

PRODUCT DATA SHEET

OSUCAS Arc Spray System OC300Tech

with Hand-held Spray Device OC1 or LDU2
optionally with Wire Feed Gear WF1



optional: WF1



alternative: LDU2



Hand-held Spray Device OC1

The illustration of the system may differ depending on the version.

POWER SOURCE

OC300Tech (OC200Tech)

The power source OC300Tech is built as a transformer-rectifier system whose characteristic curves are specially designed for arc spraying of technical wires. The generously dimensioned power components ensure continuous spraying operation at 100 % duty cycle.

Convection provides sufficient cooling of the power source while reducing contamination by metal dust to a minimum.

Voltage adjustment via 4 coarse and 3 fine steps, together with the switchable choke, allows almost all commercially available spray wires to be processed.

The OC300Tech is equipped with a PLC control system that monitors and controls all spray parameters. Operating faults are indicated by signal lamp codes on the power source panel and displayed in detail on the PLC display inside the power source.

For integration into automated spraying processes, various signals can be output to the higher-level control system as potential-free contacts on request.

The power source is equipped with safety devices that automatically switch the system to a safe operating state in the event of overload, overheating or pressure drop.

The compact design of the OC300Tech, combined with the large swivel and fixed castors, ensures easy manoeuvring of the power source.

Thanks to their large contact surface, the OSUCAS DC power connections provide low-loss energy transfer with minimal heat generation at the connections.



Spray current

300 A (200A) 100 %

Spray wires

Solid wires

Spray device

**OC1 / LDU2
Mini/Schub5**

The power source with a maximum spray current of 300 A (at 100 % duty cycle) stands out for:

- ✓ the processing of almost all commercially available spray wires
- ✓ its compact and robust design
- ✓ the clear arrangement of the controls on the inclined control panel
- ✓ easy handling with clearly legible display elements
- ✓ large swivel and fixed castors for easy manoeuvrability, even in harsh site conditions
- ✓ optimised power connections for high energy efficiency

Depending on the configuration, power sources can be equipped with or without wire feed gear WF1 – see text in the quotation

Electrical Data

Mains voltage	3 x 400 V AC => Other mains voltages available on request
Mains voltage tolerance	± 5 %
Mains frequency	50/60 Hz
Input current	< 23 A
Mains fuse	35 A
Connected load	< 15 kVA
Max. spray current (at 100 % duty cycle)	300A DC (200A DC)
Open-circuit voltage	26 - 39 V DC
Spray voltage	22 - 34 V DC

Spray Wires and Spray Performance

Spray wire quality	DIN EN ISO 14919
Spray wire diameter	1.6 mm (other diameters on request)

Selection of approved spray wires and spray rates at 300 (200) A

Steel	14.1 – 15.3 (9.4 - 10.2) kg/h
Bronze	18.6 – 20.4 (12.4 – 13.6) kg/h
NiCr 80/20	16.2 (10.8) kg/h
Aluminium	9.0 (6.0) kg/h

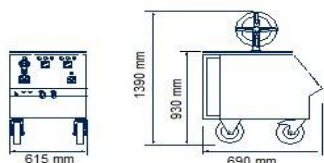
Compressed Air Supply

Required compressed air quality	DIN ISO 8573-1 Class 1
Compressed air temperature	Cooled down to min. 25 °C
Nominal diameter of compressed air ring main	25 mm (1 inch)
Nominal diameter of air hose (power source)	25 mm (1 inch)
Connection type	Compressor coupling G1/2 inch (female thread)
Max. inlet pressure	10 bar
Compressed air consumption – air motor	25 m³/h
Compressed air consumption – atomizing air	60 – 100 m³/h

Other Data

Weight	200 kg
Protection class	IP 21
Cooling type	Convection
Test mark	CE

Dimensions



SPRAY DEVICE

OC1 Technical Wires

In this configuration, the spray device OC1 with closed or open nozzle system is designed for processing technical wires. The special geometry of the nozzle system components enables very fine atomization of the molten particles, resulting in a correspondingly fine spray coating with low surface roughness or, with the open nozzle system, the roughest possible spray result.

In combination with the wire feed gear on the power source, the wire feed built into the spray device allows the use of cable and hose set lengths adapted to the process – the standard length being 4 m.

The OSUCAS DC power connections provide low-loss energy transfer with minimal heat generation and improved conductivity. This keeps the energy where it belongs – in the spraying process.



300 A · (100 % duty cycle)

Standard power (Tech)

4 m

Max. cable and hose set length
(without intermediate gear)

2.4 kg

without cable and hose set

Features of the spray device OC1:

- ✓ housing made of fibre-reinforced material for a long service life
- ✓ compact design and low weight
- ✓ modern and easy handling (including the dead man's switch with reflective light sensor)
- ✓ optimised power connections for high energy efficiency
- ✓ can be connected to (almost) all OSU power sources
- ✓ reduced wear part requirements thanks to a feed unit driven directly by the air motor

Spray Wires and Spray Performance	
Spray wire quality	DIN EN ISO 14919
Spray wire diameter	1.6 mm (other diameters on request)
Max. spray current (at 100 % duty cycle)	300 A
Compressed Air Supply	
Required compressed air quality	DIN ISO 8573-1 Class 1
Compressed air temperature	Cooled down to min. 25 °C
Compressed air consumption – air motor	25 m³/h
Compressed air consumption – atomizing air	60 – 100 m³/h
Other Data	
Weight	2.4 kg (without cable and hose set)

SPRAY DEVICE

LDU2

The spray device LDU2 has proven itself over many years in everyday industrial use. It works reliably in continuous operation, delivers consistent results and is easy to operate. That is why many users have relied on it for a long time.

Its particular strength is the processing of technical spray wires. The spray device LDU2 feeds and processes the wire evenly and stably. This produces homogeneous, well-adhering spray coatings, e.g. in the field of wear protection. As a rule, the spray device is equipped with the adjustable closed nozzle system for processing technical wires.

The clamping holder allows use in automated or semi-automated operation.

The range of applications also remains flexible in terms of power supply, as the spray device LDU2 can be combined with many power sources. Spray device, nozzle system and power source thus form a solution that fits your application exactly.

This makes the LDU2 a true all-purpose spray device.



Standard power (Tech)

300 A (100 % duty cycle)

Max. length

4 m

(cable/hose set without intermediate gear)

Weight

2.6 kg

without cable and hose set

Features of the spray device LDU2:

- ✓ Proven many times over in continuous industrial use
- ✓ Perfectly suited for technical spray wires and cored wires
- ✓ Suitable for almost any spray coating requirement
- ✓ Can be combined with many power sources
- ✓ Adjustable closed nozzle system as standard nozzle system

Spray Wires and Spray Performance	
Spray wire quality	DIN EN ISO 14919
Spray wire diameter	1.6 mm (other diameters on request)
Max. spray current (at 100 % duty cycle)	600 A
Compressed Air Supply	
Required compressed air quality	DIN ISO 8573-1 Class 1
Compressed air temperature	Cooled down to min. 25 °C
Compressed air consumption – air motor	25 m³/h
Compressed air consumption – atomizing air	60 – 100 m³/h
Other Data	
Weight	2.6 kg (without cable and hose set)

Wire Feed

Wire Feed Gear WF1

With its rubber roller system, the wire feed gear WF1 is used specifically for synchronous, trouble-free wire feed using the push-pull method.

With its high torque, the air motor used here provides strong support for trouble-free wire transport. The wire feed gear supports the pull motor in the spray device, thus guaranteeing a clean and steadily burning arc.

This push-pull principle guarantees trouble-free wire feed for all solid wires as well as cored wires.

This gear enables absolutely trouble-free wire feed, even of stiff wires.



Features of the wire feed gear WF1

- ✓ Powerful air motor
- ✓ Fine adjustment via an easy-to-use control valve
- ✓ Easy-to-fit slip feed rollers
- ✓ Turns an existing pull system into a push-pull system
- ✓ Easy mounting on the uncoiling device (also as a retrofit)

ACCESSORIES

Optional Accessories



Combi uncoiling device

for processing wire on spools

The uncoiling device is mounted directly on the power source, enabling mobile use, e.g. on construction sites.

Our new Combi uncoiling device gives you the flexibility to use wires on all available spool types (reel, mandrel and basket spools). With just a few simple steps, you can convert this uncoiling device to the spool type of your choice in no time.



Drum cover with de-coiling device

for processing endless wire from drums

The drum cover protects the wire in the drum from dust and other contamination. The de-coiling device is mounted directly on the cover.

The drum cover is made of robust, transparent material that provides an overview of the amount of wire in the drum at all times. An access opening covered with a rubber flap allows the wire to be threaded in easily.

The drum cover fits drum diameters of 505 - 574 mm (variably adjustable).



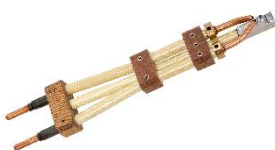
Mobile wire feed trolley

to extend the working radius by up to 40 m

The OSUCAS wire feed trolley with integrated wire feed gear was specially developed for applications that require a large working radius – as is typical in corrosion protection.

Depending on requirements, it is available either with a Combi uncoiling device for spools or for use with wire in drums.

By integrating the wire feed trolley into the respective standard setup of the system, total cable and hose set lengths of up to 40 m can be achieved – depending on the material being processed.



Angled nozzle extension

for coating hard-to-reach areas

The angled nozzle extension is a spray extension for the internal coating of pipes as well as for coatings in hard-to-reach areas. It is attached to the spray device with a suitable adapter (instead of the spray head).

Available in different lengths and with various adapters.