

# Hinged Vertical Spring and Rigid Hangers

## For 6-1/8 inch Rigid Coaxial Transmission Line

### Types RLA600-11-H, RLA600B-13, and RLA600-13L

#### Description

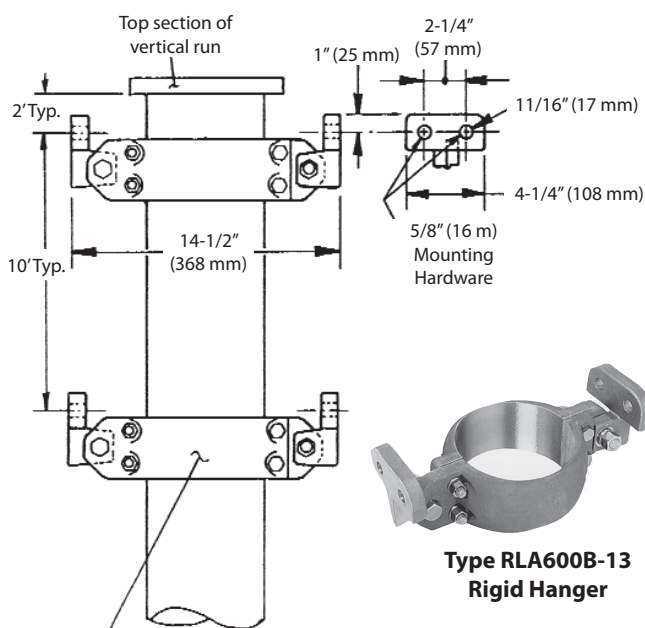
Type RLA600-13 rigid hanger is designed for mounting 6-1/8 inch rigid coaxial transmission line. One hanger will anchor up to 1000 ft (300 m) of transmission line. One additional hanger should be used on the top section of the vertical run for every additional 1000 ft (300 m) of line or portion thereof.

Type RLA600-13L light duty rigid hanger is designed for mounting 6-1/8 inch rigid transmission line. Two hangers mounted 5 feet apart on the top section of the vertical line run will anchor up to 500 feet (150 m) of transmission line. Three hangers each mounted 5 feet apart will secure up to 1000 feet (300 m) of transmission line. Hanger mount is slotted for use with both 2-3/8 and 2-1/2 inch bolt spacing.

Type RLA600-11-H hinged vertical spring hanger is used to support the weight and accommodate the differential expansion of 6-1/8 inch rigid transmission line. Hanger mount is slotted for use with both 2-3/8 and 2-1/2 inch bolt spacing.

#### Hardware Torque Specifications

Hardware Size	Hex Head	Torque Value
1/8"	5/16"	50 lb-in
3/8" (10 mm)	9/16"	21 lb-ft (28 N-m)
1/2" (13 mm)	3/4"	46 lb-ft (62 N-m)
5/8" (16 mm)	15/16"	76 lb-ft (103 N-m)



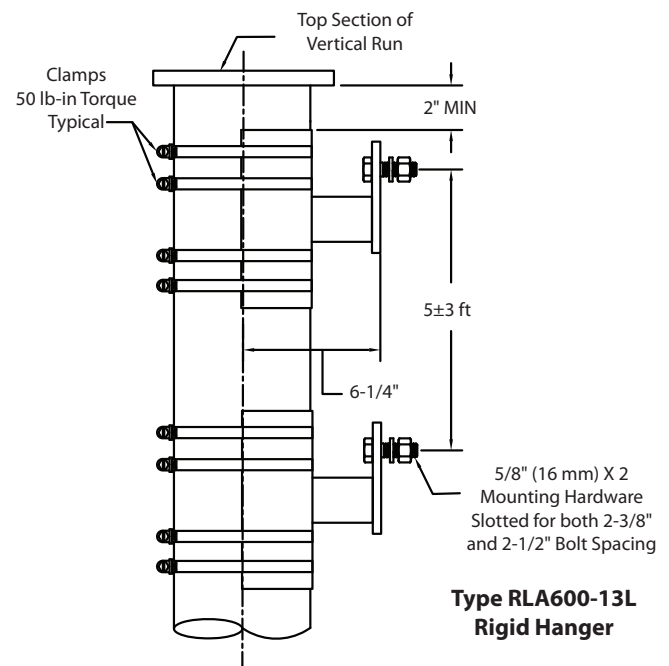
Use additional rigid hanger mounted 10 ft apart on top section of vertical run for every additional 1000 ft (300 m) of line or portion thereof.

#### Rigid Hanger Installation

**Note:** If no holes are available, contact the tower manufacturer for applicable safety regulations regarding the drilling of any holes in tower sections. Transmission line installation may begin at either end of the proposed vertical run. Installations originating at the top (antenna end) of the vertical run will require at least one rigid hanger at the top (depending on the length) and will require proper positioning of the bottom miter elbow to allow for both expansion and contraction of the rigid line over the anticipated operational temperature range.

Installations originating at the bottom (transmitter end) of the vertical run must utilize one or more rigid hangers for support. Additional miter elbows and field flanged sections will probably be required to ensure alignment with the antenna input flange.

**Note:** Rigid hangers used at the bottom portion of the vertical run for increased support during installation must be removed after installation of top rigid hanger(s) to prevent serious damage to antenna and/or transmission line.



Use minimum 2 rigid hangers mounted 5 ft apart on top vertical section for first 500 feet (150 m) of line or portion thereof. Use 3 rigid hangers for 500-1000 feet (300 m) of vertical line run.

## Spring Hanger Installation

Install rigid hanger(s) followed by spring hangers. Mount spring hangers directly to tower members provided, at 10 ft (3 m) intervals, as follows:

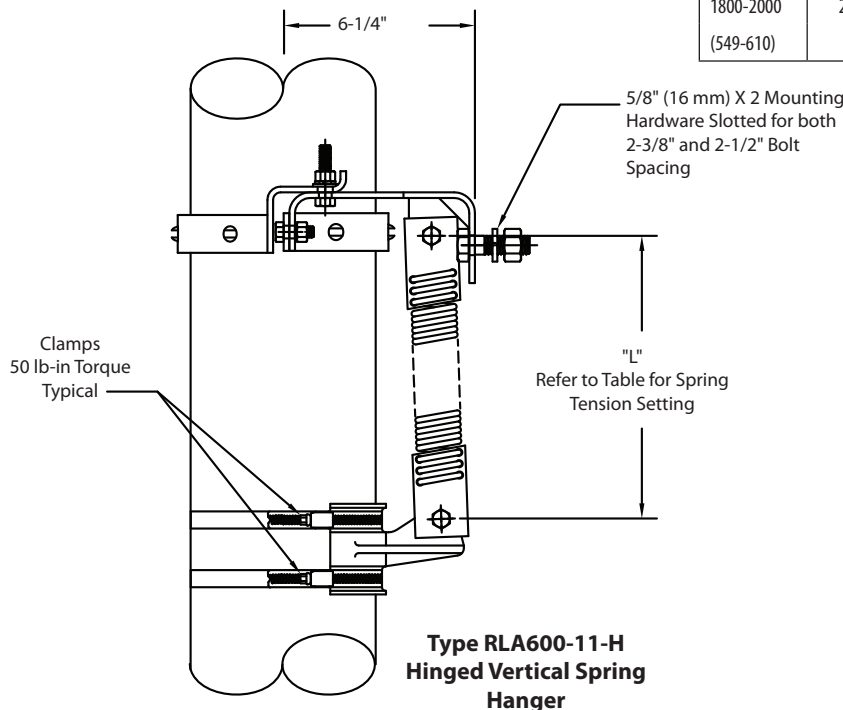
1. Loosen captivated 3/8" (10 mm) nuts of all spring hangers and open jaws.
2. Bolt each hanger to tower using 5/8" (16 mm) bolts and torque to specifications. hanger mount is slotted for use with both 2-3/8" and 2-1/2" inch bolt spacing.
3. Insert rigid line section, close spring hanger jaws on first hanger and torque bolt to specifications. Leave clamps open.
4. Repeat for each additional hanger.

After all spring hangers have been properly installed, set springs in accordance with Spring Settings table below and tighten clamps. The table gives the spring setting based on both the line length from the rigid hanger at the top of the transmission line and on the air temperature, when the springs are set. To insure uniform settings, a setting guide may be made from a suitable material cut to the lengths specified in the table.

**Note:** To avoid large variations in tension, all spring hangers should be set within hours of each other.

## Vertical Spring Hanger Spring Settings — L, in (mm)

Line Length, ft (m)	Ambient Temperature, °F (°C)				
	0 to 20 (-18 to -7)	20 to 40 (-7 to 4)	40 to 60 (4 to 16)	60 to 80 (16 to 27)	80 to 100 (27 to 38)
0-200 (0-61)	25-11/16 (653)	25-3/4 (654)	25-13/16 (656)	25-11/16 (658)	25-15/16 (659)
200-400 (61-122)	25-7/16 (646)	25-5/8 (651)	25-13/16 (656)	26 (661)	26-1/4 (666)
400-600 (122-183)	25-3/16 (639)	25-1/2 (647)	25-13/16 (656)	26-3/16 (665)	26-1/2 (673)
600-800 (183-244)	24-7/8 (632)	25-3/8 (644)	25-13/16 (656)	26-5/16 (668)	26-3/4 (680)
800-1000 (244-305)	24-5/8 (625)	25-1/4 (641)	25-13/16 (656)	26-7/16 (671)	27 (687)
1000-1200 (305-366)	24-3/8 (618)	25-1/16 (637)	25-13/16 (656)	26-9/16 (675)	27-5/16 (694)
1200-1400 (366-427)	24-1/16 (612)	24-15/16 (634)	25-13/16 (656)	26-11/16 (678)	27-9/16 (700)
1400-1600 (427-488)	23-13/16 (605)	24-13/16 (630)	25-13/16 (656)	26-13/16 (682)	27-13/16 (707)
1600-1800 (488-549)	23-9/16 (598)	24-11/16 (627)	25-13/16 (656)	26-15/16 (685)	28-1/8 (714)
1800-2000 (549-610)	23-1/4 (591)	24-9/16 (624)	25-13/16 (656)	27-1/8 (688)	28-3/8 (721)



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