

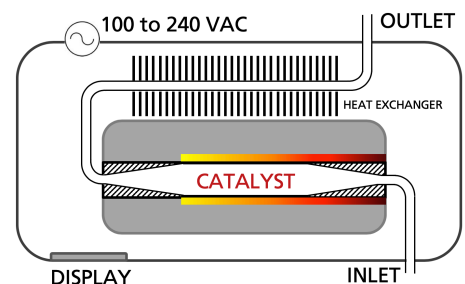
• °Catalytic Stripper

MODEL CS03

The °Catalytic Stripper (CS) is a heated catalytic element used to remove the semi-volatile fraction of an aerosol

The exhaust from various fossil fuels and combustion processes contain a complex mixture of solid particles and semi-volatile material found in both the particle and the vapor phase. Physical and chemical characterization of these complex aerosols gives a better understanding of potential health effects, assessing alternative combustion technologies and emission control devices, and the impact of new fuel and lubricant formulations on emissions.

All of these measurements and more with our PMP compliant* CS technology!



FEATURES AND BENEFITS

- Robust measurement of solid material without re-nucleation artefacts
- High hydrocarbon oxidation efficiency
- Portable and easy-to-use
- No consumable parts
- Remote data logging via USB

APPLICATIONS

- Diesel/gasoline exhaust measurement*
- Ideal for multiple CPC configurations
- Ambient solid particle concentrations
- Aircraft turbine measurement**
- Black carbon (BC) measurement

*The CS can be used as part of a full VPR configuration complying to the GPPE particle measurement program (PMP) for Euro 5 and 6 regulations

**Use of a CS is specified by the SAE Aerospace Recommended Practice(ARP) 6320

°Catalytic Instruments
hot technologies • clean solutions

Tel: +49 8031 901 777-0 • Fax: +49 8031 901 777-5 • email: sales@catalytic-instruments.com

© Catalytic Instruments GmbH & Co.KG • Zellerhornstrasse 7 • 83026 Rosenheim • Germany

● Specification ●

MODEL CS03

Inlet flowrate
3 L/min (at STP)

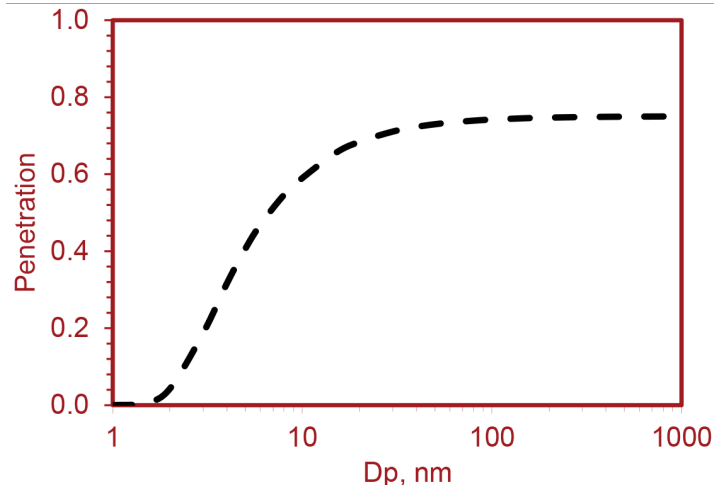
Oxidation efficiency
> 99% of Propane (g)

Solid particle loss
< 40% at 100 nm

Operating gas temperature
350°C

Outlet temperature
Ambient + 25°C

Power
100V – 240V AC, 50/60 Hz, 210 W max, 40 W nominal



Typical solid particle penetration curve

TO ORDER Model CS03

Specify	Description	H x W x D (mm)	Weight (kg)
- RM	Rack Mount	145 x 444 x 245	7.6**
OPTIONAL			
- HOT	Exhaust temperature range 180 – 230°C		
- CC	Custom size for oxidation catalyst		

**weights are approximate and subject to change

JAN 2022

References

- Abdul-Khalek, I.S.; Kittelson, D.B. (1995). Real time measurement of volatile and solid exhaust particles using a catalytic stripper. Society of Automotive Engineers, 950236.
- Swanson, J.; Kittelson, D. (2010). Evaluation of Thermal Denuder and Catalytic Stripper Methods for Solid Particle Measurements. J. Aerosol Science, 41:12, 1113 – 1122
- Amanatidis, S.; Ntziachristos, L.; Giechaskiel, B.; Katsaounis, D.; et al. (2013). Evaluation of an oxidation catalyst ("catalytic stripper") in eliminating volatile material from combustion aerosol. J. Aerosol Science, 57, 144-155

All devices are CE marked and RoHS compliant

Catalytic Instruments
hot technologies • clean solutions

Tel: +49 8031 901 777-0 • Fax: +49 8031 901 777-5 • email: sales@catalytic-instruments.com

© Catalytic Instruments GmbH & Co.KG • Zellerhornstrasse 7 • 83026 Rosenheim • Germany

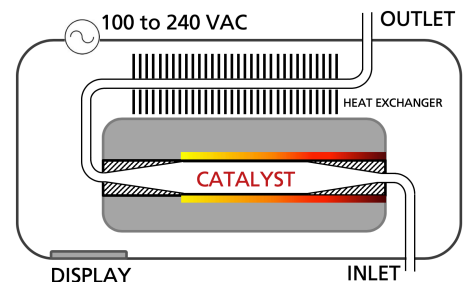
• °Catalytic Stripper

MODEL CS08
CS10

The °Catalytic Stripper (CS) is a heated catalytic element used to remove the semi-volatile fraction of an aerosol

The exhaust from various fossil fuels and combustion processes contain a complex mixture of solid particles and semi-volatile material found in both the particle and the vapor phase. Physical and chemical characterization of these complex aerosols gives a better understanding of potential health effects, assessing alternative combustion technologies and emission control devices, and the impact of new fuel and lubricant formulations on emissions.

All of these measurements and more with our PMP compliant* CS technology!



FEATURES AND BENEFITS

- Robust measurement of solid material without re-nucleation artefacts
- High hydrocarbon oxidation efficiency
- Portable and easy-to-use
- No consumable parts
- Remote data logging option via USB

APPLICATIONS

- Diesel/gasoline exhaust measurement*
- Ideal for use with EEPS™ and DMS500
- Ambient solid particle concentrations
- Aircraft turbine measurement**
- Black carbon (BC) measurement

*The CS can be used as part of a full VPR configuration complying to the GPRE particle measurement program (PMP) for Euro 5 and 6 regulations

**Use of a CS is specified by the SAE Aerospace Recommended Practice(ARP) 6320

°Catalytic Instruments
hot technologies • clean solutions

Tel: +49 8031 901 777-0 • Fax: +49 8031 901 777-5 • email: sales@catalytic-instruments.com

© Catalytic Instruments GmbH & Co.KG • Zellerhornstrasse 7 • 83026 Rosenheim • Germany

● Specification ●

MODEL CS08
CS10

Inlet flowrate

8 L/min or 10 L/min (at STP)

Oxidation efficiency

> 99% of Propane (g)

Solid particle loss

< 40% at 100 nm

Operating gas temperature

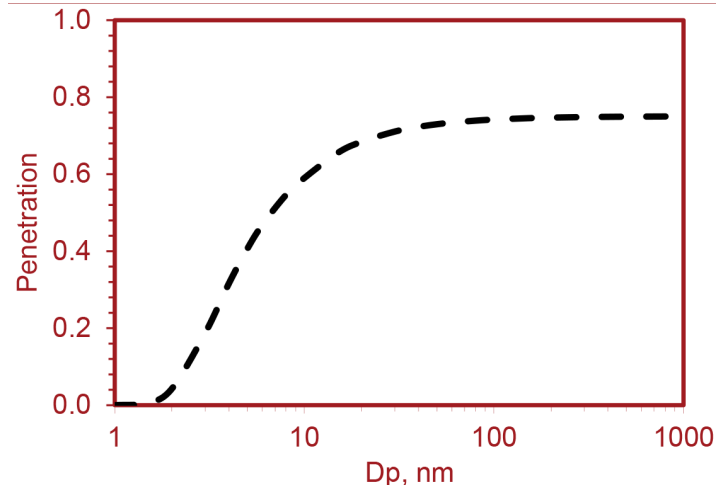
350°C

Outlet temperature

Ambient + 25°C

Power

100V – 240V AC, 50/60 Hz, 210 W max, 40 W nominal



Typical solid particle penetration curve

TO ORDER Model CS08/CS10

Specify	Description	H x W x D (mm)	Weight (kg)
- RM	Rack Mount	145 x 444 x 245	7.6**
OPTIONAL			
- HOT	Exhaust temperature range 180 – 230°C		
- CC	Custom size for oxidation catalyst		

**weights are approximate and subject to change

JAN 2022

References

- Abdul-Khalek, I.S.; Kittelson, D.B. (1995). Real time measurement of volatile and solid exhaust particles using a catalytic stripper. Society of Automotive Engineers, 950236.
- Swanson, J.; Kittelson, D. (2010). Evaluation of Thermal Denuder and Catalytic Stripper Methods for Solid Particle Measurements. J. Aerosol Science, 41:12, 1113 – 1122
- Amanatidis, S.; Ntziachristos, L.; Giechaskiel, B.; Katsaounis, D.; et al. (2013). Evaluation of an oxidation catalyst ("catalytic stripper") in eliminating volatile material from combustion aerosol. J. Aerosol Science, 57, 144-155

All devices are CE marked and RoHS compliant

°Catalytic Instruments
hot technologies • clean solutions

Tel: +49 8031 901 777-0 • Fax: +49 8031 901 777-5 • email: sales@catalytic-instruments.com

© Catalytic Instruments GmbH & Co.KG • Zellerhornstrasse 7 • 83026 Rosenheim • Germany

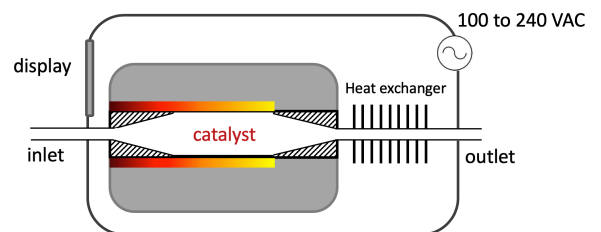
• °Catalytic Stripper

MODEL CS015

The °Catalytic Stripper (CS) is a heated catalytic element used to remove the semi-volatile fraction of an aerosol

The exhaust from various fossil fuels and combustion processes contain a complex mixture of solid particles and semi-volatile material found in both the particle and the vapor phase. Physical and chemical characterization of these complex aerosols gives a better understanding of potential health effects, assessing alternative combustion technologies and emission control devices, and the impact of new fuel and lubricant formulations on emissions.

All of these measurements and more with our PMP compliant* CS technology!



FEATURES AND BENEFITS

- Robust measurement of solid material without re-nucleation artefacts
- High hydrocarbon oxidation efficiency
- Portable and easy-to-use
- No consumable parts
- Remote data logging option via USB

APPLICATIONS

- Diesel/gasoline exhaust measurement*
- Ideal for use with SMPS™ and CPCs
- Ambient solid particle concentrations
- Aircraft turbine measurement**
- Black carbon (BC) measurement

*The CS can be used as part of a full VPR configuration complying to the GPRE particle measurement program (PMP) for Euro 5 and 6 regulations

**Use of a CS is specified by the SAE Aerospace Recommended Practice(ARP) 6320

°Catalytic Instruments
hot technologies • clean solutions

Tel: +49 8031 901 777-0 • Fax: +49 8031 901 777-5 • email: sales@catalytic-instruments.com

© Catalytic Instruments GmbH & Co.KG • Zellerhornstrasse 7 • 83026 Rosenheim • Germany

● Specification ●

MODEL CS015

Inlet flowrate

1.5 L/min (at STP)

Oxidation efficiency

> 99% of Propane (g)

Solid particle loss

< 40% at 100 nm

Operating gas temperature

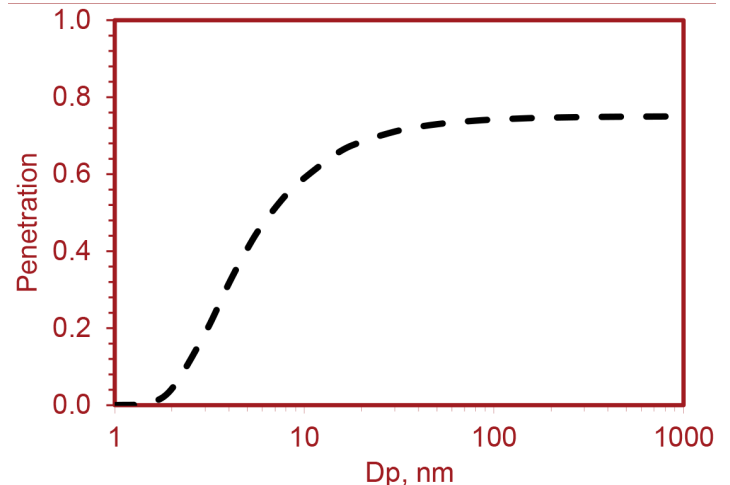
350°C

Outlet temperature

Ambient + 25°C

Power

100V – 240V AC, 50/60 Hz, 210 W max, 40 W nominal



Typical solid particle penetration curve

TO ORDER Model CS015

Specify	Description	H x W x D (mm)	Weight (kg)
- RM	Rack Mount	145 x 251 x 305	5.4**
OPTIONAL			
- HOT	Exhaust temperature range 180 – 230°C		
- CC	Custom size for oxidation catalyst		

**weights are approximate and subject to change

JAN 2022

References

- Abdul-Khalek, I.S.; Kittelson, D.B. (1995). Real time measurement of volatile and solid exhaust particles using a catalytic stripper. Society of Automotive Engineers, 950236.
- Swanson, J.; Kittelson, D. (2010). Evaluation of Thermal Denuder and Catalytic Stripper Methods for Solid Particle Measurements. J. Aerosol Science, 41:12, 1113 – 1122
- Amanatidis, S.; Ntziachristos, L.; Giechaskiel, B.; Katsaounis, D.; et al. (2013). Evaluation of an oxidation catalyst ("catalytic stripper") in eliminating volatile material from combustion aerosol. J. Aerosol Science, 57, 144-155

All devices are CE marked and RoHS compliant

°Catalytic Instruments
hot technologies • clean solutions

Tel: +49 8031 901 777-0 • Fax: +49 8031 901 777-5 • email: sales@catalytic-instruments.com

© Catalytic Instruments GmbH & Co.KG • Zellerhornstrasse 7 • 83026 Rosenheim • Germany

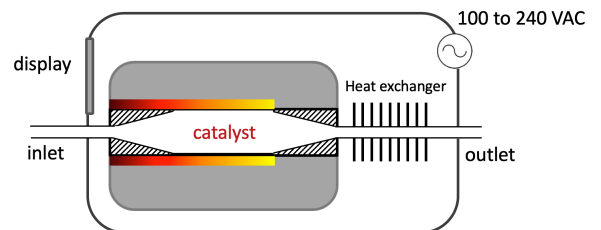
• °Catalytic Stripper

MODEL CS010

The °Catalytic Stripper (CS) is a heated catalytic element used to remove the semi-volatile fraction of an aerosol

The exhaust from various fossil fuels and combustion processes contain a complex mixture of solid particles and semi-volatile material found in both the particle and the vapor phase. Physical and chemical characterization of these complex aerosols gives a better understanding of potential health effects, assessing alternative combustion technologies and emission control devices, and the impact of new fuel and lubricant formulations on emissions.

All of these measurements and more with our PMP compliant* CS technology!



FEATURES AND BENEFITS

- Robust measurement of solid material without re-nucleation artefacts
- High hydrocarbon oxidation efficiency
- Portable and easy-to-use
- No consumable parts
- Remote data logging option via USB

APPLICATIONS

- Diesel/gasoline exhaust measurement*
- Ideal for use with Engine CPCs
- Ambient solid particle concentrations
- Aircraft turbine measurement**
- Black carbon (BC) measurement

*The CS can be used as part of a full VPR configuration complying to the GPRE particle measurement program (PMP) for Euro 5 and 6 regulations

**Use of a CS is specified by the SAE Aerospace Recommended Practice(ARP) 6320

°Catalytic Instruments
hot technologies • clean solutions

Tel: +49 8031 901 777-0 • Fax: +49 8031 901 777-5 • email: sales@catalytic-instruments.com

© Catalytic Instruments GmbH & Co.KG • Zellerhornstrasse 7 • 83026 Rosenheim • Germany

● Specification ●

MODEL CS010

Inlet flowrate

1.0 L/min (0.035 cfm) at STP

Oxidation efficiency

> 99% of Propane (g)

Solid particle loss

< 40% at 100 nm

Operating gas temperature

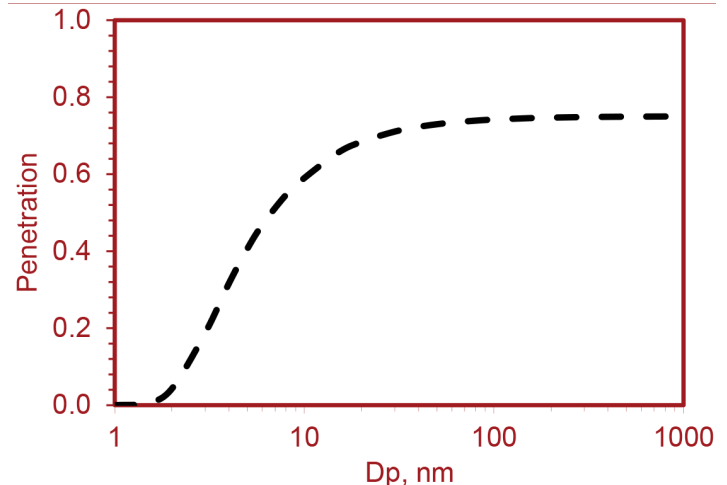
350°C

Outlet temperature

Ambient + 25°C

Power

100V – 240V AC, 50/60 Hz, 210 W max, 40 W nominal



Typical solid particle penetration curve

TO ORDER Model CS010

Specify	Description	H x W x D (mm)	Weight (kg)
- RM	Rack Mount	145 x 251 x 305	5.4**
OPTIONAL			
- HOT	Exhaust temperature range 180 – 230°C		
- CC	Custom size for oxidation catalyst		

**weights are approximate and subject to change

JAN 2022

References

- Abdul-Khalek, I.S.; Kittelson, D.B. (1995). Real time measurement of volatile and solid exhaust particles using a catalytic stripper. Society of Automotive Engineers, 950236.
- Swanson, J.; Kittelson, D. (2010). Evaluation of Thermal Denuder and Catalytic Stripper Methods for Solid Particle Measurements. J. Aerosol Science, 41:12, 1113 – 1122
- Amanatidis, S.; Ntziachristos, L.; Giechaskiel, B.; Katsaounis, D.; et al. (2013). Evaluation of an oxidation catalyst ("catalytic stripper") in eliminating volatile material from combustion aerosol. J. Aerosol Science, 57, 144-155

All devices are CE marked and RoHS compliant

°Catalytic Instruments
hot technologies • clean solutions

Tel: +49 8031 901 777-0 • Fax: +49 8031 901 777-5 • email: sales@catalytic-instruments.com

© Catalytic Instruments GmbH & Co.KG • Zellerhornstrasse 7 • 83026 Rosenheim • Germany