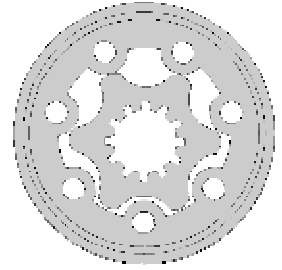


HYDRAULIC MOTORS PK

APPLICATION

- » Conveyors
- » Feeding mechanism of robots and manipulators
- » Metal working machines
- » Textile machines
- » Machines for agriculture
- » Food industries
- » Mining machinery etc.



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OPTIONS

- » Model- Spool valve, gerotor
- » Antifriction conical bearing
- » Flange mount
- » Shafts- straight, splined and tapered
- » Metric and BSPP ports
- » Other special features

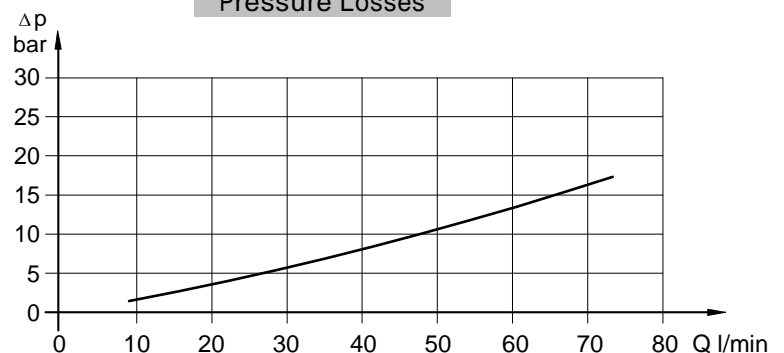
GENERAL

Displacement, [cm ³ /rev.]	49,5÷396
Max. Speed, [RPM]	150÷1210
Max. Torque, [daNm]	9,4÷41
Max. Output, [kW]	3,4÷5,2
Max. Pressure Drop, [bar]	95÷140
Max. Oil Flow, [l/min]	40÷60
Min. Speed, [RPM]	10
Permissible Shaft Loads, [daN]	P _a =500
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)

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

Pressure Losses



SPECIFICATION DATA

Type	PK 50	PK 80	PK 100	PK 125	PK 160	PK 200	PK 250	PK 315	PK 400	
Displacement, [cm. ³ /rev.]	49,5	79,2	99	123,8	158,4	198	247,5	316,8	396	
Max. Speed, [RPM]	Cont.	808	505	404	323	252	202	160	126	100
	Int.*	1010	630	505	403	315	252	202	157	126
Max. Torque [daNm]	Cont.	7	10,8	14,4	17	22	27,5	30,1	31,7	40,8
	Int.*	9,2	14,6	18,3	22,9	29,3	36,6	37,6	44	55,6
	Peak**	13,6	21,4	26,1	32,6	41,8	52,2	51,5	64,3	80
Max. Output [kW]	Cont.	5,2	5,2	5,2	5,2	5,2	5,2	4,6	3,4	3,4
	Int.*	8,6	8,6	8,6	8,6	8,6	8,6	7	5,8	5,8
Max. Pressure Drop [bar]	Cont.	105	105	105	105	105	105	90	70	70
	Int.*	140	140	140	140	140	140	115	105	105
	Peak**	215	215	215	215	215	215	170	170	170
Max. Oil Flow [l/min]	Cont.	40	40	40	40	40	40	40	40	40
	Int.*	50	50	50	50	50	50	50	50	50
Max. Inlet Pressure [bar]	Cont.	140	140	140	140	140	140	140	140	140
	Int.*	175	175	175	175	175	175	175	175	175
	Peak**	225	225	225	225	225	225	225	225	225
Max. Return Pressure without Drain Line or Max. Pressure in Drain Line, [bar]	Cont. 0-100 RPM	150	150	150	150	150	150	150	150	150
	Cont. 100-300 RPM	75	75	75	75	75	75	75	75	75
	Cont. 300-600 RPM	50	50	50	50	50	50	50	50	50
	Cont. >600 RPM	20	20	20	20	20	20	20	20	20
	Int.* 0-max. RPM	15	15	15	15	15	15	15	15	15
Max. Starting Pressure with Unloaded Shaft, [bar]	10	10	10	10	10	10	10	10	10	
Min. Starting Torque [daNm]	5,8	9,1	12,2	14,5	19,5	24,8	27,5	29	35,9	
Min. Speed***, [RPM]	10	10	10	10	10	10	10	10	10	
Weight, [kg]	5	5,1	5,3	5,4	5,6	5,8	6	6,3	6,8	

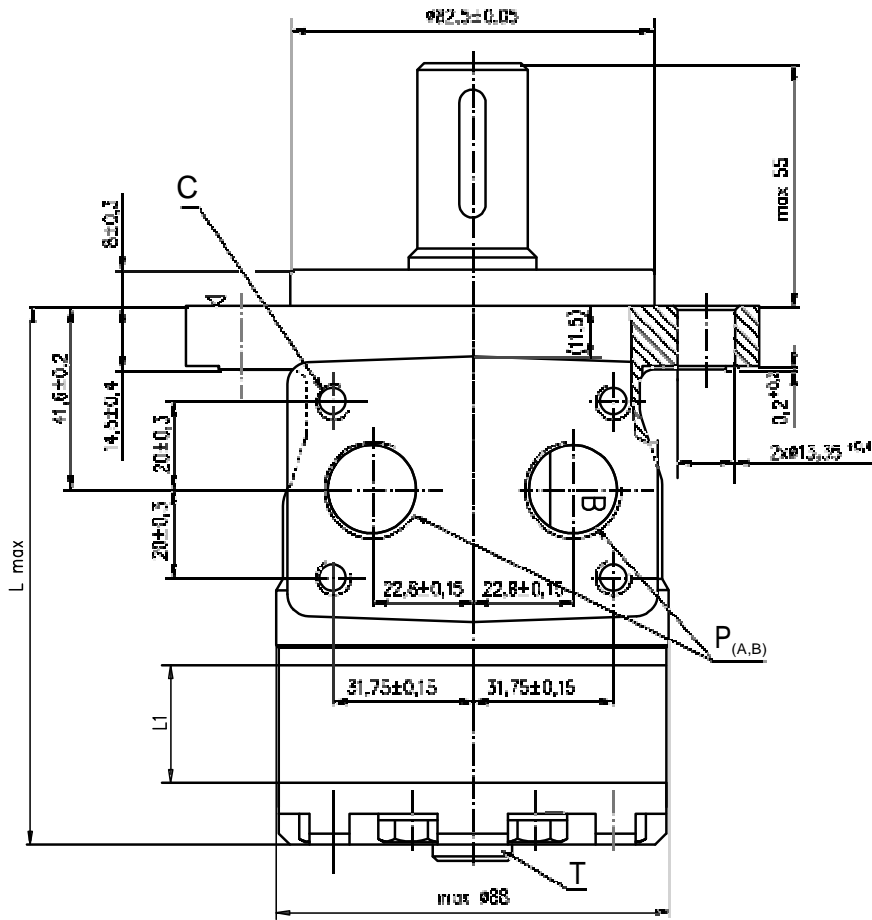
* Intermittent operation: the permissible values may occur for max. 10% of every minute.

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

*** For speeds of 10 RPM or lower, consult factory or your regional manager.

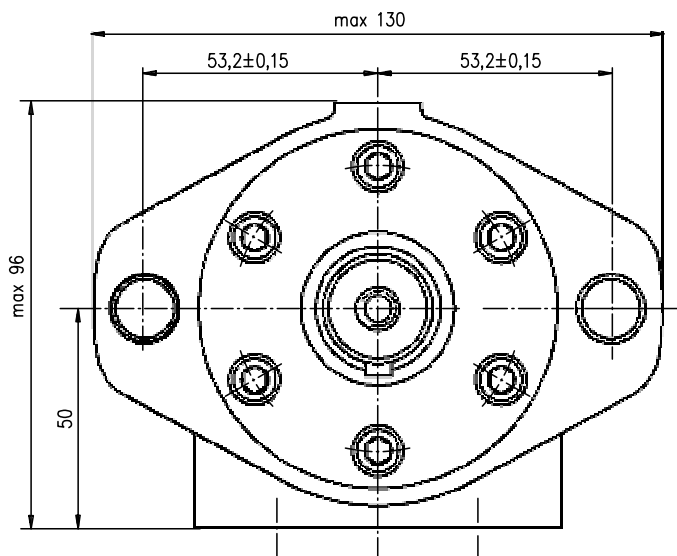
1. Intermittent speed and intermittent pressure drop must not occur simultaneously.
2. Recommended filtration is per ISO cleanliness code 20/16. A nominal filtration of 25 micron or better.
3. Recommended using a premium quality, anti-wear type mineral based hydraulic oil HLP(DIN51524) or HM (ISO 6743/4).
If using synthetic fluids consult the factory for alternative seal materials.
4. Recommended minimum oil viscosity 13 mm²/s at operating temperatures.
5. Recommended maximum system operating temperature is 82°C.
6. To assure optimum motor life fill with fluid prior to loading and run at moderate load and speed for 10-15 minutes.

OUTLINE DIMENSIONS REFERENCE



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

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

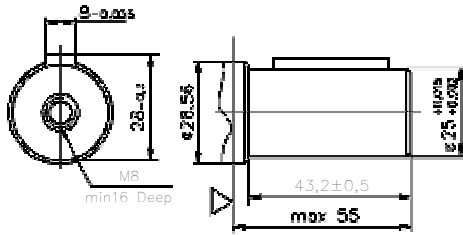


Type	L, mm	L ₁ , mm
PK 50	102,5	6,67
PK 80	106,5	10,67
PK 100	109	13,33
PK 125	112,5	16,67
PK 160	117	21,33
PK 200	122,5	26,67
PK 250	129	33,33
PK 300	138,5	42,67
PK 400	149	53,33

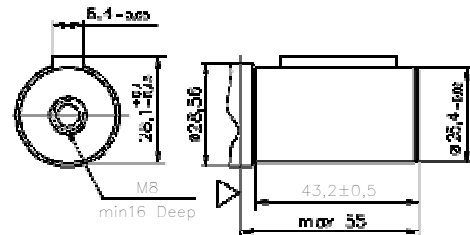
C : 4xM8 - 13 mm depth
P_(A, B): 2xG1/2 or 2xM22x1,5 - 15 mm depth
T : G1/4 or M14x1,5 - 8,5 mm depth (plugged)

SHAFT EXTENSIONS

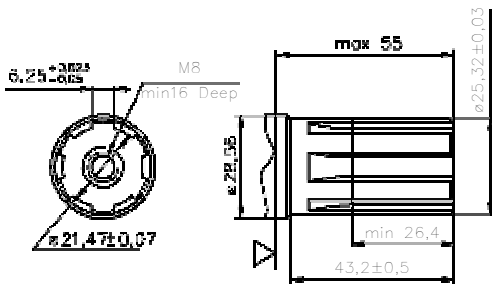
C $\varnothing 25$ straight, Parallel key A8x7x32 DIN 6885
Max. Torque 34 daNm



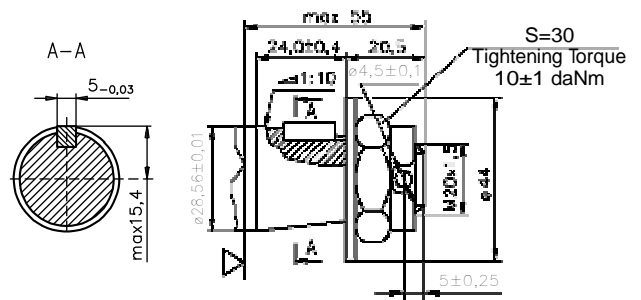
CO $\varnothing 25,4$ straight, Parallel key $1/4 \times 1/4 \times 1/4$ BS46
Max. Torque 34 daNm



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

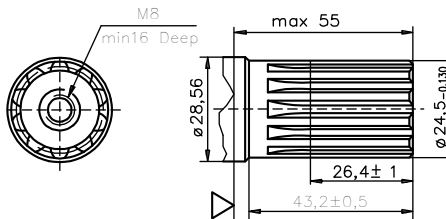


K Tapered 1:10 Parallel key B5x5x14 DIN 6885
Max. Torque 40 daNm



SA Splined, B25x22h9 DIN 5482
Max. Torque 40 daNm

▽ Motor Mounting Surface



ORDER CODE

	1	2	3	4	5
PK					

Pos.1 - Displacement code

50	-	49,5 [cm ³ /rev]
80	-	79,2 [cm ³ /rev]
100	-	99,0 [cm ³ /rev]
125	-	123,8 [cm ³ /rev]
160	-	158,4 [cm ³ /rev]
200	-	198,0 [cm ³ /rev]
250	-	247,5 [cm ³ /rev]
315	-	316,8 [cm ³ /rev]
400	-	398,0 [cm ³ /rev]

Pos.2 - Shaft Extensions*

C	-	$\varnothing 25$ straight, Parallel key A8x7x32 DIN6885
CO	-	$\varnothing 25,4$ straight, Parallel key $1/4 \times 1/4 \times 1/4$ BS46
SH	-	$\varnothing 25,32$ splined BS 2059 (SAE 6B)
K	-	$\varnothing 28,56$ tapered 1:10, Parallel key, B5x5x14 DIN6885
SA	-	$\varnothing 24,5$ splined B25x22h9 DIN 5482

Pos. 3 - Ports

omit	-	BSP (ISO 228)
M	-	Metric (ISO 262)

Pos. 4 - Special Features (see page 53)

Pos. 5 - Design Series

omit - Factory specified

NOTE:

* The permissible output torque for shafts must be not exceeded!

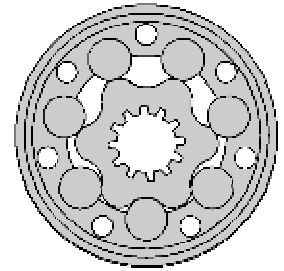
The hydraulic motors are mangano-phosphatized as standard.

HYDRAULIC MOTORS RK



APPLICATION

- » Conveyors
- » Feeding mechanism of robots and manipulators
- » Metal working machines
- » Textile machines
- » Machines for agriculture
- » Food industries
- » Mining machinery etc.



CONTENTS

Specification data 43
 Dimensions and mounting ... 44
 Shaft extensions 45
 Order code 45

OPTIONS

- » Model- Spool valve, gerotor
- » Antifriction conical bearing
- » Flange mount
- » Shafts- straight, splined and tapered
- » Metric and BSPP ports
- » Other special features

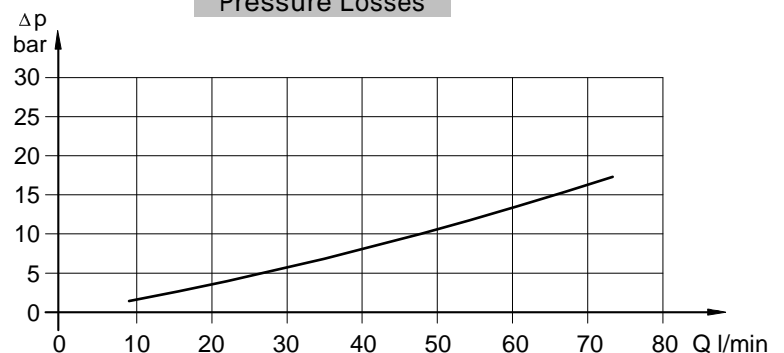
GENERAL

Displacement, [cm ³ /rev.]	51,5÷397
Max. Speed, [RPM]	150÷775
Max. Torque, [daNm]	10÷40
Max. Output, [kW]	6,2÷10,8
Max. Pressure Drop, [bar]	75÷140
Max. Oil Flow, [l/min]	40÷60
Min. Speed, [RPM]	10
Permissible Shaft Loads, [daN]	P _a =500
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)

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

Pressure Losses



SPECIFICATION DATA

Type		RK 50	RK 80	RK 100	RK 125	RK 160	RK 200	RK 250	RK 315	RK 400
Displacement, [cm. ³ /rev.]		51,5	80,3	99,8	125,5	159,6	199,8	250,1	315,7	397
Max. Speed, [RPM]	Cont.	775	750	600	475	375	300	240	190	150
	Int.*	970	940	750	600	470	375	300	240	185
Max. Torque [daNm]	Cont.	10	15,7	19,8	25	32	34	40	40	40
	Int.*	13	19,5	24	30	39	42	47	50	50
	Peak**	17	27	32	37	46	56	64	65	65
Max. Output [kW]	Cont.	9	10,4	10,8	10,8	10,4	8,8	8,1	7,4	6,2
	Int.*	10,4	12,6	12,8	12,5	11,5	10,2	9,4	7,8	7,1
Max. Pressure Drop [bar]	Cont.	140	140	140	140	140	125	110	90	75
	Int.*	175	175	175	175	175	155	140	125	90
	Peak**	225	225	225	225	225	225	200	150	120
Max. Oil Flow [l/min]	Cont.	40	60	60	60	60	60	60	60	60
	Int.*	50	75	75	75	75	75	75	75	75
Max. Inlet Pressure [bar]	Cont.	175	175	175	175	175	175	175	175	175
	Int.*	200	200	200	200	200	200	200	200	200
	Peak**	225	225	225	225	225	225	225	225	225
Max. Return Pressure without Drain Line or Max. Pressure in Drain Line, [bar]	Cont. 0-100 RPM	150	150	150	150	150	150	150	150	150
	Cont. 100-300 RPM	75	75	75	75	75	75	75	75	75
	Cont. 300-600 RPM	50	50	50	50	50	50	50	50	50
	Cont. >600 RPM	20	20	20	20	20	20	20	20	20
	Int.* 0-max. RPM	15	15	15	15	15	15	15	15	15
Max. Starting Pressure with Unloaded Shaft, [bar]		10	10	10	10	10	10	10	10	10
Min. Starting Torque [daNm]		8	12	16	20	25	29	28	32	35
Min. Speed***, [RPM]		10	10	10	10	10	10	10	10	10
Weight, [kg]		6,2	6,3	6,6	6,7	6,9	7,4	7,8	8,5	9,3

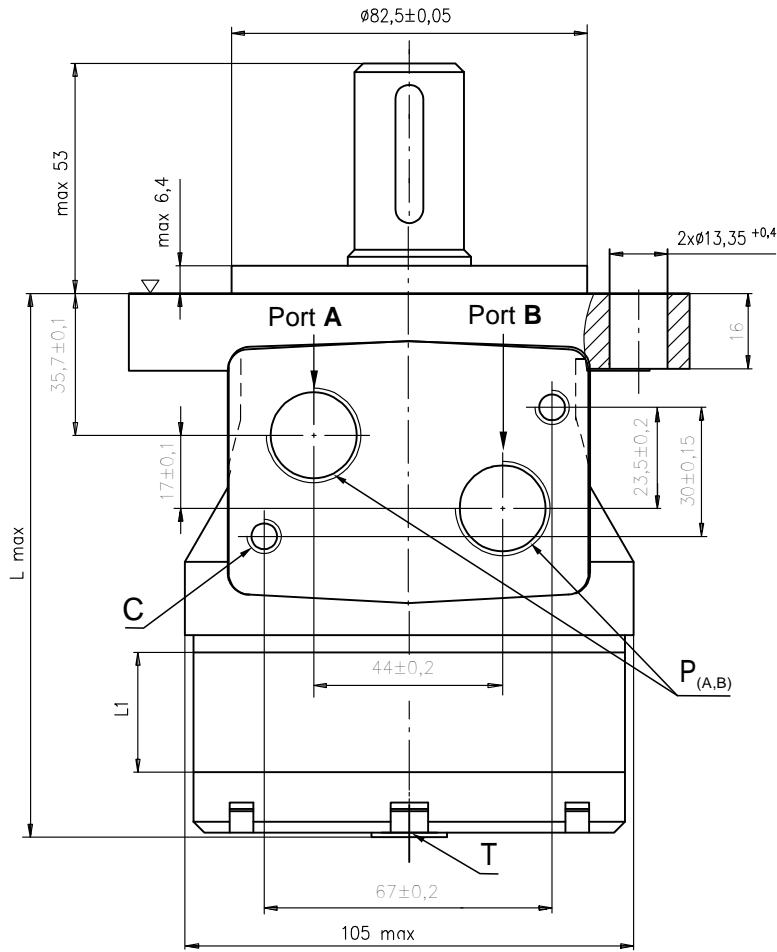
* Intermittent operation: the permissible values may occur for max. 10% of every minute.

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

*** For speeds of 10 RPM or lower, consult factory or your regional manager.

1. Intermittent speed and intermittent pressure drop must not occur simultaneously.
2. Recommended filtration is per ISO cleanliness code 20/16. A nominal filtration of 25 micron or better.
3. Recommended using a premium quality, anti-wear type mineral based hydraulic oil HLP(DIN51524) or HM (ISO 6743/4).
If using synthetic fluids consult the factory for alternative seal materials.
4. Recommended minimum oil viscosity 13 mm²/s at operating temperatures.
5. Recommended maximum system operating temperature is 82°C.
6. To assure optimum motor life fill with fluid prior to loading and run at moderate load and speed for 10-15 minutes.

OUTLINE DIMENSIONS REFERENCE



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

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

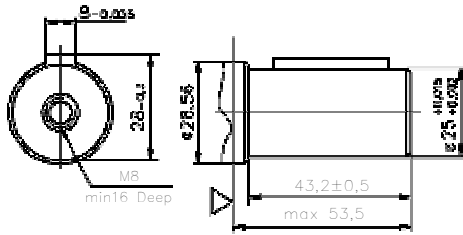
max 108

Type	L, mm	L ₁ , mm
RK 50	109,5	9,0
RK 80	114,5	14,0
RK 100	118	17,4
RK 125	122,5	21,8
RK 160	128,5	27,8
RK 200	135,5	34,8
RK 250	144	43,5
RK 300	155,5	54,8
RK 400	170	69,4

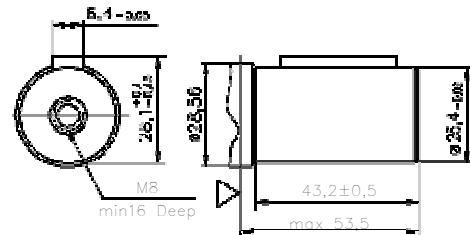
C : 2xM8 - 13 mm depth
P_(A,B): 2xG1/2 - 15 mm depth
T : G1/4 - 8,5 mm depth (plugged)

SHAFT EXTENSIONS

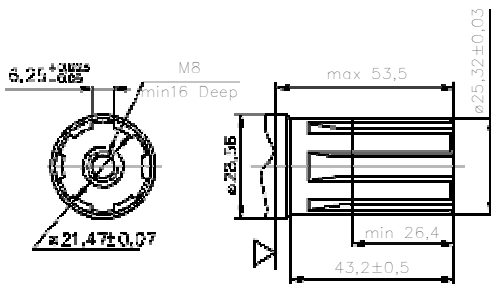
C $\varnothing 25$ straight, Parallel key A8x7x32 DIN 6885
Max. Torque 34 daNm



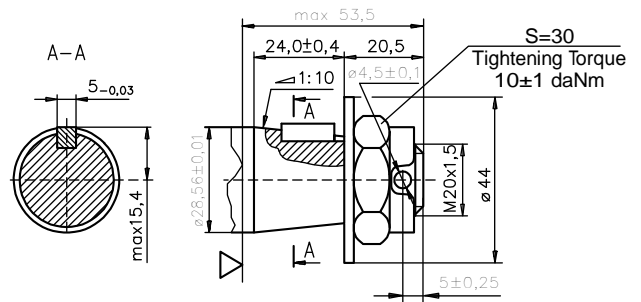
CO $\varnothing 25,4$ straight, Parallel key $1/4 \times 1/4 \times 1/4$ BS46
Max. Torque 34 daNm



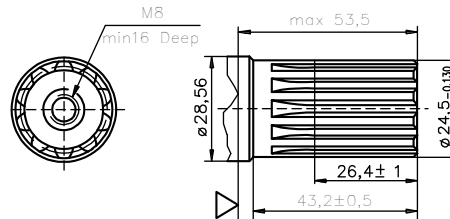
SH Splined, BS 2059 (SAE 6B)
Max. Torque 40 daNm



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



SA Splined, B25x22h9 DIN 5482
Max. Torque 40 daNm



▽- Motor Mounting Surface

ORDER CODE

1	2	3	4
R	K		

Pos.1 - Displacement code

50	-	51,5 [cm ³ /rev]
80	-	80,3 [cm ³ /rev]
100	-	99,8 [cm ³ /rev]
125	-	125,7 [cm ³ /rev]
160	-	159,6 [cm ³ /rev]
200	-	199,8 [cm ³ /rev]
250	-	250,1 [cm ³ /rev]
315	-	315,7 [cm ³ /rev]
400	-	397,0 [cm ³ /rev]

Pos.2 - Shaft Extensions*

C	-	$\varnothing 25$ straight, Parallel key A8x7x32 DIN6885
CO	-	$\varnothing 25,4$ straight, Parallel key $1/4 \times 1/4 \times 1/4$ BS46
SH	-	$\varnothing 25,32$ splined BS 2059 (SAE 6B)
K	-	$\varnothing 28,56$ tapered 1:10, Parallel key, B5x5x14 DIN6885
SA	-	$\varnothing 24,5$ splined B25x22h9 DIN 5482

Pos. 3 - Special Features (see page 53)

Pos. 4 - Design Series

omit - Factory specified

NOTE:

* The permissible output torque for shafts must not be exceeded!

The hydraulic motors are mangano-phosphatized as standard.

ООО «Кама-Флекс-Гидравлика» (8552) 44-33-58

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