

MANN air-oil separator elements for compressors and vacuum pumps



Industriefilter

spare-parts



MANN+HUMMEL is the market leader in the field of air-oil separation necessary for compressed air applications. All the established producers in this field are MANN+HUMMEL customers.

MANN+HUMMEL is the ideal development partner for OEM customers and MANN+HUMMEL air-oil elements are also the right choice for the aftermarket.

Using MANN+HUMMEL products give you extra security with the operation of your compressed air system. Your advantages are as follows:

MANN+HUMMEL products...

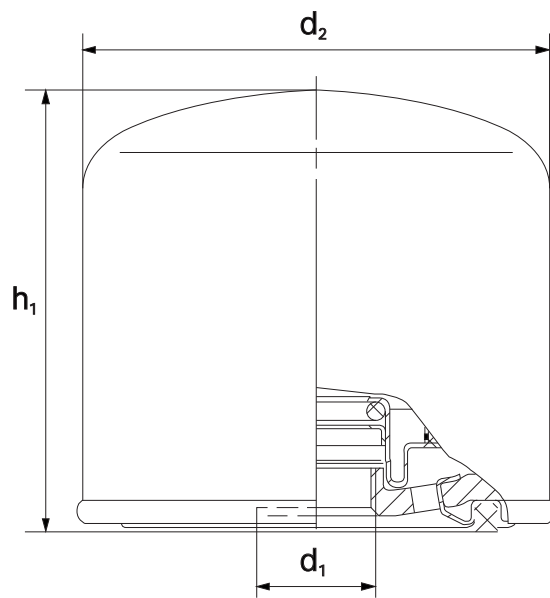
- are tailored to match the respective compressed air system
- have a long service life
- enable low energy costs through minimal flow resistance
- meet OEM quality standards
- are available world-wide

... and so quality pays for itself.

Please select the right element for your application using the dimensions listed on the following pages.



MANN FILTERS for air-oil separator boxes and air-oil filters For stationary or mobile compressors

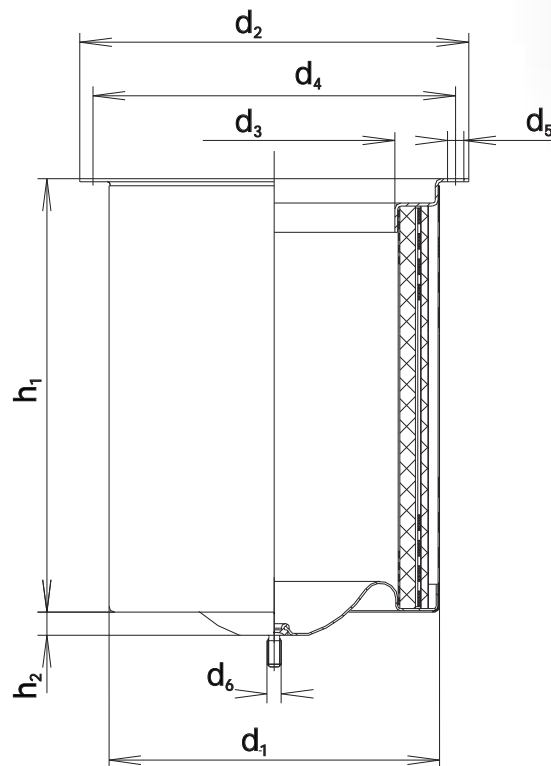


Part no. *	Drawing no.	Flow rate at 7 bar [m ³ /min]	Max working pressure [bar]	d ₁	d ₂ [mm]	h ₁ [mm]
LB 712/2	49 302 59 131	0.6	20	22x1.5	76	83
LB 719/2	49 303 59 141	1.0	20	22x1.5	76	127
LB 962/2	49 306 59 161	2.0	20	24x1.5	93	212
LB 1374/2	49 308 59 171	3.0	20	39x1.5	136	177
LB 11 102/2	49 312 59 131	4.0	14	32x1.5	108	260
LB 13 145/3	49 316 59 211	5.5	20	39x1.5	136	302

* Products replace former types as LB 712/2 replaces LB 712, etc.

MANN FILTERS standard wrap elements

For stationary or mobile compressors



Part no.	Flow rate at 7 bar [m ³ /min]	Dimensions in mm							
		d ₁	d ₂	d ₃	h ₁	h ₂	d ₄	d ₅	d ₆
49 001 53 161	1,93	110	154	59	230				
49 001 52 191	2,03	125	170	78	200	12			
49 000 53 112	1,47	135	165	88	140	12			
49 001 53 105	1,80	135	205	88	165	12	180	8x Ø13	
49 001 53 221	1,78	135	205	88	165	12	180	8x Ø13	
49 000 51 531	2,23	135	170	88	200	12			
49 001 53 181	2,23	135	170	88	200	12			
49 001 53 261	2,33	135	220	88	250	12	192	6x Ø13,5	M8
49 000 51 411	3,53	135	170	88	305	12			
49 000 51 491	2,25	170	200	123	160	12			
49 001 53 114	2,23	170	192	123	160	12			
49 000 51 311	2,57	170	250	123	180	12	220	6x Ø17	M8
49 000 51 201	3,38	170	200	123	230	12			

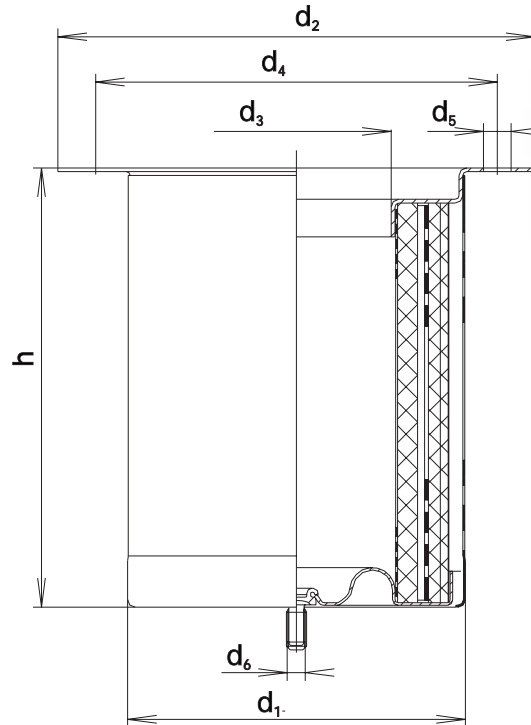
MANN FILTERS standard wrap elements

For stationary or mobile compressors

Part no.	Flow rate at 7 bar [m ³ /min]	Dimensions in mm							
		d ₁	d ₂	d ₃	h ₁	h ₂	d ₄	d ₅	d ₆
49 000 53 341	3,38	170	238	123	230				
49 002 53 281	3,33	170	220	123	230	12	190	6x AÆ12	
49 002 53 321	3,38	170	192	123	230	12			
49 002 53 371	4,35	170	192	123	288	12			
49 000 51 121	4,58	170	200	123	305	12			
49 000 51 211	4,58	170	232	123	305	12			
49 000 51 231	4,58	170	250	123	305	12	220	8x AÆ17	M8
49 002 53 311	4,58	170	192	123	305	12			
49 002 53 351	5,47	170	275	123	360	12			
49 000 51 111	6,68	170	200	123	435	12			
49 000 51 241	6,68	170	232	123	435	12			
49 003 53 122	7,47	170	200	123	485	12			
49 000 51 851	3,34	220	300	165	180	12	270	8x AÆ17	
49 002 53 331	4,39	220	300	165	230	12	266	12x AÆ14	
49 002 53 301	4,86	220	290	165	250	12	260	8x AÆ17	
49 000 51 771	6,28	220	274	165	320	12			
49 000 51 171	8,69	220	274	165	435	12			
49 003 53 111	8,18	220	284	165	435		254	12x AÆ18	
49 000 51 131	12,15	220	274	165	600	12			
49 004 53 151	12,15	220	262	165	600	12			
49 002 53 121	4,24	275	375	220	180	12	336	10x AÆ18	
49 000 51 101	7,58	275	328	220	305	12			
49 003 53 100	7,58	275	375	220	305	12	336	10x AÆ18	
49 003 53 131	7,58	275	324	220	305	12			
49 003 53 191	7,58	275	375	220	305		336	10x AÆ18	
49 003 53 221	7,58	275	375	220	305		336	10x AÆ18	
49 000 50 381	10,12	275	400	220	400	12	356	8x AÆ22	
49 000 51 441	10,12	275	328	220	400	12			
49 000 51 321	11,46	275	328	220	450	12			
49 004 53 101	11,46	275	324	220	450	12			
49 000 51 521	19,49	275	324	220	750	12			
49 000 51 331	12,58	300	348	245	450	12			
49 000 51 191	14,05	300	355	245	500	12			
49 005 53 101	14,05	300	328	245	500	12			
49 000 51 181	16,99	300	355	245	600	12			
49 006 53 251	16,99	300	355	245	600	12			
49 000 51 221	18,75	300	355	245	660	12			
49 006 53 100	18,79	300	353	245	660	12			
49 006 53 261	18,75	300	400	245	660	12	350	8x AÆ22	
49 007 53 102	18,75	300	328	245	750	12			
49 000 51 481	23,45	300	355	245	820	12			
49 000 51 541	28,73	300	355	245	1000	12			
49 008 52 121	24,03	400	450	314	630				
49 004 53 111	10,64	475	590	400	250	20	550	24x AÆ22	
49 000 51 251	41,55	475	740	400	900	20	686	24x AÆ28	
49 000 51 581	41,55	475	570	400	900	20			
49 013 53 111	41,55	475	590	400	900	20	550	24x AÆ22	
49 014 53 101	41,55	475	570	400	900	20	540	8x AÆ13,5	

MANN FILTERS depth separator elements

For stationary or mobile compressors



Part no..	Flow rate at 7 bar [m ³ /min]	Dimensions in mm						
		d ₁	d ₂	d ₃	h ₁	d ₄	d ₅	d ₆
49 301 53 141	3,67	135	220	75	175	192	6 x Ø13,5	
49 301 53 131	4,30	135	170	75	200			
49 301 55 151	4,29	135	215	75	200			
49 302 55 151	6,80	135	178	75	305			
49 301 53 101	6,57	170	200	109	230			
49 302 53 301	7,64	170	200	109	250			M8
49 302 53 131	8,91	170	200	109	305			
49 302 53 321	11,20	170	200	109	380			
49 301 53 151	5,97	220	274	156,5	160			
49 302 55 131	11,80	220	290	156,5	305			
49 303 55 121	15,73	220	290	156,5	400			
49 303 55 171	15,05	275	328	220	305			
49 303 53 111	19,93	275	328	209	400			
49 303 53 121	16,40	300	355	220	305			
49 304 52 191	21,87	300	350	220	400			
49 304 53 101	21,87	300	355	220	400			
49 304 54 101	21,87	300	355	220	400			
49 305 53 111	27,60	300	355	220	500			
49 305 55 121	32,01	300	355	220	540			
49 305 53 101	33,40	300	355	220	600			
49 306 53 102	39,07	300	355	220	700			
49 307 53 102	44,80	300	355	220	800	162	1 x Ø6	
49 306 55 131	38,67	400	434	314	520			
49 307 55 111	46,41	400	434	314	620			

MANN FILTERS air-oil separator elements for vacuum pumps

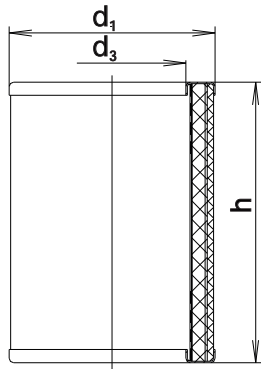


Fig. 1

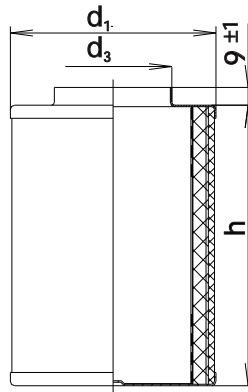


Fig. 2

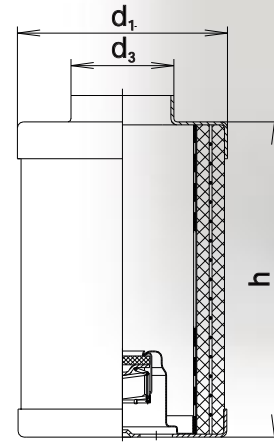


Fig. 3

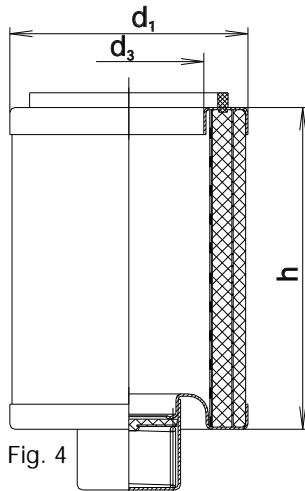


Fig. 4

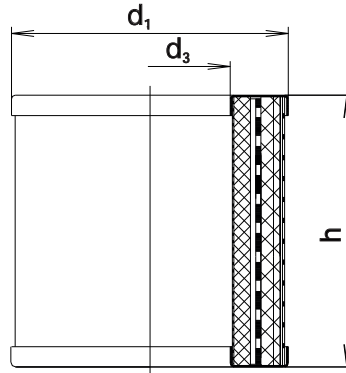


Fig. 5

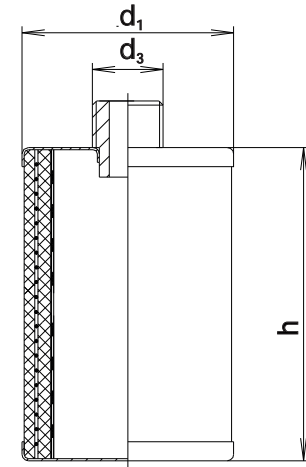


Fig. 6

Part no.	Flowrate [m ³ /min]	Fig.	Dimensions in mm			Flow-direction	Compressor type *
			d ₁	h	d ₃		
49 000 52 108	0,1	1	30	60	10	in - out	Vp
49 000 52 102	0,2	6	35	55	„G3/8“ „“	in - out	Vp
49 000 52 114	0,1	6	35	55	„G3/8“ „“	in - out	Vp
49 000 52 115	0,2	6	35	75	„G3/8“ „“	in - out	Vp
49 000 52 171	0,2	6	35	85	„G3/8“ „“	in - out	Vp
49 000 52 109	0,3	6	35	110	„G3/8“ „“	in - out	Vp
49 000 52 471	0,2	(6)	40	70	G 1/2	in - out	Vp
49 000 52 241	0,3	1	40	96	20,2	in - out	Vp
49 000 50 741	0,8	3	53	202	28	in - out	Vp
49 000 52 181	0,8	2	53	202	28	in - out	Vp
49 000 50 751	0,8	2	53	232	28	in - out	Ko
49 000 52 111	0,8	(2)	53	232	28	in - out	Ko
49 000 50 401	0,2	4	55	40	25	in - out	Vp
49 000 54 101	0,3	(1)	55	65	25	out - in	Vp
49 000 52 351	0,3	(1)	55	75	25,2	in - out	Vp
49 000 54 121	0,3	4	55	80	25	in - out	Vp

* Vp = Vacuum pump / Ko = Compressor

MANN FILTERS air-oil separator elements for vacuum pumps

Part no.	Flowrate [m ³ /min]	Fig.	Dimensions in mm			Flow-direction	Compressor type *
			d ₁	h	d ₃		
49 000 50 391	0,4	4	55	95	25	in - out	Vp
49 000 52 106	0,5	1	55	135	25	in - out	Vp
49 000 52 101	0,5	6	55	150	M22x1	in - out	Ko
49 000 54 131	0,7	4	55	177	25	in - out	Vp
49 000 54 211	0,3	4	56	80	26	in - out	Vp
49 000 54 201	0,6	4	56	177	26	in - out	Vp
49 000 56 101	0,6	(2)	62	138	21,4	in - out	Vp
49 000 50 261	0,4	1	65	69,5	38	in - out	Vp
49 000 54 151	0,6	(1)	65	100	43	in - out	Vp
49 000 54 251	0,5	(1)	65	100	43	in - out	Vp
49 000 52 107	1,4	1	70	250	41	in - out	Vp
49 001 52 112	1,8	1	70	330	41	in - out	Vp
49 000 54 261	2,5	(1)	71	227,0	41	in - out	Vp
49 000 52 352	0,4	(1)	72	80	32,2	in - out	Vp
49 000 50 161	0,6	1	72	100,5	32	out - in	Vp
49 000 52 100	0,7	1	72	100,5	32	out - in	Vp
49 000 52 105	0,7	3	72	125	35	in - out	Vp
49 000 54 241	0,8	(3)**	72	130	35	in - out	Vp
49 000 52 391	1,2	2	72	202	35	in - out	Vp
49 000 54 221	1,3	(3)**	72	208	35	in - out	Vp
49 000 50 571	1,5	3	72	252	35	in - out	Vp
49 000 52 103	1,5	2	72	252	35	in - out	Vp
49 000 52 201	1,5	2	72	252	35	in - out	Vp
49 000 52 401	1,5	2	72	252	35	in - out	Vp
49 001 54 171	2,3	2	72	375	35	in - out	Vp
49 001 54 201	2,3	(3)**	72	375	35	in - out	Vp
49 000 50 651	2,2	3	72	377	35	in - out	Vp
49 000 50 761	2,2	2	72	377	35	in - out	Ko
49 001 52 152	2,2	2	72	377	35	in - out	Vp
49 001 52 171	2,2	2	72	377	35	in - out	Vp
49 001 54 181	3,1	2	72	500	35	in - out	Vp
49 001 54 191	3,1	(3)**	72	500	35	in - out	Vp
49 000 50 661	3	3	72	502	35	in - out	Vp
49 001 52 151	2,9	2	72	502	35	in - out	Vp
49 001 52 172	2,9	2	72	502	35	in - out	Vp
49 000 52 353	0,7	(1)	80	125	45,2	in - out	Vp
49 000 50 611	0,9	1	80	145	45	in - out	Vp
49 000 50 612	0,9	1	80	145	45	in - out	Vp
49 000 54 111	0,7	4	82	100	51	in - out	Vp
49 000 50 451	1,3	4	82	200	51	in - out	Vp
49 000 54 102	1,3	2	82	200	51	in - out	Vp
49 001 52 110	2,5	2	82	380	50	in - out	Vp
49 000 50 341	2,7	4	82	400	51	in - out	Vp
49 001 54 105	3	2	82	450	50	in - out	Vp
49 002 52 171	3,6	2	82	540	50	in - out	Vp
49 000 54 191	0,6	4	84	100	51	in - out	Vp
49 001 54 121	2,1	(1)	100	251	63	in - out	Vp
49 001 54 131	2,4	(1)	100	293	63	in - out	Vp
49 000 50 461	2	(1)	108	220	73	in - out	Vp
49 001 52 108	2,2	1	108	230	75	in - out	Vp
49 001 54 100	2,5	(1)	108	285	73	in - out	Vp

* Vp = Vacuum pump / Ko = Compressor ** with valve

MANN FILTERS air-oil separator elements for vacuum pumps

Part no.	Flowrate [m ³ /min]	Fig.	Dimensions in mm			Flow-direction	Compressor type *
			d ₁	h	d ₃		
49 000 52 211	1,5	1	115	165	65	out - in	Ko
49 001 52 271	2,6	1	115	260	65	out - in	Ko
49 002 52 113	3,5	1	115	340	65	out - in	Ko
49 002 52 192	5,2	1	115	505	65	out - in	Ko
49 000 50 601	2,3	1	123	216	88	in - out	Vp
49 000 50 841	1	1	127	125	64	in - out	Vp
49 002 54 151	4,1	(2)	127	340	93	in - out	Vp
49 000 50 431	3,6	1	170	230	123	out - in	Ko
49 000 50 421	4,8	1	170	305	123	out - in	Ko
49 002 52 142	5,9	1	220	305	165	out - in	Ko
49 000 50 692	8,7	1	220	420	165	out - in	Ko
49 004 52 161	10,8	1	220	520	165	out - in	Ko
49 411 52 101	22,8	(5)	297	350	220	in - out	Ko
49 415 52 101	32,8	(5)	297	500	220	in - out	Ko

* Vp = Vacuum pump / Ko = Compressor

Cross reference list

Sotras-Nr.	MANN-FILTER
DA 10 01	49 003 53 103
DA 10 02	49 000 52 211
DA 10 03	49 001 52 271
DA 10 04	49 002 52 113
DA 10 05	49 002 52 192
DA 10 22	49 000 52 353
DA 10 47	49 000 52 201
DA 10 48	49 001 52 171
DA 10 51	49 000 52 352
DB 10 50	49 000 52 351
DB 20 01	49 000 53 112
DB 20 02	49 001 53 181
DB 20 03	49 000 51 411
DB 20 04	49 000 50 491
DB 20 06	49 000 51 201
DB 20 07	49 000 53 341
DB 20 09	49 000 51 121
DB 20 12	49 000 51 111
DB 20 13	49 000 51 771
DB 20 18	49 000 51 171
DB 20 20	49 000 51 131
DB 20 21	49 000 51 641
DB 20 22	49 000 51 101
DB 20 24	49 000 51 321
DB 20 25	49 000 50 521
DB 20 26	49 000 51 331
DB 20 27	49 000 51 191
DB 20 29	49 000 51 181
DB 20 30	49 006 53 100

Sotras-Nr.	MANN-FILTER
DB 20 31	49 007 53 102
DB 20 33	49 000 50 201
DB 20 34	49 001 53 114
DB 20 35	49 002 53 321
DB 20 36	49 002 53 311
DB 20 43	49 003 53 122
DB 20 64	49 000 53 191
DB 20 67	49 000 53 112
DB 20 72	49 301 52 101
DB 20 86	49 302 54 131
DB 20 89	49 305 53 111
DB 20 90	49 425 52 101
DB 21 02	49 304 52 101
DB 21 03	49 301 53 151
DC 30 01	49 001 53 261
DC 30 15	49 002 53 331
DC 30 17	49 003 52 100
DC 30 31	49 001 53 105
DC 30 39	49 401 52 102
DC 30 44	49 003 52 221
DC 30 55	49 013 53 111
DC 30 66	49 301 53 141
DC 30 67	49 301 53 131
DF 50 04	LB 13145/3
DF 50 05	LB 962/2
DF 50 06	LB 1374/2
DF 50 09	LB 11102/2
DF 50 10	LB 719/2

MANN+HUMMEL

Industriefilter

The Company

The place where the company was founded and the head office of the MANN+HUMMEL group of companies is in Ludwigsburg in the German state of Baden-Württemberg close to the state capital of Stuttgart.

The plants at

- Ludwigsburg/Baden-Württemberg,
- Marklkofen/Bavaria,
- Speyer/Rhineland-Palatinate,
- Sonneberg/Thuringia,
- Weiterstadt/Hesse,
- Königswinter/North-Rhine Westphalia and
- Erkrath/North-Rhine Westphalia

employ approximately 5.000 workers.

More than 3.000 employees work in other countries.

Our subsidiary companies are based in Belgium, France, United Kingdom, Spain, the Czech Republic, Argentina, Brazil, Mexico, USA, China, Japan and Singapore.

Important licencing companies in Chile, Iran and South Africa – to name but a few – as well as a comprehensive MANN+HUMMEL service on all continents ensure the supply of filter and spare parts tailored to the needs of the world market.

AUTOMOTIVE TECHNOLOGY DIVISION

Air Filter Systems Business Unit



- Plastic air filter systems for automobiles and commercial vehicles
- Air cleaners
- Design covers
- Acoustic components
- Temperature control units
- Anti-snow systems

Intake Manifold Systems Business Unit



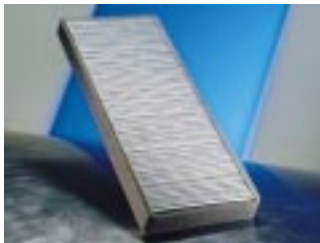
- Intake manifold modules
- Plastic and metal intake manifolds
- Cylinder head covers
- Plastic fuel supply rails

Liquid Filter Systems Business Unit



- Plastic and metal liquid filter systems for automobiles and commercial vehicles
- Housing oil modules
- Front modules in engine oil circuits
- Oil sump modules
- Fuel filter modules

Cabin Filters Business Unit



- Cabin filters for particle filtration and odor adsorption
- Combined filters for automobiles, commercial vehicles and industrial applications

Filters Business Unit



- Filter elements for air and liquids and cabin filters (MANN-FILTER)
- Air-drying boxes
- Cooling-water filters
- Spin-on oil filters and fuel filters
- Elements for oil mist separators

INDUSTRIAL TECHNOLOGY DIVISION

Industrial Filters Business Unit



- Filter elements and modules for industrial engines, construction and agricultural machinery, compressors, vacuum pumps and mechanical engineering
- System components
- Air-oil separators

ProTec Business Unit



- Installations, equipment and systems for material handling and material preparation in the plastic, rubber, recycling and chemical industries

Hydromation Business Unit



- Systems and equipment, e.g. chip handling systems and chip transport systems for filtering machining liquids in mechanical production
- Oil extraction devices

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