

GENERAL SPECIFICATION

PIPING VALVES VESSELS

GS EP PVV 402

Standards for exchanger accessories and equipment

03	05/2015	Organisation change – January 2015
02	10/2005	Addition of “EP” root to GS identification
01	11/2003	Change of Group name and logo
00	02/2003	First issue
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1. Reference documents

The reference documents listed below form an integral part of this General Specification.

External Documents

Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published at the effective date of this document.

Reference	Title
Not applicable	

Total General Specifications

Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published in the applicable yearly collection.

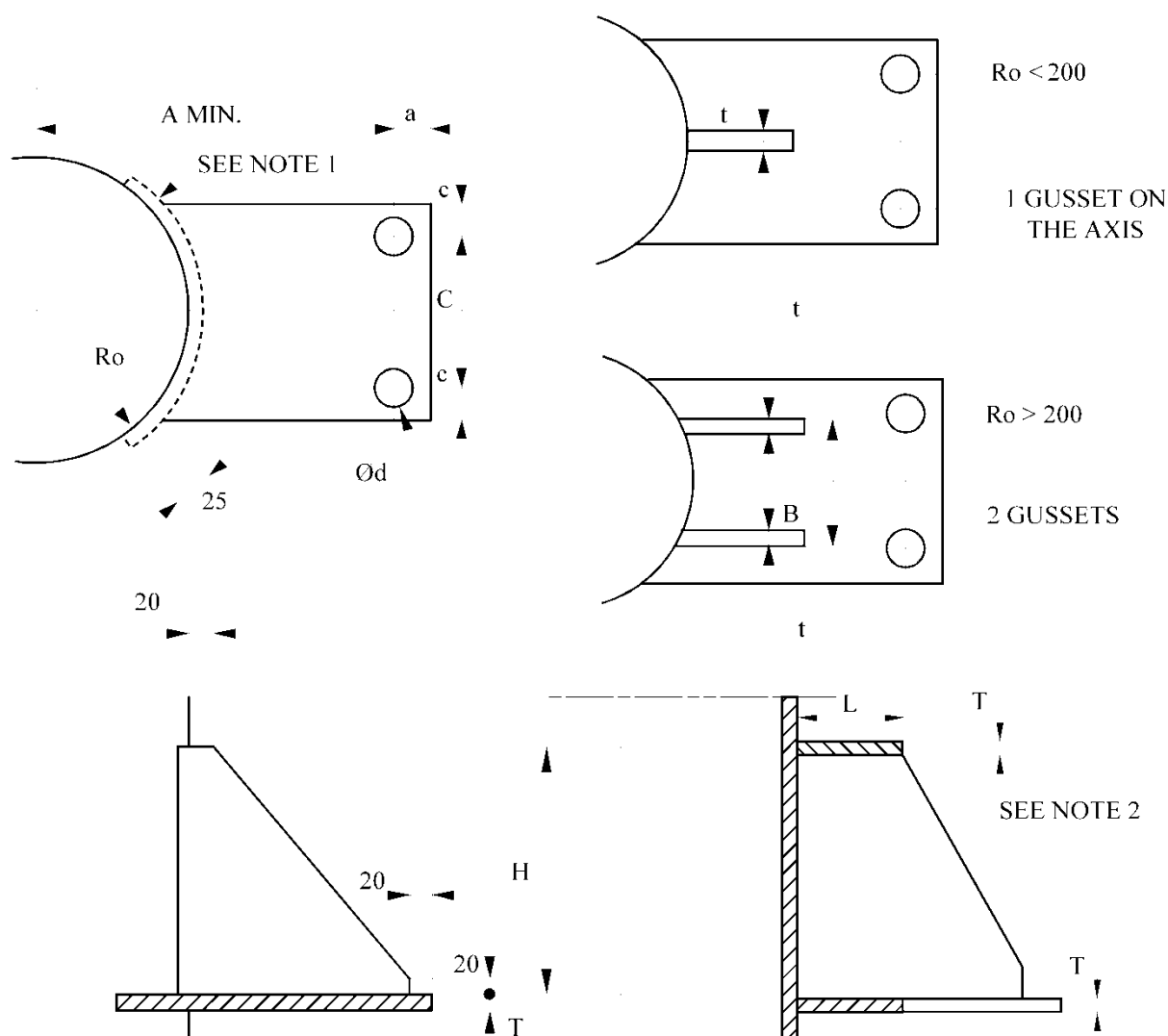
Reference	Title
Not applicable	

Supports for vertical exchangers (SD EP PVV 401)

This standard applies to all vertical shell and tube exchangers having an outside diameter of not more than 1524 mm (60") and a tube length of not more than 7315 mm.

Each exchanger shall have at least two opposed supports, located on the same axis.

Exchangers designed for a vacuum and for which R_o exceeds 460 mm shall have four supports, placed 90° apart.



Dimension A may be increased if:

- It is necessary to do so to facilitate installation
- The insulation thickness requires it (the anchor bolts must always be outside the insulation).

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Ro	T	t	O d	A MIN.	a	B*	C	c	L	H*
Ro ≤ 200	12	10	23	Ro + 100	45	-	1.6 Ro*	40	50	0.65 (A + 100)
200 < Ro ≤ 300	16	12	23	Ro + 130	50	0.4 Ro	B + 2 c	50	60	
300 < Ro ≤ 380	20	16	23	Ro + 130	60	0.6 Ro	B + 2 c	50	80	
380 < Ro ≤ 460	24	18	27	Ro + 130	60	0.6 Ro	B + 2 c	60	80	0.60 (A + 100)
460 < Ro ≤ 570	30	20	27	Ro + 130	60	0.6 Ro	B + 2 c	60	100	
Ro > 570	30	24	27	Ro + 130	60	0.7 Ro	B + 2 c	60	120	0.55 (A + 100)

* rounded off to the next higher round dimension

Note 1: If the thickness of the shell is less than t, provide a backing equal in thickness to the shell.

Note 2: For a shell designed for a vacuum, provide 2 complete girdles of width L and thickness T.

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Supports for horizontal exchangers (SD EP PVV 402)

This standard applies to all horizontal exchangers within the following limits:

- Exchangers of which the tube length does not exceed 7315 mm
- Exchangers of which the nominal diameter does not exceed 1524 mm (60 inches)
- TEMA type K reboilers of which the body diameter does not exceed 2540 mm (100 inches), provided that the nominal diameter of the channel does not exceed 1524 mm (60 inches).

Each exchanger shall have two supports, separated, in so far as possible, by a distance close to half the total length of the exchanger.

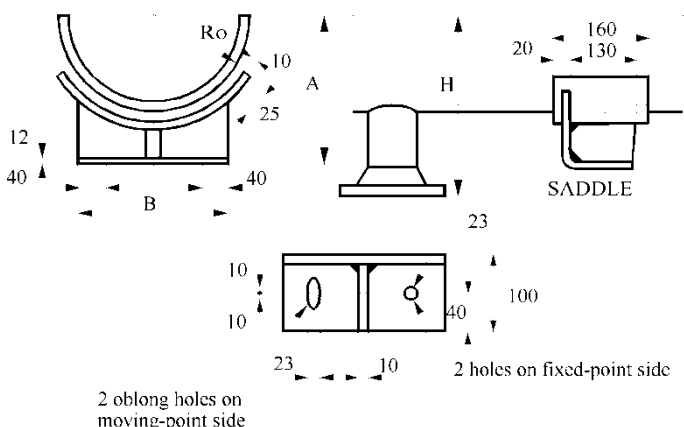
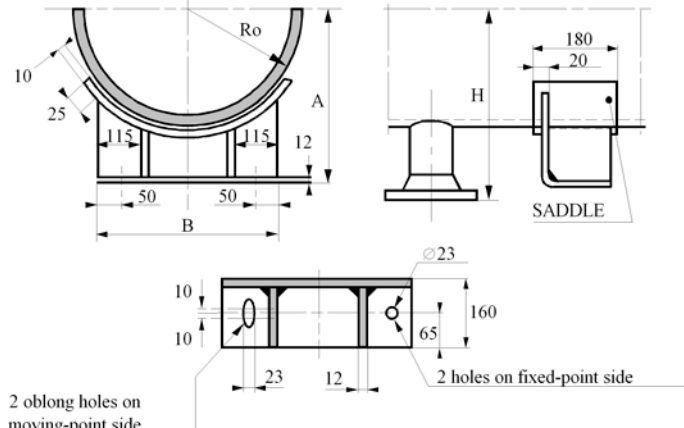
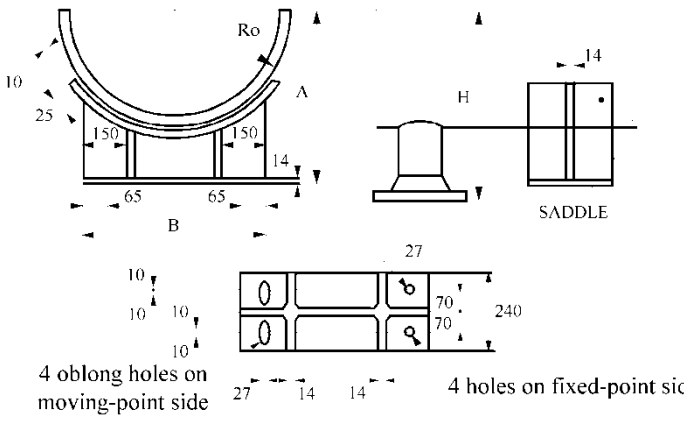
One of the supports shall be placed in such a way as to avoid a substantial overhang of the channel.

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 2 oblong holes on moving-point side	<u>Shells made of PIPE 16" or rolled plate, $R_o \leq 200$</u> $B = R_o \sqrt{3}$ rounded up to next higher round value $H = R_o + 230$ mm rounded up to next higher round value $A = R_o + 130$ mm rounded up to next higher round value <u>Shells $200 < R_o \leq 305$</u> $B = R_o \sqrt{3}$ rounded up to next higher round value $H = R_o + 240$ mm rounded up to next higher round value $A = R_o + 140$ mm rounded up to next higher round value R_o = outside radius of shell
 2 oblong holes on moving-point side	<u>Shells $305 < R_o \leq 385$</u> $B = R_o \sqrt{3}$ rounded up to next higher round value $H = R_o + 260$ mm rounded up to next higher round value $A = R_o + 160$ mm rounded up to next higher round value R_o = outside radius of shell
 4 oblong holes on moving-point side	<u>Shells $R_o > 385$</u> $B = R_o \sqrt{3}$ rounded up to next higher round value $H = R_o + 280$ mm rounded up to next higher round value $A = R_o + 180$ mm rounded up to next higher round value R_o = outside radius of shell

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