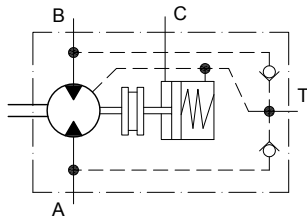
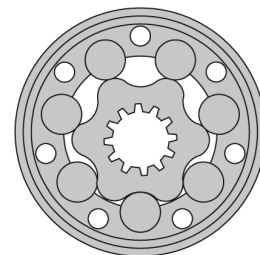


HYDRAULIC MOTOR-BRAKE ORBR



OIL FLOW IN DRAIN LINE

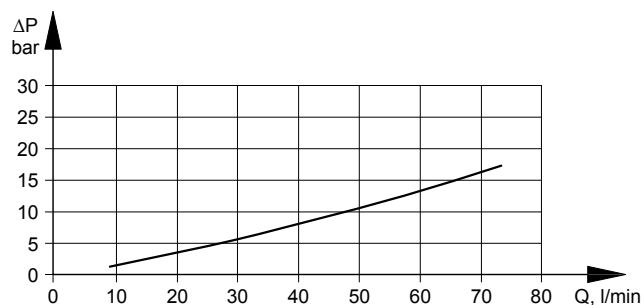
Pressure drop (bar)	Viscosity (mm ² /s)	Oil flow in drain line (l/min)
100	20	2,5
	35	1,8
140	20	3,5
	35	2,8



GENERAL

Displacement, (cm ³ /rev)	50 ÷ 400
Max. Speed, (RPM)	166 ÷ 509
Max. Torque, (daNm)	10,5 ÷ 47
Max. Output, (kW)	5,2 ÷ 15
Max. Pressure Drop, (bar)	45 ÷ 175
Max. Oil Flow, (l/min)	27 ÷ 60
Min. speed, (RPM)	10
Pressure fluid	Mineral based - HLP (DIN 51524) or HM (ISO 6743/4)
Temperature range, (°C)	- 30 ÷ 90
Optimal Viscosity range, (mm ² /s)	20 ÷ 75
Filtration	ISO code 20/16 (Min. recommended fluid filtration of 25 micron)

PRESSURE LOSSES

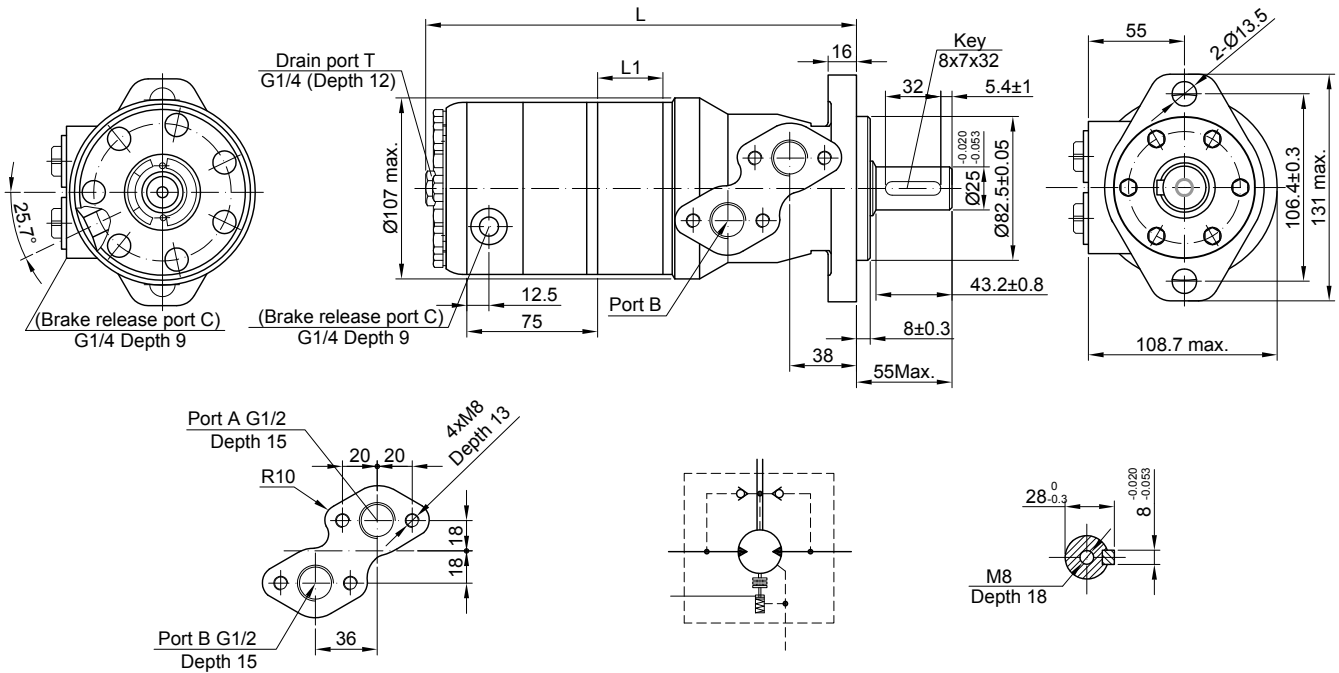


SPECIFICATION DATA

Type		ORBR 50	ORBR 80	ORBR 100	ORBR 125	ORBR 160C	ORBR 160CB	ORBR 200C	ORBR 200CB	ORBR 250C	ORBR 250CB	ORBR 315C	ORBR 315CB	ORBR 400C	ORBR 400CB
Displacement [cm ³ /rev]		51,7	81,5	102	128	157		195		253		318		381	
Max. Speed, [min ⁻¹]	cont.	509	500	497	460	375		300		230		184		166	
	int.	603	600	574	574	465		375		290		230		192	
Max. Torque [daNm]	cont.	10,5	19,5	25	32	30	39	30	36	30	44	30	45	30	47
	int.	12	22	28	35	39	43	39	40,5	39	48	42	51,2	43	53
	peak	14	27	32	38	46	46	50	50	60	60	60	63	60	67
Max. Output [kW]	cont.	5,5	10,7	13,2	15	12	13,7	9,6	11,3	7,3	10,6	5,8	8,8	5,2	8,1
	int.	5,6	12	15	16,5	13,4	15,2	10,7	13,1	8,2	14,3	6,6	12,1	5,5	10,5
Max. Pressure Drop [bar]	cont.	140	175	175	175	135	175	105	130	85	120	65	100	45	85
	int.	175	200	200	200	175	200	145	175	115	130	90	110	75	95
	peak	220	225	225	225	225	225	225	195	200	160	150	135	120	110
Max. Oil Flow [l/min]	cont.	27	42	52	60	60		60				60			
	int.	32	50	60	75	75		75				75			
Max. Inlet Pressure, [bar]	cont.					175						175			
	int.					200						200			
	peak					240						240			
Max. Starting Pressure [bar]		10	10	10	9	7		5		5		5		5	
Min. Starting Torque, [daNm]	at max press. drop cont.	9,5	15	20	25	24	32	26	41	24	50	26	50	24	44
	at max press. drop int.	10,8	17	23	28	32	37	33	46	31	51,5	35	51,8	38	50
Min. Speed, [min ⁻¹]		10	10	10	10	10	10	10	10	10	10	10	10	10	10
Static Torque of Brake, [daNm]		51 ÷ 55													
Min.Brake Release Pressure, [bar]		17 ÷ 21													
Max.Opening Pressure, [bar]		240													
Weight, [kg]		11,7	11,9	11,9	12,2	12,5	12,6	13	13,1	13,5	13,6	14	14,1	14,5	14,6

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

OUTLINE DIMENSIONS REFERENCE

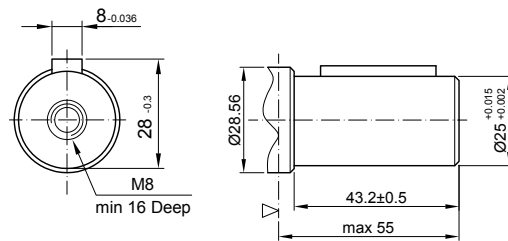


SPECIFICATION DATA

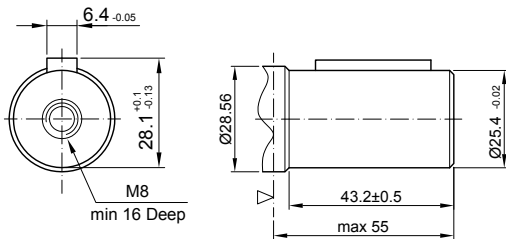
Type	Displacement [ml/r]	L
ORBR 50	51,7	217
ORBR 80	81,5	223
ORBR 100	102	227
ORBR 125	128	232
ORBR 160	157	237,5
ORBR 200	195	245
ORBR 250	253	257
ORBR 315	318	269
ORBR 400	381	281

SHAFT EXTENSIONS FOR ORBR MOTORS

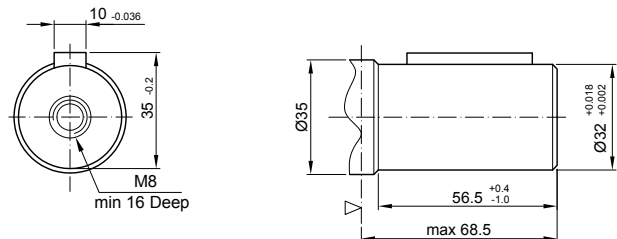
C Ø25 straight, Parallel key A8x7x32 DIN 6885
Max. Torque 34 daNm



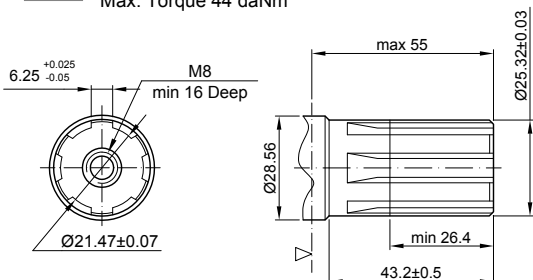
CO Ø1" straight, Parallel key 1/4"x1/4"x1 1/4" BS46
Max. Torque 44 daNm



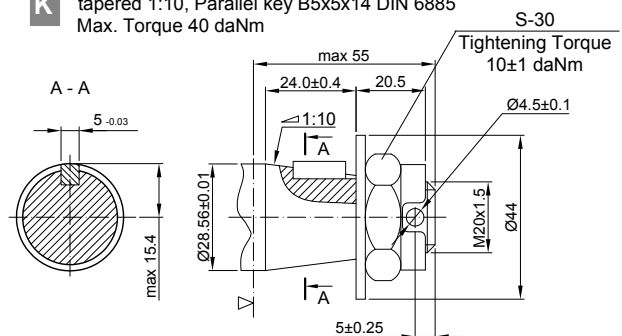
CB Ø32 straight, Parallel key A10x8x45 DIN 6885
Max. Torque 77 daNm



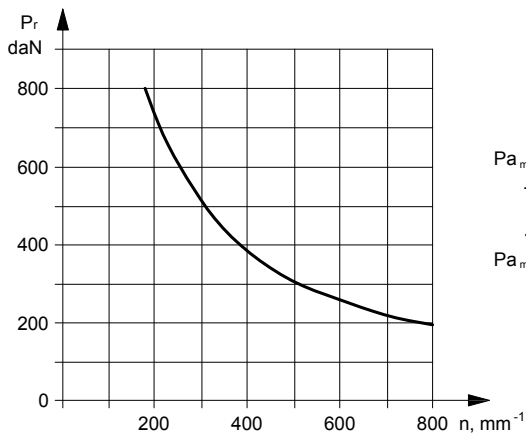
SH splined, BS 2059 (SAE 6B)
Max. Torque 44 daNm



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

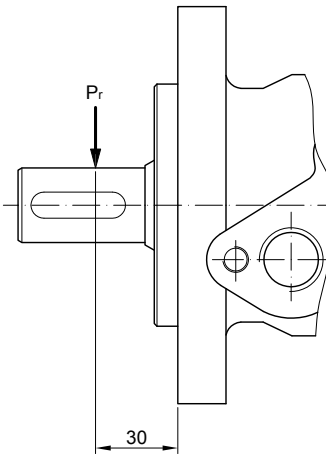


PERMISSIBLE SHAFT LOADS



$P_{a_{max}} = 150 \text{ daN}$

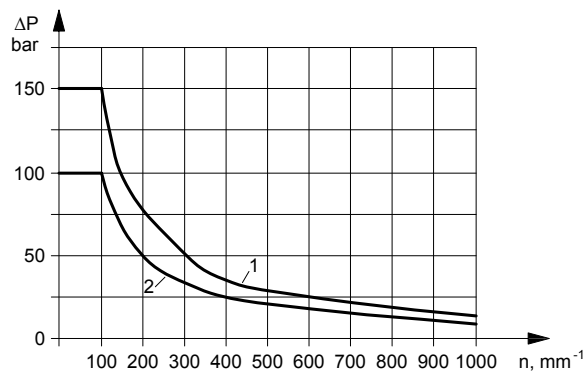
$P_{a_{max}} = 200 \text{ daN}$



For Rotation speed $n \geq 200 \text{ min}^{-1}$
and distance $L \neq 300 \text{ mm}$
the radial load could be
calculated by

$$Pr = \frac{800}{n} \times \frac{25000}{95+L}, \text{ daN}$$

MAX. PERMISSIBLE SHAFT SEAL PRESSURE



1: Drawing for "C" shaft
2: Drawing for "CB" shaft

ORDER CODE

1 2 3 4
ORBR

1	Displacement code
50	51,7 [cm³/rev]
80	81,5 [cm³/rev]
100	102 [cm³/rev]
125	128 [cm³/rev]
160	157 [cm³/rev]
200	195 [cm³/rev]
250	253 [cm³/rev]
315	318 [cm³/rev]
400	381 [cm³/rev]

2	Shaft Extensions
C	ø25 straight, Parallel key A8x7x32 DIN6885
CO	ø1" straight, Parallel key 1/4"x1/4"x1 1/4" BS46
CB	ø32 straight, Parallel key A10x8x45 DIN6885
SH	ø25,32 splined BS 2059 (SAE 6B)
K	ø28,56 tapered 1:10, Parallel key B5x5x14 DIN6885

The permissible output torque for shafts must be not exceeded!