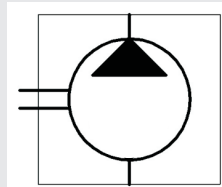


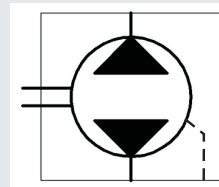


Clockwise  
Counterclockwise  
Bidirectional

R, L



B



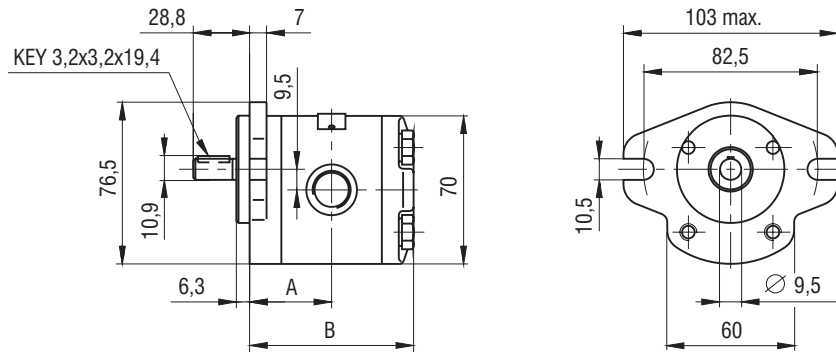
# Hydraulic Gear Pumps

High Performance Version

**GP1 Pumps - basic design** dimensions in millimeters

**GP1-\*R-SAVC-SU\*U\*-N**

L  
B

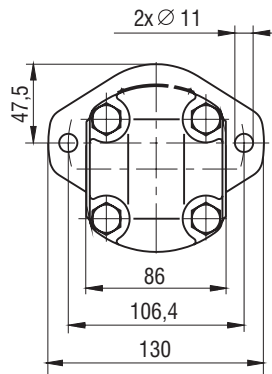
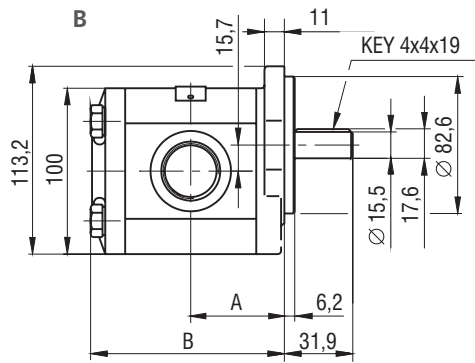


Displacement	[cm <sup>3</sup> ]	Speed [rpm]		Dimens. [mm]		Displacement	[cm <sup>3</sup> ]	Speed [rpm]		Dimens. [mm]		Displacement	[cm <sup>3</sup> ]	Speed [rpm]		Dimens. [mm]	
		MIN	MAX	A	B			MIN	MAX	A	B			MIN	MAX	A	B
	0,8	800	5000	32,6	69,3		3,3	500	4000	37,2	78,5		6,2	500	3500	42,6	89,3
	1,2	800	5000	33,4	70,8		3,6	500	4000	37,8	79,6		7	500	3000	43,9	92,7
	1,6	600	4500	34,1	72,3		4,4	500	4000	39,2	82,5		7,9	500	3000	45,7	95,6
	2,1	600	4500	34,9	73,9		4,8	500	3800	40,0	84,0						
	2,5	500	4000	35,7	75,5		5,8	500	3800	41,9	87,8						

**GP2 Pumps - basic design** dimensions in millimeters

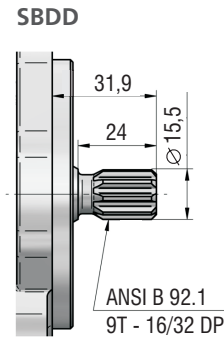
**GP2-\*R-SBVJ-SU\*U\*-N**

L  
B



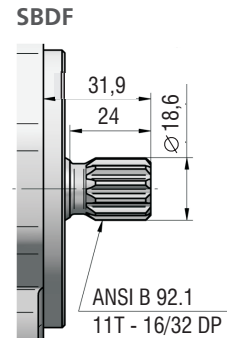
**GP2-\*R-SBDD-SU\*U\*-N**

L  
B



**GP2-\*R-SBDF-SU\*U\*-N**

L  
B

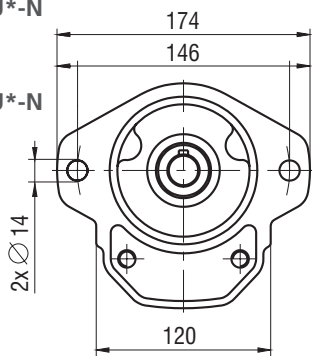


Displacement	[cm <sup>3</sup> ]	Speed [rpm]		Dimens. [mm]		Displacement	[cm <sup>3</sup> ]	Speed [rpm]		Dimens. [mm]		Displacement	[cm <sup>3</sup> ]	Speed [rpm]		Dimens. [mm]	
		MIN	MAX	A	B			MIN	MAX	A	B			MIN	MAX	A	B
	4	500	4000	42,5	86,0		12	500	3600	48,8	98,6		25	500	2800	59,0	119,1
	6	500	4000	44,0	89,2		16	500	3200	51,9	104,9		31	500	2200	63,7	128,5
	8	500	3600	45,6	92,3		20	500	3200	55,0	111,2						

**GP3 Pumps - basic design** dimensions in millimeters

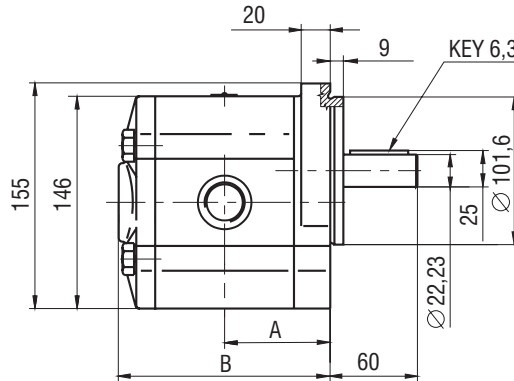
**GP3-\*R-SCVO-SU\*U\*-N**

L  
B

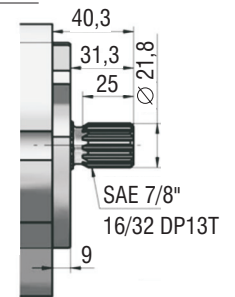


**GP3-\*R-SCDN-SU\*U\*-N**

L  
B



**SCDN**



Displacement	[cm <sup>3</sup> ]	Speed [rpm]		Dimens. [mm]		Displacement	[cm <sup>3</sup> ]	Speed [rpm]		Dimens. [mm]		Displacement	[cm <sup>3</sup> ]	Speed [rpm]		Dimens. [mm]	
		MIN	MAX	A	B			MIN	MAX	A	B			MIN	MAX	A	B
	10	400	3200	55,3	110,5		27	350	3200	61,3	122,5		61	350	2000	73,0	146,0
	13,5	400	3200	56,5	113,0		34	350	3000	63,5	127,0		71	350	1800	76,3	152,5
	17	350	3200	57,8	115,5		43	350	2500	66,8	133,5		82	350	1800	80,0	160,0
	22,5	350	3200	59,5	119,0		51	350	2500	69,5	139,0		100	350	1800	86,3	172,5

GP2 - 12 R - SBVJ - S UE UD - N

Gear pump  
Frame Size

GP1  
GP2  
GP3

N

Seals\*  
NBR

Pressure port\*  
- see Table Ports

Suction port\*  
- see Table Ports

Ports orientation\*  
Ports in the housing

Flange - Shaft\*  
GP1  
GP2  
GP3

Direction of rotation  
Counterclockwise  
Clockwise  
Bidirectional

Displacement

GP1		GP2		GP3	
cm <sup>3</sup> /rev	code	cm <sup>3</sup> /rev	code	cm <sup>3</sup> /rev	code
0,8	0,8	4	4	10	10
1,2	1,2	6	6	13,5	13,5
1,6	1,6	8	8	17	17
2,1	2,1	12	12	22,5	22,5
2,5	2,5	16	16	27	27
3,3	3,3	20	20	34	34
3,6	3,6	25	25	43	43
4,4	4,4	31	31	51	51
4,8	4,8			61	61
5,8	5,8			71	71
6,2	6,2			82	82
7	7			100	100
7,9	7,9				

SAVC  
SBVJ SBDD SBDF  
SCVO SCDN

L  
R  
B

\*Other options in the complete catalogue

Ports

PORTS of the pumps S ⇒ suction port P ⇒ pressure port						A	B	C	D	Dimensions A, B, C, D [mm]		
<17: for pumps with code of displacement under 17					GP1 P	Ports type G*	GA	BSPP G1/4	13	26	1	<p>BSPP pipe thread according to 228-1</p>
				GP1 S	GP1 P		GB	BSPP G3/8	13	24	1	
GP3 S<17	GP3 P<17	GP2 S<10	GP2 P<31	GP1 S	GP1 P		GC	BSPP G1/2	13	33	1	
GP3 S 17-34	GP3 P 17-51	GP2 S>25	GP2 P>25				GD	BSPP G3/4	16	39	1	
GP3 S 34-51	GP3 P>51	GP2 S<31					GE	BSPP G1	18	45	1	
GP3 S>51							GF	BSPP G5/4	18	57	1	

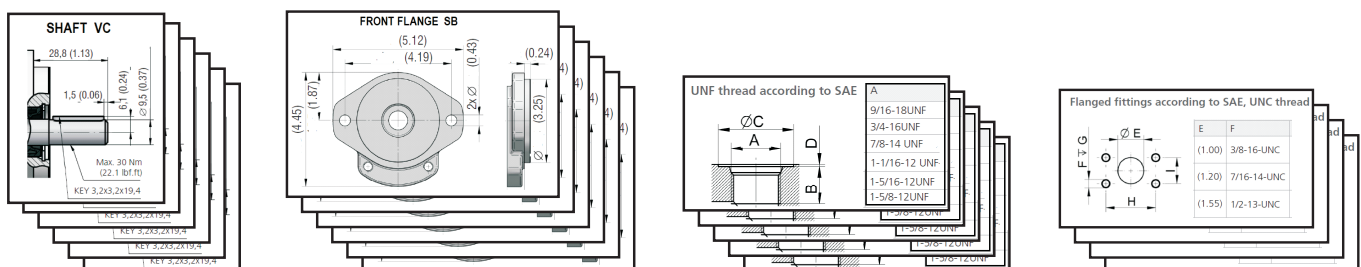
					GP1 P	Ports type U*	UB	9/16-18 UNF	13	24,6	1	<p>UNF thread according to SAE</p>
				GP1 S	GP1 P		UC	3/4-16 UNF	13	24,6	1	
	GP3 P<17	GP2 S<10	GP2 P	GP1 S			UD	7/8-14 UNF	17	34	1	
GP3 S<71	GP3 P 17-27	GP2 S>11					UE	1-1/16-12 UNF	19	41	1	
GP3 S>61	GP3 P>27						UH	1-5/16-12 UNF	23	49	1	
GP3 S>61							UI	1-5/8-12 UNF	23	58	1	

Complete Catalogue

Many different Shafts - Flanges - Ports options are available - see complete catalogue.

Find there also other technical details as temperature range, suitable viscosity, ...

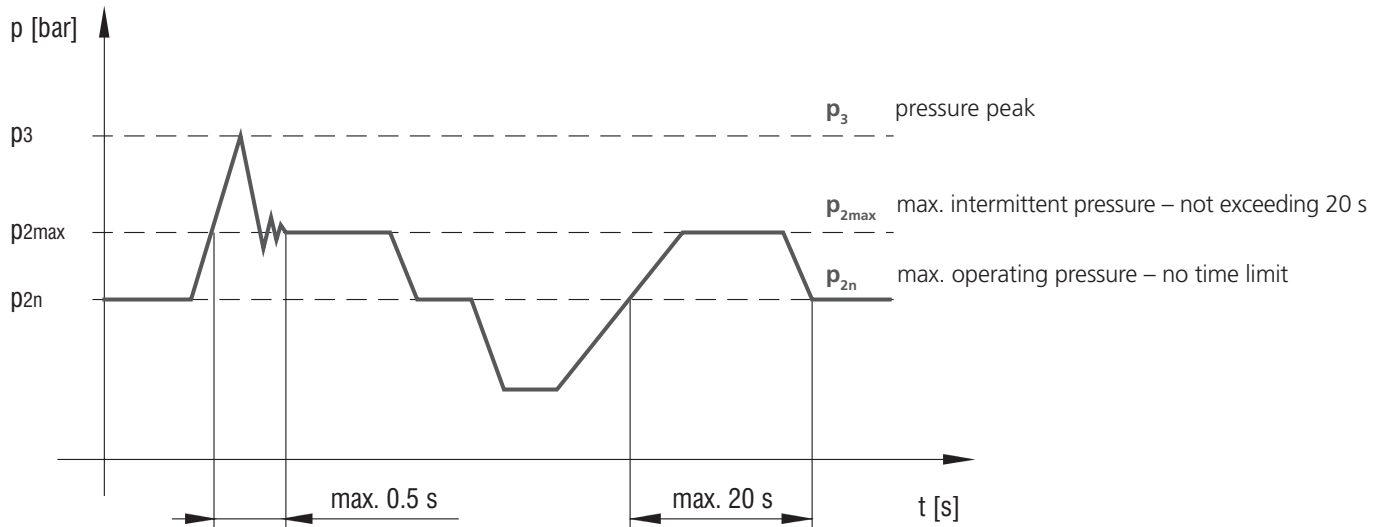
<http://www.argo-hytos.com/products/hydraulic-drives.html>



## GEAR PUMPS - overview

Maximal operating pressure $p_{2n}$														
GP1	Displacement [cm <sup>3</sup> /rev]	0,8	1,2	1,6	2,1	2,5	3,3	3,6	4,4	4,8	5,8	6,2	7	7,9
	Pressure [bar]	280						260	250	230	200	180	170	160
GP2	Displacement [cm <sup>3</sup> /rev]	4	6	8	12	16	20	25	31					
	Pressure [bar]	280			260			240	200	150				
GP3	Displacement [cm <sup>3</sup> /rev]	10	13,5	17	22,5	27	34	43	51	61	71	82	100	
	Pressure [bar]	270	290					280	270	250	230	200	180	

### Pressure load



### Multiple Pumps

Gear pumps are suitable for multiple setups, whereby the drive shaft for the 1<sup>st</sup> pump is extended to a second and even a 3<sup>rd</sup> pump. A coupling is fitted between each pair of pumps. In most cases each pump is isolated from its neighbor, i.e. the suction ports are separate from one another. A common suction port is also possible as an option.

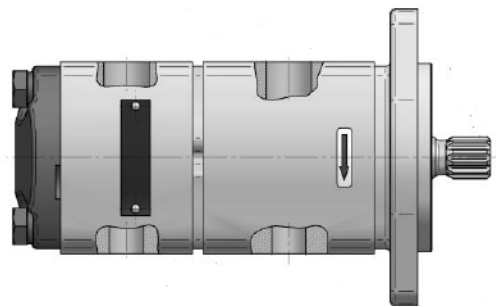
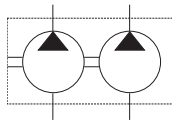
**Caution:** Basically, the specifications for the single pumps apply, but with certain restrictions:

#### Max. / Min. speed

– the limit of any pump must not be exceeded.

#### Torque

– the shaft load of the first pump corresponds to the sum of the torques of all the pumps.



### Examples of Multiple Pumps

Double pump	Triple pumps
GP1-0,8/0,8R-SAVC-SHDHD/HDHD-N	GP2-12/4/4R-SBVJ-SGDGC/GCGC/GCGC-N GP2-12/4/GP1-2,5R-SBVJ-SGDGC/GCGC/GBGB-N

### Special Versions

Customized version	Low speed pumps GP1
Customized versions with special flanges, shafts and ports are handled individually.	The lowest speed of our special version „Low speed pumps GP1“ is 50 rpm.