



TECHNICAL DATA

MODEL BWCon 1.400 IBC FIRE PROTECTION CONTAINMENT UNIT

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

Visit the Viking website for the latest edition of this technical data page www.vikinggroupinc.com

1. GENERAL DESCRIPTION

The fire protection containment unit is used to store single ignitable liquid IBC's (Intermediate Bulk Containers) when located within manufacturing, process areas, small storage or similar environments.

The unit is particularly useful when a limited number of IBC's are introduced to an area where a fixed fire protection system is not in place or not able to effectively cover the additional risks involved with Class B liquids. Subject to AHJ acceptance, the unit also gives the option to utilize non-listed/approved IBC containers.

The fire protection containment unit is intended to capture an ignitable liquid release within a footprint designed to limit the size of a potential pool fire. Containing the majority of released ignitable liquid prevents the formation of a spreading fire. Limiting the size of the pool surface within the unit limits the heat release rate of the fire thereby limiting the expected damage within an occupancy. There is also the capacity to accommodate a further 106 USG (400 litres) of water or foam solution discharged by a sprinkler or deluge system in the protected area.

Typical fields of application include chemical industries, pharmaceutical plants, automotive plants, paint manufacturing, wood processing and warehousing operations.

This Technical Data is intended for trained experts.

For further information, please contact the appropriate sales office in **Section 5 - Availability**, or refer to the technical documentation.

The contents of this publication are subject to modifications without notice.

2. LISTINGS AND APPROVALS



FM Approved – Approval Standard for Storage Containers for IBCs Class Number FM6086

NOTE: Other international approval certificates may be available upon request.

Other Approvals are in the name of the original equipment manufacturer. Contact Viking for further information.

3. TECHNICAL DATA

3.1 Construction Features

- 370 USG (1,400 litres) containment sump
- 265 USG (1,000 litres) from IBC + 106 USG (400 litres) litres from fire suppression system discharge
- Stainless steel construction
- Flame barrier to protect containment sump from fire
- No overflow or spread of ignitable burning liquid
- Forklift or pallet truck access
- Filling and dispensing access
- Open top to accept overhead sprinkler discharge
- Hinged front guard for easy loading / unloading operations.
- Optional roller tracks for easy placement of the IBC



Image for illustration purposes only.



WARNING: Cancer and Reproductive Harm-
www.P65Warnings.ca.gov



TECHNICAL DATA

MODEL BWCon 1.400 IBC FIRE PROTECTION CONTAINMENT UNIT

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

Visit the Viking website for the latest edition of this technical data page www.vikinggroupinc.com

3.2 Standard Materials

Table 3.2.1 - Standard Materials	
Containment sump	Stainless Steel
Catchment basin plate sections	Stainless Steel
Catchment basin flame barrier sections	Stainless Steel
Roller tracks	Stainless Steel
Upper cladding	Stainless Steel
Splash guard	Stainless Steel
Paint	Flame red RAL 3000

3.3 Standard Design Specification

Table 3.3.1 - Standard Design Specifications	
Containment sump capacity	370 USG (1,400 litres)
Maximum IBC allowable gross weight	2,870 lbs (1,300 kg)

3.4 Ordering Information

The fire protection containment unit is available in one standard configuration.

Table 3.4.1 - Ordering Information								
Size		Part number	FM Approved	Ordering territory	Net weight		Shipping weight	
USG	Litres				LBS	kg	LBS	kg
370	1,400	BWCON1400	Yes	EMEA, APAC	950	430	983	445
370	1,400	BWCON1400VK	Yes	Americas	950	430	983	445

4. SCOPE OF DELIVERY

- Ensure that all components are complete and in good condition.
- The fire protection containment unit is supplied fully assembled and ready to use after unpacking.
- Fork / Pallet truck access slots exposed for safe transportation.

5. AVAILABILITY

Please contact your local Viking sales office for further information.

The product is available directly from Viking and official distributors only.

EMEA: Viking S.A., Z.I. Haneboesch, L-4562 Differdange / Niederkorn, Tel.: +352 58 37 37 - 1, Fax: +352 38 37 36, vikinglux@viking-emea.com

Americas: The Viking Corporation, 210 N. Industrial Park Drive, Hastings, Michigan 49058, Toll free phone: (800) 968-9501

APAC: The Viking Corporation (Far East) Pte. Ltd., 69 Tuas View Square, Westlink Techpark, Singapore 637621

Tel: (+65) 6 278 4061, Fax: (+65) 6 278 4609, Email: vikingsingapore@vikingcorp.com



TECHNICAL DATA

**MODEL BWCon 1.400
IBC FIRE PROTECTION
CONTAINMENT UNIT**

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
 Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
 Visit the Viking website for the latest edition of this technical data page www.vikinggroupinc.com

6. PRODUCT VARIANTS

6.1 Options

There are currently no options available for this product.

6.2 Dimensions



Figure 6.2.1 - Front view

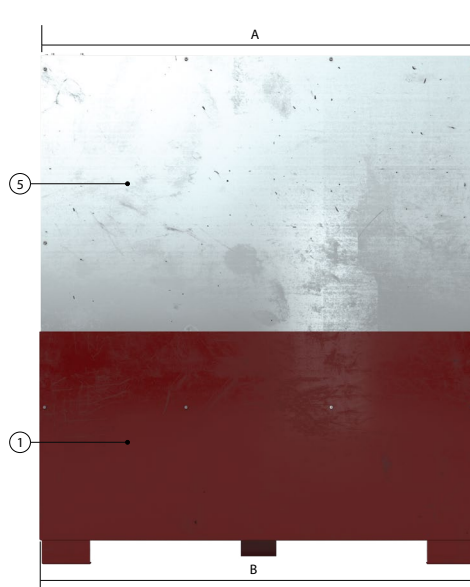


Figure 6.2.2 - Side view

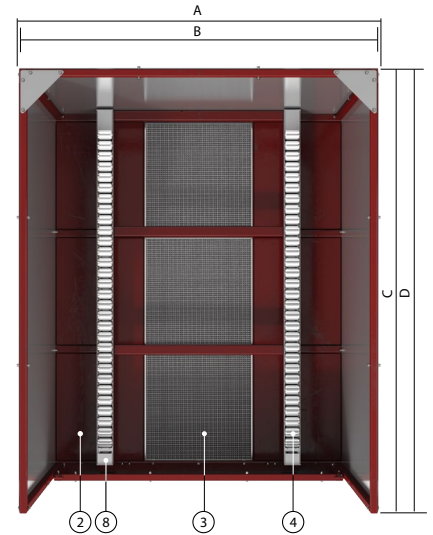


Figure 6.2.3 - Plan view

**Table 6.2.2 – Fire Protection Containment Unit
Key Components**

Item	Description	Qty	Item	Description	Qty
1	Base unit with containment sump	1	6	Front hinged splash guard	1
2	Catchment basin cover plate	6	7	Data plate and FM approval label	1
3	Flame barrier	3	8	IBC front IBC stoppers	2
4	Roller tracks	2	9	IBC rear limit stopper	2
5	Upper cladding	1	10	Fork / pallet truck access slots	2

Table 6.2.3 – Dimension Data

Unit View	Approximate Dimensions															
	A		B		C		D		E		F		G		H	
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
Front	83.9	2,133	83.6	2,123	42.2	1,071	38.2	970	26.4	671	26.4	670	57.8	1,467	57	1,448
Side	70.4	1,789	70.9	1,800	-	-	-	-	-	-	-	-	-	-	-	-
Plan	58.1	1,475	57.5	1,460	70.9	1,800	71.7	1,821	-	-	-	-	-	-	-	-



TECHNICAL DATA

MODEL BWCon 1.400 IBC FIRE PROTECTION CONTAINMENT UNIT

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

Visit the Viking website for the latest edition of this technical data page www.vikinggroupinc.com

7. PERFORMANCE DATA

The fire protection containment unit is designed to meet the following criteria:

- Must be of non-combustible construction
- Must be designed to house only a single IBC having a maximum capacity of 265 USG (1,000 litres).
- Must contain a leak-tight sump that is capable of storing at least 140% of the contents of the largest IBC for which it is designed
- Shall have solid walls on three (3) vertical sides of the unit to a minimum height equal to the top of the IBC plus two (2) inches (50 mm)
- Shall be stable and stationary. No wheels or other devices are permitted which would allow the unit to be physically moved by personnel while housing an IBC
- Shall limit the exposed surface area to an area no larger than 17 ft² (1.5 m²).

It is recommended that the fire protection containment unit be used with IBC's up to 265 USG (1,000 litres) in volume. The maximum allowable gross weight of any IBC is 2,870 lbs (1,300 kg).

8. INSTALLATION

Refer to respective requirements, according to the relevant standards for usage such as NFPA30. If applicable, refer to FM Global Property Loss Prevention Datasheet 7-29. In addition, the "Authority Having Jurisdiction" (AHJ) may have additional usage requirements that must be followed.

Intended for manufacturing, processing or storage areas that contain ignitable liquids stored in IBC's where traditional fixed fire protection systems may be unsuitable, inadequate or non-existent.

Before initial use remove the transport locks and the packaging. The fire protection containment unit is delivered pre-assembled. Before first use it must be verified whether the catchment basin cover plates and stainless steel flame barrier pads are correctly inserted. It should be noted that the edges of the cover plates point downwards so that the plates cannot collect any fluid.

The base unit consists of a sump above which is a catchment basin divided into 9 sections. The 3 stainless steel flame barriers have to be placed into the middle row. 3 cover plates must be placed to the right and left sides (**Fig 6.2.3**)

9. OPERATION

9.1 Function

- When a fire involving an IBC filled with a ignitable liquid occurs, the IBC melts and allows the liquid to escape.
- Front of IBC must be located a minimum of 23.5 inches (600 mm) from the interior face of the hinged gate. This minimum distance is required to prevent discharge of the liquid outside the containment unit.
- The ignitable or burning liquid flows through the flame barrier (a stainless steel mesh filter mat) into the containment sump. This flame barrier separates and shields most of the ignitable liquid from the fire at the IBC. The fire can then be extinguished by a sprinkler system, fire extinguisher or fire department intervention.
- If a sprinkler system is triggered by a fire at the IBC, the fire protection containment unit holds not only the 265 gallons (1,040 litres) of ignitable liquid from a typical IBC, but also an additional 106 USG (400 litres) of suppression agent (water or foam solution). This volume is introduced into the fire protection containment unit via a sprinkler or deluge system during an approximate 20 minute discharge time (which is the fire rating time of a listed/approved IBC).



TECHNICAL DATA

MODEL BWCon 1.400 IBC FIRE PROTECTION CONTAINMENT UNIT

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
 Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com
 Visit the Viking website for the latest edition of this technical data page www.vikinggroupinc.com

9.2 Usage

The fire protection containment unit base is equipped with access slots for the forks of a forklift or pallet truck.

These openings are only suitable for the transportation of the empty fire protection containment unit without an IBC.

The fire protection containment unit can only be loaded with one IBC with a total gross weight of 2,870 lbs (1,300 kg).

The IBC must be placed precisely onto the roller tracks using a forklift truck. The IBC must be positioned centrally onto the roller tracks. The IBC must be positioned onto the roller tracks in such a way that it is placed down beyond the front IBC stoppers. It can then be pushed over the roller tracks to the rear limit stopper.

NOTICE

The IBC must always be positioned up to the rear limit stop. To ensure the effectiveness of the fire protection function, it is essential that the fire protection containment unit's front hinged splash guard maintains a space of approximately 23.6" (600 mm) from the front face of the IBC.

Once the IBC has been properly positioned in the fire protection containment unit, the front hinged splash guard must be folded upwards and securely bolted into the closed position.

Then the manual or automatic emptying or filling of the IBC may commence.



Fig. 9.2.1 - Fire protection containment unit positioned up to rear limit stop

Image for illustration purposes only.

CAUTION

In case of fire at the extracting side of the fire protection containment unit there could be a release of ignitable fluid. For this reason it is not permitted to store flammable materials within a distance of 6.7 ft (2 meters).

CAUTION

If the fire protection containment unit is located in the area of an suppression system, it should be noted that the containment sump can only take 106 USG (400 litres) of water / foam solution in addition to the liquid content of the IBC (265 USG / 1,000 litres) before it will start overflowing.

WARNING

CRUSHING / CUTTING HAZARD - Moving parts and sharp edges can crush and/or cut.

- ◆ Keep hands clear of moving parts and wear personal protective equipment (gloves).
- ◆ Follow lock-out/tag-out procedure before servicing.

When the IBC needs to be removed from the fire protection containment unit, the front hinged splash guard must be unbolted and folded downwards. The IBC must then be pulled to the front stopper of the roller tracks. The IBC can then be removed with a forklift, and transported away.



TECHNICAL DATA

MODEL BWCon 1.400 IBC FIRE PROTECTION CONTAINMENT UNIT

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

Visit the Viking website for the latest edition of this technical data page www.vikinggroupinc.com

10. GUARANTEE

For details of warranty, refer to Viking's current list price schedule or contact Viking directly.

11. INSPECTION, TESTS AND MAINTENANCE

NOTICE

The facility owner is responsible for maintaining the fire protection containment unit in a proper operating condition.

The fire protection containment unit must be inspected during every IBC exchange if possible, but a minimum of once a month. To do so, a cover plate or flame barrier should be lifted to check whether liquid has collected in the containment unit sump. Visual presence of liquid could indicate a damaged IBC or a spillage during filling or emptying activities. If required, the liquid must be removed and disposed of in an environmentally-friendly manner.

The flame barrier must also be checked. The flame barrier's filter mats must not be damaged (permeable holes) or soiled with debris. Soiling slows down or prevents the speedy flow of liquids which need to flow into the containment sump for fire protection purposes. Clean any soiled flame barriers thoroughly with a high-pressure, noncombustible cleaner for example, or replace the filters completely.

A monthly visual check must also be made on the fire protection containment unit structure to ensure it is undamaged. Damage could occur during movement around the facility or due to general poor handling of other objects around the unit. Such damage could create a leak or reduce the effectiveness of the unit in a fire scenario. If relevant, replace damaged components with new components.

12. DISPOSAL



At end of use the product described here should be disposed of via the national recycling system.

13. ACCESSORIES AND SPARE PARTS

Table 13.1. – Spare Parts

Part Number	Description	Size (L x W x H)
25128700	Flame barrier filter mat	21.3" x 21.3" x 1.4" (540 mm x 540 mm x 35 mm)
25128900	Catchment basin cover plate	21.2" x 17.2" x 1.4" (539 mm x 438 mm x 36 mm)

14. DECLARATION OF CONFORMITY

If required, contact the appropriate Viking sales office in **Section 5 Availability** for further assistance.