Part number:

HYDROMA
HYDRAULICKÉ SYSTÉMY

HIDROMA SISTEMS
UKŁADY HYDRAULICZNE

HYDROMA
ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

GENERAL DATA

Pump type Motor type	Displacement	Max. pressure			Max. speed	Min. speed
		p_1	p_2	p_3		
	in^3/rev (cm^3/rev)		psi (bar)		min^{-1}	
K. 30•22	1.34 (21,99)	4060 (280)	4350 (300)	4495 (310)	3000	350
K. 30•27	1.63 (26,7)	4060 (280)	4350 (300)	4495 (310)	3000	350
K. 30•31	1.87 (30,63)	3770 (260)	4060 (280)	4350 (300)	3000	350
K. 30•34	2.11 (34,56)	3770 (260)	4060 (280)	4350 (300)	3000	350
K. 30•38	2.40 (39,27)	3770 (260)	4060 (280)	4350 (300)	3000	350
K. 30•41	2.54 (41,62)	3625 (250)	3915 (270)	4205 (290)	3000	350
K. 30•43	2.68 (43,98)	3625 (250)	3915 (270)	4205 (290)	3000	350
K. 30•46	2.83 (46,34)	3625 (250)	3915 (270)	4205 (290)	3000	350
K. 30•51	3.16 (51,83)	3335 (230)	3625 (250)	3915 (270)	2500	350
K. 30•56	3.45 (56,54)	3118 (215)	3408 (235)	3698 (255)	2500	350
K. 30•61	3.74 (61,26)	2900 (200)	3190 (220)	3480 (240)	2500	350
K. 30•73	4.50 (73,82)	2610 (180)	2900 (200)	3190 (220)	2500	350
K. 40•63	3.75 (61,43)	4350 (300)	4568 (315)	4713 (325)	2800	300
K. 40•73	4.43 (72,6)	4350 (300)	4568 (315)	4713 (325)	2800	300
K. 40•87	5.28 (86,56)	4060 (280)	4278 (295)	4423 (305)	2800	300
K. 40•109	6.64 (108,9)	3625 (250)	3843 (265)	3988 (275)	2800	300
K. 40•121	7.43 (121,8)	3335 (230)	3553 (245)	3698 (255)	2500	300
K. 40•133	8.18 (134,03)	3190 (220)	3408 (235)	3553 (245)	2500	300
K. 40•151	9.20 (150,79)	2900 (200)	3118 (215)	3263 (225)	2500	300

p_1= Max. continuous pressure p_2= Max. intermittent pressure p_3= Max. peak pressure

The values in the table refer to unidirectional pumps and motors.
Reversible pumps and motors max pressures are 15% lower than those shown in table.
For different working conditions please consult our sales department.

GENERAL DATA PUMPS AND MOTORS

Q	US gpm (l/min)	Flow
M	lbf in (Nm)	Torque
P	HP (kW)	Power
V	in^3/rev (cm^3/rev)	Displacement
n	min^{-1}	Speed
Δp	psi (bar)	Pressure

Efficiencies

		Pumps	Motor
$\eta_v = \eta_v$ (V, Δp, n)	Volumetric efficiency	(≈ 0,98)	(≈ 0,97)
$\eta_{hm} = \eta_{hm}$ (V, Δp, n)	Hydro-mechanical efficiency	(≈ 0,90)	(≈ 0,88)
$\eta_t = \eta_v \bullet \eta_{hm}$	Overall efficiency	(≈ 0,88)	(≈ 0,85)

Design calculations for pump

$$Q = Q_{theor.} \bullet \eta_v$$

$$Q_{theor.} = \frac{V\ (cm^3/rev) \bullet n\ (min^{-1})}{1000} \quad [l/min]$$

$$M = \frac{M_{theor.}}{\eta_{hm}}$$

$$M_{theor.} = \frac{\Delta p\ (bar) \bullet V\ (cm^3/rev)}{62{,}83} \quad [Nm]$$

$$P_{IN} = \frac{P_{OUT}}{\eta_t}$$

$$P_{OUT} = \frac{\Delta p\ (bar) \bullet Q\ (l/min)}{600} \quad [kW]$$

Design calculations for motor

$$Q = \frac{Q_{theor.}}{\eta_v}$$

$$Q_{theor.} = \frac{V\ (cm^3/rev) \bullet n\ (min^{-1})}{1000} \quad [l/min]$$

$$M = M_{theor.} \bullet \eta_{hm}$$

$$M_{theor.} = \frac{\Delta p\ (bar) \bullet V\ (cm^3/rev)}{62{,}83} \quad [Nm]$$

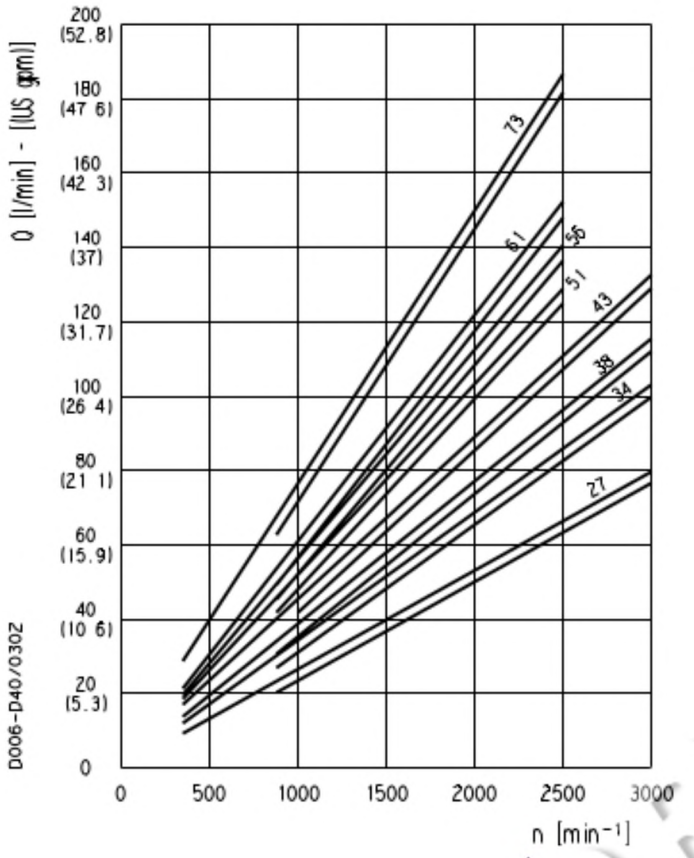
$$P_{IN} = \frac{\Delta p\ (bar) \bullet Q\ (l/min)}{600} \quad [kW]$$

$$P_{OUT} = P_{IN} \bullet \eta_t$$

Note: Diagrams providing approximate selection data will be found on subsequent pages.

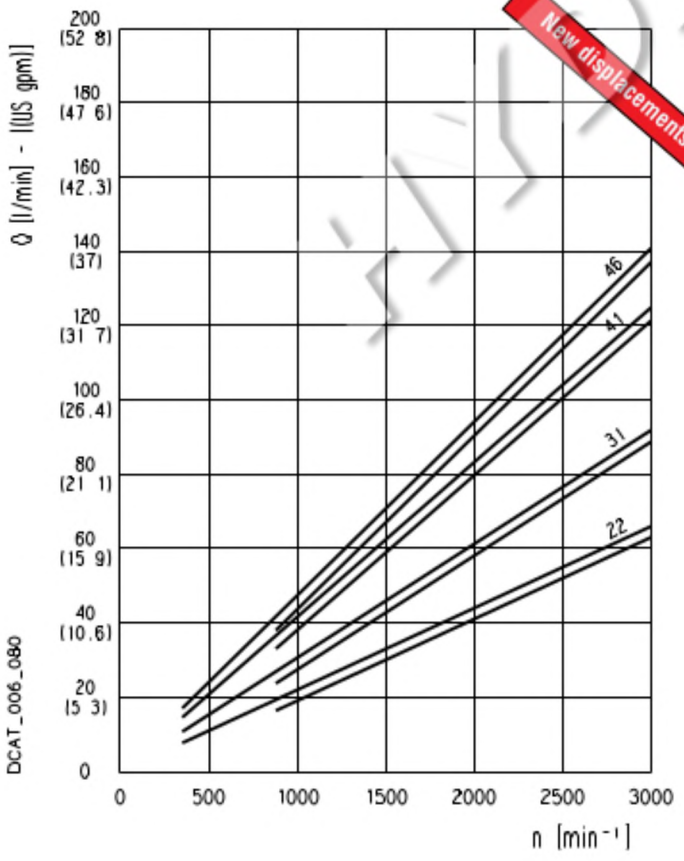
HYDROMA

KAPPA 30 GEAR PUMPS PERFORMANCE CURVES



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

KP 30•27	290 - 4060 psi (20 - 280 bar)
KP 30•34	290 - 3770 psi (20 - 260 bar)
KP 30•38	290 - 3770 psi (20 - 260 bar)
KP 30•43	290 - 3625 psi (20 - 250 bar)
KP 30•51	290 - 3335 psi (20 - 230 bar)
KP 30•56	290 - 3118 psi (20 - 215 bar)
KP 30•61	290 - 2900 psi (20 - 200 bar)
KP 30•73	290 - 2610 psi (20 - 180 bar)

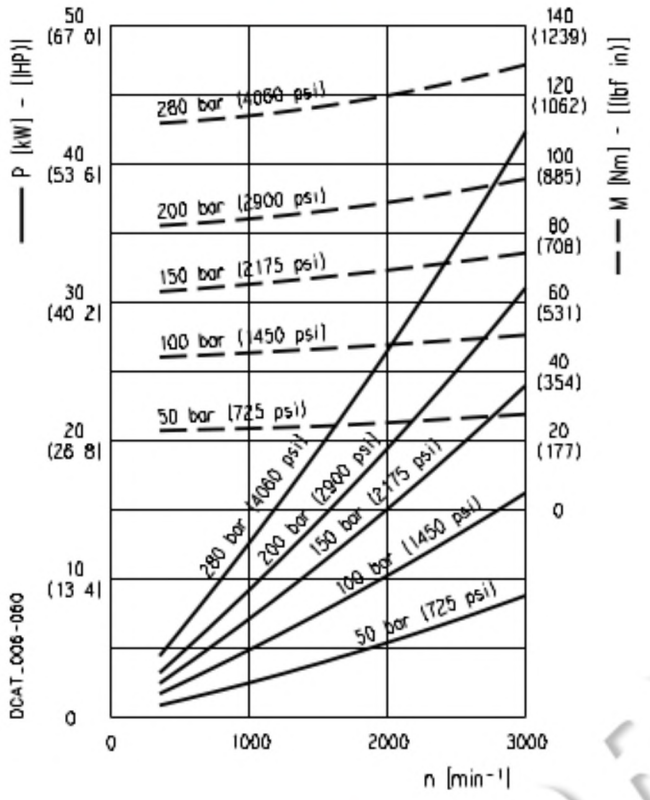


KP 30•22	290 - 4060 psi (20 - 280 bar)
KP 30•31	290 - 3770 psi (20 - 260 bar)
KP 30•41	290 - 3625 psi (20 - 250 bar)
KP 30•46	290 - 3625 psi (20 - 250 bar)

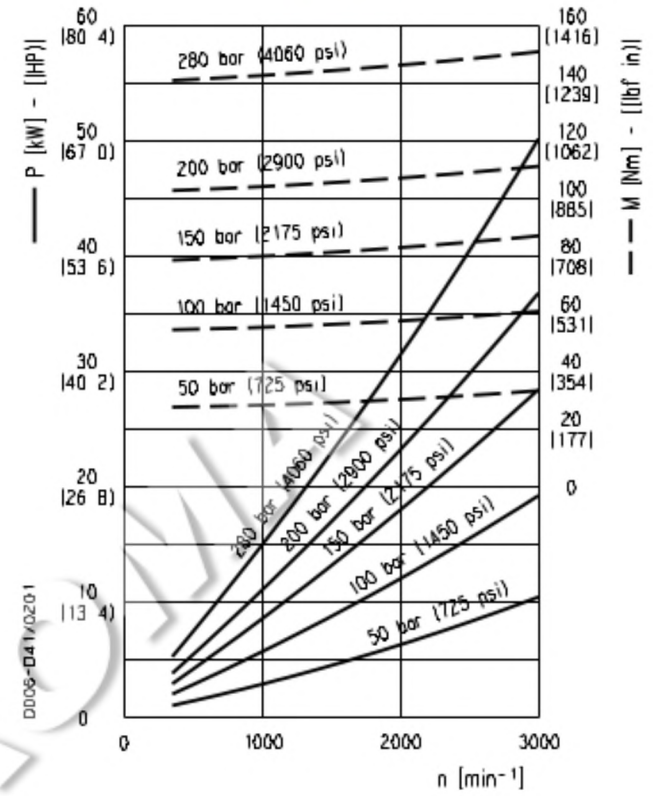
HYDROMEC

KAPPA 30 GEAR PUMPS PERFORMANCE CURVES

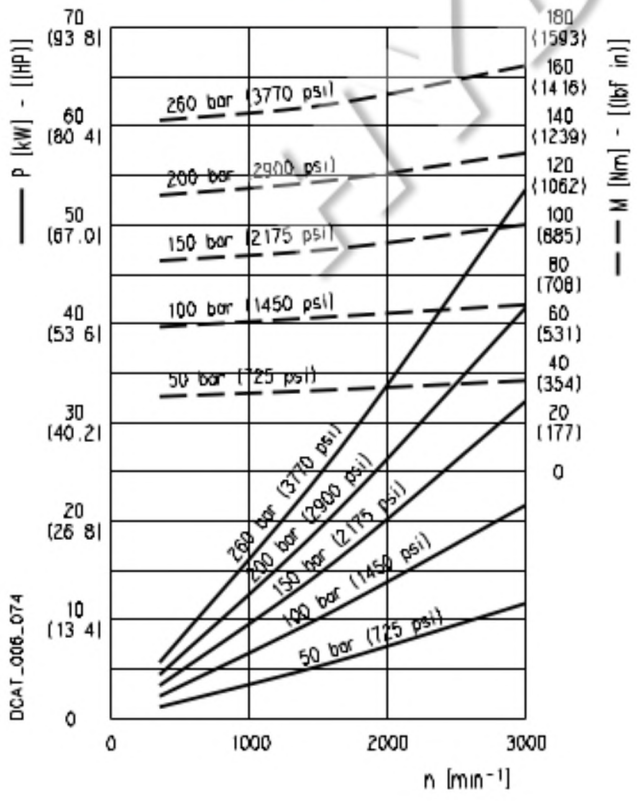
KP 30•22



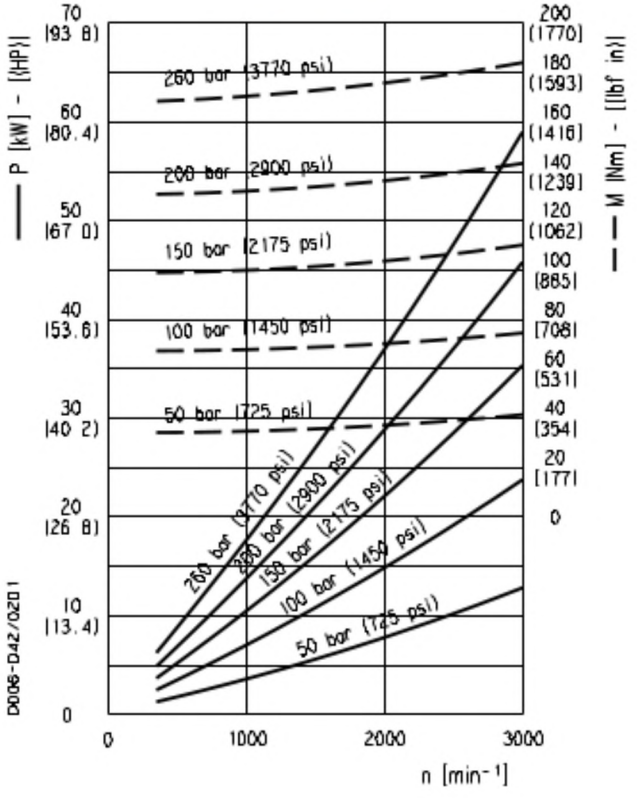
KP 30•27

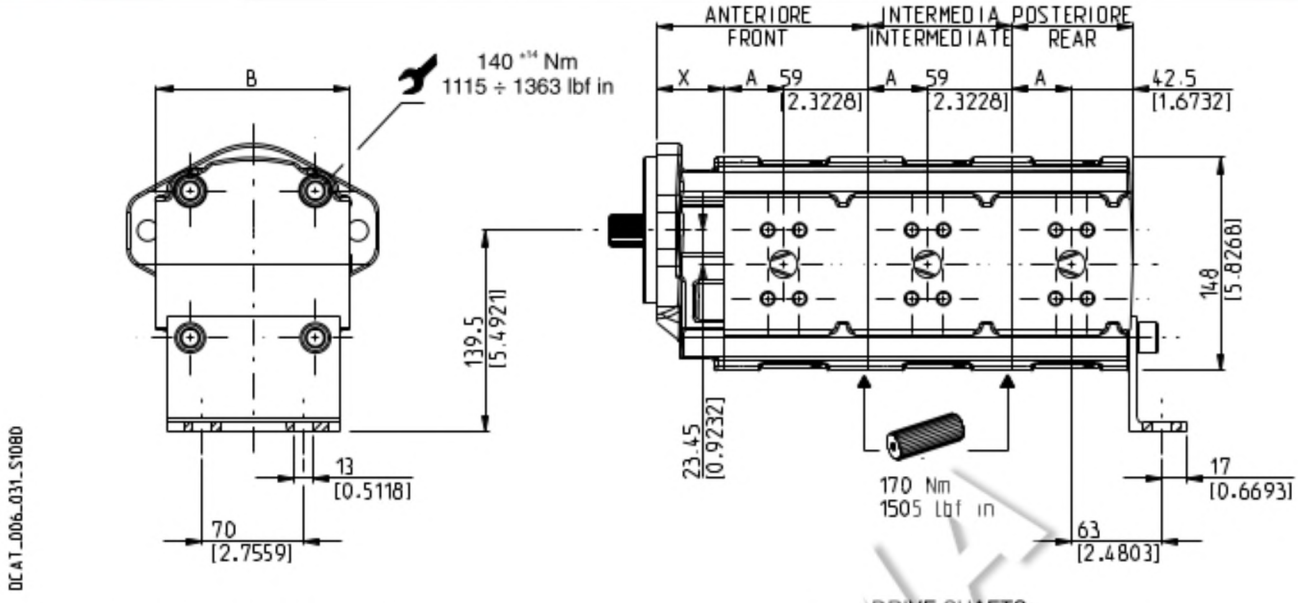


KP 30•31

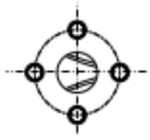
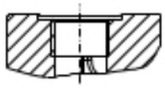


KP 30•34





Ports type (see availability on page 50)

European	Split (SSM) / (SSS)	Gas (BSPP)	SAE (ODT)
			

DRIVE SHAFTS:
see page 41 and page 42

MOUNTING FLANGE:
for **X** dimension see page 44 ÷ 48

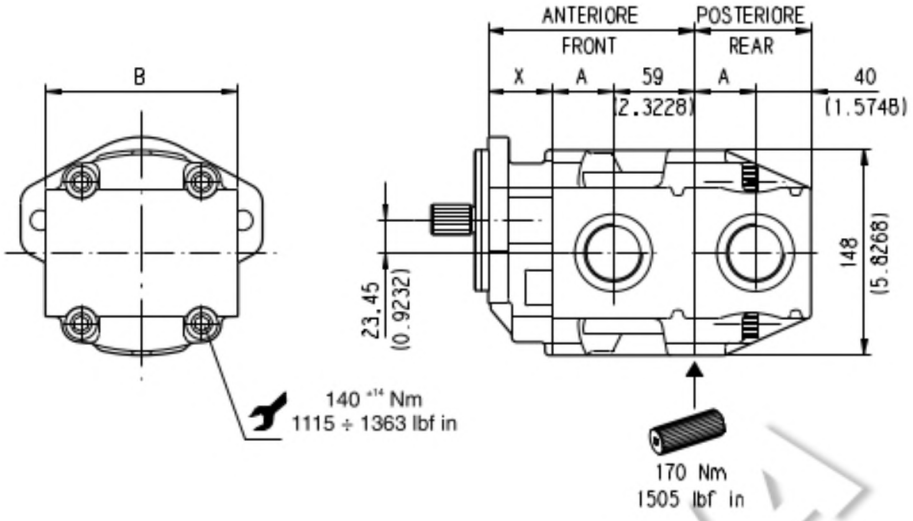
FRONT: **CSL** (long body)

INTERMEDIATE: **CSL** (long body)

REAR: **CSC** (short body)

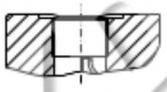
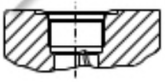
(all multiple pumps with more than two sections are available with bracket).

Pump type	A	B	
		European ports Split ports (SSM) / (SSS)	Gas ports (BSPP) SAE ports (ODT)
	mm (inch)	mm (inch)	mm (inch)
KP 30•22	38 (1.4961)	134 (5.2756)	142 (5.5906)
KP 30•27	41 (1.6142)	134 (5.2756)	142 (5.5906)
KP 30•31	43,5 (1.7126)	134 (5.2756)	142 (5.5906)
KP 30•34	46 (1.8110)	134 (5.2756)	142 (5.5906)
KP 30•38	49 (1.9291)	134 (5.2756)	142 (5.5906)
KP 30•41	50,5 (1.9882)	134 (5.2756)	142 (5.5906)
KP 30•43	52 (2.0472)	134 (5.2756)	142 (5.5906)
KP 30•46	53,5 (2.1063)	134 (5.2756)	142 (5.5906)
KP 30•51	57 (2.2441)	134 (5.2756)	142 (5.5906)
KP 30•56	60 (2.3622)	134 (5.2756)	142 (5.5906)
KP 30•61	63 (2.4803)	134 (5.2756)	142 (5.5906)
KP 30•73	71 (2.7953)	134 (5.2756)	142 (5.5906)



DCAT_006_034_R1179

Ports type (see availability on page 50)

European	Split (SSM) / (SSS)	Gas (BSPP)	SAE (ODT)
			

DRIVE SHAFTS:
see page 41 and page 42

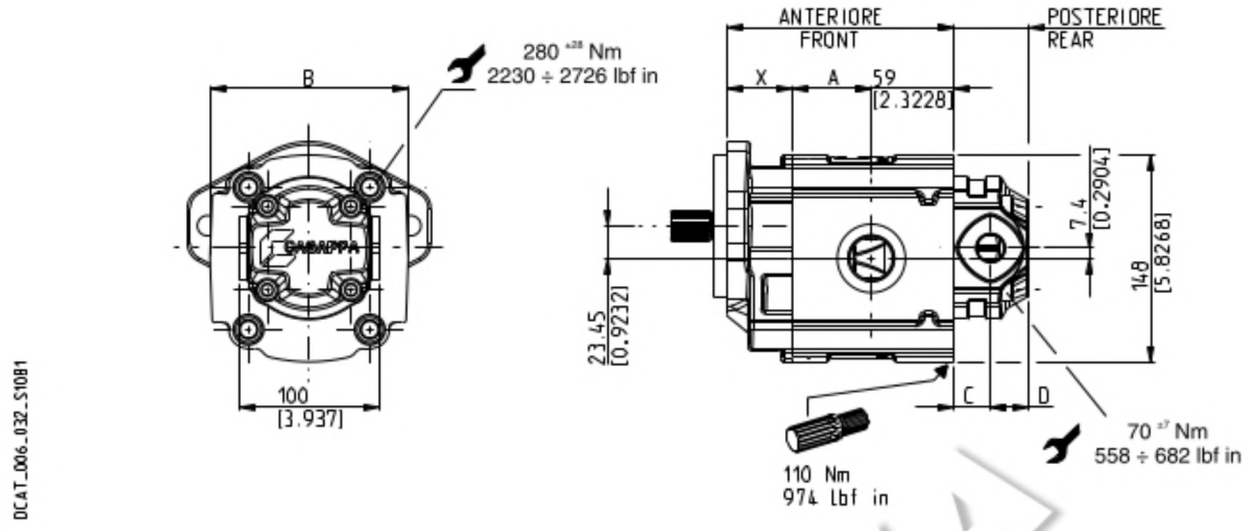
MOUNTING FLANGE:
for **X** dimension see page 44 ÷ 48

FRONT: **KSL** (long shaped body)

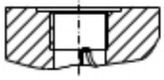
REAR: **KSC** (short shaped body)

Pump type	A	B	
		European ports Split ports (SSM) / (SSS)	Gas ports (BSPP) SAE ports (ODT)
	mm (inch)	mm (inch)	mm (inch)
KP 30•22	38 (1.4961)	134 (5.2756)	142 (5.5906)
KP 30•27	41 (1.6142)	134 (5.2756)	142 (5.5906)
KP 30•31	43,5 (1.7126)	134 (5.2756)	142 (5.5906)
KP 30•34	46 (1.8110)	134 (5.2756)	142 (5.5906)
KP 30•38	46 (1.8110)	134 (5.2756)	142 (5.5906)

HYDROMA



Ports type (see availability on page 50)

European	Split (SSM) / (SSS)	Gas (BSPP)	SAE (ODT)
			

DRIVE SHAFTS:
see page 41 and page 42

MOUNTING FLANGE:
for **X** dimension see page 44 ÷ 48

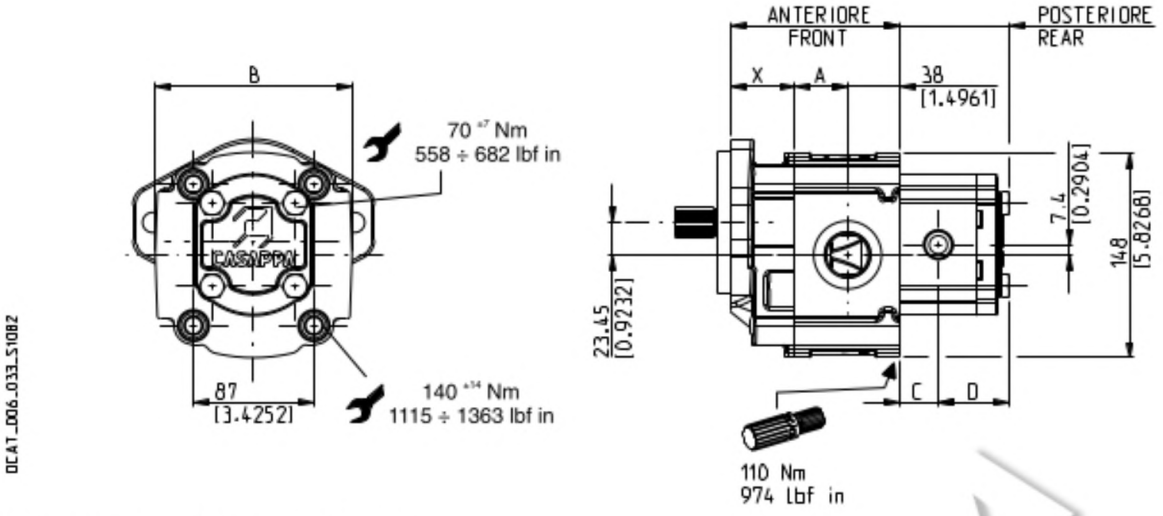
FRONT: **CSL** (long body)

REAR: Kappa 20 Series
(for features please consult the proper technical catalog)

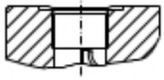
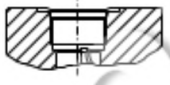
Pump type	A	B	
		Eur. - Split ports	Gas - SAE ports
	mm (inch)	mm (inch)	mm (inch)
KP 30•22	38 (1.4961)	134 (5.2756)	142 (5.5906)
KP 30•27	41 (1.6142)	134 (5.2756)	142 (5.5906)
KP 30•31	43,5 (1.7126)	134 (5.2756)	142 (5.5906)
KP 30•34	46 (1.8110)	134 (5.2756)	142 (5.5906)
KP 30•38	49 (1.9291)	134 (5.2756)	142 (5.5906)
KP 30•41	50,5 (1.9882)	134 (5.2756)	142 (5.5906)
KP 30•43	52 (2.0472)	134 (5.2756)	142 (5.5906)
KP 30•46	53,5 (2.1063)	134 (5.2756)	142 (5.5906)
KP 30•51	57 (2.2441)	134 (5.2756)	142 (5.5906)
KP 30•56	60 (2.3622)	134 (5.2756)	142 (5.5906)
KP 30•61	63 (2.4803)	134 (5.2756)	142 (5.5906)
KP 30•73	71 (2.7953)	134 (5.2756)	142 (5.5906)

Pump type	C	D
	mm (inch)	mm (inch)
KP 20•4	24 (0.9449)	27,5 (1.0827)
KP 20•6,3	26,5 (1.0433)	27,5 (1.0827)
KP 20•8	29 (1.1417)	27,5 (1.0827)
KP 20•11,2	32,5 (1.2795)	27,5 (1.0827)
KP 20•14	31 (1.2205)	33 (1.2992)
KP 20•16	36,5 (1.4370)	33 (1.2992)
KP 20•20	43 (1.6929)	33 (1.2992)
KP 20•25	36 (1.4173)	48 (1.8898)
KP 20•31,5	46 (1.8110)	48 (1.8898)

HYDROVA



Ports type (see availability on page 50)

European	Split (SSM) / (SSS)	Gas (BSPP)	SAE (ODT)
			

DRIVE SHAFTS:
see page 41 and page 42

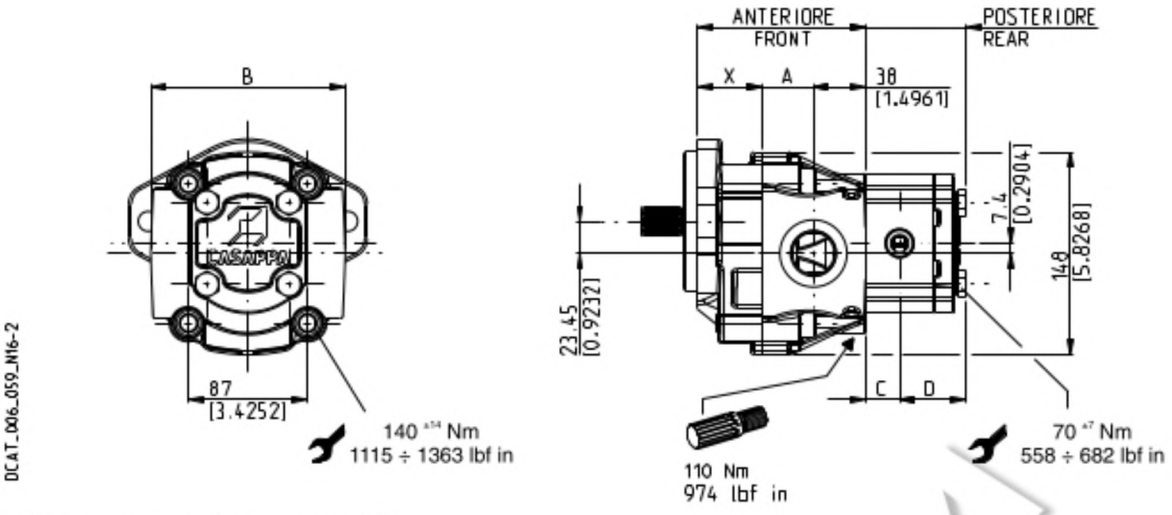
MOUNTING FLANGE:
for X dimension see page 44 ÷ 48

FRONT: **CSC** (short body)

REAR: Polaris 20 Series
(for features please consult the proper technical catalog)

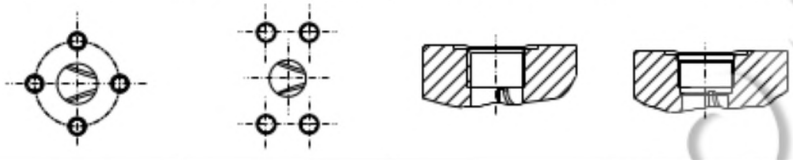
Pump type	A	B	
		Eur. - Split ports	Gas - SAE ports
	mm (inch)	mm (inch)	mm (inch)
KP 30•22	38 (1.4961)	134 (5.2756)	142 (5.5906)
KP 30•27	41 (1.6142)	134 (5.2756)	142 (5.5906)
KP 30•31	43,5 (1.7126)	134 (5.2756)	142 (5.5906)
KP 30•34	46 (1.8110)	134 (5.2756)	142 (5.5906)
KP 30•38	49 (1.9291)	134 (5.2756)	142 (5.5906)
KP 30•41	50,5 (1.9882)	134 (5.2756)	142 (5.5906)
KP 30•43	52 (2.0472)	134 (5.2756)	142 (5.5906)
KP 30•46	53,5 (2.1063)	134 (5.2756)	142 (5.5906)
KP 30•51	57 (2.2441)	134 (5.2756)	142 (5.5906)
KP 30•56	60 (2.3622)	134 (5.2756)	142 (5.5906)
KP 30•61	63 (2.4803)	134 (5.2756)	142 (5.5906)
KP 30•73	71 (2.7953)	134 (5.2756)	142 (5.5906)

Pump type	C	D
	mm (inch)	mm (inch)
PLP 20•4	25,8 (1.0157)	49,3 (1.9409)
PLP 20•6,3	27 (1.0630)	50,5 (1.9882)
PLP 20•7,2	27,5 (1.0826)	51 (2.0079)
PLP 20•8	28,3 (1.1142)	51,8 (2.0394)
PLP 20•9	28,9 (1.1378)	52,4 (2.0630)
PLP 20•10,5	30,3 (1.1929)	53,8 (2.1181)
PLP 20•11,2	30,5 (1.2008)	54 (2.1260)
PLP 20•14	33 (1.2992)	56,5 (2.2244)
PLP 20•16	34,8 (1.3701)	58,3 (2.2953)
PLP 20•19	36,5 (1.4370)	60 (2.3622)
PLP 20•20	38 (1.4961)	61,5 (2.4213)
PLP 20•24,5	40,8 (1.6063)	64,3 (2.5315)
PLP 20•25	42 (1.6535)	65,5 (2.5787)
PLP 20•27,5	43,4 (1.7087)	66,9 (2.6339)
PLP 20•31,5	47 (1.8504)	70,5 (2.7756)



Ports type (see availability on page 50)

European	Split (SSM) / (SSS)	Gas (BSPP)	SAE (ODT)



DRIVE SHAFTS:
see page 41 and page 42

MOUNTING FLANGE:
for **X** dimension see page 44 ÷ 48

FRONT: **HSC** (short shaped body)

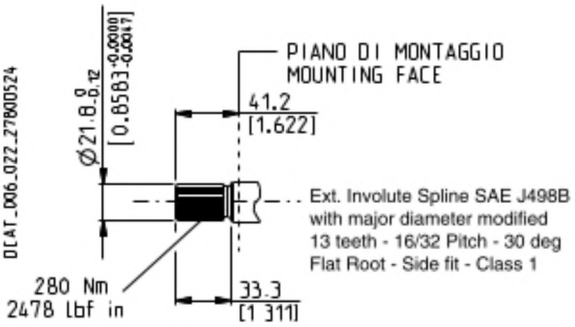
REAR: Polaris 20 Series
(for features please consult the proper technical catalog)

Pump type	A	B	
		Eur. - Split ports	Gas - SAE ports
	mm (inch)	mm (inch)	mm (inch)
KP 30•22	38 (1.4961)	134 (5.2756)	142 (5.5906)
KP 30•27	41 (1.6142)	134 (5.2756)	142 (5.5906)
KP 30•31	43,5 (1.7126)	134 (5.2756)	142 (5.5906)
KP 30•34	46 (1.8110)	134 (5.2756)	142 (5.5906)
KP 30•38	46 (1.8110)	134 (5.2756)	142 (5.5906)

Pump type	C	D
	mm (inch)	mm (inch)
PLP 20•4	25,8 (1.0157)	49,3 (1.9409)
PLP 20•6,3	27 (1.0630)	50,5 (1.9882)
PLP 20•7,2	27,5 (1.0826)	51 (2.0079)
PLP 20•8	28,3 (1.1142)	51,8 (2.0394)
PLP 20•9	28,9 (1.1378)	52,4 (2.0630)
PLP 20•10,5	30,3 (1.1929)	53,8 (2.1181)
PLP 20•11,2	30,5 (1.2008)	54 (2.1260)
PLP 20•14	33 (1.2992)	56,5 (2.2244)
PLP 20•16	34,8 (1.3701)	58,3 (2.2953)
PLP 20•19	36,5 (1.4370)	60 (2.3622)
PLP 20•20	38 (1.4961)	61,5 (2.4213)
PLP 20•24,5	40,8 (1.6063)	64,3 (2.5315)
PLP 20•25	42 (1.6535)	65,5 (2.5787)
PLP 20•27,5	43,4 (1.7087)	66,9 (2.6339)
PLP 20•31,5	47 (1.8504)	70,5 (2.7756)

SAE "B" SPLINE A8

Mounting face refer to flange code **K9**

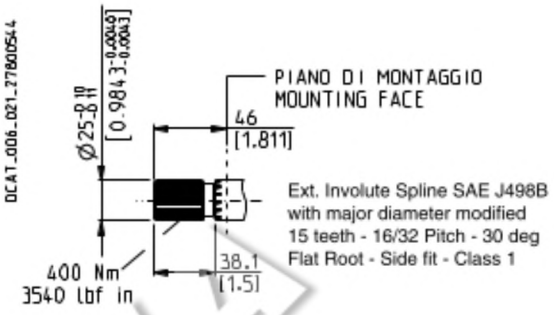


SAE "BB" SPLINE A5

Not available with size:

30•31 **30•41** **30•46**

Mounting face refer to flange code **K9**

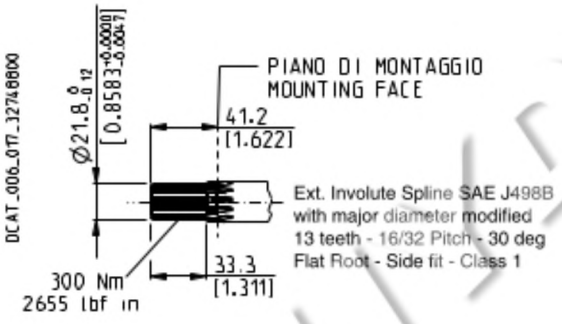


SAE "B" SPLINE 04

Not available with size:

30•31 **30•46**

Mounting face refer to flange code **S3**

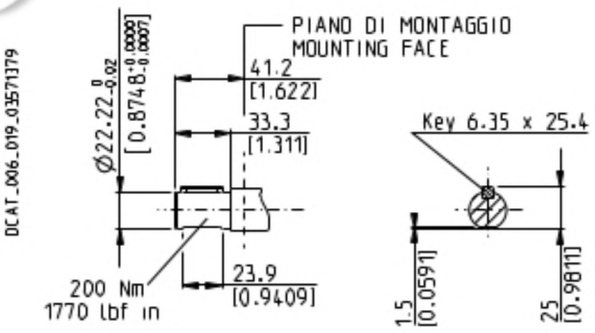


SAE "B" STRAIGHT 32

Not available with size:

30•31 **30•41** **30•46**

Mounting face refer to flange code **S3**

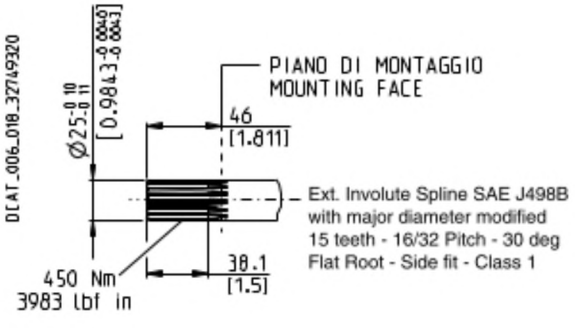


SAE "BB" SPLINE 05

Not available with size:

30•22 **30•31** **30•41** **30•46**

Mounting face refer to flange code **S3**

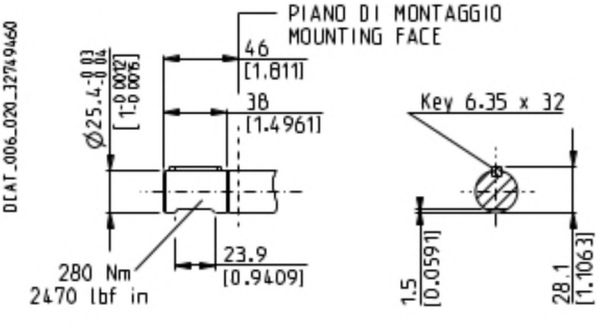


SAE "BB" STRAIGHT 33

Not available with size:

30•22 **30•31** **30•41** **30•46** **30•56**

Mounting face refer to flange code **S3**



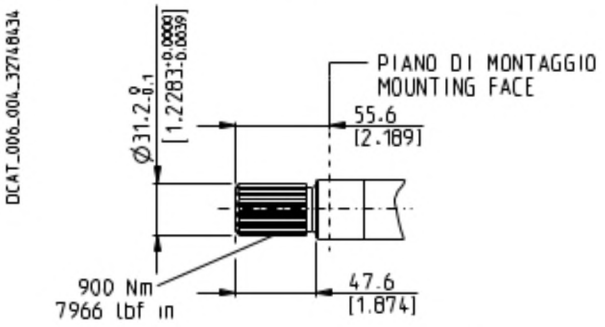
02/11.2004

SAE "C" SPLINE 06

Not available with size:

30•22	30•31	30•41	30•46	30•56

Mounting face refer to flange code **S8**



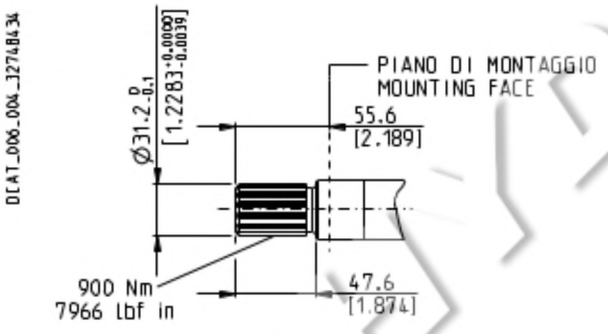
Ext. Involute Spline SAE J498B
with major diameter modified
14 teeth - 12/24 Pitch - 30 deg
Flat Root - Side fit - Class 1

SAE "C" SPLINE - SHORT TYPE A6

Non disponibile nei seguenti tipi:

30•56	30•73

Mounting face refer to flange code **Q3**



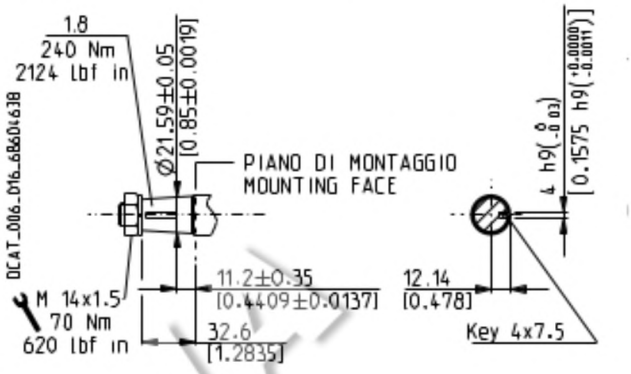
Ext. Involute Spline SAE J498B
with major diameter modified
14 teeth - 12/24 Pitch - 30 deg
Flat Root - Side fit - Class 1

EUROPEAN TAPERED 83

Not available with size:

30•31	30•41	30•46	30•56

Mounting face refer to flange code **E3**

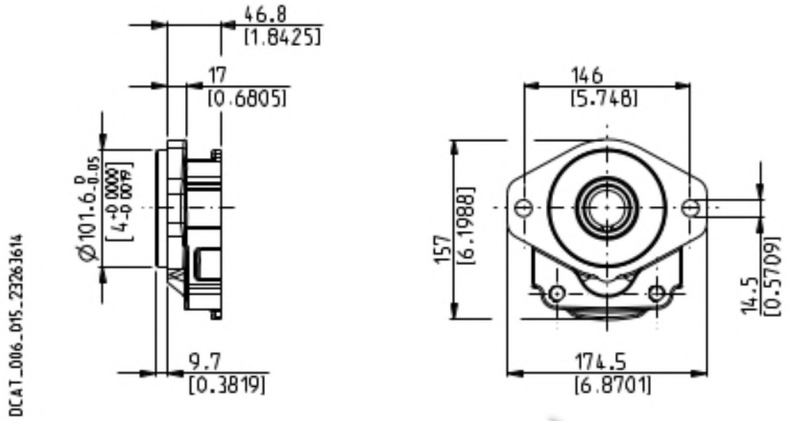


HYDROMA

SAE "B" 2 HOLES

K9

Conforms to SAE J744



VERSIONS See page 38	DRIVE SHAFTS See page 41 A8	A5
0	■	●

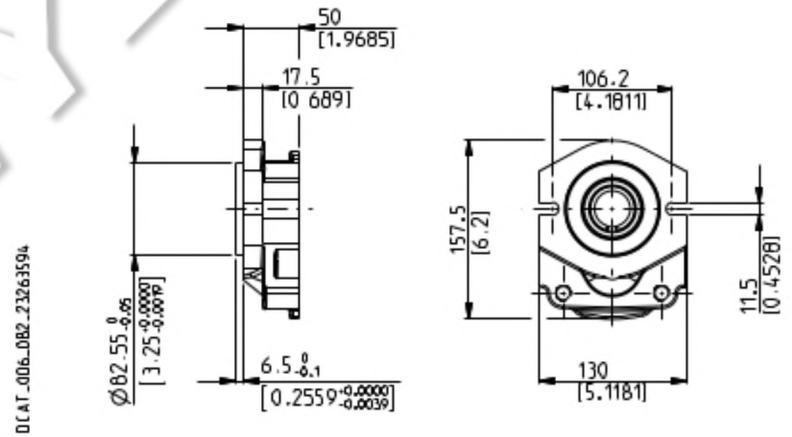
■ Standard combination
● Available combination

N.B.: For the mounting with flanged ports bodies, we recommend to use studs.

SAE "A" 2 HOLES

S9

Conforms to SAE J744



VERSIONS See page 38	DRIVE SHAFTS See page 41 A8
0	■

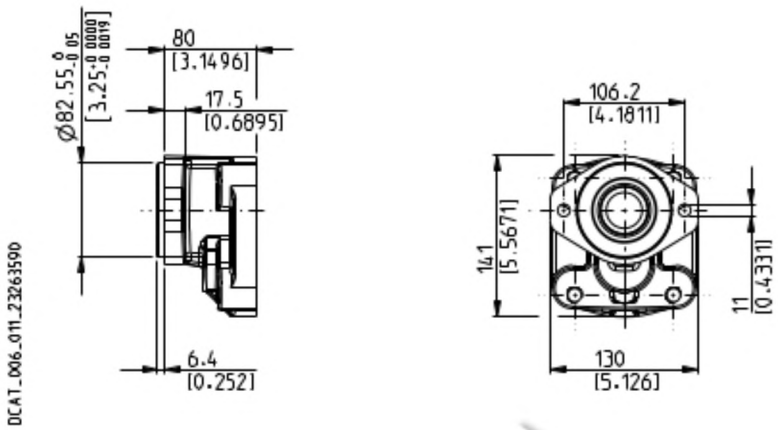
■ Standard combination
● Available combination

HYDROMA

SAE "A" 2 HOLES

S1

Conforms to SAE J744



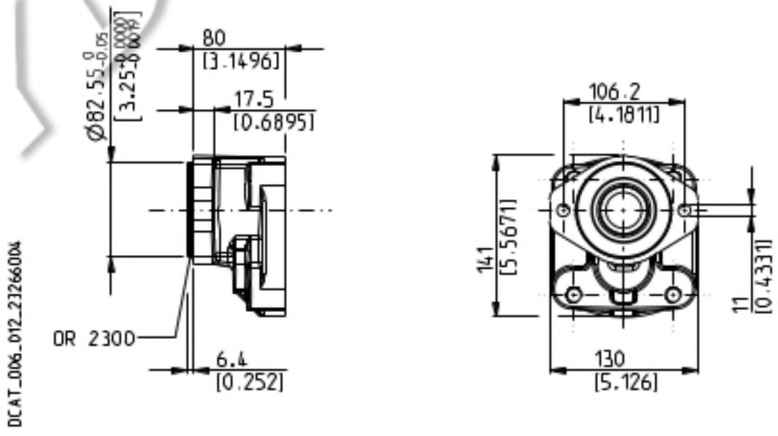
VERSIONS See page 38	DRIVE SHAFTS See page 41 04	32	05	33
0	■	●	●	●
1	■	●	●	●
2	■	●	●	●

■ Standard combination
● Available combination

SAE "A" 2 HOLES

S2

Conforms to SAE J744



VERSIONS See page 38	DRIVE SHAFTS See page 41 04	32	05	33
0	■	●	●	●
1	■	●	●	●
2	■	●	●	●

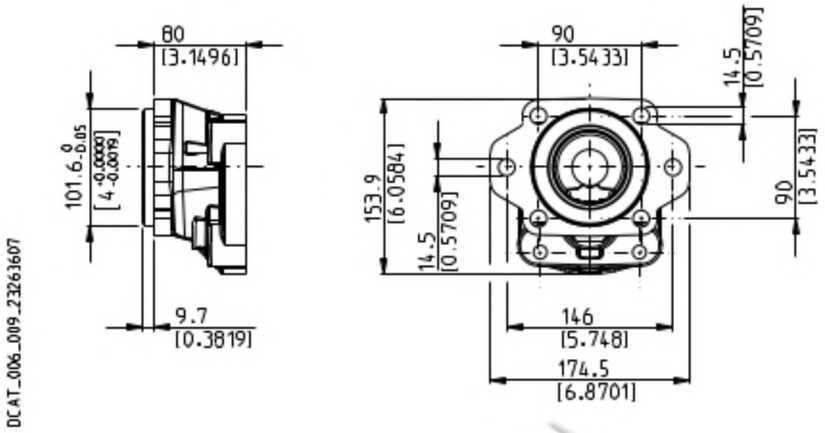
■ Standard combination
● Available combination

HYDROMA

SAE "B" 2-4 HOLES

S3

Conforms to SAE J744



DRIVE SHAFTS
See page 41

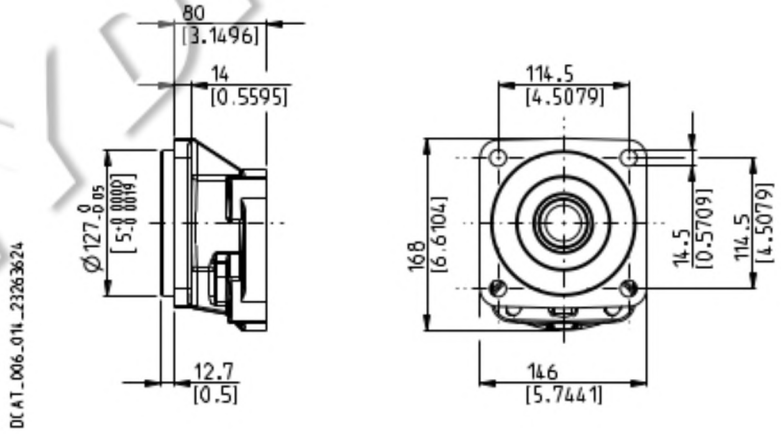
VERSIONS See page 38	04	32	05	33
0	■	●	●	●
1	■	●	●	●
2	■	●	●	●
3	■	●	●	●
6	■	●	●	●

■ Standard combination
● Available combination

SAE "C" 4 HOLES

S6

Conforms to SAE J744



DRIVE SHAFTS
See page 41 and 42

VERSIONS See page 38	06	05
0	■	●
1	■	●
2	■	●
3	■	●
6	■	●

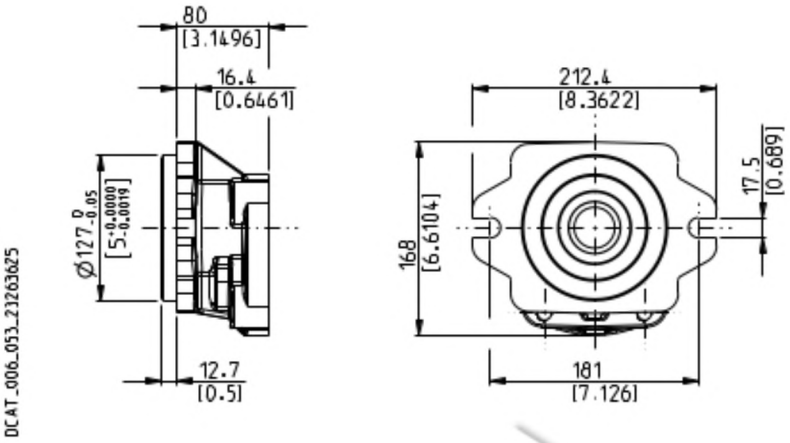
■ Standard combination
● Available combination

HYDROMA

SAE "C" 2 HOLES

S8

Conforms to SAE J744



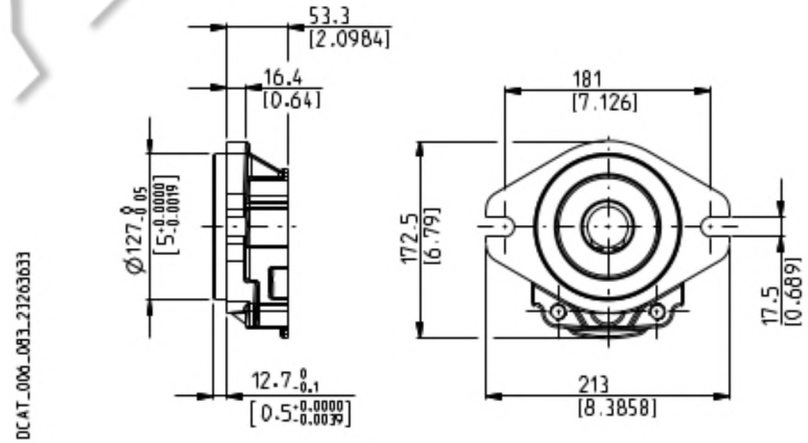
VERSIONS See page 38	DRIVE SHAFTS See page 41 and 42 06	05
0	■	●
1	■	●
2	■	●
3	■	●
6	■	●

■ Standard combination
● Available combination

SAE "C" 2 HOLES

Q3

Conforms to SAE J744

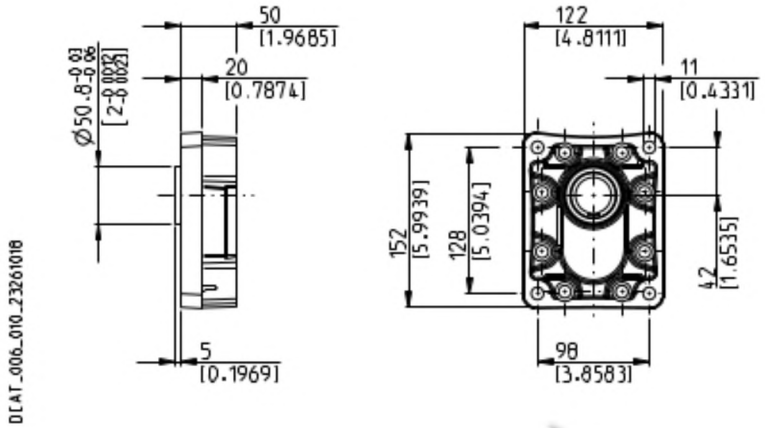


VERSIONS See page 38	DRIVE SHAFTS See page 42 A6
0	■

■ Standard combination
● Available combination

HYDROMA

EUROPEAN
E3



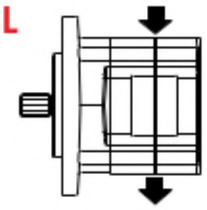
VERSIONS See page 38	DRIVE SHAFTS See page 41 and 42 83	A8	A5
0	■	●	●

■ Standard combination
● Available combination

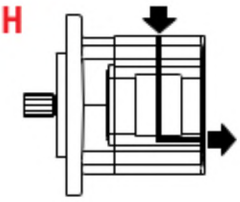
HYDROMA

PORTS TYPE

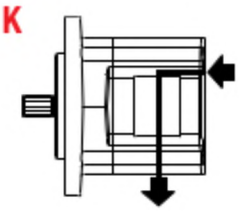
L



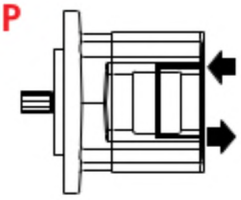
H



K



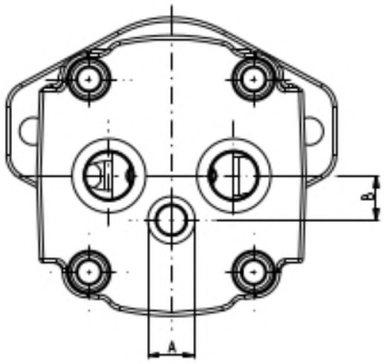
P



PORTS TYPE	SIDE PORTS										REAR PORTS			
	European		Split SSM		Spit SSS		Gas BSPP		SAE ODT		Gas BSPP		SAE ODT	
Pump type	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
K. 30•22	ED	EB	MC	MB	SC	SB	GF	GE	OF	OD	GF	GE	OF	OD
K. 30•27	ED	EB	MC	MB	SC	SB	GF	GE	OF	OD	GF	GE	OF	OD
K. 30•31	ED	EB	MC	MB	SC	SB	GF	GE	OF	OD	GF	GE	OF	OD
K. 30•34	ED	EB	MC	MB	SC	SB	GF	GE	OF	OD	GF	GE	OF	OD
K. 30•38	ED	EB	MC	MB	SC	SB	GF	GE	OF	OD	GF	GE	OF	OD
K. 30•41	ED	EB	MD	MC	SD	SC	GG	GF	OG	OF	GG	GF	OG	OF
K. 30•43	ED	EB	MD	MC	SD	SC	GG	GF	OG	OF	GG	GF	OG	OF
K. 30•46	ED	EB	MD	MC	SD	SC	GG	GF	OG	OF	GG	GF	OG	OF
K. 30•51	ED	EB	MD	MC	SD	SC	GG	GF	OG	OF	GG	GF	OG	OF
K. 30•56	ED	EB	ME	MD	SE	SD	GG	GF	OG	OF	GG	GF	OG	OF
K. 30•61	ED	EB	ME	MD	SE	SD	GG	GF	OG	OF	GG	GF	OG	OF
K. 30•73	EF	ED	ME	MD	SE	SD	GG	GF	OG	OF	GG	GF	OG	OF
K. 40•63	EG	ED	ME	MD	SE	SD	GG	GF	OG	OF	GF	GE	OF	OD
K. 40•73	EG	ED	ME	MD	SE	SD	GG	GF	OG	OF	GF	GE	OF	OD
K. 40•87	EG	ED	MF	ME	SF	SE	GG	GF	OG	OF	GG	GF	OG	OF
K. 40•109	EG	ED	MF	ME	SF	SE	GG	GF	OG	OF	GG	GF	OG	OF
K. 40•121	EG	EF	MF	ME	SF	SE	GH	GF	OH	OF	GH	GF	OH	OF
K. 40•133	EG	EF	MF	ME	SF	SE	GH	GF	OH	OF	GH	GF	OH	OF
K. 40•151	EG	EF	MF	ME	SF	SE	GH	GF	OH	OF	GH	GF	OH	OF

EXTERNAL DRAIN PORTS

Pump type / Motor type	GAS BSPP A	GAS BSPP B mm (inch)	SAE ODT A	SAE ODT B mm (inch)
K. 30	GC	23,45 (0.9232)	OA	23,45 (0.9232)
K. 40	GC	31 (1.2205)	OA	31 (1.2205)



HYDROMA

PORTS SIZE

Tightening torque for low pressure side port

Tightening torque for high pressure side port [values obtained at 5075 psi (350 bar)]

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

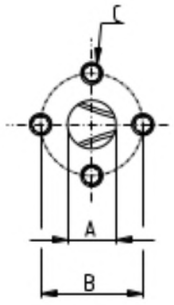
EUROPEAN FLANGED PORTS - 4 Bolts — EUROPEAN

Metric thread ISO 60° conforms to ISO/R 262

CODE	A mm (inch)	B mm (inch)	C Thread Depth mm (inch)	Nm (lbf in)	Nm (lbf in)
EB	19 (0.7480)	40 (1.5748)	M 8 18 (0.7087)	15 +1 (133 ÷ 142)	15 +1 (133 ÷ 142)
ED	27 (1.0630)	51 (2.0079)	M 10 15 (0.5906)	20 +1 (177 ÷ 186)	30 +2,5 (266 ÷ 288)
			M 10 (◆) 13 (0.5118)		25 +1 (◆) (221 ÷ 230)
EF	33 (1.2992)	62 (2.4409)	M 12 17 (0.6693)	25 +1 (221 ÷ 230)	50 +2,5 (443 ÷ 465)
			M 12 (◆) 18 (0.7087)		
EG	38 (1.4961)	72 (2.8346)	M 12 18 (0.7087)	30 +2,5 (266 ÷ 288)	—

(◆) For KAPPA 40

D(AT_006_024_21060533



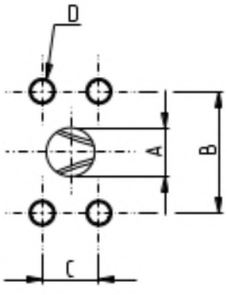
SAE FLANGED PORTS J518 - Standard pressure series 3000 PSI — SSM

Metric thread ISO 60° conforms to ISO/R 262

CODE	A mm (inch)	B mm (inch)	C mm (inch)	D Thread Depth mm (inch)	Nm (lbf in)	Nm (lbf in)
MB	19 (0.7480)	47,6 (1.8740)	22,2 (0.8740)	M 10 17 (0.6693)	20 +1 (177 ÷ 186)	30 +2,5 (266 ÷ 288)
MC	25,4 (1.0000)	52,4 (2.0630)	26,2 (1.0315)	M 10 17 (0.6693)	20 +1 (177 ÷ 186)	30 +2,5 (266 ÷ 288)
MD	30,5 (1.2008)	58,7 (2.3110)	30,2 (1.1890)	M 10 17 (0.6693)	20 +1 (177 ÷ 186)	35 +2,5 (310 ÷ 332)
				M 10 (◆) 22 (0.8661)		
ME	39,3 (1.5472)	69,8 (2.7480)	35,7 (1.4055)	M 12 17 (0.6693)	30 +2,5 (266 ÷ 288)	60 +5 (531 ÷ 575)
				M 12 (◆) 27 (1.0630)		
MF	51 (2.0079)	77,8 (3.0630)	42,9 (1.6890)	M 12 27 (1.0630)	25 +1 (221 ÷ 230)	—

(◆) For KAPPA 40

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HYDROMA

PORTS SIZES

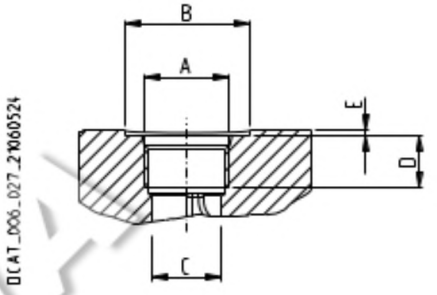
Tightening torque for low pressure side port

Tightening torque for high pressure side port [values obtained at 5075 psi (350 bar)]

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" - 12 UNF - 2B	26 (1.0236)	13 (0.5118)	15 (0.5906)	2 (0.0787)	15 +1 (133 ÷ 142)	—
OD	3/4"	1 1/16" - 12 UNF - 2B	42 (1.6535)	24,8 (0.9764)	20 (0.7874)	2 (0.0787)	40 +2,5 (354 ÷ 376)	120 +10 (1062 ÷ 1151)
OF	1"	1 5/16" - 12 UNF - 2B	49 (1.9291)	30,5 (1.2008)	20 (0.7874)	2 (0.0787)	60 +5 (531 ÷ 575)	170 +10 (1505 ÷ 1593)
OG	1" 1/4	1 5/8" - 12 UNF - 2B	58 (2.2835)	39,1 (1.5394)	20 (0.7874)	2 (0.0787)	70 +5 (620 ÷ 664)	—
OH	1" 1/2	1 7/8" - 12 UNF - 2B	65 (2.5591)	45 (1.7717)	20 (0.7874)	2 (0.0787)	100 +5 (885 ÷ 929)	—

(◆) = Drain port

HOW TO ORDER KAPPA 30 SINGLE PUMPS

1	2	3		4	5		6	7		8		9
KP 30-27	S	0	-	04	S3	-	L	OF/OD	-	N	-	CSC

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

2 Rotation	Code
Left	S
Right	D
Reversible	R
Reversible internal drain	B

3 Version	Code
Without outboard bearing	0
With outboard bearing	1
With outboard bearing and indep. shaft	2
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	5 Mounting flange
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	6 Ports position
L	IN/OUT side
H	IN side/ OUT rear
K	IN rear/ OUT side
P	IN/OUT rear

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

HYDROKAP

HOW TO ORDER KAPPA 30 SINGLE PUMPS

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 56-61-73
OF/OG	OF/OG	KM 30	
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 56-61-73
GF/GG	GF/GG	KM 30	

8	Seals (a)	Code
Buna N (standard)		N
Buna N with hig back pressure shaft seals		N-H
Viton		V
Buna N and bronze thrust plate		N Bz
Viton and bronze thrust plate		V Bz

9	Body type	Code
Short body		CSC
Short shaped body (b)		KSC

(a) Choose the seals according to the temperature shown on page 4.

(b) Available only with 22-27-31-34-38 displacements.

HYDROMA