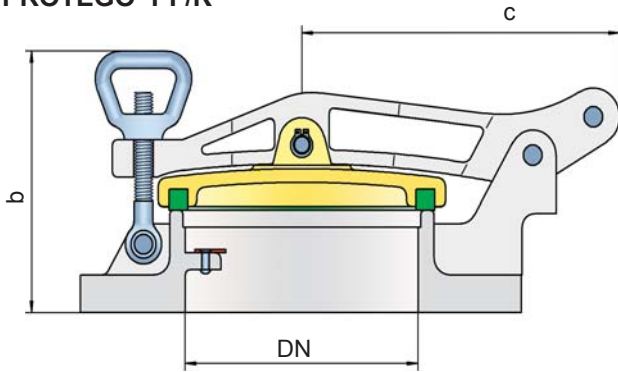




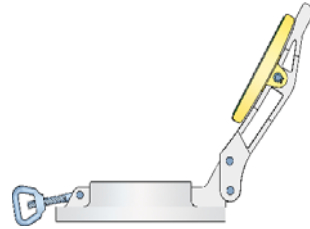
## Gauge Hatch with flange

### PROTEGO® PF/K, PF/TK and PS/KF

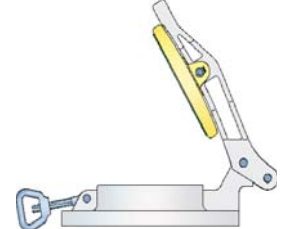
#### PROTEGO® PF/K



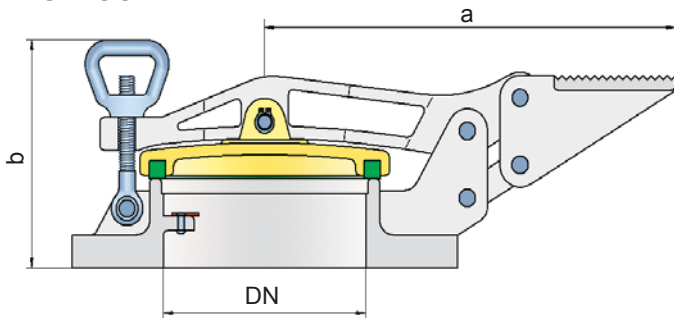
Design "I"  
remaining open



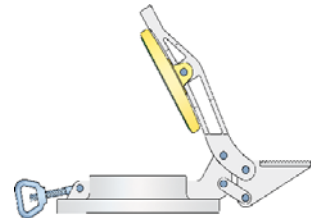
Design "II"  
automatic cover closing



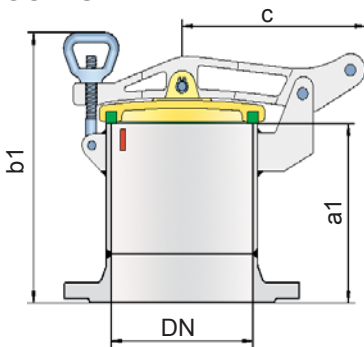
#### PROTEGO® PF/TK



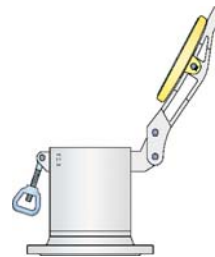
Pedal-operated version  
automatic cover closing



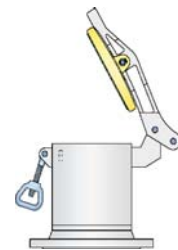
#### PROTEGO® PS/KF



Design "I"  
remaining open



Design "II"  
automatic cover closing



### Function and Description

PROTEGO® gauge hatches types PF/K, PF/TK and PS/KF are used as lockable gauge nozzles which are only opened for gauging or sampling. Otherwise they are tightly closed.

The gauge hatches PROTEGO® PF/K, PF/TK and PS/KF mainly consist of housing, cover and bracket. As a standard the housing has stainless steel gauge marks.

In the pedal-operated version PROTEGO® PF/TK the gauging nozzle pedal is connected to both the housing and the bracket.

## Design Types and Specifications

Depending on the intended use the following designs are available:

- Gauge hatch with flange **PF/K** design I and II  
 „I“ : remaining open  
 „II“ : automatic cover closing
- Gauge hatch with flange and pedal **PF/TK** automatic cover closing
- Gauge hatch with flange nozzle **PS/KF** design I and II  
 „I“ : remaining open  
 „II“ : automatic cover closing

Gauge hatches for welding to the tank are available as types PROTEGO® PS/K and PS/TK. A separate data sheet is available.

Table 1: Dimensions		Dimensions in mm / inches		
DN	100 / 4"	150 / 6"	200 / 8"	
a	260 / 10.24	305 / 12.01	335 / 13.19	
b	150 / 5.91	155 / 6.10	175 / 6.89	
c	160 / 6.30	205 / 8.07	235 / 9.25	
a1	225 / 8.86	265 / 10.43	300 / 11.81	
b1	315 / 12.40	360 / 14.17	405 / 15.94	

The nominal size depends on the dimensions of the gauging and sampling device.

Table 2: Material selection				
Design	A	B	C	D
Housing	Ductile Iron*	Stainless Steel	Aluminium	Steel
Cover	Ductile Iron*	Stainless Steel	Aluminium Stainless Steel**	Steel

The combination of steel and aluminium in explosive environments is prohibited due to ignition danger.

\* only for PF/K and PF/TK

\*\* only for PF/TK-100

## Flange Connection Type

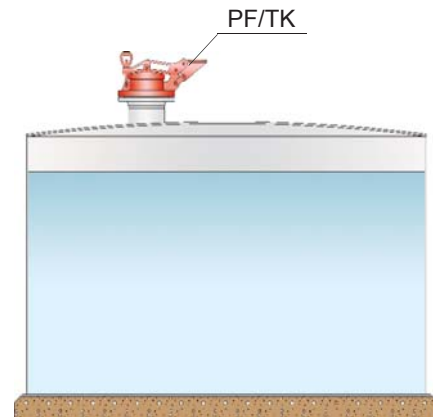
The flange connection is to EN 1092-1, Form A. Optionally, the connecting flange can be made according to any international standard.

## Necessary Data for Specification

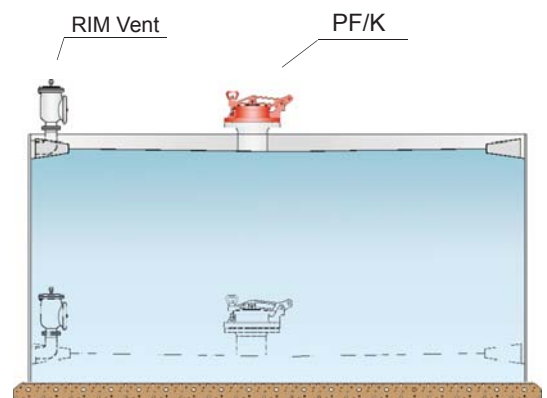
- Stored product
- Tank material
- Tank nozzle DN (mm or inches)

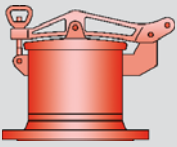
## Application Examples

Gauge Hatches can for instance be used in combination with the manual gauge devices type PROTEGO® H/P or with the gauging and sampling device PROTEGO® VP/HK.



Gauge Hatches can be applied on tanks with floating roof.

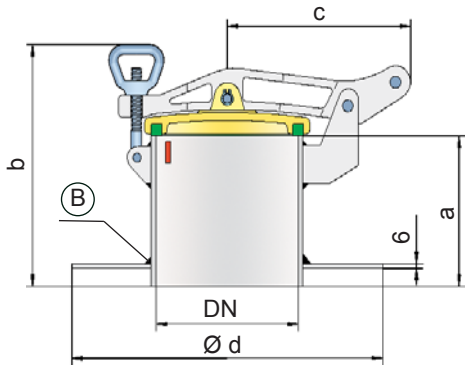




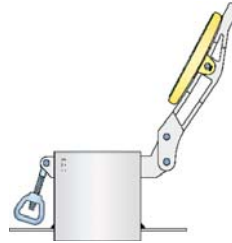
## Gauge Hatch with welded nozzle

**PROTEGO® PS/K, PS/TK**

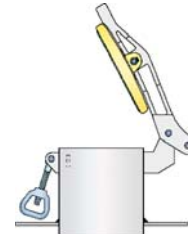
### PROTEGO® PS/K



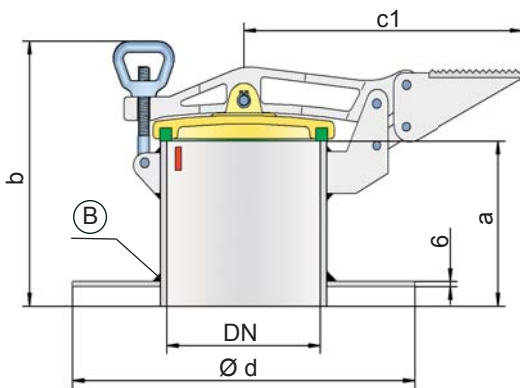
Design "I"  
remaining open



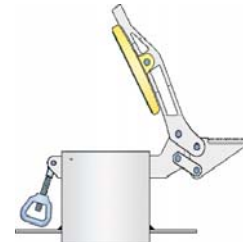
Design "II"  
automatic cover closing



### PROTEGO® PS/TK



Pedal-operated version  
automatic cover closing



ⓑ Welding on-site

### Function and Description

PROTEGO® gauge hatches types PS/K and PS/TK are used as lockable gauge nozzles which are only opened for gauging or sampling.

The gauge hatches PROTEGO® PS/K and PS/TK mainly consist of housing, cover and bracket. As a standard the housing has stainless steel gauge marks.

In the pedal-operated version PROTEGO® PS/TK the gauging nozzle pedal is connected to both the housing and the bracket.

### Design Types and Specifications

Depending on the intended use the following designs are available:

Gauge hatch with welding nozzle

**PS/K** design I and II  
„I“ : remaining open  
„II“ : automatic cover closing

Gauge hatch with welding nozzle and pedal

**PS/TK** automatic cover closing

Gauge hatches with flange are available as type PROTEGO® PF/K, PF/TK and PS/KF. A separate data sheet is available.

Table 1: Dimensions		Dimensions in mm / inches	
DN	100 / 4"	150 / 6"	200 / 8"
a	175 / 6.89	225 / 8.86	250 / 9.84
b	265 / 10.43	320 / 12.60	355 / 13.98
c	160 / 6.30	205 / 8.07	235 / 9.25
c1	260 / 10.24	305 / 12.01	335 / 13.19
d	275 / 10.83	350 / 13.78	450 / 17.72

The nominal size depends on the dimensions of the gauging and sampling device.

Table 2: Material selection		
Design	A	B
Housing	Steel	Stainless Steel*
Cover	Ductile Iron	Stainless Steel*

\* only for PS/K

### Flange Connection Type

The flange connection is to EN 1092-1, Form A. Optionally, the connecting flange can be made according to any international standard.

### Necessary Data for Specification

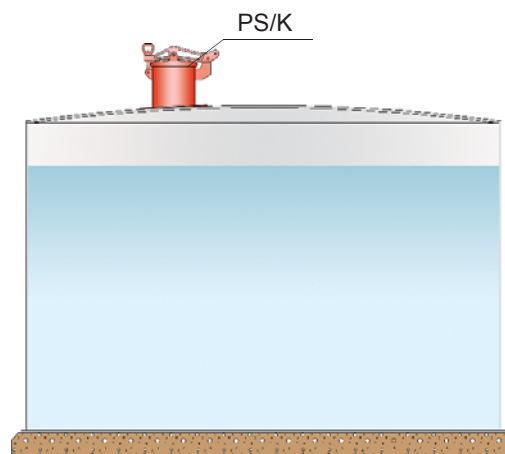
Stored product

Tank material

Tank nozzle DN (mm or inches)

### Application Examples

Gauge Hatches can for instance be used in combination with the manual gauge devices type PROTEGO® H/P or with the gauging and sampling device PROTEGO® VP/HK.



Gauge Hatches can be welded on tanks with floating roof.

