

# TB400 BOPLAN SAFETY BARRIER SPECIFICATION SHEET

Revision: 10 August 2021 4:11 PM  
Boplan reference: TB4000 - ...








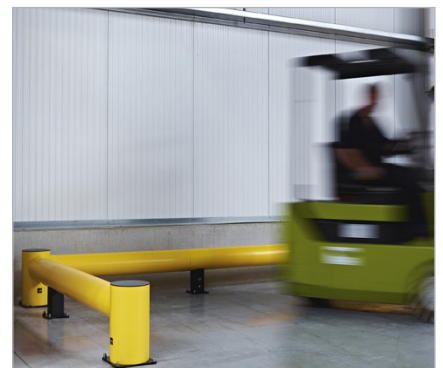
## PRODUCT SPECIFICATIONS

APPLICATION			
Environment	The TB400 is used for the protecting of walls, machines and infrastructure from pallet trucks, forklifts or other vehicles.		
Impact performance at 90° (in JOULE)	POST: 16100 Joule (Eq. to 5 ton - 9,1 km/h)		
	RAIL: 20100 Joule (Eq. to 5 ton - 10,2 km/h)		
MATERIAL			
Posts and rails	Polyolefin - UV resistant - Fire class E <sup>+</sup> - Non conductive - Impervious to most chemicals**		
Caps	SEBS rubber		
STANDARD COLORS			
End post	Yellow		
Mid post	Yellow		
Tubes (rails)	Yellow		
BASEPLATES			
	Steel	Zinc Coated Steel	Stainless steel
Material	Steel 37	Steel 37	INOX (SS 304)
Coating	Lacquered	Lacquered + electro plating	No lacquer / No coating
Color	High gloss black	Matt black	Natural color

\*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	 M12 x 120mm	M12 x 120mm
	Wedge anchor Countersunk	 Not available	Not available
	Anchor rod (Chemical)	 M12 x 120mm + Chemical resin	M12 x 120mm + Chemical resin
ALTERNATIVES	Concrete screw	 Ø12mm x 100mm	Ø10mm x 100mm
	Asphalt anchor	 Bolt M10 x 40mm + Screw Ø16mm	Not available
	Spit anchor	 Bolt M12 x 100mm + Plug Ø20mm	Not available



## FEATURES AND FUNCTIONALITY TB400

SIZE	
Height end posts	440 mm
Height mid post	400 mm
Profile section tubes	Ø200 mm (11 mm thick)
Profile section end posts	Outer tube: Ø250 mm (11 mm thick) Inner profile: 112 mm x 112 mm (10 mm thick)
Profile section mid posts	Profile: 112 mm x 112 mm (10 mm thick)
Standard rail length	1350 mm (other sizes: 750 mm - 1750 mm)
Baseplate	End Post: 275 mm x 275 mm (10 mm thick) Mid Post: 180 mm x 180 mm (10 mm thick)

REQUIREMENTS	
Concrete quality	minimum C25/30
Concrete floor plate thickness (mm)	minimum 150 mm
Concrete slab dimension around posts (mm)	600 (h) x 600 (w) x 500 (d)
Operational temperature	-10°C up to +40°C
Water and humidity	<b>Steel</b> (standard): dry indoor use only. <b>Zinc coated:</b> outdoor use in most environments. <b>Stainless Steel:</b> outdoor use or frequent exposure to water and humidity.

### IMPACT LABEL FOR SAFETY BARRIERS

BOPLAN TB400		
IMPACT RATING	45°	90° <small>PAS 13:2017 compliant</small>
E80 > 80 kJ		
E60 > 60 kJ		
E50 > 50 kJ		
E40 > 40 kJ		
E35 > 35 kJ		
E30 > 30 kJ	28,4 kJ	
E25 > 25 kJ		20,1 kJ
E20 > 20 kJ		
E15 > 15 kJ		
E10 > 10 kJ		
E5 > 5,0 kJ		
E2 > 2,5 kJ		

**TEST CONDITIONS**

TEMPERATURE: 20°C  
IMPACT HEIGHT: 300 mm  
IMPACT ANGLE: 90°  
TEST FLOOR: CONCRETE C25/30 - 160 mm  
MANUFACTURER ANCHOR PULL OUT: 7,9 kN

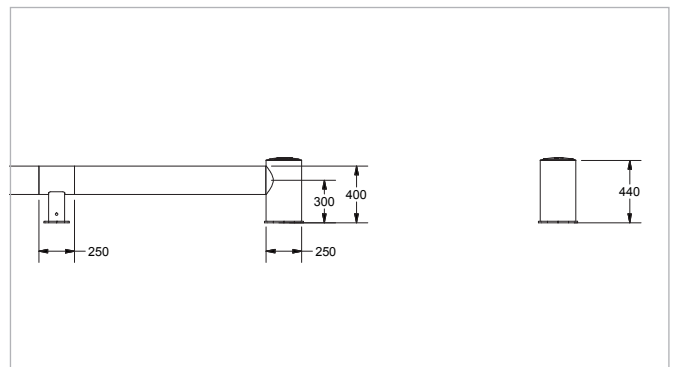
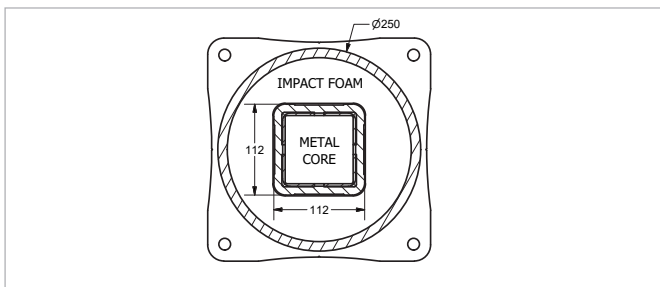
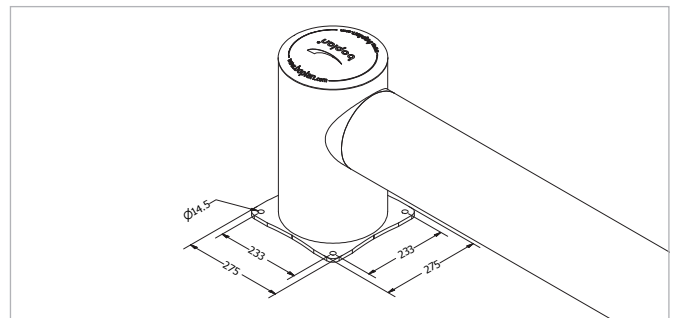
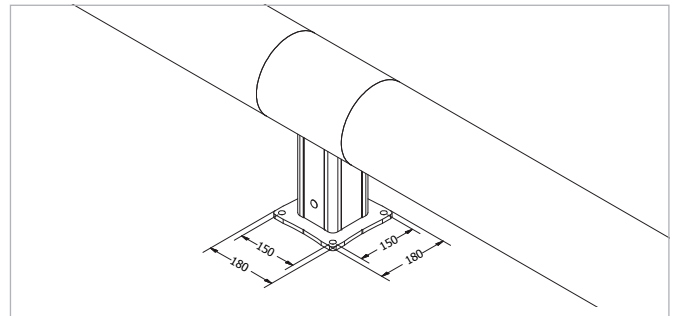
**TEST VEHICLE**

WEIGHT: 2300 KG  
TYPE: COMMERCIAL FORK LIFT  
SIZE (L x W x H): 1890 x 1020 x 1970 mm  
CONTACT AREA: STEEL BUMPER WIDTH: 600 mm


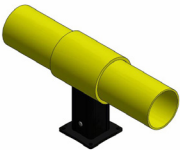
**ACCREDITED TEST LABORATORY**

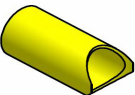
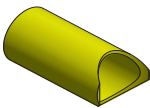
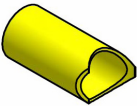
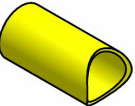
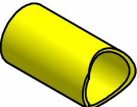
620 Route des Fromentaux  
01500 Saint-Maurice-de-Rémens  
01360 Bèlignieux  
France

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

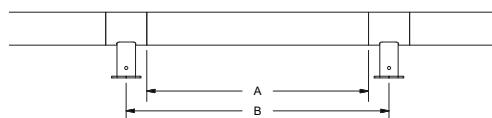


## REFERENCE LIST - TB400

POSTS		
End post End post - ZC End post - SS	TB4000-0001-EPYE TB4000-0001-EPYEZ TB4000-0001-EPYES	
Mid post Mid post - ZC Mid post - SS	TB4000-0001-MPYE TB4000-0001-MPYEZ TB4000-0001-MPYES	

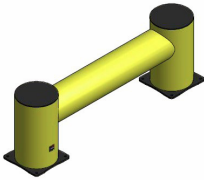
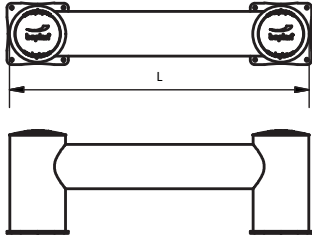
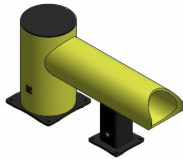
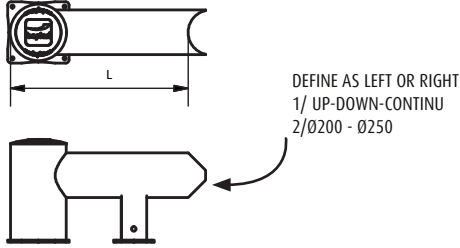
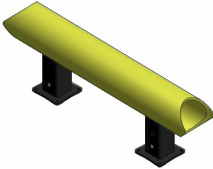
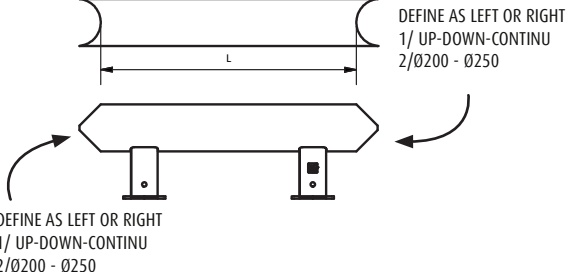
CURVES		
Conn.tube Ø200 Curve 350mm - YE	TB4000-0350-C200YE	
Conn.tube Ø200 - 45° Curve 350mm - YE	TB4000-0350-C204YE	
Conn.tube Ø200 - 90° Curve 350mm - YE	TB4000-0350-C209YE	
Conn.tube Ø250 Curve 350mm - YE	TB4000-0350-C250YE	
Conn.tube Ø250 - 90° Curve 350mm - YE	TB4000-0350-C259YE	

RAIL SETS			
	Tube length (A)	CC length (B)	Reference
Standard rail	750 mm	1000 mm	TB4000-0750-1000YE
Standard rail	950 mm	1200 mm	TB4000-0950-1200YE
Standard rail	1150 mm	1400 mm	TB4000-1150-1400YE
Standard rail	1350 mm	1600 mm	TB4000-1350-1600YE
Standard rail	1550 mm	1800 mm*	TB4000-1550-1800YE
Standard rail	1750 mm	2000 mm*	TB4000-1750-2000YE
Short rail	600-1349 mm	850-1599 mm	TB4009-1599-SRYE
Long rail	1351-1749 mm	1601-2000 mm*	TB4009-2000-LRYE



\* The impact performance has not been tested for tube lengths > 1600 mm. Only use these lengths for non-critical applications.

## REFERENCE LIST - TB400

FIXED UNITS					
TYPE	LENGTH	BASE	YELLOW		
no curves	750 mm	Steel ZC SS	TB4000-0750-FUYE TB4000-0750-FUYEZ TB4000-0750-FUYES		
	751-1750 mm	Steel ZC SS	TB4001-1750-FUYE TB4001-1750-FUYEZ TB4001-1750-FUYES		
1 curve	750 mm	Steel ZC SS	TB4000-0750-FU1CYE TB4000-0750-FU1CYEZ TB4000-0750-FU1CYES		
	751-1750 mm	Steel ZC SS	TB4001-1750-FU1CYE TB4001-1750-FU1CYEZ TB4001-1750-FU1CYES		
2 curves	750 mm	Steel ZC SS	TB4000-0750-FU2CYE TB4000-0750-FU2CYEZ TB4000-0750-FU2CYES		
	751-1750 mm	Steel ZC SS	TB4001-1750-FU2CYE TB4001-1750-FU2CYEZ TB4001-1750-FU2CYES		