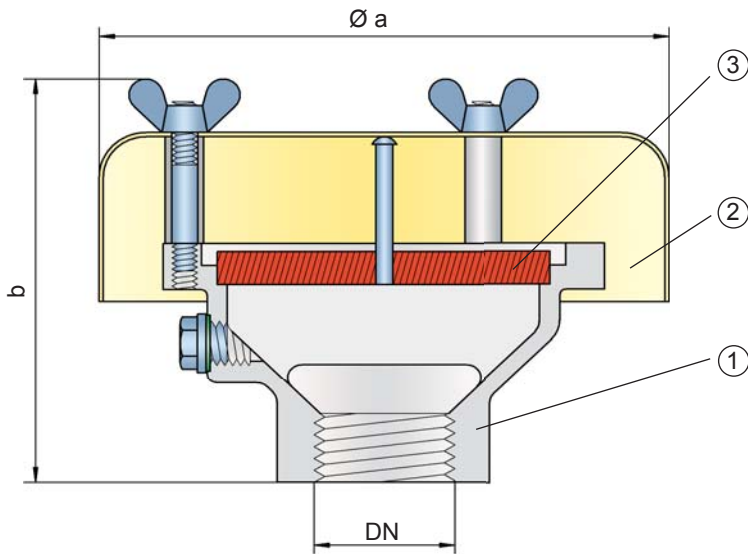


## Deflagration Flame Arrester, End-of-Line

**PROTEGO® BE/AD**



### Function and Description

The PROTEGO® BE/AD end-of-line deflagration flame arrester provides protection against atmospheric deflagrations. The device is typically installed on vent lines of small vessels and plant equipment which is not pressurized. For safe application it is important that an endurance burning situation can be excluded, so typically it is installed on vents lines which discharge vapour for a short time period only. The device prevents flame transmission from atmospheric deflagration into the vessel or plant.

The PROTEGO® BE/AD consists of a housing (1), a weather hood (2) and the PROTEGO® flame arrester unit (3). The device is equipped with a metal weather hood. The FLAMEFILTER® gap size will depend on the devices intended use. Detailing the operating conditions such as the temperature, pressure, explosion group and the composition of the fluid, enables PROTEGO® to select the best end-of-line deflagration flame arrester for your application. The PROTEGO® BE/AD series end-of-line deflagration flame arrester is available for substances from explosion groups IIA to IIC (NEC groups D to B).

The standard design can be used with operating temperature of up to +60°C / 140°F.

Type-approved according to ATEX Directive 94/9/EC and EN ISO 16852 as well as other international standards.

### Special Features and Advantages

- Weather hood provides protection against environmental impact (harsh weather conditions, bird nests, etc.)
- easy maintenance
- quick removal of FLAMEFILTER®
- available with threaded connection
- provides protection against atmospheric deflagration
- low operating and lifecycle cost
- cost effective device
- cost effective spare parts

### Design Type and Specification

Deflagration flame arrester, end-of-line, basic design **BE/AD**

Special designs available on request

**Table 1: Dimensions**

Dimensions in mm / inches

To select the nominal size (DN), please use the flow capacity charts on the following pages

DN	15 / G ½"	20 / G ¾"	25 / G 1"	32 / G 1¼"	40 / G 1½"	50 / G 2"
a	116 / 4.57	116 / 4.57	116 / 4.57	116 / 4.57	200 / 7.87	200 / 7.87
b	80 / 3.15	80 / 3.15	85 / 3.35	85 / 3.35	150 / 5.91	150 / 5.91

**Table 2: Selection of explosion group**

MESG	Expl. Gr. (IEC/CEN)	Gas Group (NEC)	
≥ 0,65 mm	IIB3	C	Special approvals upon request
< 0,5 mm	IIC	B	

**Table 3: Specification of max. operating temperature**

≤ 60°C / 140°F	higher operating temperatures upon request
T60	Tmaximum allowable operating temperature in °C

**Table 4: Material selection**

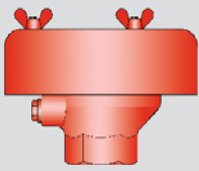
Design	A	B	C	
Housing	Steel	Stainless Steel	Hastelloy	Special materials upon request
Weather hood	Stainless Steel	Stainless Steel	Stainless Steel	
FLAMEFILTER®	Stainless Steel	Stainless Steel	Hastelloy	

**Table 5: Type of connection**

Pipe thread DIN ISO 228-1	DIN	other types of thread upon request
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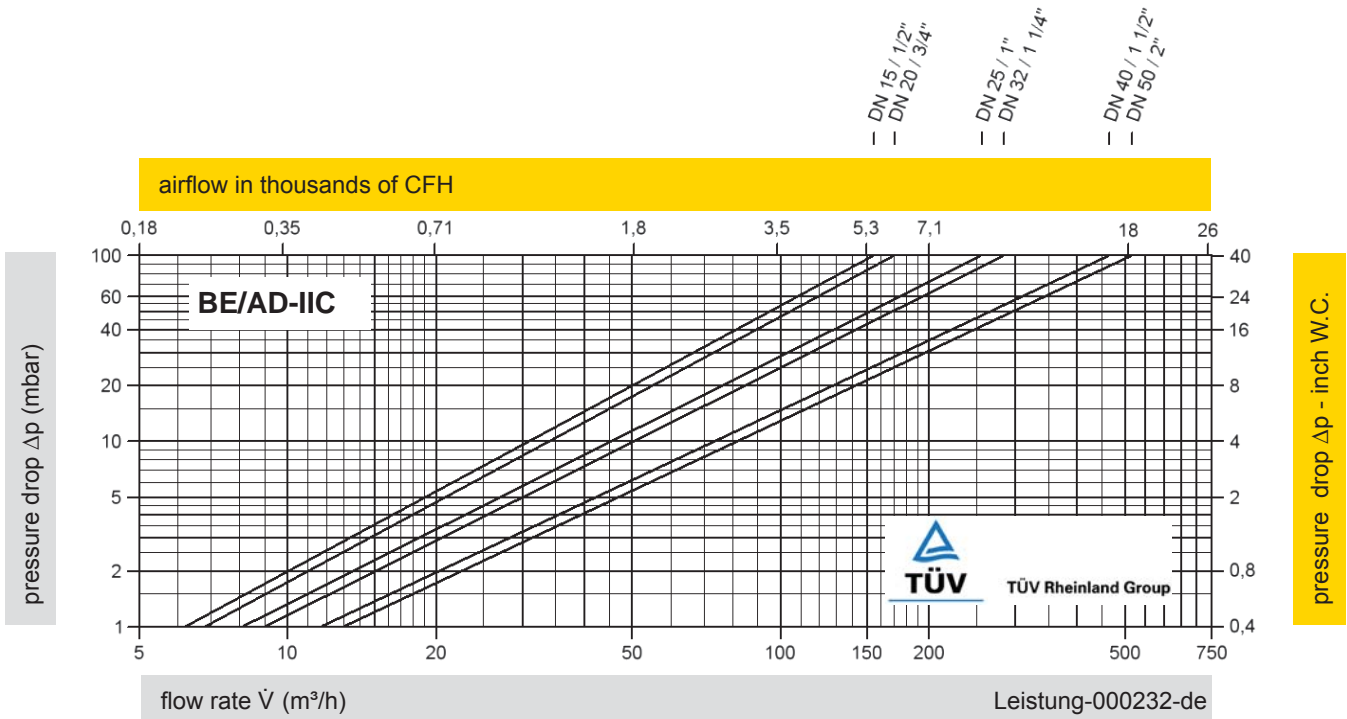
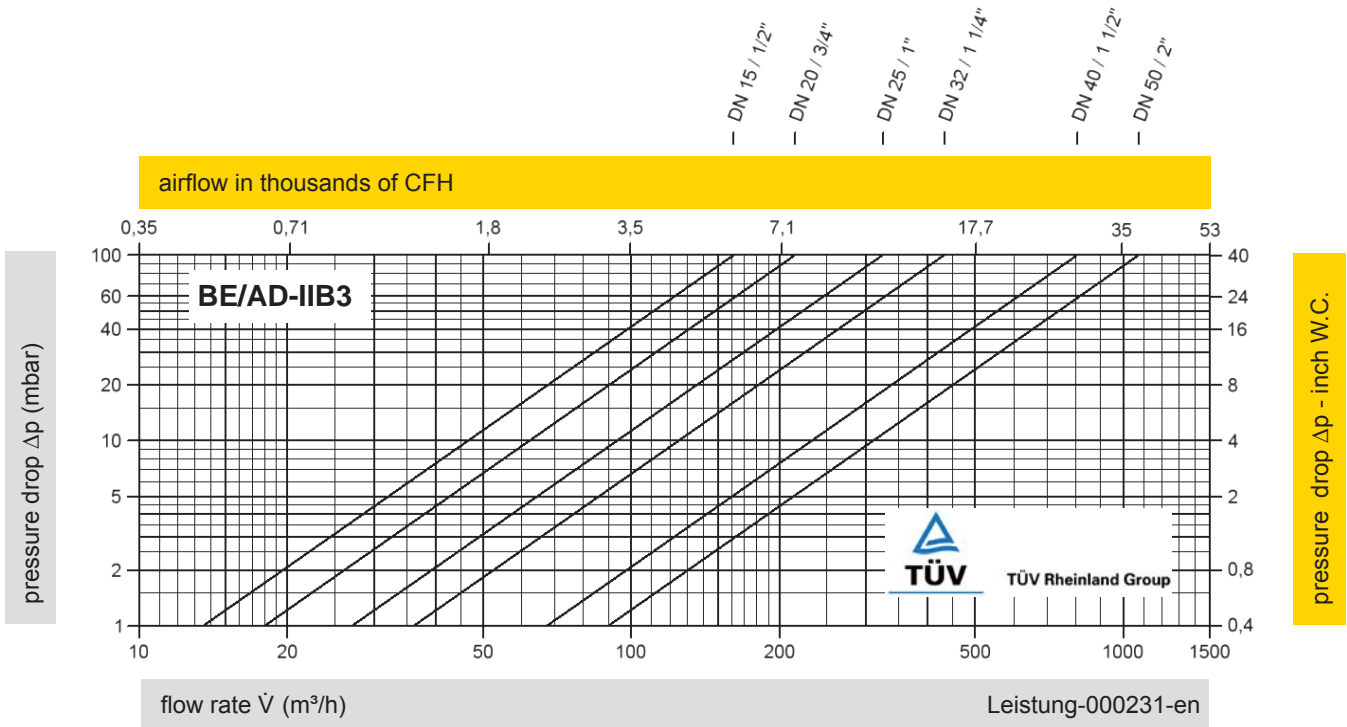
for safety and environment



# Deflagration Flame Arrester, End-of-Line

## Flow Capacity Charts

### PROTEGO® BE/AD



The flow capacity charts have been determined with a calibrated and TÜV certified flow capacity test rig. Volume flow  $\dot{V}$  in (m<sup>3</sup>/h) and CFH refer to the standard reference conditions of air ISO 6358 (20°C, 1bar). Conversion to other densities and temperatures refer to Vol. 1: "Technical Fundamentals".