



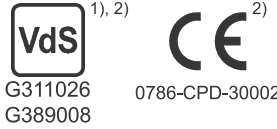
# Inert gas extinguishing technology

## Nozzle

### Nozzle DD with sound absorber SPA



### Approvals / CE marking



1) The use of the sound absorber type SPA 100 and type SPA 150 is permitted for EDP-risiks only

2) VdS - G389008 and CE for the integrated nozzle type DD

### SAP designation

e.g. part no. 910247: Nozzle DD1/2- 3.0 w.sound absorber SPA 100

### Maintenance

see technical description nozzle DD 1/2 with sound absorber SPA part no. 910284

Designation	Ød mm (inch)	Part no.	
		SPA 100 <sup>3)</sup>	SPA 150 <sup>3)</sup>
Nozzle DD 1/2 with sound absorber	3.0 (0.12)	910247	-
	3.7 (0.15)	910248	-
	4.6 (0.18)	910249	-
	5.2 (0.20)	910250	-
	6.6 (0.26)	910251	910261
	7.4 (0.29)	910252	910262
	8.3 (0.33)	910253	910263
	9.2 (0.36)	-	910215
	9.8 (0.39)	-	910264
	10.3 (0.41)	-	910265
	10.9 (0.43)	-	910266
	11.5 (0.45)	-	910267
	12.0 (0.47)	-	910268
	12.7 (0.50)	-	910269

Weight nozzle ...SPA 100: 1.01 kg (2.23 lbs); weight nozzle ... SPA 150: 1.17 kg (2.58 lbs)

<sup>3)</sup> Design restrictions see page 3

### Technical data

Type ..... nozzle DD 1/2-... with sound absorber SPA 100  
 .....nozzle DD 1/2-... with sound absorber SPA 150  
 Operating medium ...argon (IG-01), nitrogen (IG-100), IG-55, IG-541  
 Working pressue:  
 - Sound absorber .....max. 19 bar (275 psi)  
 - Nozzle .....min. 3 bar (43.5 psi), max. 60 bar (870 psi)  
 Porosity of the sintered metal .....41 %  
 Pore size .....50 µm  
 Temperature range .....+5 °C to +35 °C (41 °F to 95 °F)  
 Connecting thread of the nozzle...R1/2 acc. to EN 10226 (DIN 2999)  
 Installation poission .....horizontal

### Material / Surface

Nozzle .....brass  
 Sinter sleeve .....stainless steel sinter  
 Flange nozzle retainer .....stainless steel, stainless  
 Flange .....stainless steel, stainless

### Caution

For applications with sound pressure absorbers SPA 100 / SPA 150 the temperature range is also valid for the cylinder rack.





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#### Application

The nozzle DD with sound absorber is intended for a discharge time of 120 sec. according VdS. This is typically applicable for IT applications where a slow fire growth can be expected. The sound absorber shall reduce the sound pressure of discharging agent which typically occurs during an extinguishing action.

If a discharge time of 120 sec. is not allowed, the number of applied nozzles shall be enlarged to generate a mass flow per nozzle which is equal to a 120 sec. discharge time.

The nozzle DD with sound absorber must be operated only within the design restrictions, see page 3.

#### Functional description

In case of a discharge the agent flows through the orifice of the nozzle type DD into the sinter sleeve of the sound absorber. Further on the agent discharges through the sound absorbers sinter wall to the protected room. The high sound pressure which typically occurs at this process is thereby reduced to a lower level to avoid a negative influence to sensitive IT equipment like rotating hard disks.

#### Marking

manufacturer (MX), type (SPA 100 / SPA 150), working pressure (PS 19bar), temperature range (TS: +5°C bis/to +35 °C) approval sign (VdS)

#### Included in delivery

Nozzle DD 1/2 with sound absorber SPA consisting of:

- Sound absorber SPA 100 / SPA 150

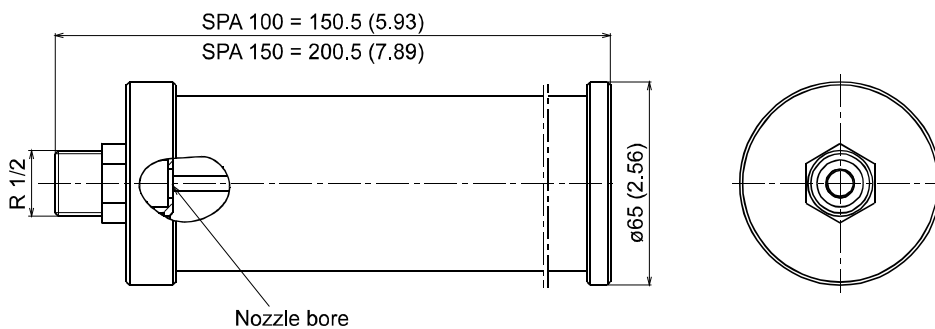
- Nozzle type DD (see nozzle)

Techn. description nozzle DD w. sound absorber part no. 910284

Technical description nozzle DD part no. 886280

#### Dimension drawing

Dimensions in mm (inch)





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## Nozzle

### Nozzle DD with sound absorber SPA

#### Design restrictions

The application range of the nozzle DD with sound absorber is limited according the following tables:

p = primary pressure of the nozzle; D = bore diameter of the nozzle

p [bar] \ D [mm]	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
3,0																
3,7	<b>Permissible range of application SPA 100 / Argon, Nitrogen, IG-541, IG-55</b>															
4,6																
5,2																
6,6																
7,4																
8,3																

p [bar] \ D [mm]	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
6,6																
7,4	<b>Permissible range of application SPA 150 / Argon, Nitrogen, IG-541, IG-55</b>															
8,3																
9,2																
9,8																
10,3																
10,9																
11,5																
12,0																
12,7																