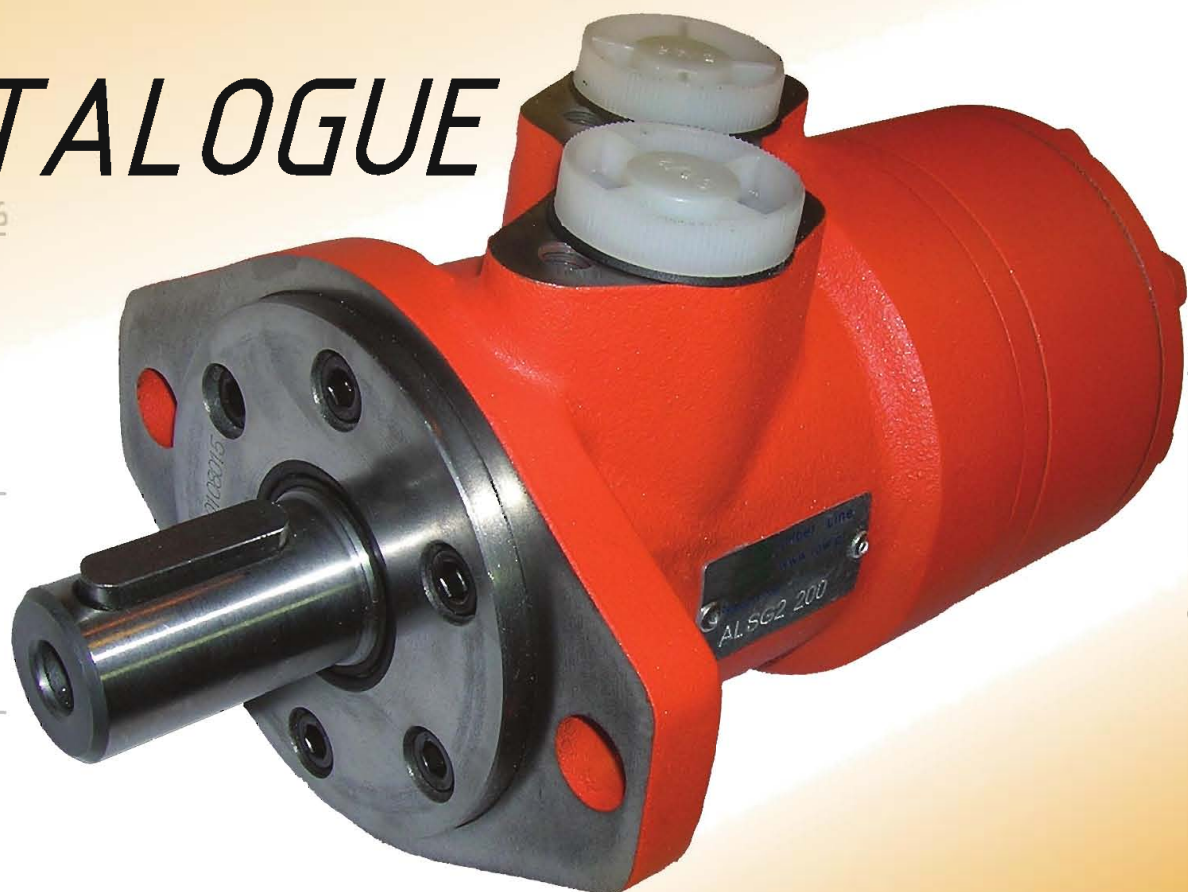


I O W AmberLine Hydraulics

ORBITAL MOTOR CATALOGUE



Wide range of hydraulic motors

ALSG4



ALSG1



ALSG2



ALSG9



ALSG3



ALSG6



ALSG8



ALSRW



ALSG5



BK2



WGB



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ALSG4 Series hydraulic motor

ALSG4 series motor are small volume, economical type, which is designed with shaft distribution flow, which adapt the Gerotor gear set design and provide compact volume, high power and low weight.

Characteristic features:

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

Main specification

Type		ALSG4 8	ALSG4 12.5	ALSG4 20	ALSG4 32	ALSG4 40	ALSG4 50
Geometric displacement (cm³/rev.)		8.2	12.9	19.9	31.6	39.8	50.3
Max. speed (rpm)	cont.	1950	1550	1000	630	500	400
	int.	2450	1940	1250	800	630	500
Max. torque (N•m)	cont.	11	16	25	40	45	46
	int.	15	23	35	57	70	88
	peak	21	33	51	64	82	100
Max. output (kW)	cont.	1.8	2.4	2.4	2.4	2.2	1.8
	int.	2.6	3.2	3.2	3.2	3.2	3.2
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. flow (L/min)	cont.	16	20	20	20	20	20
	int.	20	25	25	25	25	25
Weight (kg)		1.9	2	2.1	2.2	2.3	2.4

Type		Max.inlet pressure
ALSG4 8-50 (MPa)	cont.	17.5
	int.	22.5

- * Continuous pressure:Max. value of operating motor continuously.
- * Intermittent pressure:Max. value of operating motor in 6 seconds per minute.
- * Peak pressure:Max. value of operating motor in 0.6 second per minute.

Performance data

ALSG4 8 [8.2 cm³/rev.]

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

ALSG4 20 [19.9 cm³/rev.]

		Pressure (MPa)					
		Max.cont.			Max.int.		
		1.7	3.5	5	7	10	14
Flow (L/min)	2	3	9	14	19	26	30
	4	99	96	89	74	42	21
	8	197	191	182	178	134	112
	12	398	395	391	377	340	319
	15	596	594	588	579	545	523
	20	745	741	738	728	695	684
Max.int.			1	6	11	19	24
Max.int.			998	995	991	985	962
Max.int.				4	9	14	23
Max.int.				1247	1245	1242	1189
Max.int.						1180	1176

ALSG4 40 [39.8 cm³/rev.]

		Pressure (MPa)				
		Max.cont.		Max.int.		
		3	5	7	8.5	10
Flow (L/min)	2	16	27	36	44	51
	4	45	40	34	28	17
	8	96	93	85	79	65
	12	197	195	182	176	166
	15	293	287	282	277	268
	20	371	365	360	355	347
Max.int.			10	21	31	39
Max.int.			497	492	487	480
Max.int.			7	19	29	37
Max.int.			622	617	612	607
Max.int.						600
Max.int.						591

Torque (N*m) 37
Speed (rpm) 607

ALSG4 12.5 [12.9 cm³/rev.]

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

ALSG4 32 [31.6 cc/rev.]

		Pressure (MPa)					
		Max.cont.			Max.int.		
		2	3.5	5	7	10	14
Flow (L/min)	2	7	15	21	28	40	
	4	61	57	52	47	16	
	8	126	121	114	106	82	67
	12	250	244	239	231	207	194
	15	378	374	369	362	338	322
	20	476	472	468	462	441	429
Max.int.			3	10	17	25	37
Max.int.			633	630	627	619	601
Max.int.			1	8	15	23	35
Max.int.			791	789	787	783	766
Max.int.							753
Max.int.							732

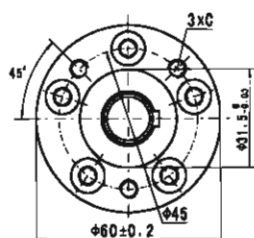
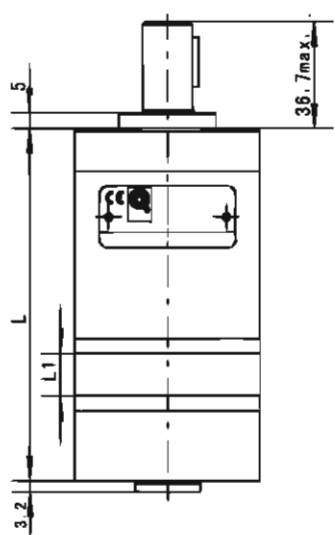
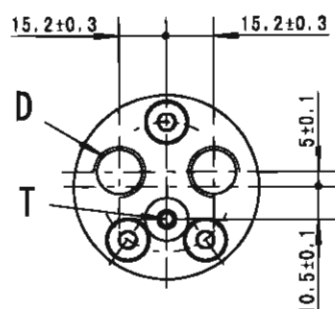
ALSG4 50 [50.3 cm³/rev.]

		Pressure (MPa)				
		Max.cont.		Max.int.		
		1.5	3	5	7	10
Flow (L/min)	2	11	23	36	50	
	4	37	33	27	22	
	8	76	73	68	63	55
	12	117	114	109	104	91
	15	157	154	149	145	137
	20	237	234	231	226	218
Max.int.			10	18	32	47
Max.int.			296	295	294	288
Max.int.			8	14	29	44
Max.int.			395	395	393	390
Max.int.			4	10	25	40
Max.int.			498	496	494	490
Max.int.						484

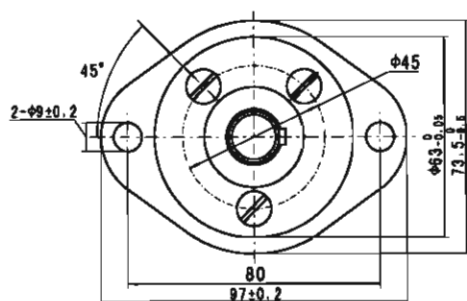
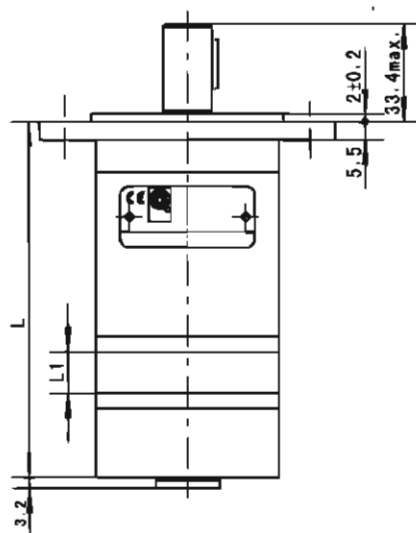
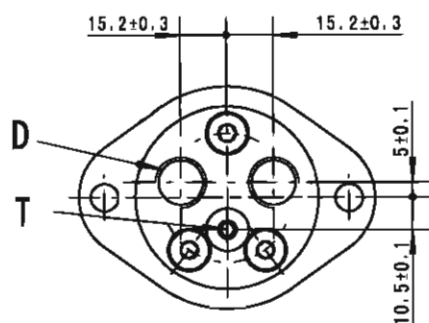
cont.
int.

End port dimensions and mounting data

Flange M, U

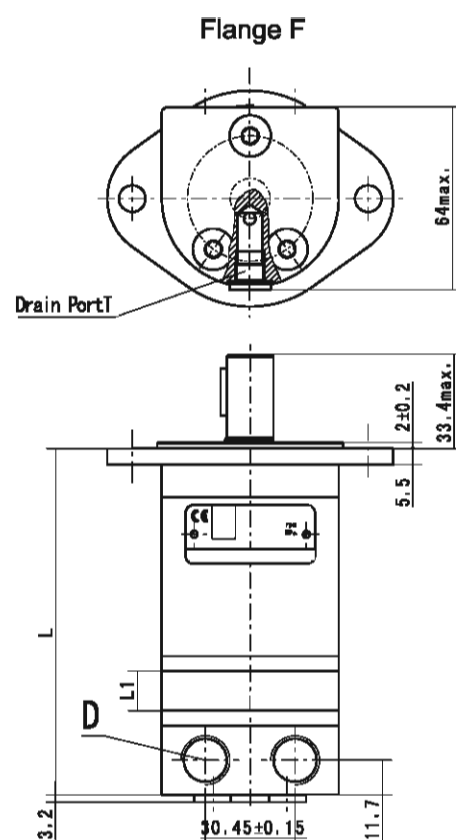
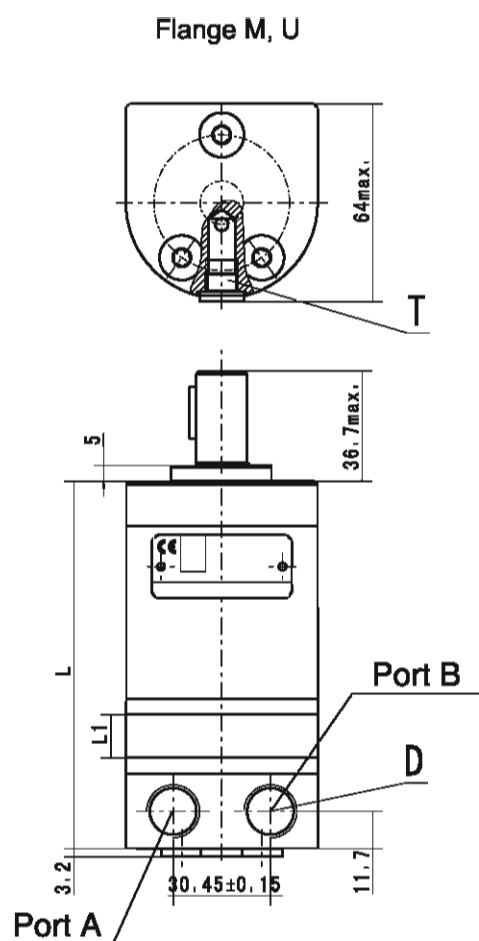


Flange F



Model	Flange M, U		Flange F	
	L	L1	L	L1
ALSG4 8	104	3.5	107.5	3.5
ALSG4 12.5	106	5.5	109.5	5.5
ALSG4 20	109	8.5	112.5	8.5
ALSG4 32	114	13.5	117.5	13.5
ALSG4 40	117.5	17	121	17
ALSG4 50	122	21.5	125.5	21.5

Code Mounting	Flange M, U		Flange F	
	1E (depth)	1U (depth)	1E (depth)	1U (depth)
C	3-M6 (10)	3-1/4-28UNF-2B(10)	--	--
D	G3/8 (12)	9/16-18UNF(12)	G3/8 (12)	9/16-18UNF(12)
T	G1/8 (8)	3/8-24UNF(8)	G1/8 (8)	3/8-24UNF(8)

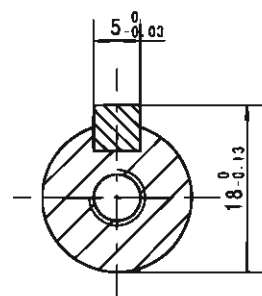
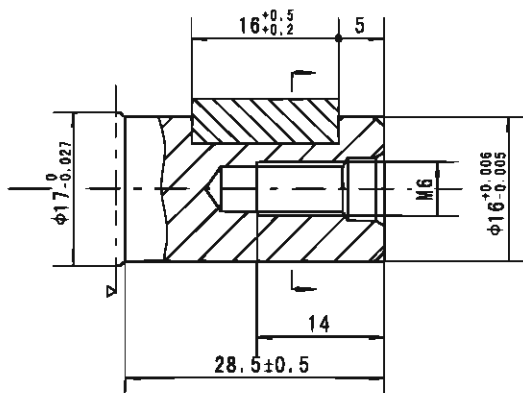


	Flange M, U		Flange F	
Model	L	L1	L	L1
ALSG4 8	105	3.5	108.5	3.5
ALSG4 12.5	107	5.5	110.5	5.5
ALSG4 20	110	8.5	113.5	8.5
ALSG4 32	115	13.5	118.5	13.5
ALSG4 40	118.5	17	122	17
ALSG4 50	123	21.5	126.5	21.5

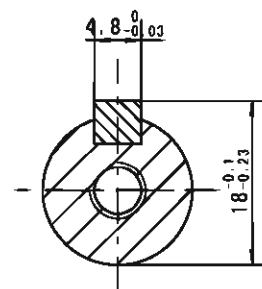
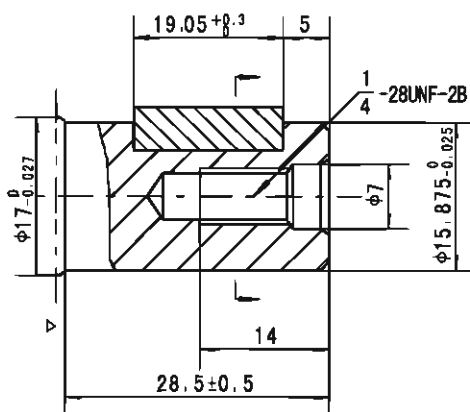
Code Mounting	Flange M, U		Flange F	
	E (depth)	U (depth)	E (depth)	U (depth)
C	3-M6 (10)	3-1/4-28UNF-2B(10)	--	--
D	G3/8 (12)	9/16-18UNF(12)	G3/8 (12)	9/16-18UNF(12)
T	G1/8 (8)	3/8-24UNF(8)	G1/8 (8)	3/8-24UNF(8)

Shaft extensions for ALSG4 motors

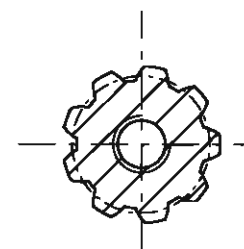
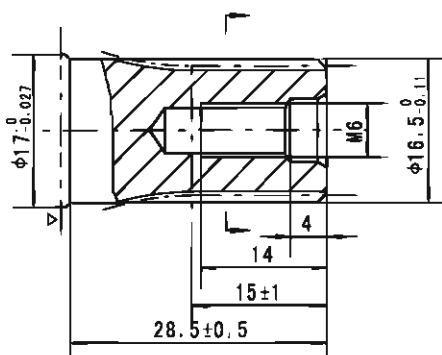
Shaft A: Cylindrical shaft $\varnothing 16$
Parallel key 5x5x16



Shaft B: Cylindrical shaft $\varnothing 15.875$
Parallel key 4.8x4.8x19.05

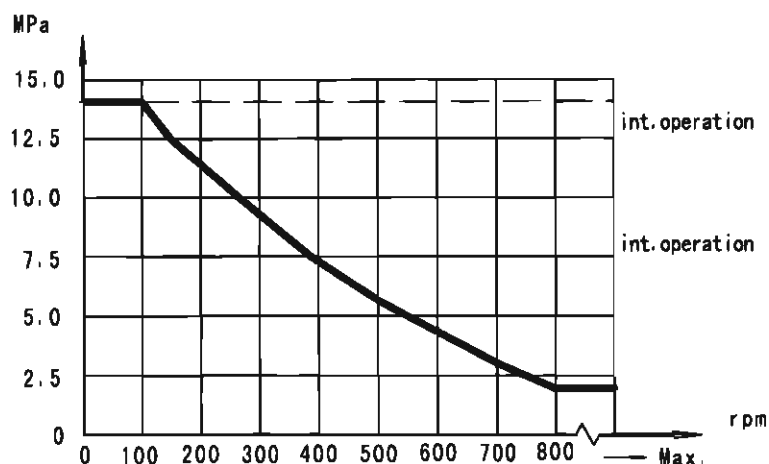
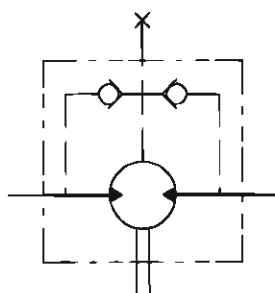


Shaft C: Involute splind shaft
B17x14 DIN5482



► Motor Mounting Surface

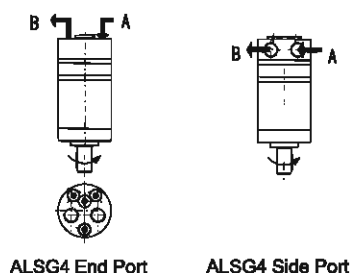
Permissible shaft seal pressure



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

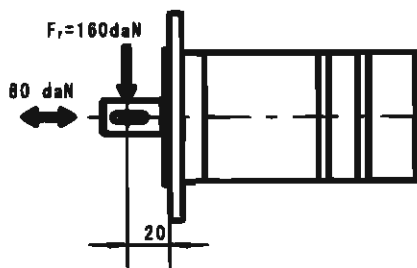
Direction of shaft: Standard

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



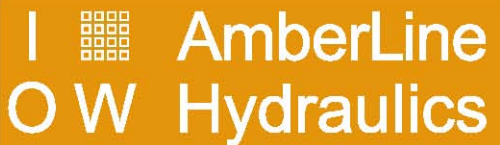
Status of the shaft's radial force

$$F_r = \frac{13040}{61.5 + L} \text{ daN}$$



F_r = Radial Force (daN)
 L = Distance (mm)
 n = Speed (rpm)
 Max. force load
 Rhomb-flange $L=15\text{mm}$
 Square-flange $L=20\text{mm}$

ALSG4
Hydraulic motor



Order information

1

2

3

4

5

6

7

8

ALSG4

Pos.1	2	3	4	5	6	7	8
Code	Displacement	Flange	Output shaft	Port and drain port	Rotation direction	Paint	Unusually function
Omit	8 12.5 20 32 40 50	M 3-M6 Circle-flange, pilot Ø31.5x5 U 3-1/4-28UNF Circle flange,pilot Ø31.5x5 F 2-Ø9 Rhomb-flange, pilot Ø63x2	A Shaft Ø16, parallel key 5x5x16 B Shaft Ø15.875, parallel key 4.8x4.8x19.05 C Shaft Ø16.5, involute B17x14, DIN5482	E G3/8, G1/8 U 9/16-18UNF, 3/8-24UNF IE End port G3/8, G1/8 IU End port 9/16-18UNF, 3/8-24UNF	Omit Standard R Opposite	Omit Blue B Black S Silver grey	Omit Standard O No case drain

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

ALSG1 Series hydraulic motor

ALSG1 series motor are small volume, economical type, which is designed with shaft distribution flow, which adapt the Gerotor gear set design and provide compact volume, high power and low weight.

Characteristic features:

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

Main specification

Technical data for ALSG1 with 25 and 1 in and 1 in splined and 28.56 tapered shaft

Type		ALSG1 ALSG1W 36	ALSG1 ALSG1W 50	ALSG1 ALSG1W 80	ALSG1 ALSG1W 100	ALSG1 ALSG1W 125	ALSG1 ALSG1W 160	ALSG1 ALSG1W 200	ALSG1 ALSG1W 250	ALSG1 ALSG1W 315	ALSG1 ALSG1W 400	ALSG1 ALSG1W 500
Geometric displacement (cm ³ /rev.)		36	51.7	77.7	96.2	120.2	157.2	194.5	240.3	314.5	389.5	486.5
Max. speed (rpm)	cont.	1500	1150	770	615	490	383	310	250	192	155	120
	int.	1850	1450	960	770	615	475	385	310	240	190	150
Max. torque (N·m)	cont.	55	100	146	182	236	302	360	380	375	360	385
	int.	76	128	186	227	290	370	440	460	555	525	560
	peak	96	148	218	264	360	434	540	550	650	680	680
Max. output (kW)	cont.	8.0	10.0	10.0	11.0	10.0	10.0	10.0	8.5	7.0	6.0	5.0
	int.	11.5	12.0	12.0	13.0	12.0	12.0	12.0	10.5	8.5	7.0	6.0
Max. pressure drop (MPa)	cont.	12.5	14	14	14	14	14	14	11	9	7	6
	int.	16.5	17.5	17.5	17.5	17.5	17.5	17.5	14	14	10.5	9
	peak	22.5	22.5	22.5	22.5	22.5	22.5	22.5	18	16	14	12
Max. flow (L/min)	cont.	55	60	60	60	60	60	60	60	60	60	60
	int.	60	75	75	75	75	75	75	75	75	75	75
Weight (kg)		5.8	5.6	5.7	5.9	6.0	6.2	6.4	7	6.9	7.4	8

- * 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.

Technical data for ALSG1 with 31.75 and 32 shaft

Type		ALSG1 36	ALSG1 50	ALSG1 80	ALSG1 100	ALSG1 125	ALSG1 160	ALSG1 200	ALSG1 250	ALSG1 315	ALSG1 400	ALSG1 500
Geometric displacement (cm³/rev.)		36	51.7	77.7	96.2	120.2	157.2	194.5	240.3	314.5	389.5	486.5
Max. speed (rpm)	cont.	1500	1150	770	615	490	383	310	250	192	155	120
	int.	1650	1450	960	770	615	475	385	310	240	190	150
Max. torque (N•m)	cont.	55	100	146	182	236	302	360	460	475	490	430
	int.	76	128	186	227	290	370	440	570	555	580	560
	peak	96	148	218	264	360	434	540	670	840	840	780
Max. output (kW)	cont.	8.0	10.0	10.0	11.0	10.0	10.0	10.0	8.5	7.0	6.0	6.0
	int.	11.5	12.0	12.0	13.0	12.0	12.0	12.0	10.5	8.5	7.0	7.0
Max. pressure drop (MPa)	cont.	12.5	14	14	14	14	14	14	14	12	9.5	7
	int.	16.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	14	11.5	9
	peak	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	18	13
Max. flow (L/min)	cont.	55	60	60	60	60	60	60	60	60	60	60
	int.	60	75	75	75	75	75	75	75	75	75	75
Weight (kg)		5.6	6	5.7	5.9	6.0	6.2	6.4	7	6.9	7.4	8.0

- * Continuous pressure:Max.value of operating motor continuously.
- * Intermittent pressure:Max.value of operating motor in 6 seconds per minute .
- * Peak pressure:Max.value of operating motor in 0.6 second per minute.

Performance data

ALSG4 8 [8.2 cm³/rev.]

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

ALSG4 20 [19.9 cm³/rev.]

		Pressure (MPa)					
		Max.cont.			Max.int.		
		1.7	3.5	5	7	10	14
Flow (L/min)	2	3	9	14	19	26	30
	4	99	96	89	74	42	21
	8	197	191	182	178	134	112
	12	398	395	391	377	340	319
	15	596	594	588	579	545	523
	20	745	741	738	728	695	684
Max.int.		25		4	9	14	23
			1247	1245	1242	1189	1180

ALSG4 40 [39.8 cm³/rev.]

		Pressure (MPa)				
		Max.cont.		Max.int.		
		3	5	7	8.5	10
Flow (L/min)	2	16	27	36	44	51
	4	45	40	34	28	17
	8	197	195	182	176	166
	12	293	287	282	277	268
	15	371	365	360	355	347
	20	497	492	487	480	472
Max.int.		25		7	19	29
			622	617	612	607

Torque (N*m) 37
Speed (rpm) 607

ALSG4 12.5 [12.9 cm³/rev.]

		Pressure (MPa)					
		Max.cont.			Max.int.		
		3.5	5	7	10	12	14
Flow (L/min)	2	6	8	11	16	19	
	4	140	136	119	68	35	
	8	296	289	274	229	200	145
	12	605	596	583	543	514	469
	15	912	905	895	859	834	784
	20	1152	1144	1136	1102	1078	1036
Max.int.		25		3	7	10	15
			1542	1532	1521	1500	1482

ALSG4 32 [31.6 cc/rev.]

		Pressure (MPa)					
		Max.cont.			Max.int.		
		2	3.5	5	7	10	14
Flow (L/min)	2	7	15	21	28	40	
	4	61	57	52	47	16	
	8	126	121	114	106	82	67
	12	250	244	239	231	207	194
	15	378	374	369	362	338	322
	20	476	472	468	462	441	429
Max.int.		25		1	8	15	23
			791	789	787	783	766

ALSG4 50 [50.3 cm³/rev.]

		Pressure (MPa)				
		Max.cont.		Max.int.		
		1.5	3	5	7	10
Flow (L/min)	2	11	23	36	50	
	4	37	33	27	22	
	8	111	107	96	83	70
	12	157	154	149	145	137
	15	237	234	231	226	218
	20	296	295	294	288	282
Max.int.		25		8	14	29
			395	395	393	390

cont.
int.

ALSG1

Hydraulic motor

IOW AmberLine
Hydraulics

Performance data

ALSG1 36 [36cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	3	6	7	8	10	11	12.5	16.5
Flow (L/min)								
8	13	25	29	34	43	48		
15	214	205	200	194	187	179		
20	13	25	29	34	43	48	56	75
30	406	398	391	383	374	366	353	324
35	13	24	29	34	43	48	56	76
40	541	534	528	521	513	500	486	458
45	12	24	29	34	43	48	56	76
55	814	804	792	778	763	749	726	701
60	12	23	28	34	43	48	56	76
Max.cont.	952	944	930	913	897	879	858	833
Max.int.	12	23	28	32	41	47	55	75
	1090	1078	1064	1048	1024	998	977	943
	11	22	26	32	41	46	54	74
	1232	1218	1196	1175	1149	1118	1080	1044
	6	15	22	28	37	44	52	71
	1505	1494	1480	1466	1438	1406	1367	1309
	3	11	18	20	30	38	49	67
	1650	1640	1626	1603	1571	1536	1502	1446

ALSG1 50 [51.7cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	3	6	8	10	12.5	14	16	17.5
Flow (L/min)								
8	20	41	56	69	89	95		
15	151	134	115	90	56	42		
20	19	40	56	71	91	100	112	120
30	286	274	261	243	204	182	139	102
35	18	39	55	71	92	101	117	128
40	382	373	361	348	318	309	287	251
45	17	38	55	71	91	98	116	124
55	573	568	558	535	503	488	462	440
60	17	38	54	69	89	98	117	124
Max.cont.	670	661	652	640	606	589	562	548
Max.int.	14	36	53	67	88	98	114	123
	863	858	849	837	807	788	764	746
	12	33	50	65	85	96	111	121
	1055	1042	1028	1010	979	963	947	920
	10	32	47	64	83	94	108	119
	1150	1143	1126	1111	1079	1065	1043	1015
	6	25	42	56	76	87	101	112
	1440	1430	1416	1395	1367	1351	1335	1312

ALSG1 80 [77.7cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	3	6	8	10	12.5	14	16	17.5
Flow (L/min)								
8	32	62	85	104	129	144		
15	97	87	74	55	33	22		
20	32	63	84	107	126	144	165	
30	186	181	170	154	132	118	86	
35	31	63	84	107	132	146	168	185
40	251	243	236	225	207	196	178	155
45	31	62	83	106	131	146	168	186
55	381	379	368	355	332	316	285	263
60	30	59	81	102	130	144	167	185
Max.cont.	443	435	426	415	397	383	361	342
Max.int.	25	58	79	100	126	142	165	182
	570	564	554	543	526	509	483	458
	23	57	78	97	124	140	161	179
	696	685	672	656	643	630	602	579
	20	53	75	94	120	137	160	177
	761	753	744	736	720	706	681	660
	14	44	67	87	112	151	169	169
	948	940	931	920	906	890	871	854

Torque (N·m) 87
Speed (rpm) 920

ALSG1 100 [96.2cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	3	6	8	10	12.5	14	16	17.5
Flow (L/min)								
8	40	77	105	130	161	180		
15	81	75	69	57	36	24		
20	39	77	106	130	160	180	208	
30	152	149	145	140	122	103	81	
35	36	74	104	128	161	179	205	227
40	204	200	195	190	177	166	148	133
45	33	72	103	125	160	177	203	225
55	308	304	298	290	280	268	255	231
60	30	70	98	122	159	176	202	224
Max.cont.	360	352	343	331	320	306	294	275
Max.int.	29	67	95	118	155	174	200	220
	462	458	451	443	433	419	402	383
	25	64	93	116	152	170	198	217
	566	558	549	540	529	515	498	478
	22	60	91	114	149	167	194	213
	618	611	601	589	580	570	558	540
	15	54	83	106	141	160	186	205
	771	763	755	744	735	724	708	693

cont.
int.

Performance data

ALSG1 315 [314.5cm³/rev.]

		Pressure (MPa)						Max.cont.	Max.int.
		3	5	7	9	10	12.5	14	
Flow (L/min)	8	123	215	292	368	405			
		25	23	21	17	11			
	15	118	211	287	367	404	495	568	
		47	46	44	40	28	21	10	
	20	110	205	278	360	395	494	566	
		62	61	60	57	46	40	36	
	30	101	196	271	349	388	490	565	
		94	93	91	88	76	68	65	
	35	96	188	264	341	382	478	557	
		109	107	106	104	96	89	84	
Max.cont.	45	89	180	254	337	372	468	553	
		141	140	138	135	127	120	115	
	55	76	166	239	325	362	457	548	
		173	172	170	167	160	152	143	
	60	65	154	227	308	348	443	529	
		188	186	184	182	178	172	163	
	Max.int.	40	120	201	279	323	418	497	
		236	234	232	228	226	223	214	

ALSG1 400 [389.5cm³/rev.]

		Pressure (MPa)						Max.cont.	Max.int.
		3	4.5	5.5	6.5	8	10	12.5	
Flow (L/min)	8	166	232	287	340	418			
		20	19	18	16	12			
	15	165	228	277	337	417	496	612	
		38	36	35	33	31	27	21	
	20	162	223	273	331	413	495	608	
		50	49	49	48	45	41	35	
	30	154	216	266	318	405	486	600	
		76	75	74	73	71	67	60	
	35	146	210	256	312	395	480	588	
		88	87	87	86	83	80	75	
Max.cont.	45	132	197	243	300	383	464	576	
		114	113	112	110	108	106	99	
	55	117	184	227	283	363	450	552	
		139	137	136	135	135	132	123	
	60	102	163	215	272	347	436	532	
		153	152	150	148	146	143	138	
	Max.int.	53	128	182	234	318	391	484	
		191	189	187	185	183	180	176	

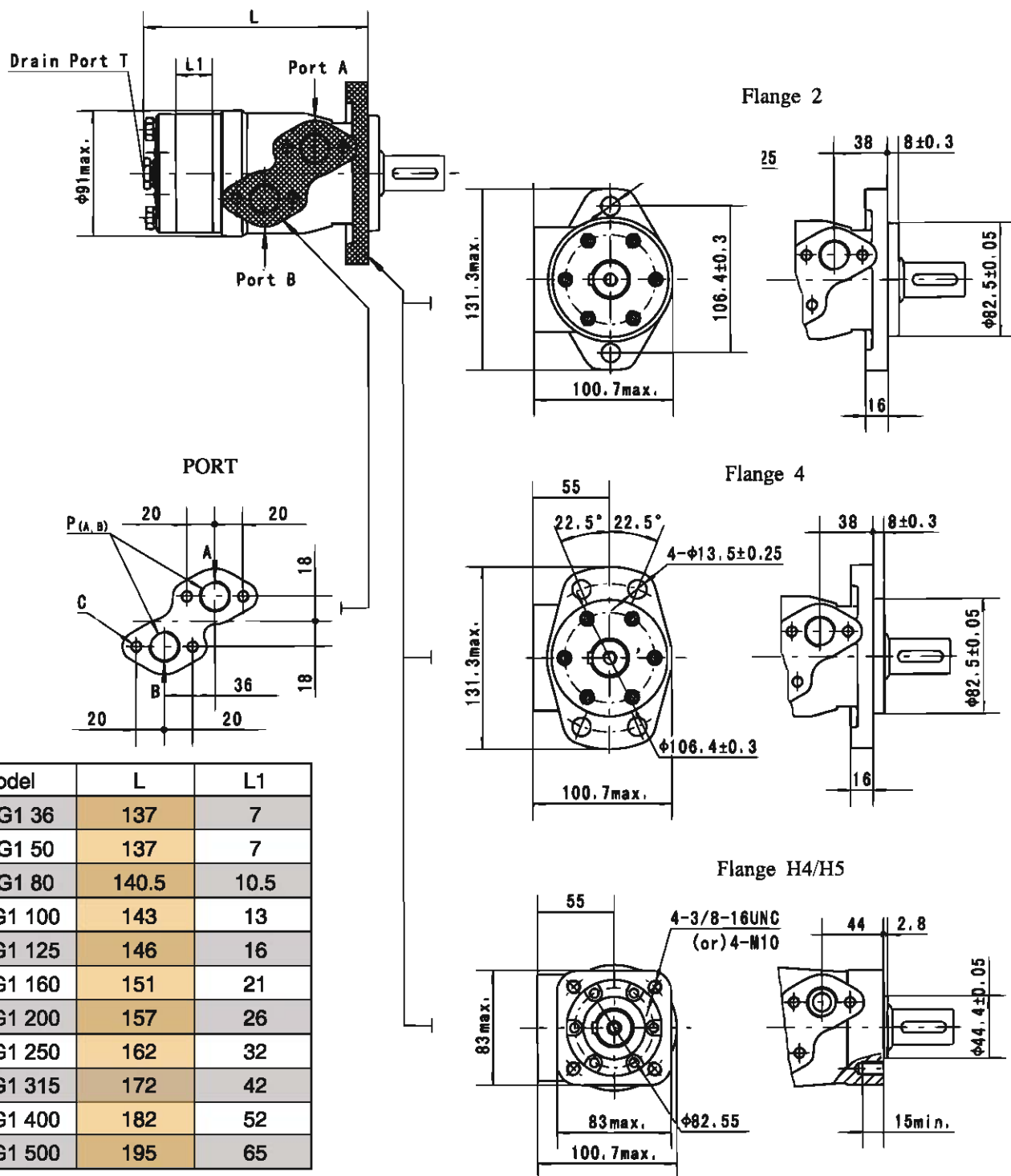
ALSG1 500 [486.5cm³/rev.]

		Pressure (MPa)						Max.cont.	Max.int.
		1.5	3	4.5	6	7	8	9	
Flow (L/min)	4	96	194	285					
		7	6	4					
	8	98	201	304	391	443	512	574	
		15	15	14	14	12	9	7	
	15	96	192	284	380	421	496	550	
		30	30	29	28	26	23	22	
	20	96	191	280	372	418	493	546	
		40	40	40	39	37	33	31	
	30	91	185	272	360	412	486	541	
		61	60	60	58	56	53	50	
Max.cont.	40	86	172	261	343	408	480	538	
		81	80	80	79	76	73	70	
	50	78	160	241	332	391	466	528	
		102	101	100	98	96	93	90	
	60	66	134	213	305	371	438	496	
		122	121	120	119	117	114	110	
	70	52	111	189	292	344	418	475	
		143	142	141	139	137	135	131	
	Max.int.	35	83	154	241	312	389	448	
		153	152	151	150	149	147	144	

cont.
int.

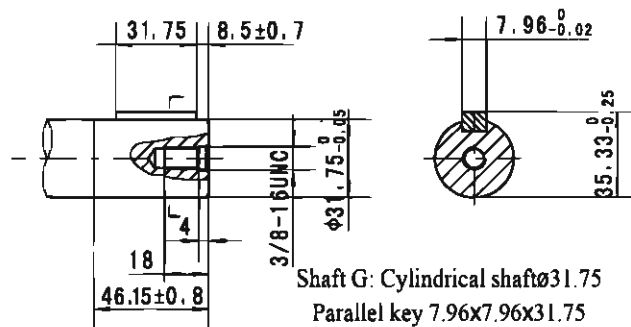
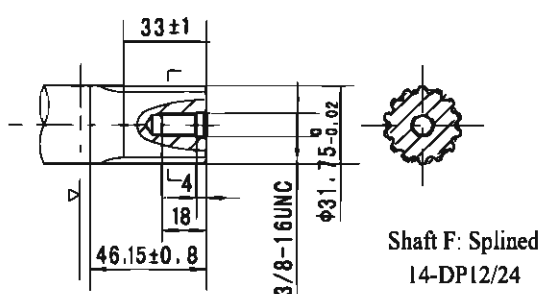
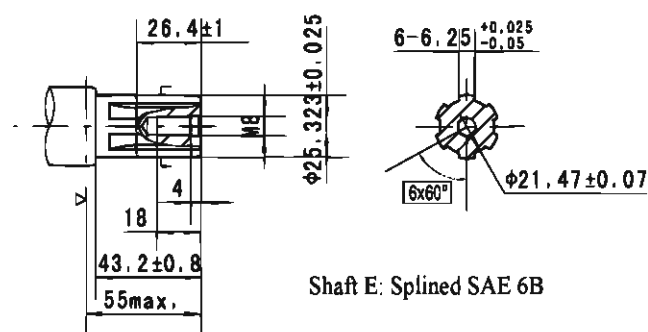
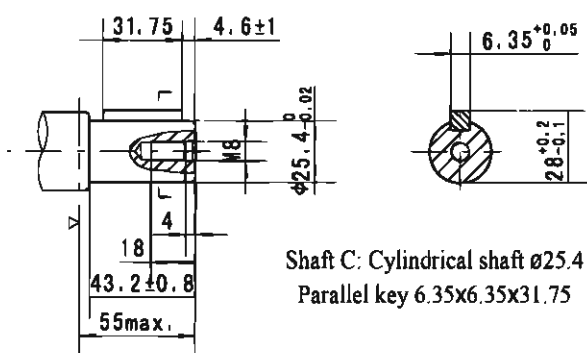
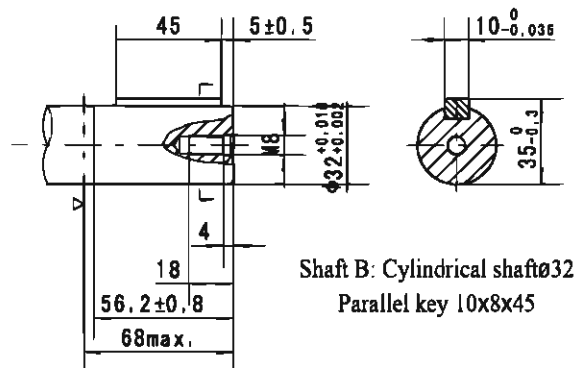
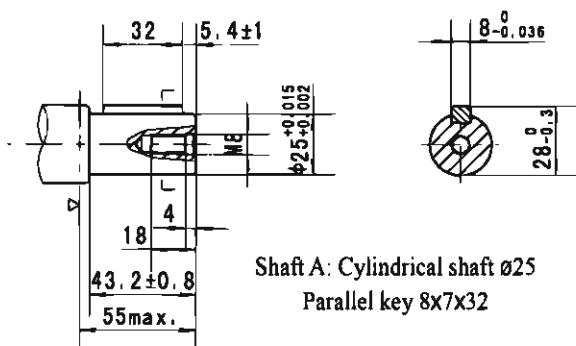
Torque (N·m) 389
Speed (rpm) 147

End port dimensions and mounting data



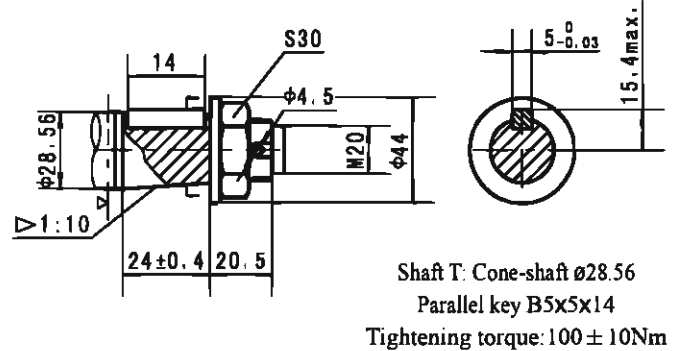
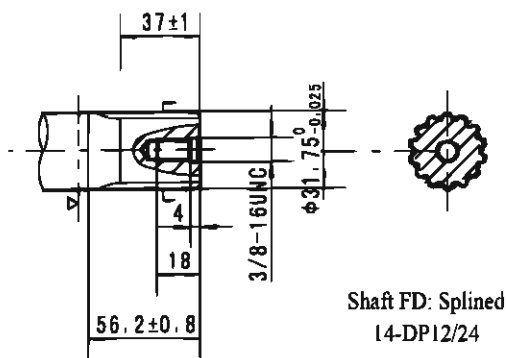
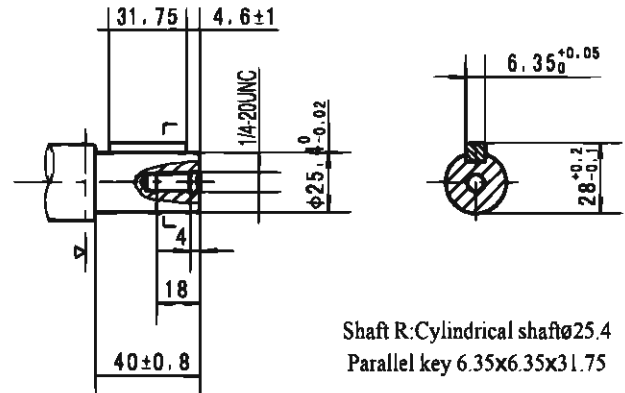
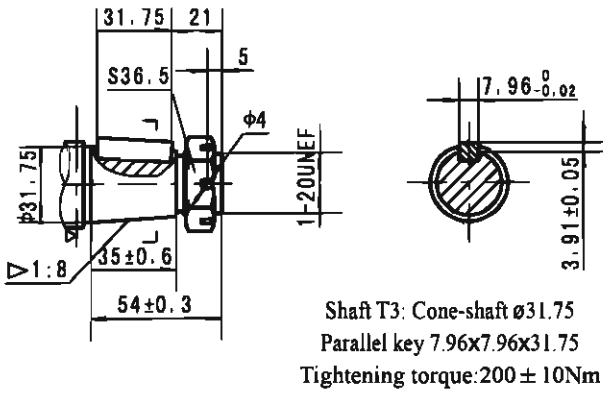
Code Mounting	D (depth)	M (depth)	S (depth)	P (depth)	R (depth)
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (17)	1/2-14NPTF (15)	PT(RC)1/2 (15)
C	4-M8 (13)	4-M8 (13)	4-5/16-18UNC(13)	4-5/16-18UNC(13)	4-M8 (13)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)

Shaft extensions for ALSG1 motors

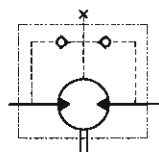
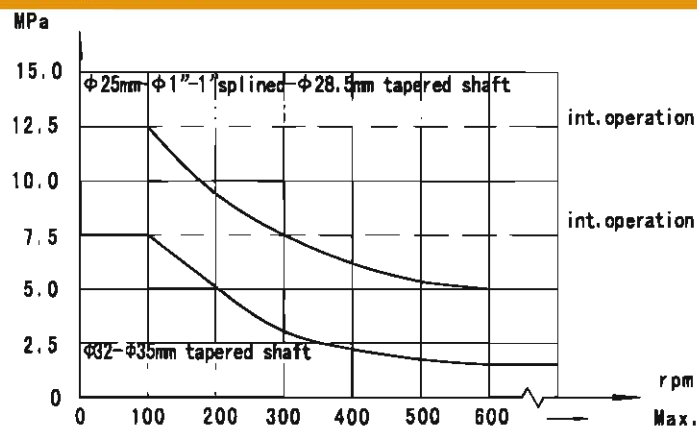
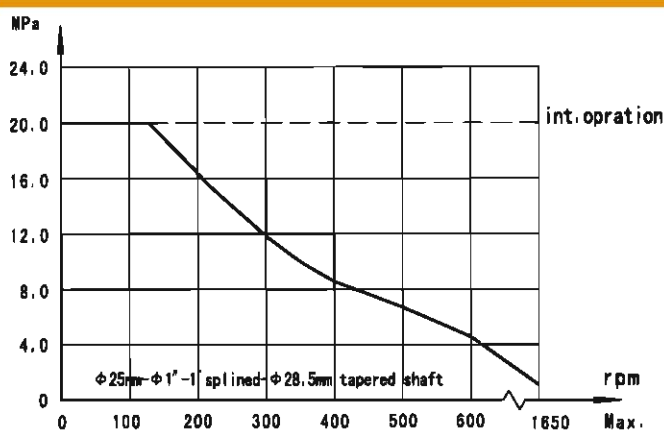


▷ Motor Mounting Surface

Shaft extensions for ALSG1 motors



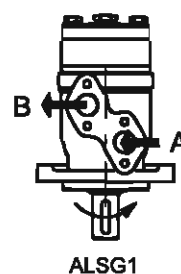
Permissible shaft seal pressure



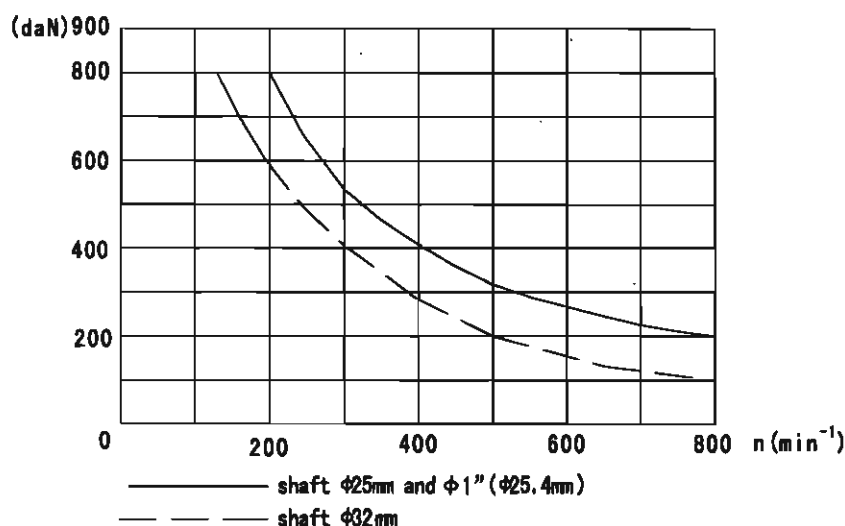
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Direction of shaft: Standard

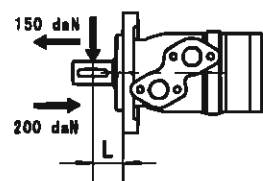
When facing shaft end of motor, shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise port "B" is pressurized.



Status of the shaft's radial force



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



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

ALSG1
Hydraulic motor

Order Information

1 2 3 4 5 6 7 8
ALSG1

Table with 8 columns: Pos.1, 2, 3, 4, 5, 6, 7, 8. Rows include specifications for ALSG1 hydraulic motor, covering displacement (36, 50, 80, 100, 125, 160, 200, 250, 315, 400, 500), flange types (2-Ø13.5 Rhomb-flange, 4-Ø13.5 Rhomb-flange, 4-3/8-16 Square-flange, 4-M10 Square-flange), output shaft options (A, B, C, E, R, F, FD, G, T, TS), port and drain port configurations (D, M, S, P, R), rotation direction (Omit, Standard, Opposite), paint options (Omit, Blue, Black, Silver grey), and unusually functions (Omit, Standard, Big radial force, No case drain, Free Running, Low Speed).

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

ALSG2 Series hydraulic motor

ALSG2 series motor adapt the advanced Gerolor gear set design with shaft distribution flow, which can automatically compensate in operating with high pressure, provide reliable and smooth operation, high efficiency and long life.

Characteristic features:

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

Main specification

Technical data for ALSG2 with 25 and 1 in and 1 in splined and 28.56 tapered shaft

Type		ALSG2 ALSG2S 36	ALSG2 ALSG2S 50	ALSG2 ALSG2S 80	ALSG2 ALSG2S 100	ALSG2 ALSG2S 125	ALSG2 ALSG2S 160	ALSG2 ALSG2S 200	ALSG2 ALSG2S 250	ALSG2 ALSG2S 315	ALSG2 ALSG2S 375
Geometric displacement (cm³/rev.)		36	51.7	81.5	102	127.2	157.2	194.5	253.3	317.5	381.4
Max. speed (rpm)	cont.	1085	960	750	600	475	378	310	240	190	155
	int.	1220	1150	940	750	600	475	385	300	240	190
Max. torque (N•m)	cont.	72	100	195	240	300	360	360	390	390	365
	int.	83	126	220	280	340	430	440	490	535	495
	peak	105	165	270	320	370	460	560	640	650	680
Max. output (kW)	cont.	8.5	9.5	12.5	13.0	12.5	12.5	10.0	7.0	6.0	5.0
	int.	9.8	11.2	15.0	15.0	14.5	14.0	13.0	9.5	9.0	8.0
Max. pressure drop (MPa)	cont.	14.0	14	17.5	17.5	17.5	16.5	13	11	9	7
	int.	16.5	17.5	20	20	20	20	17.5	15	13	10
	peak	22.5	22.5	22.5	22.5	22.5	22.5	22.5	20	17.5	15
Max. flow (L/min)	cont.	40	50	60	60	60	60	60	60	60	60
	int.	45	60	75	75	75	75	75	75	75	75
Weight (kg)		6.5	6.7	6.9	7	7.3	7.6	8.0	8.5	9.0	9.5

- * Continuous pressure:Max.value of operating motor continuously.
- * Intermittent pressure:Max.value of operating motor in 6 seconds per minute .
- * Peak pressure:Max.value of operating motor in 0.6 second per minute.

Technical data for ALSG2 with 31.75 and 32 shaft

Type		ALSG2 ALSG2S 36	ALSG2 ALSG2S 50	ALSG2 ALSG2S 80	ALSG2 ALSG2S 100	ALSG2 ALSG2S 125	ALSG2 ALSG2S 160	ALSG2 ALSG2S 200	ALSG2 ALSG2S 250	ALSG2 ALSG2S 315	ALSG2 ALSG2S 375
Geometric displacement (cm³/rev.)		36	51.7	81.5	102	127.2	157.2	194.5	253.3	317.5	381.4
Max. speed (rpm)	cont.	1250	960	750	600	475	378	310	240	190	155
	int.	1520	1150	940	750	600	475	385	300	240	190
Max. torque (N·m)	cont.	72	100	195	240	300	380	450	540	550	580
	int.	83	126	220	280	340	430	500	610	690	690
	peak	105	165	270	320	370	460	560	710	840	830
Max. output (kW)	cont.	8.5	9.5	12.5	13.0	12.5	12.5	11.0	10.0	9.0	7.5
	int.	9.8	11.2	15.0	15.0	14.5	14.0	13.0	12.0	10.0	9.0
Max. pressure drop (MPa)	cont.	14.0	14	17.5	17.5	17.5	17.5	17.5	17.5	13.5	11.5
	int.	16.5	17.5	20	20	20	20	20	20	17.5	15
	peak	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	21	17.5
Max. flow (L/min)	cont.	45	50	60	60	60	60	60	60	60	60
	int.	55	60	75	75	75	75	75	75	75	75
Weight (kg)		6.5	6.7	6.9	7	7.3	7.6	8.0	8.5	9.0	9.5

- * Continuous pressure: Max. value of operating motor continuously.
- * Intermittent pressure: Max. value of operating motor in 6 seconds per minute.
- * Peak pressure: Max. value of operating motor in 0.6 second per minute.

Performance data

ALSG2 36 [36cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

2	3	5	7	9	10	12.5	14.0	16.5
---	---	---	---	---	----	------	------	------

Flow (L/min)									
	10	16	25	37	46	50			
4	105	100	92	80	71	58			
8	208	200	188	175	158	149	134	120	108
15	403	392	380	365	348	326	318	302	274
20	540	531	518	500	483	462	450	435	412
30	810	798	780	763	742	722	705	694	668
40	1092	1080	1069	1056	1042	1028	1011	984	957
Max.int.	45	1230	1215	1194	1170	1150	1128	1100	1070

ALSG2 50 [51.7cm³/rev.]

Pressure (MPa)

Max.cont.

Max.int.

5	7	9	10	12	14	16	17.5
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Flow (L/min)								
	35	45	61	67	77	88		
5	93	84	76	73	69	46		
10	186	178	166	162	153	136	118	97
15	283	277	269	261	250	230	211	185
20	377	375	365	361	346	330	302	270
30	576	569	561	554	542	531	500	485
40	760	758	753	750	738	724	700	670
45	856	853	849	845	835	815	796	770
50	950	940	925	906	880	852	832	801
Max.int.	60	1138	1124	1100	1075	1056	1028	1006

ALSG2 80 [81.5cm³/rev.]

Pressure (MPa)

Max.cont.

Max.int.

5	7	9	10	12	14	16	17.5	20
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Flow (L/min)									
	50	64	88	108	133				
5	59	56	50	44	38				
10	118	113	106	97	86	79	56		
20	238	234	227	216	203	190	178	154	135
30	360	352	340	332	316	302	290	274	250
40	480	470	458	445	430	418	403	388	359
50	604	595	582	570	556	540	521	504	487
60	726	715	704	692	678	663	647	622	594
70	845	834	820	802	789	767	754	730	705
Max.int.	75	910	895	881	867	852	830	806	787

ALSG2 100 [102cm³/rev.]

Pressure (MPa)

Max.cont.

Max.int.

5	7	9	10	12	14	16	17.5	20
---	---	---	----	----	----	----	------	----

Flow (L/min)									
	66	92	120	135	156				
5	45	42	38	34	27				
10	93	90	86	81	74	57	42		
20	189	185	180	173	165	158	150	139	118
30	286	281	275	266	257	246	237	225	207
40	385	378	365	355	345	332	320	314	297
50	482	477	470	460	448	435	420	405	389
60	580	572	560	548	535	523	510	500	478
70	678	670	660	648	638	626	615	606	580
Max.int.	75	728	720	710	695	681	667	650	634

Torque (N·m) 135
Speed (rpm) 830

cont.
int.

Performance data

ALSG2 125 [127.2cm³/rev.]

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

ALSG2 160 [157.2cm³/rev.]

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

ALSG2 200 [194.5cm³/rev.]

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

ALSG2 250 [253.5cm³/rev.]

		Pressure (MPa)						Max.cont.		Max.int.	
		5	7	9	10	12	14	16	17.5	20	
Flow (L/min)	5	175 17	243 16	304 14	342 12	407 10					
	10	178 37	246 35	310 31	344 28	409 23	485 18	525 11			
	20	175 75	244 73	308 72	340 70	408 66	483 58	520 53	558 50	636 42	
	30	162 114	235 111	304 108	332 106	400 100	455 92	516 83	550 77	621 65	
	40	143 154	223 152	300 150	329 147	396 143	447 132	512 120	546 110	617 90	
	50	124 193	208 190	289 187	323 174	384 168	440 160	503 149	535 140	600 116	
	60	103 233	192 230	280 227	314 224	371 218	426 205	489 190	514 181	578 155	
	70	88 273	178 270	264 267	301 263	356 252	418 242	479 226	498 209	560 173	
Max.cont.	75	62 294	165 291	256 287	288 283	347 274	412 263	474 249	486 236	542 211	
Max.int.											

cont.
int.

Torque (Nm) 256
Speed (rpm) 287

Performance data

ALSG2 315 [317.5cm³/rev.]

Table with 2 rows: Pressure (MPa) and Max.cont./Max.Int. values.

Performance data table for ALSG2 315 showing Flow (L/min) vs Pressure (MPa) with cont. and int. torque/speed values.

Torque (N•m) 481
Speed (rpm) 200

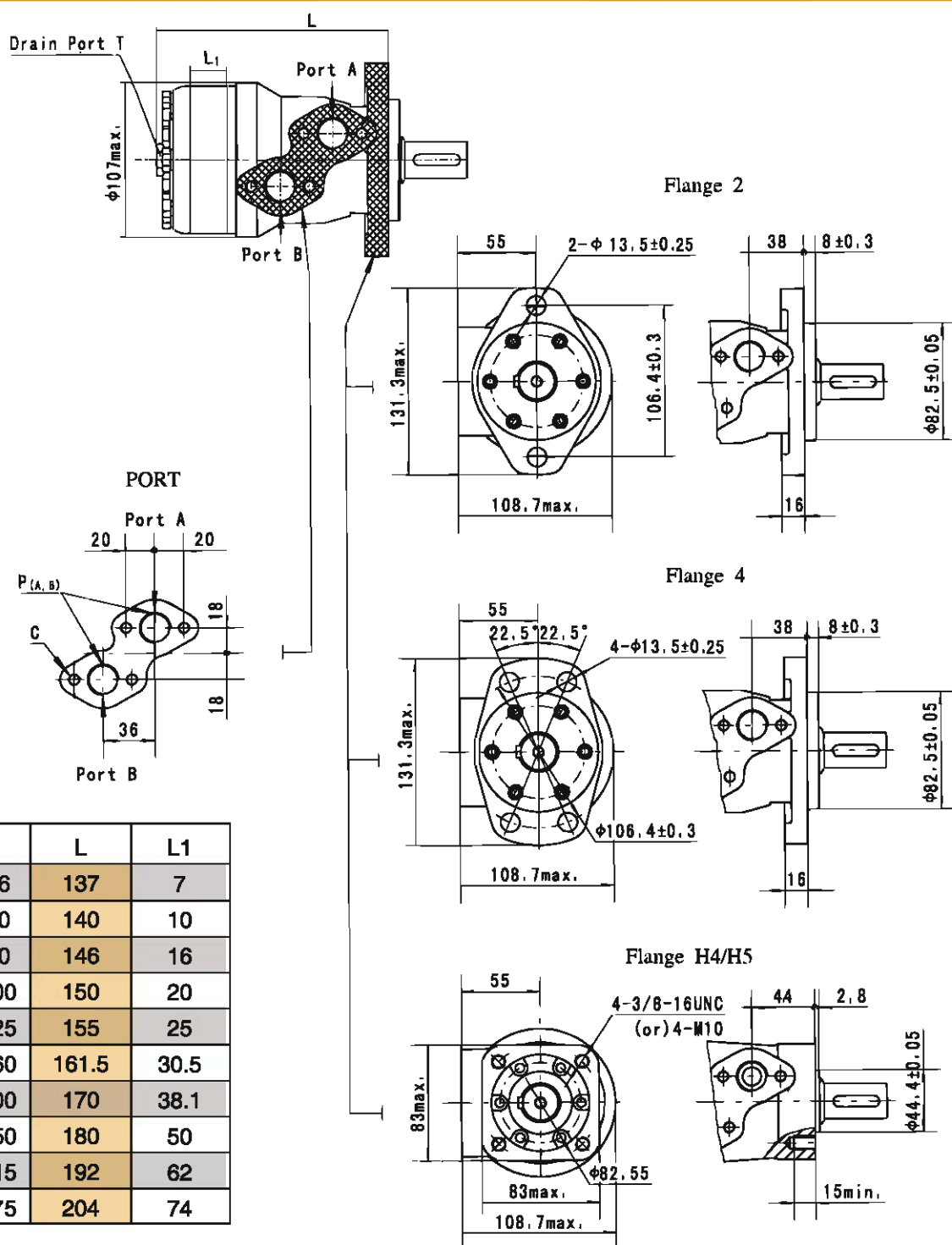
ALSG2 375 [381.4cm³/rev.]

Table with 2 rows: Pressure (MPa) and Max.cont./Max.Int. values.

Performance data table for ALSG2 375 showing Flow (L/min) vs Pressure (MPa) with cont. and int. torque/speed values.

cont.
int.

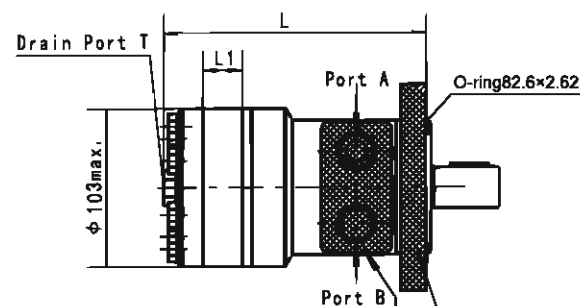
Dimensions and mounting data



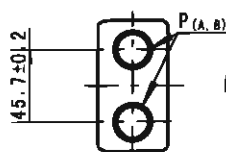
Model	L	L1
ALSG2 36	137	7
ALSG2 50	140	10
ALSG2 80	146	16
ALSG2 100	150	20
ALSG2 125	155	25
ALSG2 160	161.5	30.5
ALSG2 200	170	38.1
ALSG2 250	180	50
ALSG2 315	192	62
ALSG2 375	204	74

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

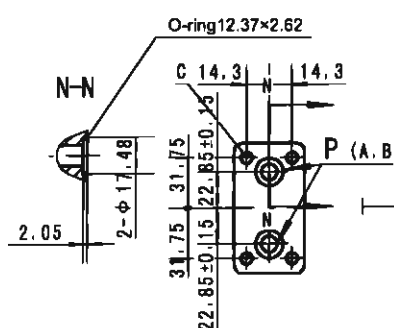
Dimensions and mounting data



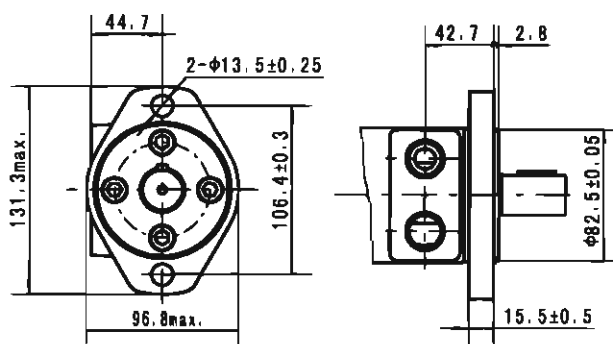
PORT G, S, P, R, M1, M2, M3



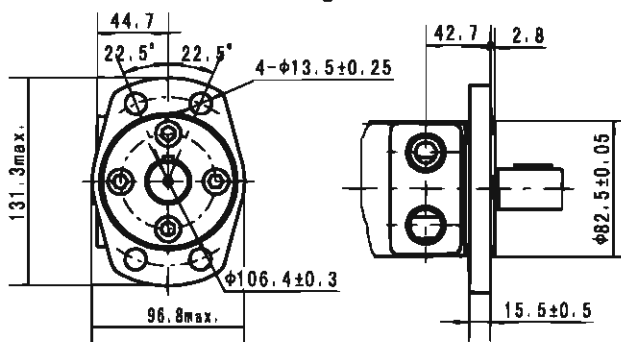
PORT B4, B5



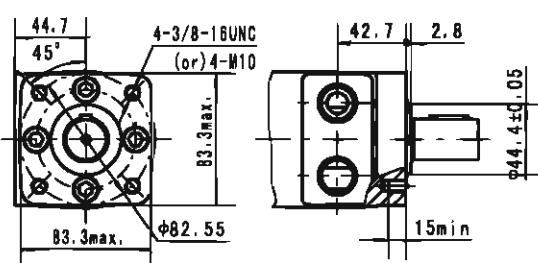
Flange H2



Flange H6



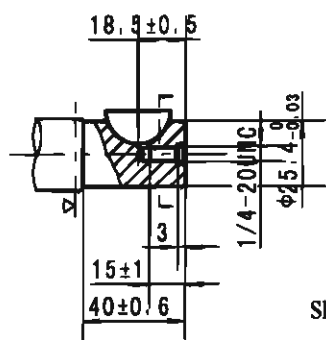
Flange H4/H5



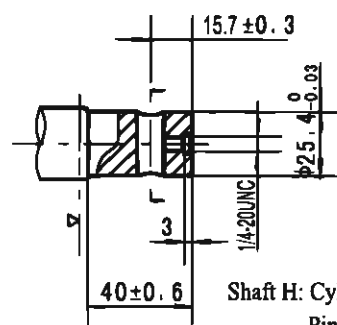
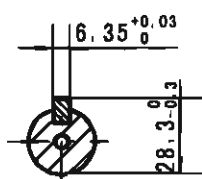
Model	L	L1
ALSG2S 36	141	7
ALSG2S 50	144	10
ALSG2S 80	150	16
ALSG2S 100	154	20
ALSG2S 125	159	25
ALSG2S 160	165.5	30.5
ALSG2S 200	174	38.1
ALSG2S 250	184	50
ALSG2S 315	196	62
ALSG2S 375	208	74

Code Mounting	G (depth)	S (depth)	P (depth)	R (depth)	M1 (depth)	M2 (depth)	M3 (depth)	B4 (depth)	B5 (depth)
P(A,B)	G1/2 (15)	7/8-14 O-ring (17)	1/2-14NPTF (15)	PT(RC)1/2 (15)	M18 x 1.5 (15)	M20 x 1.5 (15)	M22 x 1.5 (15)	$\phi 10$	$\phi 10$
T	G1/4 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)	M10 x 1 (12)	M10 x 1 (12)	M10 x 1 (12)	7/16-20UNF(12)	G1/4(12)
C	—	—	—	—	—	—	—	4-5/16-18UNC(13)	4-M8(13)

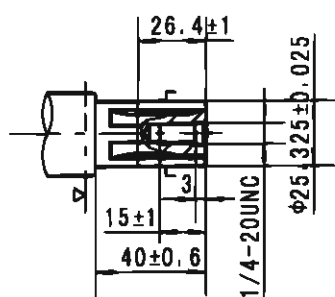
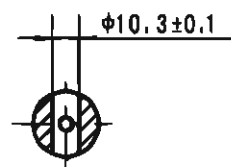
Shaft extensions dimensions data



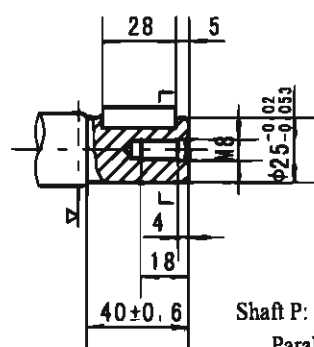
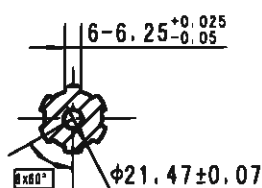
Shaft K: Cylindrical shaft $\varnothing 25.4$
Woodruff key $\varnothing 25.4 \times 6.35$



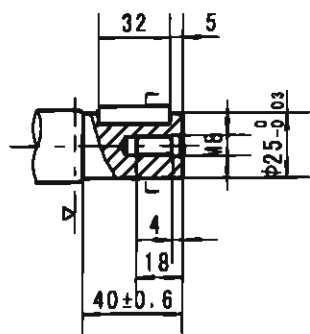
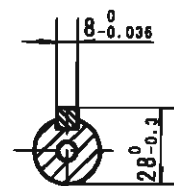
Shaft H: Cylindrical shaft $\varnothing 25.4$
Pin hole $\varnothing 10.3$



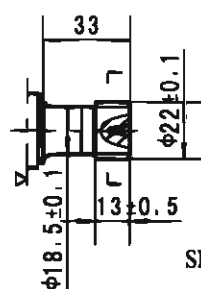
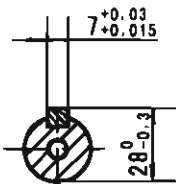
Shaft S: Splined SAE 6B



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



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

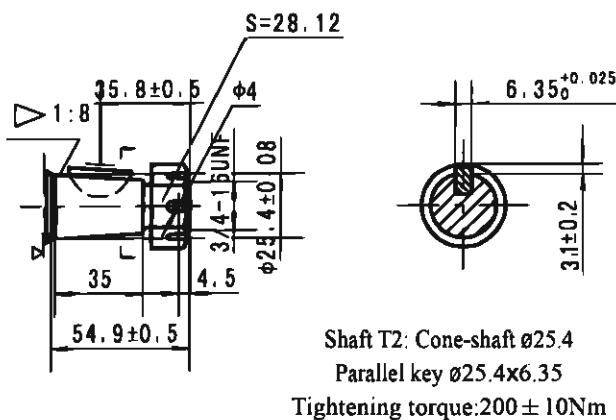
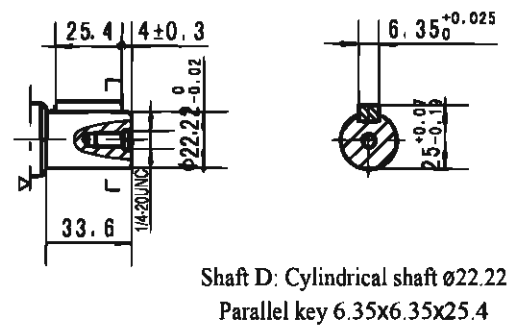
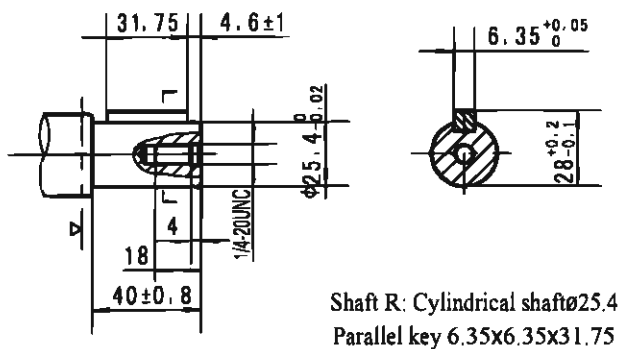
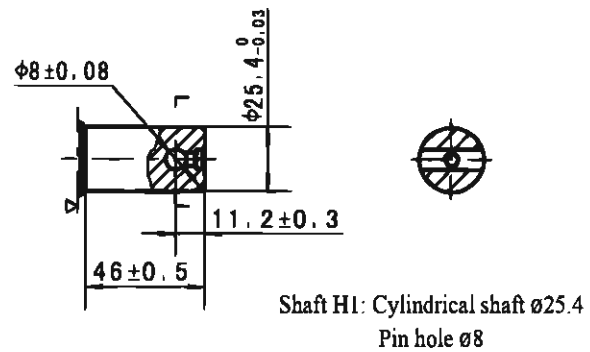
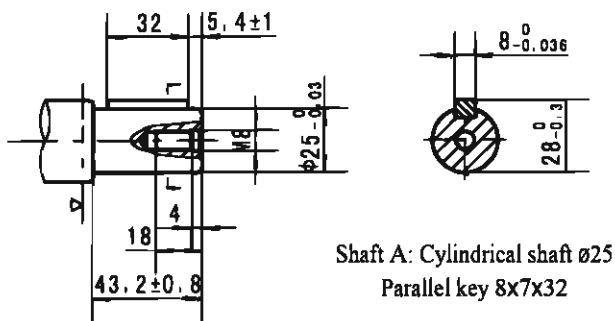


Shaft I: Splined 13-DP16/32



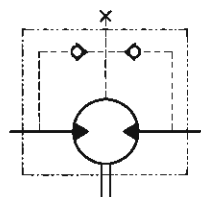
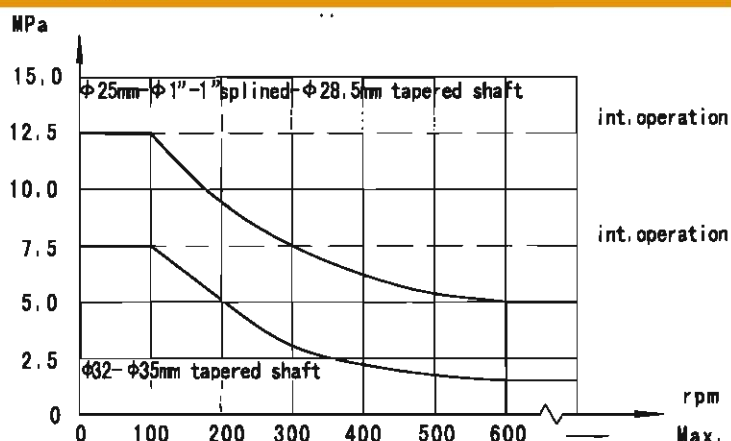
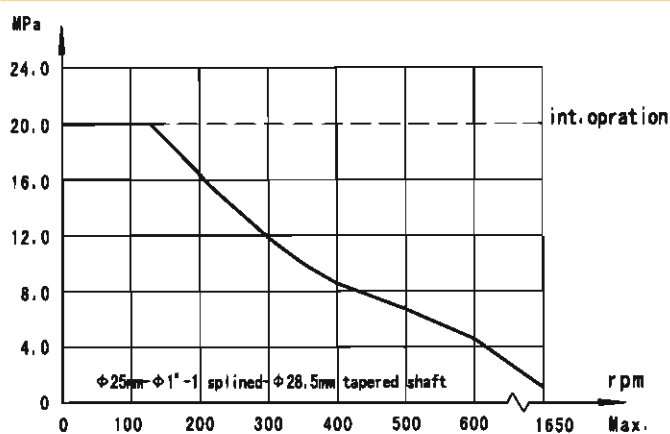
▷ Motor Mounting Surface

Shaft extensions dimensions data



Motor Mounting Surface

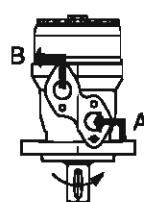
Permissible shaft seal pressure



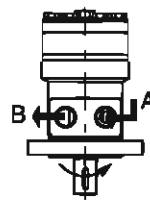
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Direction of shaft: Standard

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

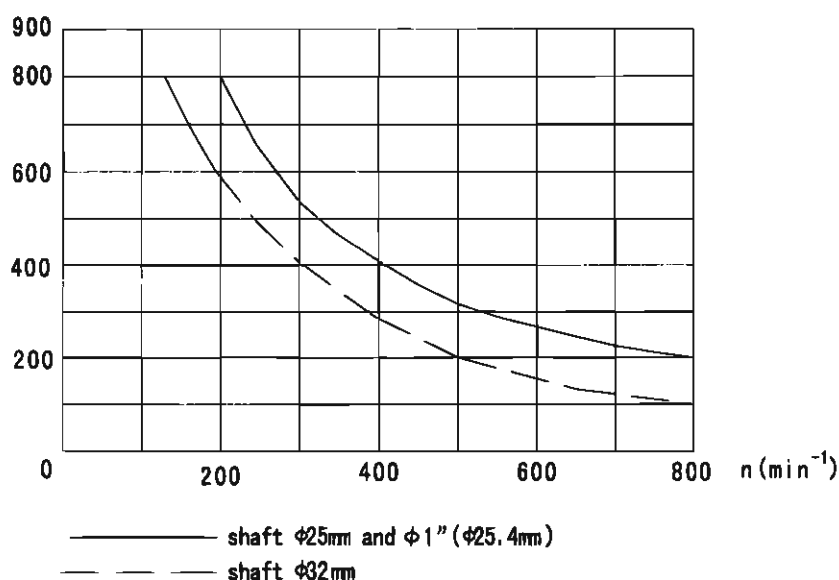


ALSG2

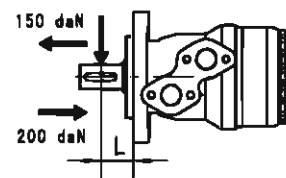


ALSG2S

Status of the shaft's radial force



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



F_r = Radial Force (daN)

L = Distance (mm)

n = Speed (rpm)

Rhomb-flange $L=30\text{mm}$

Square-flange $L=24\text{mm}$

ALSG2/ALSG2S

Hydraulic motor

IOW AmberLine
Hydraulics

Order information

1 2 3 4 5 6 7 8
ALSG2 - - - - - - - -

Pos.1	2	3		4		5		6		7		8	
Code	Disp.	Flange		Output Shaft		Port and Drain Port		Rotation Direction		Paint		Unusually Function	
ALSG2	36	2	2-Ø13.5Rhomb-flange, pilot Ø82.5 × 8	A	Shaft Ø25,parallel Key 8x7x32	D	G1/2 Manifold Mount 4-M8, G1/4	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver grey	Omit N O F LS	Standard Big radial force No case drain Free Running Low Speed
	50												
	80												
	100	4	4-Ø13.5Rhomb-flange, pilot Ø82.5 × 8	C	Shaft Ø25.4,parallel Key 6.35x6.35x31.75	M	M22 × 1.5 Manifold Mount 4-M8, M14 × 1.5						
	125												
	160	H4	4-3/8-16 Square-flange, pilot Ø44.4 × 2.8	R	Short shaft Ø25.4,parallel key 6.35x6.35x31.75	S	7/8-14 O-ring manifold 4-5/16-18UNC, 7/16-20UNF						
	200												
	250	H5	4-M10 Square-flange, pilot Ø44.4 × 2.8	F	Shaft Ø31.75,spined tooth 14-DP12/24	P	1/2-14 NPTF Manifold 4-5/16-18UNC, 7/16-20UNF						
	315												
	375									FD	Long shaft Ø31.75,spined tooth 14-DP12/24	G	Shaft Ø31.75,parallel Key 7.96x7.96x31.75
	T	Cone-Shaft Ø28.56,parallel Key B5x5x14											

1 2 3 4 5 6 7 8
ALSG2S - - - - - - - -

Pos.1	2	3		4		5		6		7		8				
Code	Disp.	Flange		Output Shaft		Port and Drain Port		Rotation Direction		Paint		Unusually Function				
ALSG2S	36	H2	2-Ø13.5Rhomb-flange, pilot Ø82.5 × 2.8	K	Shaft Ø25.4,Woodruff Key Ø25.4 × 6.35	G	G1/2, G1/4 7/8-14 O-ring 7/16-20UNF (G1/4)	Omit	Standard	00	No paint	Omit	Standard			
	50			S	Sub-shaft Ø25.4,splined tooth SAE 6B									S		
	80			A	Shaft Ø25 , parallel key 8 × 7 × 32									P	1/2-14 NPTF, 7/16-20UNF (G1/4)	
	100	H6	4-Ø13.5Rhomb-flange, pilot Ø82.5 × 2.8	R	Shaft Ø25.4, parallel key 6.35 × 6.35 × 31.75	T	3/4-16 O-ring, 7/16-20UNF			R	Opposite		B	Black	F	Free Running
	125			H	Sub-shaft Ø25.4,Pin hole Ø10.3	R	PT(Rc)1/2, PT(Rc)1/4									
	160	H4	4-3/8-16 Square-flange, pilot Ø44.4 × 2.8	H1	Shaft Ø25.4, pin hole Ø8	B4	Ø10 O-ring manifold 4x5/16-18, 7/16-20UNF									
	200			D	Shaft Ø22.22, parallel key 6.35 × 6.35 × 25.4	B5	Ø10 O-ring manifold 4xM8, G1/4									
	250	H5	4-M10 Square-flange, pilot Ø44.4 × 2.8	I	Shaft Ø22.22, splined tooth 13-DP16/32	M1	M18 × 1.5, M10 × 1									
	315			T2	Cone shaft Ø25.4 , woodruff key Ø25.4 × 6.35	M2	M20 × 1.5, M10 × 1									
	375			P	Shaft Ø25,parallel Key 8 × 7 × 28	M3	M22 × 1.5, M10 × 1									
	J			Shaft Ø25,parallel Key 7 × 7 × 32												

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

ALSG9 Series hydraulic motor

ALSG9 series motor adapt the advanced Gerolor gear set design with shaft distribution flow, which can automatically compensate in operating with high pressure, provide reliable and smooth operation, high efficiency and long life.

Characteristic features:

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

Main specification

Type		ALSG9 200	ALSG9 250	ALSG9 315	ALSG9 400	ALSG9 500
Geometric displacement (cm ³ /rev.)		203.2	255.9	316.1	406.4	489.2
Max. speed (rpm)	cont.	366	290	236	183	155
	int.	439	348	282	220	166
Max. torque (N·m)	cont.	510	621	740	850	830
	int.	579	702	827	990	1040
	peak	651	790	980	1092	1170
Max. output (kW)	cont.	16	16	14	12.5	11
	int.	18.5	18.5	15.5	15	14
Max. pressure drop (MPa)	cont.	17.5	17.5	17.5	15.5	12.5
	int.	20	20	20	19	16
	peak	22.5	22.5	22.5	21	18
Max. flow (L/min)	cont.	75	75	75	75	75
	int.	90	90	90	90	90
Weight (kg)		10.5	11	11.5	12.3	13

Type		Max.inlet pressure	Max.return pressure with drain line
ALSG9 200-500 (MPa)	cont.	200	175
	int.	225	200
	peak	250	225

- * 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.
- * Technical data BMH with 35mm cylindrical, 1 1/4 in splined and 35mm tapered shaft.

Performance data

ALSG9 200 [203.2cm³/rev.]

		Pressure (MPa)				Max.cont.	Max.int.
		3.5	7	10.5	14	17.5	20
Flow (L/min)	5	98	194	284			
		25	25	22			
	10	101	204	301	391	482	
		43	41	36	29	14	
	20	99	201	304	402	509	576
		100	97	93	85	69	56
	30	97	197	300	402	510	579
		145	143	139	130	114	101
	40	90	190	292	399	507	578
		200	200	200	188	168	153
50	82	183	284	392	500	571	
	248	246	244	235	213	199	
60	73	174	274	384	493	563	
	292	290	287	279	260	244	
70	63	163	264	374	481	554	
	352	350	349	338	318	301	
Max.cont. 75	59	157	259	366	475	547	
	366	365	363	355	335	319	
80	53	150	253	358	466	538	
	381	381	380	371	352	338	
Max.int. 90	39	140	241	348	456	526	
	443	437	434	426	407	392	

ALSG9 250 [255.9cm³/rev.]

		Pressure (MPa)				Max.cont.	Max.int.	
		3.5	7	9	12	14.5	17.5	20
Flow (L/min)	5	121	246	318	398			
		19	19	18	14			
	10	130	258	331	425	515	595	
		34	33	31	29	23	12	
	20	130	258	332	432	520	621	702
		78	77	76	73	65	53	42
	30	122	251	327	429	520	621	700
		115	113	111	105	96	84	75
	40	115	240	323	422	513	616	698
		157	157	156	150	139	127	114
50	105	232	314	411	505	606	687	
	196	195	192	185	173	159	147	
60	94	220	302	401	496	596	676	
	232	230	226	218	206	192	180	
70	81.4	209	288	389	484	582	666	
	274	274	274	266	252	238	222	
Max.cont.	75	72	203	280	381	475	574	659
		290	289	287	279	266	251	236
	80	66	194	273	371	467	566	651
		303	302	298	290	279	264	249
Max.int.	90	49	178	256	355	453	552	634
		348	347	345	337	325	309	292

ALSG9 315 [316.1cm³/rev.]

		Pressure (MPa)					Max.cont.	Max.Int.
		3.5	7.5	10	13.5	15.5	17.5	20
Flow (L/min)	5	155 16	325 13					
	10	163 27	342 24	454 18	556 14			
	20	169 63	349 61	469 55	582 48	664 40	733 32	809 19
	30	165 93	344 89	470 82	580 77	669 67	740 59	824 46
	40	154 126	337 126	465 119	577 111	663 99	737 88	827 73
	50	141 159	325 155	455 148	568 139	656 126	728 115	824 98
	60	121 187	312 186	440 179	555 169	643 154	715 143	812 124
	70	103 222	298 222	425 215	541 205	631 187	703 176	800 157
	75	94 236	287 233	417 224	529 215	623 196	696 184	792 166
	80	82 246	277 244	406 236	518 228	611 210	688 197	784 174
Max.Int.	90	62 282	256 280	386 275	496 266	593 248	669 234	767 209

ALSG9 400 [406.4cm³/rev.]

		Pressure (MPa)				Max.cont.	Max.Int.
		3.5	6	10.5	12.5	15.5	19
Flow (L/min)	5	196 13	348 13	516 10			
	10	205 22	363 21	546 21	702 17	859 11	
	20	209 50	366 49	543 46	708 41	874 36	988 31
	30	201 73	357 72	542 70	706 63	864 56	984 51
	40	195 99	346 98	532 96	701 86	858 77	973 71
	50	173 123	332 122	518 118	687 107	848 97	958 90
	60	154 146	319 144	501 141	668 128	833 115	944 106
	70	138 174	305 173	480 169	649 156	814 141	925 130
	75	128 183	294 181	466 177	637 163	802 149	911 138
	80	113 192	277 191	451 188	621 174	786 158	899 144
Max.int.	90	90 220	256 220	433 215	595 202	767 183	881 165

Torque (N•m) 593
Speed (rpm) 248

☐ cont.
☐ int.

Performance data

ALSG9 500 [500cm³/rev.]

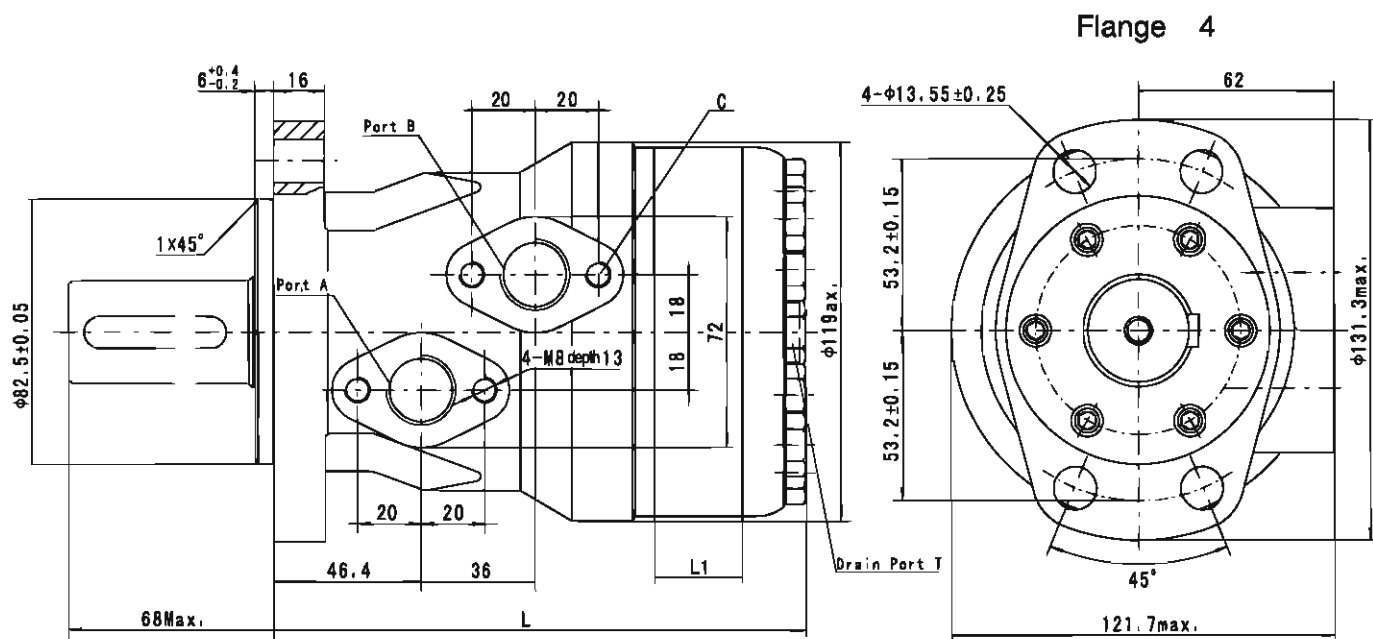
Pressure (MPa)				Max.cont.	Max.int.
2.5	5	8.5	10	12.5	16

Flow (L/min)	5	165 11	317 11	516 8				
	10	178 20	335 19	555 17	669 15	791 13	969 9	
	20	177 42	331 42	559 41	673 38	799 36	988 29	
	30	172 64	320 63	553 61	663 57	792 53	983 47	
	40	163 85	309 85	541 83	654 79	783 75	971 67	
	50	146 103	296 103	523 103	635 97	768 93	954 85	
	60	121 124	275 124	502 123	614 117	747 113	934 103	
	70	97 148	256 148	482 148	597 140	729 134	917 122	
	Max.cont.	75	79 155	240 155	469 155	582 152	714 144	902 130
		80	60 166	226 166	453 166	570 159	701 153	884 139
Max.Int.	90	34 166	201 165	421 164	550 157	673 156	869 155	

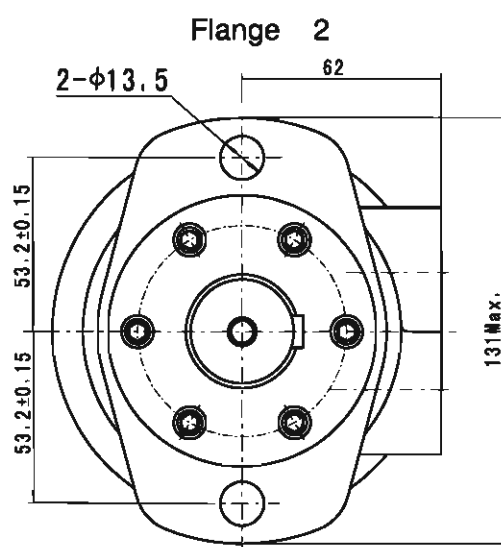
 cont.
 int.

Torque (N•m) 673
Speed (rpm) 156

Dimensions and mounting data

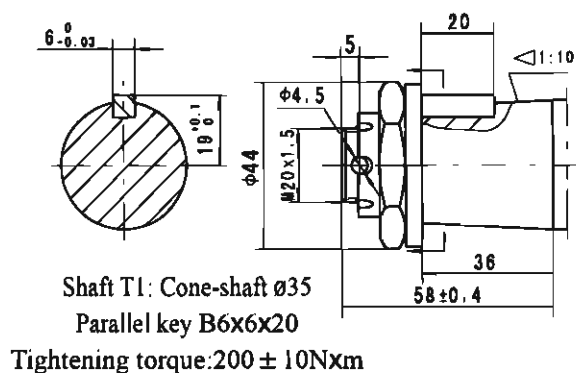
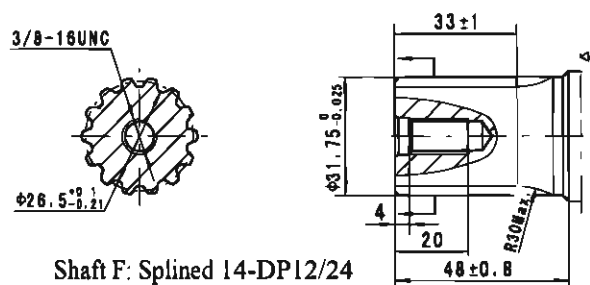
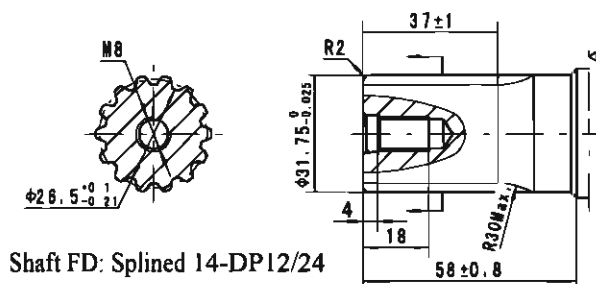
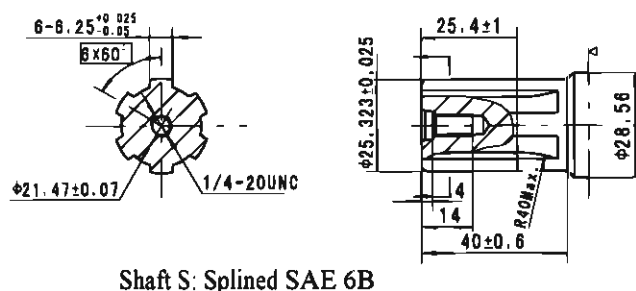
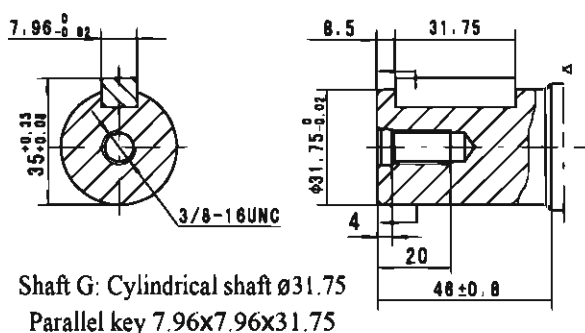
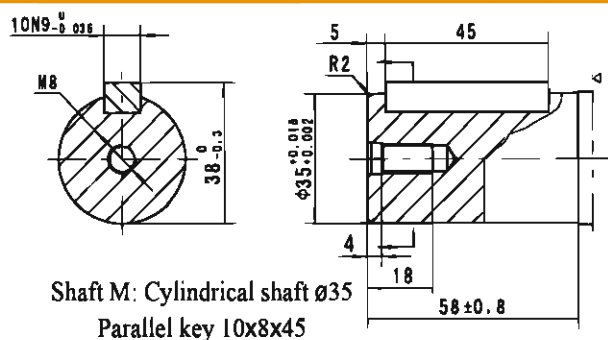
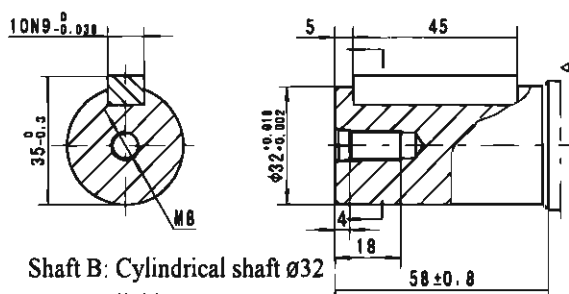


Model	L	L1
ALSG9 160	162	21
ALSG9 200	168	27
ALSG9 250	175	34
ALSG9 315	184	42
ALSG9 400	195	54
ALSG9 500	206	65

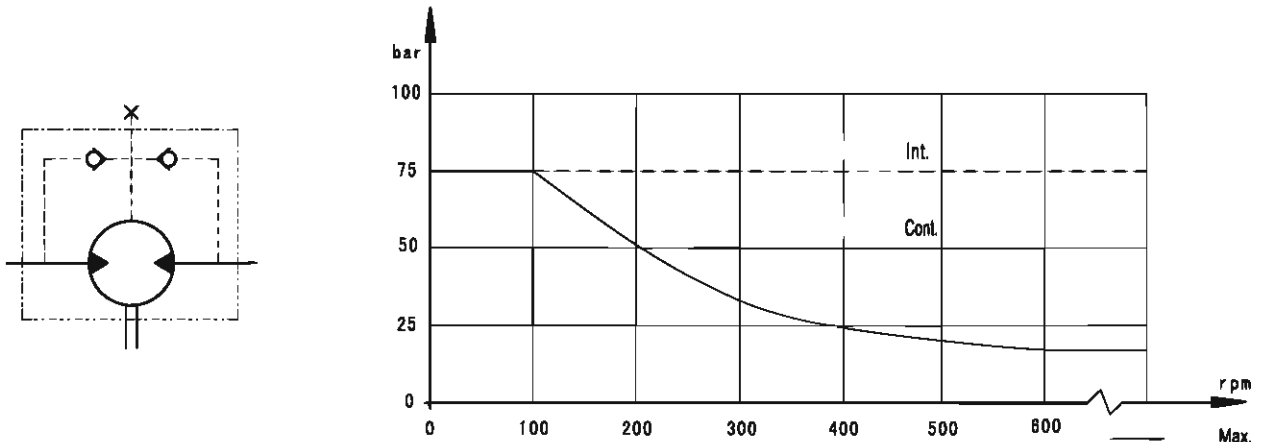


Code Mounting	D (depth)	M (depth)	S (depth)	P (depth)	R (depth)
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (15)	1/2-14NPTF (15)	PT(RC)1/2 (15)
C	4-M8 (13)	4-M8 (13)	4-M8 (13)	4-M8 (13)	4-M8 (13)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 1/4

Shaft extensions dimensions



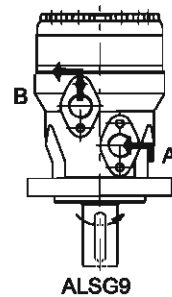
Permissible shaft seal pressure



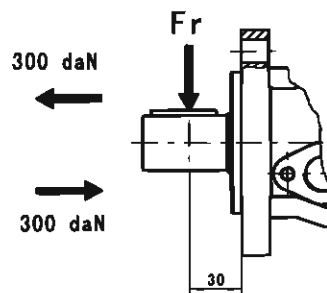
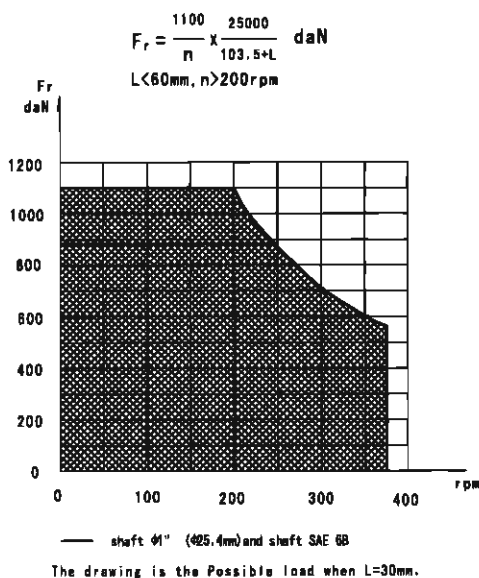
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Direction of shaft rotation: Standard

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



Status of the shaft's radial force



F_r =Radial Force (daN)
 L =Distance (mm)
 n =Speed (rpm)

Order information

1 2 3 4 5 6 7 8
ALSG9 - - - - - - -

Pos.1	2	3	4	5	6	7	8
Code		Flange	Output shaft	Port and drain port	Rotation direction	Paint	Unusually function
Omit	160 200 250 315 400 500	4 4×Ø13.5 Rhomb×flange Pilot Ø82.5×6 2 2×Ø13.5 Rhomb×flange Pilot Ø82.5×6	B Shaft Ø32 , parallel key 10×8×45 M Shaft Ø35, parallel key 10×8×45 F Shaft Ø31.75, splined key 14-DP12/24 FD Long Shaft Ø31.75, splined key 14-DP12/24 G Shaft Ø32 , parallel key 7.96×7.96×31.75 T1 Cone shaft Ø35, parallel key B6×6×20 S Shaft Ø25.4 , parallel key SAE 6B	D G1/2 Manifold mount 4×M8, G1/4 M M22×1.5 Manifold mount 4×M8, M14×1.5 S 7/8-14 O×ring Manifold mount 4×M8, 7/16-20UNF P 1/2-14 NPTF Manifold mount 4×M8, 7/16-20UNF R PT(Rc) 1/2 Manifold mount 4×M8, PT(Rc)1/4	Omit Standard R Opposite	Omit No paint B Blue S Black Silver grey	Omit Standard F No drain Free Running LS Low Speed

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

ALSG3 Series hydraulic motor

ALSG3 series motor adapt the advanced Geroler 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.

Characteristic feautures:

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

Main specification

Type		ALSG3 ALSG3E 80	ALSG3 ALSG3E 100	ALSG3 ALSG3E 125	ALSG3 ALSG3E 160	ALSG3 ALSG3E 200	ALSG3 ALSG3E 250	ALSG3 ALSG3E 315	ALSG3 ALSG3E 375
Geometric displacement (cm³/rev.)		80.6	100.8	125	157.2	200	252	314.5	370
Max. speed (rpm)	cont.	800	748	600	470	375	300	240	200
	int.	988	900	720	560	450	360	280	240
Max. torque (N·m)	cont.	190	240	310	316	400	450	560	536
	int.	240	300	370	430	466	540	658	645
	peak	260	320	400	472	650	690	740	751
Max. output (kW)	cont.	15.9	18.8	19.5	15.6	15.7	14.1	14.1	11.8
	int.	20.1	23.5	23.2	21.2	18.3	17.0	18.9	17
Max. pressure drop (MPa)	cont.	17.5	17.5	17.5	15	14	12.5	12	10
	int.	21	21	21	21	16	16	14	12
	peak	22.5	22.5	22.5	22.5	22.5	20	18.5	14
Max. flow (L/min)	cont.	65	75	75	75	75	75	75	75
	int.	80	90	90	90	90	90	90	90
Max. inlet pressure (MPa)	cont.	25	25	25	25	25	25	25	25
	int.	30	30	30	30	30	30	30	30
Weight (kg)		9.8	10	10.3	10.7	11.1	11.6	12.3	12.6

- * Continuous pressure: Max. value of operating motor continuously.
- * Intermittent pressure: Max. value of operating motor in 6 seconds per minute.
- * Peak pressure: Max. value of operating motor in 0.6 second per minute.

Performance data

ALSG3 80 [80.6cm³/rev.]

Pressure (MPa)

		Max.cont.				Max.Int.		
		3.5	7	10.5	14	17.5	21	22.5
Flow (L/min)	15	35	80	120	158	195	235	249
		180	174	168	164	158	151	143
	30	35	80	120	158	195	240	260
		362	352	346	338	330	322	310
	40	35	79	119	155	193	234	250
		482	473	464	453	444	434	415
	50	30	77	117	153	192	232	248
		602	594	587	569	560	551	522
Max.cont. 60	28	77	117	153	192	232	247	
	724	713	707	683	673	664	629	
Max.Int.	65	25	75	114	152	190	230	245
		790	785	770	760	742	720	704
	80	22	70	110	140	170	200	220
		980	965	950	920	891	860	830

ALSG3 100 [100.8cm³/rev.]

Pressure (MPa)

		Max.cont.					Max.int.	
		3.5	7	10.5	14	17.5	21	22.5
Flow (L/min)	15	48	95	150	200	250	289	310
		146	144	139	135	130	120	105
	30	45	94	146	198	250	295	317
		291	289	278	274	269	258	242
	40	43	89	142	196	248	293	316
		387	384	374	359	350	335	320
	50	40	88	135	194	247	292	315
		486	483	473	462	450	430	420
60	37	88	132	185	244	289	312	
	588	584	574	562	550	538	520	
Max.cont.	75	35	80	130	180	240	286	310
		740	735	720	705	696	676	653
Max.int.	90	30	75	124	170	236	277	303
		850	840	810	787	770	750	747

ALSG3 125 [125cm³/rev.]

Pressure (MPa)

		Max.cont.				Max.int.		
		3.5	7	10.5	14	17.5	21	22.5
Flow (L/min)	15	55	120	176	245	309	349	375
		112	110	103	96	93	90	84
	30	55	120	175	250	324	375	408
		222	220	217	208	200	199	190
	40	55	120	175	250	324	370	408
		302	298	292	284	276	268	260
	50	50	115	176	248	320	370	406
		379	373	368	363	350	339	328
60	45	113	171	245	324	368	406	
	456	448	443	439	425	406	393	
Max.cont.	75	45	110	167	240	314	370	401
		570	563	555	546	533	515	503
Max.int.	90	40	105	162	237	309	365	398
		685	676	670	659	644	625	610

ALSG3 160 [157.2cm³/rev.]

Pressure (MPa)

		Max.cont.						Max.int.
		3.5	7	10.5	14	17.5	21	22.5
Flow (L/min)	15	70	140	205	305	371	430	473
		91	88	84	78	76	74	58
	30	75	150	214	321	380	427	490
		185	182	176	168	164	162	152
	40	70	150	215	320	378	425	488
		248	244	239	229	224	217	204
	50	65	145	215	316	378	425	482
		312	308	304	294	288	280	270
	60	65	145	214	315	375	424	482
		375	371	365	357	346	336	323
Max.cont.	75	60	138	208	311	375	420	
		470	465	458	447	436	426	
Max.int.	90	56	130	200	308	370	414	
		564	559	551	541	526	517	

Torque (N•m) 309
Speed (rpm) 644

cont.
int.

Performance data

ALSG3 200 [200cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	3.5	7	10.5	14	17.5	22.5
15	89	190	295	400	484	608
30	73	71	68	64	60	52
40	87	190	294	399	485	600
50	148	146	143	140	135	127
60	86	188	292	397	483	594
75	193	191	189	186	181	172
90	80	184	290	395	480	590
Max.cont.	247	245	243	240	235	226
Max.int.	74	178	286	390	475	582
	298	295	293	290	284	273
	58	160	275	375	460	570
	372	369	365	362	358	346
	49	148	260	355	445	555
	440	435	430	422	411	401

ALSG3 250 [252cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	3.5	7	10.5	14	17.5	22.5
15	117	230	355	52	450	554
30	58	55	350	51	47	46
40	117	225	112	446	560	657
50	118	117	348	109	107	106
60	115	225	152	442	552	650
75	160	156	345	150	146	142
90	110	220	198	438	546	645
Max.cont.	202	200	340	196	195	192
Max.int.	105	220	237	435	542	642
	242	239	338	234	231	229
	95	215	293	430	537	638
	300	296	332	286	282	278
	90	205	348	420	530	632
	360	354	340	332	326	326

ALSG3 315 [314.5cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	3.5	7	10.5	12	14	18.5
15	160	320	465	555	650	748
30	48	47	45	43	40	38
40	165	322	468	560	658	752
50	94	92	90	89	86	85
60	160	310	457	546	642	741
75	125	123	120	118	116	115
90	155	305	450	538	637	736
Max.cont.	158	156	153	150	147	145
Max.int.	152	302	442	532	632	732
	175	174	170	164	162	159
	145	295	436	525	628	726
	236	234	230	227	225	222
	132	280	430	520	622	723
	285	282	280	276	273	270

ALSG3 375 [370cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	3.5	7	9	10	12	14
15	185	362	474	512	588	660
30	40	39	38	37	35	33
40	184	364	475	514	590	661
50	80	78	77	76	74	72
60	180	362	473	513	588	659
75	106	104	103	102	100	97
90	160	360	472	511	586	658
Max.cont.	133	131	130	129	128	125
Max.int.	150	359	471	510	585	657
	157	156	155	154	152	150
	130	353	465	504	584	651
	200	198	196	195	194	193
	105	350	462	500	580	647
	238	235	234	232	230	227

Torque (Nm) 520
Speed (rpm) 276

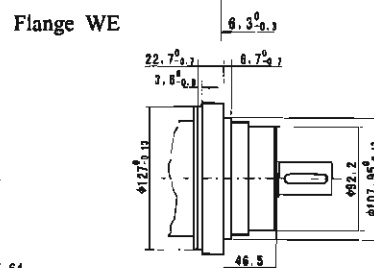
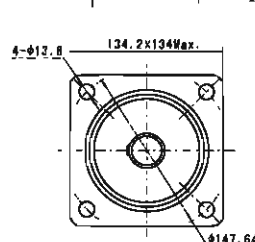
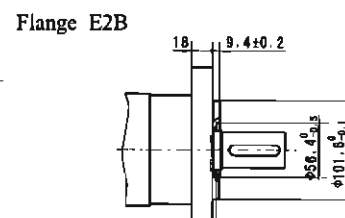
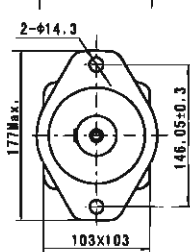
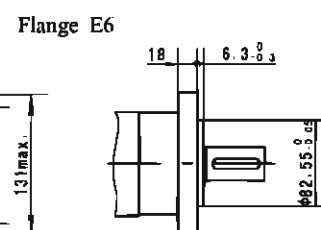
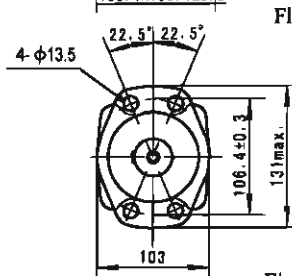
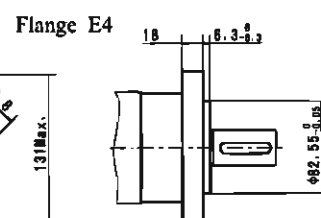
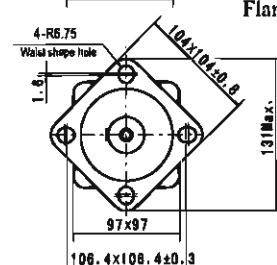
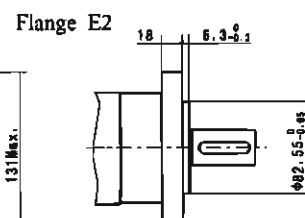
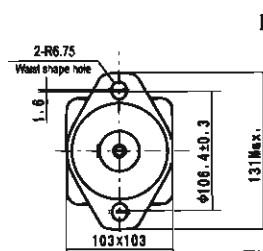
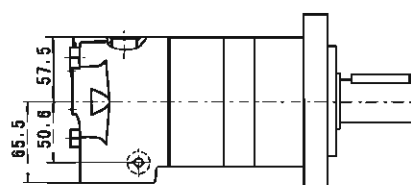
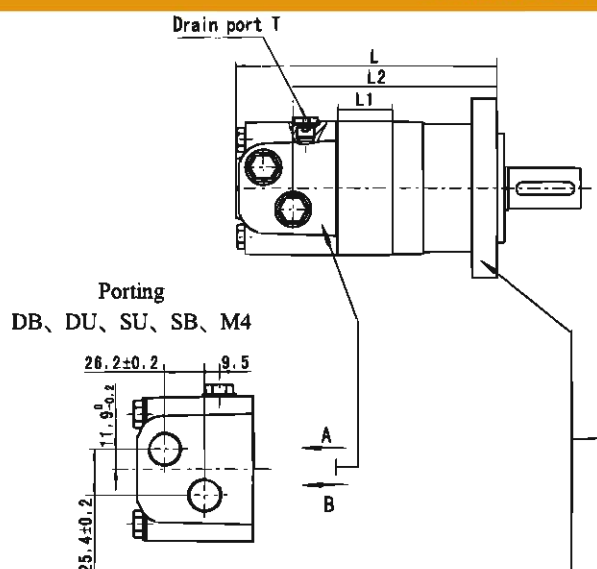
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ALSG3E

Hydraulic motor

IOW AmberLine
OW Hydraulics

Dimensions and mounting data



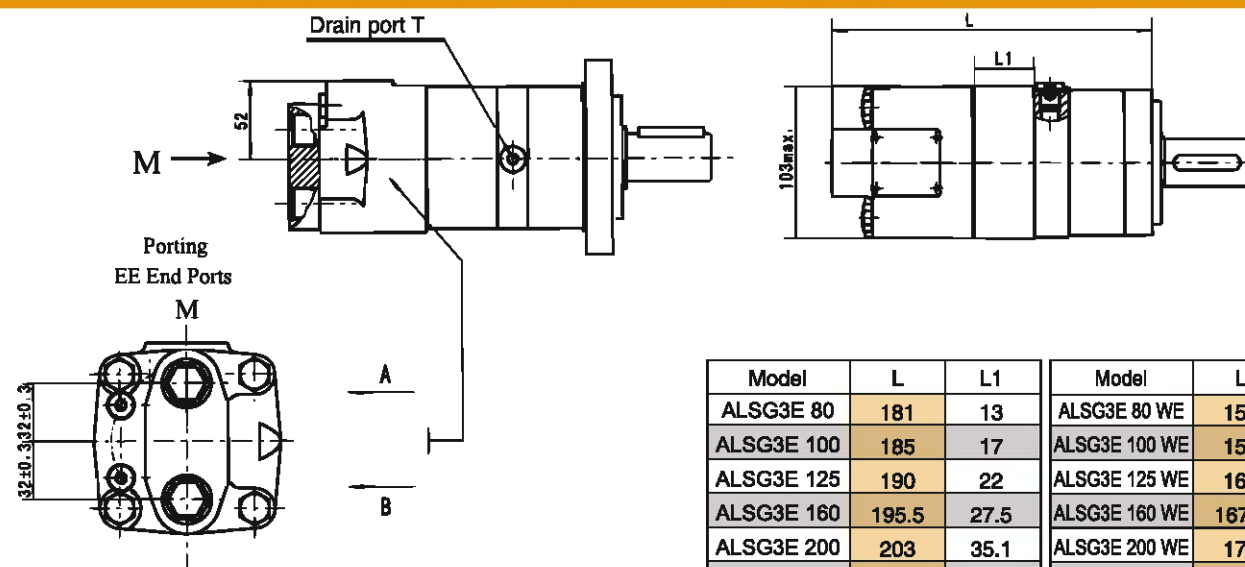
Model	L	L1	L2
ALSG3E 80	171	13	123.2
ALSG3E 100	175	17	127.2
ALSG3E 125	180	22	132.2
ALSG3E 160	185.5	27.5	137.7
ALSG3E 200	193	35.1	145.2
ALSG3E 250	205	47	157.2
ALSG3E 315	217	59	169.2
ALSG3E 375	229	71	181.2

Model	L	L1	L2
ALSG3E 80 WE	143	13	95
ALSG3E 100 WE	147	17	99
ALSG3E 125 WE	152	22	104
ALSG3E 160 WE	157.5	27.5	109.5
ALSG3E 200 WE	165	35.1	117
ALSG3E 250 WE	177	47	129
ALSG3E 315 WE	189	59	141
ALSG3E 375 WE	201	71	153

Note: The thickness of the stator and rotor is the dimension of L1 plus 3mm.

Code	DB (depth)	DU (depth)	SU (depth)	SB (depth)	M4 (depth)
P(A,B)	G1/2 (18)	G1/2 (18)	7/8-14 O-ring (18)	7/8-14 O-ring (18)	M22 x 1.5 (18)
T	G1/4 (12)	7/16-20UNF(12)	7/16-20UNF(12)	G1/4 (12)	M14 x 1.5 (12)

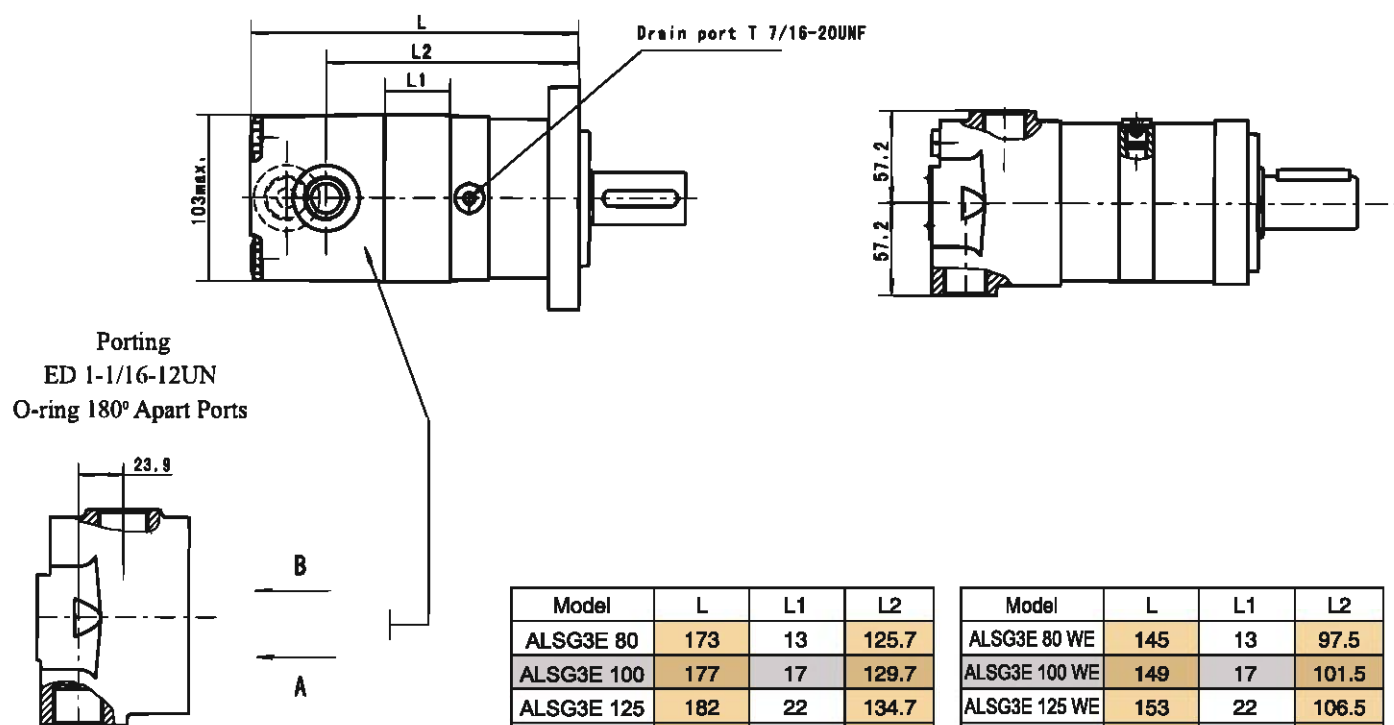
Dimensions and mounting data



Code Mounting	EE-D (depth)	EE-M2 (depth)	EE-S2 (depth)
P(A,B)	G1/2 (18)	M22 x 1.5 (18)	7/8-14 O-ring (18)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF(12)

Model	L	L1	Model	L	L1
ALSG3E 80	181	13	ALSG3E 80 WE	153	13
ALSG3E 100	185	17	ALSG3E 100 WE	157	17
ALSG3E 125	190	22	ALSG3E 125 WE	162	22
ALSG3E 160	195.5	27.5	ALSG3E 160 WE	167.5	27.5
ALSG3E 200	203	35.1	ALSG3E 200 WE	175	35.1
ALSG3E 250	215	47	ALSG3E 250 WE	187	47
ALSG3E 315	227	59	ALSG3E 315 WE	199	59
ALSG3E 375	239	71	ALSG3E 375 WE	211	71

Note: The thickness of the stator and rotor is the dimension of L1 plus 3mm.



Code Mounting	ED (depth)
P(A,B)	1-1/16-12UN O-ring (18)
T	7/16-20UNF(12)

Model	L	L1	L2
ALSG3E 80	173	13	125.7
ALSG3E 100	177	17	129.7
ALSG3E 125	182	22	134.7
ALSG3E 160	187.5	27.5	140.2
ALSG3E 200	195	35.1	147.7
ALSG3E 250	207	47	159.7
ALSG3E 315	219	59	171.7
ALSG3E 375	231	71	183.7

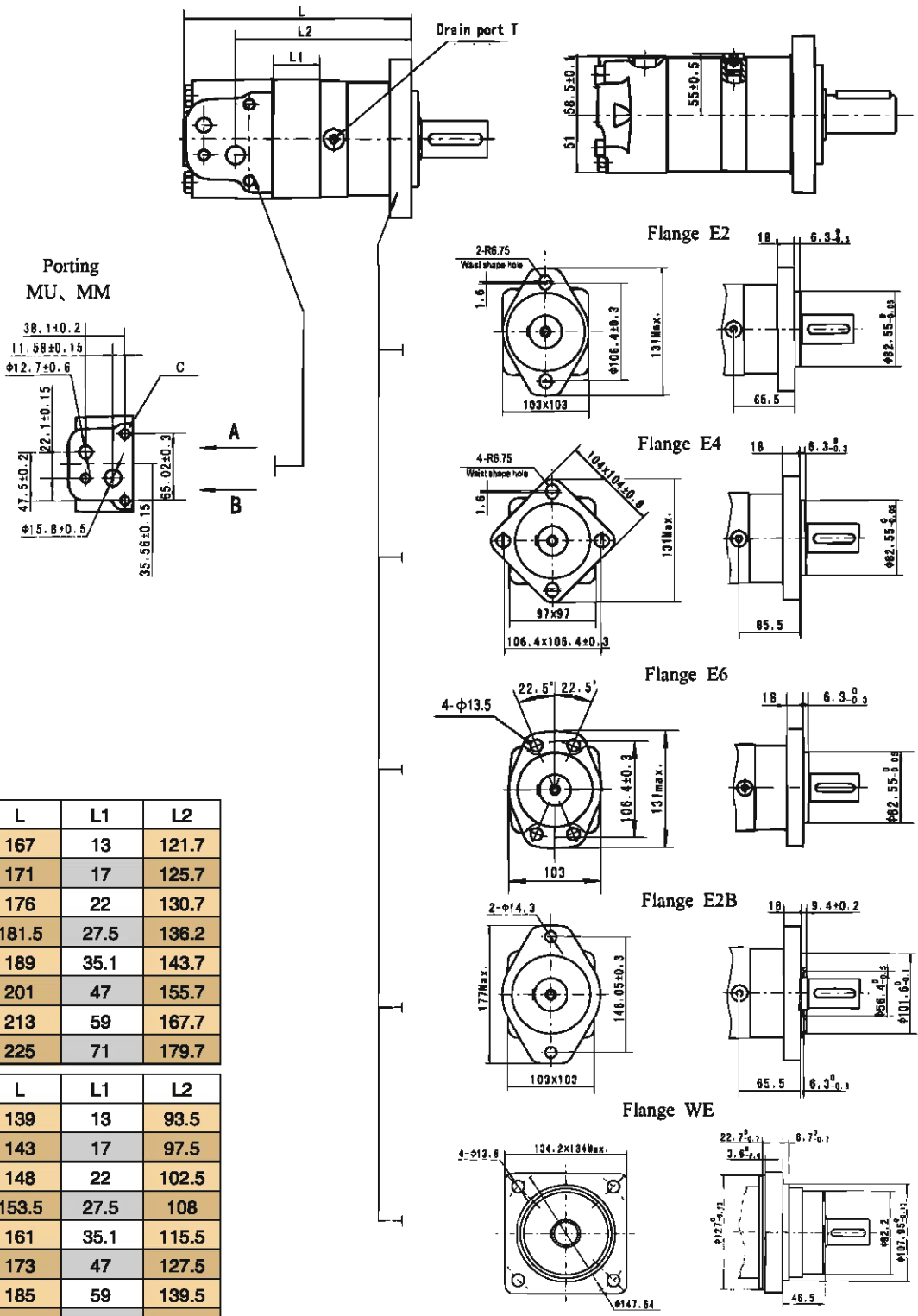
Model	L	L1	L2
ALSG3E 80 WE	145	13	97.5
ALSG3E 100 WE	149	17	101.5
ALSG3E 125 WE	153	22	106.5
ALSG3E 160 WE	158.5	27.5	112
ALSG3E 200 WE	166	35.1	119.5
ALSG3E 250 WE	179	47	131.5
ALSG3E 315 WE	191	59	143.5
ALSG3E 375 WE	203	71	155.5

Note: The thickness of the stator and rotor is the dimension of L1 plus 3mm.

ALSG3E

Hydraulic motor

Dimensions and mounting data



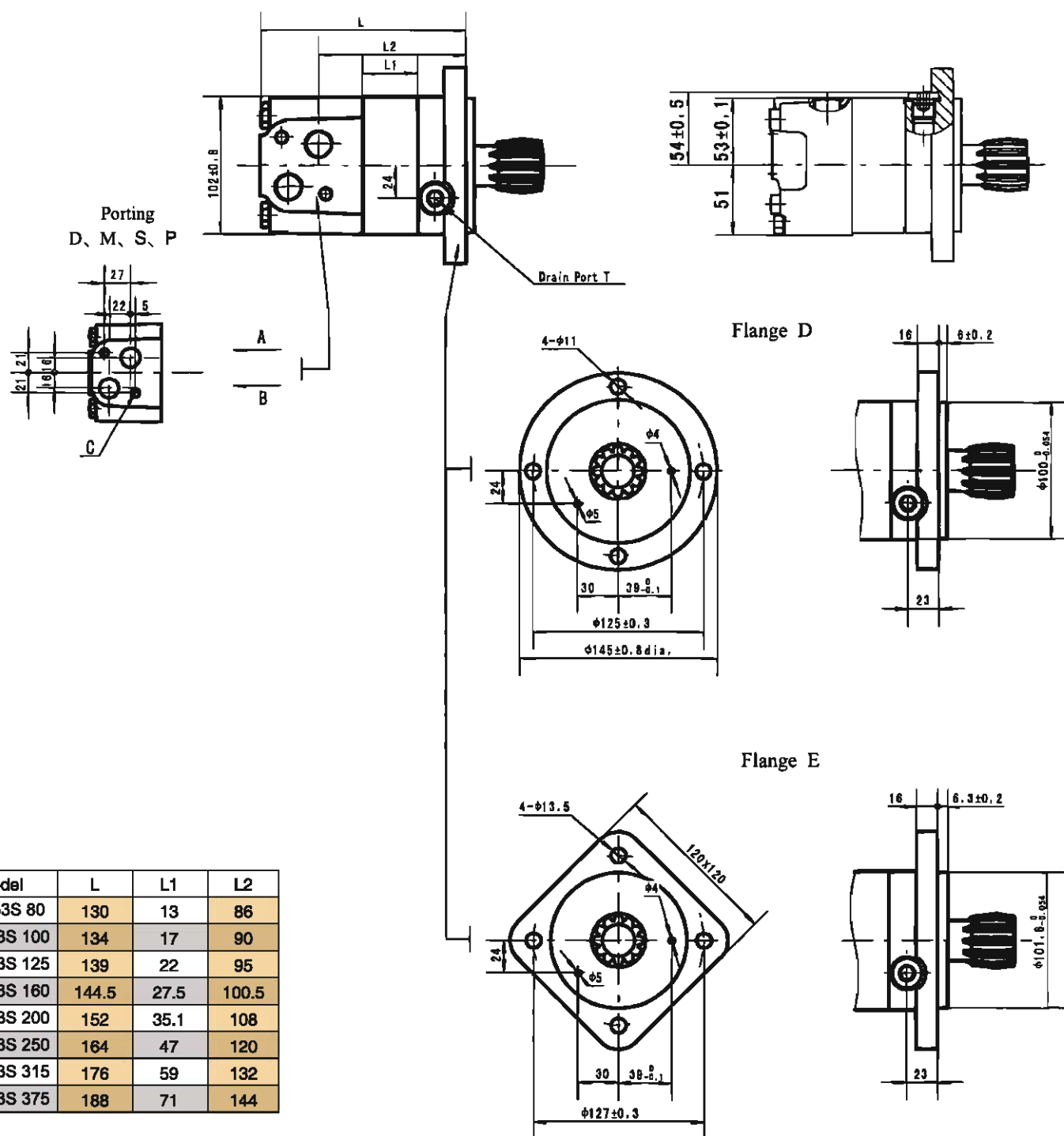
Model	L	L1	L2
ALSG3E 80	167	13	121.7
ALSG3E 100	171	17	125.7
ALSG3E 125	176	22	130.7
ALSG3E 160	181.5	27.5	136.2
ALSG3E 200	189	35.1	143.7
ALSG3E 250	201	47	155.7
ALSG3E 315	213	59	167.7
ALSG3E 375	225	71	179.7

Model	L	L1	L2
ALSG3E 80 WE	139	13	93.5
ALSG3E 100 WE	143	17	97.5
ALSG3E 125 WE	148	22	102.5
ALSG3E 160 WE	153.5	27.5	108
ALSG3E 200 WE	161	35.1	115.5
ALSG3E 250 WE	173	47	127.5
ALSG3E 315 WE	185	59	139.5
ALSG3E 375 WE	197	71	151.5

Note: 1) If the porting G, M2, S2 is used, the dimensions of L2 should plus 1.5mm.
2) The thickness of the stator and rotor is the dimension of L1 plus 3mm.

Code	MU	MM
P(A,B)	ø12.7, ø15.8	ø12.7, ø15.8
T	7/16-20UNF(12)	G1/4 (12)
C	3 x 3/8-16UNC	3 x M10

Dimensions and mounting data



Model	L	L1	L2
ALSG3S 80	130	13	86
ALSG3S 100	134	17	90
ALSG3S 125	139	22	95
ALSG3S 160	144.5	27.5	100.5
ALSG3S 200	152	35.1	108
ALSG3S 250	164	47	120
ALSG3S 315	176	59	132
ALSG3S 375	188	71	144

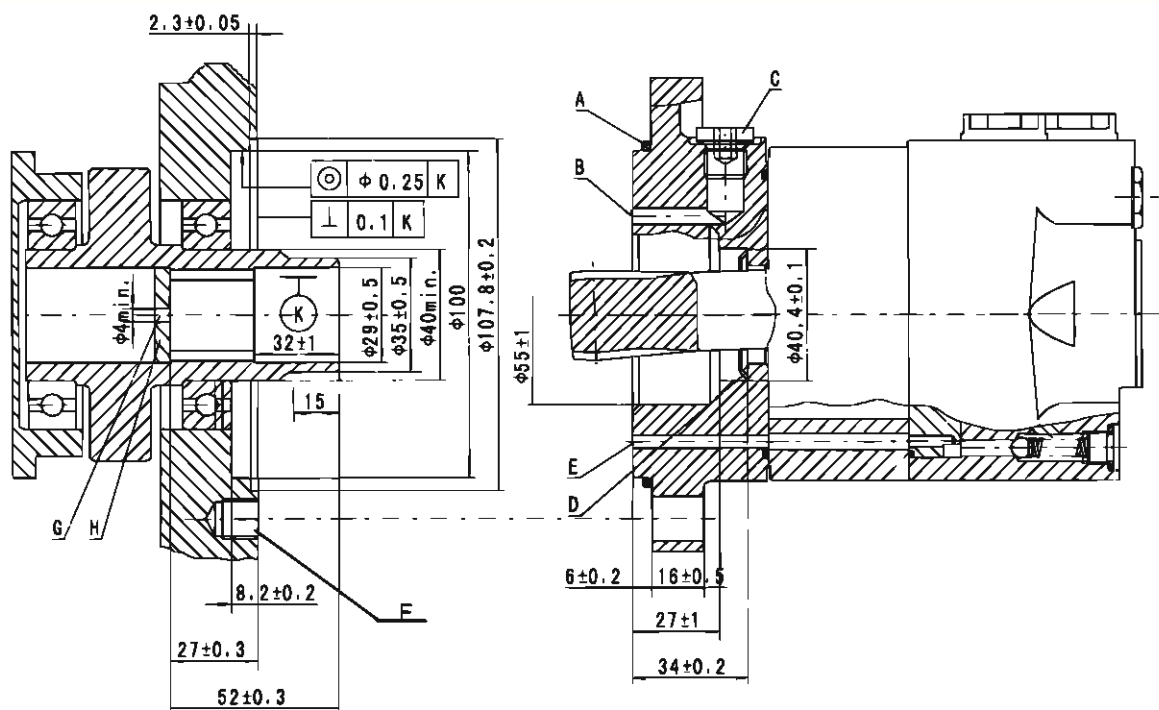
Note: The thickness of the stator and rotor is the dimension of L1 plus 3mm.

Code	D (depth)	M (depth)	S (depth)	P (depth)
Mounting				
P(A,B)	G1/2 (18)	M22 x 1.5 (18)	7/8-14 O-ring (18)	1/2-14NPTF (15)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF(12)	7/16-20UNF(12)
C	2-M10 (13)	2-M10 (13)	2-3/8-16UNC (13)	2-3/8-16UNC (13)

ALSG3S

Hydraulic motor

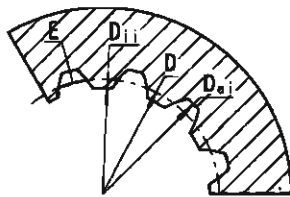
Dimensions and mounting data



- A: O-ring:100x3
- B: External drain channel
- C: Drain connection G 1/4;12 mm deep
- D: Conical seal ring
- E: Internal drain channel
- F: M10;min. 15mm deep
- G: Oil circulation hole
- H: Hardened stop plate

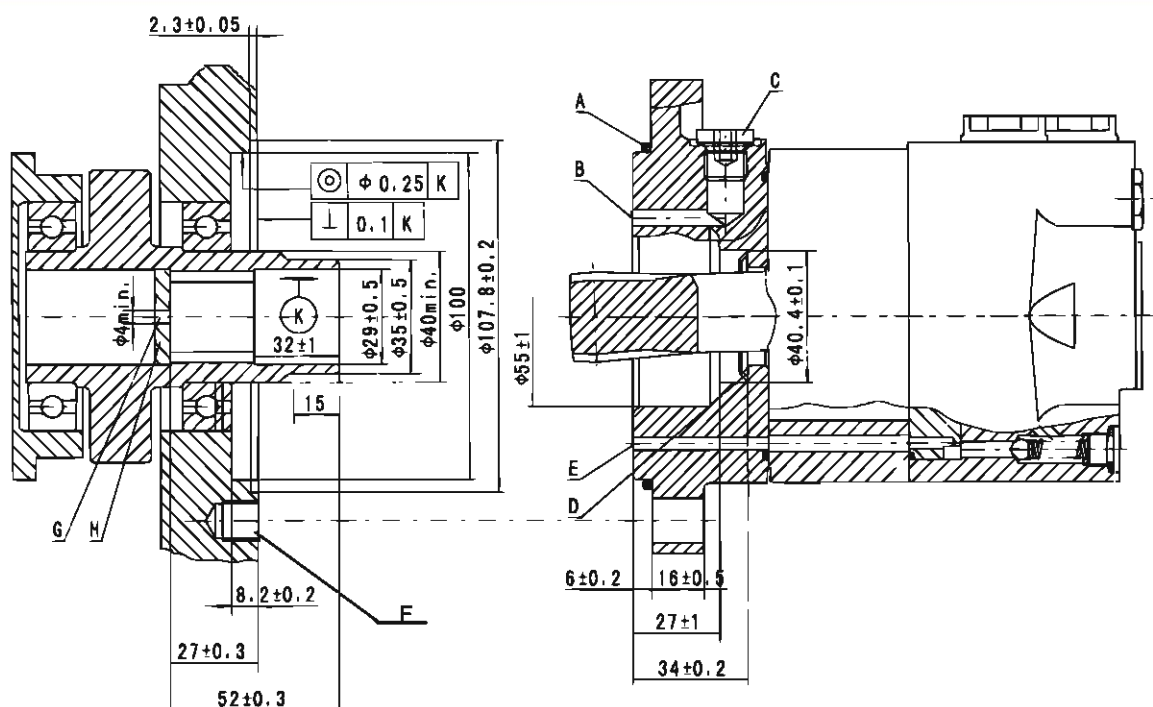
Internal spline data for attached component

Fillet Root Side Fit		mm
Number of Teeth	Z	12
Diametral Pitch	DP	12/24
Pressure Angle	α_D	30°
Pitch Dia.	D	$\varnothing 25.4_{-0.1}^0$
Major Dia.	D_{e1}	$\varnothing 28_{-0.1}^0$
Minor Dia.	D_{i1}	$\varnothing 23_{-0}^{+0.033}$
Space Width [Circular]	E	4.308 ± 0.02



Hardening Specification: HRC 62 ± 2
Effective case depth 0.7 ± 0.2

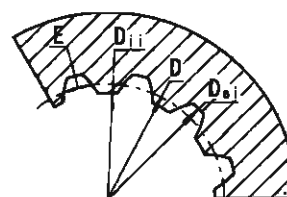
Dimensions and mounting data



- A: O-ring:100x3
B: External drain channel
C: Drain connection G 1/4;12 mm deep
D: Conical seal ring
E: Internal drain channel
F: M10;min. 15mm deep
G: Oil circulation hole
H: Hardened stop plate

Internal spline data for attached component

Fillet Root Side Fit		mm
Number of Teeth	Z	12
Diametral Pitch	DP	12/24
Pressure Angle	α_D	30°
Pitch Dia.	D	$\varnothing 25.4_{-0.1}^0$
Major Dia.	D_a	$\varnothing 28_{-0.1}^0$
Minor Dia.	D_i	$\varnothing 23_{-0.05}^{+0.05}$
Space Width [Circular]	E	4.308±0.02



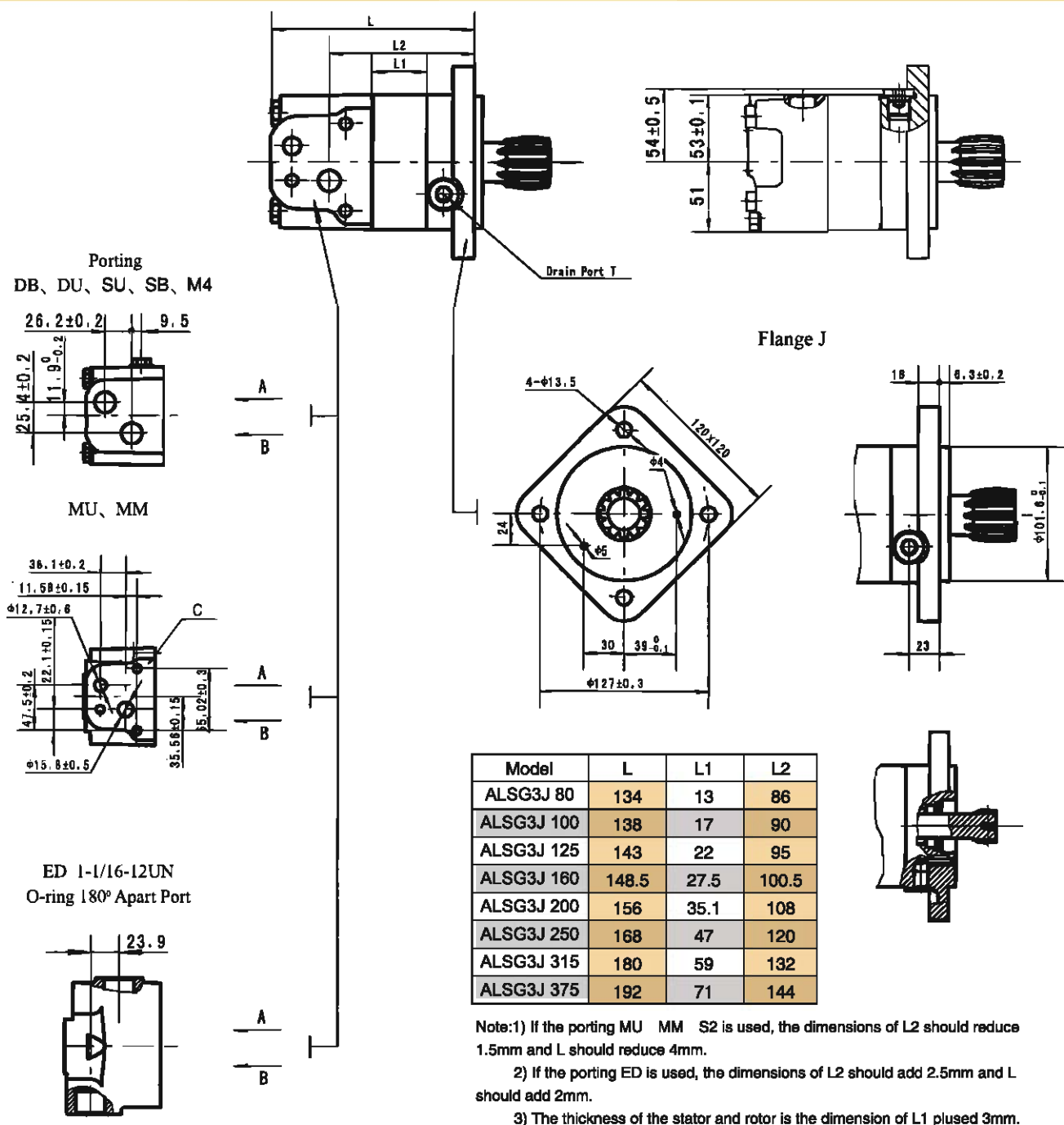
Hardening Specification: HRC 62±2
Effective case depth 0.7±0.2

ALSG3J

Hydraulic motor

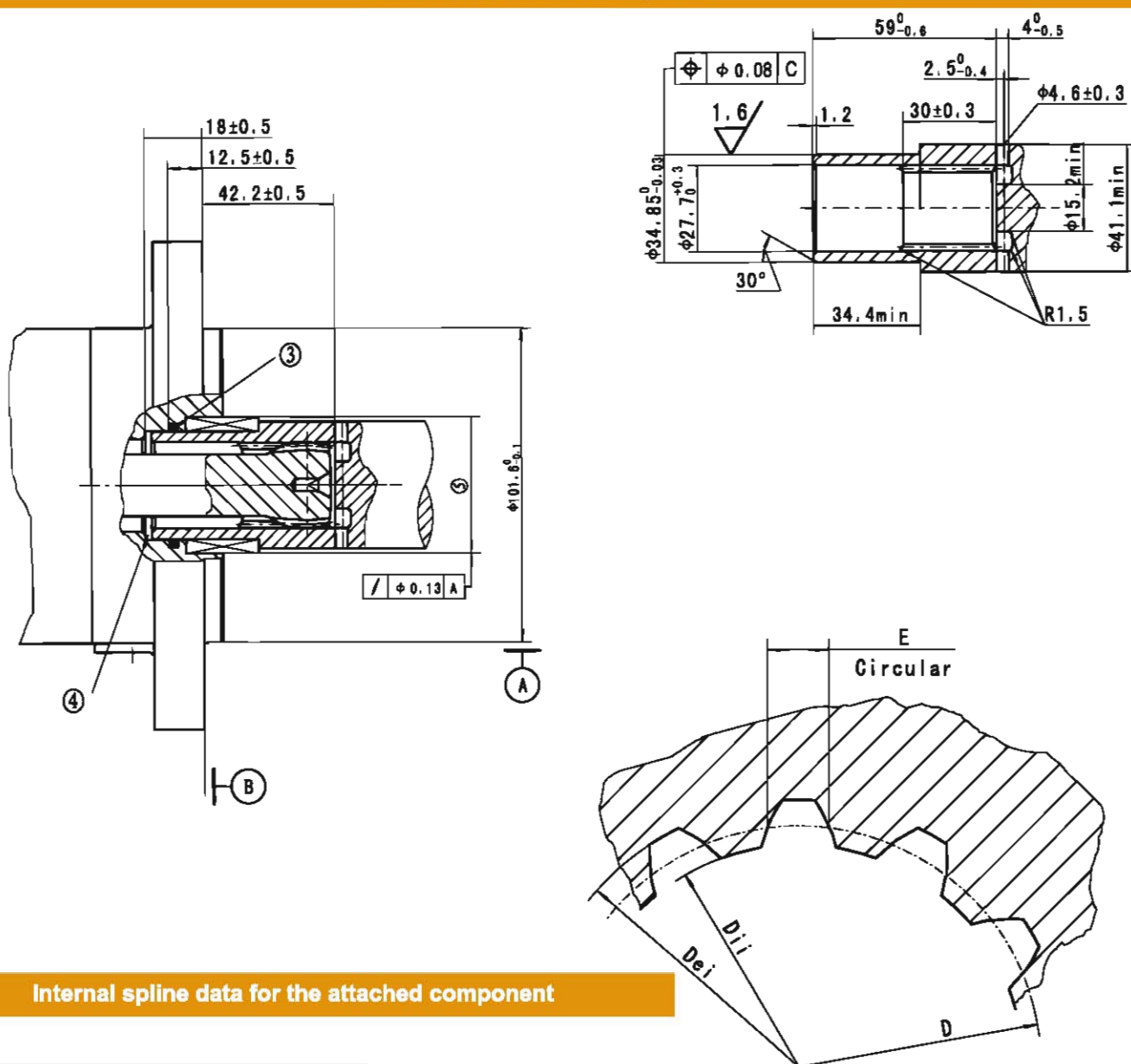
IOW AmberLine
OW Hydraulics

Dimensions and mounting data



Code	DB (depth)	DU (depth)	SU (depth)	SB (1depth)	M4 (depth)	MU	MM	ED (depth)
Mounting								
P(A,B)	G1/2 (18)	G1/2 (18)	7/8-14 O-ring (18)	7/8-14 O-ring (18)	M22 x 1.5 (18)	φ12.7 φ15.8	φ12.7 φ15.8	1-1/16-12UN (18)
T	G1/4 (12)	7/16-20UNF(12)	7/16-20UNF(12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF(12)	G1/4 (12)	7/16-20UNF(12)
C			--			3 x 3/8-16UNC	3 x M10	-

Dimensions and mounting data



Internal spline data for the attached component

Fillet Root Side Fit		mm
Number of Teeth	Z	12
Diametral Pitch	DP	12/24
Pressure Angle	α_d	30°
Pitch Dia.	D	$\phi 25.4_{-0.1}^{+0.14}$
Major Dia.	D_{e1}	$\phi 27.6_{-0.1}^{+0.14}$
Minor Dia.	D_{i1}	$\phi 23.1_{-0.1}^{+0.12}$
Space Width [Circular]	E	4.282±0.036
Dimension between two pins(ø3.38)	M_s	19.02-19.19

① Internal spline in mating part to be per data. Specification material to be ASTM A304, 8620H. Vacuum degassed alloy steel carburize to a hardness of 58-62HRC with case depth (to 50HRC) of 0.75-1 [.030-.040] (dimensions apply after heat treat).

② Mating part to have critical dimensions as shown, Oil holes must be provided and open for proper oil circulation.

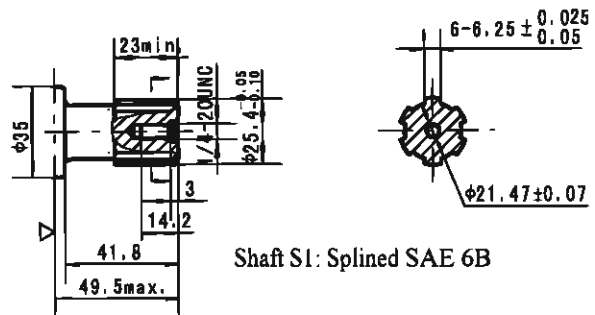
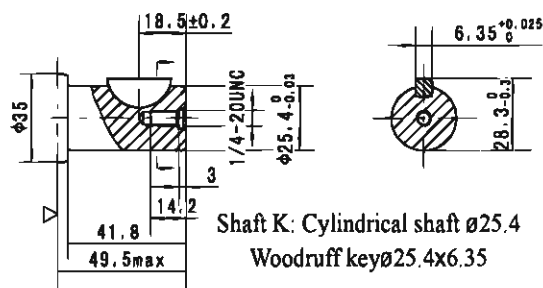
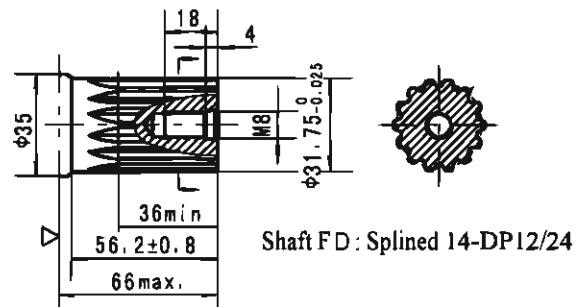
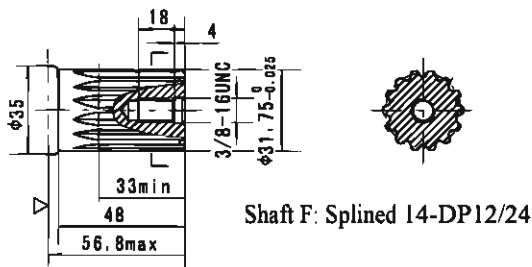
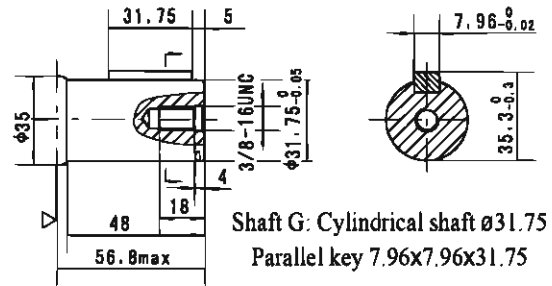
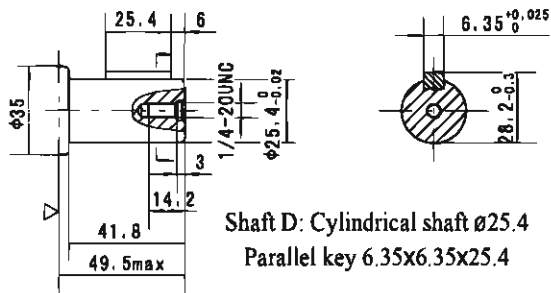
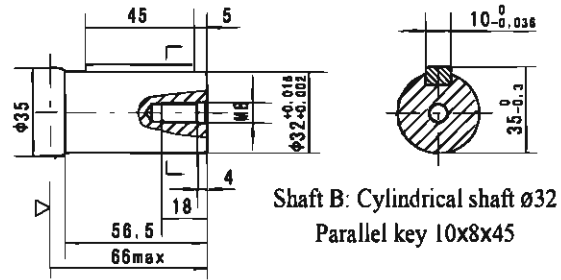
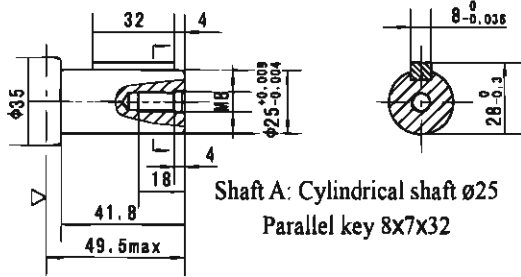
③ Some means of maintaining clearance between shaft and mounting flange must be provided.

④ Seal to be furnished with motor for proper oil circulation thru splines.

⑤ Counterbore designed to adapt to a standard sleeve bearing 35.010-35.040 [1.3784-1.3795] ID by 44.040-44.070 [1.7339-1.7350] O.D.(Oilite Bronze Sleeve Bearing AAM3544-22).

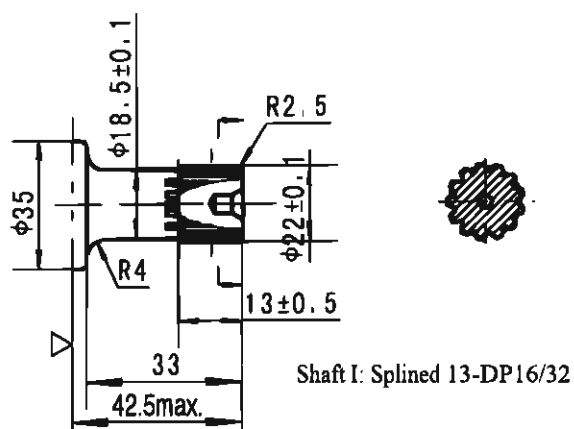
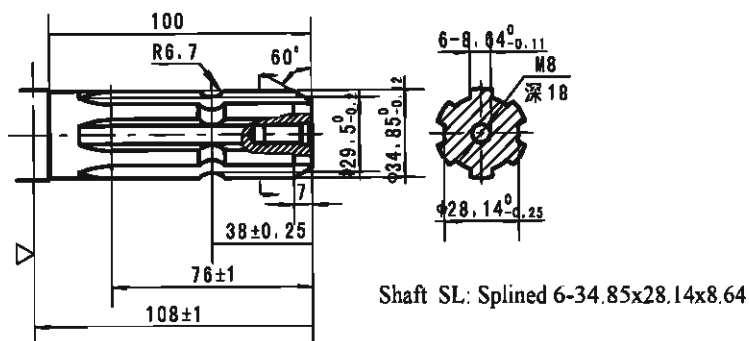
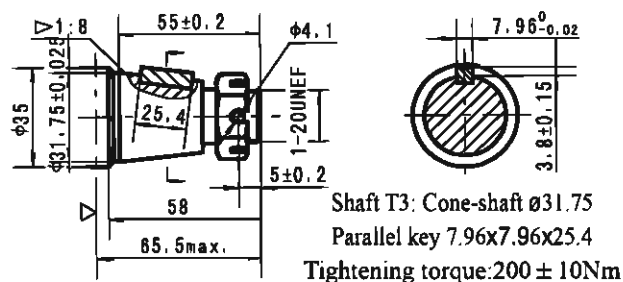
C This surface to be diameter of output shaft.

Shaft extensions for ALSG3(E) motors



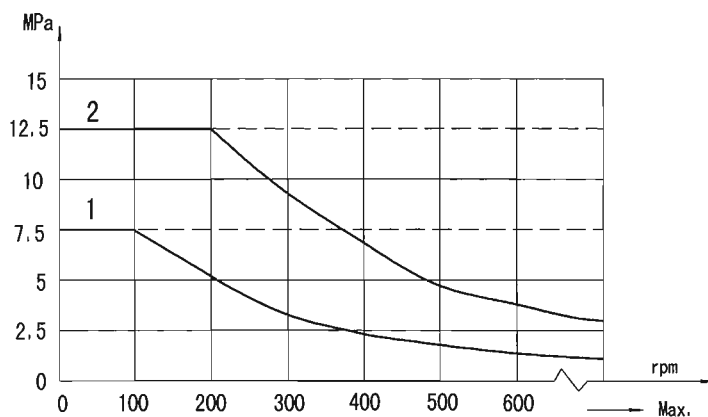
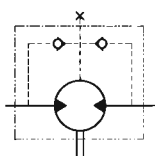
▷ Motor Mounting Surface(Dimension corresponding mounting E2, by analogy with others)

Shaft extensions for ALSG3(E) motors



- ▷ Motor Mounting Surface(Dimension corresponding mounting E2, by analogy with others)
Note:Mounting SP is the same with shaft modle T1、D、B、F and G.

Permissible shaft seal pressure

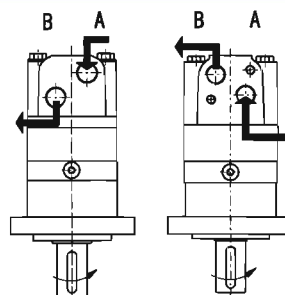


Note: 1. Chart for standard shaft seal;
2. Chart for high pressure shaft seal.

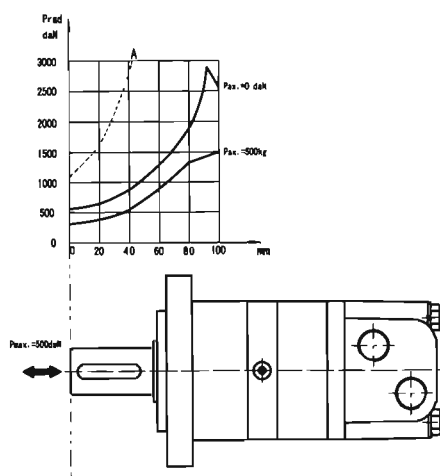
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Direction of shaft: Standard

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



Status of the shaft's radial force



The output shaft runs in tapered bearings that permit high axial and radial forces, Curve "A" shows max radial shaft load, Any shaft loads exceeding the values quoted in the curve will involve a risk of breakage, The two other curves apply to a B10 bearing life of 3000 hours at 200 RPM.

Ordering information

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ALSG3

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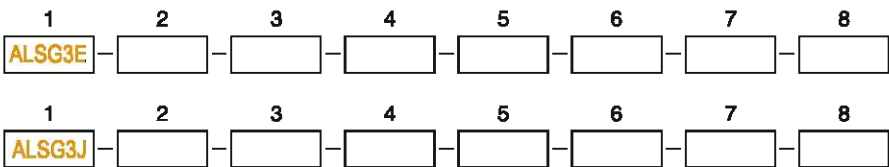
8

ALSG3S

Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange	Output Shaft	Port and Drain Port	Rotation Direction	Paint	Unusually Function
ALSG3	80	E2 2-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5 × 6.3	A Shaft Ø25 , parallel key 8 × 7 × 32	D G1/2 Manifold Mount 2-M10 , G1/4 M22 × 1.5 Manifold Mount 2-M10 , M14 × 1.5 7/8-14UNF O-ring manifold 2-3/8-16 , 7/16-20UNF 1/2-14NPTF manifold 2-3/8-16UNC , 7/16-20UNF	Omit Standard R Opposite	00 No paint B Blue S Black S Silver grey	Omit LL Low Leakage F Free Running LS Low Speed
	100	E4 4-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5 × 6.3	B Shaft Ø32 , parallel key 10 × 8 × 45				
	125	F6 6-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5 × 2.6	D Shaft Ø25.4 , parallel key 6.35 × 6.35 × 25.4				
	160	W 4-Ø13.5 Wheel-flange Ø160 , pilot Ø125 × 8	G Shaft Ø31.75 , parallel key 7.96 × 7.96 × 31.75				
	200	E2E 2-Ø14.3 Rhomb-flange Ø146.05, pilot Ø101.6 × 9.4	F Shaft Ø31.75 , splined tooth 14-DP12/24				
	250	SP 4-Ø11.5 Square-flange Ø106.4, pilot Ø82.5 × 6.3	FD Long Shaft Ø31.75 , splined tooth 14-DP12/24				
	315		SL shaft Ø34.85, Splined key 6-34.85 × 28.14 × 8.64				
			T1 Cone-shaft Ø35 , parallel key B6 × 6 × 20				
			T3 Cone-shaft Ø31.75 , parallel key 7.96 × 7.96 × 31.75				
			S1 Shaft Ø25.4 , splined tooth SAE 6B				
ALSG3S	375	D 4-Ø11 Circle-flange Ø125 , pilot Ø100 × 6	I Sub-shaft Ø22, splined tooth 13-DP16/32				
		E 4-Ø13.5 Square-flange Ø127 , pilot Ø101.6 × 6.3	Omit Short shaft 12-DP12/24				

Note:When the table is used, please fill the code of left rows in the table and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports . If the specification is not in the table or you have specific requirements, please contact us . SP for T1、D、B、F、G .

Ordering information



Pos.1	2	3		4		5		6		7		8									
Code	Disp.	Flange		Output Shaft		Port and Drain Port		Rotation Direction		Paint		Unusually Function									
ALSG3E	80	E2	2-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5 × 6.3	A	Shaft Ø25 , parallel key 8 × 7 × 32	MU	1/2" ,5/8" Crosshole Manifold 3 × 3/8-16UNC,7/16-20UNF	Omit	Standard	OO	No paint	Omit	Standard								
	100	E4	4-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5 × 6.3	B	Shaft Ø32 , parallel key 10 × 8 × 45									K	Shaft Ø25.4 , Woodruff key Ø25.4 × 6.35	LL	Low Leakage				
	125	E2B	2-Ø14.3 Rhomb-flange Ø146.05, pilot Ø101.6 × 9.4	G	Shaft Ø31.75 , parallel key 7.96 × 7.96 × 31.75									F	Shaft Ø31.75 , splined tooth 14-DP12/24	MM	1/2" ,5/8" Crosshole Manifold 3 × M10,G1/4 G1/2,G1/4	B	Black	F	Free Running
	160	E6	4-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5 × 6.3	T4	Cone-shaft Ø31.75 , parallel key 7.96 × 7.96 × 25.4									EE-D	M22 × 1.5,M14 × 1.5	S	Silver grey	LS	Low Speed		
	200	WE	4-Ø13.6 Wheel-flange Ø147.6, pilot Ø107.95 × 6.4	S1	Shaft Ø25.4 ,splined tooth SAE 6B									EE-M2	7/8-14UNF O-ring,7/16-20 UNF						
	250			I	Sub-shaft Ø22 , splined tooth 13-DP16/32									EE-S2	1-1/16-12UN O-ring,7/16-20 UNF						
	315													ED	G1/2,G1/4						
ALSG3J	375	J	4-Ø13.5 Square-flange Ø127, pilot Ø101.6 × 6.3	Omit	Short shaft12- DP12/24	DB	G1/2,7/16-20 UNF														
						DU	7/8-14UNF O-ring,G1/4														
						SB	7/8-14UNF O-ring,7/16-20 UNF														
						SU	M22 × 1.5,M14 × 1.5														
						M4															

ALSG3Y Series hydraulic motor

ALSG3Y new series motor adapt the advanced Geroler gear set designed with disc distribution flow and high pressure. The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.

Characteristic features:

- * The motor has the same dimensions and mounting data as the hydraulic motors type ALSG3.
- * The motor is described with 15-20% higher technical data (Max. torque and Max. pressure drop), thereby higher power. The new motor is suitable for vehicles with greater loads and pressure drop.

Main specification

Type		ALSG3Y 80	ALSG3Y 100	ALSG3Y 125	ALSG3Y 160	ALSG3Y 200	ALSG3Y 250	ALSG3Y 315	ALSG3Y 400	ALSG3Y 475
Geometric displacement (cm³/rev.)		80.6	100.8	125	154	194	243	311	394	475
Max. speed (rpm)	cont.	800	748	600	470	375	300	240	185	155
	int.	988	900	720	560	450	360	280	225	185
Max. torque (N•m)	cont.	225	290	365	485	586	708	880	880	910
	int.	250	320	400	540	645	806	960	960	960
Max. output (kW)	cont.	16	18	18	18.1	18.1	18	17	11	9
	int.	20	22	23	25	24	23.8	20.2	12	11
Max. pressure drop (MPa)	cont.	20.5	20.5	20.5	21	21	20	20	16	14
	int.	22.5	22.5	22.5	22.5	22.5	22.5	22.5	17.5	15
	peak	29.5	29.5	29.5	28	27	27	26	21	17.5
Max. flow (L/min)	cont.	65	75	75	75	75	75	75	75	75
	int.	80	90	90	90	90	90	90	90	90
Max. inlet pressure (MPa)	cont.	25	25	25	25	25	25	25	25	25
	int.	30	30	30	30	30	30	30	30	30
Weight (kg)		9.8	10	10.3	10.7	11.1	11.6	12.3	13.2	14.3

- * Continuous pressure: Max. value of operating motor continuously.
- * Intermittent pressure: Max. value of operating motor in 6 seconds per minute.
- * Peak pressure: Max. value of operating motor in 0.6 second per minute.

Performance data

ALSG3Y 80 [80.6cm³/rev.]

		Pressure (MPa)						Max.cont.	Max.int.
		3.5	7	10.5	14	17.5	20.5		
Flow (L/min)	15	35	80	120	158	195	228	249	
		180	174	168	164	158	151	143	
	30	35	80	120	158	195	232	260	
		362	352	346	338	330	322	310	
	40	35	79	119	155	193	227	250	
		487	480	468	457	446	438	425	
Max.cont.	50	30	77	117	153	192	224	248	
		612	603	592	581	572	558	542	
	60	28	77	117	153	192	224	243	
		735	726	718	703	687	673	646	
	65	26	75	116	151	188	217	236	
		794	786	773	760	744	722	706	
Max.int.	80	24	72	109	142	176	206	227	
		981	968	955	925	893	870	832	

ALSG3Y 100 [100.8cm³/rev.]

		Pressure (MPa)						Max.cont.	Max.int.
		3.5	7	10.5	14	17.5	20.5		
Flow (L/min)	15	48	95	150	200	250	282	310	
		146	144	139	135	130	120	105	
	30	45	94	146	198	250	290	317	
		291	289	278	274	269	258	242	
	40	43	89	142	196	248	288	316	
		387	384	374	359	350	335	320	
Max.cont.	50	40	88	135	194	247	286	315	
		486	483	473	462	450	430	420	
	60	37	88	132	185	244	283	312	
		588	584	574	562	550	538	520	
	75	35	80	130	180	240	279	310	
		740	735	720	705	696	676	653	
Max.int.	90	30	75	124	170	236	271	303	
		850	840	810	787	770	750	747	

ALSG3Y 125 [125cm³/rev.]

		Pressure (MPa)						Max.cont.	Max.int.
		3.5	7	10.5	14	17.5	20.5		
Flow (L/min)	15	55	120	176	245	309	345	375	
		115	113	110	104	98	90	84	
	30	55	120	175	250	315	364	404	
		231	228	223	214	202	188	172	
	40	53	118	178	250	315	364	403	
		312	309	290	289	278	262	235	
Max.cont.	50	50	115	176	248	315	362	397	
		391	386	378	365	352	339	308	
	60	45	113	171	241	308	358	397	
		469	461	450	437	425	400	372	
	75	45	110	167	240	306	352	389	
		588	574	560	544	526	505	481	
Max.int.	90	40	105	162	237	301	343	378	
		710	696	680	661	646	628	610	

ALSG3Y 160 [154cm³/rev.]

		Pressure (MPa)						Max.cont.	Max.int.
		3.5	7	10.5	14	17.5	21		
Flow (L/min)	15	70	142	215	298	372	435	476	
		93	91	89	85	80	76	58	
	30	73	151	225	312	382	456	492	
		189	187	181	176	170	162	153	
	40	75	152	228	314	383	454	488	
		252	250	246	239	234	228	212	
Max.cont.	50	70	148	225	305	372	445	480	
		313	310	306	298	293	285	272	
	60	68	143	218	296	370	442	480	
		378	376	370	362	353	346	332	
	75	62	140	211	291	365	439	475	
		475	469	461	450	441	432	414	
Max.int.	90	59	131	202	286	357	425	460	
		567	561	554	543	532	520	509	

TORQUE(N·m) 301
SPEED (r/min) 646

cont.
int.

Performance data

ALSG3Y 200 [194cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	3.5	7	10.5	14	17.5	21	22.5
15	87	179	273	371	471	562	610
	74	73	71	68	64	60	48
30	91	190	288	386	489	572	618
	150	148	143	140	134	128	119
40	94	193	296	394	498	584	645
	198	195	192	188	183	178	167
50	90	191	292	389	493	580	634
	248	246	241	236	230	223	212
60	85	185	279	382	483	575	622
	300	295	288	281	273	263	251
Max.cont.	78	176	271	370	472	561	610
	374	370	364	360	352	340	331
Max.int.	68	163	265	361	456	545	599
	443	440	435	428	424	413	400

Flow (L/min)

Max.cont.

Max.int.

ALSG3Y 250 [243cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	3.5	7	10.5	14	17.5	20	22.5
15	110	231	351	462	585	681	778
	59	58	56	53	50	46	35
30	116	236	359	475	597	700	790
	119	117	114	108	102	92	80
40	118	241	363	480	599	706	796
	162	159	156	150	143	134	121
50	111	234	352	472	591	693	788
	203	201	197	191	182	173	158
60	106	224	345	462	582	685	772
	244	242	237	230	220	208	194
Max.cont.	101	214	340	454	570	670	760
	303	299	294	285	272	260	244
Max.int.	93	209	335	447	559	657	749
	363	359	354	348	340	328	303

Flow (L/min)

Max.cont.

Max.int.

ALSG3Y 315 [311cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	3.5	7	10.5	14	17.5	20	22.5
15	148	304	456	613	762	879	978
	48	47	45	43	41	39	27
30	155	314	465	635	778	884	988
	95	93	91	89	86	82	67
40	160	321	479	650	796	906	997
	127	125	121	117	115	109	91
50	155	314	465	638	780	886	988
	159	157	153	149	145	142	128
60	151	306	453	620	765	886	976
	187	185	181	176	169	157	143
Max.cont.	146	300	445	613	755	875	966
	238	236	232	227	224	220	196
Max.int.	135	284	436	601	740	863	952
	286	283	278	272	265	257	232

Flow (L/min)

Max.cont.

Max.int.

ALSG3Y 400 [394cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	3.5	7	10.5	14	16	17.5
15	186	379	578	779	896	986
	37	36	35	33	31	29
30	190	388	590	791	905	991
	75	73	71	68	65	61
40	195	394	596	797	912	998
	99	97	95	93	90	85
50	191	388	587	785	904	983
	125	123	118	114	109	102
60	186	388	587	785	904	983
	149	146	142	137	131	122
Max.cont.	181	372	576	770	891	973
	187	183	177	171	164	153
Max.int.	176	367	571	766	883	965
	226	221	214	208	199	183

Flow (L/min)

Max.cont.

Max.int.

ALSG3Y 475 [475cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	3.5	7	10.5	14	15
15	218	439	661	892	995
	30	29	28	27	25
30	223	450	676	910	1002
	61	60	58	56	53
40	228	461	689	927	1017
	82	80	77	74	68
50	224	456	682	920	1008
	103	101	97	92	86
60	220	451	677	913	998
	123	121	118	112	105
Max.cont.	212	443	664	901	980
	155	153	147	140	132
Max.int.	196	421	643	877	959
	186	184	178	170	157

Flow (L/min)

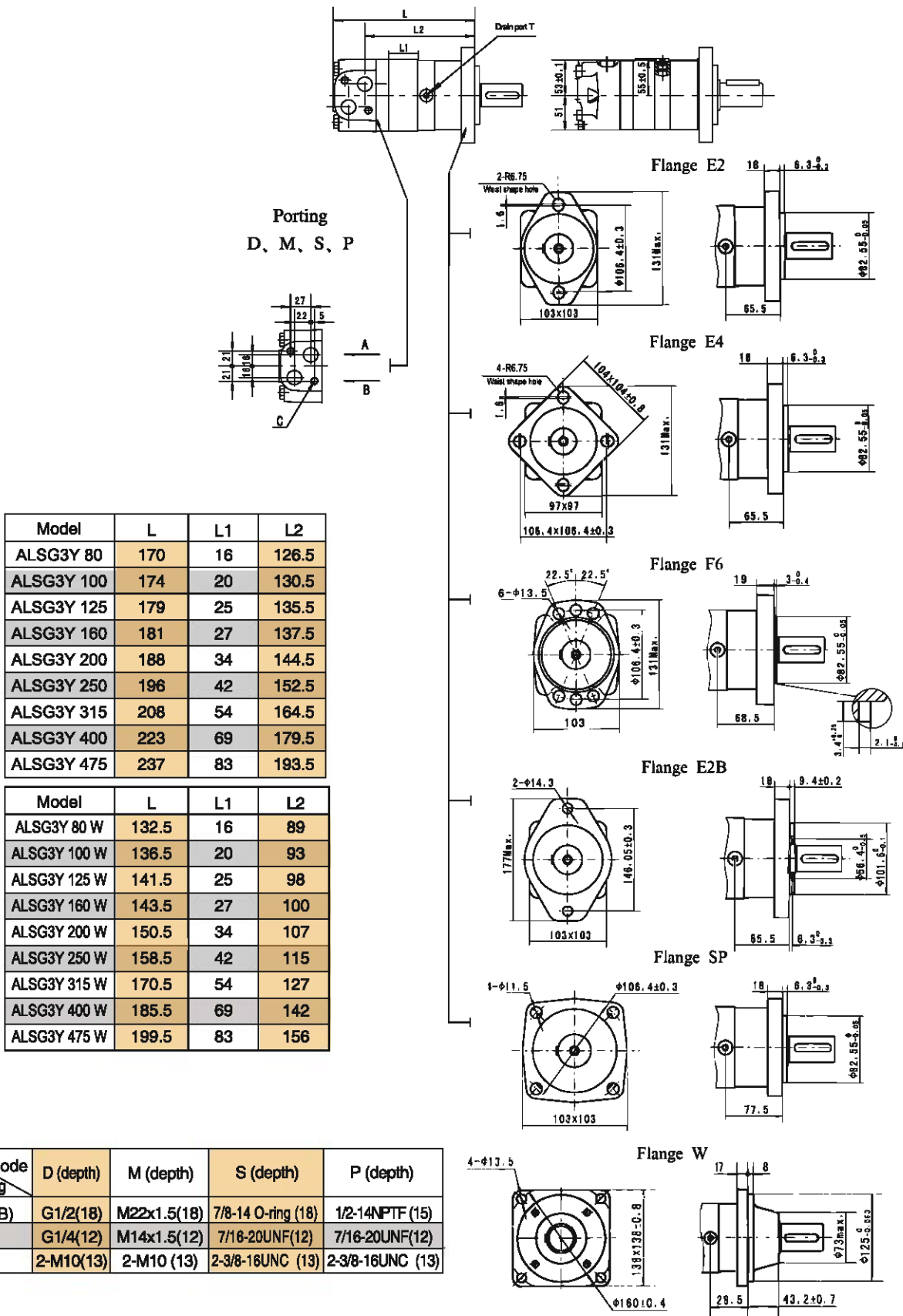
Max.cont.

Max.int.

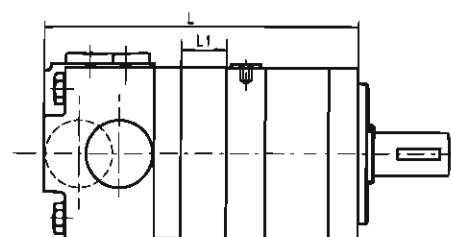
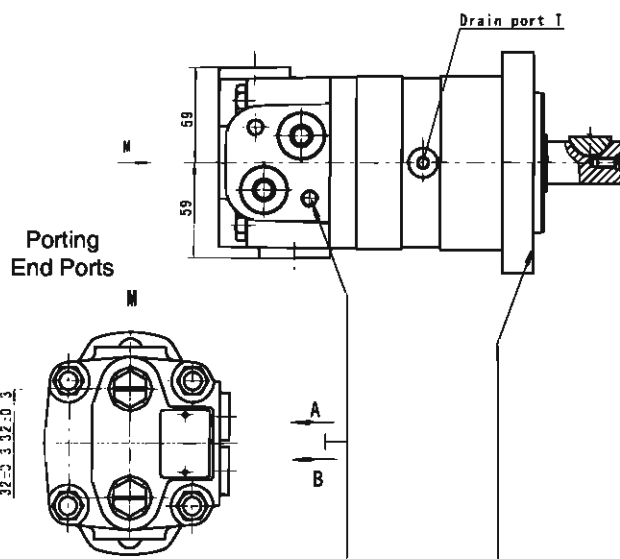
cont.
int.

TORQUE (N·m) 766
SPEED (rpm) 208

Dimensions and mounting data



Dimensions and mounting data



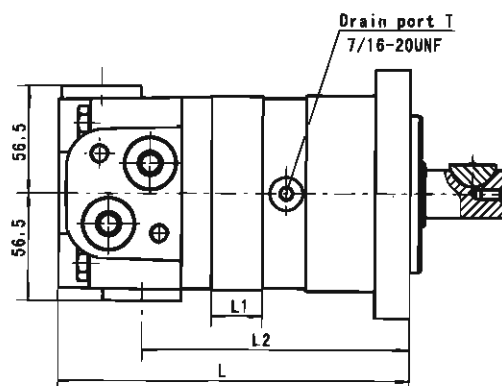
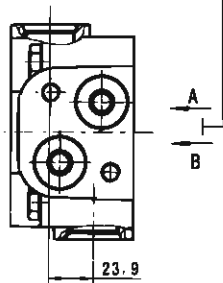
End Ports P(A\B)

Model	L	L1
ALSG3Y 80	176	16
ALSG3Y 100	180	20
ALSG3Y 125	185	25
ALSG3Y 160	187	27
ALSG3Y 200	194	34
ALSG3Y 250	202	42
ALSG3Y 315	214	54
ALSG3Y 400	229	69
ALSG3Y 475	243	83

Model	L	L1
ALSG3Y 80 WE	148	16
ALSG3Y 100 WE	152	20
ALSG3Y 125 WE	157	25
ALSG3Y 160 WE	159	27
ALSG3Y 200 WE	166	34
ALSG3Y 250 WE	174	42
ALSG3Y 315 WE	186	54
ALSG3Y 400 WE	201	69
ALSG3Y 475 WE	215	83

Code	EE-D (depth)	EE-M2 (depth)	EE-S2 (depth)
P(A,B)	G1/2 (18)	M22 x 1.5 (18)	7/8-14 O-ring (18)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF(12)

Porting
ED 1-1/16-12UN O-ring
180° Apart ports

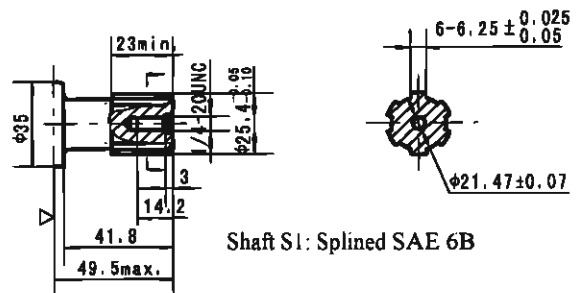
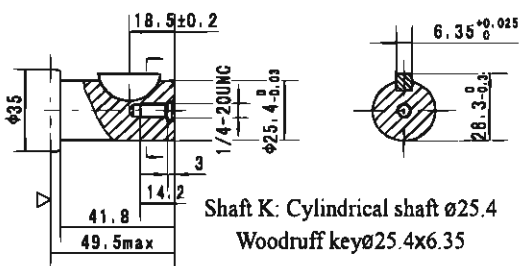
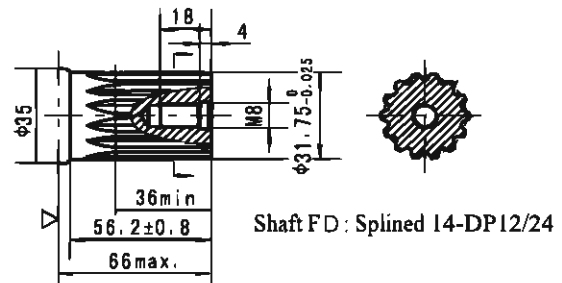
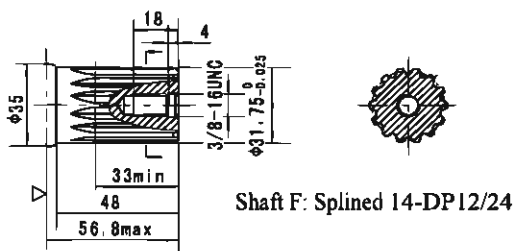
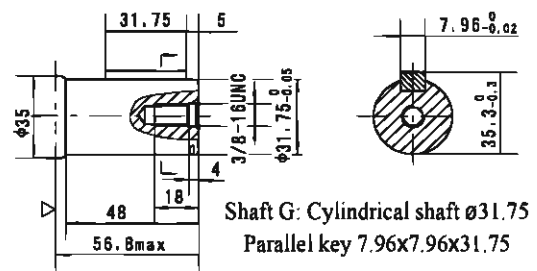
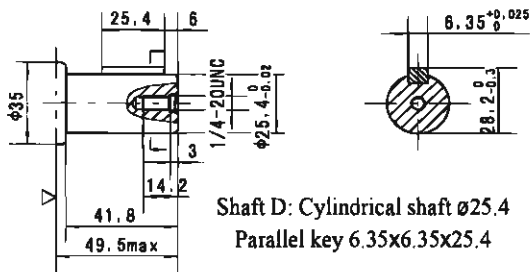
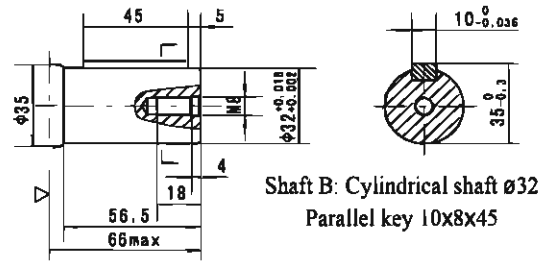
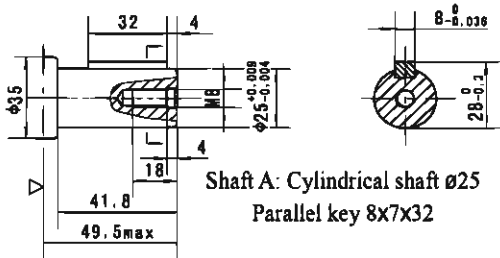


Code	ED (depth)
P(A,B)	1-1/16-12UN (18)
T	7/16-20UNF (12)

Model	L	L1	L2
BMSY-80	176	16	130
BMSY-100	180	20	134
BMSY-125	185	25	139
BMSY-160	187	27	141
BMSY-200	194	34	148
BMSY-250	202	42	156
BMSY-315	214	54	168
BMSY-400	229	69	183
BMSY-475	243	83	197

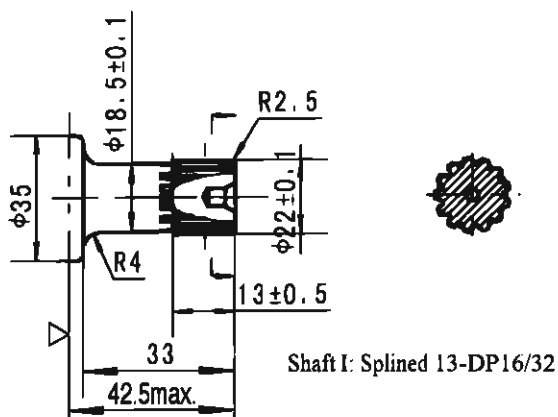
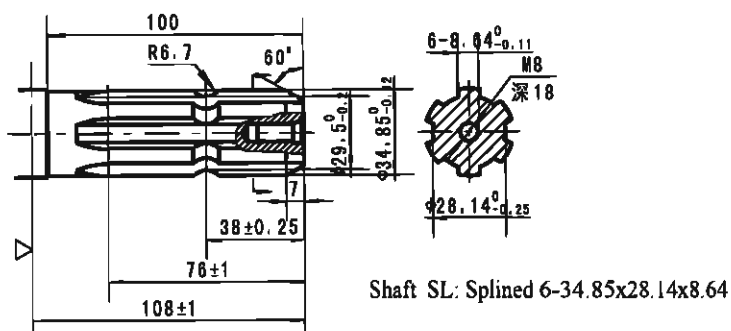
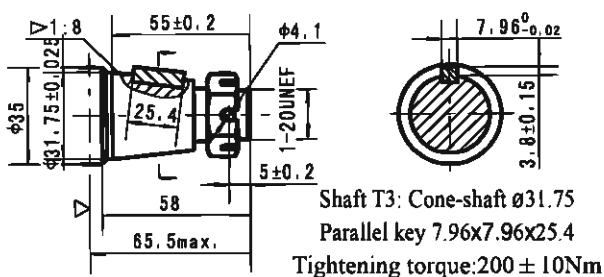
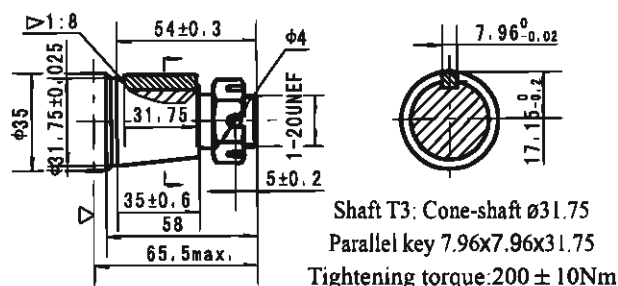
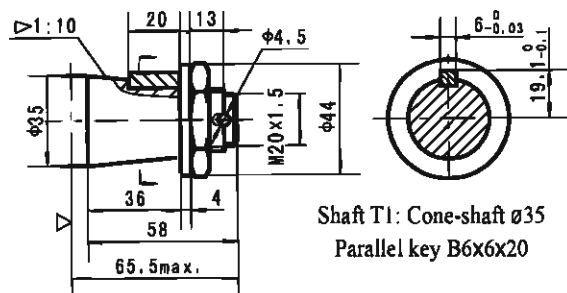
Model	L	L1	L2
BMSY-80-WE	148	16	102
BMSY-100-WE	152	20	106
BMSY-125-WE	157	25	111
BMSY-160-WE	159	27	113
BMSY-200-WE	166	34	119
BMSY-250-WE	178	42	127
BMSY-315-WE	190	54	139
BMSY-400-WE	205	69	154
BMSY-475-WE	219	83	168

Shaft extensions for ALSG3Y motors



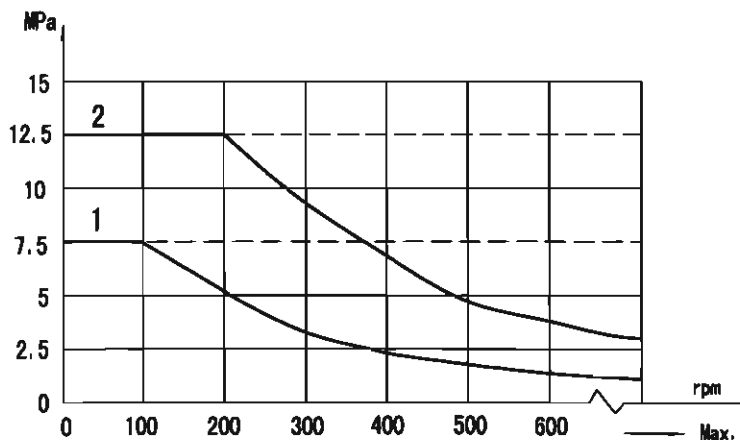
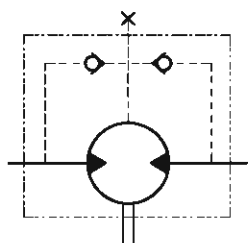
▷ Motor Mounting Surface(Dimension corresponding mounting E2, by analogy with others)

Shaft extensions for ALSG3Y motors



- ▷ Motor Mounting Surface(Dimension corresponding mounting E2, by analogy with others)
Note: Mounting SP is the same with shaft mode T1、D、B、F and G.

Permissible shaft seal pressure

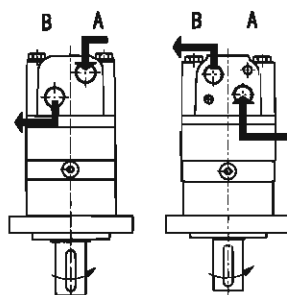


Note: 1. Chart for standard shaft seal;
2. Chart for high pressure shaft seal.

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

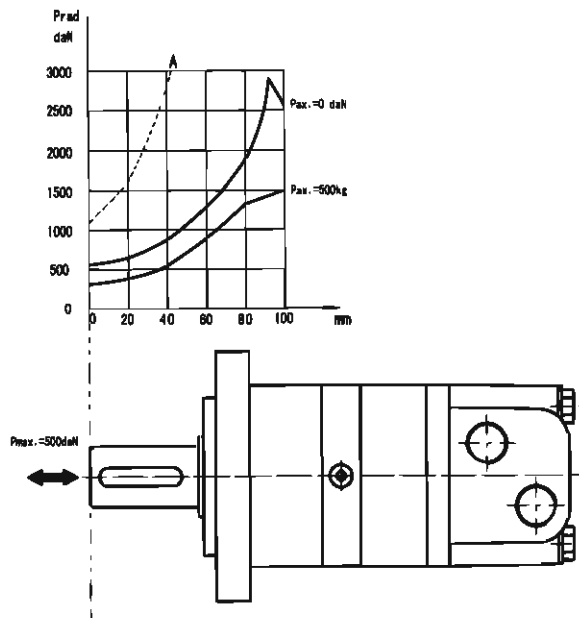
Direction of shaft: Standard

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



Axial and radial forces

The output shaft runs in tapered bearings that permit high axial and radial forces, curve "A" shows max radial shaft load. Any shaft loads exceeding the values quoted in the curve will involve a risk of breakage. Two other curves apply to a B10 bearing life of 3000 hours at 200 RPM.



Order information

1 2 3 4 5 6 7 8
ALSG3Y - - - - - - - -

Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange , Pilot , Port	Output Shaft	Port and Drain Port	Rotation direction	Paint	Unusually function
Omit	80	E2	2-Ø13.5 Rhomb-flange Ø106.4, Pilot Ø82.5 × 6.3	A Shaft Ø25, Parallel key 8 × 7 × 32	D G1/2 Manifold Mount 2-M10, G1/4	Omit	Standard
	100	E4	4-Ø13.5 Rhomb-flange Ø106.4, Pilot Ø82.5 × 6.3	B Shaft Ø32, Parallel key 10 × 8 × 45	M M22 × 1.5 Manifold Mount 2-M10, M14 × 1.5		
	125	F6	6-Ø13.5 Rhomb-flange Ø106.4, Pilot Ø82.5 × 6.3	D Shaft Ø25.4, Parallel key 6.35 × 6.35 × 25.4	S 7/8-14UNF O-ring manifold		
	160	F6	6-Ø13.5 Rhomb-flange Ø106.4, Pilot Ø82.5 × 6.3	G Shaft Ø31.75, Parallel key 7.96 × 7.96 × 31.75	P 2-3/8-16, 7/16-20UNF		
	200	W	4-Ø13.5 Wheel-flange Ø160, Pilot Ø125 × 8	FD Long Shaft Ø31.75, Splined key 14-DP12/24	P 1/2-14NPTF manifold		
	250	E2B	2-Ø14.3 Rhomb-flange Ø146.05, Pilot Ø101.6 × 9.4	SL Shaft Ø34.85, Splined key 6-34.85 × 28.14 × 8.64	P 2-3/8-16UNC, 7/16-20UNF		
	315	E2B	2-Ø14.3 Rhomb-flange Ø146.05, Pilot Ø101.6 × 9.4	T1 Cone-shaft Ø35, parallel key B6 × 6 × 20	EE-D G1/2, G1/4(end port)		
	400	SP	4-Ø11.5 Square-flange Ø108.4, Pilot Ø82.5 × 6.3	T3 Cone-shaft Ø31.75, Parallel key 7.96 × 7.96 × 31.75	EE-M2 M22 × 1.5, M14 × 1.5(end port)		
	475			S1 Shaft Ø25.4, Splined key SAE 6B	EE-S2 7/8-14UNF O-ring, 7/16-20 UNF(end port)		
				I Sub-shaft Ø22, Splined key 13-DP16/32	ED 1-1/16-12UN O-ring, 7/16-20 UNF(180° Apart ports)		
						00 No paint	Omit
						B Blue	LL Low Leakage
						S Black	F Free Running
						S Silver Grey	LS Low Speed

Note: When the table is used, please fill the code of left rows in the table and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports. The informations of mounting flange, output shaft and ports are the same as BMS series. The SP flange afflies to shafts of T1、D、B、F、G. If the specification is not in the table or you have specific requirements, please contact us.

ALSG6 Series hydraulic motor

ALSG6 series motor adapt the advanced Geroler 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.

Characteristic features:

- * Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.
- * The output shaft adapts in tapered roller bearings that permit high axial and radial forces. Can offer capacities of high pressure and 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.

Main specification

Type		ALSG6 160	ALSG6 200	ALSG6 230	ALSG6 250	ALSG6 315	ALSG6 400	ALSG6 500	ALSG6 630	ALSG6 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 (N·m)	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.

Performance data

ALSG6 160 [161.1cm³/rev.]

Pressure (MPa)

		Pressure (MPa)				Max.cont.		Max.Int.	
		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	
		614	611	606	598	590	582	570	
Max.Int.	125	58	148	211	261	359	448	552	
		770	764	758	750	741	731	715	

ALSG6 200 [201.4cm³/rev.]

Pressure (MPa)

		Pressure (MPa)				Max.cont.		Max.Int.
		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
Max.cont.	100	99	227	286	344	471	580	712
		493	490	486	482	475	467	460
	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

ALSG6 250 [251.8cm³/rev.]

Pressure (MPa)

		Pressure (MPa)				Max.cont.		Max.int.	
		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	
Max.cont.	100	126	282	355	427	582	716	879	
		396	394	391	387	381	373	359	
	125	116	260	340	414	568	703	864	
		495	492	488	483	476	469	454	
Max.int.	150	88	242	320	397	552	686	847	
		592	589	585	580	572	565	545	

ALSG6 315 [326.3cm³/rev.]

Pressure (MPa)

		Pressure (MPa)				Max.cont.		Max.Int.
		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
Max.cont.	100	169	357	467	562	758	942	1143
		305	304	301	298	294	289	276
	125	147	336	447	544	745	920	1127
Max.Int.		380	378	375	371	367	362	349
	150	119	318	432	528	713	894	1097
		458	456	453	449	444	431	425

Torque (N·m) 552
Speed (rpm) 572

Performance data

ALSG6 400 [410.9cm³/rev.]

Pressure (MPa)

		Max.cont.						Max.int.
		3	6	9	12	15	18	21
Flow (L/min)	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
Max.cont.	100	150	339	538	708	896	1067	1252
		242	240	238	234	228	224	218
	125	135	309	524	688	873	1045	1221
		302	300	298	294	289	285	278
Max.int.	150	126	292	508	666	852	1020	1197
		364	362	358	354	350	346	339

ALSG6 500 [523.6cm³/rev.]

Pressure (MPa)

		Max.cont.					Max.int.	
		3	6	9	12	14	16	18
Flow (L/min)	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
Max.cont.	100	194	420	680	901	1063	1224	1383
		189	188	187	185	183	181	177
	125	182	398	641	877	1024	1199	1352
		237	236	235	233	231	229	225
Max.int.	150	147	369	618	853	1004	1167	1325
		284	283	282	280	278	276	272

ALSG6 630 [629.1cm³/rev.]

Pressure (MPa)

		Max.cont.						Max.int.
		3	6	9	10.5	12	14	16
Flow (L/min)	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	1472
		196	196	194	192	191	187	183
Max.int.		174	492	785	921	1121	1277	1454
	150	233	232	231	230	227	223	217

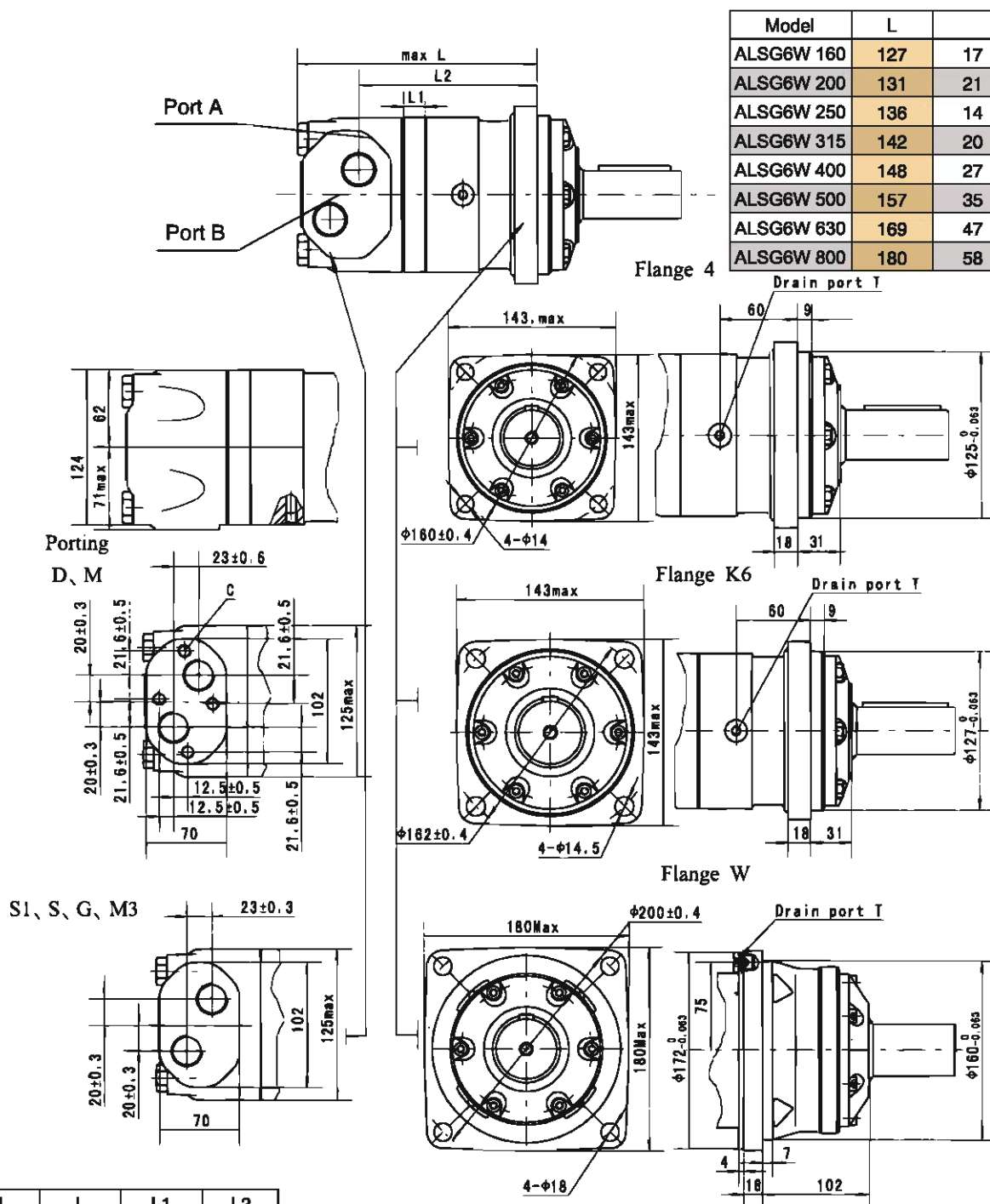
ALSG6 800 [801.8cm³/rev.]

Pressure (MPa)

		Max.cont.				Max.int.	
		3	6	9	10.5	12.5	13
Flow (L/min)	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
Max.cont.	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
Max.int.	100	305	654	1025	1207	1445	1508
		125	123	123	121	118	110
	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

Dimensions and mounting data



Model	L		
ALSG6W 160	127	17	77
ALSG6W 200	131	21	81
ALSG6W 250	136	14	86
ALSG6W 315	142	20	91
ALSG6W 400	148	27	98
ALSG6W 500	157	35	106
ALSG6W 630	169	47	118
ALSG6W 800	180	58	129

Model	L	L1	L2
ALSG6 160	193	17	142.5
ALSG6 200	197	21	146.5
ALSG6 250	204	14	152.5
ALSG6 315	210	20	158.5
ALSG6 400	217	27	165.5
ALSG6 500	225	35	173.5
ALSG6 630	237	47	185.5
ALSG6 800	248	58	196.5

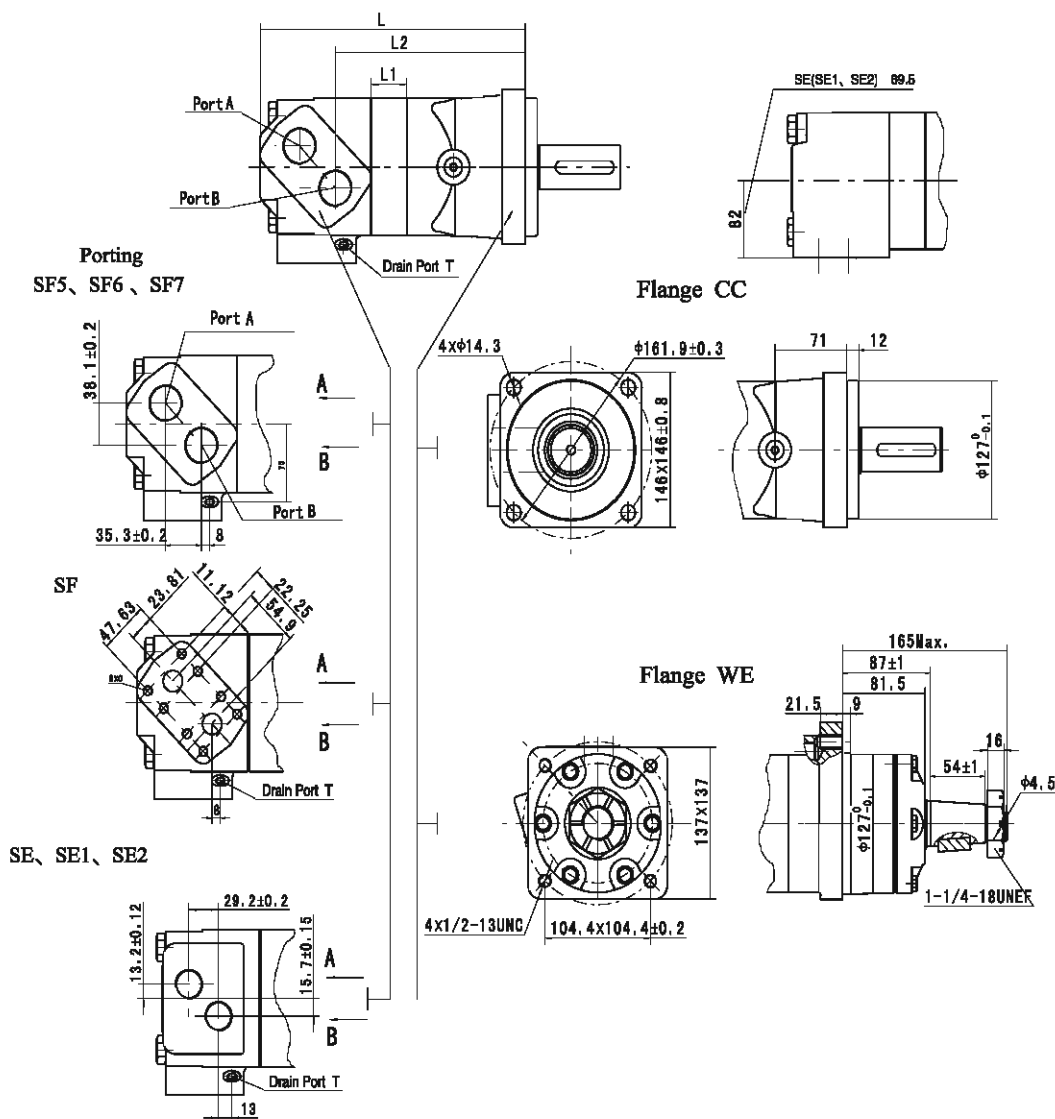
Content	Code					
Mounting	D (depth)	M (depth)	S (depth)	G (depth)	M3 (depth)	S1 (depth)
P(A,B)	G3/4 (18)	M27 x 2 (18)	1-1/16-12UN (18)	G3/4 (18)	M27 x 2 (18)	1-1/16-12UN (18)
T	G1/4 (12)	M14 x 1.5 (12)	9/16-18UNF (12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)
C	4-M10(10)	4-M10(10)	--	--	--	--

Note:1)The thickness of the stator and rotor for disp. from 160 to 200 is the dimension of L1 adding on 3mm.
2)The thickness of the stator and rotor for disp. from 250 to 800 is the dimension of L1 adding on 7mm.

ALSG6E

Hydraulic motor

Dimensions and mounting data

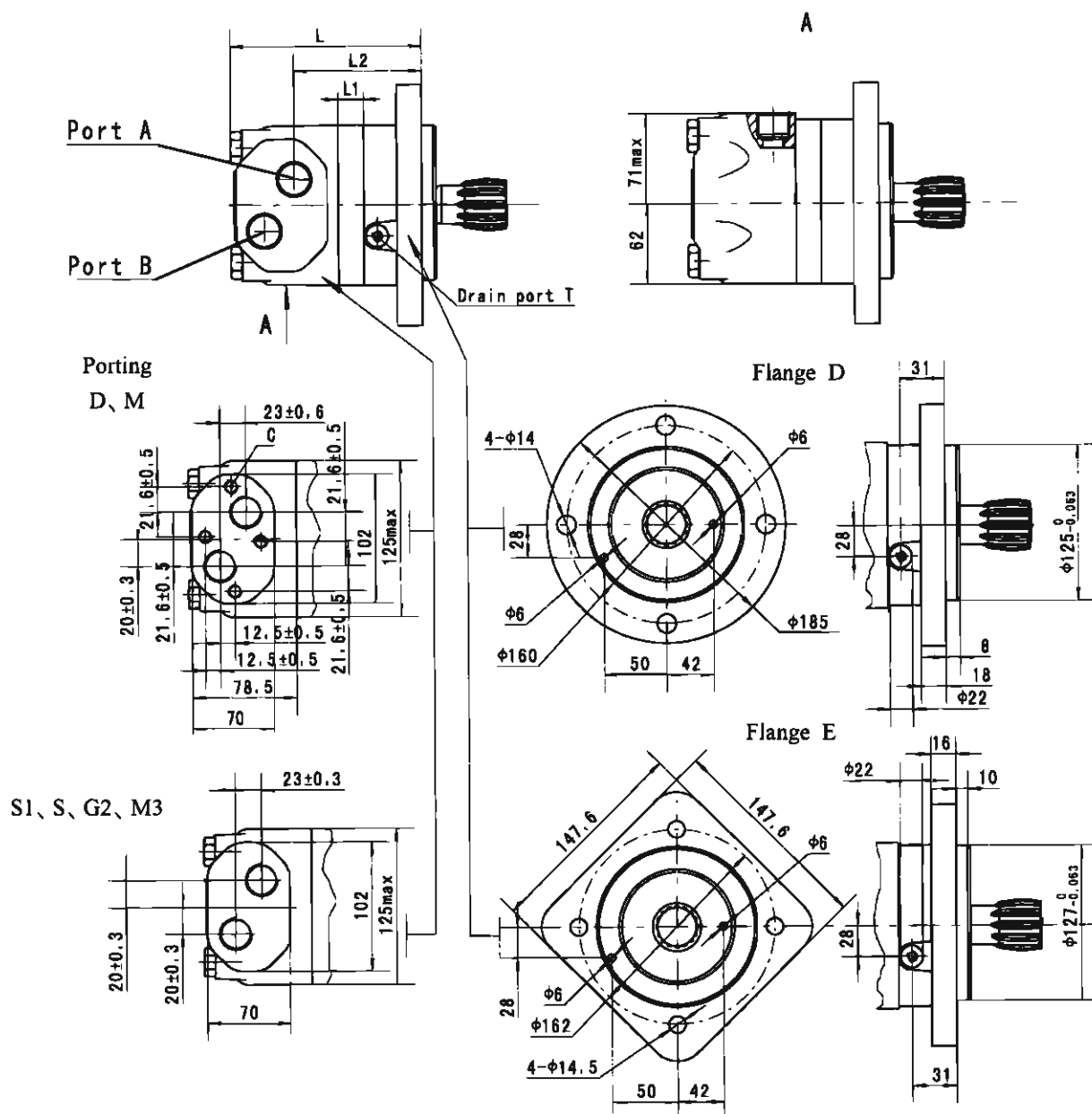


Model	L	L1	L2
ALSG6E 230	238.5	12	164.5
ALSG6E 250	240.5	14	166.5
ALSG6E 315	246.5	20	172.5
ALSG6E 400	253.5	27	179.5
ALSG6E 500	261.5	35	187.5
ALSG6E 630	273.5	47	199.5
ALSG6E 800	284.5	58	210.5

Note: 1) The data for the port of SF (SF5 and SF6 and sf7)
2) The data for the port of SE (SE1 and SE2) and flange WE: L-70 and L2-59.
3) The thickness of the stator and rotor for disp, from 315 to 800 is the dimension of L1 adding on 7mm.

Content	Code						
	SF5(depth)	SF6 (depth)	SF7 (depth)	SF (depth)	SE (depth)	SE1 (depth)	SE2(depth)
P(A,B)	1-5/16-12UN (18)	M33 x 2 (18)	G1 (18)	3/4" (18)	1-1/16-12UN (18)	1-1/16-12UN (18)	G3/4 (18)
T	7/16-20UNF (12)	M14 x 1.5 (12)	G1/4 (12)	7/16-20UNF (12)	9/16-18UNF (12)	7/16-20UNF (12)	G1/4 (12)
C	--	--	--	8x3/8-16UNC	--	--	--

Dimensions and mounting data

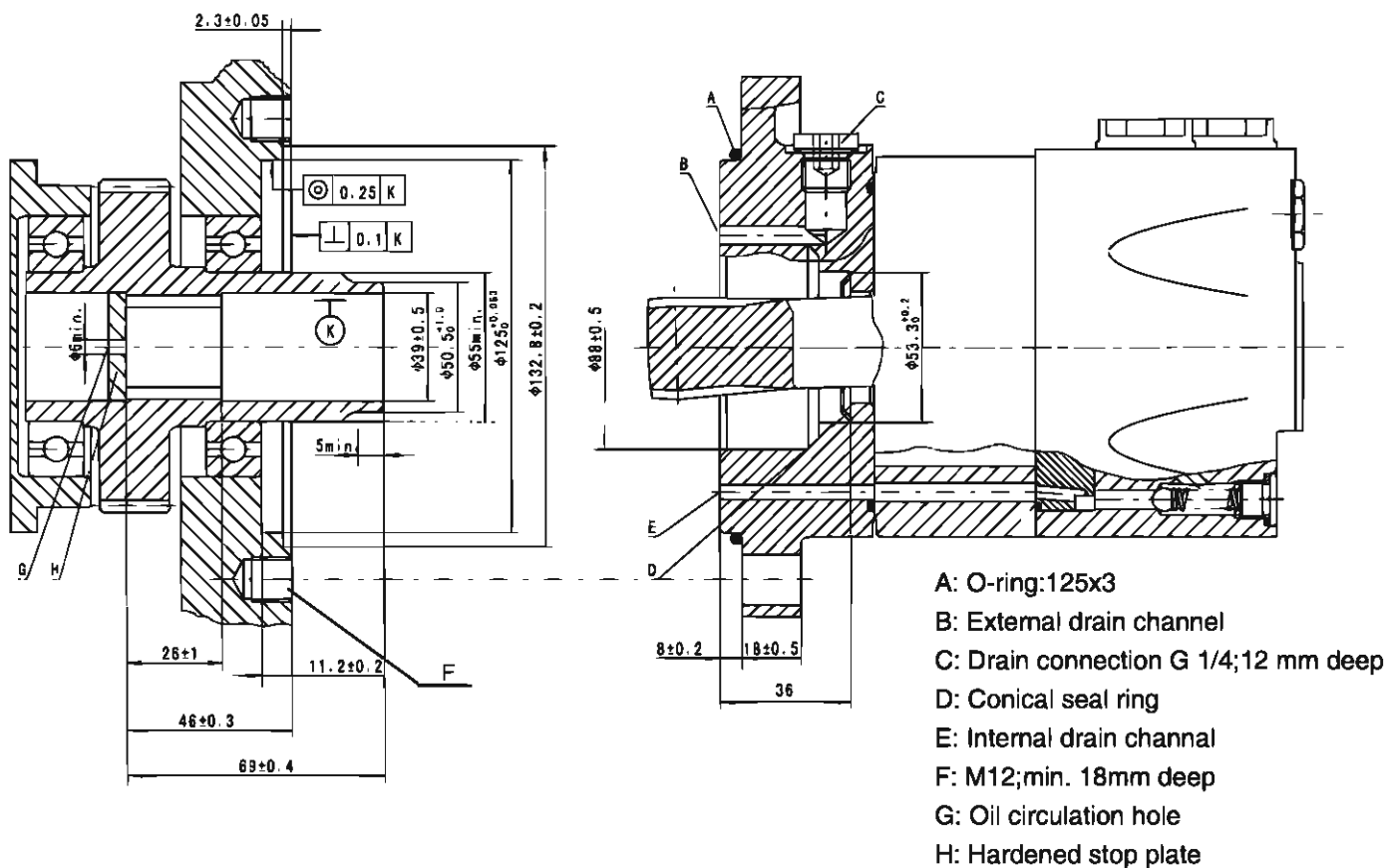


Model	L	L1	L2
ALSG6S 160	148	17	96.5
ALSG6S 200	152	21	100.5
ALSG6S 250	157	14	109
ALSG6S 315	163	20	115
ALSG6S 400	170	27	122
ALSG6S 500	178	35	130
ALSG6S 630	190	47	142
ALSG6S 800	201	58	153

Content	Code					
	D (depth)	M (depth)	S (depth)	G (depth)	M3 (depth)	S1 (depth)
P(A,B)	G3/4 (18)	M27 x 2 (18)	1-1/16-12UN (18)	G3/4 (18)	M27 x 2 (18)	1-1/16-12UN (18)
T	G1/4 (12)	M14 x 1.5 (12)	9/16-18UNF (12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)
C	4-M10(10)	4-M10(10)	--	--	--	--

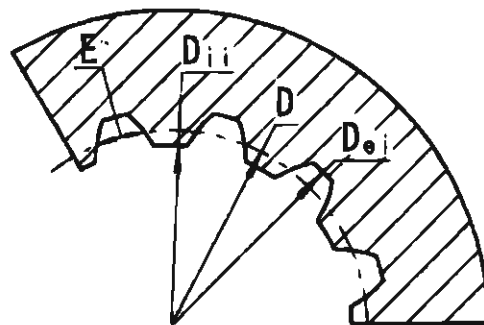
Note:1)The thickness of the stator and rotor for disp.from 160 to 200 is the dimension of L1 adding on 3mm.
2)The thickness of the stator and rotor for disp.from 250 to 800 is the dimension of L1 adding on 7mm.

Mounting data



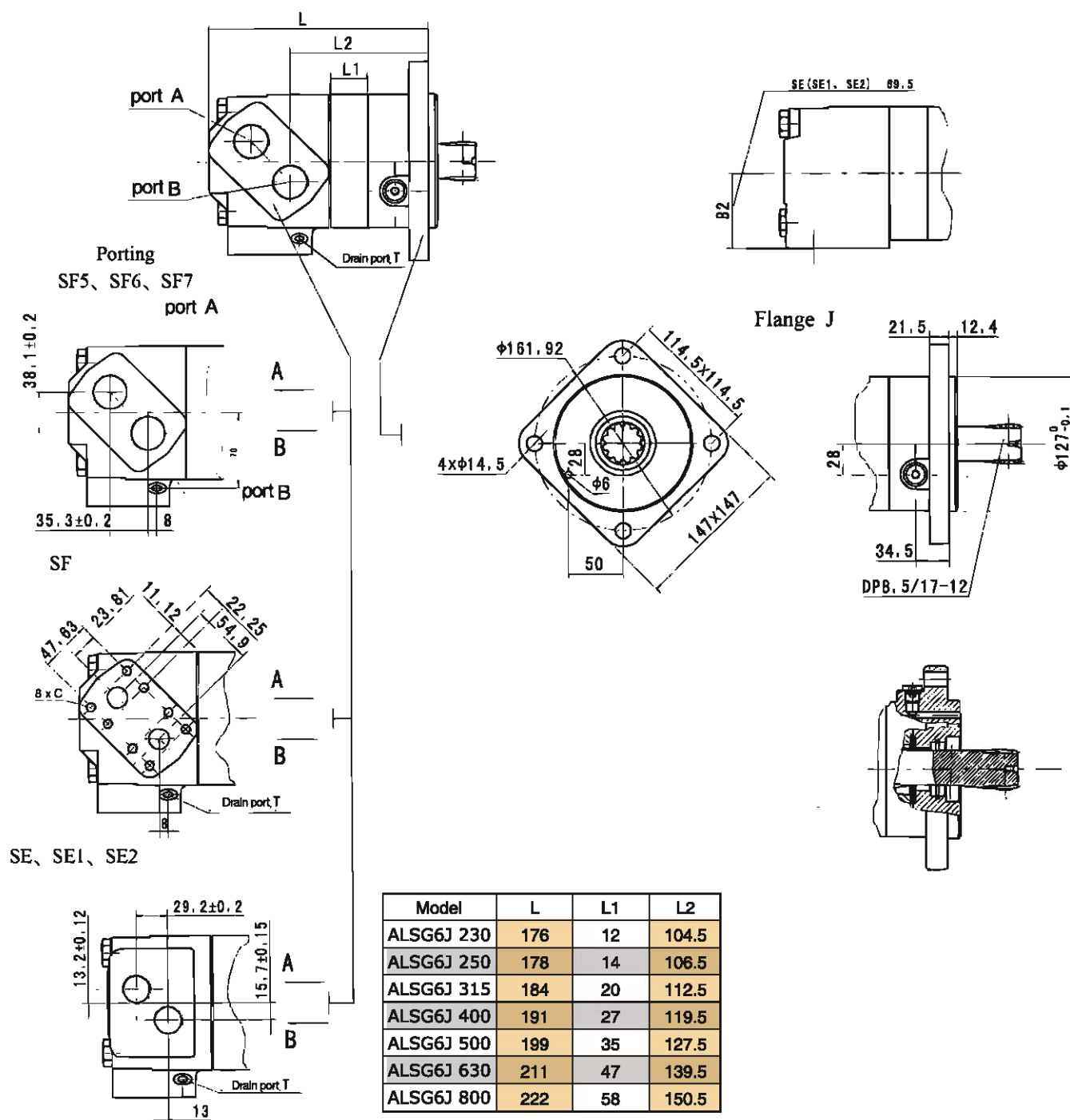
Internal spline data for the attached component

Fillet Root Side Fit		mm
Number of Teeth	Z	16
Diametral Pitch	DP	12/24
Pressure Angle	α_D	30°
Pitch Dia.	D	ø33.8656
Major Dia.	D_{a}	ø38.4 ^{+0.25} ₀
Minor Dia.	D_{i}	ø32.15 ^{+0.04} ₀
Space Width [Circular]	E	4.516±0.037



Hardening Specification: HRC 62 ± 2
Effective case depth 0.7 ± 0.2

Dimensions and mounting data



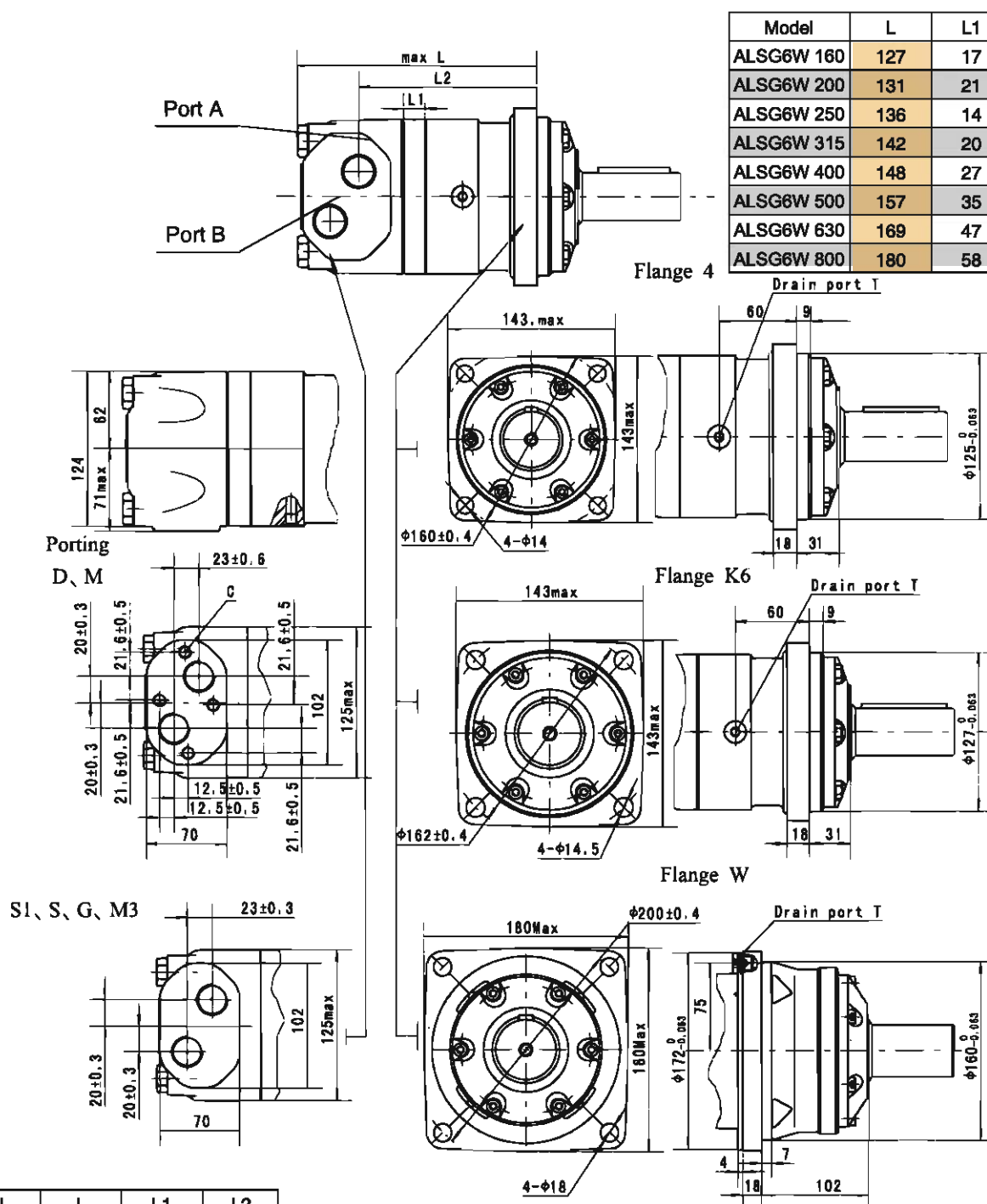
Note: 1) The data for the port of SF (SF5 and SF6 and SF7).

2) The data for the port of SE (SE1 and SE2) and flange WE: L-70 and L2-59.

3) The thickness of the stator and rotor is the dimension of L1 adding on 7mm.

Content	Code						
	SF5 (depth)	SF6 (depth)	SF7 (depth)	SF (depth)	SE (depth)	SE1 (depth)	SE2 (depth)
Mounting							
P(A,B)	1-5/16-12UN (18)	M33 x 2 (18)	G1 (18)	3/4" (18)	1-1/16-12UN (18)	1-1/16-12UN (18)	G3/4 (18)
T	7/16-20UNF (12)	M14 x 1.5 (12)	G1/4 (12)	7/16-20UNF (12)	9/16-18UNF (12)	7/16-20UNF (12)	G1/4 (12)
C	--	--	--	8 x 3/8-16UNC	--	--	--

Dimensions and mounting data



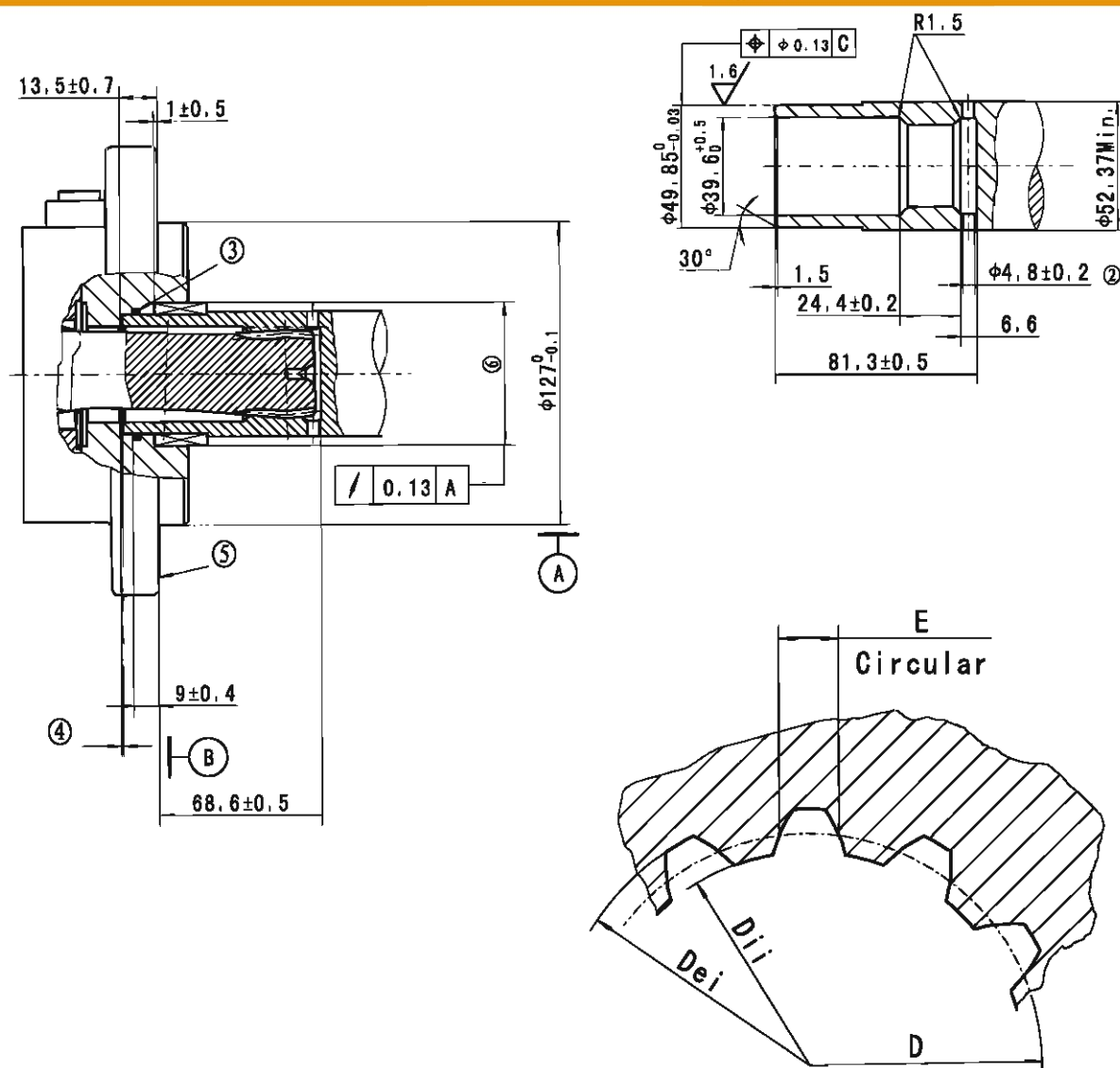
Model	L	L1	L2
ALSG6W 160	127	17	77
ALSG6W 200	131	21	81
ALSG6W 250	136	14	86
ALSG6W 315	142	20	91
ALSG6W 400	148	27	98
ALSG6W 500	157	35	106
ALSG6W 630	169	47	118
ALSG6W 800	180	58	129

Model	L	L1	L2
ALSG6 160	193	17	142.5
ALSG6 200	197	21	146.5
ALSG6 250	204	14	152.5
ALSG6 315	210	20	158.5
ALSG6 400	217	27	165.5
ALSG6 500	225	35	173.5
ALSG6 630	237	47	185.5
ALSG6 800	248	58	196.5

Content	Code					
Mounting	D (depth)	M (depth)	S (depth)	G (depth)	M3 (depth)	S1 (depth)
P(A,B)	G3/4 (18)	M27 x 2 (18)	1-1/16-12UN (18)	G3/4 (18)	M27 x 2 (18)	1-1/16-12UN (18)
T	G1/4 (12)	M14 x 1.5 (12)	9/16-18UNF (12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)
C	4-M10(10)	4-M10(10)	--	--	--	--

Note:1)The thickness of the stator and rotor for disp. from 160 to 200 is the dimension of L1 adding on 3mm.
2)The thickness of the stator and rotor for disp. from 250 to 800 is the dimension of L1 adding on 7mm.

Dimensions and mounting data



Internal spline data for the attached component

Fillet Root Side Fit		mm
Number of Teeth	Z	12
Diametral Pitch	DP	8.5/17
Pressure Angle	D	30°
Pitch Dia.	α_d	35.858823
Major Dia.	D_a	38.97 ^{+0.20} ₀
Minor Dia.	D_i	33.3 ^{+0.18} ₀
Space Width [Circular]	E	5.866±0.032
Dimension between two pins(ø4)	M _s	26.929-27.084

① Internal spline in mating part to be as follows: Material to be ASTM A304, 8620H. Carborize to a hardness of 60-64HRC with case depth (to 50HRC) of 0.75-1 [0.030-0.040] (dimensions apply after heat treat).

② Mating part to have critical dimensions as shown, Oil holes must be provided and open for proper oil circulation.

③ Some means of maintaining clearance between shaft and mounting flange must be provided.

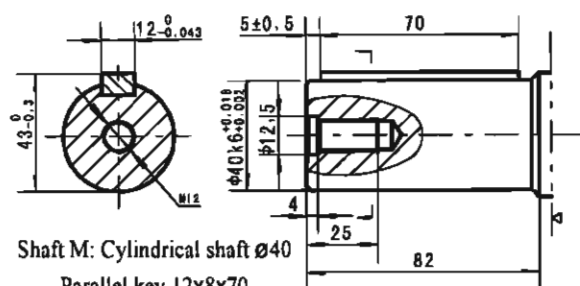
④ Seal to be furnished with motor for proper oil circulation thru splines.

⑤ Similar to SAE "C" Four Bolt Flange

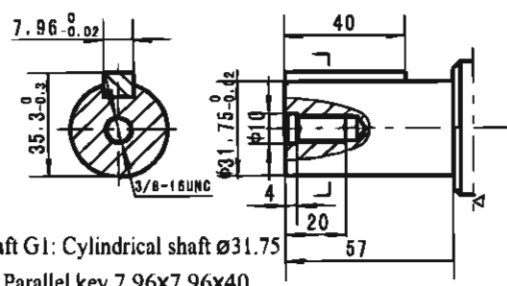
⑥ Counterbore designed to adapt to a standard sleeve bearing 50.010-50.038 [1.9689-1.9700] ID by 60.51-60.079 [2.3642-2.3653] O.D. (Oilite bronze sleeve bearing).

C This surface to be diameter of output shaft.

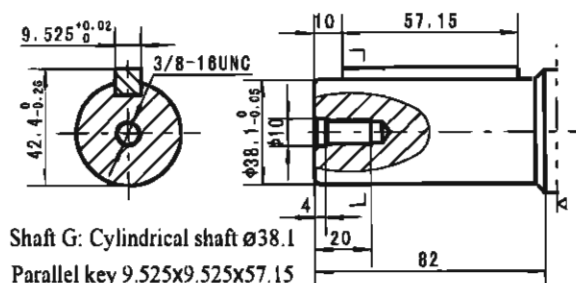
Shaft extensions for ALSG6 motors



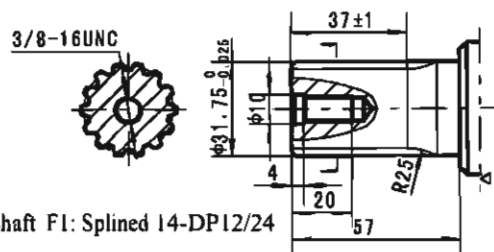
Shaft M: Cylindrical shaft Ø40
Parallel key 12x8x70



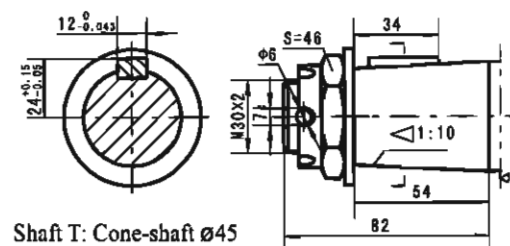
Shaft G1: Cylindrical shaft Ø31.75
Parallel key 7.96x7.96x40



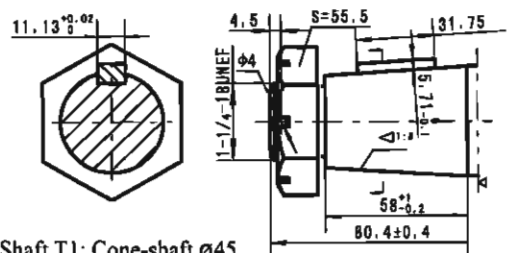
Shaft G: Cylindrical shaft Ø38.1
Parallel key 9.525x9.525x57.15



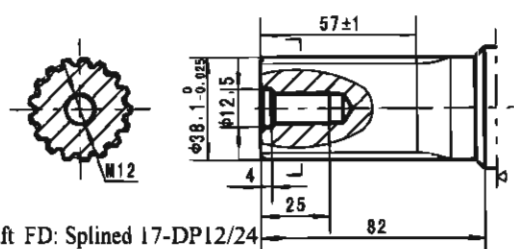
Shaft F1: Splined 14-DP12/24



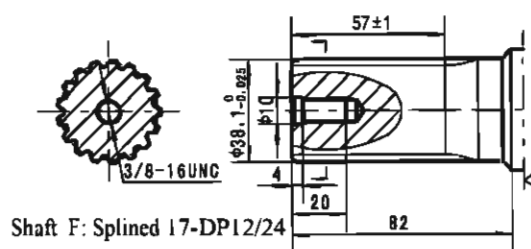
Shaft T: Cone-shaft Ø45
Parallel key B12x8x28
Tightening torque: 500 ± 10Nm



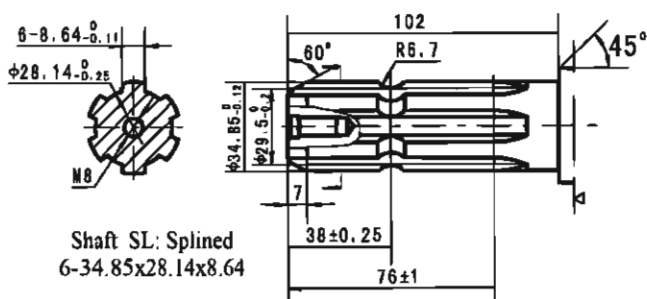
Shaft T1: Cone-shaft Ø45
Parallel key 11.13x11.13x31.75
Tightening torque: 500 ± 10Nm



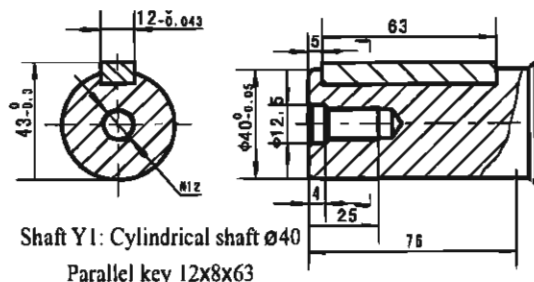
Shaft FD: Splined 17-DP12/24



Shaft F: Splined 17-DP12/24



Shaft SL: Splined
6-34.85x28.14x8.64



Shaft Y1: Cylindrical shaft Ø40
Parallel key 12x8x63

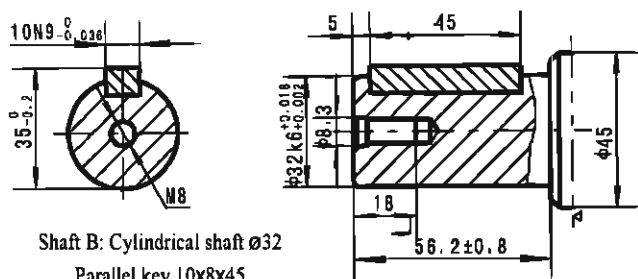
Motor Mounting Surface

76

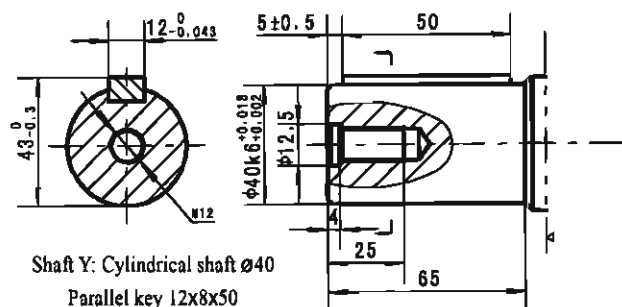
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iow@iow.pl www.iow.pl

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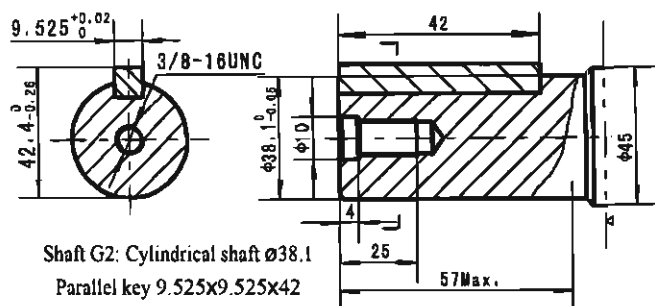
Shaft extensions for ALSG6 motors



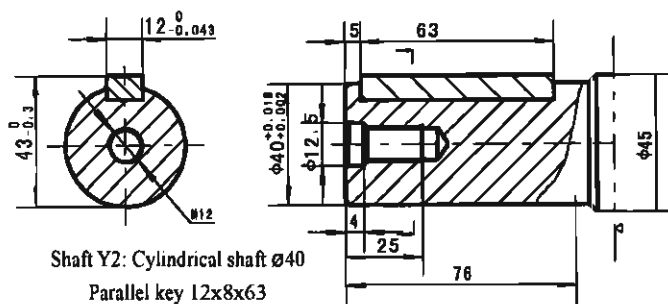
Shaft B: Cylindrical shaft Ø32
Parallel key 10x8x45



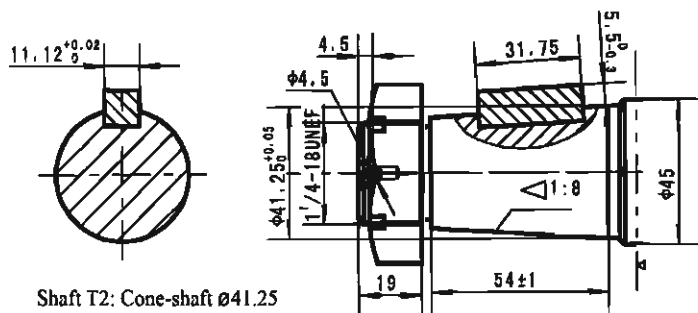
Shaft Y: Cylindrical shaft Ø40
Parallel key 12x8x50



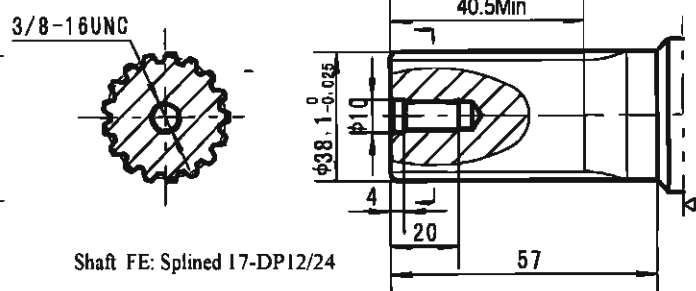
Shaft G2: Cylindrical shaft Ø38.1
Parallel key 9.525x9.525x42



Shaft Y2: Cylindrical shaft Ø40
Parallel key 12x8x63



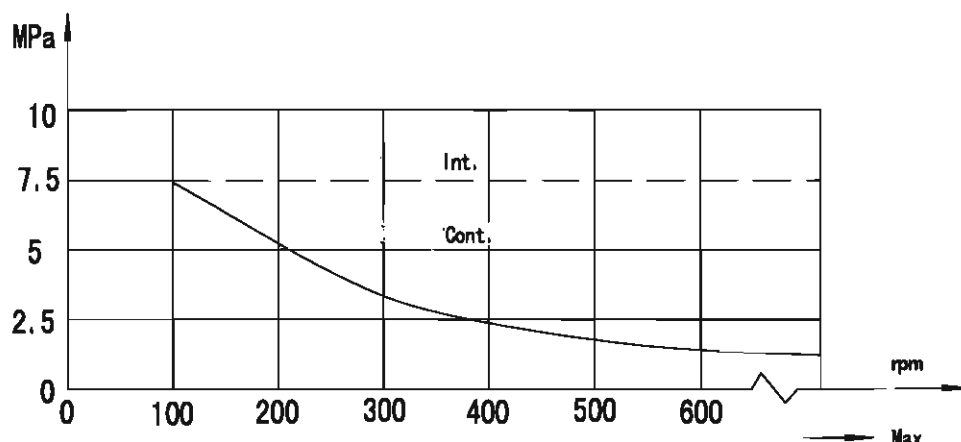
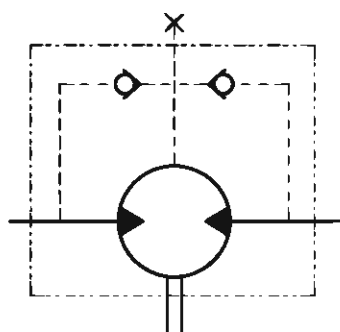
Shaft T2: Cone-shaft Ø41.25
Parallel key 11.13x11.13x31.75
Tightening torque: 500 ± 10Nm



Shaft FE: Splined 17-DP12/24

▷ Motor Mounting Surface

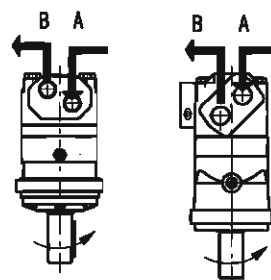
Permissible shaft seal pressure



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

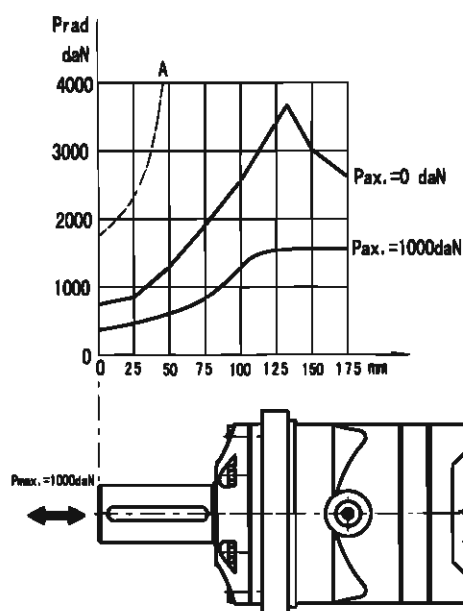
Direction of shaft: Standard

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



Axial and radial forces

The output shaft runs in tapered bearings that permit high axial and radial forces, curve "A" shows max radial shaft load. Any shaft loads exceeding the values quoted in the curve will involve a risk of breakage. Two other curves apply to a B10 bearing life of 3000 hours at 200 RPM.



Order information

1	2	3	4	5	6	7	8
ALSG6							
1	2	3	4	5	6	7	8
ALSG6S							
1	2	3	4	5	6	7	8
ALSG6E							
1	2	3	4	5	6	7	8
ALSG6J							

Pos.1	2	3	4		5	6		7		8		
Code	Disp.	Flange	Output Shaft		Port and Drain Port		Rotation Direction		Paint		Unusually Function	
ALSG6	160	4 4-Ø14 Square-flangeØ160, pilotØ125 × 9 K8 4-Ø14.5Square-flangeØ162, pilotØ127 × 9 W 4-Ø18 Wheel-flangeØ200, pilotØ160 × 7	M G F FD T T1 SL G1 F1	Shaft Ø40 , parallel key 12 × 8 × 70 Shaft Ø38.1 ,parallel key 9.52 × 9.52 × 57.15 Shaft Ø38.1 ,splined tooth 17-DP12/24 Shaft Ø38.1 ,splined tooth 17-DP12/24 Cone-shaft 1:10 Ø45 ,parallel key B12 × 8 × 28 Cone-shaft 1:8 Ø45 , parallel key 11.13 × 11.13 × 31.75 shaft Ø34.85,Splined key Splined key 6-34.85 × 28.14 × 8.64 shaftØ31.75 , parallel key 7.96 × 7.96 × 40 Shaft Ø31.75,splined tooth 14-DP12/24	D M S S1 G	G3/4 Manifold Mount,4-M10 , G1/4 M27 × 2 Manifold Mount,4-M10, M14 × 1.5 1-1/16-12UN O-ring, 9/16-18UNF 1-1/16-12UN O-ring, 7/16-20UNF G3/4,G1/4	Omit R	Standard Opposite	OO B S	No paint Blue Black Silver grey	Omit LL F LS	Standard Low Leakage Free Running Low Speed
	200											
	250											
	315											
	400											
	500											
530												
800												
ALSG6S		D 4-Ø14 Circle-flange Ø160, pilot Ø125 × 8 E 4-Ø14.5 Square-flange Ø162, pilot Ø127 × 10	Omit	Short shaft 16-DP12/24	M3	M27 × 2,M14 × 1.5						
ALSG6E	230	CC 4-Ø14.3 Square-flange Ø161.9, pilotØ127 × 12	G2 FE Y1 Y2 T2	Shaft Ø38.1 ,parallel key 9.52 × 9.52 × 42 Shaft Ø38.1 ,splined tooth 17-DP12/24 ShaftØ240,parallel key 12 × 8 × 63 ShaftØ40,parallel key 12 × 8 × 63 Cone-shaft 1:8 Ø41.25 , parallel key 11.13 × 11.13 × 31.75	SF SF5 SF6 SF7 SE SE1 SE2	3/4" , Manifold Mount,8-3/8-16UNC, 7/16-20UNF 1-5/16-12UN O-ring,7/16-20 UNF M33 × 2,M14 × 1.5 G1,G1/4 1-1/16-12UN O-ring,9/16-18UNF 1-1/16-12UN O-ring,7/16-20 UNF G3/4,G1/4	Omit R	Standard Opposite	OO B S	No paint Blue Black Silver grey	Omit LL F LS	Standard Low Leakage Free Running Low Speed
	250											
	315											
	400											
	500	WE 4-1/2-13UNC Wheel-flangeØ147.6, pilotØ127 × 9	T3	Cone-shaft 1:8 Ø41.25 , parallel key 11.13 × 11.13 × 31.75								
	630											
800												
ALSG6J		J 4-Ø14.5 Square-flange Ø161.9 pilot Ø127 × 12.4	Omit	Short shaft 12-DP8.5/17								

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

ALSG8 Series hydraulic motor

ALSG8 series motor adapt the advanced Geroler gear set designed with disc distribution flow and high pressure. The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.

Characteristic features:

- * Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.
- * The output shaft adapts in tapered roller bearings that permit high axial and radial forces. The case can offer capacities of high pressure and 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.

Main specification

Type		ALSG8 315	ALSG8 400	ALSG8 500	ALSG8 630	ALSG8 800	ALSG8 1000
Geometric displacement (cm³/rev.)		333	419	518	666	801	990
Max. speed (rpm)	cont.	510	500	400	320	250	200
	int.	630	600	480	380	300	240
Max. torque (N•m)	cont.	920	1180	1460	1660	1880	2015
	int.	1110	1410	1760	1940	2110	2280
	peak	1290	1640	2050	2210	2470	2400
Max. output (kW)	cont.	38.0	47.0	47.0	40.0	33.0	28.6
	int.	46.0	56.0	56.0	56.0	44.0	40.0
Max. pressure drop (MPa)	cont.	20	20	20	18	16	14
	int.	24	24	24	21	18	16
	peak	28	28	28	24	21	18
Max. flow (L/min)	cont.	160	200	200	200	200	200
	int.	200	240	240	240	240	240
Weight (kg)		31.8	32.6	33.5	34.9	36.5	38.6

- * Continuous pressure: Max. value of operating motor continuously.
- * Intermittent pressure: Max. value of operating motor in 6 seconds per minute.
- * Peak pressure: Max. value of operating motor in 0.6 second per minute.

Performance data

ALSG8 315 [333cm³/rev.]								
		Pressure (MPa)					Max.cont.	Max.Int.
		3.5	7	10	14	18	20	24
Flow (L/min)	10	140 26	294 24	440 23	610 22	742 20	845 17	1000 14
	20	153 55	314 54	466 53	636 52	787 51	895 48	1070 44
	50	149 145	312 144	465 142	654 140	815 137	935 133	1112 127
	75	143 220	304 218	458 215	642 211	816 207	940 202	1119 195
	100	136 294	297 292	452 290	636 287	810 283	936 278	1108 270
	125	123 368	286 366	442 364	626 361	799 357	921 352	1093 345
	150	114 445	275 443	435 441	615 437	788 430	906 422	1078 410
	160	107 475	268 473	430 470	608 466	780 460	895 452	1070 439
	200	82 596	249 594	412 590	593 584	758 576	871 565	1047 544
	Max.cont.							
Max.Int.								

		ALSG8 400 [419cm³/rev.]						
		Pressure (MPa)				Max.cont.	Max.Int.	
		3.5	7	10	14	18	20	24
Flow (L/min)	10	183 20	385 20	568 19	776 18	968 17	1101 16	1292 14
	20	196 44	398 44	590 43	815 42	1010 40	1152 39	1346 37
	50	200 114	402 113	603 113	842 112	1040 110	1186 108	1430 103
	75	195 175	394 173	596 170	838 166	1043 163	1188 1579	1432 152
	100	172 236	385 235	593 233	827 231	1036 227	1184 223	1425 215
	125	167 296	374 294	583 291	816 288	1021 282	1177 275	1413 268
	150	158 355	361 354	559 352	801 349	1008 344	1165 335	1390 324
	175	143 416	346 414	553 411	784 407	989 403	1145 396	1377 388
	200	118 475	331 473	536 469	770 463	969 455	1128 448	1356 439
	240	82 571	301 569	506 565	740 548	943 539	1104 530	1332 520
Max.cont.								
Max.int.								

ALSG8 500 [518cm³/rev.]								
		Pressure (MPa)					Max.cont.	Max.int.
		3.5	7	10	14	18	20	24
Flow (L/min)	10	242 17	468 17	696 16	959 16	1190 15	1353 13	1607 11
	20	245 36	501 35	738 35	1003 34	1232 33	1394 32	1658 29
	50	240 93	500 92	758 91	1025 90	1270 88	1449 85	1743 80
	75	233 140	498 139	752 137	1030 135	1288 132	1475 127	1766 120
	100	228 189	491 187	748 185	1026 182	1289 178	1472 173	1760 166
	125	220 237	483 236	742 234	1014 231	1280 227	1460 223	1745 216
	150	201 287	465 286	723 284	1008 281	1250 276	1429 270	1736 260
	175	182 335	446 334	711 332	997 329	1238 325	1406 320	1715 310
	200	161 384	423 383	676 381	974 378	1218 374	1385 366	1697 354
	240	120 461	378 459	622 457	921 454	1172 450	1340 444	1650 432
Max.cont.								
Max.int.								

ALSG8 630 [666cm³/rev.]									
		Pressure (MPa)				Max.cont.	Max.int.		
		3.5	6	9	12	15	18	21	
Flow (L/min)	10	280 14	522 13	812 13	1100 12	1268 12	1549 11	1784 10	
	20	288 28	552 28	839 27	1101 27	1315 26	1607 24	1864 22	
	50	289 72	555 72	868 71	1137 69	1364 68	1682 66	1956 62	
	75	270 109	548 108	863 106	1120 104	1352 102	1680 99	1964 94	
	100	264 146	538 145	856 143	1093 141	1350 138	1674 135	1965 130	
	125	251 184	516 183	837 181	1071 179	1336 177	1659 173	1950 168	
	150	240 221	495 220	817 219	1063 217	1330 215	1650 212	1928 205	
	175	210 259	485 258	796 257	1052 254	1300 250	1636 246	1908 241	
	Max.cont.	200	182 297	469 297	751 295	1018 293	1280 290	1611 284	1883 273
		240	130 358	416 357	712 355	978 351	1237 346	1563 340	1835 332

Torque (N·m) 1340
Speed (rpm) 444

cont.
int.

Performance data

ALSG8 800 [801cm³/rev.]

Pressure (MPa)							Max.cont.	Max.int.
2.5	5	8	10	13	16	18		

Flow (L/min)	10	278 11	565 10	830 10	1095 9	1405 8	1712 8	1915 7
	20	282 23	571 22	845 22	1150 21	1456 20	1783 18	1994 16
	50	288 60	582 59	856 57	1162 56	1463 54	1790 52	2001 48
	75	269 91	580 90	855 89	1165 87	1465 84	1786 81	1993 77
	100	251 122	566 121	840 120	1140 118	1448 115	1767 111	1985 105
	125	242 153	535 152	824 150	1118 147	1427 143	1739 139	1976 133
	150	236 185	526 183	808 181	1102 178	1401 174	1714 169	1959 163
	175	215 216	504 214	793 212	1079 209	1377 206	1698 203	1936 196
	Max.cont. 200	197 247	468 245	765 243	1063 240	1362 237	1681 232	1913 225
	Max.int. 240	118 297	388 296	713 295	1020 293	1318 288	1637 283	2034 277

	cont.
	int.

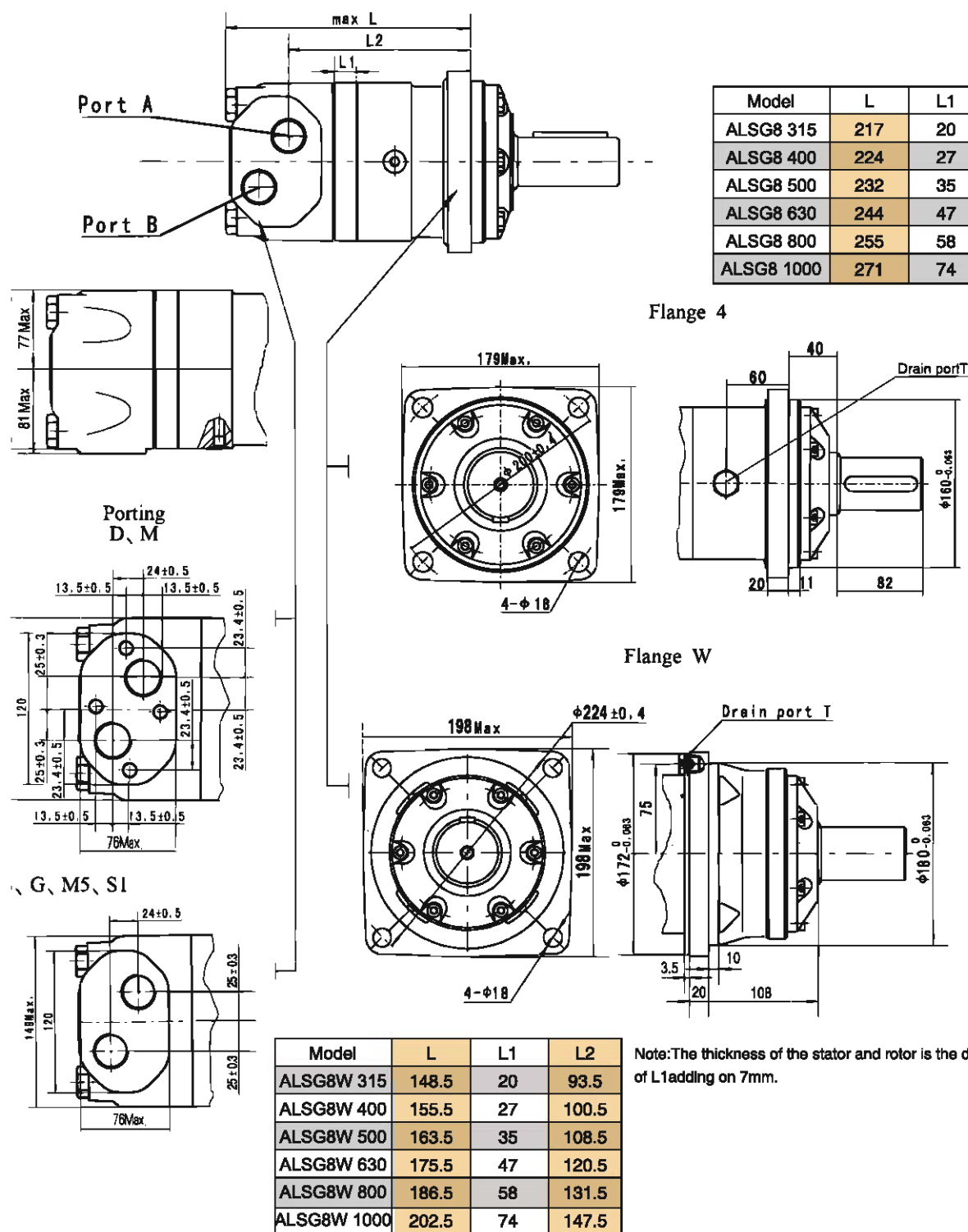
ALSG8 1000 [990cm³/rev.]

Pressure (MPa)						Max.cont.	Max.int.
2.5	5	7	10	14	16		

Flow (L/min)	10	312 9	640 9	971 9	1400 8	1978 7	2259 6
	20	320 28	648 27	978 26	1410 25	1980 23	2270 21
	50	326 47	655 46	992 45	1422 43	2015 41	2280 38
	75	318 72	642 71	987 70	1425 68	2003 66	2276 63
	100	309 98	634 97	983 95	1418 93	1994 90	2243 86
	125	303 123	624 122	975 120	1409 117	1988 114	2224 110
	150	278 149	602 148	961 146	1368 144	1963 140	2208 133
	175	264 174	580 172	946 170	1338 166	1925 162	2159 155
	Max.cont. 200	230 199	556 196	912 193	1300 190	1891 185	2105 178
	Max.int. 240	166 240	513 237	867 233	1267 229	1825 225	2034 218

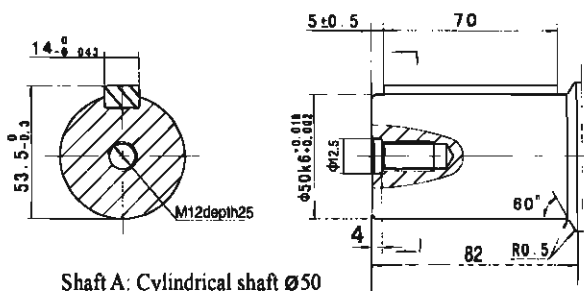
Torque (N·m) 1825
Speed (rpm) 225

Dimensions and mounting data

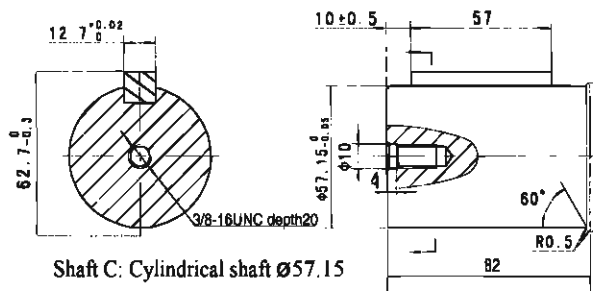


Content	Code					
	D (depth)	M (depth)	S (depth)	G (depth)	M5 (depth)	S1 (depth)
P(A,B)	G1 (18)	M33 x 2 (18)	1-5/16-12UN(18)	G1 (18)	M33 x 2 (18)	1-5/16-12UN(18)
T	G1/4 (12)	M14 x 1.5 (12)	9/16-18UNF(12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF(12)
C	4-M12 (10)	4-M12 (10)	--	--	--	--

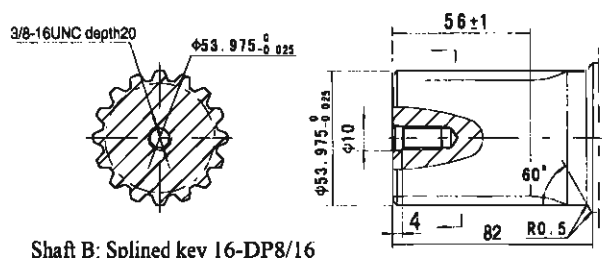
Shaft extensions for ALSG6 motors



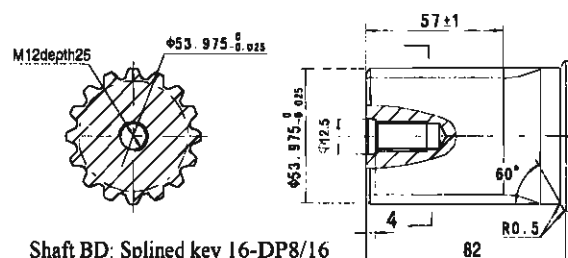
Shaft A: Cylindrical shaft Ø50
Parallel key 14x9x70



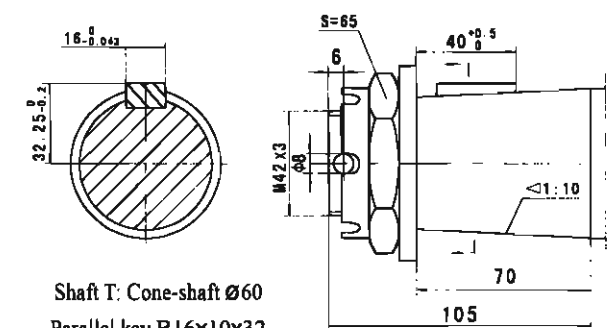
Shaft C: Cylindrical shaft Ø57.15
Parallel key 12.7x12.7x57



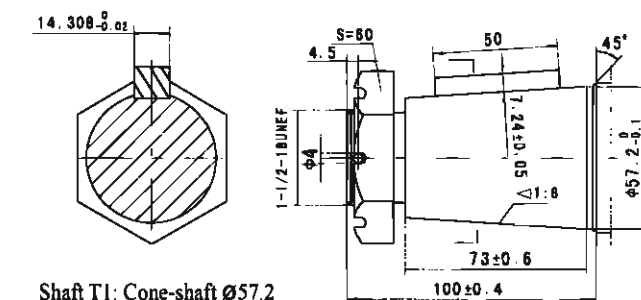
Shaft B: Splined key 16-DP8/16



Shaft BD: Splined key 16-DP8/16

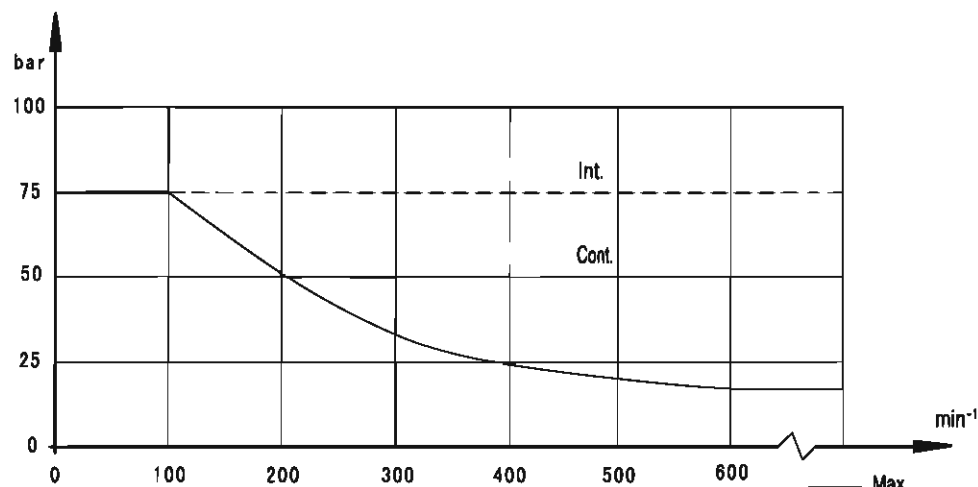
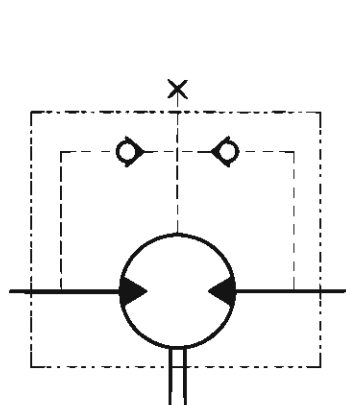


Shaft T: Cone-shaft Ø60
Parallel key B16x10x32
Tightening torque: 750 ± 50Nm



Shaft T1: Cone-shaft Ø57.2
Parallel key 14.308x14.308x50
Tightening torque: 750 ± 50Nm

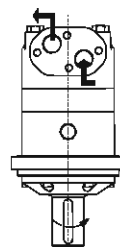
Permissible shaft seal pressure



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

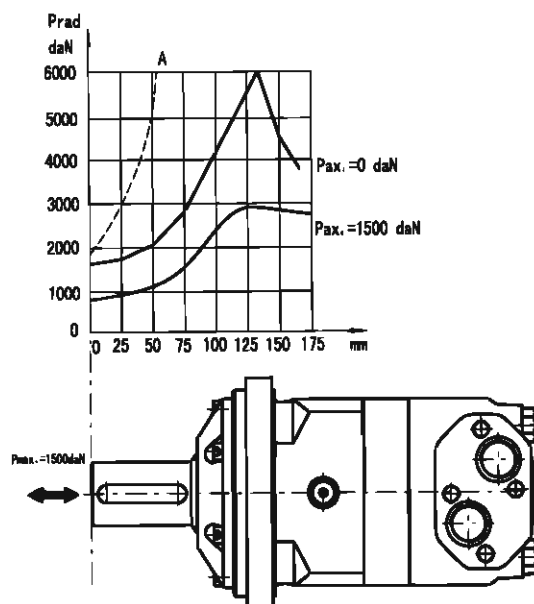
Direction of shaft: Standard

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



Axial and radial forces

The output shaft runs in tapered bearings that permit high axial and radial forces, curve "A" shows max radial shaft load. Any shaft loads exceeding the values quoted in the curve will involve a risk of breakage. Two other curves apply to a B10 bearing life of 3000 hours at 200 RPM.



ALSG8

Hydraulic motor

Order information

12345678

ALSGE- - - - - - - -

Pos.1	2	3	4	5	6	7	8
Code	Displacement	Flange	Output shaft	Port and drain port	Rotation direction	Paint	Unusually function
Omit	315 400 500 630 800 1000	4 W 4-Ø18 Square-flangeØ200, pilot Ø160 × 11 4-Ø18 Wheel-flange Ø224, pilot Ø180 × 10	A Shaft Ø50 , parallel key 14 × 9 × 70 BD Shaft Ø53.975, splined key 16-DP8/16 B Shaft Ø53.975, splined key 16-DP8/16 C Shaft Ø57.15, parallel key 12.7 × 12.7 × 57.15 T Cone shaft Ø60, parallel key B16 × 10 × 32 T1 Cone shaft Ø60, parallel key 14.308 × 14.308 × 50.8	D G1 Manifold 4 × M12, G1/4 M M33 × 2 Manifold 4 × M12, M14 × 1.5 S 1-5/16-12UN, 9/16-18UNF G G1, G1/4 M5 M33 × 2, M14 × 1.5 S1 1-5/16-12UN(18), 7/16-20UNF(12)	Omit Standard R Opposite	00 No paint B Blue S Black S Silver grey	Omit Standard

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

ALSRW Series hydraulic motor

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

Characteristic features:

- * Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.
- * The output shaft adapts in needle roller bearings that permit high axial and radial forces. The case can offers capacities of high pressure and high torque in the wide of applications.
- * Advanced design in high speed distribution flow, which can automatically compensate in operating with high volume efficiency and long life , provide smooth and reliable operation.
- * Lowest leakage rate, most accurate timing methods.Commutator rotates 6x faster than shaft speed. It make the distribution in a high precision reduces life-cycle cost, maintain high volume efficiencies and can run very smoothly at low speed, gear box not required.

Main specification

Type		ALSRW 65	ALSRW 80	ALSRW 100	ALSRW 125	ALSRW 160	ALSRW 200	ALSRW 230	ALSRW 250	ALSRW 295	ALSRW 315	ALSRW 375
Geometric displacement (cm³/rev.)		66.8	81.3	101.6	127	157.2	193.6	226	257	287.8	314.5	370
Max. speed (rpm)	cont.	667	543	439	350	283	229	247	216	196	178	152
	int.	842	689	553	441	355	289	328	287	254	235	199
Max. torque (N•m)	cont.	126	157	191	245	307	382	378	381	393	448	439
	int.	176	215	268	335	422	520	528	543	547	587	613
Max. output (kW)	cont.	8.3	8.8	7.9	8.9	8.9	9	9.9	9.3	8.7	8	7.6
	int.	13.9	14.4	13.5	14.1	15.6	15.7	17.9	16.5	15.6	14.3	14
Max. pressure drop (MPa)	cont.	14	14	14	14	14	14	12	11	10	10	9
	int.	19	19	19	19	19	19	165	15.5	14.5	13.5	12.5
	peak	20	20	20	20	20	20	18	18	17	16	16
Max. flow (L/min)	cont.	45	45	45	45	45	45	57	57	57	57	57
	int.	57	57	57	57	57	57	75	75	75	75	75

- * Continuous pressure:Max. value of operating motor continuously.
- * Intermittent pressure:Max. value of operating motor in 6 seconds per minute.
- * Peak pressure:Max. value of operating motor in 0.6 second per minute.

Performance data

ALSRW65 [66.8 cm³/rev.]

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

ALSRW80 [81.3 cm³/rev.]

		Pressure (MPa)					Max.cont.		Max.int.	
		3.5	7	10.5	14	19				
Flow (L/min)	2	33	70	106						
		18	14	4						
	5	35	72	111	150					
		55	51	44	25					
	10	36	75	114	155	215				
		121	118	113	107	88				
	15	37	77	116	157	215				
		181	178	171	162	148				
	20	35	74	112	151	206				
		242	238	231	223	205				
Max.cont.	25	35	71	108	148	202				
		303	298	289	275	261				
	34	31	69	105	145	198				
		411	407	396	382	373				
	45	23	62	100	139	192				
		543	537	521	513	501				
	Max.int.	18	55	98	134	186				
		689	681	665	649	618				

ALSRW100 [101.6 cm³/rev.]

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

ALSRW125 [127 cm³/rev.]

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

Torque (N·m) 158
Speed (rpm) 527

cont.
int.

Performance data

ALSRW160 [157.2 cm³/rev.]

		Pressure (MPa)						
		3.5	7	10.5	14	19	Max.cont.	Max.int.
Flow (L/min)	2	64	132	199				
		10	8	2				
	5	68	138	208	281			
		28	26	19	10			
	10	71	147	221	303	419		
		62	60	56	53	38		
	15	72	148	225	307	426		
		93	91	87	79	61		
	20	71	148	223	305	422		
		126	123	118	110	95		
Max.cont.	25	62	140	218	296	415		
		157	155	152	141	129		
	34	58	134	211	287	408		
		214	211	206	197	181		
	45	47	127	205	281	391		
		283	281	275	266	241		
	Max.int.	36	97	182	260	370		
		355	352	346	336	311		
	57							

ALSRW 200 [193.6 cm³/rev.]

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

ALSRW 230 [226 cm³/rev.]

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

ALSRW 250 [257 cm³/rev.]

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

Torque (N·m) 250
Speed (rpm) 311

cont.
int.

Performance data

ALSRW295[287.8 cm³/rev.]

		Pressure (MPa)				Max.int.
		3.5	7	11	14.5	
Flow (L/min)	5	121	243	368	509	
		15	14	10	5	
	10	125	253	381	529	
		33	31	27	20	
	15	129	261	393	547	
		51	50	47	41	
	20	127	259	390	545	
		68	67	63	55	
Max.cont.	25	126	255	386	539	
		86	84	80	69	
	34	123	248	380	531	
		116	114	110	98	
	45	115	234	368	522	
		154	153	148	136	
	57	108	227	359	514	
		196	194	187	176	
Max.Int.			211	349	506	
	75		254	246	231	

Torque (N•m) 506
Speed (rpm) 231

ALSRW315[314.5 cm³/rev.]

		Pressure (MPa)				Max.int.
		3.5	7	11	13.5	
Flow (L/min)	5	136	281	427		
		11	8	3		
	10	139	287	438	574	
		30	29	26	20	
	15	141	295	448	587	
		47	46	43	40	
	20	138	287	442	587	
		62	61	58	53	
Max.cont.	25	131	280	431	567	
		78	75	71	66	
	34	117	269	423	557	
		106	104	98	91	
	45	114	253	397	535	
		141	138	132	125	
	57	86	219	383	505	
		178	173	168	162	
Max.Int.			108	287	416	
	75		235	231	219	

ALSRW375[370 cm³/rev.]

		Pressure (MPa)				Max.int.
		3.5	7	9	12.5	
Flow (L/min)	5	151	315	412		
		10	7	3		
	10	155	324	427	606	
		25	24	21	18	
	15	162	331	439	613	
		40	39	37	32	
	20	158	326	434	602	
		53	52	49	45	
Max.cont.	25	151	316	424	589	
		67	65	62	58	
	34	141	309	417	580	
		91	89	85	80	
	45	138	300	408	572	
		121	119	115	107	
	57	118	281	393	550	
		152	150	144	136	
Max.Int.			258	369	518	
	75		199	191	183	

cont.
int.

Dimensions and mounting data

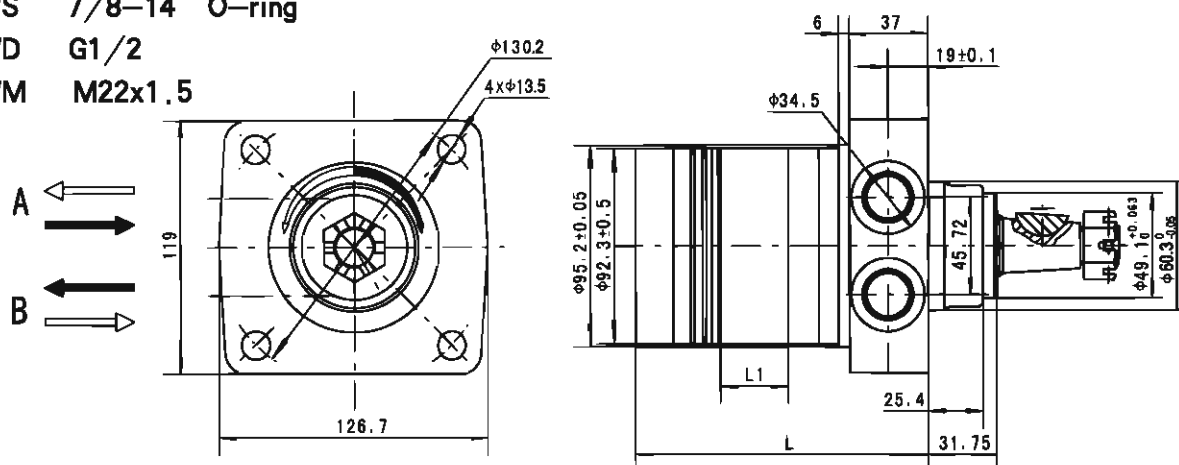
Wheel Mount

Code: Port A, B

WS 7/8-14 O-ring

WD G1/2

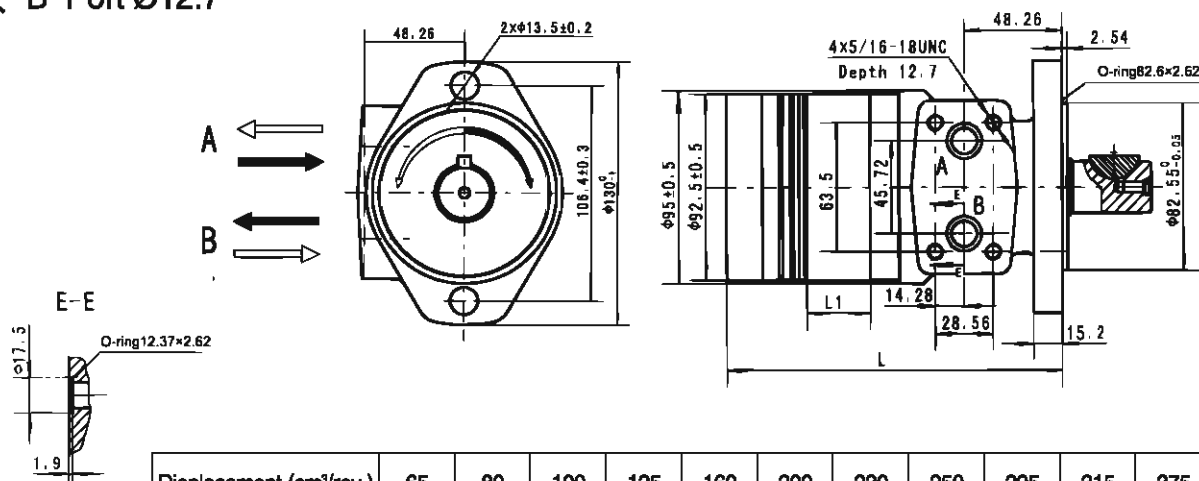
WM M22x1.5



Displacement (cm³/rev.)	65	80	100	125	160	200	230	250	295	315	375
L1(mm)	13	16	20	25	30.5	38.1	44	50	56	62	74
L(mm)	119	122	126	131	136.5	144	150	156	162	168	180
Weight(kg)	7.4	7.5	7.8	8	8.3	8.7	9.2	9.6	10	10.3	10.8

Code:HM Manifold

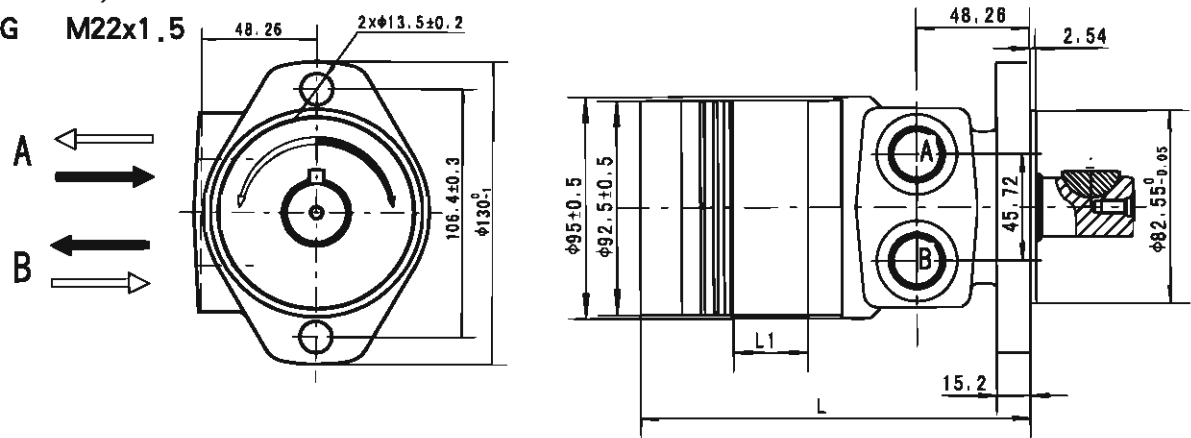
A, B Port Ø12.7



Displacement (cm³/rev.)	65	80	100	125	160	200	230	250	295	315	375
L1(mm)	13	16	20	25	30.5	38.1	44	50	56	62	74
L(mm)	149	152	156	161	166.5	174	180	186	192	198	210
Weight(kg)	6.4	6.5	6.8	7	7.3	7.7	8.2	8.6	9	9.3	9.8

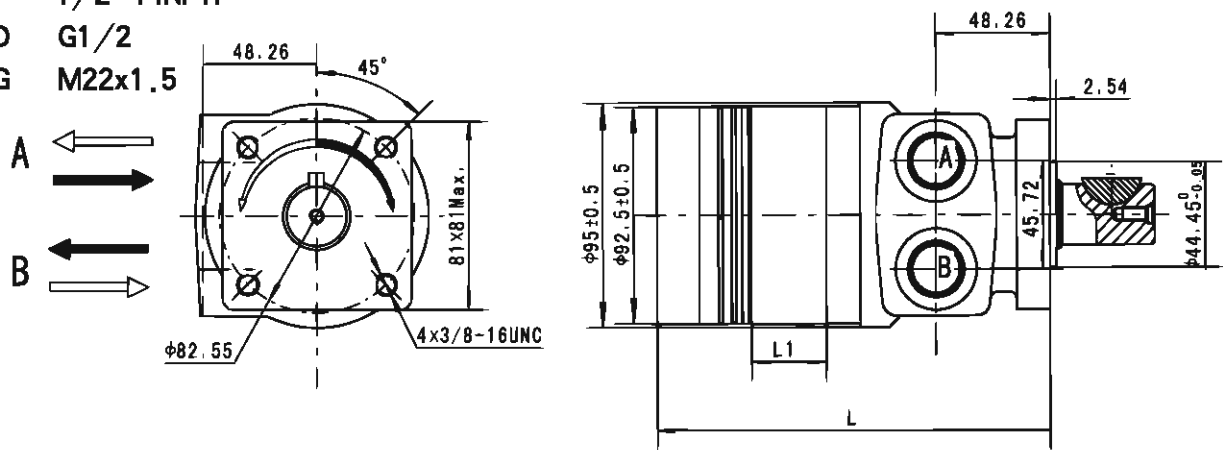
Dimensions and mounting data

Code: Port A, B
HS 7/8-14UNF
HP 1/2-14NPTF
HD G1/2
HG M22x1.5



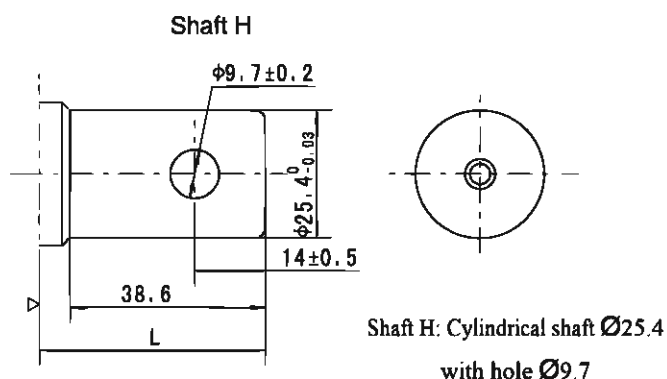
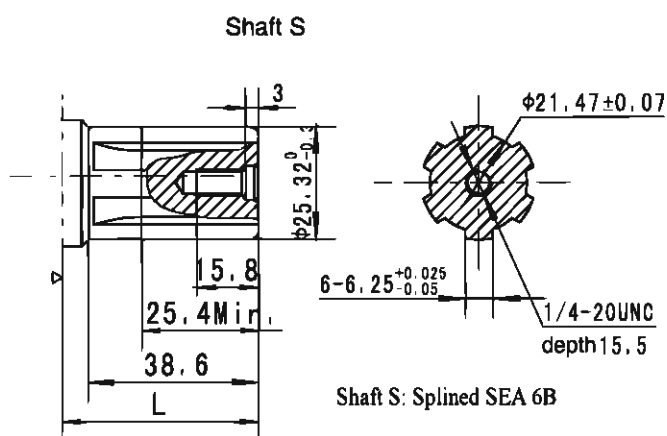
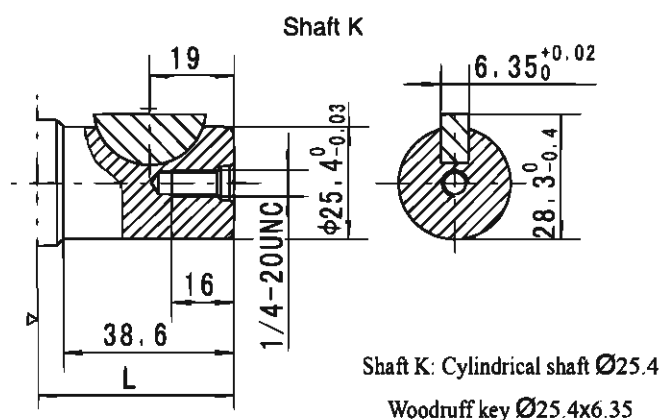
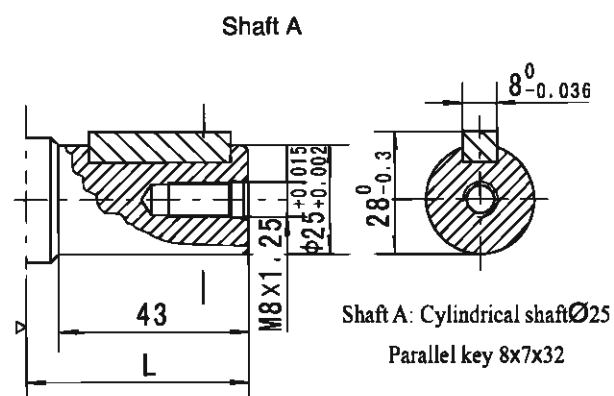
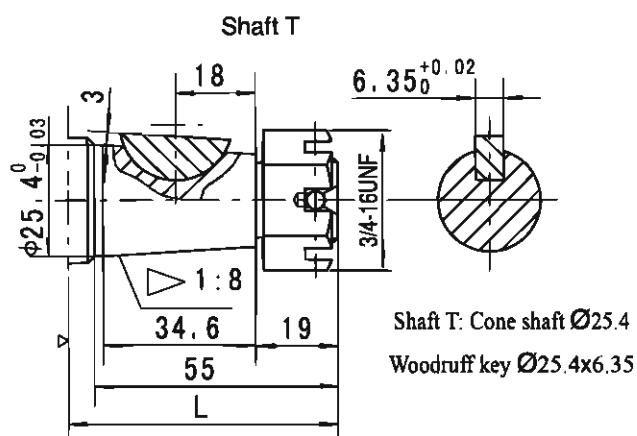
Displacement (cm³/rev.)	65	80	100	125	160	200	230	250	295	315	375
L1(mm)	13	16	20	25	30.5	38.1	44	50	56	62	74
L(mm)	149	152	156	161	166.5	174	180	186	192	198	210
Weight(kg)	6.4	6.5	6.8	7	7.3	7.7	8.2	8.6	9	9.3	9.8

Code: Port A, B
H4S 7/8-14UNF
H4P 1/2-14NPTF
H4D G1/2
H4G M22x1.5



Displacement (cm³/rev.)	65	80	100	125	160	200	230	250	295	315	375
L1(mm)	13	16	20	25	30.5	38.1	44	50	56	62	74
L(mm)	149	152	156	161	166.5	174	180	186	192	198	210
Weight(kg)	6.4	6.5	6.8	7	7.3	7.7	8.2	8.6	9	9.3	9.8

Shaft extensions data



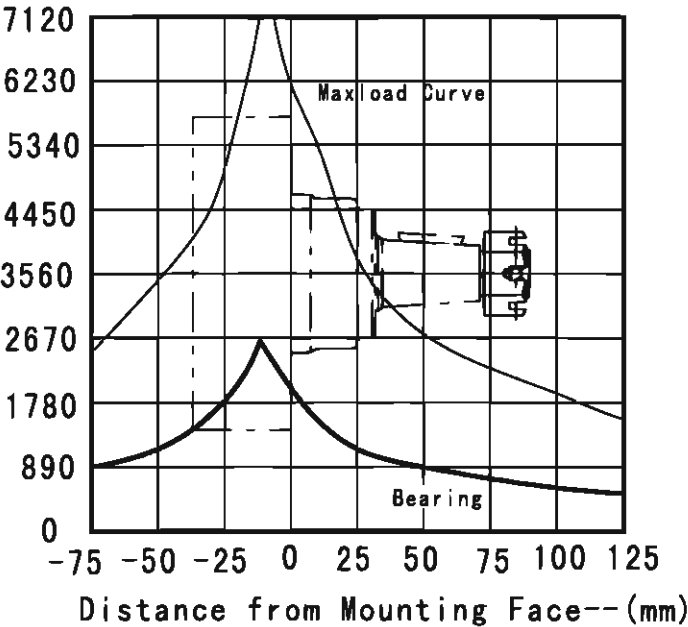
Dimension L

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

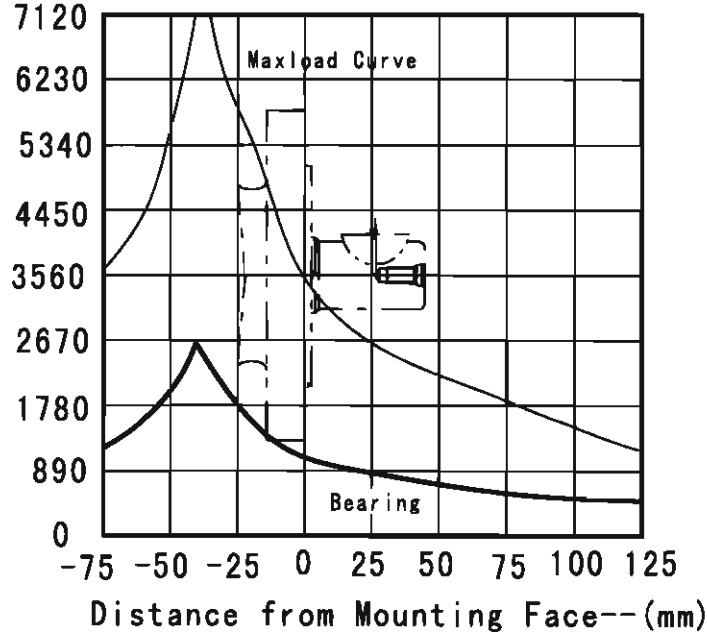
▷ Motor Mounting Surface

Permissible shaft loads

ALSRW for Wheel Mounting
 Side Load (daN)



ALSRW for Other Mounting
 Side Load (daN)



The bearing curve represents al lowable bearing loads for an L₁₀ bearing life at 3x10⁶ revolutions,
 The maximum load curve is defined by bearing static load capacity, This curve should not be
 exceeded at any time including shock loads.

Order information

1 2 3 4 5 6 7
 ALSRW - - - - -

Pos.1	2	3	4	5	6	7
Code	Disp.	Flange,Pilot,Port	Output Shaft	Rotation Direction	Paint	Unusually Function
Omit		WS 4-Ø13.5 Wheel - flange,Pilot Ø60.3×7 Port 7/8-14 O-ring	T Cone-Shaft Ø25.4,Woodruff key Ø25.4×6.35 A Cylindrical Shaft Ø25, Parallel key 8×7×32 K Cylindrical Shaft Ø25.4, Woodruff key Ø25.4×6.35 S Shaft Ø25.4, Splined key SAE 6B H Cylindrical Shaft Ø25.4,Pin Hole Ø9.7	Omit Standard R Opposite	OO Omit B S No paint Blue Black Silver grey	Omit Standard
	65	WD 4-Ø13.5 Wheel -flange,Pilot Ø60.3×7 Port G1/2				
	80	WM 4-Ø13.5 Wheel -flange,Pilot Ø60.3×7 Port M22×1.5				
	100	HM 2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port 1/2" Manifold mount 4×5/8-18				
	125	HS 2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port 7/8-14 O-ring				
	160	HP 2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port 1/2-14 NPFT Pipe				
	200	HD 2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port G1/2				
	230	HG 2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port M22x1.5				
	250	H4S 4-3/8-16 Square- flange,Pilot Ø44.4×2.54 Port 7/8-14 O-ring				
	295	H4P 4-3/8-16 Square- flange,Pilot Ø44.4×2.54 Port 1/2-14 NPFT Pipe				
	315	H4D 4-3/8-16 Square- flange,Pilot Ø44.4×2.54 Port G1/2				
	375	H4G 4-3/8-16 Square- flange,Pilot Ø44.4×2.54 Port M22x1.5				

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

ALSG5 Series hydraulic motor

ALSG5 series motor adapt the advanced Geroler gear set designed with high speed distribution flow and high pressure, and have good stability in low speed , and can keep high volume efficiency. The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.

Characteristic features:

- * Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.
- * The output shaft adapts in needle roller bearings that permit high axial and radial forces. The case can offers capacities of high pressure and high torque in the wide of applications.
- * Advanced design in high speed distribution flow, which can automatically compensate in operating with high volume efficiency and long life , provide smooth and reliable operation.
- * Lowest leakage rate, most accurate timing methods.Commutator rotates 6x faster than shaft speed. It make the distribution in a high precision reduces life-cycle cost, maintain high volume efficiencies and can run very smoothly at low speed, gear box not required.

Main specification

Type		ALSG5 65	ALSG5 80	ALSG5 100	ALSG5 125	ALSG5 160	ALSG5 200	ALSG5 230	ALSG5 250	ALSG5 295	ALSG5 315	ALSG5 375
Geometric displacement (cm³/rev.)		66.8	81.3	101.6	127	157.2	193.6	226	257	287.8	314.5	370
Max. speed (rpm)	cont.	667	543	439	350	283	229	247	216	196	178	152
	int.	842	689	553	441	355	289	328	287	254	235	199
Max. torque (N·m)	cont.	126	157	191	245	307	382	378	381	393	448	439
	int.	176	215	268	335	422	520	528	543	547	587	613
Max. output (kW)	cont.	8.3	8.8	7.9	8.9	8.9	9	9.9	9.3	8.7	8	7.6
	int.	13.9	14.4	13.5	14.1	15.6	15.7	17.9	16.5	15.6	14.3	14
Max. pressure (MPa)	cont.	14	14	14	14	14	14	12	11	10	10	9
	int.	19	19	19	19	19	19	165	15.5	14.5	13.5	12.5
	peak	20	20	20	20	20	20	18	18	17	16	16
Max. flow (L/min)	cont.	45	45	45	45	45	45	57	57	57	57	57
	int.	57	57	57	57	57	57	75	75	75	75	75

- * Continuous pressure:Max. value of operating motor continuously.
- * Intermittent pressure:Max. value of operating motor in 6 seconds per minute.
- * Peak pressure:Max. value of operating motor in 0.6 second per minute.

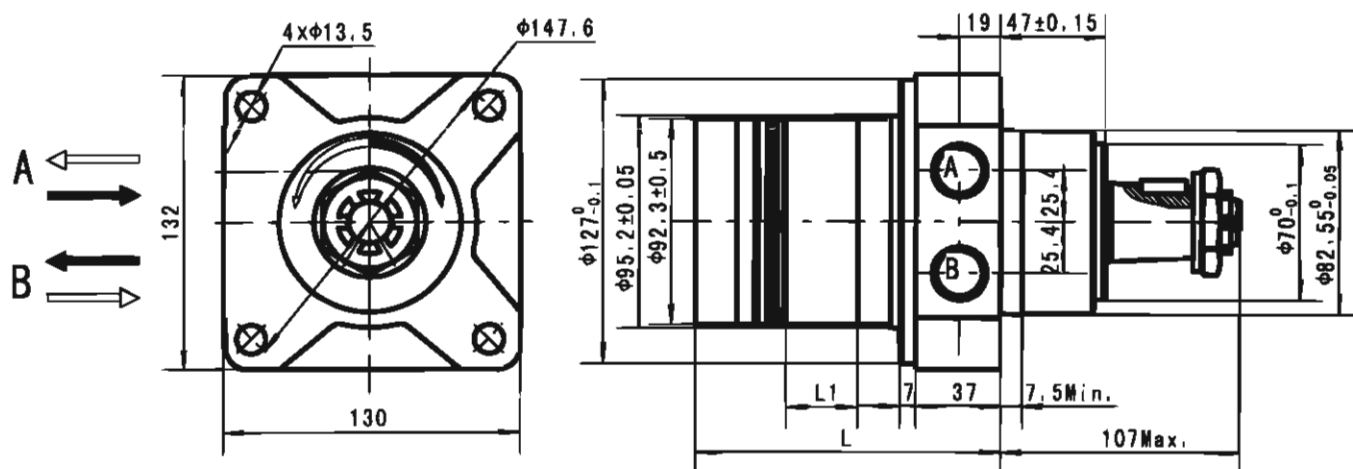
Dimensions and mounting data

Wheel Mount

Code : WS Ports A, B 7/8-14 O-Ring

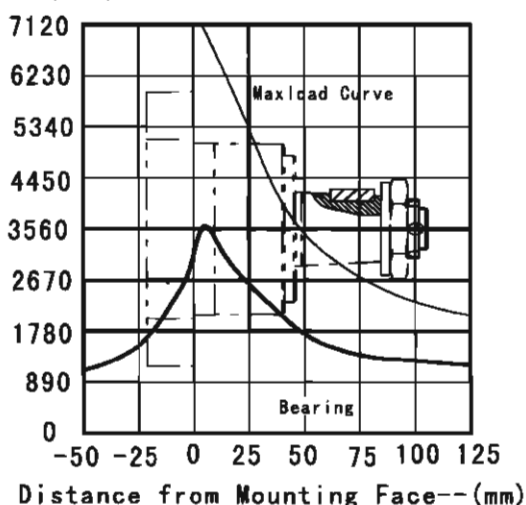
Code : WD Ports A, B G1/2

Code : WM Ports A, B M22x1.5



Displacement (cm ³ /rev.)	65	80	100	125	160	200	230	250	295	315	375
L1(mm)	13	16	20	25	30.5	38.1	44	50	56	62	74
L(mm)	115	118	122	127	132.5	140	146	152	158	164	176
Weight(kg)	9	9.1	10.4	10.6	10.9	11.3	11.8	12.2	12.6	12.9	13.4

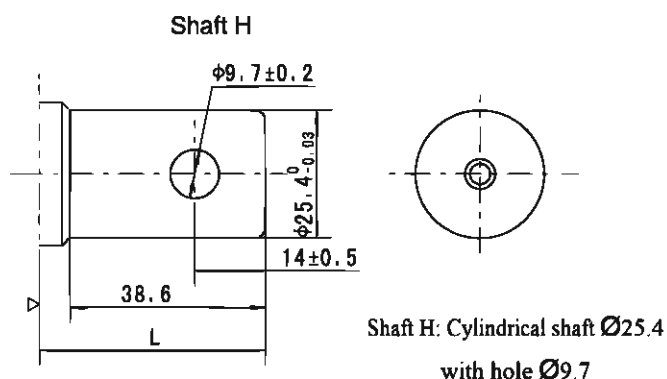
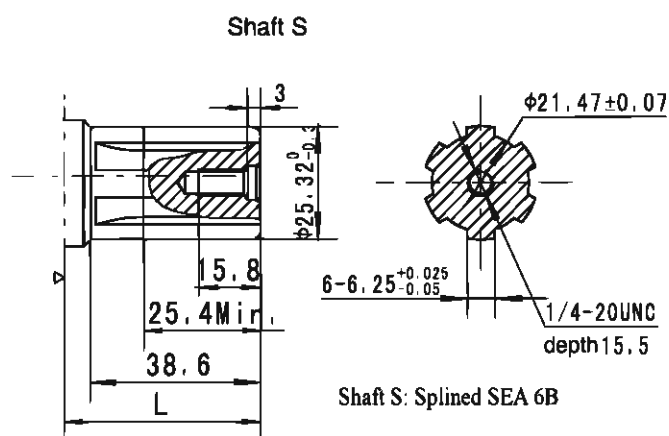
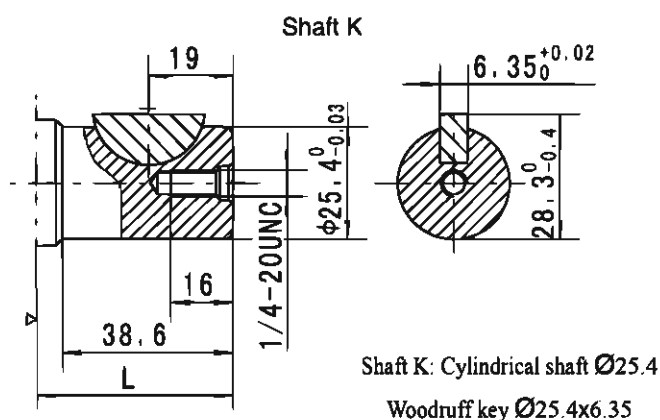
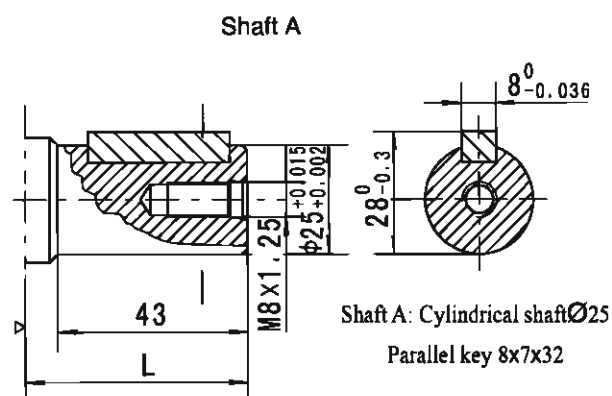
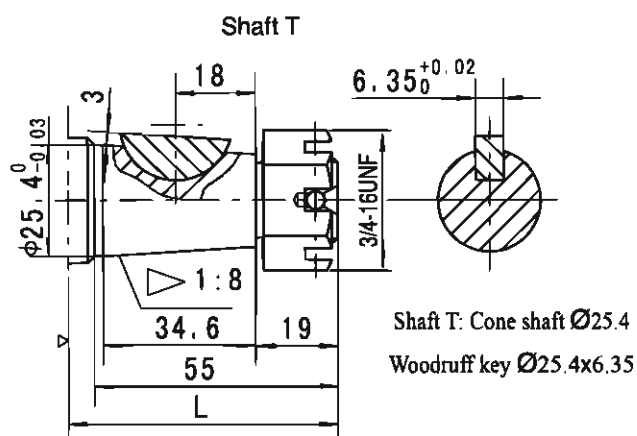
Side Load-(daN)



The bearing curve represents allowable bearing loads for an L₁₀ bearing life at 3×10⁶ revolutions.

The maximum load curve is defined by bearing static load capacity. This curve should not be exceeded at any time including shock loads.

Shaft extensions for dimensions data



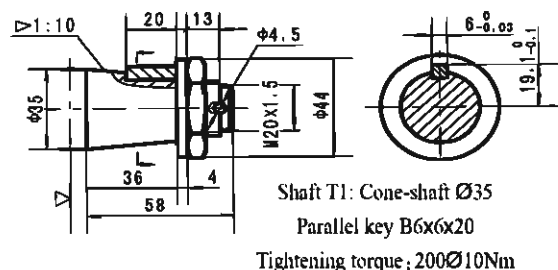
Dimension L

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

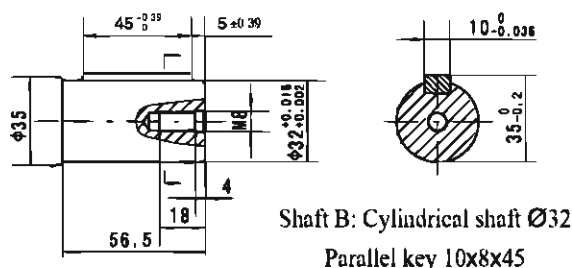
► Motor Mounting Surface

Shaft extensions for dimensions data

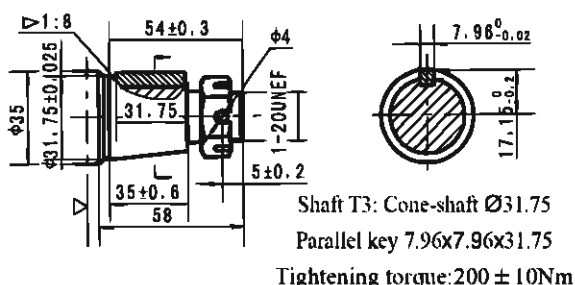
Shaft T1



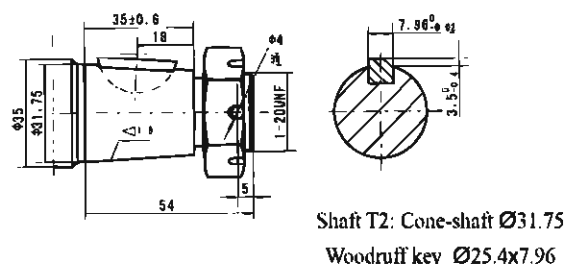
Shaft B



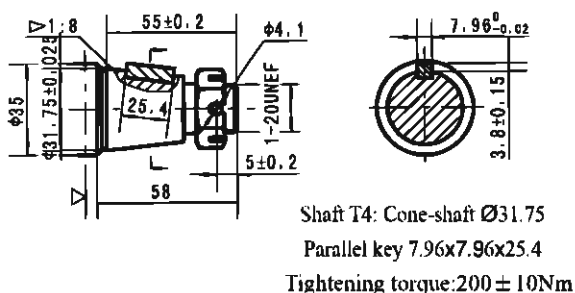
Shaft T3



Shaft T2



Shaft T4



▷ Motor Mounting Surface

Order information

1 2 3 4 5 6 7

ALSG5 - - - - - -

Pos.1	2	3		4		5		6		7		
Code	Disp.	Flange , Pilot , Port		Output Shaft		Rotation direction		Paint		Unusually function		
Omit	65	WS	4-Ø13.5 Wheel-flange, Pilot Ø82.55 × 7, Port 7/8-14 O-ring		T1	Cone-Shaft Ø35,Parallel key B6 × 6 × 20	Omit R	Standard Opposite	OO	No paint Blue Black Silver Grey	Omit	Standard
	80											
	100											
	125	WD	4-Ø13.5 Wheel-flange, Pilot Ø82.55 × 7, Port G1/2		T2	Cone-Shaft Ø31.75,Woodruff key ø25.4 × 7.96						
	160											
	200											
	230	WM	4-Ø13.5 Wheel-flange, Pilot Ø82.55 × 7, Port M22x1.5		T3	Cone-Shaft Ø31.75,Parallel key 7.96 × 7.96 × 31.75						
	250											
	295											
	315	B	Cylindrical Shaft Ø32,Parallel key 10 × 8 × 45									
	375											

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

ALSRR Series hydraulic motor

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

Characteristic features:

- * Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.
- * The output shaft adapts in needle roller bearings that permit high axial and radial forces. The case can offers capacities of high pressure and high torque in the wide of applications.
- * Advanced design in high speed distribution flow, which can automatically compensate in operating with high volume efficiency and long life , provide smooth and reliable operation.
- * Lowest leakage rate, most accurate timing methods. Commutator rotates 6x faster than shaft speed. It make the distribution in a high precision reduces life-cycle cost, maintain high volume efficiencies and can run very smoothly at low speed, gear box not required.

Main specification

Type		ALSRR 125	ALSRR 160	ALSRR 200	ALSRR 230	ALSRR 250	ALSRR 300	ALSRR 350	ALSRR 375	ALSRR 475	ALSRR 540	ALSRR 750
Geometric displacement (cm³/rev.)		118	156	196	228	257	296	345	371	462	540	745
Max. speed (rpm)	cont.	360	375	330	290	290	250	220	200	160	140	100
	int.	490	470	425	365	350	315	270	240	195	170	120
Max. torque (N·m)	cont.	325	450	530	625	700	810	905	990	1085	980	1050
	int.	380	525	600	710	790	930	1035	1140	1180	1240	1180
	peak	450	590	750	870	980	1120	1285	1360	1260	1380	1370
Max. output (kW)	cont.	12.0	15.0	15.5	16.0	17.5	18.0	17.5	16.5	14.5	11.5	8.0
	int.	14.0	17.5	18.0	19.0	20.0	21.0	20.0	19.0	16.5	15.0	10.0
Max. pressure drop (MPa)	cont.	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	17.5	14	10.5
	int.	24	24	24	24	24	24	24	24	19	17.5	12
	peak	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	20.5	20.5	14
Max. flow (L/min)	cont.	45	60	70	70	75	80	80	75	75	75	75
	int.	60	75	85	85	90	95	95	90	90	90	90

- *Continuous pressure;Max.value of operating motor continuously.
- *Intermittent pressure;Max.value of operating motor in 8 seconds per minute.
- *Peak pressure;Max.value of operating motor in 0.8 second per minute.

Performance data

ALSRR 125 [118cm³/rev.]

Pressure (MPa)

1.75	3.5	7	10.5	14	17.5	20.5	24
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Flow (L/min)	2	4	8	15	25	34	45	53	60
2	20	50	96	137					
4	14	13	11	7					
8	24	53	110	166	221				
15	28	26	24	19	13				
25		55	113	174	225	266	294	336	
34		60	54	50	45	39	35	26	
45		53	114	180	234	275	326	348	
53		115	110	100	96	90	84	76	
60		48	110	164	226	272	323	352	
Max.cont.		194	185	173	168	160	155	149	
Max.int.			108	166	220	278	315	373	
			276	260	244	232	225	217	
			98	160	215	271	308	369	
			362	350	342	325	322	303	
			90	152	208	265	304		
			423	418	404	399	371		
			82	141	205	260	300		
			488	472	455	442	421		

ALSRR 160 [156cm³/rev.]

Pressure (MPa)

1.75	3.5	7	10.5	14	17.5	20.5	24
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Flow (L/min)	2	4	8	15	25	34	45	53	60	68	75
2	35	74	146	218	298						
4	8	4	3	3	2						
8	29	78	157	235	316	370	424				
15	22	19	18	16	14	13	8				
25	35	78	158	236	312	373	450	526			
34	47	44	42	40	37	34	32	27			
45	37	74	155	234	310	368	440	517			
53	93	90	86	84	82	79	75	69			
60		68	152	227	308	364	436	499			
68		155	151	147	142	137	131	124			
75		68	152	227	308	364	436	499			
Max.cont.		214	213	210	204	198	191	184			
Max.int.		64	143	218	296	360	425	481			
		282	280	275	268	263	256	245			
		135	216	293	357	421	476				
		330	327	322	315	306	296				
		122	207	284	350	416	467				
		379	376	368	362	356	345				
			109	196	273	345	156				
			423	419	414	406	345				
			104	188	270	337	156				
			472	466	460	450	337				

ALSRR 200 [196cm³/rev.]

Pressure (MPa)

1.75	3.5	7	10.5	14	17.5	20.5	24
------	-----	---	------	----	------	------	----

Flow (L/min)	2	4	8	15	25	34	45	53	60	68	75	85
2	39	88	132	286	370							
4	8	4	4	3	2							
8	42	85	188	270	361	427	506					
15	16	14	13	11	10	9	8					
25	43	90	192	291	367	450	529	600				
34	35	32	29	28	27	25	23	19				
45	38	92	196	298	381	462	530	602				
53	74	71	68	64	60	58	55	50				
60		82	188	283	377	456	528	605				
68		124	121	117	113	108	103	92				
75		79	183	270	362	447	515	591				
85		170	169	167	160	154	146	135				
Max.cont.			163	259	352	441	510	593				
Max.int.			223	218	212	208	199	189				
			149	256	350	440	501	582				
			260	258	254	248	241	230				
			132	248	336	432	497	575				
			299	292	284	276	272	263				
			120	230	330	412	486	570				
			336	332	327	319	310	301				
			108	208	311	403	480					
			375	372	365	358	350					
				184	280	380	462					
				425	420	411	390					

ALSRR 230 [228cm³/rev.]

Pressure (MPa)

1.75	3.5	7	10.5	14	17.5	20.5	24
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Flow (L/min)	2	4	8	15	25	34	45	53	60	68	75	85
2	44	90	182	291	374							
4	6	4	3	2	1							
8	48	100	216	310	405	484	549					
15	15	13	11	11	9	7	3					
25	50	104	212	320	421	518	603	700				
34	31	29	27	25	23	20	16	10				
45	44	106	207	318	426	529	623	712				
53	63	61	58	55	52	47	41	34				
60		101	209	324	428	532	620	705				
68		103	100	96	92	87	81	71				
75		88	205	316	421	522	623	702				
85		145	143	139	133	126	120	109				
Max.cont.			186	294	422	507	595	688				
Max.int.			192	187	182	176	170	160				
			175	290	393	496	584	678				
			226	221	215	208	203	194				
			152	270	390	485	569	661				
			256	253	248	242	235	222				
			140	265	351	482	563	642				
			292	288	283	278	273	256				
			124	235	344	448	552					
			324	321	314	308	300					
				207	335	442	546					
				366	360	351	338					

Torque (N·m) 380
Speed (rpm) 411

cont.
int.

Performance data

ALSRR 250 [257cm³/rev.]

		Pressure (MPa)							Max.cont.	Max.int.
		1.75	3.5	7	10.5	14	17.5	20.5	24	
Flow (L/min)	2	48 5	111 2							
	4	54 12	113 11	237 10	362 9	471 8	570 6	642 3		
	8	54 27	115 26	244 24	366 22	482 20	587 18	688 14		
	15	50 57	113 56	256 54	367 51	485 48	591 45	692 43	794 37	
	25	44 95	114 93	241 90	360 86	488 82	593 77	699 72	782 63	
	34		95 129	226 125	348 121	481 116	590 111	686 106	774 96	
	45		77 174	215 173	346 170	468 166	572 161	674 155	779 143	
	53		66 203	200 202	325 200	448 196	564 190	657 184	756 175	
	60			180 232	296 229	438 225	550 220	642 215	741 202	
	68			162 262	294 261	415 257	548 250	637 241	730 228	
Max.cont.	75			137 290	274 289	388 388	520 280	618 273	726 260	
Max.int.	85			130 328	261 326	370 322	509 316	604 307		
	90			85 348	224 347	358 344	490 336			

ALSRR 300 [296cm³/rev.]

		Pressure (MPa)							Max.cont.	Max.int.
		1.75	3.5	7	10.5	14	17.5	20.5	24	
Flow (L/min)	2	50 3	93 1							
	4	62 11	141 10	294 9	429 8	502 7	618 4			
	8	63 22	147 21	298 20	432 19	565 16	667 13	761 9	819 5	
	15	66 48	144 47	305 45	427 43	568 39	671 33	810 28	894 20	
	25	59 82	138 81	289 80	420 76	552 71	676 64	791 56	932 44	
	34	48 113	130 112	297 110	393 107	562 102	689 96	805 86	926 73	
	45		96 150	268 149	385 148	527 143	636 135	753 124	880 112	
	53		76 177	242 176	383 175	524 173	631 165	758 152	900 138	
	60		64 200	225 199	362 198	506 193	627 186	741 174	892 162	
	68			200 225	333 224	470 222	630 212	750 201	882 194	
Max.cont.	75			178 251	322 250	464 240	610 232	741 215	870 215	
Max.int.	85			140 285	316 284	455 278	570 270	728 257		
	95			106 316	260 314	431 311	552 307	700 292		

ALSRR 350 [345cm³/rev.]

		Pressure (MPa)							Max.cont.	Max.int.
		1.75	3.5	7	10.5	14	17.5	20.5	24	
Flow (L/min)	2	63 4	133 4							
	4	64 10	135 9	290 8	440 7					
	8	68 21	146 20	310 20	458 19	589 18	735 16	847 12		
	15	72 42	150 41	314 40	468 39	627 37	769 35	880 32	984 26	
	25	63 70	148 69	313 68	470 66	628 63	765 60	892 55	1018 46	
	34	52 97	133 96	304 95	455 93	619 89	760 85	905 78	1034 68	
	45		100 129	261 128	442 127	583 125	736 118	887 112	1028 101	
	53		85 152	247 150	418 148	566 145	715 139	880 132	1024 118	
	60		65 171	233 170	410 169	550 167	712 162	842 155	996 143	
	68			218 195	387 194	543 190	696 185	825 175	976 162	
Max.cont.	75			206 215	373 214	515 515	680 206	822 197	966 183	
Max.int.	85			176 243	355 242	510 239	679 234	808 227		
	95			353 272	509 269	645 265				

ALSRR 375 [371cm³/rev.]

		Pressure (MPa)							Max.cont.	Max.int.
		1.75	3.5	7	10.5	14	17.5	20.5	24	
Flow (L/min)	2	75 3								
	4	83 8	160 8	330 7	488 6	636 5	761 3			
	8	81 18	170 17	356 17	527 16	679 14	822 12	948 9	1060 5	
	15	76 39	162 38	356 37	533 35	683 32	845 29	978 25	1102 18	
	25	68 65	156 64	350 62	524 59	680 55	857 48	994 44	1138 35	
	34	58 90	148 89	339 87	506 83	690 77	841 71	993 63	1145 53	
	45		121 120	302 119	478 117	650 113	813 108	972 100	1134 90	
	53		95 141	282 140	466 138	628 134	785 128	934 120	1103 105	
	60		75 161	264 161	428 160	592 158	766 155	925 151	1070 141	
	68			232 182	422 180	585 176	756 169	901 161	1066 148	
Max.cont.	75			207 201	380 200	556 200	738 190	865 181	1012 165	
Max.int.	85			175 228	370 226	526 221	700 216	832 206		
	90			148 242	316 240	500 237	654 226			

Torque (Nm) 645
Speed (rpm) 265

cont.
int.

101

Performance data

ALSRR 475 [462cm³/rev.]

Pressure (MPa)

1.75 3.5 7 10.5 14 17.5 20.5

Flow (L/min)		Pressure (MPa)						
		1.75	3.5	7	10.5	14	17.5	20.5
2	93	186						
	2	1						
4	98	202	405	608	805			
	7	6	5	5	4			
8	98	206	430	652	844	1005	1180	
	15	14	13	13	12	10	8	
15	94	202	441	654	875	1056	1238	
	31	30	28	28	26	23	20	
25	94	202	441	654	875	1056	1238	
	52	51	48	45	43	39	35	
34	75	180	420	660	850	1085	1266	
	72	71	68	65	61	55	44	
45		144	380	627	835	1062	1261	
		96	95	93	90	84	73	
53		116	346	573	795	1008	1212	
		113	112	111	107	102	90	
60		82	318	539	790	975	1188	
		128	128	127	124	119	110	
68		58	272	520	740	955	1156	
		146	145	144	141	136	125	
Max.cont.	75			230	480	702	920	1116
				161	160	702	153	140
85				200	454	662	876	
				182	180	177	168	
Max.int.	90			150	378	615	840	
				194	193	190	182	

ALSRR 540 [540cm³/rev.]

Pressure (MPa)

1.75 3.5 7 10.5 14 17.5

Flow (L/min)		Pressure (MPa)						
		1.75	3.5	7	10.5	14	17.5	
2	105	198						
	2	2						
4	125	231	470	688	932	1136		
	6	5	5	4	4	3		
8	134	238	496	749	966	1175		
	13	13	12	11	11	8		
15	122	230	505	750	981	1218		
	27	26	26	25	24	21		
25	100	225	500	774	986	1220		
	44	43	42	41	39	35		
34	80	212	481	748	977	1243		
	62	61	60	58	54	49		
45		173	437	714	936	1190		
		82	82	81	79	75		
53		142	416	678	938	1170		
		97	97	96	94	89		
60		106	380	664	896	1158		
		110	110	109	108	106		
68		85	357	616	870	1108		
		125	124	124	123	120		
Max.cont.	75			318	600	826	1100	
				138	137	826	132	
85				292	538	780		
				154	153	152		
Max.int.	90			214	486	755		
				169	168	168		

Torque (N·m) 486
Speed (rpm) 168

ALSRR 750 [745cm³/rev.]

Pressure (MPa)

1.75 3.5 7 10.5 12 14

Flow (L/min)		Pressure (MPa)					
		1.75	3.5	7	10.5	12	14
2	145	280					
	2	1					
4	160	321	654	960	1115	1312	
	4	4	4	3	3	2	
8	162	335	688	1026	1159	1347	
	9	9	9	8	8	7	
15	156	330	694	1047	1184	1376	
	19	19	18	18	17	16	
25	142	320	688	1046	1179	1373	
	32	31	30	30	29	27	
34	110	288	658	1021	1169	1366	
	44	44	42	41	40	37	
45	71	242	620	982	1143	1345	
	60	59	59	58	58	55	
53		202	568	941	1105	1308	
		70	69	68	67	66	
60		140	527	898	1086	1286	
		79	78	77	76	74	
68		100	486	852	1034	1251	
		90	90	89	88	87	
Max.cont.	75		65	425	812	980	1178
			99	99	98	97	96
83				395	745	906	
				110	109	108	
Max.int.	90			298	660	800	
				120	119	117	

cont.
int.

Dimensions mounting data

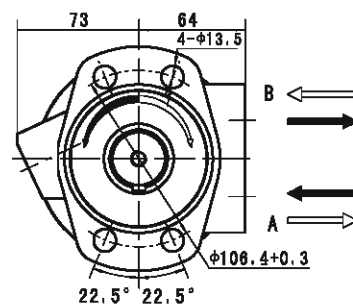
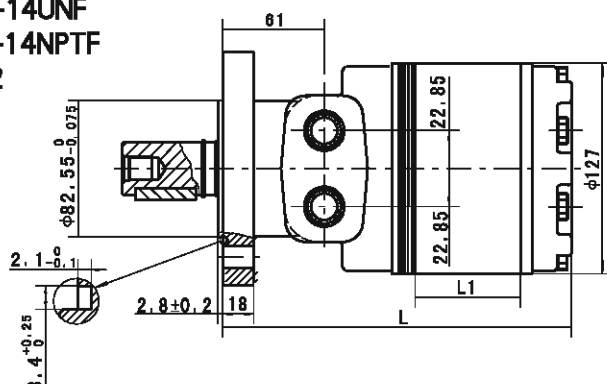
Magneto Mount 4-Hole

Code: Port A, B

MS 7/8-14UNF

MP 1/2-14NPTF

MD G1/2



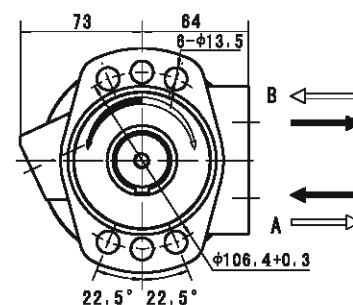
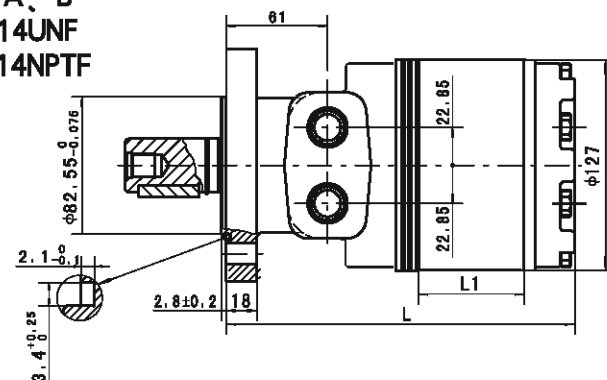
Magneto Mount 6-Hole

Code: Port A, B

FS 7/8-14UNF

FP 1/2-14NPTF

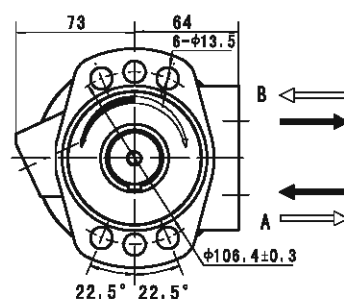
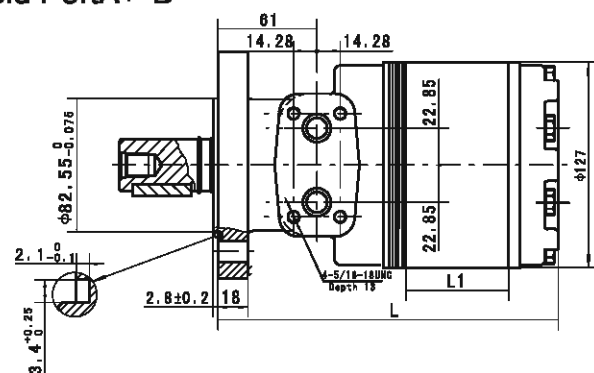
FD G1/2



Magneto Mount 6-Hole

Code: Manifold Port A, B

FH Ø12.7



Displacement (cm³/rev.)	125	160	200	230	250	300	350	375	475	540	750
L1(mm)	10.2	13.5	17	19.5	22	25.4	29.5	31.8	39.4	47.3	63.5
L(mm)	157	160	163.5	166	168.5	172	176	178.5	186	194	210
Weight(kg)	10.6	10.9	11.2	11.3	11.4	11.6	12	12.5	13	13.5	15

Dimensions mounting data

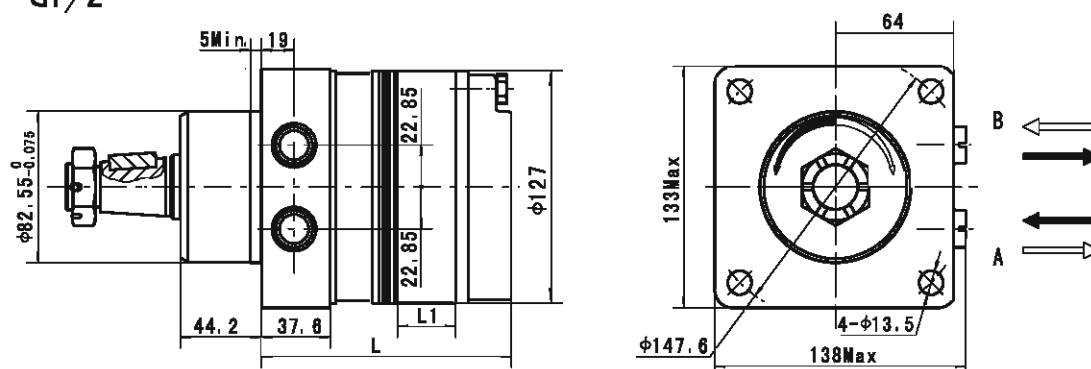
Wheel Mount

Code: Port A, B

WS 7/8-14UNF

WP 1/2-14NPTF

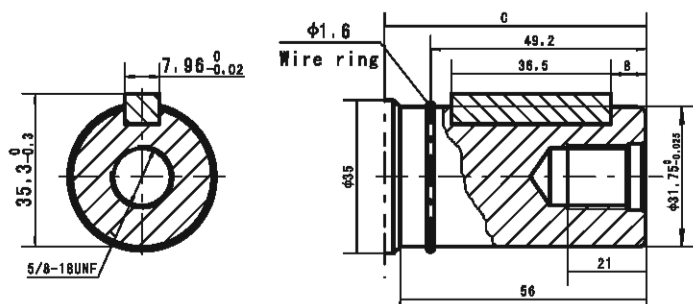
WD G1/2



Displacement (cm³/rev.)	125	160	200	230	250	300	350	375	475	540	750
L1(mm)	10.2	13.5	17	19.5	22	25.4	29.5	31.8	39.4	47.3	63.5
L(mm)	119	122	125.5	128	130.5	134.5	138	140.5	148	156	176
Weight(kg)	12	12.1	12.3	12.4	12.6	13	13.2	13.5	14	14.6	16

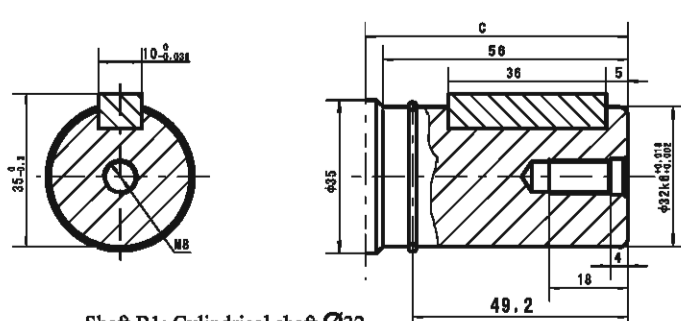
Shaft extensions dimensions data

Shaft G2



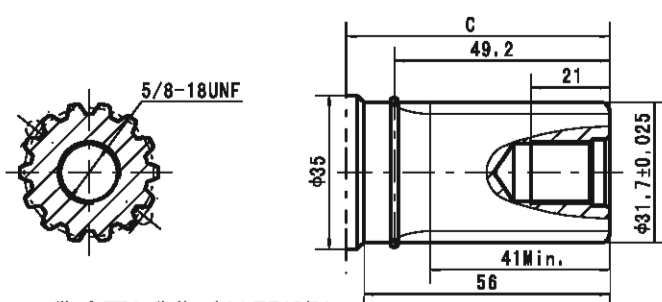
Shaft G2: Cylindrical shaft $\varnothing 31.75$
Parallel key 7.96x7x36.5

Shaft B1



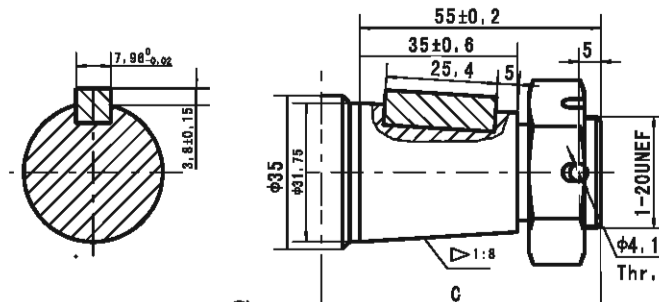
Shaft B1: Cylindrical shaft $\varnothing 32$
Parallel key 10x8x36

Shaft FD1



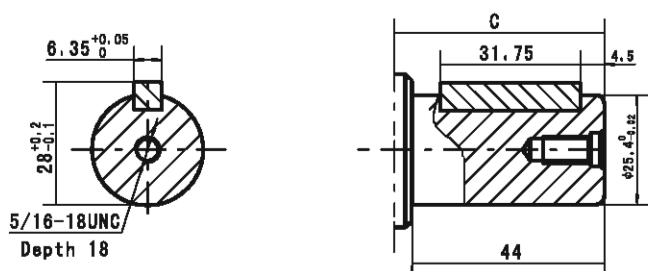
Shaft FD1: Splined 14-DP12/24
Flat root side fit
to fit ANSI B92.1 1996

Shaft T4



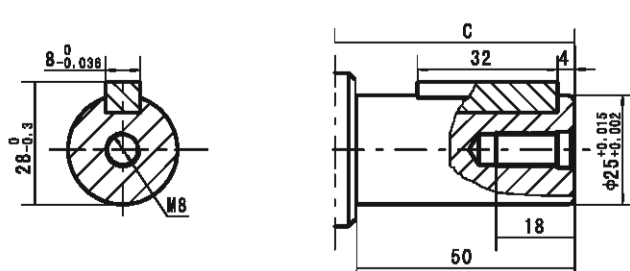
Shaft T4: Cone-shaft $\varnothing 31.75$
Parallel key 7.96x7.96x25.4
Tightening torque: 200±10Nm

Shaft RW



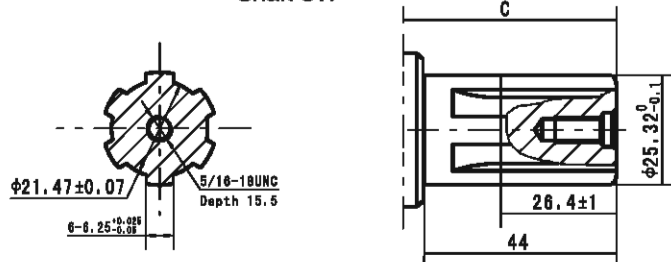
Shaft RW: Cylindrical shaft $\varnothing 25.4$
Parallel key 6.35x6.35x31.75

Shaft AW



Shaft AW: Cylindrical shaft $\varnothing 25$
Parallel key 8x7x32

Shaft SW



Shaft SW: Splined SAE 6B

From Mounting Flange to Shaft End		
Dimension C		
Shaft Code	Magneto Mount (mm)	Wheel Mount (mm)
G2	61	103
B1	61	103
FD1	61	103
T4	65	107
RW	50	91
AW	56	97
SW	50	91

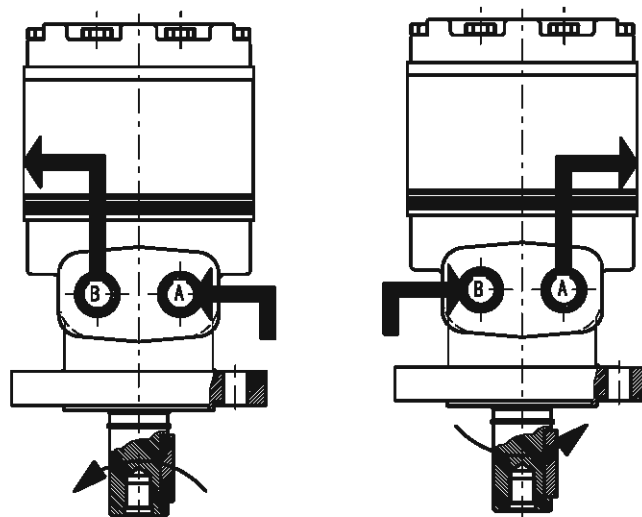
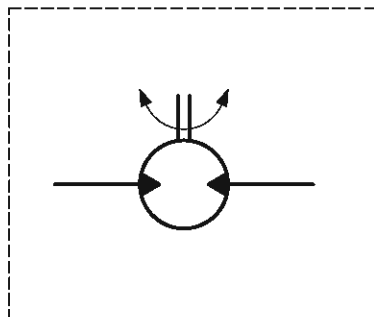
Shaft rotation direction

Direction of shaft rotation: Reverse timed

When facing shaft end of motor, shaft to rotate:

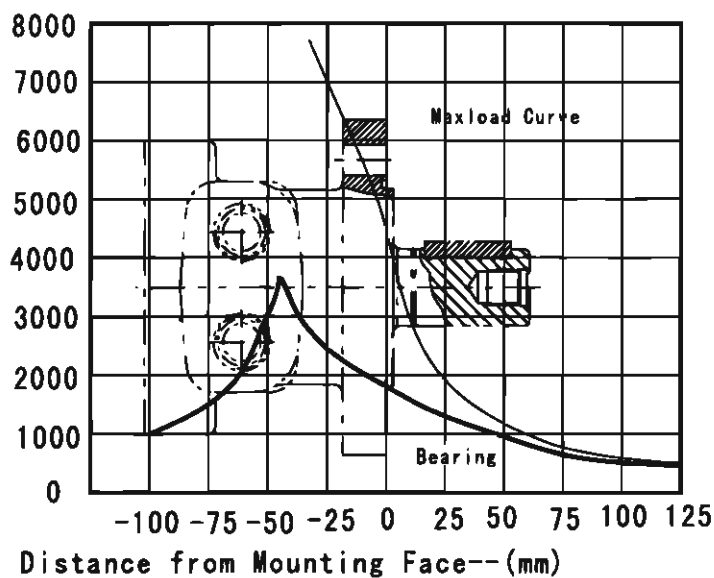
Clockwise when port "B" is pressurized.

Counter-clockwise when port "A" is pressurized.

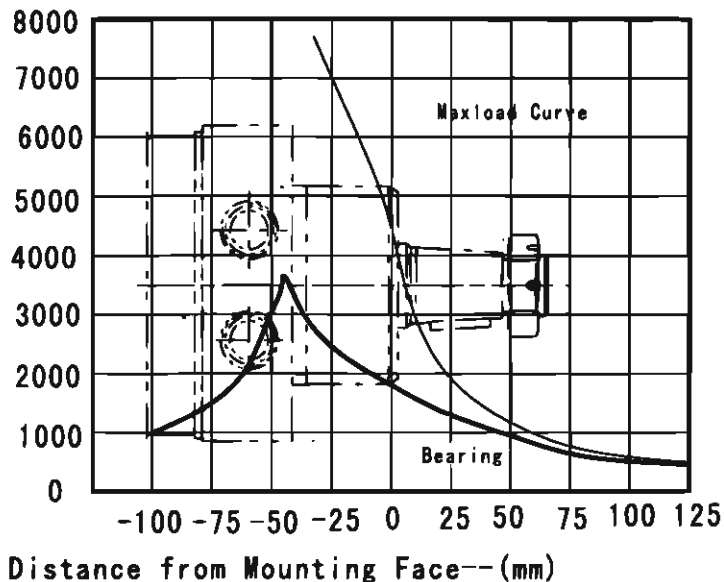


Axial and radial forces

ALSRR for M#/F# Mounting
Side Load-(daN)



ALSRR for W# Mounting
Side Load-(daN)



The bearing curve represents allowable bearing loads for an L_{10} bearing life at 3×10^6 revolutions.

The maximum load curve is defined by bearing static load capacity. This curve should not be exceeded at any time including shock loads.

Order information

1 2 3 4 5 6 7

ALSRR- - - - - - -

Pos.1	2	3	4	5	6	7
Code	Disp.	Flange , Pilot , Port	Output Shaft	Rotation direction	Paint	Unusually function
1		MS 4-Ø13.5 Magneto Mount, Pilot Ø82.55x2.8, Ports 7/8-14 O-ring				
		MP 4-Ø13.5 Magneto Mount, Pilot Ø82.55x2.8, Ports 1/2-14NPTF				
	125					
	160	MD 4-Ø13.5 Magneto Mount, Pilot Ø82.55x2.8, Ports G1/2	G2 Shaft Ø31.75 , parallel key 7.96x7.96x31.75			
	200		B1 ShaftØ32, Parallel key 10x8x45			
	230	FS 6-Ø13.5 Magneto Mount, Pilot Ø82.55x2.8, Ports 7/8-14 O-ring	FD1 Shaft Ø31.75, splined key 14-DP12/24		00 No paint	
	250	FP 6-Ø13.5 Magneto Mount, Pilot Ø82.55x2.8, Ports 1/2-14NPTF	T4 Cone-Shaft Ø31.75, Parallel key 7.96x7.96x25.4	None	00 No paint	
	300		RW Shaft Ø25.4 , parallel key 6.35x6.35x31.75	Standard	B Blue	None
	350	FD 6-Ø13.5 Magneto Mount, Pilot Ø82.55x2.8, Ports G1/2	AW Shaft Ø25 , parallel key 8x7x32	R Reverse	S Silver Grey	Standard
	375		SW Shaft Ø25.4 ,splined key SAE 6B	Timed		
	475	FH 6-Ø13.5 Magneto Mount, Pilot Ø82.55x2.8, Manifold Ports 1/2				
	540	WS 4-Ø13.5 Wheel Mount, Pilot Ø82.55x5, Ports 7/8-14 O-ring				
	750					
		WP 4-Ø13.5 Wheel Mount, Pilot Ø82.55x5, Ports 1/2-14NPTF				
		WD 4-Ø13.5 Wheel Mount, Pilot Ø82.55x5, Ports G1/2				

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

BK2 Series hydraulic brake

BK2 series brake is one kind of hydraulic wet disc brake. The brake force is caused by the spring, and hydraulic pressure the brake force.

Features as follows:

- * BK2 series adopts the special friction disc and high strength spring design: long life endurance, low noise, high braking reliability.
- * with 4 Drain port design, the brake can be used in different applications.
- * compact structure, easy mounting.
- * it can be used preferentially together with ALSG2, ALSG3 series hydraulic motor.

BK2 series hydraulic brake stays in braking condition since delivery out of the factory. During normal operation, there exists the braking force in the brake disc, only if the pressure of hydraulic system, that the brake links, is lower than the pressure required by the release of brake, the spring force shall keep the brake in braking condition. BK2 series hydraulic brake is widely used in heavy duty machinery, such as engineering machinery, cranes, off-highway machinery vehicles, construction machinery, material handling machinery, agricultural machinery, mining, sanitation machinery, timber industries. They are also used in winches and in hydrostatic drive systems for automatization engines.

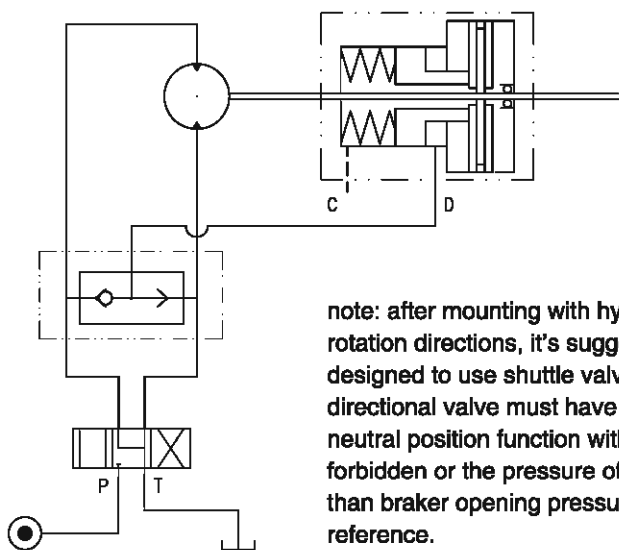
Special Note: such kind of brake is only used in static parking brake. Dynamic braking is not recommended.

Manual instruction

In order to make the BK2 series brake work under the best situation, we recommend the normal requirements as follows:

1. Assembly: 1st of all, we have to mount the brake BK2 with hydraulic motor, and then fill the brake with lubrication oil through the drain port, and then mount with other parts.
2. Fluid type: Mineral based-HM(GB/T763.2-87) (ISO6743/4) or HLP(DIN51524).
3. Temperature range: normal -20°C–90°C the best optimal situation 20°C–60°C
4. Viscosity range: 20~75mm²/s; the best optimal situation 42~74mm²/s at 40°C.
5. Filtration: nominal filtration of 25 micron, ISO code 20/16.
6. Maintenance: changed after the first 50~100h; then after every 500~1000h.

Typical Applications Drawing

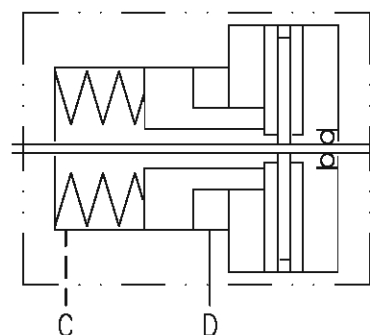


note: after mounting with hydraulic motor, if the motor needs both rotation directions, it's suggested that the hydraulic system is designed to use shuttle valve, and the neutral position of the directional valve must have off-load function (type Y or H), the neutral position function without off-load function (type O) is forbidden or the pressure of the outlet port in the system is larger than braker opening pressure. Please check the drawing for reference.

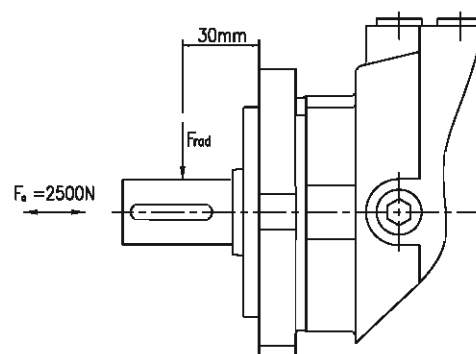
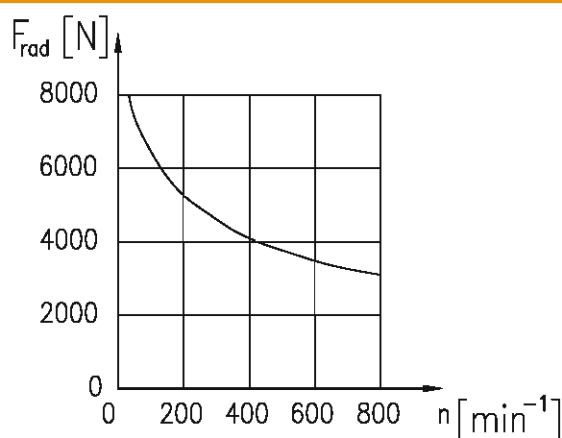
Specification data

Item	BK2-1	BK2-2
Min. static Torque [Nm]	200~230	410~450
Min. Opening Pressure [MPa]	1.7~2.3	
Max. Opening Pressure [MPa]	30	
Min.oil quantity for brake releasing[cm ³]	7~8	
Oil volume [cm ³]	50~120	
Max. pressure in drain space [MPa]	0.05	
Weight [kg]	9	9.5

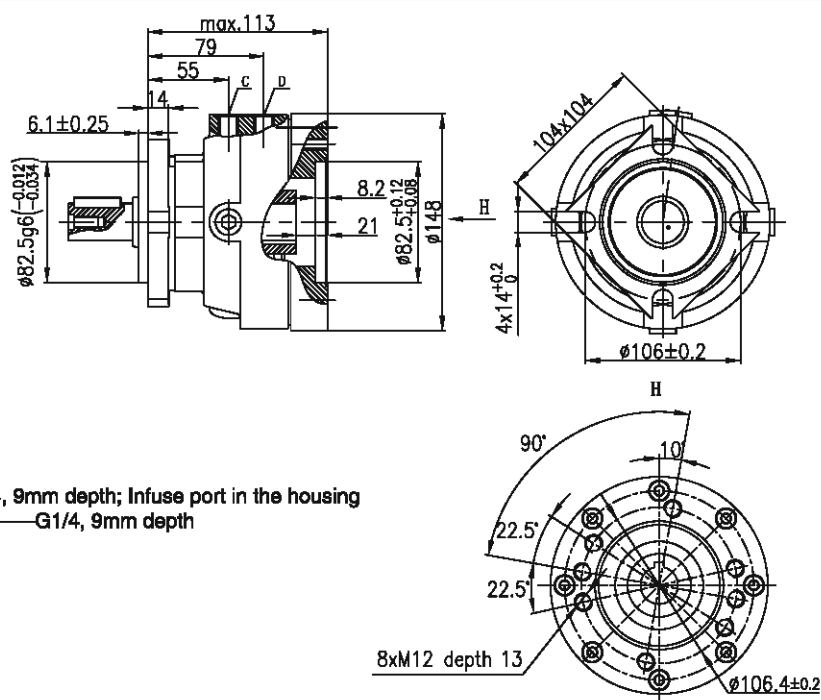
*Static torque is obtained at working pressure 0 MPa



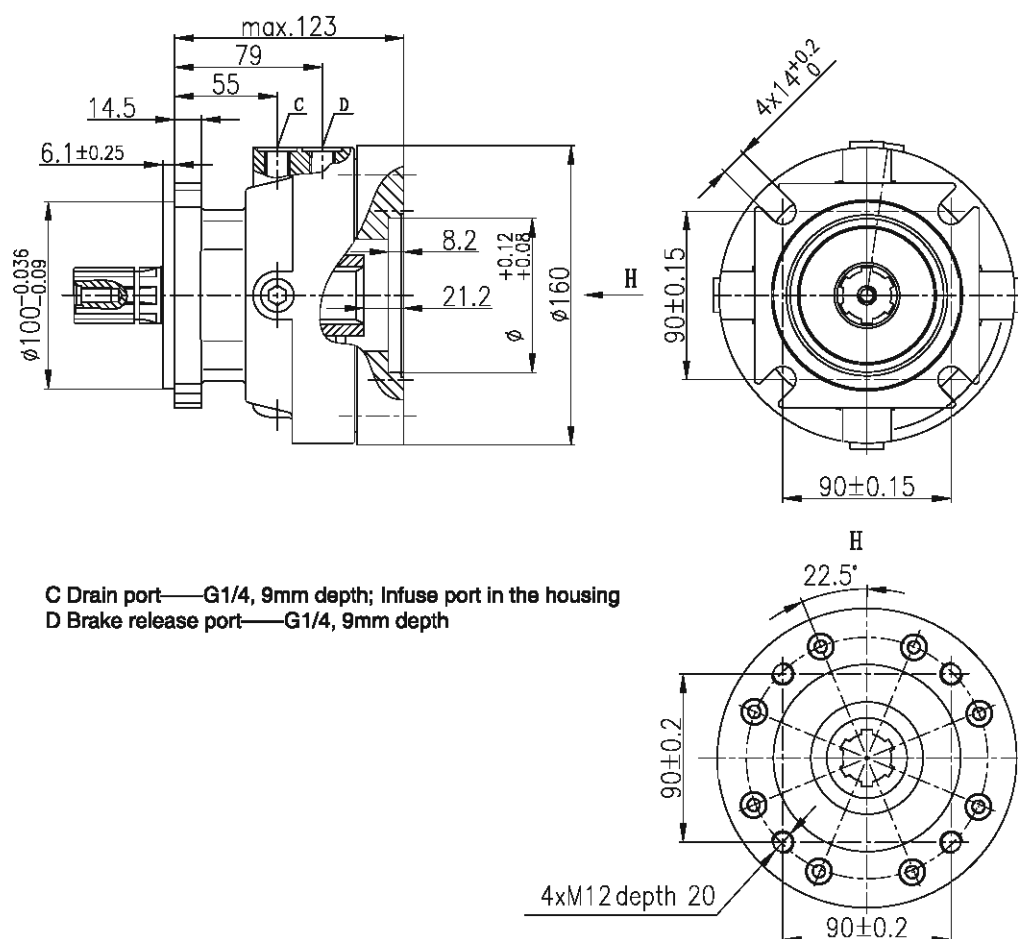
Load curve



Mounting data model BK2-1

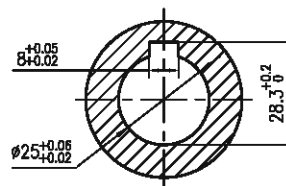
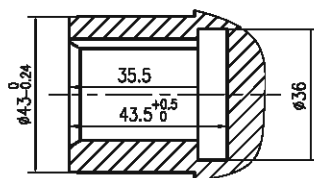


Mounting data model BK2-2

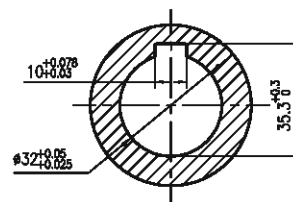
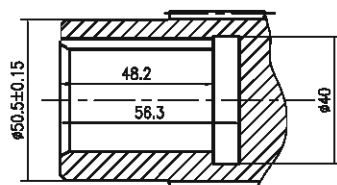


Input shaft holes

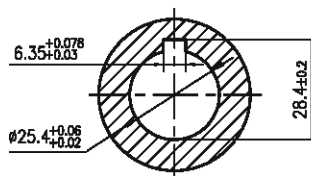
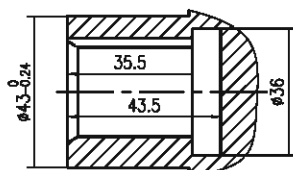
A



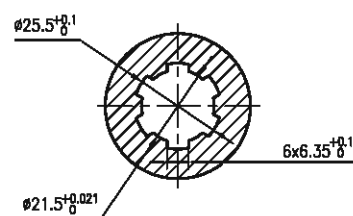
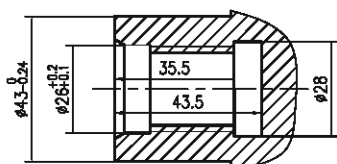
B



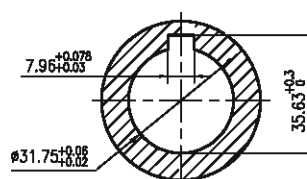
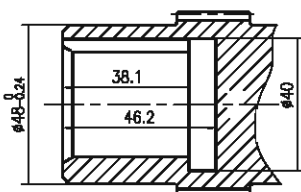
C



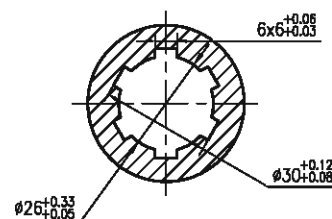
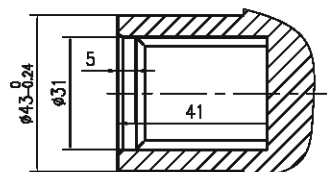
E



G



N



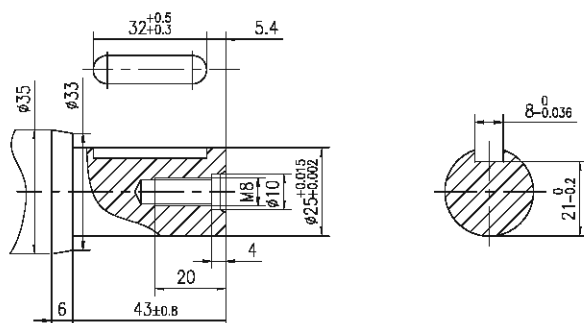
BK2

Hydraulic brake

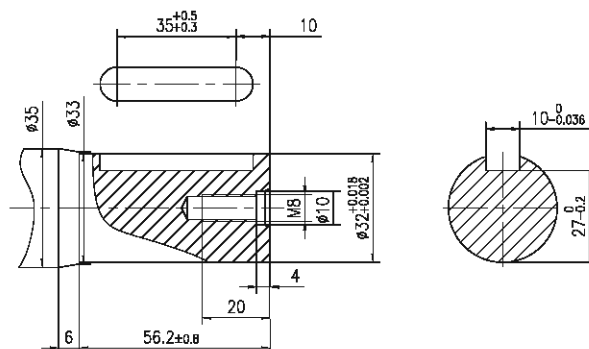
IOW AmberLine
OW Hydraulics

Output shaft extensions

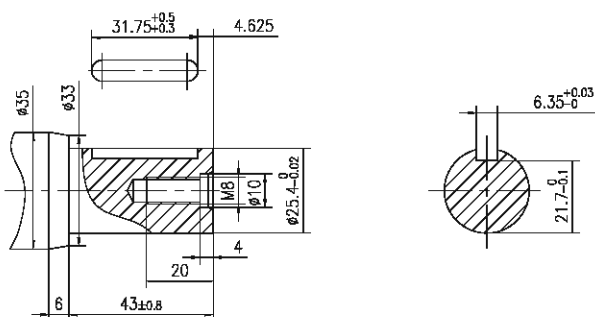
A



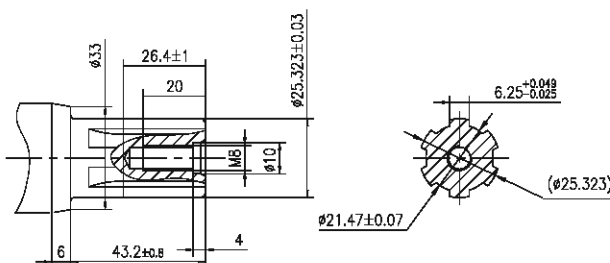
B



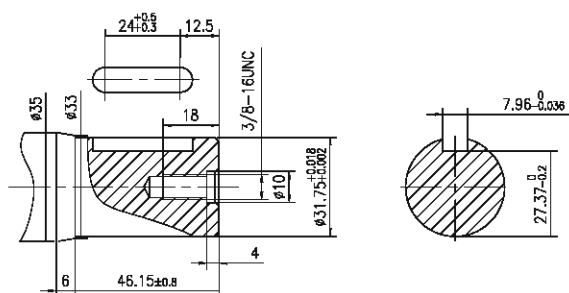
C



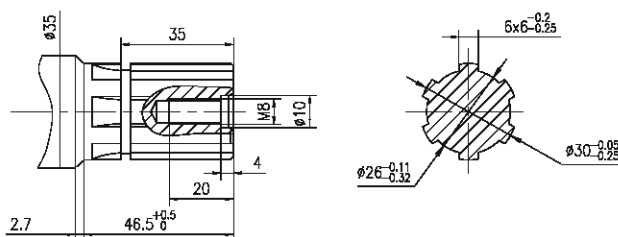
E



G



N



Output shaft extensions



Pos.1	2	3	4	5	6	7
Series Code	Structure Code	Torque	Input Shaft holes	Output Shaft extensions	Paint	Unusually function
2	1	Torque200–230Nm Torque410–450Nm	Shaft holes Φ 25, Parallel key 8x7x32 Shaft holes Φ 32, Parallel key 10x8x45 Shaft holes Φ 25.4, Parallel key 6.35x6.35x31.75 Shaft holes Φ 25.4, splined key SAE 6B Shaft holes Φ 31.75, Parallel key 7.96x7.96x31.75	A Shaft Φ 25, Parallel key 8x7x32 B Shaft Φ 32, Parallel key 10x8x45 C Shaft Φ 25.4, Parallel Key6.35x6.35x31.75 E Shaft Φ 25.4, splined key SAE 6B G Shaft Φ 31.75, Parallel Key7.96x7.96x31.75	A B C E G	No Paint Blue Black Sliver Grey
2	2	Torque410–450Nm	Shaft holes Splined 6-30x26x6 Shaft holes Splined 6-30x26x8	N Shaft Splined 6-30x26x6 J Shaft Splined 6-30x26x8	N J	omit B S

Note: When the table is used, pls fill the code with right rows in the table and give us, which the code information is consist of construction, torque, input Shaft holes, output Shaft extensions, Paint .If the specification is not in the table or you have specific requirements, please contact us.

WGB series planetary gearbox

WGB Series planetary gearbox is used in tracklayers , wheel driving vehicles , different kinds of self-mobile machineries, and such kind of transmission & lifting machinery as winches, cylinder machinery , etc. By adopting special orbital motor and compact structure design, the planetary gearbox can be installed inside the wide groove of the pedrail or wheel, or inside the drum of the winches or the cylinder machinery; the design is simple with reasonable space, and easy mounting. WGB Series planetary gearbox is suitable for open and close hydraulic loop system.

WGB Series planetary gearbox is widely used in self-mobile equipment, such as engineering machinery, lifting machinery, road machinery vehicles, construction machinery, convey machinery, agricultural machinery, mine machinery, sweeping & cleaning machinery, wood machinery, etc., it's also used in winches, and automatization engine's static hydraulic driving system. The features are shown as follows:

- * Adopt special sealing system. Special design of composite sealing, being used in the radial and axial sealing in & between rotating and fixed parts;
- * Adopt built-in multi-disk parking brake system which is also the spring-load parking brake ,hydraulic pressure releases brake force; on the condition that the pressure of hydraulic system decreases lower than the required pressure of the release brake, it will safely stop rotation completely.
- * Compact structure, easy mounting.
- * To be preemptively used together with ALSG2, ALSG3 series hydraulic orbital motors.

Manual instruction

In order to keep the hydraulic system operating under optimal condition, the normal requirements are shown as follows:

1. Hydraulic oil: HM mineral oil(ISO 6743/4)(GB/T763.2-87) or HLP mineral oil(DIN 51524).
2. Oil temperature: normal operation temperature: -20°C~90°C; optimal temperature scope : 20°C~60°C;
3. Oil viscosity: 20~75mm²/s; optimal viscosity scope : 42~74mm²/s at the temperature of 40°C;
4. Oil cleanness: oil filtration precision: 25µm; solid contamination level has to be lower than 20/16;

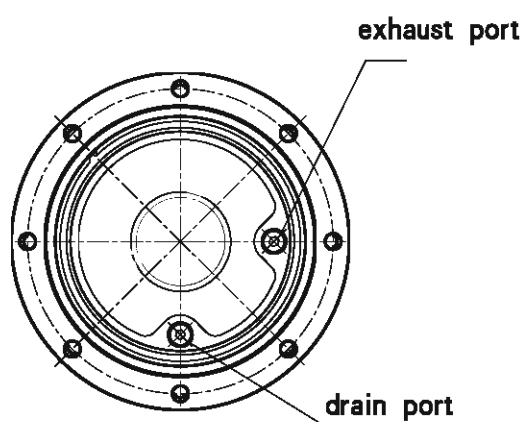
In order to keep the planetary gearbox operating under the best condition, the normal requirements are shown as follows:

1. Lubrication oil: CKC220 mineral gear oil(ISO 12925-1)(GB/T5903);
2. Oil viscosity: 220mm²/s at the temperature of 40°C;
3. Maintenance period: 1st maintenance should be carried out 50-200 hours after initial operation; afterwards normal maintenance should be carried out every 500~1000 hours.
4. We suggest that MOBIL GEAR630, ESSO SPARTAN EP220, SHELL OMALA EP220 be used.

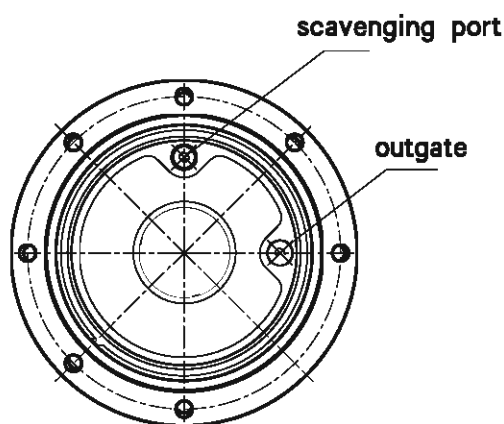
How to change the oil for planetary gearbox:

No lubricate oil in the gearbox lubricate the gearbox before it be used.

1. As shown in Drawing A, dismantle two port plugs , discharge the lubrication oil out of the planetary gearbox. and then clean the planetary housing with the detergent supplied by lubrication oil supplier.
2. As shown in Drawing B, fill more hydraulic oil. More oil till lubrication oil flows out of the drain port; fasten two plugs till the ports are sealed.

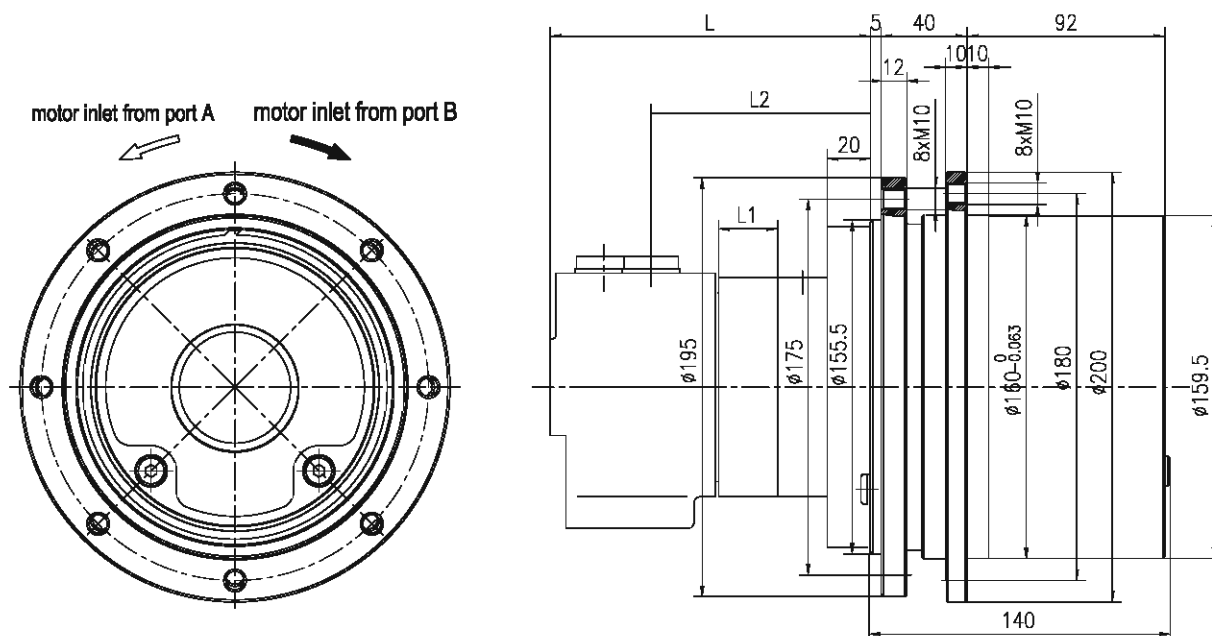


Drawing A



Drawing B

WGB series with ALSG3 main specifications



Motor information

	ALSG3 80	ALSG3 100	ALSG3 125	ALSG3 160	ALSG3 200	ALSG3 250	ALSG3 315	ALSG3 375
L1(mm)	13	17	22	27.5	35.1	47	59	71
L2(mm)	69	73	78	83.5	91.1	103	115	127
L(mm)	134.5	138.5	143.5	149	157	169	181	193

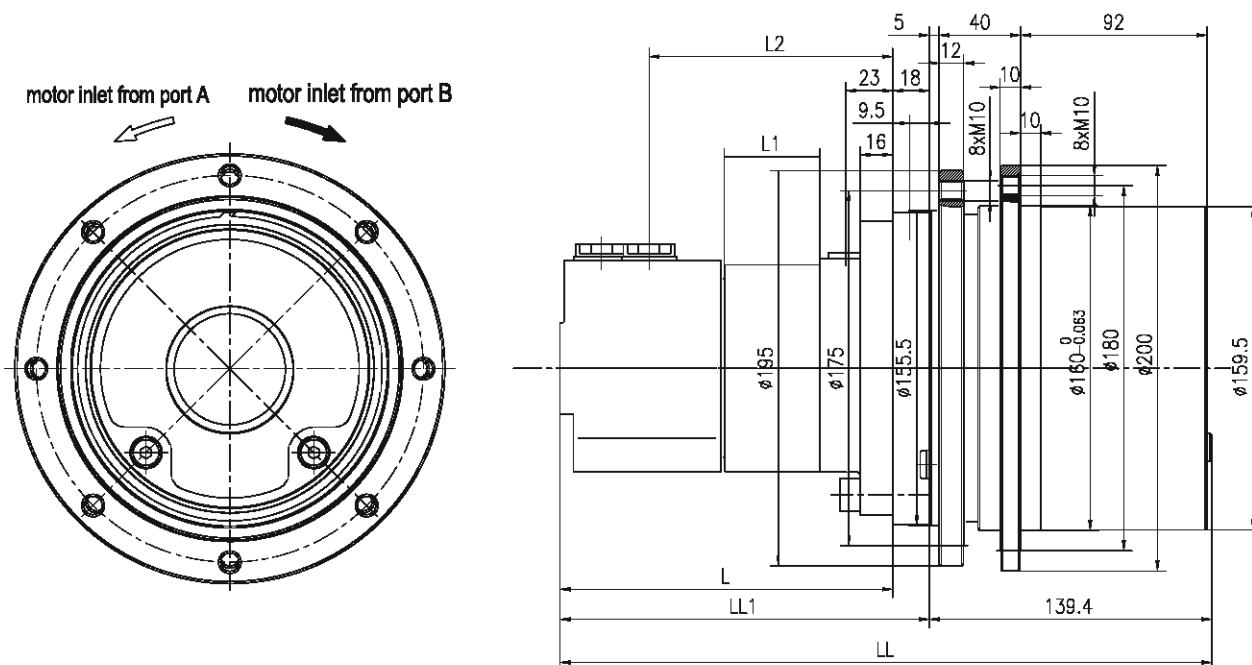
WGB150 WITH ALSG3 125, Main specifications as follows

Main specification of WGB 150

WGB150		5.75	4.6	3.28
Motor specification	Motor ALSG3 125	125	125	125
	pressure drop MPa	15.4	15.4	16.2
	flow L/min	73.3	73.3	69.7
	torque N·m	260.9	260.9	274.4
	speed rpm	539.5	539.5	512.9
Output speed rpm		93.8	117.3	156.4
Output torque N·m		1500	1200	900
Output power kW		14	14	14

Main specifications of the non-standard motor with WGB150 will be calculated upon hydraulic motor.
The max. output torque of WGB 150 is 1500 Nm, the max. output power is 14 kW.

WGB series with ALSG3S main specifications



Motor information

	ALSG3S 80	ALSG3S 100	ALSG3S 125	ALSG3S 160	ALSG3S 200	ALSG3S 250	ALSG3S 315	ALSG3S 375
L1(mm)	13	17	22	27.5	35.1	47	59	71
L2(mm)	82	86	91	96.5	104.1	116	128	140
L (mm)	127	131	136	141.5	149	161	173	185
LL1(mm)	145	149	154	159.5	167	179	191	203
LL(mm)	248.4	288.4	293.4	298.9	306.4	318.4	330.4	342.4

WGB 300 WITH ALSG3S 250, Main specifications as follows

Main specification of WGB 300

WGB300		5.75	4.6	3.28
specification Motor	Motor ALSG3S 250	252	252	252
	pressure drop MPa	15.3	15.3	15.2
	flow L/min	95.0	95.0	95.6
	torque N·m	521.7	521.7	518.3
	speed rpm	346.8	346.8	349.1
Output speed rpm		60.3	75.4	106.4
Output torque N·m		3000	2400	1700
Output power kW		18	18	18

Main specifications of the non-standard motor with WGB 300 will be calculated upon hydraulic motor.
The max. output torque of WGB 300 is 3000 Nm, the max. output power is 18 kW.

Order information

1 2 3 4 5 6 7 8

WGB [] - [] - [] - [] - [] - [] - [] - []

Pos.1		2	3		4	5	6		7		8													
Series Code		Ratio	Brake		Motor code	Motor Displace ment	Port and drain port		Paint		Unusually function													
1500N·m	150	3.28	With brake	BK	ALSG3-W1	80	G1/2 manifold mount 2xM10,G1/4	D	No paint	DD	Standard	Omit												
		4.6	No brakes	Omit		100							M22x1.5 manifold mount2xM10,M14x1.5	M	Blue	Omit								
		5.75				125											7/8-14UNF O-ring manifold mount 2x3/8-16,7/16-20UNF	S	Black	B				
						160															1/2-14NPTF manifold mount 2x3/8-16,7/16-20UNF	P	Silver grey	S
						200																		
3000N·m	300	3.28	With brake	BK	ALSG3S-I1	250																		
		4.6	No brakes	Omit		315																		
		5.75				375																		

Note: from the order code, please choose the colorful code in the right column, and provide us with the information in regard to brake structure, torque, ratio,brake, motor code, displacement, port and drain port and the paint , etc. If the specification is not in the table or you have special requirements, please contact us.

HGB series planetary gearbox

HGB series planetary gearbox is one speed reducer for various machinery, adopting the compact design of combining hydraulic orbital motor and speed reducer, design structure is simple, with reasonable mounting space, easy for mounting. This kind of gearbox fits all kinds of hydraulic loop system.

HGB series planetary gearbox is widely used various machinery, such as engineering machinery, lifting machinery, road machinery vehicles, construction machinery, convey machinery, agricultural machinery, mine machinery, sweeping & cleaning machinery, wood machinery, etc., it's also used in winches, and automatization engine's static hydraulic driving system.

The features are shown as follows:

- * Compact structure, easy mounting.
- * Small volume, strong power.
- * To be preemptively used together with ALSG2, ALSG9, ALSG3 series hydraulic orbital motors.

Manual instruction

In order to keep the hydraulic system operating under optimal condition, the normal requirements are shown as follows:

1. Hydraulic oil: HM mineral oil(ISO 6743/4)(GB/T763.2-87) or HLP mineral oil(DIN 51524).
2. Oil temperature: normal operation temperature: -20°C~90°C; optimal temperature scope : 20°C~60°C;
3. Oil viscosity: 20~75mm²/s; optimal viscosity scope : 42~74mm²/s at the temperature of 40°C;
4. Oil cleanness: oil filtration precision: 25µm; solid contamination level has to be lower than 20/16;

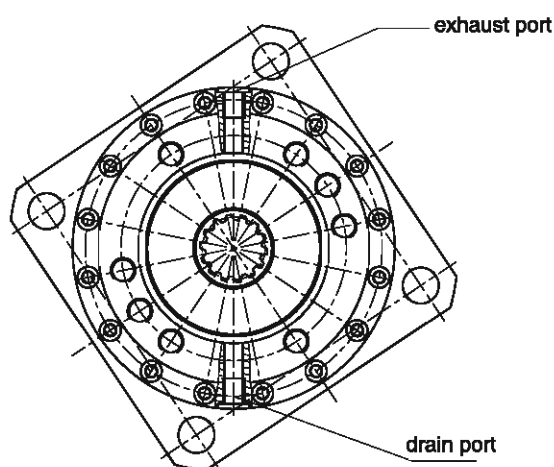
In order to keep the planetary gearbox operating under the best condition, the normal requirements are shown as follows:

1. Lubrication oil: CKC220 mineral gear oil(ISO 12925-1)(GB/T5903);
2. Oil viscosity: 220mm²/s at the temperature of 40°C;
3. Maintenance period: 1st maintenance should be carried out 50-200 hours after initial operation; afterwards normal maintenance should be carried out every 500~1000 hours.
4. We suggest that MOBIL GEAR630, ESSO SPARTAN EP220, SHELL OMALA EP220 be used.

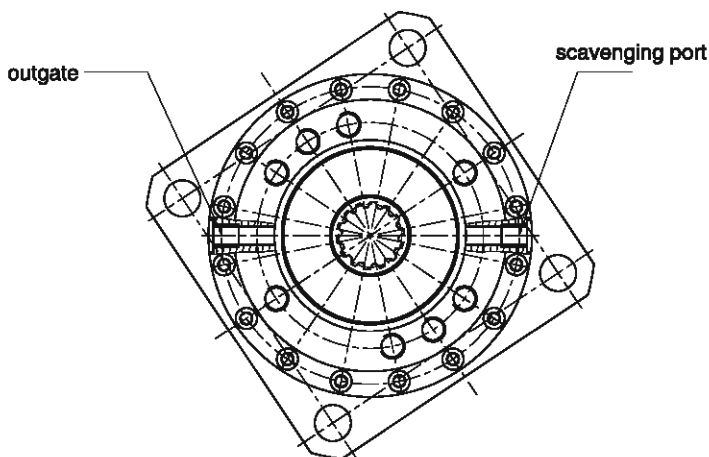
How to change the oil for planetary gearbox:

No lubricate oil in the gearbox lubricate the gearbox before it be used.

1. As shown in Drawing A, dismantle two port plugs, discharge the lubrication oil out of the planetary gearbox. and then clean the planetary housing with the detergent supplied by lubrication oil supplier.
2. As shown in the Drawing, fill more hydraulic oil till lubrication oil flows out of the drain port; fasten two plugs till the ports are sealed.

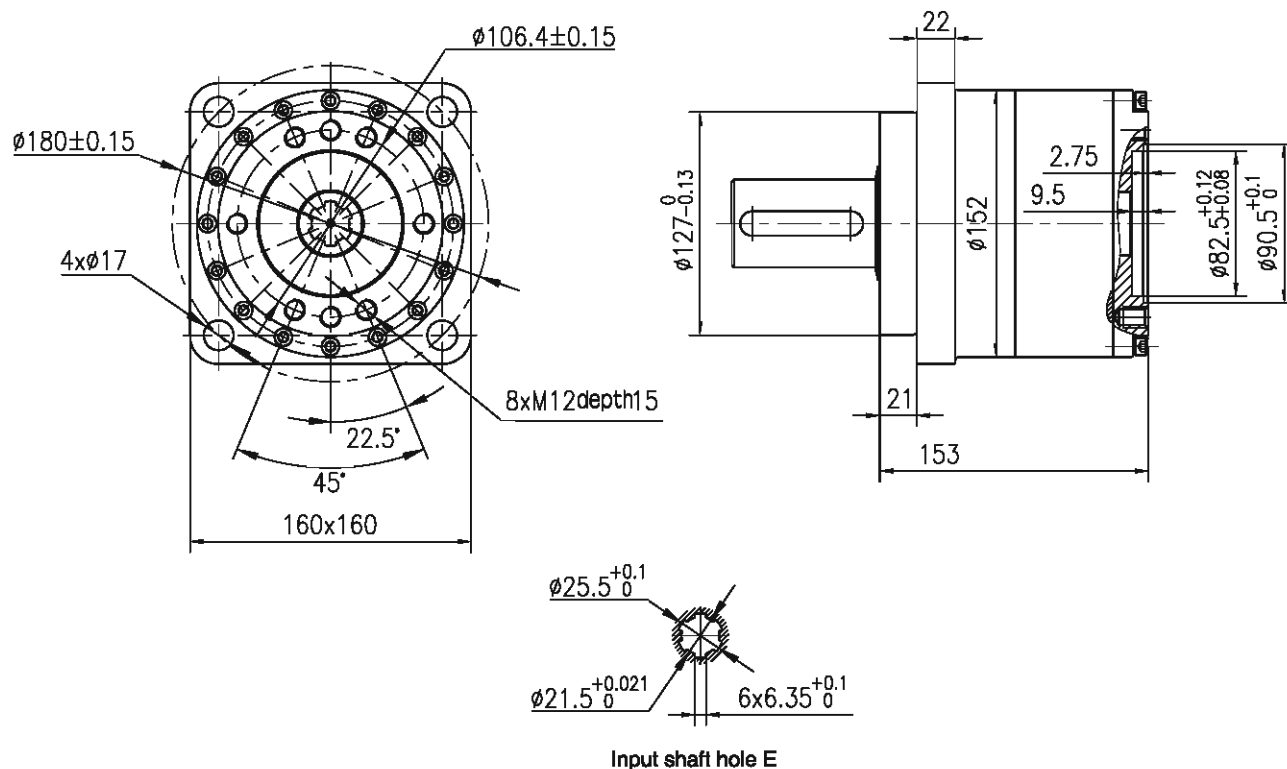


Drawing A



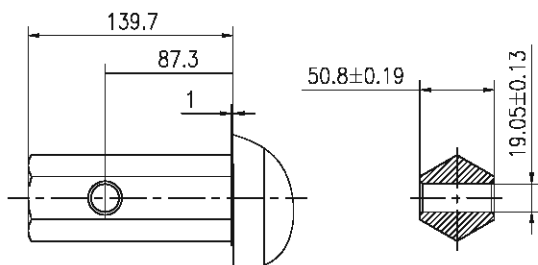
Drawing B

Main mounting and specification data

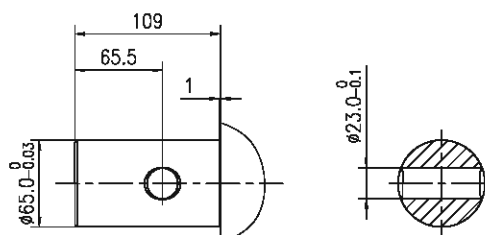


Output shaft extensions

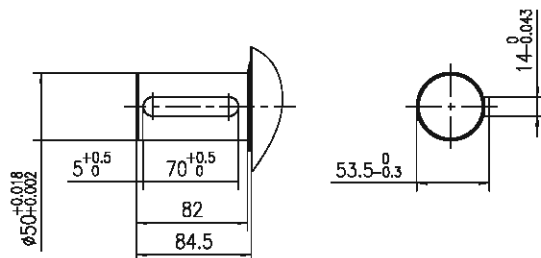
shaft H1



shaft H2



shaft A



Main specifications of the ALSG2, ALSG9, ALSG3 motor with HGB will be calculated upon hydraulic motor.
The rotation direction of input and output of HGB planetary gearbox is reverse. The speed reduction ratio is 3.65. The max. output torque of HGB is 2000 Nm, the max. output power is 15 kW.

Order information

1

2

3

4

5

6

7

8

9

HGB

Pos.1		2	3	4		5		6	7		8		9	
Series code		Ratio code	Input hole code	Output shaft code		Motor code		Motor displacement code	Motor port & drain port code		Paint		Special function	
Omit	3.65	E	Hexangular 50 Φ65 Φ50	H1 H2 A	ALSG2 shaft	R	80 100 125 160 200 250 315 375	G1/2 manifold mounting 4xM8,G1/4; M22x1.5 manifold mounting 4xM8,M14x1.5 7/8-14UNF O-ring manifold mounting 4x5/16-18UNC,7/16-20UNF 1/2-14NPTF manifold mounting 4x5/16-18UNC,7/16-20UNF	D M S P	No paint Blue Black Grey	00 Omit B S	Standard	Omit	
					ALSG9 shaft	H	200 250 315 400 500	G1/2 manifold mounting 4xM8,G1/4 M22x1.5 manifold mounting 4xM8,M14x1.5 7/8-14UNF O-ring manifold mounting 4xM8 , 7/16-20UNF 1/2-14NPTF manifold mounting 4xM8 , 7/16-20UNF	D M S P					
					ALSG3 shaft	S	80 100 125 160 200 250 315 375	G1/2 manifold mounting 2xM10,G1/4 M22x1.5 manifold mounting 2xM10,M14x1.5 7/8-14UNF O-ring manifold mounting 2x3/8-16,7/16-20UNF 1/2-14NPTF manifold mounting 2x3/8-16,7/16-20UNF	D M S P					

Note: from the order code , please choose the colorful code in the right column, and provide us with the information in regard to structure, ratio,input shaft hole, output shaft extension,motor code, displacement code,motor port & drain port code and the paint , etc. If the specification is not in the table or you have special requirements, please contact us.

