

JET-2 GUN FOR METAL SPRAYING

The JET-2 metal spraying gun can be used to process a variety of flame sprayable powders in manufacturing, repair and preventive maintenance. The JET-2 flame spray unit has an integrated powder supply system, has been developed in line with the latest research with regard to operational safety and conforms to the state-of-the-art technology and the requirements of the established standards and regulations.

FUNCTION

The mixture of flammable gas and oxygen in JET-2 flame spray powder gun is created in a gas-mixing precision spray nozzle. This gas mixing concept ensures maximum safety in terms of avoiding flashbacks or backfires.

The bond between the spray material and the base metal is crucial to the quality of thermal spraying process. During thermal spraying, surface impurities can negatively influence metallurgic bond. For this reason, clean metal surfaces and surface roughness are very important. Personal protection equipment must be used during metal spraying process.

CAPACITY

With JET-2 metallisation gun deposit is in a range of 1,0 to 8,0 kg/h, spray distance should be between 80 to 300 mm and increase in layer thickness per spray pass 0,15 mm to 0,30 mm/pass, depending on the powder grade, machine setting, spray nozzle and integrated powder supply system.

STANDARD OPERATION

Standard operation includes acetylene and oxygen can be used with variety of powders for "cold process", one-step cold process" and "hot process". Powders for use in JET-2 thermal spray gun in standard operation mode consists of mixtures of nickel, aluminium, zinc, molybdenum, copper, chrome, boron, silicon, cobalt, wolfram etc.

OPERATION WITH INERT GAS

By using external powder transport gases, special spray coating properties can be produced when spraying fine-grain powders. Cobalt-based powder and powders with a high



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affinity with oxygen can be processed using argon as external powder transport gas with great results. Appropriate operating pressure levels relevant to the external powder transport gas need to be determined using empirical tests.

JET-2 operation with inert gas can be used for:

- ✓ working with zinc, aluminium and ceramoxid powders
- ✓ working with plastic powders
- ✓ increasing the deposition of tungsten-carbide powders
- ✓ ensuring smoother and denser coatings

JET-2 metal spraying gun operates using following gasses:

- ✓ Fuel gas: Acetylene 0,7 bar, Hydrogen 1,0 – 1,5bar, Propane 0,2 – 1,2bar
- ✓ Oxygen: 2,0 – 3,0bar
- ✓ Added gases: compressed air 0,5 – 8,0 bar
- ✓ External powder transport gas: Argon 2,0 – 3,0bar

WHY VORAX?

- ✓ Full spectre of powders and wires for thermal spraying
- ✓ Highest quality industrial equipment for metal spraying
- ✓ Knowledge and years of experience in thermal spraying

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