

EIPC 3

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

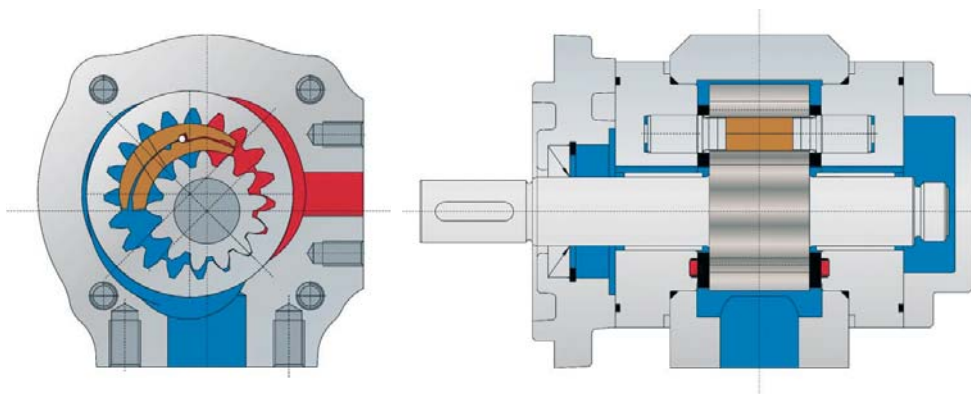
Internal gear pump Type EIPC 3 for industrial applications with constant displacement volume



EIPC 3

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
Spec. volume V_{th} [cm ³ /rev] ^{***}	20.0	24.8	32.1	40.1	50.3
Continuous operating pressure [bar] ^{**}	250				
Peak operating pressure [bar] max. 10 sec 15 % dutycycle	320		300		280
Cut-in pressure peak [bar] ^{**}	350		325		300
Max. speed [min ⁻¹]	3,600	3,200	3,000	2,500	1,800
Nominal speed [min ⁻¹]	200 – 3,600	200 – 3,200	200 – 3,000	100 – 2,500	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
Degree of filtration	Class 20/18/15 due to ISO 4406				

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

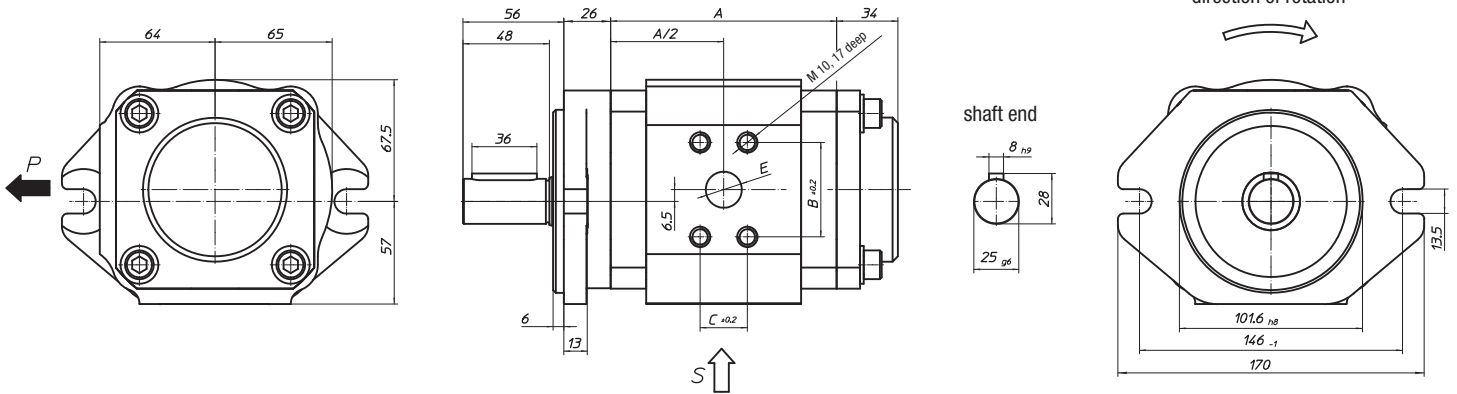
** For acceptable pressure at 400-1.800 rpm. Further rpm on request.

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



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

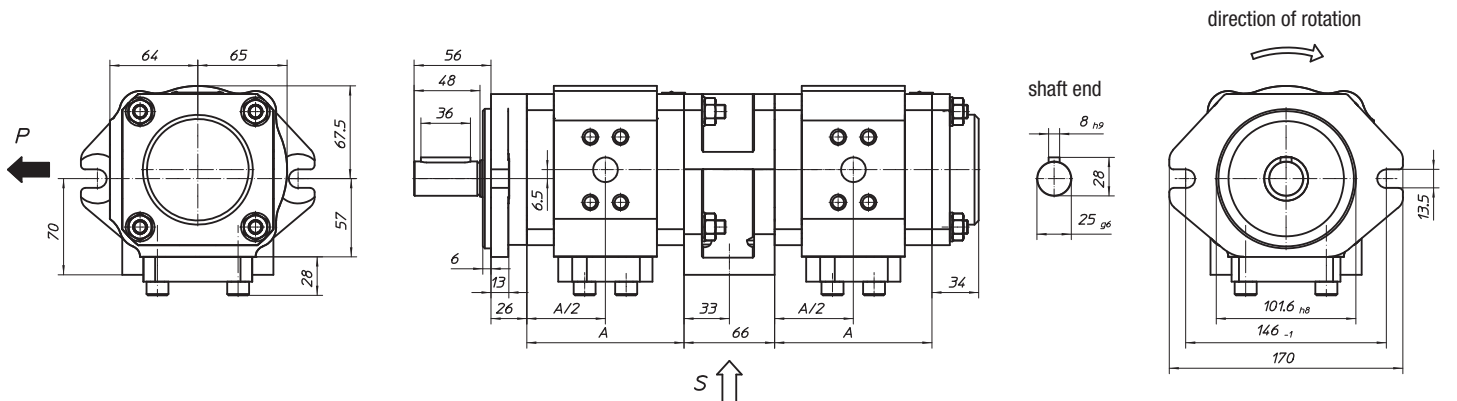
Order example: EIPC3-__ _RK23-1X



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

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 connection see single pump

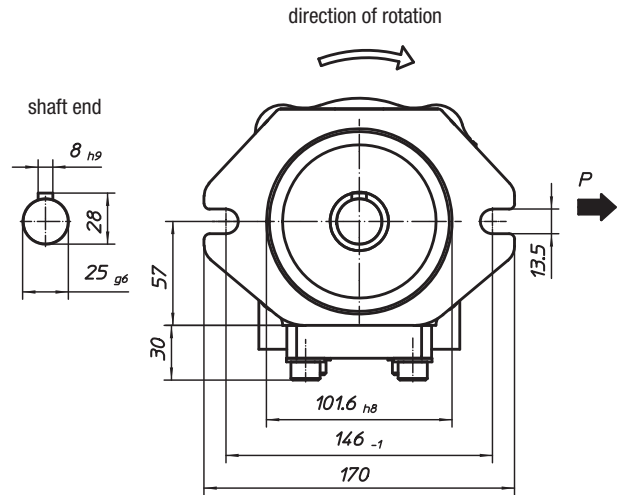
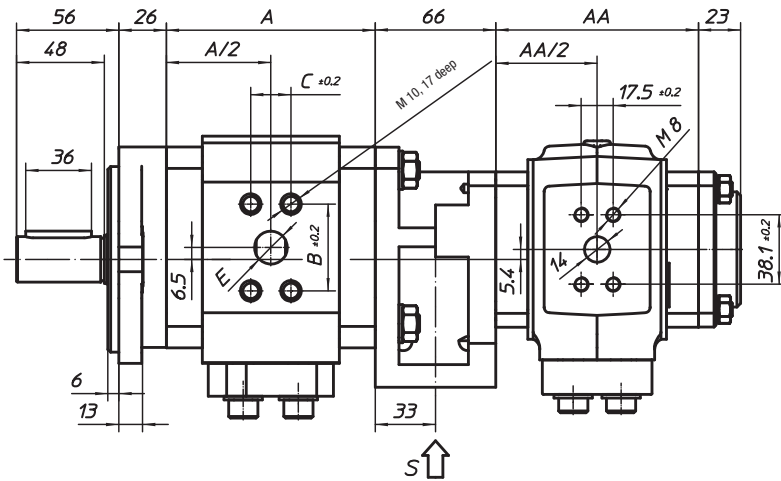
for first pump
NG 020-032

for first pump
NG 040-050

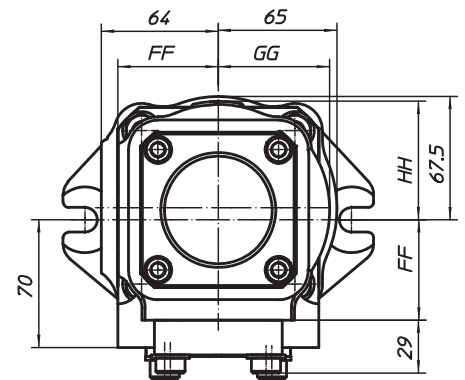
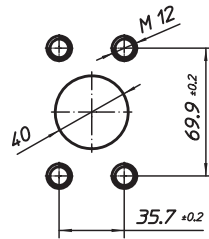


Double Pump with SAE-B-2-hole flange and cylindrical shaft

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



common suction port



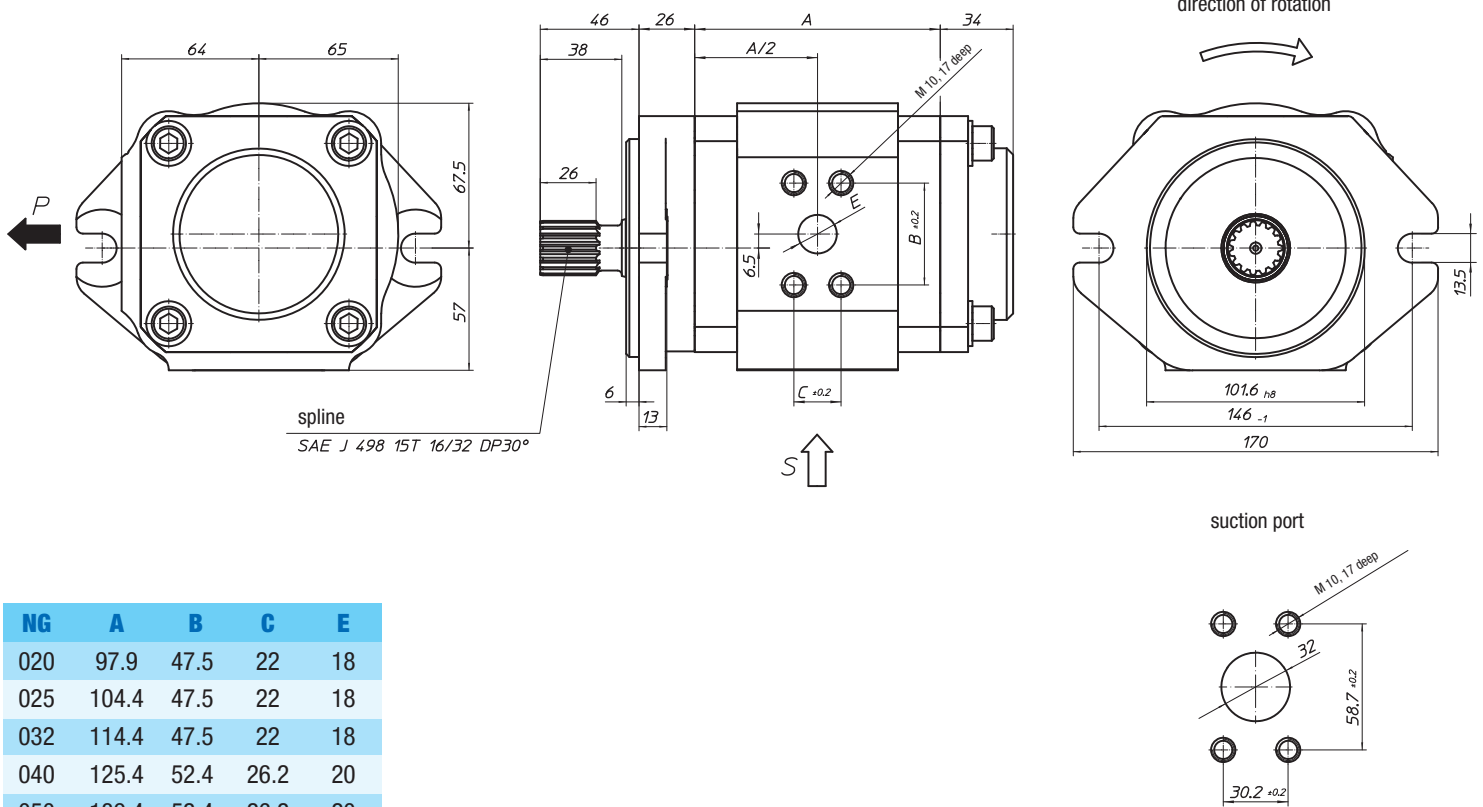
EIPC 3				
NG	A	B	C	E
020	97.9	47.5	22	18
025	104.4	47.5	22	18
032	114.4	47.5	22	18
040	125.4	52.4	26.2	20
050	139.4	52.4	26.2	20

EIPH 2					
NG	AA	DD	FF	GG	HH
004	71	M8	50	54	57
005	71	M8	50	54	57
006	73	M10	50	54	57
008	76	M10	50	54	57
011	82	M10	50	54	57
013	87	M10	50	54	57
016	92	M10	50	54	57
019	99	M10	55	59	62
022	105	M10	55	59	62
025	111	M10	55	59	62



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

Order example: EIPC3-__ _RL23-1X



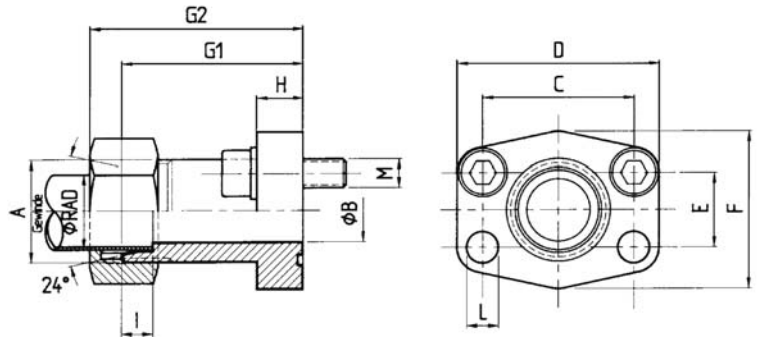
NG	A	B	C	E
020	97.9	47.5	22	18
025	104.4	47.5	22	18
032	114.4	47.5	22	18
040	125.4	52.4	26.2	20
050	139.4	52.4	26.2	20



SAE flange metric tapped



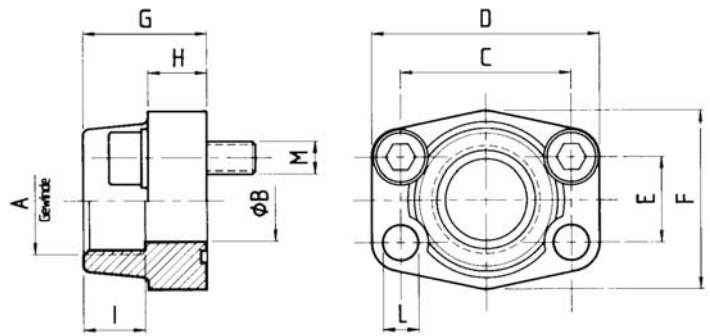
Version a



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

Special version number (not applicable with standard pumps or when the type key is unambiguous)

Revision code 1st number: Change of mounting dimensions
2nd number: Change of pump with same mounting dimensions

Intake and delivery connection 3: SAE-flange connections
0: suction port closed; common inlet
– other flanges on request –

Fastening flange 2: SAE/B 2-hole flange, centre-Ø 101.6
3: Direkt fixture
5: VDMA on demand
– other flanges on request –

Shaft end K: Cylindrical with cone
L: SAE – gear with cone
P: Cone tooth system on both sides
cone is standard;
(cone = add-on facility for additional pumps to create multiple-flow pumps)

Sense of rotation R: Clockwise
L: Anticlockwise

Rated size, three digits

Overall size 3

Type C: Industrial pump with aluminium housing

Eckerle internal gear pump

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



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