



# X-TDP

**X-TDP** (TWIN DILUTION PROBE) is the last frontier of the gas sampling in stationary source emissions and process!

Born from experience in the field and with the help of whom daily, it is faced with the need to operate with equipment that simplifies the collection of gas and allow to carry out several activities at the same time. Nonetheless, this solution allows a savings on investment compared to the systems currently available on the market.

The project is compliant and summarizes all the standards on non-isokinetic sampling.

**Titanium!** **X-TDP** is produced as a variant in this material, mandatory for sampling of acids and other chemically similar substances.

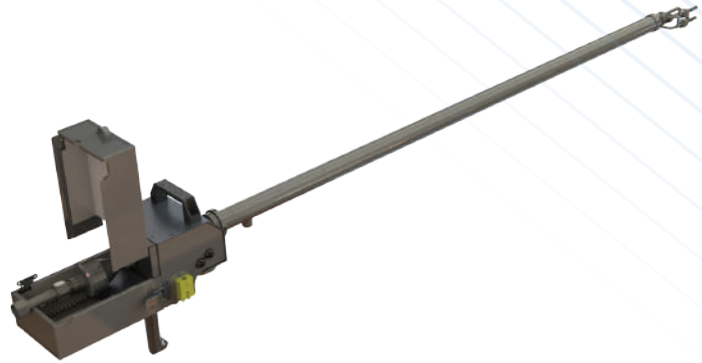
Unique in the market! Double sampling line with two divided dilution chambers. **X-TDP** can be used with two different dilution systems. Furthermore, in case of use with FID analyzer, this, by intrinsic features, can not be connected in common to other suction lines.

Indeed, FID analysis chamber suffers from the smallest variations of pressure that can slightly change the combustion of the hydrogen flame.

Particulate membrane filter. Device protection downstream (analyzers) or entry into the bubblers of undesirable solid bodies are ensured by practical 25 mm external filter holders.

Possibility to set sampling temperature.

Unlike self-regulating systems that suffer from problems due to hysteresis and temperature changes environment, the use of two PID electronic regulators (on the sampling tube and on the dilution chamber / portafilter) ensure constant heating in all weather conditions.



According to CEN/TS 13649 standard (VOC sampling on vial) the uncertainty of temperature regulation must be  $<2.5\text{ K}$ , really difficult to reach them with self-regulating systems.

Total absence of possible "cold points". The choice of heating the sampling probe is due to the absolute necessity and obligation of ensure that the gas does not under go temperature decreases with consequent alteration of the sample as well as formation of possible crystallizations that can damage the same probe.

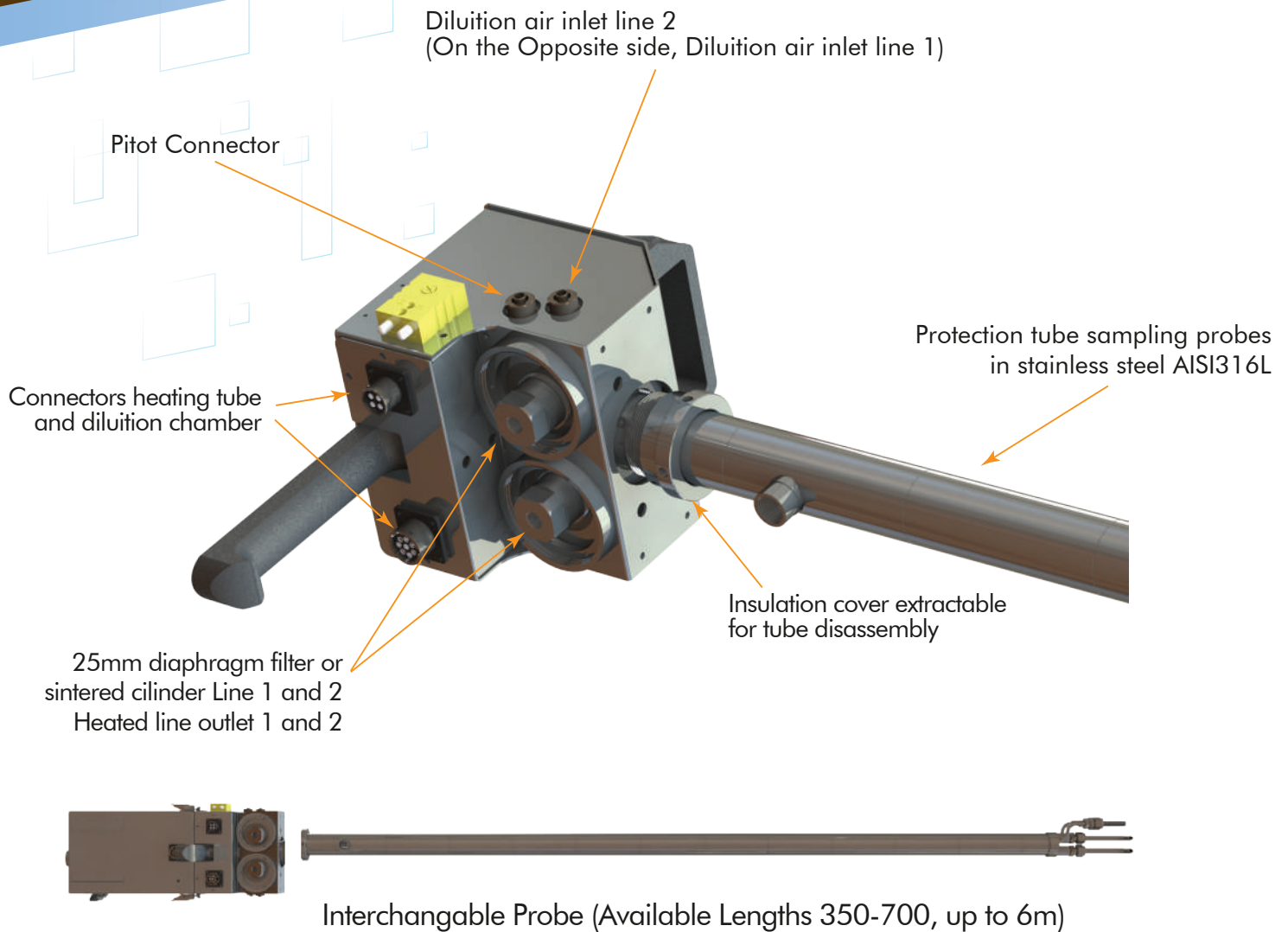
Housing for connecting two heated lines.

As an option 2 PID electronic temperature controllers are available.

## Features

- ⊗ Double line sampling probe and double dilution chamber;
  - ⊗ Also available in AISI316L stainless steel;
  - ⊗ Suction lines internal diameter 6 mm;
  - ⊗ Removable probe terminal part for internal cleaning;
  - ⊗ Sample filtration with 25 mm diaphragm;
  - ⊗ Setting the heating temperature up to a maximum of  $200\text{ }^{\circ}\text{C}$ ;
  - ⊗ PID electronic regulators with low temperature and display alarm through luminous led;
  - ⊗ Outlet connection for heated lines with external pipe of  $\varnothing 6\text{ mm}$  (other diameters upon request);
  - ⊗ Probe containment case and integrated heating management system (IP68 connectors for external connections);
  - ⊗ Standard probe lengths: 350 and 700 mm (others on request);
  - ⊗ Available option with single line (X-STD);
  - ⊗ Available power supplies: 230VAC | 110VAC.
- ✔ Suitable for all sampling situations;
  - ✔ Available in Titanium and AISI316L;
  - ✔ Controlled temperature with PID electronic controllers;
  - ✔ No cold points!



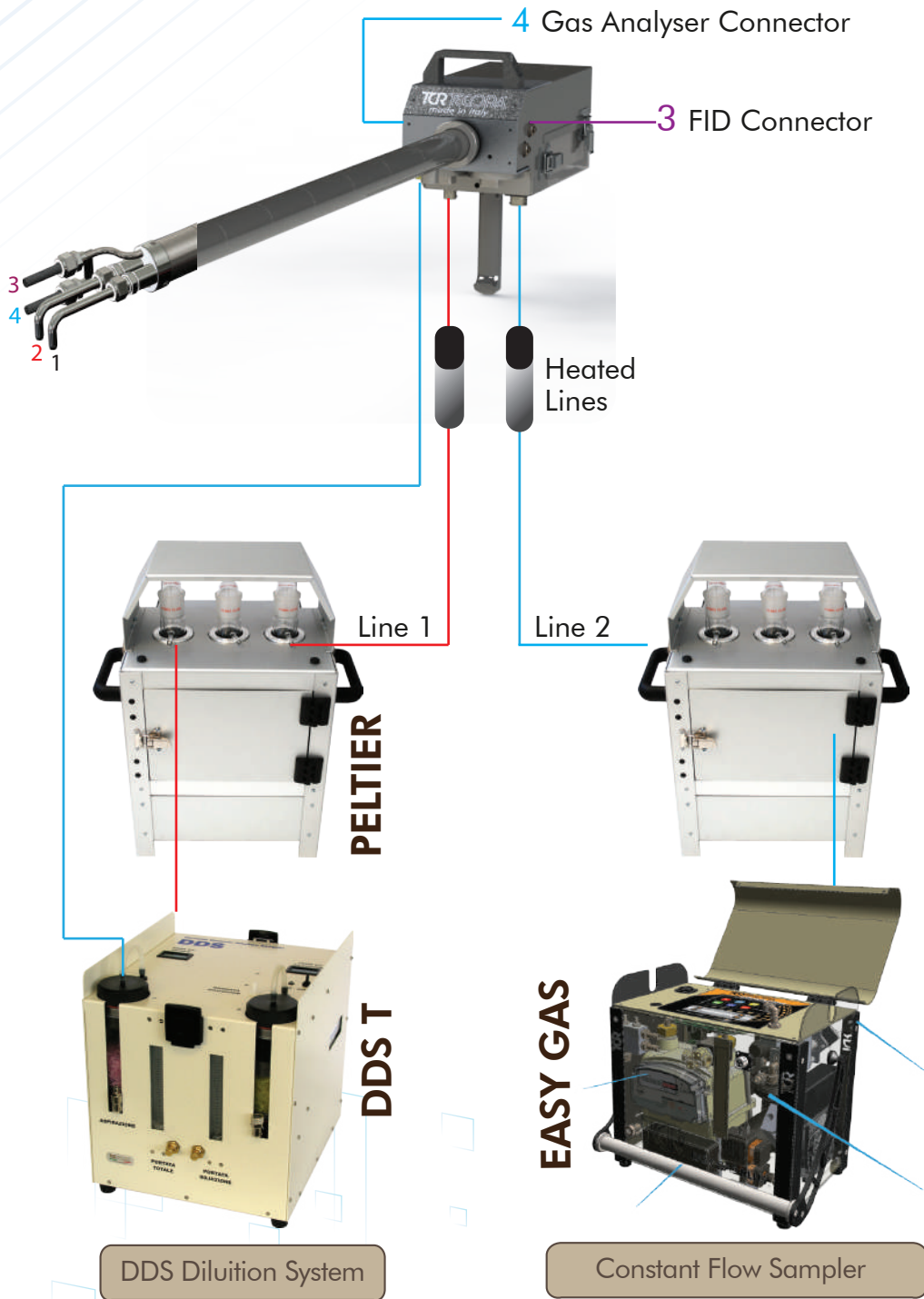


## Technical Features

<b>Probe</b>	Titanium Gd2 C or AISI 316L stainless steel
<b>Dilution chamber</b>	Titanium Gd2 C or AISI 316L stainless steel
<b>Sample filter</b>	Membrane 25 mm
<b>Collection tube length</b>	350 or 700 mm (others on request)
<b>Temperature regulation tube and dilution chamber</b>	Digitale Controllo PID
<b>Max. process temp.</b>	500° C
<b>Max. probe temp.</b>	200° C
<b>Supply</b>	230 VAC 50-60Hz   110 VAC 50-60 Hz
<b>Probe dimensions</b>	Total lenght 200 mm + sampling probe
<b>Suitcase size</b>	450 x 330 x 180 mm
<b>Probe weight</b>	850 gr



Example: 4 simultaneous lines  
 1. Line 1 EN 14790  
 2. Line 2 EN 1911  
 3. Line 3 FID Portable  
 4. Line 4 Gas Portable



**X-TDP** is an isokinetic sampling line designed and arranged to be suitable for multiple samplings; thanks to the simple connection of the heated box, it allows to make **X-TDP** and **X-SDP** probes suitable for dust or micro pollutants, with a whole new line of accessories dedicated to monitoring in complicated situations even with small diameter chimneys and with little space to install the sample line.

**X-TDP** and **X-SDP** allow you to deal with every type of standardized sampling, and therefore an ideal product for your needs.



\*Gas automated methods :

- EN 14792 - NO<sub>x</sub>
- EN 14791 - SO<sub>x</sub>
- EN 15058 - CO
- ISO 12039 - CO<sub>2</sub>
- CEN/TS 17405 - CO<sub>2</sub>

GAS

EN 1911

EN 14790

2 Lines with Sintered Filter

4 Lines with Sintered Filter



2 x GAS\*



4 x GAS\*

...others configuration possibilities

Real time gas analyser

Portable FID

EN 13649 SOV

DM 25/08/2000 SO<sub>x</sub>

NO<sub>x</sub>

Unichim 632:84 NH<sub>3</sub>

EN 16911-1

ISO 23210

EN 13211-1

EN 14385

EN 1948-1

EN 13284-1



PCDD/F and PCBs titanium  
Dust out stack filter



PCDD/F and PCBs titanium  
Dust in stack filter

EN 16911-1

EN 1948-1



PCDD/F and PCBs  
Quartz and glass line

CEN/TS 17286



Mercury sorbent traps method

All-in-One

1

X-TDP is the integrated probe that follows ALL the currently norms in one SINGLE product!

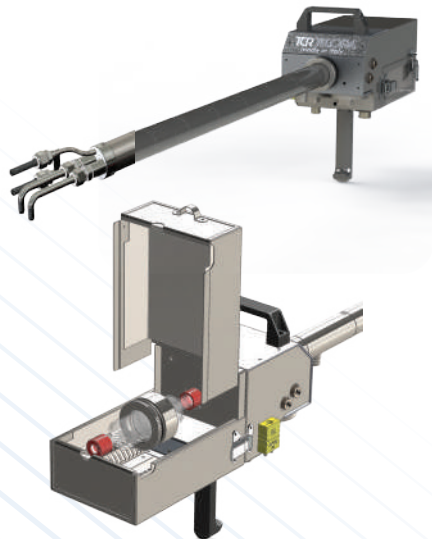


850gr.

**Lightest**  
integrated probe on the market



Integrated probe with **FAST LOCK** coupling system



Heated box + Impinger Tub + MCS-X

### AISI 316L - Certificated Version

- AC99-007-0040SP Double chamber Box - AISI 316L
- AC99-007-0041SP AISI 316L Double probe= 350mm - max 6m
- AC99-007-0046SP Sintered Filter 5 micron ( 20µm on demand)
- AC99-007-0080SP Single Chamber box - AISI 316L
- AC99-007-0081SP AISI 316L Single probe= 350mm - max 6m

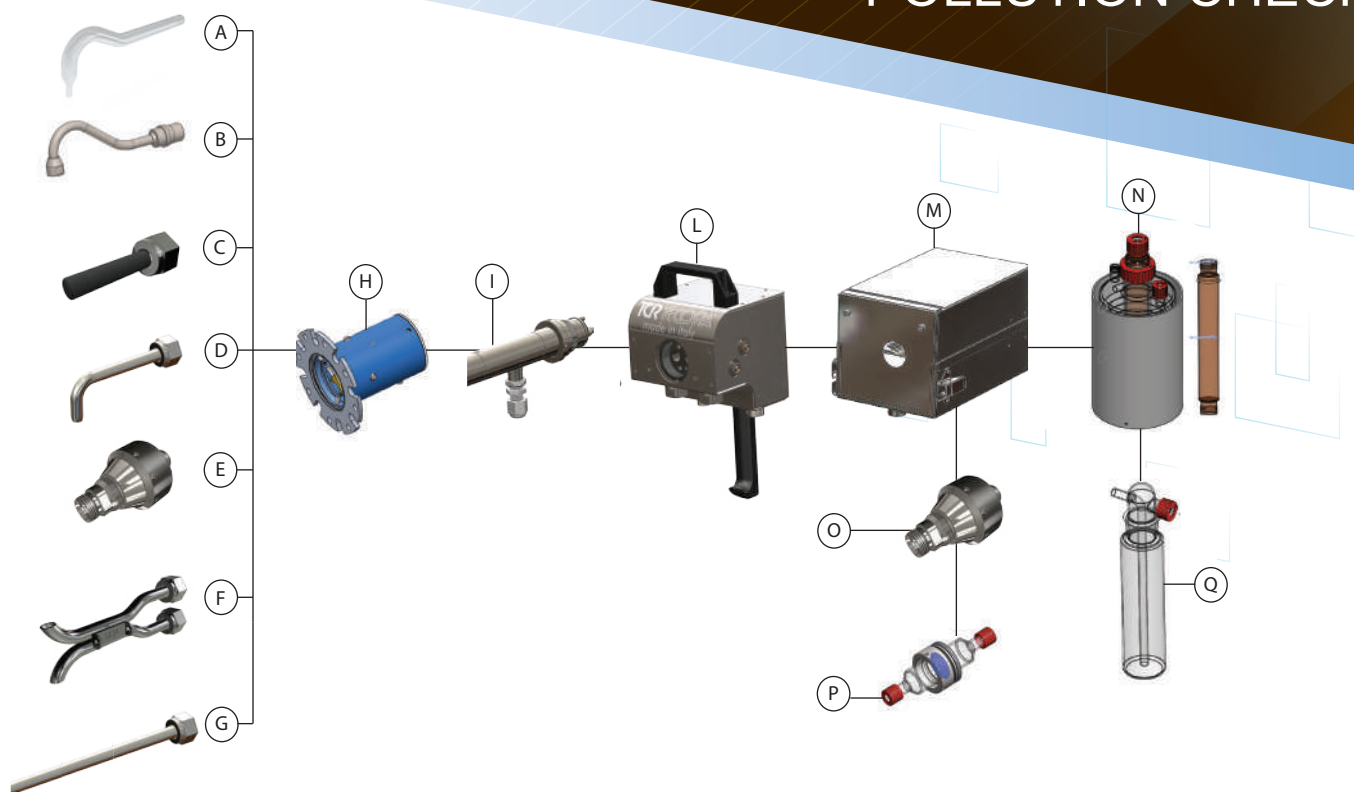
### Titanium Version - Certificated Level 2

- AC99-007-0060SP Double chamber Box - Titanium Gd 2 C
- AC99-007-0061SP Titanium Double Probe G2C L= 350 mm - max 6m
- AC99-007-0046SP Sintered Filter 5 micron ( 20µm on demand)
- AC99-007-1000SP Single Chamber box - Titanio Gd 2 C
- AC99-007-1001SP Titanium Single Probe G2C L= 350 mm - max 6m





# TRTECORA<sup>®</sup> POLLUTION CHECK



## Accessories and Devices Identification

Note:

- A Nozzles set + glass or quartz curve
- B Nozzles set + AISI 316 L steel or titanium curve
- C Sintered Filter 5 $\mu$  ( available 20  $\mu$ m )
- D Umidity / Gas / Diluition Sampling line
- E In stack holder in AISI 316L or titanium (thimble holder available 30x100mm)
- F Pitot Terminal ( measures available S-M-L-XL )
- G Extension tube for chimney configurations
- H Chimney and sliding fixing device
- I Interchangeable sampling probe with different lengths
- L Heated dilution chamber - Single or double for two independent lines
- M Heated Box - Filter or Thimble holder for out stack configuration
- N XAD / PUF sampling PCDD / F & PCBs trap (MCS-X)
- O 47 mm Steel or Titanium Filter holder
- P Impinger for online or derivative sampling

**G** It is possible to extend the overhead sampling probe (for larger chimneys) with possible cold extensions; therefore, if a small probe is purchased for practical use in ducts that are difficult to access and small, it is therefore possible to install dust / gas / pitot extension tubes so as to reach the desired sample point. The heating will in any case be guaranteed by the high heating power of the probe connected to the box or to the dilution chamber, so as to keep the gas hot and avoid condensation on the filter / box.

### Application Example:

2 Samples **POLVERI + GAS** (with dilution)  
During isokinetic dust sampling / micropollutants with steel sampling line, titanium, glass/quartz, you can use the line 2 (with dilution chamber 2) for:

- ⊙ Gas / Fid Sampling for Gas measure / Fid;
- ⊙ EN14790 Sampling;
- ⊙ EN1911 Sampling;
- ⊙ Available for Diluition chamber;

### Application Example:

4 Samples + Diluition  
Available for line 1 and 2 two independent dilution chambers where you can sample on both lines:

- ⊙ Gas / Fid gas measure sampling;
- ⊙ EN14790 sampling;
- ⊙ EN1911 sampling;

in addition, it is possible to use the two pick-up lines of the pitot tubes, entirely used in titanium to be able to take a sample for gas / fid in order to extend the probe and take 4 integrated lines.

5

