

Isokinetic Probe CP5





# Cold Probe CP5

## Main characteristics

The CP5 is the revision of the classic not-heated sampling probe for the isokinetic sampling of particulate matter in stack emission application.

The CP5 design and construction follow the philosophy of the HP5 : easy and practical to use on the stack.

The CP5 is fully realized in AISI316 and is supplied including the AISI316 inner tube, thermocouple and Pitot Type "S" terminal.

The absence of external parts in combination with the particular design of the slide device allows this probe to rotate on its axis for the swirl angle evaluation, as requested by the EN16911.

The removable Pitot terminal and the retractile thermocouple tip avoid to damage those delicate elements during transportation. All the internal tubes are easily replaceable to ease the maintenance.



Also, the handling placed on the rear block of the probe, protect the connections and can be used to lift the probe on the stack sampling point.



Built in accordance with the main international methods such as :

- EN UNI 16911 velocity and flowrate in ducts
- EN ISO 13284-1/US EPA Method 17 for particulate matter determination in low concentrations

All the elements exposed to stack fumes are realized entirely in AISI 316 stainless steel allowing the CP5 to operate at temperatures up to 600°C.

Available lengths :

101 102 1011 CP5 Probe – Length 0.5 m

101 102 1012 CP5 Probe – Length 1.0 m

101 102 1013 CP5 Probe – Length 1.5 m

101 102 1014 CP5 Probe – Length 2.0 m

101 102 1015 CP5 Probe – Length 2.5 m

101 102 1016 CP5 Probe – Length 3.0 m

## Gooseneck and nozzles

AISI316 gooseneck for interchangeable nozzles. Realized in AISI316 stainless steel, the gooseneck and the nozzles are built in compliance with the geometries specified in the EN13284 standard.

101 102 2081 AISI316 Gooseneck for nozzles



AISI316 Nozzles for gooseneck :

101 102 2082 AISI 316 nozzle diam. 4

101 102 2083 AISI 316 nozzle diam. 5

101 102 2084 AISI 316 nozzle diam. 6

101 102 2085 AISI 316 nozzle diam. 7

101 102 2086 AISI 316 nozzle diam. 8

101 102 2087 AISI 316 nozzle diam. 9

101 102 2088 AISI 316 nozzle diam. 10

101 102 2089 AISI 316 nozzle diam. 11

101 102 2090 AISI 316 nozzle diam. 12

101 102 2091 AISI 316 nozzle diam. 14

101 102 2092 AISI 316 nozzle diam. 15

101 102 2093 AISI 316 nozzle diam. 16

## Particulate Matter Filterholder

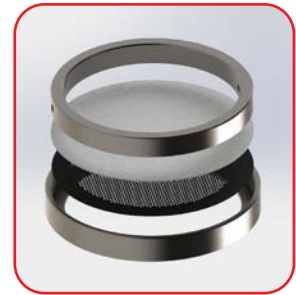
AISI316 Filterholder for 47mm flat membranes.  
The filter membrane is placed inside the filterholder cassette which makes it very fast and practical to change.

Geometry and wide tight surface decrease the risk of accidental filter breaking.

**101 102 1430** AISI316 filterholder d. 47mm  
including filter cassette and tools

Accessories and spare parts for 47 mm filterholder :

- 101 102 1411** Spare cassette d. 47mm  
Compatible with all filterholders d.47mm
- 101 102 1432** Set of 5 AISI316 grids for filter cassette
- 101 102 1450** Set of 10 Viton gaskets (Tmax 200°C)
- 101 102 1451** Set of 10 GF gaskets (Tmax 350°C)
- 101 102 1452** Set of 10 High temp gaskets (Tmax 850°C)



## 2-Stages Impactor

Realized in compliance to the ISO 23210 standard for the simultaneous collection of the fractions "greater than PM10, between PM2.5 and PM10 and lower than PM2.5. The impactor body and stages are made in titanium and requires the titanium filterholder, sold separately, to complete the assembly  
The 2-Stages impactor is supplied with the calculation sheet for the working flowrate determination.

**101 102 1501** 2-stages impactor for PM10/2.5  
including hollow punch for stage 1-2 filters

**101 102 1410** 47mm Titanium Filterholder  
required to fully assemble the impactor

**101 102 2032** Pitot terminal extension for impactor  
to allow dP meausure on the impactor sampling point  
(specify which Pitot terminal will be used)



## Consumables\*

- 110 101 1003** 47mm GMA grade binderless glass fiber filters - 100 pcs
- 110 101 1010** 47mm MG227 grade w/ binder glass fiber filters - 100 pcs
- 110 101 1013** 47mm QMS grade binderless quartz fiber filters - 50 pcs
- 110 101 1019** 47mm MK360 grade binderless quartz fiber filters - 25 pcs
- 110 102 1003** Antistatic Plastic Capsule for 47mm filters transport



*\* other sampling media available, please contact your local distributor for the complete list*

## Slide and lock device

With this device, moving the heated probes, even the longest, along the stack axis, isn't a problem anymore. It smoothly moves on three rollers without friction but grants at the same time position stability and isolation from stack fumes.

Completely built in anodized aluminum, the overall weight is less than 1.5 kgs.

The fixing flange can turn on the probe axis, allowing to align it correctly, independently from the holes of the stack port.

This device is compatible with stack ports from 4" to 5" (DN80, DN100 and DN125).



**101 102 2401 Slide device with rollers**

## Athermal Box for impingers

It's the classic cooling and condensing device and can hold up to 6 impingers.

It's built in AISI304 stainless steel and aluminum while the impinger cooling bath is made in polypropilene.

The cover is made to protect and insulate the box for a safe and practical transport back to the laboratory.

**101 102 1201 Athermal Box for impingers**

**101 103 2001 Mousse and support for 500cc impingers**



## Impingers

Different types of impingers are available for the condensation device, from the classic glass impingers to the new polycarbonate impingers, realized by Dado lab to satisfy the increasing request of safety and ruggedness requests coming from stack testers and laboratories.

PC impinger very resistant to shocks which may occur during transport or use in the field, grants a superior tightness and are safer to handle by technicians.

The upper/lower caps are made in polyethilene, the hosebarbs are made in polypropilene, impinger body is made of rugged and transparent polycarbonate and the tube is made in PTFE. To increase the bubbles generation in the solution, practical and replaceable polyetilene frits are available.

Glass Impingers :

<b>101 103 2010</b>	<b>500cc Free tube Impinger</b>
<b>101 103 2011</b>	<b>500cc Plate Impinger</b>
<b>101 103 2012</b>	<b>GL25/GL18 elbow connector</b>
<b>101 103 2013</b>	<b>90° Outlet gas connector</b>

Polycarbonate Impingers :

<b>101 103 2017</b>	<b>500cc Polycarbonate Impinger</b>
<b>101 103 2018</b>	<b>250cc Polycarbonate Impinger</b>
<b>101 103 2020</b>	<b>Pack of 5 porous septum</b>

