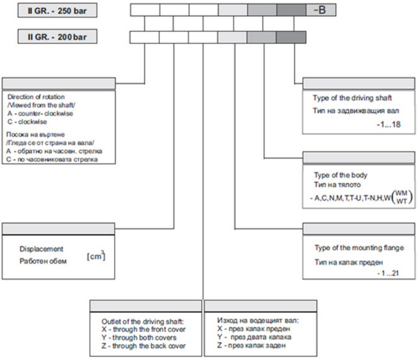
ORDERING CODES / НАЧИН НА ЗАЯВЯВАНЕ


II GR. - 250 bar
-B
II GR. - 200 bar

Direction of rotation
/Viewed from the shaft/
A - counter- clockwise
C - clockwise

Посока на въртене
/Гледа се от страна на вала/
A - обратно на часовн. стрелка
C - по часовниковата стрелка

Displacement
Работен обем [cm³]

Outlet of the driving shaft:
X - through the front cover
Y - through both covers
Z - through the back cover

Изход на водещият вал:
X - през капак преден
Y - през двата капака
Z - през капак заден

Type of the driving shaft
Тип на задвижващия вал
-1...18

Type of the body
Тип на тялото
- A,C,N,M,T,T-U,T-N,H,W(WM / WT)

Type of the mounting flange
Тип на капак преден
- 1 ...21

Example:

200 bar: C14X4A2 gear pump group II, direction of rotation clockwise, displacement 14 cm³, shaft outlet through the front cover, modification 4A2.

250 bar: C14X4A2-B gear pump group II, direction of rotation - clockwise, displacement 14 cm³, shaft outlet throughout the front cover, modification 4A2-B

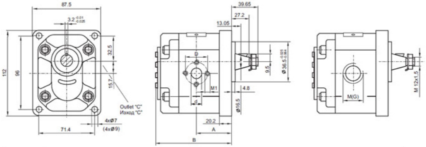
Пример:

200 bar: C14X4A2 зъбна помпа втора група, посока на въртене по часовниковата стрелка, работен обем 14 cm³, изход на вала през капак преден, модификация 4A2.

250 bar: C14X4A2-B зъбна помпа втора група, посока на въртене по часовниковата стрелка, работен обем 14 cm³, изход на вала през капак преден, модификация 4A2-B.

Technical data / Технически данни																	
Type size Типоразмер		4	5	6	9	10	11	12	14	15	16	17	19	22	25	26	28
Displacement Работен обем	cm³	4	5	6	9	10	11	12	14	15	16	17	19	22	25	26	28
Rated pressure Номинално налягане	bar	200	200	200	200	200	200	200	200	200	200	200	180	180	140	140	140
	*B	250	250	250	250	250	250	250	250	250	250	250	200	200	160	160	160
Max. pressure Максимално налягане	bar	250	250	250	250	250	250	250	250	250	250	250	230	230	210	210	210
	*B	280	280	280	280	280	280	280	280	280	280	280	250	250	230	230	230
Min. speed Миним. честота на въртене	min⁻¹	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700
	*B	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700
Max. speed Макс. честота на въртене	min⁻¹	3500	3500	3500	3500	3500	3500	3500	3500	3000	3000	3000	2500	2500	2000	2000	2000
	*B	3500	3500	3500	3500	3500	3500	3500	3500	3000	3000	3000	2500	2500	2000	2000	2000

* Note: Symbol "B" and all data in this row are according to the pumps for pressure of 250 bar.
* Забележка: Символ "B" и данните посочени срещу него са за помпи за налягане 250 bar.

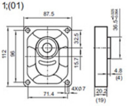

87.5
3.2 -0.01 -0.025
112
96
32.5
15.7
Outlet "C"
Изход "C"
4xØ7
(4xØ9)
71.4
39.65
27.2
13.05
D
M1
d
9.5
Ø 36.5 -0.025 -0.064
4.8
Ø16.5
20.2
A
B
M(G)
M 12x1.5

"INDUSTRIALTECHNIK" SC
HYDRAULIC GEAR PUMPS GROUP 1
HYDRAULIC GEAR PUMPS GROUP 2
HYDRAULIC GEAR PUMPS GROUP 2 – WITH INTERGRATED VALVES
HYDRAULIC GEAR PUMPS GROUP 3
HYDRAULIC GEAR PUMPS GROUP 4
HYDRAULIC GEAR PUMPS GROUP 5
HYDRAULIC GEAR PUMPS GROUP 30
TANDEM – TRIPLE
ACCESSORIES
CYLINDERS

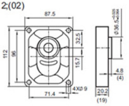
Type Тип	Dimensions Размери [mm]																	
			Inlet Вход								Outlet Изход							
			A			C			M	T	A			C			M	T
	A	B_{max}	D	d	M1	D1	d1	M2	M	G	D	d	M1	D1	d1	M2	M	G
A(C)4X...	43.7	92.2	30.2	13.1	M6	40	20	M6	M20x1.5	G1/2"	30.2	13.1	M6	35	15	M6	M16x1.5	G1/2"
A(C)5X...	44.5	93.7	30.2	13.1	M6	40	20	M6	M20x1.5	G1/2"	30.2	13.1	M6	35	15	M6	M16x1.5	G1/2"
A(C)6X...	45.2	95.2	30.2	13.1	M6	40	20	M6	M20x1.5	G1/2"	30.2	13.1	M6	35	15	M6	M16x1.5	G1/2"
A(C)9X...	47.2	99.2	30.2	13.1	M6	40	20	M6	M20x1.5	G1/2"	30.2	13.1	M6	35	15	M6	M16x1.5	G1/2"
A(C)10X...	48.2	101.2	39.7	19	M8	40	20	M6	M20x1.5	G3/4"	30.2	14.2	M6	35	15	M6	M16x1.5	G1/2"
A(C)11X...	49.2	103.2	39.7	19	M8	40	20	M6	M20x1.5	G3/4"	30.2	14.2	M6	35	15	M6	M16x1.5	G1/2"
A(C)12X...	50.2	105.2	39.7	19	M8	40	20	M6	M20x1.5	G3/4"	30.2	14.2	M6	35	15	M6	M16x1.5	G1/2"
A(C)14X...	52.2	109.2	39.7	19	M8	40	20	M6	M20x1.5	G3/4"	30.2	14.2	M6	35	15	M6	M16x1.5	G1/2"
A(C)15X...	53	110.7	39.7	19	M8	40	20	M6	M20x1.5	G3/4"	30.2	14.2	M6	35	15	M6	M16x1.5	G1/2"
A(C)16X...	53.7	112.2	39.7	19	M8	40	20	M6	M20x1.5	G3/4"	30.2	14.2	M6	35	15	M6	M16x1.5	G1/2"
A(C)17X...	54.2	113.2	39.7	19	M8	40	20	M6	M20x1.5	G3/4"	30.2	14.2	M6	35	15	M6	M16x1.5	G1/2"
A(C)19X...	56.2	117.2	39.7	19	M8	40	20	M6	M20x1.5	G3/4"	30.2	14.2	M6	35	15	M6	M16x1.5	G1/2"
A(C)22X...	59.2	123.2	39.7	19	M8	40	20	M6	M20x1.5	G3/4"	30.2	14.2	M6	35	15	M6	M20x1.5	G1/2"
A(C)25X...	61	126.7	39.7	19	M8	40	20	M6	M20x1.5	G3/4"	30.2	14.2	M6	35	15	M6	M20x1.5	G1/2"
A(C)26X...	61.7	128.2	39.7	19	M8	40	20	M6	M20x1.5	G3/4"	30.2	14.2	M6	35	15	M6	M20x1.5	G1/2"
A(C)28X...	63.7	132	39.7	19	M8						39.7	19	M8					

MOUNTING FLANGE TYPE / ВИДОВЕ ПРЕДНИ КАПАЦИ

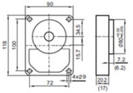
1;(01)


87.5
112
96
32.5
15.7
36.5
4.8
(4)
71.4
4XØ7
20.2
(19)

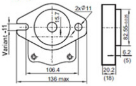
2;(02)


87.5
112
96
32.5
15.7
Ø36.5
4.8
(4)
71.4
4XØ9
20.2
(19)

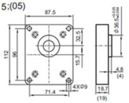
3;(03)


90
118
100
34.5
15.7
Ø80
7.2
(6.2)
72
4xØ9
20.2
(17)

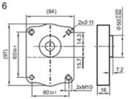
4;(04)


Variant -11
2xØ11
15.7
82.55
6.2
(5)
106.4
136 max
20.2
(18)

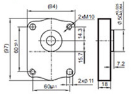
5;(05)


87.5
112
96
32.5
15.7
Ø36.5
4.8
(4)
71.4
4XØ9
18.7
(19)

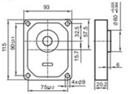
6


(84)
2xØ11
Ø50
(97)
60
14.3
15.7
7.2
60
2xM10
18

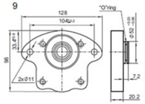
7


(84)
2xM10
Ø50
(97)
60
14.3
15.7
7.2
60
2xØ11
18

8

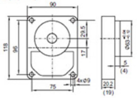

93
Ø60
115
90
32.5
57.5
15.7
6
75
4xØ9
20.2

9

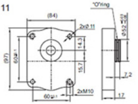

128
104
"O"ring
Ø52
33.6
96
2xØ11
7.2
20.2

MOUNTING FLANGE TYPE / ВИДОВЕ ПРЕДНИ КАПАЦИ

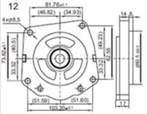
10;(010)


90
118
96
29.5
17
Ø63
5
(4)
75
4xØ9
20.2
(19)

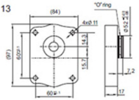
11


"O"ring
(84)
2xØ11
Ø52
(97)
60
14.3
15.7
7.2
60
2xM10
17

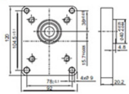
12


81.76
(46.82)
(34.93)
4xØ8.5
14.8
73.82
(40.5)
33.32
(49.23)
82.55
33.32
Ø82.5
(51.59)
(51.60)
103.20
17

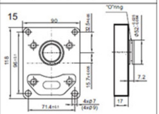
13


"O"ring
(84)
4xØ11
Ø52
(97)
60
14.3
15.7
7.2
60
17

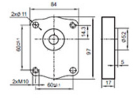
14


120
104.5
39
Ø40
15.7
4.8
4xØ9
78
92
20.2

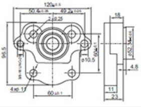
15


"O"ring
90
12.5
Ø52
118
96
15.7
7.2
71.4
4xØ7
(4xØ9)
17

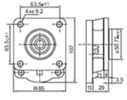
16

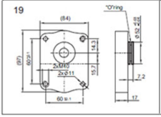

84
2xØ11
14.3
60
97
Ø52
5
2xM10
60
17

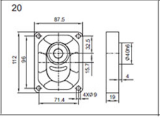
17

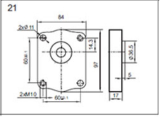

120
50.8
49.2
2xØ25
18
96.5
60
Ø10.5
Ø52.34
4.8
4xØ11
60
11
23

18

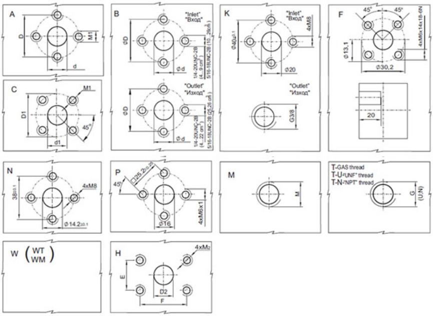

63.5
4xØ9.2
63.5
107
Ø50.7
21
3.5
15
29
□85


19
(84)
"O"ring
(97)
60±0.1
14.3
15.7
2xM10
2x∅11
60±0.1
∅52
7.2
17


20
87.5
112
96
32.5
15.7
∅40h6
4
71.4
4X∅9
19


21
84
2x∅11
60±0.1
14.3
97
∅36.5
5
2xM10
60±0.1
17

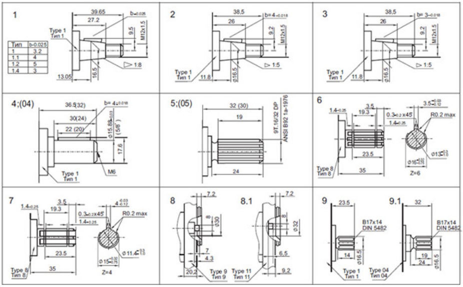
BODY TYPE / ТИП НА ТЯЛОТО


A
D
M1
d
B
"Inlet"
"Вход"
∅D
∅d
"Outlet"
"Изход"
K
"Inlet"
"Вход"
4xM8
∅40±0.1
∅20
"Outlet"
"Изход"
G3/8
F
45°
45°
4xM6x14x18-6N
∅13,1
∅30,2
20
C
M1
D1
45°
d1
N
38±0.1
4xM8
∅14.2±0.1
P
45°
∅16
4xM6x1
M
M
T-GAS thread
T-U-"UNF" thread
T-N-"NPT" thread
G
(U;N)
W
WT
WM
H
4xM2
E
D2
F

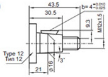
Note:
Body W:
The input and output openings (M or T) are located on the back cover.
This is designated as: WM or WT

Забележка:
Тяло W:
Отворите за вход и изход (М или Т) се намират в капак заден.
Това се означава с WM или WT

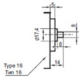
TYPE OF THE DRIVING SHAFT / ТИП НА ИЗХОДА НА ЗАДВИЖВАЩИЯ ВАЛ


1
39.65
27.2
b-0.025
Type 1
Тип 1
9.5
M12x1.5
Тип
b-0.025
1
3.2
1.1
4
1.2
5
1.4
3
1:8
16.5
13.05
2
38,5
26
b=4-0.018
9.2
M12x1.5
Type 1
Тип 1
11.8
∅16.5
1:5
3
38,5
26
b=3-0.018
9.2
M12x1.5
Type 1
Тип 1
11.8
∅16.5
1:5
4;(04)
36.5(32)
30(24)
22 (20)
b=4±0.018
∅15.88
(5/8")
17.6
M6
Type 1
Тип 1
5;(05)
32 (30)
19
9T 16/32 DP
ANSI B92 1a-1976
24
6
1.4
19.3
3.5
0.3x45°
1.4
3.5
R0.2 max
23.5
∅13
∅16
Type 8
Тип 8
35
Z=6
7
1.4
3.5
19.3
0.3x45°
1.4
4
R0.2 max
23.5
∅11.4
∅15
Type 8
Тип 8
35
Z=4
8
7.2
∅30
8
7
4.3
20.2
Type 9
Тип 9
8.1
7.2
8
∅32
6.5
9.2
Type 11
Тип 11
9
23.5
B17x14
DIN 5482
14
∅16.5
Type 1
Тип 1
9.1
32
B17x14
DIN 5482
19
24
∅16.5
Type 04
Тип 04

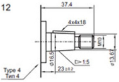
10


43.5
30.5
b= 4 -0.010 -0.025
9.3
M12x1.5
Type 12
Тип 12
3°
ø16
21

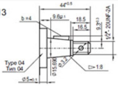
11


5
ø17.4
8
8
Type 16
Тип 16
14

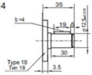
12


37.4
4x4x18
M10
ø16.5
1:5
ø13.67
Type 4
Тип 4
23±0.2

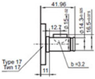
13


44-0.5
b =4
9.6ø0.1
18.5
16.5
9.3-0.3
1/2"- 20UNF-2A
Type 04
Тип 04
ø15.680
ø3.2
1:8
ø5-0.1

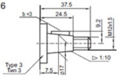
14


35
b =4
19
6
ø12.5-0.016
30
Type 18
Тип 18
3.5

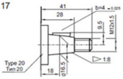
15


41.96
12.7
ø15-0.02
ø14.3-0.025
16.5-0.075
Type 17
Тип 17
b =3.2
11

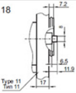
16


37.5
b =3
24.5
9.2
M12x1.5
1:10
Type 3
Тип 3
7.5
ø17

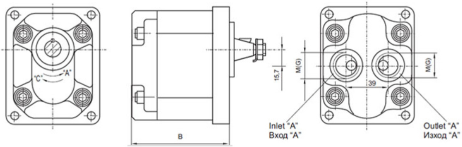
17


41
b=4 -0.025
28
9.5
M12x1.5
1:8
Type 20
Тип 20
18
ø16.5

18


7.2
8
6.5
11.9
Type 11
Тип 11
17

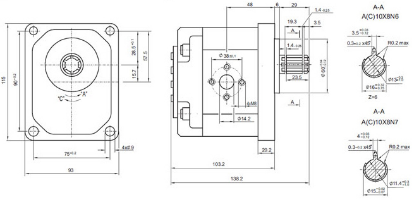
Gear pumps with input and output openings located on the back cover
Зъбни помпи, на които входът и изходът се намират в задния капак


"C"
"A"
15,7
B
M(G)
39
M(G)
Inlet "A"
Вход "A"
Outlet "A"
Изход "A"

Type Тип	Работен обем Displacement	Dimensions				Размери
		B	Inlet Вход		Outlet Изход	
			M	G	M	G
		mm		"	mm	"
A(C)4X… WM(WT)…	4	89	M20x1.5	1/2	M16x1.5	1/2
A(C)5X… WM(WT)…	5	90.5	M20x1.5	1/2	M16x1.5	1/2
A(C)6X… WM(WT)…	6	92	M20x1.5	1/2	M16x1.5	1/2
A(C)9X… WM(WT)…	9	96	M20x1.5	1/2	M16x1.5	1/2
A(C)10X…WM(WT)…	10	98	M20x1.5	3/4	M16x1.5	1/2
A(C)11X…WM(WT)…	11	100	M20x1.5	3/4	M16x1.5	1/2
A(C)12X…WM(WT)…	12	102	M20x1.5	3/4	M16x1.5	1/2
A(C)14X…WM(WT)…	14	106	M20x1.5	3/4	M16x1.5	1/2
A(C)15X…WM(WT)…	15	107.5	M20x1.5	3/4	M16x1.5	1/2
A(C)16X…WM(WT)…	16	109	M20x1.5	3/4	M16x1.5	1/2
A(C)17X…WM(WT)…	17	110	M20x1.5	3/4	M16x1.5	1/2
A(C)19X…WM(WT)…	19	114	M20x1.5	3/4	M16x1.5	1/2
A(C)22X…WM(WT)…	22	120	M20x1.5	3/4	M20x1.5	1/2
A(C)25X…WM(WT)…	25	123.7	M20x1.5	3/4	M20x1.5	1/2
A(C)26X…WM(WT)…	26	125	M20x1.5	3/4	M20x1.5	1/2

ANALOGUES OF HYDRAULIC GEAR PUMPS НШ10Е-2,НШ10-3
АНАЛОЗИ НА ХИДРАВЛИЧНИ ЗЪБНИ ПОМПИ НШ10Е-2,НШ10-3

A(C)10X8N...


48
6
29
1.4
19.3
3.5
A
1.4
Ø 38
28.5
57.5
15.7
115
90
"C"
"A"
Ø 60
23.5
4xM8
Ø14.2
20.2
75
4xØ9
93
103.2
138.2
A-A
A(C)10X8N6
3.5
0.3 x45°
R0.2 max
Ø16
Ø13
Z=6
A-A
A(C)10X8N7
4
0.3 x45°
R0.2 max
Ø11.4
Ø15

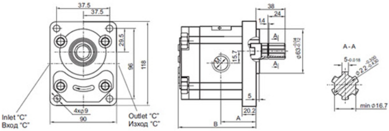
TECHNICAL PARAMETERS ТЕХНИЧЕСКИ ПАРАМЕТРИ

Working volume Работен обем	cm^3	10
Output pressure of the pump Изходящо налягане на помпата Nominal Номинално Maximal Максимално	bar	140 175
Absolute input pressure of the pump Абсолютно налягане на входа на помпата Nominal Номинало Maximal Максимално	bar	0.74 1 5
Rotational frequency of the pump shaft Честота на въртене на вала на помпата Minimal Минимално Nominal Номинало Maximal Максимално	min^{-1}	900 1920 3500

The joining sizes and the technical parameters of the pumps fully comply with those of НШ10Е-2 and НШ10-3. The pumps are purposed to be used into the hydraulics systems of tractors, agricultural, earth moving, load lifting machines etc . For example, pump НШ10Е-2 is mounted onto tractors T25, ТЛ-30А, МТЗ 50/52 and others.

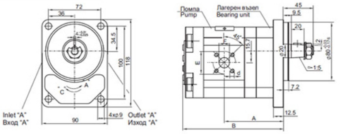
Размерите за присъединяване и техническите параметри на зъбните помпи, показани на чертежа и таблицата, изцяло съответстват на НШ10Е-2 и НШ10-3. Помпите са предназначени за използване в хидравлични системи на трактори, селскостопански машини, пътнотранспортна техника и др. Например помпа НШ10Е-2 окомплектова тракторите Т25, ТЛ-30А, МТЗ 50/52 и други.

A(C)...X10M8


37.5
37.5
29.5
96
118
4xØ9
90
Inlet "C"
Вход "C"
Outlet "C"
Изход "C"
38
24
14
A
15.7
Ø63
A
5
20.2
A
B
A-A
5
Ø22
min Ø16.7

Type Тип	Dimensions Размери [mm]											
	A	B	Inlet Вход					Outlet Изход				
			E	d	F	M	G	E	d	F	M	G
A(C)4X10M8	43.7	92.2				M18x1.5					M12x1.5	
A(C)5X10M8	44.5	93.7				M18x1.5					M12x1.5	
A(C)6X10M8	45.2	95.2				M18x1.5					M12x1.5	
A(C)9X10M8	47.2	99.2				M18x1.5					M12x1.5	
A(C)10X10M8	48.2	101.2				M22x1.5					M14x1.5	
A(C)11X10M8	49.2	103.2				M22x1.5					M14x1.5	
A(C)12X10M8	50.2	105.2				M22x1.5					M14x1.5	
A(C)14X10M8	52.2	109.2				M27x1.5					M18x1.5	
A(C)15X10M8	53	110.7				M27x1.5					M18x1.5	
A(C)16X10M8	53.7	112.2				M27x1.5					M18x1.5	
A(C)17X10M8	54.2	113.2				M27x1.5					M18x1.5	
A(C)19X10M8	56.2	117.2				M27x1.5					M18x1.5	
A(C)22X10M8	59.2	123.2				M27x1.5					M18x1.5	
A(C)25X10M8	61	126.2				M27x1.5					M18x1.5	
A(C)26X10M8	61.7	128.2				M27x1.5					M18x1.5	

BU3F1/1-A(C)...X13C8.1B

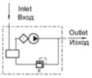

72
36
34.5
100
118
C
A
Inlet "A"
Вход "A"
90
4xØ9
Outlet "A"
Изход "A"
Помпа
Pump
Лагерен възел
Bearing unit
45
9.5
20
45°
15.7
E
d
Ø20
Ø80
1:5
7.2
12.5
A
B

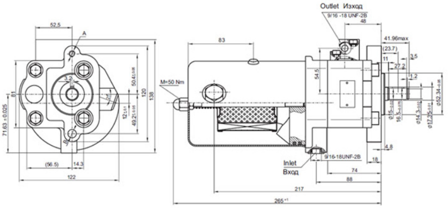
Note: For more information call the company.

Забележка: За повече информация обърнете се към фирмата.

Type Тип	Dimensions Размери [mm]											
	A	B	Inlet Вход					Outlet Изход				
			E	d	F	M	G	E	d	F	M	G
BU3F1/1-A(C)4X13C8.1-B	74.5	123	Ø40	M6	Ø20			Ø35	M6	Ø15		
BU3F1/1-A(C)5X13C8.1-B	75.3	124.5	Ø40	M6	Ø20			Ø35	M6	Ø15		
BU3F1/1-A(C)6X13C8.1-B	76	126	Ø40	M6	Ø20			Ø35	M6	Ø15		
BU3F1/1-A(C)9X13C8.1-B	78	130	Ø40	M6	Ø20			Ø35	M6	Ø15		
BU3F1/1-A(C)10X13C8.1-B	79	132	Ø40	M6	Ø20			Ø35	M6	Ø15		
BU3F1/1-A(C)11X13C8.1-B	80	134	Ø40	M6	Ø20			Ø35	M6	Ø15		
BU3F1/1-A(C)12X13C8.1-B	81	136	Ø40	M6	Ø20			Ø35	M6	Ø15		
BU3F1/1-A(C)14X13C8.1-B	83	140	Ø40	M6	Ø20			Ø35	M6	Ø15		
BU3F1/1-A(C)15X13C8.1-B	84	141.5	Ø40	M6	Ø20			Ø35	M6	Ø15		
BU3F1/1-A(C)16X13C8.1-B	84.5	143	Ø40	M6	Ø20			Ø35	M6	Ø15		
BU3F1/1-A(C)17X13C8.1-B	85	144	Ø40	M6	Ø20			Ø35	M6	Ø15		
BU3F1/1-A(C)19X13C8.1-B	87	148	Ø40	M6	Ø20			Ø35	M6	Ø15		
BU3F1/1-A(C)22X13C8.1-B	90	154	Ø40	M6	Ø20			Ø35	M6	Ø15		
BU3F1/1-A(C)25X13C8.1-B	92	157.5	Ø40	M6	Ø20			Ø35	M6	Ø15		
BU3F1/1-A(C)26X213C8.1-B	92.5	159	Ø40	M6	Ø20			Ø35	M6	Ø15		

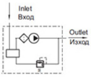
A6XF

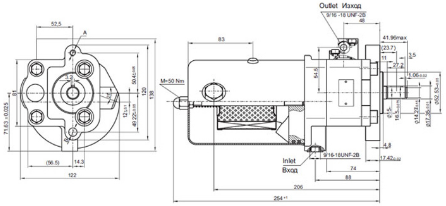

Inlet
Вход
Outlet
Изход


Outlet Изход
9/16 -18 UNF-2B
48
41.96max
(23.7)
3.5
11
27.2
1.2
52.5
A
83
M=50 Nm
54.5
81
71.63 ± 0.025
50.4
120
138
12
49.2
(56.5)
14.3
122
Inlet
Вход
9/16-18UNF-2B
4.8
18
74
88
217
265 +1

Type Тип	Dimensions Размери [mm]		Technical data Технически данни							
	A	B	displacement геом. обем	P_{max}	$P_{r.v}$	Flow at 1500 min^{-1} Дебит при 1500 min^{-1}	n_{nom}	n_{min}	Tank Резервоар	Filtration Филтрация
A6XF	3/8" 16UNC-28	Ø10.50	6 cm^3	200 bar	105 ± 5 bar	8.5 l/min	1500 min^{-1}	700 min^{-1}	1 L	0.040 mm

A6XF1

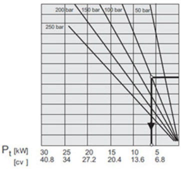
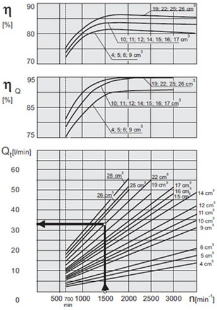

Inlet
Вход
Outlet
Изход


Outlet Изход
9/16 -18 UNF-2B
48
41.96max
(23.7)
3.5
11
27.2
1.06
52.5
A
83
M=50 Nm
54.5
81
71.63 ± 0.025
50.4
120
138
12
49.22
(56.5)
14.3
122
Inlet
Вход
9/16-18UNF-2B
4.8
17.42
74
88
206
254 +1

Type Тип	Dimensions Размери [mm]		Technical data Технически данни							
	A	B	displacement геом. обем	P_{max}	$P_{r.v}$	Flow at 1500 min^{-1} Дебит при 1500 min^{-1}	n_{nom}	n_{min}	Tank Резервоар	Filtration Филтрация
A6XF1	3/8" 16UNC-28	Ø10.50	6 cm^3	200 bar	105 ± 5 bar	8.5 l/min	1500 min^{-1}	700 min^{-1}	1 L	0.040 mm

DIAGRAMS / ДИАГРАМИ

Group
Група **II**

$q = 4 \dots 26\ cm^3$
$Q = 6.5 \dots 37.5$ l/min
(1500 min^{-1})