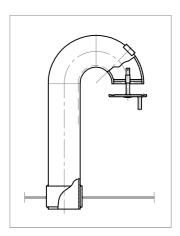
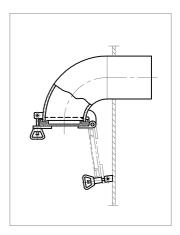


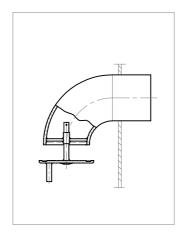
Ventilation goose neck heads GN



Ventilation goose neck heads GL



Bulkhead vents VN



Bulkhead vents VL

VENTILATION GOOSE NECK HEADS GN

| DN | ØAxG | В | F | S | ØС |
|-----|-----------|-----|-----|---|------------|
| 50 | 60,3x6,3 | 152 | 6,3 | 4 | 76,1x7,1 |
| 65 | 76,1x6,3 | 190 | 6,3 | 4 | 90,6x6,3 |
| 80 | 88,9x6,3 | 228 | 6,3 | 4 | 101,6x5 |
| 100 | 114,3x8 | 304 | 8 | 4 | 133,6x8,8 |
| 125 | 139,7x8,8 | 362 | 8,8 | 4 | 161,5x10 |
| 160 | 168,3x8,8 | 458 | 8,8 | 5 | 193,7x12 |
| 200 | 219,1x10 | 610 | 8,8 | 5 | 245,7x11 |
| 250 | 273x10 | 762 | 8,8 | 5 | 299,5x12,5 |
| 315 | 323,9x10 | 914 | 8,8 | 5 | 350,5x12,5 |

1. DESTINATION

Ventilation goose neck heads GN are destined for installation in forced and natural ventilation systems and venting of void spaces on seagoing ships as well as on offshore objects.

2. SIZES AND TYPES

EXECUTIONS: Z - with weathertingt cover

N - without closing device

TYPES: A - with reinforcing sleeve

B - with reinforcing sleeve and with spiral pipe connection

C - without reinforcing sleeve

D - without reinforcing sleeve and with spiral pipe connection

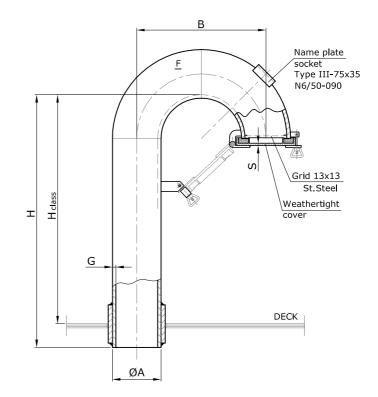
E - with reinforcing flange

MATERIAL: St - steel R35

3. MATERIAL

Pipe and elbows made of steel and fitted with brass swing nuts. Bolts and pins are made of stainless steel.

Gasket - rubber profile.



4. SURFACE TREATMENT

Hot dip galvanised. Painted with epoxy marine paint SWA 7423-014-250 on request.

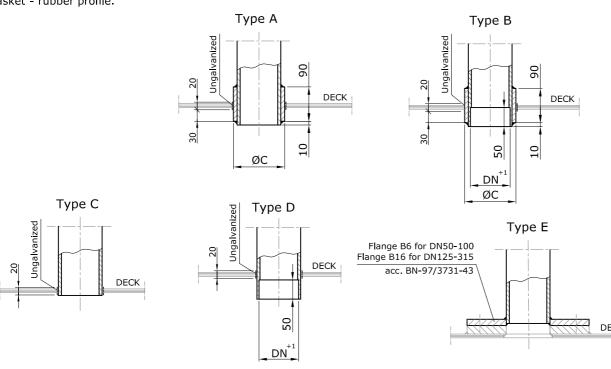
5. MARKING:

Dimension 'H' to be specified by the Customer. Conformity of 'H class' with ILL 1966, depending on position of head to be observed.

Marking of GN head of DN=125 mm, of height H=900 mm, with weathertight cover Z and of A type:

VENTILATION HEAD GN 125-900-ZA-St

Heads with dimension B=2xØA on request.



VENTILATION GOOSE NECK HEADS GL

| DN | ØAxG | В | L- | ØС |
|-----|-----------|-----|-----|------------|
| 50 | 60,3x6,3 | 152 | 6,3 | 76,1x7,1 |
| 65 | 76,1x6,3 | 190 | 6,3 | 90,6x6,3 |
| 80 | 88,9x6,3 | 228 | 6,3 | 101,6x5 |
| 100 | 114,3x8 | 304 | 8 | 133,6x8,8 |
| 125 | 139,7x8,8 | 362 | 8,8 | 161,5x10 |
| 160 | 168,3x8,8 | 458 | 8,8 | 193,7x12 |
| 200 | 219,1x10 | 610 | 8,8 | 245,7x11 |
| 250 | 273x10 | 762 | 8,8 | 299,5x12,5 |
| 315 | 323,9x10 | 914 | 8,8 | 350,5x12,5 |

1. DESTINATION

Ventilation goose neck heads GL are destined for installation in forced and natural ventilation systems and venting of void spaces on seagoing ships as well as on offshore objects.

2. SIZES AND TYPES

EXECUTIONS: Z - with weathertingt cover

N - without closing device

TYPES: A - with reinforcing sleeve

B - with reinforcing sleeve and with spiral pipe connection

C - without reinforcing sleeve

D - without reinforcing sleeve and with spiral pipe connection

E - with reinforcing flange

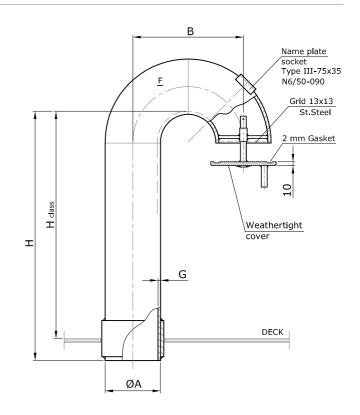
MATERIAL: St - steel R35

3. MATERIAL

Pipe and elbows made of steel.

Bolts and sleeves are made of stainless steel.

Gasket - rubber profile.



4. SURFACE TREATMENT

Hot dip galvanised. Painted with epoxy marine paint SWA 7423-014-250 on request.

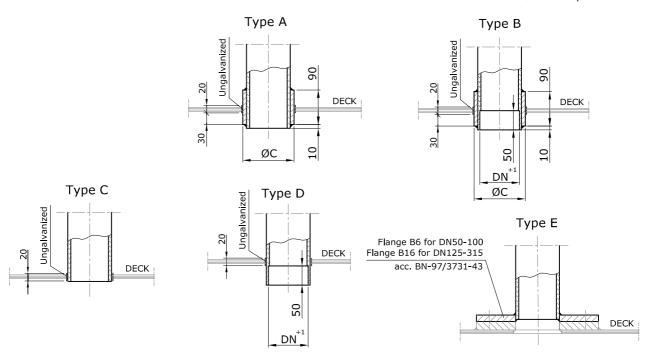
5 MARKING.

Dimension 'H' to be specifed by the Customer. Conformity of 'H class' with ILL 1966, depending on position of head to be observed.

Marking of GL head of DN=125 mm, of height H=900 mm, with weathertight cover Z and of A type:

VENTILATION HEAD GL 125-900-ZA-St

Heads with dimension $B=2x\emptyset A$ on request.



VENTILATION GOOSE NECK HEADS GS

| DN | ØAxG | В | G | F | S | ØС |
|-----|-----------|-----|-----|-----|---|------------|
| 50 | 60,3x6,3 | 100 | 6,3 | 90 | 4 | 76,1x7,1 |
| 65 | 76,1x6,3 | 120 | 6,3 | 100 | 4 | 90,6x6,3 |
| 80 | 88,9x6,3 | 135 | 6,3 | 110 | 4 | 101,6x5 |
| 100 | 114,3x8 | 150 | 8 | 120 | 4 | 133,6x8,8 |
| 125 | 139,7x8,8 | 180 | 8,8 | 130 | 4 | 161,5x10 |
| 160 | 168,3x8,8 | 220 | 8,8 | 150 | 5 | 193,7x12 |
| 200 | 219,1x10 | 280 | 8,8 | 170 | 5 | 245,7x11 |
| 250 | 273x10 | 380 | 8,8 | 200 | 5 | 299,5x12,5 |
| 315 | 323,9x10 | 440 | 8,8 | 230 | 5 | 350,5x12,5 |

1. DESTINATION

Ventilation goose neck heads GS are destined for installation in forced and natural ventilation systems and venting of void spaces on seagoing ships as well as on offshore objects.

2. SIZES AND TYPES

EXECUTIONS: Z - with weathertingt cover

N - without closing device

TYPES: A - with reinforcing sleeve

B - with reinforcing sleeve and with spiral pipe connection

C - without reinforcing sleeve

D - without reinforcing sleeve and with spiral pipe connection

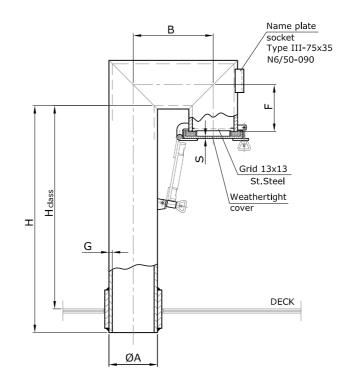
E - with reinforcing flange

MATERIAL: St - steel R35

3. MATERIAL

Pipe and elbows made of steel and fitted with brass swing nuts. Bolts and pins are made of stainless steel.

Gasket - rubber profile.



4. SURFACE TREATMENT

Hot dip galvanised. Painted with epoxy marine paint SWA 7423-014-250 on request.

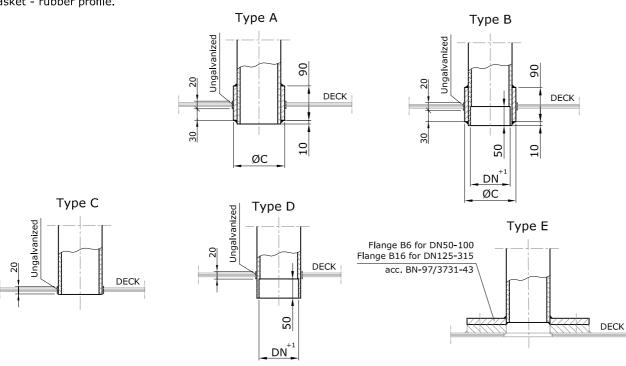
5 MARKING:

Dimension 'H' to be specified by the Customer. Conformity of 'H class' with ILL 1966, depending on position of head to be observed.

Marking of GS head of DN=125 mm, of height H=900 mm, with weathertight cover Z and of A type:

VENTILATION HEAD GS 125-900-ZA-St

Heads made of aluminium PA2 on request.





RECTANGULAR GOOSE NECK HEADS GR

| AxB | С | D | R | S | Т |
|---------|------|-----|-----|---|----|
| 100x200 | 595 | 190 | 162 | 5 | 9 |
| 125x250 | 695 | 240 | 189 | 5 | 9 |
| 200×200 | 595 | 190 | 162 | 5 | 9 |
| 300x300 | 805 | 290 | 216 | 6 | 10 |
| 400x400 | 1005 | 390 | 267 | 6 | 10 |
| 500×500 | 1215 | 490 | 321 | 6 | 10 |
| 600x600 | 1415 | 590 | 372 | 7 | 10 |

1. DESTINATION

Ventilation goose neck heads GR are destined for installation in forced and natural ventilation systems and venting of void spaces on seagoing ships as well as on offshore objects.

Construction is based on standard DIN 82340.

2. SIZES AND TYPES

EXECUTIONS: Z - with weathertingt cover

N - without closing device

3. MATERIAL

Housing made of mild steel St3Sx. Swing-out nuts made of brass.

Bolts and pins are made of stainless steel.

Gasket - rubber profile.

4. SURFACE TREATMENT

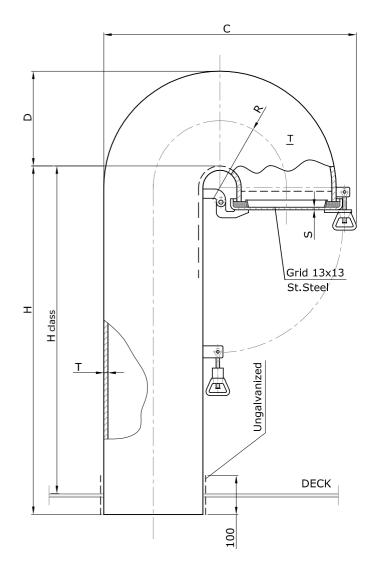
Hot dip galvanised. Painted with epoxy marine paint SWA 7423-014-250 on request.

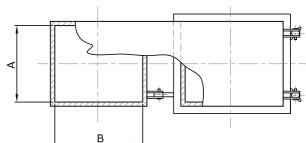
5. MARKING:

Dimension 'H' to be specified by the Customer. Conformity of 'H class' with ILL 1966, depending on position of head to be observed.

Marking of GR head of AxB=100x200 mm, of height H=950 mm, with weathertight cover Z:

VENTILATION HEAD GR 100x200-950-Z









| DN | ØAxG | Н | F | S | Р |
|-----|-----------|-----|-----|---|-----|
| 80 | 88,9x6,3 | 114 | 4 | 4 | 135 |
| 100 | 114,3x8 | 152 | 4,5 | 4 | 160 |
| 125 | 139,7x8,8 | 181 | 4,5 | 4 | 190 |
| 160 | 168,3x8,8 | 229 | 4,5 | 5 | 230 |
| 200 | 219,1x10 | 305 | 4,5 | 5 | 280 |
| 250 | 273x10 | 381 | 6,3 | 5 | 350 |
| 315 | 323,9x10 | 457 | 8,8 | 5 | 420 |

Bulkhead vents VN are destined for installation in forced and natural ventilation systems of of seagoing ships and offshore objects.

They are provided with weathertight cover.

They are provided with weathertight cover and shall be fitted on external walls.

2. SIZES AND TYPES

EXECUTIONS: Z - with weathertingt cover

N - without closing device

TYPES: A - without spiral pipe connection

B - with spiral pipe connection

MATERIAL: St - steel R35

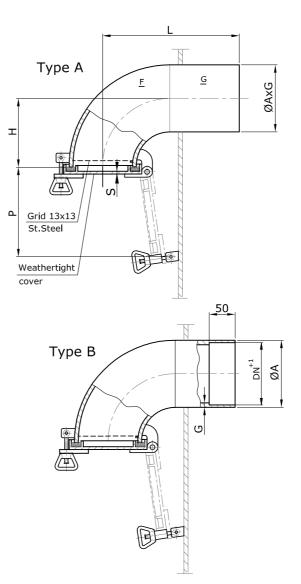
3. MATERIAL

Pipe and elbows made of steel and fitted with brass swing nuts. Bolts and pins are made of stainless steel.

Gasket - rubber profile.

4. SURFACE TREATMENT

Painted with epoxy marine paint SWA 7423-014-250. Hot dip galvanised on request.



5 MARKING:

Dimension 'L' to be specified by the Customer. Marking of VN bulkhead vent of DN=125 mm, of length L=200, with weathertight cover Z and of A type:

BULKHEAD VENT VN 125-200-ZA-St

Vents with dimension $H=\emptyset A$ on request.





| DN | ØAxG | Н | F | ØD | Р |
|-----|-----------|-----|-----|-----|-----|
| 80 | 88,9x6,3 | 114 | 4 | 114 | 120 |
| 100 | 114,3x8 | 152 | 4,5 | 150 | 130 |
| 125 | 139,7x8,8 | 181 | 4,5 | 175 | 145 |
| 160 | 168,3x8,8 | 229 | 4,5 | 320 | 165 |
| 200 | 219,1x10 | 305 | 4,5 | 270 | 190 |
| 250 | 273x10 | 381 | 6,3 | 320 | 220 |
| 315 | 323,9x10 | 457 | 8,8 | 390 | 260 |

Bulkhead vents VL are destined for installation in forced and natural ventilation systems of of seagoing ships and offshore objects.

They are provided with weathertight rotating lid and shall be fitted on external walls.

2. SIZES AND TYPES

EXECUTIONS: Z - with weathertingt cover

N - without closing device

TYPES: A - without spiral pipe connection

B - with spiral pipe connection

MATERIAL: St - steel R35

3. MATERIAL

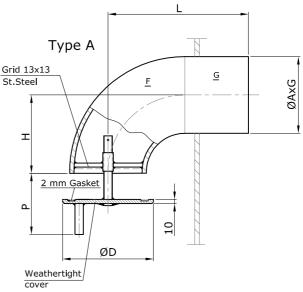
Pipe and elbows made of steel.

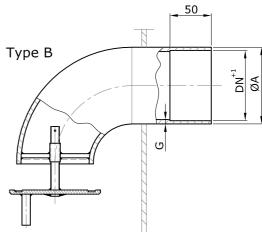
Bolts and sleeves are made of stainless steel.

Gasket - rubber profile.

4. SURFACE TREATMENT

Painted with epoxy marine paint SWA 7423-014-250. Hot dip galvanised on request.





5 MARKING:

Dimension 'L' to be specified by the Customer. Marking of VL bulkhead vent of DN=125 mm, of length L=200, with weathertight cover Z and of A type:

BULKHEAD VENT VL 125-200-ZA-St

Vents with dimension $H=\emptyset A$ on request.





| DN | ØAxG | Н | F | S | Р |
|-----|-----------|-----|-----|---|-----|
| 80 | 88,9x6,3 | 110 | 4 | 4 | 135 |
| 100 | 114,3x8 | 120 | 4,5 | 4 | 160 |
| 125 | 139,7x8,8 | 135 | 4,5 | 4 | 190 |
| 160 | 168,3x8,8 | 155 | 4,5 | 5 | 230 |
| 200 | 219,1x10 | 180 | 4,5 | 5 | 280 |
| 250 | 273x10 | 195 | 6,3 | 5 | 350 |
| 315 | 323,9x10 | 230 | 8,8 | 5 | 420 |
| | | | | | |

Bulkhead vents VS are destined for installation in forced and natural ventilation systems of of seagoing ships and offshore objects.

They are provided with weathertight cover and shall be fitted on external walls.

2. SIZES AND TYPES

EXECUTIONS: Z - with weathertingt cover

N - without closing device

TYPES: A - without spiral pipe connection

B - with spiral pipe connection

MATERIAL: St - steel

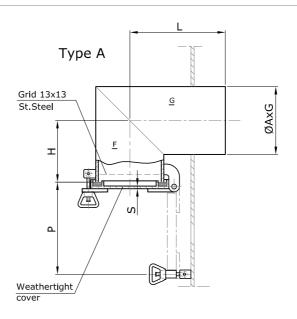
3. MATERIAL

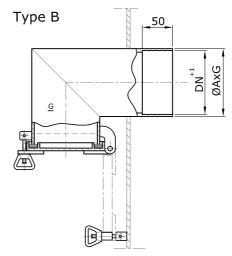
Pipe and elbows made of steel and fitted with brass swing nuts. Bolts and pins are made of stainless steel.

Gasket - rubber profile.

4. SURFACE TREATMENT

Painted with epoxy marine paint SWA 7423-014-250. Hot dip galvanised on request.





5 MARKING:

Dimension 'L' to be specified by the Customer. Marking of VS bulkhead vent of DN=125 mm, of length L=200, with weathertight cover Z and of A type:

BULKHEAD VENT VS 125-200-ZA-St

Heads made of aluminium PA2 on request.





| DN | ØAxG | Н | ØD | Р |
|-----|-------|-----|-----|-----|
| 80 | 90x5 | 114 | 114 | 120 |
| 100 | 100x5 | 152 | 150 | 130 |
| 125 | 135x5 | 181 | 175 | 145 |
| 160 | 170x5 | 229 | 320 | 165 |
| 200 | 210x5 | 305 | 270 | 190 |
| 250 | 260x5 | 381 | 320 | 220 |
| 315 | 325x5 | 457 | 390 | 260 |

Bulkhead vents VA are destined for installation in forced and natural ventilation systems of of seagoing ships and offshore objects.

They are provided with weathertight rotating lid and shall be fitted in external aluminium walls.

2. SIZES AND TYPES

EXECUTIONS: Z - with weathertingt cover

N - without closing device

TYPES: A - without spiral pipe connection

B - with spiral pipe connection

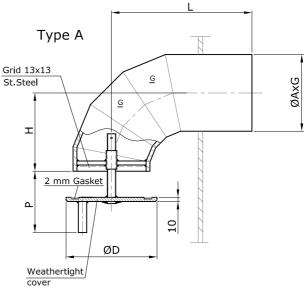
MATERIAL: Al - aluminium PA2

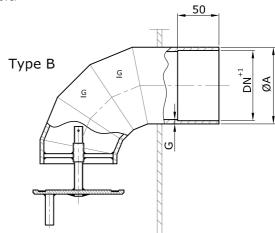
3. MATERIAL

Pipe are made of PA2 aluminium. Bolts and sleeves are made of stainless steel. Gasket - rubber profile.

4. SURFACE TREATMENT

Not painted.





5. MARKING:

Dimension 'L' to be specified by the Customer. Marking of VA bulkhead vent of DN=125 mm, of length L=200, with weathertight cover Z and of A type:

BULKHEAD VENT VA 125-200-ZA-Al

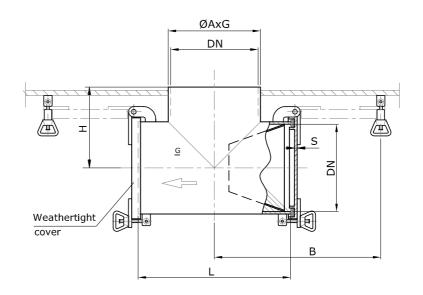
Heads with dimension H=ØA on request.



BULKHEAD EJECTOR VENTS EO

| DN | 100 | 125 | 160 |
|------|-------|-------|-------|
| ØAxG | 100x5 | 135x5 | 170x5 |
| Н | 140 | 155 | 170 |
| L | 210 | 240 | 270 |
| S | 210 | 240 | 270 |
| В | 150 | 175 | 210 |

| (g | C.N | St | 3,6 | 5,3 | 8,4 |
|-------|-----|----|-----|-----|------|
| ıt, k | Exe | ΑI | 1,4 | 2,2 | 3,5 |
| Weigh | c.Z | St | 4,2 | 6,5 | 10,3 |
| × | Exe | ΑI | 1,8 | 2,7 | 4,3 |



1. DESTINATION

Bulkhead ejector vents EO are destined for installation in natural ventilation systems of seagoing ships and offshore objects.

They shall be fitted in vertical steel or aluminium bulkheads with ejector axis always in horisontal position.

2. SIZES AND TYPES

EXECUTIONS: Z - with weathertingt cover

N - without closing device

MATERIAL: St - steel St3Sx

Al - aluminium PA2

3. MATERIAL

Pipes made of steel or aluminium and fitted with brass swing nuts. Bolts and pins are made of stainless steel. Gasket - rubber profile.

4. SURFACE TREATMENT

Painted with epoxy marine paint SWA 7423-014-250. Hot dip galvanised on request.

Ejector vents made of aluminium are without any surface treatment.

5. MARKING:

of ejector bulkhead vent EO on nominal diameter DN=125 mm, of execution Z and made of steel St:

EJECTOR VENT EO 125-Z-St

Set of swing nuts for fixing of covers in opened position included.



CABIN VENTILATOR HEADS CVH

| Туре | DN | ØΑ | ØВ | ØD | nxØd | F | S | Hmax | Weight |
|---------|-----|-----|-----|-----|--------|---|---|------|--------|
| '' | | | | | mm | | | | kg |
| CVH 100 | 100 | 180 | 146 | 200 | 4x9,5 | 4 | 2 | 120 | 3 |
| CVH 130 | 130 | 200 | 169 | 235 | 4x11,5 | 4 | 3 | 150 | 3,6 |
| CVH 150 | 150 | 230 | 200 | 275 | 4x14 | 4 | 3 | 160 | 5 |
| CVH 200 | 200 | 280 | 244 | 375 | 4x14 | 4 | 3 | 250 | 10 |
| CVH 250 | 250 | 330 | 295 | 460 | 6x14 | 6 | 3 | 250 | 15 |
| CVH 300 | 300 | 380 | 350 | 550 | 6x14 | 8 | 4 | 250 | 25 |

1. DESTINATION

The cabin ventilator heads CVH are destined for installation in forced or natural ventilation systems of seagoing ships and offshore objects.

They are provided with the weathertight rotating lid.

2. SIZES AND TYPES

SIZES: see table

MATERIAL: St - steel St3Sx

Al - aluminium PA2

3. MATERIAL

Spindle made of brass, packing - rubber profile.

4. SURFACE TREATMENT

Hot dip galvanised.

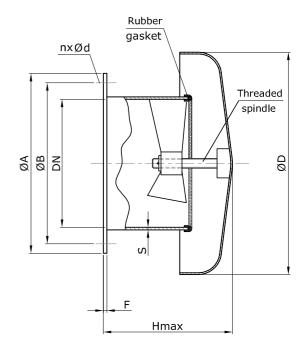
Painting with epoxy primer SWA 7423-014-250 on request.

Ventilators made of aluminium are without any surface treatment.

5. MARKING:

of cabin ventilator head on nominal diameter DN=200 mm and made of steel St:

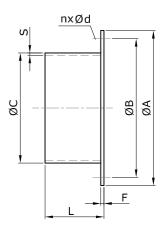
CABIN VENTILATOR CVH 200-St



6. ACCESSORIES

Transition flange F-TFC

| Type | ØС | S | Weight |
|-----------|-------|-----|--------|
| / ' | mr | n | kg |
| F-TFC 100 | 114,3 | 3,6 | 2,9 |
| F-TFC 130 | 139,7 | 4,0 | 3,6 |
| F-TFC 150 | 168,3 | 4,5 | 5 |
| F-TFC 200 | 219,1 | 5,9 | 7,8 |
| F-TFC 250 | 287 | 6,0 | 9,3 |
| F-TFC 300 | 324 | 6,0 | 11,4 |



Destined for fitting of CVH cabin ventilator head to a steel bulkhead. Made of R35 mild steel. Made of aluminium available on request.

Dimension 'L' to be specified by thr Customer.



PRESSURE RELIEF VALVE GRV

1. DESTINATION

The pressure relief valves GRV are destined for release of air or other gases from the ship's compartments being flooded, in case of fire, with CO₂, inegen or other expanding gases.

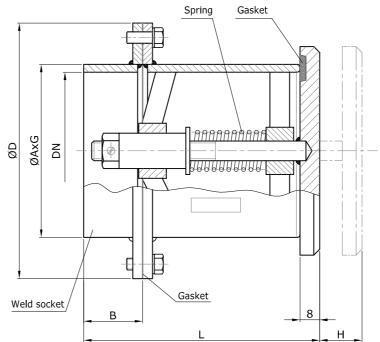
They prevent the compartments' structure against being damaged by excessive pressure when fire fighting medium is released. Factory set-up of opening pressure of valve is 0,2 bar \pm 10%.

Other adjustments on request.

2. FUNCTIONNING

The cover of valve kept in closed postion by means of spring tightened suitably to requred release pressure.

In case of excessive pressure inside the valve opens until pressure difference is less than 0,2 bar.



| Type | DN | ØAxG | ØD | В | H _{max} | L | Weight |
|---------|-----|--------|-----|----|------------------|-----|--------|
| / / / | mm | | | | | | kg |
| GRV 80 | 80 | 88,9x4 | 130 | 30 | 26 | 128 | 1,9 |
| GRV 100 | 100 | 108x4 | 150 | 40 | 32 | 158 | 2,8 |
| GRV 125 | 125 | 133x4 | 180 | 45 | 40 | 195 | 3,8 |

6. MARKING:

of gas relief valve GRV of nominal diameter DN=100 mm:

RELIEF VALVE GRV-100



BULKHAED TRANSFER VALVE BTV

| DN | ØAxG | L | ØD | Ι | Р |
|-----|-------|-----|-----|----|-----|
| 80 | 90x5 | 80 | 114 | 30 | 90 |
| 100 | 100x5 | 100 | 150 | 40 | 100 |
| 125 | 135x5 | 100 | 175 | 50 | 100 |
| 160 | 170x5 | 120 | 320 | 60 | 120 |
| 200 | 210x5 | 120 | 270 | 70 | 120 |
| 250 | 260x5 | 150 | 320 | 80 | 150 |
| 315 | 325x5 | 150 | 390 | 90 | 150 |

1. DESTINATION

Bulkhead transfer valves BTV are destined for installation at sheltered vertical partitions of compartments on seagoing ships as well on shore objects.

They are mainly used as air release valve, may be however used as supply units as well.

2. SIZES AND TYPES

SIZES: see table

3. MATERIAL

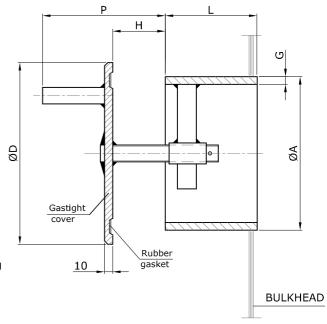
Valve body made of mild steel.

Spindle made of stainless steel, bushing of brass.

Gasket - rubber profile.

4. SURFACE TREATMENT

Painted with epoxy primer SWA 7423-014-250. Hot-dip galvanised on request.



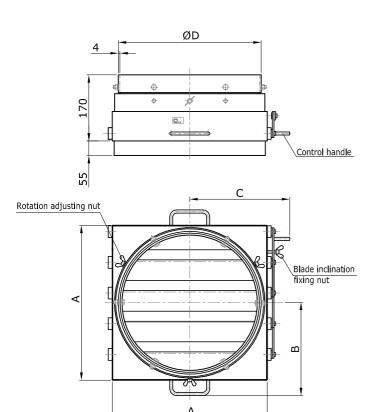
5 MARKING:

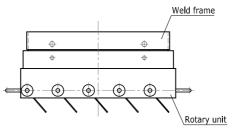
Marking of BTV of DN=125 mm:

BULKHEAD VALVE BTV-125

Other sizes on request.







| DN | ØD | Α | В | С | Weight, kg |
|-----|-----|-----|-----|-----|------------|
| 200 | 213 | 244 | 161 | 179 | 7,9 |
| 250 | 263 | 294 | 186 | 204 | 9,2 |
| 315 | 328 | 359 | 220 | 237 | 12,8 |
| 350 | 363 | 394 | 237 | 254 | 14,8 |
| 400 | 413 | 450 | 262 | 280 | 17,8 |
| 500 | 513 | 550 | 320 | 330 | 24,2 |

Rotary air diffusers RAD are destined for installation in ventilation systems of seagoing vessels and offshore objects.

They are used as air distributors in ventilation systems of machinery and technical spaces and allow individual adjustment of air stream direction.

2. CONSTRUCTION

Consist of weld frame and adjustable rotary unit comprising interconnected adjustable deflector blades. Diffuser to be fixed in requested position by fixing puts

Flanged frame for fitting to galvanised duct available on request.

3. SURFACE TREATMENT

Weld frame painted with epoxy primer SWA 7423-014-250. Otherwise painted.

Hot-dip galvanised execution available on request.

4. SIZES AND TYPES

SIZES: see table

5 MARKING:

Marking of air diffuser RAD of DN=350 mm:

ROTARY AIR DIFFUSER RAD-350

PERFORMANCE CHART

