

CADDY[®]

Branch Line Restraint System



ERICO[®]

Traditional methods for installing branch line restraints in fire sprinkler systems are cumbersome and time-consuming. Contractors often cut (and re-cut) threaded rod to precise measurements to restrain the sprinkler pipe with a loop hanger and surge restraint. Traditional methods also commonly require five or more parts per restraint.

To avoid these labor-intensive methods, ERICO has streamlined the process and developed the Branch Line Restraint System, part of the CADDY® line of hanging & bracing solutions for the fire protection market. Ideal for restraining 1" (25 mm) through 2" (50 mm) branch lines, this innovative system is significantly faster and easier to install than current methods. It attaches directly to steel bar joists, I-beams or purlins, as well as concrete and wood structures. The hardware is installed with only one tool, a 5/16" (8 mm) socket drill driver, which provides significant labor savings and convenience. It features a simple, two-step installation process, allowing a time savings up to 80% compared to other methods.

Unlike most solutions that only accept 3/8" threaded rod, the versatile Branch Line Restraint System features a swivel attachment that can be rotated to accept 3/8" (M10) or 1/2" (M12) threaded rod. This allows greater restraint distances from the pipe to structure with 1/2" (M12) threaded rod.

The system meets the requirements of NFPA® 13, making it ideal for new construction applications. The total system is cULus Listed and FM® Approved, and has been pre-approved by the state of California (OSHPD OPA-2629-10).

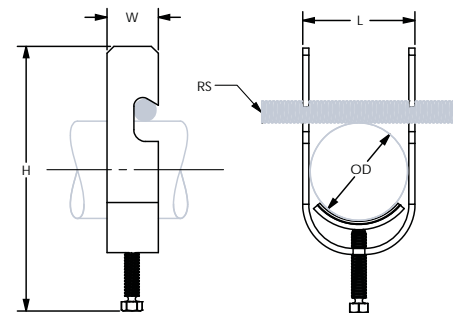


Patent Pending

Features

- Complete restraint system is quick and easy to install
- Offers up to 80% time savings per branch line restraint
- Eliminates need to cut threaded rod to exact dimensions
- Works with 3/8" and 1/2" (M10 and M12) rod
- Restraint distances up to 40" (960 mm) from pipe to structure with 1/2" (M12) threaded rod
- All components install with a 5/16" (8 mm) socket drill driver
- Meets requirements of NFPA® 13 section 9.3.6
- Electro-zinc plated finish

Branch Line Restraint Pipe Attachment



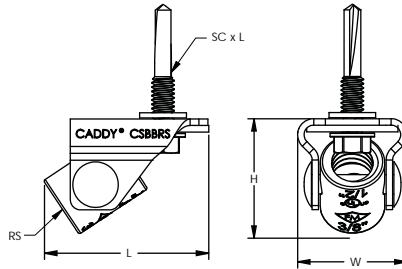
cULus Listed, FM Approved, and OSHPD pre-approved for light walled (SCH 7), SCH 10, and SCH 40 service pipes.

- Accepts 3/8" (M10) or 1/2" (M12) threaded rod on either side of the service pipe
- Quick grip clamp simplifies measuring and cutting of threaded rod
- Works with rough-cut threaded rod and eliminates pipe-side deburring
- Shear-off head helps ensure correct torque and simplifies inspection

Part Number	Article Number	Nominal Pipe Size " (mm)	OD " (mm)	RS " (mm)	H " (mm)	W " (mm)	L " (mm)
CSBBRP0100EG	404477	1 (25)	1.32 (33.4)	3/8, 1/2 (M10, M12)	6.67 (169.4)	0.88 (22.2)	2.86 (72.6)
CSBBRP0125EG	404478	1-1/4 (32)	1.66 (42.2)	3/8, 1/2 (M10, M12)	7.56 (192.0)	0.88 (22.2)	3.31 (84.1)
CSBBRP0150EG	404479	1-1/2 (40)	1.90 (48.3)	3/8, 1/2 (M10, M12)	8.20 (208.4)	0.88 (22.2)	3.63 (92.2)
CSBBRP0200EG	404480	2 (50)	2.38 (60.3)	3/8, 1/2 (M10, M12)	9.45 (240.0)	0.88 (22.2)	4.25 (108.0)



Branch Line Restraint Structure Attachment to Steel

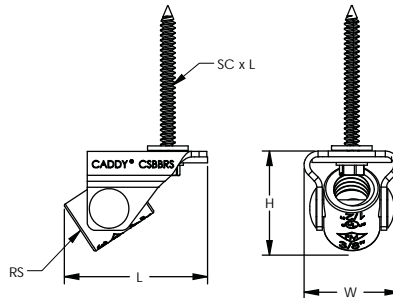


- Swivel connector accepts 3/8" (M10) or 1/2" (M12) threaded rod
- Attaches to steel members with thickness from 0.105" (12 GA) to 0.5" (2.7 - 12.7 mm) with self-drilling/tapping screw

Part Number	Article Number	RS" (mm)	SC x L" (mm)	H" (mm)	W" (mm)	L" (mm)
CSBRRS1EG	N/A	3/8, 1/2	12-24 x 1-1/4 (12-24 x 32)	1.11 (28.2)	1.06 (26.9)	1.59 (40.4)
CSBRRS1MEG	402239	(M10, M12)	12-24 x 1-1/4 (12-24 x 32)	1.11 (28.2)	1.06 (26.9)	1.59 (40.4)



Branch Line Restraint Structure Attachment to Wood/Concrete

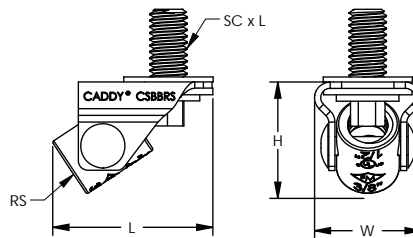


- Swivel connector accepts 3/8" (M10) or 1/2" (M12) threaded rod
- Attaches to wood/concrete structure.
Pre-drill concrete with 3/16" (4.8 mm) drill bit (not included)

Part Number	Article Number	RS" (mm)	SC x L" (mm)	H" (mm)	W" (mm)	L" (mm)
CSBRRS2EG	N/A	3/8, 1/2	1/4 x 1-3/4 (6.4 x 44.5)	1.11 (28.2)	1.06 (26.9)	1.59 (40.4)
CSBRRS2MEG	402240	(M10, M12)	1/4 x 1-3/4 (6.4 x 44.5)	1.11 (28.2)	1.06 (26.9)	1.59 (40.4)



Branch Line Restraint Structure Attachment to Threaded Insert



- Swivel connector accepts 3/8" (M10) or 1/2" (M12) threaded rod
- Attaches to concrete anchors or structural attachments with female threads
- Also for use with Snake+® anchor (not included); part number 6401SD

Part Number	Article Number	RS" (mm)	SC x L" (mm)	H" (mm)	W" (mm)	L" (mm)
CSBRRS3EG	N/A	3/8, 1/2	3/8-16 x 3/4 (M10 x 19)	1.11 (28.2)	1.06 (26.9)	1.59 (40.4)
CSBRRS3MEG	402241	(M10, M12)	3/8-16 x 3/4 (M10 x 19)	1.11 (28.2)	1.06 (26.9)	1.59 (40.4)



Note: Branch line structural attachments are for restraint only and not for the hanging of fire sprinkler piping.

Maximum Restraint Lengths

Continuous Threaded Rod

Rod Size (")	Root Dia. (")	Least Radius of Gyration r (")	Maximum Unbraced Length (L) - in			
			L / r = 100	L / r = 200	L / r = 300	L / r = 400*
3/8	0.300	0.075	7	14	22	30
1/2	0.404	0.101	10	20	30	40

Rod Size (mm)	Root Dia. (mm)	Least Radius of Gyration r (mm)	Maximum Unbraced Length (L) - mm			
			L / r = 100	L / r = 200	L / r = 300	L / r = 400*
M10	7.94	1.99	198	397	595	794
M12	9.60	2.40	240	480	720	960

Reference: NFPA13, (2007)

*Reference: NFPA13, (2010)

Other products available for restraint lengths over 40" (960 mm). Visit www.erico.com for more fire protection and hanging & bracing solutions.



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