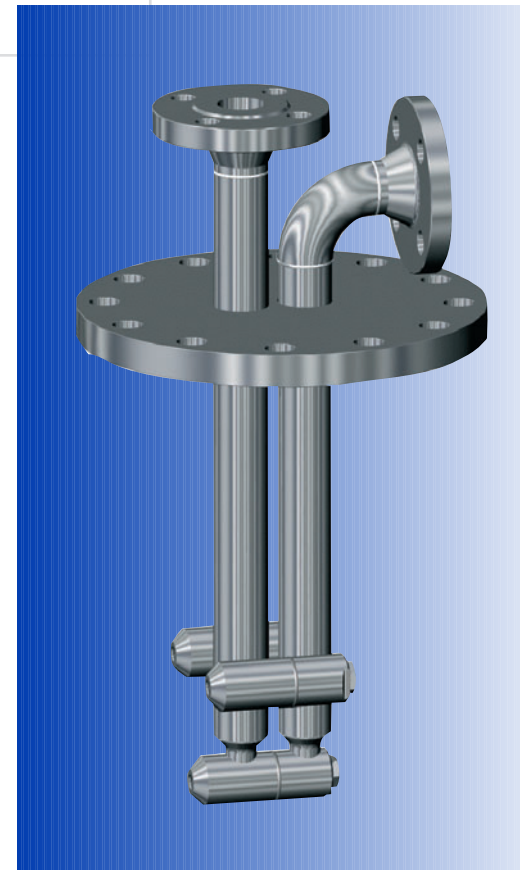


Schlick Insertion Pipes for Pressure and Two-Substance Nozzles



Applications:

- Cleaning equipment
- Condensing
- Flue gas conditioning
- Flue gas cooling
- Gas cooling
- Gas scrubbing
- Moisturising
- Process engineering
- SNCR processing
- Superheated steam cooling

Schlick insertion pipes for pressure nozzles

- Insertion pipes are available in the most varied designs. They are individually adapted to the application and the needs of the customer. The insertion pipes can be fitted with any nozzle model as required (full cone, hollow cone, flat-jet nozzles) or with complete nozzle heads.
- Flow rates and droplet size are related to the actual liquid pressure applied.
- On pressure nozzles a liquid control range from 1-3 bar can be realised.
- However, pressure nozzles are subject to clogging if small diameter orifices are used.

Examples

Insertion pipe
with full-cone nozzle Model 553/7

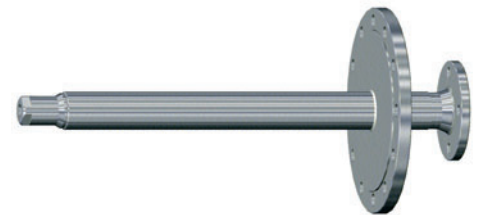


Fig. 22001

Insertion pipe
with flat-jet nozzle Model 655
with shaft fitting



Fig. 22002

Insertion pipe
with hollow-cone nozzles Model 121V

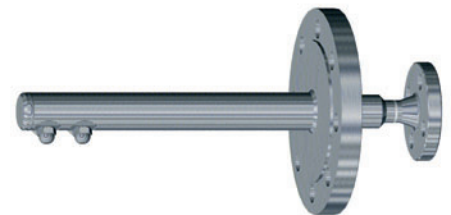


Fig. 22003

Insertion pipe
with nozzle head Model 60
with hollow-cone nozzles Model 121V



Fig. 22004

Materials

- | | | | |
|----------------------------------|-------------|--------|--------------------------------|
| - Brass | - Titanium | - PVC | - PTFE |
| - Acid resistant stainless steel | - INCONEL | - PP | Custom products from other |
| - Heat resistant stainless steel | - HASTELLOY | - PVDF | materials available on request |

Schlick insertion pipes for two-substance nozzles

- Insertion pipes with Two-substance nozzles are also available in the most varied designs and with diverse Two-substance nozzles for the application at hand.
- A liquid control range of 1:10 is achievable (under certain circumstances 1:30 is possible).
- The droplet size can be set individually with the ratio of atomising medium per kg to liquid per kg.
- Two-substance nozzles are generally insensitive to clogging.
- On external mix systems the two components do not mix until they leave the nozzle's orifice. This allows a simple control system to be used.
- On internal mix Two-substance nozzles the liquid and atomising medium are intensively mixed inside a swirl core and discharged from the orifice as a bimodal mix. Control of internal mix Two-substance nozzles is, however, somewhat more complicated.

Examples

Insertion pipe
with 1 two-substance nozzle Model 940 S39



Fig. 22005

Insertion pipe
with 3 two-substance nozzles Model 0/50 S7
Insertion pipes of this type can be supplied
with max. 7 nozzles



Fig. 22006

Insertion pipe
with 2 two-substance nozzles Model 0/5 S61

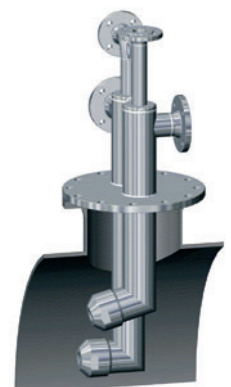


Fig. 22007

Performance specification

- The nozzles used determine the flow data for insertion pipes.
- Accurate flow data are available on request but are to be found in the individual brochures for the nozzle model concerned.
- The maximum water flow for frequently used two-substance nozzles are detailed in the table below.

Model description	Atomising medium at 6 bar in Normal m ³ /h of air	Maximum water flow rate in l/h	Mean volume droplet size in microns	Kg drive medium/ kg water
Model 0/2	40	100	50	0.47
Model 0/4	98	300	50	0.39
Model 0/5	220	650	50	0.40
Model 0/5 S14	590	2300	70 – 80	0.30
Model 0/5 S24	920	3600	70 – 80	0.30
Model 0/50 S4	170	650	70 – 80	0.30
Model 0/50 S5	410	1600	70 – 80	0.30
Model 0/50 S6	66	260	70 – 80	0.30
Model 0/50 S7	410	1600	70 – 80	0.30

Custom versions

Insertion pipe

with full-cone nozzle Model 553 Size 8 angled at 90°

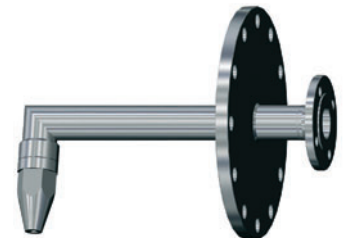


Fig. 22008

Insertion pipe

with full-cone nozzle Model 553 Size 9 and 8 full-cone nozzles Model 553 Size 3

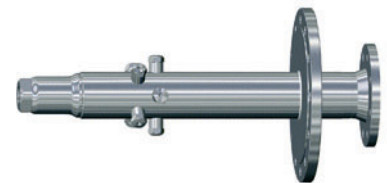


Fig. 22009

Insertion pipe

with nozzle head Model 553 60/5 and 21 full-cone nozzles Model 121 V with protective pipe



Fig. 22010

Custom designs/specialities

Insertion pipe
with two-substance nozzle Model 0/50 S25
with axial compensator for high temperature differences



Fig. 22011

Insertion pipe with nozzle head
with 6 two-substance nozzles Model 0/4
(also available for two-substance nozzle Model 0/5
with maximum 7 nozzles)

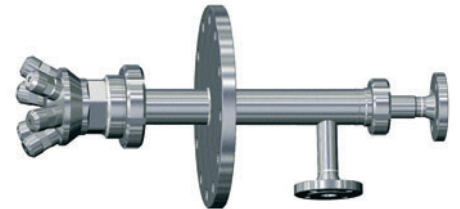


Fig. 22012

Suggested arrangement for insertion pipe
with 3 two-substance nozzles Model 0/50 S7



Fig. 22013

Insertion pipe
with one central nozzle head Model 60
and two ring pipes
each with hollow-cone nozzles Model 121V

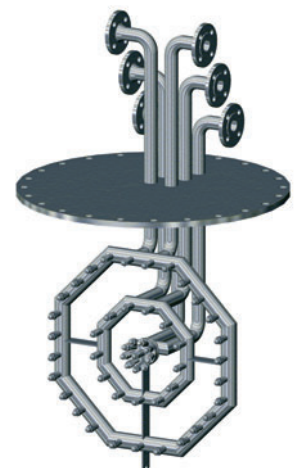


Fig. 22014

Service spectrum

Pilot test laboratory

Before any new spray nozzles are used we subject them to comprehensive trials in our own test laboratory – if need be to your operational parameters. During these tests, we precisely determine droplet size, velocities and flow densities with our modern DUAL PDA laser-measuring equipment.



Test nozzles

Schlick spray nozzles are world renowned for highest precision. We can offer you the best and most lasting solution to your requirements. And, if you want, we can supply you with test nozzles in advance – just contact us.

Engineering

Take advantage of our comprehensive expertise – from design to installation – the conception of new products or

the optimisation of existing plant. We would be glad to help you improve the success of your operation.

Repair service

As well as competent advice and its inception, you can profit from an efficient after-sales service that guarantees long-term supply of all products. We carry out both repair and conversion of Schlick spray nozzles, and in emergency, we can supply spare parts quickly and reliably.

Onsite service

If required we will investigate and develop an optimal solution to suit individual requirements onsite. We will advise you and give you support during installation and initial start-up of the plant. A further plus is the help available from our worldwide technical field service network.

Custom products

As one of the leading spray nozzle manufacturers in Europe, we can offer both high quality standard solutions and are in the position of developing customised products for individual tasks as fast as possible, even for small production runs.



Documentation to the customer's requirements

Reliability and quality are the basis for successful cooperation with our international customers. This applies both to our products and to our service. If you wish, we will supply you with all necessary documentation such as technical handbooks for the nozzles (drawings, flow diagrams, installation and operating instructions) together with factory and material specifications.



All specifications are subject to change (flow rates/dimensions).

The performance/flow rate specifications quoted are descriptive or product identities and can vary by up to ± 5 percent on delivery.



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