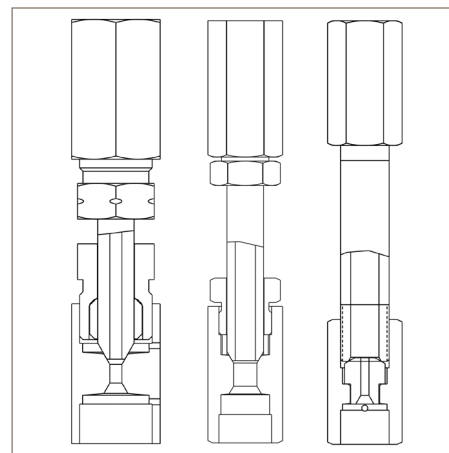


Cone Closure

Tubular Reactors

Volume Range: 1.81 ml to 45.5 ml

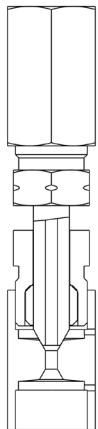


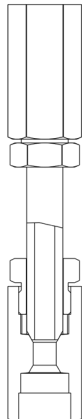
Principle of Operation:

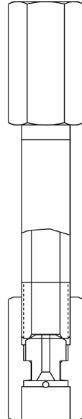
Parker Autoclave Engineers offers a series of convenient, versatile and economical tubular-reactors. Each are assembled from standard, readily available Parker Autoclave Engineers High Pressure, slimline medium pressure or custom manufactured, tubing nipples and connection components. Applicable to many low-volume laboratory reaction studies, they provide the proven reliability of Parker Autoclave Engineers coned-and-threaded connections.

Features and Options Available:

- Type 316 SS tubing body, couplings, collars, and glands. Consult factory for other materials.
- Includes plug and gland (not shown)
- Accepts standard Parker Autoclave connection components
- Connections can be adapted to different sizes

Series CC....SS60

3/16" I.D.
Accepts standard 9/16" (14.3 mm) Parker Autoclave Engineers High Pressure Connection Components
Volumes: 1.81 ml to 5.43 ml Maximum Allowable Working Pressure: 60,000 psi @ 100°F 4137 bar @ 38°C
Material of Construction: 316 Stainless Steel

Series CC....SS20

5/16" I.D.
Accepts standard 9/16" (14.3 mm) Parker Autoclave Engineers SlimLine Connection Components
Volumes: 5.03 ml to 15.1 ml Maximum Allowable Working Pressure: 20,000 psi @ 100°F 1379 bar @ 38°C
Material of Construction: 316 Stainless Steel

Series CC....SS20

7/16" I.D.
Accepts standard 3/8" (9.53 mm) Parker Autoclave Engineers High Pressure Connection Components
Volumes: 9.85 ml to 45.5 ml Maximum Allowable Working Pressure: 20,000 psi @ 100°F 379 bar @ 38°C
Material of Construction: 316 Stainless Steel

Series CC_ _ _ SS60

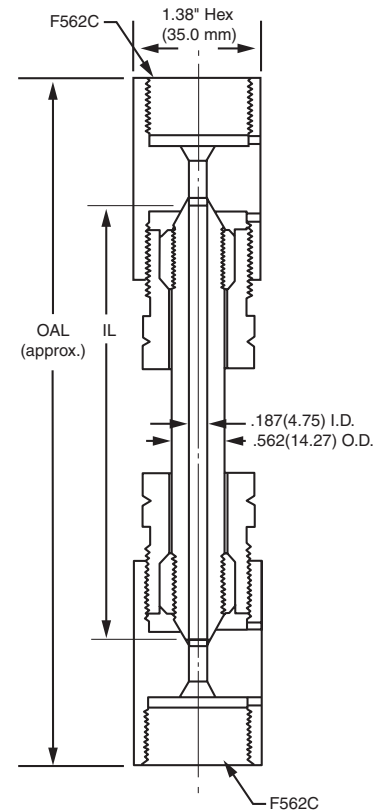
(3/16" I.D./60,000 psi/max)

Specifications and Part Numbers:

Complete Assembly	CC.181SS60	CC.271SS60	CC.362SS60	CC.452SS60	CC.543SS60					
Drawing Number	10A-2489	10A-2489	10A-2489	10A-2489	10A-2489					
Nominal Capacity	1.81 ml	2.71 ml	3.62 ml	4.52 ml	5.43 ml					
Dimensions: inches (mm)	IL	OAL	IL	OAL	IL	OAL	IL	OAL	IL	OAL
	4.00 (102)	6.75 (171)	6.00 (152)	8.75 (222)	8.00 (203)	10.75 (273)	10.00 (254)	12.75 (324)	12.00 (305)	14.75 (375)

Temperature and Maximum Operating Pressure:

Temperature	Maximum Operating Pressure
-20 to 100°F (-29°C to 38°C)	60,000 psi (4137 bar)
200°F (93°C)	48,850 psi (3368 bar)
400°F (204°C)	46,600 psi (3213 bar)
600°F (316°C)	43,580 psi (3005 bar)
800°F (427°C)	40,750 psi (2810 bar)



Series CC_ _ _ SS20

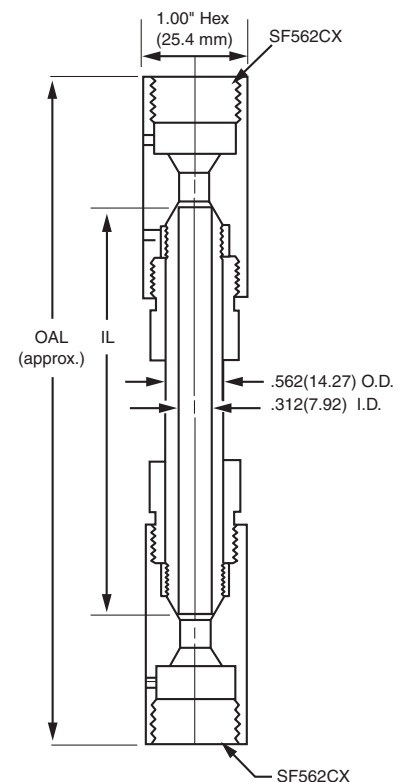
(5/16" I.D./20,000 psi/max)

Specifications and Part Numbers:

Complete Assembly	CC.503SS20	CC.754SS20	CC1.01SS20	CC1.25SS20	CC1.51SS20					
Drawing Number	10A-2490	10A-2490	10A-2490	10A-2490	10A-2490					
Nominal Capacity	5.03 ml	7.54 ml	10.1 ml	12.5 ml	15.1 ml					
Dimensions: inches (mm)	IL	OAL	IL	OAL	IL	OAL	IL	OAL	IL	OAL
	4.00 (102)	6.50 (165)	6.00 (152)	8.50 (216)	8.00 (203)	10.50 (267)	10.00 (254)	12.50 (318)	12.00 (305)	14.50 (368)

Temperature and Maximum Operating Pressure:

Temperature	Maximum Operating Pressure
-20 to 100°F (-29°C to 38°C)	20,000 psi (1379 bar)
200°F (93°C)	16,280 psi (1122 bar)
400°F (204°C)	15,500 psi (1069 bar)
600°F (316°C)	14,500 psi (1000 bar)
800°F (427°C)	13,580 psi (936 bar)

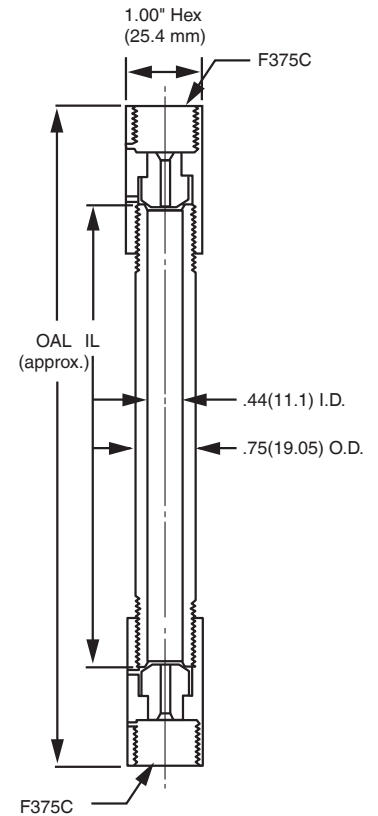


Series CC_ _ _ SS20

(7/16" I.D./20,000 psi/max)

Specifications and Part Numbers:

Complete Assembly	CC.985SS20	CC1.96SS20	CC2.94SS20	CC3.92SS20	CC4.55SS20					
Drawing Number	10A-2447	10A-2447	10A-2447	10A-2447	10A-2447					
Nominal Capacity	9.85 ml	19.6 ml	29.4 ml	39.2 ml	45.5 ml					
Dimensions: inches (mm)	IL	OAL	IL	OAL	IL	OAL	IL	OAL	IL	OAL
	3.88 (99)	6.56 (166)	7.88 (200)	10.56 (268)	11.88 (302)	14.56 (370)	15.88 (403)	18.56 (471)	18.38 (467)	21.06 (535)



Temperature and Maximum Operating Pressure:

Temperature	Maximum Operating Pressure
-20 to 100°F (-29°C to 38°C)	20,000 psi (1379 bar)
200°F (93°C)	16,280 psi (1122 bar)
400°F (204°C)	15,500 psi (1069 bar)
600°F (316°C)	14,500 psi (1000 bar)
800°F (427°C)	13,580 psi (936 bar)

Ordering Guide:

Typical catalog number example: **CC.503SS20** (catalog number is created based on customer selection of product parameters, see below for example)

CC	.503	SS	20		
Vessel Type	Capacity in ml x 10		Pressure psi (bar)		
CC = Cone Closure	60 kpsi 3/16" I.D.	.181 = 1.81 ml .271 = 2.71 ml .362 = 3.62 ml .452 = 4.52 ml .543 = 5.43 ml	SS = 316 Stainless Steel XX = Consult factory, other materials available	20 = 20,000 (1379) 60 = 60,000 (4137)	
		20 kpsi 5/16" I.D.			.503 = 5.03 ml .754 = 7.54 ml 1.01 = 10.1 ml 1.25 = 12.5 ml 1.51 = 15.1 ml
		20 kpsi 7/16" I.D.			.985 = 9.85 ml 1.96 = 19.6 ml 2.94 = 29.4 ml 3.92 = 39.2 ml 4.55 = 45.5 ml