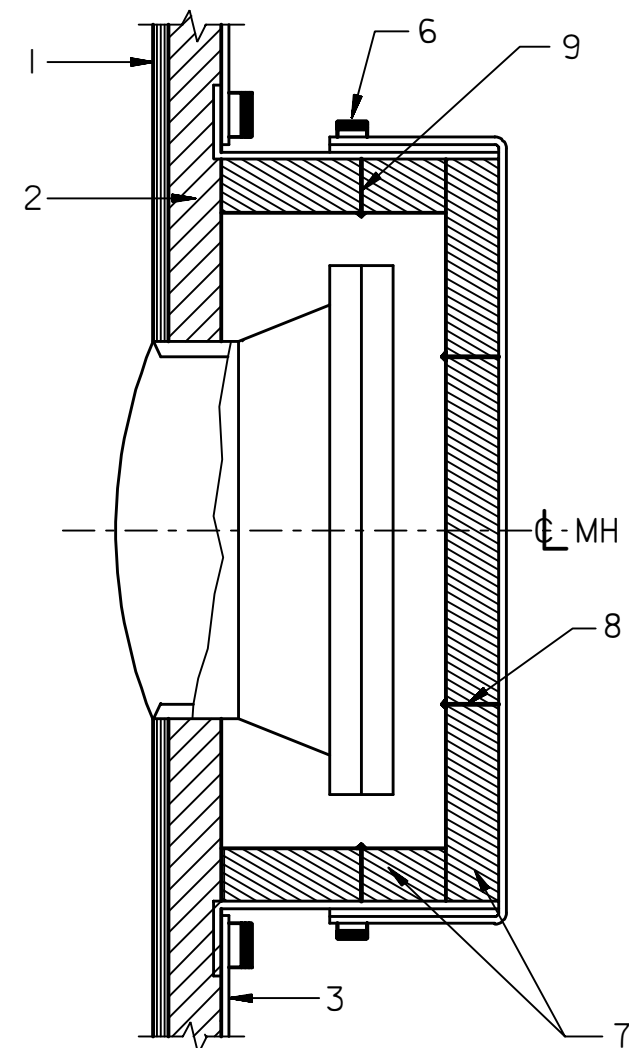
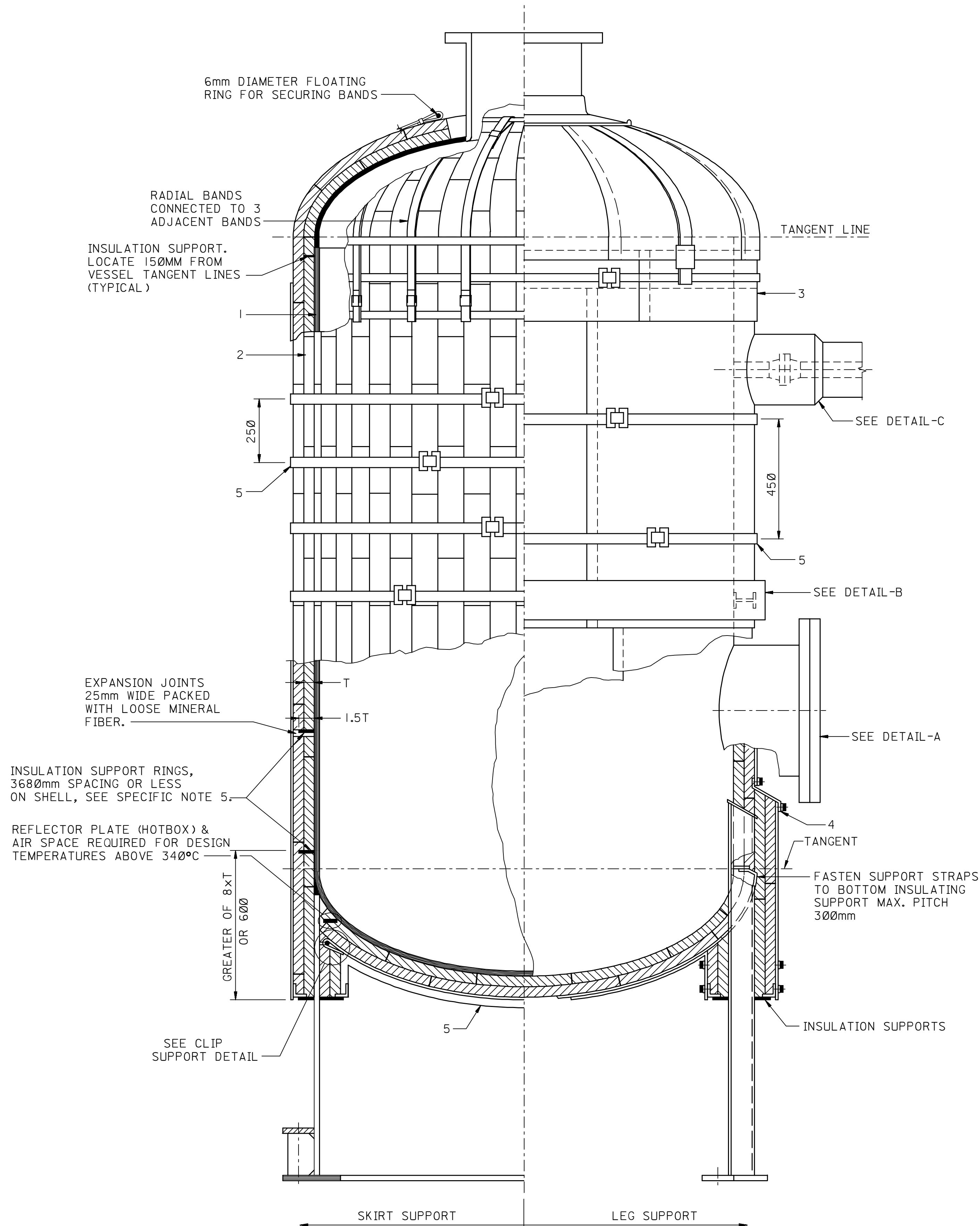
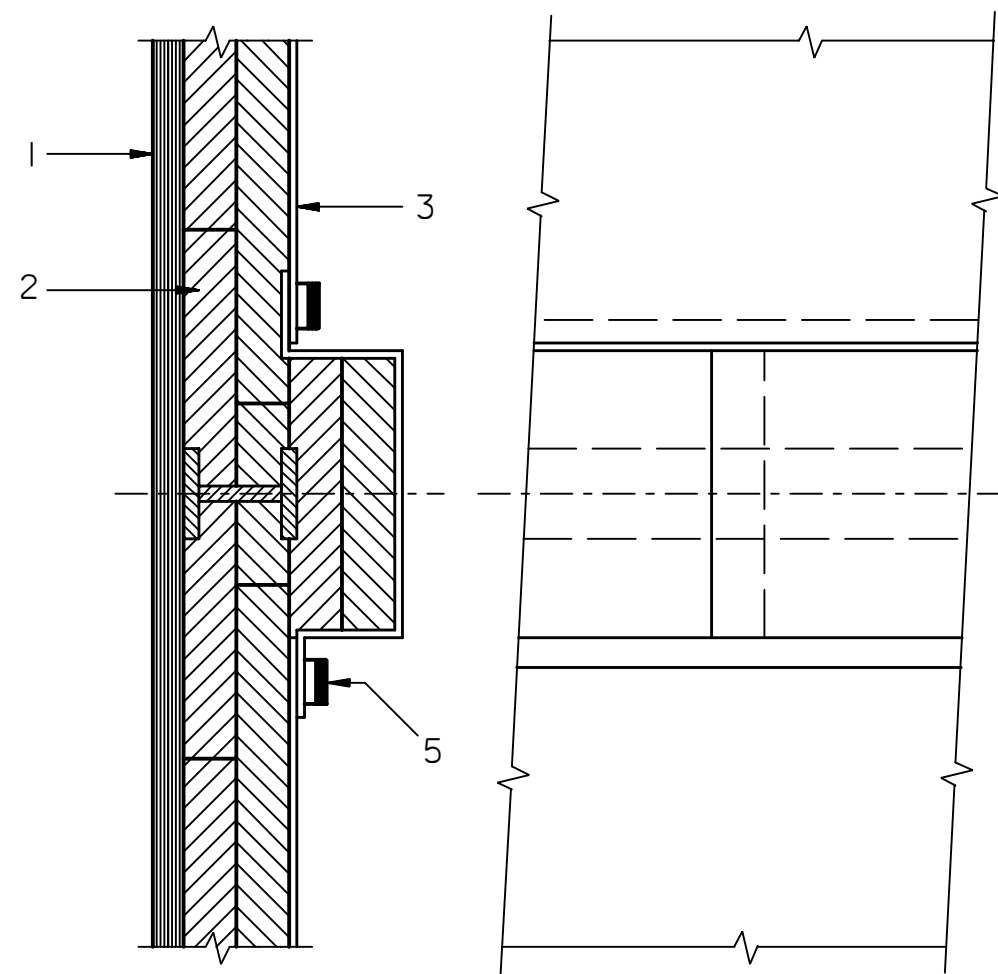


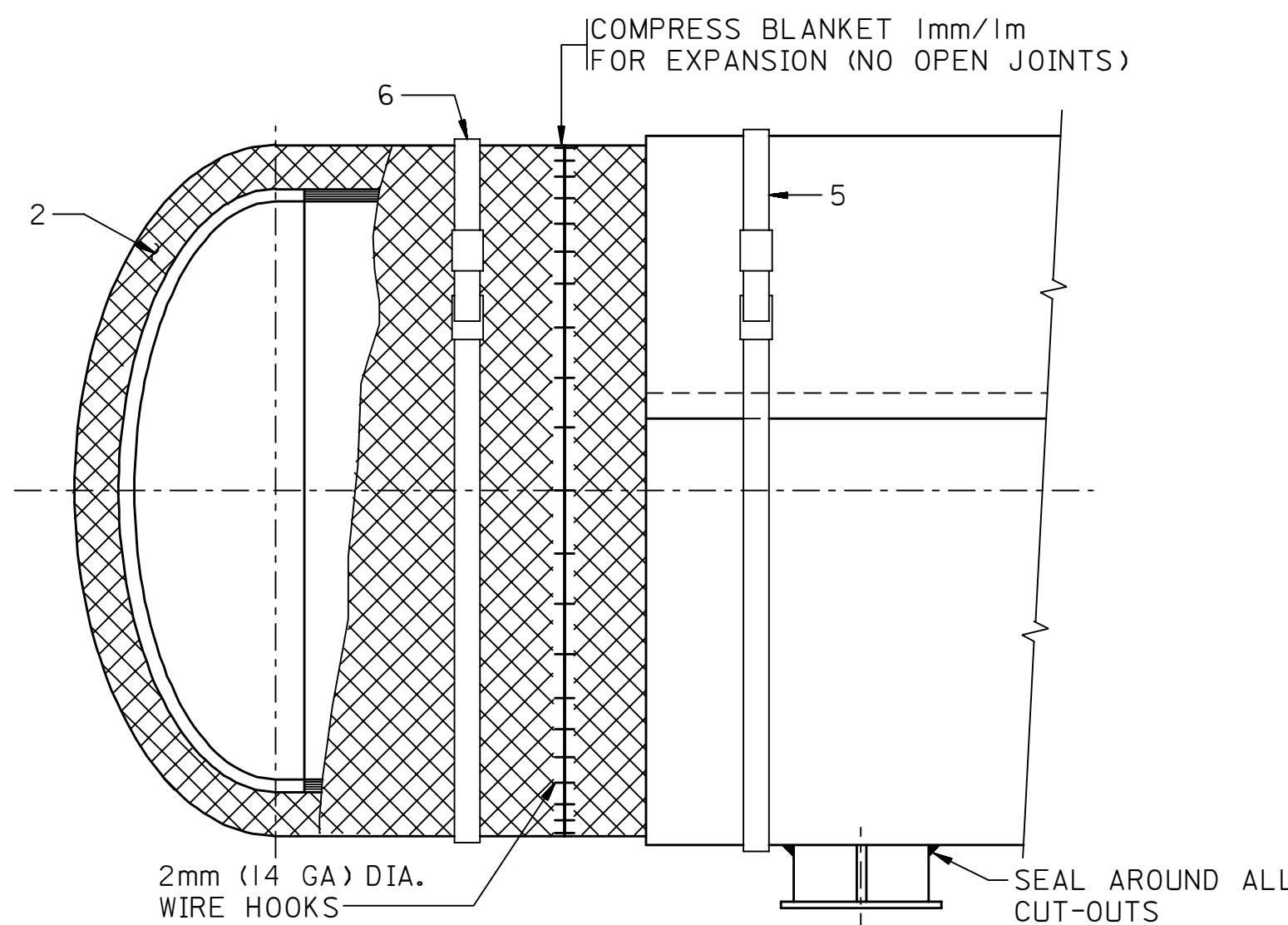


MANWAY
DETAIL-A



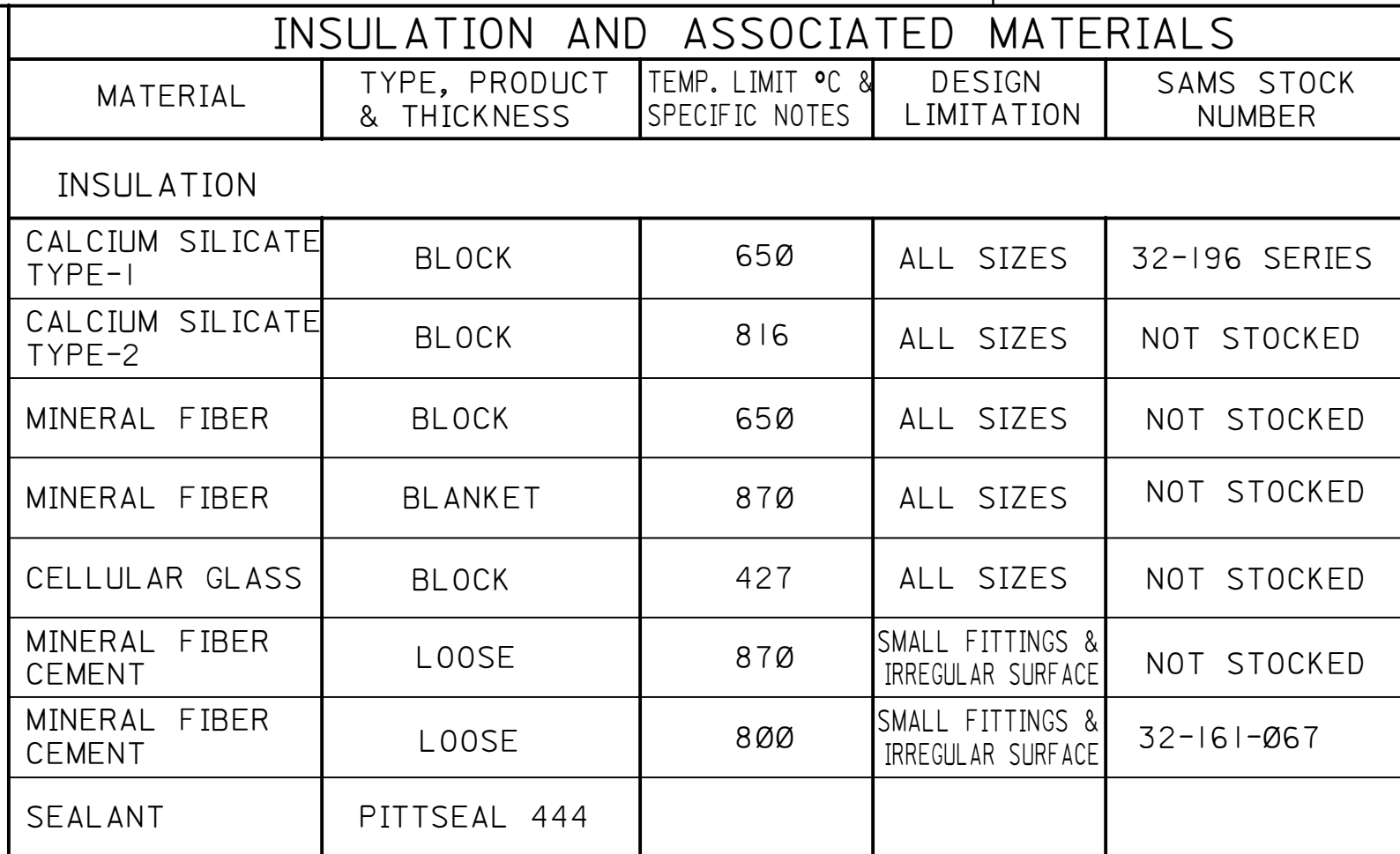
TYPICAL DETAIL OF INSULATION
AT STIFFENING RING

DETAIL-B



HORIZONTAL VESSEL TYPICAL
DETAIL - BLANKET INSULATION

DETAILS AS SHOWN APPLY TO VERTICAL
VESSELS INSULATED WITH BLANKET TYPE
INSULATION



ACCESSORIES

STAINLESS STEEL A167 TYPE 304	STRAP 12 (1/2) x 0.4 (0.15) 20 (3/4) x 0.5 (0.02)	< 915 (36) > 915 (36) ALL METAL JACKETS	08-898 SERIES 08-900 SERIES
STAINLESS STEEL A167 TYPE 316	STRAP 12 (1/2) x 0.4 (0.15) 20 (3/4) x 0.5 (0.02)	< 915 (36) > 915 (36) ALL METAL JACKETS	

NON METALLIC WEATHERPROOFING

PVC		NOTE 1		
ELASTOMERIC		NOTE 1		
ASPHALTS		NOTE 1		32-166 SERIES

WEATHERPROOFING METAL JACKETS

ALUMINUM ASTM B209 ALLOY 3003-14	SHT. 0,5 (0,020) THK SHT. 0,6 (0,024) THK SHT. 0,8 (0,032) THK	NOTES 1, 2 & 3	<150 (6) 151 TO 500 (6 TO 20) 500 (20)	NOT STOCKED
ALUMINUM ASTM B209 ALLOY 6061	SHT. 0,5 (0,020) THK SHT. 0,6 (0,024) THK SHT. 0,8 (0,032) THK	NOTE 3	<150 (6) 151 TO 500 (6 TO 20) 500 (20)	NOT STOCKED
ALUMINIZED STEEL ASTM A463 TYPE 40	SHT. 0,45 (0,018) THK SHT. 0,6 (0,024) THK	NOTE 4		
STAINLESS STEEL ASTM 167 TYPE 304	SHT. 0,25 (0,01) THK	NOTE 2	ALL SIZES	
STAINLESS STEEL ASTM 167 TYPE 316	SHT. 0,25 (0,01) THK		ALL SIZES	

GENERAL NOTES

1. THE MATERIALS SPECIFIED FOR INSULATION, WEATHERPROOFING, AND ACCESSORIES ARE MANDATORY. ALTERNATE MATERIALS MUST MEET THE GENERIC DESCRIPTIONS SPECIFIED IN THE SAUDI ARAMCO MATERIAL STOCK DESCRIPTION (SAMS).
2. THE INSTALLATION DETAILS SHOWN ARE TYPICAL. ALTERNATIVE INSTALLATION DETAILS ARE ACCEPTABLE PROVIDED THEY COMPLY WITH THE SPECIFIC NOTES.
3. CONVENTIONAL UNITS OF MEASUREMENTS MAY BE USED IN LIEU OF THE METRIC MEASUREMENTS SHOWN.
4. INSULATION THICKNESSES ARE TO BE IN ACCORDANCE WITH SAES-N-001.

SPECIFIC NOTES

1. NOT TO BE USED INSIDE PROCESS BATTERY LIMITS OR IN FIRE HAZARDOUS AREAS.
2. NOT TO BE USED IN COASTAL OR MARINE APPLICATIONS.
3. NOT TO BE USED IN FIREPROOF APPLICATIONS.
4. USE FOR FIREPROOF APPLICATIONS.
5. INSULATION SUPPORT RINGS TO BE DESIGNED TO ALLOW FOR CIRCUMFERENTIAL EXPANSION.

HOT INSULATION LEGEND

- 1 -VESSEL
- 2 -INSULATION
- 3 -WEATHERPROOFING
- 4 -FLASHING
- 5 -TENSION STRAPS
- 6 -INSULATING CEMENT
- 7 -MINERAL WOOL
- 8 -CLIP

DRAWING RESPONSIBILITY:

VESSEL STANDARDS COMMITTEE

02	07-30-96	ESSD WAS	REVISED AND UPDATED			
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REV. NO.	DATE	BY	JO/EWO	DESCRIPTION	CHKD.	CERT.	APPD.
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SAUDI ARABIAN OIL COMPANY

DRAWN BY _____ CHECKED BY _____ SCALE: NONE

DATE STARTED _____ DATE COMPLETED _____

OPR'G. DEPT. _____ ENG. DEPT. _____

APP'D. FOR CONST. _____	
THIS DRAWING IS NOT TO BE USED FOR	CERTIFIED

CONSTRUCTION OR ORDERING
MATERIAL UNTIL CERTIFIED AND DATED

BY _____ DATE _____

INSULATION DETAILS FOR HOT VESSELS

FOR HOT VESSELS

STD. DWG.	METRIC
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PLANT NO.	INDEX	DRAWING NUMBER	SHT. NO.	REV. NO.

990	N	AA-036912	001	02
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