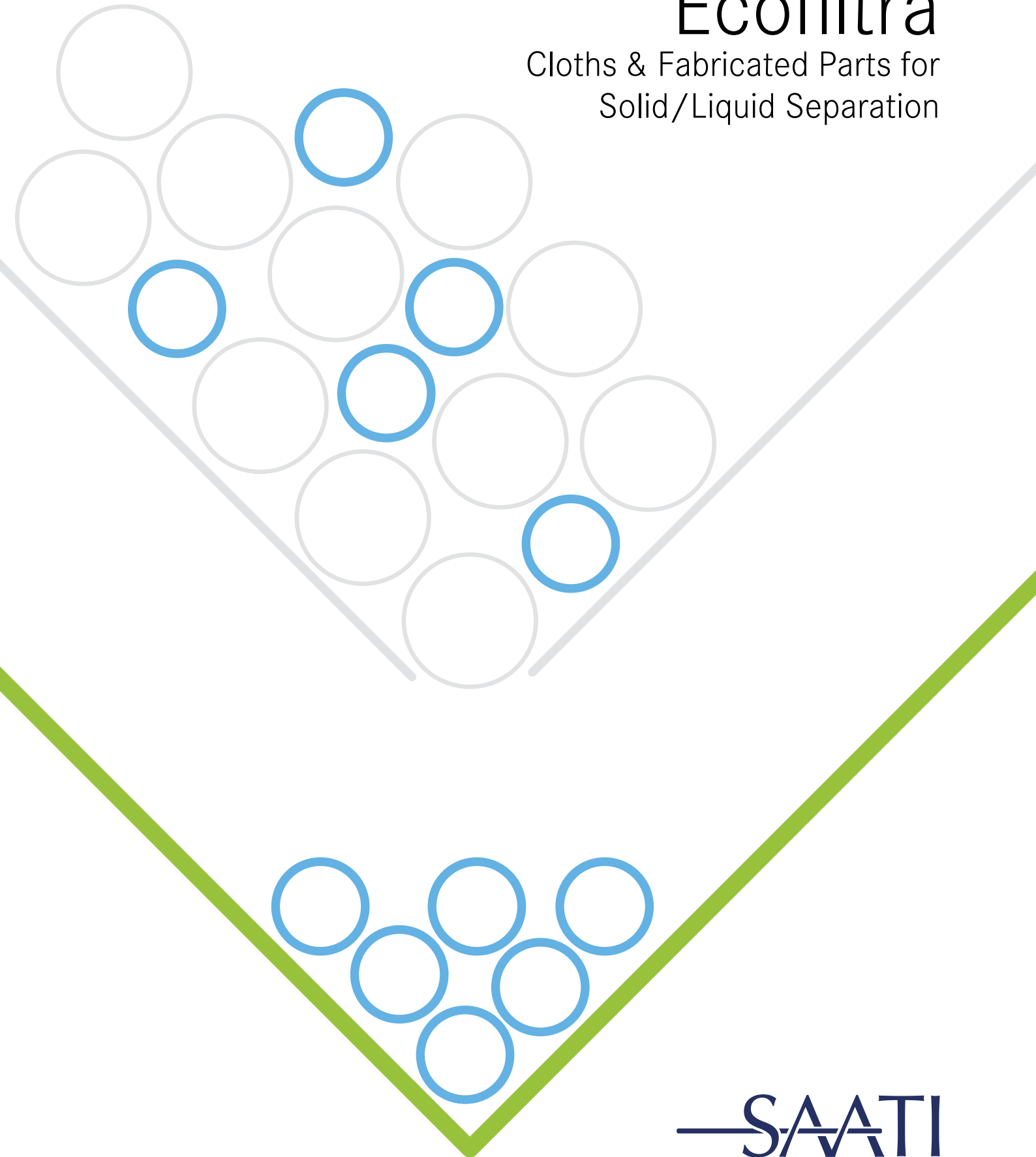


# Ecofiltra

Cloths & Fabricated Parts for  
Solid/Liquid Separation



**—SAATI**

We cross-innovate



### **SAATI Group and its Filtration Applications**

SAATI is a multinational group with corporate headquarters situated in northern Italy since 1935. Today we are a leader in the development, manufacturing and commercialization of advanced technical textiles and chemicals.

SAATI specializes in precise woven fabrics and chemical technologies used in the fields of Filtration, Screen printing, Structural composites and Ballistic protection. The development of enhanced performance coatings lies at SAATI's core.

SAATI - Filtration specializes in the production of technical precision (with monofilament and multifilament yarn) fabrics and components in polyamide, polyester and polypropylene, with special finishing treatments.

The products are used in a wide range of different filtration fields such as, automotive, water, healthcare, app consumer electronics, food & milling, along with many other industrial applications.





## Focuses on Customer and Innovation

Thanks to our direct presence in many countries, it is easy for the customers to reach us, wherever they are located, and our responsiveness is always prompt. Our staff has a high level of technical expertise and dedication, always aiming to finding the best solution for the customer's requirements. SAATI sales representatives and engineers understand customers' applications, and work closely with the staff in the production and R&D departments to offer a customized solution in a form that best meets their customer's needs.

At SAATI, we have a real attitude for innovation and to a continuous research of processes and materials that make real improvements in production and service. SAATI acts in the market with this attitude, offering sieving and filter fabrics and components that answer to the most demanding needs in filtration application. Every phase of production is carefully monitored, employing frequent in-house testing and rigorous inspection to ensure consistent quality. All SAATI products are manufactured in accordance with UNI ISO 9001 standards.

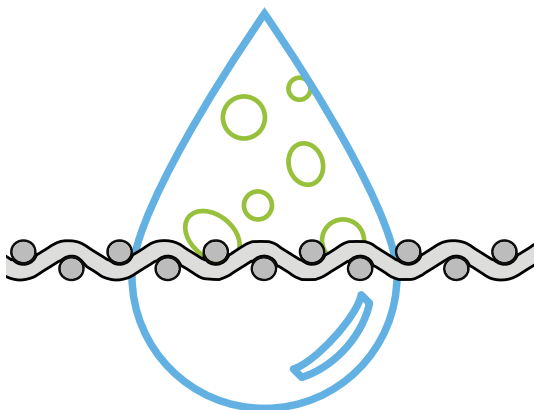


## Perfecting the Art of Precision Screening Fabrics

Ecofiltra is SAATI's dedicated line for the liquid/solid separation industry, manufactured in accordance with ISO 9001:2000 as well as with Regulations CE 1935/2004 and EU 10/2011. Ecofiltra includes a selection of fabric types that are in compliance with FDA Code of Federal Regulations.

## Unsurpassed Customer Support

The quality of Ecofiltra screening fabrics is backed by the dedication and expertise of SAATI's customer service. Thanks to offices, warehouses, storage and fabrication facilities throughout the world, SAATI provides strong local support, expert responses to customer inquiries, strong engineering capability, technical support and fast delivery around the world.



## Ecofiltra Fabrics Key Features

- Monofilament, multifilament and staple yarns woven fabrics
- Products Available in synthetic (PP - PES - MAR - PA 6.6/10/11/12- PPS - PEEK - PVDF - PBT - PVDC) fibers
- Consistent fabrication tolerances
- Excellent strength and dimensional stability
- High resistance to mechanical stress, abrasion, chemical agents and corrosion
- Lot-to-lot consistency
- Improved durability
- Food approved



## Compliance of Ecofiltra Mesh Intended to Come into Contact with Food

### Compliance of Composition:

Monofilament yarn polymer is in compliance with FDA Code of Federal Regulations (USA), Food and Drugs, Title 21, Part 177 Paragraph 177.1500 and 177.1420 (Indirect food additions: Polymers).



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### Compliance of Performance:

#### Compliance with Regulations 1935/2004/CE & EU 10/2011

Specifically SAATI S.p.A. ensures full traceability throughout the production chain, from raw material to finished products vs. Customer. Mesh is tested in order to verify migration limits as per regulations concerning plastic materials intended to come in contact with food.

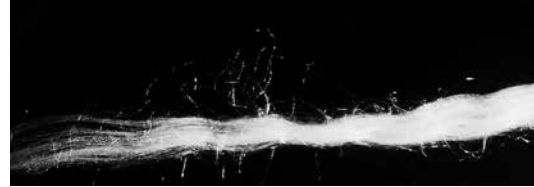
The processes of SAATI S.p.A. are conducted in compliance with specific GMP.



## Monofilament Mesh

These are single filaments extruded from molten polymer through a specially engineered dye, and then drawn through a series of rollers to orientate the molecules and thus provide the thread with the desired stress-strain characteristics. The monofilament fibers are usually round in cross-section although other profiles are possible. The diameter may be as large as 0.8 mm (perhaps larger in special cases) but for most filtration applications they are usually in the range 0.1-0.3 mm.

Fabrics that are produced from monofilaments are characterized by their resistance to blinding, their high throughput and their ability to discharge filter cakes cleanly and efficiently at the end of the filtration cycle. However, in critical filtration applications, where the particle size is extremely small and where maximum filtration clarity is required, they do not always provide the necessary retention efficiency, even when tightly oriented into a tightly woven construction and subjected to an intensive calendaring operation.



### Multifilament Mesh

These are also extruded and orientated in much the same way as monofilaments although in this instance the die or spinneret, as it is known, contains a large number of much smaller apertures. Although the diameter of the individual filaments in this case is usually 0.03mm, the usual practice is to express individual filaments and the collective assembly of filaments, in terms of its linear density, typical units being denier, tex and decitex. Following extrusion, it is common practice to bind the filaments together through a twisting operation. This helps to protect the yarn from abrasion in the weaving process and also in ultimate cloth use.

The same twist also makes the filament slightly stronger, more rigid and, if a high twist level is used, can alleviate the tendency of the yarn and hence the fabric to blind. Even so, multifilament fabrics, while possessing greater collection efficiency, higher strength and greater flexibility than monofilament fabrics are nevertheless more prone to blinding than the latter, especially in processes where crystal growth can be expected.

The weight of fabrics woven from multifilament can vary quite considerably from around 100 gsm to as high as 1000 gsm, the heavier constructions (the actual weight perhaps being influenced by polymer density) being selected from more arduous duties such as vertical automatic filters. As stated previously if, for special purposes, light weight fabrics are required on conventional horizontal filter presses, it is likely that they may require the additional support of backing cloth to prevent premature mechanical damage.

### Staple Spun Yarns

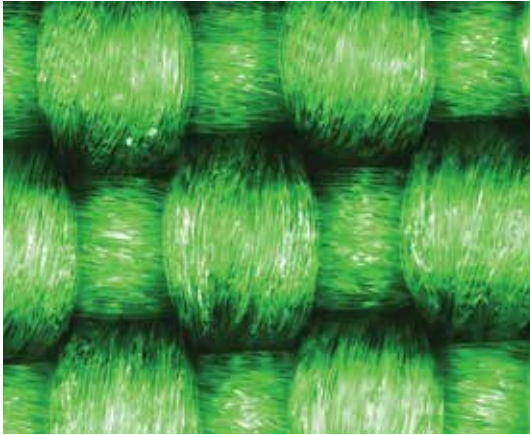
These were the first synthetic yarns to be employed on a large scale in industrial filtration, facilitating the production of heavy duty, durable cloths, primarily for use on traditional cast iron plates and leaf filters.

Staple spun yarns are in fact produced from short fibers using spinning technologies, which were developed for the processing of natural fibers such as cotton or wool. After extrusion the fiber length is therefore cut to order 40-100mm depending on which short staple spinning system is employed.

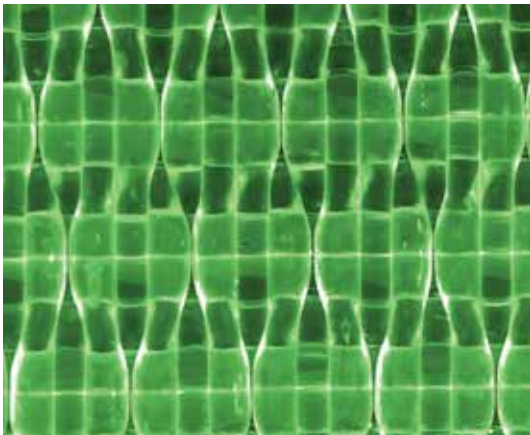
As a general guide, fibers processed on wool spinning systems are more bulky than those processed on cotton systems. As a consequence of this bulk, coupled with the relative ease with which the fibers can move within the yarn assembly, it has been argued that for the separation of non-compressible particles, wool spun yarns provide greater throughput, are more efficient and less prone to blinding than either multifilament yarns processed on the cotton spinning system. On the other hand, as with multifilament yarns, processed resistance is significantly inferior to monofilaments, especially where the separation process involves slimy material or where crystal growth may be expected. Fabrics produced from staple spun yarns are mainly in the region 400-700 gsm, the major uses being in conventional filter press, vacuum leaf, pressure leaf (esp. sugar industry) and rotary drum filters (wired on or caulked in).

#### Combination Fabrics:

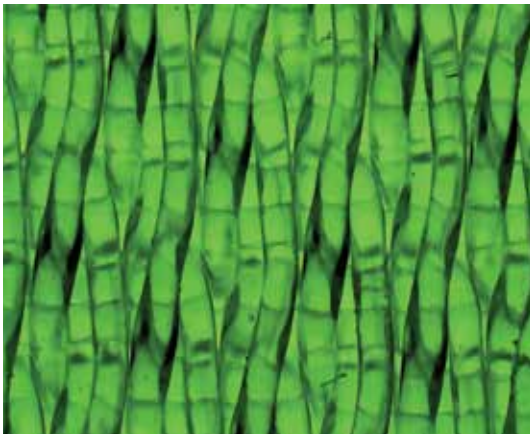
- A) Multifilament warp, staple weft
- B) Monofilament warp, multifilament weft



Plain Weave



Twill Weave



Satin Weave

### Plain Weave

This is the most basic fabric construction. It is also the tightest, the most efficient and most rigid of elementary weave patterns and is particularly suited to multifilament or short staple yarns.

### Twill Weave

There are numerous variations on the twill weave theme, all of which feature a diagonal pattern running through the fabric. This type of construction it is possible to cram more weft threads per unit length into the fabric, thereby giving the material more bulk. Furthermore, twill weave fabrics are essentially more flexible than those produced by the plain weave as a result of the arrangement of threads. This could be important where difficulties may be encountered in cloth manufactured or indeed in fitting the cloth on the filter.

### Satin Weave

Again there are numerous styles of satin weave, the basic concept of which is to produce a smooth surface which, as far as possible, is devoid of the diagonal lines associated with twill weaves. The smooth surface is achieved by interlacing the threads in an orderly manner but at wider intervals than either plain or twill weaves. As a result, a still more flexible fabric is achieved which, by virtue of the thread to thread movement which takes place also helps in preventing the accumulation of particles within the structure. In addition the longer thread “floats” in satin weave also facilitates the insertion of more threads per unit of width. This creates the opportunity for greater smoothness and better cake discharge at the end of filtration cycle. From this it will be appreciated that satin weaves are ideally suited to monofilament yarns. However, unless the threads in both warp and weft directions are woven tightly together, satin weaves are not normally associated with high particle efficiencies. They are suited to cases where good cake discharge is essential. Typical applications are filter presses in effluent treatment process, cement and coal dewatering, and rotary vacuum or disc filters operating eg. in mining or hydro-metallurgical refining industries.

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## Polypropylene Specification Chart

Product	Fiber	Yarn	Mesh Count Warp		Mesh Count Weft		Weight		Air Permeability		Weave	Width cm	Availability
			warp / weft	warp / weft	n / cm	n / in	n / cm	n / in	g / m <sup>2</sup>	oz / yd <sup>2</sup>			
MPP 1325	PP   PP	multi   multi	13	33	25	64	470	13.9	7	1.5	Special	110-142-180-220	• •
MPP 1410	PP   PP	multi   multi	14	36	10	25	300	8.9	8-12	1,7-2,6	PW	145-180-220	• •
MPP 1811	PP   PP	multi   multi	18	46	11	28	350	10.3	7	1.5	PW	140-180-220	• •
MPP 2414	PP   PP	multi   multi	24	61	13	33	440	13	40	8.7	TW	140-220-250	•
MPP 2417	PP   PP	multi   multi	24	61	17	43	480	14.2	285	62	TW	113	•
MPP 2711	PP   PP	multi   multi	27	69	11	28	1030	30.4	10	2.2	TW	105-120-170	• •
MPP2817	PP   PP	multi   multi	26	66	17	43	500	14.8	90	19.6	TW	170	•
MPP 3011	PP   PP	multi   multi	30	76	11	28	500	14.8	36	7.8	TW	160-230	•
MPP 4015 white	PP   PP	multi   multi	40	102	15	38	950	28	15	3.3	TW	110-170-180	• •
MPP 4015	PP   PP	multi   multi	40	102	15	38	950	28	15	3.3	TW	110-170-180	• •
MPP 4618	PP   PP	multi   multi	46	117	18	46	500	14.8	8-30	1,7- 6,5	TW	132	•
MPP 4813	PP   PP	multi   staple	46	117	13	33	650	19.2	3	0.6	TW	128-160	• •
MPP 4814	PP   PP	multi   staple	48	122	14	36	500	14.8	4	0.9	TW	170	• •
MPP 6012	PP   PP	multi   staple	60	152	12	30	620	18.3	3	0.6	Special	110-140-180-220	• •
MPP 6812	PP   PP	multi   staple	64	163	12	30	580	17.1	2	0.4	Special	120-130-185	•
MPP 6824	PP   PP	multi   multi	60	173	25	64	480	14.2	2	0.4	Special	140-185	•
PPM 3217	PP   PP	mono   multi	30	76	17	43	275	8.1	36-60	7,8 -13	satin	180-220	•
PPM 4012	PP   PP	mono   multi	40	102	12	30	340	10	15-30	3,3- 6,5	satin	140-160-180-220	• •
PPM 4414 white	PP   PP	mono   multi	41	104	14	36	300	8.9	15-80-100-200	3,3-17,4 -21,7-43,5	satin	110-140-180-220	• •
PPM 4414	PP   PP	mono   multi	41	104	14	36	300	8.9	15-80-100-200	3,3-17,4 -21,7-43,5	satin	110-140-180-220	• •
PPM 4414 AS WEFT	PP + PP K	mono   multi	41	104	14	36	300	8.9	15	3.3	satin	180	•
PPM 5513	PP   PP	mono   multi	55	140	13	33	365	10.8	15 - 30 - 60	3,3-6,5-13	TW	220	•
PPM 9726	PP   PP	mono   multi	97	246	26	66	450	13.3	10	2.2	satin	178	•



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Product	Fiber	Yarn	Mesh Count Warp		Mesh Count Weft		Weight		Air Permeability		Weave	Width cm	Availability
			warp / weft	warp /weft	n/ cm	n/in	n/ cm	n/in	g/ m <sup>2</sup>	oz/ yd <sup>2</sup>			
PPM 11524	PP   PP	mono   multi	118	305	21	53	490	11.8	5	1.3	satin	180	• •
PPM 11530	PP   PP	mono   multi	120	305	28	71	400	11.8	6	1.3	satin	140-180	• •
PP 2313 TH	PP   PP	mono   mono	23	58	13	33	270	8	600	130.4	TW	240	•
PP 2623	PP   PP	mono   mono	26	66	23	58	335	10.2	400- 600- 1000	87-130,4 -217,4	TW	160-220	• •
PP 2712	PP   PP	mono   mono	27	69	12	30	280	8.3	500- 1000	108,7 - 217,4	TW	242	•
PP 3617	PP   PP	mono   mono	36	91	17	43	270	8	600- 900	130,4 - 195,6	satin	195-220	• •
PP 3617	PP   PP	mono   mono	36	91	17	43	260	7.7	375	81.5	TW	160	•
PP 4015	PP   PP	mono   mono	40	102	15	38	255	7.5	600	130.4	satin	180-220	•
PP 4519	PP   PP	mono   mono	45	114	19	48	235	6.9	30-130- 240	6,5 - 28,3 - 52,2	satin	160-180- 220	• •
PP 5525	PP   PP	mono   mono	55	140	25	64	255	7.5	250	54.3	TW	220	• •
PP 6022	PP   PP	mono   mono	60	152	22	56	250	7.4	130- 560	28,3 - 121,7	satin	135-220	•
PP 7025	PP   PP	mono   mono	70	178	25	64	165	4.9	n.a	n.a	satin	120	•
PP 7130	PP   PP	mono   mono	71	180	30	76	185	5.5	400- 900	87-195,6	satin	160-220	•
PP 7932	PP   PP	mono   mono	79	201	32	81	440	10	20-72	4,3 - 15,6	TW	160-220	•
PP 9736	PP   PP	mono   mono	97	246	36	91	430	12.7	25-72	5,4-15,6	satin	140-178- 220	• •
PP 9736 AS	PP/SST   PP/SST	mono   mono	97	246	36	91	430	12.7	25-72	5.4	satin	165	•
PP 10640	PP   PP	mono   mono	106	269	40	102	265	7.8	25-80- 120- 180	5,4- 17,4- 26,1-39,1	satin	140-180- 220	• •
PP 10641	PP   PP	mono   mono	106	269	40	102	265	7.8	24-70- 130- 180 -240	5,2-15,2- 28,3-39,1 -52,2	TW	140-160- 180	•
PP 11544	PP   PP	mono   mono	115	292	44	112	295	8.7	15 - 45	3,3 - 9,8	satin	140-180- 220	• •
FPP 229	PP   PP	staple   staple	20	51	9	23	385	11.4	10	2.2	PW	176-220	• •
FPP 2010	PP   PP	staple   staple	20	51	10	25	310	9.1	180	39.1	TW	168	•

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## Polyamide Specification Chart

Product	Fiber	Yarn	Mesh Count Warp		Mesh Count Weft		Weight		Air Permeability		Weave	Width cm	Avail- ability
	warp / weft	warp   weft	n/cm	n/in	n/cm	n/in	g/m <sup>2</sup>	oz/ yd <sup>2</sup>	l/ dm <sup>2</sup> / min 200Pa	Cfm/ sq.ft - 0.5" WG			
MN 2512	PA 6.6   PA 6.6	multi   multi	25	64	12	30	390	11.5	4-8	0,9- 1,7	PW	130-165- 180-220	• •
PA 4321	PA 6.6   PA 6.6	mono   mono	43	109	21	53	350	10.3	375	81.5	satin	140-160- 220	•
R 4321	PA 11   PA 11	mono   mono	43	109	21	53	340	10	300- 480- 575- 1080	65,2- 104,3- 125- 234,8	satin	165	•
R 5720	PA 11   PA 11	mono   mono	57	145	20	51	395	11.6	300	65.2	satin	165	•
R 5726	PA 11   PA 11	mono   mono	57	145	26	66	310	9.1	390	84.8	satin	165	•
RPP 5720	PA 11   PP	mono   mono	57	145	20	51	370	10.9	300	65.2	satin	165	•
V 2623	PA 12   PA 12	mono   mono	26	66	23	58	380	11.2	400	87	TW	140-165- 220	• •
V 4422	PA 12   PA 12	mono   mono	44	112	19	48	350	10.3	375- 480- 1080	81,5- 104,3- 234,8	satin	135-160	• •
V 6018	PA 12   PA 12	mono   mono	60	152	18	46	410	12.1	80- 250- 500	17,4- 54,3- 108,7	satin	130-160	• •
VPP 4422	PA 12   PP	mono   mono	44	112	18	46	300	8.8	375- 500	81,5- 108,7	satin	160-220	•
VPP 6018	PA 12   PP	mono   mono	60	152	18	46	360	10.6	250	54.3	satin	165	•
PA6 5119	PA 6   PA 6	mono   mono	51	130	19	48	390	11.5	300	65	satin	250	•



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## Polyester Specification Chart

Product	Fiber	Yarn	Mesh Count Warp		Mesh Count Weft		Weight		Air Permeability		Weave	Width	Avail-ability
	warp / weft	warp / weft	n/cm	n/in	n/cm	n/in	g/m <sup>2</sup>	oz/ yd <sup>2</sup>	l/ dm <sup>2</sup> / min 200Pa	Cfm/ sq.ft - 0.5" WG		cm	
PET BK 1011	PET/SST   PET/SST	multi   multi	10	25	11	28	245	7.2	120	26.1	PW	200	•
MPET 77	PET   PET	multi   multi	6.3	16	6.2	16	450	13.3	285	62	PW	225	•
MPET 1712	PET   PET	multi   multi	17	43	12	30	340	10	8	1.7	PW	160	•
MPET 2210	PET   PET	multi   multi	22	56	10	25	570	16.8	10	2.2	PW	189	•
MPET 2412	PET   PET	multi   multi	24	61	12	30	470	13.9	6	1.3	PW	112	•
MPET 8539	PET   PET	multi   multi	85	216	39	99	145	4.3	120	26.1	TW	160	•
PETM 8320	PET   PET	mono   multi	80	203	20	51	350	10.3	90	19.6	satin	150-180	•
PET 3615	PET   PET	mono   mono	36	91	15	38	355	10.5	960	208.7	TW	160	•
PET 4317	PET   PET	mono   mono	41	104	17	43	430	12.7	2310	502.2	satin	228	••
PET 7814	PET   PET	mono   mono	78	198	14	36	320	9.4	600	130.4	PW	150	•
PET 10525	PET   PET	mono   mono	105	267	20	51	210	6.2	285	62	PW	185-250	•
PET 10526	PET   PET	mono   mono	105	267	20	51	185	5.5	285-360	62-78,3	PW	185-250	•
PET 20/19/035	PET   PET	mono   mono	20	51	19	48	500	14.7	1700	369.6	satin	225-250-265	•
PET 1000 - 44 Blue	PET   PET	mono   mono	6.6	17	6.6	17	365	10.8	7,305	1520	PW	270	••
PET 2400 - 56 Blue	PET   PET	mono   mono	3.1	7.6	3.1	7.6	450	13.3	5,868	1220	PW	270	••
PET 3800 - 63 Blue	PET   PET	mono   mono	2.1	5.3	2.1	5.3	450	13.3	6,467	1345	PW	270	••
PET 1514	PET   PET	mono   mono	15	38	14	36	510	15	n.a	n.a	special	200	••
PET 3208	PET   PET	mono   mono	31	79	8	20	870	25.7	n.a	n.a	satin	150	•
PET BK 1715	PET/SST   PET/SST	staple   staple	17	43	15	38	190	5.6	500	108.7	PW	200	•
PET BK 2625	PET/SST   PET/SST	staple   staple	26	66	25	64	145	4.3	180	39.1	TW	156	•
FPET 2117	PET   PET/SST	staple   staple	21	53	17	43	390	11.5	70	15.2	TW	115-132	•



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## Undercloth Specification Chart

Product	Fiber	Yarn	Mesh Count Warp		Mesh Count Weft		Weight		Air Permeability		Weave	Width cm	Avail- ability
			n/ cm	n/in	n/ cm	n/in	g/ m <sup>2</sup>	oz/ yd <sup>2</sup>	l/ dm <sup>2</sup> / min 200Pa	Cfm/ sq.ft - 0.5" WG			
PP 44	PP   PP	fibrillated   fibrillated	4.2	10.7	4.2	10.7	480	14.2	n.a	n.a	PW	135-160-220	• •
PP 1000/44	PP   PP	mono   mono	6.4	16.3	6.4	16.3	250	7.4	n.a	n.a	PW	220	• •
PP 3800/1000	PP   PP	mono   mono	2.1	5.3	2.1	5.3	300	8.8	n.a	n.a	PW	130	• •
PE 6080	PE   PE	mono   mono	6	15.3	6	15.3	550	16.2	n.a	n.a	matt	140/220	•

## Specialties Specification Chart

Product	Fiber	Yarn	Mesh Count Warp		Mesh Count Weft		Weight		Air Permeability		Weave	Width cm	Avail- ability
			n/ cm	n/in	n/ cm	n/in	g/ m <sup>2</sup>	oz/ yd <sup>2</sup>	l/dm <sup>2</sup> /min 200Pa	Cfm/sq.ft - 0.5" WG			
PTFE 9135	PTFE   PTFE	multi   multi	85	216	39	99	338	10	4-10	0,9-2.2	TW	170	•
PBT 4918 KSLF	PBT/ SST   PBT/ SST	mono   mono	49	124	19	48	400	11.8	250-400- 600	54,3 - 87 - 130	satin	165	•
PBT 4919	PBT   PBT	mono   mono	49	124	19	48	435	12.8	250-400- 600	54,3 - 87 - 130	satin	165	• •
PBT 9736	PBT   PBT	mono   mono	105	267	35	89	640	18.9	72	15.7	satin	160	• •
PVDC 2813	PVDC   PVDC	mono   mono	28	71	13	33	560	16.5	960	208.7	TW	192	•
PVDC 3221	PVDC   PVDC	mono   mono	32	81	21	53	240	7.1	n.a	n.a	TW	195	•
PVDC 5821	PVDC   PVDC	mono   mono	58	147	21	53	355	10.5	25- 60-120 -240-660	5,4-13- 26,1-52,2 -143,5	TW	175	•
PVDC 1200/380	PVDC   PVDC	mono   mono	6.3	16	6.3	16	245	7.2	n.a	n.a	PW	166	•
PVDC 26/038	PVDC   PVDC	mono   mono	9.4	24	9.4	24	365	10.8	n.a	n.a	PW	166	•
PVDC 13/9/037 (W95)	PVDC   PVDC	mono   mono	13	33	10	25	480	14.2	n.a	n.a	Honey comb	166	•
PVDF 1515	PVDF   PVDF	mono   mono	16	41	16	41	420	12.4	n.a	n.a	Matt	180	•
ECTFE 8422	ECTFE   ECTFE	mono   mono	84	213	22	56	420	12.4	90 - 160	19,6 - 34,8	TW	160	•
DO 2216	DO   DO	staple   staple	22	56	16	41	370	10.9	55	12	TW	115-165	•

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In Contact with Food

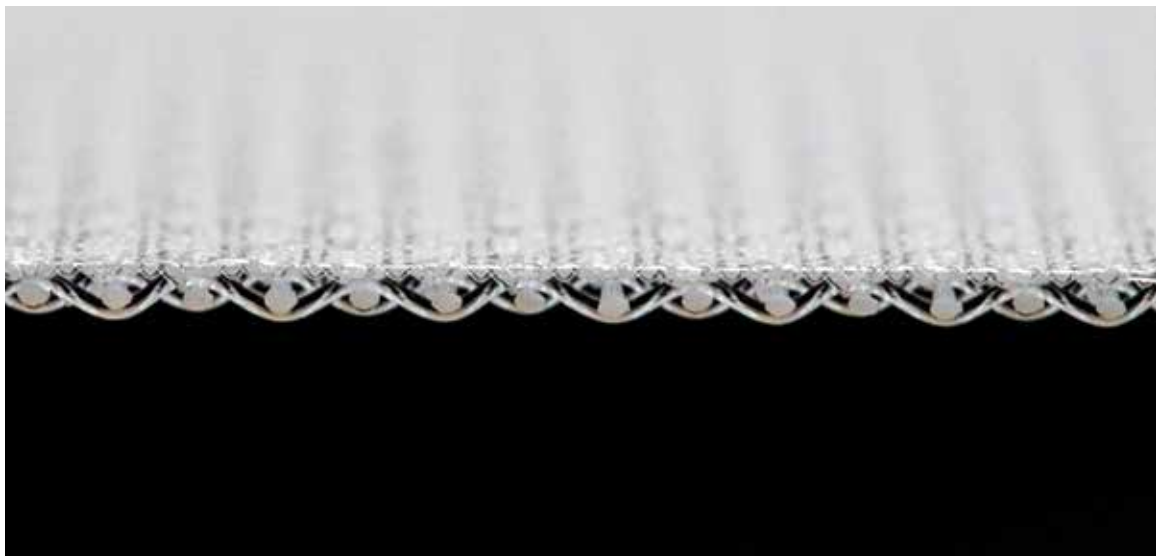


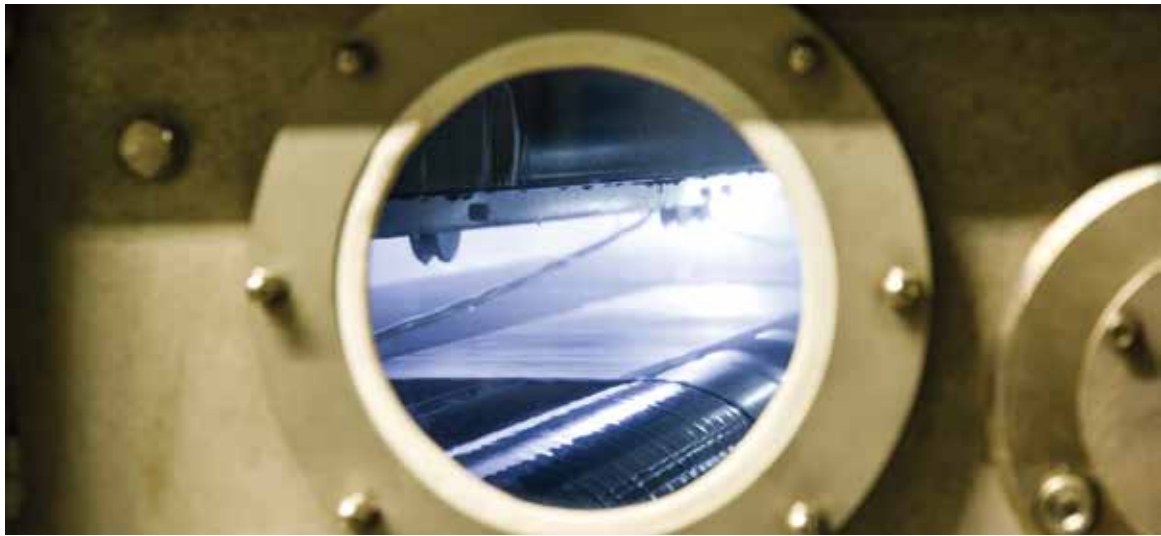
## Double Layer Specification Charts

Product	Fiber	Yarn	Mesh Count Warp		Mesh Count Weft		Weight		Air Permeability		Weave	Structure	Width	Avail-ability
			n/cm	n/in	n/cm	n/in	g/m <sup>2</sup>	oz/ yd <sup>2</sup>	l/dm <sup>2</sup> / min 200Pa	Cfm/ sq.ft - 0.5" WG				
PPM DL 20607	PP   PP	mono   mono/multi	65	165	24	61	400	11.8	30 - 50 - 100	6,5 - 10,9 - 21,7	special	woven	248	• •
PPDL 0907	PP   PP	mono   mono	62	157	28	71	420	12.4	100 - 300 - 500 - 1000	21,7 - 65,2 - 108,7 - 217,4	special	woven	248	• •
PET DL 41/1000	PET   PET	mono   mono	130	330	130	330	440	13	1500	326.1	PW	laminated	max 228	• •
PET DL 75/1000	PET   PET	mono   mono	73	185	73	185	460	13.6	2200	478.3	PW	laminated	210-228	• •
PP DL 9132	PP   PP	mono   mono	90	229	34	87	540	16	144	31.3	special	woven	250	• •



Intended to Come  
In Contact with Food





Calendaring Machine and Washing Machine at SAATI Deutschland



## Applications - Filtration Liquid Process Filter Press

Filter presses were introduced at the turn of the century and have been around for many years, mainly dewatering waste sludges.

They were considered labor intensive machines so they did not find much acceptance in the sophisticated and highly automated process industries. It was not until in the 60's that this image has changed by the introduction of advanced mechanisms that were oriented towards obtaining low moisture cakes that discharge automatically and the washing of the cloth at the end of filtration cycle.

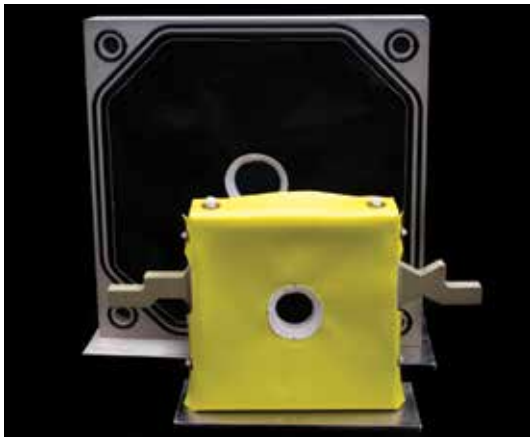
The filter press consists of head and follower that are contained in between a pack of vertical rectangular plates. Each plate is dressed with filter cloth on both sides and, once pressed together, they form a series of chambers, depending on the number of plates. The entire pack of plates is supported by side or overhead beams.





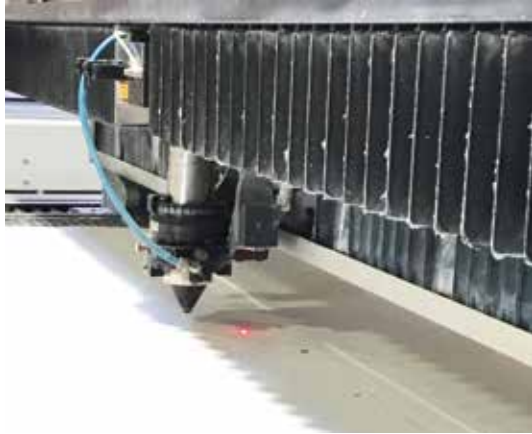
### Filter Cloth for Filter Press

Production of filter cloth as barrel neck filter cloth, overhang cloth or single cloth has always belonged to our traditional core business. For all known press brands we are able to furnish the matching filter cloth. In addition we produce filter belts for automatic tower filter press.



Fields of Application	Material	Air Permeability l/dm <sup>2</sup> /min 200 PA
Wastewater treatment in galvanic industry	MPP	3-20
Petrol Filtration	PVDC / PES	350-900
Chemical and Pharmaceutical Industries	FPP MPP PPM N PET, PETM PVDC	3-700
Dyestuff Filtration	MPP / PPM	3...7
Industrial Wastewater Treatment	PP PPM MPP	5-30
Porcelain Industry	MN	3-20
Communal Wastewater Treated With: - Iron & Calcium Conditioner - Iron & Lime - Polymer Conditioner - Polymers	V / PP V / PP	ca. 1000 ca. 500

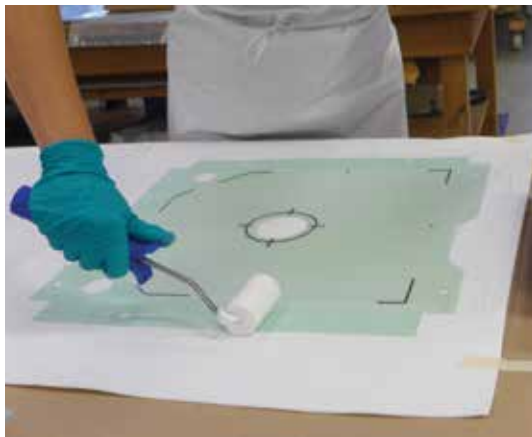




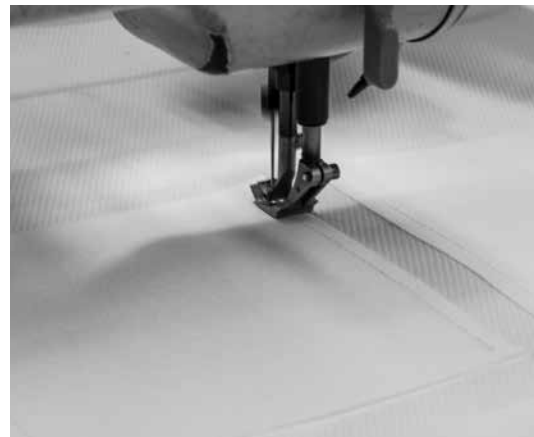
Laser cutting

### Fabrication Solutions

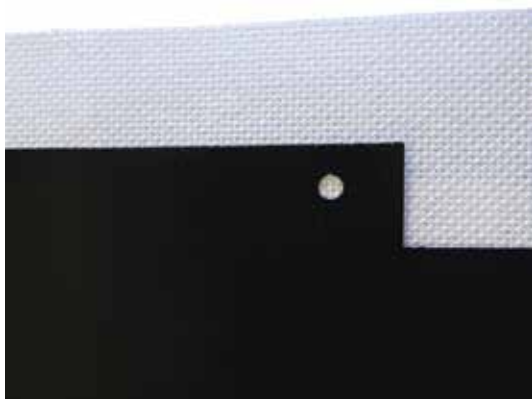
Production of filter cloth as barrel neck filter cloth, overhang cloth or single cloth has always belonged to our traditional core business. For all known press brands we are able to furnish the matching filter cloth. In addition we produce filter belts for automatic tower filter press.



Coating



Modern Sewing



Support and Filter Cloths Coupled



Reinforcement for Iron Plate

Industry	Application	Filter Type	Example of SAATI Ecofiltra Items		
Alumina	Waste Water Treatments	Horizontal Filter Press	MPP	6812	(1 - 3l/dm <sup>2</sup> /min)
Breweries	Mesh	Horizontal Filter Press	PP	6022	(500l/dm <sup>2</sup> /min)
			PP	4015	
	Yeast	Horizontal Filter Press	MPP	1325	(8l/dm <sup>2</sup> /min)
Cement	Dewatering	Horizontal Filter Press	PP	4015	
Ceramics	Dewatering	Horizontal Filter Press	PP	4015	
Coal	Tailings	Horizontal Filter Press	PP	2623	
			V	4422	
			V	6018	
Dyes/Pigments	Dewatering	Horizontal Filter Press	MPP	1325	(8l/dm <sup>2</sup> /min)
			MPP	1510	
			MPP	1325	(8l/dm <sup>2</sup> /min)
			MPP	1812	Calendered
			MPP	4813	
			MPET	2412	
General Chemicals Eg. SILICATES ZEOLITES DETERGENTS	Process Filtration	Horizontal Filter Press	MPP	1325	(8l/dm <sup>2</sup> /min)
			MPP	1812	Calendered
			MPP	1325	(8l/dm <sup>2</sup> /min)
			MPP	4813	
			PP	6022	(360l/dm <sup>2</sup> /min)
			PP	10640	(25l/dm <sup>2</sup> /min)
			MPP	6012	
			PP	11544	
Glucose	Activated Carbon Removal	Horizontal Filter Press	MPP	1325	(8l/dm <sup>2</sup> /min)
			PP	10640	(25l/dm <sup>2</sup> /min)
Industrial Effluents	Process Filtration	Horizontal Filter Press	PPM	4414	
			MPP	1325	(8l/dm <sup>2</sup> /min)
			MPP	1325	(8l/dm <sup>2</sup> /min)
			PP	10640	
			MPP	1510	(8l/dm <sup>2</sup> /min)
Mining & Metallurgical Refining	Purification	Horizontal Filter Press	PP	10640	(25l/dm <sup>2</sup> /min)
			MPP	1325	(8l/dm <sup>2</sup> /min)
Oils/Fats	Bleaching	Horizontal Filter Press	MPET	2412	
	Hydrogenation	Horizontal Filter Press	MPP	6012	
			V	4422	
Fractionation	Horizontal Filter Press	PP	11544	Antistatic	
Quarries	Sand, Gravel, Aggregate Dewatering	Horizontal Filter Press	V	2623	
			V	4422	
			V	6018	
			PP	4015	
Sugar		Horizontal Filter Press	PP	10640	(25-80l/dm <sup>2</sup> /min)
			PP	9736	
			PP	9736	
			PP	10640	(25l/dm <sup>2</sup> /min)
			PP	9726	White
Titanium Dioxide	Precalcination	Horizontal Filter Press	PP	9736	
			PP	10640	(25l/dm <sup>2</sup> /min)
	Gypsum Dewatering	Horizontal Filter Press	V	4422	
			V	6018	
Waste Water Treatment	Alum Removal	Horizontal Filter Press	V	2623	
			PP	2623	
			V	4422	
			V	6018	
			PPM	4414	
			MPP	1325	(25l/dm <sup>2</sup> /min)



### Fabrication Solutions

Rotary vacuum drum filter (RVDF) is one of the oldest filters used in the industrial liquid/solids separation. It offers a wide range of industrial processing flow sheets and provides a flexible application of dewatering, washing, and/or clarification.

Rotary vacuum filters consist of large rotating drum covered by a cloth. The drum is suspended on an axial over a trough containing liquid/solids with approximately 50-80% of the screen area immersed in the slurry. The drum rotates into and out of the trough, the slurry is sucked onto the surface of the cloth and rotated out of the liquid/solids suspension as a cake. When the cake is rotating out, it is dewatered in the drying zone. The cake is dry because the vacuum drum is continuously draining the cake and taking the water out of it. At the final step of the separation, the cake is discharged as solid product and the drum rotates continuously to another separation cycle.



# Ecofiltra



## Rotary Drum Filter

Rotary drum filters are often the workhorse of filtration in the solid/liquid separation industry. The design of the different types of drum filters reflects the enormous variety of jobs for this filter type and the industry. SAATI offers an unique range of mono and multifilament belts.

### Main Features

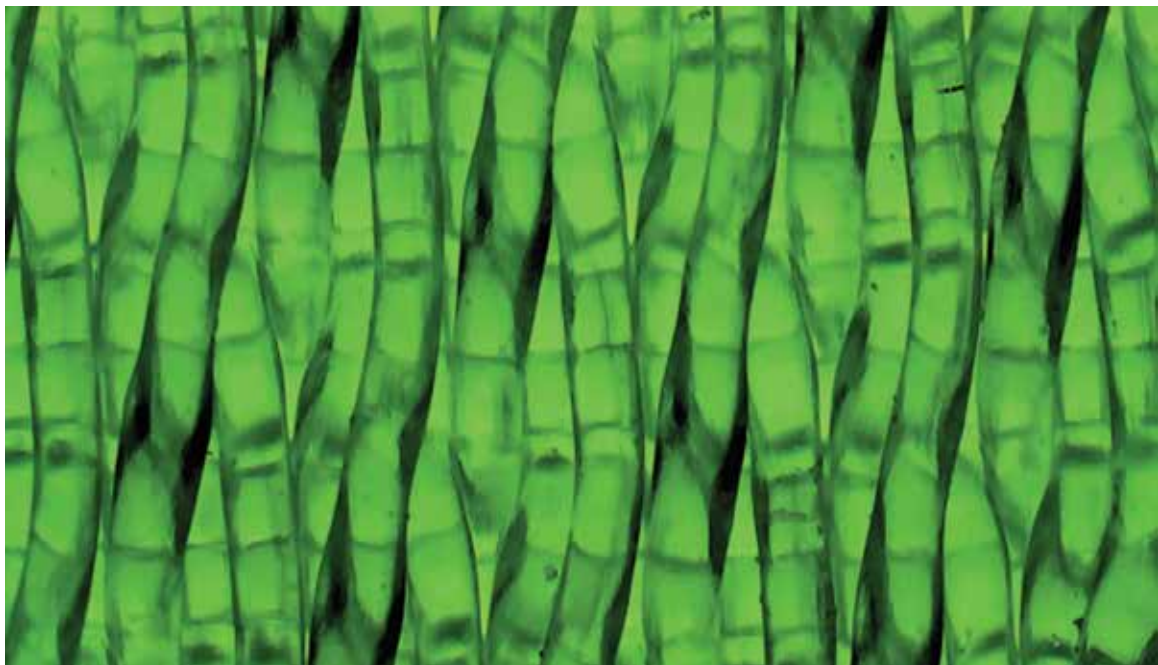
- Available in PP, PET, PA, PEEK, PVDF, and E-CTFE
- Pore size from 2 to 160µm
- Choice of edge treatment and edge profiles as required by the equipment
- Closure as required for the type of rotary drum

### Your Benefits

- Optimal chemical and thermal resistance
- No particle gloss
- Good filter performance
- Easy installation
- Low maintenance costs



Rotary Drum Filter



Rotary Drum Filter



## Rotary Disc Filter

Rotary disc filter have a high filtration-to foot-print ratio. However, today's high performance rotary disc filters or hyperbaric rotary disc filters are heavily dependent on appropriate filter fabrics.

In close cooperation with leading machine producers SAATI has developed a range of mono and multifilament fabrics especially adapted to the needs of this filter type.

### SAATI Offers

- Elastic multifilament fabrics
- Monofilament fabrics

### Main Features

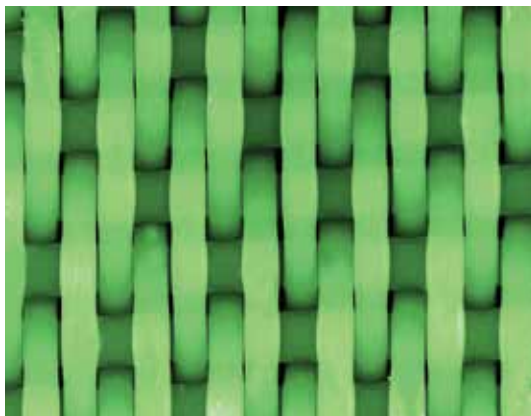
- Available in PA, PP and PET
- Wide choice of pore size
- Perfect fit and snap-back properties
- High abrasion resistance

### Your Benefits

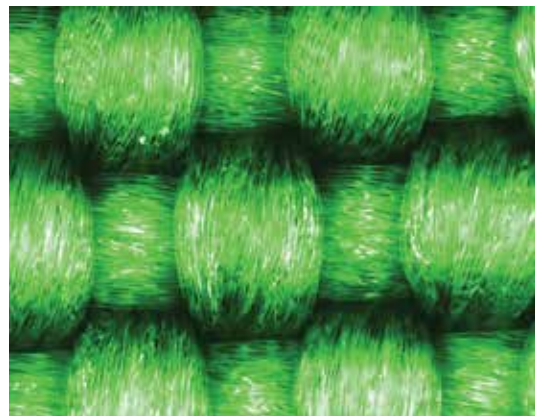
- Material easily adjustable to meet individual needs
- Good cake release
- Low maintenance costs



Rotary Disc Filter for De-Watering



Monofilament Fabric



Multifilament Fabric



### Centrifuge

There are many designs of centrifuges in use today mainly in the pharmaceutical, and in the fine & speciality chemicals industries.

- The inverting filter centrifuge operates semi-continuously and are automatically controlled
- A rigid filling pipe projects through the solids housing where slurry is discharged into the rotating drum
- There are distribution bars within the drum which ensure even 360° spread over the whole surface so that the filter is properly balanced
- A filter cake of solid material forms at the same time as the filtrate is efficiently discharged
- When maximum weight within the filters is reached, the filling valve closes and filtration continues to the washing stage
- After the washing stage has finished the filter is run at a speed which is appropriate to the product for the final dewatering
- At the conclusion of dewatering the machine decelerates automatically to discharge speed. The drum insert opens temporarily and the solid cake is discharged under rotation



Industry	Application	Filter Type	Example of SAATI Ecofiltra Items		
Pharma	Waste Water Treatments	Centrifuge	PVDF	9535	
			PPDL	0907	
			PPMDL	206007	
Alumina	Red Mud Underflow	Rotary Vacuum Drum	V	6018	
			PP	4015	
			V	4422	
	Hydrate Seed	Rotary Vacuum Drum/ Disc Filter	V	4422	
			Hydrate Product	Rotary Vacuum Drum/ Disc Filter	PP
	PP	4015			(Black)
	V	4422			
V	4422				
Coal	Froth Filtration	Rotary Vacuum/ Horizontal Belt Filter	PP	4015	
			V	4422	
			V	4422	
Flue Gas Desulphurization	Gypsum Dewatering	Rotary Vacuum Drum	PP	4015	
			V	4422	
			PP	9736	
Mining & Metallurgical Refining	Ore Dewatering	Rotary Vacuum Drum	PP	9736	
			V	4422	
			PP	10640	(25l/dm <sup>2</sup> /min)
Sugar	Carbonation (1st)	Rotary Vacuum Drum	PP	4015	
			V	4422	
			PP	9736	
Titanium Dioxide	Washing/Dewatering (Pre/Post Leach)	Moore Leaf, Rotary Vacuum Drum	MPP	6012	
			MPP	1325	
			MPP	1410	
			MPP	4015	
	Treatment Washing	Moore Leaf, Rotary Vacuum Drum	MPET	2412	



Fields of Application	Material	Air Permeability l/dm <sup>2</sup> /min - 200 PA
Chemical Industry Pigment Pulp & Paper	PP	30-1000
Food	PET	300-1500

### Filter Cloth for Filter Presses

We produce centrifuge bags - above all made of PP and PET - for centrifuges from different producers. Coverings for drum filters and disc filters are produced according to customer's requirements. In order to grant absolute fitting accuracy, adjustment of filters is achieved by prior sampling.



## Centrifuges

### SAATI Offers

- Centrifuge bags
- Liners for peeler centrifuges such as endless liners
- Bags for inverting filter centrifuges





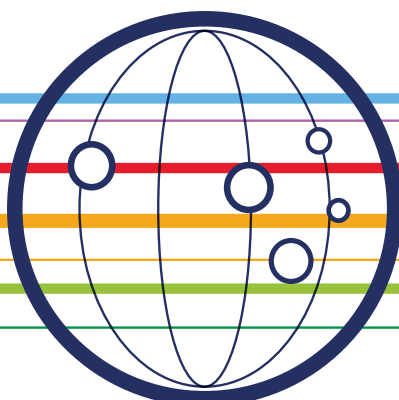
Fields of Application	Material	Air Permeability l/dm <sup>2</sup> /min - 200 PA
Waste water treatment in galvanic industry	PP	30-1000 l/dm <sup>2</sup> /min
Mining/Sludge De-Watering	PET	300-1500 l/dm <sup>2</sup> /min
Coolant Water Recycling	PET DLW	1000

### Filter Belts for Horizontal Vacuum Belt Filters

We produce centrifuge bags - above all made of PP and PET - for centrifuges from different producers. Coverings for drum filters and disc filters are produced according to customer's requirements. In order to grant absolute fitting accuracy, adjustment of filters is achieved by prior sampling.





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**—SAATI**  
We cross-innovate