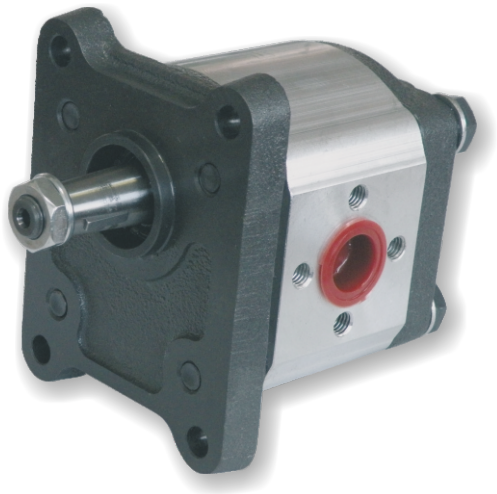
POMPE SIMPLE CU ROŢI DINŢATE HP2F
SIMPLE GEAR PUMPS HP2F



Descriere şi utilizare

Sunt pompe executate cu flanșă și capac din fontă și corp din aluminiu extrudat. Fiind construite cu o mare varietate de axe de antrenare și tipuri de aspirație și refulare au un domeniu larg de aplicare.
Construcția cu flanșă și capac din fontă conferă produsului performanțe îmbunătățite, o durată mai mare de viață, valori mai ridicate ale presiunii nominale de lucru și presiunii maxime. Aceste performanțe le recomandă pentru înlocuirea pompelor standard de aluminiu în aplicații în care sunt solicitate presiuni de lucru mai mari și durată mai mare de viață.
Aplicații: sistemele hidraulice moderne, mașini agricole, echipamente mobile, utilaje de ridicat și transport, utilaje terasiere grele, mașini unelte etc.

Description and use

Are pumps executed with cast iron flange and cover and with aluminum extruded body. Are built with a large variety of shafts, inlet and outlet ports and have a large range of applications.
The construction with cast iron flange and cover give the product higher performances, allow a longer life, improving the working and maximum pressures.
These performances it recommend for the replacement of standard aluminum pumps in applications that ask for higher working pressures and longer life.
Applications: in modern hydraulic systems, agricultural machines, mobile, heavy-duty equipment for transport and earth moving, machines tools etc.

Codificare – *Codification*

HP2F – 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*)
4.5
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*
D	Conic 1:5 BOSCH *Conical 1:5 BOSCH*
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)
3	PLESSEY (4xØ9)

Flanşa aspiraţie / *Inlet port*	
3, 4, 8, D, E, M	Variante PLESSEY *PLESSEY Variants*
V, W	Variante SAE *SAE Variants*
2, 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, 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, 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, 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*

HP2F	–	11.3	–	3	3	1	1	-	A

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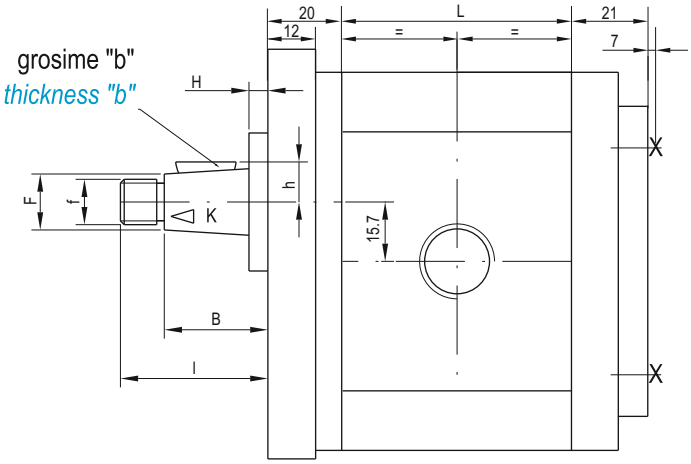
POMPE SIMPLE CU ROŢI DINŢATE HP2F - *SIMPLE GEAR PUMPS HP2F*

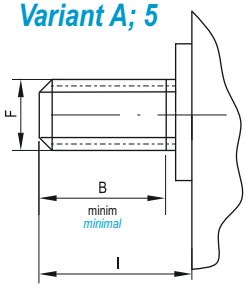
Axe antrenare - *Driving shafts*

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

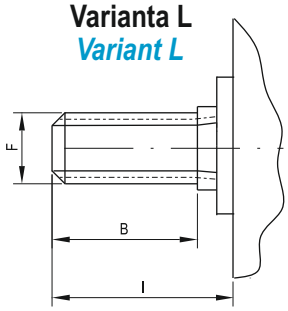


Axe canelate - *Grooved shafts*

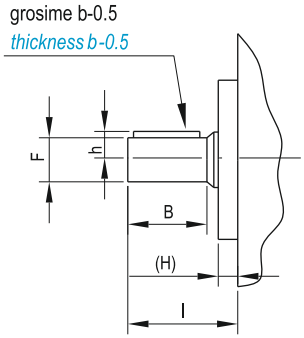
Varianta A; 5
Variant A; 5



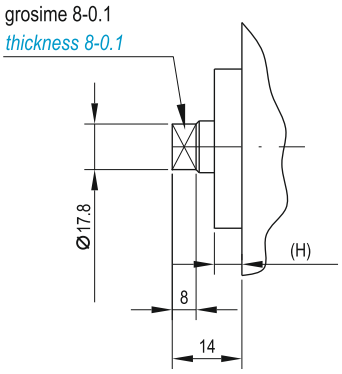
Varianta L
Variant L



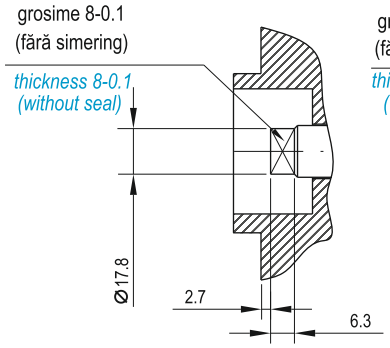
Axe cilindrice
Variantele O; E; T
Cylindrical shafts
Variants O; E; T



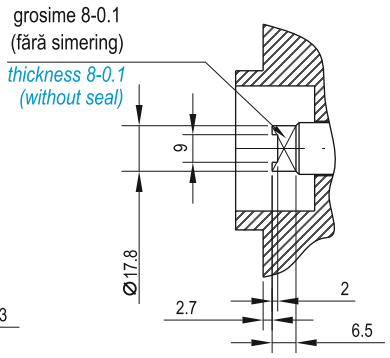
Cep DEUTZ lung
Varianta F
DEUTZ pin - long
Variant F



Cep DEUTZ scurt
Varianta B
DEUTZ pin - short
Variant B



Cep DEUTZ scurt
Varianta B
DEUTZ pin - short
Variant B

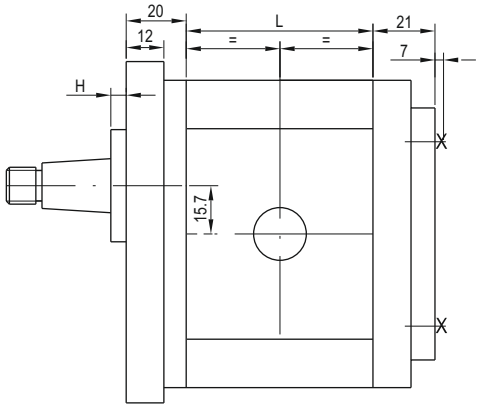


Axe antrenare - *Driving shafts*

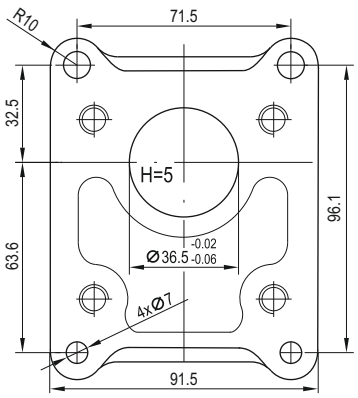
Variantă *Variant*	Tip ax *Shaft type*	l (mm)	B (mm)	F (mm)	f (mm)	k	h (mm)	b (mm)	Mmax (Nm)
1	Conic 1:5 BOSCH *Conical 1:5 BOSCH*	38	24.8	13.6	M12x1.25	1:5	9.2	3	150
D	Conic 1:5 BOSCH *Conical 1:5 BOSCH*	40.5	27.3	13.6	M12x1.25	1:5	9.5	3	150
3	Conic 1:8 PLESSEY *Conical 1:8 PLESSEY*	39	27.4	14.8	M12x1.25	1:8	9.4	3.2	180
5	Canelat B17x14 DIN 5482 *Grooved*	26	19	16.5	-	-	-	-	75
A	Canelat SAE 9T 16/32 Dp *Grooved*	31.5	19	15.5	-	-	-	-	70
L	Canelat SAE 9T 16/32 Dp *Grooved*	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 HP2F - *SIMPLE GEAR PUMPS HP2F*

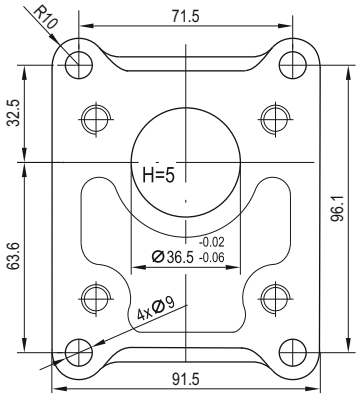
Flanşe de prindere - *Fastening Flanges*



Varianta 1 (Plessey)
Variant 1 (Plessey)

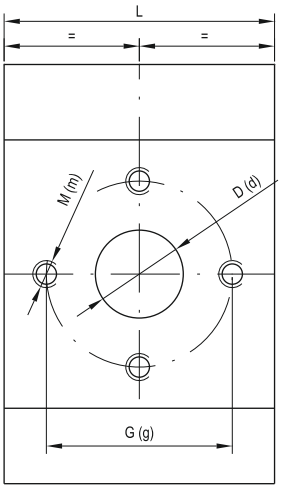


Varianta 3 (Plessey)
Variant 3 (Plessey)



Flanşe aspiraţie-refulare - *Inlet-outlet ports*

Variante PLESSEY *- PLESSEY Variants*



Vg cm3/rev	L mm
4.5	45.6
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			

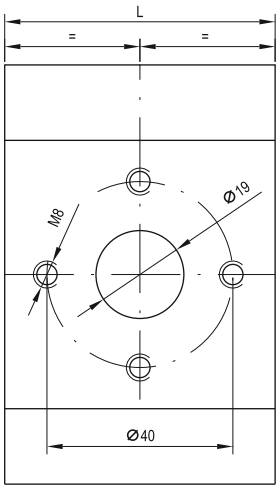
Notă: Aspiraţia trebuie să fie suficient de mare în conformitate cu volumul geometric şi turaţia.
Note: Inlet should be large enough, in conformity with displacement and speed.

POMPE SIMPLE CU ROŢI DINŢATE HP2F - *SIMPLE GEAR PUMPS HP2F*

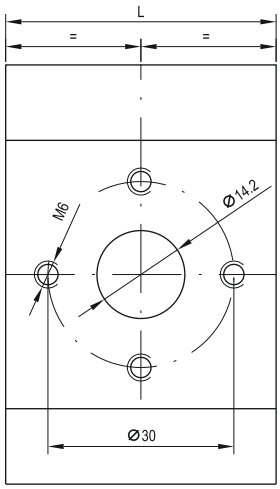
Flanşe aspiraţie-refulare - *Inlet-outlet ports*

Variante SAE - *SAE variants*

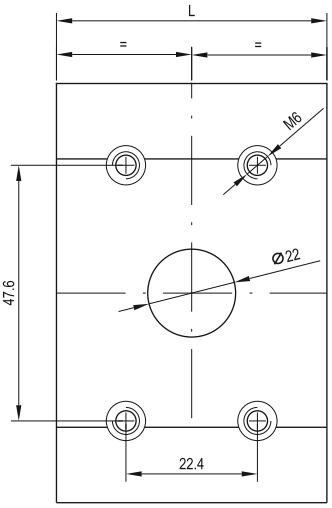
tip D - *type D*



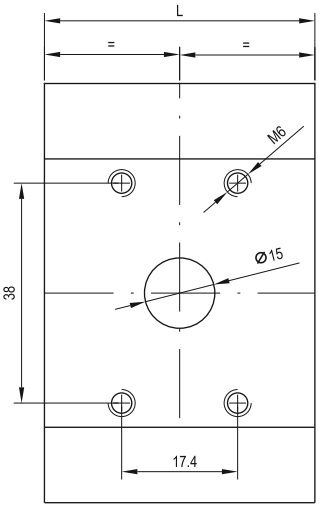
tip E - *type E*



tip V - *type V*

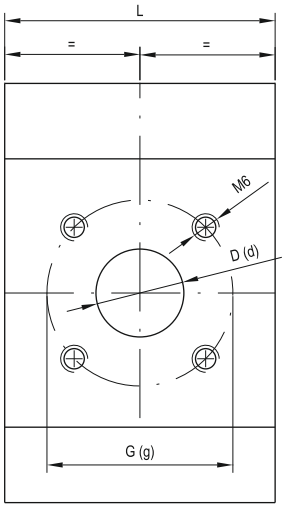


tip W - *type W*



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

tip 2 - *type 2*

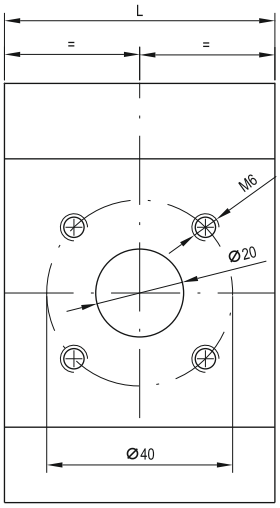


Variante DIN - *DIN variants*

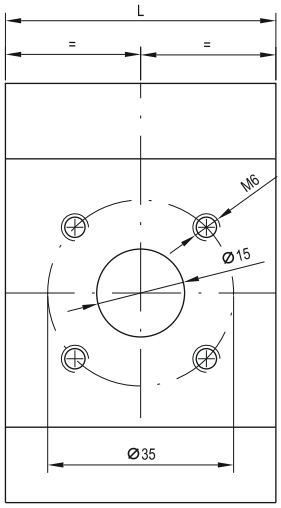
Vg cm3/rev	L mm
4.5	45.6
6.3	48.6
8.2	51.7
11.3	56.8
14	61.3
16	64.7
19	69.7
22.5	75.1
25	79.2
27.9	84

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

tip A - *type A*



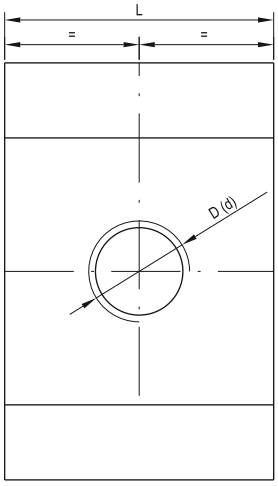
tip B - *type B*



Notă: Aspiraţia trebuie să fie suficient de mare în conformitate cu volumul geometric şi turaţia.
Note: Inlet should be large enough, in conformity with displacement and speed.

POMPE SIMPLE CU ROŢI DINŢATE HP2F - *SIMPLE GEAR PUMPS HP2F*

Flanşe aspiraţie-refulare - *Inlet-outlet ports*



Variantele filetate BSPP - *BSPP threaded variants*

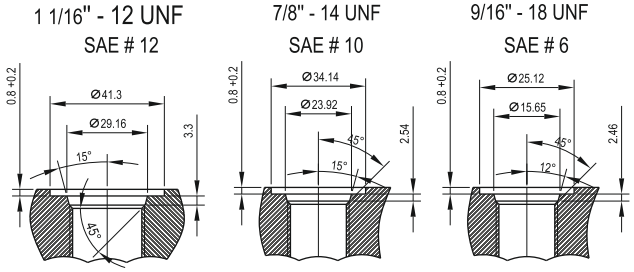
Vg cm3/rev	L mm	tip 1 - *type 1*		tip 9 - *type 9*		tip H - *type H*		tip F - *type F*		tip G - *type G*		tip J - *type J*		tip T - *type T*	
		inlet	*outlet*	*inlet*	*outlet*	*inlet*	*outlet*	*inlet*	*outlet*	*inlet*	*outlet*	*inlet*	*outlet*	*inlet*	*outlet*
		D	d	D	d	D	d	D	d	D	d	D	d	D	d
4.5	45.6	G1/2"	G1/2"	G3/4"	G1/2"	G3/4"	G1/2"	G3/4"	G3/4"	G1/2"	G1/2"	G3/8"	G3/8"	Rc1/2"	Rc1/2"
6.3	48.6														
8.2	51.7														
11.3	56.8	G3/4"		G1"	G3/4"									Rc3/4"	Rc1/2"
14	61.3														
16	64.7														
19	69.7														
22.5	75.1	G1"	G3/4"												
25	79.2														
27.9	84														

Variantele filetate ISO 6149 (metric)
ISO 6149 threaded variants (metrical)

Vg cm3/rev	L mm	tip 7 - *type 7*		tip P - *type P*		tip K - *type K*		tip N - *type N*		tip Q - *type Q*		tip R - *type R*	
		inlet	*outlet*	*inlet*	*outlet*	*inlet*	*outlet*	*inlet*	*outlet*	*inlet*	*outlet*	*inlet*	*outlet*
		D	d	D	d	D	d	D	d	D	d	D	d
4.5	45.6	M20 x 1.5	M16 x 1.5	M20 x 1.5	M20 x 1.5	M27 x 1.5	M27 x 1.5	M22 x 1.5	M22 x 1.5	M18 x 1.5	M18 x 1.5	M16 x 1.5	M16 x 1.5
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	M22 x 1.5	M20 x 1.5										
25	79.2												
27.9	84												

Variantele filetate UNF
UNF threaded variants

tip 6 - *type 6*		tip S - *type S*		tip U - *type U*		tip Y - *type Y*	
inlet	*outlet*	*inlet*	*outlet*	*inlet*	*outlet*	*inlet*	*outlet*
D	d	D	d	D	d	D	d
1 1/16" - 12 UNF	7/8" - 14 UNF	1 1/16" - 12 UNF	1 1/16" - 12 UNF	7/8" - 14 UNF	7/8" - 14 UNF	9/16" - 18 UNF	9/16" - 18 UNF
		SAE # 12	SAE # 12	SAE # 10	SAE # 10	SAE # 6	SAE # 6



Varianta specială
Special variant

tip 0 - *type 0*

- varianta blocată; dacă aspiraţia sau refularea nu sunt pe corpul pompei
- closed variant; if inlet or outlet ports are not on the body of the pump.

Notă: Aspiraţia trebuie să fie suficient de mare în conformitate cu volumul geometric şi turaţia.
Note: Inlet should be large enough, in conformity with displacement and speed.

Notă: În cazul în care configuraţia produsului solicitat de dumneavoastră nu se regăseşte în catalogul HESPER, vă rugăm să ne contactaţi la:
Note : If the configuration of the product demanded by you is not in HESPER catalogue, please contact us at:
Tel: +4021.336.23.52; +4021.335.10.50; +40722.562.899; Fax +4021.337.24.60; Email: hesper@hesper.ro; www.hesper.ro

POMPE SIMPLE CU ROŢI DINŢATE HP2F - *SIMPLE GEAR PUMPS HP2F*

CARACTERISTICI TEHNICE - *TECHNICAL CHARACTERISTICS*

Vg cm^3/rot *ccm/rev*	L mm	η_v %	η_m %	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		$n_{min.}$	$n_{max.}$			
4,5	45,6	89	86	270	300	min. - 0,3 max. 2	1000	4500	-15...+ 80 recomandat *recommended* 0...+ 60	12...2000 recomandat *recommended* 25...200	max. 25 recomandat *recommended* 16
6,3	48,6	91	87					4000			
8,2	51,7	92	88				800				
11,3	56,8	93						3500			
14	61,3	94	89				600				
16	64,7	95						3000			
19	69,7	95	90	250	270		500				
22,5	75,1	96		210	230			2500			
25	79,2	97		190	210						
27,9	84	98		185	190						

NOTĂ:
Evitați încărcarea axului de antrenare al pompei cu sarcini radiale sau axiale în timpul utilizării.

Vă rugăm să contactați HESPER în cazul în care chiar și una dintre limitele parametrilor de funcționare indicate în tabel (temperatura, presiune, turație) sunt depășite.

NOTE:
Avoid radial and axial loads on the pump shaft, during the use.

Please contact HESPER if even one of the operating limits indicated in the table (temperature, pressure, speed) are exceeded.

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