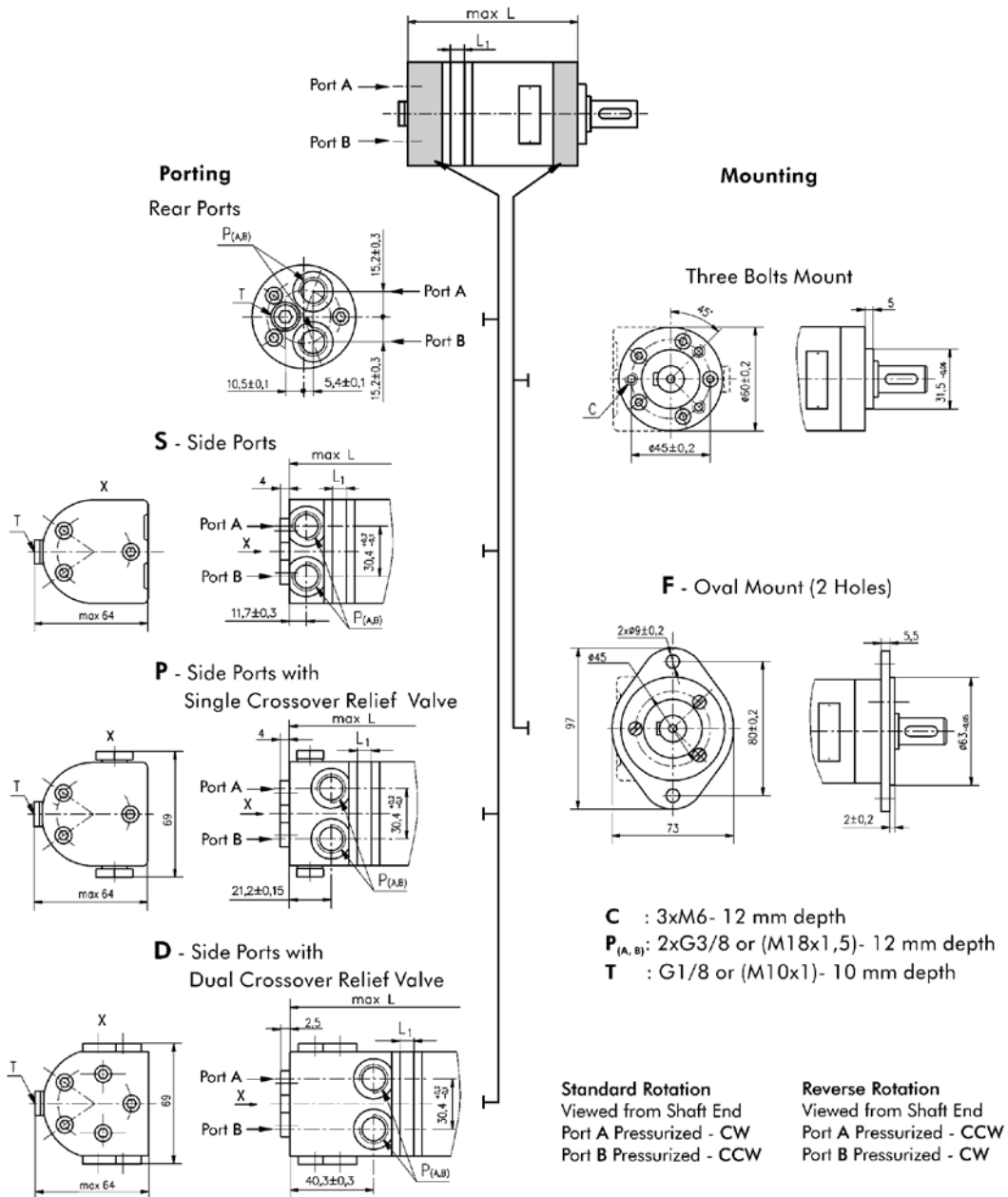




**Orbital
Motors**

EL-L SERIES

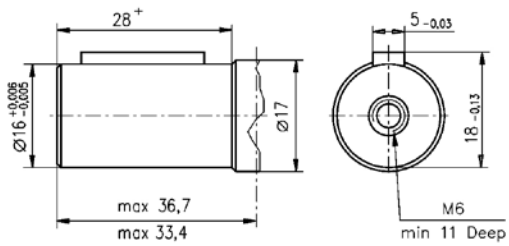
DRAWINGS



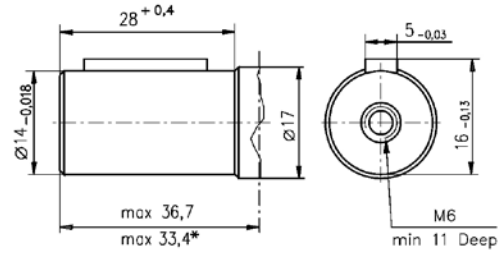
EL-L SERIES

SHAFT ENDS

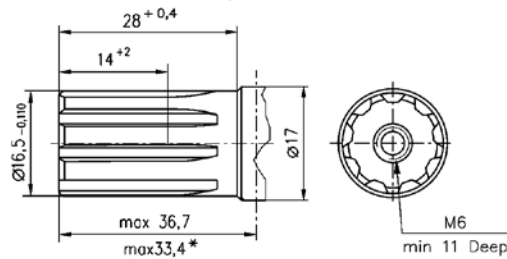
C - $\varnothing 16$ straight, Parallel key 5x5x16 DIN 6885
Max. Torque 3,9 daNm



CK - $\varnothing 14$ Straight, Parallel key 5x5x16 DIN 6885
Max. Torque 3 daNm



SH - $\varnothing 16,5$ Splined, B17x14 DIN 5482
Max. Torque 4,4 daNm



EL-L SERIES
TECHNICAL SPECIFICATION

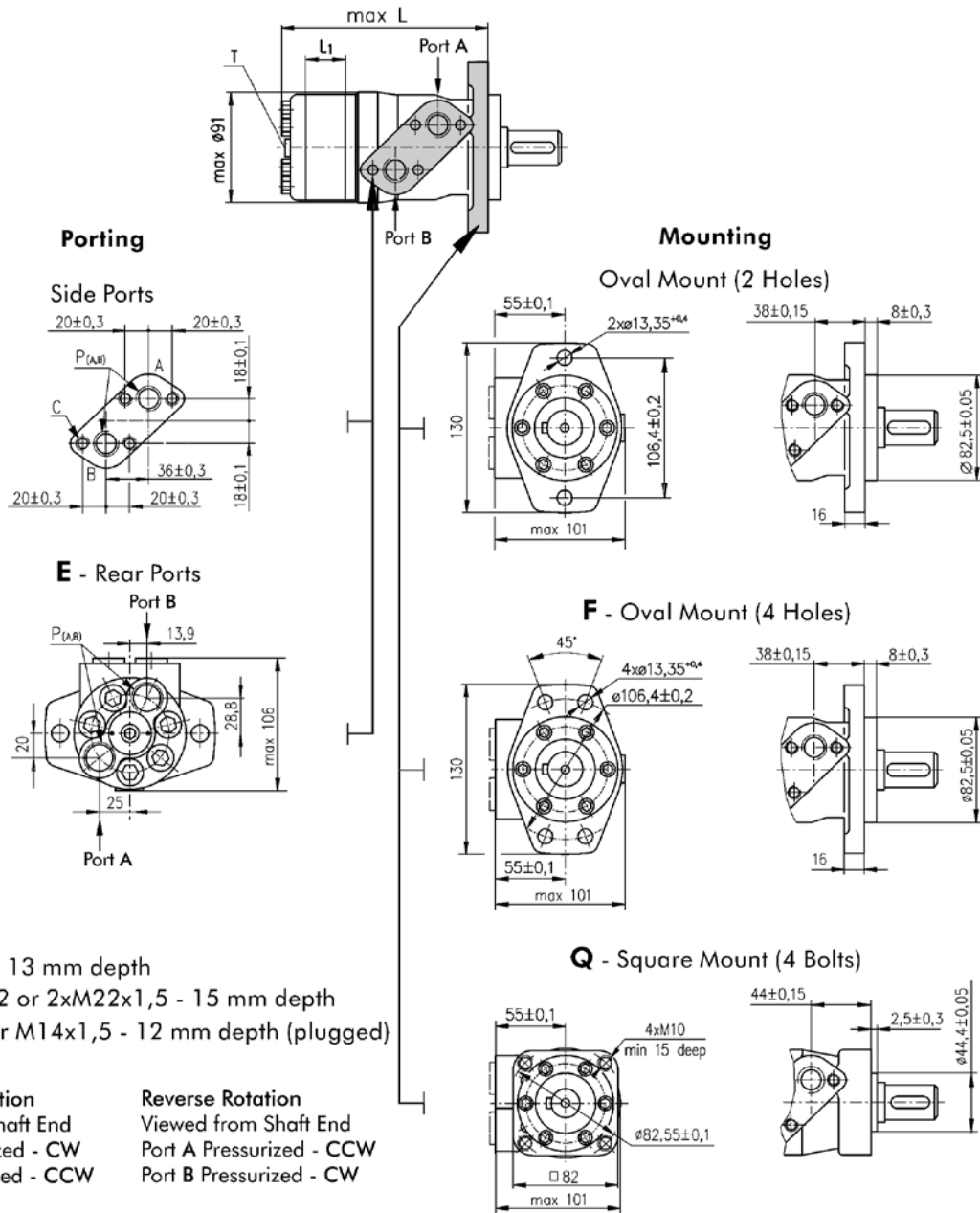
		Model						
		EL-L	08	12	20	32	40	50
Displacement	cm ³ /rev ⁻¹		8,2	12,9	20	31,8	40	50
Max. speed	rpm	cont.	1950	1550	1000	630	500	400
Max. torque	daNm	cont.	11	16	25	40	41	45
		int.	15	23	35	57	57	58
Max. output	kW	cont.	1,8	2,4	2,4	2,4	1,8	1,7
		int.	2,6	3,2	3,2	3,2	3	2,1
Max. pressure drop	bar	cont.	100	100	100	100	80	70
		int.	140	140	140	140	110	90
Max. oil flow	L min ⁻¹	cont.	16	20	20	20	20	20
Dimensions	L	mm	S			+1		
			P			+11		
			D			+30		
	L ₁		3,5	5,5	8,5	13,5	17	21
Weight	kg		1,9	2	2,1	2,2	2,3	2,5
		F(S)				+0,4		
		FS				+0,8		
		P				+0,2		
		PF				+0,4		
		D				+0,3		
		DF			+0,9			

For EL-L series, also available the following options:

- ⊕ speed sensor
- ⊕ low leakage
- ⊕ free running

EL-R SERIES

DRAWINGS



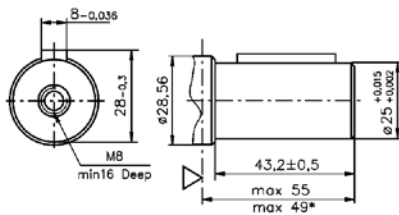
- C : 4xM8 - 13 mm depth
- P_(A,B): 2xG1/2 or 2xM22x1,5 - 15 mm depth
- T : G1/4 or M14x1,5 - 12 mm depth (plugged)

Standard Rotation	Reverse Rotation
Viewed from Shaft End	Viewed from Shaft End
Port A Pressurized - CW	Port A Pressurized - CCW
Port B Pressurized - CCW	Port B Pressurized - CW

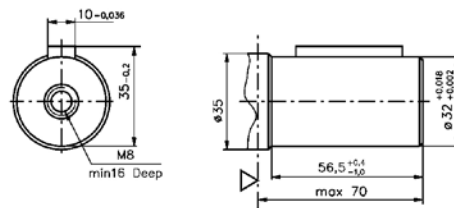
EL-R SERIES

SHAFT ENDS

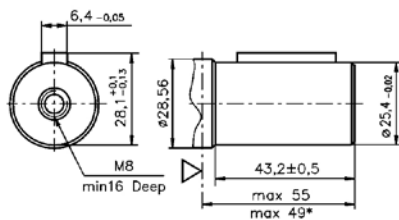
C - $\phi 25$ straight, Parallel key A8x7x32 DIN 6885
Max. Torque 34 daNm



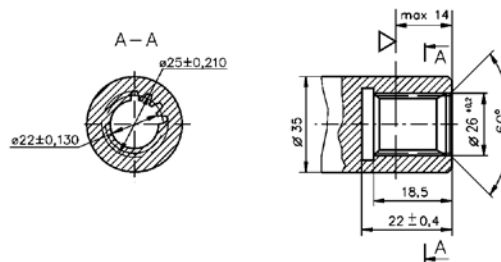
CB - $\phi 32$ straight, Parallel key A10x8x45 DIN 6885
Max. Torque 77 daNm



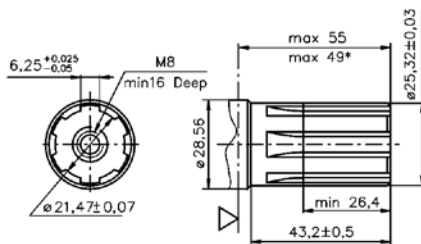
CO - $\phi 1"$ straight, Parallel key $1/4 \times 1/4 \times 1 1/4$ " BS46
Max. Torque 34 daNm



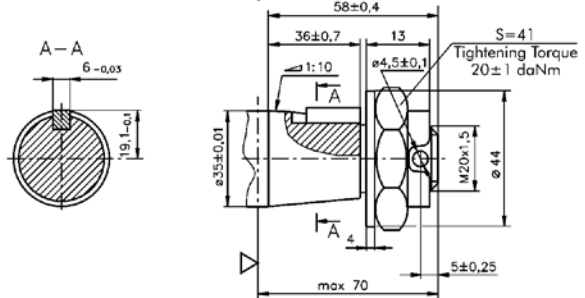
SB - splined A25x22xH10 DIN 5482
Max. Torque 34 daNm



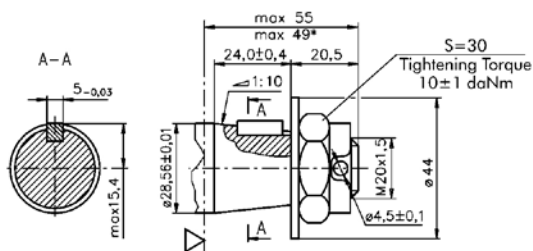
SH - splined, BS 2059 (SAE 6B)
Max. Torque 40 daNm



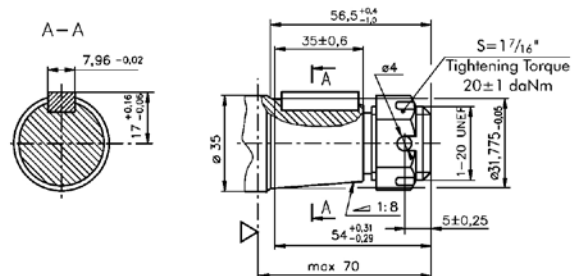
KB - tapered 1:10, Parallel key B6x6x20 DIN 6885
Max. Torque 77 daNm



K - tapered 1:10, Parallel key B5x5x14 DIN 6885
Max. Torque 40 daNm

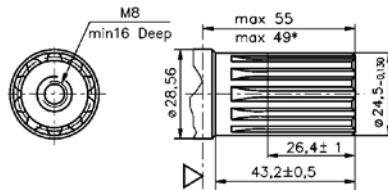


OB - tapered 1:8 SAEJ 501, Parallel key $5/16 \times 5/16 \times 1 1/4$ " BS46
Max. Torque 77 daNm



EL-R SERIES
SHAFT ENDS

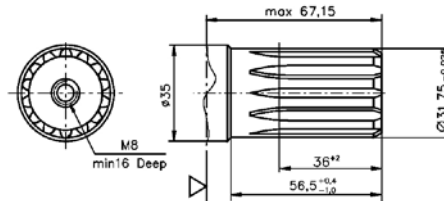
SA - splined, B25x22h9 DIN 5482
Max. Torque 40 daNm



▽ - Motor Mounting Surface

* - For Q-flange

HB - $\phi 1 \frac{1}{4}$ " splined 14T, ANSI B92.1-1976 Norm
Max. Torque 77 daNm


TECHNICAL SPECIFICATION

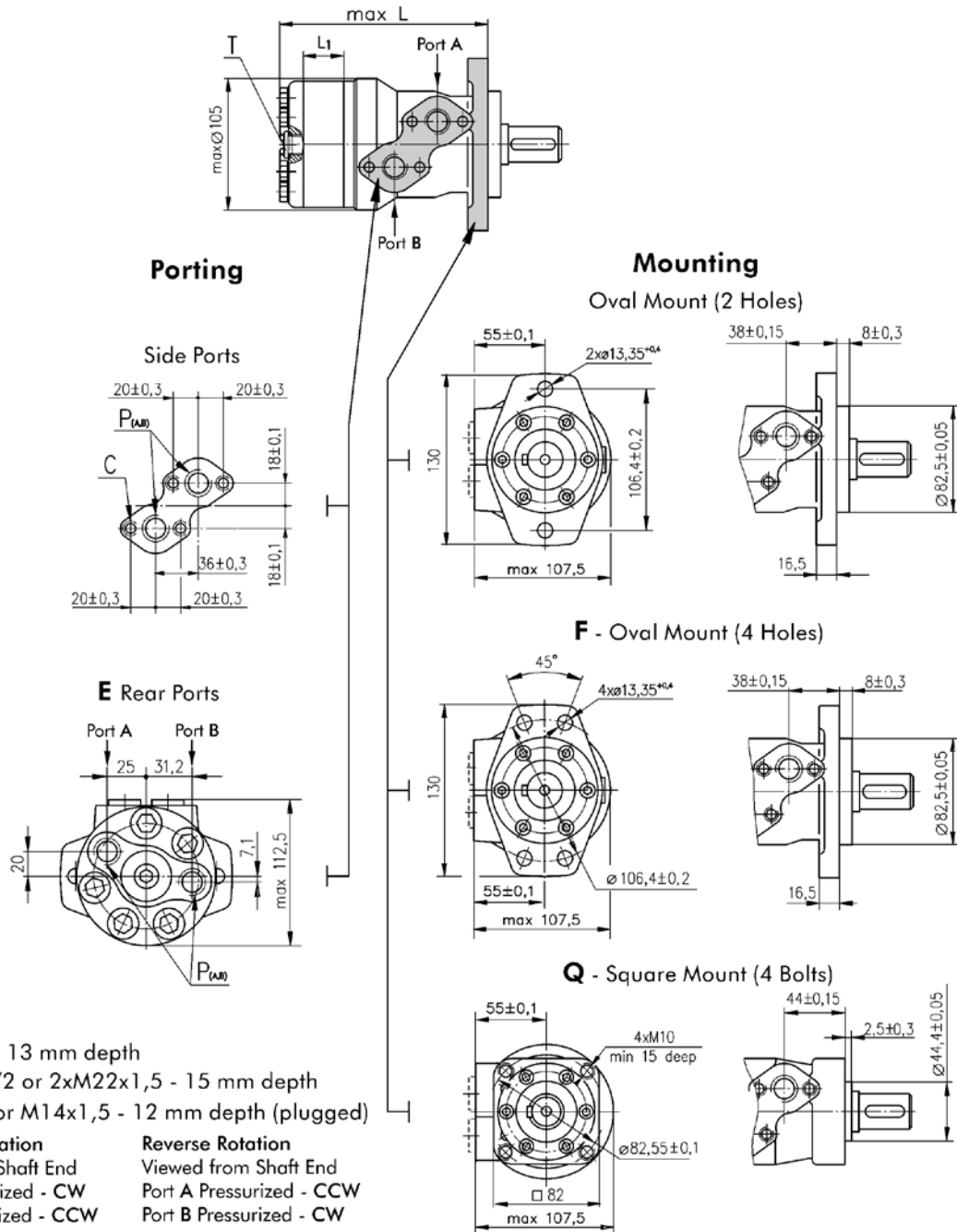
		Model									
		EL-R	50	80	100	125	160	200	250	315	400
Displacement	cm ³ /rev ⁻¹		49,5	79,2	99	123,8	158,7	198	247,5	316,8	396
Max. speed	rpm	cont.	1210	755	605	486	378	303	242	190	150
Max. torque	daNm	cont.	9,4	15,1	19,3	23,7	31,3	36,6	38	38	36
		int.	11,9	19,5	23,7	29,8	37,8	45,6	58,3	56	59
Max. output	kW	cont.	10,1	10,2	10,5	10	10,1	10	7,5	5,7	4,6
		int.	12,2	12,5	12,8	12	12,1	12	12	9	7,8
Max. pressure drop	bar	cont.	140	140	140	140	140	140	110	90	70
		int.	175	175	175	175	175	175	175	140	115
Max. oil flow	L min ⁻¹	cont.	60	60	60	60	60	60	60	60	60
Dimensions	L	(F)	135,5	139,5	142	145,5	150	155,5	162	171,5	182
		Q					+6,5				
		(F)E					+17,5				
		QE					+24				
	L ₁		6,67	10,67	13,33	16,67	21,33	26,67	33,33	42,67	53,33
Weight	kg	(F)	5,8	5,9	6,1	6,2	6,4	6,6	6,8	7,1	7,6
		Q(N)					-0,6				
		(F)(N)E					+0,5				
		Q(N)E					-0,1				
		(F)..B					+0,1				
		(F)E..B					+0,6				

For EL-R series, also available the following options:

-  wheel motor version (EL-RW)
-  speed sensor
-  low leakage
-  low speed valve
-  free running

EL-RA SERIES

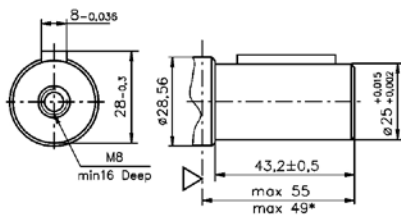
DRAWINGS



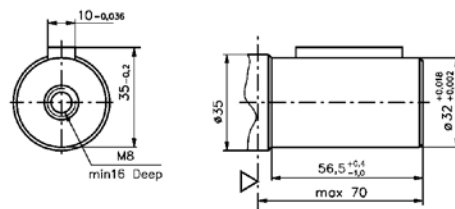
EL-RA SERIES

SHAFT ENDS

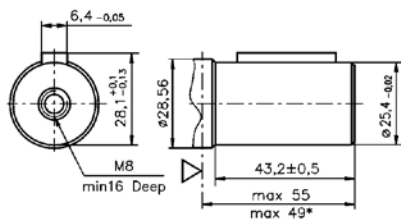
C - $\varnothing 25$ straight, Parallel key A8x7x32 DIN 6885
Max. Torque 34 daNm



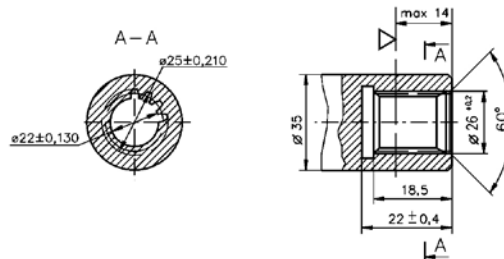
CB - $\varnothing 32$ straight, Parallel key A10x8x45 DIN 6885
Max. Torque 77 daNm



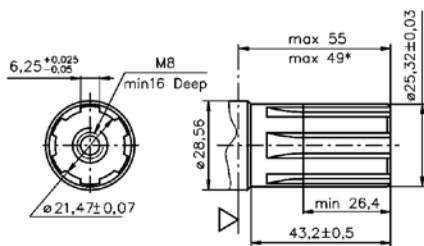
CO - $\varnothing 1"$ straight, Parallel key $1/4" \times 1/4" \times 1/4"$ BS46
Max. Torque 34 daNm



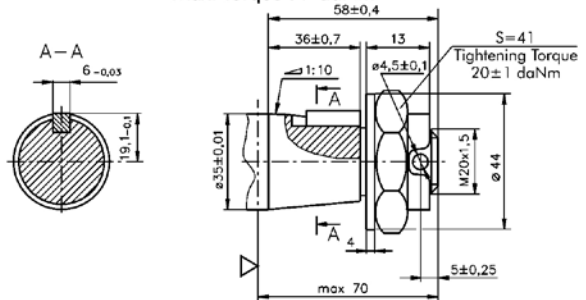
SB - splined A25x22xH10 DIN 5482
Max. Torque 34 daNm



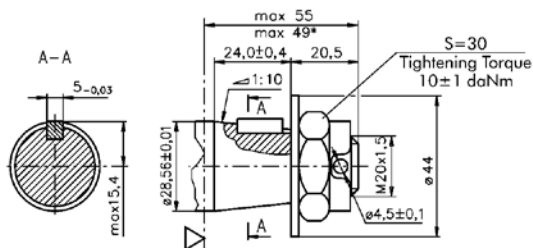
SH - splined, BS 2059 (SAE 6B)
Max. Torque 40 daNm



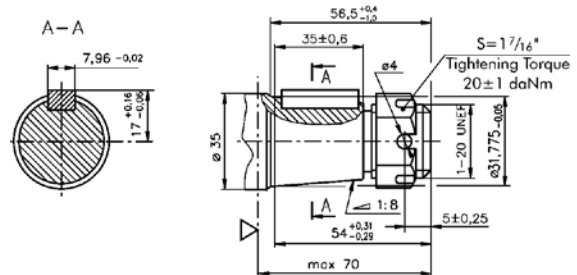
KB - tapered 1:10, Parallel key B6x6x20 DIN 6885
Max. Torque 77 daNm



K - tapered 1:10, Parallel key B5x5x14 DIN 6885
Max. Torque 40 daNm

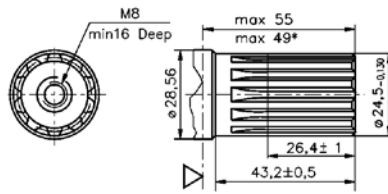


OB - tapered 1:8 SAEJ 501, Parallel key $5/16" \times 5/16" \times 1/4"$ BS46
Max. Torque 77 daNm



EL-RA SERIES
SHAFT ENDS

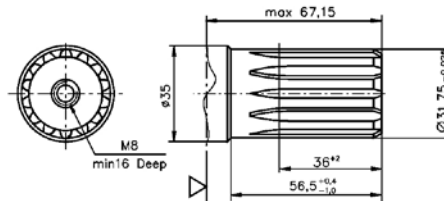
SA - splined, B25x22h9 DIN 5482
Max. Torque 40 daNm



▽ - Motor Mounting Surface

* - For Q-flange

HB - ø1 ¼" splined 14T, ANSI B92.1-1976 Norm
Max. Torque 77 daNm


TECHNICAL SPECIFICATION

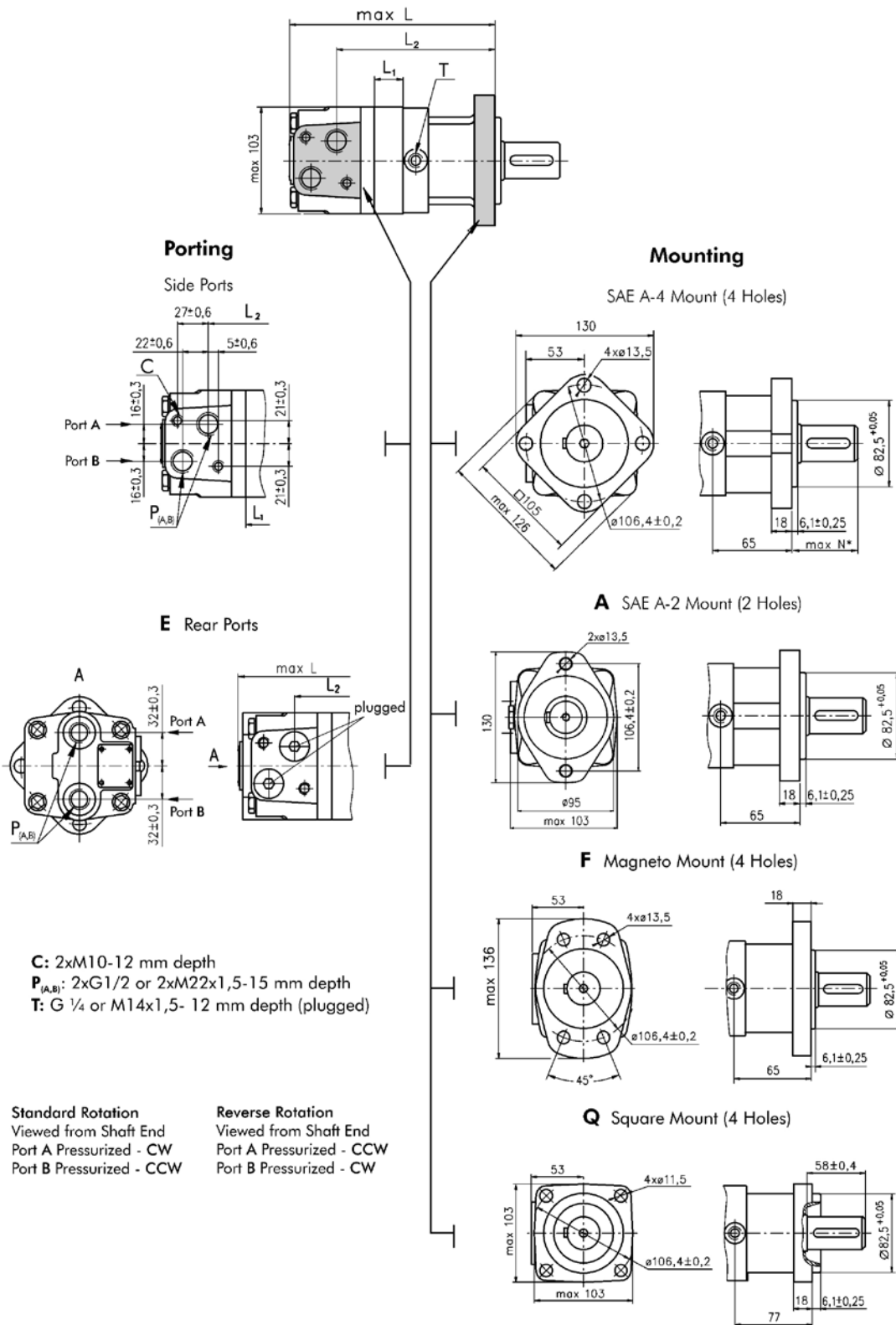
		Model									
		EL-RA	50	80	100	125	160	200	250	315	400
Displacement	cm ³ /rev ⁻¹		51,5	80,3	99,8	125,7	159,6	199,8	250,1	315,7	397
Max. speed	rpm	cont.	775	750	600	475	375	300	240	190	150
Max. torque	daNm	cont.	10,1	19,5	24	30	39	38,5	39	39	38
		int.	13	22	28	34	43	46	58	57	60
Max. output	kW	cont.	7	12,5	13	12,5	11,5	9	6,5	6	4,8
		int.	8,5	15	15	14,5	14	11,5	10,5	9,6	8,8
Max. pressure drop	bar	cont.	140	175	175	175	175	140	110	90	70
		int.	175	200	200	200	200	175	175	140	115
Max. oil flow	L min ⁻¹	cont.	40	60	60	60	60	60	60	60	60
Dimensions	L	(F)	138	143	146	150,5	156,5	163,5	172	183	198
		Q					+5,5				
		(F)E					+19,5				
		QE					+25,5				
	L ₁		9	14	17,4	21,8	27,8	34,8	43,5	54,8	69,4
Weight	kg	(F)	6,8	6,9	7,2	7,3	7,5	8	8,4	9,1	9,8
		Q(N)					-0,6				
		(F)..B					+0,1				

For EL-RA series, also available the following options:

- ⊗ wheel motor version (EL-RAW)
- ⊗ integrated brake
- ⊗ speed sensor
- ⊗ low leakage
- ⊗ low speed valve
- ⊗ free running

EL-V SERIES

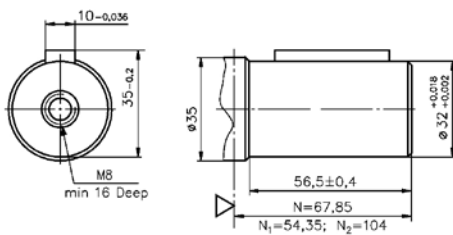
DRAWINGS



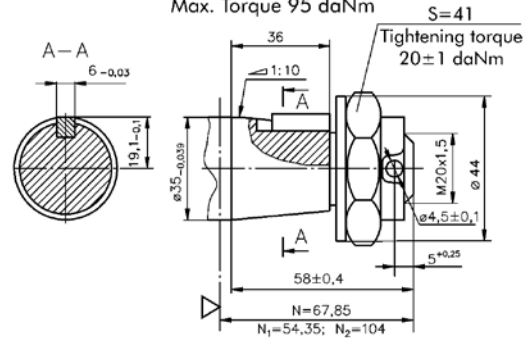
EL-V SERIES

SHAFT ENDS

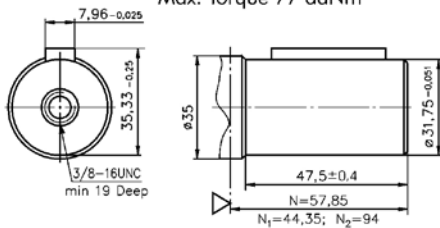
C - $\phi 32$ straight, Parallel key A10x8x45 DIN 6885
Max. Torque 77 daNm



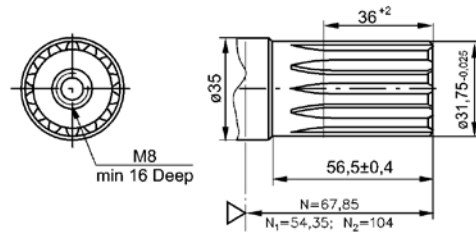
K - tapered 1:10, Parallel key B6x6x20 DIN 6885
Max. Torque 95 daNm



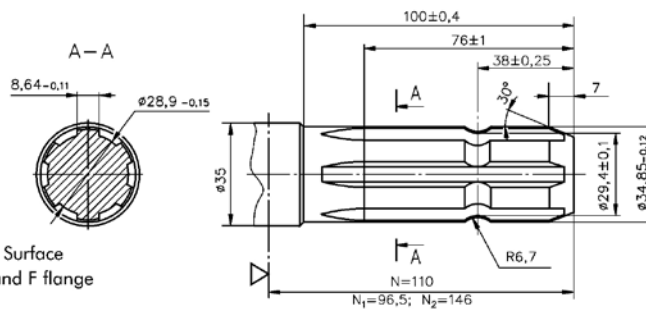
CO - $\phi 1\frac{1}{4}$ " straight, Parallel key $\frac{5}{16}$ "x $\frac{5}{16}$ "x $1\frac{1}{4}$ "BS46
Max. Torque 77 daNm



SH - $\phi 1\frac{1}{4}$ " splined 14T, DP12/24 ANSI B92.1-1976
Max. Torque 95 daNm



SL - $\phi 34,85$ p.t.o. DIN 9611 Form 1
Max. Torque 77 daNm



▽ - Motor Mounting Surface
N - for standart, A and F flange
N₁ - for Q flange
N₂ - for W flange

EL-V SERIES
TECHNICAL SPECIFICATION

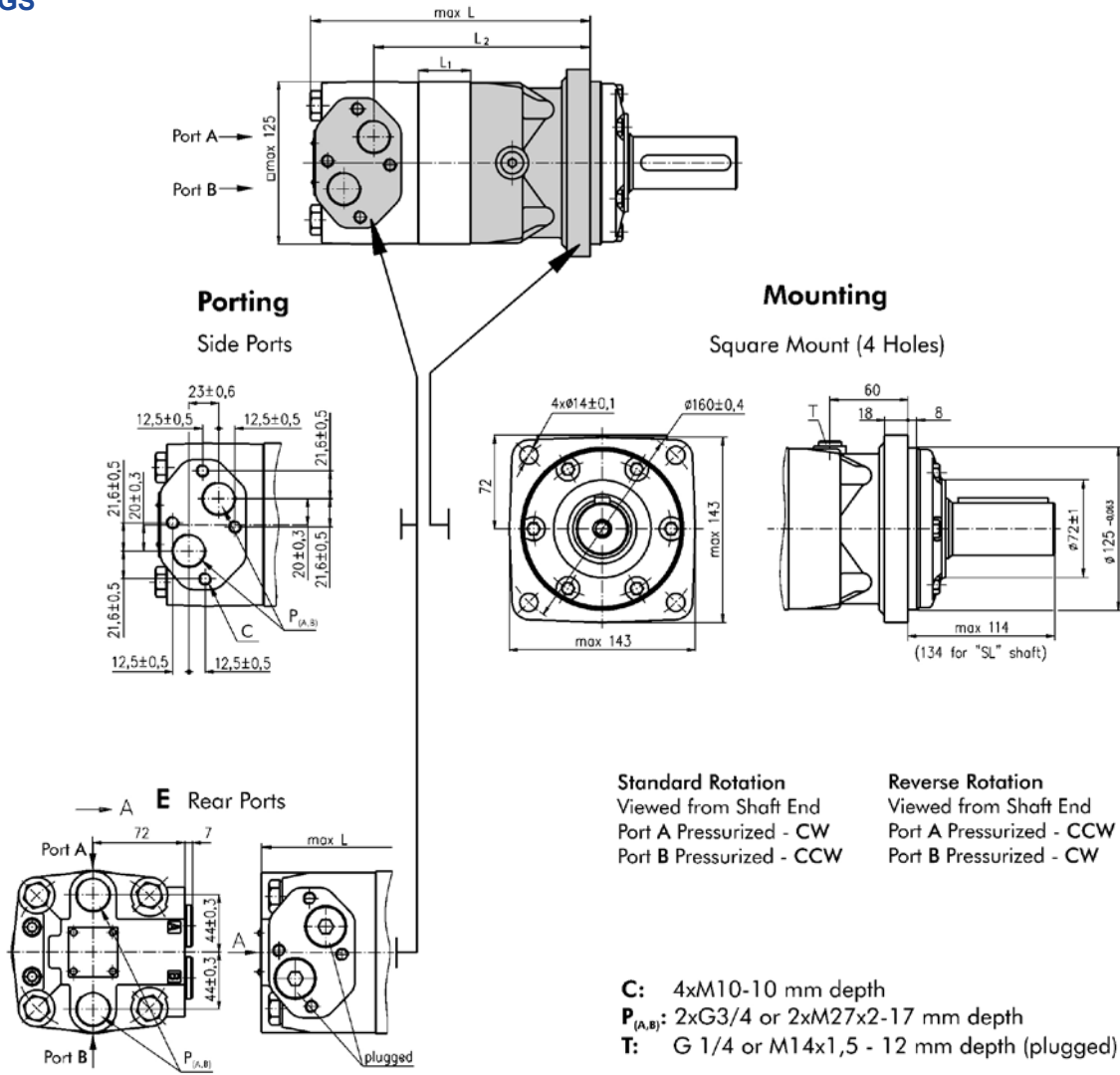
		Model										
		EL-V	80	100	125	160	200	250	315	400		
Displacement	cm ³ /rev ⁻¹		80,5	100	125,7	159,7	200	250	314,9	397		
Max. speed	rpm	cont.	810	750	600	470	375	300	240	185		
Max. torque	daNm	cont.	23	28,5	32	34	40	45	54	58		
		int.	25,8	32	38	48	50	54	63	69		
Max. output	kW	cont.	18,2	19,5	17,5	15,5	14	12,5	11,5	10		
		int.	22	22,5	21	21	17,5	15	13,5	13		
Max. pressure drop	bar	cont.	200	200	175	175	140	125	120	100		
		int.	225	225	210	210	175	155	140	120		
Max. oil flow	L min ⁻¹	cont.	65	75	75	75	75	75	75	75		
Dimensions	mm	L	(A)	168	171	176	182	189	197	209	223	
			F									
			E									
			FE	+5	+6		+5		+6		+5	
			Q	+11	+12		+11		+12	+11	+12	
		L ₁	QE	+17	+18		+17		+18	+17	+18	
			(A)E	QE	14	17,4	21,8	27,8	34,8	43,5	54,8	69,4
				(A)								
			L ₂	F	124	129	132	138	145	154	165	179
				Q	136	140	144	150	157	160	177	192
Weight	kg	(F)	9,9	10,1	10,4	10,8	11,2	11,7	12,4	13,3		
		(F)E										
		Q					+0,4					
		QE					+0,4					

For EL-V series, also available the following options:

- ⊗ wheel motor version (EL-VW)
- ⊗ short versions
- ⊗ speed sensor
- ⊗ low leakage
- ⊗ low speed valve

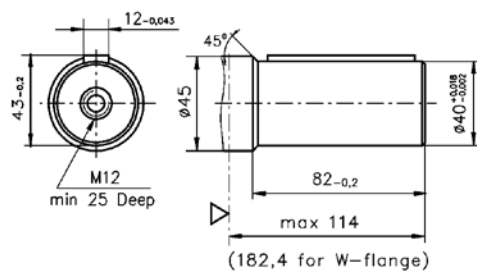
EL-T SERIES

DRAWINGS

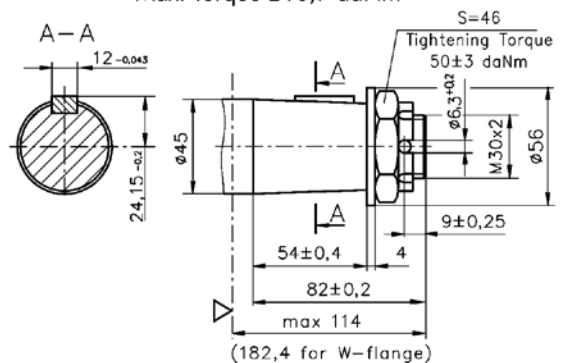


SHAFT ENDS

C - $\varnothing 40$ straight, Parallel key A12x8x70 DIN 6885
Max. Torque 132,8 daNm

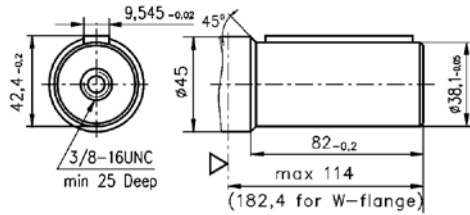


K -tapered 1:10, Parallel key B12x8x28 DIN 6885
Max. Torque 210,7 daNm

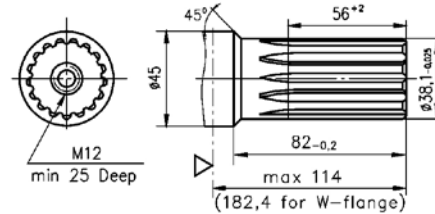


EL-T SERIES
SHAFT ENDS

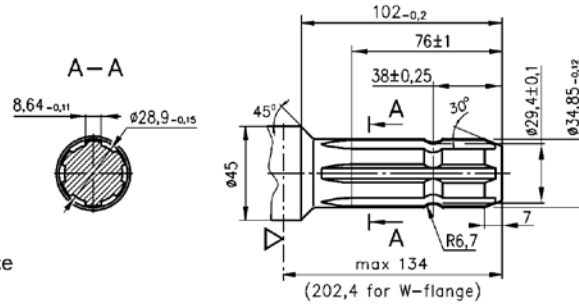
CO - $\phi 1\frac{1}{2}$ " straight, Parallel key $\frac{3}{8}$ "x $\frac{3}{8}$ "x $2\frac{1}{4}$ " BS46
Max. Torque 132,8 daNm



SH - $\phi 1\frac{1}{2}$ " splined 17T, DP 12/24 ANSI B92.1-1976
Max. Torque 132,8 daNm



SL - $\phi 34,85$ p.t.o. DIN 9611 Form 1
Max. Torque 77 daNm



▽ - Motor Mounting Surface

TECHNICAL SPECIFICATION

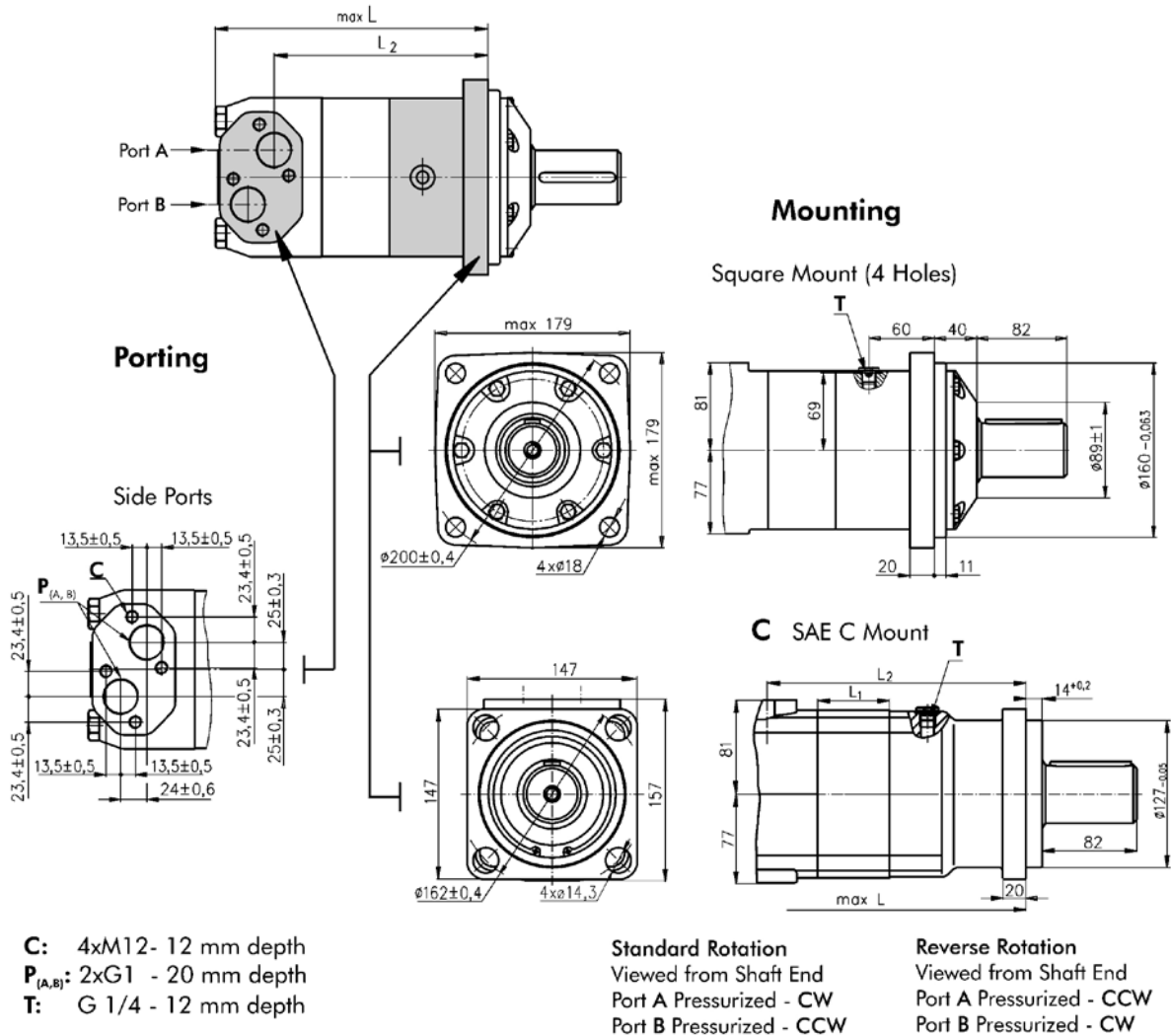
		Model						
		EL-T	160	200	250	315	400	500
Displacement	cm ³ /rev ⁻¹		161,1	201,4	251,8	326,3	410,9	523,6
Max. speed	rpm	cont.	625	625	500	380	305	240
Max. torque	daNm	cont.	47	59	73	95	108	122
		int.	56	71	88	144	126	137
Max. output	kW	cont.	26,5	33,5	33,5	33,5	30	26,5
		int.	32	40	40	40	35	30
Max. pressure drop	bar	cont.	200	200	200	200	180	160
		int.	240	240	240	240	210	180
Max. oil flow	L min ⁻¹	cont.	100	125	125	125	125	125
Dimensions	L		190	195	201	211	221	235
	L ₁					+10		
Weight	kg		140	145	151	161	171	185
			20	20,5	21	22	23	24

For EL-T series, also available the following options:

- ⊕ wheel motor version (EL-TW)
- ⊕ short versions
- ⊕ tachometer connection
- ⊕ speed sensor
- ⊕ low leakage
- ⊕ low speed valve

EL-TA SERIES

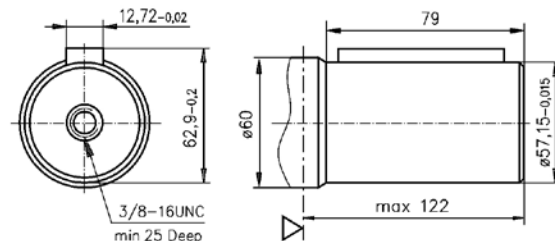
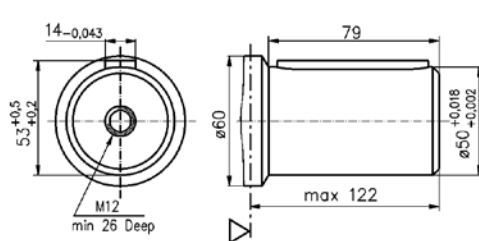
DRAWINGS



SHAFT ENDS

C - $\phi 50$ straight, Parallel key A14x9x70 DIN 6885

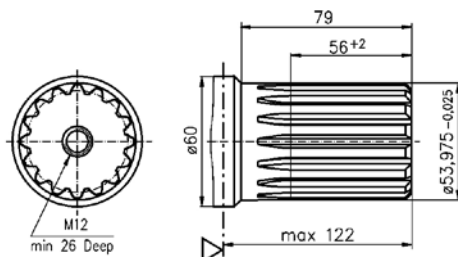
CO - $\phi 2\frac{1}{4}$ "[57,15] straight, Parallel key $\frac{1}{2}$ "x $\frac{1}{2}$ "x $2\frac{1}{4}$ " BS46



EL-TA SERIES

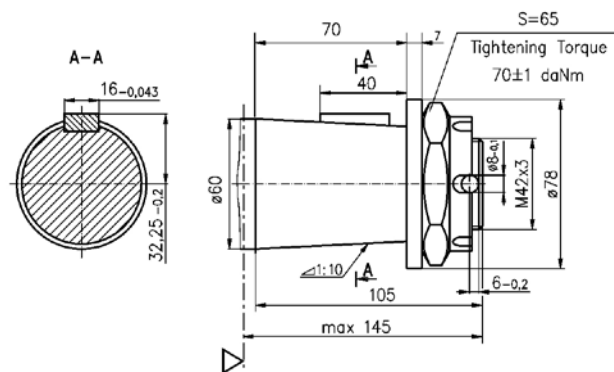
SHAFT ENDS

SH - $\phi 2 \frac{1}{8}$ "splined, 16 DP 8/16 ANS B92.1-1976



▽ - Motor Mounting Surface

K -tapered 1:10, Parallel key B16x10x32 DIN 6885



TECHNICAL SPECIFICATION

		Model					
		EL-TA	315	400	500	630	800
Displacement	cm ³ /rev ⁻¹		314,5	400,9	499,6	629,1	801,8
Max. speed	rpm	cont.	510	500	400	315	250
Max. torque	daNm	cont.	92	118	146	166	188
		int.	111	141	176	194	211
Max. output	kW	cont.	42,5	53,5	53,3	48	42,5
		int.	51	64	64	56	48
Max. pressure drop	bar	cont.	200	200	200	180	160
		int.	240	240	240	210	180
Max. oil flow	L min ⁻¹	cont.	160	200	200	200	200
Dimensions	L		214,5	221,5	229,5	240	254
	L ₂	mm			+23,75		
Weight	kg	C	184,26	191,26	199,26	209,76	223,76
			31,8	32,6	33,5	34,9	36,5

For EL-TA series, also available the following options:

- ⚙ wheel motor version (EL-TAW)
- ⚙ speed sensor
- ⚙ short version
- ⚙ low leakage
- ⚙ tachometer connection
- ⚙ low speed valve

Also available multi-disc brakes with hydraulic release and overcenter, switch and crossover relief valves, flangeable on the whole range of orbital motors.

Information contained in this catalogue is accurate as of the publication date and is subject to change without notice.

Performance values are typical values. Customers are responsible for selecting products for their applications using normal engineering methods.



SMIT
hydraulics

SMIT Hydraulics

Via Pietro Giardini, 318
41100 Modena - ITALY

info@smithydraulics.it
www.smithydraulics.it

PHONE

+39 059 596 77 44
+39 059 596 77 45

FAX

+39 059 596 08 80
+39 059 596 08 88

(Domestic market)

(International market)