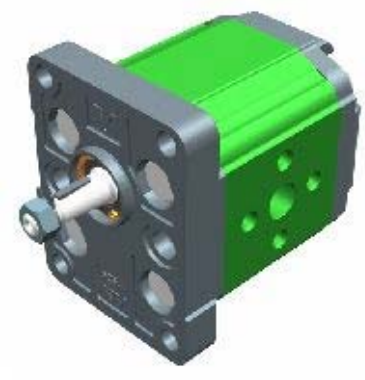
ZUBOVÁ ČERPADLA

ŘADY XV-1P

XP101



XP113

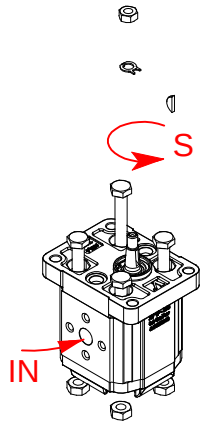
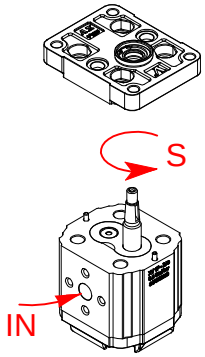
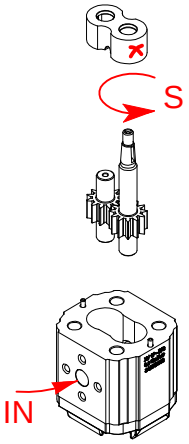
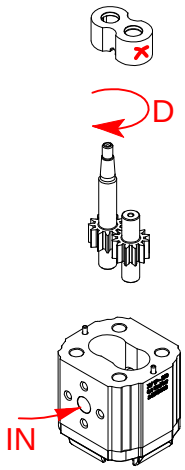
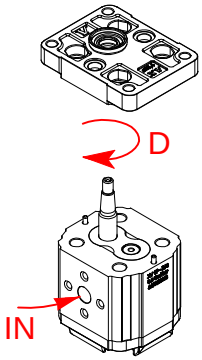
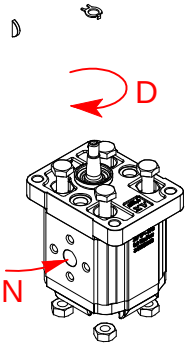
XP119

XP161

XP168

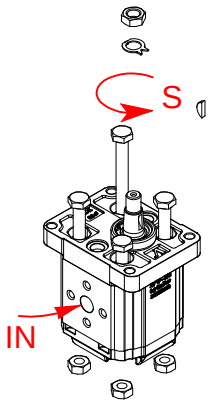
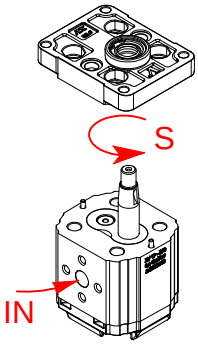
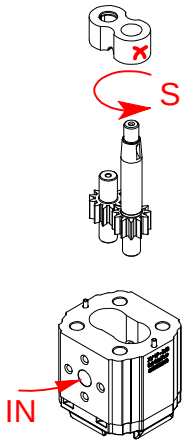
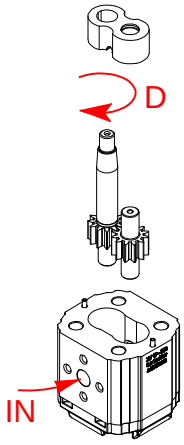
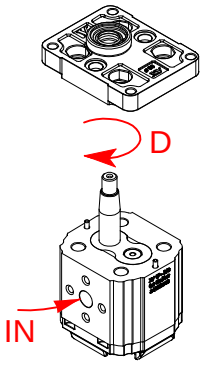
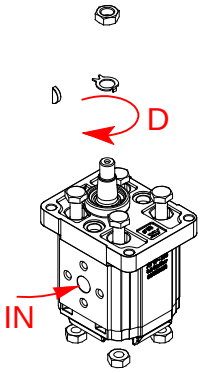
XV1-P with Flange ø25.4 (ref. XP- 101)

When changing the direction of rotation of the XV-1P pump, it is not necessary to change the flange, as the same one is used.
When disassembling and reassembling the pump, take special care to ensure that seals and back-up rings do not come out of place and that no foreign bodies, such as shavings or dirt in general, get inside the pump.

Flange ø25,4 (ref. XP- 101)					
					
Remove the key, nut and washer from the shaft. Loosen and remove the fastening screws.	Take off the flange.	Take out the gears and upper bush. Warning!! The bush **must never** be turned.	Invert the positions of the driven and driving shafts. Warning! The body and cover must not be turned. Use the marking on the body as your reference.	Fit the previously removed flange back in place taking care to clean the body-base contact surfaces.	Replace the screws and tighten the nuts with a torque of 24.5 Nm to 29.4 Nm. Check that the shaft turns on completing the operation.
Note: with this rotation change system, the **inlets** and **outlets** remain unchanged.					

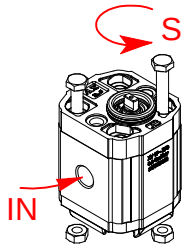
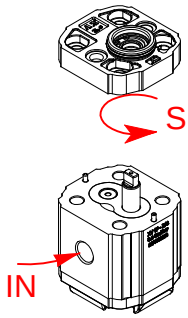
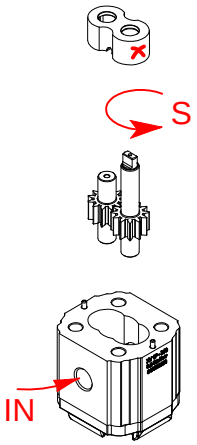
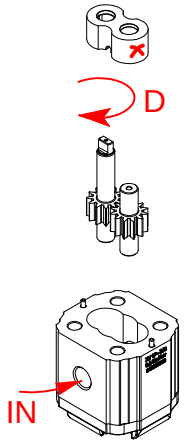
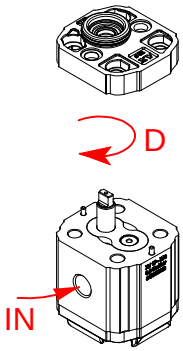
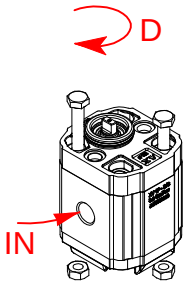
XV1-P with Flange ø30 (ref. XP- 113)

When changing the direction of rotation of the XV-1P pump, it is not necessary to change the flange, as the same one is used.
When disassembling and reassembling the pump, take special care to ensure that seals and back-up rings do not come out of place and that no foreign bodies, such as shavings or dirt in general, get inside the pump.

Flange ø30 (ref. XP- 113)					
					
Remove the key, nut and washer from the shaft. Loosen and remove the fastening screws.	Take off the flange.	Take out the gears and upper bush. Warning!! The bush **must** be turned.	Invert the positions of the driven and driving shafts. Warning! The body and cover must not be turned. Use the marking on the body as your reference.	Fit the previously removed flange back in place taking care to clean the body-base contact surfaces.	Replace the screws and tighten the nuts with a torque of 24.5 Nm to 29.4 Nm. Check that the shaft turns on completing the operation.
Note: with this rotation change system, the **inlets** and **outlets** remain unchanged.					

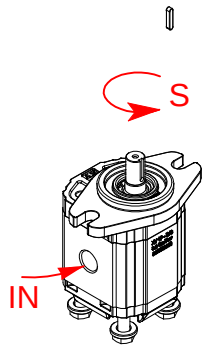
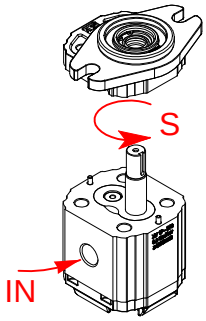
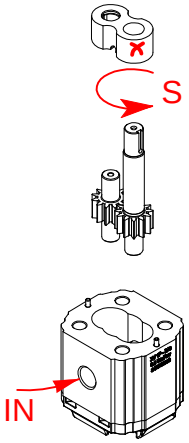
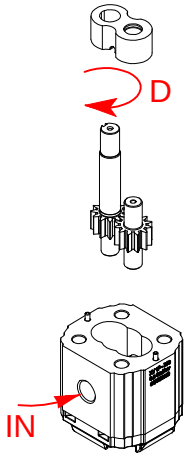
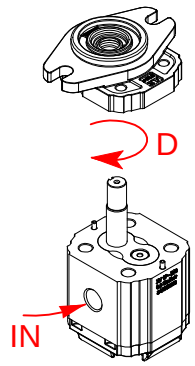
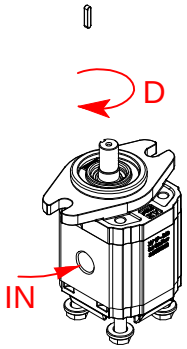
XV1-P with Flange ø32 BH-HY (ref. from XP- 119 to: XP- 140)

When changing the direction of rotation of the XV-1P pump, it is not necessary to change the flange, as the same one is used.
When disassembling and reassembling the pump, take special care to ensure that seals and back-up rings do not come out of place and that no foreign bodies, such as shavings or dirt in general, get inside the pump.

FLANGE ø32 BH-HY (ref. da XP- 119 a: XP- 140)					
					
Loosen and remove the fastening screws.	Take off the flange.	Take out the gears and upper bush. Warning!! The bush **must never** be turned.	Invert the positions of the driven and driving shafts. Warning! The body and cover must not be turned. Use the marking on the body as your reference.	Fit the previously removed flange back in place taking care to clean the body-base contact surfaces.	Replace the screws and tighten the nuts with a torque of 24.5 Nm to 29.4 Nm. Check that the shaft turns on completing the operation.
Note: with this rotation change system, the **inlets** and **outlets** remain unchanged.					

XV1-P with Flange ø50.8 SAE-AA (ref. XP- 168)

When changing the direction of rotation of the XV-1P pump, it is not necessary to change the flange, as the same one is used.
When disassembling and reassembling the pump, take special care to ensure that seals and back-up rings do not come out of place and that no foreign bodies, such as shavings or dirt in general, get inside the pump.

FLANGE ø50.8 SAE-AA *(ref. XP- 168)*					
					
Remove the key from the shaft. Loosen and remove the fastening screws.	Take off the flange.	Take out the gears and upper bush. Warning!! The bush **must** be turned.	Invert the positions of the driven and driving shafts. Warning! The body and cover must not be turned. Use the marking on the body as your reference.	Fit the previously removed flange back in place taking care to clean the body-base contact surfaces.	Replace the screws back in place and tighten the nuts with a torque of 24.5 Nm to 29.4 Nm. Check that the shaft turns on completing the operation.
Note: with this rotation change system, the **inlets** and **outlets** remain unchanged.					

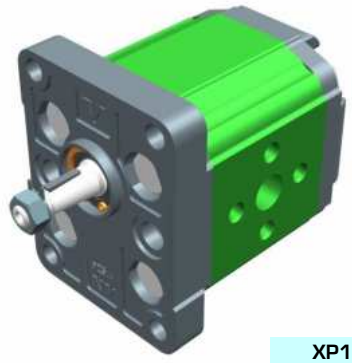
unidirectional pump - series XV

STANDARD EUROPEAN PUMP
ø25.4 FLANGE - TAPER SHAFT

XV-1P

X	1	P	25	02	F	I	I	A

Series	X	series XV
Group	1	group 1
Category	P	unidirectional pump
Displacement	25	3.8
Flange	02	Ø25.4 STANDARD EUROPEAN right rotation
Shaft	F	CO001 - Tapered 1:8 - ø10 - M7x1 - key thk.2.4
Body IN	I	inlet - Ø30 Ø12 M6
Body OUT	I	outlet - Ø30 Ø12 M6
Cover	A	standard



XP101

Technical data table

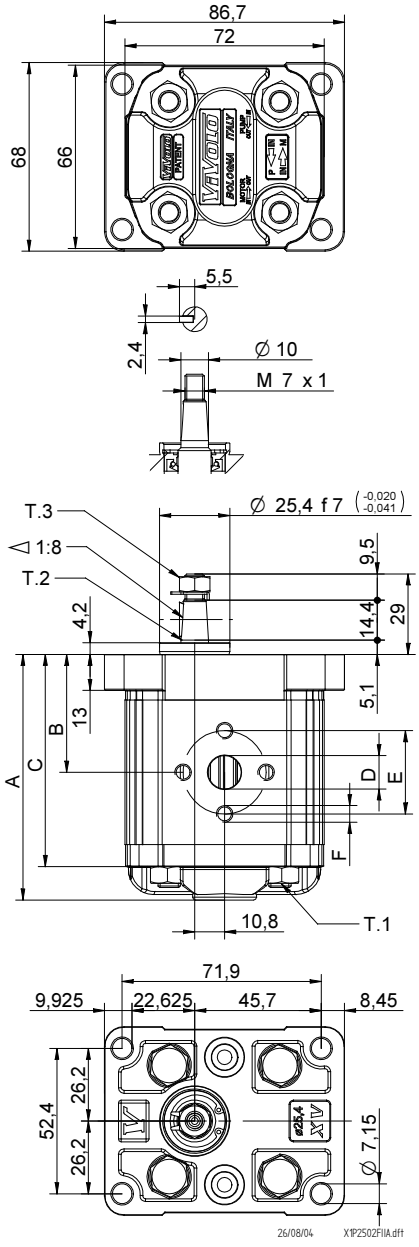
TYPE	Displacement	Max. Pressure	CODE	
	cm3/rev	P1 bar	P3 bar	Left rotation	Right rotation
XV-1P/0.9	0,91	240	280	X 1 P 16 01 F I I A	X 1 P 16 02 F I I A
XV-1P/1.2	1,17	250	290	X 1 P 17 01 F I I A	X 1 P 17 02 F I I A
XV-1P/1.7	1,56	250	290	X 1 P 18 01 F I I A	X 1 P 18 02 F I I A
XV-1P/2.2	2,08	250	290	X 1 P 20 01 F I I A	X 1 P 20 02 F I I A
XV-1P/2.6	2,60	250	300	X 1 P 21 01 F I I A	X 1 P 21 02 F I I A
XV-1P/3.2	3,12	250	300	X 1 P 23 01 F I I A	X 1 P 23 02 F I I A
XV-1P/3.8	3,64	250	300	X 1 P 25 01 F I I A	X 1 P 25 02 F I I A
XV-1P/4.3	4,16	250	300	X 1 P 27 01 F I I A	X 1 P 27 02 F I I A
XV-1P/4.9	4,94	250	300	X 1 P 29 01 F I I A	X 1 P 29 02 F I I A
XV-1P/5.9	5,85	250	300	X 1 P 31 01 F I I A	X 1 P 31 02 F I I A
XV-1P/6.5	6,50	250	300	X 1 P 32 01 F I I A	X 1 P 32 02 F I I A
XV-1P/7.8	7,54	220	260	X 1 P 34 01 F I I A	X 1 P 34 02 F I I A
XV-1P/9.8	9,88	190	230	X 1 P 36 01 F I I A	X 1 P 36 02 F I I A

P1) Max. working pressure - P3) Max. peak pressure

For heavy-duty applications, it is recommended to check the admissible torque of the shaft

Dimensions table

TYPE	Weight	A	B	C	D	E	F	D	E	F
	kg	mm	mm	mm	IN			OUT		
XV-1P/0.9	0,950	78,1	37,3	66,1	ø12	30	M6x1	ø12	30	M6x1
XV-1P/1.2	0,970	79,0	37,8	67,0	ø12	30	M6x1	ø12	30	M6x1
XV-1P/1.7	1,010	80,5	38,5	68,5	ø12	30	M6x1	ø12	30	M6x1
XV-1P/2.2	1,030	82,5	39,5	70,5	ø12	30	M6x1	ø12	30	M6x1
XV-1P/2.6	1,060	84,5	40,5	72,5	ø12	30	M6x1	ø12	30	M6x1
XV-1P/3.2	1,090	86,5	41,5	74,5	ø12	30	M6x1	ø12	30	M6x1
XV-1P/3.8	1,120	88,5	42,5	76,5	ø12	30	M6x1	ø12	30	M6x1
XV-1P/4.3	1,170	90,5	43,5	78,5	ø12	30	M6x1	ø12	30	M6x1
XV-1P/4.9	1,200	93,5	45,0	81,5	ø12	30	M6x1	ø12	30	M6x1
XV-1P/5.9	1,260	97,0	46,8	85,0	ø12	30	M6x1	ø12	30	M6x1
XV-1P/6.5	1,300	98,5	48,0	86,5	ø12	30	M6x1	ø12	30	M6x1
XV-1P/7.8	1,360	103,5	50,0	91,5	ø12	30	M6x1	ø12	30	M6x1
XV-1P/9.8	1,500	112,5	54,5	100,5	ø12	30	M6x1	ø12	30	M6x1



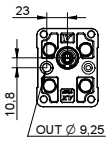
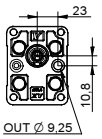
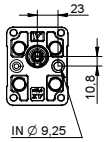
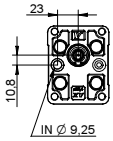
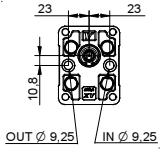
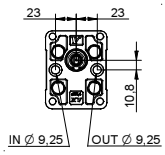
T.1 = 24.5÷29.4 [Nm] - screw tightening torque M8 T.3 = 11.5 [Nm] - torque wrench setting 11

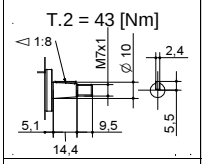
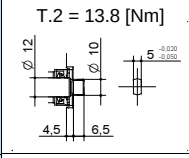
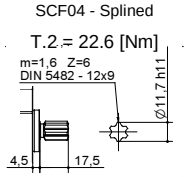
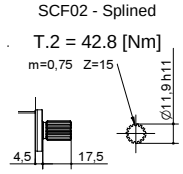
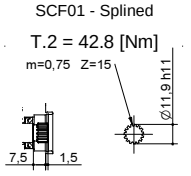
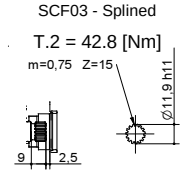
T.2 = 43 [Nm] - admissible shaft torque (N.B. When choosing a shaft, always check the admissible torque).

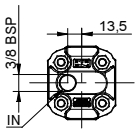
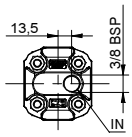
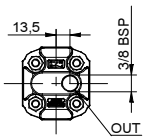
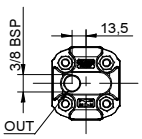
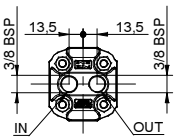
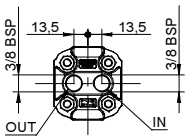
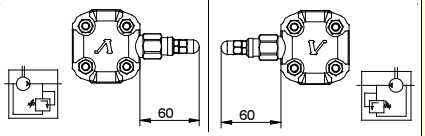
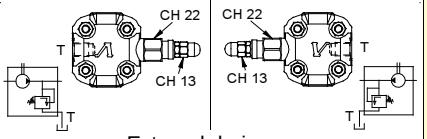
Table of variations

ø25.4 FLANGE

XV-1P

ø25.4 FLANGE			
Left rotation		Right rotation	
	01		02
	03		04
	05		06
	07		08

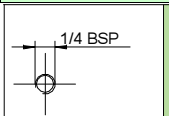
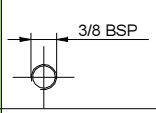
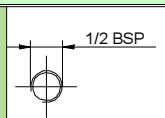
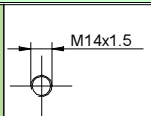
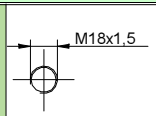
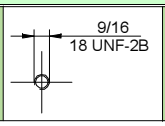
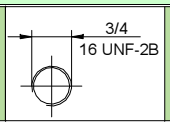
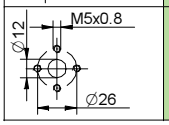
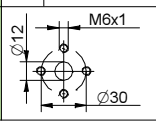
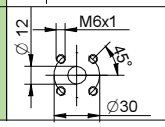
Shaft			
	F		D
	J		L
	Q		R

Cover		
Left rotation	Right rotation	
		A
		B
		C
		D
 Internal drainage		N
 External drainage		O

Displacement	
TYPE	CODE
XV-1P/0.9	**16**
XV-1P/1.2	**17**
XV-1P/1.7	**18**
XV-1P/2.2	**20**
XV-1P/2.6	**21**
XV-1P/3.2	**23**
XV-1P/3.8	**25**
XV-1P/4.3	**27**
XV-1P/4.9	**29**
XV-1P/5.9	**31**
XV-1P/6.5	**32**
XV-1P/7.8	**34**
XV-1P/9.8	**36**

Standard bodies							
Displacement cm3/rev	Standard threads						
0.9	I - I	B - B	J - J	B - Z	Z - Z	G - F
1.2	I - I	B - B	J - J	B - Z	Z - Z	G - F
1.7	I - I	B - B	J - J	B - Z	Z - Z	G - F
2.2	I - I	B - B	J - J	B - Z	Z - Z	G - F
2.6	I - I	B - B	J - J	B - Z	Z - Z	G - F
3.2	I - I	B - B	J - J	B - Z	Z - Z	G - F
3.8	I - I	B - B	J - J	B - Z	Z - Z	G - F
4.3	I - I	B - B	J - J	B - Z	Z - Z	G - F
4.9	I - I	B - B	J - J	B - Z	Z - Z	G - F
5.9	I - I	B - B	J - J	B - Z	Z - Z	G - F
6.5	I - I	B - B	J - J	B - Z	Z - Z	G - F
7.8	I - I	B - B	J - J	B - Z	Z - Z	G - F
9.8	I - I	B - B	J - J	B - Z	Z - Z	G - F

Table showing standard flange and thread combinations available in stock

Body (threads/flanges)															
	A		B		C		D		E		F		G
	H		I		J	Closed Body	Z								

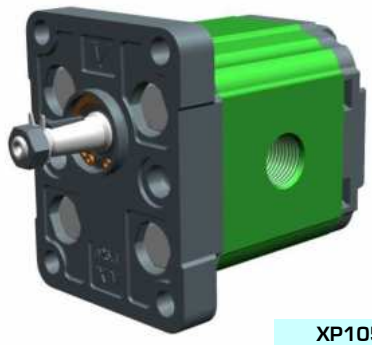
unidirectional pump - series XV

STANDARD EUROPEAN PUMP
ø25.4 FLANGE - TAPER SHAFT

XV-1P

X	1	P	25	02	F	B	B	A

Series	X	series XV
Group	1	group 1
Category	P	unidirectional pump
Displacement	25	3.8
Flange	02	Ø25.4 STANDARD EUROPEAN right rotation
Shaft	F	CO001 - Tapered 1:8 - ø10 - M7x1 - key thk.2.4
Body IN	B	inlet - 3/8" GAS
Body OUT	B	outlet - 3/8" GAS
Cover	A	standard



XP105

Technical data table

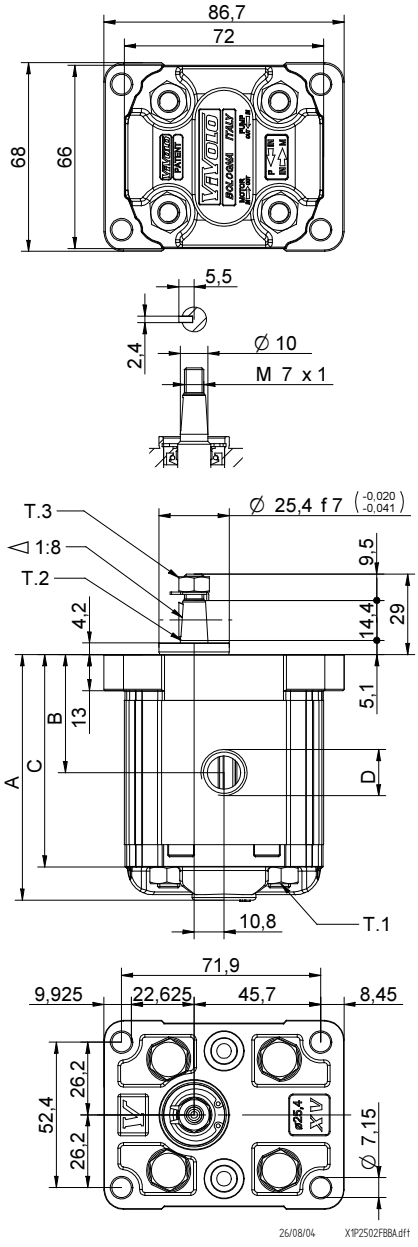
TYPE	Displacement	Max. Pressure		CODE	
	cm3/rev	P1 bar	P3 bar	Left rotation	Right rotation
XV-1P/0.9	0,91	240	280	X 1 P 16 01 F B B A	X 1 P 16 02 F B B A
XV-1P/1.2	1,17	250	290	X 1 P 17 01 F B B A	X 1 P 17 02 F B B A
XV-1P/1.7	1,56	250	290	X 1 P 18 01 F B B A	X 1 P 18 02 F B B A
XV-1P/2.2	2,08	250	290	X 1 P 20 01 F B B A	X 1 P 20 02 F B B A
XV-1P/2.6	2,60	250	300	X 1 P 21 01 F B B A	X 1 P 21 02 F B B A
XV-1P/3.2	3,12	250	300	X 1 P 23 01 F B B A	X 1 P 23 02 F B B A
XV-1P/3.8	3,64	250	300	X 1 P 25 01 F B B A	X 1 P 25 02 F B B A
XV-1P/4.3	4,16	250	300	X 1 P 27 01 F B B A	X 1 P 27 02 F B B A
XV-1P/4.9	4,94	250	300	X 1 P 29 01 F B B A	X 1 P 29 02 F B B A
XV-1P/5.9	5,85	250	300	X 1 P 31 01 F B B A	X 1 P 31 02 F B B A
XV-1P/6.5	6,50	250	300	X 1 P 32 01 F B B A	X 1 P 32 02 F B B A
XV-1P/7.8	7,54	220	260	X 1 P 34 01 F B B A	X 1 P 34 02 F B B A
XV-1P/9.8	9,88	190	230	X 1 P 36 01 F B B A	X 1 P 36 02 F B B A

P1) Max. working pressure - P3) Max. peak pressure

For heavy-duty applications, it is recommended to check the admissible torque of the shaft

Dimensions table

TYPE	Weight	A	B	C	D	D
	kg	mm	mm	mm	IN	OUT
XV-1P/0.9	0,950	78,1	37,3	66,1	3/8" BSPP	3/8" BSPP
XV-1P/1.2	0,970	79,0	37,8	67,0	3/8" BSPP	3/8" BSPP
XV-1P/1.7	1,010	80,5	38,5	68,5	3/8" BSPP	3/8" BSPP
XV-1P/2.2	1,030	82,5	39,5	70,5	3/8" BSPP	3/8" BSPP
XV-1P/2.6	1,060	84,5	40,5	72,5	3/8" BSPP	3/8" BSPP
XV-1P/3.2	1,090	86,5	41,5	74,5	3/8" BSPP	3/8" BSPP
XV-1P/3.8	1,120	88,5	42,5	76,5	3/8" BSPP	3/8" BSPP
XV-1P/4.3	1,170	90,5	43,5	78,5	3/8" BSPP	3/8" BSPP
XV-1P/4.9	1,200	93,5	45,0	81,5	3/8" BSPP	3/8" BSPP
XV-1P/5.9	1,260	97,0	46,8	85,0	3/8" BSPP	3/8" BSPP
XV-1P/6.5	1,300	98,5	48,0	86,5	3/8" BSPP	3/8" BSPP
XV-1P/7.8	1,360	103,5	50,0	91,5	3/8" BSPP	3/8" BSPP
XV-1P/9.8	1,500	112,5	54,5	100,5	3/8" BSPP	3/8" BSPP

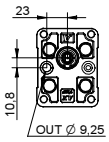
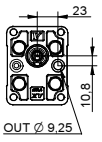
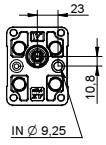
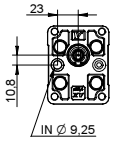
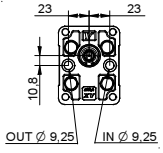
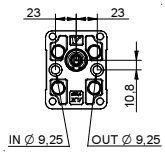


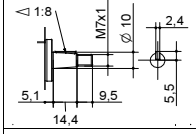
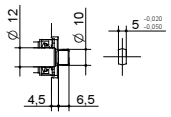
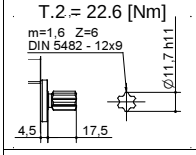
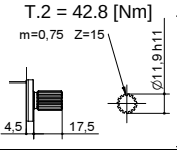
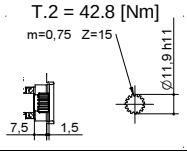
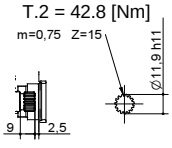
T.1 = 24.5÷29.4 [Nm] - screw tightening torque M8 T.3 = 11.5 [Nm] - torque wrench setting 11

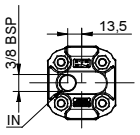
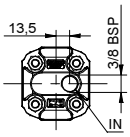
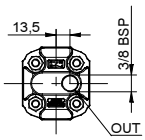
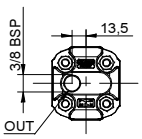
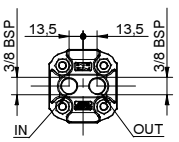
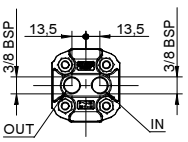
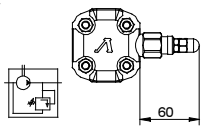
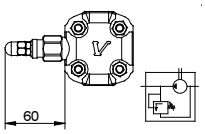
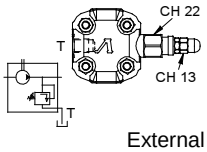
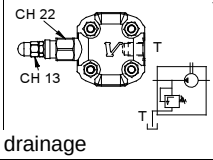
T.2 = 43 [Nm] - admissible shaft torque (N.B. When choosing a shaft, always check the admissible torque).

Table of variations

ø25.4 FLANGE

ø25.4 FLANGE			
Left rotation		Right rotation	
	01		02
	03		04
	05		06
	07		08

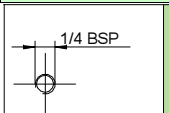
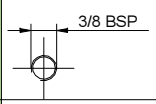
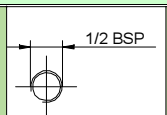
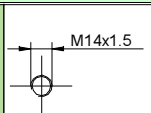
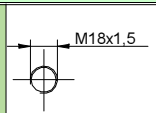
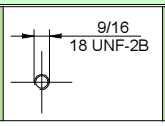
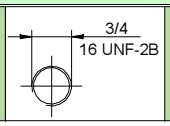
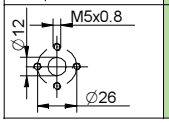
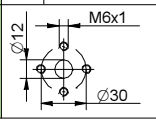
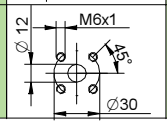
Shaft			
CO001 - Tapered T.2 = 43 [Nm]	F	CF002 - Milled shank T.2 = 13.8 [Nm]	D
			
SCF04 - Splined T.2 = 22.6 [Nm]	J	SCF02 - Splined T.2 = 42.8 [Nm]	L
			
SCF01 - Splined T.2 = 42.8 [Nm]	Q	SCF03 - Splined T.2 = 42.8 [Nm]	R
			

Cover		
Left rotation		Right rotation
	A	
	B	
	C	
	D	
 Internal drainage	N	
 External drainage	O	

Displacement	
TYPE	CODE
XV-1P/0.9	**16**
XV-1P/1.2	**17**
XV-1P/1.7	**18**
XV-1P/2.2	**20**
XV-1P/2.6	**21**
XV-1P/3.2	**23**
XV-1P/3.8	**25**
XV-1P/4.3	**27**
XV-1P/4.9	**29**
XV-1P/5.9	**31**
XV-1P/6.5	**32**
XV-1P/7.8	**34**
XV-1P/9.8	**36**

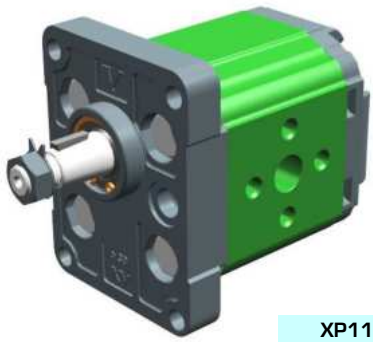
Standard bodies						
Displacement cm3/rev	Standard threads					
0.9	I - I	B - B	J - J	B - Z	Z - Z	G - F
1.2	I - I	B - B	J - J	B - Z	Z - Z	G - F
1.7	I - I	B - B	J - J	B - Z	Z - Z	G - F
2.2	I - I	B - B	J - J	B - Z	Z - Z	G - F
2.6	I - I	B - B	J - J	B - Z	Z - Z	G - F
3.2	I - I	B - B	J - J	B - Z	Z - Z	G - F
3.8	I - I	B - B	J - J	B - Z	Z - Z	G - F
4.3	I - I	B - B	J - J	B - Z	Z - Z	G - F
4.9	I - I	B - B	J - J	B - Z	Z - Z	G - F
5.9	I - I	B - B	J - J	B - Z	Z - Z	G - F
6.5	I - I	B - B	J - J	B - Z	Z - Z	G - F
7.8	I - I	B - B	J - J	B - Z	Z - Z	G - F
9.8	I - I	B - B	J - J	B - Z	Z - Z	G - F

Table showing standard flange and thread combinations available in stock

Body (threads/flanges)															
	A		B		C		D		E		F		G
	H		I		J	Closed Body	Z								

X	1	P	25	12	G	I	I	A

Series	X	series XV
Group	1	group 1
Category	P	unidirectional pump
Displacement	25	3.8
Flange	12	Ø30 STANDARD right rotation
Shaft	G	CO002 - Tapered 1:8 - ø14 - M10x1 - key thk.3
Body IN	I	inlet - Ø30 Ø12 M6
Body OUT	I	outlet - Ø30 Ø12 M6
Cover	A	standard



XP113

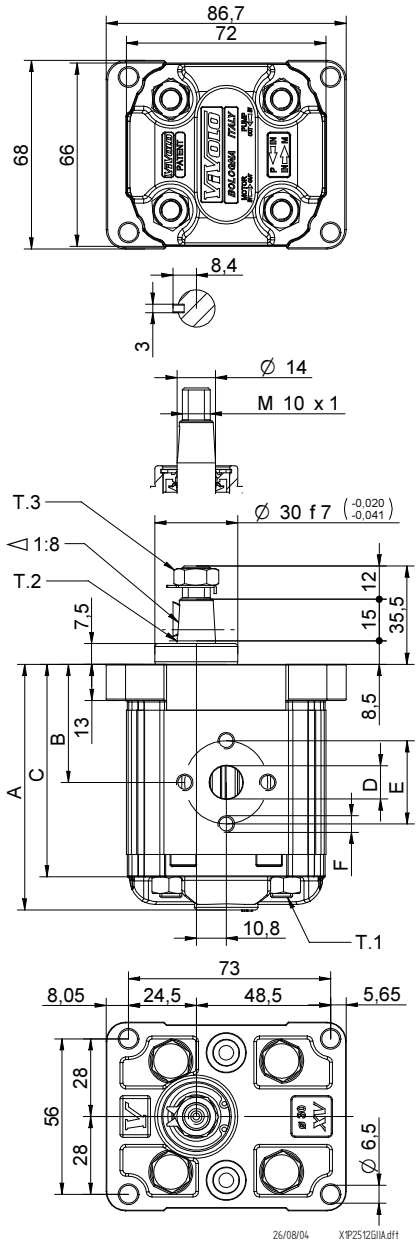
Technical data table

TYPE	Displacement	Max. Pressure		CODE	
	cm3/rev	P1 bar	P3 bar	Left rotation	Right rotation
XV-1P/0.9	0,91	240	280	X 1 P 16 11 G I I A	X 1 P 16 12 G I I A
XV-1P/1.2	1,17	250	290	X 1 P 17 11 G I I A	X 1 P 17 12 G I I A
XV-1P/1.7	1,56	250	290	X 1 P 18 11 G I I A	X 1 P 18 12 G I I A
XV-1P/2.2	2,08	250	290	X 1 P 20 11 G I I A	X 1 P 20 12 G I I A
XV-1P/2.6	2,60	250	300	X 1 P 21 11 G I I A	X 1 P 21 12 G I I A
XV-1P/3.2	3,12	250	300	X 1 P 23 11 G I I A	X 1 P 23 12 G I I A
XV-1P/3.8	3,64	250	300	X 1 P 25 11 G I I A	X 1 P 25 12 G I I A
XV-1P/4.3	4,16	250	300	X 1 P 27 11 G I I A	X 1 P 27 12 G I I A
XV-1P/4.9	4,94	250	300	X 1 P 29 11 G I I A	X 1 P 29 12 G I I A
XV-1P/5.9	5,85	250	300	X 1 P 31 11 G I I A	X 1 P 31 12 G I I A
XV-1P/6.5	6,50	250	300	X 1 P 32 11 G I I A	X 1 P 32 12 G I I A
XV-1P/7.8	7,54	220	260	X 1 P 34 11 G I I A	X 1 P 34 12 G I I A
XV-1P/9.8	9,88	190	230	X 1 P 36 11 G I I A	X 1 P 36 12 G I I A

P1) Max. working pressure - P3) Max. peak pressure
For heavy-duty applications, it is recommended to check the admissible torque of the shaft

Dimensions table

TYPE	Weight	A	B	C	D	E	F	D	E	F
	kg	mm	mm	mm	IN			OUT		
XV-1P/0.9	0,950	78,1	37,3	66,1	ø12	30	M6x1	ø12	30	M6x1
XV-1P/1.2	0,970	79,0	37,8	67,0	ø12	30	M6x1	ø12	30	M6x1
XV-1P/1.7	1,010	80,5	38,5	68,5	ø12	30	M6x1	ø12	30	M6x1
XV-1P/2.2	1,030	82,5	39,5	70,5	ø12	30	M6x1	ø12	30	M6x1
XV-1P/2.6	1,060	84,5	40,5	72,5	ø12	30	M6x1	ø12	30	M6x1
XV-1P/3.2	1,090	86,5	41,5	74,5	ø12	30	M6x1	ø12	30	M6x1
XV-1P/3.8	1,120	88,5	42,5	76,5	ø12	30	M6x1	ø12	30	M6x1
XV-1P/4.3	1,170	90,5	43,5	78,5	ø12	30	M6x1	ø12	30	M6x1
XV-1P/4.9	1,200	93,5	45,0	81,5	ø12	30	M6x1	ø12	30	M6x1
XV-1P/5.9	1,260	97,0	46,8	85,0	ø12	30	M6x1	ø12	30	M6x1
XV-1P/6.5	1,300	98,5	48,0	86,5	ø12	30	M6x1	ø12	30	M6x1
XV-1P/7.8	1,360	103,5	50,0	91,5	ø12	30	M6x1	ø12	30	M6x1
XV-1P/9.8	1,500	112,5	54,5	100,5	ø12	30	M6x1	ø12	30	M6x1

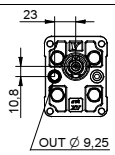
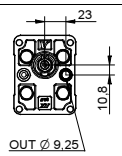
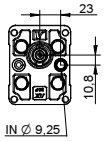
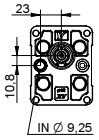
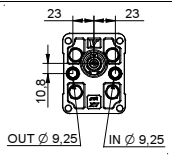
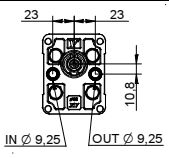


T.1 = 24.5÷29.4 [Nm] - screw tightening torque M8 T.3 = 13 [Nm] - torque wrench setting 17
T.2 = 119.8 [Nm] - admissible shaft torque (N.B. When choosing a shaft, always check the admissible torque).

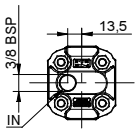
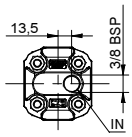
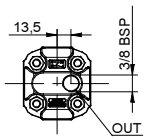
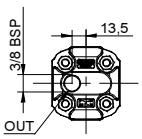
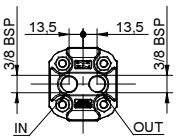
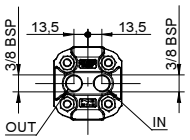
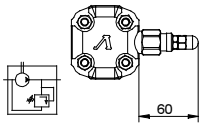
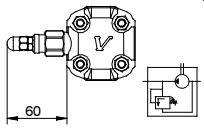
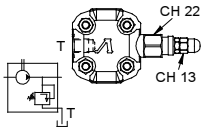
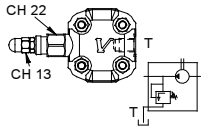
Table of variations

ø30 FLANGE

XV-1P

ø30 FLANGE			
Left rotation		Right rotation	
	11		12
	13		14
	15		16
	17		18

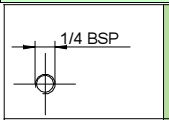
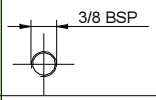
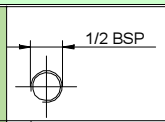
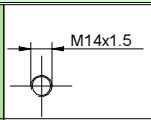
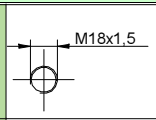
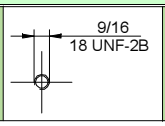
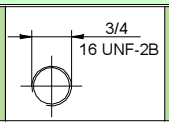
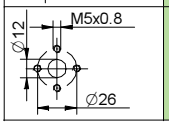
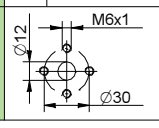
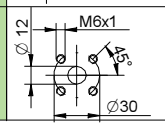
Shaft			
CI001 - Parallel T.2 = 25.8 [Nm]	A	CO002 - Tapered T.2 = 119.8 [Nm]	G
CI001+HK - Parallel T.2 = 25.8 [Nm]	P	CO002+HK - Tapered T.2 = 119.8 [Nm]	O

Cover		
Left rotation		Right rotation
	A	
	B	
	C	
	D	
 Internal drainage	N	
 External drainage	O	

Displacement	
TYPE	CODE
XV-1P/0.9	**16**
XV-1P/1.2	**17**
XV-1P/1.7	**18**
XV-1P/2.2	**20**
XV-1P/2.6	**21**
XV-1P/3.2	**23**
XV-1P/3.8	**25**
XV-1P/4.3	**27**
XV-1P/4.9	**29**
XV-1P/5.9	**31**
XV-1P/6.5	**32**
XV-1P/7.8	**34**
XV-1P/9.8	**36**

Standard bodies						
Displacement cm3/rev	Standard threads					
0.9	I - I	B - B	J - J	B - Z	Z - Z	G - F
1.2	I - I	B - B	J - J	B - Z	Z - Z	G - F
1.7	I - I	B - B	J - J	B - Z	Z - Z	G - F
2.2	I - I	B - B	J - J	B - Z	Z - Z	G - F
2.6	I - I	B - B	J - J	B - Z	Z - Z	G - F
3.2	I - I	B - B	J - J	B - Z	Z - Z	G - F
3.8	I - I	B - B	J - J	B - Z	Z - Z	G - F
4.3	I - I	B - B	J - J	B - Z	Z - Z	G - F
4.9	I - I	B - B	J - J	B - Z	Z - Z	G - F
5.9	I - I	B - B	J - J	B - Z	Z - Z	G - F
6.5	I - I	B - B	J - J	B - Z	Z - Z	G - F
7.8	I - I	B - B	J - J	B - Z	Z - Z	G - F
9.8	I - I	B - B	J - J	B - Z	Z - Z	G - F

Table showing standard flange and thread combinations available in stock

Body (threads/flanges)															
	A		B		C		D		E		F		G		
	H		I		J	Closed Body	Z								

unidirectional pump - series XV

"BH" TYPE PUMP
ø32 BODY-SHAPED FLANGE - MILLED SHANK

XV-1P

X	1	P	25	42	D	B	B	A

Series	X	series XV
Group	1	group 1
Category	P	unidirectional pump
Displacement	25	3.8
Flange	42	Ø32 BH right rotation
Shaft	D	CF002 - Milled shank ø10 - thk.5
Body IN	B	inlet - 3/8" GAS
Body OUT	B	outlet - 3/8" GAS
Cover	A	standard

XP119

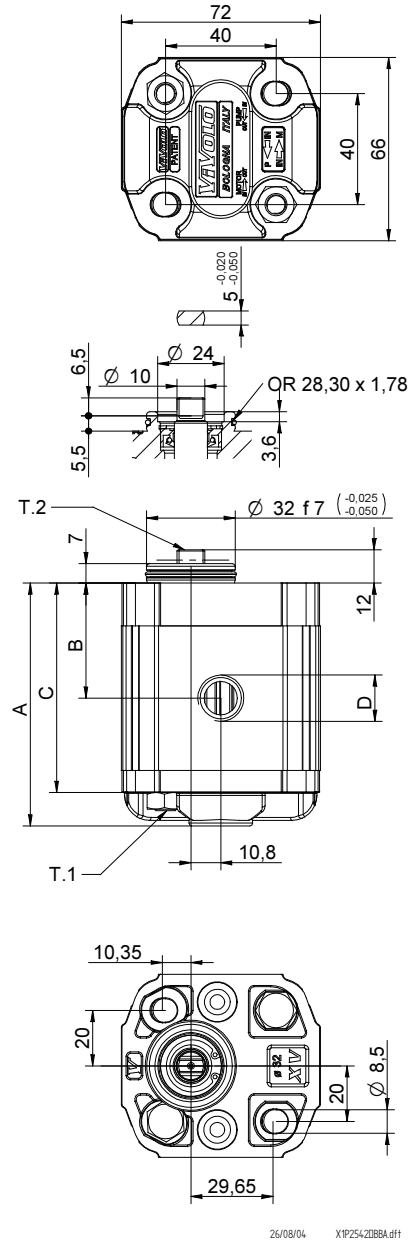
Technical data table

TYPE	Displacement	Max. Pressure		CODE	
	cm3/rev	P1 bar	P3 bar	Left rotation	Right rotation
XV-1P/0.9	0,91	240	280	X 1 P 16 41 D B B A	X 1 P 16 42 D B B A
XV-1P/1.2	1,17	250	290	X 1 P 17 41 D B B A	X 1 P 17 42 D B B A
XV-1P/1.7	1,56	250	290	X 1 P 18 41 D B B A	X 1 P 18 42 D B B A
XV-1P/2.2	2,08	250	290	X 1 P 20 41 D B B A	X 1 P 20 42 D B B A
XV-1P/2.6	2,60	250	300	X 1 P 21 41 D B B A	X 1 P 21 42 D B B A
XV-1P/3.2	3,12	250	300	X 1 P 23 41 D B B A	X 1 P 23 42 D B B A
XV-1P/3.8	3,64	250	300	X 1 P 25 41 D B B A	X 1 P 25 42 D B B A
XV-1P/4.3	4,16	250	300	X 1 P 27 41 D B B A	X 1 P 27 42 D B B A
XV-1P/4.9	4,94	250	300	X 1 P 29 41 D B B A	X 1 P 29 42 D B B A
XV-1P/5.9	5,85	250	300	X 1 P 31 41 D B B A	X 1 P 31 42 D B B A
XV-1P/6.5	6,50	250	300	X 1 P 32 41 D B B A	X 1 P 32 42 D B B A
XV-1P/7.8	7,54	220	260	X 1 P 34 41 D B B A	X 1 P 34 42 D B B A
XV-1P/9.8	9,88	190	230	X 1 P 36 41 D B B A	X 1 P 36 42 D B B A

P1) Max. working pressure - P3) Max. peak pressure
For heavy-duty applications, it is recommended to check the admissible torque of the shaft

Dimensions table

TYPE	Weight	A	B	C	D	D
	kg	mm	mm	mm	IN	OUT
XV-1P/0.9	0,950	77,1	36,3	65,1	3/8" BSPP	3/8" BSPP
XV-1P/1.2	0,970	78,0	36,8	66,0	3/8" BSPP	3/8" BSPP
XV-1P/1.7	1,010	79,5	37,5	67,5	3/8" BSPP	3/8" BSPP
XV-1P/2.2	1,030	81,5	38,5	69,5	3/8" BSPP	3/8" BSPP
XV-1P/2.6	1,060	83,5	39,5	71,5	3/8" BSPP	3/8" BSPP
XV-1P/3.2	1,090	85,5	40,5	73,5	3/8" BSPP	3/8" BSPP
XV-1P/3.8	1,120	87,5	41,5	75,5	3/8" BSPP	3/8" BSPP
XV-1P/4.3	1,170	89,5	42,5	77,5	3/8" BSPP	3/8" BSPP
XV-1P/4.9	1,200	92,5	44,0	80,5	3/8" BSPP	3/8" BSPP
XV-1P/5.9	1,260	96,0	45,8	84,0	3/8" BSPP	3/8" BSPP
XV-1P/6.5	1,300	97,5	47,0	85,5	3/8" BSPP	3/8" BSPP
XV-1P/7.8	1,360	102,5	49,0	90,5	3/8" BSPP	3/8" BSPP
XV-1P/9.8	1,500	111,5	53,5	99,5	3/8" BSPP	3/8" BSPP

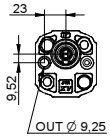
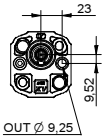
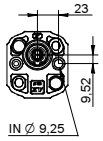
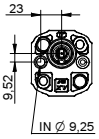
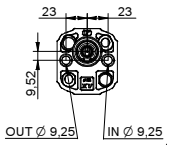
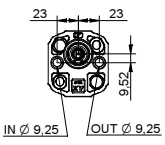


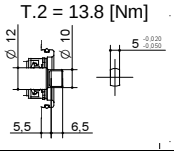
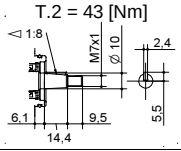
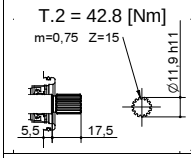
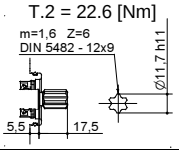
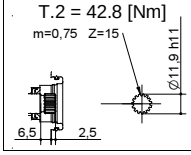
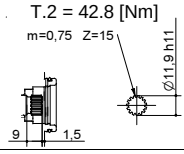
T.1 = 24.5÷29.4 [Nm] - screw tightening torque M8
T.2 = 13.8 [Nm] - admissible shaft torque (N.B. When choosing a shaft, always check the admissible torque).

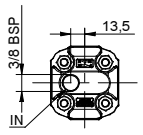
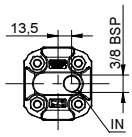
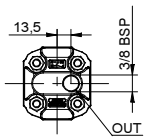
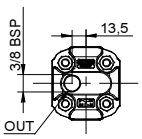
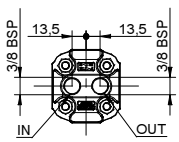
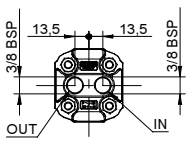
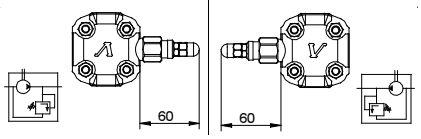
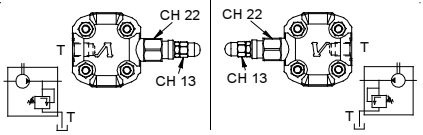
Table of variations

ø32 "BH" Body-Shaped FLANGE

XV-1P

ø32 "BH" Body-Shaped FLANGE			
Left rotation		Right rotation	
	41		42
	43		44
	45		46
	47		48

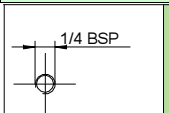
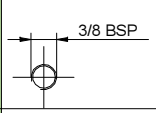
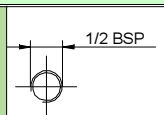
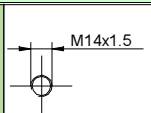
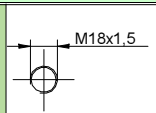
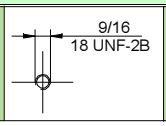
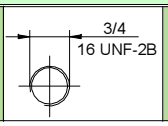
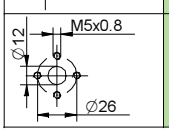
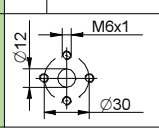
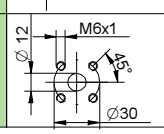
Shaft			
CF002 - Milled shank		CO001 - Tapered	
T.2 = 13.8 [Nm]	D	T.2 = 43 [Nm]	F
			
SCF02 - Splined		SCF04 - Splined	
T.2 = 42.8 [Nm]	L	T.2 = 22.6 [Nm]	J
m=0,75 Z=15		m=1,6 Z=6 DIN 5482 - 12x9	
			
SCF01 - Splined		SCF03 - Splined	
T.2 = 42.8 [Nm]	Q	T.2 = 42.8 [Nm]	R
m=0,75 Z=15		m=0,75 Z=15	
			

Cover		
Left rotation	Right rotation	
		A
		B
		C
		D
 Internal drainage		N
 External drainage		O

Displacement	
TYPE	CODE
XV-1P/0.9	**16**
XV-1P/1.2	**17**
XV-1P/1.7	**18**
XV-1P/2.2	**20**
XV-1P/2.6	**21**
XV-1P/3.2	**23**
XV-1P/3.8	**25**
XV-1P/4.3	**27**
XV-1P/4.9	**29**
XV-1P/5.9	**31**
XV-1P/6.5	**32**
XV-1P/7.8	**34**
XV-1P/9.8	**36**

Standard bodies							
Displacement cm3/rev	Standard threads						
0.9	I - I	B - B	J - J	B - Z	Z - Z	G - F	
1.2	I - I	B - B	J - J	B - Z	Z - Z	G - F	
1.7	I - I	B - B	J - J	B - Z	Z - Z	G - F	
2.2	I - I	B - B	J - J	B - Z	Z - Z	G - F	
2.6	I - I	B - B	J - J	B - Z	Z - Z	G - F	
3.2	I - I	B - B	J - J	B - Z	Z - Z	G - F	
3.8	I - I	B - B	J - J	B - Z	Z - Z	G - F	
4.3	I - I	B - B	J - J	B - Z	Z - Z	G - F	
4.9	I - I	B - B	J - J	B - Z	Z - Z	G - F	
5.9	I - I	B - B	J - J	B - Z	Z - Z	G - F	
6.5	I - I	B - B	J - J	B - Z	Z - Z	G - F	
7.8	I - I	B - B	J - J	B - Z	Z - Z	G - F	
9.8	I - I	B - B	J - J	B - Z	Z - Z	G - F	

Table showing standard flange and thread combinations available in stock

Body (threads/flanges)														
 1/4 BSP	A	 3/8 BSP	B	 1/2 BSP	C	 M14x1.5	D	 M18x1,5	E	 9/16 18 UNF-2B	F	 3/4 16 UNF-2B	G
 M5x0.8 Ø12 Ø26	H	 M6x1 Ø12 Ø30	I	 M6x1 Ø12 45° Ø30	J	Closed Body	Z							

unidirectional pump - series XV

"HY" TYPE PUMP
ø32 BODY-SHAPED FLANGE - MILLED SHANK

XV-1P

X	1	P	25	52	D	B	B	A

Series	X	series XV
Group	1	group 1
Category	P	unidirectional pump
Displacement	25	3.8
Flange	52	Ø32 HY right rotation
Shaft	D	CF002 - Milled shank ø10 - thk.5
Body IN	B	inlet - 3/8" GAS
Body OUT	B	outlet - 3/8" GAS
Cover	A	standard

XP140

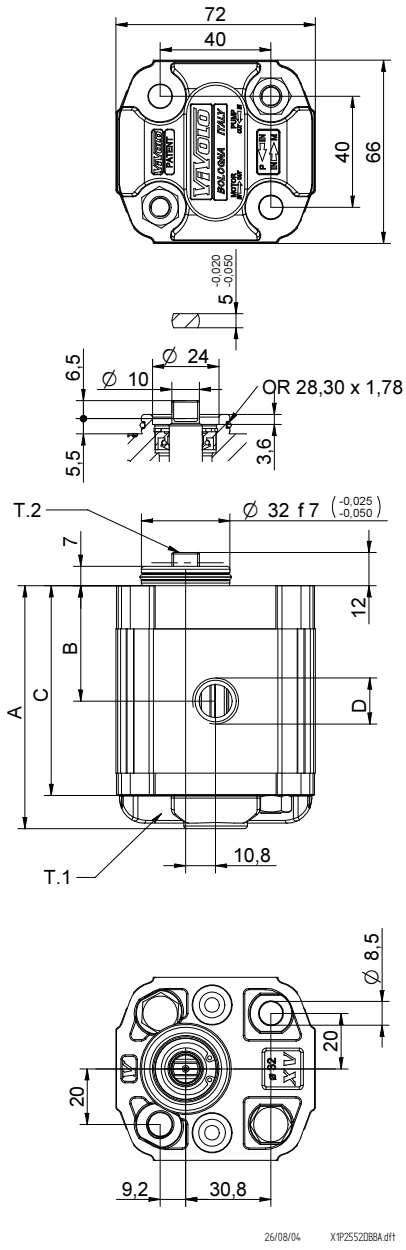
Technical data table

TYPE	Displacement	Max. Pressure		CODE	
	cm3/rev	P1 bar	P3 bar	Left rotation	Right rotation
XV-1P/0.9	0,91	240	280	X 1 P 16 51 D B B A	X 1 P 16 52 D B B A
XV-1P/1.2	1,17	250	290	X 1 P 17 51 D B B A	X 1 P 17 52 D B B A
XV-1P/1.7	1,56	250	290	X 1 P 18 51 D B B A	X 1 P 18 52 D B B A
XV-1P/2.2	2,08	250	290	X 1 P 20 51 D B B A	X 1 P 20 52 D B B A
XV-1P/2.6	2,60	250	300	X 1 P 21 51 D B B A	X 1 P 21 52 D B B A
XV-1P/3.2	3,12	250	300	X 1 P 23 51 D B B A	X 1 P 23 52 D B B A
XV-1P/3.8	3,64	250	300	X 1 P 25 51 D B B A	X 1 P 25 52 D B B A
XV-1P/4.3	4,16	250	300	X 1 P 27 51 D B B A	X 1 P 27 52 D B B A
XV-1P/4.9	4,94	250	300	X 1 P 29 51 D B B A	X 1 P 29 52 D B B A
XV-1P/5.9	5,85	250	300	X 1 P 31 51 D B B A	X 1 P 31 52 D B B A
XV-1P/6.5	6,50	250	300	X 1 P 32 51 D B B A	X 1 P 32 52 D B B A
XV-1P/7.8	7,54	220	260	X 1 P 34 51 D B B A	X 1 P 34 52 D B B A
XV-1P/9.8	9,88	190	230	X 1 P 36 51 D B B A	X 1 P 36 52 D B B A

P1) Max. working pressure - P3) Max. peak pressure
For heavy-duty applications, it is recommended to check the admissible torque of the shaft

Dimensions table

TYPE	Weight	A	B	C	D	D
	kg	mm	mm	mm	IN	OUT
XV-1P/0.9	0,950	77,1	36,3	65,1	3/8" BSPP	3/8" BSPP
XV-1P/1.2	0,970	78,0	36,8	66,0	3/8" BSPP	3/8" BSPP
XV-1P/1.7	1,010	79,5	37,5	67,5	3/8" BSPP	3/8" BSPP
XV-1P/2.2	1,030	81,5	38,5	69,5	3/8" BSPP	3/8" BSPP
XV-1P/2.6	1,060	83,5	39,5	71,5	3/8" BSPP	3/8" BSPP
XV-1P/3.2	1,090	85,5	40,5	73,5	3/8" BSPP	3/8" BSPP
XV-1P/3.8	1,120	87,5	41,5	75,5	3/8" BSPP	3/8" BSPP
XV-1P/4.3	1,170	89,5	42,5	77,5	3/8" BSPP	3/8" BSPP
XV-1P/4.9	1,200	92,5	44,0	80,5	3/8" BSPP	3/8" BSPP
XV-1P/5.9	1,260	96,0	45,8	84,0	3/8" BSPP	3/8" BSPP
XV-1P/6.5	1,300	97,5	47,0	85,5	3/8" BSPP	3/8" BSPP
XV-1P/7.8	1,360	102,5	49,0	90,5	3/8" BSPP	3/8" BSPP
XV-1P/9.8	1,500	111,5	53,5	99,5	3/8" BSPP	3/8" BSPP

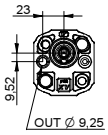
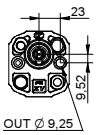
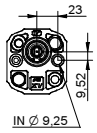
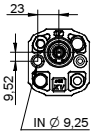
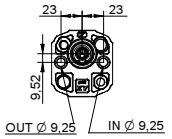
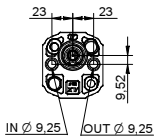


T.1 = 24.5÷29.4 [Nm] - screw tightening torque M8
T.2 = 13.8 [Nm] - admissible shaft torque (N.B. When choosing a shaft, always check the admissible torque).

Table of variations

ø32 "HY" Body-Shaped FLANGE

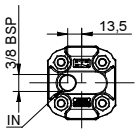
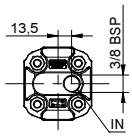
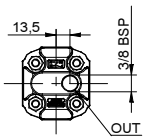
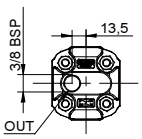
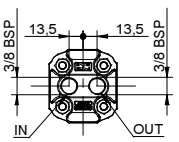
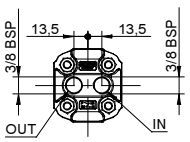
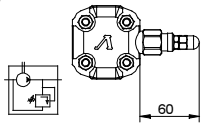
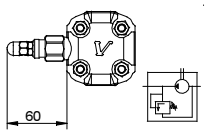
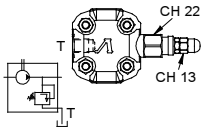
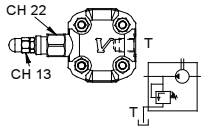
ø32 "HY" Body-Shaped FLANGE

Left rotation		Right rotation	
	51		52
	53		54
	55		56
	57		58

Shaft

CF002 - Milled shank T.2 = 13.8 [Nm]	D	CO001 - Tapered T.2 = 43 [Nm]	F
SCF02 - Splined T.2 = 42.8 [Nm] m=0,75 Z=15	L	SCF04 - Splined T.2 = 22.6 [Nm] m=1,6 Z=6 DIN 5482 - 12x9	J
SCF01 - Splined T.2 = 42.8 [Nm] m=0,75 Z=15	Q	SCF03 - Splined T.2 = 42.8 [Nm] m=0,75 Z=15	R

Cover

Left rotation	Right rotation	
		A
		B
		C
		D
		N
		O

Displacement

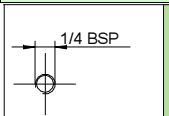
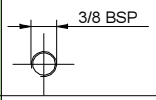
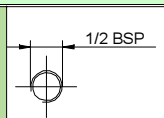
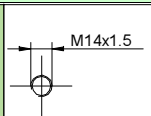
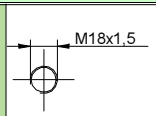
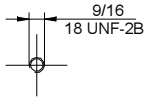
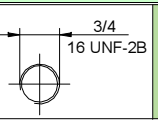
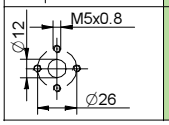
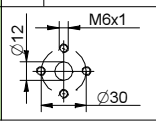
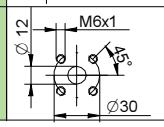
TYPE	CODE
XV-1P/0.9	**16**
XV-1P/1.2	**17**
XV-1P/1.7	**18**
XV-1P/2.2	**20**
XV-1P/2.6	**21**
XV-1P/3.2	**23**
XV-1P/3.8	**25**
XV-1P/4.3	**27**
XV-1P/4.9	**29**
XV-1P/5.9	**31**
XV-1P/6.5	**32**
XV-1P/7.8	**34**
XV-1P/9.8	**36**

Standard bodies

Displacement cm3/rev	Standard threads					
0.9	I - I	B - B	J - J	B - Z	Z - Z	G - F
1.2	I - I	B - B	J - J	B - Z	Z - Z	G - F
1.7	I - I	B - B	J - J	B - Z	Z - Z	G - F
2.2	I - I	B - B	J - J	B - Z	Z - Z	G - F
2.6	I - I	B - B	J - J	B - Z	Z - Z	G - F
3.2	I - I	B - B	J - J	B - Z	Z - Z	G - F
3.8	I - I	B - B	J - J	B - Z	Z - Z	G - F
4.3	I - I	B - B	J - J	B - Z	Z - Z	G - F
4.9	I - I	B - B	J - J	B - Z	Z - Z	G - F
5.9	I - I	B - B	J - J	B - Z	Z - Z	G - F
6.5	I - I	B - B	J - J	B - Z	Z - Z	G - F
7.8	I - I	B - B	J - J	B - Z	Z - Z	G - F
9.8	I - I	B - B	J - J	B - Z	Z - Z	G - F

Table showing standard flange and thread combinations available in stock

Body (threads/flanges)

	A		B		C		D		E		F		G
	H		I		J	Closed Body	Z						

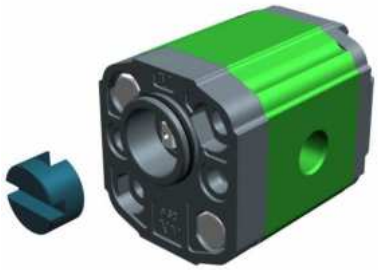
unidirectional pump - series XV

STANDARD GERMAN "BH" TYPE PUMP
ø32 BODY-SHAPED FLANGE - MILLED SHANK

XV-1P

X	1	P	25	32	C	B	B	A

Series	X	series XV
Group	1	group 1
Category	P	unidirectional pump
Displacement	25	3.8
Flange	32	Ø32 BH GERMAN STARDARDIZED right rotation
Shaft	C	CF001 - Milled shank ø10 - thk.5 ("BH" Standard German)
Body IN	B	inlet - 3/8" GAS
Body OUT	B	outlet - 3/8" GAS
Cover	A	standard



XP161

Technical data table

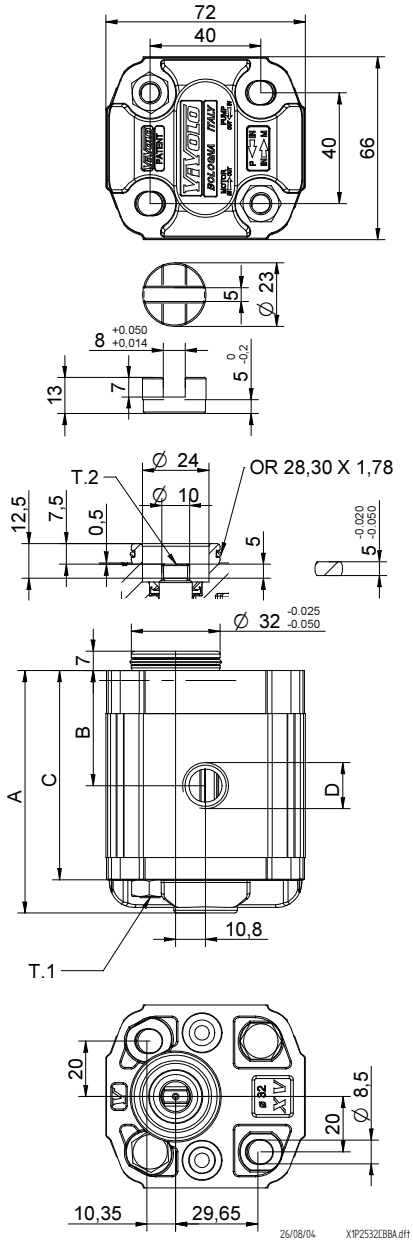
TYPE	Displacement	Max. Pressure		CODE	
	cm3/rev	P1 bar	P3 bar	Left rotation	Right rotation
XV-1P/0.9	0,91	240	280	X 1 P 16 31 C B B A	X 1 P 16 32 C B B A
XV-1P/1.2	1,17	250	290	X 1 P 17 31 C B B A	X 1 P 17 32 C B B A
XV-1P/1.7	1,56	250	290	X 1 P 18 31 C B B A	X 1 P 18 32 C B B A
XV-1P/2.2	2,08	250	290	X 1 P 20 31 C B B A	X 1 P 20 32 C B B A
XV-1P/2.6	2,60	250	300	X 1 P 21 31 C B B A	X 1 P 21 32 C B B A
XV-1P/3.2	3,12	250	300	X 1 P 23 31 C B B A	X 1 P 23 32 C B B A
XV-1P/3.8	3,64	250	300	X 1 P 25 31 C B B A	X 1 P 25 32 C B B A
XV-1P/4.3	4,16	250	300	X 1 P 27 31 C B B A	X 1 P 27 32 C B B A
XV-1P/4.9	4,94	250	300	X 1 P 29 31 C B B A	X 1 P 29 32 C B B A
XV-1P/5.9	5,85	250	300	X 1 P 31 31 C B B A	X 1 P 31 32 C B B A
XV-1P/6.5	6,50	250	300	X 1 P 32 31 C B B A	X 1 P 32 32 C B B A
XV-1P/7.8	7,54	220	260	X 1 P 34 31 C B B A	X 1 P 34 32 C B B A
XV-1P/9.8	9,88	190	230	X 1 P 36 31 C B B A	X 1 P 36 32 C B B A

P1) Max. working pressure - P3) Max. peak pressure

For heavy-duty applications, it is recommended to check the admissible torque of the shaft

Dimensions table

TYPE	Weight	A	B	C	D	D
	kg	mm	mm	mm	IN	OUT
XV-1P/0.9	0,950	77,1	36,3	65,1	3/8" BSPP	3/8" BSPP
XV-1P/1.2	0,970	78,0	36,8	66,0	3/8" BSPP	3/8" BSPP
XV-1P/1.7	1,010	79,5	37,5	67,5	3/8" BSPP	3/8" BSPP
XV-1P/2.2	1,030	81,5	38,5	69,5	3/8" BSPP	3/8" BSPP
XV-1P/2.6	1,060	83,5	39,5	71,5	3/8" BSPP	3/8" BSPP
XV-1P/3.2	1,090	85,5	40,5	73,5	3/8" BSPP	3/8" BSPP
XV-1P/3.8	1,120	87,5	41,5	75,5	3/8" BSPP	3/8" BSPP
XV-1P/4.3	1,170	89,5	42,5	77,5	3/8" BSPP	3/8" BSPP
XV-1P/4.9	1,200	92,5	44,0	80,5	3/8" BSPP	3/8" BSPP
XV-1P/5.9	1,260	96,0	45,8	84,0	3/8" BSPP	3/8" BSPP
XV-1P/6.5	1,300	97,5	47,0	85,5	3/8" BSPP	3/8" BSPP
XV-1P/7.8	1,360	102,5	49,0	90,5	3/8" BSPP	3/8" BSPP
XV-1P/9.8	1,500	111,5	53,5	99,5	3/8" BSPP	3/8" BSPP



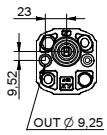
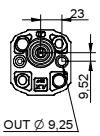
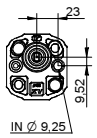
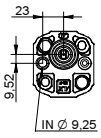
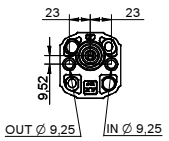
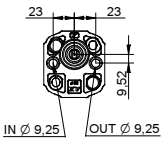
T.1 = 24.5÷29.4 [Nm] - screw tightening torque M8

T.2 = 13.8 [Nm] - admissible shaft torque (N.B. When choosing a shaft, always check the admissible torque).

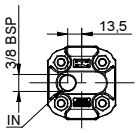
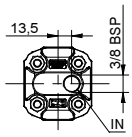
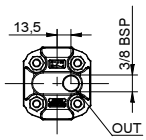
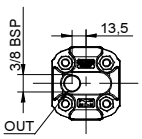
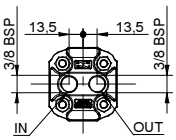
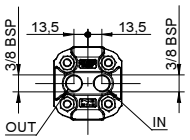
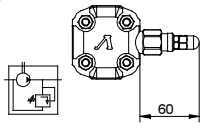
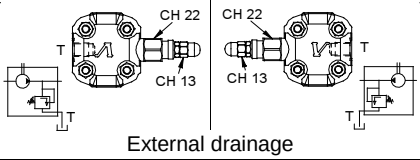
Table of variations

Standard German ø32 "BH" FLANGE

XV-1P

Standard German ø32 "BH" FLANGE			
Left rotation		Right rotation	
	31		32
	33		34
	35		36
	37		38

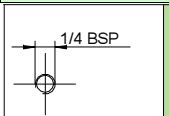
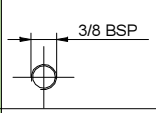
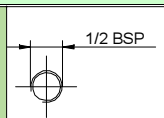
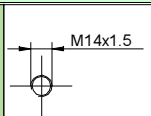
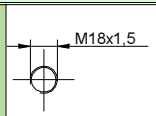
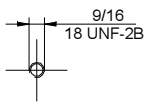
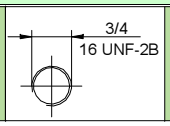
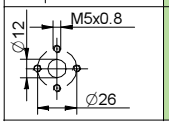
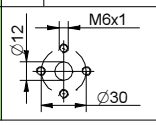
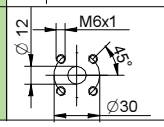
Shaft			
CF001 - Milled shank T.2 = 13.8 [Nm]	C	SCF01 - Splined T.2 = 42.8 [Nm]	Q
SCF03 - Splined T.2 = 42.8 [Nm]	R		

Cover		
Left rotation	Right rotation	
		A
		B
		C
		D
 Internal drainage		N
 External drainage		O

Displacement	
TYPE	CODE
XV-1P/0.9	**16**
XV-1P/1.2	**17**
XV-1P/1.7	**18**
XV-1P/2.2	**20**
XV-1P/2.6	**21**
XV-1P/3.2	**23**
XV-1P/3.8	**25**
XV-1P/4.3	**27**
XV-1P/4.9	**29**
XV-1P/5.9	**31**
XV-1P/6.5	**32**
XV-1P/7.8	**34**
XV-1P/9.8	**36**

Standard bodies						
Displacement cm3/rev	Standard threads					
0.9	I - I	B - B	J - J	B - Z	Z - Z	G - F
1.2	I - I	B - B	J - J	B - Z	Z - Z	G - F
1.7	I - I	B - B	J - J	B - Z	Z - Z	G - F
2.2	I - I	B - B	J - J	B - Z	Z - Z	G - F
2.6	I - I	B - B	J - J	B - Z	Z - Z	G - F
3.2	I - I	B - B	J - J	B - Z	Z - Z	G - F
3.8	I - I	B - B	J - J	B - Z	Z - Z	G - F
4.3	I - I	B - B	J - J	B - Z	Z - Z	G - F
4.9	I - I	B - B	J - J	B - Z	Z - Z	G - F
5.9	I - I	B - B	J - J	B - Z	Z - Z	G - F
6.5	I - I	B - B	J - J	B - Z	Z - Z	G - F
7.8	I - I	B - B	J - J	B - Z	Z - Z	G - F
9.8	I - I	B - B	J - J	B - Z	Z - Z	G - F

Table showing standard flange and thread combinations available in stock

Body (threads/flanges)															
 1/4 BSP	A	 3/8 BSP	B	 1/2 BSP	C	 M14x1.5	D	 M18x1,5	E	 9/16 18 UNF-2B	F	 3/4 16 UNF-2B	G		
 M5x0.8	H	 M6x1	I	 M6x1	J	Closed Body	Z								

X	1	P	25	62	B	B	B	A

Series	X	series XV
Group	1	group 1
Category	P	unidirectional pump
Displacement	25	3.8
Flange	62	Ø50.8 SAE AA right rotation
Shaft	B	CI002 - Parallel ø12.7 - key thk. 3.2 (SAE AA)
Body IN	B	inlet - 3/8" GAS
Body OUT	B	outlet - 3/8" GAS
Cover	A	standard

XP168

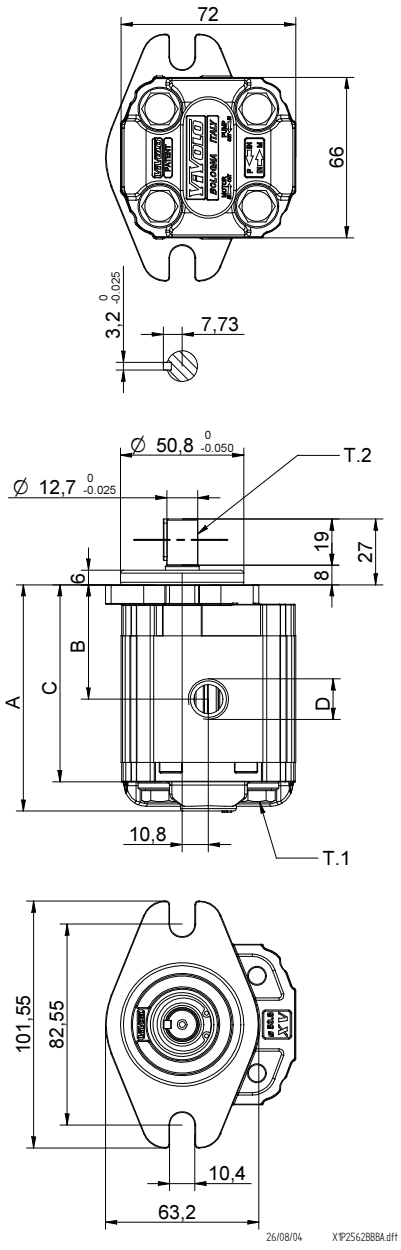
Technical data table

TYPE	Displacement	Max. Pressure		CODE	
	cm3/rev	P1 bar	P3 bar	Left rotation	Right rotation
XV-1P/0.9	0,91	240	280	X 1 P 16 61 B B B A	X 1 P 16 62 B B B A
XV-1P/1.2	1,17	250	290	X 1 P 17 61 B B B A	X 1 P 17 62 B B B A
XV-1P/1.7	1,56	250	290	X 1 P 18 61 B B B A	X 1 P 18 62 B B B A
XV-1P/2.2	2,08	250	290	X 1 P 20 61 B B B A	X 1 P 20 62 B B B A
XV-1P/2.6	2,60	250	300	X 1 P 21 61 B B B A	X 1 P 21 62 B B B A
XV-1P/3.2	3,12	250	300	X 1 P 23 61 B B B A	X 1 P 23 62 B B B A
XV-1P/3.8	3,64	250	300	X 1 P 25 61 B B B A	X 1 P 25 62 B B B A
XV-1P/4.3	4,16	250	300	X 1 P 27 61 B B B A	X 1 P 27 62 B B B A
XV-1P/4.9	4,94	250	300	X 1 P 29 61 B B B A	X 1 P 29 62 B B B A
XV-1P/5.9	5,85	250	300	X 1 P 31 61 B B B A	X 1 P 31 62 B B B A
XV-1P/6.5	6,50	250	300	X 1 P 32 61 B B B A	X 1 P 32 62 B B B A
XV-1P/7.8	7,54	220	260	X 1 P 34 61 B B B A	X 1 P 34 62 B B B A
XV-1P/9.8	9,88	190	230	X 1 P 36 61 B B B A	X 1 P 36 62 B B B A

P1) Max. working pressure - P3) Max. peak pressure
For heavy-duty applications, it is recommended to check the admissible torque of the shaft

Dimensions table

TYPE	Weight	A	B	C	D	D
	kg	mm	mm	mm	IN	OUT
XV-1P/0.9	1,000	82,6	41,8	70,6	3/8" BSPP	3/8" BSPP
XV-1P/1.2	1,020	83,5	42,3	71,5	3/8" BSPP	3/8" BSPP
XV-1P/1.7	1,060	85,0	43,0	73,0	3/8" BSPP	3/8" BSPP
XV-1P/2.2	1,080	87,0	44,0	75,0	3/8" BSPP	3/8" BSPP
XV-1P/2.6	1,110	89,0	45,0	77,0	3/8" BSPP	3/8" BSPP
XV-1P/3.2	1,140	91,0	46,0	79,0	3/8" BSPP	3/8" BSPP
XV-1P/3.8	1,170	93,0	47,0	81,0	3/8" BSPP	3/8" BSPP
XV-1P/4.3	1,220	95,0	48,0	83,0	3/8" BSPP	3/8" BSPP
XV-1P/4.9	1,250	98,0	49,5	86,0	3/8" BSPP	3/8" BSPP
XV-1P/5.9	1,310	101,5	51,3	89,5	3/8" BSPP	3/8" BSPP
XV-1P/6.5	1,350	105,0	52,5	93,0	3/8" BSPP	3/8" BSPP
XV-1P/7.8	1,410	108,0	54,5	96,0	3/8" BSPP	3/8" BSPP
XV-1P/9.8	1,550	117,0	59,0	105,0	3/8" BSPP	3/8" BSPP



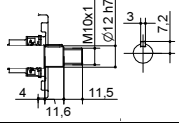
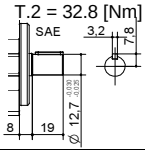
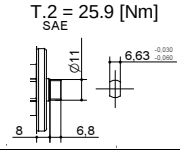
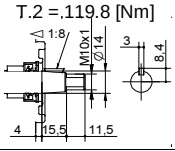
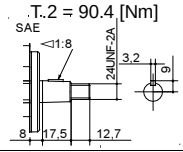
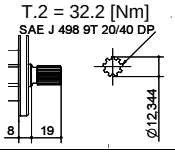
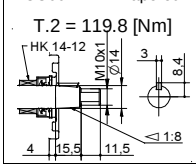
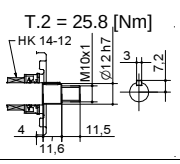
T.1 = 24.5÷29.4 [Nm] - screw tightening torque M8
T.2 = 32.8 [Nm] - admissible shaft torque (N.B. When choosing a shaft, always check the admissible torque).

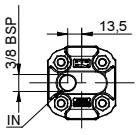
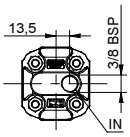
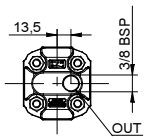
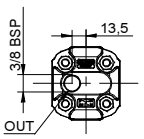
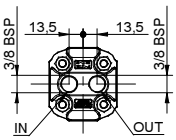
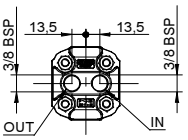
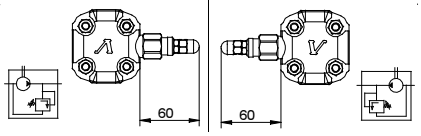
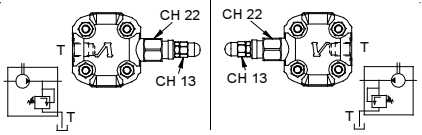
Table of variations

ø50.8 FLANGE "SAE AA"

XV-1P

ø50.8 FLANGE "SAE AA"			
Left rotation		Right rotation	
	61		62

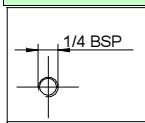
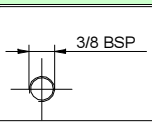
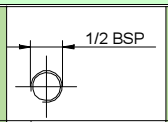
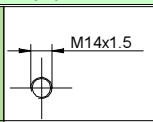
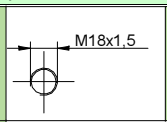
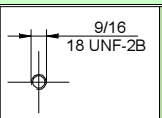
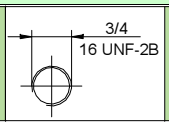
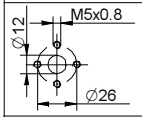
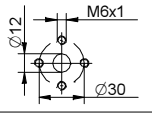
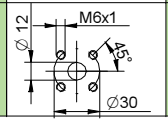
Shaft			
CI001 - Parallel T.2 = 25.8 [Nm] 	A	CI002 - Parallel T.2 = 32.8 [Nm] 	B
CF003 - Milled shank T.2 = 25.9 [Nm] 	E	CO002 - Tapered T.2 =.119.8 [Nm] 	G
CO004 - Tapered T.2 = 90.4 [Nm] 	I	SCF05 - Splined T.2 = 32.2 [Nm] 	K
CO002+HK - Tapered T.2 = 119.8 [Nm] 	O	CI001+HK - Parallel T.2 = 25.8 [Nm] 	P

Cover		
Left rotation	Right rotation	
		A
		B
		C
		D
 Internal drainage		N
 External drainage		O

Displacement	
TYPE	CODE
XV-1P/0.9	16
XV-1P/1.2	17
XV-1P/1.7	18
XV-1P/2.2	20
XV-1P/2.6	21
XV-1P/3.2	23
XV-1P/3.8	25
XV-1P/4.3	27
XV-1P/4.9	29
XV-1P/5.9	31
XV-1P/6.5	32
XV-1P/7.8	34
XV-1P/9.8	36

Standard bodies						
Displacement cm3/rev	Standard threads					
0.9	I - I	B - B	J - J	B - Z	Z - Z	G - F
1.2	I - I	B - B	J - J	B - Z	Z - Z	G - F
1.7	I - I	B - B	J - J	B - Z	Z - Z	G - F
2.2	I - I	B - B	J - J	B - Z	Z - Z	G - F
2.6	I - I	B - B	J - J	B - Z	Z - Z	G - F
3.2	I - I	B - B	J - J	B - Z	Z - Z	G - F
3.8	I - I	B - B	J - J	B - Z	Z - Z	G - F
4.3	I - I	B - B	J - J	B - Z	Z - Z	G - F
4.9	I - I	B - B	J - J	B - Z	Z - Z	G - F
5.9	I - I	B - B	J - J	B - Z	Z - Z	G - F
6.5	I - I	B - B	J - J	B - Z	Z - Z	G - F
7.8	I - I	B - B	J - J	B - Z	Z - Z	G - F
9.8	I - I	B - B	J - J	B - Z	Z - Z	G - F

Table showing standard flange and thread combinations available in stock

Body (threads/flanges)															
 1/4 BSP	A	 3/8 BSP	B	 1/2 BSP	C	 M14x1.5	D	 M18x1,5	E	 9/16 18 UNF-2B	F	 3/4 16 UNF-2B	G
 M5x0.8 Ø12 Ø26	H	 M6x1 Ø12 Ø30	I	 M6x1 Ø12 45° Ø30	J	Closed Body	Z								