



الشركة الدولية لأنظمة الأمن والسلامة  
Int. Security & Safety Systems Co.

## *Foam Bladder Tanks*



**EGY-CHBT/CVBT**  
**(25 - 4500) Gallons**



**Proudly - Made in Egypt - Bladder Tanks are now available as per (PED) and carry CE mark.  
 (ASME tanks and UL listed are Pending and will be available end of 2016).**



**Automatic Welding Machine at (AL - OBOUR Factory)**

*Declaration of Compliance*

This Declaration of Compliance is here by issued to the below named company.

**Applicable Directive(s): Directive - 97/23/EC**  
 In accordance with the following Applicable Standards:  
 1) EN 13445-2:2014  
 2) EN 13445-3:2014  
 3) EN 13445-4:2014  
 4) EN 13445-5:2014

**UR**  
UNIVERSAL REGISTRARS

**CE**  
Issued on 19th Feb 2016

**General Information**

**Applicant** — International Security & Safety Systems Co.,  
49, Abbas El Akkad Street,  
P.O Box - 4058, Nasr City, Cairo, Egypt.

**Manufacturer** — Same as above

**Product Description** — Vertical/Horizontal Bladder Tank

**Trade Name** — EGY-GHBT/CVBT Bladder Tank  
( 25-4500 ) Gallons

**UR**  
CE Compliance

**Certificate number:** 24310  
 This certificate is valid from 19th Feb 2016 until 19th Feb 2017.  
 Re-certification is due on 18th Feb 2017.  
 Certification expiry on 18th Feb 2017.

**This Certificate is issued under following conditions:**  
 The product is declared by the applicant as complying with the applicable directives. UR has performed a review of the technical information of the product. The applicant is required to inform UR of any changes to its product design and technical documentation. The CE mark may be used by the applicant, for this product, under the sole responsibility of the applicant.

*David Wilmer*  
**David Wilmer**  
 Certification Manager

**UNIVERSAL REGISTRARS**  
[www.universalregistrars.com](http://www.universalregistrars.com)

This certificate can be verified at the above URL.  
 The certificate remains the property of Universal Registrars, to whom it must be returned on request. Lack of fulfillment of certification terms and conditions at all times, may render this certificate invalid.

The product liability rests with the manufacturer in accordance with their committed specifications and contractual obligations, including applicable standards. The CE mark shown above is for reference only and does not indicate accreditation. Universal Registrars does not accept any liability arising out of this certificate.

# **VERTICAL AND HORIZONTAL BLADDER TANKS EGY-CVBT/CHBT**

The ISS Bladder Tank is one component in a balanced pressure foam proportioning system. It requires no external power, other than the water pressure to ensure correct operation. The bladder tanks are designed and constructed in accordance with the latest revisions of European Community's pressure equipment directive (PED) and carry the CE marking with a working pressure of 175 psi (12 bar) and tested to 228 psi (15.7 bar) pressure.

## **SPECIFICATIONS**

The tank shell is constructed of Carbon steel, The circumferential, as well as the longitudinal body seam, are machine welded. The tank interior welds and edges are ground smooth.

The tank shell water inlet and tank shell water drain is screened to prevent bladder blow out or the entrapment of debris between the tank shell and the bladder.

The horizontal tank assembly is supported on two saddles welded to the tank and fitted with anchoring holes allowing easy access to the bladder drain/fill valve and the tank shell drain/fill valve.

## **FEATURES**

- CE Mark
- Pending ASME/UL-Listed
- Bladder Tanks comply with the requirements of the Pressure Equipment Directive 97/23/EC.
- The bladder is manufactured of a vinyl based polymer. Bladder material shall have an ASTM

D-412 Tensile Strength of at least 3000 psi and an ASTM D-624 Graves Tear Strength of at least 420 lbs./in.

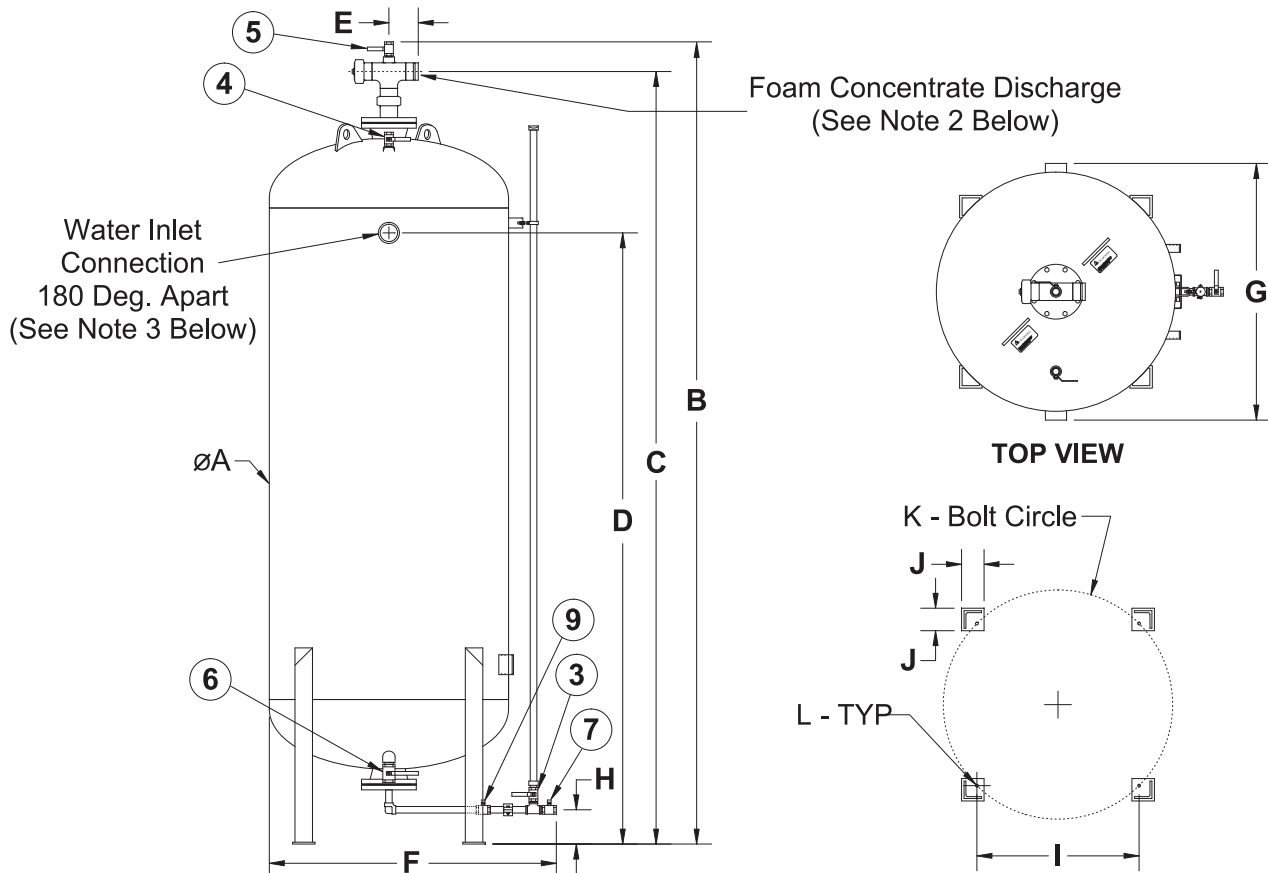
- Tanks are supplied with foam concentrate discharge located at the top of the tank.
- Standard trim piping (vents and drains) material for non-prepiped tanks is stainless steel.
- All valves are labeled showing normal working position and function.
- Lifting lugs are permanently welded to the tank with eyes of approximately 2" diameter.
- Tanks contain a perforated PVC center tube that assures maximum agent discharge.
- All tanks are oversized to allow for any thermal expansion of the foam concentrate.
- All tanks are supplied with a label, which identifies the type of foam concentrate the system is designed for, the percentage ratio and the tank size.
- Tanks are painted red enamel.

## **OPTIONS**

- Coal tar epoxy for coating the interior shell of the tank (for use in salt-water environment).
- Sight Glass.
- Red epoxy finish.
- Custom fabrication of specialty materials, dimensions, and capacities.
- Actuated valves for water/concentrate.
- Brass or carbon steel piping for non-prepiped tanks.
- Insulation and heat tracing packages.
- Seismic designed tanks available.

# VERTICAL BLADDER TANKS

## OUTLINE DRAWING AND NORMAL VALVE POSITION CHART



VALVE DESCRIPTION		NORMAL VALVE POSITION	
Valve No.	Description	Manual System	Automatic System
1	Manual Foam Concentrate Shut-Off (Not Shown)	N.C.	N.O.
2	Water Supply Shut-Off (Not Shown)	N.C.	N.O.
3	Sight Gauge Shut-Off	N.C.	N.C.
4	Tank Shell Vent	N.C.	N.C.
5	Bladder Vent	N.C.	N.C.
6	Tank Shell Drain/Fill	N.C.	N.C.
7	Bladder Drain/Fill	N.C.	N.C.
8	Automatic Foam Concentrate Isolation (Not Shown)	-	N.C.
9	Fill Line Master Shut-Off	N.C.	N.C.

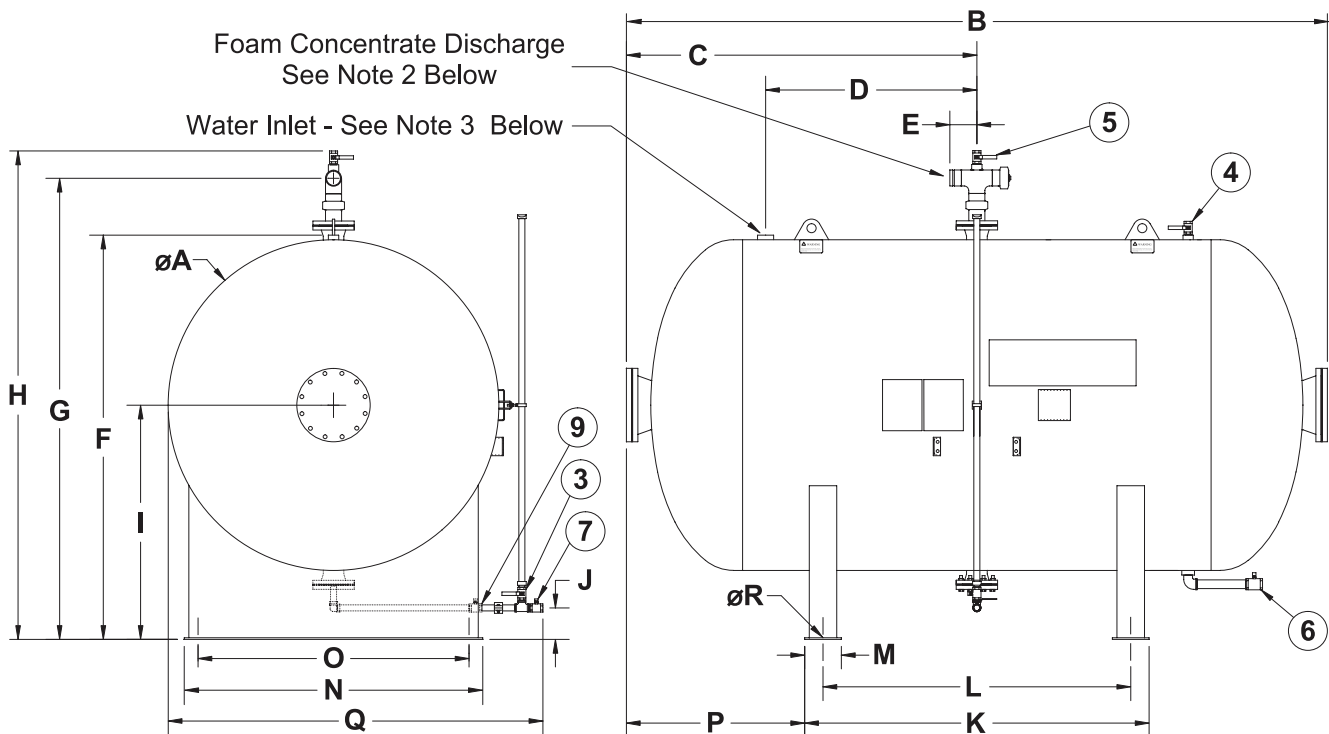
N.O. - Normally Open; N.C. - Normally Closed

### NOTES:

- Dimensions are approximate and subject to change without notice.
- Foam concentrate discharge pipe size:
  - Tank sizes 25 - 450 gallon ..... 2" NPT(F).
  - Tank sizes 500 - 4500 gallon ..... 3" Grooved.
- Water inlet pipe size:
  - Tank sizes 25 - 450 gallon ..... 2" NPT(F).
  - Tank sizes 500 - 4500 gallon ..... 3" NPT(F).
- When designing a building to store bladder tanks, steps shall be taken to allow for removal of the internal center tube(s). Center tubes are the full length and/or height of the bladder tank.

# HORIZONTAL BLADDER TANKS

## OUTLINE DRAWING AND NORMAL VALVE POSITION CHART



VALVE DESCRIPTION		NORMAL VALVE POSITION	
Valve No.	Description	Manual System	Automatic System
1	Manual Foam Concentrate Shut-Off (Not Shown)	N.C.	N.O.
2	Water Supply Shut-Off (Not Shown)	N.C.	N.O.
3	Sight Gauge Shut-Off	N.C.	N.C.
4	Tank Shell Vent	N.C.	N.C.
5	Bladder Vent	N.C.	N.C.
6	Tank Shell Drain/Fill	N.C.	N.C.
7	Bladder Drain/Fill	N.C.	N.C.
8	Automatic Foam Concentrate Isolation (Not Shown)	-	N.C.
9	Fill Line Master Shut-Off	N.C.	N.C.

N.O. - Normally Open; N.C. - Normally Closed

### NOTES:

- Dimensions are approximate and subject to change without notice.
- Foam concentrate discharge pipe size:
  - Tank sizes 50 - 450 gallon ..... 2" NPT(F).
  - Tank sizes 500 - 4500 gallon ..... 3" Grooved.
- Water inlet pipe size:
  - Tank sizes 50 - 450 gallon ..... 2" NPT(F).
  - Tank sizes 500 - 4500 gallon ..... 3" NPT(F).
- When designing a building to store bladder tanks, steps shall be taken to allow for removal of the internal center tube(s). Center tubes are the full length and/or height of the bladder tank.
- \*Dimension E:** For tanks 500 gallons (1.893 Liters ) and Large, Dimension E is 8 in ( 203.2 mm ) when brass foam piping is used.



## Vertical Bladder Tanks - Standard Arrangement

Vertical Bladder Tanks - Capacity, Dimensions & Weight Chart														
Capacity	Tank Dimensions - Millimeters													Approx. Wt. Kg.
	Gallons	Liters	A	B	C	D	E	F	G	H	I	J	K	
25	95	609.6	1298.6	1146.2	660.4	58.4	853.4	660.4	175.3	411.5	76.2	581.7	14.3	136
36	136	609.6	1451.0	1298.6	762.0	58.4	853.4	660.4	175.3	411.5	76.2	581.7	14.3	177
50	189	609.6	1654.2	1501.8	965.2	58.4	853.4	660.4	175.3	411.5	76.2	581.7	14.3	213
75	284	609.6	2035.2	1882.8	1346.2	58.4	853.4	660.4	175.3	411.5	76.2	581.7	14.3	272
100	379	609.6	2416.2	2263.8	1727.2	58.4	853.4	660.4	175.3	411.5	76.2	581.7	14.3	327
150	568	914.4	1933.6	1781.2	1193.8	58.4	1158.2	965.2	175.3	612.1	101.6	863.6	14.3	476
200	757	914.4	2289.2	2136.8	1549.4	58.4	1158.2	965.2	175.3	612.1	101.6	863.6	14.3	599
250	946	914.4	2619.4	2467.0	1879.6	58.4	1158.2	965.2	175.3	612.1	101.6	863.6	14.3	671
300	1,136	914.4	2975.0	2822.6	2235.2	58.4	1158.2	965.2	175.3	612.1	101.6	863.6	14.3	726
350	1,325	914.4	3305.2	3152.8	2565.4	58.4	1158.2	965.2	175.3	612.1	101.6	863.6	14.3	816
400	1,514	914.4	3660.8	3508.4	2921.0	58.4	1158.2	965.2	175.3	612.1	101.6	863.6	14.3	907
450	1,703	914.4	3991.0	3838.6	3251.2	58.4	1158.2	965.2	175.3	612.1	101.6	863.6	14.3	987
500	1,893	1219.2	3009.9	2857.5	2032.0	149.9	1463.0	1295.4	175.3	825.5	114.3	1168.4	14.3	1,066
600	2,271	1219.2	3416.3	3263.9	2438.4	149.9	1463.0	1295.4	175.3	825.5	114.3	1168.4	14.3	1,270
700	2,650	1219.2	3797.3	3644.9	2819.4	149.9	1463.0	1295.4	175.3	825.5	114.3	1168.4	14.3	1,383
800	3,028	1219.2	4178.3	4025.9	3200.4	149.9	1463.0	1295.4	175.3	825.5	114.3	1168.4	14.3	1,542
900	3,407	1219.2	4559.3	4406.9	3581.4	149.9	1463.0	1295.4	175.3	825.5	114.3	1168.4	14.3	1,687
1,000	3,785	1219.2	4940.3	4787.9	3962.4	149.9	1463.0	1295.4	175.3	825.5	114.3	1168.4	14.3	1,769
1,100	4,164	1524.0	3797.3	3644.9	2717.8	149.9	1767.8	1600.2	149.9	1005.8	127.0	1422.4	14.3	1,882
1,200	4,542	1524.0	4025.9	3873.5	2946.4	149.9	1767.8	1600.2	149.9	1005.8	127.0	1422.4	14.3	1,982
1,300	4,921	1524.0	4254.5	4102.1	3175.0	149.9	1767.8	1600.2	149.9	1005.8	127.0	1422.4	14.3	2,064
1,400	5,300	1524.0	4483.1	4330.7	3403.6	149.9	1767.8	1600.2	149.9	1005.8	127.0	1422.4	14.3	2,159
1,500	5,678	1524.0	4737.1	4584.7	3657.6	149.9	1767.8	1600.2	149.9	1005.8	127.0	1422.4	14.3	2,241
1,600	6,057	1828.8	3898.9	3746.5	2743.2	149.9	2072.6	1905.0	149.9	1234.4	127.0	1747.5	14.3	2,327
1,700	6,435	1828.8	4051.3	3898.9	2895.6	149.9	2072.6	1905.0	149.9	1234.4	127.0	1747.5	14.3	2,418
1,800	6,814	1828.8	4203.7	4051.3	3048.0	149.9	2072.6	1905.0	149.9	1234.4	127.0	1747.5	14.3	2,499
1,900	7,192	1828.8	4381.5	4229.1	3225.8	149.9	2072.6	1905.0	149.9	1234.4	127.0	1747.5	14.3	2,581
2,000	7,571	1828.8	4533.9	4381.5	3378.2	149.9	2072.6	1905.0	149.9	1234.4	127.0	1747.5	14.3	2,735
2,100	7,949	2133.6	3771.9	3619.5	2540.0	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	14.3	2,812
2,200	8,328	2133.6	3873.5	3721.1	2641.6	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	14.3	2,903
2,300	8,706	2133.6	4000.5	3848.1	2768.6	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	14.3	2,998
2,400	9,085	2133.6	4102.1	3949.7	2870.2	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	14.3	3,075
2,500	9,464	2133.6	4229.1	4076.7	2997.2	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	14.3	3,107
2,600	9,842	2133.6	4356.1	4203.7	3124.2	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	14.3	3,266
2,700	10,221	2133.6	4457.7	4305.3	3225.8	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	14.3	3,334
2,800	10,599	2133.6	4584.7	4432.3	3352.8	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	14.3	3,402
2,900	10,978	2133.6	4711.7	4559.3	3479.8	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	14.3	3,493
3,000	11,356	2133.6	4813.3	4660.9	3581.4	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	14.3	3,583
3,100	11,735	2133.6	4940.3	4787.9	3708.4	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	14.3	3,685
3,200	12,113	2133.6	5041.9	4889.5	3810.0	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	14.3	3,787
3,300	12,492	2133.6	5168.9	5016.5	3937.0	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	14.3	3,890
3,400	12,870	2133.6	5270.5	5118.1	4038.6	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	14.3	3,992
3,500	13,249	2133.6	5397.5	5245.1	4165.6	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	14.3	4,094
3,600	13,627	2133.6	5524.5	5372.1	4292.6	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	14.3	4,196
3,700	14,006	2133.6	5626.1	5473.7	4394.2	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	14.3	4,298
3,800	14,385	2133.6	5753.1	5600.7	4521.2	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	14.3	4,400
3,900	14,763	2133.6	5854.7	5702.3	4622.8	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	17.5	4,502
4,000	15,142	2133.6	5981.7	5829.3	4749.8	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	17.5	4,604
4,100	15,520	2133.6	6108.7	5956.3	4876.8	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	17.5	4,706
4,200	15,899	2133.6	6235.7	6083.3	5003.8	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	17.5	4,763
4,300	16,277	2133.6	6337.3	6184.9	5105.4	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	17.5	4,865
4,400	16,656	2133.6	6438.9	6286.5	5207.0	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	17.5	4,955
4,500	17,034	2133.6	6565.9	6413.5	5334.0	149.9	2377.4	2209.8	149.9	1409.7	177.8	1993.9	17.5	5,080

## ORDERING INFORMATION

Please specify the following:

- Type of tank required - Horizontal or Vertical
- Size of tank
- Exterior finish of tank
- Whether required for salt water environment
- Any other options required

*Below is the format for standard ISS Bladder Tanks:*

**Size:** 50 to 4500 Gallon (Horizontal Tanks)

**Exterior Coating (Option 1):**

- 01 – Red Enamel
- 02 – Red Epoxy
- 03 – Custom

**Interior Coating (Option 2):**

- 01 – None
- 02 – Coal Tar
- 03 – Custom

**Foam Discharge Piping (Top) (Option 3):**

- 01 – 316 SS Pipe/SS Valves
- 02 – Carbon Steel Pipe/Brass Valves
- 03 – Brass Pipe/Brass Valves

**Trim Piping (Vent/Fill Piping) (Option 4):**

- 01 – 316 SS Pipe/SS Valves
- 02 – Carbon Steel Pipe/Brass Valves
- 03 – Brass Pipe/Brass Valves

**Sight Glass (Option 5):**

- 01 – None (316 SS Trim Piping)
- 02 – None (Carbon Steel Trim Piping)
- 03 – None (Brass Trim Piping)
- 04 – PVC/SS Valve
- 05 – PVC/Brass Valve

**Relief Valve (Option 6):**

- 01 – None (316 SS Foam Discharge Piping)
- 02 – None (Carbon Steel Foam Discharge Piping)
- 03 – None (Brass Foam Discharge Piping)
- 04 – Thermal Relief Valve
- 05 – ASME (Full Flow), 316 SS Foam Discharge Piping
- 06 – ASME (Full Flow), Carbon Steel Foam Discharge Piping
- 07 – ASME (Full Flow), Brass Foam Discharge Piping

**Vertical - Sample Part Number: EGY-VBT-TD-1000-01-01-01-01-01**

**Horizontal - Sample Part Number: EGY-HBT-TD-200-01-01-01-01-01**







1989-2016

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