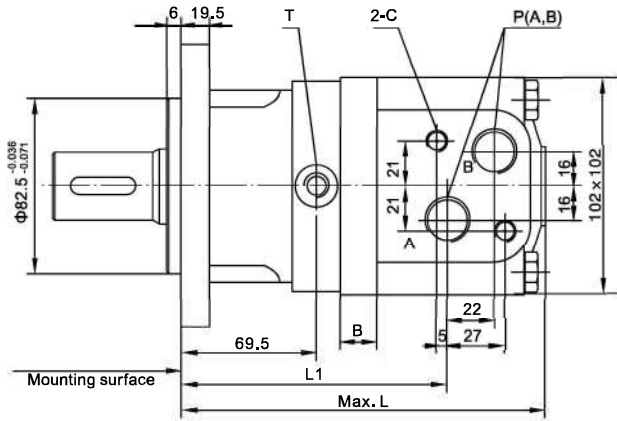
OTM3Y 500(476.5ml/r)

		Pressure(Mpa)				Max.cont.	Max.int.
		3.5	7	10.5	12	14	
Flow(L/min)	15	180	403	607	721	816	
		<b>31</b>	<b>30</b>	<b>29</b>	<b>28</b>	<b>27</b>	
30		183	407	613	724	824	
		<b>61</b>	<b>60</b>	<b>58</b>	<b>57</b>	<b>56</b>	
40		185	409	617	728	832	
		<b>82</b>	<b>81</b>	<b>78</b>	<b>77</b>	<b>75</b>	
50		184	406	616	724	833	
		<b>103</b>	<b>102</b>	<b>100</b>	<b>98</b>	<b>95</b>	
60		182	403	609	719	819	
		<b>124</b>	<b>122</b>	<b>121</b>	<b>118</b>	<b>115</b>	
Max.cont.	75	180	401	606	712	815	
		<b>156</b>	<b>154</b>	<b>151</b>	<b>148</b>	<b>145</b>	
Max.int.	90	173	391	601	702	803	
		<b>188</b>	<b>185</b>	<b>182</b>	<b>178</b>	<b>174</b>	

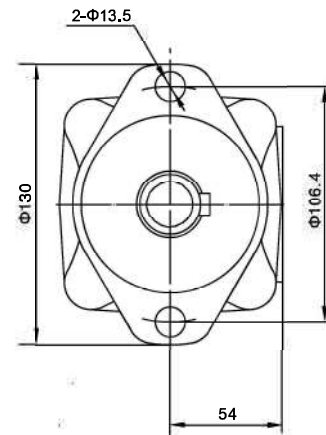
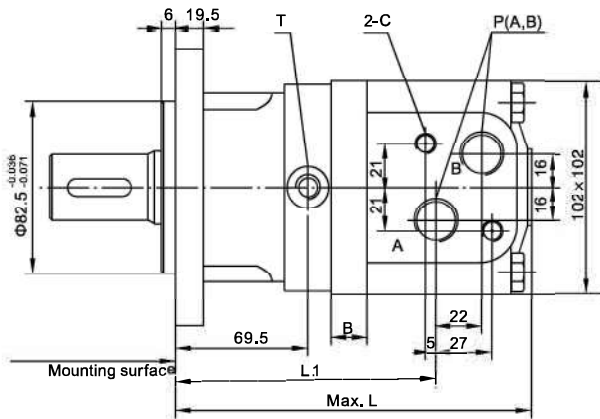
□ Cont.  
■ Int.

■ OTM3Y Installation

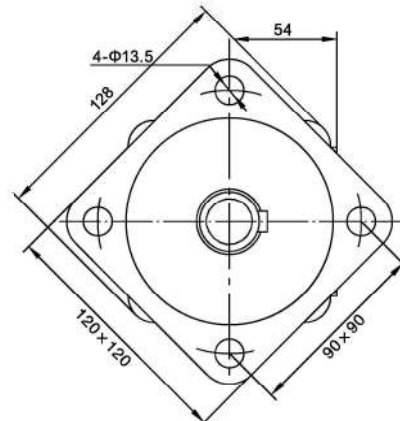
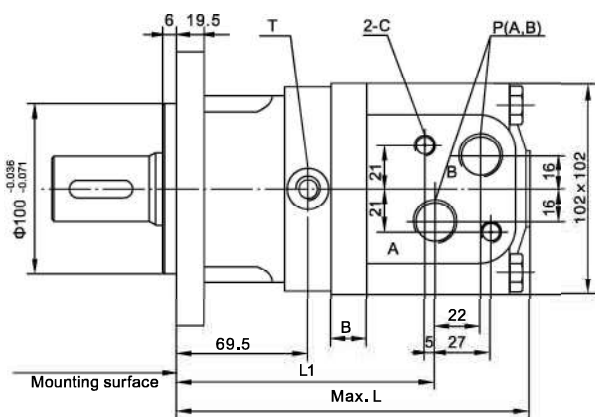
Square flange A



2-hole oval flange AII

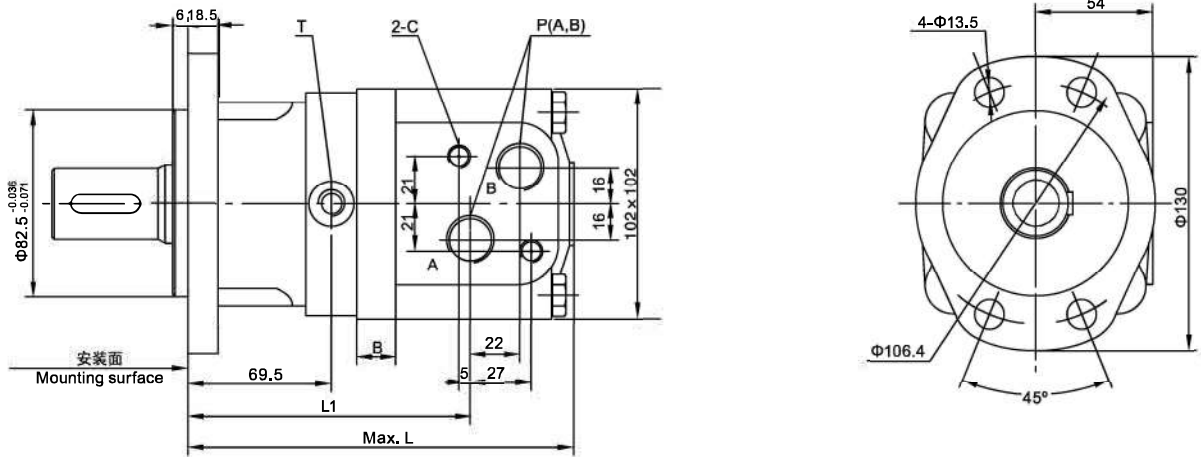


Square flange A2III



**OTM3Y Installation**

## 4-hole oval flange AIV



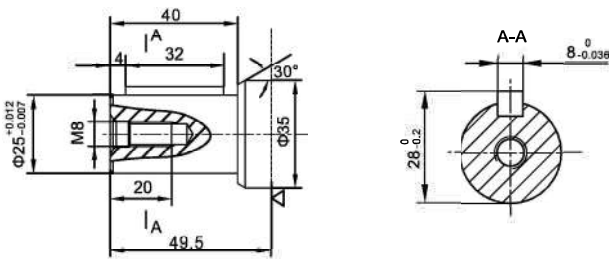
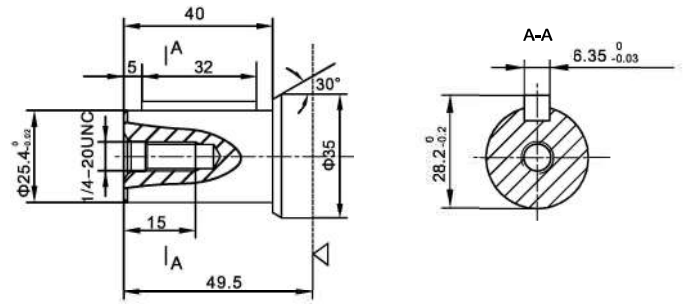
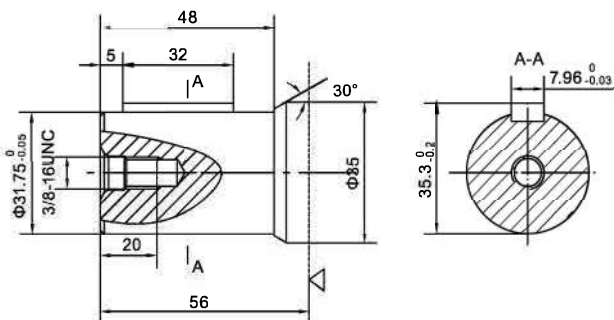
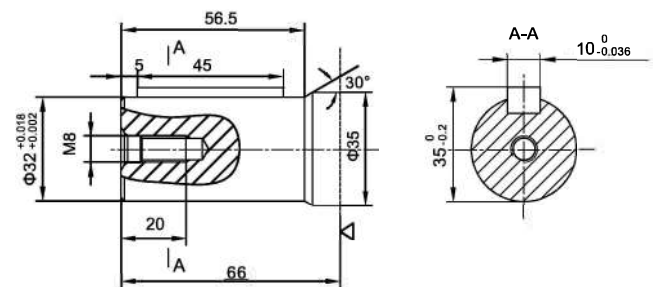
Type	OTM3Y-80	OTM3Y-100	OTM3Y-125	OTM3Y-160	OTM3Y-200	OTM3Y-250	OTM3Y-315	OTM3Y-400	OTM3Y-500
L	170	173.5	178	184	191	200	212	226	239
L1	125.5	129	133.5	139.5	146.5	155.5	167.5	181.5	194.5
B	11	14.5	19	25	32	41	53	67	80

**OTM3Y PORTS CODE**

Code	Ports	P(A, B)( deep)	C ( deep )	T ( deep )
Y		G1/2 (15)	M10 (12)	G1/4 (12)
Y1		M18 × 1.5 (15)	M10 (12)	M14 × 1.5 (12)
Y2		M22 × 1.5 (15)	M10 (12)	M14 × 1.5 (12)
Y3		M20 × 1.5 (15)	M10 (12)	M14 × 1.5 (12)
Y5		7/8-14UNF (15)	—	7/16-20 UNF(12)
Y8		NPT1/2 (15)	M10 (12)	G1/4 (12)
Y10		G1/2 (15)	—	G1/4 (12)

Note:P(A, B)--Ports, C--Mounting Thread ( —Indicates no this thread ) , T--Drain connettion

**OTM3Y SHAFT VERSION**

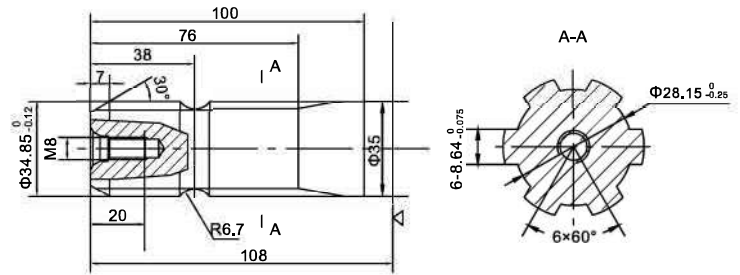
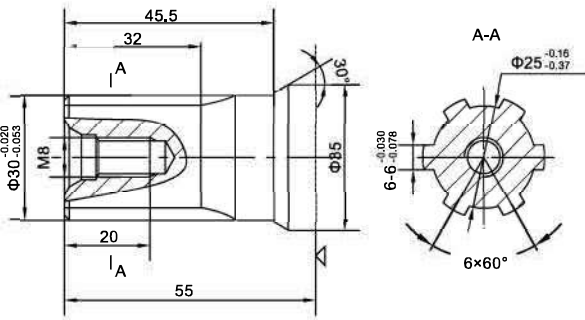
 P1:  $\Phi 25$  Cylindrical shaft, parallel key  $8 \times 7 \times 32$ 

 P3:  $\Phi 25.4$  Cylindrical shaft, parallel key  $6.35 \times 6.35 \times 32$ 

 P5:  $\Phi 31.75$  Cylindrical shaft, parallel key  $7.96 \times 7.96 \times 32$ 

 P10:  $\Phi 32$  Cylindrical shaft, parallel key  $10 \times 8 \times 45$ 


◁-- Motor mounting surface

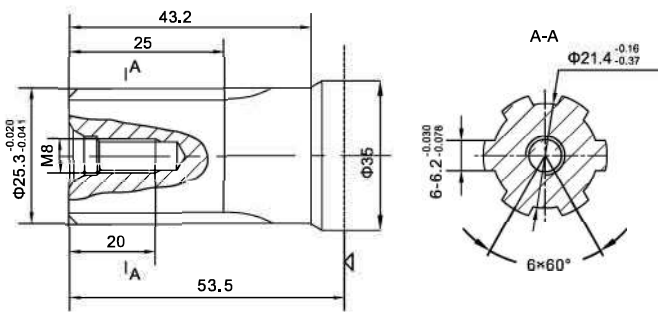
■ OTM3Y SHAFT VERSION

H1:  $\Phi 30$  Splined shaft, 6-30  $\times$  25  $\times$  6

H3:  $\Phi 34.85$  Splined shaft, 6-34.85  $\times$  28.15  $\times$  8.64

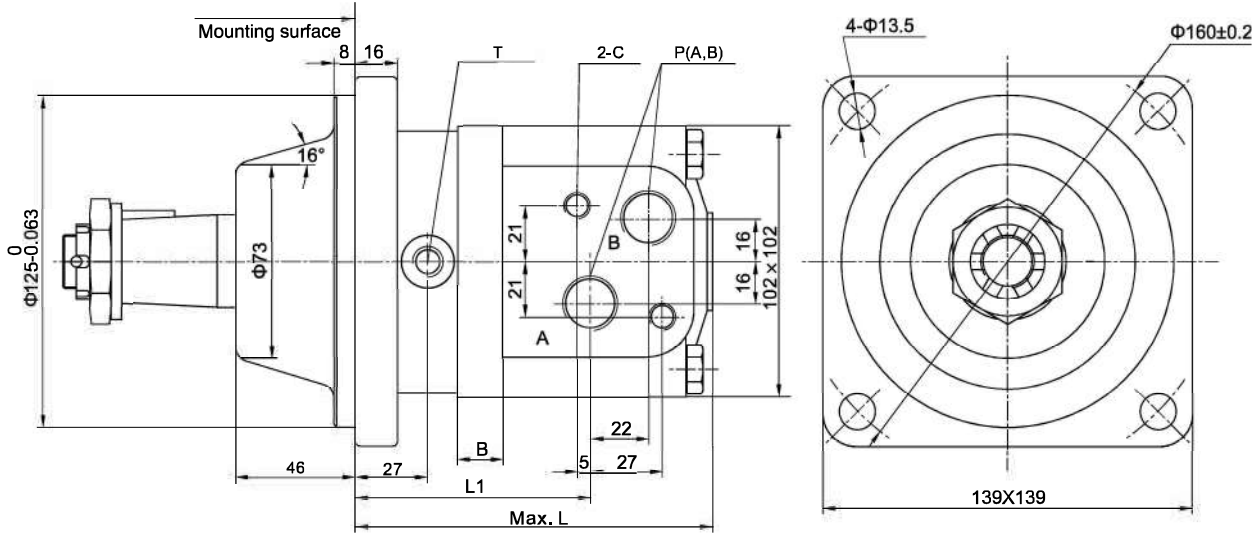


H51:  $\Phi 25.3$  Splined shaft, 6-25.3  $\times$  21.4  $\times$  6.2



◁-- Motor mounting surface

## OTM3WY Orbit Hydraulic Motor With Disk Valve

**OTM3WY Installation**


Type	OTM3WY 80	OTM3WY 100	OTM3WY 125	OTM3WY 160	OTM3WY 200	OTM3WY 250	OTM3WY 315	OTM3WY 400	OTM3WY 500
L	127.5	131	135.5	141.5	148.5	157.5	169.5	183.5	196.5
L1	83	86.5	91	97	104	113	125	139	152
B	11	14.5	19	25	32	41	53	67	80

**OTM3WY PORTS CODE**

Code	Ports	P(A, B)(deep)	C ( deep )	T ( deep )
Y		G1/2 (15)	M10 (12)	G1/4 (12)
Y5		7/8-14UNF (15)	—	7/16-20UNF (12)

Note: P(A, B)---Ports, C---Mounting Thread ( —Indicates no this thread ), T---Drain connettion

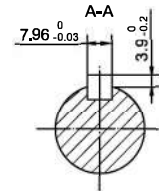
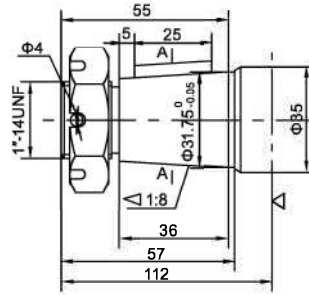
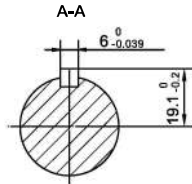
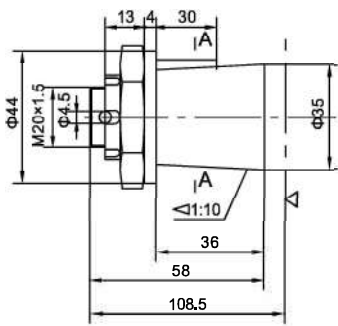


OTM3WY Orbit Hydraulic Motor With Disk Valve

■ OTM3WY SHAFT VERSION

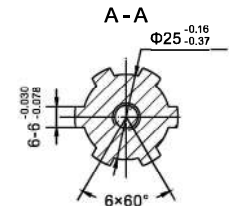
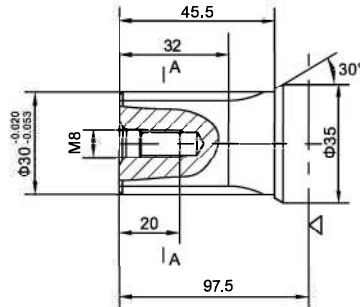
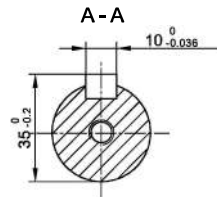
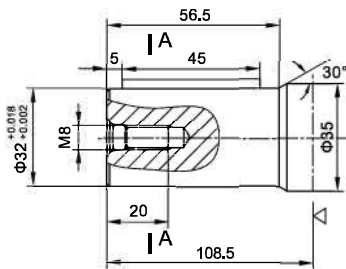
Z:  $\Phi 35$  Tapered shaft, taper1:10, parallel key  $6 \times 6 \times 30$

Z2:  $\Phi 31.75$  Tapered shaft, taper1:8, parallel key  $7.96 \times 7.96 \times 25$



P10:  $\Phi 32$  Cylindrical shaft, parallel key  $10 \times 8 \times 45$

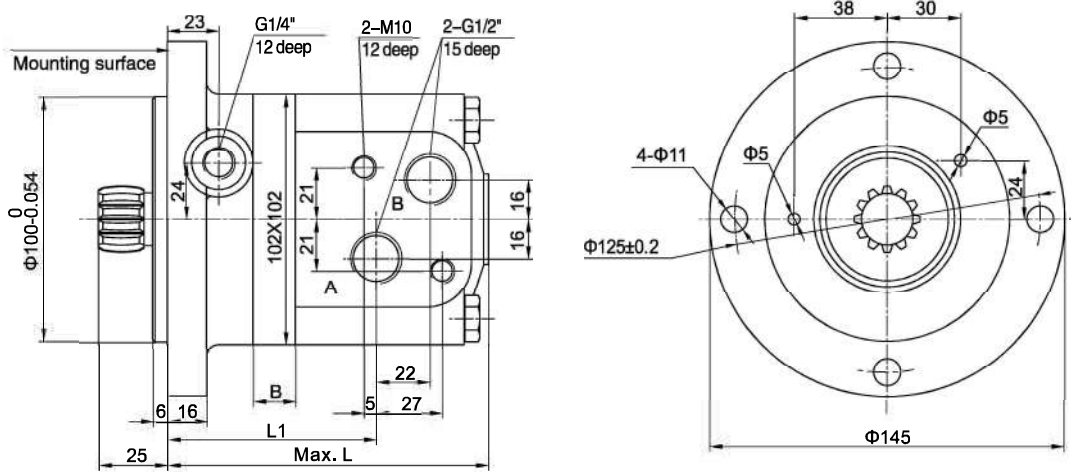
H1:  $\Phi 30$  Splined shaft,  $6-30 \times 25 \times 6$



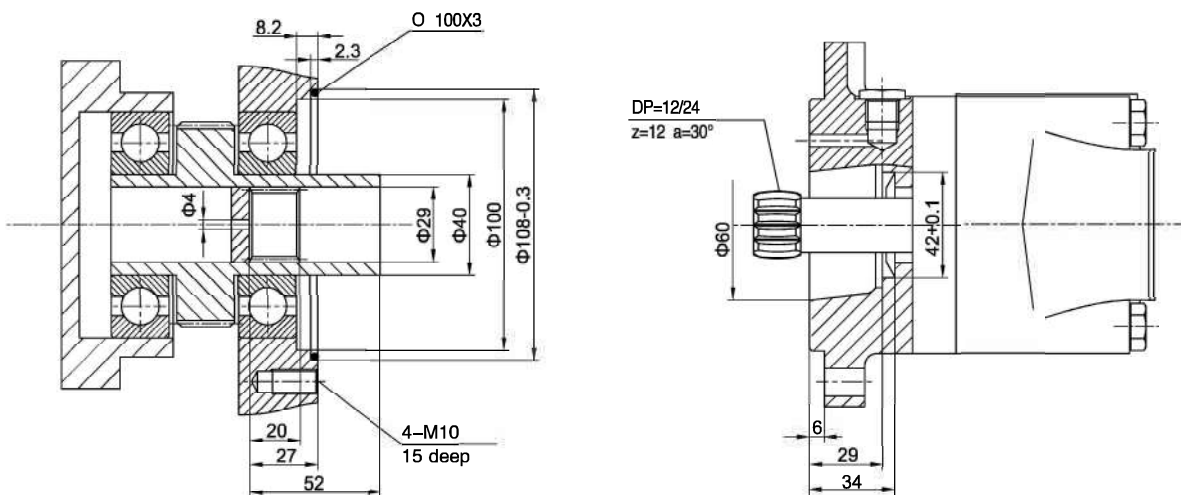
$\triangleleft$  -- Motor mounting surface



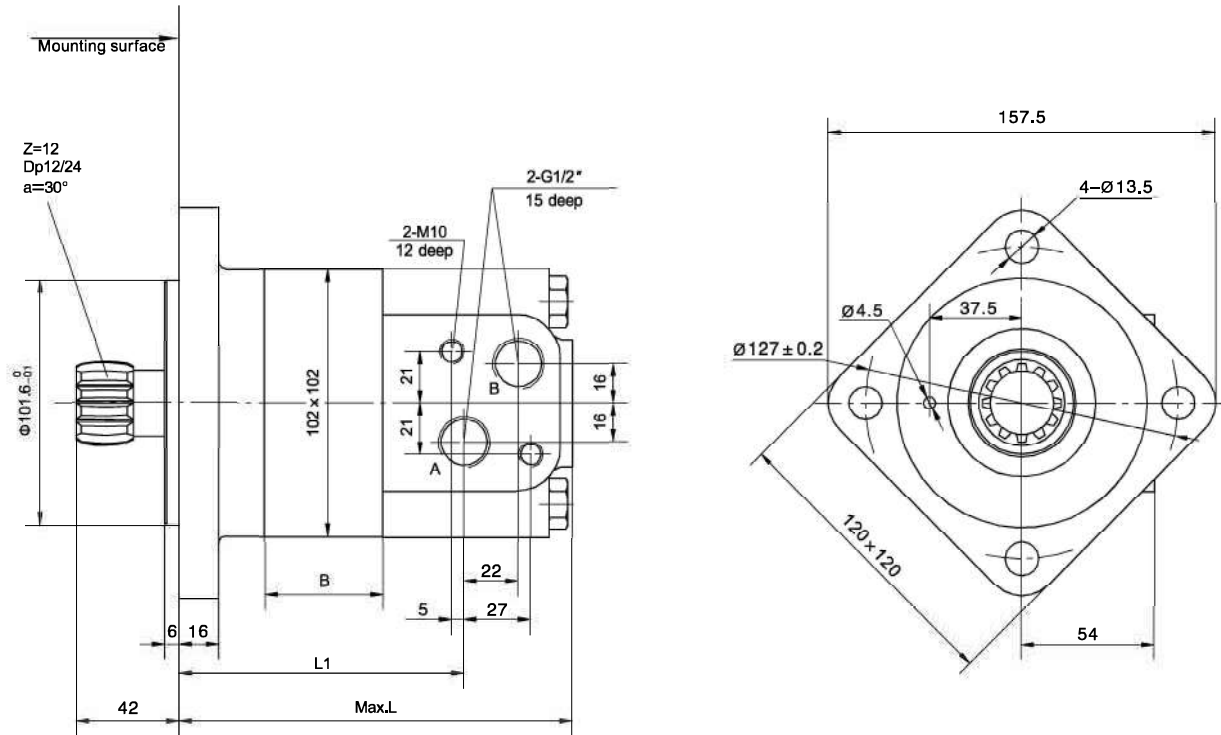
## OTM3SY Orbit Hydraulic Motor With Disk Valve

**OTM3SY Installation**


Type	OTM3SY 80	OTM3SY 100	OTM3SY 125	OTM3SY 160	OTM3SY 200	OTM3SY 250	OTM3SY 315	OTM3SY 400	OTM3SY 500
L	124	127.5	132	138	145	154	166	180	193
L1	79.5	83	87.5	93.5	100.5	109.5	121.5	135.5	148.5
B	11	14.5	19	25	32	41	53	67	80

**OTM3SY DIMENSIONS OF THE ATTACHED COMPONENT**


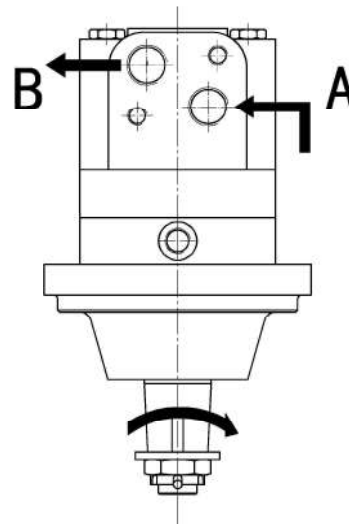
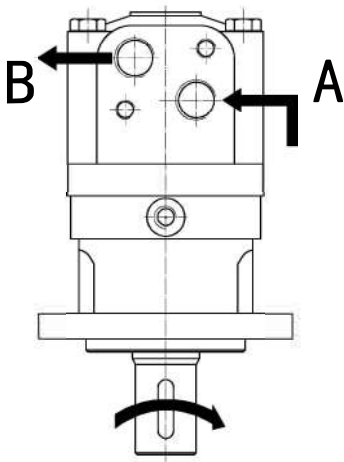
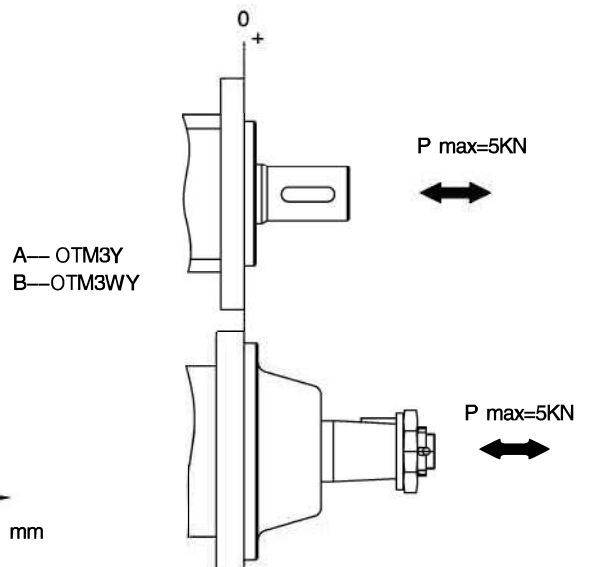
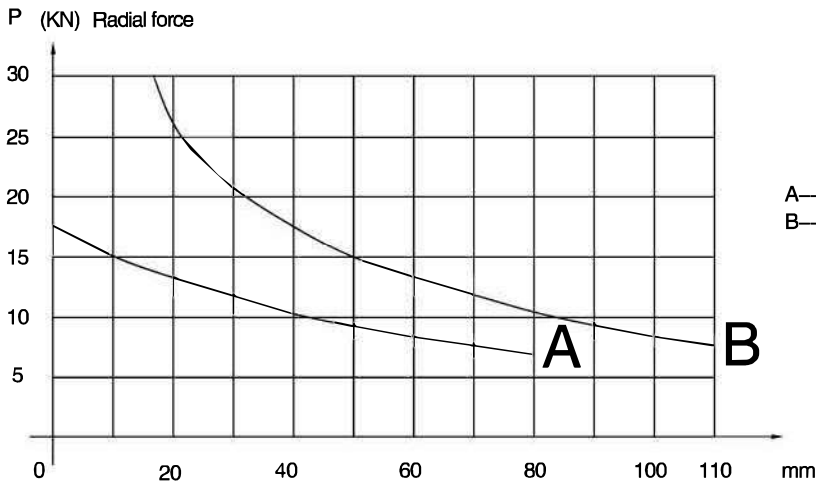
## OTM3S3Y Orbit Hydraulic Motor With Disk Valve

**OTM3S3Y Installation**


Type	OTM3S3Y 80	OTM3S3Y 100	OTM3S3Y 125	OTM3S3Y 160	OTM3S3Y 200	OTM3S3Y 250	OTM3S3Y 315	OTM3S3Y 400	OTM3S3Y 500
L	124	127.5	132	138	145	154	166	180	193
L1	79.5	83	87.5	93.5	100.5	109.5	121.5	135.5	148.5
B	11	14.5	19	25	32	41	53	67	80

**OTM3Y, OTM3WY, OTM3SY Series Motor**

Direction of shaft rotation: Standard

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

**PERMISSIBLE SHAFT LOADS**


■ OTM3Y ORDERING CODE

1	2	3	4	5	6	7
OTM3Y	—				/	—

Pos.1	2	3		4	
Series	Disp	Output		Flange	
OTM3Y	80	P1	Φ25 Cylindrical shaft, parallel key8 × 7 × 32	A	4-Φ 13.5 Square flange, pilot Φ 82.5
	100	P3	Φ25.4 Cylindrical shaft, parallel key6.35 × 6.35 × 32		
	125	P5	Φ31.75 Cylindrical shaft, parallel key7.96 × 7.96 × 32	A II	2-Φ 13.5 Oval flange, pilot Φ 82.5
	160				
	200	P10	Φ32 Cylindrical shaft, parallel key10 × 8 × 45	A2 III	4-Φ 13.5 Square flange, pilot Φ 100
	250	H1	Φ30 Splined shaft, 6-30 × 25 × 6	AIV	4-Φ 13.5 Oval flange, pilot Φ 82.5
	315	H3	Φ34.85 Splined shaft, 6-34.85 × 28.15 × 8.64		
	400				
	500	H51	Φ25.3 Splined shaft, 6-25.3 × 21.4 × 6.2		

Code	5		6		7	
	Ports		Special features		Rotation direction	
	Ports(A,B)(deep)	Drain port T(deep)				
Y	G1/2(15)	G1/4(12)	Omit	Standard	Omit	Standard
Y1	M18 × 1.5(15)	M14 × 1.5(12)				
Y2	M22 × 1.5(15)	M14 × 1.5(12)				
Y3	M20 × 1.5(15)	M14 × 1.5(12)				
Y5	7/8-14UNF(15)	7/16-20UNF(12)				
Y8	NPT1/2(15)	G1/4(12)				
Y10	G1/2(15)	G1/4(12)				

OTM3Y、OTM3WY、OTM3SY Series Motor

■ OTM3WY、OTM3SY、OTM3S3Y ORDERING CODE

1	2	3	4	5	6	7
OTM3WY	—				/	—

Pos.1	2	3		4		
Series	Disp	Output		Flange		
OTM3WY	80	P10	Φ32 Cylindrical shaft, parallel key10×8×45		A	4-Φ13.5 Square flange, pilot Φ125
	100					
	125	H1	Φ30 Splined shaft, 6-30×25×6			
	160					
	200	Z	Φ35 Tapered shaft, taper1:10, parallel key6×6×30			
250	Z2	Φ31.75 Tapered shaft, taper1:8, parallel key7.96×7.96×25				
315						
400						
500						

5			6		7	
Code	ports		Special features		Rotation direction	
	Ports(A,B)(deep)	Drain port T(deep)				
Y	G1/2(15)	M14×1.5(12)	Omit	Standard	Omit	Standard
Y5	7/8-14UNF(15)	7/16-20UNF(12)			L	Opposite

1	2	3
OTM3WY	—	/

1	2	3
OTM3S3Y	—	/

Pos.1	2	3	
Series	Disp	Special features	
OTM3SY	80	Omit	Standard
	100		
	125	Standard	
	200		
	250	Standard	
	315		
	400		
	500		

Pos.1	2	3	
Series	Disp	Special features	
OTM3S3Y	80	Omit	Standard
	100		
	125	Standard	
	160		
	200	Standard	
	250		
	315		
	400		
500			

**OTM4 Orbit Hydraulic Motor With Disk Valve**
**OTM4 TECHNICAL DATA**

TYPE	OTM4-160 OTM4S-160 OTM4W-160	OTM4-200 OTM4S-200 OTM4W-200	OTM4-250 OTM4S-250 OTM4W-250	OTM4-320 OTM4S-320 OTM4W-320	OTM4-400 OTM4S-400 OTM4W-400	OTM4-500 OTM4S-500 OTM4W-500
Displacement(ml/r)	158.8	200.8	252.2	317.5	401.6	535.3
Max.Pressure.Drop (Mpa)	cont.	20	20	20	20	18
	int.	24	24	24	24	21
	peak.	28	28	28	28	24
Max.torque (N.m)	cont.	450	561	710	902	1008
	int.	559	714	883	1143	1255
	peak.	663	818	1021	1322	1431
Max.Speed ( cont.)(r/min )	625	495	395	310	245	185
Max.Flow(cont.)(L/min)	100	100	100	100	100	100
Max.Output.Power(cont.)(Kw)	20.1	25.2	25.2	25.2	22	21
Weight (kg)	20.3	20.8	21.4	22.4	23	24

**OTM4Y TECHNICAL DATE**

TYPE	OTM4Y-160	OTM4Y-200	OTM4Y-250	OTM4Y-320	OTM4Y-400	OTM4Y-500
Displacement(ml/r)	158.8	200.8	252.2	317.5	401.6	535.3
Max.Pressure.Drop (Mpa)	cont.	24	24	24	23	21
	int.	27	27	27	26	23
	peak.	30	30	30	29	25
Max.torque (N.m)	cont.	559	714	883	1095	1255
	int.	639	789	985	1227	1371
	peak.	710	876	1093	1369	1490
Max.Speed ( cont.)(r/min )	625	495	395	310	245	185
Max.Flow(L/min )	100	100	100	100	100	100
Max.Output.Power(cont.)(Kw)	24.1	30	30	28.8	25.3	24.1
Weight ( kg )	20.3	20.8	21.4	22.4	23	24

Intermittent operation the permissible values may occur for max.10% of every minute,  
 Peak load:the permissible values may occur for max.1% of every minute.

**OTM4 Orbit Hydraulic Motor With Disk Valve**
**OTM4 PERFORMANCE DATA**

 OTM4 160[158.8cm<sup>3</sup>/rev]

Pressure (Mpa)

Max.cont. Max.int.

		4	8	10	12	16	20	24
Flow(L/min)	10	85	169	219	264	347	429	514
		<b>61</b>	<b>60</b>	<b>59</b>	<b>57</b>	<b>55</b>	<b>51</b>	<b>45</b>
20		86	174	225	266	357	441	535
		<b>123</b>	<b>122</b>	<b>119</b>	<b>116</b>	<b>111</b>	<b>105</b>	<b>97</b>
40		87	173	226	266	366	452	550
		<b>254</b>	<b>251</b>	<b>248</b>	<b>241</b>	<b>235</b>	<b>228</b>	<b>216</b>
60		79	171	226	266	366	450	549
		<b>378</b>	<b>374</b>	<b>369</b>	<b>363</b>	<b>356</b>	<b>347</b>	<b>337</b>
80		75	166	220	265	364	447	544
		<b>502</b>	<b>499</b>	<b>495</b>	<b>488</b>	<b>480</b>	<b>472</b>	<b>457</b>
Max.cont.	100	67	154	209	258	355	437	536
		<b>626</b>	<b>623</b>	<b>618</b>	<b>610</b>	<b>602</b>	<b>594</b>	<b>581</b>
Max.int.	125	56	142	211	251	345	430	530
		<b>785</b>	<b>779</b>	<b>773</b>	<b>765</b>	<b>756</b>	<b>746</b>	<b>729</b>

 OTM4 200[200.8cm<sup>3</sup>/rev]

Pressure (Mpa)

Max.cont. Max.int.

		4	8	10	12	16	20	24
Flow(L/min)	10	119	221	275	323	431	532	636
		<b>48</b>	<b>47</b>	<b>46</b>	<b>43</b>	<b>40</b>	<b>38</b>	<b>34</b>
20		120	227	283	330	445	547	661
		<b>97</b>	<b>96</b>	<b>94</b>	<b>92</b>	<b>89</b>	<b>86</b>	<b>77</b>
40		115	229	281	334	451	560	680
		<b>199</b>	<b>197</b>	<b>195</b>	<b>191</b>	<b>187</b>	<b>182</b>	<b>171</b>
60		111	225	280	334	454	560	682
		<b>306</b>	<b>301</b>	<b>298</b>	<b>296</b>	<b>288</b>	<b>282</b>	<b>269</b>
80		103	220	275	333	450	557	680
		<b>403</b>	<b>401</b>	<b>397</b>	<b>392</b>	<b>385</b>	<b>378</b>	<b>367</b>
Max.cont.	100	94	216	272	327	447	551	676
		<b>503</b>	<b>500</b>	<b>496</b>	<b>492</b>	<b>485</b>	<b>477</b>	<b>470</b>
Max.int.	125	80	198	262	316	436	538	662
		<b>627</b>	<b>623</b>	<b>619</b>	<b>614</b>	<b>607</b>	<b>600</b>	<b>584</b>
Max.int.	150	67	184	247	308	425	526	648
		<b>758</b>	<b>754</b>	<b>749</b>	<b>741</b>	<b>731</b>	<b>720</b>	<b>696</b>

 OTM4 250[252.2cm<sup>3</sup>/rev]

Pressure (Mpa)

Max.cont. Max.int.

		4	8	10	12	16	20	24
Flow(L/min)	10	134	277	344	406	542	689	800
		<b>39</b>	<b>39</b>	<b>38</b>	<b>37</b>	<b>35</b>	<b>33</b>	<b>32</b>
20		139	287	353	419	563	708	828
		<b>78</b>	<b>77</b>	<b>76</b>	<b>74</b>	<b>72</b>	<b>69</b>	<b>64</b>
40		135	292	361	427	575	723	858
		<b>159</b>	<b>157</b>	<b>155</b>	<b>152</b>	<b>149</b>	<b>145</b>	<b>137</b>
60		128	285	361	428	574	705	861
		<b>242</b>	<b>241</b>	<b>238</b>	<b>234</b>	<b>228</b>	<b>223</b>	<b>211</b>
80		125	275	353	420	569	699	860
		<b>323</b>	<b>322</b>	<b>320</b>	<b>314</b>	<b>309</b>	<b>305</b>	<b>290</b>
Max.cont.	100	123	274	344	414	565	695	853
		<b>404</b>	<b>402</b>	<b>399</b>	<b>395</b>	<b>389</b>	<b>380</b>	<b>366</b>
Max.int.	125	113	252	330	402	551	682	838
		<b>505</b>	<b>502</b>	<b>498</b>	<b>492</b>	<b>485</b>	<b>478</b>	<b>463</b>
Max.int.	150	85	235	310	385	535	666	822
		<b>603</b>	<b>600</b>	<b>596</b>	<b>591</b>	<b>583</b>	<b>576</b>	<b>558</b>

 OTM4 320[317.5cm<sup>3</sup>/rev]

Pressure (Mpa)

Max.cont. Max.int.

		4	8	10	12	16	20	24
Flow(L/min)	10	175	345	430	518	697	847	1011
		<b>31</b>	<b>30</b>	<b>29</b>	<b>28</b>	<b>27</b>	<b>26</b>	<b>24</b>
20		180	361	449	534	719	871	1054
		<b>62</b>	<b>61</b>	<b>60</b>	<b>58</b>	<b>56</b>	<b>54</b>	<b>52</b>
40		182	362	460	542	735	906	1092
		<b>126</b>	<b>125</b>	<b>123</b>	<b>120</b>	<b>117</b>	<b>114</b>	<b>109</b>
60		180	361	473	544	733	914	1096
		<b>189</b>	<b>187</b>	<b>185</b>	<b>181</b>	<b>178</b>	<b>176</b>	<b>166</b>
80		170	354	459	540	730	906	1095
		<b>251</b>	<b>249</b>	<b>248</b>	<b>243</b>	<b>238</b>	<b>234</b>	<b>224</b>
Max.cont.	100	161	342	447	537	720	895	1086
		<b>314</b>	<b>313</b>	<b>310</b>	<b>307</b>	<b>303</b>	<b>297</b>	<b>284</b>
Max.int.	125	140	321	427	519	708	874	1071
		<b>391</b>	<b>389</b>	<b>386</b>	<b>382</b>	<b>378</b>	<b>373</b>	<b>360</b>
Max.int.	150	113	303	412	501	677	849	1042
		<b>471</b>	<b>469</b>	<b>466</b>	<b>462</b>	<b>457</b>	<b>444</b>	<b>438</b>

 OTM4 400[401.6cm<sup>3</sup>/rev]

Pressure (Mpa)

Max.cont. Max.int.

		3	6	9	12	15	18	21
Flow(L/min)	10	165	343	524	669	827	982	1130
		<b>25</b>	<b>24</b>	<b>23</b>	<b>22</b>	<b>21</b>	<b>20</b>	<b>19</b>
20		167	346	528	679	841	1001	1156
		<b>51</b>	<b>50</b>	<b>49</b>	<b>46</b>	<b>44</b>	<b>42</b>	<b>40</b>
40		165	346	530	685	859	1020	1181
		<b>99</b>	<b>98</b>	<b>96</b>	<b>93</b>	<b>90</b>	<b>86</b>	<b>82</b>
60		163	338	526	682	860	1024	1187
		<b>149</b>	<b>147</b>	<b>143</b>	<b>139</b>	<b>135</b>	<b>131</b>	<b>125</b>
80		155	330	517	672	853	1014	1181
		<b>199</b>	<b>197</b>	<b>194</b>	<b>190</b>	<b>186</b>	<b>182</b>	<b>176</b>
Max.cont.	100	140	317	503	662	838	998	1171
		<b>249</b>	<b>247</b>	<b>245</b>	<b>241</b>	<b>235</b>	<b>231</b>	<b>225</b>
Max.int.	125	126	289	490	643	816	977	1142
		<b>311</b>	<b>309</b>	<b>307</b>	<b>303</b>	<b>298</b>	<b>294</b>	<b>287</b>
Max.int.	150	118	273	475	623	797	954	1119
		<b>375</b>	<b>373</b>	<b>369</b>	<b>365</b>	<b>361</b>	<b>357</b>	<b>350</b>

 OTM4 500[535.3cm<sup>3</sup>/rev]

Pressure (Mpa)

Max.cont. Max.int.

		3	6	9	12	14	16	18
Flow(L/min)	10	204	415	637	821	966	1098	1233
		<b>18</b>	<b>18</b>	<b>18</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>13</b>
20		213	427	656	845	984	1122	1267
		<b>37</b>	<b>36</b>	<b>35</b>	<b>34</b>	<b>33</b>	<b>32</b>	<b>30</b>
40		212	429	669	866	1007	1145	1308
		<b>75</b>	<b>74</b>	<b>73</b>	<b>72</b>	<b>70</b>	<b>68</b>	<b>64</b>
60		207	421	657	866	1001	1146	1296
		<b>113</b>	<b>112</b>	<b>111</b>	<b>109</b>	<b>107</b>	<b>105</b>	<b>101</b>
80		196	397	640	853	990	1145	1289
		<b>151</b>	<b>150</b>	<b>149</b>	<b>147</b>	<b>145</b>	<b>143</b>	<b>138</b>
Max.cont.	100	179	387	626	829	978	1126	1272
		<b>189</b>	<b>188</b>	<b>187</b>	<b>185</b>	<b>183</b>	<b>181</b>	<b>177</b>
Max.int.	125	168	366	590	807	942	1103	1244
		<b>237</b>	<b>236</b>	<b>235</b>	<b>233</b>	<b>231</b>	<b>229</b>	<b>225</b>
Max.int.	150	135	339	569	785	924	1074	1219
		<b>284</b>	<b>283</b>	<b>282</b>	<b>280</b>	<b>278</b>	<b>276</b>	<b>272</b>

 ( Torque ) : 797Nm  
 ( Speed ) : 361r/min

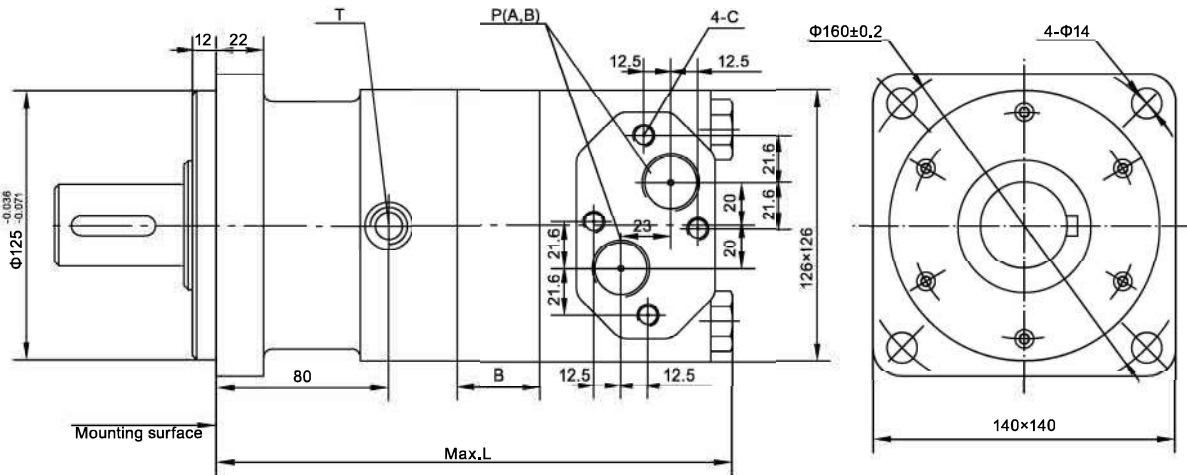
 □ Cont.  
 ■ Int.



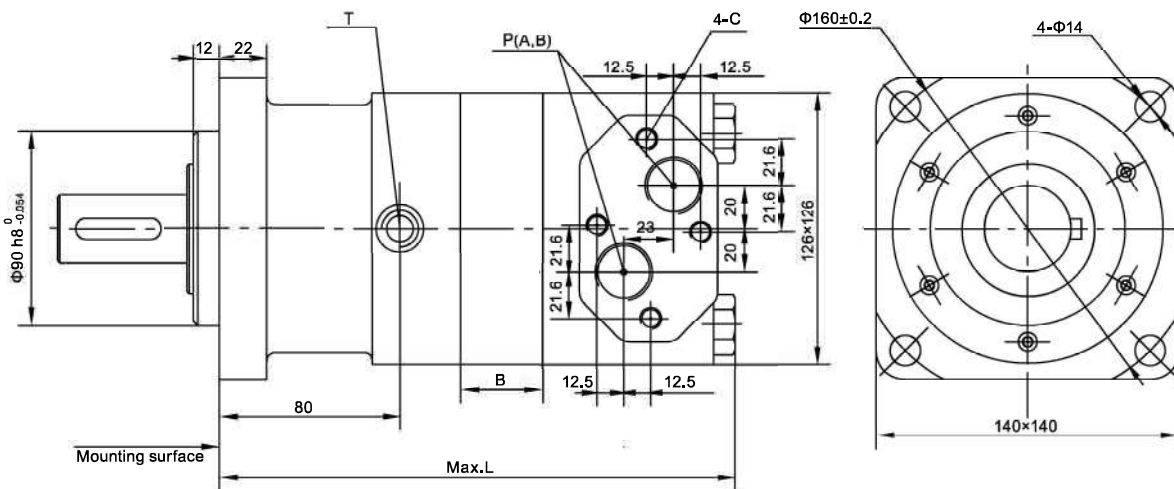
## OTM4 Orbit Hydraulic Motor With Disk Valve

## ■ OTM4 Installation

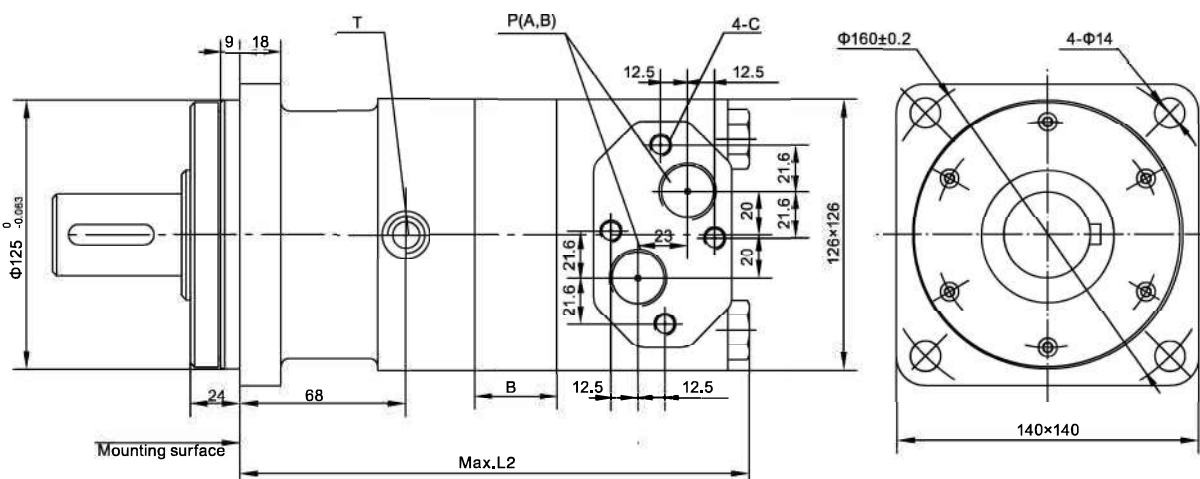
## Square flange A



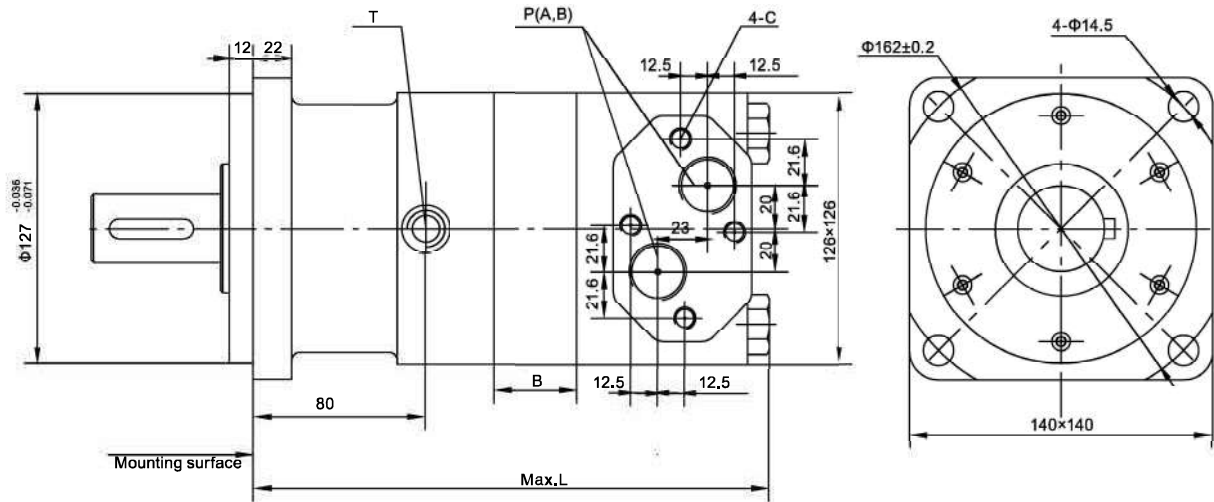
## Square flange A1



## Square flange A4



## OTM4 Orbit Hydraulic Motor With Disk Valve

**OTM4 Installation**


Type	OTM4-160	OTM4-200	OTM4-250	OTM4-320	OTM4-400	OTM4-500
L	217.5	222	227.5	234.5	243.5	262
B	12	16.5	22	29	38	56.5
L2	205.5	210	215.5	222.5	231.5	250

**OTM4 PORTS CODE**

Code	Ports	P(A, B)(deep)	C ( deep )	T ( deep )
Y		G3/4 (15)	M10 (12)	G1/4(12)
Y3		M27 × 2(15)	M10 (12)	M14 × 1.5(12)
Y4		M22 × 1.5(15)	M10 (12)	M14 × 1.5(12)
Y8		7/8-14UNF(15)	—	7/16-20UNF(12)
Y10		1 1/16-12UN(15)	—	9/16-18UNF(12)

P(A, B)—Ports, C—Mounting Thread ( —Indicates no this thread ), T—Drain connettion

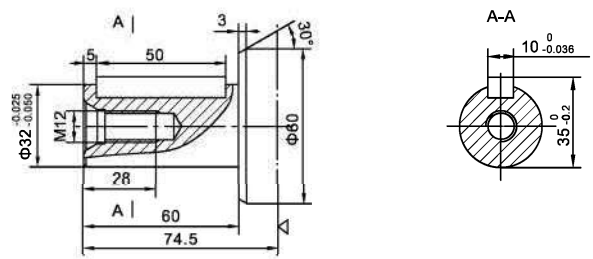
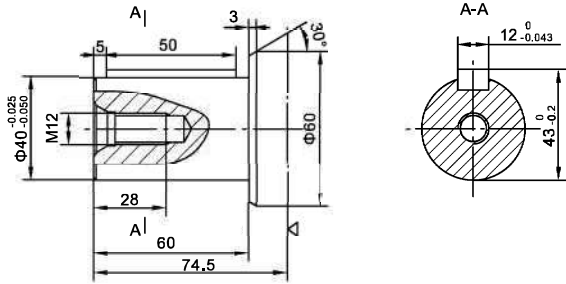
OTM4 Orbit Hydraulic Motor With Disk Valve

■ OTM4 SHAFT VERSION

Only match A,A1,A7 flange

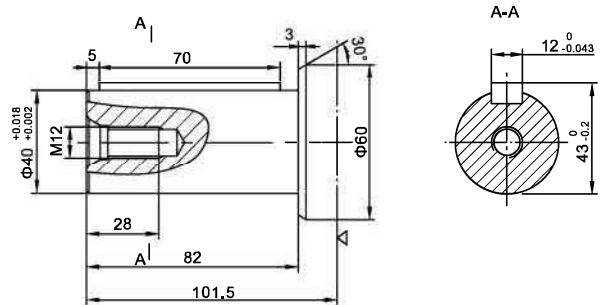
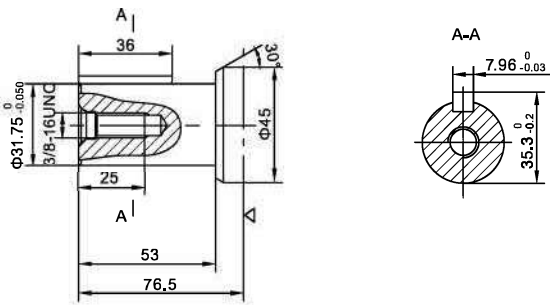
P:  $\Phi 40$  Cylindrical shaft, parallel key  $12 \times 8 \times 50$

P1:  $\Phi 32$  Cylindrical shaft, parallel key  $10 \times 8 \times 50$



P13:  $\Phi 31.75$  Cylindrical shaft, parallel key  $7.96 \times 7.96 \times 36$

P33:  $\Phi 40$  Cylindrical shaft, parallel key  $12 \times 8 \times 70$



◁ : Motor mounting surface

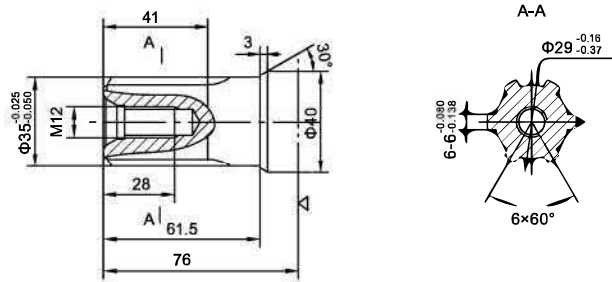
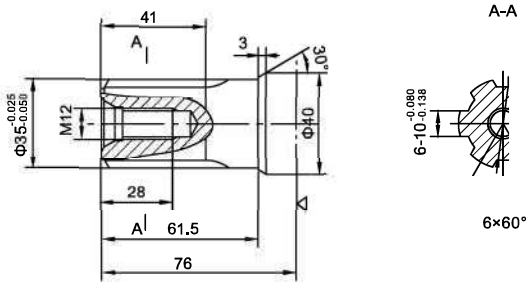
OTM4 Orbit Hydraulic Motor With Disk Valve

■ OTM4 SHAFT VERSION

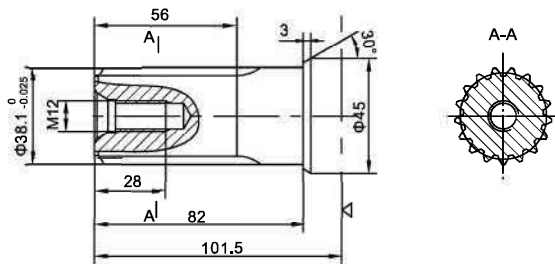
Only match A,A1,A7 flange

H4:  $\Phi 35$  Splined shaft, 6-35  $\times$  29  $\times$  10

H5:  $\Phi 35$  Splined shaft, 6-35  $\times$  29  $\times$  6



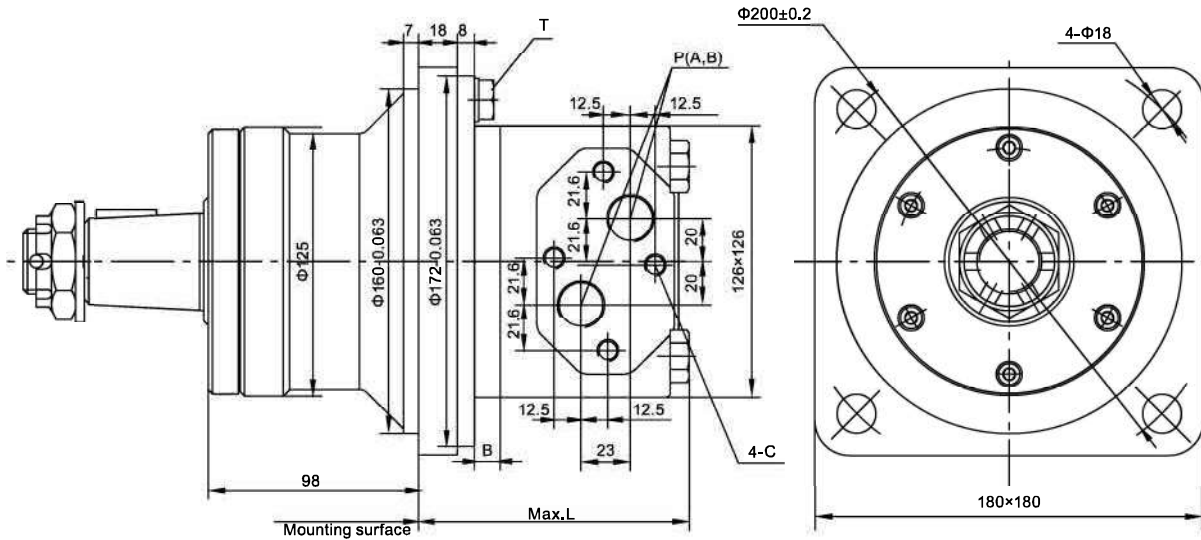
K3:  $\Phi 38.1$  involute splined shaft 17-DP12/24  $a=30^\circ$



Note: Flange with A4 type, hydraulic motor shaft from the mounting surface to increase 12mm.

◁ : Motor mounting surface

## O TM4W Orbit Hydraulic Motor With Disk Valve

**OTM4W ORDERING CODE**


Type	OTM4W-160	OTM4W-200	OTM4W-250	OTM4W-320	OTM4W-400	OTM4W-500
L	131.5	136	142.5	149.5	158.5	177
B	12	16.5	22	29	38	56.5

**OTM4W PORTS CODE**

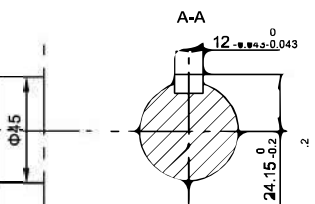
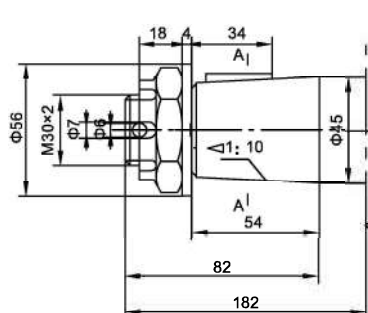
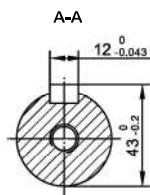
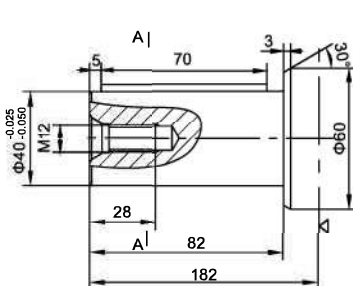
Code	Ports	P(A, B)(deep)	C ( deep )	T ( deep )
Y		G3/4 (15)	M10 (12)	G1/4(12)

P(A, B)—Ports, C—Mounting Thread ( —Indicates no this thread ), T—Drain connettion

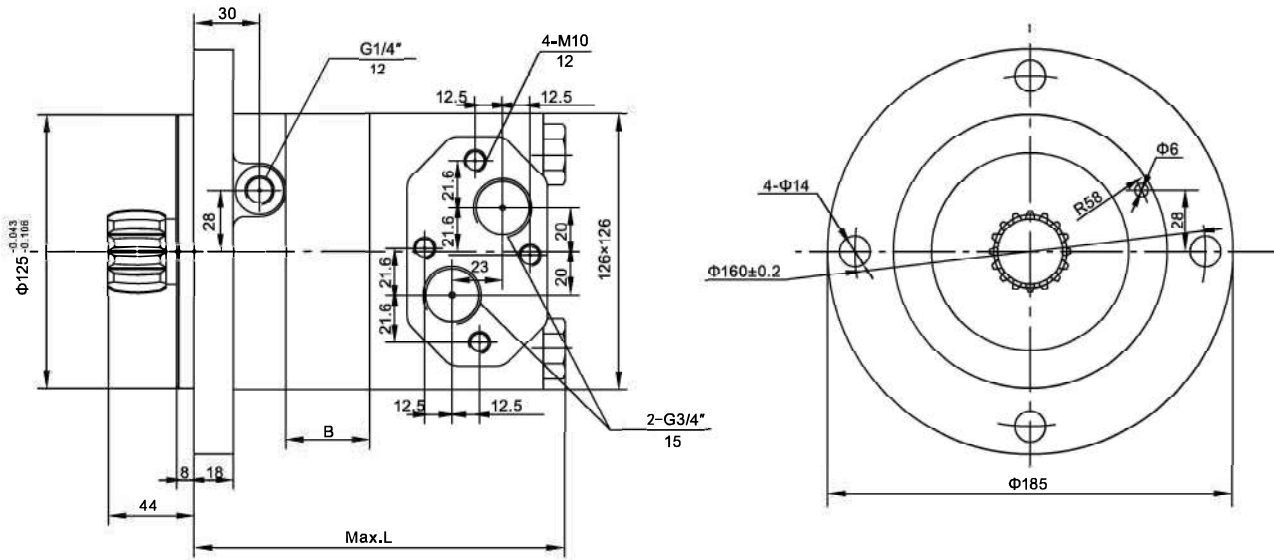
**OTM4W SHAFT VERSION**

P31: Φ40 Cylindrical shaft, parallel key 12 × 8 × 70

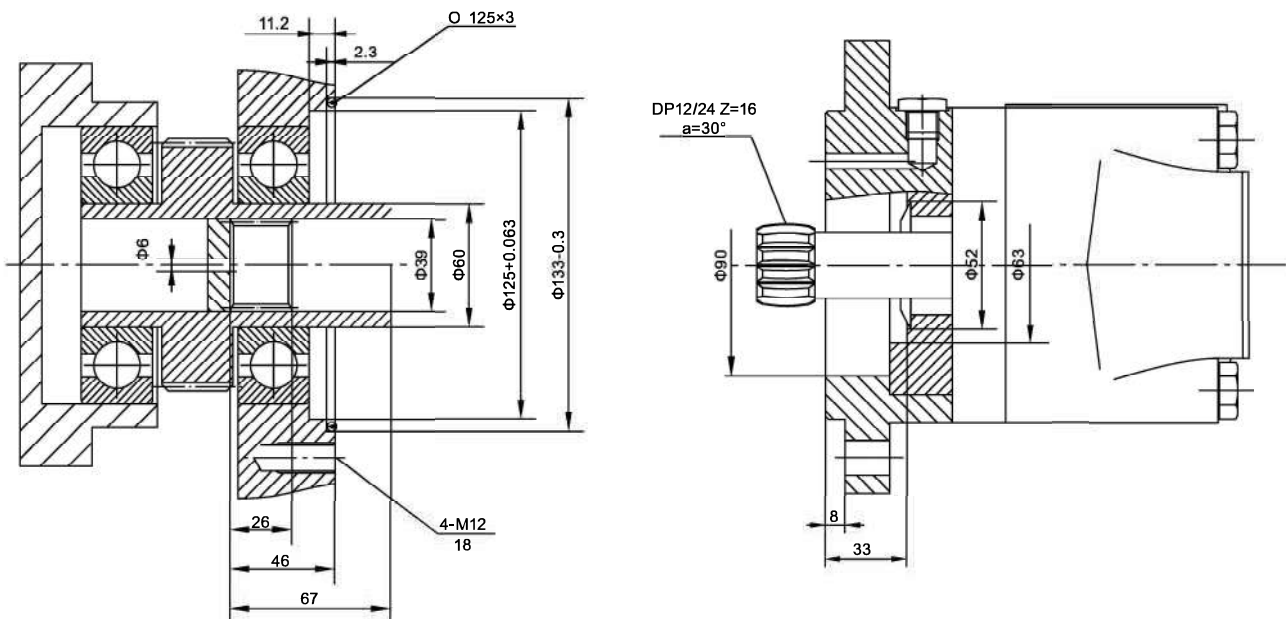
Z2: Φ45 Tapered shaft, taper1:10, parallel key 12 × 8 × 28



## OTM4S Orbit Hydraulic Motor With Disk Valve

**OTM4S INSTALLATION**


Type	OTM4S-160	OTM4S-200	OTM4S-250	OTM4S-320	OTM4S-400	OTM4S-500
L	148.5	153	158.5	165.5	174.5	193
B	12	16.5	22	29	38	56.5

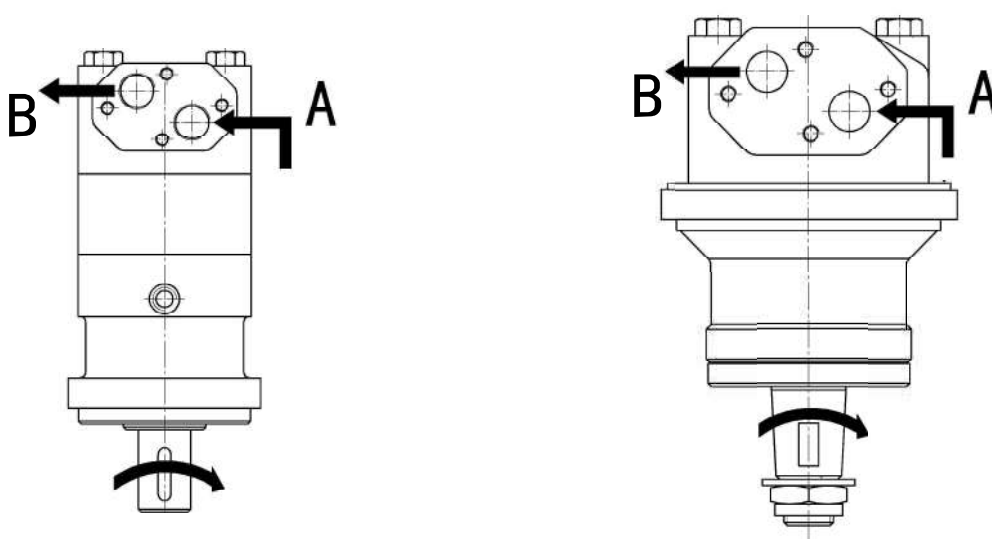
**OTM4S SHAFT VERSION**




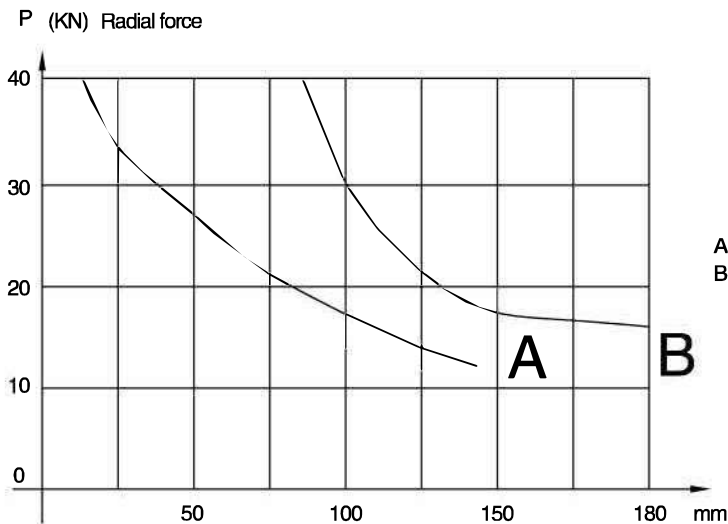
■ OTM4、OTM4W、OTM4S Series Motor

Direction of shaft rotation: Standard

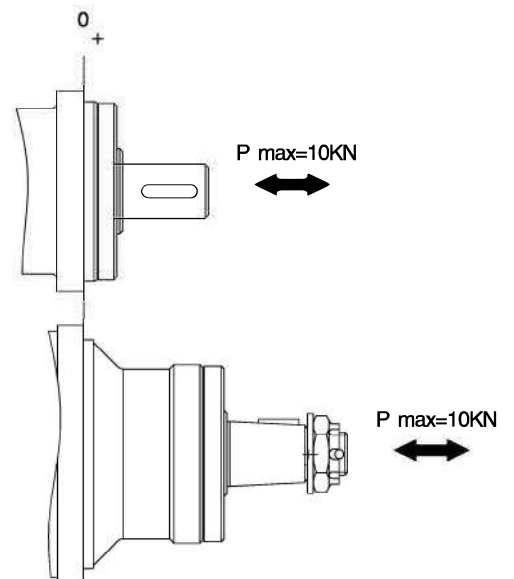
When facing shaft end of motor, shaft to rotate:  
 Clockwise when port "A" is pressurized.  
 Counter-clockwise when port "B" is pressurized.



■ PERMISSIBLE SHAFT LOADS



A—TM4  
 B—TM4W





## OTM4, OTM4W, OTM4S Series Motor

## ■ OTM4, OTM4W, OTM4S ORDER RING CODE

1	2	3	4	5	6	7
OTM4	—				/	—

Pos.1	2	3		4	
Series	Disp	Output		Flange	
OTM4	160	P33	Φ40 Cylindrical shaft, parallel key12 × 8 × 70	A	4-Φ 14 Oval flange, pilot Φ 125
	200	P	Φ40 Cylindrical shaft, parallel key12 × 8 × 50		
	250	P1	Φ32 Cylindrical shaft, parallel key10 × 8 × 50	A1	4-Φ 14 Oval flange, pilot Φ 90
		P13	Φ31.75 Cylindrical shaft, parallel key7.96 × 7.96 × 36		
	320	H4	Φ35 Splined shaft, 6-35 × 29 × 10	A4	4-Φ 14 Oval flange, pilot Φ 125
		H5	Φ35 Splined shaft, 6-35 × 29 × 6		
	400	H5	Φ35 Splined shaft, 6-35 × 29 × 6	A7	4-Φ 14.5 Oval flange, pilot Φ 127
500	K3	Φ38.1 involute splined shaft, 17-DP12/24 a=30°			

5			6		7	
Code	Ports		Special features		Rotation direction	
	Ports(A,B)(deep)	Drain port T(deep)				
Y	G3/4(15)	G1/4(12)	Omit T7	Standard With dustproof ring	Omit	Standard
Y3	M27 × 2(15)	M14 × 1.5(12)				
Y4	M22 × 1.5(15)	M14 × 1.5(12)			L	Opposite
Y8	7/8-14UNF(15)	7/16-20UNF(12)				
Y10	1 1/16-12UN(15)	9/16-18UNF(12)				

## OTM4、OTM4W、OTM4S Series Motor

**■ OTM4、OTM4W、OTM4S ORDERING CODE**

1	2	3	4	5	6	7
OTM4W	—				/	—

Pos.1	2	3		4
Series	Disp	Output		Flange
OTM4W	160 200 250 320 400 500	P31	Φ40 Cylindrical shaft, parallel key12×8×70	A 4-Φ18 Oval flange, pilotΦ160
		Z2	Φ45 Tapered shaft, taper1:10, parallel keyB12×8×28	

5			6		7	
Code	Ports		Special features		Rotation direction	
	Ports(A,B)(deep)	Drain port T(deep)				
Y	G3/4(15)	G1/4(12)	Omit	Standard	Omit L	Standard Opposite

1	2	3
OTM4S	—	/

Pos.1	2	3	
Series	Disp	Special features	
OTM4S	160 200 250 320 400 500	Omit	Standard

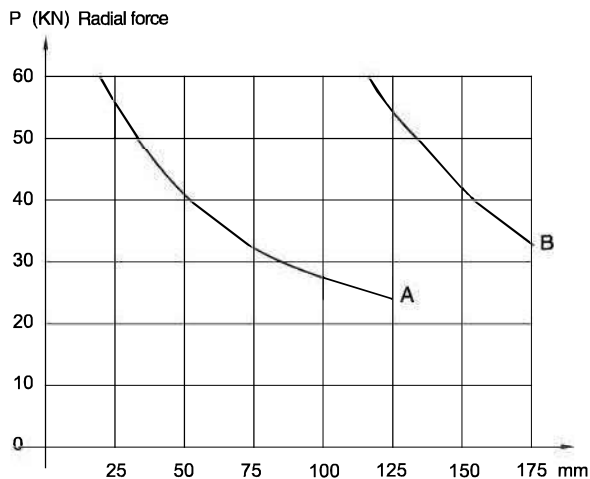
## OTM5 Orbit Hydraulic Motor With Disk Valve

**OTM5 TECHNICAL DATA**

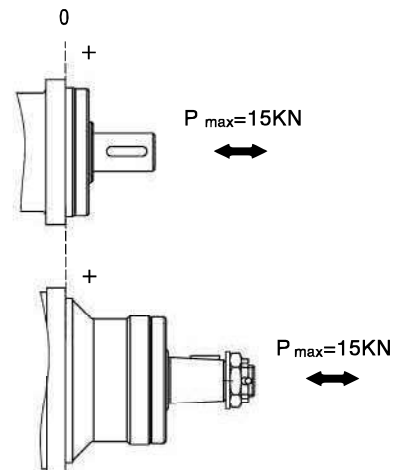
TYPE	OTM5-315 OTM5S-315 OTM5W-315	OTM5-400 OTM5S-400 OTM5W-400	OTM5-500 OTM5S-500 OTM5W-500	OTM5-630 OTM5S-630 OTM5W-630	OTM5-800 OTM5S-800 OTM5W-800	OTM5-985 OTM5S-985 OTM5W-985
Displacement(ml/r)	314.9	399.7	496.6	617.8	787.4	969.1
Max.Pressure.Drop (Mpa)	cont.	20	20	20	18	14
	int.	24	24	24	21	16
	peak.	28	28	28	24	18
Max.torque (N.m)	cont.	873	1108	1385	1570	1773
	int.	1119	1440	1783	1951	2122
	peak.	1293	1650	2060	2249	2481
Max.Speed(cont.)(r/min)	475	375	300	240	190	150
Max.Flow(cont.)(L/min)	150	150	150	150	150	150
Max.Output.Power(cont.)(Kw)	32	32	32	32	32	24
Weight (kg)	30.7	31.5	32.4	33.6	35.2	37.2

Intermittent operation the permissible values may occur for max. 10% of every minute

Peak load: the permissible values may occur for max. 1% of every minute

**PERMISSIBLE SHAFT LOADS**


A---TM5  
B---TM5W



## OTM5 Orbit Hydraulic Motor With Disk Valve

**OTM5 PERFORMANCE DATA**

OTM5 315[314.9ml/r]

Pressure (Mpa)

Max.cont. Max.int.

		3.5	7	10	14	18	20	24
Flow(L/min)	10	132 <b>28</b>	278 <b>25</b>	416 <b>24</b>	576 <b>23</b>	701 <b>21</b>	799 <b>18</b>	945 <b>15</b>
	20	145 <b>58</b>	297 <b>57</b>	440 <b>56</b>	601 <b>55</b>	744 <b>54</b>	846 <b>51</b>	1011 <b>47</b>
	50	141 <b>153</b>	295 <b>152</b>	439 <b>150</b>	618 <b>148</b>	770 <b>145</b>	884 <b>141</b>	1051 <b>134</b>
	75	135 <b>233</b>	287 <b>231</b>	433 <b>228</b>	607 <b>223</b>	771 <b>219</b>	888 <b>214</b>	1057 <b>206</b>
Max.cont.	100	129 <b>311</b>	281 <b>309</b>	427 <b>307</b>	601 <b>304</b>	765 <b>299</b>	885 <b>294</b>	1047 <b>286</b>
	125	116 <b>389</b>	270 <b>387</b>	418 <b>385</b>	592 <b>382</b>	755 <b>378</b>	870 <b>372</b>	1033 <b>365</b>
	150	108 <b>471</b>	260 <b>469</b>	411 <b>467</b>	581 <b>462</b>	745 <b>455</b>	856 <b>447</b>	1019 <b>434</b>
	160	101 <b>503</b>	253 <b>501</b>	406 <b>497</b>	575 <b>493</b>	737 <b>487</b>	846 <b>478</b>	1011 <b>465</b>
Max.int.	200	77 <b>631</b>	235 <b>629</b>	389 <b>624</b>	560 <b>618</b>	716 <b>610</b>	823 <b>598</b>	989 <b>576</b>

OTM5 400[399.7ml/r]

Pressure (Mpa)

Max.cont. Max.int.

		3.5	7	10	14	18	20	24
Flow(L/min)	10	175 <b>21</b>	367 <b>21</b>	542 <b>20</b>	740 <b>19</b>	923 <b>18</b>	1050 <b>17</b>	1233 <b>15</b>
	20	187 <b>46</b>	380 <b>46</b>	563 <b>45</b>	778 <b>44</b>	964 <b>42</b>	1099 <b>41</b>	1284 <b>39</b>
	50	191 <b>119</b>	384 <b>118</b>	575 <b>118</b>	803 <b>117</b>	992 <b>115</b>	1131 <b>113</b>	1364 <b>108</b>
	75	186 <b>183</b>	376 <b>181</b>	569 <b>178</b>	799 <b>174</b>	995 <b>171</b>	1133 <b>165</b>	1366 <b>159</b>
Max.cont.	100	164 <b>247</b>	367 <b>246</b>	566 <b>244</b>	789 <b>242</b>	988 <b>238</b>	1130 <b>234</b>	1359 <b>225</b>
	125	159 <b>310</b>	357 <b>308</b>	556 <b>305</b>	778 <b>302</b>	974 <b>296</b>	1123 <b>288</b>	1348 <b>281</b>
	150	151 <b>372</b>	344 <b>371</b>	533 <b>369</b>	764 <b>366</b>	962 <b>361</b>	1111 <b>351</b>	1326 <b>340</b>
	175	136 <b>436</b>	330 <b>434</b>	528 <b>431</b>	748 <b>427</b>	944 <b>422</b>	1092 <b>415</b>	1314 <b>407</b>
Max.int.	200	113 <b>498</b>	316 <b>496</b>	511 <b>492</b>	735 <b>485</b>	924 <b>477</b>	1076 <b>470</b>	1294 <b>460</b>

OTM5 500[496.6ml/r]

Pressure (Mpa)

Max.cont. Max.int.

		3.5	7	10	14	18	20	24
Flow(L/min)	10	232 <b>18</b>	448 <b>18</b>	667 <b>17</b>	919 <b>17</b>	1140 <b>16</b>	1296 <b>14</b>	1540 <b>11</b>
	20	235 <b>38</b>	480 <b>37</b>	707 <b>37</b>	961 <b>35</b>	1180 <b>34</b>	1335 <b>33</b>	1588 <b>30</b>
	50	230 <b>97</b>	479 <b>96</b>	726 <b>95</b>	982 <b>94</b>	1217 <b>92</b>	1388 <b>89</b>	1670 <b>84</b>
	75	223 <b>146</b>	477 <b>145</b>	720 <b>143</b>	987 <b>141</b>	1234 <b>138</b>	1413 <b>133</b>	1692 <b>125</b>
Max.cont.	100	218 <b>197</b>	470 <b>195</b>	717 <b>193</b>	983 <b>190</b>	1235 <b>186</b>	1410 <b>181</b>	1686 <b>173</b>
	125	211 <b>247</b>	463 <b>246</b>	711 <b>244</b>	971 <b>241</b>	1226 <b>237</b>	1399 <b>233</b>	1672 <b>225</b>
	150	193 <b>300</b>	445 <b>299</b>	693 <b>296</b>	966 <b>293</b>	1198 <b>288</b>	1369 <b>282</b>	1663 <b>271</b>
	175	174 <b>350</b>	427 <b>349</b>	681 <b>347</b>	955 <b>343</b>	1186 <b>339</b>	1347 <b>334</b>	1643 <b>324</b>
Max.int.	200	154 <b>401</b>	405 <b>400</b>	648 <b>398</b>	933 <b>395</b>	1167 <b>390</b>	1327 <b>382</b>	1626 <b>370</b>

OTM5 630[617.8ml/r]

Pressure (Mpa)

Max.cont. Max.int.

		3.5	6	9	12	15	18	21
Flow(L/min)	10	260 <b>15</b>	484 <b>14</b>	753 <b>14</b>	1020 <b>13</b>	1175 <b>13</b>	1436 <b>12</b>	1654 <b>11</b>
	20	267 <b>30</b>	512 <b>30</b>	778 <b>29</b>	1021 <b>29</b>	1219 <b>28</b>	1490 <b>26</b>	1728 <b>24</b>
	50	268 <b>78</b>	514 <b>78</b>	805 <b>77</b>	1054 <b>74</b>	1264 <b>73</b>	1559 <b>71</b>	1813 <b>67</b>
	75	250 <b>118</b>	508 <b>117</b>	800 <b>114</b>	1038 <b>112</b>	1253 <b>110</b>	1557 <b>107</b>	1821 <b>101</b>
Max.cont.	100	245 <b>157</b>	499 <b>156</b>	794 <b>154</b>	1013 <b>152</b>	1251 <b>149</b>	1552 <b>146</b>	1822 <b>140</b>
	125	233 <b>198</b>	478 <b>197</b>	776 <b>195</b>	993 <b>193</b>	1238 <b>191</b>	1538 <b>187</b>	1808 <b>181</b>
	150	222 <b>238</b>	459 <b>237</b>	757 <b>236</b>	985 <b>234</b>	1233 <b>232</b>	1530 <b>229</b>	1787 <b>221</b>
	175	195 <b>279</b>	450 <b>278</b>	738 <b>277</b>	975 <b>274</b>	1205 <b>270</b>	1517 <b>265</b>	1769 <b>260</b>
Max.int.	200	169 <b>320</b>	435 <b>320</b>	696 <b>318</b>	944 <b>316</b>	1187 <b>313</b>	1493 <b>306</b>	1746 <b>294</b>

OTM5 800[787.4ml/r]

Pressure (Mpa)

Max.cont. Max.int.

		2.5	5	8	10	13	16	18
Flow(L/min)	10	273 <b>11</b>	555 <b>10</b>	816 <b>10</b>	1076 <b>9</b>	1381 <b>8</b>	1683 <b>8</b>	1882 <b>7</b>
	20	277 <b>23</b>	561 <b>22</b>	831 <b>22</b>	1130 <b>21</b>	1431 <b>20</b>	1753 <b>18</b>	1960 <b>16</b>
	50	283 <b>61</b>	572 <b>60</b>	841 <b>58</b>	1142 <b>57</b>	1438 <b>55</b>	1760 <b>53</b>	1967 <b>49</b>
	75	264 <b>93</b>	570 <b>92</b>	840 <b>91</b>	1145 <b>89</b>	1440 <b>85</b>	1756 <b>82</b>	1962 <b>78</b>
Max.cont.	100	247 <b>124</b>	556 <b>123</b>	826 <b>122</b>	1121 <b>120</b>	1423 <b>117</b>	1737 <b>113</b>	1951 <b>107</b>
	125	238 <b>156</b>	526 <b>155</b>	810 <b>153</b>	1099 <b>150</b>	1403 <b>145</b>	1709 <b>141</b>	1942 <b>135</b>
	150	232 <b>188</b>	517 <b>186</b>	794 <b>184</b>	1083 <b>181</b>	1377 <b>177</b>	1685 <b>172</b>	1926 <b>166</b>
	175	211 <b>251</b>	495 <b>249</b>	780 <b>247</b>	1061 <b>244</b>	1354 <b>241</b>	1669 <b>236</b>	1903 <b>229</b>
Max.int.	200	194 <b>302</b>	460 <b>301</b>	752 <b>300</b>	1045 <b>298</b>	1339 <b>293</b>	1652 <b>288</b>	1807 <b>282</b>

OTM5 985[969.1ml/r]

Pressure (Mpa)

Max.cont. Max.int.

		2.5	5	7	10	14	16
Flow(L/min)	10	305 <b>9</b>	627 <b>9</b>	951 <b>9</b>	1371 <b>8</b>	1936 <b>7</b>	2212 <b>6</b>
	20	313 <b>29</b>	634 <b>28</b>	957 <b>27</b>	1380 <b>26</b>	1938 <b>23</b>	2222 <b>21</b>
	50	319 <b>48</b>	641 <b>47</b>	971 <b>46</b>	1392 <b>44</b>	1973 <b>42</b>	2232 <b>39</b>
	75	311 <b>74</b>	629 <b>73</b>	966 <b>72</b>	1395 <b>69</b>	1961 <b>67</b>	2228 <b>64</b>
Max.cont.	100	303 <b>100</b>	621 <b>99</b>	962 <b>97</b>	1388 <b>95</b>	1952 <b>92</b>	2196 <b>88</b>
	125	297 <b>126</b>	611 <b>125</b>	955 <b>123</b>	1379 <b>120</b>	1946 <b>116</b>	2177 <b>112</b>
	150	272 <b>152</b>	589 <b>151</b>	941 <b>149</b>	1339 <b>147</b>	1922 <b>143</b>	2162 <b>136</b>
	175	258 <b>178</b>	568 <b>176</b>	926 <b>174</b>	1310 <b>170</b>	1885 <b>165</b>	2114 <b>158</b>
Max.int.	200	163 <b>245</b>	502 <b>242</b>	849 <b>238</b>	1240 <b>234</b>	1787 <b>230</b>	1991 <b>223</b>

 ( Torque ) : 1045Nm  
 ( Speed ) : 298r/min

 Cont.  
 Int.



## OTM5 Orbit Hydraulic Motor With Disk Valve

Type	OTM5-315	OTM5-400	OTM5-500	OTM5-630	OOTM5-800	OTM5-985
L	216	223	231	241	255	270
L1	246	253	261	271	285	300
B	19	26	34	44	58	73

**OTM5 PORTS CODE**

Code	Ports	P(A、B)( deep)	C ( deep )	T ( deep )
Y		G1 (18)	M12(12)	G1/4(12)
Y1		G3/4(18)	M12(12)	G1/4(12)
Y2		M33 × 2(18)	M12(12)	M14 × 1.5(12)
Y3		M27 × 2(18)	M12(12)	M14 × 1.5(12)
Y8		1 5/16-12UN(18)	—	9/16-18UNF(12)

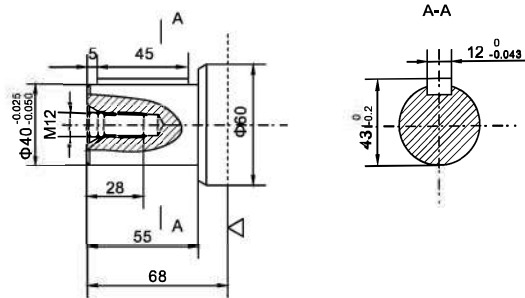
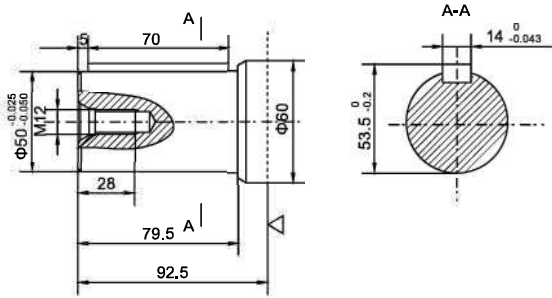
P(A、B)—Ports, C—Mounting Thread ( —Indicates no this thread ) , T—Drain connettion

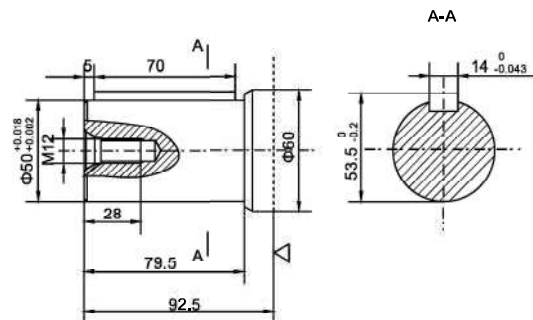
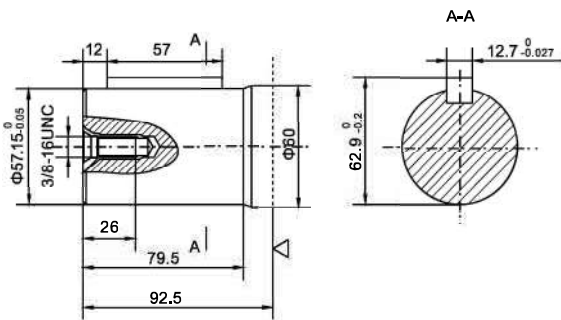
## OTM5 Orbit Hydraulic Motor With Disk Valve

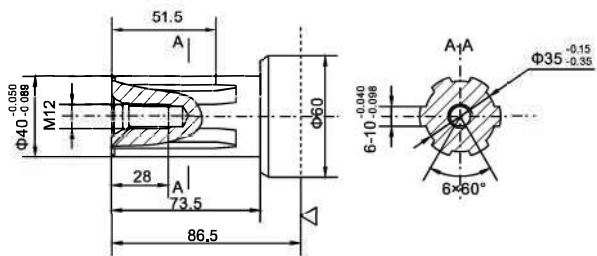
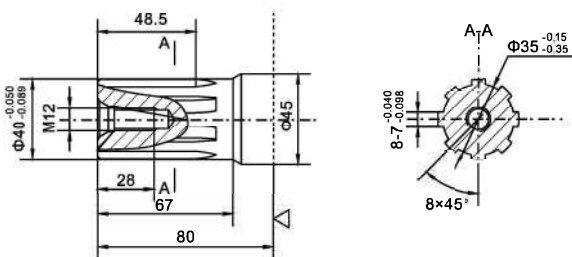

**■ OTM5 SHAFT VERSION**

Only match A 1,A7 flange

 P:  $\Phi 50$  Cylindrical shaft, parallel key  $14 \times 9 \times 70$ 

 P1:  $\Phi 40$  Cylindrical shaft, parallel key  $12 \times 8 \times 45$ 

 P12:  $\Phi 57.15$  Cylindrical shaft, parallel key  $12.7 \times 12.7 \times 57$ 

 P99:  $\Phi 50$  Cylindrical shaft, parallel key  $14 \times 9 \times 70$ 

 H4:  $\Phi 40$  Splined shaft, 8-40  $\times$  35  $\times$  7

 H5:  $\Phi 40$  Splined shaft, 6-40  $\times$  35  $\times$  10

 : Motor mounting surface

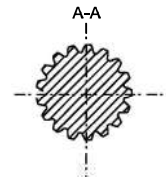
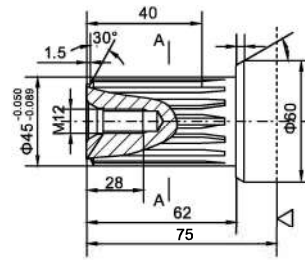
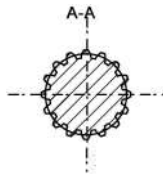
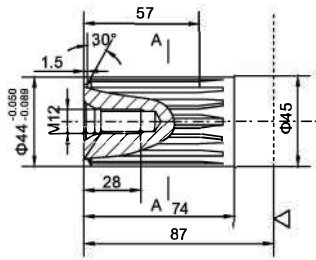


■ OTM5 SHAFT VERSION

Only match A1,A7 flange

K2:  $\Phi 44$  involute splined shaft m2.5 z16  $a=30^\circ$

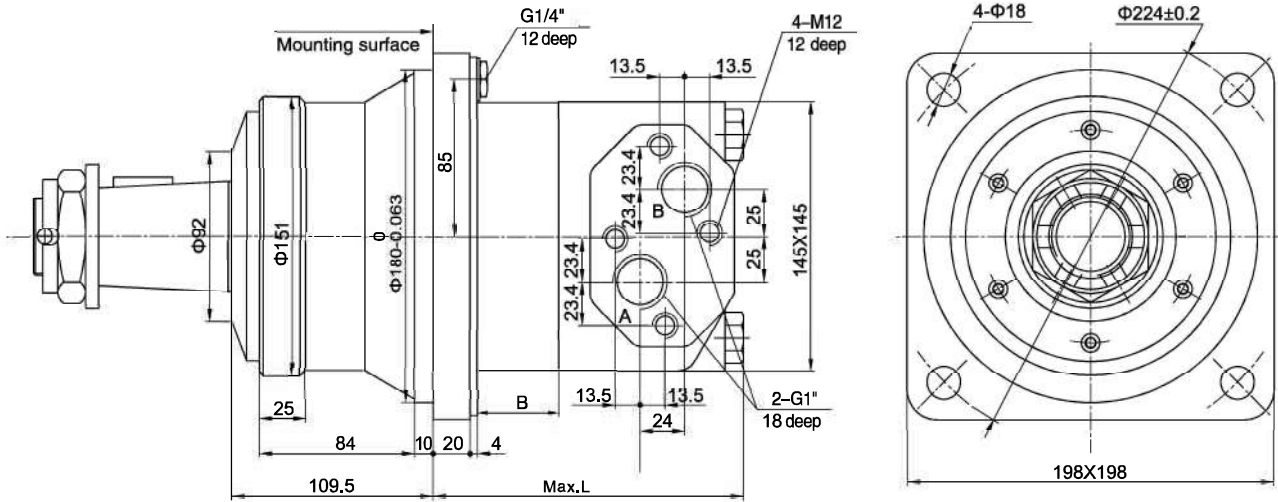
K3:  $\Phi 45$  involute splined shaft m2.5 z17  $a=30^\circ$



Note: Flange with A type, hydraulic motor shaft from the mounting surface to increase 30mm.

◁ : Motor mounting surface

## OTM5W Orbit Hydraulic Motor With Disk Valve

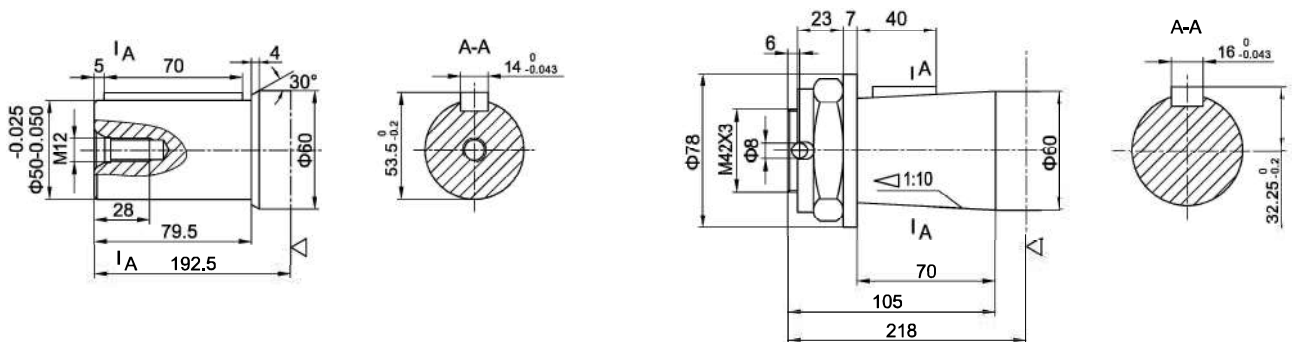
**OTM5W Installation**


TYPE	OTMSW-315	OTMSW-400	OTMSW-500	OTMSW-630	OTMSW-800	OTMSW-985
L	148	155	163	174	187	202
B	19	26	34	44	58	73

**OTM5W SHAFT VERSION**

P: Φ50 Cylindrical shaft, parallel key 14X9X70

Z: Φ60 Tapered shaft, taper1: 10, parallel key 16X10X32



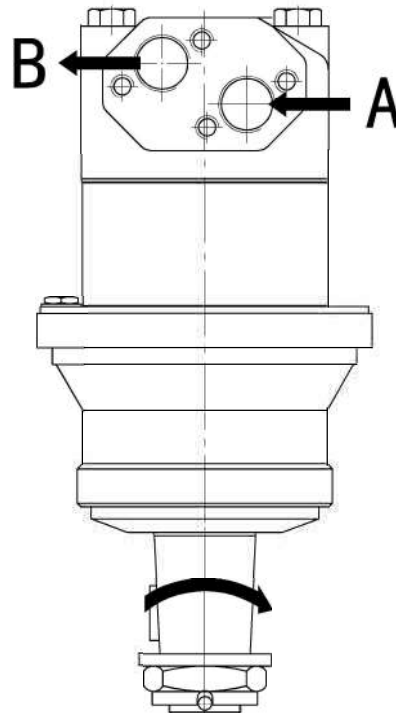
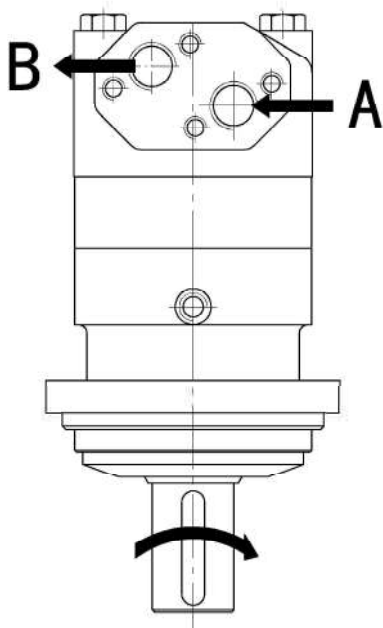
◁-- Motor mounting surface



■ OTM5, OTM5W, OTM5S Series Motor

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.



## OTM5、OTM5W、OTM5S Ordering Code

## ■ OTM5、OTM5W、OTM5S ORDE RING CODE

1	2	3	4	5	6	7
OTM5	—				/	—

Pos.1	2	3		4	
Series	Disp	Output		Flange	
OTM5	315	P	Φ50 Cylindrical shaft, parallel key14 × 9 × 70	A	4-Φ18 Square flange, pilot Φ160
		P1	Φ40 Cylindrical shaft, parallel key12 × 8 × 45		
	400	P12	Φ57.15 Cylindrical shaft, parallel key12.7 × 12.7 × 57		
		500	P99	Φ50 Cylindrical shaft, parallel key14 × 9 × 70	A1
	H4		Φ40 Splined shaft, 8-40 × 35 × 7		
	630	H5	Φ40 Splined shaft, 6-40 × 35 × 10		
		800	K2	Φ44 involute splined shaft, m2.5,z16,a=30°	A7
	985		K3	Φ45 involute splined shaft, m2.5,z17,a=30°	

Code	5		6	7
	Ports			
	Ports(A,B)(deep)	Drain port T(deep)	Special features	Rotation direction
Y	G1(18)	G1/4(12)	Omit Standard	Omit Standard L Opposite
Y1	G3/4(18)	G1/4(12)		
Y2	M33 × 2(18)	M14 × 1.5(12)		
Y3	M27 × 2(18)	M14 × 1.5(12)		
Y8	1 5/16-12UN(18)	9/16-18UNF(12)		

## OTM5, OTM5W, OTM5S Ordering Code

**■ OTM5, OTM5W, OTM5S ORDERING CODE**

1	2	3	4	5	6	7
OTM5W	—				/	—

Pos.1	2	3		4	
Series	Disp	Output		Flange	
OTM5W	315 400 500 630 800 985	P	Φ50 Cylindrical shaft, parallel key 14 × 9 × 70	A	4-Φ 18 Square flange, pilot Φ 180
		Z	Φ 60 Tapered shaft, taper 1:10, parallel key 16 × 10 × 32		

5			6		7	
Code	Ports		Special features		Rotation direction	
	Ports(A,B)(deep)	Drain port T(deep)				
Y	G1(18)	G1/4(12)	Omit	Standard	Omit L	Standard Opposite

1	2	3
OTM5S	—	/

Pos.1	2	3	
Series	Disp	Special features	
OTM5S	315 400 500 630 800 985	Omit	Standard

## OTM6 Orbit Hydraulic Motor With Disk Valve

**OTM6 TECHNICAL DATA**

TYPE		OTM6-800	OTM6-1000	OTM6-1250
Displacement(ml/r)		759.6	949.5	1186.8
Max.Pressure.Drop (Mpa)	cont.	16	16	16
	int.	18	18	18
	peak.	21	21	21
Max.torque (N.m)	cont.	1690	2160	2650
	int.	1903	2379	2973
	peak.	2220	2774	3469
Speed.Range(cont.)(r/min)		5-200	5-160	5-130
Max.Flow(cont.)(L/min)		160	160	160
Max.Output.Power(cont.)(Kw)		35	35	35
Weight (kg)		54	56	58

Intermittent operation the permissible values may occur for max. 10% of every minute

Peak load: the permissible values may occur for max. 1% of every minute

**OTM6 PERFORMANCE DATA**

OTM6 800[759.6ml/r]  
Pressure (Mpa)

	Max.cont. Max.int.							
	3	5	7	10.5	12	14	16	18
10	233 13	490 13	683 12					
15	230 20	485 20	680 19	1005 17	1145 16	1340 15		
30	297 39	481 38	678 38	1003 37	1142 37	1336 36	1685 35	1921 32
45	295 58	479 58	675 57	1000 57	1140 56	1332 55	1680 54	
60	292 77	476 77	671 76	998 75	1138 75	1329 74	1699 74	
75	288 96	473 95	668 94	995 94	1135 93	1325 92	1695 91	
90	283 115	471 114	660 113	990 113	1132 112	1320 111	1690 110	
105	280 135	463 134	650 133	982 132	1120 130	1312 129		
120		451 153	635 152	968 151	1111 149	1300 147		
140		440 178	620 176	952 175	1101 173			
Max.cont. 160			612 198	932 197	1092 196			
Max.int. 190			913 241	1071 240	1171 238			

OTM6 1000[949.5ml/r]  
Pressure (Mpa)

	Max.cont. Max.int.							
	3	5	7	10.5	12	14	16	18
15	366 14	602 13	836 13	1250 12	1438 11			
30	364 31	600 31	834 30	1248 30	1432 29	1669 28		
45	362 46	598 45	832 45	1245 44	1428 43	1667 43		
60	360 62	595 61	830 61	1242 60	1420 59	1662 58	2012 57	2316 54
75	358 77	593 76	828 75	1240 74	1418 73	1658 72	2006 72	
90	354 93	590 92	826 92	1238 91	1415 90	1651 89	2003 88	
105	350 108	581 107	801 106	1221 105	1402 104	1648 103		
120		571 123	791 122	1210 121	1394 120	1432 119		
140		552 143	772 142	1196 140	1385 139	1425 138		
Max.cont. 160			761 163	1186 162	1368 161			
Max.int. 190			742 193	1165 192	1352 191			

 ( Torque ) : 1165Nm  
 ( Speed ) : 192r/min

 Cont.  
 Int.



**OTM6 Orbit Hydraulic Motor With Disk Valve**
**OTM6 PERFORMANCE DATA**

OTM6 1250[1186.8ml/r]  
 Pressure (Mpa)

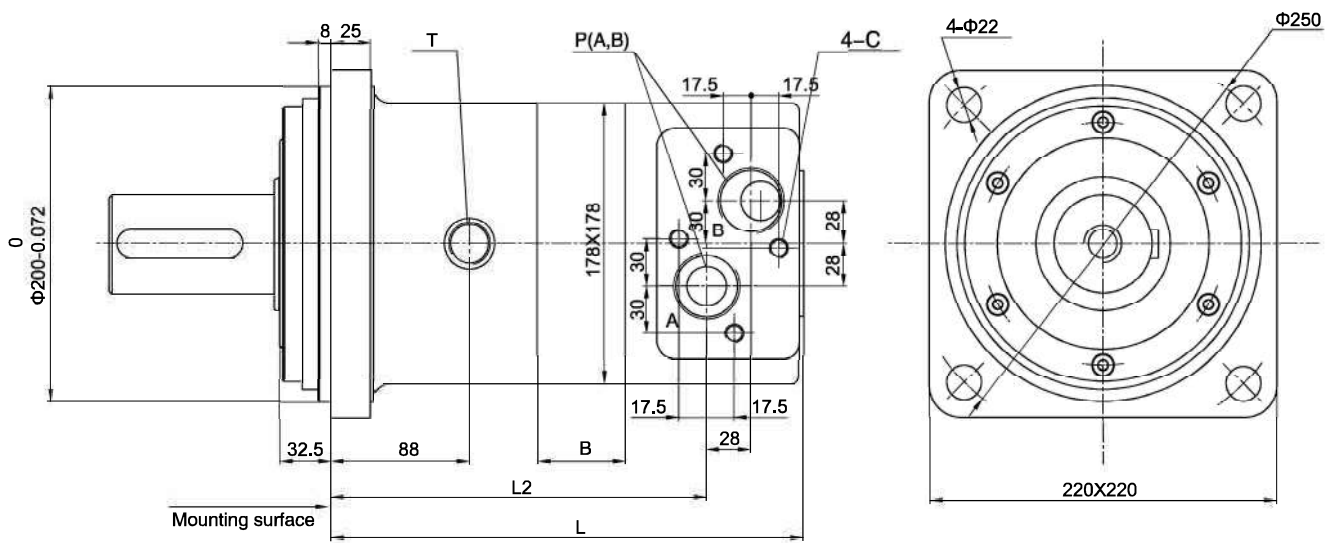
Flow(L/min)	Pressure (Mpa)							
	3	5	7	10.5	12	14	16	18
30	468 <b>25</b>	770 <b>24</b>	1070 <b>23</b>	1602 <b>22</b>				
45	465 <b>37</b>	767 <b>36</b>	1068 <b>35</b>	1599 <b>34</b>	1826 <b>33</b>			
60	462 <b>50</b>	763 <b>49</b>	1065 <b>48</b>	1596 <b>47</b>	1822 <b>45</b>			
75	460 <b>62</b>	760 <b>61</b>	1062 <b>60</b>	1592 <b>58</b>	1818 <b>57</b>	2123 <b>57</b>	2654 <b>56</b>	2978 <b>52</b>
90	456 <b>74</b>	758 <b>73</b>	1060 <b>72</b>	1590 <b>71</b>	1816 <b>70</b>	2118 <b>68</b>	2652 <b>67</b>	2975 <b>64</b>
105	453 <b>87</b>	756 <b>86</b>	1058 <b>85</b>	1587 <b>84</b>	1814 <b>82</b>	2116 <b>82</b>	2650 <b>81</b>	2973 <b>79</b>
120		751 <b>98</b>	1050 <b>97</b>	1582 <b>96</b>	1802 <b>95</b>	2110 <b>93</b>	2641 <b>92</b>	2963 <b>91</b>
140		742 <b>113</b>	1041 <b>112</b>	1561 <b>111</b>	1792 <b>109</b>	2008 <b>107</b>		
Max.cont.			1032 <b>129</b>	1550 <b>128</b>	1782 <b>127</b>	1986 <b>126</b>		
Max.int.			1020 <b>153</b>	1532 <b>152</b>	1770 <b>151</b>			

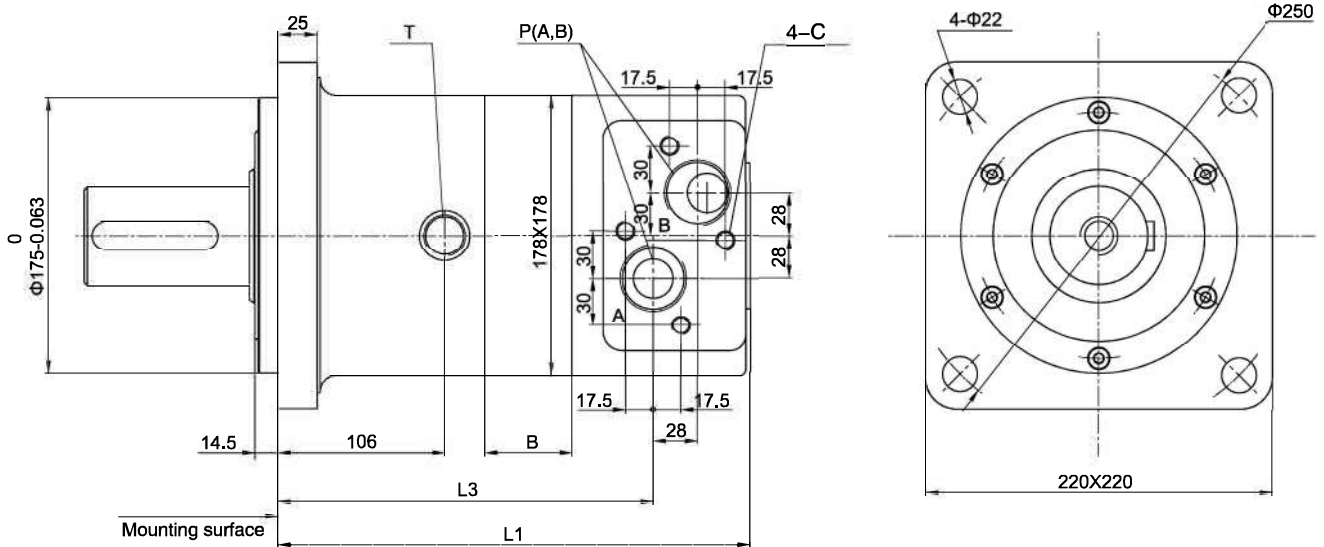
( Torque ) : 1532Nm  
 ( Speed ) : 152r/min

Cont.  
 Int.

**OTM6 Installation**

4-Φ22 square flange A



**OTM6 Orbit Hydraulic Motor With Disk Valve**
**OTM6 Installation**
**4-Φ22 square flange A1**


TYPE	OTM6-800	OTM6-1000	OTM6-1250
L	278	288	300
L1	296	306	318
L2	217	227	239
L3	235	245	257
B	33	43	55.5

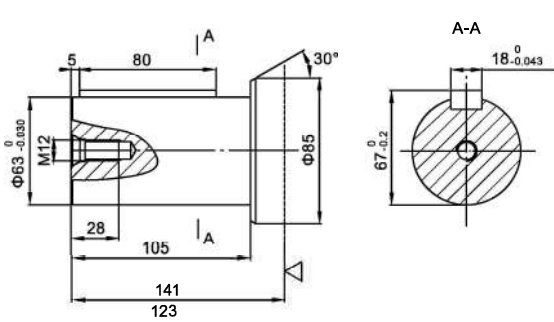
**OTM6 PORTS CODE**

Code	Ports	P(A, B)( deep )	C ( deep )	T ( deep )
Y		G1-1/4(20)	M12(12)	G3/8" (12)
Y1		Φ36(20)	M12(12)	G3/8" (12)

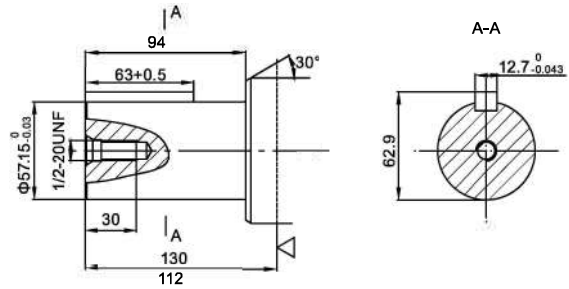
P(A, B)--Ports, C--Mounting Thread ( —Indicates no this thread ), T--Drain connettion

■ OTM6 SHAFT VERSION

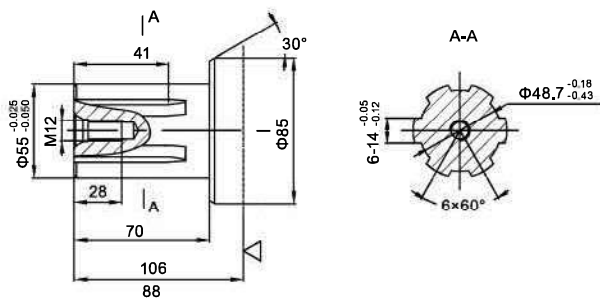
P:  $\Phi 63$  Cylindrical shaft, parallel key 18  
 $\times 11 \times 80$



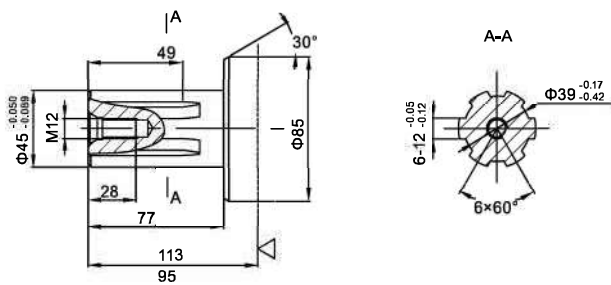
P1:  $\Phi 57.15$  Cylindrical shaft, parallel key C12.7x11x63



H1:  $\Phi 55$  Splined shaft, 6-55  $\times 48.7 \times 14$



H2:  $\Phi 45$  Splined shaft, 6-45  $\times 39 \times 12$

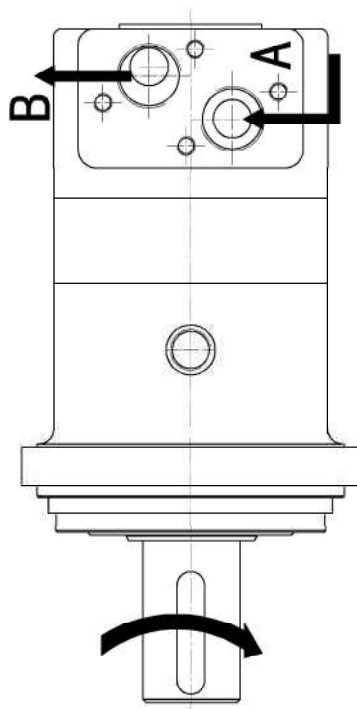


◁ : Motor mounting surface

■ OTM6 Series Motor

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.



## OTM6 Orbit Hydraulic Motor With Disk Valve

**OTM6 ORDERING CODE**

1	2	3	4	5	6	7
OTM6	—				/	—

Pos.1	2	3		4	
Series	Disp	Output			
OTM6	800	P	Φ63 Cylindrical shaft, parallel key 18 × 11 × 80	A	4-Φ22 Square flange, pilot Φ 200
		P1	Φ57.15 Cylindrical shaft, parallel key C12.7 × 11 × 63		
	1250	H1	Φ55 Splined shaft, 6-55 × 48.7 × 14	A1	4-Φ22 Square flange, pilot Φ 175
		H2	Φ45 Splined shaft, 6-45 × 39 × 12		

5			6		7	
Code	Ports		Special features		Rotation direction	
	Ports(A,B)(deep)	Drain port T(deep)				
Y	G1 1/4(20)	G3/8" (12)	Omit	Standard	Omit	Standard
Y1	Φ36(20)	G3/8" (12)			L	Opposite

## APPENDIX

### ■ COMPARISON

	OTMP	OTMR	OTM3Y	OTM3SY	OTM4	OTM4S	OTM5	OTM5S	OTM6
<b>Danfoss</b>	OMP	OMR	OMS	OMSS	OMT	OMTS	OMV	OMVS	-
<b>M+S</b>	EPM	EPRM	EPMS	-	EPMT	-	EPMV	-	-

### ■ USAGE AND NOTICE

- 1、Selecting motor by standard technical data.
- 2、The motor must be coaxial with the driven part and the bracket should be stiff enough.
- 3、Working temperature is 25~55 °C, maximum temperature is 65 °C. Hydraulic oil with kinematic viscosity 25~70mm<sup>2</sup>/s (50 °C) is recommended. The filter is about 20µm. The oil must be clear, polluted oil will damage the motor badly.
- 4、For BM4-6 there should be a pipe connected the drain port and the oil tank; for OTMR、OTMP、OTM3 the back pressure should be lower than 0.7Mpa, if the back pressure is higher than 1.0Mpa, a drain line should be connected to the oil tank.
- 5、If nonstandard motor is needed, please contact our technical department.

### ■ COMMON UNIT AND CONVERSION

N	1 N = 10 <sup>-3</sup> KN
kgf	1 kgf = 9.81 N
lbf	1 lbf = 4.45 N
bar	1 bar = 10 <sup>5</sup> Pa = 14.5 Psi
Pa	1 Pa = 1 N/m <sup>2</sup> = 10 <sup>-6</sup> MPa
N · m	
kgf · m	1kgf·m=9.81 N·m

### ■ FORMULA

(一) n	(二) Ts	(三) Ps
$n = \frac{q_s}{V} \eta_v \quad (r/min)$ $q_s \text{ --- (L/min)}$ $V \text{ --- (L/r)}$ $\eta_v \text{ ---}$	$Ts = \frac{\Delta p V}{2\pi} \eta_m \quad (N \cdot m)$ $\Delta p \text{ --- (MPa)}$ $V \text{ --- (ml/r)}$ $\eta_m \text{ ---}$	$Ps = n \cdot Ts / 9550$

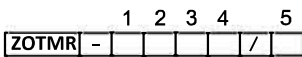
ZOTMR Hydraulic Motor with Brake



INTRODUCTION

ZOTMR are OTMR orbit hydraulic motor with multi-disc brake. There are shuttle valve and inner hydraulic control system. It has small volume, short radial dimension, low weight and easy to install. It's widely applied in construction machinery, shipping machinery, cranes, mining, port, metallurgical industry, etc.

ORDERING CODE

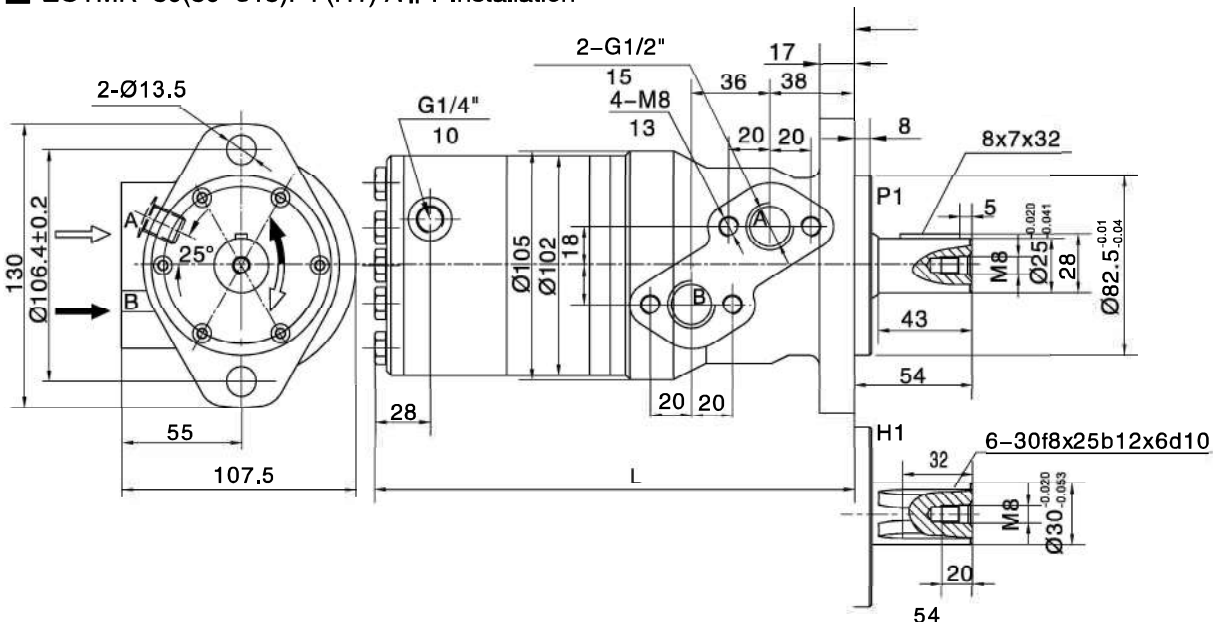


- 1、 Displacement
- 2、 Output shaft
  - P1- Standard flat key
  - H1- Standard spline key
- 3、 Mounting Flange
- 4、 Ports
- 5、 Special Features

TECHNICAL DATA

Type	Displacement ml/r	Max.pressure Mpa	Max.torque N.m	Speed range r/min	Releasing pressure Mpa	Static brake torque N.m	Associated motor	Weight kg	Length mm
ZOTMR-80	80.5	14	152	20-500	1.3-1.7	250-300	OTMR-80	12.3	240
ZOTMR-100	100.5	14	194	20-450	1.3-1.7	250-300	OTMR-100	12.5	244
ZOTMR-125	126.3	14	237	20-400	1.3-1.7	250-300	OTMR-125	12.8	248
ZOTMR-160	160.8	14	310	20-300	2.6-3.2	450-500	OTMR-160	13	254
ZOTMR-200	200.9	14	369	20-250	2.6-3.2	450-500	OTMR-200	13.5	261
ZOTMR-250	252.6	11	380	15-200	2.6-3.2	450-500	OTMR-250	14	270
ZOTMR-315	321.5	9	380	15-160	2.6-3.2	450-500	OTMR-315	14.5	282

ZOTMR-80(80-315)P1 (H1) A // Y Installation





**ZOTMR/N Hydraulic motor with brake**

**INTRODUCTION**

ZOTMR/N hydraulic motor-brake is made up of OTMR geroler motor and multi-disc brake, with shuttle valve and built-in control oil circuit. It has the advantages of simple structure, short radial dimension, more compact and easy installation, etc.. This brake is characterized by point braking, and there are total six braking points in a circle. When receiving the stop signal, the motor needs to keep running at most 60 degrees to be braked. It can not stop running suddenly and can not be used for precise positioning. It is widely used for injection molding machine, some of transmission and horizontal pulling application.

**ORDERING CODE**

ZOTMR - 

1	2	3	4
---	---	---	---

 / N - 

5
---

- |  |                     |
|--|---------------------|
| 1、 Displacement                                  | 3、 Mounting Flange  |
| 2、 Output shaft                                  | 4、 Ports            |
| P1- Standard flat key    H1- Standard spline key | 5、 Special Features |

**TECHNICAL DATA**

Type	Displacement ml/r	Max. pressure Mpa	Max. torque N · m	Speed range r/min	Braker		Associated motor	Length mm	Weight kg
					Mpa Releasing pressure	N.m Brake torque			
ZOTMR-80/N	80.5	14	152	60-500	2.4	450	OTMR-80	187	9.4
ZOTMR-100/N	100.5	14	194	50-480	2.4	450	OTMR-100	190	9.5
ZOTMR-125/N	126.3	14	237	40-380	2.4	450	OTMR-125	195	9.8
ZOTMR-160/N	160.8	14	310	30-300	2.4	450	OTMR-160	201	10
ZOTMR-200/N	200.9	14	369	25-240	2.4	450	OTMR-200	208	10.5
ZOTMR-250/N	252.6	11	380	20-195	2.4	450	OTMR-250	217	11
ZOTMR-315/N	321.5	9	380	15-150	2.4	450	OTMR-315	229	11.5
ZOTMR-400/N	401.9	7	380	10-130	2.4	450	OTMR-400	243	13.5

Notice: 1. ZOTMR/N Hydraulic Motor-Brake is only for static brake.

2. When the motor is braked: for the internal control motor, the input and output line can not be pressured, otherwise it will not be braked; for external control motor, the control line can not be pressured, otherwise it will not be braked.



**ZOTM Hydraulic motor with brake**

**INTRODUCTION**

ZOTM are OTM orbit hydraulic motor with multi-disc friction brake. The brake can be released or closed automatically while the motor starts or stops, to keep the motor being blocked stably without working pressure. Also, the control inlet can be connected to any other control loops, to accomplish different applications, adapted for high system pressure working places.

**TECHNICAL DATA**

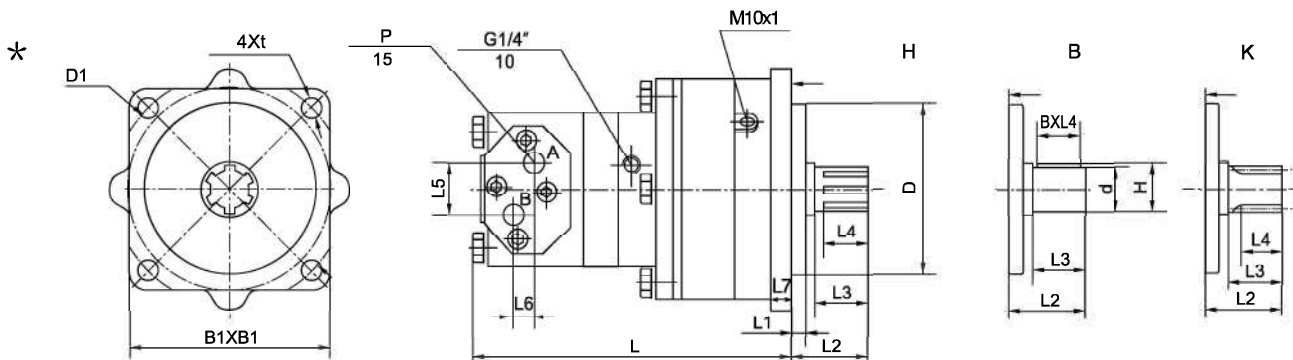
Type	Displacement ml/r	Max. pressure Mpa	Max. torque N • m	Speed range r/min	Braker		Associated motor	Weight kg
					Mpa Releasing pressure	N.m Brake torque		
ZOTM3/80	80.5	16	156	15-620	2.6	245	OTM3-80	18
ZOTM3/100	100.5	16	193	15-500	2.6	245	OTM3-100	18
ZOTM3/125	126.3	16	243	15-400	2.6	245	OTM3-125	18
ZOTM4/160	158.8	16	307	15-500	2.6	590	OTM4-160	37
ZOTM4/200	200.8	16	387	12-400	2.6	824	OTM4-200	37
ZOTM4/250	252.2	16	513	12-320	2.6	824	OTM4-250	37
ZOTM4/320	317.5	16	613	10-250	2.6	824	OTM4-320	37
ZOTM4/400	401.6	12.5	685	10-200	2.6	824	OTM4-400	38
ZOTM5/400	399.7	16	770	10-250	2.6	824	OTM5-400	46
ZOTM5/500	496.6	16	960	10-200	2.6	1060	OTM5-500	46
ZOTM5/630	617.8	13	983	10-160	2.6	1060	OTM5-630	46
ZOTM5B/630	617.8	16	1250	30-200	3.0	1450	OTM5-630	55
ZOTM5B/800	787.4	16	1600	30-150	3.0	1680	OTM5-800	55
ZOTM6B/1250	1186.8	16	2250	20-110	3.6	2330	OTM6-1250	70

**ORDERING CODE**

ZOTM  /  -  -  -

1    2    3    4    5    6    7

1. Orbit hydraulic motor with braker
2. Series
3. Displacement
4. Installation dimension: F- Vertical front flange
5. Standard spline key B- Standard flat key
6. Inner hydraulic control system (see page 121)
7. ports

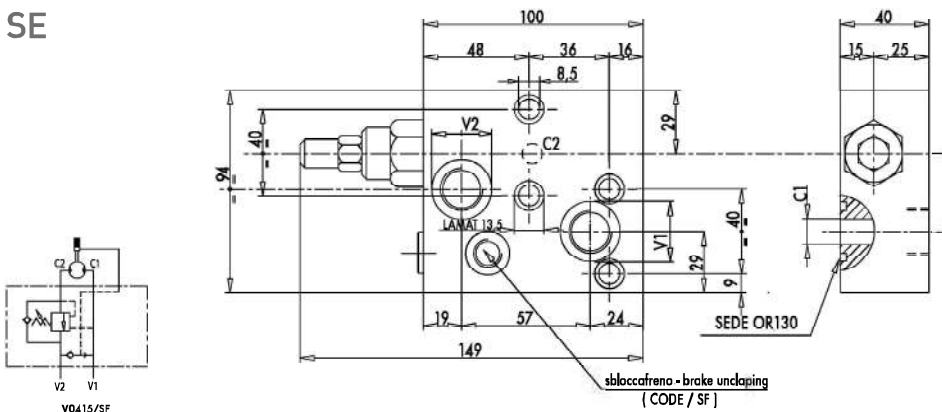
**ZOTM \* / -F-H-K1Y Installation**






## Hydraulic components

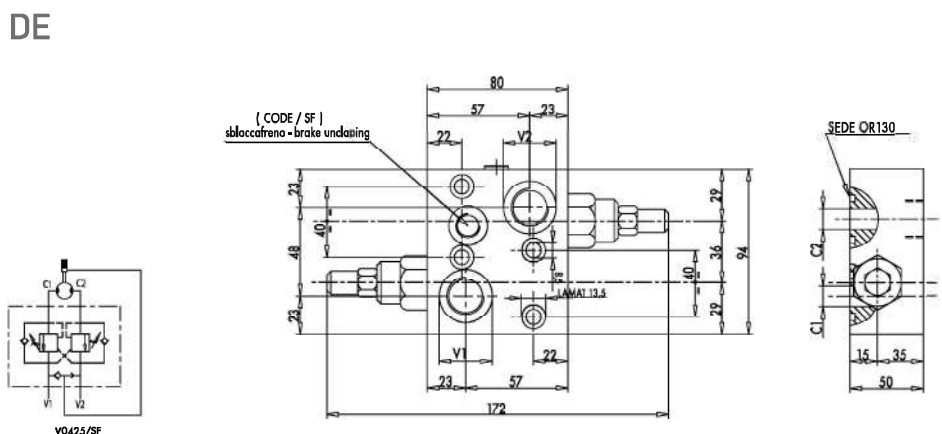
**OVERCENTRE VALVES FLANGEABLE ON DANFOSS MOTORS OMP/OMR**
**TYPE VTCDF SE OMP/OMR**

**SE**


Art.	Type	Pilot ratio	Max flow Lt./min	Max pressure Bar	V1-V2 Gas	C1-C2	Weight Kg
MQ248030	VTCDF 1/2" SE OMP-OMR	1:4,5	50	350	G 1/2"	Ø 9	2,686
MQ248031	VTCDF 1/2" SE OMP-OMR SF	1:4,5	50	350	G 1/2"	Ø 9	2,686

On request: VTCDF/SF-DE - With brake release port - Face mounting - Material: steel

**TYPE VTCDF DE OMP/OMR**

**DE**


Art.	Type	Pilot ratio	Max flow Lt./min	Max pressure Bar	V1-V2 Gas	C1-C2	Weight Kg
MQ248032	VTCDF 1/2" DE OMP-OMR	1:4,5	50	350	G 1/2"	Ø 9	2,708
MQ248033	VTCDF 1/2" DE OMP-OMR SF	1:4,5	50	350	G 1/2"	Ø 9	2,708

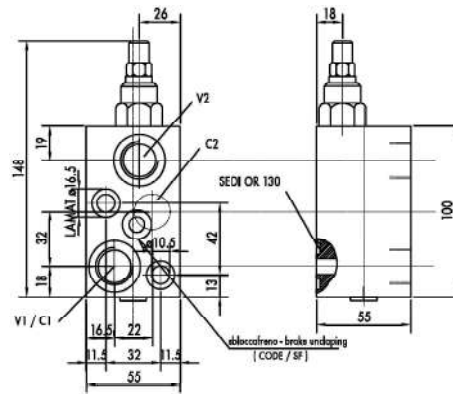
On request: VTCDF/SF-DE - With brake release port - Face mounting - Material: steel



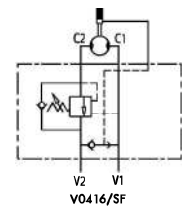
## Hydraulic components

**OVERCENTRE VALVES FLANGEABLE ON DANFOSS MOTORS OMS**

## TYPE VBCDF SE OMS



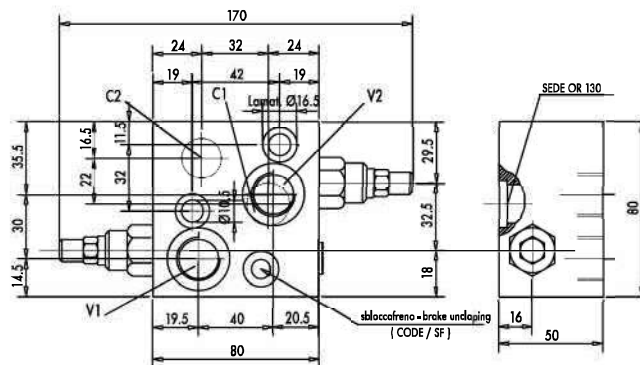
SE



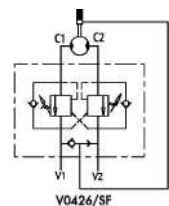
Art.	Type	Pilot ratio	Max flow Lt./min	Max pressure Bar	V1-V2 Gas	C1-C2	Weight Kg
MQ248034	VTCDF 1/2" SE OMS	1:4,5	50	350	G 1/2"	Ø 9	1,700
MQ248035	VTCDF 1/2" SE OMS SF	1:4,5	50	350	G 1/2"	Ø 9	1,700

On request: VTCDF/SF-SE - With brake release port - Face mounting - Material: steel

## TYPE VTCDF DE OMS



DE



Art.	Type	Pilot ratio	Max flow Lt./min	Max pressure Bar	V1-V2 Gas	C1-C2	Weight Kg
MQ248036	VTCDF 1/2" DE OMS	1:4,5	50	350	G 1/2"	Ø 9	2,150
MQ248037	VTCDF 1/2" DE OMS SF	1:4,5	50	350	G 1/2"	Ø 9	2,150

On request: VBCDF/SF-SE - With brake release port - Face mounting - Material: steel





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Certified Company

ISO 9001:2015 – ISO 14001:2015



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REA Number: MO-225785