

# HP GRILL

## Handrails

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Boplan reference: GH...







### PRODUCT SPECIFICATIONS

APPLICATION	
Environment	Handrail system designed to protect people against falling products in zones without forklift traffic. This separate shielding ensures a clear segregation between people and (stacked) goods. Depending on the size of the 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 RAL 9005
Mid post	Black RAL 9005
Impact tube	Yellow RAL 1003
Handrails	Yellow RAL 1003
BASEPLATES	
	Steel
Material	Steel 37
Coating	Lacquered
Color	High gloss black

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

<sup>\*\*</sup>Ask your local sales office for resistance to specific chemicals.





FIXATIONS				
			ZC (Zinc coated)	SS (Stainless steel)
STANDARD	Wedge anchor		1/2 in x 4 1/2 in	Not available
ALTERNATIVES	Wedge anchor		M12 x 120 mm	M12 x 120 mm
	Concrete screw		Ø12mm x 100mm	Not available
	Anchor rod (Chemical)		M12 x 120 mm + Chemical resin	M12 x 120 mm + Chemical resin
	Asphalt anchor		Bolt M10 x 40 mm + Screw Ø16 mm	Not available
	Spit anchor		Bolt M12 x 100 mm + Plug Ø20 mm	Not available

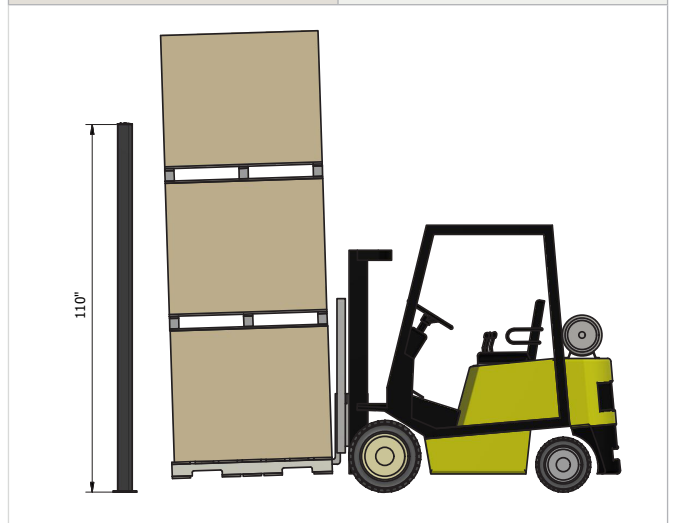


## FEATURES AND FUNCTIONALITY - HP GRILL

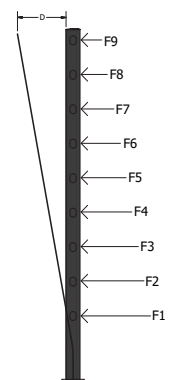
SIZE	
Height end posts	Maximum 110 in
Height mid post	Maximum 110 in
Profile section handrail	2 x 2 3/4 in (1/5 in. wall thickness)
Profile section posts	4 2/5 x 4 2/5 in (2/5 in wall thickness)
Standard rail length	Standard length: 60 in (center - center dimension)
Baseplate	7 x 7 in (2/5 in thick)

 <b>IMPACT LABEL FOR SAFETY BARRIERS</b>		
BOPLAN HP GRILL		
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		
E10 > 10 kJ		
E5 > 5,0 kJ	7,8 kJ	5,5 kJ
E2 > 2,5 kJ		
<b>TEST CONDITIONS</b> TEMPERATURE: 20°C / 68°F IMPACT HEIGHT: 500 mm / 19 3/4 Inch IMPACT ANGLE: 90° TEST FLOOR: CONCRETE SLAB C25/30 - 160 mm / 6 inch MANUFACTURER ANCHOR PULL OUT: 7,9 kN	<b>TEST VEHICLE</b> 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	<b>BOPLAN TEST CENTRE</b>  Muizelstraat 12 8560 Moorsele Belgium
<b>SUCCESS CRITERIA</b> VEHICLE STOPPED - ASI (ACCELERATION SEVERITY INDEX) <0.5		<b>IL-GH-20230920</b>

REQUIREMENTS	
Concrete quality	minimum C25/30
Concrete floor plate thickness	minimum 6 in
Concrete slab dimension around posts (in)	not advised
Operational temperature	14°F up to 104°F
Water and humidity	<b>Steel</b> (standard): dry indoor use only.



HOLDING POWER		
	Force*	Deflection**
110 in - 9R	F9 = 2600 N	32 in
100 in - 8R	F8 = 2900 N	30 in
90 in - 7R	F7 = 3260 N	28 in
78 in - 6R	F6 = 3760 N	25 2/3 in
67 in - 5R	F5 = 4460 N	22 2/3 in
56 in - 4R	F4 = 5520 N	19 1/3 in
45 in - 3R	F3 = 7220 N	15 1/3 in
34 in - 2R	F2 = 10580 N	11 2/5 in
23 2/3 in - 1R	F1 = 18400 N	6 1/3 in

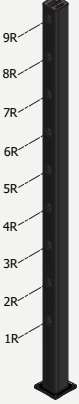
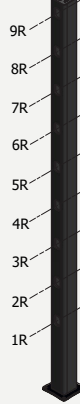
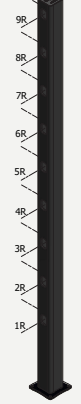
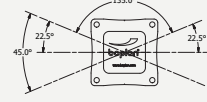
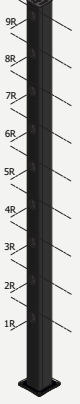


\* Force acting on the center of the hand rails (between posts)

\*\* Deflection (D) measured on top side.

## REFERENCE LIST - HP GRILL

### POSTS - 11 in rail distance

	End post	Mid post	Corner post 90°	Corner post 135°	T-end post (incl. caps)
110 in - 9R	GH275-2800-EPBL	GH275-2800-MPBL	GH275-2800-C90BL	GH275-2800-C45BL	GH275-2800-TPBL
90 in - 7R	GH275-2250-EPBL	GH275-2250-MPBL	GH275-2250-C90BL	GH275-2250-C45BL	GH275-2250-TPBL
					

### RAIL SETS

	CC 24 in - YE Std rail SET	CC 36 in - YE Std rail SET	CC 48 in - YE Std rail SET	CC 60 in - YE Std rail SET	CC 60 in - YE corner rail SET 90°/135°	CC 72 in - YE Std rail SET	CC 78 in - YE Std rail SET
9R	GHR900-0610-0001YE	GHR900-0915-0001YE	GHR900-1220-0001YE	GHR900-1525-0001YE	GHR900-1525-C90YE	GHR900-1828-0001YE	GHR900-1980-0001YE
7R	GHR700-0610-0001YE	GHR700-0915-0001YE	GHR700-1220-0001YE	GHR700-1525-0001YE	GHR700-1525-C90YE	GHR700-1828-0001YE	GHR700-1980-0001YE

**TECHNICAL DRAWINGS - HP GRILL**

