



HP+PL - 3R BOPLAN HANDRAIL PLUS 3 RAILS + PLINTH SPECIFICATION SHEET

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Boplan reference: HQ112...



PRODUCT SPECIFICATIONS

APPLICATION			
Protection	Robust handrail system for the physical demarcation of pedestrian zones.		
Impact performance at 90° (in JOULE)	POST: 3300 Joule (Eq. to 2,5 ton - 5,8 km/h)		
	RAIL: 5500 Joule (Eq. to 2,5 ton - 7,5 km/h)		
MATERIAL			
Posts and rails	Polyolefin - UV resistant - Fire class E* - Non conductive - Impervious to most chemicals**		
Caps	SEBS rubber		
STANDARD COLORS			
End post	Black		
Mid post	Black		
Handrails	Yellow		
Plinth	Black		
BASEPLATES			
	Steel	Zinc Coated Steel	Stainless steel
Material	Steel 37	Steel 37	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

SIZE	
Height end / mid posts	1150 mm
Profile section handrail	50 mm x 70 mm (6 mm wall thickness)
Profile section plinth	112 mm x 112 mm (10 mm wall thickness)
Profile section posts	112 mm x 112 mm (10 mm wall thickness)
Standard rail length	Standard length: 1500 mm (center - center dimension)
Baseplate	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)	400 (h) x 400 (w) x 300 (d)
Operational temperature	-10°C up to +40°C
Water and humidity	Steel (standard): dry indoor use only. Zinc coated: outdoor use in most environments. Stainless steel: outdoor use or frequent exposure to water and humidity.

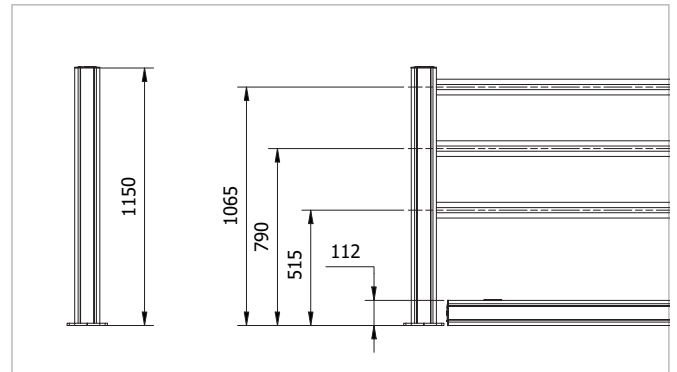
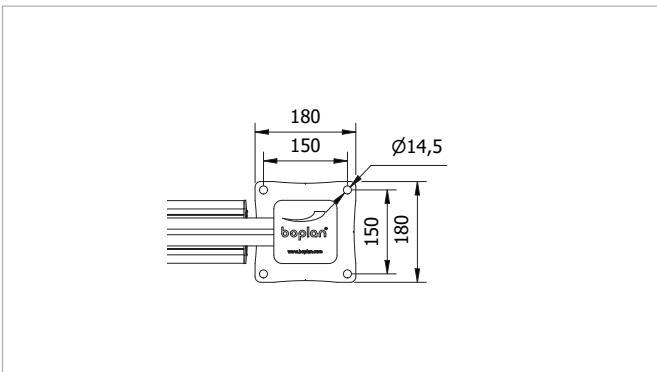
boplan READY FOR IMPACT

IMPACT LABEL FOR SAFETY BARRIERS




BOPLAN HP PLUS 3R		
IMPACT RATING	45°	90°
E80 < 80 kJ		
E60 < 60 kJ		
E50 < 50 kJ		
E40 < 40 kJ		
E35 < 35 kJ		
E30 < 30 kJ		
E25 < 25 kJ		
E20 < 20 kJ		
E15 < 15 kJ	7,8 kJ	5,5 kJ
E10 < 10 kJ		
E5 < 5,0 kJ		
E2 < 2,5 kJ		



TEST CONDITIONS TEMPERATURE: 20°C IMPACT HEIGHT: 500 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	 BOPLAN TEST LAB Muizelstraat 12 8560 Moorsele Belgium
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SUCCESS CRITERIA VEHICLE STOPPED - ASI (ACCELERATION SEVERITY INDEX) < 0.5



REFERENCE LIST - HP+PL 3R

POSTS		
End post - 3R End post - 3R - SS End post - 3R - ZC	HQ1120-0001-EPBL HQ1120-0001-EPBLS HQ1120-0001-EPBLZ	
Mid post - 3R Mid post - 3R - SS Mid post - 3R - ZC	HQ1120-0001-MPBL HQ1120-0001-MPBLS HQ1120-0001-MPBLZ	
T - post - 3R T - post - 3R - SS T - post - 3R - ZC	HQ1120-0001-TPBL HQ1120-0001-TPBLS HQ1120-0001-TPBLZ	

POSTS		
Corner post 90° - 3R Corner post 90° - 3R - SS Corner post 90° - 3R - ZC	HQ1120-0001-C90BL HQ1120-0001-C90BLS HQ1120-0001-C90BLZ	
Corner post 135° - 3R Corner post 135° - 3R - SS Corner post 135° - 3R - ZC	HQ1120-0001-C45BL HQ1120-0001-C45BLS HQ1120-0001-C45BLZ	

RAIL SETS (4R)		
Center - Center length	Plinth length	Reference
750 mm	530 mm (2 fix)	HQ1120-0750-0001YE
1000 mm	780 mm (2 fix)	HQ1120-1000-0001YE
1250 mm	1030 mm (2 fix)	HQ1120-1250-0001YE
1500 mm	1280 mm (2 fix)	HQ1120-1500-0001YE
1750 mm	1530 mm (3 fix)	HQ1120-1750-0001YE
2000 mm	1780 mm (3 fix)	HQ1120-2000-0001YE
750 - 1520 mm	530 - 1300 mm (2 fix)	HQ1121-1520-0001YE
1521 - 2000 mm	1301 - 1780 mm (3 fix)	HQ1121-2000-0001YE
CORNER RAIL SETS 90° (4R)		
Center - Center length	Plinth length	Reference
1500 mm	1280 mm (2 fix)	HQ1120-1500-C90YE
750 - 1520 mm	530 - 1300 mm (2 fix)	HQ1121-1520-C90YE
1521 - 2000 mm	1301 - 1780 mm (3 fix)	HQ1121-2000-C90YE