

C-Clamps

In stage lighting, a c-clamp, also referred to as a pipe clamp, is used to attach a larger piece of hardware, such as a lighting fixture to a pipe, batten, or tubular trussing.

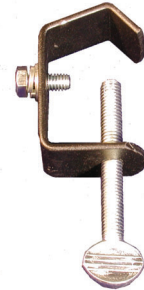
C-clamps function by affixing a bolt (the "shaft bolt") to the hardware they are to hold in place, such as through the yoke of a lighting instrument, and securely fastening this bolt to the clamp shaft. The open end of the clamp is then placed over the pipe batten, and a bolt (the "clamp bolt") is tightened to secure the c-clamp. To aid in your lighting focus Altman Lighting c-clamps also employ a pan screw (also known as a "grub bolt"), which when loosened will allow the clamp shaft to rotate, and therefore the fixture, to be rotated 360 degrees while maintaining a secure connection to the pipe batten.



510 Malleable Iron C-Clamp



510-HD Heavy Duty Malleable Iron C-Clamp



510-F Light Duty, Flat Steel Clamp

Part Number	Working Load Limit	Fits Pipe Size(s)	Weight	Mounting Bolt
510	300 lbs (136.4 kgs)	3/4 to 1-1/2-inch pipe (ID) and 2-inch Truss (OD)	2.0 lbs (0.91 kgs)	1/2-inch x 13
510-HD	600 lbs (272.7 kgs)	3/4 to 1-1/2-inch pipe (ID) and 2-inch Truss (OD)	2.5 lbs (1.14 kgs)	1/2-inch x 13
510-F	25 lbs (11.36 kgs)	1/4 to 1-1/2-inch pipe	1.0 lbs (0.45 kgs)	1/4-inch x 20

Back-To-Back Pipe Connections

Back-to-back pipe clamps are for applications where two pieces of pipe need to be secured together in an overlapping configuration; such as pipe grid construction.

Part Number	Working Load Limit	Fits Pipe Size(s)	Weight
510-2	300 lbs (136.4 kgs)	3/4 to 1-1/2-inch pipe (ID) and 2-inch Truss (OD)	4.0 lbs (1.82 kgs)
510-HD-2	600 lbs (272.7 kgs)	3/4 to 1-1/2-inch pipe (ID) and 2-inch Truss (OD)	5.0 lbs (2.28 kgs)



510-HD-2 Heavy Duty Malleable Iron back-to-back C-Clamp

Side Arms

Side arms are used to extend the mounting positions of luminaires or equipment from a vertical pipe or boom. It comprises a 510 or 510-HD pipe clamp on one end of a length of 1/2-inch pipe, with one or more sliding tees mounted to the pipe for attaching luminaires or equipment. Altman Lighting side arms have a baked black enamel finish.



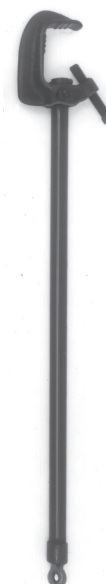
509-HD-12-1 12-Inch Side Arm

Part Number	Description
509-12-1	510 C-Clamp with 1/2-inch, 12-inch long pipe and one sliding tee (with 1/2-inch-13 bolt & washer)
509-Length-Tees	510 C-Clamp with 1/2-inch pipe / Specify length: 14,15,16,18,21,24,30,or 36 inches / Specify number of tees: 0, 1, 2, 3, or 4
509-HD-12-1	510-HD C-Clamp with 1/2-inch, 12-inch long pipe and one sliding tee (with 1/2-inch-13 bolt & washer)
509-HD-18-1	510-HD C-Clamp with 1/2-inch, 18-inch long pipe and one sliding tee (with 1/2-inch-13 bolt & washer)
509-HD-24-1	510-HD C-Clamp with 1/2-inch, 24-inch long pipe and one sliding tee (with 1/2-inch-13 bolt & washer)
509-HD-24-2	510-HD C-Clamp with 1/2-inch, 24-inch long pipe and two sliding tees (with 1/2-inch-13 bolt & washer)
509-HD-36-2	510-HD C-Clamp with 1/2-inch, 36-inch long pipe and two sliding tees (with 1/2-inch-13 bolt & washer)

Pipe Stiffeners

A pipe stiffener is used by attaching the pipe clamp to a batten pipe while tying the loop to the cable supporting the batten. This prevents the batten pipe from rotating within its supports due to torque created by equipment mounted to the batten. Altman Lighting pipe stiffeners have a baked black enamel finish.

Part Number	Description
504-12	510 C-Clamp with 1/2-inch, 12-inch long pipe and eyelet
504-18	510 C-Clamp with 1/2-inch, 18-inch long pipe and eyelet
504-24	510 C-Clamp with 1/2-inch, 24-inch long pipe and eyelet
504-30	510 C-Clamp with 1/2-inch, 30-inch long pipe and eyelet
504-36	510 C-Clamp with 1/2-inch, 36-inch long pipe and eyelet
504-42	510 C-Clamp with 1/2-inch, 42-inch long pipe and eyelet
504-48	510 C-Clamp with 1/2-inch, 48-inch long pipe and eyelet



504-24 24-Inch Pipe Stiffener

Extension Clamps

Extension clamps are for extending the mounting position of luminaires from pipe battens. They are provided with a 510 pipe c-clamp on one end, and a 1/2-inch-13 attachment bolt with washers on the other.

<i>Part Number</i>	<i>Description</i>
504A-12	510 C-Clamp with 1/2-inch, 12-inch long pipe with 1/2-inch-13 bolt & washer
504A-18	510 C-Clamp with 1/2-inch, 18-inch long pipe with 1/2-inch-13 bolt & washer
504A-24	510 C-Clamp with 1/2-inch, 24-inch long pipe with 1/2-inch-13 bolt & washer
504A-30	510 C-Clamp with 1/2-inch, 30-inch long pipe with 1/2-inch-13 bolt & washer
504A-36	510 C-Clamp with 1/2-inch, 36-inch long pipe with 1/2-inch-13 bolt & washer
504A-42	510 C-Clamp with 1/2-inch, 42-inch long pipe with 1/2-inch-13 bolt & washer
504A-48	510 C-Clamp with 1/2-inch, 48-inch long pipe with 1/2-inch-13 bolt & washer
504A-54	510 C-Clamp with 1/2-inch, 54-inch long pipe with 1/2-inch-13 bolt & washer
504A-60	510 C-Clamp with 1/2-inch, 60-inch long pipe with 1/2-inch-13 bolt & washer
504A-66	510 C-Clamp with 1/2-inch, 66-inch long pipe with 1/2-inch-13 bolt & washer
504A-72	510 C-Clamp with 1/2-inch, 72-inch long pipe with 1/2-inch-13 bolt & washer
504A-84	510 C-Clamp with 1/2-inch, 84-inch long pipe with 1/2-inch-13 bolt & washer
504A-90	510 C-Clamp with 1/2-inch, 90-inch long pipe with 1/2-inch-13 bolt & washer
504A-96	510 C-Clamp with 1/2-inch, 96-inch long pipe with 1/2-inch-13 bolt & washer



504A-24 24-inch Extension Clamp

Double Pipe Clamp Extensions

Double pipe clamp extensions are provided with an Altman Lighting 510 c-clamp on each end for hanging one pipe from another. All Altman Lighting double pipe clamp extensions are finished in baked black enamel.

<i>Part Number</i>	<i>Description</i>
506-12	Two 510 C-Clamps (one on each end) with 1/2-inch, 12-inch long pipe
506-18	Two 510 C-Clamps (one on each end) with 1/2-inch, 18-inch long pipe
506-24	Two 510 C-Clamps (one on each end) with 1/2-inch, 24-inch long pipe
506-30	Two 510 C-Clamps (one on each end) with 1/2-inch, 30-inch long pipe
506-36	Two 510 C-Clamps (one on each end) with 1/2-inch, 36-inch long pipe
506-42	Two 510 C-Clamps (one on each end) with 1/2-inch, 42-inch long pipe
506-48	Two 510 C-Clamps (one on each end) with 1/2-inch, 48-inch long pipe
506HD-12	Two 510-HD C-Clamps (one on each end) with 1/2-inch, 12-inch long pipe



506-24 24-inch Double Pipe Clamp Extension

Hanging Arms

Hanging arms are supplied in pairs and are used to attach border lights (no longer than 10 feet in length) to pipe battens. Altman hanging arms have five holes spaced 2-inches apart to allow for flexibility in mounting border lights. Altman Hanging arms are black epoxy, electrostatic finish.

<i>Part Number</i>	<i>Description</i>
508	10-inch, 5 position hanging arm with 510 c-clamp (pair)
508-HD	10-inch, 5 position hanging arm with 510-HD c-clamp (pair)
508-WH	10-inch, 5 position hanging arm with 510 c-clamp (pair), white



508-HD 10-inch Hanging Arms

Pipe Sizing Table

Prior to ordering any pipe hardware please consult the Pipe Sizing table below for the correct pipe sizing.

<i>Nominal Pipe Size</i>	<i>1/2-inch</i>	<i>3/4-inch</i>	<i>1-inch</i>	<i>1-1/4-inch</i>	<i>1-1/2-inch</i>	<i>2-inch</i>
<i>Outside Diameter</i>	0.84-inch	1.05-inch	1.32-inch	1.66-inch	1.90-inch	2.375-inch
<i>Inside Diameter</i>	0.62-inch	0.82-inch	1.05-inch	1.38-inch	1.61-inch	2.067-inch