

# TB 400 DOUBLE GRILL BARRIER BOPLAN SPECIFICATION SHEET

Revision: 10 December 2019 10:55 AM  
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 275 mm or 550 mm.	
Advisory speed	8.0 km/h	For gross weight vehicle of 5000 kg
	6.0 km/h	For gross weight vehicle of 10000 kg

### MATERIAL

Posts and rails	Polyolefin - UV resistant - Fire class HB* - Non conductive - Impervious to most chemical products**
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### STANDARD COLORS

End post	Yellow
Mid post	Yellow
Impact tube	Yellow
Handrails	Yellow

### BASEPLATES

	Steel	Zinc Coated Steel	Stainless steel
Material	Steel 37		
Coating	Lacquered		
Color	High gloss black		

### FIXATIONS

	ZINC COATED	INOX
<b>CONCRETE SCREW</b> 	Length = 135 mm Size = Ø17 mm Drill hole Ø screw = 14 mm Sw: 19 mm Max load (pull out) = 29.7 kN	
<b>THREADED ROD (WITH CHEMICAL ANCHOR)</b> 	Length = 120 mm Size = 16 mm Drill hole diameter = 18 mm Max load (pull out) = 20 kN	

\*Fire class HB = Slow burning; classification according to UL94: US Standard for Safety of Flammability of Plastics  
\*\*Ask your local sales office for resistance to specific chemicals.

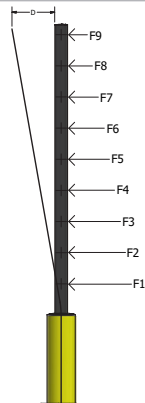


## FEATURES AND FUNCTIONALITY

SIZE	
Height end posts	maximum 3350 mm
Height mid post	maximum 3350 mm
Profile section tubes	Ø200 mm (11 mm thick)
Profile section handrails	50 mm x 70 mm (6 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 (cc)	1350mm (center - center 1600mm)
Baseplate	End Post: 275 mm x 320 mm x 12 mm Mid Post: 220 mm x 300 mm x 12 mm

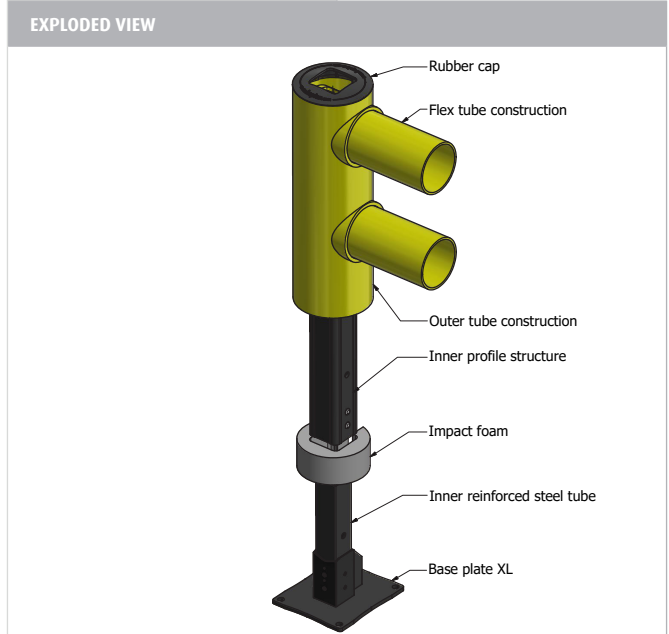
IMPACT PERFORMANCE		
Test conditions	Ambient temperature	20°C
	Tube length	1600mm (center - center)
90° impact	Fork lift weight	2300kg
	Floor	Industrial concrete
45° impact	Success criteria	Fork lift stopped by barrier
	Impact height	500mm (on tubes)
90° impact	Maximum impact on post	30700 Joule
	Maximum impact on tube	39100 Joule
45° impact	Maximum impact on tube	55300 Joule

HOLDING POWER		
	Force*	Deflection**
3350mm - 9R	F9 = 2800 N	750 mm
3075mm - 8R	F8 = 3200 N	725 mm
2800mm - 7R	F7 = 3600 N	655 mm
2525mm - 6R	F6 = 4100 N	625 mm
2250mm - 5R	F5 = 5000 N	530 mm
1975mm - 4R	F4 = 6200 N	450 mm
1700mm - 3R	F3 = 8400 N	370 mm
1425mm - 2R	F2 = 13000 N	260 mm
1065mm - 1R	F1 = 21000 N	100 mm



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

REQUIREMENTS	
Concrete quality	minimum C25/30
Concrete floor plate thickness (mm)	minimum 150mm
Concrete slab dimension around posts (mm)	not advised
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>RVS:</b> outdoor use or frequent exposure to water and humidity.



## REFERENCE LIST

### POSTS - 550 mm rail distance

	End post Left	End post Right	Mid post	Corner post 90° Left - Up	Corner post 90° Left - Down	Corner post 90° Right - Up	Corner post 90° Right - Down	T-end post - Left (incl. caps)	T-end post - Right (incl. caps)
3350mm - 5R	GD4550-3350-EPLYE	GD4550-3350-EPRYE	GD4550-3350-MPYE	GD4550-3350-CPULYE	GD4550-3350-CPDLYE	GD4550-3350-CPURYE	GD4550-3350-CPDRYE	GD4550-3350-TPLYE	GD4550-3350-TPRYE
2800mm - 4R	GD4550-2800-EPLYE	GD4550-2800-EPRYE	GD4550-2800-MPYE	GD4550-2800-CPULYE	GD4550-2800-CPDLYE	GD4550-2800-CPURYE	GD4550-2800-CPDRYE	GD4550-2800-TPLYE	GD4550-2800-TPRYE
2250mm - 3R	GD4550-2250-EPLYE	GD4550-2250-EPRYE	GD4550-2250-MPYE	GD4550-2250-CPULYE	GD4550-2250-CPDLYE	GD4550-2250-CPURYE	GD4550-2250-CPDRYE	GD4550-2250-TPLYE	GD4550-2250-TPRYE
1700mm - 2R	GD4550-1700-EPLYE	GD4550-1700-EPRYE	GD4550-1700-MPYE	GD4550-1700-CPULYE	GD4550-1700-CPDLYE	GD4550-1700-CPURYE	GD4550-1700-CPDRYE	GD4550-1700-TPLYE	GD4550-1700-TPRYE

### POSTS - 275 mm rail distance

	End post Left	End post Right	Mid post	Corner post 90° Left - Up	Corner post 90° Left - Down	Corner post 90° Right - Up	Corner post 90° Right - Down	T-end post - Left (incl. caps)	T-end post - Right (incl. caps)
3350mm - 9R	GD4275-3350-EPLYE	GD4275-3350-EPRYE	GD4275-3350-MPYE	GD4275-3350-CPULYE	GD4275-3350-CPDLYE	GD4275-3350-CPURYE	GD4275-3350-CPDRYE	GD4275-3350-TPLYE	GD4275-3350-TPRYE
2800mm - 7R	GD4275-2800-EPLYE	GD4275-2800-EPRYE	GD4275-2800-MPYE	GD4275-2800-CPULYE	GD4275-2800-CPDLYE	GD4275-2800-CPURYE	GD4275-2800-CPDRYE	GD4275-2800-TPLYE	GD4275-2800-TPRYE
2250mm - 5R	GD4275-2250-EPLYE	GD4275-2250-EPRYE	GD4275-2250-MPYE	GD4275-2250-CPULYE	GD4275-2250-CPDLYE	GD4275-2250-CPURYE	GD4275-2250-CPDRYE	GD4275-2250-TPLYE	GD4275-2250-TPRYE
1700mm - 3R	GD4275-1700-EPLYE	GD4275-1700-EPRYE	GD4275-1700-MPYE	GD4275-1700-CPULYE	GD4275-1700-CPDLYE	GD4275-1700-CPURYE	GD4275-1700-CPDRYE	GD4275-1700-TPLYE	GD4275-1700-TPRYE

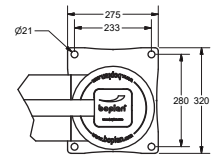
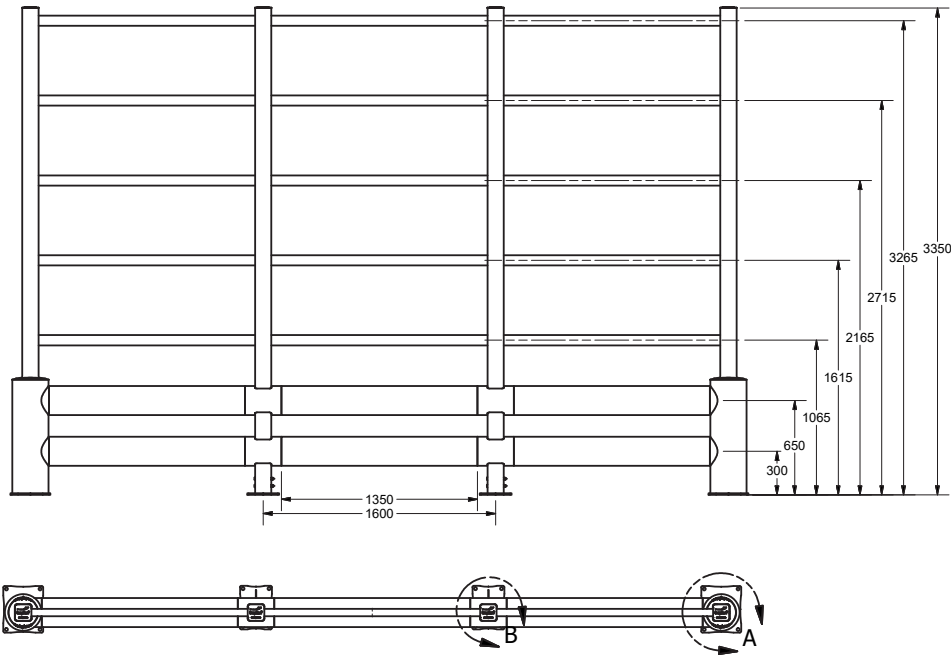
### RAIL SETS

	CC1000mm 750mm - YE	CC1200mm 950mm - YE	CC1400mm 1150mm - YE	CC1600mm 1350mm - YE	CC1800mm 1550mm - YE	CC2000mm 1750mm - YE	Short rail CC850-1599 - YE	Long rail CC1601-2000 - YE	Conn.tube Ø250 350mm - 90° - YE
9R	GDR900-0750-1000YE	GDR900-0950-1200YE	GDR900-1150-1400YE	GDR900-1350-1600YE	GDR900-1550-1800YE	GDR900-1750-2000YE	GDR909-1599-SRYE	GDR909-2000-LRYE	GDR900-0350-C259YE
7R	GDR700-0750-1000YE	GDR700-0950-1200YE	GDR700-1150-1400YE	GDR700-1350-1600YE	GDR700-1550-1800YE	GDR700-1750-2000YE	GDR709-1599-SRYE	GDR709-2000-LRYE	GDR700-0350-C259YE
5R	GDR500-0750-1000YE	GDR500-0950-1200YE	GDR500-1150-1400YE	GDR500-1350-1600YE	GDR500-1550-1800YE	GDR500-1750-2000YE	GDR509-1599-SRYE	GDR509-2000-LRYE	GDR500-0350-C259YE
4R	GDR400-0750-1000YE	GDR400-0950-1200YE	GDR400-1150-1400YE	GDR400-1350-1600YE	GDR400-1550-1800YE	GDR400-1750-2000YE	GDR409-1599-SRYE	GDR409-2000-LRYE	GDR400-0350-C259YE
3R	GDR300-0750-1000YE	GDR300-0950-1200YE	GDR300-1150-1400YE	GDR300-1350-1600YE	GDR300-1550-1800YE	GDR300-1750-2000YE	GDR309-1599-SRYE	GDR309-2000-LRYE	GDR300-0350-C259YE
2R	GDR200-0750-1000YE	GDR200-0950-1200YE	GDR200-1150-1400YE	GDR200-1350-1600YE	GDR200-1550-1800YE	GDR200-1750-2000YE	GDR209-1599-SRYE	GDR209-2000-LRYE	GDR200-0350-C259YE

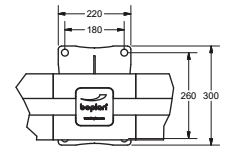
**Boplan bvba Head Office** | Muizelstraat 12, 8560 Moorsele, Belgium | +32 56 20 64 20 | sales@boplan.com | www.boplan.com

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Rails 550mm center - center

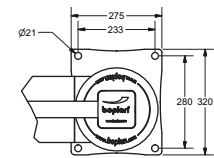
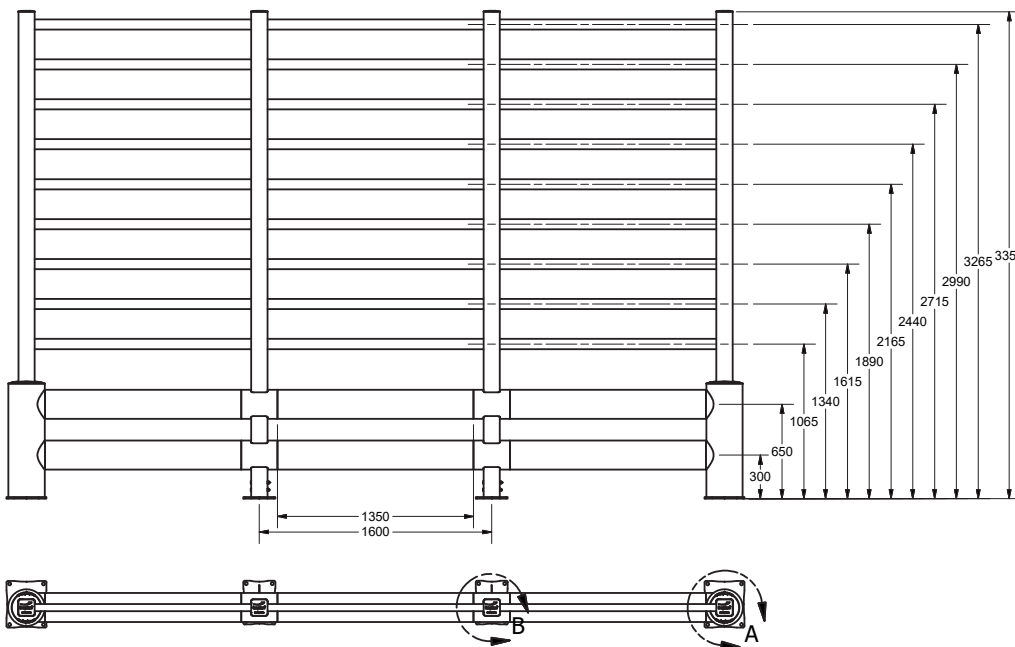


DETAIL A  
SCALE 1 / 8

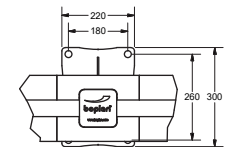


DETAIL B  
SCALE 1 / 8

Rails 275 mm center - center



DETAIL A  
SCALE 1 / 8



DETAIL B  
SCALE 1 / 8