



# MANUAL SELECTION OF SELF-CLEANING FILTERS

Self-cleaning rotating filters are suitable for the filtration of dry impurities. In case of wet / oily impurities or sparks, this type of filter CAN NOT BE USED (consult our technical office for indications on the choice of the alternative product).

To select the ideal filter for your needs you need 4 basic information:

1. Quantity of impurities in mg / m<sup>3</sup>.
2. Dimensions of impurity particles in µm.
3. Type of impurity: light or heavy (see table 2).
4. Air flow to be filtered in m<sup>3</sup> / h.

Once you have collected the 4 basic information, you need 4 simple steps to find the filter:

**Step1** : Find the work area.

**Step2** : Find the working speed and the family filters.

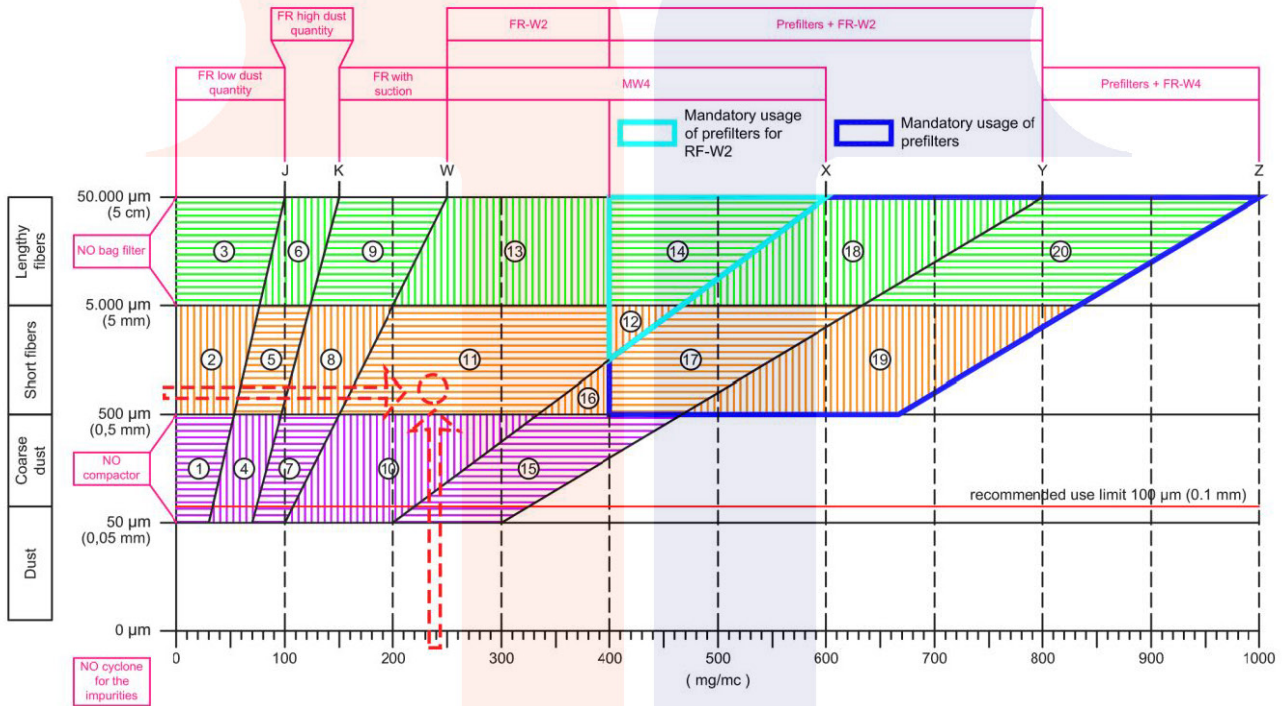
**Step3** : Find the size of the filter.

**Step4** : Choose the model.

# MARTÉL

**Step1 : Find the work area.**

STARTING DATA	RESULTS
<b>Impurity Qty.</b> (e.g: 240 mg/m <sup>3</sup> )	WORK ZONE (e.g: zone 11)
<b>Particle size</b> (e.g: 1.000 µm)	



1st table

MARTÉL



**Step2 : Find the working speed and the family filters.**

STARTING DATA	RESULTS		
Work zone (from 1st step) (e.g: zone 11)	WORKING SPEED (e.g: S3)	FILTRATION CLASS (e.g: G4)	FILTER'S FAMILY (e.g: C)
Type of impurity (e.g: heavy)			

WORK AREA		WORKING SPEED AND FILTER'S FAMILY				
1	Light	S4	S2			
	Mix	S4	S2			
	Heavy	?	?	S3		
2	Light	S5	S2			
	Mix	S5	S2			
	Heavy	?	?	S3		
3	Light	S5	S2			
	Mix	S5	S2			
	Heavy	?	?	S3		
4	Light	S3	S2			
	Mix	S3	S2			
	Heavy	?	?	S3		
5	Light	S4	S2			
	Mix	S4	S2			
	Heavy	?	?	S3		
6	Light	S4	S2			
	Mix	S4	S2			
	Heavy	?	?	S3		
7	Light	S2	S2			
	Mix	?	S2	S3		
	Heavy			S3		
8	Light	S3	S2			
	Mix	S3	S2	S3		
	Heavy			S3		
9	Light	S3	S2	S3		
	Mix	S3	S2	S3		
	Heavy			S3		
10	Light		S2	S3		
	Mix		?	S3		
	Heavy			S3		
11	Light		S2	S3		
	Mix		?	S3	S2	
	Heavy			S3	S2	
12	Light			S3	S2	
	Mix			S3	S2	
	Heavy			S3	S2	
13	Light		S2	S3	S2	
	Mix		?	S3	S2	
	Heavy			S3	S2	
14	Light			S3	S2	
	Mix			S3	S2	
	Heavy			S3	S2	
15	Light		S1	S2		
	Mix		?	S2		
	Heavy			S2		
16	Light		S2	S2	S2	
	Mix		?	S2	S2	
	Heavy			S2	S2	
17	Light			S2	S2	
	Mix			S2	S2	
	Heavy			S2	S2	
18	Light			S2	S2	
	Mix			S2	S2	
	Heavy			S2	S2	
19	Light				S1	
	Mix				S1	
	Heavy				S1	
20	Light				S1	
	Mix				S1	
	Heavy				S1	
FILTER'S FAMILY		<b>A</b> FR (G4)	<b>B</b> FR-W2 (M6)	<b>C</b> MW4 (G4)	<b>D</b> Prefilters+FR-W2 (M6)	<b>E</b> Prefilters+FR-W4 (M6)

Legend for choosing the type of impurities	
Light:	settles up to 5 m/s
Heavy:	settles up to 5 a 18 m/s
Not suitable:	settles more than 18 m/s

V	SUGGESTED
V	Not recommended
?	To be evaluated based on the details
	Unsuitable

2nd table



**Step3 : Find the size of the filter.**

STARTING DATA	RESULTS
Working speed (da 2° passo) (e.g: S3)	FILTER SIZE (e.g: 14/20)
Air flow (e.g: 27.000 mc/h)	

AIR FLOW m3/h				
Selection based on WORKING SPEED				
S1	S2	S3	S4	S5
2.300	3.400	4.400	5.100	6.400
4.600	6.800	8.700	10.200	12.800
6.900	10.100	13.000	15.300	19.100
9.200	13.500	17.300	20.400	25.500
12.300	18.000	23.000	27.200	34.000
18.400	26.900	34.500	40.700	50.900
14.300	20.900	27.000	31.700	39.500
21.400	31.400	40.400	47.500	59.400
12.300	18.000	23.100	27.200	34.300
16.300	23.900	30.800	36.200	45.300
24.500	35.900	46.200	54.300	67.300
36.700	53.800	69.200	81.400	101.300
13.800	20.200	26.000	30.600	38.200
27.500	40.300	51.900	61.100	76.400
41.300	60.500	77.900	91.600	114.500
18.400	26.900	34.600	40.700	50.900
36.700	53.800	69.200	81.400	101.300
55.000	80.600	103.800	122.100	152.700
73.300	107.500	138.400	162.800	203.500
22.900	33.600	43.300	50.900	63.500
45.800	67.200	86.500	101.800	127.200
68.700	100.800	129.800	152.700	190.800
91.600	134.300	173.000	203.500	254.400

Size
9/5
9/10
9/15
9/20
12/20
12/30
14/20
14/30
16/15
16/20
16/30
16/45
18/15
18/30
18/45
24/15
24/30
24/45
24/60
30/15
30/30
30/45
30/60

Filter's family	Filter's family															Filters available in hanging version				
	A					B					C			D Prefilters +			E Prefilters +			
	FR	FRI sp.25	FRI sp.50	FRI Export	FR-W2	FRI-W2 sp.25	FRI-W2 sp.50	FRI-W2 Export	FRI-MW4 sp.25	FRI-MW4 sp.50	MW4	MW4 Export	FR-W2	FRI-W2 p.25	FRI-W2 sp.50	FRI-W2 Export	FR-W4	FRI-W4 sp.25	FRI-W4 sp.50	FRI-W4 Export
9/5	•	•	•		•	•			•	•			•	•	•		•	•	•	
9/10	•	•	•		•	•			•	•			•	•	•		•	•	•	
9/15	•	•	•		•	•			•	•			•	•	•		•	•	•	
9/20	•	•	•		•	•			•	•			•	•	•		•	•	•	
12/20	•	•	•		•	•			•	•			•	•	•		•	•	•	
12/30	•	•	•		•	•			•	•			•	•	•		•	•	•	
14/20	•	•	•		•	•			•	•			•	•	•		•	•	•	
14/30	•	•	•		•	•			•	•			•	•	•		•	•	•	
16/15	•	•	•		•	•			•	•			•	•	•		•	•	•	
16/20	•	•	•		•	•			•	•			•	•	•		•	•	•	
16/30	•	•	•		•	•			•	•			•	•	•		•	•	•	
16/45	•	•	•		•	•			•	•			•	•	•		•	•	•	
18/15	•	•	•	•	•	•			•	•			•	•	•		•	•	•	•
18/30	•	•	•	•	•	•			•	•			•	•	•		•	•	•	•
18/45	•	•	•	•	•	•			•	•			•	•	•		•	•	•	•
24/15	•	•	•	•	•	•			•	•			•	•	•		•	•	•	•
24/30	•	•	•	•	•	•			•	•			•	•	•		•	•	•	•
24/45	•	•	•	•	•	•			•	•			•	•	•		•	•	•	•
24/60	•	•	•	•	•	•			•	•			•	•	•		•	•	•	•
30/15	•	•	•	•	•	•			•	•			•	•	•		•	•	•	•
30/30	•	•	•	•	•	•			•	•			•	•	•		•	•	•	•
30/45	•	•	•	•	•	•			•	•			•	•	•		•	•	•	•
30/60	•	•	•	•	•	•			•	•			•	•	•		•	•	•	•

XXXXXX Not recommended due to high pressure drop

- Assembled filters - Shipping with any type of transport
- Assembled filters - Shipping only with trucks
- Assembled filters only on requests - Size 16/45 shipment with any type of transport - Size 18 / .. Shipping only with truck or high cube container
- Not assembled filters (to be assembled on site) - Shipping by any means of transport

3rd table





**Step4 : Choose the model.**

STARTING DATA	RESULTS		
Filter's family (da 2° passo) (e.g: C)	FILTER'S MODEL (e.g: 2 possible models: FRI-MW4 SP-25 FRI-MW4 SP-50)	MORE INFOS	
Filter size (da 3° passo) (e.g: 14/20)		Hanging filters YES/NO (e.g: NO)	Assembled YES/NO (e.g: NO)
		Type of transport	(e.g: any)

AIR FLOW m3/h				
Selection based on WORKING SPEED				
S1	S2	S3	S4	S5
2.300	3.400	4.400	5.100	6.400
4.600	6.800	8.700	10.200	12.800
6.900	10.100	13.000	15.300	19.100
9.200	13.500	17.300	20.400	25.500
12.300	18.000	23.100	27.200	34.000
18.400	26.900	34.600	40.700	50.300
14.300	20.900	27.000	31.700	39.500
21.400	31.400	40.400	47.500	59.400
12.300	18.000	23.100	27.200	34.000
16.300	23.900	30.800	36.200	45.300
24.500	35.900	46.200	54.300	67.300
36.700	53.800	69.200	81.400	101.300
13.800	20.200	26.000	30.600	38.200
27.500	40.300	51.900	61.100	76.400
41.300	60.500	77.900	91.600	114.500
18.400	26.900	34.600	40.700	50.300
36.700	53.800	69.200	81.400	101.300
55.000	80.600	103.800	122.100	152.700
73.300	107.500	138.400	162.800	203.500
22.900	33.600	43.300	50.900	63.500
45.800	67.200	86.500	101.800	127.200
68.700	100.800	129.800	152.700	190.300
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Size
9/5
9/10
9/15
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16/15
16/20
16/30
16/45
18/15
18/30
18/45
24/15
24/30
24/45
24/60
30/15
30/30
30/45
30/60

Filter's family	Filter's family															Filters available in hanging version								
	A					B					C						D Prefilters +					E Prefilters +		
	FR	FRI sp-25	FRI sp-50	FRI Export	FR-W2	FR-W2 sp-25	FR-W2 sp-50	FR-W2 Export	FRI-MW4 sp-25	FRI-MW4 sp-50	MW4	MW4 Export	FR-W2	FR-W2 p-25	FR-W2 sp-50	FR-W2 Export	FR-W4	FR-W4 sp-25	FR-W4 sp-50	FR-W4 Export				
9/5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
9/10	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
9/15	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
9/20	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
12/20	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
12/30	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
14/20	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
14/30	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
16/15	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
16/20	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
16/30	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
16/45	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
18/15	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
18/30	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
18/45	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
24/15	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
24/30	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
24/45	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
24/60	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
30/15	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
30/30	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
30/45	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
30/60	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		

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4th table

