



VERT[®]

Data-Certificate

Product	TWPF		
Manufacturer	Diesel Technik; represented by CTK Abgastechnik		
VERT-Test-Number	B128/04.03		
Properties		Reduction	Penetration
	Reduction of Particle Number PN 20-300 nm	98.9 %	0.01
	Reduction of Particle Mass PM	92 %	0.08
	Reduction of Smoke at free acceleration	97 %	0.03
Final Assessment	<p>Acc. to VERT-criteria this filter is suitable for short duration use (Indoors. Loading-Unloading, Workshop), as long as the exhaust gas flow remains below 300 kg/h continuous and the temperature below 600 °C. It is recommended for construction machines, onroad vehicles and genset engines, if the sulfur content of the fuels is below 50 ppm. The properties of this device have been investigated and certified by the Swiss exhaust gas emission laboratory AFHB/Biel acc. to the technical standard SN 277206. The VERT Test-Number B128/04.03 must show up at the specification plate of the filter.</p>		
Effects	<p>The particle reduction effect corresponds to the penetration factor mentioned above independent on the particle generation of the engine e.g. particle emission of any engine will be reduced by at least 99 %. The device has not influence on engine-out NOx. CO und HC are reduced by approx. 10 %. CO₂ and fuel consumption are slightly increased by < 1% due to some backpressure of the device if soot loaded, which is however controlled and limited to max.200 mbar.</p>		
Benefit/Cost	<p>Since this device is not only eliminating carcinogenic nanosize soot particles but also other toxic substances like carcinogenic PAH the health benefit can be 10 times higher than to actual cost of the device depending on the time the device is used. In addition global warming effect by black carbon emission is reduced.</p>		

Certified by the VERT[®]-Scientific Committee

12.2.2013

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