

Part number:

HYDROMA

HYDRAULICKÉ SYSTÉMY

**HIDROMA
SYSTEMS**

UKŁADY HYDRAULICZNE

HYDROMA

ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

FEATURES

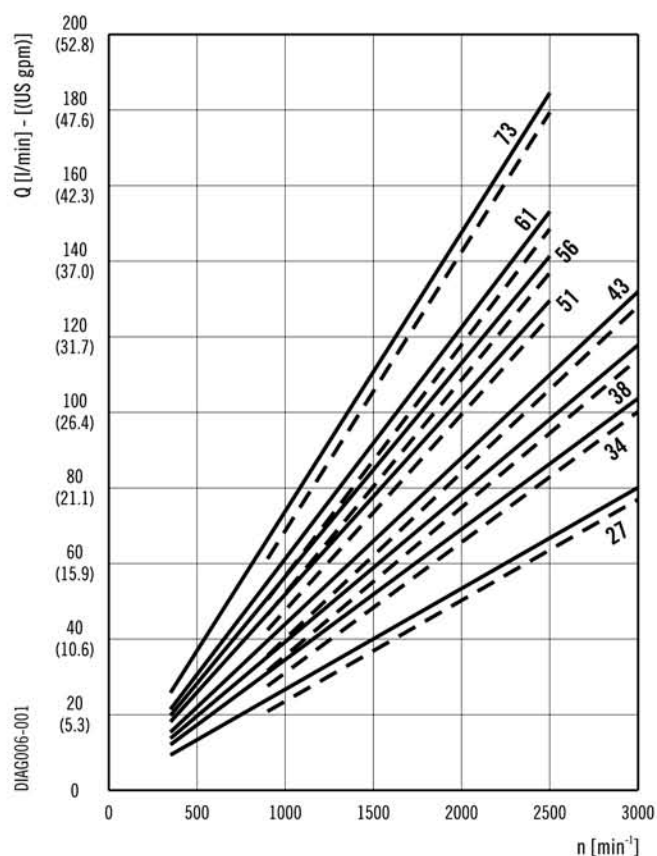
Pump type Motor type	Displacement	Body design	Characteristics	Max. pressure			Max. speed	Min. speed
				p ₁	p ₂	p ₃		
	cm ³ /rev (in ³ /rev)			bar (psi)				
K. 30•22	21,99 (1.34)	HSC / KSL	Compact	260 (3770)	280 (4060)	300 (4350)	3000	350
		CSC / CSL	Standard	270 (3915)	290 (4205)	310 (4495)		
		BSC / BSL	High performance	280 (4060)	300 (4350)	320 (4640)		
K. 30•27	26,7 (1.63)	HSC / KSL	Compact	240 (3480)	260 (3770)	280 (4060)	3000	350
		CSC / CSL	Standard	270 (3915)	290 (4205)	310 (4495)		
		BSC / BSL	High performance	280 (4060)	300 (4350)	320 (4640)		
K. 30•31	30,63 (1.87)	HSC / KSL	Compact	220 (3190)	240 (3480)	260 (3770)	3000	350
		CSC / CSL	Standard	250 (3625)	270 (3915)	290 (4205)		
		BSC / BSL	High performance	280 (4060)	300 (4350)	320 (4640)		
K. 30•34	34,56 (2.11)	HSC / KSL	Compact	210 (3045)	230 (3335)	250 (3625)	3000	350
		CSC / CSL	Standard	250 (3625)	270 (3915)	290 (4205)		
		BSC / BSL	High performance	280 (4060)	300 (4350)	320 (4640)		
K. 30•38	39,27 (2.40)	HSC / KSL	Compact	210 (3045)	230 (3335)	250 (3625)	3000	350
		CSC / CSL	Standard	250 (3625)	270 (3915)	290 (4205)		
		BSC / BSL	High performance	280 (4060)	300 (4350)	320 (4640)		
K. 30•41	41,62 (2.54)	CSC / CSL	Standard	250 (3625)	270 (3915)	290 (4205)	3000	350
		BSC / BSL	High performance	280 (4060)	300 (4350)	320 (4640)		
K. 30•43	43,98 (2.68)	CSC / CSL	Standard	230 (3335)	250 (3625)	270 (3915)	3000	350
		BSC / BSL	High performance	280 (4060)	300 (4350)	320 (4640)		
K. 30•46	46,34 (2.83)	CSC / CSL	Standard	210 (3045)	230 (3335)	250 (3625)	3000	350
		BSC / BSL	High performance	270 (3915)	290 (4205)	310 (4495)		
K. 30•51	51,83 (3.16)	CSC / CSL	Standard	210 (3045)	230 (3335)	250 (3625)	2500	350
K. 30•56	56,54 (3.45)	CSC / CSL	Standard	190 (2755)	210 (3045)	230 (3335)	2500	350
K. 30•61	61,26 (3.74)	CSC / CSL	Standard	180 (2610)	200 (2900)	220 (3190)	2500	350
K. 30•73	73,82 (4.50)	CSC / CSL	Standard	170 (2465)	190 (2755)	210 (3045)	2500	350

Pressure values in the table refer to side ports unidirectional pumps and motors.

For reversible pumps and motors, max pressures are 250 bar (3600 psi) excepted those with lower pressures value.

For different configurations and working conditions please consult our pre-sales department.

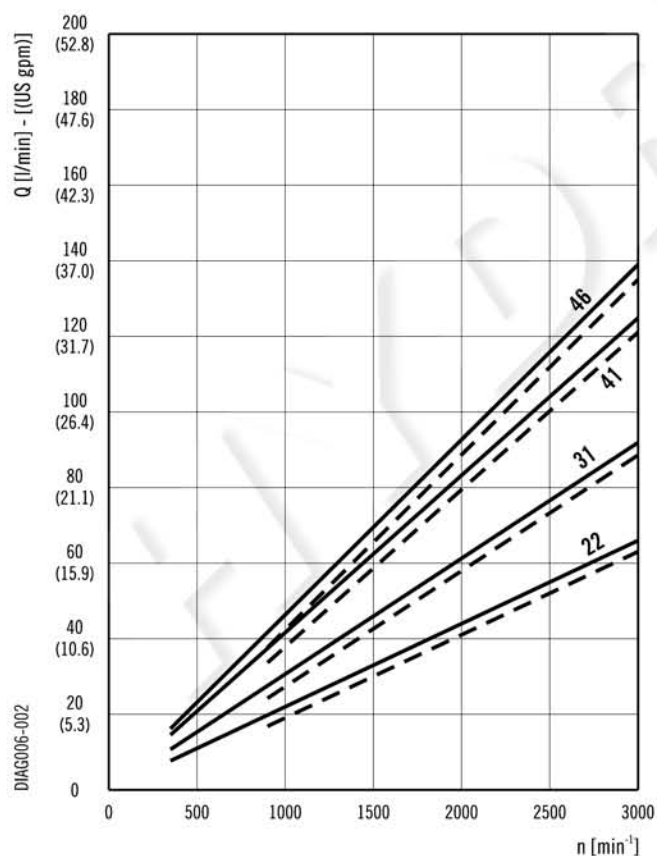
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KP 30**GEAR PUMPS PERFORMANCE CURVES**

Diagrams refer to standard performance pumps.

Each curve has been obtained at 50°C (122 °F), using oil with viscosity 36 cSt (168 SSU) at 40°C (104 °F) and at these pressures.

KP 30•27	—	20 bar (290 psi)
	- -	270 bar (3915 psi)
KP 30•34	—	20 bar (290 psi)
	- -	250 bar (3625 psi)
KP 30•38	—	20 bar (290 psi)
	- -	250 bar (3625 psi)
KP 30•43	—	20 bar (290 psi)
	- -	230 bar (3335 psi)
KP 30•51	—	20 bar (290 psi)
	- -	210 bar (3045 psi)
KP 30•56	—	20 bar (290 psi)
	- -	190 bar (2755 psi)
KP 30•61	—	20 bar (290 psi)
	- -	180 bar (2610 psi)
KP 30•73	—	20 bar (290 psi)
	- -	170 bar (2465 psi)



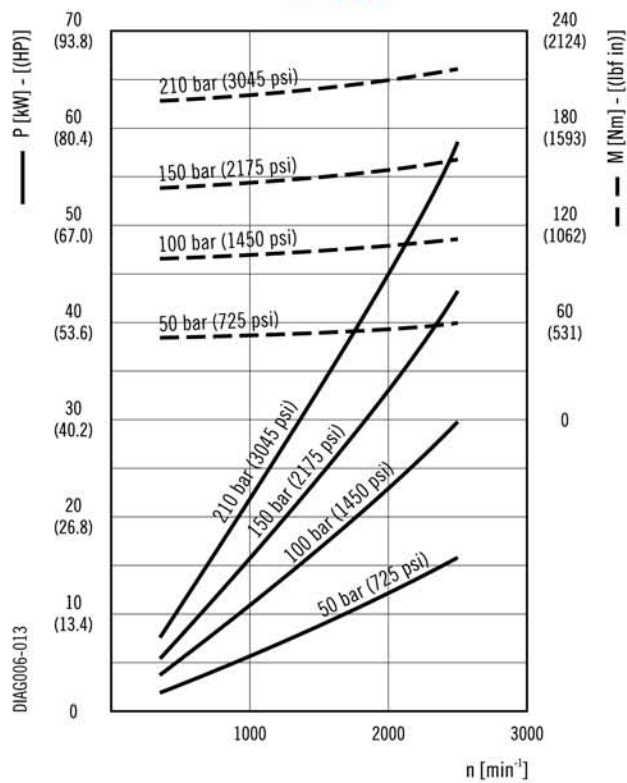
KP 30•22	—	20 bar (290 psi)
	- -	270 bar (3915 psi)
KP 30•31	—	20 bar (290 psi)
	- -	250 bar (3625 psi)
KP 30•41	—	20 bar (290 psi)
	- -	250 bar (3625 psi)
KP 30•46	—	20 bar (290 psi)
	- -	210 bar (3045 psi)

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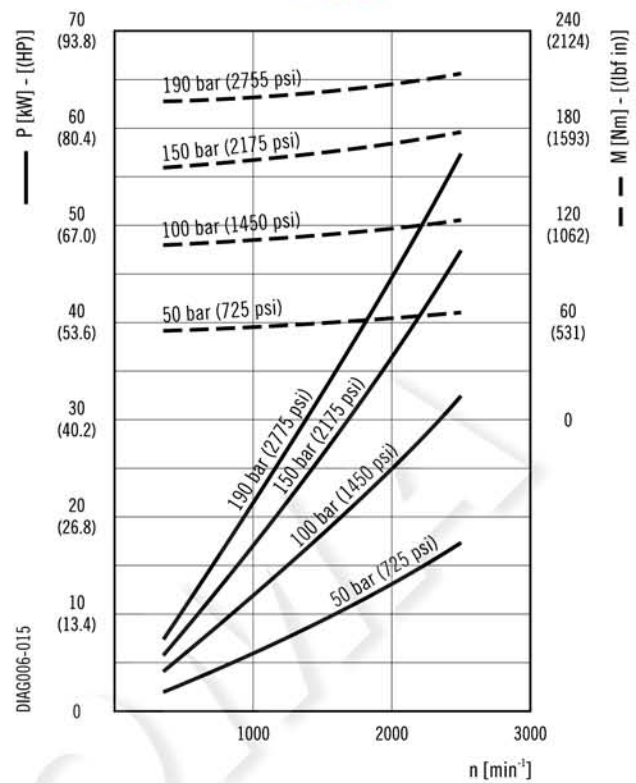
KP 30

GEAR PUMPS PERFORMANCE CURVES

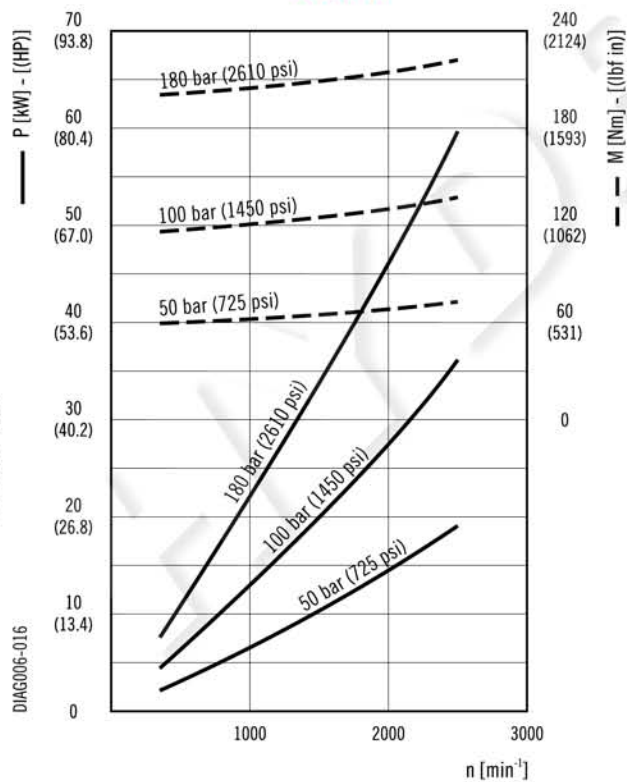
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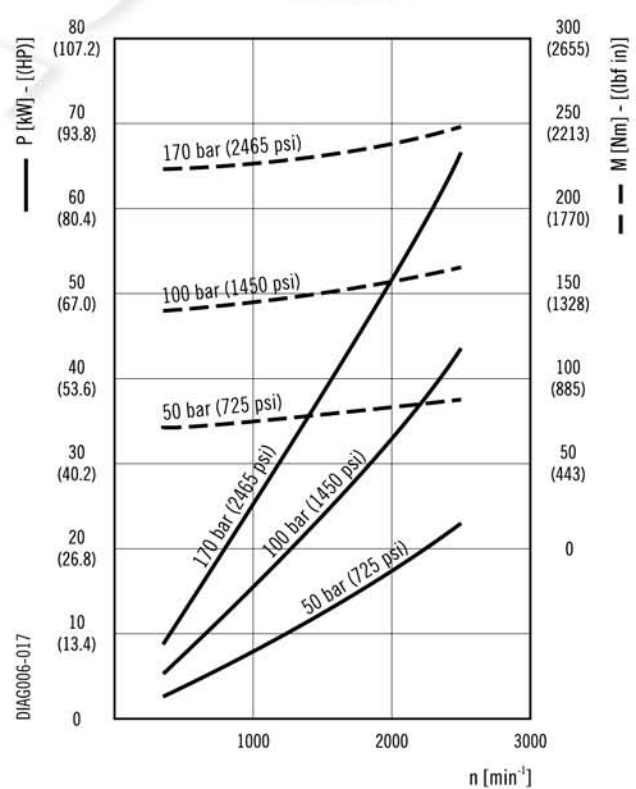
KP 30•56



KP 30•61



KP 30•73



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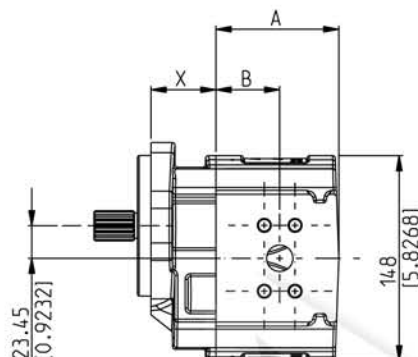
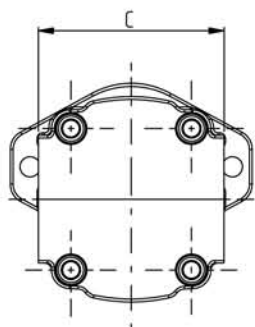
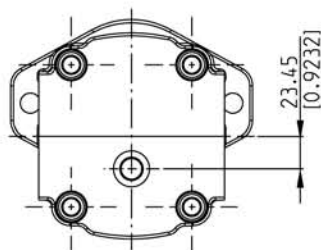
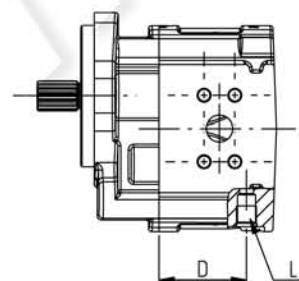
KAPPA 30**SINGLE UNITS DIMENSIONS - SIDE PORTS****CSC**

Body design: CSC
Characteristics: Standard

Drive shaft: see pages 38 ÷ 39
Mounting flange: for X dimension see
pages 40 ÷ 44

Ports availability: European, Split, Gas,
SAE. See page 45

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**Unidirectional rotation S-D and reversible rotation B****Reversible rotation R****Reversible rotation L**

Pump type Motor type	C				
	A	B	European - Split ports		D
	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)
K. 30•22	80,5 (3.17)	38 (1.50)	134 (5.28)	142 (5.59)	61,5 (2.42)
K. 30•27	83,5 (3.29)	41 (1.61)	134 (5.28)	142 (5.59)	64,7 (2.55)
K. 30•31	86 (3.39)	43,5 (1.71)	134 (5.28)	142 (5.59)	67 (2.64)
K. 30•34	88,5 (3.48)	46 (1.81)	134 (5.28)	142 (5.59)	69,5 (2.74)
K. 30•38	91,5 (3.60)	49 (1.93)	134 (5.28)	142 (5.59)	69,5 (2.74)
K. 30•41	93 (3.66)	50,5 (1.99)	134 (5.28)	142 (5.59)	73 (2.87)
K. 30•43	94,5 (3.72)	52 (2.05)	134 (5.28)	142 (5.59)	74,5 (2.93)
K. 30•46	96 (3.79)	53,5 (2.10)	134 (5.28)	142 (5.59)	76 (2.99)
K. 30•51	99,5 (3.92)	57 (2.24)	134 (5.28)	142 (5.59)	79,5 (3.13)
K. 30•56	102,5 (4.04)	60 (2.36)	134 (5.28)	142 (5.59)	82,5 (3.25)
K. 30•61	105,5 (4.15)	63 (2.48)	134 (5.28)	142 (5.59)	86 (3.39)
K. 30•73	113,5 (4.47)	71 (2.80)	134 (5.28)	142 (5.59)	94 (3.70)

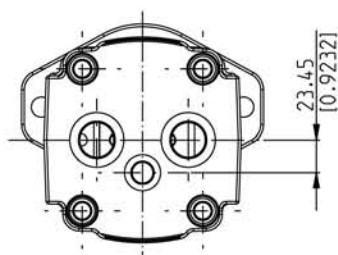
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KAPPA 30**SINGLE UNITS DIMENSIONS - REAR PORTS****CSC**

Body design: CSC
Characteristics: Standard

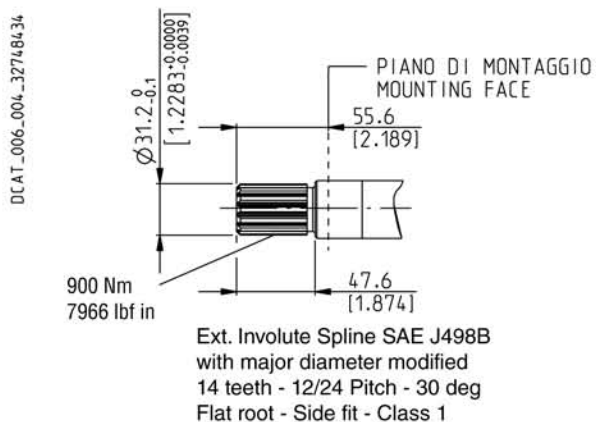
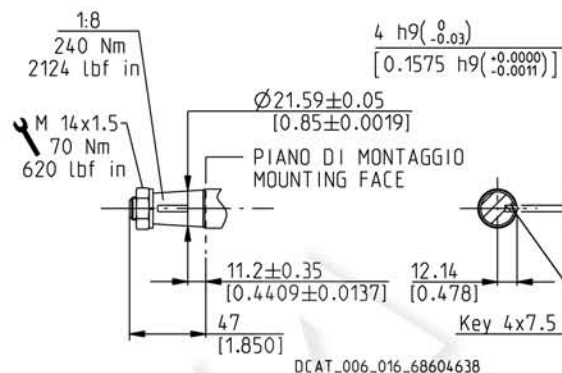
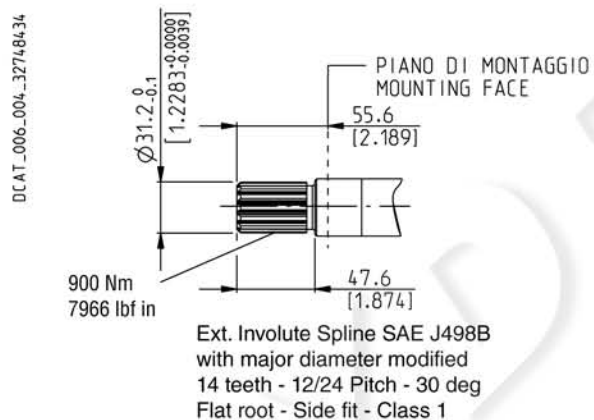
Drive shaft: see pages 38 ÷ 39
Mounting flange: for X dimension see
pages 40 ÷ 44

Ports availability: Gas, SAE.
See page 45

**Unidirectional rotation S-D and reversible rotation B****Reversible rotation R**

Pump type Motor type	A
	mm (inch)
K. 30•22	76 (2.99)
K. 30•27	79 (3.11)
K. 30•31	81,5 (3.21)
K. 30•34	84 (3.31)
K. 30•38	87 (3.43)
K. 30•41	88,5 (3.48)
K. 30•43	90 (3.54)
K. 30•46	91,5 (3.60)
K. 30•51	95 (3.74)
K. 30•56	98 (3.86)
K. 30•61	101 (3.98)
K. 30•73	109 (4.29)

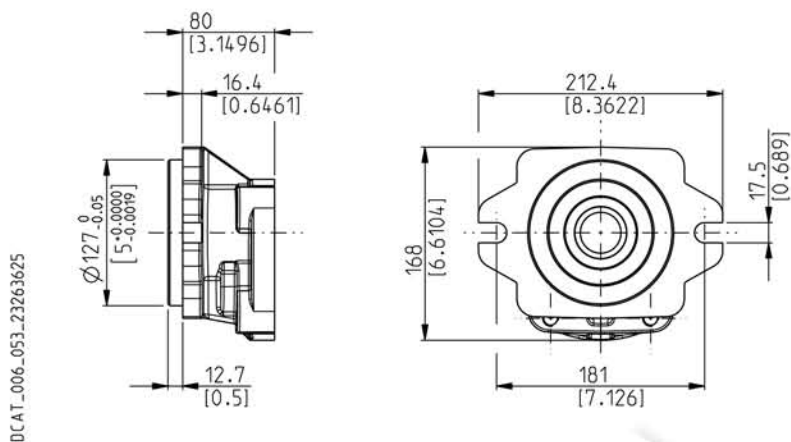
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KAPPA 30**DRIVE SHAFTS****SAE "C" SPLINE****06**Not available with size: **30•41**Mounting face refer to flange code **S8****EUROPEAN TAPERED****83**Not available with size: **30•41**Mounting face refer to flange code **E3****SAE "C" SPLINE - SHORT TYPE****A6**Not available with size: **30•22 - 30•31 - 30•46 - 30•56 - 30•73**Mounting face refer to flange code **Q3**

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KAPPA 30**MOUNTING FLANGES AND TABLE OF COMPATIBILITY****SAE "C" 2 HOLES****S8**

Conforms to SAE J744

**DRIVE SHAFTS**

See page 38 and 39

VERSIONS

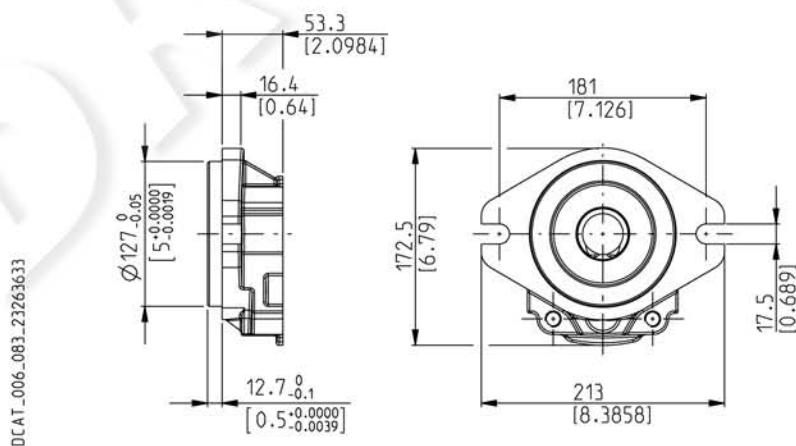
See page 35

05**06****0****1****3****6**

- Standard combination
- Available combination

SAE "C" 2 HOLES**Q3**

Conforms to SAE J744

**DRIVE SHAFTS**

See page 38

VERSIONS

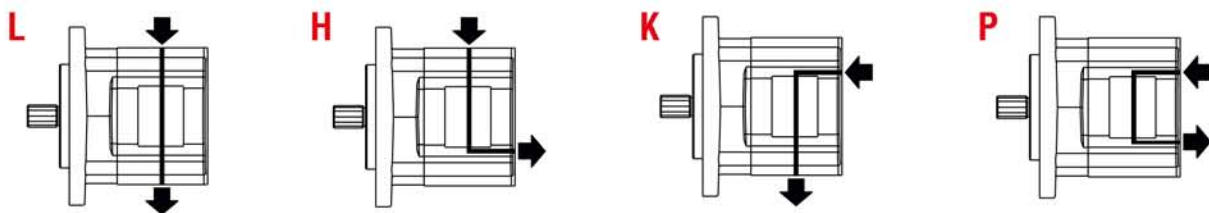
See page 35

A6**0**

- Standard combination
- Available combination

01/10.2018

PORTS POSITION AND TYPE



PORTS TYPE	SIDE PORTS												REAR PORTS			
	European		Split SSM		Spit SSS		Gas BSPP		SAE ODT		German		Gas BSPP		SAE ODT	
Pump type	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
Motor type	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN
K. 30•22	ED	EB	MC	MB	SC	SB	GF	GE	OF	OD	BM	BL	GF	GE	OF	OD
K. 30•27	ED	EB	MC	MB	SC	SB	GF	GE	OF	OD	BM	BL	GF	GE	OF	OD
K. 30•31	ED	EB	MC	MB	SC	SB	GF	GE	OF	OD	BM	BL	GF	GE	OF	OD
K. 30•34	ED	EB	MC	MB	SC	SB	GF	GE	OF	OD	BM	BL	GF	GE	OF	OD
K. 30•38	ED	EB	MC	MB	SC	SB	GF	GE	OF	OD	BM	BL	GF	GE	OF	OD
K. 30•41	ED	EB	MD	MC	SD	SC	GG	GF	OG	OF	BM	BL	GG	GF	OG	OF
K. 30•43	ED	EB	MD	MC	SD	SC	GG	GF	OG	OF	BM	BL	GG	GF	OG	OF
K. 30•46	ED	EB	MD	MC	SD	SC	GG	GF	OG	OF	BM	BL	GG	GF	OG	OF
K. 30•51	ED	EB	MD	MC	SD	SC	GG	GF	OG	OF	BM	BL	GG	GF	OG	OF
K. 30•56	ED	EB	ME	MD	SE	SD	GG	GF	OG	OF	BM	BL	GG	GF	OG	OF
K. 30•61	ED	EB	ME	MD	SE	SD	GG	GF	OG	OF	BM	BL	GG	GF	OG	OF
K. 30•73	EF	ED	ME	MD	SE	SD	GG	GF	OG	OF			GG	GF	OG	OF

Ports codes shown are not codified for all different body design (HSC - KSL - CSC - CSL - BSC - BSL).

Different ports are available on request. See page 49.

For more information please consult our pre-sales department.

EXTERNAL DRAIN PORTS

PORTS TYPE	GAS BSPP	SAE ODT
K. 30	GC	OA

01/10.2018

PORT SIZES



Tightening torque for low pressure side port



Tightening torque for high pressure side port

For reversible rotation, please consult only the tightening torque for high pressure side port

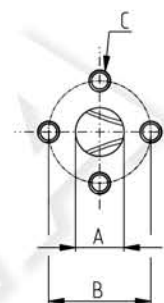
EUROPEAN FLANGED PORTS - 4 Bolts

EUROPEAN

Metric thread ISO 60° conforms to ISO/R 262

CODE	A	B	C		
	mm (inch)	mm (inch)	Thread Depth mm (inch)	Nm (lbf in)	Nm (lbf in)
EB	19 (0.75)	40 (1.57)	M 8 15 (0.59)	15 ⁺¹ (133 ÷ 142)	15 ⁺¹ (133 ÷ 142)
ED	27 (1.06)	51 (2.01)	M 10 15 (0.59)	20 ⁺¹ (177 ÷ 186)	30 ^{+2,5} (266 ÷ 288)
EF	33 (1.30)	62 (2.44)	M 12 17 (0.67)	25 ⁺¹ (221 ÷ 230)	50 ^{+2,5} (443 ÷ 465)

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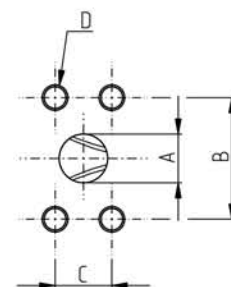
SAE FLANGED PORTS J518 - Standard pressure series 3000 PSI

SSM

Metric thread ISO 60° conforms to ISO/R 262

CODE	A	B	C	D		
	mm (inch)	mm (inch)	mm (inch)	Thread Depth mm (inch)	Nm (lbf in)	Nm (lbf in)
MB	19 (0.75)	47,6 (1.87)	22,2 (0.87)	M 10 17 (0.67)	20 ⁺¹ (177 ÷ 186)	30 ^{+2,5} (266 ÷ 288)
MC	25,4 (1.00)	52,4 (2.06)	26,2 (1.03)	M 10 17 (0.67)	20 ⁺¹ (177 ÷ 186)	30 ^{+2,5} (266 ÷ 288)
MD	30,5 (1.20)	58,7 (2.31)	30,2 (1.19)	M 10 17 (0.67)	20 ⁺¹ (177 ÷ 186)	35 ^{+2,5} (310 ÷ 332)
ME	39,3 (1.55)	69,8 (2.75)	35,7 (1.41)	M 12 17 (0.67)	30 ^{+2,5} (266 ÷ 288)	60 ⁺⁵ (531 ÷ 575)

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PORT SIZES



Tightening torque for low pressure side port



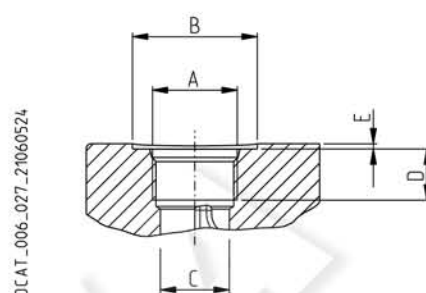
Tightening torque for high pressure side port

For reversible rotation, please consult only the tightening torque for high pressure side port

SAE STRAIGHT THREAD PORTS J514

ODT

American straight thread UNC-UNF 60° conforms to ANSI B 1.1



CODE	Nominal size	A	Ø B	Ø C	D	E		
			mm (inch)	mm (inch)	mm (inch)	mm (inch)	Nm (lbf in)	Nm (lbf in)
OA (◆)	3/8"	9/16" - 18 UNF - 2B	26 (1.02)	13 (0.5118)	15 (0.5906)	2 (0.0787)	15 ⁺¹ (133 ÷ 142)	—
OD	3/4"	1 1/16" - 12 UNF - 2B	42 (1.65)	24,8 (0.98)	20 (0.79)	2 (0.08)	40 ^{+2,5} (354 ÷ 376)	120 ⁺¹⁰ (1062 ÷ 1151)
OF	1"	1 5/16" - 12 UNF - 2B	49 (1.93)	30,5 (1.20)	20 (0.79)	2 (0.08)	60 ⁺⁵ (531 ÷ 575)	170 ⁺¹⁰ (1505 ÷ 1593)
OG	1" 1/4	1 5/8" - 12 UNF - 2B	58 (2.28)	39,1 (1.54)	20 (0.79)	2 (0.08)	70 ⁺⁵ (620 ÷ 664)	—
OH	1" 1/2	1 7/8" - 12 UNF - 2B	65 (2.56)	45 (1.77)	20 (0.79)	2 (0.08)	100 ⁺⁵ (885 ÷ 929)	—

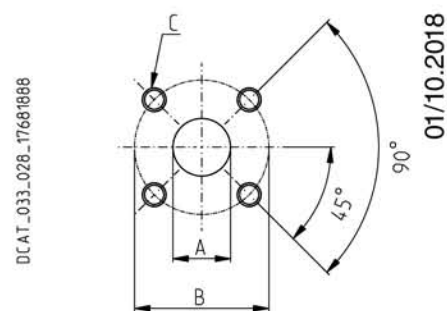
(◆) = Drain port

GERMAN FLANGED PORTS - 4 Bolts

GERMAN

Metric thread ISO 60° conforms to ISO/R 262

CODE	A	B	C		
	mm (in)	mm (in)	Thread Depth mm (in)	Nm (lbf in)	Nm (lbf in)
BC	15 (0.59)	35 (1.38)	M6 13 (0.51)	8 ^{+0,5} (71 ÷ 75)	8 ^{+0,5} (71 ÷ 75)
BE	20 (0.79)	40 (1.57)	M6 13 (0.51)	8 ^{+0,5} (71 ÷ 75)	8 ^{+0,5} (71 ÷ 75)
BL	19 (0.75)	55 (2.17)	M8 17 (0.67)	15 ⁺¹ (133 ÷ 142)	20 ⁺¹ (177 ÷ 186)
BM	27 (1.06)	55 (2.17)	M8 17 (0.67)	15 ⁺¹ (133 ÷ 142)	20 ⁺¹ (177 ÷ 186)



01/10.2018

HOW TO ORDER - SINGLE UNITS

1	2	3	4	5	6	7	8	9	10	11	12
KP 30•27	R	0	- 04	S3	- L	OF/OD	- N	- OA	- C4	- CSC	- VNR01

1	Type	Pump type	Motor type
21,99 cm³/rev (1.34 in³/rev)		KP 30•22	KM 30•22
26,7 cm³/rev (1.63 in³/rev)		KP 30•27	KM 30•27
30,63 cm³/rev (1.87 in³/rev)		KP 30•31	KM 30•31
34,56 cm³/rev (2.11 in³/rev)		KP 30•34	KM 30•34
39,27 cm³/rev (2.40 in³/rev)		KP 30•38	KM 30•38
41,62 cm³/rev (2.54 in³/rev)		KP 30•41	KM 30•41
43,98 cm³/rev (2.68 in³/rev)		KP 30•43	KM 30•43
46,34 cm³/rev (2.83 in³/rev)		KP 30•46	KM 30•46
51,83 cm³/rev (3.16 in³/rev)		KP 30•51	KM 30•51
56,54 cm³/rev (3.45 in³/rev)		KP 30•56	KM 30•56
61,26 cm³/rev (3.74 in³/rev)		KP 30•61	KM 30•61
73,82 cm³/rev (4.50 in³/rev)		KP 30•73	KM 30•73

2	Rotation	Code
Anti-clockwise		S
Clockwise		D
Reversible rear external drain		R
Reversible side external drain		L
Reversible internal drain		B

3	Outboard bearing options	Code
Without outboard bearing		0
With outboard bearing		1
With outboard bearing		3
With outboard bearing		6

4	Drive shaft	Code
European tapered 1:8		83
SAE "B" spline (13 teeth)		04
SAE "B" straight		32
SAE "BB" spline (15 teeth)		05
SAE "BB" straight		33
SAE "B" spline (13 teeth) for K9		A8
SAE "BB" spline (15 teeth) for K9		A5
SAE "C" spline (14 teeth)		06
SAE "C" spline short type (14 teeth)		A6

Code	Mounting flange	5
E3	European	
S1	SAE "A" 2 holes	
S2	SAE "A" 2 holes with O-ring	
S9	SAE "A" 2 holes short type	
S3	SAE "B" 2-4 holes	
K9	SAE "B" 2 holes	
S6	SAE "C" 4 holes	
S8	SAE "C" 2 holes	
Q3	SAE "C" 2 holes short type	

Code	Ports position	6
L	IN/OUT side	
H	IN side/ OUT rear	
K	IN rear/ OUT side	
P	IN/OUT rear	

Code	Ports IN/OUT	7
EUROPEAN FLANGED PORTS		
Side	Rear	Type
ED/EB	KP 30	22-27-31-34-38
EB/ED	KM 30	41-43-46-51-56-61
EF/ED	KP 30	73
ED/EF	KM 30	
SAE FLANGED PORTS (SSM)		
Side	Rear	Type
MC/MB	KP 30	22-27-31-34-38
MB/MC	KM 30	41-43-46-51
MD/MC	KP 30	
MC/MD	KM 30	56-61-73
ME/MD	KP 30	
MD/ME	KM 30	
SAE FLANGED PORTS (SSS)		
Side	Rear	Type
SC/SB	KP 30	22-27-31-34-38
SB/SC	KM 30	41-43-46-51
SD/SC	KP 30	
SC/SD	KM 30	56-61-73
SE/SD	KP 30	
SD/SE	KM 30	

01/10.2018

HOW TO ORDER - SINGLE UNITS

7	Ports IN/OUT		Code
SAE STRAIGHT THREAD PORTS (ODT)			
Side	Rear	Type	
OF/OD	OF/OD	KP 30	22-27-31-34-38
OD/OF	OD/OF	KM 30	
OG/OF	OG/OF	KP 30	41-43-46-51
OF/OG	OF/OG	KM 30	56-61-73
GAS STRAIGHT THREAD PORTS (BSPP)			
Side	Rear	Type	
GF/GE	GF/GE	KP 30	22-27-31-34-38
GE/GF	GE/GF	KM 30	
GG/GF	GG/GF	KP 30	41-43-46-51
GF/GG	GF/GG	KM 30	56-61-73

8	Seals (a)	Code
Buna NBR (standard)		N
Viton-FKM		V
Hydrogenated buna HNBR seals with Viton-FKM shaft seals		T-PV
Buna NBR and bronze thrust plates		N Bz
Viton-FKM and bronze thrust plate		V Bz

9	Drain port	Code
GAS straight thread ports (BSPP) (standard) no code		...
SAE straight thread ports (ODT)		OA

10	Shaft seal options	Code
Shaft seal with wiper seal		D
High pressure special shaft seal		C4

11	Body design	Code
Standard		CSC
Compact (b)		HSC
High performance (c)		BSC

12	Painting	Code
Without painting (standard) no code		...
Black painting (d)		VNR01
Grey painting (d)		VGR01

- (a) Choose the seals according to the temperature shown on page 5.
- (b) Available only with 22-27-31-34-38 displacements.
- (c) Available only with 22-27-31-34-38-41-43-46 displacements.
- (d) Salt spray resistance of 300 hours. For more information please consult our pre-sales department.

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