

## Description

The Pall UltiKleen G2 KC assembly is a completely disposable filter unit. It has greatly improved flow characteristics over traditional assembly designs making it ideally suited for process chemical applications for 300 mm wafer fabrication processes. The laid-over pleat filter design increases the effective filter area to 2.2 m<sup>2</sup> in a compact size. The result is longer service life as well as high flows. The built-in UltiKleen cartridge is acid cleaned prior to shipment to ensure low metal ion content. The UltiKleen G2 KC assembly provides excellent chemical and thermal resistance making it the preferred choice for most semiconductor chemical process applications.

The UltiKleen G2 KC assembly is an ideal upgrade filter for enhanced filter performance.

## Features

- Optimized laid-over pleat construction almost doubles filter area compared to standard pleat geometry
- A disposable filter unit with the filter cartridge integrally sealed in the housing
- Low extractables Me-Kleen<sup>SM</sup> option available to ensure low metals content.
- Sealed assembly improves safe handling and disposal of hazardous chemicals
- Flow characteristics greatly improved, suitable for 300 mm processes
- System design and retrofit made easy with T-flow, In-line and L-flow options
- 100% integrity tested



## Specifications

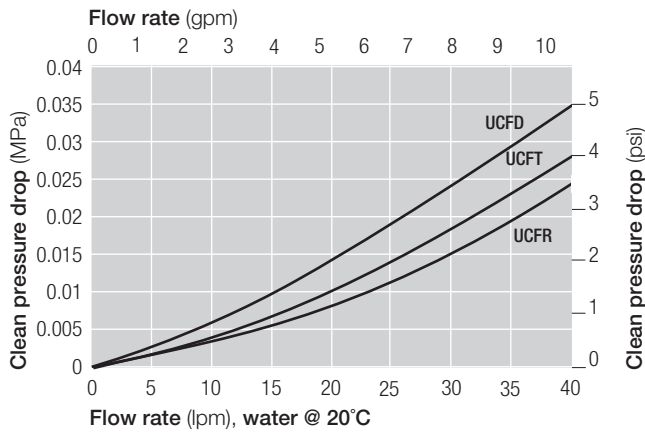
### Materials of Construction

Components	Materials
Filter Medium	PTFE
Media support	PTFE
Inner core	PFA
Outer cage	PFA
End caps	PFA
Housing	PFA

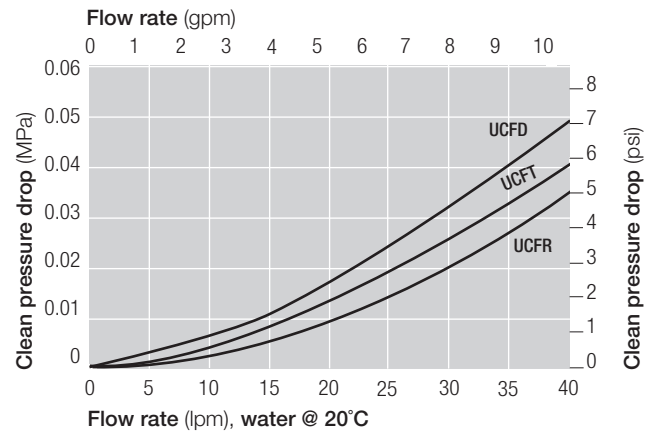
Product Name	UCFD	UCFT	UCFR
Removal Ratings	0.05 µm	0.1 µm	0.2 µm
Configurations	T- flow, In-line, L-flow		
Nominal Filter Area	2.2 m <sup>2</sup> / 23.7 ft <sup>2</sup>		
Maximum Operating Temperature	170 °C / 338 °F		
Maximum Operating Pressure	0.49 MPaG (71 psig) @ 25 °C (77 °F) 0.39 MPaG (57 psig) @ 60 °C (140 °F) 0.34 MPaG (49 psig) @ 90 °C (194 °F) 0.20 MPaG (29 psig) @ 120 °C (248 °F) 0.15 MPaG (22 psig) @ 150 °C (302 °F) 0.12 MPaG (17 psig) @ 170 °C (338 °F)		

# Pressure Drop vs. Liquid Flow Rate<sup>1</sup>

## In-line



## L-flow, T-flow downstream venting

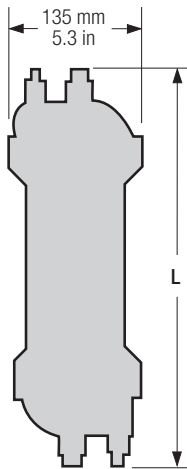


<sup>1</sup> For liquids other than water, multiply differential pressure by fluid viscosity (cP).

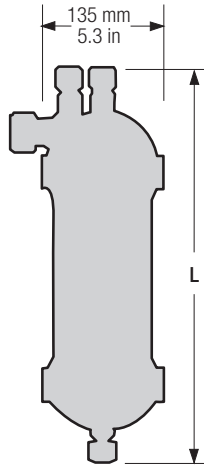
Unit conversion: 1 bar = 0.1 MPa

## Dimensions

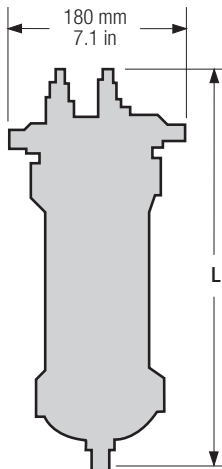
### In-Line



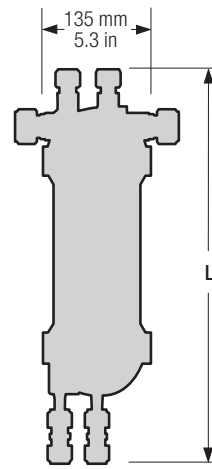
### L-Flow



### T-Flow



### T-flow Downstream Venting



## UltiKleen G2 KC Assembly (LDFG/LDFV)

In-Line	Nominal Length (L) (mm / in)	T-style	Nominal Length (L) (mm / in)	VT-style	Nominal Length (L) (mm / in)
12E2	396.5 / 15.6	12E2	408 / 16.1	12E2	377 / 14.8
12E51	412 / 16.2	12E71	403 / 15.9	128E2	385 / 15.2
124E51	412 / 16.2	13E0	495 / 19.5	12E71/72	377 / 14.8
16E8	428 / 16.9	13E1	432 / 17	128E71/72	402 / 15.8
16E51	436 / 17.2	13E2	442 / 17.4	13E1	445 / 17.5
17E0	448 / 17.6	13E6	416 / 16.4	13E51	444 / 17.4
17E1	445 / 17.7	13E9	433 / 17.1	168E71/72	403 / 15.9
17E51	442 / 17.4	13E51	473 / 18.6		
17E71	462 / 18.2	13E71	444 / 17.5		
		<b>L-style</b>		<b>VL-style</b>	
		12E2	408 / 16.1	12E2	440 / 17.35

## Ordering Information

Pall Part Number = LDF 1 2 1 UCF 3 L 4 E 5 6

**Table 1**

Code	Downstream venting
G	N/A
V	Available

**Table 2**

Code	Flow
T	T-flow
N	In-line
L	L-flow

**Table 3**

Code	Removal ratings (µm)
D	0.05
T	0.1
R	0.2

**Table 4<sup>2</sup>**

Code	Inlet/outlet	Vent/drain		Memo
		Head end	Bowl end	
12	¾ in male	½ in male	½ in male	T-flow / L-flow
12	¾ in male	½ in male	½ in female	Downstream venting-type
12	¾ in male	¾ in male	¾ in male	In-line
124	¾ in male	¼ in male	¼ in male	In-line
128	¾ in male	½ in male	½ in male	Downstream venting-type
13	¾ in female	½ in female	½ in female	T-flow
16	1 in male	½ in male	½ in male	T-flow
16	1 in male	½ in male	½ in female	Downstream venting-type
16	1 in male	¾ in male	¾ in male	In-line
164	1 in male	¼ in male	¼ in male	In-line
168	1 in male	½ in male	½ in male	Downstream venting-type
17	1 in female	½ in female	½ in female	In-line

**Table 5**

Code	Connections
0	No connection
1	20 Series (Flowell)
2	Super Pillar Type (Nippon Pillar) <sup>3</sup>
51	Flare style
6	FinalLock <sup>4</sup>
71	Super Pillar 300 P Series (Nippon Pillar)
72	Super Pillar 300 P Series L Type (Nippon Pillar)
8	60 Series (Flowell)
9	11CR Series (Flowell)

**Table 6**

Code	Prewet option
-K3	Prewet filter (packaged in DI water)
-K7	Prewet filter (packaged in DI water), low metal extractables <sup>5</sup>

<sup>2</sup> Disposable capsules are not available with every option (Refer to codes for options).

<sup>3</sup> Pillar is a trademark of Nippon Pillar Packing Co.

<sup>4</sup> FinalLock is a trademark of Kurabo Industries Ltd.

<sup>5</sup> Please contact Pall for the extractable conditions.



Pall Corporation

**Microelectronics**

25 Harbor Park Drive  
Port Washington, NY 11050  
+1 516 484 3600 telephone  
+1 800 360 7255 toll free US  
Microelectronics@pall.com

**Nihon Pall Ltd.**

6-5-1, Nishishinjuku,  
Shinjuku-ku  
Tokyo 163-1325 Japan  
+81 3 6901 5700 telephone  
+81 3 5322 2109 fax

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