

# K1

## Overview

### Description

As important as the performance of the valve itself is the proper installation of the cartridge into a correctly made manifold or body. HYDAC's full range of cartridge valves can be used in custom manifold applications, or for in-line installation via our selection of cartridge line bodies. These next few pages provide the detail required for designers, machine shops or users to create successful HYDAC cartridge valve installations. Whether using form tools to make a custom manifold, or quickly plumbing a valve and line body assembly, the HYDAC cartridge cavity system enables versatile and reliable valve applications. Performance and dimensional information for a specific valve can be found on individual cartridge data sheets.

### Cavities

Cavity drawings are provided as a tool for HYDAC customers who desire to produce their own custom manifolds. Manufacturing to the drawings enclosed ensures correct cavity fit and proper cartridge function at maximum performance limits.

### Line Bodies

HYDAC line bodies provide a cost effective method for compact, easy installation of any HYDAC cartridge. Using authentic HYDAC bodies - with each cavity and port machined to our own exacting standards - ensures safe, high-performance function of cartridge valves plumbed "in-line."

Standard line bodies are available for each cavity size in both clear anodized aluminum (3500 psi max. pressure) or clear zinc-plated steel (6000 psi max. pressure) are offered with SAE O-ring boss ports. When ordering alternate port configurations, please contact the factory.



# LINE BODIES & CAVITIES

## Model Code

**FH 082 - A S 6**

<b>SERIES</b>					
FH	=	Line Body			
<b>CAVITY</b>					
062	=	FC06-2			
063	=	FC06-3			
064	=	FC06-4			
082	=	FC08-2			
083	=	FC08-3			
084	=	FC08-4			
102	=	FC10-2			
103	=	FC10-3			
10S3	=	FC10-S3			
104	=	FC10-4			
122	=	FC12-2			
123	=	FC12-3			
124	=	FC12-4			
162	=	FC16-2			
163	=	FC16-3			
16S3	=	FC16-S3			
164	=	FC16-4			
M455	=	FCM45-5			
<b>MATERIAL</b>					
A	=	Anodized Aluminum			
S	=	Zinc Plated Steel			
<b>THREAD</b>					
N	=	NPT			
S	=	SAE			
B	=	BSPP			
<b>PORT SIZE</b>					
2	=	1/4" NPT			
4	=	SAE-4 (7/16-20 UNF) (standard for size 06 only)			
2	=	BSPP G1/4			
3	=	3/8" NPT			
6	=	SAE-6 (9/16-18 UNF) (standard for size 08 only)			
3	=	BSPP G3/8			
4	=	1/2" NPT			
8	=	SAE-8 (3/4-16 UNF) (standard for size 10 only)			
4	=	BSPP G1/2			
6	=	3/4" NPT			
12	=	SAE-12 (1-1/16-12) (standard for size 12 only)			
6	=	BSPP G3/4			
8	=	1" NPT			
16	=	SAE-16 (1-5/16-12) (standard for size 16 only)			
8	=	BSPP G1			
*	=	Special			

Model Codes Containing RED are non-standard items - Minimum quantities may apply. Contact HYDAC for information and availability

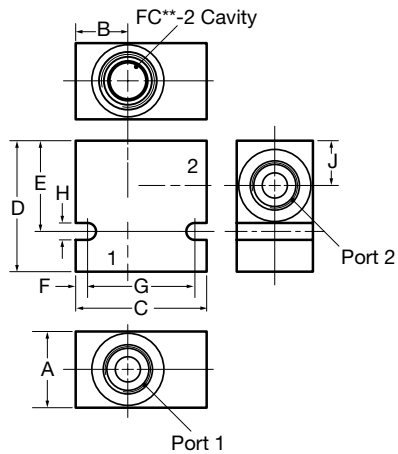
## Line Bodies

Code	Part Number	Material	Ports Size	Pressure Rating	Weight
FH062-AS4	02600491	Aluminum, clear anodized	SAE-4	3500 psi (245 bar)	0.33 lbs (0.15 kg)
FH062-SS4	02600490	Steel, zinc plated	SAE-4	6000 psi (420 bar)	0.97 lbs (0.44 kg)
FH063-AS4	02600492	Aluminum, clear anodized	SAE-4	3500 psi (245 bar)	0.37 lbs (0.17 kg)
FH063-SS4	02600493	Steel, zinc plated	SAE-4	6000 psi (420 bar)	1.07 lbs (0.49 kg)
FH064-AS4	02600462	Aluminum, clear anodized	SAE-4	3500 psi (245 bar)	0.43 lbs (0.20 kg)
FH064-SS4	02600461	Steel, zinc plated	SAE-4	6000 psi (420 bar)	1.25 lbs (0.57 kg)
FH082-AS6	03011409	Aluminum, clear anodized	SAE-6	3500 psi (245 bar)	0.34 lbs (0.15 kg)
FH082-SS6	00560917	Steel, zinc plated	SAE-6	6000 psi (420 bar)	1.00 lbs (0.45 kg)
FH083-AS6	03011424	Aluminum, clear anodized	SAE-6	3500 psi (245 bar)	0.58 lbs (0.26 kg)
FH083-SS6	00560920	Steel, zinc plated	SAE-6	6000 psi (420 bar)	1.70 lbs (0.77 kg)
FH084-AS6	03011404	Aluminum, clear anodized	SAE-6	3500 psi (245 bar)	0.72 lbs (0.33 kg)
FH084-SS6	00563381	Steel, zinc plated	SAE-6	6000 psi (420 bar)	2.10 lbs (0.95 kg)
FH102-AS8	03037778	Aluminum, clear anodized	SAE-8	3500 psi (245 bar)	0.40 lbs (0.18 kg)
FH102-SS8	03037612	Steel, zinc plated	SAE-8	6000 psi (420 bar)	1.16 lbs (0.53 kg)
FH103-AS8	03038095	Aluminum, clear anodized	SAE-8	3500 psi (245 bar)	0.60 lbs (0.27 kg)
FH103-SS8	03037704	Steel, zinc plated	SAE-8	6000 psi (420 bar)	1.74 lbs (0.79 kg)
FH10S3-AS8	02582076	Aluminum, clear anodized	SAE-8	3500 psi (245 bar)	0.60 lbs (0.27 kg)
FH10S3-SS8	02582077	Steel, zinc plated	SAE-8	6000 psi (420 bar)	1.74 lbs (0.79 kg)
FH104-AS8	03038110	Aluminum, clear anodized	SAE-8	3500 psi (245 bar)	0.72 lbs (0.33 kg)
FH104-SS8	03037868	Steel, zinc plated	SAE-8	6000 psi (420 bar)	2.12 lbs (0.96 kg)
FH122-AS12	03053845	Aluminum, clear anodized	SAE-12	3500 psi (245 bar)	1.39 lbs (0.63 kg)
FH122-SS12	03053772	Steel, zinc plated	SAE-12	6000 psi (420 bar)	4.16 lbs (1.89 kg)
FH162-AS16	03037195	Aluminum, clear anodized	SAE-16	3500 psi (245 bar)	1.20 lbs (0.55 kg)
FH162-SS16	03032655	Steel, zinc plated	SAE-16	6000 psi (420 bar)	3.56 lbs (1.62 kg)
FH163-AS16	03037210	Aluminum, clear anodized	SAE-16	3500 psi (245 bar)	2.34 lbs (1.06 kg)
FH163-SS16	03036285	Steel, zinc plated	SAE-16	6000 psi (420 bar)	6.80 lbs (3.09 kg)
FH16S3-AS16	02582078	Aluminum, clear anodized	SAE-16	3500 psi (245 bar)	2.34 lbs (1.06 kg)
FH16S3-SS16	02582079	Steel, zinc plated	SAE-16	6000 psi (420 bar)	6.80 lbs (3.09 kg)
FH164-AS16	03037214	Aluminum, clear anodized	SAE-16	3500 psi (245 bar)	3.00 lbs (1.36 kg)
FH164-SS16	03035672	Steel, zinc plated	SAE-16	6000 psi (420 bar)	8.8 lbs (4.00 kg)
FHM455-AS20	02600747	Aluminum, clear anodized	SAE-20	3500 psi (245 bar)	5.88 lbs (2.66 kg)
FHM455-SS20	02600563	Steel, zinc plated	SAE-20	5000 psi (350 bar)	17.13 lbs (7.77 kg)

# LINE BODIES & CAVITIES

## Dimensions

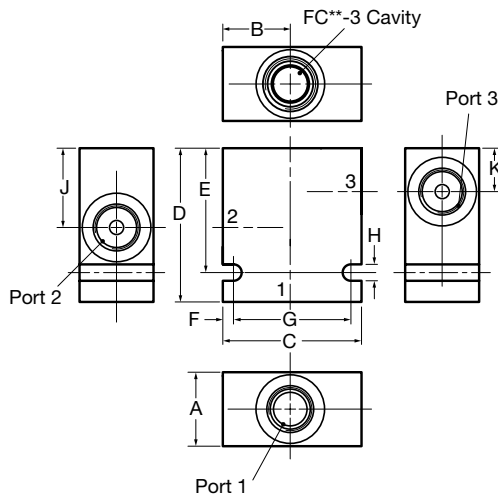
### 2-way Line Body



	FH06-2	FH08-2	FH10-2	FH12-2	FH16-2
A	1.0 (25.4)	1.13 (30)*	1.25 (32)*	2 (50)*	2 (50)*
B	1.0 (25.4)	0.748 (19)	0.866 (22)	1.24 (31.5)	1.24 (31.5)
C	2.0 (50.8)	2.0 (50.8)	2.19 (55)*	3 (75)*	3 (75)*
D	2.0 (50.8)	2.0 (50.8)	2.13 (55)*	3 (75)*	3 (75)*
E	1.5 (38.1)	1.5 (38)	1.5 (38)	2.252 (57.2)	2.252 (57.2)
F	0.25 (6.4)	0.13 (3.3)	0.2 (5)	0.197 (5)	0.197 (5)
G	1.5 (38.1)	1.62 (41.1)	1.75 (45)	2.559 (65)	2.559 (65)
H	0.28 (7.1)	0.28 (7.1)	0.28 (7.1)	0.339 (8.6)	0.339 (8.6)
J	0.55 (14.0)	0.61 (15.5)	0.74 (18.8)	0.989 (25.1)	0.989 (25.13)

dimensions are in inches (mm)

### 3-way Line Body



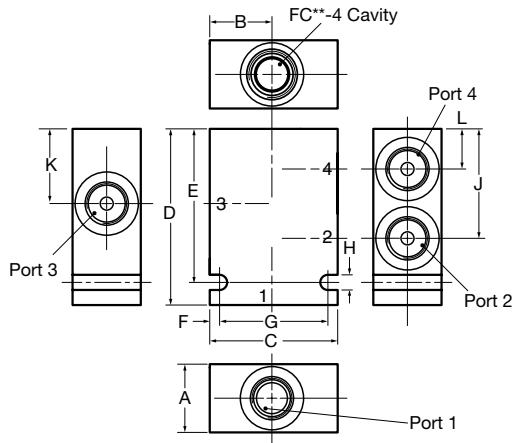
	FH06-3	FH08-3	FH10-3	FH10-S3	FH12-3
A	1.0 (25.4)	1.13 (30)*	1.25 (32)*	1.25 (30)	2.0 (50)*
B	1.0 (25.4)	1.25 (30)	1.16 (29.5)	1.25 (30)	2.0 (50)
C	2.0 (50.8)	2.5 (60)*	2.5 (60)*	2.50 (60)	4 (100)*
D	2.25 (57.2)	2.62 (66.5)	2.62 (66.5)	2.75 (69.9)	4.02 (102)
E	1.75 (44.5)	2.12 (53.8)	2.12 (53.8)	2.25 (57.2)	3.39 (86)
F	0.25 (6.4)	0.18 (4.6)	0.197 (5)	0.25 (6.4)	0.197 (5)
G	1.5 (38.1)	2 (50.8)	2 (50.8)	2.00 (50.8)	3.54 (90)
H	0.28 (7.1)	0.28 (7.1)	0.28 (7.1)	0.282 (7.16)	0.34 (8.6)
J	0.95 (24.1)	1.17 (29.7)	1.38 (35)	1.248 (31.70)	2.14 (54.4)
K	0.55 (14.0)	0.60 (15.2)	0.72 (18.3)	0.582 (14.78)	1.17 (29.75)

	FH16-S3	FH16-3
A	2.00 (50.8)	2 (50)*
B	2.00 (50.8)	2.5 (50.8)
C	3.50 (88.9)	4 (100)*
D	3.50 (88.9)	4.02 (102)
E	2.875 (73.03)	3.39 (86)
F	0.23 (5.8)	0.197 (5)
G	3.04 (77.22)	3.54 (90)
H	0.34 (8.6)	0.34 (8.6)
J	1.506 (38.25)	2.18 (55.4)
K	0.695 (17.65)	1.02 (25.9)

dimensions are in inches (mm)

\*Note: Dimensions determined by manufacturing location (USA or Europe)

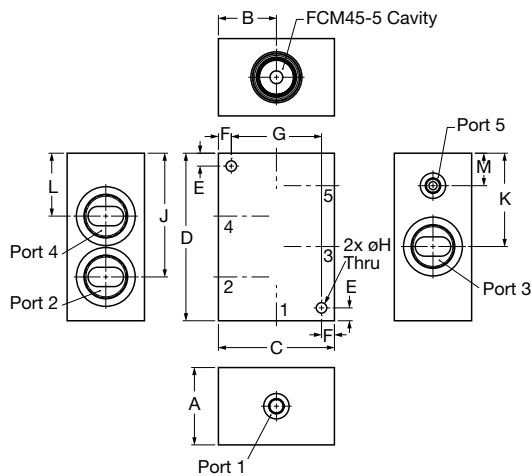
## 4-way Line Body



	FH06-4	FH08-4	FH10-4	FH12-4	FH16-4
A	1.0 (25.4)	1.13 (30)*	1.25 (32)*	2.0 (50)*	2.0 (50)*
B	1.0 (25.4)	1.25 (31.75)	1.16 (29.5)	2.0 (50)*	2.0 (50)*
C	2.0 (50.8)	2.5 (60)*	2.5 (60)*	4 (100)*	4 (100)*
D	2.63 (66.8)	3.25 (82.5)	3.25 (82.6)	5.2 (132)	5.2 (132)
E	2.13 (54.1)	2.83 (72)	2.83 (72)	4.49 (114)	4.49 (114)
F	0.25 (6.4)	.18 (4.6)	.18 (4.6)	.197 (5)	.197 (5)
G	1.5 (38.1)	2 (50.8)	2 (50.8)	3.54 (90)	3.54 (90)
H	0.28 (7.1)	.28 (7.1)	.28 (7.1)	.34 (8.6)	.34 (8.6)
J	1.34 (34.0)	1.73 (44)	2.02 (51.3)	3.1 (78.8)	3.24 (82.25)
K	0.95 (24.1)	1.17 (29.7)	1.38 (35.05)	2.14 (54.4)	2.18 (55.4)
L	0.55 (14.0)	.60 (15.2)	.74 (18.8)	1.17 (29.75)	1.02 (25.9)

dimensions are in inches (mm)

## 5-way Line Body



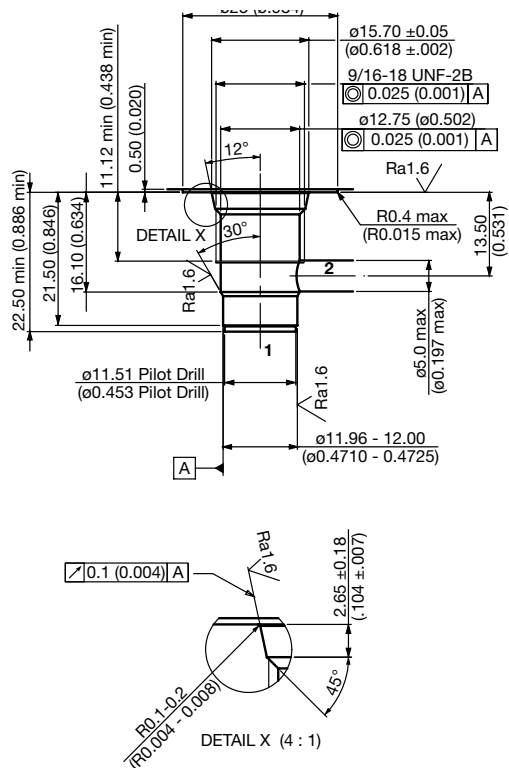
	FHM45-5
A	1.5 (38.1)
B	2.25 (57.2)
C	4.5 (114.5)
D	6.5 (165.1)
E	0.5 (12.7)
F	0.5 (12.7)
G	3.5 (88.9)
H	0.406 (10.3)
J	4.8 (121.9)
K	3.62 (91.9)
L	2.44 (61.9)
M	1.26 (32)

dimensions are in inches (mm)

\*Note: Dimensions determined by manufacturing location (USA or Europe)

# LINE BODIES & CAVITIES

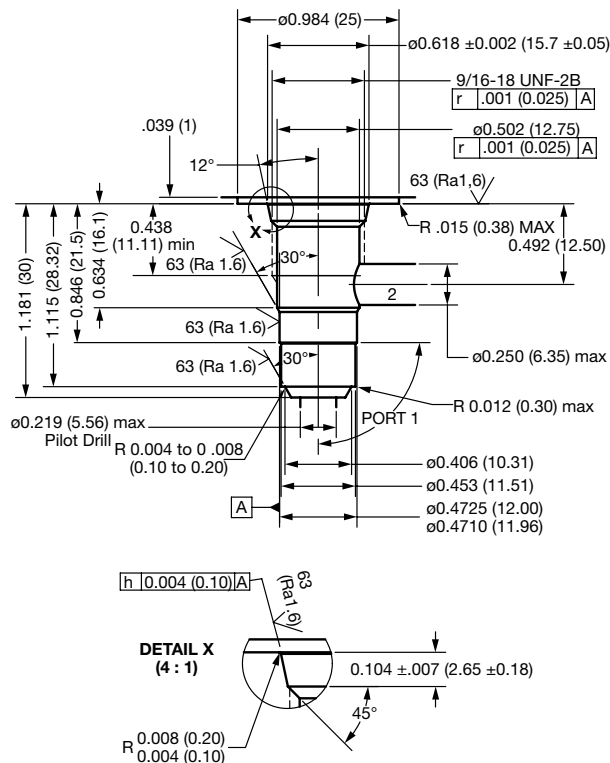
## 2-way Cavities Size 6: FC06-2



**02582031**  
MILLIMETER (INCH)  
Technical modifications reserved

**FORM TOOLS**  
**Rougher:** 02582046  
**Finisher:** 02582047

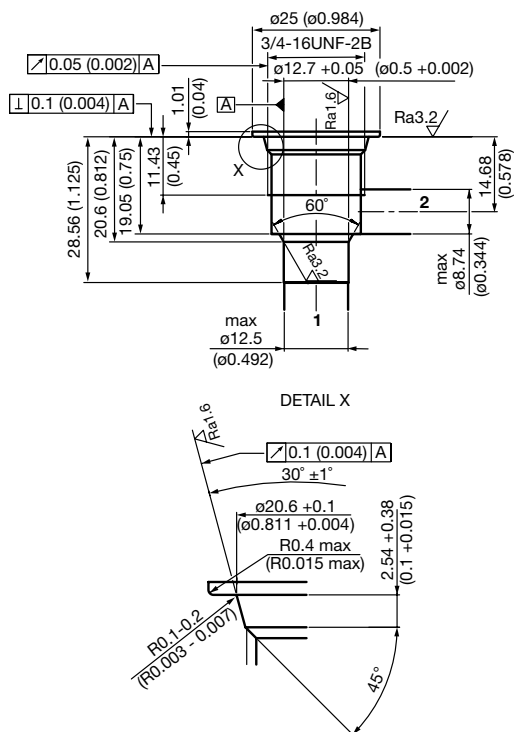
## Size 6: FC06-S



**02587218**  
MILLIMETER (INCH)  
Technical modifications reserved

**FORM TOOLS**  
**Rougher:** 02587284  
**Finisher:** 02587285

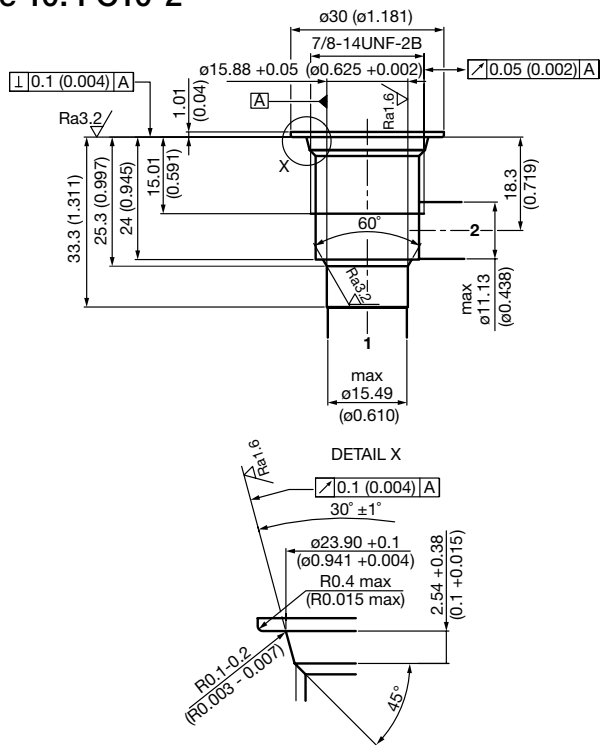
## Size 8: FC08-2



**00555686**  
MILLIMETER (INCH)  
Technical modifications reserved

**FORM TOOLS**  
**Rougher:** 02580090  
**Finisher:** 02580091

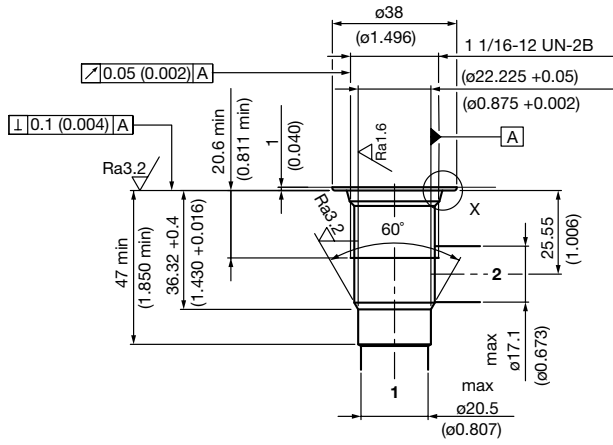
## Size 10: FC10-2



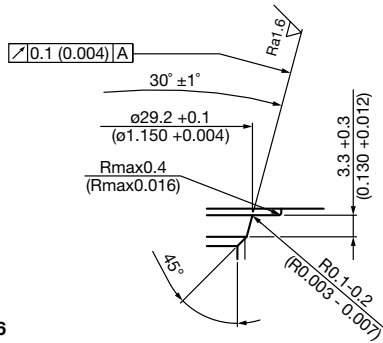
**00555688**  
MILLIMETER (INCH)  
Technical modifications reserved

**FORM TOOLS**  
**Rougher:** 02580274  
**Finisher:** 02580247

## Size 12: FC12-2



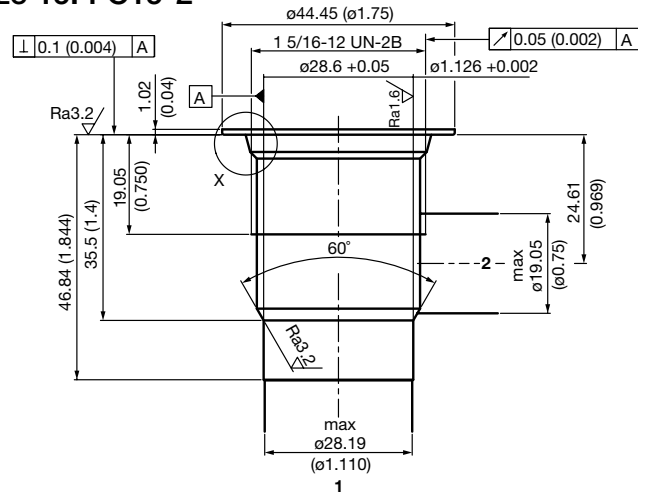
DETAIL X



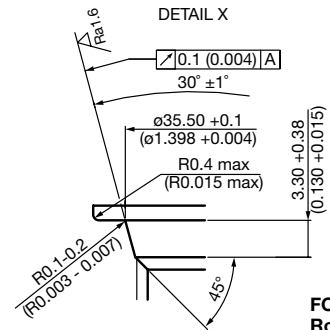
**03046486**  
MILLIMETER (INCH)  
Technical modifications reserved

**FORM TOOLS**  
Rougher: 02580668  
Finisher: 02580667

## Size 16: FC16-2



DETAIL X

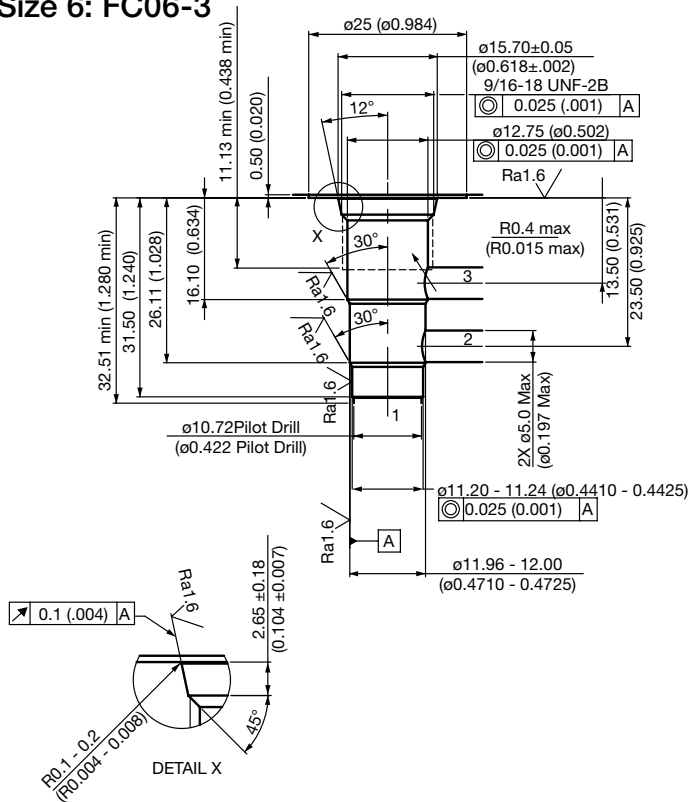


**00555690**  
MILLIMETER (INCH)  
Technical modifications reserved

**FORM TOOLS**  
Rougher: 02580250  
Finisher: 02582075

# LINE BODIES & CAVITIES

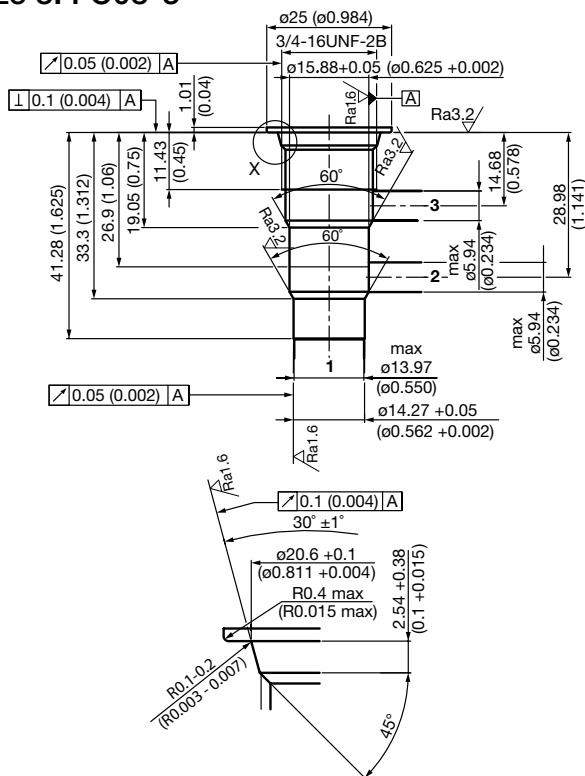
## 3-way Cavities Size 6: FC06-3



**02582045**  
MILLIMETER (INCH)  
Technical modifications reserved

**FORM TOOLS**  
**Rougher:** 02582050  
**Finisher:** 02582051

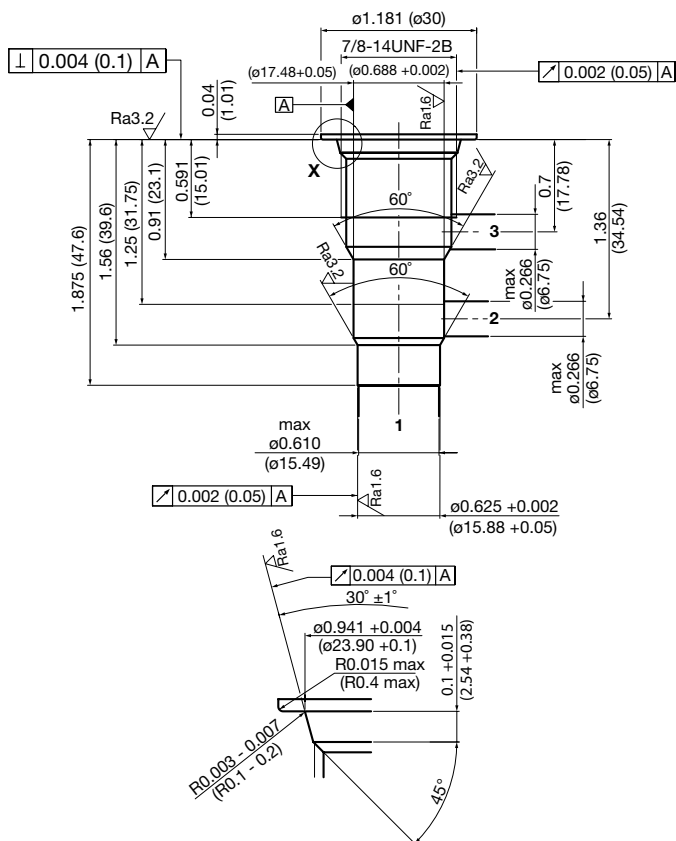
## Size 8: FC08-3



**00555691**  
MILLIMETER (INCH)  
Technical modifications reserved

**FORM TOOLS**  
**Rougher:** 02580086  
**Finisher:** 02580087

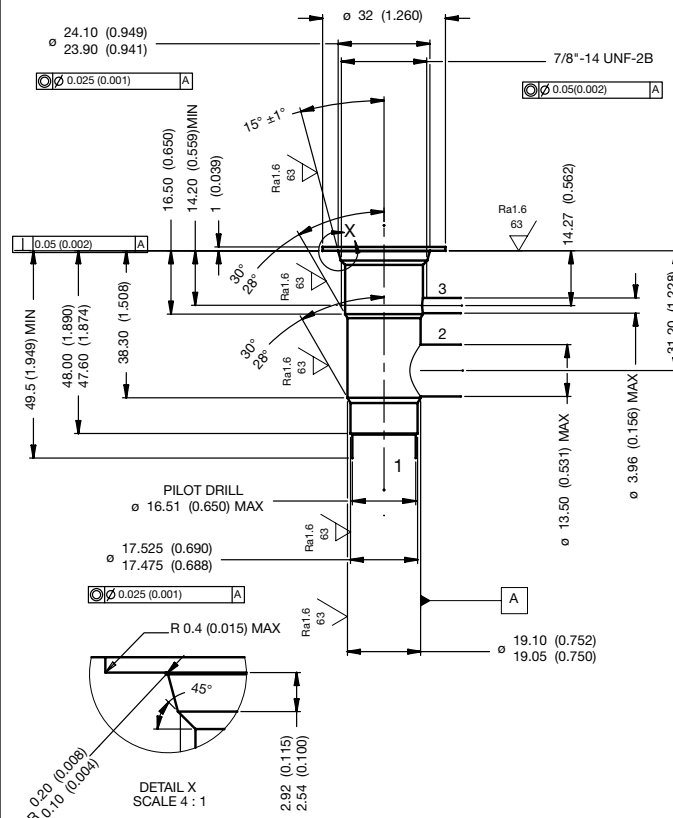
## Size 10: FC10-3



**00555692**  
MILLIMETER (INCH)  
Technical modifications reserved

**FORM TOOLS**  
**Rougher:** 02580092  
**Finisher:** 02580093

## Size 10: FC10-S3

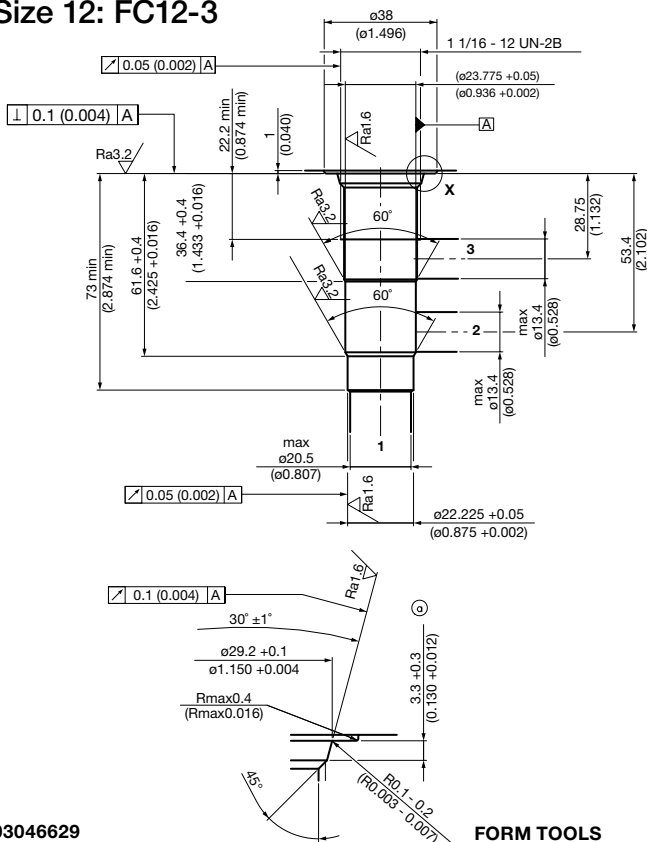


**02581793**  
MILLIMETER (INCH)  
Technical modifications reserved

**FORM TOOLS**  
**Rougher:** 02581794  
**Finisher:** 02581795



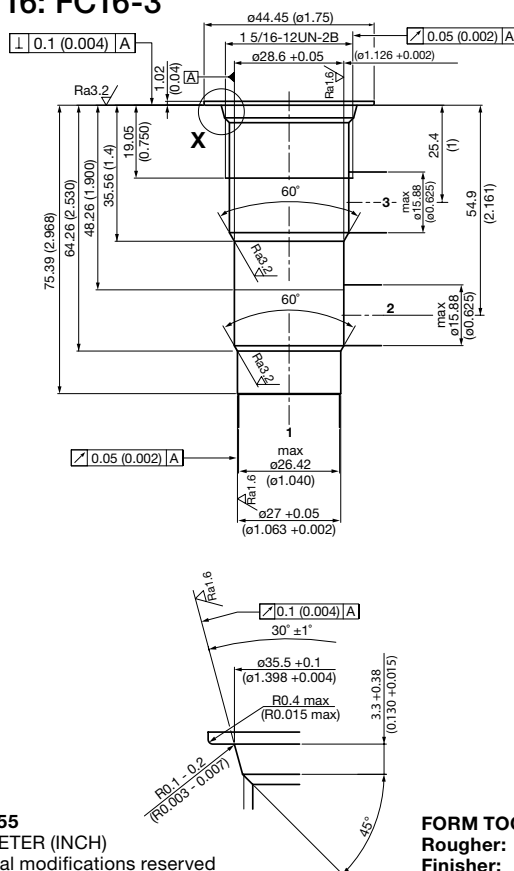
## Size 12: FC12-3



**03046629**  
MILLIMETER (INCH)  
Technical modifications reserved

**FORM TOOLS**  
Rougher: 02582074  
Finisher: 02582075

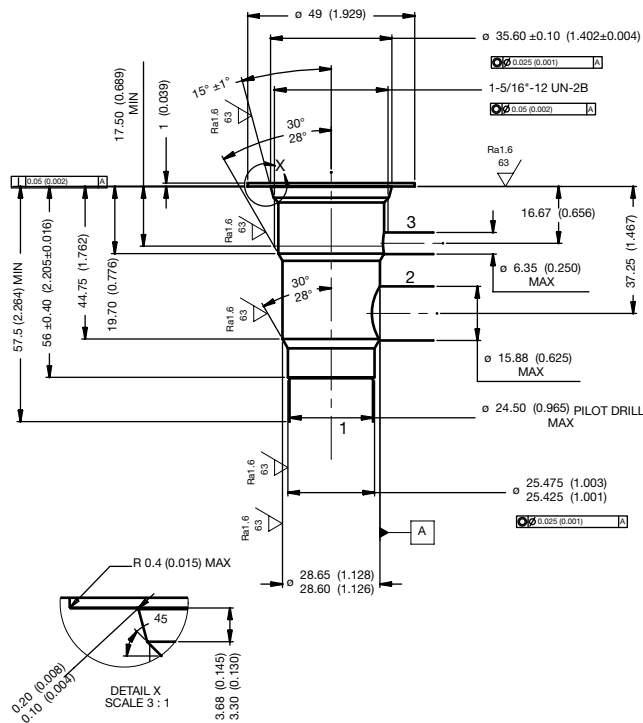
## Size 16: FC16-3



**00561755**  
MILLIMETER (INCH)  
Technical modifications reserved

**FORM TOOLS**  
Rougher: 02580094  
Finisher: 02580095

## Size 16: FC16-S3

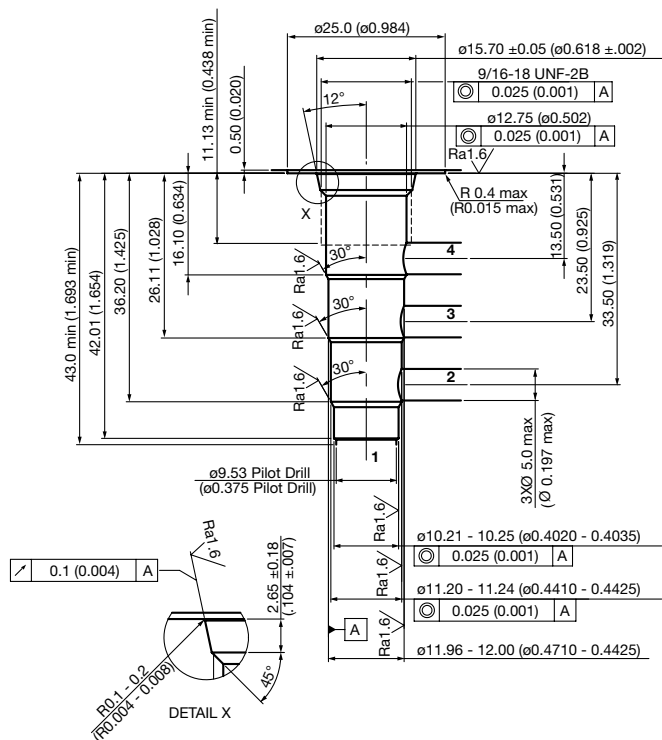


**02581796**  
MILLIMETER (INCH)  
Technical modifications reserved

**FORM TOOLS**  
Rougher: 02581797  
Finisher: 02581798

# LINE BODIES & CAVITIES

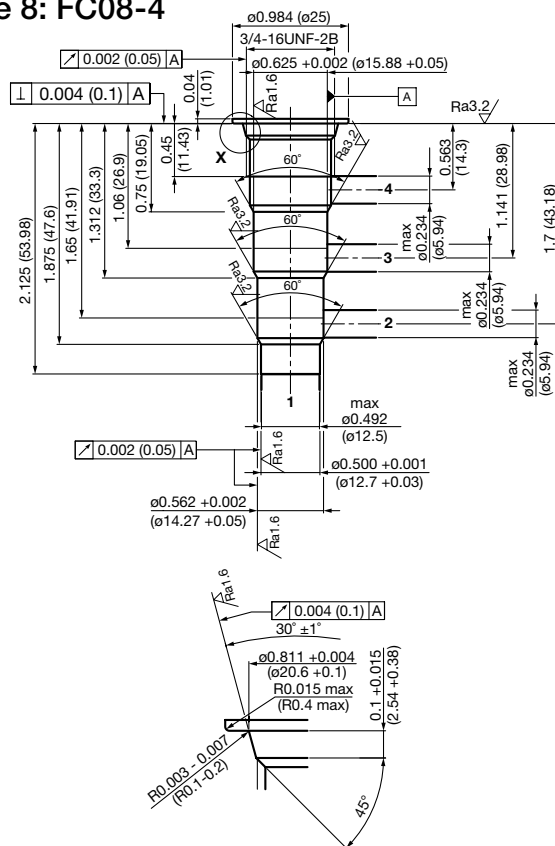
## 4-way Cavities Size 6: FC06-4



**02581970**  
MILLIMETER (INCH)  
Technical modifications reserved

**FORM TOOLS**  
**Rougher:** 02582057  
**Finisher:** 02582058

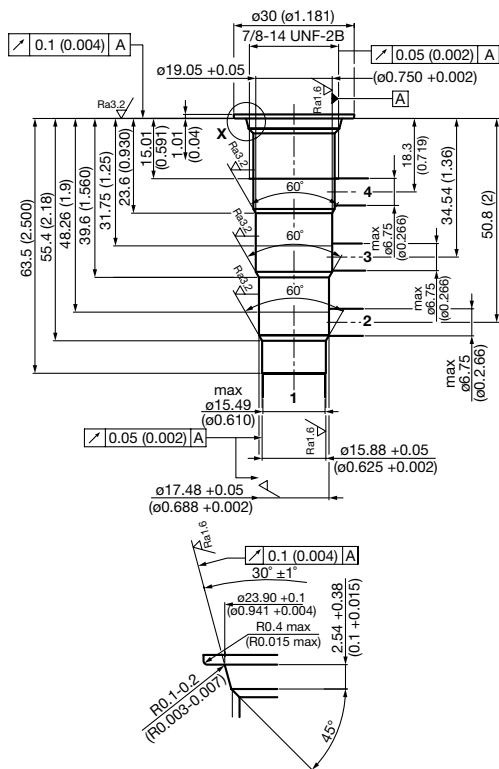
## Size 8: FC08-4



**00555693**  
MILLIMETER (INCH)  
Technical modifications reserved

**FORM TOOLS**  
**Rougher:** 02580088  
**Finisher:** 02580089

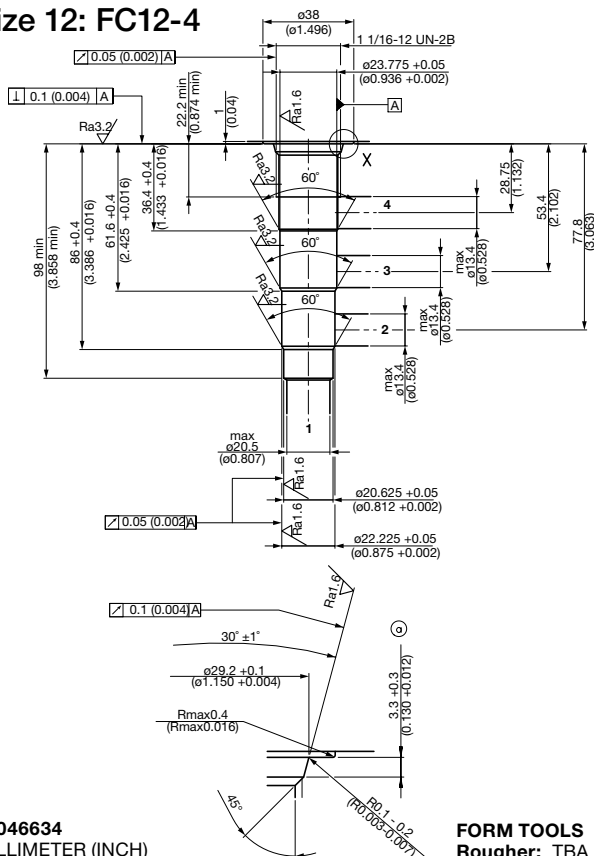
## Size 10: FC10-4



**00555694**  
MILLIMETER (INCH)  
Technical modifications reserved

**FORM TOOLS**  
**Rougher:** 02580248  
**Finisher:** 02580249

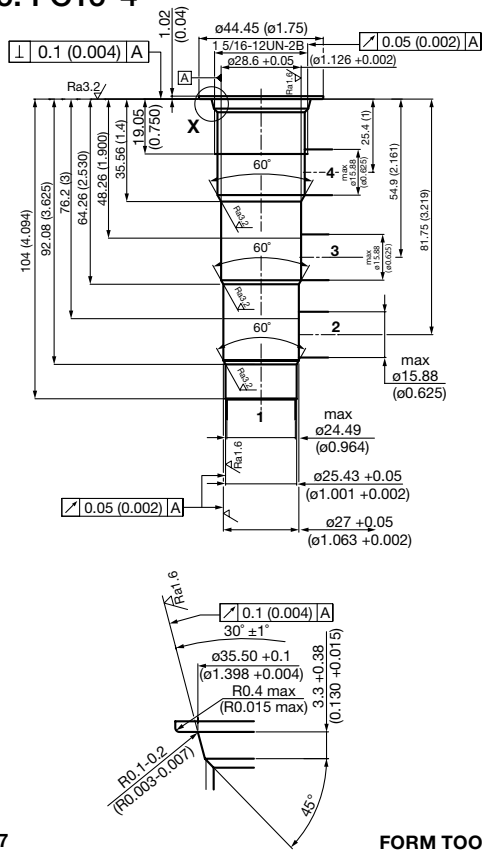
## Size 12: FC12-4



**03046634**  
MILLIMETER (INCH)  
Technical modifications reserved

**FORM TOOLS**  
**Rougher:** TBA  
**Finisher:** TBA

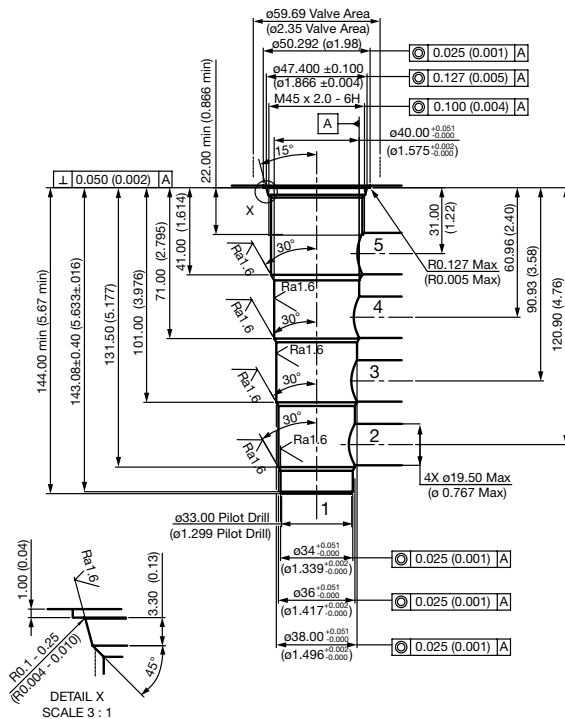
## Size 16: FC16-4



00562367  
MILLIMETER (INCH)  
Technical modifications reserved

**FORM TOOLS**  
Rougher: 02580252  
Finisher: 02580253

## 5-way Cavities Size M45: FCM45-5



02582019  
MILLIMETER (INCH)  
Technical modifications reserved

**FORM TOOLS**  
Rougher: 02582020  
Finisher: 02582021

# LINE BODIES & CAVITIES

Notes

