

# TB 400 DOUBLE GRILL BARRIER

## SAFETY BARRIERS

Revision: 19 December 2024 4:03 PM  
Boplan reference: GD4...



### PRODUCT SPECIFICATIONS

| APPLICATION     |  |
|-----------------|--|
| Environment     | Extremely robust, double traffic barrier for collision protection against heavy vehicles and (falling) goods. The TB double-tube guardrail offers pedestrians increased safety in storage areas with a lot of forklift traffic. Depending on the size of the (stacked) goods, one can opt for an arrangement with a centre distance between the rails of 11 in. Intended for indoor use. |
| MATERIAL        |  |
| Posts and rails | Extrilene® - UV resistant - Fire class E <sup>+</sup> - Non conductive - Impervious to most chemicals <sup>**</sup>  |
| STANDARD COLORS |  |
| End post        | Black  |
| Mid post        | Black  |
| Impact tube     | Yellow   |
| Handrails       | Yellow   |
| BASEPLATES      |  |
|                 | Steel  |
| Material        | Steel 37   |
| Coating         | Lacquered  |
| Color           | High gloss black   |

\*Classification according to EN 13501-1:2007 +A1:2009 - Fire classification of construction products and building elements.

\*\*Ask your local sales office for resistance to specific chemicals.


|              |                       | FIXATIONS   |                              |                              |
|--------------|-----------------------|---|------------------------------|------------------------------|
|              |                       |   | ZC (Zinc coated)             | SS (Stainless steel)         |
| STANDARD     | Wedge anchor          |  | 3/4 in x 5 1/2 in            | not available                |
|              | Wedge anchor          |  | Ø18mm (M12) x 130mm          | Ø18mm (M12) x 130mm          |
| ALTERNATIVES | Concrete screw        |  | Ø17mm x 130mm                | Not available                |
|              | Anchor rod (Chemical) |  | M16 x 120mm + Chemical resin | M16 x 120mm + Chemical resin |



**REFERENCE LIST - TB 400 DOUBLE GRILL BARRIER**

| SIZE                      |   |
|---------------------------|---|
| Height end posts          | maximum 132 in  |
| Height mid post           | maximum 132 in  |
| Profile section tubes     | Ø8 in (2/5 in thick)  |
| Profile section handrails | 2 x 2 3/4 in (1/5 in thick)   |
| Profile section end posts | Outer tube: Ø10 in (2/5 in thick)<br>Inner profile: 4 2/5 x 4 2/5 in (2/5 in thick)       |
| Profile section mid posts | Profile: 4 2/5 x 4 2/5 in (2/5 in thick)  |
| Standard rail length (cc) | 50 in (center - center 60 in)   |
| Baseplate                 | End Post: 10 4/5 x 12 1/2 in (1/2 in thick)<br>Mid Post: 8 5/8 x 11 4/5 in (1/2 in thick) |

| REQUIREMENTS                              |   |
|---|---|
| Concrete quality                          | minimum PSI 4000 (C25/30)                     |
| Concrete floor plate thickness            | minimum 2/3 in                                |
| Concrete slab dimension around posts (in) | 31 1/2 (h) x 31 1/2 (w) x 23 5/8 (d)          |
| Operational temperature                   | 14°F up to 104°F                              |
| Water and humidity                        | <b>Steel</b> (standard): dry indoor use only. |



### IMPACT LABEL FOR SAFETY BARRIERS

| BOPLAN TB 400 DOUBLE GRILL BARRIER | 45°            | 90°            |
|------------------------------------|----------------|----------------|
| <b>IMPACT RATING</b>               | 45°            | 90°            |
| E80 < 80 kJ                        |                |                |
| E60 < 60 kJ                        | <b>55,3 kJ</b> |                |
| E50 < 50 kJ                        |                |                |
| E40 < 40 kJ                        |                | <b>39,1 kJ</b> |
| E35 < 35 kJ                        |                |                |
| E30 < 30 kJ                        |                |                |
| E25 < 25 kJ                        |                |                |
| E20 < 20 kJ                        |                |                |
| E15 < 15 kJ                        |                |                |
| E10 < 10 kJ                        |                |                |
| E5 < 5,0 kJ                        |                |                |
| E2 < 2,5 kJ                        |                |                |

**TEST CONDITIONS**

TEMPERATURE: 20°C / 68°F

IMPACT HEIGHT: 650 mm / 25 5/8 Inch

IMPACT ANGLE: 90°

TEST FLOOR: CONCRETE SLAB C25/30 - 160 mm / 6 inch

MANUFACTURER ANCHOR PULL OUT: 17 kN

**TEST VEHICLE**

WEIGHT: 2300 KG / 5070.63 lbs

TYPE: COMMERCIAL FORK LIFT

SIZE (L x W x H): 1890x1020x1970 mm / 74x40x78 Inch

CONTACT AREA: STEEL BUMPER WIDTH: 600 mm / 24 inch

**ACCREDITED TEST LABORATORY**

620 Route des Fromentaux

01500 Saint-Maurice-de-Rémens

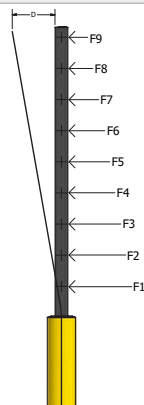
01360 Bèlignieux

France

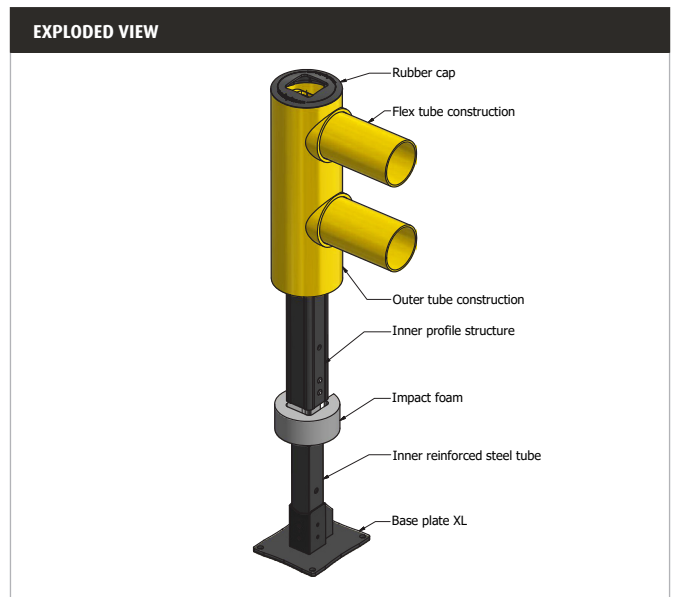
**SUCCESS CRITERIA:** VEHICLE STOPPED - ASI (ACCELERATION SEVERITY INDEX) < 0.5

**IL-GD-20230920**

| HOLDING POWER |              |              |
|---------------|--------------|--------------|
|               | Force*       | Deflection** |
| 132 in - 9R   | F9 = 2800 N  | 29 1/2 in    |
| 121 in - 8R   | F8 = 3200 N  | 28 1/2 in    |
| 110 in - 7R   | F7 = 3600 N  | 25 3/4 in    |
| 100 in - 6R   | F6 = 4100 N  | 24 5/8 in    |
| 90 in - 5R    | F5 = 5000 N  | 20 4/5 in    |
| 78 in - 4R    | F4 = 6200 N  | 17 3/4 in    |
| 67 in - 3R    | F3 = 8400 N  | 14 1/2 in    |
| 56 in - 2R    | F2 = 13000 N | 10 1/5 in    |
| 42 in - 1R    | F1 = 21000 N | 4 in         |

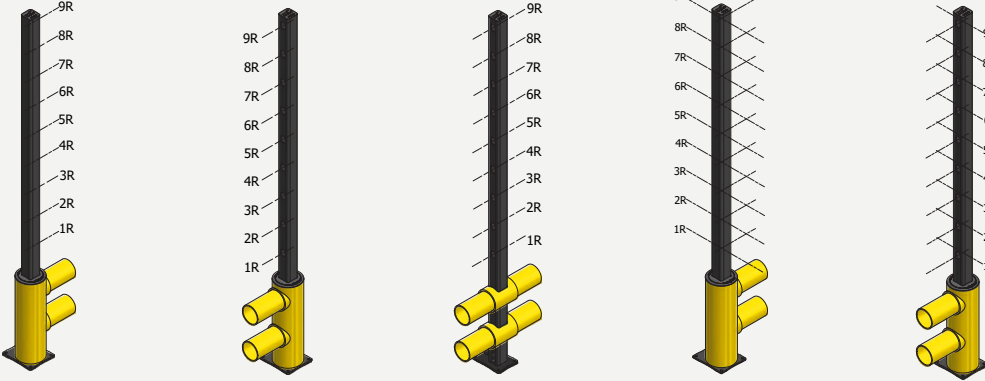


\* Force acting on the center of the hand rails (between posts)  
\*\* Deflection (D) measured on top side.



**REFERENCE LIST - TB 400 DOUBLE GRILL BARRIER**
**POSTS - 11 in rail distance**

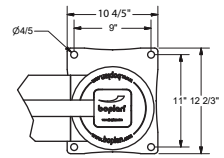
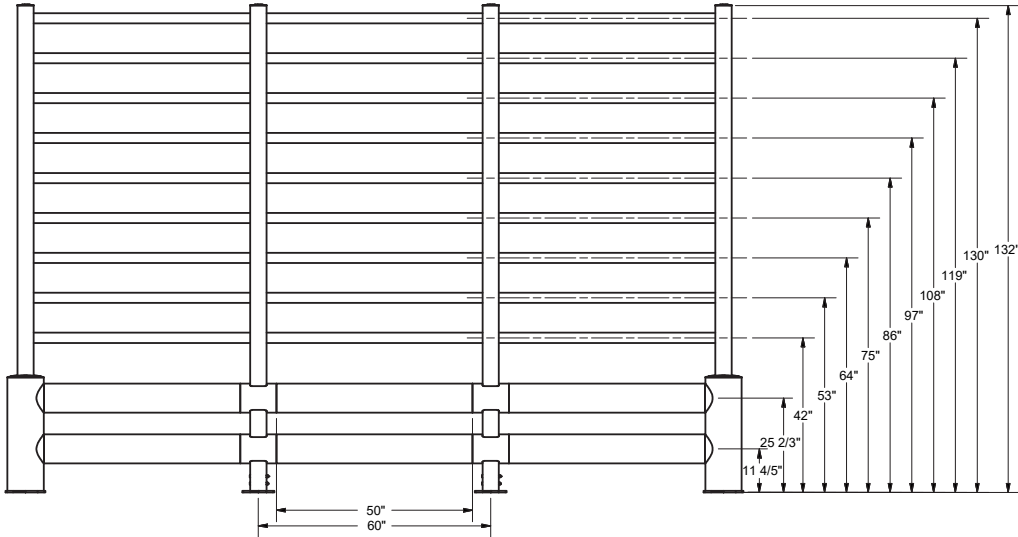
|             | End post<br>Left  | End post<br>Right | Mid post         | T-end post - Left (incl. caps) | T-end post - Right (incl. caps) |
|-------------|-------------------|-------------------|------------------|--------------------------------|---------------------------------|
| 132 in - 9R | GD4275-3350-EPLYE | GD4275-3350-EPRYE | GD4275-3350-MPYE | GD4275-3350-TPLYE              | GD4275-3350-TPRYE               |
| 110 in - 7R | GD4275-2800-EPLYE | GD4275-2800-EPRYE | GD4275-2800-MPYE | GD4275-2800-TPLYE              | GD4275-2800-TPRYE               |

  

**RAIL SETS**

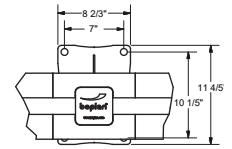
|    | CC36in<br>26in - YE | CC48in<br>38in - YE | CC60in<br>50in - YE | CC72in<br>62in - YE | CC78in<br>68in - YE | Conn.tube Ø10<br>14in - 90° - YE | RUN        | STR        |
|----|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------------------|------------|------------|
| 9R | GDR900-0665-0915YE  | GDR900-0970-1220YE  | GDR900-1275-1525YE  | GDR900-1579-1829YE  | GDR900-1731-1981YE  | GDR900-0350-C259YE               | GDR900-RUN | GDR900-STR |
| 7R | GDR700-0665-0915YE  | GDR700-0970-1220YE  | GDR700-1275-1525YE  | GDR700-1579-1829YE  | GDR700-1731-1981YE  | GDR700-0350-C259YE               | GDR700-RUN | GDR700-STR |

**TECHNICAL DRAWINGS - TB 400 DOUBLE GRILL BARRIER**

Rails 11 in center - center



DETAIL A  
SCALE 1 / 8



DETAIL B  
SCALE 1 / 8

