

UltiKleen™ G3 HiT KC Assemblies

UltiKleen™ G2 HiT KC Assemblies

Description

The UltiKleen HiT KC Assembly is specially constructed with proprietary fluid flow path improvements, for reliable high particle removal efficiency in severe chemical service conditions, found in high temperature SPM applications.

Designed for critical single pass point-of-use retention requirements, the UltiKleen HiT KC Assembly provides a high flow rate that makes it suitable for recirculation bath applications as well.

The improved non-dewetting property help enable semiconductor makers to meet the critical chemical process filtration requirements beyond 32 nm manufacturing. Pall's advanced ultra low extractables, Me-KleenSM K7 post treatment process is also available to reduce metal ion extractables to a low single digit ppb total.

The UltiKleen G3 KC T-flow assembly has a slightly larger diameter than the UltiKleen G2 KC T-flow assembly, but it has the same face-to-face sealing distance.¹ This makes interchanging assemblies easy. The increased diameter of the G3 assembly contains a larger format UltiKleen Excellar ER filter with increased filter area and robust supports for higher flow rates and longer service life.

- Enhanced retention of particles in high temperature
- Greater than 95% retention of 15 nm gold colloids
- Large nominal filter area of 2.6 m²/28 ft²
- High flow rates
- All ultra high purity fluoropolymer construction
- Low extractables (Me-Kleen K7 option is available)
- 100% prewetted with ultrapure water in package
- Downstream core vent reduces potential for bubble collection and premature blockage



UltiKleen G3 HiT KC Assemblies (T-flow)



UltiKleen G2 HiT KC Assemblies (T-flow)

Specifications

Materials of Construction

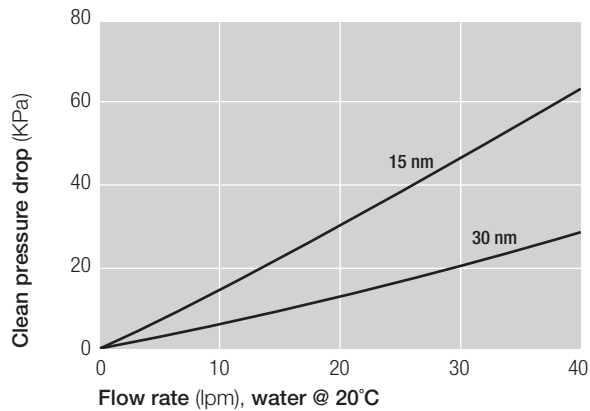
Components	Materials
Filter Medium	Surface modified PTFE
Media Support	PFA / PTFE
Inner Core	PFA
Outer Cage	PFA
End Caps	PFA
Housing	PFA

Product Name	UltiKleen G3 HiT KC Assemblies		UltiKleen G2 HiT KC Assemblies	
Removal Ratings	30 nm	15 nm	30 nm	15 nm
Nominal Filter Area	2.1 m ² / 23 ft ²	2.6 m ² / 28 ft ²	1.3 m ² / 14 ft ²	1.7 m ² / 18 ft ²
Configurations	T-flow, In-line		T-flow, In-line, L-flow	
Maximum Operating Temperature	180 °C / 356 °F			
Maximum Operating Pressure	0.5 MPaG (72.5 psig) @ 25 °C (77 °F) 0.4 MPaG (58.0 psig) @ 60 °C (140 °F) 0.35 MPaG (50.7 psig) @ 90 °C (194 °F) 0.20 MPaG (29.0 psig) @ 120 °C (248 °F) 0.15 MPaG (21.8 psig) @ 150 °C (302 °F) 0.12 MPaG (17.4 psig) @ 180 °C (356 °F)			

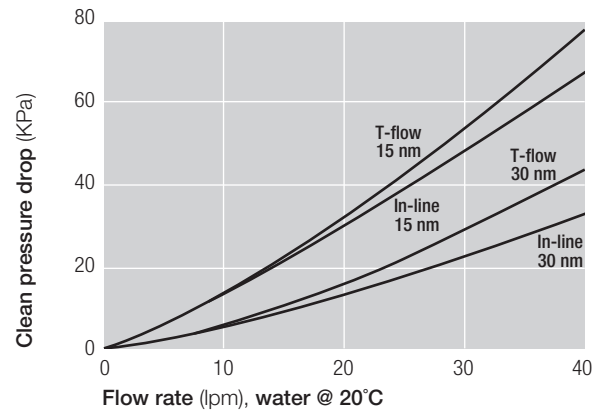
Pressure Drop vs. Liquid Flow Rate²

UltiKleen G3 HiT KC Assemblies

1 inch T-flow, In-line



3/4 inch T-flow, In-line

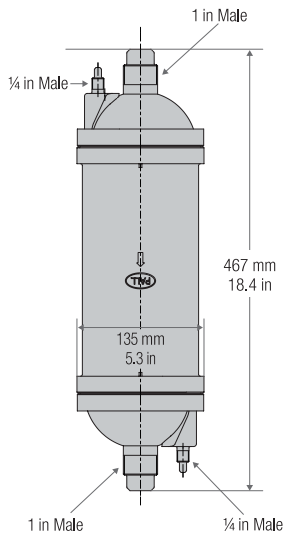


² For liquids other than water, multiply differential pressure by fluid viscosity (cP).

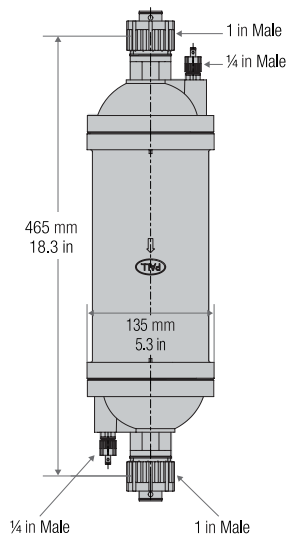
Unit conversion: 1 bar = 0.1 MPa

Dimensions (nominal)

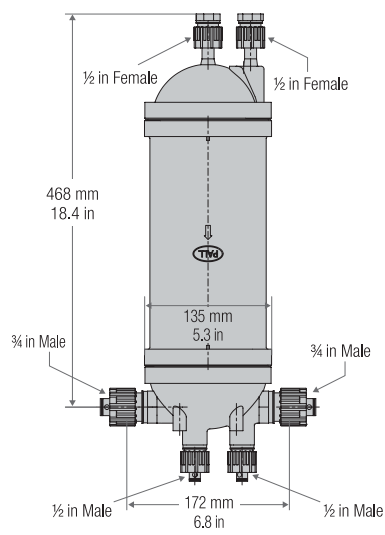
1 inch In-Line
Flare Style
LDFHN1HGP15164E51



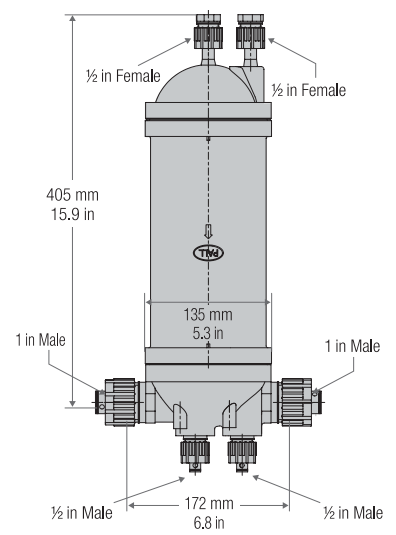
1 inch In-Line
Super Pillar³ 300P Series
LDFHN1HGP15164E71



3/4 inch T-Flow
Super Pillar 300P Series
LDFHT1HGP1512E71/72



1 inch T-Flow
Super Pillar 300P Series
LDFHT1HGP1516E71/72

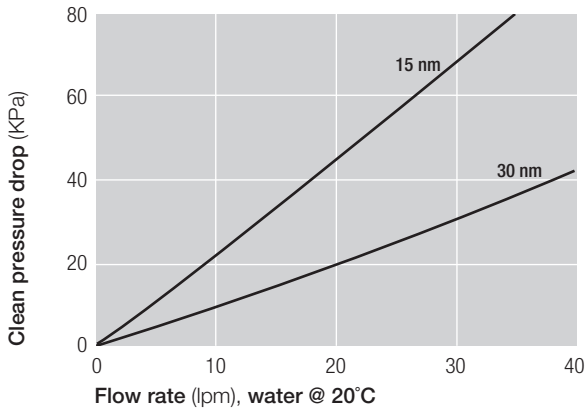


³ Pillar is a trademark of Nippon Pillar Packing Co.

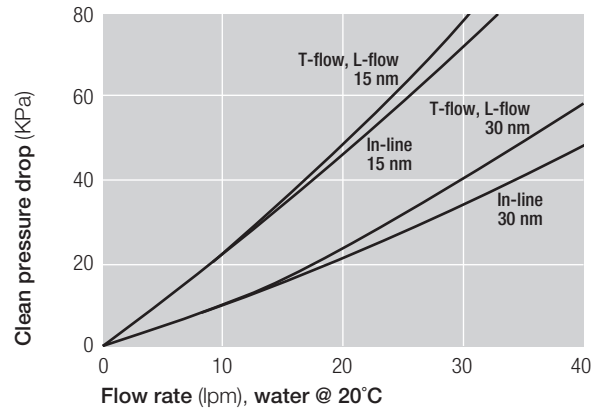
Pressure Drop vs. Liquid Flow Rate²

UltiKleen G2 HiT KC Assemblies

1 inch T-flow, In-line



3/4 inch T-flow, In-line, L-flow

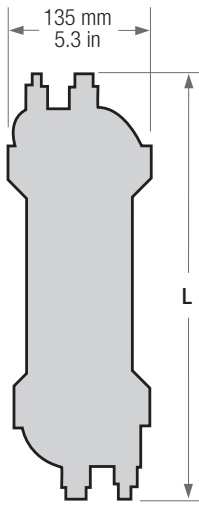


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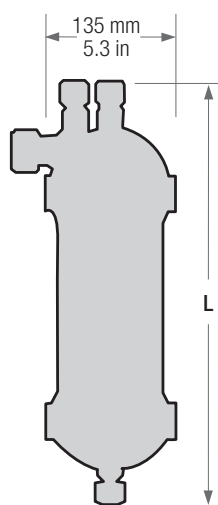
Unit conversion: 1 bar = 0.1 MPa

Dimensions (nominal)

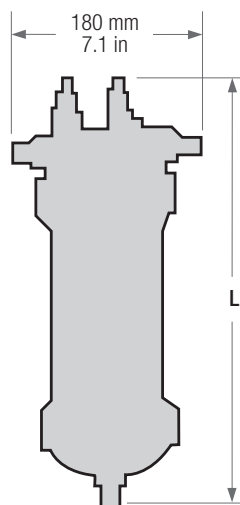
In-Line



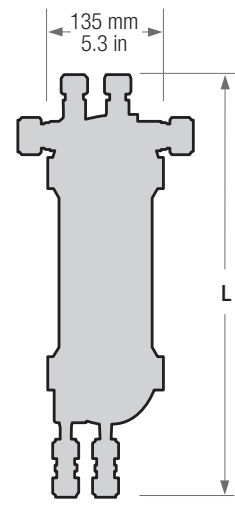
L-Flow



T-Flow



T-Flow Downstream Vent



G2 Kleen-Change 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		
		L-style		VL-style	
		12E2	408 / 16.1	12E2	440 / 17.35

Ordering Information - UltiKleen G3 HiT KC Assemblies

Part Number = LDFH 1 1HGP 2 3 E 4 5

Table 1

Code	Flow
T	T-flow
N	In-line

Table 2

Code	Removal ratings
15	15 nm
30	30 nm

Table 3⁴

Code	Inlet/outlet	Vent/drain		Memo
		Head end	Bowl end	
12	¾ in male	½ in female	½ in female	T-flow
128	¾ in male	½ in male	½ in male	T-flow
16	1 in male	½ in male	½ in female	T-flow
164	1 in male	¼ in male	¼ in male	In-line
168	1 in male	½ in male	½ in male	T-flow

Table 4

Code	Connections
2	Super Pillar Type (Nippon Pillar)
51	Flare style
71	Super Pillar 300 P Series (Nippon Pillar)
72	Super Pillar 300 P Series L Type (Nippon Pillar)

Table 5

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

⁴ Disposable capsules are not available with every option. Please contact Pall for part number availability.

⁵ Please contact Pall for the extractable conditions.

Ordering Information - UltiKleen G2 HiT KC Assemblies

Part Number = LDF 1 1HGP 2 3 E 4 5

Table 1

Code	Flow
VT	T-flow
GN	In-line
VL	L-flow

Table 2

Code	Removal ratings
15	15 nm
30	30 nm

Table 3⁴

Code	Inlet/outlet	Vent/drain		Memo
		Head end	Bowl end	
12	¾ in male	½ in male	½ in female	T-flow / L-flow
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	T-flow
13	¾ in female	½ in female	½ in female	T-flow
16	1 in male	½ in male	½ in female	T-flow
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	T-flow
17	1 in female	½ in female	½ in female	In-line

Table 4

Code	Connections
0	No connection
1	20 Series (Flowell)
2	Super Pillar Type (Nippon Pillar)
51	Flare style
6	Final Lock (Krabo)
71	Super Pillar 300 P Series (Nippon Pillar)
72	Super Pillar 300 P Series L Type (Nippon Pillar)
9	11CR Series (Flowell)

Table 5

Code	Prewet option
-K3	Prewet filter (packaged in DI water)
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