

### CHARACTERISTICS:

- Two diameters available
- High separation efficiency even in presence of disperses phases With ultra low interfacial tension (IFT)
- Low initial Delta-P
- Flow direction in to out
- Coalescing media available in fluoropolymer, nylon or polyester
- Stainless steel or nylon hardware available
- Ideal for free water removal from liquid hydrocarbons
- Ideal for caustic solutions or amines removal from liquid hydrocarbons
- Suitable for free water removal from solvents
- Suitable for free water removal from cumene and phenol
- Suitable for free water removal from aromatic hydrocarbons
- Suitable for free hydrogen peroxide removal from working solution and vice versa
- Suitable for hydrocarbons removal from produced water
- Suitable for disperses phases up to 50,000 ppm (5%) without pre-separation device
- Disperses phase separation efficiency from 99% to 99.9%
- Residual water ≤ 15 ppm even with fluids with extremely low IFT, interfacial tension (down to 0.5 dyne/cm)
- Three different end caps available
- Ideal alternative solution to Pall PhaseSep, AquaSep, AquaSepXS or Peco XtreamPhase 4T.

# **CC-T** Series L/L COALESCER CARTRIDGES ULTRA LOW IFT LIQUIDS DIAMETER 95 - 152 mm

## MAIN APPLICATIONS:

- OIL & GAS
- PETROCHEMICAL
- FINE CHEMICAL
- POWER GENERATION
- GENERAL INDUSTRY

## **APPLICATION DETAILS:**

- Caustic removal from hydrocarbons
- Amines removal from hydrocarbons
- Water removal from biodiesel
- Water removal from ultra low sulfur content diesel
- Py-gas removal from quench water in ethylene plants
- Oil removal from produced water
- Oil removal from ammonia
- Working solution removal from hydrogen peroxide
- Water removal from hydrogen peroxide



#### ASCO Filtri S.p.A.

Viale delle Scienze, 8 20082 Binasco (MI) - Italy Phone: +39 02 89703.1 Fax: +39 02 89703.410 E-mail: info@ascofiltri.com Web: www.ascofiltri.com



L/L COALESCER CARTRIDGES ULTRA LOW IFT LIQUIDS DIAMETER 95 - 152 mm

## **TECHNICAL DATA**

#### **DIFFERENTIAL PRESSURE**

Cartridges replacement: OD 95 mm 1.05 bar OD 152 mm 1.00 bar Max. allowable: 3.0 bar @ 25 °C

#### **CONSTRUCTION MATERIAL**

- Coalescer media:
  - Fluoropolymer
    - Nylon
  - Polyester

Support layers:

- Fluoropolymer
- Nylon
- Polyester
- Polyolefin

End caps:

- Stainless steel
- Nylon + 30% fiberglass
- Perforated core:
- Stainless steel

#### Gaskets:

- Buna-n
- Viton
- FEP
- PTFE

#### DIMENSIONS

Diameter	•
OD	95 mm
OD	152 mm
Length:	
9.25:	235 mm
	(DOE end caps)
20":	508 mm
	(DOE - P - H end caps)
33"	842 mm
	(DOE end caps)
40":	1016 mm
	(DOE - P - H end caps)
56":	1422 mm
	(DOE end caps)
60":	1524 mm
	(DOE - H end caps)

#### **Coalescence introduction**

Coalescent elements are designed to separate two liquid phases with different characteristics of density, viscosity and IFT (interfacial tension).

Coalescer elements are manufactured with several filter media layers in pleated configuration to provide the initial separation of the dispersed phase from the main stream. Separated drops are slowly carried to the outside surface of the cartridges where the external agglomeration layer provide to combine the separated liquid in larger droplet, now heavy enough to be separated from the main stream by gravity. Consequently the separated phase can be collected on the filter bottom by settling.

The separation efficiency achievable depends on the type of coalescing media used but mostly by the characteristics of the main liquid and the dispersed phase to be separated. The CC-T series coalescing cartridges have been designed to provide high separation efficiencies in those applications where traditional fiberglass cartridges are inefficient.

The use of fluoropolymer, nylon or polyester coalescing media ensures high separation capacity even in the presence of amines, ammonia, caustic solutions, naphtha with a high content of aromatics (pyrolysis gasoline), solvents, hydrogen peroxide, etc.

#### Availability / characteristics:

			Со	alescir		End caps							
Size		TH	TM	TL	Ν	E	Р	0	Р		Н		
3-OD 9	3 - OD 95 mm		Х	Х	Х	Х	Х		Х				
6 - OD 152 mm		х	X X		x x x		Х	х			Х		
										Max. temperature			
Grade Coal		escing	medic	1	IFT	wit	with water			without wo			

TH	Fluoropolymer	≥0.5 dyne/cm	149 °C	149 °C
TM	Fluoropolymer	≥0.5 dyne/cm	149 °C	149 °C
TL	Fluoropolymer	≥0.5 dyne/cm	149 °C	149 °C
И	Nylon	≥15 dyne / cm	60 °C	120 °C
E	Polyester	≥3 dyne/cm	90 °C	120 °C
Р	Polyolefin	≥0.5 dyne/cm	60 °C	60 °C

#### Ordering information:

CC	-	TH	3	40	-	1	R	-	P	V	
Coalesc	ing me	dia:					Hardware material:				
TH: fluor	opolyn	ner					R: 304-SS				
TM: fluor	opolyn	ner					S: 316-SS				
TL: fluor	opolyn	ner					N: nylon				
N: nylor	n						End caps:				
E: poly	ester						0: DOE				
P: poly	olefin						P: Pall flange (OD 95)				
External	diame	ter:					H: HPF flange (OD 152	2)			
3: 95 m	m						Gaskets:			-	
6: 152 m	m						N: Buna-N				
Length:							V: Viton				
9.25: 9.2	5"						T: PTFE (only DOE)				
20: 20"	4(	0: 40"	60	: 60"			F: FEP (only P and H)				
33: 33"	50	6: 56"					Internal code:				-
Internal diameter:							Only for internal use				
1: 50 mm	n (serie:	s 3 OD)									
3: 89 mm	n (series	s 6 OD)									
							1				

We reserve the right to change the data of this specification without notice.

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5: 76 mm (series 6 OD HPF flange)