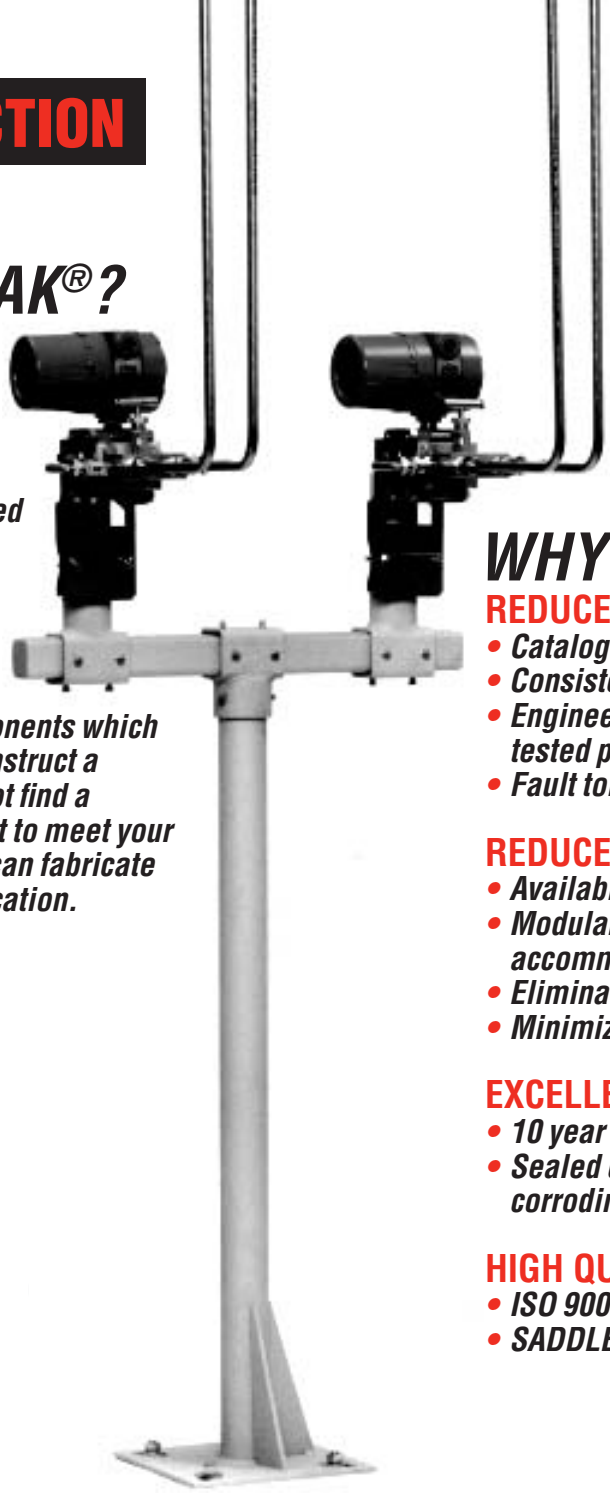

SADDLEPAK®
O'BRIEN
Integrated Solutions
Improving Process Accuracy

INTRODUCTION

WHAT IS SADDLEPAK®?

SADDLEPAK is a modular support system for field-mounted instrumentation. It is easily assembled to create or duplicate any mounting detail.

The system is comprised of components which are combined to construct a support. If you do not find a standard component to meet your specific needs, we can fabricate one to fit your application.



WHY USE SADDLEPAK?

REDUCE ENGINEERING TIME

- *Cataloged components eliminate design details.*
- *Consistent quality product.*
- *Engineered and tested modules. SADDLEPAK is a tested product.*
- *Fault tolerant.*

REDUCE FIELD TIME

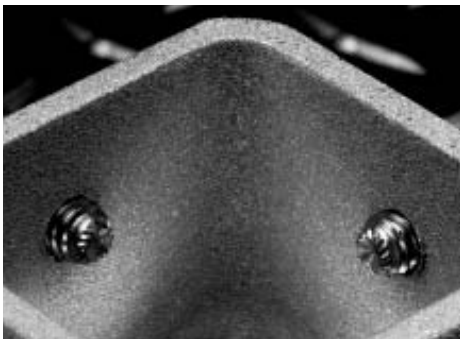
- *Available from stock.*
- *Modular construction permits changes to accommodate field conditions.*
- *Eliminate field welding.*
- *Minimize field installation time.*

EXCELLENT CORROSION RESISTANCE

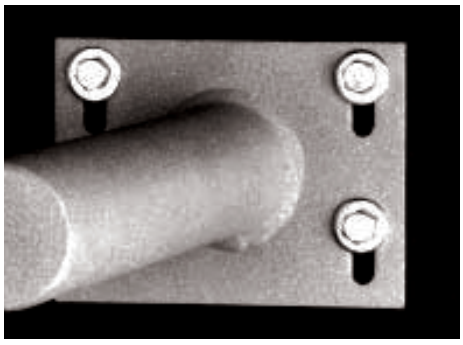
- *10 year replacement guarantee.*
- *Sealed components eliminate the potential of corroding from the inside out.*

HIGH QUALITY PRODUCTS

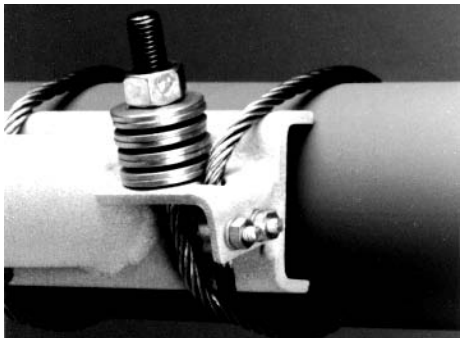
- *ISO 9001.*
- *SADDLEPAK is a technically superior product.*



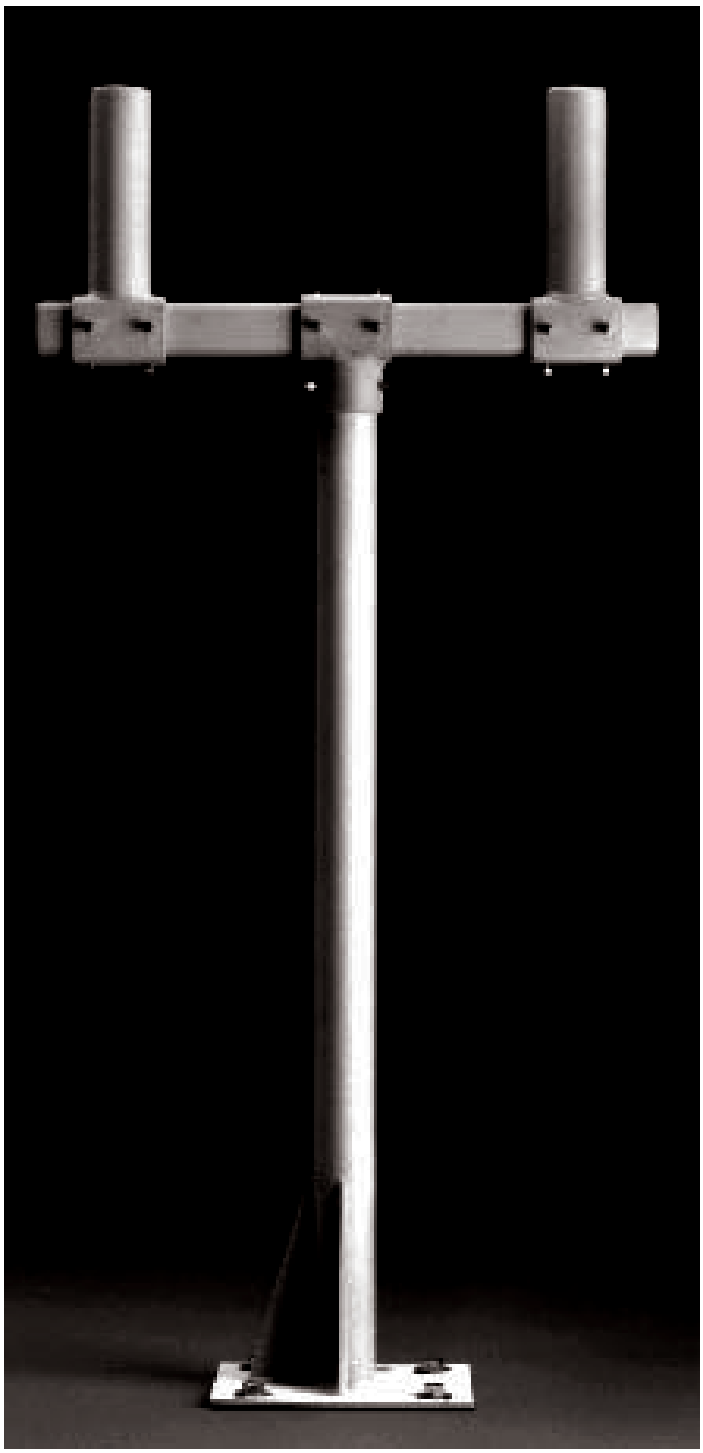
Every O'Brien SADDLEPAK has been designed and tested right down to the set screws. The reverse knurled cup point set screw provides more biting surface and acts as its own lock washer.



Mounting slots are more tolerant of misplaced concrete anchors. Every aspect of SADDLEPAK design creates a technically superior product.



Compression washers keep the cables tight during temperature shifts. Grooved seat wire rope clips secure the cable to the base. Base plates are 1/4" steel sheared and formed into a channel to provide gripping edges on the process line.



HOW TO ORDER SADDLEPAK?

DETERMINE HOW YOU WILL MOUNT THE SUPPORT

- *Choose from floor, wall, cable or U-bolt mounts.*

SELECT A PRIMARY MOUNT

- *Primary mounts may be used individually or in combination with Secondary Modules.*

SELECT SECONDARY MODULES

- *Secondary modules are often added to the Primary Mount to build more complex instrument supports.*

SPECIALS

SIZES AND LENGTHS

Sizes and lengths shown in the catalog are for standard components. We can also create nonstandard components to meet your specific needs.

FINISHES

All the products shown in this catalog have been protected with our standard Zinc Arc Spray Metallizing. We also offer most products on special order with a zinc plated yellow dichromate dip, aluminum metallized, galvanized or painted finish. SADDLEPAK can also be supplied in stainless steel and in designs to meet sanitary application requirements.

PRIMARY SUPPORT MODULES

FLOORSTANDS

All floor mounts have a ¼" thick steel 10" X 10" base plate and are slotted to accept up to ½" mounting bolts on 8" to 6" centers. Two 8" gussets are welded to the base plate and extension, significantly increasing the bending moment of SADDLEPAK floorstands.

WALL MOUNTS

Wall mounts have a ¼" thick steel base plate to clamp, bolt or weld to a vertical surface. The KM and K24M Hand Rail Clamp can be used with a wall mount to eliminate drilling or welding in the field.

U-BOLT MOUNTS

The U-bolt mounts secure the instrument support to process lines from 1" through 36" in diameter. Restrictions against welding onto process lines make U-bolt mounts an alternative solution. The prefix to the model number designates the required process line size in inches.

CABLE MOUNTS

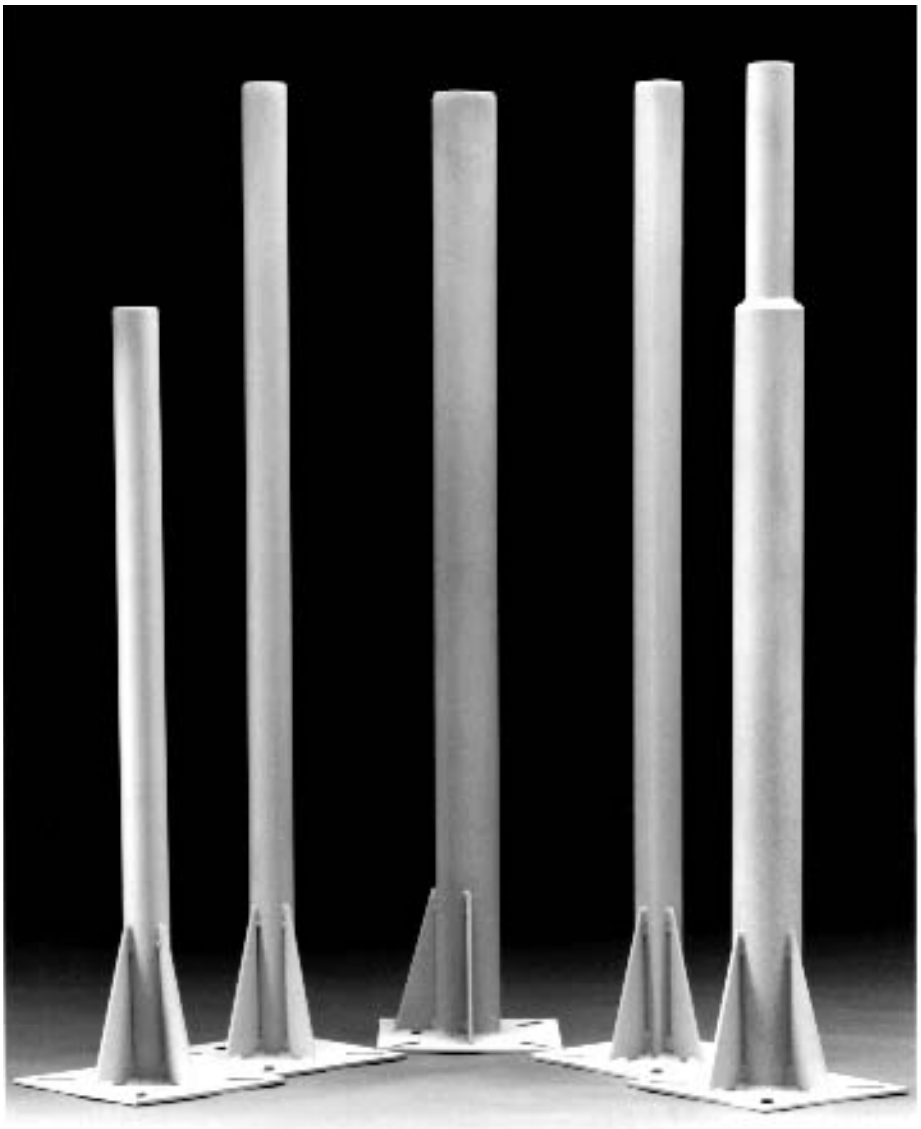
Similar in application to the U-bolt mounts, cable mounts use a pair of high-tensile strength cables to secure the instrument support to process lines from 3" through 36" in diameter. Each strand of the cable is individually galvanized to provide maximum corrosion protection. The cables are secured to the base plate with grooved seat wire rope clips. The ⅝" NC fitting swaged to the end of the cable is used to tighten the cable around the process line. AISI 6150 calibrated compression washers insure that the cable stays tight during ambient and process line temperature shifts.

Two cable lengths are available:

50" for 3" to 14" line sizes is standard

120" for 3" to 36" line sizes

Type 300 Series stainless steel cables are also available for additional corrosion protection (threaded ends remain CS).



Models FP40, FP52, 3FP52, FS52 and 32FP52

Standard heights are 40" and 52" as designated in the model number. Nonstandard sizes can be ordered by designating a different length in the model number.

FP40 and FP52

Standard 2" pipe mounts. The 40" high standard is ideal for mounting VIPAK instrument enclosures. The 40" floorstand is normally used as the base for dual or triple mount stands. The 52" floorstand is recommended for typical instrument mounting or when a partial enclosure such as a HEATPAK, HEATPAK II or FLEXIBLE HEATPAK is used.

3FP52

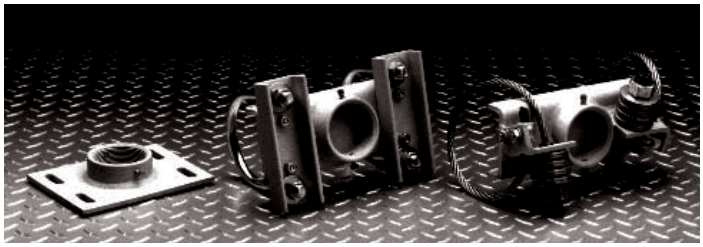
A 3" pipe stand. It provides added support for very large and heavy equipment.

FS52

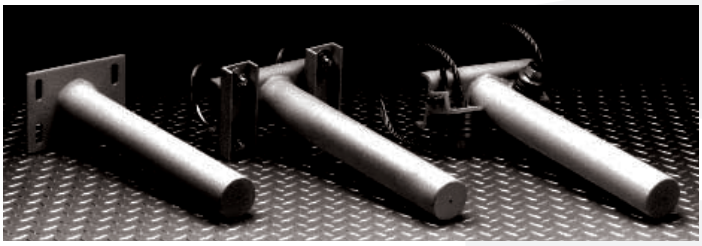
Has a 2" square extension. Use with "A" series Secondary Support Modules to mount a group of instruments on one pedestal with complete vertical adjustability.

32FP52

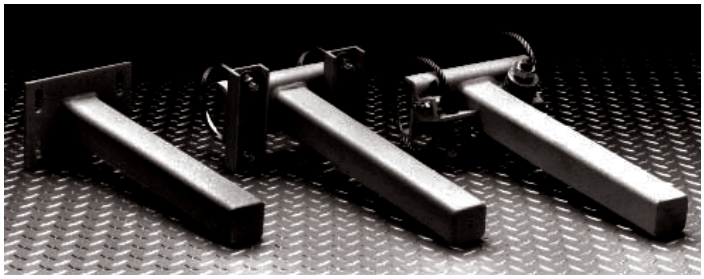
Combines the added strength of the 3" pipe stand and the versatility of a 2" pipe mount.



Models WTM, xUTM, and CTM
The threaded coupling accepts a 2" NPT pipe extension. Two set screws lock the extension in place.
WTM mounts to a wall or, with Model KM, to an I-beam.
xUTM utilizes U-bolts for direct mounting on vertical or horizontal process lines.
CTM is similar to xUTM but uses high-tensile strength steel cables for mounting on vertical or horizontal process lines.

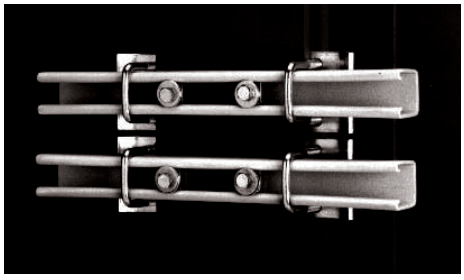


Models WP16M, xUP16M and CP16M
2" pipe extensions are 16" long.
WP16M mounts to a wall or, with Model KM, to an I-beam. For the direct mounting of pipe supported instruments.
xUP16M utilizes U-bolts to mount to vertical or horizontal process lines.
CP16M is similar to xUP16M but has high-tensile strength steel cables for mounting to vertical or horizontal process lines.

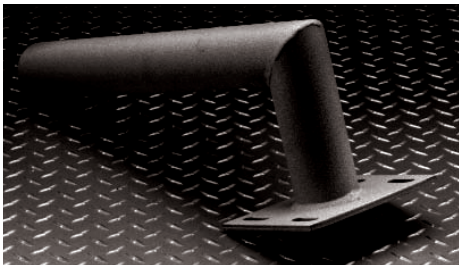


Models WS16M, xUS16M and CS16M
2" square leg extensions are usually combined with Secondary Support Modules.
WS16M can be mounted to a wall or, with a Model KM, to an I-beam.
xUS16M utilizes U-bolts to mount directly to vertical or horizontal process lines.
CS16M is similar to xUS16M but utilizes high-tensile strength steel cables for mounting on vertical or horizontal process lines.

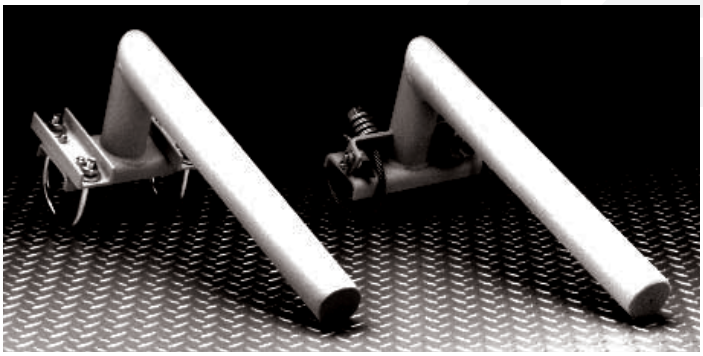
Models xUEV16M and CEV16M
2" pipe elbow is 16" long and is oriented for mounting pipe supported instruments on vertical process lines.
xUEV16M utilizes U-bolts for mounting.
CEV16M utilizes high-tensile strength steel cables for mounting.



Model KM Consists of two 15½" steel channels that are designed to be mounted to an I-beam or flange between 3" and 11". Mounting bolts and spring clips are included.



Model WE16M Wall mounted right-angle elbow extension. Can be used with Model KM to mount to an I-beam.



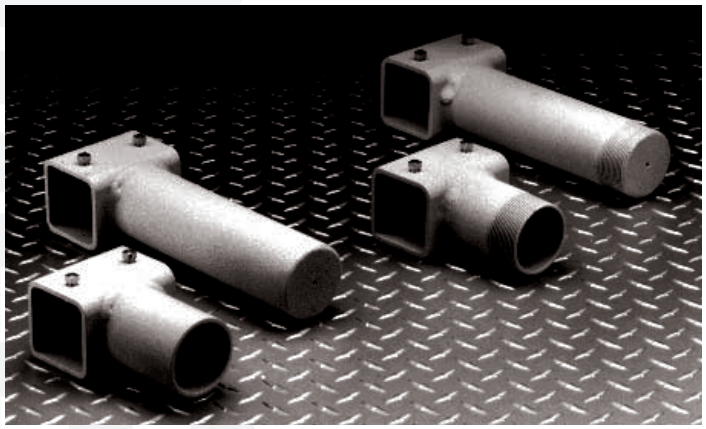
Models xUEH20M and CEH20M
2" pipe elbow is 20" long and is oriented for mounting pipe supported instruments on horizontal process lines.
xUEH20M utilizes U-bolts for mounting.
CEH20M utilizes high-tensile strength steel cables for mounting.

x designates U-bolt diameter.

SECONDARY SUPPORT MODULES

Secondary Support Modules

Secondary support modules are combined with primary modules to construct more complex instrument supports. These modules may be configured in many different ways. See pages 7 and 8 for typical applications.

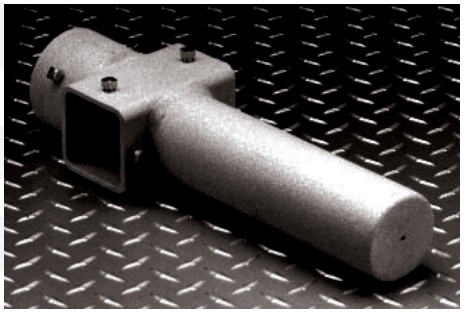


ModelS A3M, A8M, AT3M and AT8M

A3M square tube adapter with a 2" pipe extension 3" long.
A8M square tube adapter with a 2" pipe extension 8" long.
AT3M square tube adapter with a threaded 2" pipe extension.
AT8M square tube adapter with a threaded 2" pipe extension.

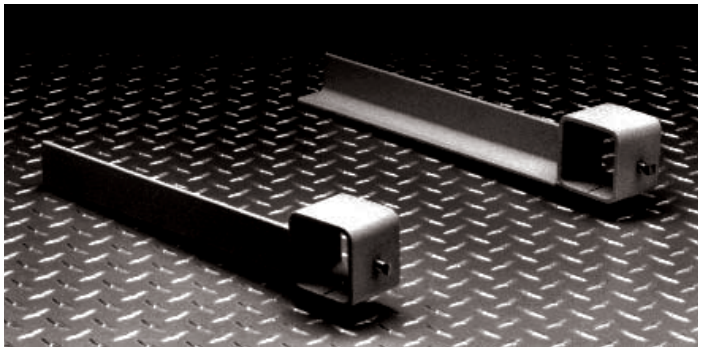
Model AFM

2" pipe to square tube adapter.



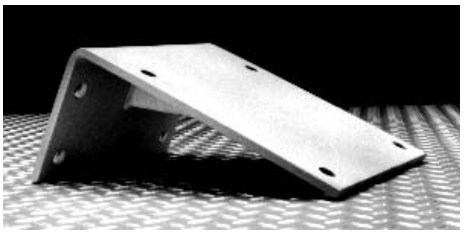
Model AFP8M

2" pipe to square tube adapter with an 8" extension.



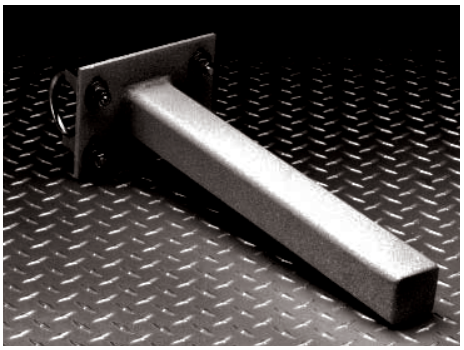
Model AL12M

Two piece angle units mount to a square leg extension such as the S24M. The angles accomodate many panel mounted instruments or they may be drilled to mount an instrument between them.



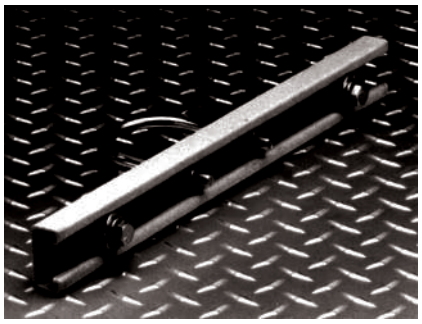
Model WFAM

This heavy duty adapter is used to mount a floorstand to a wall or the understructure of a platform.



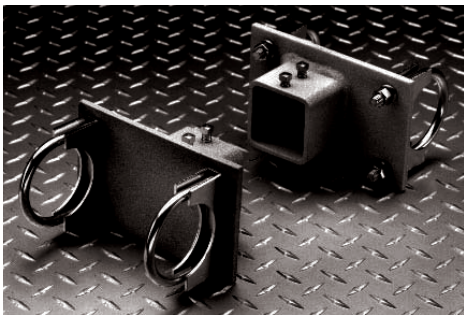
Model 2US16M

Square leg extension module 16" long with a 2" U-bolt mount for use with the 2" Pipe or Elbow Extension Primary support modules.

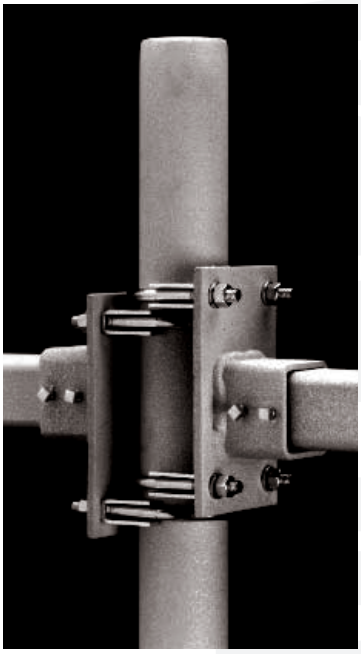


Model 2UR15M

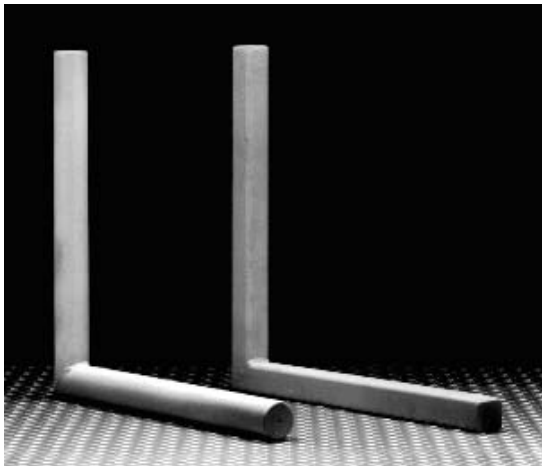
Mounting channel comes with a 2" U-bolt for mounting on a floorstand or a 2" pipe. Instrument mounting bolts and spring clips are included.



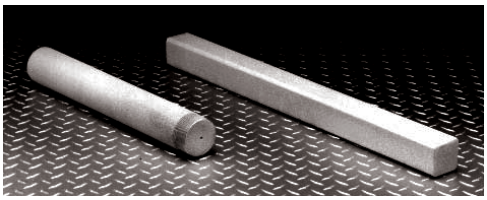
2USFM Square tube rack adapters consist of a pair of female adapters that mount to 2" pipe using two U-bolts. Used when constructing a multiple instrument rack.



2USFM Close-up

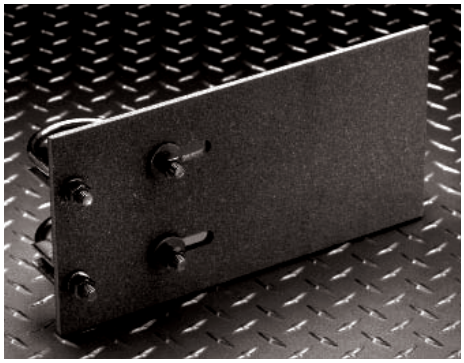


Models EP24x24M and ES24x24M



PT16M and S24M

EP24x24M "L" shaped (90°) module with 2" pipe legs each 24" long. Also available as **ES24x24M** with 2" square legs.
PT16M 2" pipe module 16" long threaded one end.
S24M extension with a 2" square leg is used with "A" series secondary adapter. A nonstandard length may be ordered easily by designating the required length.



Model 2UF86M
A mounting flag with two 2" U-bolts. Also available with 3" U-bolts designated 3UF86M. Nonstandard sizes are available by specifying the length and width of the flag.

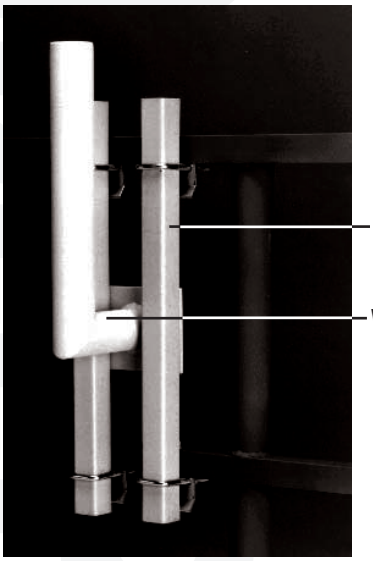
Model 2UMM10M Manifold mount has a hole pattern that will accept mounting of manifolds with flanged process connections leaving the instrument free of mounting brackets. It may also be used as a transmitter mounting bracket. Utilizes two 2" U-bolts for use with horizontal or vertical mounting pipe.

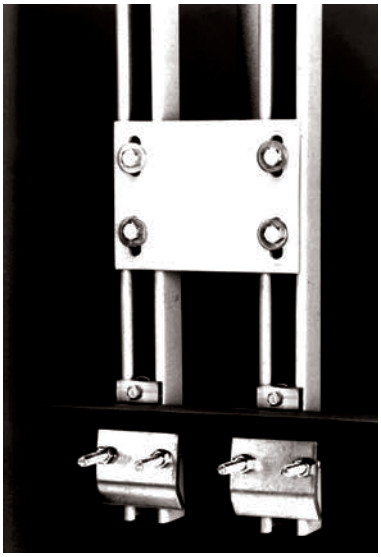
APPLICATIONS

THESE TWO pages show some of the possible combinations of SADDLEPAK modules. O'Brien can help you configure the modules for the instrument support you need or nonstandard modules can be fabricated to meet your specifications.

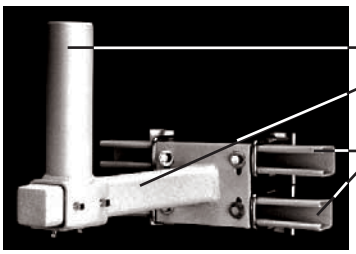
The number in the product's model designation indicates the length of the extension or size of mounting hardware.

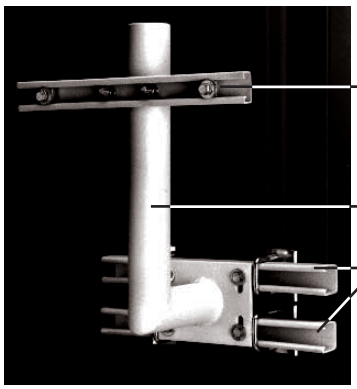
Wall mounts may be combined with a clamp assembly such as the Model KM to mount on I-beam or handrail without drilling or welding.

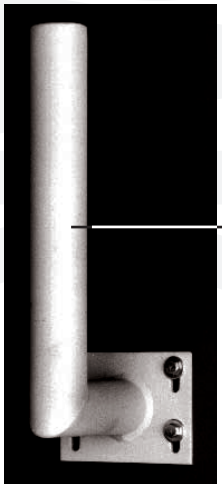


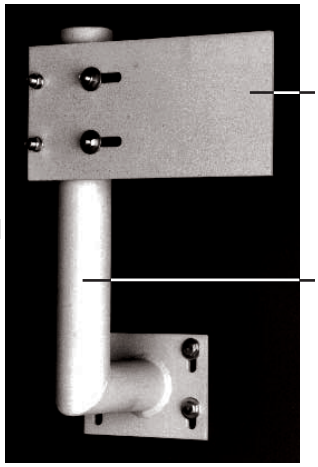


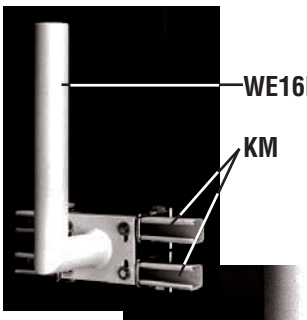
Rear view close-up of WE16M mounted to K24M



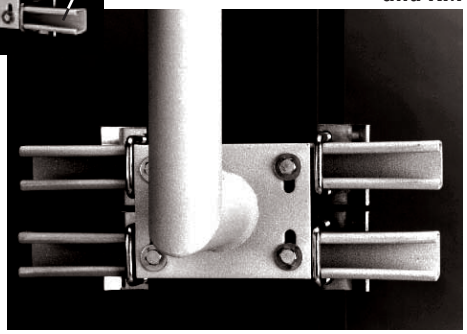


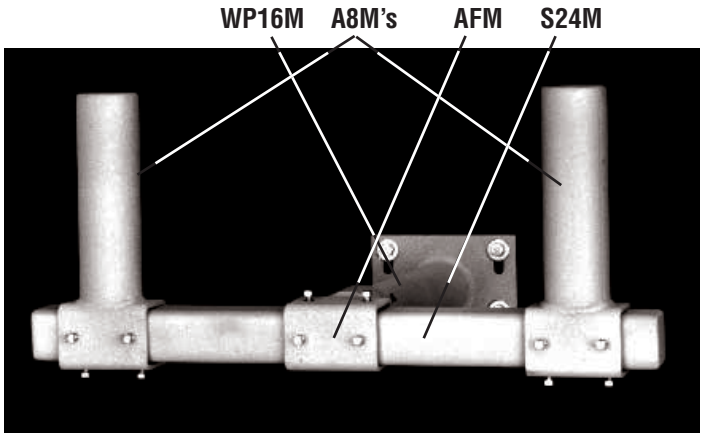


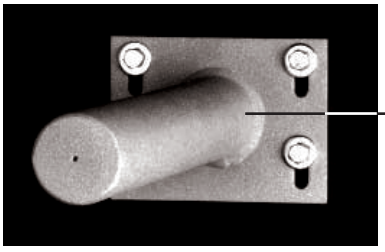


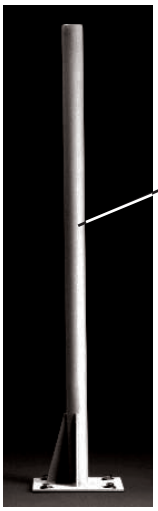


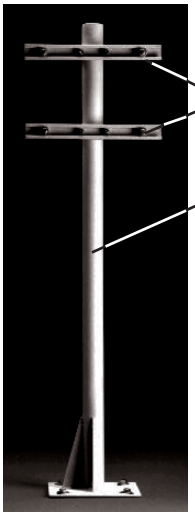
Close-up of WE16M and KM

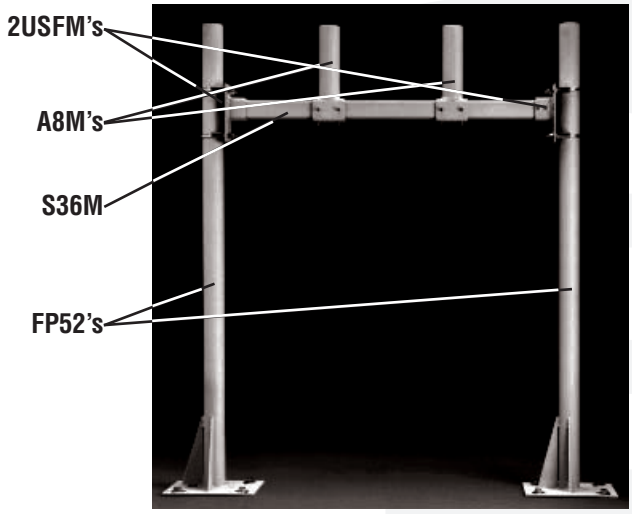


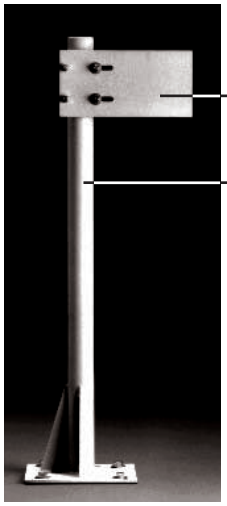


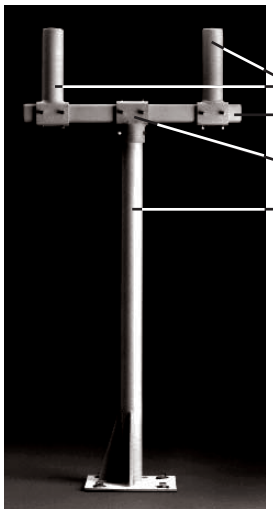


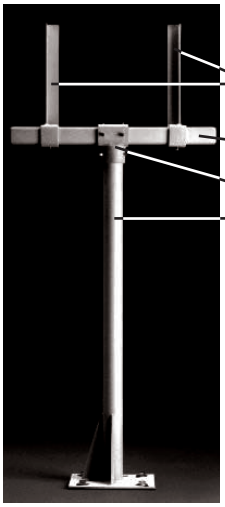

FP52

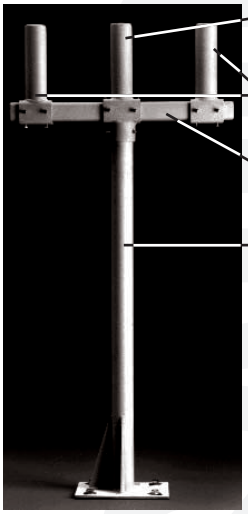

2UR15M's
FP52


2USFM's
A8M's
S36M
FP52's

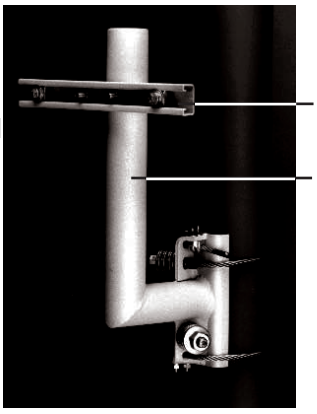

2UF86M
FP40

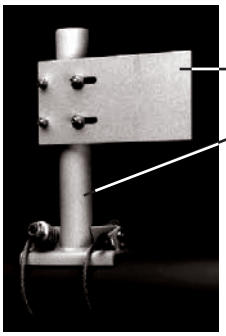

A8M's
S24M
AFM
FP40

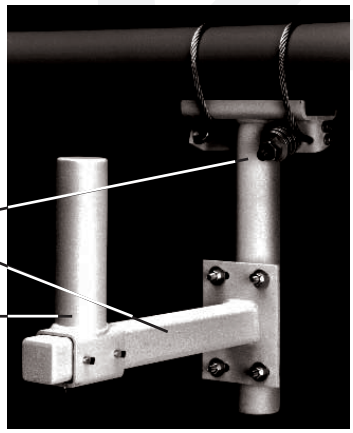

AL12M
S24M
AFM
FP40

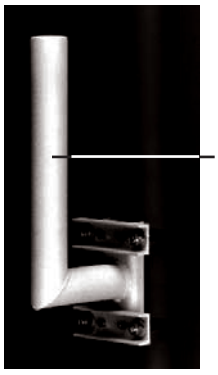

AFP8M
A8M's
S24M
FP40

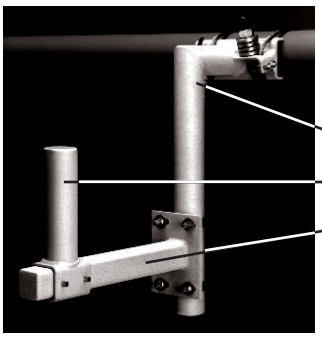

CEV16M


2UR15M
CEV16M

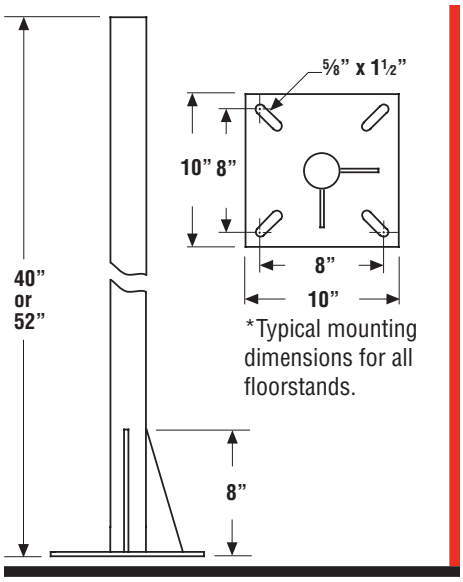

2UF86M
CP16M


CP16M
2US16M
A8M

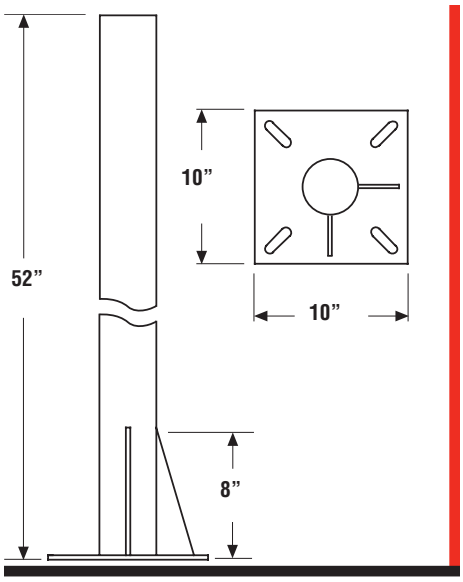

UEV16M


CEH20M
A8M
2US16M

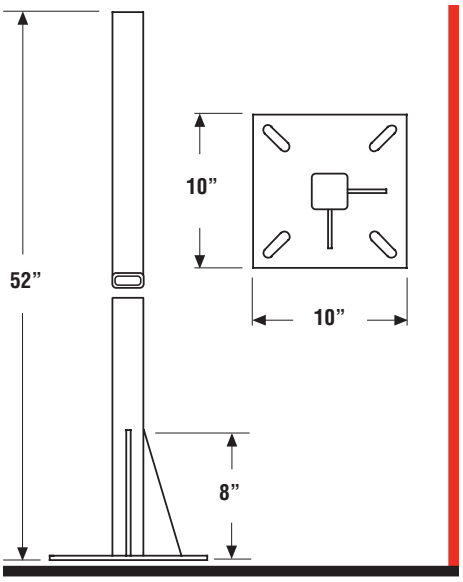
TECHNICAL INFORMATION



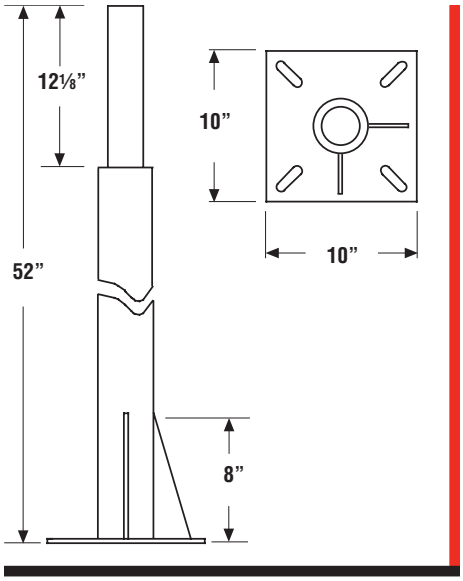
FP40/FP52



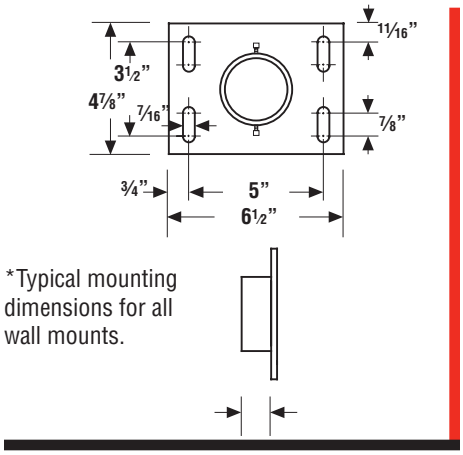
3FP52



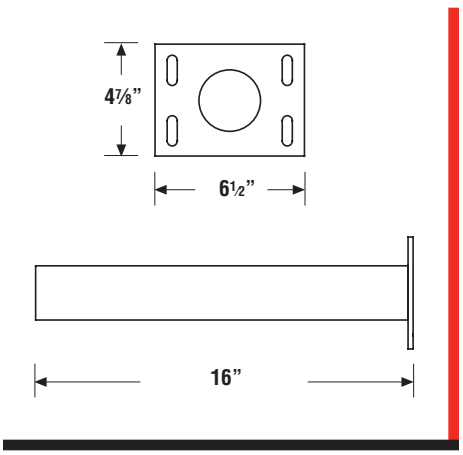
FS52



32FP52



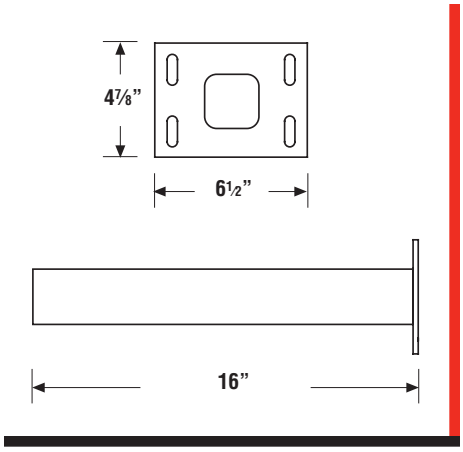
WTM



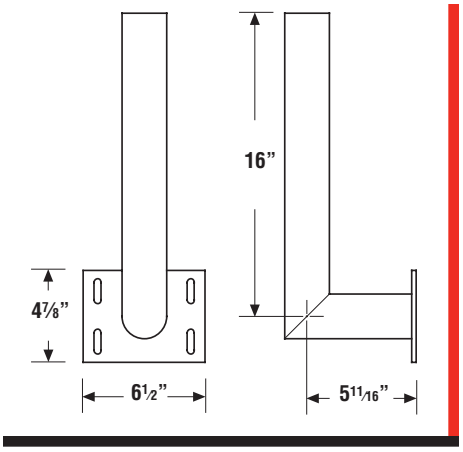
WP16M

WALL MOUNTS PERFORMANCE SPECIFICATIONS

Wall Mount-Rated Bending Moment at the surface of the wall = 6000 in. lbs.



WS16M



WE16M

U-BOLT MOUNTS
PERFORMANCE SPECIFICATIONS

Rated Bending Moment at the surface of the process line:

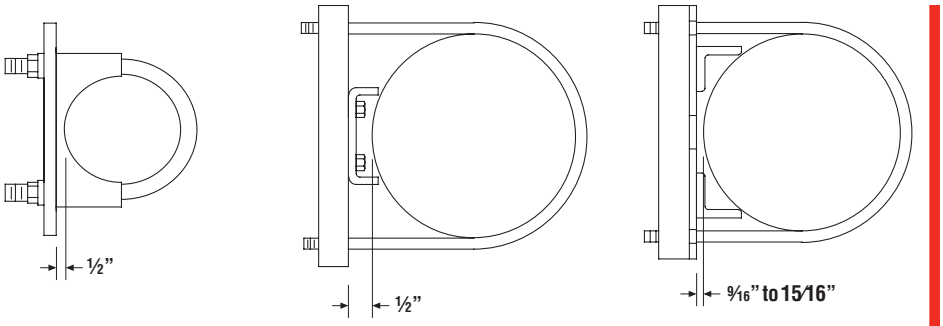
Lines 1" to 2½" = 1680/3600 in. lbs.
Lines 3" to 6" = 4800/8400 in. lbs.
Lines 8" to 36" = 9000 in. lbs.

The ratings apply under the following conditions:

Ambient installation temperature
-65°F to +150°F

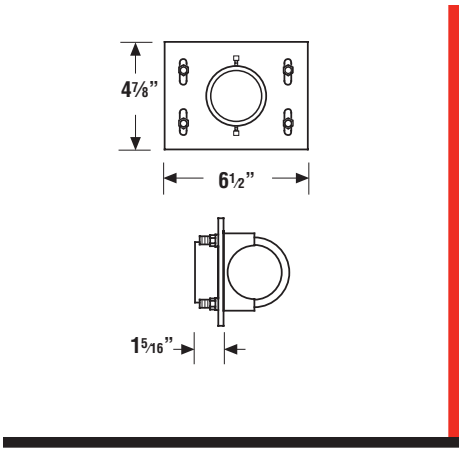
Process line operating temperature
-65°F to +700°F

If the process line operating temperature is above 500°F, or 350°F when the SADDLEPAK mount is insulated, consult factory and provide line size, material and maximum line temperature.

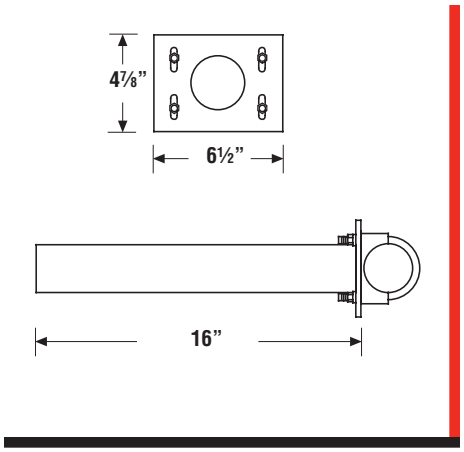


1"-2½" Lines **3"-6" Lines** **8"-36" Lines**

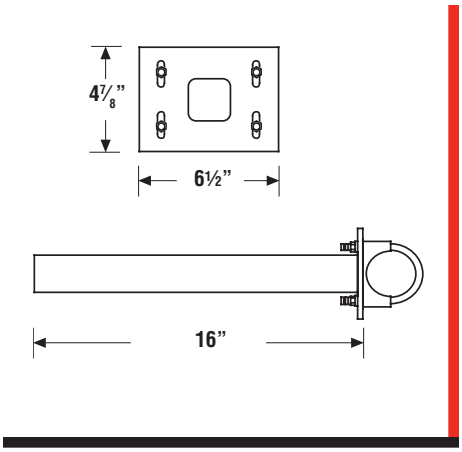
Three different mounts are used for U-bolt supports
x designates U-bolt size



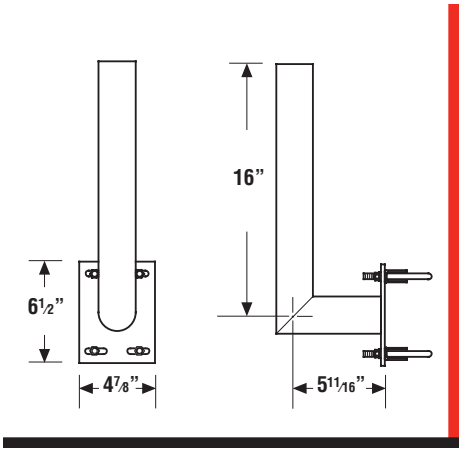
xUTM



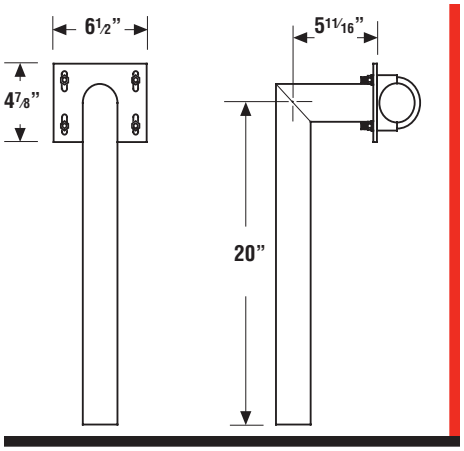
xUP16M



xUS16M



xUEV16M



xUEH20M

TECHNICAL INFORMATION

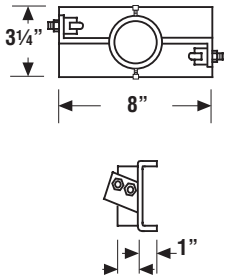
CABLE MOUNTS
PERFORMANCE SPECIFICATIONS

Rated Bending Moment at the surface of the process line is 7200 in. lbs. under the following conditions:

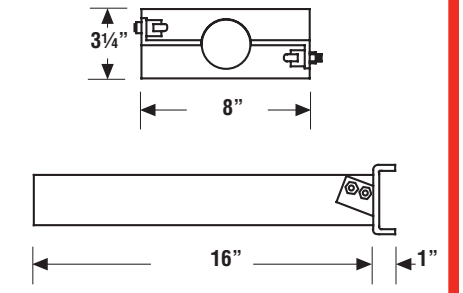
Ambient installation temperature
-65°F to +150°F

Process line operating temperature
-65°F to +700°F

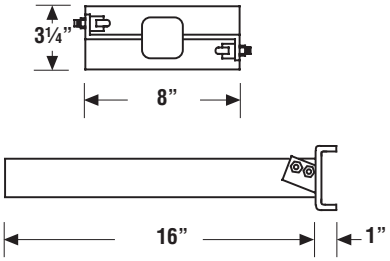
If the process line operating temperature is above 500°F, or 350°F when the SADDLEPAK mount is insulated, consult factory and provide line size, material and maximum line temperature.



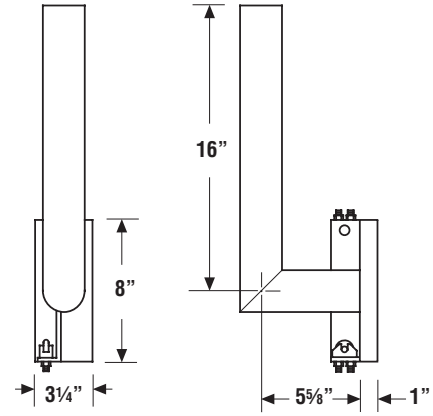
CTM
(Cables not shown in drawings.)



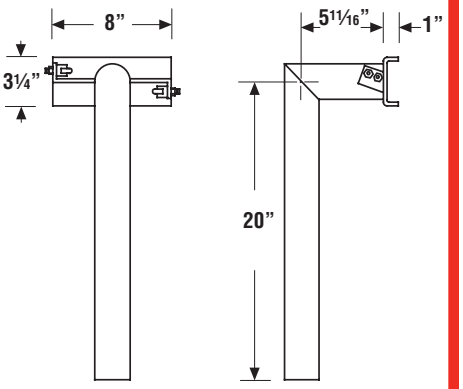
CP16M



CS16M



CEV16M

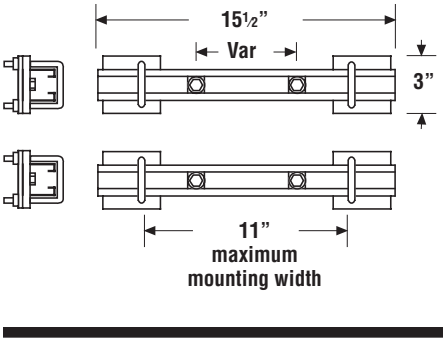


CEH20M

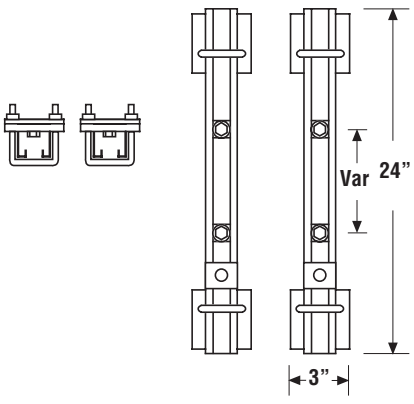
CLAMP ASSEMBLY
PERFORMANCE SPECIFICATIONS

Clamp Assembly-Rated Bending Moment at the surface of the beam = 7425 in. lbs.

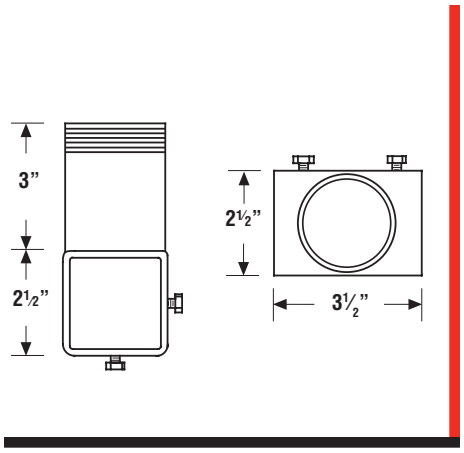
Combination of Clamp Assembly and Wall Mount-Rated Bending Moment at the surface of the beam = 6400 in. lbs.



KM

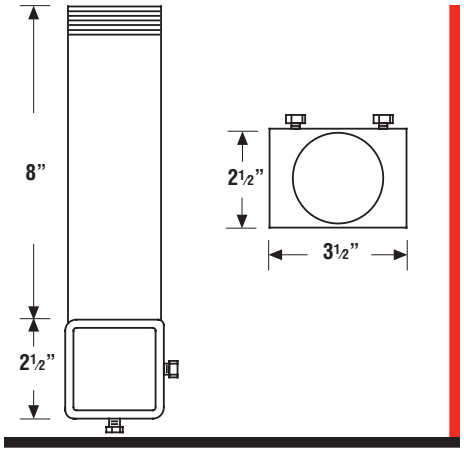


K24M



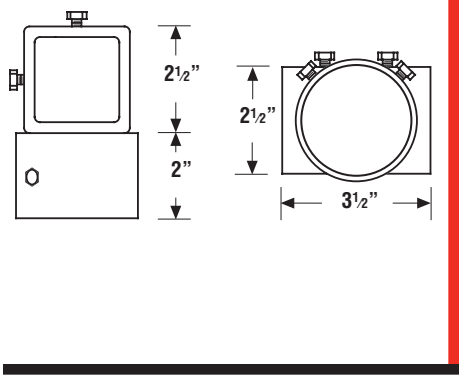
A3M/AT3M

A3M has no threads.

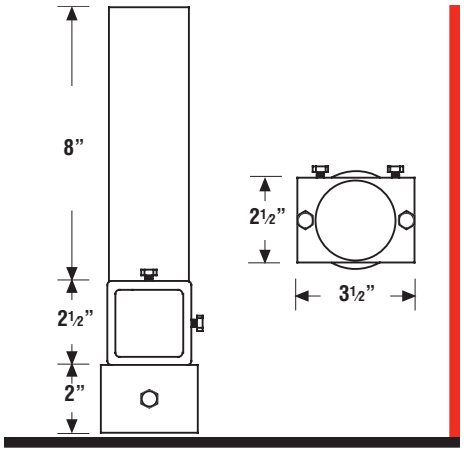


A8M/AT8M

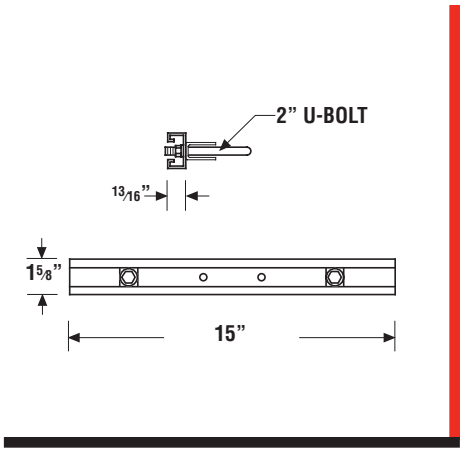
A8M has no threads.



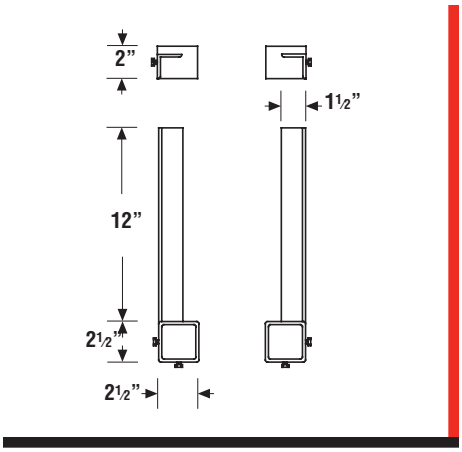
AFM



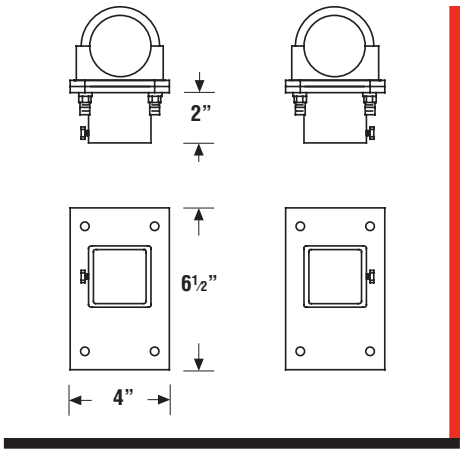
AFP8M



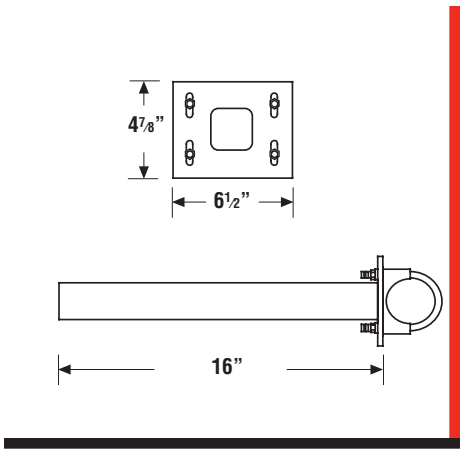
2UR15M



AL12M

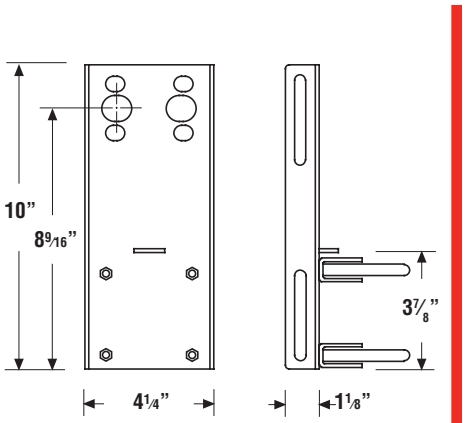


2USFM

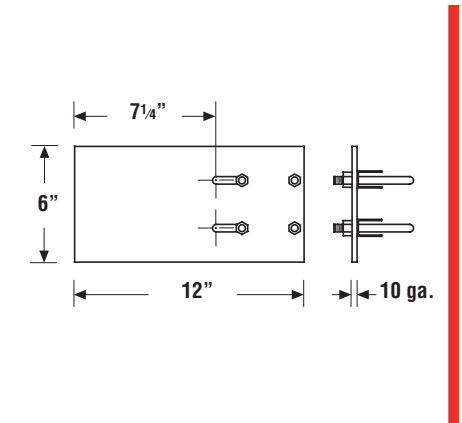


2US16M

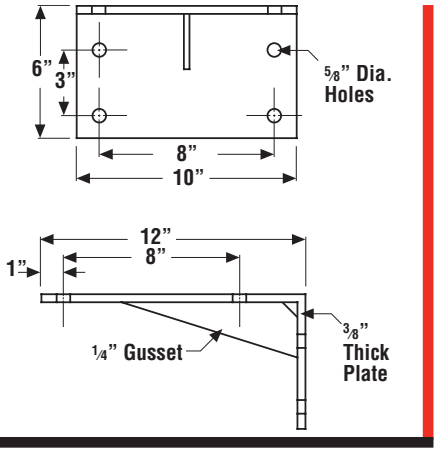
TECHNICAL INFORMATION



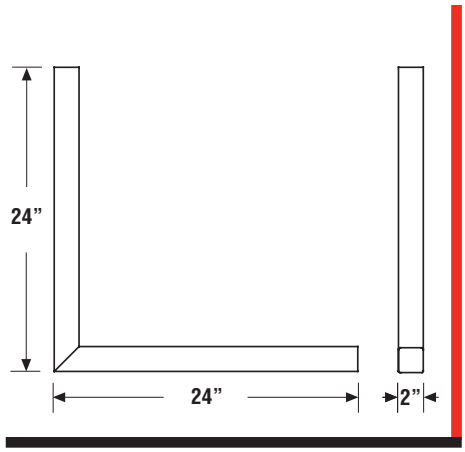
2UMM10M



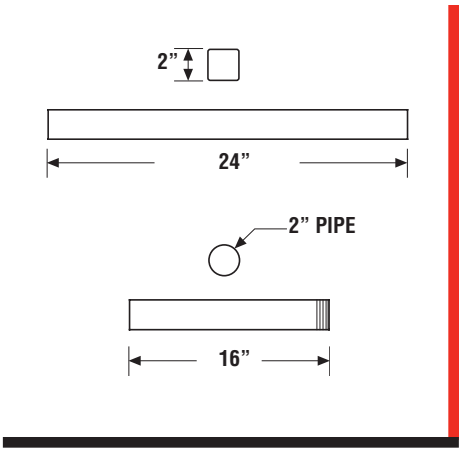
2UF86M/3UF86M



WFAM



EP24x24M or ES24x24M



S24/PT16M

BASE PLATES are 1/4” steel plate. Base plates for all cable mounts and U-bolt mounts from 3” through 6” are 1/4” steel plate formed into a channel to provide gripping edges on the process line.

U-BOLT SIZES

1”-1 1/2” lines	5/16” diameter
2”-2 1/2” lines	3/8” diameter
3”-8” lines	1/2” diameter
10” lines	3/4” diameter
12”-16” lines	7/8” diameter
18”-36” lines	1” diameter

EXTENSIONS

Pipe is nominal size schedule 40 carbon steel. Square legs are 0.188” wall carbon steel.

SET SCREWS

5/16” reverse knurled cup point.

Specifications subject to change without notice.

ARC SPRAY METALLIZING

ARC SPRAY metallizing is a process in which molten metal is sprayed onto a base surface. The resultant coating has a far higher bond strength than similar oxy-fuel coatings because the interparticle cohesion of the deposit is extremely high: that is, all the particles are firmly bonded to each other. Metals deposited in this way are highly resistant to chipping, spalling or cracking even when machined.

Because of these outstanding features, arc spray metallized coatings provide ideal protection from corrosion and high temperatures.

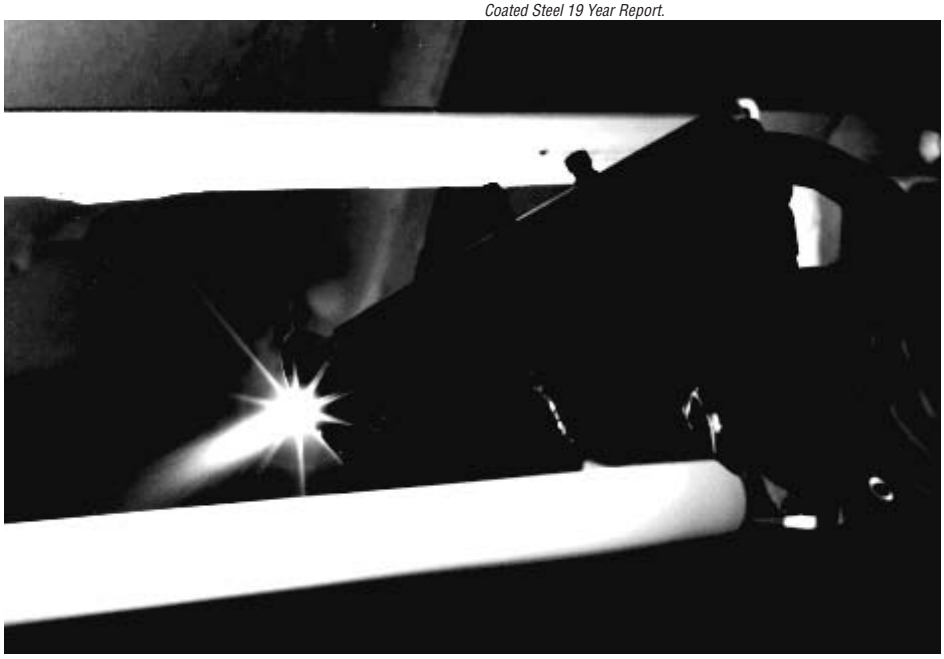
O'Brien has standardized on a zinc arc spray metallized coating because of its durability and inherent "self-healing" characteristic. Most atmospheric corrosion results from electrochemical reactions in which moisture in the air covering metal surfaces acts as an electrolyte for galvanic reaction. The less noble, anodic metal corrodes to the more noble cathodic metal. This principle is used to advantage by O'Brien. By applying zinc to SADDLEPAK components, the zinc acts as the anodic metal automatically plating out to cover exposed steel surfaces with a layer of corrosion resistant zinc. Epoxy coatings, paint and many other metals do not have the self-healing characteristic found with zinc metallizing.

O'Brien applies a standard 0.009 inch (9 mil) zinc metallized coating. This thickness was selected based on a 19 year study done by the American Welding Society[1]. The study proved that a 9 mil zinc coating over carbon steel provides corrosion protection for the base metal. Over the 19 year period of the test, the base metal was not attacked by industrial or severe marine environments.

Compared to alternate coatings such as paint, with its high maintenance costs or galvanizing with its disadvantages and associated costs, O'Brien's Arc Spray Metallized Zinc Coating is unquestionably superior. O'Brien provides a 10 year replacement guarantee for all zinc metallized SADDLEPAK components.

In concept, design, manufacture and corrosion resistance, SADDLEPAK is a technically superior product.

[1]American Welding Society, Inc., *Corrosion Tests of Flame-Sprayed Coated Steel 19 Year Report.*



O'Brien's Arc Spray Metallizing is a superior corrosion resistant coating. The process electrically charges two zinc wires then sets up a short circuit between them. The electric arc melts the wires and high velocity compressed air atomizes the molten zinc and sprays it on to the SADDLEPAK component.

If any SADDLEPAK component fails to meet the service for which it is intended during the first 10 years of its life (from date of purchase), return it, prepaid, to O'Brien. We will send a replacement component prepaid.

Customer Service

Customer service takes on a whole new meaning at O'Brien Corporation. Our reputation as a customer-oriented problem solver has been long recognized.

O'Brien's customer-oriented approach offers these benefits:

- responsive, knowledgeable personnel
- unparalleled delivery service
- dependable, tested results of all product lines
- in-house stock of hard -to-find materials

ISO 9001 Unparalleled Quality

Certified to current ISO 9001 standards. Our adherence to recognized international quality standards provides one of the strongest assurances of product and service quality available.

Total solution

From Instrument to Process Line: Working together, we can develop installation details. Our total engineering package will reduce field installation costs and provide a dependable solution for your needs.

Integrated Solutions Improving Process Accuracy

TRACEPAK VIPAK HEATPAK SADDLEPAK FLEXPAK

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