

**MANN
FILTER**

**MANN
FILTER**

Ready for big business

**MANN-FILTER for
construction machines**



MANN-FILTER – Perfect parts. Perfect service.
www.mann-filter.com

MANN-FILTER Product Portfolio

The service life and efficiency of your off-highway industrial equipment depend in large part on making the right choice of filters. High-quality filters are essential for functional reliability, durability and energy efficiency of your vehicles. Don't compromise and opt for MANN-FILTER products in OE quality. All MANN-FILTER products are manufactured according to the latest international production and test standards for the off-highway industry. They stand for best component quality, have been shown to excel due to consistently high and reliable filtration performance and secure a long service life.

The right filter in an instant!

At MANN-FILTER we're experts in OE quality and aftermarket filters. Our extensive range of **6,800 superior filters** protect engines, passengers and machines in over 300,000 applications. Thanks to over 85 years of experience and filtration expertise, our innovative, aftermarket filters are built to withstand the demands placed on vehicles and machines and to meet stringent safety and industry standards.



Benefits that pay for you:

- ⊕ **Product in OE quality**
- ⊕ **Extensive range**
- ⊕ **Long service life even under the harshest conditions**
- ⊕ **Continuous innovation in products**

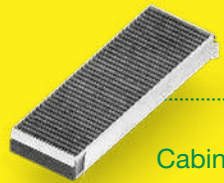
Product Portfolio For Excavator



Product Portfolio For Wheel Loader



Product Portfolio For Bull Dozer



Cabin air filter



Air filter



Pre-fuel filter



Spin-on fuel filter



Hydraulic
transmission
filter



Hydraulic
filter



Spin-on oil filter



Centrifuge



Oil Filter

Spin-on Oil Filter



Spin-on
oil filter



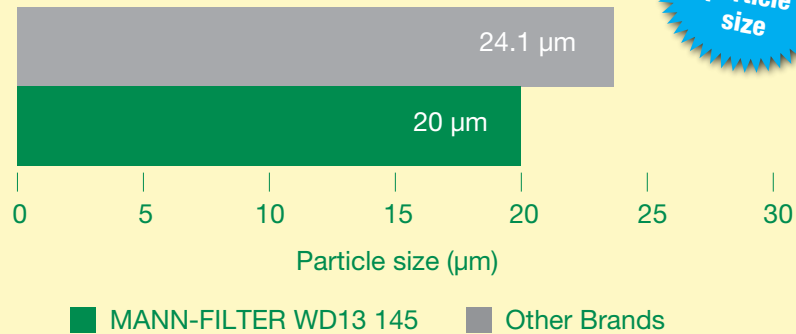
By-pass
spin-on filter

Centrifuge



Filter Media Excellence

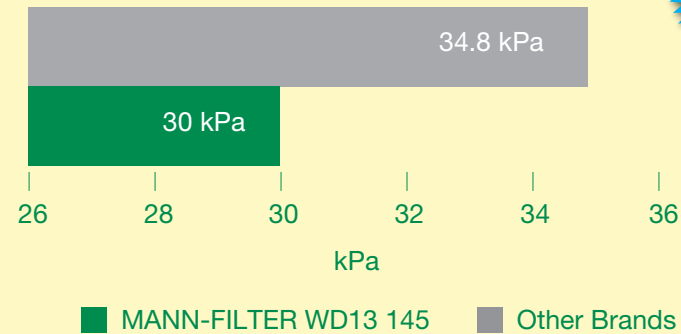
50% Filtration Efficiency



Filters
17% smaller
particle
size

MANN-FILTER maintains good filtration efficiency, filtering 17% smaller particle size than other brands.

Differential Pressure (DP)



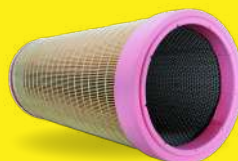
Performs
at 14%
lower DP

Differential pressure (DP) is 14% lower than other brands. This allows lesser pressure required at the filter resulting in more efficient fuel consumption.

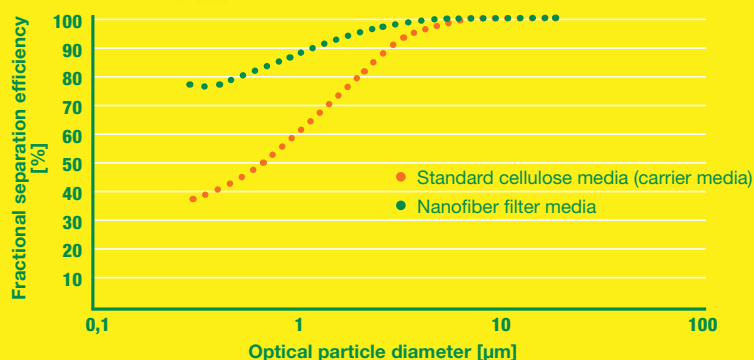
Air Filter Element



Secondary Air Filter



CompacPlus® Air Filter Element



Flat sheet test with ISO fine test dust (ISO 12103-01: A2). Determination of fractional separation efficiency during the first 60 seconds. The curves shown are based on average values. Individual values may deviate slightly. Fractional separation efficiency changes with changed test conditions.

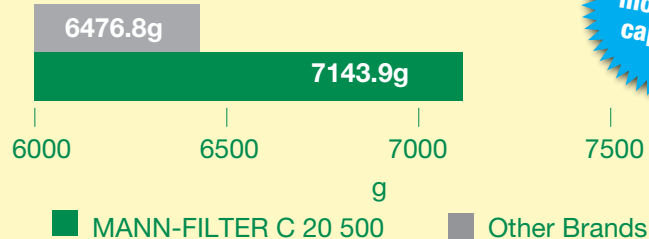
MANN-FILTER develops **nanofiber coated filter media** for the highly efficient separation of contaminants, including fine particles. Air filter media from MANN-FILTER are characterized by a verifiably higher separation efficiency along with the high dust holding capacity.

High-tech nanofiber coated filter media from MANN-FILTER is the first choice for vehicles which work in environments with a high level of soot or fine dust pollution. Typical application areas here are dusty construction sites, mines and car rallies.

The diagram on the left demonstrates the superior filtration efficiency of nanofiber-coated filter media when capturing fine particles.

Filter Media Excellence

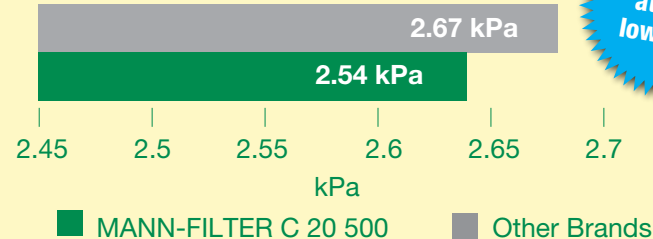
Dust Holding Capacity



10%
more dust
captured

MANN-FILTER captures at least 10% more dust as compared to other brands.

Differential Pressure (DP)



Performs
at 5%
lower DP

Differential pressure (DP) with secondary element is 5% lower than other brands. MANN-FILTER maintains better air flow to the combustion system.

Fuel Filter

Fuel Filter Element

Fuel filter element
(with metal)



Spin-on Fuel Filter

Spin-on
fuel filter



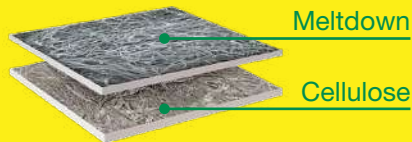
Spin-on
fuel filter
pressure
stable



Inline Fuel Filter

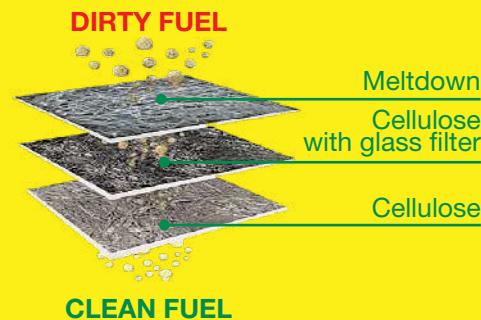


Filter Media Excellence



Multigrade F-PF and PFO

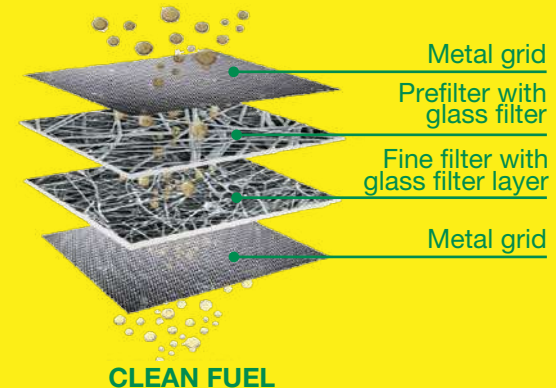
- Initial separation efficiency for $4\text{ }\mu\text{m}$ > 10% to 30%
- Water separation > 93%



Multigrade F-MB 333.1

- Initial separation efficiency for $4\text{ }\mu\text{m}$ > 99.7%
- Dirt holding capacity up to 110 g/m^2

CONTAMINATED FUEL



Multigrade F-G 5000.1

- Initial separation efficiency for $4\text{ }\mu\text{m}$ > 99.98%
- Dirt holding capacity up to 190 g/m^2



PreLine

The MANN-FILTER PreLine system provides highly efficient filtration of from 50 l/h to 600 l/h for all diesel engines. Whether it is for the latest common rail injection systems, in-line or distributor injection pumps – PreLine consistently protects against wear and corrosion from contaminant particles and water.



- ① Particle separation
- ② Water drop coalescence
- ③ Water separation

MANN-FILTER Preline Fuel Filter also features excellence in water separation in 3 stages:

- **First stage - Particle separation**
Removes solid dirt particles from the diesel fuel.
- **Second stage - Water drop coalescence**
Retains even the finest water droplets from the fuel/water emulsion and combines them to form much larger drops.
- **Third stage - Water separation with a hydrophobic sieve**
Ensures that the enlarged drops do not enter the injection system.

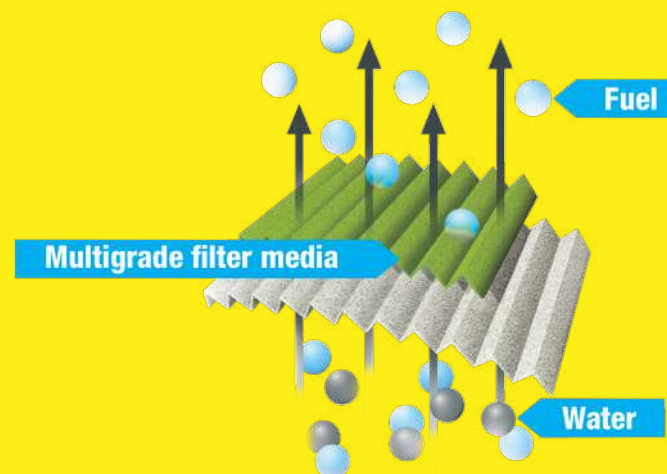


Diagram illustrating water separation through the filter medium

Hydraulic Filter



MANN-FILTER keeps hydraulic systems **running smoothly in tough conditions, protecting against dirt particles, corrosion and abrasion** even under heavy loads.

Meet the benefits:

- ⊕ **Optimal system efficiency and peak performance** — through state-of-the-art media technology
- ⊕ **Safety and reliability** — long-term protection of your engine and investment
- ⊕ **Significant reduction of downtime** — effective filtration reduces equipment repair and maintenance time, and lowers total ownership expenses

High-pressure Filter



Return Filter



Suction Filter



Ventilator



Special Applications



Air Dryer Cartridge

Dehumidify and clean compressed air, especially in commercial vehicles, preventing moisture build-up and damage in your system.



Transmission Oil Filter

Ensure high levels of oil purity and thus optimum wear protection for the sensitive transmission components.



Coolant Filter

Provides crucial protection for the coolant circulation system to ensure reliable cooling in extreme conditions.



Centrifuge Rotor

High separation efficiency, which removes even the smallest solid particles (1 μm) such as dust, rust and soot, to clean your engine oil and protect components. The rotor continuously impounds the separated particles during operation and must be replaced regularly for optimum function.



Urea Filter

Safeguard the sensitive Selective Catalytic Response (SCR) systems against contaminants with MANN-FILTER urea filters, designed to give optimum protection for your machine.



Air Oil Separator

Ensures high separation rates and low residual oil contents which minimizes oil loss. MANN-FILTER air oil separator saves energy, which conserves resources and reduces operating costs.

CATERPILLAR

EXCAVATOR	MANN-FILTER	Donaldson	Fleetguard
Model: 320D			
Engine Type: C6.4			
Air Filter	C 24 642/2	P536457	AF25589
Fuel Filter	WK 8109	P551430	FS19858
Fuel Filter	WK 8225	P551315	FF5321
Hydraulic Filter	HD 15 016	P571271	HF35440
Hydraulic Filter	W 935/2	P551348	HF35018
Hydraulic Filter	WD 8011	P573481	HF35519
Oil Filter	W 11 032	P554004	LF3675
Secondary Element	CF 1398	P536492	AF25624

WHEEL LOADER	MANN-FILTER	Donaldson	Fleetguard
Model: 950GC			
Engine Type: C7.1			
Air Filter	C 25 710/3 (Europiclon 700)	P782105	AF26399
Fuel Filter	WK 1080/7 X	P955606	FS19914
Hydraulic Filter	WH 1263	P764737	HF35554
Hydraulic Filter	WH 980/3	P177047	HF6553
Oil Filter	W 9071	P550920	LF17475
Secondary Element	CF 710 (Europiclon 700)	P782108	AF26400

SOIL COMPACTOR	MANN-FILTER	Donaldson	Fleetguard
Model: CS10GC			
Engine Type: C4.4			
Air Filter	C 20 500 (Europiclon 500)	P778994	AF26395
Fuel Filter	PU 8041 Z	P502655	FS20009
Fuel Filter	WK 11 042 Z	P553227	FS20112
Hydraulic Filter	WH 980/3	P177047	HF6553
Oil Filter	W 9130	P554407	LF699
Secondary Element	CF 500 (Europiclon 500)	P780036	AF26396

HITACHI

EXCAVATOR	MANN-FILTER	Donaldson	Fleetguard
Model: ZX200-5G			
Engine Type: CC-6BG1T			
Air Filter	C 28 073	P532503	AF25129M
Fuel Filter	WK 10 065	P550391	FF5367
Fuel Filter	WK 9110	P552564	FF5108
Hydraulic Filter	HD 13 004 (High Pressure)	R010052	HF29140
Hydraulic Filter	HD 14 002 X (High Pressure)	P502441	HF7679
Hydraulic Filter	WH 9012	P583856	HF35516
Oil Filter	W 1223	P550596	LF16045
Secondary Element	CF 16 008	P532504	AF25130M

Model: ZX330-5G			
Engine Type: AA-6HK1X			
Air Filter	C 28 104	P537876	AF25756
Fuel Filter	WK 10 065	P550391	FF5367
Fuel Filter	WK 9099 Z	P558000	FS1212
Hydraulic Filter	HD 13 004 (High Pressure)	R010052	HF29140
Hydraulic Filter	HD 14 002 X (High Pressure)	P502441	HF7679
Hydraulic Filter	WH 9012	P583856	HF35516
Oil Filter	W 1223	P550596	LF16045
Secondary Element	CF 16 007	P537877	AF25523

Model: ZX470-5G			
Engine Type: AA-6WG1TQA			
Air Filter	C 32 045	P608885	AF25627
Fuel Filter	WK 10 065	P550391	FF5367
Fuel Filter	WK 9099 Z	P558000	FS1212
Hydraulic Filter	WD 10 028	P556005	HF7955
Hydraulic Filter	WH 9012	P583856	HF35516
Oil Filter	W 1223	P550596	LF16045
Secondary Element	CF 18 005	P777869	AF25468

KOMATSU

EXCAVATOR	MANN-FILTER	Donaldson	Fleetguard
Model: PC200/220LC-8			
Engine Type: SAA6D107E-1			
Air Filter	C 24 110	P532966	AF25667
Cooling Liquid Filter	WA 10 004	P554072	WF2088
Fuel Filter	P 13 001 Z	P552040	FS20402
Fuel Filter	WK 9103 Z	P550774	FF5488
Fuel Filter	WK 9104 Z	P551864	FS19770
Hydraulic Filter	HD 15 015 (DCA, 6 Units)	P550787	HF35360
Oil Filter	W 9133	P550909	LF16006
Secondary Element	CF 14 013	P533781	AF26114
Ventilator	CS 51	P502518	HF28926
Model: PC210-10M0			
Engine Type: SAA6D107E-1			
Air Filter	C 28 073	P532503	AF25129M
Cabin Air Filter	CUD 23 046	P500138	AF25573
Fuel Filter	WK 9103 Z	P550774	FF5488
Fuel Filter	WK 9104 Z	P551864	FS19770
Hydraulic Filter	H 15 010	P502644	
Oil Filter	WP 12 121	P553000	LF9009
Secondary Element	CF 16 008	P532504	AF25130M
Ventilator	C 6008	P502574	AF4167
Model: PC300-8			
Engine Type: SAA6D114E-3			
Air Filter	C 32 1700/2	P781640	AF25627
Cooling Liquid Filter	WA 10 004 (DCA, 6 Units)	P554072	WF2088
Fuel Filter	WK 9104 Z	P551864	FS19770
Fuel Filter	WK 950/21	P550881	FF165
Hydraulic Filter	HD 15 015	P550787	HF35360
Oil Filter	WP 12 121	P553000	LF9009
Secondary Element	CF 18 005	P777869	AF25468

BULLDOZER	MANN-FILTER	Donaldson	Fleetguard
Model: D65EX-16			
Engine Type: SAA6D114E-3			
Air Filter	C 28 073	P532503	AF25129M
Fuel Filter	WK 9052 X (With Water-drain Screw)	P553201	FS1242B
Fuel Filter	WK 9104 Z	P551864	FS19770
Fuel Filter	WK 950/21	P550881	FF165
Hydraulic Filter	WH 11 001 X	P502448	HF29076
Oil Filter	WP 12 005	P553000	LF3000
Secondary Element	CF 16 008	P532504	AF25130M
Model: D85EX-15			
Engine Type: SAA6D125E-3B-7			
Air Filter	C 28 073	P532503	AF25129M
Cooling Liquid Filter	WA 9006	P554074	WF2074
Fuel Filter	WK 12 111	P502381	FF202
Fuel Filter	WK 13 003	P550937	FS19946
Hydraulic Filter	HD 15 015	P550787	HF35360
Oil Filter	WP 12 120/1	P559000	LF14000NN
Secondary Element	CF 16 008	P532504	AF25130M
Model: WA380-6			
Engine Type: SAA6D107E-1			
Air Filter	C 28 073	P532503	AF25129M
Fuel Filter	WK 9052 X (With Water-drain Screw)	P553201	FS1242B
Fuel Filter	WK 950/21	P550881	FF165
Hydraulic Filter	HD 15 174 X (High Pressure)	P551210	HF28978
Hydraulic Filter	WH 11 001 X	P502448	HF29076
Oil Filter	W 9133	P550909	LF16006
Secondary Element	CF 16 008	P532504	AF25130M
Model: WA380-6			
Engine Type: SAA6D107E-1			
Air Filter	C 28 073	P532503	AF25129M
Fuel Filter	WK 9052 X (With Water-drain Screw)	P553201	FS1242B
Fuel Filter	WK 950/21	P550881	FF165
Hydraulic Filter	HD 15 174 X (High Pressure)	P551210	HF28978
Hydraulic Filter	WH 11 001 X	P502448	HF29076
Oil Filter	W 9133	P550909	LF16006
Secondary Element	CF 16 008	P532504	AF25130M

WHEEL LOADER	MANN-FILTER	Donaldson	Fleetguard
Model: WA380-6			
Engine Type: SAA6D107E-1			
Air Filter	C 28 073	P532503	AF25129M
Fuel Filter	WK 9052 X (With Water-drain Screw)	P553201	FS1242B
Fuel Filter	WK 950/21	P550881	FF165
Hydraulic Filter	HD 15 174 X (High Pressure)	P551210	HF28978
Hydraulic Filter	WH 11 001 X	P502448	HF29076
Oil Filter	W 9133	P550909	LF16006
Secondary Element	CF 16 008	P532504	AF25130M

EXCAVATOR	MANN-FILTER	Donaldson	Fleetguard
Model: SY16			
Engine Type: Yanmar 3TNV74F			
Air Filter	C 10 0504	P822686	AF25550
Fuel Filter	WK 8223	P550127	FF5226
Hydraulic Filter	HD 5013	R010051	
Oil Filter	W 67/1	P502067	LF3692
Secondary Element	CF 504	P535396	AF25967
Model: SY35			
Engine Type: Yanmar 3TNV88			
Air Filter	C 11 1005	P821575	AF25551
Fuel Filter	WK 9065	R010002	
Hydraulic Filter	HD 5013	R010051	
Oil Filter	W 9084	P502438	LF16157
Secondary Element	CF 1005	P822858	AF25552
Model: SY55			
Engine Type: Isuzu 4JG1			
Air Filter	C 15 3007/1	P827653	AF25555
Fuel Filter	PU 10 006 X	P502424	FF269
Fuel Filter	WK 815/80	P505951	FF5394
Hydraulic Filter	HD 5013	R010051	
Oil Filter	W 9137 Z	P502039	
Secondary Element	CF 3007	P829332	AF25484
Model: SY75			
Engine Type: Isuzu 4LE2X			
Air Filter	C 15 3007/1	P827653	AF25555
Fuel Filter	PU 10 006 X	P502424	FF269
Fuel Filter	WK 815/80	P505951	FF5394
Hydraulic Filter	HD 5013	R010051	
Oil Filter	W 9072	P550222	LF3314
Secondary Element	CF 3007	P829332	AF25484

EXCAVATOR	MANN-FILTER	Donaldson	Fleetguard
Model: SY135/155			
Engine Type: Isuzu 4JJ1X			
Air Filter	C 17 040	P828889	AF25557
Fuel Filter	P 11 007 X	R011812	
Hydraulic Filter	HD 5013	R010051	
Oil Filter	W 1223	P550596	LF16045
Secondary Element	CF 10 013	P829333	AF25558
Model: SY215C			
Engine Type: Mitsubishi 4M50			
Air Filter	C 28 104	P537876	AF25756
Fuel Filter	P 11 007 X	R011812	
Fuel Filter	WK 11 073	P502466	
Hydraulic Filter	HD 5013	R010051	
Oil Filter	WP 13 003	P552562	LF3586
Secondary Element	CF 16 007	P537877	AF25523
Model: SY375			
Engine Type: Isuzu 6HK1			
Air Filter	C 32 045	P777868	AF25454
Fuel Filter	PU 10 006 X	P502424	FF269
Hydraulic Filter	HD 5013	R010051	
Oil Filter	W 1223	P550596	LF16045
Secondary Element	CF 18 005	P777869	AF25468

EXCAVATOR	MANN-FILTER	Donaldson	Fleetguard
Model: EC200D/210D			
Engine Type: Volvo D5E			
Air Filter	C 24 132	P778905	AF25748
Cabin Air Filter	CUD 4250	P753389	AF26660
Fuel Filter	WDK 9006	P502536	FF5702
Fuel Filter	WK 1080/7 X	P551026	FS19914
Hydraulic Filter	HD 6003 (High Pressure)	P584251	HF29185
Oil Filter	W 962	P553771	LF4054
Secondary Element	CF 14 015	P778906	AF25749
Ventilator	C 6006	P502563	AF26675
Ventilator	C 9004	P528708	AF27819
Model: EC300D			
Engine Type: Volvo D7			
Air Filter	C 28 104	P537876	AF25756
Cabin Air Filter	CUD 4250	P753389	AF26660
Fuel Filter	WDK 9006	P502536	FF5702
Fuel Filter	WK 1080/7 X	P551026	FS19914
Hydraulic Filter	HD 4015 Z	P502540	ST1659
Hydraulic Filter	WD 10 028	P556005	HF28751
Oil Filter	W 962	P553771	LF4054
Secondary Element	CF 16 007	P537877	AF25523
Ventilator	C 6006	P502563	AF26675
Ventilator	C 9004	P528708	AF27819

EXCAVATOR	MANN-FILTER	Donaldson	Fleetguard
Model: EC480D			
Engine Type: Volvo D13			
Air Filter	C 32 054	P777871	AF25619
Cabin Air Filter	CUD 44 006	P500194	AF26267
Fuel Filter	P 13 001 Z	P552044	FS20403
Fuel Filter	WDK 11 102/13 (High Pressure)	P550529	FF5507
Fuel Filter	WK 1080/7 X	P551026	FS19914
Hydraulic Filter	HD 4015 Z	P502540	ST1659
Oil Filter	W 11 032	P551807	LF3675
Oil Filter	WP 11 121	P550425	LF3654
Secondary Element	CF 18 011	P777875	AF25620
Ventilator	C 9004	P528708	AF27819

ADT	MANN-FILTER	Donaldson	Fleetguard
Model: A40G			
Engine Type: Volvo D13J			
Air Dryer Cartridge	TB 1396 X (Gold) TB 1394/1 X (Silver) TB 1374 X (Black)	P951413	AD27747
Air Filter	C 36 011/2	P783611	AF26490
Cabin Air Filter	CUD 51 004	P500195	AF26384
Fuel Filter	WDK 11 102/13 (High Pressure)	P550529	FF5507
Fuel Filter	WK 1080/7 X	P955606	FS19914
Hydraulic Transmission Filter	WH 980/3	P164378	HF6553
Oil Filter	W 11 032	P551807	LF3675
Oil Filter	WP 11 121	P550425	LF3654
Secondary Element	CF 23 001	P783612	AF26491
Ventilator	C 11 008	P500196	AF26455
Ventilator	C 9004	P528708	AF27819
Model: A45G			
Engine Type: Volvo D16J			
Air Filter	C 36 011/2	P783611	AF26490
Cabin Air Filter	CUD 51 004	P500195	AF26384
Fuel Filter	WDK 11 102/13 (High Pressure)	P550529	FF5507
Fuel Filter	WK 1080/7 X	P955606	FS19914
Hydraulic Transmission Filter	WH 980/3	P164378	HF6553
Hydraulic Filter	HD 13 007 (High Pressure)	P172465	HF29136
Hydraulic Filter	HD 13 022	P763018	HF35128
Oil Filter	W 11 032	P551807	LF3675
Oil Filter	WP 11 121	P550425	LF3654
Ventilator	C 11 008	P500196	AF26455
Ventilator	C 9004	P528708	AF27819

ADT	MANN-FILTER	Donaldson	Fleetguard
Model: A60H			
Engine Type: Volvo D16J			
Air Filter	C 36 011/2	P783611	AF26490
Cabin Air Filter	CUD 51 004	P500195	AF26384
Fuel Filter	WDK 11 102/13 (High Pressure)	P550529	FF5507
Fuel Filter	WK 1080/7 X	P551026	FS19914
Oil Filter	W 11 032	P551807	LF3675
Oil Filter	WP 11 121	P550425	LF3654
Secondary Element	CF 23 001	P783612	AF26491
Ventilator	C 11 008	P500196	AF26455
Ventilator	C 9004	P528708	AF27819

SOIL COMPACTOR	MANN-FILTER	Donaldson	Fleetguard
Model: SD110			
Engine Type: Volvo D5			
Air Filter	C 19 009	P780522	AF25957
Fuel Filter	WK 11 084 Z	P505957	FS19753
Fuel Filter	WK 9109	P554620	FF5709
Oil Filter	W 13 020 Z	P553634	LF680
Oil Filter	W 962	P553771	LF4054

XCMG

EXCAVATOR	MANN-FILTER	Donaldson	Fleetguard
Model: XE215C			
Engine Type: Isuzu 6BG1T			
Air Filter	C 28 104	P537876	AF25756
Fuel Filter	PU 10 006 X	P502424	FF269
Fuel Filter	WK 9110	P552564	
Oil Filter	W 1223	P550596	LF16045
Secondary Element	CF 16 007	P537877	AF25523

KOBELCO

EXCAVATOR	MANN-FILTER	Donaldson	Fleetguard
Model: SK200-8			
Engine Type: Hino J05E			
Air Filter	C 24 097	P821938	AF25414
Fuel Filter	PU 10 026 X	P502423	FF5786
Fuel Filter	WK 8221	P553004	FF5074
Hydraulic Filter	HD 15 003 (High Pressure)	P502561	HF29165
Oil Filter	W 12 011	P502364	LF16110
Secondary Element	CF 14 011	P821963	AF25412
Ventilator	C 6006	P502563	AF26675

For more information on our
product portfolio,
contact MANN+HUMMEL at
mhsg@mann-hummel.com



MANN-FILTER
Website



MANN-FILTER
Catalogue



MANN-FILTER
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