

GTV UNI SPRAY JET

Sets standards in the field of modern
powder flame spray technology



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Thanks to its construction and versatility of application, the GTV flame spray torch Uni Spray Jet sets standards in the field of modern powder flame spray technology.

The spraying torch is distinguished by an elegant, modern design and can be handled confidently by the user due to simple and safe handling combined with the greatest ease of operation.

One of the most interesting aspects of this equipment is the health working safety and high quality of the sprayed layers. The fuel gas / oxygen mixing nozzle system ensures optimal handling and safety – even under extreme operating conditions.

The advanced conception of the GTV Uni Spray Jet torch offers the user the following technical and economical advantages:



Benefits

Absolutely safe against flashbacks

- ✓ The gas mixing nozzle system offers absolute security against flashback, eliminating a potential accident risk during operation. Therefore, costly repairs, expensive spare parts and long down-times are avoided.

High economy

- ✓ The high spraying performance of the equipment combined with a favourable efficiency characterizes the outstanding economy of the GTV flame spraying technology.

Minimum maintenance and easy servicing

- ✓ Components of the equipment are of robust construction and ensure trouble-free operation, even under extreme operating conditions. The materials used for the construction of the torch and the special construction techniques also guarantee easy servicing.

Universal applicability

- ✓ Beside metal powders, the Uni Spray Jet can be used for spraying powders with high-melting temperature, e.g. molybdenum or oxide-ceramic powders. Spraying of fine grained metal powders is also possible using an additional compressed air supply. In combination with special accessories the Uni Spray Jet can be used for spraying low melting materials, e.g. plastics, tin, zinc, etc.. The advanced conception of the flame spraying torch allows the handling of most spraying jobs in all positions. In order to achieve specific coating properties, the torch can be operated with different powder feed gases, such as argon, nitrogen, compressed air etc.

The Uni Spray Jet is an excellent tool, not only for the occasional user, but also for powder spray experts.

In addition to the standard Uni Spray jet kit assortment, the following accessories are available: various high-performance spraying nozzles, electromagnetic vibrator with electronic control system and continuous by adjustable frequency and amplitude.

We would be glad to provide you with an offer adapted to your application and look forward to your request.

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Technical data

Gas supply

Main supply:

- Oxygen 2,5 bar - 1,5 m³/h
- Acetylene 0,5 bar - 1,1 m³/h
- Propane 3,0 bar - 2,0 m³/h

Optionally:

- Hydrogen 0,8 bar - 1,2 m³/h

Internal powder feed gas (powder feeding using injector principle)

- Pressure nozzle N 0,45 mm oxygen 2,5 bar - 0,3 m³/h
- Pressure nozzle S 0,30 mm oxygen 2,5 bar - 0,1 m³/h

Optionally: external powder feed gas (non-flammable gases)

Inert gas Ar or N₂, compressed air 0,5 bar - 5,0 bar

Hose fittings

Fuel gases and internal powder gas

- Fuel gases (acetylene, propane or hydrogen) G3/8" LH
- Oxygen G1/4" RH

Optionally:

Accessory gases (non-flammable gases)

- Inert gas (Ar, N₂), compressed air G1/8" RH

Optionally:

External powder feed gas (non-flammable gases)

- Inertgas (Ar, N₂), compressed air G1/8" RH

Spray rate

Depending on powder material type, system setup and spray nozzle as well as on installed pressure nozzle in the powder feed system: 1,0 - 6,0 kg/h

Spray distance

Depending on spray powder (see spraying tables): 100 - 200 mm

Surface speed

Depending on powder material type and layer thickness per pass: 15 - 50 m/min

Feed per rotation

- Bondcoat 20.50.2 (NiAl) 4,0 - 6,0 mm/rev
- For all other self-bonding powders and metall powders 4,0 - 8,0 mm/rev
- For metall oxide powders (ceramics) depending on single layer or multi layer 0,02 - 0,5 mm/rev

Layers growth per pass

- Boandcoat 20.50.2 (NiAl) ca. 0,15 mm/pass
- Top coat using other self-bondig powders ca. 0,2 mm/pass
- metal powder ca. 0,2 - 0,3 mm/pass
- metal oxide powder ca. 0,05 - 0,2 mm/pass