

**MANN  
FILTER**

**MANN  
FILTER**

**Ready for  
big business.**

**MANN-FILTER for  
construction machines**



**MANN-FILTER – Perfect parts. Perfect service.**  
[www.mann-filter.com](http://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 original equipment 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 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 original equipment quality filters** protect engines, passengers and machines in over 300,000 applications. Thanks to over 70 years experience and filtration expertise, our innovative, premium OE and boxed yellow-green aftermarket filters are built to withstand the demands placed on vehicles and machines and to meet stringent safety and industry standards.



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## Benefits that pay for you:

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- ⊕ **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

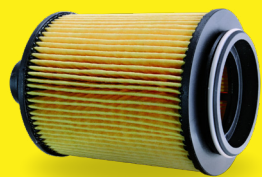


# Product portfolio for Bull Dozer



# Oil Filter

## Filter Elements



## Spin-on Oil Filters



Spin-on oil filter

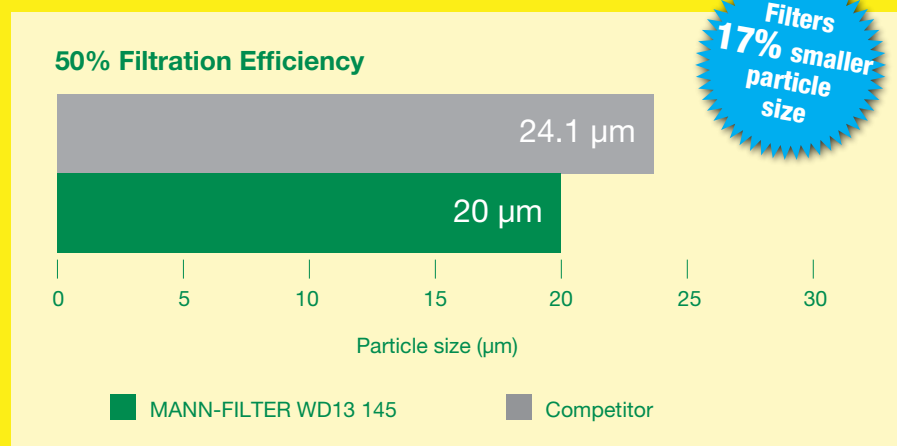


By-pass spin-on filter

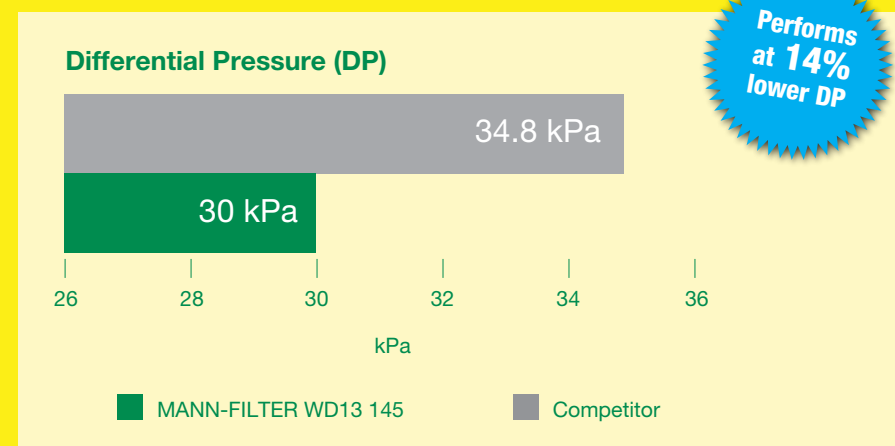
## Centrifuge



## Filter Media Excellence



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

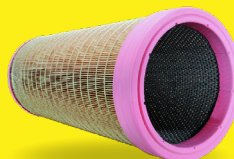


Differential pressure (DP) is 14% lower than competitor brands. This allows lesser pressure required at the filter resulting in more efficient fuel consumption.

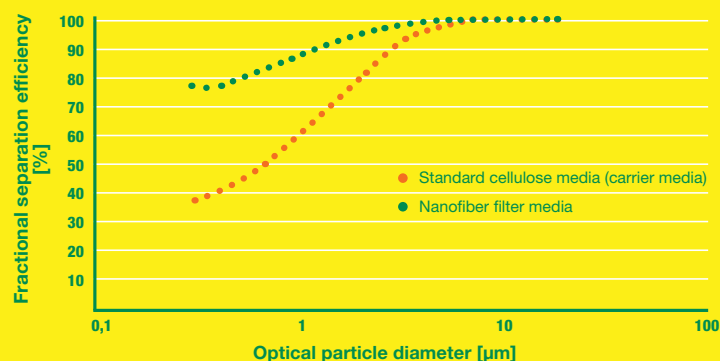
## Air Filter Elements



## Secondary Air Filters



## CompacPlus® Air Filter Elements



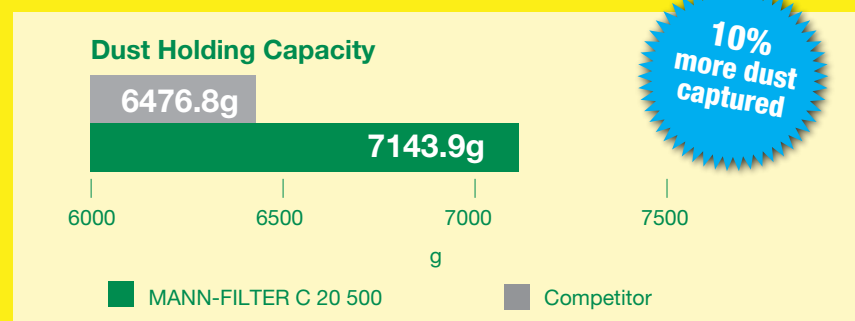
Flat sheet test with ISO fine test dust (ISO 12103-01: A2). Determination of fractional separation efficiency during the first 60 seconds. The curves shown are based on average values. Individual values may deviate slightly. Fractional separation efficiency changes with changed test conditions.

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

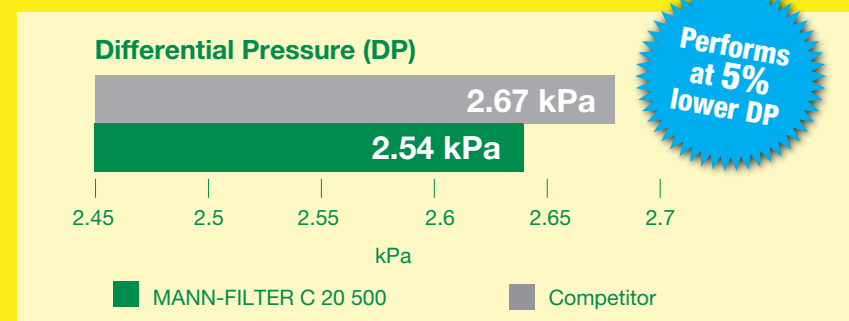
A high-tech nanofiber coated filter media from MANN-FILTER is the first choice for vehicles which work in environments with a high level of soot or fine dust pollution. Typical application areas here are dusty construction sites, mines and car rallies.

In the diagram on the left, it has been proven that nanofiber coated filter media offers better filtration efficiency for fine particles.

## Filter Media Excellence



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



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



# Fuel Filter

## Fuel Filter Elements

Fuel filter element (with metal)



Fuel filter element (metal-free)



## Spin-on Fuel Filters

Spin-on fuel filter



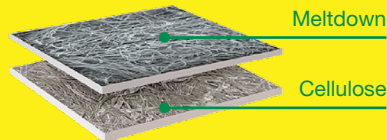
Spin-on fuel filter pressure stable



## Inline Fuel Filters

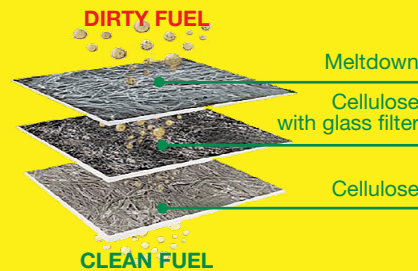


## Filter Media Excellence



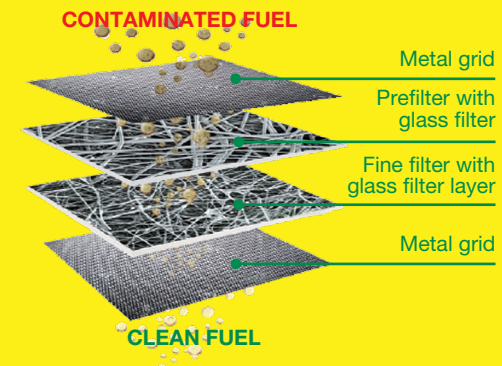
### Multigrade F-PF and PFO

- 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  $110\text{ g/m}^2$



### Multigrade F-G 5000.1

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



**Hose connections**  
M 18 x 1.5 for inlet  
and outlet

## Pump

Manual pump for fast and  
effective venting of fuel system  
following filter charge

## Head-mounted heater

Lock cap to connect to heater

## Hose connection

M 18 x 1.5 for outlet

## Spin-on filter element

Filter element for efficient  
particle separation. Available  
in two sizes for a max. 270  
l/h and 420l/h

## Water collection area (Water bowl)

High-quality clear plastic to  
view separated water easily.  
Capacity:  
PreLine 270: 0.3 l  
PreLine 420: 0.5 l

**Water drain plug**

## 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.



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.

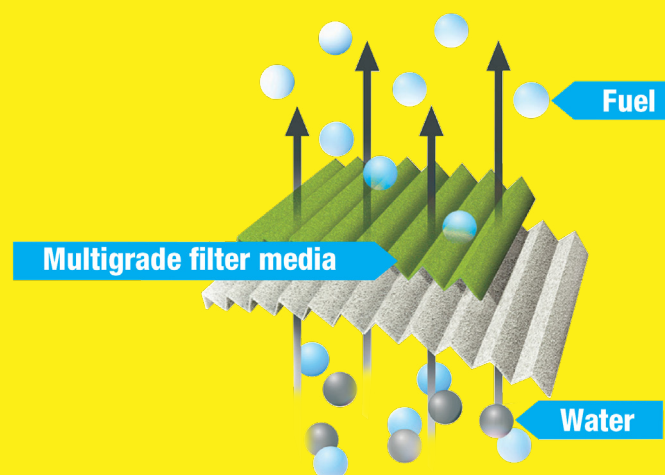


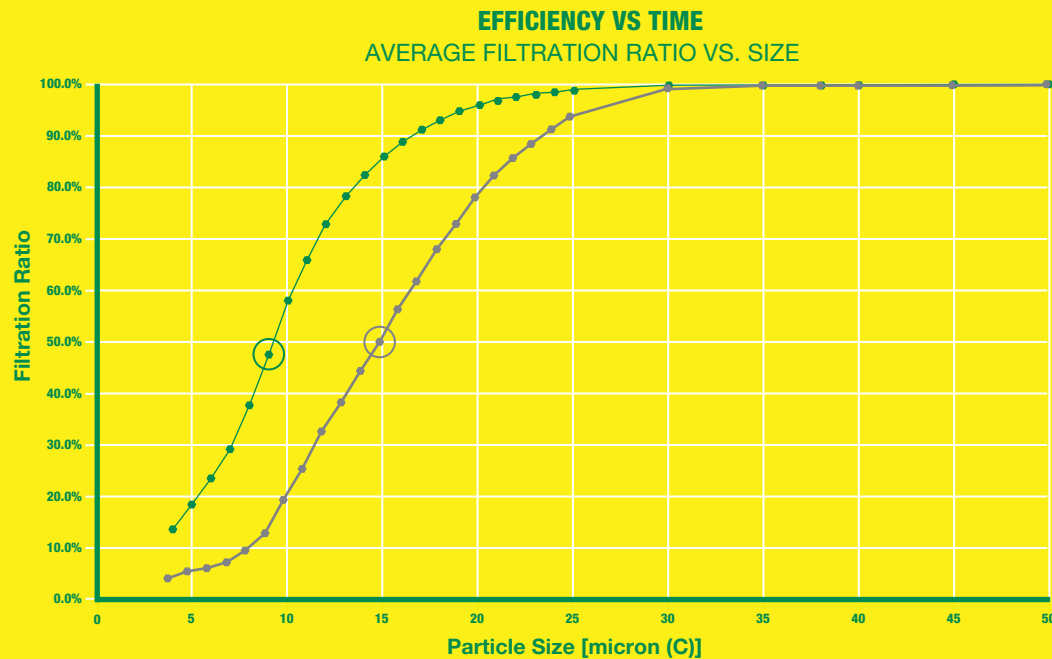
Diagram illustrating water separation through the filter medium

## Hydraulic Filter



MANN-FILTER protects the hydraulic system from dirt particles, corrosion and abrasion. The high dirt-holding capacity of the medium enables long filter service life.

## Filter Media Excellence



MANN-FILTER provides better filtration efficiency from smaller size particle over the full service interval while protecting the equipment.

**MANN-FILTER HD 1164/1** — Average Efficiency  
**KOMATSU 424-16-11140** — Average Efficiency

## Special Applications



### Air Dryer Cartridges

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



### Coolant Filters

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



### Urea Filters

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



### Transmission Oil Filters

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



### Centrifuge Rotors

High separation efficiency, which removes even the smallest solid particles (1  $\mu\text{m}$ ) 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.



### 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 8225	P551315	FF5321
Fuel Filter	WK 8109	P551430	FS19858
Hydraulics filter	HD 15 006	P571271	HF35440
Hydraulics filter	WD 8011	P573481	HF35519
Hydraulics filter	W 935/2	P551348	HF35018
Oil Filter	W 11 102/34	P554004	LF3675

# 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
Hydraulics filter	HD 14 002 x	P502441	HF7679
Hydraulics filter	WH 9012	-	HF35516
Hydraulics filter	HD 13 004	R010052	-
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 9099 Z	P558000	FS1212
Fuel Filter	WK 10 065	P550391	FF5367
Hydraulics filter	HD 14 002 x	P502441	HF7679
Hydraulics filter	WH 9012	-	HF35516
Hydraulics filter	HD 13 004	R010052	-
Oil Filter	W 1223	P550596	LF16045
Secondary Element	CF 16 007	P537877	AF25523



# HITACHI

## EXCAVATOR

## MANN-FILTER

## Donaldson

## Fleetguard

**Model: ZX470-5G** | Engine Type: AA-6WG1TQA

Air Filter	C 32 1700/2	P608885	-
Fuel Filter	WK 9099 Z	P558000	FS1212
Fuel Filter	WK 10 065	P550391	FF5367
Hydraulics filter	W 935/1	P556005	HF7955
Hydraulics filter	WH 9012	-	HF35516
Oil Filter	W 1223	P550596	LF16045
Secondary Element	CF 18 005	P777869	AF25468

# KOBELCO

## EXCAVATOR

## MANN-FILTER

## Donaldson

## Fleetguard

**Model: SK200-8** | Engine Type: Hino J05E

Air Filter	C 24 097	P821938	AF25414
Fuel Filter	WK 8221	P553004	FF5074
Fuel Filter	PU 10 026 x	P502423	FF5786
Hydraulics filter	HD 15 003	P505261	HF29165
Oil Filter	W 12 011	P502364	LF16110
Secondary Element	CF 14 011	P821963	AF25412
Ventilator	C 6006	P502563	AF26675

# KOMATSU

## BULLDOZER

## MANN-FILTER

## Donaldson

## Fleetguard

**Model: D65EX-16** | Engine Type: SAA6D114E-3

Air Filter	C 28 073	P532503	AF25129M
Fuel Filter	WK 9052 x	P553201	FS1242B
Fuel Filter	WK 9104 Z	P551864	FS19770
Fuel Filter	WK 950/21	P550881	FF165
Hydraulics filter	WH 11 001 x	P502448	-
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 13 003	P550937	FS19946
Fuel Filter	WK 12 111	P502381	FF202
Fuel Filter	WK 12 006	P553500	FF5611
Hydraulics filter	HD 15 001	P550787	HF35360
Oil Filter	WP 12 120/1	P559000	LF14000NN
Secondary Element	CF 16 008	P532504	AF25130M

## EXCAVATOR

## MANN-FILTER

## Donaldson

## Fleetguard

**Model: PC200/220LC-8** | Engine Type: SAA6D107E-1

Air Filter	C 24 110	P532966	AF25667
Cooling Liquid Filter	WA923/3 (DCA2, 4 units)	P554072	WF2051
Fuel Filter	WK 9104 Z	P551864	FS19770
Fuel Filter	WK 9103 Z	P550774	FF5488
Fuel Filter	P 13 001 Z	P552040	FS20402
Hydraulics filter	HD 15 001	P550787	HF35360
Oil Filter	W 9133	P550909	LF16006
Secondary Element	CF 14 013	P533781	AF26114
Ventilator	CS 51	P502518	HF28926

# KOMATSU

## EXCAVATOR

## MANN-FILTER

## Donaldson

## Fleetguard

**Model: PC210-10M0** | Engine Type: SAA6D107E-1

Air Filter	C 28 073	P532503	AF25129M
Fuel Filter	WK 9104 Z	P551864	FS19770
Fuel Filter	WK 9103 Z	P550774	FF5488
Oil Filter	WP 12 121	P553000	LF9009
Secondary Element	CF 16 008	P532504	AF25130M

**Model: PC300-8** | Engine Type: SAA6D114E-3

Air Filter	C 32 1700/2	P781640	-
Cooling Liquid Filter	WA923/3 (DCA2, 4 units)	P554072	WF2051
Fuel Filter	WK 9104 Z	P551864	FS19770
Fuel Filter	WK 950/21	P550881	FF165
Hydraulics filter	HD 15 001	P550787	HF35360
Oil Filter	WP 12 121	P553000	LF9009
Secondary Element	CF 18 005	P777869	AF25468

## WHEEL LOADER

## MANN-FILTER

## Donaldson

## Fleetguard

**Model: PC210-10M0** | Engine Type: SAA6D107E-1

Air Filter	C 28 073	P532503	AF25129M
Fuel Filter	WK 9052 x	P553201	FS1242B
Fuel Filter	WK 950/21	P550881	FF165
Hydraulics filter	HD 15 174 x	P551210	HF28978
Hydraulics filter	WH 11 001 x	-	-
Oil Filter	W 9133	P550909	LF16006
Secondary Element	CF 16 008	P532504	AF25130M

# SANY

## EXCAVATOR

## MANN-FILTER

## Donaldson

## Fleetguard

**Model: SY215C** | Engine Type: Mitsubishi 4M50

Air Filter	C 28 104	P537876	AF25756
Fuel Filter	WK 1166	P502466	-
Secondary Element	CF 16 007	P537877	AF25523

ADT	MANN-FILTER	Donaldson	Fleetguard
<b>Model: A40G  </b> Engine Type: Volvo D13J			
Air Dryer Cartridge	TB 1396 x	P951413	AD27747
Air Filter	C 36 011/2	P783611	AF26490
Cabin Air Filter	CUD 51 004	P500195	AF26384
Fuel Filter	WK 1080/7 x	P955606	FS19914
Fuel Filter	WDK 11 102/28	P550529	FF5507
Hydraulic Transmission Filter	WH 980/3	P164378	HF6553
Oil Filter	W 11 102/34	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
<b>Model: A45G  </b> Engine Type: Volvo D16J			
Air Filter	C 36 011/2	P783611	AF26490
Cabin Air Filter	CUD 51 004	P500195	AF26384
Fuel Filter	WDK 11 102/28	P550529	FF5507
Fuel Filter	WK 1080/7 x	P955606	FS19914
Hydraulic Transmission Filter	WH 980/3	P164378	HF6553
Hydraulics filter	HD 13 112	P763018	HF35128
Hydraulics filter	HD 13 007	P172465	HF29136
Oil Filter	WP 11 121	P550425	LF3654
Oil Filter	W 11 102/34	P551807	LF3675
Ventilator	C 9004	P528708	AF27819
Ventilator	C 11 008	P500196	AF26455
<b>Model: A60H  </b> Engine Type: Volvo D16J			
Air Filter	C 36 011/2	P783611	AF26490
Cabin Air Filter	CUD 51 004	P500195	AF26384
Fuel Filter	WDK 11 102/28	P550529	FF5507
Fuel Filter	WK 1080/7 x	P551026	FS19914
Oil Filter	W 11 102/34	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





## EXCAVATOR

### MANN-FILTER

### Donaldson

### Fleetguard

#### Model: EC200D/210D | Engine Type: Volvo D5E

Air Filter	C 24 904/2	P778905	AF25748
Cabin Air Filter	CUD 4250	P753389	AF26660
Fuel Filter	WK 1080/7 x	P551026	FS19914
Fuel Filter	WDK 9006	P502536	FF5702
Hydraulics filter	HD 6003	P584251	HF29185
Hydraulics filter	H 13 129	P502494	HF35510
Oil Filter	W 962	P553771	LF4054
Secondary Element	CF 14 145/2	P778906	AF25749
Ventilator	C 9004	P528708	AF27819
Ventilator	C 6006	P502563	AF26675

#### 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
Hydraulics filter	H 13 129	P502494	HF35510
Hydraulics filter	HD 4015 Z	P502540	ST1659
Hydraulics filter	WD 10 004	P556005	HF28751
Oil Filter	W 962	P553771	LF4054
Secondary Element	CF 16 007	P537877	AF25523
Ventilator	C 9004	P528708	AF27819
Ventilator	C 6006	P502563	AF26675

## SOIL COMPACTOR

### MANN-FILTER

### Donaldson

### Fleetguard

#### Model: SD110 | Engine Type: Volvo D5

Air Filter	C 19 009	P780522	AF25957
Fuel Filter	WK 940/19	P554620	FF5709
Fuel Filter	WK 1176 x	P505957	FS19753
Oil Filter	W 962	P553771	LF4054
Oil Filter	W 13 011 x	-	LF680

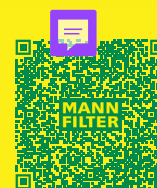
# XCMG

EXCAVATOR	MANN-FILTER	Donaldson	Fleetguard
Model: XE215C   Engine Type: Isuzu 6BG1T			
Air Filter	C 28 104	P537876	AF25756
Oil Filter	W 1223	P550596	LF16045
Secondary Element	CF 16 007	P537877	AF25523

For more information on our product portfolio,  
contact MANN+HUMMEL at  
[mhsg@mann-hummel.com](mailto:mhsg@mann-hummel.com)



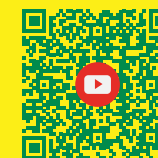
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Catalogue



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