CATALOGUE

SAE cavity cartridges

walvoil
FLUID POWER E|MOTION

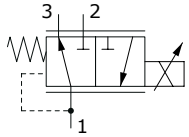
RD08S-RD08T type
pressure reducing valves - 3 ways

- Solenoid proportional type, direct acting
- With relieving (NO)
- Spool type

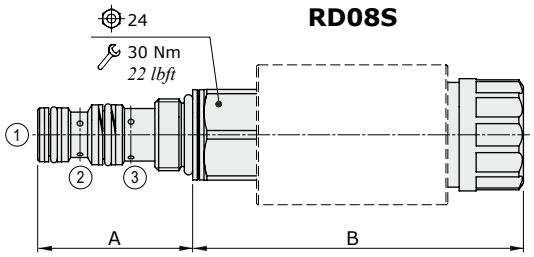
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C *(104°F)* temperature.

		RD08S	RD08T
Nominal flow		4 l/min *(1.05 US gpm)*	12 l/min *(3.17 US gpm)*
Max. pressure		210 bar *(3050 psi)*	
Oil leakage		-	-
Fluid		mineral based oil	
Viscosity		10-200 cSt	
Max level of contamination		18/16/13 ISO4406	
Fluid temperature	*with NBR seals* *with FPM seals*	from -20°C *(-4°F)* to 80°C *(176°F)* from -20°C *(-4°F)* to 100°C *(212°F)*	
Environmental temp. for working conditions		from -40°C *(-40°F)* to 100°C *(212°F)*	
Cavity		SAE 8/3	SAE 8/3
Coil type*		MSM 19	
Nominal voltages		12 VDC - 24 VDC	
Power rating		21.6 W (12 VDC) - 22.5 W (24 VDC)	
Max control current		12 V -> 1.25 A - 24 V -> 0.68A	
Dither frequency		150 Hz	
Hysteresis		≤4%	
Weight		0.492 kg *(1.08 lb)*	1.140 kg *(0.79 lb)*

NOTE - For different conditions, please contact Walvoil Sales Dpt. - For coils further features see from page 190.



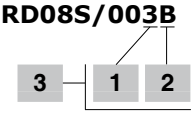
RD08S



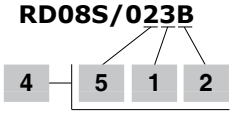
Valve type	A		B	
	mm	*in*	mm	*in*
RD08S	41	*1.61*	87.5	*1.27*
RD08T	41	*1.61*	97	*1.81*

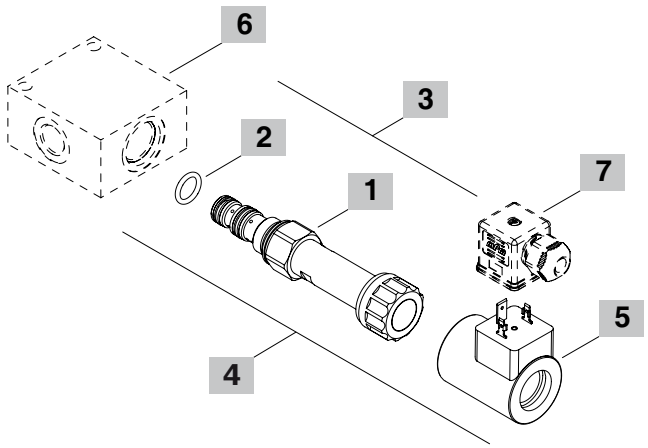
Ordering codes and description composition

RD08S/003B



RD08S/023B





1 Pressure range

TYPE	DESCRIPTION
1	Pressure range 5÷45 bar *(72.5÷652.5 psi)*
3	Pressure range 5÷35 bar *(72.5÷507.5 psi)*

2 Seals

TYPE	DESCRIPTION
B	**NBR (Buna)** o-ring seals, std configuration
V	**FPM (Viton)** o-ring seals, contact Sales Dept.

3 Cartridges

TYPE	CODE	DESCRIPTION
RD08S/003B	0RD08002025	Pressure range **1**
RD08T/001B	0RD08002016	Pressure range **2**

4 Complete cartridges

TYPE	CODE	DESCRIPTION
RD08S/023B	0RD08002023	Pressure range **1**, 12VDC
RD08T/021B	0RD08002024	Pressure range **2**, 12VDC

5 Coils

TYPE	CODE	DESCRIPTION
2) MSM 19 12VDC	4SL5000128	12VDC-ISO4400 coil
4) MSM 19 24VDC	4SL5000247	24VDC-ISO4400 coil

For complete coils list see page 190

6 Valve body

TYPE	CODE	DESCRIPTION
SAE 8/3-G 3/8	3CC0830C11	Aluminium body for cavity 8 valve, G 3/8 std thread

Note: aluminium body can stand up to 210 bar *(3050 psi)*

For steel bodies or different threading see from page 199

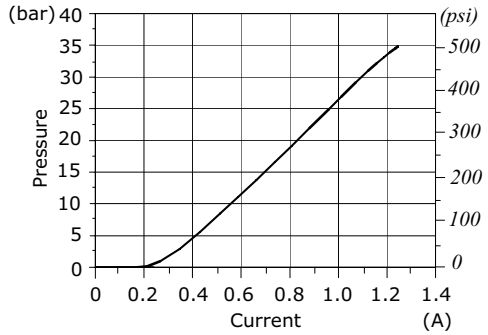
7 Connector

TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector

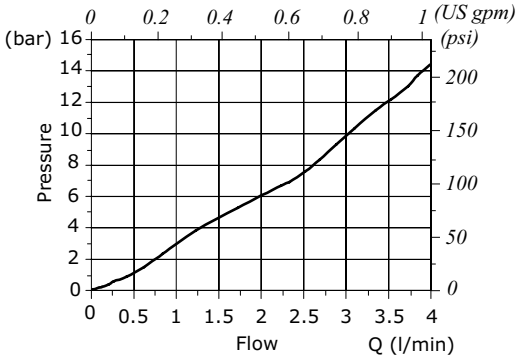
For complete connectors list see from page 190

Rating diagrams

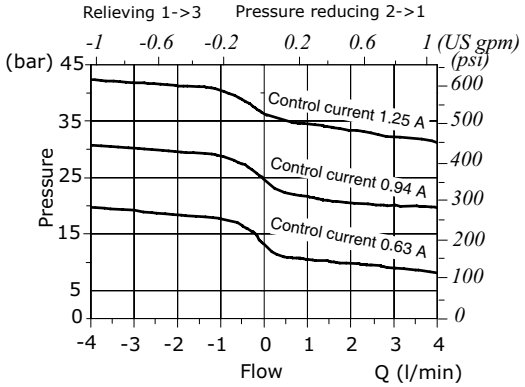
RD08S pressure reducing vs. control current
12 VDC power supply



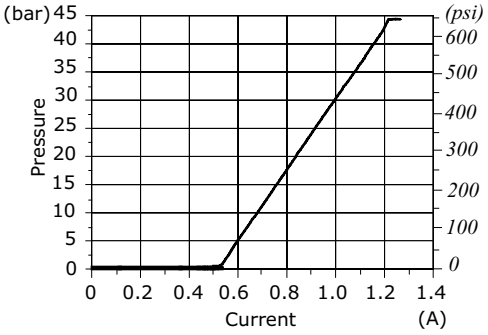
RD08S pressure drop vs. flow 2->1



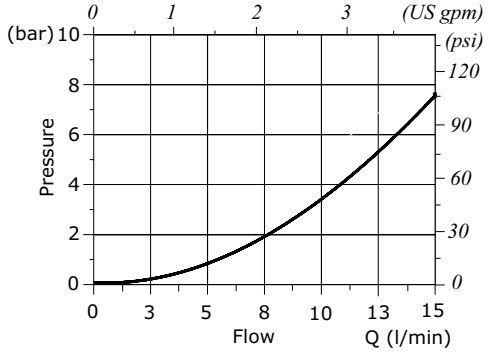
RD08S reducing/relieving pressure vs. flow
for % of control current



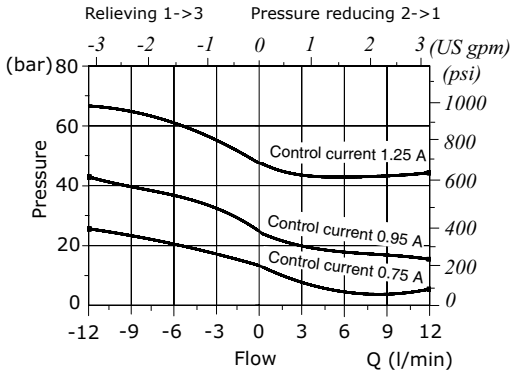
RD08T pressure reducing vs. control current
12 VDC power supply



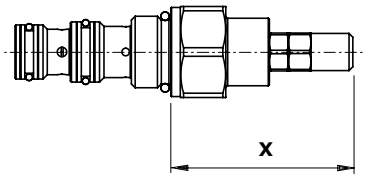
RD08T pressure drop vs. flow 2->1



RD08T reducing/relieving pressure vs. flow
for % of control current



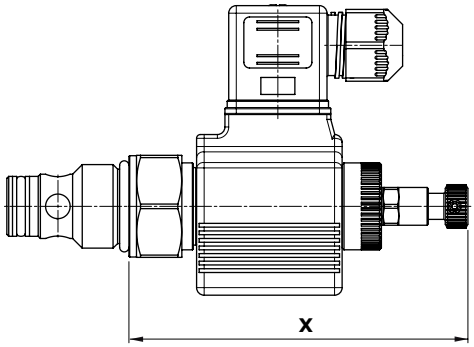
Types and dimensions



Valve type	Cavity	Dimension "X" M Handknob		S screw		V handwheel	
		mm	in	mm	in	mm	in
MC..A	08/2	-	-	53.5	2.11	77	3.03
	10/2	-	-	94.5	3.72	118	4.65
	12/2	-	-	126.5	4.98	150	5.91
MG..A	10/2	-	-	94.5	3.72	118	4.65
	12/2	-	-	126.5	4.98	150	5.91
MP..A	10/2	-	-	54.5	2.15	77.5	3.05
	12/2	-	-	52.5	2.07	75.5	2.97
RB..A	08/3	-	-	79.5	3.13	103	4.05
	10/3	-	-	94.5	3.72	118	4.65
RD..A	08/3	-	-	79.5	3.13	103	4.05
	10/3	-	-	94.5	3.72	118	4.65
RM..A	10/3	-	-	54.5	2.15	66	2.60
	12/3	-	-	51.5	2.03	63	2.48
	16/3	-	-	50.5	1.99	62	2.44
RP..A	10/3	-	-	54.5	2.15	66	2.60
	12/3	-	-	51.5	2.03	63	2.48
	16/3	-	-	50.5	1.99	62	2.44
NB..A	08/2	52	2.05	49.5	1.95	-	-
	10/2	48	1.89	46.5	1.83	-	-
	12/2	49.2	1.94	46.3	1.82	-	-
	16/2	68.8	2.71	-	-	-	-

Valve type	Cavity	Dimension "X" M Handknob		S screw		V handwheel	
		mm	in	mm	in	mm	in
NT..A	08/2	67.5	2.66	64.5	2.54	-	-
	10/2	68	2.68	65	2.56	-	-
	12/2	69	2.72	66	2.60	-	-
	16/2	68.9	2.71	-	-	-	-
NU..A	08/2	66.5	2.62	64.5	2.54	-	-
	10/2	68	2.68	65	2.56	-	-
	12/2	69	2.72	66	2.60	-	-
	16/2	66.9	2.63	-	-	-	-
PU..A	08/2	49.5	1.95	46.5	1.83	-	-
	10/2	44	1.73	41	1.61	-	-
	12/2	45	1.77	42	1.65	-	-
	16/2	52	2.05	49	1.93	-	-
PW..A	08/2	64.5	2.54	62	2.44	-	-
	10/2	71.9	2.83	69.4	2.73	-	-
	12/2	64.5	2.54	62	2.44	-	-
	16/2	68	2.68	65.5	2.58	-	-
PP..A	08/3	49.5	1.95	46.5	1.83	-	-
	10/3	44	1.73	41	1.61	-	-
	12/3	45	1.77	42	1.65	-	-
	16/3	52	2.05	49	1.93	-	-

Types and dimensions



Valve type		Dimension "X"															
		N / 0 without emergency		T screw type		P push button		D push type with detent		F pull button		Q pull type with detent		E with pull/ push-button		V handknob	
		mm	*in*	mm	*in*	mm	*in*	mm	*in*	mm	*in*	mm	*in*	mm	*in*	mm	*in*
MC10X		86	*3.39*	105	*4.13*	-	-	-	-	-	-	-	-	-	-	-	-
MC10X-HF		94.8	*3.73*	94.5	*3.72*	-	-	-	-	-	-	-	-	-	-	-	-
MP10X		86	*3.39*	105	*4.13*	-	-	-	-	-	-	-	-	-	-	-	-
MP12X		102	*4.02*	121	*4.76*	-	-	-	-	-	-	-	-	-	-	-	-
PU08X		94	*3.70*	108	*4.25*	-	-	-	-	-	-	-	-	-	-	142	*5.59*
PU10X		96.4	*3.79*	110.4	*4.35*	-	-	-	-	-	-	-	-	-	-	144.4	*5.68*
PU12X		97.4	*3.83*	111.4	*4.50*	-	-	-	-	-	-	-	-	-	-	145.4	*5.72*
PU16X		121.4	*4.78*	135.4	*5.33*	-	-	-	-	-	-	-	-	-	-	169.4	*6.67*
PP08X		94	*3.70*	108	*4.25*	-	-	-	-	-	-	-	-	-	-	142	*5.59*
PP10X		96.4	*3.79*	110.4	*4.35*	-	-	-	-	-	-	-	-	-	-	144.1	*5.67*
PP12X		97.4	*3.83*	111.4	*4.39*	-	-	-	-	-	-	-	-	-	-	145.1	*5.71*
PP16X		121.4	*4.78*	135.4	*5.33*	-	-	-	-	-	-	-	-	-	-	169.4	*6.67*
EA08A	**NO**	60	*2.36*	79.3	*3.12*	-	-	-	-	-	-	-	-	-	-	-	-
	NC	59	*2.32*	79	*3.11*	-	-	-	-	-	-	-	-	-	-	-	-
EA08B	**NO**	70.9	*2.79*	90.3	*3.55*	-	-	-	-	-	-	-	-	-	-	-	-
	NC	65.5	*2.58*	90.5	*3.56*	-	-	-	-	-	-	-	-	-	-	-	-
EC08M	**NO**	67.2	*2.64*	90.1	*3.55*	90.1	*3.55*	92.8	*3.65*	-	-	-	-	-	-	-	-
EF08M EH08M	**NC**	63.3	*2.49*	77.8	*3.06*	-	-	-	-	91.3	*3.59*	83.8	*3.30*	-	-	-	-
EC10M	**NO**	66.9	*2.63*	89.8	*3.54*	89.8	*3.54*	92.5	*3.64*	-	-	-	-	-	-	-	-
EF10M EH10M	**NC**	63	*2.48*	77.5	*3.05*	-	-	-	-	91	*3.58*	83.5	*3.29*	-	-	-	-
EC12M	**NO**	61.1	*2.40*	84	*3.31*	84	*3.31*	86.8	*3.42*	-	-	-	-	-	-	-	-
EF12M EH12M	**NC**	57.2	*2.25*	71.7	-	-	-	-	-	85.2	*3.35*	77.7	*3.06*	-	-	-	-
EC16M	**NO**	61.2	*2.41*	84.1	*3.31*	84.1	*3.31*	86.9	*3.42*	-	-	-	-	-	-	-	-
EF16M EH16M	**NC**	57.3	*2.26*	71.8	-	-	-	-	-	85.3	*3.36*	77.8	*3.06*	-	-	-	-

Types and dimensions

Valve type		Dimension "X"															
		N / 0 without emergency		**T** screw type		**P** push button		**D** push type with detent		**F** pull button		**Q** pull type with detent		**E** with pull/ push-button		**V** handknob	
		mm	*in*	**mm**	*in*	**mm**	*in*	**mm**	*in*	**mm**	*in*	**mm**	*in*	**mm**	*in*	**mm**	*in*
EW08A	**NO**	65.7	*2.59*	73.5	*2.89*	-	-	-	-	-	-	-	-	-	-	-	-
	NC	70.9	*2.79*	90.3	*3.56*	87.2	*3.43*	-	-	-	-	-	-	-	-	-	-
EW10A	**NC**	-	-	-	-	83.3	*3.28*	-	-	-	-	-	-	-	-	-	-
EW10B	**NO**	99.8	*3.93*	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EW12B	**NO**	102.8	*4.05*	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EW12C	**NC**	-	-	-	-	98.7	*3.89*	-	-	-	-	-	-	-	-	-	-
EW08M	**NO**	60.1	*2.37*	77	*3.03*	-	-	-	-	88.1	*3.47*	81	*3.19*	-	-	-	-
	NC	62.5	*2.46*	85.4	*3.36*	85.4	*3.36*	88.1	*3.47*	-	-	-	-	-	-	-	-
EW10M	**NC**	81.3	*3.20*	95.3	*3.75*	104.2	*4.10*	106.3	*4.19*	-	-	-	-	-	-	-	-
EJ08F		65.7	*2.59*	73.5	*2.89*	-	-	-	-	-	-	-	-	-	-	-	-
EJ08G		65.7	*2.59*	73.5	*2.89*	-	-	-	-	-	-	-	-	-	-	-	-
EJ08M		56.1	*2.21*	70.6	*2.78*	-	-	-	-	84.1	*3.31*	77	*3.03*	-	-	-	-
EJ10M		68	*2.68*	82.5	*3.25*	-	-	-	-	96	*3.78*	88.9	*3.50*	-	-	-	-
EL08A		94.9	*3.74*	-	-	96	*3.78*	-	-	-	-	-	-	-	-	-	-
EL10C		86.7	*3.41*	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ER08M		75	*2.95*	100	*3.94*	-	-	-	-	115.5	*4.55*	95.8	*3.77*	-	-	-	-
ER10M		89	*3.50*	110.5	*4.35*	-	-	-	-	129.5	*5.10*	110	*4.33*	-	-	-	-
ET08M		120	*4.72*	-	-	121	*4.76*	165	*6.50*	-	-	-	-	165.6	*6.52*	-	-
ET10M		148.5	*5.85*	-	-	149.5	*5.89*	190.9	*7.52*	-	-	-	-	191.5	*7.54*	-	-
ET12A		156	*6.14*	-	-	156	*6.14*	-	-	-	-	-	-	-	-	-	-

Dimensions and ordering codes

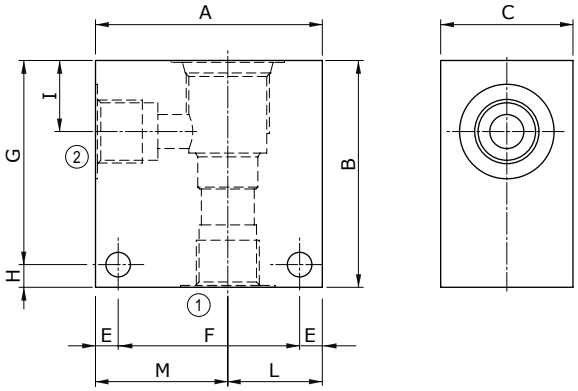
Description composition

3/CC/- □ □ /20/ □-□ -1

Cavity
- **08**
- **10**
- **12**
- **16**

Ports
- **B)** G 1/4
- **C)** G 3/8
- **D)** G 1/2
- **E)** G 3/4
- **F)** G 1
- **J)** SAE6
- **K)** SAE8
- **L)** SAE10
- **M)** SAE12
- **N)** SAE16

Materials
- **1)** Aluminium
- **2)** Steel



Material	Max. pressure	
	bar	*psi*
Alluminium	210	*3050*
Steel	350	*5100*

Cavity	Ports		Dimensions											Ordering code	
			A	B	C	E	F	G	H	I	L	M	Z	Aluminium	Steel
SAE 08/2	G 1/4	**mm**	50	50	30	6	38	44	6	14.8	20	30	6.5	3CC0820B11	3CC0820B21
		in	*1.97*	*1.97*	*1.18*	*0.24*	*1.50*	*1.73*	*0.24*	*0.58*	*0.79*	*1.18*	*0.26*		
	G 3/8	**mm**	50	50	30	6	38	44	6	14,8	20	30	6.5	3CC0820C11	3CC0820C21
		in	*1.97*	*1.97*	*1.18*	*0.24*	*1.50*	*1.73*	*0.24*	*0.58*	*0.79*	*1.18*	*0.26*		
	G 1/2	**mm**	60	60	35	6	48	54	6	18	25	35	6.5	3CC0820D11	/
		in	*2.36*	*2.36*	*1.38*	*0.24*	*1.89*	*2.16*	*0.24*	*0.71*	*0.98*	*1.38*	*0.26*		
	SAE6	**mm**	50	50	30	6	38	44	6	14.8	20	30	6.5	3CC0820J11	3CC0820J21
		in	*1.97*	*1.97*	*1.18*	*0.24*	*1.50*	*1.73*	*0.24*	*0.58*	*0.79*	*1.18*	*0.25*		
	SAE8	**mm**	60	60	30	6	48	54	6	14	25	35	6.5	3CC0820K11	3CC0820K21
		in	*2.36*	*2.36*	*1.18*	*0.24*	*1.89*	*2.16*	*0.24*	*0.55*	*0.98*	*1.38*	*0.25*		
SAE 10/2	G 1/4	**mm**	60	60	35	6	48	54	6	18.8	25	35	6.5	3CC1020B11	3CC1020B21
		in	*2.36*	*2.36*	*1.38*	*0.24*	*1.89*	*2.12*	*0.24*	*0.74*	*0.98*	*1.38*	*0.26*		
	G 3/8	**mm**	60	60	35	6	48	54	6	18.8	25	35	6.5	3CC1020C11	3CC1020C21
		in	*2.36*	*2.36*	*1.38*	*0.24*	*1.89*	*2.12*	*0.24*	*0.74*	*0.98*	*1.38*	*0.26*		
	G 1/2	**mm**	60	60	35	6	48	54	6	18.8	25	35	6.5	3CC1020D11	3CC1020D21
		in	*2.36*	*2.36*	*1.38*	*0.24*	*1.89*	*2.12*	*0.24*	*0.74*	*0.98*	*1.38*	*0.26*		
	SAE8	**mm**	60	70	35	6	48	64	6	18.8	25	35	6.5	3CC1020J11	3CC1020J21
		in	*2.36*	*2.75*	*1.38*	*0.24*	*1.89*	*2.52*	*0.24*	*0.74*	*0.98*	*1.38*	*0.26*		
	SAE10	**mm**	70	70	35	6	58	64	6	18.5	35	35	6.5	3CC1020K11	3CC1020K21
		in	*2.75*	*2.75*	*1.38*	*0.24*	*2.28*	*2.52*	*0.24*	*0.73*	*1.38*	*1.38*	*0.26*		
	SAE12	**mm**	70	70	40	8	54	62	8	22	30	40	8.5	3CC1020L11	3CC1020L21
		in	*2.75*	*2.75*	*1.57*	*0.31*	*2.12*	*2.44*	*0.31*	*0.87*	*1.18*	*1.57*	*0.33*		

Dimensions and ordering codes

Cavity	Ports		Dimensions											Ordering code	
			A	B	C	E	F	G	H	I	L	M	Z	Aluminium	Steel
SAE 12/2	G 1/2	**mm**	70	80	40	8	54	72	8	25	30	40	8.5	3CC1220D11	3CC1220D21
		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	3CC1220E11	3CC1220E21
		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	3CC1220L11	3CC1220L21
		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	3CC1220M11	3CC1220M21
		in	*2.75*	*3.35*	*1.57*	*0.31*	*2.12*	*3.03*	*0.31*	*0.98*	*1.18*	*1.57*	*0.33*		
SAE 16/2	G 1/2	**mm**	80	90	50	10	60	80	10	25	35	45	10.5	3CC1620D11	3CC1620D21
		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	3CC1620E11	3CC1620E21
		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	3CC1620F11	3CC1620F210
		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	3CC1620M11	3CC1620M21
		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	3CC1620N11	3CC1620N21
		in	*3.15*	*3.94*	*1.97*	*0.39*	*2.36*	*3.54*	*0.39*	*0.98*	*1.38*	*1.77*	*0.41*		

Dimensions and ordering codes

Description composition

3/CC/- □ □ /30/ □-□ -1

Cavity

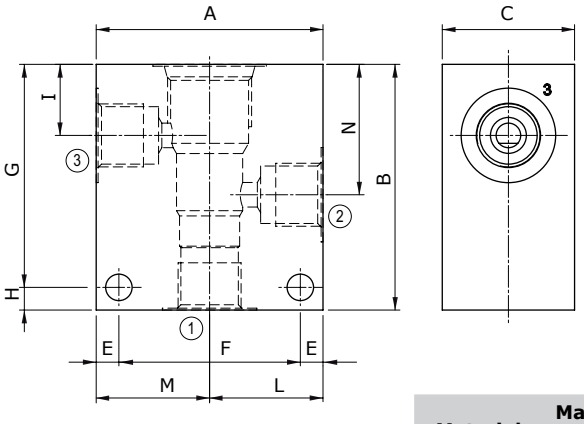
08
10
12
16

Ports

B) G 1/4
C) G 3/8
D) G 1/2
E) G 3/4
F) G 1
J) SAE6
K) SAE8
L) SAE10
M) SAE12
N) SAE16

Materials

1) Aluminium
2) Steel



Material	Max. pressure	
	bar	*psi*
Alluminium	210	*3050*
Steel	350	*5100*

Cavity	Ports		Dimensions												Ordering code	
			A	B	C	E	F	G	H	I	L	M	N	Z	Aluminium	Steel
SAE 8/3	G 1/4	mm	60	60	30	7	46	48	12	14.8	30	30	29.1	6.5	3CC0830B11	3CC0830B21
		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	3CC0830C11	3CC0830C21
		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	3CC0830D11	/
		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	3CC0830J11	3CC0830J21
		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*		
	SAE8	mm	60	60	30	7	46	48	12	15	30	30	29	6.5	3CC0830K11	3CC0830K11
		in	*2.36*	*2.36*	*1.18*	*0.27*	*1.81*	*1.89*	*0.47*	*0.59*	*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	3CC1030B11	3CC1030B21
		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	3CC1030C11	3CC1030C21
		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	3CC1030D11	3CC1030D21
		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	3CC1030J11	3CC1030J21
		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	3CC1030K11	3CC1030K21
		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*		
	SAE10	mm	65	70	35	6	53	64	6	18	31.5	33.5	34.5	7	3CC1030L11	3CC1030L21
		in	*2.56*	*2.75*	*1.38*	*0.24*	*2.09*	*2.52*	*0.24*	*0.70*	*1.24*	*1.32*	*1.36*	*0.27*		

Dimensions and ordering codes

Cavity	Ports		Dimensions												Ordering code	
			A	B	C	E	F	G	H	I	L	M	N	Z	Aluminium	Steel
SAE 12/3	G 1/2	**mm**	70	100	40	8	54	92	8	25	35	35	53.5	8.5	3CC1230D11	3CC1230D21
		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	3CC1230E11	3CC1230E21
		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	3CC1230L11	3CC1230L21
		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	3CC1230M11	3CC1230M21
		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*		
SAE16/3	G 1/2	**mm**	90	100	50	10	70	90	10	25	45	45	53.5	10.5	3CC1630D11	3CC1630D21
		in	*3.54*	*3.94*	*1.97*	*0.39*	*2.75*	*3.54*	*0.39*	*0.98*	*1.77*	*1.77*	*2.11*	*0.41*		
	G 3/4	**mm**	90	100	50	10	70	90	10	25.1	45	45	53.5	10.5	3CC1630E11	3CC1630E21
		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*		
	G 1	**mm**	90	105	50	10	70	95	10	25	46	44	53.5	10.5	3CC1630F11	3CC1630F21
		in	*3.54*	*4.13*	*1.97*	*0.39*	*2.75*	*3.74*	*0.39*	*0.98*	*1.81*	*1.73*	*2.11*	*0.41*		
	SAE12	**mm**	90	105	50	10	70	95	10	25.1	45	45	53.5	10.5	3CC1630M11	3CC1630M21
		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	3CC1630N11	3CC1630N21
		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*		

Dimensions and ordering codes

Description composition

3/CC/- □ □ /40/ □-□ -1

Cavity

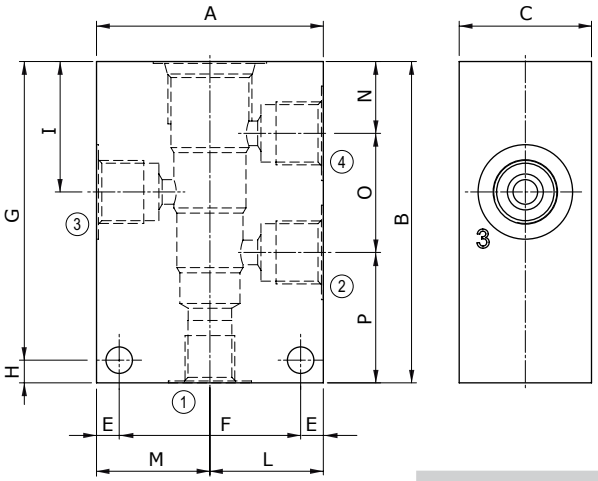
08
10
12
16

Ports

B) G 1/4
C) G 3/8
D) G 1/2
E) G 3/4
F) G 1
J) SAE6
K) SAE8
L) SAE10
M) SAE12
N) SAE16

Materials

1) Aluminium
2) Steel



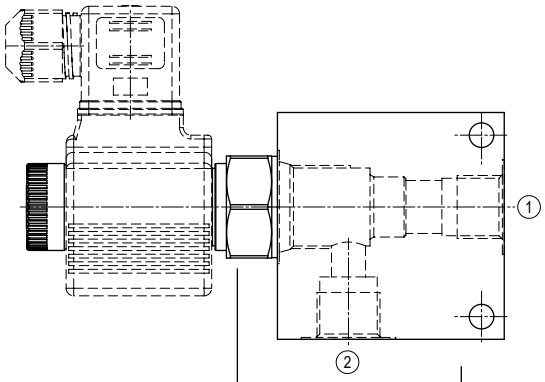
Material	Max. pressure bar	*psi*
Alluminium	210	*3050*
Steel	350	*5100*

Cavity	Ports		Dimensions A	B	C	E	F	G	H	I	L	M	N	O	P	Z	Ordering code Aluminium	Steel
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	3CC0840B11	3CC0840B21
		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*		
	G 3/8	**mm**	60	75	30	7	46	63	12	29.1	30	30	14.8	28.6	31.6	6.5	3CC0840C11	3CC0840C21
		in	*2.36*	*2.95*	*1.18*	*0.27*	*1.81*	*2.48*	*0.47*	*1.14*	*1.18*	*1.18*	*0.58*	*1.13*	*1.24*	*0.25*		
	SAE6	**mm**	60	75	30	7	46	63	12	29.1	30	30	14.8	29.1	31.1	6.5	3CC0840J11	3CC0840J21
		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*		
	SAE8	**mm**	60	75	30	7	46	63	12	29	30	30	15	28.5	31.5	6.5	3CC0840K11	3CC0840K21
		in	*2.36*	*2.95*	*1.18*	*0.27*	*1.81*	*2.48*	*0.47*	*1.14*	*1.18*	*1.18*	*0.59*	*1.12*	*1.24*	*0.25*		
SAE 10/4	G 1/4	**mm**	60	85	35	6	48	79	6	34.5	30	30	19	31.5	34.5	7	3CC1040B11	3CC1040B21
		in	*2.36*	*3.35*	*1.38*	*0.24*	*1.89*	*3.11*	*0.24*	*1.36*	*1.18*	*1.18*	0.75	1.24	*1.36*	*0.27*		
	G 3/8	**mm**	60	85	35	6	48	79	6	34.5	30	30	18.8	31.7	34.5	7	3CC1040C11	3CC1040C21
		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	3CC1040D11	3CC1040D21
		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	3CC1040J11	3CC1040J21
		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	3CC1040K11	3CC1040K21
		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*		
	SAE10	**mm**	70	85	35	6	58	79	6	34.5	35	35	19	31.5	34.5	7	3CC1040L11	3CC1040L11
		in	*2.75*	*3.35*	*1.38*	*0.24*	*2.28*	*3.11*	*0.24*	*1.36*	*1.38*	*1.38*	*0.75*	*1.24*	*1.36*	*0.27*		

Dimensions and ordering codes

Cavity	Ports		Dimensions														Ordering code	
			A	B	C	E	F	G	H	I	L	M	N	O	P	Z	Aluminium	Steel
SAE 12/4	G 3/8	**mm**	80	115	40	8	64	107	8	44	40	40	22	44.5	48.5	8.5	3CC1240C11	3CC1240C21
		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*		
	G 1/2	**mm**	80	115	40	8	64	107	8	44	40	40	22	44.5	48.5	8.5	3CC1240D11	3CC1240D21
		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	3CC1240L11	3CC1240L21
		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	3CC1640E11	3CC1640E21
		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*		
	SAE16	**mm**	100	130	50	10	80	120	10	53.5	50	50	25.1	56.9	48	10.5	3CC1640N11	3CC1640N21
		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*		

How to order valves with body



Cartridge description **Body description**

EC 10 M/10NB **C 1 1**

Cavity

08
10
12
16

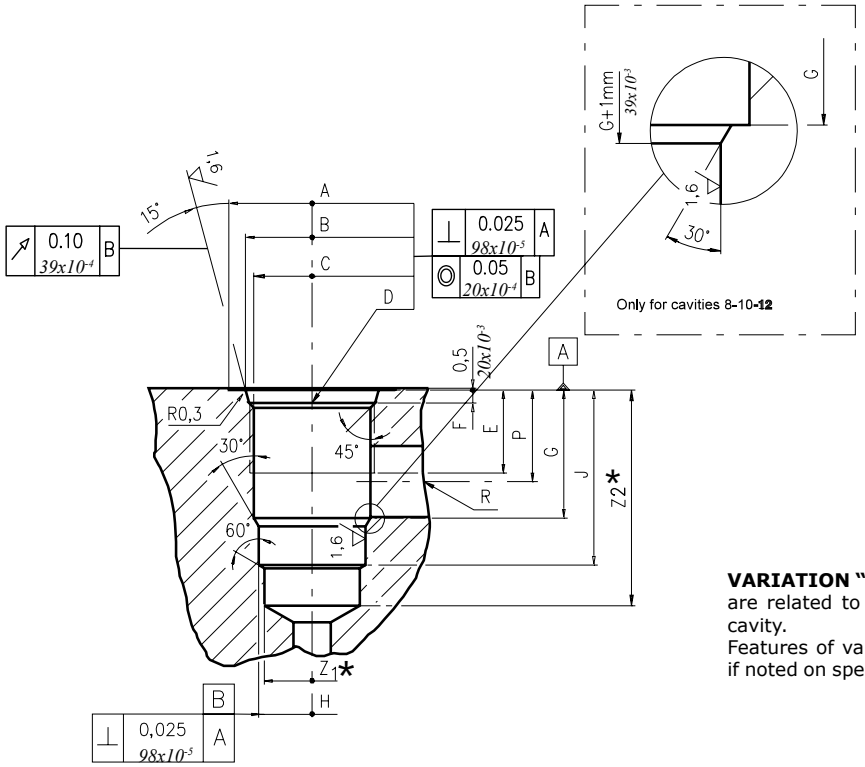
Ports

B) G 1/4
C) G 3/8
D) G 1/2
E) G 3/4
F) G 1
J) SAE6
K) SAE8
L) SAE10
M) SAE12
N) SAE16

Materials

1) Aluminium
2) Steel

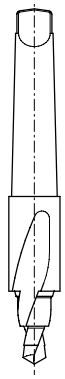
Dimensions



VARIATION "A": the dimensions with "*" are related to the variation "A" of 2 ways cavity.
Features of variation "A" are required only if noted on specific product catalogue page.

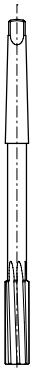
Cavity		A	B ±0.05	C ±0.05	D	E	F	G	H ±0.02	J	K ±0.02	L	M ±0.02	N	P	R ØMAX	S	T ØMAX	U	V ØMAX	X ØMAX	Z1* ØMIN	Z2* MIN
08/2 08/2 A	mm	27	20.66	17.42	3/4-16 UNF	12.50	2.50	18.20	12.72	29.50	-	-	-	-	14.00	8.00	-	-	-	-	-	12.00	39
	in	*1.06*	*0.81*	*0.68*		*0.49*	*0.10*	*0.72*	*0.50*	*1.16*					*0.55*	*0.31*						*0.47*	*1.53*
10/2 10/2 A	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 12/2 A	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 16/2 A	mm	45	35.60	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



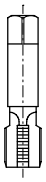
Cavity	Code number
08/2	3UT00053190
10/2	3UT00056610
12/2	3UT00054090
16/2	3UT00054510

Finisher tool



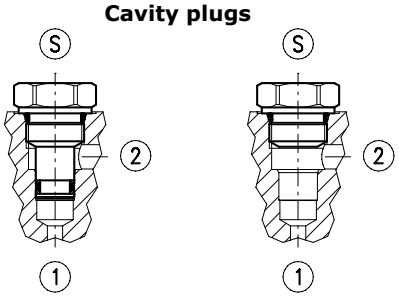
Cavity	Code number
08/2	3UT06A1270N
10/2	3UT00054580
12/2	3UT00054670
16/2	3UT00054520

Tap



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

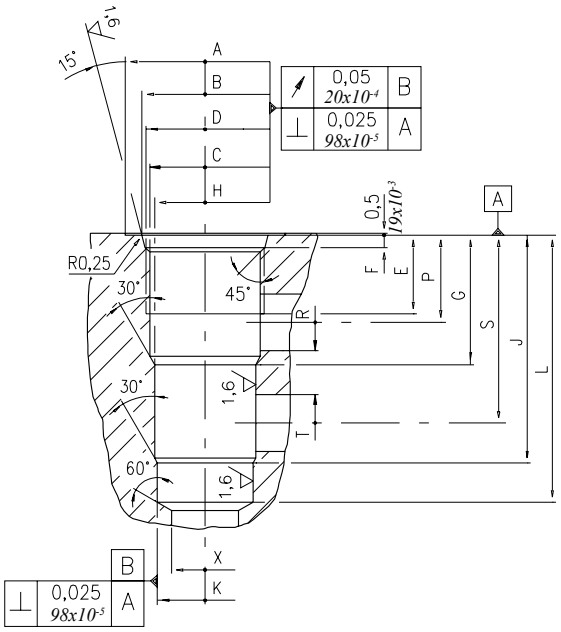
Cavity plugs



Cavity	Code number	①	②	Ⓢ
08/2	3XTP3533700	X	X	X
	3XTP1531900	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

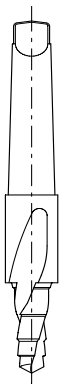
X=Closed 0=Open

Dimensions



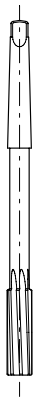
Cavity		A	B ±0,05	C ±0,05	D	E	F	G	H ±0,02	J	K ±0,02	L	M ±0,02	N	P	R øMAX	S	T øMAX	U	V øMAX	X øMAX
08/3	mm	27	20,66	17,42	3/4 -16 UNF	12,50	2,50	19,10	15,90	33,30	14,30	43,30	-	-	14,30	5,50	28,60	5,50	-	-	12,50
	in	*1.06*	*0.81*	*0.68*		*0.49*	*0.10*	*0.75*	*0.62*	*1.31*	*0.56*	*1.70*			*0.56*	*0.22*	*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	35,60	28,62	1 5/16 -12 UNF	22,00	3,50	36,50	28,62	64,30	27.02	75,30	-	-	24,50	16,00	53,00	16,00	-	-	19,00
	in	*1.77*	*1.40*	*1.13*		*0.87*	*0.14*	*1.44*	*1.13*	*2.53*	*1.06*	*2.96*			*0.96*	*0.63*	*2.09*	*0.63*			*0.75*
20/3	mm	58	43,60	36,55	1 5/8 -12 UNF	21,00	3,50	46,00	36,55	87,60	33.37	100	-	-	31	25,40	71,5	25,40	-	-	30,00
	in	*2.28*	*1.71*	*1.44*		*0.83*	*0.14*	*1.81*	*1.04*	*3.45*	*1.31*	*3.93*			*1.22*	*1*	*2.81*	*1*			*1.18*

Rougher tool



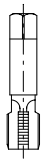
Cavity	Code number
08/3	3UT00052190
10/3	3UT00054170
12/3	3UT00054290
16/3	3UT00054470

Finisher tool



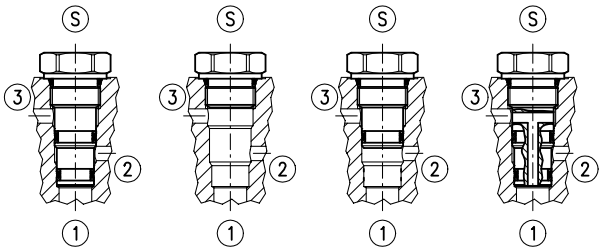
Cavity	Code number
08/3	3UT00052740
10/3	3UT00054180
12/3	3UT00054300
16/3	3UT00054480

Tap



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

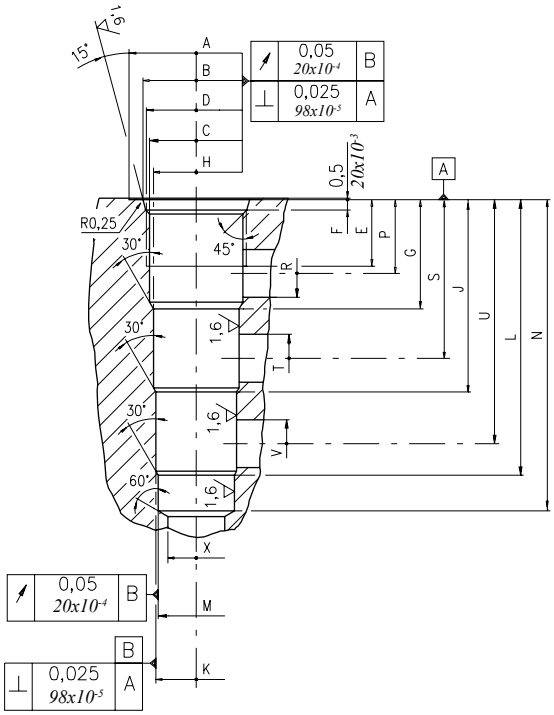
Cavity plugs



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
	3XTP35558201	0	X	0	X
16/3	3XTP3578400	X	X	X	X
	3XTP1572900	0	0	0	X

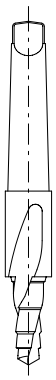
X=Closed 0=Open

Dimensions



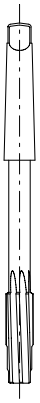
Cavity		A	B ±0,05	C ±0,05	D	E	F	G	H ±0,02	J	K ±0,02	L	M ±0,02	N	P	R øMAX	S	T øMAX	U	V øMAX	X øMAX
08/4	mm	28,00	20,66	17,42	3/4-16 UNF	12,50	2,50	19,10	15,90	33,30	14,30	47,60	12,72	57,60	14,30	5,50	28,60	5,50	42,90	5,50	11,00
	in	*1.10*	*0.81*	*0.68*		*0.49*	*0.10*	*0.75*	*0.62*	*1.31*	*0.56*	*1.87*	*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



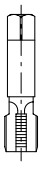
Cavity	Code number
08/4	3UT00052040
10/4	3UT00054250
12/4	3UT00054410
16/4	3UT00054820

Finisher



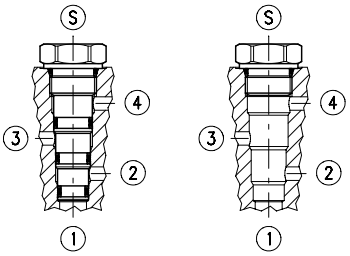
Cavity	Code number
08/4	3UT00052020
10/4	3UT00054260
12/4	3UT00054420
16/4	3UT00054830

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