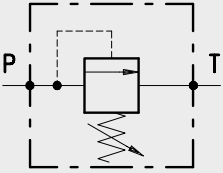




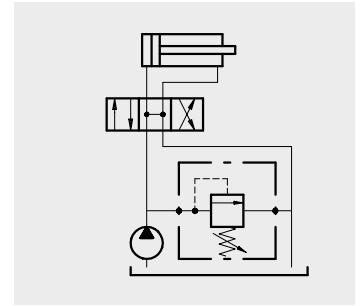
# Pressure relief valves

**Index**

Hydraulic diagram	Type	Description	Maximum flow up to		Maximum pressure		Page
			l/min	US gpm	bar	psi	
	VMP	Direct acting, poppet type	100	26	400	5800	9
	VMP Y		160	42	315	4600	
	MC		100	26	350	5100	

**Operation**

Allows oil flow from P (1) to T (2) when pressure in P (1) reaches the setting of the spring.



**Performance**

**Body Valves**

Type VMP	Maximum flow		Maximum pressure		Application range with standard spring*	Hysteresis	Oil leaks from P to T	Weight		Cavities and tools	
	l/min	US gpm	bar	psi				kg	lb		
VMP 02	5	1.32	350	5100	<b>TV)</b> 5÷80 bar - 72.5÷1150 psi <b>TS)</b> 50÷220 bar - 725÷ 3200 psi <b>TR)</b> 180÷350 bar - 2600÷5100 psi	90% of the setting value for flow capacity 1 l/min. (0,26 US gpm)	disregar-dable	0,05	0.11	Cavity VSE/ P/2/150 see page 113	
VMP 5	35	9.2			<b>TB)</b> 5÷40 bar - 72.5÷580 psi <b>TV)</b> 20÷80 bar - 290÷1150 psi <b>TS)</b> 50÷220 bar - 725÷ 3200 psi <b>TR)</b> 180÷350 bar - 2600÷5100 psi			85% of the setting value for flow capacity 1 l/min. (0,26 US gpm)	0,14	0.31	Cavity VMP 5 see page 114
VMP 5Y					<b>TB)</b> 5÷80 bar - 72.5÷1150 psi <b>TV)</b> 40÷150 bar - 580÷2200 psi <b>TS)</b> 140÷190 bar - 2050÷2750 psi <b>TR)</b> 180÷350 bar - 2600÷5100 psi						
VMP 5J					<b>TV)</b> 40÷80 bar - 580÷1150 psi <b>TS)</b> 63÷200 bar - 910÷2900 psi <b>TR)</b> 160÷315 bar - 2300÷4600 psi						
VMP 10	60	16			See VMP 5						0,25
VMP 10Y	100	26	315	4600	<b>TV)</b> 100÷160 bar - 1450÷2400 psi <b>TS)</b> 125÷250 bar - 1800÷3600 psi <b>TR)</b> 200÷315 bar - 2900÷4600 psi						
VMP 20	100	26	400	5800	See VMP 5			0,45	0.99	Cavity VMP 20 see page 116	
VMP 20Y	160	42	315	4600	See VMP 10Y						
VMP 12	35	9.2	300	4350	5÷40 bar - 72.5÷580 psi (test setting: 30 bar - 430 psi at 5 l/min. - 1.32 US gpm) 20÷100 bar - 290÷1450 psi (test setting: 70 bar - 1010 psi at 5 l/min. - 1.32 US gpm) 50÷200 bar - 725÷2900 psi (test setting: 140 bar - 2050 psi at 5 l/min. - 1.32 US gpm)**			0,20	0.44	Cavity VMP 12 see page 120	
VMP 34	80	21			100÷300 bar - 1450÷4350 psi (test setting: 210 bar - 3050 psi at 5 l/min. - 1.32 US gpm)**			0,33	0.73	Cavity VMP 34 see page 121	

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

\*\* (Only for VMP34) when the valve is ordered by itself max adjustable pressure is 150 bar (2200 psi). Cartridge may be set higher than 150 bar (2200 psi) when installed in the machine or into a proper body

# Type VMP and MC

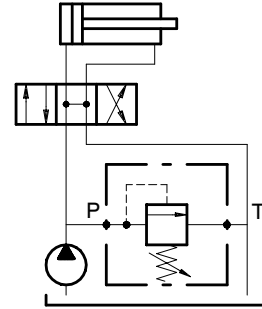
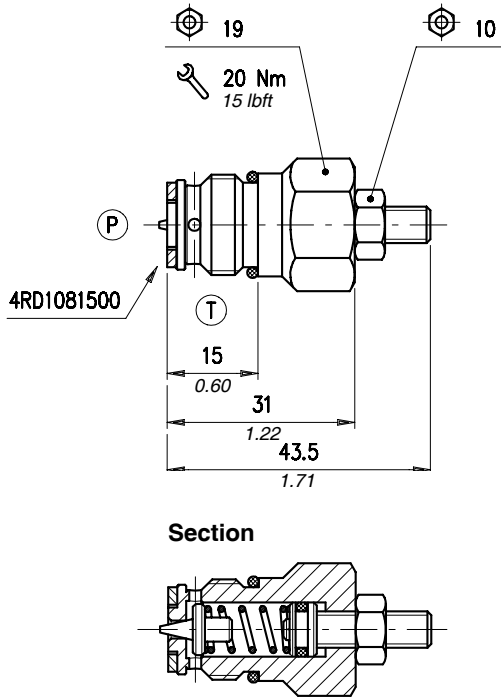
## Cartridges

Type MC	Maximum flow		Max. pres		Application range with standard spring	Hysteresis	Oil leaks from 1 to 2	Weight		Cavities and tools
	l/min	US gpm	bar	psi				kg	lb	
MC08A	10	2.6	350	5100	<b>1)</b> 5÷50 bar - 72.5÷725 psi (test setting 30 bar - 435 psi at 5 l/min.- 1.32 US gpm) pressure increase by steps 11,5 bar - 165 psi per screw turn <b>2)</b> 50÷200 bar - 725÷2900 psi (test setting 150 bar - 2200 psi at 5 l/min.- 1.32 US gpm-) pressure increase by steps 31,5 bar - 450 psi per screw turn <b>3)</b> 150÷350 bar - 2175÷5100 psi (test setting 250 bar-3600 psi at 5 l/min.- 1.32 US gpm-) pressure increase by steps 74 bar - 1070 psi per screw turn	90% of the setting value for flow capacity 1 l/min. -0.26 US gpm-	disregardable	0,19	0.42	● see cavity SAE 8-2 page 112
MC08D	20	5.3			<b>1)</b> 20÷80 bar - 290÷1150 psi (test setting 50 bar - 725 psi at 5 l/min.- 1.32 US gpm-) pressure increase by steps 26,6 bar - 380 psi per screw turn <b>2)</b> 50÷200 bar - 725÷2900 psi (test setting 150 bar - 2200 psi at 5 l/min.- 1.32 US gpm) pressure increase 60,3 bar - 870 psi per screw turn <b>3)</b> 150÷350 bar - 2200÷5100 psi (test setting 250 bar- 3600 psi at 5 l/min.- 1.32 US gpm) pressure increase 121,2 bar - 1750 psi per screw turn <b>5)</b> 5÷50 bar - 72.5÷725 psi (test setting 30 bar - 435 psi at 5 l/min.- 1.32 US gpm) pressure increase 11,3 bar - 160 psi per screw turn	85% of the setting value for flow capacity 1 l/min. -0.26 US gpm-		0,13	0.29	● see cavity SAE 8-2 page 112
MC10A	40	10.5			<b>1)</b> 20÷100 bar - 290÷1450 psi (test setting 50 bar - 725 psi at 5 l/min.- 1.32 US gpm) pressure increase 7 bar - 100 psi per screw turn <b>2)</b> 50÷200 bar - 725÷2900 psi (test setting 150 bar - 2200 psi at 5 l/min.- 1.32 US gpm) pressure increase 24 bar - 345 psi per screw turn <b>3)</b> 150÷350 bar - 2200÷5100 psi (test setting 250 bar - 3600 psi at 5 l/min.- 1.32 US gpm) pressure increase 72 bar - 1040 psi per screw turn	90% of the setting value for flow capacity 1 l/min. -0.26 US gpm-		0,33	0.73	● see cavity SAE 10-2 page 112
MC12A	100	26			<b>1)</b> 20 ÷ 100 bar - 290÷1450 psi (test setting 50 bar - 725 psi at 5 l/min.- 1.32 US gpm) pressure increase 5,7 bar - 80 psi per screw turn <b>2)</b> 50 ÷ 200 bar - 725÷2900 psi (test setting 150 bar - 2200 psi at 5 l/min.- 1.32 US gpm) pressure increase 26,5 bar - 380 psi per screw turn <b>3)</b> 150 ÷ 350 bar - 2200÷5100 psi (test setting 250 bar - 3600 psi at 5 l/min.- 1.32 US gpm) pressure increase 35 bar - 505 psi per screw turn	95% of the setting value for flow capacity 1 l/min. -0.26 US gpm-		0,86	1.89	● see cavity SAE 12-2 page 112

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

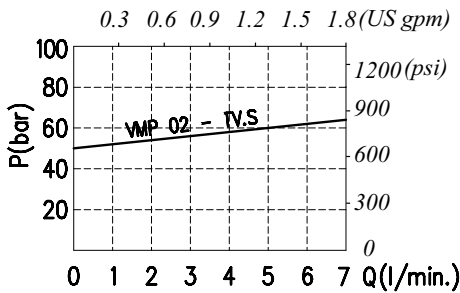
●The cavity have to report also the features of variation "A" see page 112

**Dimensions and hydraulic circuit**

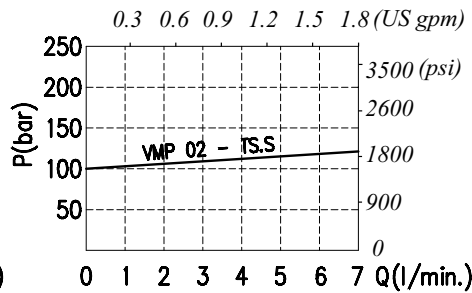


**Rating diagrams**

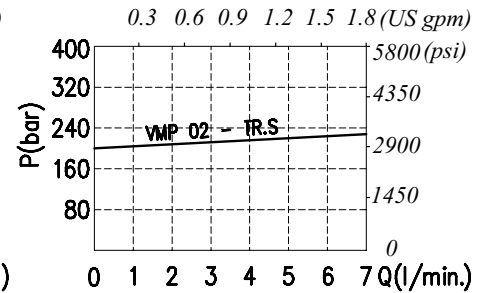
Typical pressure drop vs. flow characteristic



Typical pressure drop vs. flow characteristic



Typical pressure drop vs. flow characteristic



**Order code**

VMP02 / □□ . □

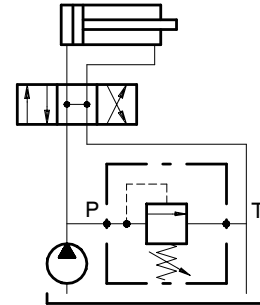
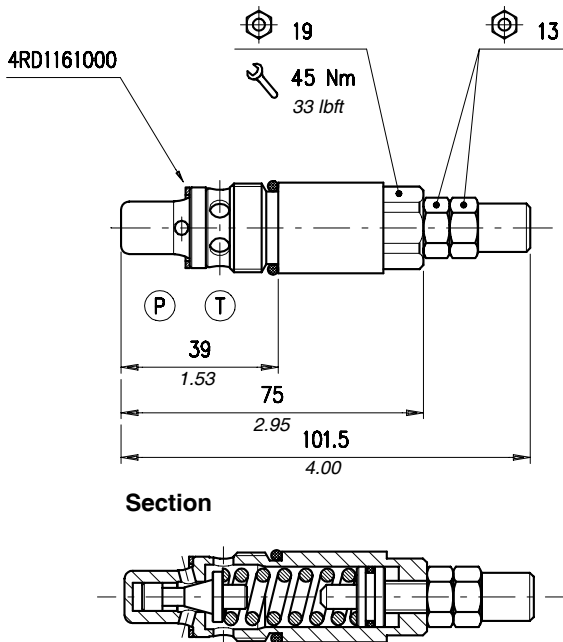
**Pressure settings**

- TV) 5÷80 bar (72.5÷1150 psi)
- TS) 50÷220 bar (725÷3200 psi)
- TR) 180÷350 bar (2600÷5100 psi)
- TB) 0÷50 bar (0÷725 psi)

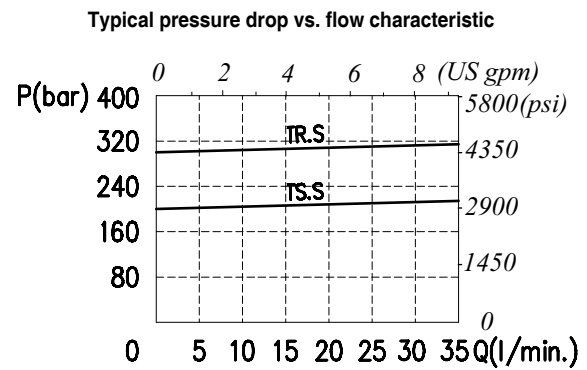
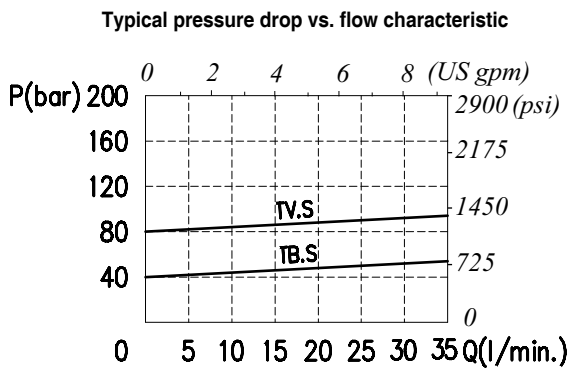
**Adjustment**  
(see page 105)

- S (screw)
- V (handknob)

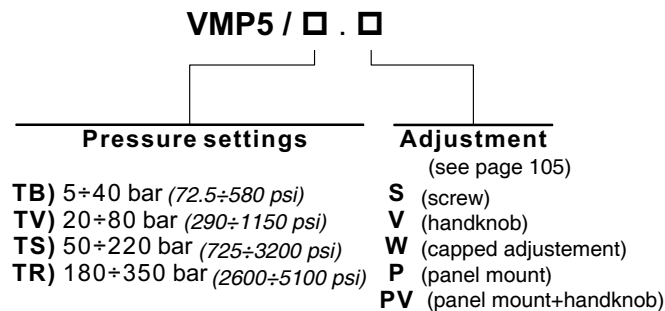
## Dimensions and hydraulic circuit



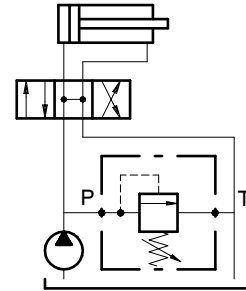
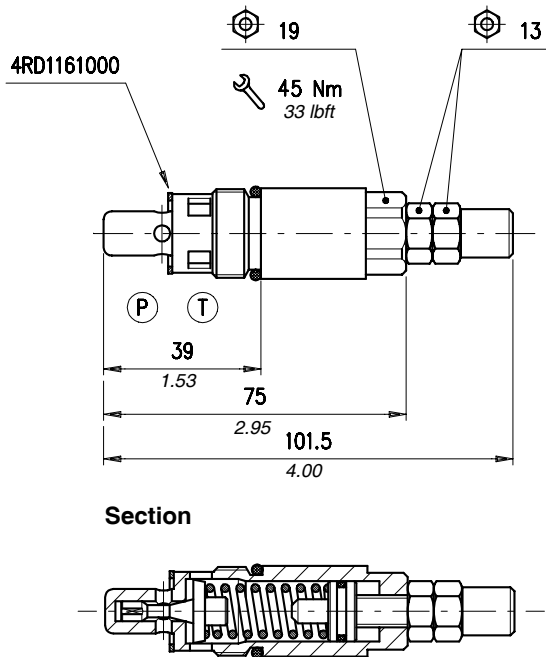
## Rating diagrams



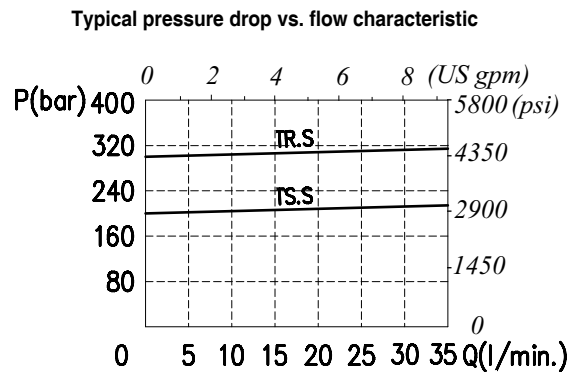
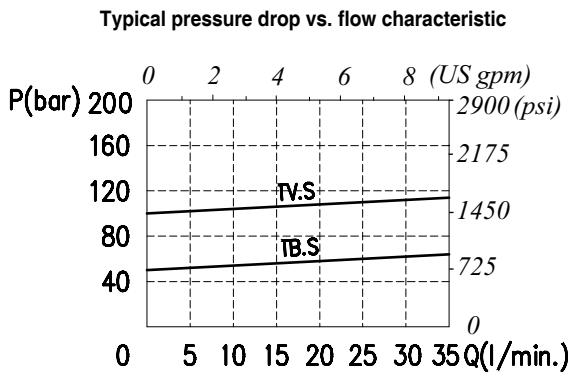
## Order code



**Dimensions and hydraulic circuit**



**Rating diagrams**



**Order code**

VMP5Y / □□ . □

**Pressure settings**

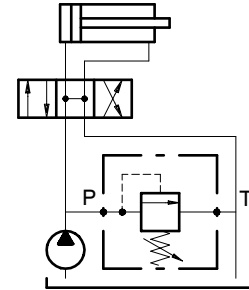
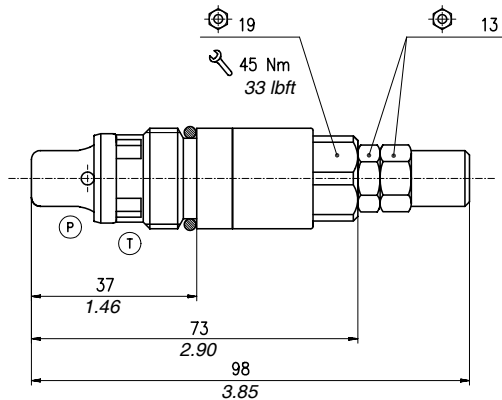
- TB)** 5÷80 bar (72.5÷1150 psi)
- TV)** 40÷150 bar (580÷2200 psi)
- TS)** 140÷190 bar (2050÷2750 psi)
- TR)** 180÷350 bar (2600÷5100 psi)

**Adjustment**

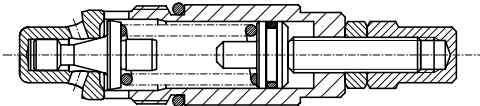
(see page 105)

- S** (screw)
- V** (handknob)
- W** (capped adjustment)
- P** (panel mount)
- PV** (panel mount+handknob)

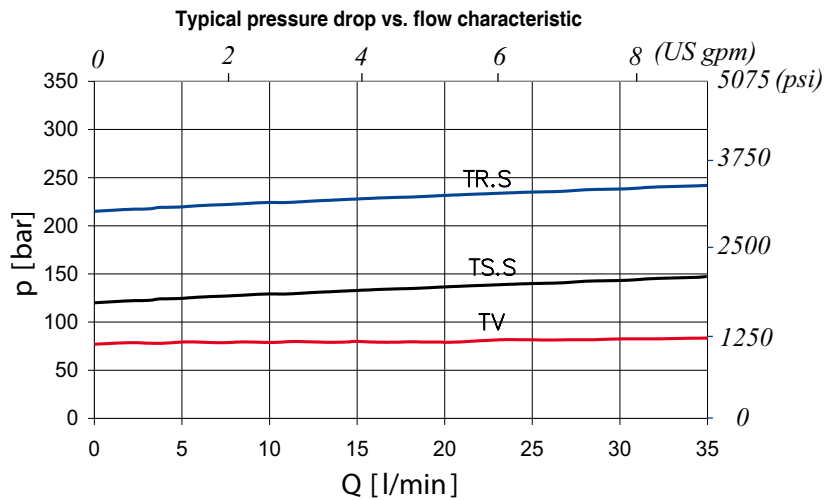
## Dimensions and hydraulic circuit



### Section



## Rating diagrams



## Order code

VMP5J / □□ . □

### Pressure settings

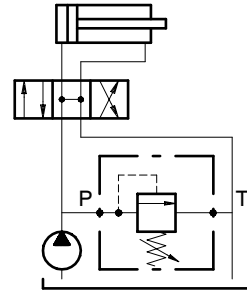
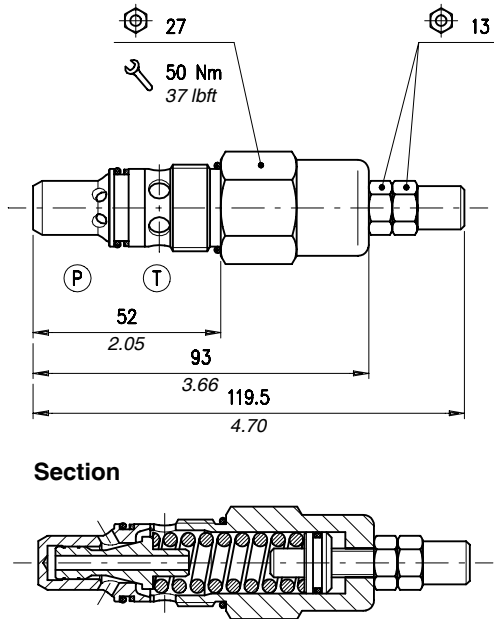
TV) 40÷80 bar (580÷1150 psi)  
 TS) 63÷200 bar (910÷2900 psi)  
 TR) 160÷315 bar (2300÷4600 psi)

### Adjustment

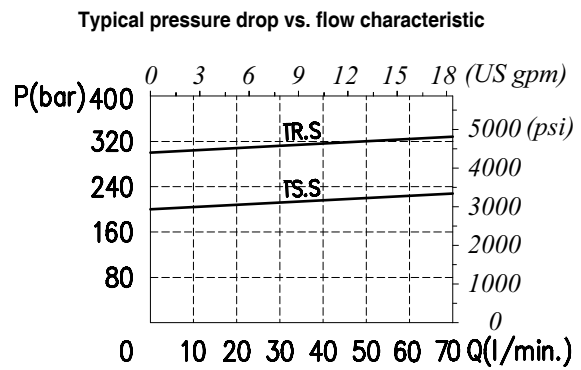
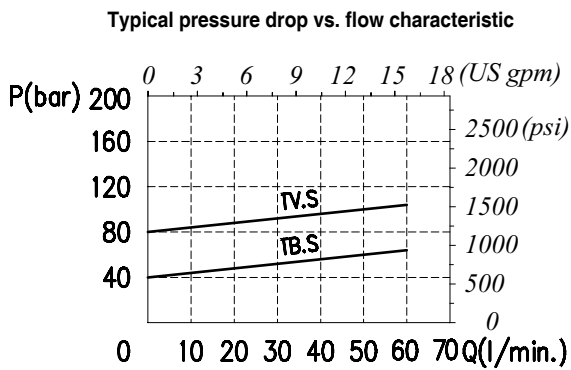
(see page 105)  
 S) (screw)  
 V) (handknob)  
 W) (capped adjustment)  
 P) (panel mount)  
 PV) (panel mount+handknob)



**Dimensions and hydraulic circuit**



**Rating diagrams**



**Order code**

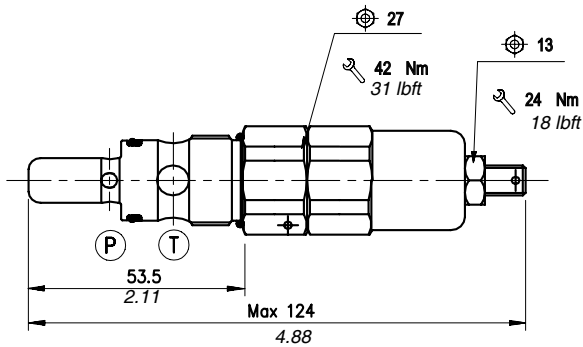
VMP 10 / □ . □

Pressure settings (bar)

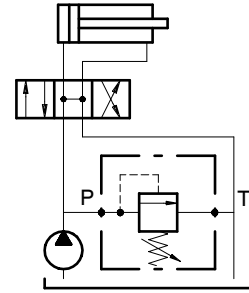
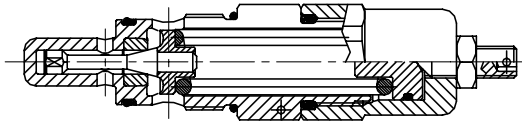
Adjustment  
(see page 105)

- |                             |                           |
|-----------------------------|---------------------------|
| TB) 5÷40 (72.5÷580 psi)     | S (screw)                 |
| TV) 20÷80 (290÷1150 psi)    | V (handknob)              |
| TS) 50÷220 (725÷3200 psi)   | W (capped adjustment)     |
| TR) 180÷350 (2600÷5100 psi) | P (panel mount)           |
|                             | PV (panel mount+handknob) |

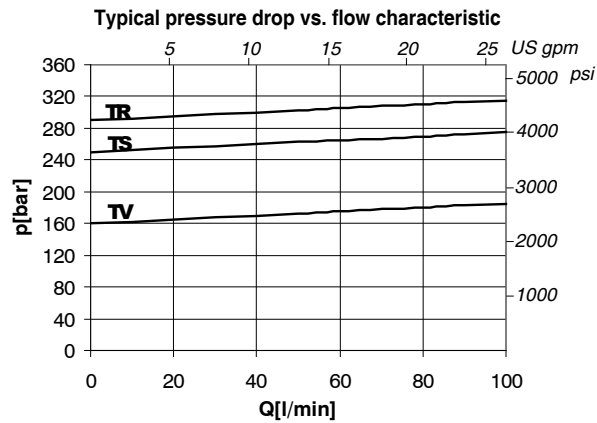
## Dimensions and hydraulic circuit



Section



## Rating diagrams



## Order code

VMP 10Y / □ . □

Pressure settings (bar)

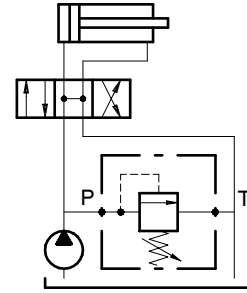
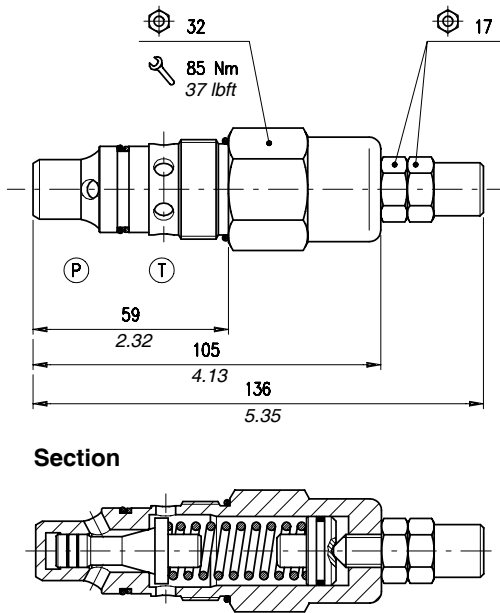
Adjustment  
(see page 105)

TV) 100 ÷ 160 (1450 ÷ 2320 psi) **W** (capped adjustment)

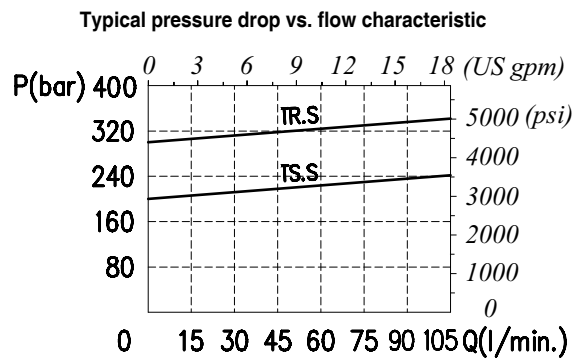
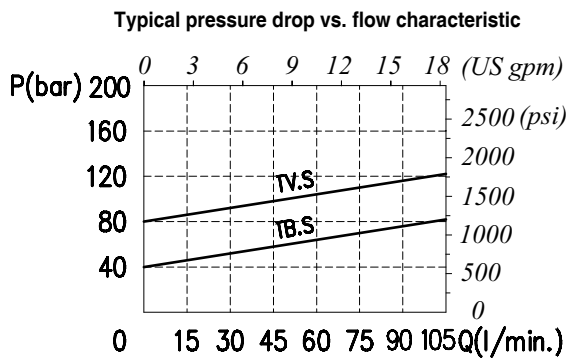
TS) 125 ÷ 250 (1800 ÷ 3600 psi)

TR) 200 ÷ 315 (2900 ÷ 4600 psi)

**Dimensions and hydraulic circuit**



**Rating diagrams**



**Order code**

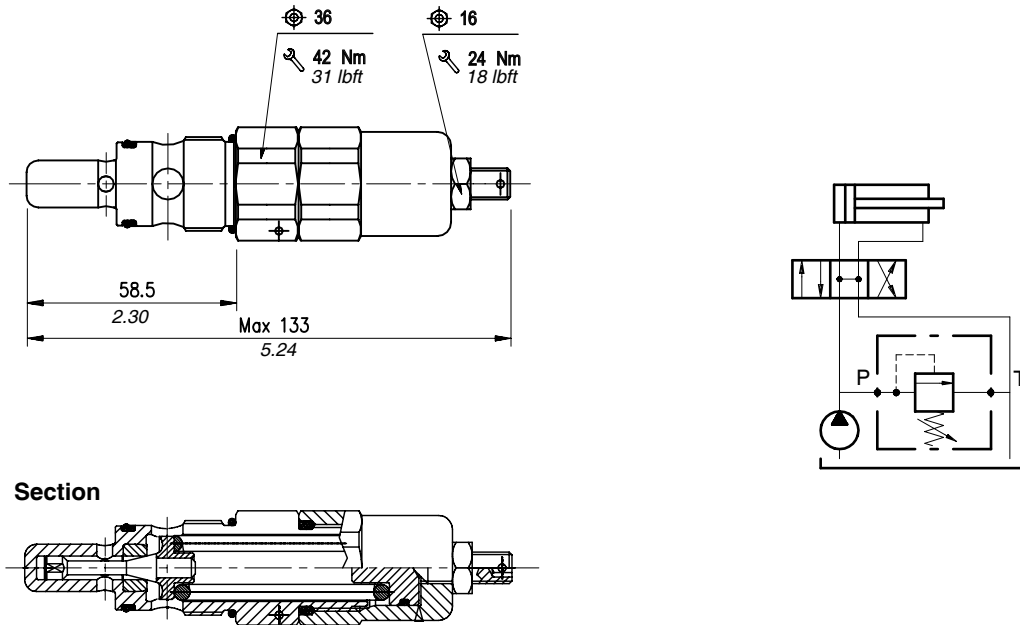
VMP 20 / □ . □

Pressure settings (bar)

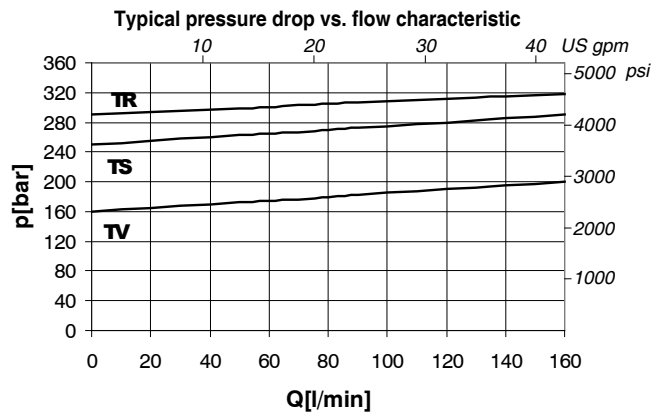
Adjustment  
(see page 105)

- |                                    |                                  |
|------------------------------------|----------------------------------|
| <b>TB)</b> 5÷40 (72.5÷580 psi)     | <b>S</b> (screw)                 |
| <b>TV)</b> 20÷80 (290÷1150 psi)    | <b>V</b> (handknob)              |
| <b>TS)</b> 50÷220 (725÷3200 psi)   | <b>W</b> (capped adjustment)     |
| <b>TR)</b> 180÷350 (2600÷5100 psi) | <b>P</b> (panel mount)           |
|                                    | <b>PV</b> (panel mount+handknob) |

## Dimensions and hydraulic circuit



## Rating diagrams



## Order code

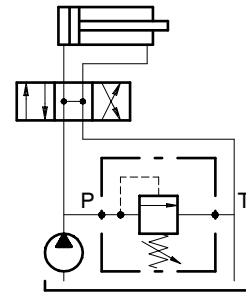
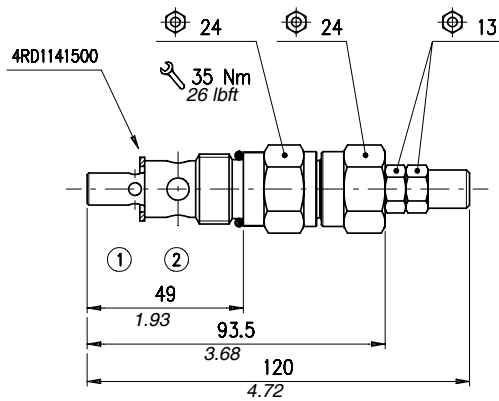
VMP 20Y / □ . □

Pressure settings (bar)

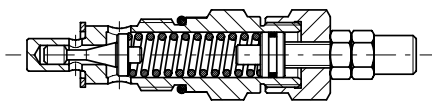
Adjustment  
(see page 105)

- TV) 100÷160 (1450÷2320 psi) **W** (capped adjustment)
- TS) 125÷250 (1800÷3600 psi)
- TR) 200÷315 (2900÷4600 psi)

**Dimensions and hydraulic circuit**

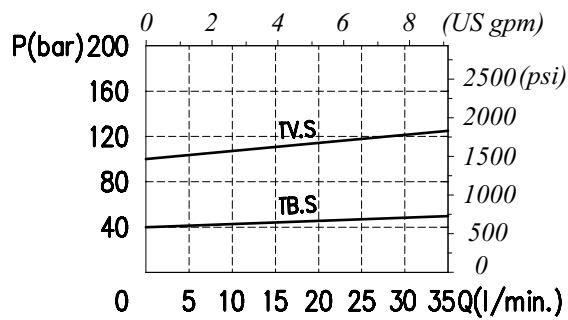


**Section**

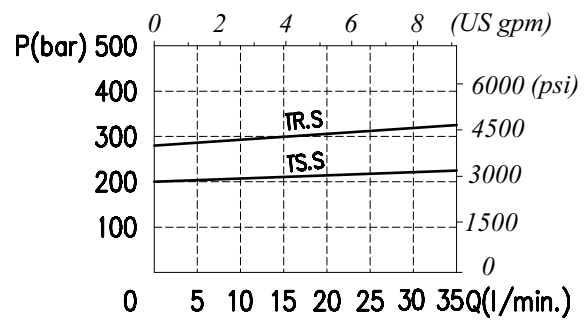


**Rating diagrams**

Typical pressure drop vs. flow characteristic



Typical pressure drop vs. flow characteristic

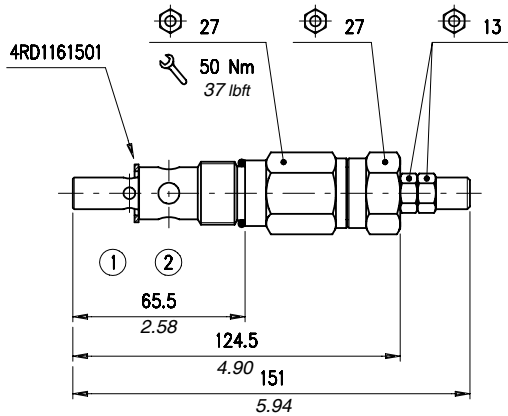


**Order code**

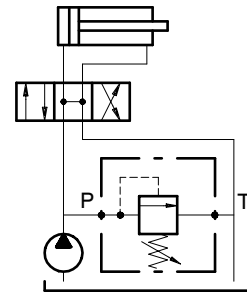
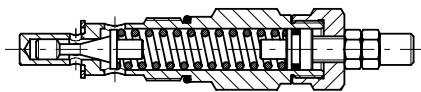
**VMP 12 / □□ . □**

Pressure settings	Adjustment
<b>TB</b> 5 ÷ 40 bar (72.5 ÷ 580 psi)	<b>S</b> (screw)
<b>TV</b> 20 ÷ 100 bar (290 ÷ 1450 psi)	<b>V</b> (handknob)
<b>TS</b> 50 ÷ 200 bar (725 ÷ 2900 psi)	<b>P</b> (panel mount)
<b>TR</b> 100 ÷ 300 bar (1450 ÷ 4350 psi)	<b>PV</b> (panel mount+handknob)

## Dimensions and hydraulic circuit

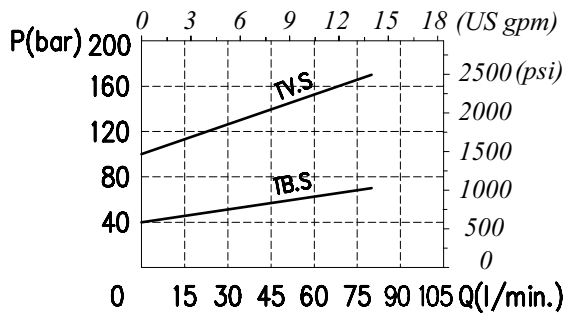


Section

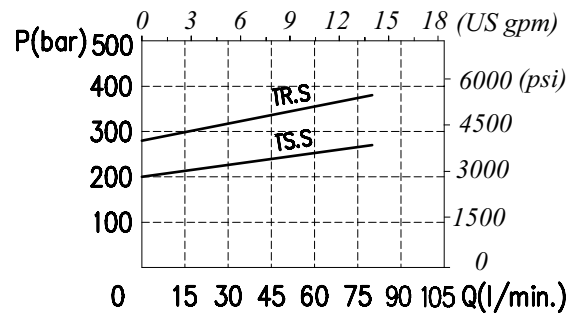


## Rating diagrams

Typical pressure drop vs. flow characteristic



Typical pressure drop vs. flow characteristic



## Order code

VMP 34 / □□ . □

Pressure settings

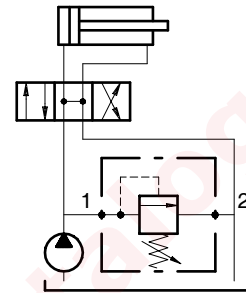
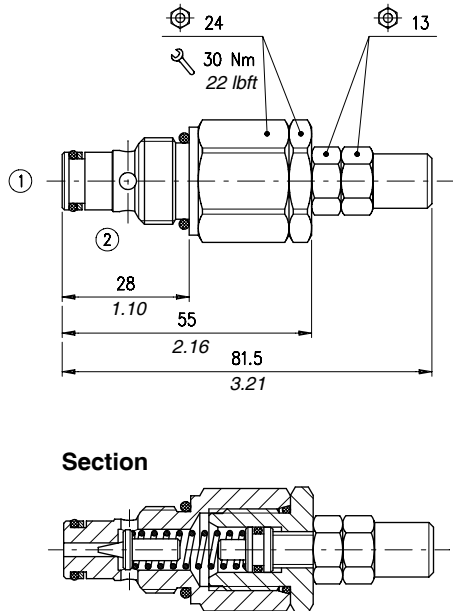
- TB) 5÷40 bar (72.5÷580 psi)
- TV) 20÷100 bar (290÷1450 psi)
- TS) 50÷200 bar \* (725÷2900 psi)
- TR) 100÷300 bar \* (1450÷4350 psi)

Adjustment  
(see page 105)

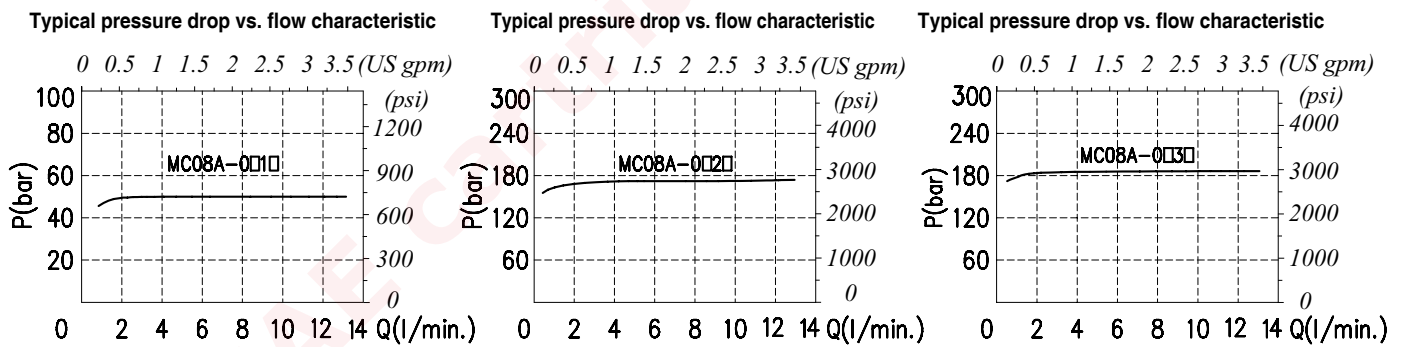
- S (screw)
- V (handknob)
- P (panel mount)
- PV (panel mount+handknob)

\* when the valve is ordered by itself max adjustable pressure is 150 bar - 2200 psi.  
Cartridge may be set higher than 150 bar - 2200 psi when installed in the machine or into a proper body

**Dimensions and hydraulic circuit**

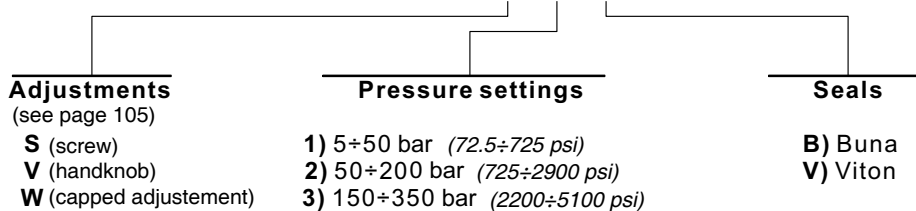


**Rating diagrams**

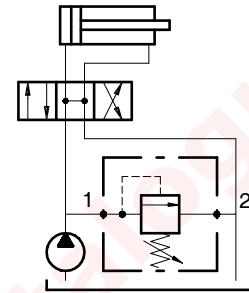
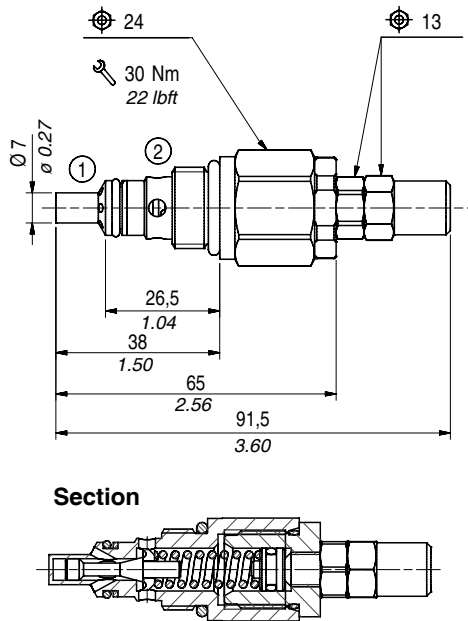


**Order code**

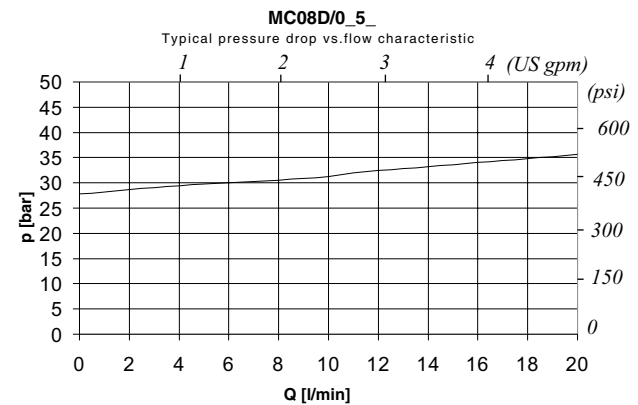
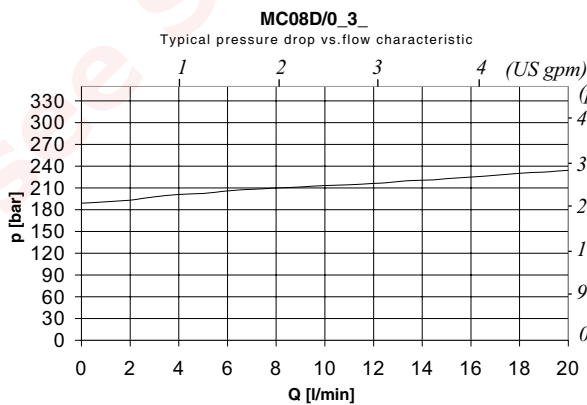
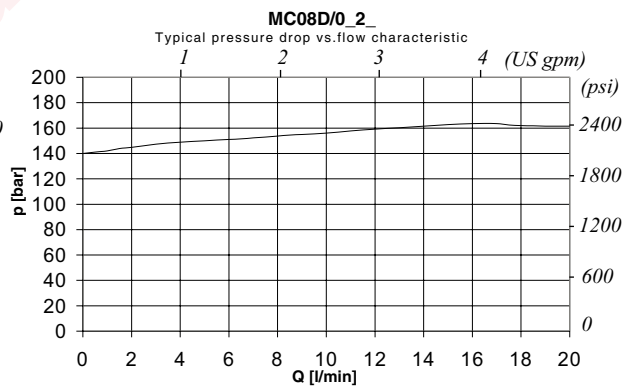
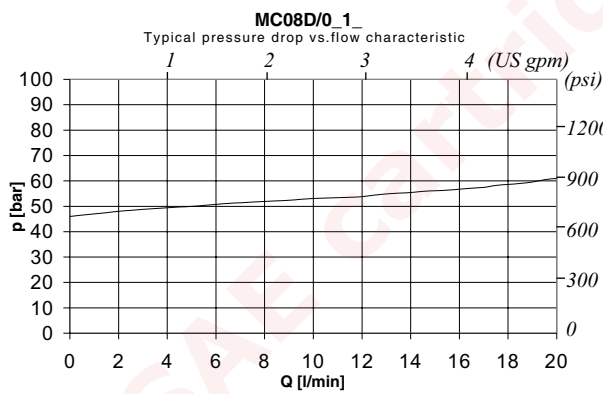
MC08A / 0 - □ - □ - □



## Dimensions and hydraulic circuit



## Rating diagrams





**MC08D / 0 -□ -□ -□****Adjustments**  
(see page 105)

- V** (handknob)
- W** (capped adjustment)

**Pressure settings**

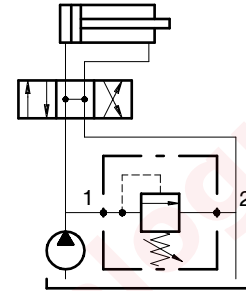
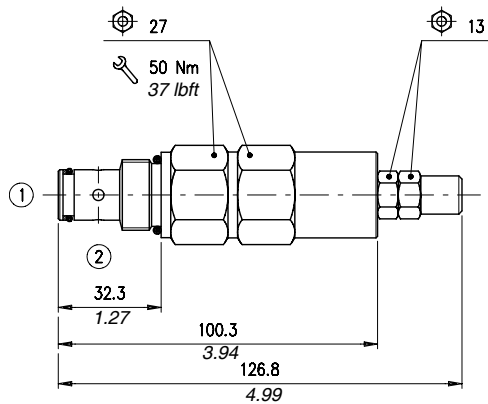
- 1)** 5÷50 bar (72.5÷725 psi)
- 2)** 50÷200 bar (725÷2900 psi)
- 3)** 150÷350 bar (2200÷5100 psi)
- 5)** 50÷350 bar (725÷5100 psi)

**Seals**

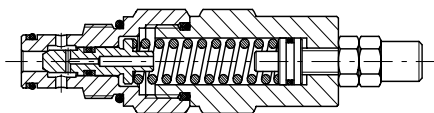
- B)** Buna
- V)** Viton

see SAE cartridges catalogue

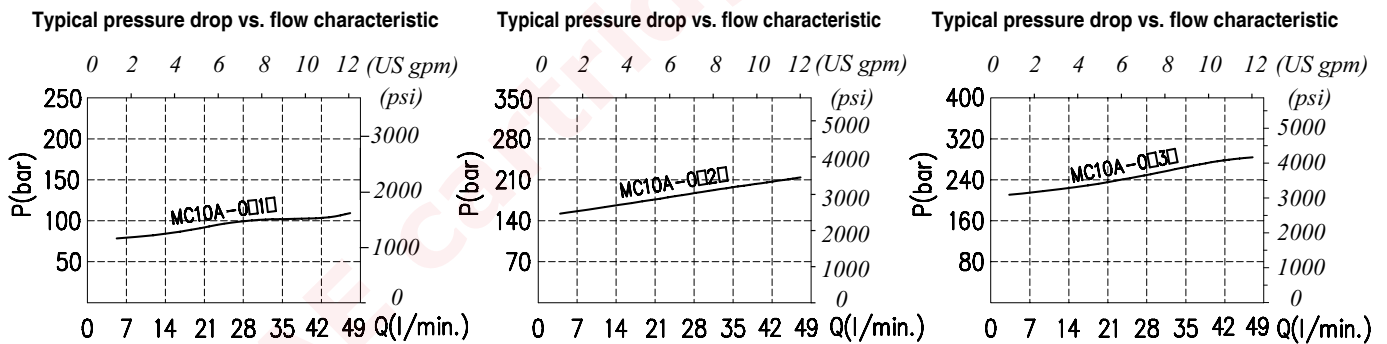
## Dimensions and hydraulic circuit



### Section



## Rating diagrams



## Order code

MC10A / 0 - □ - □ - □

### Adjustments

(see page 105)

- S** (screw)
- V** (handknob)
- W** (capped adjustment)

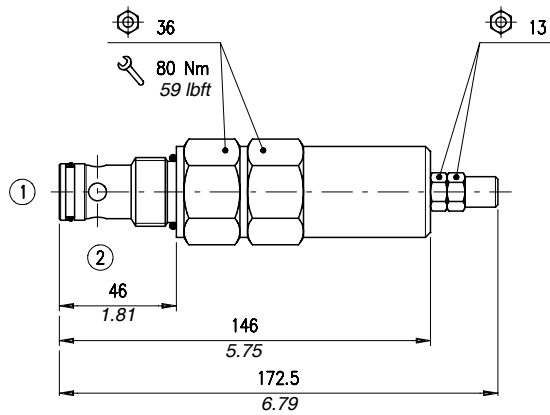
### Pressure settings

- 1) 20÷100 bar (290÷1450 psi)
- 2) 50÷200 bar (725÷2900 psi)
- 3) 150÷350 bar (2200÷5100 psi)

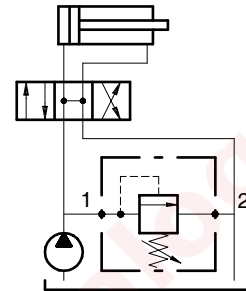
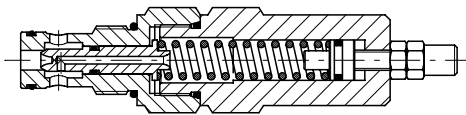
### Seals

- B**) Buna
- V**) Viton

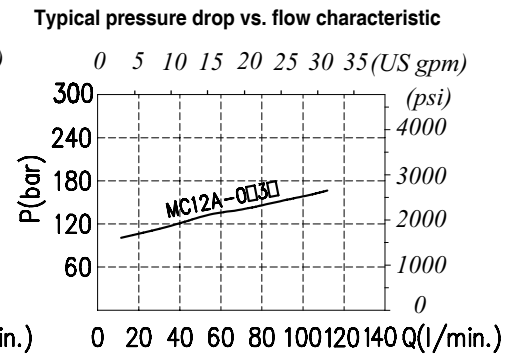
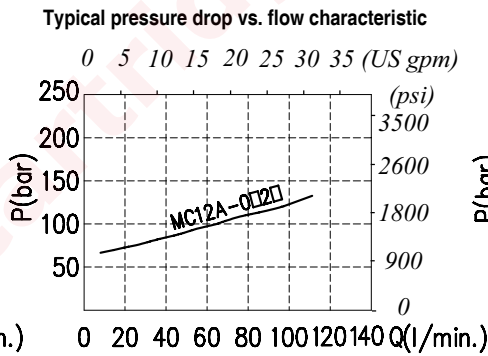
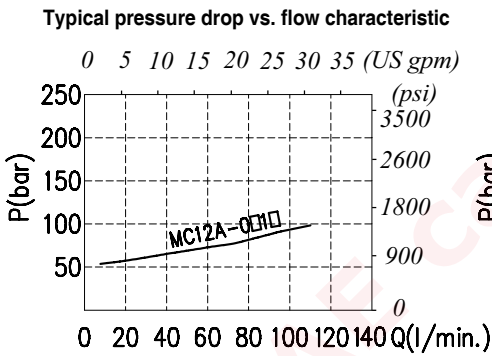
**Dimensions and hydraulic circuit**



**Section**



**Rating diagrams**



**Order code**

**MC12A / 0 - □ - □ - □**

**Adjustments**  
(see page 105)

- S** (screw)
- V** (handknob)
- W** (capped adjustment)

**Pressure settings**

- 1)** 20÷100 bar (290÷1450 psi)
- 2)** 50÷200 bar (725÷2900 psi)
- 3)** 150÷350 bar (2200÷5100 psi)

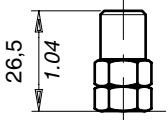
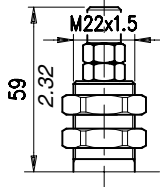
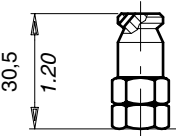
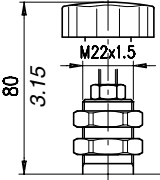
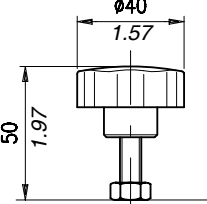
**Seals**

- B)** Buna
- V)** Viton

## Description and operation

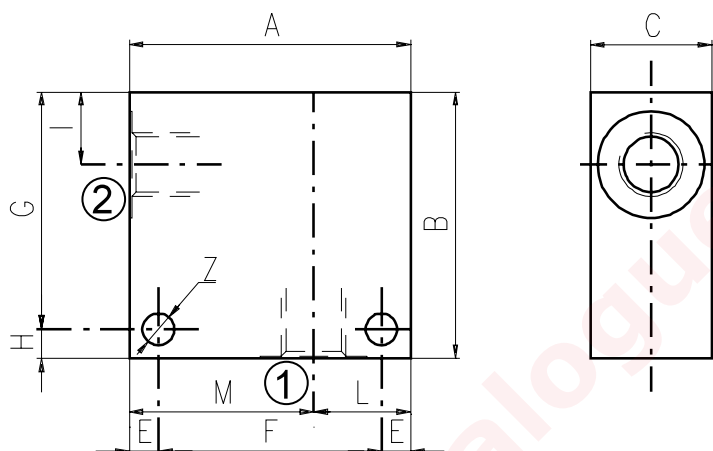
This chapter show main adjusting devices for the valves listed in this catalog.  
These regulations are used to adjust flow rate between inlet and working ports.

## Performance

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

### Dimensions

Material	Max. pressure	
	bar	psi
Alluminium	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

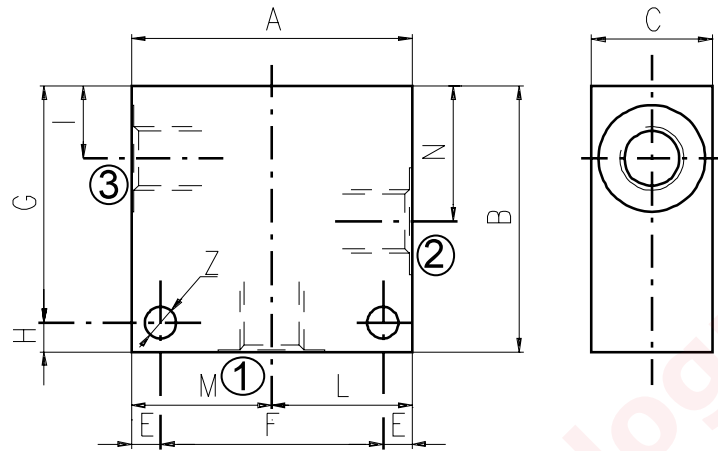
Cavity	Ports	Materials
08	B) G 1/4	1) Aluminium
10	C) G 3/8	2) Steel
12	D) G 1/2	
16	E) G 3/4	
	F) G 1	

# 2, 3 and 4 way Valves Bodies

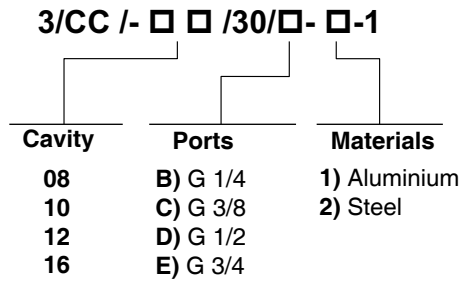
3 WAY BODIES

## Dimensions

Material	Max. pressure	
	bar	psi
Alluminium	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	1.57	0.31	2.52	3.6	0.31	0.98	1.57	1.57	2.11	0.33
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



see SAE cartridges catalogue

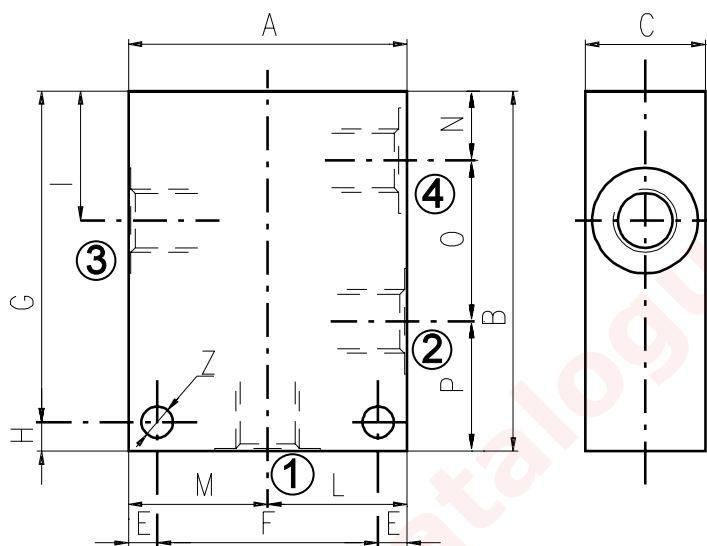


# 2, 3 and 4 way Valves Bodies

4 WAY BODIES

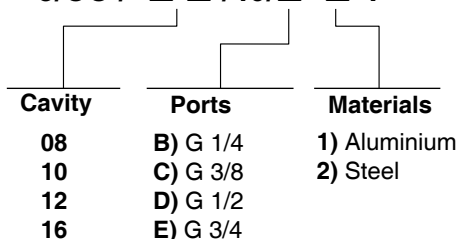
## Dimensions

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

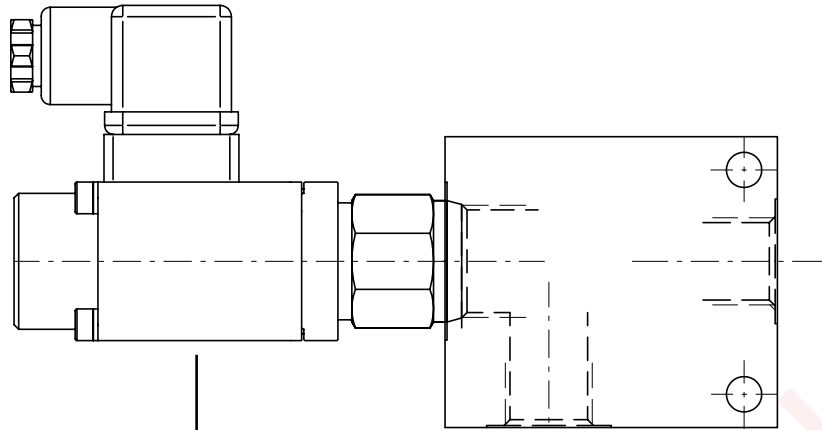


Cavity	Ports	A	B	C	E	F	G	H	I	L	M	N	O	P	Z	
SAE 8/4	G 1/4	mm	60	75	30	7	46	63	12	29,1	30	30	14,8	29,1	31,1	6,5
		in	2.36	2.95	1.18	0.27	1.81	2.48	0.47	1.14	1.18	1.18	0.58	1.14	1.22	0.25
	SAE6	mm	60	75	30	7	46	63	12	29,1	30	30	14,8	29,1	31,1	6,5
		in	2.36	2.95	1.18	0.27	1.81	2.48	0.47	1.14	1.18	1.18	0.58	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	2.45	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



## How to order valves with body



**CARTRIDGE CODE**

**MP-10-Y/0-4-1V/**

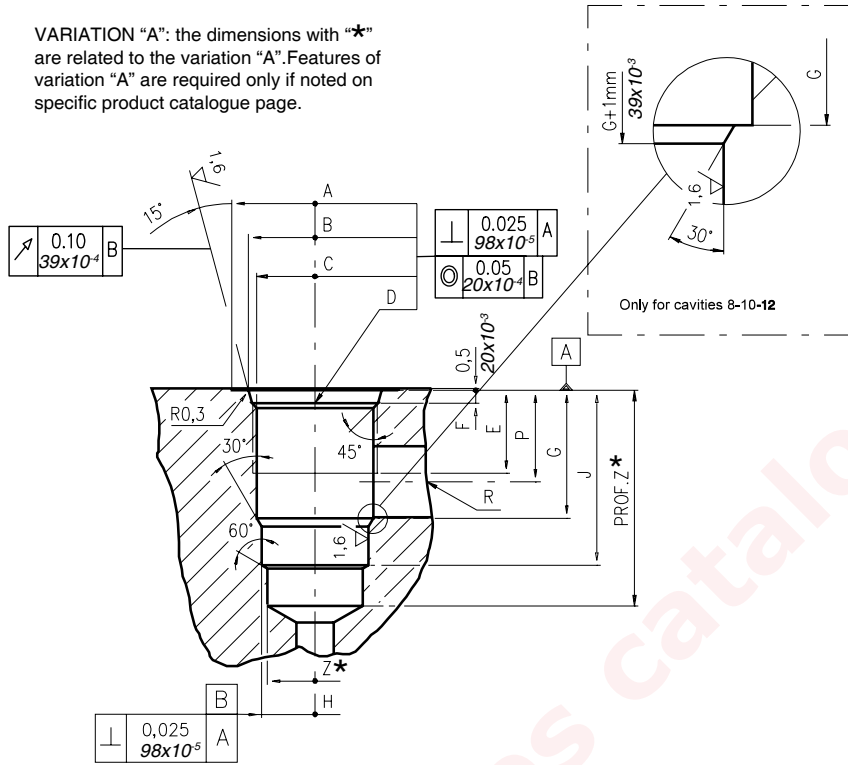
**BILLET CODE**

**C- 1-1**

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

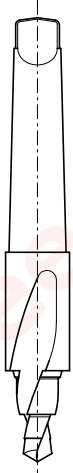
## Dimensions

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.



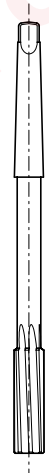
\		A	B ±0,05	C ±0,05	D	E	F	G	H ±0,02	J	K ±0,02	L	M ±0,02	N	P	R øMAX	S øMAX	T øMAX	U	V øMAX	X øMAX	Z ★ øMIN	Prof.Z MIN★
		08/2	mm	27	20,66	17,42	3/4-16 UNF	12,50	2,50	18,20	12,72	29,50	-	-	-	-	14,00	8,00	-	-	-	-	-
	in	1.06	0.81	0.68	UNF	0.49	0.10	0.72	0.50	1.16					0.55	0.31						0.47	1.53
10/2	mm	30	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	UNF	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	UNF	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	UNF	0.87	0.14	1.34	1.13	1.85					0.96	0.75						1.00	2.75

Rougher tool



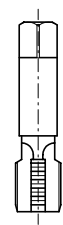
Cavity	Code number
08/2	3UT00053190
10/2	3UT00056610
12/2	3UT00054090
16/2	3UT00054510

Finisher tool



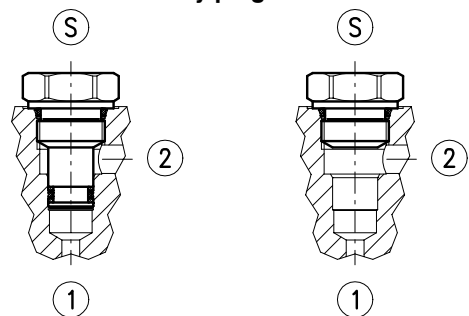
Cavity	Code number
08/2	3UT06A1270N
10/2	3UT00054580
12/2	3UT00054670
16/2	3UT00054520

Tap



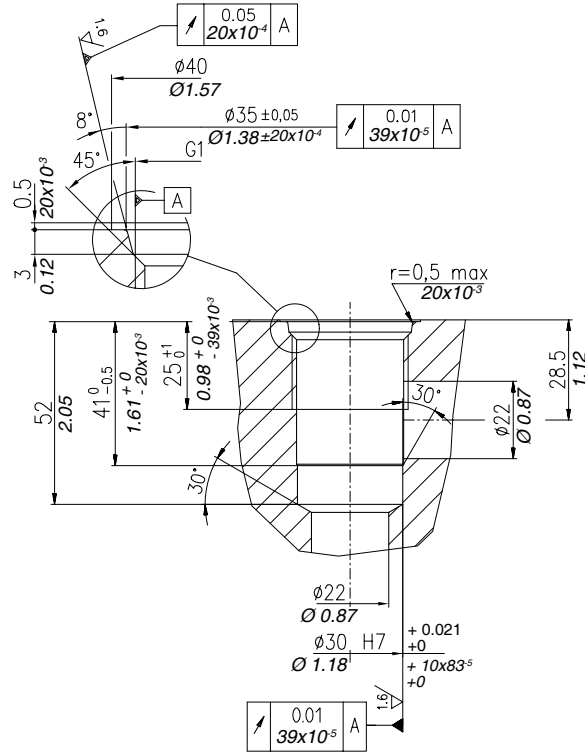
Cavity	Code number
08/2	3UT03416UNF
10/2	3UT07814UNF
12/2	3UT0111612UN
16/2	3UT0151612UN

Cavity plugs

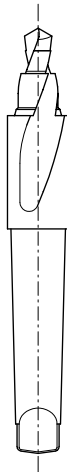


Cavity	Code number	①	②	Ⓢ
08/2	3XTP3533700	X	X	X
	4TP5531500	0	0	X
10/2	3XTP3544200	X	X	X
	3XTP1542300	0	0	X
12/2	3XTP3555400	X	X	X
	3XTP1552900	0	0	X
16/2	3XTP3575500	X	X	X
	3XTP1572900	0	0	X

X=Closed 0=Open



Rougher tool  
Cod.3UT00050870A



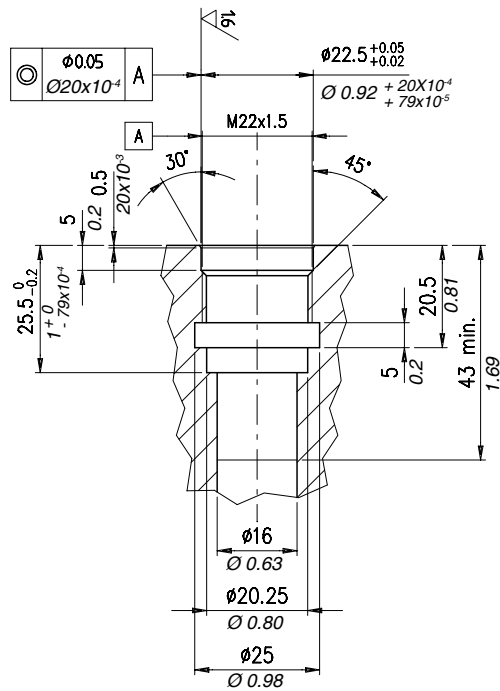
Finisher tool  
Cod.3UTO6A3000N



Tap  
Cod.3UT09A10F11G

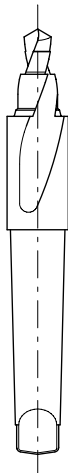


## Dimensions



Rougher tool

Code 3UT00054660



Finisher tool

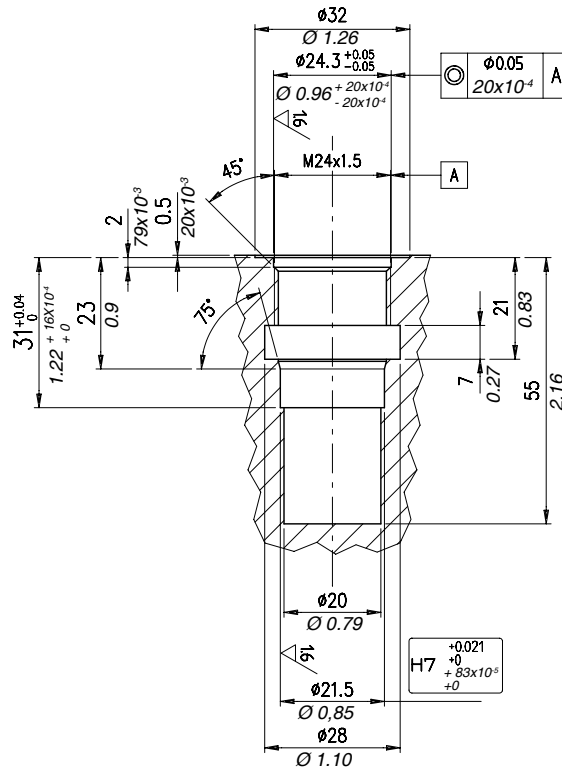
Code 3UT00055530



Tap

Code 3UT08A22F150





Rougher tool

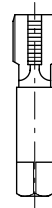
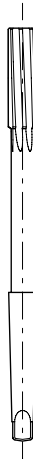
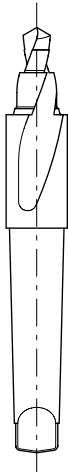
Code 3UT00052210

Finisher tool

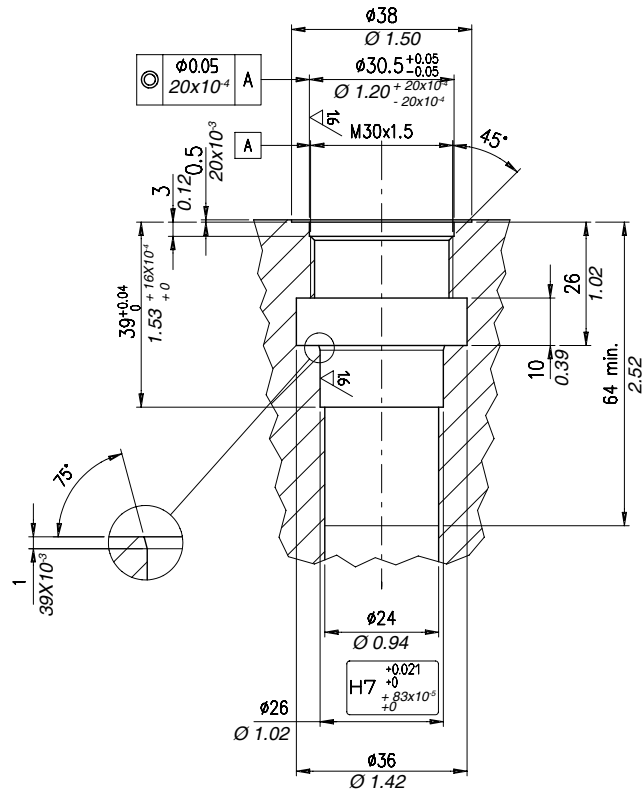
Code 3UT00055030

Tap

Code 3UT08A24F150



## Dimensions



**Rougher tool**

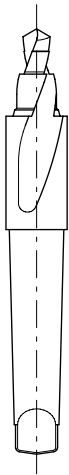
**Code 3UT00052200**

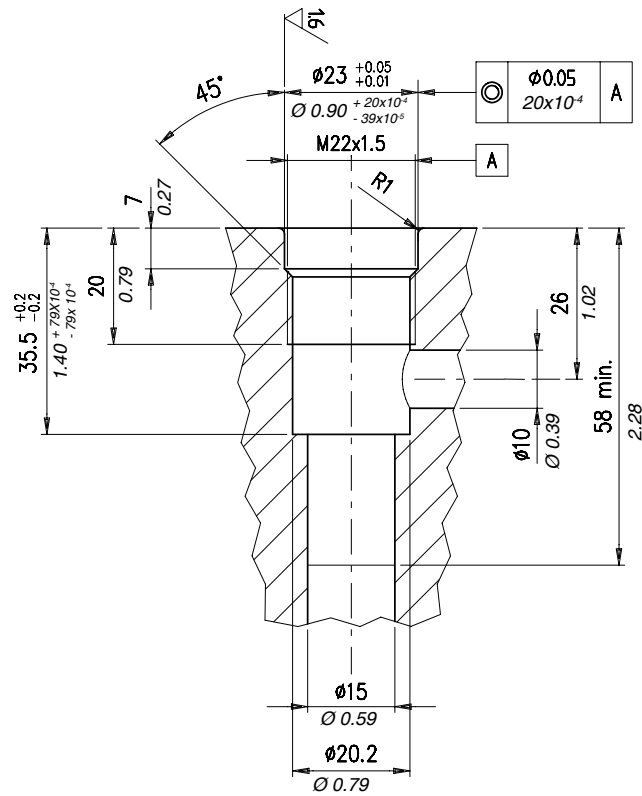
**Finisher tool**

**Code 3UT06A2600P**

**Tap**

**Code 3UT08A30F150**

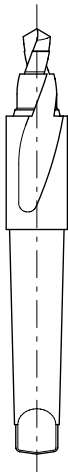




**Rougher tool**  
Code 3UT00055540

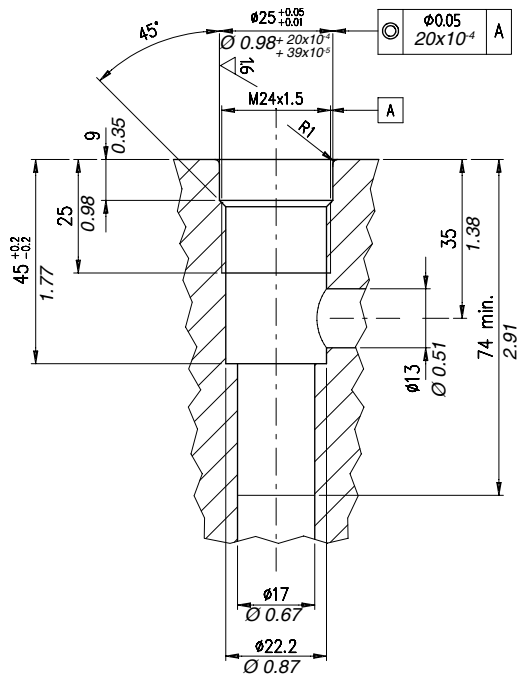
**Finisher tool**  
Code 3UT06A2300N

**Tap**  
Code 3UT08A22F150



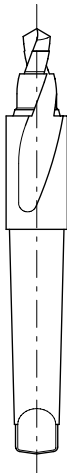


## Dimensions



**Rougher tool**

Code 3UT00055550



**Finisher tool**

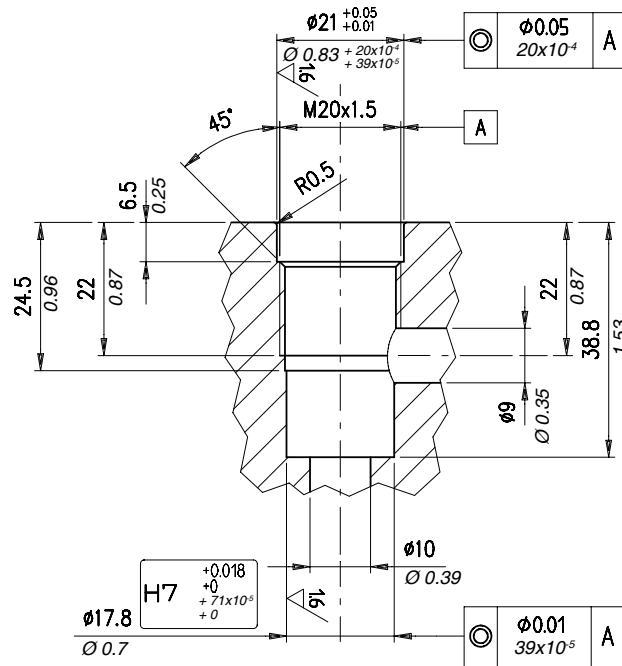
Code 3UT06A2500N



**Tap**

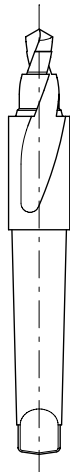
Code 3UT08A24F150





Rougher tool

Code 3UT00050050



Finisher tool

Code 3UT00055040

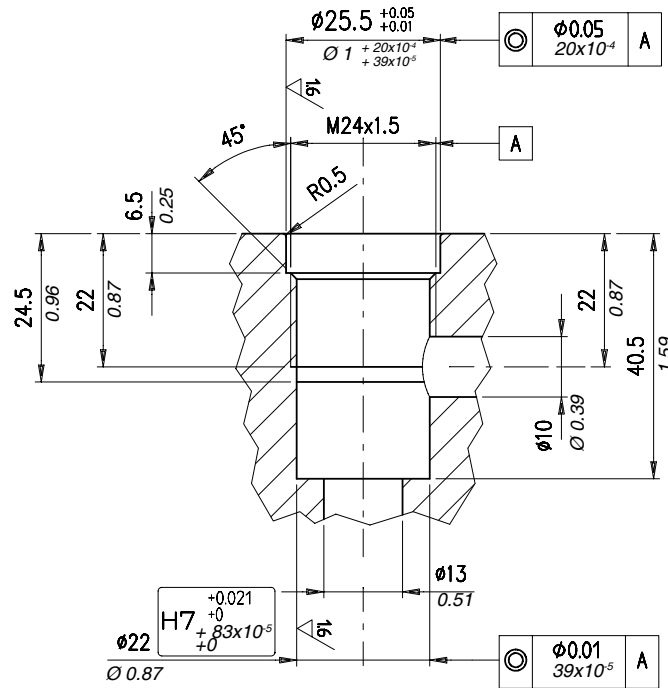


Tap

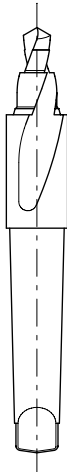
Code 3UT08A20F150



## Dimensions



**Rougher tool**  
Code 3UT00050070

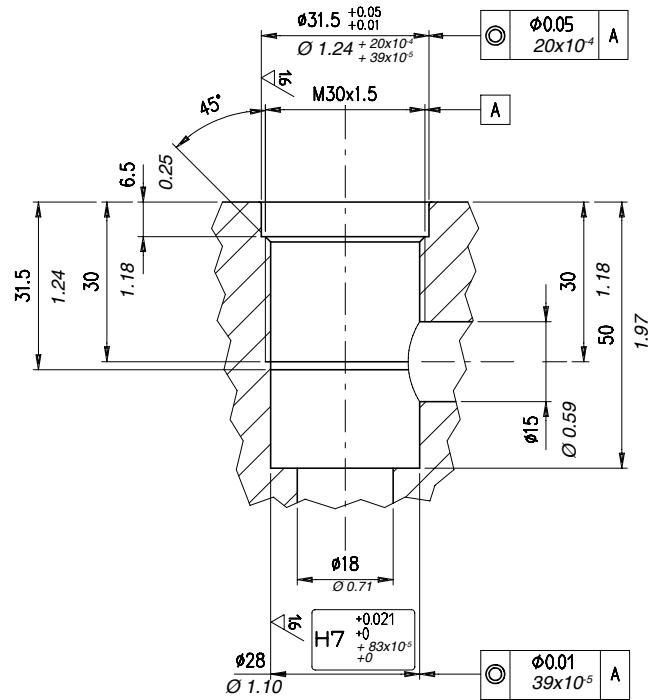


**Finisher tool**  
Code 3UT06A22000P

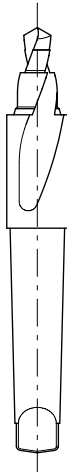


**Tap**  
Code 3UT08A24F150





**Rougher tool**  
Code 3UT00050070



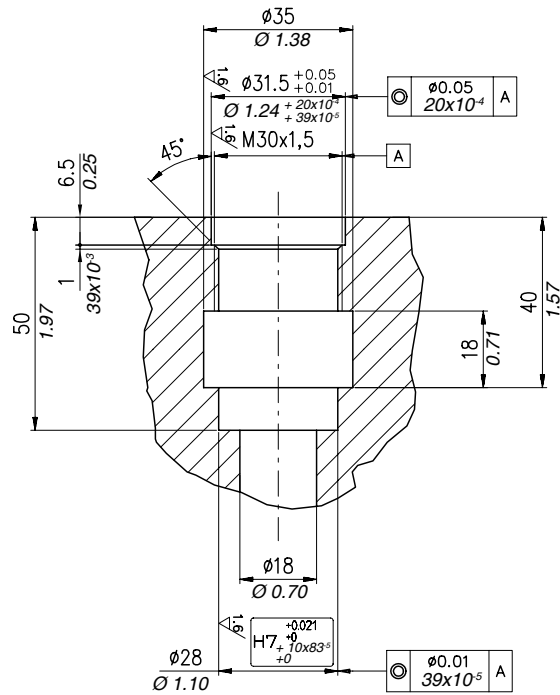
**Finisher tool**  
Code 3UT06A22000P



**Tap**  
Code 3UT08A24F150

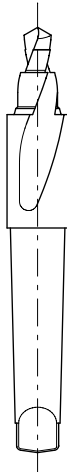


## Dimensions



Rougher tool

Code 3UT00050070



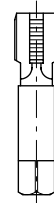
Finisher tool

Code 3UT06A22000P



Tap

Code 3UT08A24F150



1<sup>st</sup> edition May 2010

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