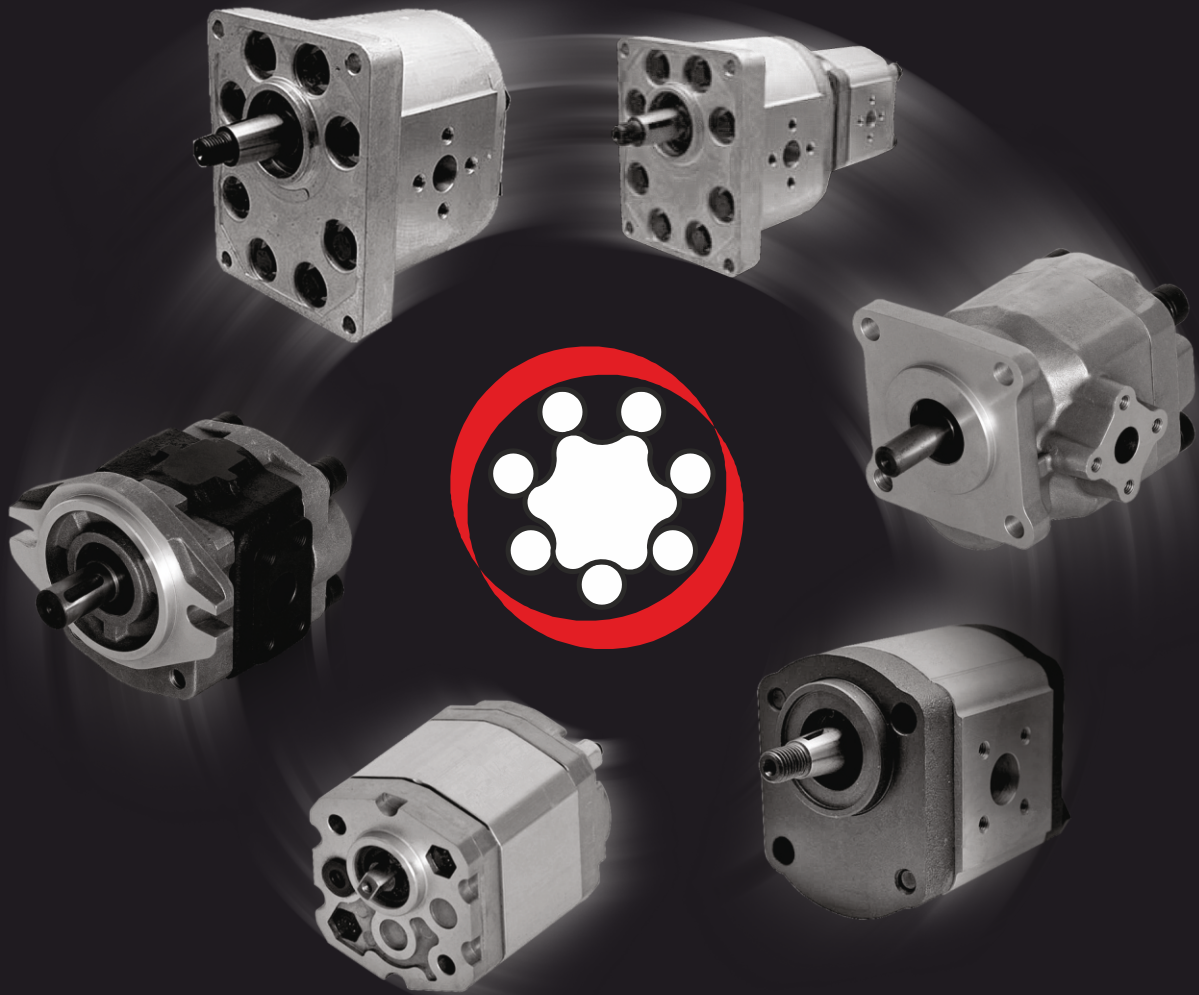


HENDERS[®] N Hydraulics

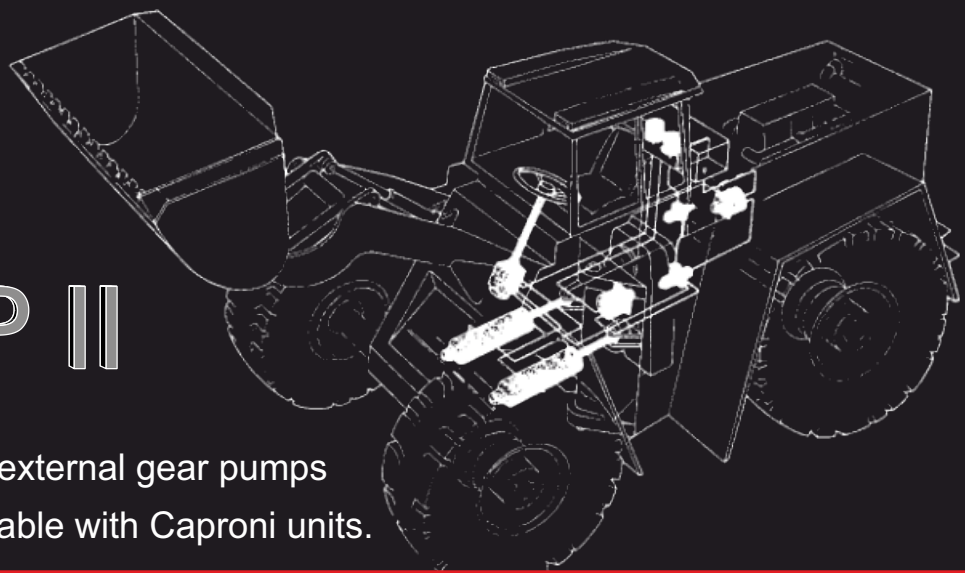
Hydraulic Gear Pumps



GROUP II

We offer wide range of external gear pumps completely interchangeable with Caproni units.

www.hendersonhydraulics.com



PGP PUMP	HENDERS  N Hydraulics°	GROUP II
	BASIC FORMULAS	

The pump (motor) size, pressure and flow required for a specific application can be calculated using the formulas below.

Metric System

Efficiency $\eta_t = \eta_{mh} \cdot \eta_v$ $\eta_{mh} = \frac{\eta_t}{\eta_v}$ $\eta_v = \frac{\eta_t}{\eta_{mh}}$

Output flow
(for pump) $Q = \frac{Vg \cdot n \cdot \eta_v}{1000}$ [l/min]

Driving torque
(for pump) $M = \frac{Vg \cdot \Delta p}{62,8 \cdot \eta_{mh}}$ [Nm]

Input power
(for pump) $P = \frac{M \cdot n}{9550} = \frac{Q \cdot \Delta p}{600 \cdot \eta_t}$ [kW]

Input flow
(for Motor) $Q = \frac{Vg \cdot n}{1000 \cdot \eta_v}$ [l/min]

Output torque
(for Motor) $M = \frac{Vg \cdot \Delta p \cdot \eta_{mh}}{62,8}$ [Nm]

Output power
(for Motor) $P = \frac{M \cdot n}{9550} = \frac{Q \cdot \Delta p \cdot \eta_t}{600}$ [kW]

Speed
(for Motor) $n = \frac{Q \cdot 1000 \cdot \eta_v}{Vg}$ [min⁻¹]

η_v = Volumetric efficiency

η_{mh} = Mechanical-hydraulic efficiency

η_t = Overall efficiency

Vg = Displacement per rev. [cm³]

Δp = $p_{HP} - p_{LP}$ [bar]

p_{HP} = High pressure [bar]

p_{LP} = Low pressure [bar]

n = Rotation speed [RPM]

Q = Oil flow [l/min]

Inch System

Efficiency $\eta_t = \eta_{mh} \cdot \eta_v$ $\eta_{mh} = \frac{\eta_t}{\eta_v}$ $\eta_v = \frac{\eta_t}{\eta_{mh}}$

Output flow
(for pump) $Q = \frac{Vg \cdot n \cdot \eta_v}{231}$ [GPM]

Driving torque
(for pump) $M = \frac{Vg \cdot \Delta p}{2 \cdot \pi \cdot \eta_{mh}}$ [lb-in]

Input power
(for pump) $P = \frac{Vg \cdot n \cdot \Delta p}{396000 \cdot \eta_t}$ [hp]

Input flow
(for Motor) $Q = \frac{Vg \cdot n}{231 \cdot \eta_v}$ [GPM]

Output torque
(for Motor) $M = \frac{Vg \cdot \Delta p \cdot \eta_{mh}}{2 \cdot \pi}$ [lb-in]

Output power
(for Motor) $P = \frac{Vg \cdot n \cdot \Delta p \cdot \eta_t}{396000}$ [hp]

Speed
(for Motor) $n = \frac{Q \cdot 231 \cdot \eta_v}{Vg}$ [min⁻¹]

η_v = Volumetric efficiency

η_{mh} = Mechanical-hydraulic efficiency

η_t = Overall efficiency

Vg = Displacement per rev. [in³]

Δp = $p_{HP} - p_{LP}$ [PSI]

p_{HP} = High pressure [PSI]

p_{LP} = Low pressure [PSI]

n = Rotation speed [RPM]

Q = Oil flow [GPM]

PGP PUMP	HENDERS  N Hydraulics®		GROUP II
	CONTENTS		

Pump type	Page	Pump type	Page	Pump type	Page	Pump type	Page
PGP20A(C)...X006(H)	4	PGP20A(C)...X158	50	PGP20A(C)...X352	96	PGP20A(C)...X539S	139
PGP20A(C)...Y006	5	PGP20A(C)...X161	51	PGP20A(C)...X354	97	PGP20A(C)...X540WMS	140
PGP20A(C)...X007...(H)	6	PGP20A(C)...X167...	52	PGP20A(C)...X355	98	PGP20A(C)...X540WMS-2	141
PGP20A(C)...X008...	7	PGP20A(C)...X168	53	PGP20A(C)...X358(H)	99	PGP20A(C)...X541	142
PGP20A(C)...X016...(H)	8	PGP20A(C)...X170	54	PGP20A(C)...X359W	100	PGP20A(C)...X550HD	143
PGP20A(C)...X016...W(H)	9	PGP20A(C)...X172	55	PGP20A(C)...X364VW1	101	PGP20A(C)...X554...(H)	144
PGP20A(C)...X021	10	PGP20A(C)...X173	56	PGP20A(C)...X368...	102	PGP20A(C)...X555	98
PGP20A(C)...X022	11	PGP20A(C)...X178	57	PGP20A(C)...X369	103	PGP20A(C)...X560...	145
PGP20A(C)...X030(H)	12	PGP20A(C)...X185	58	PGP20A(C)...X380	104	PGP20A(C)...Y566D...	146
PGP20A(C)...X066(H)	13	PGP20A(C)...X186	59	PGP20A(C)...X381	105	PGP20A(C)...X567...	147
PGP20A(C)...X067(H)	14	PGP20A(C)...X187	60	PGP20A(C)...X398	106	PGP20A(C)...X573	148
PGP20A(C)...X072	15	PGP20A(C)...X188(AS)	15	PGP20A(C)...X402	107	PGP20A(C)...X574(H)	149
PGP20A(C)...X073(H)	16	PGP20A(C)...X192(H)	61	PGP20A(C)...X404	108	PGP20A(C)...X577(H)	150
PGP20A(C)...X074...	17	PGP20A(C)...X194	62	PGP20A(C)...X409HF	109	PGP20A(C)...X578	151
PGP20A(C)...Y075...	18	PGP20A(C)...X195	63	PGP20A(C)...X411	96	PGP20A(C)...X581	152
PGP20A(C)...X077(H)	19	PGP20A(C)...X196	64	PGP20A(C)...X413	110	PGP20A(C)...X583	153
PGP20A(C)...X080(H)	20	PGP20A(C)...X201...	65	PGP20A(C)...X419	111	PGP20A(C)...X586...	154
PGP20A(C)...Y080	21	PGP20A(C)...X205	66	PGP20A(C)...X423VW	112	PGP20A(C)...X586B	155
PGP20A(C)...X083...	22	PGP20A(C)...X206...	67	PGP20A(C)...X429V	113	PGP20A(C)...X588...	156
PGP20A(C)...X085(H)	23	PGP20A(C)...X207	68	PGP20A(C)...X450	114	PGP20A(C)...X590	157
PGP20A(C)...X085W	24	PGP20A(C)...X210	69	PGP20A(C)...X451	115	PGP20A(C)...X596	158
PGP20A(C)...X086(H)	25	PGP20A(C)...X218	70	PGP20A(C)...X457...	116	PGP20A(C)...X597	159
PGP20A(C)...X087	26	PGP20A(C)...X219...	71	PGP20A(C)...X458	117	PGP20A(C)...X601	160
PGP20A(C)...X091	27	PGP20A(C)...X223	72	PGP20A(C)...X464H	118	PGP20A(C)...X602	161
PGP20A(C)...X095(H)	28	PGP20A(C)...X224(H)	73	PGP20A(C)...X466(H)	119	PGP20A(C)...X604	162
PGP20A(C)...X096(H)	29	PGP20A(C)...X226...	74	PGP20A(C)...X467...	120	PGP20A(C)...X621...	163
PGP20A(C)...X097(H)	30	PGP20A(C)...X227...	75	PGP20A(C)...X478	121	PGP20A(C)...X622...	164
PGP20A(C)...X102	31	PGP20A(C)...X234...	76	PGP20A(C)...X494...	122	PGP20A(C)...X626UM	165
PGP20A(C)...X103	32	PGP20A(C)...X259	77	PGP20A(C)...X495...	123	PGP20A(C)...X627WUM	166
PGP20A(C)...X104	33	PGP20A(C)...X262...	78	PGP20A(C)...X496...	124	PGP20A(C)...X628UM	167
PGP20A(C)...X110...	34	PGP20A(C)...X269	79	PGP20A(C)...X497	125	PGP20A(C)...X634	168
PGP20A(C)...X111...	35	PGP20A(C)...X295	80	PGP20A(C)...X498H	126	PGP20A(C)...X636	169
PGP20A(C)...X114	36	PGP20A(C)...X296	81	PGP20A(C)...X500W	127	PGP20A(C)...X637	170
PGP20A(C)...X124	37	PGP20A(C)...X301...	82	PGP20A(C)...X506	4	PGP20A(C)...X638...	171
PGP20A(C)...X126(K)	38	PGP20A(C)...X304	83	PGP20A(C)...X508	99	PGP20A(C)...X647	172
PGP20A(C)...X126W	39	PGP20A(C)...X305	84	PGP20A(C)...X511...	128	PGP20A(C)...X650U	173
PGP20A(C)...X127	40	PGP20A(C)...X306...	85	PGP20A(C)...X514...	129	PGP20A(C)...X654	174
PGP20A(C)...X128	41	PGP20A(C)...X307...	86	PGP20A(C)...X516	8	PGP20A(C)...X655U	175
PGP20A(C)...X132	42	PGP20A(C)...X315	87	PGP20A(C)...X518	130	PGP20A(C)...X656HD	176
PGP20A(C)...X139	43	PGP20A(C)...X316	88	PGP20A(C)...X525	131	PGP20A(C)...X664H	177
PGP20A(C)...X140	44	PGP20A(C)...X318W	89	PGP20A(C)...X528	132	PGP20A(C)...X665H	178
PGP20A(C)...X141...	45	PGP20A(C)...X320...	90	PGP20A(C)...X529	133	PGP20A(C)...X670...	179
PGP20A(C)...X145	85	PGP20A(C)...X321	91	PGP20A(C)...X536	134	PGP20A(C)...X671HDJD	180
PGP20A(C)...X147	46	PGP20A(C)...X327	92	PGP20A(C)...X537	135	PGP20A(C)...X687...	181
PGP20A(C)...X153	47	PGP20A(C)...X328	93	PGP20A(C)...X538	136		
PGP20A(C)...X156...	48	PGP20A(C)...X341	94	PGP20A(C)...X538S	137		
PGP20A(C)...X156B	49	PGP20A(C)...X347	95	PGP20A(C)...X539	138		

GENERAL INFORMATION

Hydraulic Pumps Type PGP

Medium Duty External Gear Pumps Fixed Displacement
for open loop circuit

APPLICATION

- » Open loop circuit
- » Agricultural machines
- » Road building machines
- » Mining machinery
- » Food industry machines
- » Special vehicles

OPTIONS

- » Port options
- » Shaft options
- » Flange options
- » High pressure ports
- » Valve options
- » Direction of rotation

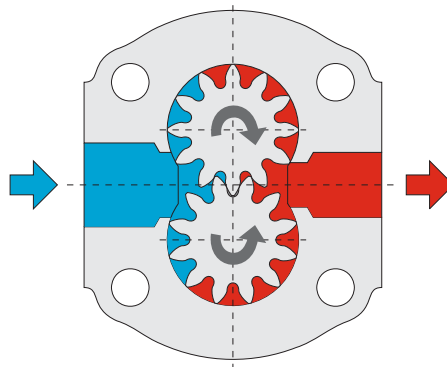
ADVANTAGES

- » Low pulsation
- » Compact size
- » Low cost

GENERAL

Displacement,	cm ³ /rev [in ³ /rev]	4.5÷36 [0.27÷1.95]		
Max. Driving Speed,	RPM	3500 (depending from displacement and type)		
Inlet Pressure, absolute	bar [PSI]	0.8 [11.6] to 2.2 [32]		
Fluid velocity in suction line,	m/s [IPS]	0.5 [0.0127] to 1 [0.0254]		
Fluid		Mineral based- HLP(DIN 51524) or HM(ISO 6743/4)		
Optimal Viscosity Range,	mm ² /s [SUS]	12÷100 [60÷456]		
Temperature,	C [°F]	Min starting	Max continuous	Max peak
Mineral oil, NBR seal		-25 [-13]	80 [176]	100 [212]
Filtration,	working pressure bar [PSI]	$\Delta p < 140$ $\Delta p < [2030]$	$140 < \Delta p < 210$ $[2030] < \Delta p < [3045]$	$\Delta p > 210$ $\Delta p > [3045]$
	Contamination class NAS 1638	10	9	8
	Contamination class ISO 4406	21/19/16	20/18/15	19/17/14
	Achieved with filter $\beta_{x(c)} 75$	25 μm	10 μm	10 μm

INLET PORT
(suction port)



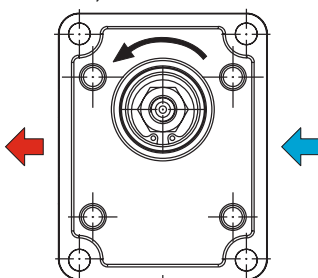
OUTLET PORT
(high pressure port)

A - ANTI CLOCKWISE ROTATION

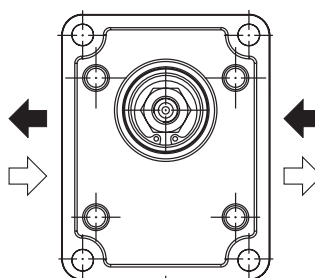
R - REVERSIBLE ROTATION

C - CLOCKWISE ROTATION

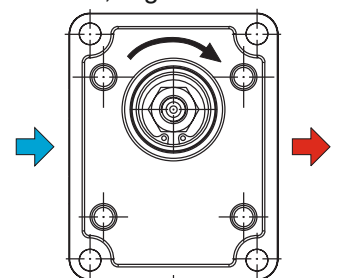
CCW, Left direction



CW and CCW directions



CW, Right direction



PGP PUMP	HENDERS  N Hydraulics°	GROUP II
	ORDERING CODE	

		1	2	3	4	5	6
P	G	P	2	0			

Pos.1 - Direction of Rotation

A	- CCW, Left direction
C	- CW, Right direction
R	- CW or CCW, Reversible

Pos.2 - Displacement Code

4.5	- 4.5 cm ³ /rev [0.27 in ³ /rev]
6.3	- 6.3 cm ³ /rev [0.38 in ³ /rev]
7	- 7 cm ³ /rev [0.43 in ³ /rev]
8.2	- 8.2 cm ³ /rev [0.5 in ³ /rev]
10	- 10 cm ³ /rev [0.61 in ³ /rev]
11	- 11.3 cm ³ /rev [0.69 in ³ /rev]
12	- 12 cm ³ /rev [0.73 in ³ /rev]
14	- 14 cm ³ /rev [0.85 in ³ /rev]
15	- 15 cm ³ /rev [0.92 in ³ /rev]
16	- 16 cm ³ /rev [0.98 in ³ /rev]
17	- 17.3 cm ³ /rev [1.06 in ³ /rev]
19	- 19 cm ³ /rev [1.16 in ³ /rev]
22	- 22 cm ³ /rev [1.34 in ³ /rev]
25	- 25 cm ³ /rev [1.53 in ³ /rev]
28	- 28 cm ³ /rev [1.71 in ³ /rev]
32	- 32 cm ³ /rev [1.95 in ³ /rev]

Pos.3 - Drive Shaft

X	- Through the front cover
Y	- Through the front and end covers

Pos.4 - Pump CODE

*****(*)** - Please check pump types

Pos.5 - Ports

none - Flange with metric threads

P4 - Flange with SAE threads

M - Metric threads

G - BSP threads

G - BSP threads

U - SAE J475 threads

Pos.6 - Design Series

default - Factory specified

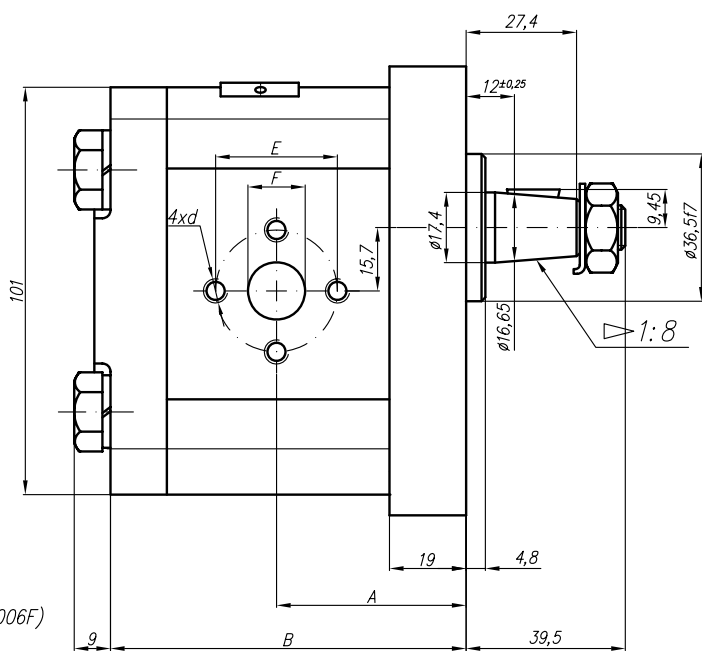
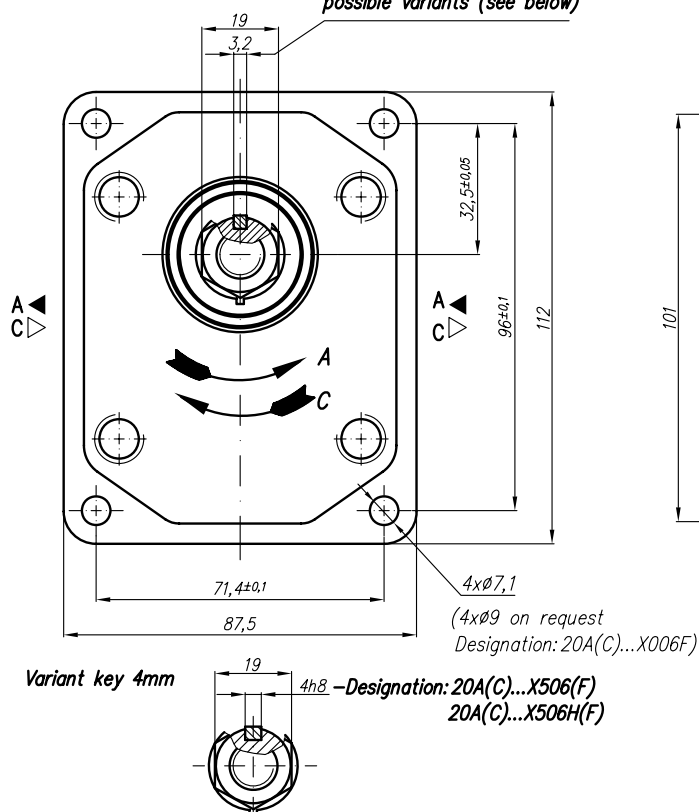
EXAMPLE

Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
PGP	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)28X030H...	28	40,32	67,20	130	2500	66,4	128,1	M27x2	G1	1 5/16"-12UNF	M20x1,5	G3/4	1 1/16"-12UNF
20A(C)32X030H...	32	46,08	61,44	120	2000	69,6	134,4						
20A(C)36X030H...	36	51,84	69,12	100	2000	72,8	141						

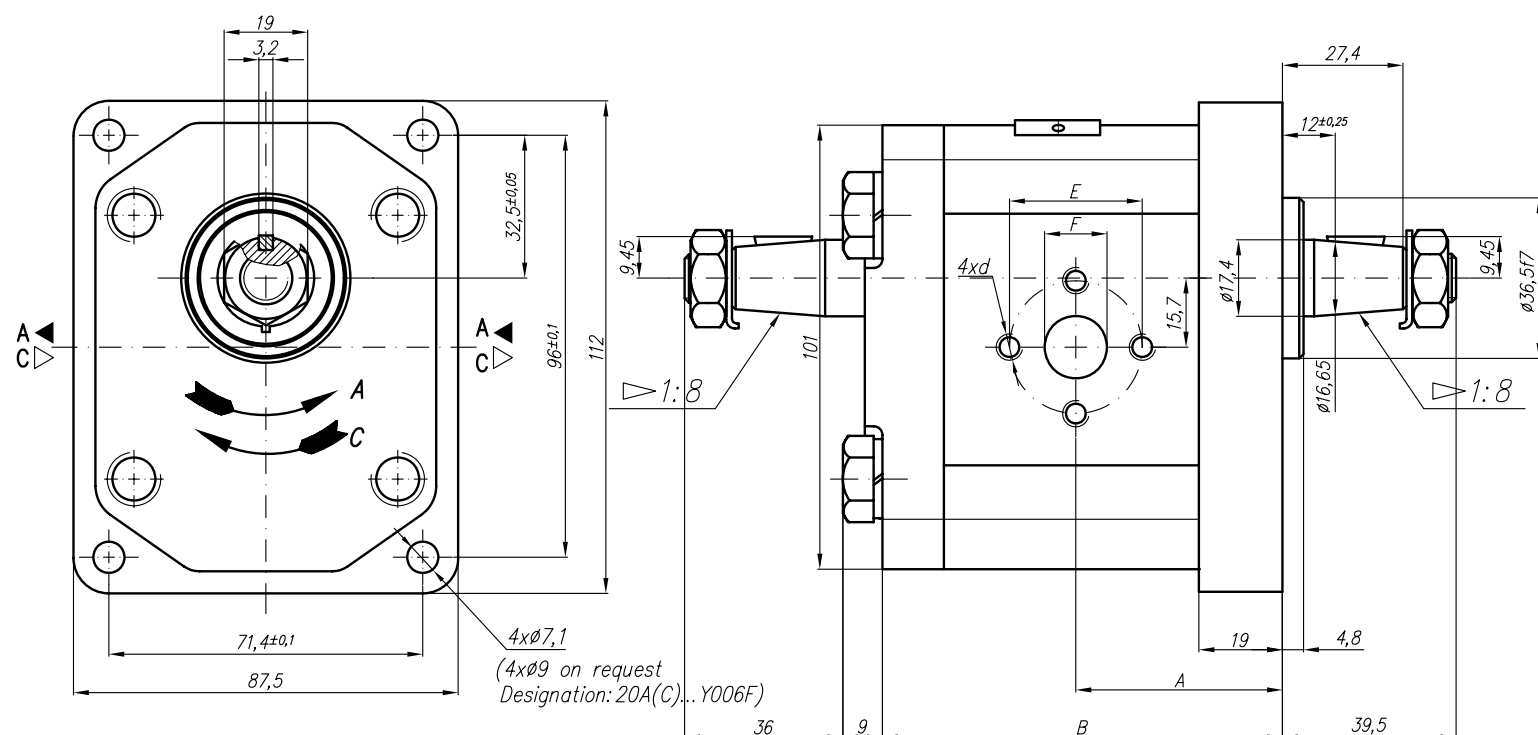
PGP20C32X030HG - Hydraulic gear pump, II group, direction of rotation - clockwise, displacement 32 cm³/rev
X option shaft through the front cover, configuration 030H, G thread option - Inlet thread G1, Outlet thread G3/4

PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II				
	GEAR PUMP TYPE PGP 20A(C)...X006(H)														
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension									
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet				
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d		
20A(C)4,5X006	4,5	6,14	14,33	250	3500	42,5	80	30,2	13,1	M6-6H	30,2	13,1	M6-6H		
20A(C)6,3X006	6,3	8,69	20,29	250	3500	42,5	80								
20A(C)8,2X006	8,2	11,32	26,40	250	3500	42,5	80								
20A(C)10X006	10	13,95	32,55	250	3500	47	89	39,7	19	M8-6H		30,2		14,2	M6-6H
20A(C)11X006	11,3	15,76	36,78	250	3500	48	91,1								
20A(C)12X006	12	16,92	39,48	250	3500	48,6	92,3								
20A(C)14X006	14	19,95	46,55	250	3500	50	95,4								
20A(C)15X006	15	21,60	36,00	250	2500	51	96,9								
20A(C)16X006	16	23,04	38,40	250	2500	52	98,6								
20A(C)19X006	19	27,36	45,60	200	2500	54	103,5								
20A(C)22X006	22	31,68	42,24	180	2000	57	108,5								
20A(C)25X006	25	36,00	48,00	160	2000	59,2	113,4				39,7		19		
20A(C)14X006H	14	20,16	47,04	250	3500	55,3	105,7	39,7	19	M8-6H	30,2	14,2	M6-6H		
20A(C)15X006H	15	21,60	43,20	250	3000	56	107,2								
20A(C)16X006H	16	23,04	46,08	250	3000	56,9	108,8								
20A(C)17,3X006H	17,3	24,91	49,82	230	3000	58	110,9								
20A(C)18,2X006H	18,2	26,21	52,42	210	3000	58,8	112,5								
20A(C)19X006H	19	27,36	54,72	200	3000	59,4	113,8								
20A(C)22X006H	22	31,68	52,80	180	2500	61,9	118,8								
20A(C)25X006H	25	36,00	60,00	160	2500	64,3	123,7							39,7	19
20A(C)28X006H	28	40,32	67,20	130	2500	66,8	128,5								
20A(C)32X006H	32	46,08	61,44	120	2000	70	134,8								
20A(C)36X006H	36	51,84	69,12	100	2000	73,2	141,4								

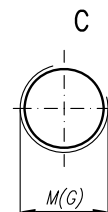
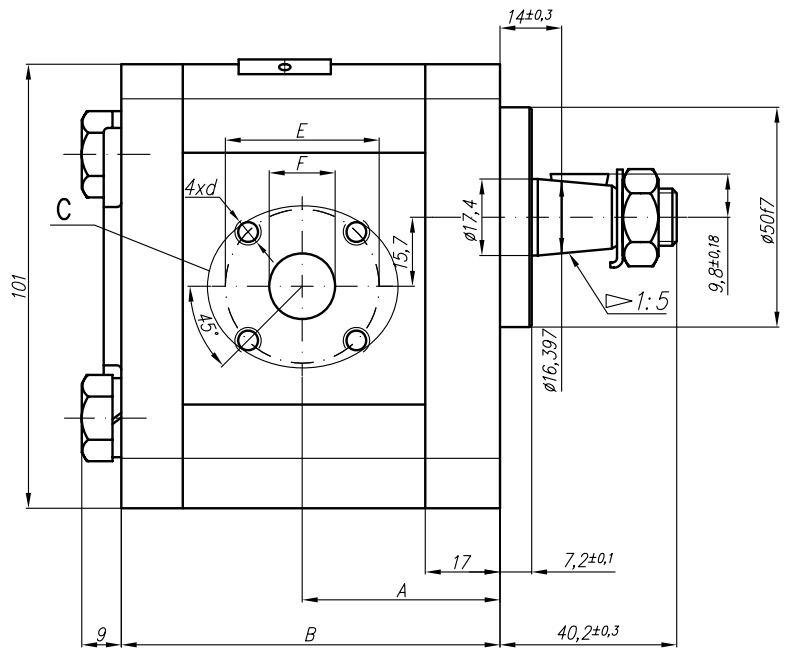
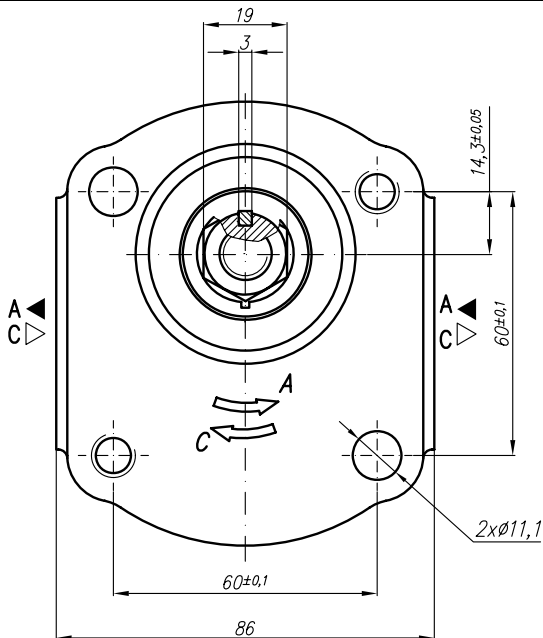
possible variants (see below)



PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II				
	GEAR PUMP TYPE PGP 20A(C)...Y006														
Type	Displacement	Flow		Pressure	max Speed	Dimension									
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d		
20A(C)4,5Y006	4,5	6,14	14,33	250	3500	42,5	80	30,2	13,1	M6-6H	30,2	13,1	M6-6H		
20A(C)6,3Y006	6,3	8,69	20,29	250	3500	42,5	80								
20A(C)8,2Y006	8,2	11,32	26,40	250	3500	42,5	80								
20A(C)10Y006	10	13,95	32,55	250	3500	47	89	39,7	19	M8-6H		30,2		14,2	M6-6H
20A(C)11Y006	11,3	15,76	36,78	250	3500	48	91,1								
20A(C)12Y006	12	16,92	39,48	250	3500	48,6	92,3								
20A(C)14Y006	14	19,95	46,55	250	3500	50	95,4								
20A(C)15Y006	15	21,60	36,00	250	2500	51	96,9								
20A(C)16Y006	16	23,04	38,40	250	2500	52	98,6								
20A(C)19Y006	19	27,36	45,60	200	2500	54	103,5	39,7	19	M8	30,2		19	M8	
20A(C)22Y006	22	31,68	42,24	180	2000	57	108,5								
20A(C)25Y006	25	36,00	48,00	160	2000	59,2	113,4								



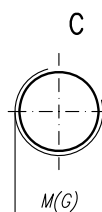
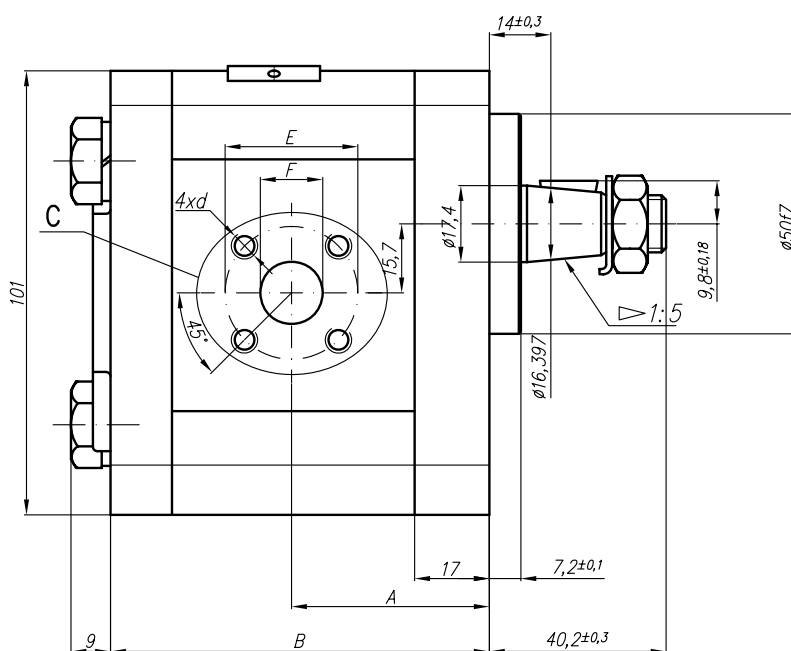
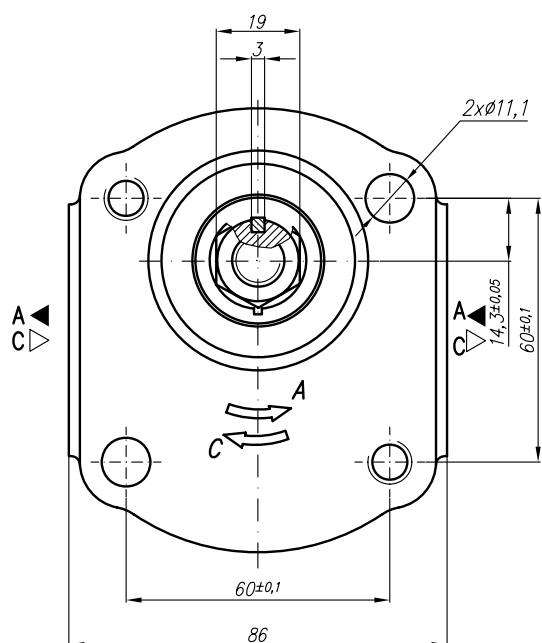
PGP PUMP		HENDERSO N Hydraulics®																GROUP II													
		GEAR PUMP TYPE PGP 20A(C)...X007...(H)																													
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension																									
		at 1500 rpm	at max rpm			Inlet						Outlet																			
	cm ³ /rev	l/min	l/min	bar	rpm	A	B	E	F	d	M	G	U	E	F	d	M	G	U												
20A(C)4,5X007...	4,5	6,14	14,33	250	3500	37,3	75,1	40	15	M6-6H	M20x1,5	G1/2		35	15	M6-6H	M16x1,5	G1/2													
20A(C)6,3X007...	6,3	8,69	20,29	250	3500	38,6	78																								
20A(C)7X007...	7	9,66	22,54	250	3500	42,5	82,1																								
20A(C)8,2X007...	8,2	11,32	26,40	250	3500	40,6	78																								
20A(C)10X007...	10	13,95	32,55	250	3500	45	87																								
20A(C)11X007...	11,3	15,76	36,78	250	3500	45	89,1																								
20A(C)12X007...	12	16,92	39,48	250	3500	45	90,3																								
20A(C)14X007...	14	19,95	46,55	250	3500	45	93,4																								
20A(C)15X007...	15	21,60	36,00	250	2500	45	94,9																								
20A(C)16X007...	16	23,04	38,40	250	2500	45	96,5																								
20A(C)19X007...	19	27,36	45,60	200	2500	45	101,5																								
20A(C)22X007...	22	31,68	42,24	180	2000	52,5	106,5	40	20	M6-6H	M20x1,5	G3/4	G3/4	35	15	M6-6H	M20x1,5	G1/2													
20A(C)25X007...	25	36,00	48,00	160	2000	57,2	111,4																								
20A(C)14X007H...	14	20,16	47,04	250	3500	53,3	103,7													40	20	M6-6H	M20x1,5	G3/4	G3/4	35	15	M6-6H	M16x1,5	G1/2	
20A(C)15X007H...	15	21,60	43,20	250	3000	54	105,2																								
20A(C)16X007H...	16	23,04	46,08	250	3000	54,9	106,8																								
20A(C)17,3X007H...	17,3	24,91	49,82	230	3000	56	108,9																								
20A(C)18,2X007H...	18,2	26,21	52,42	210	3000	56,8	110,5																								
20A(C)19X007H...	19	27,36	54,72	200	3000	57,4	111,8																								
20A(C)22X007H...	22	31,68	52,80	180	2500	59,9	116,8																								
20A(C)25X007H...	25	36,00	60,00	160	2500	62,3	121,7																								
20A(C)28X007H...	28	40,32	67,20	130	2500	64,8	126,5																								
20A(C)32X007H...	32	46,08	61,44	120	2000	68	132,8																								
20A(C)36X007H...	36	51,84	69,12	100	2000	71,2	139,4																								



Variants M(G):
Designation 20A(C)...X007M(G)

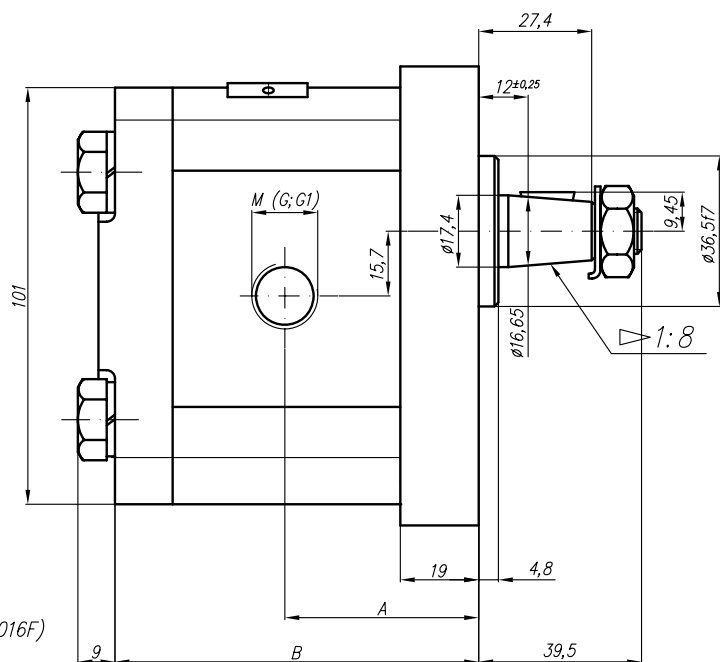
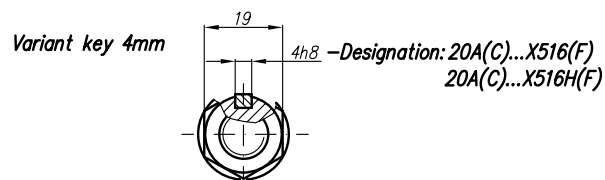
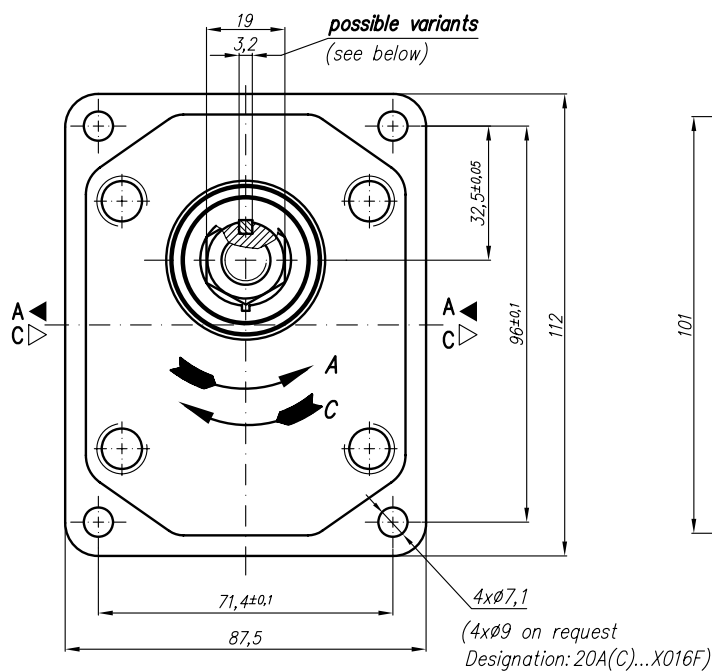
GEAR PUMP TYPE PGP 20A(C)...X008...

Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension													
		at 1500 rpm	at max rpm			A	B	Inlet						Outlet					
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	M	G	U	E	F	d	M	G	U
20A(C)4,5X008...	4,5	6,14	14,33	250	3500	37,3	75,1	40	15	M6-6H	M20x1,5	G1/2		35	15	M6-6H	M16x1,5	G1/2	
20A(C)6,3X008...	6,3	8,69	20,29	250	3500	38,6	78												
20A(C)8,2X008...	8,2	11,32	26,40	250	3500	40,6	78												
20A(C)10X008...	10	13,95	32,55	250	3500	45	87		20			G3/4							
20A(C)11X008...	11,3	15,76	36,78	250	3500	45	89,1												
20A(C)12X008...	12	16,92	39,48	250	3500	45	90,3												
20A(C)14X008...	14	19,95	46,55	250	3500	45	93,4												
20A(C)15X008...	15	21,60	36,00	250	2500	45	94,9												
20A(C)16X008...	16	23,04	38,40	250	2500	45	96,5												
20A(C)19X008...	19	27,36	45,60	200	2500	45	101,5												
20A(C)22X008...	22	31,68	42,24	180	2000	52,5	106,5												
20A(C)25X008...	25	36,00	48,00	160	2000	57,2	111,4												

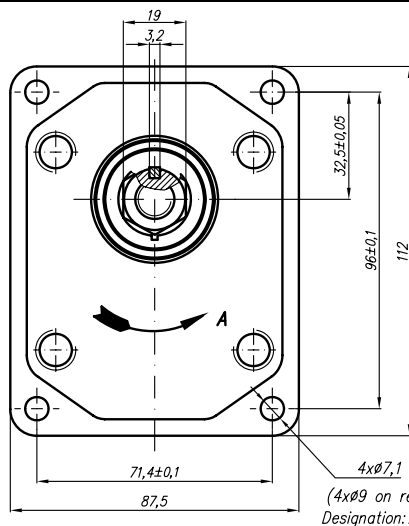


Variants M(G):
 Designation 20A(C)...X008M(G)

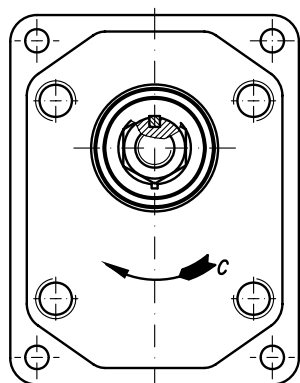
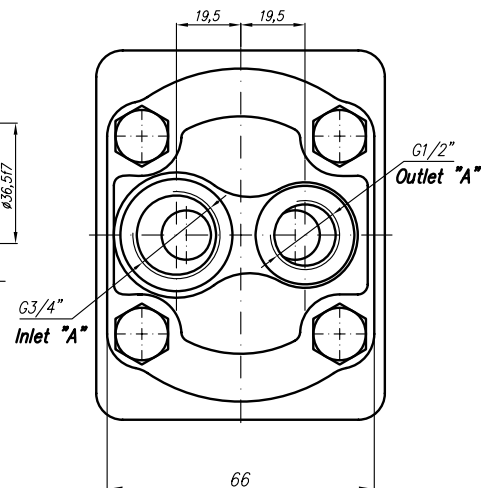
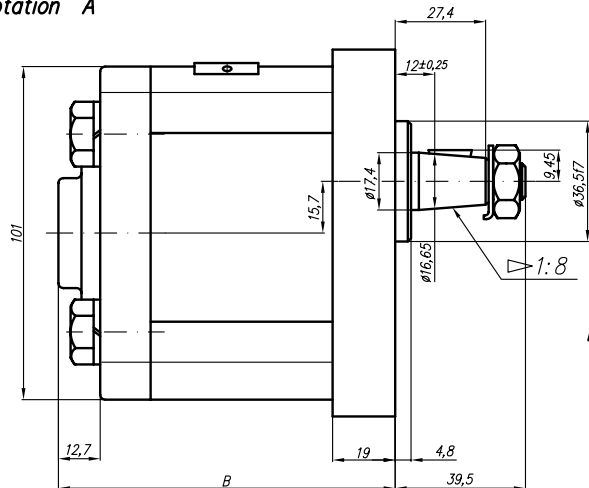
PGP PUMP	HENDERS [®] N Hydraulics [®]											GROUP II				
	GEAR PUMP TYPE PGP 20A(C)...X016...(H)															
Type	Displacement	Flow		Pressure	max Speed	Dimension										
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	G1	M	G	G1			
20A(C)4,5X016...	4,5	6,14	14,33	250	3500	42,5	80	M20x1,5	G1/2		M16x1,5	G1/2				
20A(C)6,3X016...	6,3	8,69	20,29	250	3500	42,5	80									
20A(C)8,2X016...	8,2	11,32	26,40	250	3500	42,5	80									
20A(C)10X016...	10	13,95	32,55	250	3500	47	89									
20A(C)11X016...	11,3	15,76	36,78	250	3500	48	91,1									
20A(C)12X016...	12	16,92	39,48	250	3500	48,6	92,3									
20A(C)14X016...	14	19,95	46,55	250	3500	50	95,4		G3/4					M20X1,5	G1/2	
20A(C)15X016...	15	21,60	36,00	250	2500	51	96,9									
20A(C)16X016...	16	23,04	38,40	250	2500	52	98,6									
20A(C)19X016...	19	27,36	45,60	200	2500	54	103,5									
20A(C)22X016...	22	31,68	42,24	180	2000	57	108,5									
20A(C)25X016...	25	36,00	48,00	160	2000	59,2	113,4									
20A(C)14X016H	14	20,16	47,04	250	3500	55,3	105,7	M20x1,5	G3/4			M16x1,5	G1/2			
20A(C)15X016H...	15	21,60	43,20	250	3000	56	107,2									
20A(C)16X016H...	16	23,04	46,08	250	3000	56,9	108,8									
20A(C)17,3X016H..	17,3	24,91	49,82	230	3000	58	110,9									
20A(C)18,2X016H..	18,2	26,21	52,42	210	3000	58,8	112,5									
20A(C)19X016H...	19	27,36	54,72	200	3000	59,4	113,8									
20A(C)22X016H...	22	31,68	52,80	180	2500	61,9	118,8		G1			M20x1,5			G3/4	
20A(C)25X016H...	25	36,00	60,00	160	2500	64,3	123,7									
20A(C)28X016H...	28	40,32	67,20	130	2500	66,8	128,5									
20A(C)32X016H...	32	46,08	61,44	120	2000	70	134,8									
20A(C)36X016H...	36	51,84	69,12	100	2000	73,2	141,4									



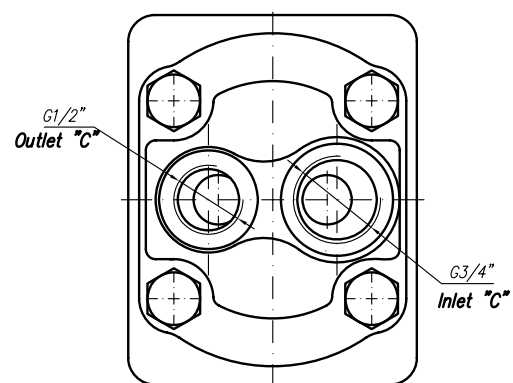
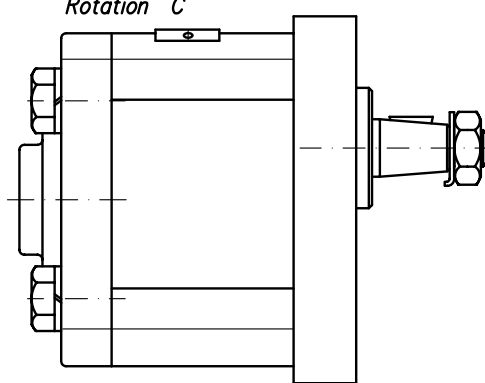
PGP PUMP	HENDERS [®] ON Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X016...W(H)												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	G1	M	G	G1
20A(C)4,5X016W	4,5	6,14	14,33	250	3500		94	G3/4				G1/2	
20A(C)6,3X016W	6,3	8,69	20,29	250	3500		97						
20A(C)8,2X016W	8,2	11,32	26,40	250	3500		99,9						
20A(C)10X016W	10	13,95	32,55	250	3500		102,9						
20A(C)11X016W	11,3	15,76	36,78	250	3500		105						
20A(C)12X016W	12	16,92	39,48	250	3500		106,3						
20A(C)14X016W	14	19,95	46,55	250	3500		109,4						
20A(C)15X016W	15	21,60	36,00	250	2500		110,9						
20A(C)16X016W	16	23,04	38,40	250	2500		112,5						
20A(C)19X016W	19	27,36	45,60	200	2500		117,5						
20A(C)22X016W	22	31,68	42,24	180	2000		122,5						
20A(C)25X016W	25	36,00	48,00	160	2000		127,5						
20A(C)14X106WH	14	20,16	47,04	250	3500		119,7	G3/4				G1/2	
20A(C)15X016HW	15	21,60	43,20	250	3000		121,2						
20A(C)16X016HW	16	23,04	46,08	250	3000		122,8						
20A(C)17,3X016HW	17,3	24,91	49,82	230	3000		124,9						
20A(C)18,2X016HW	18,2	26,21	52,42	210	3000		126,5						
20A(C)19X016HW	19	27,36	54,72	200	3000		127,8						
20A(C)22X016HW	22	31,68	52,80	180	2500		132,8						
20A(C)25X016HW	25	36,00	60,00	160	2500		137,7						
20A(C)28X016HW	28	40,32	67,20	130	2500								
20A(C)32X016HW	32	46,08	61,44	120	2000								
20A(C)36X016HW	36	51,84	69,12	100	2000								




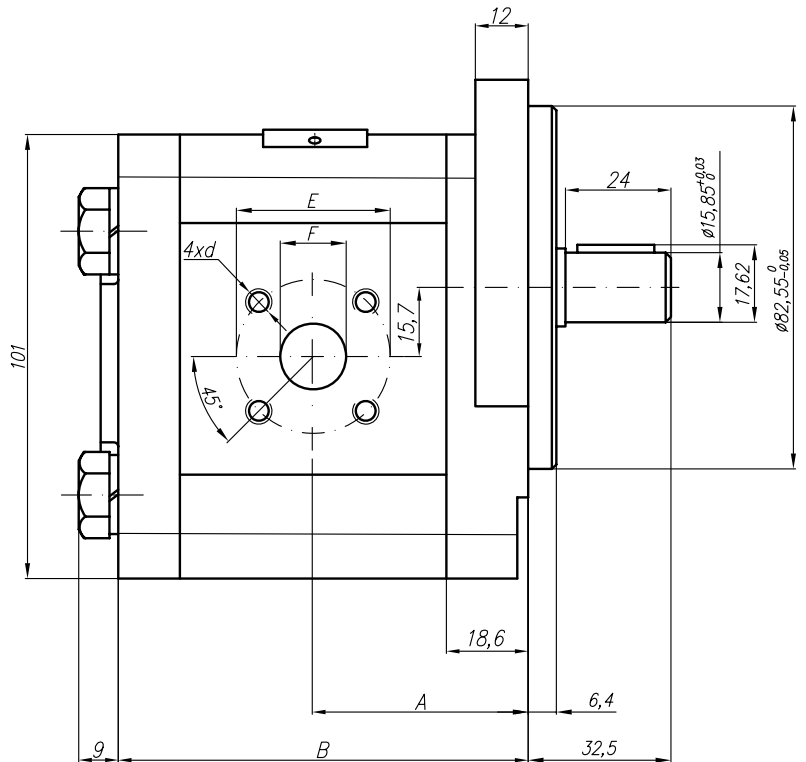
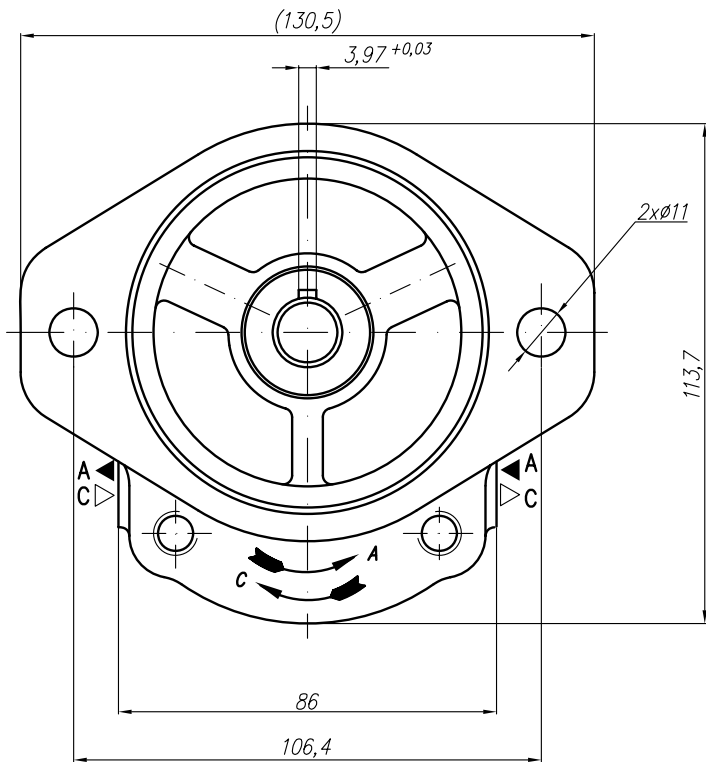
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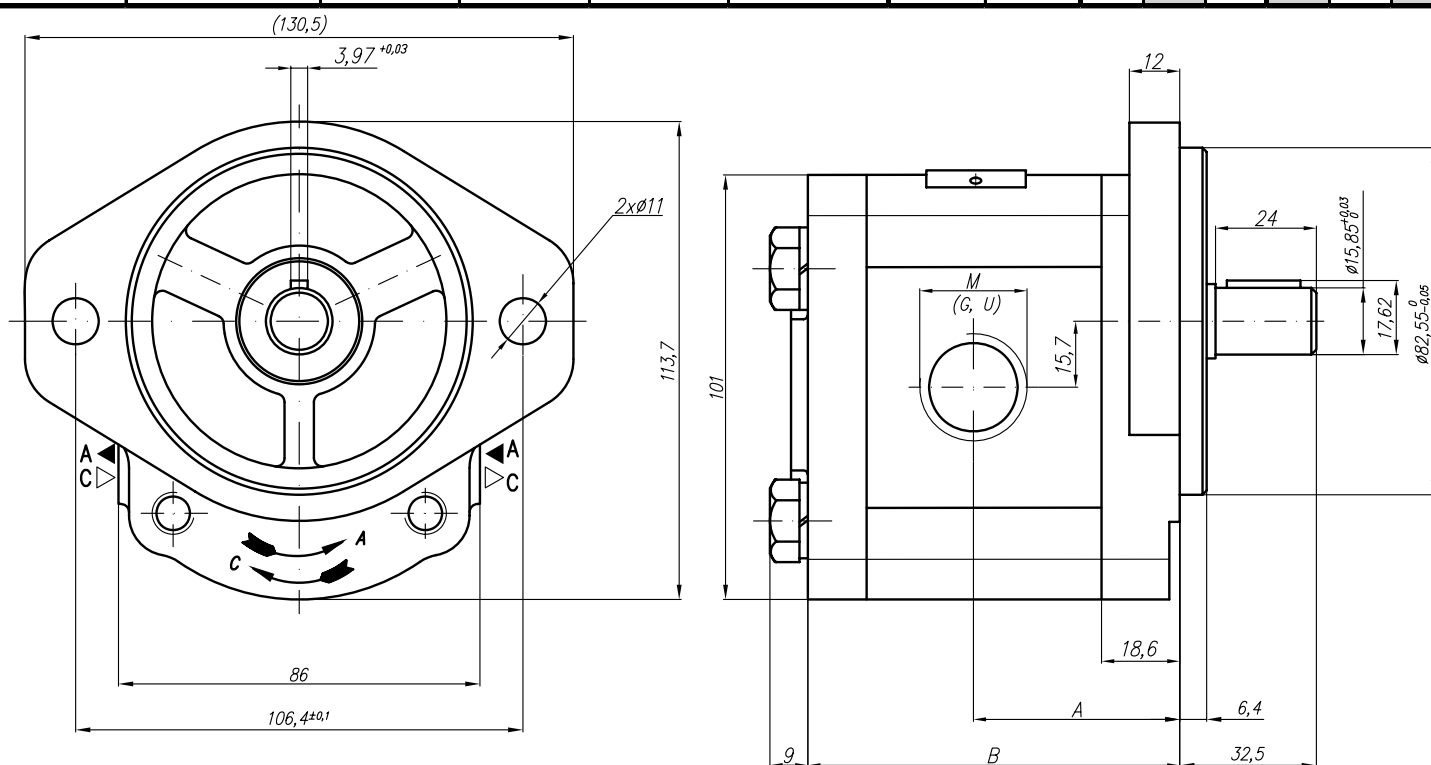
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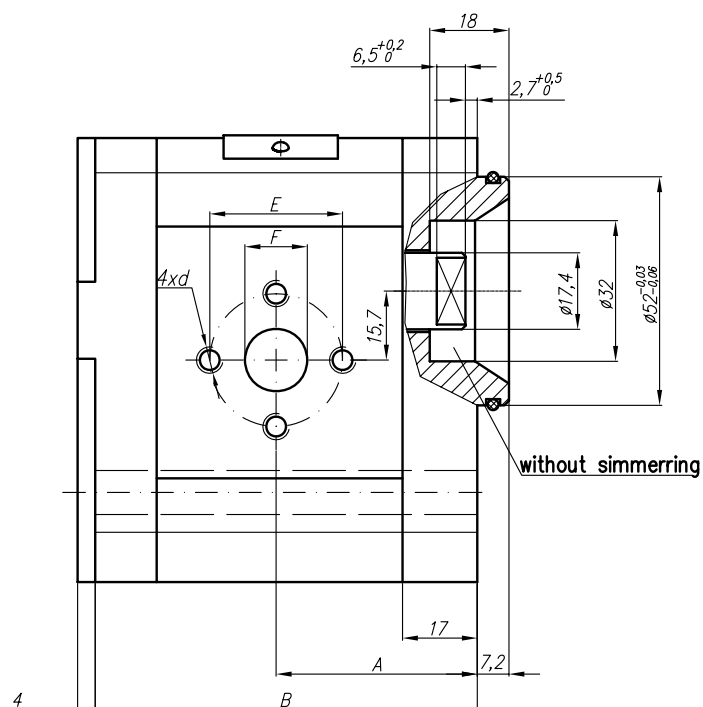
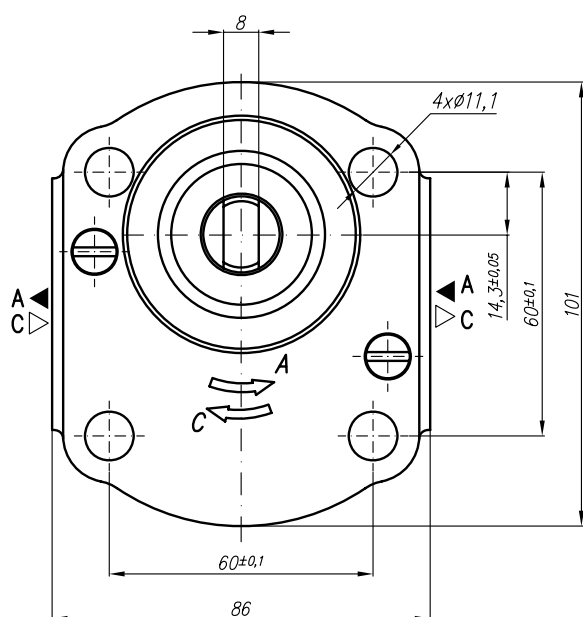
PGP PUMP	HENDERS  N Hydraulics®										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X022												
Type	Displacement	Flow		Pressure	max Speed	Dimension							
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X022	4,5	6,14	14,33	250	3500	41,4	79,6	40	15	M6-6H	35	15	M6-6H
20A(C)6,3X022	6,3	8,69	20,29	250	3500	42,6	82,6						
20A(C)8,2X022	8,2	11,32	26,40	250	3500	44,7	85,5						
20A(C)10X022	10	13,95	32,55	250	3500	49,1	88,6						
20A(C)11X022	11,3	15,76	36,78	250	3500	49,1	90,7						
20A(C)12X022	12	16,92	39,48	250	3500	49,1	91,9		20				
20A(C)14X022	14	19,95	46,55	250	3500	49,1	95						
20A(C)15X022	15	21,60	36,00	250	2500	49,1	96,5						
20A(C)16X022	16	23,04	38,40	250	2500	49,1	98,2						
20A(C)19X022	19	27,36	45,60	200	2500	49,1	103,1						
20A(C)22X022	22	31,68	42,24	180	2000	56,6	108,1						
20A(C)25X022	25	36,00	48,00	160	2000	58,8	113						




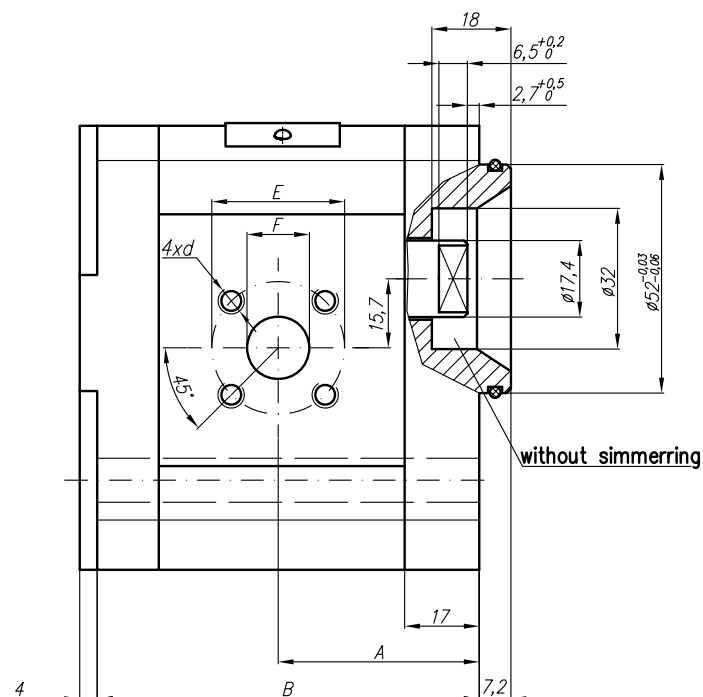
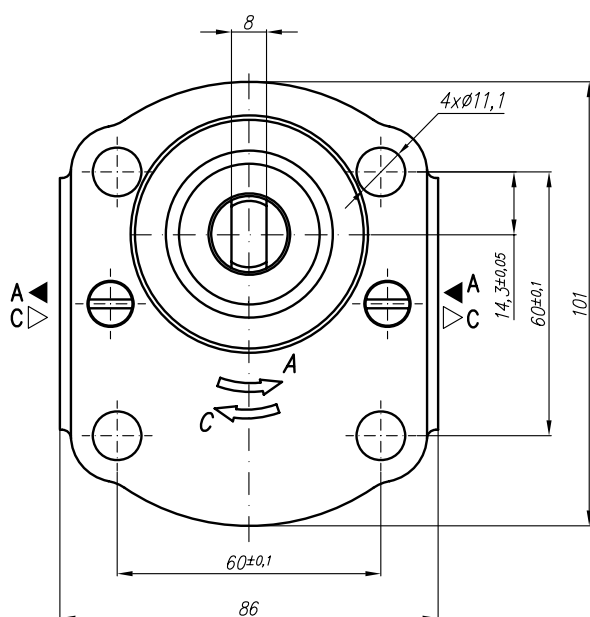
PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X030...(H)												
Type	Displacement	Flow		Pressure	max Speed	Dimension							
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5X030...	4,5	6,14	14,33	250	3500	41,4	79,6	M20x1,5	G1/2	1 1/16"-12UNF		G1/2	7/8"-14UNF
20A(C)6,3X030...	6,3	8,69	20,29	250	3500	42,6	82,6						
20A(C)8,2X030...	8,2	11,32	26,40	250	3500	44,7	85,5						
20A(C)10X030...	10	13,95	32,55	250	3500	49,1	88,6		G3/4				
20A(C)11X030...	11,3	15,76	36,78	250	3500	49,1	90,7						
20A(C)12X030...	12	16,92	39,48	250	3500	49,1	91,9						
20A(C)14X030...	14	19,95	46,55	250	3500	49,1	95						
20A(C)15X030...	15	21,60	36,00	250	2500	49,1	96,5						
20A(C)16X030...	16	23,04	38,40	250	2500	49,1	98,2						
20A(C)19X030...	19	27,36	45,60	200	2500	49,1	103,1						
20A(C)22X030...	22	31,68	42,24	180	2000	56,6	108,1						
20A(C)25X030...	25	36,00	48,00	160	2000	58,8	113						
20A(C)14X030H...	14	20,16	47,04	250	3500	55,3	105,7	M20x1,5	G3/4	1 1/16"-12UNF	M16x1,5	G1/2	7/8"-14UNF
20A(C)15X030H...	15	21,60	43,20	250	3000	55,6	106,8						
20A(C)16X030H...	16	23,04	46,08	250	3000	56,5	108,4						
20A(C)17,3X030H...	17,3	24,91	49,82	230	3000	57,6	110,5						
20A(C)18,2X030H...	18,2	26,21	52,42	210	3000	58,4	112,1						
20A(C)19X030H...	19	27,36	54,72	200	3000	59	113,4						
20A(C)22X030H...	22	31,68	52,80	180	2500	61,5	118,4						
20A(C)25X030H...	25	36,00	60,00	160	2500	63,9	123,3						
20A(C)28X030H...	28	40,32	67,20	130	2500	66,4	128,1						
20A(C)32X030H...	32	46,08	61,44	120	2000	69,6	134,4	M27x2	G1	1 5/16"-12UNF	M20x1,5	G3/4	1 1/16"-12UNF
20A(C)36X030H...	36	51,84	69,12	100	2000	72,8	141						



PGP PUMP	HENDERS  N Hydraulics®										GROUP II					
	GEAR PUMP TYPE PGP 20A(C)...X066(H)															
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension										
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet					
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d			
20A(C)4,5X066	4,5	6,14	14,33	250	3500	40,5	78	30,2	13,1	M6-6H	30,2	13,1	M6-6H			
20A(C)6,3X066	6,3	8,69	20,29	250	3500	42	81									
20A(C)8,2X066	8,2	11,32	26,40	250	3500	43,5	83,9									
20A(C)10X066	10	13,95	32,55	250	3500	45	87									
20A(C)11X066	11,3	15,76	36,78	250	3500	46	89,1	39,7	19	M8-6H				30,2	14,2	M6-6H
20A(C)12X066	12	16,92	39,48	250	3500	46,6	90,3									
20A(C)14X066	14	19,95	46,55	250	3500	48	93,4									
20A(C)15X066	15	21,60	36,00	250	2500	49	95									
20A(C)16X066	16	23,04	38,40	250	2500	50	96,6									
20A(C)19X066	19	27,36	45,60	200	2500	52	101,5									
20A(C)22X066	22	31,68	42,24	180	2000	55	106,5									
20A(C)25X066	25	36,00	48,00	160	2000	57,2	111,4									
20A(C)14X066H	14	20,16	47,04	250	3500	55,3	105,7	39,7	19	M8-6H	30,2	14,2	M6-6H			
20A(C)15X066H	15	21,60	43,20	250	3000	56	107,2									
20A(C)16X066H	16	23,04	46,08	250	3000	56,9	108,8									
20A(C)17,3X066H	17,3	24,91	49,82	230	3000	58	110,9									
20A(C)18,2X066H	18,2	26,21	52,42	210	3000	58,8	112,5				39,7	19	M8-6H			
20A(C)19X066H	19	27,36	54,72	200	3000	59,4	113,8									
20A(C)22X066H	22	31,68	52,80	180	2500	61,9	118,8									
20A(C)25X066H	25	36,00	60,00	160	2500	64,3	123,7									
20A(C)28X066H	28	40,32	67,20	130	2500	66,8	128,5									
20A(C)32X066H	32	46,08	61,44	120	2000	70	134,8									
20A(C)36X066H	36	51,84	69,12	100	2000	73,2	141,4									

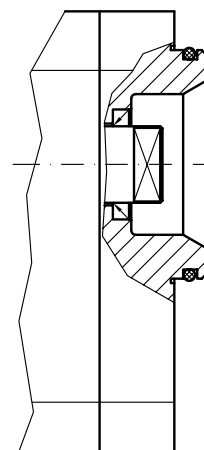


PGP PUMP	HENDERS  N Hydraulics®										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X072												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X072	4,5	6,14	14,33	250	3500	37,3	75,1	40	15	M6-6H	35	15	M6-6H
20A(C)6,3X072	6,3	8,69	20,29	250	3500	38,6	78						
20A(C)8,2X072	8,2	11,32	26,40	250	3500	40,6	78						
20A(C)10X072	10	13,95	32,55	250	3500	45	87						
20A(C)11X072	11,3	15,76	36,78	250	3500	45	89,1						
20A(C)12X072	12	16,92	39,48	250	3500	45	90,3						
20A(C)14X072	14	19,95	46,55	250	3500	45	93,4						
20A(C)15X072	15	21,60	36,00	250	2500	45	94,9						
20A(C)16X072	16	23,04	38,40	250	2500	45	96,5						
20A(C)19X072	19	27,36	45,60	200	2500	45	101,5						
20A(C)22X072	22	31,68	42,24	180	2000	52,5	106,5	20					
20A(C)25X072	25	36,00	48,00	160	2000	57,2	111,4						

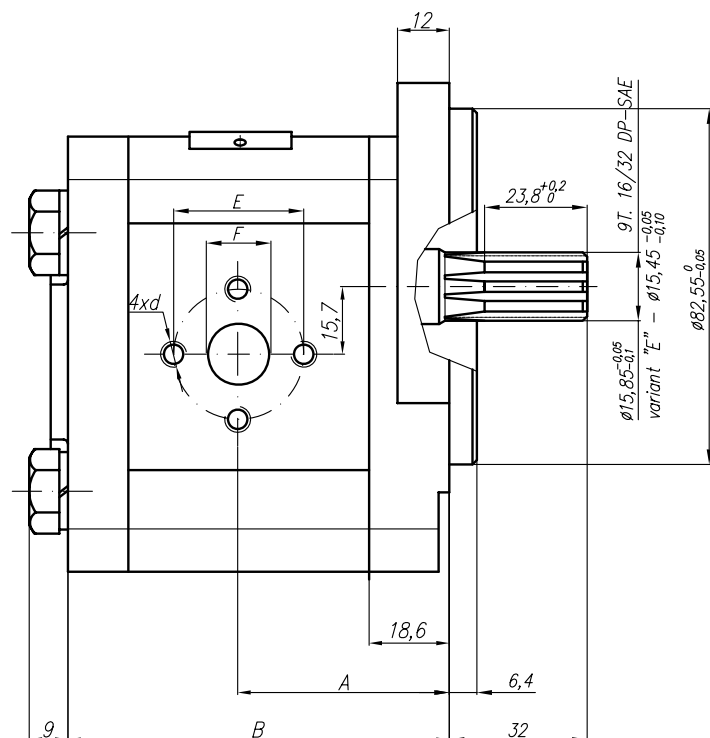
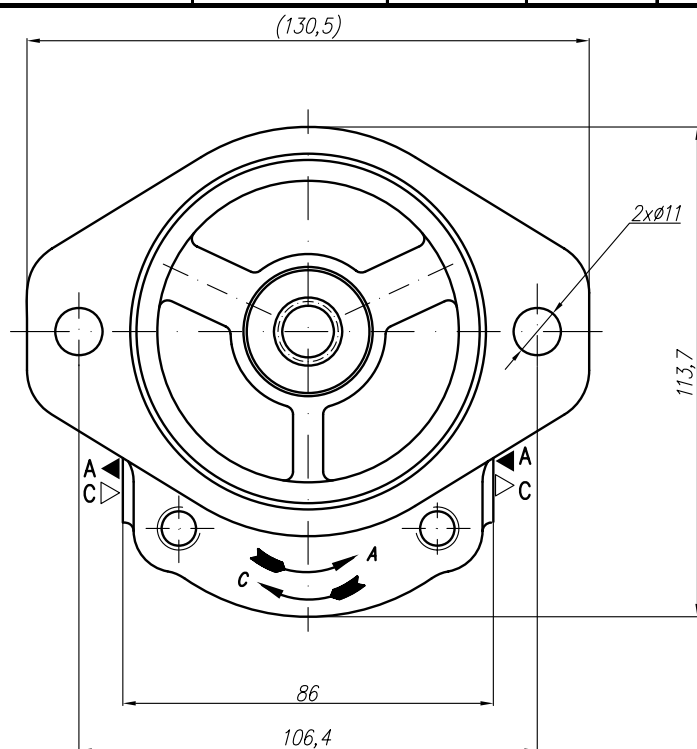



Variant with simmerring in front cover

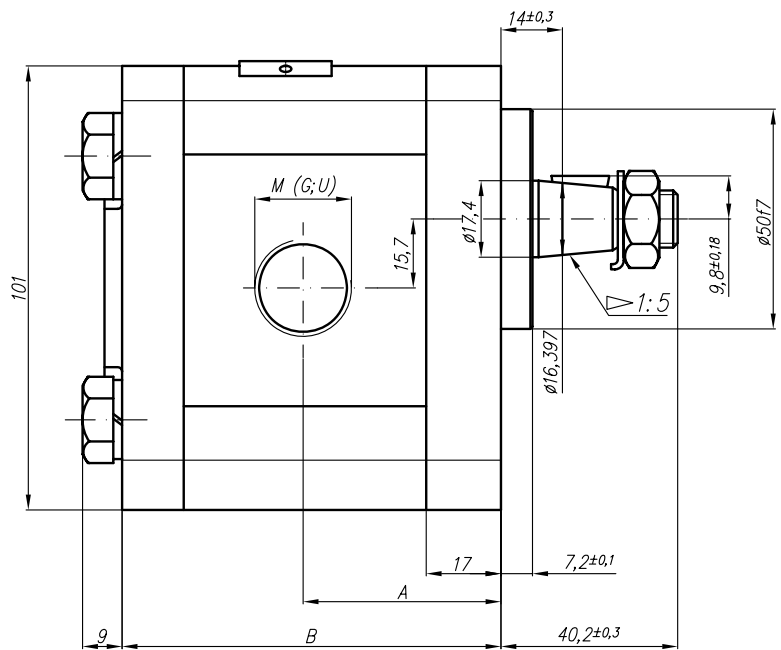
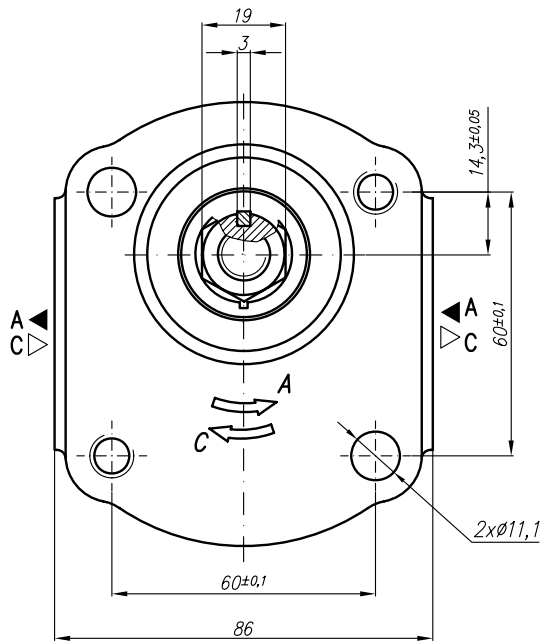
Designation: 20A(C)...X188AS



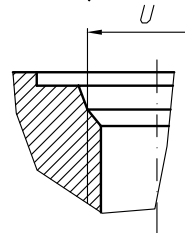
PGP PUMP	HENDERS [®] N Hydraulics [®]											GROUP II				
	GEAR PUMP TYPE PGP 20A(C)...X073(H)															
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension										
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet					
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d			
20A(C)4,5X073	4,5	6,14	14,33	250	3500	42,1	79,6	30,2	13,1	M6-6H	30,2	13,1	M6-6H			
20A(C)6,3X073	6,3	8,69	20,29	250	3500	42,1	79,6									
20A(C)8,2X073	8,2	11,32	26,40	250	3500	42,1	79,6									
20A(C)10X073	10	13,95	32,55	250	3500	46,6	88,7									
20A(C)11X073	11,3	15,76	36,78	250	3500	47,6	90,7	39,7	19	M8-6H						
20A(C)12X073	12	16,92	39,48	250	3500	48,2	91,9									
20A(C)14X073	14	19,95	46,55	250	3500	49,6	95									
20A(C)15X073	15	21,60	36,00	250	2500	50,6	96,5									
20A(C)16X073	16	23,04	38,40	250	2500	51,6	98,2									
20A(C)19X073	19	27,36	45,60	200	2500	53,6	103,1									
20A(C)22X073	22	31,68	42,24	180	2000	56,6	108,1									
20A(C)25X073	25	36,00	48,00	160	2000	58,8	113				39,7	19	M8			
20A(C)14X073H	14	20,16	47,04	250	3500	54,9	105,3	39,7	19	M8-6H	30,2	14,2	M6-6H			
20A(C)15X073H	15	21,60	43,20	250	3000	55,6	106,8									
20A(C)16X073H	16	23,04	46,08	250	3000	56,5	108,4									
20A(C)17,3X073H	17,3	24,91	49,82	230	3000	57,6	110,5									
20A(C)18,2X073H	18,2	26,21	52,42	210	3000	58,4	112,1				39,7	19	M8-6H			
20A(C)19X073H	19	27,36	54,72	200	3000	59	113,4									
20A(C)22X073H	22	31,68	52,80	180	2500	61,5	118,4									
20A(C)25X073H	25	36,00	60,00	160	2500	63,9	123,3									
20A(C)28X073H	28	40,32	67,20	130	2500	66,4	128,1									
20A(C)32X073H	32	46,08	61,44	120	2000	69,6	134,4									
20A(C)36X073H	36	51,84	69,12	100	2000	72,8	141									



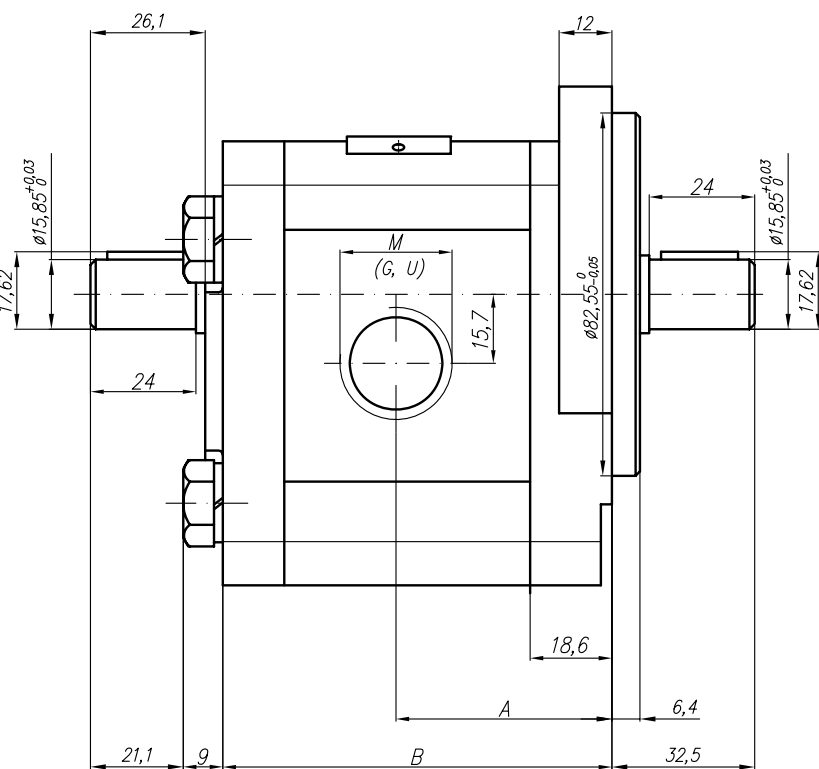
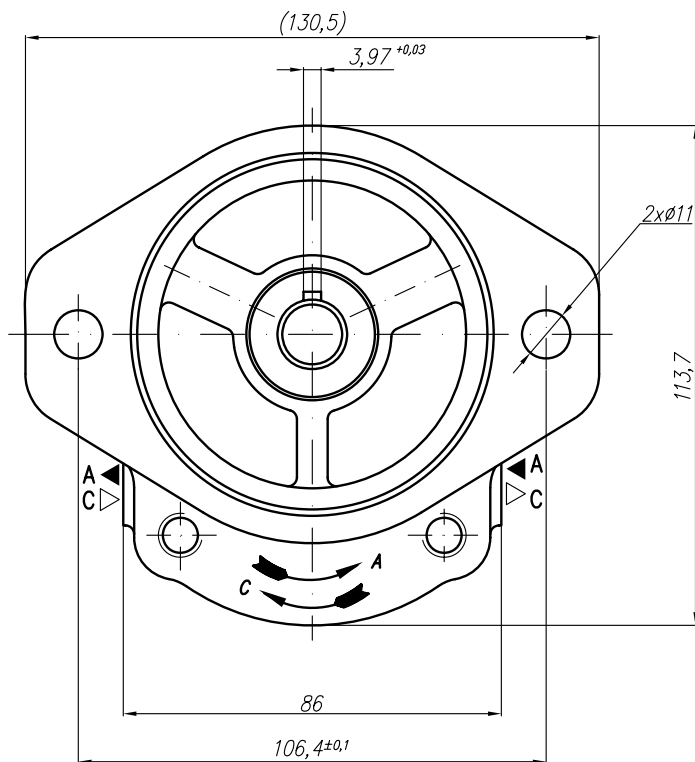
PGP PUMP	HENDERS  N Hydraulics®										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X074...												
Type	Displacement	Flow		Pressure	max Speed	Dimension							
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5X074...	4,5	6,14	14,33	250	3500	37,3	75,1	M20x1,5	G1/2	1 1/16"-12UNF	M16x1,5	G1/2	7/8" -14UNF
20A(C)6,3X074...	6,3	8,69	20,29	250	3500	38,6	78						
20A(C)8,2X074...	8,2	11,32	26,40	250	3500	40,6	78						
20A(C)10X074...	10	13,95	32,55	250	3500	45	87						
20A(C)11X074...	11,3	15,76	36,78	250	3500	45	89,1						
20A(C)12X074...	12	16,92	39,48	250	3500	45	90,3						
20A(C)14X074...	14	19,95	46,55	250	3500	45	93,4						
20A(C)15X074...	15	21,60	36,00	250	2500	45	94,9						
20A(C)16X074...	16	23,04	38,40	250	2500	45	96,5						
20A(C)19X074...	19	27,36	45,60	200	2500	45	101,5						
20A(C)22X074...	22	31,68	42,24	180	2000	52,5	106,5						
20A(C)25X074...	25	36,00	48,00	160	2000	57,2	111,4						



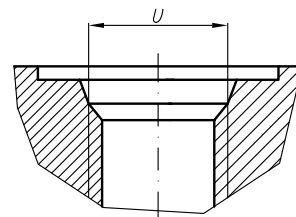
SAE J475 (ISO R725)




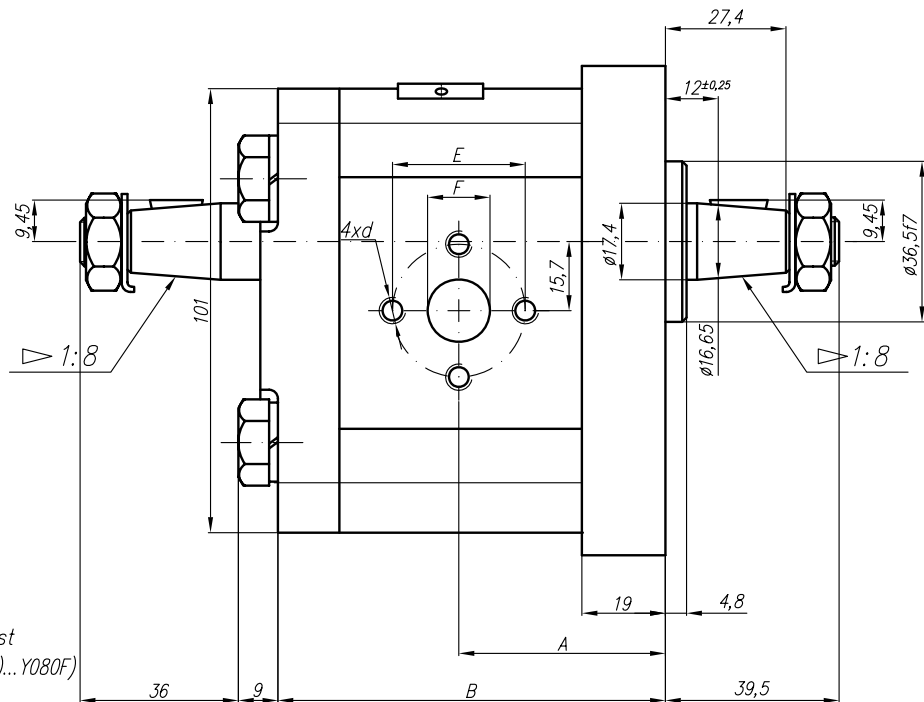
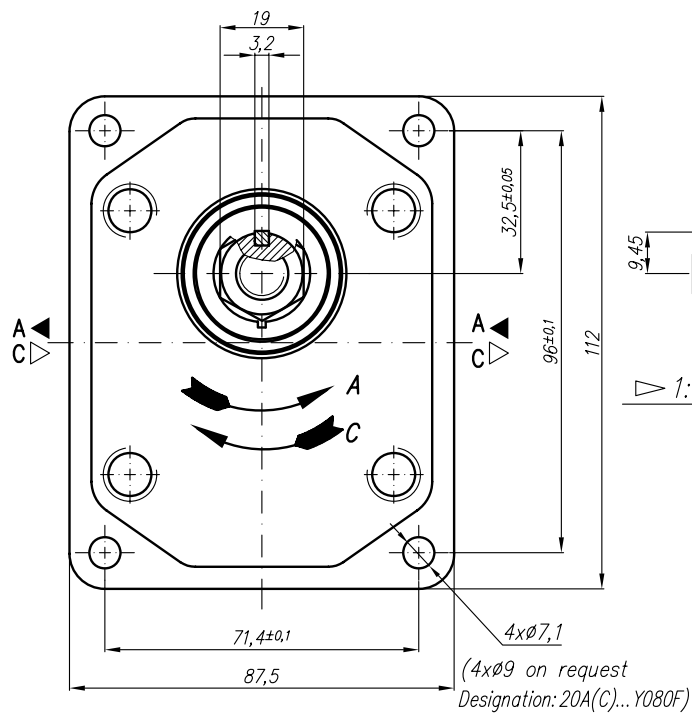
PGP PUMP	HENDERSO [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...Y075...												
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5Y075...	4,5	6,14	14,33	250	3500	42	79,6	M20x1,5	G1/2	1 1/16"-12UNF	M16x1,5	G1/2	7/8"-14UNF
20A(C)6,3Y075...	6,3	8,69	20,29	250	3500	43,6	82,6						
20A(C)8,2Y075...	8,2	11,32	26,40	250	3500	45	85,6						
20A(C)10Y075...	10	13,95	32,55	250	3500	46,6	88,7		G3/4				
20A(C)11Y075...	11,3	15,76	36,78	250	3500	47,6	90,7						
20A(C)12Y075...	12	16,92	39,48	250	3500	48,2	91,9						
20A(C)14Y075...	14	19,95	46,55	250	3500	49,6	95		1 1/16"-12UNF				
20A(C)15Y075...	15	21,60	36,00	250	2500	50,6	96,5						
20A(C)16Y075...	16	23,04	38,40	250	2500	51,6	98,2						
20A(C)19Y075...	19	27,36	45,60	200	2500	53,6	103,1		M20X1,5				
20A(C)22Y075...	22	31,68	42,24	180	2000	56,6	108,1						
20A(C)25Y075...	25	36,00	48,00	160	2000	58,8	113						



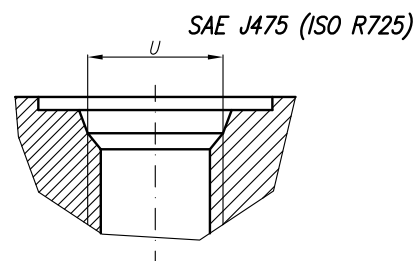
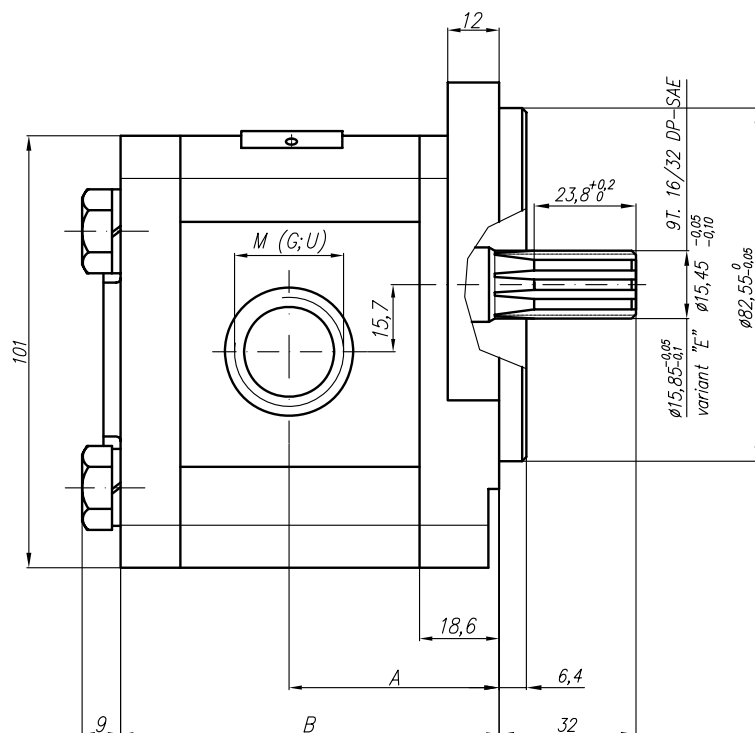
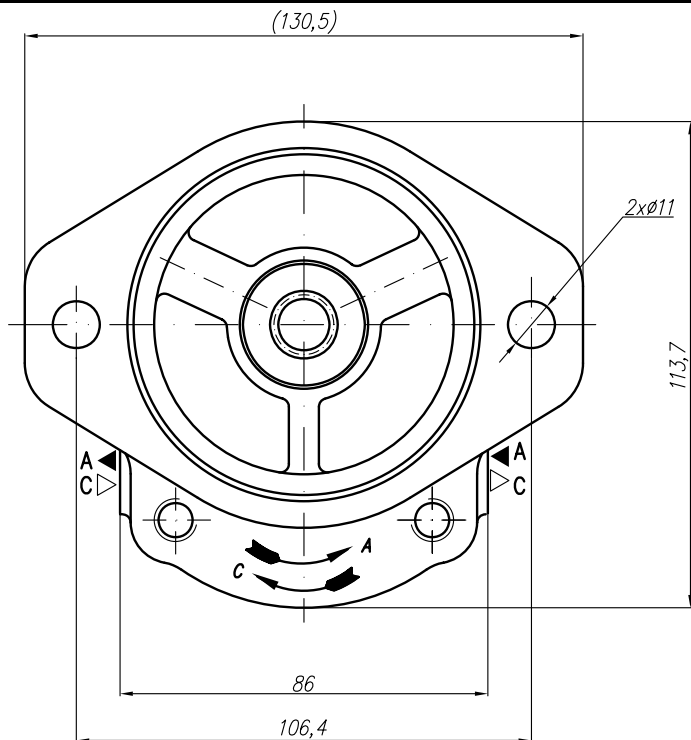
SAE J475 (ISO R725)



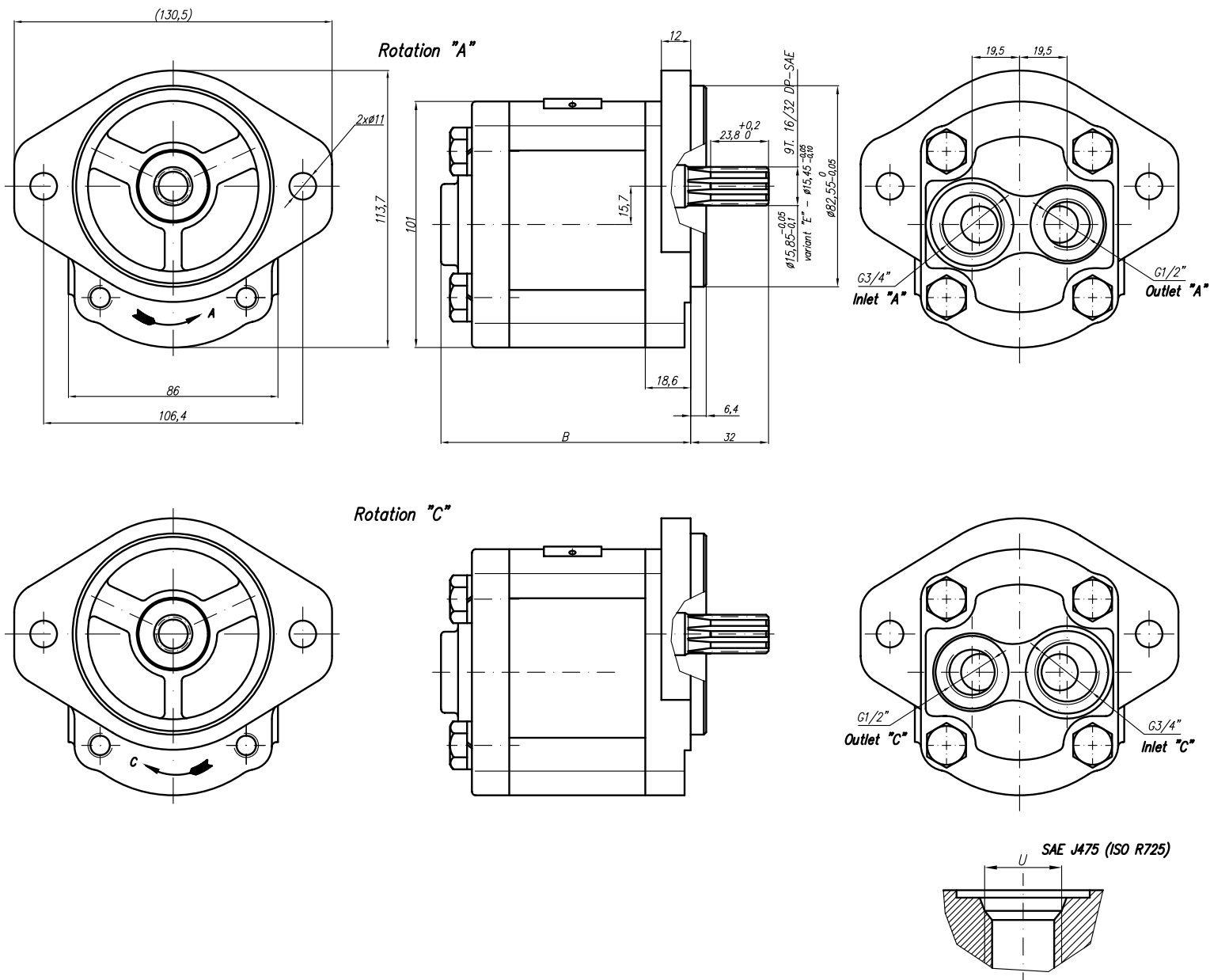
PGP PUMP	HENDERS  N Hydraulics®										GROUP II					
	GEAR PUMP TYPE PGP 20A(C)...Y080															
Type	Displacement	Flow		Pressure	max Speed	Dimension										
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d			
20A(C)4,5Y080	4,5	6,14	14,33	250	3500	42,5	80	30,2	13,1	1/4-20UNC	30,2	13,1	1/4"-20UNC			
20A(C)6,3Y080	6,3	8,69	20,29	250	3500	42,5	80									
20A(C)8,2Y080	8,2	11,32	26,40	250	3500	42,5	80									
20A(C)10Y080	10	13,95	32,55	250	3500	47	89									
20A(C)11Y080	11,3	15,76	36,78	250	3500	48	91,1	39,7	19	5/16"-18UNC				30,2	14,2	1/4"-20UNC
20A(C)12Y080	12	16,92	39,48	250	3500	48,6	92,3									
20A(C)14Y080	14	19,95	46,55	250	3500	50	95,4									
20A(C)15Y080	15	21,60	36,00	250	2500	51	96,9									
20A(C)16Y080	16	23,04	38,40	250	2500	52	98,6									
20A(C)19Y080	19	27,36	45,60	200	2500	54	103,5									
20A(C)22Y080	22	31,68	42,24	180	2000	57	108,5									
20A(C)25Y080	25	36,00	48,00	160	2000	59,2	113,4				39,7	19	5/16"			



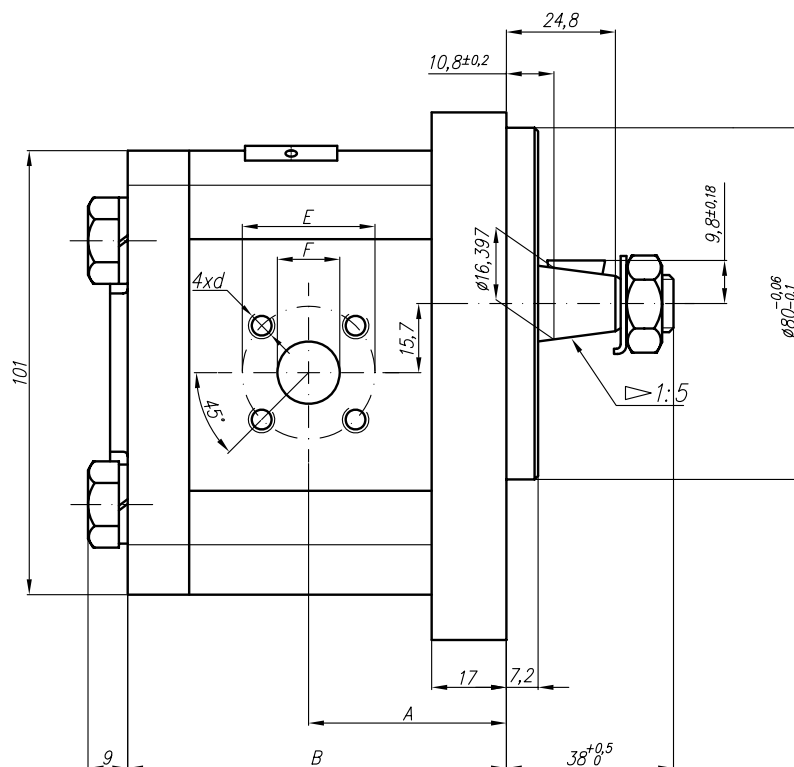
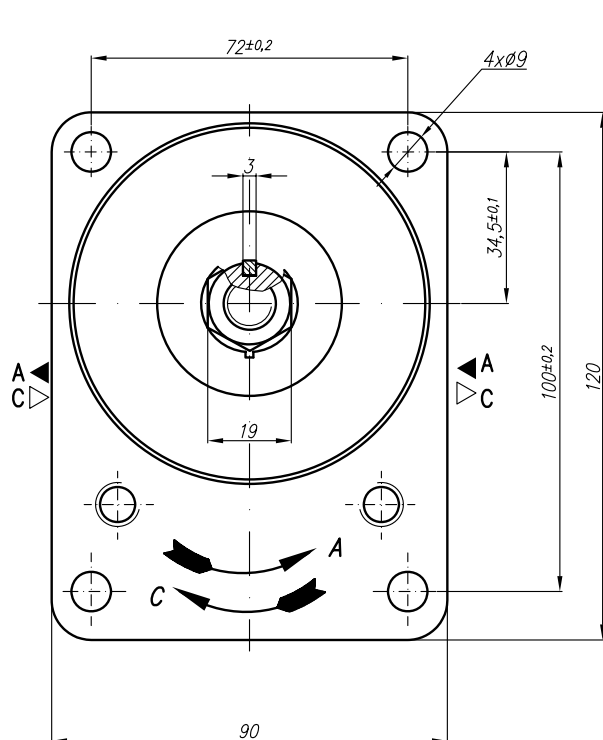
PGP PUMP	HENDERSO N Hydraulics®											GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X085...													
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension								
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U	
20A(C)4,5X085...	4,5	6,14	14,33	250	3500	42	79,6	M20x1,5	G1/2	1 1/16"-12UNF	M16x1,5	G1/2	7/8"-14UNF	
20A(C)6,3X085...	6,3	8,69	20,29	250	3500	43,6	82,6							
20A(C)8,2X085...	8,2	11,32	26,40	250	3500	45	85,6							
20A(C)10X085...	10	13,95	32,55	250	3500	46,6	88,7							
20A(C)11X085...	11,3	15,76	36,78	250	3500	47,6	90,7							
20A(C)12X085...	12	16,92	39,48	250	3500	48,2	91,9							
20A(C)14X085...	14	19,95	46,55	250	3500	49,6	95							
20A(C)15X085...	15	21,60	36,00	250	2500	50,6	96,5							
20A(C)16X085...	16	23,04	38,40	250	2500	51,6	98,2							
20A(C)19X085...	19	27,36	45,60	200	2500	53,6	103,1							
20A(C)22X085...	22	31,68	42,24	180	2000	56,6	108,1							
20A(C)25X085...	25	36,00	48,00	160	2000	58,8	113							
20A(C)14X085H...	14	20,16	47,04	250	3500	54,8	105,7	M20x1,5	G3/4	1 1/16"-12UNF	M16x1,5	G1/2	7/8"-14UNF	
20A(C)15X085H...	15	21,60	43,20	250	3000	55,6	106,8							
20A(C)16X085H...	16	23,04	46,08	250	3000	56,5	108,4							
20A(C)17,3X085H...	17,3	24,91	49,82	230	3000	57,6	110,5							
20A(C)18,2X085H...	18,2	26,21	52,42	210	3000	58,4	112,1							
20A(C)19X085H...	19	27,36	54,72	200	3000	59	113,4							
20A(C)22X085H...	22	31,68	52,80	180	2500	61,5	118,4							
20A(C)25X085H...	25	36,00	60,00	160	2500	63,9	123,3							
20A(C)28X085H...	28	40,32	67,20	130	2500	66,4	128,1							
20A(C)32X085H...	32	46,08	61,44	120	2000	69,6	134,4							
20A(C)36X085H...	36	51,84	69,12	100	2000	72,8	141	M27x2	G1	1 5/16"-12U	M20x1,5	G3/4	1 1/16"-12U	



PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X085W...												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5X085W	4,5	6,14	14,33	250	3500		93,6	G3/4	1 1/16"-12UNF			G1/2	7/8"-14UNF
20A(C)6,3X085W	6,3	8,69	20,29	250	3500		96,6						
20A(C)8,2X085W	8,2	11,32	26,40	250	3500		99,5						
20A(C)10X085W	10	13,95	32,55	250	3500		102,5						
20A(C)11X085W	11,3	15,76	36,78	250	3500		104,6						
20A(C)12X085W	12	16,92	39,48	250	3500		105,9						
20A(C)14X085W	14	19,95	46,55	250	3500		108,9						
20A(C)15X085W	15	21,60	36,00	250	2500		110,5						
20A(C)16X085W	16	23,04	38,40	250	2500		112,1						
20A(C)19X085W	19	27,36	45,60	200	2500		117,1						
20A(C)22X085W	22	31,68	42,24	180	2000		122,1						
20A(C)25X085W	25	36,00	48,00	160	2000		127						



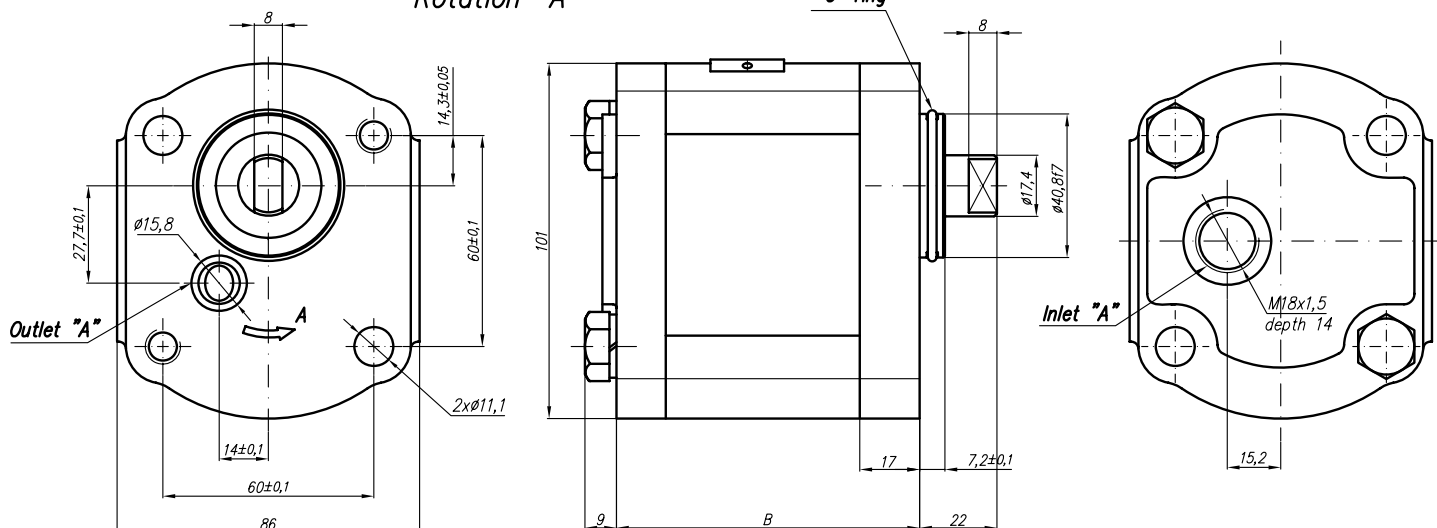
PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X086(H)												
Type	Displacement	Flow		Pressure	max Speed	Dimension							
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X086	4,5	6,14	14,33	250	3500	39,8	78	40	15	M6-6H	35	15	M6-6H
20A(C)6,3X086	6,3	8,69	20,29	250	3500	41	81						
20A(C)8,2X086	8,2	11,32	26,40	250	3500	43,1	83,9						
20A(C)10X086	10	13,95	32,55	250	3500	47,5	87						
20A(C)11X086	11,3	15,76	36,78	250	3500	47,5	89						
20A(C)12X086	12	16,92	39,48	250	3500	47,5	90,3						
20A(C)14X086	14	19,95	46,55	250	3500	47,5	93,4						
20A(C)15X086	15	21,60	36,00	250	2500	47,5	95						
20A(C)16X086	16	23,04	38,40	250	2500	47,5	96,5						
20A(C)19X086	19	27,36	45,60	200	2500	47,5	101,5						
20A(C)22X086	22	31,68	42,24	180	2000	55	106,5						
20A(C)25X086	25	36,00	48,00	160	2000	57,2	111,4						
20A(C)14X086H	14	20,16	47,04	250	3500	47,5	103,7	40	20	M6-6H	35	15	M6-6H
20A(C)15X086H	15	21,60	43,20	250	3000	47,5	105,2						
20A(C)16X086H	16	23,04	46,08	250	3000	47,5	106,8						
20A(C)17,3X086H	17,3	24,91	49,82	230	3000	47,5	108,9						
20A(C)18,2X086H	18,2	26,21	52,42	210	3000	47,5	110,5						
20A(C)19X086H	19	27,36	54,72	200	3000	47,5	111,8						
20A(C)22X086H	22	31,68	52,80	180	2500	55	116,8						
20A(C)25X086H	25	36,00	60,00	160	2500	57,2	121,7						
20A(C)28X086H	28	40,32	67,20	130	2500	64,8	126,5						
20A(C)32X086H	32	46,08	61,44	120	2000	68	132,8						
20A(C)36X086H	36	51,84	69,12	100	2000	71,2	139,4						



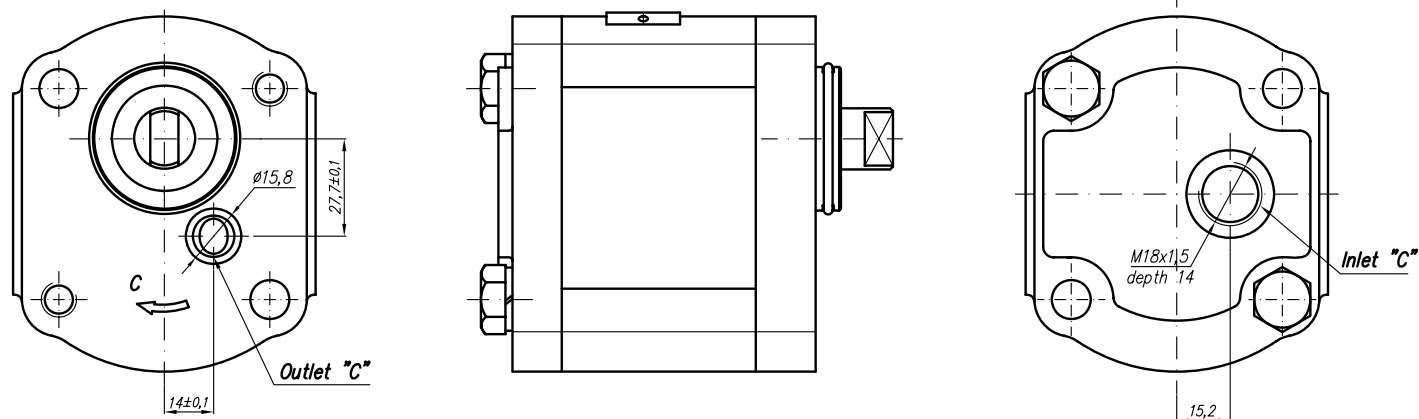
PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X091												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n*	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U			
20A(C)4,5X091	4,5	6,14	14,33	250	3500		75,1	M18x1,5			ø15,8		
20A(C)6,3X091	6,3	8,69	20,29	250	3500		78						
20A(C)8,2X091	8,2	11,32	26,40	250	3500		78						
20A(C)10X091	10	13,95	32,55	250	3500		87						
20A(C)11X091	11,3	15,76	36,78	250	3500		89,1						
20A(C)12X091	12	16,92	39,48	250	3500		90,3						
20A(C)14X091	14	19,95	46,55	250	3500		93,4						
20A(C)15X091	15	21,60	36,00	250	2500		94,9						
20A(C)16X091	16	23,04	38,40	250	2500		96,5						
20A(C)19X091	19	27,36	45,60	200	2500		101,5						
20A(C)22X091	22	31,68	42,24	180	2000		106,5						
20A(C)25X091	25	36,00	48,00	160	2000		111,4						

Rotation "A"

"O" ring

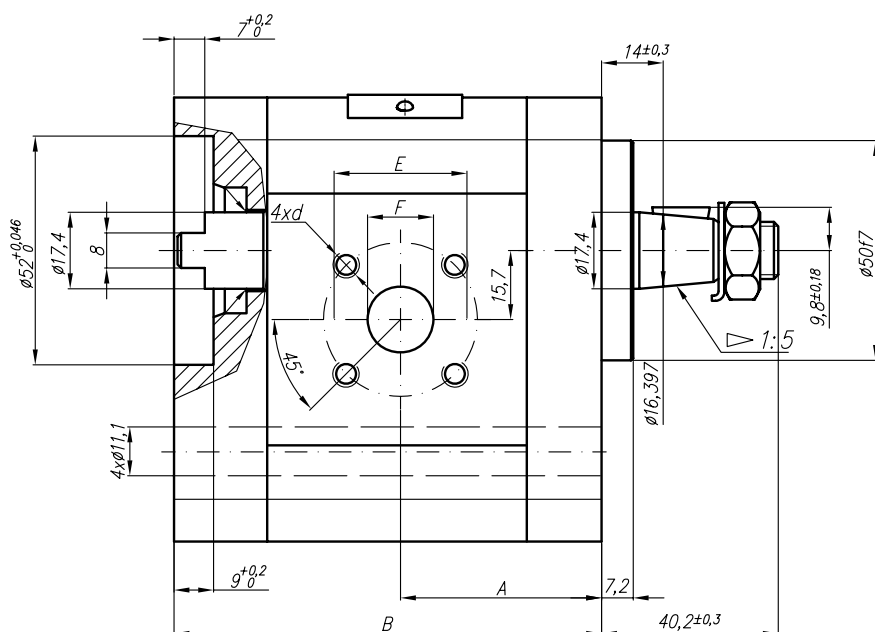
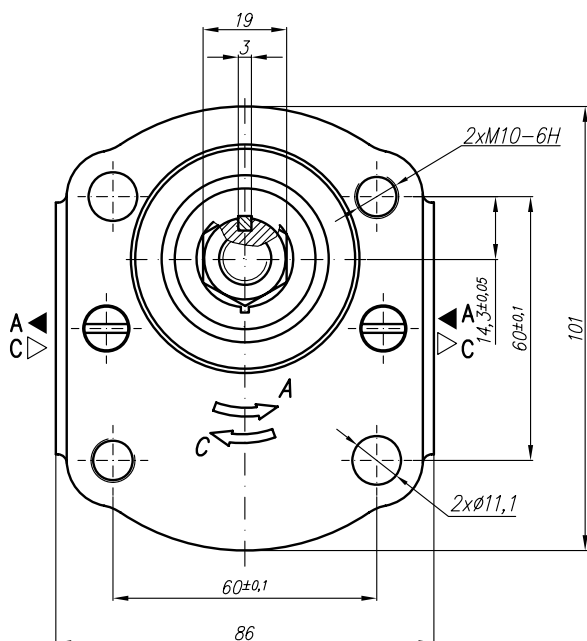


Rotation "C"

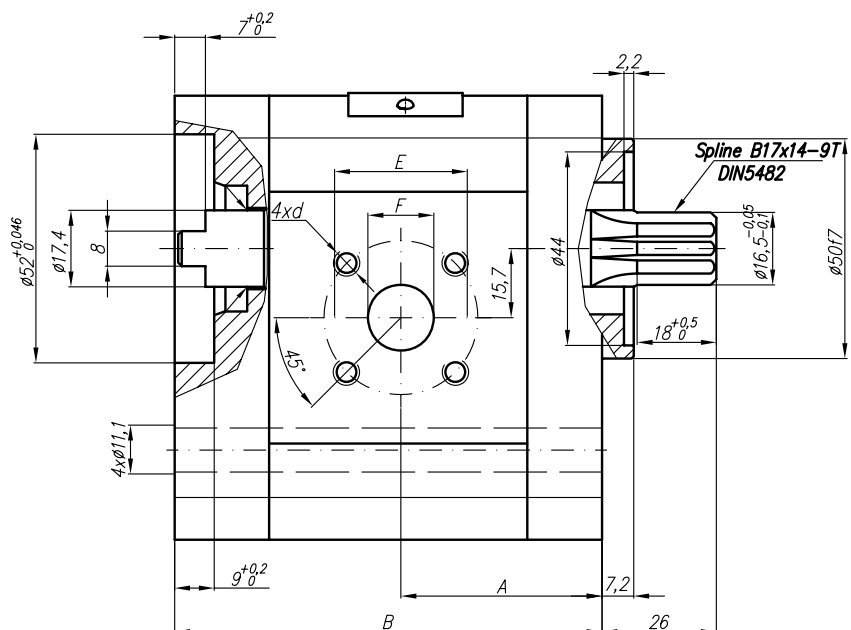
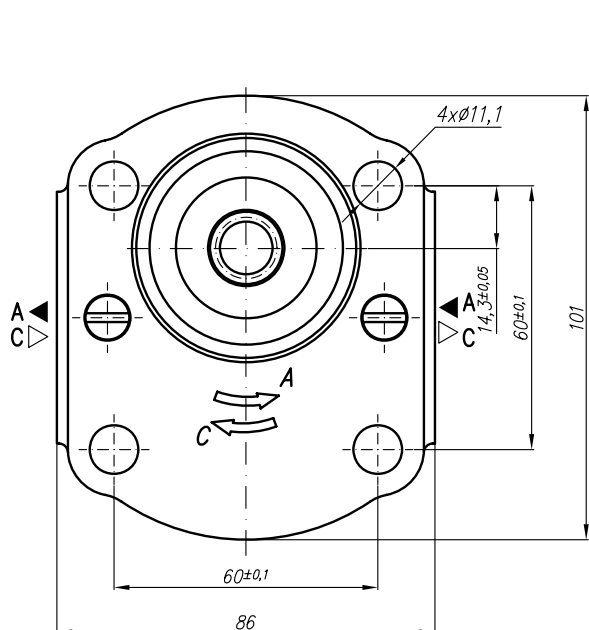


* It's required inlet overpressure 0,2...0,3 bar.

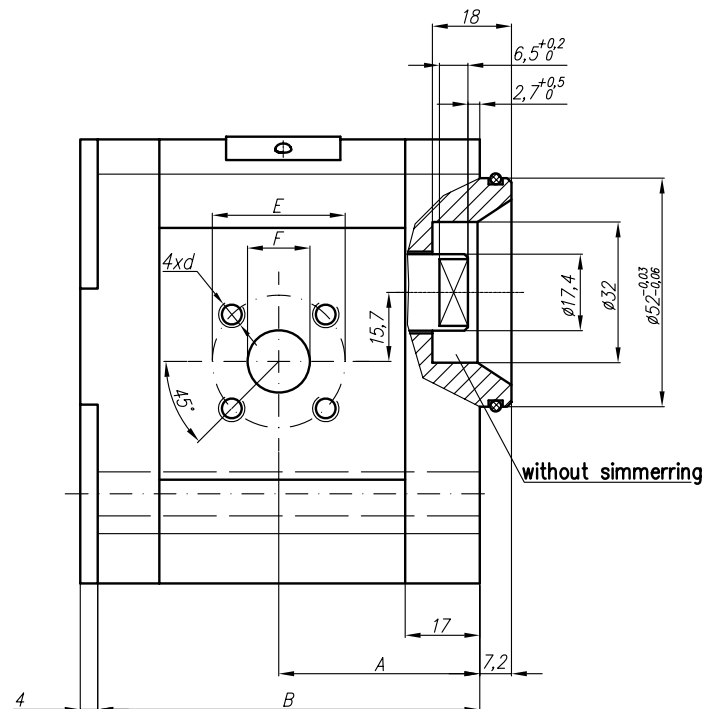
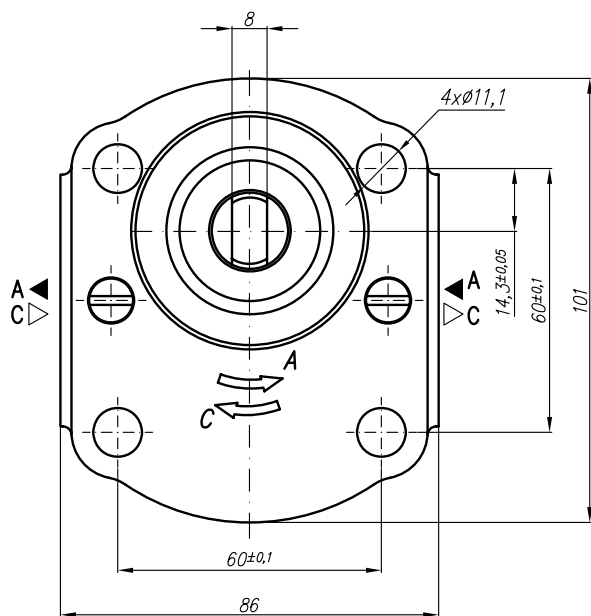
PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II			
	GEAR PUMP TYPE PGP 20A(C)...X095(H)													
Type	Displacement	Flow		Pressure	max Speed	Dimension								
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet	
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d	
20A(C)4,5X095	4,5	6,14	14,33	250	3500	40,5	85,2	40	15	M6-6H	35	15	M6-6H	
20A(C)6,3X095	6,3	8,69	20,29	250	3500	42	88,2							
20A(C)8,2X095	8,2	11,32	26,40	250	3500	43,5	91,1							
20A(C)10X095	10	13,95	32,55	250	3500	45	94,1							
20A(C)11X095	11,3	15,76	36,78	250	3500	46	96,2							
20A(C)12X095	12	16,92	39,48	250	3500	46,5	97,5							
20A(C)14X095	14	19,95	46,55	250	3500	48	100,6							
20A(C)15X095	15	21,60	36,00	250	2500	49	102,1							
20A(C)16X095	16	23,04	38,40	250	2500	50	103,8							
20A(C)19X095	19	27,36	45,60	200	2500	52	108,7							
20A(C)22X095	22	31,68	42,24	180	2000	55	113,7							
20A(C)25X095	25	36,00	48,00	160	2000	57,2	118,5							
20A(C)14X095H	14	20,16	47,04	250	3500	53,3	110,9	40	20	M6-6H	35	15	M6-6H	
20A(C)15X095H	15	21,60	43,20	250	3000	54	112,4							
20A(C)16X095H	16	23,04	46,08	250	3000	54,9	114							
20A(C)17,3X095H	17,3	24,91	49,82	230	3000	56	116,1							
20A(C)18,2X095H	18,2	26,21	52,42	210	3000	56,8	117,7							
20A(C)19X095H	19	27,36	54,72	200	3000	57,4	119							
20A(C)22X095H	22	31,68	52,80	180	2500	59,9	124				40	20		
20A(C)25X095H	25	36,00	60,00	160	2500	62,3	128,9							
20A(C)28X095H	28	40,32	67,20	130	2500	64,8	133,7							
20A(C)32X095H	32	46,08	61,44	120	2000	68	140							
20A(C)36X095H	36	51,84	69,12	100	2000	71,2	146,6							



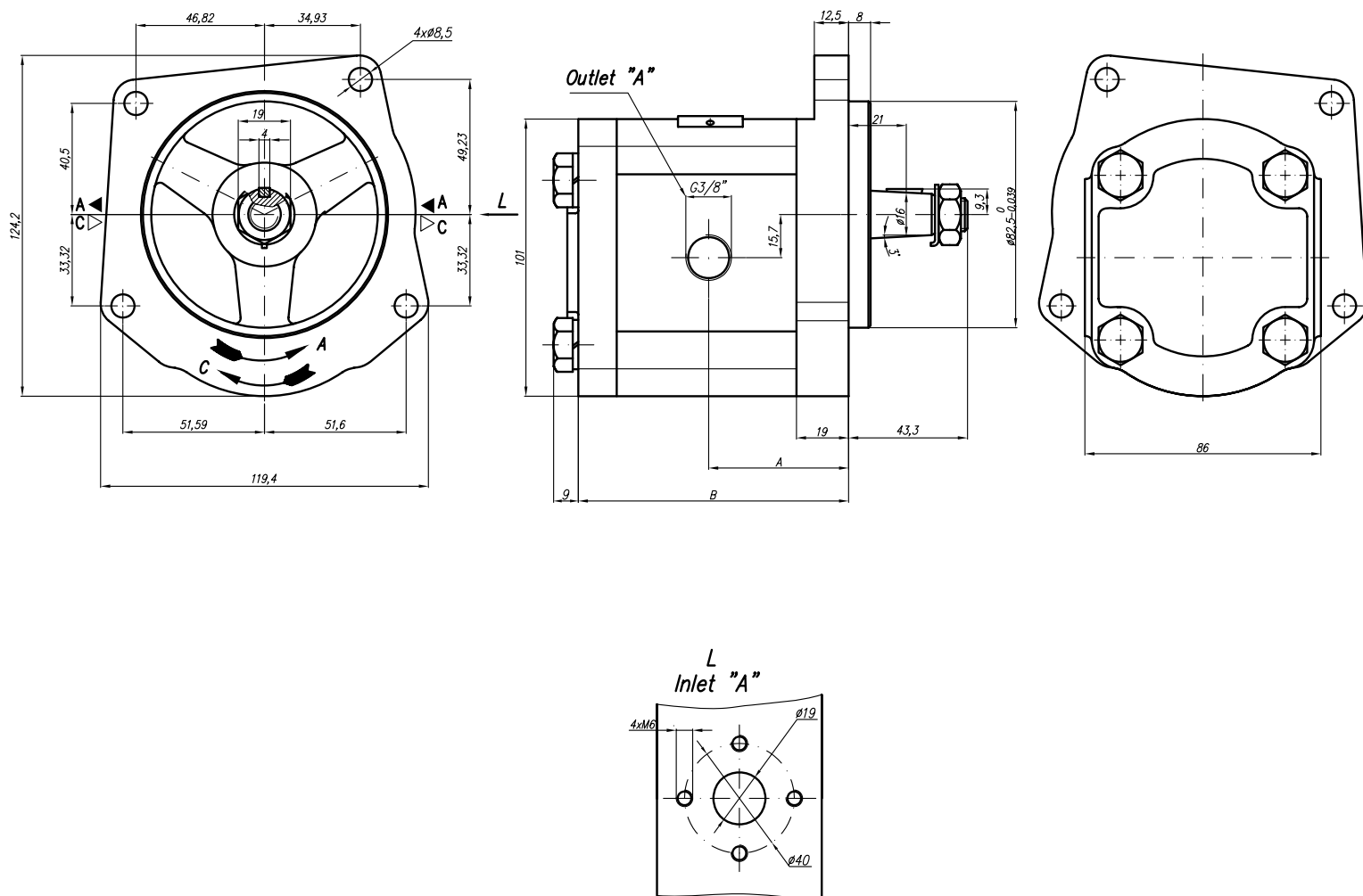
PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II			
	GEAR PUMP TYPE PGP 20A(C)...X096(H)													
Type	Displacement	Flow		Pressure	max Speed	Dimension								
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet	
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d	
20A(C)4,5X096	4,5	6,14	14,33	250	3500	40,5	85,2	40	15	M6-6H	35	15	M6-6H	
20A(C)6,3X096	6,3	8,69	20,29	250	3500	42	88,2							
20A(C)8,2X096	8,2	11,32	26,40	250	3500	43,5	91,1							
20A(C)10X096	10	13,95	32,55	250	3500	45	94,1							
20A(C)11X096	11,3	15,76	36,78	250	3500	46	96,2							
20A(C)12X096	12	16,92	39,48	250	3500	46,5	97,5							
20A(C)14X096	14	19,95	46,55	250	3500	48	100,6							
20A(C)15X096	15	21,60	36,00	250	2500	49	102,1							
20A(C)16X096	16	23,04	38,40	250	2500	50	103,8							
20A(C)19X096	19	27,36	45,60	200	2500	52	108,7							
20A(C)22X096	22	31,68	42,24	180	2000	55	113,7							
20A(C)25X096	25	36,00	48,00	160	2000	57,2	118,5							
20A(C)14X096H	14	20,16	47,04	250	3500	53,1	110,9	40	20	M6-6H	35	15	M6-6H	
20A(C)15X096H	15	21,60	43,20	250	3000	54	112,4							
20A(C)16X096H	16	23,04	46,08	250	3000	54,9	114							
20A(C)17,3X096H	17,3	24,91	49,82	230	3000	56	116,1							
20A(C)18,2X096H	18,2	26,21	52,42	210	3000	56,8	117,7							
20A(C)19X096H	19	27,36	54,72	200	3000	57,4	119							
20A(C)22X096H	22	31,68	52,80	180	2500	59,9	124				40	20		
20A(C)25X096H	25	36,00	60,00	160	2500	62,3	128,9							
20A(C)28X096H	28	40,32	67,20	130	2500	64,8	133,7							
20A(C)32X096H	32	46,08	61,44	120	2000	68	140							
20A(C)36X096H	36	51,84	69,12	100	2000	71,2	146,6							




PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X097(H)												
Type	Displacement	Flow		Pressure	max Speed	Dimension							
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X097	4,5	6,14	14,33	250	3500	40,5	78	40	15	M6-6H	35	15	M6-6H
20A(C)6,3X097	6,3	8,69	20,29	250	3500	42	81		20				
20A(C)8,2X097	8,2	11,32	26,40	250	3500	43,5	83,9						
20A(C)10X097	10	13,95	32,55	250	3500	45	87						
20A(C)11X097	11,3	15,76	36,78	250	3500	46	89						
20A(C)12X097	12	16,92	39,48	250	3500	46,5	90,3						
20A(C)14X097	14	19,95	46,55	250	3500	48	93,4						
20A(C)15X097	15	21,60	36,00	250	2500	49	95						
20A(C)16X097	16	23,04	38,40	250	2500	50	96,5						
20A(C)19X097	19	27,36	45,60	200	2500	52	101,5						
20A(C)22X097	22	31,68	42,24	180	2000	55	106,5						
20A(C)25X097	25	36,00	48,00	160	2000	57,2	111,4						
20A(C)14X097H	14	20,16	47,04	250	3500	53	110,9	40	20	M6-6H	35	15	M6-6H
20A(C)15X097H	15	21,60	43,20	250	3000	54	105,2						
20A(C)16X097H	16	23,04	46,08	250	3000	54,9	106,8						
20A(C)17,3X097H	17,3	24,91	49,82	230	3000	56	108,9						
20A(C)18,2X097H	18,2	26,21	52,42	210	3000	56,8	110,5						
20A(C)19X097H	19	27,36	54,72	200	3000	57,4	111,8						
20A(C)22X097H	22	31,68	52,80	180	2500	59,9	116,8						
20A(C)25X097H	25	36,00	60,00	160	2500	62,3	121,7						
20A(C)28X097H	28	40,32	67,20	130	2500	64,8	126,5						
20A(C)32X097H	32	46,08	61,44	120	2000	68	132,8						
20A(C)36X097H	36	51,84	69,12	100	2000	71,2	139,4						

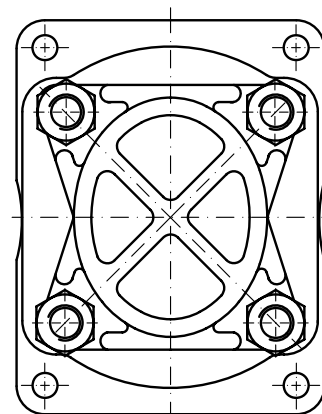
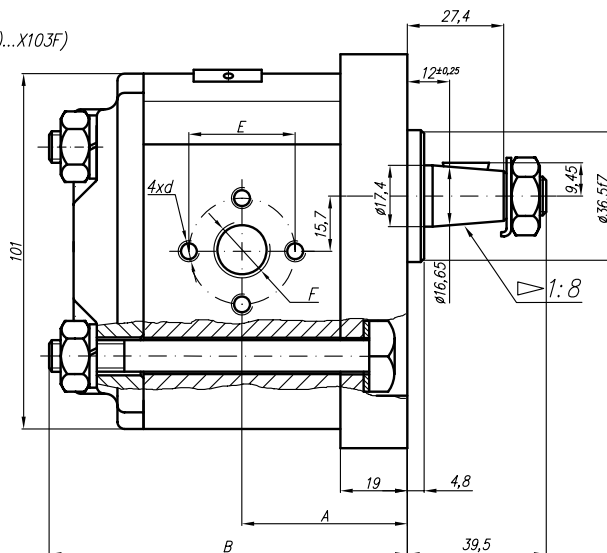
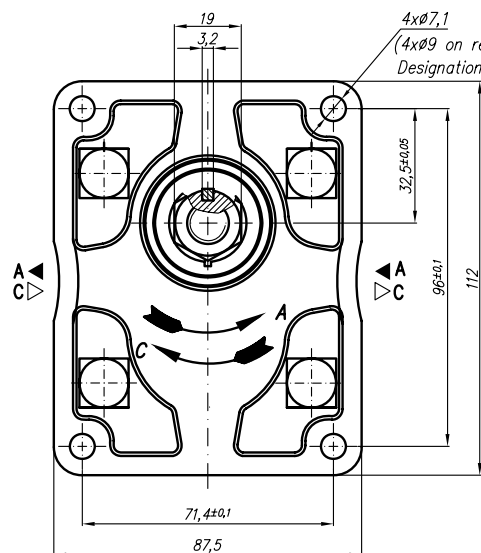


PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X102												
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	M	G	U
20A(C)15X102	15	21,60	36,00	250(175*)	2500	51	96,9	40	19	M6-6H		G3/8	
20A(C)16X102	16	23,04	38,40	250(175*)	2500	51	98,5						
20A(C)25X102	25	36,00	48,00	160(100*)	2000	59,2	113,4						

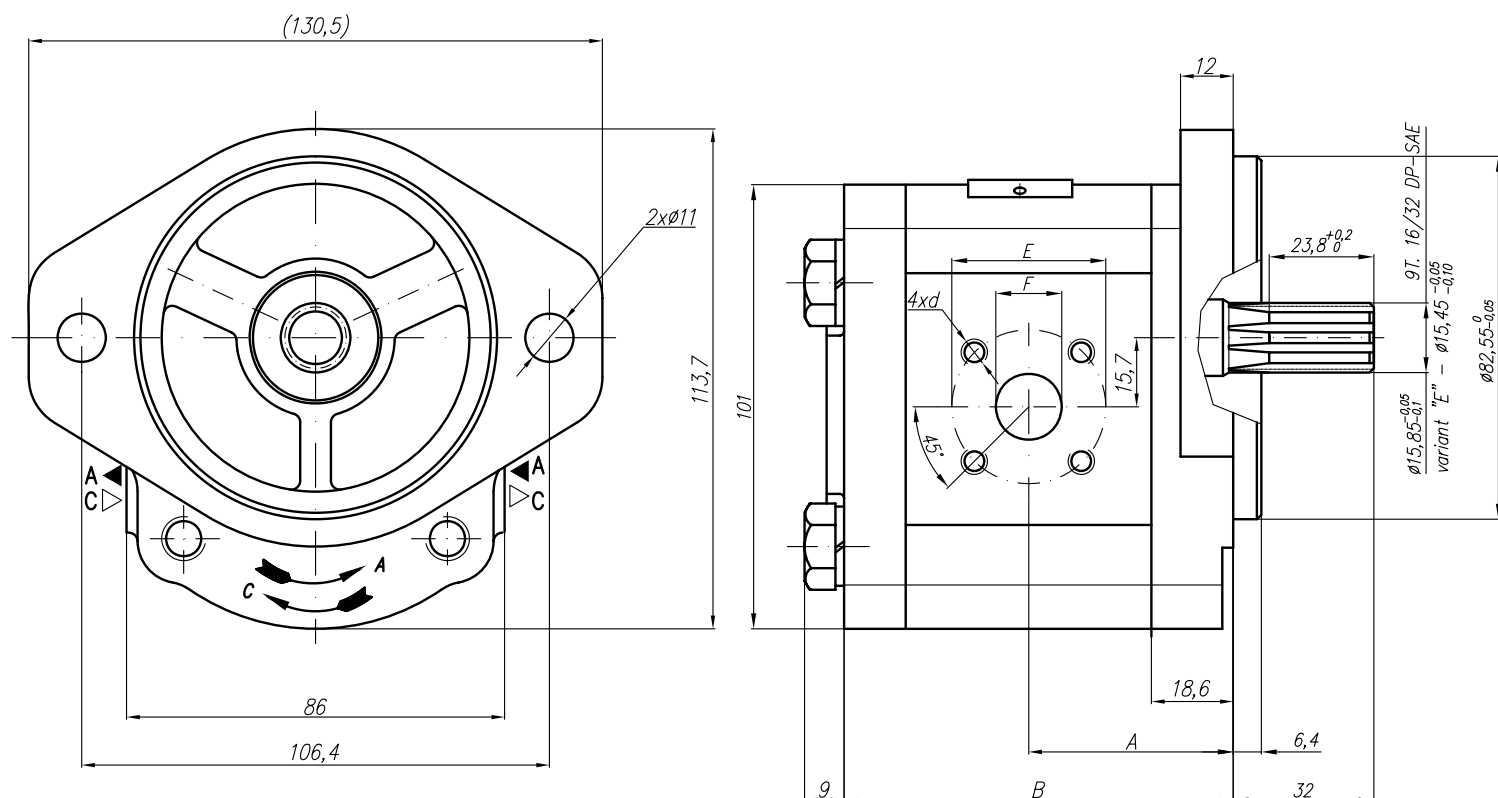



* These pressures recommended for direct drives with gear.

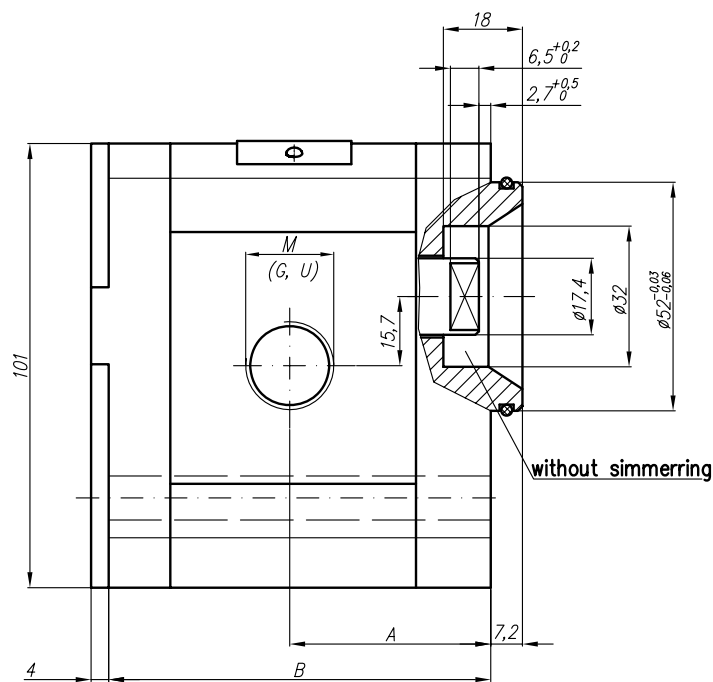
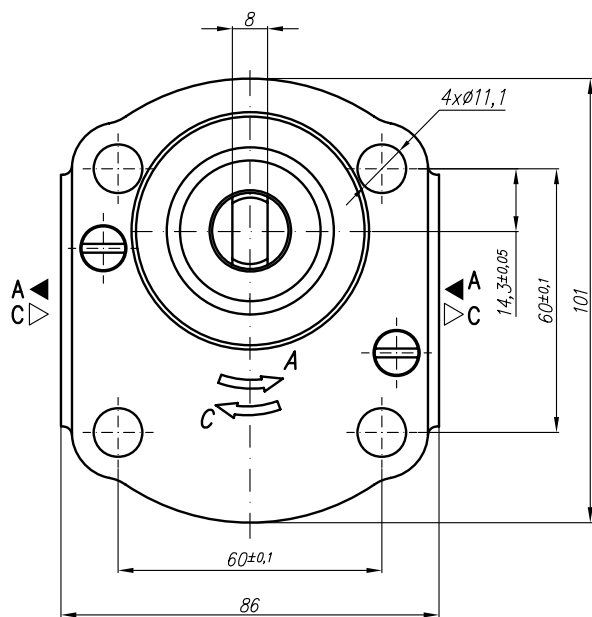
PGP PUMP	HENDERS  N Hydraulics®										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X103												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X103	4,5	6,14	14,33	250	3500						30,2		
20A(C)6,3X103	6,3	8,69	20,29	250	3500								
20A(C)8,2X103	8,2	11,32	26,40	250	3500								
20A(C)10X103	10	13,95	32,55	250	3500			39,7	G1/2"	5/16"-18UNC		G3/8"	1/4"-20UNC
20A(C)11X103	11,3	15,76	36,78	250	3500	48	102						
20A(C)12X103	12	16,92	39,48	250	3500								
20A(C)14X103	14	19,95	46,55	250	3500								
20A(C)15X103	15	21,60	36,00	250	2500								
20A(C)16X103	16	23,04	38,40	250	2500								
20A(C)19X103	19	27,36	45,60	200	2500								
20A(C)22X103	22	31,68	42,24	180	2000								
20A(C)25X103	25	36,00	48,00	160	2000								



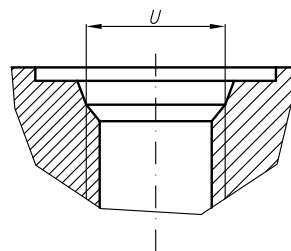
PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X104												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X104	4,5	6,14	14,33	250	3500	42	79,6	40	15	M6-6H	35	15	M6-6H
20A(C)6,3X104	6,3	8,69	20,29	250	3500	43,6	82,6						
20A(C)8,2X104	8,2	11,32	26,40	250	3500	45	85,6		20				
20A(C)10X104	10	13,95	32,55	250	3500	46,6	88,7						
20A(C)11X104	11,3	15,76	36,78	250	3500	47,6	90,7						
20A(C)12X104	12	16,92	39,48	250	3500	48,2	91,9						
20A(C)14X104	14	19,95	46,55	250	3500	49,6	95						
20A(C)15X104	15	21,60	36,00	250	2500	50,6	96,5						
20A(C)16X104	16	23,04	38,40	250	2500	51,6	98,2						
20A(C)19X104	19	27,36	45,60	200	2500	53,6	103,1						
20A(C)22X104	22	31,68	42,24	180	2000	56,6	108,1						
20A(C)25X104	25	36,00	48,00	160	2000	58,8	113						



PGP PUMP	HENDERS  N Hydraulics®										GROUP II						
	GEAR PUMP TYPE PGP 20A(C)...X110...																
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension											
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet						
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U				
20A(C)4,5X110...	4,5	6,14	14,33	250	3500	40,5	78	M20x1,5	G1/2	1 1/16"-12UNF	M16x1,5	G1/2	7/8"-14UNF				
20A(C)6,3X110...	6,3	8,69	20,29	250	3500	42	81										
20A(C)8,2X110...	8,2	11,32	26,40	250	3500	43,5	83,9										
20A(C)10X110...	10	13,95	32,55	250	3500	45	87										
20A(C)11X110...	11,3	15,76	36,78	250	3500	46	89										
20A(C)12X110...	12	16,92	39,48	250	3500	46,5	90,3										
20A(C)14X110...	14	19,95	46,55	250	3500	48	93,4		G3/4								
20A(C)15X110...	15	21,60	36,00	250	2500	49	95										
20A(C)16X110...	16	23,04	38,40	250	2500	50	96,5										
20A(C)19X110...	19	27,36	45,60	200	2500	52	101,5		M20x1,5								
20A(C)22X110...	22	31,68	42,24	180	2000	55	106,5										
20A(C)25X110...	25	36,00	48,00	160	2000	57,2	111,4										




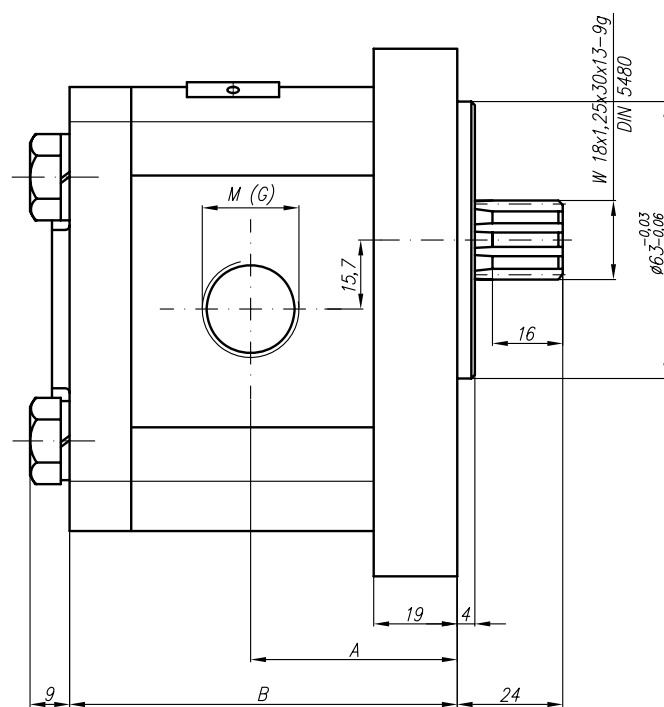
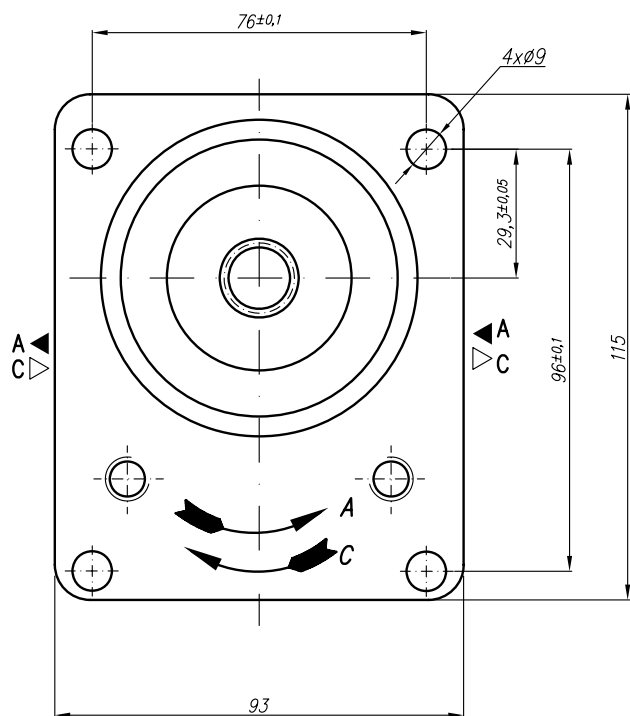
SAE J475 (ISO R725)




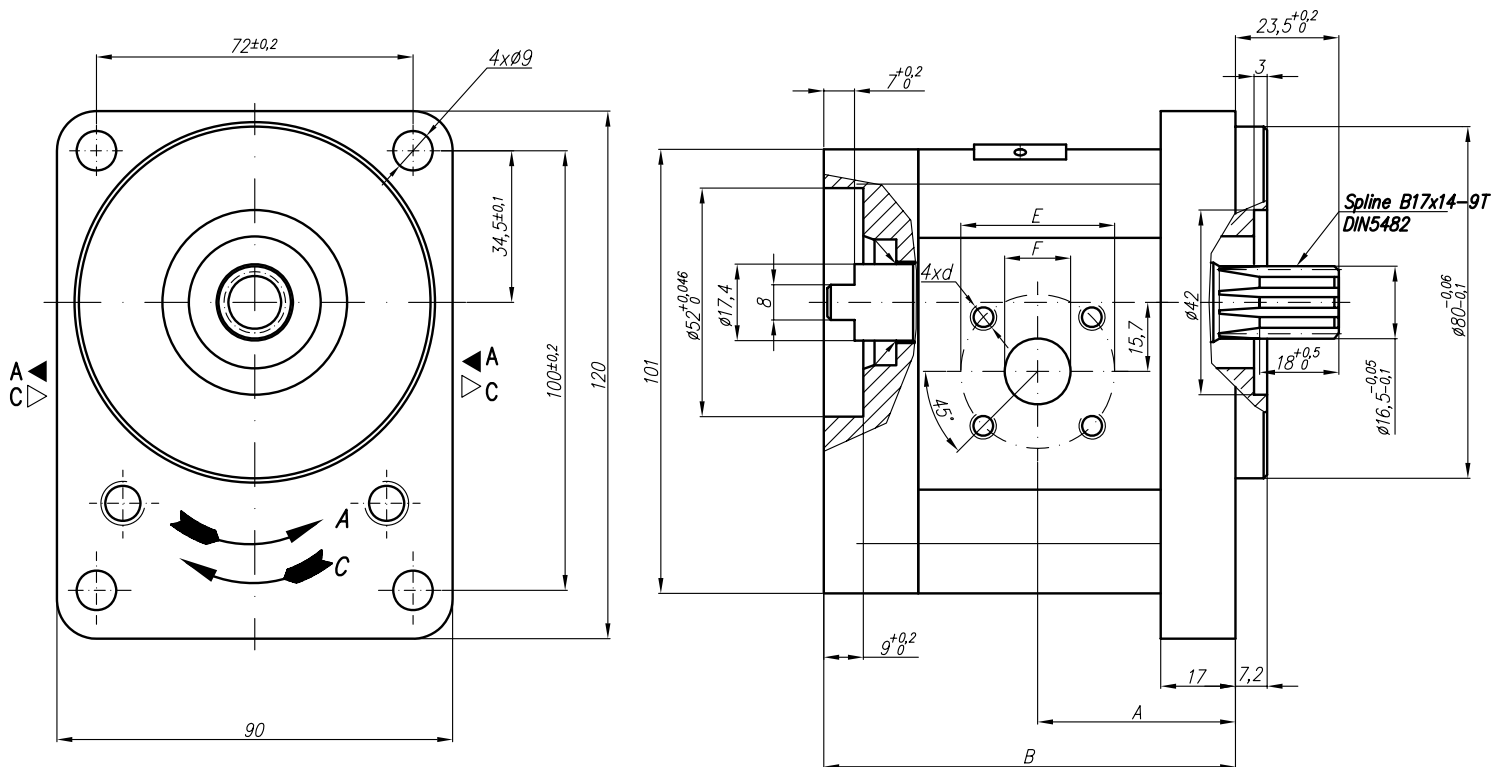
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5X111...	4,5	6,14	14,33	250	3500	42,5	87,2	M20x1,5	G1/2	1 1/16"-12UNF	M16x1,5	G1/2	7/8"-14UNF
20A(C)6,3X111...	6,3	8,69	20,29	250	3500	44	90,2						
20A(C)8,2X111...	8,2	11,32	26,40	250	3500	45,5	93,1						
20A(C)10X111...	10	13,95	32,55	250	3500	47	96,2						
20A(C)11X111...	11,3	15,76	36,78	250	3500	48	98,2						
20A(C)12X111...	12	16,92	39,48	250	3500	48,6	99,5						
20A(C)14X111...	14	19,95	46,55	250	3500	50	102,6		G3/4				
20A(C)15X111...	15	21,60	36,00	250	2500	51	104,1						
20A(C)16X111...	16	23,04	38,40	250	2500	52	105,8						
20A(C)19X111...	19	27,36	45,60	200	2500	54	110,7						
20A(C)22X111...	22	31,68	42,24	180	2000	57	115,7						
20A(C)25X111...	25	36,00	48,00	160	2000	59,2	120,6						

A cross-sectional diagram of a rectangular notch. The notch has a flat top surface and vertical side walls. The width of the notch at the top is labeled U . The water level is indicated by a horizontal line above the notch top, with the height from the bottom of the notch to this level labeled h . The area below the notch top and above the bottom of the notch is shaded with diagonal lines.

PGP PUMP	HENDERS  N Hydraulics®										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X114...												
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5X114...	4,5	6,14	14,33	250	3500	42,5	80	M18x1,5	G1/2		M14x1,5		
20A(C)6,3X114...	6,3	8,69	20,29	250	3500	42,5	80						
20A(C)8,2X114...	8,2	11,32	26,40	250	3500	42,5	80						
20A(C)10X114...	10	13,95	32,55	250	3500	47	89	M22x1,5					
20A(C)11X114...	11,3	15,76	36,78	250	3500	48,6	91,1						
20A(C)12X114...	12	16,92	39,48	250	3500	49	92,3	M27x2	G3/4		M18x1,5	G1/2	
20A(C)14X114...	14	19,95	46,55	250	3500	49	95,4						
20A(C)15X114...	15	21,60	36,00	250	2500	49,5	96,9						
20A(C)16X114...	16	23,04	38,40	250	2500	52	98,6						
20A(C)19X114...	19	27,36	45,60	200	2500	53	103,5						
20A(C)22X114...	22	31,68	42,24	180	2000	57	108,5						
20A(C)25X114...	25	36,00	48,00	160	2000	59,2	113,4						



PGP PUMP	HENDERS  N Hydraulics®											GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X124													
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension								
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d	
20A(C)4,5X124	4,5	6,14	14,33	250	3500	39,8	85,2	40	15	M6-6H	35	15	M6-6H	
20A(C)6,3X124	6,3	8,69	20,29	250	3500	41	88,2							
20A(C)8,2X124	8,2	11,32	26,40	250	3500	43,1	91,1		20					
20A(C)10X124	10	13,95	32,55	250	3500	47,5	94,1							
20A(C)11X124	11,3	15,76	36,78	250	3500	47,5	96,2							
20A(C)12X124	12	16,92	39,48	250	3500	47,5	97,5							
20A(C)14X124	14	19,95	46,55	250	3500	47,5	100,6							
20A(C)15X124	15	21,60	36,00	250	2500	47,5	102,1							
20A(C)16X124	16	23,04	38,40	250	2500	47,5	103,8							
20A(C)19X124	19	27,36	45,60	200	2500	47,5	108,7							
20A(C)22X124	22	31,68	42,24	180	2000	55	113,7							
20A(C)25X124	25	36,00	48,00	160	2000	57,2	118,5							



Dimension

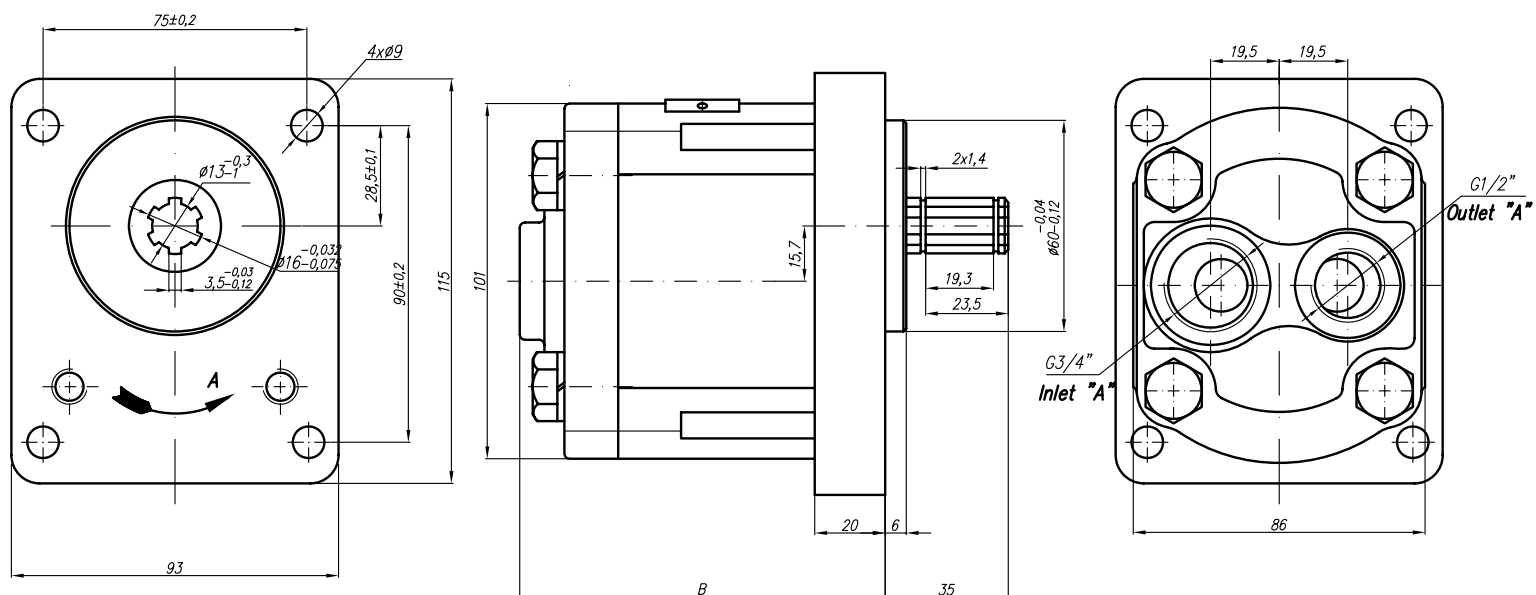
Outlet

E	F
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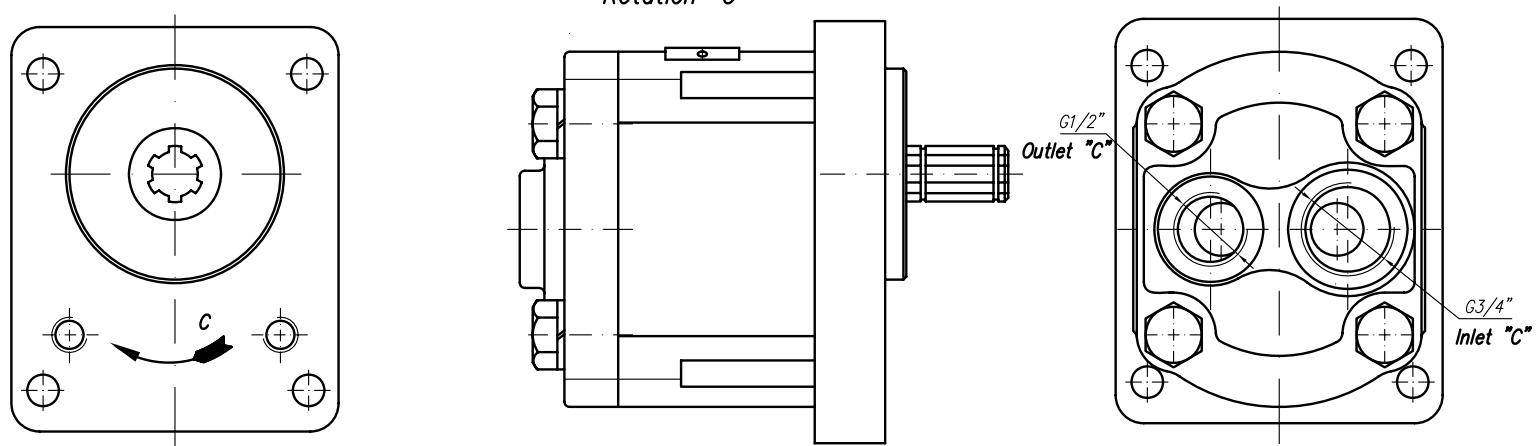
20A(C)6,3X126K	6,3	8,69	20,29	250	3500	48	84	M20x1,5		M20x1,5		
20A(C)8,2X126K	8,2	11,32	26,40	250	3500	48	87					
20A(C)10X126K	10	13,95	32,55	250	3500	48	90					
20A(C)11X126K	11,3	15,76	36,78	250	3500	48	92					
20A(C)14X126K	14	19,95	46,55	250	3500	48	96,5					
20A(C)16X126K	16	23,04	38,40	250	2500	48	99,5					
20A(C)19X126K	19	27,36	45,60	200	2500	55,3	104,5					
20A(C)22X126K	22	31,68	42,24	180	2000	57,8	109,5					


PGP PUMP	HENDERSO [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X126W												
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm		G			G	
20A(C)6,3X126W	6,3	8,69	20,29	250	3500		98	G3/4"				G1/2"	
20A(C)8,2X126W	8,2	11,32	26,40	250	3500		100,9						
20A(C)10X126W	10	13,95	32,55	250	3500		103,9						
20A(C)11X126W	11,3	15,76	36,78	250	3500		106						
20A(C)14X126W	14	19,95	46,55	250	3500		110,4						
20A(C)16X126W	16	23,04	38,40	250	2500		113,5						
20A(C)19X126W	19	27,36	45,60	200	2500		118,5						
20A(C)22X126W	22	31,68	42,24	180	2000		123,5						

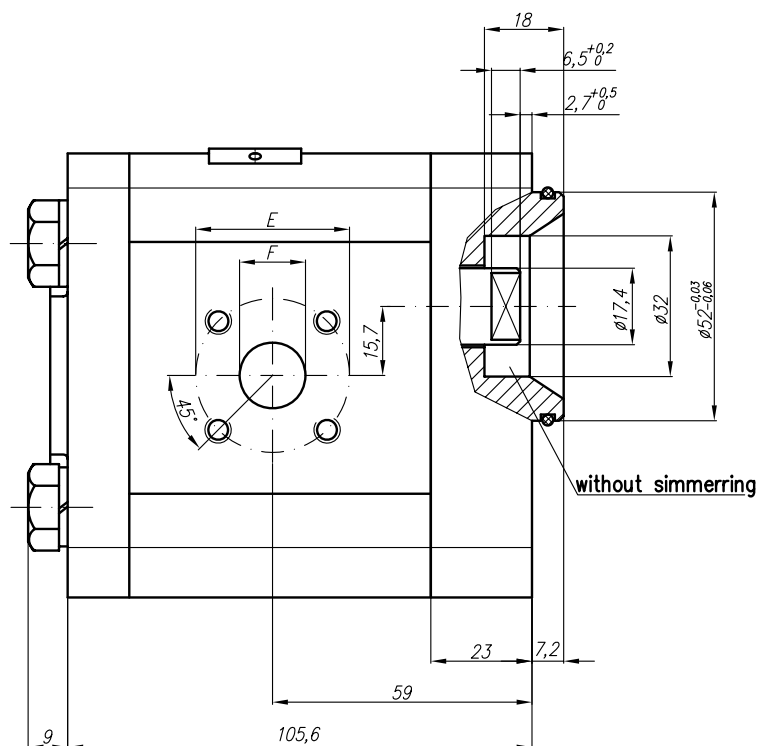
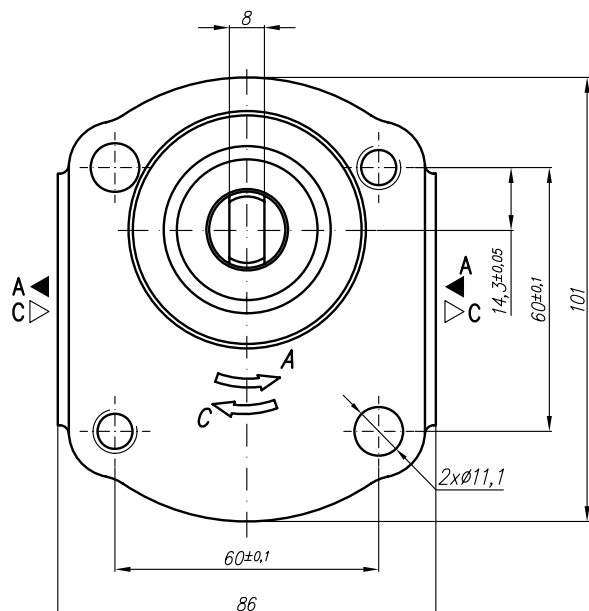
Rotation "A"




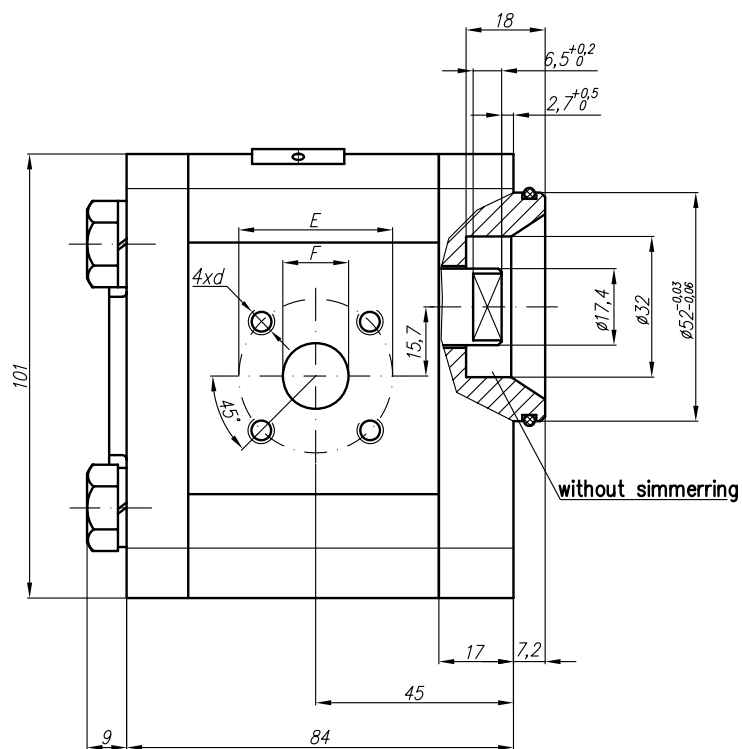
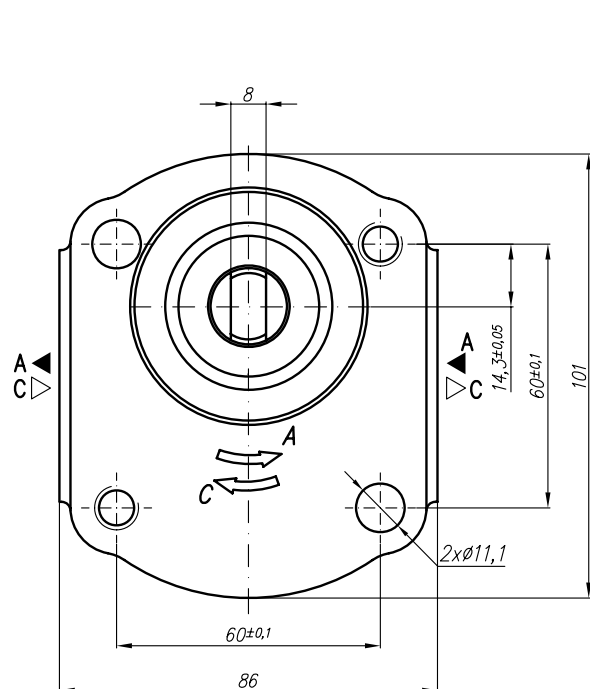
Rotation "C"



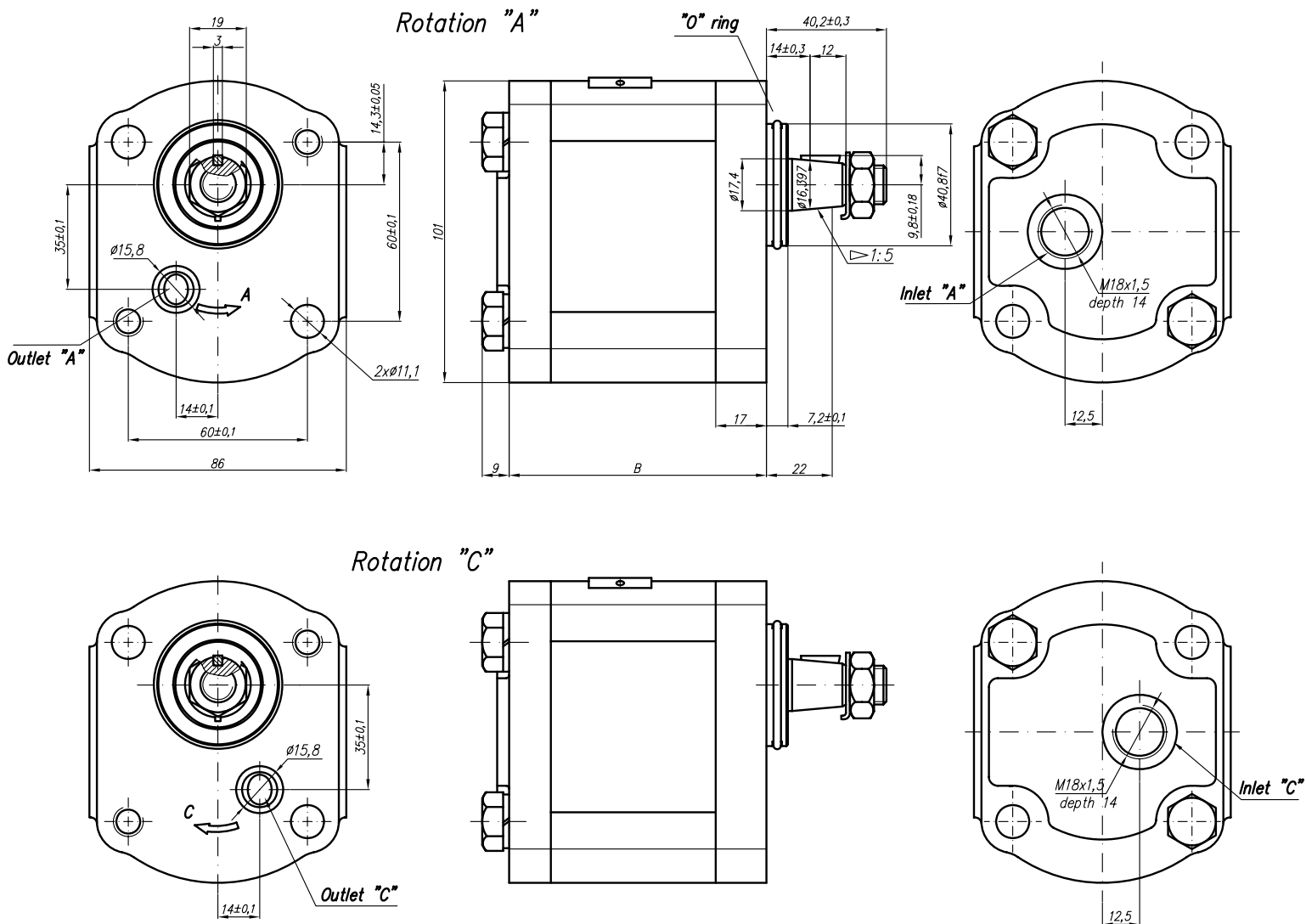
PGP PUMP	HENDERS  N Hydraulics®										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X127												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)11X127	16	23,04	53,76	250	3500	59	105,6	40	20	M6	35	15	M6



PGP PUMP	HENDERS  N Hydraulics°										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X128												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)11X128	11,3	15,76	36,78	250	3500	45	84	40	20	M6	35	15	M6

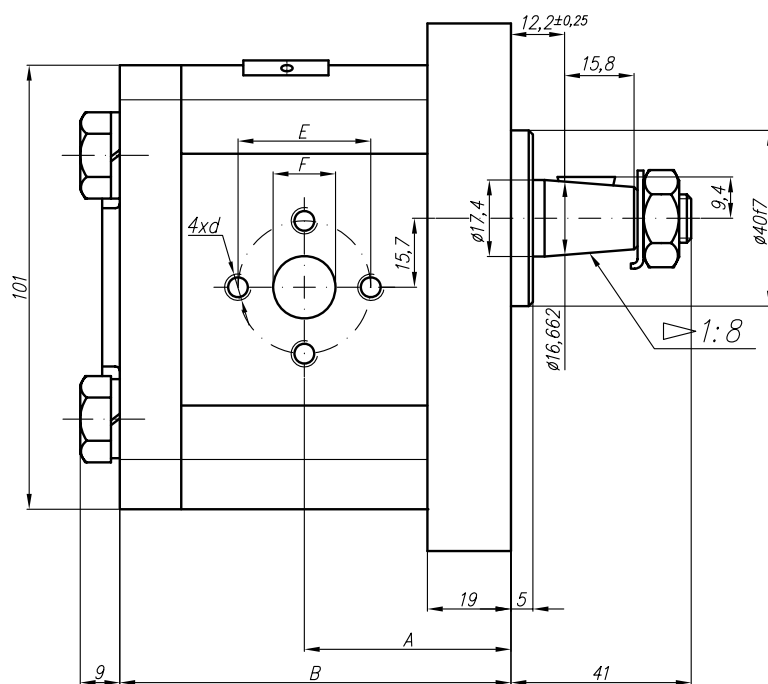
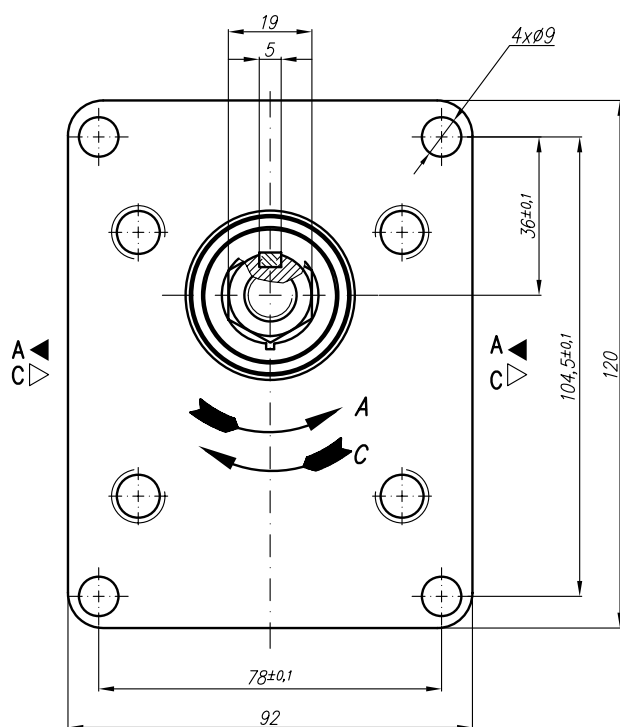


PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X132												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n*	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U			
20A(C)4,5X132	4,5	6,14	14,33	250	3500		75,1	M18x1,5			Ø15,9		
20A(C)6,3X132	6,3	8,69	20,29	250	3500		78						
20A(C)8,2X132	8,2	11,32	26,40	250	3500		78						
20A(C)10X132	10	13,95	32,55	250	3500		87						
20A(C)11X132	11,3	15,76	36,78	250	3500		89,1						
20A(C)12X132	12	16,92	39,48	250	3500		90,3						
20A(C)14X132	14	19,95	46,55	250	3500		93,4						
20A(C)15X132	15	21,60	36,00	250	2500		94,9						
20A(C)16X132	16	23,04	38,40	250	2500		96,5						
20A(C)19X132	19	27,36	45,60	200	2500		101,5						
20A(C)22X132	22	31,68	42,24	180	2000		106,5						
20A(C)25X132	25	36,00	48,00	160	2000		111,4						

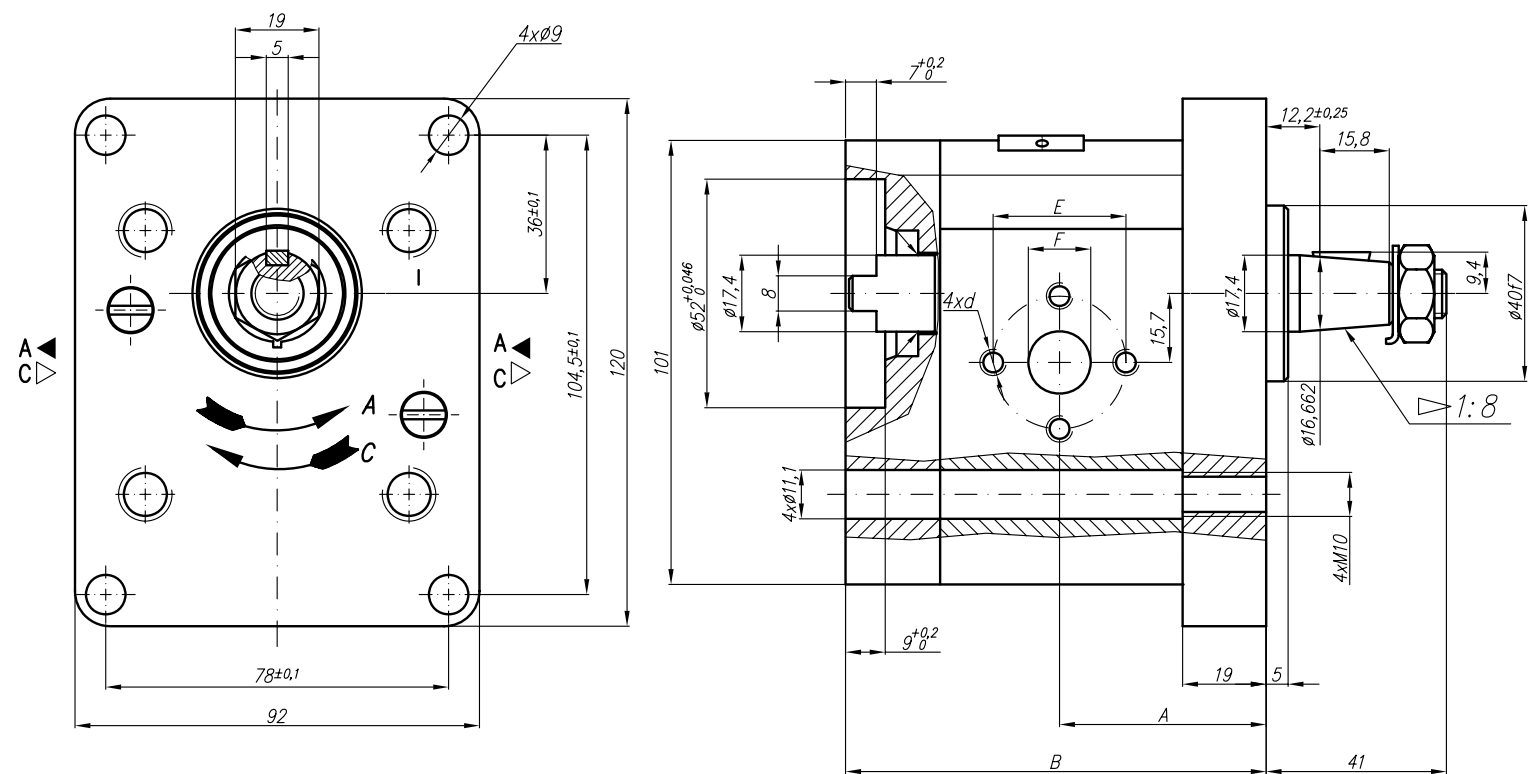


* It's required inlet overpressure 0,2...0,3 bar at max speed.

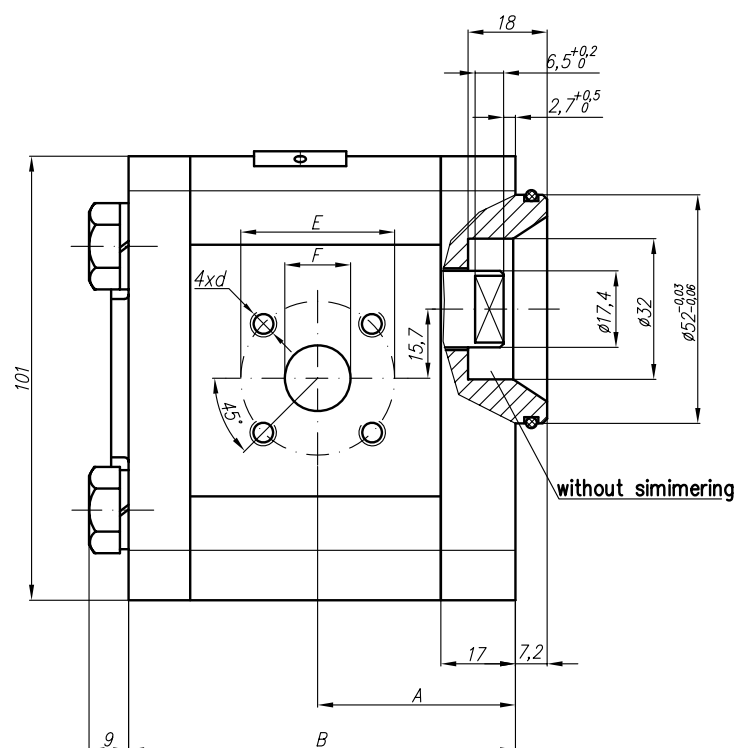
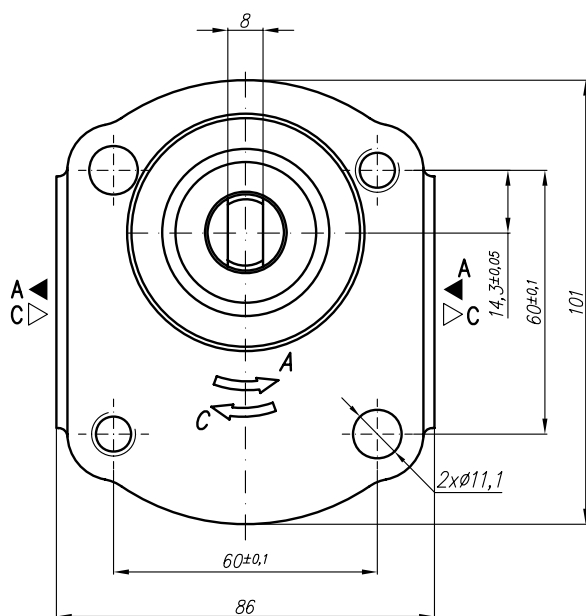
PGP PUMP	HENDERS [®] N Hydraulics [®]											GROUP II			
	GEAR PUMP TYPE PGP 20A(C)...X139														
Type	Displacement	Flow		Pressure	max Speed	Dimension									
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d		
20A(C)4,5X139	4,5	6,14	14,33	250	3500	42,5	80	30,2	13,1	M6-6H	30,2	13,1	M6-6H		
20A(C)6,3X139	6,3	8,69	20,29	250	3500	44	83								
20A(C)8,2X139	8,2	11,32	26,40	250	3500	45,5	86								
20A(C)10X139	10	13,95	32,55	250	3500	47	89	39,7	19	M8-6H		39,7		14,2	M6-6H
20A(C)11X139	11,3	15,76	36,78	250	3500	48	91,1								
20A(C)12X139	12	16,92	39,48	250	3500	48,6	92,3								
20A(C)14X139	14	19,95	46,55	250	3500	50	95,4								
20A(C)15X139	15	21,60	36,00	250	2500	51	96,9								
20A(C)16X139	16	23,04	38,40	250	2500	52	98,6								
20A(C)19X139	19	27,36	45,60	200	2500	54	103,5								
20A(C)22X139	22	31,68	42,24	180	2000	57	108,5								
20A(C)25X139	25	36,00	48,00	160	2000	59,2	113,4								



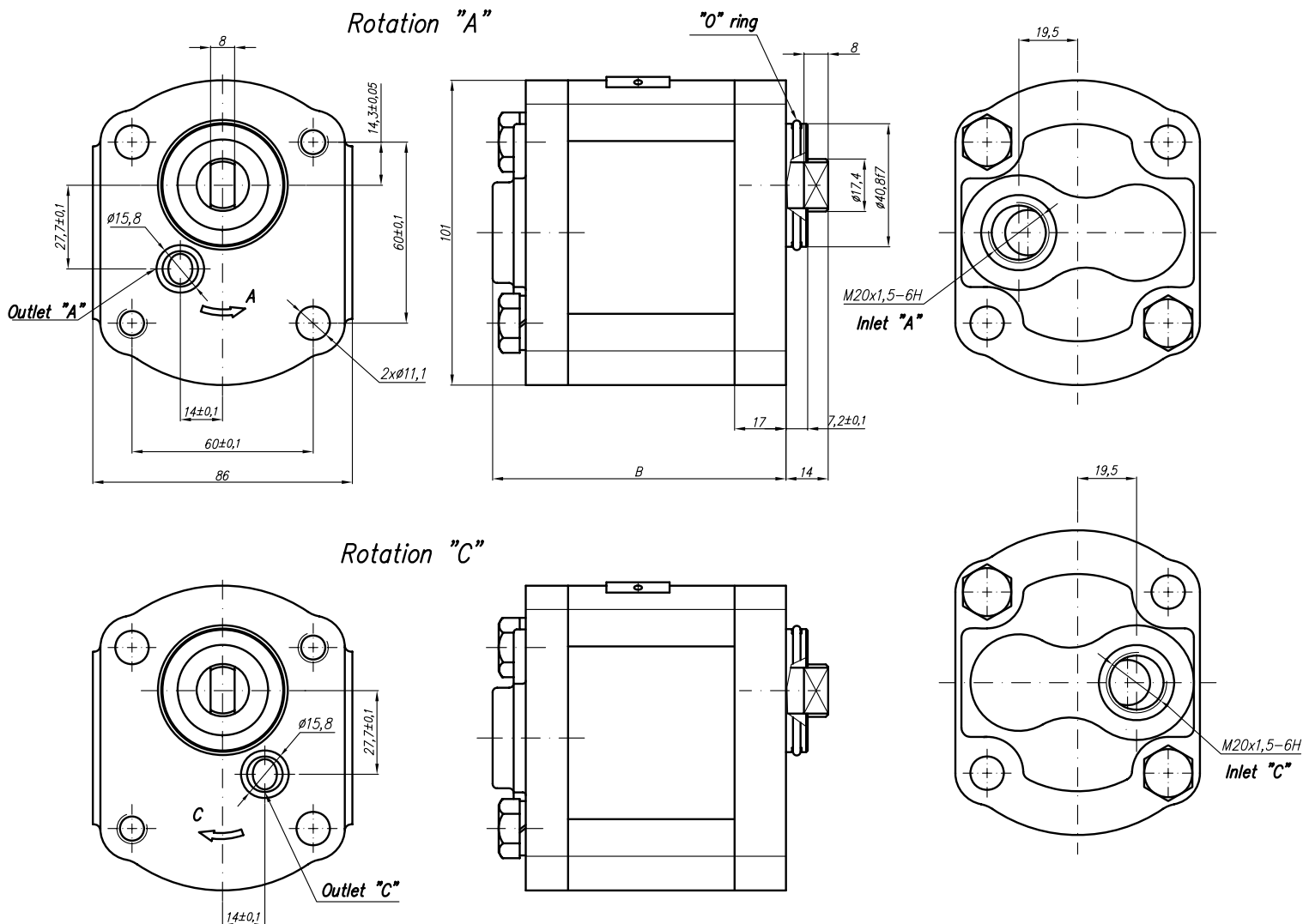
PGP PUMP	HENDERS [®] N Hydraulics [®]											GROUP II				
	GEAR PUMP TYPE PGP 20A(C)...X140															
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension										
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet					
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d			
20A(C)4,5X140	4,5	6,14	14,33	250	3500	42,5	87,2	30,2	13,1	M6-6H	30,2	13,1	M6-6H			
20A(C)6,3X140	6,3	8,69	20,29	250	3500	44	90,2									
20A(C)8,2X140	8,2	11,32	26,40	250	3500	45,5	93,1									
20A(C)10X140	10	13,95	32,55	250	3500	47	96,2	39,7	19	M8-6H				30,2	14,2	M6-6H
20A(C)11X140	11,3	15,76	36,78	250	3500	48	98,2									
20A(C)12X140	12	16,92	39,48	250	3500	48,6	99,5									
20A(C)14X140	14	19,95	46,55	250	3500	50	102,6									
20A(C)15X140	15	21,60	36,00	250	2500	51	104,1									
20A(C)16X140	16	23,04	38,40	250	2500	52	105,8									
20A(C)19X140	19	27,36	45,60	200	2500	54	110,7									
20A(C)22X140	22	31,68	42,24	180	2000	57	115,7									
20A(C)25X140	25	36,00	48,00	160	2000	59,2	120,6	39,7	19	M8						



PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X147												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X147	4,5	6,14	14,33	250	3500	37,3	78	40	15	M6-6H	35	15	M6-6H
20A(C)6,3X147	6,3	8,69	20,29	250	3500	38,6	81						
20A(C)8,2X147	8,2	11,32	26,40	250	3500	40,6	83,9						
20A(C)10X147	10	13,95	32,55	250	3500	45	87						
20A(C)11X147	11,3	15,76	36,78	250	3500	45	89,1						
20A(C)12X147	12	16,92	39,48	250	3500	45	90,3						
20A(C)14X147	14	19,95	46,55	250	3500	45	93,4						
20A(C)15X147	15	21,60	36,00	250	2500	45	94,9						
20A(C)16X147	16	23,04	38,40	250	2500	45	96,5						
20A(C)19X147	19	27,36	45,60	200	2500	45	101,5						
20A(C)22X147	22	31,68	42,24	180	2000	52,5	106,5						
20A(C)25X147	25	36,00	48,00	160	2000	57,2	111,4						



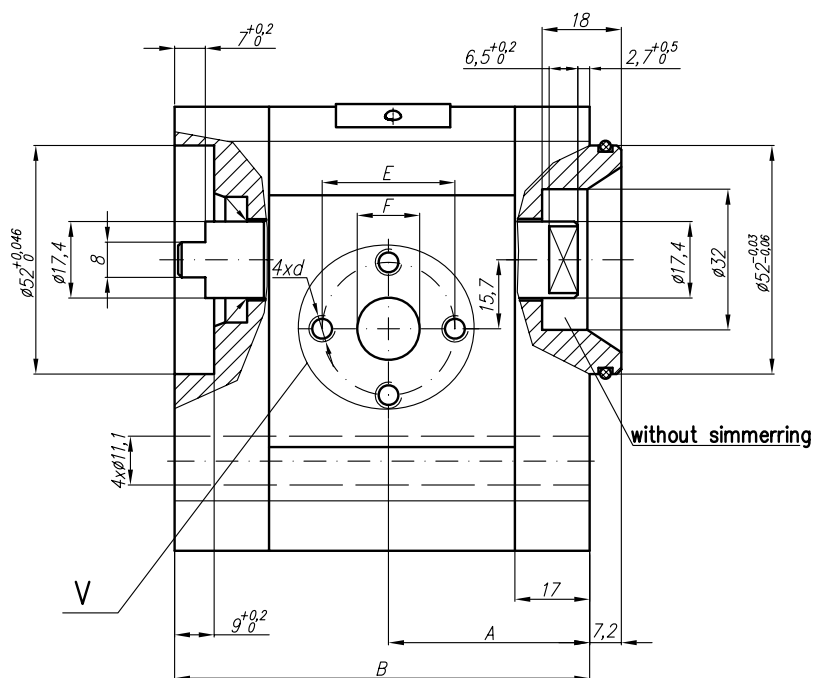
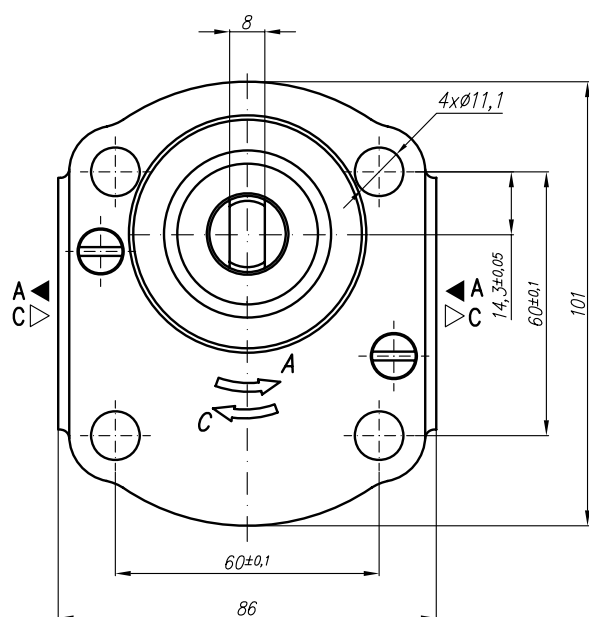
PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X153												
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n*	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U			
20A(C)4,5X153	4,5	6,14	14,33	250	3500		89,1	M20x1,5			Ø15,9		
20A(C)6,3X153	6,3	8,69	20,29	250	3500		92						
20A(C)8,2X153	8,2	11,32	26,40	250	3500		92						
20A(C)10X153	10	13,95	32,55	250	3500		101						
20A(C)11X153	11,3	15,76	36,78	250	3500		103						
20A(C)12X153	12	16,92	39,48	250	3500		104,3						
20A(C)14X153	14	19,95	46,55	250	3500		107,4						
20A(C)15X153	15	21,60	36,00	250	2500		108,9						
20A(C)16X153	16	23,04	38,40	250	2500		110,5						
20A(C)19X153	19	27,36	45,60	200	2500		115,5						
20A(C)22X153	22	31,68	42,24	180	2000		120,5						
20A(C)25X153	25	36,00	48,00	160	2000		125,4						



* It's required inlet overpressure 0,2...0,3 bar at max speed.

PGP PUMP		HENDERSO N Hydraulics®														GROUP II			
		GEAR PUMP TYPE PGP 20A(C)...X156...																	
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension													
		at 1500 rpm	at max rpm			Inlet						Outlet							
	cm ³ /rev	l/min	l/min	bar	rpm	A	B	E	F	d	M	G	U	E	F	d	M	G	U
20A(C)4,5X156...	4,5	6,14	14,33	250	3500	40,5	85,2	30,2	13,1	M6-6H	M20x1,5	G1/2	1 1/16"-12UNF	30,2	13,1	M6-6H	M16x1,5	G1/2	7/8"-14UNF
20A(C)6,3X156...	6,3	8,69	20,29	250	3500	42	88,2	39,7	19	M8-6H									
20A(C)8,2X156...	8,2	11,32	26,40	250	3500	43,5	91,1												
20A(C)10X156...	10	13,95	32,55	250	3500	45	94,1												
20A(C)11X156...	11,3	15,76	36,78	250	3500	46	96,2	39,7	19	M8-6H	M20x1,5	G3/4	1 1/16"-12UNF	30,2	14,2	M6-6H	M16x1,5	G1/2	7/8"-14UNF
20A(C)12X156...	12	16,92	39,48	250	3500	46,6	97,5												
20A(C)14X156...	14	19,95	46,55	250	3500	48	100,6												
20A(C)15X156...	15	21,60	36,00	250	2500	49	102,1												
20A(C)16X156...	16	23,04	38,40	250	2500	50	103,8	39,7	19	M8-6H	M20x1,5	G3/4	1 1/16"-12UNF	30,2	14,2	M6-6H	M16x1,5	G1/2	7/8"-14UNF
20A(C)19X156...	19	27,36	45,60	200	2500	52	108,7												
20A(C)22X156...	22	31,68	42,24	180	2000	55	113,7												
20A(C)25X156...	25	36,00	48,00	160	2000	57,2	118,5												

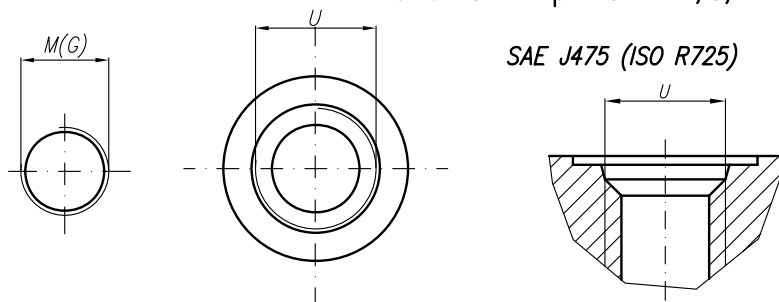
Designed as a middle section of multiple pumps group 222A(C).../...X156/...




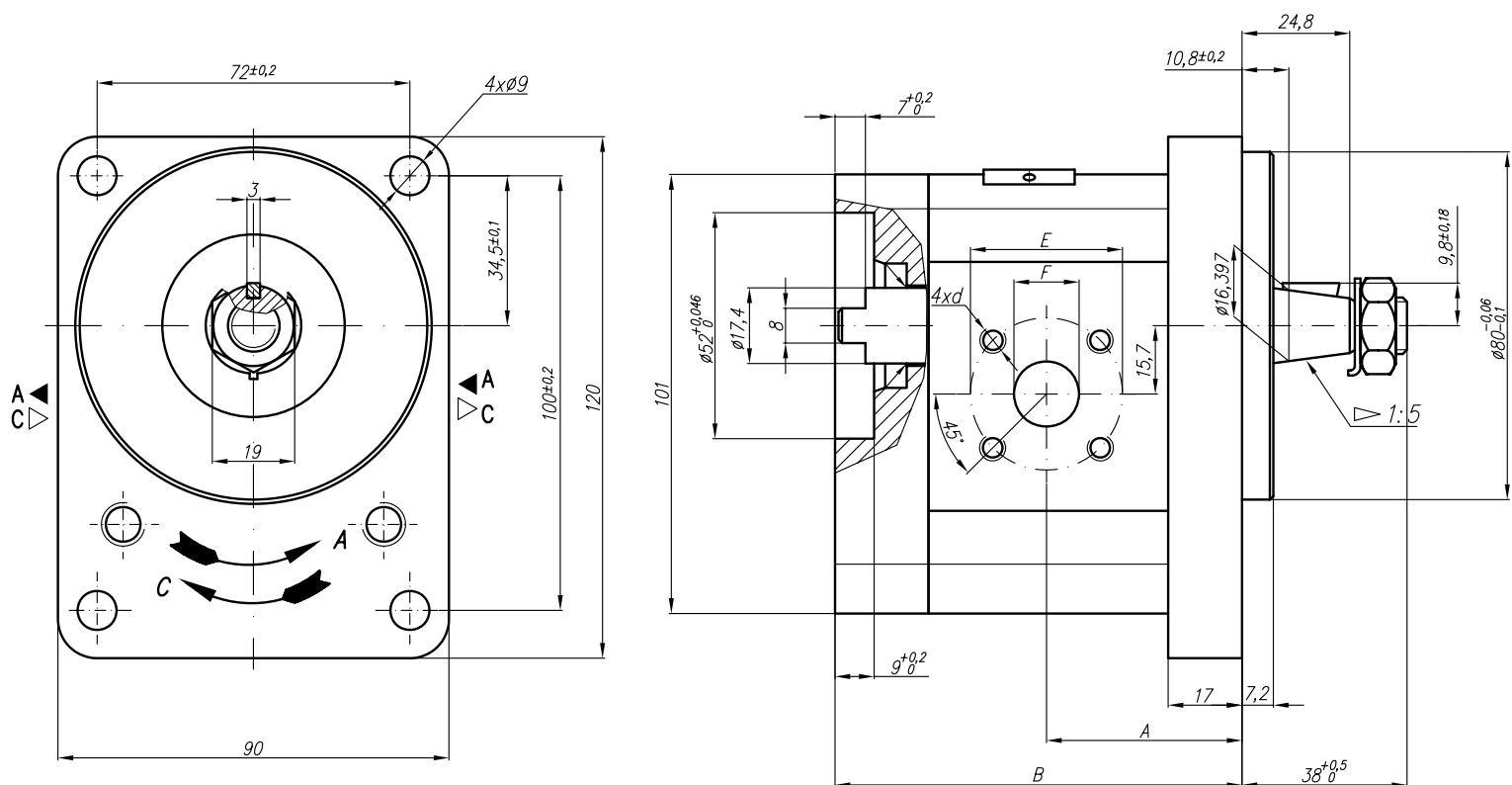
V
Variants for ports – M;G;U


Designations:

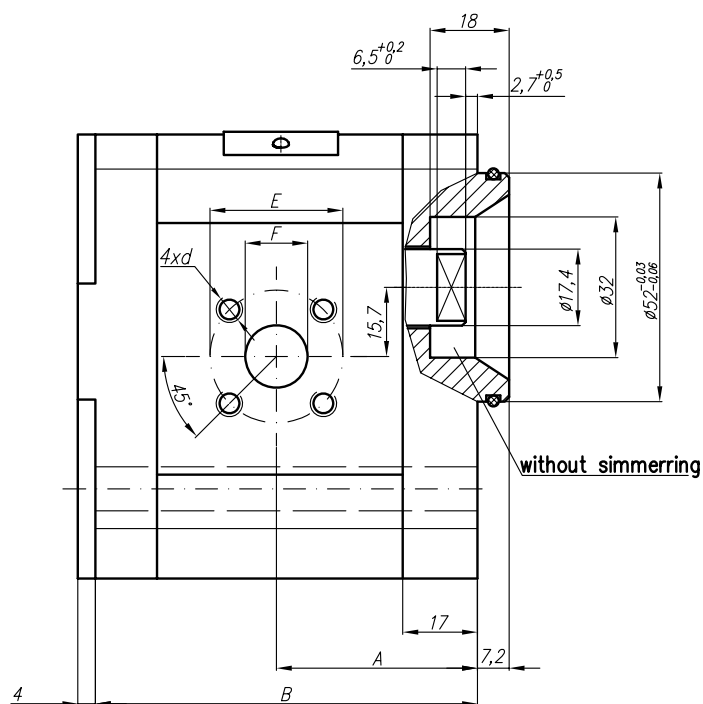
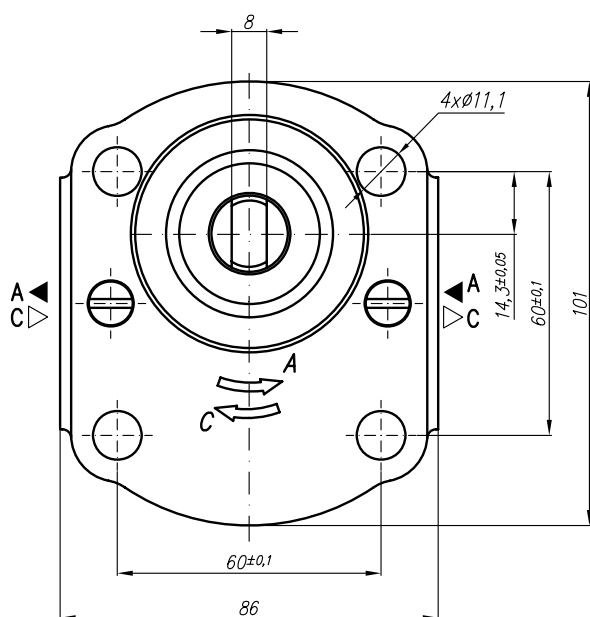
- ...X156 – Normal version (flanges);
- ...X156M – Metric threads;
- ...X156G – GAS threads;
- ...X156U – SAE threads;



PGP PUMP	HENDERS  N Hydraulics®											GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X158													
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension								
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d	
20A(C)4,5X158	4,5	6,14	14,33	250	3500	39,8	85,2	40	15	M6-6H	35	15	M6-6H	
20A(C)6,3X158	6,3	8,69	20,29	250	3500	41	88,2							
20A(C)8,2X158	8,2	11,32	26,40	250	3500	43,1	91,1							
20A(C)10X158	10	13,95	32,55	250	3500	47,5	94,1		20					
20A(C)11X158	11,3	15,76	36,78	250	3500	47,5	96,2							
20A(C)12X158	12	16,92	39,48	250	3500	47,5	97,5							
20A(C)14X158	14	19,95	46,55	250	3500	47,5	100,6							
20A(C)15X158	15	21,60	36,00	250	2500	47,5	102,1							
20A(C)16X158	16	23,04	38,40	250	2500	47,5	103,8							
20A(C)19X158	19	27,36	45,60	200	2500	47,5	108,7							
20A(C)22X158	22	31,68	42,24	180	2000	55	113,7							
20A(C)25X158	25	36,00	48,00	160	2000	57,2	118,5							

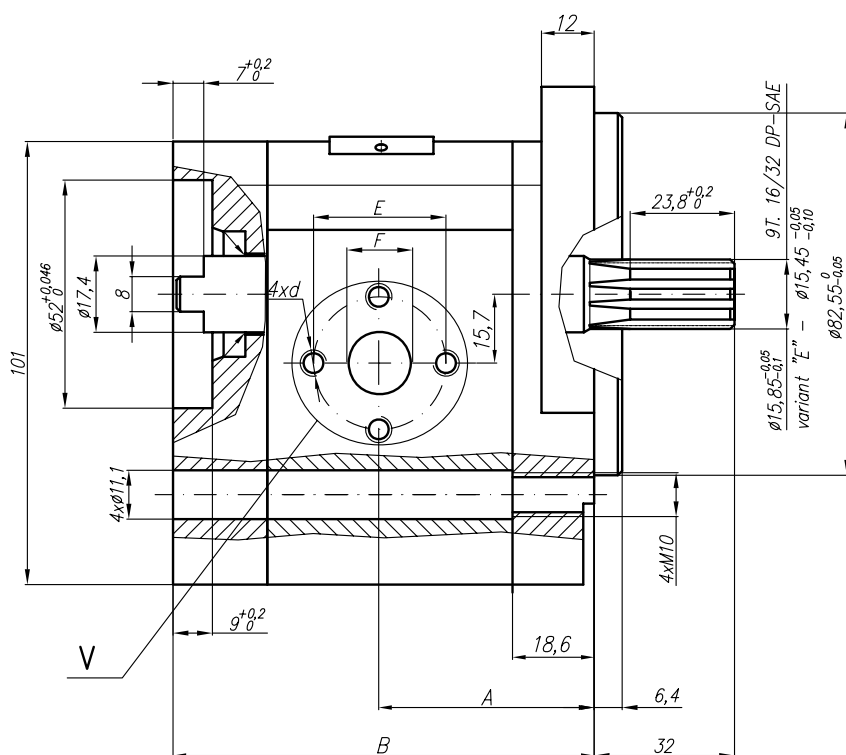
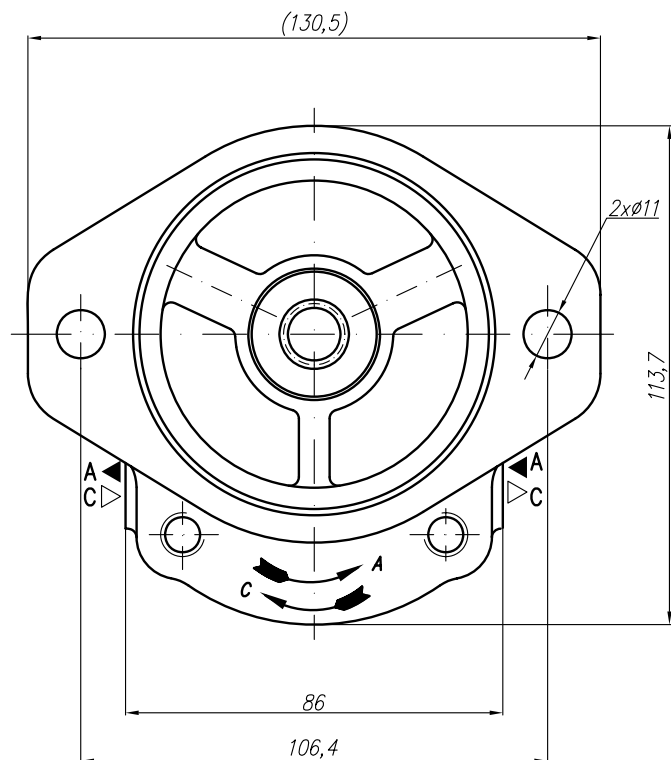


PGP PUMP	HENDERS  N Hydraulics®										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X161												
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X161	4,5	6,14	14,33	250	3500	39,8	78	40	15	M6-6H	35	15	M6-6H
20A(C)6,3X161	6,3	8,69	20,29	250	3500	41	81						
20A(C)8,2X161	8,2	11,32	26,40	250	3500	43,1	83,9						
20A(C)10X161	10	13,95	32,55	250	3500	47,5	87						
20A(C)11X161	11,3	15,76	36,78	250	3500	47,5	89,1						
20A(C)12X161	12	16,92	39,48	250	3500	47,5	90,3						
20A(C)14X161	14	19,95	46,55	250	3500	47,5	93,4						
20A(C)15X161	15	21,60	36,00	250	2500	47,5	94,9						
20A(C)16X161	16	23,04	38,40	250	2500	47,5	96,5						
20A(C)19X161	19	27,36	45,60	200	2500	47,5	101,5						
20A(C)22X161	22	31,68	42,24	180	2000	55	106,5						
20A(C)25X161	25	36,00	48,00	160	2000	57,2	111,4						



GEAR PUMP TYPE PGP 20A(C)...X167...

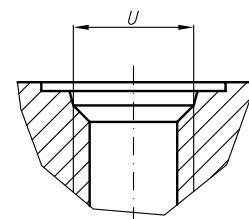
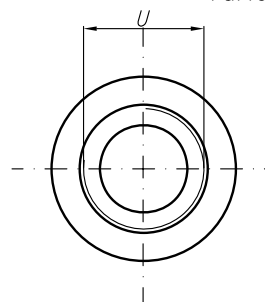
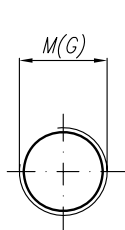
Type	Displacement	Flow		Pressure	max Speed	Dimension													
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet				Outlet					
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	M	G	U	E	F	d	M	G	U
20A(C)4,5X167...	4,5	6,14	14,33	250	3500	42,1	86,8	30,2	13,1	M6-6H	M20x1,5	G1/2	1 1/16"-12UNF	30,2	13,1	M6-6H	M16x1,5	G1/2	7/8"-14UNF
20A(C)6,3X167...	6,3	8,69	20,29	250	3500	42,1	86,8												
20A(C)8,2X167...	8,2	11,32	26,40	250	3500	42,1	86,8												
20A(C)10X167...	10	13,95	32,55	250	3500	46,6	95,8												
20A(C)11X167...	11,3	15,76	36,78	250	3500	47,6	97,9												
20A(C)12X167...	12	16,92	39,48	250	3500	48,2	99,1	39,7	19	M8-6H	G3/4	1 1/16"-12UNF	30,2	14,2	M6-6H	M20x1,5	G1/2	7/8"-14UNF	
20A(C)14X167...	14	19,95	46,55	250	3500	49,6	102,1												
20A(C)15X167...	15	21,60	36,00	250	2500	50,6	103,7												
20A(C)16X167...	16	23,04	38,40	250	2500	51,6	105,3												
20A(C)19X167...	19	27,36	45,60	200	2500	53,6	110,3												
20A(C)22X167...	22	31,68	42,24	180	2000	56,6	115,3	39,7	19	M8	M20x1,5	G1/2	39,7	19	M8	M20x1,5	G1/2	7/8"-14UNF	
20A(C)25X167...	25	36,00	48,00	160	2000	58,8	120,2												



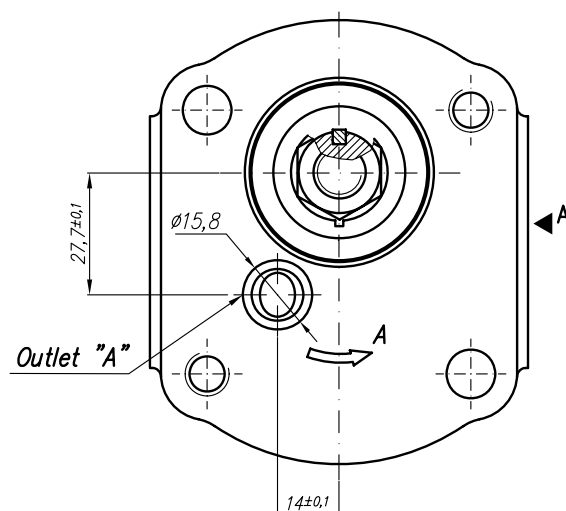
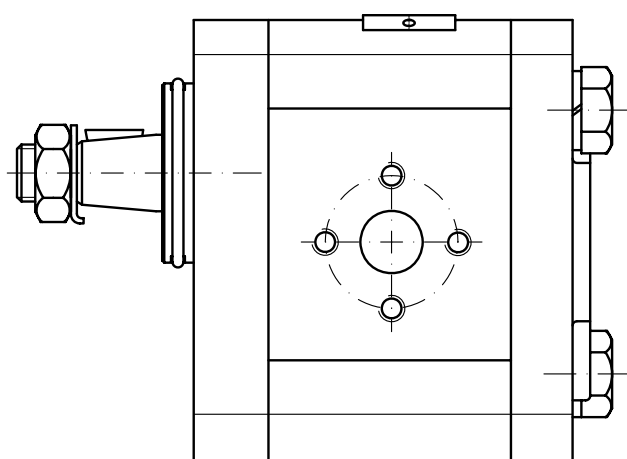
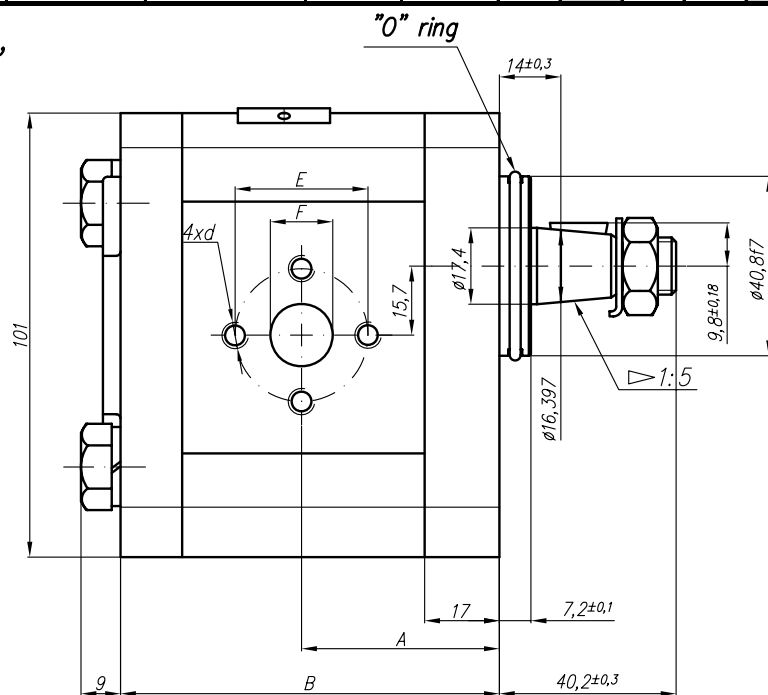
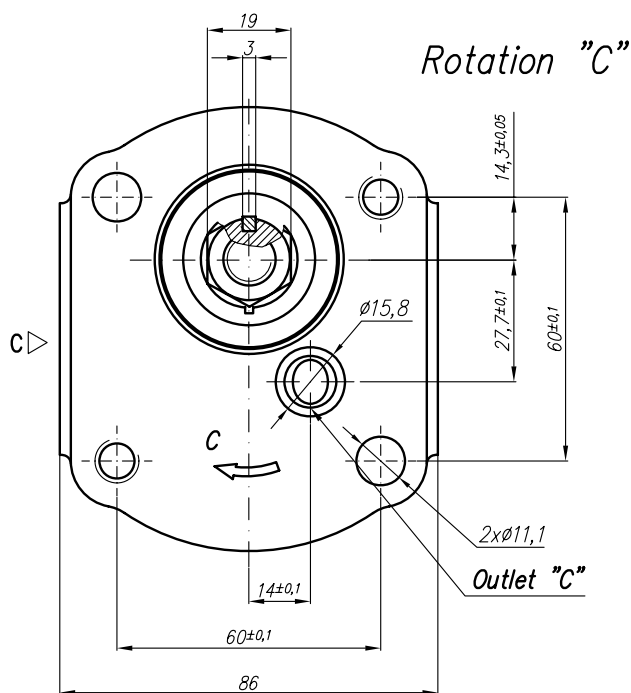
V
 Variants for ports – M;G;U

Designations:

- ...X167 – Normal version (flanges);
- ...X167M – Metric threads;
- ...X167G – GAS threads;
- ...X167U – SAE threads;



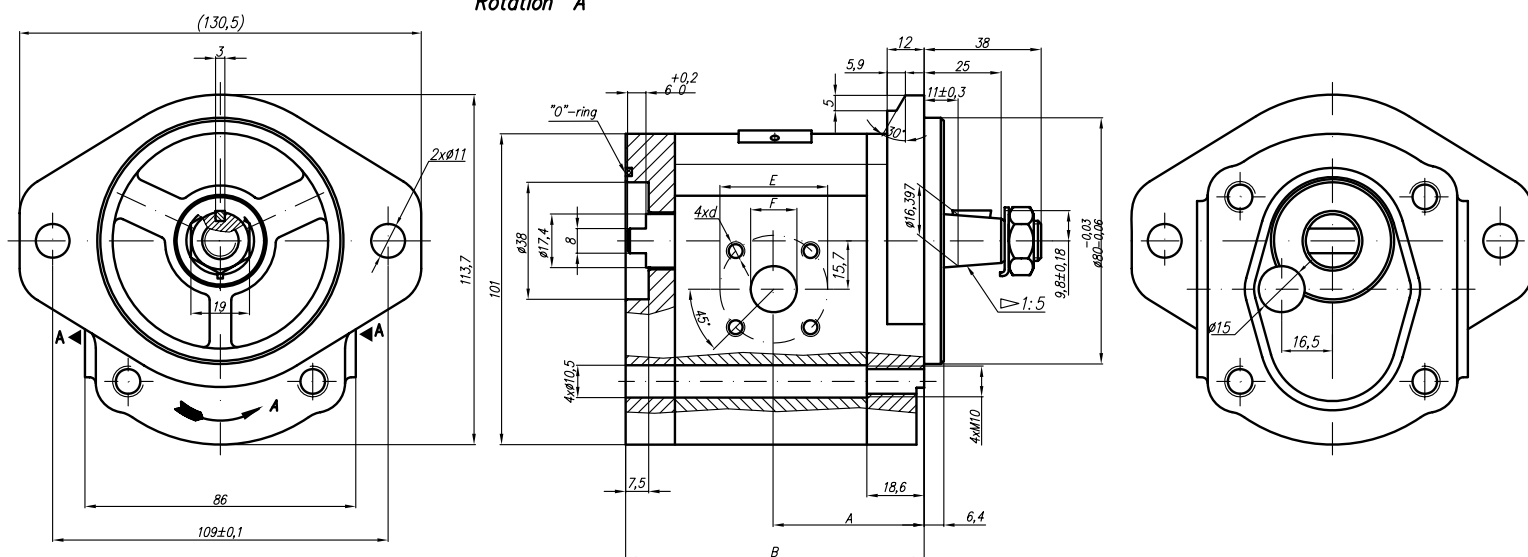
PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X170												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d			
20A(C)4,5X170	4,5	6,14	14,33	250	3500	40,5	78	30,2	13,1	M6-6H			
20A(C)6,3X170	6,3	8,69	20,29	250	3500	42	81						
20A(C)8,2X170	8,2	11,32	26,40	250	3500	43,5	83,9						
20A(C)10X170	10	13,95	32,55	250	3500	45	87	39,7	19	M8-6H			
20A(C)11X170	11,3	15,76	36,78	250	3500	46	89,1						
20A(C)12X170	12	16,92	39,48	250	3500	46,6	90,3						
20A(C)14X170	14	19,95	46,55	250	3500	48	93,4						
20A(C)15X170	15	21,60	36,00	250	2500	49	94,9						
20A(C)16X170	16	23,04	38,40	250	2500	50	96,6						
20A(C)19X170	19	27,36	45,60	200	2500	52	101,5						
20A(C)22X170	22	31,68	42,24	180	2000	55	106,5						
20A(C)25X170	25	36,00	48,00	160	2000	57,2	111,4						



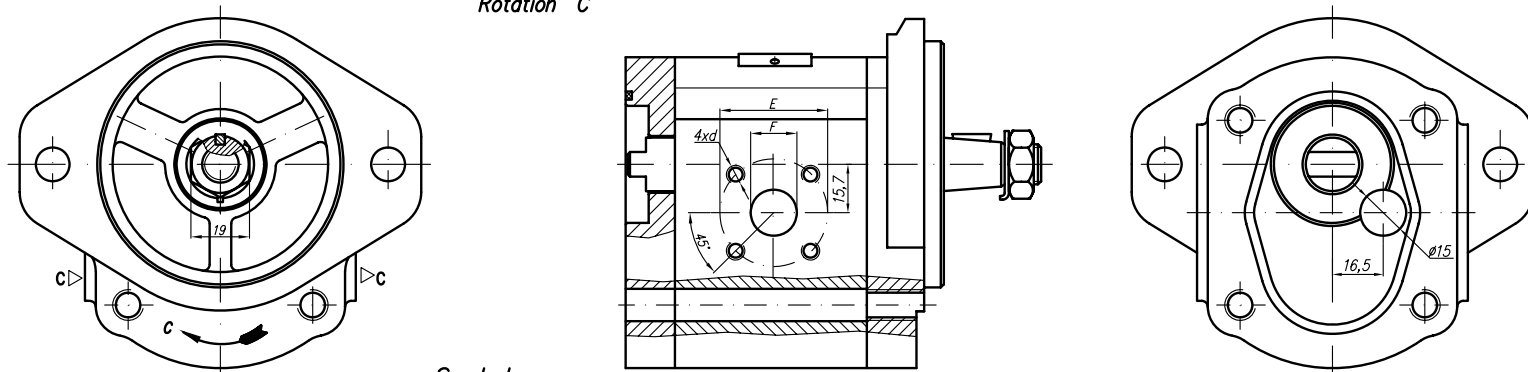
PGP PUMP	HENDERS [®] N Hydraulics [®]											GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X172													
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension								
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d	
20A(C)4,5X172	4,5	6,14	14,33	250	3500			40		M6-6H	35	15	M6-6H	
20A(C)6,3X172	6,3	8,69	20,29	250	3500									
20A(C)8,2X172	8,2	11,32	26,40	250	3500									
20A(C)10X172	10	13,95	32,55	250	3500									
20A(C)11X172	11,3	15,76	36,78	250	3500									
20A(C)12X172	12	16,92	39,48	250	3500									
20A(C)14X172	14	19,95	46,55	250	3500	49,8	97	20						
20A(C)15X172	15	21,60	36,00	250	2500	50,6	98,5							
20A(C)16X172	16	23,04	38,40	250	2500	49,8	100,1							
20A(C)19X172	19	27,36	45,60	200	2500	53,6	105,1							
20A(C)22X172	22	31,68	42,24	180	2000									

Designed as a 1 section of tandem pump 22A(C)...X172/...X173.

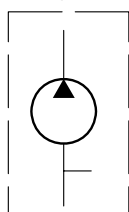
Rotation "A"




Rotation "C"

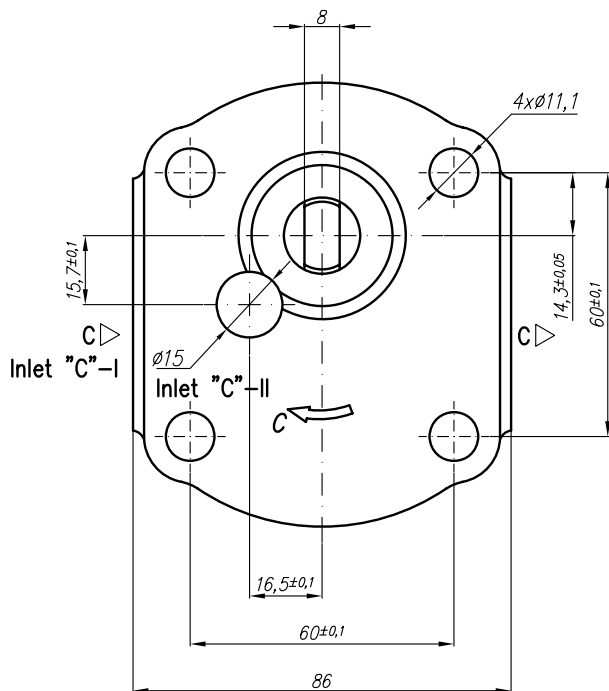


Symbol

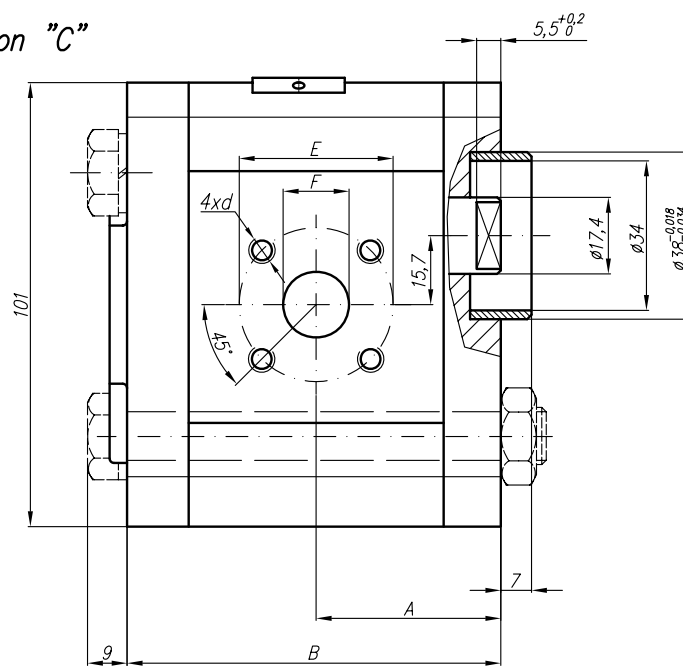


PGP PUMP	HENDERS  N Hydraulics°										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X173												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X173	4,5	6,14	14,33	250	3500			40		M6-6H	35	15	M6-6H
20A(C)6,3X173	6,3	8,69	20,29	250	3500								
20A(C)8,2X173	8,2	11,32	26,40	250	3500	36,6	74		20				
20A(C)10X173	10	13,95	32,55	250	3500								
20A(C)11X173	11,3	15,76	36,78	250	3500	42	85						
20A(C)12X173	12	16,92	39,48	250	3500								
20A(C)14X173	14	19,95	46,55	250	3500								
20A(C)15X173	15	21,60	36,00	250	2500								
20A(C)16X173	16	23,04	38,40	250	2500								
20A(C)19X173	19	27,36	45,60	200	2500								
20A(C)22X173	22	31,68	42,24	180	2000								

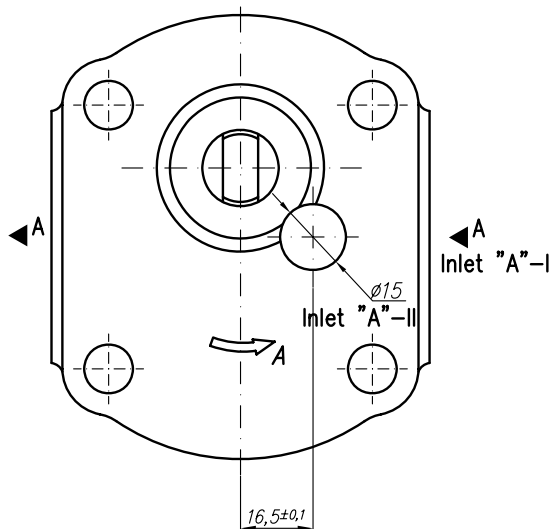
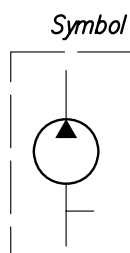
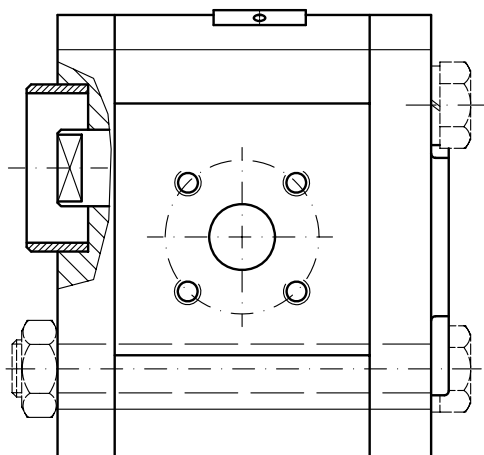
Designed as a II section of tandem pump 22A(C)...X172/...X173.



Rotation "C"

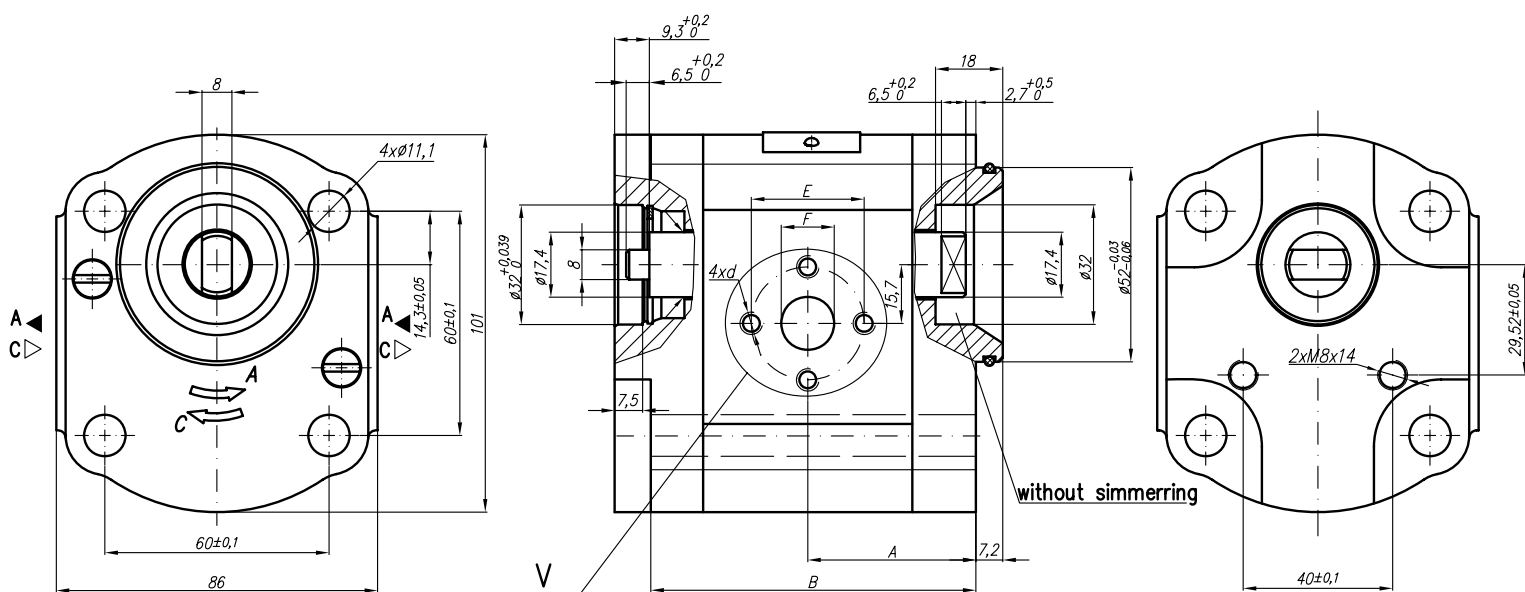


Rotation "A"



PGP PUMP		HENDERSO N Hydraulics®															GROUP II		
		GEAR PUMP TYPE PGP 20A(C)...X178																	
Type	Displacement	Flow		Pressure	max Speed	Dimension													
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet						Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	M	G	U	E	F	d	M	G	U
20A(C)4,5X178...	4,5	6,14	14,33	250	3500	40,5	78	30,2	13,1	M6-6H	M20x1,5	G1/2	1 1/16"-12UNF	30,2	13,1	M6-6H	M16x1,5	G1/2	7/8"-14UNF
20A(C)6,3X178...	6,3	8,69	20,29	250	3500	42	81												
20A(C)8,2X178...	8,2	11,32	26,40	250	3500	43,5	83,9												
20A(C)10X178...	10	13,95	32,55	250	3500	45	87												
20A(C)11X178...	11,3	15,76	36,78	250	3500	46	89,1												
20A(C)12X178...	12	16,92	39,48	250	3500	46,6	90,3	39,7	19	M8-6H	G3/4	1 1/16"-12UNF	30,2	14,2	M6-6H	M20x1,5	G1/2	7/8"-14UNF	
20A(C)14X178...	14	19,95	46,55	250	3500	48	93,4												
20A(C)15X178...	15	21,60	36,00	250	2500	49	95	39,7	19	M8-6H	G3/4	1 1/16"-12UNF	30,2	14,2	M6-6H	M20x1,5	G1/2	7/8"-14UNF	
20A(C)16X178...	16	23,04	38,40	250	2500	50	96,6												
20A(C)19X178...	19	27,36	45,60	200	2500	52	101,5	39,7	19	M8-6H	G3/4	1 1/16"-12UNF	30,2	14,2	M6-6H	M20x1,5	G1/2	7/8"-14UNF	
20A(C)22X178...	22	31,68	42,24	180	2000	55	106,5												
20A(C)25X178...	25	36,00	48,00	160	2000	57,2	111,4	39,7	19	M8-6H	G3/4	1 1/16"-12UNF	30,2	14,2	M6-6H	M20x1,5	G1/2	7/8"-14UNF	

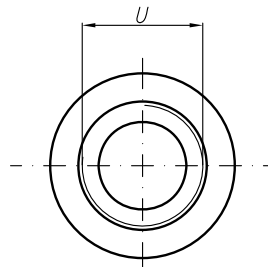
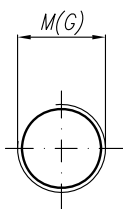
Designed as a middle section of multiple pumps group 221A(C).../...X178/...



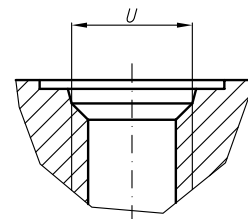
V
Variants for ports – M;G;U

Designations:

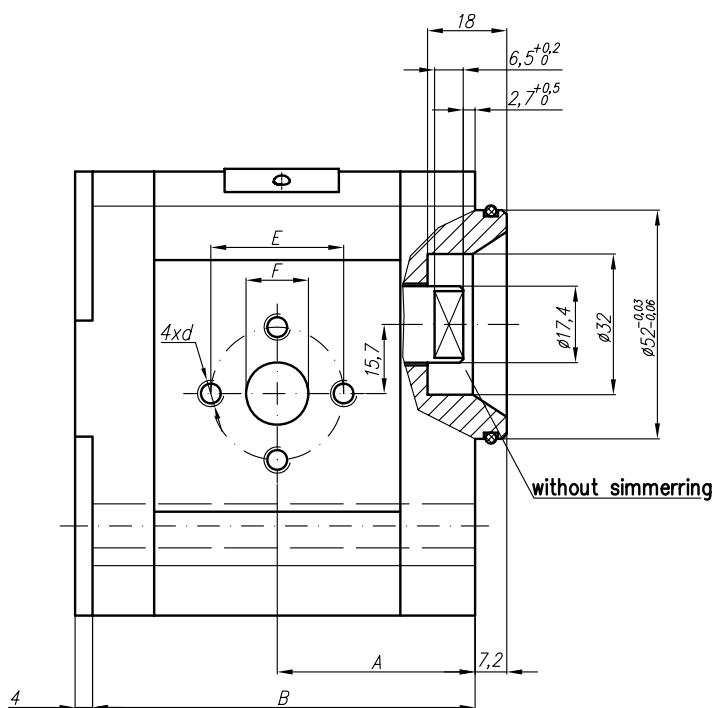
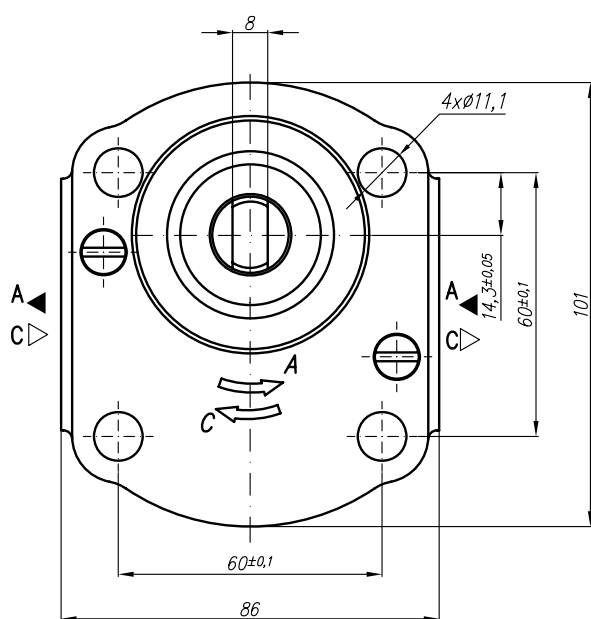
- ...X178 – Normal version (flanges);
- ...X178M – Metric threads;
- ...X178G – GAS threads;
- ...X178U – SAE threads;



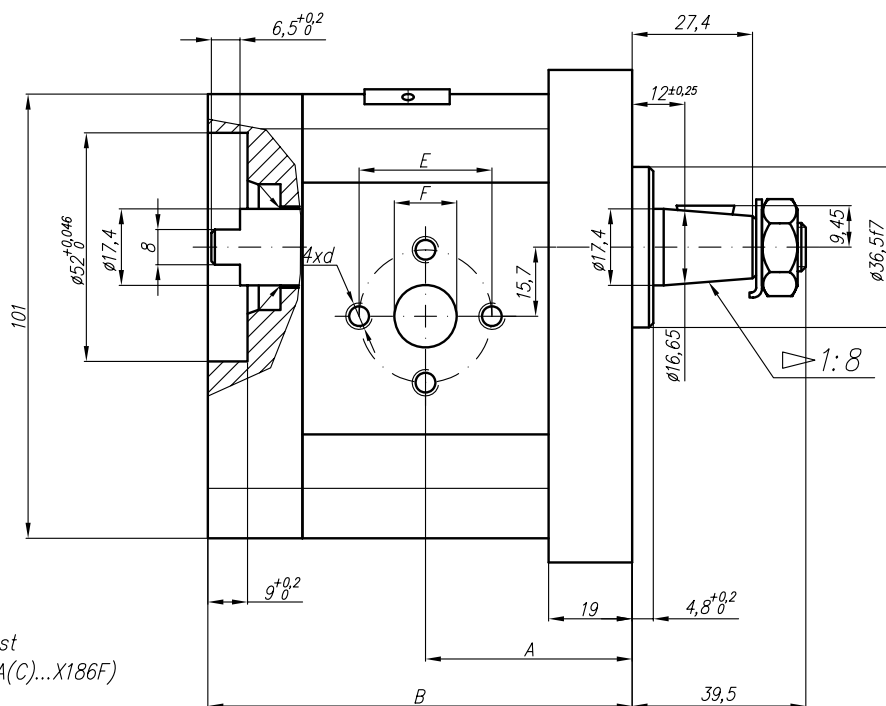
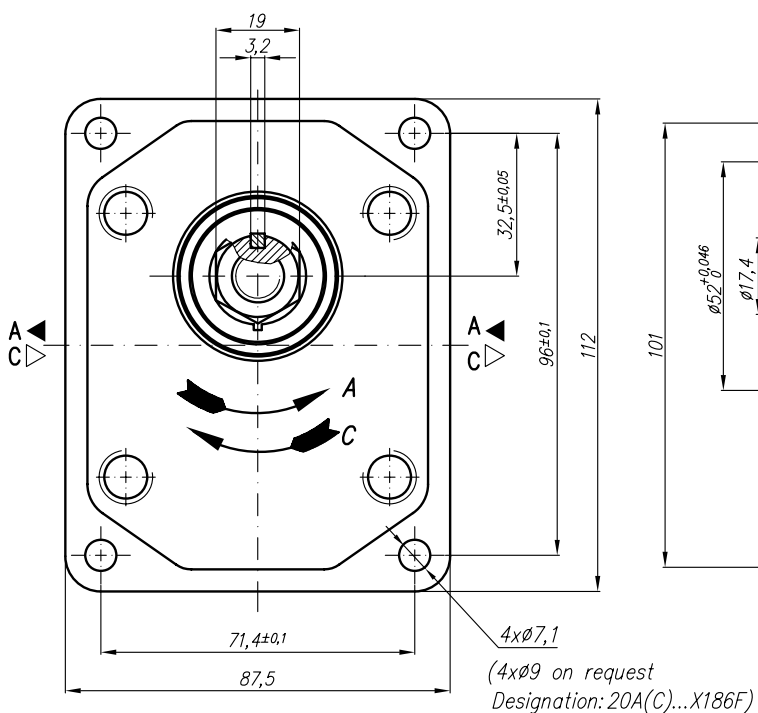
SAE J475 (ISO R725)




PGP PUMP	HENDERS [®] N Hydraulics [®]											GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X185													
Type	Displacement	Flow		Pressure	max Speed	Dimension								
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet	
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d	
20A(C)4,5X185	4,5	6,14	14,33	200	3500	40,5	78	30,2	13,1	M6-6H	30,2	13,1	M6-6H	
20A(C)6,3X185	6,3	8,69	20,29	200	3500	40,5	78							
20A(C)8,2X185	8,2	11,32	26,40	200	3500	40,5	78							
20A(C)10X185	10	13,95	32,55	200	3500	45	87	39,7	19	M8-6H				
20A(C)11X185	11,3	15,76	36,78	200	3500	46	89,1							
20A(C)12X185	12	16,92	39,48	200	3500	46,6	90,3							
20A(C)14X185	14	19,95	46,55	200	3500	48	93,4							
20A(C)15X185	15	21,60	36,00	200	2500	49	94,9							
20A(C)16X185	16	23,04	38,40	200	2500	50	96,6							
20A(C)19X185	19	27,36	45,60	200	2500	52	101,5	39,7	19	M8				
20A(C)22X185	22	31,68	42,24	180	2000	55	106,5							
20A(C)25X185	25	36,00	48,00	160	2000	57,2	111,4							

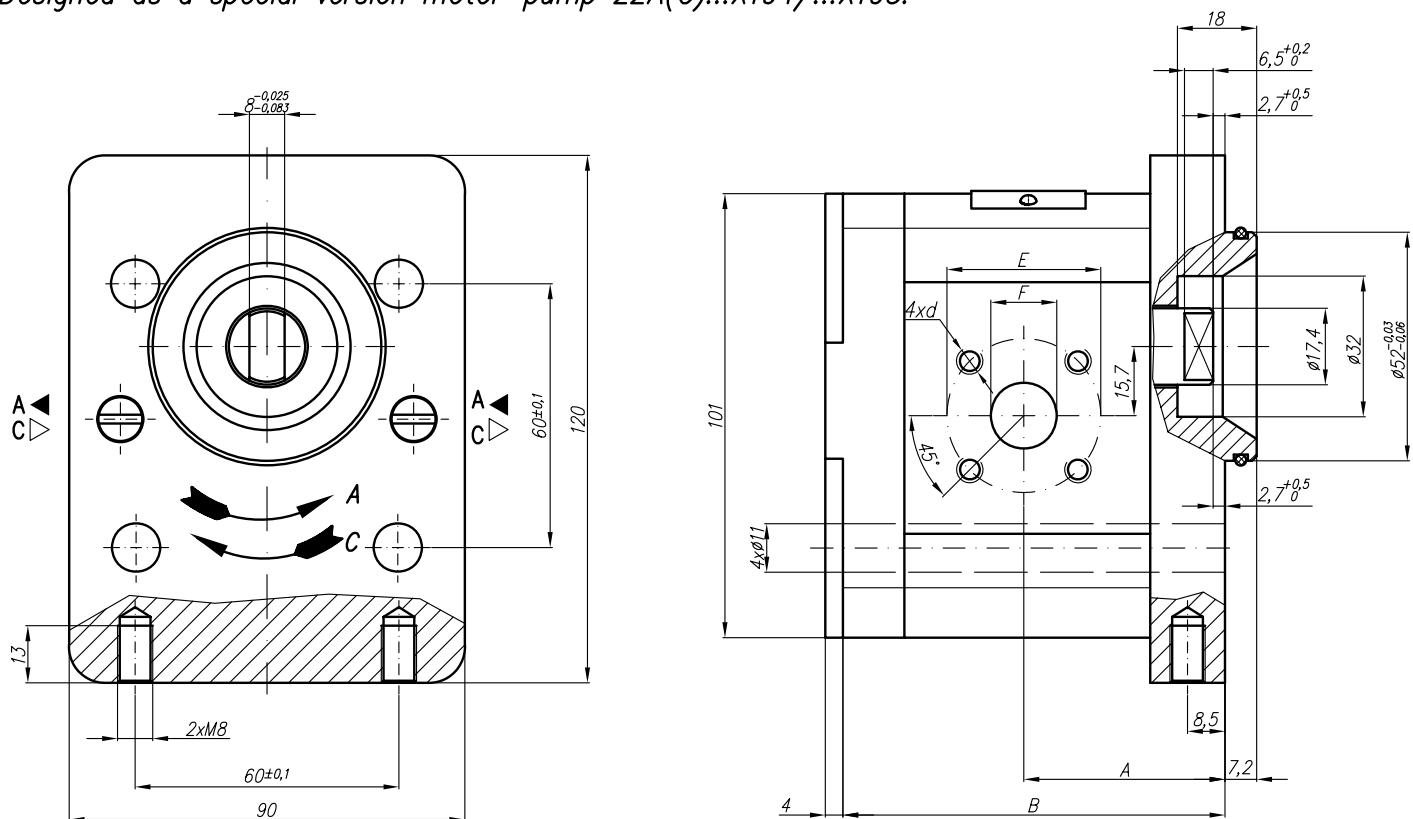


PGP PUMP	HENDERS [®] N Hydraulics [®]											GROUP II			
	GEAR PUMP TYPE PGP 20A(C)...X186														
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension									
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet				
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d		
20A(C)4,5X186	4,5	6,14	14,33	200	3500	42,5	87,2	30,2	13,1	M6-6H	30,2	13,1	M6-6H		
20A(C)6,3X186	6,3	8,69	20,29	200	3500	42,5	87,2								
20A(C)8,2X186	8,2	11,32	26,40	200	3500	42,5	87,2								
20A(C)10X186	10	13,95	32,55	200	3500	47	96,2	39,7	19	M8-6H		30,2		14,2	M6-6H
20A(C)11X186	11,3	15,76	36,78	200	3500	48	98,2								
20A(C)12X186	12	16,92	39,48	200	3500	48,6	99,5								
20A(C)14X186	14	19,95	46,55	200	3500	50	102,6								
20A(C)15X186	15	21,60	36,00	200	2500	51	104,1								
20A(C)16X186	16	23,04	38,40	200	2500	52	105,8								
20A(C)19X186	19	27,36	45,60	200	2500	54	110,7	39,7	19	M8	30,2	14,2	M6-6H		
20A(C)22X186	22	31,68	42,24	180	2000	57	115,7								
20A(C)25X186	25	36,00	48,00	160	2000	59,2	120,6								

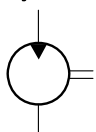


PGP PUMP	HENDERS  N Hydraulics®											GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X194													
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension								
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d	
20A(C)4,5X194	4,5	6,14	14,33	250	3500	37,3	78	40	15	M6-6H	35	15	M6-6H	
20A(C)6,3X194	6,3	8,69	20,29	250	3500	38,6	81							
20A(C)8,2X194	8,2	11,32	26,40	250	3500	40,6	83,9							
20A(C)10X194	10	13,95	32,55	250	3500	45	87							
20A(C)11X194	11,3	15,76	36,78	250	3500	45	89,1							
20A(C)12X194	12	16,92	39,48	250	3500	45	90,3							
20A(C)14X194	14	19,95	46,55	250	3500	45	93,4							
20A(C)15X194	15	21,60	36,00	250	2500	45	94,9							
20A(C)16X194	16	23,04	38,40	250	2500	45	96,5							
20A(C)19X194	19	27,36	45,60	200	2500	45	101,5							
20A(C)22X194	22	31,68	42,24	180	2000	52,5	106,5	20						
20A(C)25X194	25	36,00	48,00	160	2000	54,7	111,4							

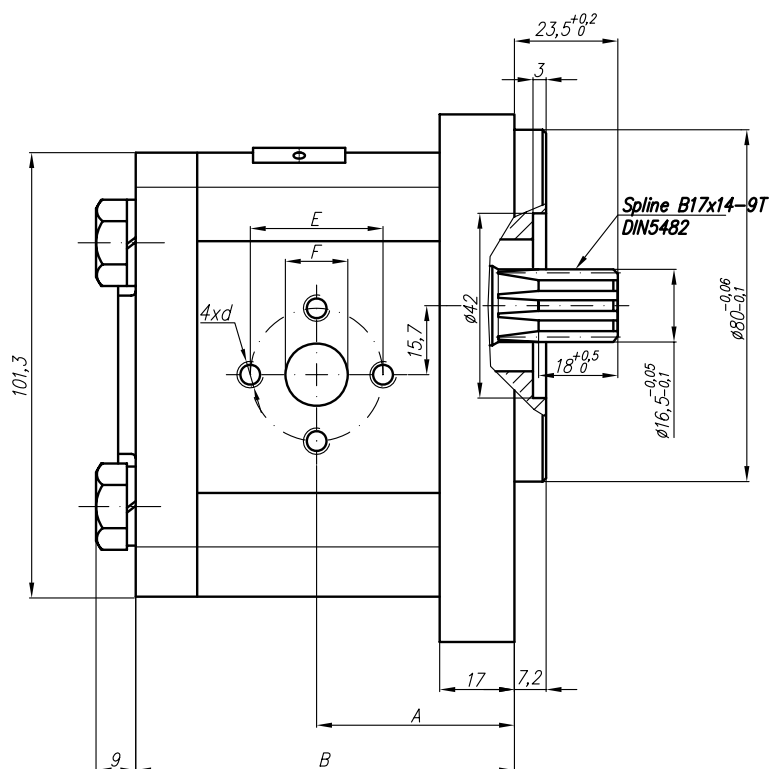
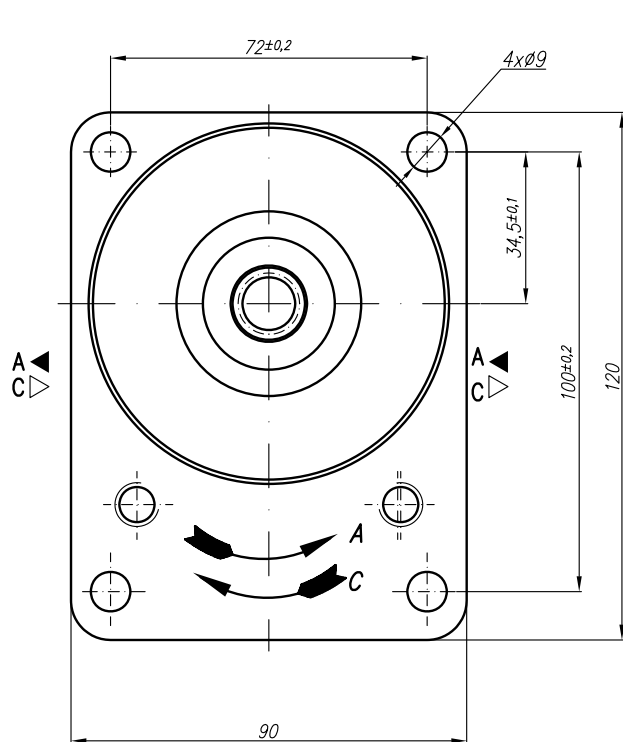
Designed as a special version motor-pump 22A(C)...X194/...X195.



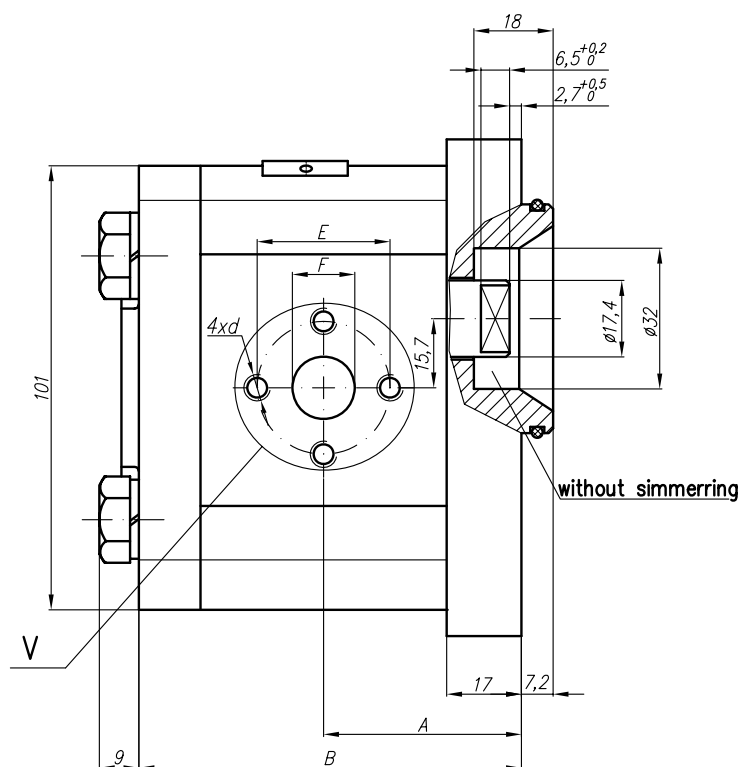
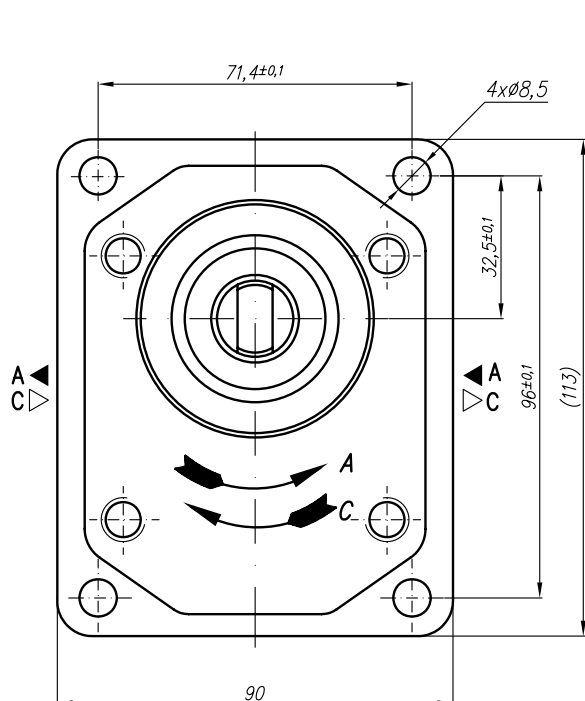
Symbol



PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II				
	GEAR PUMP TYPE PGP 20A(C)...X196														
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension									
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet				
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d		
20A(C)4,5X196	4,5	6,14	14,33	250	3500	39,8	78	30,2	13,1	M6-6H	30,2	13,1	M6-6H		
20A(C)6,3X196	6,3	8,69	20,29	250	3500	41	81								
20A(C)8,2X196	8,2	11,32	26,40	250	3500	43,1	83,9								
20A(C)10X196	10	13,95	32,55	250	3500	47,5	87								
20A(C)11X196	11,3	15,76	36,78	250	3500	47,5	89,1	39,7	19	M8-6H		30,2		14,2	M6-6H
20A(C)12X196	12	16,92	39,48	250	3500	47,5	90,3								
20A(C)14X196	14	19,95	46,55	250	3500	47,5	93,4								
20A(C)15X196	15	21,60	36,00	250	2500	47,5	94,9								
20A(C)16X196	16	23,04	38,40	250	2500	47,5	96,6								
20A(C)19X196	19	27,36	45,60	200	2500	47,5	101,5								
20A(C)22X196	22	31,68	42,24	180	2000	55	106,5								
20A(C)25X196	25	36,00	48,00	160	2000	57,2	111,4				39,7	19	M8		



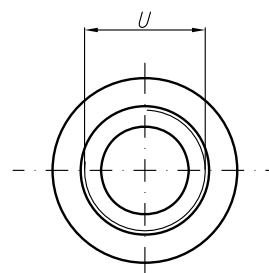
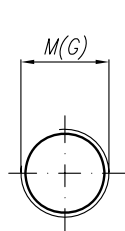
PGP PUMP		HENDERS [®] N Hydraulics [®]														GROUP II			
		GEAR PUMP TYPE PGP 20A(C)...X201...																	
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension													
		at 1500 rpm	at max rpm			A	B	Inlet						Outlet					
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	M	G	U	E	F	d	M	G	U
20A(C)4,5X201...	4,5	6,14	14,33	250	3500	40,5	78	30,2	13,1	M6-6H	M20x1,5	G1/2	1 1/16"-12UNF	30,2	13,1	M6-6H	M16x1,5	G1/2	7/8"-14UNF
20A(C)6,3X201...	6,3	8,69	20,29	250	3500	42	81												
20A(C)8,2X201...	8,2	11,32	26,40	250	3500	43,5	83,9												
20A(C)10X201...	10	13,95	32,55	250	3500	45	87												
20A(C)11X201...	11,3	15,76	36,78	250	3500	46	89,1	39,7	19	M8-6H	M20x1,5	G3/4	1 1/16"-12UNF	30,2	14,2	M6-6H	M16x1,5	G1/2	7/8"-14UNF
20A(C)12X201...	12	16,92	39,48	250	3500	46,6	90,3												
20A(C)14X201...	14	19,95	46,55	250	3500	48	93,4												
20A(C)15X201...	15	21,60	36,00	250	2500	49	95												
20A(C)16X201...	16	23,04	38,40	250	2500	50	96,6	39,7	19	M8-6H	M20x1,5	G3/4	1 1/16"-12UNF	30,2	14,2	M6-6H	M16x1,5	G1/2	7/8"-14UNF
20A(C)19X201...	19	27,36	45,60	200	2500	52	101,5												
20A(C)22X201...	22	31,68	42,24	180	2000	55	106,5												
20A(C)25X201...	25	36,00	48,00	160	2000	57,2	111,4												



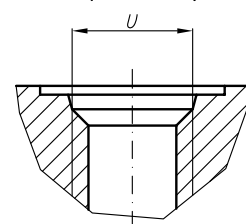
V
Variants for ports – M; G; U


Designations:

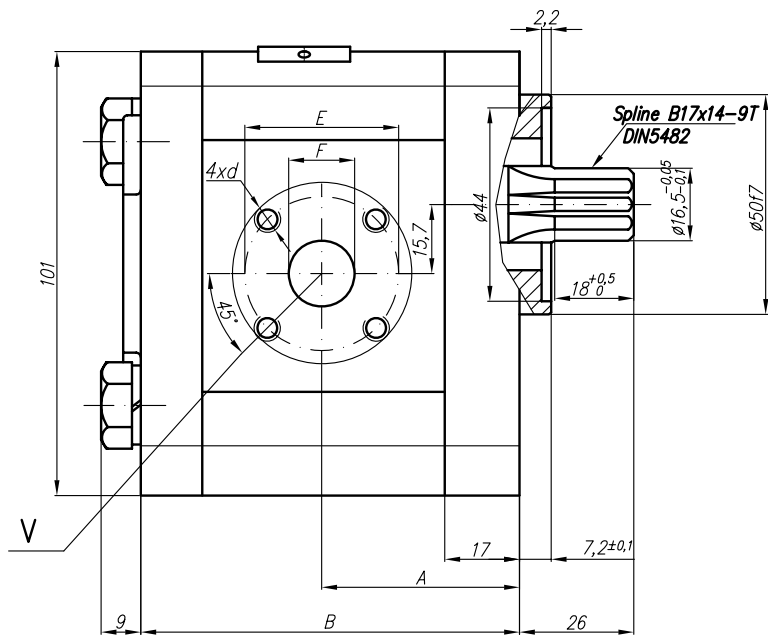
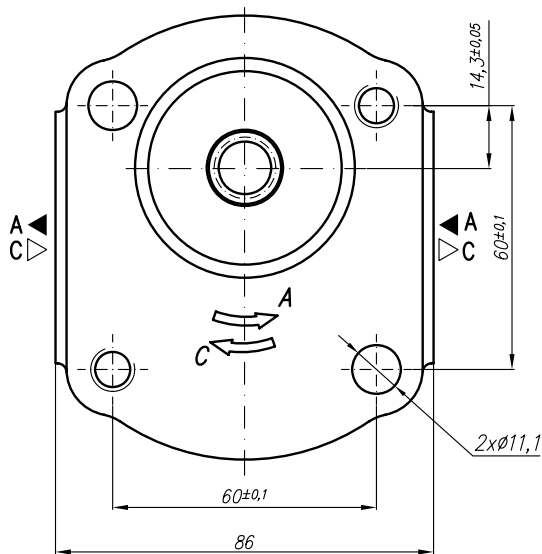
...X201 – Normal version (flanges);
 ...X201M – Metric threads;
 ...X201G – GAS threads;
 ...X201U – SAE threads;



SAE J475 (ISO R725)



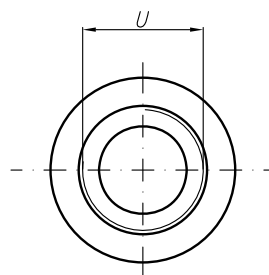
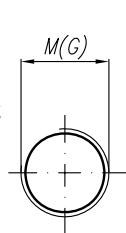
PGP PUMP		HENDERS  N Hydraulics®														GROUP II			
		GEAR PUMP TYPE PGP 20A(C)...X205...																	
Type	Displacement	Flow		Pressure	max Speed	Dimension													
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet						Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	M	G	U	E	F	d	M	G	U
20A(C)4,5X205...	4,5	6,14	14,33	250	3500	37,3	75,1	40	15	M6-6H	M20x1,5	G1/2	1 1/16"-12UNF	35	15	M6-6H	M16x1,5	G1/2	7/8"-14UNF
20A(C)6,3X205...	6,3	8,69	20,29	250	3500	38,6	78												
20A(C)8,2X205...	8,2	11,32	26,40	250	3500	40,6	78												
20A(C)10X205...	10	13,95	32,55	250	3500	45	87												
20A(C)11X205...	11,3	15,76	36,78	250	3500	45	89,1												
20A(C)12X205...	12	16,92	39,48	250	3500	45	90,3												
20A(C)14X205...	14	19,95	46,55	250	3500	45	93,4												
20A(C)15X205...	15	21,60	36,00	250	2500	45	94,9												
20A(C)16X205...	16	23,04	38,40	250	2500	45	96,5												
20A(C)19X205...	19	27,36	45,60	200	2500	45	101,5												
20A(C)22X205...	22	31,68	42,24	180	2000	52,5	106,5												
20A(C)25X205...	25	36,00	48,00	160	2000	57,2	111,4												



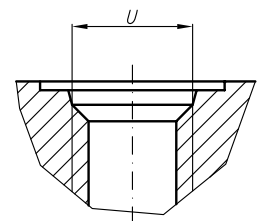
V
Variants for ports – M;G;U

Designations:

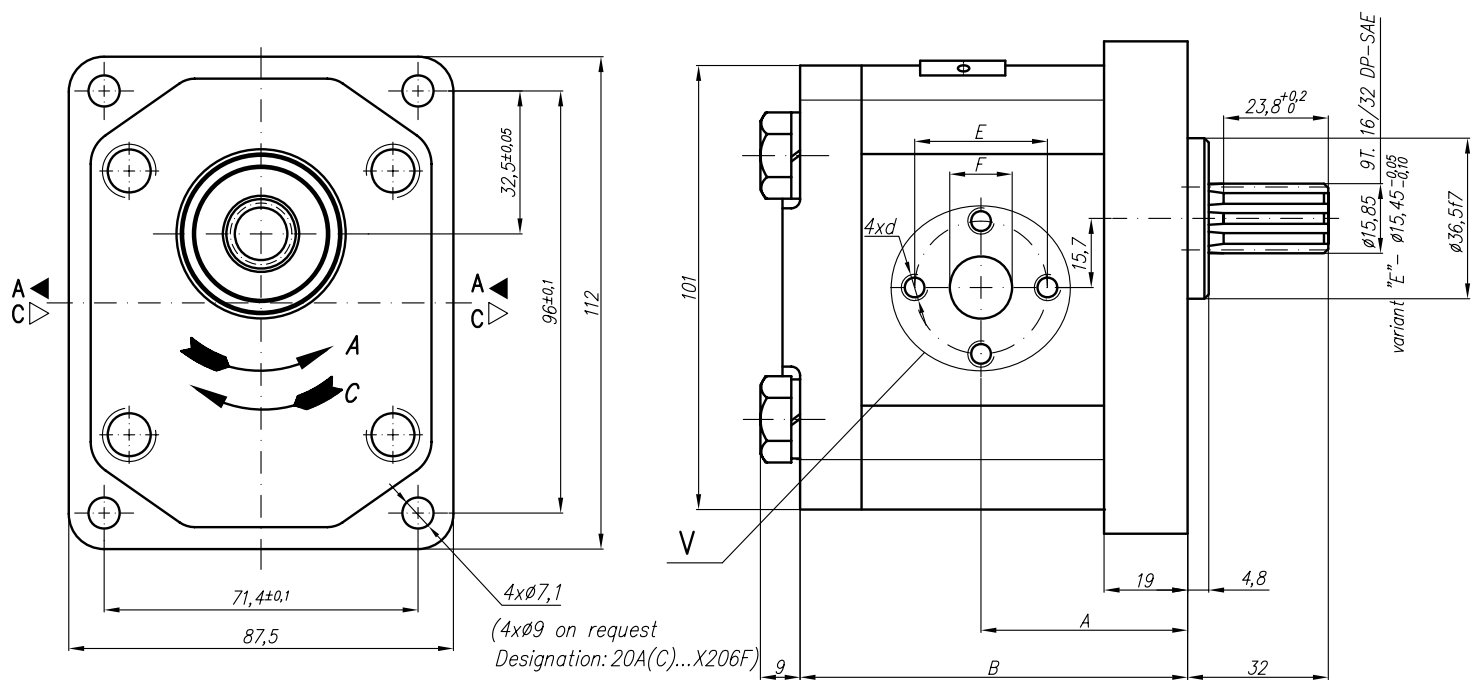
...X205 – Normal version (flanges);
 ...X205M – Metric threads;
 ...X205G – GAS threads;
 ...X205U – SAE threads;



SAE J475 (ISO R725)



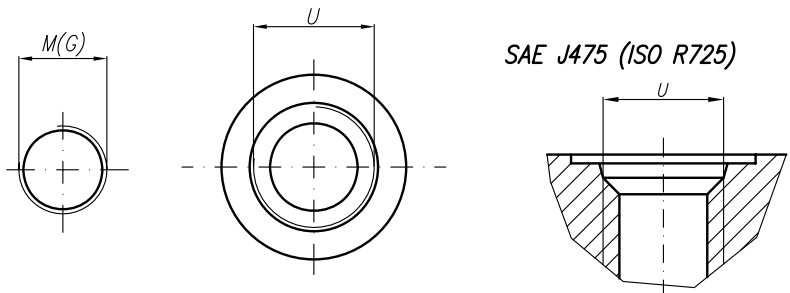
PGP PUMP		HENDERSO ^N Hydraulics®														GROUP II			
		GEAR PUMP TYPE PGP 20A(C)...X206...																	
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension													
		at 1500 rpm	at max rpm			A	B	Inlet				Outlet							
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	M	G	U	E	F	d	M	G	U
20A(C)4,5X206...	4,5	6,14	14,33	250	3500	42,5	80	30,2	13,1	M6-6H	M20x1,5	G1/2	1 1/16"-12UNF	30,2	13,1	M6-6H	M16x1,5	G1/2	7/8"-14UNF
20A(C)6,3X206...	6,3	8,69	20,29	250	3500	42,5	80												
20A(C)8,2X206...	8,2	11,32	26,40	250	3500	42,5	80												
20A(C)10X206...	10	13,95	32,55	250	3500	47	89												
20A(C)11X206...	11,3	15,76	36,78	250	3500	48	91,1												
20A(C)12X206...	12	16,92	39,48	250	3500	48,6	92,3	39,7	19	M8-6H	G3/4	1	30,2	14,2	M6-6H	M20x1,5	G1/2	7/8"-14UNF	
20A(C)14X206...	14	19,95	46,55	250	3500	50	95,4												
20A(C)15X206...	15	21,60	36,00	250	2500	51	96,9	39,7	19	M8	G1/2	1	30,2	19	M8	M20x1,5	G1/2	7/8"-14UNF	
20A(C)16X206...	16	23,04	38,40	250	2500	52	98,6												
20A(C)19X206...	19	27,36	45,60	200	2500	54	103,5												
20A(C)22X206...	22	31,68	42,24	180	2000	57	108,5	39,7	19	M8	G1/2	1	30,2	19	M8	M20x1,5	G1/2	7/8"-14UNF	
20A(C)25X206...	25	36,00	48,00	160	2000	59,2	113,4												




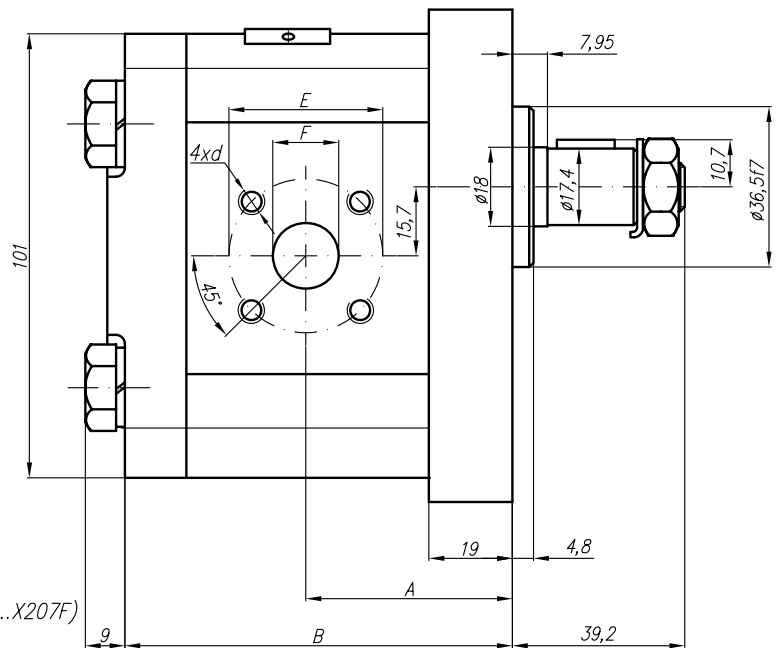
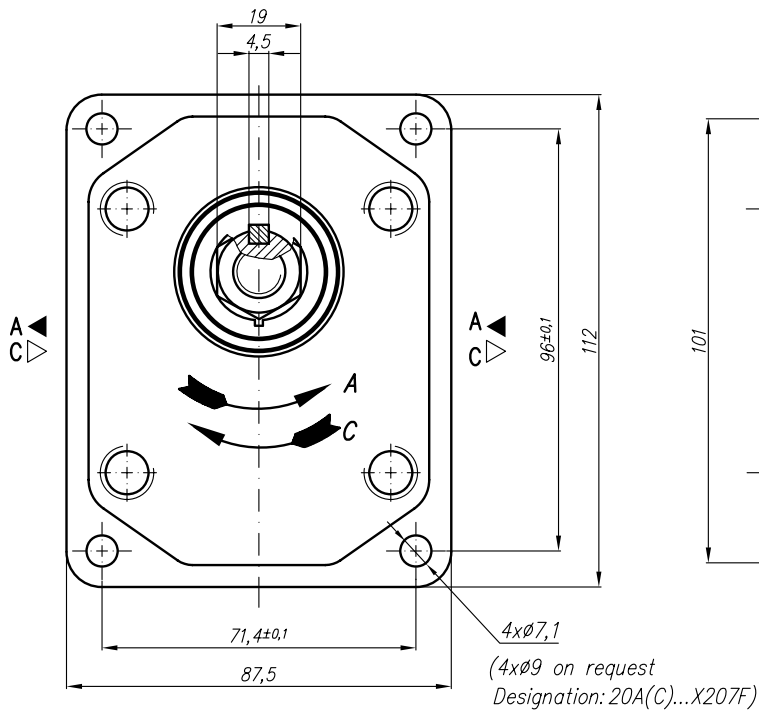
V
Variants for ports – M;G;U


Designations:

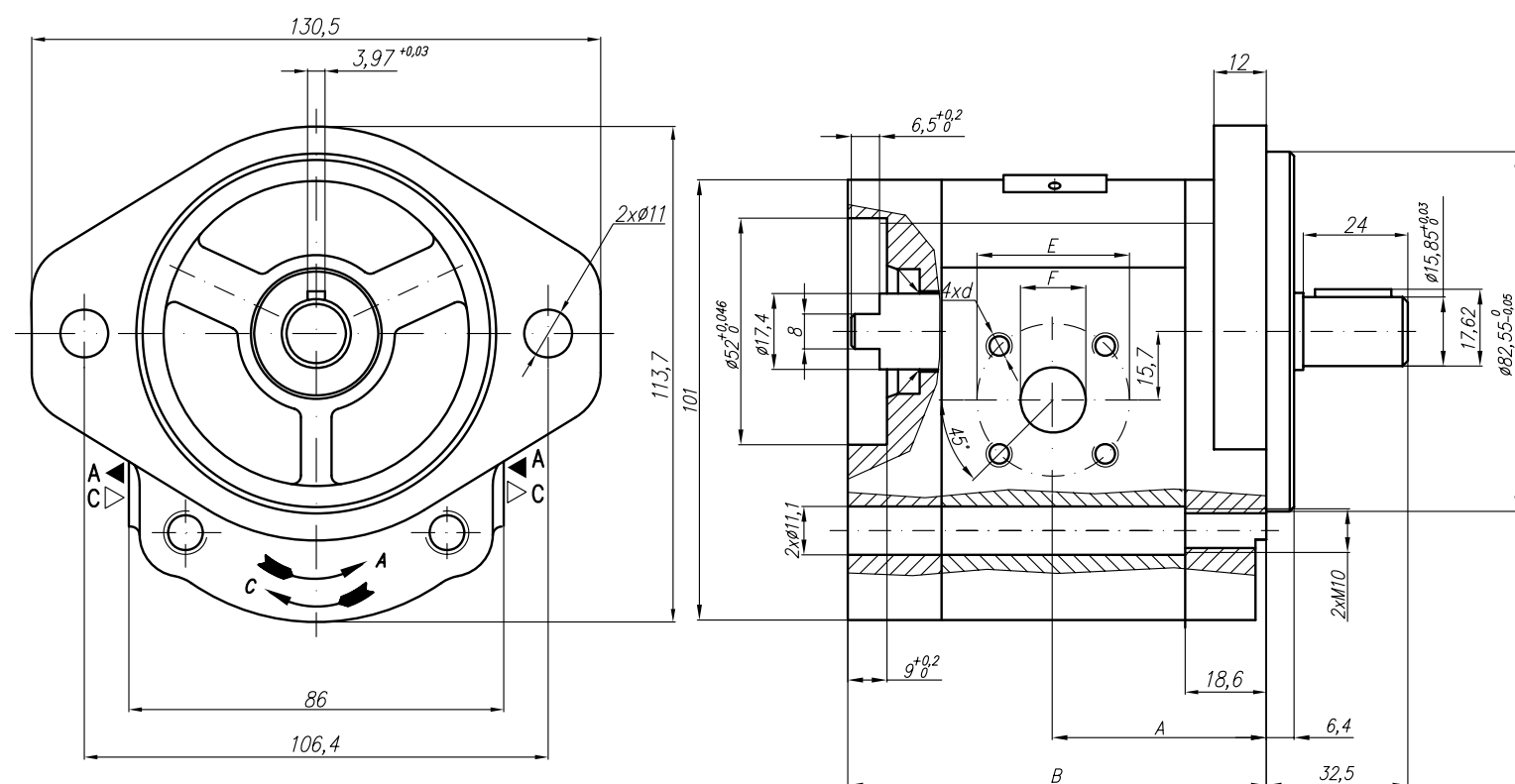
- ...X206 – Normal version (flanges);
- ...X206M – Metric threads;
- ...X206G – GAS threads;
- ...X206U – SAE threads;




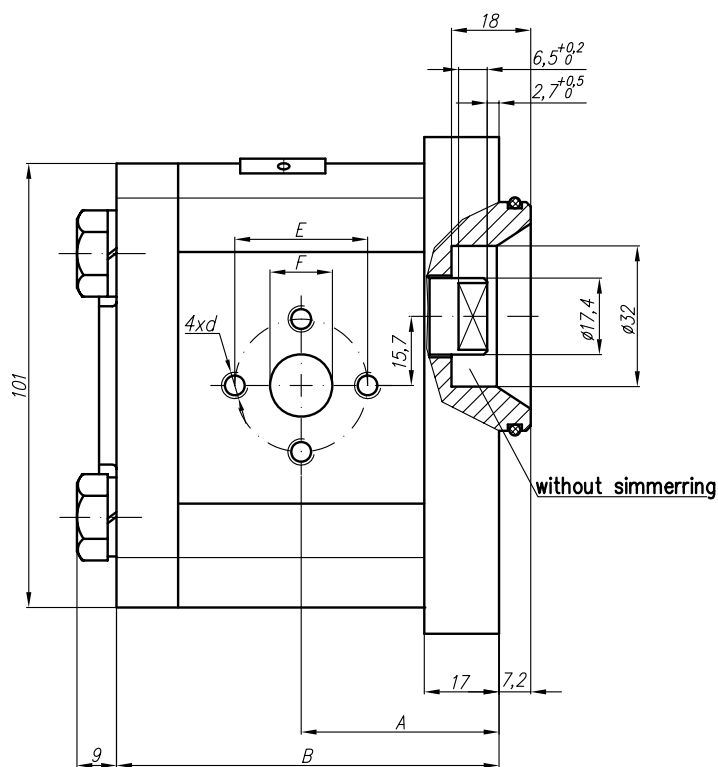
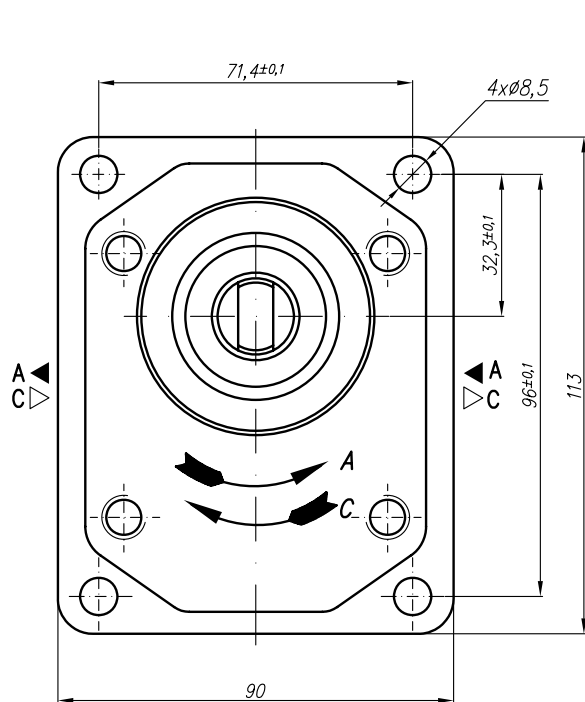
PGP PUMP	HENDERS  N Hydraulics®										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X207												
Type	Displacement	Flow		Pressure	max Speed	Dimension							
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm						
20A(C)4,5X207	4,5	6,14	14,33	250	3500	42,5	80	30,2	13,1	1/4-20UNC	30,2	13,1	
20A(C)6,3X207	6,3	8,69	20,29	250	3500	42,5	80						
20A(C)8,2X207	8,2	11,32	26,40	250	3500	42,5	80						
20A(C)10X207								39,7	19	5/16"-18UNC	30,2	14,2	1/4"-20UNC
20A(C)11X207	11,3	15,76	36,78	250	3500	48	91,1						
20A(C)12X207	12	16,92	39,48	250	3500	48,6	92,3						
20A(C)14X207	14	19,95	46,55	250	3500	50	95,4						
20A(C)15X207	15	21,60	36,00	250	2500	51	96,9						
20A(C)16X207	16	23,04	38,40	250	2500	52	98,6						
20A(C)19X207	19	27,36	45,60	200	2500	54	103,5						
20A(C)22X207	22	31,68	42,24	180	2000	57	108,5						
20A(C)25X207	25	36,00	48,00	160	2000	59,2	113,4				39,7	19	5/16"



PGP PUMP	HENDERS  N Hydraulics®										GROUP II						
	GEAR PUMP TYPE PGP 20A(C)...X210																
Type	Displacement	Flow		Pressure	max Speed	Dimension											
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet				
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d				
20A(C)4,5X210	4,5	6,14	14,33	250	3500	41,4	86,8	40	15	M6-6H	35	15	M6-6H				
20A(C)6,3X210	6,3	8,69	20,29	250	3500	42,6	89,8										
20A(C)8,2X210	8,2	11,32	26,40	250	3500	44,7	92,7		20								
20A(C)10X210	10	13,95	32,55	250	3500	49,1	95,7										
20A(C)11X210	11,3	15,76	36,78	250	3500	49,1	97,8										
20A(C)12X210	12	16,92	39,48	250	3500	49,1	99,1										
20A(C)14X210	14	19,95	46,55	250	3500	49,1	102,2										
20A(C)15X210	15	21,60	36,00	250	2500	49,1	103,7										
20A(C)16X210	16	23,04	38,40	250	2500	49,1	105,3										
20A(C)19X210	19	27,36	45,60	200	2500	49,1	110,3										
20A(C)22X210	22	31,68	42,24	180	2000	56,6	115,3										
20A(C)25X210	25	36,00	48,00	160	2000	58,8	120,2										

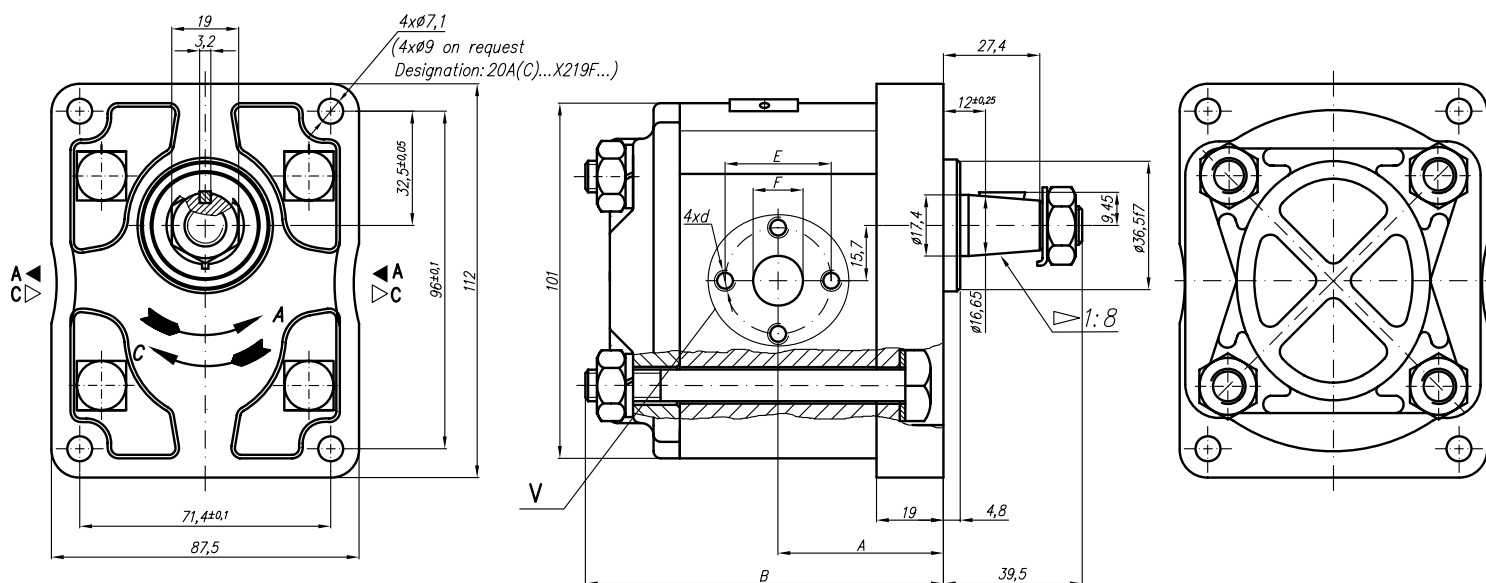


PGP PUMP	HENDERS  N Hydraulics®										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X218												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X218	4,5	6,14	14,33	250	3500	40,5	78	30,2	13,1	1/4-20UNC	30,2	13,1	
20A(C)6,3X218	6,3	8,69	20,29	250	3500	42	81						
20A(C)8,2X218	8,2	11,32	26,40	250	3500	43,5	83,9						
20A(C)10X218	10	13,95	32,55	250	3500	45	87						
20A(C)11X218	11,3	15,76	36,78	250	3500	46	89,1						
20A(C)12X218	12	16,92	39,48	250	3500	46,6	90,3						
20A(C)14X218	14	19,95	46,55	250	3500	48	93,4						
20A(C)15X218	15	21,60	36,00	250	2500	49	95						
20A(C)16X218	16	23,04	38,40	250	2500	50	96,6						
20A(C)19X218	19	27,36	45,60	200	2500	52	101,5						
20A(C)22X218	22	31,68	42,24	180	2000	55	106,5						
20A(C)25X218	25	36,00	48,00	160	2000	57,2	111,4				39,7	19	5/16"



GEAR PUMP TYPE PGP 20A(C)...X219...

Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension									
		at 1500 rpm	at max rpm			A	B	Inlet				Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	d	E	F	d	d
20A(C)4,5X219...	4,5	6,14	14,33	175	3500	42,5	92,8	30,2	13,1	1/4"-20UNC	M6-6H	30,2	13,1	1/4"-20UNC	M6-6H
20A(C)6,3X219...	6,3	8,69	20,29	175	3500	42,5	92,8								
20A(C)8,2X219...	8,2	11,32	26,40	175	3500	42,5	92,8								
20A(C)10X219...	10	13,95	32,55	175	3500	47	101,8	39,7	19	5/16"-18UNC	M8-6H	30,2	14,2	1/4"-20UNC	M6-6H
20A(C)11X219...	11,3	15,76	36,78	175	3500	48	103,9								
20A(C)12X219...	12	16,92	39,48	175	3500	48,6	105,1								
20A(C)14X219...	14	19,95	46,55	175	3500	50	108,2	39,7	19	5/16"-18UNC	M8-6H	30,2	14,2	1/4"-20UNC	M6-6H
20A(C)15X219...	15	21,60	36,00	175	2500	51	109,7								
20A(C)15X219SS...	15	21,60	36,00	140	2500	48	103,8								
20A(C)16X219...	16	23,04	38,40	175	2500	52	111,4	39,7	19	5/16"-18UNC	M8-6H	30,2	14,2	1/4"-20UNC	M6-6H
20A(C)17,3X219...	17,3	24,91	41,52	175	2500	52,8	113,4								
20A(C)19X219...	19	27,36	45,60	175	2500	54	116,3								
20A(C)19X219SS...	19	27,36	45,60	105	2500	51,4	110	39,7	19	5/16"-18UNC	M8-6H	30,2	19	5/16"	M8
20A(C)22X219...	22	31,68	42,24	175	2000	57	121,3								
20A(C)25X219...	25	36,00	48,00	160	2000	59,2	126,2								

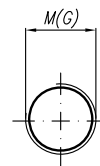


Designation:

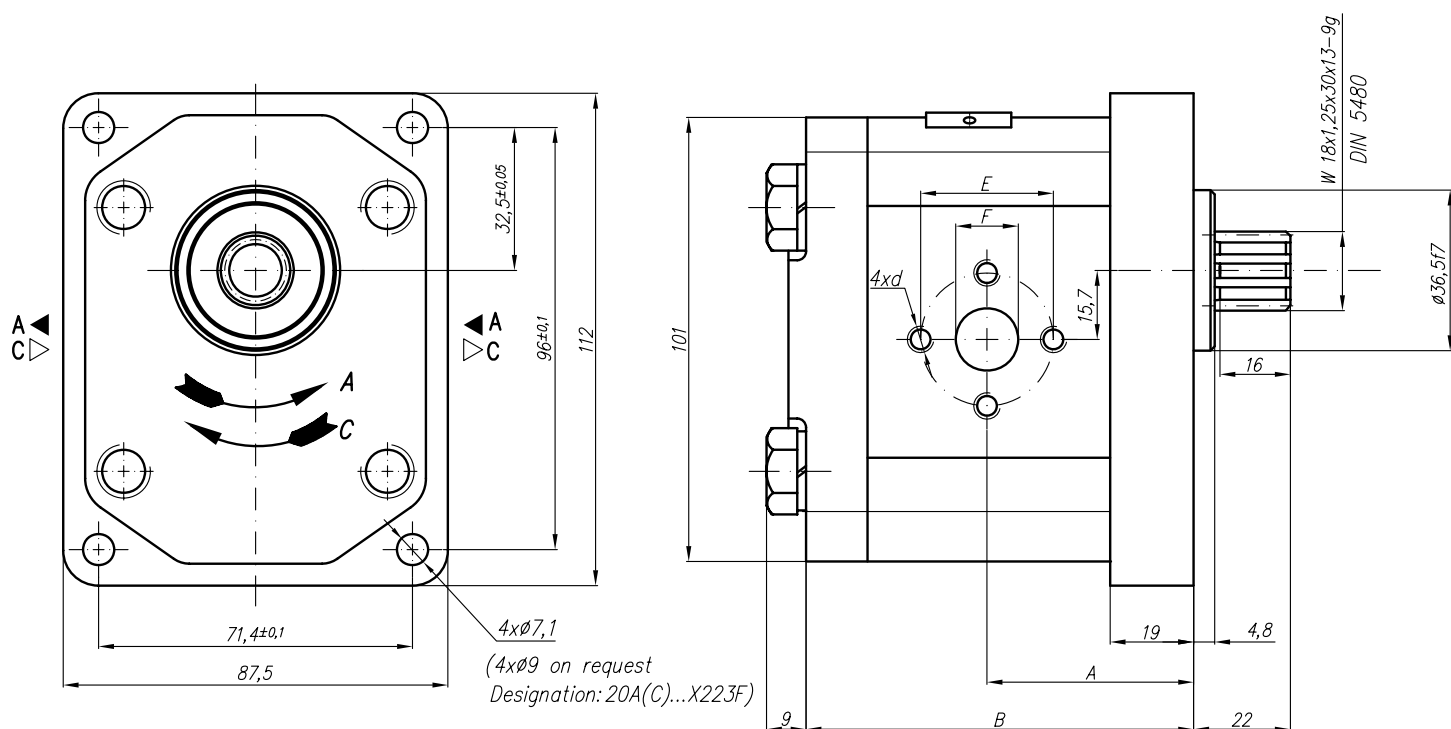
20A(C)...X219P4 –flange ports with UNC threads;
20A(C)...X219P4M–flange ports with Metric threads;

20A(C)...X219M -ports with Metric threads;
20A(C)...X219G -ports with GAS threads;

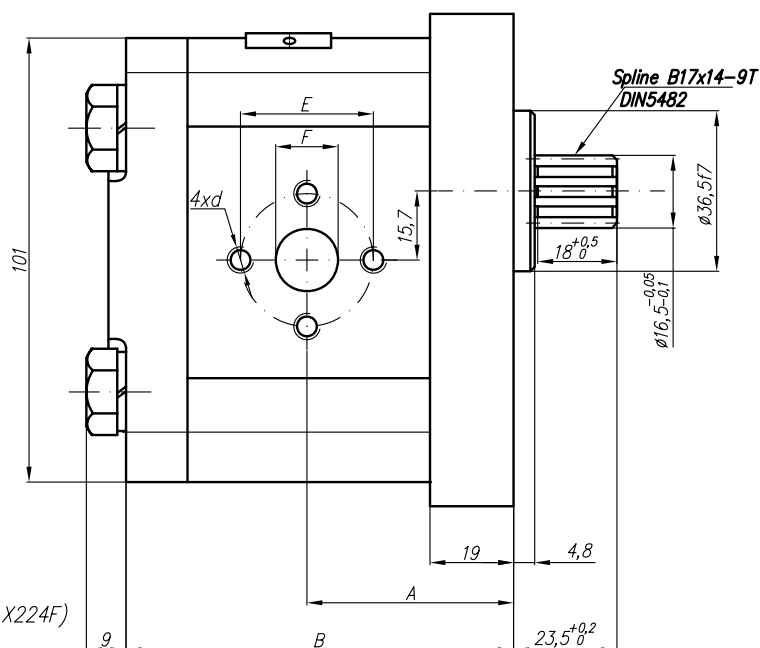
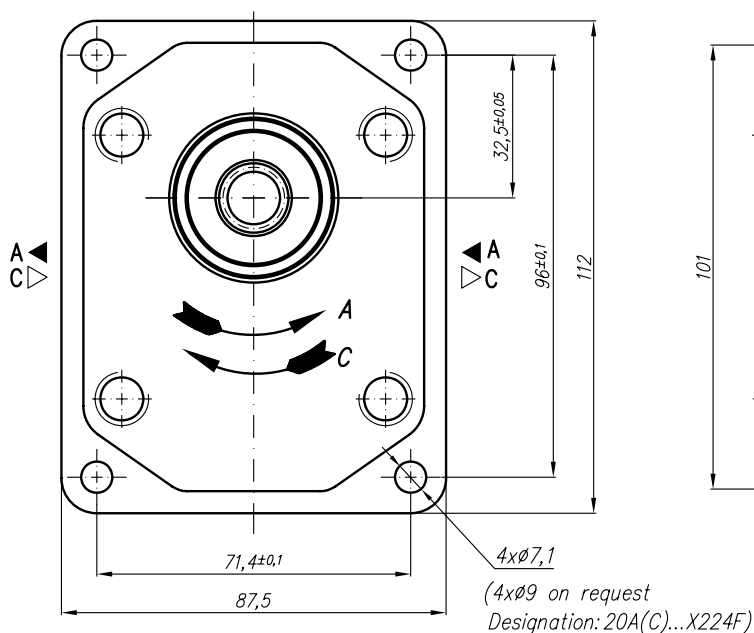
V
Variants for ports – M;G
for port sizes see table on pump 20A(C)...X016...



PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II				
	GEAR PUMP TYPE PGP 20A(C)...X223														
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension									
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet				
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d		
20A(C)4,5X223	4,5	6,14	14,33	250	3500	42,5	80	30,2	13,1	M6-6H	30,2	13,1	M6-6H		
20A(C)6,3X223	6,3	8,69	20,29	250	3500	42,5	80								
20A(C)8,2X223	8,2	11,32	26,40	250	3500	42,5	80								
20A(C)10X223	10	13,95	32,55	250	3500	47	89	39,7	19	M8-6H		30,2		14,2	M6-6H
20A(C)11X223	11,3	15,76	36,78	250	3500	48	91,1								
20A(C)12X223	12	16,92	39,48	250	3500	48,6	92,3								
20A(C)14X223	14	19,95	46,55	250	3500	50	95,4								
20A(C)15X223	15	21,60	36,00	250	2500	51	96,9								
20A(C)16X223	16	23,04	38,40	250	2500	52	98,6								
20A(C)19X223	19	27,36	45,60	200	2500	54	103,5	39,7	19	M8	30,2		19	M8	
20A(C)22X223	22	31,68	42,24	180	2000	57	108,5								
20A(C)25X223	25	36,00	48,00	160	2000	59,2	113,4								



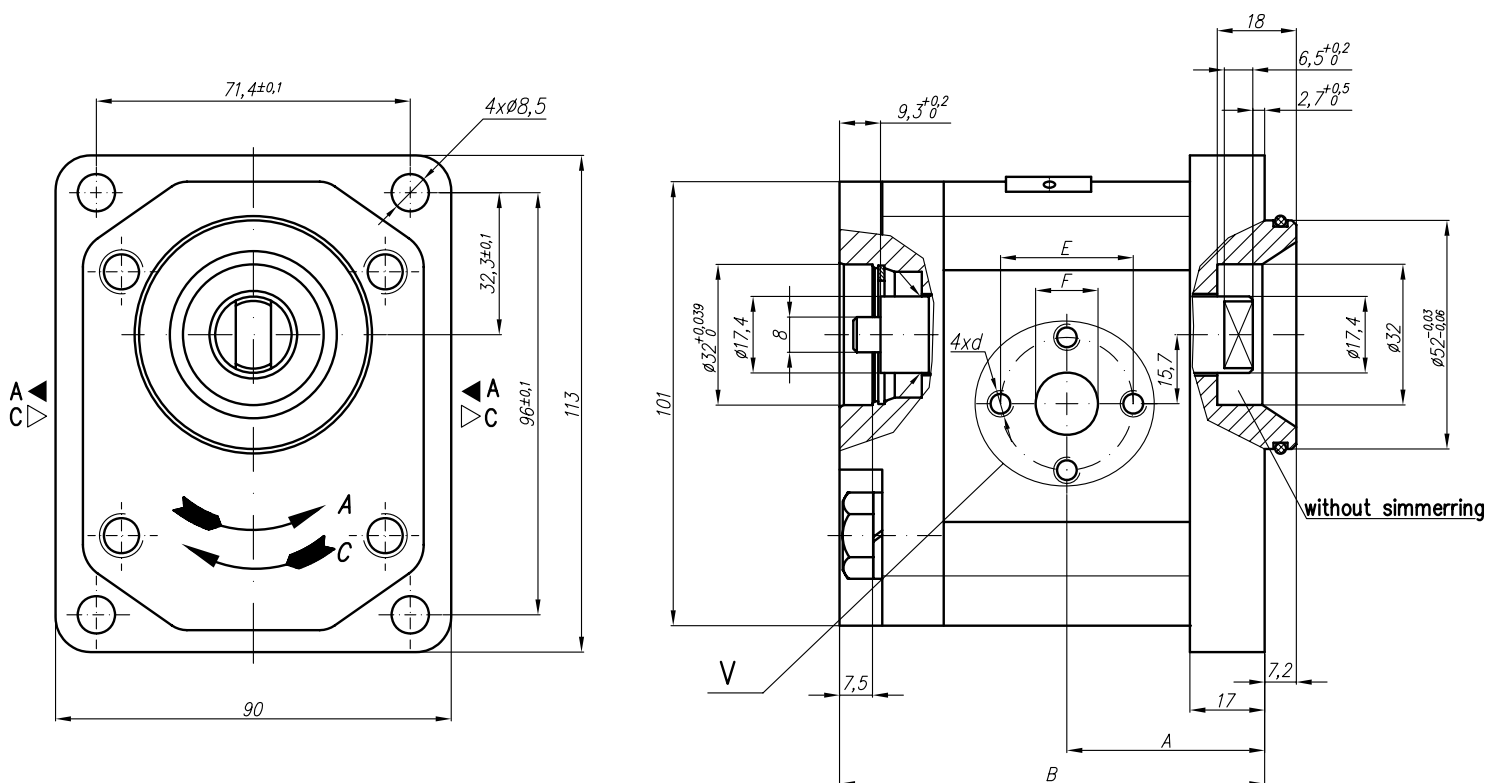
PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II					
	GEAR PUMP TYPE PGP 20A(C)...X224(H)															
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension										
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet					
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d			
20A(C)4,5X224	4,5	6,14	14,33	250	3500	42,5	80	30,2	13,1	M6-6H	30,2	13,1	M6-6H			
20A(C)6,3X224	6,3	8,69	20,29	250	3500	42,5	80									
20A(C)8,2X224	8,2	11,32	26,40	250	3500	42,5	80									
20A(C)10X224	10	13,95	32,55	250	3500	47	89	39,7	19	M8-6H				30,2	14,2	M6-6H
20A(C)11X224	11,3	15,76	36,78	250	3500	48	91,1									
20A(C)12X224	12	16,92	39,48	250	3500	48,6	92,3									
20A(C)14X224	14	19,95	46,55	250	3500	50	95,4									
20A(C)15X224	15	21,60	36,00	250	2500	51	96,9									
20A(C)16X224	16	23,04	38,40	250	2500	52	98,6									
20A(C)19X224	19	27,36	45,60	200	2500	54	103,5									
20A(C)22X224	22	31,68	42,24	180	2000	57	108,5									
20A(C)25X224	25	36,00	48,00	160	2000	59,2	113,4				39,7	19	M8			
20A(C)14X224H	14	20,16	47,04	250	3500	53,1	110,9	39,7	19	M8-6H	30,2	14,2	M6-6H			
20A(C)15X224H	15	21,60	36,00	250	2500	56	107,2									
20A(C)16X224H	16	23,04	38,40	250	2500	56,9	108,8									
20A(C)17,3X224H	17,3	24,91	41,52	230	2500	58	110,9									
20A(C)18,2X224H	18,2	26,21	43,68	200	2500	58,8	112,5									
20A(C)19X224H	19	27,36	45,60	200	2500	59,4	113,8									
20A(C)22X224H	22	31,68	42,24	180	2000	61,9	118,8									
20A(C)25X224H	25	36,00	48,00	160	2000	64,3	123,7				39,7	19	M8-6H			
20A(C)28X224H	28	40,32	53,76	120	2000	66,8	128,5									
20A(C)32X224H	32	46,08	46,08	100	1500	70	134,8									
20A(C)36X224H	36	51,84	51,84	80	1500	73,2	141,4									



GEAR PUMP TYPE PGP 20A(C)...X226...

Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension													
		at 1500 rpm	at max rpm			A	B	Inlet						Outlet					
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	M	G	U	E	F	d	M	G	U
20A(C)4,5X226...	4,5	6,14	14,33	250	3500	40,5	87,6	30,2	13,1	M6-6H	M20x1,5	G1/2	1 1/16"-12UNF	30,2	13,1	M6-6H	M16x1,5	G1/2	7/8"-14UNF
20A(C)6,3X226...	6,3	8,69	20,29	250	3500	42	90,6												
20A(C)8,2X226...	8,2	11,32	26,40	250	3500	43,5	93,5												
20A(C)10X226...	10	13,95	32,55	250	3500	45	96,6												
20A(C)11X226...	11,3	15,76	36,78	250	3500	46	98,7												
20A(C)12X226...	12	16,92	39,48	250	3500	46,6	99,9	39,7	19	M8-6H	G3/4	30,2	14,2	M6-6H	M20x1,5	G1/2	7/8"-14UNF		
20A(C)14X226...	14	19,95	46,55	250	3500	48	103												
20A(C)15X226...	15	21,60	36,00	250	2500	49	104,5												
20A(C)16X226...	16	23,04	38,40	250	2500	50	106,2												
20A(C)19X226...	19	27,36	45,60	200	2500	52	111,1												
20A(C)22X226...	22	31,68	42,24	180	2000	55	116,1	39,7	19	M8	M20x1,5	G1/2	7/8"-14UNF						
20A(C)25X226...	25	36,00	48,00	160	2000	57,2	121,1												

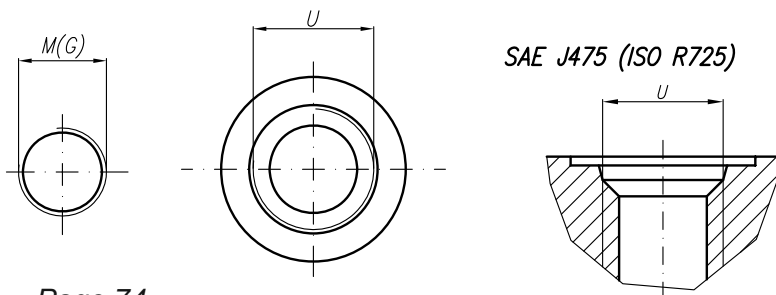
Designed as a middle section of tripple pumps - 321A(C)..../...X226.../ (lllgroup/llgroup/lgroup).



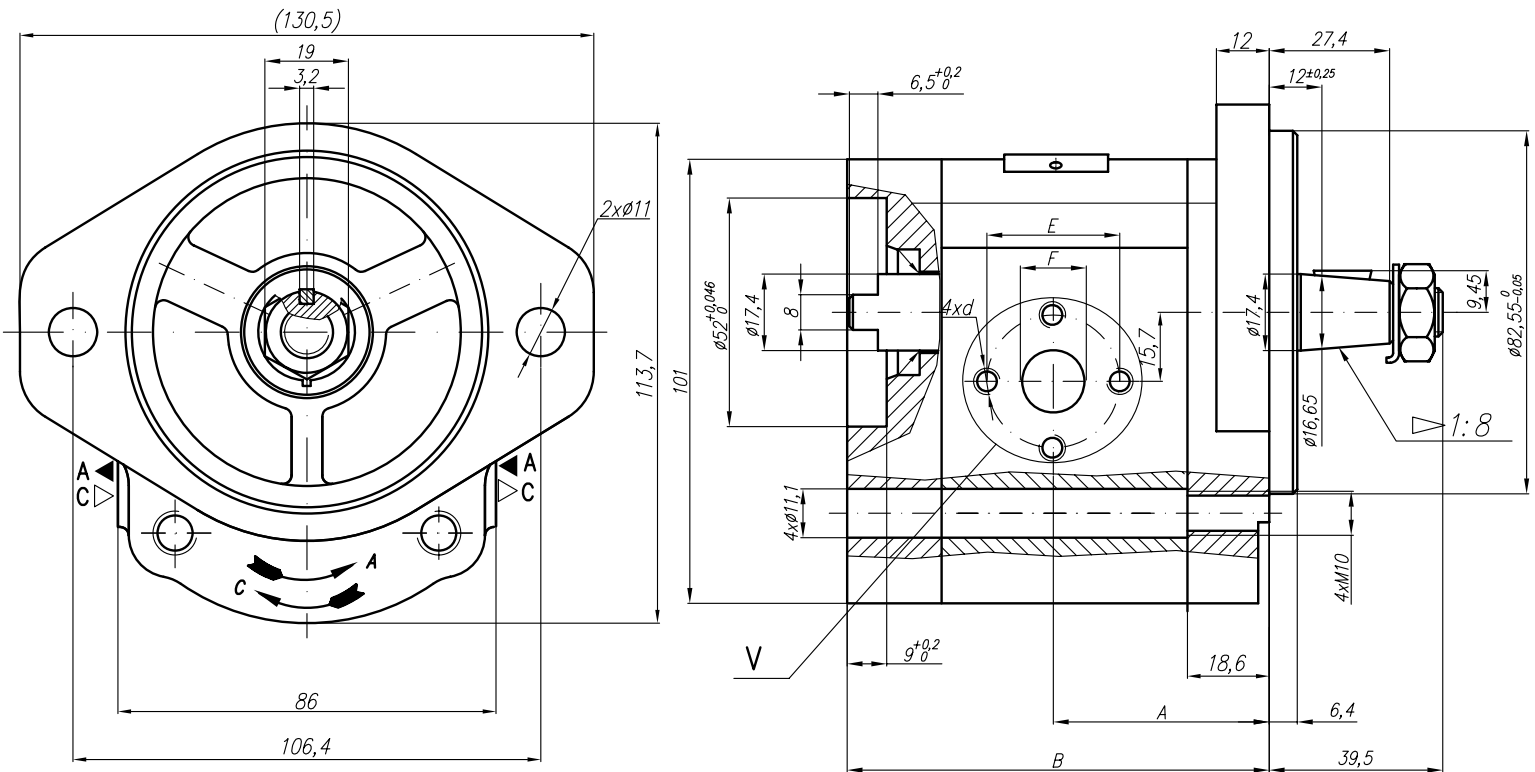
V
 Variants for ports – M;G;U

Designations:

- ...X226 – Normal version (flanges);
- ...X226M – Metric threads;
- ...X226G – GAS threads;
- ...X226U – SAE threads;



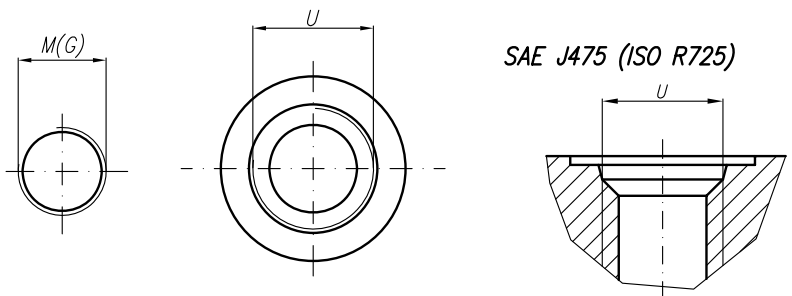
PGP PUMP		HENDERSO N Hydraulics®															GROUP II		
		GEAR PUMP TYPE PGP 20A(C)...X234...																	
Type	Displacement	Flow		Pressure	max Speed	Dimension													
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet						Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	M	G	U	E	F	d	M	G	U
20A(C)4,5X234...	4,5	6,14	14,33	250	3500	42,5	87,2	30,2	13,1	M6-6H	M20x1,5	G1/2	1 1/16"-12UNF	30,2	13,1	M6-6H	M16x1,5	G1/2	7/8"-14UNF
20A(C)6,3X234...	6,3	8,69	20,29	250	3500	42,5	87,2												
20A(C)8,2X234...	8,2	11,32	26,40	250	3500	42,5	87,2												
20A(C)10X234...	10	13,95	32,55	250	3500	47	96,2												
20A(C)11X234...	11,3	15,76	36,78	250	3500	48	98,3												
20A(C)12X234...	12	16,92	39,48	250	3500	48,6	99,5	39,7	19	M8-6H	G3/4	1 1/16"-12UNF	30,2	14,2	M6-6H	M20x1,5	G1/2	7/8"-14UNF	
20A(C)14X234...	14	19,95	46,55	250	3500	50	102,5												
20A(C)15X234...	15	21,60	36,00	250	2500	51	104,1												
20A(C)16X234...	16	23,04	38,40	250	2500	52	105,8												
20A(C)19X234...	19	27,36	45,60	200	2500	54	110,7												
20A(C)22X234...	22	31,68	42,24	180	2000	57	115,7	39,7	19	M8	M20x1,5	G1/2	7/8"-14UNF						
20A(C)25X234...	25	36,00	48,00	160	2000	59,2	120,6												



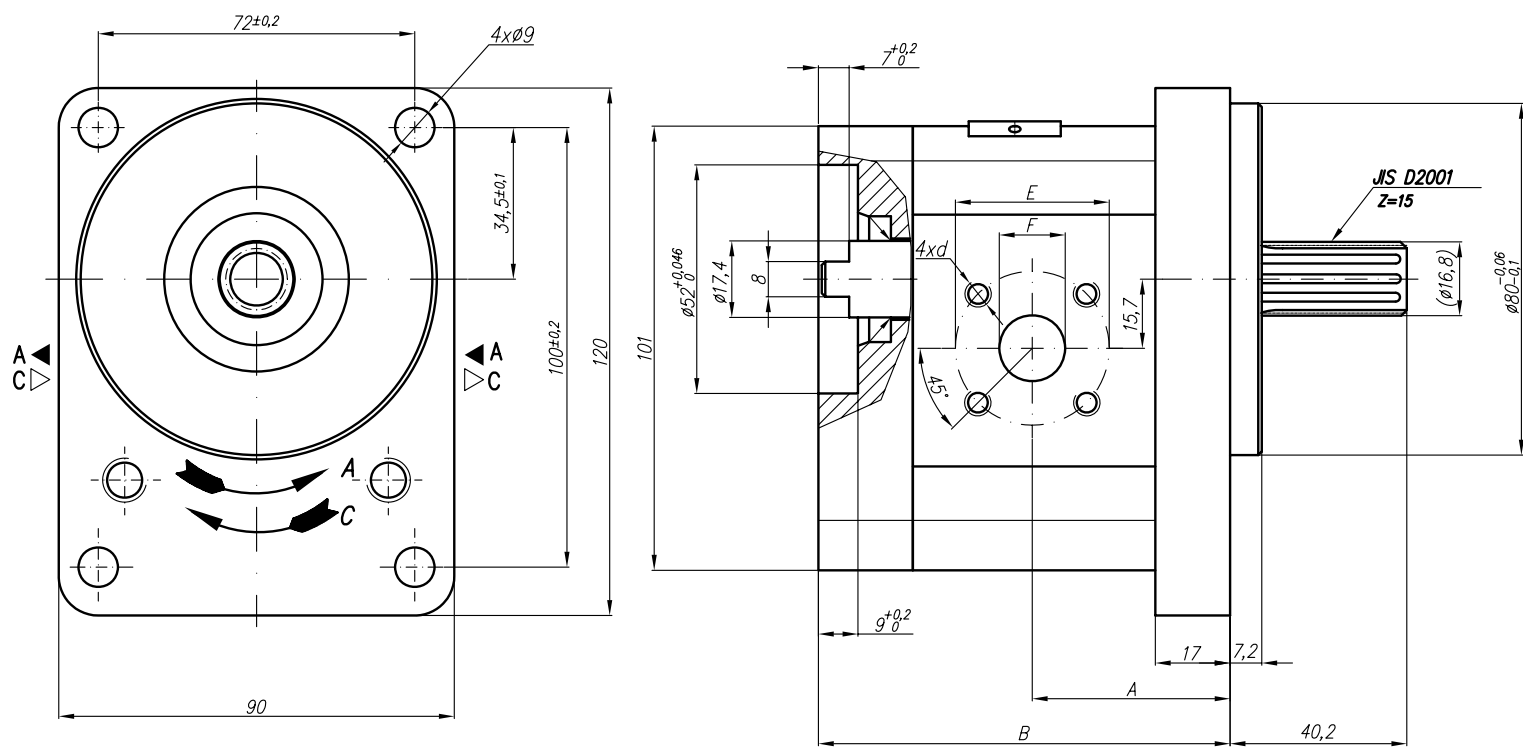
V
Variants for ports – M;G;U

Designations:

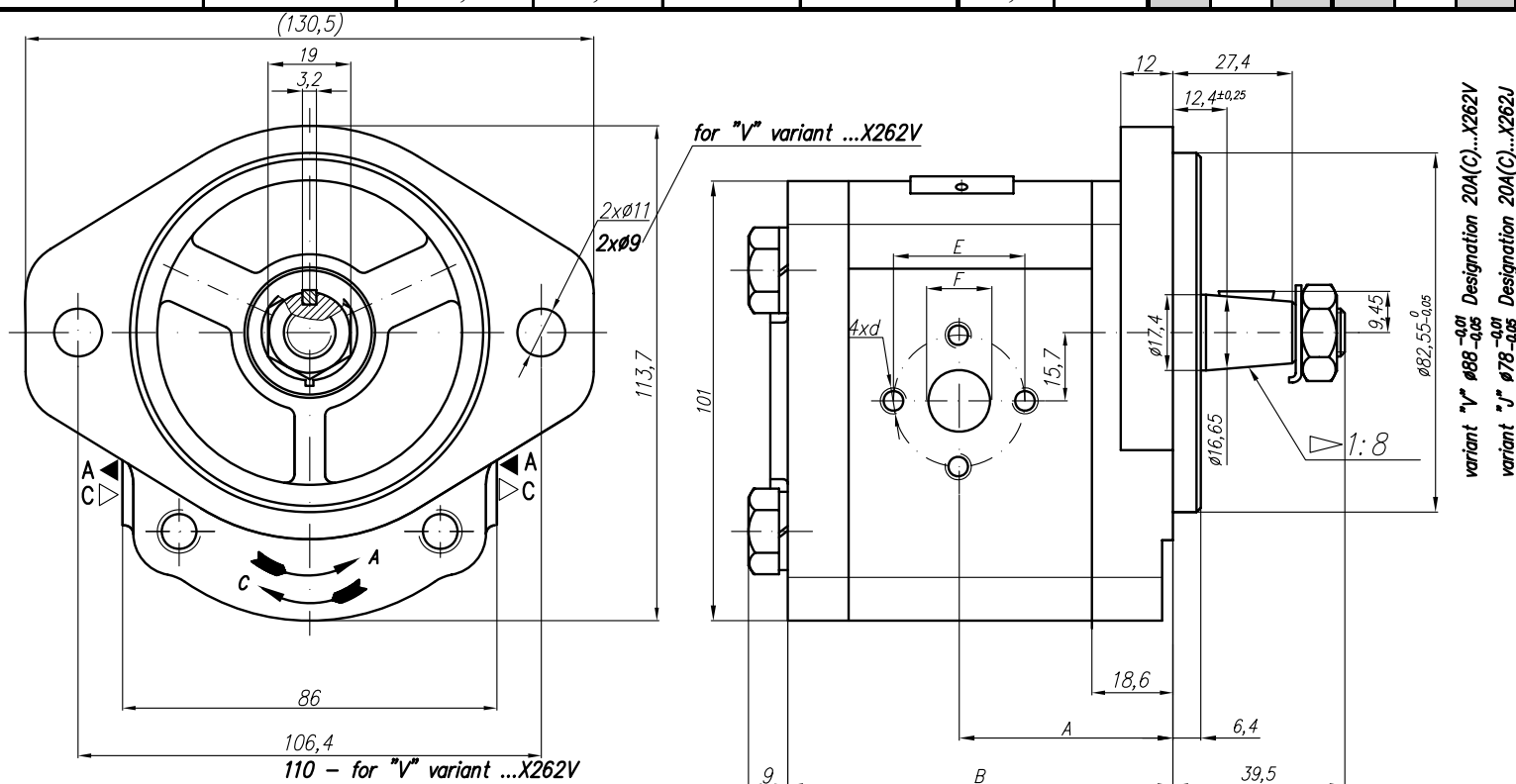
- ...X234 – Normal version (flanges);
- ...X234M – Metric threads;
- ...X234G – GAS threads;
- ...X234U – SAE threads;




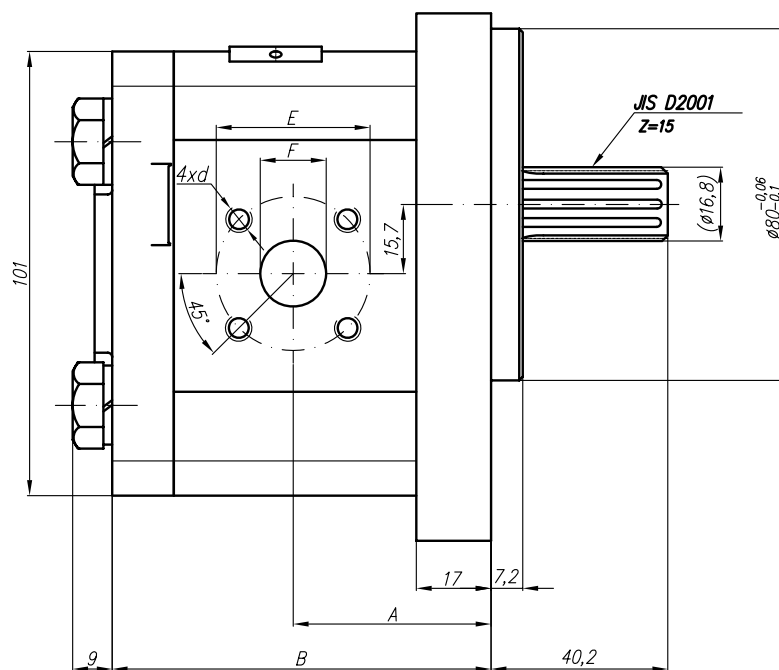
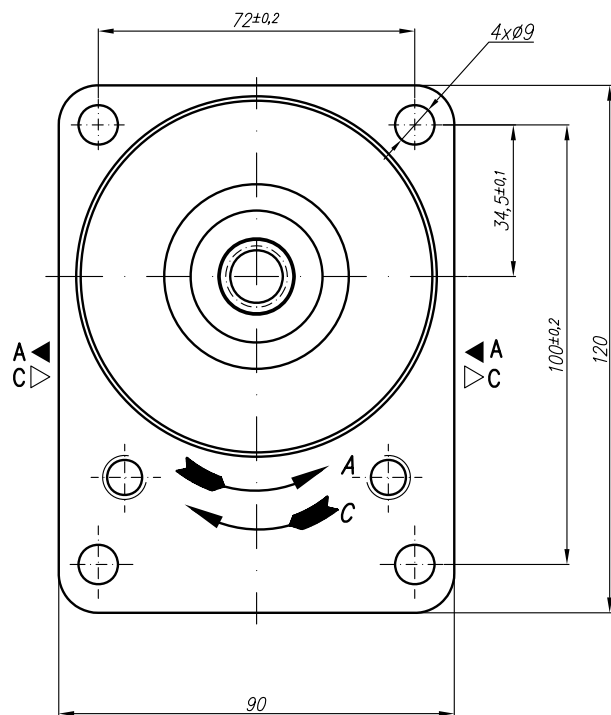
PGP PUMP	HENDERS [®] N Hydraulics [®]											GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X259													
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension								
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d	
20A(C)4,5X259	4,5	6,14	14,33	250	3500	39,8	85,2	40	15	M6-6H	35	15	M6-6H	
20A(C)6,3X259	6,3	8,69	20,29	250	3500	41	88,2							
20A(C)8,2X259	8,2	11,32	26,40	250	3500	43,1	91,1		20					
20A(C)10X259	10	13,95	32,55	250	3500	47,5	94,1							
20A(C)11X259	11,3	15,76	36,78	250	3500	47,5	96,2							
20A(C)12X259	12	16,92	39,48	250	3500	47,5	97,5							
20A(C)14X259	14	19,95	46,55	250	3500	47,5	100,6							
20A(C)15X259	15	21,60	36,00	250	2500	47,5	102,1							
20A(C)16X259	16	23,04	38,40	250	2500	47,5	103,8							
20A(C)19X259	19	27,36	45,60	200	2500	47,5	108,7							
20A(C)22X259	22	31,68	42,24	180	2000	55	113,7							
20A(C)25X259	25	36,00	48,00	160	2000	57,2	118,5							



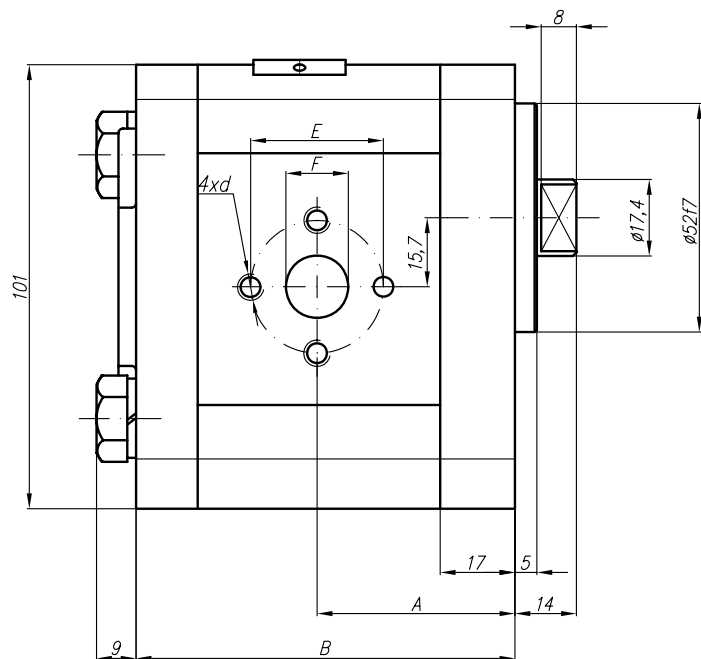
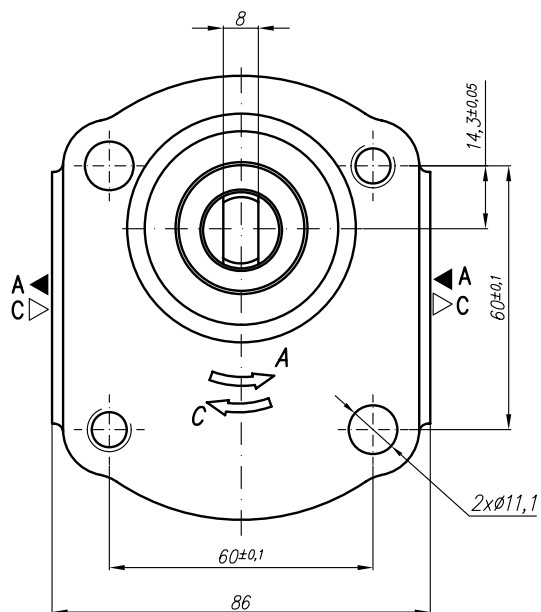
PGP PUMP	HENDERS [®] ON Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X262...(H)												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X262...	4,5	6,14	14,33	250	3500	42,5	80	30,2	13,1	M6-6H	30,2	13,1	M6-6H
20A(C)6,3X262...	6,3	8,69	20,29	250	3500	42,5	80						
20A(C)8,2X262...	8,2	11,32	26,40	250	3500	42,5	80						
20A(C)10X262...	10	13,95	32,55	250	3500	47	89	39,7	19	M8-6H			
20A(C)11X262...	11,3	15,76	36,78	250	3500	48	91,1						
20A(C)12X262...	12	16,92	39,48	250	3500	48,6	92,3						
20A(C)14X262...	14	19,95	46,55	250	3500	50	95,4						
20A(C)15X262...	15	21,60	36,00	250	2500	51	96,9						
20A(C)16X262...	16	23,04	38,40	250	2500	52	98,6						
20A(C)19X262...	19	27,36	45,60	200	2500	54	103,5						
20A(C)22X262...	22	31,68	42,24	180	2000	57	108,5						
20A(C)25X262...	25	36,00	48,00	160	2000	59,2	113,4				39,7	19	M8
20A(C)14X262...H	14	20,16	47,04	250	3500	55,6	106,8	39,7	19	M8-6H	30,2	14,2	M6-6H
20A(C)15X262...H	15	21,60	43,20	250	3000	55,6	106,8						
20A(C)16X262...H	16	23,04	46,08	250	3000	56,5	108,4						
20A(C)17,3X262...H	17,3	24,91	49,82	230	3000	57,6	110,5						
20A(C)18,2X262...H	18,2	26,21	52,42	210	3000	58,4	112,1						
20A(C)19X262...H	19	27,36	54,72	200	3000	59	113,4						
20A(C)22X262...H	22	31,68	52,80	180	2500	61,5	118,4						
20A(C)25X262...H	25	36,00	60,00	160	2500	63,9	123,3				39,7	19	M8-6H
20A(C)28X262...H	28	40,32	67,20	130	2500	66,4	128,1						
20A(C)32X262...H	32	46,08	61,44	120	2000	69,6	134,4						
20A(C)36X262...H	36	51,84	69,12	100	2000	72,8	141						



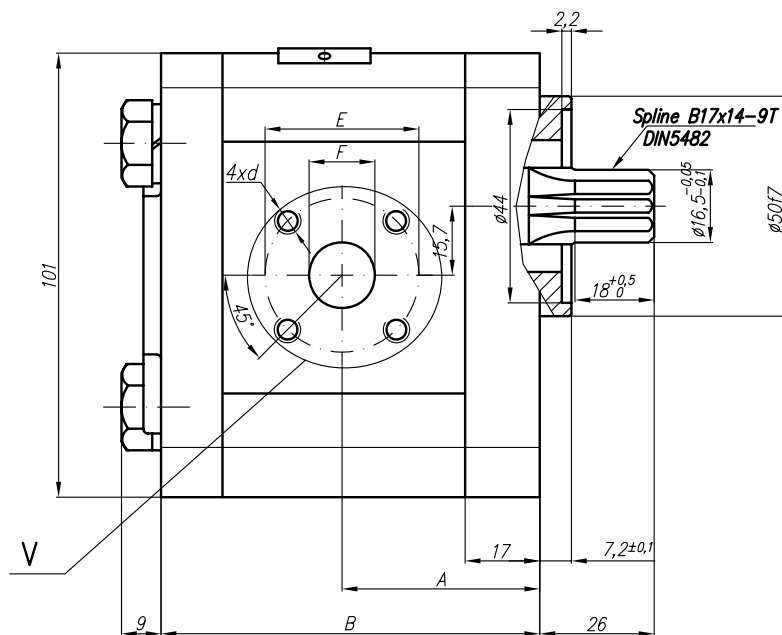
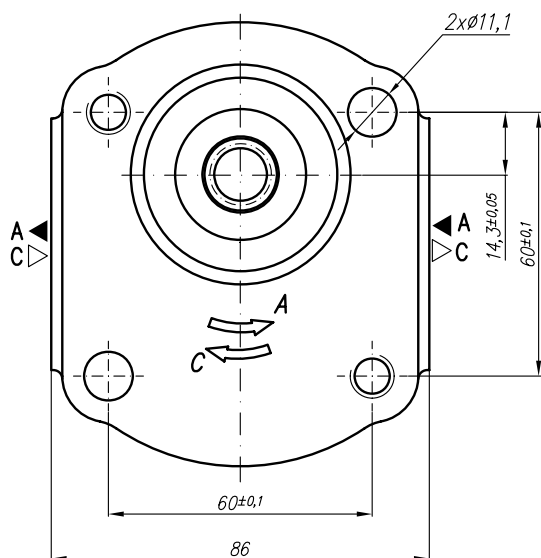
PGP PUMP	HENDERS  N Hydraulics®											GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X269													
Type	Displacement	Flow		Pressure	max Speed	Dimension								
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet	
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d	
20A(C)4,5X269	4,5	6,14	14,33	250	3500	39,8	78	40	15	M6-6H	35	15	M6-6H	
20A(C)6,3X269	6,3	8,69	20,29	250	3500	41	81							
20A(C)8,2X269	8,2	11,32	26,40	250	3500	43,1	83,9							
20A(C)10X269	10	13,95	32,55	250	3500	47,5	87							
20A(C)11X269	11,3	15,76	36,78	250	3500	47,5	89,1							
20A(C)12X269	12	16,92	39,48	250	3500	47,5	90,3							
20A(C)14X269	14	19,95	46,55	250	3500	47,5	93,4							
20A(C)15X269	15	21,60	36,00	250	2500	47,5	95							
20A(C)16X269	16	23,04	38,40	250	2500	47,5	96,6							
20A(C)19X269	19	27,36	45,60	200	2500	47,5	101,5							
20A(C)22X269	22	31,68	42,24	180	2000	55	106,5							
20A(C)25X269	25	36,00	48,00	160	2000	57,2	111,4							



PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II				
	GEAR PUMP TYPE PGP 20A(C)...X295														
Type	Displace ment	Flow		Pressure	max Speed	Dimension									
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d		
20A(C)4,5X295	4,5	6,14	14,33	250	3500	40,5	78	30,2	13,1	M6-6H	30,2	13,1	M6-6H		
20A(C)6,3X295	6,3	8,69	20,29	250	3500	42	81								
20A(C)8,2X295	8,2	11,32	26,40	250	3500	43,5	83,9								
20A(C)10X295	10	13,95	32,55	250	3500	45	87	39,7	19	M8-6H		30,2		14,2	M6-6H
20A(C)11X295	11,3	15,76	36,78	250	3500	46	89,1								
20A(C)12X295	12	16,92	39,48	250	3500	46,6	90,3								
20A(C)14X295	14	19,95	46,55	250	3500	48	93,4								
20A(C)15X295	15	21,60	36,00	250	2500	49	95								
20A(C)16X295	16	23,04	38,40	250	2500	50	96,6	39,7	19	M8					
20A(C)19X295	19	27,36	45,60	200	2500	52	101,5								
20A(C)22X295	22	31,68	42,24	180	2000	55	106,5								
20A(C)25X295	25	36,00	48,00	160	2000	57,2	111,4								



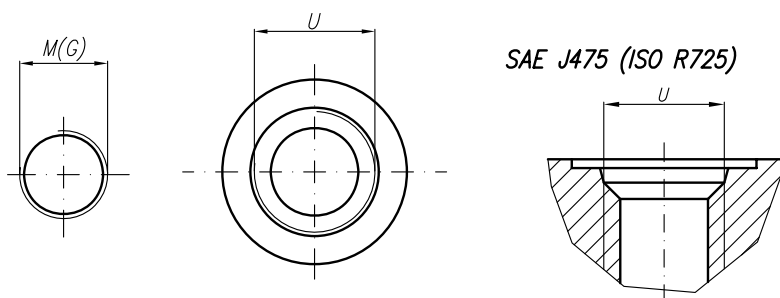
PGP PUMP		HENDERS [®] N Hydraulics [®]														GROUP II			
		GEAR PUMP TYPE PGP 20A(C)...X296...																	
Type	Displacement	Flow		Pressure	max Speed	Dimension													
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet						Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	M	G	U	E	F	d	M	G	U
20A(C)4,5X296...	4,5	6,14	14,33	250	3500	37,3	75,1	40	15	M6-6H	M20x1,5	G1/2	1 1/16"-12UNF	35	15	M6-6H	M16x1,5	G1/2	7/8"-14UNF
20A(C)6,3X296...	6,3	8,69	20,29	250	3500	38,6	78												
20A(C)8,2X296...	8,2	11,32	26,40	250	3500	40,6	78												
20A(C)10X296...	10	13,95	32,55	250	3500	45	87												
20A(C)11X296...	11,3	15,76	36,78	250	3500	45	89,1												
20A(C)12X296...	12	16,92	39,48	250	3500	45	90,3												
20A(C)14X296...	14	19,95	46,55	250	3500	45	93,4												
20A(C)15X296...	15	21,60	36,00	250	2500	45	94,9												
20A(C)16X296...	16	23,04	38,40	250	2500	45	96,5												
20A(C)19X296...	19	27,36	45,60	200	2500	45	101,5												
20A(C)22X296...	22	31,68	42,24	180	2000	52,5	106,5												
20A(C)25X296...	25	36,00	48,00	160	2000	57,2	111,4												




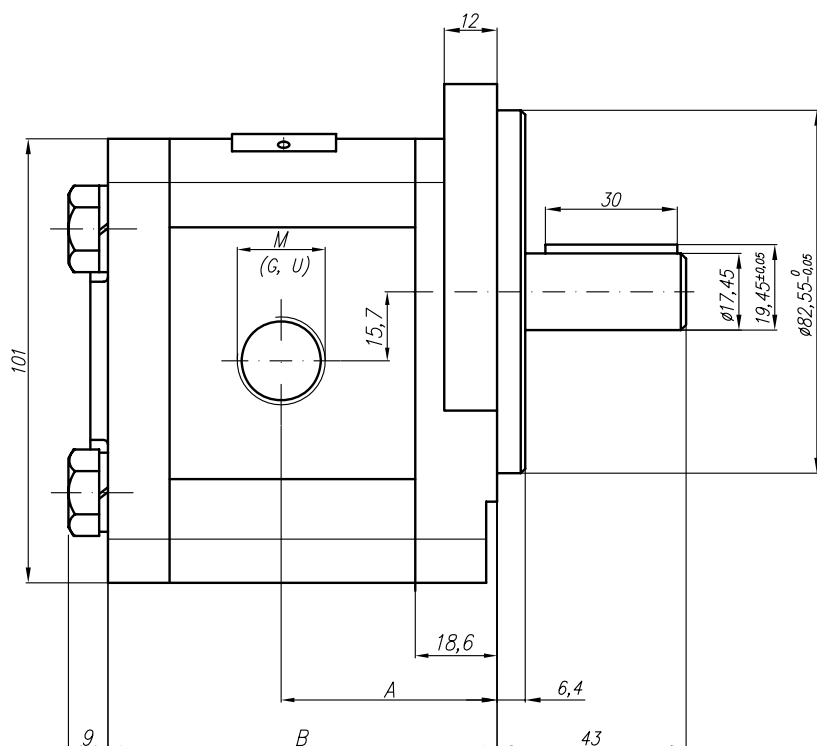
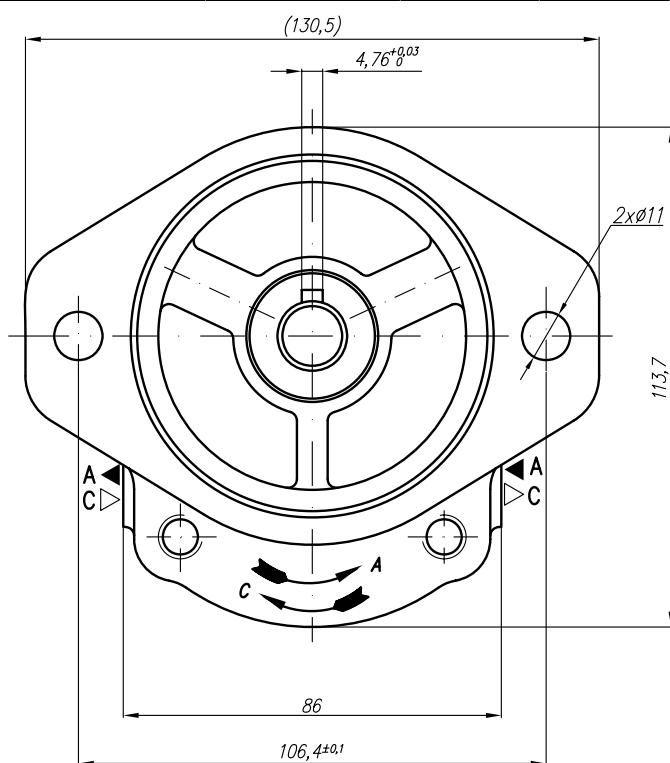
V
Variants for ports – M;G;U

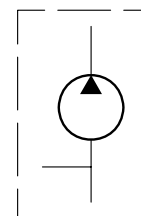
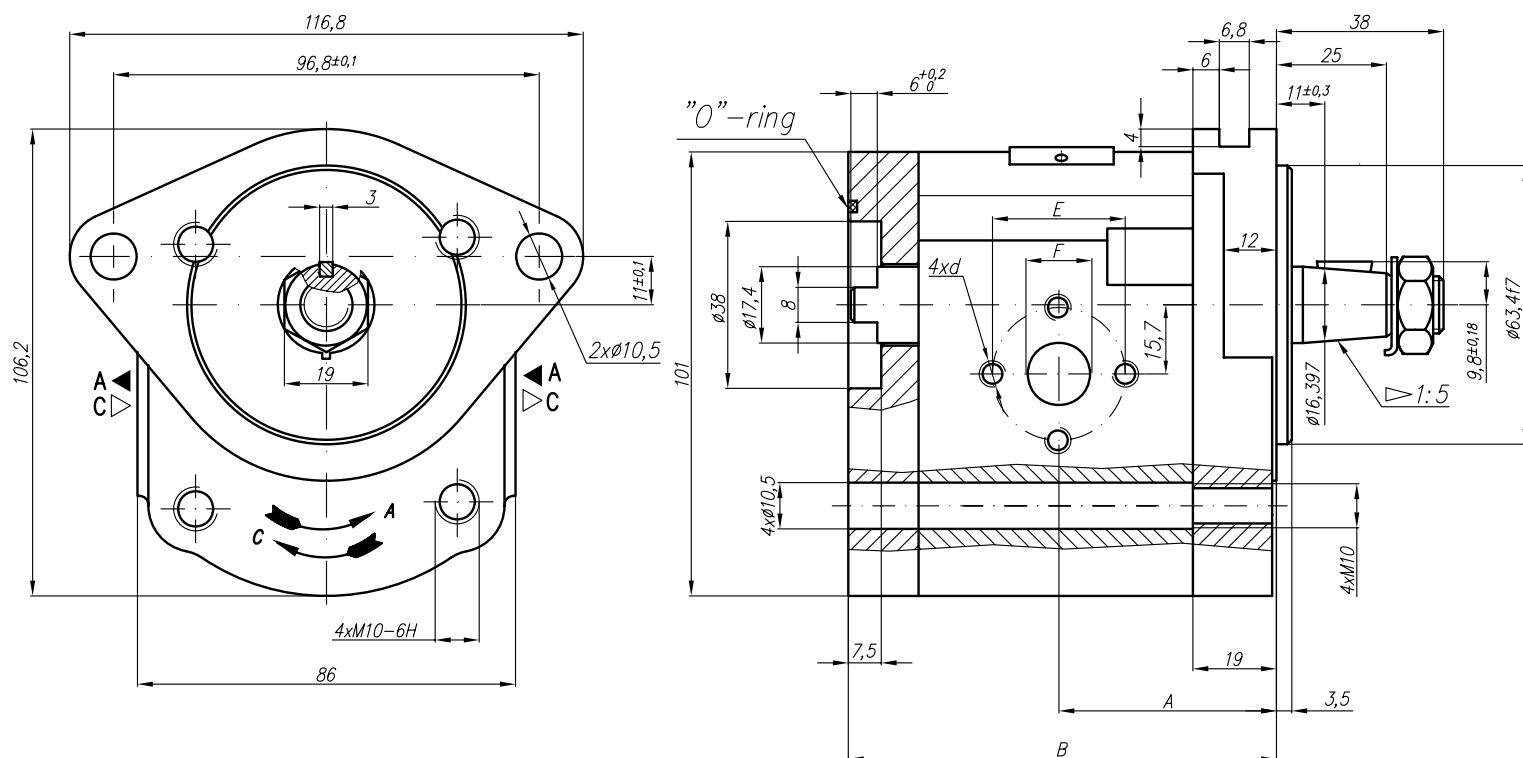
Designations:

- ...X296 – Normal version (flanges);
- ...X296M – Metric threads;
- ...X296G – GAS threads;
- ...X296U – SAE threads;



PGP PUMP	HENDERS  N Hydraulics®										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X301...												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5X301...	4,5	6,14	14,33	250	3500	41,4	79,6	M20x1,5	G1/2	1 1/16"-12UNF	M16x1,5	G1/2	7/8"-14UNF
20A(C)6,3X301...	6,3	8,69	20,29	250	3500	42,6	82,6						
20A(C)8,2X301...	8,2	11,32	26,40	250	3500	44,7	85,5						
20A(C)10X301...	10	13,95	32,55	250	3500	49,1	88,6						
20A(C)11X301...	11,3	15,76	36,78	250	3500	49,1	90,7						
20A(C)12X301...	12	16,92	39,48	250	3500	49,1	91,9						
20A(C)14X301...	14	19,95	46,55	250	3500	49,1	95						
20A(C)15X301...	15	21,60	36,00	250	2500	49,1	96,5						
20A(C)16X301...	16	23,04	38,40	250	2500	49,1	98,2						
20A(C)19X301...	19	27,36	45,60	200	2500	49,1	103,1						
20A(C)22X301...	22	31,68	42,24	180	2000	56,6	108,1						
20A(C)25X301...	25	36,00	48,00	160	2000	58,8	113						
20A(C)14X301H...	14	20,16	47,04	250	3500	54,8	105,7	M20x1,5	G3/4	1 1/16"-12UNF	M16x1,5	G1/2	7/8"-14UNF
20A(C)15X301H...	15	21,60	36,00	250	2500	55,6	106,8						
20A(C)16X301H...	16	23,04	38,40	250	2500	56,5	108,4						
20A(C)17,3X301H...	17,3	24,91	41,52	230	2500	57,6	110,5						
20A(C)18,2X301H...	18,2	26,21	43,68	200	2500	58,4	112,1						
20A(C)19X301H...	19	27,36	45,60	200	2500	59	113,4						
20A(C)22X301H...	22	31,68	42,24	180	2000	61,5	118,4						
20A(C)25X301H...	25	36,00	48,00	160	2000	63,9	123,3						
20A(C)28X301H...	28	40,32	53,76	120	2000	66,4	128,1						
20A(C)32X301H...	32	46,08	46,08	100	1500	69,6	134,4						
20A(C)36X301H...	36	51,84	51,84	80	1500	72,8	141	M27x2	G1	1 5/16"-12U	M20x1,5	G3/4	1 1/16"-12U

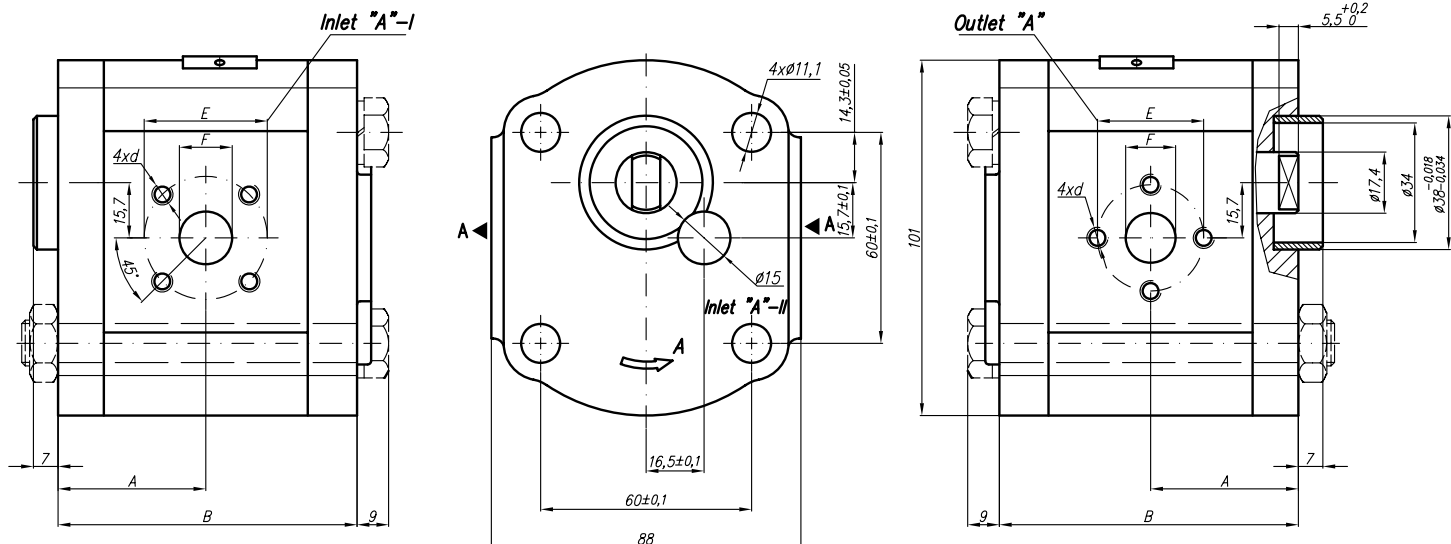


[illegible]

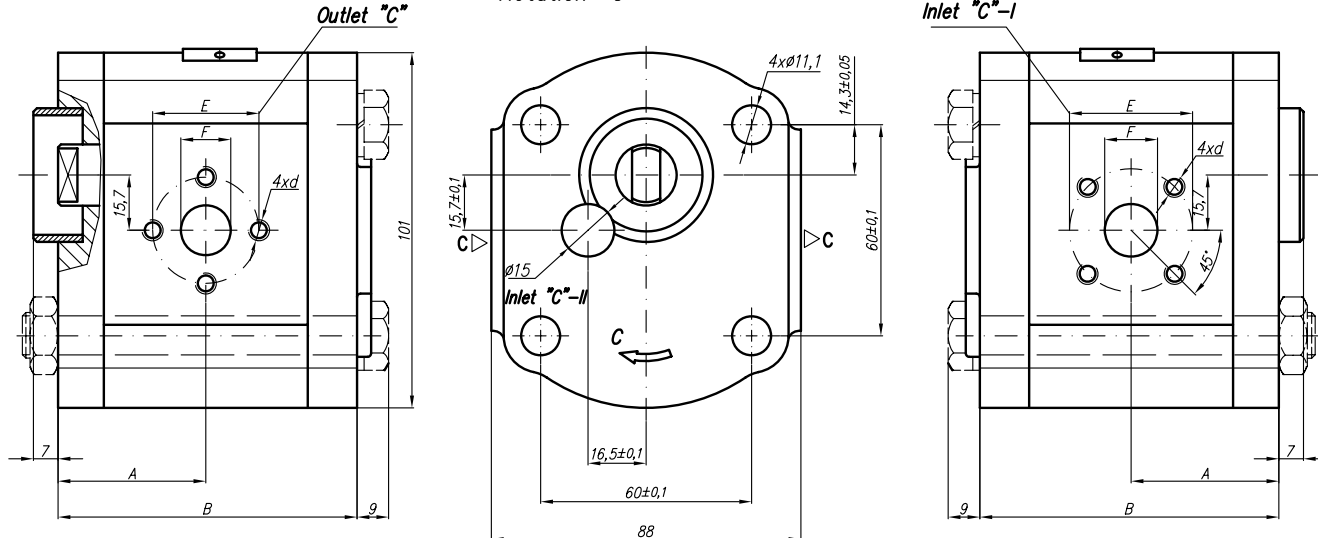
PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X305												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X305	4,5							40	15	M6-6H	30,2	15	M6-6H
20A(C)6,3X305	6,3												
20A(C)8,2X305	8,2	11,32	26,40	250	3500	34,6	74		20				
20A(C)10X305	10												
20A(C)11X305	11,3												
20A(C)12X305	12												
20A(C)14X305	14												
20A(C)15X305	15												
20A(C)16X305	16												
20A(C)19X305	19												
20A(C)22X305	22												
20A(C)25X305	25												

Designed as a special version – II section of tandem pump 22A(C)...X304/...X305.

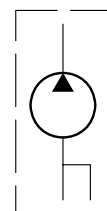
Rotation "A"



Rotation "C"

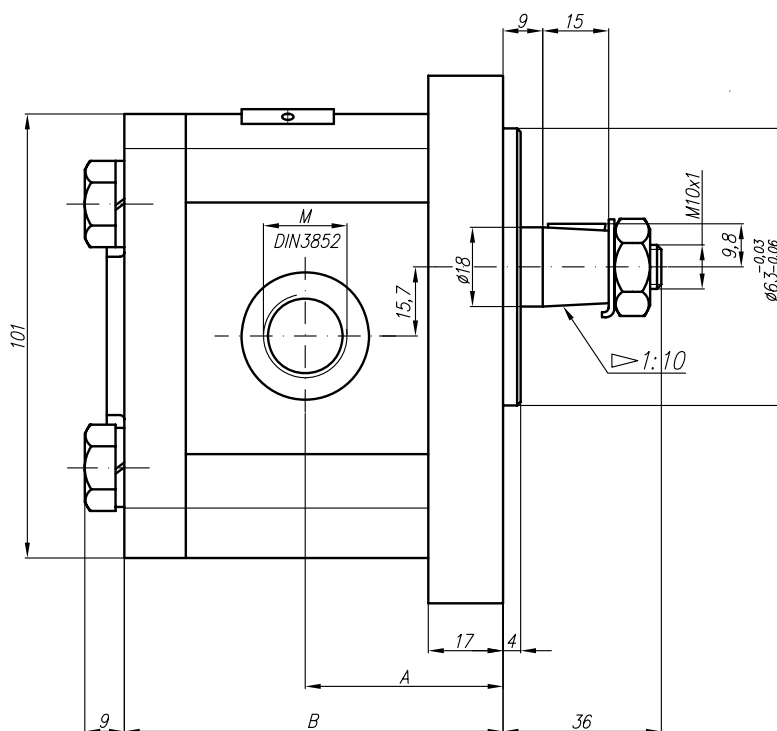


Symbol

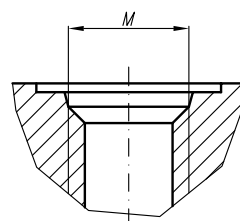


Dimension

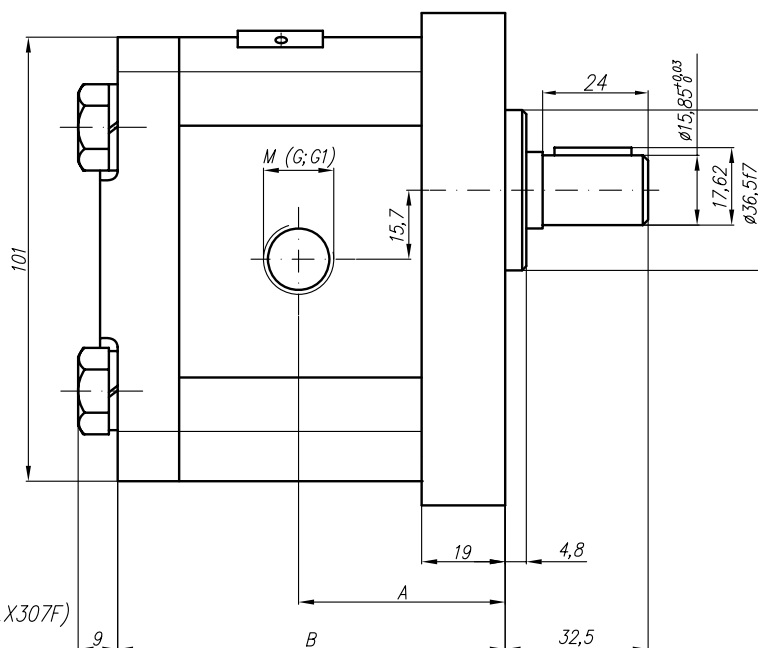
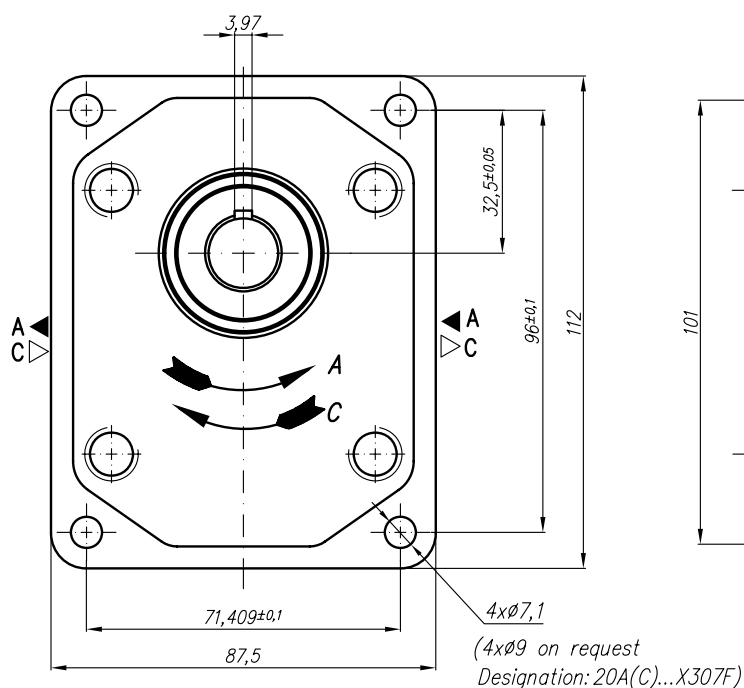
& 20A(C)...X145... – with standard threads M;G (see below)



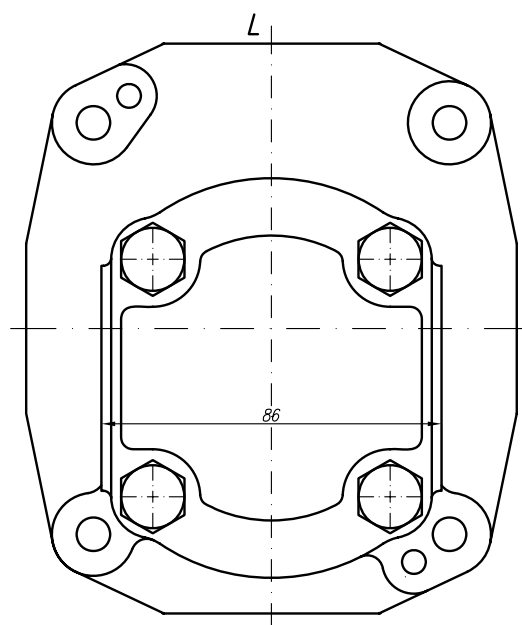
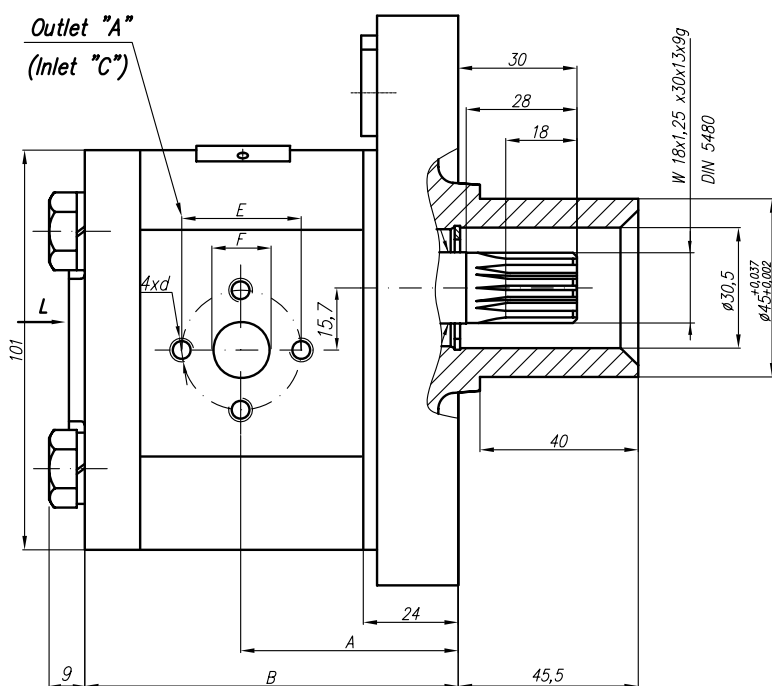
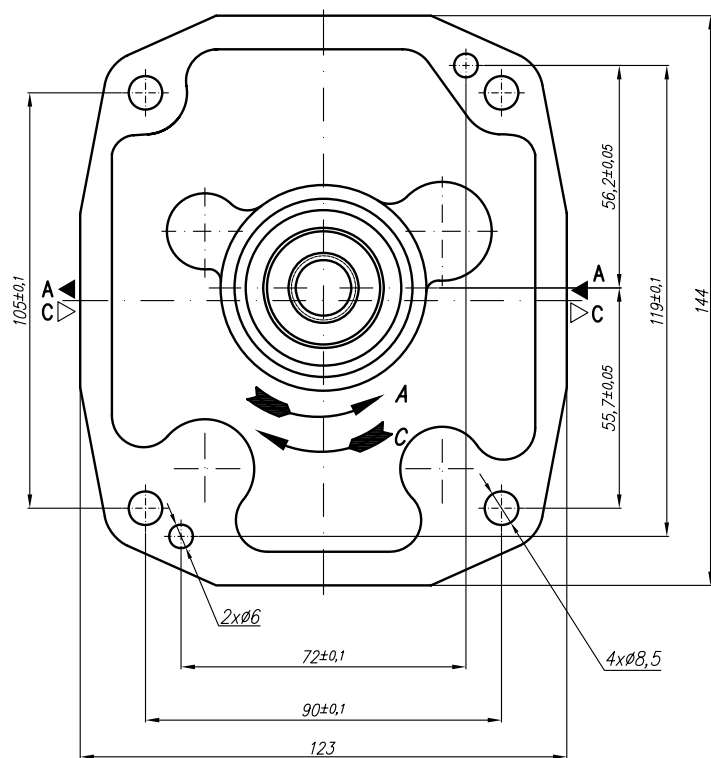
Normal version ports – M (DIN 3852)
(with "O"-ring)




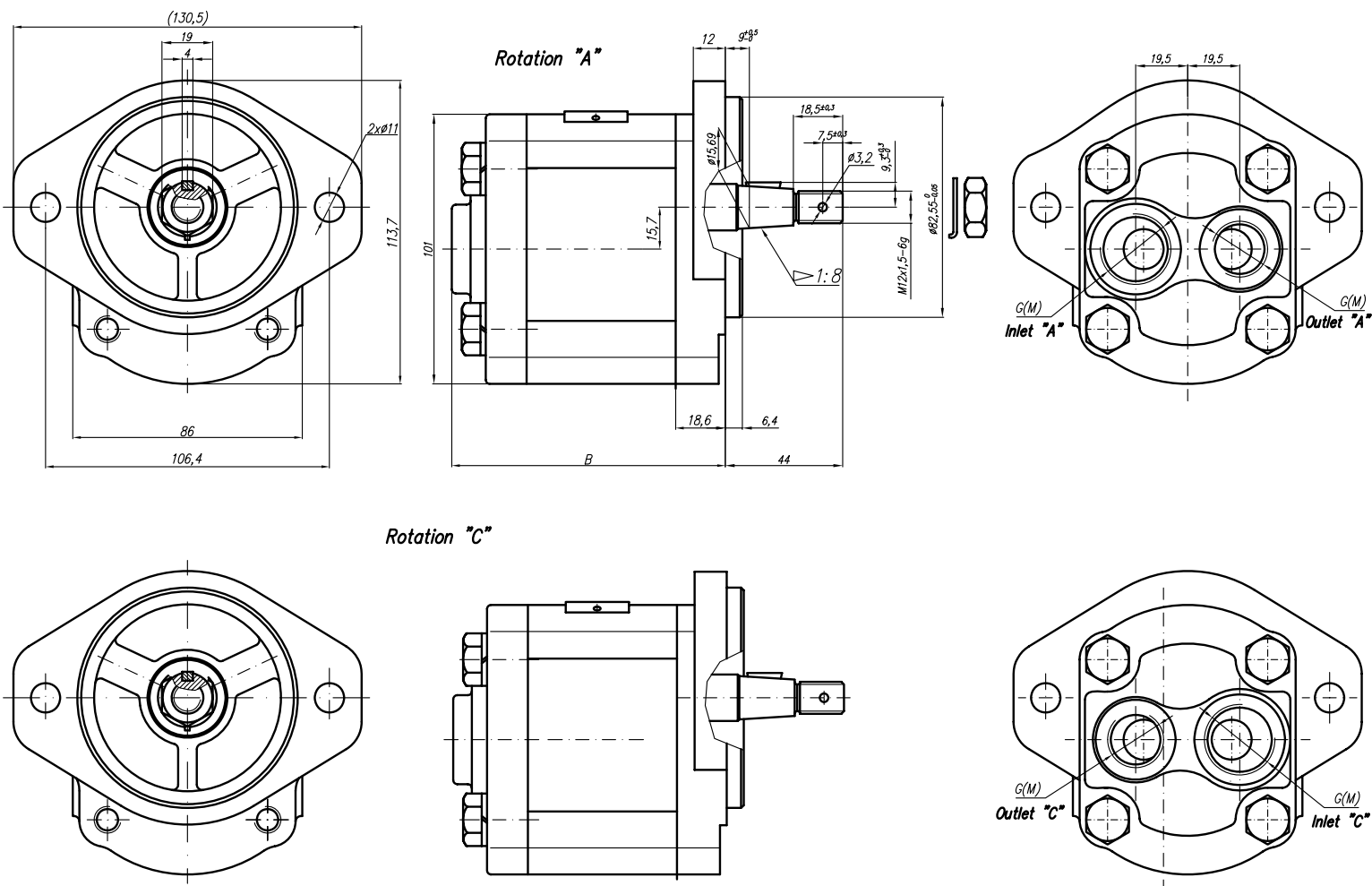
PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II				
	GEAR PUMP TYPE PGP 20A(C)...X307...														
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension									
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet				
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	G1	M	G	G1		
20A(C)4,5X307...	4,5	6,14	14,33	250	3500			M20x1,5	G1/2						
20A(C)6,3X307...	6,3	8,69	20,29	250	3500										
20A(C)8,2X307...	8,2	11,32	26,40	250	3500										
20A(C)10X307...	10	13,95	32,55	250	3500	47	89								
20A(C)11X307...	11,3	15,76	36,78	250	3500	48	91,1		G3/4		M16x1,5	G1/2			
20A(C)12X307...	12	16,92	39,48	250	3500	48,6	92,3								
20A(C)14X307...	14	19,95	46,55	250	3500	50	95,4								
20A(C)15X307...	15	21,60	36,00	250	2500	51	96,9								
20A(C)16X307...	16	23,04	38,40	250	2500	52	98,6								
20A(C)19X307...	19	27,36	45,60	200	2500	54	103,5				M20X1,5				
20A(C)22X307...	22	31,68	42,24	180	2000	57	108,5								
20A(C)25X307...	25	36,00	48,00	160	2000	59,2	113,4								
									G1			G3/4			



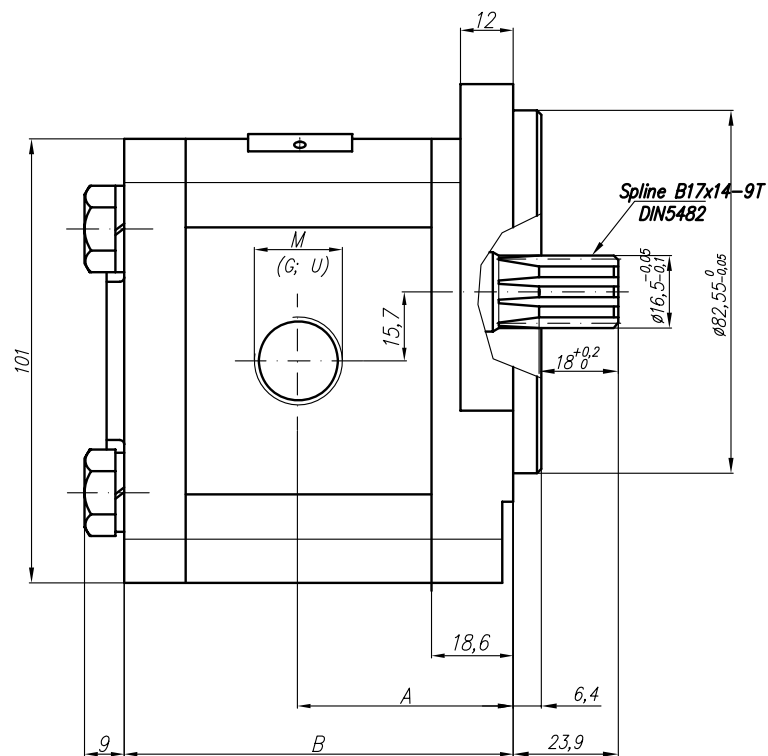
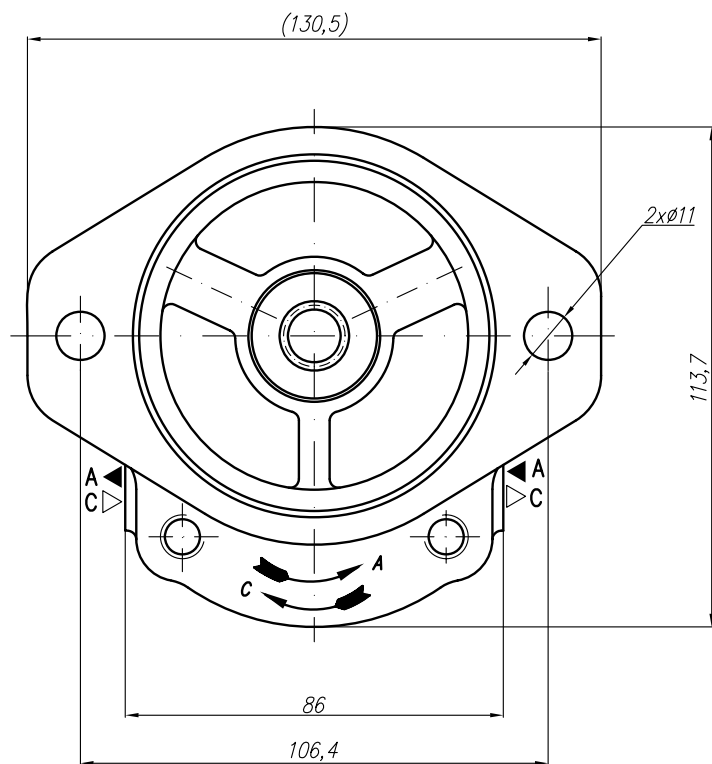
PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X315												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X315	4,5	6,14	14,33	250	3500						30,2		M6-6H
20A(C)6,3X315	6,3	8,69	20,29	250	3500								
20A(C)8,2X315	8,2	11,32	26,40	250	3500								
20A(C)10X315	10	13,95	32,55	250	3500			39,7	19	M8-6H			
20A(C)11X315	11,3	15,76	36,78	250	3500	53	89,1						
20A(C)12X315	12	16,92	39,48	250	3500	53,6	97,3						
20A(C)14X315	14	19,95	46,55	250	3500								
20A(C)15X315	15	21,60	36,00	250	2500								
20A(C)16X315	16	23,04	38,40	250	2500	57	103,5						
20A(C)19X315	19	27,36	45,60	200	2500	59	108,5						
20A(C)22X315	22	31,68	42,24	180	2000								
20A(C)25X315	25	36,00	48,00	160	2000								




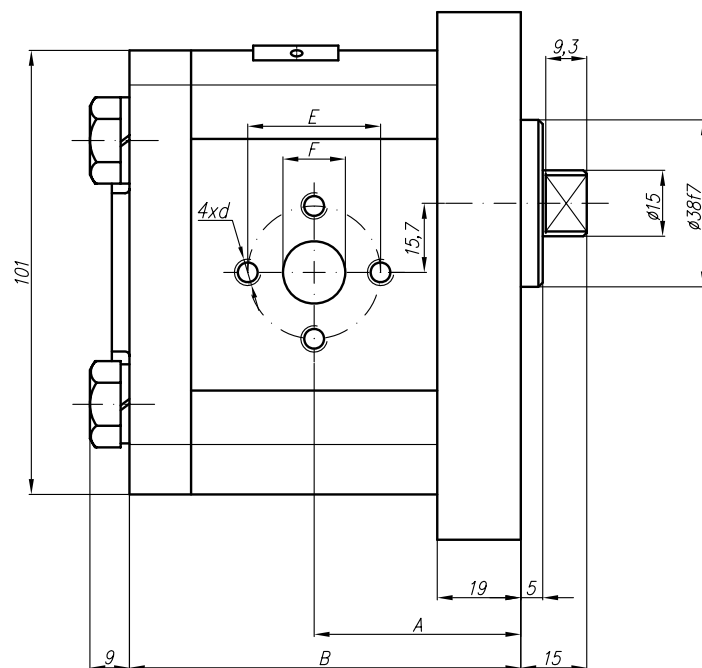
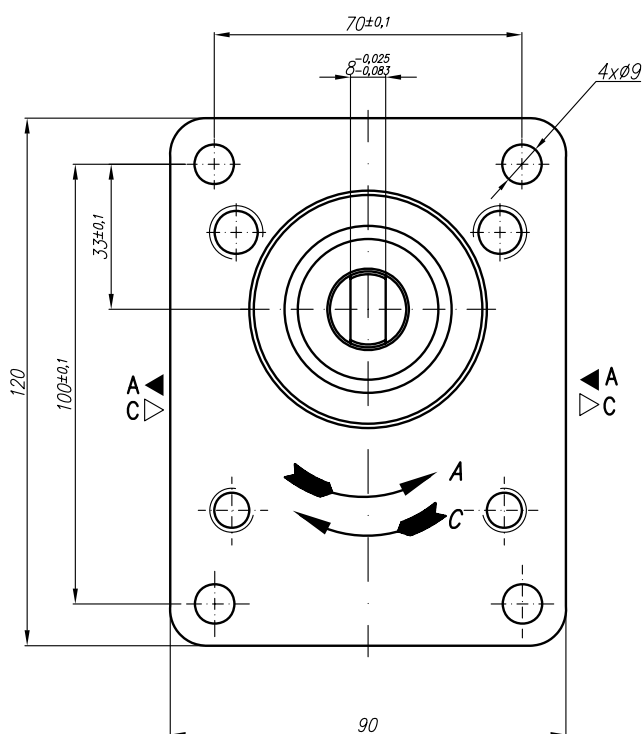
PGP PUMP	HENDERS  N Hydraulics°										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X318W												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	G1	M	G	G1
20A(C)4,5X318W	4,5	6,14	14,33	250	3500		93,6	M27x1,5	G3/4		M22x1,5	G1/2	
20A(C)6,3X318W	6,3	8,69	20,29	250	3500		96,6						
20A(C)8,2X318W	8,2	11,32	26,40	250	3500		99,5						
20A(C)10X318W	10	13,95	32,55	250	3500		102,5						
20A(C)11X318W	11,3	15,76	36,78	250	3500		104,6						
20A(C)12X318W	12	16,92	39,48	250	3500		105,9						
20A(C)14X318W	14	19,95	46,55	250	3500		108,9						
20A(C)15X318W	15	21,60	36,00	250	2500		110,5						
20A(C)16X318W	16	23,04	38,40	250	2500		112,1						
20A(C)19X318W	19	27,36	45,60	200	2500		117,1						
20A(C)22X318W	22	31,68	42,24	180	2000		122,1						
20A(C)25X318W	25	36,00	48,00	160	2000		127						




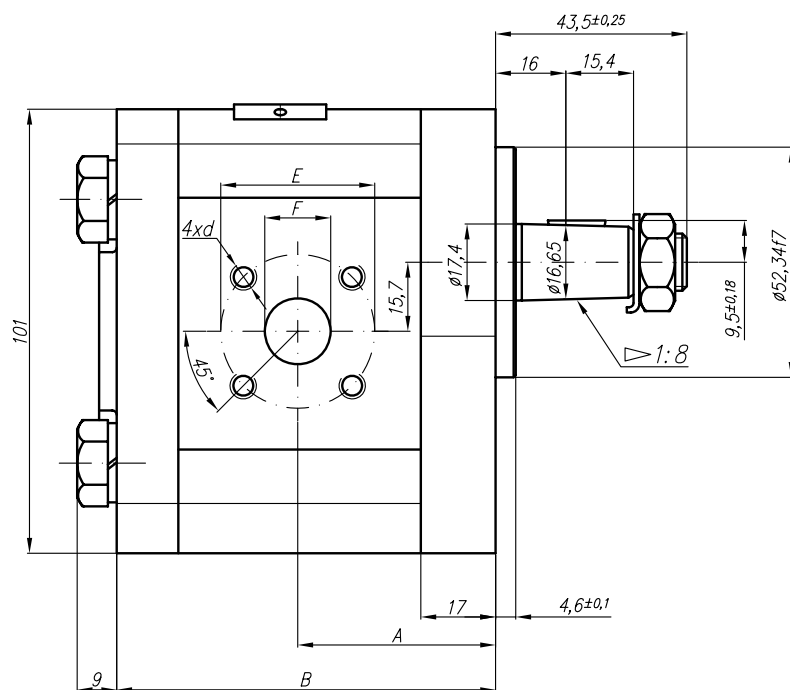
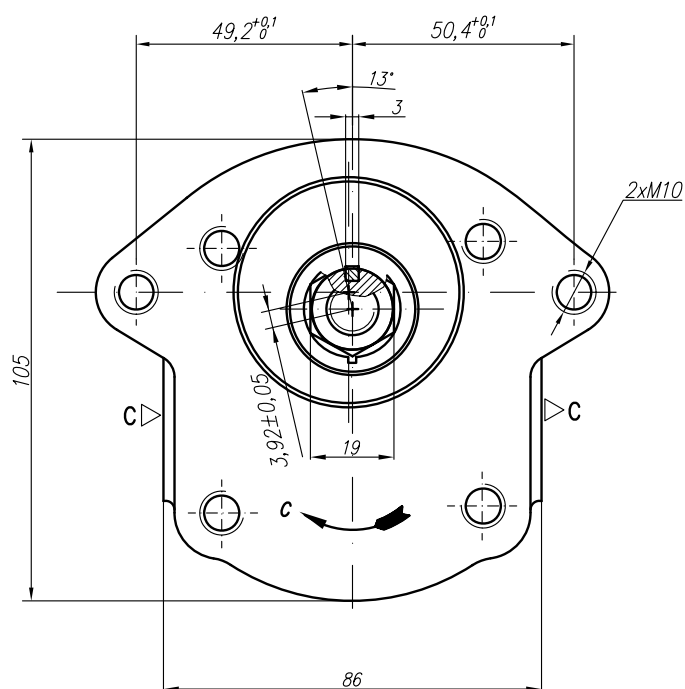
PGP PUMP	HENDERSO [®] N Hydraulics [®]										GROUP II						
	GEAR PUMP TYPE PGP 20A(C)...X320...																
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension											
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet						
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U				
20A(C)4,5X320...	4,5	6,14	14,33	250	3500	42	79,6	M20x1,5	G1/2	1 1/16"-12UNF	M16x1,5	G1/2	7/8"-14UNF				
20A(C)6,3X320...	6,3	8,69	20,29	250	3500	43,6	82,6										
20A(C)8,2X320...	8,2	11,32	26,40	250	3500	45	85,6										
20A(C)10X320...	10	13,95	32,55	250	3500	46,6	88,7		G3/4								
20A(C)11X320...	11,3	15,76	36,78	250	3500	47,6	90,7										
20A(C)12X320...	12	16,92	39,48	250	3500	48,2	91,9										
20A(C)14X320...	14	19,95	46,55	250	3500	49,6	95										
20A(C)15X320...	15	21,60	36,00	250	2500	50,6	96,5										
20A(C)16X320...	16	23,04	38,40	250	2500	51,6	98,2							M20X1,5			
20A(C)19X320...	19	27,36	45,60	200	2500	53,6	103,1										
20A(C)22X320...	22	31,68	42,24	180	2000	56,6	108,1										
20A(C)25X320...	25	36,00	48,00	160	2000	58,8	113										



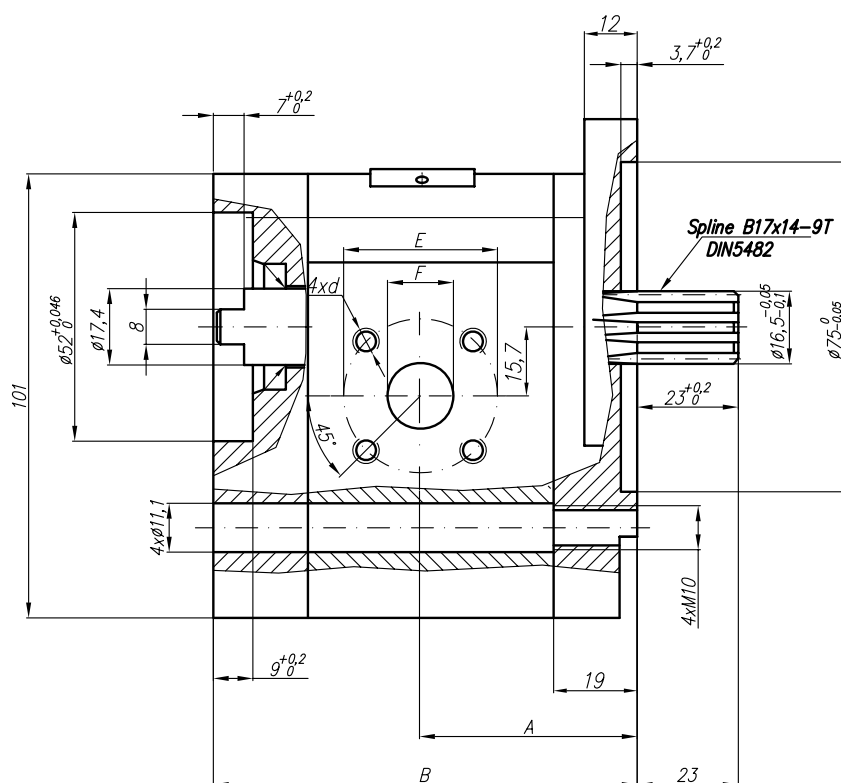
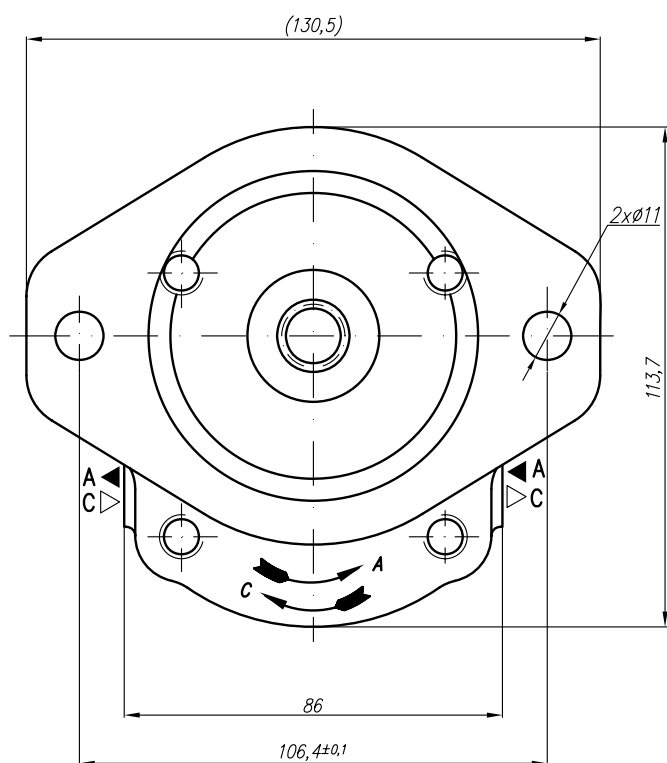
PGP PUMP	HENDERS  N Hydraulics°										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X321												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X321	4,5	6,14	14,33	250	3500	42,5	80	30,2	13,1	M6-6H	30,2	13,1	M6-6H
20A(C)6,3X321	6,3												
20A(C)8,2X321	8,2												
20A(C)10X321	10												
20A(C)11X321	11,3												
20A(C)12X321	12												
20A(C)14X321	14												
20A(C)15X321	15												
20A(C)16X321	16												
20A(C)19X321	19												
20A(C)22X321	22												
20A(C)25X321	25												



PGP PUMP	HENDERS  N Hydraulics®										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X328												
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20C4,5X328	4,5	6,14	14,33	250	3500			40	15	M6-6H	35	15	M6-6H
20C6,3X328	6,3	8,69	20,29	250	3500	42	81						
20C8,2X328	8,2	11,32	26,40	250	3500	43,5	83,9						
20C10X328	10	13,95	32,55	250	3500	45	87		20				
20C11X328	11,3	15,76	36,78	250	3500	46	89,1						
20C12X328	12	16,92	39,48	250	3500	46,6	90,3						
20C14X328	14	19,95	46,55	250	3500	48	93,4						
20C15X328	15	21,60	36,00	250	2500	49	95						
20C16X328	16	23,04	38,40	250	2500	50	96,6						
20C19X328	19	27,36	45,60	200	2500	52	101,5						
20C22X328	22	31,68	42,24	180	2000	55	106,5						
20C25X328	25	36,00	48,00	160	2000	57,2	111,4						

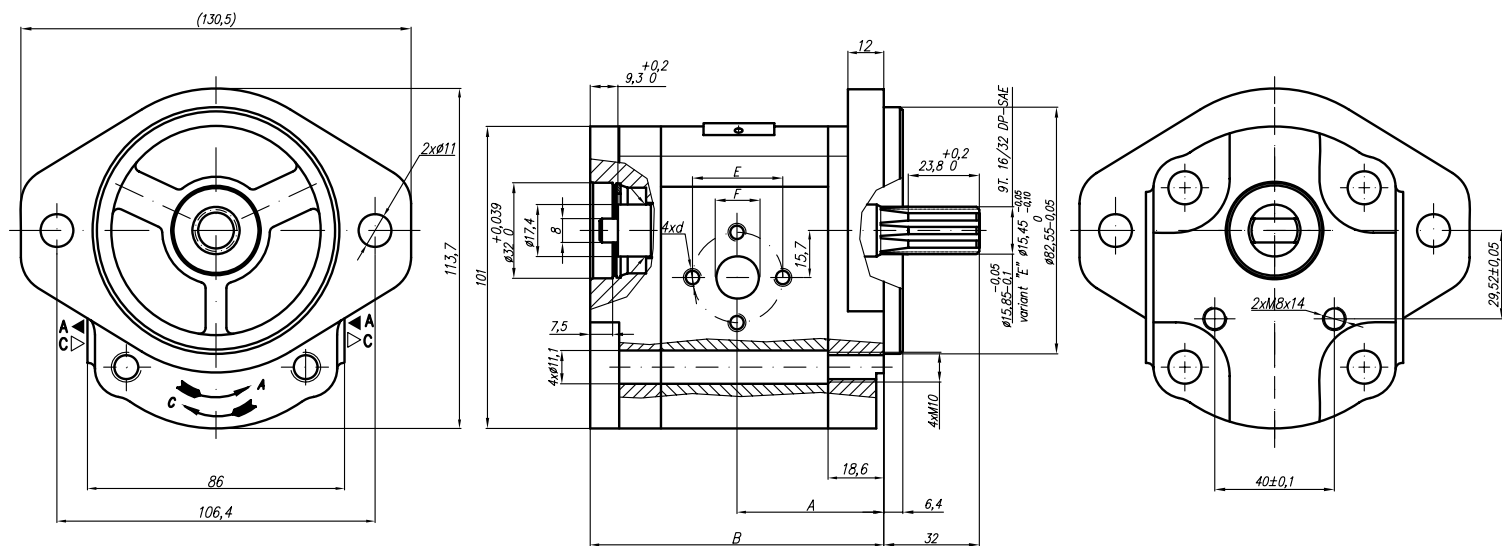



PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X341												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X341	4,5	6,14	14,33	250	3500	41,8	87,2	40	15	M6-6H	35	15	M6-6H
20A(C)6,3X341	6,3	8,69	20,29	250	3500	43	90,2						
20A(C)8,2X341	8,2	11,32	26,40	250	3500	45,1	93,1						
20A(C)10X341	10	13,95	32,55	250	3500	49,5	96,2		20				
20A(C)11X341	11,3	15,76	36,78	250	3500	49,5	98,2						
20A(C)12X341	12	16,92	39,48	250	3500	49,5	99,5						
20A(C)14X341	14	19,95	46,55	250	3500	49,5	102,6		M6-6H				
20A(C)15X341	15	21,60	36,00	250	2500	49,5	104,1						
20A(C)16X341	16	23,04	38,40	250	2500	49,5	105,8						
20A(C)19X341	19	27,36	45,60	200	2500	49,5	110,7		35				
20A(C)22X341	22	31,68	42,24	180	2000	57	115,7						
20A(C)25X341	25	36,00	48,00	160	2000	59,2	120,6						



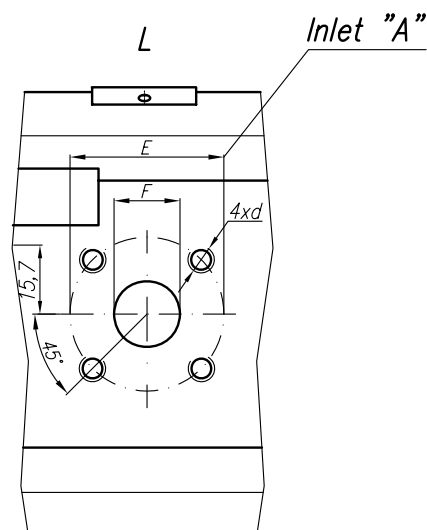
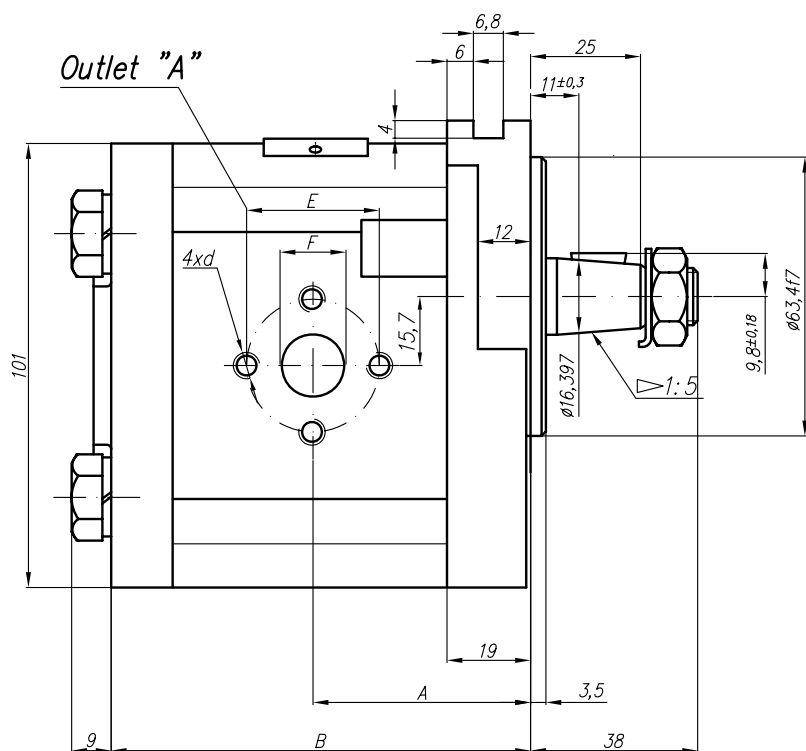
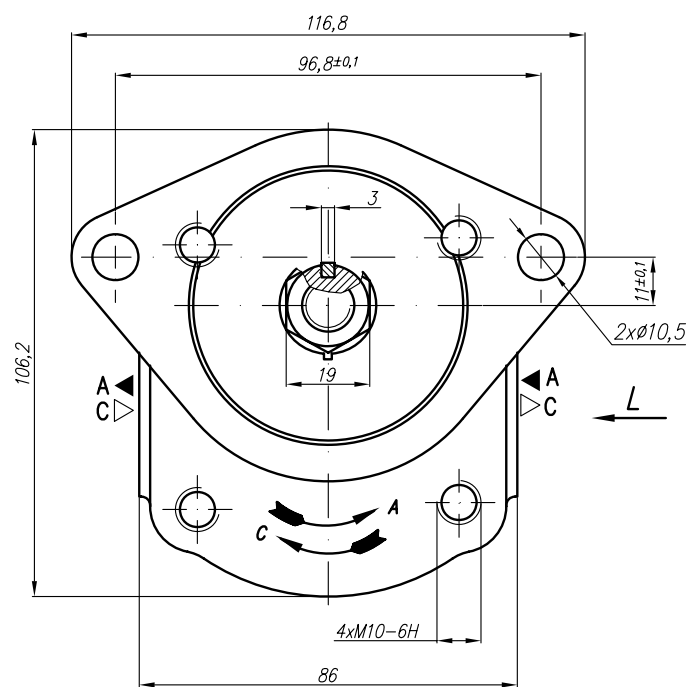
PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II					
	GEAR PUMP TYPE PGP 20A(C)...X347															
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension										
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet					
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d			
20A(C)4,5X347	4,5	6,14	14,33	250	3500	42,5	89,3	30,2	13,1	M6-6H	30,2	13,1	M6-6H			
20A(C)6,3X347	6,3	8,69	20,29	250	3500	42,5	89,3									
20A(C)8,2X347	8,2	11,32	26,40	250	3500	42,5	89,3									
20A(C)10X347	10	13,95	32,55	250	3500	47	98,2	39,7	19	M8-6H				30,2	14,2	M6-6H
20A(C)11X347	11,3	15,76	36,78	250	3500	48	100,3									
20A(C)12X347	12	16,92	39,48	250	3500	48,7	101,6									
20A(C)14X347	14	19,95	46,55	250	3500	50,2	104,7									
20A(C)15X347	15	21,60	36,00	250	2500	51	106,2									
20A(C)16X347	16	23,04	38,40	250	2500	51,8	107,8									
20A(C)19X347	19	27,36	45,60	200	2500	54	112,8	39,7	19	M8	30,2	14,2	M6-6H			
20A(C)22X347	22	31,68	42,24	180	2000	56,5	117,8									
20A(C)25X347	25	36,00	48,00	160	2000	58,8	122,7									

Designed as a first section of tandem pumps group 21A(C)...X347/... (llgroup/lgroup).

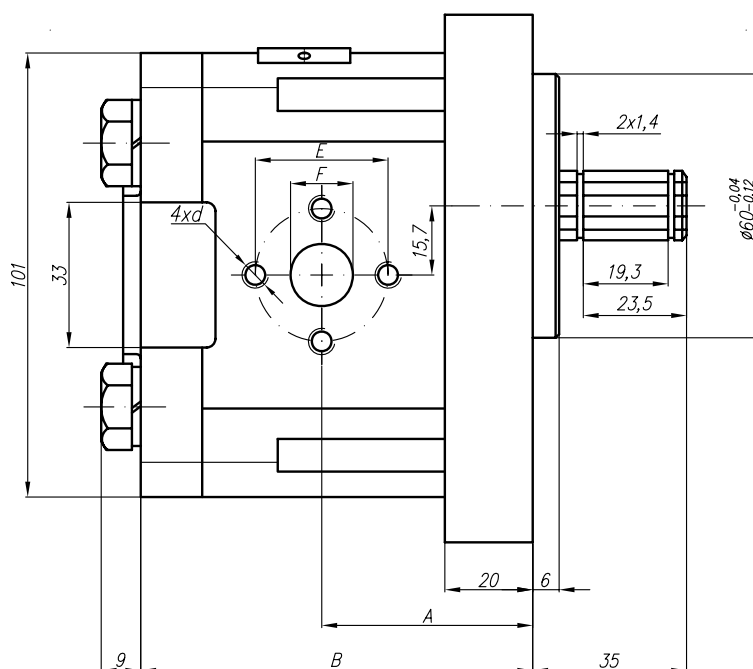
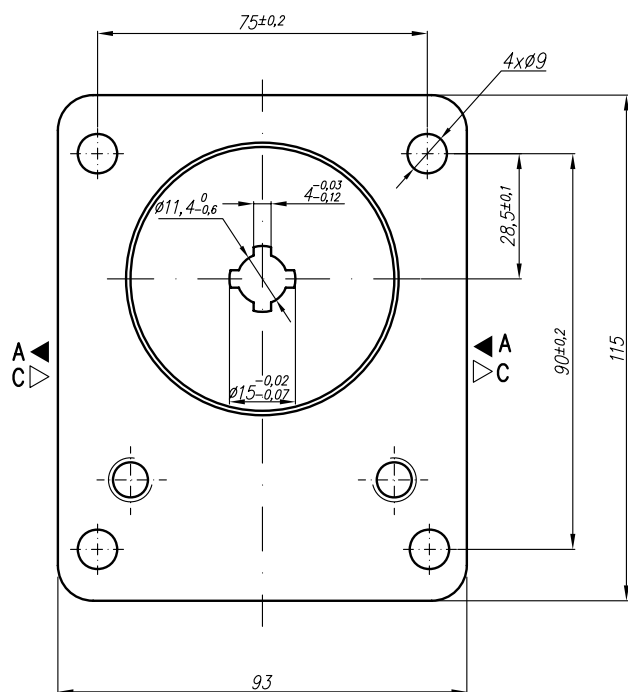



PGP PUMP	HENDERS  N Hydraulics®										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X352												
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X352	4,5										30,2	14,2	M6-6H
20A(C)6,3X352	6,3												
20A(C)8,2X352	8,2												
20A(C)10X352	10												
20A(C)11X352	11,3							40	20	M6-6H			
20A(C)12X352	12												
20A(C)14X352	14	19,95	46,55	250	3500	54	95,4						
20A(C)15X352	15												
20A(C)16X352	16												
20A(C)19X352	19												
20A(C)22X352	22												
20A(C)25X352	25												

Pump 20A(C)...X411 is equivalent to 20(C)...X352.

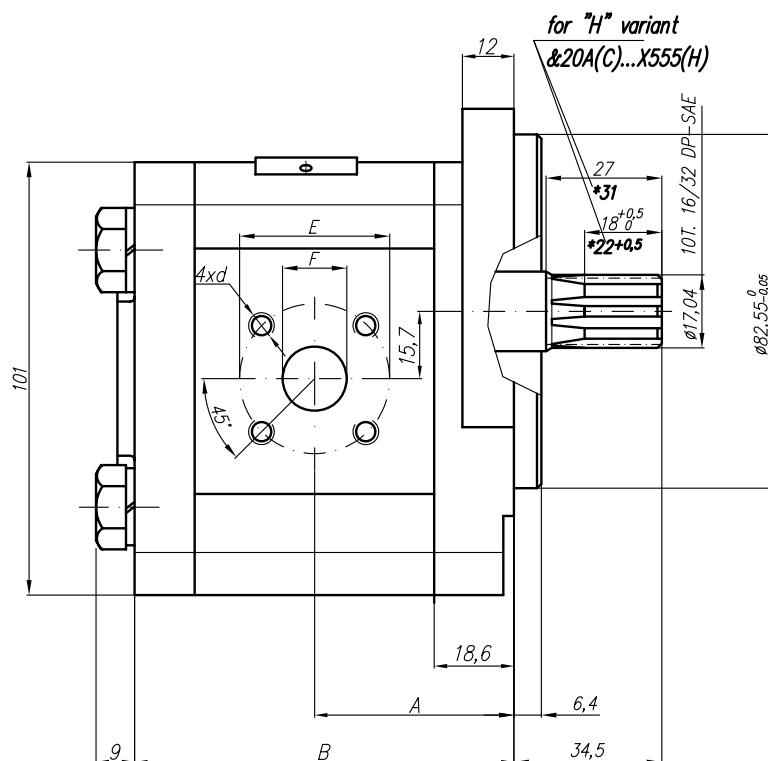
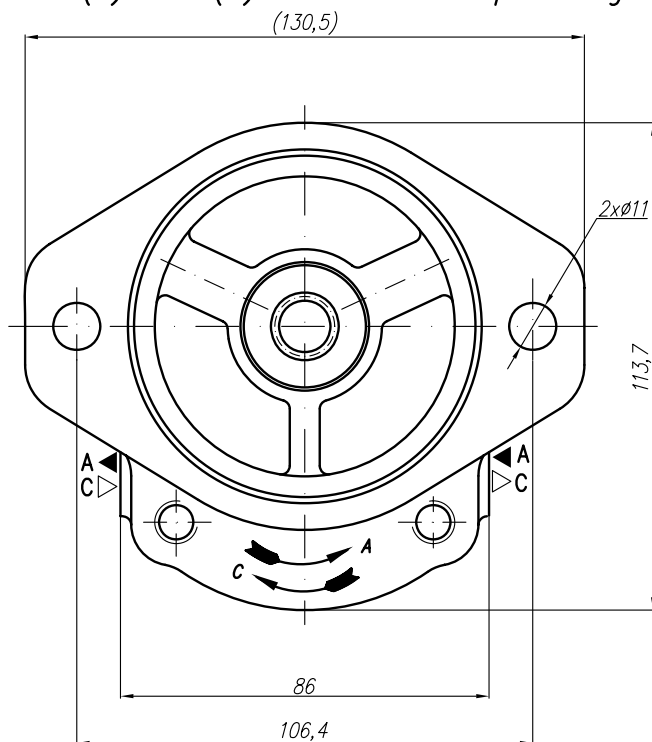


PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X354												
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X354	4,5							30,2	13,1	M6-6H	30,2	13,1	M6-6H
20A(C)6,3X354	6,3	8,69	20,29	250	3500	48	92	38	15	M8-6H	38	15	M8-6H
20A(C)8,2X354	8,2	11,32	26,40	250	3500	48	96						
20A(C)10X354	10	13,95	32,55	250	3500	48	98						
20A(C)11X354	11,3												
20A(C)12X354	12												
20A(C)14X354	14	19,95	46,55	250	3500	48	105,4						
20A(C)15X354	15												
20A(C)16X354	16	23,04	38,40	250	2500	48	107,6						
20A(C)19X354	19	27,36	45,60	200	2500	55,3	112,6						
20A(C)22X354	22												
20A(C)25X354	25												



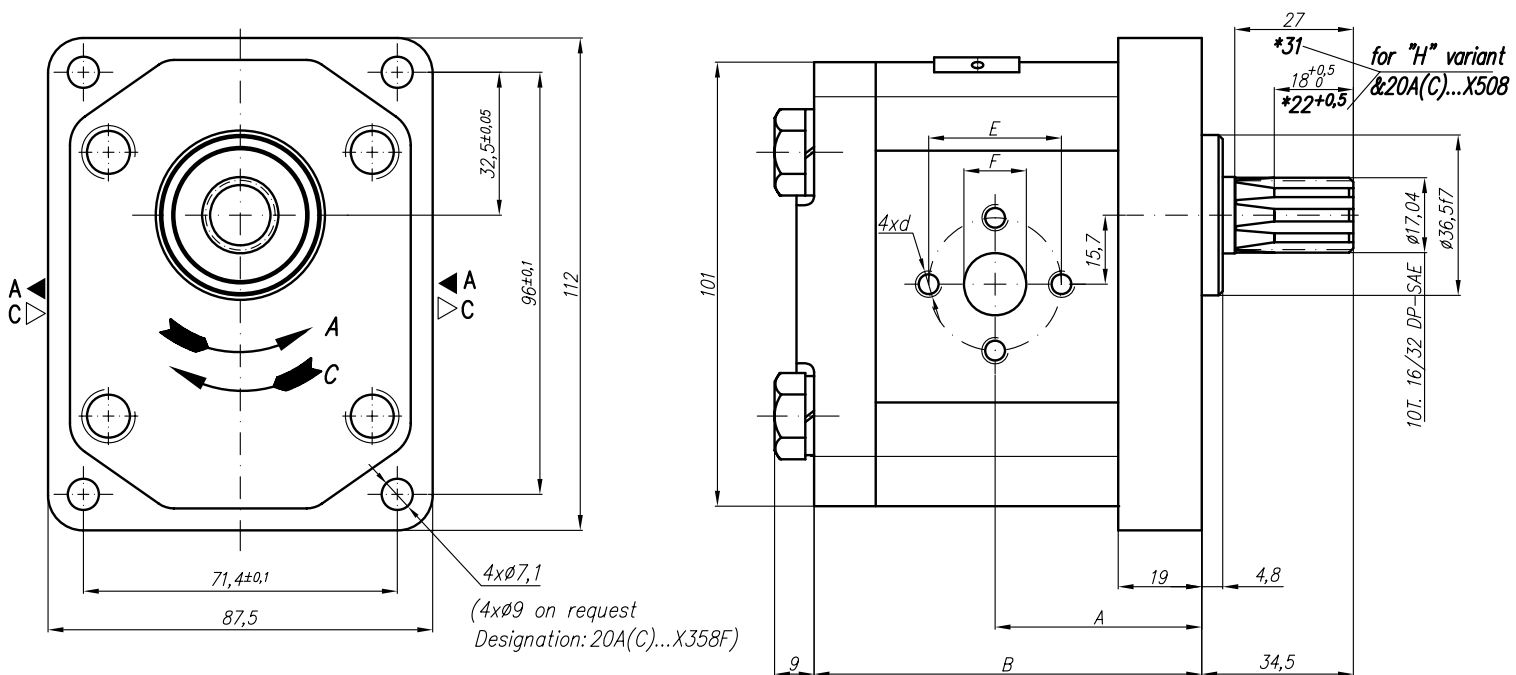
PGP PUMP	HENDERS  N Hydraulics®											GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X355													
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension								
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d	
20A(C)4,5X355	4,5	6,14	14,33	250	3500	42	79,6	40	15	M6-6H	35	15	M6-6H	
20A(C)6,3X355	6,3	8,69	20,29	250	3500	43,6	82,6							
20A(C)8,2X355	8,2	11,32	26,40	250	3500	45	85,6							
20A(C)10X355	10	13,95	32,55	250	3500	46,6	88,7							
20A(C)11X355	11,3	15,76	36,78	250	3500	47,6	90,7							
20A(C)12X355	12	16,92	39,48	250	3500	48,2	91,9							
20A(C)14X355	14	19,95	46,55	250	3500	49,6	95							
20A(C)15X355	15	21,60	36,00	250	2500	50,6	96,5							
20A(C)16X355	16	23,04	38,40	250	2500	51,6	98,2							
20A(C)19X355	19	27,36	45,60	200	2500	53,6	103,1							
20A(C)22X355	22	31,68	42,24	180	2000	56,6	108,1							
20A(C)25X355	25	36,00	48,00	160	2000	58,8	113							
20A(C)14X355H	14	20,16	47,04	250	3500	54,6	105,3	40	20	M6-6H	35	15	M6-6H	
20A(C)4,5X355H	15	21,60	43,20	250	3000	55,6	106,8							
20A(C)6,3X355H	16	23,04	46,08	250	3000	56,6	108,4							
20A(C)8,2X355H	17,3	24,91	49,82	230	3000	57,6	110,5							
20A(C)10X355H	18,2	26,21	52,42	210	3000	58,4	112,1							
20A(C)11X355H	19	27,36	54,72	200	3000	59	113,4							
20A(C)12X355H	22	31,68	52,80	180	2500	61,5	118,4				40	20		
20A(C)14X355H	25	36,00	60,00	160	2500	63,9	123,3							
20A(C)15X355H	28	40,32	67,20	130	2500	66,4	128,1							
20A(C)16X355H	32	46,08	61,44	120	2000	69,6	134,4							
20A(C)19X355H	36	51,84	69,12	100	2000	72,8	141							


* 20A(C)...X555(H) – variant with spline lengths 22mm and 31mm.

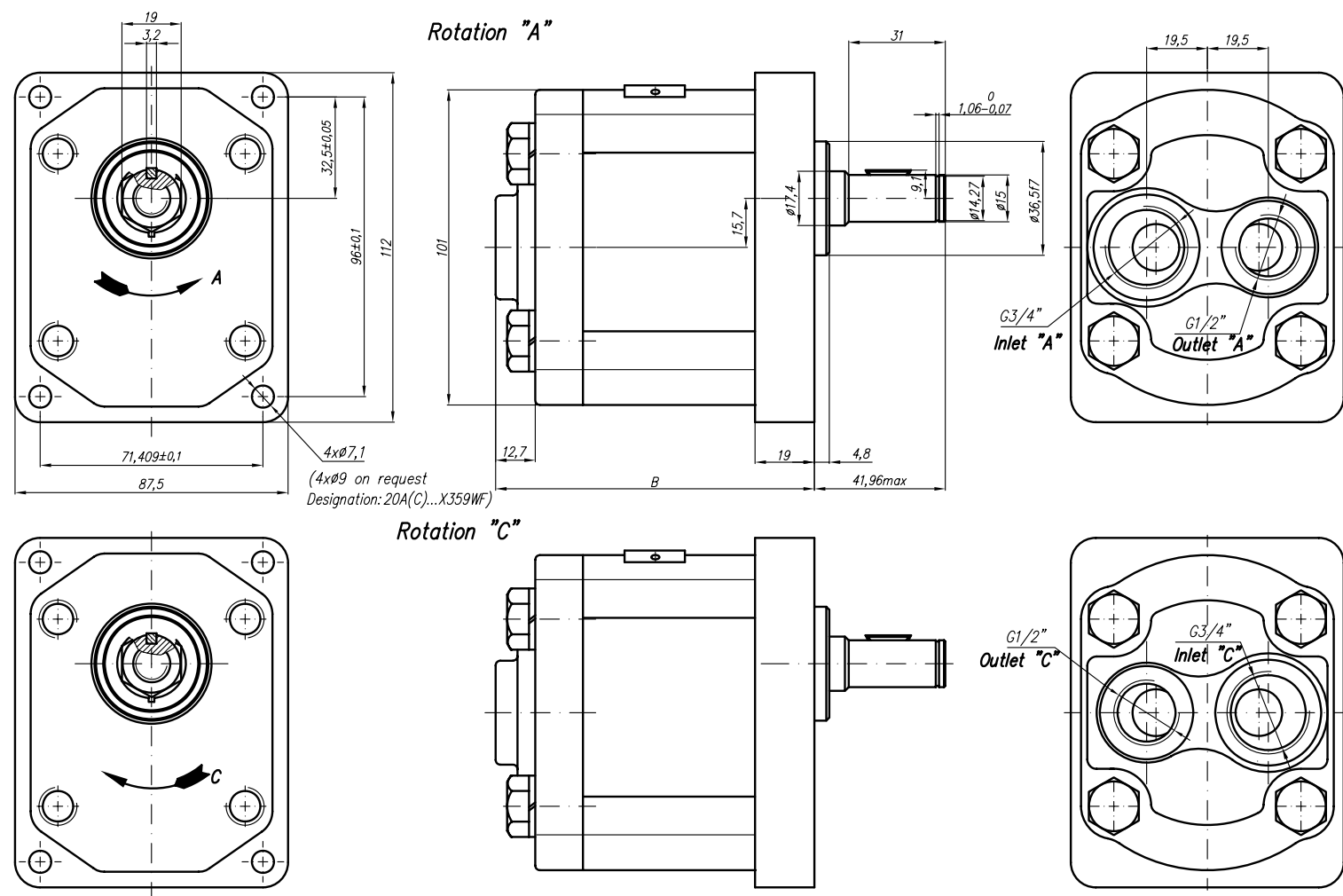


PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II					
	GEAR PUMP TYPE PGP 20A(C)...X358(H)															
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension										
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet					
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d			
20A(C)4,5X358	4,5	6,14	14,33	250	3500	42,5	80	30,2	13,1	1/4-20UNC	30,2	13,1	1/4"-20UNC			
20A(C)6,3X358	6,3	8,69	20,29	250	3500	42,5	80									
20A(C)8,2X358	8,2	11,32	26,40	250	3500	42,5	80									
20A(C)10X358	10	13,95	32,55	250	3500	47	89	39,7	19	5/16"-18UNC				30,2	14,2	1/4"-20UNC
20A(C)11X358	11,3	15,76	36,78	250	3500	48	91,1									
20A(C)12X358	12	16,92	39,48	250	3500	48,6	92,3									
20A(C)14X358	14	19,95	46,55	250	3500	50	95,4									
20A(C)15X358	15	21,60	36,00	250	2500	51	96,9									
20A(C)16X358	16	23,04	38,40	250	2500	52	98,6									
20A(C)19X358	19	27,36	45,60	200	2500	54	103,5									
20A(C)22X358	22	31,68	42,24	180	2000	57	108,5									
20A(C)25X358	25	36,00	48,00	160	2000	59,2	113,4				39,7	19	5/16"			
20A(C)14X358H	14	20,16	47,04	250	3500	55,3	105,7	39,7	19	5/16"-18UNC	30,2	14,2	1/4"-20UNC			
20A(C)15X358H	15	21,60	43,20	250	3000	56	107,2									
20A(C)16X358H	16	23,04	46,08	250	3000	56,9	108,8									
20A(C)17,3X358H	17,3	24,91	49,82	230	3000	58	110,9									
20A(C)18,2X358H	18,2	26,21	52,42	210	3000	58,8	112,5									
20A(C)19X358H	19	27,36	54,72	200	3000	59,4	113,8									
20A(C)22X358H	22	31,68	52,80	180	2500	61,9	118,8									
20A(C)25X358H	25	36,00	60,00	160	2500	64,3	123,7									
20A(C)28X358H	28	40,32	67,20	130	2500	66,8	128,5									
20A(C)32X358H	32	46,08	61,44	120	2000	70	134,8				39,7	19	5/16"-18UNC			
20A(C)36X358H	36	51,84	69,12	100	2000	73,2	141,4									

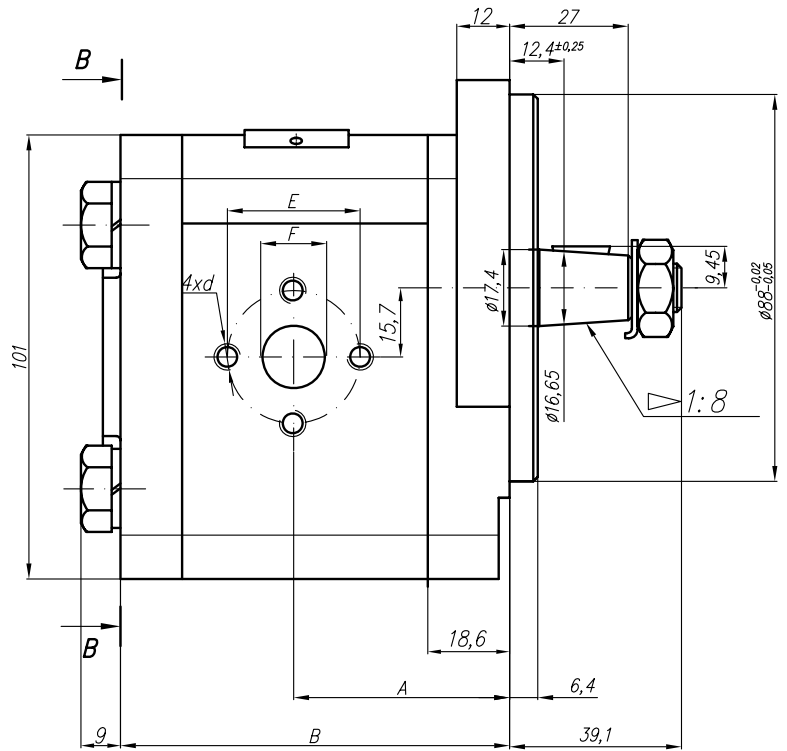
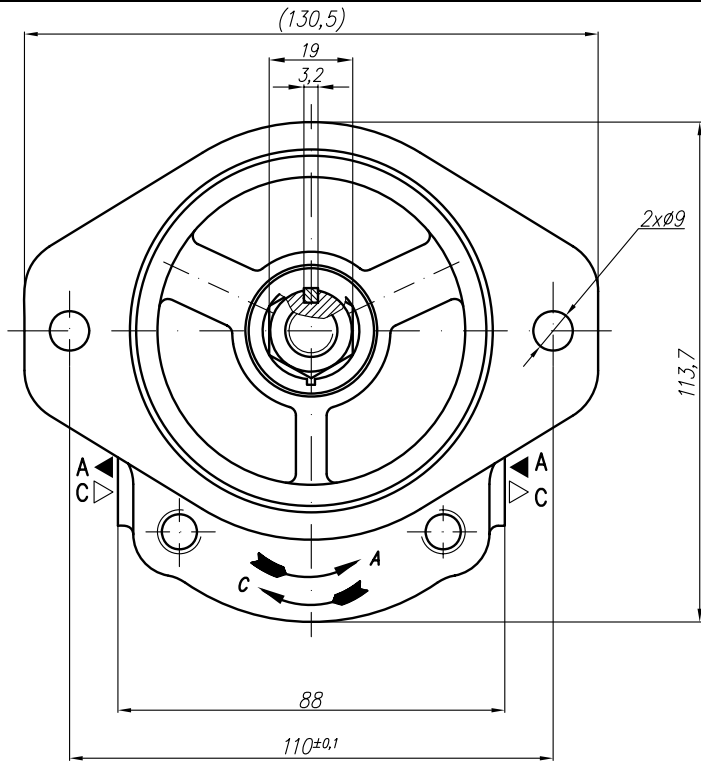
* 20A(C)...X508(HF) – variant with spline lengths 22mm and 31mm.



PGP PUMP	HENDERS  N Hydraulics°										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X359W												
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5X359W	4,5	6,14	14,33	250	3500		94	G3/4				G1/2	
20A(C)6,3X359W	6,3	8,69	20,29	250	3500		97						
20A(C)8,2X359W	8,2	11,32	26,40	250	3500		99,9						
20A(C)10X359W	10	13,95	32,55	250	3500		102,9						
20A(C)11X359W	11,3	15,76	36,78	250	3500		105						
20A(C)12X359W	12	16,92	39,48	250	3500		106,3						
20A(C)14X359W	14	19,95	46,55	250	3500		109,4						
20A(C)15X359W	15	21,60	36,00	250	2500		110,9						
20A(C)16X359W	16	23,04	38,40	250	2500		112,5						
20A(C)19X359W	19	27,36	45,60	200	2500		117,5						
20A(C)22X359W	22	31,68	42,24	180	2000		122,5						
20A(C)25X359W	25	36,00	48,00	160	2000		127,5						

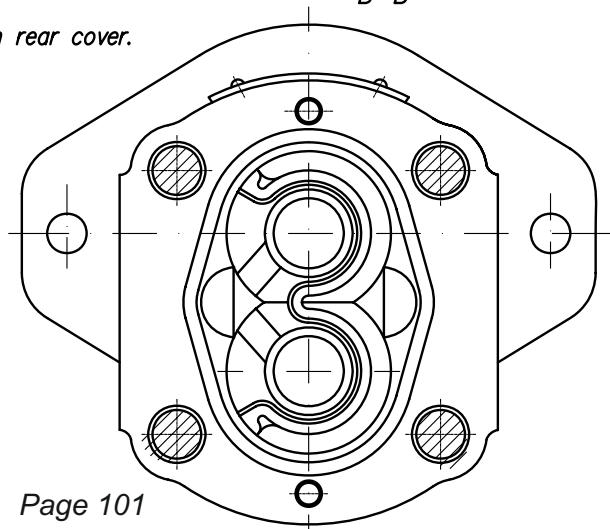



PGP PUMP	HENDERSO N Hydraulics®											GROUP II			
	GEAR PUMP TYPE PGP 20A(C)...X364VW1														
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension									
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet				
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d		
20A(C)4,5X364VW1	4,5	6,14	14,33	250	3500	42,5	80	30,2	13,1	M6-6H	30,2	13,1	M6-6H		
20A(C)6,3X364VW1	6,3	8,69	20,29	250	3500	42,5	80								
20A(C)8,2X364VW1	8,2	11,32	26,40	250	3500	42,5	80								
20A(C)10X364VW1	10	13,95	32,55	250	3500	47	89	39,7	19	M8-6H		30,2		14,2	M6-6H
20A(C)11X364VW1	11,3	15,76	36,78	250	3500	48	91,1								
20A(C)12X364VW1	12	16,92	39,48	250	3500	48,6	92,3								
20A(C)14X364VW1	14	19,95	46,55	250	3500	50	95,4								
20A(C)15X364VW1	15	21,60	36,00	250	2500	51	96,9								
20A(C)16X364VW1	16	23,04	38,40	250	2500	52	98,6	39,7	19	M8-6H	30,2		14,2	M6-6H	
20A(C)19X364VW1	19	27,36	45,60	200	2500	54	103,5								
20A(C)22X364VW1	22	31,68	42,24	180	2000	57	108,5								
20A(C)25X364VW1	25	36,00	48,00	160	2000	59,2	113,4					39,7	19		M8

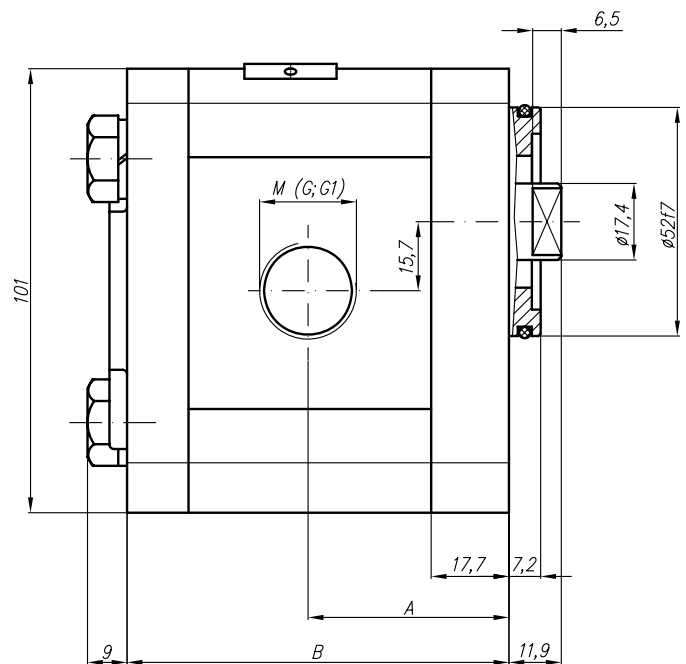
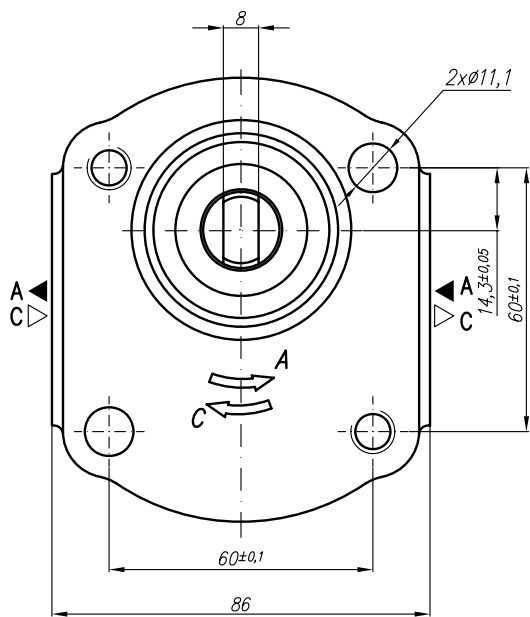



B-B

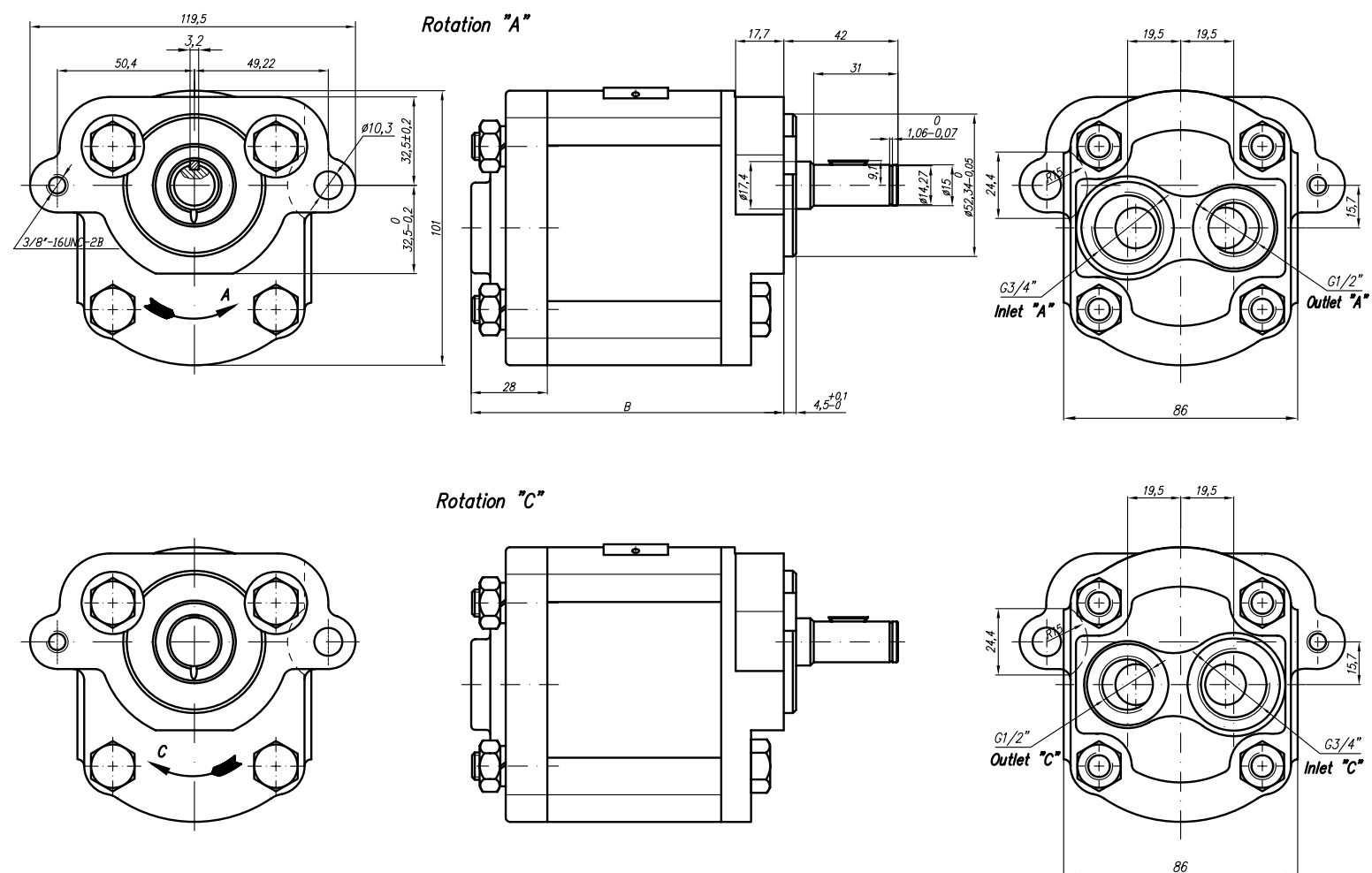
There are possible variants with integrated valves in rear cover.



PGP PUMP	HENDERS  N Hydraulics®										GROUP II			
	GEAR PUMP TYPE PGP 20A(C)...X368...													
Type	Displacement	Flow		Pressure	max Speed	Dimension								
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet	
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	G1	M	G	G1	
20A(C)4,5X368	4,5	6,14	14,33	250	3500				G1/2			G1/2		
20A(C)6,3X368	6,3	8,69	20,29	250	3500									
20A(C)8,2X368	8,2	11,32	26,40	250	3500	43,8	84,6			G3/4				G1/2
20A(C)10X368	10	13,95	32,55	250	3500									
20A(C)11X368	11,3	15,76	36,78	250	3500	48,2	89,8							
20A(C)12X368	12	16,92	39,48	250	3500									
20A(C)14X368	14	19,95	46,55	250	3500									
20A(C)15X368	15	21,60	36,00	250	2500									
20A(C)16X368	16	23,04	38,40	250	2500									
20A(C)19X368	19	27,36	45,60	200	2500									
20A(C)22X368	22	31,68	42,24	180	2000									
20A(C)25X368	25	36,00	48,00	160	2000									



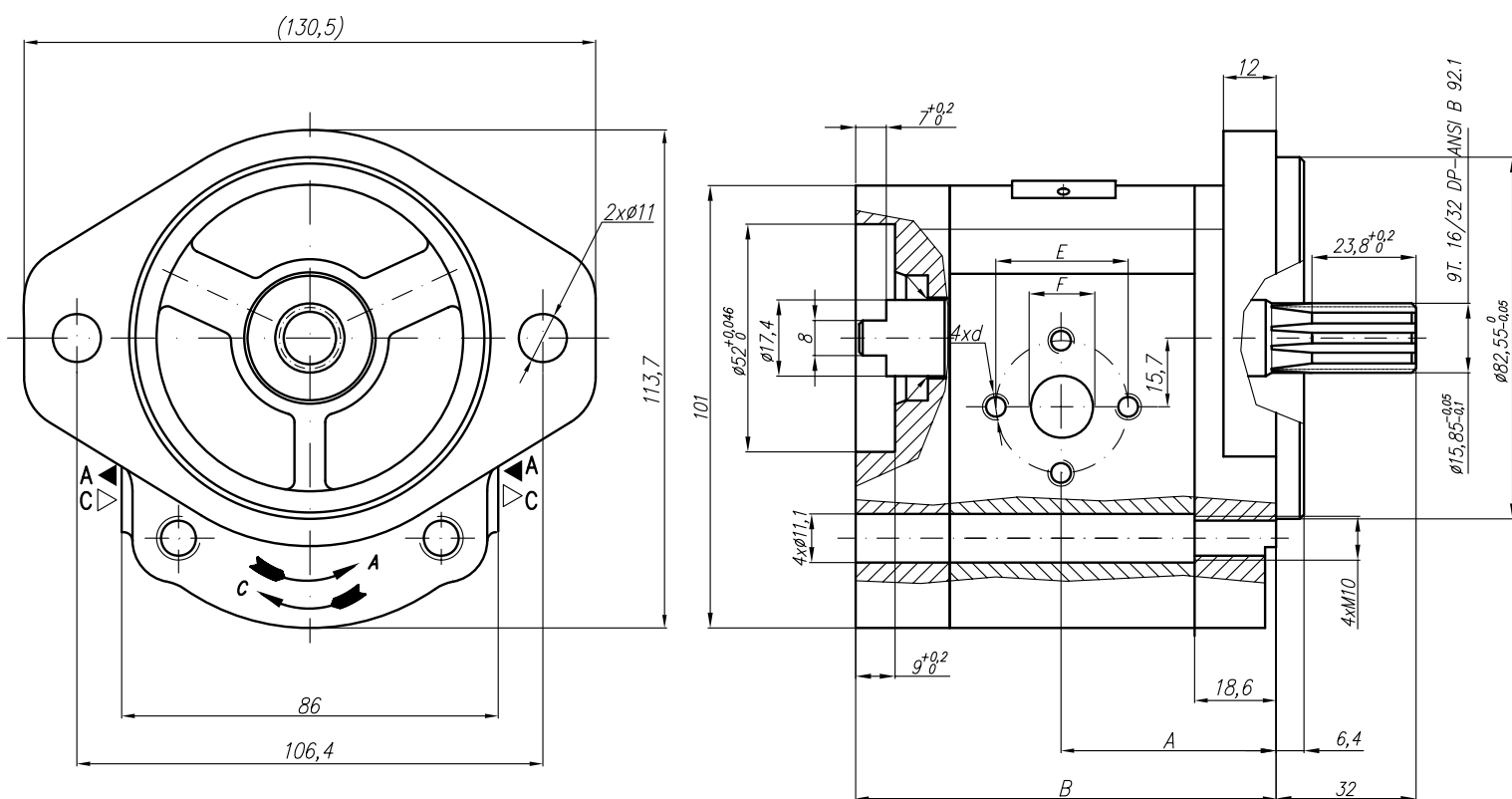
PGP PUMP	HENDERSO  N Hydraulics°										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X369												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	G1	M	G	G1
20A(C)4,5X369	4,5	6,14	14,33	250	3500		70	G3/4				G1/2	
20A(C)6,3X369	6,3	8,69	20,29	250	3500		73						
20A(C)8,2X369	8,2	11,32	26,40	250	3500		76						
20A(C)10X369	10	13,95	32,55	250	3500		79						
20A(C)11X369	11,3	15,76	36,78	250	3500		81						
20A(C)12X369	12	16,92	39,48	250	3500		82,3						
20A(C)14X369	14	19,95	46,55	250	3500		85,4						
20A(C)15X369	15	21,60	36,00	250	2500		87						
20A(C)16X369	16	23,04	38,40	250	2500		88,4						
20A(C)19X369	19	27,36	45,60	200	2500		93,5						
20A(C)22X369	22	31,68	42,24	180	2000		98,5						
20A(C)25X369	25	36,00	48,00	160	2000		103,4						




GEAR PUMP TYPE PGP 20A(C)...X380

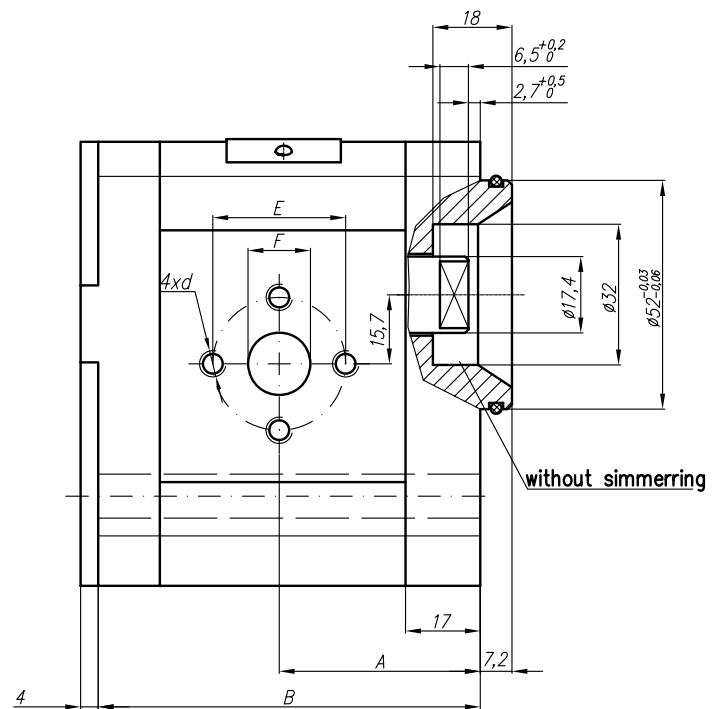
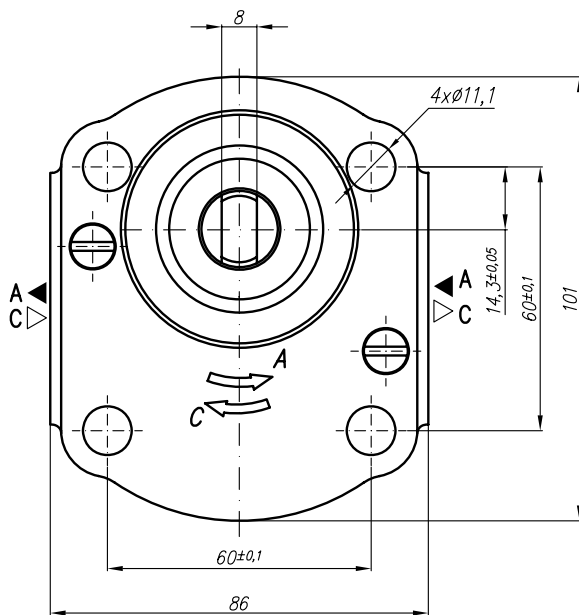
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A		B	Inlet			Outlet	
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X380	4,5	6,14	14,33	250	3500			40		M6-6H	35	15	M6-6H
20A(C)6,3X380	6,3	8,69	20,29	250	3500								
20A(C)8,2X380	8,2	11,32	26,40	250	3500	45	85,6						
20A(C)10X380	10	13,95	32,55	250	3500								
20A(C)11X380	11,3	15,76	36,78	250	3500	47,6	90,7						
20A(C)12X380	12	16,92	39,48	250	3500								
20A(C)14X380	14	19,95	46,55	250	3500								
20A(C)15X380	15	21,60	36,00	250	2500								
20A(C)16X380	16	23,04	38,40	250	2500	51,6	98,2						
20A(C)19X380	19	27,36	45,60	200	2500								
20A(C)22X380	22	31,68	42,24	180	2000								
20A(C)25X380	25	36,00	48,00	160	2000								


Designed as a special version – 1 section of tandem pump 22A(C)...X380/...X381.

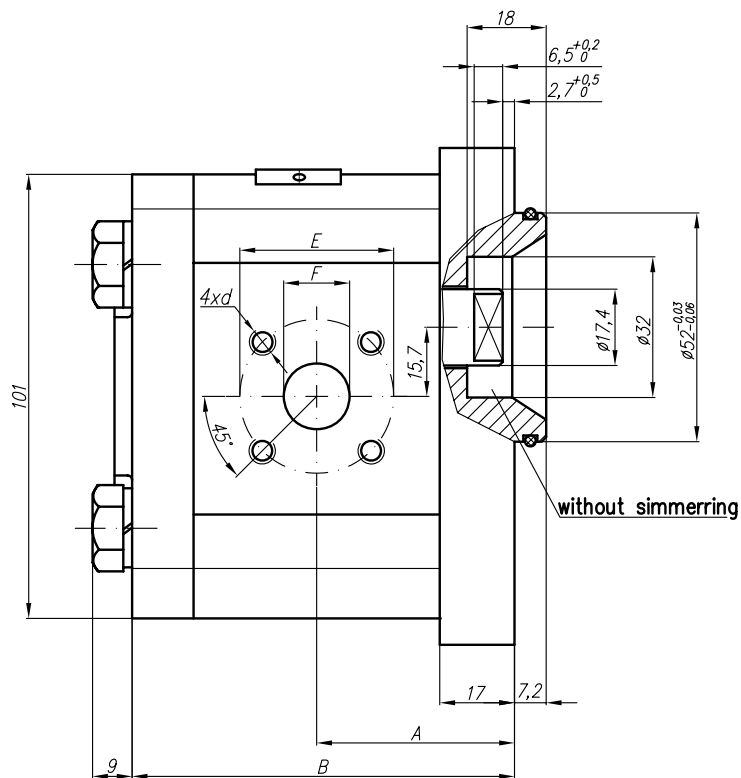
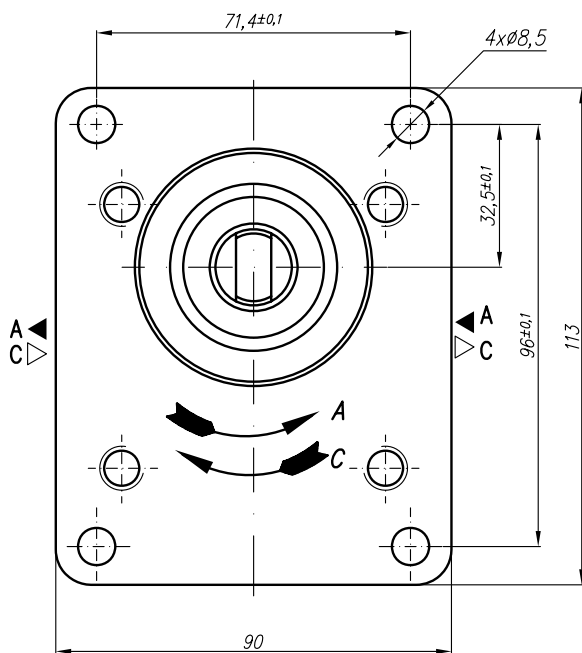


PGP PUMP	HENDERS  N Hydraulics®										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X381												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X381	4,5	6,14	14,33	250	3500	40,5	78	40	15	M6-6H	35	15	M6-6H
20A(C)6,3X381	6,3	8,69	20,29	250	3500								
20A(C)8,2X381	8,2	11,32	26,40	250	3500	45	83,9		20				
20A(C)10X381	10	13,95	32,55	250	3500	45	87						
20A(C)11X381	11,3	15,76	36,78	250	3500								
20A(C)12X381	12	16,92	39,48	250	3500								
20A(C)14X381	14	19,95	46,55	250	3500								
20A(C)15X381	15	21,60	36,00	250	2500								
20A(C)16X381	16	23,04	38,40	250	2500								
20A(C)19X381	19	27,36	45,60	200	2500								
20A(C)22X381	22	31,68	42,24	180	2000								
20A(C)25X381	25	36,00	48,00	160	2000								

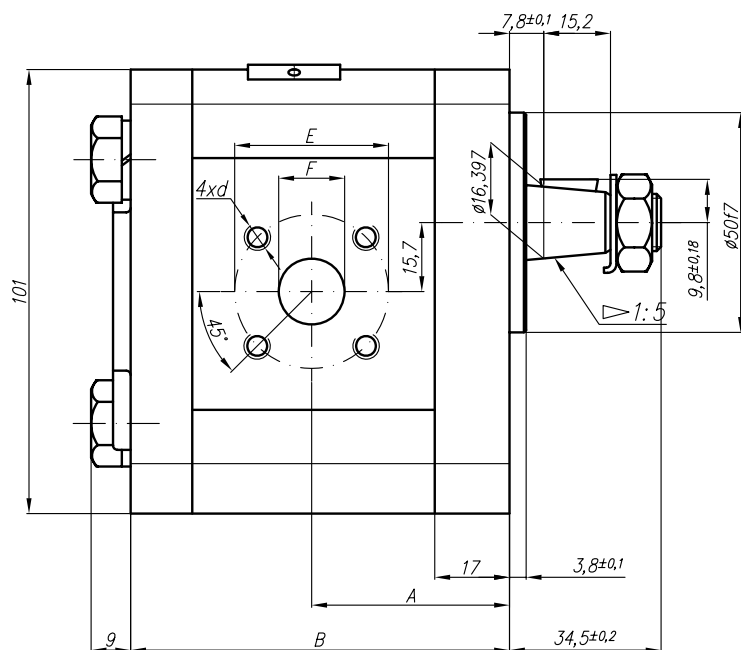
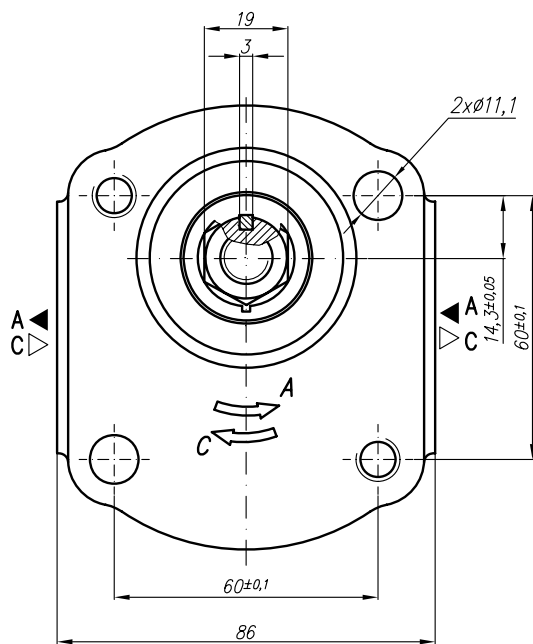
Designed as a special version – II section of tandem pump 22A(C)...X380/...X381.




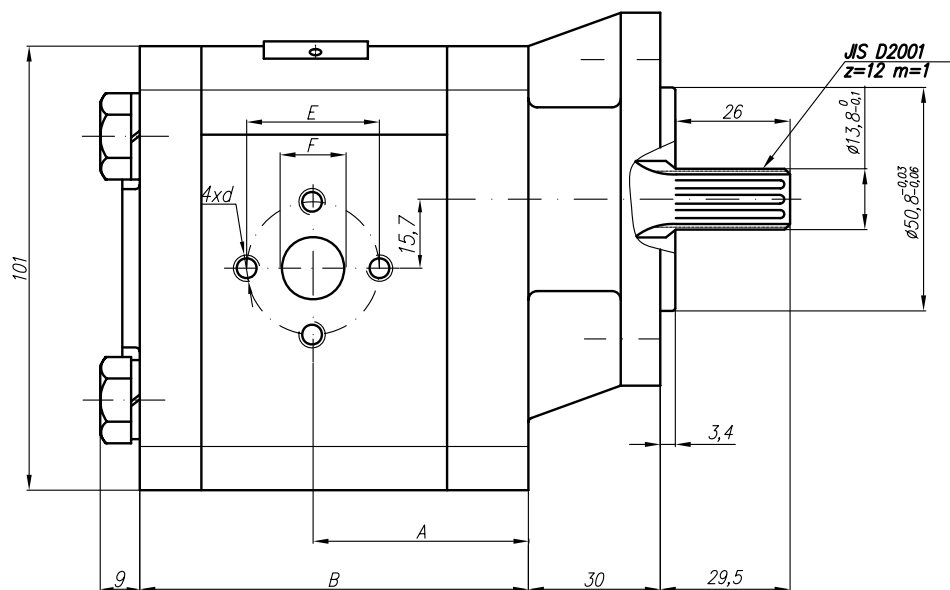
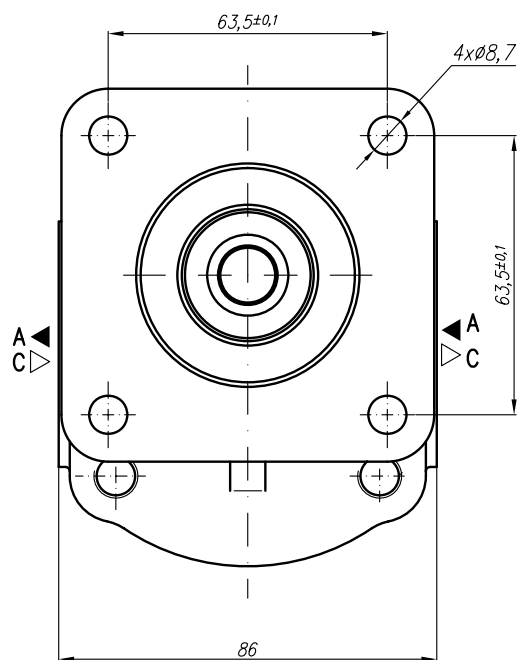
PGP PUMP	HENDERS  N Hydraulics®											GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X398													
Type	Displacement	Flow		Pressure	max Speed	Dimension								
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet	
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d	
20A(C)4,5X398	4,5	6,14	14,33	250	3500	37,3	75,1	40	15	M6-6H	35	15	M6-6H	
20A(C)6,3X398	6,3	8,69	20,29	250	3500	38,6	78							
20A(C)8,2X398	8,2	11,32	26,40	250	3500	40,6	78		20					
20A(C)10X398	10	13,95	32,55	250	3500	45	87							
20A(C)11X398	11,3	15,76	36,78	250	3500	45	89,1							
20A(C)12X398	12	16,92	39,48	250	3500	45	90,3							
20A(C)14X398	14	19,95	46,55	250	3500	45	93,4							
20A(C)15X398	15	21,60	36,00	250	2500	45	94,9							
20A(C)16X398	16	23,04	38,40	250	2500	45	96,5							
20A(C)19X398	19	27,36	45,60	200	2500	45	101,5							
20A(C)22X398	22	31,68	42,24	180	2000	52,5	106,5							
20A(C)25X398	25	36,00	48,00	160	2000	57,2	111,4							



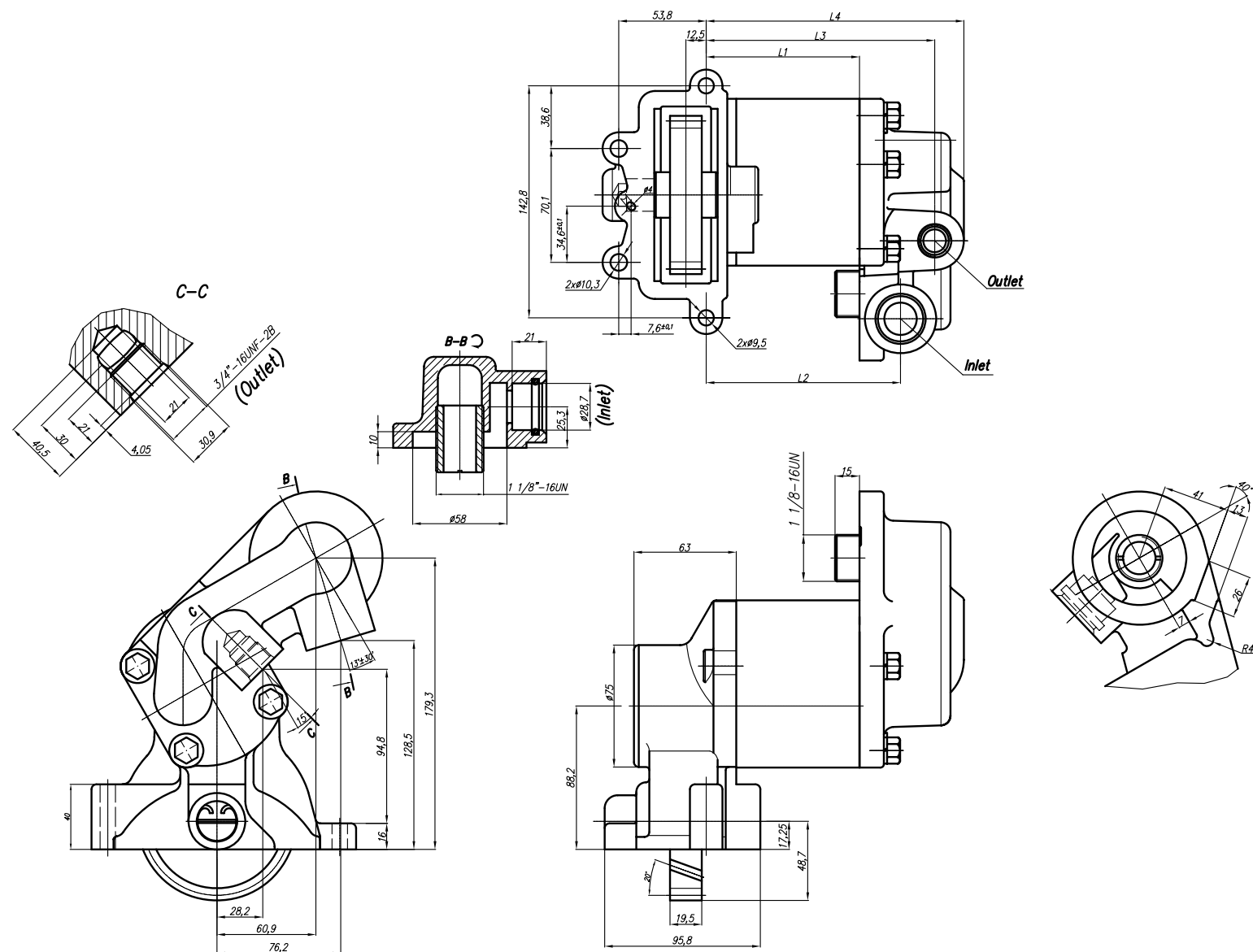
PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X402												
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X402	4,5	6,14	14,33	250	3500			40	15	M6-6H	35	15	M6-6H
20A(C)6,3X402	6,3	8,69	20,29	250	3500								
20A(C)8,2X402	8,2	11,32	26,40	250	3500	43	83,9		20				
20A(C)10X402	10	13,95	32,55	250	3500								
20A(C)11X402	11,3	15,76	36,78	250	3500	43	89,1						
20A(C)12X402	12	16,92	39,48	250	3500								
20A(C)14X402	14	19,95	46,55	250	3500								
20A(C)15X402	15	21,60	36,00	250	2500								
20A(C)16X402	16	23,04	38,40	250	2500	43	96,5						
20A(C)19X402	19	27,36	45,60	200	2500								
20A(C)22X402	22	31,68	42,24	180	2000								
20A(C)25X402	25	36,00	48,00	160	2000								



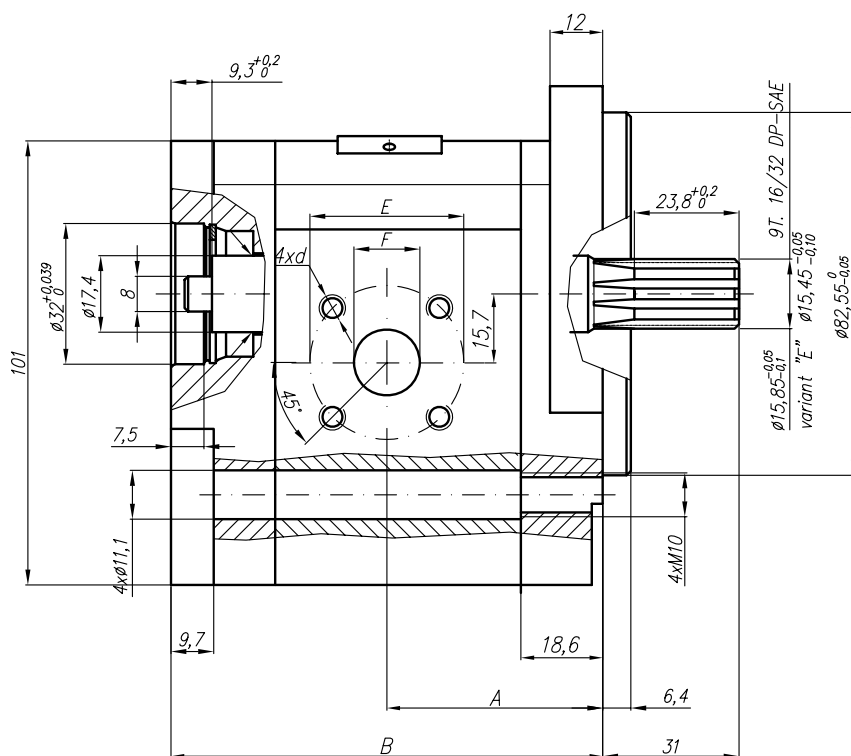
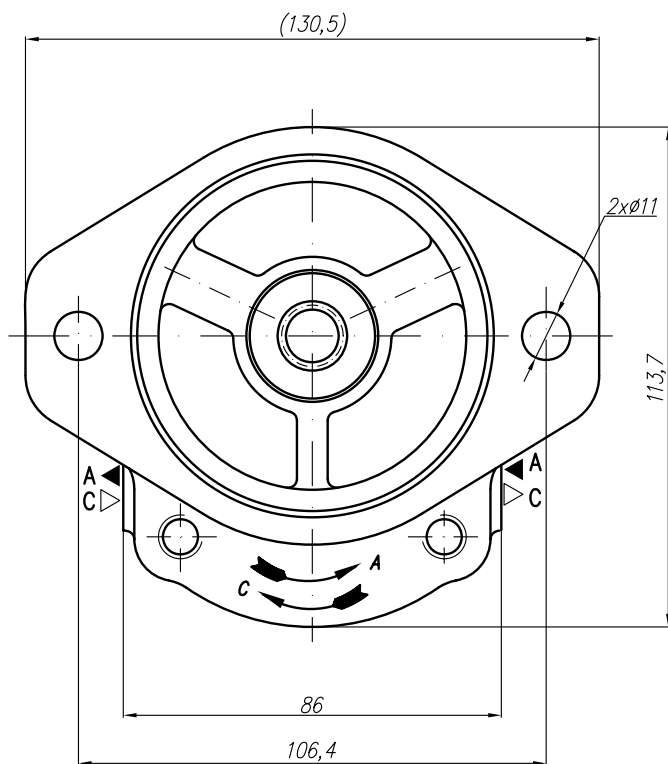
PGP PUMP	HENDERS  N Hydraulics®										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X404												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X404	4,5	6,14	14,33	250	3500						35,6		M6-6H
20A(C)6,3X404	6,3	8,69	20,29	250	3500								
20A(C)8,2X404	8,2	11,32	26,40	250	3500								
20A(C)10X404	10	13,95	32,55	250	3500								
20A(C)11X404	11,3	15,76	36,78	250	3500	75,5	120,5	35,6	15	M6-6H	35,6	15,0	M6-6H
20A(C)12X404	12	16,92	39,48	250	3500								
20A(C)14X404	14	19,95	46,55	250	3500								
20A(C)15X404	15	21,60	36,00	250	2500								
20A(C)16X404	16	23,04	38,40	250	2500			35,6	15	M6-6H	35,6	15,0	M6-6H
20A(C)19X404	19	27,36	45,60	200	2500								
20A(C)22X404	22	31,68	42,24	180	2000								
20A(C)25X404	25	36,00	48,00	160	2000								



PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II
	GEAR PUMP TYPE PGP 20A(C)...X409HF										
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension					
		at 1500 rpm	at max rpm			L1	L2	L3	L4	Inlet	Outlet
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	mm	mm	d	U
20C15X409HF	15	20,48	34,13	250	2500	92,7	118	139	157	28,7	3/4"-16UNF-2B
20C16X409HF	16	22,08	36,80	250	2500	94,3	119,6	141	159		
20C17,3X409HF	17,3	23,87	39,79	230	2500	96,4	121,7	143	161		
20C18,2X409HF	18,2	25,39	42,32	200	2500	98	123,3	144	162		
20C19X409HF	19	26,51	44,18	200	2500	99,3	124,6	146	164		
20C22X409HF	22	31,02	41,36	180	2000						
20C25X409HF	25	35,63	47,50	160	2000						
20C28X409HF	28	40,32	53,76	120	2000						
20C32X409HF	32	46,08	46,08	100	1500						
20C36X409HF	36	51,84	51,84	80	1500						

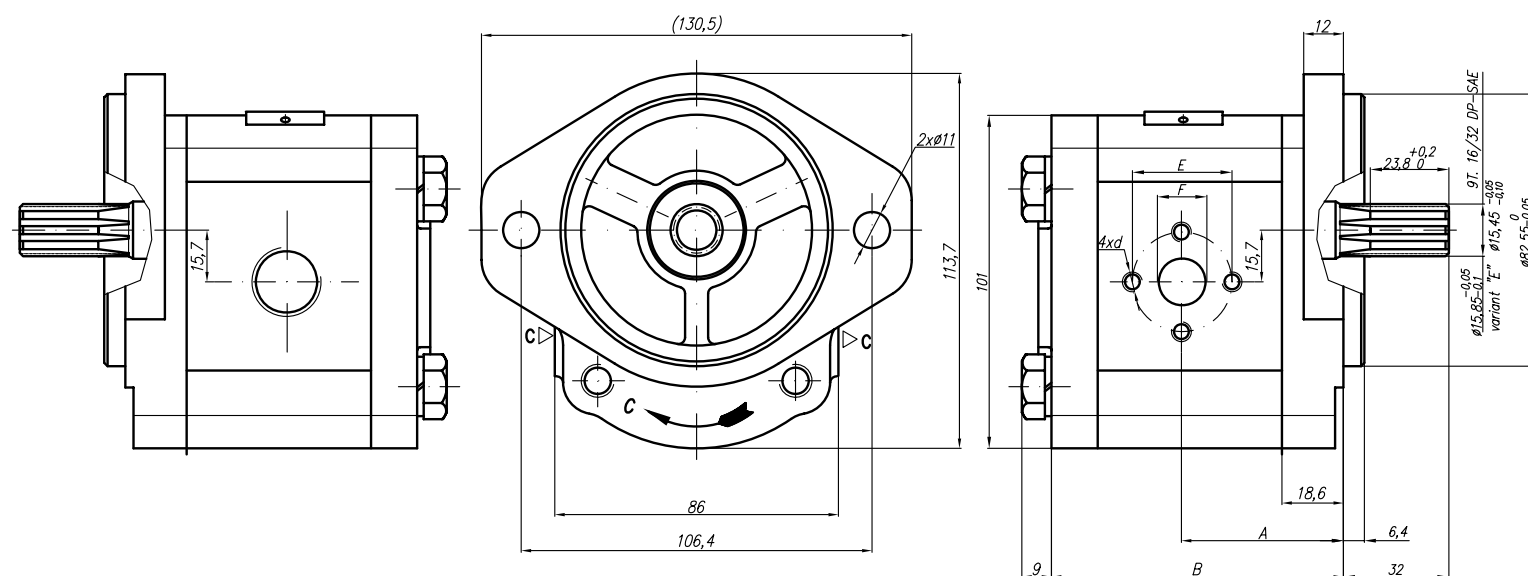


PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X413												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X413	4,5	6,14	14,33	250	3500			40	15	M6-6H	35	15	M6-6H
20A(C)6,3X413	6,3	8,69	20,29	250	3500	42,1	86,8						
20A(C)8,2X413	8,2	11,32	26,40	250	3500								
20A(C)10X413	10	13,95	32,55	250	3500								
20A(C)11X413	11,3	15,76	36,78	250	3500								
20A(C)12X413	12	16,92	39,48	250	3500								
20A(C)14X413	14	19,95	46,55	250	3500								
20A(C)15X413	15	21,60	36,00	250	2500								
20A(C)16X413	16	23,04	38,40	250	2500								
20A(C)19X413	19	27,36	45,60	200	2500								
20A(C)22X413	22	31,68	42,24	180	2000								
20A(C)25X413	25	36,00	48,00	160	2000								

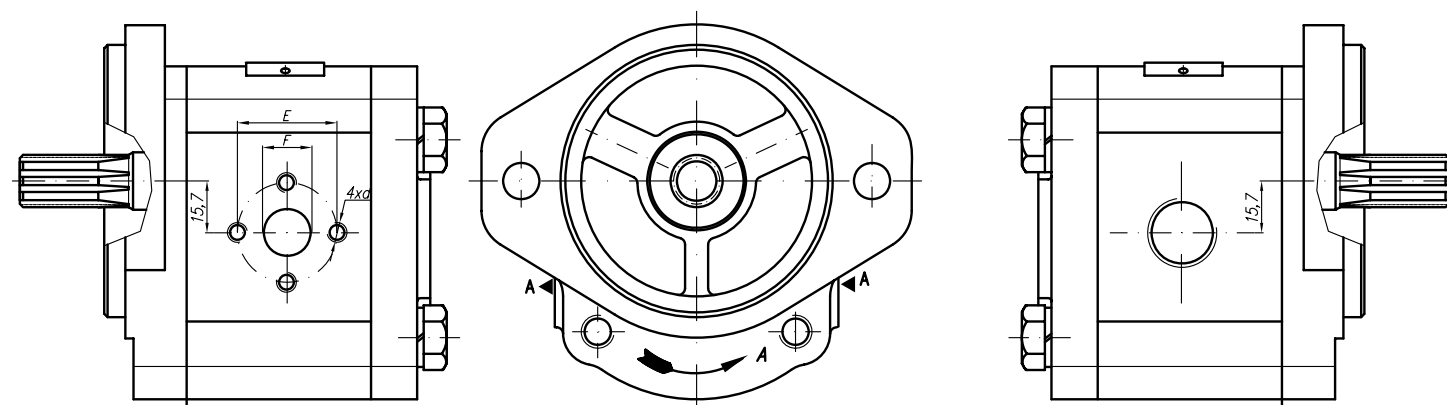


PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X419												
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	M	G	U
20A(C)4,5X419	4,5	6,14	14,33	250	3500	42,1	79,6	30,2	13,1	M6-6H			
20A(C)6,3X419	6,3	8,69	20,29	250	3500	42,1	79,6						
20A(C)8,2X419	8,2	11,32	26,40	250	3500	42,1	79,6						
20A(C)10X419	10	13,95	32,55	250	3500	46,6	88,7	39,7	19	M8-6H			
20A(C)11X419	11,3	15,76	36,78	250	3500	47,6	90,7						
20A(C)12X419	12	16,92	39,48	250	3500	48,2	91,9						
20A(C)14X419	14	19,95	46,55	250	3500	49,6	95						
20A(C)15X419	15	21,60	36,00	250	2500	50,6	96,5						
20A(C)16X419	16	23,04	38,40	250	2500	51,6	98,2						
20A(C)19X419	19	27,36	45,60	200	2500	53,6	103,1						
20A(C)22X419	22	31,68	42,24	180	2000	56,6	108,1						
20A(C)25X419	25	36,00	48,00	160	2000	58,8	113						

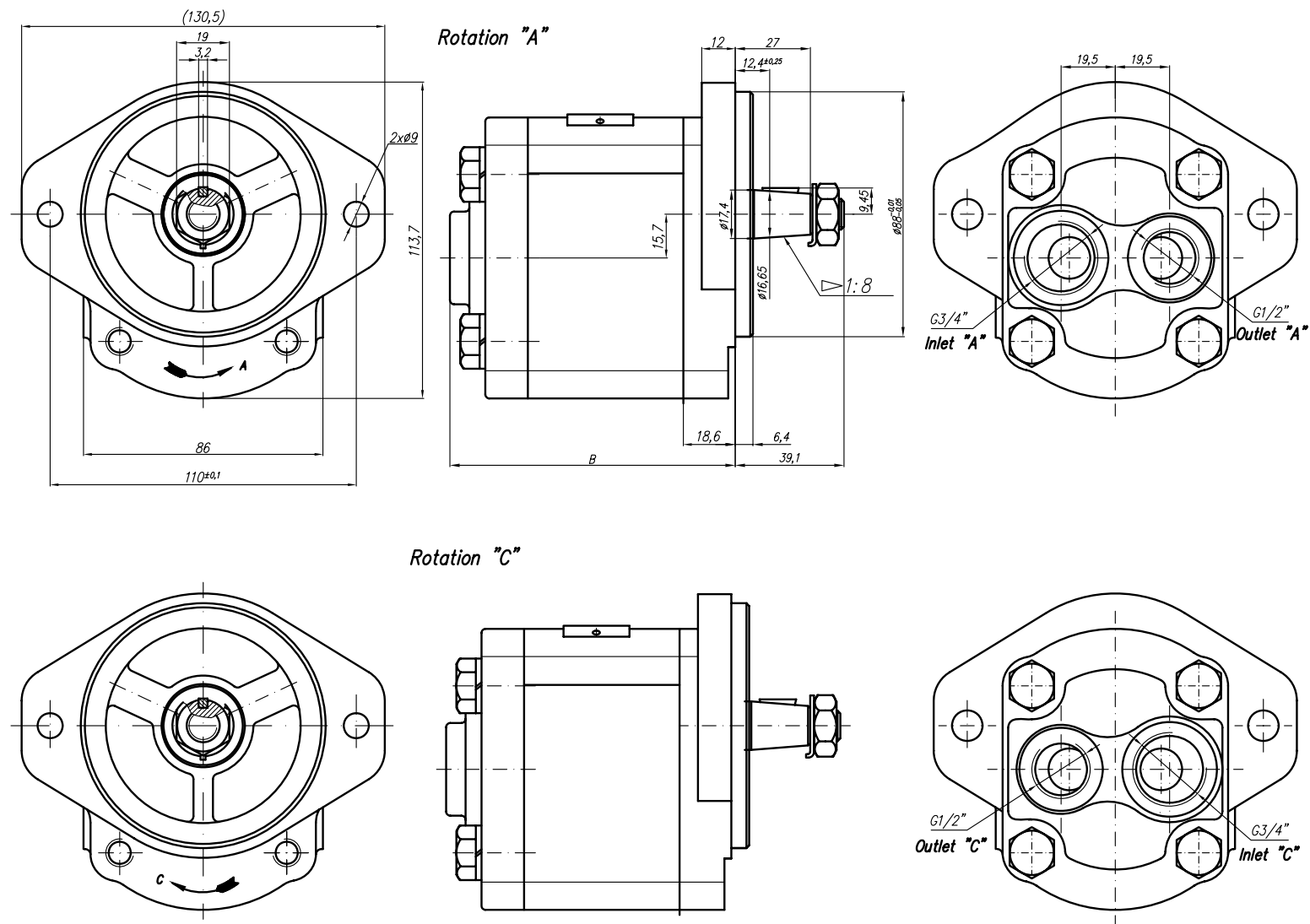
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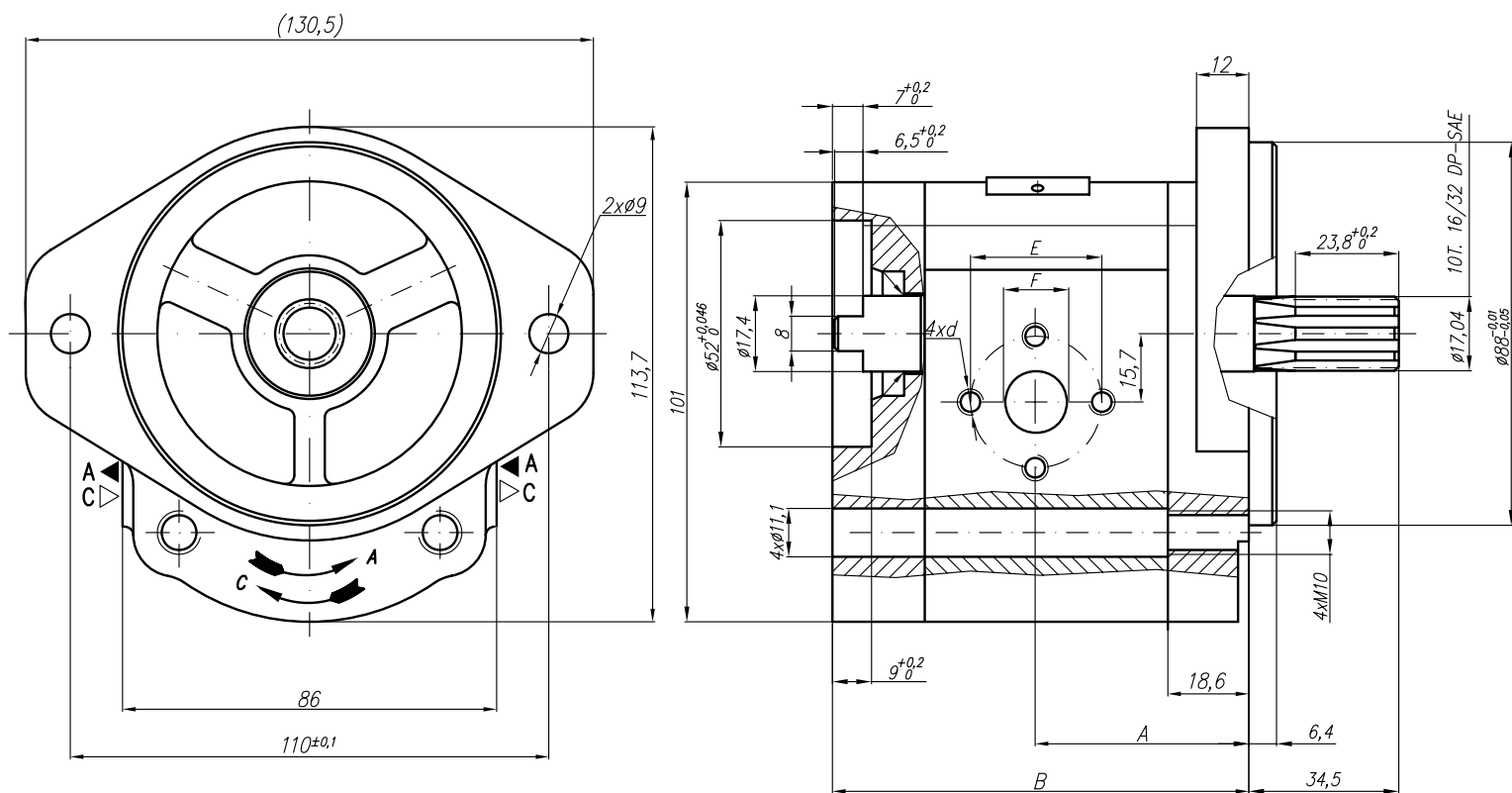
Rotation "A"




PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X423VW												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	G1	M	G	G1
20A(C)4,5X423VW	4,5	6,14	14,33	250	3500		93,6	G3/4				G1/2	
20A(C)6,3X423VW	6,3	8,69	20,29	250	3500		96,6						
20A(C)8,2X423VW	8,2	11,32	26,40	250	3500		99,5						
20A(C)10X423VW	10	13,95	32,55	250	3500		102,5						
20A(C)11X423VW	11,3	15,76	36,78	250	3500		104,6						
20A(C)12X423VW	12	16,92	39,48	250	3500		105,9						
20A(C)14X423VW	14	19,95	46,55	250	3500		108,9						
20A(C)15X423VW	15	21,60	36,00	250	2500		110,5						
20A(C)16X423VW	16	23,04	38,40	250	2500		112,1						
20A(C)19X423VW	19	27,36	45,60	200	2500		117,1						
20A(C)22X423VW	22	31,68	42,24	180	2000		122,1						
20A(C)25X423VW	25	36,00	48,00	160	2000		127						

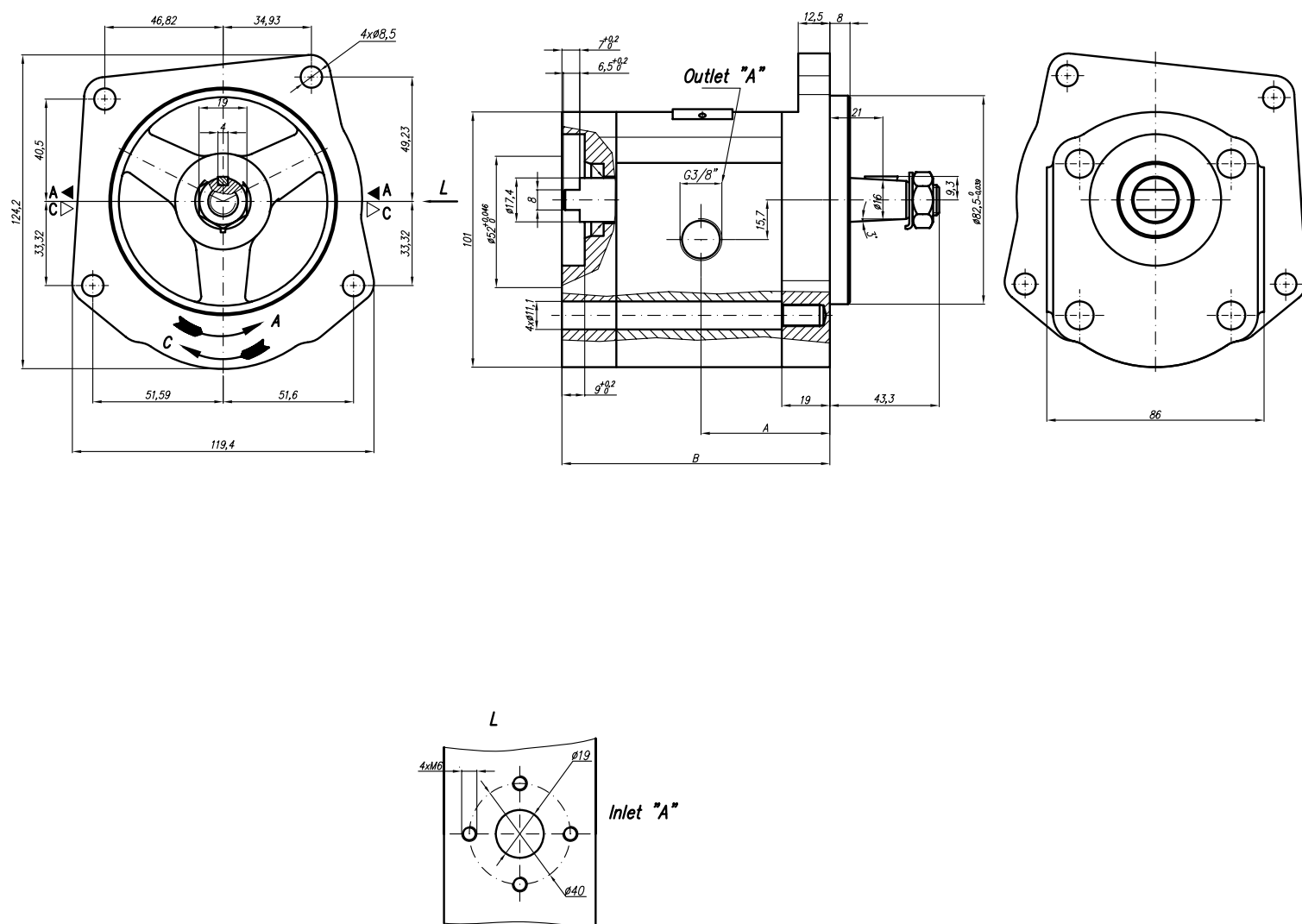


PGP PUMP	HENDERS  N Hydraulics®										GROUP II				
	GEAR PUMP TYPE PGP 20A(C)...X429V														
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension									
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet				
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d		
20A(C)4,5X429V	4,5	6,14	14,33	250	3500	42,5	87,2	30,2	13,1	M6-6H	30,2	13,1	M6-6H		
20A(C)6,3X429V	6,3	8,69	20,29	250	3500	42,5	87,2								
20A(C)8,2X429V	8,2	11,32	26,40	250	3500	42,5	87,2								
20A(C)10X429V	10	13,95	32,55	250	3500	47	96,2	39,7	19	M8-6H		39,7		14,2	M6-6H
20A(C)11X429V	11,3	15,76	36,78	250	3500	48	98,3								
20A(C)12X429V	12	16,92	39,48	250	3500	48,7	99,5								
20A(C)14X429V	14	19,95	46,55	250	3500	50,2	102,5								
20A(C)15X429V	15	21,60	36,00	250	2500	51	104,1								
20A(C)16X429V	16	23,04	38,40	250	2500	51,8	105,8								
20A(C)19X429V	19	27,36	45,60	200	2500	54	110,7								
20A(C)22X429V	22	31,68	42,24	180	2000	56,5	115,7								
20A(C)25X429V	25	36,00	48,00	160	2000	58,8	120,6								




PGP PUMP	HENDERS  N Hydraulics®										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X450												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	M	G	U
20A(C)15X450	15	21,60	36,00	250(175*)	2500	51	104,1	40	19	M6-6H		G3/8	
20A(C)16X450	16	23,04	38,40	250(175*)	2500	51	105,7						
20A(C)25X450	25	36,00	48,00	160(100*)	2000	59,2	120,6						

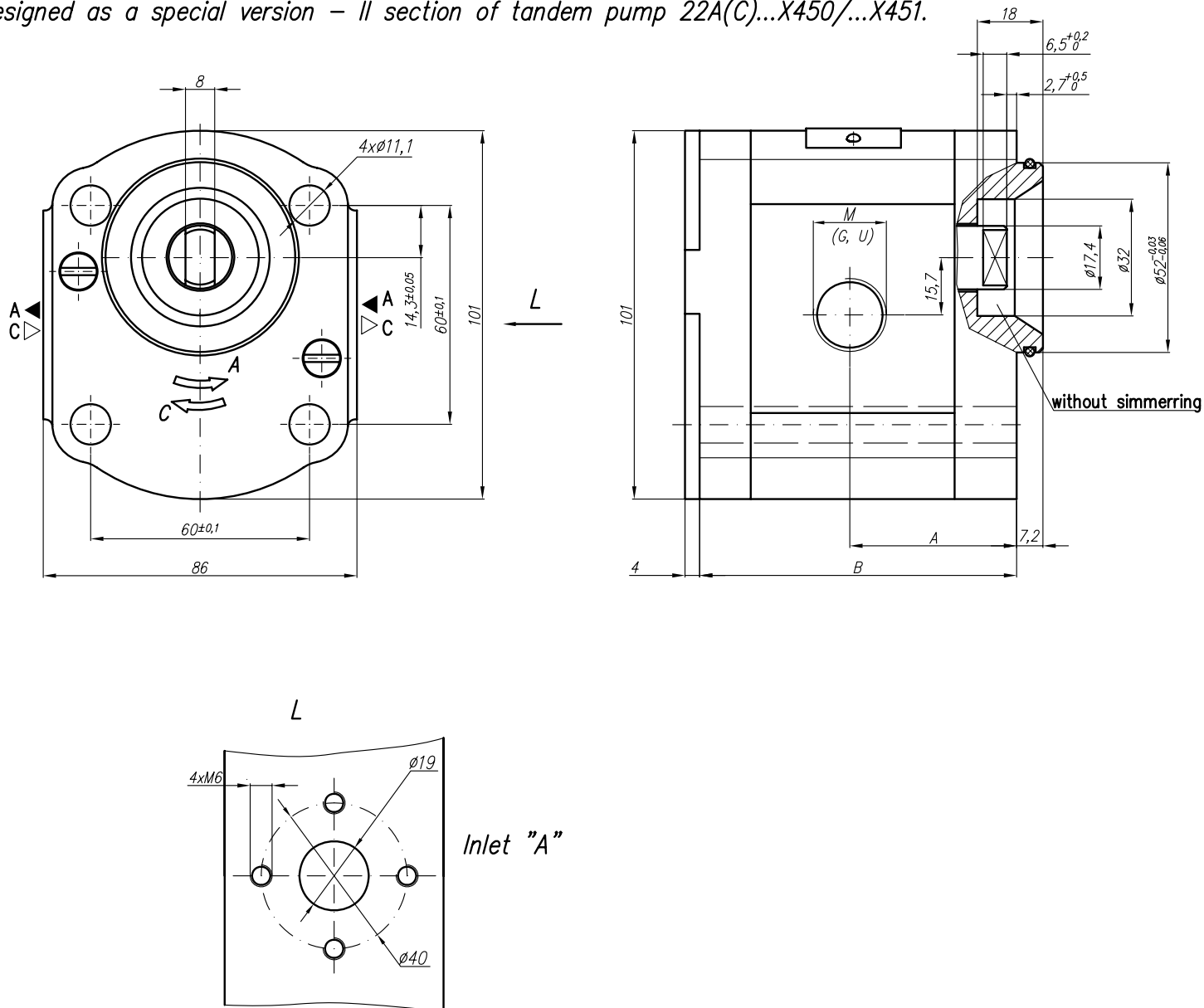
Designed as a special version – 1 section of tandem pump 22A(C)...X450/...X451.



* These pressures recommended for direct drive with gear.

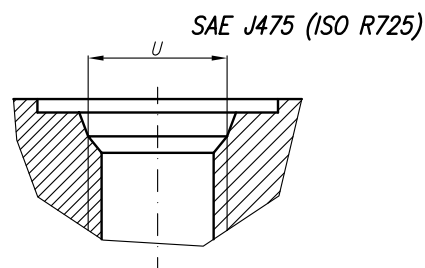
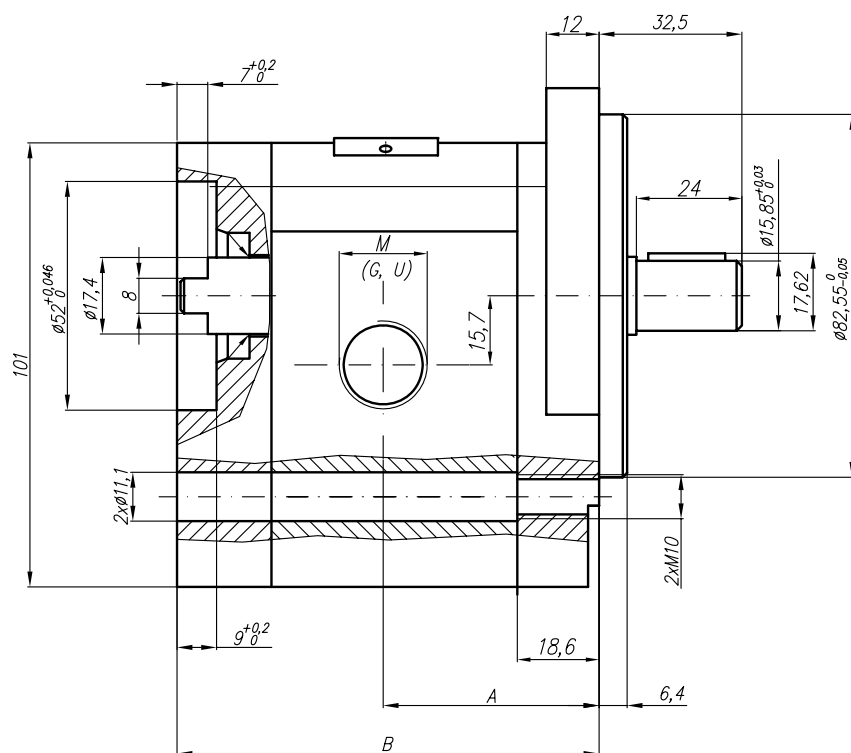
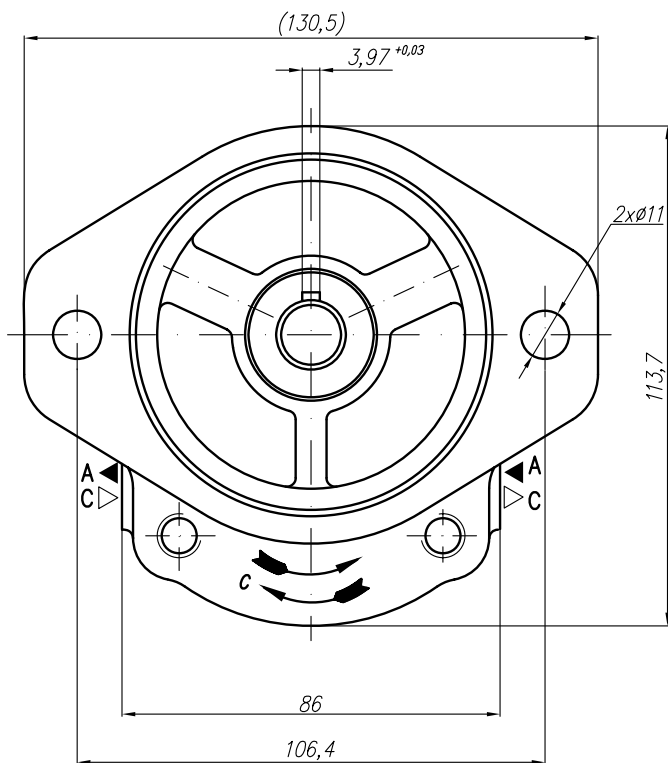
PGP PUMP	HENDERS  N Hydraulics°										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X451												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	M	G	U
20A(C)11X451	11,3	15,76	26,27	250(175*)	2500	46	89	40	19	M6-6H		G3/8	
20A(C)15X451	15	21,60	36,00	250(175*)	2500	49	94,9						
20A(C)16X451	16	23,04	38,40	250(175*)	2500	49	96,5						
20A(C)25X451	25	36,00	48,00	160(100*)	2000	57,2	111,4						

Designed as a special version – II section of tandem pump 22A(C)...X450/...X451.



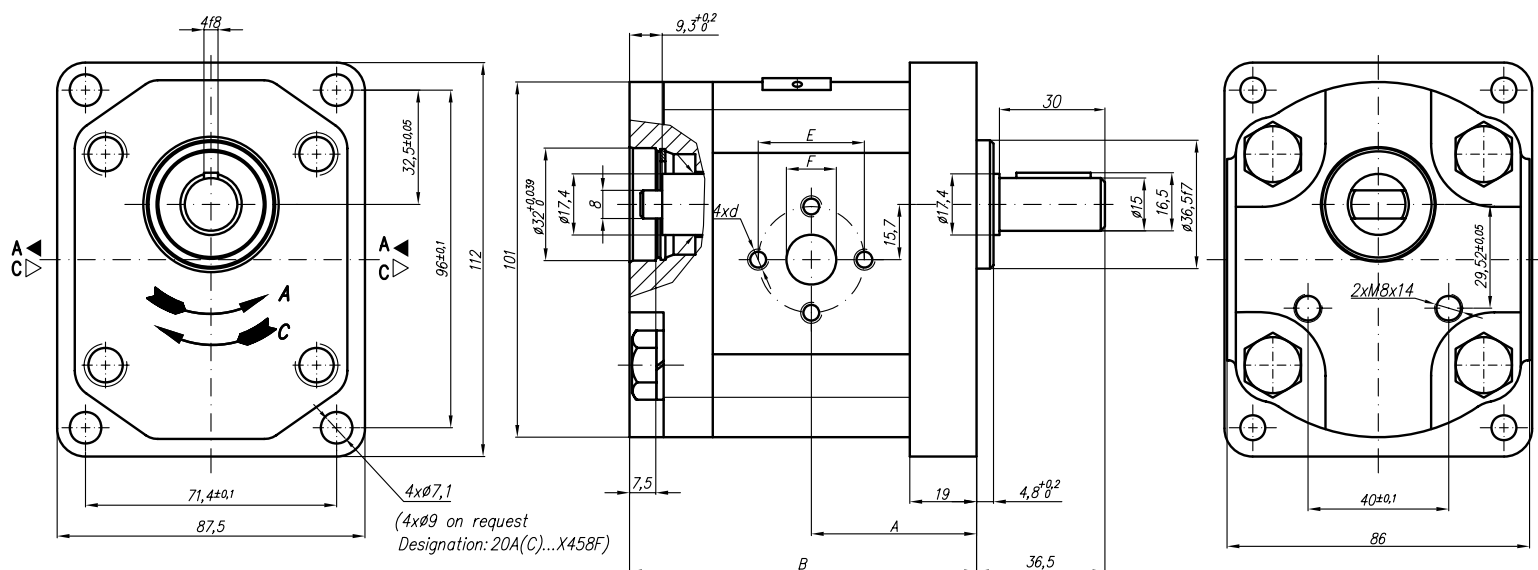
* These pressures recommended for direct drive with gear.

PGP PUMP	HENDERSO [®] N Hydraulics [®]										GROUP II							
	GEAR PUMP TYPE PGP 20A(C)...X457...																	
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension												
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet							
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U					
20A(C)4,5X457...	4,5	6,14	14,33	250	3500	41,4	86,8	M20x1,5	G1/2	1 1/16"-12UNF		M16x1,5	G1/2	7/8"-14UNF				
20A(C)6,3X457...	6,3	8,69	20,29	250	3500	42,6	86,8											
20A(C)8,2X457...	8,2	11,32	26,40	250	3500	44,7	86,8											
20A(C)10X457...	10	13,95	32,55	250	3500	49,1	95,8											
20A(C)11X457...	11,3	15,76	36,78	250	3500	49,1	97,9		G3/4									
20A(C)12X457...	12	16,92	39,48	250	3500	49,1	99,1											
20A(C)14X457...	14	19,95	46,55	250	3500	49,1	102,1											
20A(C)15X457...	15	21,60	36,00	250	2500	49,1	103,7											
20A(C)16X457...	16	23,04	38,40	250	2500	49,1	105,3											
20A(C)19X457...	19	27,36	45,60	200	2500	49,1	110,3		M20X1,5									
20A(C)22X457...	22	31,68	42,24	180	2000	56,6	115,3											
20A(C)25X457...	25	36,00	48,00	160	2000	58,8	120,2											

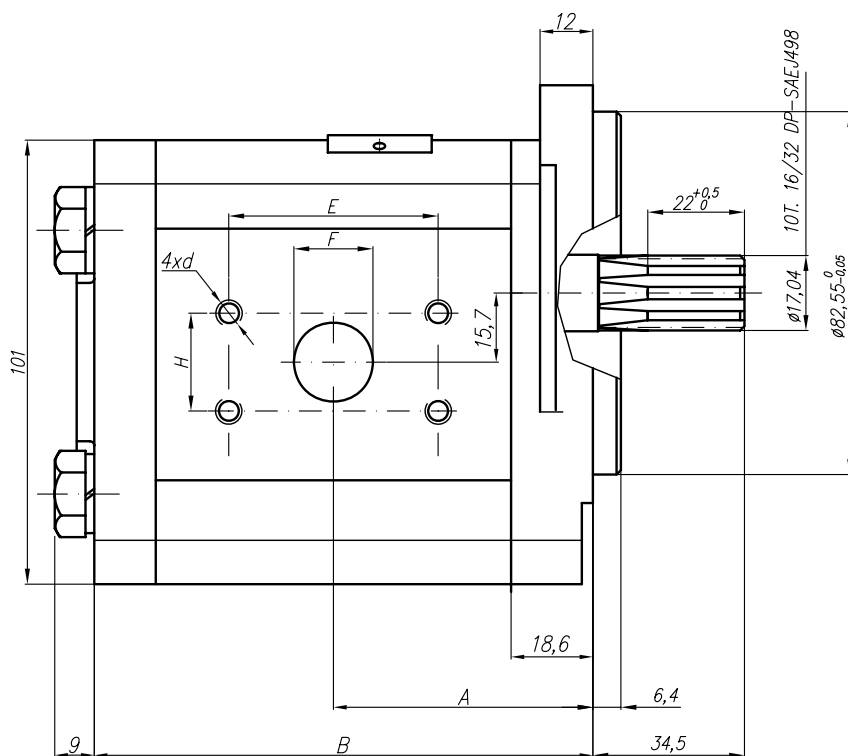
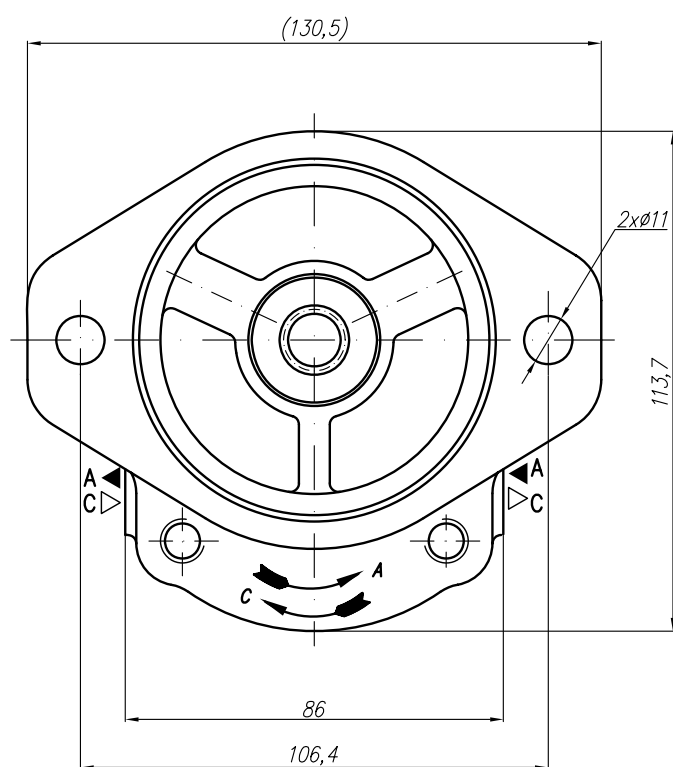



PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II				
	GEAR PUMP TYPE PGP 20A(C)...X458														
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension									
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet				
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d		
20A(C)4,5X458	4,5	6,14	14,33	250	3500	42,5	89,7	30,2	13,1	M6-6H	30,2	13,1	M6-6H		
20A(C)6,3X458	6,3	8,69	20,29	250	3500	42,5	89,7								
20A(C)8,2X458	8,2	11,32	26,40	250	3500	42,5	89,7								
20A(C)10X458	10	13,95	32,55	250	3500	47	98,7	39,7	19	M8-6H		30,2		14,2	M6-6H
20A(C)11X458	11,3	15,76	36,78	250	3500	48	100,7								
20A(C)12X458	12	16,92	39,48	250	3500	48,6	102								
20A(C)14X458	14	19,95	46,55	250	3500	50	105,1								
20A(C)15X458	15	21,60	36,00	250	2500	51	106,6								
20A(C)16X458	16	23,04	38,40	250	2500	52	108,3								
20A(C)19X458	19	27,36	45,60	200	2500	54	113,2	39,7	19	M8	30,2		19	M8	
20A(C)22X458	22	31,68	42,24	180	2000	57	118,2								
20A(C)25X458	25	36,00	48,00	160	2000	59,2	123,1								

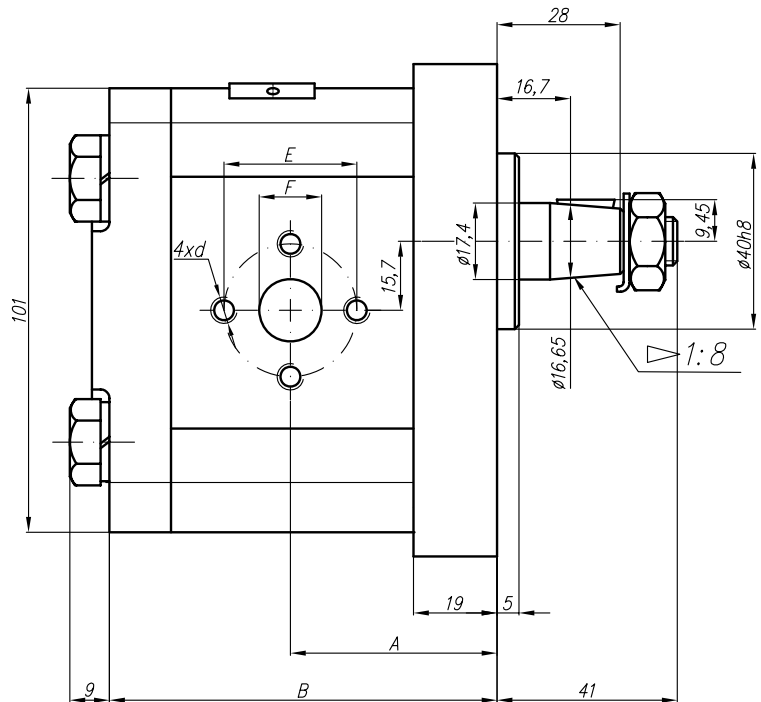
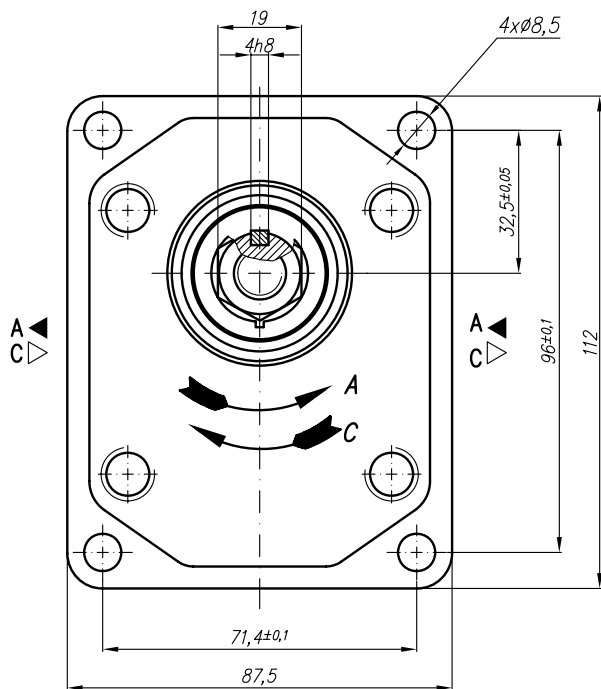
Designed as a first section of tandem pumps group 21A(C)...X458/... (llgroup/lgroup).



PGP PUMP	HENDERS [®] ON Hydraulics [®]													GROUP II	
	GEAR PUMP TYPE PGP 20A(C)...X464H														
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension									
		at 1500 rpm	at max rpm			A	B	Inlet				Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	H	d	F	E	H	d	F
20A(C)15X464H	15	20,48	47,78	250	3500	55,6	106,8	52,7	26,2	3/8"-14UNC-2B	25	47,6	22	3/8"-14UNC-2B	18
20A(C)16X464H	16	22,08	51,52	250	3500	56,6	108,4								
20A(C)17,3X464H	17,3	23,87	55,71	230	3500	57,6	110,5								
20A(C)18,2X464H	18,2	25,39	59,24	210	3500	58,4	112,1								
20A(C)19X464H	19	26,51	61,85	200	3500	59	113,4								
20A(C)22X464H	22	31,02	72,38	180	3500	61,5	118,4								
20A(C)25X464H	25	35,63	83,13	160	3500	63,9	123,3								
20A(C)28X464H	28	40,32	67,20	130	2500	66,4	128,1								
20A(C)32X464H	32	46,08	76,80	120	2500	69,6	134,4								
20A(C)36X464H	36	51,84	86,40	100	2500	72,8	141								

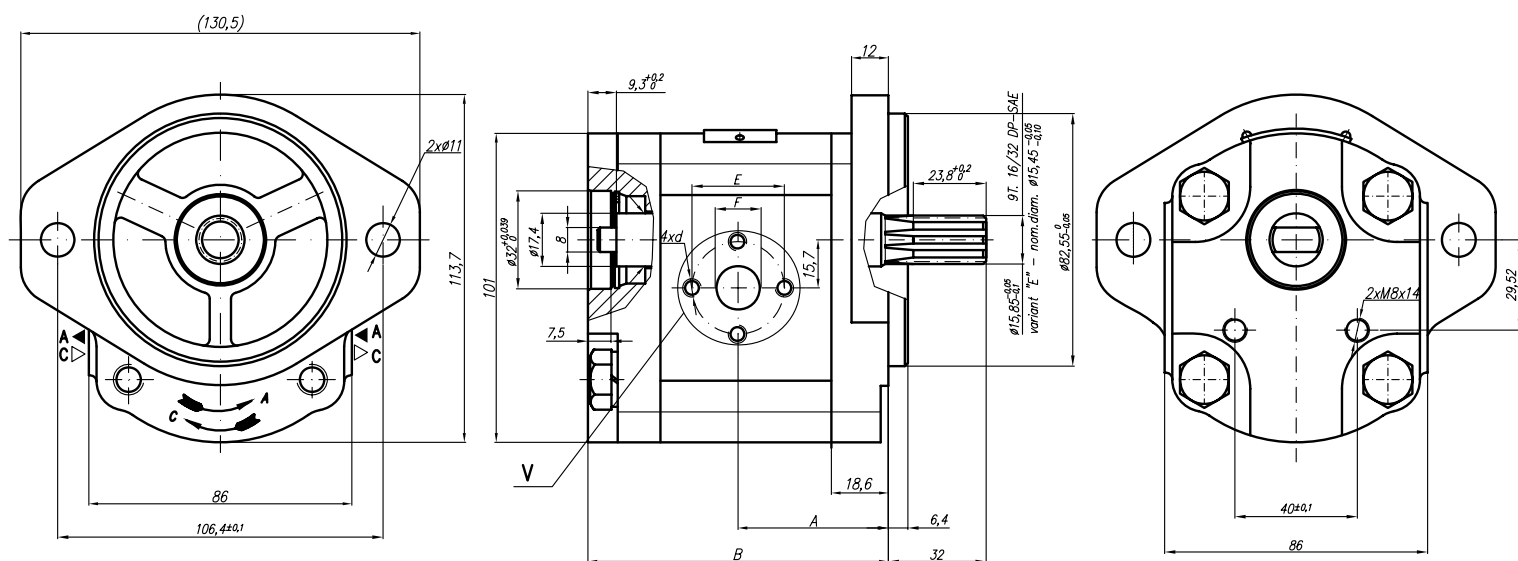


PGP PUMP	HENDERS  N Hydraulics®										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X466(H)												
Type	Displace ment	Flow		Pressure	max Speed	Dimension							
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X466	4,5	6,14	14,33	250	3500			40	20	M8-6H	40	12	M8-6H
20A(C)6,3X466	6,3	8,69	20,29	250	3500								
20A(C)8,2X466	8,2	11,32	26,40	250	3500								
20A(C)10X466	10	13,95	32,55	250	3500								
20A(C)11X466	11,3	15,76	36,78	250	3500								
20A(C)12X466	12	16,92	39,48	250	3500								
20A(C)14X466	14	19,95	46,55	250	3500	52,5	95,4						
20A(C)15X466	15	21,60	36,00	250	2500								
20A(C)16X466	16	23,04	38,40	250	2500	52,5	98,5						
20A(C)19X466	19	27,36	45,60	200	2500								
20A(C)22X466	22	31,68	42,24	180	2000								
20A(C)25X466	25	36,00	48,00	160	2000								
20A(C)14X466HS	14	20,16	47,04	250	3500			40	20	M8-6H	40	12	M8-6H
20A(C)15X466HS	15	21,60	36,00	250	2500								
20A(C)16X466HS	16	23,04	38,40	250	2500	62	108,8						
20A(C)17,3X466HS	17,3	24,91	41,52	230	2500	62	111						
20A/C17,3X466HS2	17,3	24,91	41,52	200	2500	58	111						
	19	27,36	45,60	200	2500							15	



PGP PUMP		HENDERS [®] N Hydraulics [®]																GROUP II				
		GEAR PUMP TYPE PGP 20A(C)...X467...																				
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension																
		at 1500 rpm	at max rpm			Inlet						Outlet										
	cm ³ /rev	l/min	l/min	bar	rpm	A	B	E	F	d	M	G	U	E	F	d	M	G	U			
20A(C)4,5X467...	4,5	6,14	14,33	250	3500	42,1	89,3	30,2	13,1	M6-6H	M20x1,5	G1/2	1 1/16"-12UNF	30,2	13,1	M6-6H	M16x1,5	G1/2	7/8"-14UNF			
20A(C)6,3X467...	6,3	8,69	20,29	250	3500	42,1	89,3															
20A(C)8,2X467...	8,2	11,32	26,40	250	3500	42,1	89,3															
20A(C)10X467...	10	13,95	32,55	250	3500	46,6	98,2															
20A(C)11X467...	11,3	15,76	36,78	250	3500	47,6	100,3															
20A(C)12X467...	12	16,92	39,48	250	3500	48,2	101,6															
20A(C)14X467...	14	19,95	46,55	250	3500	49,8	104,7															
20A(C)15X467...	15	21,60	36,00	250	2500	50,6	106,2															
20A(C)16X467...	16	23,04	38,40	250	2500	51,4	107,8															
20A(C)19X467...	19	27,36	45,60	200	2500	54	112,8															
20A(C)22X467...	22	31,68	42,24	180	2000	56,5	117,8															
20A(C)25X467...	25	36,00	48,00	160	2000	58,8	122,7															

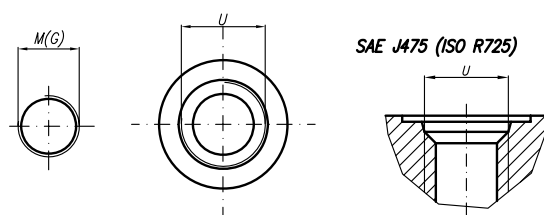
Designed as a first section of tandem pumps group 21A(C)...X467.../... (II group/I group).



Designations:

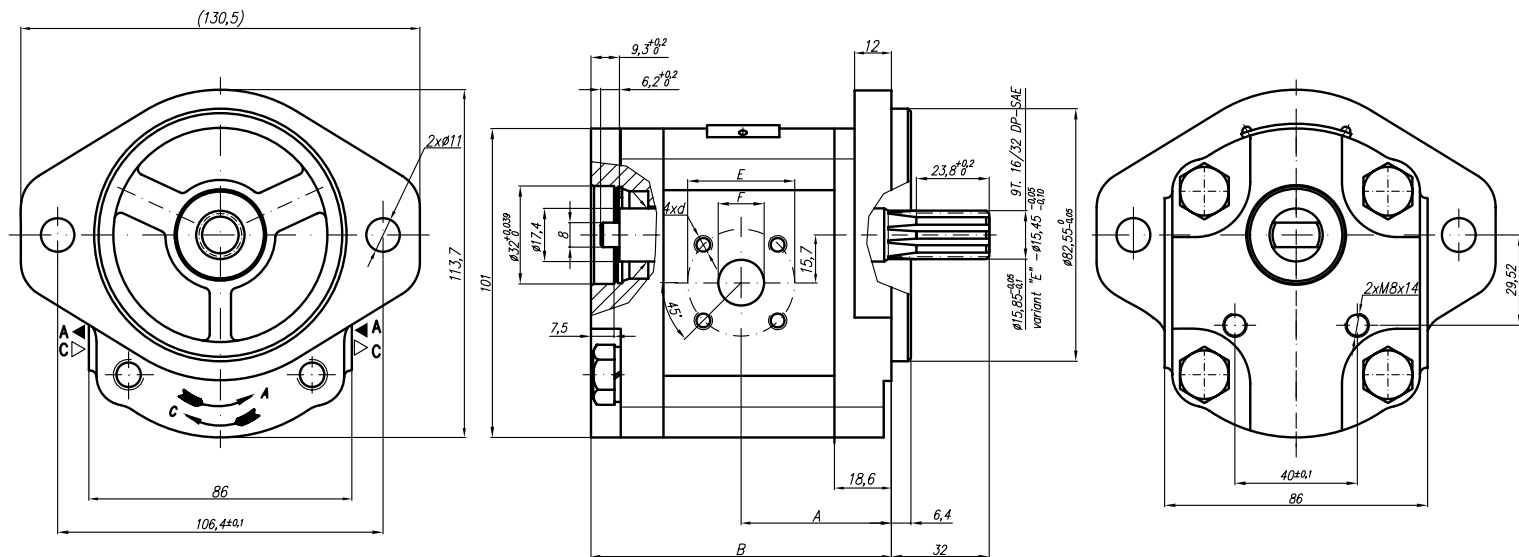
...X467 – Normal version (flanges);
 ...X467M – Metric threads;
 ...X467G – GAS threads;
 ...X467U – SAE UNF threads;

V Variants for ports – M;G;U



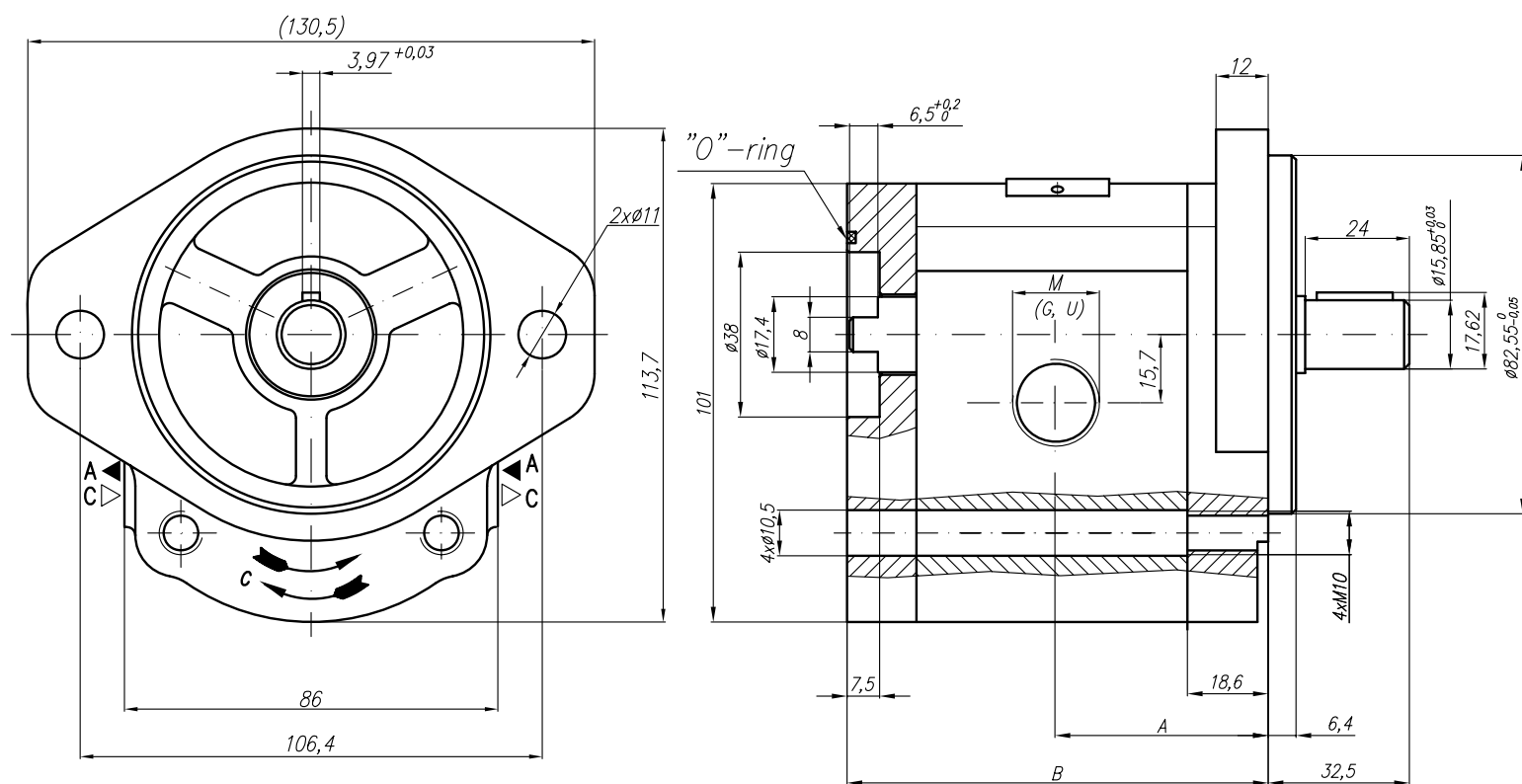
PGP PUMP	HENDERS [®] N Hydraulics [®]											GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X478													
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension								
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d	
20A(C)4,5X478	4,5	6,14	14,33	250	3500	42,1	89,3	40	15	M6-6H	35	15	M6-6H	
20A(C)6,3X478	6,3	8,69	20,29	250	3500	43,6	92,3							
20A(C)8,2X478	8,2	11,32	26,40	250	3500	45,1	95,2							
20A(C)10X478	10	13,95	32,55	250	3500	46,6	98,2							
20A(C)11X478	11,3	15,76	36,78	250	3500	47,6	100,3							
20A(C)12X478	12	16,92	39,48	250	3500	48,2	101,6							
20A(C)14X478	14	19,95	46,55	250	3500	49,6	104,7							
20A(C)15X478	15	21,60	36,00	250	2500	50,6	106,2							
20A(C)16X478	16	23,04	38,40	250	2500	51,6	107,8							
20A(C)19X478	19	27,36	45,60	200	2500	53,6	112,8							
20A(C)22X478	22	31,68	42,24	180	2000	56,6	117,8							
20A(C)25X478	25	36,00	48,00	160	2000	58,8	122,7							

Designed as a first section of tandem pumps group 21A(C)...X478/... (11 group/1 group).

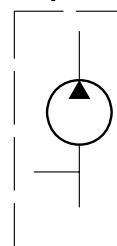


PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X494...												
Type	Displacement	Flow		Pressure	max Speed	Dimension							
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5X494...	4,5	6,14	14,33	250	3500			M20x1,5	G1/2	1 1/16-12UNF-2B		G1/2	7/8-14UNF-2B
20A(C)6,3X494...	6,3	8,69	20,29	250	3500								
20A(C)8,2X494...	8,2	11,32	26,40	250	3500	45	87,5						
20A(C)10X494...	10	13,95	32,55	250	3500								
20A(C)11X494...	11,3	15,76	36,78	250	3500								
20A(C)12X494...	12	16,92	39,48	250	3500				G3/4		M16x1,5		
20A(C)14X494...	14	19,95	46,55	250	3500	49,8	97						
20A(C)15X494...	15	21,60	36,00	250	2500	50,6	98,5						
20A(C)16X494...	16	23,04	38,40	250	2500	49,8	100,1						
20A(C)19X494...	19	27,36	45,60	200	2500	53,6	105,1						
20A(C)22X494...	22	31,68	42,24	180	2000								
20A(C)25X494...	25	36,00	48,00	160	2000								

Designed as a special version – 1 section of tandem pump 22A(C)...X494/...X495.

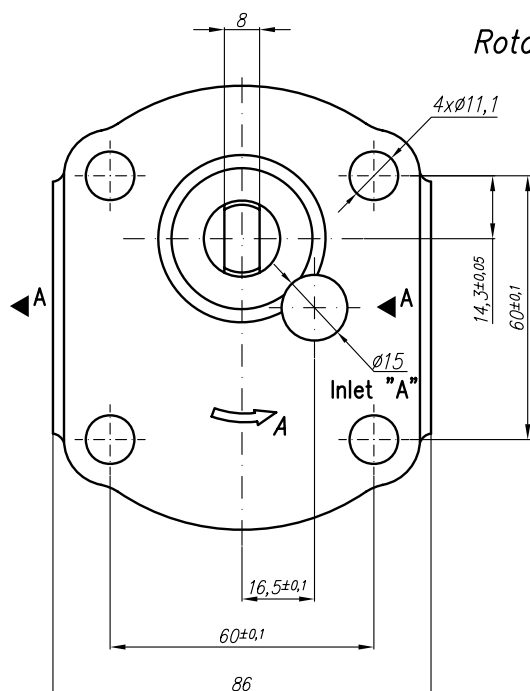


Symbol

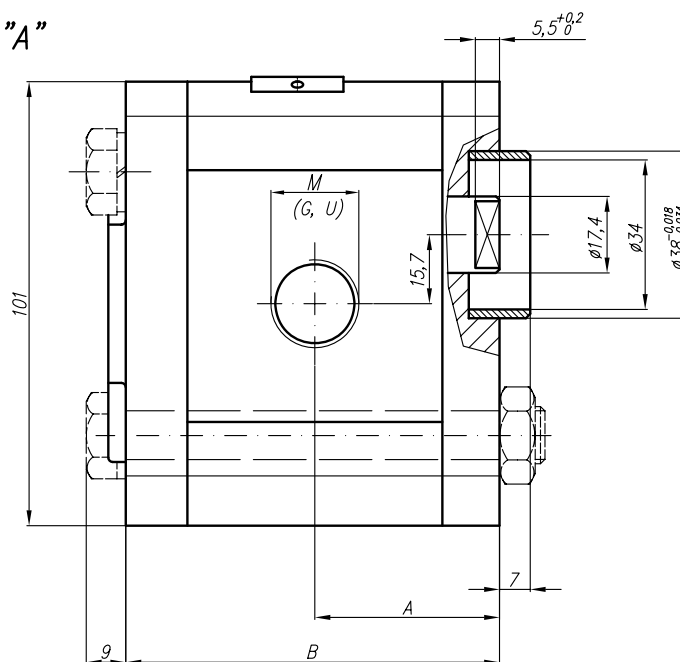


PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X495...												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5X495..	4,5	6,14	14,33	250	3500						M16x1,5	G1/2	7/8-14UNF-2B
20A(C)6,3X495..	6,3	8,69	20,29	250	3500								
20A(C)8,2X495..	8,2	11,32	26,40	250	3500	36,6	74						
20A(C)10X495..	10	13,95	32,55	250	3500								
20A(C)11X495..	11,3	15,76	36,78	250	3500	42	85						
20A(C)12X495..	12	16,92	39,48	250	3500								
20A(C)14X495..	14	19,95	46,55	250	3500								
20A(C)15X495..	15	21,60	36,00	250	2500								
20A(C)16X495..	16	23,04	38,40	250	2500								
20A(C)19X495..	19	27,36	45,60	200	2500								
20A(C)22X495..	22	31,68	42,24	180	2000								

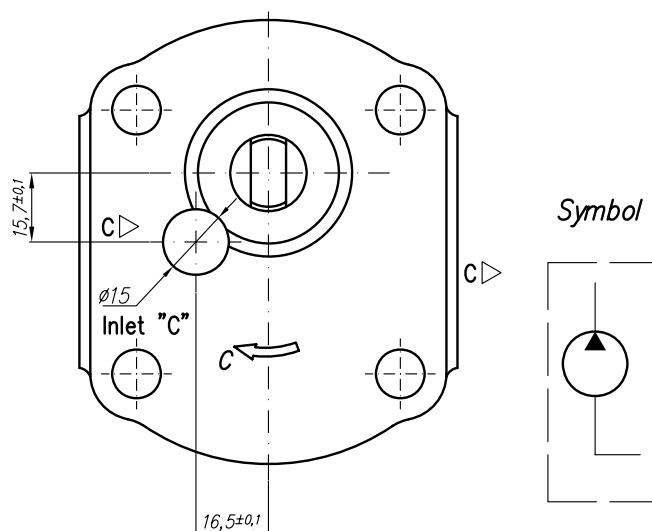
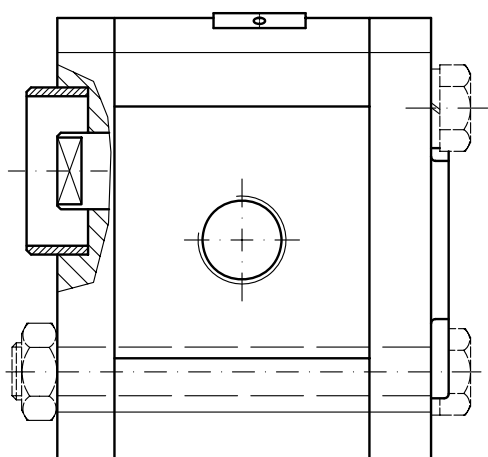
Designed as a special version – II section of tandem pump 22A(C)...X494/...X495.



Rotation "A"

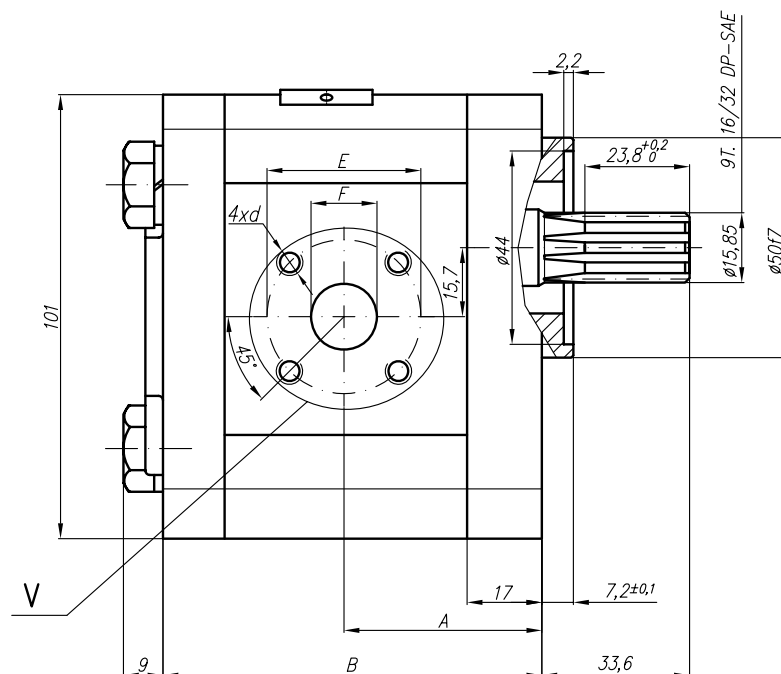
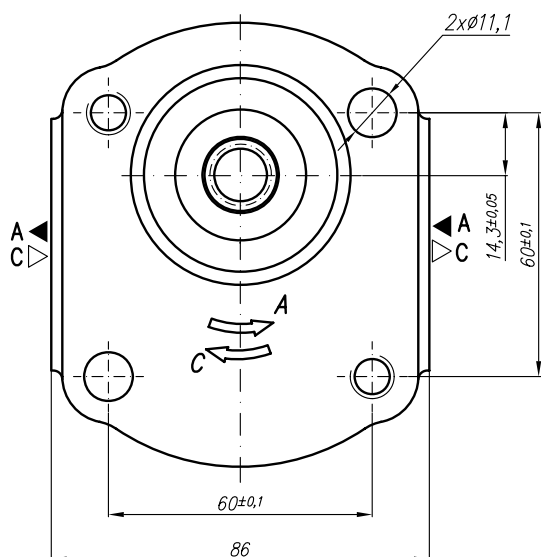


Rotation "C"



Symbol

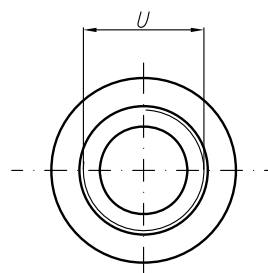
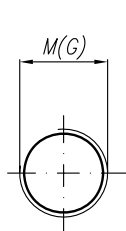
PGP PUMP		HENDERS [®] N Hydraulics [®]														GROUP II			
		GEAR PUMP TYPE PGP 20A(C)...X496...																	
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension													
		at 1500 rpm	at max rpm			Inlet						Outlet							
	cm ³ /rev	l/min	l/min	bar	rpm	A mm	B mm	E	F	d	M	G	U	E	F	d	M	G	U
20A(C)4,5X496...	4,5	6,14	14,33	250	3500	37,3	75,1	40	15	M6-6H	M20x1,5	G1/2	1 1/16"-12UNF	35	15	M6-6H	M16x1,5	G1/2	7/8"-14UNF
20A(C)6,3X496...	6,3	8,69	20,29	250	3500	38,6	78												
20A(C)8,2X496...	8,2	11,32	26,40	250	3500	40,6	78												
20A(C)10X496...	10	13,95	32,55	250	3500	45	87												
20A(C)11X496...	11,3	15,76	36,78	250	3500	45	89,1												
20A(C)12X496...	12	16,92	39,48	250	3500	45	90,3												
20A(C)14X496...	14	19,95	46,55	250	3500	45	93,4												
20A(C)15X496...	15	21,60	36,00	250	2500	45	94,9												
20A(C)16X496...	16	23,04	38,40	250	2500	45	96,5												
20A(C)19X496...	19	27,36	45,60	200	2500	45	101,5												
20A(C)22X496...	22	31,68	42,24	180	2000	52,5	106,5												
20A(C)25X496...	25	36,00	48,00	160	2000	57,2	111,4												



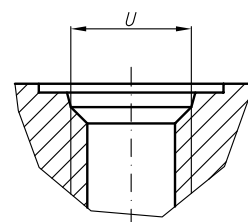
V
Variants for ports – M;G;U


Designations:

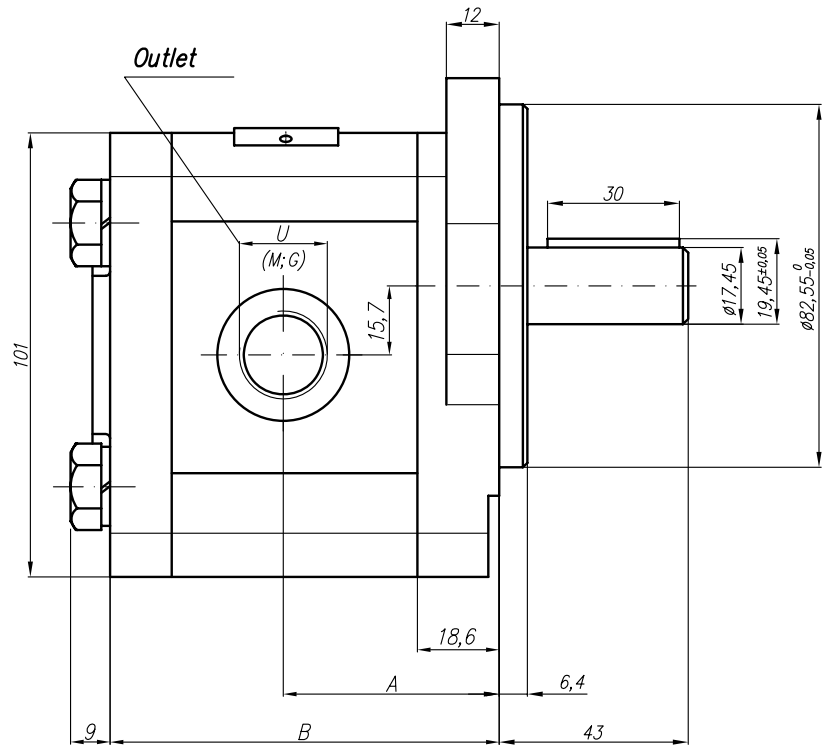
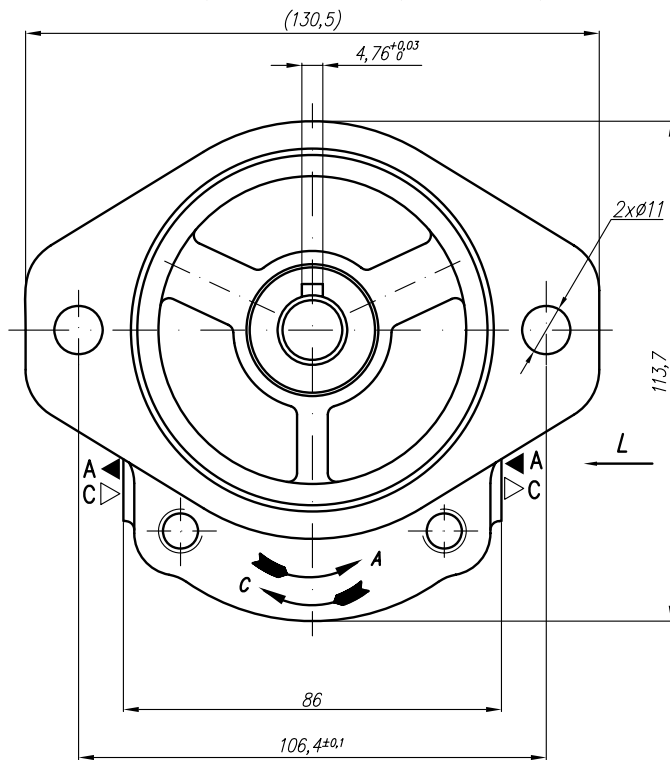
- ...X496 – Normal version (flanges);
- ...X496M – Metric threads;
- ...X496G – GAS threads;
- ...X496U – SAE UNF threads;



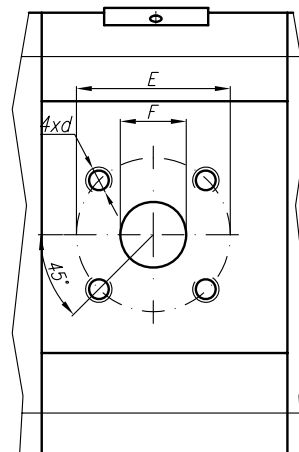
SAE J475 (ISO R725)



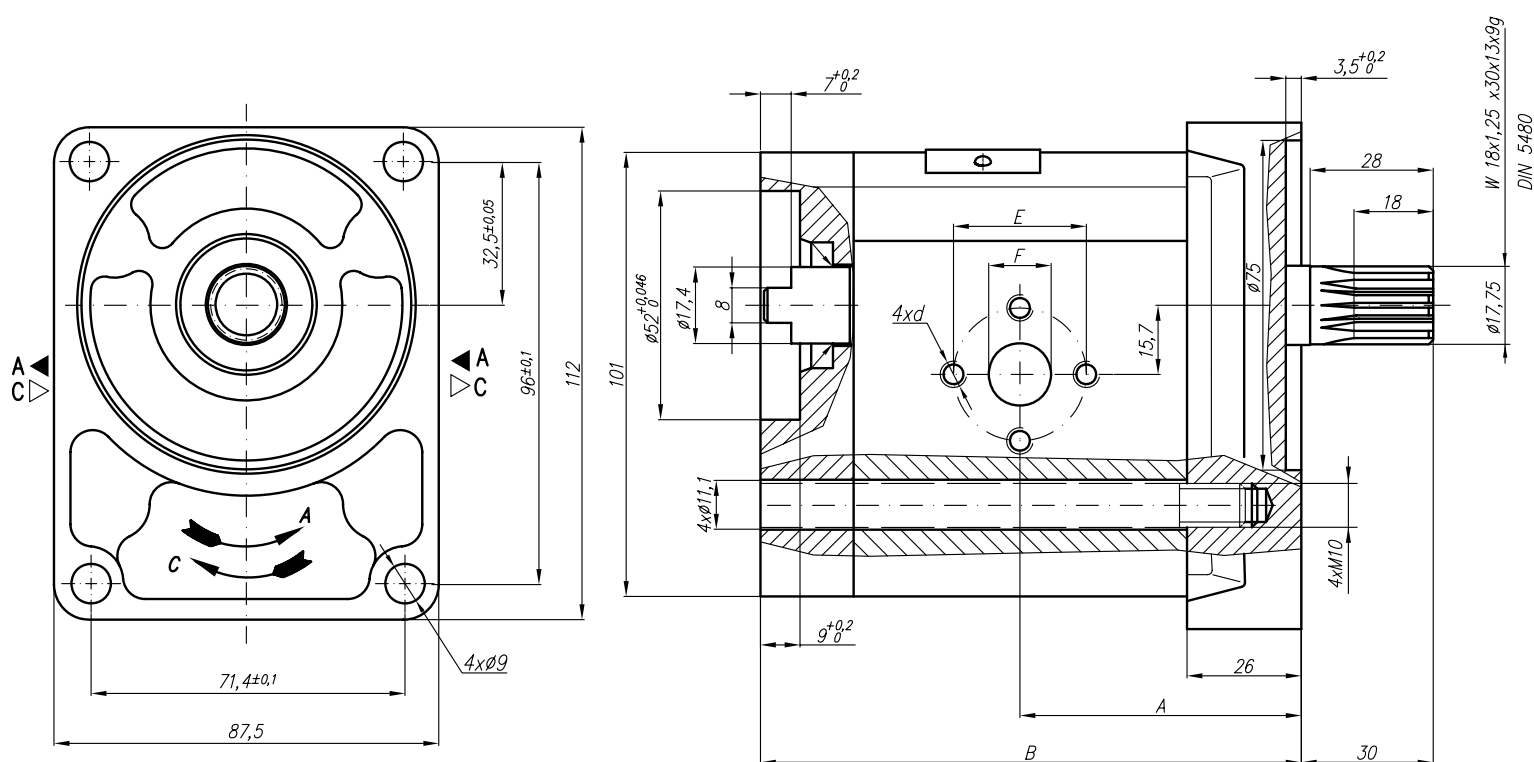
PGP PUMP	HENDERS  N Hydraulics®											GROUP II					
	GEAR PUMP TYPE PGP 20A(C)...X497																
Type	Displacement	Flow		Pressure	max Speed	Dimension											
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet				
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	M	G	U				
20A(C)4,5X497...	4,5	6,14	14,33	250	3500	41,4	79,6	40	15	M6-6H			3/4"-16UNF				
20A(C)6,3X497...	6,3	8,69	20,29	250	3500	42,6	82,6										
20A(C)8,2X497...	8,2	11,32	26,40	250	3500	44,7	85,5		20								
20A(C)10X497...	10	13,95	32,55	250	3500	49,1	88,6										
20A(C)11X497...	11,3	15,76	36,78	250	3500	49,1	90,7										
20A(C)12X497...	12	16,92	39,48	250	3500	49,1	91,9										
20A(C)14X497...	14	19,95	46,55	250	3500	49,1	95										
20A(C)15X497...	15	21,60	36,00	250	2500	49,1	96,5										
20A(C)16X497...	16	23,04	38,40	250	2500	49,1	98,2										
20A(C)19X497...	19	27,36	45,60	200	2500	49,1	103,1										
20A(C)22X497...	22	31,68	42,24	180	2000	56,6	108,1										
20A(C)25X497...	25	36,00	48,00	160	2000	58,8	113										



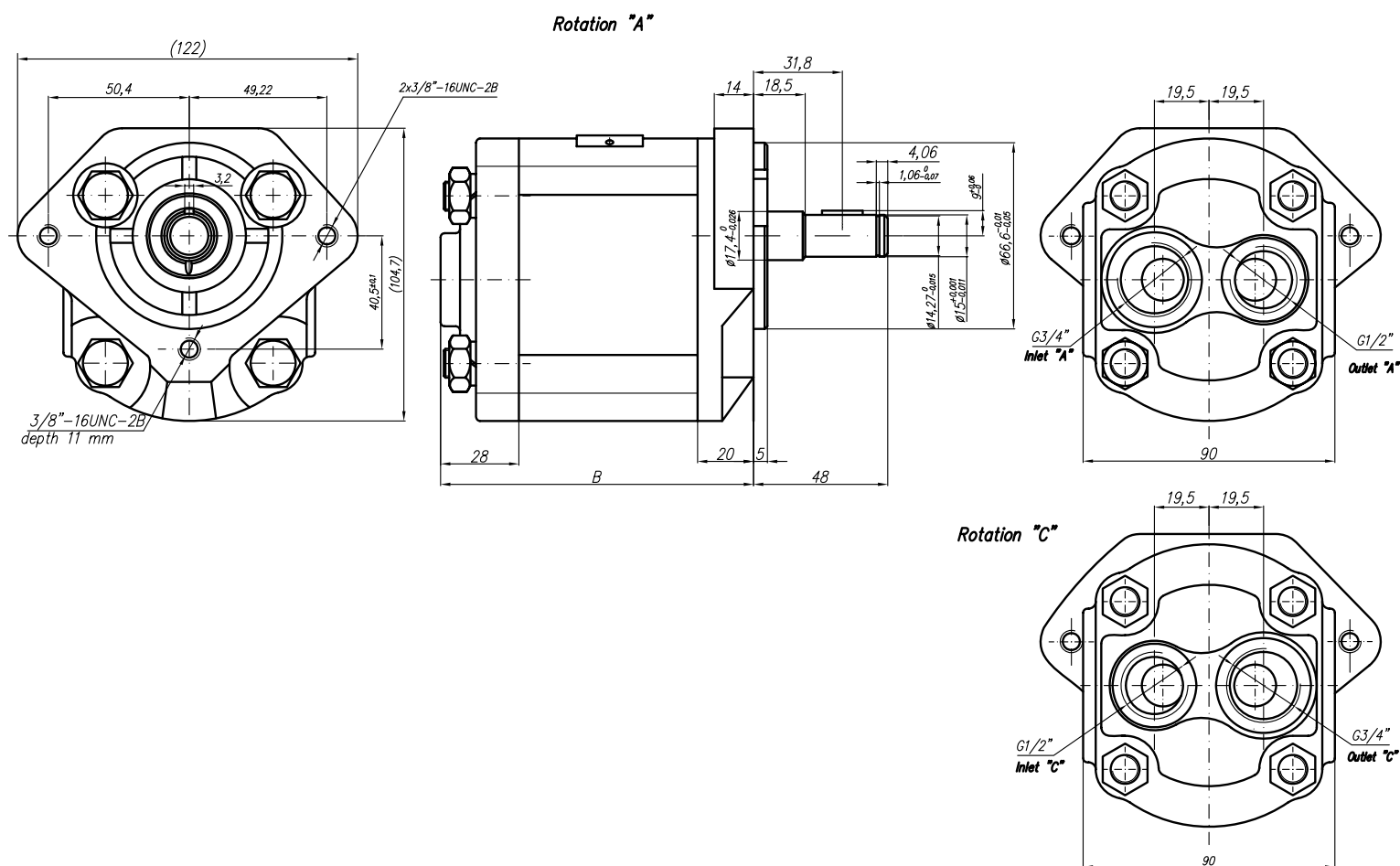
L
Inlet




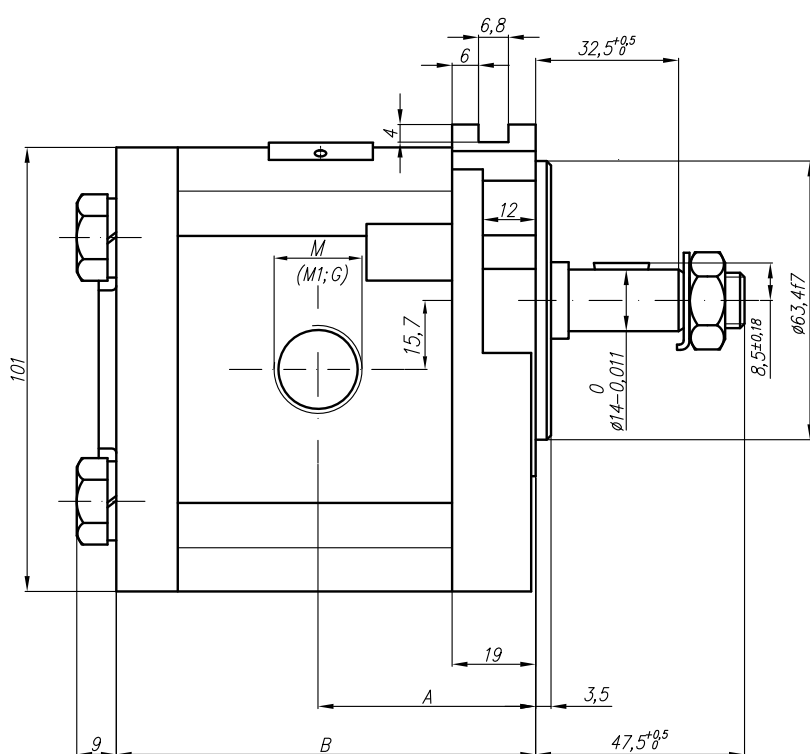
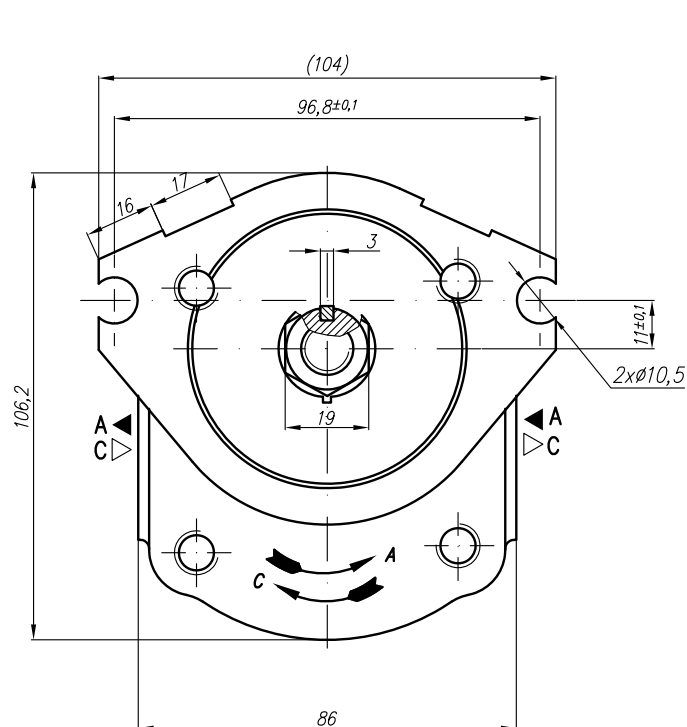
PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X498H												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	M	G	U
20A(C)15X498H	15	21,60	36,00	250	2500			39,7	19	M8-6H	30,2	14,2	M6-6H
20A(C)16X498H	16	23,04	38,40	250	2500	64	123						
20A(C)17,3X498H	17,3	24,91	41,52	230	2500								
20A(C)18,2X498H	18,2	26,21	43,68	200	2500								
20A(C)19X498H	19	27,36	45,60	200	2500								
20A(C)22X498H	22	31,68	42,24	180	2000	69	133						
20A(C)25X498H	25	36,00	48,00	160	2000						39,7	19	M8-6H
20A(C)28X498H	28	40,32	53,76	120	2000								
20A(C)32X498H	32	46,08	46,08	100	1500								
20A(C)36X498H	36	51,84	51,84	80	1500								



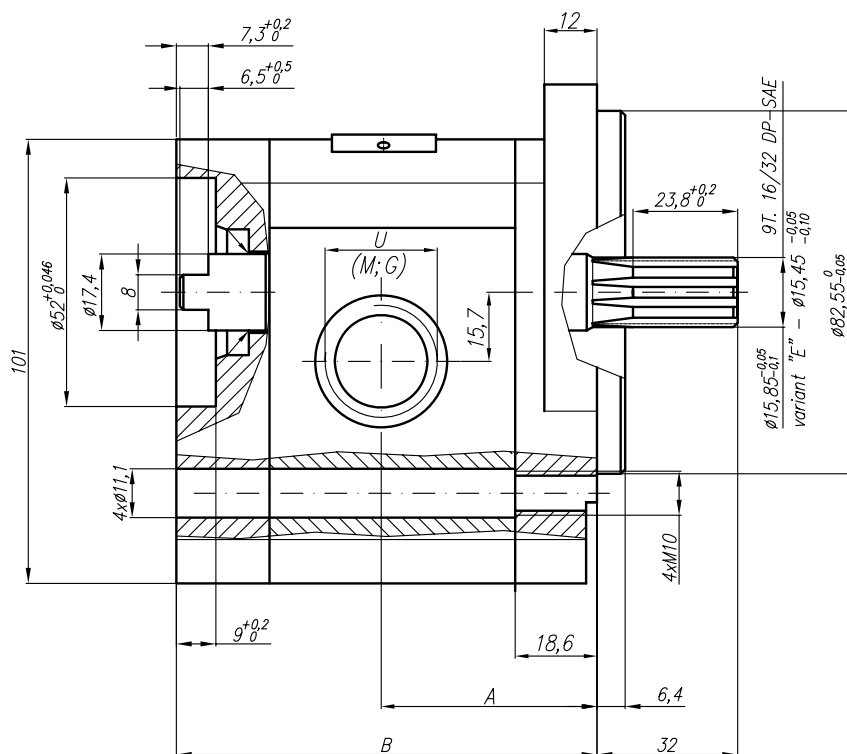
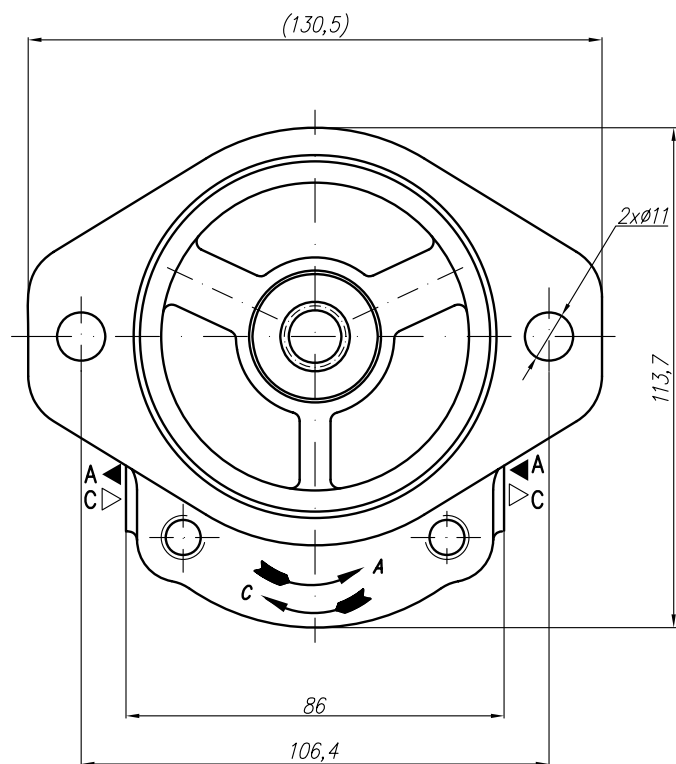
PGP PUMP	HENDERSO N Hydraulics°										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X500W												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5X500W	4,5	6,14	14,33	250	3500		96	G3/4"				G1/2"	
20A(C)6,3X500W	6,3	8,69	20,29	250	3500		99						
20A(C)8,2X500W	8,2	11,32	26,40	250	3500		102						
20A(C)10X500W	10	13,95	32,55	250	3500		105						
20A(C)11X500W	11,3	15,76	36,78	250	3500		107						
20A(C)12X500W	12	16,92	39,48	250	3500		108,3						
20A(C)14X500W	14	19,95	46,55	250	3500		111,4						
20A(C)15X500W	15	21,60	36,00	250	2500		113						
20A(C)16X500W	16	23,04	38,40	250	2500		114,5						
20A(C)19X500W	19	27,36	45,60	200	2500		119,5						
20A(C)22X500W	22	31,68	42,24	180	2000		124,5						
20A(C)25X500W	25	36,00	48,00	160	2000		129,4						



PGP PUMP	HENDERS  N Hydraulics®										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X511...												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	M1	G	M	M1	G
20A(C)4,5X511...	4,5	6,14	14,33	250	3500			M22x1,5	M22x1,5		M16x1,5	M18x1,5	
20A(C)6,3X511...	6,3	8,69	20,29	250	3500								
20A(C)8,2X511...	8,2	11,32	26,40	250	3500								
20A(C)10X511...	10	13,95	32,55	250	3500	44,5	89						
20A(C)11X511...	11,3	15,76	36,78	250	3500								
20A(C)12X511...	12	16,92	39,48	250	3500								
20A(C)14X511...	14	19,95	46,55	250	3500								
20A(C)15X511...	15	21,60	36,00	250	2500								
20A(C)16X511...	16	23,04	38,40	250	2500								
20A(C)19X511...	19	27,36	45,60	200	2500								
20A(C)22X511...	22	31,68	42,24	180	2000								
20A(C)25X511...	25	36,00	48,00	160	2000								



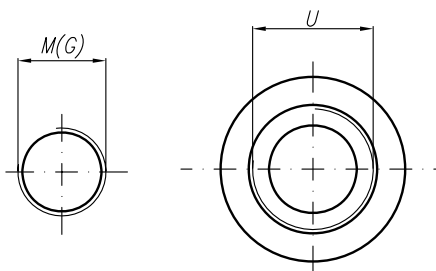
PGP PUMP	HENDERSO [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X514...												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5X514...	4,5	6,14	14,33	250	3500	42	86,8	M20x1,5	G1/2	1 1/16"-12UNF	M16x1,5	G1/2	7/8"-14UNF
20A(C)6,3X514...	6,3	8,69	20,29	250	3500	43,6	86,8						
20A(C)8,2X514...	8,2	11,32	26,40	250	3500	45	86,8						
20A(C)10X514...	10	13,95	32,55	250	3500	46,6	95,8		G3/4				
20A(C)11X514...	11,3	15,76	36,78	250	3500	47,6	97,9						
20A(C)12X514...	12	16,92	39,48	250	3500	48,2	99,1						
20A(C)14X514...	14	19,95	46,55	250	3500	49,6	102,1						
20A(C)15X514...	15	21,60	36,00	250	2500	50,6	103,7						
20A(C)16X514...	16	23,04	38,40	250	2500	51,6	105,3						
20A(C)19X514...	19	27,36	45,60	200	2500	53,6	110,3						
20A(C)22X514...	22	31,68	42,24	180	2000	56,6	115,3						
20A(C)25X514...	25	36,00	48,00	160	2000	58,8	120,2						



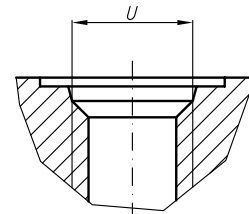
V
Variants for ports – M; G; U

Designations:

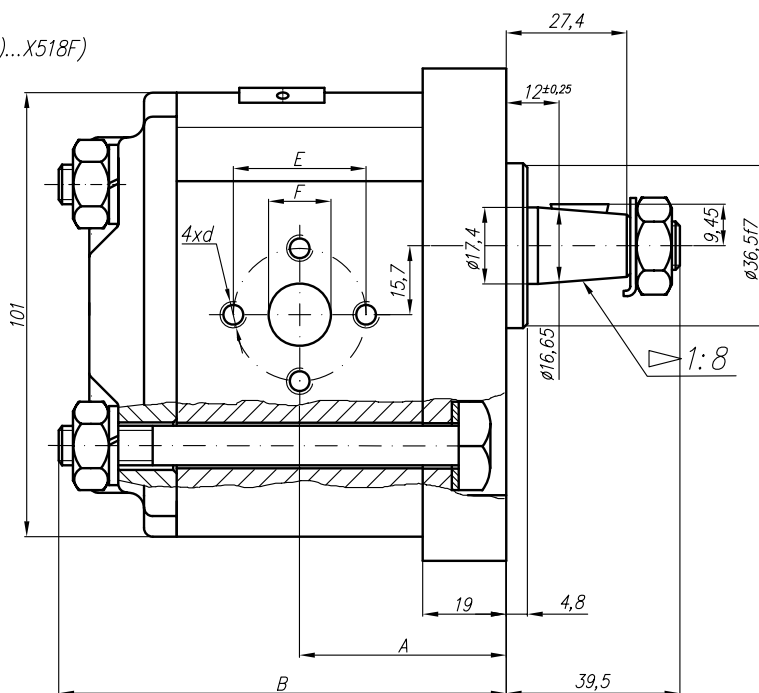
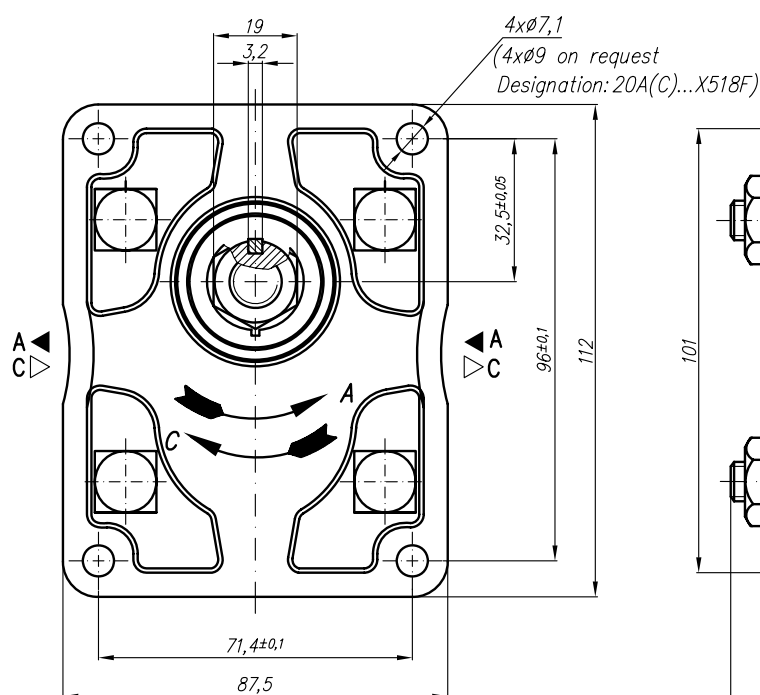
- ...X514M – Metric threads;
- ...X514G – GAS threads;
- ...X514U – SAE UNF threads;



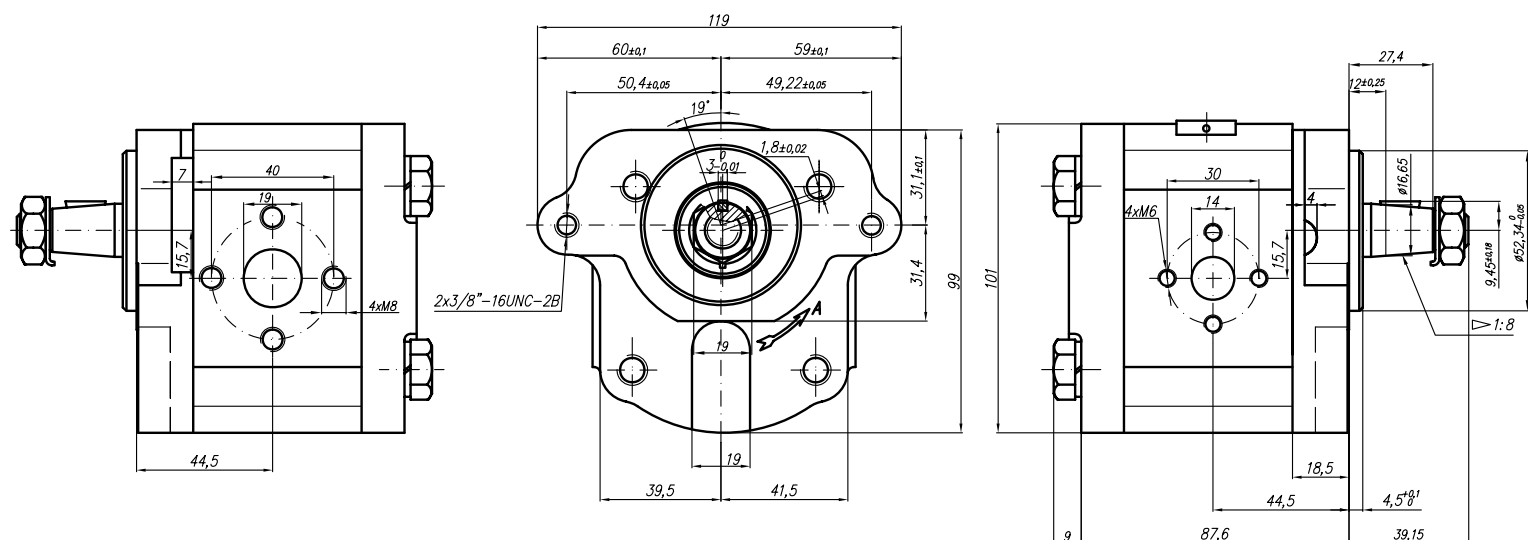
SAE J475 (ISO R725)




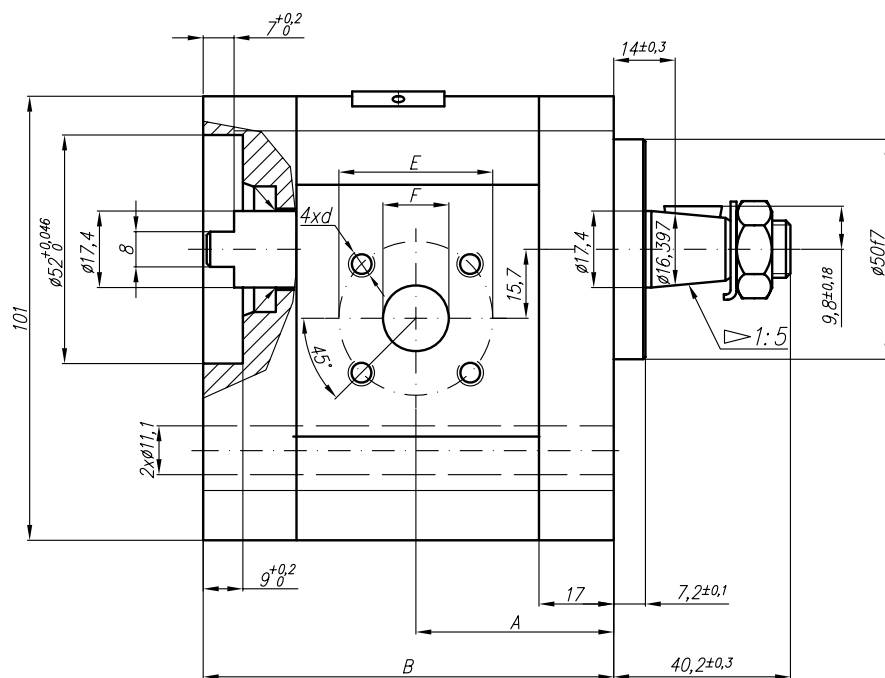
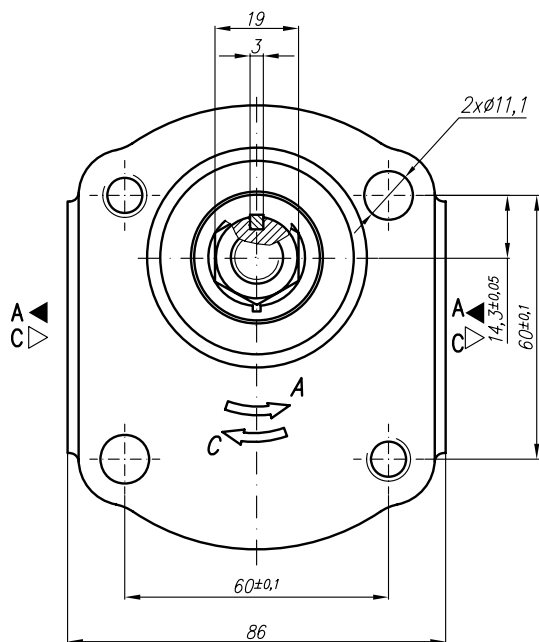
PGP PUMP	HENDERS [®] ON Hydraulics [®]													GROUP II			
	GEAR PUMP TYPE PGP 20A(C)...X518																
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension											
		at 1500 rpm	at max rpm			A	B	Inlet				Outlet					
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	d	E	F	d	d		
20A(C)4,5X518	4,5	6,14	14,33	175	3500	42,5	92,8	30,2	13,1	1/4-20UNC		30,2	13,1				
20A(C)6,3X518	6,3	8,69	20,29	175	3500	42,5	92,8										
20A(C)8,2X518	8,2	11,32	26,40	175	3500	42,5	92,8										
20A(C)10X518	10	13,95	32,55	175	3500	47	101,8										
20A(C)11X518	11,3	15,76	36,78	175	3500	48	103,9										
20A(C)12X518	12	16,92	39,48	175	3500	48,6	105,1										
20A(C)14X518	14	19,95	46,55	175	3500	50	108,2										
20A(C)15X518	15	21,60	36,00	175	2500	51	109,7										
20A(C)15X518SS	15	21,60	36,00	140	2500	48	103,8	39,7	19	5/16"-18UNC			14,2	1/4"-20UNC			
20A(C)16X518	16	23,04	38,40	175	2500	52	111,4										
20A(C)17,3X518	17,3	24,91	41,52	175	2500	52,8	113,4										
20A(C)19X518	19	27,36	45,60	175	2500	54	116,3										
20A(C)19X518SS	19	27,36	45,60	105	2500	51,4	110										
20A(C)22X518	22	31,68	42,24	175	2000	57	121,3										
20A(C)25X518	25	36,00	48,00	160	2000	59,2	126,2					39,7	19	5/16"			




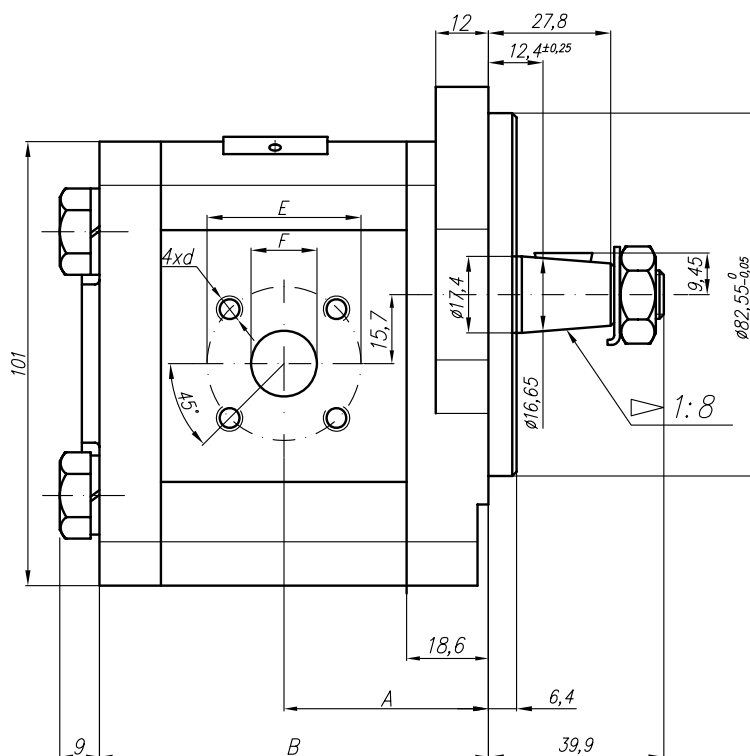
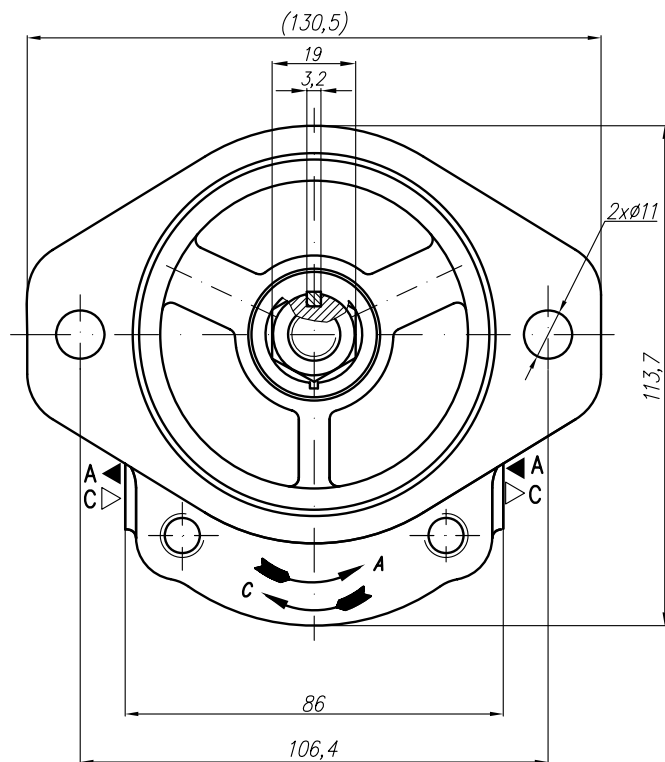
PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X525												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X525	4,5	6,14	14,33	250	3500								
20A(C)6,3X525	6,3	8,69	20,29	250	3500								
20A(C)8,2X525	8,2	11,32	26,40	250	3500								
20A(C)10X525	10	13,95	32,55	250	3500								
20A(C)11X525	11,3	15,76	36,78	250	3500	44,5	87,6						
20A(C)12X525	12	16,92	39,48	250	3500								
20A(C)14X525	14	19,95	46,55	250	3500								
20A(C)15X525	15	21,60	36,00	250	2500								
20A(C)16X525	16	23,04	38,40	250	2500								
20A(C)19X525	19	27,36	45,60	200	2500								
20A(C)22X525	22	31,68	42,24	180	2000								
20A(C)25X525	25	36,00	48,00	160	2000								



PGP PUMP	HENDERS  N Hydraulics®											GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X528													
Type	Displacement	Flow		Pressure	max Speed	Dimension								
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet	
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d	
20A(C)4,5X528	4,5	6,14	14,33	250	3500	40,5	85,2	40	15	M6-6H	35	15	M6-6H	
20A(C)6,3X528	6,3	8,69	20,29	250	3500	42	88,2							
20A(C)8,2X528	8,2	11,32	26,40	250	3500	43,5	91,1							
20A(C)10X528	10	13,95	32,55	250	3500	45	94,1							
20A(C)11X528	11,3	15,76	36,78	250	3500	46	96,2							
20A(C)12X528	12	16,92	39,48	250	3500	46,5	97,5							
20A(C)14X528	14	19,95	46,55	250	3500	48	100,6							
20A(C)15X528	15	21,60	36,00	250	2500	49	102,1							
20A(C)16X528	16	23,04	38,40	250	2500	50	103,8							
20A(C)19X528	19	27,36	45,60	200	2500	52	108,7							
20A(C)22X528	22	31,68	42,24	180	2000	55	113,7							
20A(C)25X528	25	36,00	48,00	160	2000	57,2	118,5							



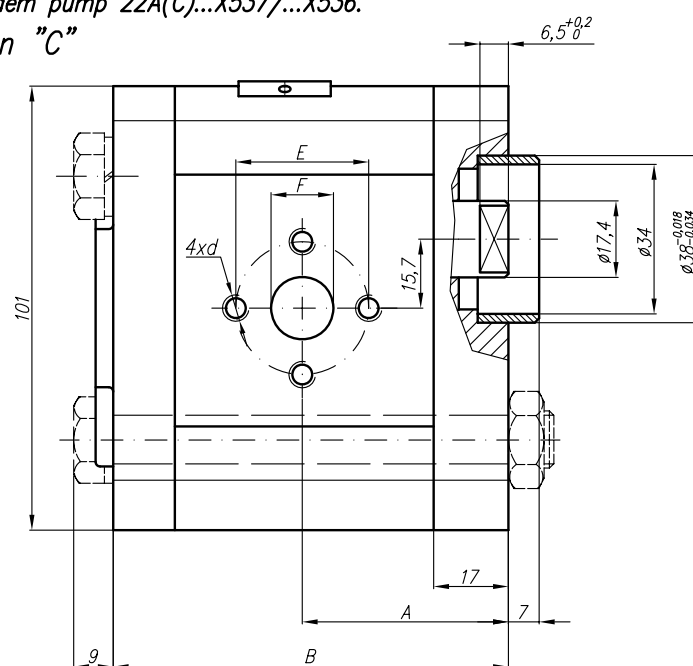
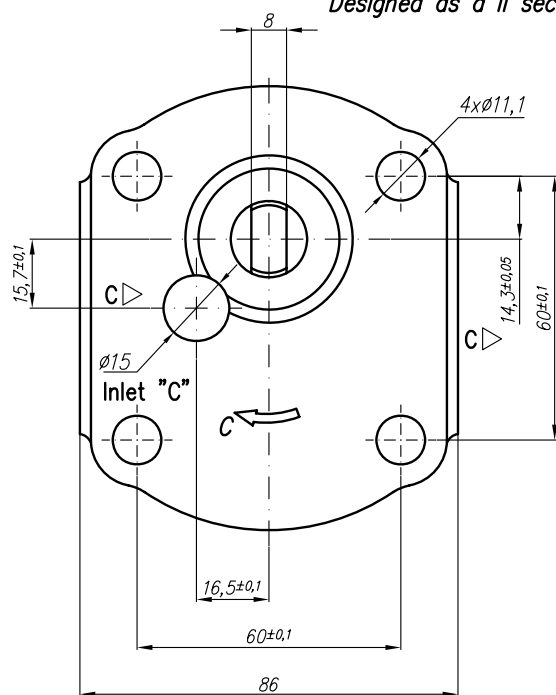
PGP PUMP	HENDERS  N Hydraulics®										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X529												
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X529	4,5	6,14	14,33	250	3500	42	79,6	40	15	M6-6H	35	15	M6-6H
20A(C)6,3X529	6,3	8,69	20,29	250	3500	43,6	82,6						
20A(C)8,2X529	8,2	11,32	26,40	250	3500	45	85,6		20				
20A(C)10X529	10	13,95	32,55	250	3500	46,6	88,7						
20A(C)11X529	11,3	15,76	36,78	250	3500	47,6	90,7						
20A(C)12X529	12	16,92	39,48	250	3500	48,2	91,9						
20A(C)14X529	14	19,95	46,55	250	3500	49,6	95						
20A(C)15X529	15	21,60	36,00	250	2500	50,6	96,5						
20A(C)16X529	16	23,04	38,40	250	2500	51,6	98,2						
20A(C)19X529	19	27,36	45,60	200	2500	53,6	103,1						
20A(C)22X529	22	31,68	42,24	180	2000	56,6	108,1						
20A(C)25X529	25	36,00	48,00	160	2000	58,8	113						



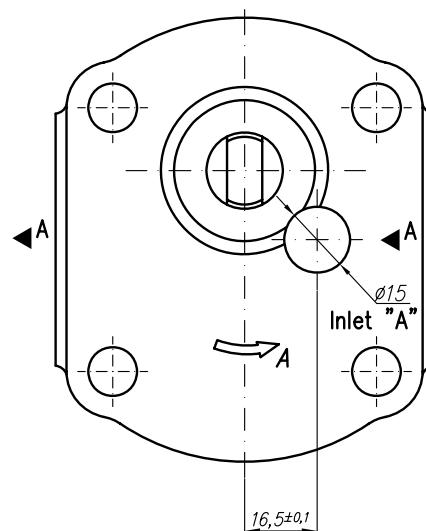
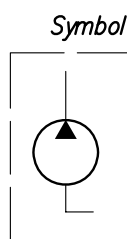
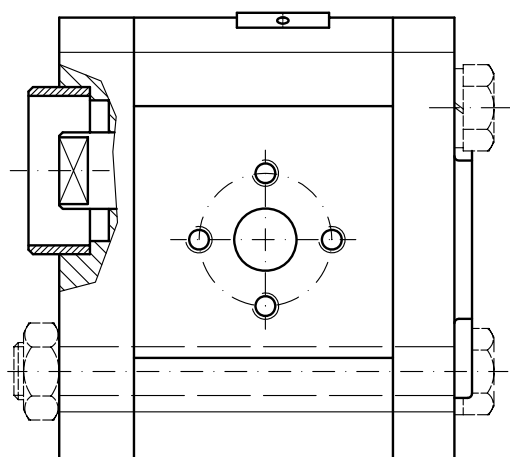
PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X536												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X536	4,5	6,14	14,33	250	3500						30,2		1/4"-20UNC
20A(C)6,3X536	6,3	8,69	20,29	250	3500								
20A(C)8,2X536	8,2	11,32	26,40	250	3500								
20A(C)10X536	10	13,95	32,55	250	3500								
20A(C)11X536	11,3	15,76	36,78	250	3500	46,9	89						
20A(C)12X536	12	16,92	39,48	250	3500								
20A(C)14X536	14	19,95	46,55	250	3500								
20A(C)15X536	15	21,60	36,00	250	2500								
20A(C)16X536	16	23,04	38,40	250	2500								
20A(C)19X536	19	27,36	45,60	200	2500								
20A(C)22X536	22	31,68	42,24	180	2000								
20A(C)25X536	25	36,00	48,00	160	2000								

Designed as a II section of tandem pump 22A(C)...X537/...X536.

Rotation "C"

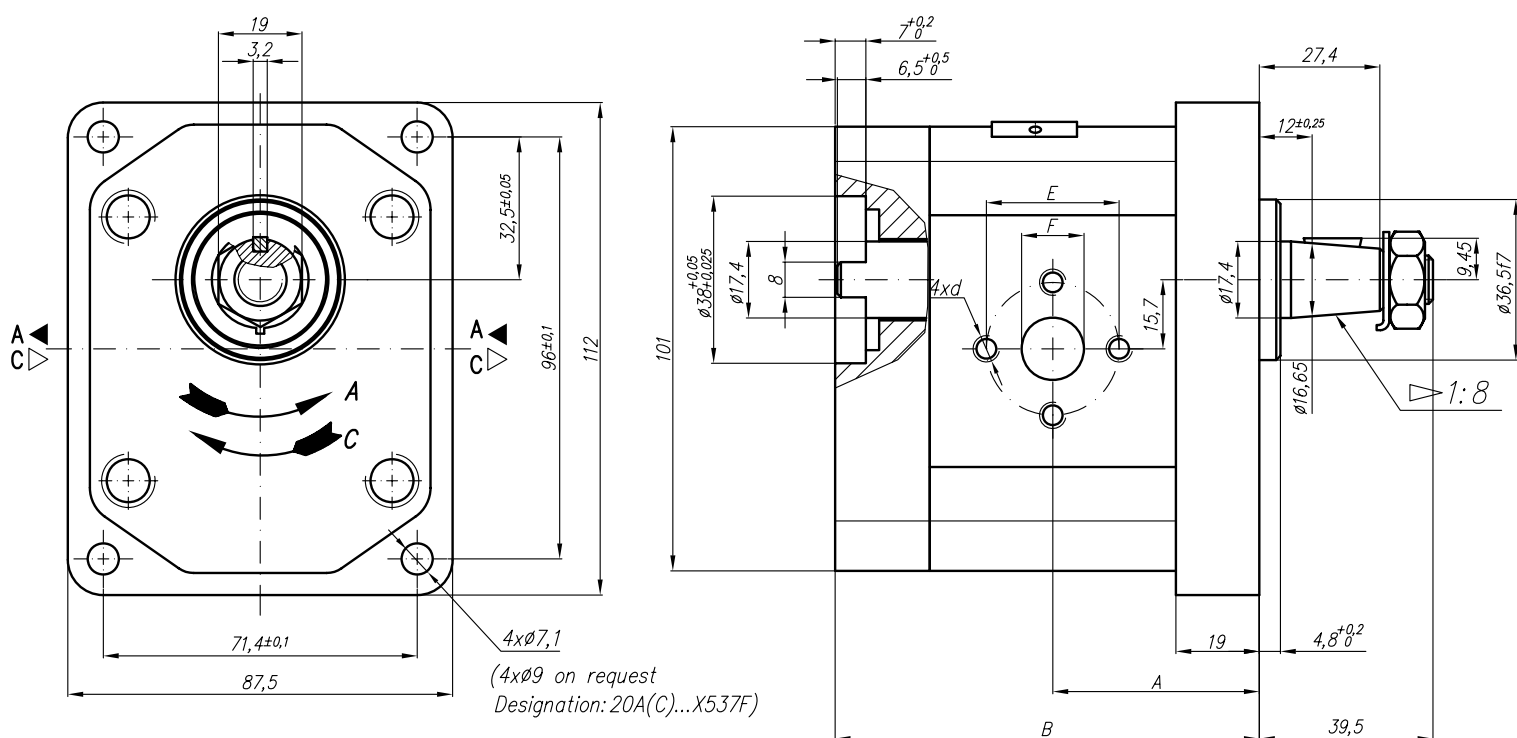


Rotation "A"

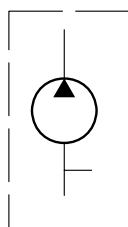


PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X537												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X537	4,5	6,14	14,33	200	3500						30		1/4"-20UNC
20A(C)6,3X537	6,3	8,69	20,29	200	3500								
20A(C)8,2X537	8,2	11,32	26,40	200	3500								
20A(C)10X537	10	13,95	32,55	200	3500			40	19	5/16"-18UNC			
20A(C)11X537	11,3	15,76	36,78	200	3500								
20A(C)12X537	12	16,92	39,48	200	3500								
20A(C)14X537	14	19,95	46,55	200	3500			48,2			104,1		
20A(C)15X537	15	21,60	36,00	200	2500								
20A(C)16X537	16	23,04	38,40	200	2500								
20A(C)19X537	19	27,36	45,60	200	2500								
20A(C)22X537	22	31,68	42,24	180	2000								
20A(C)25X537	25	36,00	48,00	160	2000								

Designed as a I section of tandem pump 22A(C)...X537/...X536.



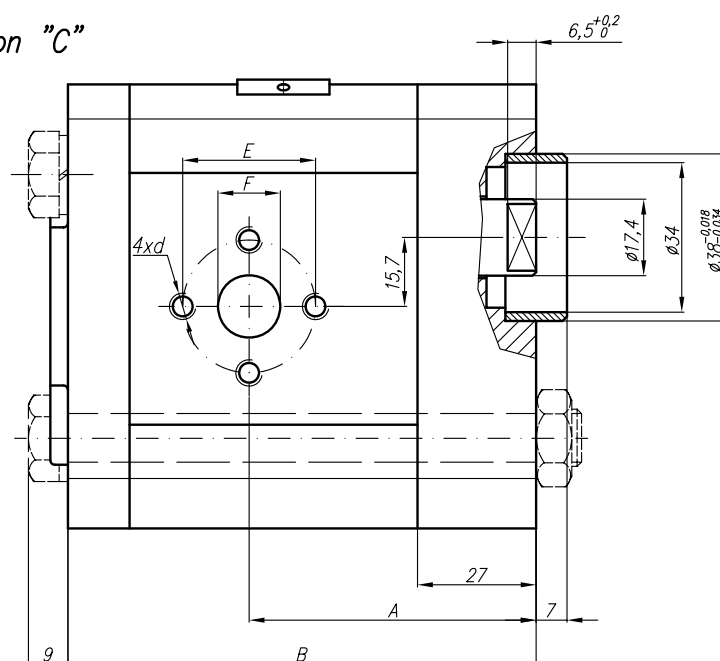
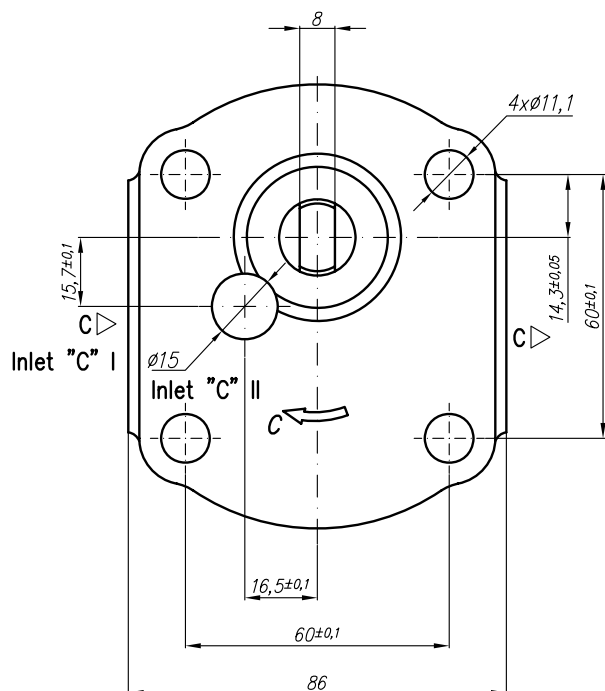
Symbol



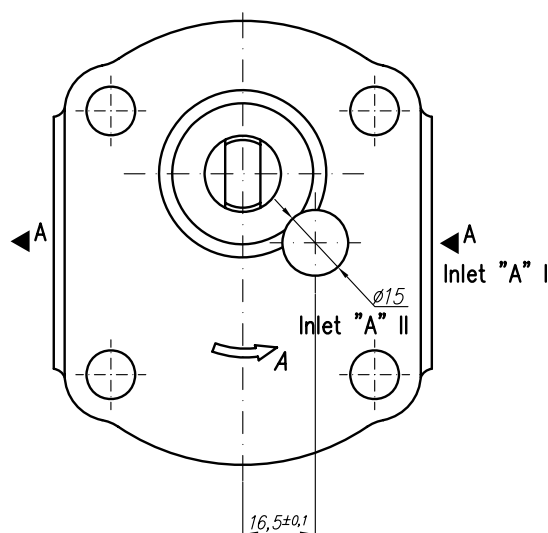
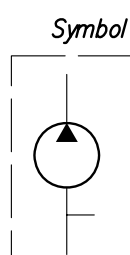
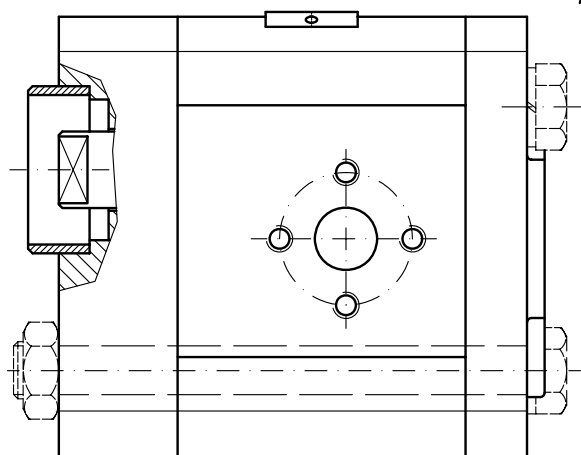
PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X538												
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X538	4,5	6,14	14,33	200	3500			39,7	19	5/16"-18UNC	30,2	14,2	1/4"-20UNC
20A(C)6,3X538	6,3	8,69	20,29	200	3500								
20A(C)8,2X538	8,2	11,32	26,40	200	3500								
20A(C)10X538	10	13,95	32,55	200	3500								
20A(C)11X538	11,3	15,76	36,78	200	3500								
20A(C)12X538	12	16,92	39,48	200	3500								
20A(C)14X538	14	19,95	46,55	200	3500								
20A(C)15X538	15	21,60	36,00	200	2500								
20A(C)16X538	16	23,04	38,40	200	2500	65,3	106,5						
20A(C)19X538	19	27,36	45,60	200	2500								
20A(C)22X538	22	31,68	42,24	180	2000								
20A(C)25X538	25	36,00	48,00	160	2000								


Designed as a II section of tandem pump 22A(C)...X539/...X538.

Rotation "C"

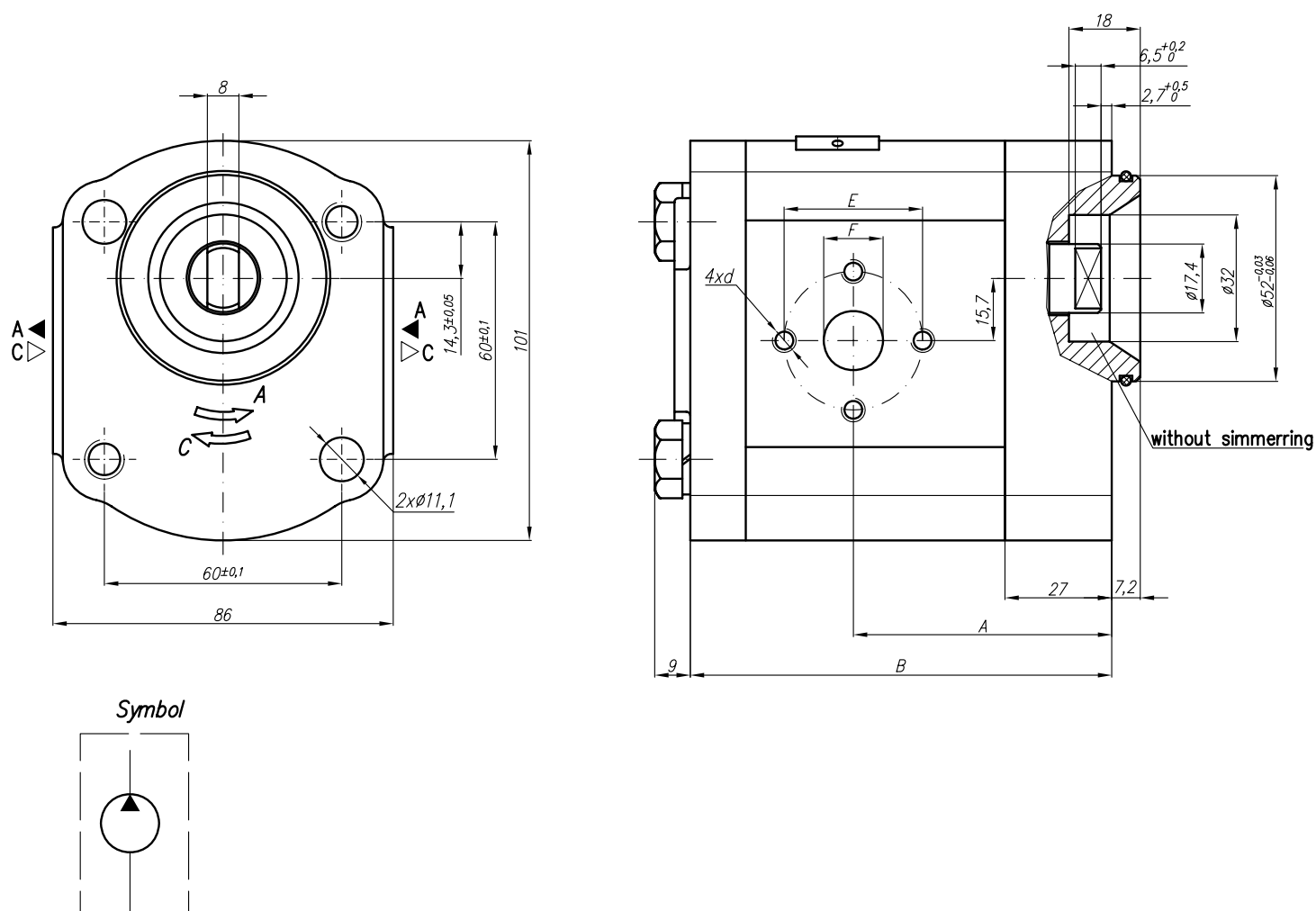


Rotation "A"



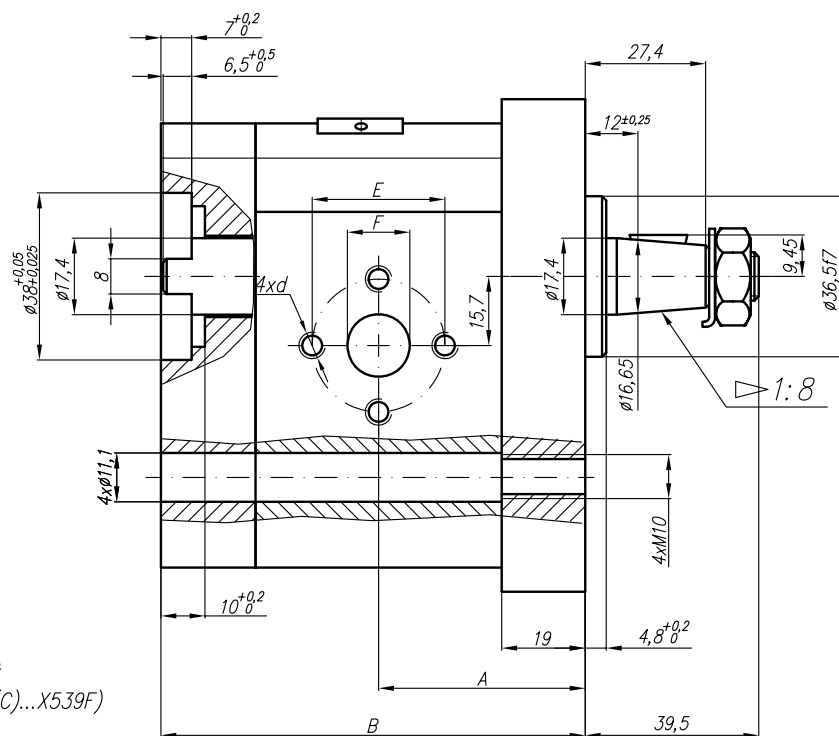
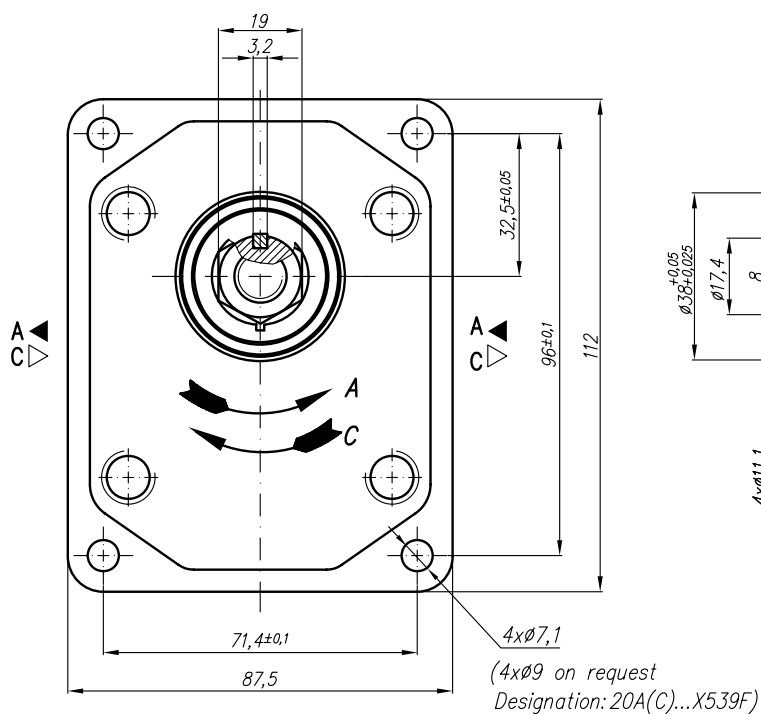
PGP PUMP	HENDERS  N Hydraulics°										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X538S												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X538S	4,5	6,14	14,33	200	3500			39,7	19	5/16"-18UNC	30,2	14,2	1/4"-20UNC
20A(C)6,3X538S	6,3	8,69	20,29	200	3500								
20A(C)8,2X538S	8,2	11,32	26,40	200	3500								
20A(C)10X538S	10	13,95	32,55	200	3500								
20A(C)11X538S	11,3	15,76	36,78	200	3500								
20A(C)12X538S	12	16,92	39,48	200	3500								
20A(C)14X538S	14	19,95	46,55	200	3500								
20A(C)15X538S	15	21,60	36,00	200	2500								
20A(C)16X538S	16	23,04	38,40	200	2500	65,3	106,5						
20A(C)19X538S	19	27,36	45,60	200	2500								
20A(C)22X538S	22	31,68	42,24	180	2000								
20A(C)25X538S	25	36,00	48,00	160	2000								

Designed as a II section of tandem pump 22A(C)...X539S/...X538S.

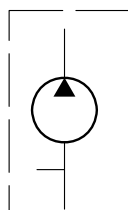


PGP PUMP	HENDERS [®] ON Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X539												
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X539	4,5	6,14	14,33	200	3500						30		1/4"-20UNC
20A(C)6,3X539	6,3	8,69	20,29	200	3500								
20A(C)8,2X539	8,2	11,32	26,40	200	3500								
20A(C)10X539	10	13,95	32,55	200	3500			40	19	5/16"-18UNC		14	
20A(C)11X539	11,3	15,76	36,78	200	3500								
20A(C)12X539	12	16,92	39,48	200	3500								
20A(C)14X539	14	19,95	46,55	200	3500								
20A(C)15X539	15	21,60	36,00	200	2500								
20A(C)16X539	16	23,04	38,40	200	2500			48,2	110,7				
20A(C)19X539	19	27,36	45,60	200	2500								
20A(C)22X539	22	31,68	42,24	180	2000								
20A(C)25X539	25	36,00	48,00	160	2000								

Designed as a I section of tandem pump 22A(C)...X539/...X538.

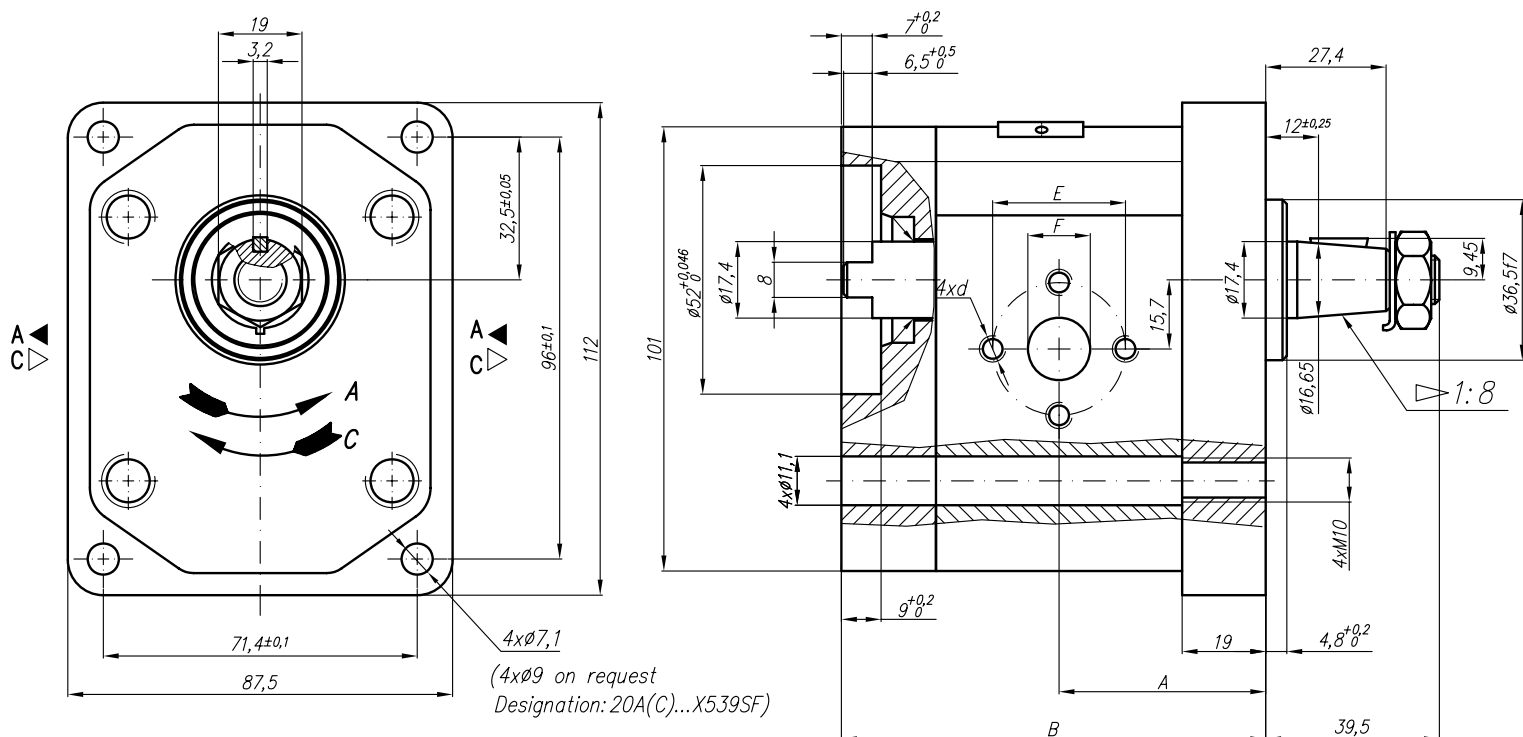


Symbol

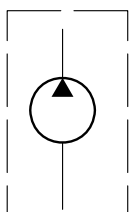


PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X539S												
Type	Displacement	Flow		Pressure	max Speed	Dimension							
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d
20A(C)4,5X539	4,5	6,14	14,33	200	3500						30		1/4"-20UNC
20A(C)6,3X539	6,3	8,69	20,29	200	3500								
20A(C)8,2X539	8,2	11,32	26,40	200	3500								
20A(C)10X539	10	13,95	32,55	200	3500			40	19	5/16"-18UNC			
20A(C)11X539	11,3	15,76	36,78	200	3500								
20A(C)12X539	12	16,92	39,48	200	3500								
20A(C)14X539	14	19,95	46,55	200	3500								
20A(C)15X539	15	21,60	36,00	200	2500								
20A(C)16X539	16	23,04	38,40	200	2500								
20A(C)19X539	19	27,36	45,60	200	2500	48,2	110,7						
20A(C)22X539	22	31,68	42,24	180	2000								
20A(C)25X539	25	36,00	48,00	160	2000								

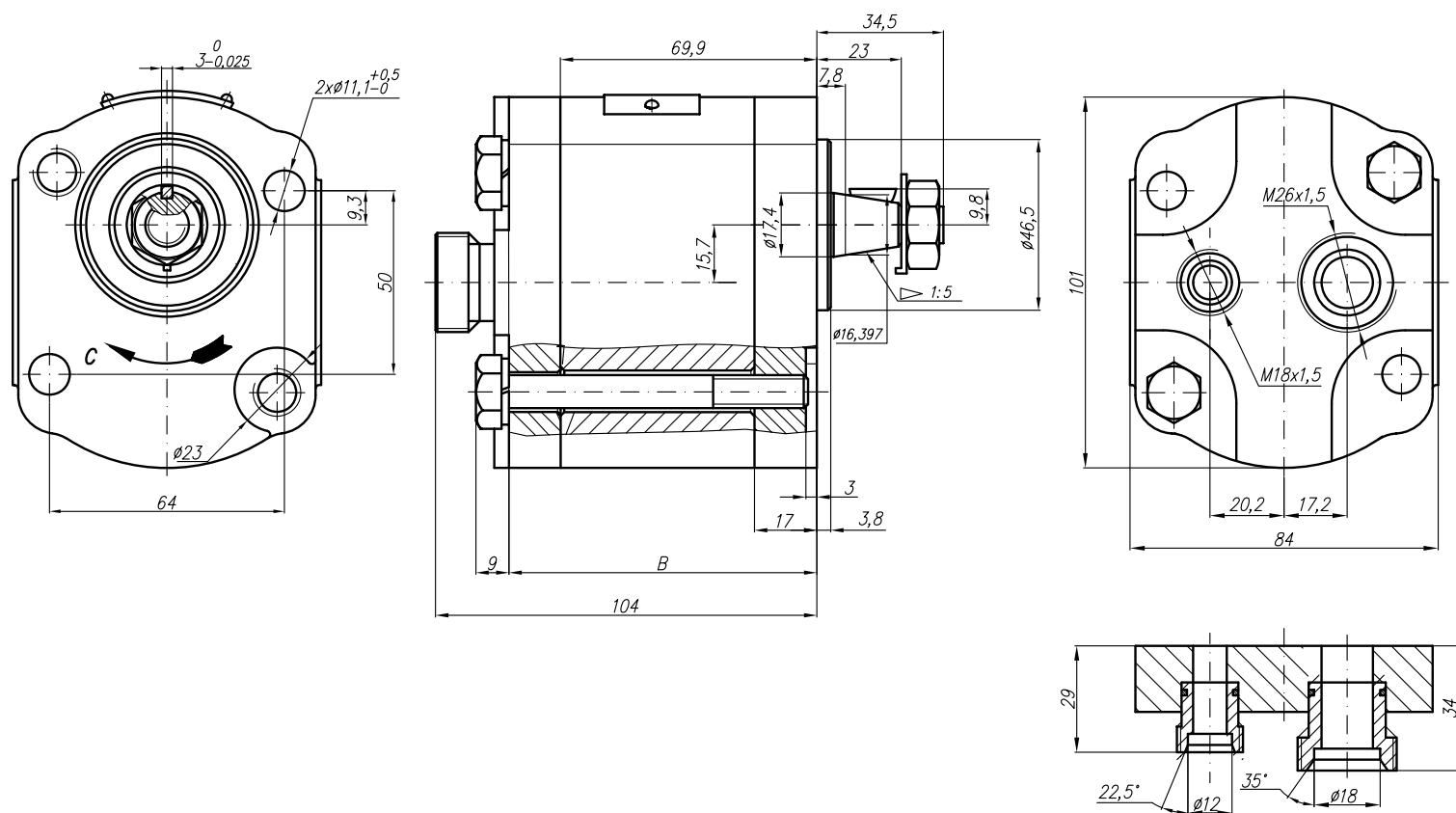
Designed as a I section of tandem pump 22A(C)...X539S/...X538S.



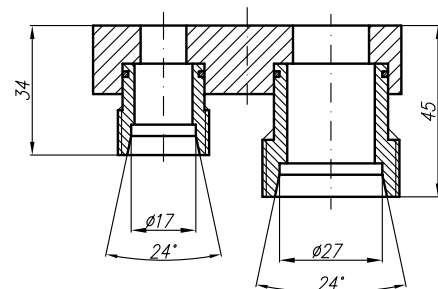
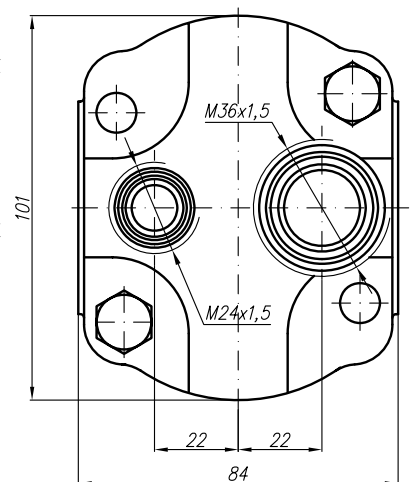
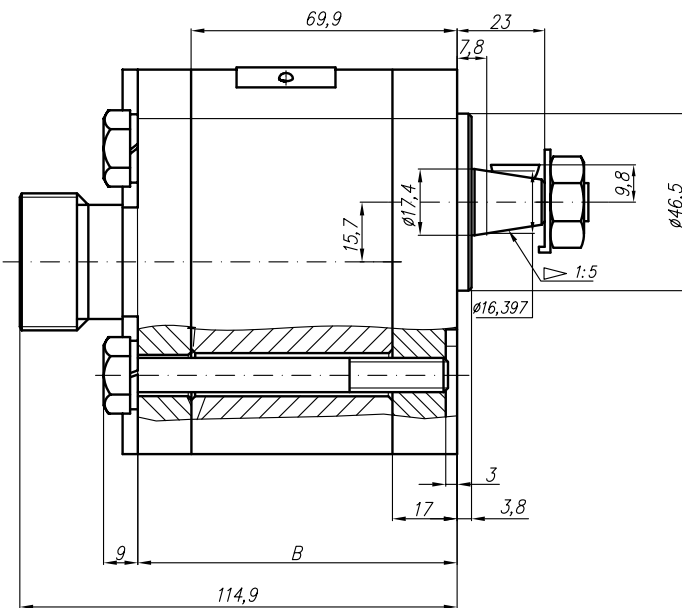
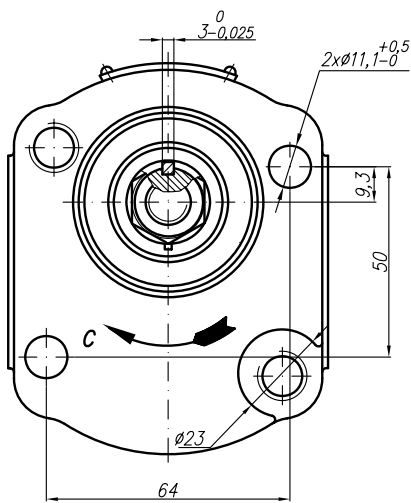
Symbol




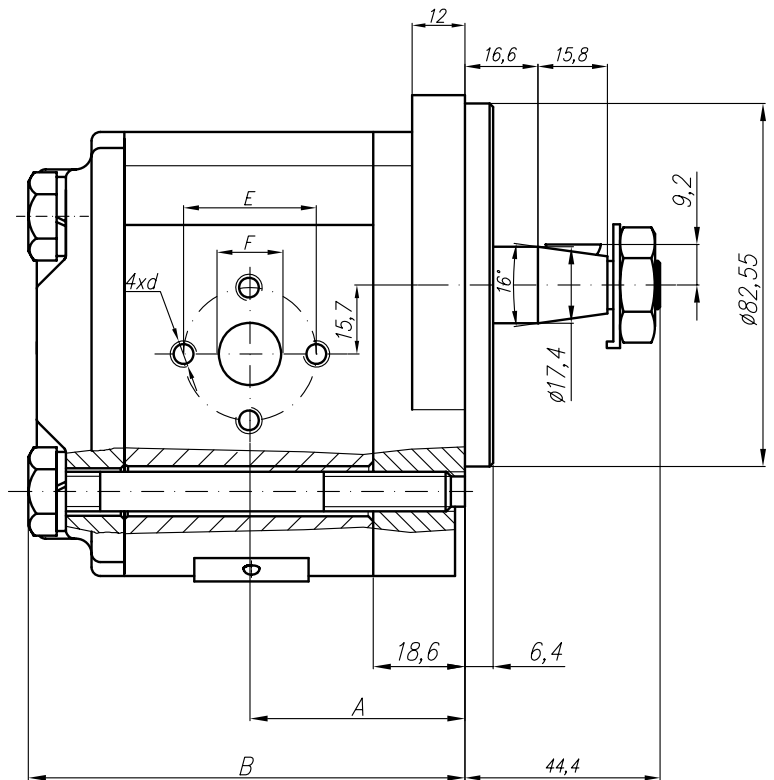
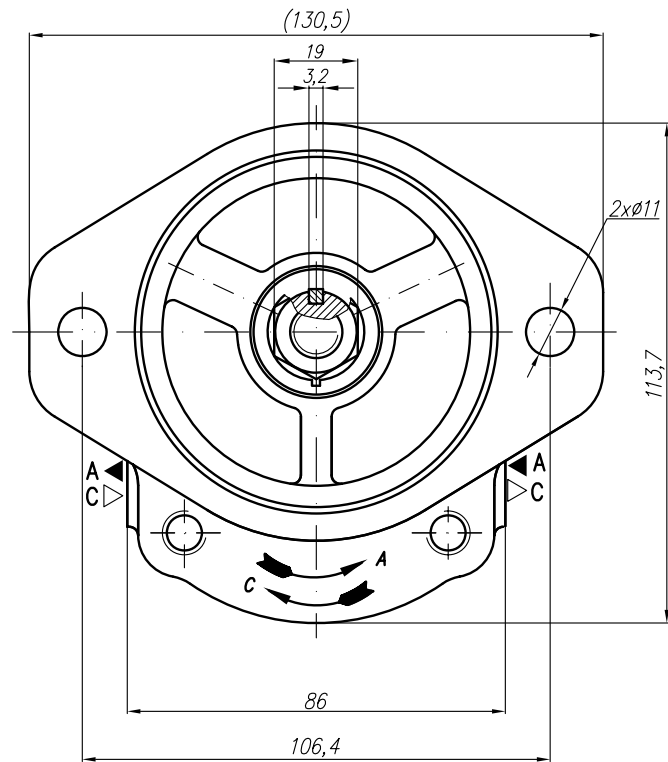
PGP PUMP	HENDERS [®] N Hydraulics [®]											GROUP II		
	GEAR PUMP TYPE PGP 20C...X540WMS													
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension								
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U	
20C4,5X540WMS	4,5	6,14	14,33	250	3500			M26x1,5			M18x1,5			
20C6,3X540WMS	6,3	8,69	20,29	250	3500									
20C8,2X540WMS	8,2	11,32	26,40	250	3500		83,9							
20C10X540WMS	10	13,95	32,55	250	3500									
20C11X540WMS	11,3	15,76	36,78	250	3500									
20C12X540WMS	12	16,92	39,48	250	3500									
20C14X540WMS	14	19,95	46,55	250	3500									
20C15X540WMS	15	21,60	36,00	250	2500									
20C16X540WMS	16	23,04	38,40	250	2500									
20C19X540WMS	19	27,36	45,60	200	2500									
20C22X540WMS	22	31,68	42,24	180	2000									
20C25X540WMS	25	36,00	48,00	160	2000									



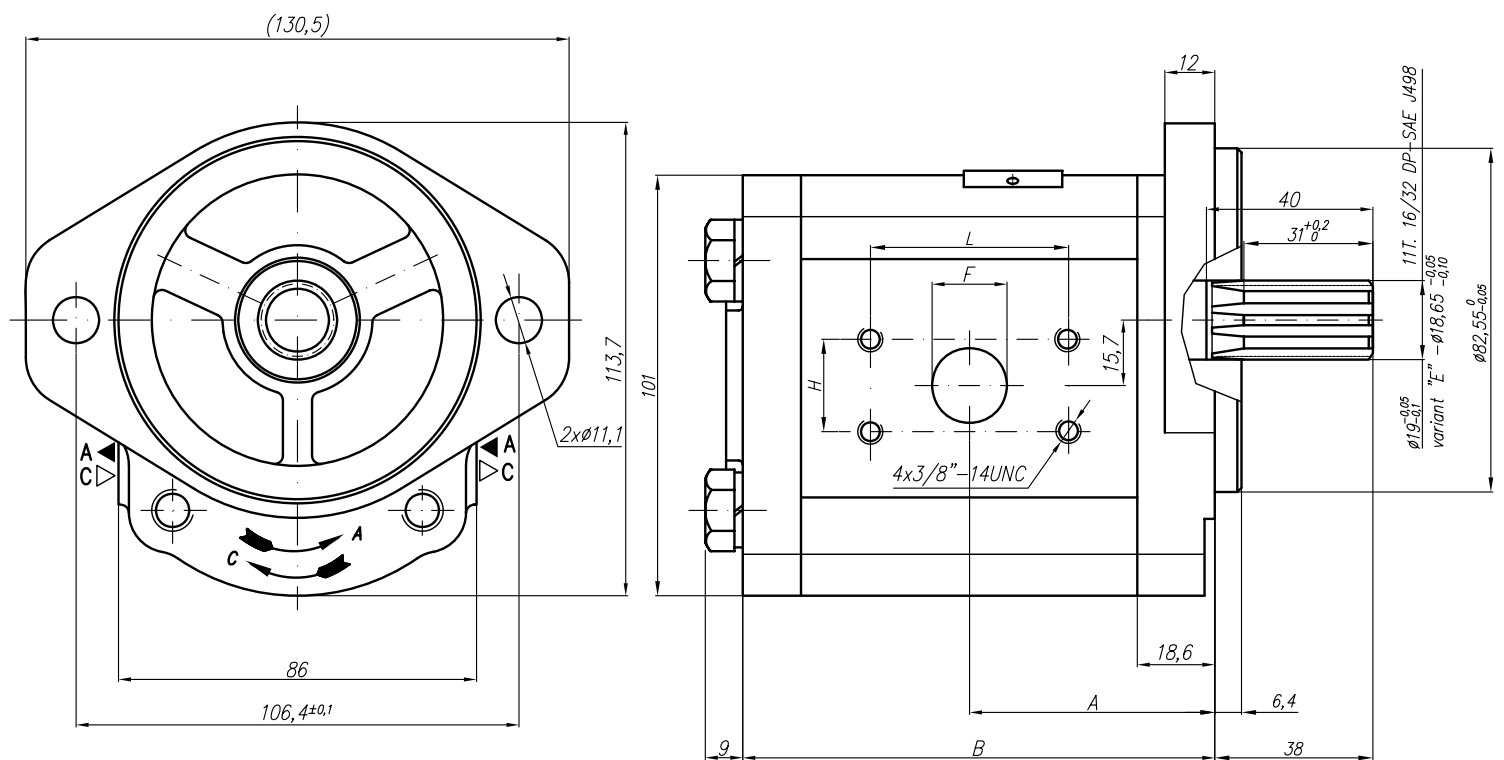
PGP PUMP	HENDERSO [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20C...X540WMS-2												
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20C4,5X540WMS-2	4,5	6,14	14,33	250	3500			M36x1,5			M24x1,5		
20C6,3X540WMS-2	6,3	8,69	20,29	250	3500								
20C8,2X540WMS-2	8,2	11,32	26,40	250	3500		83,9						
20C10X540WMS-2	10	13,95	32,55	250	3500								
20C11X540WMS-2	11,3	15,76	36,78	250	3500								
20C12X540WMS-2	12	16,92	39,48	250	3500								
20C14X540WMS-2	14	19,95	46,55	250	3500								
20C15X540WMS-2	15	21,60	36,00	250	2500								
20C16X540WMS-2	16	23,04	38,40	250	2500								
20C19X540WMS-2	19	27,36	45,60	200	2500								
20C22X540WMS-2	22	31,68	42,24	180	2000								
20C25X540WMS-2	25	36,00	48,00	160	2000								



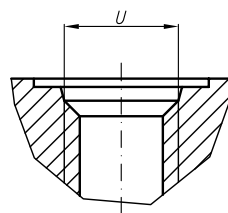
PGP PUMP	HENDERS  N Hydraulics®										GROUP II			
	GEAR PUMP TYPE PGP 20A(C)...X541													
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension								
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d	
20A(C)4,5X541	4,5	6,14	14,33	250	3500			30,2	13,1	M6-6H	30,2	13,1	M6-6H	
20A(C)6,3X541	6,3	8,69	20,29	250	3500									
20A(C)8,2X541	8,2	11,32	26,40	250	3500									
20A(C)10X541	10	13,95	32,55	250	3500			39,7	19	M8-6H		14,2		
20A(C)11X541	11,3	15,76	36,78	250	3500	48	106							
20A(C)12X541	12	16,92	39,48	250	3500									
20A(C)14X541	14	19,95	46,55	250	3500									
20A(C)15X541	15	21,60	36,00	250	2500									
20A(C)16X541	16	23,04	38,40	250	2500							19		M8
20A(C)19X541	19	27,36	45,60	200	2500									
20A(C)22X541	22	31,68	42,24	180	2000									
20A(C)25X541	25	36,00	48,00	160	2000									




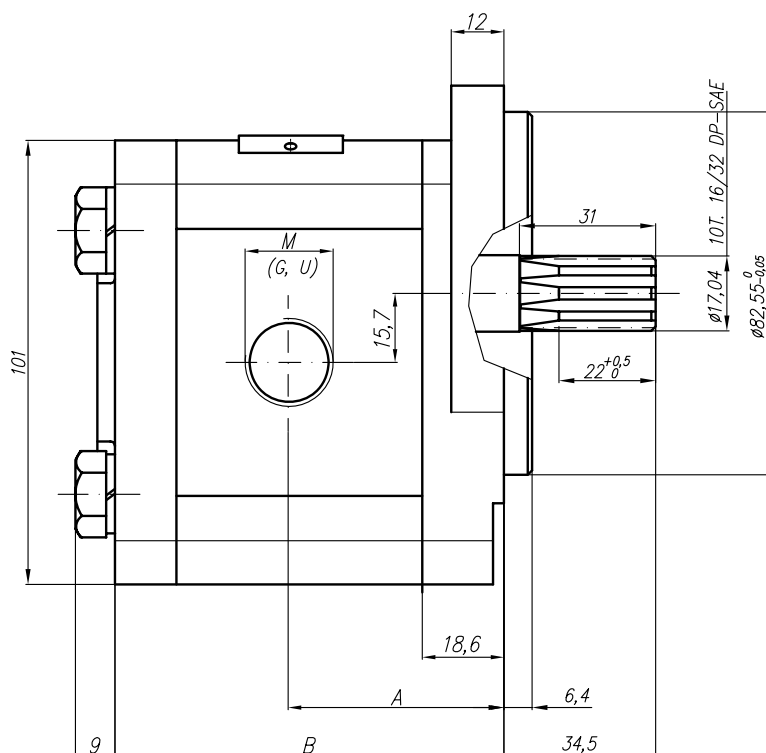
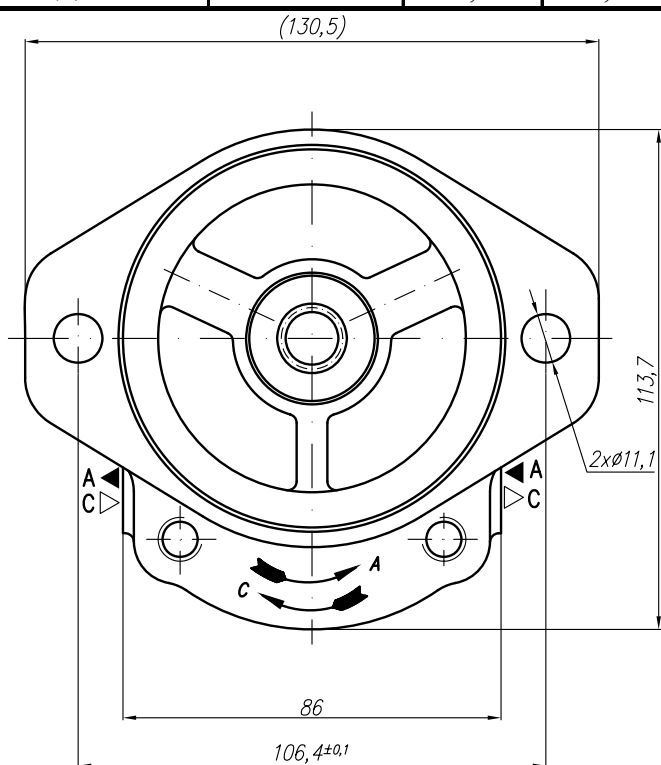
PGP PUMP	HENDERS [®] ON Hydraulics [®]														GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X550HD...																
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension											
		at 1500 rpm	at max rpm			A	B	Inlet				Outlet					
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	H	d	F	U	E	H	d	F	U
20A(C)15X550HD...	15	20,48	47,78	250	3500	55,6	106,8	52,7	26,2	3/8"-14UNC-2B	24	1 1/16"-12UNF	47,6	22	3/8"-14UNC-2B	17	7/8"-14UNF
20A(C)16X550HD...	16	22,08	51,52	250	3500	56,6	108,4										
20A(C)17,3X550HD...	17,3	23,87	55,71	250	3500	57,6	110,5										
20A(C)18,2X550HD...	18,2	25,39	59,24	230	3500	58,4	112,1										
20A(C)19X550HD...	19	26,51	61,85	230	3500	59	113,4										
20A(C)22X550HD...	22	31,02	72,38	200	3500	61,5	118,4										
20A(C)25X550HD...	25	35,63	83,13	200	3500	63,9	123,3										
20A(C)28X550HD...	28	40,32	67,20	170	2500	66,4	128,1										
20A(C)32X550HD...	32	46,08	76,80	150	2500	69,6	134,4										
20A(C)36X550HD...	36	51,84	86,40	120	2500	72,8	141				1 5/16"-12 UNF	1 1/16"-12UNF					



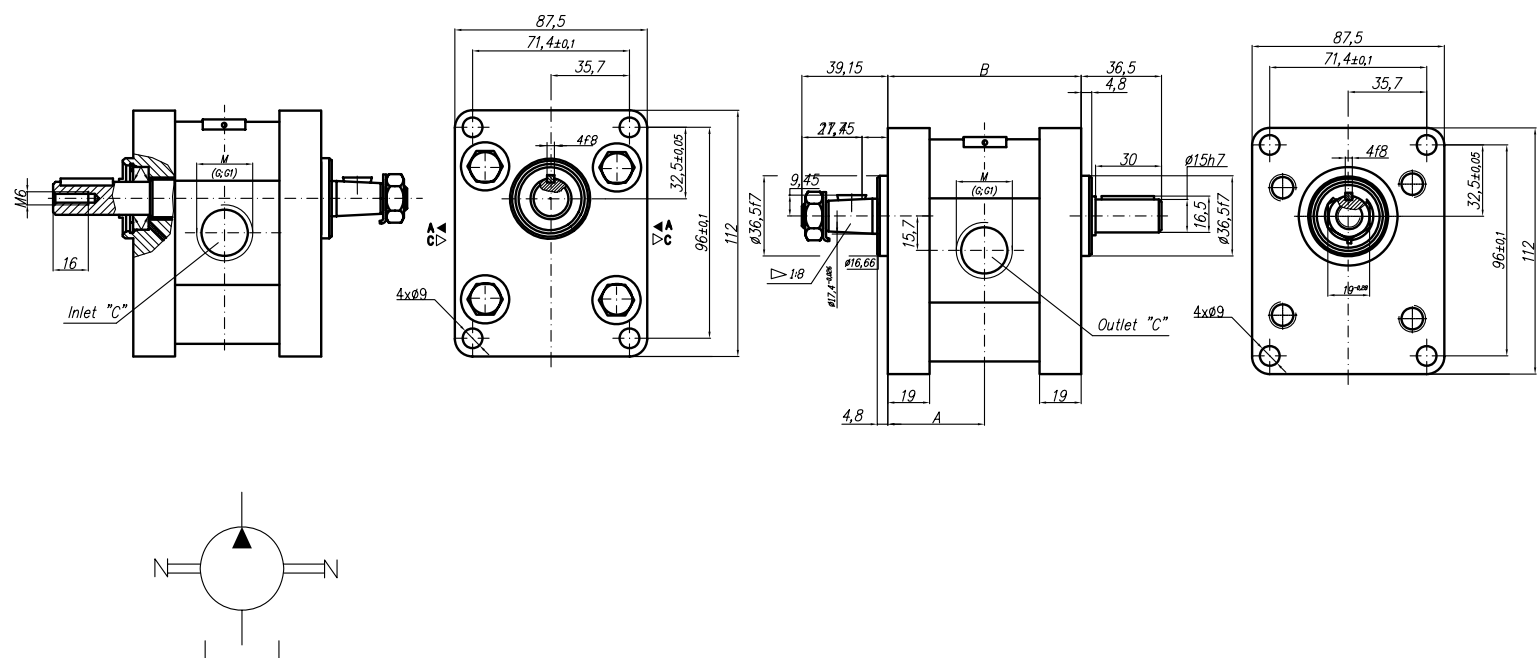
Variant "U"
SAE J475 (ISO R725)



PGP PUMP	HENDERS  N Hydraulics®										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X554...(H)												
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5X554...	4,5	6,14	14,33	250	3500	41,4	79,6	M20x1,5	G1/2	1 1/16"-12UNF	M16x1,5	G1/2	7/8"-14UNF
20A(C)6,3X554...	6,3	8,69	20,29	250	3500	42,6	82,6						
20A(C)8,2X554...	8,2	11,32	26,40	250	3500	44,7	85,5						
20A(C)10X554...	10	13,95	32,55	250	3500	49,1	88,6						
20A(C)11X554...	11,3	15,76	36,78	250	3500	49,1	90,7						
20A(C)12X554...	12	16,92	39,48	250	3500	49,1	91,9						
20A(C)14X554...	14	19,95	46,55	250	3500	49,1	95						
20A(C)15X554...	15	21,60	36,00	250	2500	49,1	96,5						
20A(C)16X554...	16	23,04	38,40	250	2500	49,1	98,2						
20A(C)19X554...	19	27,36	45,60	200	2500	49,1	103,1						
20A(C)22X554...	22	31,68	42,24	180	2000	56,6	108,1						
20A(C)25X554...	25	36,00	48,00	160	2000	58,8	113						
20A(C)14X554H...	14	20,16	47,04	250	3500	55,3	105,7	M20x1,5	G3/4	1 1/16"-12UNF	M16x1,5	G1/2	7/8"-14UNF
20A(C)15X554H...	15	21,60	43,20	250	3000	55,6	106,8						
20A(C)16X554H...	16	23,04	46,08	250	3000	56,5	108,4						
20A(C)17,3X554H...	17,3	24,91	49,82	230	3000	57,6	110,5						
20A(C)18,2X554H...	18,2	26,21	52,42	210	3000	58,4	112,1						
20A(C)19X554H...	19	27,36	54,72	200	3000	59	113,4						
20A(C)22X554H...	22	31,68	52,80	180	2500	61,5	118,4						
20A(C)25X554H...	25	36,00	60,00	160	2500	63,9	123,3						
20A(C)28X554H...	28	40,32	67,20	130	2500	66,4	128,1						
20A(C)32X554H...	32	46,08	61,44	120	2000	69,6	134,4						
20A(C)36X554H...	36	51,84	69,12	100	2000	72,8	141	M27x2	G1	1 5/16"-12U	M20x1,5	G3/4	1 1/16"-12U



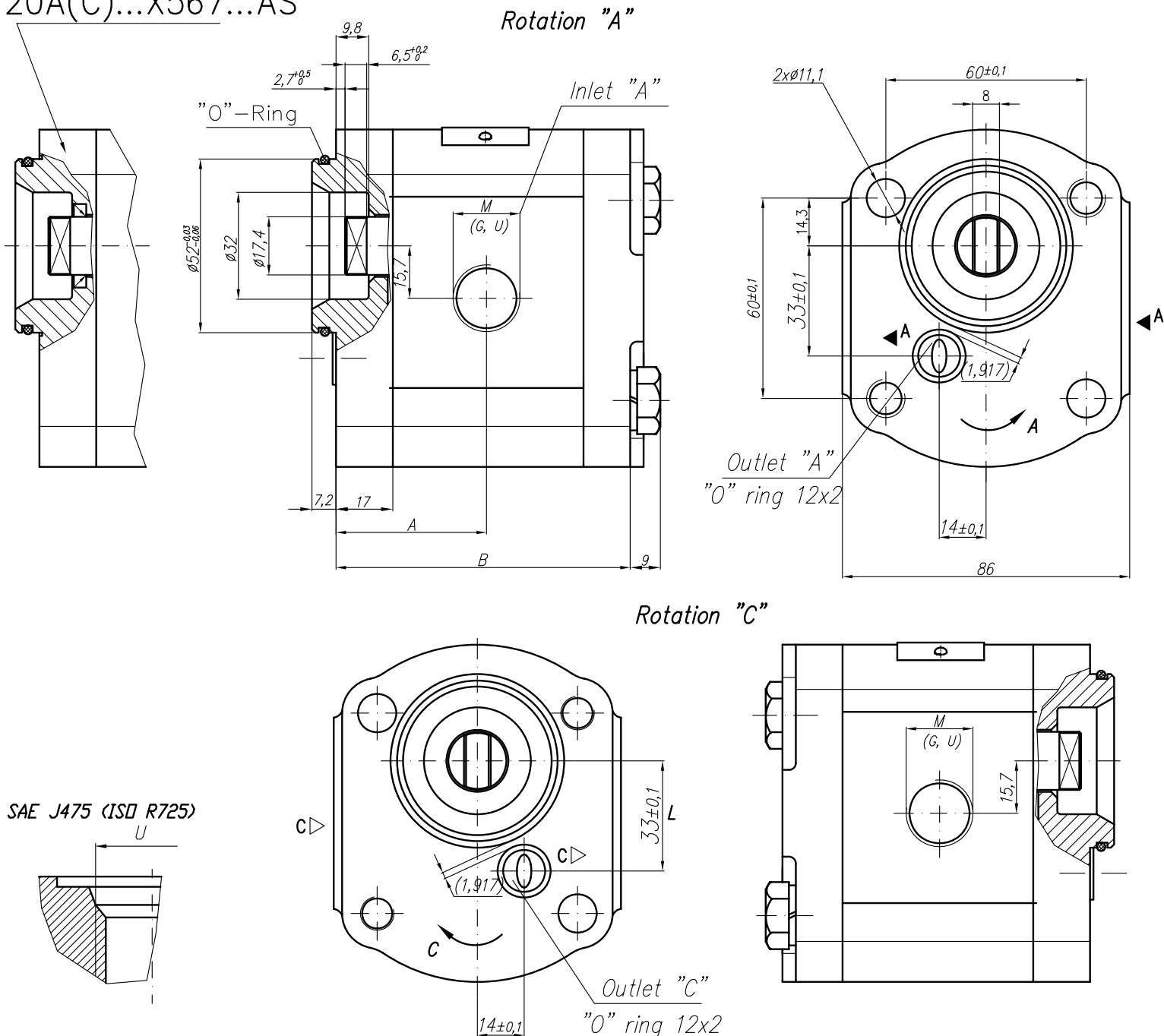
PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...Y566D...												
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5Y566D...	4,5	6,14	14,33	250	3500	41,8	85	M20x1,5	G1/2	1 1/16"-12UNF	M16x1,5	G1/2	7/8"-14UNF
20A(C)6,3Y566D...	6,3	8,69	20,29	250	3500	43	88						
20A(C)8,2Y566D...	8,2	11,32	26,40	250	3500	45,1	90,9						
20A(C)10Y566D...	10	13,95	32,55	250	3500	49,5	94						
20A(C)11Y566D...	11,3	15,76	36,78	250	3500	49,5	96						
20A(C)12Y566D...	12	16,92	39,48	250	3500	49,5	97,3						
20A(C)14Y566D...	14	19,95	46,55	250	3500	49,5	100,4						
20A(C)15Y566D...	15	21,60	36,00	250	2500	49,5	102						
20A(C)16Y566D...	16	23,04	38,40	250	2500	49,5	103,5						
20A(C)19Y566D...	19	27,36	45,60	200	2500	49,5	108,5						
20A(C)22Y566D...	22	31,68	42,24	180	2000	57	113,5						
20A(C)25Y566D...	25	36,00	48,00	160	2000	59,2	118,4						



PGP PUMP	HENDERSO [®] N Hydraulics [®]														GROUP II			
	GEAR PUMP TYPE PGP 20A(C)...X567...																	
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension												
		at 1500 rpm	at max rpm			A	B	Inlet				Outlet						
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	M1	G		U						
20A(C)4,5X567...	4,5	6,14	14,33	250	3500	40,5	78	M20x1,5	M18x1,5	G1/2"		1 1/16"-12 UNF						
20A(C)6,3X567...	6,3	8,69	20,29	250	3500	42	81											
20A(C)8,2X567...	8,2	11,32	26,40	250	3500	43,5	83,9											
20A(C)10X567...	10	13,95	32,55	250	3500	45	87											
20A(C)11X567...	11,3	15,76	36,78	250	3500	46	89,1											
20A(C)12X567...	12	16,92	39,48	250	3500	46,6	90,3											
20A(C)14X567...	14	19,95	46,55	250	3500	48	93,4			G3/4"								
20A(C)15X567...	15	21,60	36,00	250	2500	49	95											
20A(C)16X567...	16	23,04	38,40	250	2500	50	96,6											
20A(C)19X567...	19	27,36	45,60	200	2500	52	101,5											
20A(C)22X567...	22	31,68	42,24	180	2000	55	106,5											
20A(C)25X567...	25	36,00	48,00	160	2000	57,2	112,1											

Variant with simmerring in front cover design:

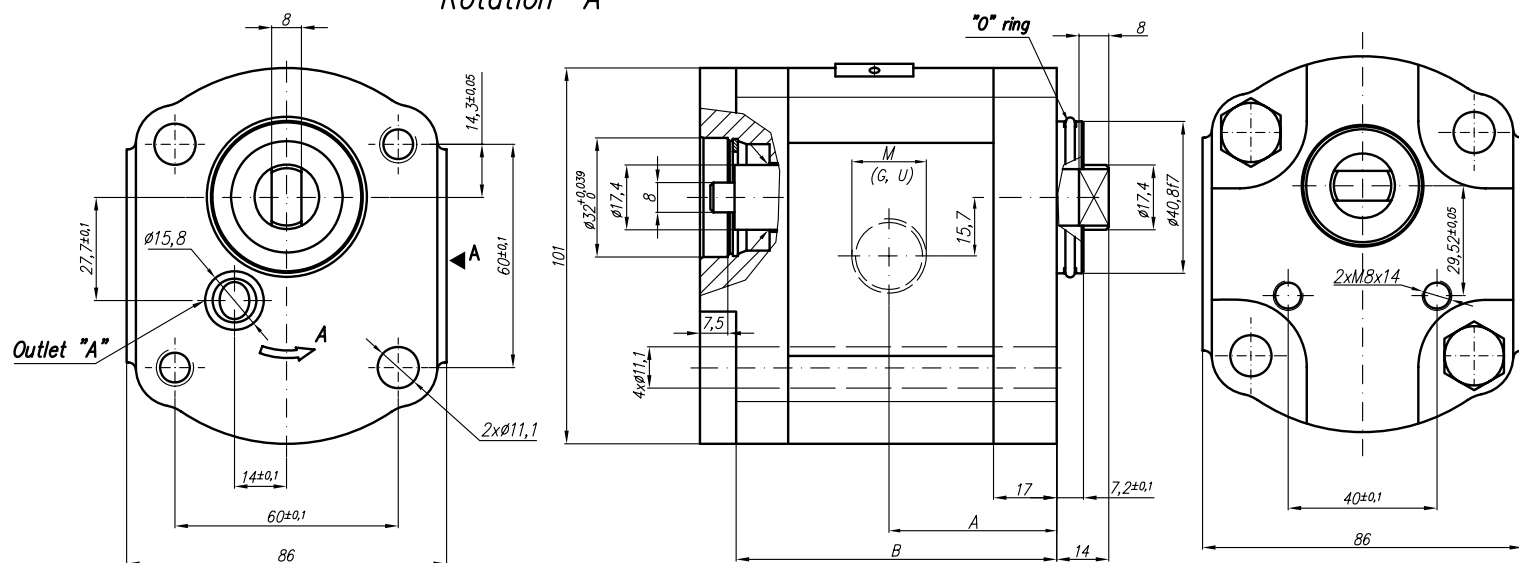
20A(C)...X567...AS



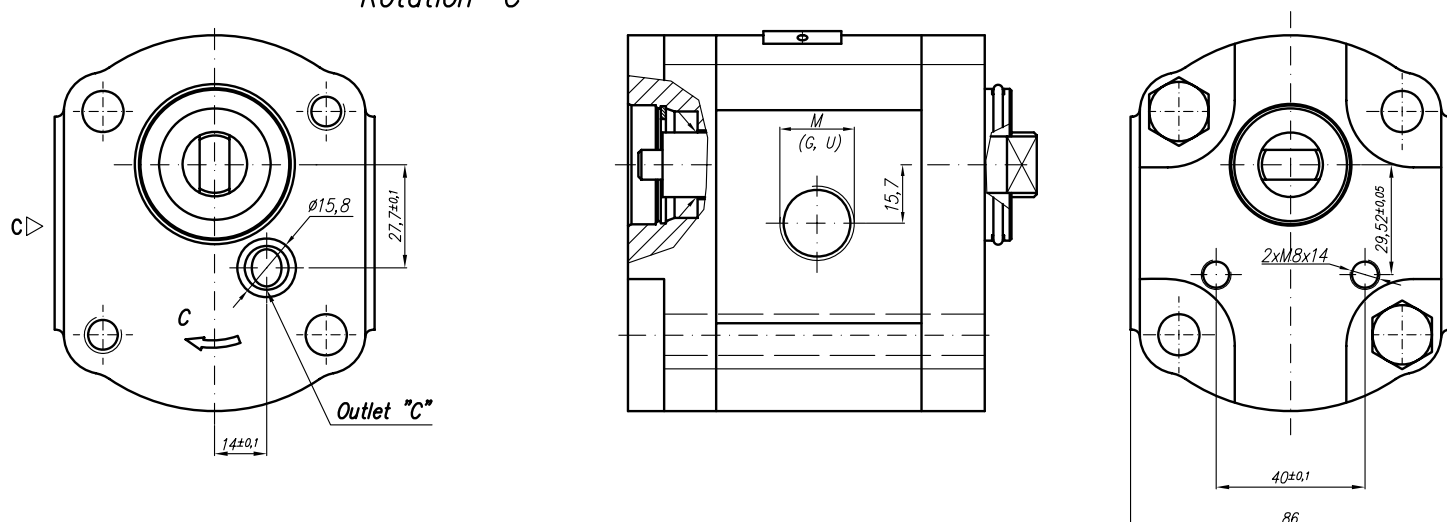
PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X573...												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5X573...	4,5	6,14	14,33	250	3500	39,8	87,7	M20x1,5	G1/2	1 1/16"-12UNF			
20A(C)6,3X573...	6,3	8,69	20,29	250	3500	41	90,7						
20A(C)8,2X573...	8,2	11,32	26,40	250	3500	43,1	93,6						
20A(C)10X573...	10	13,95	32,55	250	3500	47,5	95,6		G3/4				
20A(C)11X573...	11,3	15,76	36,78	250	3500	47,5	98,7						
20A(C)12X573...	12	16,92	39,48	250	3500	47,5	100						
20A(C)14X573...	14	19,95	46,55	250	3500	47,5	103,1						
20A(C)15X573...	15	21,60	36,00	250	2500	47,5	104,6						
20A(C)16X573...	16	23,04	38,40	250	2500	47,5	106,2						
20A(C)19X573...	19	27,36	45,60	200	2500	47,5	112,2						
20A(C)22X573...	22	31,68	42,24	180	2000	55	116,2						
20A(C)25X573...	25	36,00	48,00	160	2000	57,2	121,1						


Designed as a first section of tandem pumps group 21A(C)...X573.../...

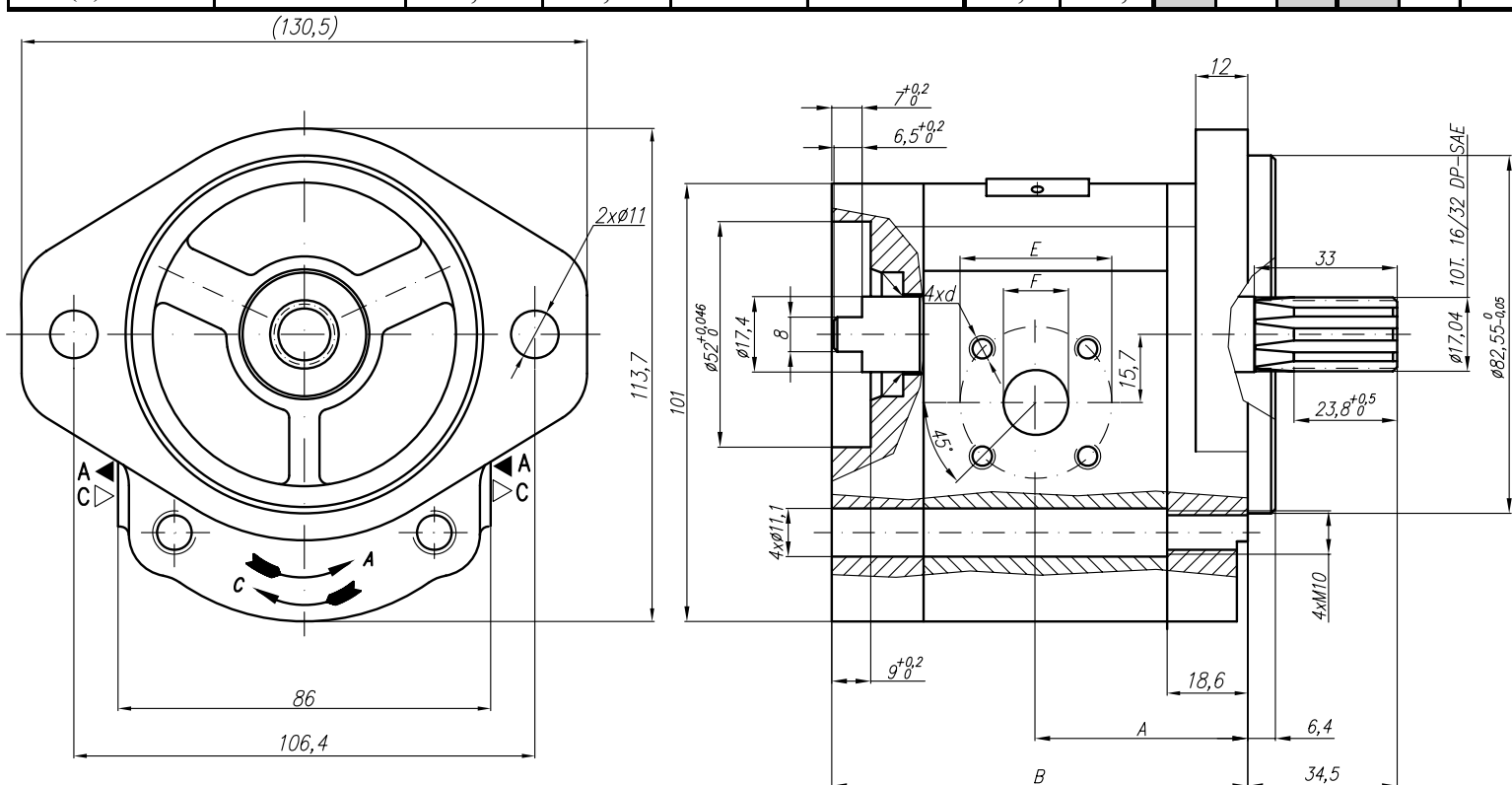
Rotation "A"



Rotation "C"

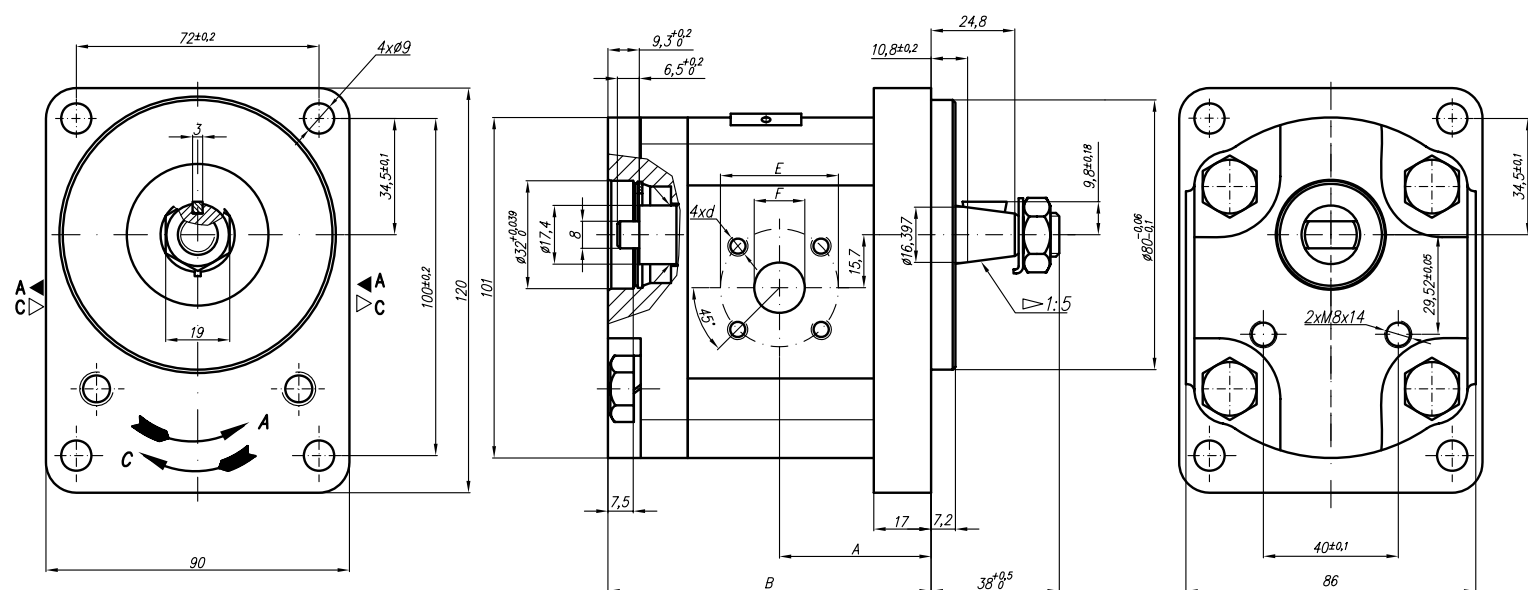


PGP PUMP	HENDERS  N Hydraulics®										GROUP II			
	GEAR PUMP TYPE PGP 20A(C)...X577(H)													
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension								
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U	
20A(C)4,5X577	4,5	6,14	14,33	250	3500	41,4	86,8	40	15	M6-6H	35	15	M6-6H	
20A(C)6,3X577	6,3	8,69	20,29	250	3500	42,6	89,8							
20A(C)8,2X577	8,2	11,32	26,40	250	3500	44,7	92,7							
20A(C)10X577	10	13,95	32,55	250	3500	49,1	95,7							
20A(C)11X577	11,3	15,76	36,78	250	3500	49,1	97,8							
20A(C)12X577	12	16,92	39,48	250	3500	49,1	99,1							
20A(C)14X577	14	19,95	46,55	250	3500	49,1	102,2							
20A(C)15X577	15	21,60	36,00	250	2500	49,1	103,7							
20A(C)16X577	16	23,04	38,40	250	2500	49,1	105,3							
20A(C)19X577	19	27,36	45,60	200	2500	49,1	110,3							
20A(C)22X577	22	31,68	42,24	180	2000	56,6	115,3							
20A(C)25X577	25	36,00	48,00	160	2000	58,8	120,2							
20A(C)14X577H	14	20,16	47,04	250	3500	54,3	112,5	40	20	M6-6H	35	15	M6-6H	
20A(C)15X577H	15	21,60	43,20	250	3000	55,6	114							
20A(C)16X577H	16	23,04	46,08	250	3000	56,5	115,6							
20A(C)17,3X577H	17,3	24,91	49,82	230	3000	57,6	117,7							
20A(C)18,2X577H	18,2	26,21	52,42	210	3000	58,4	119,3							
20A(C)19X577H	19	27,36	54,72	200	3000	59	120,6							
20A(C)22X577H	22	31,68	52,80	180	2500	61,5	125,6				40	20		
20A(C)25X577H	25	36,00	60,00	160	2500	63,9	130,5							
20A(C)28X577H	28	40,32	67,20	130	2500	66,4	135,5							
20A(C)32X577H	32	46,08	61,44	120	2000	69,6	141,6							
20A(C)36X577H	36	51,84	69,12	100	2000	72,8	148,2							

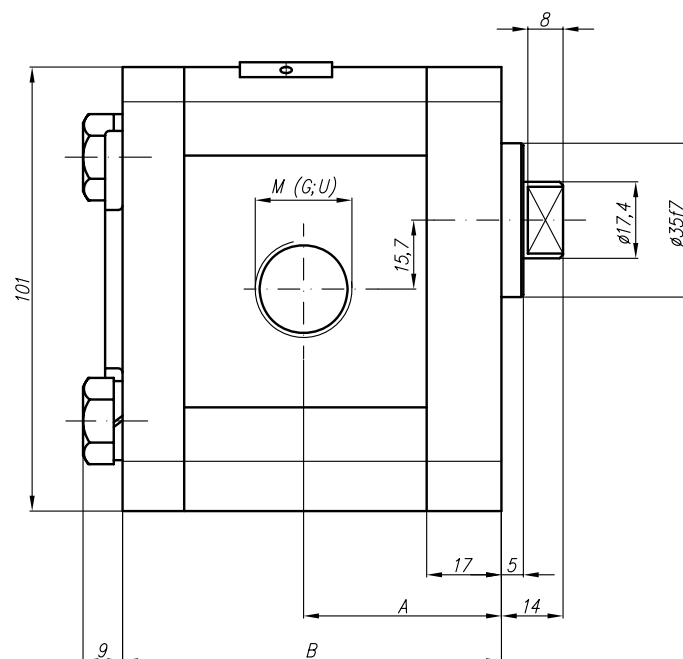
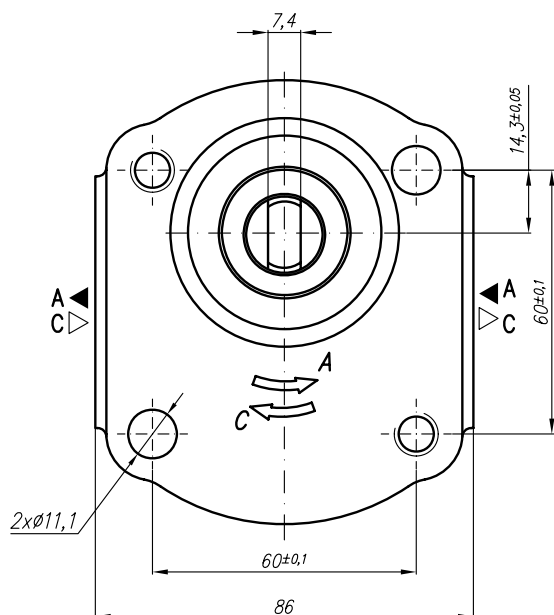


PGP PUMP	HENDERS [®] N Hydraulics [®]											GROUP II					
	GEAR PUMP TYPE PGP 20A(C)...X578																
Type	Displacement	Flow		Pressure	max Speed	Dimension											
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet				
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d				
20A(C)4,5X578	4,5	6,14	14,33	250	3500	39,8	87,6	40	15	M6-6H	35	15	M6-6H				
20A(C)6,3X578	6,3	8,69	20,29	250	3500	41	90,6										
20A(C)8,2X578	8,2	11,32	26,40	250	3500	43,1	93,5										
20A(C)10X578	10	13,95	32,55	250	3500	47,5	96,6										
20A(C)11X578	11,3	15,76	36,78	250	3500	47,5	98,7										
20A(C)12X578	12	16,92	39,48	250	3500	47,5	99,9		20								
20A(C)14X578	14	19,95	46,55	250	3500	47,5	103										
20A(C)15X578	15	21,60	36,00	250	2500	47,5	104,5										
20A(C)16X578	16	23,04	38,40	250	2500	47,5	106,2										
20A(C)19X578	19	27,36	45,60	200	2500	47,5	111,1										
20A(C)22X578	22	31,68	42,24	180	2000	55	116,1										
20A(C)25X578	25	36,00	48,00	160	2000	57,2	121,1										

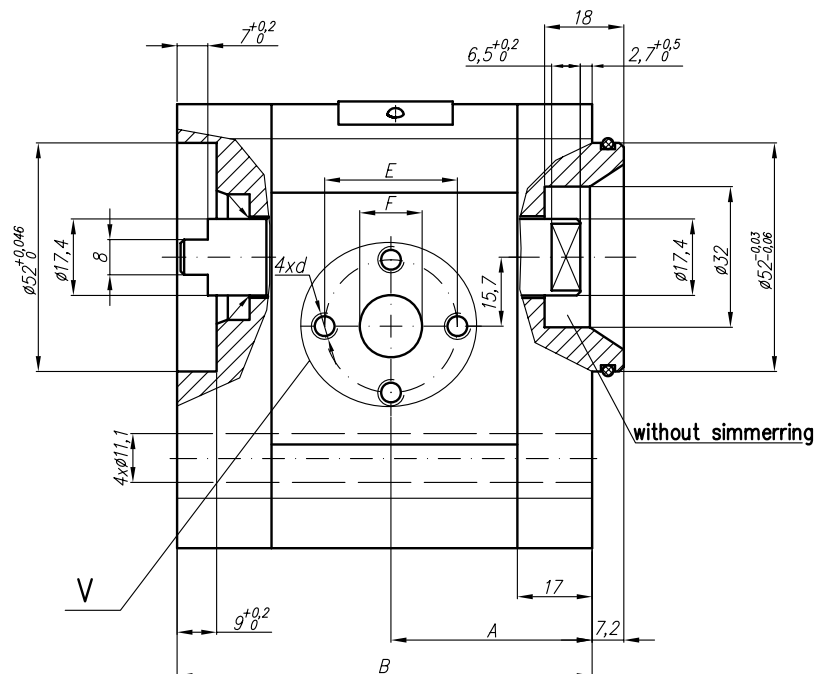
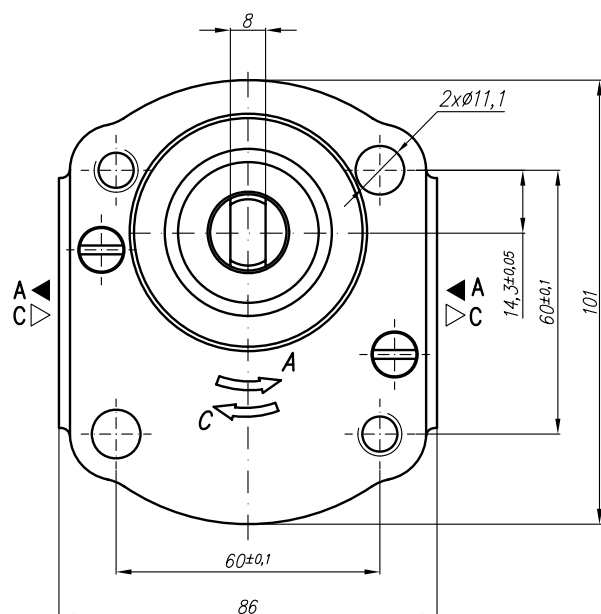
Designed as a first section of tandem gear pumps group 21A(C)...X578/... (llgroup/lgroup).



PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X583...												
Type	Displacement	Flow		Pressure	max Speed	Dimension							
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5X583...	4,5	6,14	14,33	250	3500	37,3	75,1	M18x1,5			M18x1,5		
20A(C)6,3X583...	6,3	8,69	20,29	250	3500	38,6	78						
20A(C)8,2X583...	8,2	11,32	26,40	250	3500	40,6	78						
20A(C)10X583...	10	13,95	32,55	250	3500	45	87						
20A(C)11X583...	11,3	15,76	36,78	250	3500	45	89,1						
20A(C)12X583...	12	16,92	39,48	250	3500	45	90,3						
20A(C)14X583...	14	19,95	46,55	250	3500								
20A(C)15X583...	15	21,60	36,00	250	2500								
20A(C)16X583...	16	23,04	38,40	250	2500								
20A(C)19X583...	19	27,36	45,60	200	2500								
20A(C)22X583...	22	31,68	42,24	180	2000								
20A(C)25X583...	25	36,00	48,00	160	2000								



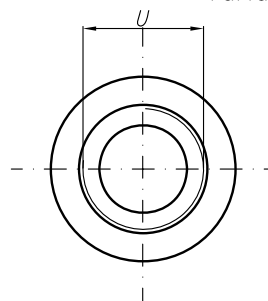
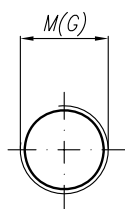
PGP PUMP		HENDERS [®] N Hydraulics [®]																GROUP II			
		GEAR PUMP TYPE PGP 20A(C)...X586...																			
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension															
		at 1500 rpm	at max rpm			Inlet							Outlet								
	cm ³ /rev	l/min	l/min	bar	rpm	A	B	E	F	d	M	G	U	E	F	d	M	G	U		
20A(C)4,5X586...	4,5	6,14	14,33	250	3500	40,5	85,2	30,2	13,1	M6-6H	M20x1,5	G1/2	1 1/16"-12UNF	30,2	13,1	M6-6H	M16x1,5	G1/2	7/8"-14UNF		
20A(C)6,3X586...	6,3	8,69	20,29	250	3500	42	88,2														
20A(C)8,2X586...	8,2	11,32	26,40	250	3500	43,5	91,1														
20A(C)10X586...	10	13,95	32,55	250	3500	45	94,1														
20A(C)11X586...	11,3	15,76	36,78	250	3500	46	96,2														
20A(C)12X586...	12	16,92	39,48	250	3500	46,6	97,5														
20A(C)14X586...	14	19,95	46,55	250	3500	48	100,6														
20A(C)15X586...	15	21,60	36,00	250	2500	49	102,1														
20A(C)16X586...	16	23,04	38,40	250	2500	50	103,8														
20A(C)19X586...	19	27,36	45,60	200	2500	52	108,7														
20A(C)22X586...	22	31,68	42,24	180	2000	55	113,7	39,7	19	M8-6H	G3/4	1	39,7	19	M8	M20x1,5	G1/2	7/8"-14UNF			
20A(C)25X586...	25	36,00	48,00	160	2000	57,2	118,5														



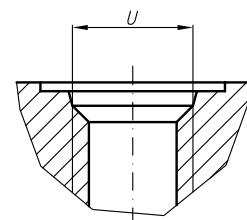
V
Variants for ports – M;G;U

Designations:

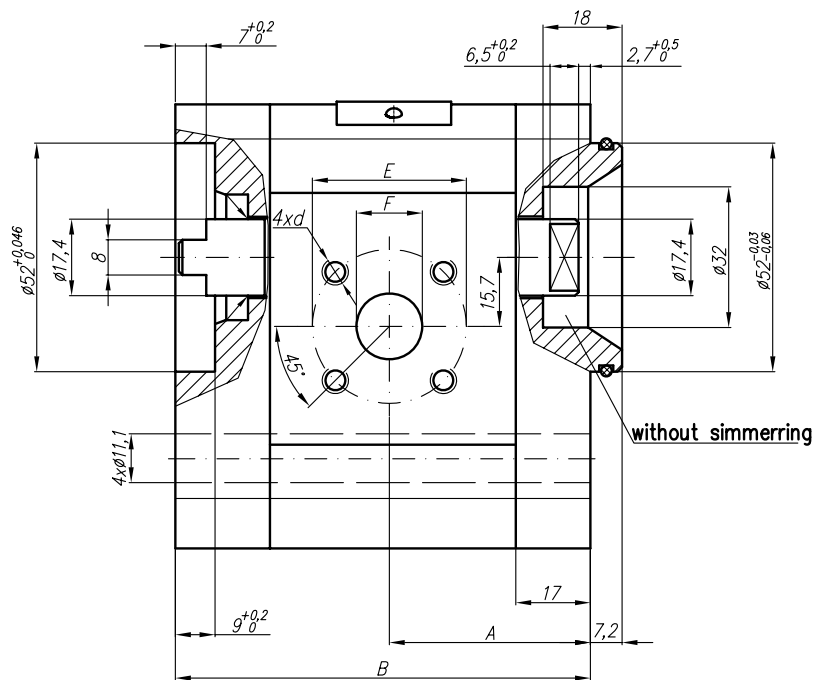
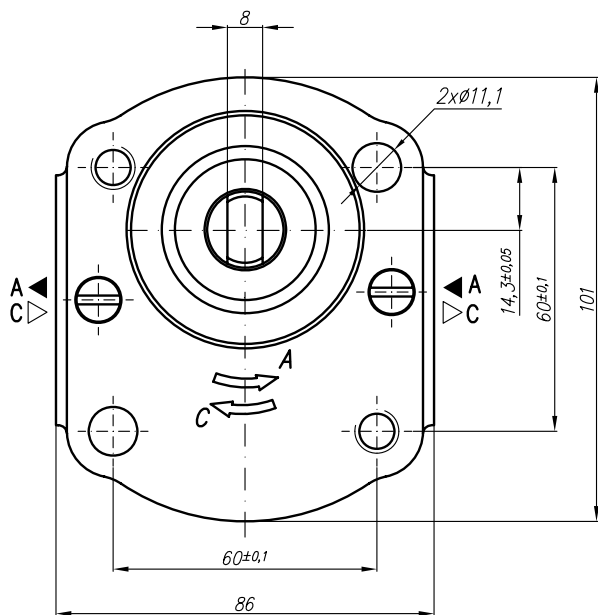
- ...X586 – Normal version (flanges);
- ...X586M – Metric threads;
- ...X586G – GAS threads;
- ...X586U – SAE UNF threads;



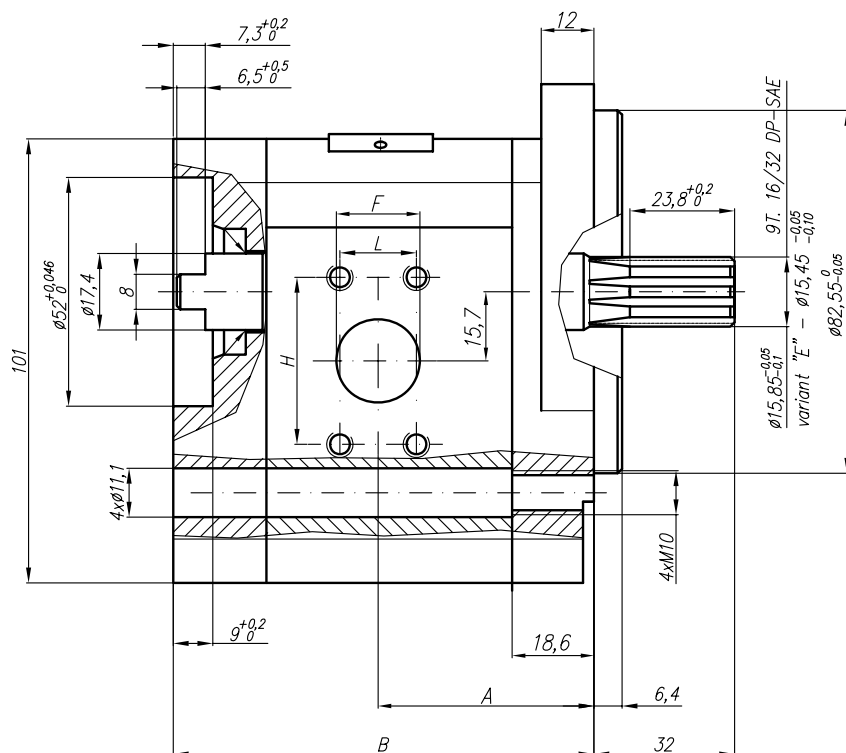
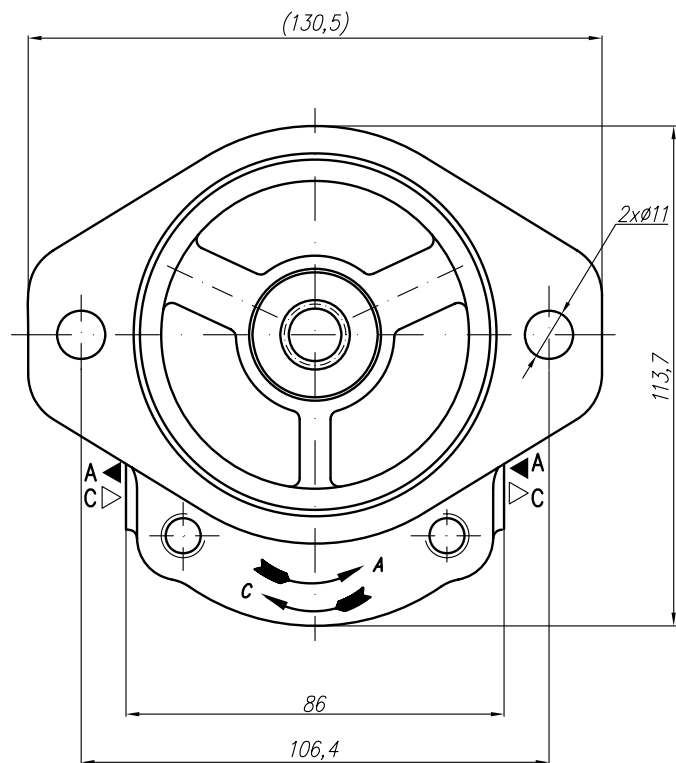
SAE J475 (ISO R725)



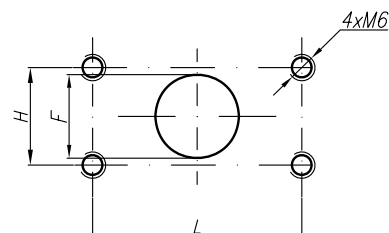
PGP PUMP	HENDERSO [®] N Hydraulics [®]											GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X586B													
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension								
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d	
20A(C)4,5X586B	4,5	6,14	14,33	250	3500	40,5	85,2	40	15	M6-6H	35	15	M6-6H	
20A(C)6,3X586B	6,3	8,69	20,29	250	3500	42	88,2							
20A(C)7X586B	7	9,66	22,54	250	3500	42,5	89,3							
20A(C)8,2X586B	8,2	11,32	26,40	250	3500	43,5	91,1							
20A(C)10X586B	10	13,95	32,55	250	3500	45	94,1							
20A(C)11X586B	11,3	15,76	36,78	250	3500	46	96,2							
20A(C)12X586B	12	16,92	39,48	250	3500	46,6	97,5							
20A(C)14X586B	14	19,95	46,55	250	3500	48	100,6							
20A(C)15X586B	15	21,60	36,00	250	2500	49	102,1							
20A(C)16X586B	16	23,04	38,40	250	2500	50	103,8							
20A(C)17,3X586B	17,3	24,91	41,52	230	2500	50,8	105,8							
20A(C)19X586B	19	27,36	45,60	200	2500	52	108,7							
20A(C)22X586B	22	31,68	42,24	180	2000	55	113,7							
20A(C)25X586B	25	36,00	48,00	160	2000	57,2	118,5							



PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X590												
Type	Displace ment	Flow		Pressure	max Speed	Dimension							
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	H	L	F	H	L	F
20A(C)4,5X590	4,5	6,14	14,33	250	3500			38,1	17,4	15	38,1	17,4	15
20A(C)6,3X590	6,3	8,69	20,29	250	3500								
20A(C)8,2X590	8,2	11,32	26,40	250	3500								
20A(C)10X590	10	13,95	32,55	250	3500	43,5	95,7	22,2	47,6	19			
20A(C)11X590	11,3	15,76	36,78	250	3500								
20A(C)12X590	12	16,92	39,48	250	3500								
20A(C)14X590	14	19,95	46,55	250	3500								
20A(C)15X590	15	21,60	36,00	250	2500								
20A(C)16X590	16	23,04	38,40	250	2500			25					
20A(C)19X590	19	27,36	45,60	200	2500								
20A(C)22X590	22	31,68	42,24	180	2000								
20A(C)25X590	25	36,00	48,00	160	2000								

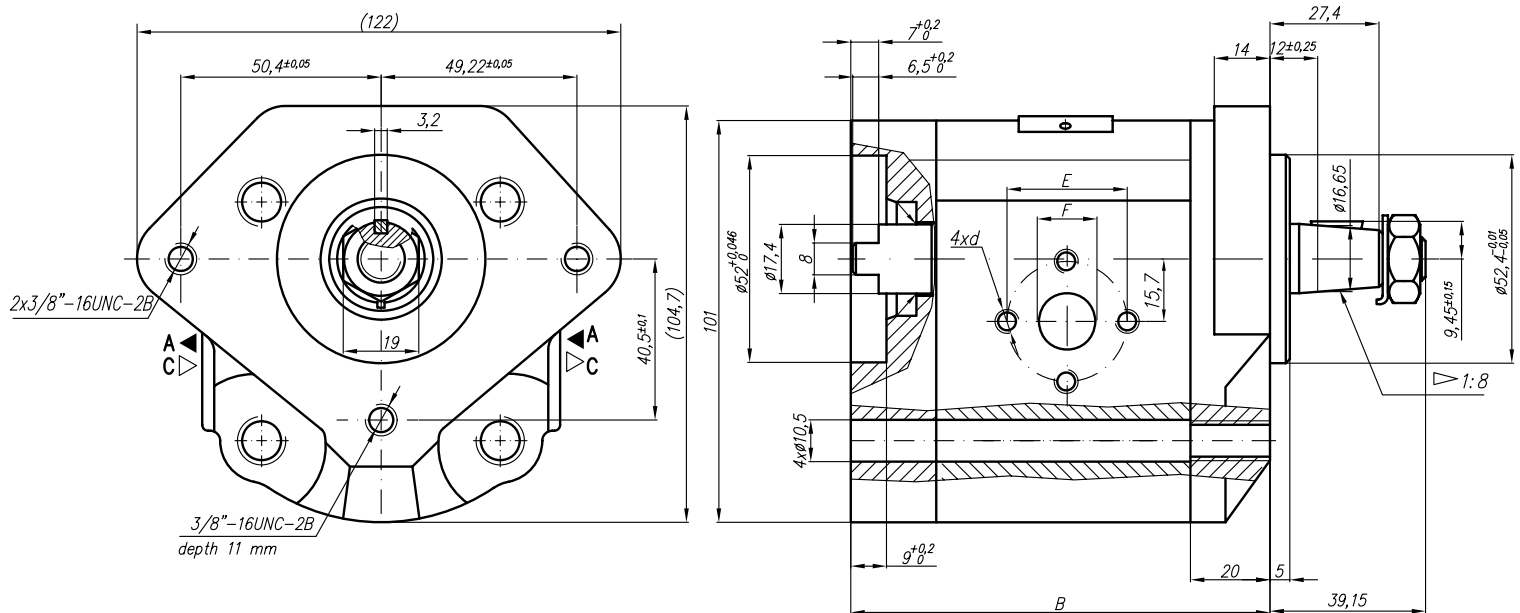


At pump displacement above 10ccm the Inlet port is rotated:



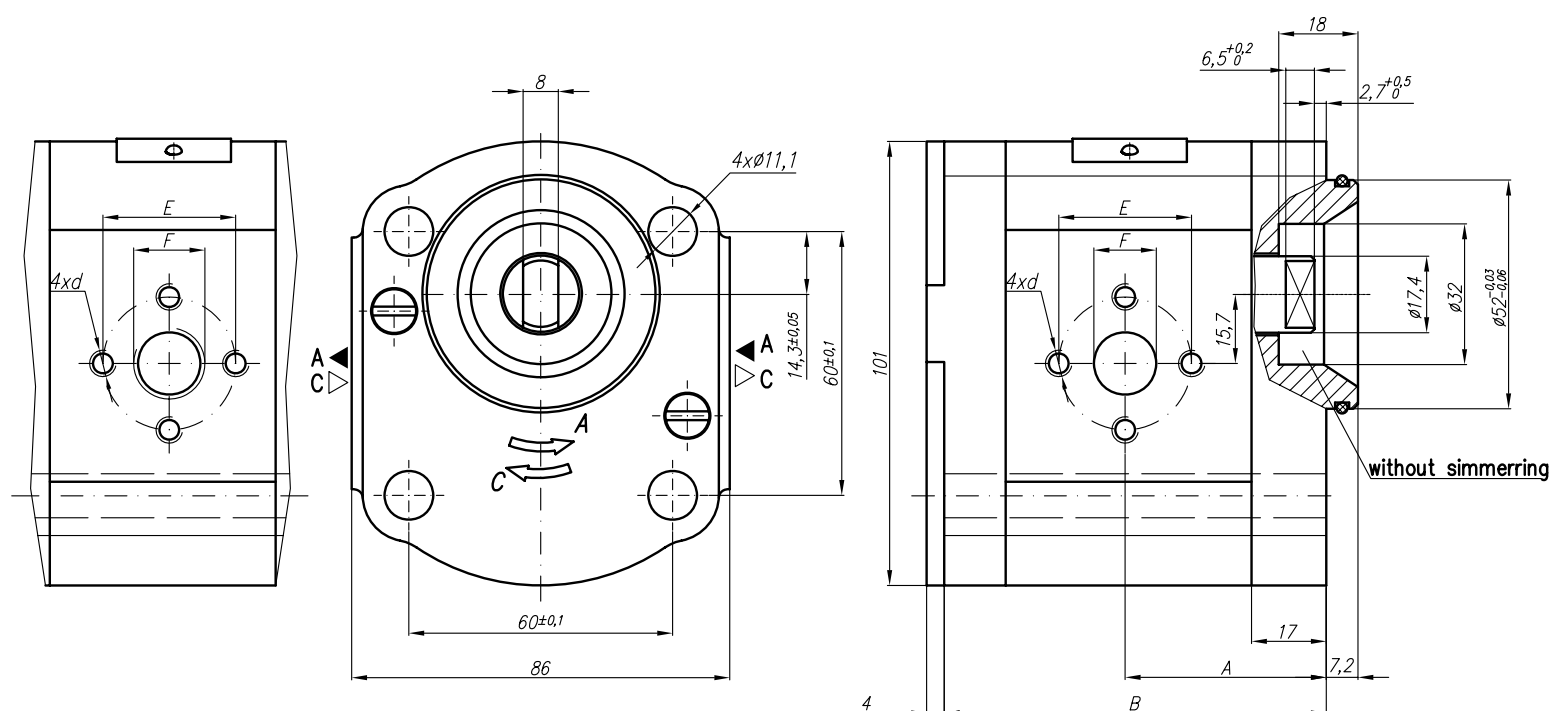
PGP PUMP	HENDERSON Hydraulics®										GROUP II				
	GEAR PUMP TYPE PGP 20A(C)...X596														
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension									
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet				
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d		
20A(C)4,5X596	4,5	6,14	14,33	250	3500	43,5	88,2	30,2	13,1	M6-6H	30,2	13,1	M6-6H		
20A(C)6,3X596	6,3	8,69	20,29	250	3500	45	91,2								
20A(C)8,2X596	8,2	11,32	26,40	250	3500	46,5	94,1								
20A(C)10X596	10	13,95	32,55	250	3500	48	97,2	39,7	19	M8-6H		30,2		14,2	M6-6H
20A(C)11X596	11,3	15,76	36,78	250	3500	49	99,2								
20A(C)12X596	12	16,92	39,48	250	3500	49,6	100,5								
20A(C)14X596	14	19,95	46,55	250	3500	51	103,6								
20A(C)15X596	15	21,60	36,00	250	2500	52	105,1								
20A(C)16X596	16	23,04	38,40	250	2500	53	106,8								
20A(C)19X596	19	27,36	45,60	200	2500	55	111,7	39,7	19	M8	39,7	19	M8		
20A(C)22X596	22	31,68	42,24	180	2000	58	116,7								
20A(C)25X596	25	36,00	48,00	160	2000	60,2	121,6								

Designed as 1 section of tandem pump 22A(C)...X596/...X597



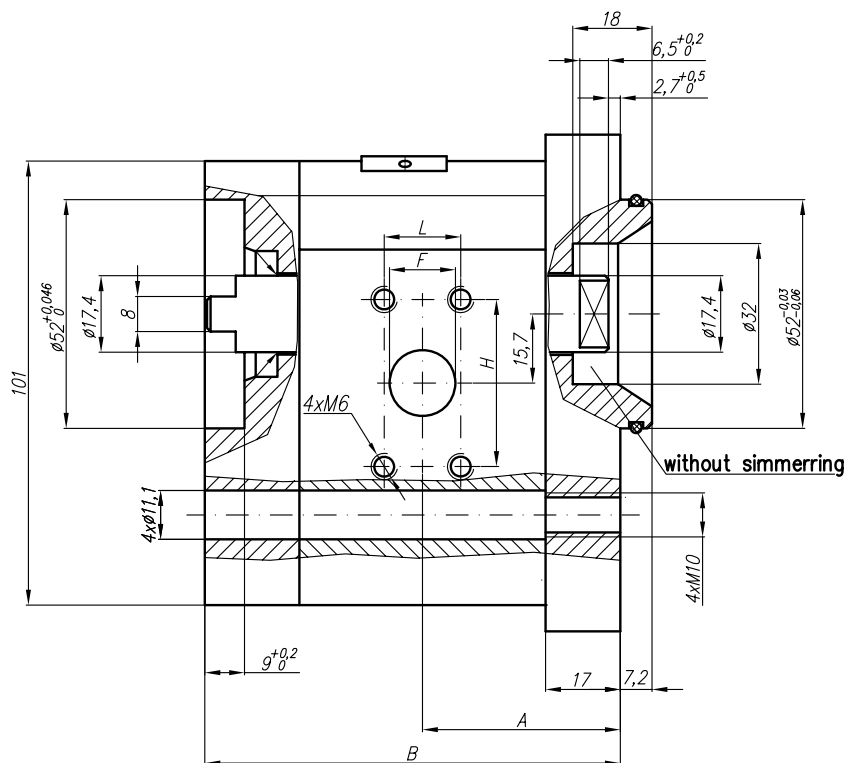
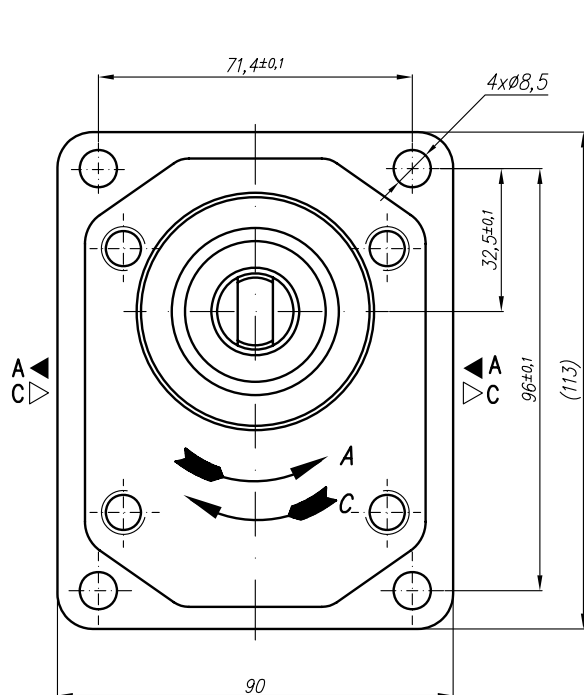
PGP PUMP	HENDERS [®] N Hydraulics [®]											GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X597													
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension								
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d	
20A(C)4,5X597	4,5	6,14	14,33	250	3500	39,3	78	30,2	13,1	M6-6H	30,2	G3/8"	M6-6H	
20A(C)6,3X597	6,3	8,69	20,29	250	3500									
20A(C)8,2X597	8,2	11,32	26,40	250	3500									
20A(C)10X597	10	13,95	32,55	250	3500									
20A(C)11X597	11,3	15,76	36,78	250	3500									
20A(C)12X597	12	16,92	39,48	250	3500									
20A(C)14X597	14	19,95	46,55	250	3500									
20A(C)15X597	15	21,60	36,00	250	2500									
20A(C)16X597	16	23,04	38,40	250	2500									
20A(C)19X597	19	27,36	45,60	200	2500									
20A(C)22X597	22	31,68	42,24	180	2000									
20A(C)25X597	25	36,00	48,00	160	2000									

Designed as II section of tandem pump 22A(C)...X596/...X597

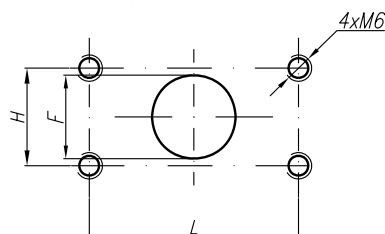



PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II					
	GEAR PUMP TYPE PGP 20A(C)...X601															
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension										
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet					
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	H	L	F	H	L	F			
20A(C)4,5X601	4,5	6,14	14,33	250	3500	40,5	85,2	38,1	17,4	15	38,1	17,4	15			
20A(C)6,3X601	6,3	8,69	20,29	250	3500	42	88,2									
20A(C)8,2X601	8,2	11,32	26,40	250	3500	43,5	91,1									
20A(C)10X601	10	13,95	32,55	250	3500	45	94,1									
20A(C)11X601	11,3	15,76	36,78	250	3500	46	96,2									
20A(C)12X601	12	16,92	39,48	250	3500	46,5	97,5	22,2	47,6	19				38,1	17,4	15
20A(C)14X601	14	19,95	46,55	250	3500	48	100,6									
20A(C)15X601	15	21,60	36,00	250	2500	49	102,1									
20A(C)16X601	16	23,04	38,40	250	2500	50	103,8									
20A(C)19X601	19	27,36	45,60	200	2500	52	108,7									
20A(C)22X601	22	31,68	42,24	180	2000	55	113,7									
20A(C)25X601	25	36,00	48,00	160	2000	57,2	118,5									

Designed as 1 section of tandem gear pump 22A(C)...X601/...X602

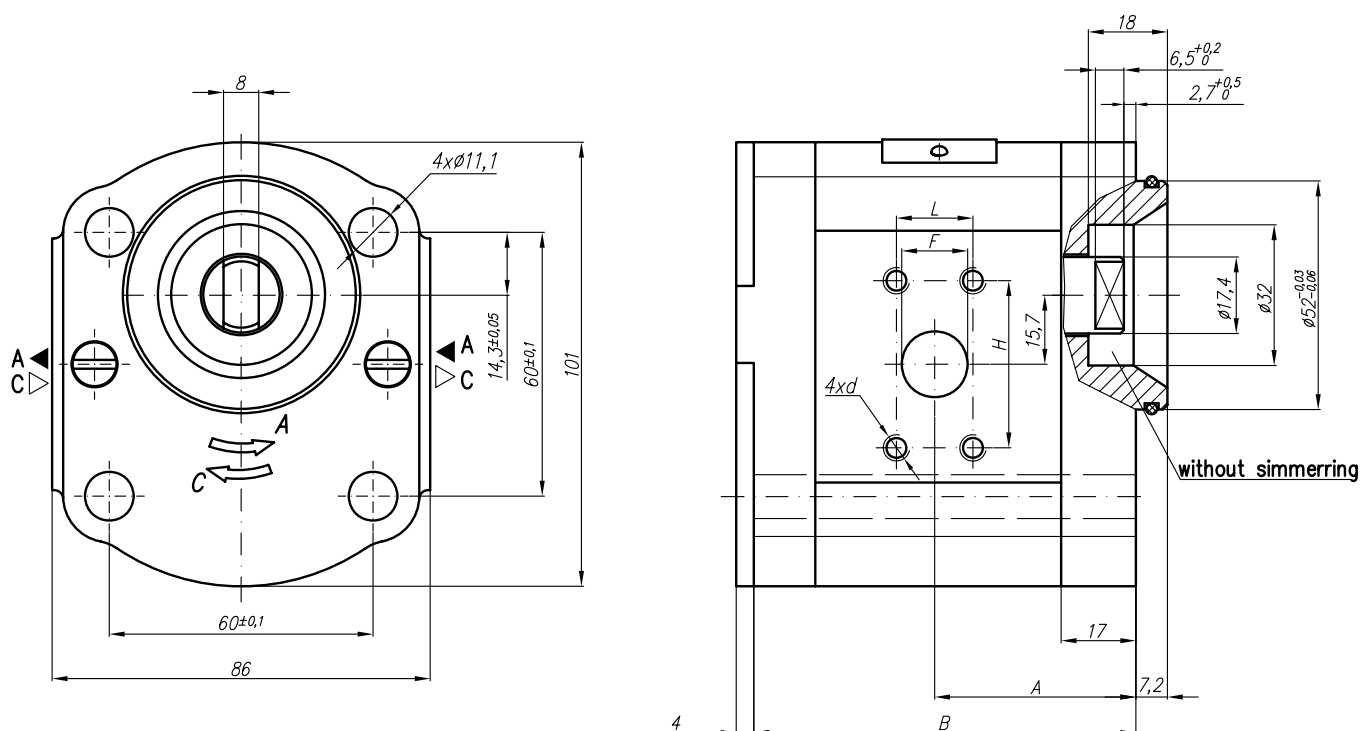


At pump displacement above 10ccm the Inlet port is rotated:

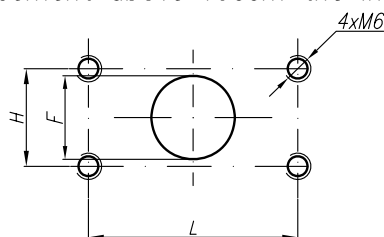


PGP PUMP	HENDERS  N Hydraulics®										GROUP II					
	GEAR PUMP TYPE PGP 20A(C)...X602															
Type	Displacement	Flow		Pressure	max Speed	Dimension										
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	H	L	F	H	L	F			
20A(C)4,5X602	4,5	6,14	14,33	250	3500	40,5	78	38,1	17,4	15	38,1	17,4	15			
20A(C)6,3X602	6,3	8,69	20,29	250	3500	42	81									
20A(C)8,2X602	8,2	11,32	26,40	250	3500	43,5	83,9									
20A(C)10X602	10	13,95	32,55	250	3500	45	87									
20A(C)11X602	11,3	15,76	36,78	250	3500	46	89,1	22,2	47,6	19				38,1	17,4	15
20A(C)12X602	12	16,92	39,48	250	3500	46,5	90,3									
20A(C)14X602	14	19,95	46,55	250	3500	48	93,4									
20A(C)15X602	15	21,60	36,00	250	2500	49	95									
20A(C)16X602	16	23,04	38,40	250	2500	50	96,6									
20A(C)19X602	19	27,36	45,60	200	2500	52	101,5									
20A(C)22X602	22	31,68	42,24	180	2000	55	106,5									
20A(C)25X602	25	36,00	48,00	160	2000	57,2	111,4	25								

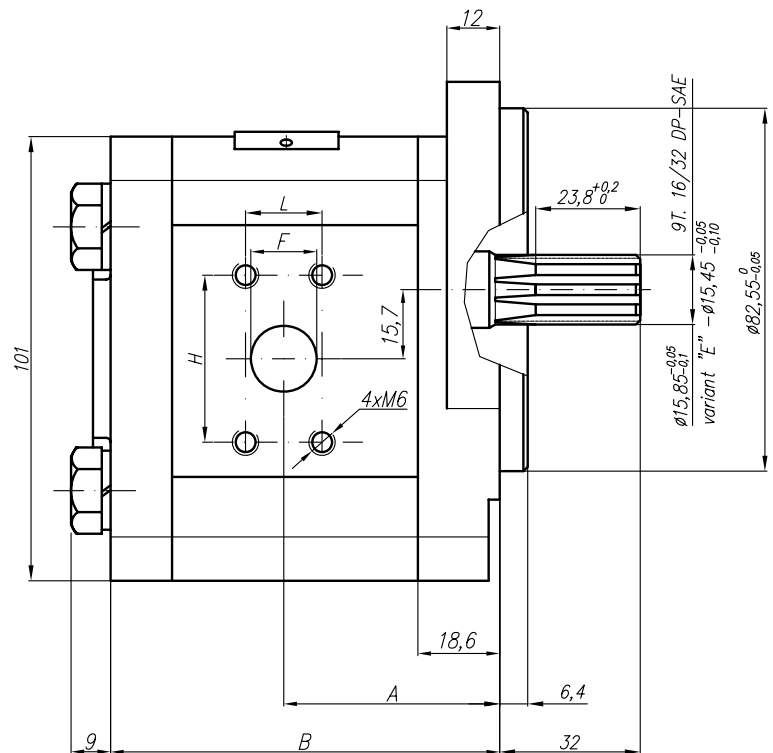
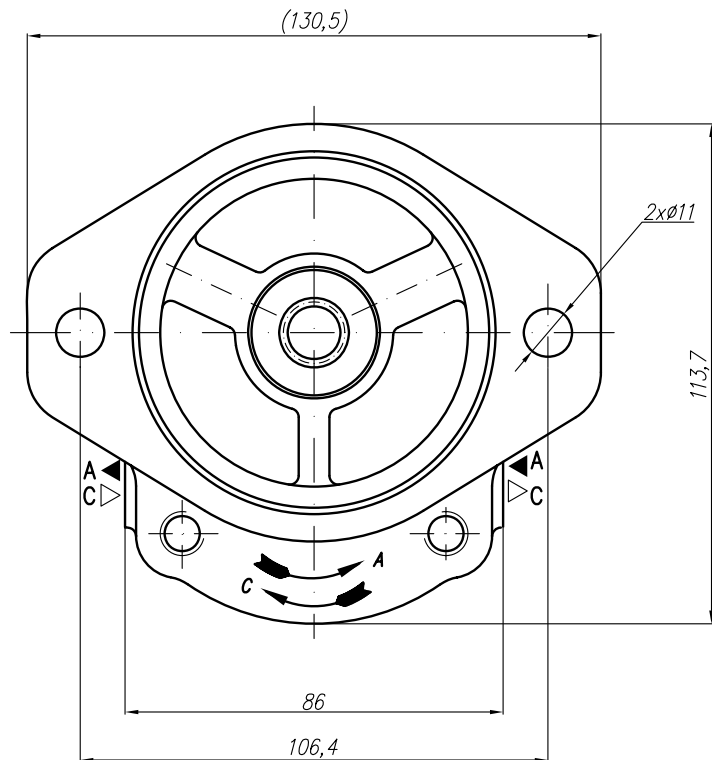
Designed as II section of tandem gear pump 22A(C)...X601/...X602



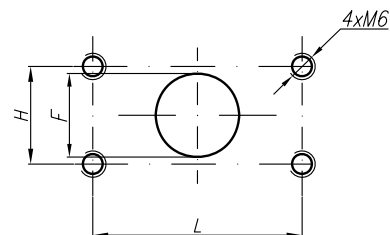
At pump displacement above 10ccm the Inlet port is rotated:



PGP PUMP	HENDERSO [®] N Hydraulics [®]										GROUP II					
	GEAR PUMP TYPE PGP 20A(C)...X604															
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension										
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet					
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	H	L	F	H	L	F			
20A(C)4,5X604	4,5	6,14	14,33	250	3500	40,5	78	38,1	17,4	15	38,1	17,4	15			
20A(C)6,3X604	6,3	8,69	20,29	250	3500	42	81									
20A(C)8,2X604	8,2	11,32	26,40	250	3500	43,5	83,9									
20A(C)10X604	10	13,95	32,55	250	3500	45	87									
20A(C)11X604	11,3	15,76	36,78	250	3500	46	89,1	22,2	47,6	19				38,1	17,4	15
20A(C)12X604	12	16,92	39,48	250	3500	46,5	90,3									
20A(C)14X604	14	19,95	46,55	250	3500	48	93,4									
20A(C)15X604	15	21,60	36,00	250	2500	49	95									
20A(C)16X604	16	23,04	38,40	250	2500	50	96,6									
20A(C)19X604	19	27,36	45,60	200	2500	52	101,5									
20A(C)22X604	22	31,68	42,24	180	2000	55	106,5									
20A(C)25X604	25	36,00	48,00	160	2000	57,2	111,4			25						

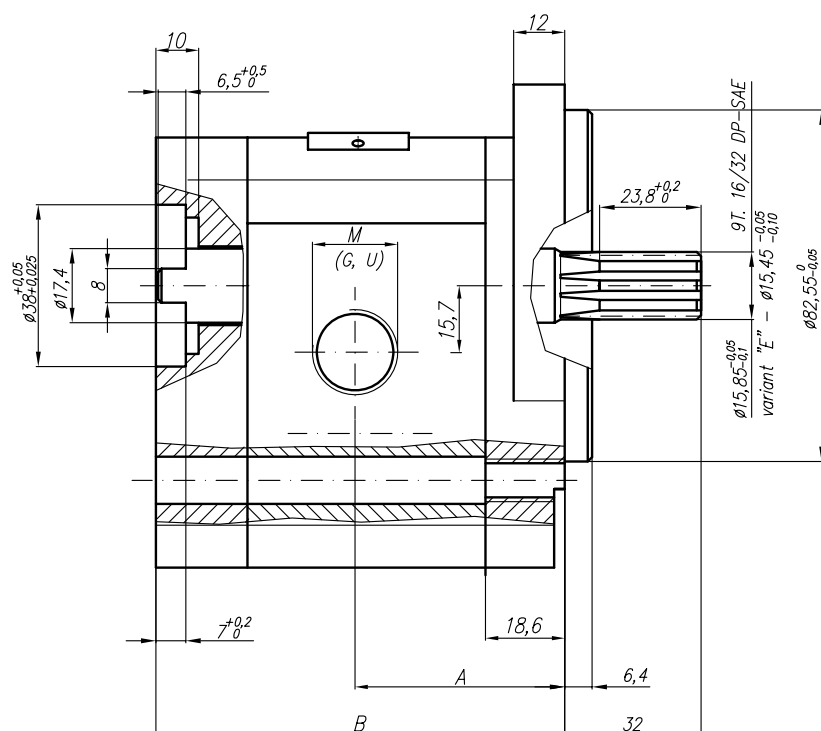
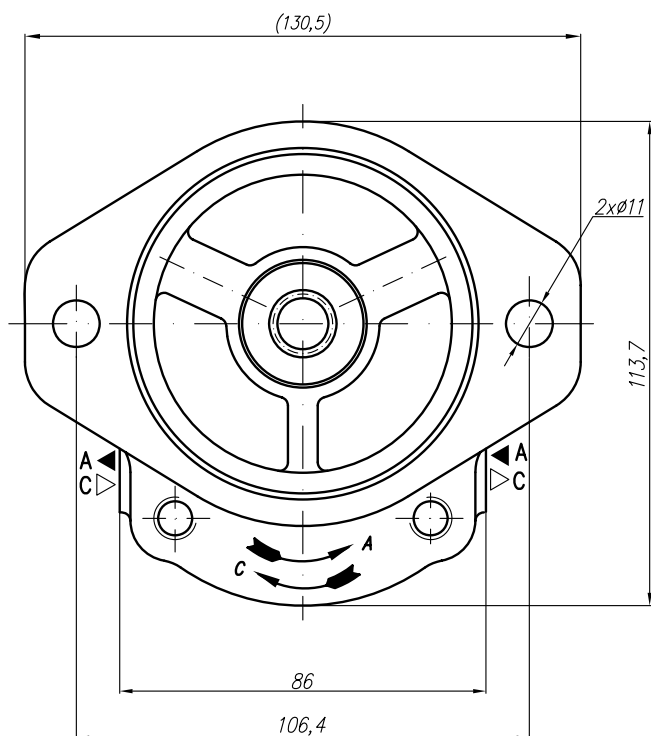


At pump displacement above 10ccm the Inlet port is rotated:

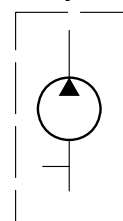


PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X621...												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5X621...	4,5	6,14	14,33	250	3500			G3/4				G1/2	
20A(C)6,3X621...	6,3	8,69	20,29	250	3500								
20A(C)8,2X621...	8,2	11,32	26,40	250	3500								
20A(C)10X621...	10	13,95	32,55	250	3500								
20A(C)11X621...	11,3	15,76	36,78	250	3500								
20A(C)12X621...	12	16,92	39,48	250	3500								
20A(C)14X621...	14	19,95	46,55	250	3500								
20A(C)15X621...	15	21,60	36,00	250	2500								
20A(C)16X621...	16	23,04	38,40	250	2500	51,6	105,3						
20A(C)19X621...	19	27,36	45,60	200	2500								
20A(C)22X621...	22	31,68	42,24	180	2000								
20A(C)25X621...	25	36,00	48,00	160	2000								

Designed as a special version – 1 section of tandem pump 22A(C)...X621.../...X622...

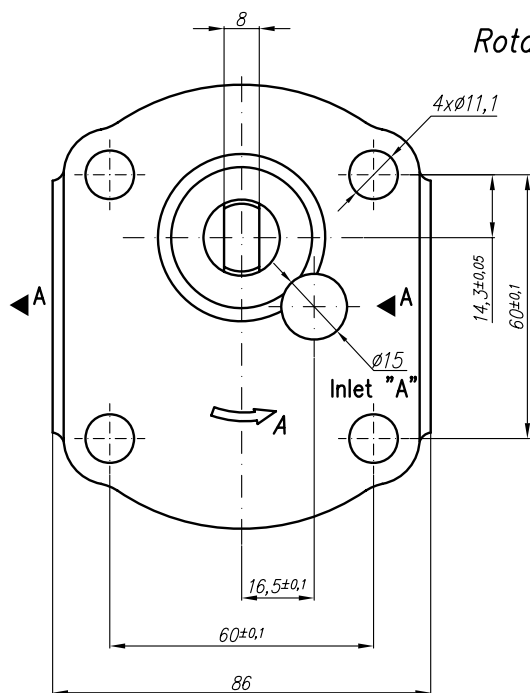


Symbol

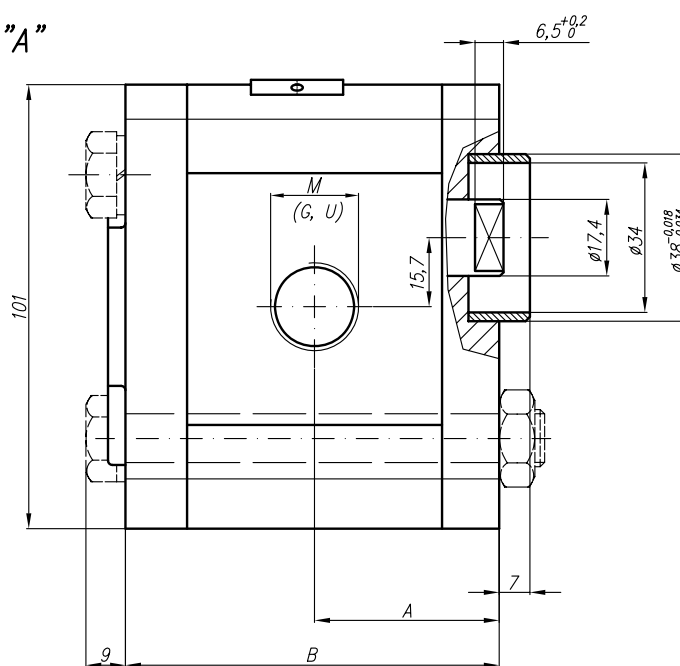


PGP PUMP	HENDERS [®] N Hydraulics [®]											GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X622...													
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension								
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	d			M	G	G2	
20A(C)4,5X622..	4,5	6,14	14,33	250	3500	40,5	78					G3/8	G1/2	
20A(C)6,3X622..	6,3	8,69	20,29	250	3500	42	81							
20A(C)8,2X622..	8,2	11,32	26,40	250	3500									
20A(C)10X622..	10	13,95	32,55	250	3500									
20A(C)11X622..	11,3	15,76	36,78	250	3500	46	89,1							
20A(C)12X622..	12	16,92	39,48	250	3500							G1/2		
20A(C)14X622..	14	19,95	46,55	250	3500									
20A(C)15X622..	15	21,60	36,00	250	2500									
20A(C)16X622..	16	23,04	38,40	250	2500									
20A(C)19X622..	19	27,36	45,60	200	2500									
20A(C)22X622..	22	31,68	42,24	180	2000									

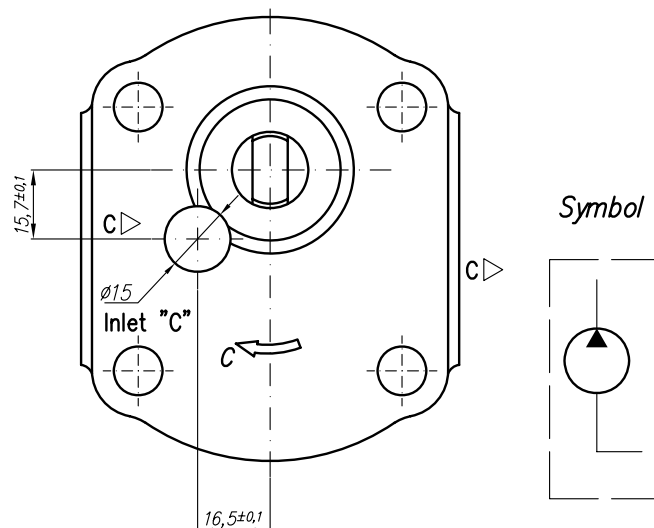
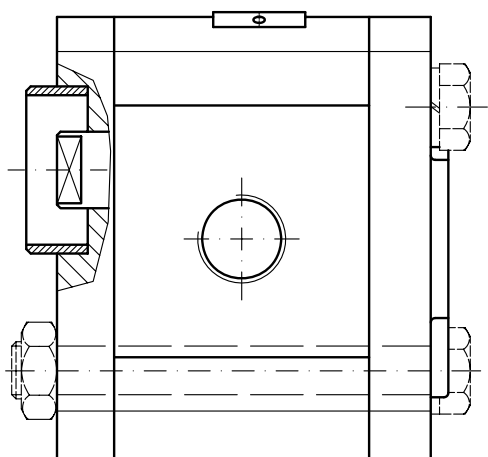
Designed as a special version – II section of tandem pump 22A(C)...X621.../...X622...



Rotation "A"

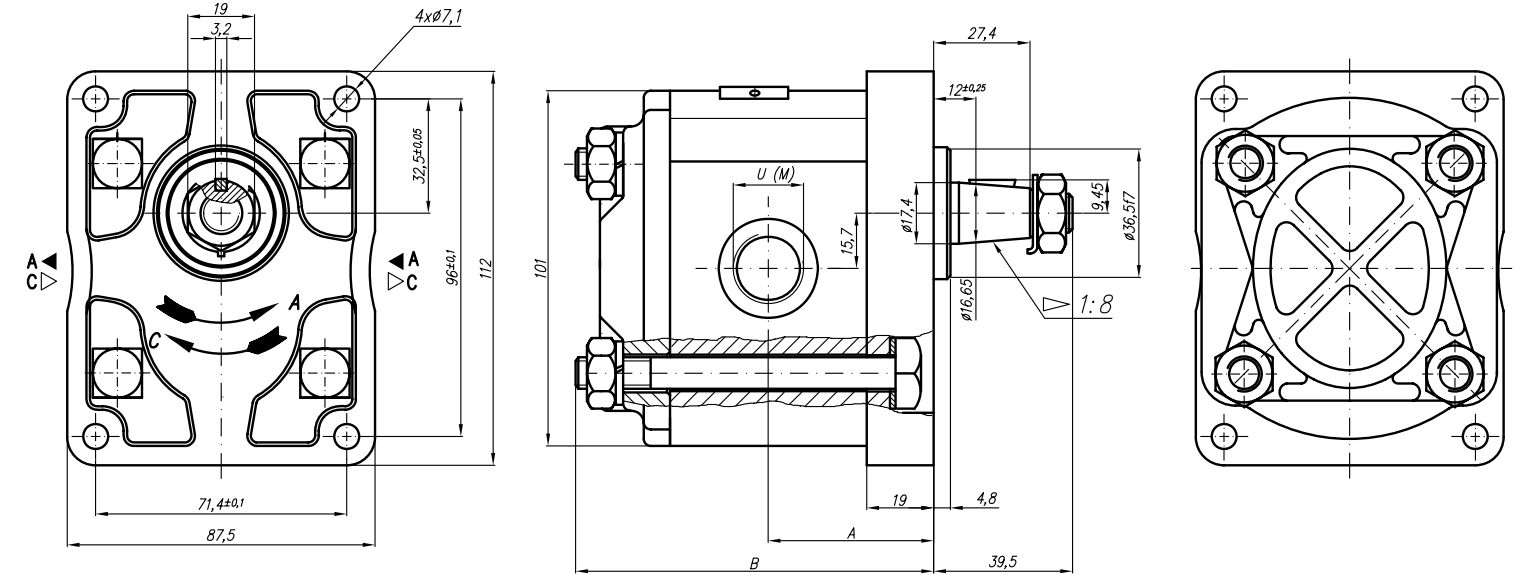


Rotation "C"

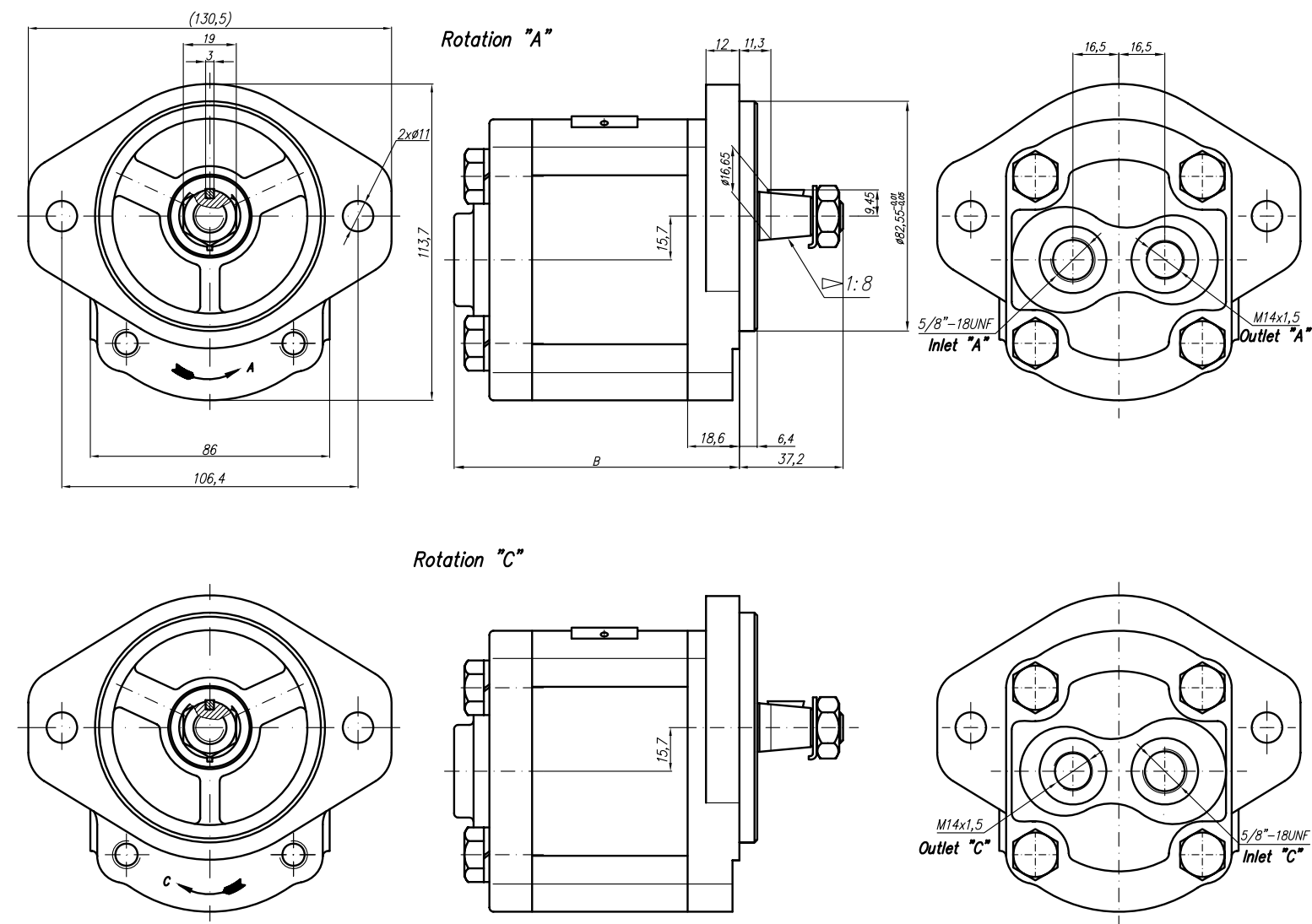


Symbol

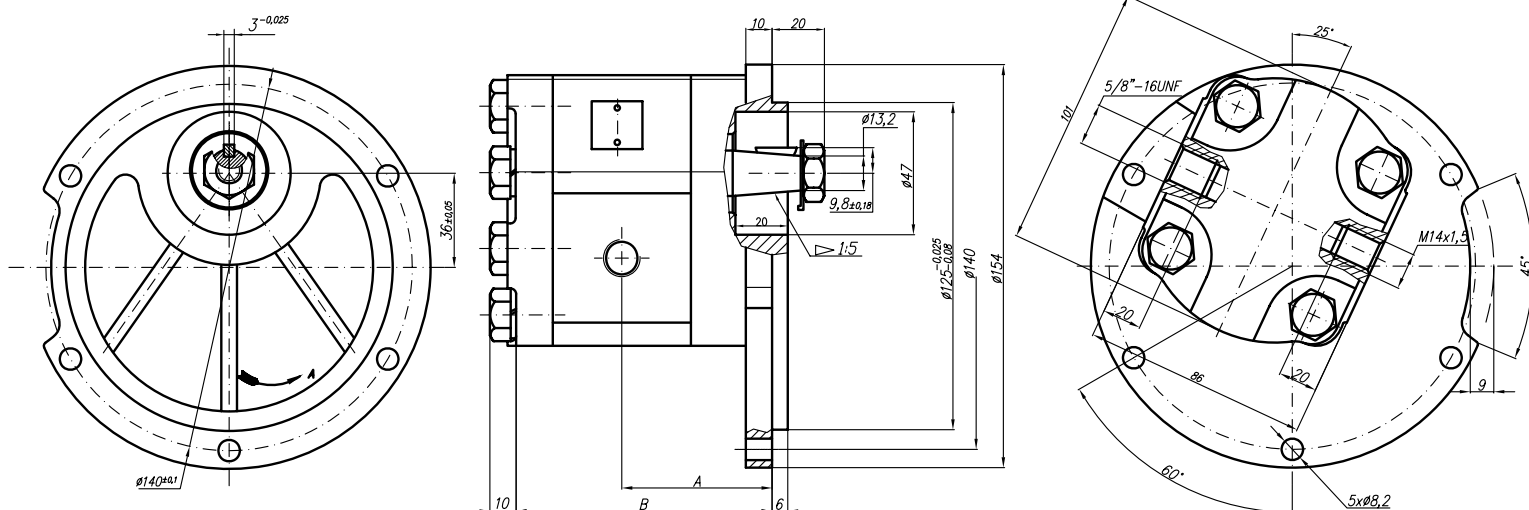
PGP PUMP	HENDERS® N Hydraulics°											GROUP II			
	GEAR PUMP TYPE PGP 20A(C)...X626UM														
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension									
		at 1500 rpm	at max rpm			A	B	Inlet				Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	U	E	F	d	M
20A(C)4,5X626UM	4,5	6,14	14,33	175	3500										
20A(C)6,3X626UM	6,3	8,69	20,29	175	3500										
20A(C)8,2X626UM	8,2	11,32	26,40	175	3500										
20A(C)10X626UM	10	13,95	32,55	175	3500	47	101,8								
20A(C)11X626UM	11,3	15,76	36,78	175	3500	48	103,9								
20A(C)12X626UM	12	16,92	39,48	175	3500	48,6	105,1								
20A(C)14X626UM	14	19,95	46,55	175	3500	50	108,2								
20A(C)15X626UM	15	21,60	36,00	175	2500										
20A(C)16X626UM	16	23,04	38,40	175	2500										
20A(C)19X626UM	19	27,36	45,60	175	2500										
20A(C)22X626UM	22	31,68	42,24	175	2000										
20A(C)25X626UM	25	36,00	48,00	160	2000										



PGP PUMP	HENDERS [®] ON Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X627WUM												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5X627WUM	4,5	6,14	14,33	250	3500		93,6	5/8"-18UNF-2B			M14x1,5		
20A(C)6,3X627WUM	6,3	8,69	20,29	250	3500		96,6						
20A(C)8,2X627WUM	8,2	11,32	26,40	250	3500		99,5						
20A(C)10X627WUM	10	13,95	32,55	250	3500		102,5						
20A(C)11X627WUM	11,3	15,76	36,78	250	3500		104,6						
20A(C)12X627WUM	12	16,92	39,48	250	3500		105,9						
20A(C)14X627WUM	14	19,95	46,55	250	3500		108,9						
20A(C)15X627WUM	15	21,60	36,00	250	2500		110,5						
20A(C)16X627WUM	16	23,04	38,40	250	2500		112,1						
20A(C)19X627WUM	19	27,36	45,60	200	2500		117,1						
20A(C)22X627WUM	22	31,68	42,24	180	2000		122,1						
20A(C)25X627WUM	25	36,00	48,00	160	2000		127						



PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X628UM												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5X628UM	4,5	6,14	14,33	250	3500			5/8"-18UNF-2B			M14x1,5		
20A(C)6,3X628UM	6,3	8,69	20,29	250	3500								
20A(C)8,2X628UM	8,2	11,32	26,40	250	3500								
20A(C)10X628UM	10	13,95	32,55	250	3500	56	97,9						
20A(C)11X628UM	11,3	15,76	36,78	250	3500	57	100						
20A(C)12X628UM	12	16,92	39,48	250	3500								
20A(C)14X628UM	14	19,95	46,55	250	3500								
20A(C)15X628UM	15	21,60	36,00	250	2500								
20A(C)16X628UM	16	23,04	38,40	250	2500								
20A(C)19X628UM	19	27,36	45,60	200	2500								
20A(C)22X628UM	22	31,68	42,24	180	2000								
20A(C)25X628UM	25	36,00	48,00	160	2000								

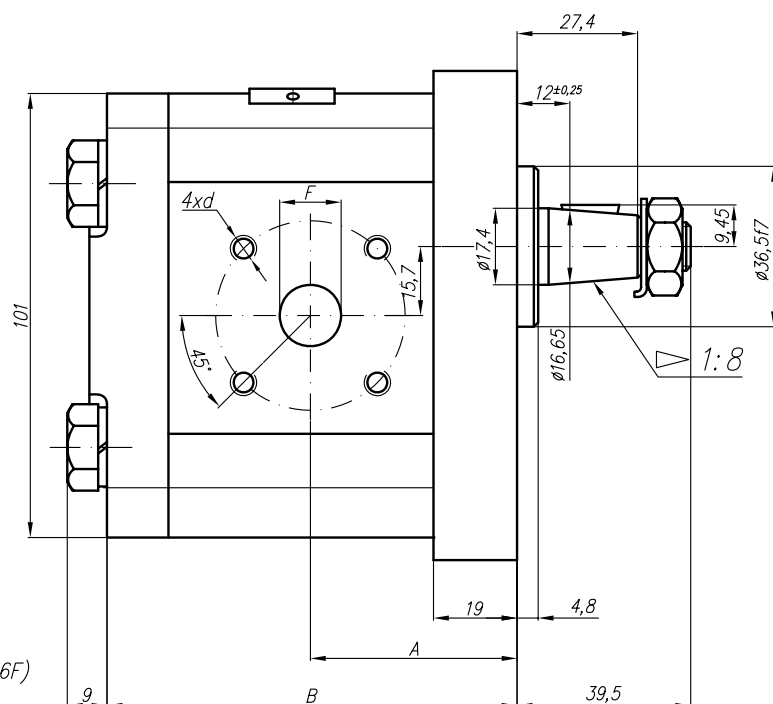
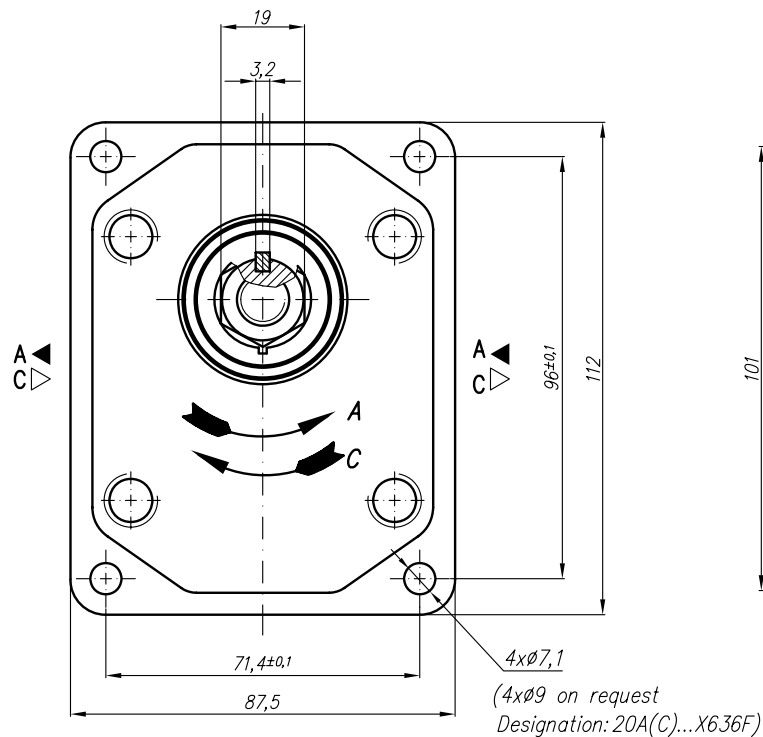


Dimension

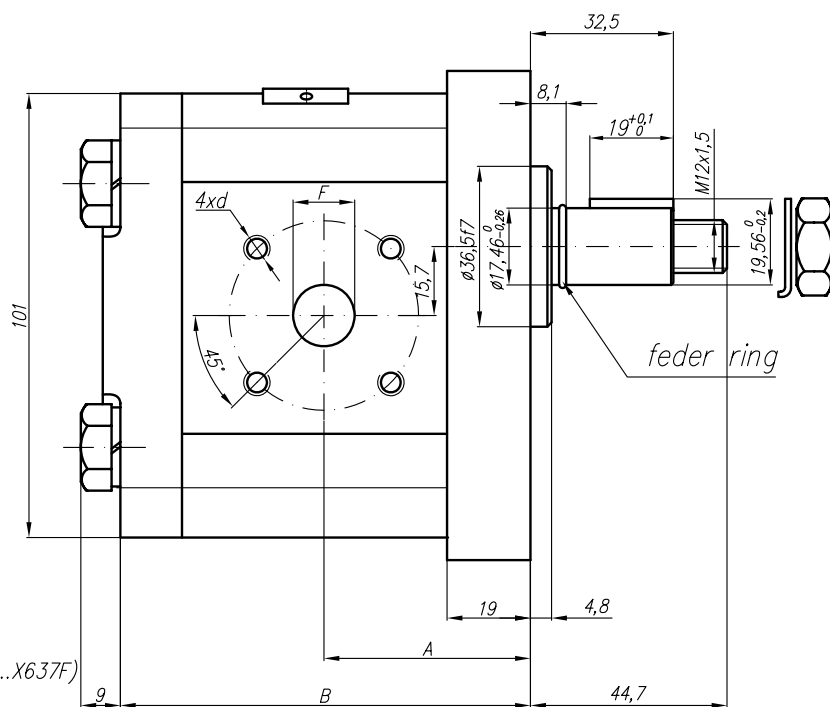
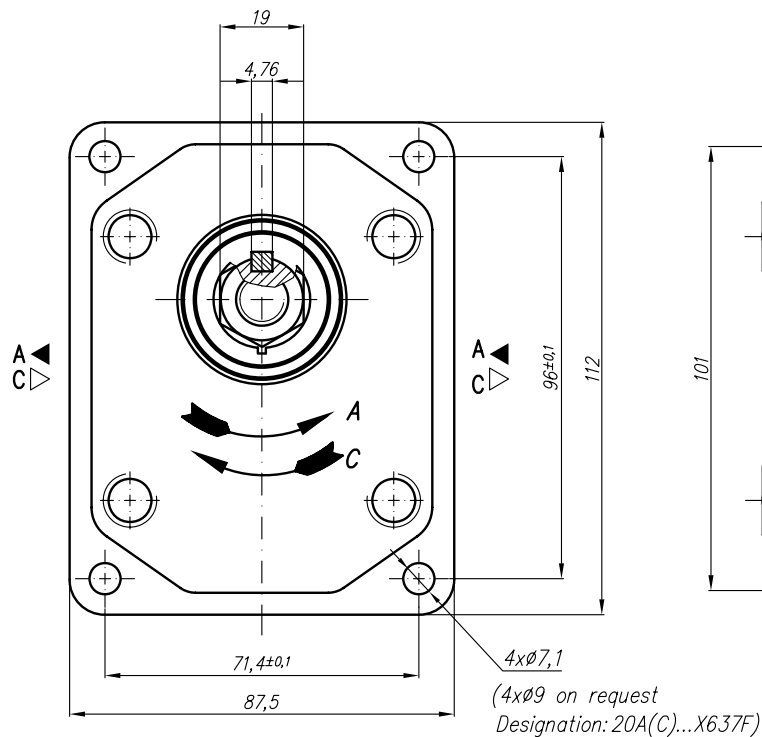
Outlet


F

PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II						
	GEAR PUMP TYPE PGP 20A(C)...X636																
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension											
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet						
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d				
20A(C)4,5X636	4,5							43,1	14	5/16"-18UNC	43,1	14	5/16"-18UNC				
20A(C)6,3X636	6,3	8,69	20,29	250	3500	42,5	80										
20A(C)8,2X636	8,2	11,32	26,40	250	3500	42,5	80										
20A(C)10X636	10	13,95	32,55	250	3500	47	89										
20A(C)11X636	11,3	15,76	36,78	250	3500	48	91,1		19								
20A(C)12X636	12	16,92	39,48	250	3500	48,6	92,3										
20A(C)14X636	14	19,95	46,55	250	3500	50	95,4										
20A(C)15X636	15	21,60	36,00	250	2500	51	96,9										
20A(C)16X636	16	23,04	38,40	250	2500	52	98,6										
20A(C)19X636	19	27,36	45,60	200	2500	54	103,5										
20A(C)22X636	22	31,68	42,24	180	2000	57	108,5										
20A(C)25X636	25	36,00	48,00	160	2000	59,2	113,4		19								

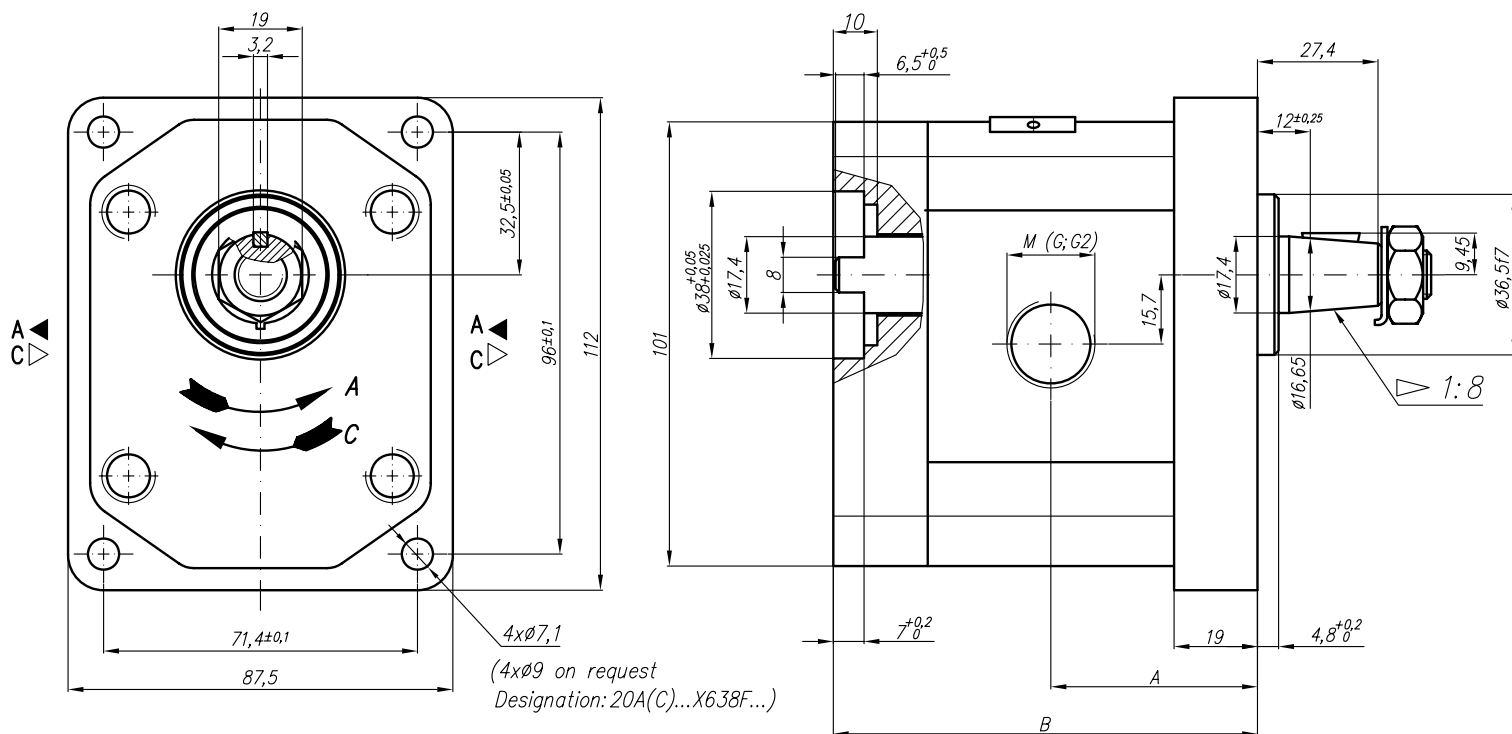


PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II						
	GEAR PUMP TYPE PGP 20A(C)...X637																
Type	Displace ment	Flow		Pressure P _{nom}	max Speed n	Dimension											
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet						
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d				
20A(C)4,5X637	4,5							43,1	14	5/16"-18UNC	43,1	14	5/16"-18UNC				
20A(C)6,3X637	6,3	8,69	20,29	250	3500	42,5	80										
20A(C)8,2X637	8,2	11,32	26,40	250	3500	42,5	80		19								
20A(C)10X637	10	13,95	32,55	250	3500	47	89										
20A(C)11X637	11,3	15,76	36,78	250	3500	48	91,1										
20A(C)12X637	12	16,92	39,48	250	3500	48,6	92,3										
20A(C)14X637	14	19,95	46,55	250	3500	50	95,4										
20A(C)15X637	15	21,60	36,00	250	2500	51	96,9										
20A(C)16X637	16	23,04	38,40	250	2500	52	98,6										
20A(C)19X637	19	27,36	45,60	200	2500	54	103,5										
20A(C)22X637	22	31,68	42,24	180	2000	57	108,5										
20A(C)25X637	25	36,00	48,00	160	2000	59,2	113,4		19								

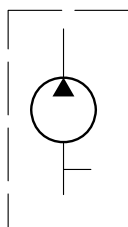


PGP PUMP	HENDERS  N Hydraulics°										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X638...												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	G2	M	G	G2
20A(C)4,5X638...	4,5	6,14	14,33	250	3500			G1"	G3/4"		G1/2"	G1/2"	
20A(C)6,3X638...	6,3	8,69	20,29	250	3500								
20A(C)8,2X638...	8,2	11,32	26,40	250	3500	45,5	93,1						
20A(C)10X638...	10	13,95	32,55	250	3500								
20A(C)11X638...	11,3	15,76	36,78	250	3500								
20A(C)12X638...	12	16,92	39,48	250	3500								
20A(C)14X638...	14	19,95	46,55	250	3500								
20A(C)15X638...	15	21,60	36,00	250	2500								
20A(C)16X638...	16	23,04	38,40	250	2500								
20A(C)19X638...	19	27,36	45,60	200	2500								
20A(C)22X638...	22	31,68	42,24	180	2000								
20A(C)25X638...	25	36,00	48,00	160	2000	59,2	120,6						

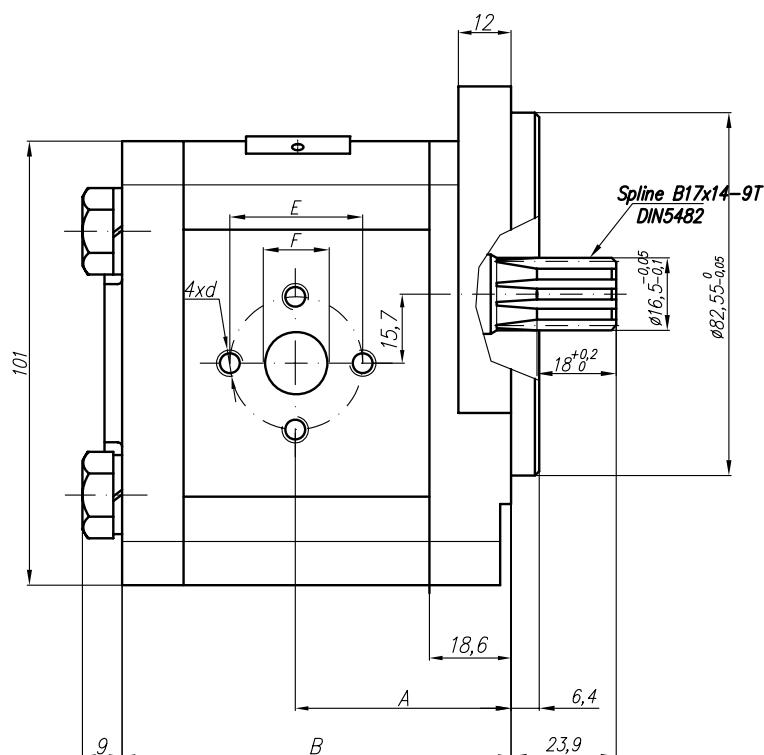
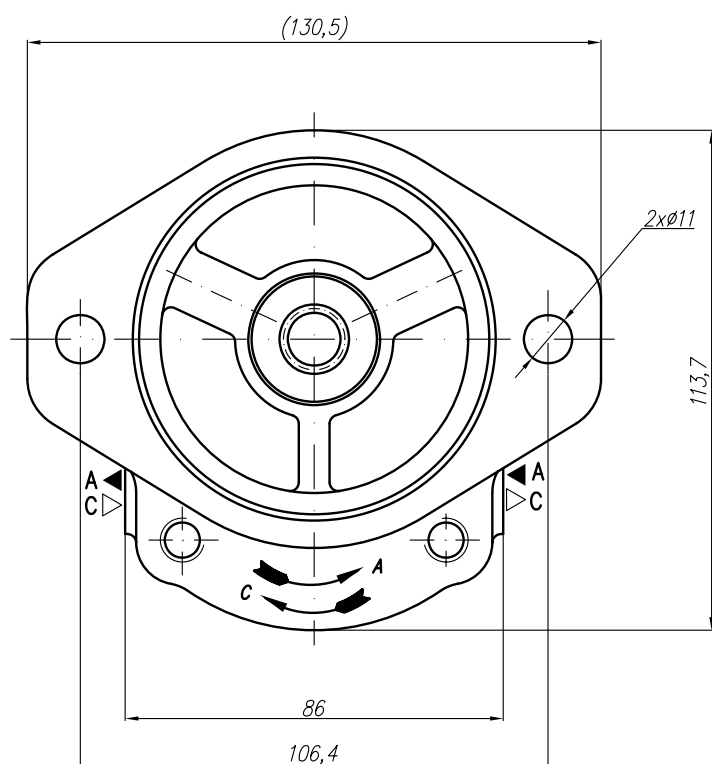
Designed as a 1 section of tandem pump 22A(C)...X638.../...X622...




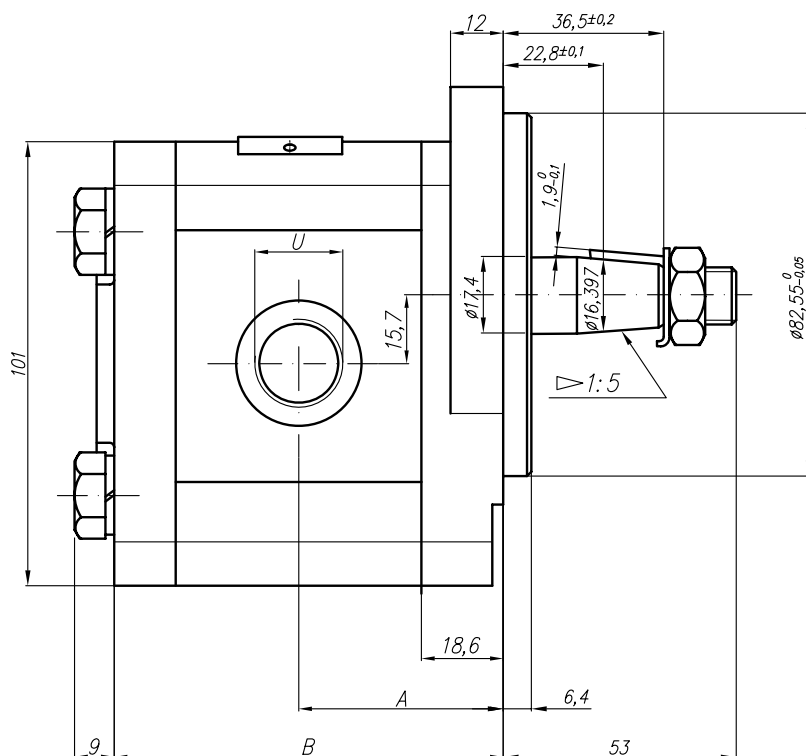
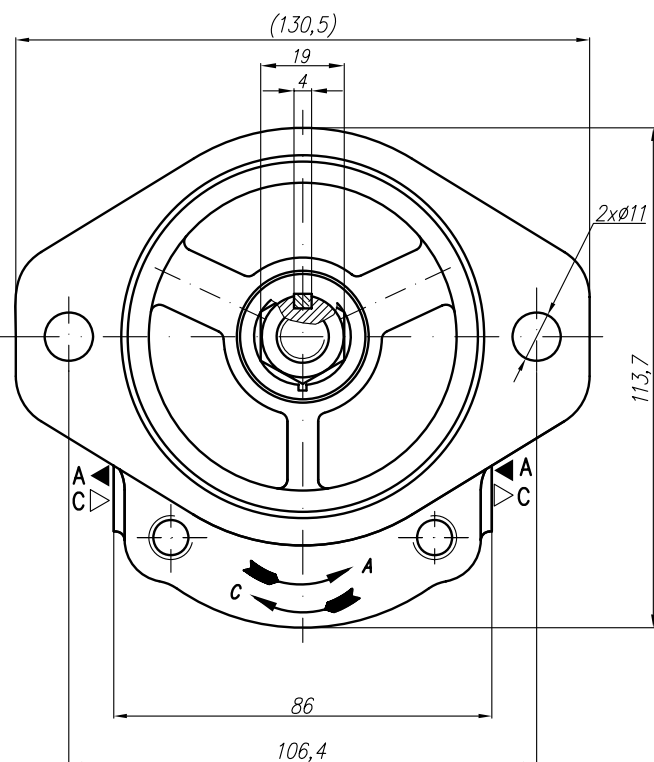
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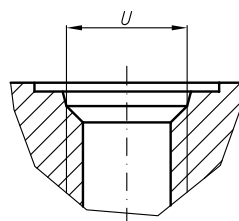
PGP PUMP	HENDERS [®] N Hydraulics [®]											GROUP II			
	GEAR PUMP TYPE PGP 20A(C)...X647														
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension									
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet				
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	E	F	d		
20A(C)4,5X647	4,5	6,14	14,33	250	3500	42	79,6	30,2	13,1	M6-6H	30,2	13,1	M6-6H		
20A(C)6,3X647	6,3	8,69	20,29	250	3500	43,6	82,6								
20A(C)8,2X647	8,2	11,32	26,40	250	3500	45	85,6								
20A(C)10X647	10	13,95	32,55	250	3500	46,6	88,7	39,7	19	M8-6H		30,2		14,2	M6-6H
20A(C)11X647	11,3	15,76	36,78	250	3500	47,6	90,7								
20A(C)12X647	12	16,92	39,48	250	3500	48,2	91,9								
20A(C)14X647	14	19,95	46,55	250	3500	49,6	95								
20A(C)15X647	15	21,60	36,00	250	2500	50,6	96,5								
20A(C)16X647	16	23,04	38,40	250	2500	51,6	98,2	39,7	19	M8-6H	30,2	14,2	M6-6H		
20A(C)19X647	19	27,36	45,60	200	2500	53,6	103,1								
20A(C)22X647	22	31,68	42,24	180	2000	56,6	108,1								
20A(C)25X647	25	36,00	48,00	160	2000	58,8	113	39,7	19	M8		39,7		19	M8



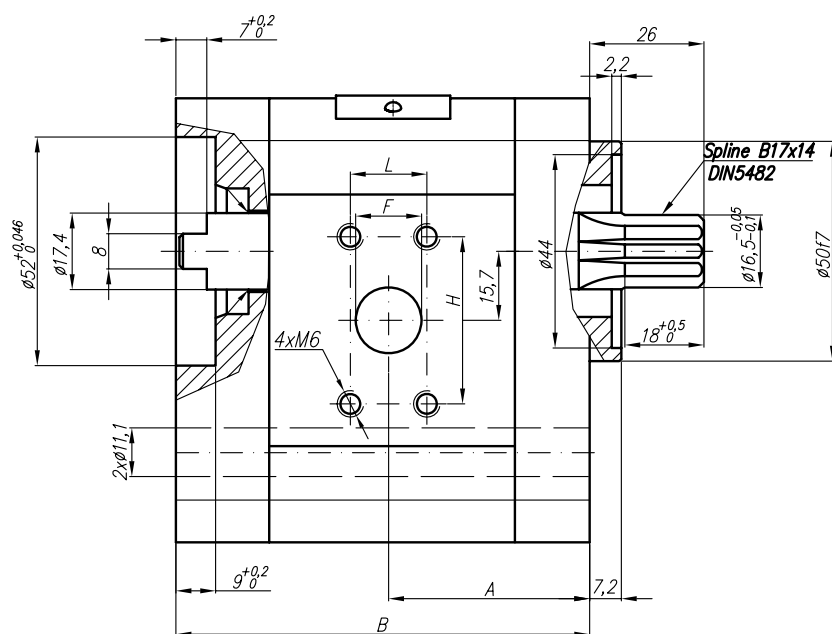
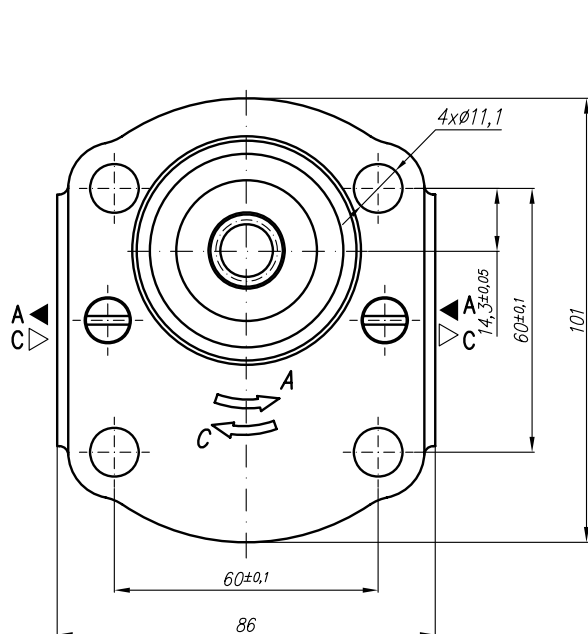
PGP PUMP	HENDERS  N Hydraulics®										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X650U												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5X650U	4,5	6,14	14,33	250	3500	42	79,6	1 1/16" -12UNF					7/8" -14UNF
20A(C)6,3X650U	6,3	8,69	20,29	250	3500	43,6	82,6						
20A(C)8,2X650U	8,2	11,32	26,40	250	3500	45	85,6						
20A(C)10X650U	10	13,95	32,55	250	3500	46,6	88,7						
20A(C)11X650U	11,3	15,76	36,78	250	3500	47,6	90,7						
20A(C)12X650U	12	16,92	39,48	250	3500	48,2	91,9						
20A(C)14X650U	14	19,95	46,55	250	3500	49,6	95						
20A(C)15X650U	15	21,60	36,00	250	2500	50,6	96,5						
20A(C)16X650U	16	23,04	38,40	250	2500	51,6	98,2						
20A(C)19X650U	19	27,36	45,60	200	2500	53,6	103,1						
20A(C)22X650U	22	31,68	42,24	180	2000	56,6	108,1						
20A(C)25X650U	25	36,00	48,00	160	2000	58,8	113						



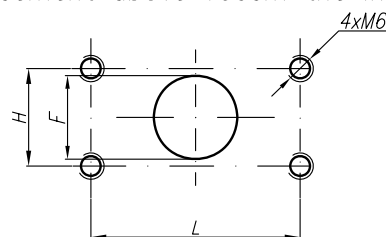
SAE J475 (ISO R725)










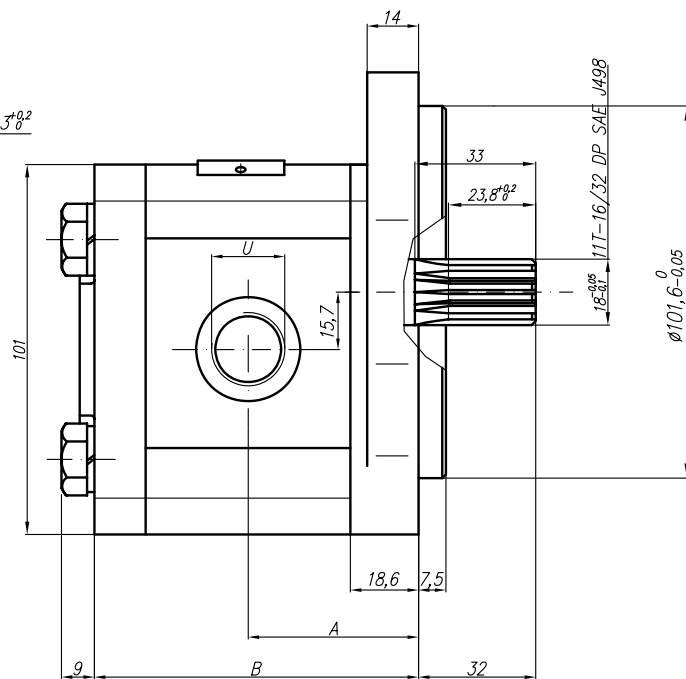
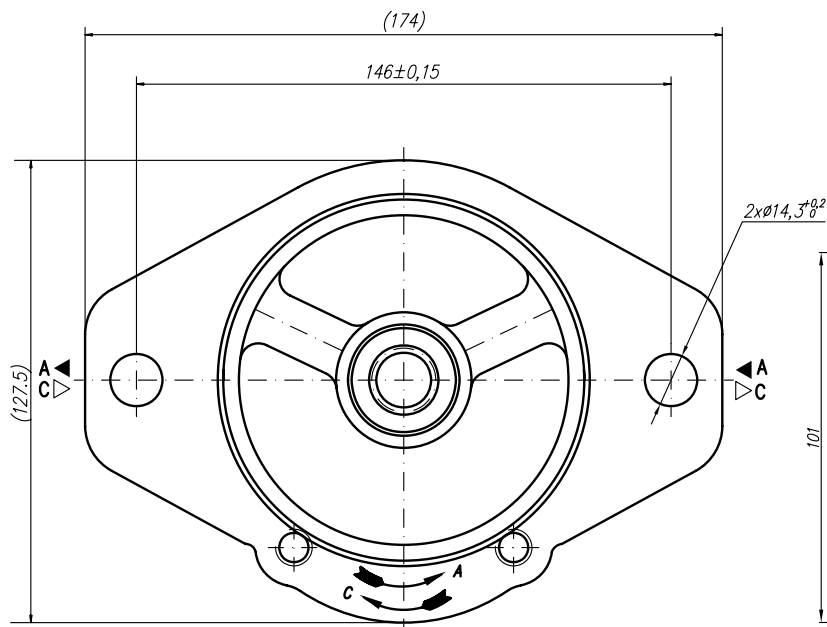
PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II					
	GEAR PUMP TYPE PGP 20A(C)...X654															
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension										
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet					
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	H	L	F	H	L	F			
20A(C)4,5X654	4,5	6,14	14,33	250	3500	40,5	85,2	38,1	17,4	15	38,1	17,4	15			
20A(C)6,3X654	6,3	8,69	20,29	250	3500	42	88,2									
20A(C)8,2X654	8,2	11,32	26,40	250	3500	43,5	91,1									
20A(C)10X654	10	13,95	32,55	250	3500	45	94,1									
20A(C)11X654	11,3	15,76	36,78	250	3500	46	96,2									
20A(C)12X654	12	16,92	39,48	250	3500	46,5	97,5	22,2	47,6	19				38,1	17,4	15
20A(C)14X654	14	19,95	46,55	250	3500	48	100,6									
20A(C)15X654	15	21,60	36,00	250	2500	49	102,1									
20A(C)16X654	16	23,04	38,40	250	2500	50	103,8									
20A(C)19X654	19	27,36	45,60	200	2500	52	108,7									
20A(C)22X654	22	31,68	42,24	180	2000	55	113,7									
20A(C)25X654	25	36,00	48,00	160	2000	57,2	118,5									



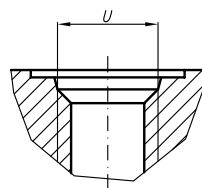
At pump displacement above 10ccm the Inlet port is rotated:



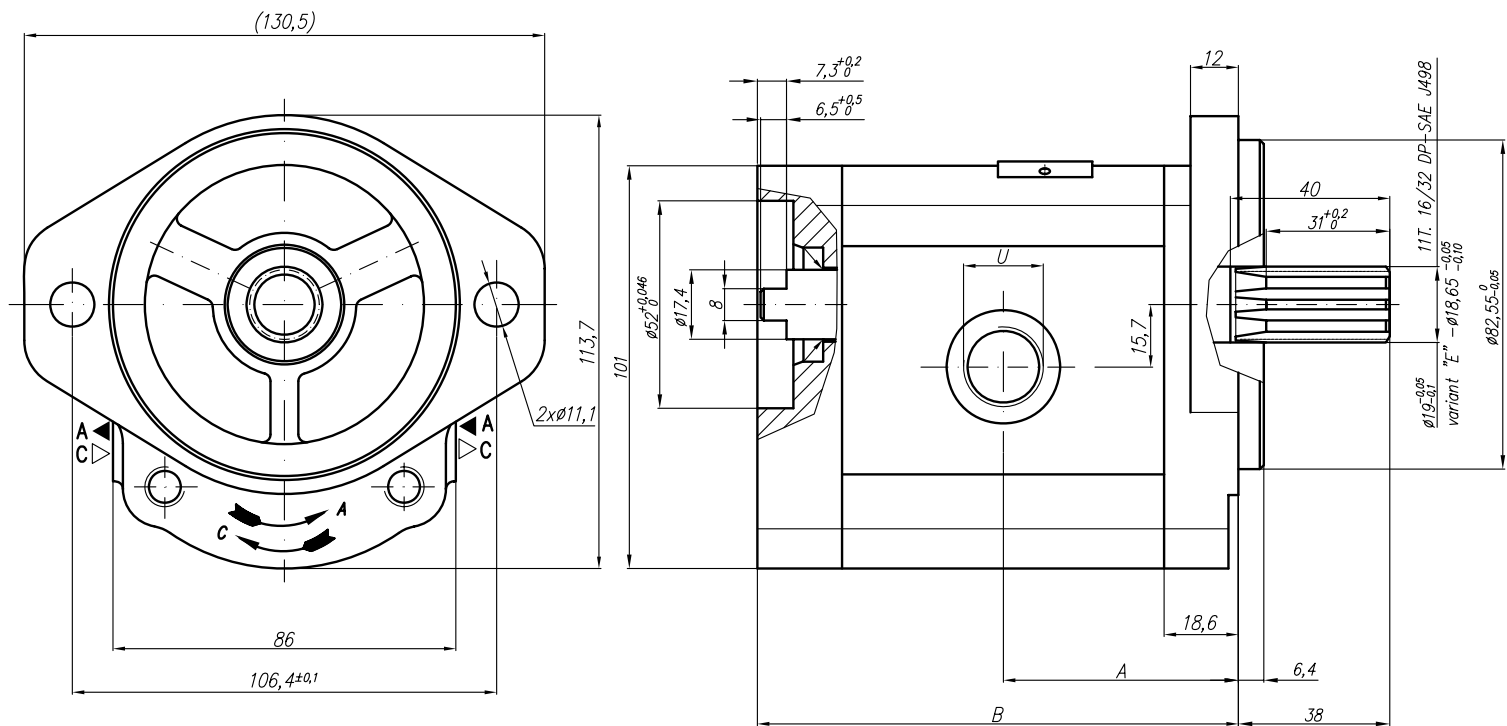
PGP PUMP	HENDERS  N Hydraulics®										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X655U												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5X655U	4,5	6,14	14,33	250	3500	42	79,6						
20A(C)6,3X655U	6,3	8,69	20,29	250	3500	43,6	82,6						
20A(C)8,2X655U	8,2	11,32	26,40	250	3500	45	85,6						
20A(C)10X655U	10	13,95	32,55	250	3500	46,6	88,7						
20A(C)11X655U	11,3	15,76	36,78	250	3500	47,6	90,7						
20A(C)12X655U	12	16,92	39,48	250	3500	48,2	91,9						
20A(C)14X655U	14	19,95	46,55	250	3500	49,6	95						
20A(C)15X655U	15	21,60	36,00	250	2500	50,6	96,5						
20A(C)16X655U	16	23,04	38,40	250	2500	51,6	98,2						
20A(C)19X655U	19	27,36	45,60	200	2500	53,6	103,1						
20A(C)22X655U	22	31,68	42,24	180	2000	56,6	108,1						
20A(C)25X655U	25	36,00	48,00	160	2000	58,8	113						



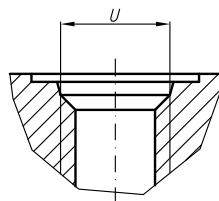
SAE J475 (ISO R725)



PGP PUMP	HENDERSO [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X656HD												
Type	Displacement	Flow		Pressure	max Speed	Dimension							
		at 1500 rpm	at max rpm			P _{nom}	n	A	B	Inlet			Outlet
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)14X656HD	14	20,16	47,04	250	3500	54,9	112,5			1 1/16" - 12UNF			7/8" - 14UNF
20A(C)15X656HD	15	21,60	43,20	250	3000	55,6	114						
20A(C)16X656HD	16	23,04	46,08	250	3000	56,5	115,6						
20A(C)17,3X656HD	17,3	24,91	49,82	230	3000	57,6	117,7						
20A(C)18,2X656HD	18,2	26,21	52,42	210	3000	58,4	119,3						
20A(C)19X656HD	19	27,36	54,72	200	3000	59	120,6						
20A(C)22X656HD	22	31,68	52,80	180	2500	61,5	125,6						
20A(C)25X656HD	25	36,00	60,00	160	2500	63,9	130,5						
20A(C)28X656HD	28	40,32	67,20	130	2500	66,4	135,3						
20A(C)32X656HD	32	46,08	61,44	120	2000	69,6	141,6						
20A(C)36X656HD	36	51,84	69,12	100	2000	72,8	148,2						

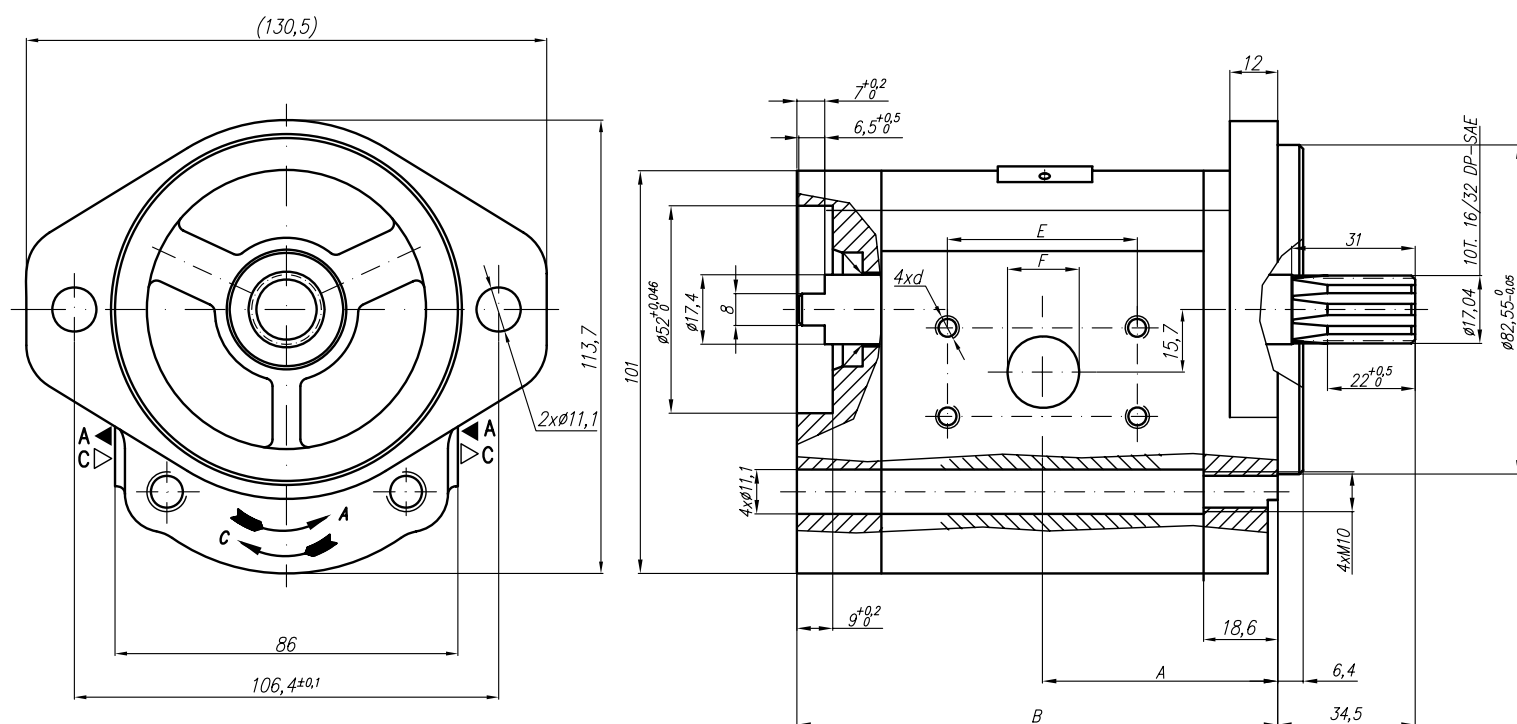


Variant "U"
SAE J475 (ISO R725)



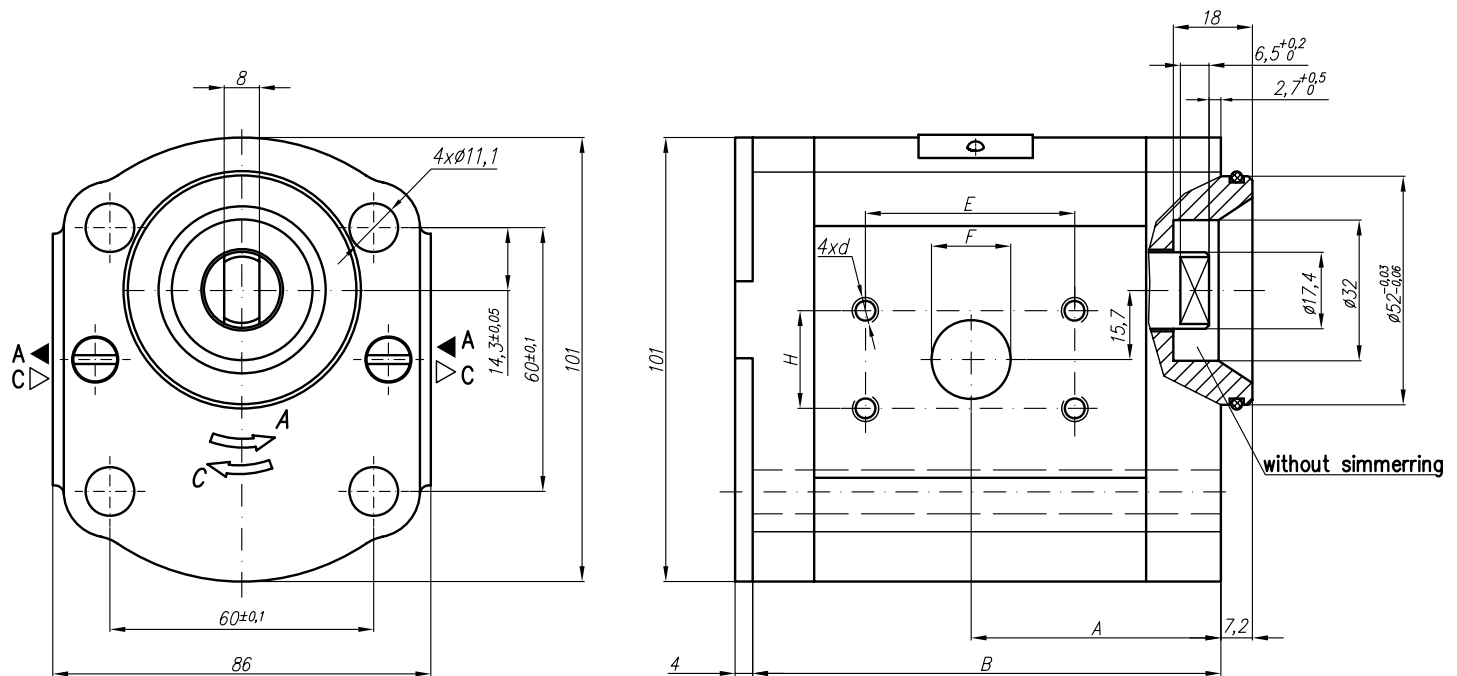
PGP PUMP	HENDERSO [®] N Hydraulics [®]														GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X664H																
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension											
		at 1500 rpm	at max rpm			A	B	Inlet					Outlet				
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	H	d	F	U	E	H	d	F	U
20A(C)15X664H	15	20,48	47,78	250	3500	55,6	114	52,7	26,2	3/8"-14UNC-2B	25		47,6	22,2	3/8"-14UNC-2B	18	
20A(C)16X664H	16	22,08	51,52	250	3500	56,6	115,6										
20A(C)17,3X664H	17,3	23,87	55,71	230	3500	57,6	117,7										
20A(C)18,2X664H	18,2	25,39	59,24	210	3500	58,4	119,3										
20A(C)19X664H	19	26,51	61,85	200	3500	59	120,6										
20A(C)22X664H	22	31,02	72,38	180	3500	61,5	125,2										
20A(C)25X664H	25	35,63	83,13	160	3500	63,9	130,5										
20A(C)28X664H	28	40,32	67,20	130	2500	66,4	135,3										
20A(C)32X664H	32	46,08	76,80	120	2500	69,6	141,6										
20A(C)36X664H	36	51,84	86,40	100	2500	72,8	148,2										

Designed as I section of tandem gear pump 22A(C)...X664H/...X665H

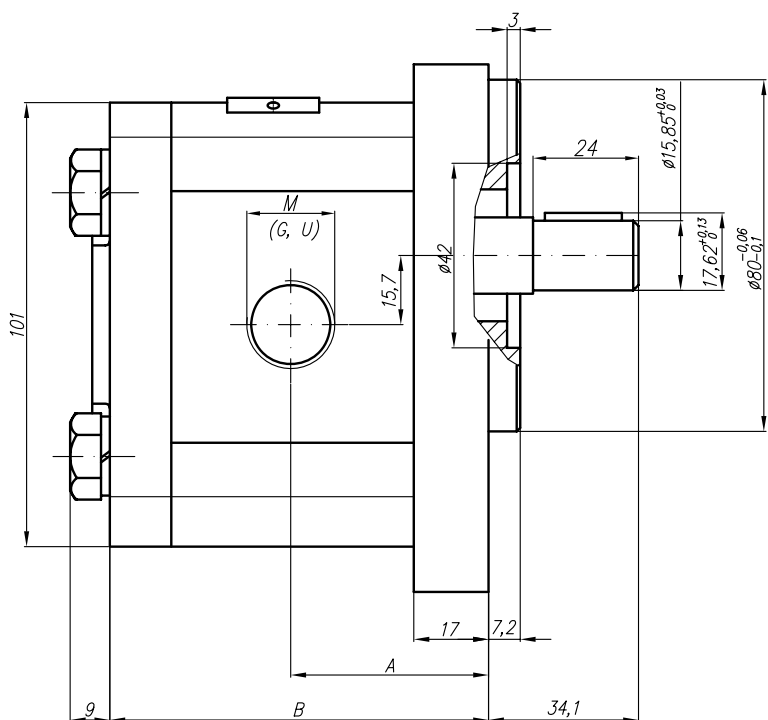
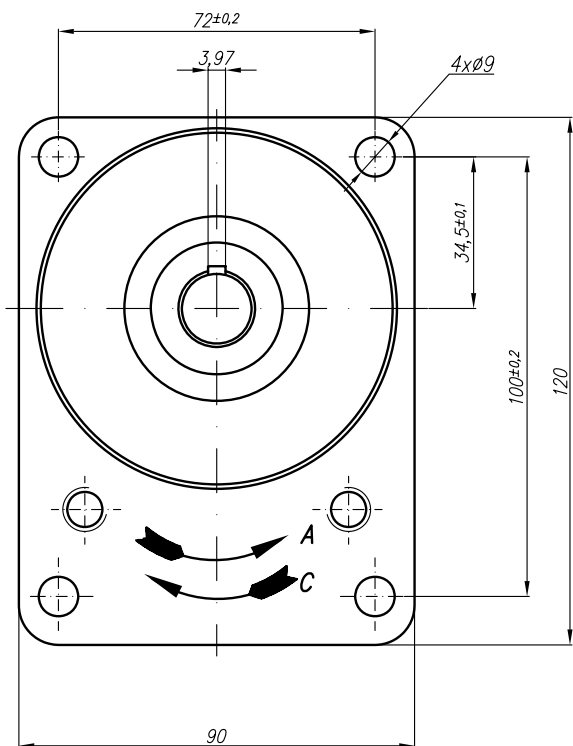


PGP PUMP	HENDERSON Hydraulics®															GROUP II	
	GEAR PUMP TYPE PGP 20A(C)...X665H																
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension											
		at 1500 rpm	at max rpm			A	B	Inlet					Outlet				
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	H	d	F	U	E	H	d	F	U
20A(C)15X665H	15	20,48	47,78	250	3500	54	105,2	52,7	26,2	3/8"-14UNC-2B	25		47,6	22,2	3/8"-14UNC-2B	18	
20A(C)16X665H	16	22,08	51,52	250	3500	54,9	106,8										
20A(C)17,3X665H	17,3	23,87	55,71	230	3500	56	108,9										
20A(C)18,2X665H	18,2	25,39	59,24	210	3500	56,8	110,5										
20A(C)19X665H	19	26,51	61,85	200	3500	57,4	111,8										
20A(C)22X665H	22	31,02	72,38	180	3500	59,9	116,8										
20A(C)25X665H	25	35,63	83,13	160	3500	62,3	121,7										
20A(C)28X665H	28	40,32	67,20	130	2500	64,8	126,5										
20A(C)32X665H	32	46,08	76,80	120	2500	68	132,8										
20A(C)36X665H	36	51,84	86,40	100	2500	71,2	139,4										

Designed as II section of tandem gear pump 22A(C)...X664H/...X665H

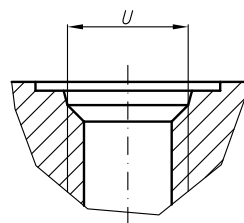


PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II		
	GEAR PUMP TYPE PGP 20A(C)...X670...												
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension							
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet		
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	M	G	U	M	G	U
20A(C)4,5X670...	4,5	6,14	14,33	250	3500	39,8	78	M20x1,5	G1/2	1 1/16"-12UNF	M16x1,5	G1/2	7/8"-14UNF
20A(C)6,3X670...	6,3	8,69	20,29	250	3500	41	81						
20A(C)8,2X670...	8,2	11,32	26,40	250	3500	43,1	83,9						
20A(C)10X670...	10	13,95	32,55	250	3500	47,5	87		G3/4				
20A(C)11X670...	11,3	15,76	36,78	250	3500	47,5	89,1						
20A(C)12X670...	12	16,92	39,48	250	3500	47,5	90,3						
20A(C)14X670...	14	19,95	46,55	250	3500	47,5	93,4		1 1/16"-12UNF				
20A(C)15X670...	15	21,60	36,00	250	2500	47,5	94,9						
20A(C)16X670...	16	23,04	38,40	250	2500	47,5	96,6						
20A(C)19X670...	19	27,36	45,60	200	2500	47,5	101,5		M20X1,5				
20A(C)22X670...	22	31,68	42,24	180	2000	55	106,5						
20A(C)25X670...	25	36,00	48,00	160	2000	57,2	111,4						

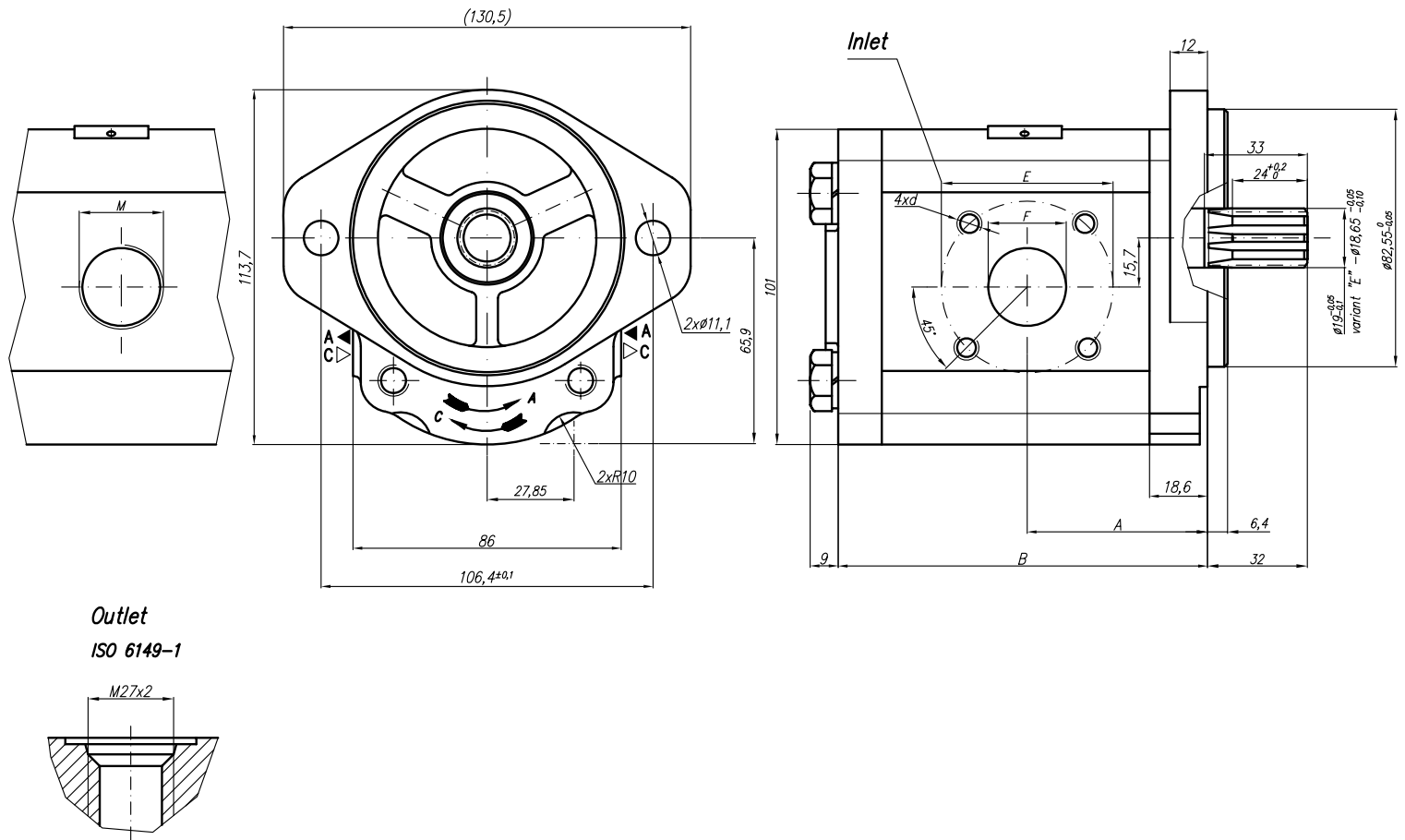


Variant "U"

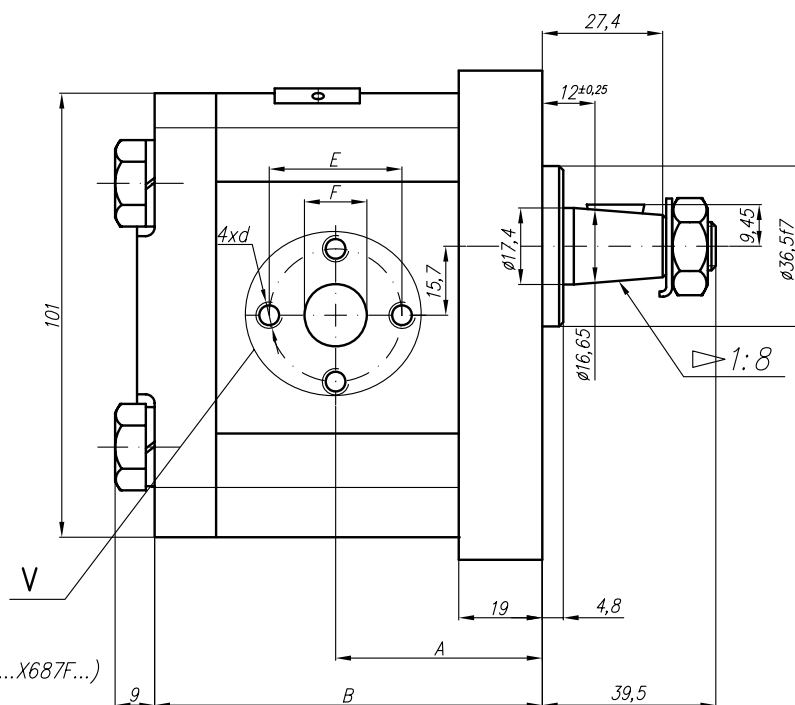
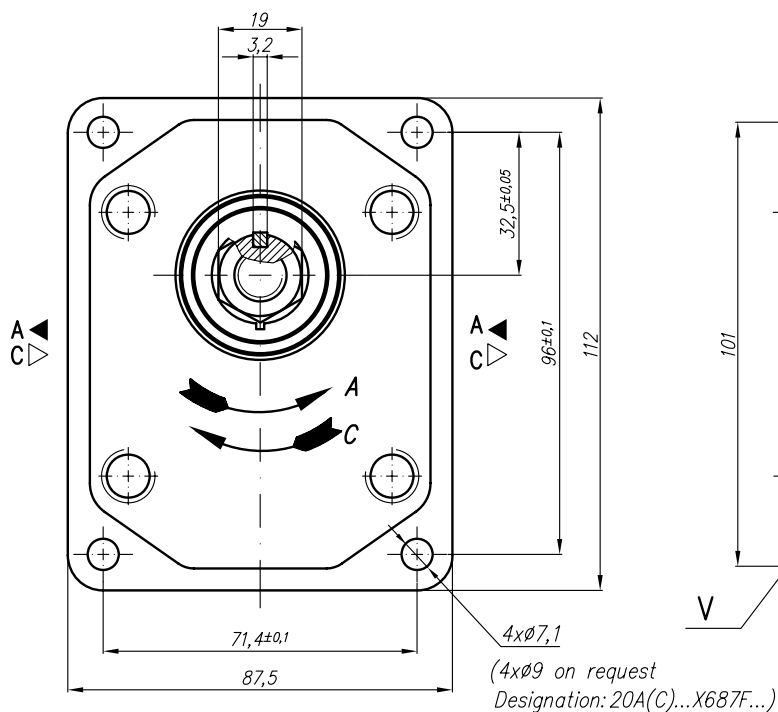
SAE J475 (ISO R725)



PGP PUMP	HENDERS [®] N Hydraulics [®]										GROUP II			
	GEAR PUMP TYPE PGP 20A(C)...X671HDJD													
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension								
		at 1500 rpm	at max rpm			A	B	Inlet			Outlet			
	cm ³ /rev	l/min	l/min	bar	rpm	mm	mm	E	F	d	M	G	U	
20A(C)14X671HDJD	14							55		M8-6H	M27x2			
20A(C)15X671HDJD	15	21,60	43,20	250	3000									
20A(C)16X671HDJD	16	23,04	46,08	250	3000									
20A(C)17,3X671HDJD	17,3	24,91	49,82	230	3000									
20A(C)18,2X671HDJD	18,2	26,21	52,42	210	3000									
20A(C)19X671HDJD	19	27,36	54,72	200	3000									
20A(C)22X671HDJD	22	31,68	52,80	180	2500	57,8	118,4							
20A(C)25X671HDJD	25	36,00	60,00	160	2500									
20A(C)28X671HDJD	28	40,32	67,20	130	2500									
20A(C)32X671HDJD	32	46,08	61,44	120	2000									
20A(C)36X671HDJD	36	51,84	69,12	100	2000									



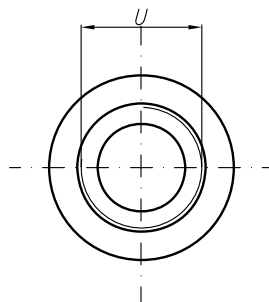
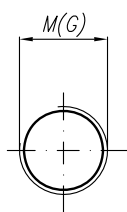
PGP PUMP		HENDERS [®] N Hydraulics [®]																GROUP II	
		GEAR PUMP TYPE PGP 20A(C)...X687...																	
Type	Displacement	Flow		Pressure P _{nom}	max Speed n	Dimension													
		at 1500 rpm	at max rpm			Inlet						Outlet							
	cm ³ /rev	l/min	l/min	bar	rpm	A	B	E	F	d	M	G	U	E	F	d	M	G	U
20A(C)4,5X687...	4,5	6,14	14,33	250	3500	42,5	80	30,2	13,1	M6-6H		G1/2							
20A(C)6,3X687...	6,3	8,69	20,29	250	3500	44	83												
20A(C)8,2X687...	8,2	11,32	26,40	250	3500	45,5	85,9	39,7	19	M8-6H	M20x1,5	G3/4	1 1/16"-12UNF	30,2	13,1	M6-6H	M16x1,5	G1/2	7/8"-14UNF
20A(C)10X687...	10	13,95	32,55	250	3500	Equivalent to 20A(C)...X006 and 20A(C)...X016													
20A(C)11X687...	11,3	15,76	36,78	250	3500														
20A(C)12X687...	12	16,92	39,48	250	3500														
20A(C)14X687...	14	19,95	46,55	250	3500														
20A(C)15X687...	15	21,60	36,00	250	2500														
20A(C)16X687...	16	23,04	38,40	250	2500														
20A(C)19X687...	19	27,36	45,60	200	2500														
20A(C)22X687...	22	31,68	42,24	180	2000														
20A(C)25X687...	25	36,00	48,00	160	2000									39,7	19	M8	M20x1,5		



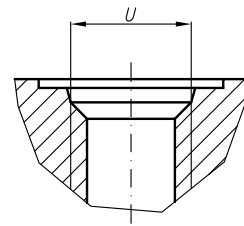
V
Variants for ports – M;G;U

Designations:

- ...X687 – Normal version (flanges);
- ...X687M – Metric threads;
- ...X687G – GAS threads;
- ...X687U – SAE UNF threads;



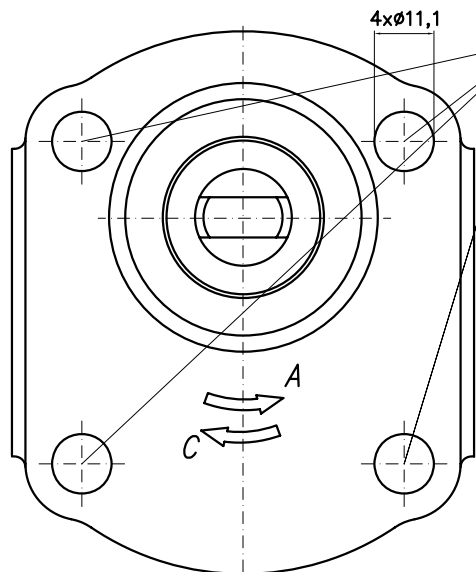
SAE J475 (ISO R725)



MOUNTING TORQUE

To mount the pump use four screws
M10xL/10.9
Torque 45^{+5}Nm

GROUP II



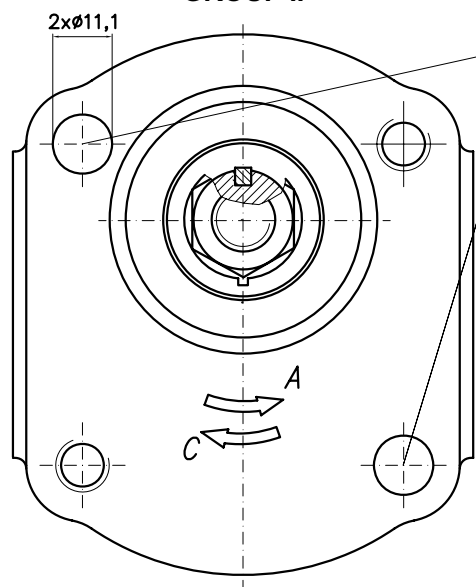
For Pumps at types:

X066	X072	X077	X097	X110
X156	X161	X173	X178	X185
X305	X381	X451	X495	X536
X538	X597	X602	X622	X665

And etc.

To mount the pump use two screws
M10xL/10.9
Torque 45^{+5}Nm

GROUP II



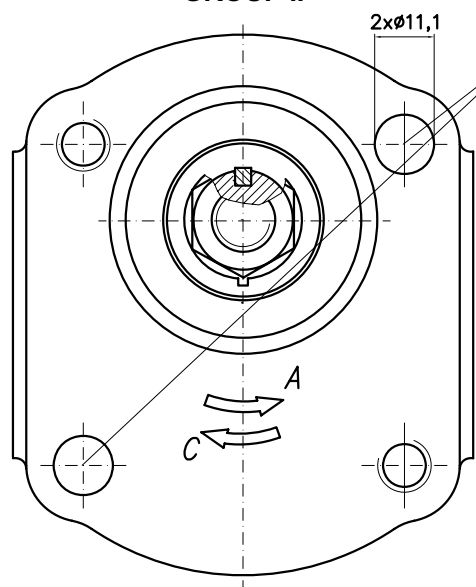
For Pumps at types:

X007	X074	X083	X087	X091
X095	X096	X127	X128	X132
X147	X153	X170	X178	X187
X205	X295	X449SBA	X540WMS	X567
X573	X847	X857	X867	X877

And etc.

To mount the pump use two screws
M10xL/10.9
Torque 45^{+5}Nm

GROUP II



For Pumps at types:

X008	X296	X368	X402	X403
X496	X528	X583	X586	X588
X652-12SBAW	X653-A1A40W			X776
X803	X843	X848	X868	X878

And etc.