

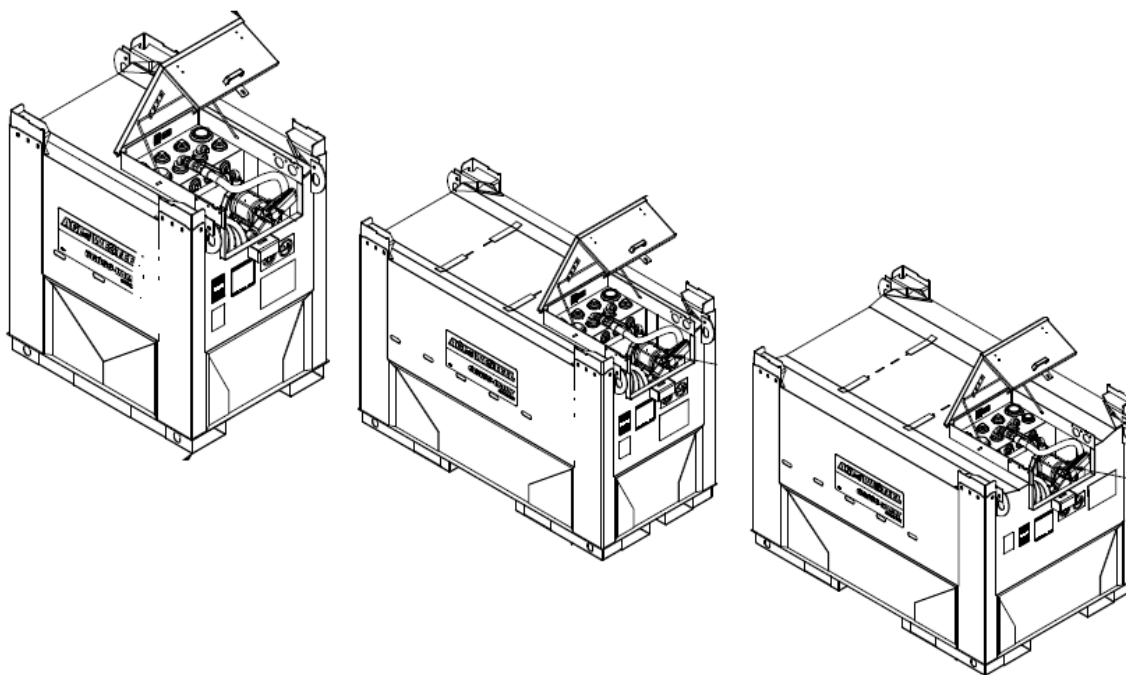


IBC-CV Fuel Tank Storage

Cross-Vault® Dual Purpose Tank Installation and Operation Manual

This manual applies to:

Models: IBC-CV1100, IBC-CV2100, IBC-CV3000



Read this manual before using product. Failure to follow instructions and safety precautions can result in serious injury, death, or property damage. Keep manual for future reference.

Part Number: 264061 R1

Revised: January 2025

Original Instructions

This product has been designed and manufactured to meet general engineering standards. Other local regulations may apply and must be followed by the operator. All personnel must be trained in the correct operational and safety procedures for this product. Use the sign-off sheet below to record initial and periodic reviews of this manual with all personnel.

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1. Introduction

The Cross-Vault® Dual Purpose storage and transporting tank (CVDP) is built to the latest Underwriters Laboratories (UL and ULc) and UN Intermediate Bulk Containers (IBC) codes.

The tanks are constructed with an inner and outer wall, with an interstitial space for leak detection and monitoring. The tanks are built with new materials and are manufactured in Canada.

Follow the instructions in this manual for safe use of this tank. Following proper operation and maintenance will help to keep the tank running in optimal condition.

Keep this manual handy for frequent reference and to review with new personnel. A sign-off form is provided on the inside front cover for your convenience. If any information in this manual is not understood or if you need additional information, please contact AGI or your representative for assistance.

This manual should be regarded as part of the equipment.

1.1. Acceptable Use

Important

If any part of this manual contradicts any local, provincial, or national rules or regulations, those rules and regulations take precedence over the information provided in this manual. Always check with the authorities having jurisdiction to ensure that the tank installation and operation meet all the latest applicable codes and regulations.

Standards

- The CVDP tank is designed and certified to meet the standards of CGSB 43-146, ULC s601, and UL142 for above-ground fuel storage.
- The CVDP tank is designed to UN specifications, making it suitable for use anywhere in the world that recognizes the UN IBC. However, always comply with local regulations and guidelines applicable to the transportation and storage of liquids.

Contents

- The CVDP tank is suitable for storing liquids with a Specific Gravity (SG) less than 1 and falls under Packing Group II or III, as specified in CGSB 43-146 Annex B.
- The CVDP tank is suitable for storing liquids of relative density not greater than 1.0. These stored products must be compatible with steel.
- The CVDP tank can be used for any liquid listed under Packing Group II or III in Annex B of CGSB-43.146. Always check with relevant authorities with jurisdiction if unsure of what liquid can be stored in the CVDP tank and follow any additional requirement needed for that specific liquid, including the appropriate UN number for that product.

Important

The venting devices installed with the CVDP tank by the manufacturer are to be used for diesel only. If storing anything other than diesel, consult a venting expert, as additional venting might be required.

Maximum Capacity

Fill the tank to a maximum capacity of 95% to allow for expansion and prevent overfilling. Overfilling can result in spillage and safety hazards. See [Section 6.1 – Filling the Tank on page 31](#).

Environment

The tank is designed to operate at outdoor ambient temperatures. See .

Important

An increased risk of corrosion or flammability may occur at elevated temperatures. AGI Westeel recommends consulting with a materials / Fire Code expert for these applications. The tank purchaser must rely on their own consultants’ expertise when determining the suitability of a CVDP tank for their specific conditions.

Transportation

When transporting the CVDP, ensure it is securely fastened to the transport vehicle to prevent movement or tipping. Do not drill any holes into the tank as it may compromise its integrity and safety. See [Section 4.5 – Preparing for Transport on page 29](#) and [Section 4.6 – Transporting on page 29](#).

Recertification

It is mandatory to have the CVDP inspected and recertified once every 60 months by a government approved facility. Regular recertification ensures the continued safety and compliance of the tank.

1.2. Serial Number Location

The serial number location for your tank is shown in the figure below. Have the serial number ready when ordering parts or requesting service or other information. Record information in the table below for easy reference.

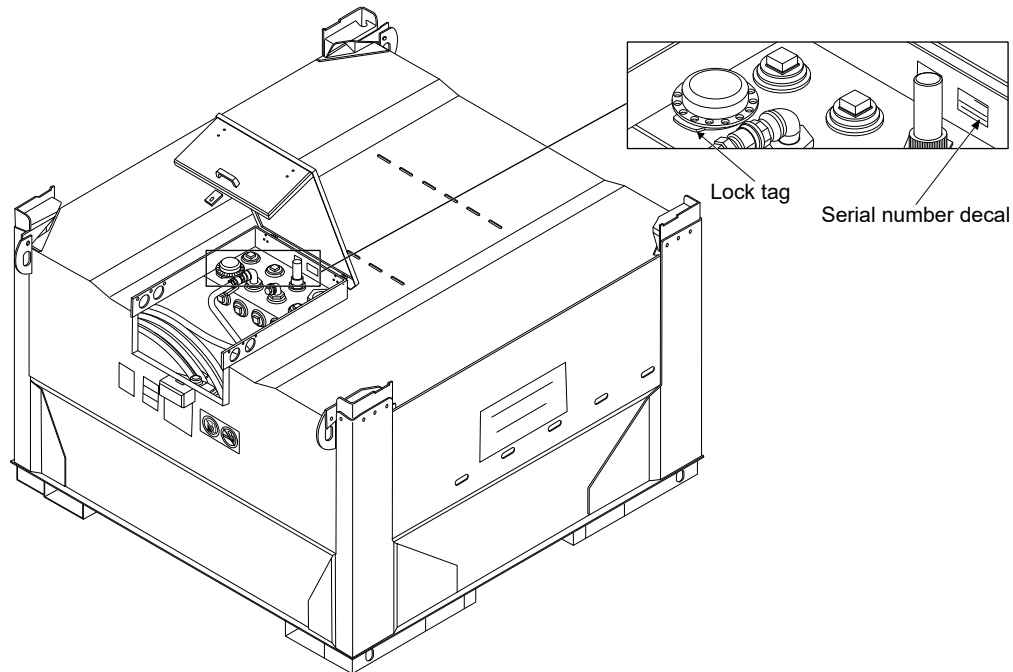
Model Number	
Serial Number	
Date Received	

Figure 1. Example Serial Number



Note

The serial number is located on the serial number decal, and is also stamped on the lock tag/lug.

Figure 2. Location of Serial Number

1.3. Nameplates

Figure 3. IBC-CV1100 Nameplate

<div><div><div><div><div></div><div>UL</div><div>US</div></div><div>LISTED</div></div></div><div>ABOVEGROUND STEEL TANK FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS ULC-S601 / UL142 WITH SECONDARY CONTAINMENT ON SUPPORTS NORME SUR LES RÉSERVOIRS HORS SOL EN ACIER FABRIQUÉS EN USINE POUR LIQUIDES INFLAMMABLES ET COMBUSTIBLES ULC-601/UL142 AVEC CONFINEMENT SECONDAIRE SUR SUPPORT</div></div>	
<div><div><div><div></div><div>U</div><div>H</div></div></div><div>IBC/GRV CAN/CGSB-43.146-2022</div><div>31A/Y/<div><div></div><div></div></div><div><div>MONTH</div><div>YEAR</div></div><div><div>MOIS</div><div>ANNÉE</div></div></div><div>CAN/WESTEEL 4-5062/2475/1375</div></div>	
<div>CAPACITY/CAPACITÉ: 1100L TARE: 675 KG REQUIRED VENTING CAPACITY/CAPACITÉ DE VENTILATION REQUISE: 2029 m³/min (71 653 CFPH) (NORMAL + EMERGENCY/URGENCE)</div>	
<div>MATERIAL/MATÉRIAU: MAX. OPERATING PRESSURE CARBON STEEL/ACIER AU CARBONE PRESSION DE FONCTIONNEMENT MAX. 7kPa PRIMARY TANK MIN. THK./ÉPAISSEUR MIN. DU RÉSERVOIR PRINCIPAL MAX. OPERATING VACUUM VIDE DE RÉGIME MAX. 300Pa <div><div>2.5 mm</div><div>3.4 mm</div><div>2.5 mm</div><div>2.5 mm</div></div> MAX. TEST PRESSURE PRESSION D'ESSAI MAX. 20 kPa <div><div>TOP/</div><div>BTM/</div><div>SIDE/</div><div>END/</div></div><div><div>DESSUS</div><div>FOND</div><div>CÔTE</div><div>EXTRÉMITÉ</div></div></div>	
<div>SEC. TANK MIN. THK./ÉPAISSEUR MIN. DU RÉSERVOIR SECONDAIRE <div><div>4.7 mm</div><div>3.4 mm</div><div>2.5 mm</div></div> <div><div>POST/</div><div>BTM/</div><div>SIDE/</div></div><div><div>MONTANT</div><div>FOND</div><div>CÔTE</div></div> UL/ULC SERIAL NUMBER/NUMÉRO DE SÉRIE UL/ULC: _____</div>	
<div><div><div><div></div><div>AGI</div><div>WESTEEL</div></div></div> MADE IN/ FABRIQUÉ AU CANADA WINNIPEG, MB</div>	

Figure 4. IBC-CV2100 Nameplate

<div><div><div><div><div></div><div>UL</div><div>US</div></div><div>LISTED</div></div></div><div>ABOVEGROUND STEEL TANK FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS ULC-S601 / UL142 WITH SECONDARY CONTAINMENT ON SUPPORTS NORME SUR LES RÉSERVOIRS HORS SOL EN ACIER FABRIQUÉS EN USINE POUR LIQUIDES INFLAMMABLES ET COMBUSTIBLES ULC-601/UL142 AVEC CONFINEMENT SECONDAIRE SUR SUPPORT</div></div>	
<div><div><div><div></div><div>U</div><div>H</div></div></div><div>IBC/GRV CAN/CGSB-43.146-2022</div><div>31A/Y/<div><div></div><div></div></div><div><div>MONTH</div><div>YEAR</div></div><div><div>MOIS</div><div>ANNÉE</div></div></div><div>CAN/WESTEEL 4-5062/5985/3325</div></div>	
<div>CAPACITY/CAPACITÉ: 2100L TARE: 1025 KG REQUIRED VENTING CAPACITY/CAPACITÉ DE VENTILATION REQUISE: 2846 m³/min (100 505 CFPH) (NORMAL + EMERGENCY/URGENCE)</div>	
<div>MATERIAL/MATÉRIAU: MAX. OPERATING PRESSURE CARBON STEEL/ACIER AU CARBONE PRESSION DE FONCTIONNEMENT MAX. 7kPa PRIMARY TANK MIN. THK./ÉPAISSEUR MIN. DU RÉSERVOIR PRINCIPAL MAX. OPERATING VACUUM VIDE DE RÉGIME MAX. 300Pa <div><div>3.4 mm</div><div>3.4 mm</div><div>3.4 mm</div><div>3.4 mm</div></div> MAX. TEST PRESSURE PRESSION D'ESSAI MAX. 20 kPa <div><div>TOP/</div><div>BTM/</div><div>SIDE/</div><div>END/</div></div><div><div>DESSUS</div><div>FOND</div><div>CÔTE</div><div>EXTRÉMITÉ</div></div></div>	
<div>SEC. TANK MIN. THK./ÉPAISSEUR MIN. DU RÉSERVOIR SECONDAIRE <div><div>4.7 mm</div><div>3.4 mm</div><div>2.5 mm</div></div> <div><div>POST/</div><div>BTM/</div><div>SIDE/</div></div><div><div>MONTANT</div><div>FOND</div><div>CÔTE</div></div> UL/ULC SERIAL NUMBER/NUMÉRO DE SÉRIE UL/ULC: _____</div>	
<div><div><div><div></div><div>AGI</div><div>WESTEEL</div></div></div> MADE IN/ FABRIQUÉ AU CANADA WINNIPEG, MB</div>	

Figure 5. IBC-CV3000 Nameplate

<div><div><div><div><div></div><div>UL</div><div>US</div></div><div>LISTED</div></div></div><div>ABOVEGROUND STEEL TANK FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS ULC-S601 / UL142 WITH SECONDARY CONTAINMENT ON SUPPORTS NORME SUR LES RÉSERVOIRS HORS SOL EN ACIER FABRIQUÉS EN USINE POUR LIQUIDES INFLAMMABLES ET COMBUSTIBLES ULC-601/UL142 AVEC CONFINEMENT SECONDAIRE SUR SUPPORT</div></div>	
<div><div><div><div></div><div>U</div><div>H</div></div></div><div>IBC/GRV CAN/CGSB-43.146-2022</div><div>31A/Y/<div><div></div><div></div></div><div><div>MONTH</div><div>YEAR</div></div><div><div>MOIS</div><div>ANNÉE</div></div></div><div>CAN/WESTEEL 4-5062/8010/4450</div></div>	
<div>CAPACITY/CAPACITÉ: 3000L TARE: 1250 KG REQUIRED VENTING CAPACITY/CAPACITÉ DE VENTILATION REQUISE: 2846 m³/min (100 505 CFPH) (NORMAL + EMERGENCY/URGENCE)</div>	
<div>MATERIAL/MATÉRIAU: MAX. OPERATING PRESSURE CARBON STEEL/ACIER AU CARBONE PRESSION DE FONCTIONNEMENT MAX. 7kPa PRIMARY TANK MIN. THK./ÉPAISSEUR MIN. DU RÉSERVOIR PRINCIPAL MAX. OPERATING VACUUM VIDE DE RÉGIME MAX. 300Pa <div><div>3.4 mm</div><div>4.7 mm</div><div>3.4 mm</div><div>4.7 mm</div></div> MAX. TEST PRESSURE PRESSION D'ESSAI MAX. 20 kPa <div><div>TOP/</div><div>BTM/</div><div>SIDE/</div><div>END/</div></div><div><div>DESSUS</div><div>FOND</div><div>CÔTE</div><div>EXTRÉMITÉ</div></div></div>	
<div>SEC. TANK MIN. THK./ÉPAISSEUR MIN. DU RÉSERVOIR SECONDAIRE <div><div>4.7 mm</div><div>3.4 mm</div><div>2.5 mm</div></div> <div><div>POST/</div><div>BTM/</div><div>SIDE/</div></div><div><div>MONTANT</div><div>FOND</div><div>CÔTE</div></div> UL/ULC SERIAL NUMBER/NUMÉRO DE SÉRIE UL/ULC: _____</div>	
<div><div><div><div></div><div>AGI</div><div>WESTEEL</div></div></div> MADE IN/ FABRIQUÉ AU CANADA WINNIPEG, MB</div>	

Figure 6. IBC-CV Logo (p/n 263343)



2. Safety

2.1. Safety Alert Symbol and Signal Words



This safety alert symbol indicates important safety messages in this manual. When you see this symbol, be alert to the possibility of injury or death, carefully read the message that follows, and inform others.

Signal Words: Note the use of the signal words **DANGER**, **WARNING**, **CAUTION**, and **NOTICE** with the safety messages. The appropriate signal word for each message has been selected using the definitions below as a guideline.



Indicates an imminently hazardous situation that, if not avoided, will result in serious injury or death.



Indicates a hazardous situation that, if not avoided, could result in serious injury or death.



Indicates a hazardous situation that, if not avoided, may result in minor or moderate injury.



Indicates a potentially hazardous situation that, if not avoided, may result in property damage.

2.2. Fuel Tank Safety



- Keep open flames, matches, and sparks far away from the tank.
- Turn off vehicle ignition when refueling.
- Keep vehicles at least 1.5 m (5 ft) away from the tank.
- Do not leave the tank unattended when refueling.
- Do not overfill the tank.
- Turn the pump off when the tank is not being used.
- Check that there are no leaks and that the fuel containment system is free of debris and spills.
- Stack tanks according to instructions in this manual only.
- Securely fasten to the transporting vehicle to prevent movement or tipping per instructions.
- Do not drill holes into the tank. This will compromise integrity and safety.

2.3. Personal Protective Equipment

Use Appropriate Personal Protective Equipment (PPE)



Work Gloves

Protect hands from sharp and rough edges.



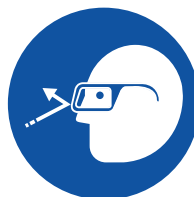
Steel-Toe Boots

Protect feet from falling debris.



Coveralls

Protect the skin.



Safety Glasses

Protect eyes from debris.

2.4. Safety Decals

- Keep safety decals clean and legible at all times.
- Replace safety decals that are missing or have become illegible. See decal location figures that follow.
- Replaced parts must display the same decal(s) as the original part.
- Replacement safety decals are available **free of charge** from your distributor, dealer, or factory as applicable.

2.4.1 Safety Decal Locations and Replacements

Read and follow all safety decals.

Know where they are located.

Replace all safety decals that are missing, damaged, or faded.

Click the [link](#), scan the QR code, or contact your local AGI representative for **free replacements**.



To replace a safety decal:

1. Make sure the area is clean, dry, and the temperature is above 50°F (10°C).
2. Decide on the position before removing the backing paper.
3. Align the decal and press the small portion with the exposed sticky backing in place.
4. Slowly peel back the remaining paper and smooth the remaining portion of the decal in place.
5. Use a pin to pierce small air pockets and smooth out using the decal backing paper.

Transport Canada Product Identification (not supplied by Westeel)



Inspection Label

RETEST/INSPECTION		
MONTH	YEAR	REGISTRATION No. OF RETESTER

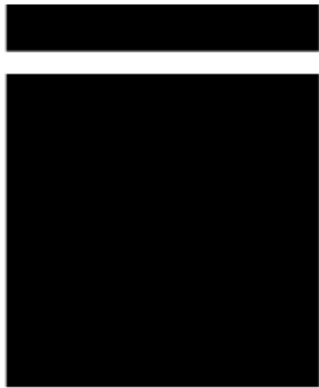
WESTEEL
272043

Emergency Vent (p/n 530162)



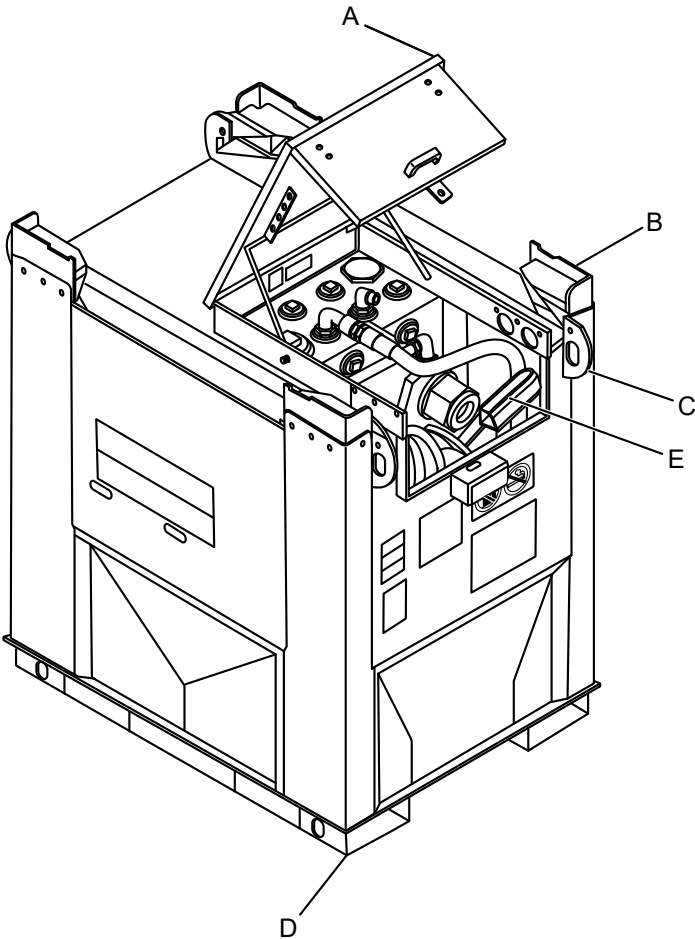
Allowed Maximum Stacking Weight

4450 kg max



3. Tank Features

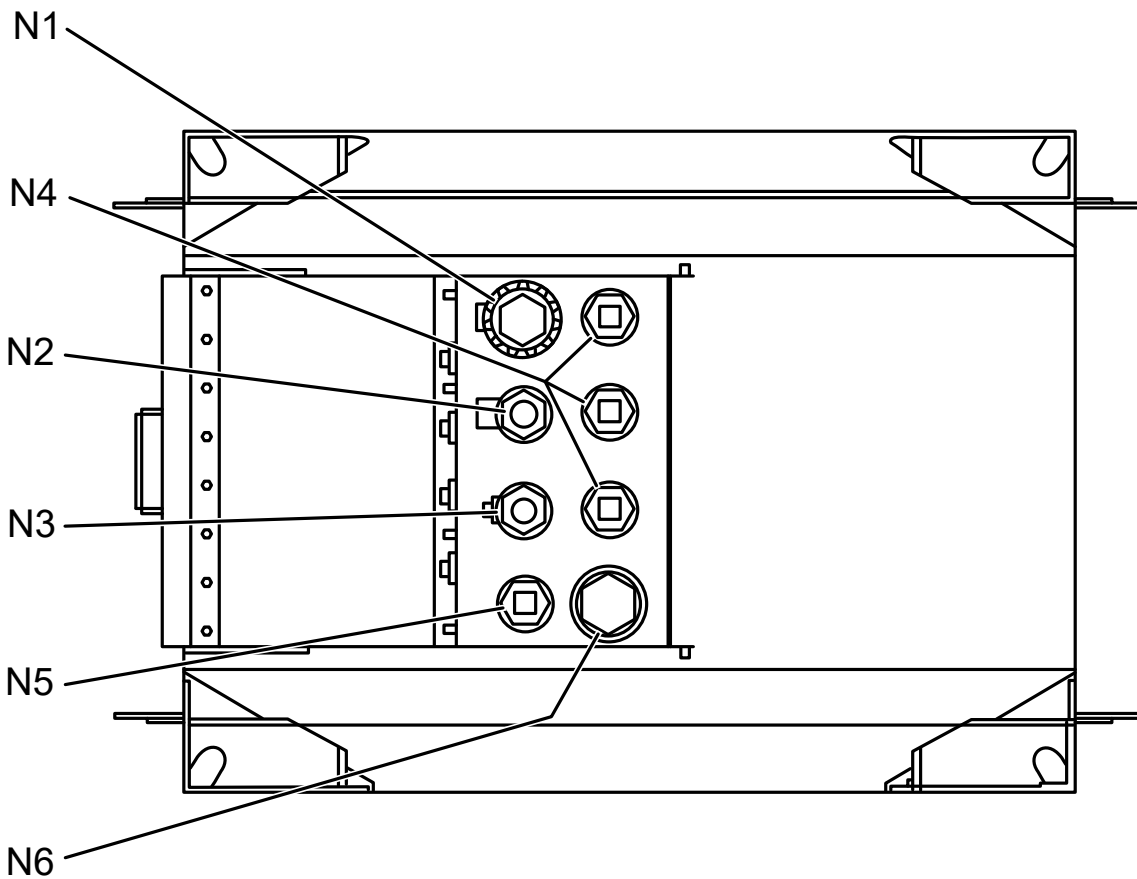
3.1. IBC–CV1100



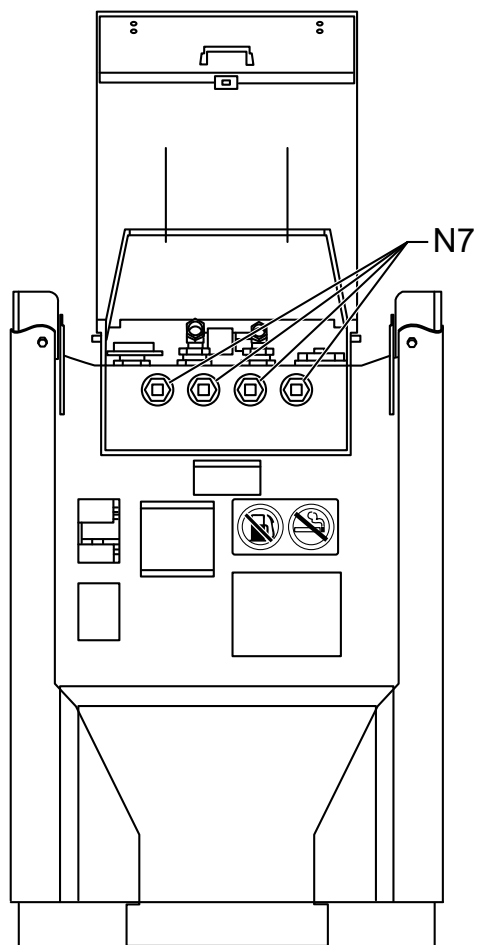
Note

Shown with optional pump package.

Item	Quantity	Description	Remarks
A	1	Containment/Accessories Lid	Secondary E-Vent and Leak Inspection
B	4	Corner Stacking Support	Galvanized
C	4	Tie Down Lug / Lift Point	—
D	4	Skid Base And Fork Pockets	W/ Anchor Point
E	1	Pump/Accessories	—

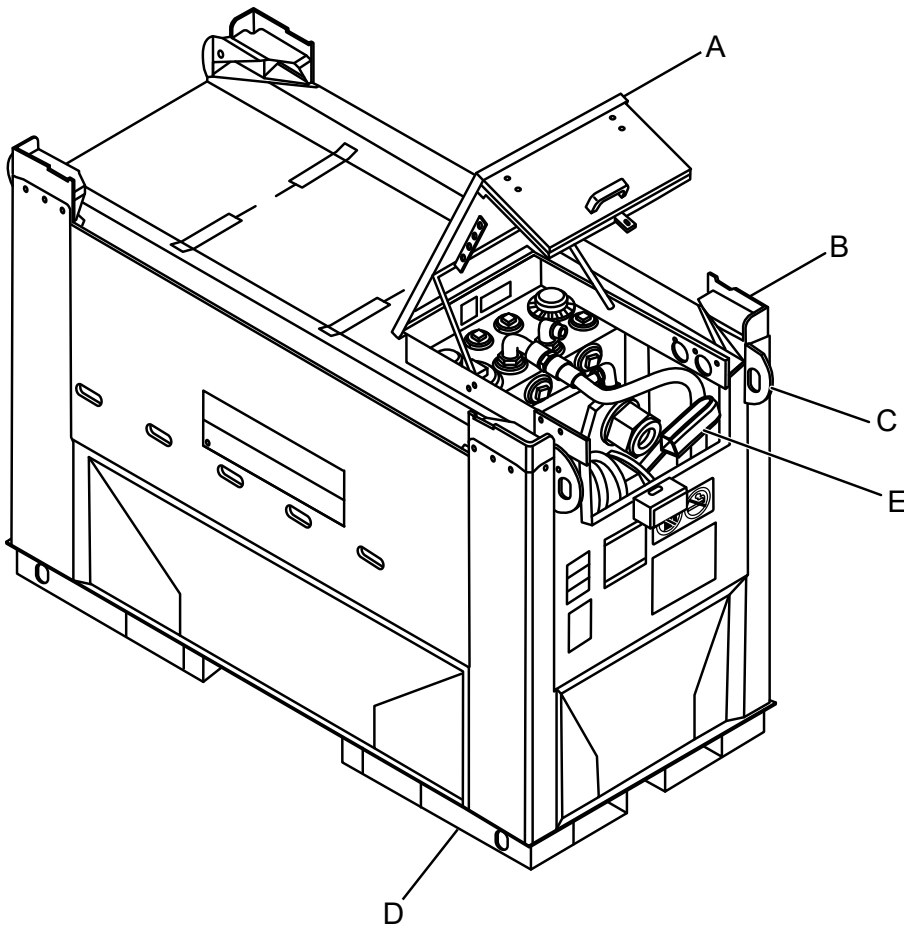
Figure 7. IBC-CV1100 Top View

Item	Quantity	Description	Remarks
N1	1	2" NPT TK FLG w/PV Cap	Fill / N.Vent
N2	1	2" NPT TK FLG w/1" Suction Pipe	Supply Port
N3	1	2" NPT TK FLG w/ 1" Drop Pipe	Return Port
N4	1	2" NPT TK FLG w/ Metal Plug	Spare/ Gauge
N5	1	2" Primary Emergency Vent	—
N6	1	3" Primary Emergency Vent	—

Figure 8. IBC-CV1100 Front View

Item	Quantity	Description	Remarks
N7	4	1-1/2" NPT TK FLG w/ Metal Plug	Supply / Return / Spare

3.2. IBC–CV2100

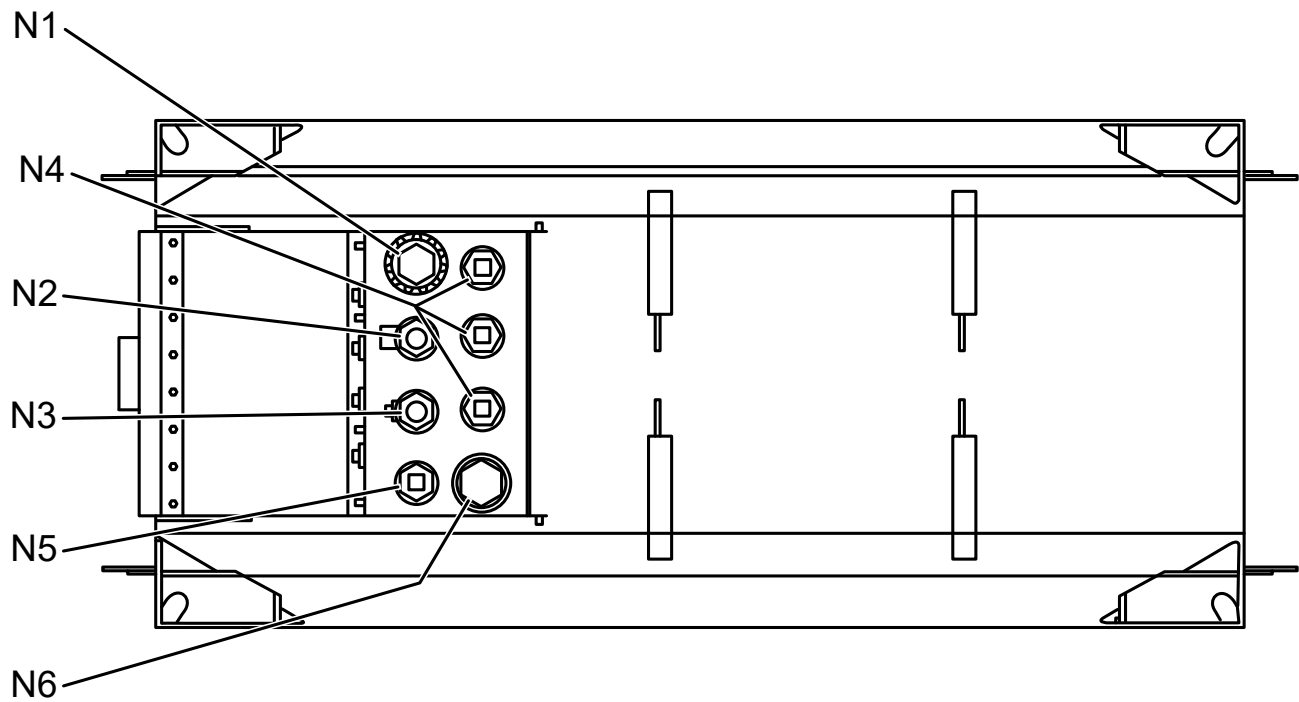


Note

Shown with optional pump package.

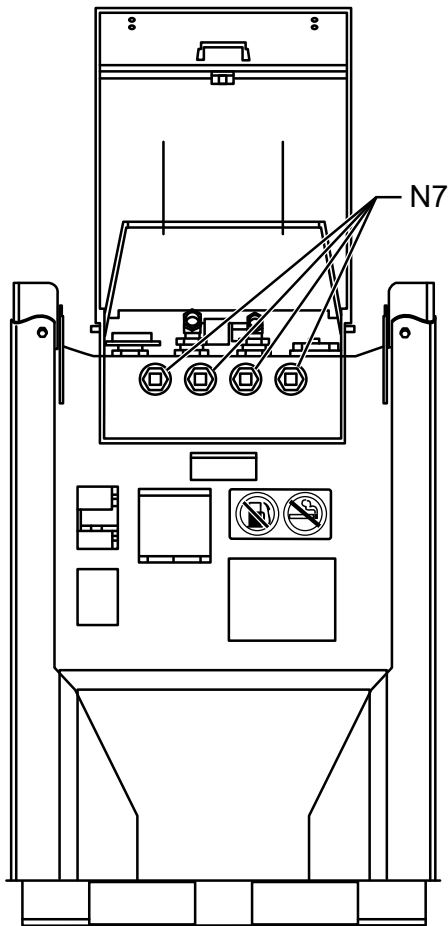
Item	Quantity	Description	Remarks
A	1	Containment/Accessories Lid	Secondary E-Vent and Leak Inspection
B	4	Corner Stacking Support	Galvanized
C	4	Tie Down Lug / Lift Point	—
D	4	Skid Base and Fork Pockets	W/ Anchor Point
E	1	Pump/Accessories	—

Figure 9. IBC-CV2100 Top View



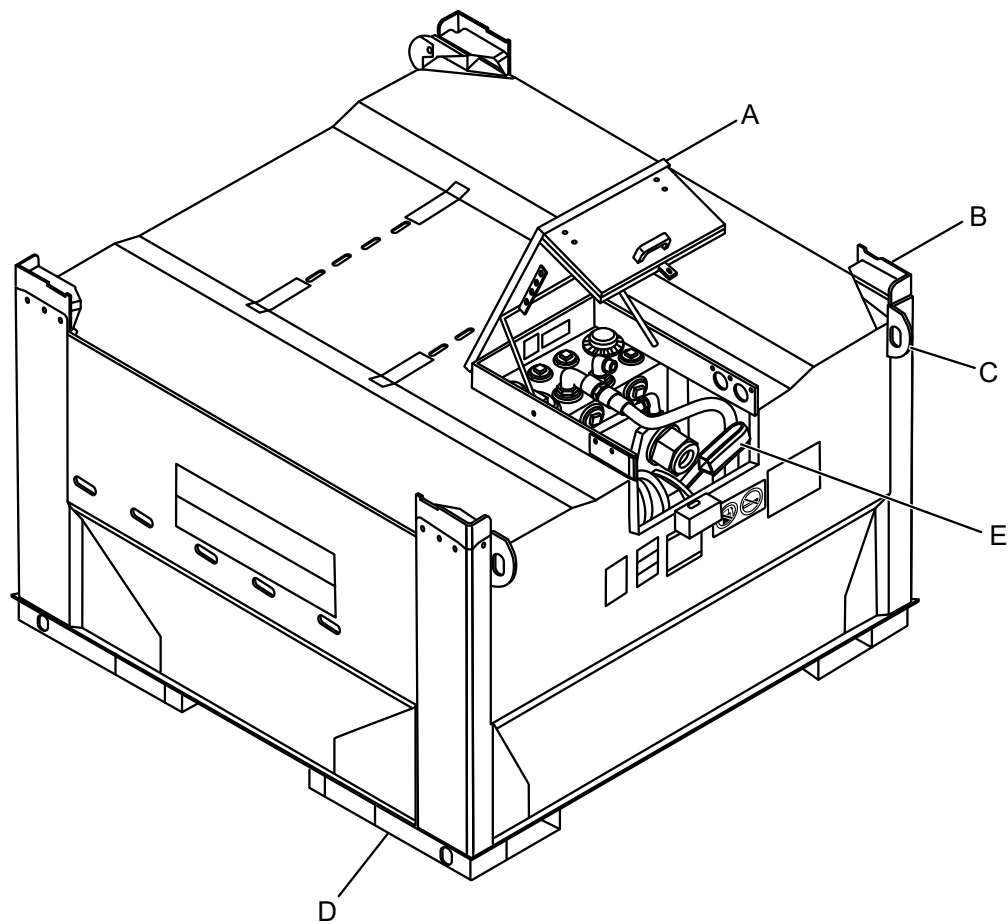
Item	Quantity	Description	Remarks
N1	1	2" NPT TK FLG w/PV CAP	FILL / N.Vent
N2	1	2" NPT TK FLG w/1" Suction Pipe	Supply Port
N3	1	2" NPT TK FLG w/ 1" Drop Pipe	Return Port
N4	1	2" NPT TK FLG w/ Metal Plug	Spare/ Gauge
N5	1	2" Primary Emergency Vent	—
N6	1	3" Primary Emergency Vent	—

Figure 10. IBC-CV2100 Front View



Item	Quantity	Description	Remarks
N7	4	1-1/2" NPT TK FLG w/ Metal Plug	Supply / Return / Spare

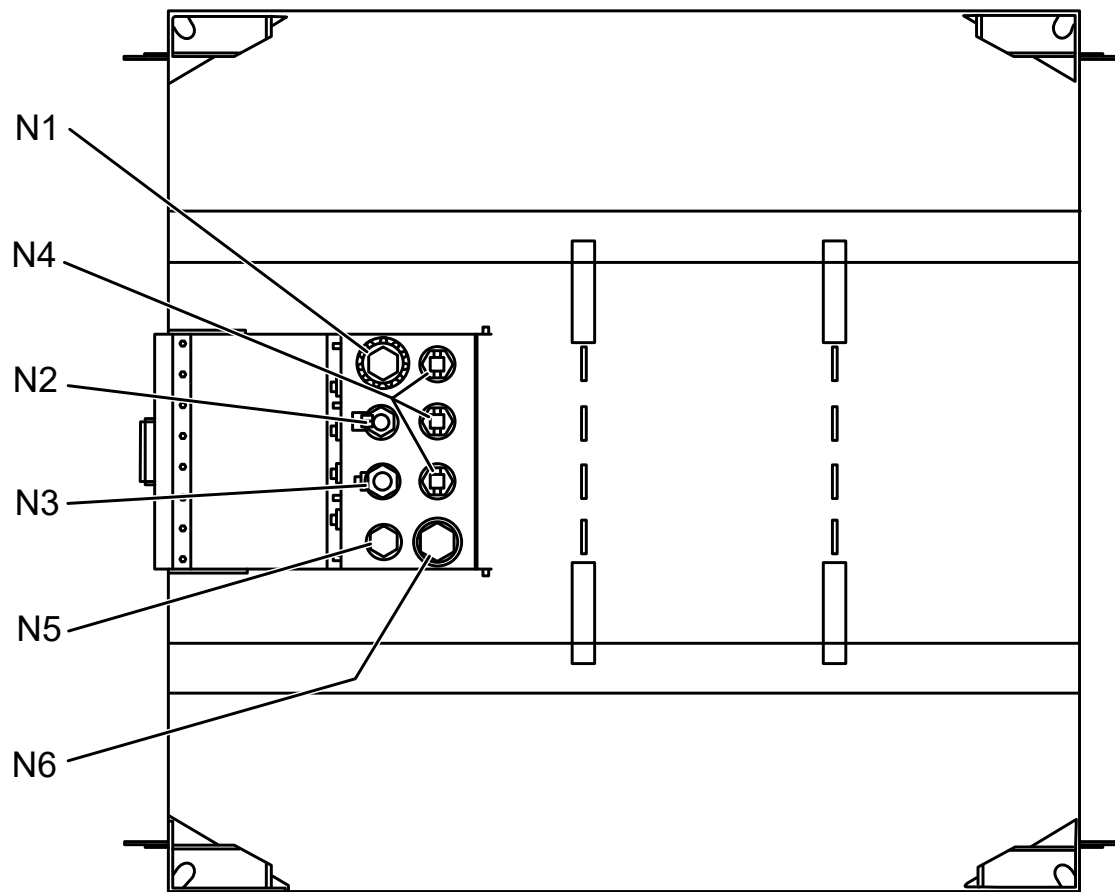
3.3. IBC–CV3000



Note

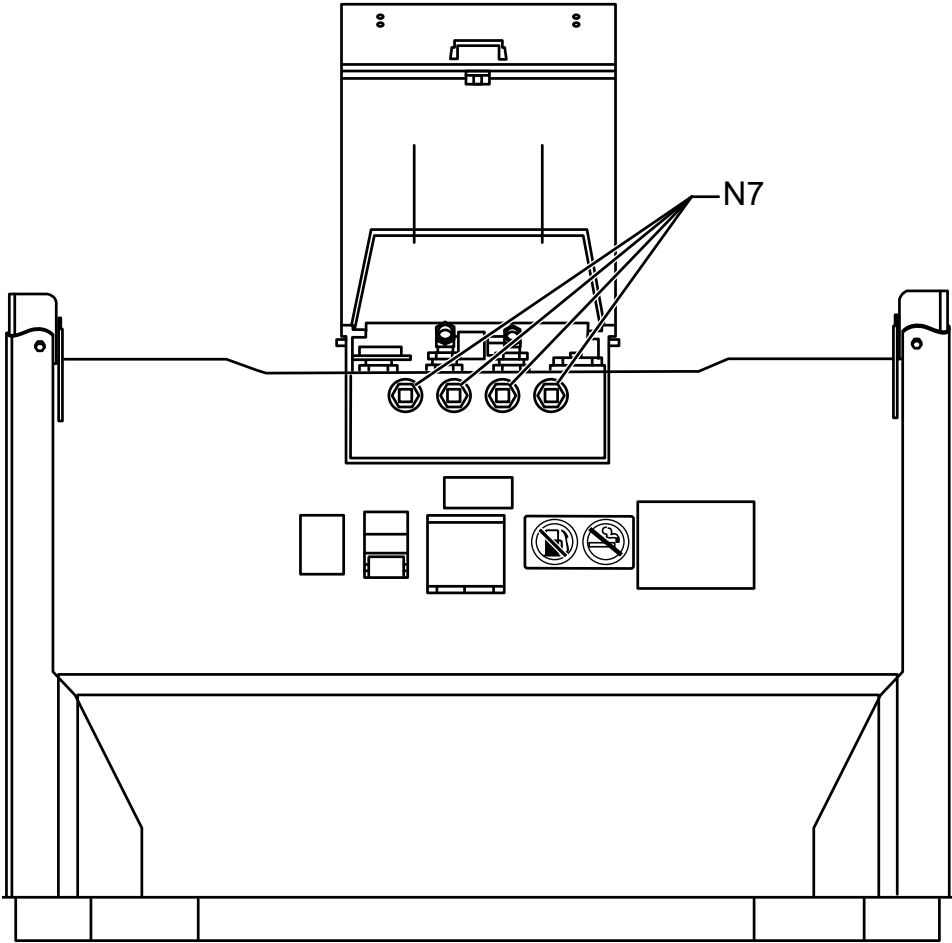
Shown with optional pump package.

Item	Quantity	Description	Remarks
A	1	Containment/Accessories Lid	Secondary E-Vent and Leak Inspection
B	4	Corner Stacking Support	Galvanized
C	4	Tie Down Lug / Lift Point	—
D	4	Skid Base and Fork Pockets	W/ Anchor Point
E	1	Pump/Accessories	—

Figure 11. IBC-CV3000 Top View

Item	Quantity	Description	Remarks
N1	1	2" NPT TK FLG w/PV CAP	Fill / N.Vent
N2	1	2" NPT TK FLG w/1" Suction Pipe	Supply Port
N3	1	2" NPT TK FLG w/ 1" Drop Pipe	Return Port
N4	1	2" NPT TK FLG w/ Metal Plug	Spare/ Gauge
N5	1	2" Primary Emergency Vent	—
N6	1	3" Primary Emergency VenT	—

Figure 12. IBC-CV3000 Front View



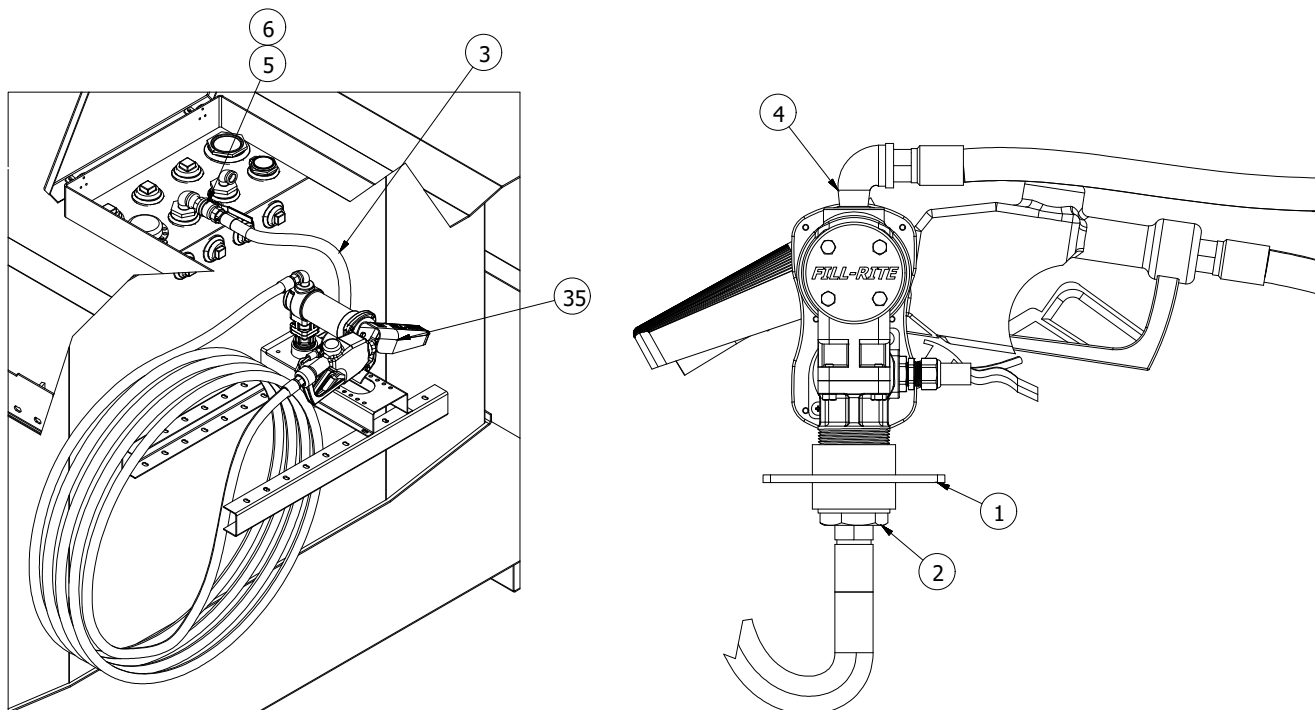
Item	Quantity	Description	Remarks
N7	4	1-1/2" NPT TK FLG w/ Metal Plug	Supply / Return / Spare

3.4. Optional Pumps

3.4.1 Pump Package 264043

Fill-Rite FR1210HA Pump Package

- **Maximum Flow Rate:** 15 gpm
- **Power Type:** 12 V DC
- **Compatible Fluids:** Diesel, Kerosene, Biodiesel up to B20, Gasoline up to E15, Mineral Spirits
- **Duty Cycle:** 30 minutes ON/ 30 minutes OFF

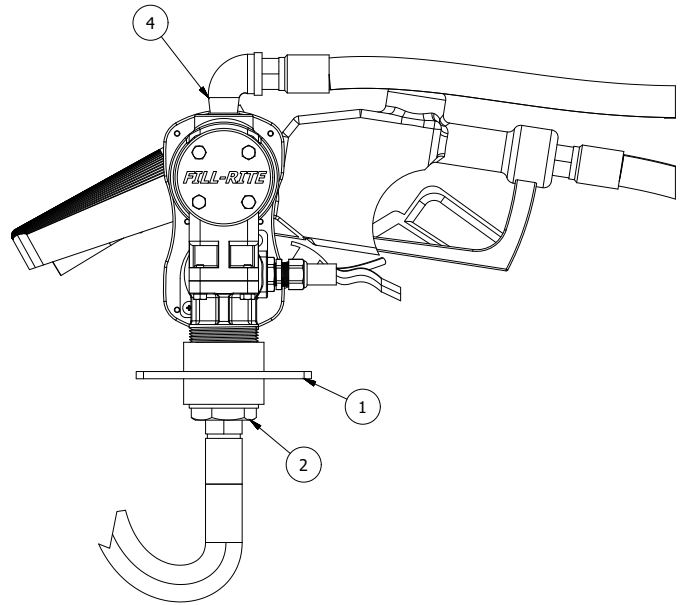
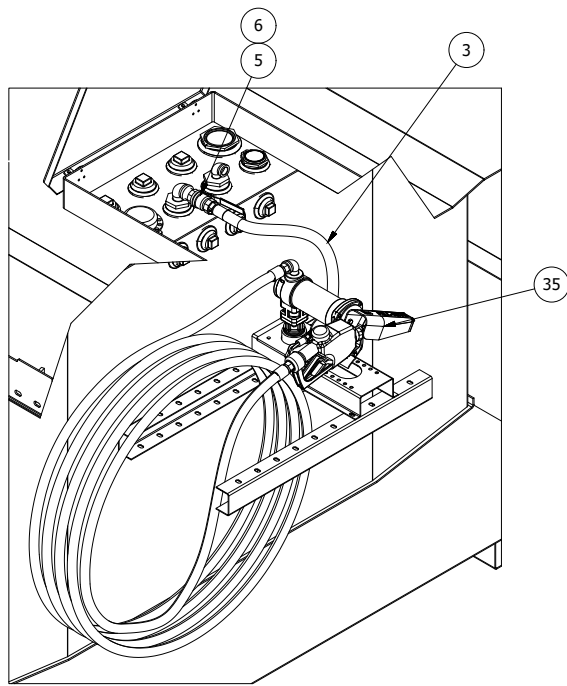


Item	Part Number	Description	Material	Remarks
1	264083	Mount Bracket	A53	CV Pump Mounting Bracket
2	264053	BSHG	Galvanized	BSHG Red HH ST 2.0 x 1.0 NPT GALV MI
3	263890	Horse Whip	-	Horse Whip 1.0 in x 42 in Swivel BE
4	FR1210HA	Pump	-	Pump 12 V DC 15 LMP w/0.75 Nozzle and Hose
5	271807	Nipple	A53	Nipple 1.0 x Close SCH40/STD NPT A53B
6	100510	Valve	Brass	Valve Ball 1 in NPT Brass

3.4.2 Pump Package 264044

Fill-Rite FR1210HA Pump Package

- **Maximum Flow Rate:** 15 gpm
- **Power Type:** 12 V DC
- **Compatible Fluids:** Diesel, Kerosene, Biodiesel up to B20, Gasoline up to E15, Mineral Spirits
- **Duty Cycle:** 30 minutes ON/ 30 minutes OFF

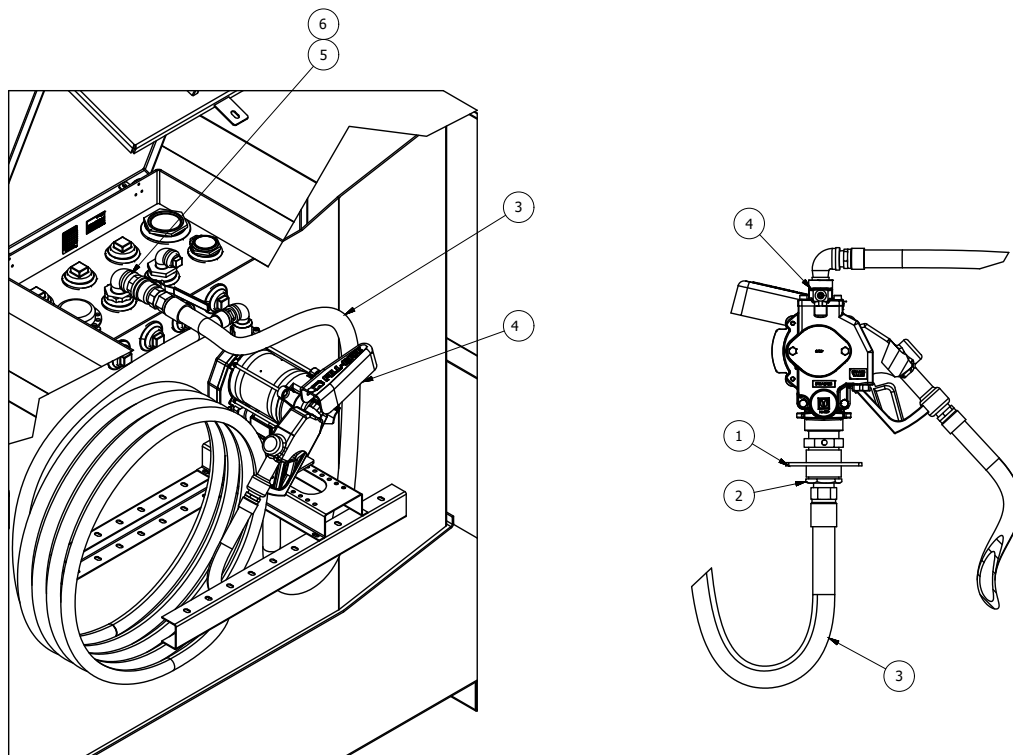


Item	Part Number	Description	Material	Remarks
1	264018	Mount Bracket	A53	CV Pump Mounting Bracket
2	264053	BSHG	Galvanized	BSHG Red HH ST 2.0 x 1.0 NPT GALV MI
3	263890	Horse Whip	-	Horse Whip 1.0 in x 42 in Swivel BE
4	FR4210HD	Pump	-	Pump 12 V DC 75 LMP w/1.0 Nozzle and Hose
5	271807	Nipple	A53	Nipple 1.0 x Close SCH40/STD NPT A53B
6	100510	Valve	Brass	Valve Ball 1 in NPT Brass

3.4.3 Pump Package 264045

Fill-Rite FR710VB Pump Package

- **Maximum Flow Rate:** 20 gpm
- **Power Type:** 115 V DC
- **Compatible Fluids:** Diesel, Kerosene, Biodiesel up to B20, Gasoline up to E15, Mineral Spirits
- **Duty Cycle:** 30 minutes ON/ 30 minutes OFF

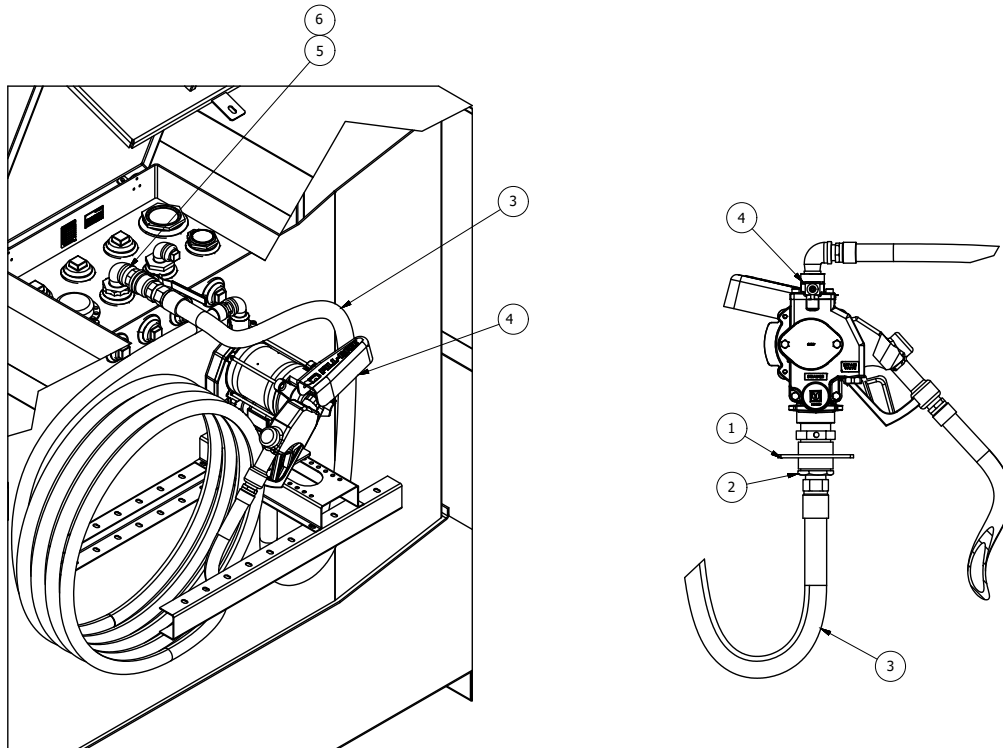


Item	Part Number	Description	Material	Remarks
1	264018	Mount Bracket	A53	CV Pump Mounting Bracket
2	264120	BSHG	Galvanized	BSHG Red HH ST 2.0 x 1.0 NPT GALV MI
3	264122	Horse Whip	-	Horse Whip 1.25 in x 42 in Swivel BE
4	FR710VB	Pump	-	Pump 115 V AC 75 LMP w/1.25 Nozzle and Hose
5	104863	Valve	Brass	Valve Ball 1-1/4 in NPT Brass
6	264027	Nipple Hex	MI	Nipple Hex 1.25 Male NPT x 1.0 Male NPT

3.4.4 Pump Package 264046

Fill-Rite FR710VB Pump Package

- **Maximum Flow Rate:** 20 gpm
- **Power Type:** 115 V DC
- **Compatible Fluids:** Diesel, Kerosene, Biodiesel up to B20, Gasoline up to E15, Mineral Spirits
- **Duty Cycle:** 30 minutes ON/ 30 minutes OFF



Item	Part Number	Description	Material	Remarks
1	264018	Mount Bracket	A53	CV Pump Mounting Bracket
2	264120	BSHG	Galvanized	BSHG Red HH ST 2.0 x 1.0 NPT GALV MI
3	264122	Horse Whip	-	Horse Whip 1.25 in x 42 in Swivel BE
4	FR310VB	Pump	-	Pump 115/230 V AC 135 LPM w/1.0 Nozzle and Hose
5	104863	Valve	Brass	Valve Ball 1-1/4 in NPT Brass
6	264027	Nipple Hex	MI	Nipple Hex 1.25 Male NPT x 1.0 Male NPT

3.5. Tank Caps and Vents

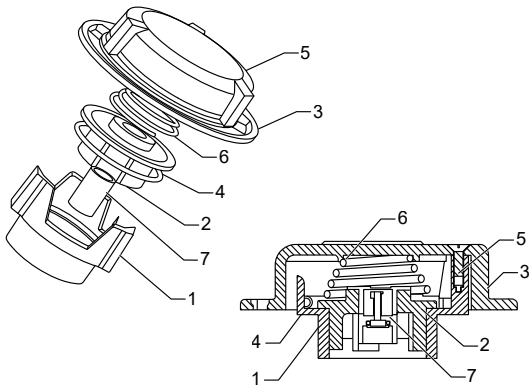
Tank Caps

WARNING

- If the tank is shipped with a vent pipe, or if a tank opening is marked **Normal Vent**, a vent pipe and updraft/weatherproof vent cap must be installed.
- Normal vent caps must not allow flame impingement onto the surface of the tank in the event of vapor ignition.
- Additional normal venting is required on tanks using combination fill/vent caps and using a pump with a capacity greater than 75 LPM. Contact AGI Westeel for more information.

Important

AGI Westeel supplies a cap that meets UN IBC Relief Capacity requirements, which specify a minimum of 50 kPa (7 PSI). AGI Westeel is not responsible if another cap is substituted which is not approved. Cap utilizes an O-ring between the fill fitting and cap threads and does not require installation with a wrench or pipe joint sealant for normal use.



Item	Quantity	Part No.	Description
1	1	341644	Body, 2"
2	1	341645	Valve Plate, 2"
3	1	341646	Cap
4	1	111958	O-ring 2–229
5	1	111959	Screw #10–24 x 5/8"
6	1	111957	Spring
7	1	390828	Threaded Check Valve

Tank Vents

WARNING

- Use the venting device supplied with the tank with diesel only.
- If storing anything other than diesel, consult an expert as additional venting might be required.
- Ensure that the lifting cover movement is not restricted in any way after installation, including the buildup of snow or ice on the top of the tank, as this could restrict venting and cause tank damage.

Tanks are factory-fitted with an emergency vent. The vent releases at a maximum temperature of 250°F. Replacement Fill/Vent or Emergency vent caps shown on this page are available from AGI Westeel, or through its authorized dealer network.

Fusible Poly Plug

Certified venting capacities: 2" Vent – 55,000 CFH @ 5 PSI



Fusible Poly Disc Plug

Certified venting capacities: 3" Vent – 110,000 CFH @ 5 PSI



4. Handling and Moving the Tank

4.1. Handling Guidelines



These guidelines are for informational purposes only and should not replace any specific guidelines or safety procedures provided by your workplace. Always follow safety regulations and consult with a qualified professional when needed.

- Industry best practices must be followed to ensure that the appropriate material handling equipment and methods are used to prevent damage during off-loading and moving of the tank and its accessories.
- Equipment used for the handling and moving of materials must be suitable for the task and capable of handling the load requirements.
- Equipment operators must be qualified and meet regulatory requirements to operate the equipment used to handle material.
- Equipment operators must be trained in the safe and correct methods used for the handling and movement of materials.
- Tanks must be handled with care to prevent damage to the tank coating. The use of nylon straps is recommended to prevent damage to the tank coating. When using cables or chains, they must be padded and of adequate length and size.

Important

It is the responsibility of the owner, or owner's representative to touch-up and repair any damage to the coating that occurs during transportation or during regular wear and tear. See [Section 8.2 – Exterior Finish on page 38](#).

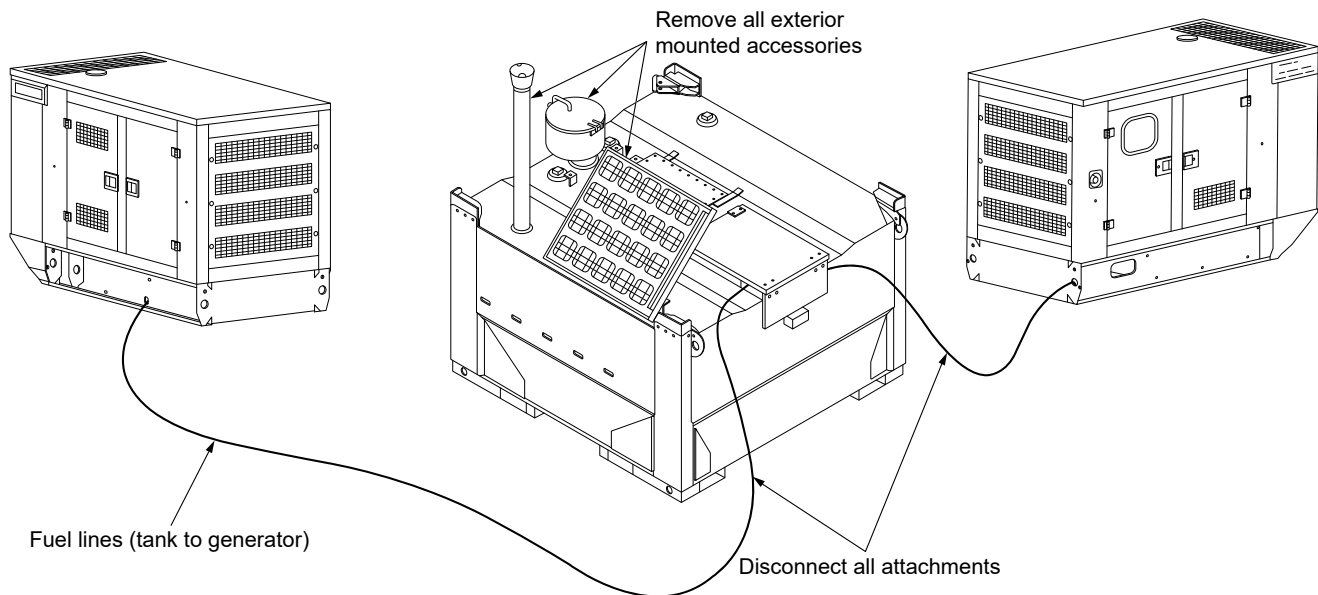
- Ensure the full or empty tank is properly secured at all times.

4.2. Before Moving the Tank

Before moving or shipping the tank:

Inspect the Tank

1. Before loading, check for any accessories or components attached to the top of the tanks that might become loose during shipping, and remove them.
2. Disconnect any packaging attachments used for shipping.
3. Check that any lifting attachments are secure and properly engaged with the tanks.
4. **Inspect the fuel tanks:** Examine each tank to ensure they are in good condition, free of leaks, and meet all safety standards for transport.
5. **Check the inspection decal:** Examine the inspection decal on each tank to ensure it is up to date with inspection and recertification. Ensure that the tanks are compliant with regulatory requirements. See [Section – on page 11](#).
6. **Inspect and tighten all openings:** Carefully inspect all tank openings, access hatch, and fittings. Ensure that they are securely closed and properly tightened to prevent any product leakage during shipping. Close and lock the lids.



4.3. Lifting

WARNING When lifting and moving the tank, use only, and all of, the lift lugs identified on the tank for this purpose. The lift cable or chain length must allow for a minimum angle of 60 degrees between a horizontal plane and the sling. Tanks designed for stationary applications should never be transported or lifted when filled with product.

Tanks can be lifted using a forklift, or a hook chain and crane when it is empty or fully loaded.

Lifting Using a Forklift

The tank can be lifted or moved using the designated lifting pockets or lifting lugs.

Important

Before lifting the tank, make sure the accessories used are rated for the capacity to handle the weight.

To lift using a forklift:

1. Make sure the forklift, and accessories, are rated for the capacity to handle the weight.
2. Carefully position the forklift's forks into the tank's lifting pockets.
3. Ensure the engagement is secure and the tank is stable on the forks.
4. Raise/lower the tank slowly and smoothly, ensuring that it remains level during the lift.
5. Drive the forklift slowly and steadily to the desired location.

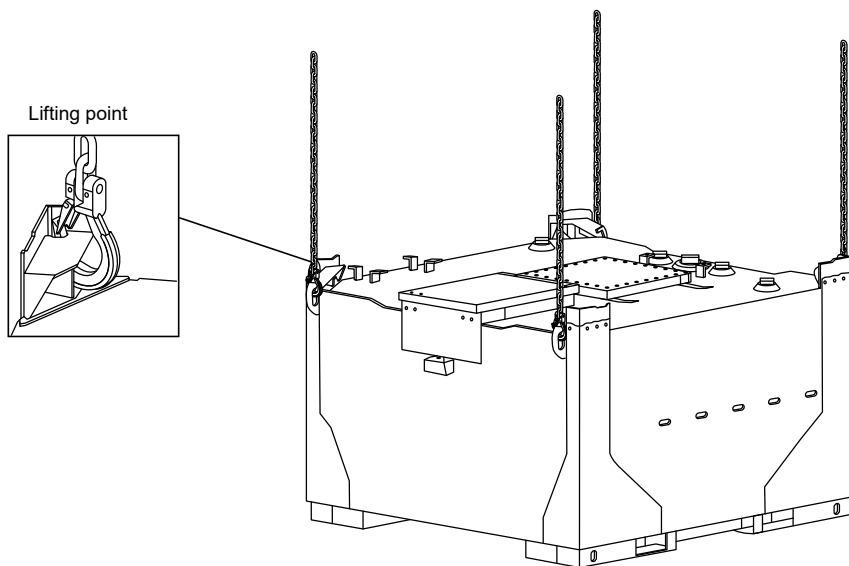
Lifting Using a Hook Chain and Crane or Other Lifting Equipment

To lift using a crane or other lifting equipment:

CAUTION Be cautious of any swinging or swaying and adjust the crane/lifting equipment controls accordingly. Swaying and/or swinging of the tank can shift the center of gravity and increase the risk of tipping the forklift over.

1. Ensure the crane or other equipment are rated for the capacity to handle the weight.
2. Connect the hook chains to all four lifting lugs.

3. Ensure the engagement is secure and the tank is stable on the chain.
4. Raise/lower the tank slowly and smoothly, ensuring that it remains level during the lift.

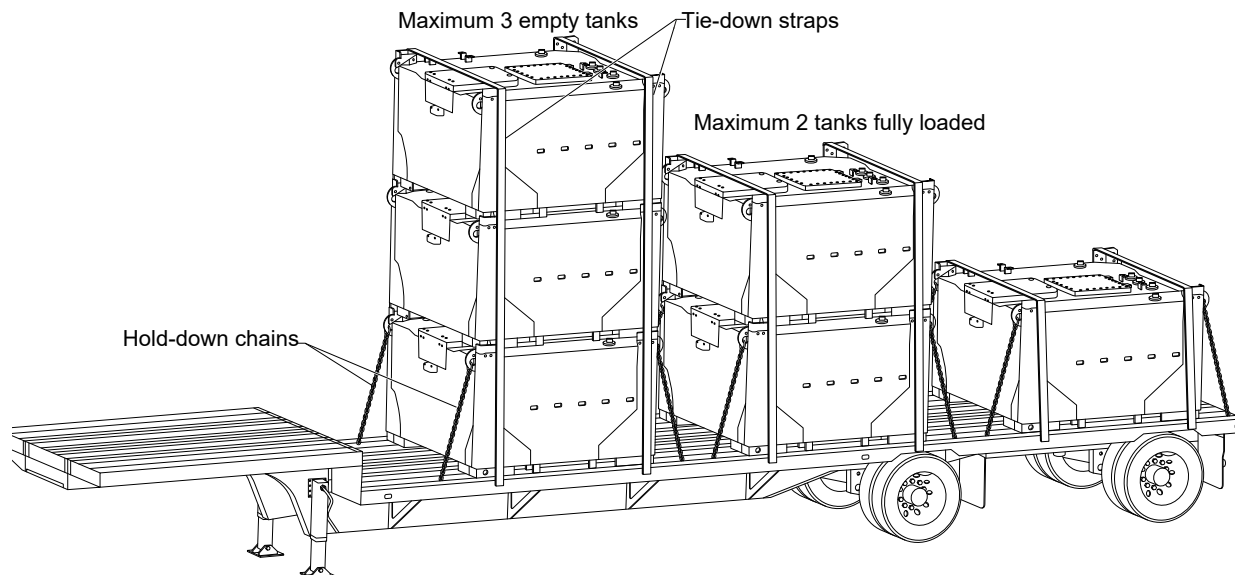


4.4. Securing

Important

Ensure that the loaded truck complies with all relevant regulations, including weight/height limits, placarding, and safety standards. Only use the lifting lugs to fasten the tank for transport. Do not drill any holes into the tank.

1. Secure the tanks with tie-down straps or chains: Use high-quality tie-downs specifically rated for the application. Make sure that the straps are evenly distributed across the tanks.
2. Tighten the straps/chain: Securely fasten the tie-downs, ensuring that the tanks are held firmly in place. Pay close attention to the tension to prevent shifting during transportation.



4.5. Preparing for Transport

Prepare the Truck

1. Verify that the truck is suitable for transporting the specified number of tanks.
2. Ensure the truck's cargo area is clean and free of debris.

Position the Tank

1. **If stacking three empty tanks:** Ensure the bottom one is centered and balanced on the truck's cargo area before securing. Position the second tank on top and secure. Position the third one, and secure. Ensure overall shipping heights meet legal road heights requirements.
2. **If stacking two fully loaded tanks:** Ensure the bottom one is centered and balanced on the truck's cargo area before securing. Position the second one and secure. Ensure overall shipping heights meet legal road heights requirements.

4.6. Transporting

This CVDP tank is designed for the transportation of liquids. See [Section 1.1 – Acceptable Use on page 5](#). Make sure all local regulations and requirements are followed when transporting. The tank can be lifted or moved when it is fully loaded using any of the designated lifting methods. See [Section 4.3 – Lifting on page 27](#).

4.7. Storing



- Tanks should be reasonably protected from any accidental impacts.
- Filled tanks must be stored at a minimum distance of 2 feet (70 cm) from fence lines.
- Filled tanks subject to rolling or tipping must be blocked with suitable blocking to prevent movement.
- If units are stored outside, all openings must be sealed or covered to prevent water or moisture from getting into the tank. Check the inside of the tank monthly to ensure no water or moisture has accumulated. Any water found inside the tank must be immediately removed, and remedial action taken.

Tanks may be stored in the following combinations:

- One, two, or three empty tanks stacked on top of each other (maximum three tanks).
- One full tank with one or two empty tanks stacked on top (maximum three tanks).
- Two full tanks stacked on each other (maximum two tanks).

5. Installation

CAUTION

Consult the authorities having jurisdiction before installing the tank to ensure compliance with local requirements. Installation should be completed by a qualified contractor in a manner acceptable to the authorities having jurisdiction, as well as to any insurance underwriter involved. The installer is responsible for obtaining and completing the necessary permits and certificates and must ensure that all Federal, Provincial and Local codes are met before installation. Compliance is essential to:

- Ensure the safety of all the individuals involved in the installation.
- Prevent tank damage and/or failure, which could lead to liquid loss and environmental contamination.
- Validate the tank warranty.

Tank installation must include:

- A firm, level, well-drained site. Drainage is important to ensure soil stability and reduce the risk of tank corrosion or movements.
- Non-combustible foundations that can support the weight of the fully filled tank including any snow build-up weight.

Note

The foundation may be comprised of concrete, asphalt, gravel or other stable material and must include provisions in its design to prevent tank movement.

- Appropriate location that avoids the build-up of snow on the tank. Snow and ice build-up may cause failure of the tank emergency and normal vents.
- Appropriate location with clearance from buildings and property lines in accordance with all applicable fire and environmental codes (national and local). Check with the local authority having jurisdiction to confirm the required clearance.
- Appropriate location that protects the tank from vandalism and accidental damage such as from vehicular impacts, in accordance with all applicable codes.
- Electrical grounding per local codes.
- Protection against flotation caused by flooding.
- Hold-down devices to meet seismic requirements in some locations. Consult AGI Westeel.

6. Operation

For optimal operation, follow the safety precautions, checklists, and instructions in this section.

6.1. Filling the Tank

CAUTION

- Do not fill the tank beyond 90-95% capacity.
- When filling the tank, continuously monitor the fuel level through the tank's sight gauge or by visually checking the opening.

To fill or refill the tank:

1. Prepare the tank for filling:
 - a. Park the tank on a stable, level surface. Engage parking brakes if applicable to prevent movement.
 - b. Ensure the area is well-ventilated and free from ignition sources as diesel vapors can be flammable.
2. Check and remove the fill/vent cap:
 - a. Inspect the fill/vent cap (N1) to ensure it is clean and free of any debris.
 - b. Remove the cap and place it in a secure, clean location to prevent contamination.
3. Insert the fill nozzle:
 - a. Insert the fuel nozzle carefully into the tank's fill opening.

Important
Do not completely fill the tank. Allow 5–10% room for fuel expansion.

 - b. Begin fueling slowly to prevent splashing or static buildup.
4. Once the tank is full, shut off the fuel nozzle immediately. Allow any remaining fuel in the nozzle to drain into the tank to prevent drips.
5. Replace the fill/vent cap securely ensuring it is tightly sealed to prevent leaks during transport or operation.
6. Use an absorbent cloth or spill pad to wipe away any spills or diesel residue on the tank surface, fill area, and nozzle.
7. Perform a quick visual inspection around the fill opening, cap, and any hose connections to ensure there are no leaks.
8. Secure the tank for transport If necessary. Check that all caps and valves are tightly closed and that hoses are stored in their compartments. See [Section 4. – Handling and Moving the Tank on page 26](#).

6.2. Venting the Tank

- Ensure tank is always vented during operation.
- Inspect vents regularly to ensure they are not plugged or dirty.

See also [Section 3.5 – Tank Caps and Vents on page 25](#) and .

6.3. Operating the Pump — Fuel Transfer

WARNING

- Wear appropriate safety gear when handling fuel.
- Ensure there are no open flames, sparks, or smoking near the tank.
- Confirm that the pump is grounded to avoid static electricity.
- Check for any fuel leaks around the pump or fittings before use.

1. Position the tank near the equipment.

Important

- Park the mobile tank on level ground near the equipment that needs refueling.
- Ensure the vehicle is stationary and the brake is engaged.

2. Connect and confirm power source.

Note

- For battery-operated pumps, ensure the battery is fully charged and securely connected.
- For AC-powered pumps, connect the power cable to a suitable power source.

3. Remove the nozzle from its holder and insert into the fuel tank inlet.

4. Switch the pump to the ON position to start the fuel flow; Check the flow meter to monitor the amount of fuel dispensed.

5. Squeeze the handle on the fuel nozzle to start dispensing fuel.

Important

- Hold the nozzle firmly as some pumps may have high flow rates.
- Watch the equipment's fuel gauge to avoid overfilling.

6. Release the nozzle handle to stop the fuel flow when the equipment tank is full.

7. Switch the pump to the OFF position immediately.

8. Return the nozzle back to the holder.

After using the pump:

- Disconnect any power connections.
- Check the pump, hose, and fittings for leaks or signs of wear.
- Clean up any fuel spills immediately.
- Secure the tank for transportation if moving to another site.

6.4. Drawing Fuel

1. Ensure lines are fed through the opening on the side of the lid.

2. Connect supply and return line into corresponding openings on tank with appliance being supplied.

3. Close lid.

6.5. Emptying the Tank

Required Equipment and Materials:

- Fuel transfer pump
- Approved storage container for fuel
- Long-handled cleaning brush or mop
- Diesel tank-safe cleaning agent
- Absorbent pads or spill kit
- Inspection flashlight or endoscope (optional for interior inspection)

Required Personal Protective Equipment:

- Safety goggles
- Nitrile or chemical-resistant gloves
- Anti-static workwear
- Respirator mask
- Fire extinguisher

See also [Section 2.3 – Personal Protective Equipment on page 10](#).

Preparation

1. Locate a safe area: Position the tank in a well-ventilated area, away from open flames or electrical sources.
2. Ground the tank: Attach a grounding cable to prevent static discharge.
3. Ensure fuel storage readiness: Prepare approved fuel containers to receive the fuel.

Remove Fuel

1. Connect the fuel transfer pump: Attach the pump's inlet to a connection opening. Secure all connections.
2. Transfer fuel: Power on the pump and begin transferring fuel into the approved container.
3. Monitor levels: Observe the pump and container and ensure no overflow.
4. Seal all connections: After emptying, turn off the pump and seal any opened connection points.

Inspect the Tank

1. Access the tank interior: Open the manway hatch, if available, or the largest connection opening.
2. Visual inspection: Use a flashlight to inspect the interior. Look for sludge, corrosion, or any signs of damage.
3. Remove sludge or residue: Use absorbent pads or a mop to remove fuel traces and sludge from inside the tank.

Clean the Tank

1. Apply cleaning agent: Insert a diesel-safe cleaning agent through the manway hatch or connection opening. Follow manufacturer dilution instructions.
2. Scrub interior: Use a long-handled brush to scrub the tank's interior surfaces, focusing on areas with visible deposits
3. Rinse thoroughly: Add clean water through the same opening and rinse the interior, ensuring all cleaning solution is flushed out.

Dry the Tank

1. Remove rinse water: Use the fuel pump to extract any rinse water or leftover solution from the tank.
2. Ventilate and dry: Leave the manway hatch or connection open to allow airflow for drying. A blower or fan may help speed up the drying process.

Inspect and Reassemble the Tank

1. Inspect the tank interior: Confirm that all residues and moisture have been removed.
2. Seal the tank: Once dry, close all connection openings and reattach any removed components.

Dispose of Waste

1. Dispose of any waste fuel and cleaning agents in accordance with local regulations.
2. Record the maintenance procedure for future reference and compliance.

7. Maintenance

Important

Failure to adhere to and provide proof of proper maintenance may void the warranty.

The tank owner must develop a basic maintenance schedule that covers the following minimum requirements:

Inspect the Secondary Containment

Frequency: Periodically

Notes:

1. The secondary containment should be checked periodically for the accumulation of liquid.
2. If liquid is detected, test for the presence of hydrocarbons. Refer to the STI Standard SP001 **Standard for the Inspection of Above Ground Storage Tanks** for requirements concerning tank inspections. The SP001 Standard details inspection requirements based on the tank installation and age. Tanks must undergo appropriate inspection before relocation.

Inspect Primary Tank

Frequency: Monthly

Notes:

1. Inspect the primary tank monthly for water at the lowest possible points inside the primary tank.
2. Remove any water found. Water and sediment in the fuel can cause plugging of filters. Bacterial growth originating from the fuel can cause corrosion of tanks and lines.
3. For procedures on how to check for the presence of water and removal of water, refer to API Recommended Practice 1621 and API Standard 2610.

Inspect the Tank Coating

Frequency: Periodically

Notes:

1. Visually inspect the tank periodically for any damage or degradation of the coating. Remedial action must be taken if any damage is found.
2. The frequency of this inspection must be based on the environmental factors in the geographic area where the tank is.

Inspect the Pumps

Frequency: Periodically

Notes:

1. Regularly inspect hoses, nozzles, and power connections for wear and tear.
2. Clean or replace fuel filters as recommended by the manufacturer.
3. Follow the manufacturer's guidelines for pump servicing and battery maintenance.

Inspect the Installation Site

Frequency: Periodically

Notes:

1. Visual inspection of the installation site must be done periodically to identify changes in the drainage system or movement in the surrounding foundation. Remedial action must be taken to reverse and prevent any future degradation.
2. If major degradation of the coating is observed, a repainting of the surface will be required. The operator is responsible for selecting the paint, surface preparation, and coating application. Local codes may require that the tank be recertified and relabeled.

7.1. Cleaning the Tank

Cleaning should be done every 6-12 months depending on tank usage. Keep records of maintenance activities, dates, and performed steps.



WARNING

- Only trained personnel should perform tank cleaning.
- Perform the procedure in a well-ventilated area away from ignition sources.
- Ensure proper disposal of fuel, sludge, and cleaning agents.

Cleaning

Frequency: Periodically

Notes:

- Check that the compartment is free from garbage, rags, and other obstructions.
- Always clean drips and spills from hose and nozzle to ensure space is clear to see potential leaks from the primary tank
- Periodically power wash the exterior of the tank to remove any road salts which can prematurely result in corrosion of the tank.
- Ensure that paint scratches are covered using touch up spray.

7.2. Periodic Leak Test and Tank Inspection

Transport Canada regulations and CGSB-43.146 code guidelines, require all IBC tanks to be tested and inspected within 60 months of the original date of manufacture, and every 60 months or less after. Inspections must be carried out by a facility holding a **Certificate of Registration to Leak Test and Inspect Intermediate Bulk Containers**. A list of testing facilities is available online from Transport Canada website.

Important

The tank owner/user(s) are responsible for the testing and re-certification of these tanks.

AGI Westeel provides a location/decal on each tank where inspection recordings are recorded. See [Section – on page 11](#). The letter R, the date [MM/YY] of the latest successful leak test/inspection, and the Transport Canada Certificate number of the leak tester must be permanently and clearly marked within this allocated area or decal.

7.3. Replacement Parts

Report damaged parts or shortages immediately to the delivering carrier, followed by a confirming letter requesting inspection by the carrier, if required.

Order necessary replacement parts immediately to ensure that missing parts will not hold up installation. All parts will be charged for, and credit will be issued by the party at fault. No credit will be issued if the freight bills are signed as received in good condition.

If you require any replacement parts or have technical inquiries, please contact AGI Westeel, or authorized service provider for assistance and genuine replacement components: **Toll Free: 1-800-665-2099, Email: lcs@westeel.com**

8. Specifications

8.1. Common Specifications

Table 1. Common Specifications

Tank Type	IBC CODE: 31A/Y, ULC: S601, UL: Rectangular
Material	Carbon Steel — Commercial Quality
Primary Tank Fabrication Code	ULC-S601, UL 142, UN 31A IBC
Secondary Tank Fabrication Code	ULC-S653, 110% SC DYKE
Operating Conditions	To withstand normal operating conditions of 7 PSI (50 kPa).
Emergency Venting Conditions	10 PSI (70 kPa)
External Pressure	To withstand an external pressure of 0.334 PSI (2.3 kPa) under normal operating conditions.
Outdoor Temperatures (design metal temperature)	-20°F
Outdoor temperature (ambient temperature)	-35°F

Note

Dimensions and capacity may vary slightly due to manufacturing tolerance.

Table 2. Model Specifications

Model	Capacity (USG)	Tare Weight (lbs)	Gross Weight (lbs)	Stacking Weight (lbs)	Overall Dimensions		
					Length (in)	Width (in)	Height (in)
CV1100	290	1488	3031	5456	56.3	42.0	59.8
CV2100	555	2260	7334	13200	89.5	42.0	63.3
CV3000	793	2756	9811	17659	89.5	57.8	63.3

8.2. Exterior Finish

Tank Paint

All non-galvanized parts are coated to one of the two AGI Westeel standards based on which plant the tank was fabricated. WCS-2 is a liquid coating, and WCS-PC1,2 is a powder coat.

Paint Standard Summary:

WCS-2 (liquid)

- Cleaned for all contamination.
- Surface Blast to SSPC SP-6 commercial Grade (NACE 3)
- Apply D.T.M. Two Component Acrylic Urethane White (Gloss) paint. 3.0–5.0 Total DFT.

WCS-PC1, 2 (powder)

- All exterior surface is washed and cleaned (PC1).
- Phosphate etches steel and rinse clean and forced air dry (PC1).
- Surface Blast to SSPC SP-6 commercial Grade (NACE 3) (PC2).
- Apply 2–8 mil DFT of Westeel White Powder Paint.
- Baked in an oven for the cure.

9. Gauge Charts

AGI Westeel provides gauge charts as an approximate reference only, and does not warranty nor is liable for the accuracy of these charts. By using these approximated volume gauges, the user accepts any responsibility for damages or other costs that may result from an inaccurate gauge and/or volume reading.

9.1. IBC-CV1100 Gauge Chart

AGI Westeel Gauge Chart for Cross-Vault		
Volume in US gal @ 1% Increments		
MODEL Number: IBC-CV1100		
TARE: 1488.1 LBS	GROSS MASS: 3031.0 LBS	TOTAL VOL: 290.5 US GAL

Depth		Volume	Depth		Volume	Depth		Volume
%	Inches	US Gal	%	Inches	US Gal	%	Inches	US Gal
0	0	0	34	17 2/5	99	68	34 3/4	198.3
1	1/2	2.9	35	18	102	69	35 1/4	201.2
2	1	5.8	36	18 3/7	104.8	70	35 7/9	204.2
3	1 1/2	8.7	37	19	108	71	36 2/7	207.1
4	2	11.6	38	19 4/9	111	72	36 4/5	210
5	2 5/9	14.5	39	20	113.8	73	37 1/3	213
6	3	17.4	40	20 1/2	116.7	74	37 5/6	215.8
7	3 4/7	20.3	41	21	119.6	75	38 1/3	218.7
8	4	23.2	42	21 1/2	122.5	76	38 6/7	221.6
9	4 3/5	26.1	43	22	125.4	77	39 3/8	224.5
10	5 1/9	29	44	22 1/2	128.3	78	39 7/8	227.4
11	5 5/8	32	45	23	131.2	79	40 2/5	230.3
12	6 1/7	34.8	46	23 1/2	134.2	80	40 8/9	233.2
13	6 2/3	38	47	24	137.1	81	41 2/5	236.1
14	7 1/6	41	48	24 5/9	140	82	42	239
15	7 2/3	43.8	49	25	143	83	42 4/9	242
16	8 1/6	46.7	50	25 3/5	145.8	84	43	244.8
17	8 2/3	49.6	51	26	148.7	85	43 1/2	248
18	9 1/5	52.5	52	26 4/7	151.6	86	44	251
19	9 5/7	55.4	53	27	154.5	87	44 1/2	253.8
20	10 2/9	58.3	54	27 3/5	157.4	88	45	256.7
21	10 3/4	61.2	55	28 1/9	160.3	89	45 1/2	259.6
22	11 1/4	64.1	56	28 5/8	163.2	90	46	262.5
23	11 7/9	67	57	29 1/8	166.2	91	46 1/2	265.4
24	12 2/7	70	58	29 2/3	169	92	47	268.3
25	12 4/5	73	59	30 2/3	172	93	47 5/9	271.3
26	13 1/3	75.8	60	30 2/3	174.8	94	48	274.2
27	13 4/5	78.7	61	31 1/6	178	95	48 4/7	277.1
28	14 1/3	81.6	62	31 2/3	181	96	49	280
29	14 5/6	84.5	63	32 1/5	183.8	97	49 3/5	283
30	15 1/3	87.4	64	32 5/7	186.7	98	50 1/9	285.8
31	15 6/7	90.3	65	33 2/9	189.6	99	50 5/8	288.7
32	16 3/8	93.2	66	33 3/4	192.5	100	51 1/7	290.5
33	16 7/8	96.1	67	34 1/4	195.4			

9.2. IBC-CV2100 Gauge Chart

MODEL Number: IBC-CV2100								
MODEL Number: IBC-CV2100								
TARE: 2259.7 LBS			GROSS MASS: 7330.4 LBS			TOTAL VOL: 554.7 US GAL		
Depth		Volume	Depth		Volume	Depth		Volume
%	Inches	US Gal	%	Inches	US Gal	%	Inches	US Gal
0	0	0	34	17 2/5	186.7	68	34 3/4	373.2
1	1/2	5.5	35	18	192	69	35 1/4	378.8
2	1	11	36	18 3/7	197.6	70	35 7/9	384.3
3	1 1/2	16.3	37	19	203.1	71	36 2/7	390
4	2	22	38	19 4/9	208.6	72	36 4/5	395.2
5	2 5/9	27.4	39	20	214.2	73	37 1/3	400.7
6	3	33	40	20 1/2	219.5	74	37 5/6	406.2
7	3 4/7	38.3	41	21	225	75	38 1/3	411.8
8	4	43.8	42	21 1/2	230.6	76	38 6/7	417.3
9	4 3/5	49.4	43	22	236.1	77	39 3/8	422.6
10	5 1/9	54.9	44	22 1/2	241.4	78	39 7/8	428.2
11	5 5/8	60.4	45	23	247	79	40 2/5	433.7
12	6 1/7	65.7	46	23 1/2	252.5	80	40 8/9	439.3
13	6 2/3	71.3	47	24	258	81	41 2/5	444.8
14	7 1/6	76.8	48	24 5/9	263.6	82	42	450.1
15	7 2/3	82.4	49	25	268.9	83	42 4/9	455.6
16	8 1/6	87.9	50	25 3/5	274.4	84	43	461.2
17	8 2/3	93.2	51	26	280	85	43 1/2	466.7
18	9 1/5	98.8	52	26 4/7	285.5	86	44	472
19	9 5/7	104.3	53	27	291.1	87	44 1/2	477.6
20	10 2/9	109.8	54	27 3/5	296.4	88	45	483.1
21	10 3/4	115.1	55	28 1/9	302	89	45 1/2	488.7
22	11 1/4	120.7	56	28 5/8	307.4	90	46	494.2
23	11 7/9	126.2	57	29 1/8	313	91	46 1/2	499.5
24	12 2/7	131.8	58	29 2/3	318.3	92	47	505
25	12 4/5	137.3	59	30 2/3	323.8	93	47 5/9	510.6
26	13 1/3	142.6	60	30 2/3	329.4	94	48	516.2
27	13 4/5	148.2	61	31 1/6	335	95	48 4/7	521.4
28	14 1/3	153.7	62	31 2/3	340.5	96	49	527
29	14 5/6	159.2	63	32 1/5	345.8	97	49 3/5	532.5
30	15 1/3	164.8	64	32 5/7	351.3	98	50 1/9	538.1
31	15 6/7	170.1	65	33 2/9	356.8	99	50 5/8	543.6
32	16 3/8	175.6	66	33 3/4	362.4	100	51 1/7	554.7
33	16 7/8	181.2	67	34 1/4	368			

9.3. IBC-CV3000 Gauge Chart

AGI Westeel Gauge Chart for Cross-Vault								
MODEL Number: IBC-CV3000								
TARE: 2755.8 LBS			GROSS MASS: 9810.6 LBS			TOTAL VOL: 792.5 US GAL		
Depth		Volume	Depth		Volume	Depth		Volume
%	Inches	US Gal	%	Inches	US Gal	%	Inches	US Gal
0	0	0	34	17 2/5	268.3	68	34 3/4	536.7
1	1/2	7.9	35	18	276.3	69	35 1/4	544.7
2	1	15.8	36	18 3/7	284.2	70	35 7/9	552.3
3	1 1/2	23.7	37	19	292	71	36 2/7	560.3
4	2	31.7	38	19 4/9	299.8	72	36 4/5	568.2
5	2 5/9	39.3	39	20	307.7	73	37 1/3	576.4
6	3	47.2	40	20 1/2	315.6	74	37 5/6	584
7	3 4/7	55.2	41	21	323.6	75	38 1/3	592
8	4	63.1	42	21 1/2	331.5	76	38 6/7	600
9	4 3/5	71	43	22	339.4	77	39 3/8	607.8
10	5 1/9	78.9	44	22 1/2	347.3	78	39 7/8	615.5
11	5 5/8	86.9	45	23	355	79	40 2/5	623.4
12	6 1/7	94.8	46	23 1/2	363	80	40 8/9	631.3
13	6 2/3	102.4	47	24	370.8	81	41 2/5	639.2
14	7 1/6	110.4	48	24 5/9	378.8	82	42	647.2
15	7 2/3	118.3	49	25	386.7	83	42 4/9	655.1
16	8 1/6	126.2	50	25 3/5	394.6	84	43	663
17	8 2/3	134.1	51	26	402.5	85	43 1/2	671
18	9 1/5	142.1	52	26 4/7	410.5	86	44	678.6
19	9 5/7	150	53	27	418.1	87	44 1/2	686.5
20	10 2/9	158	54	27 3/5	426.1	88	45	694.5
21	10 3/4	165.6	55	28 1/9	434	89	45 1/2	702.4
22	11 1/4	173.5	56	28 5/8	442	90	46	710.3
23	11 7/9	181.4	57	29 1/8	449.8	91	46 1/2	718.2
24	12 2/7	189.4	58	29 2/3	457.8	92	47	726.2
25	12 4/5	197.3	59	30 2/3	465.7	93	47 5/9	734.1
26	13 1/3	205.2	60	30 2/3	473.6	94	48	741.7
27	13 4/5	213.1	61	31 1/6	481.3	95	48 4/7	749.7
28	14 1/3	221.1	62	31 2/3	489.2	96	49	757.6
29	14 5/6	228.7	63	32 1/5	497.1	97	49 3/5	756.5
30	15 1/3	236.6	64	32 5/7	505	98	50 1/9	773.4
31	15 6/7	244.6	65	33 2/9	513	99	50 5/8	781.4
32	16 3/8	252.5	66	33 3/4	521	100	51 1/7	792.5
33	16 7/8	260.4	67	34 1/4	528.8			

10. Limited Warranty: Petroleum Storage Products

Westeel, a Division of AGI warrants products that it has manufactured and/or that are branded with its name or that of Northern Steel Industries (the “goods”) subject to the following terms and limitations, (the “warranty”).

Note

The warranty does not apply to products manufactured by Westeel under license (the “licensed products”). The licensed products are solely subject to warranty terms as they may be set from time to time by the licensing body. The licensed products include but are not necessarily limited to: FLAME SHIELD, Fireguard, F921, STI P3, AquaSweep and Glasteel. For information on warranty terms applicable to the licensed products, or to determine whether a product is a licensed product, please consult the Westeel website and/or contact Westeel www.westeel.com or 1-800-665-2099.

Duration of Warranty

The duration of the warranty is limited as follows:

- External Corrosion – 2 years
- Internal Corrosion – 2 years
- Structural Defect – 5 years, except in the case of Mobile Tanks in which case it is 1 year
- Tank Accessories (fabricated by Westeel) –1 year
- Tank Accessories (fabricated by third-party suppliers) – various based on the warranty policy of the manufacturer (see limitations as to Manufacturer)
- Loss of Vacuum – 2 years, except in the case of underground tanks in which case it is 30 days from date of delivery to the purchaser

The duration of the warranty will run from the date of purchase by the end user from Westeel, an authorized dealer or an authorized distributor, unless otherwise stated (the “warranty period”).

Limitation of Remedies Replacement

Within the warranty period, Westeel will replace the goods and/or original manufactured components thereof which are found, to Westeel's satisfaction, to be defective. Westeel is not responsible for direct, indirect, special, consequential, or any other damages of any kind, including personal injury to any individual, howsoever caused, including caused by transportation of the goods for repair or replacement.

Procedure for Obtaining Service

In the event of a warranty claim, the purchaser must complete any and all information required by Westeel in order to properly assess or investigate the claim. Westeel will not be responsible for the removal of any of the goods found to be defective, or transportation charges to and from the tank site, Westeel's authorized dealer or Westeel's authorized distributor, or for installation of any replacement goods and/or parts furnished under the warranty.

Limitations as to Scope of Warranty

The warranty does not extend to defects or damage caused, in whole or in part, by:

- use of a kind and/or to a degree not reasonably expected to be made of the goods;
- improper storage of the goods both prior to and after purchase;
- damage caused by, or in the course of, installation or assembly;
- any use of the goods which is not an intended use as specified in Westeel's published product literature, or otherwise specified by Westeel in writing;
- any equipment attached to or used in conjunction with the goods;
- any field modifications or substitutions to original tank components;
- inadequate ventilation or any other circumstance not in keeping with proper maintenance and/or use of the goods;
- acts of God, accident, neglect or abuse of the goods by the purchaser and/or any other individual or entity;
- any use or installation inconsistent with Westeel's Standard Disclaimers.

Limitations as to Manufacturer

The warranty does not cover products sold by Westeel that are not manufactured and/or that are not branded with its name or that of Northern Steel Industries. In those circumstances, the purchaser is referred to the manufacturer of those products.

Westeel's warranty covers workmanship related to the installation of third-party products for a period of ninety (90) days from the date of purchase by the end user, including products purchased from an authorized Westeel dealer or distributor.

Limitation of Implied Warranties and Other Remedies

To the extent allowed by law, neither Westeel nor its dealers, nor any company affiliated with Westeel makes any warranties, representations, or promises as to the quality, performance, or freedom from defect of any Product covered by this Warranty.

WESTEEL HEREBY DISCLAIMS, TO THE EXTENT APPLICABLE, ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. A PURCHASER'S ONLY REMEDIES IN CONNECTION WITH THIS WARRANTY ARE THOSE SET FORTH IN THIS WARRANTY. IN NO EVENT WILL WESTEEL, ITS DEALERS, OR ANY COMPANY AFFILIATED WITH WESTEEL BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES.

Some jurisdictions do not allow waivers of certain warranties, so the above waivers may not apply to you. In that event, any implied warranties are limited in duration to ninety (90) days from delivery of the products. You may also have other rights which vary from jurisdiction to jurisdiction.

Exclusive Warranty

This warranty is the only warranty provided by Westeel and all other warranties and/or commitments whether express or implied and no matter by whom made, statutory or otherwise, are subsumed and replaced by it and are of no legal effect. If any provision of the warranty is held by a court of competent jurisdiction to be void or unenforceable, in whole or in part, such provision shall be deemed severable and will not affect or impair the legal validity of any other provision of the warranty.

DISCLAIMERS

External Corrosion

The warranty does not apply if:

- Foreign materials have contacted painted surfaces or stainless steel surfaces causing damage and/or allowing for corrosion and/or rust.
- The goods have been primed and/or painted by someone other than Westeel.
- Threaded material has been scraped or scratched in a manner causing damage and/or allowing for corrosion and/or rust (eg. pipe caps or pumps).

Internal Corrosion

The warranty does not apply if:

- The goods are not used solely for the containment of petroleum products, unless otherwise stated in writing and signed off by an authorized representative of Westeel.
- All maintenance procedures are not strictly followed. This includes but is not limited to a regular inspection for internal moisture and debris, dents, punctures, leaks and loose or damaged fittings a minimum of once every twelve (12) months.

Loss of Vacuum

The warranty does not apply if:

- The purchaser fails to contact Westeel immediately for instructions when vacuum appears to have been lost.
- The vacuum has not been checked immediately after transporting to installation site.
- The Installation Checklist is not strictly followed and completed, signed and returned to Westeel within fourteen (14) calendar days of the date of delivery. (Please see additional notes on “Vacuum Monitoring System Maintenance”).

General

The following disclaimers apply to the goods in all circumstances:

- The goods must be installed by a certified installer recognized by local authorities, where applicable, and strictly in accordance with Westeel’s Installation Instructions as well as all applicable installation and building codes and accepted trade practices. Without limiting the generality of the foregoing, proper foundation assembly, installation and use solely for the purposes intended as specified in Westeel’s published product literature is essential. As well, tank venting for both normal and emergency situations must be installed properly and kept unobstructed at all times.
- The goods must be handled at all times (including but not limited to shipping, loading and unloading, positioning) only when empty and must be secured at all times in a manner as specified in the Owners’ Manual. Any damage caused during handling is not covered by the warranty.
- Any damage caused by foreign debris entering into the tanks, including but not limited to moisture, is not covered by the warranty. It is extremely important for the owner/user to check for foreign debris inside the tank at the time of delivery as well as before commencing use of the goods and regularly during use of the goods. Moisture can cause irreparable damage to the goods

including but not limited to a leak due to microbial corrosion. For further information on moisture monitoring and removal you may contact:

- Steel Tank Institute (STI)
- Westeel website
- Petroleum Equipment Institute
- Accessories and parts on the goods may not have been manufactured by Westeel (“third party manufactured goods”). Third party manufactured goods are not covered by the warranty. Warranty terms applicable to third party manufactured goods are as per the terms published by the applicable manufacturer. For further information on accessing the website of the applicable manufacturer please contact a Westeel representative.
- Modifications made to the goods that have not been approved in writing by an authorized representative of Westeel will result in the warranty being null and void. This will be the case for any and all damages howsoever caused to the goods at any time after the modification has been made.
- The goods must be maintained and used at all times in a manner consistent with all Westeel procedures contained in the Owners’ Manual as well as prudent, accepted practice.

Vacuum Monitoring System Maintenance

Long term vacuum monitoring of the double-walled portion of a tank can be used to evaluate the integrity of the primary or secondary walls of the tank system. It should be noted that the vacuum filled interstice created by the two walls essentially acts as a large barometer and thus the Vacuum recorded on the mechanical gauge factory installed on each tank will vary with ambient temperature as well as atmospheric or internal tank pressure.

Recorded vacuum gauge readings that vary with temperature or pressure would be considered normal. However, a steady drop in vacuum readings over time, regardless of ambient conditions, may indicate the vacuum system requires either maintenance or remedial action. Please contact Westeel immediately should you notice any consistent drops in vacuum readings.






Westeel is an AGI Brand.

AGI is a leading provider of equipment solutions for agriculture bulk commodities including seed, fertilizer, grain, and feed systems with a growing platform in providing equipment and solutions for food processing facilities. AGI has manufacturing facilities in Canada, the United States, the United Kingdom, Brazil, South Africa, India and Italy and distributes its products globally.



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