



## CHEMLOCK® PFA HOUSING

*Space-saving housing solution enabling hassle-free cartridge changeouts and reduced exposure to chemicals*

### 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 1/4 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" length, as well as 5" and 20" lengths 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

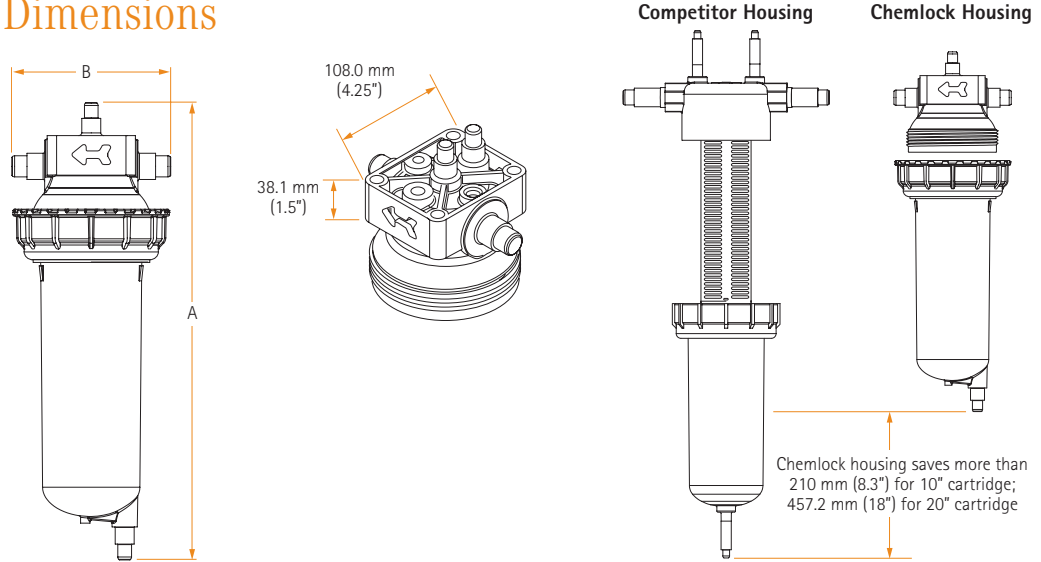
The compact design provides a vertical space-saving advantage for cartridge changeout. The Chemlock housing saves a minimum of 8" of vertical space over traditional housing installations. Cartridges can be removed with minimal clearance. Standard housings require dedicated space in the filtration system 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 1/4-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



### PFA Housing

Inlet/Outlet	Vent/Drain	Dimensions			
		B	A (5" Housing)	A (11" Housing)	A (20" Housing)
3/4" Flaretek®	1/4" Flaretek	156 mm (6.1")	—	450 mm (17.7")	696 mm (27.4")
3/4" Flaretek	1/2" Flaretek	156 mm (6.1")	—	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" FNPT	134 mm (5.3")	—	378 mm (14.9")	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***	145 mm (5.7")	—	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")	320 mm (12.59")	438 mm (17.2")	686 mm (27.0")

\*\* Super Type Pillar® fitting    \*\*\* Super 300 Type Pillar fitting

## Ordering Information

### Chemlock PFA Heads, Bowls and Kits

#### T-LINE HOUSING HEADS

Part Number	Inlet/Outlet Fitting	Vent/Drain Fitting
YY56HF10F	3/4" Flaretek	1/4" Flaretek
YY56HF20F	3/4" Flaretek	1/2" Flaretek
YY56HF14F	1" Flaretek	1/4" Flaretek
YY56HF24F	1" Flaretek	1/2" Flaretek
YY56HP103	3/4" S300***	1/4" S300***
YY56HP143	1" S300***	1/4" S300***
YY56HP203	3/4" S300***	1/2" S300***
YY56HP243	1" S300***	1/2" S300***
YY56HP20P	3/4" Super**	1/2" Super**
YY56HP24P	1" Super**	1/2" Super**
YY56HA20A	3/4" FNPT	1/4" FNPT
YY56HB20B	3/4" pipe	1/4" pipe
YY56HB24B	1" pipe	1/4" pipe
YY56H000B	3/4" pipe	—
YY56HL10L	3/4" PrimeLock®	1/4" PrimeLock
YY56HL14L	1" PrimeLock	1/4" PrimeLock

#### HOUSING BOWLS

Part Number	11" Bowl Length		20" Bowl Length		30" Bowl Length		Vent/Drain Fitting
5" Bowl Length	Locking Ring Material		Locking Ring Material		Locking Ring Material		
PVDF	PVDF	GFPP	PVDF	GFPP	PVDF	GFPP	
—	YY5611160	—	YY5620160	—	—	—	1/4" FNPT
—	YY5611170	YY5611170GF	YY5620170	YY5620170GF	—	—	1/4" pipe
—	YY5611180	YY5611180GF	YY5620180	YY5620180GF	—	—	1/4" Flaretek
—	YY5611280	YY5611280GF	YY5620280	YY5620280GF	YY5630280	YY5630280GF	1/2" Flaretek
—	YY5611250	YY5611250GF	YY5620250	YY5620250GF	—	—	1/2" Super**
—	YY5611253	YY5611253GF	YY5620253	YY5620253GF	—	—	1/2" S300***
YY5605153	YY5611153	YY5611153GF	—	—	—	—	1/4" S300***
—	YY5611190	YY5611190GF	YY5620190	YY5620190GF	—	—	1/4" PrimeLock

#### HOUSING KITS (BOWLS AND HEADS)\*

Part Number	11" Bowl Length		20" Bowl Length		Inlet/Outlet Fitting	Vent/Drain Fitting
5" Bowl Length	Locking Ring Material		Locking Ring Material			
PVDF	PVDF	GFPP	PVDF	GFPP		
—	YY561120A	—	YY562010NS	—	3/4" FNPT	1/4" FNPT
—	YY561120B	YY5611G0B	YY562020B	—	3/4" pipe	1/4" pipe
—	YY561120E	YY5611G0E	YY562020E	YY5620G0E	3/4" Flaretek	1/4" Flaretek
—	YY561120F	YY5611G0F	YY562020F	YY5620G0F	3/4" Flaretek	1/2" Flaretek
—	—	YY5611G1E	—	—	1" Flaretek	1/4" Flaretek
—	YY561121F	YY5611G1F	YY562021F	YY5620G1F	1" Flaretek	1/2" Flaretek
—	YY561120P	YY5611G0P	YY562020P	—	3/4" Super**	1/2" Super**
—	YY561121P	YY5611G1P	YY562021P	YY5620G1P	1" Super**	1/2" Super**
YY5605203	YY5611203	YY5611G03	YY5620203	—	3/4" S300***	1/2" S300**
—	YY5611213	YY5611G13	YY5620213	—	1" S300***	1/2" S300***

\*Entegris offers a 5" housing kit (YY56 05 203) that includes a housing head (YY56 HP 203) and a 5" bowl (YY56 05 153)

\*\*Super Type Pillar fittings

\*\*\*Super 300 Type Pillar fittings

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

## Accessories

Part Number	Description	Quantity/Pkg.
YY5610102	Spare o-ring, 2-344, E-FKM	3
YY4610108	Spare o-ring, 2-344, Kalrez® 4079 perfluoroelastomer resin	1
YY561010RJ	Spare o-ring, 2-344 Kalrez 6375 perfluoroelastomer resin	1
P01002J	Spare o-ring, 2-344, Viton® fluoropolymer resin	1
YY3510103	Spare o-ring, 2-344 EP	5
YY4600005	Chemlock wrench with integrated torque	1
YY4600006	Chemlock wrench head	1
YY5600010	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
YY4610190	L-mounting bracket	1

## Compatibility

Part Number	O-ring	Torque (N•m)	Temp (°C)	Solvents	Acid	Base	Oxidizers	Notes
YY5610102	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
YY4610108	Kalrez 4079	28.5	<100	A	A	A	B	Excellent; avoid amines, steam and ethylene oxide
YY561010RJ	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
YY3510103	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 <sub>4</sub> OH...) and most organic solvents (NMP, cyclohexane...)
PVDF	D	A	D	A	Standard locking ring – for acidic and oxidizing (H <sub>2</sub> O <sub>2</sub> ) 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](http://www.entegris.com) for cartridge ordering information.

## 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 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](http://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.

## For More Information

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit [www.entegris.com](http://www.entegris.com) and select the Customer Service link for the center nearest you.

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