

EIPC3 EIPC5

INTERNAL GEAR PUMPS



- new Generation EIPC
new technology
- up to 320 bar
- industrial version
- aluminium housing
- noise-optimized
- multi-flow-pumps
with common
suction port

NEW! EIPC5



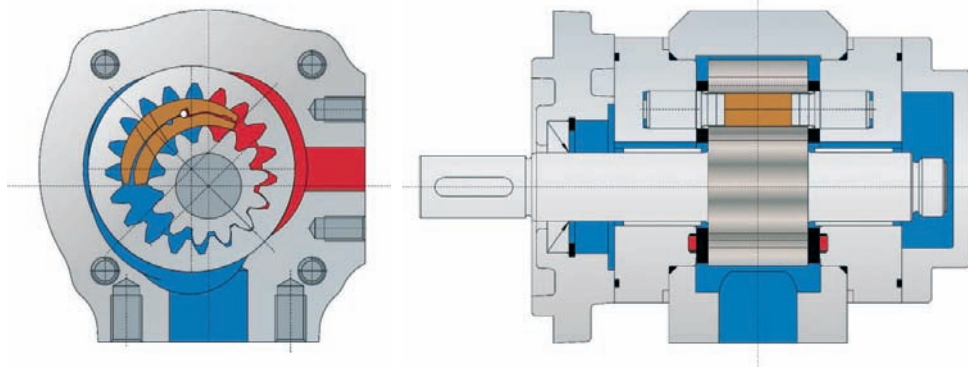
Internal gear pump Type EIPC3 for industrial applications with constant displacement volume



EIPC3

Characteristics

- Internal gear pump with axial and radial gap compensation
- Radial compensation with segments
- Suction and pressure port radial
- Field of application: Industrial hydraulic
- Low noise
- Long time life
- Low pulsation (pressure pulsation ~ 2 %)
- Multi flow combinations



Technical Data:

Rated Size NG	020	025	032	040	050	064
Spec. volume V_{th} [cm ³ /rev] ^{***}	20.0	24.8	32.1	40.1	50.3	64.4
Continuous operating pressure [bar] ^{**}	250					
Peak operating pressure [bar] max. 10 sec 15 % duty cycle	320		300		280	280
Cut-in pressure peak [bar] ^{**}	350		325		300	300
Max. speed [min ⁻¹]	3,600	3,200	3,000	2,500	1,800	1,800
Nominal speed [min ⁻¹]	200 – 3,600	200 – 3,200	200 – 3,000	100 – 2,500	100 – 1,800	100 – 1,800
Operating viscosity [mm ² /s]	10 – 300					
Starting viscosity [mm ² /s]	2,000					
Operating temperature [°C]	-20 to +100					
Operating medium	HL – HLP DIN 51 524 part 1/2					
Max. medium temperature [°C]	120					
Min. medium temperature [°C]	-40					
Max. ambient temperature [°C]	80					
Min. ambient temperature [°C]	-40					
Max. admission pressure (intake side) [bar]	2 bar absolute					
Min. admission pressure (intake side) [bar]	0.8 bar absolute (Start 0.6)					
Weight appr. [kg]	8.3	8.6	9.2	9.8	10.5	16.7
Degree of filtration	Class 20/18/15 due to ISO 4406					

Efficiency η_{vol}	93	93	94	95	95	95
Efficiency η_{hm}	91	92	92	93	93	93
Pump noise* (measured in sound chamber) dB[A]	62	63	64	65	66	66
	n = 1.450	$\Delta p = 250$ bar		T = 50 °C		Medium: HLP 46
	*Measured in anechoic room of Eckerle Hydraulic Division; Axial microphone distance 1.0 m					

** For acceptable pressure at 400-1.800 rpm. Further rpm on request.

*** Due to manufacturing tolerances the displacement volume could vary.

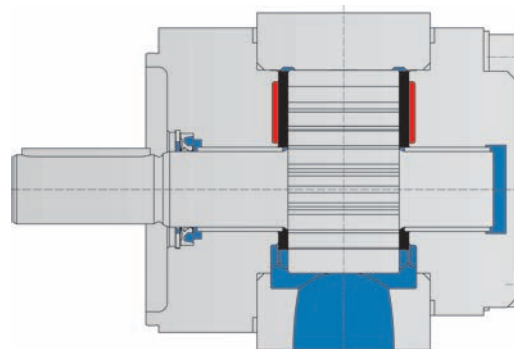
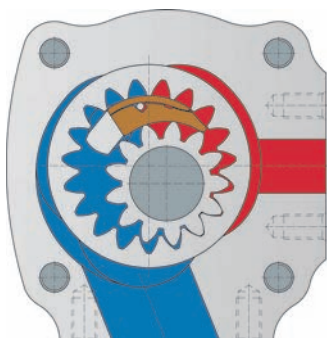
Internal gear pump Type EIPC5 for industrial applications with constant displacement volume



EIPC5

Characteristics

- Internal gear pump with axial and radial gap compensation
- Radial compensation with segments
- Suction and pressure port radial
- Field of application: Industrial hydraulic
- Low noise
- Long time life
- Low pulsation (pressure pulsation ~ 2 %)
- Multi flow combinations



Technical Data:

Rated Size NG	064	080	100
Spec. volume V_{th} [cm ³ /rev]**	65,3	80,4	100,5
Continuous operating pressure [bar]**	210		
Peak operating pressure [bar] max. 10 sec 15 % dutycycle	230		
Cut-in pressure peak [bar]**	250		
Max. speed [min ⁻¹]	3.000	3.000	2.500
Nominal speed [min ⁻¹]	100 – 3.000	100 – 3.000	100 – 2.500
Operating viscosity [mm ² /s]	10 – 300		
Starting viscosity [mm ² /s]	2.000		
Operating temperature [°C]	-20 to +100		
Operating medium	HL – HLP DIN 51 524 part 1/2		
Max. medium temperature [°C]	120		
Min. medium temperature [°C]	-40		
Max. ambient temperature [°C]	80		
Min. ambient temperature [°C]	-40		
Max. admission pressure (intake side) [bar]	2 bar absolute		
Min. admission pressure (intake side) [bar]	0.8 bar absolute (Start 0.6)		
Weight appr. [kg]	11,2	13,0	13,5
Degree of filtration	Class 20/18/15 due to ISO 4406		

Efficiency η_{vol}	94	95	95
Efficiency η_{hm}	92	93	93
Pump noise* (measured in sound chamber) dB[A]	69	70	71
	n = 1.450	$\varnothing_p = 210$ bar	T = 50 °C
	Medium: HLP 46		
	*Measured in anechoic room of Eckerte Hydraulic Division; Axial microphone distance 1.0 m		

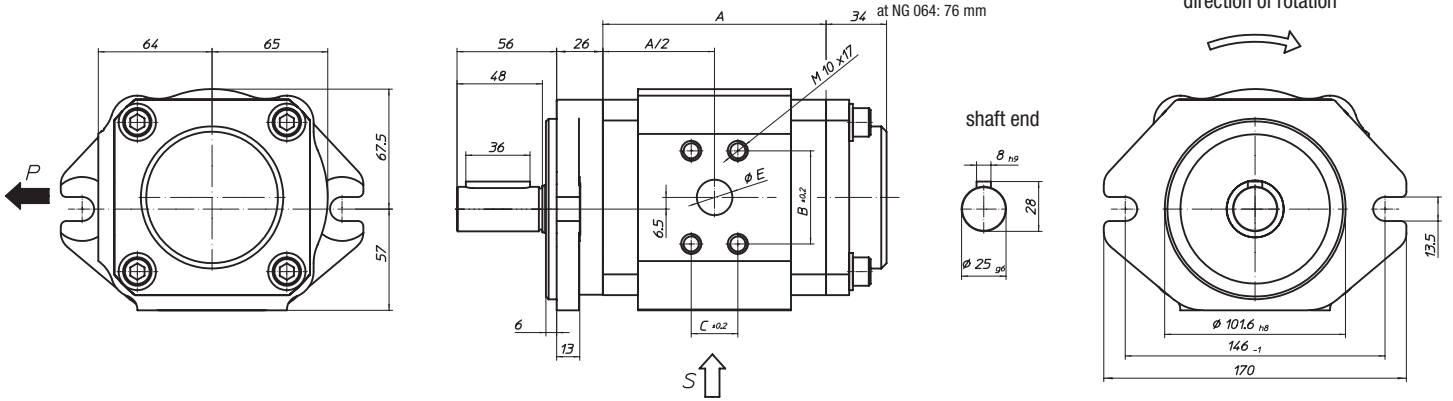
** For acceptable pressure at 400-1.800 rpm. Further rpm on request.

*** Due to manufacturing tolerances the displacement volume could vary.



Pump with SAE-B-2-hole flange and cylindrical shaft

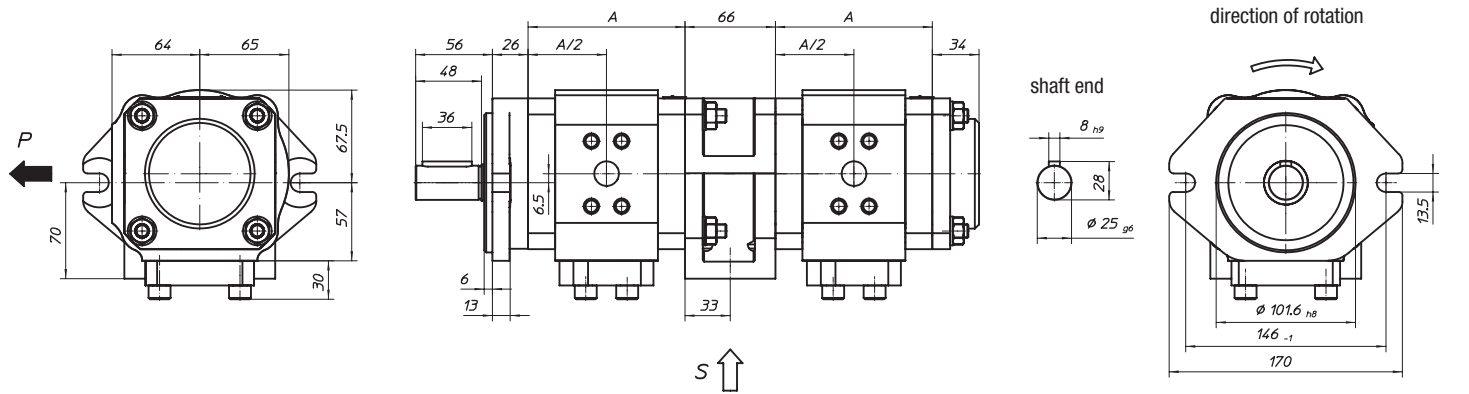
Order example: EIPC3-__RK23-1X



NG	A	B	C	E
020	97.9	47.5	22	18
025	104.4	47.5	22	18
032	114.4	47.5	22	18
040	125.4	52.4	26.2	20
050	139.4	52.4	26.2	20
064	139.4	52.4	26.2	20

Double Pump with SAE-B-2-hole flange and cylindrical shaft

Order example: EIPC3-__RK20-1X+
EIPC3-__RP30-1X



NG	A
020	97.9
025	104.4
032	114.4
040	125.4
050	139.4

Pressure connections see single pump

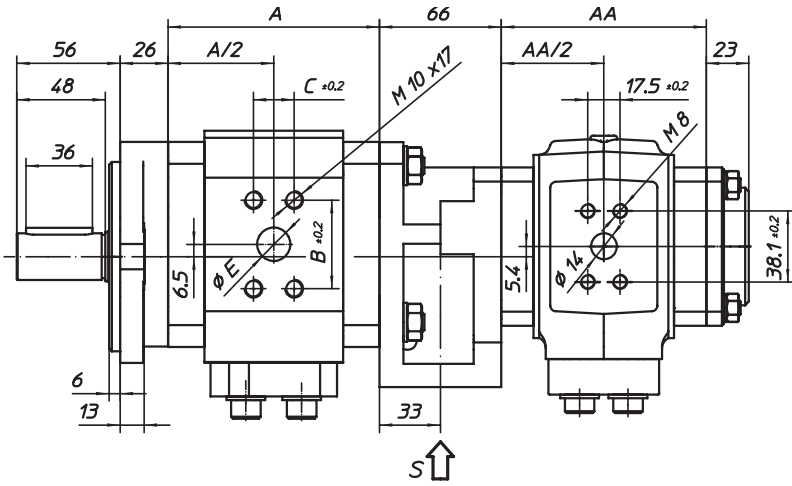
NG 020-032

NG 040-050

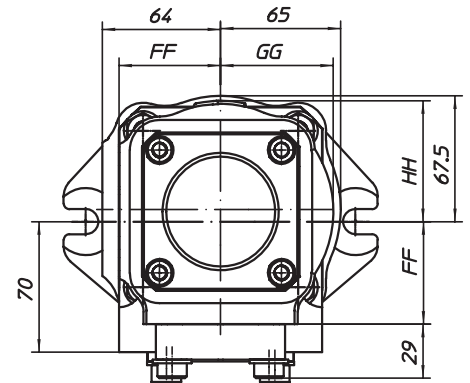
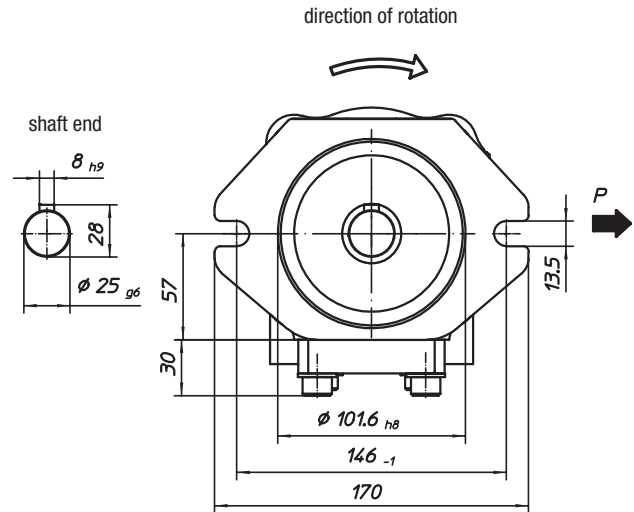
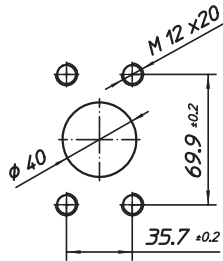


Double Pump with SAE-B-2-hole flange and cylindrical shaft

Order example: EIPC3-__RK20-1X+
EIPH2-__RP30-1X



common suction port



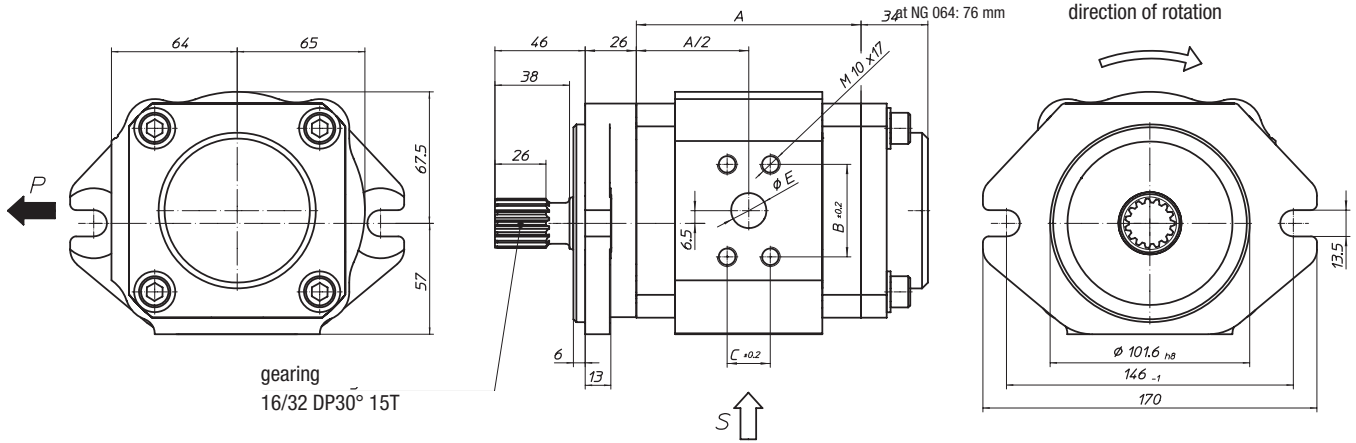
EIPC3				
NG	A	B	C	E
020	97.9	47.5	22	18
025	104.4	47.5	22	18
032	114.4	47.5	22	18
040	125.4	52.4	26.2	20
050	139.4	52.4	26.2	20

EIPH2				
NG	AA	FF	GG	HH
004	71	50	54	57
005	71	50	54	57
006	73	50	54	57
008	76	50	54	57
011	82	50	54	57
013	87	50	54	57
016	92	50	54	57
019	99	55	59	62
022	105	55	59	62
025	111	55	59	62

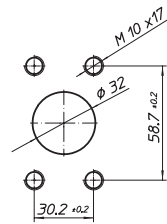


Pump with SAE-B-2-hole flange and spline shaft

Order example: EIPC3-__ _RL23-1X



suction port

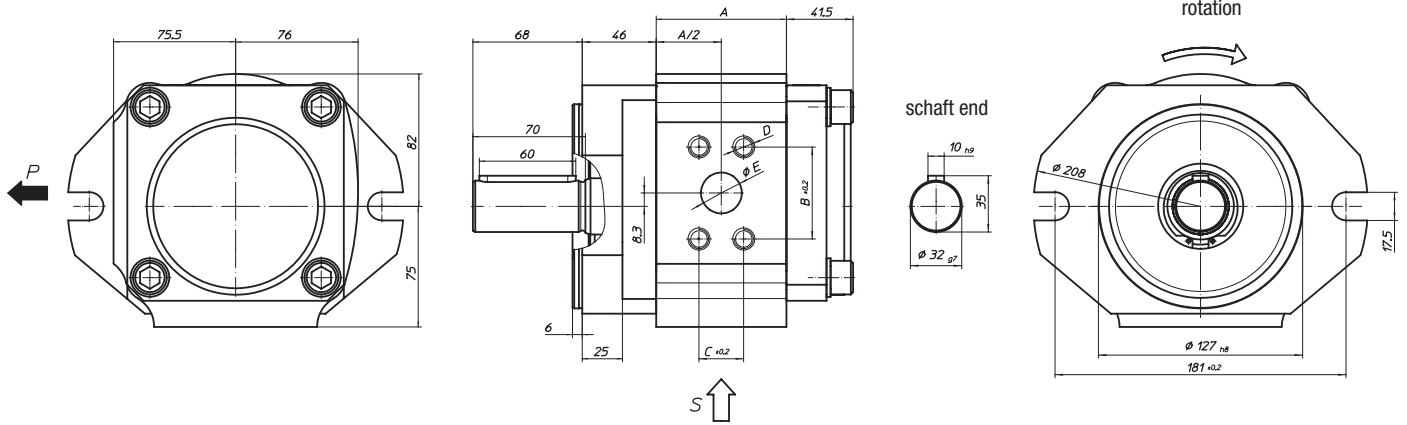


NG	A	B	C	E
020	97.9	47.5	22	18
025	104.4	47.5	22	18
032	114.4	47.5	22	18
040	125.4	52.4	26.2	20
050	139.4	52.4	26.2	20
064	139.4	52.4	26.2	20



Pump with SAE-C-2-hole flange and cylindrical shaft

Order example: EIPC5-__ _RA23-1X

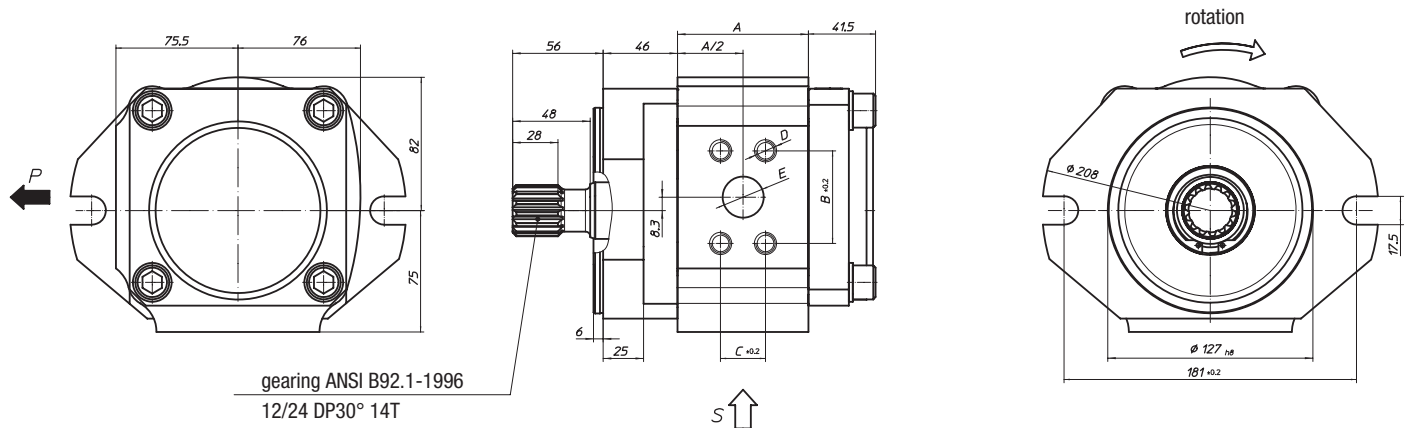


NG	A	B	C	D	E	L	M	N
064	81	57,2*	27,8*	M12x22	25,4	77,8	42,9	47,2
080	93	66,7*	31,8*	M14x24	31,75	77,8	42,9	47,2
100	109	66,7*	31,8*	M14x24	31,75	88,9	50,8	63,5

* Pressure port: SAE 518C, high pressure series (code 62)

Pump with SAE-C-2-hole flange and spline shaft

Order example: EIPC5-__ _RB23-1X



gearing ANSI B92.1-1996
12/24 DP30° 14T

NG	A	B	C	D	E	L	M	N
064	81	57,2*	27,8*	M12x22	25,4	77,8	42,9	47,2
080	93	66,7*	31,8*	M14x24	31,75	77,8	42,9	47,2
100	109	66,7*	31,8*	M14x24	31,75	88,9	50,8	63,5

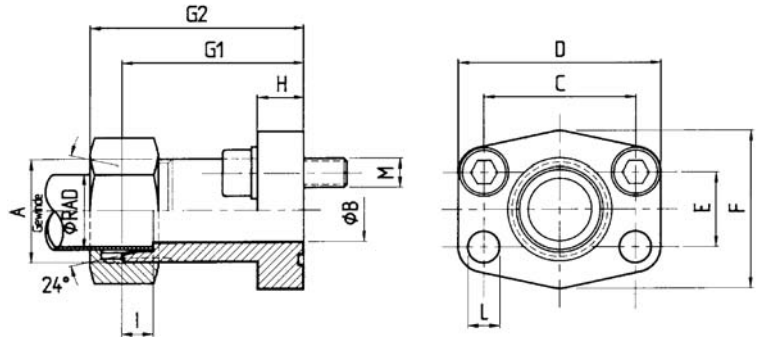
* Pressure port: SAE 518C, high pressure series (code 62)



SAE flange metric tapped



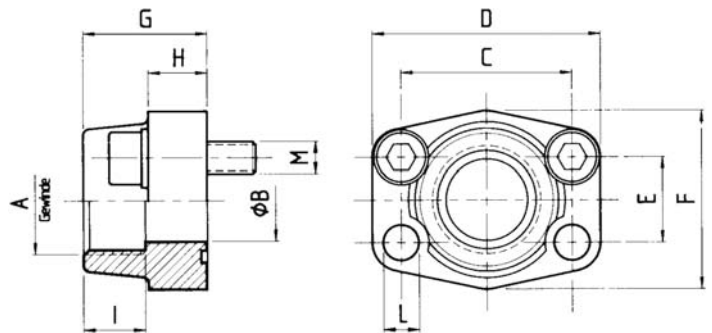
Version a



SAE pipe threaded flange



Version b



Nr.	Article number	Type	P _{max}	AD	A	B	C	D	E	F	G1	G2	H	I	L
1a	07 07 04 0030	AD15-SAE12M22x1,5	315	15	M22x1.5	12	38.1	54	17.48	46	52	60	13	7	9
1b	07 07 04 0026	EFG1/2-SAE12	350		G1/2"	13	38.1	54	17.48	46	36		19	19	9
2a	07 07 04 0031	AD22-SAE34M30x2	160	22	M30x2	19	47.63	65	22.23	50	60	69	14	7.5	11.5
2b	07 07 04 0027	EFG3/4-SAE34	350		G3/3"	19	47.63	65	22.23	50	36		18	19	11
3a	07 07 04 0032	AD28-SAE100M36x2	160	28	M36x2	24	52.37	70	26.19	55	63	72	16	7.5	11.5
3b	07 07 04 0028	EFG1-SAE100	315		G1"	25	52.37	70	26.19	55	38		18	22	11
4a	07 07 04 0033	AD35-SAE114M45x2	160	35	M45x2	29	58.72	79	30.18	68	65	76	14	10.5	11.5
4b	07 07 04 0029	EFG1 1/4-SAE114	250		G1 1/4"	32	58.72	79	30.18	68	41		21	22	11.5
5a	07 07 04 0037	AD42-SAE112M52x2	160	42	M52x2	36	69.85	94	35.71	78	70	82	16	11	13.5
5b	07 07 04 0034	EFG1 1/2-SAE112	200		G1 1/2"	38	69.85	94	35.71	78	45		25	24	13.5
6b	07 07 04 0036	EFG2-SAE200	200		G2"	51	77.77	102	42.88	90	45		25	30	13.5
7b	07 07 04 0041	EFG2 1/2-SAE212	160		G2 1/2"	63	88.9	114	50.8	105	50		25	30	13.5
8a	07 07 04 0042	AD30-SAE100M42x2HD	400	30	M42x2	25	57.2	81	27.8	70	82	95	24	13.5	13
9a	07 07 04 0043	AD38-SAE114M52x2HD	400	38	M52x2	32	79.38	113	36.5	95	96	111	30	16	17.5



SAE Pressure- and Suction flange SAE J518C, ISO 6162

Type	Inlet	Nr.	Version		Outlet	Nr.	Version	
			a	b			a	b
EIPC3-020-032	1 1/4"	4	•	•	3/4"	2	•	•
EIPC3-040-064	1 1/4"	4	•	•	1"	3	•	•

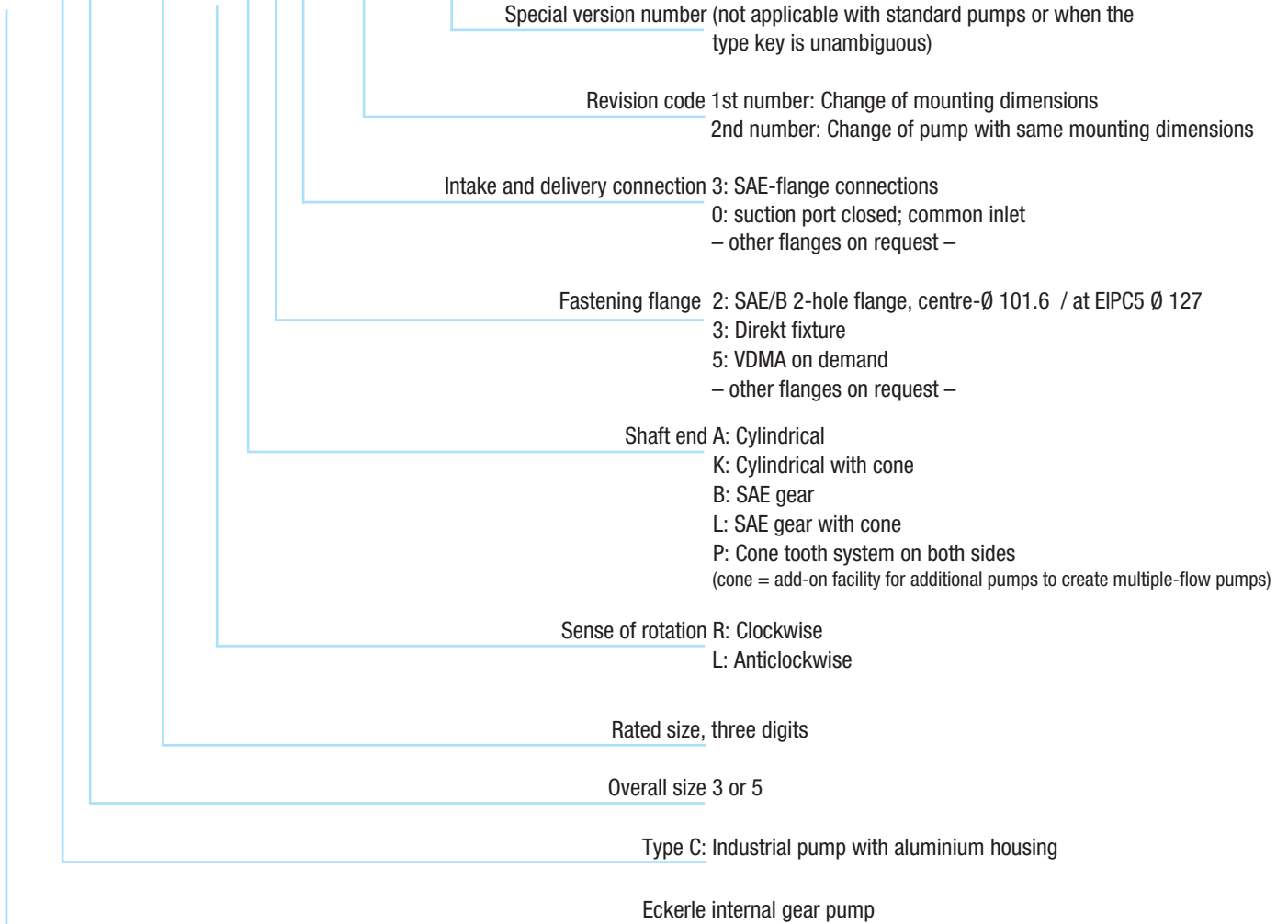
Suction flange for Intermediate housing

Type	Inlet	Nr.	Version	
			a	b
EIPC3/3 bis NG0321	1/2"	5	•	•
EIPC3/3 ab NG040	2"	6		•

• = available



EIP C3-032 RK23-1X SXXX



Order example

EIPC3-032 RK23-1X

for industrial applications
 overall size 3 with 32.1 cm³/U
 clockwise rotation
 cylindrical shaft with cone
 SAE/B-2-hole flange connection
 SAE flange connection
 revision code 1X