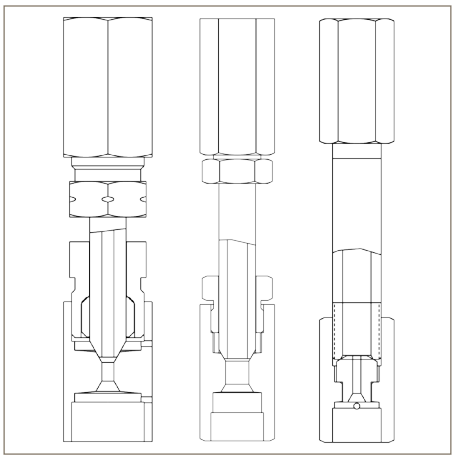
Cone Closure

Tubular Reactors

Volume Range: 1.81 ml to 45.5 ml

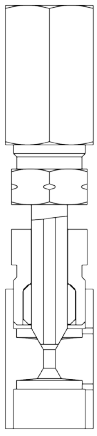
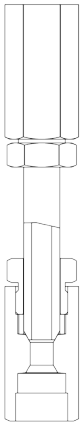
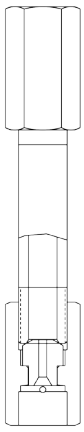


Principle of Operation:

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
- Furnaces and Controls
- Special lengths up to 22’ available
- Valves, Fittings and Tubing (see www.Autoclave.com)
- Consult factory for special requirements

Series CC....SS60	Series CC....SS20	Series CC....SS20
		
3/16” I.D.	**5/16” I.D.**	**7/16” I.D.**
Accepts standard 9/16” (14.3 mm) Parker Autoclave Engineers High Pressure Connection Components	Accepts standard 9/16” (14.3 mm) Parker Autoclave Engineers SlimLine Connection Components	Accepts standard 3/8” (9.53 mm) Parker Autoclave Engineers High Pressure Connection Components
Volumes: 1.81 ml to 5.43 ml Maximum Allowable Working Pressure: 60,000 psi @ 100ºF 4137 bar @ 38ºC Material of Construction: 316 Stainless Steel	Volumes: 5.03 ml to 15.1 ml Maximum Allowable Working Pressure: 20,000 psi @ 100ºF 1379 bar @ 38ºC Material of Construction: 316 Stainless Steel	Volumes: 9.85 ml to 45.5 ml Maximum Allowable Working Pressure: 20,000 psi @ 100ºF 379 bar @ 38ºC Material of Construction: 316 Stainless Steel

Parker Autoclave Engineers

ENGINEERING YOUR SUCCESS.

Series CC_ _ _ _ SS60

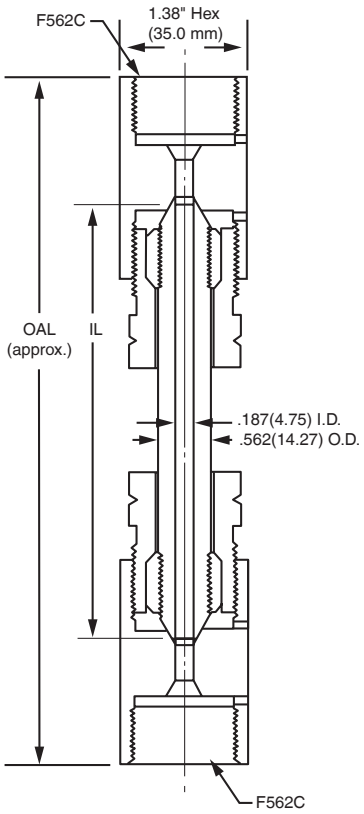
(3/16” I.D)

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 100ºF (-29ºC to 38ºC)	60,000 psi (4137 bar)
200ºF (93ºC)	48,850 psi (3368 bar)
400ºF (204ºC)	46,600 psi (3213 bar)
600ºF (316ºC)	43,580 psi (3005 bar)
800ºF (427ºC)	40,750 psi (2810 bar)



Series CC_ _ _ _ SS20

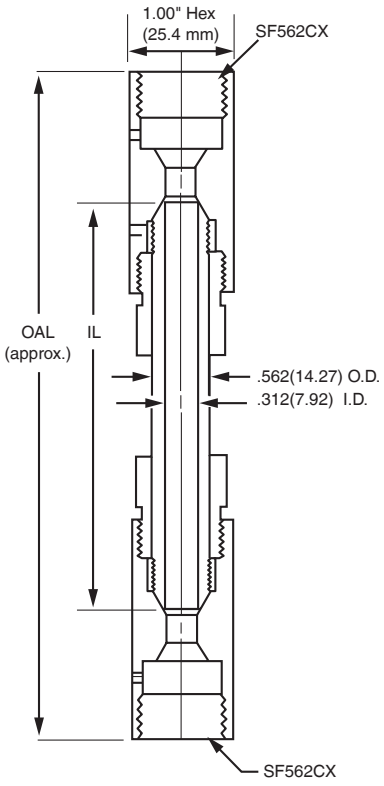
(5/16” I.D)

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)

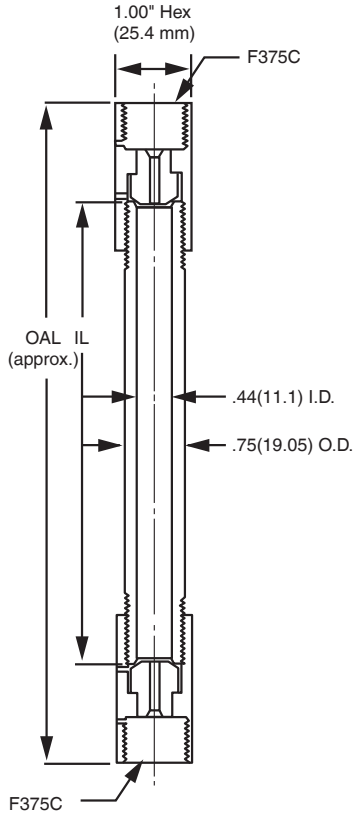
Temperature and Maximum Operating Pressure:

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



Series CC_ _ _ _ SS20

(7/16” I.D)



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 100ºF (-29ºC to 38ºC)	20,000 psi (1379 bar)
200ºF (93ºC)	16,280 psi (1122 bar)
400ºF (204ºC)	15,500 psi (1069 bar)
600ºF (316ºC)	14,500 psi (1000 bar)
800ºF (427ºC)	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**		**Material**	**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 m **.754** = 7.54 ml **1.01** = 10.1 ml **1.25** = 12.5 ml **1.51** = 15.1 m		
	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		

WARNING

FAILURE, IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

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06-0001SE December2015

Caution! Do not mix or interchange component parts or tubing with those of other manufacturers. Doing so is unsafe and will void warranty.

Caution! Parker Autoclave Engineers Valves, Fittings, and Tools are not designed to interface with common commercial instrument tubing and are designed to only connect with tubing manufactured to Parker Autoclave Engineers AES specifications. Failure to do so is unsafe and will void warranty.

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Bulletin PV-CC

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