# PAUL GOTHE BOCHUM



#### PAUL GOTHE GmbH

Manufacturer of Emissions Control Technology

#### Product Info: Suction Tubes acc. VDI 2066 and EN 13284-1

Suction tubes available with fixed or exchangeable inner tube.

Entrance: Internal thread G 1/2, Exit: external thread G 1/2

Operating range: A: Material Stainless Steel up to 500°C, T: Material Titanium up to 400°C.

#### **Simple suction tube:**

with fixed inner tube 10 x 1 mm, Outer diameter protection tube: 25 mm

Art.-No.: 4.10-Material-Length

(available in special heat resistance steel (1.4841) for use up to 1000°C)

#### **Electrical heated suction tube:**

with integrated power heater cartridge ( $\sim 500~W/m$ ) and thermocouple NiCr-Ni for temperature regulation, with quick hose connectors. Outer diameter protection tube: 25 mm

With fixed inner tube 10 x 1 mm: Art.-No.: 4.21-Material-Length
For exchangeable inner tube 10 x 1 mm: Art.-No.: 4.22-Material-Length



#### Water cooled suction tube:

Outer diameter protection tube: 33 mm, without fixed inner tube, for exchangeable inner tube 10 x 1 mm.

The cooling water goes at first through a tube along the internal tube

and then at the outside-wall. By glass-break of the internal tube, the individual parts can be removed over the rear internal thread G ¾. With sufficient water-cooling can use this suction tube at temperatures up to 1000°C. If a hot-fan used instead of cooling water (adapters not in the delivery capacity) can the suction tube be heated.

For exchangeable inner tube 10 x 1mm: Art.-No.: 4.44-Material-Length

#### **Combination probe:**

With the combination probe can measure the gas velocity and temperature at the sampling point.

Heated and non heated or water cooled versions available. Details see above-mentioned information.

Outer diameter protection tube: 60 mm.

In the delivery capacity are one interchangeable Pitot tube with fast connector and one thermocouple NiCr-Ni type K. The Pitot tube and the thermocouple inserted into the outer tube and installed parallel to the inner tube to determine the gas velocity and the gas temperature directly at the sampling point. Selectable Pitot tubes from Version A to D.

Version	length from - to	Inner tube 10 x 1 mm	ArtNo.
Not heated	0,5-6 m	fixed exchangeable	4.51-Material-Length 4.52-Material-Length
heated	0,5-2,7 m	fixed exchangeable	4.61-Material- Length 4.62-Material- Length
cooled	0,5-6 m	exchangeable	4.72-Material- Length

### Matching inner tubes for all suction tubes:

Exit with KS 19 spherical joint (ball) Material: Duran, Quartz, Inox, Titanium

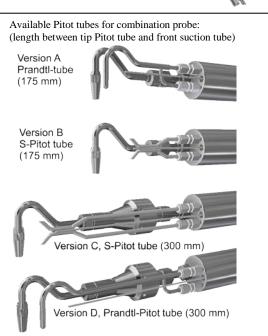
Exit with G ½ external thread Material: Inox, Titanium

Exit: smooth

Material: Duran, Quartz, Inox, Titanium







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#### **Accessoires Suction Tubes**

#### **Holders**

for fixing the suction pipe at the measuring point. The holder needs at least the length of half a sleeve / socket (approx. 30 mm).



#### **Gas-tight holders**

made of stainless steel for suction pipes with external Ø 25, 33, 50 or

60 mm. The gas-tight closure is achieved by a packing cord which is pressed against a flange on the suction pipe by means of screws. For shifting the suction pipe the flange is loosened;

with external thread G 2:
with external thread G 2½:
with external thread G 3:
Art.-No.: 47.12
Art.-No.: 47.13



#### Quick fastener holder

material: stainless steel pipe with two aluminium half-pans on the inside. The lower half-pan is firmly screwed on while the upper pan is moved by a toggle. The holder is not gas-tight. Shifting the suction pipe works fast and easily through the toggle. The suction pipe is not damaged by the half-pans even under strong loading. The half-pans are adapted to the required external  $\emptyset$  of the suction pipe. For suction tubes with external  $\emptyset$ : 25, 33, 50 or 60 mm.



#### **Small holder** (for suction tubes with Ø: 25-33 mm)

with External thread G 2 Art.-No.: 47.31 with External thread G 2½ Art.-No.: 47.32 with External thread G 3 Art.-No.: 47.33

#### **Sleeve reduction**



The holder can be adapted to the different coupling sleeves / sockets at the measuring points through sleeve reductions (bushing (M/F). The sleeve reduction is composed of stainless steel and an internal thread.

 Reduction of G 3 to G 2:
 Art.-No.: 47.41

 Reduction of G 2½ to G 2:
 Art.-No.: 47.42

#### Adapter for suction tube:



#### Entry adapter to adjust the gooseneck curve or bent in flow direction:

for fixed inner tube: Art.-No.: 3.03 (Stainless Steel or Titanium)

for exchangeable inner tube: Art.-No.: 3.01 (Stainless Steel or Titanium)