



PRODUCT CATALOGUE







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ABMF

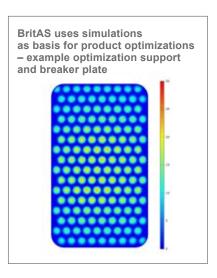
Your advantages

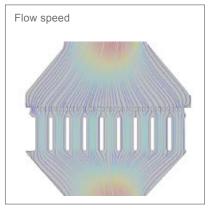
- ► Automated. Fully automatic filtration.

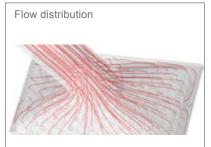
 Filter mechanics combined with control allow a fully automatic, practical and cost-saving operation.
- Clean. High filtration finenesses.
 Up to three screen belts can be used simultaneously. This allows an exact adjustment of different filter finenesses.
- Permanent. Extruder operation during screen belt feed.
 By intermediate storing of the plastic melt, the extruder can also run during the screen feed and thus, process safety is guaranteed.
- ► Effective. Very high throughput rates.

 The new support plate design including support and breaker plate guarantees higher material throughput, thus, less pressure build-up and more gentle processing.
- Perfect. Homogeneity of the plastic melt. The optimized flow channel improves the melt flow considerably again without material stress.
- ▶ Efficient. Very low operating costs.

 In addition to the automatic filter operation with high plastic throughput, also the use of screen belts with Dutch weave mesh guarantees low operating costs at high output.











Material applications

Can be used for post-consumer and post-industrial plastic waste as well as for agricultural films.

Standard ABMF (ABMF / ABMF-C / ABMF-BV-C / ABMF-TH)

Optimal for heavy contaminations and high throughputs. For both, post-consumer and post-industrial / production.

Processable plastics:



Polypropylene (PP)



Linear Low Density
Polyethylene (LLDPE)



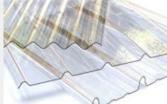
Low Density Polyethylene (LDPE)



High Density Polyethylene



Polystyrene (PS)



Polycarbonate (PC)



Acrylnitrile-butadiene-Styrene (ABS)



Polyolefin-Mix (PO-Mix)

ABMF PET-C

Ideal for plastic with low melt viscosity.

Processable plastics:



Polyethylene terephthalate (PET)



Polyamide (PA)



Automatic Belt melt filter

Constantly high re-granulate quality by fully automatic melt filtration

ABMF

ABMF 0570

ABMF 0750

ABMF 1050

ABMF 1600

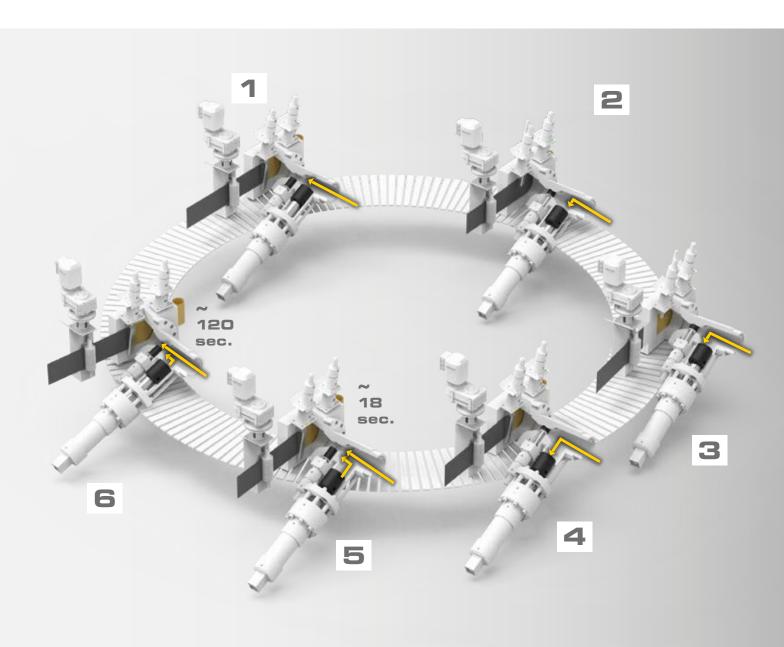


High re-granulate quality at low operating costs and that fully automatic – these are the characteristics of the ABMF series – automatic belt melt filter from the German BritAS GmbH.

In order to filter contaminations out of plastic waste effectively and efficiently a clean filter screen is inserted during every filter change. This results in a constantly high re-granulate quality and the contamination is removed from the machine with a very low melt loss. With the help of an intermediate accumulator for the plastic melt, the extruder can continue to run permanently.

Machine size	ABMF-0570 - ABMF-1600
Volume	7 - 25
Screen dimensions	230 / 308 mm
Screen area	570 - 1600 cm ²
Throughput	400 - 2700 kg/h





- **1.** Continuous melt flow through the screen until the adjustable limit pressure of the screen has been reached and the fully automatic screen change is initiated.
- 2. Valve closes and the space in front of the screen is depressurized. The accumulator piston is moved downwards by plastic melt and buffer volume is increased. Wedges open in parallel and release screen fixation.
- **3.** The screen is moved on by driven transport rollers until clean screen is in filter zone again.

- **4.** Wedges close and screen is fixed and sealed again.
- **5.** Valve opens and melt flows back into filter zone.
- **6.** The accumulator piston is moved upwards at an adjustable speed and adds the amount of material that was taken up during the screen change. When the accumulator piston has reached the upper end position, the screen change process is completed.

Continuous process.

► Two accumulators guarantee continuity.

No pressure variations.

▶ Balanced by optimized control and hydraulics.

All pelletizers can be used.

Also suitable for underwater pelletizing systems.

Discontinuous to continuous.

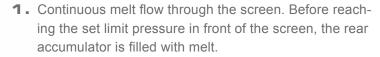
Retrofitting from standard to ABMF-C is possible.

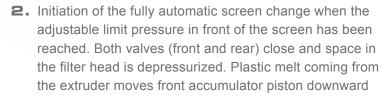


ABMF-C

(CONTINUOUS)

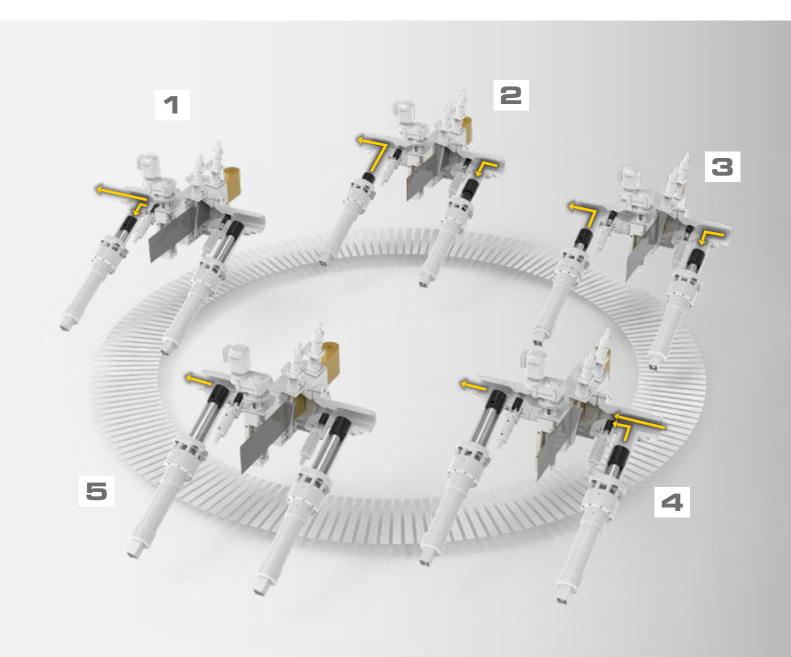
Machine size	ABMF-0570-C - ABMF-1600-C
Volume	7 - 25
Screen dimensions	230 / 308 mm
Screen area	570 - 1600 cm ²
Throughput	400 - 2700 kg/h











and thus increases the buffer volume at the rear. The rear storage piston conveys the melt stored in front of it in parallel in the direction of the pelletizer (= continuous melt flow). Wedges open in parallel and release screen fixation.

- **3.** The screen belt is conveyed by driven transport rollers until clean screen is in the filter zone again.
- **4.** Wedges close and screen is fixed and sealed again. Front and rear valves open and the melt flows back into the filter zone.
- **5.** The front accumulator piston is moved upwards at an adjustable speed and adds the amount of material that was taken up during the screen change. When both accumulator pistons have reached the upper end position, the screen change process is completed.

ABMF-BV-C

(BEFORE VENTING)

Process.

► Continuous melt flow.

Special design.

► Established and proven equipment at a special place.

Permanent production.

▶ No interruption during screen belt renewal.

High filter fineness.

► Finenesses up to 50 µm and finer.

Low melt loss.

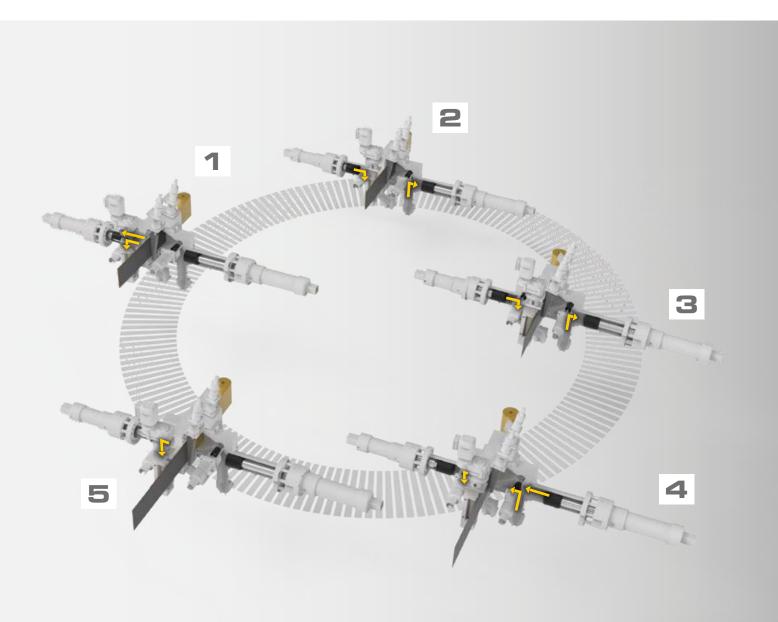
► Advantages compared with scraper and backflush device.

Machine size	ABMF-0570-BV-C -				
	ABMF-1600-BV-C				
Volume	7 - 25				
Screen dimensions	230 / 308 mm				
Screen area	570 - 1600 cm ²				
Throughput	400 - 2700 kg/h				

- Continuous melt flow through the screen.
 Before reaching the set limit pressure in front
 of the screen, the rear accumulator is filled
 with melt.
- Initiation of the fully automatic screen change when the adjustable limit pressure in front of the screen has been reached. Both valves (front and rear) close and space in the filter head is depressurized. Plastic melt coming







from the extruder moves front accumulator piston downward and thus increases the buffer volume at the rear. The rear storage piston conveys the melt stored in front of it in parallel in the direction of the pelletizer (= continuous melt flow). Wedges open in parallel and release screen fixation.

- **3.** The screen belt is conveyed by driven transport rollers until clean screen is in the filter zone again.
- **4.** Wedges close and screen is fixed and sealed again. Front and rear valves open and the melt flows back into the filter zone.
- 5. The front accumulator piston is moved upwards at an adjustable speed and adds the amount of material that was taken up during the screen change. When both accumulator pistons have reached the upper end position, the screen change process is completed.

ABMF-TH

(TWIN HEAD)

Large filter areas for higher degree of contamination.

► Available up to 3200 cm² (2 x 1,600).

Continuous process.

- ▶ Combination of 2 ABMF units with distribution blocks.
- ► Accumulator cylinders not needed.
- ▶ Low pressure variation during the change between both ABMF "cavities".

Technical data overview

ABMF-0570-TH -ABMF-1600-TH 230 / 308 mm 1140 - 3200 cm² 1000 - 6000 kg/h

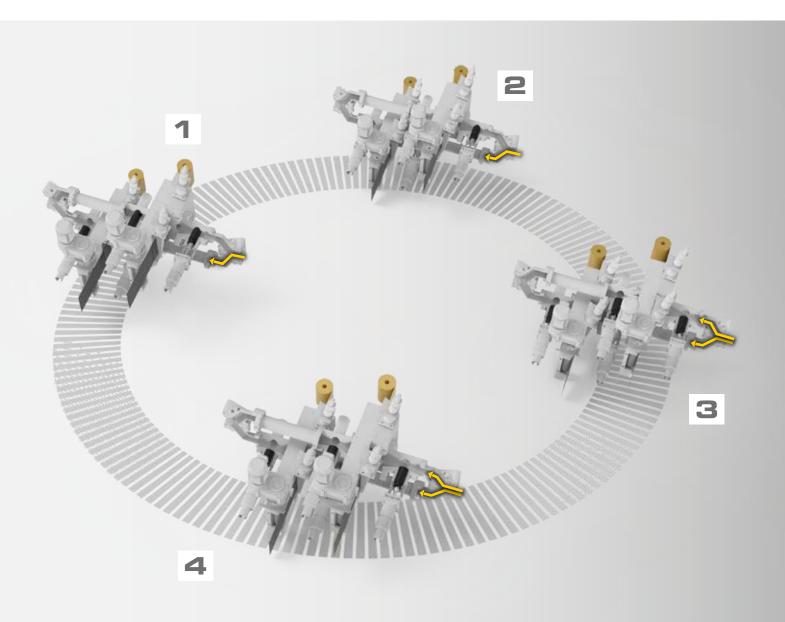
Machine size

Compact design.

- ▶ Nearly vertical arrangement of both ABMF units.
- ▶ Short melt lines.
- ► Gentle deviation material flow.

	Machine size
	Screen dimensions
	Screen area
	Throughput
Sativa Control of the	





- 1. Continuous melt flow through both filter heads. Initiation of fully automatic screen change when the adjustable limit pressure has been reached in filter head 1 in front of the screen. Valves 1.1 and 1.2 close and the space in front of the screen is depressurized. Wedges open in parallel and release screen belt fixation. Melt flows continuously through filter head 2.
- **2.** The screen is guided by driven transport rollers until clean screen is in the filter zone again.

- **3.** Wedges close and screen is fixed and sealed again. Valves 1.1 and 1.2 open and melt flows into filter head 1 again.
- **4.** Process 1-3 is repeated at filter head 2. After that, the screen change process is completed.

ABMF-PET-C

(CONTINUOUS)

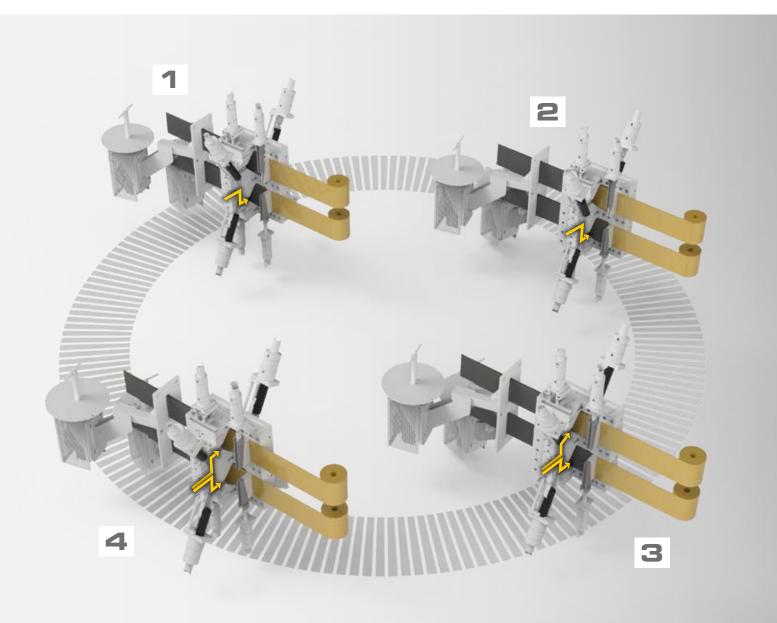
Automatic belt melt filter PET-C Continuous

Constantly high re-granulate quality by fully-automatic melt filtration in doublecavity technology



The ABMF-PET-C uses established and proven basis technology, is equipped with special features and technically optimized. The filter is especially suitable for underwater as well as strand pelletizing. With filter finenesses of up to 20 μ m and lowest melt loss of <1,0 %, the BritAS ABMF PET-C convinces completely.





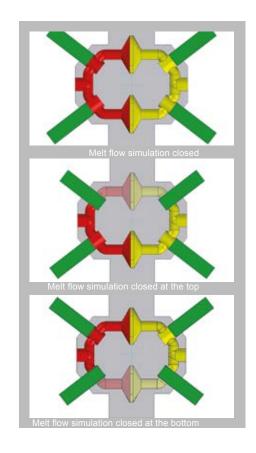
- 1. Continuous melt flow through both filter cavities. Initiation of fully automatic screen change when the adjustable limit pressure has been reached. Valves 1.1 and 1.2 in first cavity close and the space in front of the screen is depressurized. Wedges open in parallel and release screen fixation. Melt flows continuously through second filter cavity.
- **2.** The screen is guided by driven rewinding device until clean screen is in the filter zone again.

- **3.** Wedges close and screen is fixed and sealed again. Valves 1.1 and 1.2 open and melt flows into first filter cavity again.
- **4.** Process 1-3 is repeated in second filter cavity. After that, the screen change process is completed.

Your advantages

- ► Automated. Fully-automatic filtration. Filter mechanics combined with control allow a fully-automated, practical operation in double-cavity mode.
- ► Continuous process. No intermediate buffering of the melt.

 The filtration of post-consumer waste without production stop is ideal for a continuous process and constant granulate quality.
- ▶ Clean. High filter finenesses. Up to three screen belts can simultaneously be used. This allows exact arrangement of different filter finenesses of up to 20 µm and finer.
- ► Contamination. Especially suitable for heavy contaminations. For heavily contaminated PET plastic waste or PET-like materials with low viscosity, the ABMF PET-C is the perfect solution.
- ▶ **Permanent.** Extruder operation during screen belt feed. Also during the screen feed, the extruder continues to run and guarantees process safety.
- ▶ Efficient. Very low operating costs. The optimized interior of the ABMF PET-C as well as the updated heating system result in a low level of operating costs for the melt filter.
- ▶ Effective. High throughput rates. In addition to the automatic operation of the double-cavity filter with high plastic throughput, the use of screen belts with Dutch weave mesh guarantees high output.



Machine size	ABMF-0570-PET-C -
	ABMF-1600-PET-C
Screen dimensions	230 / 308 mm
Screen area	1140 - 3200 cm ²
Throughput	1000 - 8000 kg/h





Options ABMF





Further options ABMF series:

Three-belt magazine, welding point detection, heat insulation, etc.

Screen belts Width: ABMF 570 / 750 230 mm +0/-1 mm ABMF 1050 / 1600 308 mm +0/-1 mm Filter unit: Every fineness is possible, screen belts of up to 60 µm are common (exception in case of PET). Standard length of 50 m or longer, depending on the customer requirement. Different weaves available (reverse Dutch, plain Dutch...). BRITAS solely recommends screen belt suppliers with confirmed quality!

CMF/DMF

CMF-ECO CMF CMF-BF

Piston screen changer

For applications with low contaminations and lower filter changing intervals, normally, piston screen changers are used. These systems are mainly used in the fields of post-industry and post-production but also for virgin material.

CMF / CMF-ECO

Continuous piston screen changer

For applications with lower contaminations and lower filter changing intervals, the continuous piston screen changer Type CMF and Type CMF-ECO are used.

In case of required screen change, one of the two screen carrier pistons is moved out of the housing. The screen can now be changed and then the screen carrier piston is moved back into the housing. During screen change, the entire melt stream is directed through in housing remaining screen. Afterwards, the screen in second piston is changed in the same way. The hydraulics for moving the screen carrier pistons can be operated either manually or automatically.

For Type CMF-ECO, the retrofitting option for back-flushing is not needed.

Applications:

- ▶ Filtration of industrial and production waste
- ► For polyolefins and many technical plastics
- ▶ Up to temperatures of 350°C
- ▶ Up to pressures of 350 bar

Advantages for the customer:

- ▶ No dead spots in the channel geometry
- ► Easy and robust design
- ▶ Short residence time
- ► No production interruption

Possible options:

- ► Fluid heating
- ▶ Vapor heating
- ► High-temperature design
- ► Type CMF-ECO

Machine size	CMF-2/30 -			
	CMF-2/400			
Screen dimensions	ø 30 - 400 mm			
Screen area	14 - 2514 cm ²			
Throughput	15 - 5030 kg/h			
· · · · · · · · · · · · · · · · · · ·				





CMF-BF

Continuous piston screen changer with backflush function

For applications with higher levels of contamination and frequent screen change intervals, the continuous piston screen changer with back flush function CMF-BF is used.

This filter type is able to clean the screens automatically. The back flush attachment includes two pistons which automatically perform the back flushing process.

When a filter change is required, one of the two back flush pistons is moved into the back flush position first. As a result, the melt inflow of the corresponding filter is interrupted. A small melt stream of already purified material is diverted and passed backwards through the filter to be cleaned and discharged to the outside. Subsequently, this process is automatically repeated for the second filter.



Technical data overview

Machine size	CMF-2/058 -
	CMF-2/400
Screen dimensions	ø 58,3 - 400 mm
Screen area	54 - 2514 cm ²
Throughput	50 - 5030 kg/h

Applications:

- ▶ Filtration of industrial and production waste
- ► For polyolefins and many technical plastics
- ▶ Up to temperatures of 350°C
- ▶ Up to pressures of 350 bar

Advantages for the customer:

- ▶ In backflush position within a few seconds
- ► Short backflush procedure
- ► Material saving during backflush procedure
- ▶ Quick change from standard to backflush
- ► Screen retainer is only inserted, no bayonet coupling needed

Possible options:

- ► Fluid heating
- ▶ Vapor heating
- ► High-temperature design

DMF

DMF

Discontinuous piston screen changer

The discontinuously running melt filter are used in production zones, where the production can shortly be interrupted for changing the filter. They mainly differ in the shape of their housing.

The **DMF-rd** is a round housing, which is heated by ceramic heating cartridges. This filter is the most cost-effective filter version and it is mainly used as pre-filter for coarse contaminations, as pump protection or if only little space (coextrusion) is available.

The **DMF-sq** is a discontinuously running melt filter, which is heated by heating cartridges. Because of its rectangular housing, it is more suitable for higher temperatures (up to 350°C) and higher pressures (up to 500 bar).

Both types can be used for polyolefins, hot-melt adhesives and many technical plastics.

In case of a necessary filter change, by means of the hydraulics, the screen support bolt is actuated via a manual control valve, it is removed out of the housing and after the screen change, it is positioned in the housing again. This requires a short production interruption.

Applications:

- ► Filtration of industrial and production waste
- ▶ Pipe, profile or film production
- ► For polyolefins, many technical plastics and hot-melt adhesives
- ► Temperatures of up to 350°C
- ▶ Pressures of up to 350 bar
- ► Function as pre-filter or pump protection

Advantages for the customer:

- ► Little space required
- Easy handling
- ► Leakage-free function without additional sealings
- ▶ Robust design

Possible options:

- Vapor or liquid heating
- ▶ Operation of several filters with one hydraulics
- ▶ Round housing with ceramic ring heaters DMF-rd
- ► Rectangular housing with heating cartridges DMF-sq
- ► Vertical orientation possible



Machine size	DMF-1/058 -
	DMF-1/340
Screen dimensions	ø 58,3 - ø 340 mm
Screen area	26 - 908 cm ²
Throughput	20 - 1820 kg/h



TECHNICAL DATA

ABMF/ ABMF-C /	Filter	Filter area		Volume		max. output	
ABMF-BV-C	[cm²]	[sqin]	[liters]	[gal]	[kg/h]	[lbs/h]	
-0570-07	570	88.4	7	1.8	-900	1985	
-0570-09	570	88.4	9	2.3	-1200	2646	
-0570-12	570	88.4	12	3.1	-1500	3308	
-0750-09	750	116.3	9	2.3	-1200	2646	
-0750-12	750	116.3	12	3.1	-1500	3308	
-1050-09	1050	162.8	9	2.3	-1200	2646	
-1050-12	1050	162.8	12	3.1	-1500	3308	
-1050-15	1050	162.8	15	3.9	-2000	4410	
-1050-19	1050	162.8	19	4.9	-2500	5513	
-1600-12	1600	248	12	3.1	-1300	2867	
-1600-15	1600	248	15	3.9	-1600	3528	
-1600-19	1600	248	19	4.9	-2000	4410	
-1600-25	1600	248	25	6.5	-2700	5954	

^{*}Output values for LDPE depend on material and contamination.

ABMF-TH						
ABMF-0570-TH	1140	176.8	-	-	1000 - 2500	2200 - 5500
ABMF-0750-TH	1500	232.6	-	-	1200 - 2800	2650 - 6200
ABMF-1050-TH	2100	325.6	-	-	1500 - 4500	3300 - 9950
ABMF-1600-TH	3200	496	-	-	1800 - 6000	4000 - 13250

^{*}Output values for LDPE depend on material and contamination.

ABMF-PET-C						
ABMF-0570-PET-C	1140	176.8	-	-	1000 - 2500	2200 - 5500
ABMF-0750-PET-C	1500	232,6	-	-	1300 - 3300	2850 - 7300
ABMF-1050-PET-C	2100	325,6	-	-	1800 - 4500	3970 - 9920
ABMF-1600-PET-C	3200	496	-	-	2400 - 8000	5300 - 17650

^{*}Output values depend on material, viscosity and contamination.

TECHNICAL DATA

CMF/DMF	Screen diameter		Screen area		Output	
	[mm]	[in]	[cm ²]	[sqin]	[kg/h]	[lbs/h]
DMF-1/058-rd	58.3	2.3	26	4.0	20 - 55	44 -121
DMF-1/076-rd	76.3	3.0	45	7.0	40 - 90	88 - 198
DMF-1/096-rd	96.3	3.8	72	11.2	65 - 145	143 - 320
DMF-1/116-rd	116.3	4.6	106	16.4	95 - 215	209 - 474
DMF-1/125-rd	125.0	4.9	122	18.9	110 - 245	243 - 540
DMF-1/148-rd	148.3	5.8	172	26.7	155 - 345	342 - 761
DMF-1/058-sq	58.3	2.3	26	4.0	20 - 55	44 - 121
DMF-1/076-sq	76.3	3.0	45	7.0	40 - 90	88 - 198
DMF-1/096-sq	96.3	3.8	72	11.2	65 - 145	143 - 320
DMF-1/116-sq	116.3	4.6	106	16.4	95 - 215	209 - 474
DMF-1/125-sq	125.0	4.9	122	18.9	110 - 245	243 - 540
DMF-1/148-sq	148.3	5.8	172	26.7	155 - 345	342 - 761
DMF-1/176-sq	176.3	6.9	244	37.8	220 - 490	474 - 1080
DMF-1/200-sq	200.0	7.9	314	48.7	180 - 630	617 - 1389
DMF-1/230-sq	230.2	9.1	417	64.4	375 - 950	827 - 2095
DMF-1/250-sq	250	9.8	491	76.1	440 - 980	970 - 2160
DMF-1/300-sq	300	11.8	707	109.6	630 - 1420	1389 - 3130
DMF-1/340-sq	340	13.4	908	140.7	810 - 1820	1785 - 4010
CMF-2/030 ECO	30	1.2	2 x 7	2 x 1.1	15 - 30	33 - 66
CMF-2/046 ECO	46	1.8	2 x 17	2 x 2.6	30 - 70	66 - 154
CMF-2/058 ECO	58.3	2.3	2 x 27	2 x 4.0	50 - 100	110 - 220
CMF-2/076 ECO	76.3	3.0	2 x 45	2 x 7.0	80 - 195	176 - 430
CMF-2/096 ECO	96.3	3.8	2 x 72	2 x 11.2	130 - 290	286 - 639
CMF-2/116 ECO	116.3	4.6	2 x 106	2 x 16.4	190 - 430	418 -948
CMF-2/125 ECO	125	4.9	2 x 122	2 x 18.9	220 - 490	485 - 1080
CMF-2/148 ECO	148.3	5.8	2 x 172	2 x 26.7	310 - 690	683 - 1521
CMF-2/176 ECO	176.3	6.9	2 x 244	2 x 37.8	430 - 980	948 - 2161
CMF-2/200 ECO	200	7.9	2 x 314	2 x 48.7	560 - 1260	1235 - 2778
CMF-2/230 ECO	230.3	9.1	2 x 417	2 x 64.6	750 - 1670	1653 - 3682
CMF-2/250 ECO	250	9.8	2 x 491	2 x 76.1	880 - 1960	1940 - 4321
CMF-2/300 ECO	300	11.8	2 x 707	2 x 109.6	1270 - 2830	2800 - 6239
CMF-2/340 ECO	340	13.4	2 x 908	2 x 140.7	1630 - 3600	3594 - 7937
CMF-2/400 ECO	400	15.7	2 x 1257	2 x 194.8	2260 - 5030	4982 - 11090



CMF/DMF	Screen d	diameter	Screen area		Output	
	[mm]	[in]	[cm ²]	[sqin]	[kg/h]	[lbs/h]
CMF-2/058	58.3	2.3	2 x 26	2 x 4.0	50 - 100	110 - 220
CMF-2/076	76.3	3.0	2 x 45	2 x 7.0	80 - 195	176 - 430
CMF-2/096	96.3	3.8	2 x 72	2 x 11.2	130 - 290	286 - 639
CMF-2/116	116.3	4.6	2 x 106	2 x 16.4	190 - 430	418 - 948
CMF-2/125	125	4.9	2 x 122	2 x 18.9	220 - 490	485 - 1080
CMF-2/148	148.3	5.8	2 x 172	2 x 26.7	310 - 690	683 - 1521
CMF-2/176	176.3	6.9	2 x 244	2 x 37.8	430 - 980	948 - 2161
CMF-2/200	200	7.9	2 x 314	2 x 48.7	560 - 1260	1235 - 2775
CMF-2/230	230.3	9.1	2 x 417	2 x 64.6	750 - 1670	1653 - 3682
CMF-2/250	250	9.8	2 x 491	2 x 76.1	880 - 1960	1940 - 4321
CMF-2/300	300	11.8	2 x 707	2 x 109.6	1270 - 2830	2800 - 6239
CMF-2/340	340	13.4	2 x 908	2 x 140.7	1630 - 3600	3594 - 7937
CMF-2/400	400	15.7	2 x 1257	2 x 194.8	2260 - 5030	4982 - 11090
CMF-2/058-BF	58.3	2.3	2 x 27	2 x 4.0	50 - 100	110 - 220
CMF-2/076-BF	76.3	3.0	2 x 45	2 x 7.0	80 - 195	176 - 430
CMF-2/096-BF	96.3	3.8	2 x 72	2 x 11.2	130 - 290	286 - 639
CMF-2/116-BF	116.3	4.6	2 x 106	2 x 16.4	190 - 430	418 - 948
CMF-2/125-BF	125	4.9	2 x 122	2 x 18.9	220 - 490	485 - 1080
CMF-2/148-BF	148.3	5.8	2 x 172	2 x 26.7	310 - 690	683 - 1521
CMF-2/176-BF	176.3	6.9	2 x 244	2 x 37.8	430 - 980	948 - 2161
CMF-2/200-BF	200	7.9	2 x 314	2 x 48.7	560 - 1260	1235 - 2778
CMF-2/230-BF	230.3	9.1	2 x 417	2 x 64.6	750 - 1670	1653 - 3682
CMF-2/250-BF	250	9.8	2 x 491	2 x 76.1	880 - 1960	1940 - 4321
CMF-2/300-BF	300	11.8	2 x 707	2 x 109.6	1270 - 2830	2800 - 6239
CMF-2/340-BF	340	13.4	2 x 908	2 x 140.7	1630 - 3600	3594 - 7937
CMF-2/400-BF	400	15.7	2 x 1257	2 x 194.8	2260 - 5030	4982 - 11090

The throughputs are essentially influenced by the material, the viscosity, the filter fineness and the degree of contamination!





Service

- Advice. From technology selection to financing.
- ▶ **Test runs.** Your material in one of our customer centres.
- **Operation.** Start-up and service on site as well as remote maintenance.
- > Spare parts. Quick availability of spare parts by regional spare parts store.

Please contact us:

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