



GPL-SEISMIC BRACING SOLUTION SYSTEMS





WIRE FOR ASSEMBLY



GPL seismic cable bracing solution

The GPL seismic cable bracing system is a set of cables strategically placed within a structure to provide additional lateral support. These cables are tensioned and anchored to key structural components, working together to absorb and distribute seismic forces. It is used as a bracing system for suspended nonstructural components, equipment and systems. This system is particularly effective in tall or expansive structures, where the magnitude of lateral movement during an earthquake can be substantial.

Seismic cable kit includes:

- Galvanized wire in different dia. 2.0, 3.2, 5.0, & 6 mm
- Pre-attached eyelet
- Standard Bracket
- Aluminum loop cable blocker with lock nut
- Color coded tags GPL seismic bracing system are color coded to allow easy field verification of
- cable diameter, each color representing a different load bearing capacity.

GPL Seismic kit	Cable Diameter	Components of the system		Label Colour	Cable Orientation angle (Horizontal)	Allowable Strength design (ASD) (KG)	Maximum Design strength (LRFD) (KG/LBS)	
GPL-S-382	2.0mm/ 5-64"				30° 10	101/ 223 _{kg lbs}	151/333	
					45°	$152/_{ m kg} 335_{ m lbs}$	$\underset{\mathrm{kg}}{228/503}_{\mathrm{lbs}}$	
					60°	$232/_{\rm kg}$ 511	348/767	
GPL-S-383	3.0mm/ 1-8"					30°	$\begin{array}{ccc} 215 / & 474 \\ _{\rm kg} & _{\rm lbs} \end{array}$	322/710
					45°	$\underset{\text{kg}}{323/} \begin{array}{c} 712 \\ _{\text{lbs}} \end{array}$	$\underset{\mathrm{kg}}{484/1067}$	
			\bigcirc	at tagy		60°	503/ 1109 kg lbs	$754/1662_{\rm kg}$
GPL-S-384	5.0mm/ 3-16"				30°	$697/_{\rm kg}$ 1537	$\underset{\text{kg}}{1045/2304}$	
					45°	$\underset{\mathrm{kg}}{1008/2222}$	$\underset{\mathrm{kg}}{1512/3333}_{\mathrm{lbs}}$	
					60°	$\underset{\scriptstyle \mathrm{kg}}{1178/2597}$	$\underset{\text{kg}}{1767/3896}$	
GPL-S-385	6.0mm/ 1-4"				30°	$\underset{\scriptstyle \mathrm{kg}}{1326/2923}$	$\underset{\text{kg}}{1989/4385}$	
					45°	$\underset{\text{kg}}{1881/4147}$	$\underset{\text{kg}}{2821/6219}_{\text{lbs}}$	
					60°	$\underset{\scriptscriptstyle kg}{2161/4764}$	$\underset{\mathrm{kg}}{3241/7145}$	

Table: 1 Safe load capacity of Seismic Bracing system

Top view of components seismic hanging

and orientation angles



GPL Seismic Bracing Kit and Components Overview / Kit Contents.





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Component Dimensions

SWIVEL EYELET

Picture	Item	Wire Size	А	В	С
	GPA-148	1.5mm	46.0mm	12.5mm	6.5mm
	GPA-148A	2.0mm	46.0mm	12.5mm	6.5mm
	GPA-149	2.4mm	57.0mm	19.0mm	10.5mm
	GPA-149A	3.2mm	57.0mm	19.0mm	10.5mm

BRACKETS

Picture	Item	Wire Size	А	В	С
A	GPA-115	2.0mm	63.6mm	40.0mm	11.0mm
	GPA-155	3.2mm	63.6mm	40.0mm	13.0mm
	GPA-156	5.0mm	5.0mm	50.0mm	17.0mm
	GPA-156	6.0mm	6.0mm	50.0mm	20.0mm

GRIPPERS

Picture		Item	Wire Size	А	В	С	
A A A A A A A A A A A A A A A A A A A			GPCB-382-LN	2.0mm	35mm	23mm	13mm
			GPCB-383-LN	3.2mm	45mm	33mm	17.5mm
			GPCB-384-LN	5.0mm	55mm	46mm	24.5mm
	В	С	GPCB-385-LN	6.0mm	58mm	50mm	26mm





FEATURES & BENEFITS

- Kits includes pre-attached swivel eyelet with wire assembly, loop gripper & bracket.
- Available in different wire lengths for 3, 5, 10mtr.
- Color tags for easy identification of cable size & load bearing capacity.
- Tested & certified by leading technical university "IIT, Roorkee".
- The Safe load carrying capacity of each kit is determined as per IS 800 (2007). The equivalent standards are AISC 360 (2010), EN 1993 Eurocode 3, and NZS 3404 (1997)
- Save up to 50% on installation time and 10 times faster than traditional methods.
- No tool required.
- Perfect for new or retrofit applications.
- Light weighted kit, easy to carry on the job site.

GENERAL PRINCIPLES

GPL bracing solution system must be designed by a qualified structural engineer to ensure that when installed correctly they comply with the relevant standards.

- A pair of cables opposing each other are always required to brace a component, as loads are dynamic and cyclical.
- Cables should not touch any object along their length.
- Brace angles from the horizontal must not exceed 60° .
- Anchor points must be correctly qualified for the earthquake load demand, whether fixing to concrete, steel or timber.
- Anchor brackets must be loaded in line with the cable to prevent excessive prying of the anchors.
- The cables of a 4-way brace must directly oppose each other.

INSTALLATION

- 1. Attach Seismic Anchor Bracket to ceiling structure with appropriate anchor as per manufacturer's instructions, following qualified Structural Engineer's recommendations/calculations.
- 2. Fit Anchor bracket to existing primary supports at designated locations, ensuring bracket orientation is correct.
- 3. Pass wire rope through GPL seismic locking device.
- 5. The Loop wire through available hole in the bracket and position wire against through hole.
- 6. Feed wire back into GPL seismic locking device & tighten the lock for extra safety.
- 7. Apply tension.
- 8. Coil excess wire and secure to main brace if necessary trim excess wire leaving 150mm tail.

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Certified By:- Indian Institute of Technology, Roorkee is a leading technical university established since 1847, recognized by govt of India



GPL GLOBAL PRESENCE







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