



**Simply intelligent: the new SintDOC diesel particulate filter**  
**Continuous regeneration in top form**



## **MANN+HUMMEL SintDOC – the new standard for DPF systems**

**Modern metal technology reduces running costs and maintenance requirements.**

The new SintDOC from MANN+HUMMEL passive diesel particulate filter system from MANN+HUMMEL is the ultimate solution for nonroad engine applications with medium to high outputs which have continuously high exhaust gas temperatures and power consumption which is as constant as possible. Regeneration runs continuously with the aid of a diesel oxidation catalyst during operation.

The newly developed electronics functions as a datalogger and collects pressure and temperature data and for dual systems as required also for each individual filter. The service display permanently displays the current status of the filter. The completely automatic system from MANN+HUMMEL takes efficiency and economy once more to a new dimension.

### **Three filters set the benchmark**

#### **MANN+HUMMEL always offers the ideal DPF solution**

##### **SintAC**

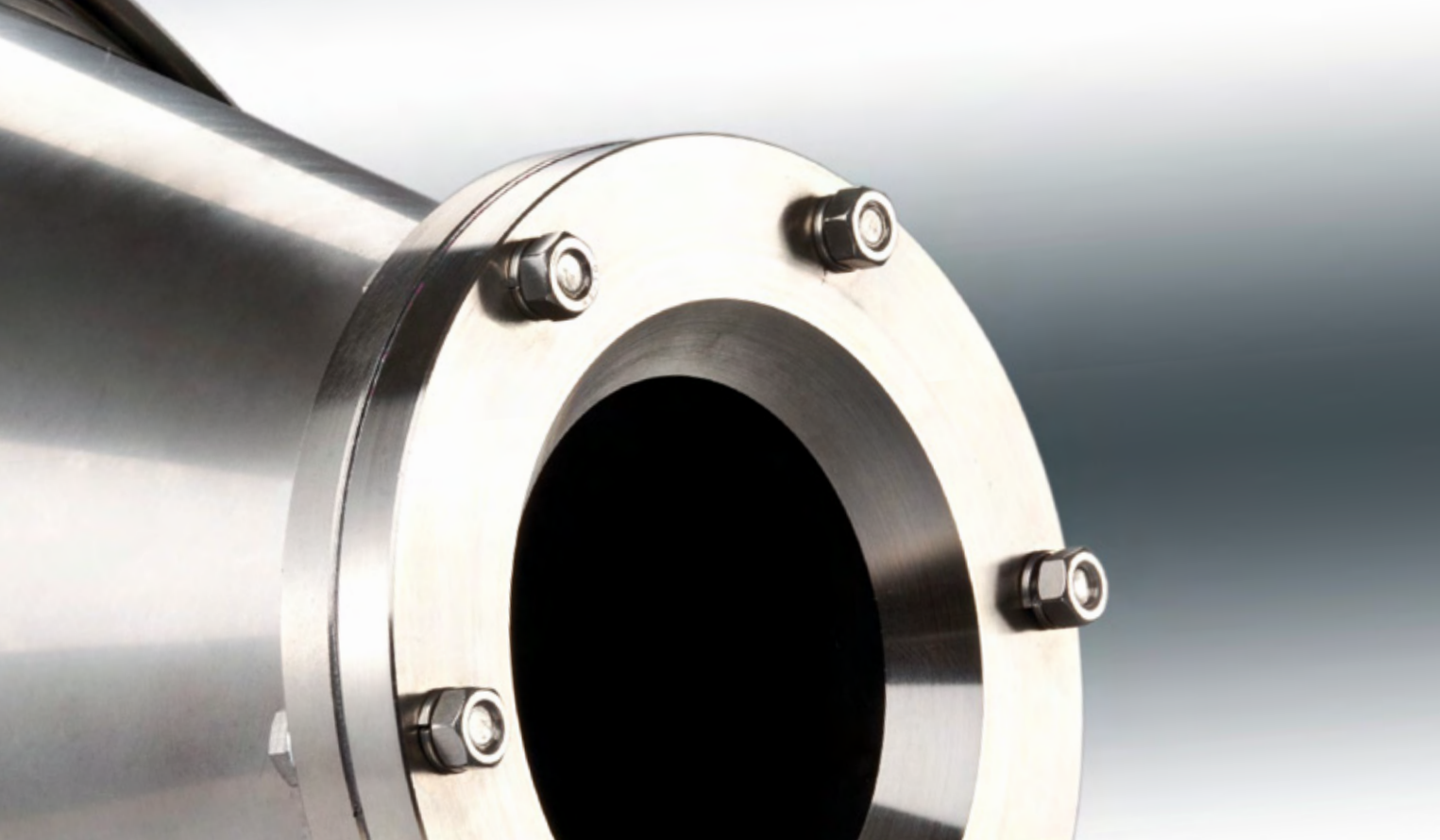
Active system for diesel applications with low to medium output and low to high dynamic change in power consumption such as forklifts, mini-excavators, wheel loaders, compressors, tractors or agricultural machines up to 130 kW.

##### **SintDOC**

Passive system for medium to high outputs with high and as constant as possible power consumption such as dump trucks, mobile excavators and crawler excavators with engines up to 600 kW.

##### **SintROC**

Passive system with additive support for engine outputs from 50 to 600 kW with a dynamic change in power consumption such as with mining vehicles, construction machines and agricultural machines.



#### **Clever control**

The new electronics functions as a datalogger and acquires temperature and pressure data – also for each individual filter in dual systems if required.



#### **Clear display**

The modern display informs the machine user with well readable text and international symbols at all times about the status of the diesel particulate filter for higher reliability and easy scheduling in service.



#### **Easy installation**

The modular configuration of the system enables excellent flexibility for installation in small and also large machines. The electronics does not require a special vehicle voltage and can therefore find universal use.



#### **Quick service**

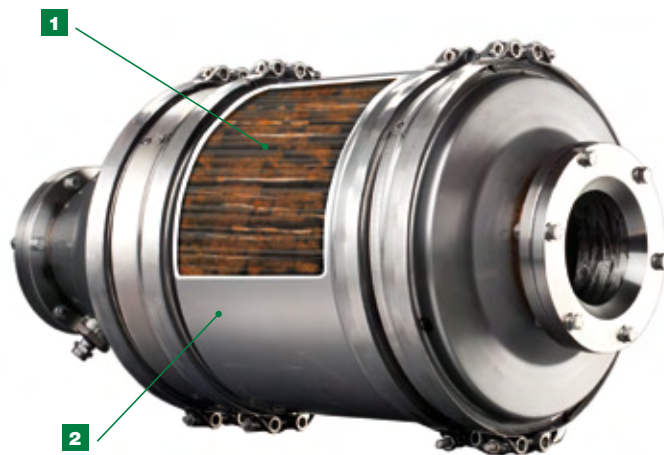
Service master is a software for the installation and maintenance of diesel particulate filters. The software has an intuitive user interface and is easy to use.



## SintDOC: The values add up – inside and outside

### 1 Durable and low-maintenance: the filter element

- Extremely robust metal filter medium – a long life also with heavy duty applications
- Low backpressure through advanced design – minimal fuel loss
- Maximum efficiency – over 99% of diesel particulates are separated
- Permanent monitoring – the current filter status under control at all times
- Quick and easy cleaning – no expensive cleaning chambers required



### 2 Convincing: the housing

- Completely made from stainless steel
- Robust with an extremely long life
- Quick fitting and easy to service
- Flexible use through very compact design

### In a class of its own: SintDOC with clear advantages

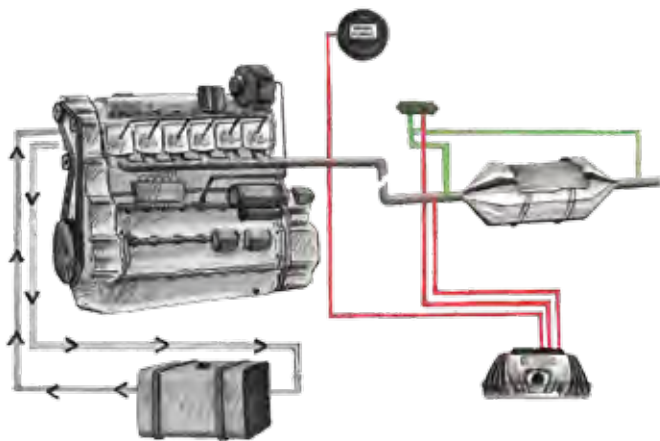
- Ideal solution for engine outputs up to 600 kW
- Fully-automatic, passive regeneration
- Higher engine performance, lower fuel consumption through favourable backpressure characteristics in comparison to ceramic filters
- No downtime caused by regeneration during operation
- CO and HC reduction by over 90% through oxidation catalytic converter fitted upstream
- Separation efficiency above 99% of the particulates in range of 20 to 300 nm
- Very long service interval thanks to extremely high ash holding capacity
- Maximum durability with no need for replacement during the lifetime of the machine



## The difference is the electronics!

### Simply brilliant: The most modern electronics on the DPF market

- Permanent system monitoring of all pressure and temperature data and general functionality and compatibility to the respective application
- Extremely robust cable harness and connector giving best possible protection
- Cable harness easy to adapt to different vehicle lengths
- Use with different vehicle voltages
- Fully modular design for maximum flexibility
- Uncomplicated software updates possible on the vehicle on site without the need to replace hardware
- Display of all required data and servicing actions
- Execution of servicing possible at all times without laptop



### Continuous and effective – exhaust gas treatment with SintDOC

The SintDOC regenerates continuously and is fully automatic. In the oxidation catalyst fitted upstream CO and HC emissions are reduced by more than 90%. Then the metal filter reduces the particulate emissions by more than 99%.\* The NO<sub>2</sub> formed in the oxidation catalyst reacts with the soot in the particulate filter and oxidizes this continually off when an exhaust gas temperature between 260 and 450 °C is reached.

\* Based on a number concentration in the particulate range of 20 to 300 nm



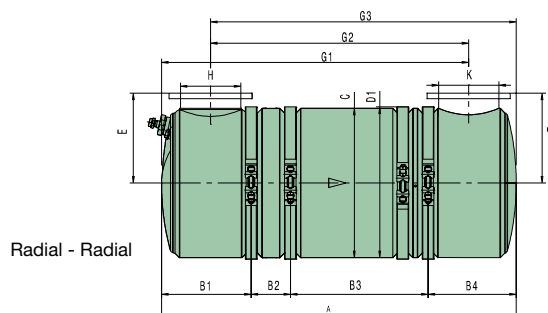
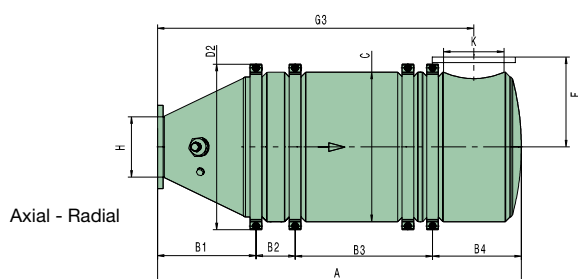
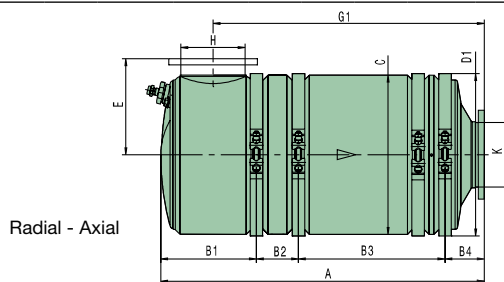
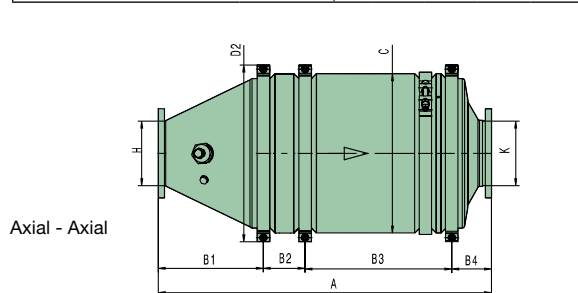
## Dimension table for filter systems

System	Inlet and outlet cone		Dimensions in mm														Weight in kg		
			C	A	B1	B2	B3	B4	C	D1	D2	E	F	G1	G2	G3		H	K
SintDOC 5.4	axial	axial	3"	668	211	84	294	79	319		Ø353.5						Ø130	Ø130	39,2
SintDOC 5.4	axial	axial	6"	741	211	157	294	79	319		Ø353.5						Ø130	Ø130	44,0
SintDOC 5.4	axial	radial	3"	778	211	84	294	190	319		Ø353.5		192			677	Ø130	Ø130	44,2
SintDOC 5.4	axial	radial	6"	850	211	157	294	190	319		Ø353.5		192			749	Ø130	Ø130	49,0
SintDOC 5.4	radial	axial	3"	645	192	84	294	79	319	Ø325		192		544			Ø130	Ø130	42,2
SintDOC 5.4	radial	axial	6"	722	192	157	294	79	319	Ø325		192		617			Ø130	Ø130	47,0
SintDOC 5.4	radial	radial	3"	759	192	84	294	190	319	Ø325		192	192	657	552	654	Ø130	Ø130	47,2
SintDOC 5.4	radial	radial	6"	832	192	157	294	190	319	Ø325		192	192	730	625	726	Ø130	Ø130	52,0
SintDOC 6.5	axial	axial	3"	711	211	84	337	79	319		Ø353.5						Ø130	Ø130	35,7
SintDOC 6.5	axial	axial	6"	783	211	157	337	79	319		Ø353.5						Ø130	Ø130	40,5
SintDOC 6.5	axial	radial	3"	822	211	84	337	190	319		Ø353.5		192			720	Ø130	Ø130	40,7
SintDOC 6.5	axial	radial	6"	893	211	157	337	190	319		Ø353.5		192			792	Ø130	Ø130	45,5
SintDOC 6.5	radial	axial	3"	692	192	84	337	79	319	Ø325		192		587			Ø130	Ø130	38,7
SintDOC 6.5	radial	axial	6"	764	192	157	337	79	319	Ø325		192		659			Ø130	Ø130	43,5
SintDOC 6.5	radial	radial	3"	802	192	84	337	190	319	Ø325		192	192	700	595	697	Ø130	Ø130	43,7
SintDOC 6.5	radial	radial	6"	874	192	157	337	190	319	Ø325		192	192	773	668	769	Ø130	Ø130	48,5
SintDOC 8.1	axial	axial	3"	800	211	84	426	79	319		Ø353.5						Ø130	Ø130	47,7
SintDOC 8.1	axial	axial	6"	872	211	157	426	79	319		Ø353.5						Ø130	Ø130	52,5
SintDOC 8.1	axial	radial	3"	910	211	84	426	190	319		Ø353.5		192			808	Ø130	Ø130	52,7
SintDOC 8.1	axial	radial	6"	982	211	157	426	190	319		Ø353.5		192			881	Ø130	Ø130	57,5
SintDOC 8.1	radial	axial	3"	781	192	84	426	79	319	Ø325		192		676			Ø130	Ø130	50,7
SintDOC 8.1	radial	axial	6"	854	192	157	426	79	319	Ø325		192		749			Ø130	Ø130	55,5
SintDOC 8.1	radial	radial	3"	891	192	84	426	190	319	Ø325		192	192	789	684	786	Ø130	Ø130	55,7
SintDOC 8.1	radial	radial	6"	964	192	157	426	190	319	Ø325		192	192	862	757	859	Ø130	Ø130	60,5
SintDOC 8.0	axial	axial	3"	708	209	82	336	80	343		Ø378.5						Ø130	Ø130	46,2
SintDOC 8.0	axial	axial	6"	784	209	157	336	80	343		Ø378.5						Ø130	Ø130	51,0
SintDOC 8.0	axial	radial	3"	817	209	82	336	188	343		Ø378.5		204			717	130	130	51,7
SintDOC 8.0	axial	radial	6"	892	209	157	336	188	343		Ø378.5		204			792	Ø130	Ø130	56,5
<b>Tolerance</b>				±5	±2	±2	±2	±2	±2	±2	±2	±2	±2	±2	±2	±2	±2	±2	
<b>Flange</b>			Outer diameter: Ø178; boreholes: 6 x 60° x Ø10, bolt pattern Ø159																

SintDOC 8.1 and 10.2 are also available as dual systems



System	Inlet and outlet cone		Dimensions in mm															Weight in kg	
			C	A	B1	B2	B3	B4	C	D1	D2	E	F	G1	G2	G3	H		K
SintDOC 8.0	radial	axial	3"	685	186	82	336	80	343	Ø350		204		584			Ø130	Ø130	50,1
SintDOC 8.0	radial	axial	6"	761	186	157	336	80	343	Ø350		204		660			Ø130	Ø130	54,9
SintDOC 8.0	radial	radial	3"	794	186	82	336	188	343	Ø350		204	204	694	593	693	Ø130	Ø130	55,6
SintDOC 8.0	radial	radial	6"	869	186	157	336	188	343	Ø350		204	204	769	668	768	Ø130	Ø130	60,4
SintDOC 10.2	axial	axial	3"	797	209	82	426	80	343		Ø378.5						Ø130	Ø130	50,7
SintDOC 10.2	axial	axial	6"	873	209	157	426	80	343		Ø378.5						Ø130	Ø130	55,5
SintDOC 10.2	axial	radial	3"	905	209	82	426	188	343		Ø378.5		204			805	Ø130	Ø130	56,2
SintDOC 10.2	axial	radial	6"	980	209	157	426	188	343		Ø378.5		204			881	Ø130	Ø130	61,0
SintDOC 10.2	radial	axial	3"	774	186	82	426	80	343	Ø350		204		673			Ø130	Ø130	54,6
SintDOC 10.2	radial	axial	6"	849	186	157	426	80	343	Ø350		204		748			Ø130	Ø130	59,4
SintDOC 10.2	radial	radial	3"	882	186	82	426	188	343	Ø350		204	204	782	681	781	Ø130	Ø130	60,1
SintDOC 10.2	radial	radial	6"	958	186	157	426	188	343	Ø350		204	204	858	757	857	Ø130	Ø130	64,9
<b>Tolerance</b>				±5	±2	±2	±2	±2	±2	±2	±2	±2	±2	±5	±5	±5	±2	±2	
<b>Flange</b>			Outer diameter: Ø178; boreholes: 6 x 60° x Ø10, bolt pattern Ø159																



# System solutions to reduce emissions



## SintAC diesel particulate filter

The product selling worldwide eliminates the discharge of particulates in engines up to 130 kW and therefore satisfies current and future emission legislations. Special features are life time filter elements, high ash holding capacity and considerably lower running costs in comparison to conventional diesel particulate filters.



## SintROC diesel particulate filter

Passive DPF system using additive technology for engine applications from 50 to 600 kW – particularly suitable for mining, construction and agricultural machines with changing operation conditions. The end user benefits from the same advantages as with the SintAC.



## SintDOC diesel particulate filter

Compact and robust system designed specially for engines with high outputs (up to 600 kW). Regeneration is carried out continuously during operation with the aid of a diesel oxidation catalyst (DOC). The user advantages of the passive SintDOC DPF system correspond to those of the active SintAC.



## Fuel pre-filter

Increased fuel injection pressures also lead to greater demands on fuel filtration with regard to water and particle separation. Injection pump manufacturers have defined the corresponding specifications. The PreLine preliminary fuel filter from MANN+HUMMEL achieves a water separation efficiency of at least 93% acc. to ISO 4020. Fuel pre-filtration protects modern injection systems against damage caused by corrosion and abrasion. The reduction of wear extends the lifetime of the engine and also reduces emissions.



## Centrifuges

This product from MANN+HUMMEL for oil filtration efficiently separates contaminants such as soot and metal particles from the lube oil of diesel engines. This extends the service life of the oil, reduces running costs and thus enables the maximum period of use for vehicles with less downtime. Centrifuges also prevent unnecessary engine wear and so contribute towards the reduction of diesel engine emissions.



## Crankcase ventilation

The MANN+HUMMEL ProVent series for open and closed crankcase ventilation is renowned the world over. This is due to its highly efficient oil separation, flexible use through compact design and low running costs through reduced oil consumption. Also convincing are the high operational reliability achieved by safeguarding against excessive crankcase pressure and the easy servicing.



## Air cleaners

MANN+HUMMEL air cleaners are characterised by high separation efficiency, long service life and high dust holding capacity. Users also appreciate advantages such as flexible use through compact design, low running costs achieved by low pressure drop, and high operational reliability achieved by reliable seals. A further efficient side-effect which comes with the product is the problem-free recycling of the metal-free filter elements.

