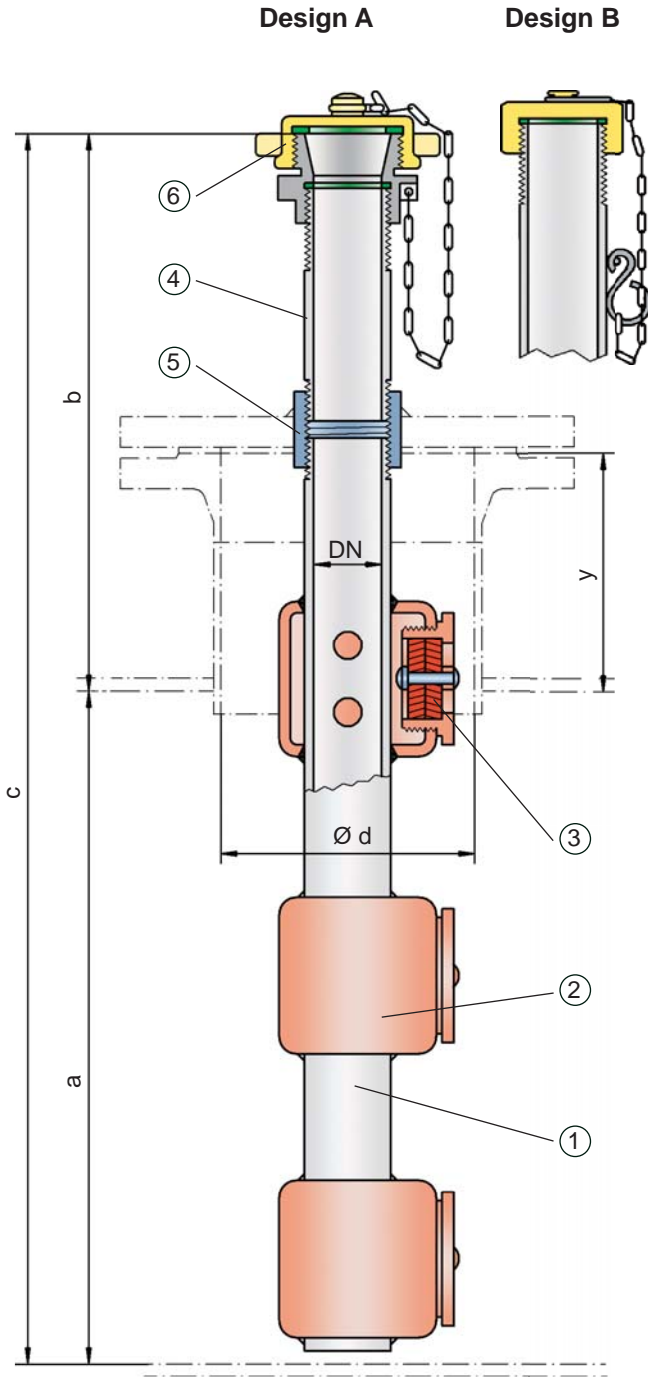


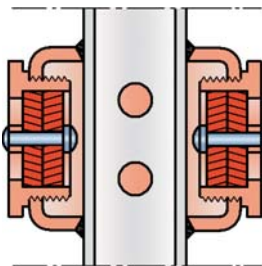


Gauging Pipe
deflagration proof

PROTEGO® PU-IIA



DN 40 / 1½" and 50 / 2"



Function and Description

The deflagration proof gauging pipes with integrated flame arresters type PROTEGO® PU are used for explosion-proof gauging of tank contents.

The gauging pipes of type PROTEGO® PU consist of insert pipe (1) with flame arresters (2) – equipped with FLAMEFILTER® (3) – connecting pipe (4), bushing (5) to be welded in the nozzle cover and cap (6). The number of flame arresters depends on the length of the gauging pipe. Please note the maximum dimension of 1.2 m / 3.94 ft for measure b and 4.1 m / 13.45 ft for measure c.

In normal operation the gauging pipe is closed with the cap. It is opened only for tank content gauging.

Type PROTEGO® PU ensures flame transmission protection against atmospheric deflagrations or in-line deflagrations of gas/air mixtures or product vapour/air mixtures of substances from explosion group IIA (MESG > 0.9 mm, NEC group D) in all ranges of flammable concentrations up to a service temperature of +60°C / 140°F.

This device is type approved and tested according to the European Standard EN 12874 – Flame Arresters – as a protective system according to ATEX Directive – equipment intended for use in potentially explosiv atmospheres. EC-Type Examination Certificates issued by a European notified body are available. Examination certificates from other approval authorities are available on request.

Design Types and Specifications

Table 1: Dimensions Dimensions in mm / inches

The measures a, b, y must be given with the order	
DN	minimum size d
25 / 1"	150 / 5.91
32 / 1¼"	150 / 5.91
40 / 1½"	200 / 7.87
50 / 2"	200 / 7.87

Table 2: Material selection

Design	A	B
Gauging pipe	Steel	Stainless Steel
Weld-in bushing	Steel	Stainless Steel
Cap	Brass	Stainless Steel
FLAMEFILTER® cage	Steel	Stainless Steel
FLAMEFILTER®	Stainless Steel	Stainless Steel

In design A the connecting pipe is equipped with reducing piece and blind cap – each with integrated sealing and chain. In design B the connecting pipe is closed with a hexagon cap connected to the retainer ring via chain and wire hoop.

Table 3: Explosion group

MESG	Expl. Gr. (IEC/CEN)	Gas Group (NEC)
> 0,90 mm	IIA	D

Special approvals upon request

Selection and Design

Select the required nominal sizes based on the gauging equipment size or nominal sizes of the connecting nozzle. Specify measures a, b and y for the definition of the quantity of integrated flame arresters.

Necessary Data for Specification

Storage product

Tank diameter (m or ft)

Tank nozzle height y (m or ft)

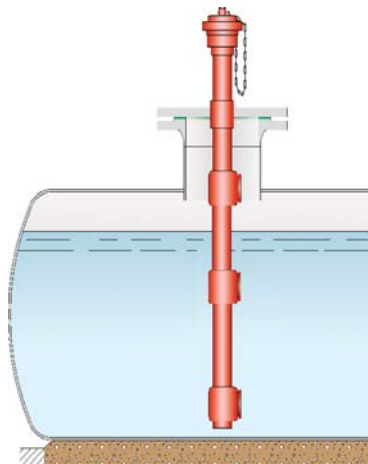
Length a (m or ft)

Length b (m or ft), max. 1.2 m / 3.94 ft

Please note the maximum length of 4.1 m / 13.45 ft for measure c

Gauging pipe diameter DN (mm or inches)

Application Example



The gauging pipes of type PROTEGO® PU mainly serve for tank gauging in horizontal tanks using fuel dip stick or manual gauging device e.g. of type PROTEGO® HP.



for safety and environment