

# Carbon Steel HVAC Buffer Tank - 4 Port Flanged

**ThermaCon<sup>o</sup>**  
BUFFER TANKS

WITH INDOOR HEATING / COOLING INSULATION

Code: TCBT-SIF-"SIZE"

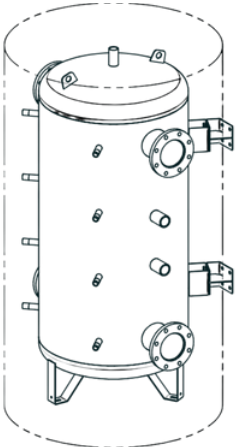
Insulated with PVC jacket 6 bar rated Carbon steel construction, with 4 x flange ports and threaded auxiliary connections.

Normal applications include:

Hot water heat pump thermal buffer tank, Water chiller inertia tank, Boiler system primary-secondary buffer, Hydronic heat storage and Glycol systems.



## TYPICAL ARRANGEMENT



## KEY FEATURES



1000 - 4000 L  
STANDARD  
VOLUMES



CARBON STEEL  
CONSTRUCTION  
ANTI-RUST PAINTED  
EXTERNALLY



4 PORT DIN-PN16  
FLANGED

- 1000-1500L  
150MM DIA
- 2000-5000L  
200MM DIA



INDOOR HOT/COLD  
INSULATION



- 20MM GLUED  
CLOSED-CELL  
FOAM (VAPOUR  
BARRIER)



- 80/100MM  
POLYESTER &  
PVC JACKET



- TOTAL  
INSULATION-  
ONLY THERMAL  
RESISTANCE:  
R 1.2 (M<sup>2</sup>·K/W)\*

(\*BASED ON MANUFACTURERS DATA)



HEATING &  
CHILLED WATER  
COMPATIBLE  
MAX OPERATING  
TEMP 90°C



SIDE BRACKETS  
MAKES SEISMIC  
RESTRAINT EASY



OPERATING MAX  
6 BAR  
TEST PRESSURE  
9 BAR



AUXILIARY FEMALE  
BSP THREADED  
PORTS  
40MM DRAIN &  
TOP VENT  
4 X 25MM SIDE  
(GAUGES/  
INSTRUMENTS)

Size	Code	Diameter Uninsulated	Dry weight	Insulated Dimensions
1000L	TCBT-SIF-1000	850mm	257.5 kg	Dia 1090mm, H 2125mm
1500L	TCBT-SIF-1500	1000mm	225.0 kg	Dia 1240mm, H 2255mm
2000L	TCBT-SIF-2000	1250mm	291.0 kg	Dia 1490mm, H 2000mm
2500L	TCBT-SIF-2500	1400mm	**	Dia 1640mm, H 1960mm
3000L	TCBT-SIF-3000	1600mm	448.0 kg	Dia 1840mm, H 1980mm
4000L	TCBT-SIF-4000	1600mm	*510.0 kg	Dia 1840mm, H 2420mm



SCAN FOR  
MORE INFO

\*CHECK WITH FLOWQUIP TECH TEAM FOR UPTO DATE MEASUREMENTS  
FLOWQUIP RESEVES THE RIGHT TO CHANGE THESE WITHOUT NOTICE

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# Indoor Buffer Tank Standard Insulation Spec

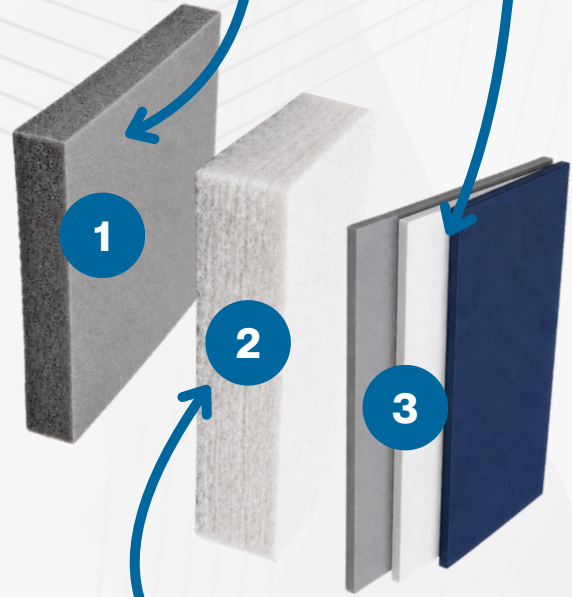
**ThermaCon<sup>®</sup>**  
BUFFER TANKS

## FOR HEATING / COOLING APPLICATIONS

- Multi-layer insulation system for heating and chilled water applications
- Approximate insulation performance up to R3.0 m<sup>2</sup>·K/W (20 mm closed-cell foam + 100 mm polyester blanket)
- High-density polyester insulation with thermal conductivity of  $\lambda = 0.0374$  W/m·K
- Closed-cell anti-condensation vapour barrier bonded directly to tank surface
- Designed to minimise condensation in cooling and low-temperature applications
- Removable PVC-clad insulation jacket for maintenance access and confined plantroom installations
- Insulation materials manufactured without CFC or HCFC blowing agents
- Polyester insulation fire classifications: EN 13501-1 Bs1d0, DIN 4102-1 B1, BS 476 Parts 6 & 7 Class 0
- Closed-cell foam fire classifications: EN 14313:2009 B-s2,d0 / BL-s1,d0, UNI 9174 Class 1 (CL1)
- Suitable for commercial HVAC and hydronic mechanical services applications

**PVC Cladding  
External Zipper  
Jacket**  
(Removable for tight installations)

**Closed-Cell Anti  
Condensation Foam**  
(Factory Glued and sealed to the tank wall)



**High Density soft  
Polyester Blanket**  
(Removable for tight installations)



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# Buffer Tank External Insulation Cladding Option

## FACTORY FITTED EXTERNAL ALUMINIUM CLADDING FOR THERMACON FLANGED & INSULATED BUFFERS

The ThermaCon Buffers come with Hot / Cold indoor insulation as standard. For Outdoor Applications, FlowQuip can fit a retrofit Embossed Aluminium outer casing. Fitted in our factory before dispatch to your site. All joints are sealed for external NZ conditions. This can be applied to all flanged-sized tanks Stainless & Carbon steel types.

Rubber boot seal around the top air vent connection.

Insulated Tank Size	Code	Dimensions
1000L	TCBT-SOF-1000	<b>Refer to TCBT-SIF Indoor Series</b>
1500L	TCBT-SOF-1500	
2000L	TCBT-SOF-2000	
2500L	TCBT-SOF-2500	
3000L	TCBT-SOF-3000	
4000L	TCBT-SOF-4000	

0.75 or 1mm Ali sheet cladding

Access points for holdown fixing points and drain connection.



# Typical Additional Seismic Restraint Support Detail

**ThermaCon<sup>o</sup>**  
BUFFER TANKS

## SUITS STANDARD THERMACON BUFFERS 1000-4000L

ThermaCon buffer tanks incorporate proprietary side brackets designed to simplify compliance with NZ seismic requirements, including NZ Building Code provisions and NZS 4219:2009.

Unlike conventional restraint methods requiring straps beneath insulation or extensive bespoke support engineering, the integrated side bracket system allows tanks to be securely restrained using a simple modular support frame arrangement or to a wall. This approach simplifies seismic certification across a range of installation types, extreme seismic zones, and building importance levels.

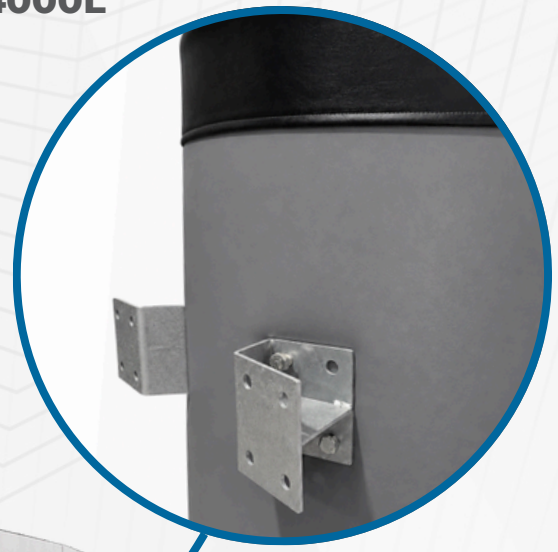


Ask about our  
Modular Seismic  
Frame & Engineering  
Pack

No need for bespoke restraint straps under/crushing the insulation with the *Thermacon* side brackets

Modular support frame  
Bolted to concrete Plinth

*\*seismic compliance requirements vary across installations, seismic zones, and building importance levels - custom solutions maybe required.*



Frame also provides connecting pipework support

Attachment plates to the proprietary tank brackets can be attached to a wall if required.

M16 Hold down bolts x 2 per leg  
(site drill steel foot plates to suit before placement)

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INDOOR INSULATED



1000L

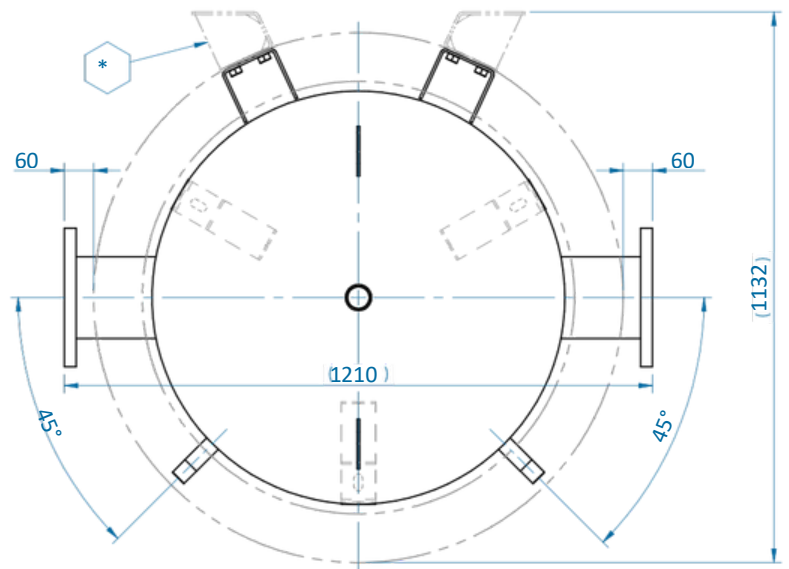
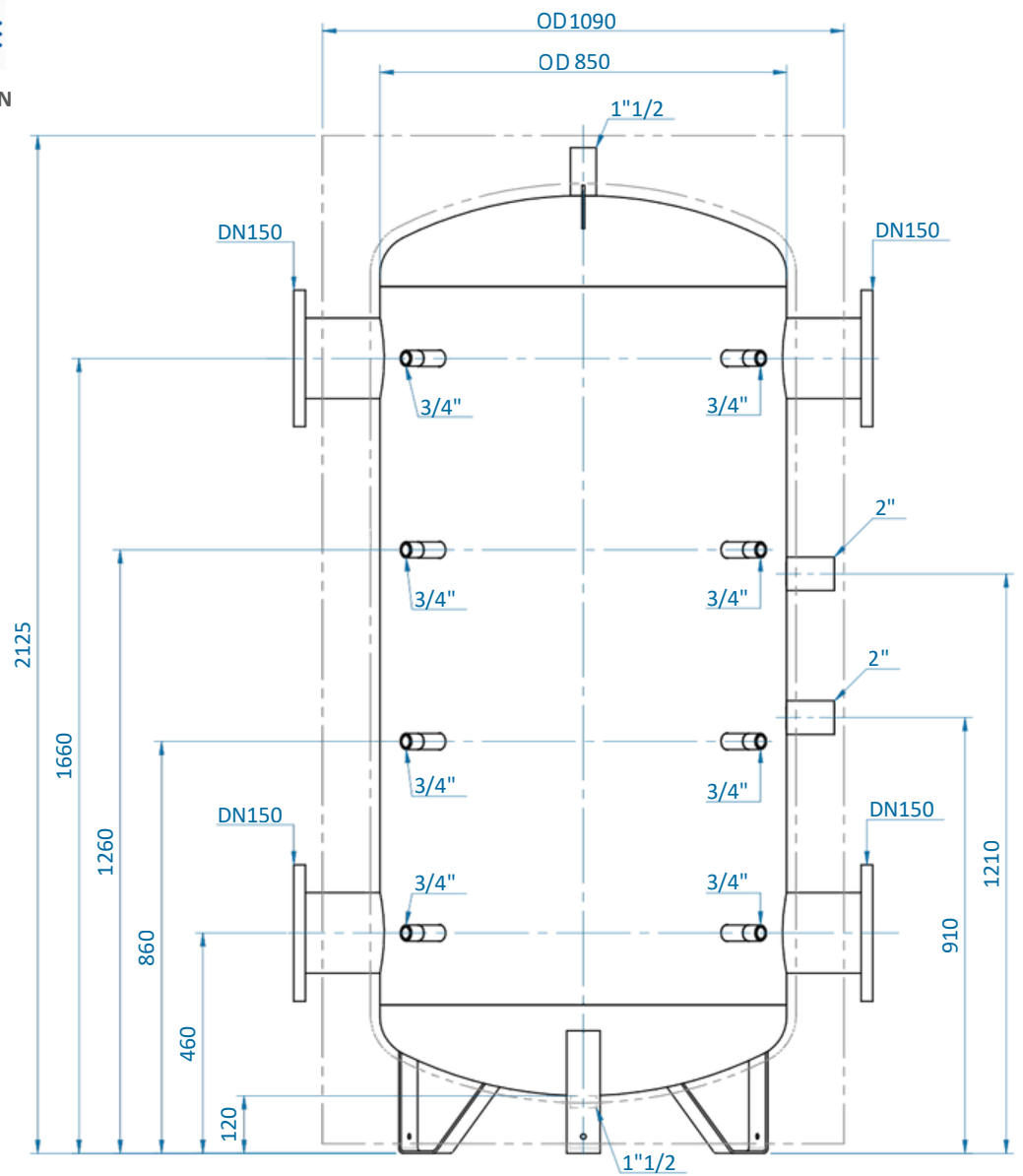
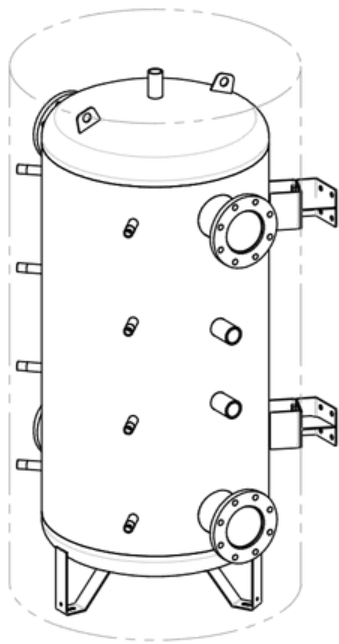
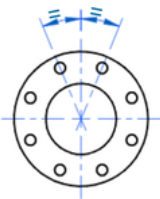


HEATING / CHILLED



CARBON STEEL

Flange Orientation



20 mm CLOSE CELL INSULATION + 100 mm FLEXIBLE INSULATION WITH EXTERNAL PVC COVER

PAINTED EXTERIOR


BLACK RAW STEEL INSIDE, ANTIRUST PAINTING OUTSIDE

FLANGES PN 16 UNI EN 1092-1

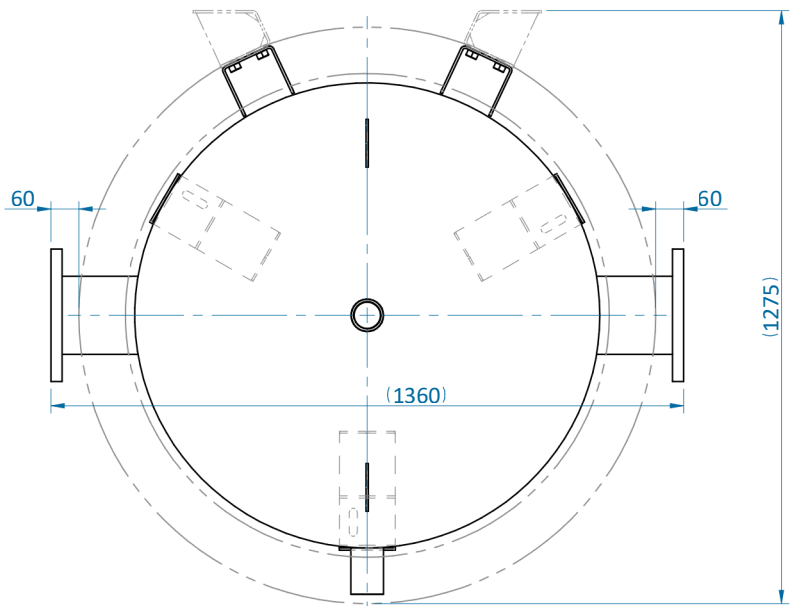
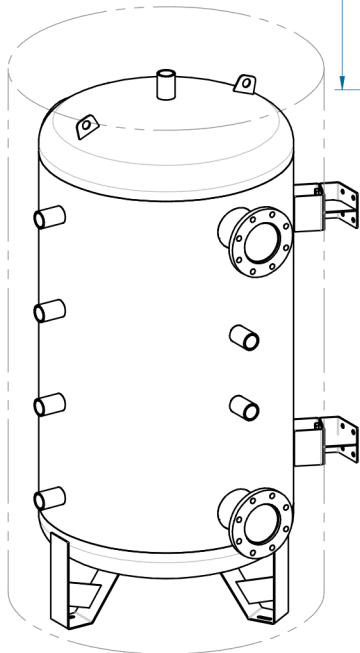
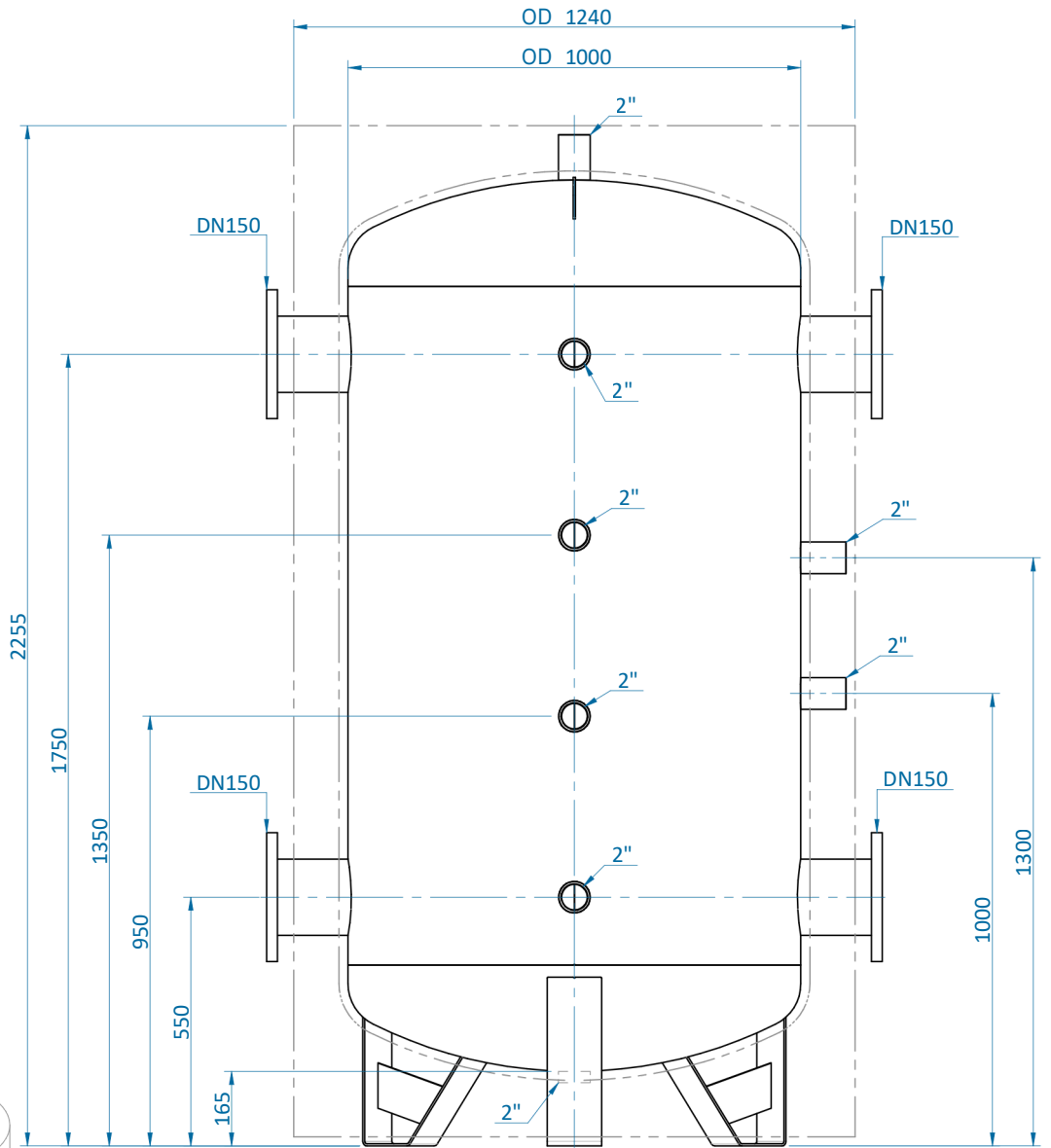
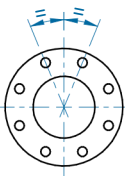
WORKING PRESSURE: 6 bar

FOR ADDITIONAL SIDE BRACKETS FOR SEISMIC

RESTRAINT 257.5 KG dry weight.

REVISION		DATA	
APPROVED		APPROVED	
REVISION		REVISION	
GENERAL TOLERANCE	ISO 2768-v	SCALE	WEIGHT
TREATMENT/ FINISH		1:11	257,5kg
MATERIAL		DATE	27/03/2026
		APPROVED	GR
		DESIGNED	MJ
		CODE	
		<b>OBJECT:</b> ThermaCon Buffer Tank Carbon Steel 4 Port Flanged, Indoor Insulation 1000 Litre	
<small>THIS DRAWING IS THE PROPERTY OF FLOWQUIP LTD AND MUST NOT BE RETAINED, COPIED OR USED WITHOUT PERMISSION.</small>		<b>TCBT-SIF-1000</b> 81701F171X	

Flange Orientation



20 mm CLOSE CELL INSULATION + 100 mm FLEXIBLE INSULATION WITH EXTERNAL PVC COVER

PAINTED EXTERIOR

BLACK RAW STEEL INSIDE, ANTIRUST PAINTING OUTSIDE

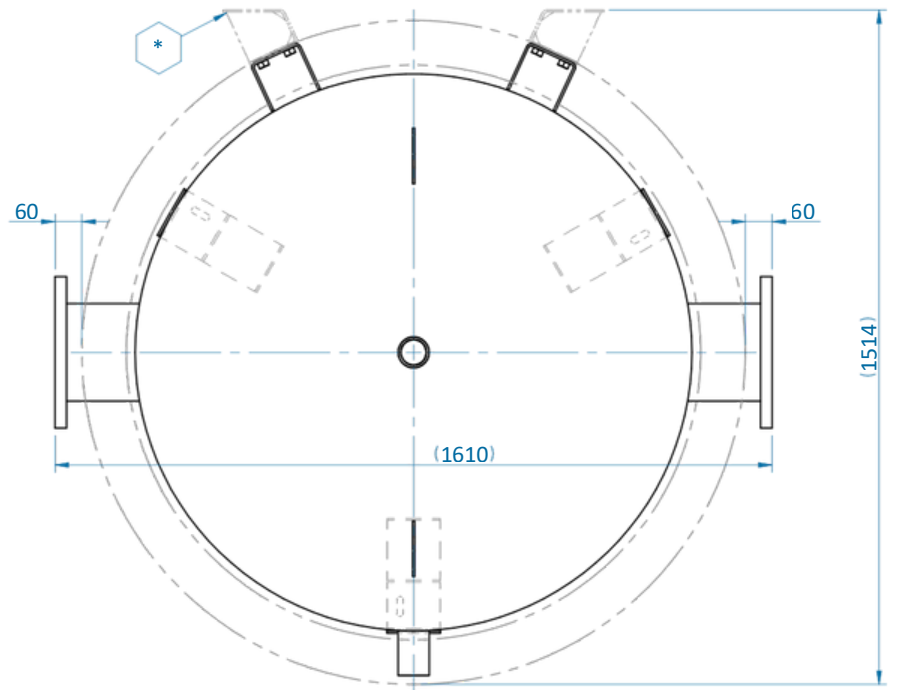
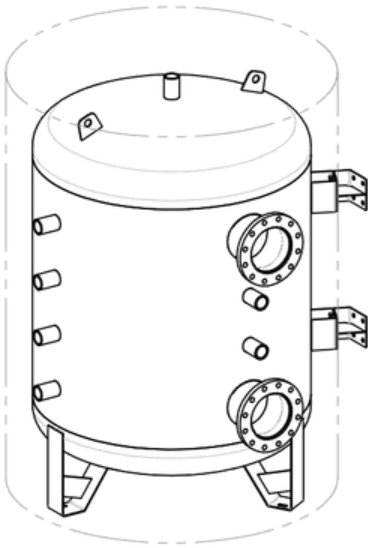
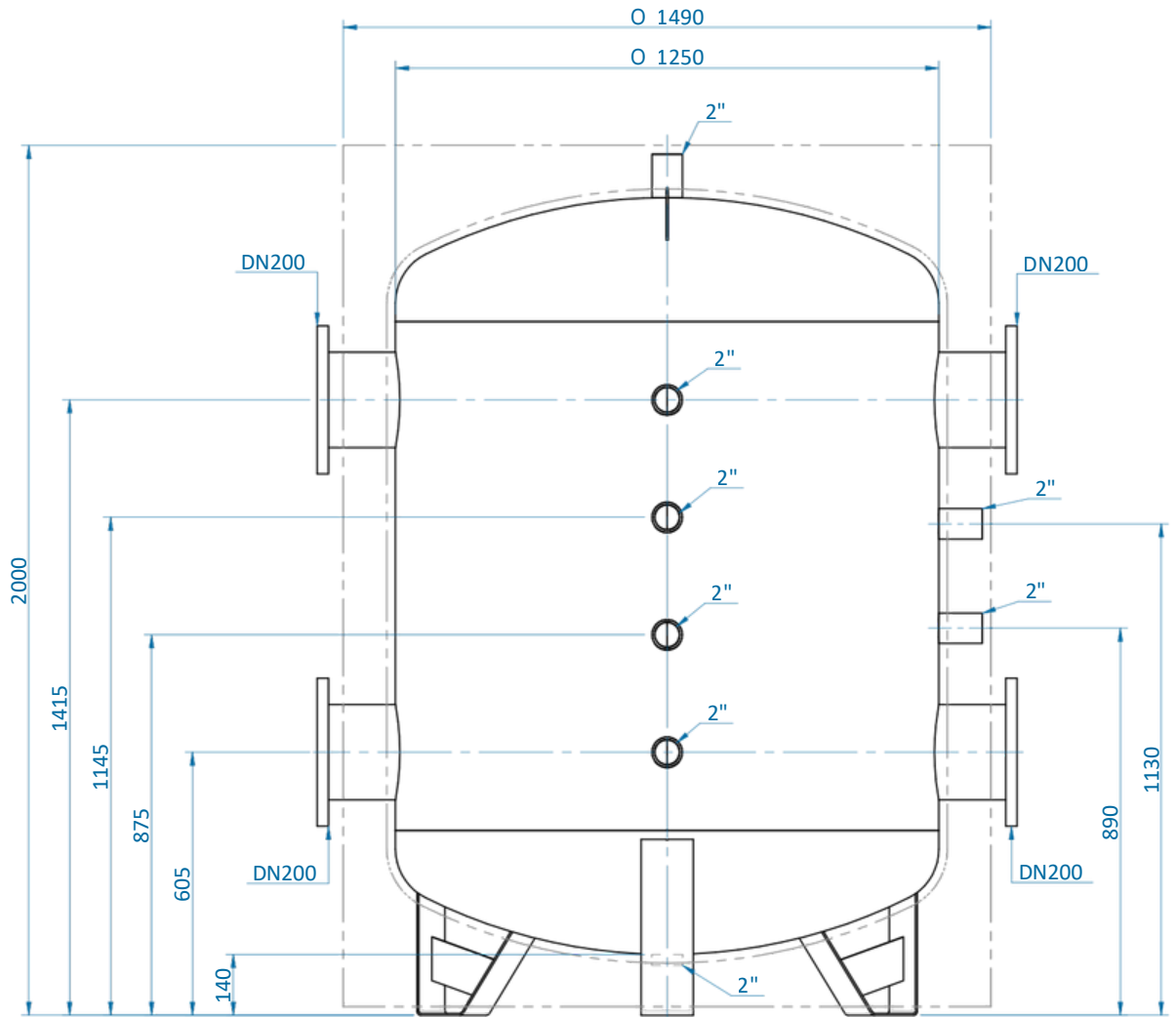
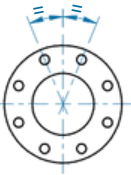
FLANGES PN 16 UNI EN 1092-1

WORKING PRESSURE: 6 bar

FOR ADDITIONAL SIDE BRACKETS FOR SEISMIC RESTRAINT 225.0 kg DRY WEIGHT.

REVISION		DATA	
APPROVED		APPROVED	
GENERAL TOLERANCE ISO 2768-v		SCALE 1:11,5	WEIGHT 225,0kg
TREATMENT/ FINISH		DATE 24/03/2026	
MATERIAL		APPROVED GR	DESIGNED MJ
OBJECT: ThermaCon Buffer Tank Carbon Steel 4 Port Flanged, Indoor Insulation 1500 Litre		CODE TCBT-SIF-1500	
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Flange Orientation



20 mm CLOSE CELL INSULATION + 100 mm FLEXIBLE INSULATION WITH EXTERNAL PVC COVER


PAINTED EXTERIOR

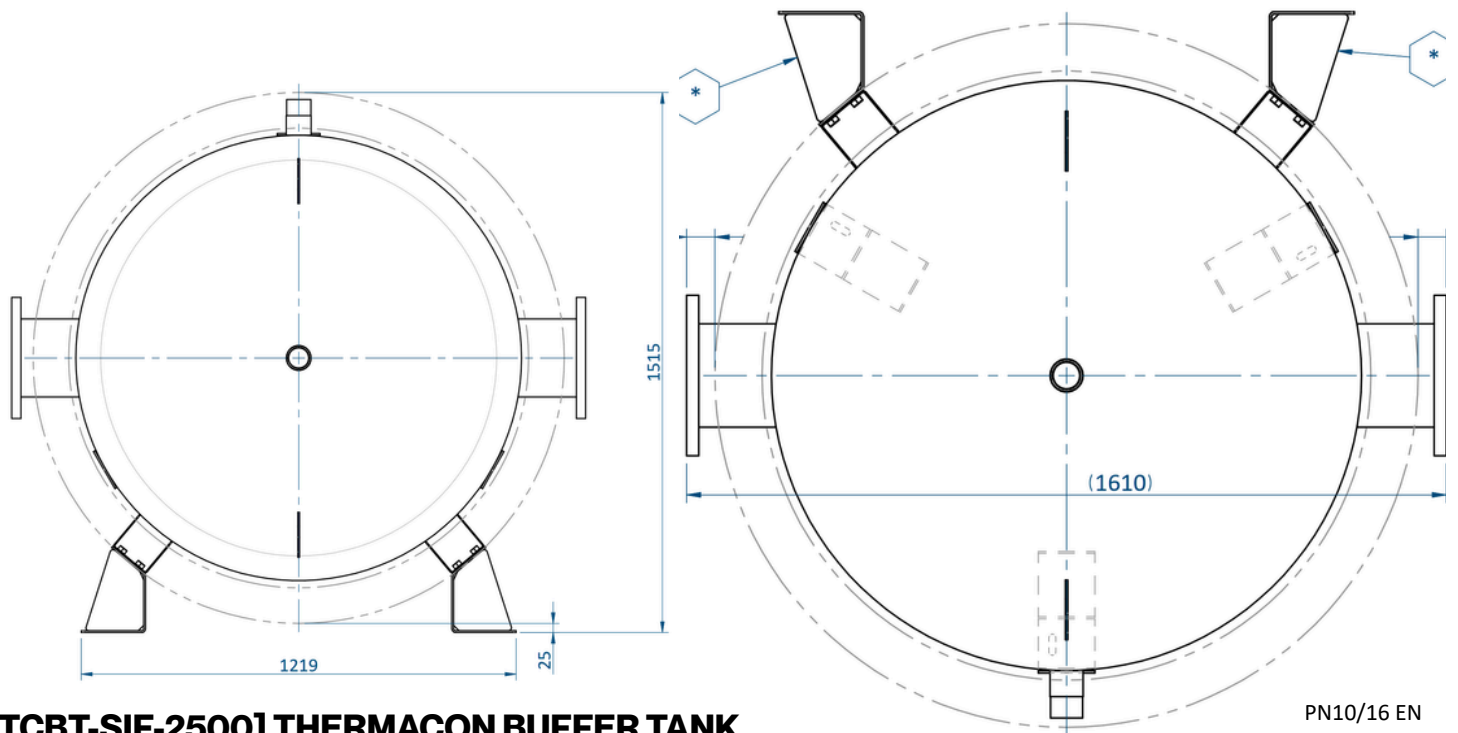
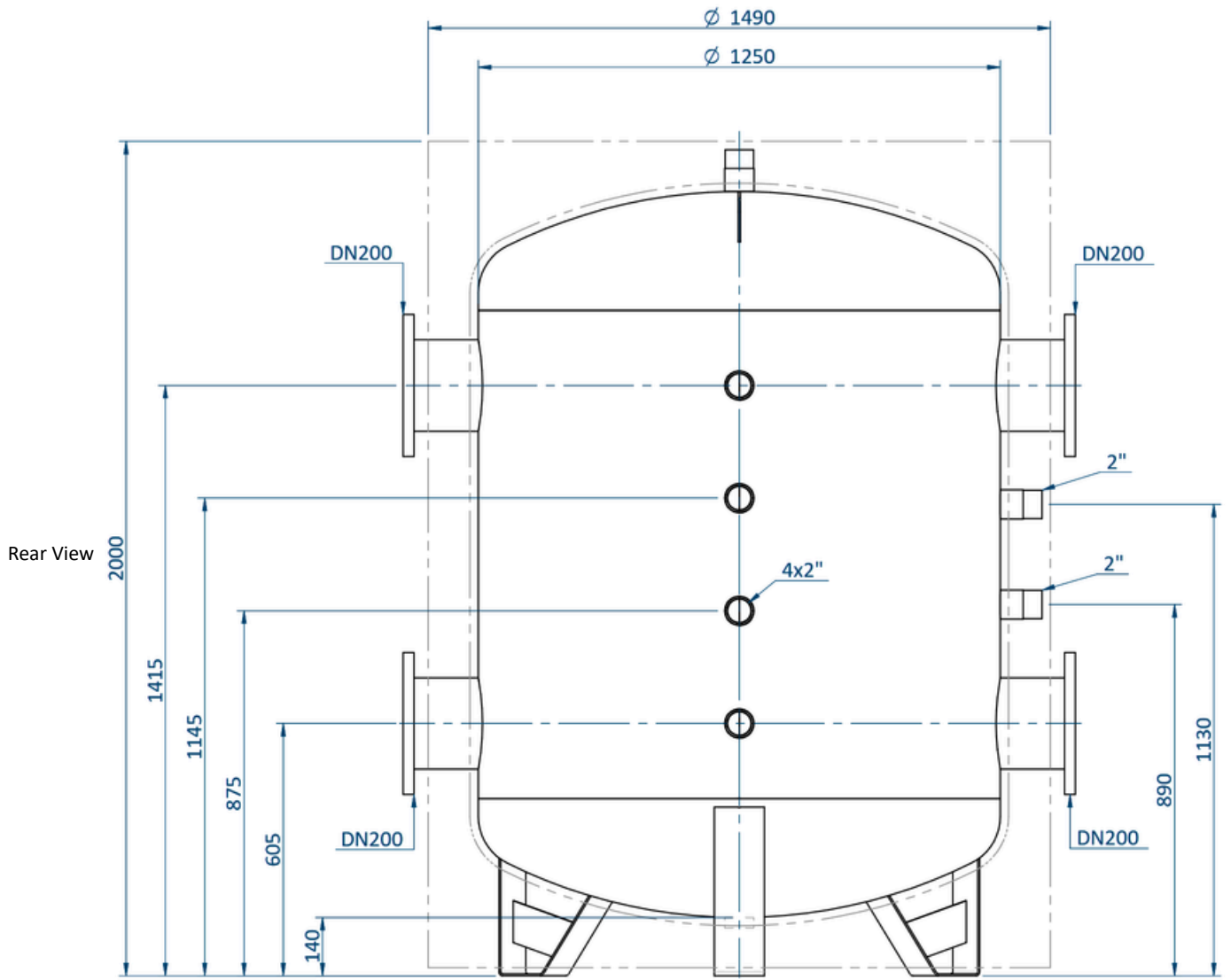
BLACK RAW STEEL INSIDE, ANTIRUST PAINTING OUTSIDE

FLANGES PN 16 UNI EN 1092-1

WORKING PRESSURE: 6 bar

FOR ADDITIONAL SIDE BRACKETS FOR SEISMIC RESTRAINT 291.0 kg DRY WEIGHT.

REVISION		DATA	
APPROVED		APPROVED	
GENERAL TOLERANCE ISO 2768-v		SCALE 1:12	WEIGHT 291,0kg
TREATMENT/ FINISH		DATE 27/03/2026	APPROVED GR
MATERIAL		DESIGNED MJ	CODE
		OBJECT: ThermaCon Buffer Tank Carbon Steel 4 Port Flanged, Indoor Insulation 2000 Litre	
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		81701F173X	

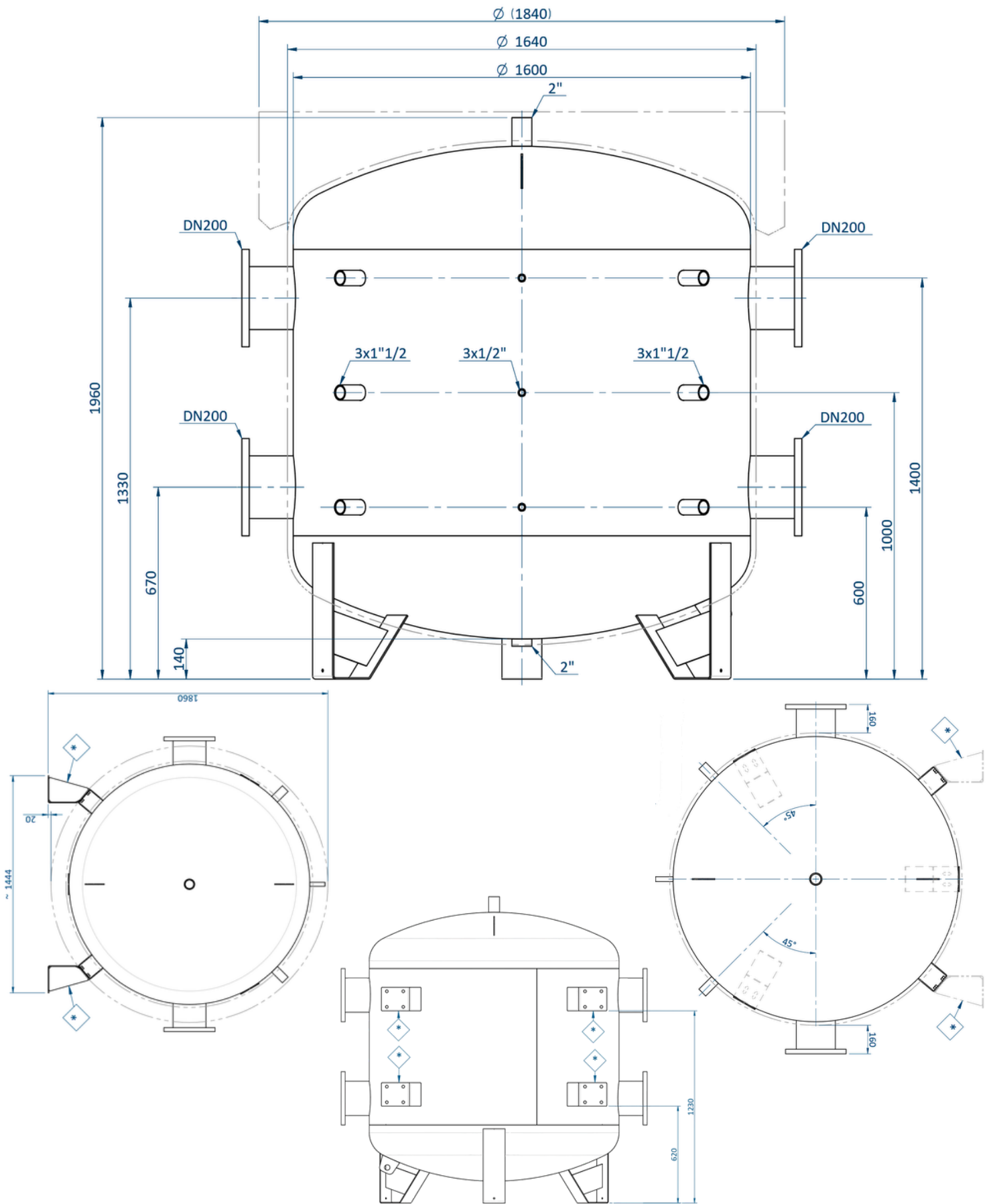


**[TCBT-SIF-2500] THERMACON BUFFER TANK**

PN10/16 EN  
1092-1 Flanges

CARBON STEEL 4 PORT WITH INDOOR INSULATION (2500L)  
 THERMACON HEATING OR COOLING INDOOR BUFFER TANK, INSULATED, COMES WITH PVC JACKET SKIN, 6 BAR RATED CARBON STEEL CONSTRUCTION, WITH 4 X FLANGE PORTS AND SCREWED AUXILIARY CONNECTIONS. SUITABLE FOR CLOSED-LOOP HEATING/COOLING AND GLYCOL APPLICATIONS. FOR ADDITIONAL SIDE BRACKETS FOR SEISMIC RESTRAINT

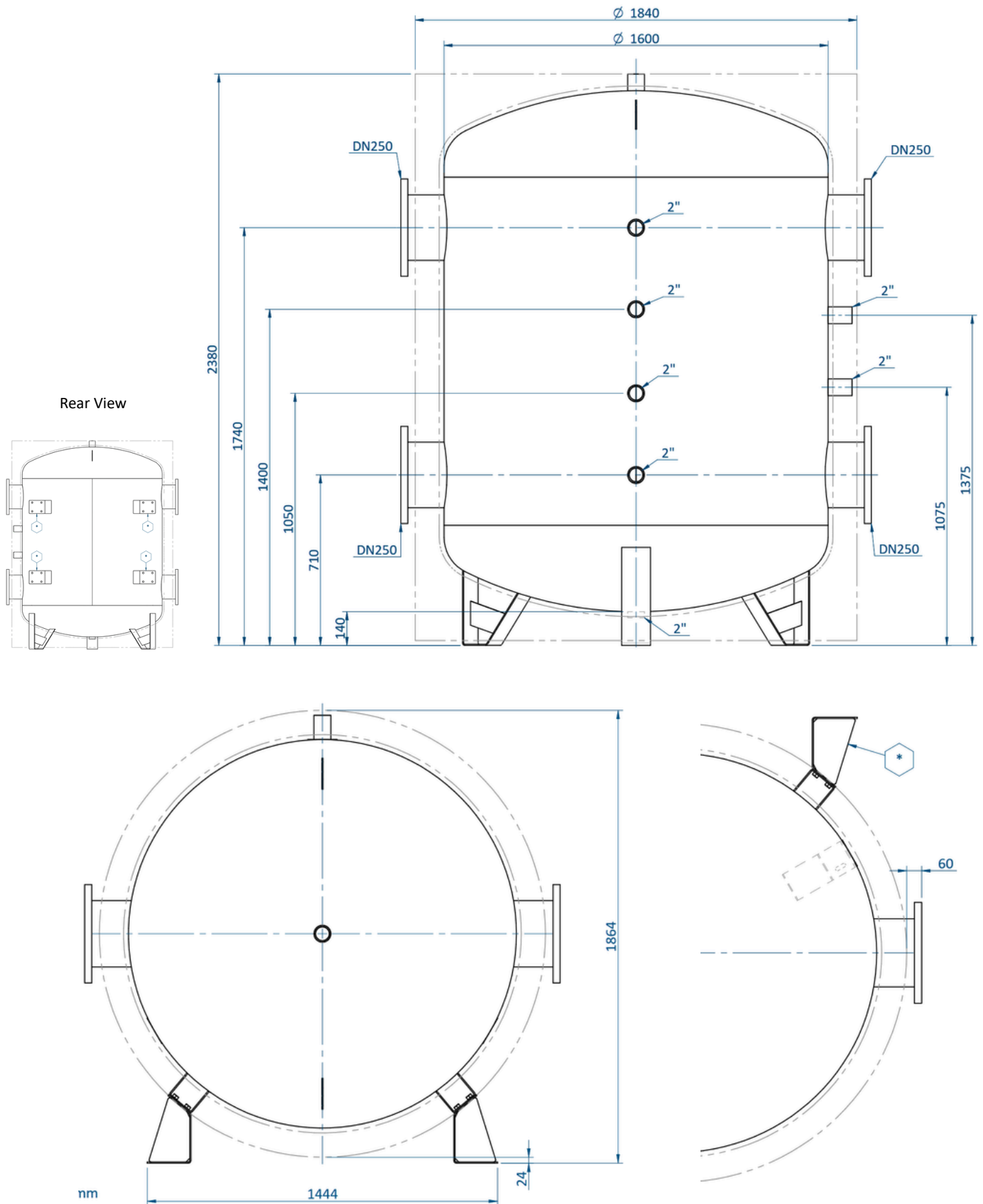




**[TCBT-SIF-3000] THERMACON BUFFER TANK**

CARBON STEEL 4 PORT WITH INDOOR INSULATION (3000L)  
 THERMACON HEATING OR COOLING INDOOR BUFFER TANK, INSULATED, COMES WITH PVC JACKET SKIN, 6 BAR RATED CARBON STEEL CONSTRUCTION, WITH 4 X FLANGE PORTS AND SCREWED AUXILIARY CONNECTIONS. SUITABLE FOR CLOSED-LOOP HEATING/COOLING AND GLYCOL APPLICATIONS. FOR ADDITIONAL SIDE BRACKETS FOR SEISMIC RESTRAINT





### [TCBT-SIF-4000] THERMACON BUFFER TANK

CARBON STEEL 4 PORT WITH INDOOR INSULATION (4000L)  
 THERMACON HEATING OR COOLING INDOOR BUFFER TANK, INSULATED, COMES WITH PVC JACKET SKIN, 6 BAR RATED CARBON STEEL CONSTRUCTION, WITH 4 X FLANGE PORTS AND SCREWED AUXILIARY CONNECTIONS. SUITABLE FOR CLOSED-LOOP HEATING/COOLING AND GLYCOL APPLICATIONS. FOR ADDITIONAL SIDE BRACKETS FOR SEISMIC RESTRAINT