

MT Hydraulic orbit motor



Technical data for MT with 40mm shaft										
Type		MT 160	MT 200	MT 230	MT 250	MT 315	MT 400	MT 500	MT 630	MT 800
Geometric displacement (cm ³ /rev.)		161.1	201.4	232.5	251.8	326.3	410.9	523.6	629.1	801.8
Max. speed (rpm)	cont.	625	625	536	500	380	305	240	196	154
	int.	780	750	643	600	460	365	285	233	185
Max. torque (Nm)	cont.	470	590	670	730	950	1080	1220	1318	1464
	int.	560	710	821	880	1140	1260	1370	1498	1520
	peak	669	838	958	1036	1346.3	1450.3	1643.8	1618.8	1665
Max. output (KW)	cont.	27.7	34.9	34.7	34.5	34.9	31.2	28.8	25.3	22.2
	int.	32	40	40	40	40	35	35	27.5	26.8
Max. pressure drop (MPa)	cont.	20	20	20	20	20	18	16	14	12.5
	int.	24	24	24	24	24	21	18	16	13
	peak	28	28	28	28	28	24	21	19	16
Max flow (L/min)	cont.	100	125	125	125	125	125	125	125	125
	int.	125	150	150	150	150	150	150	150	150
Max. Inlet pressure (MPa)	cont.	21	21	21	21	21	21	21	21	21
	Int.	25	25	25	25	25	25	25	25	25
	Peak	30	30	30	30	30	30	30	30	30
Weight (kg)		19.5	20	20.4	20.5	21	22	23	24	25

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

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

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

MT series motor adapt the advanced Gerolor gear set design with disc distribution flow and high pressure. The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.

CHARACTERISTICS FEATURES

- Advanced manufacturing devices for the Gerolor gear set, which use low pressure of start-up, provide smooth, reliable operation and high efficiency.
- The output shaft adapts in tapered roller bearings that permit high axial and radial forces. Can offer capacities of high torque in the wide of applications.
- Advanced design in disc distribution flow, which can automatically compensate in operating with high volume efficiency and long life, provide smooth and reliable operation.



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PERFORMANCE DATA

MT 160 [161.1cm³/rev.]

		Pressure (MPa)						
		4	8	10	12	16	20	24
Flow (L/min)	10	88	176	228	275	361	447	535
		60	59	58	56	54	50	44
20		89	181	234	277	372	459	557
		121	120	117	114	109	103	95
40		91	180	235	277	381	471	573
		249	246	243	236	230	223	212
60		82	178	235	277	381	470	572
		371	367	362	356	349	340	330
80		78	173	229	276	379	466	567
		492	489	485	478	470	462	447
Max.cont.	100	70	160	218	269	370	455	558
Max.int.		614	611	606	598	590	582	570
	125	58	148	211	261	359	448	552
		770	764	758	750	741	731	715

MT 200 [201.4cm³/rev.]

		Pressure (MPa)						
		4	8	10	12	16	20	24
Flow (L/min)	10	124	233	289	340	454	560	669
		47	46	45	42	39	37	33
20		125	239	298	347	468	576	696
		95	94	92	90	87	84	75
40		120	241	296	352	475	589	716
		195	193	191	187	183	178	167
60		116	237	295	352	478	589	718
		297	295	292	287	282	276	263
80		108	231	289	350	474	586	716
		395	393	389	384	377	370	359
100		99	227	286	344	471	580	712
		493	490	486	482	475	467	460
Max.cont.	125	84	208	276	333	459	566	697
Max.int.		615	611	607	602	595	588	572
	150	70	194	260	324	447	554	682
		743	740	735	727	717	706	682

MT 250 [251.8cm³/rev.]

		Pressure (MPa)						
		4	8	10	12	16	20	24
Flow (L/min)	10	138	286	355	419	559	689	824
		38	38	37	36	34	32	31
20		143	296	364	432	580	708	853
		76	75	74	72	70	67	62
40		139	301	372	440	593	723	884
		156	154	152	149	146	142	134
60		132	294	372	441	592	727	888
		237	236	233	229	224	219	207
80		128	283	364	433	587	721	887
		317	316	314	308	303	299	284
100		126	282	355	427	582	716	879
		396	394	391	387	381	373	359
Max.cont.	125	116	260	340	414	568	703	864
Max.int.		495	492	488	483	476	469	454
	150	88	242	320	397	552	686	847
		592	589	585	580	572	565	545

MT 315 [326.3cm³/rev.]

		Pressure (MPa)						
		4	8	10	12	16	20	24
Flow (L/min)	10	184	363	453	545	734	891	1062
		30	29	28	27	26	25	23
20		189	380	472	562	757	917	1109
		60	59	58	56	54	52	50
40		191	381	484	570	774	954	1149
		121	120	118	115	112	109	104
60		189	376	493	573	772	962	1154
		183	181	179	175	172	168	158
80		179	369	479	565	768	954	1153
		244	242	239	236	231	227	217
100		169	357	467	562	758	942	1143
		305	304	301	298	294	289	276
Max.cont.	125	147	336	447	544	745	920	1127
Max.int.		380	378	375	371	367	362	349
	150	119	318	432	526	713	894	1097
		458	456	453	449	444	431	425

Torque (N·m) 552
Speed (rpm) 572

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PERFORMANCE DATA (continued)

MT 400 [410.9cm³/rev.]

Pressure (MPa)

Flow (L/min)	Max.cont.						Max.int.
	3	6	9	12	15	18	21
10	176	367	560	715	885	1050	1209
	24	23	22	21	20	19	18
20	179	370	565	726	899	1071	1236
	49	48	47	44	42	40	38
40	176	370	567	733	919	1091	1263
	96	95	93	90	87	83	79
60	174	361	563	729	920	1095	1269
	145	143	139	135	131	127	121
80	166	353	553	719	912	1084	1263
	193	191	188	184	180	176	170
100	150	339	538	708	896	1067	1252
	242	240	238	234	228	224	218
Max.cont.	125	135	309	524	688	873	1045
		302	300	298	294	289	285
Max.int.	150	126	292	508	666	852	1020
		364	362	358	354	350	346

MT 500 [523.6cm³/rev.]

Pressure (MPa)

Flow (L/min)	Max.cont.						Max.int.
	3	6	9	12	14	16	18
10	222	451	692	892	1050	1193	1340
	18	18	18	17	16	15	13
20	231	464	714	918	1070	1220	1377
	37	36	35	34	33	32	30
40	230	466	727	941	1094	1244	1422
	75	74	73	72	70	68	64
60	225	457	714	941	1088	1245	1409
	113	112	111	109	107	105	101
80	213	431	696	927	1076	1244	1401
	151	150	149	147	145	143	138
100	194	420	680	901	1063	1224	1383
	189	188	187	185	183	181	177
Max.cont.	125	182	398	641	877	1024	1199
		237	236	235	233	231	229
Max.int.	150	147	369	618	853	1004	1167
		284	283	282	280	278	276

MT 630 [629.1cm³/rev.]

Pressure (MPa)

Flow (L/min)	Max.cont.						Max.int.
	3	6	9	10.5	12	14	16
10	233	520	795	902	1074	1194	1363
	14	14	13	13	13	11	11
20	237	554	837	953	1117	1239	1407
	28	27	27	26	26	24	22
40	239	553	860	987	1171	1308	1483
	62	62	61	60	59	56	54
60	223	544	863	978	1172	1318	1498
	94	94	92	91	90	86	82
80	220	537	854	965	1172	1314	1497
	123	122	121	119	118	114	110
100	208	522	832	945	1156	1303	1488
	156	155	153	152	150	147	142
Max.cont.	125	201	499	810	931	1137	1292
		196	196	194	192	191	187
Max.int.	150	174	492	785	921	1121	1277
		233	232	231	230	227	223

MT 800 [801.8cm³/rev.]

Pressure (MPa)

Flow (L/min)	Max.cont.						Max.int.
	3	6	9	10.5	12.5	13	
10	346	677	1003	1159	1365	1390	
	12	12	11	11	11	10	
20	356	692	1034	1183	1404	1458	
	24	24	24	23	22	18	
40	365	703	1066	1236	1459	1516	
	50	50	49	48	46	40	
60	354	703	1060	1237	1464	1520	
	74	73	71	71	68	63	
80	332	686	1050	1226	1464	1514	
	99	98	98	96	93	86	
100	305	654	1025	1207	1445	1506	
	125	123	123	121	118	110	
Max.cont.	125	280	622	989	1181	1422	1487
		154	153	153	150	149	140
Max.int.	150	247	590	953	1156	1406	1476
		185	184	183	181	179	172

Torque (N·m) 1121
Speed (rpm) 227

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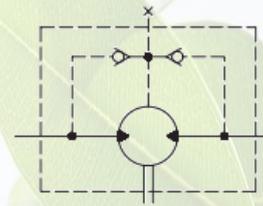
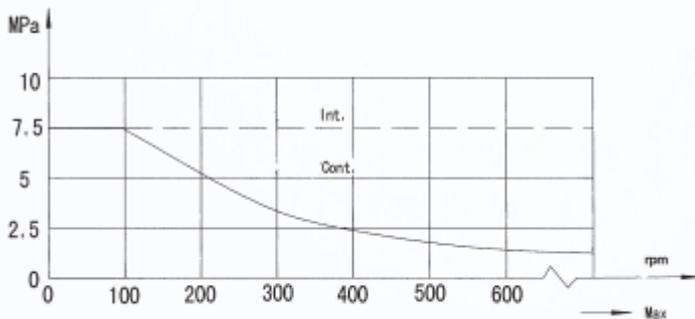
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MT Hydraulic orbit motor



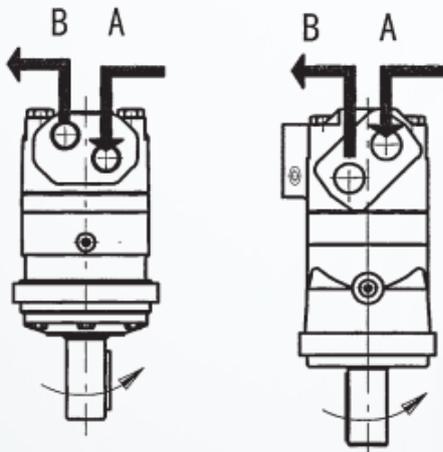
MT SERIES HYDRAULIC MOTOR

Permissible shaft seal pressure



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

STANDART 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.

OIL FLOW IN DRIAN LINE

The table shows the Max. oil flow in the drain line at a return pressure less than 0.5-1MPa

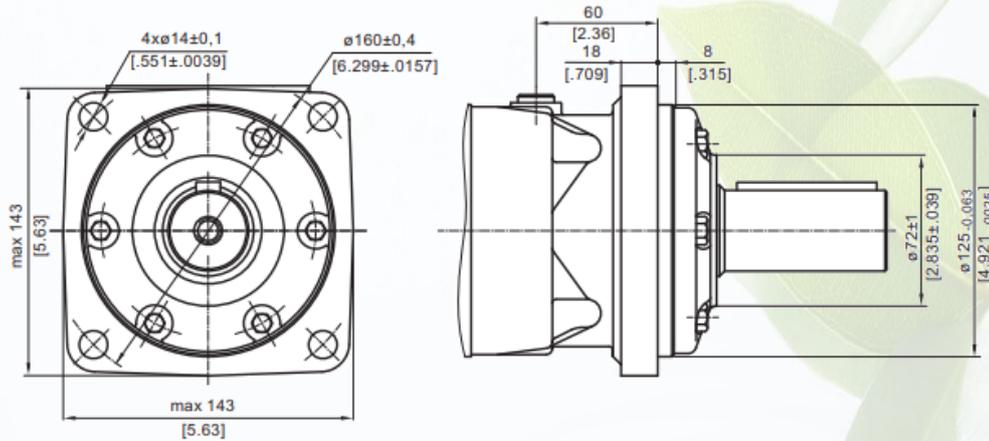
Pressure drop (bar)	Viscosity (mm ² /s)	Oil flow in the drain line (L/min.)
14 0	20	2.5
	35	1.5
210	20	5
	35	3

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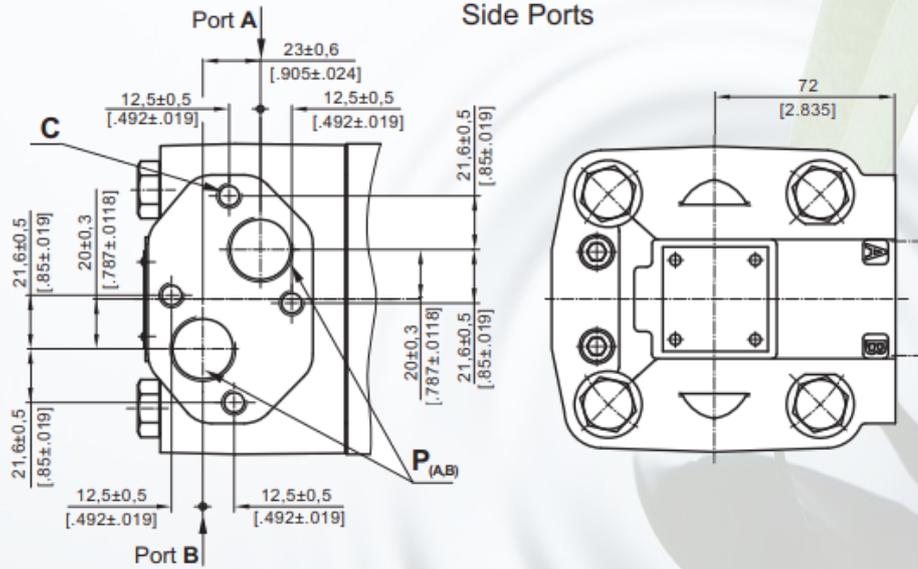


MT DIMENSIONS AND MOUNTING DATA

Square Mount (4 Holes)



Side Ports



- C: 4xM10-10 mm (.39* in) depth
- P (A,B): 2xG3/4 or 2xM27x2-17 mm (.67 in) depth
- T: G1/4 or M14x1,5 - 12 mm (.47 in) depth (plugged)



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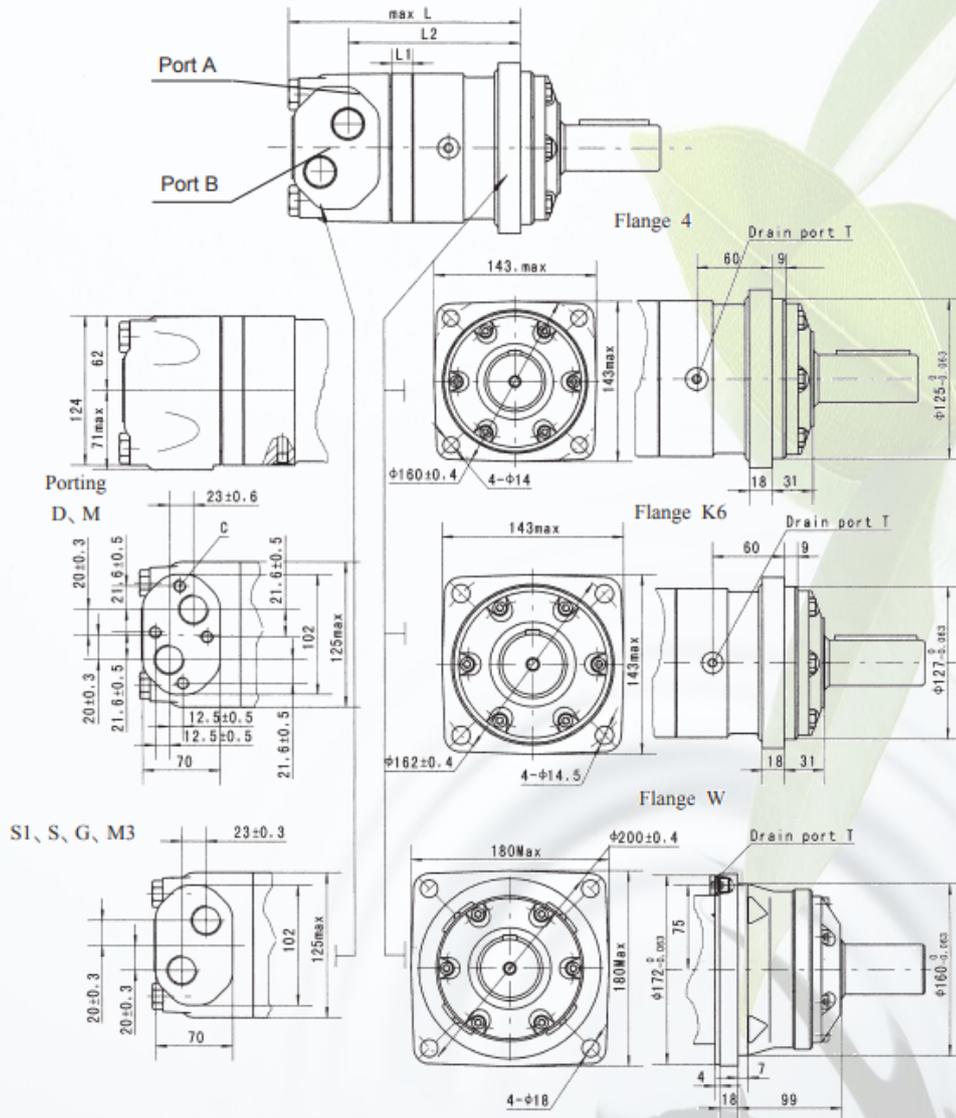
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MT DIMENSIONS AND MOUNTING DATA



Model	L	L1	L2
MT160	193	17	142.5
MT200	197	21	146.5
MT250	204	14	152.5
MT315	210	20	158.5
MT400	217	27	165.5
MT500	225	35	173.5
MT630	237	47	185.5
MT800	248	58	196.5

Model	L	L1	L2
MT160W	127	17	77
MT200W	131	21	81
MT250W	136	14	86
MT315W	142	20	91
MT400W	148	27	98
MT500W	157	35	106
MT630W	169	47	118
MT800W	180	58	129



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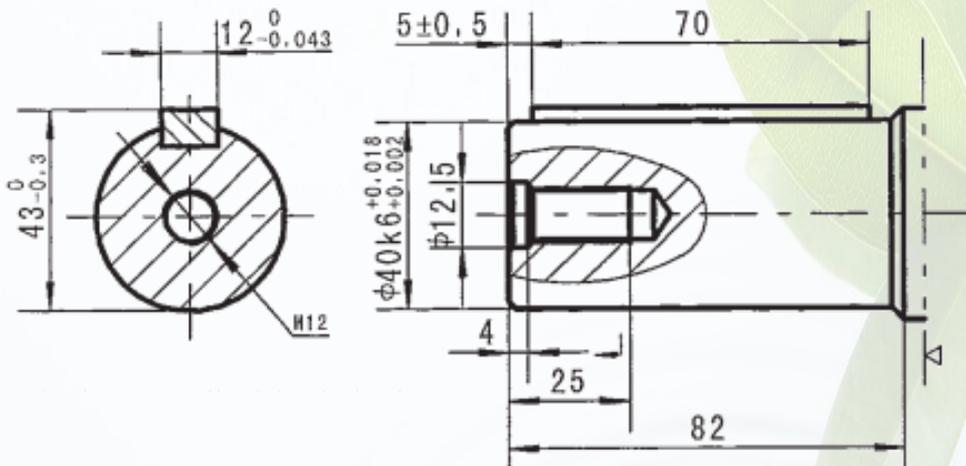
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SHAFT EXTENSIONS

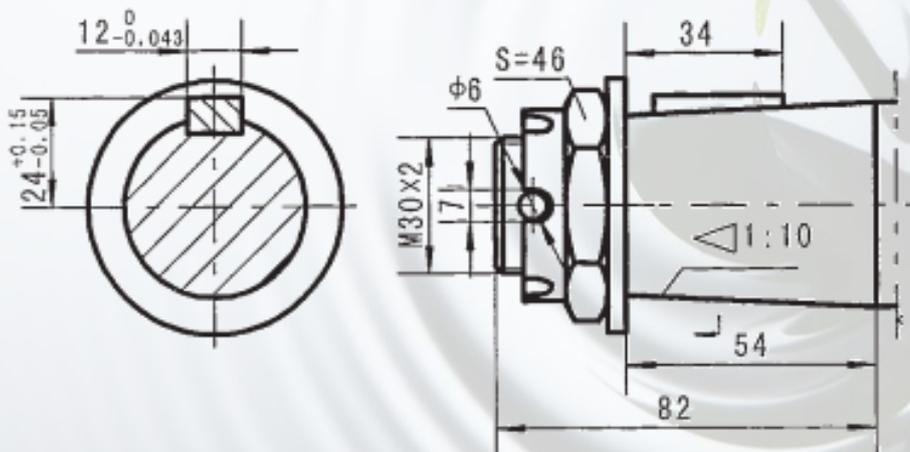
C

Ø40 straight, Parallel key A12x8x70 DIN 6885
Max. Torque 132,8 daNm [11755 lb-in]



T

Cone-shaft Ø45 Parallel key B12x8x28 Tightening
torque:500±10Nm



MT Hydraulic orbit motor with speed sensor

