



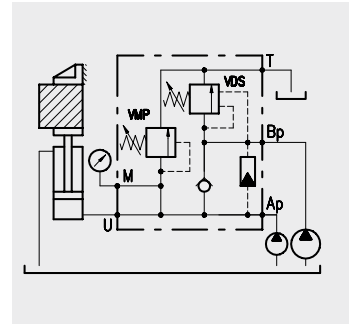
**Sequence  
valves**

**Automatic  
reversing  
valves**

Hydraulic diagram	Type	Description	Maximum flow up to			Maximum pressure		Page
			line	l/min	US gpm	bar	psi	
	VEP	High/Low pressure cut-out valve	Ap line Bp line U line	80 200 250	21 53 66	350	5100	33

**Operation**

Recommended for systems powered by two pumps where double speed (fast-slow sequence) is made available. Fast speed is obtained by summing up both pumps capacity up to the setting value of the VDS valve. Slow speed according to the small pump is obtained by later discharge of the bigger pump. Working pressure during slow speed is controlled by the VMP valve.



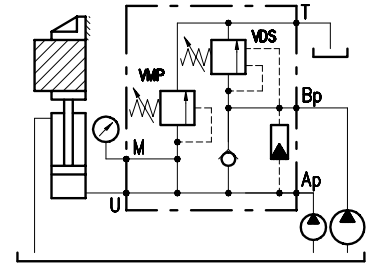
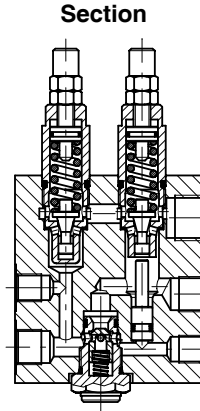
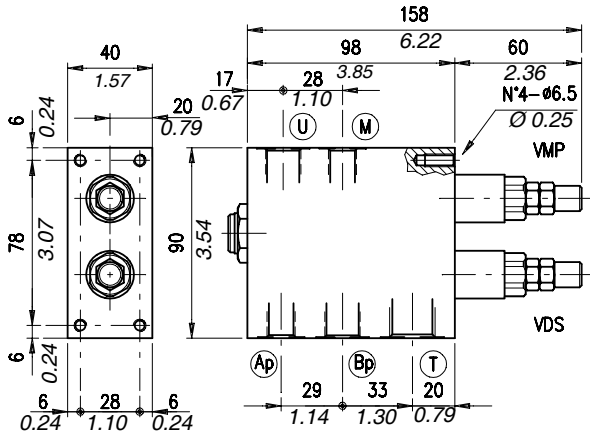
**Performance**

**Body Valves**

Type VEP	Maximum flow			Maximum pressure		Application range with standard springs "Ap" (VMP)*	Application range with standard springs "Bp" (VDS)	Weight				
	line	l/min	US gpm	bar	psi			kg	lb			
VEP 38	Ap line	10	2.6	250 aluminium body	3600 alum. body	50÷220 bar - 725÷3200 psi (test setting 180 bar - 2600 psi 5 l/min. - 1.32 US gpm)	5÷40 bar - 72.5÷580 psi (test setting 30 bar - 435 psi at 5 l/min. - 1.32 US gpm)	1,20	2.64			
	Bp line	25	6.6					aluminium				
	U line	30	8					2,63	5.80			
VEP 12	Ap line	20	5.3				350 steel body	5100 steel body	180÷350 bar - 2600÷5100 psi (test setting 280 bar - 4050 psi 5 l/min. - 1.32 US gpm)	20÷80 bar - 290÷1150 psi (test setting 60 bar - 870 psi at 5 l/min. - 1.32 US gpm)	2,05	4.52
	Bp line	45	12								aluminium	
	U line	55	14.5								4,50	9.92
VEP 34	Ap line	30	8				350 steel body	5100 steel body	180÷350 bar - 2600÷5100 psi (test setting 280 bar - 4050 psi 5 l/min. - 1.32 US gpm)	10÷50 bar - 145÷725 psi (test setting 30 bar - 435 psi at 5 l/min. - 1.32 US gpm)	3,77	8.31
	Bp line	80	21								aluminium	
	U line	100	26								9,37	20.66
VEP 100	Ap line	50	13				350 steel body	5100 steel body	180÷350 bar - 2600÷5100 psi (test setting 280 bar - 4050 psi 5 l/min. - 1.32 US gpm)	5÷40 bar - 72.5÷580 psi (test setting 30 bar - 435 psi at 5 l/min. - 1.32 US gpm)	5,85	12.90
	Bp line	150	40								aluminium	
	U line	180	48								13,50	29.76
VEP 114	Ap line	80	2	350 steel body	5100 steel body	50÷220 bar - 725÷3200 psi (test setting 160 bar - 2300 psi at 5 l/min. - 1.32 US gpm)	20÷80 bar - 290÷1150 psi (test setting 60 bar - 870 psi at 5 l/min. - 1.32 US gpm)	8,40	18.52			
	Bp line	200	53					aluminium				
	U line	250	66					19,50	42.99			
								steel				

\*To perform setting of the valve see the pressure drop/flow diagram.

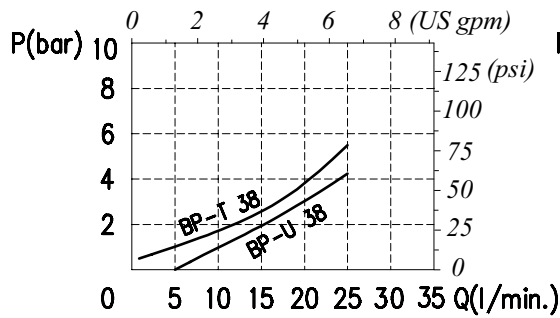
## Dimensions and hydraulic circuit



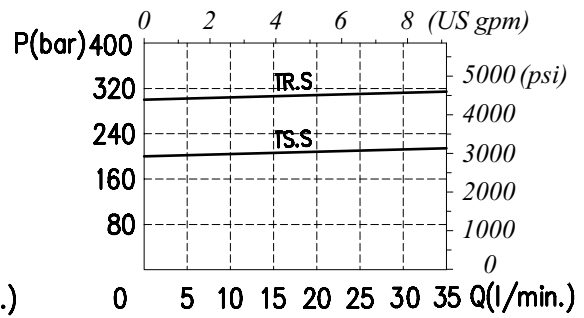
VEP	U	M	T	Ap	Bp
38	G 3/8	G 1/4	G 1/2	G 1/4	G 3/8

## Rating diagrams

Pressure drop diagram



Adjustment diagram



## Order code

VEP 38 / □□ - □□ . □ - S / □□

Pressure setting AP

Pressure settings BP

Adjustment

Body material

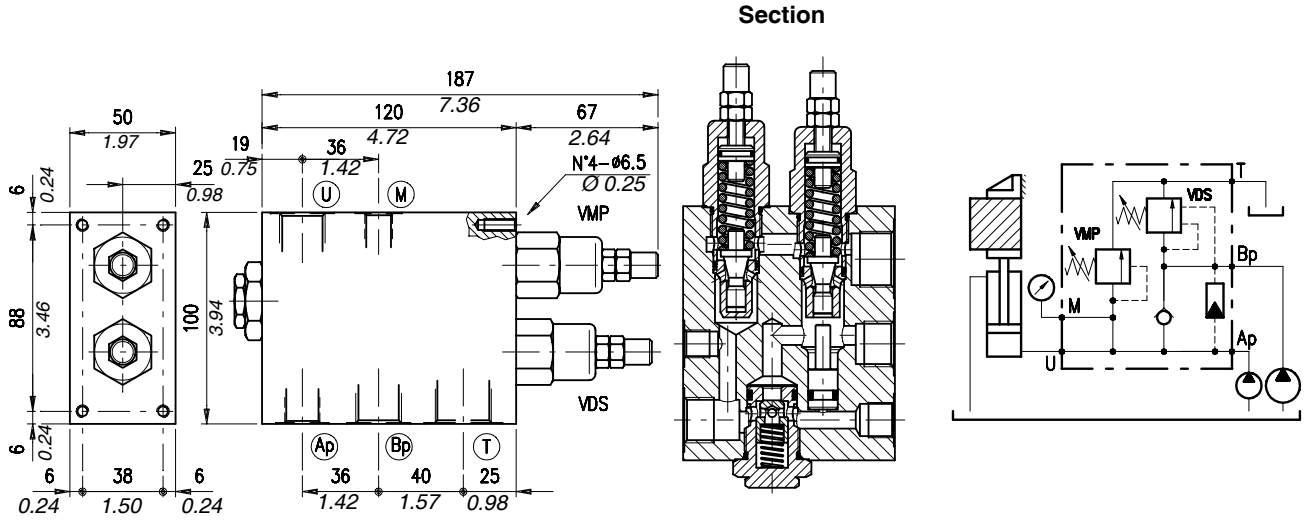
TS) 50÷220 bar (725÷3200 psi)  
TR) 180÷350 bar (2600÷5100 psi)

TB) 5÷40 bar (72.5÷580 psi)  
TV) 20÷80 bar (290÷1150 psi)

AP  
(see page 80)  
S (screw)  
V (handknob)  
W (copped adjustment)

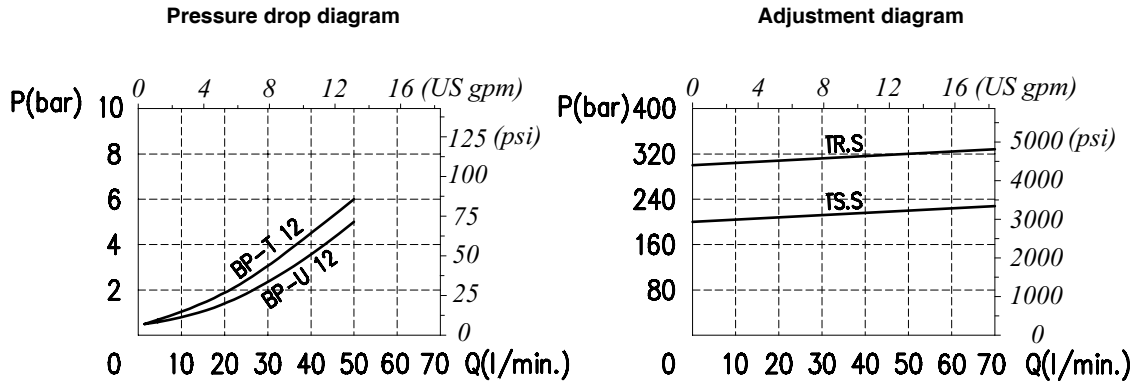
\_ Aluminium  
ac Steel

**Dimensions and hydraulic circuit**



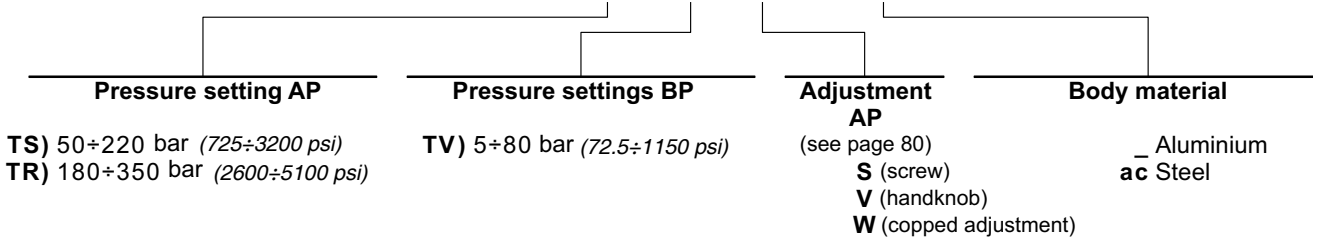
VEP	U	M	T	Ap	Bp
12	G 1/2	G 1/4	G 3/4	G 3/8	G 1/2

**Rating diagrams**

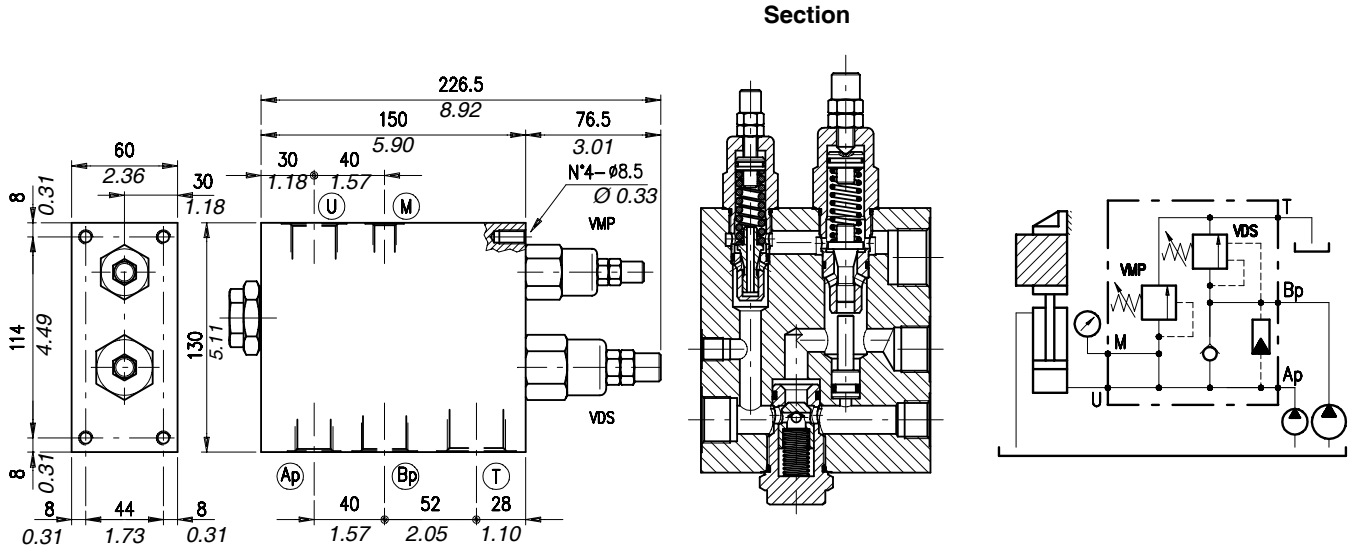


**Order code**

**VEP 12 / □□ - □□ . □ - S / □□**

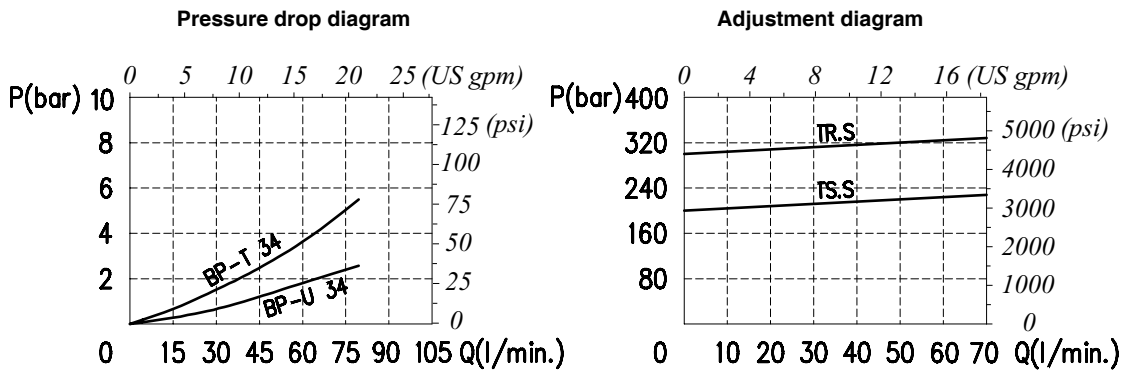


## Dimensions and hydraulic circuit



VEP	U	M	T	Ap	Bp
34	G 3/4	G 1/4	G 1"	G 1/2	G 3/4

## Rating diagrams



## Order code

VEP 34 / □□ - □□ . □ - S / □□

Pressure settings AP

Pressure settings BP

Adjustment AP

Body material

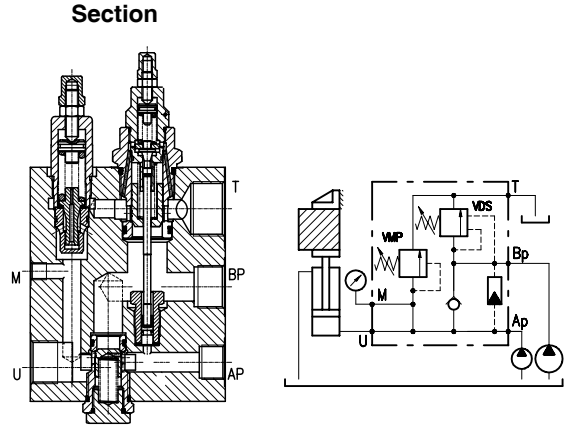
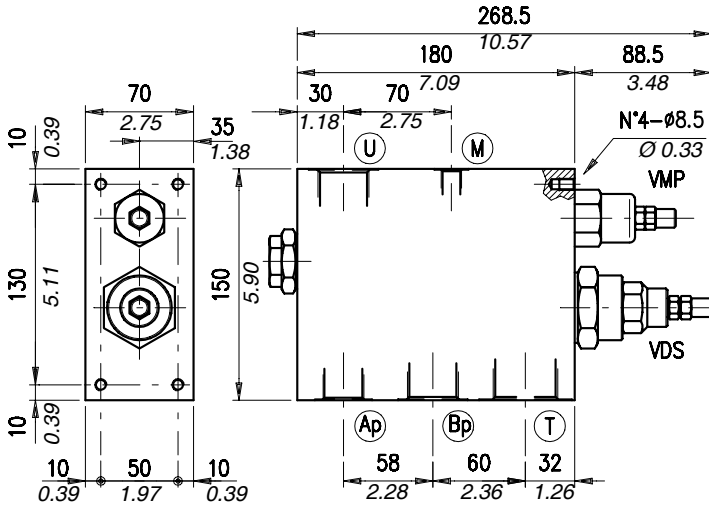
TS) 50÷220 bar (725÷3200 psi)  
TR) 180÷350 bar (2600÷5100 psi)

TB) 10÷50 bar (145÷725 psi)  
TV) 10÷80 bar (145÷1150 psi)  
TS) 50÷110 bar (725÷1600 psi)

(see page 80)  
S (screw)  
V (handknob)  
W (copped adjustment)

Aluminium  
ac Steel

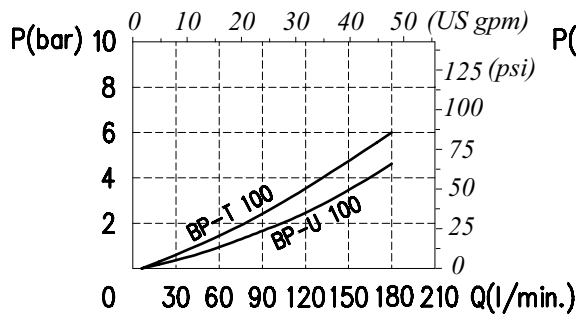
**Dimensions and hydraulic circuit**



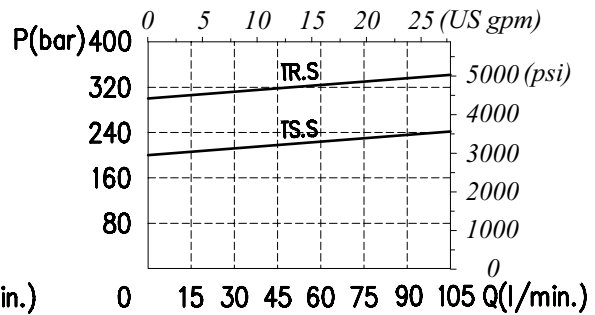
VEP	U	M	T	Ap	Bp
100	G 1"	G 1/4	G1" 1/4	G 3/4	G 1"

**Rating diagrams**

Pressure drop diagram



Adjustment diagram



**Order code**

**VEP 100 / □□ - □□ . □ - S / □□**

Pressure settings AP

Pressure settings BP

Adjustment  
AP

Body material

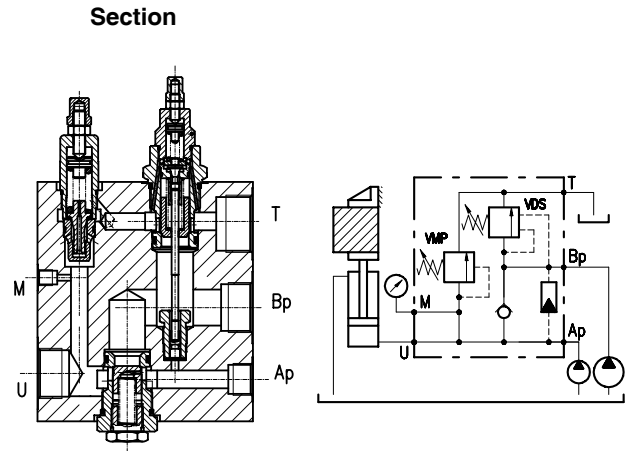
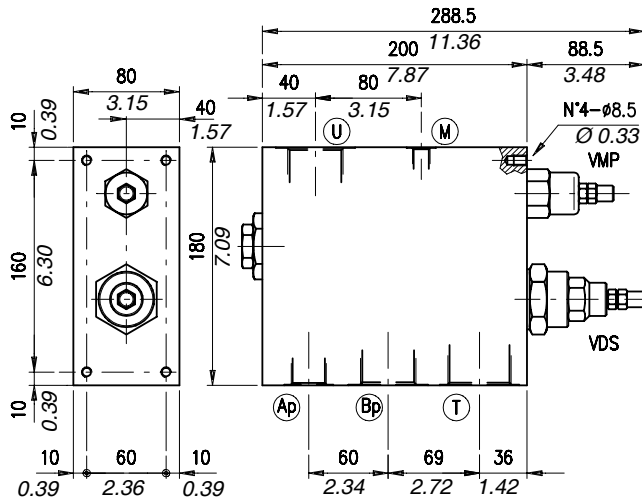
TS) 50÷220 bar (725÷3200 psi)  
TR) 180÷350 bar (2600÷5100 psi)

TB) 5÷40 bar (72.5÷580 psi)  
TV) 20÷80 bar (290÷1150 psi)  
TS) 50÷220 bar (725÷3200 psi)

(see page 80)  
S (screw)  
V (handknob)  
W (copped adjustment)

\_ Aluminium  
ac Steel

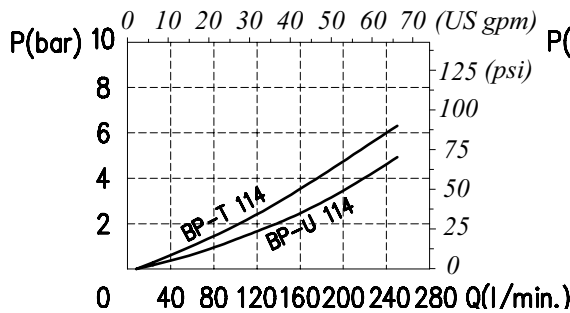
## Dimensions and hydraulic circuit



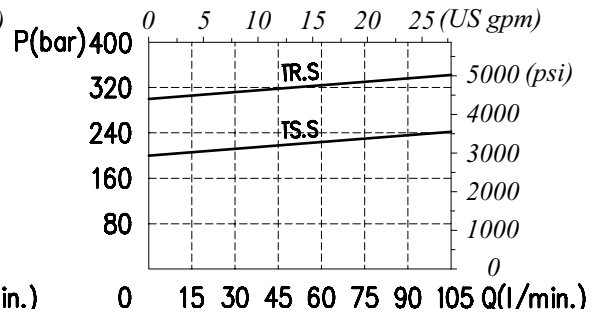
VEP	U	M	T	Ap	Bp
114	G 1" 1/4	G 1/4	G 1" 1/2	G 3/4	G 1" 1/4

## Rating diagrams

Pressure drop diagram



Adjustment diagram



## Order code

VEP 114 / □□ - □□ . □ - S / □□

Pressure settings AP

Pressure settings BP

Adjustment AP

Body material

TS) 50÷220 bar (725÷3200 psi)  
TR) 180÷350 bar (2600÷5100 psi)

TB) 5÷40 bar (72.5÷580 psi)  
TV) 20÷80 bar (290÷1150 psi)  
TS) 50÷220 bar (725÷3200 psi)

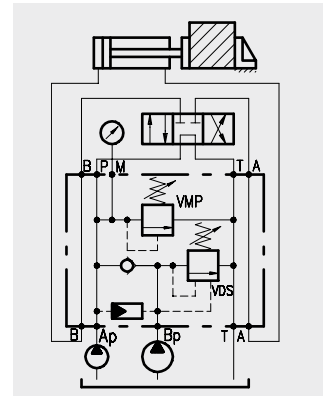
(see page 80)  
S (screw)  
V (handknob)  
W (copped adjustment)

Aluminium  
ac Steel



**Operation**

High-Low pressure cut-out valve with "NG 6", "NG 10" and "NG 16" flange . Recommended for systems powered by two pumps where double speed (fast-slow sequence) is made available. Fast speed is obtained by summing up both pumps capacity up to the setting value of the VDS valve. Slow speed according to the small pump is obtained by later discharge of the bigger pump. Working pressure during slow speed is controlled by the VMP valve.



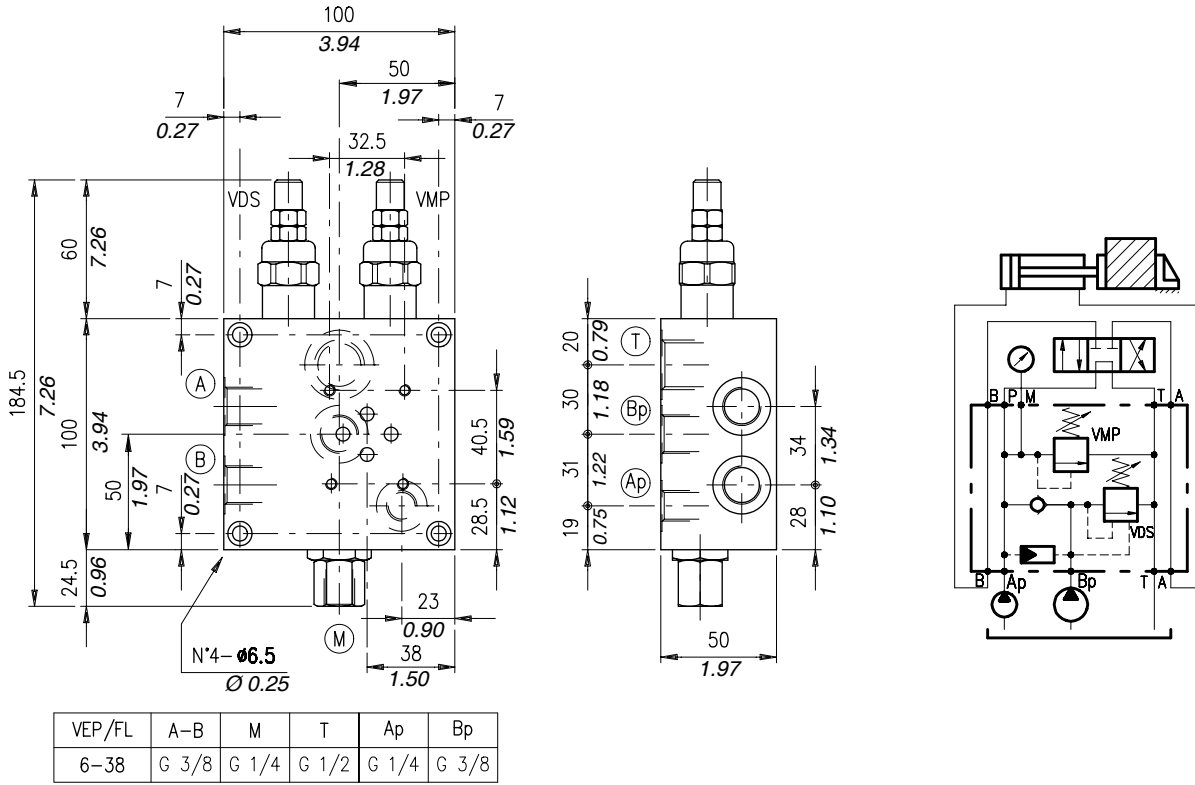
**Performance**

**Body Valves**

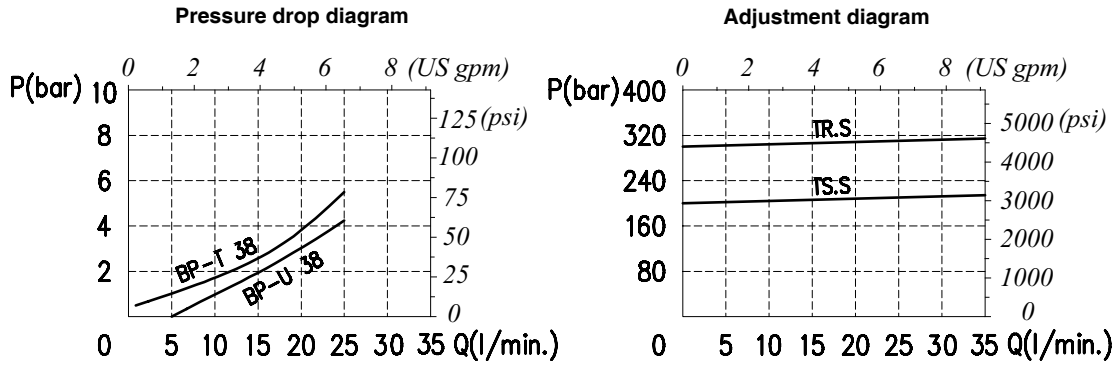
Type	Maximum flow			Maximum pressure		Application range with standard springs "Ap" (VMP) *	Application range with standard springs "Bp" (VDS)	Weight	
	line	l/min	US gpm	bar	psi			kg	lb
VEP /FL 6-38	Ap line	10	2.6	210 alum. body	3050 alum. body	50÷220 bar - 725÷3200 psi (test setting 180 bar - 2600 psi at 5 l/min. - 1.32 US gpm)	5÷40 bar - 72.5÷580 psi (test setting 30 bar - 435 psi at 5 l/min. - 1.32 US gpm)	1,54	3.39
	Bp line	25	6.6				20÷80 bar - 290÷1160 psi (test setting 60 bar - 870 psi at 5 l/min. - 1.32 US gpm)	3,53	7.78
	P line	30	8						
VEP /FL 10-12	Ap line	20	5.3	350 steel body	5100 steel body	180÷350 bar - 2600÷5100 psi (test setting 280 bar - 4050 psi at 5 l/min. - 1.32 US gpm)	5÷40 bar - 72.5÷580 psi (test setting 40 bar - 580 psi at 5 l/min. - 1.32 US gpm)	3,09	6.81
	Bp line	45	12				20÷80 bar - 290÷1150 psi (test setting 70 bar - 1000 psi at 5 l/min. - 1.32 US gpm)	6,35	14.00
	P line	55	14.5						
VEP /FL 16-34	Ap line	30	8				10÷50 bar - 145÷725 psi (test setting 30 bar - 435 psi at 5 l/min. - 1.32 US gpm)	6,38	14.06
	Bp line	80	21				10÷80 bar - 145÷1150 psi (test setting 50 bar - 725 psi at 5 l/min. - 1.32 US gpm)	16,50	36.38
VEP /FL 16-100	P line	100	26				50÷110 bar - 725 ÷ 1600 psi (test setting 80 bar - 1150 psi at 5 l/min. - 1.32 US gpm)		

\*To perform setting of the valve see the pressure drop/flow diagram.

## Dimensions and hydraulic circuit

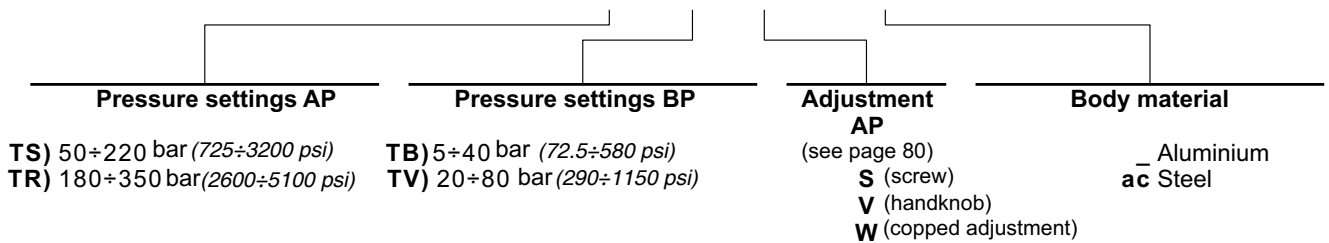


## Rating diagrams

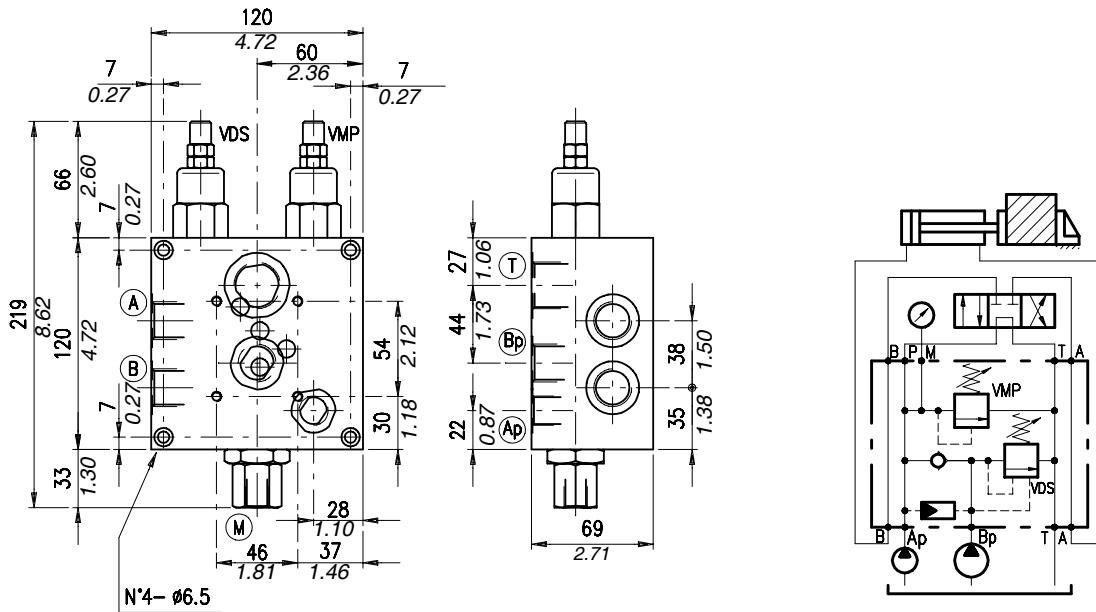


## Order code

VEP /FL 6-38 /□□ - □□ . □ - S / □□

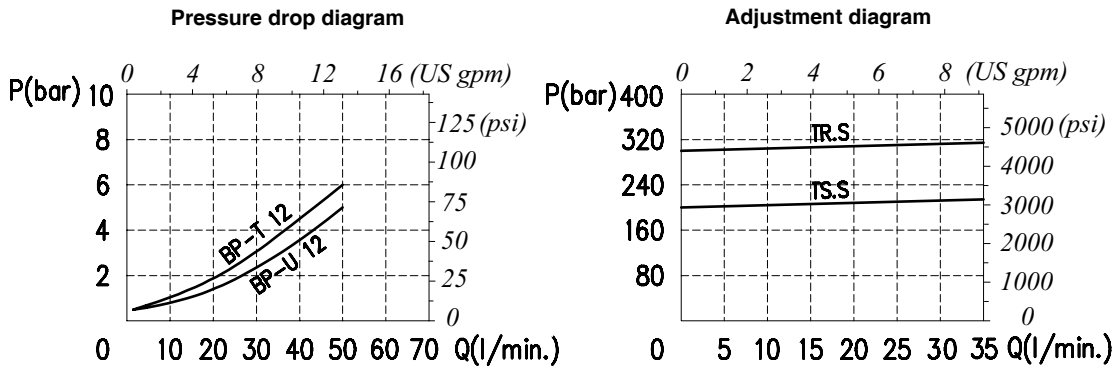


Dimensions and hydraulic circuit



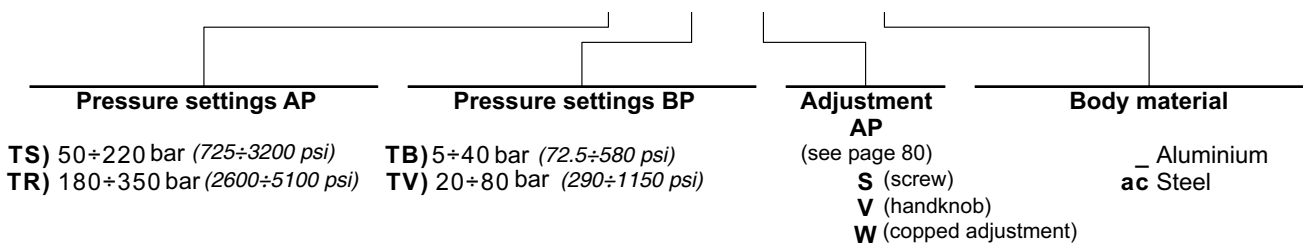
VEP/FL	A-B	M	T	Ap	Bp
10-12	G 1/2	G 1/4	G 3/4	G 3/8	G 1/2

Rating diagrams



Order code

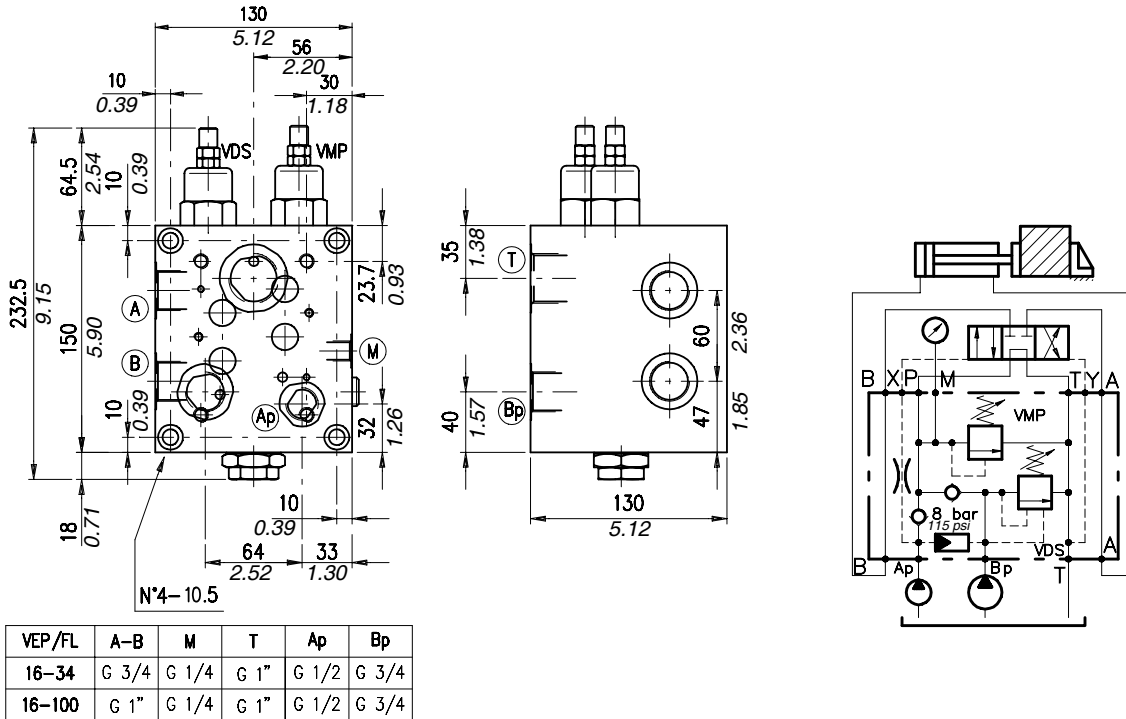
VEP /FL 10-12 /□□ - □□ . □ - S / □□



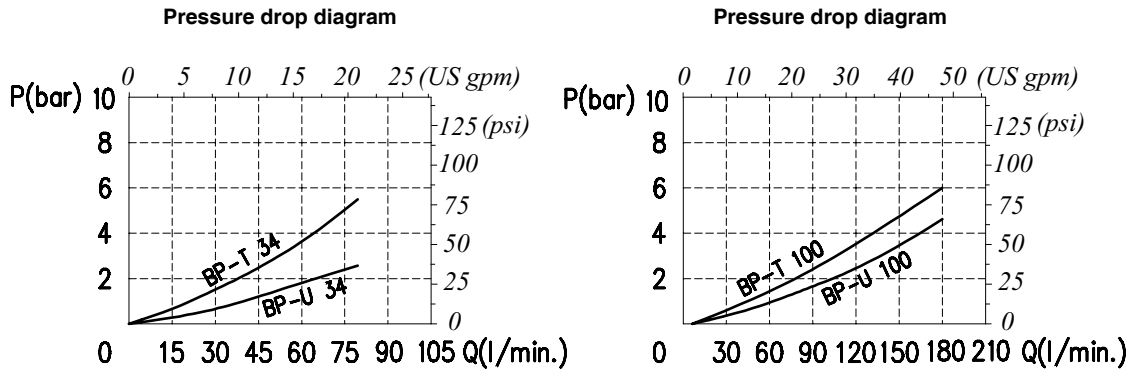
# Type VEP /FL 16-34 (100)

High-Low pressure cut-out valve with "NG 6" flange

## Dimensions and hydraulic circuit



## Rating diagrams



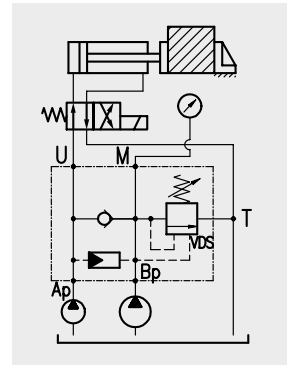
## Order code

### VEP /FL 16-□□ / □□ - □□ . □ - S / □□

Port size	Pressure settings AP	Pressure settings BP	Adjustments AP	Body material
34) G 3/4 100) G 1"	TS) 50÷220 bar (725÷3200 psi) TR) 180÷350 bar (2600÷5100 psi)	TB) 10÷50 bar (145÷725 psi) TV) 10÷80 bar (145÷1150 psi) TS) 50÷110 bar (725÷1600 psi)	AP (see page 80) S (screw) V (handknob) W (copped adjustment)	- Aluminium a c Steel

**Operation**

Recommended for systems powered by two pumps where double speed (fast-slow sequence) is made available: fast speed is obtained by summing up both pumps capacity up to the setting value of the VDS valve. Slow speed according to the small pump is obtained by later discharge of the bigger pump.



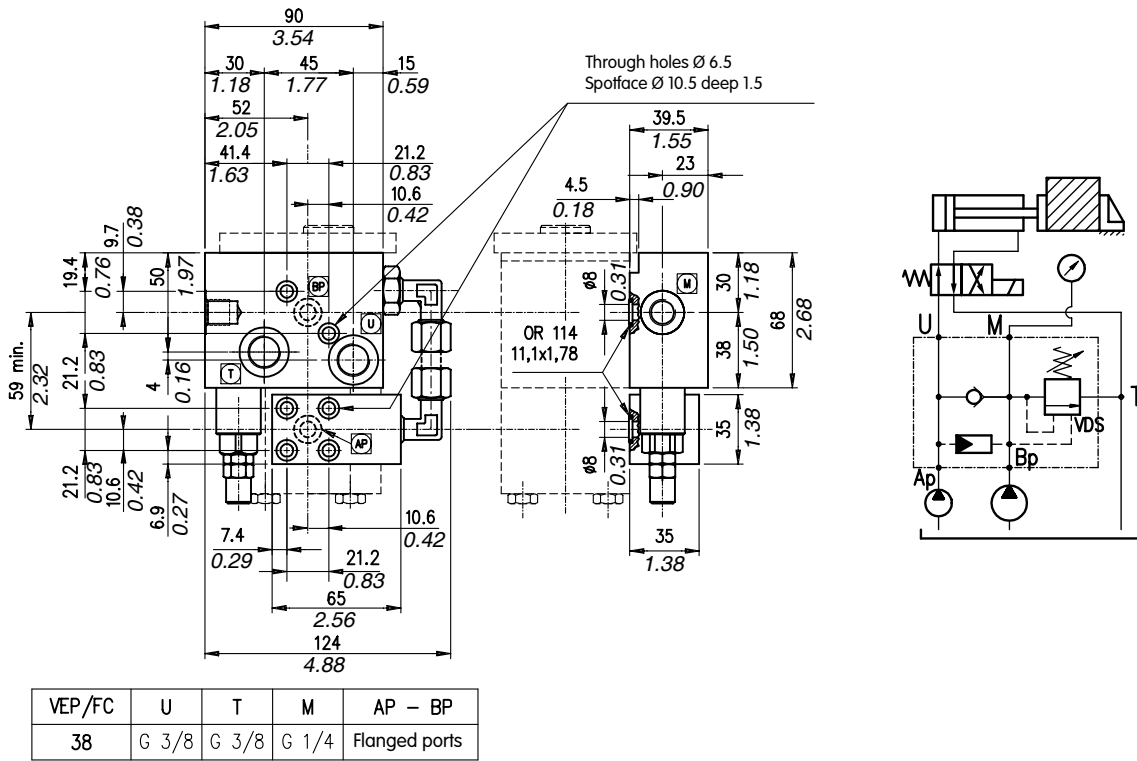
**Performance**

**Body Valves**

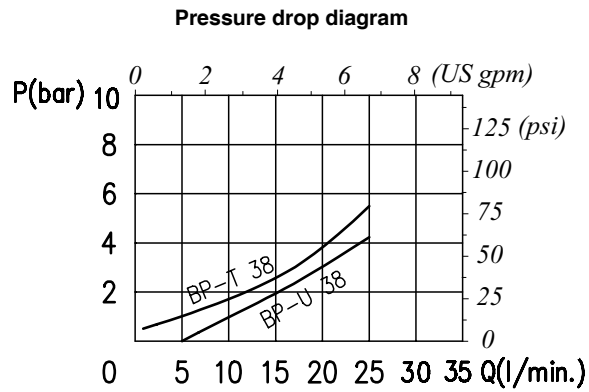
Type	Maximum flow			Maximum pressure		Application range with standard springs "Bp" (VDS)*	Weight	
	line	l/min	US gpm	bar	psi		kg	lb
VEP /FC 38-gr 1+1-PLP	Ap line	10	2.6	210	3050	5÷40 bar - 72.5÷580 psi (test setting 30 bar - 435 psi at 5 l/min. - 1.32 US gpm)	1,1	2.42
	Bp line	25	6.6	aluminium body	alum. body		aluminium	
	P line	30	8	350	5100	20÷80 bar - 290÷1160 psi (test setting 60 bar - 870 psi at 5 l/min. - 1.32 US gpm)	3	6.61
				steel body	steel body		steel	

\*To perform setting of the valve see the pressure drop/flow diagram.

## Dimensions and hydraulic circuit



## Rating diagrams



## Order code

VEP/FC 38-gr 1+1-PLP /   .  - S /

Pressure settings BP

TB) 5÷40 bar (72.5÷580 psi)  
TV) 20÷80 bar (290÷1150 psi)

Adjustments

AP  
(See page 80)  
S (screw)  
V (handknob)  
W (copped adjustment)

Body material

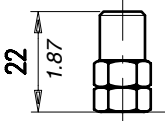
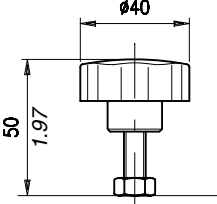
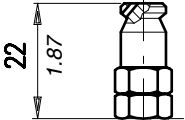
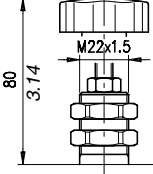
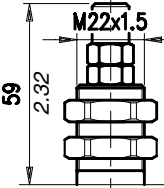
\_ Aluminium  
ac Steel

# Adjustments

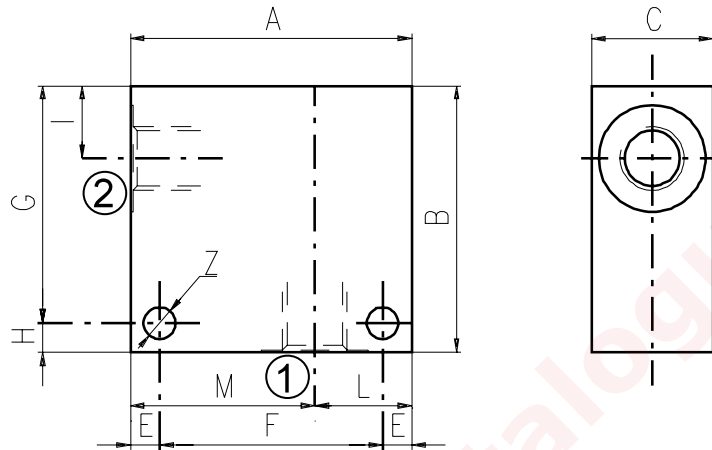
## Description and operation

This chapter show main adjusting devices for the valves listed in this catalog.  
These regulations are used to adjust flow rate between inlet and working ports.

## Performance

	<p><b>Screw "S"</b></p>		<p><b>Handknob "V"</b></p>
	<p><b>Copped adjustment "W"</b></p>		<p><b>Panel mount+handknob "PV"</b></p>
	<p><b>Panel mount "P"</b></p>		

Material	Max. pressure	
	bar	psi
Aluminium	210	3050
Steel	350	5100



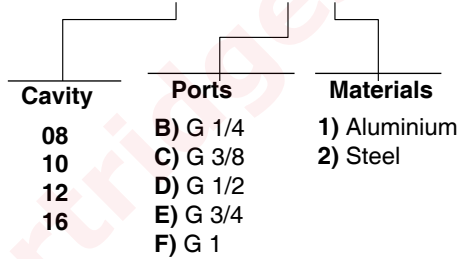
Cavità	Attacchi		A	B	C	E	F	G	H	I	L	M	Z
SAE 8/2	G 1/2	mm	70	65	35	7	56	53	12	14,5	35	35	6,5
		in	2.75	2.56	1.38	0.27	2.20	2.09	0.47	0.57	1.38	1.38	0.25
	G 1/4	mm	50	50	30	6	38	44	6	14,8	20	30	6,5
		in	1.97	1.97	1.18	0.24	1.50	1.73	0.24	0.58	0.79	1.18	0.25
	G 3/8	mm	50	50	30	6	38	44	6	14,8	20	30	6,5
		in	1.97	1.97	1.18	0.24	1.50	1.73	0.24	0.58	0.79	1.18	0.25
SAE6	mm	50	50	30	6	38	44	6	14,8	20	30	6,5	
	in	1.97	1.97	1.18	0.24	1.50	1.73	0.24	0.58	0.79	1.18	0.25	
SAE 10/2	G 1/4	mm	60	60	35	6	48	54	6	18,8	25	35	6,5
		in	2.36	2.36	1.38	0.24	1.89	2.12	0.24	0.74	0.98	1.38	0.25
	G 3/8	mm	60	60	35	6	48	54	6	18,8	25	35	6,5
		in	2.36	2.36	1.38	0.24	1.89	2.12	0.24	0.74	0.98	1.38	0.25
	G 1/2	mm	60	60	35	6	48	54	6	18,8	25	35	6,5
		in	2.36	2.36	1.38	0.24	1.89	2.12	0.24	0.74	0.98	1.38	0.25
	SAE8	mm	60	70	35	6	48	64	6	18,8	25	35	6,5
		in	2.36	2.75	1.38	0.24	1.89	2.52	0.24	0.74	0.98	1.38	0.25
	SAE10	mm	70	70	35	6	58	64	6	18,5	35	35	6,5
		in	2.75	2.75	1.38	0.24	2.28	2.52	0.24	0.73	1.38	1.38	0.25
SAE12	mm	70	70	40	8	54	62	8	22	30	40	8,5	
	in	2.75	2.75	1.57	0.31	2.12	2.44	0.31	0.87	1.18	1.57	0.33	
SAE 12/2	G 1/2	mm	70	80	40	8	54	72	8	25	30	40	8,5
		in	2.75	3.15	1.57	0.31	2.12	2.83	0.31	0.98	1.18	1.57	0.33
	G 3/4	mm	70	90	40	8	54	82	8	25	30	40	8,5
		in	2.75	3.54	1.57	0.31	2.12	3.23	0.31	0.98	1.18	1.57	0.33
	SAE10	mm	70	85	40	8	54	77	8	25	30	40	8,5
		in	2.75	3.35	1.57	0.31	2.12	3.03	0.31	0.98	1.18	1.57	0.33
	SAE12	mm	70	85	40	8	54	77	8	25	30	40	8,5
		in	2.75	3.35	1.57	0.31	2.12	3.03	0.31	0.98	1.18	1.57	0.33



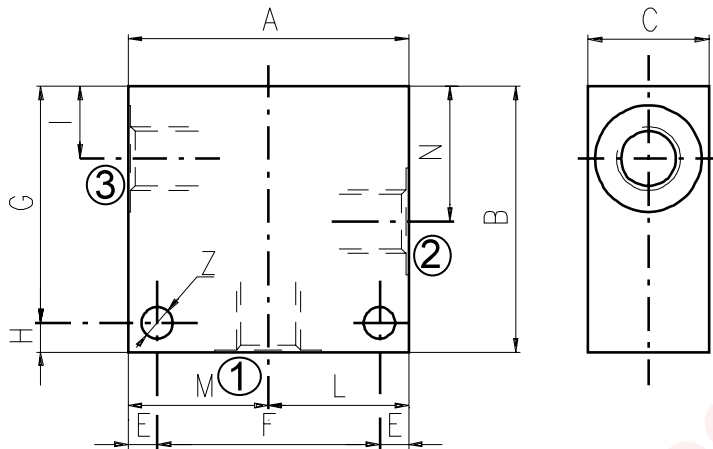
Cavity	Ports	A	B	C	E	F	G	H	I	L	M	Z	
SAE 16/2	G 1/2	mm	80	90	50	10	60	80	10	25	35	45	10,5
		in	3.15	3.54	1.97	0.39	2.36	3.15	0.39	0.98	1.38	1.77	0.41
	G 3/4	mm	80	90	50	10	60	80	10	25	35	45	10,5
		in	3.15	3.54	1.97	0.39	2.36	3.15	0.39	0.98	1.38	1.77	0.41
	G 1	mm	85	100	60	10	65	90	10	23,5	40	45	10,5
		in	3.35	3.94	2.36	0.39	2.56	3.54	0.39	0.92	1.57	1.77	0.41
	SAE12	mm	80	90	50	10	60	80	10	25	35	45	10,5
		in	3.15	3.54	1.97	0.39	2.36	3.15	0.39	0.98	1.38	1.77	0.41
	SAE16	mm	80	100	50	10	60	90	10	25	35	45	10,5
		in	3.15	3.94	1.97	0.39	2.36	3.54	0.39	0.98	1.38	1.77	0.41

Order code \_\_\_\_\_

3/CC /- □ □ /20/□- □-1



Material	Max. pressure bar	
	bar	psi
Aluminium	210	3050
Steel	350	5100



Cavity	Ports		A	B	C	E	F	G	H	I	L	M	N	Z
SAE 8/3	G 1/4	mm	60	60	30	7	46	48	12	14,8	30	30	29,1	6,5
		in	2.36	2.36	1.18	0.27	1.81	1.89	0.47	0.58	1.18	1.18	1.14	0.25
	G 3/8	mm	60	60	30	7	46	48	12	14,5	30	30	29,1	6,5
		in	2.36	2.36	1.18	0.27	1.81	1.89	0.47	0.57	1.18	1.18	1.14	0.25
	G 1/2	mm	70	65	35	7	56	53	12	14,5	35	35	29,1	6,5
		in	2.75	2.56	1.38	0.27	2.20	2.09	0.47	0.57	1.38	1.38	1.14	0.25
	SAE6	mm	60	60	30	7	46	48	12	14,5	30	30	29,1	6,5
		in	2.36	2.36	1.18	0.27	1.81	1.89	0.47	0.57	1.18	1.18	1.14	0.25
SAE 10/3	G 1/4	mm	60	65	35	6	48	59	6	18	30	30	34,5	7
		in	2.36	2.56	1.38	0.24	1.89	2.32	0.24	0.70	1.18	1.18	1.36	0.27
	G 3/8	mm	60	65	35	6	48	59	6	18,8	30	30	34,5	7
		in	2.36	2.56	1.38	0.24	1.89	2.32	0.24	0.74	1.18	1.18	1.36	0.27
	G 1/2	mm	65	70	35	6	53	64	6	18,8	32,5	32,5	34,5	7
		in	2.56	2.75	1.38	0.24	2.09	2.52	0.24	0.74	1.28	1.28	1.36	0.27
	SAE6	mm	65	70	35	6	53	64	6	18,8	32,5	32,5	34,5	7
		in	2.56	2.75	1.38	0.24	2.09	2.52	0.24	0.74	1.28	1.28	1.36	0.27
	SAE8	mm	65	70	35	6	53	64	6	18,8	32,5	32,5	34,5	7
		in	2.56	2.75	1.38	0.24	2.09	2.52	0.24	0.74	1.28	1.28	1.36	0.27
SAE 12/3	G 1/2	mm	70	100	40	8	54	92	8	25	35	35	53,5	8,5
		in	2.75	3.94	1.57	0.31	2.12	3.6	0.31	0.98	1.38	1.38	2.10	0.33
	G 3/4	mm	90	100	50	10	70	90	10	25,1	45	45	53,5	10,5
		in	3.54	3.94	1.97	0.39	2.75	3.54	0.39	0.99	1.77	1.77	2.11	0.41
	SAE10	mm	80	100	40	8	64	92	8	25	40	40	53,5	8,5
		in	3.15	3.94	1.57	0.31	2.52	3.6	0.31	0.98	1.57	1.57	2.11	0.33
	SAE12	mm	80	100	45	8	64	92	8	25	40	40	53,5	8,5
		in	3.15	3.94	1.77	0.31	2.52	3.6	0.31	0.98	1.57	1.57	2.11	0.33

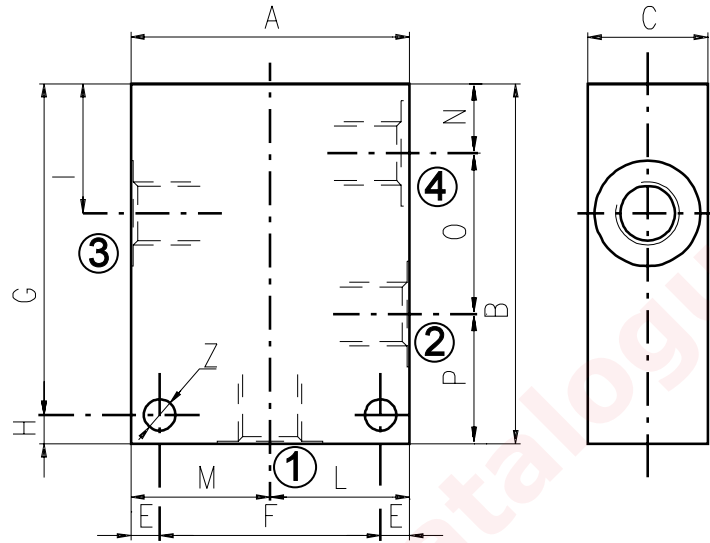
Cavity	Ports	A	B	C	E	F	G	H	I	L	M	N	Z	
SAE 16/3	G 3/4	mm	90	100	50	10	70	90	10	25,1	45	45	53,5	10,5
		in	3.54	3.94	1.97	0.39	2.75	3.54	0.39	0.99	1.77	1.77	2.11	0.41
	SAE12	mm	90	105	50	10	70	95	10	25,1	45	45	53,5	10,5
		in	3.54	4.13	1.97	0.39	2.75	3.74	0.39	0.99	1.77	1.77	2.11	0.41
	SAE16	mm	90	105	50	10	70	95	10	25,1	45	45	53,5	10,5
		in	3.54	4.13	1.97	0.39	2.75	3.74	0.39	0.99	1.77	1.77	2.11	0.41

Order code \_\_\_\_\_

3/CC /- □ □ /30/□- □-1

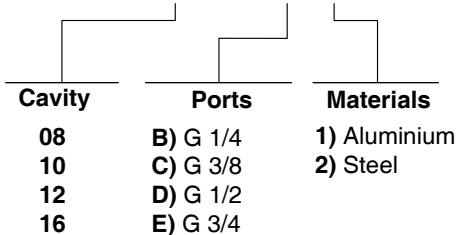
Cavity	Ports	Materials
08	B) G 1/4	1) Aluminium
10	C) G 3/8	2) Steel
12	D) G 1/2	
16	E) G 3/4	

Material	Max pressure	
	bar	psi
Alluminium	210	3050
Steel	350	5100



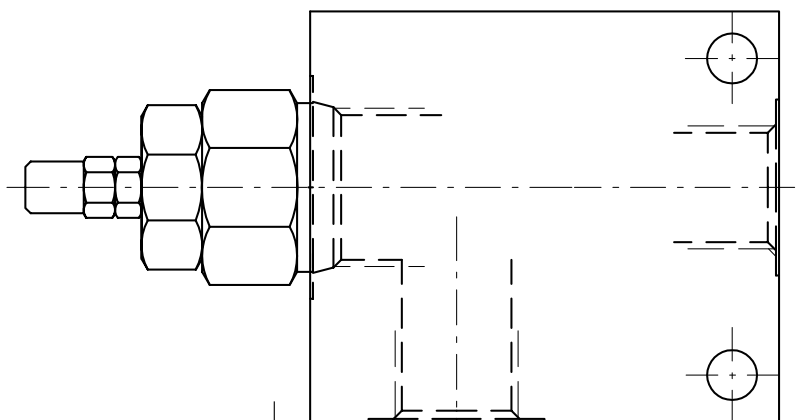
Cavity	Ports		A	B	C	E	F	G	H	I	L	M	N	O	P	Z
SAE 8/4	G 1/4	mm	60	75	30	7	46	63	12	29,1	30	30	14,8	29,1	31,1	6,5
		in	2.36	2.95	1.18	0.27	1.81	2.48	0.47	1.14	1.18	1.18	0.58	1.14	1.22	0.25
	SAE6	mm	60	75	30	7	46	63	12	29,1	30	30	14,8	29,1	31,1	6,5
		in	2.36	2.95	1.18	0.27	1.81	2.48	0.47	1.14	1.18	1.18	0.58	1.14	1.22	0.25
SAE 10/4	G 3/8	mm	60	85	35	6	48	79	6	34,5	30	30	18,8	31,7	34,5	7
		in	2.36	3.35	1.38	0.24	1.89	3.11	0.24	1.36	1.18	1.18	0.74	1.25	1.36	0.27
	G 1/2	mm	70	85	35	6	58	79	6	34,5	35	35	18,8	31,7	34,5	7
		in	2.75	3.35	1.38	0.24	2.28	3.11	0.24	1.36	1.38	1.38	0.74	1.25	1.36	0.27
	SAE6	mm	60	85	35	6	48	79	6	34,5	30	30	18,8	31,7	34,5	7
		in	2.36	3.35	1.38	0.24	1.89	3.11	0.24	1.36	1.18	1.18	0.74	1.25	1.36	0.27
SAE8	mm	70	85	35	6	58	79	6	34,5	35	35	18,8	31,7	34,5	7	
	in	2.75	3.35	1.38	0.24	2.28	3.11	0.24	1.36	1.38	1.38	0.74	1.25	1.36	0.27	
SAE 12/4	G 1/2	mm	80	115	40	8	64	107	8	44	40	40	22	44,5	48,5	8,5
		in	3.15	4.53	1.57	0.31	2.52	4.21	0.31	1.73	1.57	1.57	0.87	1.75	1.9	0.33
	SAE10	mm	80	115	40	8	64	107	8	44	40	40	22	44,5	48,5	8,5
		in	3.15	4.53	1.57	0.31	2.52	4.21	0.31	1.73	1.57	1.57	0.87	1.75	1.9	0.33
SAE 16/4	G 3/4	mm	100	130	50	10	80	120	10	53,5	50	50	25,1	56,9	48	10,5
		in	3.94	5.12	1.97	0.39	3.15	4.72	0.39	2.11	1.97	1.97	0.99	2.24	1.89	0.41

3/CC /- □ □ /40/□- □-1



# Informations

## How to order valves with body



CARTRIDGE CODE

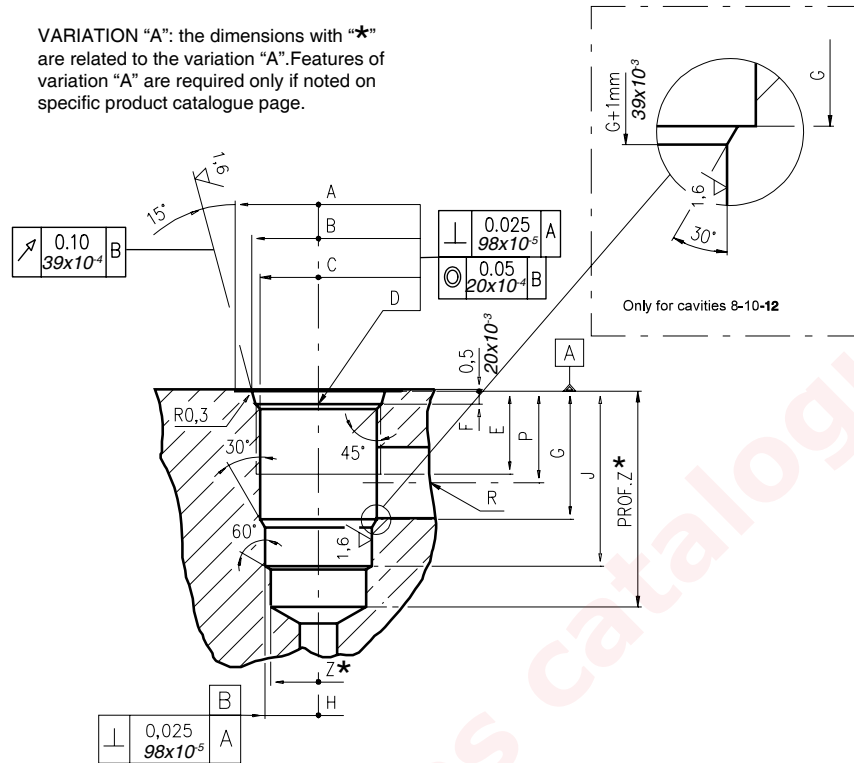
SW-12-A/O-S-2V/

BILLET CODE

D- 1-1

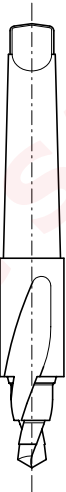
Cavity	Ports	Materials
08	B) G 1/4	1) Aluminium 2) Steel
10	C) G 3/8	
12	D) G 1/2	
16	E) G 3/4	
	F) G 1	
	J) SAE 6	
	K) SAE 8	
	L) SAE 10	
	M) SAE 12	
	N) SAE 16	

VARIATION "A": the dimensions with "\*" are related to the variation "A". Features of variation "A" are required only if noted on specific product catalogue page.



\		A	B ±0,05	C ±0,05	D	E	F	G	H ±0,02	J	K ±0,02	L	M ±0,02	N	P	R øMAX	S	T øMAX	U	V øMAX	X øMAX	Z* øMIN	Prof.Z MIN*
		08/2	mm	27	20,66	17,42	3/4-16 UNF	12,50	2,50	18,20	12,72	29,50	-	-	-	-	14,00	8,00	-	-	-	-	-
	in	1,06	0,81	0,68		0,49	0,10	0,72	0,50	1,16					0,55	0,31						0,47	1,53
10/2	mm	30	24,00	20,62	7/8-14 UNF	16,00	2,80	24,00	15,90	33,50	-	-	-	-	18,30	11,00	-	-	-	-	-	14,50	40
	in	1,18	0,94	0,81		0,63	0,11	0,94	0,62	1,32					0,72	0,43						0,57	1,57
12/2	mm	38	29,23	24,73	1 1/16-12 UNF	19,00	3,50	34,15	22,25	46,80	-	-	-	-	24,50	19,00	-	-	-	-	-	21,50	60
	in	1,50	1,15	0,97		0,75	0,14	1,34	0,87	1,84					0,96	0,75						0,85	2,36
16/2	mm	45	35,58	31,34	1 5/16-12 UNF	22,00	3,50	34,00	28,62	47,00	-	-	-	-	24,50	19,00	-	-	-	-	-	25,50	70
	in	1,77	1,40	1,23		0,87	0,14	1,34	1,13	1,85					0,96	0,75						1,00	2,75

Rougher tool



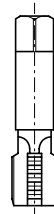
Cavity	Code number
08/2	3UT00053190
10/2	3UT00056610
12/2	3UT00054090
16/2	3UT00054510

Finisher tool



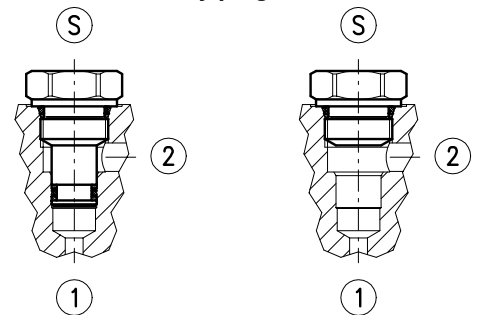
Cavity	Code number
08/2	3UT06A1270N
10/2	3UT00054580
12/2	3UT00054670
16/2	3UT00054520

Tap



Cavity	Code number
08/2	3UT03416UNF
10/2	3UT07814UNF
12/2	3UT0111612UN
16/2	3UT0151612UN

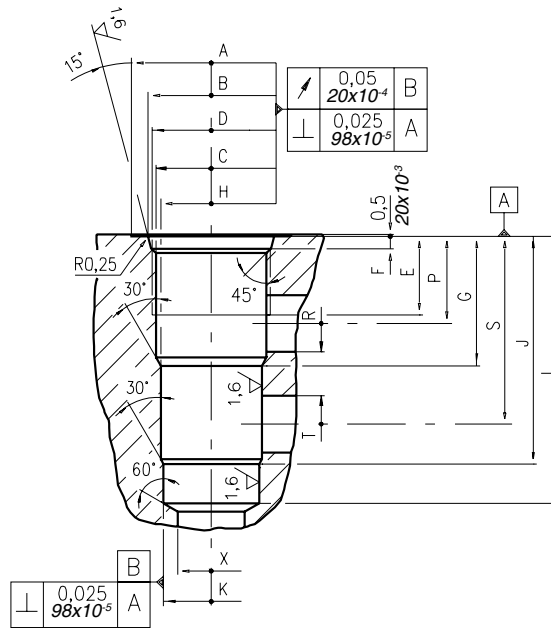
Cavity plugs



Cavity	Code number	①	②	Ⓢ
08/2	3XTP3533700	X	X	X
	4TP5531500	0	0	X
10/2	3XTP3544200	X	X	X
	3XTP1542300	0	0	X
12/2	3XTP3555400	X	X	X
	3XTP1552900	0	0	X
16/2	3XTP3575500	X	X	X
	3XTP1572900	0	0	X

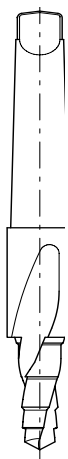
X=Closed 0=Open

### Dimensions



\	A	B ±0,05	C ±0,05	D	E	F	G	H ±0,02	J	K ±0,02	L	M ±0,02	N	P	R øMAX	S	T øMAX	U	V øMAX	X øMAX	Z øMIN	Prof. Z MIN	
08/3	mm	27	20,66	17,42	3/4-16 UNF	12,50	2,5	19,10	15,90	33,30	14,30	43,30	-	-	14,30	5,50	28,60	5,50	-	-	12,50	-	-
	in	1.06	0.81	0.68		0.49	0.10	0.75	0.62	1.31	0.56	1.70			0.56	0.22	1.12	0.22			0.49		
10/3	mm	30	24,00	20,62	7/8-14 UNF	16,00	2,80	23,10	17,50	39,60	15,90	47,60	-	-	18,30	6,50	34,00	6,50	-	-	14,00	-	-
	in	1.18	0.94	0.81		0.63	0.11	0.94	0.69	1.56	0.62	1.87			0.72	0.25	1.34	0.25			0.55		
12/3	mm	38	29,23	24,73	1 1/16-12 UNF	19,00	3,56	36,60	23,82	63,50	22,25	75,40	-	-	24,50	16,00	53,00	16,00	-	-	19,00	-	-
	in	1.50	1.15	0.97		0.75	0.14	1.44	0.94	2.5	0.88	2.97			0.96	0.63	2.09	0.63			0.75		
16/3	mm	45	35,6	31,34	1 5/16-12 UNF	22,00	3,5	36,50	28,62	64,30	27,02	75,38	-	-	24,60	16,00	53,00	16,00	-	-	19,00	-	-
	in	1.77	1.40	1.23		0.87	0.14	1.44	1.13	2.53	1.06	2.97			0.97	0.63	2.09	0.63			0.75		

#### Rougher tool



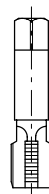
Cavity	Code number
08/3	3UT00052190
10/3	3UT00054170
12/3	3UT00054290
16/3	3UT00054470

#### Finisher tool



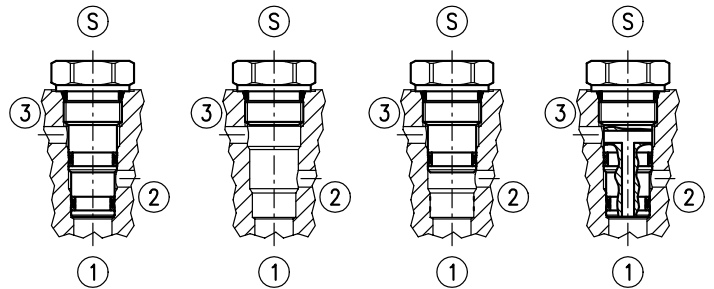
Cavity	Code number
08/3	3UT00052740
10/3	3UT00054180
12/3	3UT00054300
16/3	3UT00054480

#### Tap



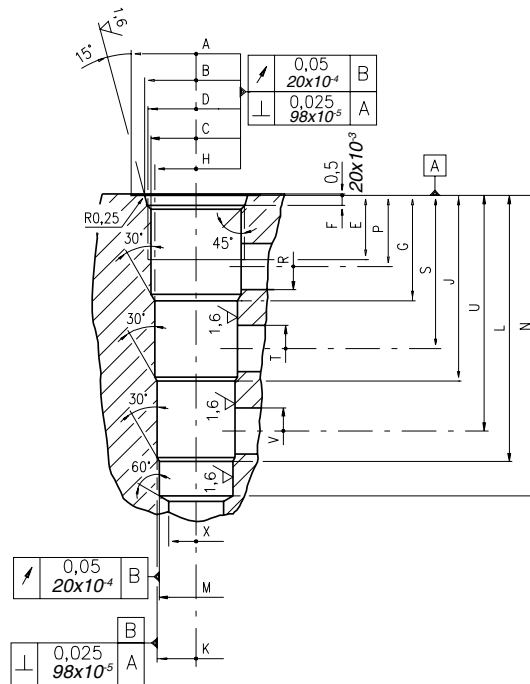
Cavity	Code number
08/3	3UT03416UNF
10/3	3UT07814UNF
12/3	3UT0111612UN
16/3	3UT0151612UN

#### Cavity plugs



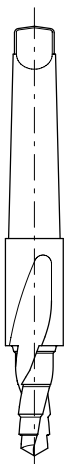
Cavity	Code number	①	②	③	Ⓢ
08/3	3XTP3535100	X	X	X	X
	4TP5531500	0	0	0	X
	3XTP3534000	0	0	X	X
	3XTP3534800	0	X	0	X
10/3	3XTP3545700	X	X	X	X
	3XTP1542300	0	0	0	X
	3XTP3545701	0	X	0	X
12/3	3XTP3558200	X	X	X	X
	3XTP1552900	0	0	0	X
	3XTP3558201	0	X	0	X
16/3	3XTP3578400	X	X	X	X
	3XTP1572900	0	0	0	X

X=Closed 0=Open



\	A	B $\pm 0,05$	C $\pm 0,05$	D	E	F	G	H $\pm 0,02$	J	K $\pm 0,02$	L	M $\pm 0,02$	N	P	R $\phi \text{MAX}$	S	T $\phi \text{MAX}$	U	V $\phi \text{MAX}$	X $\phi \text{MAX}$	Z $\phi \text{MIN}$	Prof. Z MIN	
08/4	mm	28,00	20,66	17,42	3/4-16 UNF	12,50	2,50	19,10	15,90	33,30	14,30	47,60	12,72	57,60	14,30	5,50	28,60	5,50	42,90	5,50	11,00	-	-
	in	1.10	0.81	0.68		0.49	0.10	0.75	0.62	1.31	0.56	1.87	0.50	2.27	0.56	0.22	1.12	0.22	1.69	0.22	0.43	-	-
10/4	mm	30	24,00	20,62	7/8-14 UNF	16,00	2,80	23,60	19,08	39,60	17,50	55,40	15,90	63,50	18,30	6,50	34,00	6,50	50,00	6,50	14,00	-	-
	in	1.18	0.94	0.81		0.63	0.11	0.93	0.75	1.56	0.69	2.18	0.62	2.50	0.72	0.26	1.34	0.25	1.97	0.25	0.55	-	-
12/4	mm	38	29,23	24,73	1 1/16-12 UNF	19,00	3,56	29,50	23,82	51,50	22,25	73,60	20,65	83,33	21,50	11,00	43,50	11,00	66,00	11,00	19,00	-	-
	in	1.50	1.15	0.97		0.75	0.14	1.16	0.94	2.03	0.87	2.90	0.81	3.28	0.85	0.43	1.71	0.43	2.60	0.43	0.75	-	-
16/4	mm	45	35,60	31,34	1 5/16-12 UNF	22,00	3,50	36,50	28,62	64,30	27,02	92,07	25,45	104,00	24,60	16,00	53,00	16,00	81,50	16,00	19,00	-	-
	in	1.77	1.40	1.23		0.87	0.14	1.44	1.13	2.53	1.06	3.62	1.00	4.09	0.97	0.63	2.09	0.63	3.21	0.63	0.75	-	-

Rougher tool



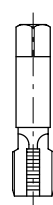
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08/4	3UT00052040
10/4	3UT00054250
12/4	3UT00054410
16/4	3UT00054820

Finisher



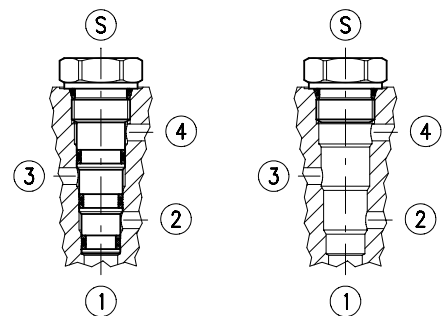
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08/4	3UT00052020
10/4	3UT00054260
12/4	3UT00054420
16/4	3UT00054830

Tap



Cavity	Code number
08/4	3UT03416UNF
10/4	3UT07814UNF
12/4	3UT111612UN
16/4	3UT0151612UN

Cavity plugs



Cavity	Code number	①	②	③	④	Ⓢ
08/4	3XTP3536500	X	X	X	X	X
	4TP5531500	0	0	0	0	X
10/4	3XTP3548301	X	X	X	X	X
	3XTP1542300	0	0	0	0	X
12/4	3XTP3559300	X	X	X	X	X
	3XTP1552900	0	0	0	0	X
16/4	3XTP357B300	X	X	X	X	X
	3XTP1572900	0	0	0	0	X

X=Closed 0=Open