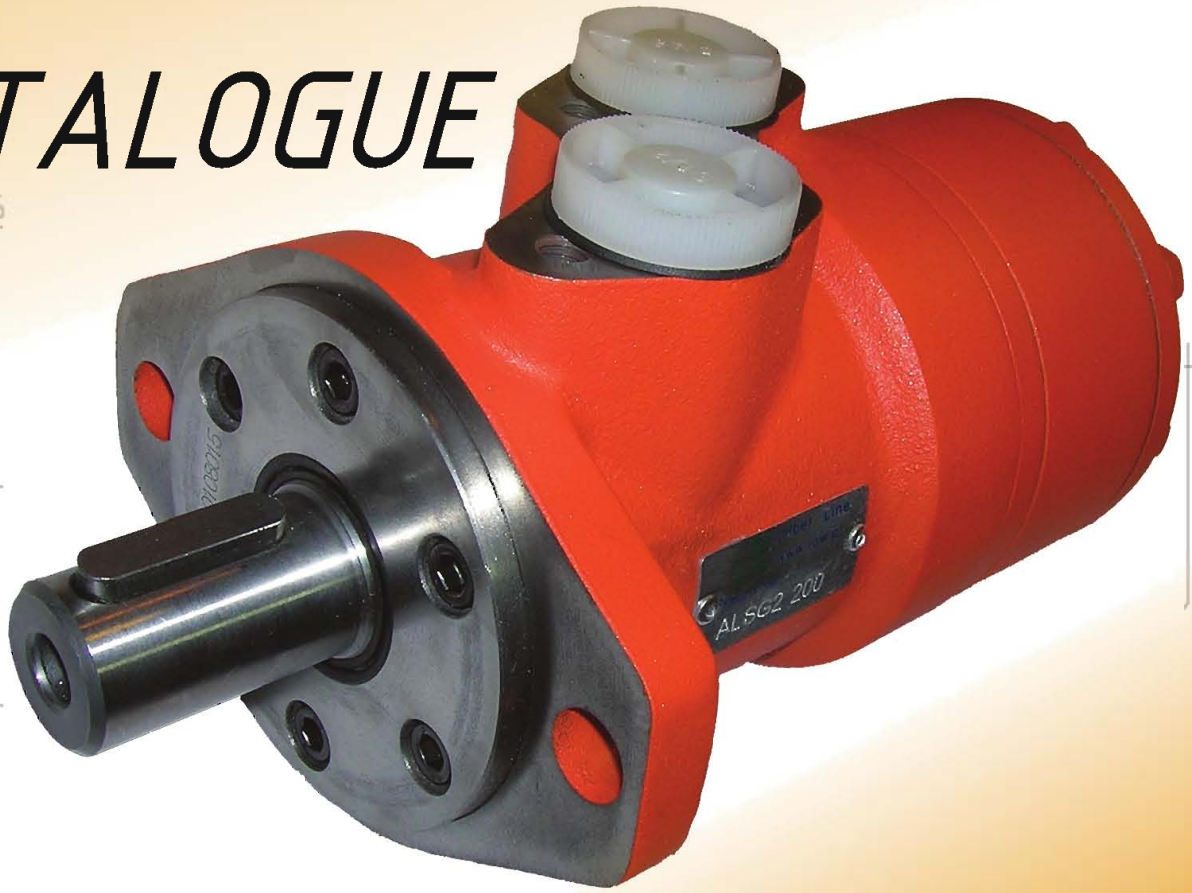
AmberLine Hydraulics

ORBITAL MOTOR CATALOGUE



AmberLine Hydraulics

Wide range of hydraulic motors

ALSG4

ALSG1

ALSG2

ALSG9

ALSG3

ALSG6

ALSG8

ALSRW

ALSG5

BK2

WGB

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Drives Hydraulics Filtration

Content:

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ALSG4

Hydraulic motor

AmberLine Hydraulics

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 weigth.

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.

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ALSG4

Hydraulic motor

Performance data

ALSG4 8 [8.2 cm³/rev.]

Pressure (MPa)

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

ALSG4 12.5 [12.9 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	5	7	10	12	14
2	6 140	8 136	11 119	16 68	19 35	
4	6 296	8 289	12 274	17 229	19 200	23 145
8	5 605	8 596	12 583	17 543	20 514	24 469
12	5 912	8 905	11 895	16 859	20 834	24 784
15	5 1152	7 1144	11 1136	16 1102	19 1078	23 1036
Max.cont. 20	3 1542	7 1532	10 1521	15 1500	19 1482	22 1437
Max.Int. 25	2 1910	6 1891	9 1878	14 1848	18 1828	22 1788

ALSG4 20 [19.9 cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.7	3.5	5	7	10	12	14
2	3 99	9 96	14 89	19 74	26 42	30 21	
4	4 197	9 191	14 182	19 178	26 134	31 112	36 74
8	4 398	9 395	13 391	19 377	27 340	31 319	36 288
12	3 596	8 594	13 588	18 579	26 545	31 523	37 493
15	3 745	8 741	12 738	17 728	25 695	30 684	36 660
Max.cont. 20	1 998	6 995	11 991	19 985	24 962	29 916	35 885
Max.Int. 25		4 1247	9 1245	14 1242	23 1189	28 1180	33 1176

ALSG4 32 [31.6 cc/rev.]

Pressure (MPa)

Flow (L/min)	2	3.5	5	7	10	12	14
2	7 61	15 57	21 52	28 47	40 16		
4	7 126	15 121	21 114	29 106	41 82	48 67	57 49
8	7 250	15 244	21 239	29 231	41 207	49 194	58 167
12	6 378	13 374	20 369	28 362	40 338	48 322	58 297
15	4 476	12 472	18 468	27 462	39 441	47 429	57 406
Max.cont. 20	3 633	10 630	17 627	25 619	37 601	46 585	55 566
Max.Int. 25	1 791	8 789	15 787	23 783	35 766	43 753	52 732

ALSG4 40 [39.8 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3	5	7	8.5	10	12
2	16 45	27 40	36 34	44 28	51 17	
4	16 96	27 93	37 85	44 79	52 65	62 52
8	15 197	26 195	36 182	44 176	52 166	63 154
12	14 293	25 287	35 282	43 277	51 268	62 257
15	13 371	24 365	34 360	42 355	50 347	62 338
Max.cont. 20	10 497	21 492	31 487	39 480	48 472	59 463
Max.Int. 25	7 622	19 617	29 612	37 607	44 600	56 591

Torque (N•m) 37
Speed (rpm) 607

ALSG4 50 [50.3 cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.5	3	5	7	10
2	11 37	23 33	36 27	50 22	
4	11 76	22 73	36 68	50 63	70 55
8	11 157	21 154	35 149	50 145	71 137
12	11 237	20 234	33 231	49 226	71 218
15	10 296	18 295	32 294	47 288	69 282
Max.cont. 20	8 395	14 395	29 393	44 390	64 381
Max.Int. 25	4 498	10 496	25 494	40 490	59 484

cont.
int.

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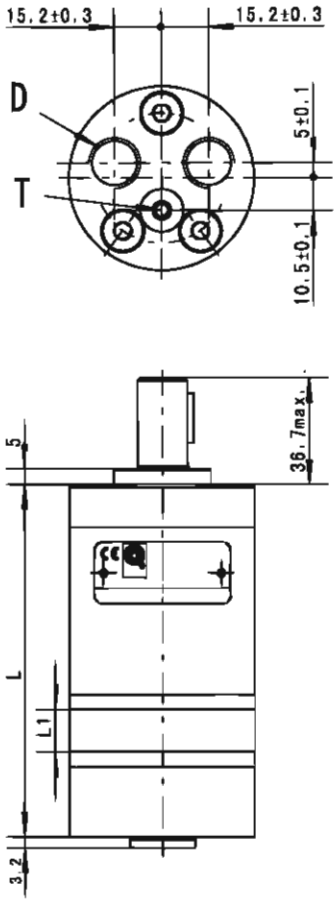
ALSG4

Hydraulic motor

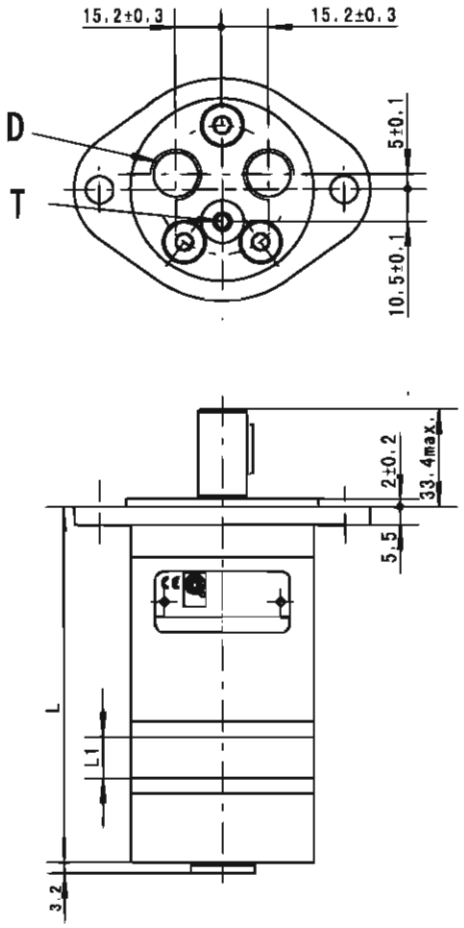
AmberLine Hydraulics

End port dimensions and mounting data

Flange M, U



Flange F



	Flange M, U		Flange F	
Model	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

	Flange M, U		Flange F	
Code / Mounting	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)

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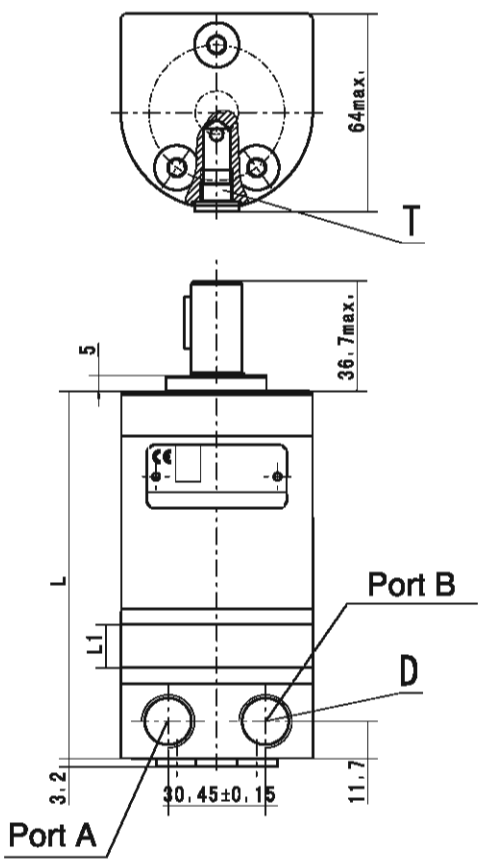
ALSG4

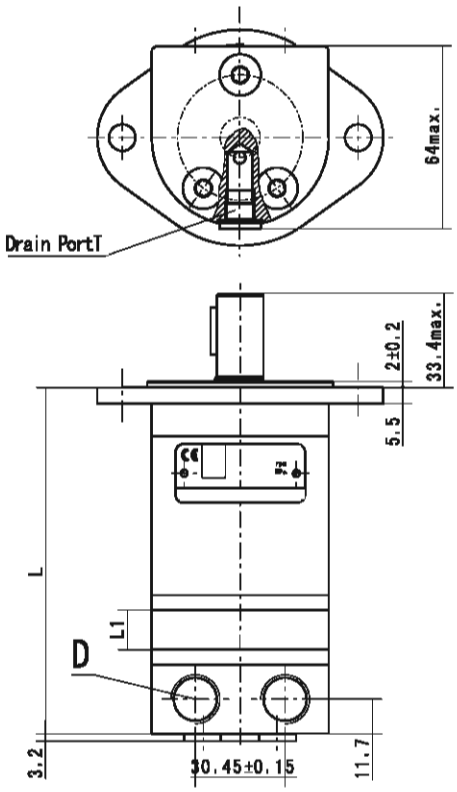
Hydraulic motor

Side port dimensions and mounting data

Flange M, U



Flange F



	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

	Flange M, U		Flange F	
Mounting \ Code	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)

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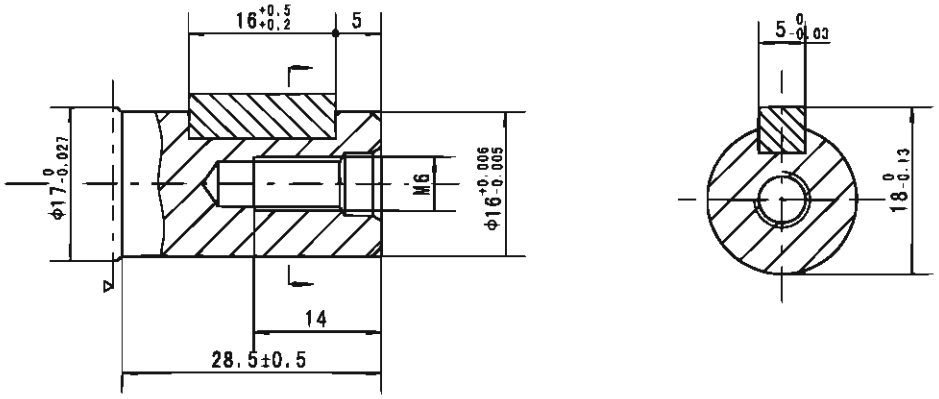
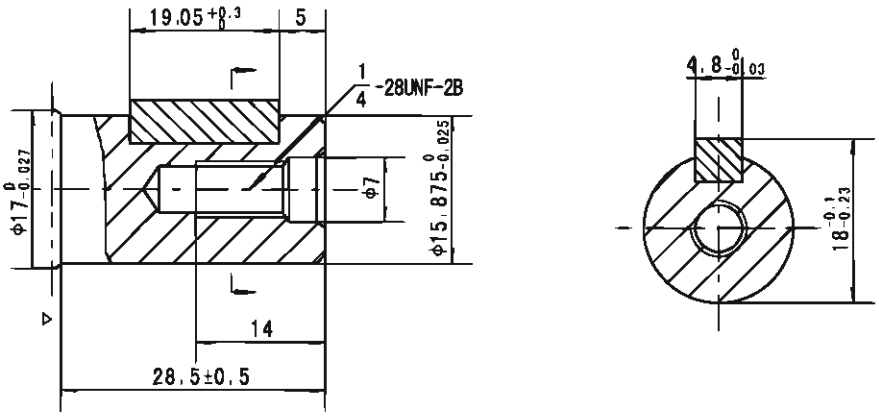
Shaft extensions for ALSG4 motors

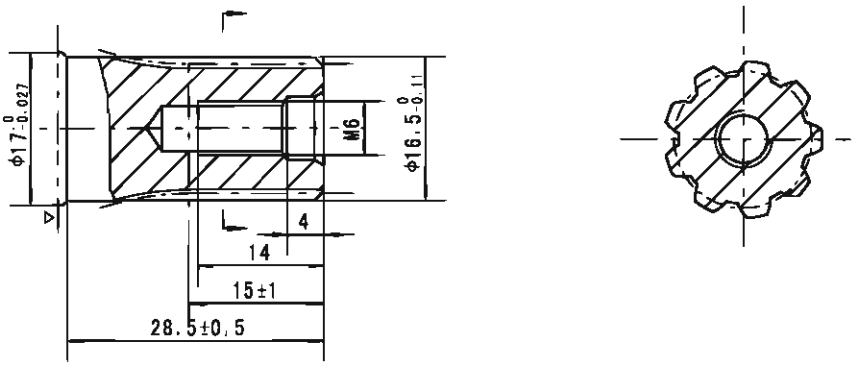
Shaft A: Cylindrical shaft Ø16
Parallel key 5x5x16



Shaft B: Cylindrical shaft Ø15.875
Parallel key 4.8x4.8x19.05



Shaft C: Involute splind shaft
B17x14 DIN5482



▷ Motor Mounting Surface

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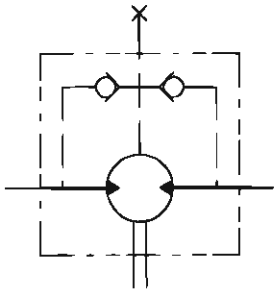
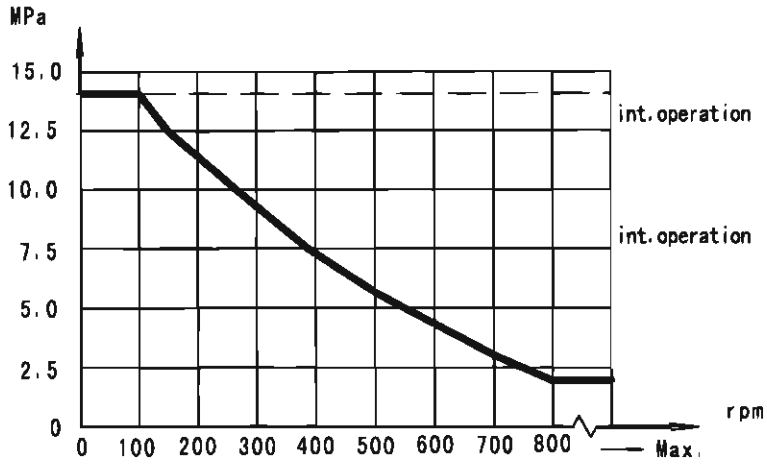
Permissible shaft seal pressure

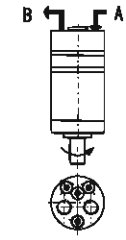




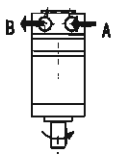
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

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.



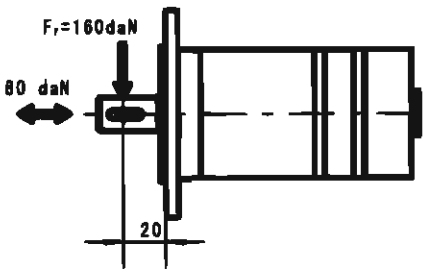
ALSG4 End Port



ALSG4 Side Port

Status of the shaft's radial force

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



Fr=Radial Force (daN)
L =Distance (mm)
n =Speed (rpm)
Max.force load
Rhomb-flange L=15mm
Square-flange L=20mm

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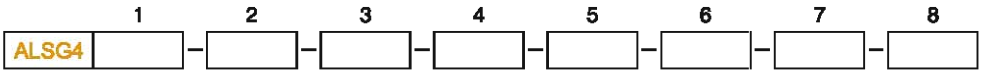
ALSG4

Hydraulic motor

AmberLine Hydraulics

Order information



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 U F	3-M6 Circle-flange, pilot Ø31.5x5 3-1/4-28UNF Circle flange,pilot Ø31.5x5 2-Ø9 Rhomb-flange, pilot Ø63x2	A B C	Shaft Ø16, parallel key 5x5x16 Shaft Ø15.875, parallel key 4.8x4.8x19.05 Shaft Ø16.5, involute B17x14, DIN5482	E U IE IU	G3/8, G1/8 9/16-18UNF, 3/8-24UNF End port G3/8, G1/8 End port 9/16-18UNF, 3/8-24UNF	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver grey	Omit 0	Standard 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.

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ALSG1

Hydraulic motor

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.	1650	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)		5.6	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.

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ALSG1

Hydraulic motor

I O W AmberLine Hydraulics

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 (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.	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.

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ALSG4 8 [8.2 cm³/rev.]

Pressure (MPa)

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

Max.cont. Max.Int.

ALSG4 12.5 [12.9 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	5	7	10	12	14
2	6 140	8 136	11 119	16 68	19 35	
4	6 296	8 289	12 274	17 229	19 200	23 145
8	5 605	8 596	12 583	17 543	20 514	24 469
12	5 912	8 905	11 895	16 859	20 834	24 784
15	5 1152	7 1144	11 1136	16 1102	19 1078	23 1036
Max.cont. 20	3 1542	7 1532	10 1521	15 1500	19 1482	22 1437
Max.Int. 25	2 1910	6 1891	9 1878	14 1848	18 1828	22 1788

Max.cont. Max.Int.

ALSG4 20 [19.9 cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.7	3.5	5	7	10	12	14
2	3 99	9 96	14 89	19 74	26 42	30 21	
4	4 197	9 191	14 182	19 178	26 134	31 112	36 74
8	4 398	9 395	13 391	19 377	27 340	31 319	36 288
12	3 596	8 594	13 588	18 579	26 545	31 523	37 493
15	3 745	8 741	12 738	17 728	25 695	30 684	36 660
Max.cont. 20	1 998	6 995	11 991	19 985	24 962	29 916	35 885
Max.Int. 25		4 1247	9 1245	14 1242	23 1189	28 1180	33 1176

Max.cont. Max.Int.

ALSG4 32 [31.6 cc/rev.]

Pressure (MPa)

Flow (L/min)	2	3.5	5	7	10	12	14
2	7 61	15 57	21 52	28 47	40 16		
4	7 126	15 121	21 114	29 106	41 82	48 67	57 49
8	7 250	15 244	21 239	29 231	41 207	49 194	58 167
12	6 378	13 374	20 369	28 362	40 338	48 322	58 297
15	4 476	12 472	18 468	27 462	39 441	47 429	57 406
Max.cont. 20	3 633	10 630	17 627	25 619	37 601	46 585	55 566
Max.Int. 25	1 791	8 789	15 787	23 783	35 766	43 753	52 732

Max.cont. Max.Int.

ALSG4 40 [39.8 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3	5	7	8.5	10	12
2	16 45	27 40	36 34	44 28	51 17	
4	16 96	27 93	37 85	44 79	52 65	62 52
8	15 197	26 195	36 182	44 176	52 166	63 154
12	14 293	25 287	35 282	43 277	51 268	62 257
15	13 371	24 365	34 360	42 355	50 347	62 338
Max.cont. 20	10 497	21 492	31 487	39 480	48 472	59 463
Max.Int. 25	7 622	19 617	29 612	37 607	44 600	56 591

Max.cont. Max.Int.

Torque (N•m) 37
Speed (rpm) 607

ALSG4 50 [50.3 cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.5	3	5	7	10
2	11 37	23 33	36 27	50 22	
4	11 76	22 73	36 68	50 63	70 55
8	11 157	21 154	35 149	50 145	71 137
12	11 237	20 234	33 231	49 226	71 218
15	10 296	18 295	32 294	47 288	69 282
Max.cont. 20	8 395	14 395	29 393	44 390	64 381
Max.Int. 25	4 498	10 496	25 494	40 490	59 484

Max.cont. Max.Int.

cont.
int.

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ALSG1 36 [36cm³/rev.]

Pressure (MPa)

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

ALSG1 50 [51.7cm³/rev.]

Pressure (MPa)

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

ALSG1 80 [77.7cm³/rev.]

Pressure (MPa)

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

Torque (N•m) 87
Speed (rpm) 920

ALSG1 100 [96.2cm³/rev.]

Pressure (MPa)

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

cont.
int.

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ALSG1

Hydraulic motor

Performance data

ALSG1 315 [314.5cm³/rev.]

Pressure (MPa)

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

ALSG1 400 [389.5cm³/rev.]

Pressure (MPa)

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

ALSG1 500[486.5cm³/rev.]

Pressure (MPa)

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

cont.

int.

Torque (N•m) 389
Speed (rpm) 147

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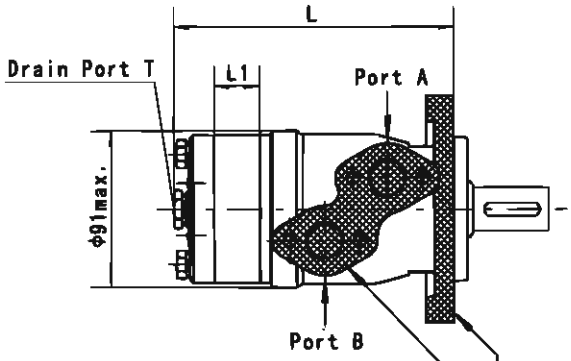
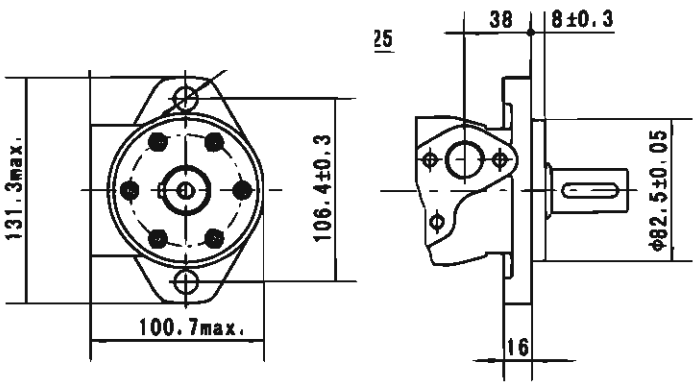


Flange 2



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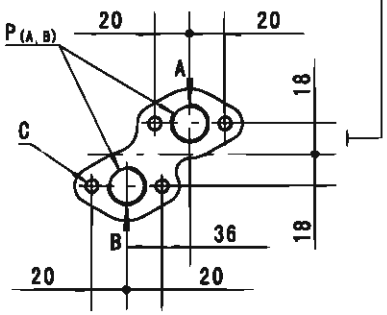
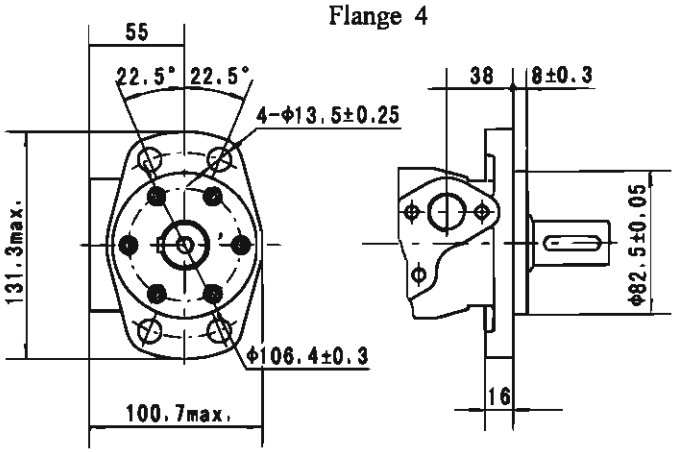
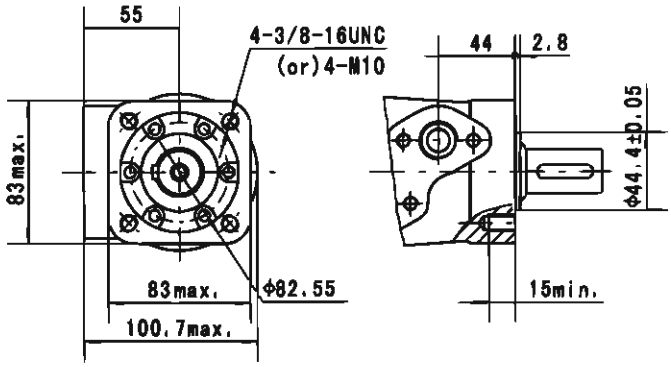


Flange 4



Model	L	L1
ALSG1 36	137	7
ALSG1 50	137	7
ALSG1 80	140.5	10.5
ALSG1 100	143	13
ALSG1 125	146	16
ALSG1 160	151	21
ALSG1 200	157	26
ALSG1 250	162	32
ALSG1 315	172	42
ALSG1 400	182	52
ALSG1 500	195	65

Flange H4/H5



Mounting \ 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)

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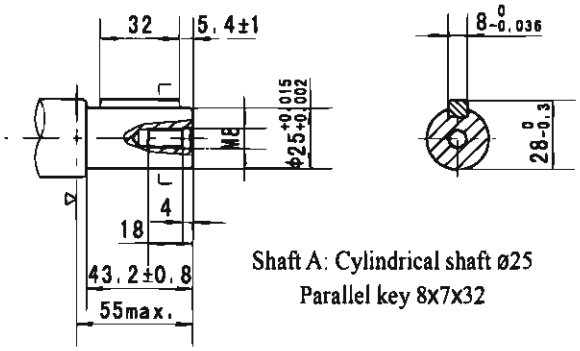
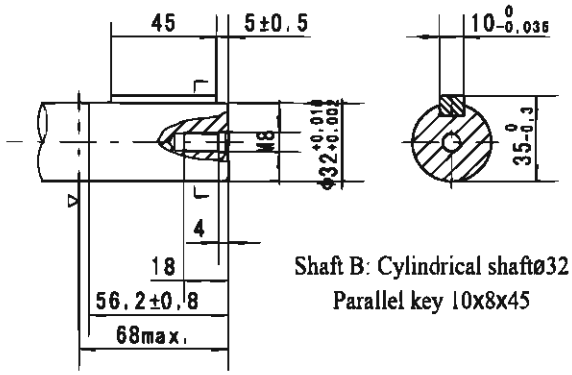
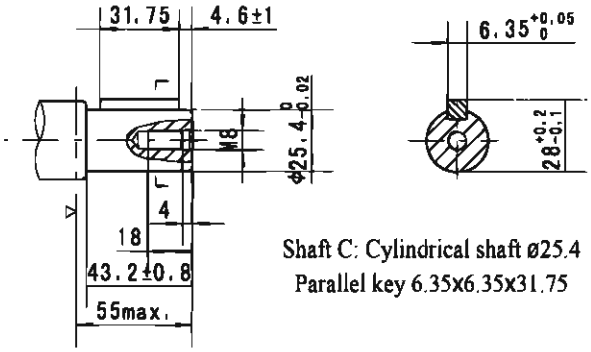
Shaft extensions for ALSG1 motors



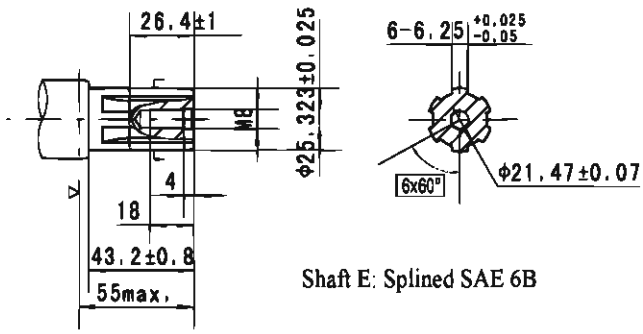
Shaft A: Cylindrical shaft ø25
Parallel key 8x7x32



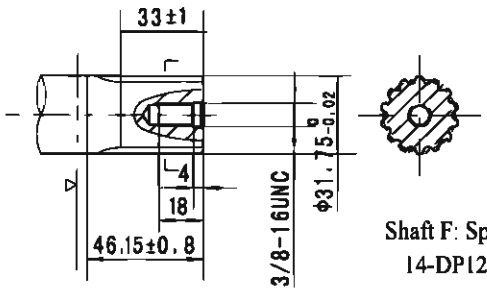
Shaft B: Cylindrical shaftø32
Parallel key 10x8x45



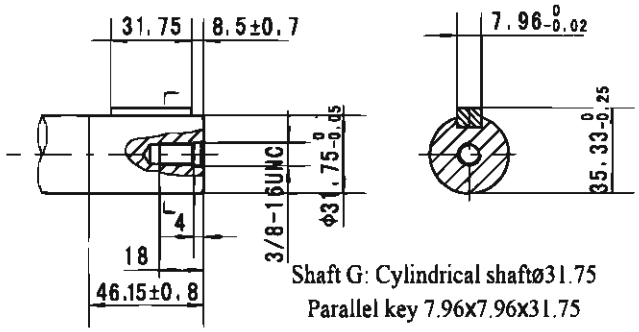
Shaft C: Cylindrical shaft ø25.4
Parallel key 6.35x6.35x31.75



Shaft E: Splined SAE 6B



Shaft F: Splined
14-DP12/24



Shaft G: Cylindrical shaftø31.75
Parallel key 7.96x7.96x31.75

▷ Motor Mounting Surface

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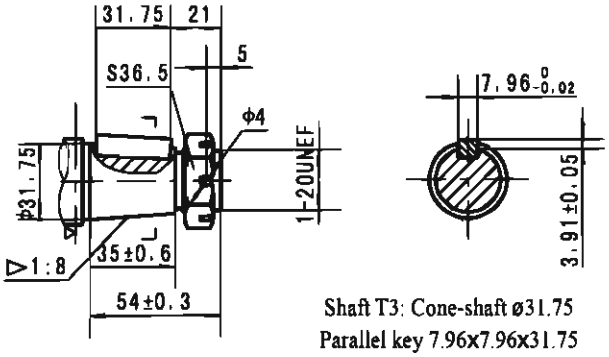
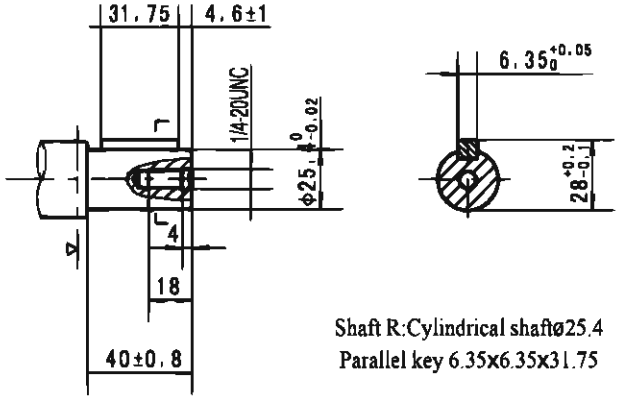
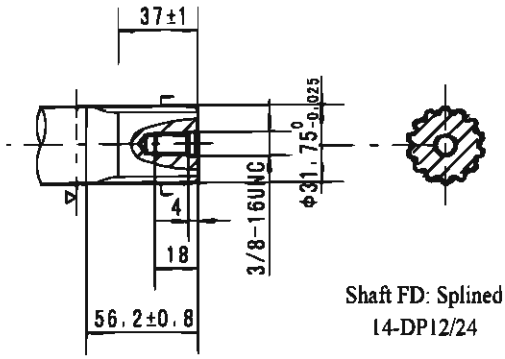
Shaft extensions for ALSG1 motors



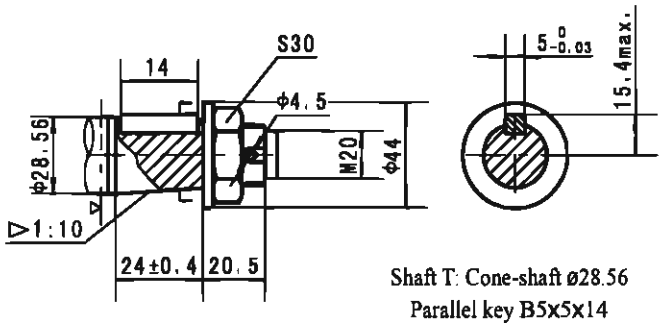
Shaft T3: Cone-shaft ø31.75
Parallel key 7.96x7.96x31.75
Tightening torque:200 ± 10Nm



Shaft R:Cylindrical shaftø25.4
Parallel key 6.35x6.35x31.75



Shaft FD: Splined
14-DP12/24



Shaft T: Cone-shaft ø28.56
Parallel key B5x5x14
Tightening torque:100 ± 10Nm

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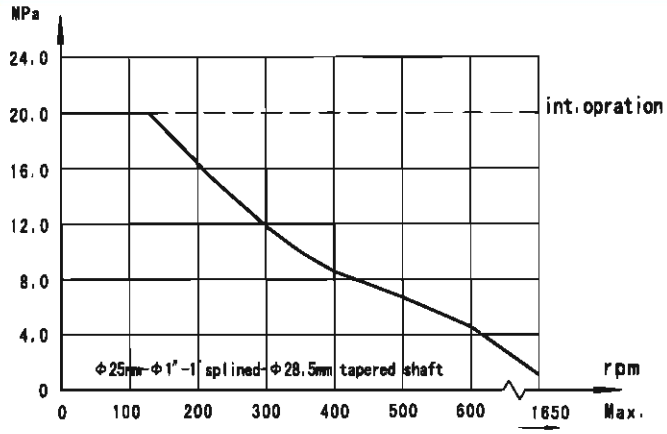
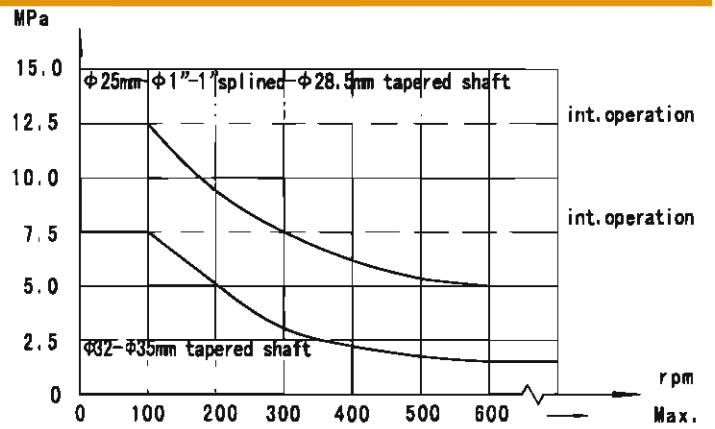
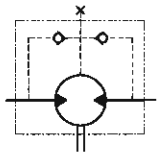
Permissible shaft seal pressure



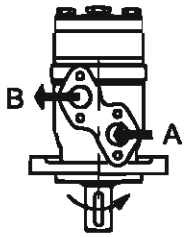




In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

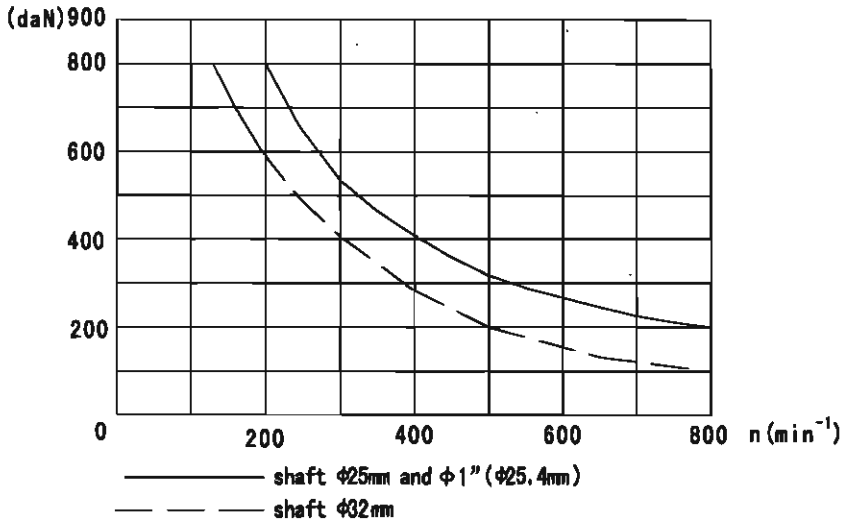
Direction of shaft: Standard

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

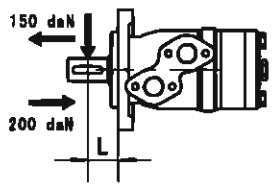


ALSG1

Status of the shaft's radial force



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



F_r =Radial Force (daN)
L =Distance (mm)
n =Speed (rpm)
Rhomb-flange L=30mm
Square-flange L=24mm

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ALSG1

Hydraulic motor

IOW AmberLine Hydraulics

Order Information

1	2	3	4	5	6	7	8
ALSG1 –	–	–	–	–	–	–	–

Pos.1	2	3		4		5		6		7		8	
Code	Disp.	Flange		Output Shaft		Port and Drain Port		Rotation Direction		Paint		Unusually Function	
ALSG1	36 50 80 100 125 160 200 250 315 400 500	2 4 H4 H5	2-Ø13.5 Rhomb-flange , pilot Ø82.5 × 8 4-Ø13.5 Rhomb-flange , pilot Ø82.5 × 8 4-3/8-16 Square-flange , pilot Ø44.4 × 2.8 4-M10 Square-flange , pilot Ø44.4 × 2.8	A B C E R F FD G T T3	Shaft Ø25,parallel key 8x7x32 Shaft Ø32,parallel key 10x8x45 Shaft Ø25.4,parallel key 6.35x6.35x31.75 Shaft Ø25.4,splined tooth SEA 6B Short shaft Ø25.4,parallel key6.35x6.35x31.75 Shaft Ø31.75,splined tooth 14-DP12/24 Long shaft Ø31.75,splined tooth14-DP12/24 Shaft Ø31.75, parallel key 7.96x7.96x31.75 Cone shaft Ø28.56,parallel key B5x5x14 Cone shaft Ø31.75,parallel key 7.96x7.96x25.4	D M S P R	G1/2 Manifold Mount 4 × M8, G1/4 M22 × 1.5 Manifold Mount 4 × M8, M14 × 1.5 7/8-14 O-ring manifold 4x5/16-18UNC, 7/16-20UNF 1/2-14 NPTF Manifold 4x5/16-18UNC, 7/16-20UNF PT(Rc)1/2 Manifold 4xM8, PT(Rc)1/4	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver grey	Omit N 0 F LS	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.

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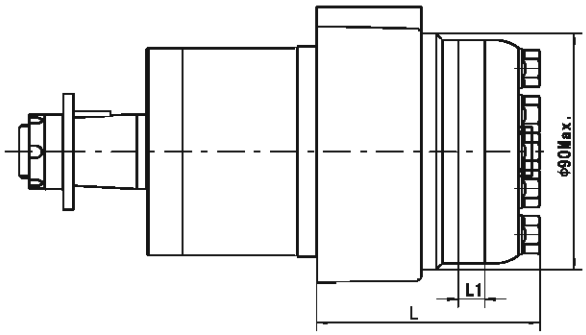
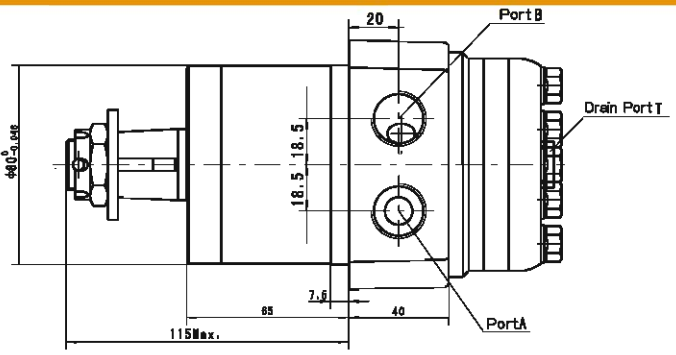
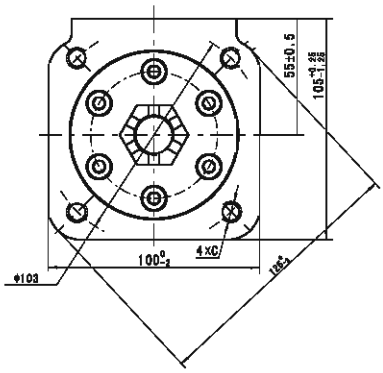
ALSG1W

Hydraulic motor

Dimensions and mounting data







Model	L	L1
ALSG1W 50	81	7
ALSG1W 80	84.5	10.5
ALSG1W 100	87	13
ALSG1W 125	90	16
ALSG1W 160	95	21
ALSG1W 200	100	26
ALSG1W 250	106	32
ALSG1W 315	116	42
ALSG1W 400	126	52
ALSG1W 500	139	65

Code / Mounting	G (depth)	S (depth)	M (depth)
P(A,B)	G1/2 (15)	7/8-14 O-ring (17)	M22×1.5 (15)
T	G1/4 (12)	7/16-20UNF (12)	M14×1.5 (12)
C	4×M10(20)	4×3/8-16UNC(20)	4×M10(20)

Order information

1	2	3	4	5	6	7	8
ALSG1W	–	–	–	–	–	–	–

Pos.1	2	3		4		5		6		7		8	
Code		Flange		Output shaft		Port and drain port		Rotation direction		Paint		Unusually function	
ALSG1W	50 80 100 125 160 200 250 315 400 500	Omit	Wheel-flange pilat Ø80 × 7.5	A C E T	Shaft Ø25k6 ,Parallel key 8 × 7 × 32 Shaft Ø25.4 ,Parallel key 6.35 × 6.35 × 31.75 Shaft Ø25.4 ,Splined key SAE 6B Cone shaft Ø28.56 ,Parallel key B5 × 5 × 14	G S M	G1/2, G1/4 7/8-14 O-ring, 7/16-20UNF M22x1.5,M14x1.5	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver grey	Omit N O	Standard Big radial force 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.

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ALSG2

Hydraulic motor

I O W AmberLine Hydraulics

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.

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ALSG2

Hydraulic motor

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.

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ALSG2 36 [36cm³/rev.]

Pressure (MPa)

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

ALSG2 50 [51.7cm³/rev.]

Pressure (MPa)

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

ALSG2 80 [81.5cm³/rev.]

Pressure (MPa)

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

Torque (N•m) 135
Speed (rpm) **830**

ALSG2 100 [102cm³/rev.]

Pressure (MPa)

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

cont.
int.

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ALSG2

Hydraulic motor

Performance data

ALSG2 125 [127.2cm³/rev.]

Pressure (MPa)

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

Max.cont. Max.int.

ALSG2 160 [157.2cm³/rev.]

Pressure (MPa)

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

Max.cont. Max.int.

ALSG2 200 [194.5cm³/rev.]

Pressure (MPa)

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

Max.cont. Max.int.

ALSG2 250 [253.5cm³/rev.]

Pressure (MPa)

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

Max.cont. Max.int.

Torque (N•m) 256
Speed (rpm) **287**

cont.

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ALSG2 315 [317.5cm³/rev.]

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

Torque (N•m) 481
Speed (rpm) 200

ALSG2 375 [381.4cm³/rev.]

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

cont.
int.

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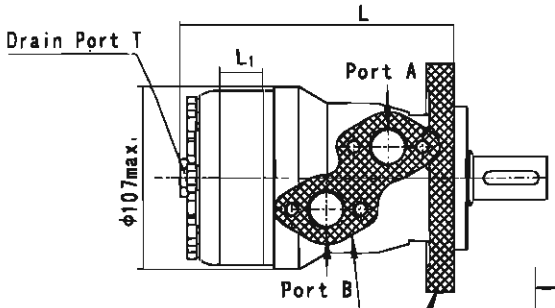
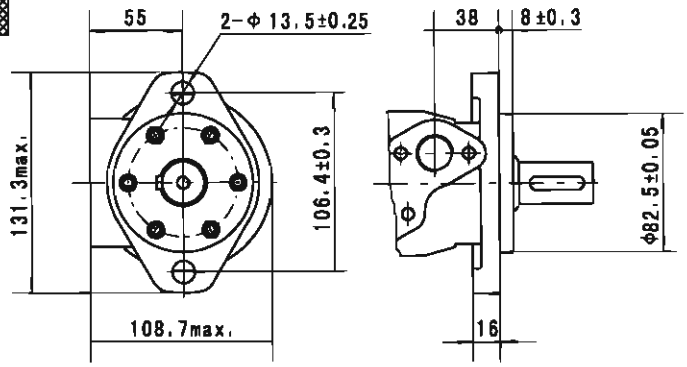
ALSG2

Hydraulic motor

Dimensions and mounting data



Flange 2



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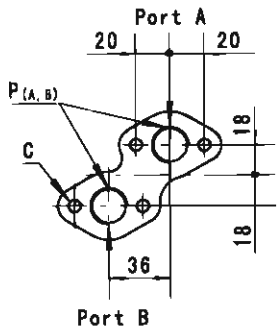
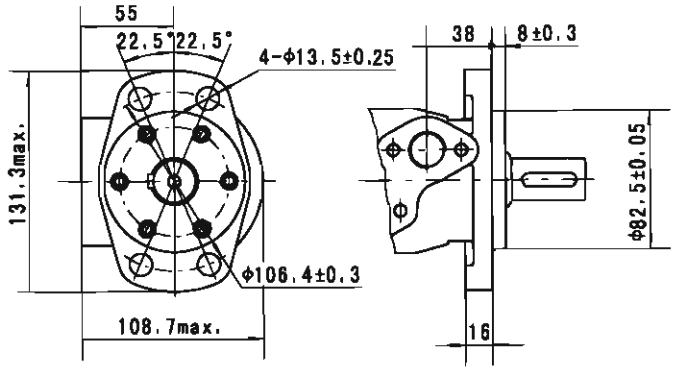
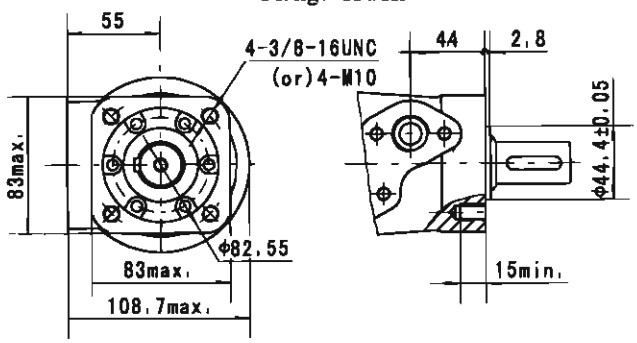


Flange 4



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

Flange H4/H5



Mounting \ 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)

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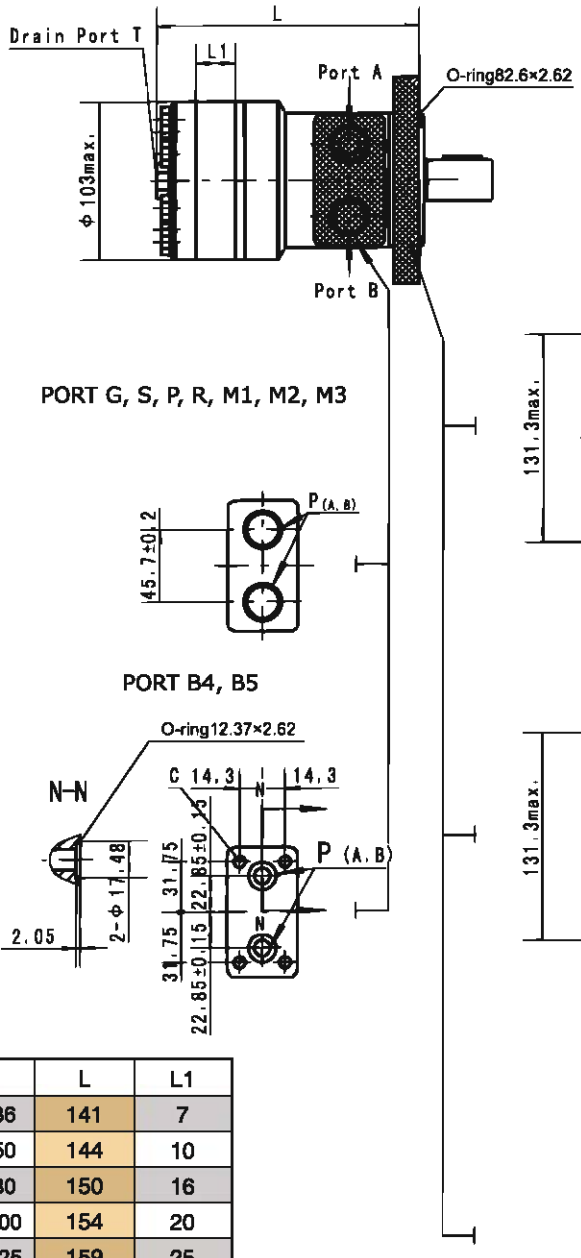
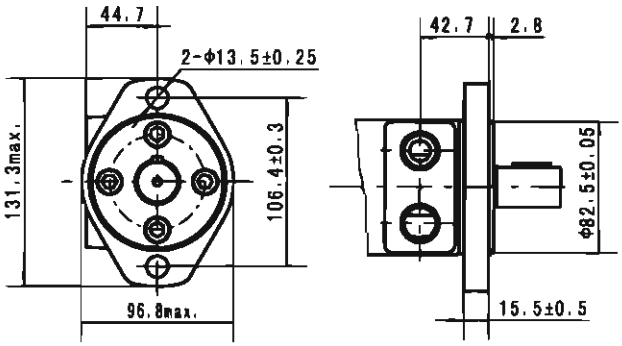
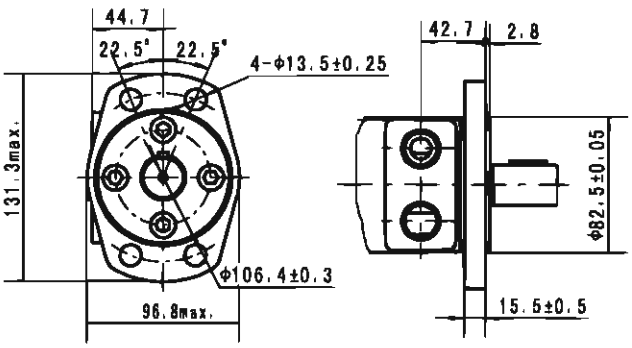


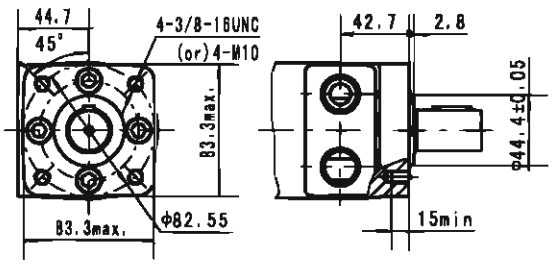
Flange H2



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)	ø10	ø10
T	G1/4 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)	M10 x 1 (12)	M10 x 1 (12)	M10 x 1 (12)	7/16-20UNF(12)	G1/4(12)
C	–	–	–	–	–	–	–	4-5/16-18UNC(13)	4-M8(13)

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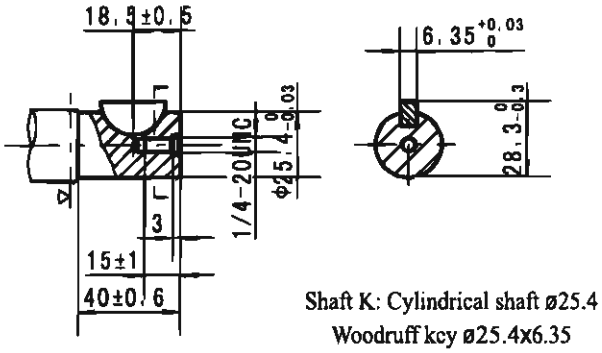
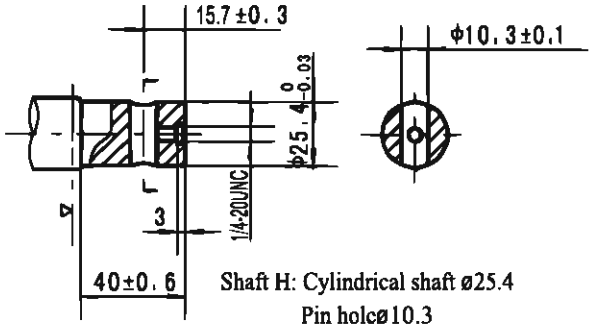
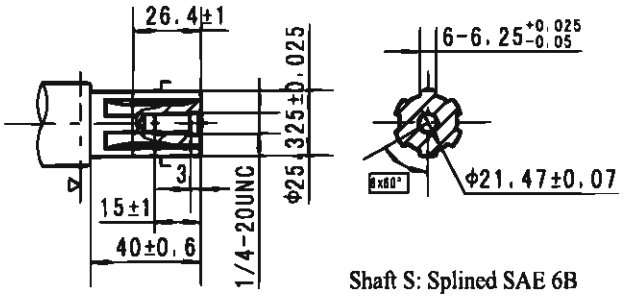


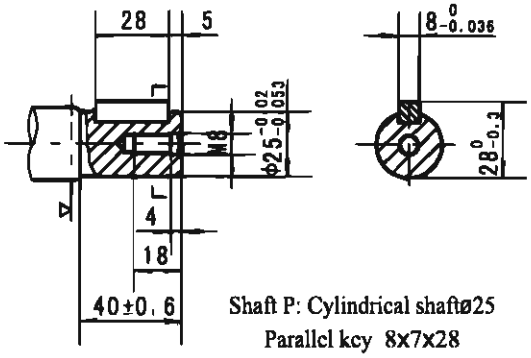
Shaft K: Cylindrical shaft ø25.4
Woodruff key ø25.4x6.35



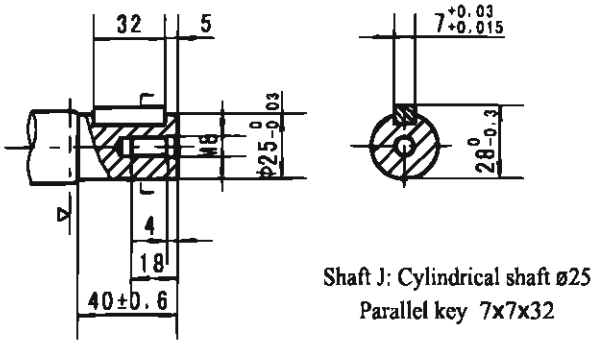
Shaft H: Cylindrical shaft ø25.4
Pin holeø10.3



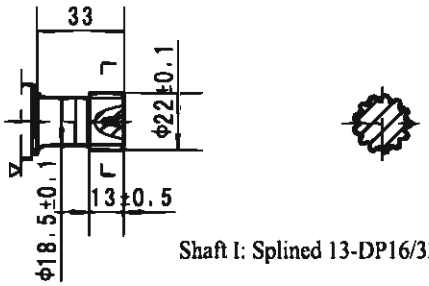
Shaft S: Splined SAE 6B



Shaft P: Cylindrical shaftø25
Parallel key 8x7x28



Shaft J: Cylindrical shaft ø25
Parallel key 7x7x32



Shaft I: Splined 13-DP16/32

▷ Motor Mounting Surface

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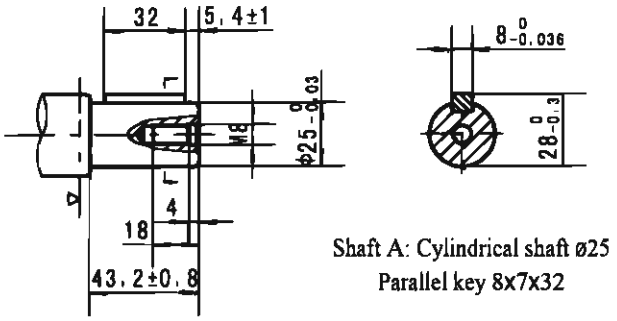
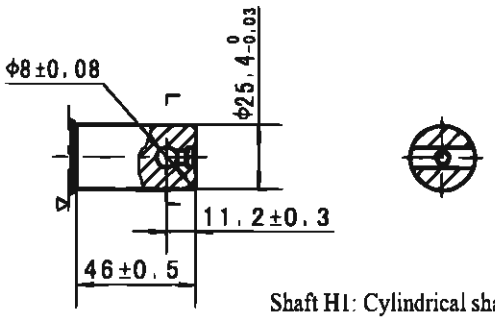
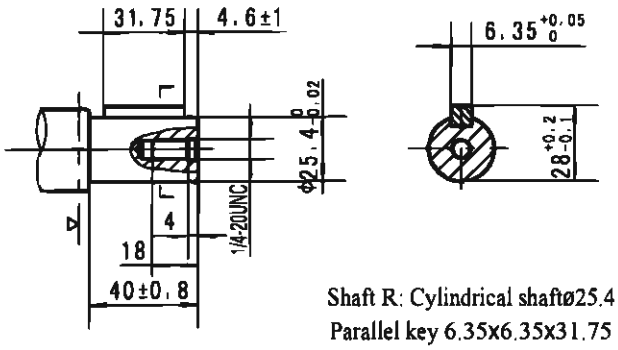


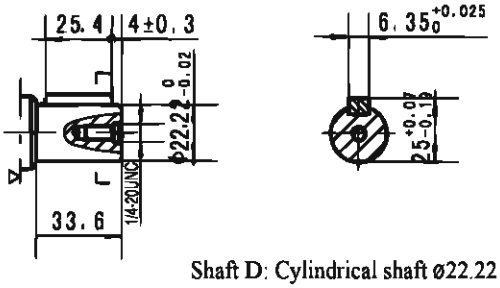
Shaft A: Cylindrical shaft ø25
Parallel key 8x7x32



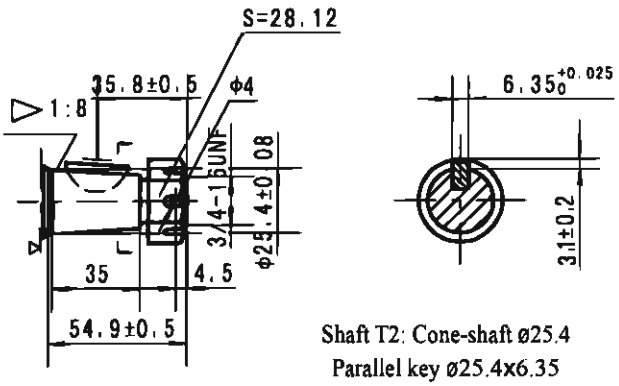
Shaft H1: Cylindrical shaft ø25.4
Pin hole ø8



Shaft R: Cylindrical shaftø25.4
Parallel key 6.35x6.35x31.75



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



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

▷ Motor Mounting Surface

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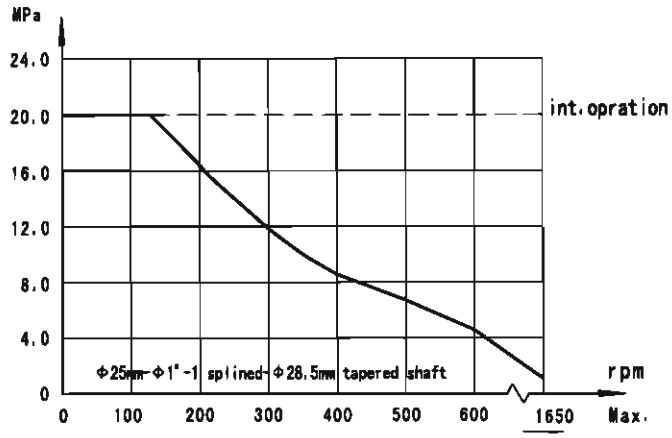
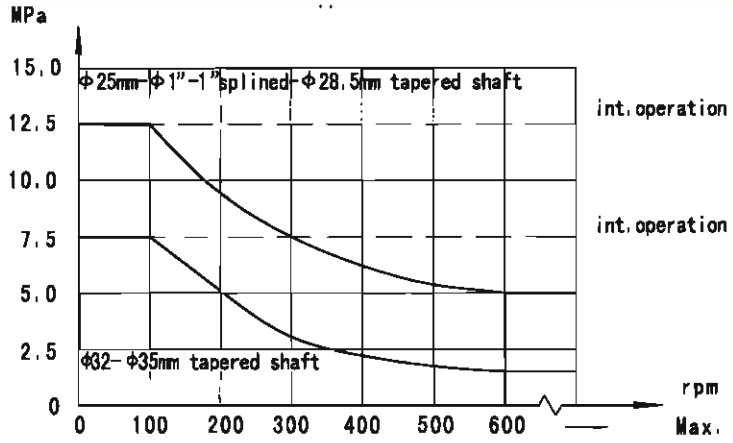
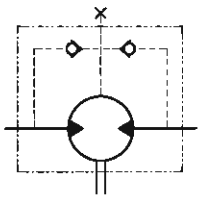
ALSG2/ALSG2S

Hydraulic motor

Permissible shaft seal pressure



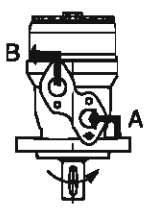




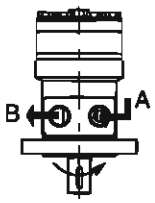
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Direction of shaft: Standard

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

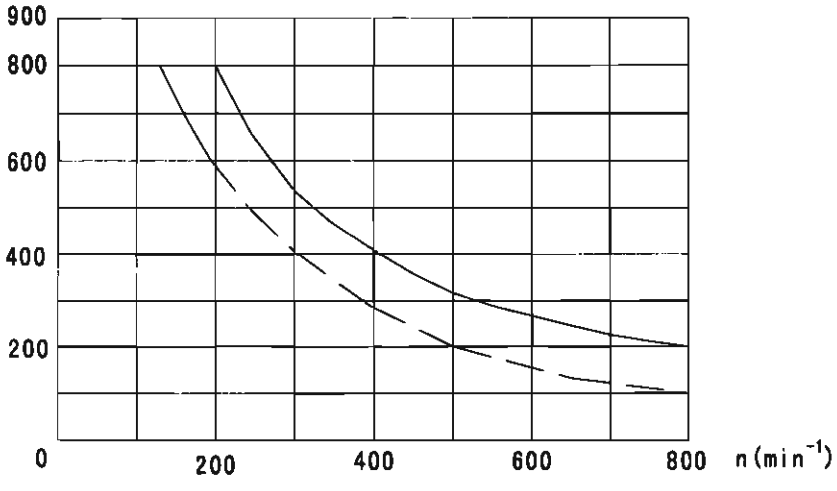


ALSG2



ALSG2S

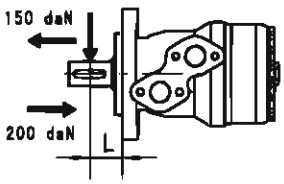
Status of the shaft's radial force



shaft Φ25mm and Φ1"(Φ25.4mm)

shaft Φ32mm

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



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

Rhomb-flange L=30mm
Square-flange L=24mm

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ALSG2/ALSG2S

Hydraulic motor

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 50 80 100 125 160 200 250 315 375	2 4 H4 H5	2-Ø13.5Rhomb-flange, pilot Ø82.5×8 4-Ø13.5Rhomb-flange, pilot Ø82.5×8 4-3/8-16 Square-flange, pilot Ø44.4×2.8 4-M10 Square-flange, pilot Ø44.4×2.8	A B C E R F FD G T	Shaft Ø25,parallel Key 8x7x32 Shaft Ø32,parallel Key 10x8x45 Shaft Ø25.4,parallel Key 6.35x6.35x31.75 Shaft Ø25.4,splined tooth SAE 6B Short shaft Ø25.4,parallel key 6.35x6.35x31.75 Shaft Ø31.75,splined tooth 14-DP12/24 Long shaft Ø31.75,splined tooth 14-DP12/24 Shaft Ø31.75,parallel Key 7.96x7.96x31.75 Cone-Shaft Ø28.56,parallel Key B5x5x14	D M S P R	G1/2 Manifold Mount 4-M8, G1/4 M22×1.5 Manifold Mount 4-M8, M14×1.5 7/8-14 O-ring manifold 4-5/16-18UNC, 7/16-20UNF 1/2-14 NPTF Manifold 4-5/16-18UNC, 7/16-20UNF PT(Rc)1/2 Manifold 4-M8, PT(Rc)1/4	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver grey	Omit N 0 F LS	Standard Big radial force No case drain Free Running Low Speed

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 50 80 100 125 160 200 250 315 375	H2 H6 H4 H5	2-Ø13.5Rhomb-flange, pilot Ø82.5×2.8 4-Ø13.5Rhomb-flange, pilot Ø82.5×2.8 4-3/8-16 Square-flange, pilot Ø44.4×2.8 4-M10 Square-flange, pilot Ø44.4×2.8	K S A R H H1 D I T2 P J	Shaft Ø25.4,Woodruff Key Ø25.4×6.35 Sub-shaft Ø25.4,splined tooth SAE 6B Shaft Ø25 , parallel key 8×7×32 Shaft Ø25.4, parallel key 6.35×6.35×31.75 Sub-shaft Ø25.4,Pin hole Ø10.3 Shaft Ø25.4, pin hole Ø8 Shaft Ø22.22, parallel key 6.35×6.35×25.4 Shaft Ø22.22, splined tooth 13-DP16/32 Cone shaft Ø25.4 , woodruff key Ø25.4×6.35 Shaft Ø25,parallel Key 8×7×28 Shaft Ø25,parallel Key 7×7×32	G S P T R B4 B5 M1 M2 M3	G1/2, G1/4 7/8-14 O-ring 7/16-20UNF (G1/4) 1/2-14 NPTF, 7/16-20UNF (G1/4) 3/4-16 O-ring, 7/16-20UNF PT(Rc)1/2, PT(Rc)1/4 Ø10 O-ring manifold 4x5/16-18, 7/16-20UNF Ø10 O-ring manifold 4xM8, G1/4 M18×1.5, M10×1 M20×1.5, M10×1 M22×1.5, M10×1	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver grey	Omit N 0 F LS	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 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.

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ALSG9

Hydraulic motor

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 cylindnical,$1^1/4$ in splined and 35mm tapered shaft.

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ALSG9

Hydraulic motor

AmberLine Hydraulics

Performance data

ALSG9 200 [203.2cm³/rev.]

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

ALSG9 250 [255.9cm³/rev.]

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

ALSG9 315 [316.1cm³/rev.]

Flow (L/min)	Pressure (MPa) 3.5	7.5	10	13.5	15.5	17.5 (Max.cont.)	20 (Max.int.)
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**
Max.cont. 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**

Torque (N•m) 593
Speed (rpm) 248

ALSG9 400 [406.4cm³/rev.]

Flow (L/min)	Pressure (MPa) 3.5	6	10.5	12.5	15.5 (Max.cont.)	19 (Max.int.)
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**
Max.cont. 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**

cont.
int.

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ALSG9 500 [500cm³/rev.]

Flow (L/min)	Pressure (MPa) 2.5	5	8.5	10	12.5 (Max.cont.)	16 (Max.int.)
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**
75 (Max.cont.)	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**
90 (Max.int.)	34 **166**	201 **165**	421 **164**	550 **157**	673 **156**	869 **155**

cont.
int.

Torque (N•m) 673
Speed (rpm) **156**

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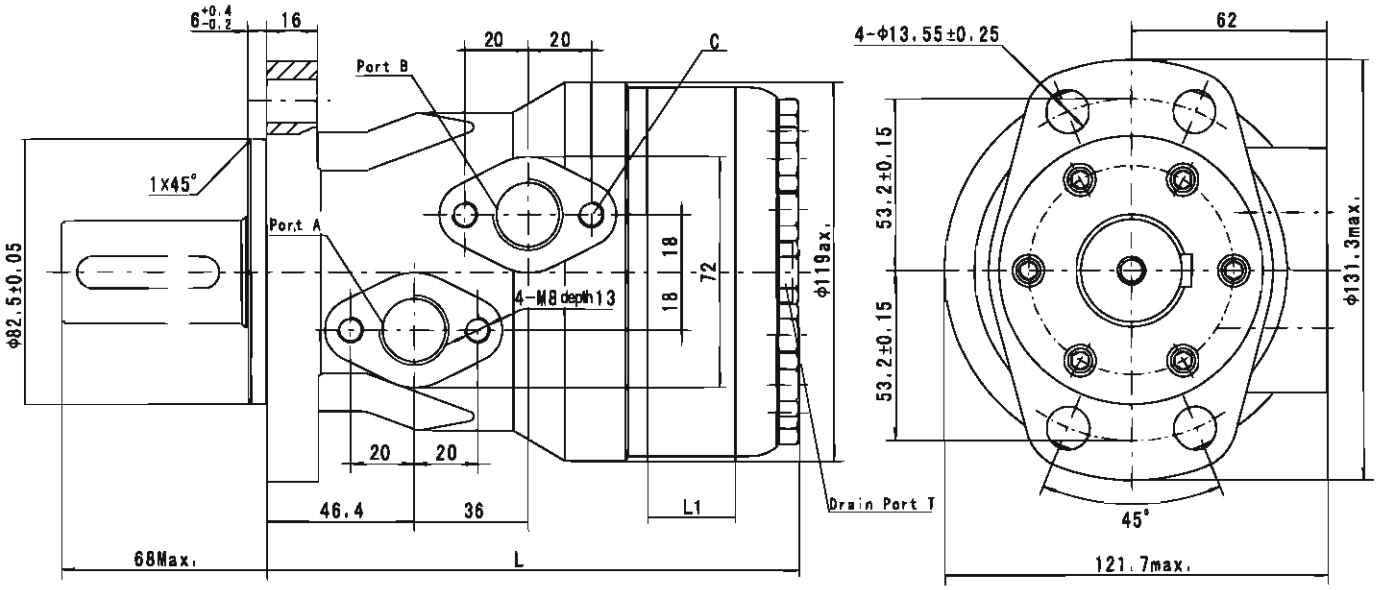
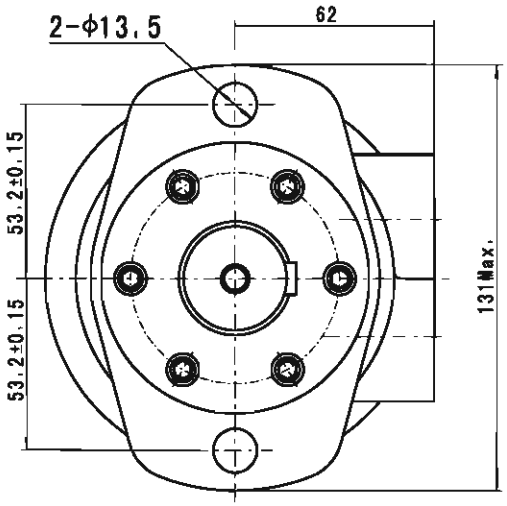
Flange 4



Flange 2



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

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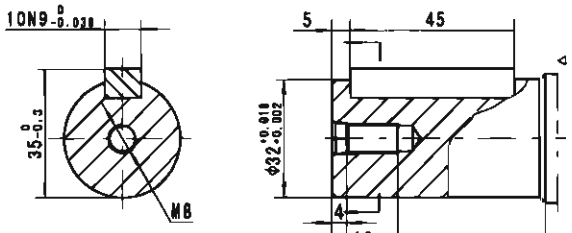
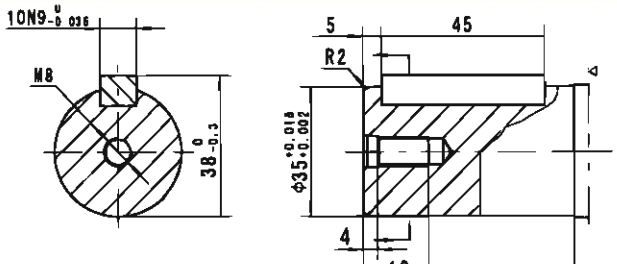
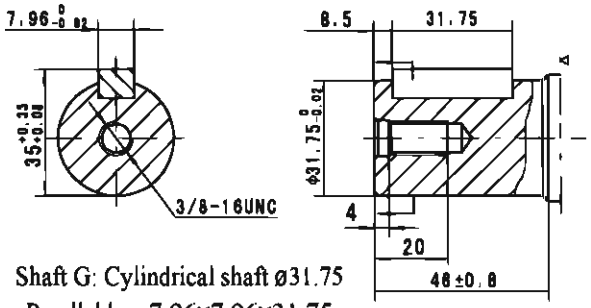
Shaft extensions dimensions



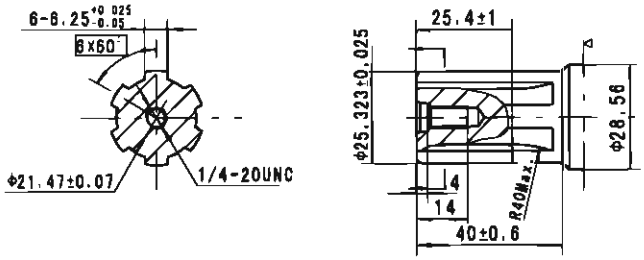
Shaft B: Cylindrical shaft ø32
Parallel key 10x8x45



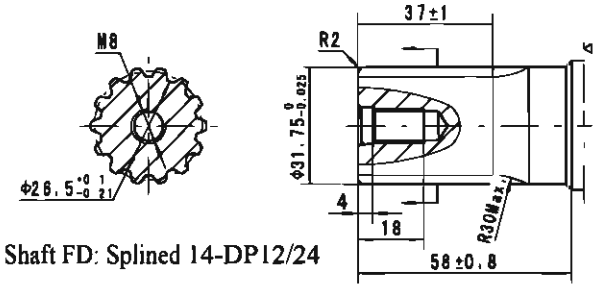
Shaft M: Cylindrical shaft ø35
Parallel key 10x8x45



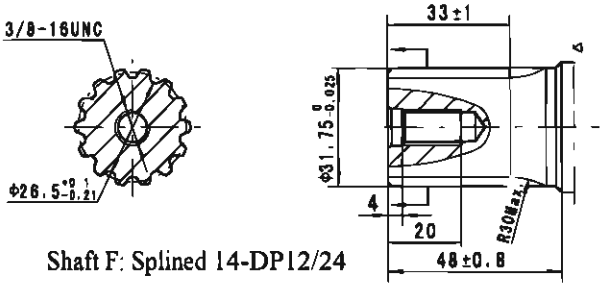
Shaft G: Cylindrical shaft ø31.75
Parallel key 7.96x7.96x31.75



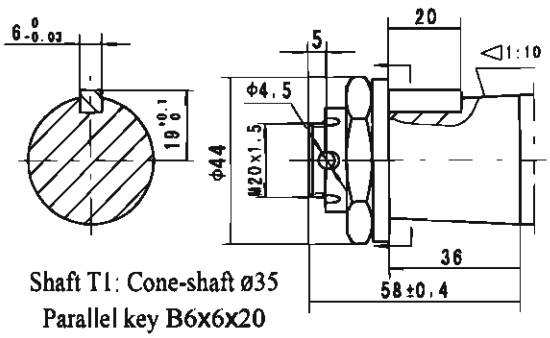
Shaft S: Splined SAE 6B



Shaft FD: Splined 14-DP12/24



Shaft F: Splined 14-DP12/24



Shaft T1: Cone-shaft ø35
Parallel key B6x6x20
Tightening torque:200 ± 10Nxm

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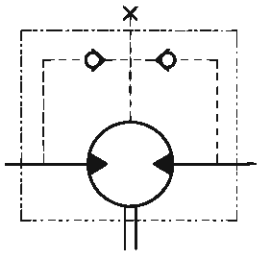
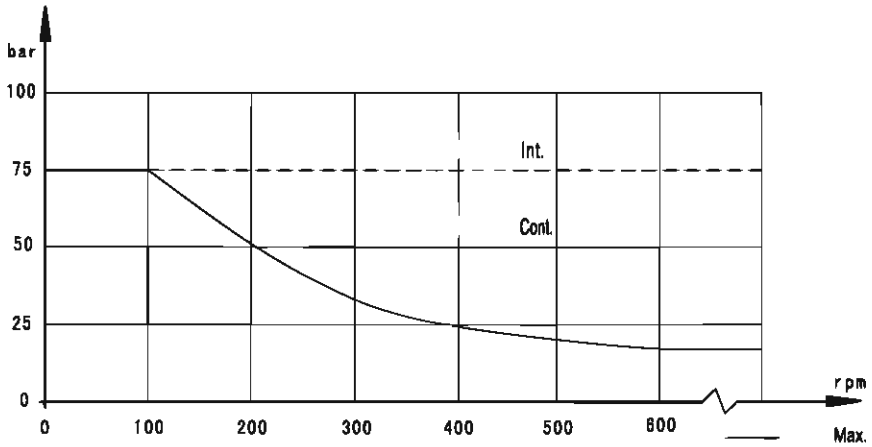
Permissible shaft seal pressure

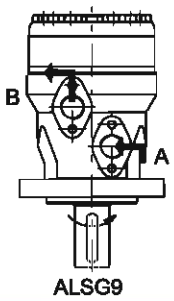




In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Direction of shaft rotation: Standard

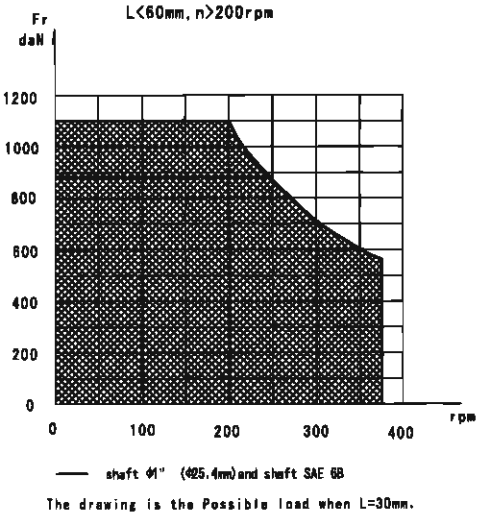
When facing shaft end of motor,shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise port "B" is pressurized.



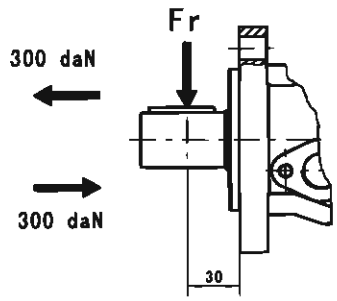
Status of the shaft's radial force

$$F_r = \frac{1100}{n} \times \frac{25000}{103.5+L} \text{ daN}$$

L<60mm, n>200rpm



The drawing is the Possible load when L=30mm.



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

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ALSG9

Hydraulic motor

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 2	4×Ø13.5 Rhomb×flange Pilot Ø82.5×6 2×Ø13.5 Rhomb×flange Pilot Ø82.5×6	B M F FD G T1 S	Shaft Ø32 , parallel key 10×8×45 Shaft Ø35, parallel key 10×8×45 Shaft Ø31.75, splined key 14-DP12/24 Long Shaft Ø31.75, splined key 14-DP12/24 Shaft Ø32 , parallel key 7.96×7.96×31.75 Cone shaft Ø35, parallel key B6×6×20 Shaft Ø25.4 , parallel key SAE 6B	D M S P R	G1/2 Manifold mount 4×M8, G1/4 M22×1.5 Manifold mount 4×M8, M14×1.5 7/8-14 O×ring Manifold mount 4×M8,7/16-20UNF 1/2-14 NPTF Manifold mount 4×M8,7/16-20UNF PT(Rc) 1/2 Manifold mount 4×M8,PT(Rc)1/4	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver grey	Omit 0 F LS	Standard No drain Free Running 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.

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ALSG3

Hydraulic motor

I O W AmberLine Hydraulics

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 featutres:

* 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 distrbution 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 (cm^3/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.

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ALSG3

Hydraulic motor

Performance data

ALSG3 80 [80.6cm³/rev.]

Pressure (MPa)

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

ALSG3 100 [100.8cm³/rev.]

Pressure (MPa)

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

ALSG3 125 [125cm³/rev.]

Pressure (MPa)

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

Torque (N•m) 309
Speed (rpm) 644

ALSG3 160 [157.2cm³/rev.]

Pressure (MPa)

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

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int.

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ALSG3 200 [200cm³/rev.]

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

ALSG3 250 [252cm³/rev.]

Flow (L/min)	Pressure (MPa) 3.5	7	10.5	14 (Max.cont.)	17.5	22.5 (Max.int.)
15	117 / **58**	230 / **55**	355 / 350	**52** / **51**	450 / **47**	554 / 652 / **46**
30	117 / **118**	225 / **117**	**112** / 348	446 / **109**	560 / **107**	657 / **106**
40	115 / **160**	225 / **156**	**152** / 345	442 / **150**	552 / **146**	650 / **142**
50	110 / **202**	220 / **200**	**198** / 340	438 / **196**	546 / **195**	645 / **192**
60	105 / **242**	220 / **239**	**237** / 338	435 / **234**	542 / **231**	642 / **229**
75 (Max.cont.)	95 / **300**	215 / **296**	**293** / 332	430 / **286**	537 / **282**	638 / **278**
90 (Max.int.)	90 / **360**	205 / **354**	**348**	420 / **340**	530 / **332**	632 / **326**

ALSG3 315 [314.5cm³/rev.]

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

Torque (N•m) 520
Speed (rpm) **276**

ALSG3 375 [370cm³/rev.]

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

cont.
int.

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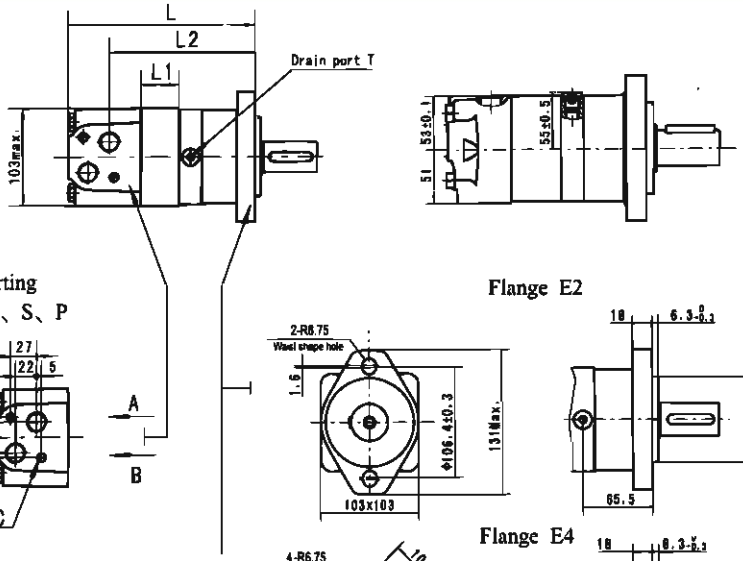
ALSG3

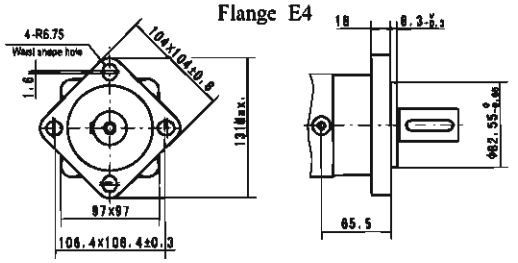
Hydraulic motor

Dimensions and mounting data

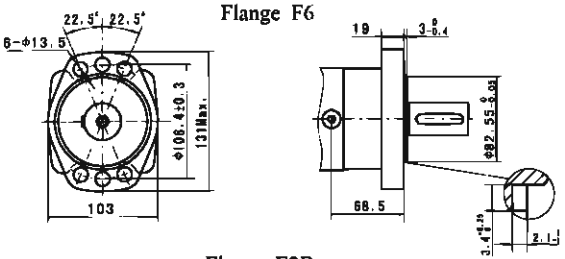


Flange E2

Flange E4



Flange F6

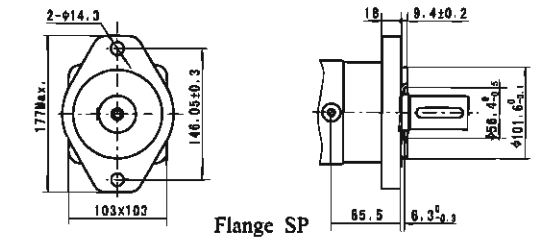


Model	L	L1	L2
ALSG3 80	167	13	123.2
ALSG3 100	171	17	127.2
ALSG3 125	176	22	132.2
ALSG3 160	181.5	27.5	137.7
ALSG3 200	189	35.1	145.2
ALSG3 250	201	47	157.2
ALSG3 315	213	59	169.2
ALSG3 375	225	71	181.2

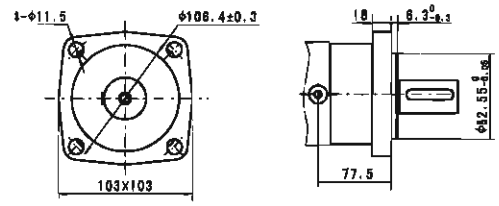
Model	L	L1	L2
ALSG3 80 W	129.4	13	86
ALSG3 100 W	133.4	17	90
ALSG3 125 W	138.4	22	95
ALSG3 160 W	143.9	27.5	100.5
ALSG3 200 W	151.4	35.1	108
ALSG3 250 W	163.4	47	120
ALSG3 315 W	175.4	59	132
ALSG3 375 W	187.4	71	144

Note:1) If the mounting SP is used, the dimensions of L and L2 should plus 12mm.
2) The thickness of the stator and rotor is the dimension of L1 plused 3mm.

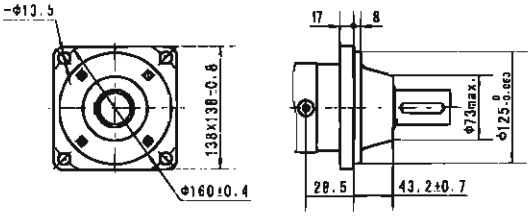
Flange E2B



Flange SP



Flange W



Code / Mounting	D (depth)	M (depth)	S (depth)	P (depth)
P(A,B)	G1/2(18)	M22x1.5(18)	7/8-14 O-ring (18)	1/2-14NPTF (15)
T	G1/4(12)	M14x1.5(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)

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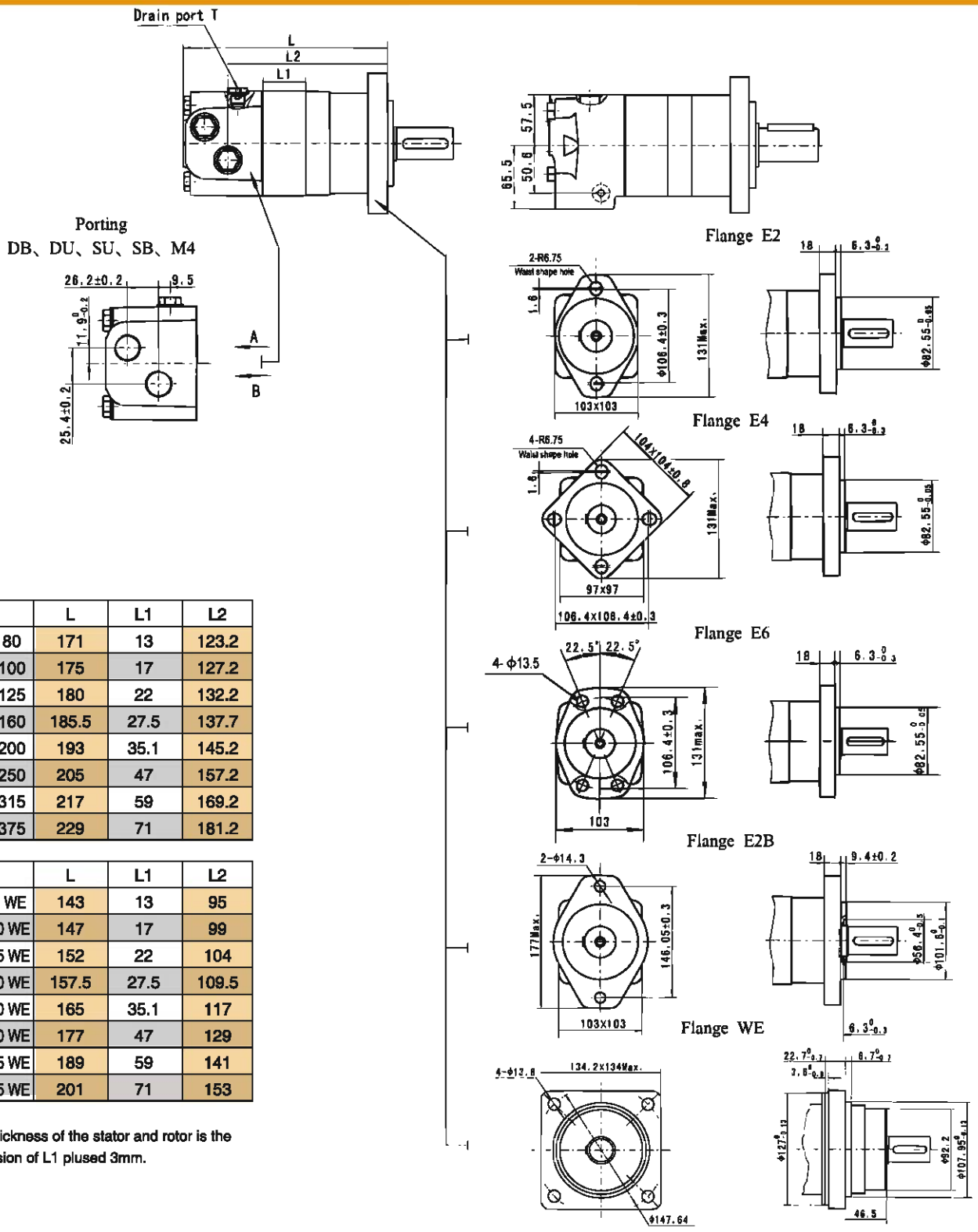

Model	L	L1	L2
ALSG3E 80	171	13	123.2
ALSG3E 100	175	17	127.2
ALSG3E 125	180	22	132.2
ALSG3E 160	185.5	27.5	137.7
ALSG3E 200	193	35.1	145.2
ALSG3E 250	205	47	157.2
ALSG3E 315	217	59	169.2
ALSG3E 375	229	71	181.2

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 plused 3mm.

Mounting \ 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)

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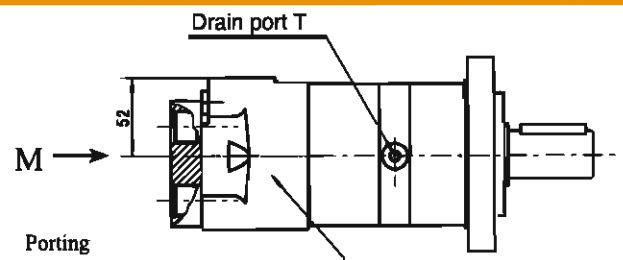
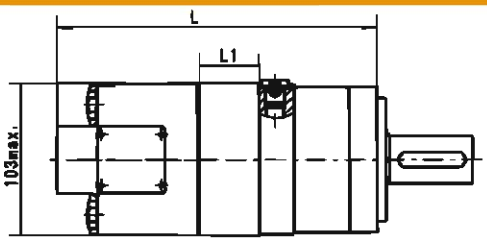
ALSG3E

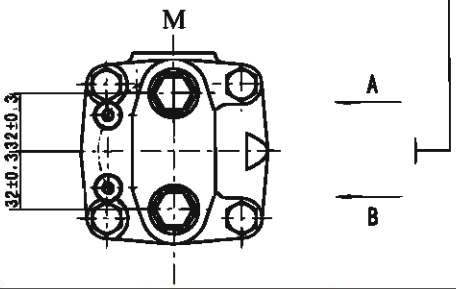
Hydraulic motor

Dimensions and mounting data





Porting
EE End Ports

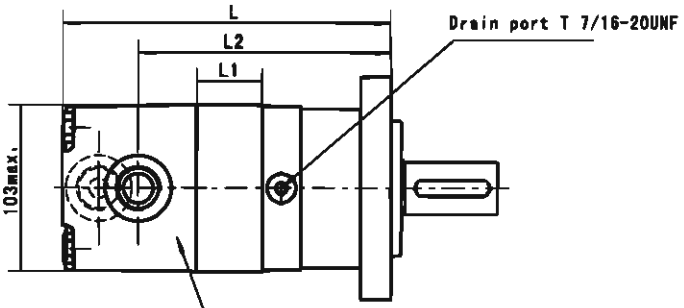


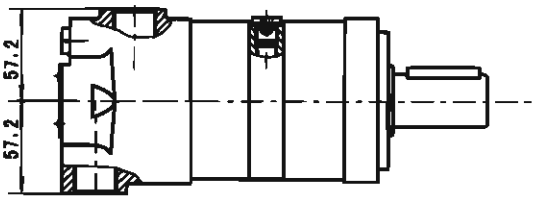
Code / Mounting	EE-D (depth)	EE-M2 (depth)	EE-S2 (depth)
P(A,B)	G1/2 (18)	M22 x 1.5 (18)	7/8-14 O-ring (18)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF(12)

Model	L	L1
ALSG3E 80	181	13
ALSG3E 100	185	17
ALSG3E 125	190	22
ALSG3E 160	195.5	27.5
ALSG3E 200	203	35.1
ALSG3E 250	215	47
ALSG3E 315	227	59
ALSG3E 375	239	71

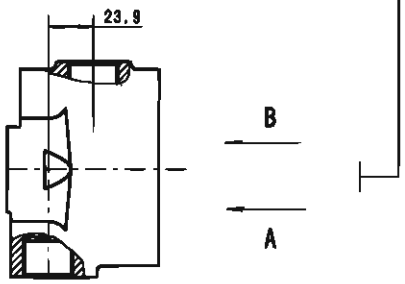
Model	L	L1
ALSG3E 80 WE	153	13
ALSG3E 100 WE	157	17
ALSG3E 125 WE	162	22
ALSG3E 160 WE	167.5	27.5
ALSG3E 200 WE	175	35.1
ALSG3E 250 WE	187	47
ALSG3E 315 WE	199	59
ALSG3E 375 WE	211	71

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





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



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 plused 3mm.

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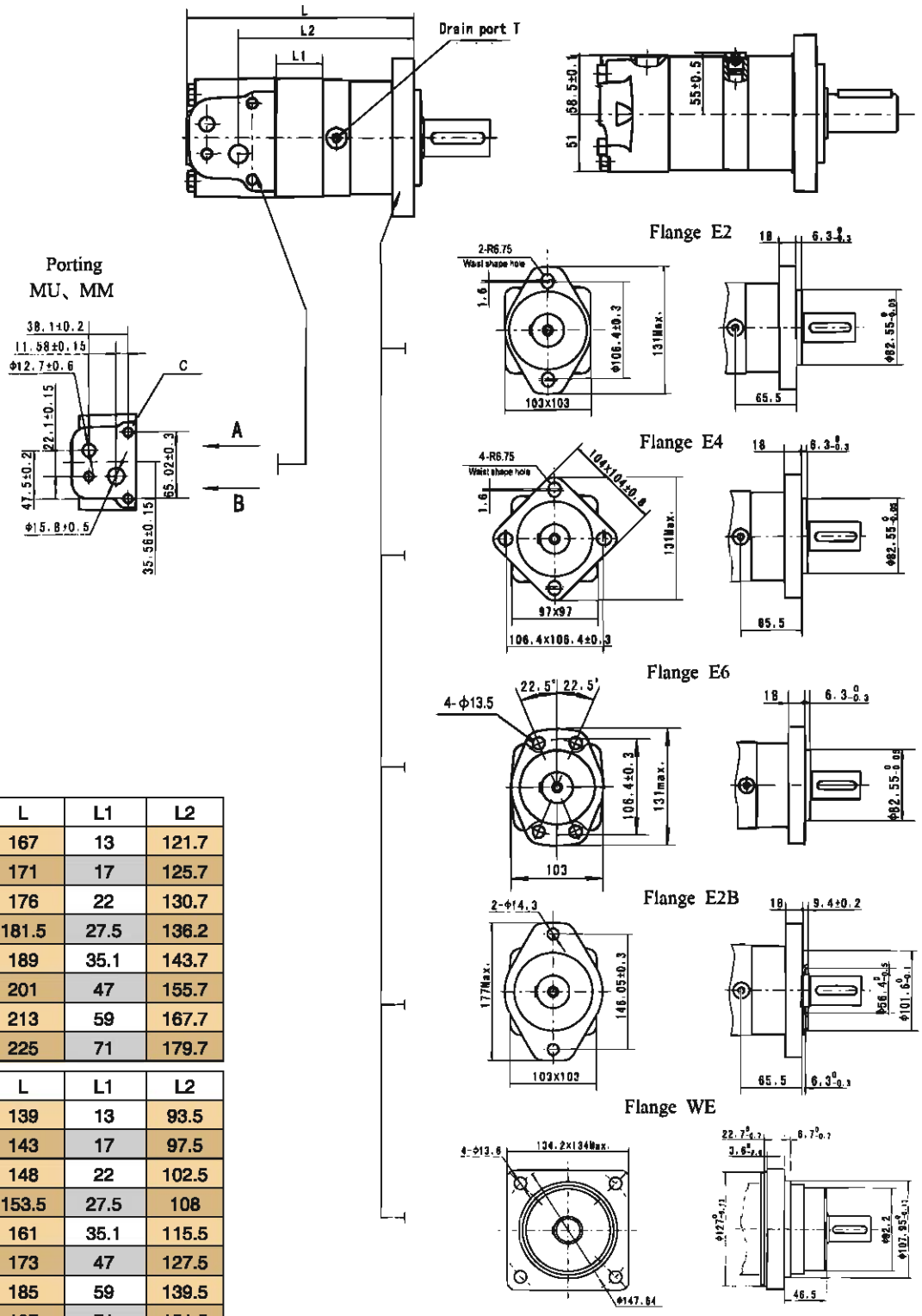

Model	L	L1	L2
ALSG3E 80	167	13	121.7
ALSG3E 100	171	17	125.7
ALSG3E 125	176	22	130.7
ALSG3E 160	181.5	27.5	136.2
ALSG3E 200	189	35.1	143.7
ALSG3E 250	201	47	155.7
ALSG3E 315	213	59	167.7
ALSG3E 375	225	71	179.7

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 plused 3mm.

Mounting \ 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

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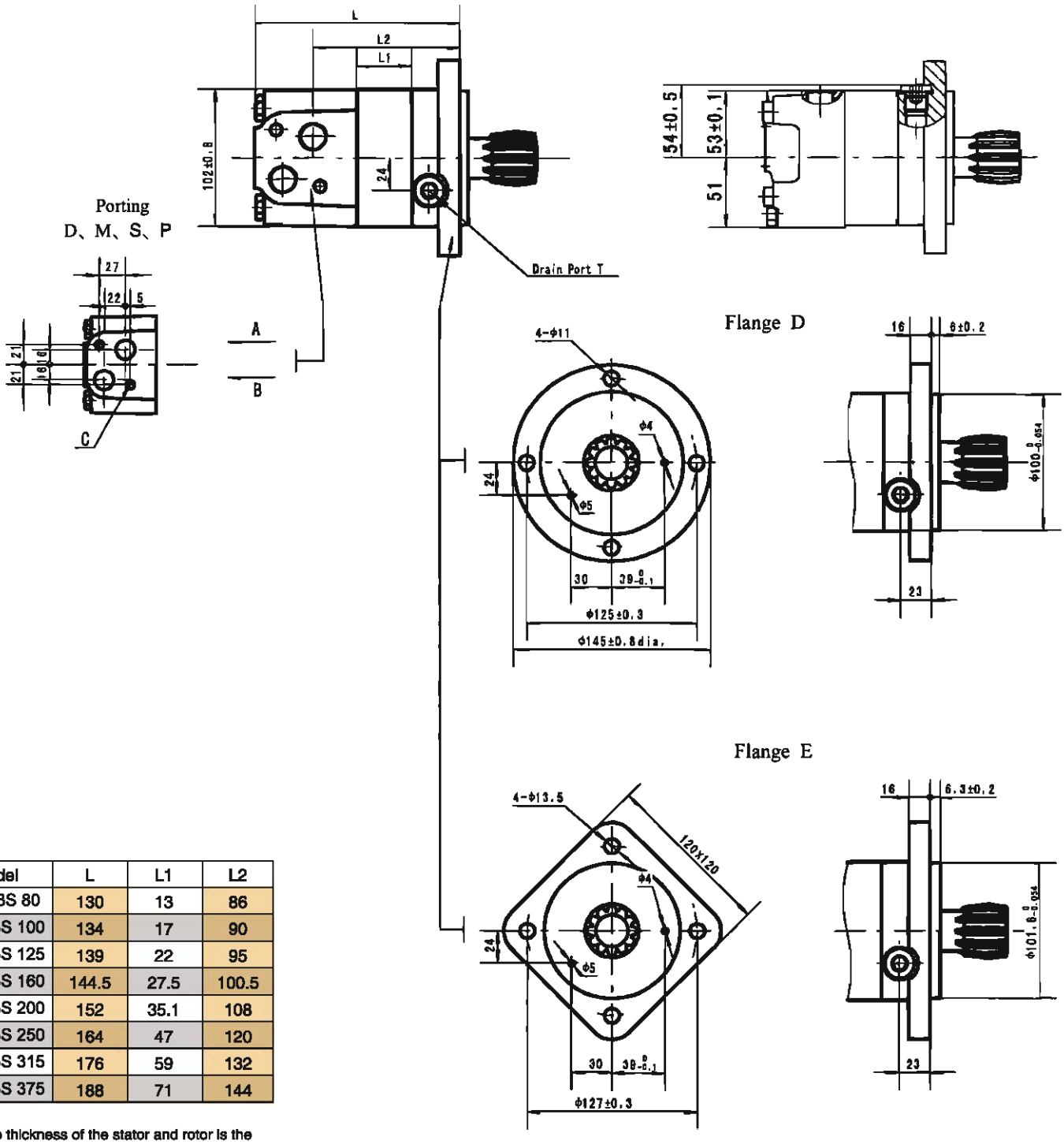
ALSG3S

Hydraulic motor

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 plused 3mm.

Mounting \ Code	D (depth)	M (depth)	S (depth)	P (depth)
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)

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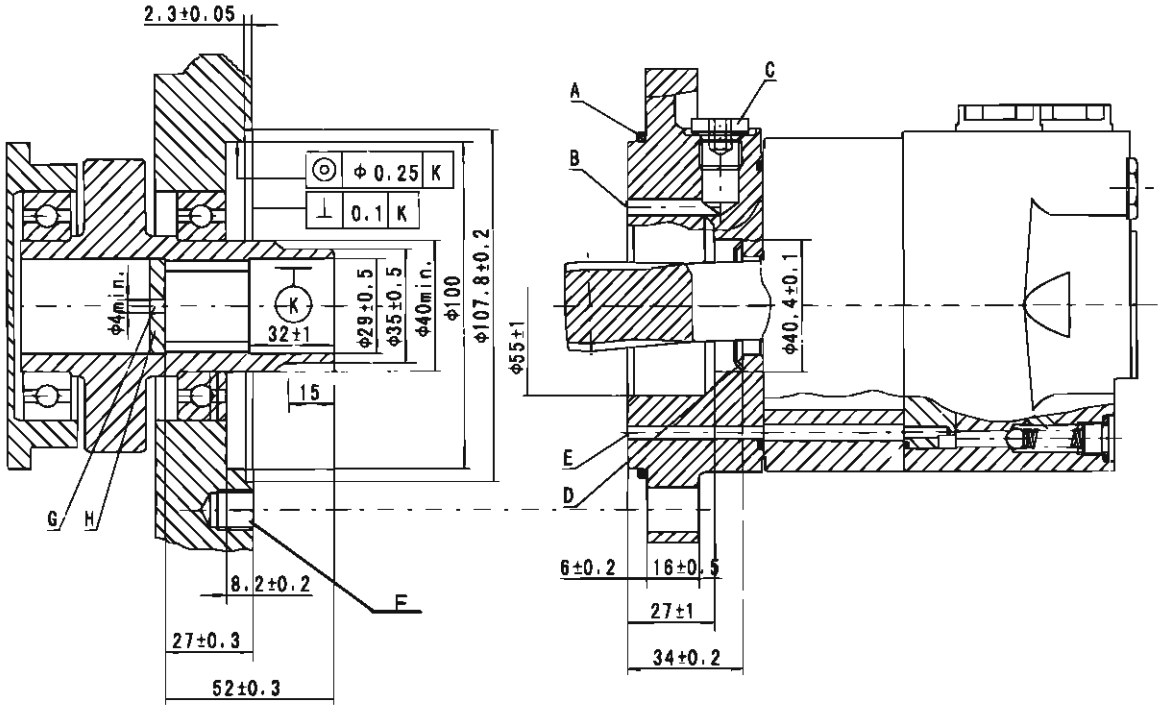
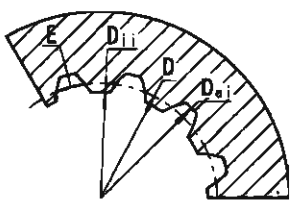
Dimensions and mounting data



A: O-ring:100x3
B: External drain channel
C: Drain connection G 1/4;12 mm deep
D: Conical seal ring
E: Internal drain channal
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	ø25.4 .1
Major Dia.	D_{ei}	ø28 $^{0}_{-0.1}$
Minor Dia.	D_{ii}	ø23 $^{+0.033}_{0}$
Space Width [Circular]	E	4.308±0.02



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

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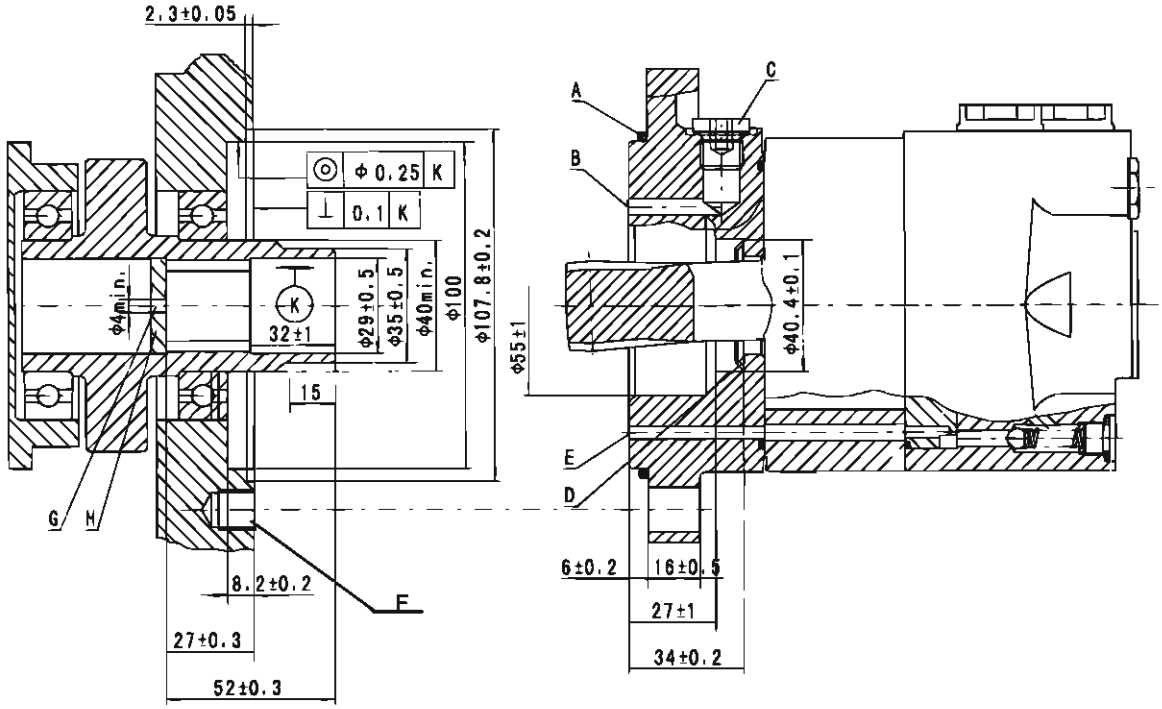
ALSG3J

Hydraulic motor

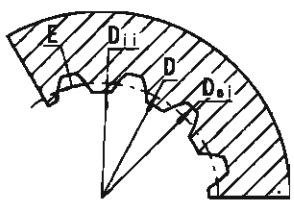
Dimensions and mounting data



A: O-ring:100x3
B: External drain channel
C: Drain connection G 1/4;12 mm deep
D: Conical seal ring
E: Internal drain channal
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	ø25.4 .1
Major Dia.	D_{ei}	ø28 $^{0}_{-0.1}$
Minor Dia.	D_i	ø23 $^{+0.033}_{0}$
Space Width [Circular]	E	4.308±0.02



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

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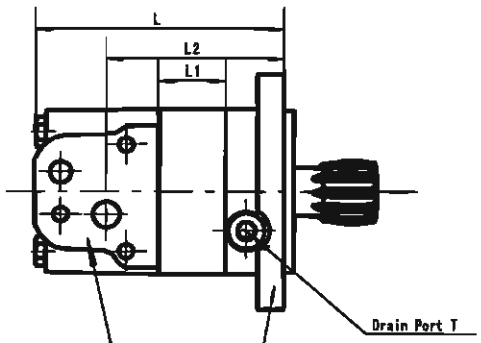
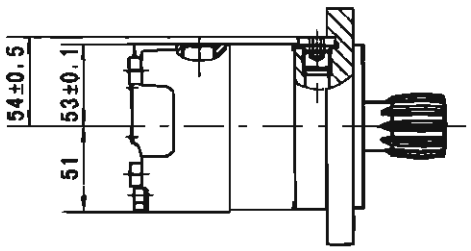
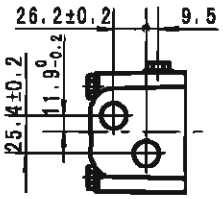
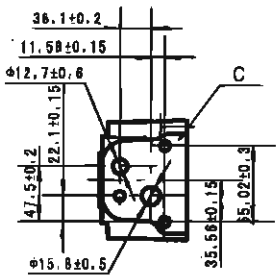




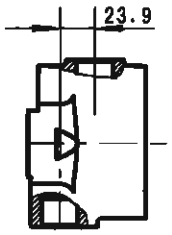
Porting
DB、DU、SU、SB、M4

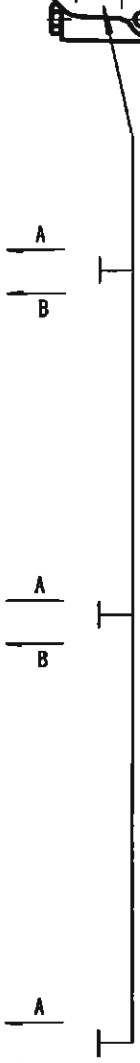


MU、MM

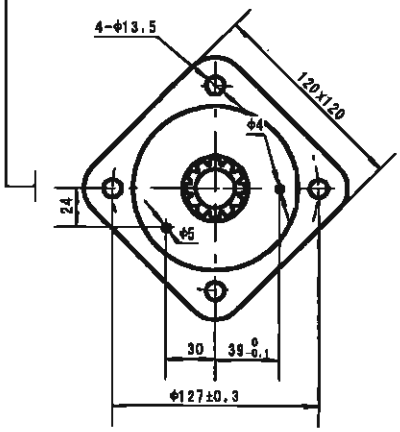


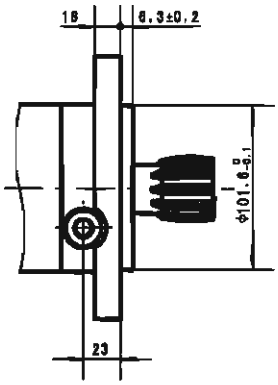
ED 1-1/16-12UN
O-ring 180° Apart Port

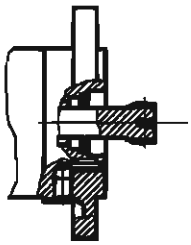




Flange J







Model	L	L1	L2
ALSG3J 80	134	13	86
ALSG3J 100	138	17	90
ALSG3J 125	143	22	95
ALSG3J 160	148.5	27.5	100.5
ALSG3J 200	156	35.1	108
ALSG3J 250	168	47	120
ALSG3J 315	180	59	132
ALSG3J 375	192	71	144

Note:1) If the porting MU MM S2 is used, the dimensions of L2 should reduce 1.5mm and L should reduce 4mm.

2) If the porting ED is used, the dimensions of L2 should add 2.5mm and L should add 2mm.

3) The thickness of the stator and rotor is the dimension of L1 plused 3mm.

Code / Mounting	DB (depth)	DU (depth)	SU (depth)	SB (1depth)	M4 (depth)	MU	MM	ED (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)	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	-

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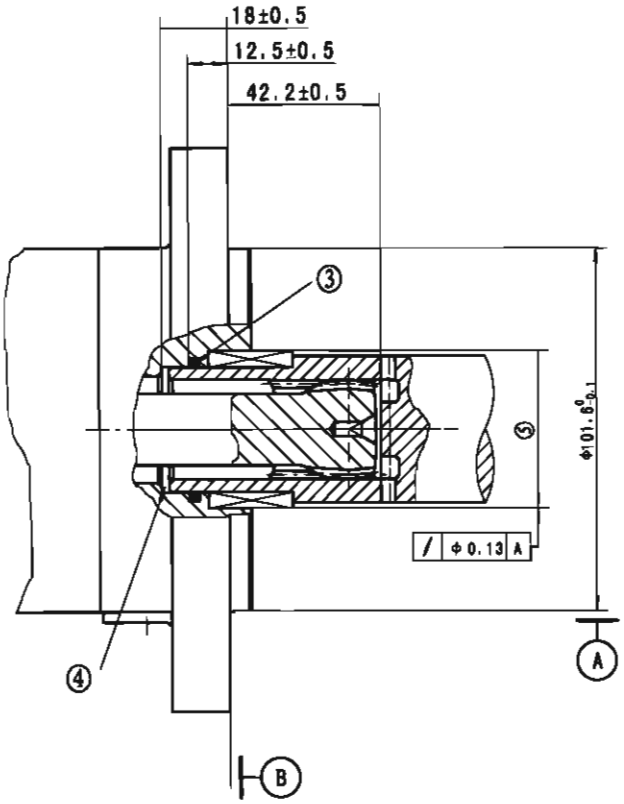
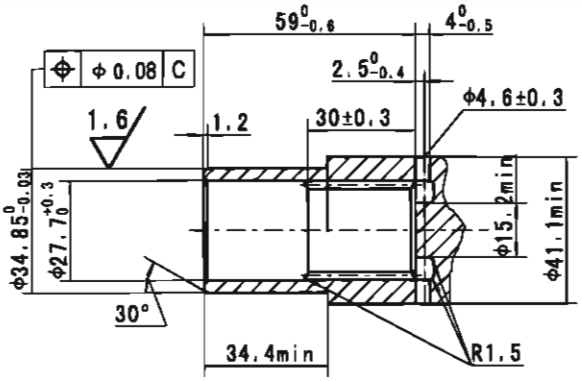
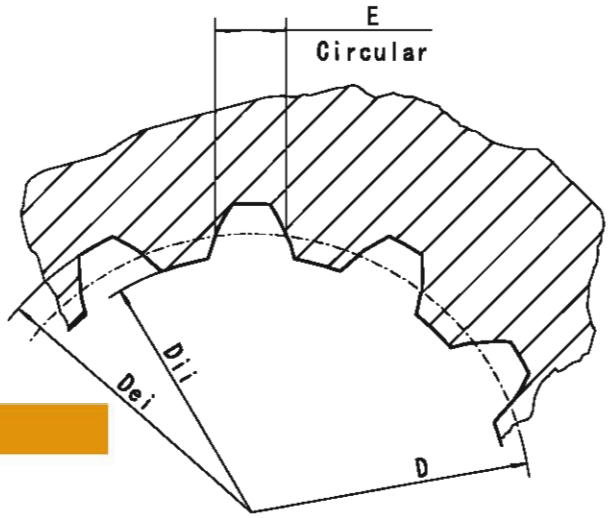
ALSG3J

Hydraulic motor

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	ø25.4 -.1
Major Dia.	D_{ei}	ø27.6 +0.14 0
Minor Dia.	D_{ii}	ø23.1 +0.12 0
Space Width [Circular]	E	4.282±0.036
Dimension between two pins(ø3.38)	M_e	19.02-19.19

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

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

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

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

⑤Counterbore 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.

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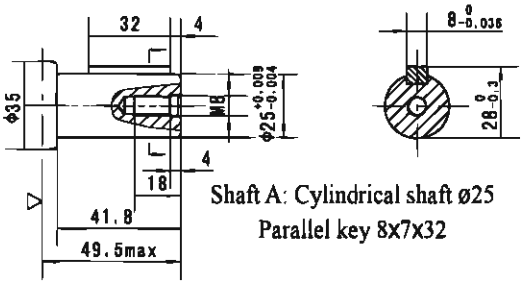
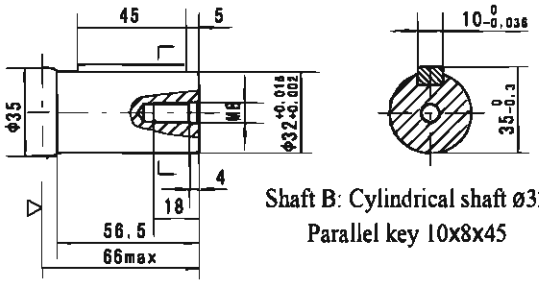
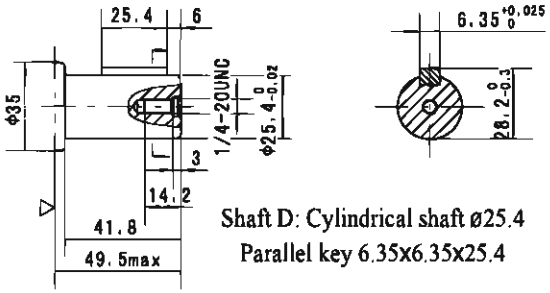


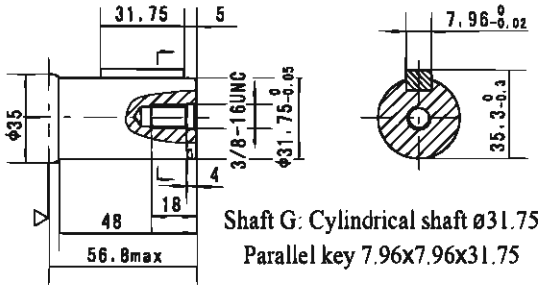
Shaft A: Cylindrical shaft ø25
Parallel key 8x7x32



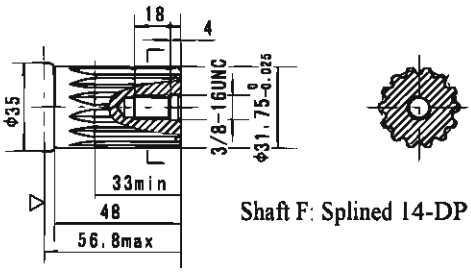
Shaft B: Cylindrical shaft ø32
Parallel key 10x8x45



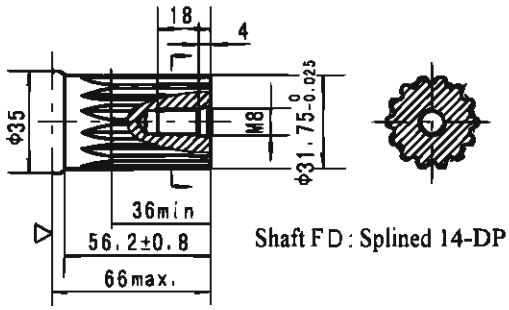
Shaft D: Cylindrical shaft ø25.4
Parallel key 6.35x6.35x25.4



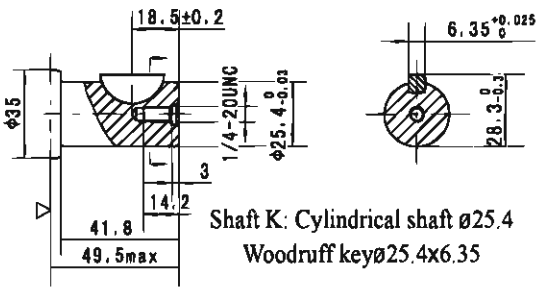
Shaft G: Cylindrical shaft ø31.75
Parallel key 7.96x7.96x31.75



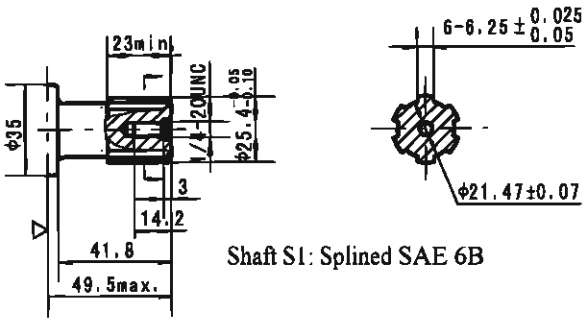
Shaft F: Splined 14-DP12/24



Shaft FD: Splined 14-DP12/24



Shaft K: Cylindrical shaft ø25.4
Woodruff keyø25.4x6.35



Shaft S1: Splined SAE 6B

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

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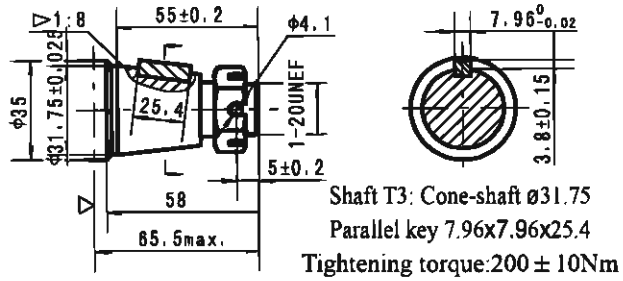
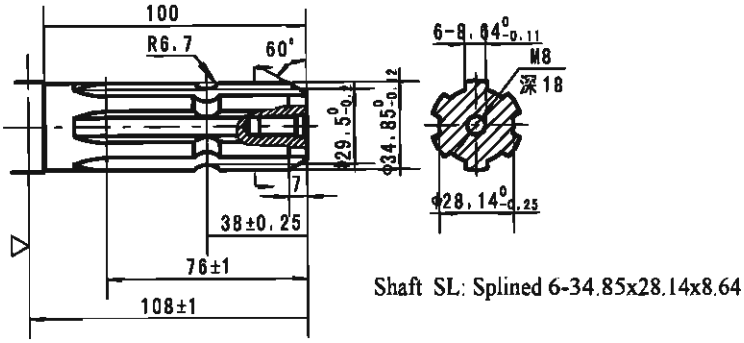
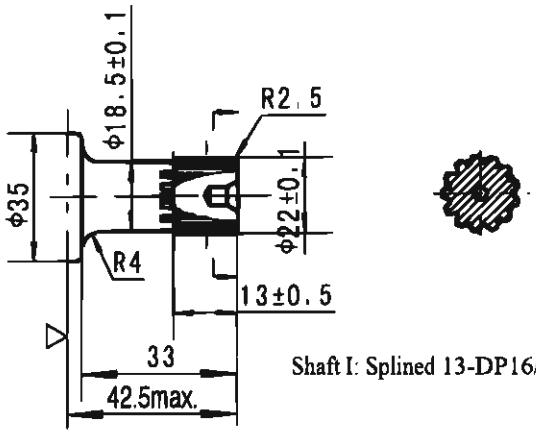
Shaft extensions for ALSG3(E) motors



Shaft T3: Cone-shaft ø31.75
Parallel key 7.96x7.96x25.4
Tightening torque:200 ± 10Nm



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



Shaft I: Splined 13-DP16/32

▷ 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.

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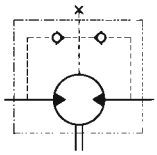
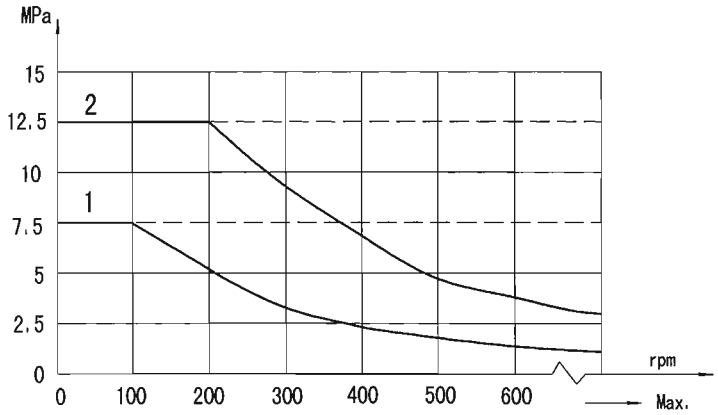
Permissible shaft seal pressure



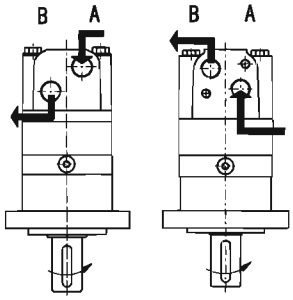


Note:1.Chart for standard shaft seal;
2.Chart for high pressure shaft seal.

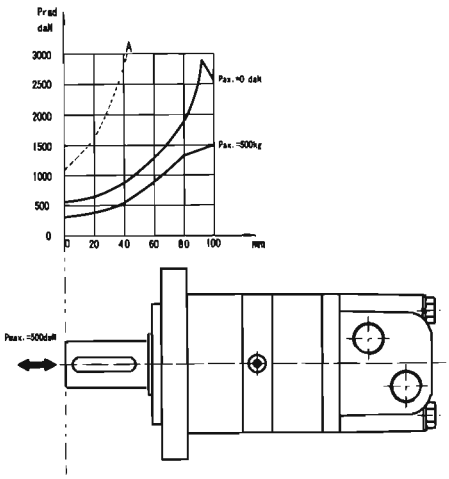
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Direction of shaft: Standard

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

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ALSG3

Hydraulic motor

Ordering information

1	2	3	4	5	6	7	8
ALSG3	–	–	–	–	–	–	–

1	2	3	4	5	6	7	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	Omit	Standard	00	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	M	M22×1.5 Manifold Mount 2-M10 , M14×1.5	R	Opposite	Omit	Blue	LL	Low Leakage
	125	F6	6-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×2.6	D	Shaft Ø25.4 , parallel key6.35×6.35×25.4	S	7/8-14UNF O-ring manifold 2-3/8-16 , 7/16-20UNF			B	Black	F	Free Running
	160	W	4-Ø13.5 Wheel-flange Ø160 , pilot Ø125×8	G	Shaft Ø31.75 , parallel key 7.96×7.96×31.75	P	1/2-14NPTF manifold 2-3/8-16UNC , 7/16-20UNF			S	Silver grey	LS	Low Speed
	200	E2B	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-shaftØ31.75 , parallel key 7.96×7.96×31.75								
				S1	Shaft Ø25.4 ,splined tooth SAE 6B								
				I	Sub-shaft Ø22, splined tooth 13-DP16/32								
ALSG3S	375	D	4-Ø11 Circle-flange Ø125 , pilot Ø100×6	Omit	Short shaft 12-DP12/24								
		E	4-Ø13.5 Square-flange Ø127 , pilot Ø101.6×6.3										

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 .

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Ordering information

1	2	3	4	5	6	7	8
ALSG3E	–	–	–	–	–	–	–
ALSG3J	–	–	–	–	–	–	–

Pos.1	2	3		4		5		6		7		8	
Code	Disp.	Flange		Output Shaft		Port and Drain Port		Rotation Direction		Paint		Unusually Function	
ALSG3E	80 100 125 160 200 250 315	E2 E4 E2B E6 WE	2-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×6.3 4-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×6.3 2-Ø14.3 Rhomb-flange Ø146.05, pilot Ø101.6×9.4 4-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×6.3 4-Ø13.6Wheel-flangeØ147.6, pilot Ø107.95*6.4	A B K G F T4 S1 I	Shaft Ø25 , parallel key 8×7×32 Shaft Ø32 , parallel key 10×8×45 Shaft Ø25.4 , Woodruff key Ø25.4×6.35 Shaft Ø31.75 , parallel key 7.96×7.96×31.75 Shaft Ø31.75 , splined tooth 14-DP12/24 Cone-shaftØ31.75 , parallel key 7.96×7.96×25.4 Shaft Ø25.4 ,splined tooth SAE 6B Sub-shaft Ø22 , splined tooth 13-DP16/32	MU MM EE-D EE-M2 EE-S2 ED DB DU SB SU M4	1/2" ,5/8" Crosshole Manifold 3×3/8-16UNC,7/16-20UNF 1/2" ,5/8" Crosshole Manifold 3×M10,G1/4 G1/2,G1/4 M22×1.5,M14×1.5 7/8-14UNF O-ring,7/16-20 UNF 1-1/16-12UN O-ring,7/16-20 UNF G1/2,G1/4 G1/2,7/16-20 UNF 7/8-14UNF O-ring,G1/4 7/8-14UNF O-ring,7/16-20 UNF M22×1.5,M14×1.5	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver grey	Omit LL F LS	Standard Low Leakage Free Running Low Speed
ALSG3J	375	J	4-Ø13.5 Square-flange Ø127 pilot Ø101.6×6.3	Omit	Short shaft12- DP12/24								

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ALSG3Y

Hydraulic motor

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 featutres:

* 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 (cm^3/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.

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ALSG3Y 80 [80.6cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5	20.5 (Max.cont.)	22.5 (Max.int.)
	35	80	120	158	195	228	249
15	**180**	**174**	**168**	**164**	**158**	**151**	**143**
	35	80	120	158	195	232	260
30	**362**	**352**	**346**	**338**	**330**	**322**	**310**
	35	79	119	155	193	227	250
40	**487**	**480**	**468**	**457**	**446**	**438**	**425**
	30	77	117	153	192	224	248
50	**612**	**603**	**592**	**581**	**572**	**558**	**542**
	28	77	117	153	192	224	243
60	**735**	**726**	**718**	**703**	**687**	**673**	**646**
Max.cont.	26	75	116	151	188	217	236
65	**794**	**786**	**773**	**760**	**744**	**722**	**706**
Max.int.	24	72	109	142	176	206	227
80	**981**	**968**	**955**	**925**	**893**	**870**	**832**

ALSG3Y 100 [100.8cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5	20.5 (Max.cont.)	22.5 (Max.int.)
	48	95	150	200	250	282	310
15	**146**	**144**	**139**	**135**	**130**	**120**	**105**
	45	94	146	198	250	290	317
30	**291**	**289**	**278**	**274**	**269**	**258**	**242**
	43	89	142	196	248	288	316
40	**387**	**384**	**374**	**359**	**350**	**335**	**320**
	40	88	135	194	247	286	315
50	**486**	**483**	**473**	**462**	**450**	**430**	**420**
	37	88	132	185	244	283	312
60	**588**	**584**	**574**	**562**	**550**	**538**	**520**
Max.cont.	35	80	130	180	240	279	310
75	**740**	**735**	**720**	**705**	**696**	**676**	**653**
Max.int.	30	75	124	170	236	271	303
90	**850**	**840**	**810**	**787**	**770**	**750**	**747**

ALSG3Y 125 [125cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5	20.5 (Max.cont.)	22.5 (Max.int.)
	55	120	176	245	309	345	375
15	**115**	**113**	**110**	**104**	**98**	**90**	**84**
	55	120	175	250	315	364	404
30	**231**	**228**	**223**	**214**	**202**	**188**	**172**
	53	118	178	250	315	364	403
40	**312**	**309**	**290**	**289**	**278**	**262**	**235**
	50	115	176	248	315	362	397
50	**391**	**386**	**378**	**365**	**352**	**339**	**308**
	45	113	171	241	308	358	397
60	**469**	**461**	**450**	**437**	**425**	**400**	**372**
Max.cont.	45	110	167	240	306	352	389
75	**588**	**574**	**560**	**544**	**526**	**505**	**481**
Max.int.	40	105	162	237	301	343	378
90	**710**	**696**	**680**	**661**	**646**	**628**	**610**

TORQUE(N•m) 301
SPEED (r/min) **646**

ALSG3Y 160 [154cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5	21 (Max.cont.)	22.5 (Max.int.)
	70	142	215	298	372	435	476
15	**93**	**91**	**89**	**85**	**80**	**76**	**58**
	73	151	225	312	382	456	492
30	**189**	**187**	**181**	**176**	**170**	**162**	**153**
	75	152	228	314	383	454	488
40	**252**	**250**	**246**	**239**	**234**	**228**	**212**
	70	148	225	305	372	445	480
50	**313**	**310**	**306**	**298**	**293**	**285**	**272**
	68	143	218	296	370	442	480
60	**378**	**376**	**370**	**362**	**353**	**346**	**332**
Max.cont.	62	140	211	291	365	439	475
75	**475**	**469**	**461**	**450**	**441**	**432**	**414**
Max.int.	59	131	202	286	357	425	460
90	**567**	**561**	**554**	**543**	**532**	**520**	**509**

cont.
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ALSG3Y 200 [194cm³/rev.]

Pressure (MPa)

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

ALSG3Y 250 [243cm³/rev.]

Pressure (MPa)

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

ALSG3Y 315 [311cm³/rev.]

Pressure (MPa)

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

ALSG3Y 400 [394cm³/rev.]

Pressure (MPa)

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

TORQUE (N•m) 766
SPEED (rpm) 208

ALSG3Y 475 [475cm³/rev.]

Pressure (MPa)

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

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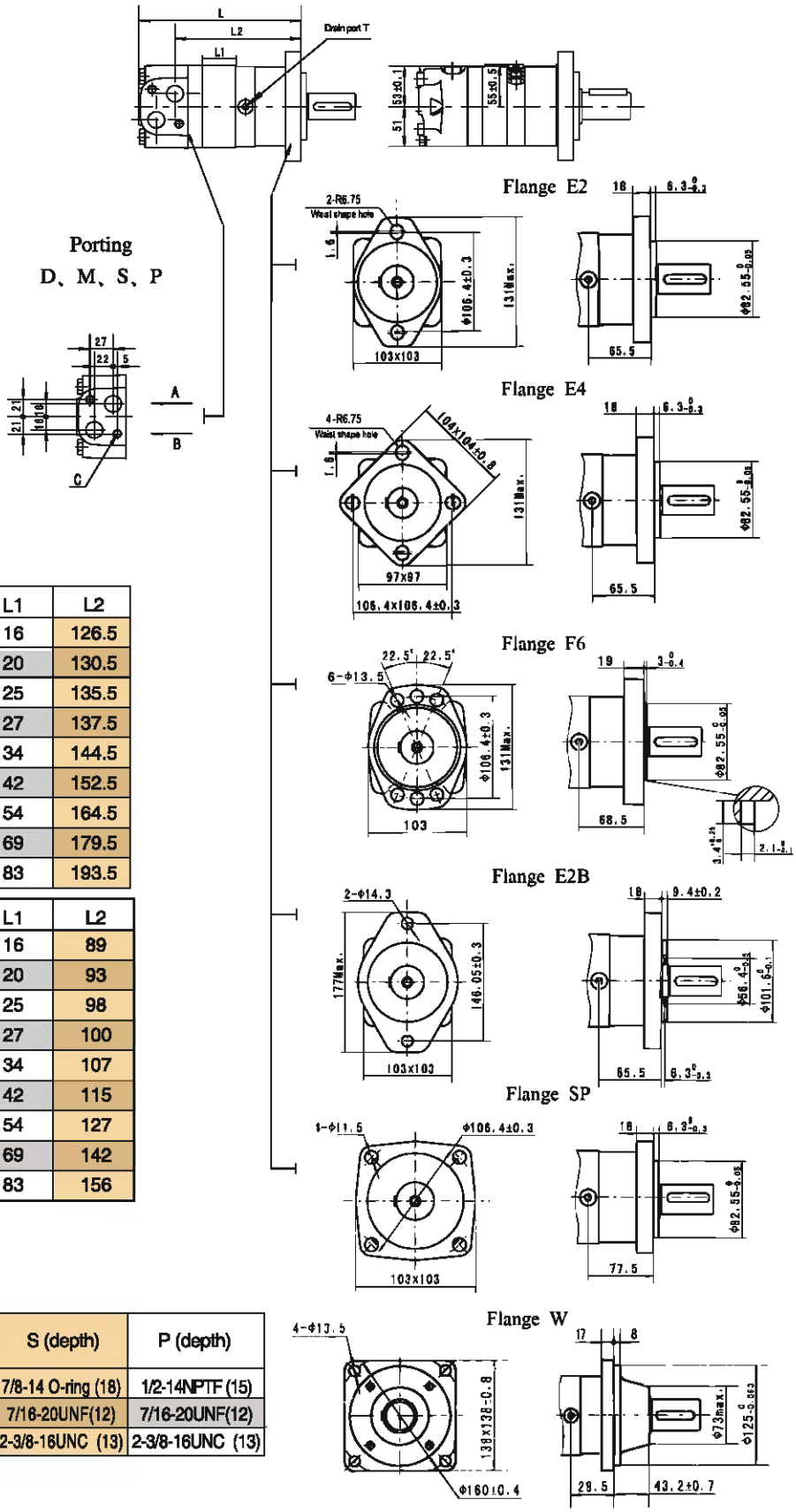

Model	L	L1	L2
ALSG3Y 80	170	16	126.5
ALSG3Y 100	174	20	130.5
ALSG3Y 125	179	25	135.5
ALSG3Y 160	181	27	137.5
ALSG3Y 200	188	34	144.5
ALSG3Y 250	196	42	152.5
ALSG3Y 315	208	54	164.5
ALSG3Y 400	223	69	179.5
ALSG3Y 475	237	83	193.5

Model	L	L1	L2
ALSG3Y 80 W	132.5	16	89
ALSG3Y 100 W	136.5	20	93
ALSG3Y 125 W	141.5	25	98
ALSG3Y 160 W	143.5	27	100
ALSG3Y 200 W	150.5	34	107
ALSG3Y 250 W	158.5	42	115
ALSG3Y 315 W	170.5	54	127
ALSG3Y 400 W	185.5	69	142
ALSG3Y 475 W	199.5	83	156

Code / Mounting	D (depth)	M (depth)	S (depth)	P (depth)
P(A,B)	G1/2(18)	M22x1.5(18)	7/8-14 O-ring (18)	1/2-14NPTF (15)
T	G1/4(12)	M14x1.5(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)

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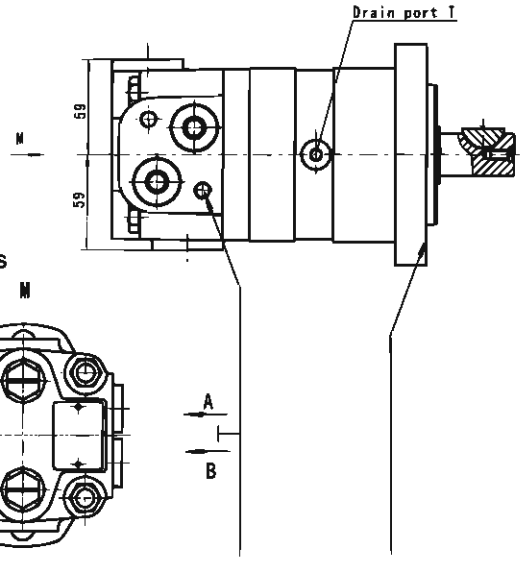
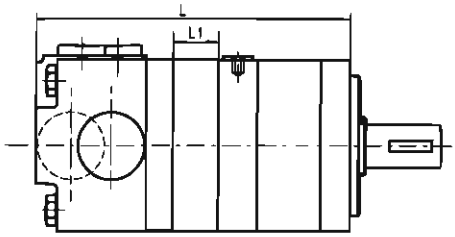
ALSG3Y

Hydraulic motor

Dimensions and mounting data



Porting
End Ports

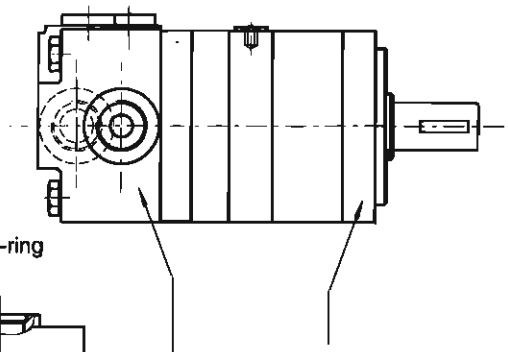


Code / Mounting	EE-D (depth)	EE-M2 (depth)	EE-S2 (depth)
P(A,B)	G1/2 (18)	M22 x 1.5 (18)	7/8-14 O-ring (18)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF(12)

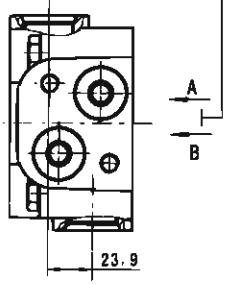
End Ports P(A\ B)

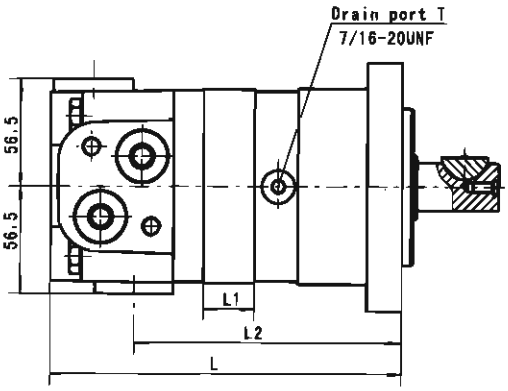
Model	L	L1
ALSG3Y 80	176	16
ALSG3Y 100	180	20
ALSG3Y 125	185	25
ALSG3Y 160	187	27
ALSG3Y 200	194	34
ALSG3Y 250	202	42
ALSG3Y 315	214	54
ALSG3Y 400	229	69
ALSG3Y 475	243	83

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



Porting
ED 1-1/16-12UN 0-ring
180°Apart ports





Code / Mounting	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

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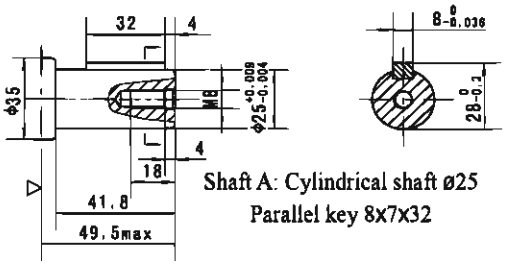
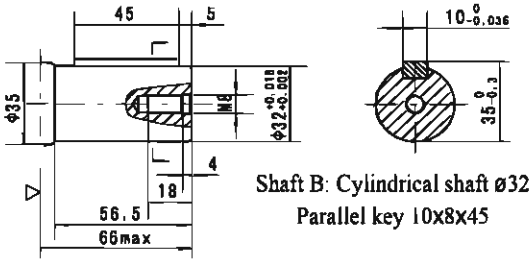
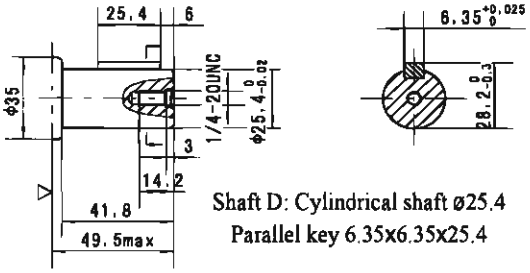
Shaft extensions for ALSG3Y motors



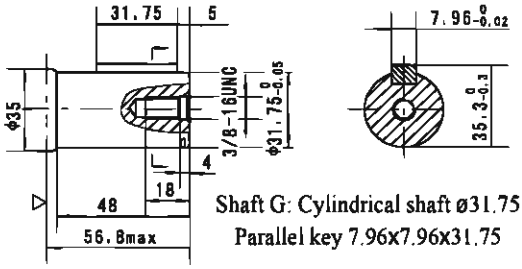
Shaft A: Cylindrical shaft ø25
Parallel key 8x7x32



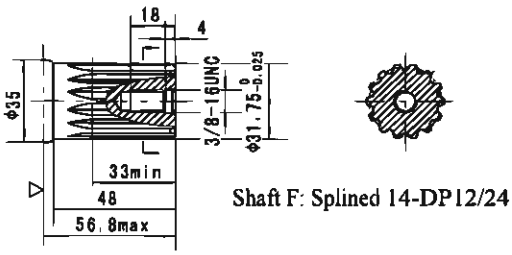
Shaft B: Cylindrical shaft ø32
Parallel key 10x8x45



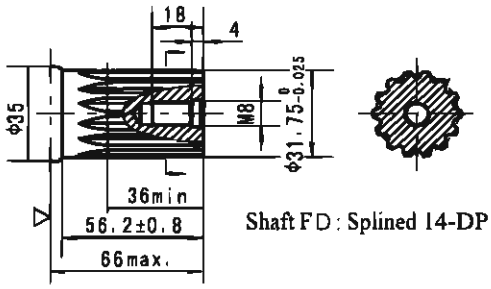
Shaft D: Cylindrical shaft ø25.4
Parallel key 6.35x6.35x25.4



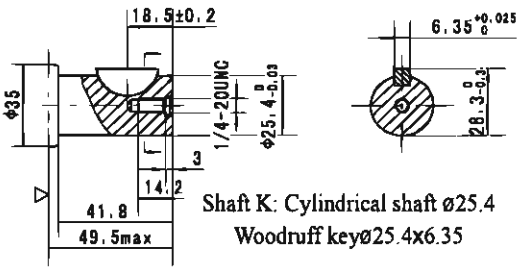
Shaft G: Cylindrical shaft ø31.75
Parallel key 7.96x7.96x31.75



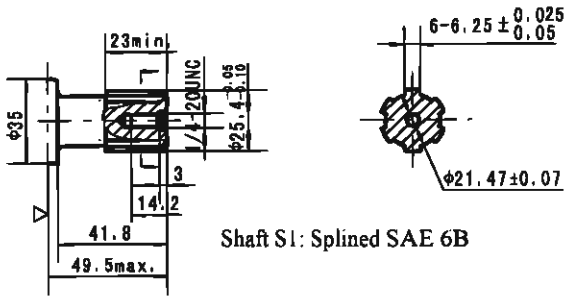
Shaft F: Splined 14-DP12/24



Shaft FD: Splined 14-DP12/24



Shaft K: Cylindrical shaft ø25.4
Woodruff keyø25.4x6.35



Shaft S1: Splined SAE 6B

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

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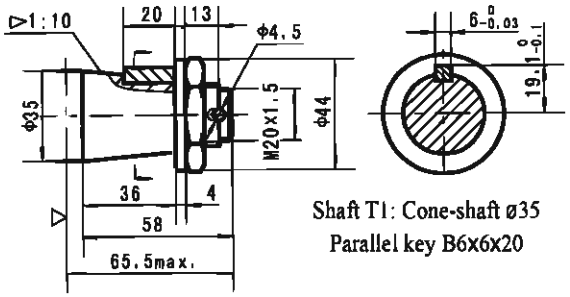
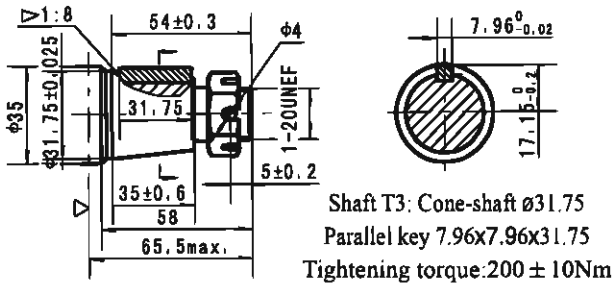
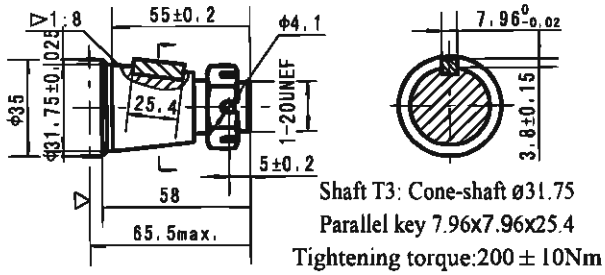
Shaft extensions for ALSG3Y motors



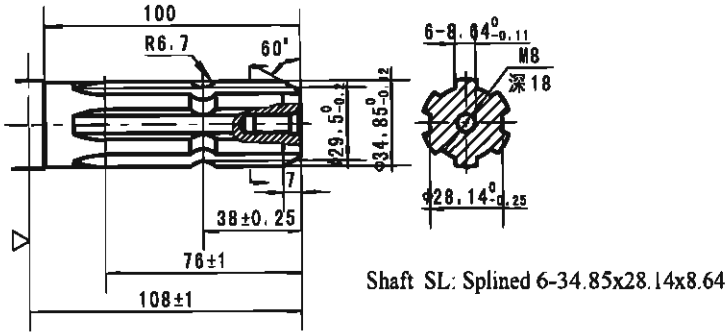
Shaft T1: Cone-shaft ø35
Parallel key B6x6x20



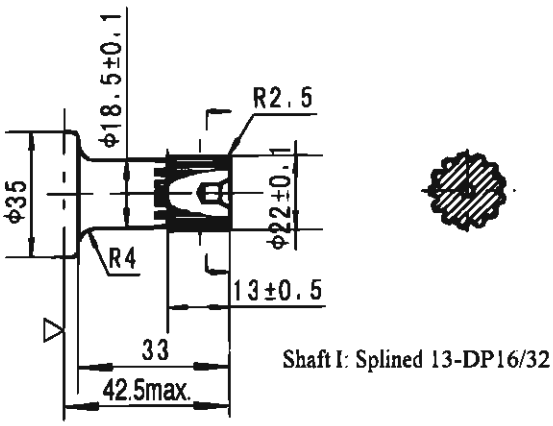
Shaft T3: Cone-shaft ø31.75
Parallel key 7.96x7.96x31.75
Tightening torque:200 ± 10Nm



Shaft T3: Cone-shaft ø31.75
Parallel key 7.96x7.96x25.4
Tightening torque:200 ± 10Nm



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



Shaft I: Splined 13-DP16/32

▷ 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.

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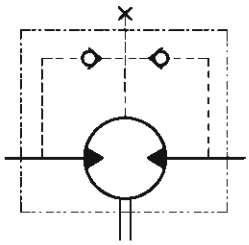
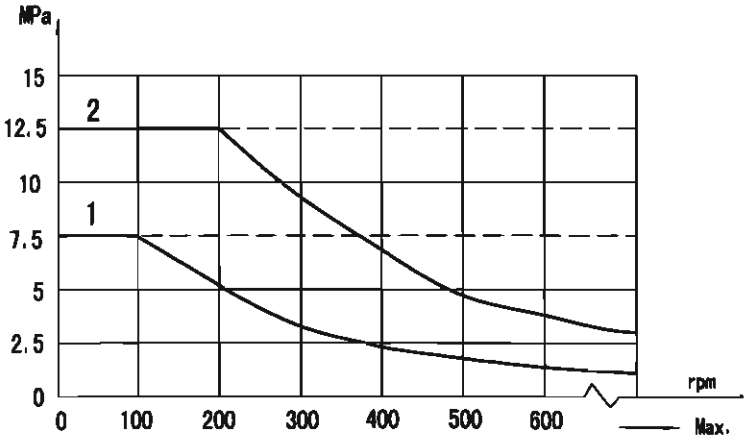
Permissible shaft seal pressure



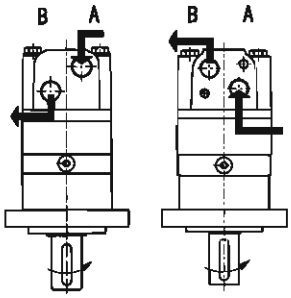


Note:1.Chart for standard shaft seal;
2.Chart for high pressure shaft seal.

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.

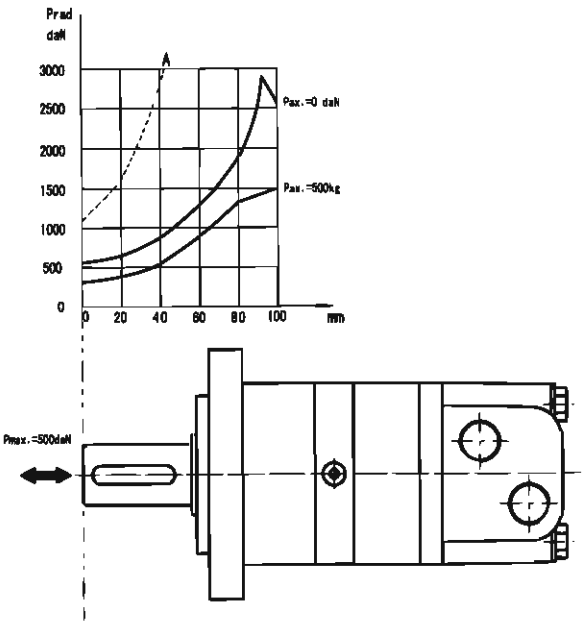
Direction of shaft: Standard

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



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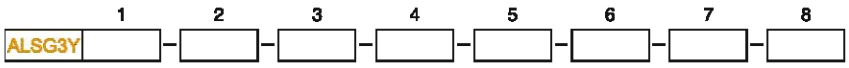
ALSG3Y

Hydraulic motor

Order information



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	80 100 125 160 200 250 315 400 475	E2 E4 F6 W E2B SP	2-Ø13.5 Rhomb-flange Ø106.4, Pilot Ø82.5×6.3 4-Ø13.5 Rhomb-flange Ø106.4, Pilot Ø82.5×6.3 6-Ø13.5 Rhomb-flange Ø106.4, Pilot Ø82.5×6.3 4-Ø13.5 Wheel-flange Ø160, Pilot Ø125×8 2-Ø14.3 Rhomb-flangeØ146.05, Pilot Ø101.6×9.4 4-Ø11.5 Square-flange Ø106.4, Pilot Ø82.5×6.3	A B D G F FD SL T1 T3 S1 I	Shaft Ø25,Parallel key 8×7×32 Shaft Ø32,Parallel key 10×8×45 Shaft Ø25.4, Parallel key 6.35×6.35×25.4 Shaft Ø31.75, Parallel key 7.96×7.96×31.75 Shaft Ø31.75,Splined key 14-DP12/24 Long Shaft Ø31.75, Splined key 14-DP12/24 Shaft Ø34.85, Splined key 6-34.85×28.14×8.64 Cone-shaft Ø35,parallel key B6×6×20 Cone-shaft Ø31.75, Parallel key 7.96×7.96×31.75 Shaft Ø25.4,Splined key SAE 6B Sub-shaft Ø22, Splined key 13-DP16/32	D M S P EE-D EE-M2 EE-S2 ED	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 G1/2,G1/4(end port) M22×1.5,M14×1.5(end port) 7/8-14UNF O-ring,7/16-20 UNF(end port) 1-1/16-12UN O-ring,7/16-20 UNF(180°Apart ports)	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver Grey	Omit LL F LS	Standard Low Leakage 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.The informations of mounting flange,output shaft and frorts are the same as BMS serier.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.

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ALSG6

Hydraulic motor

I O W AmberLine Hydraulics

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 distrbution 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.

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ALSG6

Hydraulic motor

Performance data

ALSG6 160 [161.1cm³/rev.]

Pressure (MPa)

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

ALSG6 200 [201.4cm³/rev.]

Pressure (MPa)

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

ALSG6 250 [251.8cm³/rev.]

Pressure (MPa)

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

Torque (N•m) 552
Speed (rpm) **572**

ALSG6 315 [326.3cm³/rev.]

Pressure (MPa)

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

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ALSG6 400 [410.9cm³/rev.]

Pressure (MPa)

Flow (L/min)	3	6	9	12	15 (Max.cont.)	18	21 (Max.int.)
10	176 / **24**	367 / **23**	560 / **22**	715 / **21**	885 / **20**	1050 / **19**	1209 / **18**
20	179 / **49**	370 / **48**	565 / **47**	726 / **44**	899 / **42**	1071 / **40**	1236 / **38**
40	176 / **96**	370 / **95**	567 / **93**	733 / **90**	919 / **87**	1091 / **83**	1263 / **79**
60	174 / **145**	361 / **143**	563 / **139**	729 / **135**	920 / **131**	1095 / **127**	1269 / **121**
80	166 / **193**	353 / **191**	553 / **188**	719 / **184**	912 / **180**	1084 / **176**	1263 / **170**
100	150 / **242**	339 / **240**	538 / **238**	708 / **234**	896 / **228**	1067 / **224**	1252 / **218**
Max.cont. 125	135 / **302**	309 / **300**	524 / **298**	688 / **294**	873 / **289**	1045 / **285**	1221 / **278**
Max.int. 150	126 / **364**	292 / **362**	508 / **358**	666 / **354**	852 / **350**	1020 / **346**	1197 / **339**

ALSG6 500 [523.6cm³/rev.]

Pressure (MPa)

Flow (L/min)	3	6	9	12	14 (Max.cont.)	16	18 (Max.int.)
10	222 / **18**	451 / **18**	692 / **18**	892 / 17	1050 / **16**	1193 / **15**	1340 / **13**
20	231 / **37**	464 / **36**	714 / **35**	918 / 34	1070 / **33**	1220 / **32**	1377 / **30**
40	230 / **75**	466 / **74**	727 / **73**	941 / 72	1094 / **70**	1244 / **68**	1422 / **64**
60	225 / **113**	457 / **112**	714 / **111**	941 / 109	1088 / **107**	1245 / **105**	1409 / **101**
80	213 / **151**	431 / **150**	696 / **149**	927 / 147	1076 / **145**	1244 / **143**	1401 / **138**
100	194 / **189**	420 / **188**	680 / **187**	901 / 185	1063 / **183**	1224 / **181**	1383 / **177**
Max.cont. 125	182 / **237**	398 / **236**	641 / **235**	877 / 233	1024 / **231**	1199 / **229**	1352 / **225**
Max.int. 150	147 / **284**	369 / **283**	618 / **282**	853 / 280	1004 / **278**	1167 / **276**	1325 / **272**

ALSG6 630 [629.1cm³/rev.]

Pressure (MPa)

Flow (L/min)	3	6	9	10.5	12 (Max.cont.)	14	16 (Max.int.)
10	233 / **14**	520 / **14**	795 / **13**	902 / **13**	1074 / **13**	1194 / **11**	1363 / **11**
20	237 / **28**	554 / **27**	837 / **27**	953 / **26**	1117 / **26**	1239 / **24**	1407 / **22**
40	239 / **62**	553 / **62**	860 / **61**	987 / **60**	1171 / **59**	1308 / **56**	1483 / **54**
60	223 / **94**	544 / **94**	863 / **92**	978 / **91**	1172 / **90**	1318 / **86**	1498 / **82**
80	220 / **123**	537 / **122**	854 / **121**	965 / **119**	1172 / **118**	1314 / **114**	1497 / **110**
100	208 / **156**	522 / **155**	832 / **153**	945 / **152**	1156 / **150**	1303 / **147**	1488 / **142**
Max.cont. 125	201 / **196**	499 / **196**	810 / **194**	931 / **192**	1137 / **191**	1292 / **187**	1472 / **183**
Max.int. 150	174 / **233**	492 / **232**	785 / **231**	921 / **230**	1121 / **227**	1277 / **223**	1454 / **217**

Torque (N•m) 1121
Speed (rpm) **227**

ALSG6 800 [801.8cm³/rev.]

Pressure (MPa)

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

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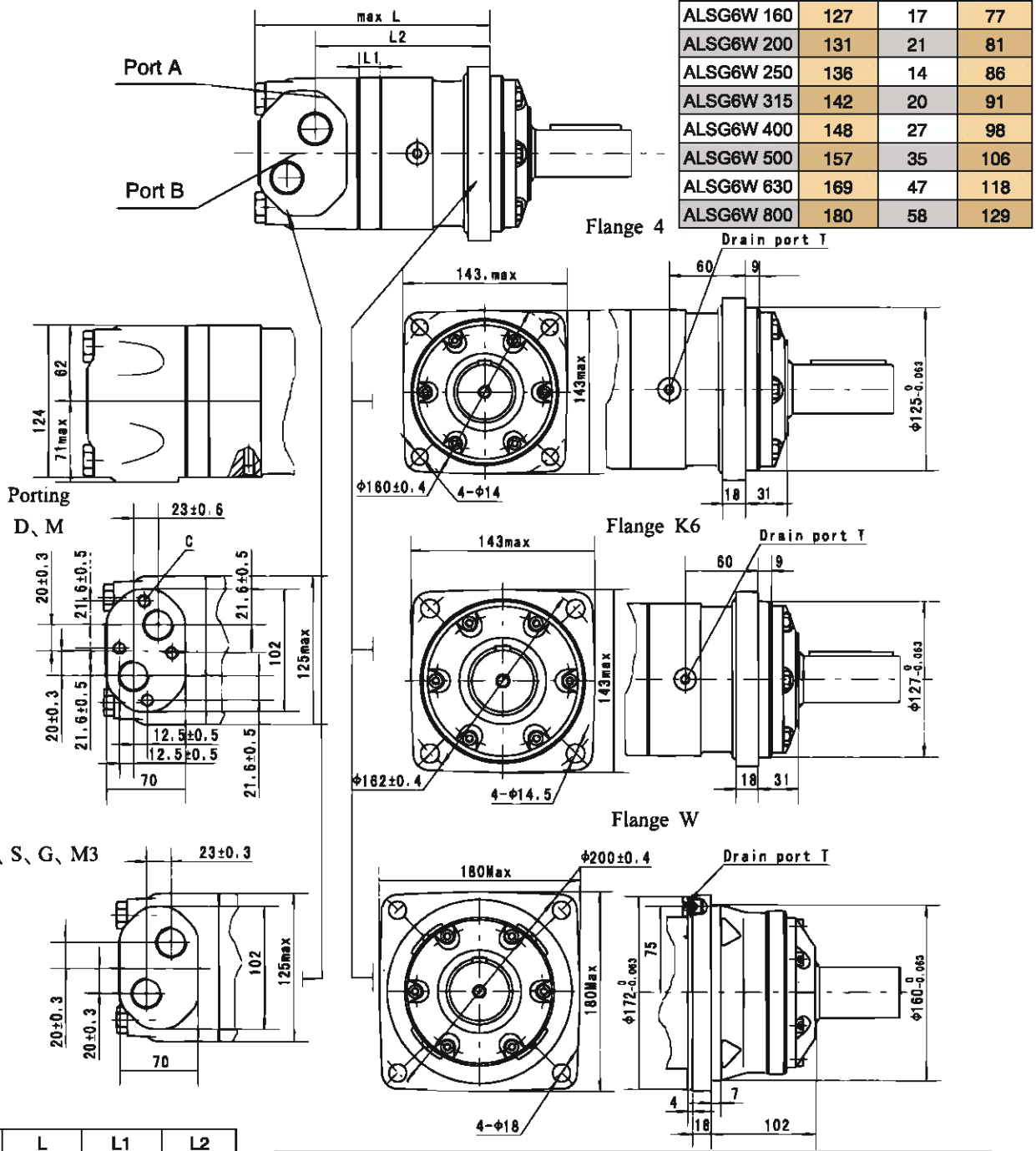
ALSG6

Hydraulic motor

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 / Mounting	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.

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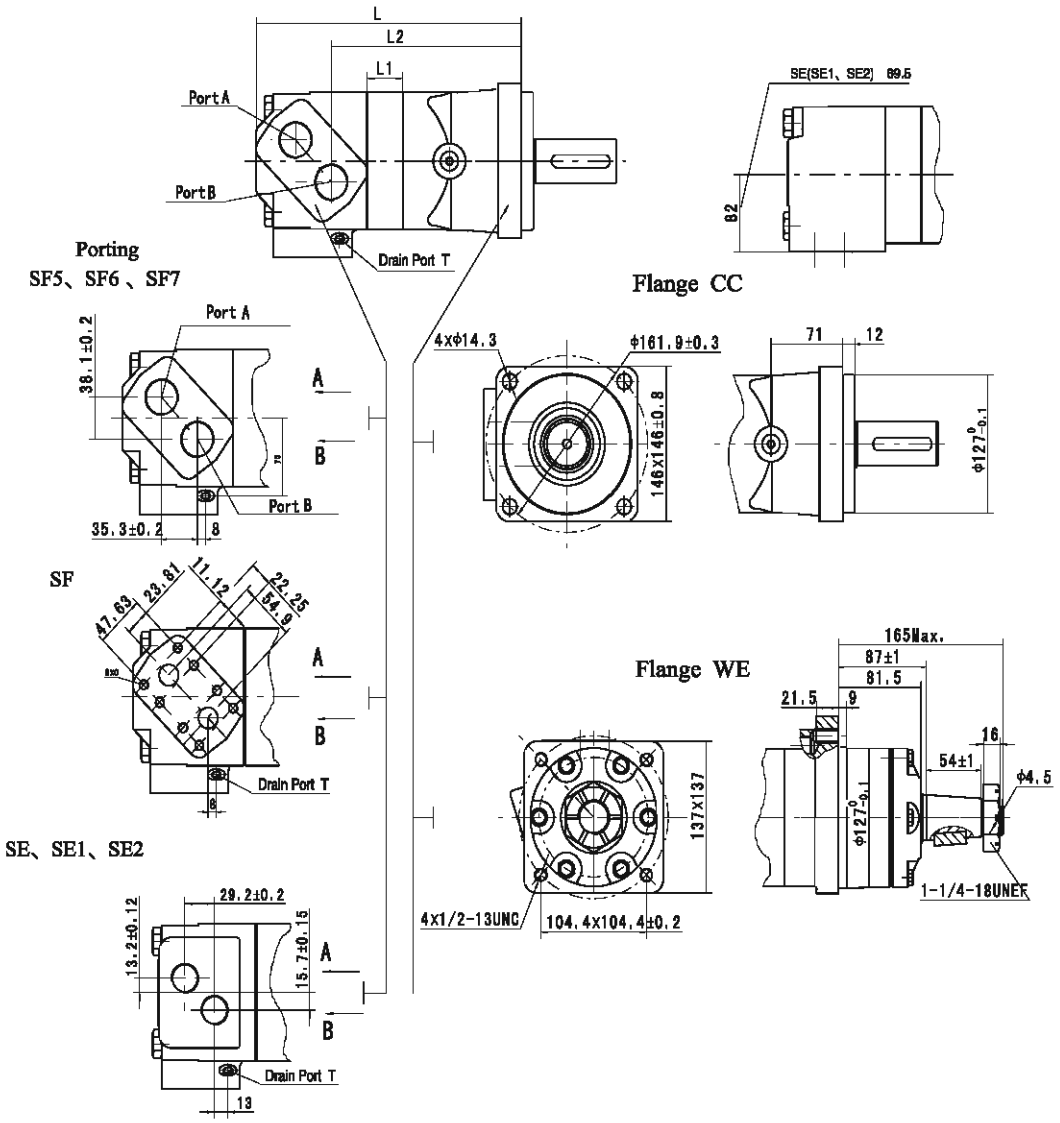

Model	L	L1	L2
ALSG6E 230	238.5	12	164.5
ALSG6E 250	240.5	14	166.5
ALSG6E 315	246.5	20	172.5
ALSG6E 400	253.5	27	179.5
ALSG6E 500	261.5	35	187.5
ALSG6E 630	273.5	47	199.5
ALSG6E 800	284.5	58	210.5

Note:1)The data for the port of SF (SF5 and SF6and 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 / Mounting	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	--	--	--	8 x 3/8-16UNC	--		

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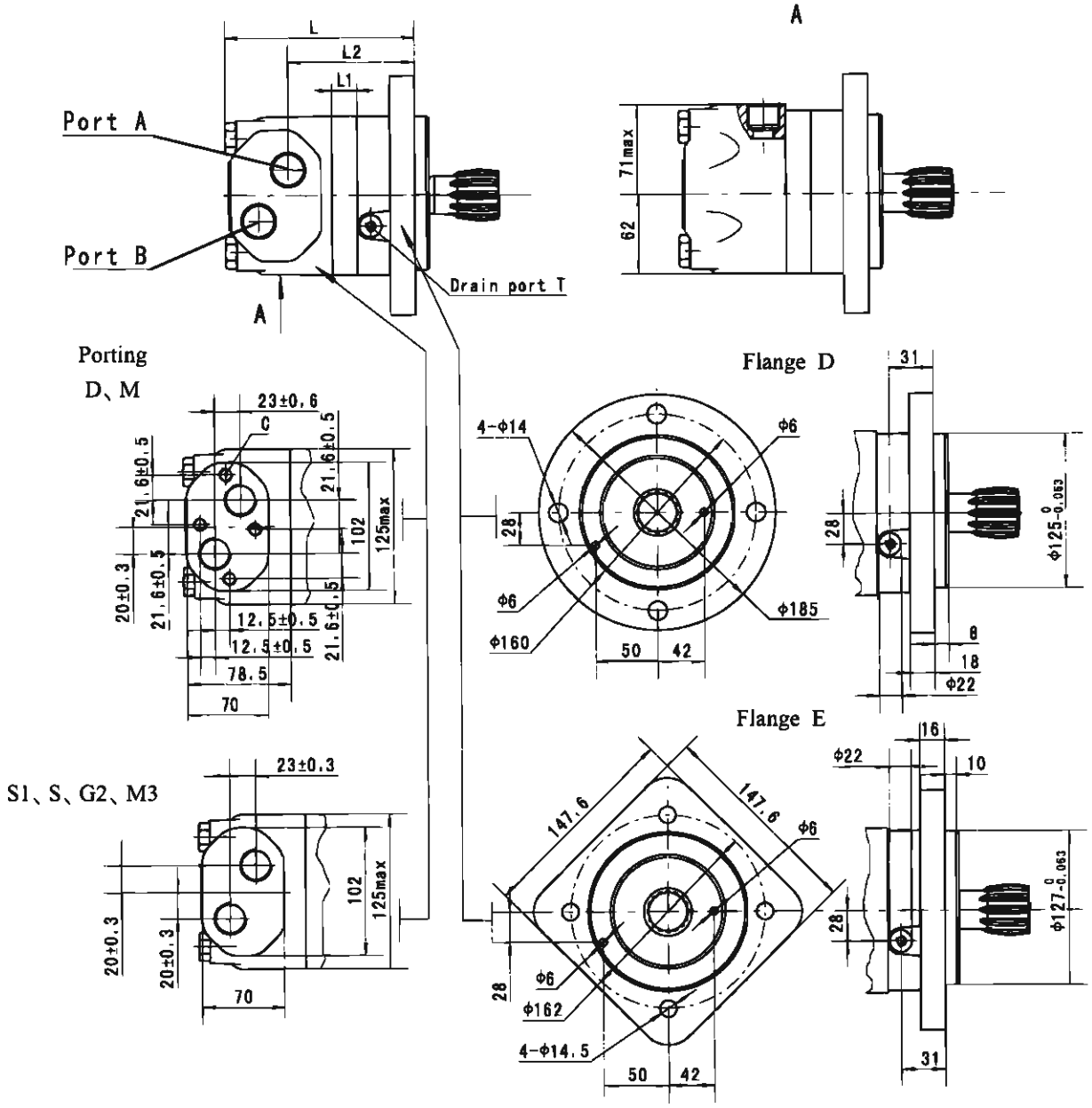
ALSG6S

Hydraulic motor

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 / Mounting	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.

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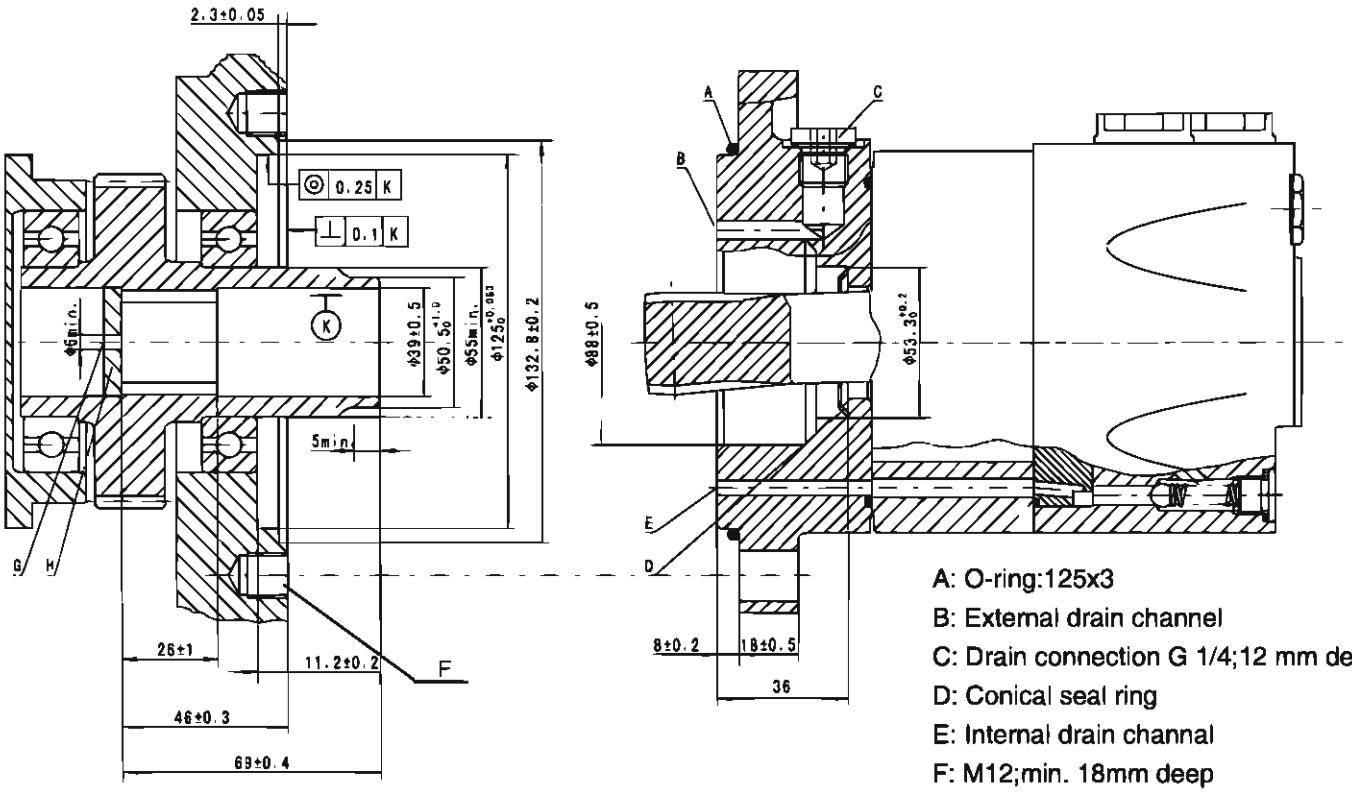
ALSG6S

Hydraulic motor

AmberLine Hydraulics

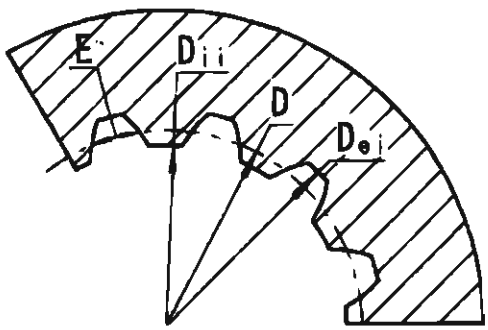
Mounting data



A: O-ring:125x3
B: External drain channel
C: Drain connection G 1/4;12 mm deep
D: Conical seal ring
E: Internal drain channal
F: M12;min. 18mm deep
G: Oil circulation hole
H: Hardened stop plate

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_{ei}	ø38.4 $^{+0.25}_{0}$
Minor Dia.	D_i	ø32.15 $^{+0.04}_{0}$
Space Width [Circular]	E	4.516±0.037



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

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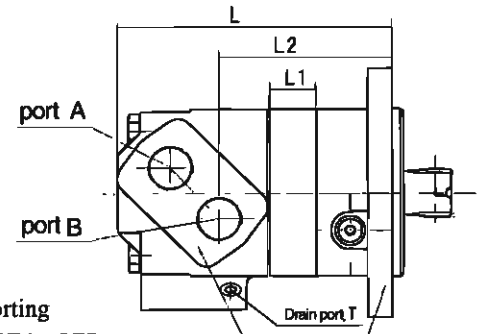
IOW TRADE
Drives Hydraulics Filtration

ALSG6J

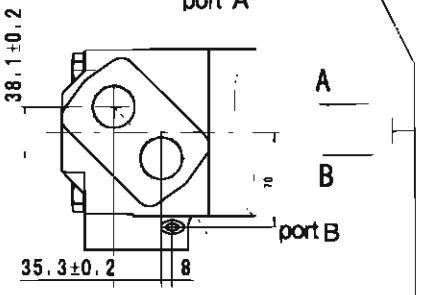
Hydraulic motor

Dimensions and mounting data

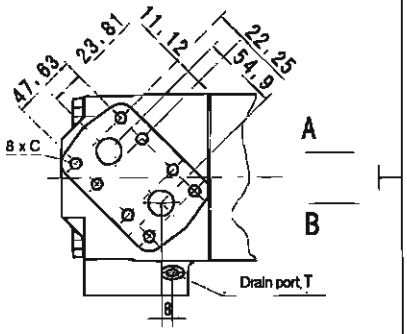


Porting

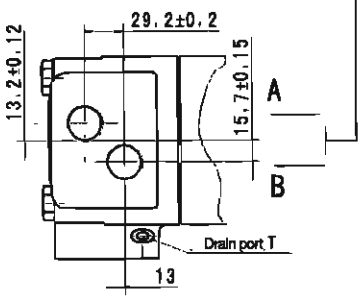
SF5、SF6、SF7

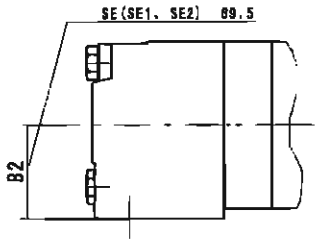


SF

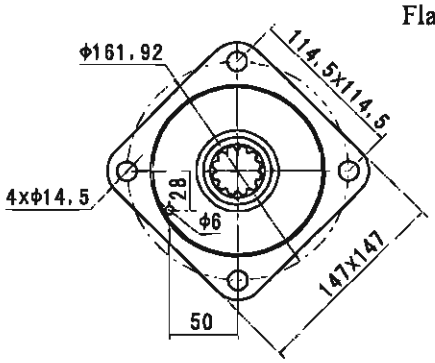


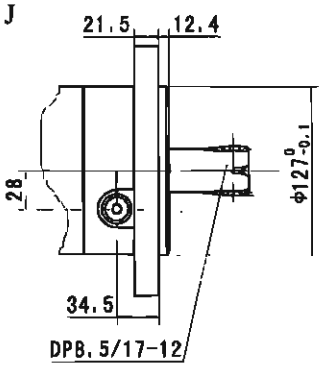
SE、SE1、SE2

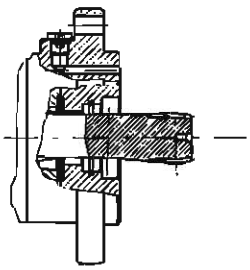




Flange J







Model	L	L1	L2
ALSG6J 230	176	12	104.5
ALSG6J 250	178	14	106.5
ALSG6J 315	184	20	112.5
ALSG6J 400	191	27	119.5
ALSG6J 500	199	35	127.5
ALSG6J 630	211	47	139.5
ALSG6J 800	222	58	150.5

Note:1)The data for the port of SF (SF5 and SF6 andSF7).
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 / Mounting	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	--	--	--	8 x 3/8-16UNC	--		

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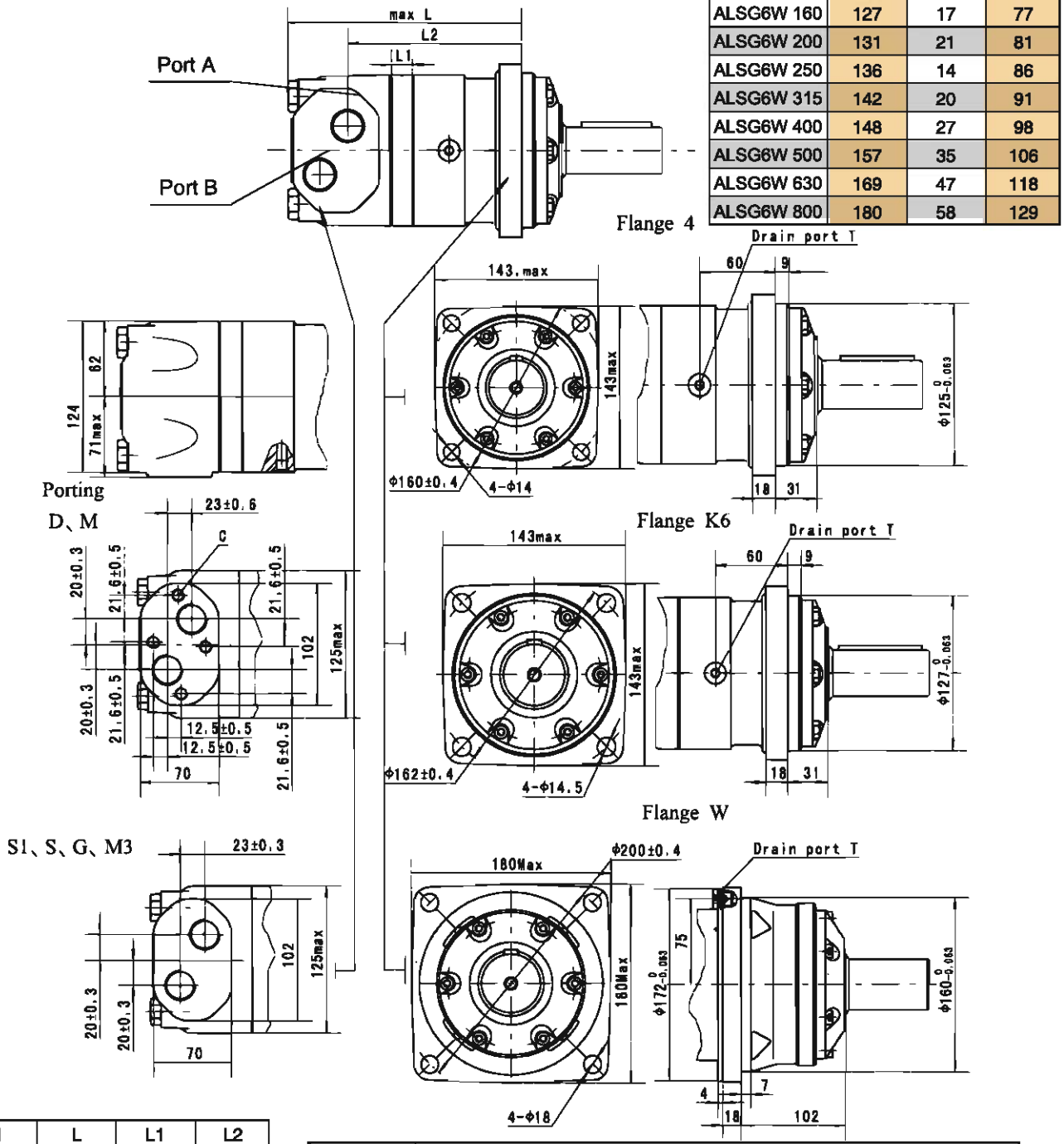
Model	L	L1	L2
ALSG6W 160	127	17	77
ALSG6W 200	131	21	81
ALSG6W 250	136	14	86
ALSG6W 315	142	20	91
ALSG6W 400	148	27	98
ALSG6W 500	157	35	106
ALSG6W 630	169	47	118
ALSG6W 800	180	58	129



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 / Mounting	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.

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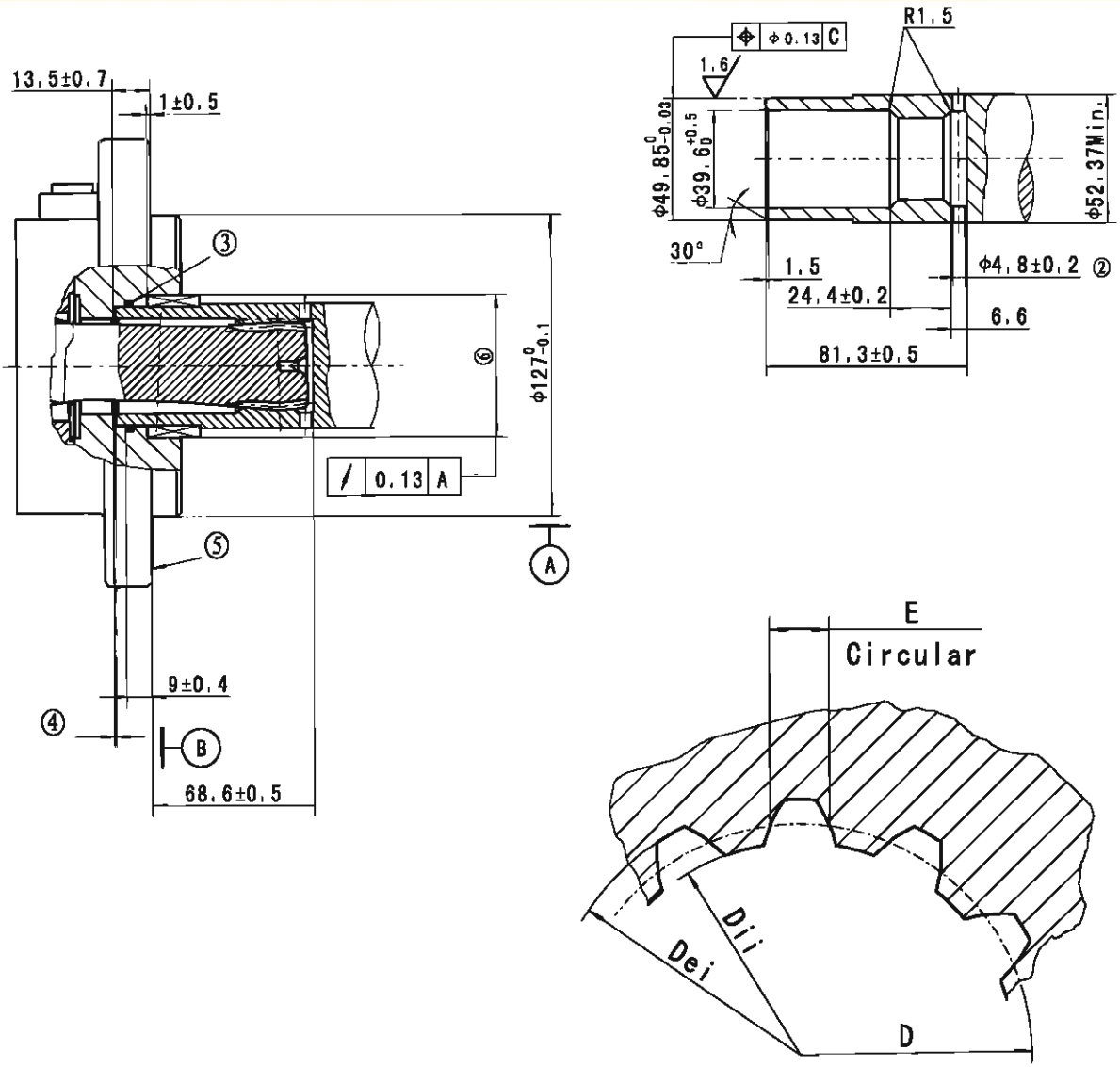
ALSG6J

Hydraulic motor

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	ø35.858823
Major Dia.	D_M	ø38.97$^{+0.20}_{0}$
Minor Dia.	D_I	ø33.3$^{+0.18}_{0}$
Space Width [Circular]	E	5.866±0.032
Dimension between two pins(ø4)	M_e	26.929-27.084

①Internal 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 [.030-.040] (dimensions apply after heat treat).
②Mating part to have critical dimensions as shown,
Oil holes must be provided and open for proper oil circulation.
③Some means of maintaining clearance between shaft and mounting flange must be provided.
④Seal to be furnished with motor for proper oil circulation thru splines.
⑤Similar to SAE "C" Four Bolt Flange
⑥Counterbore 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.

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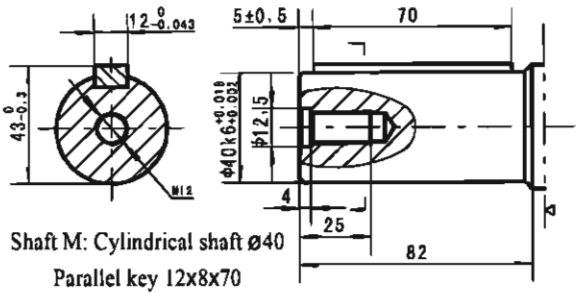
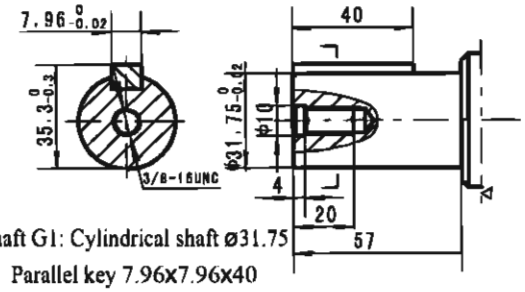
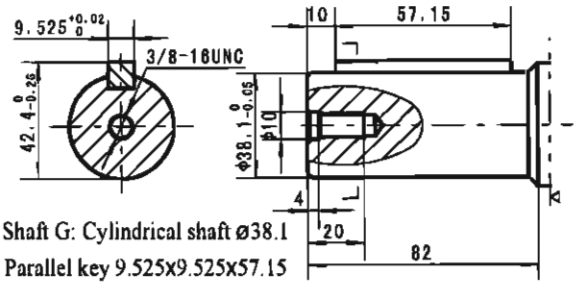


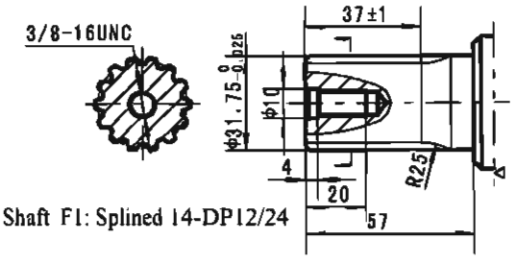
Shaft M: Cylindrical shaft ø40
Parallel key 12x8x70



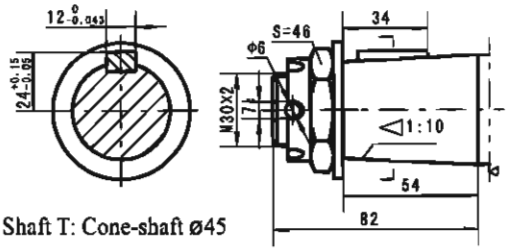
Shaft G1: Cylindrical shaft ø31.75
Parallel key 7.96x7.96x40



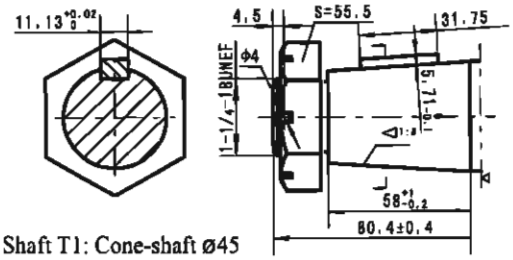
Shaft G: Cylindrical shaft ø38.1
Parallel key 9.525x9.525x57.15



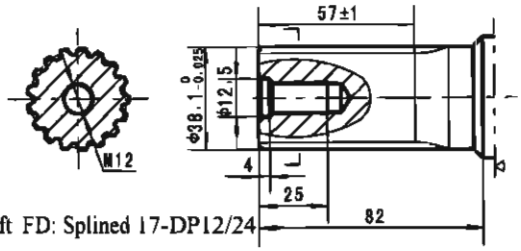
Shaft F1: Splined 14-DP12/24



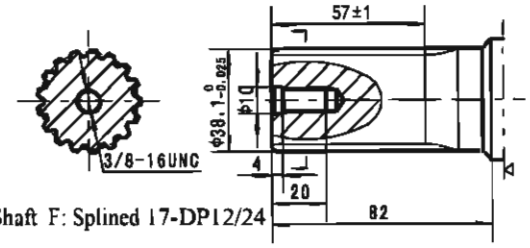
Shaft T: Cone-shaft ø45
Parallel key B12x8x28
Tightening torque:500 ± 10Nm



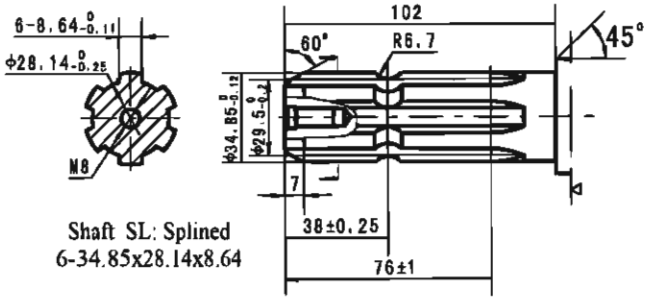
Shaft T1: Cone-shaft ø45
Parallel key 11.13x11.13x31.75
Tightening torque:500 ± 10Nm



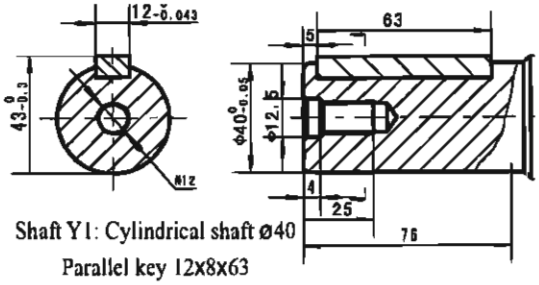
Shaft FD: Splined 17-DP12/24



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

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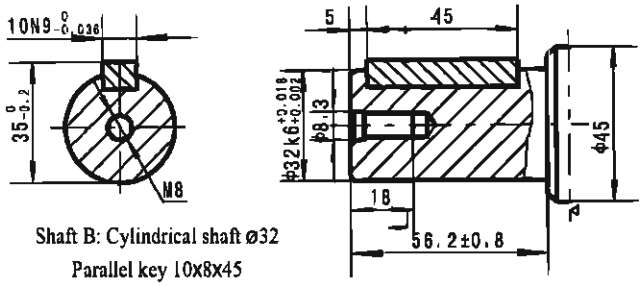
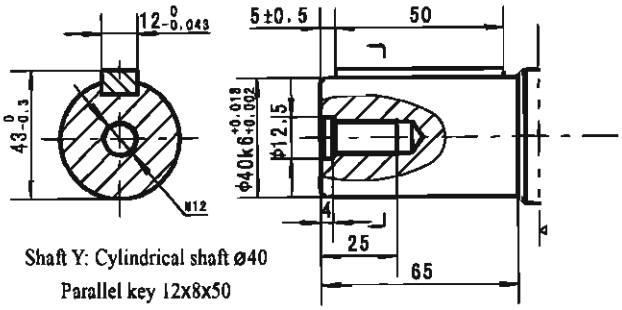
ALSG6

Hydraulic motor

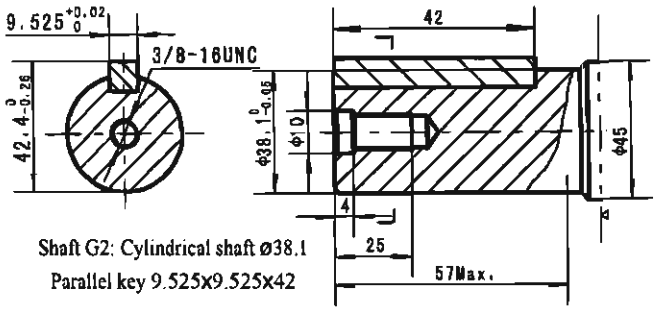
Shaft extensions for ALSG6 motors



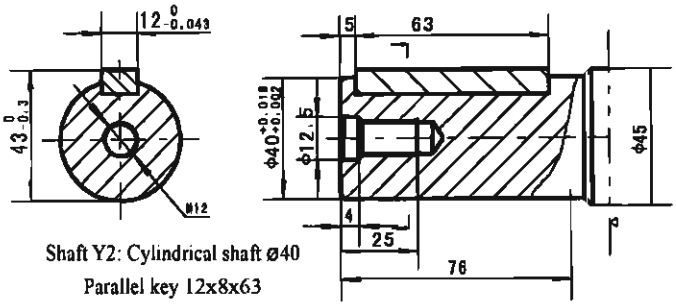
Shaft B: Cylindrical shaft ø32
Parallel key 10x8x45



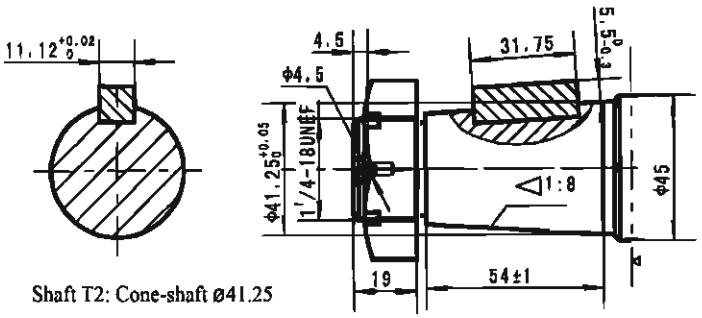
Shaft Y: Cylindrical shaft ø40
Parallel key 12x8x50



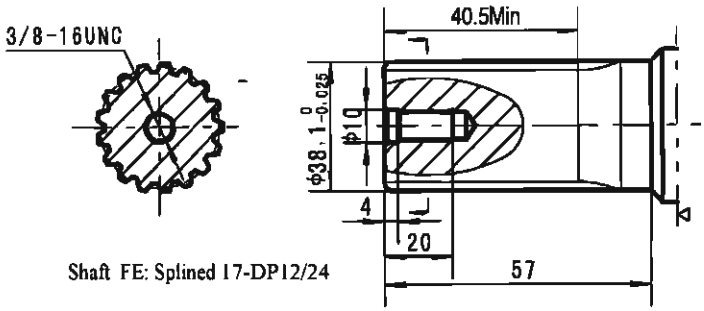
Shaft G2: Cylindrical shaft ø38.1
Parallel key 9.525x9.525x42



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

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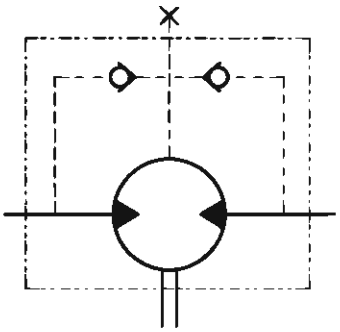
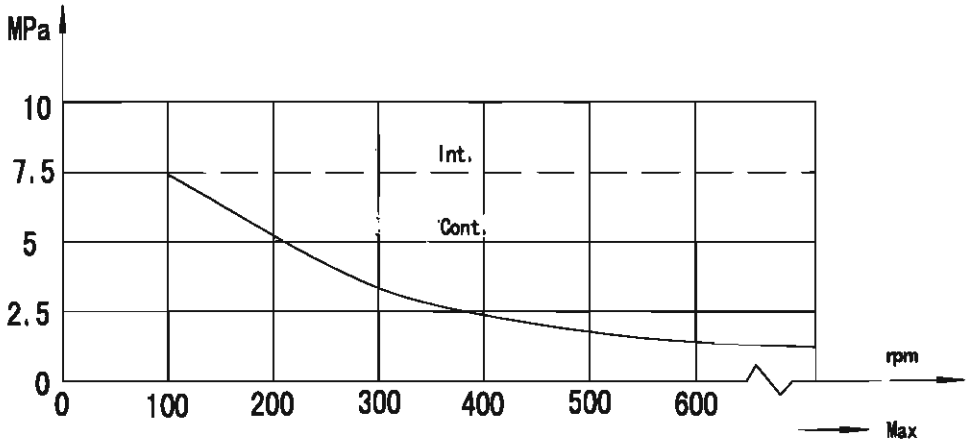
Permissible shaft seal pressure

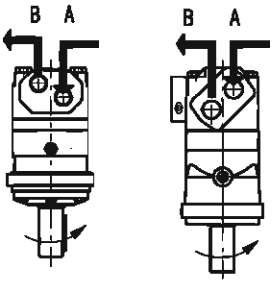




In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

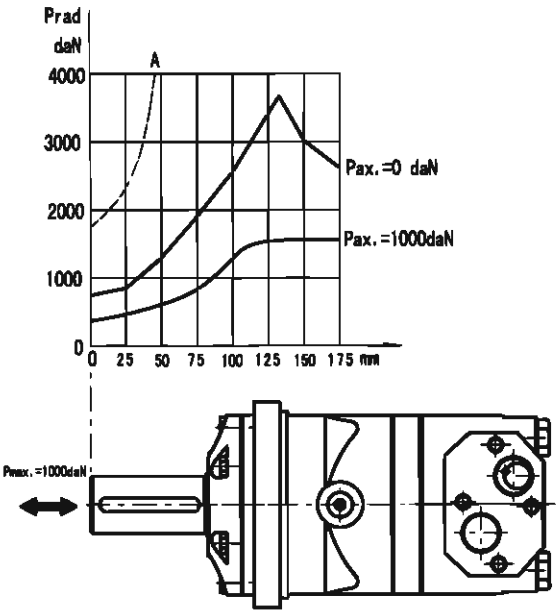
Direction of shaft: Standard

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.



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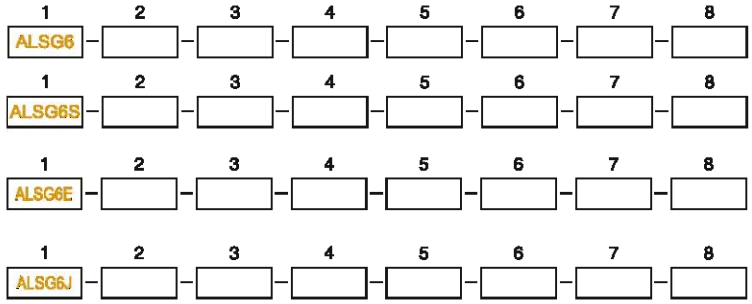
ALSG6

Hydraulic motor

Order information



Pos.1	2	3	4		5		6		7		8	
Code	Disp.	Flange	Output Shaft		Port and Drain Port		Rotation Direction		Paint		Unusually Function	
ALSG6	160 200 250 315 400 500 530 800	4 4-Ø14 Square-flangeØ160, pilotØ125×9 K6 4-Ø14.5Square-flangeØ162, pilotØ127×9 W 4-Ø18 Wheel-flangeØ200, pilotØ160×7	M Shaft Ø40 , parallel key 12×8×70 G Shaft Ø38.1 ,parallel key 9.52×9.52×57.15 F Shaft Ø38.1 ,splined tooth 17-DP12/24 FD Shaft Ø38.1 ,splined tooth 17-DP12/24 T Cone-shaft 1:10 Ø45 ,parallel key B12×8×28 T1 Cone-shaft 1:8 Ø45 , parallel key 11.13×11.13×31.75 SL shaft Ø34.85,Splined key Splined key 6-34.85×28.14×8.64 G1 shaftØ31.75 , parallel key 7.96×7.96×40 F1 Shaft Ø31.75,splined tooth 14-DP12/24	D G3/4 Manifold Mount,4-M10 , G1/4 M M27×2 Manifold Mount,4-M10, M14×1.5 S 1-1/16-12UN O-ring, 9/16-18UNF S1 1-1/16-12UN O-ring, 7/16-20UNF G G3/4,G1/4 M3 M27×2,M14×1.5	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver grey	Omit LL F LS	Standard Low Leakage Free Running Low Speed
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									
ALSG6E	230 250 315 400 500 630 800	CC 4-Ø14.3 Square-flange Ø161.9, pilotØ127×12 WE 4-1/2-13UNC Wheel-flangeØ147.6, pilotØ127×9	G2 Shaft Ø38.1 ,parallel key 9.52×9.52×42 FE Shaft Ø38.1 ,splined tooth 17-DP12/24 Y1 ShaftØ40,parallel key 12×8×63 Y2 ShaftØ40,parallel key 12×8×63 T2 Cone-shaft 1:8 Ø41.25 , parallel key 11.13×11.13×31.75 T3 Cone-shaft 1:8 Ø41.25 , parallel key 11.13×11.13×31.75	SF 3/4" , Manifold Mount,8-3/8-16UNC, 7/16-20UNF SF5 1-5/16-12UN O-ring,7/16-20 UNF SF6 M33×2,M14×1.5 SF7 G1,G1/4 SE 1-1/16-12UN O-ring,9/16-18UNF SE1 1-1/16-12UN O-ring,7/16-20 UNF SE2 G3/4,G1/4	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver grey	Omit LL F LS	Standard Low Leakage Free Running Low Speed
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 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 .

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ALSG8

Hydraulic motor

I O W AmberLine Hydraulics

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 distrbution 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 (cm^3/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.

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ALSG8

Hydraulic motor

Performance data

ALSG8 315 [333cm³/rev.]

Flow (L/min)	Pressure (MPa) 3.5	7	10	14	18	20	24
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**
Max.cont. 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**
Max.Int. 200	82 / **596**	249 / **594**	412 / **590**	593 / **584**	758 / **576**	871 / **565**	1047 / **544**

ALSG8 400 [419cm³/rev.]

Flow (L/min)	Pressure (MPa) 3.5	7	10	14	18	20	24
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**
Max.cont. 200	118 / **475**	331 / **473**	536 / **469**	770 / **463**	969 / **455**	1128 / **448**	1356 / **439**
Max.Int. 240	82 / **571**	301 / **569**	506 / **565**	740 / **548**	943 / **539**	1104 / **530**	1332 / **520**

ALSG8 500 [518cm³/rev.]

Flow (L/min)	Pressure (MPa) 3.5	7	10	14	18	20	24
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**
Max.cont. 200	161 / **384**	423 / **383**	676 / **381**	974 / **378**	1218 / **374**	1385 / **366**	1697 / **354**
Max.Int. 240	120 / **461**	378 / **459**	622 / **457**	921 / **454**	1172 / **450**	1340 / **444**	1650 / **432**

Torque (N•m) 1340
Speed (rpm) **444**

ALSG8 630 [666cm³/rev.]

Flow (L/min)	Pressure (MPa) 3.5	6	9	12	15	18	21
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**
Max.Int. 240	130 / **358**	416 / **357**	712 / **355**	978 / **351**	1237 / **346**	1563 / **340**	1835 / **332**

cont.
int.

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ALSG8 800 [801cm³/rev.]

Flow (L/min)	Pressure (MPa) 2.5	5	8	10	13	16	18
						Max.cont.	Max.int.
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	1838 / 277

cont.

int.

ALSG8 1000 [990cm³/rev.]

Flow (L/min)	Pressure (MPa) 2.5	5	7	10	14	16
					Max.cont.	Max.int.
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

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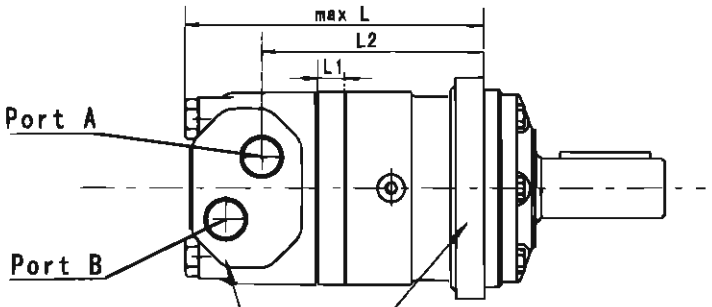
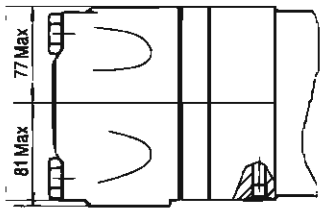
ALSG8

Hydraulic motor

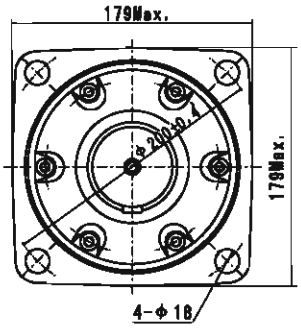
Dimensions and mounting data

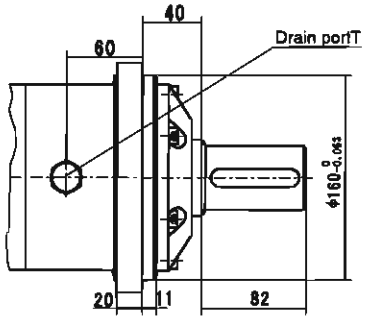


Model	L	L1	L2
ALSG8 315	217	20	161.5
ALSG8 400	224	27	168.5
ALSG8 500	232	35	176.5
ALSG8 630	244	47	188.5
ALSG8 800	255	58	199.5
ALSG8 1000	271	74	215.5

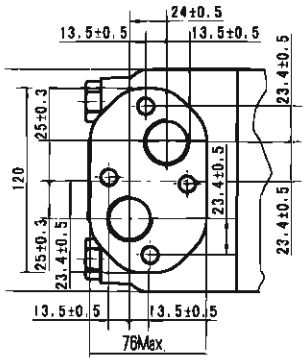


Flange 4

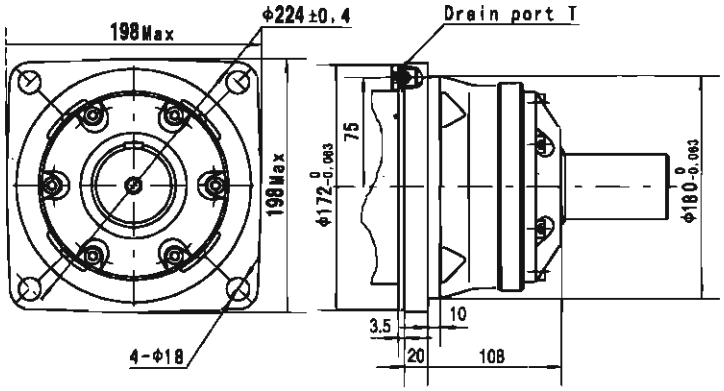




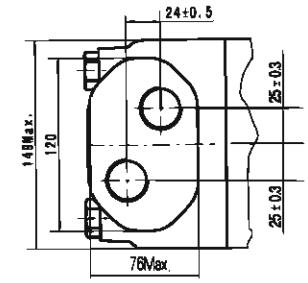
Porting
D、M



Flange W



、G、M5、S1



Model	L	L1	L2
ALSG8W 315	148.5	20	93.5
ALSG8W 400	155.5	27	100.5
ALSG8W 500	163.5	35	108.5
ALSG8W 630	175.5	47	120.5
ALSG8W 800	186.5	58	131.5
ALSG8W 1000	202.5	74	147.5

Note:The thickness of the stator and rotor is the dimension of L1adding on 7mm.

Content / Mounting	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)	--	--	--	--

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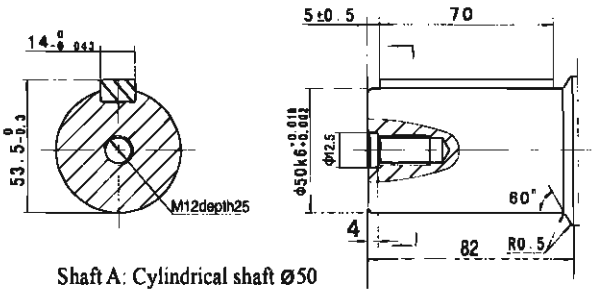
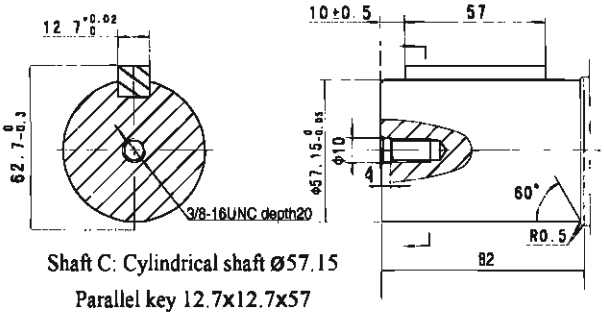
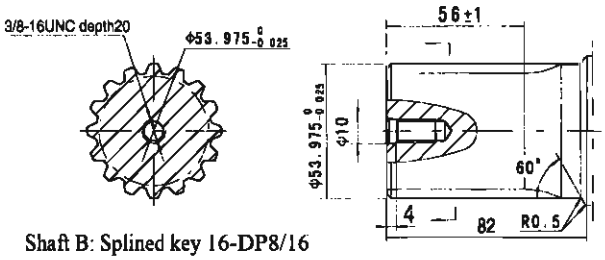


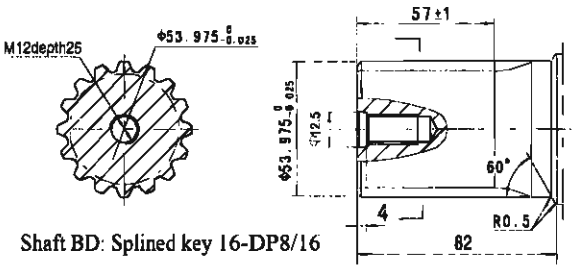
Shaft A: Cylindrical shaft Ø50
Parallel key 14x9x70



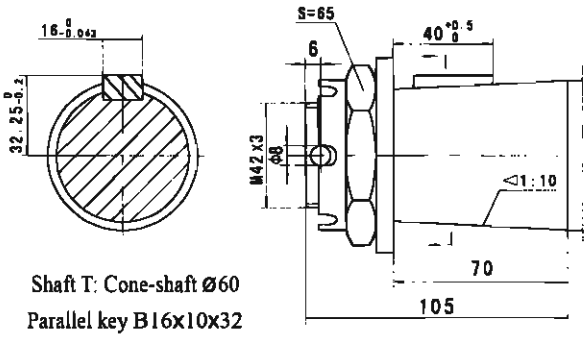
Shaft C: Cylindrical shaft Ø57.15
Parallel key 12.7x12.7x57



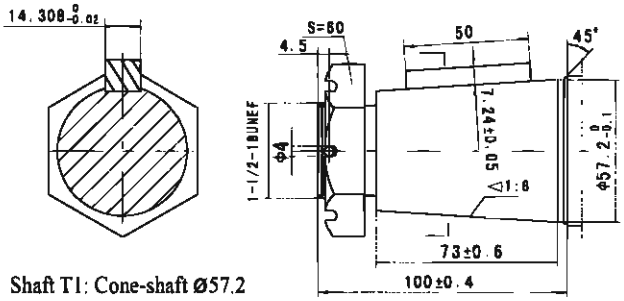
Shaft B: Splined key 16-DP8/16



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

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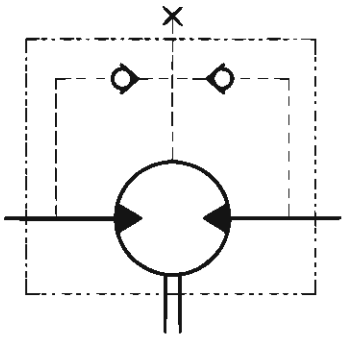
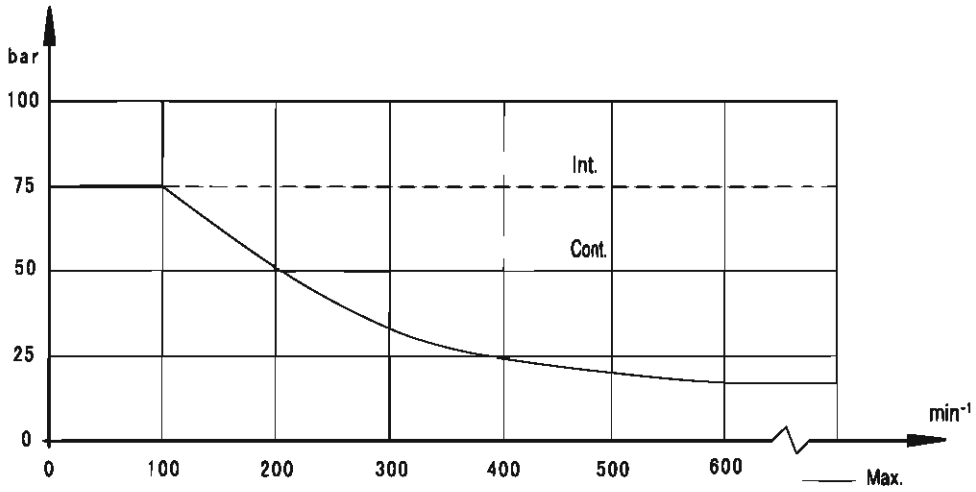
Permissible shaft seal pressure

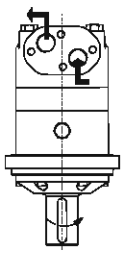




In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

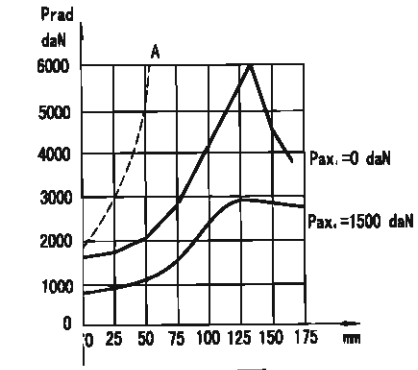
Direction of shaft: Standard

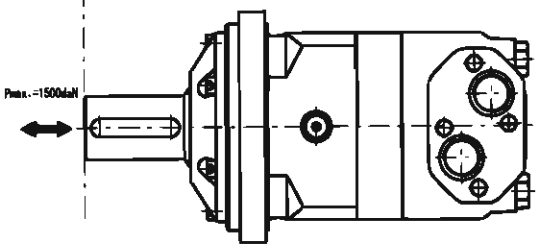
When facing shaft end of motor,shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise port "B" is pressurized.



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.





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ALSG8

Hydraulic motor

AmberLine Hydraulics

Order information

	ALSG8	–		–		–		–		–		–		–	
	1		2		3		4		5		6		7		8

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 BD B C T T1	Shaft Ø50 , parallel key 14 × 9 × 70 Shaft Ø53.975, splined key 16-DP8/16 Shaft Ø53.975, splined key 16-DP8/16 Shaft Ø57.15, parallel key 12.7 × 12.7 × 57.15 Cone shaft Ø60, parallel key B16 × 10 × 32 Cone shaft Ø60, parallel key 14.308 × 14.308 × 50.8	D M S G M5 S1	G1 Manifold 4 × M12, G1/4 M33 × 2 Manifold 4 × M12, M14 × 1.5 1-5/16-12UN, 9/16-18UNF G1,G1/4 M33 × 2, M14 × 1.5 1-5/16-12UN(18), 7/16-20UNF(12)	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black 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.

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ALSRW

Hydraulic motor

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 (cm^3/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.

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ALSRW65 [66.8 cm³/rev.]

Pressure (MPa)

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

ALSRW80 [81.3 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14 (Max.cont.)	19 (Max.int.)
2	33 / **18**	70 / **14**	106 / **4**		
5	35 / **55**	72 / **51**	111 / **44**	150 / **25**	
10	36 / **121**	75 / **118**	114 / **113**	155 / **107**	215 / **88**
15	37 / **181**	77 / **178**	116 / **171**	157 / **162**	215 / **148**
20	35 / **242**	74 / **238**	112 / **231**	151 / **223**	206 / **205**
25	35 / **303**	71 / **298**	108 / **289**	148 / **275**	202 / **261**
34	31 / **411**	69 / **407**	105 / **396**	145 / **382**	198 / **373**
45 (Max.cont.)	23 / **543**	62 / **537**	100 / **521**	139 / **513**	12 / **501**
57 (Max.int.)	18 / **689**	55 / **681**	98 / **665**	134 / **649**	186 / **618**

ALSRW 100 [101.6 cm³/rev.]

Pressure (MPa)

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

Torque (N•m) 158
Speed (rpm) **527**

ALSRW125 [127 cm³/rev.]

Pressure (MPa)

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

cont.
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ALSRW

Hydraulic motor

Performance data

ALSRW160 [157.2 cm³/rev.]

Pressure (MPa)

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

ALSRW 200 [193.6 cm³/rev.]

Pressure (MPa)

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

ALSRW 230 [226 cm³/rev.]

Pressure (MPa)

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

Torque (N•m) 250
Speed (rpm) 311

ALSRW 250 [257 cm³/rev.]

Pressure (MPa)

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

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ALSRW295[287.8 cm³/rev.]

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

Torque (N•m) 506
Speed (rpm) **231**

ALSRW315[314.5 cm³/rev.]

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

ALSRW375[370 cm³/rev.]

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

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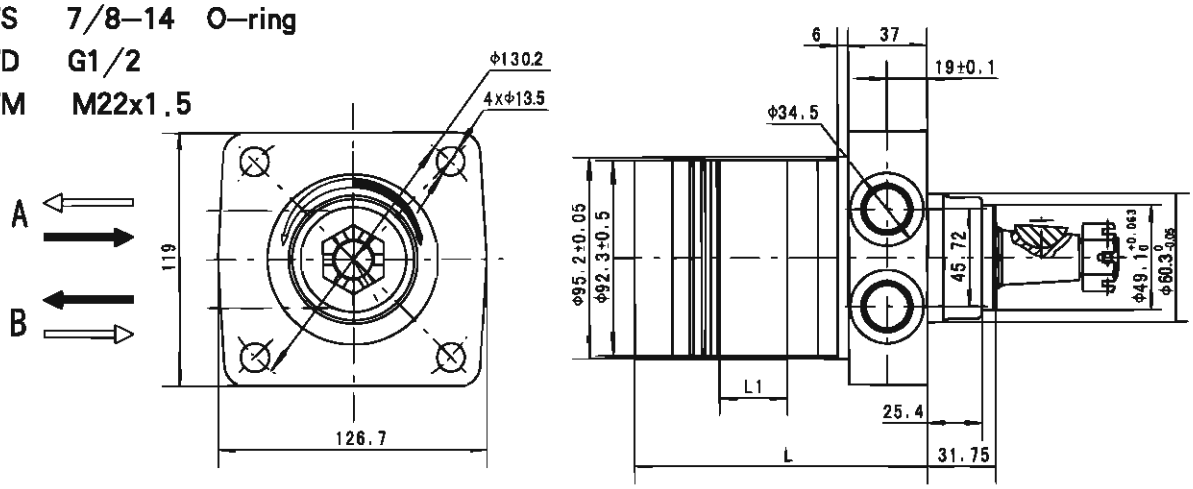
Wheel Mount

Code: Port A、B

WS 7/8–14 O–ring

WD G1/2

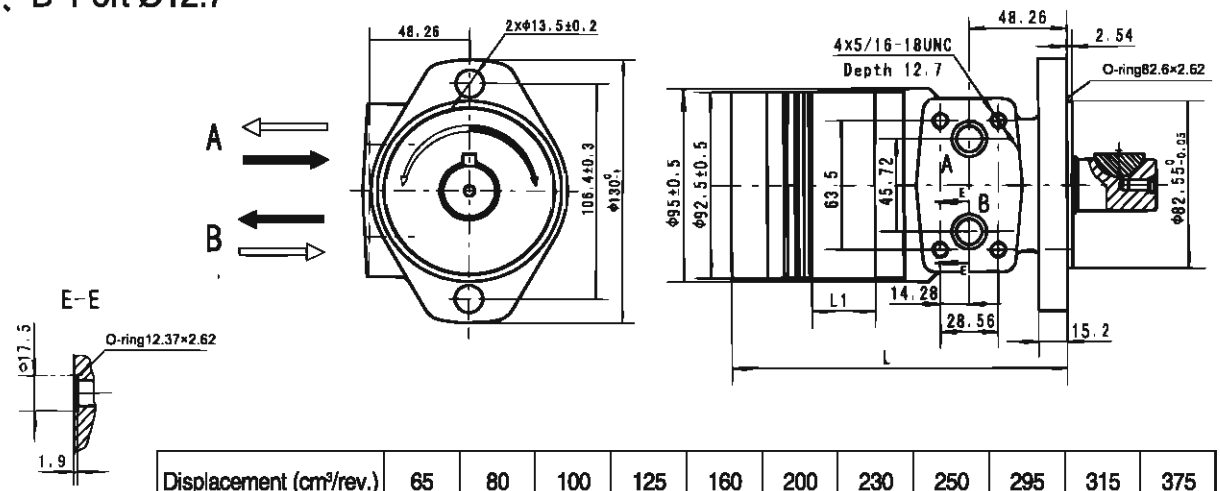
WM M22x1.5



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

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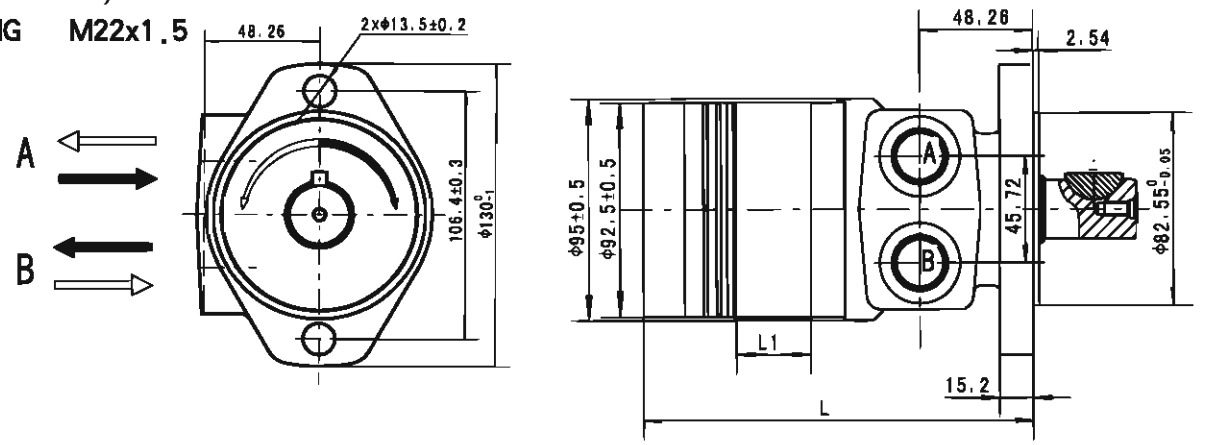
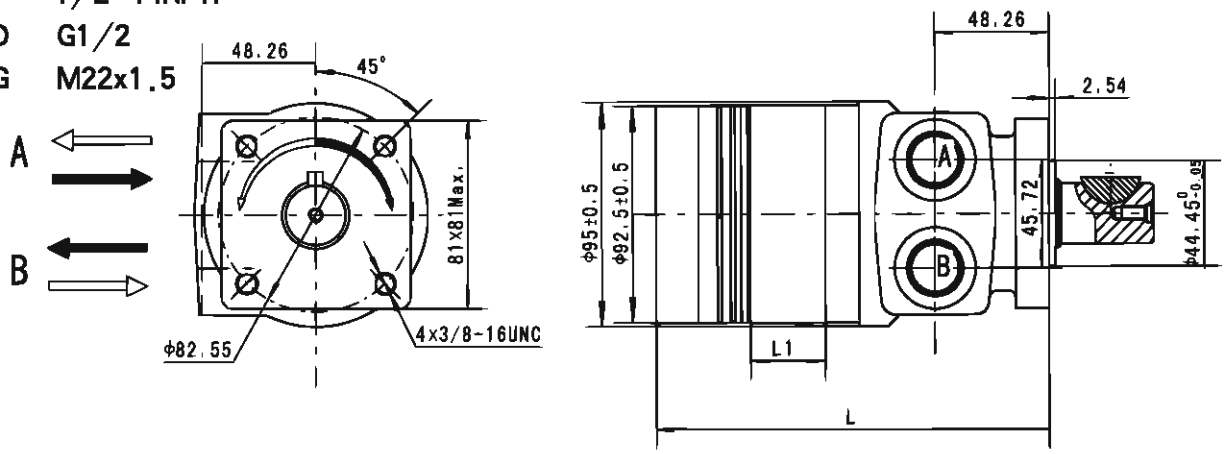
Code: Port A、B
HS 7/8—14UNF
HP 1/2—14NPTF
HD G1/2
HG M22x1.5



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

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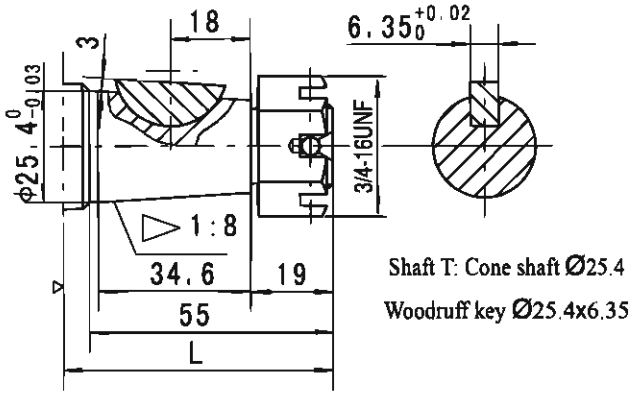
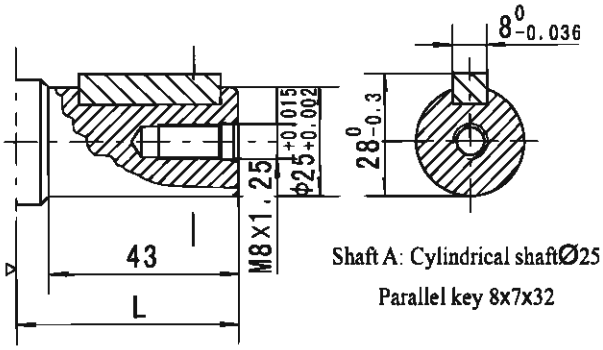
Shaft T



Shaft T: Cone shaft Ø25.4

Woodruff key Ø25.4x6.35

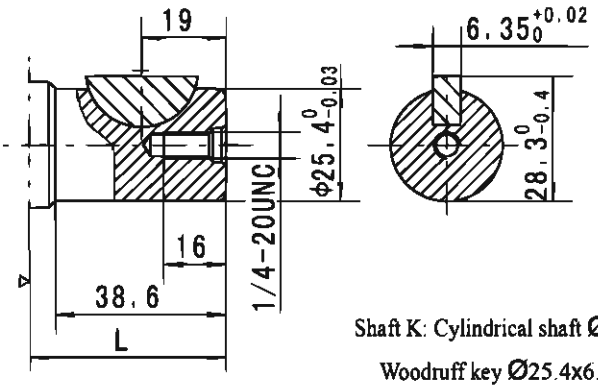
Shaft A



Shaft A: Cylindrical shaftØ25

Parallel key 8x7x32

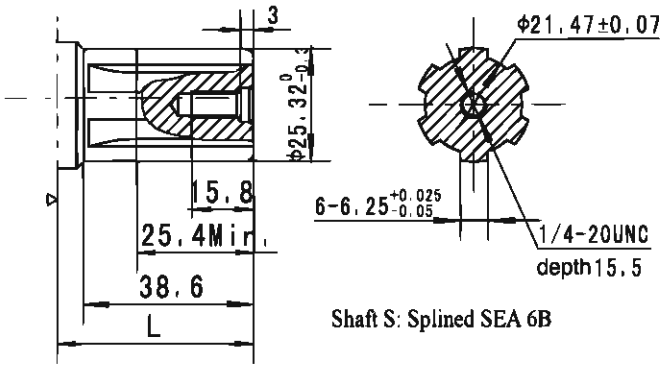
Shaft K



Shaft K: Cylindrical shaft Ø25.4

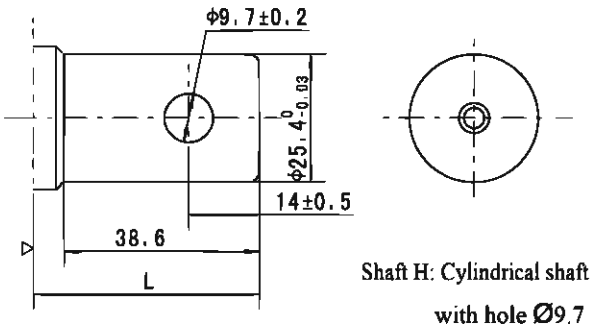
Woodruff key Ø25.4x6.35

Shaft S



Shaft S: Splined SEA 6B

Shaft H



Shaft H: Cylindrical shaft Ø25.4

with hole Ø9.7

Dimension L

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

▷ Motor Mounting Surface

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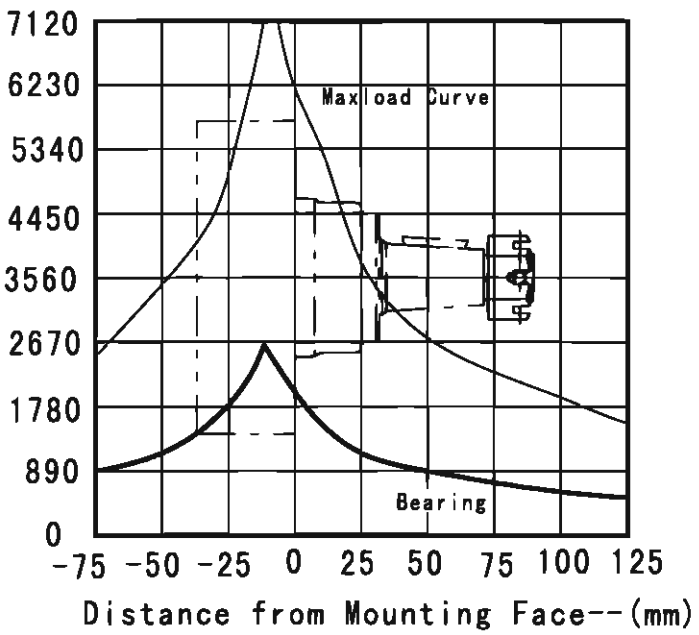
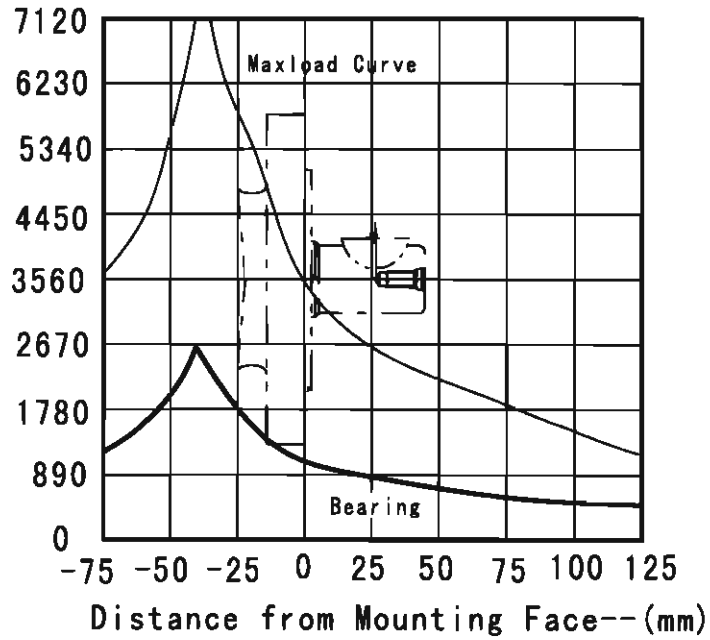
Permissible shaft loads

ALSRW for Wheel Mounting
Side Load (daN)



ALSRW for Other Mounting
Side Load (daN)



The bearing curve represents al lowable bearing loads for an L_{10} bearing life at $3x10^6$ 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
ALSRW		–		–		–		–		–		–	

Pos.1	2	3		4		5		6		7	
Code	Disp.	Flange,Pilot,Port		Output Shaft		Rotation Direction		Paint		Unusually Function	
Omit	65 80 100 125 160 200 230 250 295 315 375	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	Omit	Standard	00 Omit B S	No paint Blue Black Silver grey	Omit	Standard
		WD	4-Ø13.5 Wheel -flange,Pilot Ø60.3×7 Port G1/2	A	Cylindrical Shaft Ø25, Parallel key 8×7×32						
		WM	4-Ø13.5 Wheel -flange,Pilot Ø60.3×7 Port M22*1.5	K	Cylindrical Shaft Ø25.4, Woodruff key Ø25.4×6.35						
		HM	2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port 1/2" Manifold mount 4×5/8-18	S	Shaft Ø25.4, Splined key SAE 6B	R	Opposite				
		HS	2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port 7/8-14 O-ring	H	Cylindrical Shaft Ø25.4,Pin Hole Ø9.7						
		HP	2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port 1/2-14 NPFT Pipe								
		HD	2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port G1/2								
		HG	2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port M22x1.5								
		H4S	4-3/8-16 Square- flange,Pilot Ø44.4×2.54 Port 7/8-14 O-ring								
		H4P	4-3/8-16 Square- flange,Pilot Ø44.4×2.54 Port 1/2-14 NPFT Pipe								
		H4D	4-3/8-16 Square- flange,Pilot Ø44.4×2.54 Port G1/2								
		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.

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ALSG5

Hydraulic motor

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 (cm^3/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.

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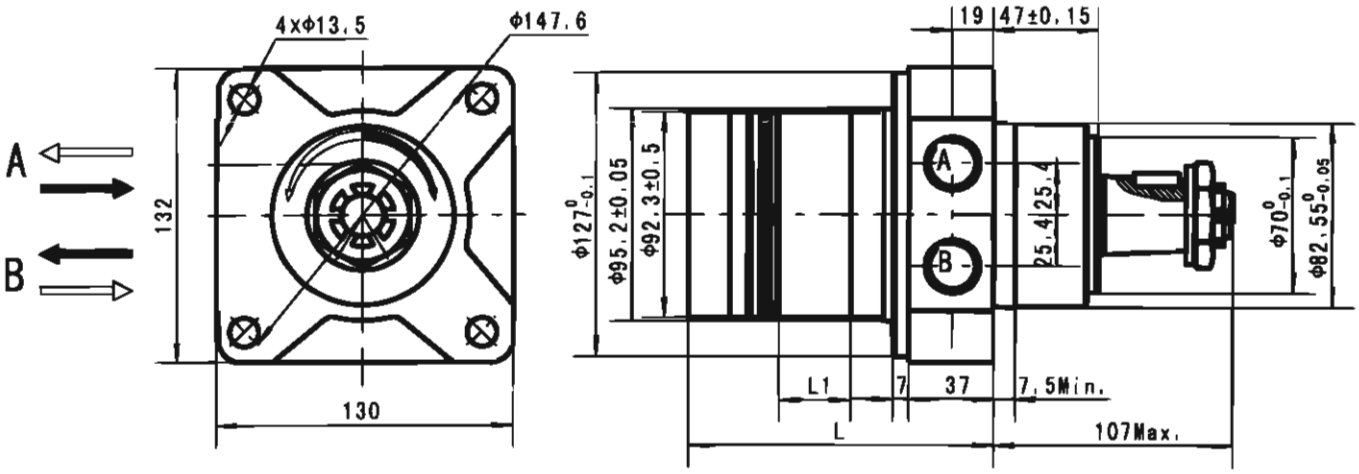
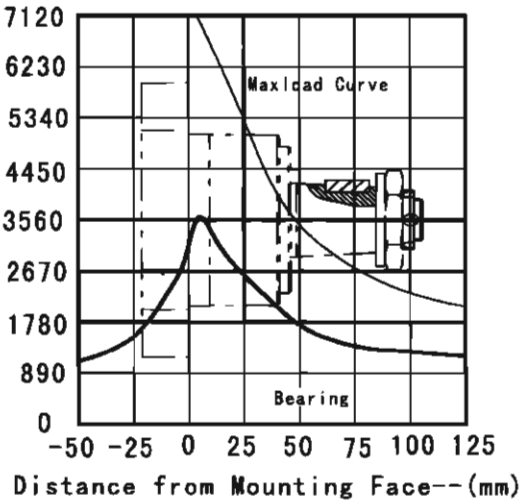
Wheel Mount
Code : WS Ports A、B 7/8–14 O–Ring
Code : WD Ports A、B G1/2
Code : WM Ports A、B M22x1.5



Displacement (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)	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 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.

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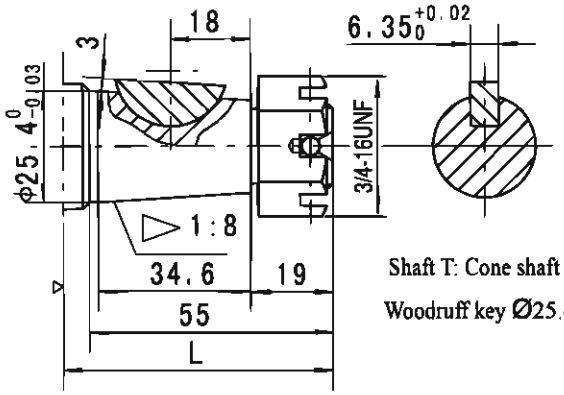
Shaft extensions for dimensions data

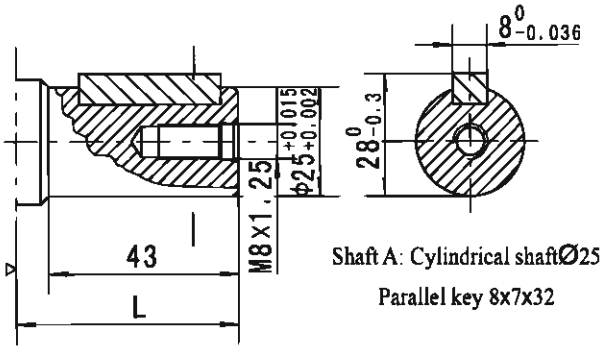
Shaft T



Shaft T: Cone shaft Ø25.4

Woodruff key Ø25.4x6.35

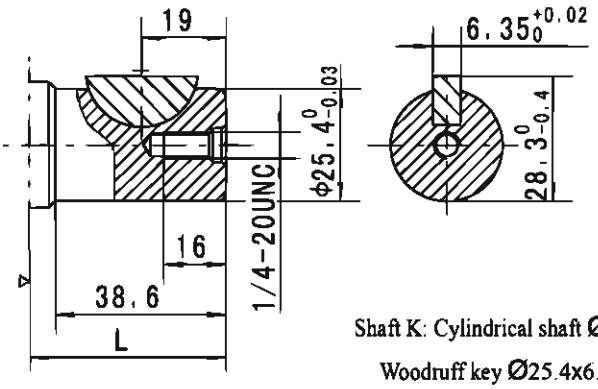
Shaft A



Shaft A: Cylindrical shaftØ25

Parallel key 8x7x32

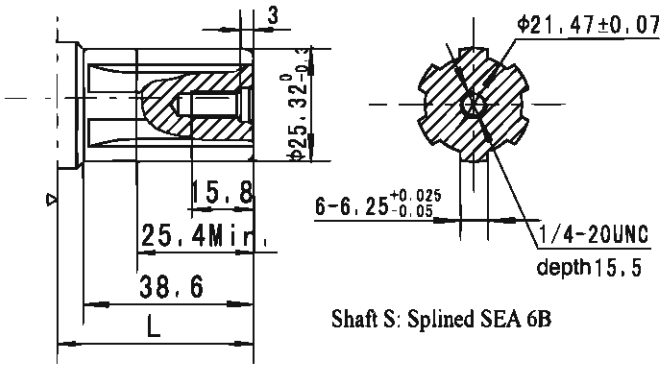
Shaft K



Shaft K: Cylindrical shaft Ø25.4

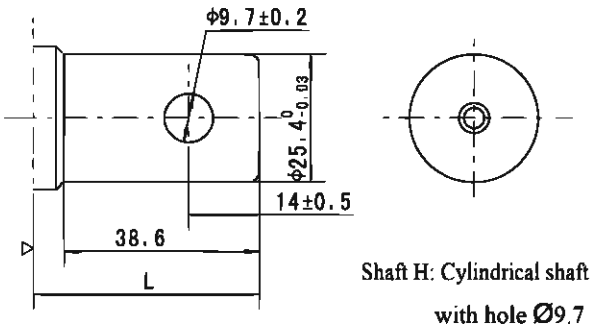
Woodruff key Ø25.4x6.35

Shaft S



Shaft S: Splined SEA 6B

Shaft H



Shaft H: Cylindrical shaft Ø25.4

with hole Ø9.7

Dimension L

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

▷ Motor Mounting Surface

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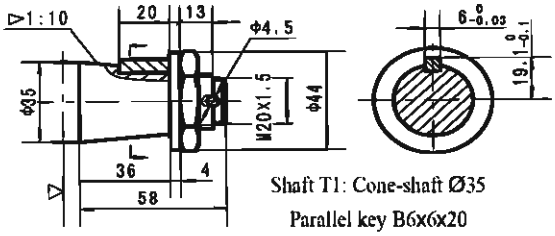
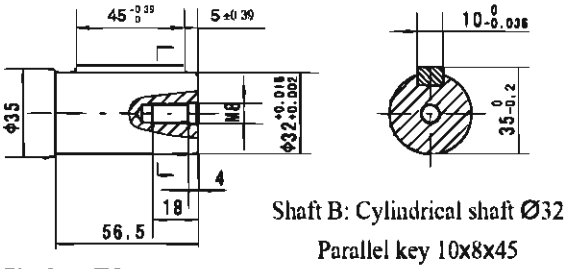
Shaft extensions for dimensions data

Shaft T1



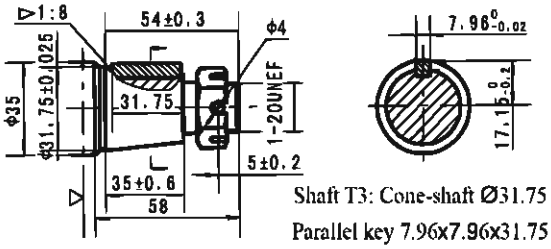
Shaft T1: Cone-shaft Ø35
Parallel key B6x6x20
Tightening torque : 200Ø10Nm

Shaft B



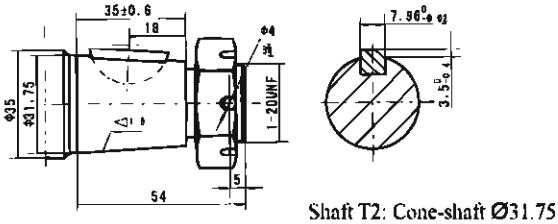
Shaft B: Cylindrical shaft Ø32
Parallel key 10x8x45

Shaft T3



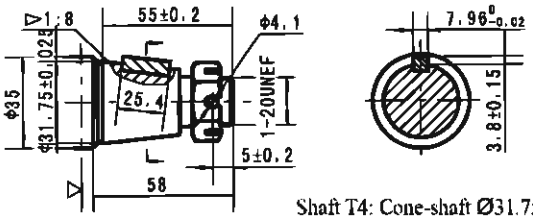
Shaft T3: Cone-shaft Ø31.75
Parallel key 7.96x7.96x31.75
Tightening torque:200 ± 10Nm

Shaft T2



Shaft T2: Cone-shaft Ø31.75
Woodruff key Ø25.4x7.96

Shaft T4



Shaft T4: Cone-shaft Ø31.75
Parallel key 7.96x7.96x25.4
Tightening torque:200 ± 10Nm

▷ 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 80 100 125 160 200 230 250 295 315 375	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	Standard	00	No paint	Omit	Standard
		WD	4-Ø13.5 Wheel-flange, Pilot Ø82.55×7, Port G1/2	T2	Cone-Shaft Ø31.75,Woodruff key ø25.4×7.96	R	Opposite	Omit	Blue		
		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			B	Black		
				T4	Cone-Shaft Ø31.75,Parallel key 7.96×7.96×25.4			S	Sliver Grey		
				B	Cylindrical Shaft Ø32,Parallel key 10×8×45						

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.

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ALSRR

Hydraulic motor

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 (cm^3/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 6 seconds per minute.

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

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ALSRR

Hydraulic motor

IOW AmberLine Hydraulics

Performance data

ALSRR 125 [118cm³/rev.]

Pressure (MPa)

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

ALSRR 160 [156cm³/rev.]

Pressure (MPa)

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

ALSRR 200 [196cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5	Max.cont. 20.5	Max.int. 24
2	39 **8**	88 **4**	132 **4**	286 **3**	370 **2**			
4	42 **16**	85 **14**	188 **13**	270 **11**	361 **10**	427 **9**	506 **6**	
8	43 **35**	90 **32**	192 **29**	291 **28**	367 **27**	450 **25**	529 **23**	600 **19**
15	38 **74**	92 **71**	196 **68**	298 **64**	381 **60**	462 **58**	530 **55**	602 **50**
25		82 **124**	188 **121**	283 **117**	377 **113**	456 **108**	528 **103**	605 **92**
34		79 **170**	183 **169**	270 **167**	362 **160**	447 **154**	515 **146**	591 **135**
45			163 **223**	259 **218**	352 **212**	441 **208**	510 **199**	593 **189**
53			149 **260**	256 **258**	350 **254**	440 **248**	501 **241**	582 **230**
60			132 **299**	248 **292**	336 **284**	432 **276**	497 **272**	575 **263**
Max.cont. 68			120 **336**	230 **332**	330 **327**	412 **319**	486 **310**	570 **301**
75			108 **375**	208 **372**	311 **365**	403 **358**	480 **350**	
Max.int. 85				184 **425**	280 **420**	380 **411**	462 **390**	

Torque (N•m) 380
Speed (rpm) 411

ALSRR 230 [228cm³/rev.]

Pressure (MPa)

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

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ALSRR

Hydraulic motor

Performance data

ALSRR 250 [257cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5	20.5	24
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**
85			130 **328**	261 **326**	370 **322**	509 **316**	604 **307**	
Max.int. 90			85 **348**	224 **347**	358 **344**	490 **336**		

ALSRR 300 [296cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5	20.5	24
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**	753 **174**	892 **162**
68			200 **225**	333 **224**	470 **222**	630 **212**	750 **201**	882 **194**
Max.cont. 75			178 **251**	322 **250**	464 **464**	610 **240**	741 **232**	870 **215**
85			140 **285**	316 **284**	455 **278**	570 **270**	728 **257**	
Max.int. 95			106 **316**	260 **314**	431 **311**	552 **307**	700 **292**	

ALSRR 350 [345cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5	20.5	24
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**
85			176 **243**	355 **242**	510 **239**	679 **234**	808 **227**	
Max.int. 95				353 **272**	509 **269**	645 **265**		

Torque (N•m) 645
Speed (rpm) **265**

ALSRR 375 [371cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5	20.5	24
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 **556**	738 **190**	865 **181**	1012 **165**
85			175 **228**	370 **226**	526 **221**	700 **216**	832 **206**	
Max.int. 90			148 **242**	316 **240**	500 **237**	654 **226**		

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ALSRR 475 [462cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	Max.cont. 17.5	Peak 20.5
2	93 2	186 1					
4	98 7	202 6	405 5	608 5	805 4		
8	98 15	206 14	430 13	652 13	844 12	1005 10	1180 8
15	94 31	202 30	441 28	654 28	875 26	1056 23	1238 20
25	94 52	202 51	441 48	654 45	875 43	1056 39	1238 35
34	75 72	180 71	420 68	660 65	850 61	1085 55	1266 44
45		144 96	380 95	627 93	835 90	1062 84	1261 73
53		116 113	346 112	573 111	795 107	1008 102	1212 90
60		82 128	318 128	539 127	790 124	975 119	1186 110
68		58 146	272 145	520 144	740 141	955 136	1156 125
Max.cont. 75			230 161	480 160	702 702	920 153	1116 140
85			200 182	454 180	662 177	876 168	
Max.int. 90			150 194	378 193	615 190	840 182	

ALSRR 540 [540cm³/rev.]

Pressure (MPa)

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

Torque (N•m) 486
Speed (rpm) 168

ALSRR 750 [745cm³/rev.]

Pressure (MPa)

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

cont.
int.

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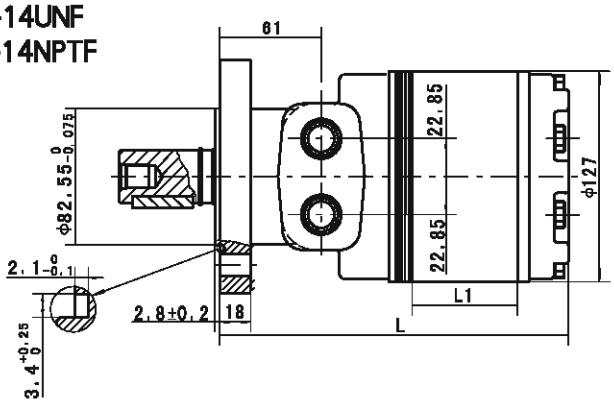
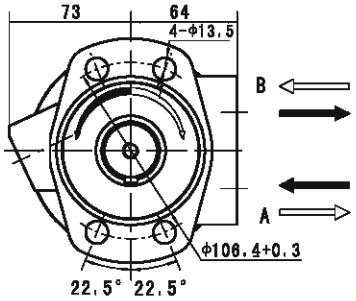
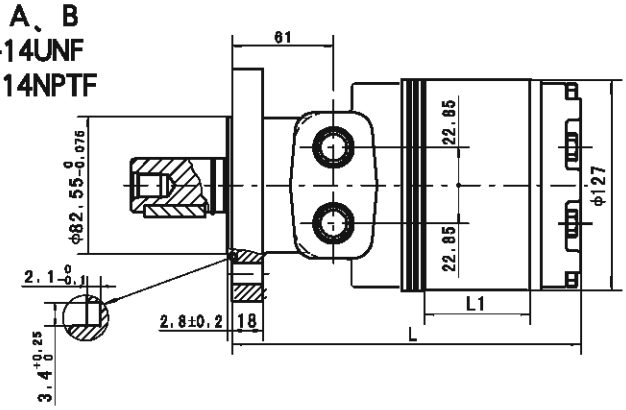
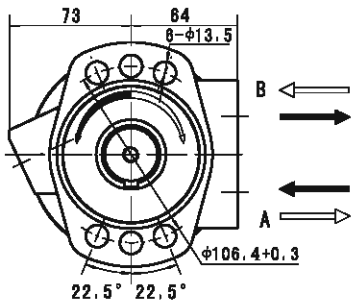
Magneto Mount 4–Hole
Code: Port A、B
MS 7/8–14UNF
MP 1/2–14NPTF
MD G1/2



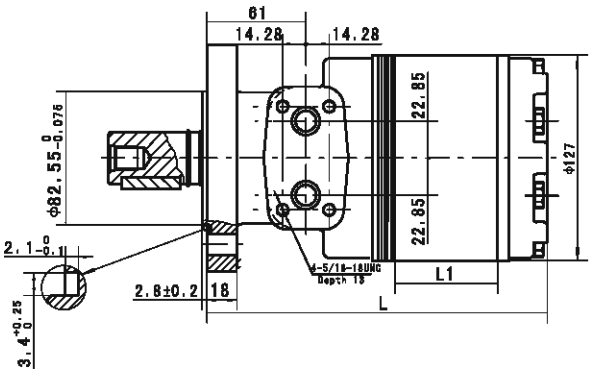


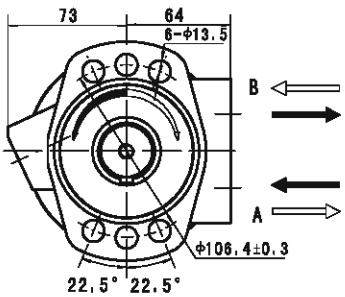
Magneto Mount 6–Hole
Code: Port A、B
FS 7/8–14UNF
FP 1/2–14NPTF
FD G1/2





Magneto Mount 6–Hole
Code:Manifold PortA、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

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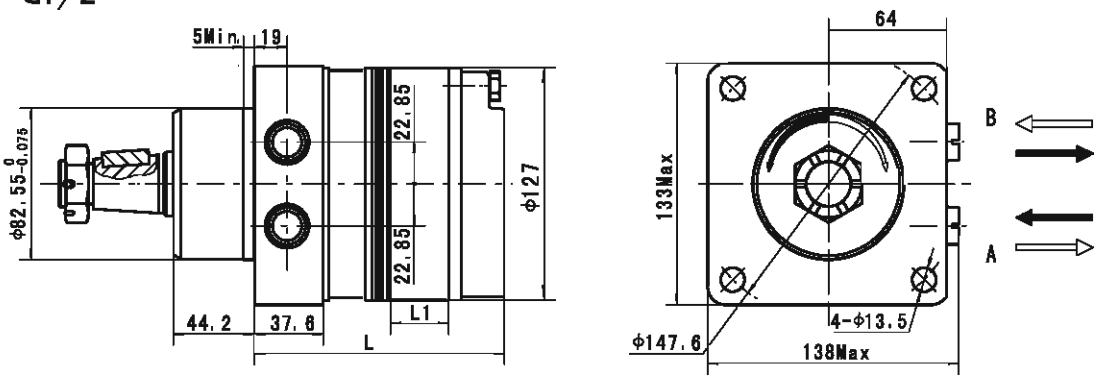
Wheel Mount
Code: Port A、B
WS 7/8–14UNF
WP 1/2–14NPTF
WD G1/2



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

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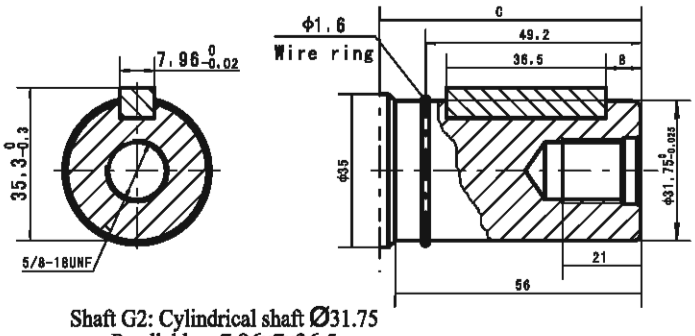
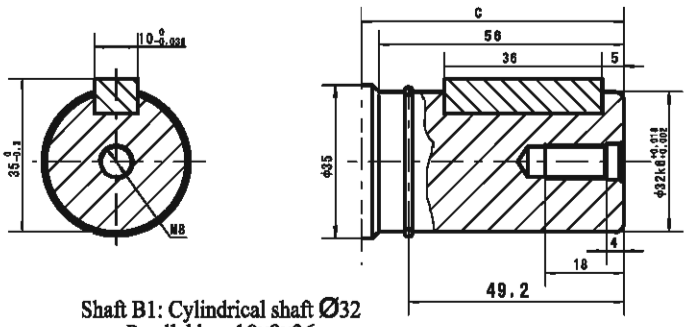
Shaft extensions dimensions data

Shaft G2



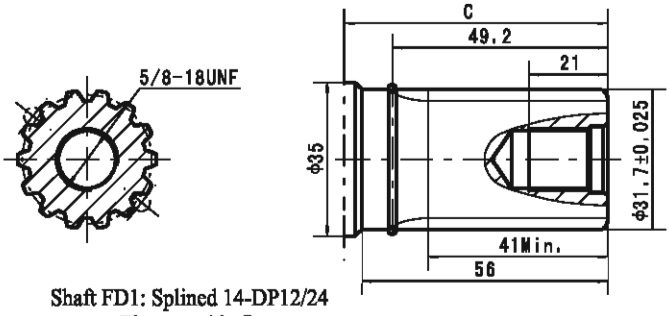
Shaft G2: Cylindrical shaft Ø31.75
Parallel key 7.96x7x36.5

Shaft B1



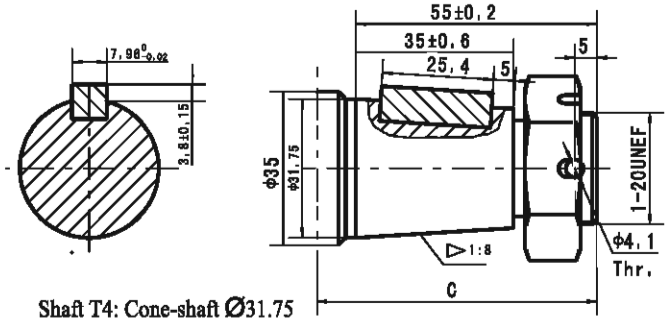
Shaft B1: Cylindrical shaft Ø32
Parallel key 10x8x36

Shaft FD1



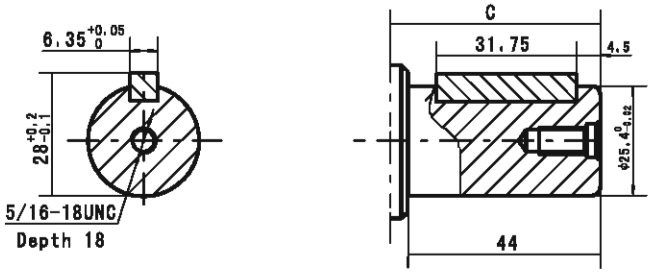
Shaft FD1: Splined 14-DP12/24
Flat root side fit
to fit ANSI B92.1 1996

Shaft T4



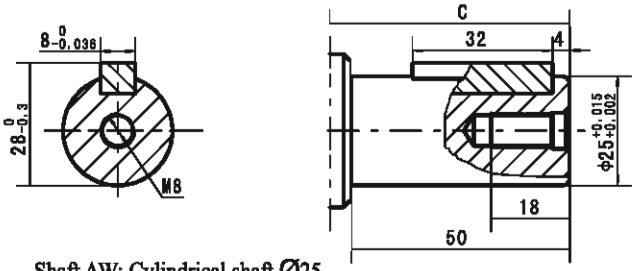
Shaft T4: Cone-shaft Ø31.75
Parallel key 7.96x7.96x25.4
Tightening torque:200±10Nm

Shaft RW



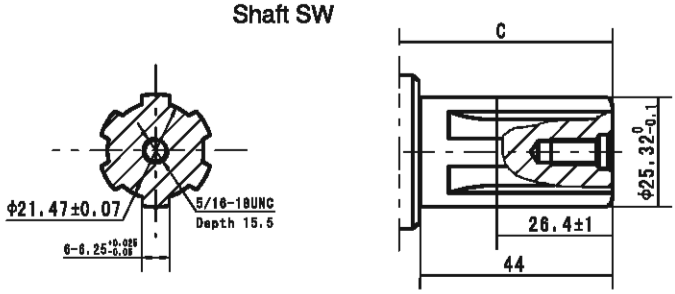
Shaft RW: Cylindrical shaft Ø25.4
Parallel key 6.35x6.35x31.75

Shaft AW



Shaft AW: Cylindrical shaft Ø25
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

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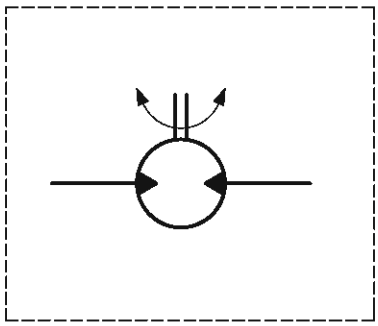
Shaft rotation direction

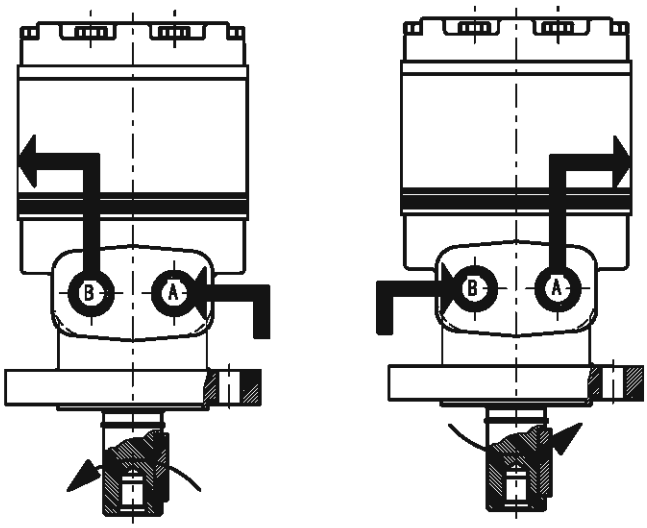
Direction of shaft rotation: Reverse timed

When facing shaft end of motor,shaft to rotate:

Clockwise when port "B" is pressurized.

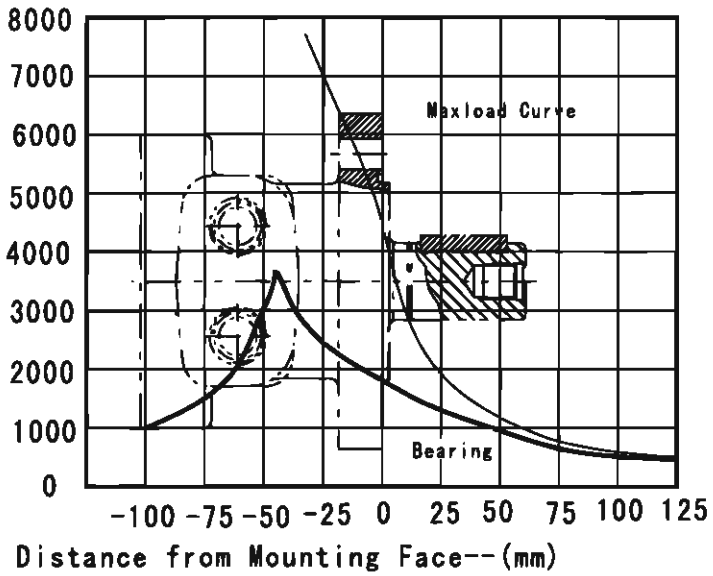
Counter-clockwise when port "A" is pressurized.



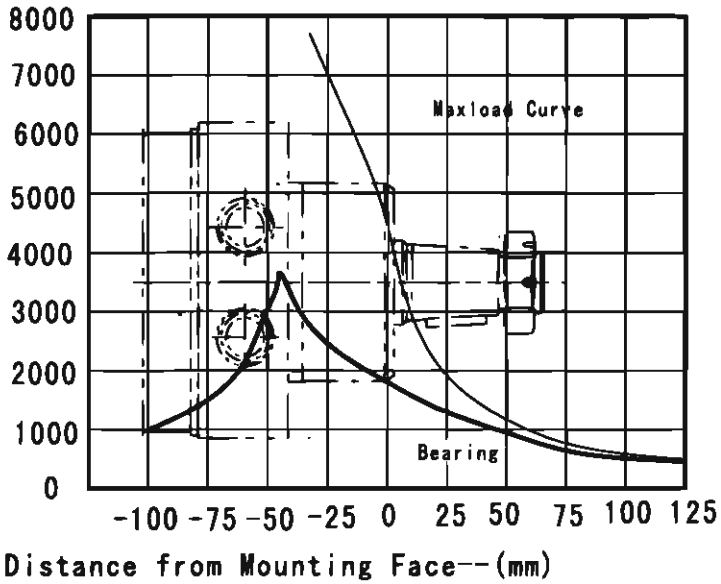


Axial and radial forces

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 $3x10^6$ revolutions.

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

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ALSRR

Hydraulic motor

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

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BK2

Hydraulic brake

AmberLine Hydraulics

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.

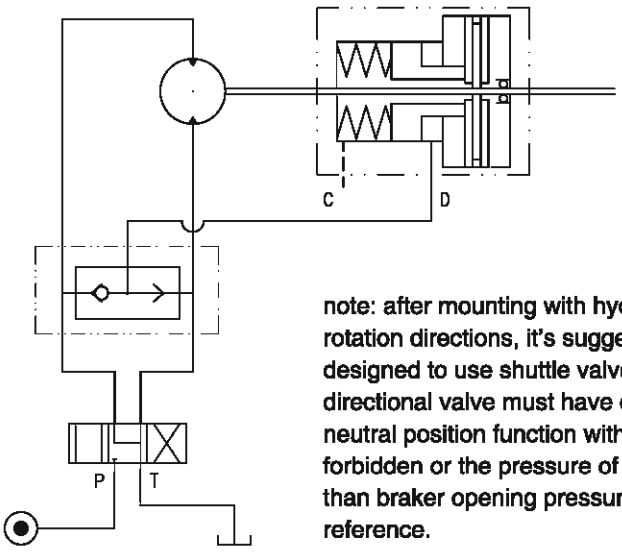
Special Note: such kind of brake is only used in static parking brake.Dynamic braking is not recommended.

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℃−90℃the best optimal situation 20℃−60℃
4.Viscosity range：20～75mm²/s; the best optimal situation 42～74mm²/s at 40℃.
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.

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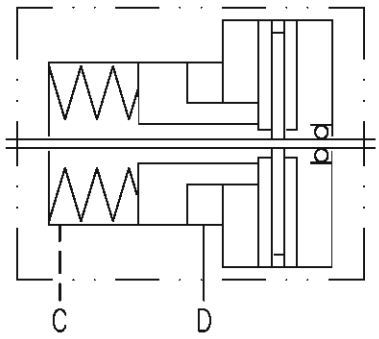
BK2

Hydraulic brake

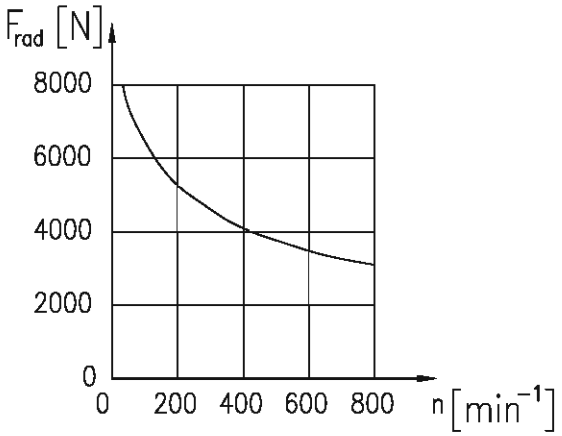
Specification data

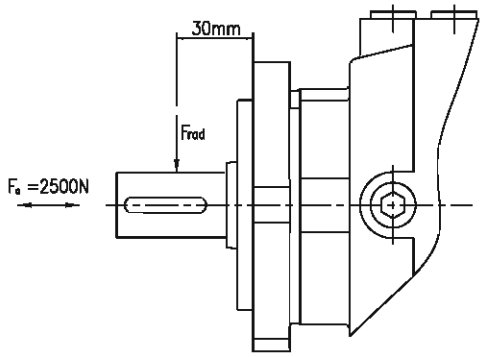
Item	BK2-1		BK2-2
Min. static Torque [Nm]	200~230	410~450	410~450
Min. Opening Pressure [MPa]	1.7~2.3		
Max. Opening Pressure [MPa]	30		
Min.oil quantity for brake releasing[cm³]	7~8		
Oil volume [cm³]	50~120		
Max. pressure in drain space [MPa]	0.05		
Weight [kg]	9		9.5

*Static torque is obtained at working pressure 0 MPa

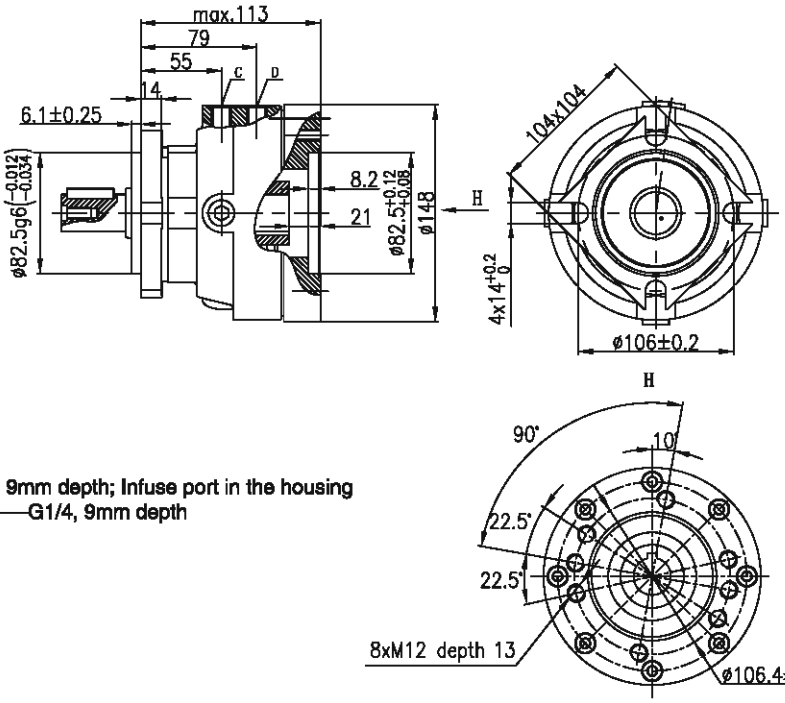


Load curve





Mounting data model BK2-1



C Drain port——G1/4, 9mm depth; Infuse port in the housing
D Brake release port——G1/4, 9mm depth

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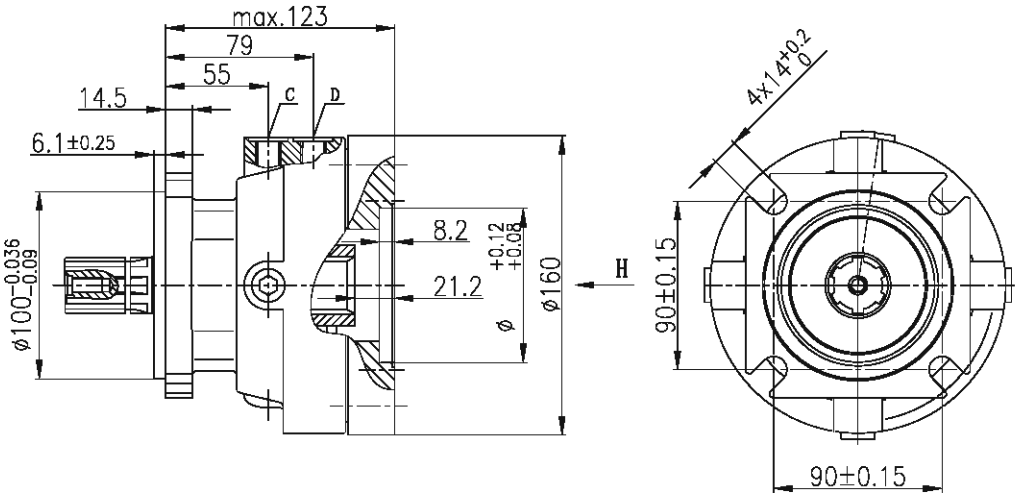
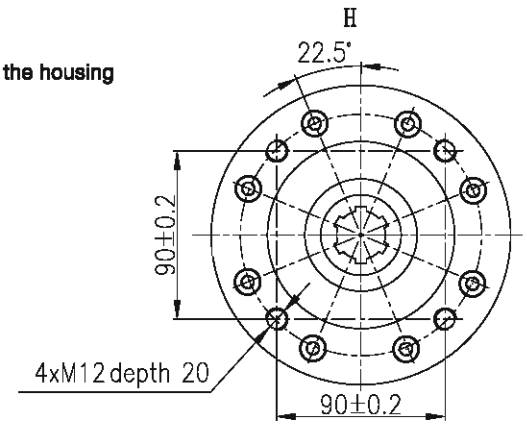
Mounting data model BK2-2



C Drain port——G1/4, 9mm depth; Infuse port in the housing
D Brake release port——G1/4, 9mm depth



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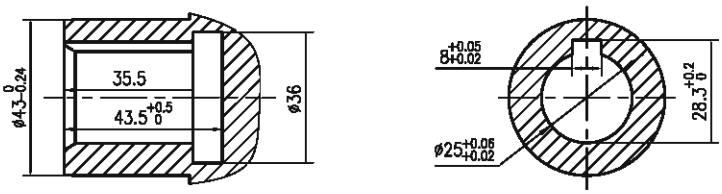
BK2

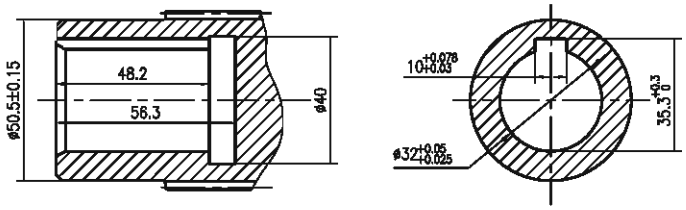
Hydraulic brake

Input shaft holes

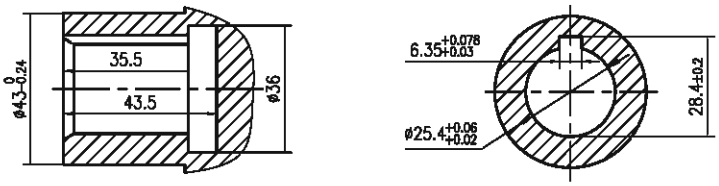
A



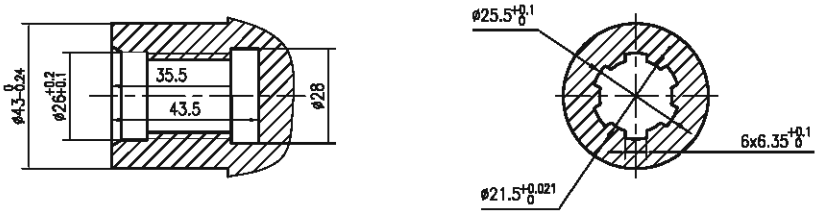
B



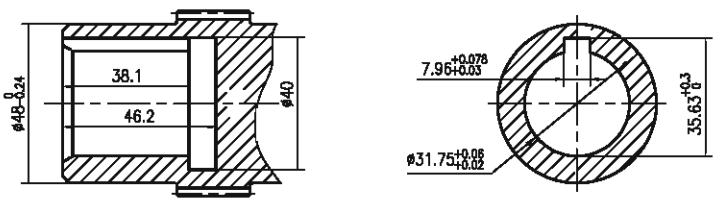
C



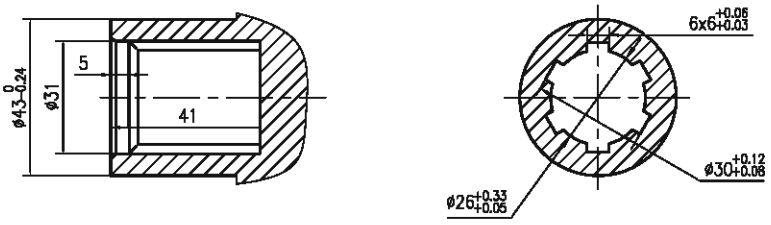
E



G



N



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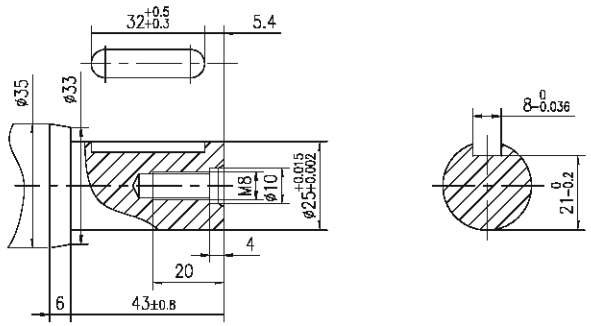
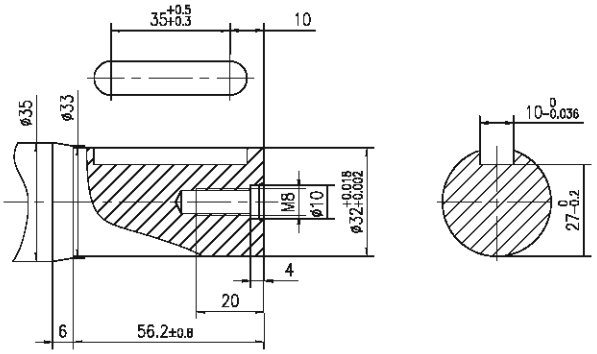
A



B



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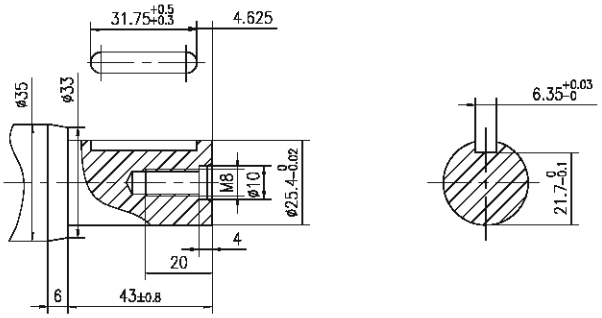

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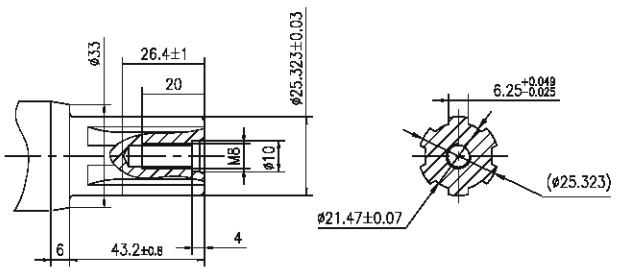

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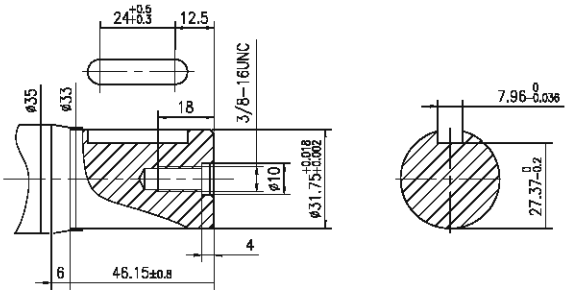

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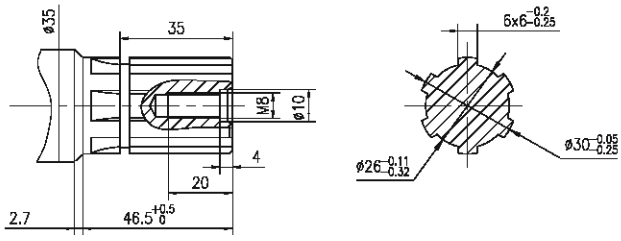

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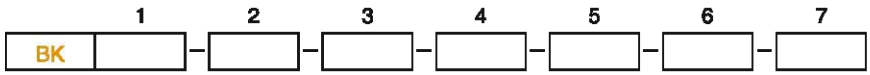
BK2

Hydraulic brake

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	210	Shaft holes Φ25, Parallel key 8x7x32	A	ShaftΦ25, Parallel key 8x7x32	A	No Paint	00	Standard	omit
				Shaft holesΦ32, Parallel key 10x8x45	B	ShaftΦ32, Parallel key 10x8x45	B	Blue	omit		
				Shaft holes Φ25.4, Parallel key 6.35x6.35x31.75	C	ShaftΦ25.4, Parallel Key6.35x6.35x31.75	C	Black	B		
		Torque410–450Nm	430	Shaft holes Φ25.4, splined key SAE 6B	E	ShaftΦ25.4, splined key SAE 6B	E	Sliver	S		
				Shaft holes Φ31.75, Parallel key 7.96x7.96x31.75	G	ShaftΦ31.75, Parallel Key7.96x7.96x31.75	G	Grey			
	2	Torque410–450Nm	430	Shaft holes Splined 6-30x26x6	N	Shaft Splined 6-30x26x6	N				
				Shaft holes Splined 6-30x26x8	J	Shaft Splined 6-30x26x8	J				

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.

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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℃~90℃; optimal temperature scope : 20℃~60℃;
3.Oil viscosity: 20~75mm²/s;optimal viscosity scope : 42~74mm²/s at the temperature of 40℃;
4.Oil cleanness: oil filtration precision: 25μm; solid contamination level has to be lower than 20/16;

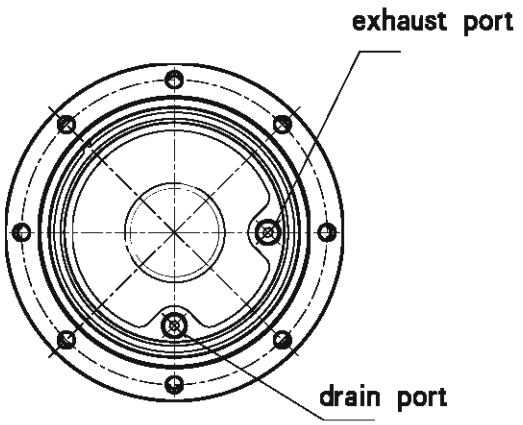
In order to keep the planetary gearbox operating under the best condition, the normal requirements are shown as follows:

1.Lubrication oil: CKC220 mineral gear oil(ISO 12925-1)(GB/T5903);
2.Oil viscosity: 220mm²/s at the temperature of 40℃;
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.

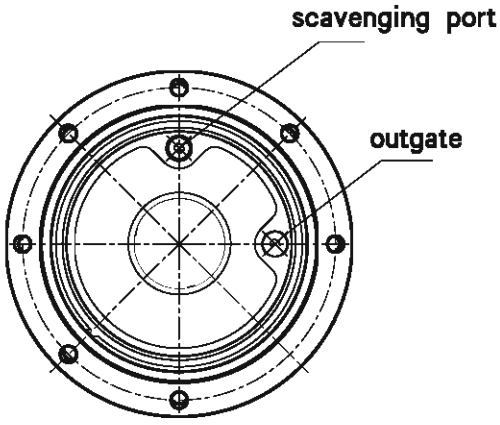
How to change the oil for planetary gearbox:

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

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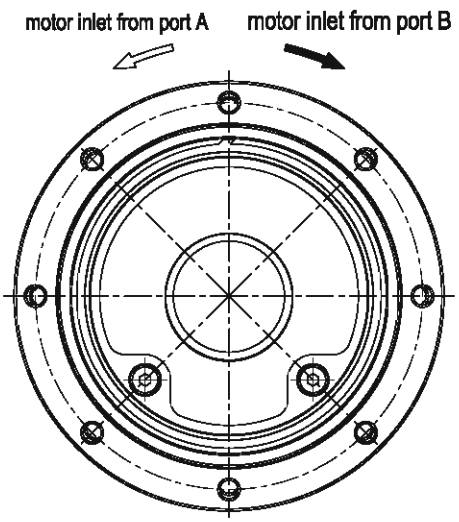
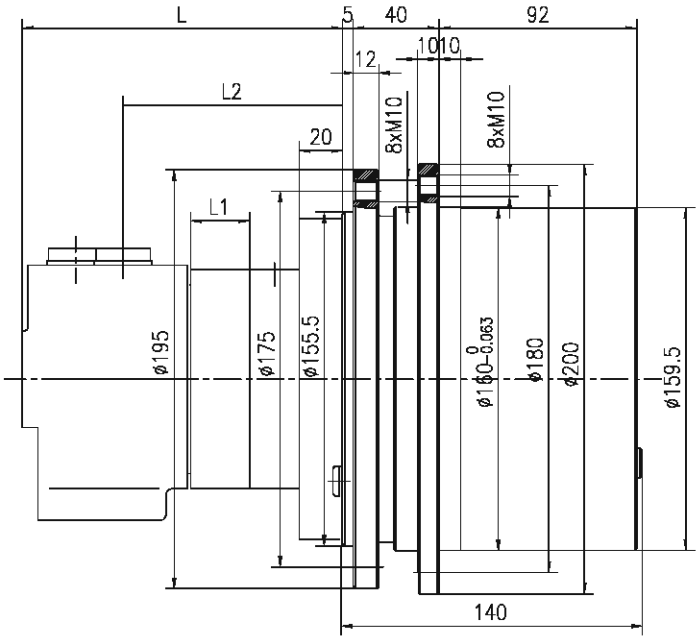
WGB

Planetary gearbox

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.

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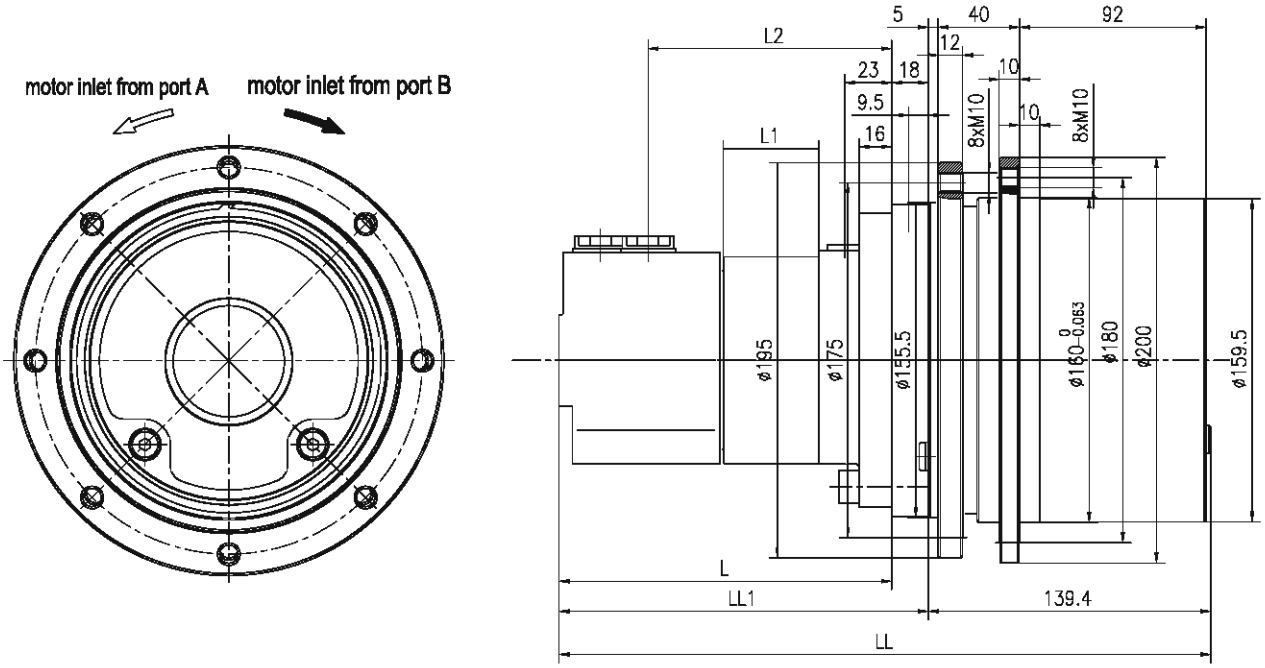
WGB

Planetary gearbox

IOW AmberLine Hydraulics

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
specificaftion 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.

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WGB

Planetary gearbox

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 Displacement	Port and drain port		Paint		Unusually function	
1500N·m	150	3.28 4.6 5.75	With brake No brakes	BK Omit	ALSG3-W1	80 100 125 160 200 250 315 375	G1/2 manifold mount 2xM10,G1/4 M22x1.5 manifold mount2xM10,M14x1.5 7/8-14UNF O-ring manifold mount 2x3/8-16,7/16-20UNF 1/2-14NPTF manifold mount 2x3/8-16,7/16-20UNF	D M S P	No paint Blue Black Silver grey	00 Omit B S	Standard	Omit
3000N·m	300	3.28 4.6 5.75	With brake No brakes	BK Omit	ALSG3S-I1							

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, displace ment, port and drain port and the paint , etc. If the specification is not in the table or you have special requirements, please contact us.

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HGB

Planetary gearbox

AmberLine Hydraulics

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℃~90℃; optimal temperature scope : 20℃~60℃;

3.Oil viscosity: 20~75mm²/s;optimal viscosity scope : 42~74mm²/s at the temperature of 40℃;

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℃;

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.

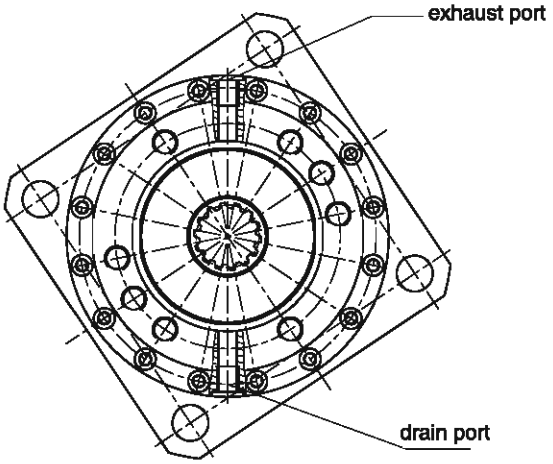
4.We suggest that MOBIL GEAR630, ESSO SPARTAN EP220, SHELL OMALA EP220 be used.

How to change the oil for planetary gearbox:

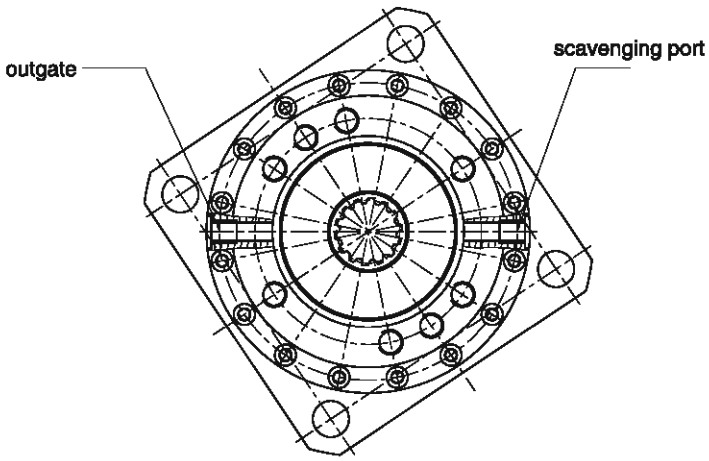
No lubricate oil in the gearbox lubricate the gearbox before it be used.

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

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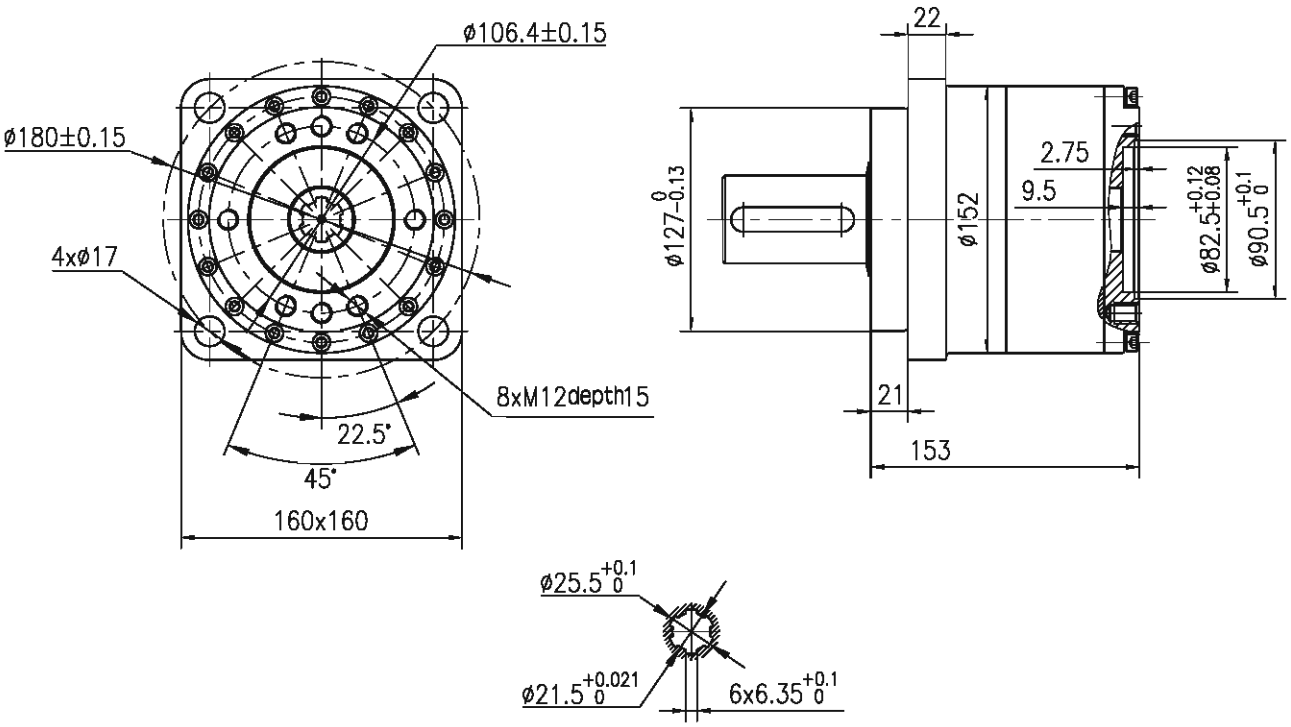
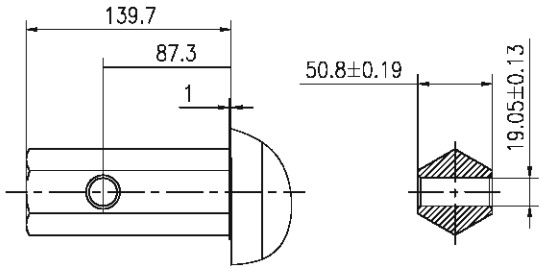
Main mounting and specification data



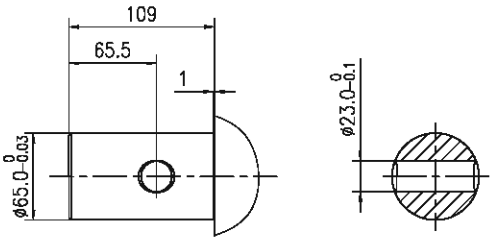
Input shaft hole E

Output shaft extensions

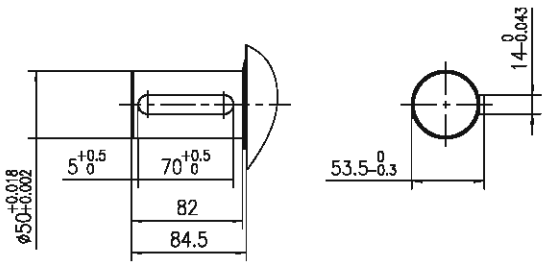
shaft H1



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.

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HGB

Planetary gearbox

IOW AmberLine Hydraulics

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, displacememt 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.

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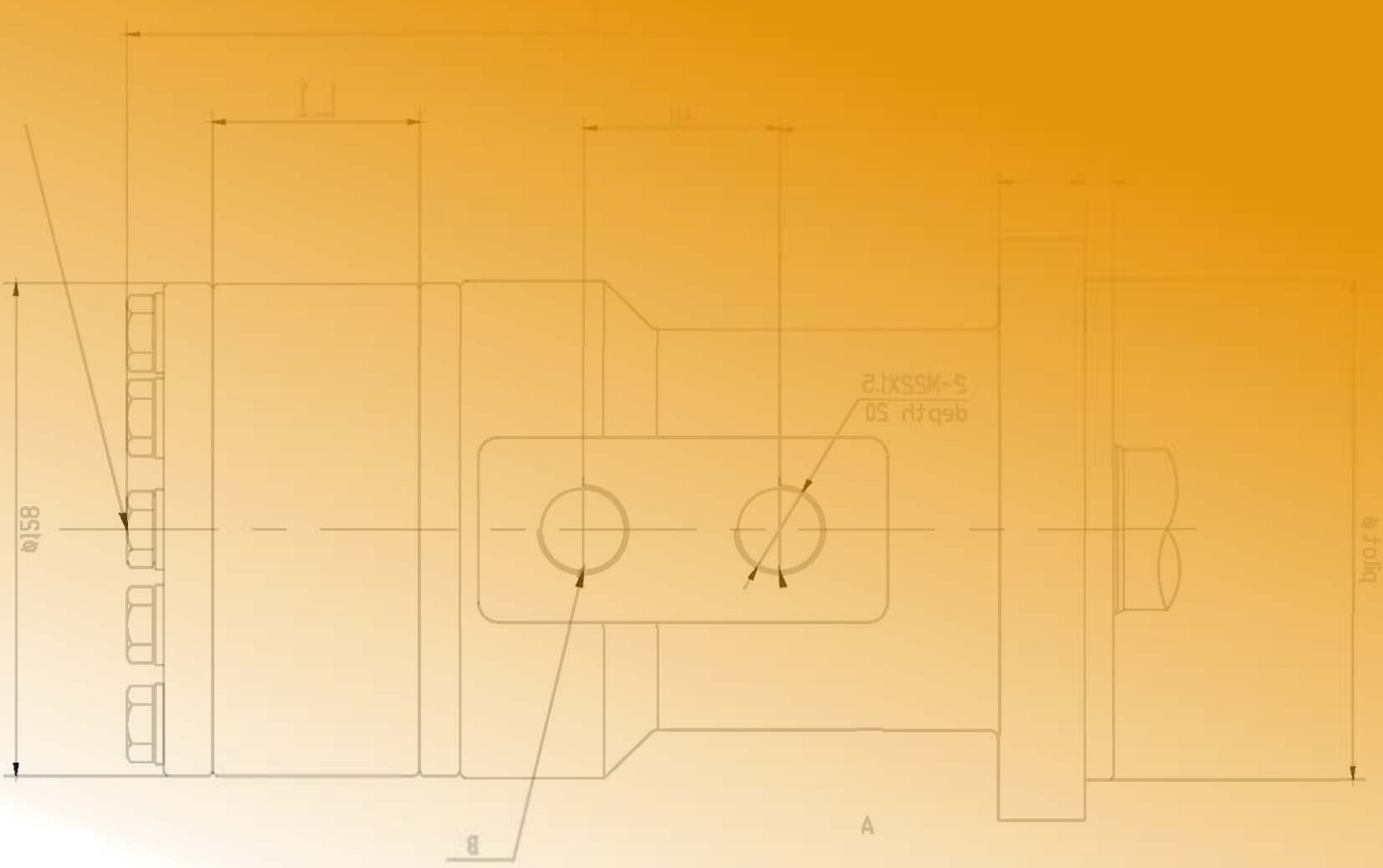

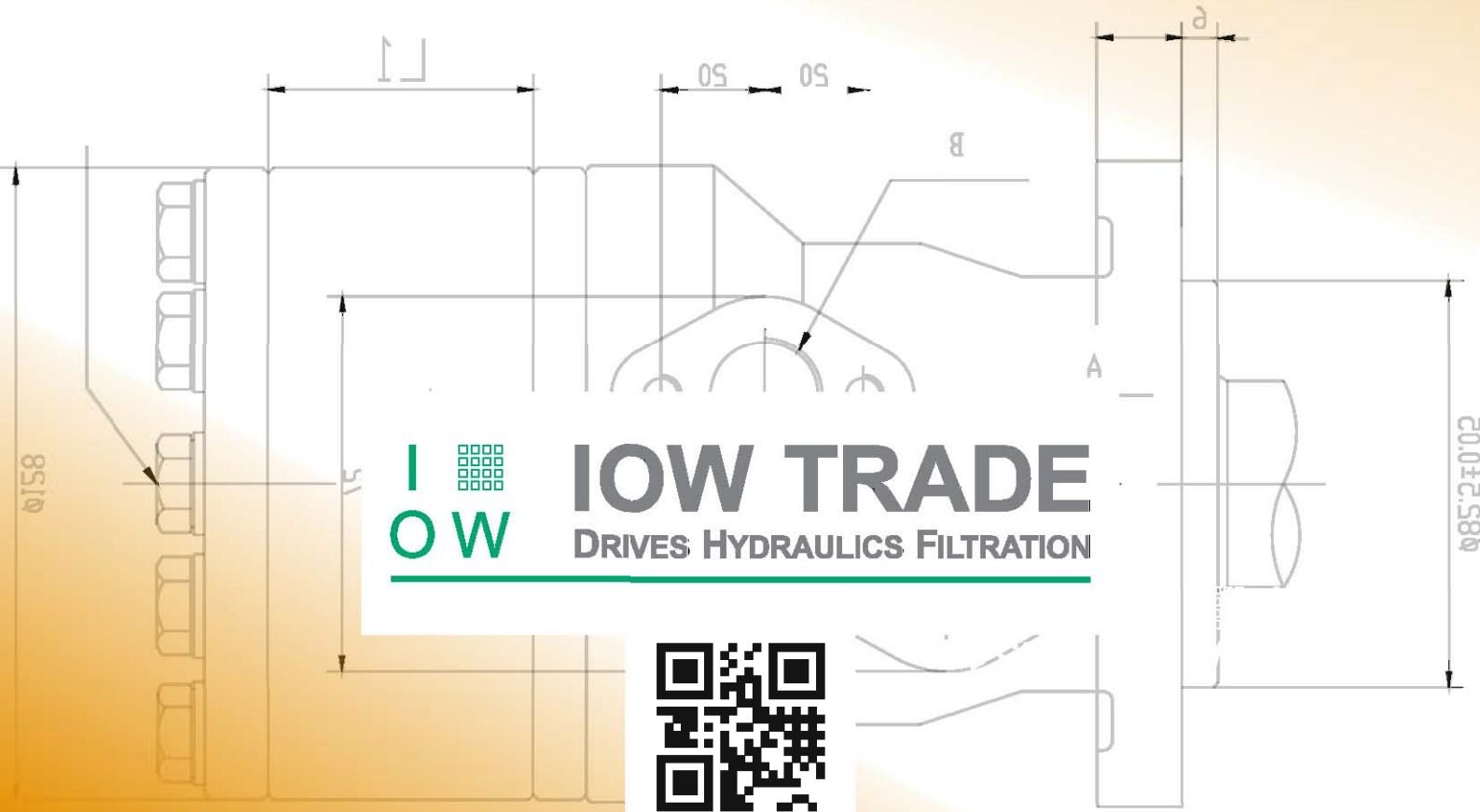

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