



KEEVALID™ II SERIES CMP FILTER

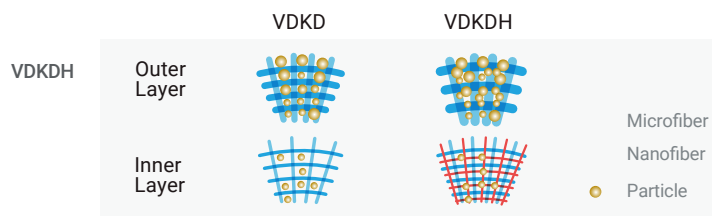
ROLLED OR MELT-BLOWN DEPTH POLYPROPYLENE MEDIUM FOR CMP FROM 30NM

Keevalid™ II CMP filters are the next generation based on Cobetter's legacy Keevalid series. Like the original Keevalid series, these filters are available with depth or rolled micro and nanofiber media in a variety of sizes and configurations to meet a wide-range of process requirements. Filters are flushed with ultra-pure water to ensure cleanliness and low particle shedding.

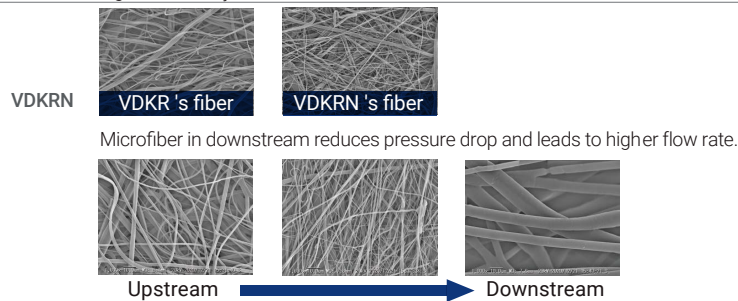
Like the original Keevalid series, these filters are available in the options depth or rolled micro and nanofiber media.

FEATURE

Cobetter's Keevalid II VDKDH filters offer increased dirt holding capacity over the original Keevalid VDKD filters by expanding outer layers fiber diameter while reducing fiber diameter of the inner layers to improve efficiency



Compared with VDKR type, VDKRN has more nanofiber in midstream leads to higher efficiency.



Microfiber in downstream reduces pressure drop and leads to higher flow rate.



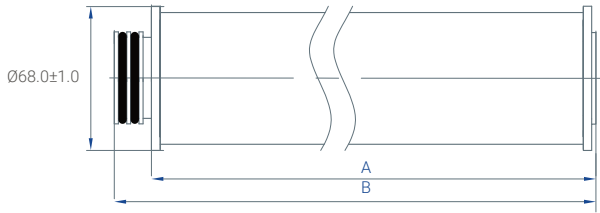
Typical Applications

- Source, Global Loop, and On-tool
- Most slurries, including those for ILD, PMD, STI, W, and Cu/barrier

SPECIFICATIONS

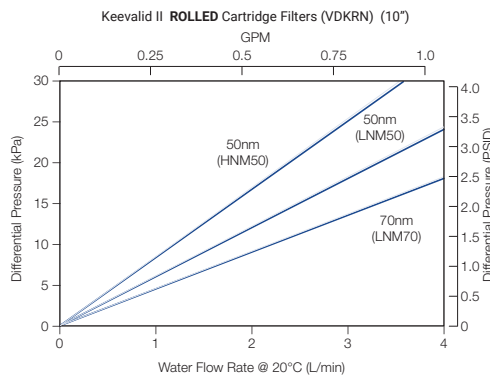
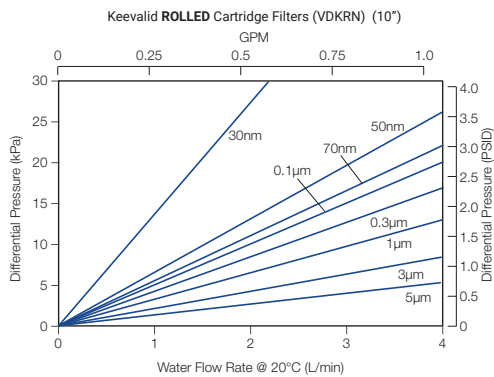
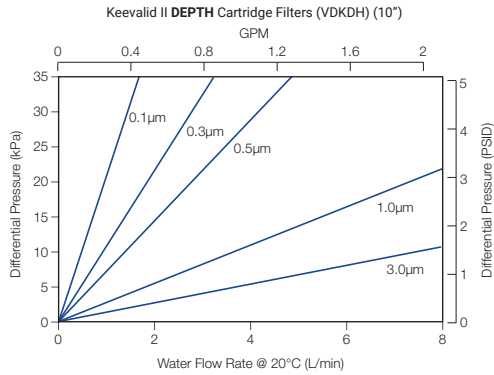
| | Depth Melt-Blown (VDKDH) | Rolled (VDKRN) |
|--|--|--|
| Filter media | Melt-Blown (Depth) Polypropylene Micro and Nanofiber | Rolled Polypropylene Micro and Nanofiber |
| Support/Cage/Core/End Caps | Polypropylene | |
| O-rings | TEV, EPDM | |
| Max. operating temperature | Cartridge: 90°C; Capsule: Please refer to ordering information. | |
| Capsule max. operating pressure | Capsule max. operating pressure: Please refer to ordering information. | |

KEEVALID II CARTRIDGES



| Length Code | A | B |
|-------------|---------------------|---------------------|
| 10 | 254.0 ±2 mm (10.0") | 272.0 ±2 mm (10.7") |
| 20 | 508.0 ±3 mm (20.0") | 526.0±3 mm (20.7") |
| 30 | 762.0 ±3 mm (30.0") | 780.0 ±3 mm (30.7") |

KEEVALID II CARTRIDGE FLOW RATES



KEEVALID ROLLED CARTRIDGE ORDERING INFORMATION (222/FLAT)

EXAMPLE: **VDKRN01000AC20ED** = rolled filter with 1.0 µm removal rating, 20" length, EPDM seal, packaged Prewet

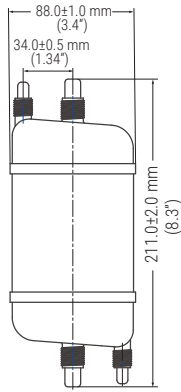
| | | | | | |
|-----------------------|----------------------|-----------------------|-----------------------|----------------------|----------------|
| VDKRN | <input type="text"/> | OAC | <input type="text"/> | <input type="text"/> | D |
| Removal Rating | | Filter Fitting | Nominal Length | Seal Material | Package |
| NM30 = 30 nm | 0010 = 0.1 µm | OAC = 222 Flat | 10 = 10" | P = TEV | D = Dry |
| NM50 = 50 nm | 0100 = 1.0 µm | | 20 = 20" | E = EPDM | |
| LNM50 = 50 nm | 0300 = 3.0 µm | | 30 = 30" | | |
| HNM50 = 50 nm | 0500 = 5.0 µm | | | | |
| NM70 = 70 nm | | | | | |
| LNM70 = 70 nm | | | | | |

KEEVALID DEPTH CARTRIDGE ORDERING INFORMATION (222/FLAT)

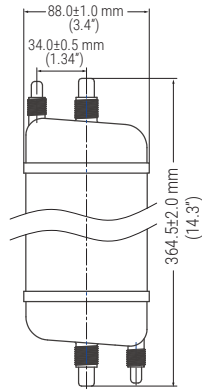
EXAMPLE: **VDKDH00100AC20ED** = depth filter with 0.1 µm removal rating, 20" length, EPDM seal, packaged Prewet

| | | | | | |
|-----------------------|----------------------|-----------------------|-----------------------|----------------------|----------------|
| VDKDH | <input type="text"/> | OAC | <input type="text"/> | <input type="text"/> | D |
| Removal Rating | | Filter Fitting | Nominal Length | Seal Material | Package |
| 0010 = 0.1 µm | 0100 = 1.0 µm | OAC = 222 Flat | 10 = 10" | P = TEV | D = Dry |
| 0020 = 0.2 µm | 0300 = 3.0 µm | | 20 = 20" | E = EPDM | |
| 0030 = 0.3 µm | | | 30 = 30" | | |

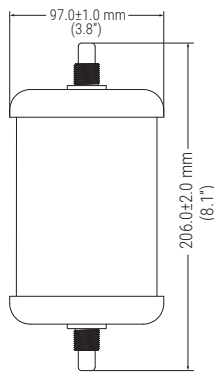
KEEVALID II CAPSULE AND MANIFOLD DIMENSIONS



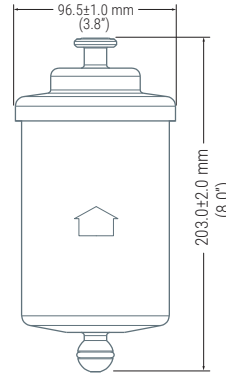
BFL64-4



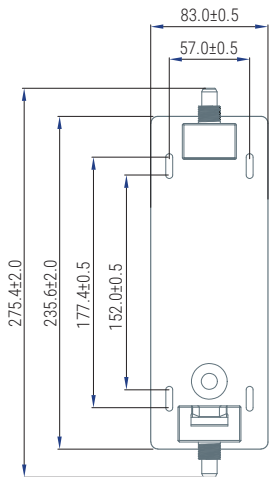
BFL64-10



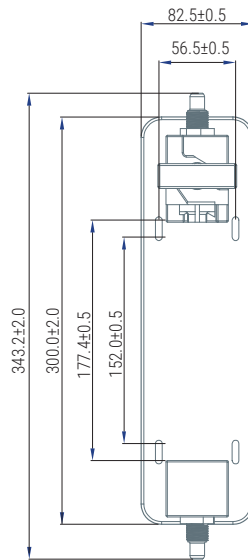
ECX2J



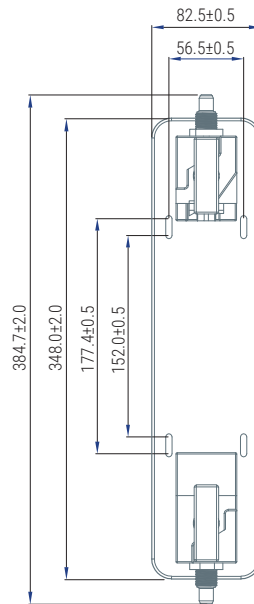
ECX3



ECX3-S-0N-3F-MF

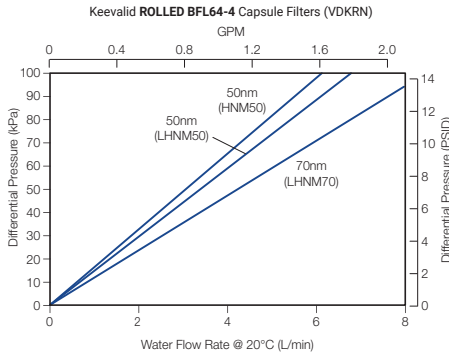
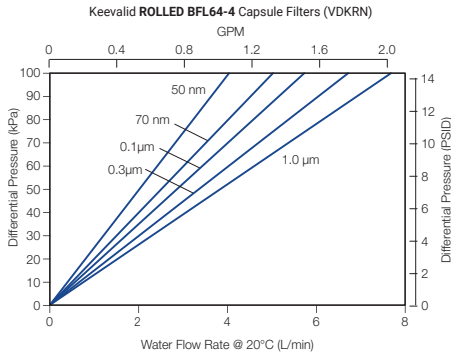


ECX3-P-1Q-3F-MF



ECX3-P-2Q-3F-MF

KEEVALID II CAPSULE FLOW RATES



KEEVALID II ROLLED CAPSULE ORDERING INFORMATION

EXAMPLE: **VDKRN0100BFL64-VD** = rolled filter, 1.0 μm, Flare BFL64-10 type with 3/8" I/O and 1/4" V/D, FKM o-ring, packaged dry

VDKRN



Removal Rating

NM50 = 50nm
 HNM50 = 50nm
 LNM50 = 50nm
 NM70 = 70nm
 LNM70 = 70nm
 0010 = 0.1 μm
 0100 = 1.0 μm
 0300 = 3.0 μm



Connection Type

BFL64-4 = Flare Type
 BFL64-10 = Flare Type
 ECX2J = Flare Type
 ECX3 = Easy Touch, match with Cobetter manifold



O-ring

- - -
 V = FKM (ECX3)



Package

D = Dry

| Connection Type | Inlet/Outlet | Vent/Drain | Max. Operating Temp. | Max. Operating Pressure |
|---|--------------|------------|----------------------|-------------------------|
| BFL64-4 = Flare Type | 3/8" | 1/4" | 40°C | 0.41 MPa |
| BFL64-10 = Flare Type | 3/8" | 1/4" | | @40°C |
| ECX2J = Flare Type | 3/8" | - | 40°C | 0.35 MPa |
| ECX3 = Easy Touch, match with Cobetter manifold | | | | @20°C |

KEEVALID II DEPTH CAPSULE ORDERING INFORMATION

EXAMPLE: **VDKDH0100BFL64-10VD** = depth filter, 1.0 μm, Flare BFL64-10 type with 3/8" I/O and 1/4" V/D, FKM o-ring, packaged dry

VDKDH



Removal Rating

0010 = 0.1 μm
 0030 = 0.3 μm
 0050 = 0.5 μm
 0100 = 1.0 μm
 0300 = 3.0 μm



Connection Type

BFL64-4 = Flare Type
 BFL64-10 = Flare Type
 ECX2J = Flare Type
 ECX3 = Easy Touch, match with Cobetter manifold



O-ring

- - -
 V = FKM (ECX3)



Package

D = Dry

| Connection Type | Inlet/Outlet | Vent/Drain | Max. Operating Temp. | Max. Operating Pressure |
|---|--------------|------------|----------------------|-------------------------|
| BFL64-4 = Flare Type | 3/8" | 1/4" | 40°C | 0.41 MPa |
| BFL64-10 = Flare Type | 3/8" | 1/4" | | @40°C |
| ECX2J = Flare Type | 3/8" | - | 40°C | 0.35 MPa |
| ECX3 = Easy Touch, match with Cobetter manifold | | | | @20°C |

MANIFOLD ORDERING INFORMATION

| Part Numbers | Description |
|-----------------|--|
| ECX3-S-0N-3F-MF | Keevalid ECX3 manifold without valve |
| ECX3-P-1Q-3F-MF | Keevalid ECX3 manifold with one valve |
| ECX3-P-2Q-3F-MF | Keevalid ECX3 manifold with two valves |



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