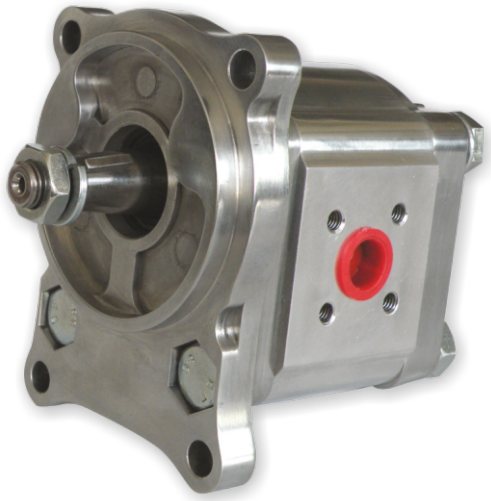
POMPE SIMPLE CU ROŢI DINŢATE SUPER SILENŢIOASE SS-HP2
SUPER SILENT GEAR PUMPS SS-HP2

Descriere şi utilizare

Sunt pompe pentru aplicaţii generale, cu o varietate foarte mare de flanşe de prindere, de axe de antrenare, de tipuri de aspiraţie şi de refulare.
Au performanţe funcţionale foarte bune şi nivel de zgomot foarte mic, datorită danturii înclinate utilizate.
Pompele cu roţi dinţate au volum geometric constant şi sunt utilizate în acţionări hidraulice, la maşini agricole, echipamente anexe pentru tractoare, utilaje de ridicat şi transport, utilaje terasiere grele, maşini unelte, s.a.



Description and use

Are pumps for general applications, with a large variety of fastening flanges, shafts and inlet / outlet ports. It have very good functional parameters an very low level of noise, because of the helical gear used.
The gear pumps with constant displacement, are used in the hydro drive installation, for agricultural equipment, mobiles, heavy-duty equipment for transport and earth moving, machines-tools.

Codificare – *Codification*

SS-HP 2 – Vg (cm3/rot, *ccm/rev*) – Ax antrenare / *Driving shaft* – Flanşa prindere / *Fastening flange* – Flanşa aspiraţie / *Inlet port* – Flanşa refulare / *Outlet port* – Sens / *Rotation*

Vg (cm3/rot, *ccm/rev*)
6.3
8.2
11.3
14
16
19
22.5
25
27.9

Ax antrenare / *Driving shaft*	
1	Conic 1:5 BOSCH *Conical 1:5 BOSCH*
C	Conic 1:5 (majorat) *Conical 1:5 (increased)*
D	Conic 1:5 BOSCH *Conical 1:5 BOSCH*
2	Conic 1:8 (micsorat) *Conical 1:8 (diminished)*
3	Conic 1:8 PLESSEY *Conical 1:8 PLESSEY*
5	Canelat-*involute spline* B 17x14 DIN 5482
A	Canelat-*involute spline* SAE 9T 16/32 Dp
L	Canelat-*involute spline* SAE 9T 16/32 Dp
E	Cilindric Ø15.875 *Cylindrical Ø15.875*
T	Cilindric scurt Ø15.875 *Cilindrical short Ø15.875*
0	Cilindric Ø17.45 *Cylindrical Ø17.45*
B	Cep DEUTZ - scurt *Deutz pin - short*
F	Cep DEUTZ - lung *Deutz pin - long*
G	Cep DEUTZ - scurt cu frezare *DEUTZ pin - short with milling*

Flanşa prindere / *Fastening flange*	
1	PLESSEY (4xØ7)
2	DIN (4 xØ9)
3	PLESSEY (4xØ9)
4	GERMAN 2xØ11
4e	GERMAN 2xØ11 cu inel O - *with O-ring*
5	GERMAN 2xØ11
5e	GERMAN 2xØ11 cu inel O - *with O-ring*
6	GERMAN 2xØ11
6e	GERMAN 2xØ11 cu inel O - *with O-ring*
7	Ovala SAE "A" *Oval SAE "A"*
8	GERMAN 2xØ11
8e	GERMAN 2xØ11 cu inel O - *with O-ring*
9	GERMAN 4xØ11 cu inel O - *with O-ring*
Am	PLESSEY (4xØ7)
An	PLESSEY (4 xØ9)

Flanşa aspiraţie / *Inlet port*	
3 4 8 D E M	Variante PLESSEY *PLESSEY Variants*
V W	Variante SAE *SAE Variants*
2 5 A B	Variante DIN *DIN Variants*
1 9 F G H J T	Variante filetate BSPP *Threaded Variants BSPP*
7 K N P Q R	Variante filetate ISO (metric) *Threaded Variants ISO (metrical)*
6 C S U Y	Variante filetate UNF *Threaded Variants UNF*
0	Obturată *Closed*

Flanşa refulare / *Outlet port*	
3 4 8 D E M	Variante PLESSEY *PLESSEY Variants*
V W	Variante SAE *SAE Variants*
2 5 A B	Variante DIN *DIN Variants*
1 9 F G H J T	Variante filetate BSPP *Threaded Variants BSPP*
7 K N P Q R	Variante filetate ISO (metric) *Threaded Variants ISO (metrical)*
6 C S U Y	Variante filetate UNF *Threaded Variants UNF*
0	Obturată *Closed*

Sens / *Rotation*	
A	(stânga) *(Anticlockwise)*
C	(dreapta) *(Clockwise)*

"0" daca aspiraţia şi refularea nu sunt pe corpul pompei
"0" if inlet or outlet ports are not on the body of the pump.

Exemplu - *Example*

SS-HP 2	–	11.3	–	3	3	1	1	-	A

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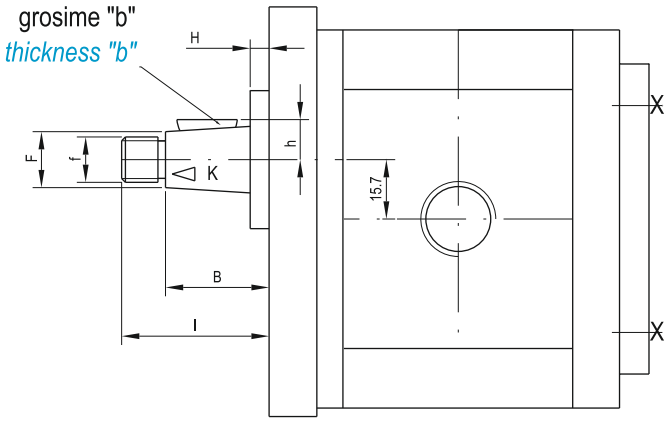
POMPE SIMPLE CU ROȚI DINȚATE SUPER SILENȚIOASE SS-HP2
SUPER SILENT GEAR PUMPS SS-HP2

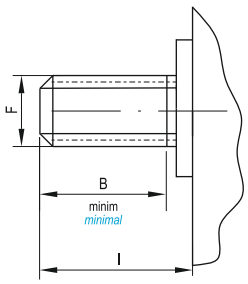
Axe antrenare - *Driving shafts*

Axe conice - Variantele 1;2;3;C;D
Conical shafts - Variants 1;2;3;C;D

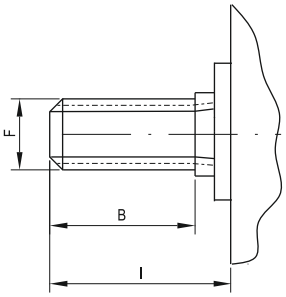


Axe canelate - *Grooved shafts*

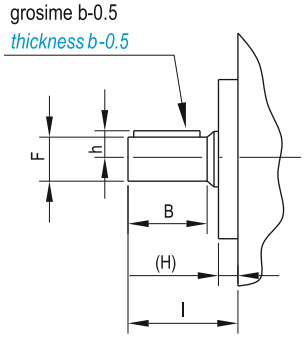
Varianta A; 5
Variant A; 5



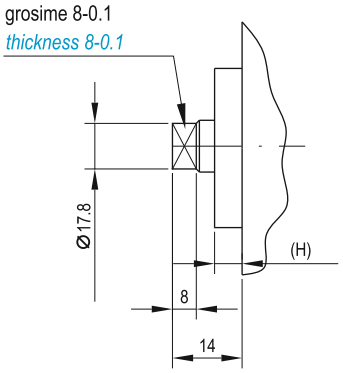
Varianta L
Variant L



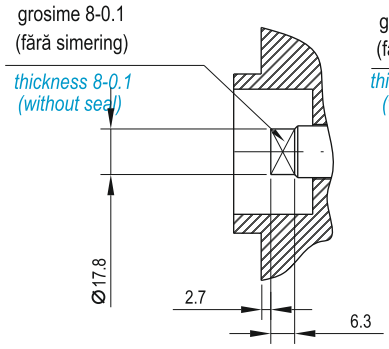
Axe cilindrice
Variantele O;E;T
Cylindrical shafts
Variants O;E;T



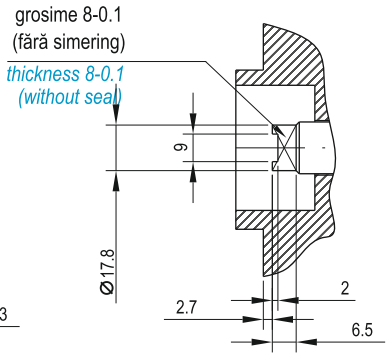
Cep DEUTZ lung
Varianta F
DEUTZ pin - long
Variant F



Cep DEUTZ scurt
Varianta B
DEUTZ pin - short
Variant B



Cep DEUTZ scurt
Varianta G
DEUTZ pin - short
Variant G

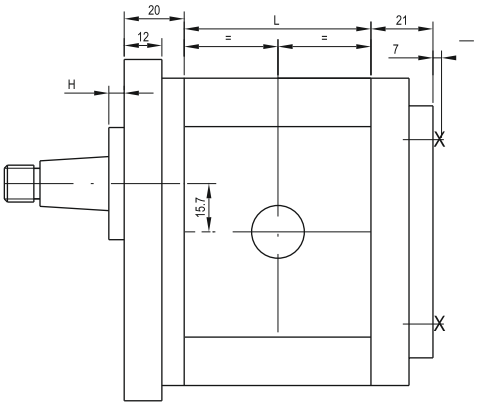


Axe antrenare - *Driving shafts*

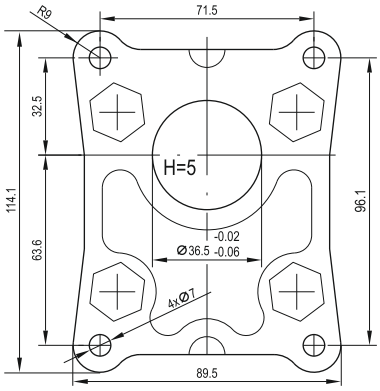
Varianta *Variant*	Tip ax *Shaft type*	l (mm)	B (mm)	F (mm)	f (mm)	k	h (mm)	b (mm)	Mmax (Nm)
1	Conic 1:5 BOSCH *Conical 1:5 BOSCH*	38	24.8	13.6	M12x1.25	1:5	9.2	3	150
C	Conic 1:5 (majorat) *Conical 1:5 (increased)*	40	26.6	14	M12x1.25	1:5	9.6	3	160
D	Conic 1:5 BOSCH *Conical 1:5 BOSCH*	40.5	27.3	13.6	M12x1.25	1:5	9.5	3	150
2	Conic 1:8 (redus) *Conical 1:8 (diminished)*	39	30	14	M12x1.25	1:8	9.4	3.2	170
3	Conic 1:8 PLESSEY *Conical 1:8 PLESSEY*	39	27.4	14.8	M12x1.25	1:8	9.4	3.2	180
5	Canelat *Grooved* B17x14 DIN 5482	26	19	16.5	-	-	-	-	75
A	Canelat *Grooved* SAE 9T 16/32 Dp	31.5	19	15.5	-	-	-	-	70
L	Canelat *Grooved* SAE 9T 16/32 Dp	32	24	15.5	-	-	-	-	70
0	Cilindric Ø17.45 *Cylindrical Ø17.45*	43	37	17.45 $^{0}_{-0.02}$	-	-	11.1	4.76	70
E	Cilindric Ø15.875 *Cylindrical Ø15.875*	44.5	36.5	15.87 $^{0}_{-0.02}$	-	-	9.7	3.96	65
T	Cilindric Ø15.875 *Cylindrical Ø15.875*	32	25.4	15.87 $^{0}_{-0.02}$	-	-	9.7	3.96	50
F	Cep DEUTZ - lung *DEUTZ pin - long*	-	-	-	-	-	-	-	65
B	Cep DEUTZ - scurt *DEUTZ pin - short*	-	-	-	-	-	-	-	65
G	Cep DEUTZ cu frezare *DEUTZ pin with milling*	-	-	-	-	-	-	-	65

POMPE SIMPLE CU ROŢI DINŢATE SUPER SILENŢIOASE SS-HP2
SUPER SILENT GEAR PUMPS SS-HP2

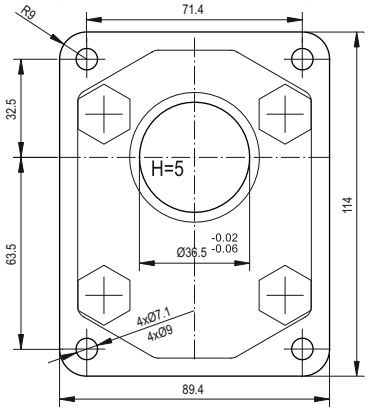
Flanşe de prindere - *Fastening Flanges*



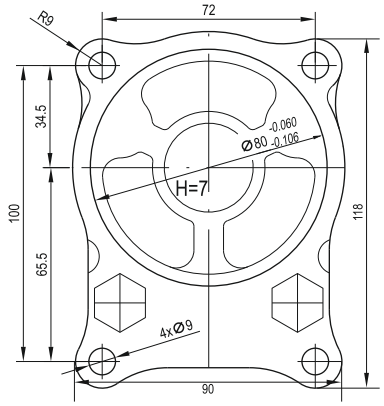
Varianta 1 (Plessey) - *Variant 1 (Plessey)*



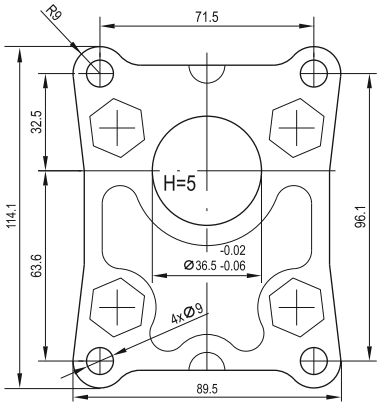
Variantele Am;An (4xØ7.1 ; 4xØ9) - Variants Am;An (4xØ7.1 ; 4xØ9)



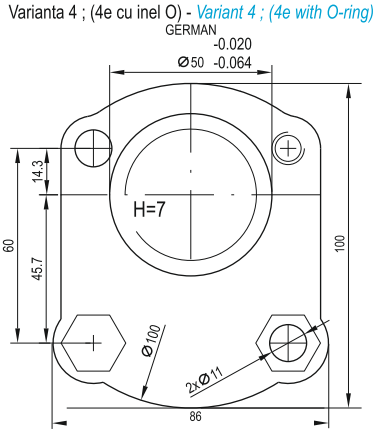
Varianta 2 (DIN) - *Variant 2 (DIN)*



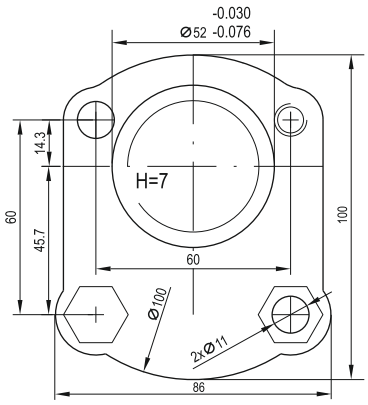
Varianta 3 (Plessey) - *Variant 3 (Plessey)*



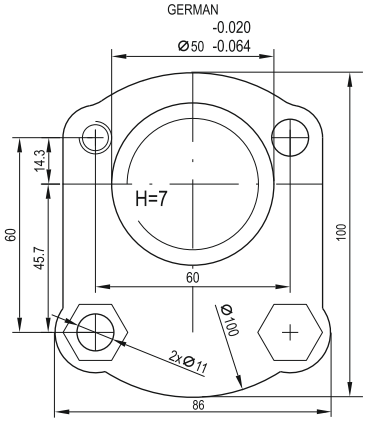
Varianta 4 ; (4e cu inel O) - *Variant 4 ; (4e with O-ring)*



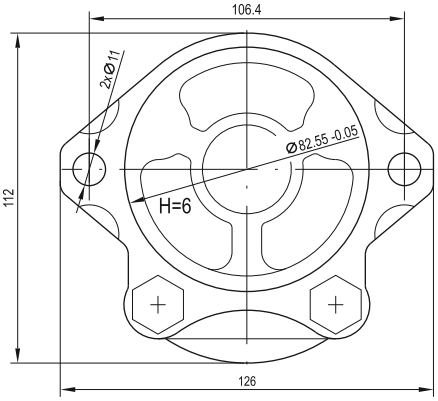
Varianta 5 ; (5e cu inel O) - *Variant 5 ; (5e with O-ring)*



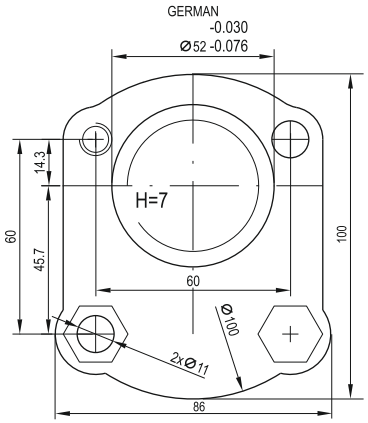
Varianta 6 ; (6e cu inel O) - *Variant 6 ; (6e with O-ring)*



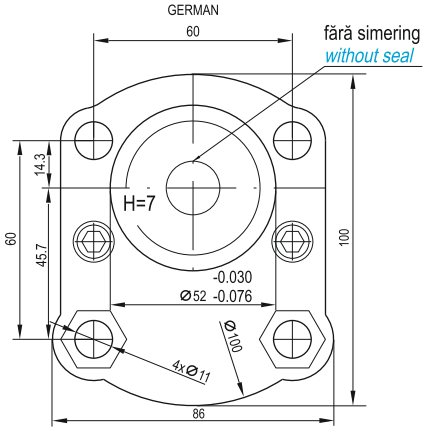
Varianta 7 (SAE "A") - *Variant 7 (SAE "A")*



Varianta 8 ; (8e cu inel O) - *Variant 8 ; (8e with O-ring)*



Varianta 9 (cu inel O) - *Variant 9 (with O-ring)*



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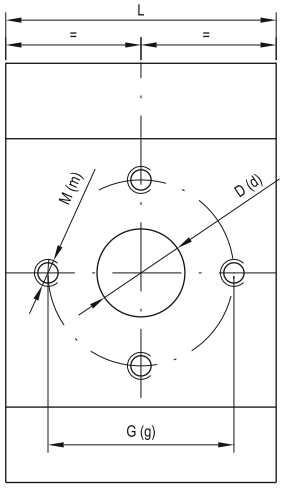
POMPE SIMPLE CU ROȚI DINȚATE SUPER SILENȚIOASE SS-HP2
SUPER SILENT GEAR PUMPS SS-HP2

Flanșe aspirație-refulare - *Inlet-outlet ports*

Variante PLESSEY - *PLESSEY variants*



Vg cm3/rev	L mm
6.3	48.6
8.2	51.7
11.3	56.8
14	61.3
16	64.7
19	69.7
22.5	75.1
25	79.2
27.9	84

tip 3 - *type 3*					
inlet			*outlet*		
D	G	M	d	g	m
13.1	30.2	M6	13.1	30.2	M6
19	39.7	M8	14.2	30.2	M6
22	39.7	M8	16	39.7	M8

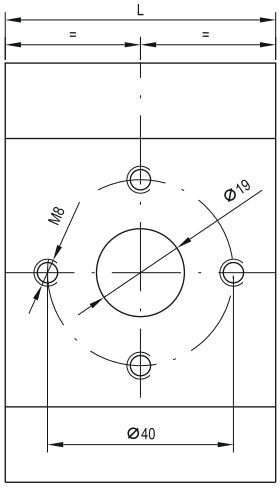
tip 8 - *type 8*					
inlet			*outlet*		
D	G	M	d	g	m
13	30.2	M6	13	30.2	M6
19	39.7	M8			
22	39.7	M8			

tip M - *type M*					
inlet			*outlet*		
D	G	M	d	g	m
13	30	M6	13	30	M6
19	40	M8	19	40	M8

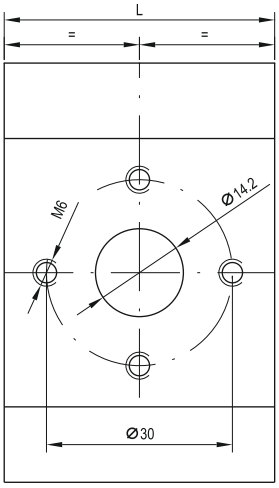
tip 4 - *type 4*					
inlet			*outlet*		
D	G	M	d	g	m
15	30.2	M6	15	30.2	M6
20	39.7	M8			

Variante SAE - *SAE variants*

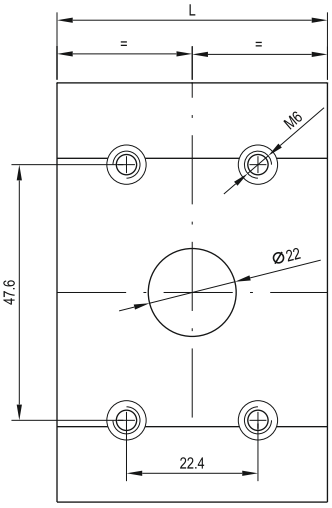
tip D - *type D*



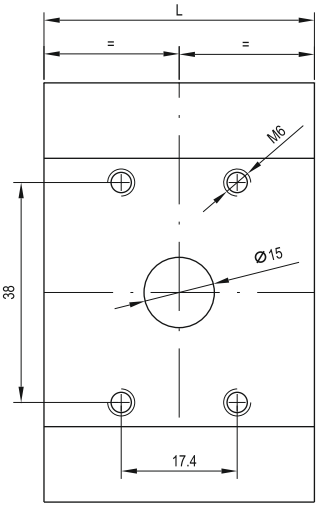
tip E - *type E*



tip V - *type V*



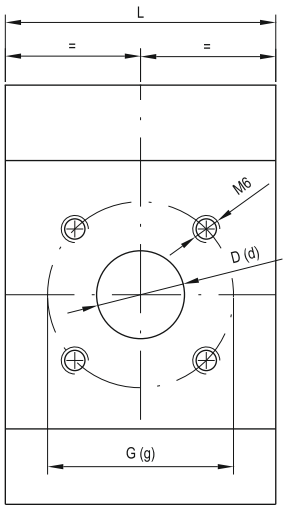
tip W - *type W*



Numai pentru Vg = 11,3 – 27,9 cm^3/rot.
Only for Vg = 11,3– 27,9 cmc/rev.

Variante DIN - *DIN variants*

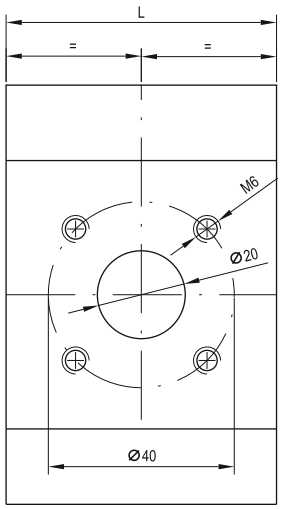
tip 2 - *type 2*



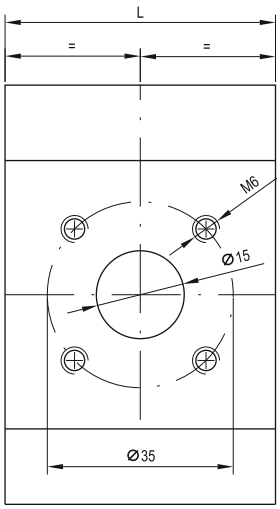
Vg cm3/rev	L mm
6.3	48.6
8.2	51.7
11.3	56.8
14	61.3
16	64.7
19	69.7
22.5	75.1
25	79.2
27.9	84

tip 2 - *type 2*			
inlet		*outlet*	
D	G	d	g
15	40	12	35
20		15	

tip A - *type A*



tip B - *type B*

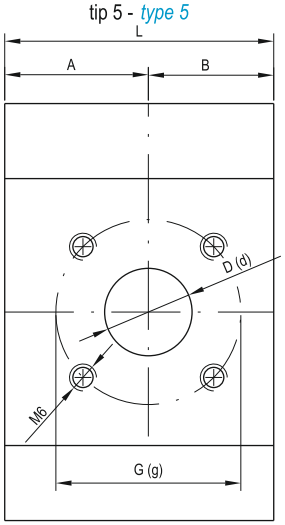


Notă: Aspirația trebuie să fie suficient de mare în conformitate cu volumul geometric și turația.
Note: Inlet should be large eoungh, in conformity with displacement and speed.

POMPE SIMPLE CU ROŢI DINŢATE SUPER SILENŢIOASE SS-HP2
SUPER SILENT GEAR PUMPS SS-HP2

Variante asimetrice - *Asimetrical variants*

tip 5 - *type 5*

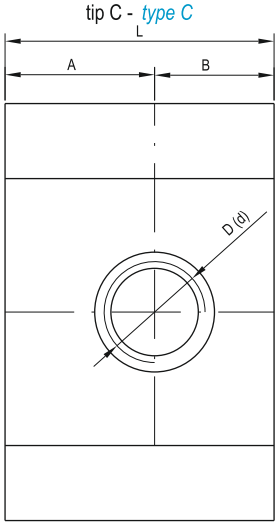


Vg cm3/rev	L mm
6.3	48.6
8.2	51.7
11.3	56.8
14	61.3
16	64.7
19	69.7
22.5	75.1
25	79.2
27.9	84

tip 5 - *type 5*				A mm	B mm
inlet		*outlet*			
D	G	d	g		
15	40	12	35	28.6	20
				30.1	21.6
20		15		34.5	22.3
					26.8
					30.2
					35.2
					33.1
				42	37.2
					42

Dimensiunea "A" este spre flanşă
Dimension "A" is to the fastening flange side.

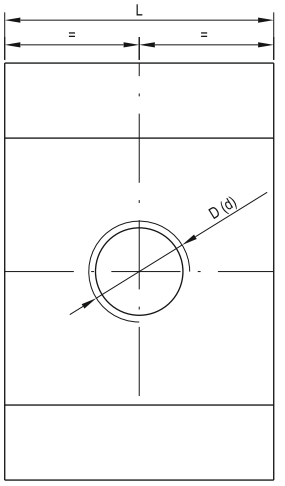
tip C - *type C*



Vg cm3/rev	L mm
6.3	48.6
8.2	51.7
11.3	56.8
14	61.3
16	64.7
19	69.7
22.5	75.1
25	79.2
27.9	84

tip C - *type C*		A mm	B mm
inlet	*outlet*		
D	d		
SAE # 12	11/16 " - 12 UNF		
	7/8" - 14 UNF		
	SAE # 10	36.1	39

Dimensiunea "A" este spre flanşă
Dimension "A" is to the fastening flange side.



Variante filetate BSPP - *BSPP threaded variants*

Vg cm3/rev	L mm
6.3	48.6
8.2	51.7
11.3	56.8
14	61.3
16	64.7
19	69.7
22.5	75.1
25	79.2
27.9	84

tip 1 - *type 1*	
inlet	*outlet*
D	d
G1/2"	G1/2"
G3/4"	
G1"	G3/4"

tip 9 - *type 9*	
inlet	*outlet*
D	d
G3/4"	G1/2"
G1"	G3/4"

tip H - *type H*	
inlet	*outlet*
D	d
G3/4"	G1/2"

tip F - *type F*	
inlet	*outlet*
D	d
G3/4"	G3/4"

tip G - *type G*	
inlet	*outlet*
D	d
G1/2"	G1/2"

tip J - *type J*	
inlet	*outlet*
D	d
G3/8"	G3/8"

tip T - *type T*	
inlet	*outlet*
D	d
Rc1/2"	Rc1/2"
Rc3/4"	Rc1/2"

Variante filetate ISO 6149 (metric) - *ISO 6149 threaded variants (metrical)*

Vg cm3/rev	L mm
6.3	48.6
8.2	51.7
11.3	56.8
14	61.3
16	64.7
19	69.7
22.5	75.1
25	79.2
27.9	84

tip 7 - *type 7*	
inlet	*outlet*
D	d
M20 x 1.5	M16 x 1.5
M22 x 1.5	M20 x 1.5

tip P - *type P*	
inlet	*outlet*
D	d
M20 x 1.5	M20 x 1.5

tip K - *type K*	
inlet	*outlet*
D	d
M27 x 1.5	M27 x 1.5

tip N - *type N*	
inlet	*outlet*
D	d
M22 x 1.5	M22 x 1.5

tip Q - *type Q*	
inlet	*outlet*
D	d
M18 x 1.5	M18 x 1.5

tip R - *type R*	
inlet	*outlet*
D	d
M16 x 1.5	M16 x 1.5

Variante filetate SAE - *SAE threaded variants*

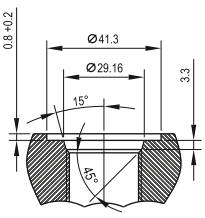
tip 6 - *type 6*	
inlet	*outlet*
D	d
1 1/16" - 12 UNF	7/8" - 14 UNF

tip S - *type S*	
inlet	*outlet*
D	d
1 1/16" - 12 UNF	1 1/16" - 12 UNF
SAE # 12	SAE # 12

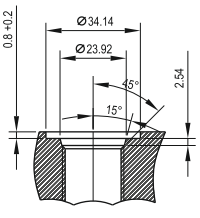
tip U - *type U*	
inlet	*outlet*
D	d
SAE # 10 7/8"-14 UNF	7/8" - 14 UNF
	SAE # 10

tip Y - *type Y*	
inlet	*outlet*
D	d
SAE # 6 9/16"-18 UNF	9/16" - 18 UNF
	SAE # 6

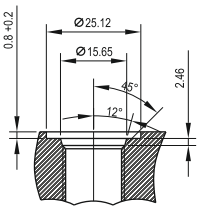
1 1/16" - 12 UNF
SAE # 12



7/8" - 14 UNF
SAE # 10



9/16" - 18 UNF
SAE # 6



POMPE SIMPLE CU ROȚI DINȚATE SUPER SILENȚIOASE SS-HP2
SUPER SILENT GEAR PUMPS SS-HP2

CARACTERISTICI TEHNICE - *TECHNICAL CHARACTERISTICS*

Vg cm^3/rot *ccm/rev*	L mm	η_v %	η_m %	Zgomot maxim *max. noise* (dB)	Presiune - *Pressure* (bar)		Presiune aspirație *Inlet pressure* (bar)	Turație (rot/min) *Speed (rev/min)*			Temperatura *Temperature* (°C)	Vâscozitate *Viscosity* (cSt)	Filtrare *Filtration* (µm)
					Pn	Pmax		nominal	min.	max.			
6,3	48,6	91	87	65	250	280	min. - 0,3 max. 2	1500	900	4000	-15...+ 80 recomandat *recommended* 0...+ 60	12...2000 recomandat *recommended* 25...200	max. 25 recomandat *recommended* 16
8,2	51,7	92	88						800	3500			
11,3	56,8	93											
14	61,3	94	89						600	3000			
16	64,7	95											
19	69,7	95	90		210	230			500	2500			
22,5	75,1	96											
25	79,2	97			190	210							
27,9	84	98			170	185				2000			

Notă:

- Pn: presiunea nominală la care se garantează fucționarea continuă, durabilitatea şi randamentul volumic.
- Randamentele volumice η_v se garantează în condiții nominale şi la o vâscozitate a uleiului de 30….40 mm^2/s.
- Funcționarea pompelor la turații ridicate, fără cavitație, este posibilă numai cu o aspirație suficient de largă.
- Presiunea de aspirație nu va scade sub 0,7 bar abs.
- Este interzisă încărcarea axului de antrenare al pompei cu sarcini radiale sau axiale în timpul utilizării.

Note:

- *Pn: nominal pressure for which, continuous running, life time and volumetric efficiency are guaranteed.*
- *Volumetric efficiency η_v is guaranteed in nominal conditions and viscosity 30…40 mm^2/s.*
- *Functioning at high speed, without cavitation, it is possible only with an enough large inlet.*
- *The inlet pressure should not decrease under 0.7 bar absolute.*
- *It is forbidden radial or axial loads on the pump shaft during the use.*

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The producer reserves its right to make changes in the present documentation, to increase the quality of the product.