

BECODISC stacked disc cartridges



Powering Business Worldwide

Robust and compact stacked disc cartridges for a wide variety of filtration applications

Eaton is a leading supplier of complete depth filtration solutions and develops, manufactures and provides high-quality depth filtration media for food, beverage, fine chemical and pharmaceutical applications.

The individual cells of the BECODISC® stacked disc cartridges are constructed using either BECO® or BECOPAD® depth filter sheets. In addition to handling simplicity, reduced setup times, increased personnel and product protection, the enclosed BECODISC system offers protection against bypass effects. Additional benefits include:

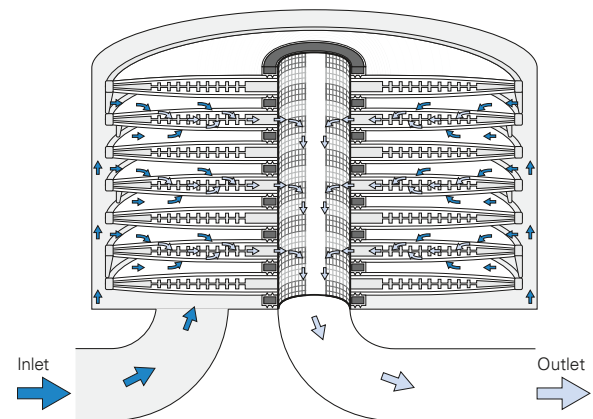
- Precise sealing of the filter cells through polypropylene or polyamide edge molding
- Excellent stability, even during sterilization, through high assembly pressure compressing the filter cells and bound tightly with a three-segment stainless steel sleeve
- Efficient flow path within the filter cell through an internal drainage plate
- Full filter surface area utilization through defined, consistent cell distance

The product range also contains enclosed BECO INTEGRA® DISC housings in a range of designs and sizes. They meet many demanding filtration tasks and process safety requirements.

Eaton stacked disc cartridges meet national and international quality standards, such as:

- LFGB standard (German Food, Commodity and Feed Act) in Germany
- FDA guidelines (Food and Drug Administration) from the USA
- Polypropylene components meet European Directive 10/2011

For further information, please refer to the Declaration of Conformity documents, technical data sheets and Validation Guides, especially for the pharmaceutical industry.



BECODISC flow diagram in enclosed filter housing



BECODISC Stacked Disc Cartridge Ranges

Selection guide

For a wide range of applications



BECODISC

Premium stacked disc cartridges with BECOPAD depth filter sheets made of cellulose, characterized by high-purity, strength and performance for excellent color and flavor fidelity.

Main applications:

Wine, beer, fruit juices, spirits, food, fine/specialty chemistry, biotechnology, pharmaceutical, cosmetics



BECODISC BS

Stacked disc cartridges with excellent clarification performance for reliable removal from particles to microorganisms due to optimal pore structure and adsorption.

Main applications:

Wine, beer, fruit juices, spirits, food, fine/specialty chemistry, biotechnology, pharmaceutical, cosmetics



BECODISC BT

Stacked disc cartridges with high dirt-holding capacity and burst strength for filtration of liquids with high viscosity or particle load.

Main applications:

Fine/specialty chemistry, biotechnology, pharmaceutical, cosmetics, food, fruit juices



BECODISC BA

Stacked disc cartridges specifically manufactured with reduced calcium and magnesium for prevention and removal of haze while preserving color and flavor.

Main applications:

Spirits, flavors and fragrances

Activated carbon for correction of color and odor



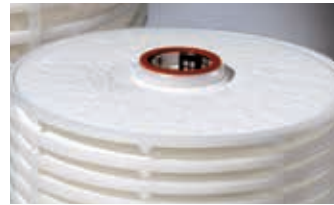
BECODISC BC/BW

Immobilized activated carbon imparts high adsorption capacity to carbon stacked disc cartridges for removal of colors, odors and undesirable byproducts from liquids.

Main applications:

Fine/specialty chemistry, biotechnology, pharmaceutical, cosmetics fruit juices, spirits, food

Low endotoxin content suitable for pharmaceutical applications



BECODISC P

Stacked disc cartridges with BECOPAD P depth filter sheets composed of high-purity cellulose with low extractables, extremely low endotoxin content (<0.025 EU/ml) after rinsing with 0.61 gal/ft² (25 l/m²) WFI (Water for Injection) and up to 50 % reduction of rinse volume.

Main applications:

Pharmaceutical, fine/specialty chemistry, biotechnology

[A Validation Guide is available upon request.](#)



BECODISC BP

Stacked disc cartridges with excellent clarification performance for reliable removal of particulate, microorganisms and retention of endotoxins due to optimal combination of depth filtration and adsorption. An endotoxin content of <0.125 EU/ml after rinsing with 1.23 gal/ft² (50 l/m²) WFI is achieved.

Main applications:

Pharmaceutical, fine/specialty chemistry, biotechnology

[A Validation Guide is available upon request.](#)

Technical data and configurations

Range	Type (PP version)	Depth filter sheet	Nominal retention rate µm	Thickness		Ash content %	Bursting strength wet		Water throughput		Endotoxin content EU/ml
				in	(mm)		psi	(kPa ¹)	Δ p = 14.5 psi gpm/ft ²	(Δ p = 100 kPa ¹) l/m ² /min	
BECODISC	B1C3 ²	BECOPAD 115 C ²	0.1 – 0.2	0.16	(4.1)	<1	>21.8	(150)	0.6	(26)	-
	B123 ²	BECOPAD 120 ²	0.1 – 0.3	0.15	(3.9)	<1	>21.8	(150)	1.3	(54)	-
	B173 ²	BECOPAD 170 ²	0.2 – 0.4	0.15	(3.9)	<1	>21.8	(150)	1.9	(77)	-
	B223 ²	BECOPAD 220 ²	0.3 – 0.5	0.15	(3.9)	<1	>21.8	(150)	2.5	(100)	-
	B273 ²	BECOPAD 270 ²	0.5 – 0.7	0.15	(3.9)	<1	>21.8	(150)	3.3	(135)	-
	B353 ²	BECOPAD 350 ²	0.7 – 1.0	0.15	(3.9)	<1	>21.8	(150)	3.9	(160)	-
	B453 ²	BECOPAD 450 ²	1.0 – 2.0	0.15	(3.9)	<1	>21.8	(150)	7.4	(300)	-
	B553 ²	BECOPAD 550 ²	2.0 – 3.0	0.15	(3.9)	<1	>21.8	(150)	14.0	(570)	-
B583 ²	BECOPAD 580 ²	8.0 – 10.0	0.15	(3.9)	<1	>21.8	(150)	87.6	(3571)	-	
BECODISC BS	B01S	BECO Steril S 100	0.1	0.15	(3.9)	58	>7.3	(50)	0.7	(30)	-
	B02S	BECO Steril S 80	0.2	0.15	(3.9)	50	>11.6	(80)	1.1	(46)	-
	B03S	BECO Steril 60	0.3	0.15	(3.8)	50	>7.3	(50)	1.5	(60)	-
	B04S	BECO Steril 40	0.4	0.15	(3.8)	49	>7.3	(50)	1.7	(69)	-
	B05S	BECO SD 30	0.5	0.15	(3.8)	50	>7.3	(50)	2.1	(84)	-
	B06S	BECO KDS 15	0.6	0.15	(3.8)	50	>7.3	(50)	2.8	(115)	-
	B08S	BECO KDS 12	0.8	0.15	(3.8)	50	>7.3	(50)	3.8	(155)	-
	B10S	BECO KD 10	1.0	0.15	(3.8)	50	>7.3	(50)	4.5	(185)	-
	B15S	BECO KD 7	1.5	0.15	(3.8)	50	>7.3	(50)	5.5	(225)	-
	B20S	BECO KD 5	2.0	0.15	(3.8)	50	>7.3	(50)	6.6	(270)	-
	B25S	BECO KD 3	2.5	0.15	(3.8)	50	>5.8	(40)	10.4	(425)	-
	B30S	BECO K2	3.0	0.15	(3.8)	46	>7.3	(50)	38.0	(1550)	-
	B40S	BECO K1	4.0	0.15	(3.8)	42	>8.7	(60)	46.6	(1900)	-
	BECODISC BT	B15T	BECO CP07S	15.0	0.14	(3.6)	35	>16.0	(110)	105.3	(4290)
B20T		BECO CP03S	20.0	0.15	(3.7)	35	>13.1	(90)	175.2	(7140)	-
B25T		BECO CP02S	25.0	0.13	(3.3)	17	>13.1	(90)	233.6	(9520)	-
B30T		BECO CP01S	30.0	0.18	(4.6)	16	>14.5	(100)	306.8	(12500)	-
B27T ²		BECO CP2KS ²	27.0	0.11	(2.9)	<1	>11.6	(80)	239.5	(9760)	-
B40T ²		BECO CP1KS ²	40.0	0.17	(4.3)	<1	>21.8	(150)	555.1	(22620)	-
BECODISC BA	BA20	BECO SELECT™ A 20	0.8	0.17	(4.4)	43	>5.8	(40)	3.9	(160)	-
	BA40	BECO SELECT A 40	2.5	0.17	(4.4)	43	>5.8	(40)	7.4	(300)	-
BECODISC BC/BW	B30C	BECO ACF 07 with protective fleece	-	0.15	(3.8)	15	>5.8	(40)	34.7	(1415)	-
	B30W	BECO ACF 07	-	0.15	(3.8)	15	>5.8	(40)	34.7	(1415)	-
BECODISC P	B171 ²	BECOPAD P 170 ²	0.2 – 0.4	0.15	(3.9)	<1	>21.8	(150)	1.9	(77)	<0.025 ³
	B271 ²	BECOPAD P 270 ²	0.5 – 0.7	0.15	(3.9)	<1	>21.8	(150)	3.3	(135)	<0.025 ³
	B351 ²	BECOPAD P 350 ²	0.7 – 1.0	0.15	(3.9)	<1	>21.8	(150)	3.9	(160)	<0.025 ³
	B551 ²	BECOPAD P 550 ²	2.0 – 3.0	0.15	(3.9)	<1	>21.8	(150)	14.0	(570)	<0.025 ³
	B581 ²	BECOPAD P 580 ²	8.0 – 10.0	0.15	(3.9)	<1	>21.8	(150)	87.6	(3571)	<0.025 ³
BECODISC BP	B01P	BECO PR Steril S100	0.1	0.15	(3.9)	58	>7.3	(50)	0.7	(30)	<0.125 ⁴
	B02P	BECO PR Steril S 80	0.2	0.15	(3.9)	50	>11.6	(80)	1.1	(46)	<0.125 ⁴
	B04P	BECO PR Steril 40	0.4	0.15	(3.9)	49	>7.3	(50)	1.5	(61)	<0.125 ⁴
	B08P	BECO PR 12	0.8	0.15	(3.9)	50	>18.9	(130)	4.3	(175)	<0.125 ⁴
	B20P	BECO PR 5	2.0	0.15	(3.9)	50	>8.7	(60)	8.1	(330)	<0.125 ⁴
B40P	BECO PR 1	4.0	0.17	(4.3)	48	>6.5	(45)	58.4	(2381)	<0.125 ⁴	

¹ 100 kPa = 1 bar | ² Without the addition of mineral components | ³ Determination after rinsing with 0.61 gal/ft² (25 l/m²) WFI (Water for Injection) | ⁴ Determination after rinsing with 1.23 gal/ft² (50 l/m²) WFI

	BECODISC 12", Ø 11.6 in (295 mm)					BECODISC 16", Ø 15.8 in (402 mm)				
	16	14	9 ¹	9	5	16	14	9 ¹	9	5
Number of cells	16	14	9 ¹	9	5	16	14	9 ¹	9	5
Filter surface area [ft ² (m ²)]	20.5 (1.9)	17.8 (1.65)	11.8 (1.1)	11.8 (1.1)	6.4 (0.59)	39.8 (3.7)	34.4 (3.2)	22.6 (2.1)	22.6 (2.1)	12.4 (1.15)
Pre-coat volume [gal (l)] ²	-	0.9 (3.6)	2.1 (8.0)	-	-	-	1.8 (7.0)	4.1 (15.4)	-	-
Overall height flat adapter [in (mm)]	10.9 (276)	10.9 (276)	10.9 (276)	7.7 (195)	4.4 (101)	10.9 (276)	10.9 (276)	10.9 (276)	7.7 (195)	4.4 (101)
Overall height double O-ring adapter [in (mm)]	13.0 (329)	13.0 (329)	13.0 (329)	10.0 (248)	-	13.0 (329)	13.0 (329)	13.0 (329)	10.0 (248)	-
Protective fleece (polyester) ³	-	-	✓/-	-	-	-	-	✓/-	-	-
Cell spacer rail	-	-	✓	-	-	-	-	✓	-	-

¹ Special stacked disc cartridge configuration with cell spacer rails providing increased mechanical stability for holding filter cake

² Calculated values (BECO depth filter sheets with 0.16 in/4.0 mm thickness) | ³ BECODISC B30C and C30C stacked disc cartridges: designs with protective fleece



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