



CHEMLOCK® PFA HOUSING

Less tool space, less handling, less hassle

Overview

Entegris' Chemlock® PFA housing offers a space-saving solution like no other cartridge filter housing available today. This revolutionary housing locks the cartridge into the bowl, allowing the bowl and cartridge to be removed as a single unit.

Easier Cartridge Changeout

Cartridge changeout has never been easier. The Chemlock bowl is used as a tool when installing and removing a cartridge. After the cartridge is inserted into the bowl, a ¼-turn locks the cartridge into place. The Chemlock bowl and cartridge filter can be installed into a Chemlock head, quickly and easily. By turning the locking ring, the cartridge is pushed vertically into the housing head, ensuring perfect alignment and double o-ring engagement every time. Operators do not have to touch the cartridge body during cartridge changeout, which minimizes exposure to chemicals and limits the possibility of process contamination.

Reduced Footprint

The Chemlock PFA housing has fully molded fittings in several fitting types and sizes, in an extremely compact housing head design. The Chemlock housing is offered in a universal (nominal 10") and 20" length to accommodate a wide variety of cartridges.

Improved Reliability

The cartridge locking feature prevents the cartridge from falling out or being pushed out by back pressure. Vertical installation ensures that o-rings will not roll.



Minimal Space Requirements

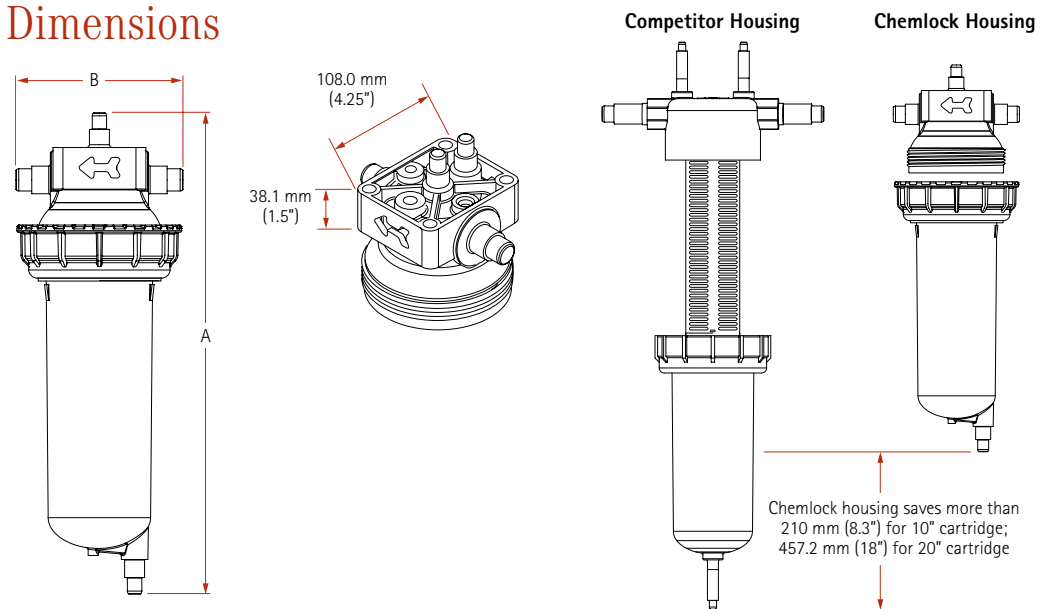
The compact design provides a vertical space-saving advantage for cartridge changeout. The Chemlock housing saves a minimum of 8" of vertical space over traditional housing installations. Cartridges can be removed with minimal clearance. Standard housings require dedicated space in the filtration system to lower a housing bowl below the cartridge. The fully molded Chemlock head also has the smallest footprint available anywhere.

Features	Benefits
Smaller footprint, "minimal-clearance" cartridge/bowl design	Tremendous tool space savings over traditional housings; requires less space for cartridge changeout.
Cartridge locks into bowl with simple ¼-turn twist	Lock-in cartridge reduces required overall footprint and cartridge changeout space. Turning the bowl locking ring perfectly seats the cartridge in the head with double o-ring engagement and straight alignment every time.
Compact head with molded-on fittings	Minimal footprint with fittings and configurations to ensure compatibility for most filtration applications.
Easier cartridge changeout	Provides virtually hands-free cartridge changeout for maximum safety and cleanliness. Allows quick installation and minimizes downtime while limiting the handling of hazardous chemicals during installation and disposal process, promoting a safer workplace.

Specifications

Materials:	Head, molded-on fittings, bowl, plugs	PFA 440 HP or equivalent
	O-ring	E-FKM
	Locking ring (nonwetted part)	PVDF or GFPP (glass-filled polypropylene)
	Mounting hardware – nuts and bolts (nonwetted parts)	PVDF
Fluid connections:	See Ordering Information	
Cartridge connections:	Code 0 (dual 2-222 o-rings)	
Operating conditions:	Maximum inlet pressure	0.3 MPa (3.0 bar, 43 psi) @ 100°C (212°F)
		0.75 MPa (7.5 bar, 110 psi) @ 25°C (77°F)
	Maximum operating temperature	100°C (212°F)

Dimensions



Inlet/Outlet	Vent/Drain	Dimensions		
		B	A (11" Housing)	A (20" Housing)
3/4" Flaretek®	1/4" Flaretek	156 mm (6.2")	450 mm (17.7")	696 mm (27.4")
3/4" Flaretek	1/2" Flaretek	156 mm (6.2")	434 mm (17.1")	681 mm (26.8")
1" Flaretek	1/2" Flaretek	168 mm (6.6")	434 mm (17.1")	681 mm (26.8")
3/4" pipe	1/4" pipe	201 mm (7.9")	416 mm (16.4")	663 mm (26.1")
3/4" pipe	—	201 mm (7.9")	398 mm (15.7")	644 mm (25.4")
3/4" NPT	1/4" NPT	134 mm (5.3")	378 mm (15.0")	622 mm (24.5")
3/4" Super*	1/2" Super*	178 mm (7.0")	431 mm (17.0")	683 mm (26.9")
1" Super*	1/2" Super*	156 mm (6.1")	431 mm (17.0")	683 mm (26.9")
3/4" S300**	1/2" S300**	170 mm (6.7")	431 mm (17.0")	678 mm (26.7")
1" S300**	1/2" S300**	152 mm (6.0")	431 mm (17.0")	678 mm (26.7")
1" S300**	1/4" S300**	170 mm (6.7")	438 mm (17.2")	686 mm (27.0")
3/4" S300**	1/4" S300**	152 mm (6.0")	438 mm (17.2")	686 mm (27.0")
1" PrimeLock®	1/4" PrimeLock	222 mm (8.7")	444 mm (17.5")	694 mm (27.3")
3/4" PrimeLock	1/4" PrimeLock	212 mm (8.4")	444 mm (17.5")	694 mm (27.3")

*Super Type Pillar® fittings

**Super 300 Type Pillar fittings

Ordering Information

Chemlock PFA Heads, Bowls and Kits

T-LINE HOUSING HEADS PART NUMBER

	Inlet/Outlet Fitting	Vent/Drain Fitting
YY56 HL 10L	3/4" PrimeLock	1/4" PrimeLock
YY56 HL 14L	1" PrimeLock	1/4" PrimeLock
YY56 HF 10F	3/4" Flaretek	1/4" Flaretek
YY56 HF 20F	3/4" Flaretek	1/2" Flaretek
YY56 HF 24F	1" Flaretek	1/2" Flaretek
YY56 HP 103	3/4" S300**	1/4" S300**
YY56 HP 143	1" S300**	1/4" S300**
YY56 HP 203	3/4" S300**	1/2" S300**
YY56 HP 243	1" S300**	1/2" S300**
YY56 HP 20P	3/4" Super*	1/2" Super*
YY56 HP 24P	1" Super*	1/2" Super*
YY56 HF 20A	3/4" FNPT	1/4" FNPT
YY56 HB 20B	3/4" pipe	1/4" pipe
YY56 HO 00B	3/4" pipe	—

HOUSING BOWLS PART NUMBER

11" Bowl Length		20" Bowl Length		30" Bowl Length	
Locking Ring Material					
PVDF	GFPP	PVDF	GFPP	PVDF	Vent/Drain Fitting
YY56 11 160	—	YY56 20 160	—	—	1/4" FNPT
YY56 11 170	—	YY56 20 170	—	—	1/4" pipe
YY56 11 180	YY56 11 180GF	YY56 20 180	YY56 20 180GF	—	1/4" Flaretek
YY56 11 280	YY56 11 280GF	YY56 20 280	YY56 20 280GF	YY56 30 280	1/2" Flaretek
YY56 11 250	YY56 11 250GF	YY56 20 250	YY56 20 250GF	—	1/2" Super*
YY56 11 253	YY56 11 253GF	YY56 20 253	YY56 20 253GF	—	1/2" S300**
YY56 11 153	YY56 11 153GF	—	—	—	1/4" S300**
YY56 11 190	YY56 11 190GF	YY56 20 190	YY56 20 190GF	—	1/4" PrimeLock

HOUSING KITS (BOWL + HEAD) PART NUMBER

11" Bowl Length		20" Bowl Length		Inlet/Outlet Fitting	Vent/Drain Fitting
Locking Ring Material					
PVDF	GFPP	PVDF	GFPP		
YY56 11 20A	—	YY56 20 10NS	—	3/4" FNPT	1/4" FNPT
YY56 11 20B	—	YY56 20 20B	—	3/4" pipe	1/4" pipe
YY56 11 20E	YY56 11 G0E	YY56 20 20E	YY56 20 G0E	3/4" Flaretek	1/4" Flaretek
YY56 11 20F	YY56 11 G0F	YY56 20 20F	YY56 20 G0F	3/4" Flaretek	1/2" Flaretek
YY56 11 21F	YY56 11 G1F	YY56 20 21F	YY56 20 G1F	1" Flaretek	1/2" Flaretek
YY56 11 20P	YY56 11 G0P	YY56 20 20P	YY56 20 G0P	3/4" Super*	1/2" Super*
YY56 11 203	YY56 11 G03	YY56 20 203	YY56 20 G03	3/4" S300**	1/2" S300*
YY56 11 213	YY56 11 G13	YY56 20 213	YY56 20 G13	1" S300**	1/2" S300**

Accessories Part Number

Part No.	Description	Quantity/Pkg.
YY56 101 02	Spare o-ring, 2-344, E-FKM	3
YY46 101 08	Spare o-ring, 2-344, Kalrez® 4079 perfluoroelastomer resin	1
YY56 101 0RJ	Spare o-ring, 2-344 Kalrez 6375 perfluoroelastomer resin	1
P01002J	Spare o-ring, 2-344, Viton® fluoropolymer resin	1
YY35 10 103	Spare o-ring, 2-344 EP	5
YY46 000 04	Chemlock/Chemgard™ integrated housing wrench	1
YY56 000 10	Spare mounting hardware kit: (4) PVDF 3/8"-16 x 63.5 mm (2.5") hex head cap screw (4) PVDF nuts 3/8"-16	1 kit
YY46 101 90	L-mounting bracket	1

*Super Type Pillar fittings

**Super 300 Type Pillar fittings

Note: See the last page of this data sheet for locking ring compatibility and warning.

Compatibility

Part Number	O-ring	Torque (N•m)	Temp (°C)	Solvents	Acid	Base	Oxidizers	Notes
YY56 10 102	E-FKM (TEV)	45	<100	C	A	C	A	Teflon® encapsulation provides better cleanliness and compatibility; however, due to diffusion, avoid polar solvents, amines and anhydrous ammonia
YY46 10 108	Kalrez 4079	28.5	<100	A	A	A	B	Excellent; avoid amines, steam and ethylene oxide
YY56 10 10RJ	Kalrez 6375	28.5	<100	A	A	A	A	Excellent compatibility
P01002J	Viton	28.5	<100	D	A	D	B	Avoid polar solvents, amines and anhydrous ammonia
YY35 10 103	EP	28.5	<60	C	B	B	C	Good resistance to mild acids, detergents, alkalis; fair to poor resistance to solvents

Locking Ring	Organic Solvents	Acid	Base	Oxidizers	Notes
GFPP	A	A	A	B	For bases (TMAH, NH ₄ OH...) and most organic solvents (NMP, cyclohexane...)
PVDF	D	A	D	A	Standard locking ring — for acidic and oxidizing (H ₂ O ₂) chemicals and water

A = Good; B = Fair; C = Poor; D = Not recommended

The distinction above is a general guideline based on the relative compatibility in common chemicals. For product recommendations in specific chemicals or if you can't find the configuration you need, please contact your customer representative.

WARNING! Using a locking ring that is not fully compatible with your chemical may result in a seriously hazardous condition due to sudden breakage of the locking ring and chemical exposure.

Chemlock cartridges are compatible with the Chemlock PFA and Chemlock PP housings. Cartridges can be ordered by adding either a "K" or a "Y" to the end of a standard cartridge catalog number depending on the product family. Standard cartridges (without the key) are still available under their usual catalog number.

Any standard 10" Code 0 cartridge can be used with the universal Chemlock PFA housing. Only Chemlock cartridges can utilize the cartridge locking mechanism. Use of a Chemlock key or any other key with a third party cartridge shall void the warranty of the housing and may infringe one or more of Entegris' pending or issued U.S. and foreign patents. Such patents and warranties do not apply to use of third party cartridges without any key.

Refer to individual cartridge datasheets on www.entegris.com for cartridge ordering information.

For More Information

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit www.entegris.com and select the Customer Service link for the center nearest you.

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Installation*



1. Insert cartridge into bowl.

2. Twist filter 1/4-turn to lock.

3. Attach head to bowl.



4. Tighten locking ring to easily seat double o-rings. Use a Chemlock/Chemgard integrated housing wrench to ensure proper tightening.

* **IMPORTANT:** To ensure a leak-free seal, it is indispensable to follow the instructions from the Chemlock installation manual. To view an electronic file of this manual, go to www.entegris.com.

Retrofitting

PFA Chemlock bowls are easily retrofitted to Chemgard T-line housings. They are designed to fit with Entegris' T-line PFA Chemgard heads (Chemlock bowls are not compatible with U-line and in-line Chemgard housings).

An installed Chemgard housing may be retrofitted with a Chemlock bowl and cartridge.

Terms and Conditions of Sale

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