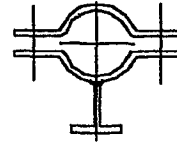
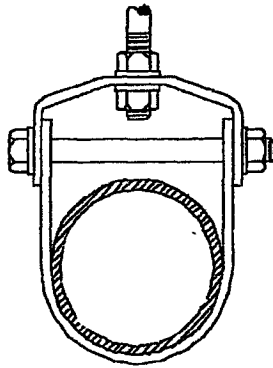
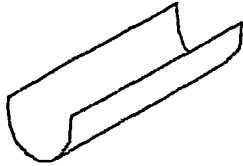




**POWER MANUFACTURING, LLC**

**Pipe Hangers and Supports**

**Manufacturing Division**



**==We Specialize In Custom Made Stainless Steel Hangers==**

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# INTRODUCTION

## *SPECIALIST IN CUSTOM MADE STAINLESS STEEL HANGERS*

*Performance Line Hardware, LLC "PLH"* is a manufacturer of Pipe Hangers and Supports, located in Tampa, Florida USA. As an equal opportunity employer established in 1998 and incorporated in 2000 in the State of Texas, we strive to completely satisfy our customer's needs through quality manufacturing, combined with on time delivery.

*Manufacturing* - PLH manufactures a complete line of Pipe Hangers and Supports of all types, which also includes Supports for FRP Pipe. We also manufacture and inventory a variety of products in Carbon Steel, Galvanized, Stainless Steel and Special Alloys. PLH specializes in Stainless Steel, unique designs and short runs, as well as possesses the largest known inventory of Stainless Steel. All items are produced, finished, cleaned, assembled and tagged or marked to customer's specifications before shipment.

*Quality Assurance* – PLH over the past few years, has adopted a level of quality standards that equals ISO 9002 Certification. To date we have implemented a detailed incoming, in process and final inspection program complete with MTR ( Material Test Report ) documentation and traceability to each work order in the plant that is equal to that of ISO Standards.

*Certifications* – PLH has completed new welding procedures for Carbon Steel and for Stainless Steel. Our Welders have all been tested by CWB / AWB standards and have valid certifications. PLH has also implemented a fully accredited apprenticeship program and hired journeyman pipe fitters to assist in fitting & welding. We are CWB Certified and our Welding Supervisor is current with all CWB / AWB procedures and has been tested.

*Our Goal* – Performance Line Hardware, LLC takes pride in the fact that we go well beyond the normal procedure of "Business As Usual". We try to take an interest in seeing that our customers are satisfied in the quality of the product, as well as the quality service they receive. Over the years we have assisted many of our customers in solving troublesome problems by fabricating Custom Hangers or Supports to fit their specific needs. Our reputation rests with satisfied customers and we look forward to the opportunity in servicing your requirements.

## CUSTOM WORK

**ORDERING CUSTOM ITEMS:** Performance Line Hardware's quoted prices for custom made products, are based on the stated quantities, existing material needed and labor cost. Changes in order quantities for custom products may change the quoted pricing. This makes it very important for order quantities to be correct before asking for prices or entering an order.

**NON\_RETURNABLE WORK:** All custom work including standard hangers made from non-standard materials specified by the customer and any item made to a customer's drawing or dimensions is property of the customer as soon as Performance Line Hardware orders any special material or starts work on any material in inventory. Such material and labor is non-returnable for credit and payment is due Performance Line Hardware when invoiced. Please See – CONDITIONS AND TERMS OF SALE printed inside the back cover of this catalog.

**SPECIAL SHAPES:** Performance Line Hardware reserves the right to fabricate non-standard steel or alloy shapes from plate of the specified material. This would include angles, channels, tees, H sections, rectangular or square tube, etc. Generally this is due to the required material not being readily available in the required quantity.

**EYE RODS:** Formed eyes on rod ends will not look exactly like catalog drawings. Generally some larger shop formed eyes will be tear drop shaped and be a little larger than the minimum inside diameter stated in some catalogs. The following eye opening widths work well and will accommodate the largest pipe hanger bolt size.

ROS SIZE, INCHES

EYE WIDTH, INCHES

3/8 & 1/2

3/4

5/8

1

3/4

1-1/8

7/8

1-1/2

1

1-7/8

1-1/4

2-1/8

1-1/2

3+/-

**Turnbuckles:** One end of every turnbuckle has left-hand threads, this is a must for it to work. So do not forget to order a Figure 19CR change rod or a Figure 22L left-hand eye rod for every turnbuckle you order.

## **CUSTOM WORK**

### **Continued**

Performance Line Hardware will be pleased to process your inquiry or order regardless of the manufacturers figure numbers you use.

The Hanger Item Name, Figure Number and Size is all of the information needed to order hangers from most vendors. With Performance Line Hardware, you have choices other than plain black for hangers. Most of the hangers in the PLH Catalog, give a choice of Stainless Steel or Carbon Steel. In addition to the Hanger Name, Figure Number and Pipe or Rod Size, you must specify the material. If your choice is Stainless and more corrosion resistance is than Type 304 or 18-8 Stainless is required for your facility, then you must specify the grade or type material desired. The PLH Stainless Steel is primarily Type 304 and Type 316. Most all items are available in Type 316 Stainless Steel on special order. If your choice is Carbon Steel, you can have many items Plain Black, Zinc plated, Hot-Dipped Galvanized or Painted to your specification. Hot-Dipped Galvanized is more economical than most multi-coat paint systems. Chances are the HDG items you need will be in stock at PLH.

## **PLASTIC COATED AND COPPER COATED HANGERS**

A few popular Plastic Coated Hangers are included in this catalog. All hanger items shown with plastic or copper coatings in other manufacturer catalogs are available from Performance Line Hardware with the coating. The demand for these items is so small that PLH does not use the catalog space to include them all.

## **ENGINEERED HANGERS**

SWAY BRACES, SWAY STRUTS, CONSTANT SUPPORTS, VIBRATION CONTROL UNITS, ENGINEERED HANGERS AND HYDRAULIC SHOCK AND SWAY STRUTS, are referred to as Engineered Hangers. Performance Line Hardware does welcome inquiries on these items. For information on selecting and ordering these items, we refer you to the various manufacturer catalogs. Please contact us or send us a Fax when you have made your selections.

PLH Welcomes request for Figure Number Conversion Listings from manufacturers such as Grinnell, Tolco, "PTP" Piping Technology & Products, "PHS" Pipe Hangers & Supports, Froneck, Erico, ect.

## ABBREVIATIONS USED IN THIS CATALOG

A, B, C, ...	Indicates 1st, 2nd, 3rd in a series
A	ADJUSTER, ADJUSTABLE, ALLOY, OR ANCHOR
ATR	ALL THREAD ROD
BLK	BLACK, PLAIN, OR NO FINISH
BP	BASE PLATE
BS	BASE STRAP
BOS/ TOS	BOTTOM OF STEEL/TOP OF STEEL
C	CENTER, COATED OR CORROSION RESISTANT
CI	CAST IRON
CP	CLEVIS PIN
CR	CHANGE ROD - LH/RH
CS	CARBON STEEL
CT	COPPER COATED
DI	DUCTILE IRON
E	END, EXCEPTION OR ELBOW EG ELECTRO-GALVANIZED
FAB	FABRICATE
FB	FLAT BAR
FOT/FOB	FLAT ON TOP/FLAT ON BOTTOM
FP	FIRE PROTECTION
FS	FORGED STEEL
FRP	FIBERGLASS REINFORCED PIPE
G	GUSSET OR GUIDE
H	HEAVY, HORIZONTAL OR HANGER
HDG	HOT-DIP GALVANIZED
L	LEFT, LIGHT, OR LONG
LH	LEFT HAND
M	MEDIUM OR MALE M/F MALE/FEMALE
MI	MALLEABLE IRON
MSS	MANUFACTURERS STANDARDIZATION SOCIETY
NFPA	NATIONAL FIRE PREVENTION ASSOCIATION
P	PIN OR PIPE
PLT	PLATED (generally zinc)
R	ROD, ROUND, OR REDUCING
RH	RIGID HANGER
RR	ROUND ROD (no threads)
S	SHORT, SPECIAL, OR STAMPED
S.D.	SPECIAL DESIGN
SH	SPRING HANGER
SS	STAINLESS STEEL
T	TUBE OR TUBING
TBS	THREADED BASE STANCHION
TB	TURTLE BACK
TBE/TOE	THREADED BOTH ENDS/THREADED ONE END
TOS	TOP OF STEEL
U	U-BOLT
V	VERTICAL
W	WELDED OR WITH
WBS	WELDED BASE STANCHION
W/O	WITHOUT
X	CROSSED, LINKED OR EXTRA
XH	EXTRA HEAVY

# SPECIAL PRODUCTS

BY

PERFORMANCE LINE HARDWARE, LLC

<b>DESCRIPTION</b>	<b>FIGURE NUMBERS</b>
<b><u>STAINLESS STEEL ITEMS</u></b>	
C-CLAMPS, SS	37B-SS
CLEVIS, FORGED SS	26
CLEVIS HANGERS, SS	60
INSULATION PROTECTION SHEILDS	100-105
PEAR SHAPE HANGERS, SS	66
PIPECOVERING PROTECTION SADDLES, SS	99
PIPE ROLLS, SS	75SS, 75XH 76SS, 76XH, 77SS, 77XH 78SS, 78XH, 79SS, 79XH
RISER CLAMPS, SS	83
TURNBUCKLES, SS	25
U-BOLTS, SS	14
WEAR PLATES, SS	106
WELDLESS EYE NUTS, SS	36
<b><u>CARBON OR STAINLESS STEEL ITEMS</u></b>	
SPECIAL SUPPORTS AND HANGERS FOR FRP PIPE – CUSTOM MADE	150 – 176
PIPE SUPPORT SHOES	111 – 114
<ul style="list-style-type: none"><li>• PIPE SHOES AND SADDLES COME IN AN INFINITE NUMBER OF DESIGNS AND SIZES</li><li>• CUSTOM SUPPORTS MADE TO CUSTOMERS SPECIFICATION DRAWINGS</li><li>• HOT-DIPPED GALVANIZING AND SPECIAL COATING AVAILIBLE WHEN SPECIFIED</li><li>• SPECIAL SLIDE MATERIALS, UHMWPE – ECT.</li></ul>	



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FIGURE	ITEM NAME	FINISHES AVAILABLE FROM GSH
1	FLAT WASHER, STEEL	BLK/HDG/SS/PLT
2	LOCK WASHER, STEEL	BLK/HDG/SS/PLT
3	ROD COUPLING, STEEL W/SIGHT HOLE	BLK/HDG/SS/PLT
3E	ROD COUPLING, STEEL WO/SIGHT HOLE	BLK/HDG/SS/PLT
3R	ROD COUPLING, STEEL REDUCING	BLK/HDG/SS/PLT
4	HEX NUT, RH HEAVY	BLK/HDG/SS/PLT
5	MACHINE BOLT, W/HEAVY NUT	BLK/HDG/SS/PLT
6	BEVEL WASHER, MI	BLK
7	SQUARE WASHER STEEL PLATE - HEAVY	BLK/HDG/SS
8	SHEAR LUG, RISER	CS/SS/ALLOY
10	SPRINKLER U-HOOK	BLK/HDG/SS
11	SWING ROD FITTING - M/F	BLK/SS
12	SWING ROD FITTING - F/F	BLK/SS
13	U-BOLT, WITH ANCHOR CHAIR	BLK/HDG/SS
14	U-BOLT, STD W/4 HEX NUTS	PLT/HDG/SS
14BS	U-BOLT STRAP	BLK/HDG/SS
14C	U-BOLT, STD W/4 HEX NUTS PLAS.COAT.	BLK/HDG/SS
14CI	U-BOLT, FOR CAST IRON PIPE	BLK/HDG/SS
14S	U-BOLT, NON-STANDARD	CUSTOM
15	U-BOLT W/ANGLE BASE	CUSTOM
17	U-BOLT W/ FORMED FLAT BAR LINER	CUSTOM
18	ROD, ALL THREAD - RH ONLY	BLK/HDG/SS/PLT
19	ROD, MACHINE THREADED BE RH	BLK/HDG/SS
19CR	CHANGE ROD THREADED RH/LH	BLK/HDG/SS
19RR	ROD, PLAIN ROUND	BLK/HDG/SS
20	J-ROD, BEAM HOOK	BLK/HDG/SS
21	EYE ROD, NOT WELDED RH	BLK/HDG/SS
21L	EYE ROD, NOT WELDED LH	BLK/HDG/SS
22	EYE ROD, RH WELDED	BLK/HDG/SS
22L	EYE ROD, LH WELDED	BLK/HDG/SS
23	LINKED EYE RODS, NOT WELDED RH	BLK/HDG/SS
23L	LINKED EYE RODS, NOT WELDED RH/LH	BLK/HDG/SS
23W	LINKED EYE RODS, WELDED RH	BLK/HDG/SS
23WL	LINKED EYE RODS, WELDED RH/LH	BLK/HDG/SS
24WP	ANCHOR BOLT W/WASHER PLATE	BLK/HDG/SS
24J	ANCHOR BOLT W/J-HOOK	BLK/HDG/SS
24S	ANCHOR BOLT PER CUSTOMER DRAWING	CUSTOM
25	TURNBUCKLE, FS OR SS	BLK/HDG/SS/PLT
25F	TURNBUCKLE, FABRICATED	BLK/HDG/SS
26	CLEVIS, FS	BLK/HDG/SS/PLT
26CP	CLEVIS PIN ONLY	BLK/HDG/SS

FIGURE	ITEM NAME	FINISHES AVAILABLE FROM GSII
26P	CLEVIS, FS W/PIN	BLK/HDG/SS/PLT
27	CHANNEL TRAPEZE - BACK TO BACK	BLK/HDG/SS
28	STRUCTURAL TUBE TRAPEZE	BLK/HDG/PAINT
29	SIDE BEAM CLIP ANGLE	BLK/HDG/SS/MI
30	ANGLE BRACKET	BLK/HDG/SS
31-2	TRAPEZE ANGLE, 2-HOLES	BLK/HDG/SS
31-3	TRAPEZE ANGLE, 3-HOLES	BLK/HDG/SS
31-4	TRAPEZE ANGLE, 4-HOLES	BLK/HDG/SS
32	CEILING PLATE - ROD THREADS	BLK/HDG/SS
33	CEILING PLATE - PIPE THREADS	BLK/HDG/SS/MI
34	CEILING FLANGE- ROD THREADS	BLK/HDG/SS/MI
35	CEILING FLANGE - PIPE THREADS	BLK/HDG/SS
36	WELDLESS EYE NUT, FS OR SS	BLK/HDG/SS/PLT
36L	WELDLESS EYE NUT, FS - LH	BLK/HDG/PLT
37	C-CLAMP, MI BEAM TOP 1 1/2 THROAT	BLK/PLT
37A	C-CLAMP, MI BEAM BOTTOM % THROAT	PLT
37X	C-CLAMP, RETAINING CLIP ONLY	BLK/SS
37B-CS	C-CLAMP, CS BEAM BOTTOM % THROAT	BLK
37B-EG	C-CLAMP, EG CS BEAM BOTTOM % THROAT	PLT
37B-SS	C-CLAMP, SS BEAM BOTTOM 1/2 THROAT	304SS
38	ADJUSTABLE BEAM CLAMP	BLK/HDG/SS
39	WELDED BEAM ATTACHMENT W/ PIN	BLK/HDG/SS
40	WEDED BEAM ATTACHMENT W/O PIN	BLK/HDG/SS
41	TOP BEAM CLAMP (J-BAR)	BLK/HDG/SS
42	OFFSET BEAM CLAMP	BLK/HDG/SS
43	CLOSE BEAM CLAMP	BLK/HDG/SS
44	I-BEAM CLAMP	BLK/HDG/SS
45	EXTENDED BEAM CLAMP	BLK/HDG/SS
46	DOUBLE ANGLE BEAM ATTACHMENT	BLK/HDG/SS
48	STRAIGHT J-HOOK HANGER	BLK/HDG/SS
49	OFFSET J-HOOK HANGER	BLK/HDG/SS
50	PIPE SADDLE W/ADJUSTABLE ROD SUPPORT	BLK/HDG/SS
50U	PIPE SADDLE W/U-BOLT AND ADJ. ROD SUPPORT	BLK/HDG/SS
51A	PIPE SUPPORT ADJUSTER	BLK/HDG/SS
51AWB	PIPE STANCHION - ADJUSTABLE WELDED	BLK/HDG/SS
51 WBS	PIPE STANCHION - WELDED BASE	BLK/HDG/SS
51TBS	PIPE STANCHION- THREADED BASE	BLK/HDG/SS
52	PIPE SADDLE WITH COUPLING	BLK/HDG/SS
52U	PIPE SADDLE WITH COUPLING AND U-BOLT	BLK/HDG/SS
53	PIPE SADDLE WITH SUPPORT STEM	BLK/HDG/SS
53A	PIPE SADDLE WITH ADJUSTER	BLK/HDG/SS
53AU	PIPE SADDLE WITH ADJUSTER AND U-BOLT	BLK/HDG/SS
53U	PIPE SADDLE WITH SUPPORT STEM AND U-BOLT	BLK/HDG/SS
54	WALL BRACKET PIPE SUPPORT	BLK/HDG/SS
56	STEEL BRACKET - LIGHT LOADS	BLK/HDG/SS
57L	LIGHT WELDED BRACKET	BLK/HDG/SS

FIGURE	ITEM NAME	FINISHES AVAILABLE FROM GSH
57M	MEDIUM WELDED BRACKET	BLK/HDG/SS
57H	HEAVY WELDED BRACKET	BLK/HDG/SS
60	ADJUSTABLE CLEVIS HANGER-MEDIUM	BLK/HDG/SS
60C	ADJUSTABLE CLEVIS HANGER-PLASTIC COATED	BLK/HDG/SS
60CI	ADJUSTABLE CLEVIS HANGER FOR IRON PIPE	BLK/HDG/SS
60-FP	ADJUSTABLE CLEVIS HANGER W/NFPA HOLE SIZE	BLK/HDG/SS
62	ELONG. CLEVIS HGR FOR INSUL. PIPE TO 650F	BLK/HDG/SS
62A	ELONG. CLEVIS HGR FOR INSUL. PIPE TO 1050F	ALLOY
64	ANGLE BOTTOM CLEVIS FOR PLASTIC PIPE	BLK/HDG/SS
66	PEAR SHAPE HANGER	BLK/HDG/SS
66C	PEAR SHAPE HANGER - PLASTIC COATED	BLK/HDG/SS
66-FP	PEAR SHAPE W/NFPA HOLE SIZE	BLK/HDG/SS
70P	CLAMP, LT. WT. 1-HOLE PIPE SIZE	PLT/SS
70T	CLAMP, LT. WT. 1-HOLE TUBE SIZE	PLT/SS
71L	RING & BOLT LT. WT. CLAMP	BLK/HDG/SS
71M	RING & BOLT MED. WT. CLAMP	BLK/HDG/SS
73A	CAST IRON PIPE ROLL - LONG	CI
73B	CAST IRON PIPE ROLL - SHORT	CI
75	ROLL CHAIR W/2-BOLT STEEL BASE & CI ROLL	BLK/HDG
75SS	STAINLESS ROLL CHAIR W/2-BOLT SS BASE	304/316L
75XH	HEAVY SS ROLL CHAIR W/2-BOLT SS BASE	304/316
76	CAST IRON PIPE ROLL STAND	BLK/HDG
76SS	STAINLESS PIPE ROLL STAND	304/316L
76XH	HEAVY STAINLESS PIPE ROLL STAND	304/316L
77	C.I. ROLL HANGER FOR 2-ROD SUPPORT=	BLK/HDG
77SS	STAINLESS ROLL HANGER- 2 ROD SUPPORT	304/316
77XH	HEAVY STAINLESS ROLL FOR 2-ROD SUPPORT	304/316
77A	CAST IRON ADJUSTABLE ROLL SOCKET	BLK/HDG
78	C.I. ADJUSTABLE ROLL SUPPORT WITH 2-RODS	BLK/HDG
78SS	STAINLESS ADJ ROLL SUPPORT W/2-RODS	304/316
78XH	HEAVY STAINLESS ADJ ROLL SUPPORT W/2-RODS	304/316
79	ROLL, CI ADJ W/STL YOKE FOR SINGLE ROD	BLK/HDG
79SS	ROLL, ADJ W/YOKE ALL SS FOR SINGLE ROD	304/316
79XH	HEAVY ROLL, W/YOKE ALL SS FOR SINGLE ROD	304/316
80	CLAMP, 2-BOLT MEDIUM	BLK/HDG/SS
80-1	2-BOLT CLAMP W/ONE LONG EAR	BLK/HDG/SS
82	CLAMP, 2-BOLT HEAVY	BLK/HDG/SS
83	CLAMP, MEDIUM RISER/EXTENSION	BLK/HDG/SS
83-1	OFFSET RISER CLAMP - MEDIUM	BLK/HDG/SS
83C	CLAMP, MED RISER/EXT. -PLASTIC COATED	BLK/HDG/SS
83CI	CLAMP, MED RISER/EXTENSION FOR CI PIPE	BLK/HDG/SS
84	CLAMP, 4-BOLT RISER STD	BLK/HDG/SS
85	CLAMP, 4-BOLT, RISER NON-STD	BLK/HDG/SS
86	CLAMP, 3-BOLT	BLK/HDG/SS
86A	CLAMP, 3-BOLT CHROME MOLY	ALLOY
86H	CLAMP, 3-BOLT HEAVY DUTY	BLK/HDG/SS

FIGURE	ITEM NAME	FINISHES AVAILABLE FROM GSH
88	CLAMP, MARINE EXTENDED	BLK/HDG/SS
88A	CLAMP, OFFSET	BLK/HDG/SS
90	SIDE LOADING HANGER	BLK/HDG/SS
99	PIPE COVERING PROTECTION SADDLES	BLK/HDG/SS/ALLOY
100	INSULATION PROTECTION SHIELD, 180 DEGREE	BLK/HDG/SS
100S	SHIELDS MADE TO CUSTOMER ORDER	CUSTOM
101	180 DEG. SHIELD W/RUBBER LINING	BLK/HDG/SS
102	360 DEG. SHIELD W/ CLAMPS	BLK/HDG/SS
103	360 DEG. RUBBER LINED SHIELD W/ CLAMPS	BLK/HDG/SS
104	180 DEG. SHIELD W/ CLAMPS	BLK/HDG/SS
105	180 DEG. RUBBER LINED SHIELD W/ CLAMPS	BLK/HDG/SS
106	90 DEG. PIPE WEAR SHIELD	BLK/HDG/SS
106A	120 DEG. PIPE WEAR SHIELD	BLK/HDG/SS
106B	150 DEG. PIPE WEAR SHIELD	BLK/HDG/SS
106C	180 DEG. PIPE WEAR SHIELD	BLK/HDG/SS
106TB	TURTLEBACK REINF. SHIELD FOR ELBOWS	SS
110E	ELBOW ANCHOR SUPPORT - WELDED	CUSTOM
110P	PIPE ANCHOR SUPPORT - WELDED	CUSTOM
111A	SHOE SUPPORT, SINGLE STEM W/CRADLE	BLK/HDG/SS
111B	SHOE SUPPORT, DBL. STEM W/CRADLE	BLK/HDG/SS
111C	SHOE SUPPORT, CUSTOM	CUSTOM
112	SHOE SUPPORT, SINGLE TEE	BLK/HDG/SS
113	SHOE SUPPORT W/SGL. STEM TEE & 1 CLAMP	BLK/HDG/SS
114A	SHOE SUPPORT W/SGL. STEM TEE & 2 CLAMPS	BLK/HDG/SS
114B	SHOE SUPPORT W/DBL. STEM TEE & 2 CLAMPS	BLK/HDG/SS
115	HOLD DOWN CLAMP WBOLTHOLES -MEDIUM	BLK/HDG/SS
116	HOLD DOWN ANCHOR CLAMP - HEAVY	BLK/HDG/SS
116BP	BASE PLATE FOR HOLD DOWN ANCHOR CLAMP	BLK/HDG/SS
118	SPRINKLER SHORT CLIP	BLK/HDG/SS
124	2-BOLT CLAMP WITH ROD COUPLING WELDED ON	BLK/HDG/SS
125	2-BOLT CLAMP WITH ROD COUPLING AND BASE	BLK/HDG/SS
126	HALF V & HALF ROUND PIPE CLAMP	BLK/HDG/SS
127	HALF V & HALF ROUND CLAMP W/ROD COUPLING	BLKAHDG/SS
130	RIGHT ANGLE PIPE OR CONDUIT CLAMP	PLATED
131	PARALLEL PIPE OR CONDUIT CLAMP	PLATED
132	CONDUIT CLAMP	SS
133	STRUT CLAMP PIPE HANGER	HDG/SS/PLT
140	SQUARE WASHER W/ROUND HOLE - LIGHT	BLK/HDG/SS
141	SQUARE WASHER WITH SQUARE HOLE	BLK/HDG/SS
142	SQUARE WASHER WITHOUT HOLE - (HARD SLIM)	BLKAHDG/SS
143	ROCKER WASHER ASSEMBLY	ALLOY
ISO	FLANGED COMPONENT HANGER - HORIZ. PIPE	BLK/HDG/SS
151	FLANGED COMPONENT HANGER - VERTICAL PIPE	BLK/HDG/SS
152	PIPE FLANGE OFF-CENTER SUPPORT	BLK/HDG/SS
152C	PIPE FLANGE CENTER SUPPORT	BLK/HDG/SS

FIGURE	ITEM NAME	FINISHES AVAILABLE FROM GSH
153S	LINED SHOE SUPPORT W/OUT TOP FOR INSULATED FRP PIPE	CUSTOM
153G	LINED SHOE GUIDE W/2 TOP STRAPS FOR INSULATED FRP PIPE	CUSTOM
153C	LINED SHOE ANCHOR FOR INSULATED FRP	CUSTOM
154AB	360 DEG LINED ANCHOR SHOE FOR FRP PIPE	CUSTOM
155	PEAR SHAPED HANGER W/RUBBER LINED	CUSTOM
156	CLEVIS HANGER WITH RUBBER LINED SHIELD	CUSTOM
157	RUBBER LINED 4-BOLT RISER SUPPORT CLAMP	CUSTOM
158G	RUBBER LINED 2-BOLT RISER GUIDE CLAMP	CUSTOM
158S	RUBBER LINED 2-BOLT RISER SUPPORT CLAMP	CUSTOM
160	RUBBER LINED CLAMPS FOR FRP PIPE 3" - 4"	CUSTOM
161	RUBBER LINED CLAMPS FOR FRP PIPE 6" -10"	CUSTOM
162	RUBBER LINED CLAMPS FOR FRP PIPE 12" -18"	CUSTOM
163	RUBBER LINED CLAMPS FOR FRP PIPE 20" - 24"	CUSTOM
164	RUBBER LINED CLAMPS FOR FRP PIPE 30" - 36"	CUSTOM
165	HANGING LUG FOR FIG 161 CLAMPS	CUSTOM
166	HANGING LUG FOR FIG 162 CLAMPS	CUSTOM
167	HANGING LUG FOR FIG 163 CLAMPS	CUSTOM
168	HANGING LUG FOR FIG 164 CLAMPS	CUSTOM
169	FIG 160/164 CLAMPS W/SUPPORT WELDING FIN	CUSTOM
170	FIG 160/164 CLAMPS W/ANCHOR SHOE BASE	CUSTOM
171	LINED SADDLE W/FIN FOR FRP PIPE 6" -	CUSTOM
172	LINED SADDLE W/FIN FOR FRP PIPE 12" -18"	CUSTOM
173	LINED SADDLE W/FIN FOR FRP PIPE 20" - 24"	CUSTOM
174	FIG 160/164 CLAMPS WITH SLIDING SHOE BASE	CUSTOM
175S	LINED SHOE SUPPORT W/OPEN TOP FOR FRP	CUSTOM
175GB	LINED SHOE GUIDE W/FULL TOP FOR FRP	CUSTOM
175GA	LINED SHOE GUIDE W/2 STRAP TOP FOR FRP	CUSTOM
176	WIDE LINED CLAMP FOR FRP PIPE	CUSTOM
176I	WIDE LINED CLAMP WANSULATION BAND FOR FRP PIPE	CUSTOM
176L	WIDE LINED CLAMP W/SIDE LUG FOR FRP PIPE	CUSTOM
176LI	WIDE LINED CLAMP W/LUG & INSULATION HOLES FOR FRP PIPE	CUSTOM
200	CONC. ANCHOR PLATE WALUG FOR FGD.	BLK/HDG/SS
201	CONC. ANCHOR PLATE W/WELD BEAM	BLK/HDG/SS
202	CONC. ANCHOR PLATE W/ROD ATTACHMENT	BLK/HDG/SS
220	ANGLE OR CHANNEL BEAM CLAMP	BLK/HDG/SS
230	BEAM CLAMP W/WELDLESS EYE NUT -	BLK/HDG
230L	BEAM CLAMP W/WELDLESS EYE NUT -	BLK/HDG
232	BEAM CLAMP W/ SWING NUT	BLK/HDG
233	STRUCTURAL WELDING LUG - SHORT	BLK/HDG/SS
233L	STRUCTURAL WELDING LUG - LONG	BLK/HDG/SS
235	TWO HOLE WELDING LUG	BLK

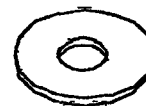
FIGURE	ITEM NAME	FINISHES AVAILABLE FROM GSH
240	HORIZONTAL TRAVELER- SGL ROLL	BLK/SS
250	PIPE WELDING LUG FOR LONG RADIUS ELBOW	BLK/HDG/SS
251	PIPE WELDING LUG FOR SHORT RADIUS ELBOW	BLK/HDG/SS
252	PIPE WELDING LUG FOR FIVE DIAMETER BEND	BLK/HDG/SS
253	PIPE WELDING LUG FOR VERTICAL PIPE RISER	BLK/HDG/SS
257	HORIZONTAL PIPE RESTRAINT - WELDED	BLK/HDG/SS
258	HORIZONTAL PIPE RESTRAINT - BOLTED	BLK/HDG/SS
259	VERT. RESTRAINT FOR HORIZ. PIPE - WELDED	BLK/HDG/SS
260	VERT. RESTRAINT FOR HORIZ. PIPE - BOLTED	BLK/HDG/SS
261	HORIZ & VERT RESTRAINT - WELDED	BLK/HDG/SS
262	HORIZ & VERT RESTRAINT - BOLTED	BLK/HDG/SS
270	ALLOY STEEL YOKE PIPE CLAMP - STANDARD	BLK
271	ALLOY STEEL YOKE PIPE CLAMP - HEAVY	BLK
	FIG 272-277 SOCKET CLAMP USE EXAMPLES	
272	SOCKET CLAMP, UNDERGROUND - 2-BOLT	BLK/HDG/SS
273	SOCKET CLAMP, UNDERGROUND - 4-BOLT	BLK/HDG/SS
274AB	SOCKET CLAMP WASHERS	BLK/HDG/SS
275	SOCKET CLAMP YOKE	BLK/HDG/SS
276	SOCKET CLAMP PLUG ANCHOR STRAP	BLK/HDG/SS
277	SOCKET CLAMP TEE ANCHOR STRAP	BLK/HDG/SS
285	PIPE ALIGNMENT GUIDE -1-CLAMP	BLK/HDG/SS
286	PIPE ALIGNMENT GUIDE - 2-CLAMPS	BLK/HDG/SS
287	TEE SHOE WITH TEFLON SLIDE PLATE	CUSTOM
288	LT. DUTY SPRING CUSHIONS SGL. ROD SUPPORT	PRIMED
289	SPRING CUSHIONS FOR 2-ROD HANGERS	PRIMED

DIMENSIONS—WEIGHTS

ROD/BOLT DIA.	FIG. 1		FIG. 4 WEIGHT PER 100
	O.D.	WEIGHT PER 100	
3/8	7/8	3	2
1/2	1-3/8	4	4
5/8	1-3/4	8	7
3/4	2	11	12
7/8	2-1/4	15	19
1	2-1/2	19	28
1-1/8	2-1/4	23	40
1-1/4	3	28	54
1-3/8	2-3/4	32	73
1-1/2	3-1/2	39	94
1-3/4	4	58	204
1-7/8	4-1/4	59	241
2	4-1/2	63	299
2-1/4	4-3/4	83	419
2-1/2	5	96	584
2-3/4	5-1/4	110	738
3	5-1/2	130	950
3-1/4	5-3/4	140	1194
3-1/2	6	150	1526

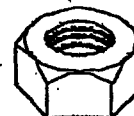
FLAT STEEL WASHER—FIG. 1

MATERIAL:  
CARBON STEEL  
ORDERING:  
SPECIFY NAME,  
FIGURE NUMBER,  
ROD OR BOLT DIAMETER  
& FINISH.



AMERICAN STANDARD HEAVY HEX NUT W/ RIGHT HAND THREADS—FIG. 4

MATERIAL:  
ASTM A-194  
ORDERING:  
SPECIFY NAME,  
FIGURE NUMBER,  
ROD OR BOLT DIAMETER  
& FINISH.



DIMENSIONS (INCHES)

ROD SIZE	INSIDE DIAMETER	WIDTH OF STEEL	THICKNESS OF STEEL	APPROX. WEIGHT PER 100
3/8	7/16	.141	.094	7
1/2	9/16	.171	.125	15
5/8	11/16	.203	.156	26
3/4	13/16	.234	.188	43

STEEL LOCK WASHER—FIG. 2

ORDERING:  
SPECIFY NAME,  
FIGURE NUMBER,  
ROD OR BOLT DIAMETER  
& FINISH.



WEIGHT PER 100

BOLT LENGTH	3/8	1/2	5/8	3/4	7/8	1	1-1/4	1-1/2	1-3/4	2
1-1/2	7	—	—	—	—	—	—	—	—	—
2	9	18	31	—	—	—	—	—	—	—
2-1/2	10	20	38	55	—	—	—	—	—	—
3	12	23	40	61	80	124	—	—	—	—
3-1/2	14	26	44	67	98	135	—	—	—	—
4	—	29	48	73	107	145	254	435	—	—
4-1/2	—	—	—	79	115	158	271	460	—	—
5	—	—	—	—	123	167	288	481	702	—
5-1/2	—	—	—	—	—	—	304	503	736	—
6	—	—	—	—	—	—	321	524	770	1052
7	—	—	—	—	—	—	—	—	827	1141
8	—	—	—	—	—	—	—	—	695	1230
8	—	—	—	—	—	—	—	—	—	1305
10	—	—	—	—	—	—	—	—	—	1384

HEX HEAD MACHINE BOLT W/HEAVY HEX NUT—FIG. 5

MATERIAL:  
CARBON STEEL  
ORDERING:  
SPECIFY NAME,  
FIGURE NUMBER,  
BOLT DIAMETER, LENGTH  
& FINISH.

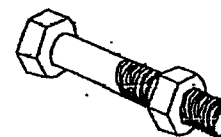


FIG. 3, 3E, 3R & 6

DIMENSIONS-LOADS-WEIGHTS

ROD SIZE	MAXIMUM RECOMMENDED LOAD, LB.■	WGT. (APPROX.) LBS. EACH	D	L
1/2	1130	.12	3/4	1-1/2
5/8	1810	.24	15/16	1-7/8
3/4	2710	.42	1-1/8	2-1/4
7/8	3770	.66	1-5/16	2-5/8
1	4960	1.0	1-1/2	3
1-1/4	8000	1.9	1-7/8	3-3/4
1-1/2	11630	3.3	2-1/4	4-1/2
1-3/4	15700	6.2	2-3/4	5-1/4
2	20700	9.0	3-1/8	6
2-1/4	27200	12.7	3-1/2	6-3/4
2-1/2	33500	17.2	3-7/8	7-1/2
2-3/4	41580	22.7	4-1/4	8-1/4
3	50580	29.2	4-5/8	9
3-1/4 ●	60480	36.9	5	9-3/4
3-1/2 ■	71280	45.8	5-3/8	10-1/2
3-3/4 ●	82890	56.0	5-3/4	11-1/4
4 ■	95400	67.7	6-1/8	12
4-1/4 ●	109000	80.9	6-1/2	12-3/4
4-1/2 ●	123000	95.6	6-7/8	13-1/2
4-3/4 ●	138000	112.1	7-1/4	14-1/4
5 ●	154000	130.4	7-5/8	15

● FURNISHED WITH B UN SERIES THREADS.  
 ■ BASED ON THE ALLOWABLE STRESSES SHOWN IN THE ANSI CODE FOR PRESSURE PIPING

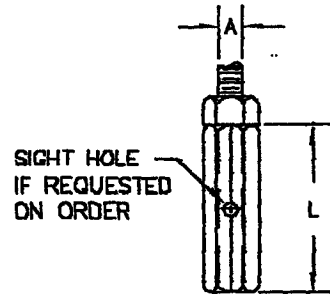
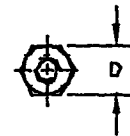


FIG. 3



- STEEL ROD COUPLING W/RH THREADS  
 -W/SIGHT HOLE FIG. 3  
 -W.O./SIGHT HOLE FIG. 3E  
 -REDUCING FIG. 3R

MATERIAL:  
 CARBON STEEL OR STAINLESS STEEL  
 ORDERING:  
 SPECIFY NAME,  
 FIGURE NUMBER, MATERIAL,  
 ROD SIZE, FINISH AND  
 W/SIGHT HOLE IF REQUIRED.

DIMENSIONS IN INCHES

ROD DIA.	SIZE	THICKNESS		APPROX. WEIGHT PER 100
		SMALL END	LARGE END	
3/8	1-1/4	5/32	11/32	9
1/2	1-1/4	5/32	11/32	9
5/8	1-1/2	5/32	13/32	15
3/4	1-1/2	7/32	15/32	16
7/8	2	7/32	9/16	33
1	2	7/32	8/16	31
1-1/8	2-1/4	9/32	5/8	48
1-1/4	2-1/2	5/16	23/32	68

BEVEL WASHER FIG. 6

MATERIAL:  
 MALLEABLE IRON  
 ORDERING:  
 SPECIFY NAME,  
 FIGURE NUMBER  
 AND ROD SIZE

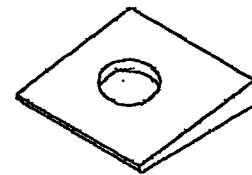


FIG. 6



ROD SIZE	SIZE OF STOCK	HOLE DIA. H	WEIGHT PER 100
3/8	3 X 3 X 1/4	7/16	64
1/2	3 X 3 X 1/4	9/16	64
5/8	3 X 3 X 3/8	11/16	96
3/4	4 X 4 X 3/8	13/16	170
1	4 X 4 X 1/2	1-1/16	225
1-1/4	5 X 5 X 1/2	1-3/8	329
1-1/2	5 X 5 X 3/4	1-5/8	481
1-3/4	5 X 5 X 3/4	1-7/8	465
2	5 X 5 X 3/4	2-1/8	447
2-1/4	6 X 6 X 3/4	2-1/2	662
2-1/2	6 X 6 X 3/4	2-3/4	640
2-3/4	6 X 6 X 3/4	3	616
3		3-1/4	589
3-1/4	7 X 7 X 3/4	3-1/2	556
3-1/2		3-3/4	807
3-3/4	8 X 8 X 1	4	775
4		4-1/4	1411
4-1/4		4-1/2	1362
4-1/2	9 X 9 X 1	4-3/4	1311
4-3/4		5	1728
5		5-1/4	1681

WASHER PLATE FIG. 7

MATERIAL:  
CARBON STEEL  
OR STAINLESS STEEL

ORDERING:  
SPECIFY NAME,  
FIGURE NUMBER,  
ROD SIZE,  
MATERIAL AND  
FINISH

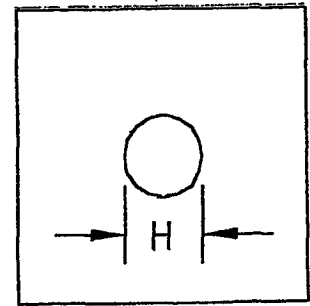


FIG. 7

NOTE:

WASHER PLATE IS FOR USE ON  
DOUBLE CHANNEL & TUBING TRAPEZE  
SEE FIGURE 140 FOR SQUARE WASHERS  
AND SHIMS

DIMENSIONS—LOADS—WEIGHTS

LUG SIZE	MAXIMUM RATED LOAD	PIPE SIZE	A	B	L	WEIGHT PER 100
1	1500	1 THRU 1-1/2	1/4	1/2	2	7
2	3000	2 THRU 3	1/4	3/4	2	11
3	5000	4 THRU 5	3/8	1	3	32
4	10000	6 THRU 10	1/2	1-1/2	3	64
5	15000	12 THRU 14	3/4	2	3	128
6	30000	16 THRU 24	1	2	4	227

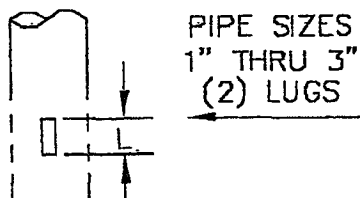
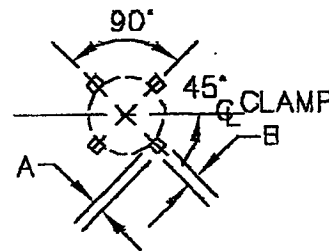
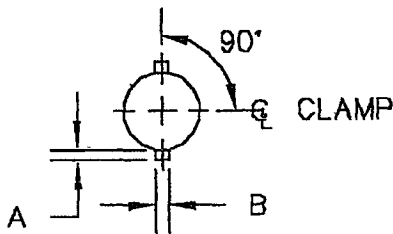
RISER SHEAR LUG FIG. 8

MATERIAL:  
CARBON STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER  
AND SIZE NUMBER

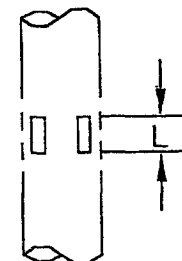
NOTE:

SHEAR LUGS ARE FOR USE WITH  
RISER CLAMPS



PIPE SIZES  
1" THRU 3"  
(2) LUGS

FIG. 8



PIPE SIZES  
4" THRU 24"  
(4) LUGS

SPRINKLER U-HOOK \_\_\_\_\_ FIG. 10

MATERIAL: CARBON STEEL OR STAINLESS STEEL  
 ORDERING: SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
 HOOK LENGTH AND MATERIAL  
 NOTE: LENGTH IS FROM CENTER OF EYE TO  
 BOTTOM OF PIPE. SMALL SCREWS MAY  
 REQUIRE USE OF WASHERS TO INSTALL.

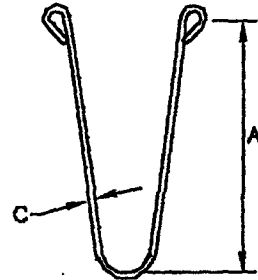


FIG. 10

DIMENSIONS (INCHES); WEIGHT PER 100

PIPE SIZES	3/4 THRU 2	2-1/2 THRU 3	3-1/2 THRU 4	5	6	8
DIM. C	5/16	3/8	1/2	5/8	5/8	3/4
SIZE SCREW	NO.16	3/8	1/2	1/2	1/2	5/8
MAX. LOAD, LB.	250	300	300	550	750	1100
LENGTH A INCHES	PIPE SIZES IN INCHES					
	3/4 THRU 2	2-1/2 THRU 3	3-1/2 THRU 4	5	6	8
6	36					
8	45					
10	54	82	159	273	278	
12	62	97	181	307	312	
14	71	107	204	343	347	531
16	80	120	226	378	381	582
18	88	132	248	411	416	632
20	100	147	271	447	450	663
24	108	166	315	481	520	762
30	134	213	382	532	618	908
36	160	251	448	584	722	1062

SWING ROD FITTING - WELDED

- MALE/FEMALE \_\_\_\_\_ FIG. 11
- FEMALE/FEMALE \_\_\_\_\_ FIG. 12

MATERIAL: CARBON STEEL OR STAINLESS STEEL  
 ORDERING: SPECIFY NAME, FIGURE NUMBER, ROD SIZE,  
 MATERIAL AND FINISH

HEAVY HEX NUTS (TYP)

DIMENSIONS-WEIGHTS

ROD SIZE	A	B	C	APPROX. WEIGHTS PER 100	
				FIG.11	FIG.12
3/8	1-3/8	1	3/8	30	28
1/2				57	53
5/8	2-1/8	1-1/4	1/2	112	104
3/4				196	179
7/8	3	2	5/8	355	318

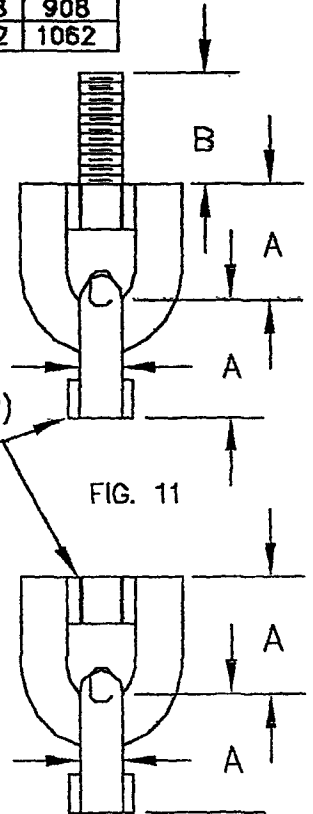


FIG. 12

DIMENSION (INCHES)

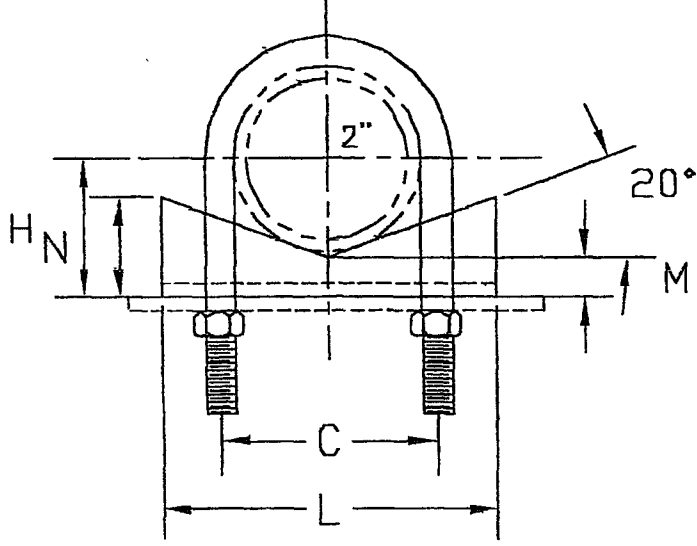
PIPE SIZE	L	H	C	M	N	S	K HOLE	CHAIR STOCK SIZE
1/2	2-3/8	1-1/4	1-3/16	13/16	1-1/4	C	5/16	3 X 4.1 LB. CHANNEL OR WELDMENT
3/4	2-5/8	1-5/16	1-3/8	3/4	1-1/4	C		
1	2-7/8	1-7/16	1-5/8	3/4	1-1/4	C		
1-1/4	3-1/8	1-1/2	2-1/16	5/8	1-3/16	C	7/16	
1-1/2	3-7/8	1-9/16	2-3/8	9/16	1-1/4	C		
2	4-1/4	1-3/4	2-13/16	1/2	1-1/4	C	9/16	
2-1/2	3	2-1/4	3-7/16	23/32	1-9/32	1-1/2		
3	3-1/2	2-1/2	4-1/16	5/8	1-9/32	2		
3-1/2	3-1/2	2-5/8	4-9/16	1/2	1-1/8	2-1/2		
4	4	2-13/16	5-1/16	13/32	1-1/8			
5	4	3-9/16	6-1/8	19/32	1-11/32	3	13/16	
6	5	3-15/16	7-3/8	13/32	1-5/16	4		
8	6	5-3/4	9-3/8	1-5/32	2-1/4			
10	6	6-3/4	11-5/8	1-1/32	2-1/8			
12	6	7-3/4	13-3/4	31/32	2-1/16	5-1/2		
14	7-1/2	8-5/16	15	27/32	2-7/32			
16	7-1/2	9-3/8	17	27/32	2-7/32	7		
18	7-1/2	10-5/16	19-1/8	23/32	2-3/32			
20	9	11-3/8	21-1/8	5/8	2-1/4	7		
24	9	13-3/8	25-1/8	1/2	2-1/8			

SEE FIGURE 14 FOR U-BOLT DIMENSIONS.

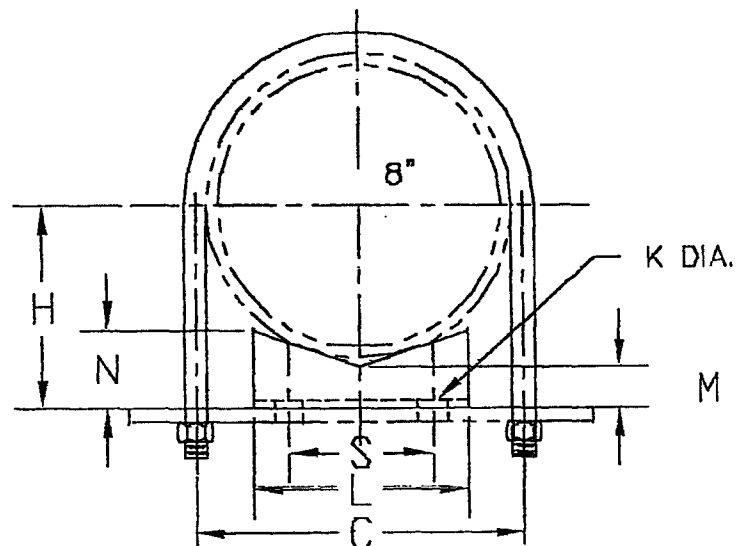
ANCHOR CHAIR WITH U-BOLT \_\_\_\_\_ FIG. 13

MATERIAL: CARBON STEEL OR STAINLESS STEEL

ORDERING: SPECIFY NAME, FIGURE NUMBER, PIPE SIZE, MATERIAL AND FINISH



1/2 THRU 2 PIPE



2-1/2 THRU 24 PIPE

STANDARD U-BOLT WITH 4-HEX NUTS \_\_\_\_\_ FIG. 14  
 PLASTIC COATED \_\_\_\_\_ FIG. 14C  
 FOR CAST IRON PIPE \_\_\_\_\_ FIG. 14CI  
 U-BOLT, NON-STANDARD SPECIAL \_\_\_\_\_ FIG. 14S

FIG.  
14  
14C  
14CI  
14S

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
 ORDERING:  
SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
MATERIAL AND FINISH

NOTE #1  
IF NUTS ARE NOT REQUIRED SPECIFY  
"WITHOUT HEX NUTS"

NOTE #2  
WHEN ORDERING FIG. 14S  
SPECIFY NAME FIGURE NUMBER, PIPE SIZE,  
DIMENSIONS A, B, C, D, AND E  
MATERIAL AND FINISH, "WITH OR WITHOUT  
HEX NUTS"

NOTE #3  
FIG. 14BS BASE STRAP MUST BE  
ORDERED SEPARATELY.

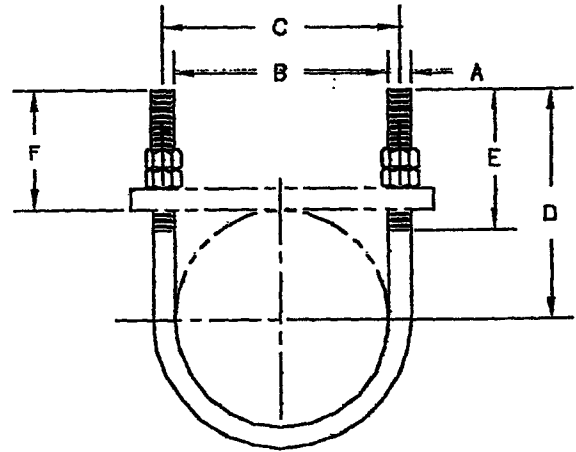


FIG. 14 & 14S

LOAD-WEIGHTS-DIMENSION(INCHES)

PIPE SIZE	ROD SIZE A	MAXIMUM RECOMMENDED LOAD, LB.		STEEL PIPE INSIDE RODS B	CI & DI PIPE INSIDE RODS B	STEEL PIPE CENTER TO CENTER OF RODS C	TANGENT LENGTH D	THREAD LENGTH E	EXTENSION PAST PIPE F
		650F	750F						
1/2	1/4	485	435	15/16	-	1-3/16	2-3/4	2-1/8	2-5/16
3/4	1/4	485	435	1-1/8	-	1-3/8	2-3/4	2-1/8	2-7/32
1	1/4	485	435	1-3/8	-	1-5/8	2-3/4	2-1/8	2-3/32
1-1/4	3/8	1220	1090	1-11/16	-	2-1/16	2-7/8	2-1/8	2-1/32
1-1/2	3/8	1220	1090	2	-	2-3/8	3	2-1/2	2-1/16
2	3/8	1220	1090	2-7/16	-	2-13/16	3-1/4	2-1/2	2-1/16
2-1/2	1/2	2260	2020	2-15/16	-	3-7/16	3-3/4	3	2-5/16
3	1/2	2260	2020	3-9/16	4	4-1/16	4	3	2-1/4
3-1/2	1/2	2260	2020	4-1/16	-	4-8/16	4-1/4	3	2-1/4
4	1/2	2260	2020	4-9/16	5	5-1/16	4-1/2	3	2-1/4
5	1/2	2260	2020	5-5/8	-	6-1/8	5	3	2-7/32
6	5/8	3820	3230	6-3/4	7-1/8	7-3/8	6-1/8	3-3/4	2-13/16
8	5/8	3820	3230	8-3/4	9-3/16	9-3/8	7-1/8	3-3/4	2-13/16
10	3/4	5420	4830	10-7/8	11-3/8	11-5/8	8-3/8	4	3
12	7/8	7540	6730	12-7/8	13-1/2	13-3/4	9-5/8	4-1/4	3-1/4
14	7/8	7540	6730	14-1/8	15-3/4	15	10-1/4	4-1/4	3-1/4
16	7/8	7540	6730	16-1/8	17-7/8	17	11-1/4	4-1/4	3-1/4
18	1	9920	8850	18-1/8	20	19-1/8	12-5/8	4-3/4	3-5/8
20	1	9920	8850	20-1/8	22-1/8	21-1/8	13-5/8	4-3/4	3-5/8
24	1	9920	8850	24-1/8	26-3/8	25-1/8	15-5/8	4-3/4	3-5/8
28	1	9920	8850	28-1/8	-	29-1/8	17-5/8	4-3/4	3-5/8
30	1	9920	8850	30-1/8	32	31-1/8	18-5/8	4-3/4	3-5/8
36	1	9920	8850	36-1/8	38-5/16	37-1/8	21-5/8	4-3/4	3-5/8

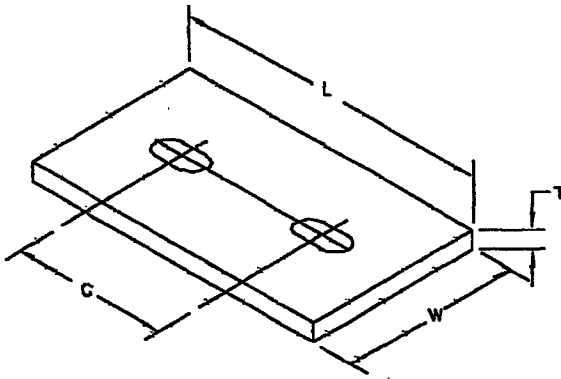


FIG. 14BS

U-BOLT STRAP \_\_\_\_\_ FIG. 14BS

MATERIAL:

CARBON STEEL OR STAINLESS STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
MATERIAL AND FINISH

## DIMENSIONS(INCHES)

PIPE SIZE	ROD SIZE A	CENTER TO CENTER OF RODS C	L	W	T	HOLE SIZE
1/2 3/4 1	1/4 1/4 1/4	1-3/16 1-3/8 1-5/8	3-1/2	1-1/2	3/16	5/16 X 1/2
1-1/4 1-1/2 2	3/8 3/8 3/8	2-1/16 2-3/8 2-13/16	4-1/2 5 5	2	1/4	7/16 X 3/4
2-1/2 3 3-1/2	1/2 1/2 1/2	3-7/16 4-1/16 4-9/16	6 7 8	2 4 4	1/4 3/8 3/8	9/16 X 3/4
4 5 6	1/2 1/2 5/8	5-1/16 6-1/8 7-3/8	8 9 10-1/4	4	3/8	9/16 X 3/4 9/16 X 3/4 11/16 X 1
8 10 12	5/8 3/4 7/8	9-3/8 11-5/8 13-3/4	12-1/4 14-1/2 16-1/2	5	1/2	11/16 X 1 13/16 X 1 15/16 X 1-1/4
14 16 18	7/8 7/8 1	15 17 19-1/8	18 20 22	5 5 6	1/2 1/2 5/8	15/16 X 1-1/4 15/16 X 1-1/4 1-1/16 X 1-1/2
20 24 28 30 36	1 1 1 1 1	21-1/8 25-1/8 29-1/8 31-1/8 37-1/8	24-1/2 28-1/2 32-1/2 34-1/2 40-1/2	6	5/8	1-1/16 X 1-1/2

SEE FIG. 14 PAGE FOR U-BOLT DRAWING



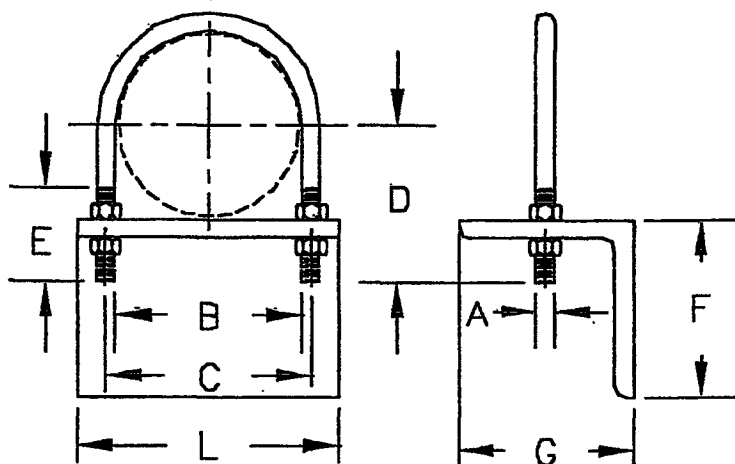


FIG. 15

U-BOLT WITH BASE ANGLE FIG. 15

MATERIAL:  
CARBON STEEL OR  
STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
PIPE SIZE, DIMENSIONS A, B,  
C, D, E, F, G, AND L,  
MATERIAL AND FINISH  
"WITH HEX NUTS" OR  
"WITHOUT HEX NUTS"

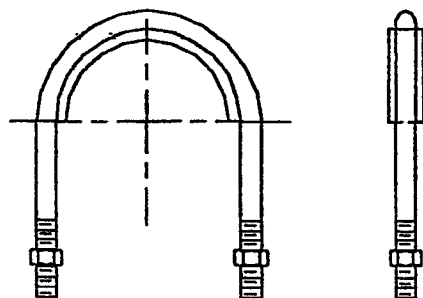


FIG. 17

U-BOLT WITH FORMED FLAT BAR  
LINER WELDED IN FIG. 17

MATERIAL:  
CARBON STEEL OR  
STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER  
PIPE O.D., MATERIAL AND FINISH

DIMENSIONS (INCHES)

PIPE SIZE	ROD SIZE	BAR SIZE
1/2 THRU 1	1/4	10 GA. X 1
1-1/4 THRU 2	3/8	10 GA. X 1
2-1/2 THRU 5	1/2	10 GA. X 1
6 THRU 8	5/8	3/16 X 1
10	3/4	1/4 X 1-1/4
12 THRU 16	7/8	1/4 X 1-1/4
18 THRU 36	1	1/4 X 1-1/2

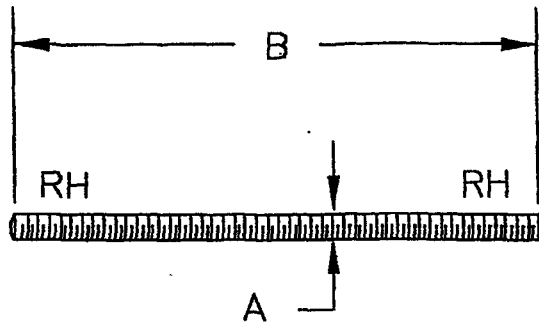


FIG.18

ALL THREAD ROD—RIGHT HAND THREAD ONLY\_\_FIG.18

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER, ROD SIZE,  
MATERIAL AND FINISH

NOTE:  
MAXIMUM TEMPERATURE=750 DEGREES F.  
ROD IS STOCKED IN 12 FOOT LENGTHS.

LOADS—WEIGHTS

ROD SIZE A	MAXIMUM RECOMMENDED LOAD LB ■ FOR CARBON STEEL RODS		WEIGHT (APPROX) LBS/FT
	650°F	750°F	
3/8	610	540	.30
1/2	1130	1010	.53
5/8	1810	1610	.84
3/4	2710	2420	1.2
7/8	3770	3360	1.7
1	4960	4420	2.3
1-1/4	8000	7140	3.6
1-1/2	11630	10370	5.1

■ USE 85% OF ABOVE LOADS FOR STAINLESS STEEL.

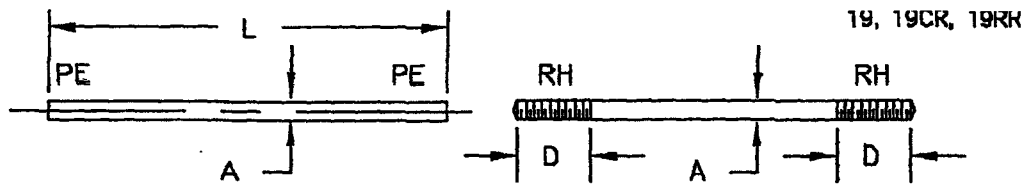


FIG. 19RR

FIG. 19

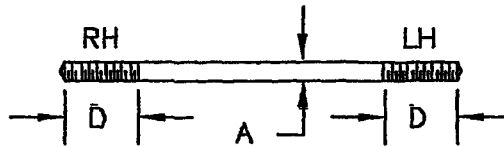


FIG. 19CR

LOADS-STANDARD THREAD LENGTHS

ROD SIZE A	MAXIMUM RECOMMENDED LOAD LB FOR CARBON STEEL RODS		STANDARD ROD THREAD LENGTH D, ± IN
	650°F	750°F	
3/8 1/2	810 1130	540 1010	2-1/2 2-1/2
5/8 3/4 7/8	1810 2710 3770	1610 2420 3360	2-1/2 3 3-1/2
1 1-1/4	4960 8000	4420 7140	4 5
1-1/2 1-3/4 2	11830 15700 20700	10370 14000 18460	8 7 8
2-1/4 2-1/2 2-3/4	27200 33500 41580	24260 29880 37088	8 10 11
3 3-1/4 3-1/2	50580 80480 71280	45085 53908 63403	12 13 14
3-3/4	82880	73855	15

ROD, MACHINE THREADED BOTH ENDS  
 BOTH ENDS, RIGHT HAND \_\_\_\_\_ FIG. 19  
 CHANGE ROD, ONE END RH  
 ONE END LH \_\_\_\_\_ FIG. 19CR  
 PLAIN ROUND ROD,  
 NO THREADS \_\_\_\_\_ FIG. 19RR

MATERIAL:  
 CARBON STEEL OR STAINLESS STEEL  
 ORDERING:  
 SPECIFY NAME, FIGURE NUMBER,  
 ROD SIZE, MATERIAL AND FINISH  
 GIVE THREAD LENGTH IF NOT  
 STANDARD

NOTE:  
 MAXIMUM TEMPERATURE=750  
 DEGREES F. ONE FIG. 19C IS  
 REQUIRED FOR EACH TURNBUCKLE

- 3/8, 1/2 AND 5/8 INCH FIG. 19 ROD IN LENGTHS OF 24 INCH OR SHORTER WILL BE FURNISHED AS CONTINUOUS THREAD ROD UNLESS ORDER STATES THAT ALL THREAD ROD IS NOT ACCEPTABLE
- FURNISHED WITH 8 UN THREADS





FIG. 20, 24WP,  
24J & 24S

J-ROD BEAM HOOK \_\_\_\_\_ FIG. 20

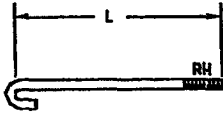


FIG. 20

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
ROD DIAMETER, HOOK LENGTH  
AND FLANGE THICKNESS.

J-ROD MATERIAL AND FINISH  
NOTE: HOOK LENGTH IS MEASURED  
FROM THE END OF THE THREADED  
END TO THE INSIDE OF THE HOOK

APPROX. WEIGHT PER HUNDRED

LENGTH, INCHES	4	5	6	7	8	10	12
ROD. DIA. - 3/8	19	22	25	28	32	38	44
ROD. DIA. - 1/2	33	38	45	50	56	67	78
ROD. DIA. - 5/8	52	61	70	78	87	102	122
ROD. DIA. - 3/4	75	89	101	113	126	150	175
ROD. DIA. - 7/8	102	120	136	153	171	204	239

- ANCHOR BOLT  
 - WITH PLATE \_\_\_\_\_ FIG. 24WP  
 - WITH J-HOOK \_\_\_\_\_ FIG. 24J  
 - SPECIAL \_\_\_\_\_ FIG. 24S



FIG. 24WP

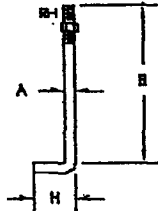


FIG. 24J

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
 ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
ROD DIAMETER, THREAD LENGTH,  
DIMENSIONS B AND H, OR WASHER PLATE  
DIMENSION, MATERIAL AND FINISH.

SPECIALS: MADE PER CUSTOMER DRAWING

DIMENSIONS IN INCHES

DIAMETER	APPROX. WEIGHT PER HUNDRED			
	3/8	1/2	5/8	3/4
B-6	28	52	81	119
B-8	34	63	98	144
B-10	40	74	116	169
B-12	46	85	134	194

STANDARD THREAD LENGTHS-LOADS

FIG. 21, 22 & 23

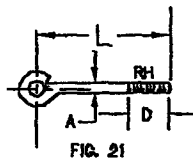
ROD SIZE A	STANDARD ROD THREAD LENGTH D, IN	EYE I.D. SEE NOTE	MAXIMUM RECOMMENDED LOAD, LB FOR CARBON STEEL RODS		
			FIG. 21 & 21L 23 & 23L	FIG. 23W & 23WL	FIG. 22 & 22L
			650°F (NOT WELDED)	650°F (WELDED)	750°F (WELDED)
3/8	2-1/2	3/4	240	610	540
1/2	2-1/2	3/4	440	1130	1010
5/8	2-1/2	1	705	1810	1610
3/4	3	1-1/8	1050	2710	2420
7/8	3-1/2	1-1/2	1470	3770	3380
1	4	1-7/8	1840	4980	4420
1-1/4	5	2-1/8	3120	8000	7140
1-1/2	6	3 +/-	4850	11630	10370
1-3/4	7	※	6380	15700	14000
2	8	※	8280	20700	18460
2-1/4	9	※	10900	27200	24280
2-1/2	10	※	13400	33500	29880

MATERIAL: CARBON STEEL OR STAINLESS STEEL  
 ORDERING: SPECIFY NAME, FIGURE NUMBER, ROD SIZE, ROD LENGTH, MATERIAL AND FINISH. GIVE THREAD LENGTH IF NOT STANDARD.

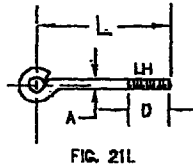
NOTE: SEE PAGE V FOR SPECIAL NOTE ON EYE RODS.

EYE RODS

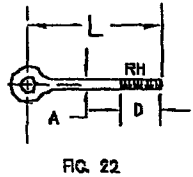
LINKED EYE RODS



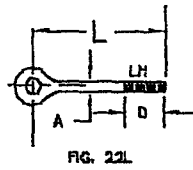
NOT WELDED FIG. 21  
(MAX TEMP. 650°F)  
RIGHT HAND



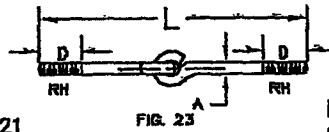
NOT WELDED FIG. 21L  
(MAX TEMP. 650°F)  
LEFT HAND



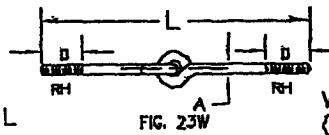
WELDED FIG. 22  
(MAX TEMP. 750°F)  
RIGHT HAND



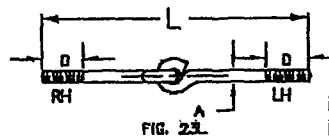
WELDED FIG. 22L  
(MAX TEMP. 750°F)  
LEFT HAND



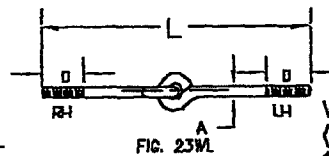
NOT WELDED FIG. 23  
(MAX TEMP. 650°F)  
RIGHT HAND



WELDED FIG. 23W  
(MAX TEMP. 750°F)  
RIGHT HAND



NOT WELDED FIG. 23L  
(MAX TEMP. 650°F)  
1-LH, 1-RH



WELDED FIG. 23WL  
(MAX TEMP. 750°F)  
1-LH, 1-RH

FIG. 25 & 25F

LOADS-WEIGHTS

ROD SIZE	MAXIMUM RATED LOAD AT 650F	APPROX. WEIGHT PER 100
3/8 1/2 5/8	610 1130 1810	42 85 98
3/4 7/8 1	2710 3770 4860	145 190 260
1-1/4 1-1/2 1-3/4	8000 11630 15700	445 640 1100
2 2-1/4 2-1/2	20700 27200 33500	1490 1980 2893

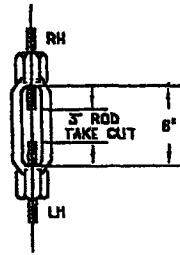


FIG. 25

TURNBUCKLE FIG. 25

MATERIAL:  
FORGED STEEL OR  
STAINLESS STEEL

ORDERING:  
SPECIFY NAME,  
FIGURE NUMBER,  
ROD SIZE, MATERIAL  
AND FINISH

NOTE: STUB ENDS  
SHOWN MUST BE  
ORDERED SEPARATELY.  
ONE FIG. 19CR CHANGE  
ROD IS REQUIRED  
W/EA. TURNBUCKLE.

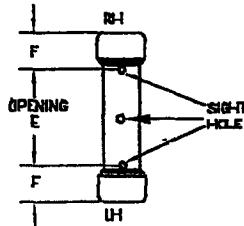


FIG. 25F

FABRICATED TURNBUCKLE FIG. 25F

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER, ROD SIZE,  
OPENING LENGTH, MATERIAL AND FINISH.

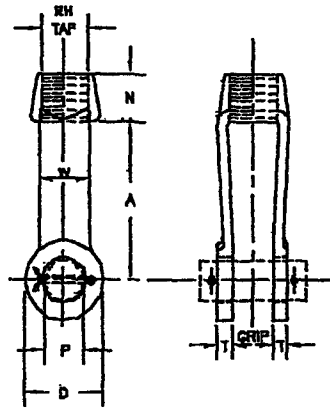
NOTE:  
SIZES 3/8 THRU 1 INCH AVAILABLE ON  
SPECIAL ORDER.

LOADS-DIMENSIONS

ROD SIZE*	MAX. RATED LOAD AT 650F	OPENING-E** (SPECIFY)	F
1-1/4 1-1/2 1-3/4	8000 11630 15700	6,12,18 OR 24	2-3/8
2 2-1/4 2-1/2	20700 27200 33500	6,12,18 OR 24	3-1/4
2-3/4 3 3-1/4	41600 50600 60300	6,12,18 OR 24	4
3-1/2 3-3/4 4	71260 82900 95500	6,12,18 OR 24	5
4-1/4 4-1/2 4-3/4 5	108900 123200 138400 154500	6,12,18 OR 24	7

\*UNC-2B THREAD SERIES FURNISHED FOR ROD SIZES THRU 3"  
BUN-2B THREAD SERIES FURNISHED FOR 3-1/4" THRU 5"  
ROD SIZES.  
\*\*ROD TAKE-OUT 1/2 E.

FIG.  
26, 26P & 26CP



FORGED STEEL CLEVIS  
 -WITHOUT PIN \_\_\_\_\_ FIG. 26  
 -WITH PIN \_\_\_\_\_ FIG. 26P  
 -CLEVIS PIN ONLY \_\_\_\_\_ FIG. 26CP

ORDERING:  
 SPECIFY NAME, FIGURE NUMBER,  
 ROD SIZE AND FINISH

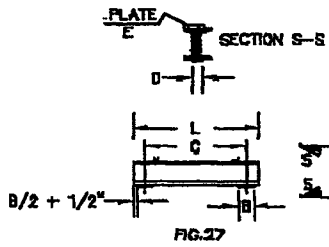
FIG.26 & 26P

LOADS-DIMENSIONS-WEIGHTS

ROD SIZE	SIZE NO.	MAX. RATED LOAD AT 8SDT*	ROD TAKE OUT	A	D	N	PIN SIZE P	T	W	GRIP	APPROX. WEIGHT PER 100	
											FIG.26	FIG.26P
3/8 1/2 5/8	2	510 1130 1610	3	3-7/8	1-7/16	5/8	1/2 5/8 3/4	1/4	1-1/16	1/2 1/2 5/8	170 189 188	184 191 202
3/4 7/8	2-1/2	2710 3770	4	5	2	7/8	7/8 1	3/8	1-1/4	3/4 7/8	250 240	301 340
1 1-1/4	3	4980 8000	4	5	3	1-5/16	1-1/8 1-3/8	1/2	1-1/2	1 1-1/4	400 382	513 550
1-1/2 1-3/4	3-1/2 4	11830 15700	5	8	3-1/2 4	1-5/8 1-3/4	1-5/8 1-7/8	1/2	1-3/4 2	1-1/2	600 800	850 1288
2	5	20700	6	7	5	2-1/4	2-1/4	5/8	2-1/2	2-1/2	1600	2333
2-1/4 2-1/2	6	27200 33300	7	8	6	2-3/4	2-1/2 2-3/4	3/4	3	2-1/2	2600 2330	3605 3645
2-3/4 3	7	41800 50800	8	8	7	3	3 3-1/4	7/8	3-1/2	2-1/2	3600 3500	5001 5145
3-1/4* 3-1/2* 3-3/4* 4*	8	80500 71260 82800 95500	8	10	8	4	3-1/2 3-3/4 4 4-1/4	1-1/2	4	4	9000 8800 8600 8400	11591 11774 11984 12220

\* FURNISHED WITH B UN SERIES THREADS





CHANNEL TRAPEZE,  
BACK TO BACK

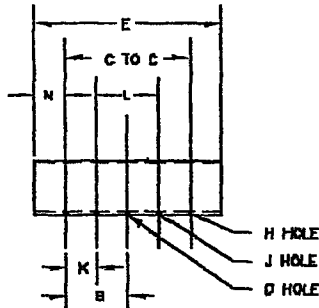
FIG. 27 & 28  
FIG. 27

MATERIAL:  
CARBON STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER, SIZE NUMBER,  
ROD SIZE, C DIMENSION AND FINISH

LOADS-DIMENSIONS-WEIGHTS

SIZE NUMBER	CHANNEL SIZE	WEIGHT PER FOOT	MAXIMUM RATED LOADS** (DIPS) FOR E IF												MAX. ROD DIA.	MAX. DIP	PLATES-E	
			12	18	24	30	36	42	48	54	60	66	72	SIZE			WEIGHT	
3	C3X6.1 C100.1	8.2 10.8	8.2	8.1	4.8	3.8	2.9	2.4	2.1	1.8	1.6	1.4	1.3	1-1/4	2	1/4 X 1-1/2 X 4	1	
5	C5X8.7 C120.2	13.4 16.4	13.4	12.4	8.2	6.2	4.2	3.2	2.8	2.4	2.1	1.9	1.7	2	3	3/8 X 1-1/2 X 8	2	
8	C8X11.8 C150.3	23.0 28.8	23.0	21.4	14.8	11.8	8.2	6.2	5.2	4.4	3.8	3.4	3.1	2-3/4	4	1/2 X 2 X 8	4	
12	C12X17.7 C180.4	41.2 51.8	41.2	38.8	28.8	22.8	16.2	12.2	10.2	8.8	7.8	7.0	6.5	3	4	3/4 X 3 X 8	11	

NOTES:  
(1) REFER TO FIG. 7 FOR DIMENSIONS AND WEIGHTS OF WASHER PLATE.  
(2) VALUES LISTED ARE INCHES OF FORCE AS CONCENTRATED LOAD AT CENTER OF CHANNELS.  
(3) ACTUAL B WILL VARY WITH ROD SIZE AND WILL ALLOW A MINIMUM ROD SWING OF 4 DEGREES.



STRUCTURAL TUBE,  
TRAPEZE

FIG. 28

MATERIAL:  
CARBON STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
SIZE NUMBER, C TO C DIMENSION  
AND HOLE SIZE H. IF HOLES, H, J,  
OR D ARE REQUIRED, SPECIFY  
DIMENSIONS K AND L OR B

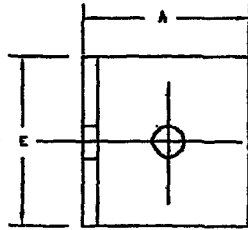
LOADS-DIMENSIONS(INCHES)

SIZE NUMBER	SIZE OF STRUCTURAL TUBING	MAX. DIA. HOLE H, J AND D	C TO C - SPAN IN INCHES																						
			C	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
1	1/4 X 1 X 2	1-1/8	1	1-1/2	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59	61
2	1/4 X 2 X 2	1-1/8	1	1-1/2	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59	61
3	3/16 X 4 X 3	1-5/8	1-1/2	2-1/2	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59	61	63
4	1/4 X 4 X 4	1-7/8	2	2-5/8	23-1/4	25-1/4	27-1/4	29-1/4	31-1/4	33-1/4	35-1/4	37-1/4	39-1/4	41-1/4	43-1/4	45-1/4	47-1/4	49-1/4	51-1/4	53-1/4	55-1/4	57-1/4	59-1/4	61-1/4	63-1/4
5	1/4 X 4 X 4	2-3/8	2	2-3/8	24-3/4	26-3/4	28-3/4	30-3/4	32-3/4	34-3/4	36-3/4	38-3/4	40-3/4	42-3/4	44-3/4	46-3/4	48-3/4	50-3/4	52-3/4	54-3/4	56-3/4	58-3/4	60-3/4	62-3/4	64-3/4
6	1/4 X 4 X 4	2-7/8	2	2-7/8	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59	61	63	65

SIZE NUMBER	MAXIMUM RECOMMENDED LOAD (LBS.) BASED ON C TO C DIMENSION**											
	18	20	22	24	26	28	30	32	34	36	38	40
1	1700	1500	1400	1300	1200	1100	1000	880	—	—	—	—
2	4300	4000	3800	3600	3400	3200	2900	2700	2500	2300	2100	1900
3	5800	5200	4800	4400	3900	3600	3300	3000	2700	2500	2300	2100
4	10200	9100	8300	7500	7000	6500	6100	5700	5300	4900	4500	4100
5	16000	14400	13100	12000	11000	10300	9600	9000	8400	7800	7200	6600
6	26800	24000	21800	20000	18400	17100	16000	15000	14000	13000	12000	11000

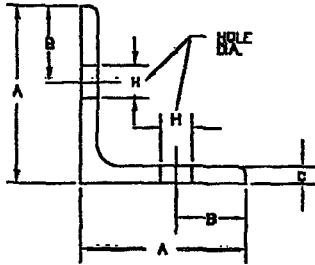
\*\*BASES ON THE ALLOWABLE STRESSES SHOWN IN THE ANSI CODE FOR PRESSURE PIPING

FIG.  
29 & 30



LOADS-DIMENSIONS-WEIGHTS

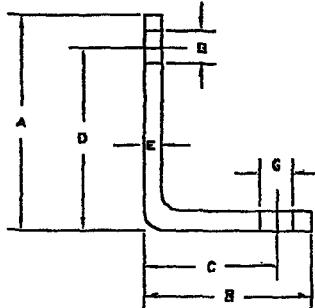
ROD SIZE	MAX. RECOM. LOAD	A	C	B	E	HOLE DIA H	APPROX. WEIGHT PER 100
3/8 1/2	320 535	2	1/4	3/4	1-1/2 2-1/2	7/16 9/16	40 67
5/8	1125	3	3/8	1	3	11/16	185



SIDE BEAM CLIP ANGLE \_\_\_\_\_ FIG. 29

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER, ROD SIZE,  
MATERIAL AND FINISH.

FIG. 29



ANGLE BRACKET \_\_\_\_\_ FIG. 30

MATERIAL:  
FORMED CARBON STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER, ROD SIZE,  
MATERIAL AND FINISH.

FIG. 30

DIMENSIONS IN INCHES

ROD SIZE	MAX. RECOM. LOAD, LB.	A	B	C	D	STEEL E	HOLE G	APPROX. WEIGHT PER 100
3/8	180	3-5/8 4-5/8	2-5/8 3-5/8	2 3	3 4	1/4 X 1-1/4	7/16	53 71
1/2	390	3-3/4 4-3/4	2-3/4 3-3/4	2 3	3 4	3/8 X 1-1/2	9/16	92 123

FIG.  
31-2, 31-3, 31-4

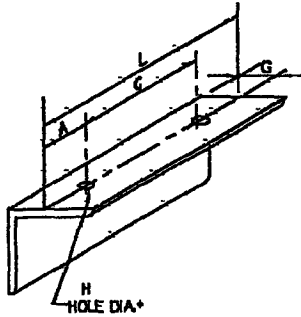


FIG. 31-2

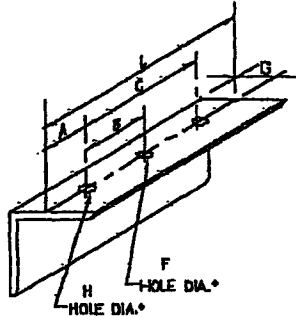


FIG. 31-3

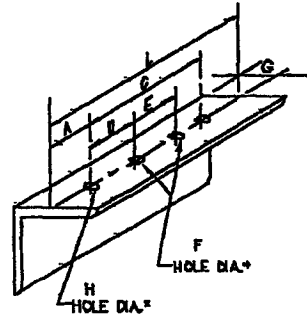


FIG. 31-4

TRAPEZE ANGLE-CARBON STEEL

- TWO HOLES \_\_\_\_\_ FIG. 31-2
- THREE HOLES \_\_\_\_\_ FIG. 31-3
- FOUR HOLES \_\_\_\_\_ FIG. 31-4

ORDERING:

FOR FIG. 31-2, SPECIFY NAME, FIGURE NUMBER, SIZE NUMBER, A, C, H\*, AND L AND FINISH. FOR FIG- 31-3, SPECIFY NAME, FIGURE NUMBER, SIZE NUMBER, A, C, H\*, L, B, AND F\*, AND FINISH. FOR FIG. 31-4, SPECIFY NAME, FIGURE NUMBER, SIZE NUMBER, A, C, H\*, L, D, E, AND F\*, AND FINISH.

LOADS-DIMENSIONS-WEIGHTS

SIZE NUMBER	ANGLE SIZE	WEIGHT PER FOOT	8	12	18	24	30	36	42	48	MIN. A	MAX. HOLE DIA. H,F	G
1	2 X 2 X 1/4	3.2	900	630	440	330	260	220	190	160	1-1/2	11/16	1-1/8
2	3 X 3 X 1/4	4.9	1450	1180	800	710	580	500	430	380	1-1/2	13/16	1-3/4
3	3-1/2 X 3-1/2 X 3/8	8.5	3210	2520	1870	1480	1200	1010	870	780	2	1-3/8	2
4	4 X 4 X 1/2	12.8	5180	4150	3120	2470	2020	1710	1470	1290	2	1-5/8	2-1/2
5	5 X 5 X 1/2	15.2	6410	5470	4380	3520	3030	2620	2290	2023	2-1/2	1-7/8	3
6	6 X 6 X 1/2	19.6	7280	6490	5490	4710	4080	3580	3180	2840	2-1/2	2-1/8	3-1/2

\*HOLE DIAMETER H AND F SHOULD BE SPECIFIED 1/16" GREATER THAN ROD DIAMETER FOR ROD SIZES THRU 1", AND 1/8" GREATER THAN ROD DIAMETER FOR ROD SIZES 1-1/4" AND LARGER.

FIG.  
32 & 33

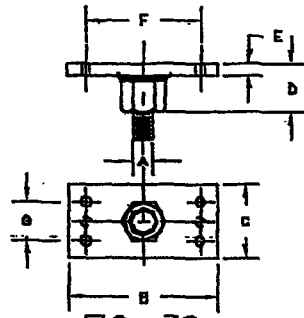


FIG. 32

CEILING PLATE  
 -ROD THREADS \_\_\_\_\_ FIG. 32  
 -PIPE THREADS \_\_\_\_\_ FIG. 33  
 MATERIAL:  
 FABRICATED,  
 CARBON STEEL OR STAINLESS STEEL  
 ORDERING:  
 SPECIFY NAME, FIGURE NUMBER,  
 PIPE OR ROD SIZE,  
 MATERIAL AND FINISH

DIMENSIONS (INCHES)-LOADS

ROD SIZE A	MAXIMUM RECOMMENDED LOAD, LB.	B	C	D	E	F	G	HOLES	
								QUANTITY	SIZE
3/8 1/2	180	3-1/4 3-3/4	1-1/2	5/8 3/4	1/4 1/4	2-1/4	-	2	5/16
5/8 3/4	480	4-1/2 5	2-1/2	1 1-1/4	3/8 3/8	3-1/8 3-1/2	1-3/8	4	7/16

LOADS SHOWN ARE FOR INSTALLATION  
 WITH WOOD SCREWS.

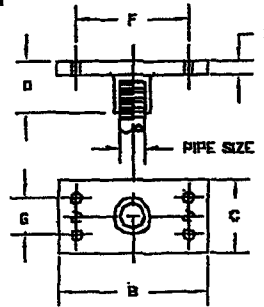


FIG. 33

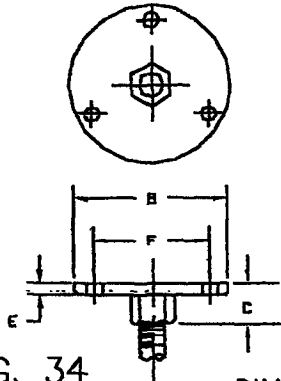
DIMENSIONS (INCHES)-LOADS

HALF COUPLING PIPE TAP A	MAXIMUM RECOMMENDED LOAD, LB.	B	C	D	E	F	G	HOLES	
								QUANTITY	SIZE
1/8	180	3-1/4	1-1/4	13/16	3/16	2-3/16	-	2	1/4
1/4	180	3-5/16		7/8	3/16	2-1/4	-	2	1/4
3/8	180	3-7/16		1	1/4	2-5/16	-	2	5/16
1/2	480	4-5/16	2-1/2	1-1/4	3/8	3-7/16	1-3/8	4	7/16
3/4	480	4-5/8		1-5/16	3/8	3-7/16	1-3/8	4	7/16

LOADS SHOWN ARE FOR INSTALLATION  
 WITH WOOD SCREWS.



FIG.  
34 & 35



CEILING FLANGE  
 - ROD THREAD \_\_\_\_\_ FIG. 34  
 - PIPE THREADS \_\_\_\_\_ FIG. 35

MATERIAL:  
 FABRICATED, CARBON STEEL  
 OR STAINLESS STEEL  
 ORDERING:  
 SPECIFY NAME, FIGURE NUMBER, PIPE OR  
 ROD SIZE AND FINISH.

FIG. 34

DIMENSION (INCHES)-LOADS

ROD SIZE A	MAXIMUM PIPE SIZE	MAX. RECOM. LOAD, LB.	B	C	E	HOLE CIRCLE DIAM. F	HOLE SIZE
3/8	3/4 TO 2	425	3-1/4	5/8	1/4	2-D	5/16
1/2	2-1/2 TO 3-1/2	1050	4	3/4	1/4	2-7/8	5/16
5/8	4 TO 5	1220	4-3/4	1	3/8	3-3/8	7/16
3/4	6	1270	5-1/4	1-1/4	1/2	3-5/8	9/16

LOADS SHOWN ARE FOR  
 INSTALLATION WITH WOOD SCREWS.

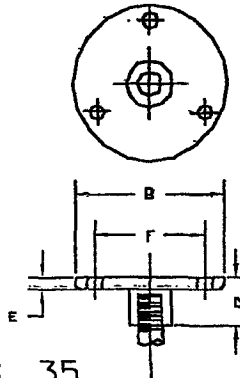


FIG. 35

DIMENSIONS (INCHES)

HALF COUPLING PIPE TAP A	MAXIMUM RECOMMENDED LOAD, LB.	B	C	E	HOLE CIRCLE DIA. F	SIZE
1/8	425	3-1/2	7/8	1/4	2-1/2	5/16
1/4	425	3-1/2	15/16	1/4	2-1/2	5/16
3/8	1050	4-1/4	1-1/8	3/8	3-1/8	7/16
1/2	1220	5	1-7/16	1/2	3-5/8	9/16
3/4	1220	5-1/2	1-1/2	1/2	3-7/8	9/16

LOADS SHOWN ARE FOR  
 INSTALLATION WITH WOOD SCREWS.

FIG.  
36 & 36L

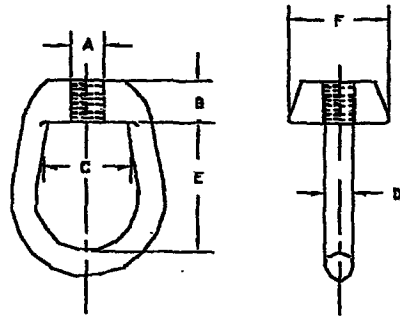


FIG.36 & FIG36L

WELDLESS EYE NUT  
 -RIGHT HAND THREAD\_\_FIG. 36  
 -LEFT HAND THREAD\_\_FIG. 36L

MATERIAL:  
 FORGED STEEL OR STAINLESS STEEL  
 ORDERING:  
 SPECIFY NAME,  
 FIGURE NUMBER,  
 ROD SIZE, MATERIAL AND FINISH.

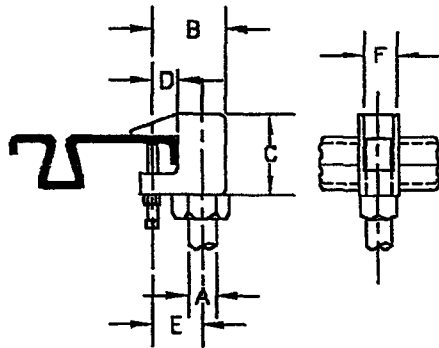
NOTE:  
 WHEN ORDERING 3/8" OR 1/2" ROD  
 SIZE SPECIFY SIZE 1/2 OR SIZE 1.

LOADS-DIMENSIONS-WEIGHTS

ROD SIZE A	SIZE NO.	MAX. RATED LOAD	ROD TAKE- OUT	MAX.PIN DIA. C	D	E	F	G	WEIGHT PER 100
3/8 1/2	1/2	610 1130	1-3/8	13/16	3/8	1-9/16	31/32	5/8	30
3/8 1/2 5/8 3/4	1	610 1130 1810 2710	1-1/2	1-3/16	1/2	2	1-3/8	11/16	63 63 62 60
7/8 1	2	3770 4960	2	1-11/16	3/4	2-5/8	1-15/16	1	170
1-1/4 1-1/2	3	8000 11630	2-1/2	1-13/16	1	3-3/8	3	1-1/4	364 345
1-3/4 2 2-1/4 2-1/2	4	15700 20700 27200 33500	4	4	1-1/2	5-1/4	4	2-1/4	1638 1588 1538 1488



FIG.  
37 & 37A



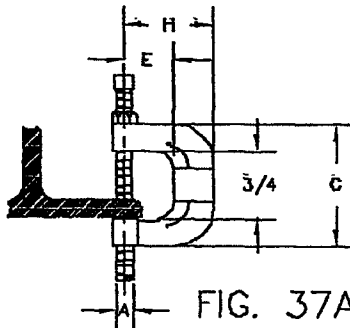
TOP BEAM C-CLAMP-  
1-1/4" THROAT \_\_\_\_\_ FIG. 37

MATERIAL:  
MALLEABLE IRON  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
ROD SIZE AND FINISH

FIG. 37

LOADS-DIMENSIONS (INCHES)

ROD SIZE A	PIPE SIZE	MAXIMUM RECOMMENDED LOAD, LB*	B	C	D	E	F
3/8	1/2 TO 2	440	1-7/16	2	3/4	1-3/16	3/4
1/2	2-1/2 TO 3-1/2	710	1-5/8	2-1/8	3/4	1-1/4	7/8
5/8	4 & 5	850	1-3/4	2-1/4	3/4	1-1/4	1
3/4	6	900	1-7/8	2-3/8	3/4	1-3/8	1-3/16



C-CLAMP W/LOCK NUT-  
3/4" THROAT \_\_\_\_\_ FIG. 37A

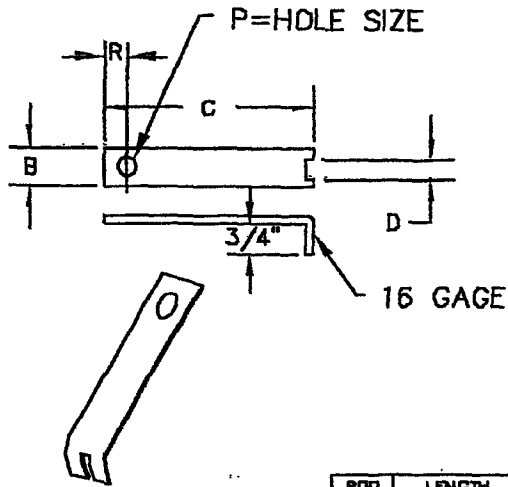
MATERIAL:  
MALLEABLE IRON  
ORDERING:  
SPECIFY NAME,  
FIGURE NUMBER,  
ROD SIZE AND FINISH

FIG. 37A

LOADS-DIMENSIONS (INCHES)

ROD SIZE A	C	E	H	MAX RECOM LOAD, LB
3/8	1-3/4	5/8	1-3/8	400
1/2	1-3/4	5/8	1-3/8	400
5/8	2	3/4	1-1/2	440
3/4	2	3/4	1-1/2	500

FIG.  
37X & 37B

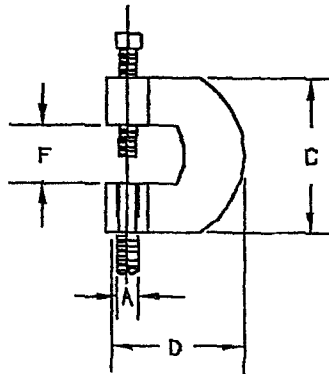


C-CLAMP UNIVERSAL  
RETAINING CLIP ONLY FIG. 37X

MATERIAL:  
CARBON OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
ROD SIZE, AND FINISH  
NOTE: FOR CLIP LENGTH ADD 1/2  
INCH TO BEAM WIDTH. IF REQUIRED  
LENGTH IS NOT STANDARD, ORDER  
NEXT LONGER SIZE. CLIPS MUST BE  
FIELD FORMED TO FIT BEAMS.

FIG. 37X

ROD SIZE A	LENGTH C	B	D	F	R
3/8	4-1/2, 8, 10, 14	1	7/16	7/16	9/16
1/2	4-1/2, 8, 10, 14	1-1/4	15/32	9/16	1/2
5/8	4-1/2, 8, 10, 14	1-3/8	9/16	11/16	3/4
3/4	4-1/2, 8, 10, 14	1-3/8	11/16	13/16	3/4



C-CLAMP  
-CARBON STEEL FIG. 37B-CS  
-ELECTRO-GALVANIZED FIG. 37B-EG  
-STAINLESS STEEL FIG. 37B-SS

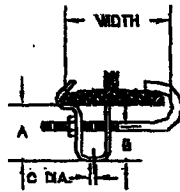
MATERIAL: CARBON STEEL OR STAINLESS STEEL  
ORDERING: SPECIFY NAME, FIGURE NUMBER,  
MATERIAL, FINISH AND ROD SIZE

FIG. 37B

DIMENSIONS IN INCHES

A SIZE	REC. MAX. LOAD, LBS.	C	D	F	APPROX WEIGHT PER 100
3/8	230	2-3/8	2-3/8	3/4	40
1/2	380				42
5/8	450				64
3/4	630				70

FIG.  
38 AND 41



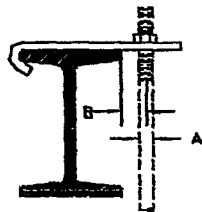
ADJUSTABLE BEAM CLAMP \_\_\_\_\_ FIG. 38

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER, ROD SIZE,  
MATERIAL AND FINISH

FIG. 38

LOADS, LBS. - DIMENSIONS (INCHES)

ROD SIZE	MAX. RECOM. LOAD	MAXIMUM PIPE SIZE	A	B	HOLE C	STEEL SIZE	WIDTH ADJUSTMENT	
							MIN.	MAX.
3/8	300	3/4-2	2-1/2	2	7/16	1/4 X 1-1/4	3-1/2	8
1/2	700	2-1/2-4	2-1/2	2	9/16	1/4 X 1-1/2	3-1/2	8
5/8	1000	5-8	2-1/2	2	11/16	1/4 X 1-3/4	3-1/2	8



TOP BEAM CLAMP (J-BAR) \_\_\_\_\_ FIG. 41

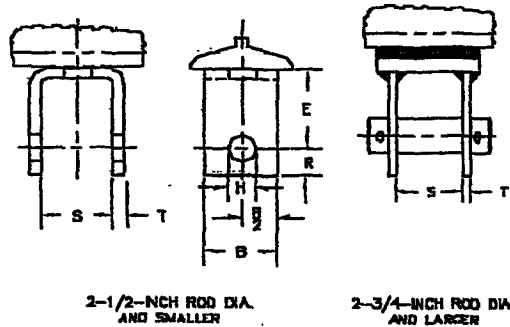
MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER, CLAMP SIZE NO.,  
MATERIAL AND FINISH, GIVE BEAM FLANGE WIDTH  
AND THICKNESS

FIG. 41

DIMENSIONS IN INCHES

SIZE No.	MAXIMUM RECOM. LOAD, LB.	MAXIMUM PIPE SIZES	ROD SIZE A	B	STEEL SIZE
1	300	3/4 TO 2	3/8	5/16	3/16 X 1-1/4
2	500	2-1/2 TO 3 1/2	1/2	3/8	1/4 X 1-1/4
3	700	4 TO 5	5/8	7/16	3/8 X 1-1/2
4	1000	6	3/4	1/2	3/8 X 2
5	2000	8 TO 12	7/8	9/16	1/2 X 2-1/2

FIG.  
39 & 40



WELDED BEAM ATTACHMENT

- WITH BOLT OR PIN \_\_\_\_\_ FIG. 39
- WITHOUT BOLT OR PIN \_\_\_\_\_ FIG. 40

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
ROD SIZE, MATERIAL AND  
FINISH.

FIG. 39/40

LOADS-DIMENSIONS (INCHES)

ROD SIZE A	BOLT* SIZE	MAXIMUM RECOMMENDED LOAD, LB. <sup>a</sup>		ROD TAKE-OUT E	B	HOLE H	R	S	T
		650°F	750°F						
3/8	1/2 X 2-1/2	610	510	2	2	9/16	7/8	1-9/16	1/4
1/2	5/8 X 2-1/2	1130	940	2	2	11/16	7/8	1-5/8	1/4
5/8	3/4 X 2-3/4	1810	1510	2	2	13/16	7/8	1-5/8	1/4
3/4	7/8 X 4	2710	2260	2	2-1/2	15/16	1-1/8	1-7/8	3/8
7/8	1 X 4	3770	3150	3	2-1/2	1 1/8	1-1/4	2	3/8
1	1-1/8 X 5	4860	4150	3	3	1 1/4	1-1/2	2	1/2
1-1/4	1-3/8 X 5	8000	6660	3	4	1 1/2	2	2-1/2	5/8
1-1/2	1-5/8 X 5-3/4	11630	9700	4	5	1 3/4	2-1/2	3	3/4
1-3/4	1-7/8 X 6-7/8	15700	14000	5	5	2	2-3/4	3-3/4	3/4
2	2-1/4 X 6-7/8	20700	18460	5	6	2-3/8	3-1/4	3-3/4	3/4
2-1/4	2-1/2 X 7-3/8	27200	24260	6	6	2-5/8	3-1/2	4-1/4	3/4
2-1/2	2-3/4 X 7-5/8	33500	29880	6	6	2-7/8	3-3/4	4-1/2	3/4
2-3/4	3 X 7	41580	37068	5-3/4	6	3-1/8	4	3-3/4	3/4
3	3-1/4 X 7	50580	45085	6-1/4	7	3-3/8	4	3-3/4	3/4
3-1/4	3-1/2 X 7-3/4	60480	53906	7	7	3-5/8	4-1/2	4-1/4	3/4
3-1/2	3-3/4 X 7-3/4	71280	63493	7-1/2	8	3-7/8	4-1/2	4-1/4	3/4

<sup>a</sup>BASED ON THE ALLOWABLE STRESSES SHOWN IN THE ANSI CODE FOR PRESSURE PIPING  
\*1-1/4" AND LARGER ARE PINS WITH COTTER PINS

FIG.  
42 & 43

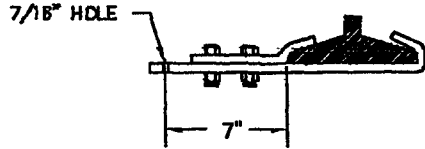


FIG. 42

OFFSET BEAM CLAMP \_\_\_\_\_ FIG. 42  
FOR 2 INCH AND SMALLER PIPE

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER, SIZE NO.,  
BEAM FLANGE WIDTH & THICKNESS,  
CLAMP MATERIAL AND FINISH

DIMENSIONS IN INCHES

SIZE NUMBER	ROD SIZE	WIDTH OF BEAM FLANGE	STEEL SIZE	BOLT SIZE	RECOM. MAX. LOAD
1	3/8	2 TO 4	3/8 X 1-3/4	3/8 X 1-1/4	260
2		4-1/2 TO 6			
3		6-1/2 TO 8			
4		8-1/2 TO 12			

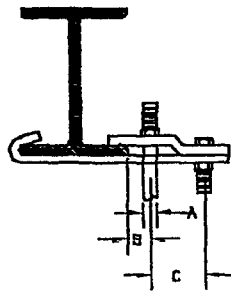


FIG.43

CLOSE BEAM CLAMP \_\_\_\_\_ FIG.43

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
CLAMP SIZE NO., MATERIAL,  
FINISH, BEAM FLANGE WIDTH  
AND THICKNESS

DIMENSIONS IN INCHES

SIZE NO.	MAX. RECOM. LOAD, LB.	MAX. PIPE SIZE	STEEL SIZE	A	B	C
1	300	3/4-2	1-1/4 X 3/16	3/8	5/16	1-3/4
2	500	2-1/2-3-1/2	1-1/4 X 1/4	1/2	3/8	2-1/4
3	700	4-5	1-1/2 X 3/8	5/8	7/16	2-1/2
4	1000	B	2 X 3/8	3/4	1/2	2-3/4
5	2000	B-12	2-1/2 X 1/2	7/8	9/16	3-1/2

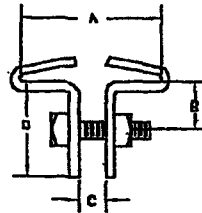


FIG. 44

I-BEAM CLAMP \_\_\_\_\_ FIG. 44

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER, SIZE NUMBER,  
CLAMP MATERIAL AND FINISH, BEAM FLANGE  
WIDTH AND THICKNESS.

DIMENSIONS IN INCHES

SIZE NO.	MAX. REC. LOAD POUNDS	B	C	D	STEEL SIZE	BOLT SIZE	APPROX. WEIGHT PER 100 BEAM WIDTH DIMENSION-A													
							2	3	4	5	6	7	8	9	10					
1	610	1-1/8	3/8	1-3/4	1/4 X 1-1/4	1/2	74	82	109	121	131	139	143	149	152					
2	800	1-3/4	5/8	2	3/8 X 1-1/2	1/2	126	149	199	232	269	243	269	289	302					
3	1000	1-5/8	3/4	2-3/8	3/8 X 1	5/8			211	238	268	289	302	319	332					
4	3000	1-3/8	7/8	2-5/8	1/2 X 1	3/4			348	408	452	486	510	531	551	572	592	612	632	652
5	4000	1-3/4	1	2-3/4	1/2 X 1	7/8				600	648	700	740	790	830	880	920	970	1010	1060
6	5000	2-1/8	1-1/8	4-1/8	3/8 X 4	1						1150	1275	1400	1525	1650	1775	1900	2025	2150

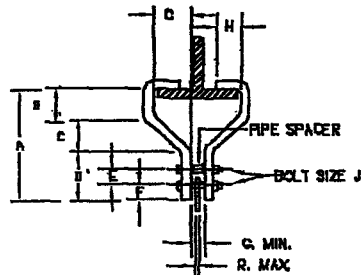


FIG. 45

EXTENDED BEAM CLAMP \_\_\_\_\_ FIG. 45

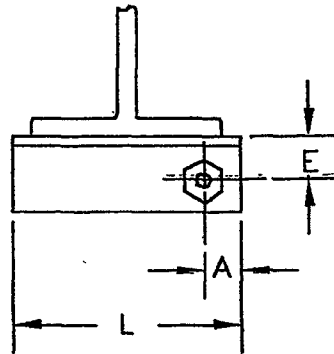
MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER, CLAMP SIZE  
NUMBER, MATERIAL AND FINISH  
NOTE: EYE NUT AND ROD IS NOT INCLUDED

DIMENSIONS IN INCHES

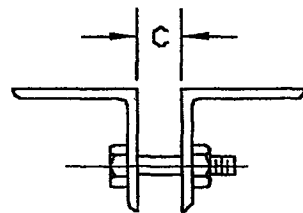
SIZE NO.	FLANGE WIDTH	STEEL SIZE	J	A	B	C	D	E	F	MIN. G	H	MAX. REC. R	MAX. REC. LOAD LBS.
1	4			7-5/16		1-13/16							
2	5-8			7-15/16		2-5/16							
3	6-1/2-7-1/2	3/8 X 3	5/8	8-9/16	1-1/4	3-1/16	4-1/4	1-3/4	1-1/8	5/8	1-1/2	1/2	1130
4	8-9			8-5/16		3-13/16							
5	10-10-1/2			10-5/16		4-13/16							
6	4			7-5/8		1-7/8							
7	5-8			8-1/8		2-3/8							
8	6-1/2-7-1/2	1/2 X 3	3/4	8-7/8	1-1/4	3-1/8	4-1/2	1-7/8	1-3/8	7/8	2	5/8	1810
9	8-9			8-5/8		3-7/8							
10	10-10-1/2			10-3/8		4-5/8							
11	4			8-3/8		1-7/8							
12	5-8			8-7/8		2-3/8							
13	6-1/2-7-1/2	5/8 X 4	1	10-5/8	1-1/4	3-1/8	6-1/4	2-9/16	1-3/4	1	2	7/8	3770
14	8-9			11-3/8		3-7/8							
15	10-10-1/2			12-1/8		4-5/8							



FIG.  
46



DOUBLE ANGLE BEAM  
ATTACHMENT \_\_\_\_\_ FIG. 46



MATERIAL:  
CARBON STEEL  
ORDERING:  
SPECIFY NAME,  
FIGURE NUMBER,  
ROD SIZE, FINISH AND  
"A" AND "L" WHEN  
OTHER THAN MINIMUM

FIG. 46

LOADS-DIMENSIONS(INCHES)

ROD SIZE	MAX. RATED LOAD, LB.	ANGLE SIZE	BOLT DIA. LENGTH	A (MIN.)	C	E	L (MIN.)
1/2 5/8 3/4	1130 1610 2710	3 X 3 X 1/4	5/8 X 3 3/4 X 3 7/8 X 4	1 1 1-1/4	1-1/4 1-1/4 1-1/2	1-3/4	2 2 2 1/2
1 1-1/4	4880 8000	3-1/2 X 3-1/2 X 3/8 4 X 4 X 1/2	1-1/8 X 4-1/4 1-1/2 X 6	1-1/2 2	2 2-1/2	2 2-1/2	3 4
1-1/2 1-3/4 2	11630 15700 20700	5 X 5 X 1/2 6 X 6 X 1/2 8 X 8 X 3/4	1-3/4 X 7 2 X 7 2-1/4 X 7-1/8	2-1/2 2-1/2 3	3 3-3/4 3-3/4	3 3-1/2 5	5 5 6
2-1/4 2-1/2 2-3/4	27200 33500 41600	8 X 8 X 3/4	2-1/2 X 7-5/8 2-3/4 X 7-7/8 3 X 8-1/4	3	4-1/4 4-1/2 3-3/4	5 4-5/8 4-3/8	6
3	50800	8 X 8 X 3/4	3-1/4 X 8-1/2	3-1/2	3-3/4	4	7

FIG.  
48, 49 & 54

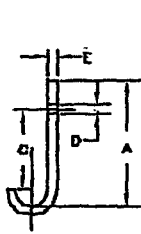


FIG. 48

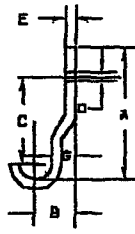


FIG. 49

STRAIGHT J-HOOK HANGER\_\_\_ FIG. 48

OFFSET J-HOOK HANGER\_\_\_ FIG. 49

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL

ORDERING:  
SPECIFY NAME,  
FIGURE NUMBER,  
PIPE SIZE,  
MATERIAL AND FINISH

DIMENSIONS IN INCHES

PIPE SIZE	MAX. RECOM. LOAD, LB.	A	B	C	HOLE SIZE D	STEEL SIZE E	G
1/2	180	6-3/16	1-1/2	5	9/16	3/16 X 1-1/4	1
3/4	180	6-5/16	1-5/8	5	9/16	3/16 X 1-1/4	1
1	390	6-7/16	1-3/4	5	9/16	1/4 X 1-1/2	1
1-1/4	390	6-9/16	1-7/8	5	9/16	1/4 X 1-1/2	1
1-1/2	610	6-11/16	2	5	9/16	1/4 X 1-1/2	1
2	610	6-15/16	2-1/4	5	9/16	1/4 X 1-1/2	1
2-1/2	610	7-3/16	2-1/2	5	9/16	1/4 X 1-1/2	1
3	610	7-1/2	2-13/16	5	9/16	1/4 X 1-1/2	1
4	610	8	3-5/16	5	9/16	1/4 X 1-1/2	1

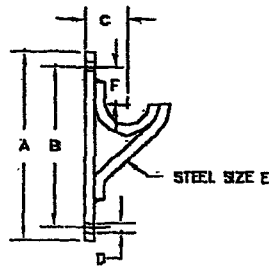


FIG. 54

WALL BRACKET PIPE SUPPORT\_\_\_ FIG. 54

MATERIAL:  
CARBON STEEL OR  
STAINLESS STEEL

ORDERING:  
SPECIFY NAME,  
FIGURE NUMBER,  
PIPE SIZE,  
MATERIAL AND FINISH

DIMENSIONS IN INCHES

PIPE SIZE	A	B	C	HOLE SIZE D	STEEL SIZE E	F	APPROX. WEIGHT PER 100
3	9-1/8	7-7/8	2-1/4	9/16	1-1/2 X 1/4	2-3/4	238
4	10-1/2	9-1/4	2-3/4	9/16	1-1/2 X 1/4	3-1/4	256
5	12-3/4	11-1/4	3-5/16	9/16	1-1/2 X 1/4	3-3/4	405
6	14	12-1/2	3-13/16	9/16	1-1/2 X 1/4	4-1/2	448
8	18	16	5-3/8	11/16	2 X 1/2	5-3/4	1530
10	22	19-1/2	6-3/8	11/16	2-1/2 X 1/2	6-1/2	2335
12	24-1/2	22	7-3/8	11/16	2-1/2 X 1/2	7-1/2	2690



FIG.  
50 & 50U

SADDLE WITH ADJUSTABLE ROD SUPPORT \_\_\_\_\_ FIG. 50  
 SADDLE W/ADJ ROD SUPPORT AND U-BOLT \_\_\_\_\_ FIG. 50U

MATERIAL:  
 CARBON STEEL OR STAINLESS STEEL  
 ORDERING:  
 SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
 MATERIAL AND FINISH

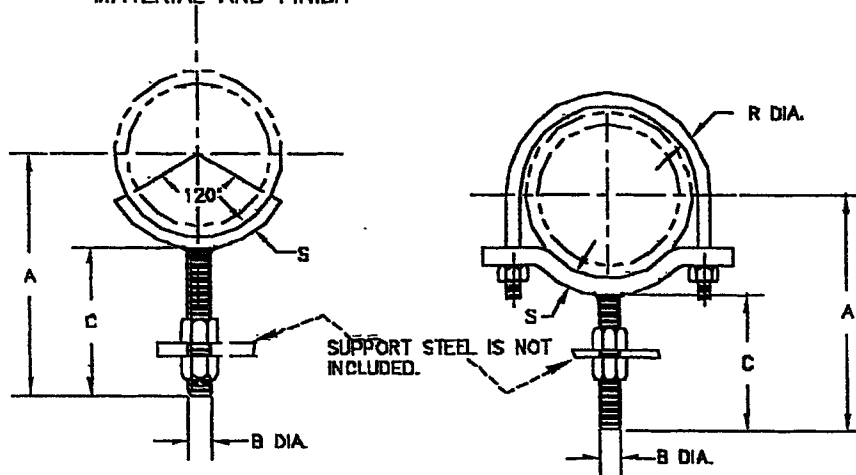


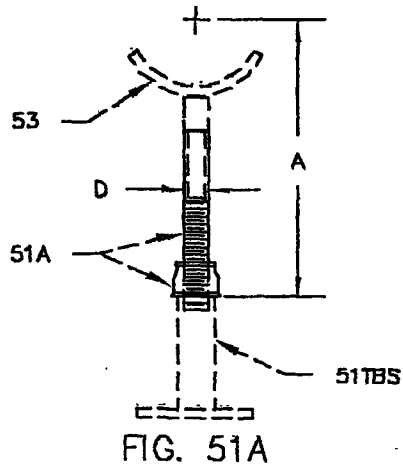
FIG. 50

FIG. 50U

DIMENSIONS IN INCHES

PIPE SIZE	B	C	S	A	R
2	5/8	B	1/4 X 1	9-1/2	1/4
2-1/2	5/8	B	1/4 X 1	9-3/4	3/8
3	5/8	B	1/4 X 1	10-1/16	3/8
3-1/2	5/8	B	1/4 X 1	10-5/16	3/8
4	7/8	B	1/4 X 1-1/4	10-9/16	1/2
5	7/8	B	1/4 X 1-1/4	11-1/16	1/2
6	1	B	3/8 X 1-1/2	11-3/4	5/8
8	1	B	3/8 X 1-1/2	12-3/4	5/8
10	1-1/4	B	1/2 X 2	13-15/16	5/8
12	1-1/4	B	1/2 X 2	14-15/16	5/8

FIG.  
51A



PIPE SUPPORT ADJUSTER  
-ONE PLAIN END \_\_\_\_\_ FIG. 51A

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
ADJUSTER SIZE, MATERIAL AND FINISH.

NOTE: ADJUSTER SIZE IS ADJUSTER  
PIPE SIZE.  
THIS ADJUSTER IS A PART  
OF FIG. 53A AND FIG. 53AU.  
SADDLE IS NOT INCLUDED.  
SUPPORT PIPE P IS NOT INCLUDED.  
THIS ADJUSTER MAY BE USED  
ON A FIG. 51TBS THREADED BASE STAND.

DIMENSIONS IN INCHES

PIPE SIZE	SUPPORT PIPE SIZE P	ADJUSTER PIPE SIZE D	A	
			MAX.	MIN.
2-1/2	2-1/2	1-1/2	13	8
3	2-1/2	1-1/2	13-7/14	8-1/4
4	3	2-1/2	14-1/8	9-1/8
5	3	2-1/2	14-5/8	9-5/8
6	3	2-1/2	15-1/4	10-1/4
8	3	2-1/2	16-1/4	11-1/4
10	3	2-1/2	17-3/8	12-3/8
12	3	2-1/2	18-3/8	13-3/8
14	4	3	20-1/2	15-1/2
16	4	3	21-5/8	16-5/8
18	6	4	24-1/8	19-1/8
20	6	4	25-1/8	20-1/8
24	6	4	27-1/4	22-1/4
30	6	4	30-1/4	25-1/4
36	6	4	33-1/4	28-1/4

FIG. 51TBS

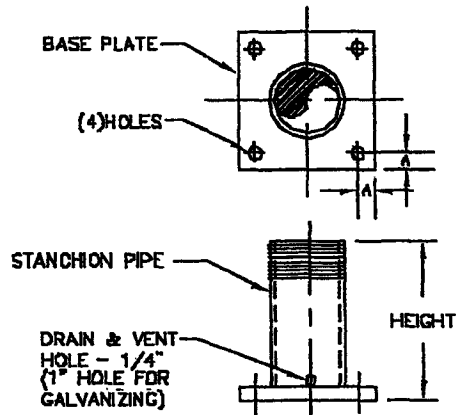


FIG-51TBS

PIPE STANCHION BASES

THREADED BASE STAND \_\_\_\_\_ FIG. 51TBS

MATERIAL:

CARBON STEEL OR STAINLESS STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER, STANCHION PIPE SIZE, HEIGHT 'H', MATERIAL AND FINISH.

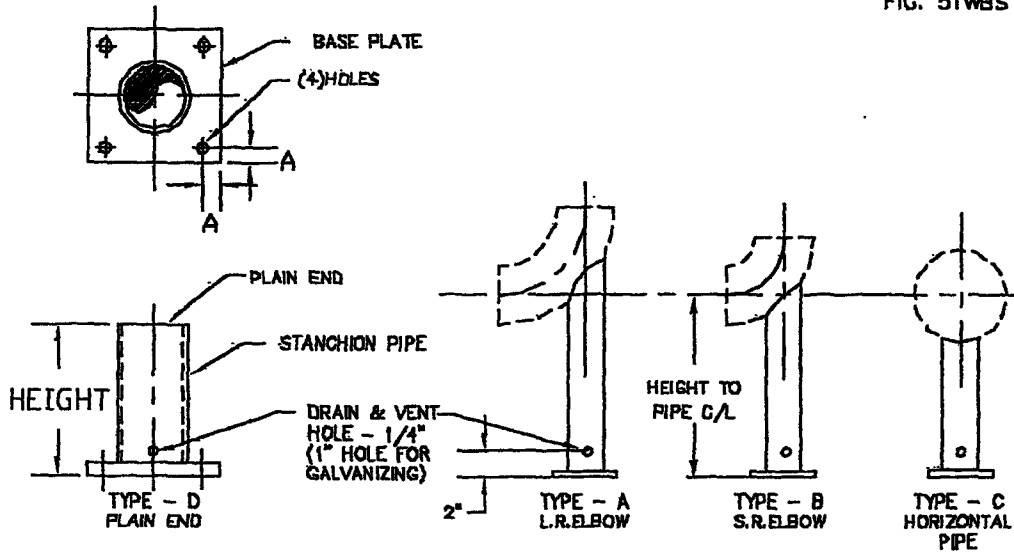
NOTES:

PIPE SUPPORT ADJUSTER FIG. 51A, PIPE SADDLES, FIG. 52, 52U, 53A AND 53AU WILL FIT ON FIG. 51TBS.

DIMENSIONS IN INCHES

STANCHION PIPE SIZE P	BASE PLATE SIZE	HOLE SIZE	PIPE THREAD LENGTH	A
1-1/4	1/4 X 6 X 6	8/16	1-1/2	1
1-1/2	1/4 X 6 X 6	9/16	1-1/2	1
2	3/8 X 6 X 6	9/16	1-1/2	1
2-1/2	3/8 X 8 X 8	11/16	1-1/2	1-1/4
3	3/8 X 8 X 8	11/16	1-1/2	1-1/4
4	3/8 X 8 X 8	11/16	2	1-1/4
5 - 8	3/8 X 10 X 10	13/16	2	1-1/2

FIG. 51WBS



PIPE STANCHION BASES

WELDED BASE STAND \_\_\_\_\_ FIG. 51WBS

MATERIAL:

CARBON STEEL OR STAINLESS STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER, STANCHION PIPE SIZE, PROCESS PIPE SIZE, TYPE, HEIGHT, MATERIAL AND FINISH.

NOTES:

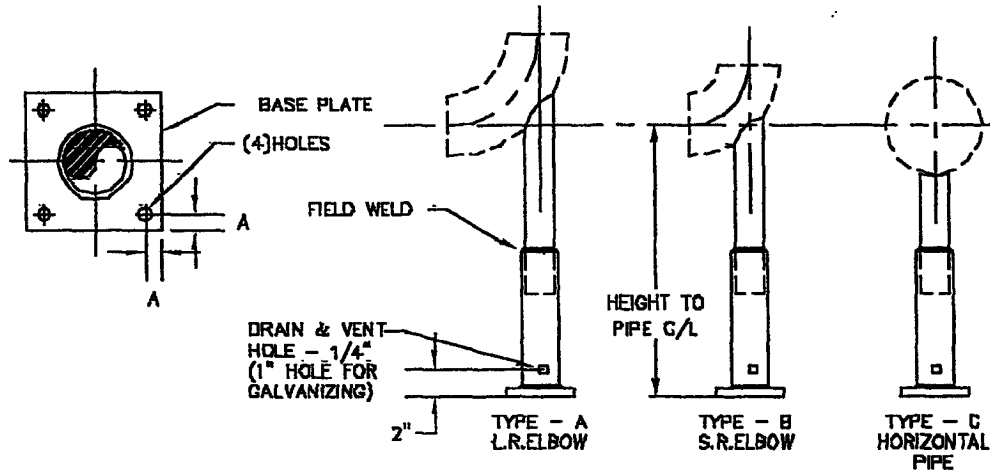
SADDLES FIG. 53 AND 53U WILL FIT ON FIG. 51WBS. TYPE - D.

DIMENSIONS IN INCHES

STANCHION PIPE SIZE P	BASE PLATE SIZE	HOLE SIZE	A	MAXIMUM PROCESS PIPE SIZE
1-1/4	1/4 X 6 X 6	9/16	1	3
1-1/2	1/4 X 8 X 8	9/16	1	4
2	3/8 X 8 X 8	9/16	1	5
2-1/2	3/8 X 8 X 8	11/16	1-1/4	6
3				8
4				10
5 - 8	3/8 X 10 X 10	13/16	1-1/2	18
8	3/8 X 14 X 14	13/16	1-1/2	24
10	1/2 X 18 X 18	1-1/8	1-3/4	28
12				36
14	1/2 X 20 X 20	1-1/8	1-3/4	42
16	1/2 X 22 X 22			
18-20	1/2 X 24 X 24			
24	1/2 X 30 X 30			



FIG. 51AWB



PIPE STANCHION BASES  
ADJUSTABLE WELDED BASE STAND \_\_\_\_\_ FIG. 51AWB

MATERIAL:

CARBON STEEL OR STAINLESS STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER, STANCHION UPPER PIPE SIZE, PROCESS PIPE SIZE, TYPE, HEIGHT, MATERIAL AND FINISH.

DIMENSIONS IN INCHES

UPPER STANCHION PIPE SIZE	BASE PLATE SIZE	HOLE SIZE	A	MAXIMUM PROCESS PIPE SIZE
1-1/2	1/4 X 6 X 6	9/16	1	4
2-1/2	3/8 X 10 X 10	13/16	1-1/4	6
4	3/8 X 10 X 10	13/16	1-1/4	10
5	3/8 X 10 X 10	13/16	1-1/4	18



FIG.  
52 & 52U

PIPE SADDLE WITH COUPLING \_\_\_\_\_ FIG. 52  
 PIPE SADDLE WITH PIPE COUPLING  
 AND U-BOLT \_\_\_\_\_ FIG. 52U

MATERIAL:  
 CARBON STEEL OR STAINLESS STEEL

ORDERING:  
 SPECIFY NAME, FIGURE NUMBER,  
 PIPE SIZE, MATERIAL AND FINISH  
 NOTE: THIS SADDLE DOES NOT FIT  
 FIG. 51A PIPE SUPPORT ADJUSTER

THIS SADDLE MAY BE USED  
 WITH FIG. 51TBS  
 BASE STAND.

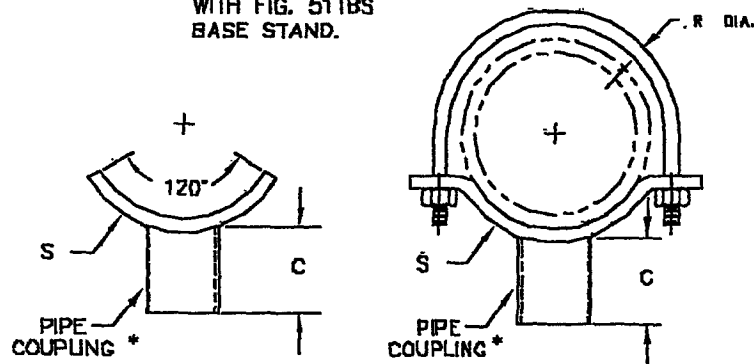


FIG. 52

FIG. 52U

DIMENSIONS IN INCHES

PIPE SIZE	STEEL SIZE	STEEL COUPLING *		R
		PIPE SIZE	LENGTH	
2	3/8 X 2-1/2	1-1/4	2-5/8	3/8
3	3/8 X 2-1/2	1-1/2	3-1/8	3/8
4	3/8 X 3	2	3-3/8	1/2
5	3/8 X 3	2	3-3/8	1/2
6	1/2 X 3-1/2	2-1/2	3-5/8	5/8
8	1/2 X 3-1/2	2-1/2	3-5/8	5/8
10	1/2 X 4-1/2	3	4-1/4	3/4
12	1/2 X 4-1/2	3	4-1/4	7/8

\* COUPLING LENGTHS MAY VARY.



FIG. 53

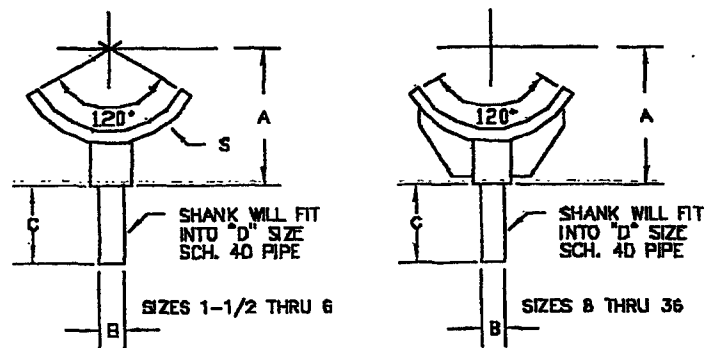


FIG. 53

PIPE SADDLE WITH SUPPORT STEM \_\_\_\_\_ FIG. 53

MATERIAL:

CARBON STEEL OR STAINLESS STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER, PIPE SIZE, MATERIAL AND FINISH

NOTE: THIS SADDLE MAY BE USED WITH FIG. 51A PIPE SUPPORT ADJUSTER AND A FIG. 51TBS THREADED BASE STAND OR A FIG. 51WBS WELDED BASE STAND.

DIMENSIONS (INCHES)

PIPE SIZE	S STOCK	A	B SCH 40 PIPE SIZE	C	D SIZE SCH 40 PIPE
2-1/2	1/4 X 2-1/2	2-11/16	1	2	1-1/2
3	1/4 X 2-1/2	3	1	2	1-1/2
4	3/8 X 4	3-13/16	2	3	2-1/2
5	3/8 X 4	4-3/16	2	3	2-1/2
6	3/8 X 4	4-7/8	2	3	2-1/2
8	3/8 X 4	6-15/16	2	4	2-1/2
10	3/8 X 4	7-15/16	2	4	2-1/2
12	3/8 X 4	9-1/8	2	4	2-1/2
14	1/2 X 4	10-1/2	2-1/2	4	3
16	1/2 X 4	11-1/2	2-1/2	4	3
18	1/2 X 5	13-1/2	3-1/2	4	4
20	1/2 X 5	14-1/2	3-1/2	4	4
24	1/2 X 5	17-1/2	3-1/2	4	4
30	5/8 X 5	20-5/8	3-1/2	4	4
35	5/8 X 5	23-5/8	3-1/2	4	4



FIG.  
53A, 53AU

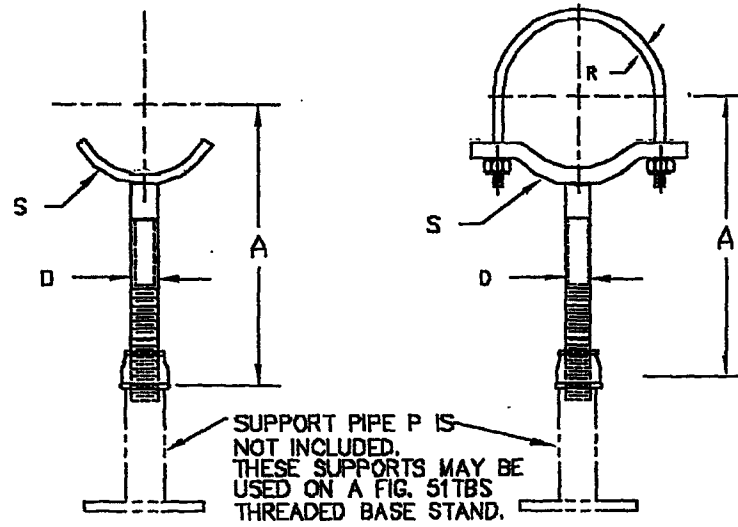


FIG. 53A

FIG. 53AU

SADDLE WITH PIPE SUPPORT ADJUSTER \_\_\_\_\_ FIG. 53A  
 SADDLE WITH U-BOLT AND PIPE SUPPORT ADJUSTER \_\_\_\_\_ FIG. 53AU

**MATERIAL:**

CARBON STEEL OR STAINLESS STEEL

**ORDERING:**

SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
 MATERIAL AND FINISH

**NOTE:** THESE SUPPORTS ARE MADE BY COMBINING FIG 51A  
 WITH FIG. 53 OR FIG. 53U

**DIMENSIONS IN INCHES**

PIPE SIZE	SUPPORT PIPE SIZE P	ADJUSTER PIPE SIZE D	A		R	S
			MAX.	MIN.		
2-1/2	2-1/2	1-1/2	13	8	1/2	1/4 X 2-1/2
3	2-1/2	1-1/2	13-1/4	8-1/4	1/2	1/4 X 2-1/2
4	3	2-1/2	14-1/8	9-1/8	1/2	3/8 X 4
5	3	2-1/2	14-5/8	9-5/8	1/2	3/8 X 4
6	3	2-1/2	15-1/4	10-1/4	5/8	3/8 X 4
8	3	2-1/2	16-1/4	11-1/4	5/8	3/8 X 4
10	3	2-1/2	17-3/8	12-3/8	3/4	3/8 X 4
12	3	2-1/2	18-3/8	13-3/8	7/8	3/8 X 4
14	4	3	20-1/2	15-1/2	7/8	1/2 X 4
16	4	3	21-5/8	16-5/8	7/8	1/2 X 4
18	6	4	24-1/8	19-1/8	1	1/2 X 5
20	6	4	25-1/8	20-1/8	1	1/2 X 5
24	6	4	27-1/4	22-1/4	1	1/2 X 5
30	6	4	30-1/4	25-1/4	1	5/8 X 5
38	8	4	33-1/4	28-1/4	1	5/8 X 5



**POWER MANUFACTURING, LLC**

FIG. 53U

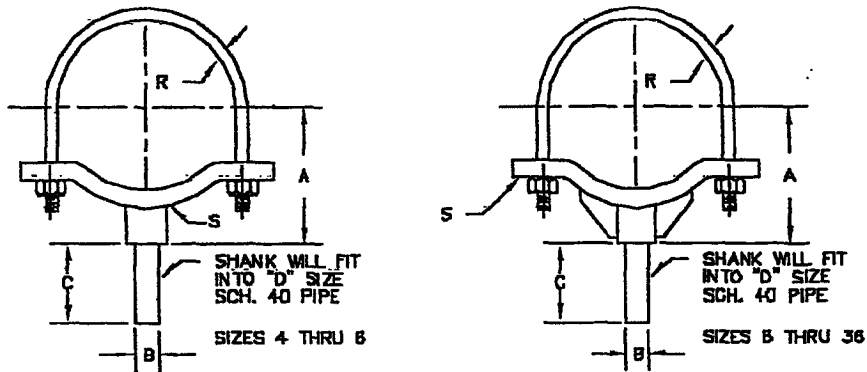


FIG. 53U

SADDLE WITH U-BOLT AND STEM SUPPORT FIG. 53U

MATERIAL:

CARBON STEEL OR STAINLESS STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER, PIPE SIZE, MATERIAL AND FINISH

NOTE: THIS SADDLE MAY BE USED WITH FIG. 51A PIPE SUPPORT ADJUSTER AND A 51TBS THREADED BASE STAND OR A FIG. 51WBS WELDED BASE STAND.

DIMENSIONS (INCHES)

PIPE SIZE	S STOCK	A	B SCH 40 PIPE SIZE	C	D SIZE SCH 40 PIPE	R
2-1/2	1/4 X 2-1/2	2-11/16	1	2	1-1/2	1/2
3	1/4 X 2-1/2	3	1	2	1-1/2	1/2
4	3/8 X 4	3-13/16	2	3	2-1/2	1/2
5	3/8 X 4	4-3/16	2	3	2-1/2	1/2
6	3/8 X 4	4-7/8	2	3	2-1/2	5/8
8	3/8 X 4	6-15/16	2	4	2-1/2	5/8
10	3/8 X 4	7-15/16	2	4	2-1/2	3/4
12	3/8 X 4	9-1/8	2	4	2-1/2	7/8
14	1/2 X 4	10-1/2	2-1/2	4	3	7/8
18	1/2 X 4	11-1/2	2-1/2	4	3	7/8
20	1/2 X 5	13-1/2	3-1/2	4	4	1
24	1/2 X 5	17-1/2	3-1/2	4	4	1
30	5/8 X 5	20-5/8	3-1/2	4	4	1
36	5/8 X 5	23-5/8	3-1/2	4	4	1

FIG. 56

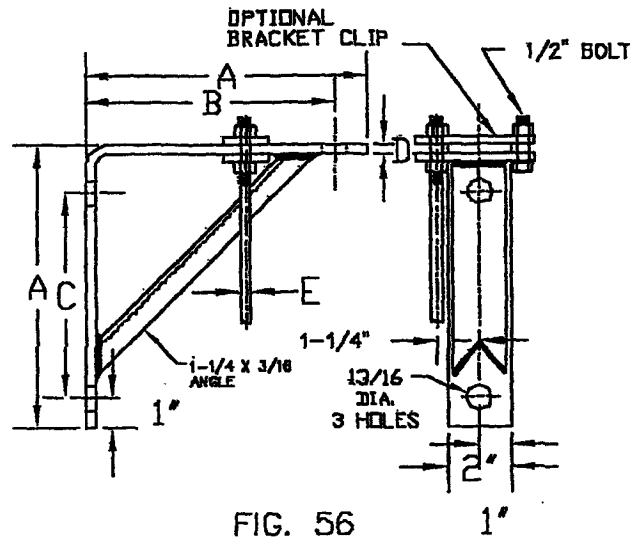


FIG. 56

LIGHT WELDED STEEL BRACKET \_\_\_\_\_ FIG. 56

MAXIMUM RECOMMENDED TOTAL LOAD: 750 LBS.  
 MAXIMUM RECOMMENDED 'E' ROD LOAD: 400 LBS.

**MATERIAL:**

CARBON STEEL OR STAINLESS STEEL

**ORDERING:**

SPECIFY NAME, FIGURE NUMBER, SIZE NUMBER,  
 MATERIAL AND FINISH

ALSO STATE CLIP OPTION REQUIRED

**DIMENSIONS IN INCHES**

BRACKET NO.	A	B	C	D
1	8	8	6-1/2	3/8
2	13	12	10-1/2	3/8
3	18	18	16-1/2	3/8

**CLIPS FOR BRACKETS**

FOR PIPE SIZES	RECOMMENDED ROD SIZE 'E'	FLAT BAR SIZE
1/2" TO 2"	3/8	1/4 X 1-1/2
2-1/2" TO 3-1/2"	1/2	3/8 X 2



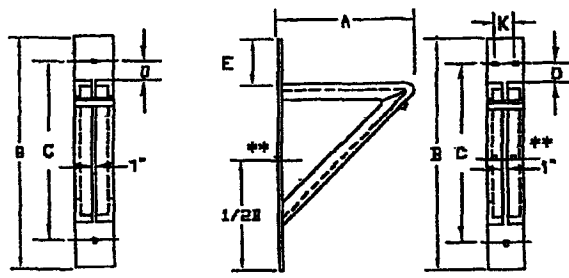


FIG. 57L, 57M, 57H

TYPE A BRACKETS WITH VERTICAL LEG OF ANGLE ON OUTSIDE AS SHOWN ARE FOR LOADS ON TOP WITH OR WITHOUT U-BOLTS.  
 TYPE B BRACKETS USED TO SUPPORT ROD HANGERS MUST HAVE ANGLES BACK TO BACK.

- FIG. 57L/57M LIGHT WELDED BRACKET \_\_\_\_\_ FIG. 57L  
 MEDIUM WELDED BRACKET \_\_\_\_\_ FIG. 57M  
 HEAVY WELDED BRACKET \_\_\_\_\_ FIG. 57H

\$- SAVINGS -\$  
 SPECIAL DESIGNS  
 AVAILABLE FOR  
 YOUR LOADS.

MATERIAL:  
 CARBON STEEL OR STAINLESS STEEL  
 ORDERING:  
 SPECIFY NAME, FIGURE NUMBER, SIZE NUMBER,  
 MATERIAL AND FINISH

FIG. 57L DIMENSIONS (INCHES)

SIZE	A	B	C	D	E	PLATE SIZE	C.S. OR S.S. ANGLE SIZE	HOLE SIZE	LOAD RATING LBS.
L1	9	14	11-1/2	1-1/4	2-1/2	1/4 X 3	1 X 1/4		750
L2	13	18	15-1/2	1-1/4	2-1/2	1/4 X 3-1/2	1-1/4 X 1/4	9/16	750
L3	19	24	21-1/2	1-1/4	2-1/2	1/4 X 4	1-1/2 X 1/4		750

FIG. 57M

SIZE	A	B	C	D	E	PLATE SIZE	C.S. OR S.S. ANGLE SIZE	HOLE SIZE	LOAD RATING LBS.
MD	12	18	15-1/2	1-1/4	2-1/2	3/8 X 4	1-1/2 X 1/4		1500
M1	18	24	21-1/2	1-1/4	2-1/2	3/8 X 5	2 X 1/4	13/16	1500
M2	24	30	27-1/2	1-1/4	2-1/2	3/8 X 6	2-1/2 X 3/8		1500

FIG. 57H

SIZE	A	B	C	D	E	K	PLATE SIZE	CARBON STEEL ANGLE SIZE	HOLE SIZE	LOAD RATING LBS.
H0	12	18	15-1/4	1-3/8	2-3/4	-	1/2 X 4	2 X 1-1/2 X 1/4	1-1/8	3000
H1	18	24	21-3/8	1-7/8	2-3/4	2-1/2	1/2 X 5	2 X 3/8	1-1/8	3000
H2	24	30	27-1/2	1-1/2	2-3/4	2-1/2	1/2 X 5	2-1/2 X 2 X 3/8	1-1/8	3000
H3	30	36	33-1/4	1-5/8	3	2-1/2	1/2 X 5	3 X 2 X 3/8	1-1/8	3000
H4	36	42	39	1-1/2	3	2-1/2	1/2 X 5	3 X 2 X 3/8	1-1/8	3000
H5	42	50	46	1-1/2	3-1/2	2-1/2	1/2 X 5	3 X 2 X 1/2	1-1/8	3000

\*\*ADD 2 HOLES ON 57H SIZES H3, H4 & H5.

FIG. 57H STAINLESS STEEL BRACKETS			
SIZE	ANGLE SIZE	PLATE SIZE	K
H0SS	2-1/2 X 3/16	1/2 X 6	3
H1SS	3 X 1/4	1/2 X 7	4
H2SS	3 X 1/4	1/2 X 7	4
H3SS	3 X 3/8	1/2 X 7	4
H4SS	3 X 3/8	1/2 X 7	4
H5SS	3-1/2 X 3/8	1/2 X 8	5

FIG.  
60,60C & 60FP

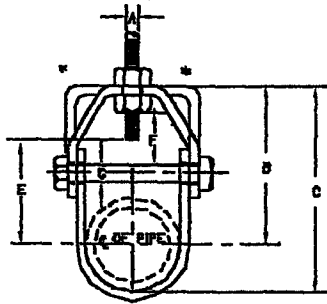


FIG. 60

ADJUSTABLE CLEVIS HANGER

- MEDIUM \_\_\_\_\_ FIG. 60
- MED. PLASTIC COATED \_\_\_\_\_ FIG. 60C
- MED. W/ HOLE SIZE PER NFPA \_\_\_\_\_ FIG. 60FP

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
PIPE SIZE, MATERIAL AND FINISH

\* 3-1/2 INCH SIZE & SMALLER MAY  
HAVE A FLAT TOP.

\*\* 20 INCH SIZE AND LARGER ARE  
FURNISHED WITH A PIPE SPACER OVER  
THE BOLT "G".

LOADS-DIMENSIONS (INCHES)

PIPE SIZE	MAXIMUM RECOMMENDED LOAD LB.	SIZE OF STEEL		ROD SIZE A	B	C	ROD TAKE-OUT E	ADJUST- MENT F	BOLT G
		UPPER	LOWER						
1/2	810	16GA X 7/8	16GA X 7/8	3/8	1-11/16	2-1/8	7/8	7/16	1/4
3/4	810	16GA X 7/8	16GA X 7/8	3/8	1-7/8	2-7/16	1	1/2	1/4
1	810	16GA X 7/8	16GA X 7/8	3/8	2-1/8	2-13/16	1-1/4	5/8	1/4
1-1/4	810	16GA X 7/8	16GA X 7/8	3/8	2-9/16	3-7/16	1-3/4	7/8	1/4
1-1/2	810	13GA X 7/8	13GA X 7/8	3/8	3	4	2-1/8	1-1/16	1/4
2	810	13GA X 7/8	13GA X 7/8	3/8	3-11/16	4-7/8	2-15/16	1-5/8	1/4
2-1/2	1130	10GA X 1-3/16	11GA X 1-3/16	1/2	4-11/16	5-1/8	3-13/16	2	3/8
3	1130	10GA X 1-3/16	11GA X 1-3/16	1/2	4-3/4	5-9/16	3-7/8	1-3/4	3/8
3-1/2	1130	8GA X 1-3/16	11GA X 1-3/16	1/2	4-15/16	5-15/16	4-1/8	1-3/4	3/8
4	1430	9GA X 1-3/16	11GA X 1-3/16	5/8	5-9/16	7-13/16	4-1/2	1-15/16	3/8
5	1430	4GA X 1-1/4	8GA X 1-1/4	5/8	6-3/16	9	5-1/8	1-3/4	1/2
6	1340	3GA X 1-1/2	8GA X 1-1/2	3/4	6-13/16	10-1/8	5-5/8	1-7/8	1/2
8	2000	3GA X 1-3/4	8GA X 1-3/4	7/8	8-5/16	12-5/8	7	2-1/8	5/8
10	3800	3/8 X 1-3/4	3GA X 1-3/4	7/8	9-7/8	15-1/4	8-3/8	2-1/4	3/4
12	3800	3/8 X 2	1/4 X 2	7/8	11-1/2	18	10-3/16	3	3/4
14	4200	1/2 X 2	1/4 X 2	1	12-7/16	18-7/16	10-13/16	2-15/16	7/8
16	4800	1/2 X 2-1/2	1/4 X 2-1/2	1	14-1/16	22-1/16	12-7/16	2-5/8	1
18	4800	1/2 X 2-1/2	1/4 X 2-1/2	1	15-1/2	24-3/4	13-15/16	3-7/8	1-1/8
** 20	4800	5/8 X 3	3/8 X 3	1-1/4	17-1/4	27-3/8	14-7/16	4	1-1/4
** 24	4800	5/8 X 3	3/8 X 3	1-1/4	19-5/8	31-5/8	17-1/2	4-1/4	1-1/4
** 30	6000	3/4 X 3	3/8 X 3	1-1/4	24-1/8	39-1/8	21-7/8	5	1-1/4

FIG. 60C1

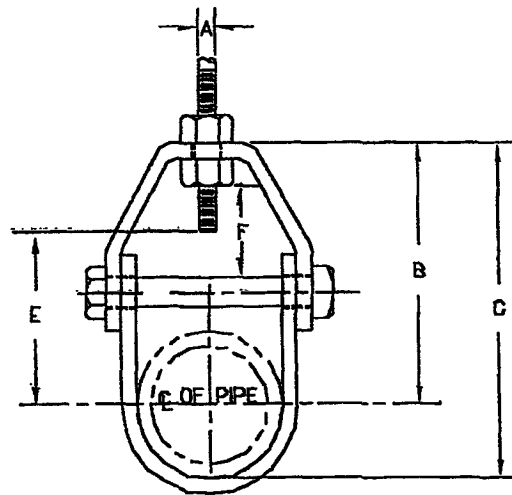


FIG. 60C1

ADJUSTABLE CLEVIS HANGER FOR CAST IRON PIPE\_\_ FIG. 60C1

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
MATERIAL AND FINISH

\* 20 INCH SIZE AND LARGER ARE  
FURNISHED WITH A PIPE SPACER  
OVER THE BOLT,

LOADS-DIMENSIONS (INCHES)

PIPE SIZE	MAXIMUM RECOMMENDED LOAD, LB	SIZE OF STEEL		ROD SIZE A	B	C	E	ADJUSTMENT F
		UPPER	LOWER					
4	1430	1/4 X 1-1/4	3/16 X 1-1/4	5/8	5-11/16	8-3/16	4-13/16	1-5/8
6	1840	1/4 X 1-1/2	3/16 X 1-1/2	3/4	7	10-1/2	5-3/4	1-3/4
8	2000	1/4 X 1-3/4	3/16 X 1-3/4	7/8	8-3/8	13	7	1-3/4
10	3600	3/8 X 1-3/4	1/4 X 1-3/4	7/8	10-1/8	15-3/4	8-5/8	2-1/4
12	3800	3/8 X 2	1/4 X 2	7/8	10-1/2	17-1/4	9	1-1/4
14	4200	1/2 X 2	1/4 X 2	1	13-1/2	21-1/2	11-3/4	2-1/2
18	4500	1/2 X 2-1/2	1/4 X 2-1/2	1	15-1/4	24-1/4	13-1/2	3-3/8
18	4800	1/2 X 2-1/2	1/4 X 2-1/2	1	16-3/4	26-3/4	14-7/8	3-3/8
*20	4800	5/8 X 3	3/8 X 3	1-1/4	18-1/2	29-3/4	16-3/8	3-3/4
*24	4800	5/8 X 3	3/8 X 3	1 1/4	20-3/4	34	18-5/8	4



FIG.  
62, 62A

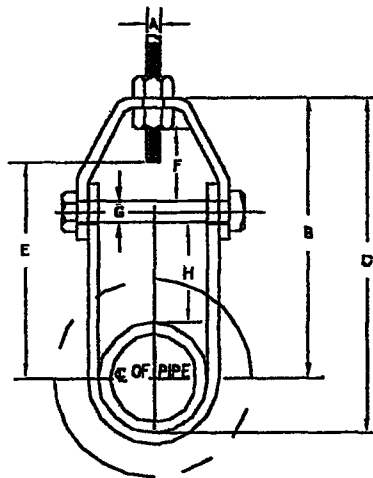


FIG. 62 & 62A

ELONGATED ADJ CLEVIS FOR INSULATED PIPE  
 -STEEL OR STAINLESS UP TO 650F \_\_\_\_\_ FIG. 62  
 -ALLOY STEEL UP TO 1050F \_\_\_\_\_ FIG. 62A

ORDERING:  
 SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
 MATERIAL AND FINISH

LOADS-DIMENSIONS (INCHES)

PIPE SIZE	MAXIMUM RECOMMENDED LOAD, LB.	SIZE OF STEEL			A	B	C	E	ADJUSTMENT F	G	H
		UPPER	LOWER								
3/4	610	1/8 X 1	1/8 X 1	3/8	3-5/8	4-1/4	2-7/8	1/2	1/4	2	
1	610	1/8 X 1	1/8 X 1	3/8	4	4-11/16	3-1/4	5/8	1/4	2	
1-1/4	610	1/8 X 1	1/8 X 1	3/8	4-7/16	5-1/4	3-5/8	7/8	1/4	2	
1-1/2	610	1/8 X 1	1/8 X 1	3/8	4-3/4	5-3/4	4-1/16	1-1/16	1/4	2	
2	610	1/8 X 1	1/8 X 1	3/8	7-7/16	8-11/16	6-1/2	1-5/8	1/4	4	
2-1/2	1130	3/16 X 1-1/4	3/16 X 1-1/4	1/2	8-7/16	9-15/16	7-1/2	2	3/8	4	
3	1130	3/16 X 1-1/4	3/16 X 1-1/4	1/2	8-5/8	10-5/16	7-9/16	1-3/4	3/8	4	
4	1430	1/4 X 1-1/4	3/16 X 1-1/4	5/8	8-3/8	11-5/8	8-3/16	1-15/16	3/8	4	
5	1430	1/4 X 1-1/4	3/16 X 1-1/4	5/8	9-7/8	12-5/8	8-3/4	1-3/4	1/2	4	
6	1940	1/4 X 1-1/2	3/16 X 1-1/2	3/4	10-5/8	14	9-3/8	1-7/8	1/2	4	
8	2000	1/4 X 1-3/4	3/16 X 1-3/4	7/8	12-3/8	16-3/4	11	2	5/8	4	
10	3600	3/8 X 1-3/4	1/4 X 1-3/4	7/8	13-3/4	19-3/16	12-1/4	2-1/8	3/4	4	
12	3800	3/8 X 2	1/4 X 2	7/8	15-1/8	21-9/16	13-5/8	2-7/16	3/4	4	



FIG. 64

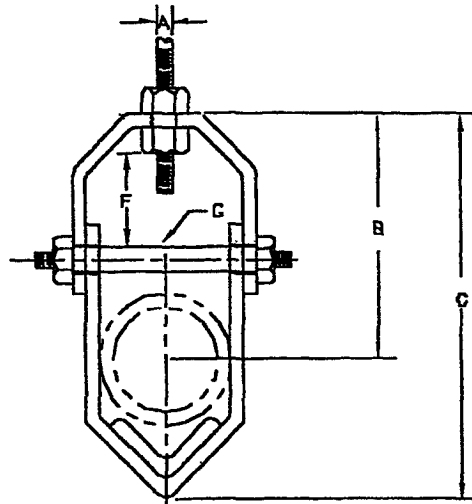


FIG. 64

V-ANGLE CLEVIS FOR HOSE OR PLASTIC PIPE... FIG. 64

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
MATERIAL AND FINISH.

NOTE:  
ANGLE MUST BE ORDERED SEPARATELY.

LOADS-DIMENSIONS (INCHES)

PIPE SIZE	MAX. LOAD, LB	STEEL SIZE	ROD SIZE A	B	C	ADJUSTMENT F	BOLT G
1/2 THRU 1 1/2	250	1/8 X 1	3/8	3-3/16	4-9/16	1-1/4	1/4
2	250	1/8 X 1	3/8	3-11/16	5-7/16	1-3/8	1/4
2 1/2 THRU 3	350	1/8 X 1-1/4	1/2	4-3/4	7-3/8	1-1/2	1/4
3 1/2 THRU 4	400	1/8 X 1-1/4	1/2	5-3/8	8-3/4	1-3/4	5/16
6	500	3/16 X 1-3/4	3/4	7-3/16	11-7/8	1-5/8	5/8

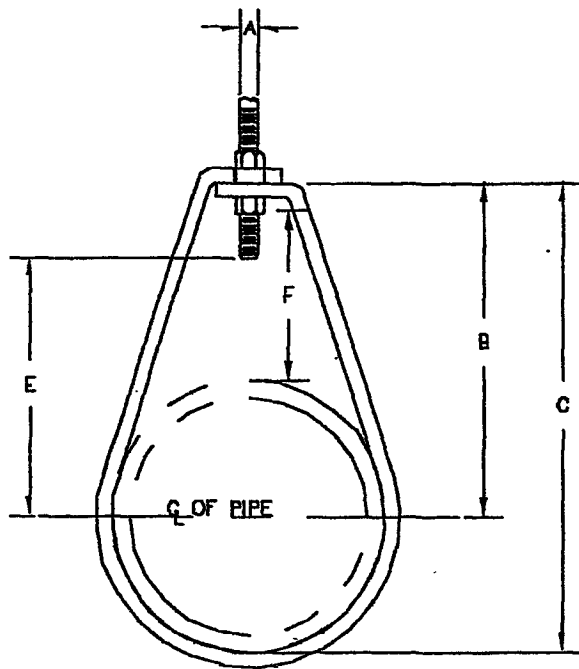


FIG. 66

FIG.  
66,66C & 66FP

PEAR SHAPE ADJ. RING OR  
BAND HANGER FIG. 66  
PEAR SHAPE WITH PLASTIC  
COATING FIG. 66C  
PEAR SHAPE WITH HOLE SIZE  
PER NFPA FIG. 66FP

MATERIAL:  
CARBON STEEL OR  
STAINLESS STEEL  
ORDERING:  
SPECIFY NAME,  
FIGURE NUMBER,  
PIPE SIZE,  
MATERIAL AND FINISH.

CAUTION:  
PEAR SHAPE HANGERS  
DO NOT SPREAD EASY TO  
GO ACROSS PIPE. THEY  
MUST SLIP OVER THE  
END OF PIPE.

NOTE:  
NUTS AND WASHERS  
SOLD SEPARATELY

LOADS-DIMENSIONS (INCHES)

PIPE SIZE	MAX. RECOM. LOAD LB.	STEEL SIZE	ROD SIZE	A	B	C	ROD TAKE-OUT E	ADJUSTMENT F
1/2	610	16GA X 1	3/8	1-13/16	2-5/16	1-1/8	1	
3/4	610	16GA X 1	3/8	2-1/16	2-5/8	1-5/16	1	
1	610	16GA X 1	3/8	2-3/16	2-7/8	1-7/16	1	
1-1/4	610	16GA X 1	3/8	2-9/16	3-7/16	1-13/16	1-1/4	
1-1/2	610	16GA X 1	3/8	2-3/4	3-11/16	1-15/16	1-1/4	
2	610	1/8 X 1	3/8	3	4-3/16	2-3/16	1-1/4	
2-1/2	970	1/8 X 1	1/2	3-7/8	5-5/16	3	1-3/4	
3	970	1/8 X 1	1/2	4-1/4	6	3-5/16	1-3/4	
3-1/2	970	1/8 X 1	1/2	4-1/2	6-1/2	3-9/16	1-3/4	
4	1250	1/8 X 1-1/4	5/8	4-7/8	7-1/8	3-13/16	1-3/4	
5	1250	1/8 X 1-1/4	5/8	5-11/16	8-7/16	4-5/8	2	
6	1600	1/8 X 1-1/2	3/4	6-3/8	9-11/16	5-3/16	2	
8	1600	3/16 X 1-1/2	7/8	7-9/16	11-7/8	6-3/16	2	

FIG.  
70P & 70T

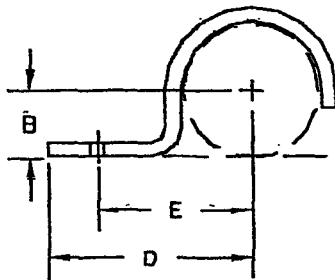


FIG.  
70P & 70T

ONE HOLE PIPE CLAMP \_\_\_\_\_ FIG. 70P  
ONE HOLE TUBE CLAMP \_\_\_\_\_ FIG. 70T

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
PIPE OR TUBE SIZE, MATERIAL & FINISH.

DIMENSIONS (INCHES)

SIZE	PIPE B	TUBE B	D	E	HOLE SIZE	STEEL SIZE
3/8	5/16	3/16	2	1-5/16	1/4	1/8 X 1
1/2	7/16	1/4	2-1/16	1-7/16	5/16	1/8 X 1
3/4	9/16	3/8	2-1/8	1-1/2	5/16	1/8 X 1
1	11/16	1/2	2-5/16	1-5/8	5/16	1/8 X 1
1-1/4	13/16	5/8	2-1/2	1-3/4	5/16	1/8 X 1
1-1/2	15/16	3/4	2-5/8	2	5/16	1/8 X 1
2	1-3/16	1	2-7/8	2-1/4	5/16	1/8 X 1
2-1/2	1-7/16	1-1/4	3-1/8	2-1/2	7/16	1/4 X 1-1/4
3	1-3/4	1-1/2	3-1/2	2-3/4	7/16	1/4 X 1-1/4
3-1/2	2	1-3/4	3-11/16	3-1/16	7/16	1/4 X 1-1/4
4	2-1/4	2	4-3/16	3-9/16	9/16	1/4 X 1-1/2

FIG.  
71L & 71M

RING AND BOLT CLAMP, LIGHT \_\_\_\_\_ FIG. 71L

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
PIPE SIZE, MATERIAL AND FINISH.

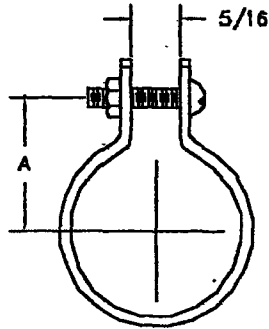


FIG. 71L

DIMENSIONS (INCHES)

PIPE SIZE	A	BOLT SIZE	STOCK SIZE	MAX. LOAD RATING LBS.
3/8	1	1/4	16GA. X 1	275
1/2	1-1/16	1/4	16GA. X 1	275
3/4	1-3/16	1/4	16GA. X 1	275
1	1-5/16	1/4	16GA. X 1	275
1-1/4	1-1/2	1/4	16GA. X 1	275
1-1/2	1-5/8	1/4	16GA. X 1	275
2	1-13/16	1/4	16GA. X 1	275
2-1/2	2-5/16	5/16	12GA. X 1-1/4	500
3	2-5/8	5/16	12GA. X 1-1/4	500
3-1/2	2-7/8	5/16	12GA. X 1-1/4	500
4	3-1/8	5/16	12GA. X 1-1/4	500
5	3-5/8	5/16	12GA. X 1-1/4	500
6	4-3/16	5/16	12GA. X 1-1/4	500

RING AND BOLT CLAMP, MEDIUM \_\_\_\_\_ FIG. 71M

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
PIPE SIZE, MATERIAL AND FINISH.

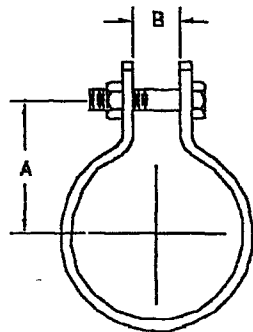


FIG. 71M

DIMENSIONS (INCHES)

PIPE SIZE	A	B	BOLT SIZE	STEEL SIZE	MAX. RECOM. LBS.
1/2	1-1/8	7/16	3/8	1/8 X 1	500
3/4	1-1/4	7/16	3/8	1/8 X 1	500
1	1-3/8	7/16	3/8	1/8 X 1	500
1-1/4	1-5/8	7/16	3/8	1/8 X 1	500
1-1/2	1-11/16	7/16	3/8	1/8 X 1	500
2	2	7/16	3/8	1/8 X 1	500
2-1/2	2-1/4	9/16	3/8	1/8 X 1	500
3	2-9/16	9/16	3/8	1/8 X 1-1/4	900
3-1/2	2-13/16	9/16	3/8	1/8 X 1-1/4	900
4	3-7/16	11/16	1/2	1/8 X 1-1/4	900
5	4	11/16	1/2	1/8 X 1-1/4	900
6	4-11/16	13/16	1/2	3/16 X 1-1/4	1150
8	5-11/16	15/16	1/2	3/16 X 1-1/4	1150
10	6-7/8	15/16	1/2	1/4 X 1-1/2	1300
12	7-15/16	15/16	1/2	1/4 X 1-3/4	1500

FIG.  
73A & 73B

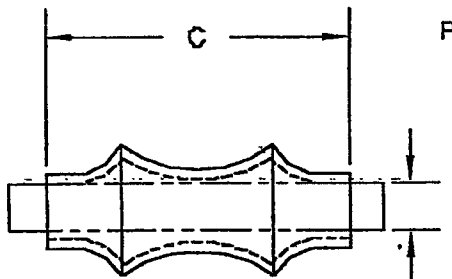


FIG. 73A (SHAFT SIZE NOT INC.)

PIPE ROLLS  
 -CAST IRON LONG ROLL \_\_\_\_\_ FIG. 73A  
 -CAST IRON SHORT ROLL (BOW TIE) \_\_\_\_\_ FIG. 73B

ORDERING:  
 SPECIFY NAME, FIGURE NUMBER, PIPE SIZE, OR ROLL NUMBER.

NOTE:  
 ROLLS MUST BE SIZED TO FIT PIPE COVERING PROTECTION SADDLES ON INSULATED PIPE. FIG. 99 PROTECTION SADDLES MUST BE ORDERED SEPARATELY.

DIMENSIONS (INCHES)

PIPE SIZE	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2
C	1-1/2	1-7/8	2 1/8	2-5/8	3-1/8	3-3/4	4-1/4
F	3/8	3/8	3/8	3/8	1/2	1/2	1/2
PIPE SIZE	4	5	6	7	8	10	12
C	4-3/4	5-13/16	6-7/8	7-29/32	8-7/8	11-0	12-1/2
F	1/2	5/8	3/4	3/4	7/8	7/8	1
PIPE SIZE	14	18	18	20	24	30	
C	14-1/4	16-1/4	18-1/4	20-1/4	24-1/4	30-1/4	
F	1-1/8	1-1/4	1-1/4	1-1/4	1-1/2	1-3/4	

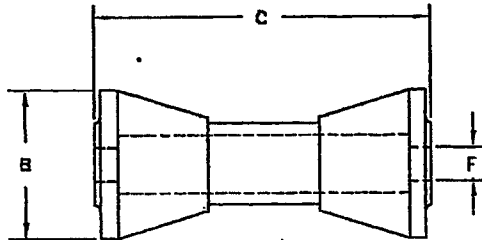


FIG. 73B

DIMENSIONS (INCHES)

PIPE SIZE	C	B	ROD SIZE F
2-3-1/2	2-3/4	1-7/8	1/2
4-6	3-3/4	2-1/16	1/2
7-10	6	3-1/4	3/4
12-14	8	4	7/8
16-20	9	4-1/2	1-1/8
24	10	4-7/16	1-1/4
30	12-1/2	5-1/2	1-3/4
36	15	6-3/8	2
42	15	6-3/8	2



FIG. 75

ROLLER CHAIR WITH 2-BOLT BASE \_\_\_\_\_ FIG. 75  
BOLT OR WELD TO SUPPORT

MATERIAL:

CAST IRON ROLL; STEEL CHAIR, ROD AND BOLTS

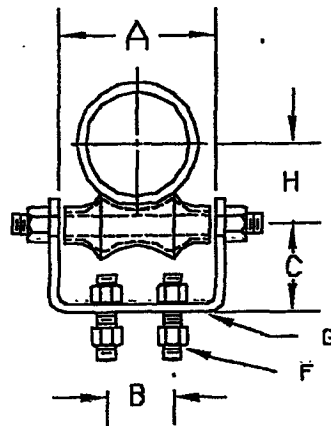
ORDERING:

SPECIFY NAME, FIGURE NUMBER, AND PIPE SIZE.

NOTE: ROLLS MUST BE SIZED TO FIT PIPE COVERING

PROTECTION SADDLES ON INSULATED PIPE. FIG. 99

PROTECTION SADDLES MUST BE ORDERED SEPARATELY



SEE FIG. 75SS  
ALL STAINLESS STEEL

FIG. 75

DIMENSIONS (INCHES)

PIPE SIZE	A	B	C	BOLTS F	STEEL-SIZE G	H.	SHAFT SIZE	MAX.REC. LOAD
2	2-3/4	1-1/4	1-1/2			1-5/8	3/8	600
2-1/2	3-1/4	1-1/4	1-5/8	3/8 X 1-1/2	1/4 X 1-1/4	1-15/16	1/2	600
3	3-7/8	2	1-3/4			2-1/4	1/2	600
3-1/2	4-3/8	2	2-1/16	3/8 X 1-1/2		2-8/16	1/2	750
4	4-15/16	2	2-5/16	1/2 X 1-1/2	3/8 X 1-1/2	2-13/16	1/2	750
5	6	3	2-1/2	1/2 X 1-1/2		3-7/16	5/8	750
6	7-1/8	3-1/8	2-3/4	1/2 X 1-1/2	3/8 X 2	4	3/4	1070
6	8-1/8	3-3/8	3	5/8 X 1-1/2		5-1/8	7/8	1350
10	11-1/4	5-1/4	3-5/8		1/2 X 2	8-3/8	7/8	1730
12	12-3/4	5-1/2	4-1/8	5/8 X 2		7-7/16	1	2400
14	14-1/2	6-1/2	4-11/16	3/4 X 2	1/2 X 2-1/2	8-3/8	1-1/8	3130
18	16-1/2	8-1/4	5-3/8		1/2 X 3	9-3/8	1-1/4	3970
18	18-1/2	9-1/4	6	3/4 X 2-1/2		10-7/16	1-1/4	4200
20	20-1/2	10-1/4	6-1/2			11-5/8	1-1/4	4200
24	24-1/2	12-1/4	7-7/8	7/8 X 3-1/2	5/8 X 4	14	1-1/2	4200

FIG.  
75SS

ROLLER CHAIR WITH 2-BOLT BASE \_\_\_\_\_ FIG. 75SS  
BOLT OR WELD TO SUPPORT

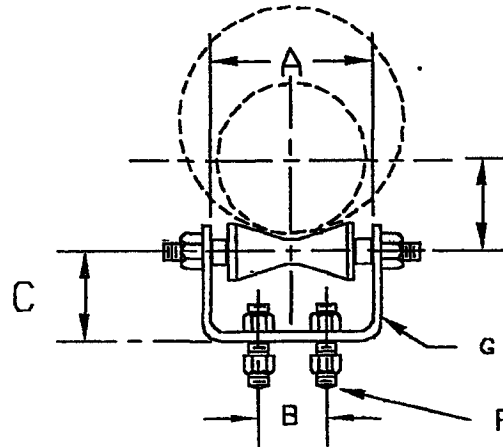
MATERIAL:

ALL PARTS STAINLESS STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER, STAINLESS TYPE AND PIPE SIZE.

NOTE: ROLLS MUST BE SIZED TO FIT PIPE COVERING PROTECTION SADDLES ON INSULATED PIPE. FIG. 99 PROTECTION SADDLES MUST BE ORDERED SEPARATELY



H  
ALL STAINLESS STEEL  
SEE FIG. 75XH  
FOR HEAVIER LOADS.

FIG. 75SS

DIMENSIONS (INCHES)

PIPE SIZE	A	B	C	BOLTS F	STEEL-SIZE G	H	SHAFT SIZE	GSH ROLL	MAXIMUM LOAD
2	3-1/4	1-1/4							
2-1/2	3-1/4	1-1/4	2-3/8	3/8 X 1-1/2	1/4 X 1-1/4	1-3/4	1/2	A	225
3	3-7/8	2				2-5/16			390
3-1/2	4-3/8	2	2-3/8	3/8 X 1-1/2		2-5/8	1/2	A	380
4	4-15/16	2	2-3/8	1/2 X 1-1/2	3/8 X 1-1/2	2-7/8	1/2	A	300
5	6	3	2-5/8	1/2 X 1-1/2		3-11/16	3/4	B	800
6	7-1/8	3-1/8	2-5/8	1/2 X 1-1/2		4-1/4	3/4	B	600
8	9-1/8	3-3/8	3-3/4	5/8 X 1-1/2	3/8 X 2	5-11/16	1	C	825
10	11-1/4	5-1/4	3-3/4			6-7/16	1		825
12	12-3/4	5-1/2	4-1/16	5/8 X 2	1/2 X 2	7-1/2	1	C	680
14	14-1/2	6-1/2	4-3/8	3/4 X 2	1/2 X 2-1/2	8-11/16	1-1/4	D	1200
18	18-1/2	8-1/4	5-5/16			9-7/16	1-1/4	D	1100
18	18-1/2	9-1/4	5-15/16	3/4 X 2-1/2	1/2 X 3	10-1/2	1-3/8	D20	1200
20	20-1/2	10-1/4	6-8/16			11-9/16	1-3/8	D20	1000

FOR 24" SIZE SEE FIG. 75XH

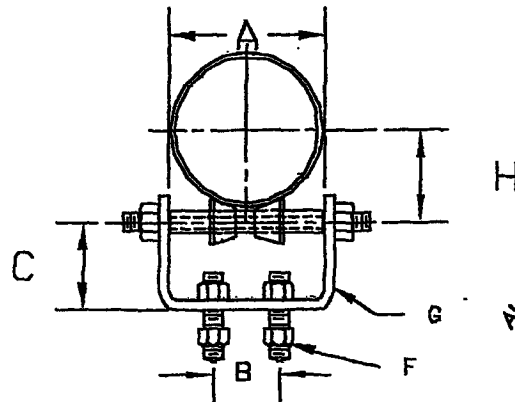
FIG.  
75XH

EXTRA HEAVY  
ROLLER CHAIR WITH 2-BOLT BASE \_\_\_\_\_ FIG. 75XH  
BOLT OR WELD TO SUPPORT

MATERIAL:  
ALL PARTS STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER, STAINLESS TYPE AND  
PIPE SIZE.

NOTE: ROLLS MUST BE SIZED TO FIT PIPE COVERING  
PROTECTION SADDLES ON INSULATED PIPE. FIG. 99  
PROTECTION SADDLES MUST BE ORDERED SEPARATELY



ALL STAINLESS STEEL  
FOR LIGHTER LOADS  
SEE FIG. 75SS

FIG. 75XH

DIMENSIONS (INCHES)

PIPE SIZE	A	B	C	BOLTS F	STEEL-SIZE G	H	SHAFT SIZE	MAX.REC. LOADS	ROLL NUMBER
2 2-1/2 3 3-1/2 4 5 6									
SEE FIG. 75SS FOR SIZES 6" AND SMALLER									
8	8-1/8	3-3/8	3	5/8 X 1-1/2		5-7/16		1350	
10	11-1/4	5-1/4	3-5/8	5/8 X 2	5/8 X 3	8-8/16	7/8	1730	E-1
12	12-3/4	5-1/2	4-1/8	5/8 X 2		7-5/8		2400	
14	14-1/2	6-1/2	4-11/16	3/4 X 2	5/8 X 3	8-5/16	1	3130	E-1
18	16-1/2	8-1/4	5-3/8	3/4 X 2-1/2	5/8 X 4	9-1/4	1-1/4	3870	E-2
18	18-1/2	9-1/4	6	3/4 X 2-1/2		10-5/16		4200	
20	20-1/2	10-1/4	6-1/2	3/4 X 2-1/2	5/8 X 4	11-3/8	1-1/4	4200	E-2
24	24-1/2	12-1/4	7-7/8	7/8 X 3-1/2		13-5/8			E-3





FIG. 76

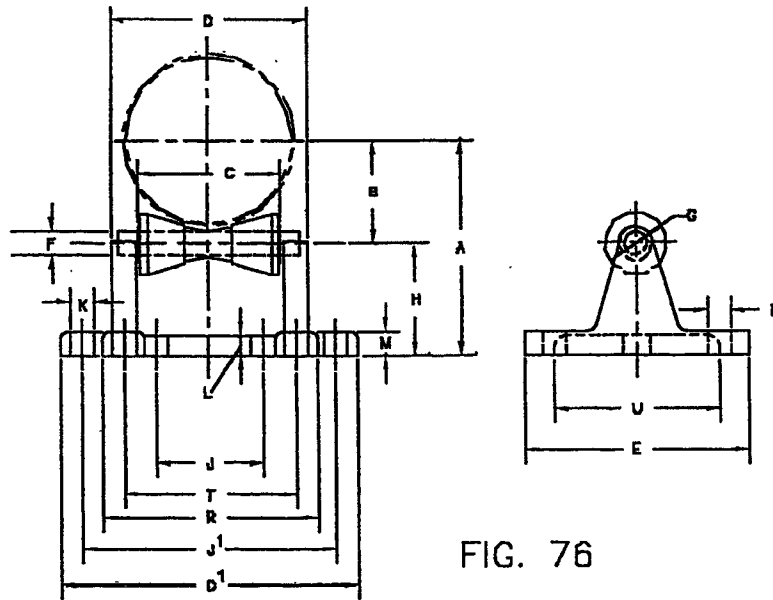


FIG. 76

PIPE ROLL STAND \_\_\_\_\_ FIG. 76

MATERIAL:

CAST IRON ROLL AND STAND

ORDERING:

SPECIFY NAME, FIGURE NUMBER, AND PIPE SIZE

NOTE: ROLLS MUST BE SIZED TO FIT PIPE COVERING

PROTECTION SADDLES ON INSULATED PIPE. FIG. 99

PROTECTION SADDLES MUST BE ORDERED SEPARATELY

LOADS-WEIGHTS

PIPE SIZE	2 THRU 3 1/2	4 THRU 6	8 THRU 10	12 THRU 14	16 THRU 20	24	30	36 THRU 42										
NOM. RECOM. LOAD LB.	300	600	1200	2075	4800	8100	7500	12000										
COMPLETE FIG. 76 WGT. (APPROX.) LBS. EACH	8.4	8.9	10.3	28.1	38.7	49.8	89.3	152.0										
DIMENSIONS (INCHES)																		
PIPE SIZE	A	B	H	D	D'	E	C	Ø	F	J	J'	K	L	M	N	R	T	U
2	3-1/2	1-3/4	1-3/4	4	8-3/8	5-3/8	2-3/4	1-7/8	1/2	-	8-3/8	1	2/16	11/16	1/2	-	3-7/16	4
2-1/2	3-7/8	2-1/8	1-3/4	4	8-3/8	5-3/8	2-3/4	1-7/8	1/2	-	8-3/8	1	2/16	11/16	1/2	-	3-7/16	4
3	4-1/8	2-3/8	1-3/4	4	8-3/8	5-3/8	2-3/4	1-7/8	1/2	-	8-3/8	1	2/16	11/16	1/2	-	3-7/16	4
2-1/2	4-3/8	2-3/8	1-3/4	4	8-3/8	5-3/8	2-3/4	1-7/8	1/2	-	8-3/8	1	2/16	11/16	1/2	-	3-7/16	4
4	4-13/16	2-3/4	3-1/16	5-3/8	9-7/8	5-3/8	3-3/4	2-1/16	1/2	-	7-7/8	1	3/4	7/8	1/2	-	4-11/16	4-1/4
3	3-7/16	3-3/8	3-1/16	5-3/8	9-7/8	5-3/8	3-3/4	2-1/16	1/2	-	7-7/8	1	3/4	7/8	1/2	-	4-11/16	4-1/4
6	6-1/16	4	3-1/16	5-3/8	9-7/8	5-3/8	3-3/4	2-1/16	1/2	-	7-7/8	1	3/4	7/8	1/2	-	4-11/16	4-1/4
8	8-11/16	5-1/4	3-7/16	7-3/4	-	8-5/8	8	3-1/4	3/4	4	-	1	3/4	7/8	5/8	8-5/8	7	5
10	8-15/16	6-3/8	3-7/16	7-3/4	-	8-5/8	8	3-1/4	3/4	4	-	1	3/4	7/8	5/8	8-5/8	7	5
12	11-3/8	7-1/2	3-7/8	9-7/8	-	7-7/8	8	4	7/8	5 3/4	-	1	3/4	7/8	3/4	10-15/16	8-1/16	8
14	12	8-1/8	3-7/8	9-7/8	-	7-7/8	8	4	7/8	5 3/4	-	1	3/4	7/8	3/4	10-15/16	8-1/16	8
16	13-3/8	8-3/8	4-1/4	11-1/4	-	8-5/8	8	4-1/2	1-1/8	6-3/4	-	1	7/8	1	13/16	12-3/8	10-1/4	6-1/2
18	14-9/16	10-3/8	4-1/4	11-1/4	-	8-5/8	8	4-1/2	1-1/8	6-3/4	-	1	7/8	1	13/16	12-3/8	10-1/4	6-1/2
20	15-5/8	11-3/8	4-1/4	11-1/4	-	8-5/8	8	4-1/2	1-1/8	6-3/4	-	1	7/8	1	13/16	12-3/8	10-1/4	6-1/2
24	17-3/4	13-3/8	4-3/8	12-1/2	-	8-5/8	10	4-7/16	1-1/4	7-1/2	-	1	1	1-1/8	13/16	13-1/2	11-3/8	6-1/2
30	21-7/8	16-3/4	5-1/8	15-3/4	-	10-3/4	12-1/2	5-1/2	1-3/4	10	-	1	1-1/4	1-1/2	1-1/16	17	14-1/4	8
36	25-3/4	20	5-3/4	18-3/4	-	12	15	6-3/8	3	12	-	1	1-1/2	1-3/4	1-8/16	20	17	8
42	28-7/8	23-1/2	5-3/4	18-3/4	-	12	15	6-3/8	3	12	-	1	1-1/2	1-3/4	1-8/16	20	17	8

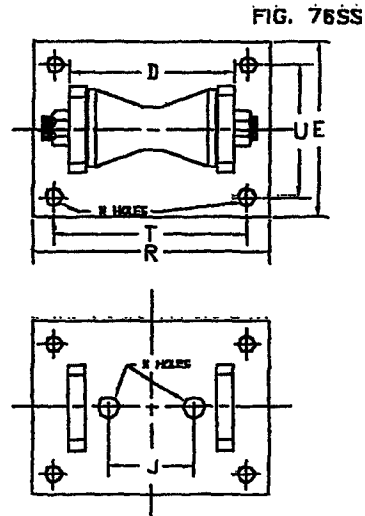
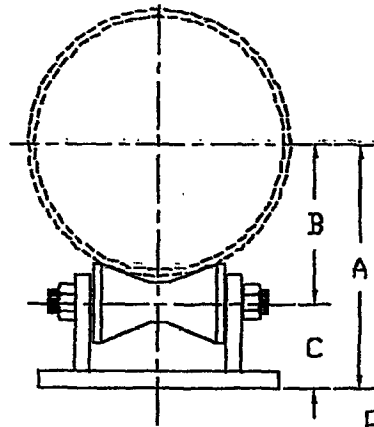


FIG. 76SS

FIG. 76SS

STAINLESS STEEL PIPE ROLL STAND \_\_\_\_\_ FIG. 76SS

MATERIAL:  
STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER, TYPE STAINLESS & PIPE SIZE

NOTE: ROLL MUST BE SIZED TO FIT PIPE COVERING PROTECTION  
SADDLE ON INSULATED PIPE. FIG. 99 SADDLE MUST BE  
ORDERED SEPARATELY.

DIMENSIONS - LOADS

PIPE SIZE	A	B	C	D	GSH ROLL	E	J	K HOLE	N HOLE	R	T	U	MAX. REC. LOAD
2	3-1/2	1-3/4	1-3/4							5.5	3.44	4.0	
2-1/2	3-7/8	2-0	1-7/8							5.5	3.44	4.0	
3	4-1/8	2-5/16	1-13/16	4.0	A	6.00	-	-	.5	5.5	3.44	4.0	850
3-1/2	4-3/8	2-5/8	1-3/4							5.5	3.44	4.0	
4	4-13/16	2-7/8	1-15/16							7.0	4.69	4.25	
5	5-11/16	3-11/16		5.0	B	6.00	-	-	.5	7.0	4.69	4.25	1500
6	6-1/4	4-1/4	2-0			8.00	-	-	.5	7.0	4.69	4.25	1500
7	8-3/16	5-3/16	3-0										
8	8-11/16	5-11/16	3-0	7.5	C	7.00	4.00	1.00	.63	9.0	7.0	5.0	3500
8DI	9-1/16	5-11/16	3-3/8										
10	9-13/16	6-7/16	3-3/8										
10DI	10-3/4	8-7/8		7.5	C	8.00	4.00	1.00	.75	11.0	9.06	6.0	3500
12	11-3/8	7-1/2	3-7/8										
12DI	11-13/16	7-15/16											
14	12	8-11/16	3-5/16	8.5		8.00			.75	11.0	9.06	6.0	
14DI	13-1/2	9-5/16	4-3/16	8.5		9.00			.81	12.38	10.25	6.5	
18	13-5/8	9-7/16	4-3/16	8.5	D	9.00	6.00	1.00	.81	12.38	10.25	6.5	5000
16DI	14-9/16	10-7/16	4-1/8	9.75		9.00			.81	12.38	10.25	6.5	
18	14-5/8	10-1/2	4-1/8	9.75		9.00			.81	12.38	10.25	6.5	
18DI/20	15-5/8	11-9/16	4-1/8	8.75		9.00			.81	12.38	10.25	6.5	

\* SEE FIG. 76XH FOR LARGER SIZES



POWER MANUFACTURING, LLC

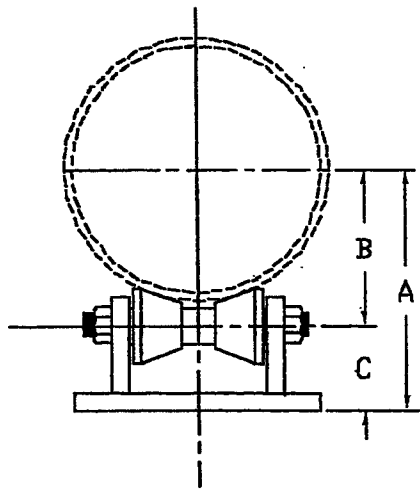


FIG. 76XH

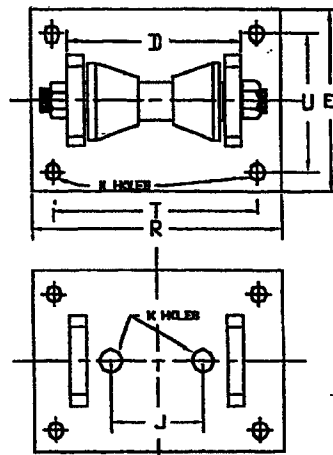


FIG. 76XH

EXTRA HEAVY  
STAINLESS STEEL PIPE ROLL STAND \_\_\_\_\_ FIG. 76XH

MATERIAL:  
STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER, TYPE STAINLESS & PIPE SIZE

NOTE: ROLL MUST BE SIZED TO FIT PIPE COVERING PROTECTION  
SADDLE ON INSULATED PIPE. FIG. 99 SADDLE MUST BE  
ORDERED SEPARATELY.

DIMENSIONS - LOADS

PIPE SIZE	A	B	C	D	GSH ROLL	E	J	K HOLE	N HOLE	R	T	U	MAX. REC. LOAD
B BDI 10	8-11/16 9-1/16 9-13/16	5-7/16 5-13/16 6-9/16	3-1/4	8.25	E1	7.00	4.00	1.00	.63	9.0	7.0	5.0	3500
10DI 12 12DI 14	10-11/16 11-3/8 11-3/4 12-1/16	6-15/16 7-5/8 8 8-5/16	3-3/4	8.25	E1	8.00	4.00	1.00	.75	11.0	8.06	6.0	3500
14DI 16 16DI 18 18DI/20	13-1/2 13-5/8 14-9/16 14-5/8 15-5/8	8-1/8 9-1/4 10-1/4 10-5/16 11-3/8	4-3/8 4-3/8 4-5/16 4-5/16 4-1/4	9.75 9.75 10 10	E2	9.00	6.00	1.00	.81	12.38	10.25	6.5	5000
20DI 24	16-3/4 17-3/4	12-5/8 13-5/8	4-1/8	13.25	E3	9.00	7.5	1.00	.81	14.00	11.38	6.5	7290
24DI 30 30DI	19-15/16 21-7/8 22-15/16	14-11/16 16-5/8 17-11/16	5-1/4	15.25	E4	11.00	10.0	1.00	1.06	17.00	14.25	8.0	7290

\* SEE FIG. 76SS FOR SMALLER SIZES.

FIG. 77

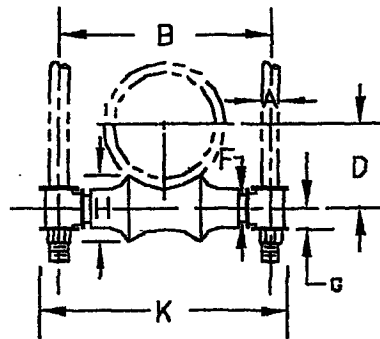


FIG. 77

ROLL TYPE HANGER FOR 2-ROD SUPPORT \_\_\_\_\_ FIG. 77

MATERIAL:

CAST IRON ROLL AND SOCKETS; STEEL ROLL ROD

ORDERING:

SPECIFY NAME, FIGURE NUMBER, AND PIPE SIZE

NOTE: ROLLS MUST BE SIZED TO FIT PIPE COVERING

PROTECTION SADDLES ON INSULATED PIPE. FIG. 99

PROTECTION SADDLES MUST BE ORDERED SEPARATELY.

HANGER RODS AND NUTS MUST BE ORDERED SEPARATELY.

DIMENSIONS (INCHES)

PIPE SIZE	MAX. RECOM. LOAD LBS.	HANGER ROD SIZE A	B	D	ROLL ROD F	H	K	G
1	600		3	1		1	4-1/8	
1-1/4	600		3-3/8	1-1/4		1	4-1/2	
1-1/2	600	3/8	3-5/8	1-3/8	3/8	1-1/8	4-3/4	5/8
2	600		4-1/8	1-5/8		1-1/4	5-1/4	
2 1/2	600	1/2	4-7/8	2	1/2	1-3/8	7	11/16
3	700		5-1/2	2-1/4		1-1/2	7-5/8	
4	700	5/8	8-3/4	2-7/8	1/2	1-3/4	8-5/8	3/4
5	700		8-1/16	3-1/2	5/8	2	9-7/8	7/8
6	1000	3/4	9-5/8	4	3/4	2-3/8	11-3/8	1
7	1200		10-3/4	4-3/4		2-7/8	12-1/2	
8	1300		12	5-1/8	7/8	2-3/4	14	1-1/8
10	1700	7/8	14-1/8	6-1/4	7/8	3-3/8	16	1-1/8
12	2400		15-13/16	7-1/2	1	4	18	1-1/4
14	3100		17-3/4	8-3/8	1-1/8	4-3/4	20	1-3/8
16	3900	1	19-7/8	9-1/2	1-1/4	5	22-1/8	1-1/2
18	4200		21-7/8	10-1/2	1-1/4	5-1/2	24-3/8	1-1/2
20	4500	1-1/4	24-1/8	11-5/8	1-1/4	6	26-5/8	1-5/8
24	6100	1-1/2	28-5/8	14	1-1/2	7-1/4	32-1/8	1-3/4
30	7200	1-1/2	35-1/2	17-1/2	1-3/4	8	39-7/8	2-7/16



FIG.  
77A

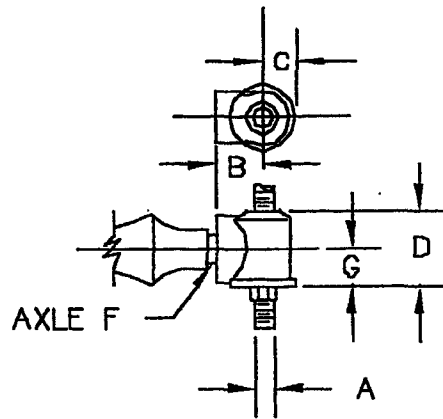


FIG.77A

ADJUSTABLE ROLL SOCKET, CAST IRON\_\_FIG. 77A

ORDERING:  
SPECIFY NAME, FIGURE NUMBER, AND  
SOCKET NUMBER.

DIMENSIONS (INCHES)

SOCKET NUMBER	PIPE SIZE	A HANGER ROD SIZE	F ROLL ROD SIZE	G	B	C	D
1- 3/8	1-2	3/8	3/8	5/8	11/16	11/16	1
2- 1/2	2-1/2 THRU 3-1/2	1/2	1/2	3/4	13/16	11/16	1-1/4
3- 1/2	4	5/8	1/2	7/8	15/16	13/16	1-9/16
3- 5/8	5	5/8	5/8	7/8	15/16	13/16	1-9/16
4- 3/4	6	3/4	3/4	1	1-5/16	1	1-13/16
5- 7/8	8-10	7/8	7/8	1-1/4	1-7/16	1-1/8	2-3/16
5- 1	12	7/8	1	1-1/4	1-7/16	1-1/8	2-3/16
6- 1-1/8	14	1	1-1/8	1-3/8	1-5/8	1-3/8	2-3/8
6- 1-1/4	16-18	1	1-1/4	1-3/4	1-7/8	1-3/8	3-3/16
8- 1-1/4	20	1-1/4	1-1/4	1-13/16	2-1/8	1-5/8	3-5/16
9- 1-1/2	24	1-1/2	1-1/2	1-13/16	2-1/8	1-5/8	3-5/16
9- 1-3/4	30	1-1/2	1-3/4	2-3/16	2-1/2	2-1/16	4



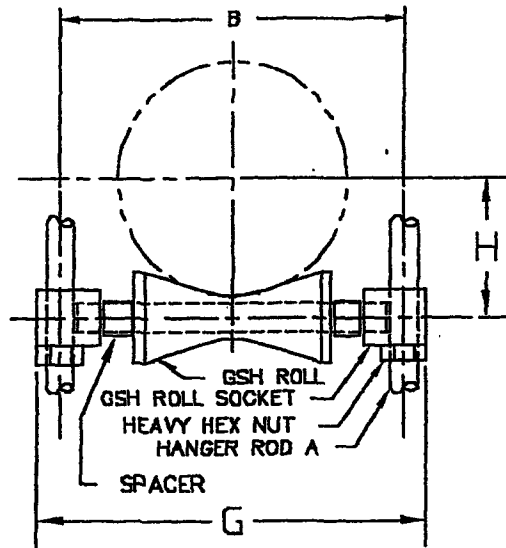


FIG. 77SS

ALL STAINLESS STEEL  
FOR HEAVIER LOADS  
SEE FIG. 77XH

FIG. 77SS

STAINLESS ROLL TYPE HANGER FOR 2-ROD SUPPORT... FIG. 77SS

MATERIAL:

ALL PARTS STAINLESS STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER, STAINLESS TYPE AND PIPE SIZE

NOTE: ROLLS MUST BE SIZED TO FIT PIPE COVERING

PROTECTION SADDLES ON INSULATED PIPE. FIG. 99

PROTECTION SADDLES MUST BE ORDERED SEPARATELY

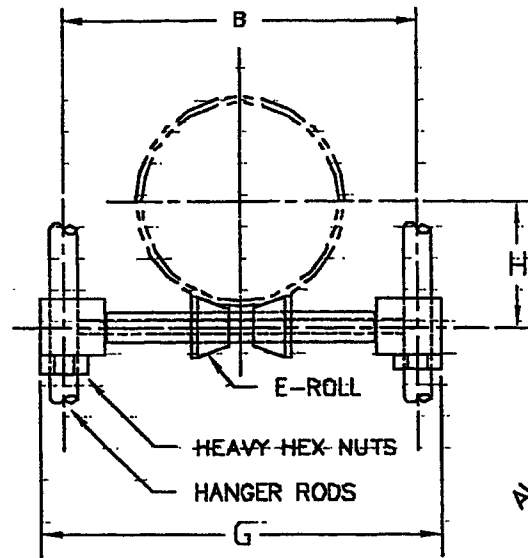
HANGER RODS AND NUTS MUST BE ORDERED SEPARATELY

DIMENSIONS (INCHES)

PIPE HANGER SIZE	MAX. O.D. COVERING	HANGER ROD-A SIZE	77A-SS SOCKET SIZE NO.	GSH ROLL	B	H	G	MAXIMUM RECOM. LOAD LBS.
2	4-1/2	1/2	2 X 1/2	A	5-1/2	1-3/4	7	600
2-1/2	4-1/2	1/2	2 X 1/2	A	5-1/2	2	7	660
3	4-1/2	1/2	2 X 1/2	A	5-1/2	2-5/16	7	700
3-1/2	5	1/2	2 X 1/2	A	6-1/8	2-5/8	7-5/8	700
4	6	5/8	3 X 1/2	A	6-3/4	2-7/8	8-1/4	400
5	7	3/4	4 X 3/4	B	8-1/16	3-11/16	9-9/16	750
6	8-1/4	3/4	4 X 3/4	B	9-9/16	4-1/4	11-1/16	580
7	10-1/2	7/8	5 X 1	C	11-15/16	5-3/16	13-15/16	1300
8	10-1/2	7/8	5 X 1	C	11-15/16	5-31/16	13-15/16	1300
10	12-3/4	7/8	5 X 1	C	14-1/16	6-7/16	16-1/16	1075
12	14-3/4	7/8	5 X 1	C	15-13/16	7-1/2	17-13/16	775
14	16-1/4	1	6 X 1-1/4	D	17-3/4	8-11/16	19-3/4	1500
18	18	1	6 X 1-1/4	D	19-3/4	9-7/16	21-3/4	1150
18	20-1/4	1	6 X 1-3/8	D20	21-7/8	10-1/2	24-3/8	1250
20	22-1/2	1-1/4	8 X 1-3/8	D20	24-1/4	11-8/16	26-3/4	1000



FIG. 77XH



ALL STAINLESS STEEL  
FOR SMALLER LOADS  
SEE FIG. 77SS

STAINLESS ROLL TYPE HANGER FOR 2-ROD SUPPORT FIG. 77XH

**MATERIAL:**

ALL PARTS STAINLESS STEEL

**ORDERING:-**

SPECIFY NAME, FIGURE NUMBER, STAINLESS TYPE AND PIPE SIZE

NOTE: ROLLS MUST BE SIZED TO FIT PIPE COVERING

PROTECTION SADDLES ON INSULATED PIPE. FIG. 99

PROTECTION SADDLES MUST BE ORDERED SEPARATELY

HANGER RODS AND NUTS MUST BE ORDERED SEPARATELY

**DIMENSIONS (INCHES)**

PIPE HANGER SIZE	MAX. D.D. COVERING	HANGER ROD-A SIZE	SOCKET NO.	GSH ROLL NO.	B	H	G	MAXIMUM RECOM. LOAD LBS.
8	10-1/2	7/8	E1	E1	11-15/16	5-7/16	13-15/16	1350
8DI*	12-3/4	7/8	E1	E1	14-1/8	5-13/16 6-9/16	18-1/8	1730
10DI	14-3/4	7/8	E1	E1	15-13/16	6-15/16 7-5/8	17-13/16	2400
12DI	16-1/4	1	E2	E1	17-3/4	B 8-5/16	19-3/4	3130
14DI	18	1	E3	E2	19-3/4	9-1/8 9-1/4	21-3/4	3970
16DI	20-1/4	1	E3	E2	21-7/8	10-1/4 10-5/16	24-3/8	4200
18DI & 20	22-1/2	1-1/4	E4	E2	24-1/4	11-3/8	28-1/4	4550
20DI	28-1/2	1-1/2	E5	E3	28-5/8	12-5/8 13-5/8	31-1/8	6150
24DI	33-1/2	1-1/2	E5	E4	35-1/2	14-11/16 16-5/8 17-11/16	38	7290

\* DUCTILE IRON PIPE SIZE.

FIG. 7B

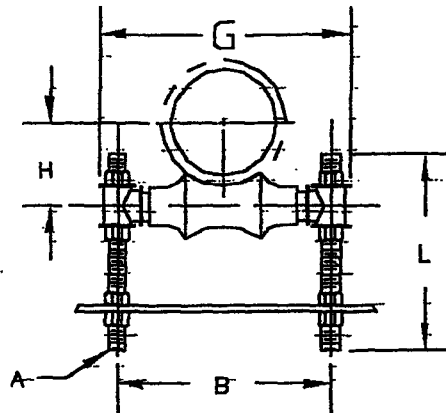


FIG.78

SEE FIG. 78SS  
ALL STAINLESS STEEL

ADJUSTABLE ROLL SUPPORT WITH 2-RODS FIG. 78

MATERIAL:

CAST IRON ROLL AND SOCKETS; STEEL ROLL ROD  
ALL THREAD ROD AND NUTS

ORDERING:

SPECIFY NAME, FIGURE NUMBER, AND PIPE SIZE

NOTE: ROLLS MUST BE SIZED TO FIT PIPE COVERING

PROTECTION SADDLES ON INSULATED PIPE. FIG. 99

PROTECTION MUST BE ORDERED SEPARATELY.

STEEL SUPPORT PLATE IS NOT INCLUDED.

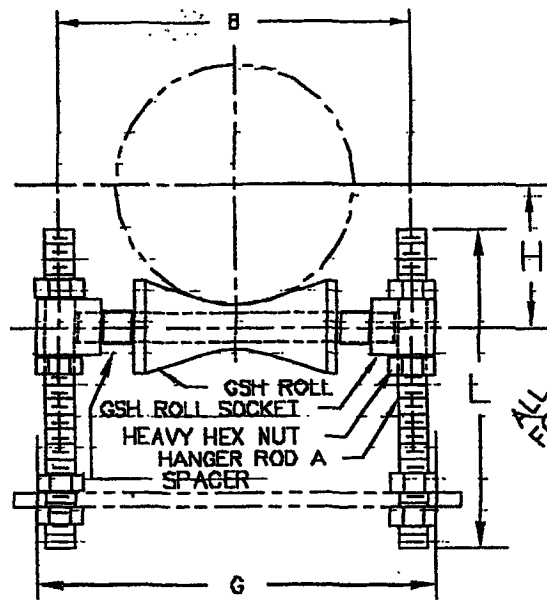
DIMENSIONS IN INCHES

PIPE SIZE	MAX. RECOM. LOAD, LBS.	B	H	ROD A	G	L
1-1/4	600	3-3/8	1-1/4	3/8	4-1/2	12
1-1/2	800	3-5/8	1-3/8	3/8	4-3/4	12
2	800	4-1/8	1-5/8	3/8	5-1/4	12
2-1/2	660	4-7/8	1-15/16	1/2	6-1/4	12
3	700	5-1/2	2-1/4	1/2	6-7/8	12
4	750	6-3/4	2-13/16	5/8	8-1/4	12
5	750	8-1/16	3-7/16	5/8	9-11/16	12
6	1070	8-8/16	4	3/4	11-7/16	12
7	1070	10-3/4	4-5/8	3/4	14-1/16	12
8	1350	11-15/16	5-1/8	7/8	14-1/16	12
10	1730	14-1/16	6-3/8	7/8	16-3/16	12
12	2400	15-13/16	7-7/16	7/8	18	12
14	3100	17-3/4	8-3/8	1	20-1/8	12
18	3870	19-3/4	9-7/16	1	22-1/8	18
18	4200	21-7/8	10-1/2	1	24-1/2	18
20	4550	24-1/4	11-5/8	1-1/4	27-1/4	18
24	6160	28-5/8	14	1-1/2	32-1/8	24
30	7290	35-1/2	17-7/16	1-1/2	39	24





FIG. 78SS



ADJUSTABLE STAINLESS ROLL TYPE HANGER FOR 2-ROD SUPPORT FIG. 78SS

MATERIAL:

ALL PARTS STAINLESS STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER, STAINLESS TYPE AND PIPE SIZE

NOTE: ROLLS MUST BE SIZED TO FIT PIPE COVERING

PROTECTION SADDLES ON INSULATED PIPE. FIG. 99

PROTECTION SADDLES MUST BE ORDERED SEPARATELY

ALL THREAD ROD & HEX NUTS ARE INCLUDED.

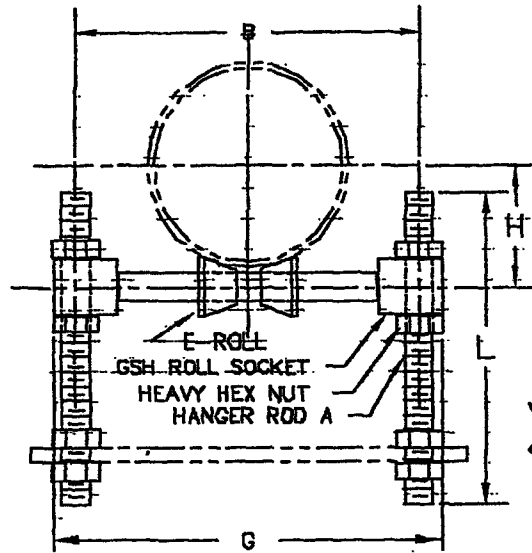
STEEL SUPPORT PLATE IS NOT INCLUDED.

DIMENSIONS (INCHES)

PIPE HANGER SIZE	MAX O.D. COVERING	HANGER ROD-A SIZE	SOCKET NO.	GSH ROLL	E	H	G	L	MAXIMUM RECOM. LOAD. LBS.
2	4-1/2	1/2		A	5-1/2	1-3/4	7		600
2-1/2	4-1/2	1/2		A	5-1/2	2	7		860
3	4-1/2	1/2	A1	A	5-1/2	2-5/16	7	12	700
3-1/2	5	1/2		A	6-1/8	2-5/8	7-5/8		700
4	6	5/8	A2	A	6-3/4	2-7/8	8-1/4		400
5	7	3/4		B	8-1/16	3-11/16	9-9/16		750
6	8-1/4	3/4	B	B	9-9/16	4-1/4	11-1/16	12	580
7	10-1/2	7/8		C	11-15/16	5-3/16	13-15/16		1300
8	10-1/2	7/8		C	11-15/16	5-11/16	13-15/16		1300
10	12-3/4	7/8	C	C	14-1/16	6-7/16	15-1/16	12	1075
12	14-3/4	7/8	C	C	15-13/16	7-1/2	17-13/16		775
14	16-1/4	1	D1	D	17-3/4	8-11/16	19-3/4	12	1500
18	18	1	D1	D	19-3/4	9-7/16	21-3/4	18	1150
18	20-1/4	1	D2	D20	21-7/8	10-1/2	24-3/8	18	1250
20	22-1/2	1-1/4	D3	D20	24-1/4	11-9/16	26-3/4	18	1000



FIG. 78XH



ADJUSTABLE STAINLESS ROLL TYPE HANGER FOR 2-ROD SUPPORT FIG. 78XH

MATERIAL:

ALL PARTS STAINLESS STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER, STAINLESS TYPE AND PIPE SIZE

NOTE: ROLLS MUST BE SIZED TO FIT PIPE COVERING

PROTECTION SADDLES ON INSULATED PIPE. FIG. 99

PROTECTION SADDLES MUST BE ORDERED SEPARATELY

ALL THREAD ROD & HEX NUTS ARE INCLUDED.

STEEL SUPPORT PLATE IS NOT INCLUDED.

DIMENSIONS (INCHES)

PIPE HANGER SIZE	MAX. O.D. COVERING	HANGER ROD-A SIZE	SOCKET NO.	GSH ROLL NO.	B	H	G	T	MAXIMUM RECOM. LOAD. LBS.
8	10-1/2	7/8	E1	E1	11-15/16	5-7/16	13-15/16	12	1350
8DI* 10	12-3/4	7/8	E1	E1	14-1/16	5-13/16 6-9/16	16-1/16	12	1730
10DI 12	14-3/4	7/8	E1	E1	15-13/16	6-15/16 7-5/8	17-13/16	12	2400
12DI 14	16-1/4	T	E2	E1	17-3/4	8-5/16	18-3/4	12	3130
14DI 16	18	1	E3	E2	19-3/4	9-1/8 9-1/4	21-3/4	18	3970
16DI 18	20-1/4	1	E3	E2	21-7/8	10-1/4 10-5/16	24-3/8	18	4280
18DI & 20	22-1/2	1-1/4	E4	E2	24-1/4	11-3/8	26-1/4	18	4550
20DI 24	26-1/2	1-1/2	E5	E3	28-5/8	12-5/8 13-5/8	31-1/8	24	6160
24DI 30 30DI	33-1/2	1-1/2	E5	E4	35-1/2	14-11/16 16-5/8 17-11/16	38	24	7290

\* DUCTILE IRON PIPE SIZE.

FIG. 79

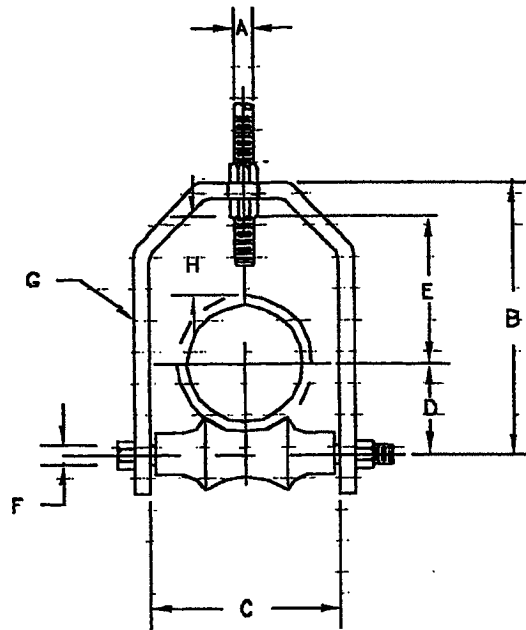


FIG. 79

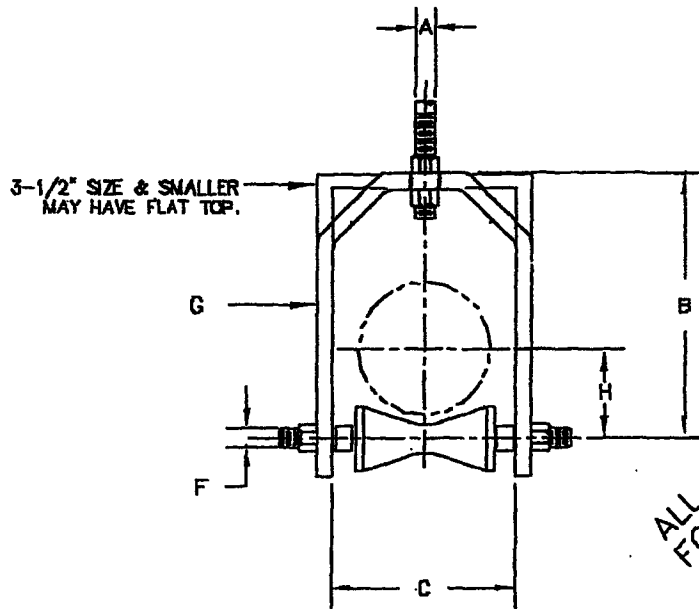
ROLL HANGER WITH YOKE FOR SINGLE SUPPORT \_\_\_\_\_ FIG. 79

MATERIAL:  
 CAST IRON ROLL; STEEL YOKE, ROLL ROD AND NUTS  
 ORDERING:  
 SPECIFY NAME, FIGURE NUMBER AND PIPE SIZE.  
 NOTE: ROLLS MUST BE SIZED TO FIT PIPE COVERING  
 PROTECTION SADDLES ON INSULATED PIPE FIG. 99  
 PROTECTION SADDLES MUST BE ORDERED SEPARATELY

LOADS-DIMENSIONS-INCHES

PIPE SIZE	MAXIMUM O.D. OF COVERING	MAX. RECOM. LOAD, LB.	ROD A	B	C	D	E	F	G	H
2-1/2	3	325	1/2	5-3/4	3-1/4	1-15/16	2-7/8	1/2	3/16 X 1-1/4	1-11/16
3	3-5/8	310	1/2	6-3/8	3-7/8	2-1/4	3-1/8	1/2	3/16 X 1-1/4	1-5/8
3-1/2	4-1/8	380	1/2	7	4-3/8	2-9/16	3-1/2	1/2	1/4 X 1-1/4	1-11/16
4	4-11/16	475	5/8	7-8/16	4-15/16	2-13/16	3-5/8	1/2	1/4 X 1-1/2	1-5/8
5	5-3/4	665	5/8	8-1/8	6	3-7/16	4-1/2	5/8	3/8 X 1-3/4	1-15/16
6	6-7/8	780	3/4	10-5/16	7-1/8	4	5	3/4	3/8 X 2	1-7/8
8	9	780	7/8	12-11/16	9-1/4	5-1/8	6-1/8	7/8	3/8 X 2-1/2	2
10	11	965	7/8	15-1/16	11-1/4	6-3/8	7-1/4	7/8	5/8 X 2-1/2	2-1/16
12	13	1200	7/8	17-7/16	13-1/4	7-7/16	8-3/8	1	1/2 X 2-1/2	2-1/4
14	14-1/4	1200	1	18-7/8	14-1/2	8-3/8	8-3/4	1-1/8	1/2 X 2-1/2	2
18	18-1/4	1200	1	20-13/16	16-1/2	9-3/8	9-11/16	1-1/4	1/2 X 2-1/2	1-15/16
18	18-1/4	1400	1	23-3/4	18-1/2	10-7/16	11-7/16	1-1/4	1/2 X 3	2-13/16
20	20-1/4	1800	1 1/4	26	20-1/2	11-5/8	12-1/4	1-1/4	5/8 X 3	2-1/2

FIG. 79SS



ALL STAINLESS STEEL  
FOR HEAVIER LOADS  
SEE FIG. 79XH

FIG. 79SS

STAINLESS YOKE AND ROLL HANGER \_\_\_\_\_ FIG. 79SS

**MATERIAL:**

ALL PARTS STAINLESS STEEL

**ORDERING:**

SPECIFY NAME, FIGURE NUMBER, STAINLESS TYPE, AND PIPE SIZE

NOTE: ROLLS MUST BE SIZED TO FIT PIPE COVERING

PROTECTION SADDLES ON INSULATED PIPE, FIG. 99

PROTECTION SADDLES MUST BE ORDERED SEPARATELY.

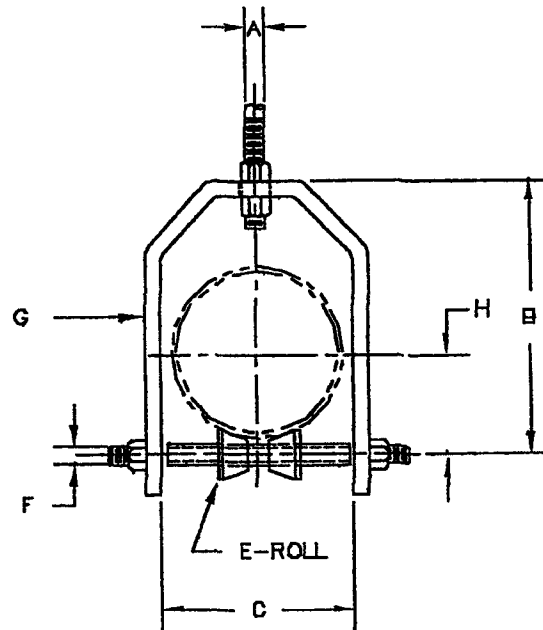
ALSO AVAILABLE WITH CI ROLL AND STAINLESS  
YOKE AND AXLE ROD.

**LOADS-DIMENSIONS-INCHES**

PIPE SIZE	MAXIMUM O.D. COVERING	MAX. RECOM. LOADS, LBS.	HANGER ROD-A	B	C	H	FIG. 79SS ROLL SIZE	AXLE ROD F	STEEL SIZE G
2 THRU 2-1/2	3	225	1/2	5	3-1/4	1-3/4 - 2	A	1/2	1/4 X 2
3 THRU 3-1/2	4-1/8	390	1/2	5-3/4	4-3/8	2-5/16 - 2-3/8	A	1/2	3/8 X 2
4	4-3/4	300	5/8	7-1/2	5	2-7/8	A	1/2	3/8 X 2
5 THRU 6	7	600	3/4	10	7-1/4	3-11/16 - 4-1/4	B	3/4	3/8 X 2-1/2
7 THRU 8	8	925	7/8	12-1/2	8-1/4	5-3/16 - 5-11/16	C	1	3/8 X 2-1/2
10	11	925	7/8	15	11-1/4	6-7/16	C	1	1/2 X 2-1/2
12	13	880	7/8	17	13-1/4	7-1/2	C	1	1/2 X 2-1/2
14	14-1/4	1200	1	18-3/8	14-1/2	8-11/16	D	1-1/4	1/2 X 2-1/2
16	16-1/4	1100	1	20-1/2	16-1/2	9-7/16	D	1-1/4	1/2 X 2-1/2
18	18-1/4	1200	1	23-1/4	18-1/2	10-1/2	D20	1-3/8	1/2 X 3
20	20-1/4	1000	1-1/4	25-1/2	20-1/2	11-9/16	D20	1-3/8	1/2 X 3



FIG. 79XH



ALL STAINLESS STEEL  
SEE FIG. 79SS FOR 6"  
AND SMALLER SIZES

FIG. 79XH

EXTRA HEAVY STAINLESS YOKE AND ROLL HANGER \_\_\_\_\_ FIG. 79XH

MATERIAL:  
ALL PARTS STAINLESS STEEL  
ORDERING:

SPECIFY NAME, FIGURE NUMBER, STAINLESS TYPE, AND PIPE SIZE  
NOTE: ROLLS MUST BE SIZED TO FIT PIPE COVERING  
PROTECTION SADDLES ON INSULATED PIPE, FIG. 99  
PROTECTION SADDLES MUST BE ORDERED SEPARATELY.

LOADS-DIMENSIONS-INCHES

PIPE SIZE	MAXIMUM O.D. COVERING	MAX. RECOM. LOADS, LBS.	HANGER ROD-A	D	C	H	ROLL TYPE	AXLE ROD F	STEEL SIZE G
SEE FIG. 79SS FOR 6" AND SMALLER SIZES									
7 THRU 8	8	825	7/8	12-1/2	8-1/4	5-7/16	E-1	7/8	3/8 X 2-1/2
10	11	1200	7/8	15	11-1/4	6-9/16			1/2 X 2-1/2
12	13	1200	7/8	17	13-1/4	7-5/8			1/2 X 2-1/2
14	14-1/4	1200	1	18-3/8	14-1/2	8-5/16	E-1	1	1/2 X 2-1/2
16	16-1/4	1200	1	20-1/2	16-1/2	8-1/4	E-2	1-1/4	1/2 X 2-1/2
18	18-1/4	1400	1	23-1/4	18-1/2	10-5/16	E-2	1-1/4	1/2 X 3
20	20-1/4	1400	1-1/4	25-1/2	20-1/2	11-3/8	E-2	1-1/4	1/2 X 3



FIG. 80

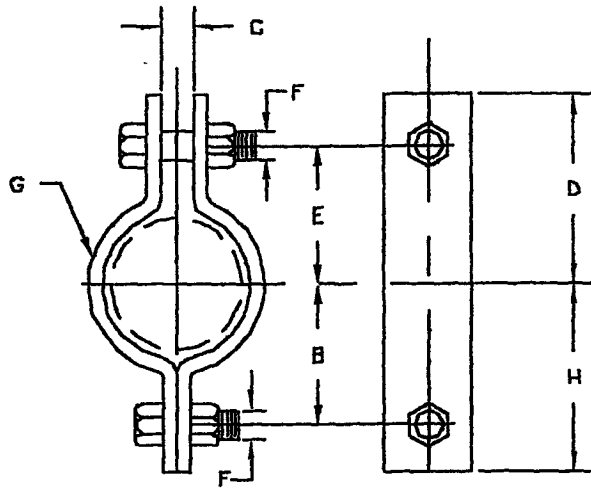


FIG. 80

2-BOLT PIPE CLAMP, MEDIUM \_\_\_\_\_ FIG. 80

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
MATERIAL AND FINISH

LOADS-WEIGHTS-DIMENSIONS-INCHES

PIPE SIZE	MAX RECOM. LOAD, LB. FOR SERVICE TEMPERATURE		APPROX. WGT. LBS. EACH	B	C	D	E	F	G	H
	650F	750F								
1/2	800	445	.29	1	1/2	1-17/32	1	5/16	1/8 X 1	1-17/32
3/4	500	445	.33	1-1/8	1/2	1-21/32	1-1/8	5/16	1/8 X 1	1-21/32
1	500	445	.35	1-1/8	1/2	1-29/32	1-3/8	5/16	1/8 X 1	1-21/32
1-1/4	500	445	.38	1-7/16	1/2	1-31/32	1-7/16	5/16	1/8 X 1	1-31/32
1-1/2	800	715	.43	1-9/16	1/2	2-5/32	1-5/8	5/16	1/8 X 1	2-3/16
2	1040	830	1.1	2-1/8	1/2	2-3/4	2-1/8	1/2	3/16 X 1-1/4	2-3/4
2-1/2	1040	830	1.2	2-1/2	5/8	3-1/4	2-5/8	1/2	3/16 X 1-1/4	3-1/8
3	1040	830	1.4	2-13/16	5/8	3-9/16	2-15/16	1/2	3/16 X 1-1/4	3-7/16
3-1/2	1040	830	1.5	3-1/8	5/8	3-13/16	3-3/16	1/2	3/16 X 1-1/4	3-3/4
4	1040	830	2.3	3-7/16	3/4	4-3/8	3-5/8	5/8	1/4 X 1-1/4	4-3/16
5	1040	830	2.5	4	3/4	4-15/16	4-3/16	5/8	1/4 X 1-1/4	4-3/4
6	1815	1440	5.4	4-7/8	7/8	5-7/8	5	3/4	3/8 X 1-1/2	5-3/4
8	1815	1440	6.5	5	1	7	6-1/8	3/4	3/8 X 1-1/2	6-7/8
10	2490	2220	13.5	7-5/16	1	8-9/16	7-7/16	7/8	1/2 X 2	8-7/16
12	2490	2220	15.2	8-1/4	1	8-9/16	8-7/16	7/8	1/2 X 2	8-3/8
14	3490	2220	20.5	8	1-1/8	10-5/8	8-1/4	7/8	1/2 X 2-1/2	10-3/8
16	2490	2220	22.3	10	1-1/8	11-5/8	10-1/4	7/8	1/2 X 2-1/2	11-3/8
18	3080	2730	31.8	11-1/2	1-1/4	13	11-5/8	1	5/8 X 2-1/2	12-7/8
20	3080	2730	35.8	12-1/2	1-3/8	14-1/8	12-3/4	1-1/8	5/8 X 2-1/2	13-7/8
24	3080	2730	53.1	15	1-5/8	16-7/8	15-1/4	1-1/4	5/8 X 3	16-5/8
30	3080	3350	113.9	18-1/2	2	21-1/4	19	1-3/4	3/4 X 4	20-5/8



FIG. 82

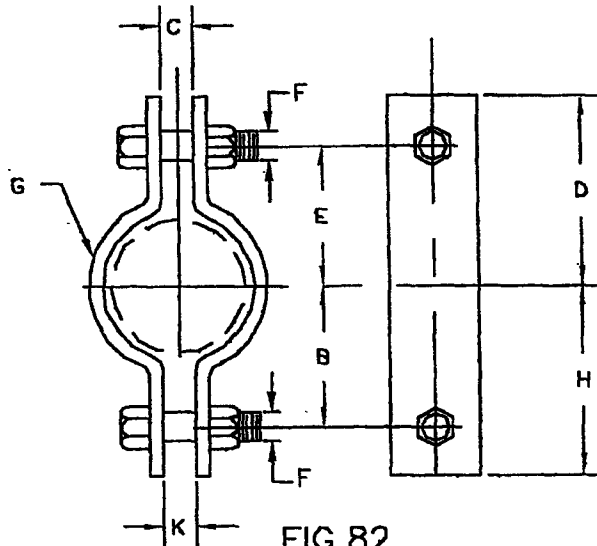


FIG. 82

2-BOLT PIPE CLAMP, HEAVY \_\_\_\_\_ FIG. 82

MATERIAL:  
 CARBON STEEL  
 ORDERING:  
 SPECIFY NAME, FIGURE NUMBER,  
 PIPE SIZE, MATERIAL AND FINISH

LOADS-WEIGHTS-DIMENSIONS (INCHES)

PIPE SIZE	MAX. RECOM. LOAD, LB. FOR SERVICE TEMPERATURE		WGHT (APPROX) LBS. EACH	B	C	D	E	F	G	H	K
	600F	750F									
2	3300	3000	2.1	2	3/4	3	2	5/8	1/4 X 1-1/2	3	5/8
3	3370	3085	3.8	2-15/16	1	4	3-1/8	3/4	1/4 X 2	3-13/16	5/8
4	3515	3135	5.3	3-9/16	1	4-7/8	3-3/4	7/8	3/8 X 2	4-11/16	5/8
5	3515	3135	6.3	4-1/8	1	5-1/2	4-3/8	7/8	3/8 X 2	5-1/4	5/8
6	4855	4340	11.7	5	1-1/8	8-5/8	5-1/4	1	1/2 X 2-1/2	6-3/8	7/8
8	4855	4340	13.0	5-1/8	1-1/8	7-5/8	6-1/4	1	1/2 X 2-1/2	7-1/2	7/8
10	5010	5380	22.3	7-9/16	1-1/4	9-1/16	7-11/16	1-1/4	3/8 X 2-1/2	8-13/16	7/8
12	6875	7740	38.1	8	1-5/8	10-7/8	9-1/4	1-1/2	3/4 X 3	10-9/8	7/8
14	8120	8135	48.8	8-3/4	1-5/8	11-7/8	10	1-1/2	3/4 X 3-1/2	11-9/8	7/8
16	8120	8135	61.4	10-3/4	1-5/8	12-7/8	11	1-1/2	3/4 X 3-1/2	12-5/8	7/8
18	13800	-	130.1	14-1/2	3	17-1/4	14-1/2	2	3/4 X 6	17-1/4	3
20	15300	-	183.6	15	3	18-3/4	15	2	1 X 5	18-3/4	3
24	16300	-	215.2	18-1/2	3-1/4	21-1/2	18-1/2	2-1/4	1 X 6	21-1/2	3-1/4
28	18000	-	302.8	20-1/2	3-1/4	23-1/2	20-1/2	2-1/4	1 X 8	23-1/2	3-1/4
30	20500	-	365.4	22-1/2	3-1/2	25	22-1/2	2-1/2	1-1/4 X 7	25	3-1/2
32	21750	-	431.7	23-1/2	3-1/2	27	23-1/2	2-1/2	1-1/4 X 8	27	3-1/2
34	25000	-	533.8	25	3-1/2	28-1/2	25	2-1/2	1-1/2 X 8	28-1/2	3-1/2
36	28000	-	676.1	28-1/2	3-1/2	30-1/4	28-1/2	2-3/4	1-1/2 X 8	30-1/4	3-1/2
42	35000	-	815.7	32	3-1/2	33-3/4	30	2-3/4	1-3/4 X 10	33-3/4	3-1/2



FIG. 82

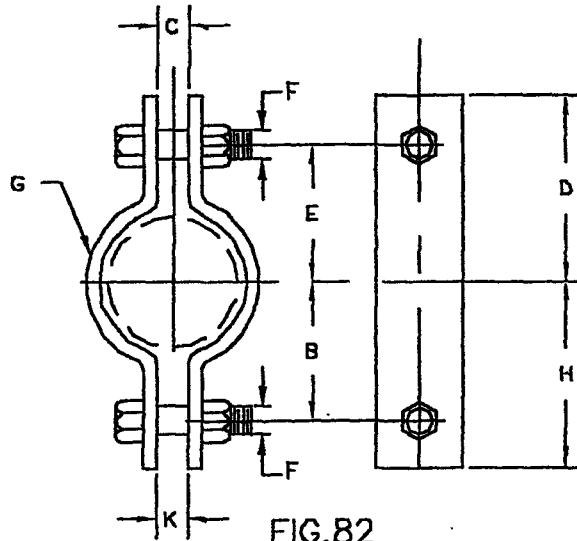


FIG. 82

2-BOLT PIPE CLAMP, HEAVY \_\_\_\_\_ FIG. 82

MATERIAL:  
CARBON STEEL

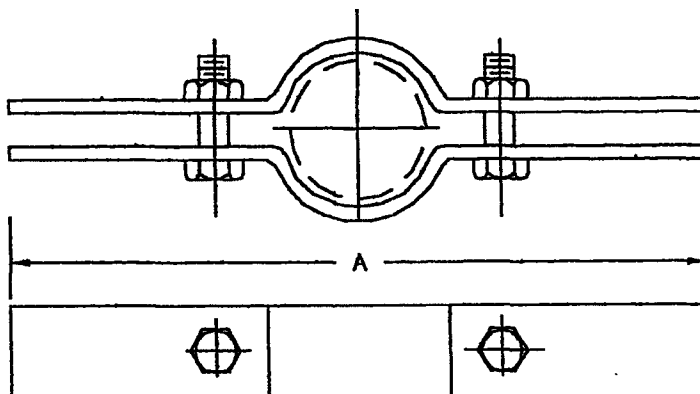
ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
PIPE SIZE, MATERIAL AND FINISH

LOADS-WEIGHTS-DIMENSIONS (INCHES)

PIPE SIZE	MAX. RECOM. LOAD, LB. FOR SERVICE TEMPERATURE		WGT (APPROX) LBS. EACH	B	C	D	E	F	G	H	K
	800F	750F									
2	3300	3000	2.1	2	3/4	3	2	5/8	1/4 X 1-1/2	3	5/8
3	3570	3005	3.8	2-15/16	1	4	3-1/8	3/4	1/4 X 2	3-13/16	5/8
4	3915	3136	5.5	3-9/16	1	4-7/8	3-3/4	7/8	3/8 X 2	4-11/16	3/8
6	3915	3136	6.3	4-1/8	1	5-1/2	4-3/8	7/8	3/8 X 2	5-1/4	5/8
8	4865	4340	11.7	5	1-1/8	6-5/8	5-1/4	1	1/2 X 2-1/2	6-3/8	7/8
8	4865	4340	13.9	5-1/8	1-1/8	7-5/8	6-1/4	1	1/2 X 2-1/2	7-1/2	7/8
10	5070	5380	22.3	7-9/16	1-1/4	9-1/16	7-11/16	1-1/4	5/8 X 2-1/2	8-15/16	7/8
12	5875	7740	38.1	8	1-3/8	10-7/8	9-1/4	1-1/2	3/4 X 3	10-5/8	7/8
14	8120	8135	48.8	8-3/4	1-5/8	11-7/8	10	1-1/2	3/4 X 3-1/2	11-5/8	7/8
16	8120	8135	61.4	10-3/4	1-5/8	12-7/8	11	1-1/2	3/4 X 3-1/2	12-5/8	7/8
18	15800	-	130.1	14-1/2	3	17-1/4	14-1/2	2	3/4 X 8	17-1/4	3
20	15300	-	183.6	15	3	18-3/4	18	2	1 X 5	18-3/4	3
24	16300	-	215.2	18-1/2	3-1/4	21-1/2	18-1/2	2-1/4	1 X 8	21-1/2	3-1/4
28	18000	-	302.8	20-1/2	3-1/4	23-1/2	20-1/2	2-1/4	1 X 8	23-1/2	3-1/4
30	20500	-	385.4	22-1/2	3-1/2	26	22-1/2	2-1/2	1-1/4 X 7	25	3-1/2
32	23750	-	431.7	23-1/2	3-1/2	27	23-1/2	2-1/2	1-1/4 X 8	27	3-1/2
34	25000	-	533.8	25	3-1/2	28-1/2	25	2-1/2	1-1/2 X 8	28-1/2	3-1/2
36	28000	-	676.1	28-1/2	3-1/2	30-1/4	28-1/2	2-3/4	1-1/2 X 8	30-1/4	3-1/2
42	33000	-	815.7	30	3-1/2	33-3/4	30	2-3/4	1-3/4 X 10	33-3/4	3-1/2



FIG.  
83, 83C & 83CI



2-BOLT RISER CLAMP, MEDIUM \_\_\_\_\_ FIG. 83  
 PLASTIC COATED \_\_\_\_\_ FIG. 83C  
 FOR IRON PIPE \_\_\_\_\_ FIG. 83CI

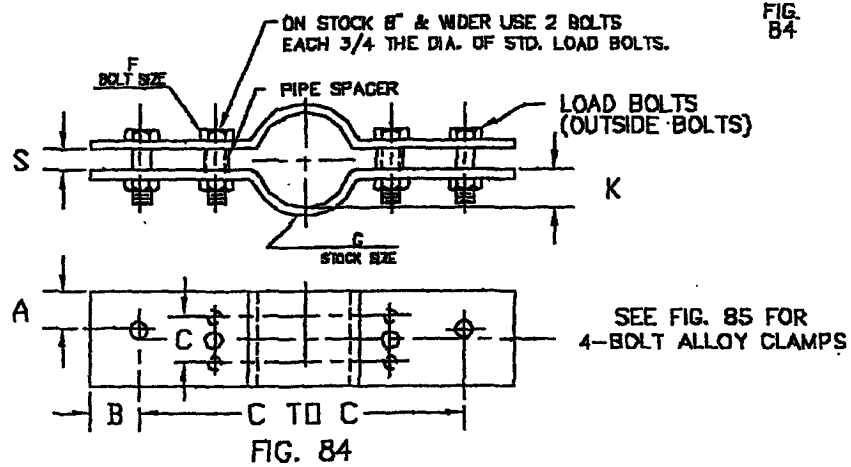
MATERIAL:  
 CARBON STEEL OR STAINLESS STEEL

ORDERING:  
 SPECIFY NAME, FIGURE NUMBER,  
 PIPE SIZE MATERIAL AND FINISH

LOADS—WEIGHTS—DIMENSIONS—INCHES

PIPE SIZE	MAXIMUM RECOMMENDED LOAD, LB.	WGT.(APPROX) LBS. EACH	LENGTH A	SIZE STOCK	SIZE BOLTS
1/2	220	1.1	8-7/8	3/16 X 1-1/4	3/8 X 1-1/2
3/4	220	1.1	8-7/8	3/16 X 1-1/4	3/8 X 1-1/2
1	220	1.1	8-7/8	3/16 X 1-1/4	3/8 X 1-1/2
1-1/4	250	1.6	10	1/4 X 1-1/4	3/8 X 1-1/2
1-1/2	250	1.6	10-1/4	1/4 X 1-1/4	3/8 X 1-1/2
2	300	1.7	10-1/4	1/4 X 1-1/4	1/2 X 1-1/2
2-1/2	400	1.9	11-1/4	1/4 X 1-1/4	1/2 X 1-1/2
3	500	1.9	11-3/8	1/4 X 1-1/4	1/2 X 1-1/2
3-1/2	600	2.3	12-7/8	1/4 X 1-1/2	1/2 X 2
4	750	2.4	12-7/8	1/4 X 1-1/2	1/2 X 2
5	1100	3.6	13-3/4	1/4 X 2	1/2 X 2
6	1570	4.0	14-3/4	1/4 X 2	1/2 X 2
8	2500	7.6	18-1/2	3/8 X 2	5/8 X 2-1/2
10	2500	11.1	20-1/4	3/8 X 2	5/8 X 2-1/2
12	2700	16.6	22-3/4	1/2 X 2	5/8 X 2-1/2
14	2700	19.3	24	1/2 X 2	5/8 X 2-1/2
16	2900	32.5	26	5/8 X 2-1/2	3/4 X 3
18	2900	33.8	28	5/8 X 2-1/2	3/4 X 3
20	2900	35.0	30	5/8 X 2-1/2	3/4 X 3





4-BOLT RISER CLAMP, STANDARD \_\_\_\_\_ FIG. 84

MATERIAL:

CARBON STEEL OR STAINLESS STEEL

ORDERING:

SPECIFY NAME, FIG. NO., PIPE SIZE, MATERIAL & FINISH.

NOTE:

IF MAX. LOADS OR TEMPERATURES ARE EXCEEDED REFER TO FIG. 85

LOAD-DIMENSIONS-WEIGHTS

PIPE SIZE	MAX. LOAD AT 650°F	MAX. LOAD AT 750°F	C-C	S	B	A	CARBON STEEL BOLT F	STAINLESS STEEL BOLT F	G	C	K	REC. HGR. ROD SIZE	RETD. QUANTITY SHEAR LUGS PER SIZE
1 1-1/4 1-1/2	850	585	15	3/4	2	1	3/8	3/8	1/4 x 2	-	1-2 5-8 3-4	1/2 1/2 5/8	1
2 2-1/2 3	800 800 1500	785 785 1310	18 20 20	3/4	2	1-1/4 1-1/4 1-1/2	3/8 3/8 1/2	1/2 1/2 5/8	1/2x2-1/2 1/2x2-1/2 5/8 x 3	-	13/16 1-1/16 1-3/8	1/2 1/2 5/8	2
4 5	2200	1925	22	3/4	2	1-1/2	1/2	5/8	5/8 x 4	-	1-7/8 2-3/8	3/4	3
6 8	3000	2625	24 27	1	2	1-1/2	5/8	3/4 3/4	3/4 x 4 3/4 x 5	-	2-13/16 3-13/16	7/8	4
10 12 14	5500 7800 7800	4810 6825 6825	30 32 34	1-1/2 1-3/4 1-3/4	2-1/4 2-1/2 2-1/2	1-3/4 2 2	7/8 1 1	1 1 1	1 x 8 1 x 7 1 x 7	-	4-5/8 5-1/2 6-1/8	1-1/4	4 5 5
16 18	9000	7875	36 39	2	2-3/4	2-3/4	1-1/8	1-1/4 1-1/4	1-1/4 x 8 1-1/4 x 7	-	7 8	1-1/2	5
20 24	13500	11800	42 45	2-1/2	2-3/4	2-3/4	1-3/8 1-1/8	1-1/2	1-1/2 x 8	4	8-3/4 10-3/4	1-3/4	6



FIG. 85

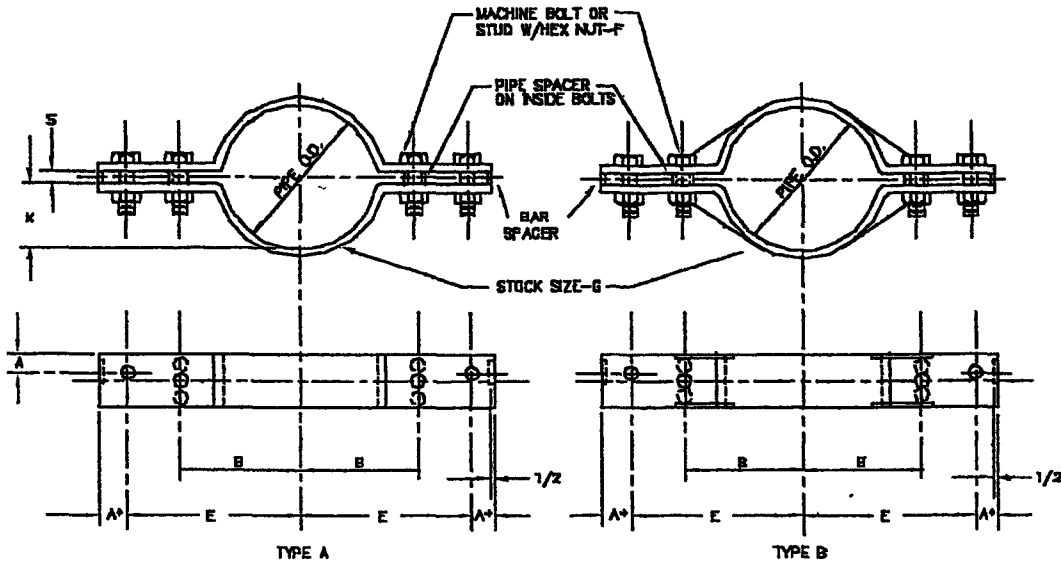


FIG. 85

4-BOLT RISER NON-STANDARD \_\_\_\_\_ FIG. 85

MATERIAL:

CARBON STEEL, STAINLESS STEEL, OR ALLOY STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
PIPE TEMPERATURE, TOTAL LOAD, HANGER MATERIAL  
AND FINISH. ALSO SPECIFY 'E' OR C TO C DIMENSION.

NOTE:

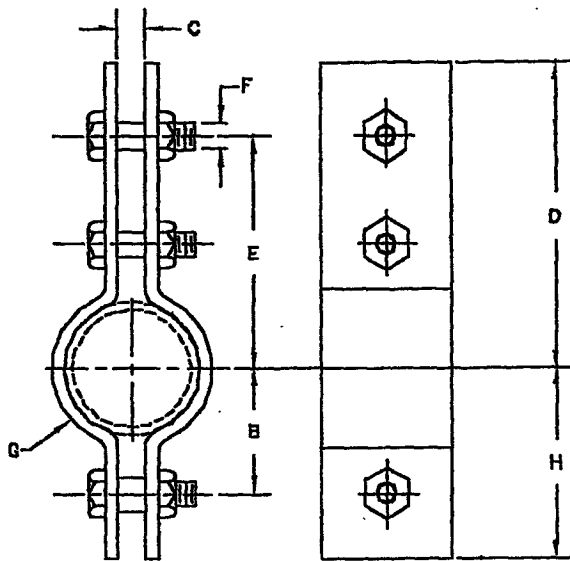
IF DEFINITE "B" DIMENSION IS REQUIRED  
IT MUST BE SPECIFIED

TYPE B IS GENERALLY REQUIRED FOR PIPE SIZES  
ABOVE 12" WITH LOADS ABOVE ABOUT 8000 POUNDS  
ALLOY STEEL IS REQUIRED ABOVE 750 DEGREES F.

SEE FIG. 84 FOR STANDARD  
4-BOLT RISER CLAMP



FIG. 86



3-BOLT PIPE CLAMP \_\_\_\_\_ FIG. 86

MATERIAL:  
CARBON STEEL OR  
STAINLESS STEEL  
ORDERING:  
SPECIFY NAME,  
FIGURE NUMBER,  
PIPE SIZE,  
MATERIAL AND  
FINISH

FIG.86

LOADS-WEIGHTS-DIMENSIONS (INCHES)

PIPE SIZE	MAX. RECD. LOAD LB. FOR SERVICE TEMP.		WT (APPROX.) LBS. EACH	B	C	D	E	F	G	H
	850F	750T								
3/4	850	850	.70	15/16	5/8	2-7/8	2-7/8	3/8	3/16 X 1-1/4	1-3/8
1	850	850	.78	1-3/8	5/8	3-1/2	3-1/8	3/8	3/16 X 1-1/4	1-3/4
1-1/4	850	850	.81	1-1/4	5/8	3-1/8	2-11/16	3/8	3/16 X 1-1/4	1-11/16
1-1/2	1545	1380	2.3	1-13/16	1-1/16	4-7/8	4-1/8	5/8	1/4 X 1-1/4	2-3/8
2	1645	1380	2.8	2-1/8	1-1/16	5-7/8	6-1/8	5/8	1/4 X 1-1/4	2-11/16
2-1/2	1545	1380	2.7	2-5/16	1-1/16	5-1/8	6-3/8	5/8	1/4 X 1-1/4	2-15/16
3	1545	1380	3.0	2-3/4	1-1/16	6-11/16	6-15/16	5/8	1/4 X 1-1/4	3-1/2
4	2500	2230	5.7	3-3/8	1-1/16	7-3/8	6-1/2	3/4	3/8 X 2	4-1/2
5	2500	2230	7.0	3-15/16	1-1/16	8-1/8	7	3/4	3/8 X 2	5
6	2885	2555	11.5	4-3/4	1-7/16	8-15/16	8-8/16	7/8	3/8 X 2-1/2	6-1/8
8	2885	2555	13.2	5-3/4	1-7/16	10-15/16	9-9/16	7/8	3/8 X 2-1/2	7-1/8
10	3240	2890	18.8	6-7/8	1-7/16	12	10-7/16	1	1/2 X 2-1/2	8-1/4
12	3240	2890	22.3	7-7/8	1-7/16	13	11-7/16	1	1/2 X 2-1/2	8-1/4
14	4300	3835	37.7	8-1/8	2	14-5/16	12-11/16	1-1/4	5/8 X 3	10-11/16
16	4300	3835	41.4	10-1/16	2	15-5/16	13-11/16	1-1/4	5/8 X 3	11-11/16
18	4300	3835	44.8	11-1/16	2	16-5/16	14-11/16	1-1/4	5/8 X 3	12-11/16
20	5480	4600	57.3	12-3/8	2	17-1/2	15-7/8	1-3/8	3/4 X 3	14
24	4500	4015	85.8	14-3/8	2	18-1/2	17-7/8	1-3/8	3/4 X 3	18
28	6000	-	112.3	17-1/2	2-1/4	24-1/4	21-3/4	1-1/4	3/4 X 4	20
30	7000	-	150.0	18-1/2	2-1/2	26-1/8	23-3/8	1-3/8	3/4 X 5	21-1/4
32	8250	-	183.3	18-5/8	2-1/2	28	25	1-1/2	3/4 X 5	22-5/8
34	9800	-	248.8	21-1/2	3	31-1/4	27-3/4	1-3/4	1 X 5	25
36	10500	-	257.5	22-1/2	3	32-1/4	28-3/4	1-3/4	1 X 5	26

FIG. 86A

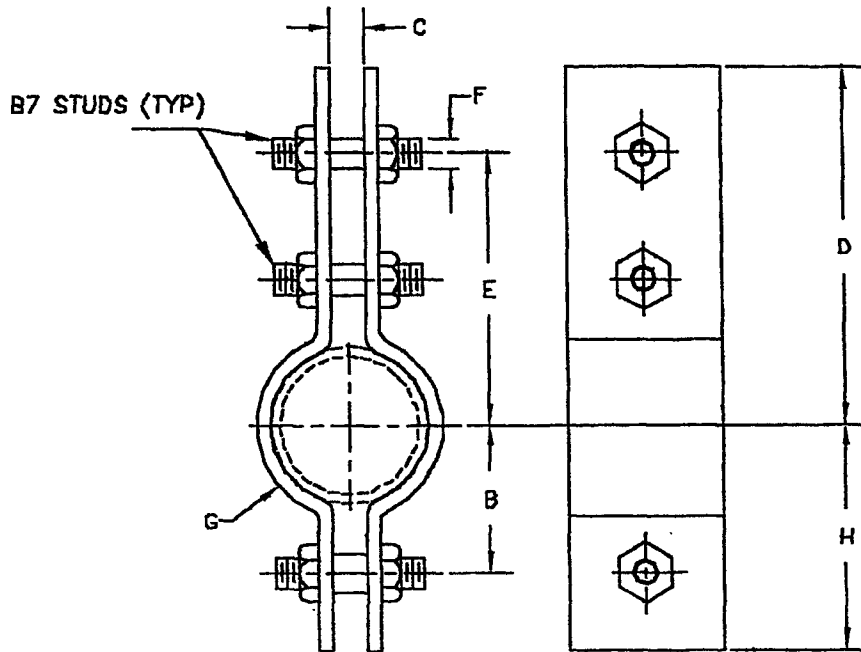


FIG. 86A

ALLOY 3-BOLT CLAMP \_\_\_\_\_ FIG. 86A

ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
PIPE SIZE, MATERIAL AND FINISH

LOADS-WEIGHTS-DIMENSIONS-INCHES

PIPE SIZE	MAX. RECOM. LOAD LB. FOR SERVICE TEMP.				WGT (APPROX.) LBS. EACH	B	C	D	E	F	G	H
	850F	750F	1000F	1080F								
1-1/2	1545	1410	1000	745	2.3	1-13/16	1-1/16	4-7/8	4-1/8	5/8	1/4 X 1-1/4	2-3/8
2	1545	1410	1000	745	2.8	2-1/8	1-1/16	5-7/8	5-1/8	5/8	1/4 X 1-1/4	2-11/16
2-1/2	1545	1410	1000	745	2.7	2-5/16	1-1/16	5-1/8	5-3/8	5/8	1/4 X 1-1/4	2-15/16
3	1545	1410	1000	745	3.0	2-3/4	1-1/16	6-11/16	5-15/16	5/8	1/4 X 1-1/4	3-1/2
4	2500	2280	1825	1200	8.7	3-3/8	1-1/16	7-5/8	6-1/2	3/4	3/8 X 2	4-1/2
5	2500	2280	1825	1200	7.0	3-15/16	1-1/16	8-1/8	7	3/4	3/8 X 2	5
6	2865	2620	1880	1360	11.5	4-3/4	1-7/16	9-15/16	8-8/16	7/8	3/8 X 2-1/2	6-1/8
8	2865	2620	1880	1360	13.2	5-3/4	1-7/16	10-15/16	9-9/16	7/8	3/8 X 2-1/2	7-1/8
10	3240	2970	2100	1585	19.8	7-1/16	1-7/16	12	10-8/16	1	1/2 X 2-1/2	8-1/4
12	3240	2970	2085	1525	22.3	8-1/16	1-7/16	12-15/16	11-5/8	1	1/2 X 2-1/2	8-5/16
14	4300	3815	2795	2080	37.7	9-1/16	2	14-5/16	12-11/16	1-1/4	5/8 X 3	10-11/16
18	4300	3815	2795	2080	41.4	10-1/16	2	15-5/16	13-11/16	1-1/4	6/8 X 3	11-11/16
18	4300	3815	2795	2080	44.9	11-1/16	2	16-5/16	14-11/16	1-1/4	5/8 X 3	12-11/16
20	5480	4865	3530	2635	57.3	12-3/8	2	17-1/2	15-7/8	1-3/8	3/4 X 3	14
24	4800	4085	2910	2180	65.9	14-3/8	2	19-1/2	17-7/8	1-3/8	3/4 X 3	16

FIG. 86H

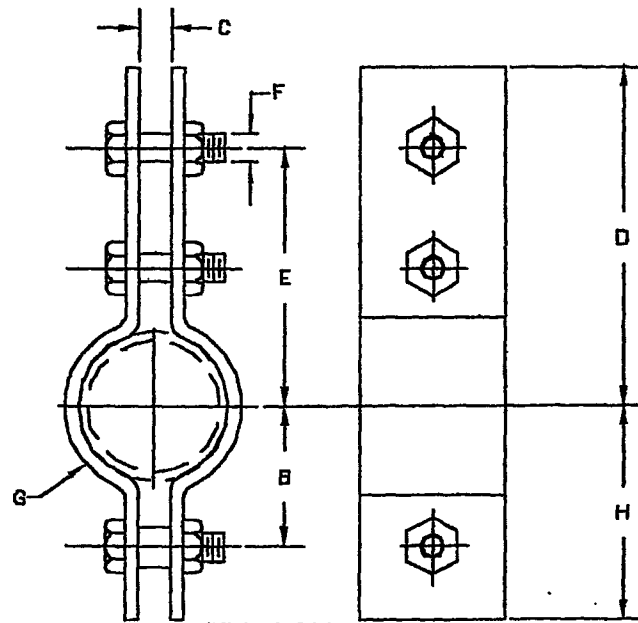


FIG. 86H

3-BOLT CLAMP, HEAVY \_\_\_\_\_ FIG. 86H

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
MATERIAL AND FINISH.

LOADS-DIMENSIONS-INCHES

PIPE SIZE	MAX. RECOM. LOAD LB. FOR SERVICE TEMP.		B	C	D	E	F	G	H
	650F	750F							
6	3500	3125	4-3/4	1-3/4	10-3/16	8-15/16	1	3/8 X 2-1/2	6
8	4800	4285	6	2	11-3/8	10-1/8	1-1/8	1/2 X 2-1/2	7-1/4
10	5500	4910	7-1/4	2-1/4	13-1/8	11-3/8	1-1/4	1/2 X 3-1/2	9
12	7000	6250	8-5/8	2-1/2	14-5/16	12-8/16	1-3/8	5/8 X 3-1/2	10-3/8
14	8500	8485	9-5/8	2-1/2	15-1/2	13-1/2	1-1/2	3/4 X 4	11-5/8
16	10000	8830	10-7/8	3	17-1/8	14-7/8	1-3/4	3/4 X 4-1/2	13-1/8
18	13800	12325	12-1/2	3-1/2	18-1/4	16-1/4	2	1 X 4	14-1/2
20	15300	13885	13-1/2	3-1/2	19-3/4	17-1/4	2	1 X 5	16
24	16300	14555	15-1/2	3-1/2	22-5/16	19-5/16	2	1 X 6	18-1/2
28	18000	-	18-7/8	4	31-3/4	27-1/4	2-1/4	1 X 7	23-3/8
30	20500	-	19-7/8	4-1/4	32-3/4	28-1/4	2-1/4	1 X 8	24-3/8
32	23750	-	21-3/4	4-1/4	35	31	2-1/2	1-1/4 X 8	26-3/4
34	25000	-	23-3/8	4-1/4	37-1/2	32-1/2	2-1/2	1-1/2 X 7	28-3/8
36	28000	-	24-5/8	4-1/2	40-1/4	34-3/4	2-3/4	1-1/2 X 8	30-1/8

FIG.  
88

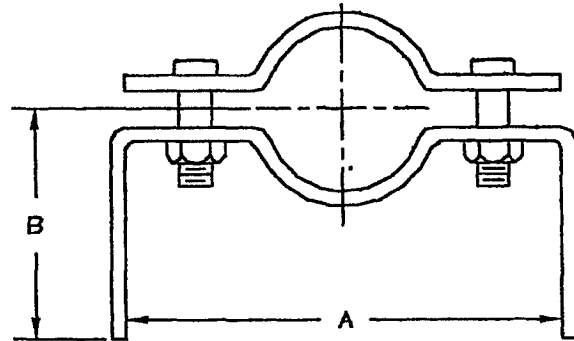


FIG.88

MARINE EXTENDED PIPE CLAMP \_\_\_\_\_ FIG. 88

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
PIPE SIZE, MATERIAL AND FINISH.

DIMENSIONS IN INCHES

PIPE SIZE	B*	A	STEEL SIZE	BOLT SIZE	APPROX. WEIGHT PER 100
3/8	12	3-3/4	1/8 X 1	3/8	185
1/2	12	3-3/4	3/16 X 1	3/8	185
3/4	12	5-7/8	3/16 X 1-1/4	3/8	185
1	12	6-3/8	3/16 X 1-1/4	3/8	234
1-1/4	12	6-7/8	3/16 X 1-1/4	3/8	240
1-1/2	12	7-1/8	3/16 X 1-1/4	3/8	245
2	12	8-3/8	1/4 X 1-1/4	1/2	313
2-1/2	12	8-7/8	1/4 X 1-1/4	1/2	421
3	12	10	1/4 X 1-1/4	1/2	447
4	12	10-5/8	1/4 X 1-1/2	1/2	490
5	12	12-3/8	1/4 X 2	5/8	532
6	12	13-1/2	1/4 X 2	5/8	1116
8	12	15-1/2	1/4 X 2	5/8	1266
10	12	18-1/4	1/4 X 2-1/2	3/4	1350
12	12	20-3/4	3/8 X 2-1/2	3/4	2200
14	12	21	3/8 X 3	3/4	3500

\* OTHER LENGTHS MADE TO CUSTOMER ORDER



FIG. 88A

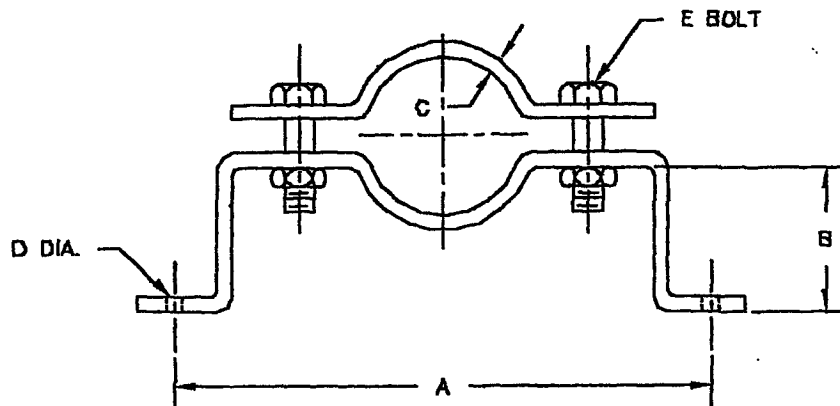


FIG.88A

OFFSET PIPE CLAMP \_\_\_\_\_ FIG. 88A

**MATERIAL:**

CARBON STEEL OR STAINLESS STEEL

**ORDERING:**

SPECIFY NAME, FIGURE NUMBER,  
PIPE SIZE, MATERIAL AND FINISH

**NOTE:** OFFSET CLAMPS ARE CUSTOM MADE TO  
OTHER DIMENSIONS AND CONFIGURATIONS.  
ONE VARIATION IS FOR MULTIPLE PIPES.

**LOADS-WEIGHTS-DIMENSIONS-INCHES**

PIPE SIZE	MAX. RECOM. LOAD, LB.	WEIGHT (APPROX) EA., LB.	A	B	E BOLT	C STEEL	D HOLE
1/2	190	1.10	8-1/2	2-7/16	3/8 X 1	3/16 X 1	7/16
3/4	190	1.35	8-3/4	2-3/4		3/16 X 1-1/4	
1	190	1.45	9-1/4	2-7/8			
1-1/4	190	1.55	9-3/4	3-1/8			
1-1/2	190	1.62	10	3-3/16			
2	420	2.78	11-1/4	3-1/2	1/2 X 1-1/2	1/4 X 1-1/4	9/16
2-1/2	420	2.90	11-3/4	3-3/4			
3	420	3.22	12-7/8	4-1/16			
4	610	4.22	13-7/8	4-9/16			
5	610	6.50	15-5/8	5-1/16	5/8 X 2	1/4 X 2	11/16
6	670	7.15	16-3/4	5-5/8			
8	870	8.32	18-3/4	6-5/8			
10	1050	12.38	21-1/2	7-3/8	3/4 X 2	1/4 X 2-1/2	13/16
12	1200	21.00	24-7/8	8-3/8		3/8 X 2-1/2	





SIDE LOADING HANGER \_\_\_\_\_ FIG. 90

MATERIAL:  
 CARBON STEEL OR STAINLESS STEEL  
 ORDERING:  
 SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
 MATERIAL AND FINISH

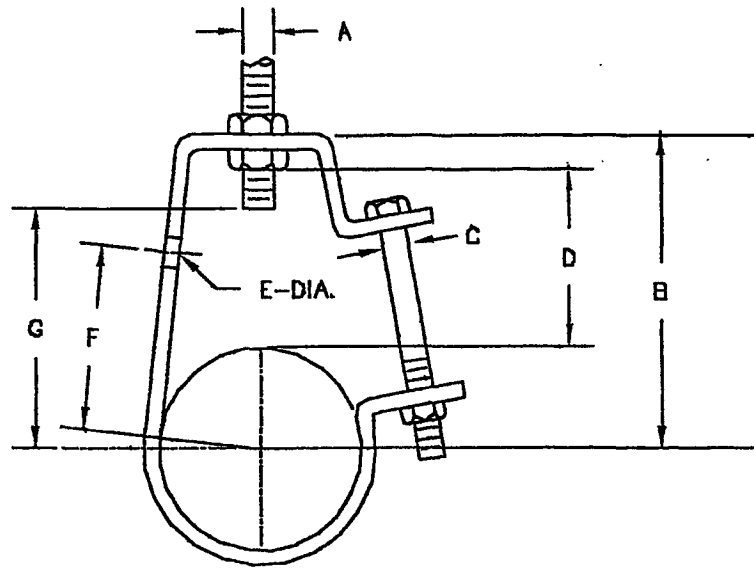


FIG. 90  
 DIMENSIONS-LOADS-WEIGHTS

PIPE SIZE	A	B	C	D	E	F	G	STOCK SIZE	MAX. LOAD RATING	APPROX. WT/100
1/2	3/8	2-5/8	1/4	1-3/4	7/16	1-1/2	1-15/16	.120 X 1	400	21
3/4	3/8	2-7/8	1/4	1-7/8	7/16	1-11/16	2-1/8	.120 X 1	400	22
1	3/8	2-15/16	1/4	1-15/16	7/16	1-13/16	2-5/16	.120 X 1	400	25
1-1/4	3/8	3-1/4	1/4	2	7/16	2-1/16	2-5/8	.120 X 1	400	27
1-1/2	3/8	3-9/16	1/4	2-3/16	7/16	2-7/16	2-7/8	.120 X 1	400	29
2	3/8	3-11/16	1/4	2-1/8	7/16	2-9/16	3-1/8	.120 X 1	400	31
2-1/2	1/2	4-7/16	3/8	2-7/16	9/16	3-3/16	3-5/8	1/8 X 1-1/4	500	71
3	1/2	4-13/16	3/8	2-9/16	9/16	3-1/2	4-1/16	1/8 X 1-1/4	500	78
3-1/2	1/2	5-1/8	3/8	2-5/8	9/16	3-3/4	4-3/8	1/8 X 1-1/4	500	84
4	5/8	6-1/8	3/8	3-3/16	5/16	4-5/8	5-3/16	3/16 X 1-1/4	550	139
5	5/8	6-3/4	3/8	3-1/4	9/16	5-1/8	6-3/4	3/16 X 1-1/4	550	166
6	3/4	7-3/4	3/8	3-8/16	9/16	5-13/16	8-5/8	1/4 X 1-1/4	800	228
8	7/8	9-3/16	3/8	3-15/16	9/16	6-15/16	B	1/4 X 1-1/2	760	332

FIG. 99

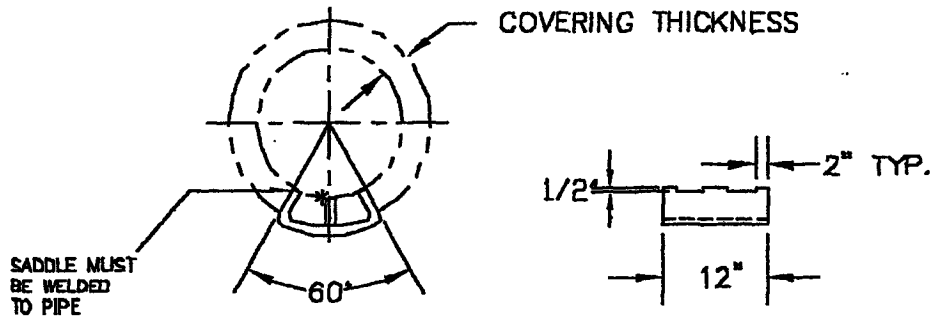


FIG.99

PIPE COVERING PROTECTION SADDLES \_\_\_\_\_ FIG. 99

**MATERIAL:**

CARBON STEEL, STAINLESS STEEL OR ALLOY

**ORDERING:**

SPECIFY NAME, FIGURE NUMBER, PIPE SIZE, INSULATION THICKNESS, SADDLE MATERIAL AND FINISH

\* CENTER SUPPORT FIN IS REQUIRED IN CARBON AND STAINLESS SADDLES FOR 12 INCH AND LARGER PIPE. CENTER SUPPORT FIN IS REQUIRED IN ALLOY SADDLES FOR 4 INCH AND LARGER PIPE.

CARBON OR STAINLESS STEEL - MAX TEMP 850 F			
PIPE SIZE	COVERING MAXIMUM THICKNESS	REG. MAX. LOAD LBS.	SADDLE THICKNESS
3/4 THRU 5	4	1200	1/8
6 - 14	4	5000	3/16
16-36 42 48	4	7200	1/4 3/8 1/2

ALLOY STEEL - MAX. TEMP. 1050 DEG. F.			
PIPE SIZE	COVERING MAXIMUM THICKNESS	REG. MAX. LOAD LBS.	SADDLE THICKNESS
2 - 3	5-1/2	1200	1/4
4 - 10		7200	3/8
12 - 16		11400	3/8
18 - 24		13370	3/8
30 - 36		13370	1/2

180 DEGREE  
SHIELD SIZE SELECTION CHART—LENGTHS & GAGES ARE PER MSS-SP-58

FIG. 100

PIPE SIZE	INSULATION THICKNESS—INCHES									
	1/2	3/4	1	1-1/2	2	2-1/2	3	3-1/2	4	
1/2	1A	1A								
3/4	1A	1A	2A	4A	8A					
1	1A	2A	3A	5A	7A					18 GAGE 12" LONG
1-1/4	2A	3A	3A	8A	7A					
1-1/2	2A	3A	4A	6A	7A					
2	3A	4A	5A	7A	8A					16 GAGE 12" LONG
2-1/2	4A	5A	8A	7A	8A					16 GAGE 18" LONG
3	5A	6A	7A	8A	8A					
3-1/2			8A	9A	10A	10A		11B	12B	
4			8A	9A	10A	11B		12B	13C	
5			9B	10B	11B	12B		13C	14C	
6			10B	11B	12B	13C		14C	14C	14 GAGE 24" LONG
8								15C	16C	
10			14C	13C	14C	14C		17C	19C	
12			18C	15C	16C	17C		19C	20C	
14			17C	17C	18C	19C		21C	21C	
16			19C	18C	18C	20C		23C	22C	12 GAGE 24" LONG
18			21C	20C	21C	22C		25C	24C	
20			23C	22C	23C	24C		28C	25C	
24			26C	24C	25C	26C		30D	27C	
				27C	28C	28D			31D	
									32D	

180 DEGREE  
INSULATION SHIELD—WEIGHTS DIMENSIONS

SHIELD	APPROX. WEIGHT (LBS.)	STOCK GAGE	SHIELD LENGTH (INCH)	RADIUS R(IN.)
X1A	.52	18	12	.85
1A	.84	18	12	1.18
2A	.79	18	12	1.44
3A	.98	18	12	1.75
4A	1.1	18	12	2.00
5A	1.2	18	12	2.25
6A	1.4	18	12	2.50
7A	1.6	18	12	2.78
8A	2.3	18	12	3.32
9A	2.8	16	12	3.82
10A	3.2	18	12	4.32
9B	3.8	18	18	3.82
10B	4.8	16	18	4.32
11B	4.8	18	18	4.82
12B	5.5	18	18	5.38
13C	10.5	14	24	5.88
14C	10.5	14	24	6.38
15C	12.8	14	24	7.00
16C	12.8	14	24	7.50
17C	15.8	14	24	8.00
18C	15.8	14	24	8.50
19C	22.2	12	24	9.00
20C	22.2	12	24	9.50
21C	29.6	12	24	10.00
22C	29.6	12	24	10.50
23C	29.8	12	24	11.00
24C	29.8	12	24	11.50
25C	29.6	12	24	12.00
26C	44.3	12	24	13.00
27C	44.3	12	24	13.50
28C	44.3	12	24	14.00
29D	44.3	12	24	14.50
30D	44.3	12	24	15.00
31D	44.3	12	24	15.50
32D	44.3	12	24	16.00

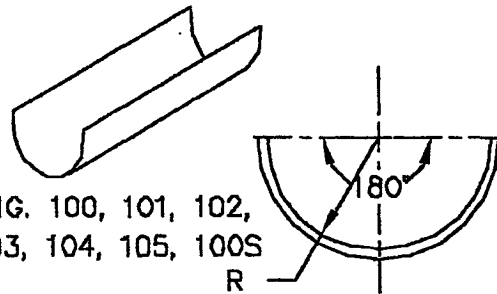


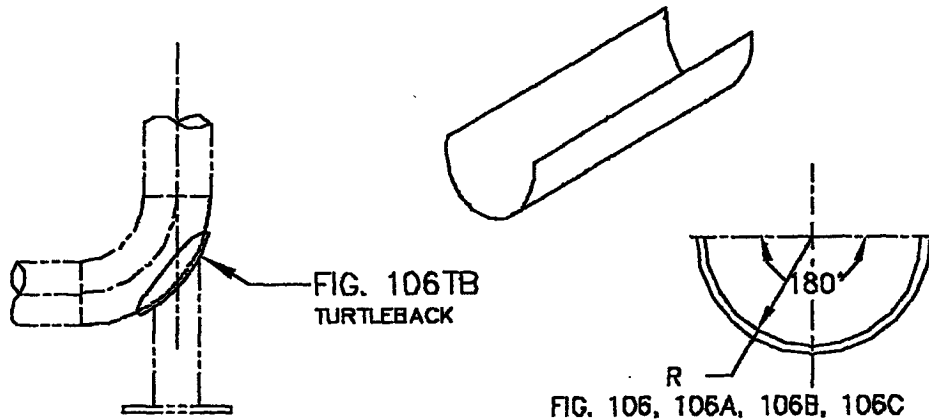
FIG. 100, 101, 102,  
103, 104, 105, 100S

- SERIES 100 INSULATION PROTECTION SHIELDS
- 180 DEGREE SHIELD \_\_\_\_\_ FIG. 100
  - 180 DEGREE RUBBER LINED SHIELD \_\_\_\_\_ FIG. 101
  - 360 DEGREE SHIELD WITH CLAMPS \_\_\_\_\_ FIG. 102
  - 360 DEGREE RUBBER LINED W/CLAMPS \_\_\_\_\_ FIG. 103
  - 180 DEGREE SHIELD WITH CLAMPS \_\_\_\_\_ FIG. 104
  - 180 DEGREE RUBBER LINED W/CLAMPS \_\_\_\_\_ FIG. 105
  - SHIELDS MADE TO CUSTOMER ORDER \_\_\_\_\_ FIG. 100S

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER, INSULATION  
OUTSIDE DIAMETER OR SHIELD RADIUS, LENGTH,  
DEGREES WRAP, MATERIAL TYPE, GAGE AND  
FINISH.

FIG.  
106, 106A  
106B, 106C,  
106TB



PIPE WEAR PLATE (POISON PAD)

90 DEGREE _____	FIG. 106
120 DEGREE _____	FIG. 106A
150 DEGREE _____	FIG. 106B
180 DEGREE _____	FIG. 106C
TURTLEBACK ELBOW PADS _____	FIG. 106TB

MATERIAL:

CARBON STEEL OR STAINLESS STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER,  
PIPE O.D., PLATE LENGTH,  
THICKNESS, WRAP DEGREE,  
MATERIAL AND FINISH

NOTE:

SEE FIG. 51WBS WELDED  
BASE STAND



FIG.  
110P & 110E

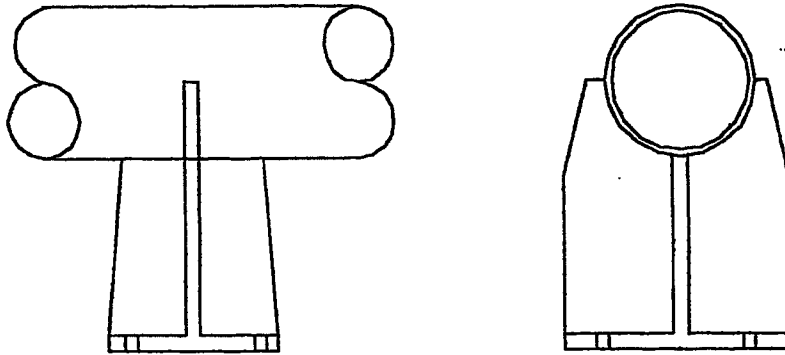


FIG. 110P

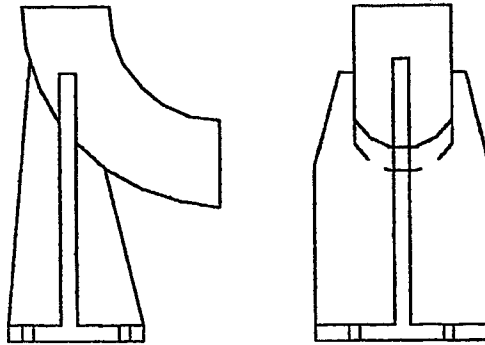


FIG. 110E

ANCHOR SUPPORT, WELDED:

PIPE \_\_\_\_\_ FIG. 110P

ELBOW \_\_\_\_\_ FIG. 110E

MATERIAL:

CARBON STEEL OR ALLOY

ORDERING:

SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
PIPE TEMPERATURE, PLATE THICKNESS,  
DISTANCE FROM PIPE CENTER LINE TO  
BASE, BASE LENGTH AND WIDTH,  
MATERIAL AND FINISH



FIG. 111

- SHOE SUPPORT-SINGLE TEE W/CRADLE \_\_\_\_\_ FIG. 111A  
 -DOUBLE TEE W/CRADLE \_\_\_\_\_ FIG. 111B  
 -CUSTOM \_\_\_\_\_ FIG. 111C

**MATERIAL:**  
 CARBON STEEL OR STAINLESS STEEL, OR COMBINATION CARBON TEE W/STAINLESS CRADLE FOR WELDING TO STAINLESS PIPE.

**ORDERING:**  
 SPECIFY NAME, FIGURE NUMBER, PIPE SIZE, CUSTOM DIMENSIONS, MATERIAL AND FINISH. ALSO LIST OPTIONS REQUIRED.

FIG. 111A

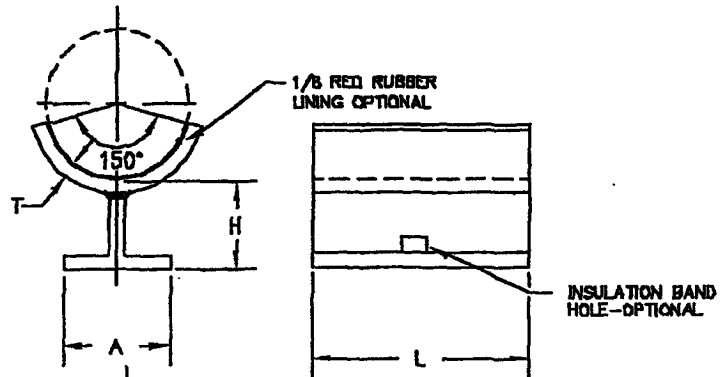
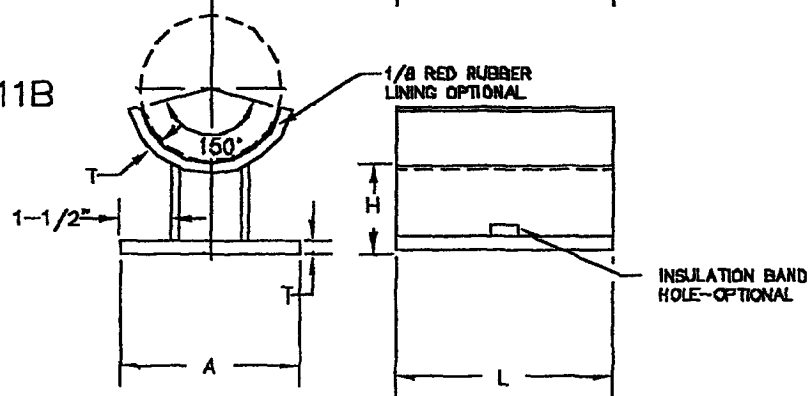


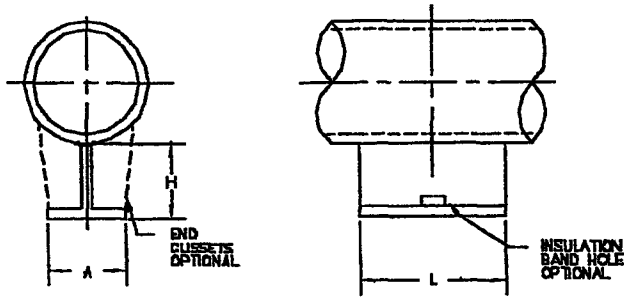
FIG. 111B



STANDARD DIMENSIONS (INCHES)

PIPE SIZE	A	H	L	T	BASE	FIGURE NO.
2-6	4	4	8	1/4	SPLIT W 8X13	111A
8-12	6-1/2	4	8	1/4	SPLIT W 8X24	111A
14-18	9	4	12	3/8	3/8 PLATE	111B
20-24	12	4	12	3/8	3/8 PLATE	111B

FIG.  
112 & 113



SHOE SUPPORT—SINGLE STEM TEE  
(WELDS TO PIPE) \_\_\_\_\_ FIG. 112

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
PIPE SIZE, LENGTH, HEIGHT, WIDTH,  
WITH OR WITHOUT END GUSSETS AND  
INSULATION BAND HOLE, MATERIAL  
AND FINISH.

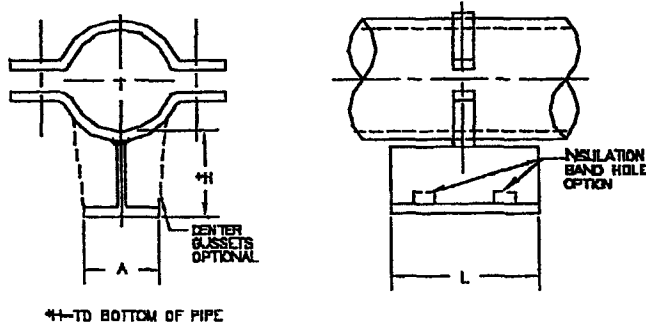


FIG. 113

SHOE SUPPORT—SINGLE STEM TEE  
WITH 1 CLAMP \_\_\_\_\_ FIG. 113

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
PIPE SIZE, SHOE LENGTH "L",  
HEIGHT "H", WITH OR WITHOUT  
GUSSETS AND INSULATION  
BAND HOLE, MATERIAL AND FINISH.

DIMENSIONS(INCHES)

PIPE SIZE	A	H	L	BASE
2	4	4	8	SPLIT W 8X13
3	4	4	8	SPLIT W 8X13
4	4	4	8	SPLIT W 8X13
6	4	4	8	SPLIT W 8X13

FIG.  
114A & 114B

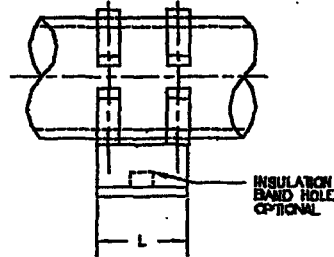
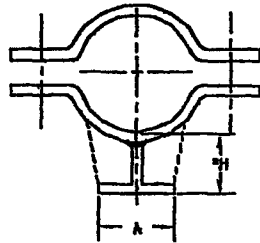
**DIMENSIONS (INCHES)**

PIPE SIZE	A	H	L	BASE
3	4	4	12	SPLIT W 8X13
4	4	4	12	SPLIT W 8X13
6	4	4	12	SPLIT W 8X13
8	4	4	12	SPLIT W 8X13

SHOE SUPPORT-SINGLE STEM TEE WITH  
2 CLAMPS \_\_\_\_\_ FIG. 114A

**MATERIAL:**  
CARBON STEEL OR STAINLESS STEEL

**ORDERING:**  
SPECIFY NAME, FIGURE NUMBER,  
PIPE SIZE, SHOE LENGTH "L"  
HEIGHT "H", WITH OR WITHOUT  
GUSSETS AND INSULATION BAND  
HOLE, MATERIAL AND FINISH.



\*H=TO BOTTOM OF PIPE FIG. 114A

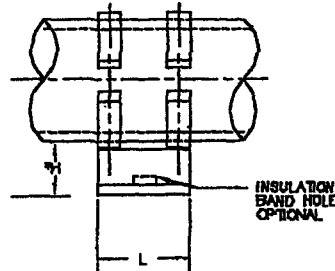
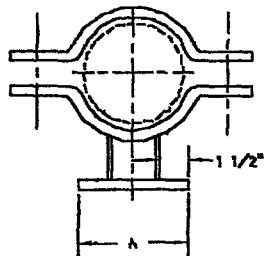
**DIMENSIONS (INCHES)**

PIPE SIZE	A	H	L	T
10	9	4	12	3/8 PLATE
12	9	4	12	3/8 PLATE
14	9	4	12	3/8 PLATE
16	9	4	12	3/8 PLATE
18	9	4	12	3/8 PLATE
20	12	4	12	3/8 PLATE
24	12	4	12	3/8 PLATE

SHOE SUPPORT-DBL STEM TEE WITH  
2 CLAMPS \_\_\_\_\_ FIG. 114B

**MATERIAL:**  
CARBON STEEL

**ORDERING:**  
SPECIFY NAME, FIGURE NUMBER,  
PIPE SIZE, SHOE LENGTH "L"  
HEIGHT "H", WITH OR WITHOUT  
GUSSETS AND INSULATION BAND  
HOLE, MATERIAL AND FINISH.



\*H=TO BOTTOM OF PIPE FIG. 114B



DIMENSIONS (INCHES)

PIPE SIZE	A	B	C	HOLE SIZE	STOCK SIZE	LOAD RATING LBS.	APPROX. WEIGHT PER 100
1/2	4-1/8	7/16	2-7/8	7/16	1/8 X 1-1/4	410	21
3/4	4-5/16	9/16	3-1/16	7/16	1/8 X 1-1/4	410	24
1	4-9/16	11/16	3-5/16	7/16	1/8 X 1-1/4	410	28
1-1/4	4-15/16	13/16	3-11/16	7/16	1/8 X 1-1/4	410	30
1-1/2	5-3/16	15/16	3-15/16	7/16	1/8 X 1-1/4	410	33
2	5-3/4	1-3/16	4-1/2	7/16	1/8 X 1-1/4	410	38
2-1/2	6-1/4	1-7/16	5	7/16	1/4 X 1-1/4	610	85
3	6-7/8	1-3/4	5-5/8	7/16	1/4 X 1-1/4	610	100
3-1/2	7-3/8	2	6-1/8	7/16	1/4 X 1-1/4	610	111
4	8-3/8	2-1/4	7-1/8	9/16	1/4 X 1-1/2	725	151
5	8-7/16	2-3/4	8-3/16	9/16	1/4 X 1-1/2	725	179
6	10-1/2	3-5/16	8-1/4	9/16	1/4 X 1-1/2	725	207
8	14	4-5/16	12	11/16	3/8 X 1-1/2	900	415

FIG. 115 & 118

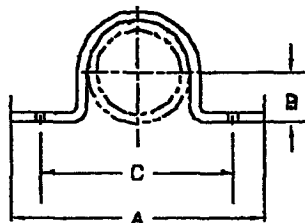


FIG. 115

HOLD DOWN CLAMP W/2 BOLT HOLES--  
MEDIUM \_\_\_\_\_ FIG. 115

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
PIPE SIZE, MATERIAL AND FINISH

DIMENSIONS (INCHES)

PIPE SIZE	RECOM. MAX. SAFE LOAD LB.	A	B	C	D	E	F	BOLT HOLES
1/2	300	3-15/16	1-1/4	2-11/16	1/2	1-1/8	1/8	2
3/4	300	4-1/4	1-1/4	3	11/16	1-7/16	1/8	
1	300	4-1/2	1-1/4	3-1/4	3/4	1-5/8	1/8	
1-1/4	300	4-15/16	1-1/4	3-11/16	1-1/16	2-1/8	1/8	
1-1/2	300	5-7/16	1-1/4	4-3/16	1-1/4	2-7/16	1/8	2
2	300	6	1-1/4	4-3/4	1-3/8	2-13/16	1/8	
2-1/2	500	8-1/2	1-1/2	5-1/4	1-3/4	3-8/16	1/4	4
3	500	7-1/8	1-1/2	5-7/8	1-7/8	4	1/4	
4	500	8-1/4	1-1/2	7	2-7/16	5-1/16	1/4	

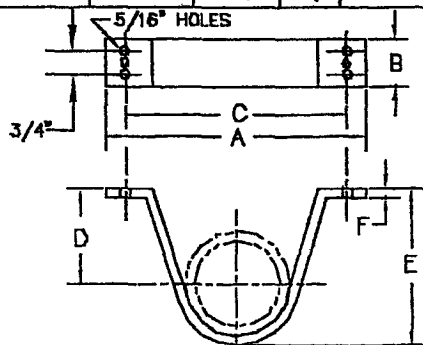


FIG. 118

SPRINKLER SHORT CLIP \_\_\_\_\_ FIG. 118

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
PIPE SIZE, MATERIAL AND FINISH  
INSTALLATION:  
USE 2" NO. 18 WOOD SCREWS  
(STEEL), OR 1/4" STEEL BOLTS  
IN EACH HOLE.

FIG. 116

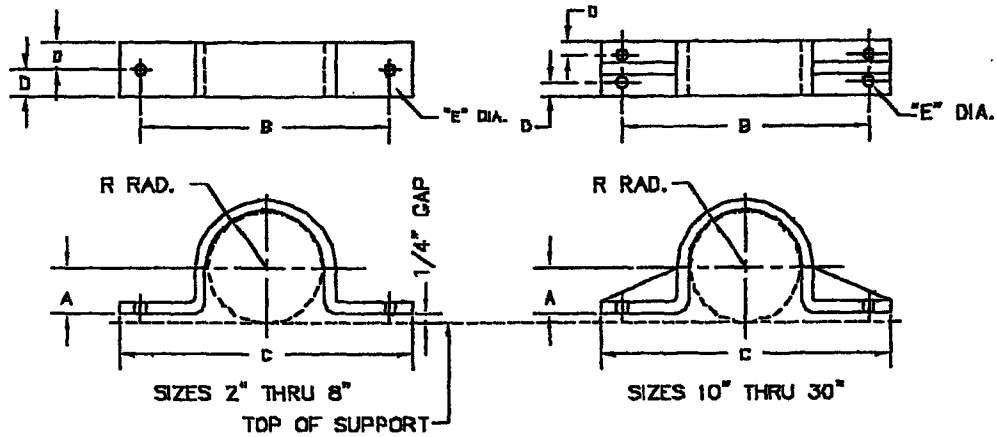


FIG. 116

HOLD DOWN ANCHOR CLAMP, HEAVY \_\_\_\_\_ FIG. 116

MATERIAL:

CARBON STEEL OR STAINLESS STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,

MATERIAL AND FINISH

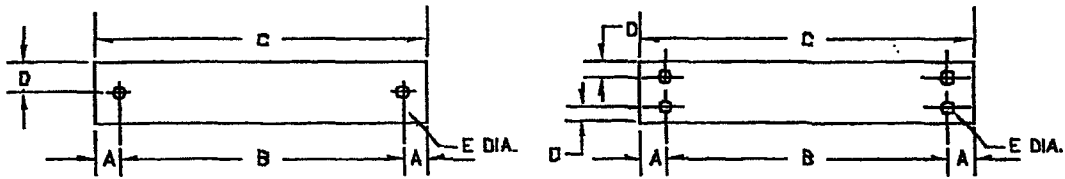
NOTE: FIG. 116BP, BASE PLATE MUST BE ORDERED SEPARATELY IF REQUIRED

DIMENSIONS (INCHES)

PIPE SIZE	A	B	C	D	HOLE E	RADIUS R	STOCK SIZE
2	15/16	5-3/8	7-5/8	1-1/2	7/8	1-3/16	3/8 X 3
2-1/2	1-3/16	5-7/8	8-1/8	1-1/2	7/8	1-7/16	3/8 X 3
3	1-1/2	6-1/2	8-3/4	1-1/2	7/8	1-3/4	3/8 X 3
3-1/2	1-3/4	7	9-1/4	1-1/2	7/8	2	3/8 X 3
4	2	7-1/2	9-3/4	1-1/2	7/8	2-1/4	3/8 X 3
5	2-9/16	8-9/16	10-13/16	1-1/2	7/8	2-13/16	3/8 X 3
6	3-1/16	10-5/8	13-5/8	3	1	3-5/16	1/2 X 6
8	4-1/16	12-5/8	15-5/8	3	1	4-5/16	1/2 X 8
10	5-1/8	15-1/4	18-3/4	1-1/2	1-1/8	5-3/8	1/2 X 8
12	6-1/8	17-1/4	20-3/4	1-1/2	1-1/8	6-3/8	1/2 X 8
14	8-3/4	18-1/2	22	2	1-1/8	7	1/2 X 10
16	7-3/4	20-1/2	24	2	1-1/8	8	1/2 X 10
18	8-3/4	22-1/2	28	2-1/2	1-1/8	8	1/2 X 12
20	9-3/4	24-1/2	28	2-1/2	1-1/8	10	1/2 X 12
24	11-3/4	28-1/2	32	2-1/2	1-1/8	12	1/2 X 12
30	14-3/4	34-1/2	38	2-1/2	1-1/8	15	1/2 X 12



FIG.  
116BP



SIZES 2" THRU 8"

SIZES 10" THRU 30"

HOLD DOWN ANCHOR BASE PLATE FIG. 116BP

MATERIAL:

CARBON STEEL OR STAINLESS STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
MATERIAL AND FINISH

NOTE:

DIMENSIONS MATCH FIG. 116

DIMENSIONS (INCHES)

PIPE SIZE	A	B	C	D	HOLE E	STOCK SIZE
2	1-1/8	5-3/8	7-5/8	1-1/2	7/8	3/8 X 3
2-1/2	1-1/8	5-7/8	8-1/8	1-1/2	7/8	3/8 X 3
3	1-1/8	6-1/2	8-3/4	1-1/2	7/8	3/8 X 3
3-1/2	1-1/8	7	9-1/4	1-1/2	7/8	3/8 X 3
4	1-1/8	7-1/2	9-3/4	1-1/2	7/8	3/8 X 3
5	1-1/8	8-9/16	10-13/16	1-1/2	7/8	3/8 X 3
6	1-1/2	10-5/8	13-5/8	3	1	1/2 X 6
8	1-1/2	12-5/8	15-5/8	3	1	1/2 X 6
10	1-3/4	15-1/4	18-3/4	1-1/2	1-1/8	1/2 X 8
12	1-3/4	17-1/4	20-3/4	1-1/2	1-1/8	1/2 X 8
14	1-3/4	18-1/2	22	2	1-1/8	1/2 X 10
16	1-3/4	20-1/2	24	2	1-1/8	1/2 X 10
18	1-3/4	22-1/2	26	2-1/2	1-1/8	1/2 X 12
20	1-3/4	24-1/2	28	2-1/2	1-1/8	1/2 X 12
24	1-3/4	28-1/2	32	2-1/2	1-1/8	1/2 X 12
30	1-3/4	34-1/2	38	2-1/2	1-1/8	1/2 X 12



FIG.  
124 & 125

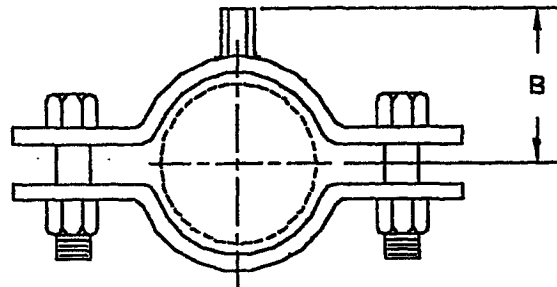
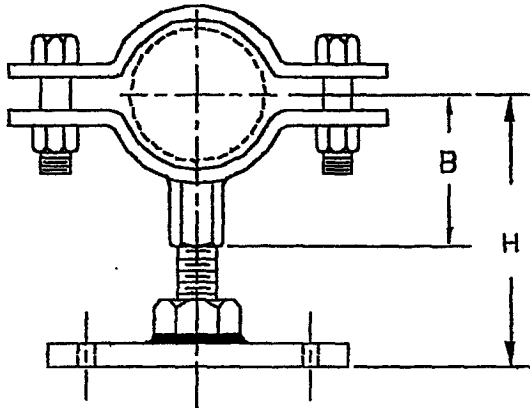


FIG. 124

2-BOLT CLAMP WITH ROD COUPLING WELDED ON FIG. 124

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER, PIPE SIZE, ROD SIZE  
MATERIAL AND FINISH



2-BOLT CLAMP WITH ROD COUPLING  
AND BASE FIG. 125

MATERIAL:  
CARBON STEEL OR  
STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
PIPE SIZE, HEIGHT,  
MATERIAL AND FINISH

NOTE:  
BASE IS FIG. 32

FIG. 125

DIMENSIONS (INCHES)

PIPE SIZE	ROD SIZE	B APPROX.	MINIMUM H
3/8	3/8	2-3/16	3-1/8
1/2	3/8	2-5/16	3-1/4
3/4	3/8	2-7/16	3-3/8
1	3/8	2-9/16	3-1/2
1-1/4	3/8	2-11/16	3-5/8
1-1/2	3/8	2-13/16	3-3/4
2	3/8	3-3/16	4-1/8
2-1/2	1/2	3-7/16	4-3/8
3	1/2	3-3/4	4-5/8
4	5/8	4-1/2	6

FIG.  
126 & 127

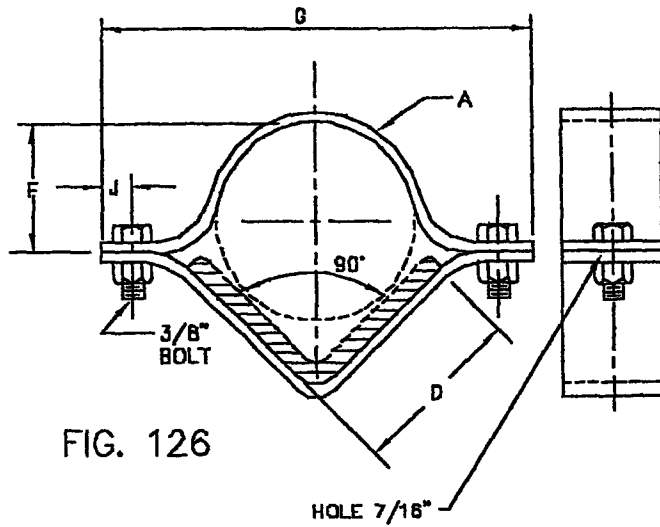


FIG. 126

HALF V AND HALF ROUND  
PIPE CLAMP FIG. 126

MATERIAL:  
CARBON STEEL OR  
STAINLESS STEEL  
ORDERING:  
SPECIFY NAME,  
FIGURE NUMBER,  
PIPE SIZE,  
MATERIAL AND FINISH

DIMENSIONS (INCHES)

PIPE SIZE	BAR A	D	F	G	J
1	1/8 X 1	1	1	3-3/4	3/8
1-1/2	1/8 X 1-1/4	1-1/4	1-1/8	4-3/4	9/16
2	1/8 X 1-1/4	2-1/4	1-7/16	6	7/16
3	1/8 X 1-1/4	3-1/2	1-7/8	8	5/8
4	1/8 X 1-1/4	4	2-7/8	8-1/2	1/2

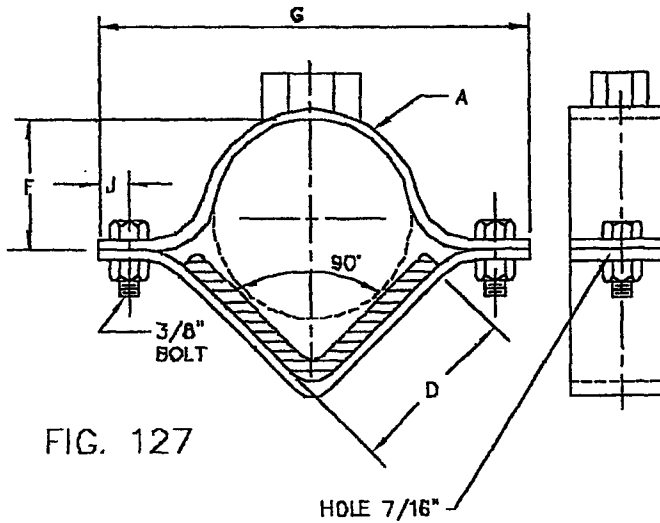


FIG. 127

HALF V AND HALF ROUND  
CLAMP WITH ROD  
COUPLING FIG. 127

MATERIAL:  
CARBON STEEL OR  
STAINLESS STEEL  
ORDERING:  
SPECIFY NAME,  
FIGURE NUMBER,  
PIPE SIZE, ROD SIZE,  
MATERIAL AND FINISH

FIG.  
130 & 131

RIGHT ANGLE PIPE OR  
CONDUIT CLAMP \_\_\_\_\_ FIG. 130

MATERIAL:  
PLATED STEEL AND MALLEABLE  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
AND PIPE SIZE

DIMENSIONS (INCHES)

PIPE SIZE	A	B	APPROX. WEIGHT PER 100
1/2	2	5/16	41
3/4	2-5/16	5/16	42
1	2-1/2	5/16	47
1-1/4	2-7/8	5/16	54
1-1/2	3-1/4	5/16	57
2	3-7/8	3/8	85
2-1/2	4-3/8	3/8	106
3	5-1/8	3/8	110
3-1/2	5-1/2	3/8	128
4	6-1/8	3/8	140

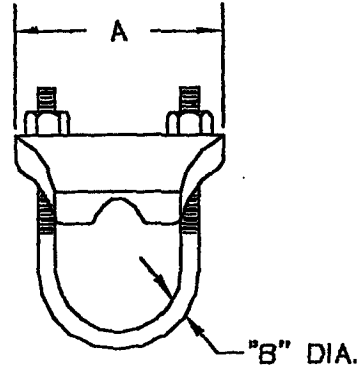


FIG. 130

PARALLEL PIPE OR CONDUIT  
CLAMP \_\_\_\_\_ FIG. 131

MATERIAL:  
PLATED STEEL AND MALLEABLE  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
AND PIPE SIZE

DIMENSIONS (INCHES)

PIPE SIZE	A	B	APPROX. WT./100
1/2	1/2	7/8	59
3/4	1/2	1-1/8	64
1	1/2	1-3/8	70
1-1/4	1/2	1-1/2	72
1-1/2	1/2	1-5/8	93
2	5/8	2	128
2-1/2	5/8	2-1/4	135
3	5/8	2-1/2	155
3-1/2	5/8	2-3/4	180

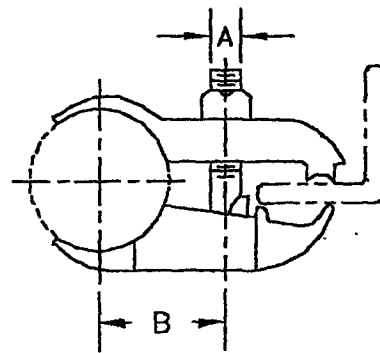


FIG. 131

FIG.  
132 & 133

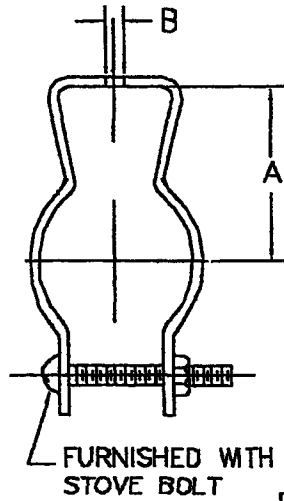


FIG. 132

CONDUIT CLAMP \_\_\_\_\_ FIG. 132

MATERIAL:  
PLATED STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
SIZE AND MATERIAL

DIMENSIONS (INCHES)

PIPE SIZE	A	B	STOCK SIZE	APPROX. WEIGHT PER 100
3/8	7/8	1/4	.080 X 1	5.4
1/2	7/8	1/4	.060 X 1	5.4
3/4	15/16	1/4	.060 X 1	5.8
1	1-1/8	1/4	.060 X 1	7.7
1-1/4	1-3/8	1/4	.080 X 1	10
1-1/2	1-7/16	1/4	.080 X 1-1/4	18
2	1-15/16	1/4	.060 X 1-1/4	21
2-1/2	2-1/16	1/4	.080 X 1-1/4	23
3	2-7/16	5/16	.080 X 1-1/4	27

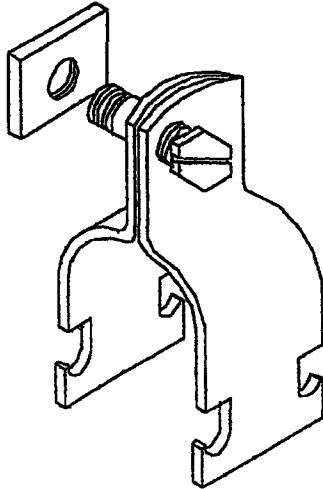


FIG. 133

STRUT CLAMP PIPE HANGER FIG. 133

MATERIAL:  
STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
PIPE SIZE AND CLAMP THICKNESS

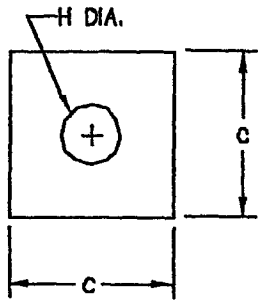


FIG. 140

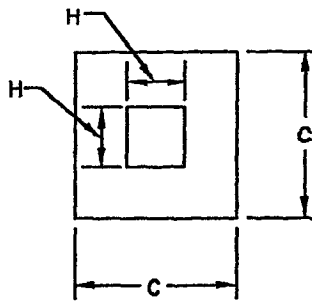


FIG. 141

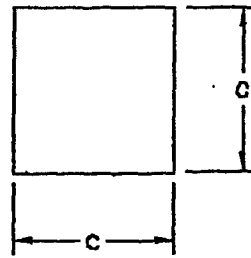


FIG. 142

FIG.  
140  
141  
142  
143

DIMENSIONS IN INCHES

APPROX. WEIGHT PER 100	THICKNESS OF PLATES						
	1/8	3/16	1/4	3/8	1/2	5/8	3/4
2 X 2	28	42	56	85	112	140	170
3 X 3	32	48	64	96	128	160	192
4 X 4	57	83	113	170	225	285	340
5 X 5	89	133	177	266	328	400	530
6 X 6	128	191	255	383	510	560	766

**SQUARE WASHERS**

- ROUND HOLE \_\_\_\_\_ FIG. 140
- SQUARE HOLE \_\_\_\_\_ FIG. 141
- SOLID (HARD SHIM) \_\_\_\_\_ FIG. 142

**MATERIAL:**

CARBON STEEL OR STAINLESS STEEL

**ORDERING:**

SPECIFY NAME, FIGURE NUMBER, WIDTH, THICKNESS, HOLE SIZE, MATERIAL AND FINISH

NOTE: HOLE IS 1/16TH LARGER FOR 1 INCH AND SMALLER ROD OR BOLT. HOLE IS 1/8TH INCH LARGER FOR 1 1/4 INCH AND LARGER ROD OR BOLT FIG. 7 WASHER PLATES ARE FOR FIG. 27 & 28 TRAPEZES.

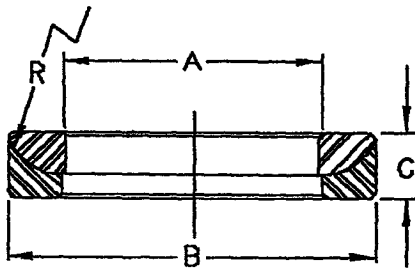


FIG. 143

ROCKER WASHER ASSEMBLY \_\_\_\_\_ FIG. 143

**MATERIAL:**

ALLOY STEEL

**ORDERING:**

SPECIFY NAME, FIGURE NUMBER, AND ROD SIZE

DIMENSIONS IN INCHES

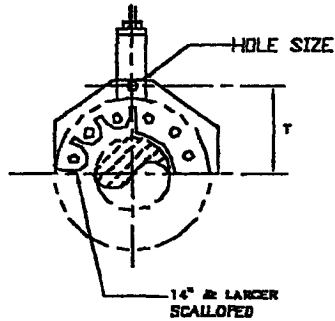
ROD SIZE	RADIUS R	A	B	C	APPROX. WEIGHT PER 100
3/8	1-1/2	13/32	15/16	1/4	3
1/2	1-3/4	17/32	1-3/16	5/16	9
5/8		21/32	1-3/8		13
3/4	2-3/4	25/32	1-5/8	3/8	21
7/8		15/16	1-7/8		23
1	2-3/4	1-1/16	2		44
1-1/8	3	1-3/16	2-1/4	1/2	58
1-1/4	3-3/8	1-5/16	2-5/8		76
1-1/2	3-1/2	1-8/16	2-7/8	9/16	92



FLANGED COMPONENT HANGER \_\_\_\_\_ FIG. 150  
(SOMETIMES CALLED A MICKEY MOUSE HANGER)

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
FLANGE CLASS; 150, 300, LOAD,  
MATERIAL AND FINISH



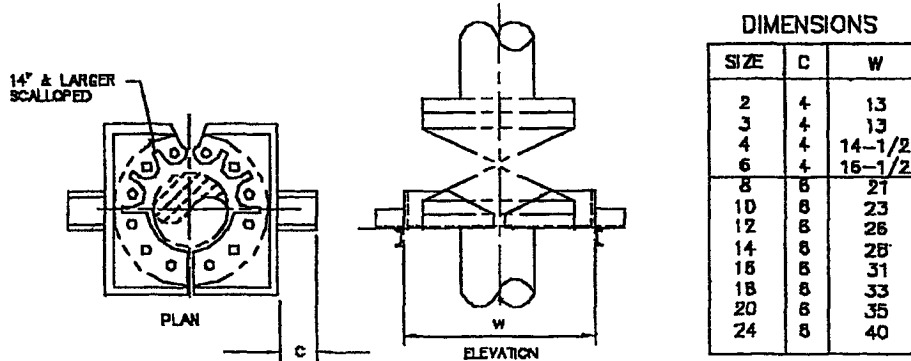
SIZE	HOLE SIZE	T
2	9/16	4
3	9/16	5-1/2
4	9/16	6-1/4
6	9/16	7-1/2
8	11/16	8-7/8
10	13/16	10-1/8
12	15/16	11-3/4
14	15/16	12-7/8
16	1-1/8	14-5/8
18	1-1/8	15-3/8
20	1-1/8	16-3/4
24	1-7/16	18

FIG. 150

VERTICAL PIPE FLANGED COMPONENT  
SUPPORT \_\_\_\_\_ FIG. 151

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
PIPE SIZE, FLANGE CLASS; 150, 300,  
LOAD, MATERIAL AND FINISH



DIMENSIONS		
SIZE	C	W
2	4	13
3	4	13
4	4	14-1/2
6	4	15-1/2
8	8	21
10	8	23
12	8	26
14	8	28
16	8	31
18	8	33
20	8	35
24	8	40

FIG. 151

FIG.  
152 & 152C

HORIZ. PIPE FLANGE SUPPORT - OFF-CENTER \_\_\_\_ FIG. 152  
 HORIZ. PIPE FLANGE SUPPORT - CENTER \_\_\_\_ FIG. 152C

MATERIAL:  
 CARBON STEEL OR STAINLESS STEEL

ORDERING:  
 SPECIFY NAME, FIGURE NUMBER,  
 PIPE SIZE, FLANGE CLASS; 150, 300,  
 LOAD, MATERIAL AND FINISH

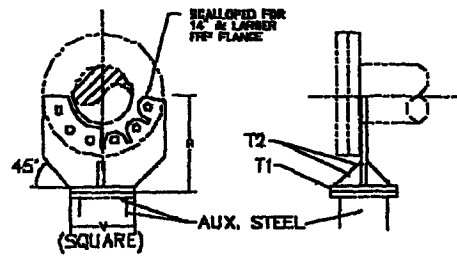
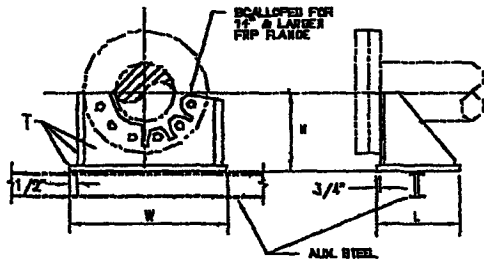


FIG. 152

DIMENSIONS IN INCHES

PIPE SIZE	H	L	W	T
2	7	7	9	
3	7	7	10-1/2	1/4
4	7	7	12	
6	14	12	14	
8	14	12	16-1/2	3/8
10	14	12	19	
12	14	12	22	
14	20	15	25	
16	20	15	27-1/2	3/8
18	20	15	29	
20	20	15	31	
24	20	15	36	
30	23	19	42-3/4	3/8
36	27-3/8	19	50	

FIG. 152C

DIMENSIONS IN INCHES

PIPE SIZE	H	W	T1	T2
2	7	8		
3	7	7-1/2	1/2	1/4
4	7	9		
6	14		1/2	
8	14	10		
10	14			
12	14	12		
14	20	12		
16	20			
18	20			
20	20	15	3/4	
24	20			
30	23			
36	27-3/8	15		



RUBBER LINED SHOES FOR INSULATED FRP PIPE:

- TYPE S (SUPPORT) OPEN TOP \_\_\_\_\_ FIG. 153S  
 TYPE G (GUIDE) 2 STRAPS ON TOP \_\_\_\_\_ FIG. 153G  
 TYPE A (ANCHOR) FULL WIDTH CLAMP TOP \_\_\_\_\_ FIG. 153A

MATERIAL:

CARBON STEEL OR STAINLESS STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER, EXACT PIPE O.D.,  
 HANGER MATERIAL AND FINISH

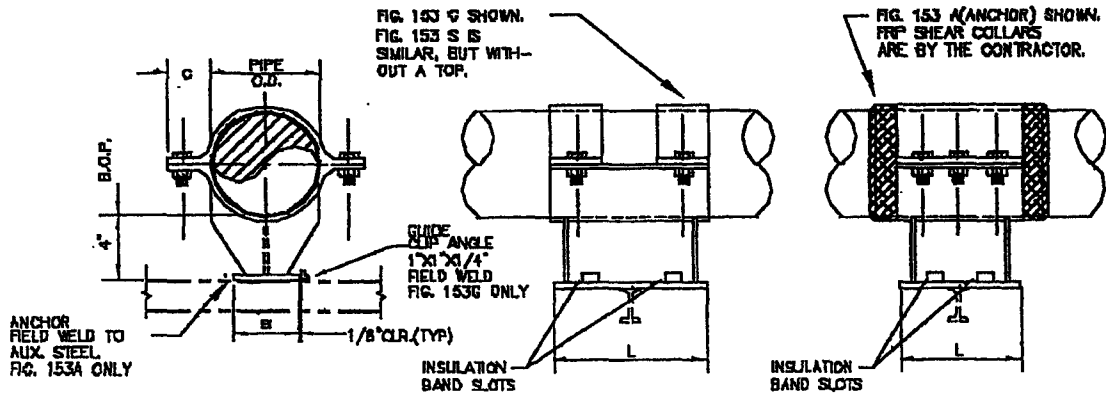


FIG. 153

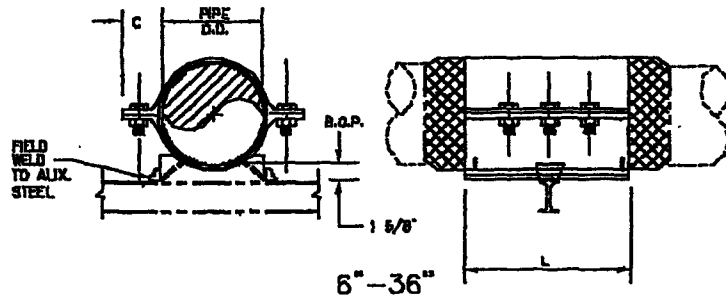
DIMENSIONS (INCHES)

PIPE SIZE	B	L	C
2-4	4	8	2-5/16
6-12	6	12	2-3/8
14-18	8	14	2-5/8

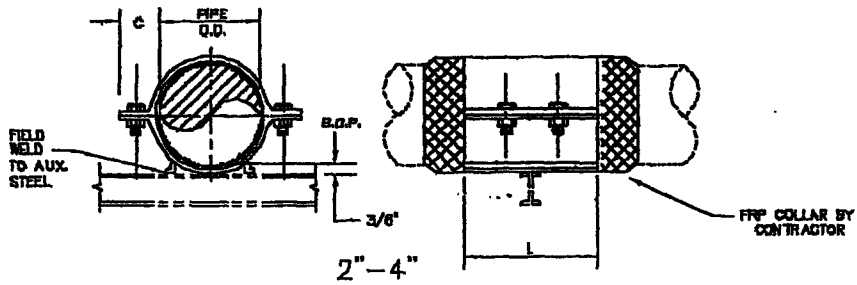
FIG.154  
A & B

360 DEGREE SHOE SUPPORT WITH CLAMPS  
& RUBBER LINER FOR FRP PIPE \_\_\_\_\_ FIG. 154

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
EXACT PIPE O.D., HANGER MATERIAL  
AND FINISH



6" - 36"  
FIG. 154B



2" - 4"  
FIG. 154A

DIMENSIONS (INCHES)

PIPE SIZE	c	L
2	1-5/8	8
3	1-5/8	6
4	1-5/8	6
6-12	2-3/8	12
14-20	2-5/8	14
24	2-5/8	18
30-36	2-5/8	20

FIG. 155 & 156

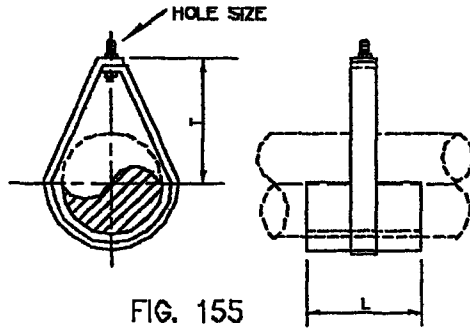


FIG. 155

PEAR SHAPE HANGER WITH RUBBER LINED SHIELD \_\_\_\_\_ FIG. 155

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER, EXACT PIPE OUTSIDE DIAMETER HANGER MATERIAL AND FINISH  
STANDARD MATERIALS:  
1/8TH INCH THICK RED RUBBER, A-36 CARBON STEEL

DIMENSIONS (INCHES)

SIZE	L	T	HOLE SIZE
2	5	3-1/4	7/16
3	5	5	9/16
4	6	6	11/16
5	6	8	13/16
8	8	10	15/16
10	8	12	15/16
12	12	14-1/2	15/16
14	12	16-3/4	1-1/8
16	12	18-7/8	1-1/8
18	12	21-1/8	1-1/8
20	14	23-1/4	1-5/16
24	16	27-3/4	1-5/16
30	16	35-1/4	1-5/16
36	16	40-3/4	1-5/16

CAUTION:  
FIG. 155 PEAR SHAPED HANGER MUST SLIP OVER PIPE END. IT IS TOO STIFF TO OPEN UP TO GO ACROSS THE PIPE OR OVER FLANGES.

DIMENSIONS (INCHES)

PIPE SIZE	T	L	HOLE SIZE
2	5-5/8	8	7/16
3	6-1/8	6	9/16
4	7-3/8	6	11/16
6	8-7/8	6	13/16
8	9-7/8	8	15/16
10	11-3/4	8	15/16
12	13	12	15/16
14	14-1/2	12	1-1/8
16	17-1/8	12	1-1/8
18	18-1/4	12	1-1/8
20	19-7/8	14	1-5/16
24	22-3/8	16	1-5/16

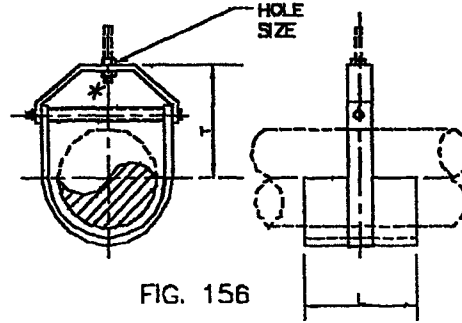


FIG. 156

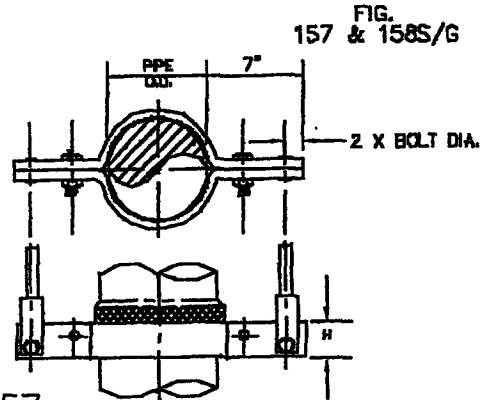
CLEVIS HANGER WITH RUBBER LINED SHIELD \_\_\_\_\_ FIG. 156

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER, EXACT PIPE OUTSIDE DIAMETER, HANGER MATERIAL AND FINISH, BOLT MATERIAL AND FINISH  
STANDARD MATERIALS:  
1/8TH INCH THICK RED RUBBER, PLATED A-307 BOLTS, A-36 CARBON STEEL  
\* 20 INCH SIZE AND LARGER ARE FURNISHED WITH A PIPE SPACER OVER THE BOLT.

FIG. 156SD (SPECIAL DESIGN)  
AVAILABLE FOR LARGE O.D.  
DUCT LIGHT LOADS.

**DIMENSIONS (INCHES)**

PIPE SIZE	H	T	BOLT SIZE
2	3	3/8	1/2
3	3	3/8	1/2
4	3	3/8	1/2
6	3	3/8	1/2
8	4	5/8	5/8
10	4	5/8	5/8
12	4	5/8	3/4
14	4	5/8	3/4
18	4	3/4	7/8
20	5	3/4	7/8
24	6	1	1-1/8
30	7	1	1-1/8
36	7	1-1/4	1-1/4



**RUBBER LINED 4-BOLT RISER CLAMP FIG. 157**

**MATERIAL:**

CARBON STEEL OR STAINLESS STEEL

**ORDERING:**

SPECIFY NAME, FIGURE NUMBER, EXACT PIPE OUTSIDE DIAMETER, HANGER MATERIAL AND FINISH, BOLT MATERIAL AND FINISH

**STANDARD MATERIAL:**

1/8TH INCH THICK RED RUBBER, PLATED A-307 BOLTS, A-36 CARBON STEEL

**FIG. 157**

**RUBBER LINED 2-BOLT RISER CLAMP FIG. 158S/G**  
(S=SUPPORT, G=GUIDE)

**MATERIAL:**

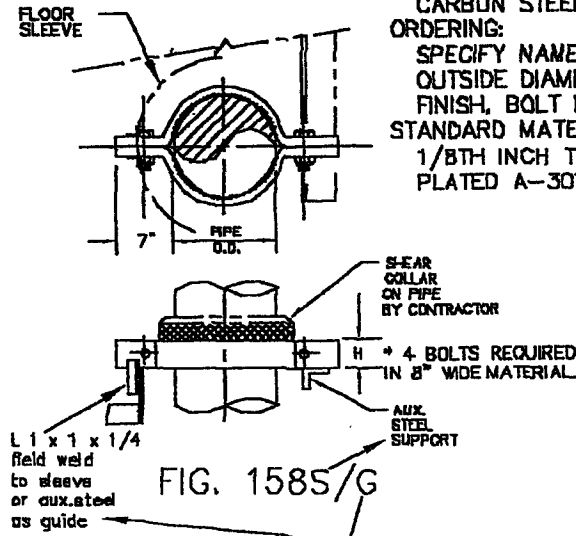
CARBON STEEL OR STAINLESS STEEL

**ORDERING:**

SPECIFY NAME, FIGURE NUMBER, EXACT PIPE OUTSIDE DIAMETER, HANGER MATERIAL AND FINISH, BOLT MATERIAL AND FINISH

**STANDARD MATERIALS:**

1/8TH INCH THICK RED RUBBER, PLATED A-307 BOLTS, A-36 CARBON STEEL



**DIMENSIONS (INCHES)**

PIPE SIZE	H	T	BOLT SIZE
2			
3	3	1/4	1/2
4			
6			
8			
10	3	3/8	5/8
12			
14	4	1/2	3/4
16			
18			
20	6	1/2	1
24			
30	8*	3/4	1-1/8
36			

\* 4 BOLTS REQUIRED IN 8" WIDE MATERIAL.

FIG.  
160, 161,  
162, 163, 164

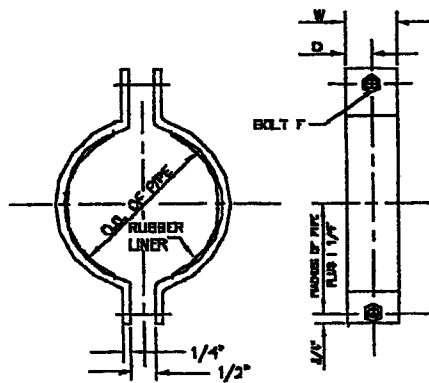


FIG. 160

SPECIAL RUBBER LINED CLAMP FOR FRP PIPE:

- 3 & 4 INCH \_\_\_\_\_ FIG. 160
- 6, 8, & 10 INCH \_\_\_\_\_ FIG. 161
- 12 THRU 18 INCH \_\_\_\_\_ FIG. 162
- 20 AND 24 INCH \_\_\_\_\_ FIG. 163
- 30 AND 36 INCH \_\_\_\_\_ FIG. 164

MATERIAL:

CARBON STEEL OR STAINLESS STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER, EXACT PIPE OUTSIDE DIAMETER, HANGER MATERIAL AND FINISH, AND BOLT MATERIAL AND FINISH

STANDARD MATERIAL:

1/8TH INCH THICK RED RUBBER, A-307 PLATED BOLTS, A-36 CARBON STEEL

NOTE: SEE FIG. 169, 170 AND 174 FOR BASES AND FIN SUPPORT

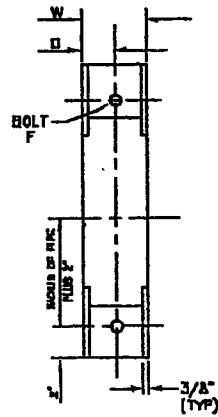
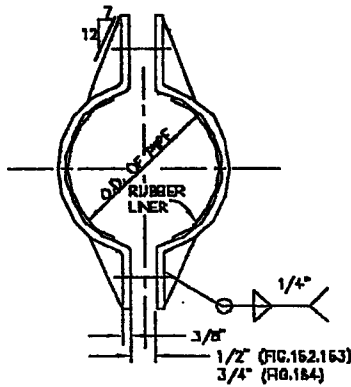


FIG. 161

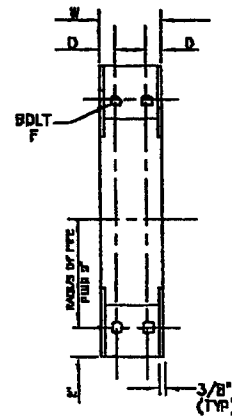


FIG. 162, 163 & 164

DIMENSIONS (INCHES)

PIPE SIZE	CLAMP FIG. NO.	LUG FIG. NO.	BOLT F	W	D	MAXIMUM RECOMMENDED LOAD (LBS.)
3 THRU 4	160	-	5/8 X 3-1/2	2	1	1040
6 THRU 10	161	165	3/4 X 3-1/2	4	2	1615
12 THRU 18	162	166	3/4 X 4	6	1-1/2	3230
20 THRU 24	163	167	7/8 X 5	8	2	4960
30 THRU 36	164	168	1-1/8 X 5	10	2	6000



FIG.  
165, 166, 167, 168

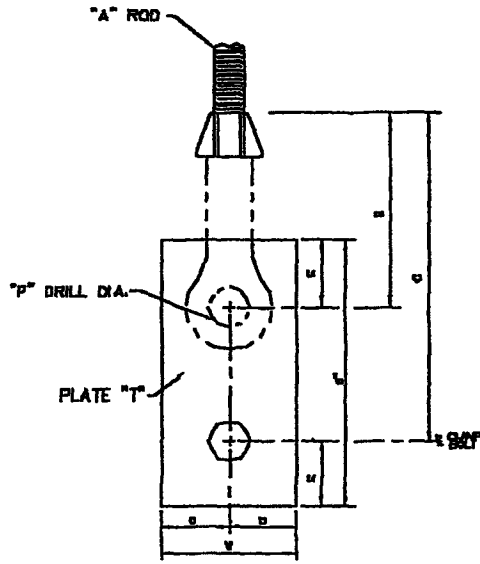


FIG. 165

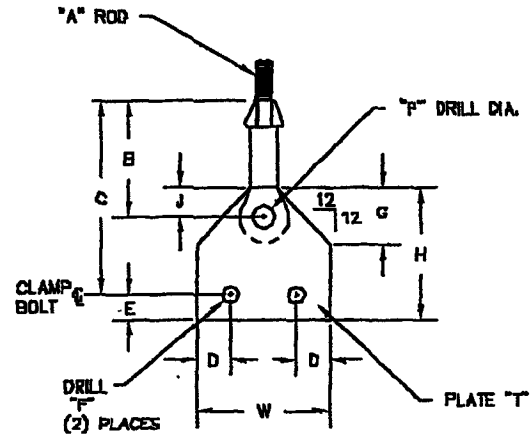


FIG. 166, 167 & 168

SPECIAL HANGING LUG FOR FRP PIPE CLAMPS:

- 6, 8 & 10 INCH \_\_\_\_\_ FIG. 165  
 12 THRU 18 INCH \_\_\_\_\_ FIG. 166  
 20 AND 24 INCH \_\_\_\_\_ FIG. 167  
 30 AND 36 INCH \_\_\_\_\_ FIG. 168

MATERIAL:  
 CARBON STEEL OR STAINLESS STEEL  
 ORDERING:  
 SPECIFY NAME, FIGURE NUMBER,  
 PIPE SIZE, MATERIAL AND FINISH

DIMENSIONS (INCHES)

PIPE SIZE	LUG FIG. NO.	ROD SIZE A	B	C	D	E	BOLT HOLE F	G	H	J	PIN HOLE P	W	T
6 THRU 10	165	5/8	4-5/16	7-5/16	1-1/2	1-1/2	13/16	-	6	-	13/16	3	3/8
12 THRU 18	166	7/8	5-7/8	9-5/16	1-1/2	1-1/2	13/16	2-1/2	7	1-1/2	1-1/8	8	1/2
20 THRU 24	167	1	6-5/16	10-5/16	2	1-1/2	15/16	3-1/4	7-1/4	1-3/4	1-1/4	8	3/4
30 THRU 36	168	1-1/4	6-5/16	10-5/16	2	1-1/2	1-1/4	4	7-3/4	2-1/4	1-1/2	10	3/4



FIG.  
169 & 170

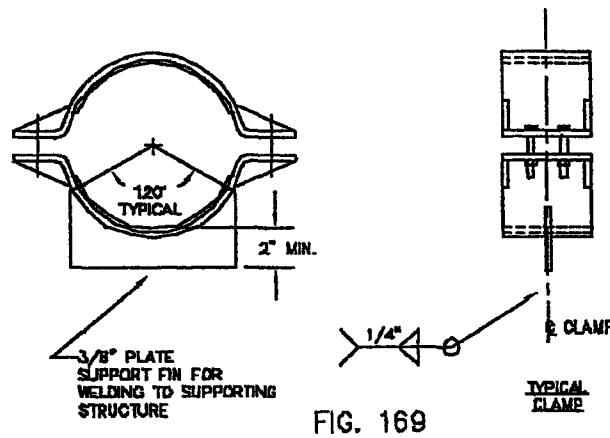


FIG. 169

SPECIAL RUBBER LINED CLAMP FOR FRP PIPE WITH SUPPORT FIN\_\_\_\_FIG. 169

**MATERIAL:**

CARBON STEEL OR STAINLESS STEEL

**ORDERING:**

SPECIFY NAME, FIGURE NUMBER, EXACT PIPE OUTSIDE DIAMETER, HANGER MATERIAL AND FINISH, AND BOLT MATERIAL AND FINISH  
STANDARD MATERIALS: 1/8TH INCH THICK RED RUBBER, A-307 PLATED BOLTS, A-36 CARBON STEEL

NOTE: CLAMPS ARE SAME AS FIG. 160 THRU 164

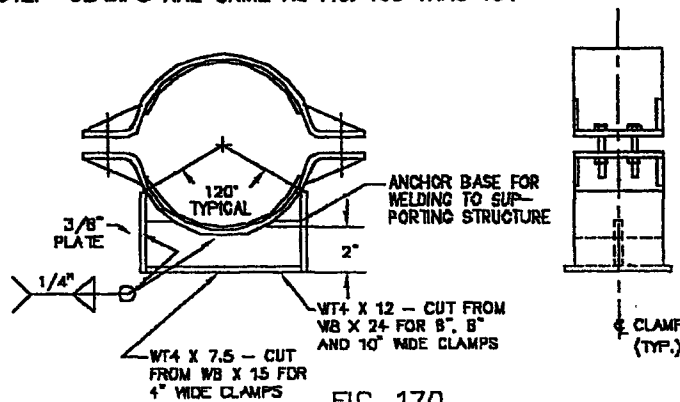


FIG. 170

SPECIAL RUBBER LINED CLAMP FOR FRP PIPE WITH ANCHOR BASE\_\_\_\_FIG. 170

**MATERIAL:**

CARBON STEEL OR STAINLESS STEEL

**ORDERING:**

SPECIFY NAME, FIGURE NUMBER, EXACT PIPE OUTSIDE DIAMETER, HANGER MATERIAL AND FINISH AND BOLT MATERIAL AND FINISH  
STANDARD MATERIALS: 1/8TH INCH THICK RED RUBBER, PLATED A-307 BOLTS, A-36 CARBON STEEL

NOTE: CLAMPS ARE SAME AS FIG. 160 THRU 164



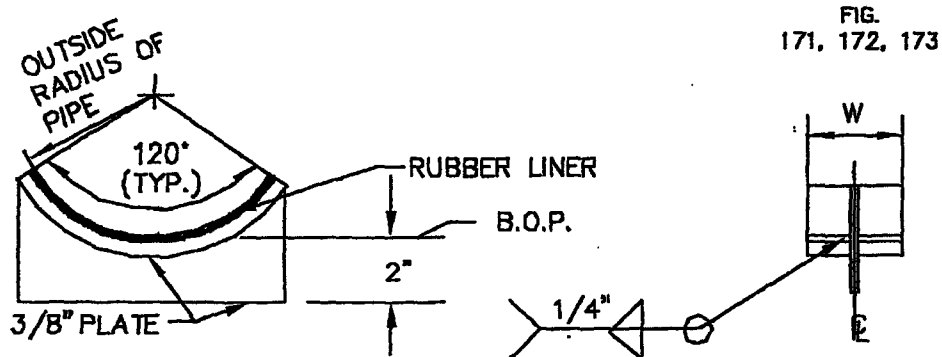


FIG. 171, 172, 173

FIG. 171, 172 & 173

**SPECIAL RUBBER LINED SADDLE FOR FRP PIPE WITH FIN SUPPORT:**

- 6, 8, & 10 INCH \_\_\_\_\_ FIG. 171
- 12 THRU 18 INCH \_\_\_\_\_ FIG. 172
- 20 AND 24 INCH \_\_\_\_\_ FIG. 173

**MATERIAL:**

CARBON STEEL OR STAINLESS STEEL

**ORDERING:**

SPECIFY NAME, FIGURE NUMBER, EXACT PIPE OUTSIDE DIAMETER, HANGER MATERIAL AND FINISH,

NOTE: FIN HEIGHT IS 2-INCHES UNLESS SPECIFIED

**DIMENSIONS (INCHES)**

FIG. No.	NOMINAL PIPE SIZE	CRADLE WIDTH W	FIN HEIGHT UNLESS SPECIFIED
171	6, 8, & 10	4	2
172	12, 14, 16, & 18	6	2
173	20, & 24	8	2

ALL WELDS ARE CONTINUOUS FULL PENETRATION.

ALL SHARP EDGES AND CORNERS ARE GROUND TO 1/8" RADIUS AND ALL WELD SPLATTER IS REMOVED BEFORE COATING OR LINING.

LINED WITH 1/8" THICK RED RUBBER BONDED TO CLEAN FINISHED SURFACE.



FIG.  
174

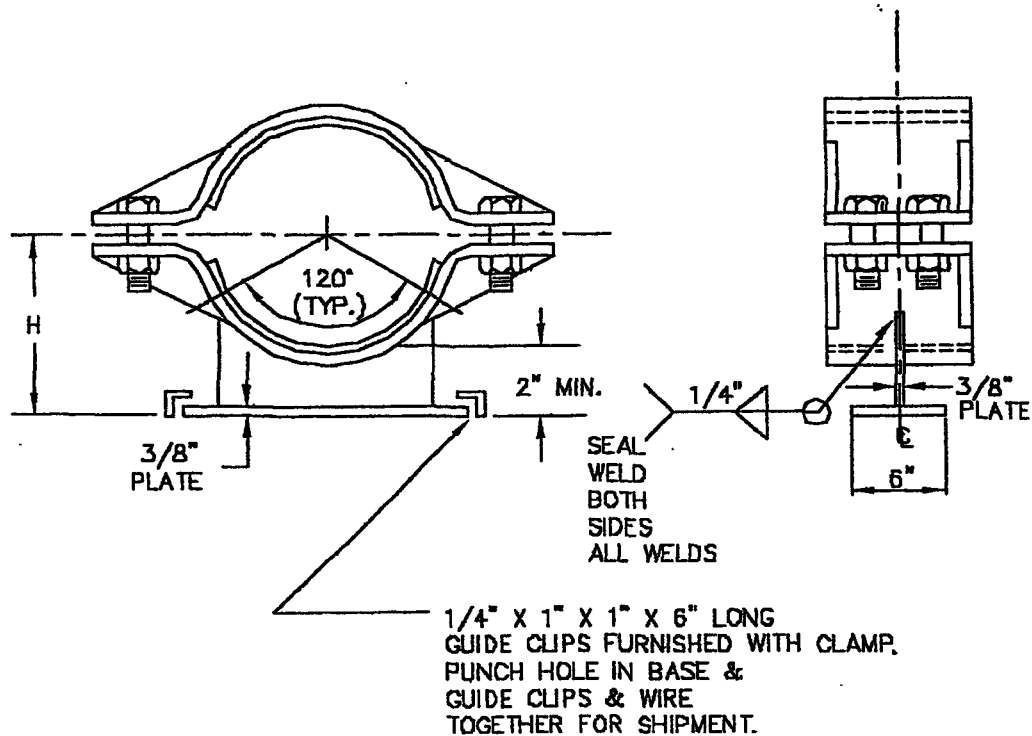


FIG. 174

SPECIAL RUBBER LINED CLAMP FOR FRP PIPE, WITH SLIDE BASE—FIG. 174

**MATERIAL:**

CARBON STEEL OR STAINLESS STEEL

**ORDERING:**

SPECIFY NAME, FIGURE NUMBER, EXACT PIPE OUTSIDE DIAMETER,  
HANGER MATERIAL AND FINISH, HEIGHT "H", BOLT MATERIAL AND FINISH

**STANDARD MATERIALS:**

1/8TH INCH THICK RED RUBBER, PLATED A-307 BOLTS, A-36 CARBON  
STEEL

**NOTE:** CLAMPS ARE SAME AS FIG. 160 THRU 164

FIG.175  
GA, GB & S

RUBBER LINED SHOE SUPPORTS FOR  
UNINSULATED FRP PIPE:

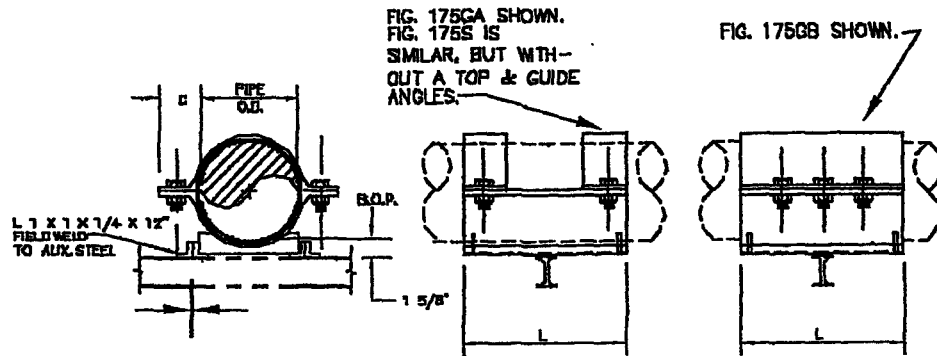
- TYPE GA (GUIDE) 2 STRAPS ON TOP \_\_\_\_\_ FIG. 175GA  
 TYPE GB (GUIDE) FULL WIDTH CLAMP TOP \_\_\_\_\_ FIG. 175GB  
 TYPE S (SUPPORT) OPEN TOP \_\_\_\_\_ FIG. 175 S

MATERIAL:

CARBON STEEL OR STAINLESS STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER,  
EXACT PIPE O.D., HANGER MATERIAL  
AND FINISH



1/8" CLR. TYP.

DIMENSIONS (INCHES)

PIPE SIZE	C	L
2	1-5/8	6
3	1-5/8	6
4	1-5/8	6
6-12	2-3/8	12
14-20	2-5/8	14
24	2-5/8	16
30-36	2-5/8	20



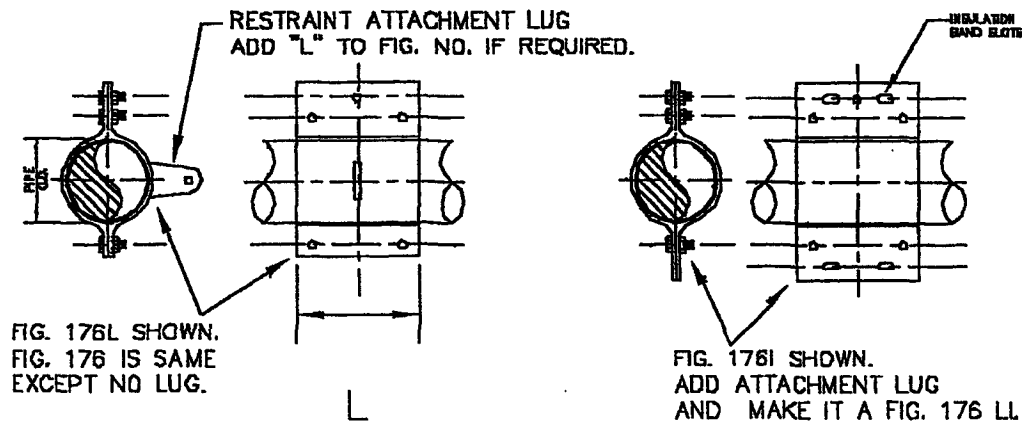
FIG. 176  
L, L, & LI

RUBBER LINED WIDE CLAMPS FOR FRP PIPE:

FOR NON-INSULATED PIPE \_\_\_\_\_ FIG. 176  
 FOR INSULATED PIPE \_\_\_\_\_ FIG. 176I  
 FOR NON-INSULATED PIPE W/LUG \_\_\_\_\_ FIG. 176L  
 FOR INSULATED PIPE W/LUG \_\_\_\_\_ FIG. 176LI

MATERIAL:  
 CARBON STEEL OR STAINLESS STEEL

ORDERING:  
 SPECIFY NAME, FIGURE NUMBER, EXACT PIPE O.D.,  
 INSULATION THICKNESS,  
 HANGER MATERIAL AND FINISH



DIMENSIONS (INCHES)

PIPE SIZE	L	NUMBER OF CLAMP BOLTS
2" - 10"	8	4
12" - 18"	12	6
20" - 24"	14	6
30" - 36"	16	8

FIG. 200

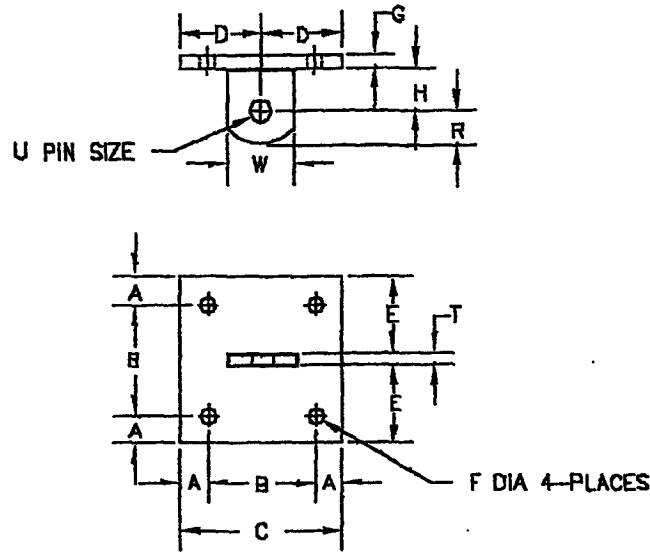


FIG. 200

CONCRETE ANCHOR PLATE WITH LUG FOR FORGED CLEVIS \_\_\_\_\_ FIG. 200

MATERIAL:

CARBON STEEL OR STAINLESS STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER, ROD SIZE, MATERIAL AND FINISH

LOADS-DIMENSIONS-INCHES

ROD SIZE (INCHES)	MAXIMUM RECOMMENDED LOAD, LB	DIMENSIONS (INCHES)											
		A	B	C	D	HOLE		G	H	R	E	T	U
3/8	810	1	8	10	5	9/16	3/8	1-1/2	1-1/4	4-7/8	1/4	1/2	2-1/2
1/2	1130	1	8	10	5	9/16	3/8	1-1/2	1-1/4	4-7/8	1/4	5/8	2-1/2
5/8	1810	1	8	10	5	9/16	1/2	1-1/2	1-1/4	4-7/8	1/4	3/4	2-1/2
3/4	2710	1	8	10	5	11/16	1/2	1-1/2	1-1/4	4-13/16	3/8	7/8	2-1/2
7/8	3770	1	8	10	5	11/16	3/4	2	1-1/4	4-13/16	3/8	1	2-1/2
1	4950	2	8	12	6	13/16	3/4	2	1-1/2	5-3/4	1/2	1-1/8	3
1-1/4	8000	2	8	12	6	15/16	1	3	2	5-11/16	5/8	1-3/8	4
1-1/2	11530	2	8	12	6	1-1/8	1	3	2-1/2	5-5/8	3/4	1-5/8	5
1-3/4	15700	2	8	12	6	1-3/8	1-1/4	3	2-1/2	5-5/8	3/4	1-7/8	5
2	20700	2	8	12	6	1-3/8	1-1/4	4	3	5-5/8	3/4	2-1/4	8

BASED ON THE ALLOWABLE STRESSES SHOWN IN THE ANSI CODE FOR PRESSURE PIPING



POWER MANUFACTURING, LLC

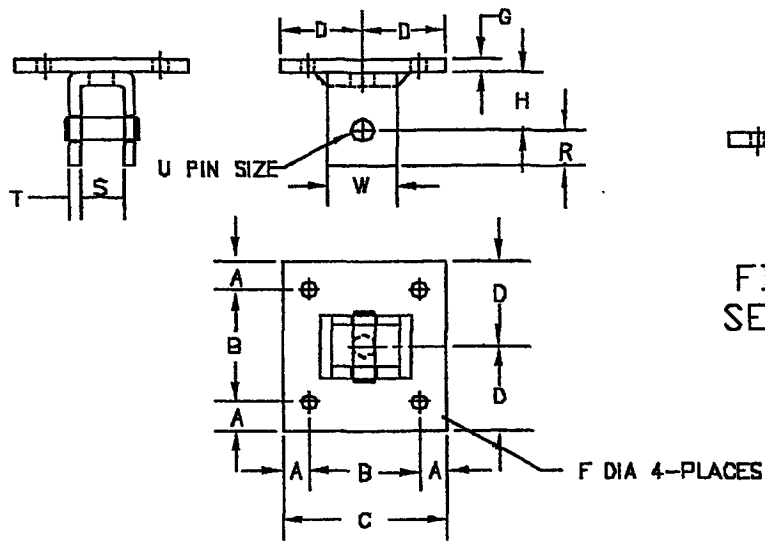


FIG. 201 & 202

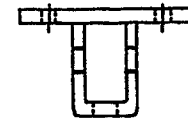


FIG. 202  
SEE NOTE

FIG. 201

CONCRETE ANCHOR PLATE WITH WELDED BEAM ATTACHMENT—FIG. 201

**MATERIAL:**

CARBON STEEL OR STAINLESS STEEL

**ORDERING:**

SPECIFY NAME, FIGURE NUMBER, ROD SIZE, MATERIAL AND FINISH

**NOTE:**

FIG. 202 WITHOUT PIN AND WITH INVERTED BEAM ATTACHMENT IS AVAILABLE, AND SHOULD NOT BE USED FOR PIPE ABOVE 4"

LOADS—DIMENSIONS—INCHES

ROD SIZE (INCHES)	MAXIMUM RECOMMENDED LOAD, LB	A	B	C	D	HOLE F	G	H	R	S	T	U	W
3/8	610	1	8	10	5	9/16	3/8	2	7/8	1-1/4	1/4	1/2	2
1/2	1130	1	8	10	5	9/16	3/8	2	7/8	1-1/4	1/4	5/8	2
5/8	1810	1	8	10	5	9/16	1/2	2	1	1-1/4	1/4	3/4	2
3/4	2710	1	8	10	5	11/16	1/2	2	1-1/8	1-1/2	3/8	7/8	2-1/2
7/8	3770	1	8	10	5	11/16	1/2	3	1-1/4	2	3/8	1	2-1/2
1	4980	2	8	12	6	13/16	3/4	3	1-1/2	2	1/2	1-1/8	3
1-1/4	8000	2	8	12	8	15/16	3/4	3	2	2-1/2	5/8	1-3/8	4
1-1/2	11630	2	8	12	6	1-1/8	1	4	2-1/2	3	3/4	1-5/8	5
1-3/4	15700	2	10	14	7	1-3/8	1-1/4	5	2-3/4	3-3/4	3/4	1-7/8	5
2	20700	2	10	14	7	1-3/8	1-1/4	5	3-1/4	3-3/4	3/4	2-1/4	6

BASED ON THE ALLOWABLE STRESSES SHOWN IN THE ANSI CODE FOR PRESSURE PIPING

FIG. 220

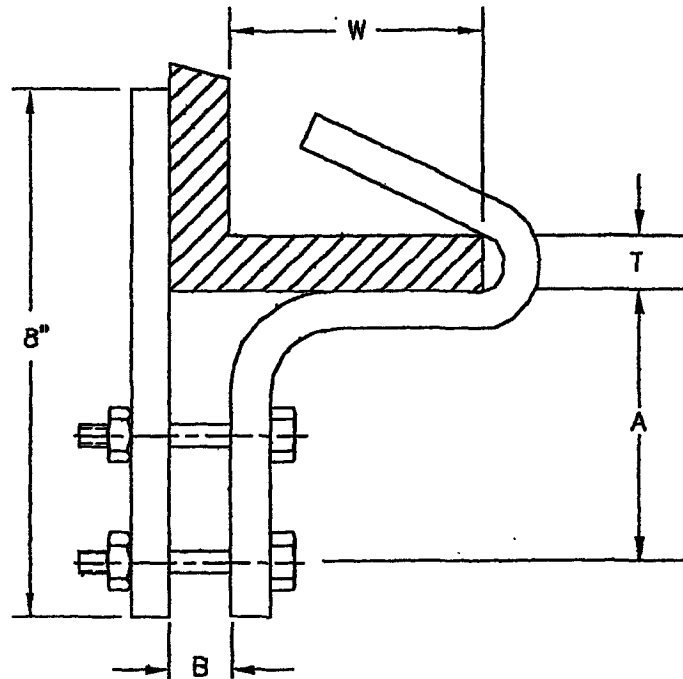


FIG. 220

ANGLE OR CHANNEL BEAM CLAMP \_\_\_\_\_ FIG. 220

**MATERIAL:**

CARBON STEEL OR STAINLESS STEEL

**ORDERING:**

SPECIFY NAME, FIGURE NUMBER, CLAMP NUMBER, FLANGE WIDTH (W) AND THICKNESS (T), CLAMP MATERIAL AND FINISH

**CAUTION:**

THE USERS ENGINEER MUST CHECK BEAM STRESSES PRODUCED BY THIS CLAMP

DIMENSIONS (INCHES)

CLAMP NO.	A	B	BOLT SIZE	STEEL SIZE	MAX. RECOM. LOAD LBS.
1	3-3/4	7/16	3/8 X 1-3/4	1/4 X 1-1/4	225
2	4	9/16	1/2 X 2-1/4	3/8 X 1-1/2	540
3	4-1/2	11/16	5/8 X 2-1/2	1/2 X 2	700





FIG.  
230 & 230L

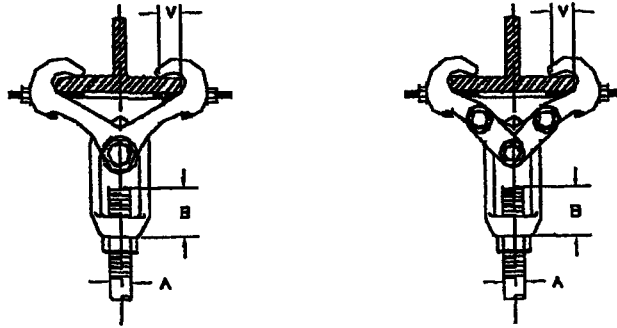


FIG. 230 & 230L

BEAM CLAMP WITH WELDLESS EYE NUT:

RIGHT HAND \_\_\_\_\_ FIG. 230

LEFT HAND \_\_\_\_\_ FIG. 230L

MATERIAL:

FORGED STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER, ROD SIZE,

CLAMP SIZE AND FINISH

CAUTION:

THE USER'S ENGINEER MUST CHECK BEAM  
STRESSES PRODUCED BY THIS CLAMP

LOADS-WEIGHTS-DIMENSIONS-INCHES

CLAMP SIZE NO.	MAXIMUM ROD SIZE A	MAXIMUM RECOMMENDED LOAD, LB.	WEIGHT (APPROXIMATE) LBS. EACH	MAXIMUM BEAM FLANGE THICKNESS	B	V
1	3/4	2710	3.9	.80	1-1/4	
2	1	4960	9.2	.80	1-11/16	1-1/8
3	1	4960	13.0	.80	1-11/16	
4	1	4960	21.7	1.031	1-1/2	
5	1	4960	33.9	1.031	1-1/2	1-1/8
6	1-1/2	11500	23.9	1.031	2-1/8	
7	1-1/2	11500	35.8	1.031	2-1/8	
8	2	11500	36.8	1.031	4-9/16	1-1/8

BASED ON THE ALLOWABLE STRESSES SHOWN IN THE ANSI CODE FOR PRESSURE PIPING

ROD TAKE-OUT, E-INCHES

CLAMP SIZE NO.	FOR WIDTH OF BEAM FLANGE													
	3	4	5	6	7	8	9	10	11	12	13	14	15	
1	4-1/2	4-3/16	4-1/8	3-5/8	2-7/8	-	-	-	-	-	-	-	-	-
2	-	4-3/4	4-7/16	4-1/16	3-3/8	-	-	-	-	-	-	-	-	-
3	-	-	-	-	5-15/16	5	6-8/16	6	-	-	-	-	-	-
4	-	6-13/16	6-5/8	6-3/8	5-7/8	5-7/8	5-3/8	4-13/16	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	6-1/8	7-3/4	7-1/8	6-5/8	6-1/16	-
6	-	7-3/16	7	6-3/4	6-1/4	6-5/16	6-13/16	5-3/16	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	6-1/2	6-1/8	7-1/2	7	6-7/16	-
8	-	6-5/8	6-7/16	6-3/16	7-3/4	7-3/4	7-1/4	6-5/8	-	-	-	-	-	-

\* FURNISHED WITH LINKS

BEAM CLAMP WITH SWING NUT \_\_\_\_\_ FIG. 232

MATERIAL:  
FORGED STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER, ROD  
SIZE, CLAMP SIZE AND FINISH

CAUTION:  
THE USERS ENGINEERS MUST CHECK BEAM  
STRESSES PRODUCED BY THIS CLAMP

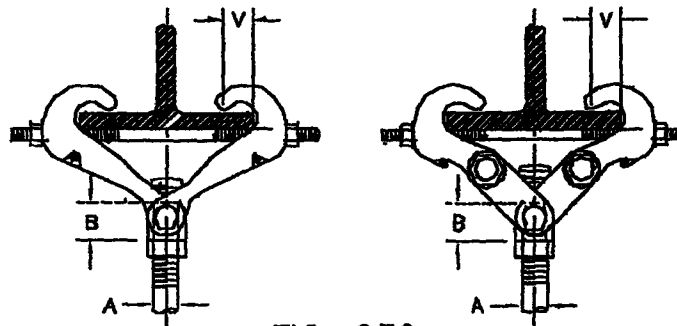


FIG. 232

LOADS--DIMENSIONS--INCHES

CLAMP SIZE NO.	MAXIMUM ROD SIZE A	MAXIMUM RECOMMENDED LOAD, LB.	MAXIMUM BEAM FLANGE THICKNESS	B	V
1	5/8	1810	.60	1-1/16	
2	7/8	3770	.60	1-3/8	1-1/8
3 *	7/8	3770	.60	1-3/8	
4	1-1/2	11500	1.031	2-3/8	
5 *	1-1/2	11500	1.031	2-3/8	1-1/8

BASED ON THE ALLOWABLE STRESSES SHOWN IN THE ANSI CODE FOR PRESSURE PIPING  
\* FURNISHED WITH LINKS

ROD TAKE-OUT (INCHES)

CLAMP SIZE NO.	ROD TAKE-OUT, E FOR WIDTH OF BEAM FLANGE												
	3	4	5	6	7	8	9	10	11	12	13	14	15
1	1-9/16	1-1/2	1-5/16	1-1/8	3/4	-	-	-	-	-	-	-	-
2	-	1-7/16	1-5/16	1-1/8	11/16	-	-	-	-	-	-	-	-
3 *	-	-	-	-	1-15/16	1-13/16	1-1/2	1-5/16	-	-	-	-	-
4	-	2-5/16	2-3/16	2-1/16	1-13/16	1-7/8	1-9/16	1-5/16	-	-	-	-	-
5 *	-	-	-	-	-	-	-	3	2-11/16	2-9/16	2-1/4	1-15/16	1-5/8

FIG.  
233, 233L

STRUCTURAL WELDING LUG

SHORT \_\_\_\_\_ FIG. 233

LONG \_\_\_\_\_ FIG. 233L

MATERIAL:

CARBON STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER,  
SIZE NUMBER, "H" DIMENSION  
AND FINISH

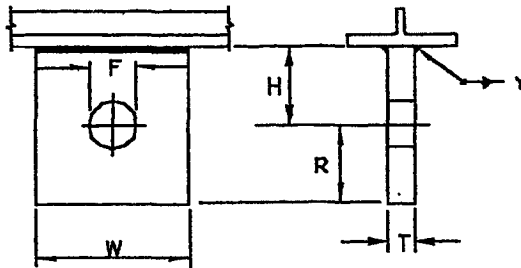


FIG. 233 & 233L

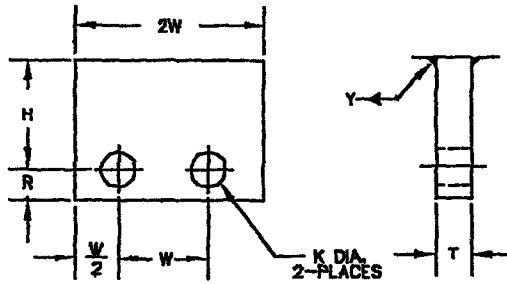
LOADS-DIMENSIONS-INCHES

ROD SIZE (INCHES)	MAXIMUM RECOMMENDED LOADS, LBS **		PIN OR BOLT	HOLE F	H		R	T	W	MINIMUM	
	FIG. 233 SHORT	FIG. 233L LONG			FIG. 233 SHORT	FIG. 233L LONG				Y	Y
1/2	1130	1130	5/8	11/16	1-1/2	3	1-1/4	1/4	2-1/2	1/4	1/4
5/8	1810	1810	3/4	13/16	1-1/2	3	1-1/4	1/4	2-1/2	1/4	1/4
3/4	2710	2710	7/8	15/16	1-1/2	3	1-1/4	3/8	2-1/2	1/4	1/4
7/8	3770	3770	1	1-1/8	2	3	1-1/4	3/8	2-1/2	1/4	1/4
1	4980	4980	1-1/8	1-1/4	2	3	1-1/2	1/2	3	1/4	1/4
1-1/4	8000	8000	1-3/8	1-1/2	3	4	2	5/8	4	1/4	1/4
1-1/2	11830	11830	1-5/8	1-3/4	3	4-1/2	2-1/2	3/4	5	3/8	3/8
1-3/4	13700	13700	1-7/8	2	3	4-1/2	2-1/2	3/4	5	3/8	3/8
2	20830	20830	2-1/4	2-3/8	4	4-1/2	3	3/4	8	3/8	3/8
2-1/4	23000	-	2-1/2	2-5/8	4-1/2	-	3	3/4	6	1/2	1/2
2-1/2	30550	-	2-3/4	2-7/8	4-1/2	-	4	1	8	1/2	1/2
2-3/4	41800	-	3	3-1/8	4-1/2	-	4	1	8	1/2	1/2
3	50500	-	3-1/4	3-3/8	5	-	4	1	8	5/8	5/8
3-1/4	60500	-	3-1/2	3-5/8	5	-	4-1/2	1	8	5/8	5/8
3-1/2	71300	-	3-3/4	3-7/8	6	-	4-1/2	1-1/2*	9	5/8	5/8
3-3/4	82800	-	4	4-1/8	6	-	5	1-3/4*	8	5/8	5/8

\*\* BASED ON THE ALLOWABLE STRESSES SHOWN IN THE ANSI CODE FOR PRESSURE PIPING.

\* 1-1/4 THICKNESS WHEN DOUBLE LUG IS USED; THEN, IS 25.2 FOR 3-1/2 INCH SIZE AND 23.6 FOR 3-3/4 INCH SIZE.

FIG. 235, 240



**TWO HOLE WELDING LUG\_ FIG. 235**  
 FOR SINGLE ROD SUSPENSION  
 OF TYPE B & C HORIZONTAL  
 CONSTANTS  
 MATERIAL:  
 CARBON STEEL  
 ORDERING:  
 SPECIFY NAME,  
 FIGURE NUMBER,  
 ROD SIZE,  
 AND "H" DIMENSION

FIG. 235

ROD SIZE	MAX. LOAD RATING (LBS.)**	H <sup>o</sup> CONSTANT SUPPORT FRAME SIZES					FIN OR BOLT	K HOLE	R	T	W	2W	W/2	Y
		1-8	10-18	18-34	35-48	50-63								
1/2	1130	1-1/2	1-1/2	2	3	-	5/8	11/8	1-1/4	3/8	2-1/2	5	1-1/4	1/4
5/8	1610	1-1/2	1-1/2	2	3	-	3/4	13/16	1-1/4	3/8	2-1/2	5	1-1/4	1/4
3/4	2710	-	1-1/2	2	3	4	7/8	15/16	1-1/4	3/8	2-1/2	5	1-1/4	1/4
1	4880	-	-	2	3	4	1-1/8	1-1/4	1-1/2	1/2	3	8	1-1/2	1/4
1-1/4	8000	-	-	2	3	4	1-3/8	1-1/2	2	5/8	4	8	2	1/4
1-1/2	11630	-	-	-	3	4	1-5/8	1-3/4	2-1/2	3/4	5	10	2-1/2	1/4
1-3/4	15700	-	-	-	3	4	1-7/8	2	2-1/2	3/4	5	10	2-1/2	1/4
2	20630	-	-	-	-	4	2-1/4	2-3/8	3	3/4	6	12	3	3/8
2-1/4	33000	-	-	-	-	4	2-1/2	2-5/8	3	3/4	6	12	3	3/8

\*SELECT "H" DIMENSION APPLICABLE TO CONSTANT SUPPORT FRAME SIZE  
 \*\* BASED ON THE ALLOWABLE STRESSES SHOWN IN THE ANSI CODE FOR PRESSURE PIPING.

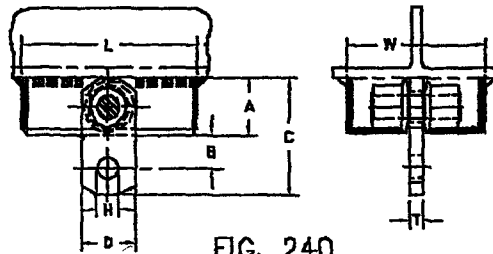


FIG. 240

HORIZONTAL TRAVELER\_ FIG. 240

MATERIAL:  
 CARBON STEEL  
 ORDERING:  
 SPECIFY NAME, FIGURE NUMBER,  
 SIZE NUMBER, "H" DIMENSION  
 AND FINISH

LOADS-WEIGHTS-DIMENSIONS-INCHES

SIZE NO.	MAXIMUM RECOM. LOAD, LB.	WEIGHT (APPROX.) LB. EACH	A	B	C	D	MAX.	L	T	W
1	3770	15	2-1/2	1-5/8	5-3/8	2-1/2	1-1/8	15-1/8	3/4	4-5/8
2	6230	37	3-1/2	2-5/8	7-7/8	3-1/2	1-3/8	16-3/8	3/4	6-7/8
3	11630	69	5	3	10-1/2	5	1-3/4	17-7/8	1	8-7/16
4	20700	102	6	3-1/2	12-1/2	6	2-3/8	19-1/8	1-1/2	9-7/8

PIPE WELDING LUG  
 FOR LONG RADIUS ELBOW \_\_\_\_\_ FIG. 250  
 FOR SHORT RADIUS ELBOW \_\_\_\_\_ FIG. 251  
 FOR FIVE DIAMETER BEND \_\_\_\_\_ FIG. 252

FIG.  
 250  
 251  
 252  
 253

MATERIAL:  
 CARBON STEEL OR ALLOY  
 ORDERING:  
 SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
 MATERIAL, FINISH AND "E" DIMENSION

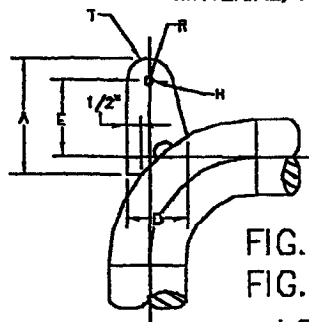


FIG. 250  
 FIG. 251

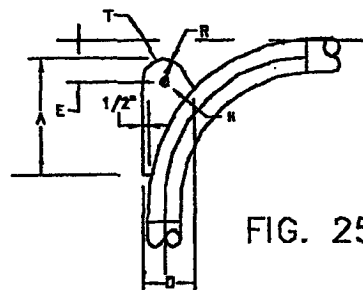


FIG. 252

LOADS-DIMENSIONS

PIPE SIZE	MAX. RATED LOAD	MAX. ROD SIZE	D	MAX. HOLE DIA. H*	R	THICK-NESS T	FIG. 250		FIG. 251		FIG. 252	
							A	E**	A	E**	A	E**
2-1/2 3	2710	3/4	3-1/2	15/16	1-1/2	1/4	8	8	8-5/8 8-1/2	6-1/2	10-1/2 11-1/2	0
4 6	3770	7/8	3-1/2	1-1/16	1-1/2	3/8	9-1/8 9-1/4	6	8-3/4 8-7/8	7 7-1/2	12-1/8 12-3/4	2 6-1/2
8 10	4960 8000	1 1-1/4	5 7	1-3/8 1-1/2	2 3	3/8 1/2	11-3/8 14	6-1/2	10-5/8 12-1/2	8-1/2	15-1/2 19-3/8	11 16
12 14	11630	1-1/2	7	1-3/4	3	1/2	14-1/4 14-3/4	8-1/2 6	12-3/4 13	9	20-5/8 21	20 26
16 18	15680	1-3/4	8-1/2	1-7/8	3-1/2	3/4	16-3/8 16-5/8	6	14-3/8 14-1/2	8-1/2 10	23-1/4 23-1/2	31 36
20 24	20890 27200	2 2-1/4	8-1/2	2-3/8 2-5/8	3-1/2	1	16-7/8 17-1/2	6	15-1/4 15-5/8	11 12	23-7/8 24-1/2	41 51

\* HOLE DIAMETER SHOULD BE SPECIFIED 1/16" GREATER THAN PIN DIAMETER FOR PIN SIZES THRU 1" AND 1/8" GREATER THAN PIN DIAMETER FOR PIN SIZES 1-1/8" AND LARGER  
 \*\* ACCOMMODATES 4 INCHES OF INSULATION.

WELDING LUG-FOR VERTICAL RISER \_\_\_\_\_ FIG. 253

MATERIAL:  
 CARBON STEEL OR ALLOY  
 ORDERING:  
 SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
 MATERIAL, LINE TEMPERATURE, TOTAL LOAD,  
 CENTER TO CENTER OF DROP RODS, AND  
 PLATE THICKNESS

NOTE:  
 A DRAWING MUST BE  
 FURNISHED.

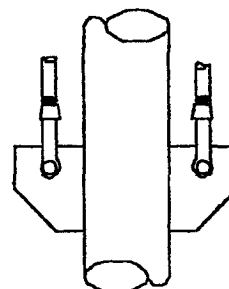
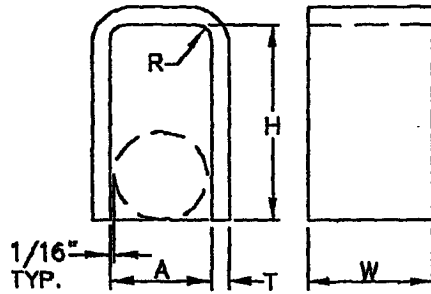


FIG. 253

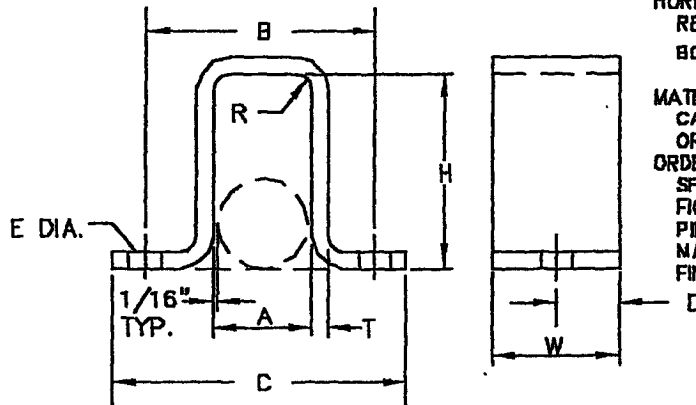
FIG. 257 & 258



HORIZONTAL PIPE RESTRAINT,  
WELDED \_\_\_\_\_ FIG. 257

MATERIAL:  
CARBON STEEL  
OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER  
PIPE SIZE,  
MATERIAL AND FINISH

FIG. 257



HORIZONTAL PIPE RESTRAINT,  
BOLTED \_\_\_\_\_ FIG. 258

MATERIAL:  
CARBON STEEL  
OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME,  
FIGURE NUMBER,  
PIPE SIZE,  
MATERIAL AND  
FINISH

FIG. 258  
DIMENSIONS (INCHES)

PIPE SIZE	FIG. 258									
	A	B	C	D	E	H	R	T	W	
1/2	15/16	2-7/8	4-1/8	1	13/16	3	3/8	1/4	2	
3/4	1-5/32	3-1/16	4-5/16	1	13/16	3	3/8	1/4	2	
1	1-14/32	3-5/16	4-9/16	1	13/16	3-1/4	3/8	1/4	2	
1-1/4	1-25/32	3-11/16	4-5/8	1-1/2	13/16	3-1/2	3/8	3/8	3	
1-1/2	2	3-15/16	5-3/16	1-1/2	13/16	4	3/8	3/8	3	
2	2-1/2	5-3/8	7-5/8	1-1/2	13/16	4-1/2	3/8	3/8	3	
2-1/2	3	5-7/8	8-1/8	1-1/2	1	5	3/4	1/2	3	
3	3-5/8	6-1/2	8-3/4	1-1/2	1	5-1/2	3/4	1/2	4	
4	4-5/8	7-1/2	8-3/4	1-1/2	1	6-1/2	3/4	1/2	4	
6	6-3/4	10-5/8	13-5/8	3	1	8-1/2	3/4	1/2	6	
8	8-3/4	12-3/8	15-3/8	3	1	10-1/2	3/4	1/2	6	
10	10-7/8	15-1/4	18-3/4	2-1/2	1-1/8	13-1/4	3/4	1/2	6	
12	12-7/8	17-1/4	20-3/4	2-1/2	1-1/8	15-1/4	3/4	1/2	6	



FIG. 259 & 260

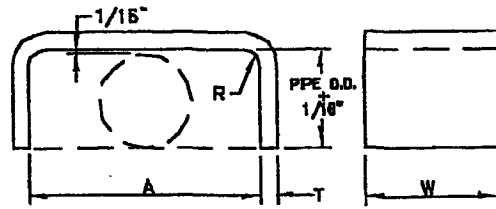


FIG. 259

VERTICAL PIPE RESTRAINT, WELDED FOR HORIZONTAL PIPE FIG. 259

MATERIAL:

CARBON STEEL OR STAINLESS STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER, PIPE SIZE, MATERIAL AND FINISH

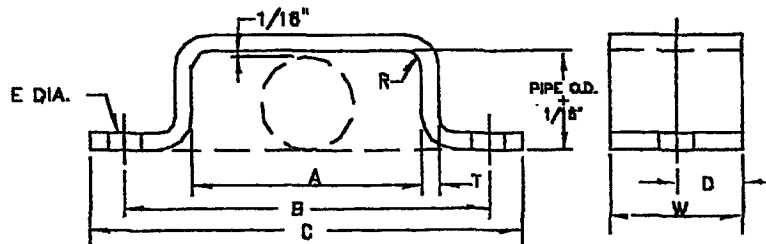


FIG. 260

VERTICAL PIPE RESTRAINT, BOLTED FOR HORIZONTAL PIPE FIG. 260

MATERIAL:

CARBON STEEL OR STAINLESS STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER, PIPE SIZE, MATERIAL AND FINISH

DIMENSIONS (INCHES)

PIPE SIZE	FIG. 260					R	T	W
	A	B	C	D	HOLE E			
1/2	3	2-1/2	6-3/16	1	13/16	3/8	1/4	2
3/4	3-1/2	2-15/16	6-11/16	1	13/16			
1	4	3-5/16	7-3/16	1	13/16			
1-1/4	4-1/2	3-5/8	7-3/4	1-1/2	13/16	9/16	3/8	3
1-1/2	5	3-15/16	8-3/16	1-1/2	13/16			
2	5-1/2	8-8/16	10-13/16	1-1/2	13/16			
2-1/2	6	8-1/16	11-5/16	1-1/2	1	3/4	1/2	3
3	6-1/2	8-8/16	11-13/16	1-1/2	1			
4	7-1/2	8-9/16	12-13/16	1-1/2	1			
4	7-1/2	8-9/16	12-13/16	1-1/2	1	3/4	1/2	4
8	8-3/4	13-5/8	16-5/8	3	1			
8	11-3/4	15-5/8	18-5/8	3	1			
10	14	18-8/16	22-1/16	3-1/2	1-1/8	3/4	1/2	8
12	16	20-8/16	24-1/16	3-1/2	1-1/8			

FIG. 261 & 262

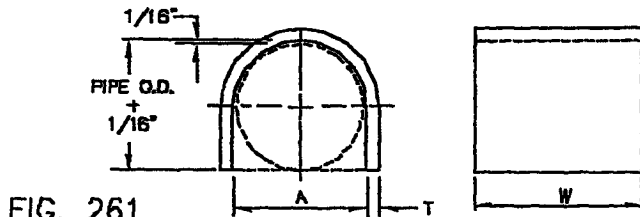


FIG. 261

HORIZONTAL AND VERTICAL PIPE RESTRAINT, WELDED FOR HORIZONTAL PIPE \_\_\_\_\_ FIG. 261

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER, PIPE SIZE, MATERIAL AND FINISH

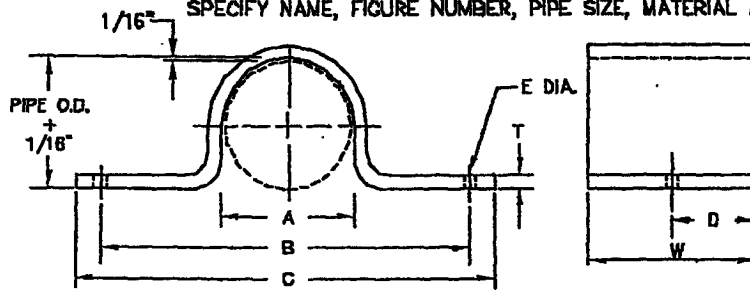


FIG. 262

HORIZONTAL AND VERTICAL PIPE RESTRAINT, BOLTED FOR HORIZONTAL PIPE \_\_\_\_\_ FIG. 262

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER, PIPE SIZE, MATERIAL AND FINISH

DIMENSIONS (INCHES)

PIPE SIZE	A	FIG. 262					T	W
		B	C	D	E			
1/2	15-18	2-7/8	4-1/8	1	13/16	1/4	2	
3/4	1-5/32	3-1/8	4-5/8	1	13/16	1/4	2	
1	1-14/32	3-5/8	4-9/8	1	13/16	1/4	2	
1-1/4	1-25/32	3-11/16	4-15/8	1-1/2	13/16	3/8	3	
1-1/2	2	3-15/16	5-3/16	1-1/2	13/16	3/8	3	
2	2-1/2	4-3/8	7-5/8	1-1/2	13/16	3/8	3	
2-1/2	3	5-7/8	8-1/8	1-1/2	1	1/2	3	
3	3-5/8	6-1/2	8-3/4	1-1/2	1	1/2	4	
4	4-5/8	7-1/2	9-3/4	1-1/2	1	1/2	4	
6	6-3/4	10-5/8	13-5/8	3	1	1/2	8	
8	8-3/4	12-5/8	15-5/8	3	1	1/2	8	
10	10-7/8	15-1/4	18-3/4	2-1/2	1-1/8	1/2	8	
12	12-7/8	17-1/4	20-3/4	2-1/2	1-1/8	1/2	8	





FIG. 270

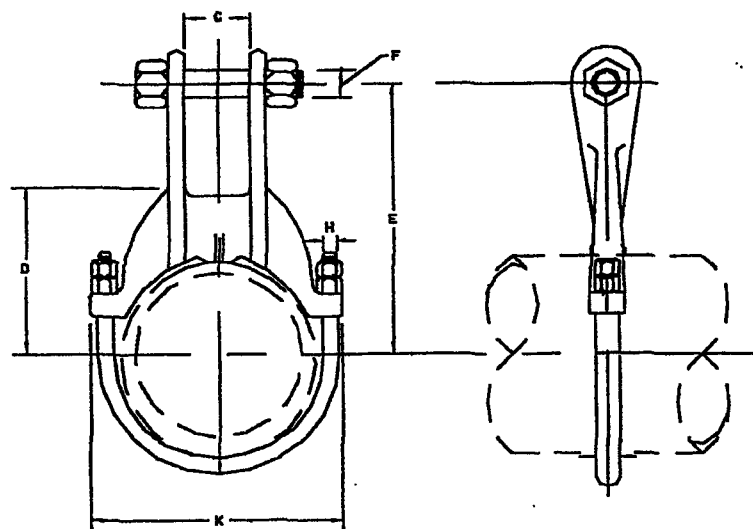


FIG. 270

ALLOY STEEL YOKE PIPE CLAMP, STANDARD \_\_\_\_\_ FIG. 270

ORDERING:  
SPECIFY NAME, FIGURE NUMBER AND PIPE SIZE

DIMENSIONS (INCHES)

PIPE SIZE	MAXIMUM RECOMMENDED LOAD, LB.*				C	D	E	F	H	K
	6750°F	6950°F	91000°F	1050°F						
4	3780	3300	2770	1890	1-1/16	3-7/8	6-3/4	7/8	1/2	6-1/2
6	6060	5290	4440	3030	1-7/16	5-7/16	8-5/16	1	5/8	8-1/8
8	8080	5290	4440	3030	1-7/16	6-11/16	9-9/16	1	5/8	11-1/8
10	9060	7910	6640	4420	1-7/16	8-3/8	10-7/8	1-1/8	3/4	13-5/8
12	12570	10980	9015	6010	1-15/16	10-1/8	12-7/8	1-1/2	7/8	18-1/8
14	12570	10980	9015	6010	1-15/16	11-1/8	13-7/8	1-1/2	7/8	17-3/8
16	12570	10980	9015	6010	1-15/16	12-1/4	15	1-1/2	7/8	19-5/8

\* BASED ON THE ALLOWABLE STRESSES SHOWN IN THE ANSI CODE FOR PRESSURE PIPING  
OVERTIGHTENING OF NUTS MAY OVERSTRESS U-BOLTS REDUCING THE LOAD RATING.  
INSTALLATION TAG ATTACHED TO CLAMP GIVES PROPER NUT TIGHTENING

FIG. 271

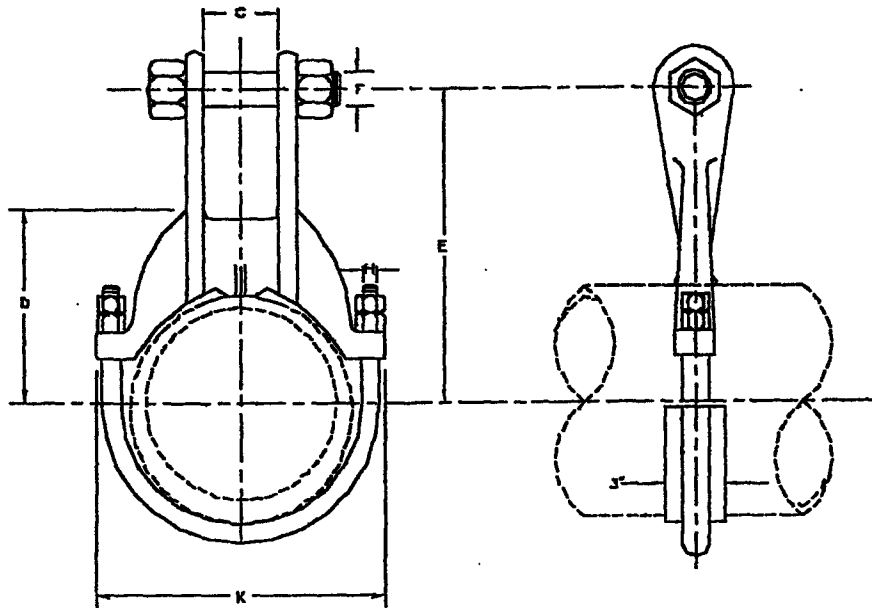


FIG. 271

ALLOY STEEL YOKE PIPE CLAMP, HEAVY \_\_\_\_\_ FIG. 271

ORDERING:

SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
AND EXACT PIPE OUTSIDE DIAMETER

NOTE: SPECIAL ALLOY FILLER PLATE SHOWN IS  
ONLY FURNISHED WHEN PIPE O.D. IS NOT STANDARD

LOADS-DIMENSIONS(INCHES)

NOM. PIPE SIZE	USED ON O.D. PIPE SIZE	MAXIMUM RECOMMENDED LOAD, LB.*				C	D	E	H	K	F
		Ø650F	Ø1000F	Ø1050F	Ø1075F						
10	8-3/4 THRU 10-13/16	13500	11780	7850	8120	2	8-1/8	12	1	15-3/8	1-1/2
12	10-7/8 THRU 12-13/16	15000	14810	9840	7780	2-1/4	10-3/4	13-3/4	1-1/4	17-7/8	1-5/8
14	12-7/8 THRU 14-1/16	16500	14810	9840	7750	2-1/4	11-1/2	14-1/2	1-1/4	19-1/8	1-5/8
16	14-1/8 THRU 16-1/16	16000	14810	9840	7750	2-1/4	13-1/8	16-3/8	1-1/4	21-1/8	1-5/8
18	16-1/8 THRU 18-1/16	18000	16410	12270	8570	2-1/2	14-1/2	18-1/4	1-1/4	24-1/8	2
20	18-1/8 THRU 20-1/16	19000	16410	12270	9570	2-1/2	15-3/4	18-1/2	1-1/4	26-1/8	2
24	20-1/8 THRU 24-1/16	25000	22250	14850	11580	3	18-1/4	22	1-3/8	31-3/4	2-1/4

\* BASED ON THE ALLOWABLE STRESSES SHOWN IN THE ANSI CODE FOR PRESSURE PIPING.  
OVERTIGHTENING OF NUT MAY OVERSTRESS U-BOLTS REDUCING THE LOAD RATING.  
INSTALLATION TAG ATTACHED TO CLAMP GIVES PROPER NUT TIGHTENING.



FIG. 272 THRU FIG. 277

NOTES: FIG. 272 AND FIG. 273 CLAMPS ARE INTERCHANGEABLE IN THESE ASSEMBLIES.

ADDITIONAL ASSEMBLIES ARE SHOWN IN NFPA NO. 24, STANDARD OF THE NATIONAL FIRE PROTECTION ASSOCIATION. YOKES WITH TANGENTS LONGER THAN SHOWN ON FIG. 275 MUST BE MADE SPECIAL TO THE CUSTOMERS ORDER.

IF TIME DOES NOT PERMIT THE SPECIAL ORDER, USE ROD COUPLING FIG. 3 AND ADDITIONAL LENGTHS OF ROD. ORDER EACH PART SEPARATELY.

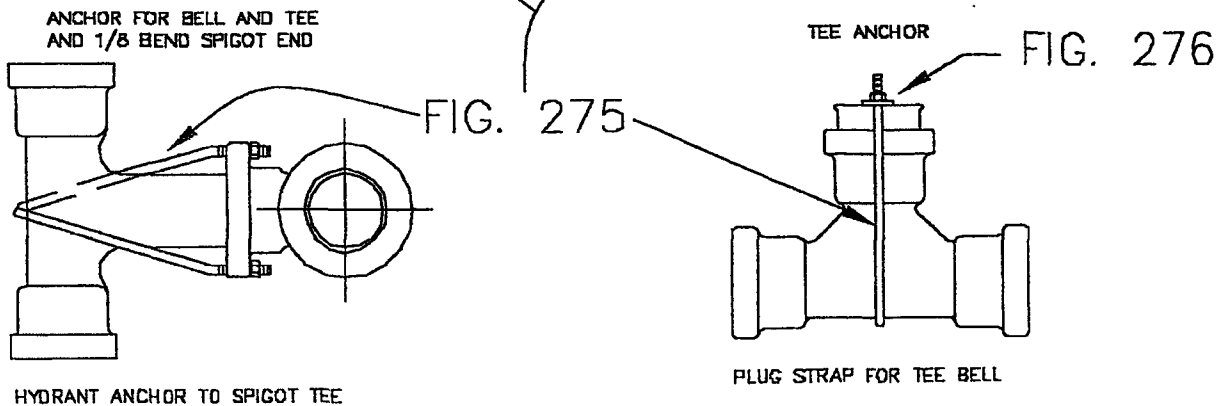
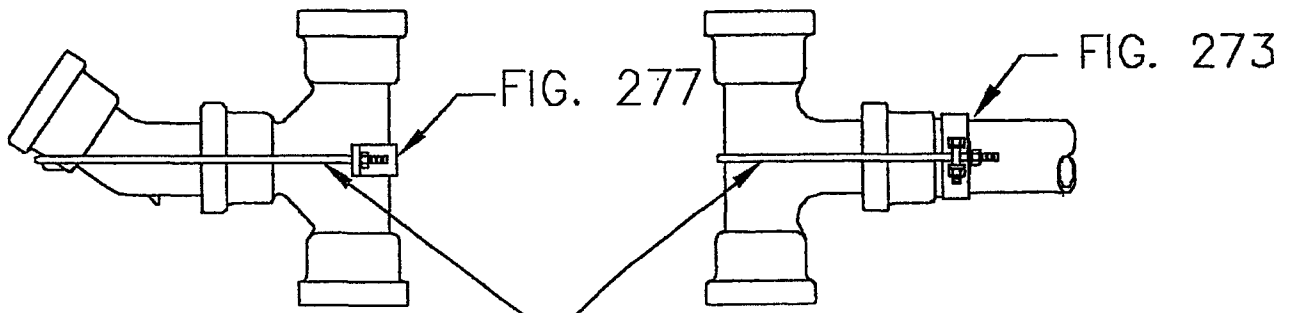
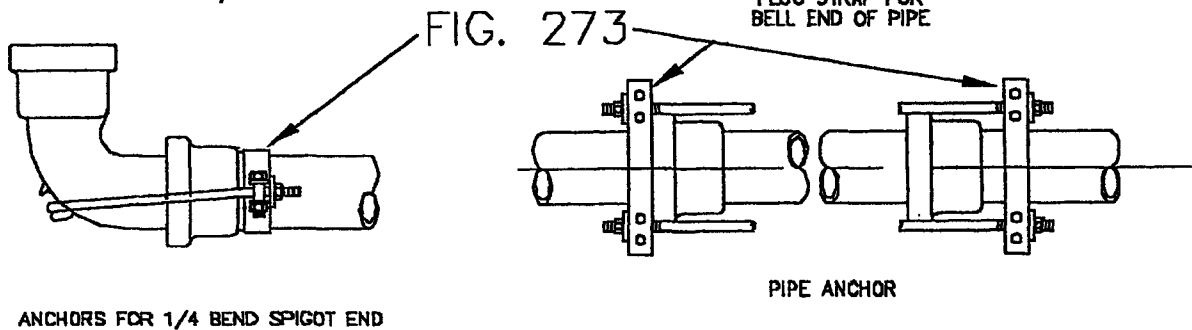
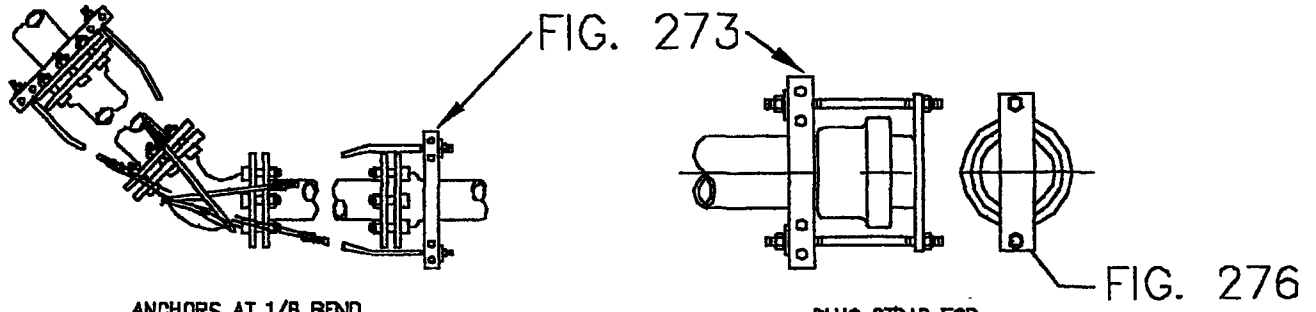
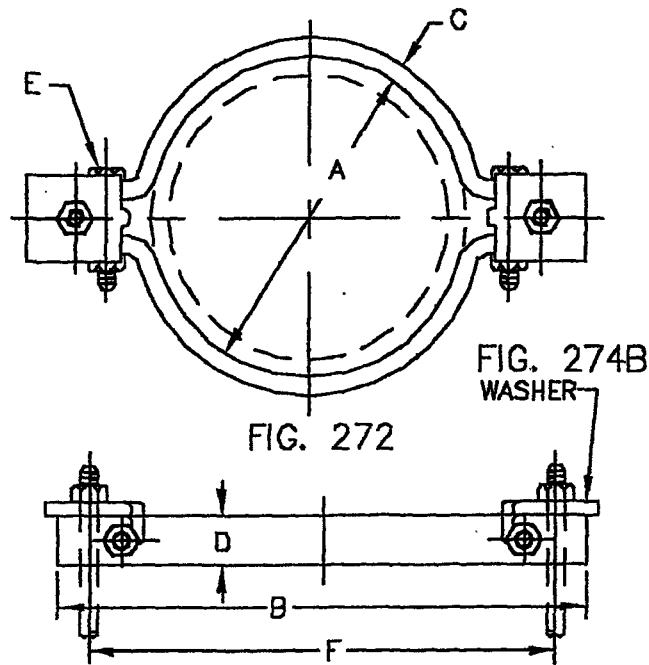


FIG. 272



SOCKET CLAMP, 2-BOLT \_\_\_\_\_ FIG. 272

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
PIPE D.D., CLAMP MATERIAL AND FINISH

NOTE: FIG. 274 WASHER MUST BE ORDERED SEPARATELY

WEIGHTS-DIMENSIONS-INCHES

PIPE SIZE	WGT (APPROX) LBS EACH		A	B	C	D	BOLT E	F	ROD SIZE
	CLAMP	WASHER							
4	11.0	1.2	5	12-1/8	1/2	2	5/8 X 3-1/2	9-3/4	3/4
6	12.7	1.2	7-1/8	14-3/8	1/2	2	5/8 X 3-1/2	12	3/4
8	14.5	1.2	9-5/16	16-5/8	1/2	2	5/8 X 3-1/2	14-1/4	3/4
10	16.3	1.2	11-3/8	18-7/8	1/2	2	5/8 X 3-1/2	18-1/2	3/4
12	18.3	1.2	13-1/2	21-1/4	1/2	2	5/8 X 3-1/2	18-7/8	3/4
14	48.7	2.7	15-3/4	25-1/2	3/4	3	7/8 X 4-1/2	22-3/8	1-1/4
16	69.2	2.7	17-7/8	28	3/4	4	1 X 4-1/2	24-3/4	1-1/4
18	82.0	4.5	20	31-1/2	3/4	4	1-1/4 X 5	27-5/8	1-1/4
20	97.5	4.5	22-1/8	33-3/4	3/4	4-1/2	1-1/4 X 5	29-3/4	1-3/8
24	132.0	6.8	26-3/8	38-3/4	3/4	5	1-1/2 X 5-1/2	35-1/4	1-1/2

FIG. 273

SOCKET CLAMP, 4-BOLT \_\_\_\_\_ FIG. 273

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
PIPE O.D., CLAMP MATERIAL AND FINISH

NOTE:  
FIG. 274 WASHER MUST BE ORDERED SEPARATELY

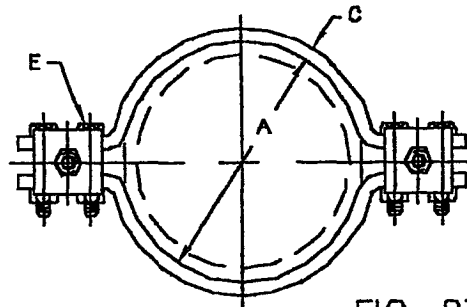


FIG. 274A  
WASHER

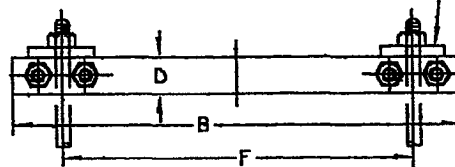


FIG. 273

LOADS-DIMENSIONS(INCHES)

PIPE SIZE	MAX. TEST PRESSURE P.S.I.	FORCE* ON CLAMP, LB.	A	B	C	D	BOLT E	F	RCD SIZE
4	250	4550	5	14-5/8	1/2	2	5/8 X 3-1/2	8-5/8	3/4
6	250	8340	7-1/8	16-7/8	1/2	2	5/8 X 3-1/2	11-7/8	3/4
8	250	18080	9-5/16	19-1/8	5/8	2-1/2	5/8 X 3-3/4	14-1/2	3/4
10	250	24180	11-1/2	21-3/8	5/8	2-1/2	3/4 X 3-3/4	18-5/8	1
12	250	34230	13-1/2	25-1/8	5/8	3	7/8 X 4-1/2	19-5/8	1
14	120	22200	15-3/4	28-1/4	3/4	3	7/8 X 4-1/2	22-3/8	1-1/4
16	115	27780	17-7/8	31-3/8	3/4	4	1 X 4-1/2	25-3/8	1-1/4
18	180	23800	20	35-1/8	3/4	4	1-1/4 X 5	28-1/8	1-1/4
20	75	27800	22-1/8	37-3/4	3/4	4-1/2	1-1/4 X 5	30-1/2	1-3/8
24	50	26200	26-3/8	44-1/4	3/4	5	1-1/2 X 5-1/2	38	1-1/2

FIG.  
274 & 275

SOCKET CLAMP WASHER \_\_\_\_\_ FIG. 274A/B  
YOKE \_\_\_\_\_ FIG. 275

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL  
ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
PIPE SIZE, ROD SIZE,  
MATERIAL AND FINISH

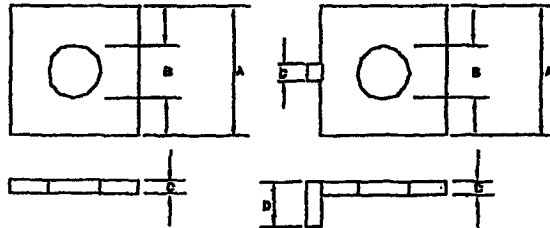


FIG. 274A  
FOR USE WITH 4-BOLT  
SOCKET CLAMP

FIG. 274B  
FOR USE WITH 2-BOLT  
SOCKET CLAMP

DIMENSIONS (INCHES)

ROD SIZE	A	B	C	D
3/4	3	7/8	1/2	1-3/4
1	3-1/2	1-1/8	5/8	-
1-1/8	4-1/2	1-1/4	1	3-1/2
1-1/4	4-1/2	1-3/8	1	3-1/2
1-3/8	4-1/2	1-1/2	1	3-3/4
1-1/2	5	1-5/8	1	4

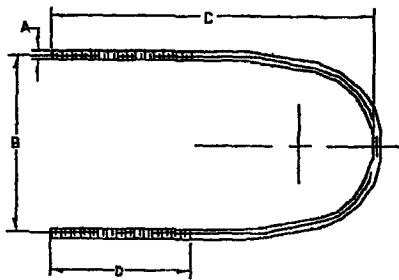


FIG. 275

WEIGHTS-DIMENSIONS(INCHES)

FITTING SIZE	WGT. (APPROX.) LBS. EACH	A	B	C	D
4	6.8	3/4	10-1/8	26	16-1/8
6	7.6	3/4	12-1/8	29-1/2	18
8	8.0	3/4	14-3/8	32	19
10	16.8	1	18-11/16	38	21-1/4
12	21.5	1	19-3/16	40-1/2	24

FIG.  
275 & 277

SOCKET CLAMP ACCESSORIES:  
 PLUG ANCHOR STRAP \_\_\_\_\_ FIG. 276  
 TEE ANCHOR STRAP \_\_\_\_\_ FIG. 277

MATERIAL:  
 CARBON STEEL OR STAINLESS STEEL  
 ORDERING:  
 SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
 PIPE O.D., ROD SIZE, MATERIAL AND FINISH

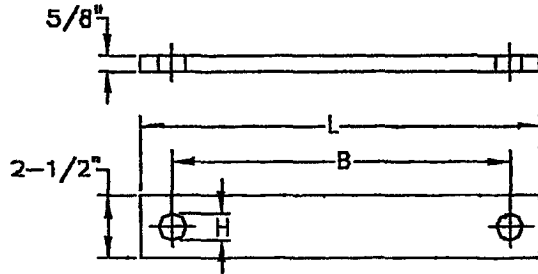


FIG. 276

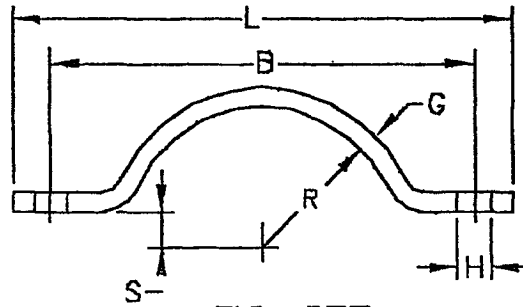


FIG. 277

DIMENSIONS(INCHES)

FITTING SIZE	B	G	HOLE H	L	R	S
4	10-1/8	5/8 X 2-1/2	13/16	12-1/2	2-1/2	3/4
6	12-1/8	5/8 X 2-1/2	13/16	14-1/2	3-9/16	3/4
8	14-3/8	5/8 X 2-1/2	13/16	16-3/4	4-21/32	3/4
10	16-11/16	5/8 X 2-1/2	1-1/16	18-1/16	5-3/4	3/4
12	18-3/16	5/8 X 3	1-1/16	22-5/16	6-3/4	7/8

FIG. 285

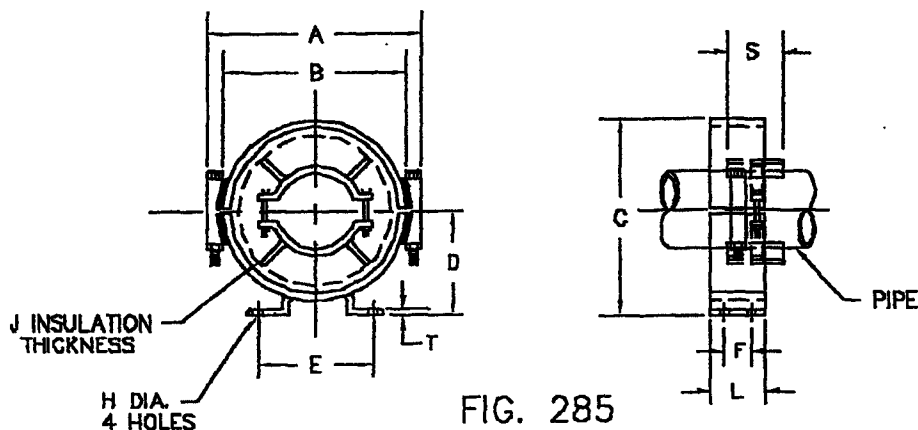


FIG. 285

PIPE ALIGNMENT GUIDE, 1-CLAMP \_\_\_\_\_ FIG. 285

MATERIAL:  
CARBON STEEL OR STAINLESS STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER, PIPE SIZE,  
GUIDE SIZE, INSULATION THICKNESS, HINGE,  
POSITION, MATERIAL AND FINISH

CAUTION:  
PIPE MOVEMENT DUE TO EXPANSION MUST NOT  
EXCEED THE GUIDE TRAVEL RANGE "S"

DIMENSIONS (INCHES)

NO. SIZE	A	B	C	D	E	FIG. 285		FIG. 286		HOLE	
						F	L	F	L	H	T
1	8-3/16	4-1/2	5-3/8	3-1/8	5	1-1/2	3	2-1/2	4	5/8	1/4
2	7-1/4	5-9/16	6-5/16	3-1/2	6-1/4	1-1/2	3	2-1/2	4	5/8	1/4
3	8-5/16	6-5/8	7-5/16	4	6-3/4	1-1/2	3	2-1/2	4	5/8	1/4
4	10-5/16	8-5/8	9-5/16	5	7-3/8	1-1/2	3	2-1/2	4	5/8	1/4
5	12-7/16	10-3/4	11-5/8	6-1/4	7-3/8	2	4	4	6	5/8	1/4
6	14-7/8	12-3/4	13-5/8	7-1/4	8	2	4	4	6	5/8	1/4
7	16-7/8	14-3/4	15-5/8	8-1/2	9-3/4	2	4	5-1/2	8	3/4	5/16
8	18-7/8	16-3/4	15-7/8	9-1/2	10-1/4	4	6	5-1/2	8	3/4	5/16
9	21-5/8	19	20	10-1/2	11-1/4	4	6	5-1/2	8	3/4	5/16
10	23-5/8	21	22	11-1/2	14-1/8	4	6	5-1/2	8	7/8	3/8
11	25-5/8	23	24	12-1/2	14-3/4	4	6	5-1/2	8	7/8	3/8
12	28-3/8	25-3/4	26-5/8	13-3/4	15-7/8	4	6	5-1/2	8	1	3/8
13	32-1/8	29-1/2	30-1/2	15-3/4	16-3/8	5-1/2	8	5-1/2	8	1	3/8
14	36-1/8	33-1/2	34-1/2	17-3/4	17-1/8	5-1/2	8	5-1/2	8	1	3/8

SEE FIG. 286 PAGE FOR SELECTION CHART



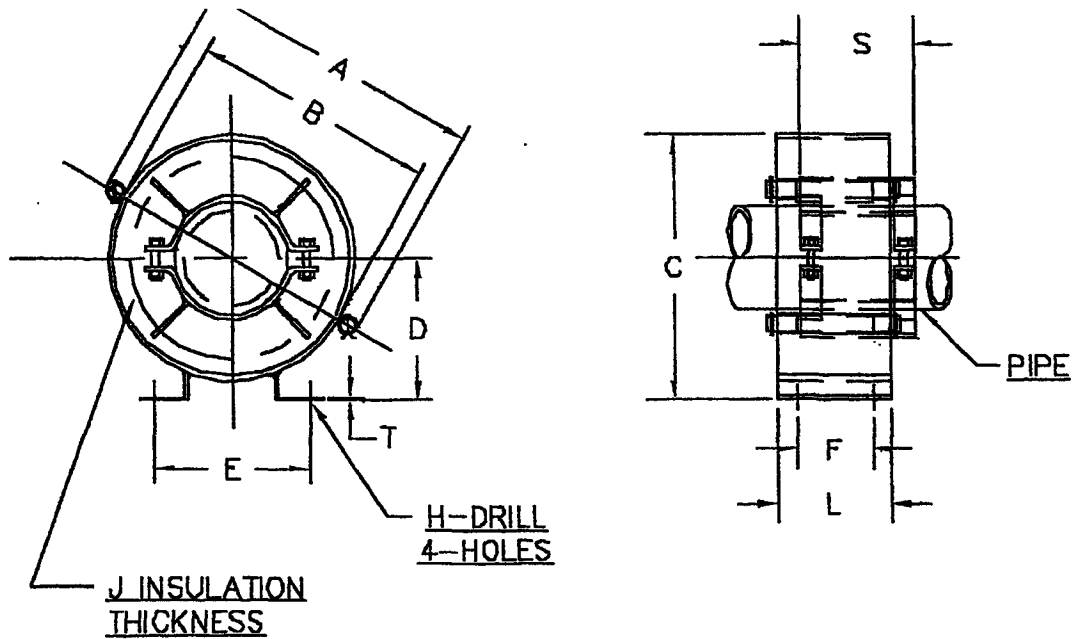


FIG. 286

PIPE ALIGNMENT GUIDE, 2-CLAMPS\_\_\_\_FIG. 286

MATERIAL:  
 CARBON STEEL OR STAINLESS STEEL  
 ORDERING:  
 SPECIFY NAME FIGURE NUMBER, PIPE SIZE,  
 GUIDE SIZE, INSULATION THICKNESS,  
 HINGE POSITION, MATERIAL AND FINISH

SEE FIG. 285 PAGE  
 FOR DIMENSIONS

SPIDER LENGTH S = MAXIMUM MOVEMENT		
PIPE SIZE	FIG. 285	FIG. 286
1" TO 6"	4	6
8" TO 16"	6	8
18" TO 24"	8	10

GUIDE SELECTION CHART

GUIDE SIZE NO.	J INSULATION THICKNESS (INCHES)					
	1	1 1/2	2	2 1/2	3	4
PIPE SIZES						
1	1					
2	1-1/4 THRU 2					
3	2-1/2	1				
4		1-1/4 THRU 2				
5	3-4	2-1/2 THRU 3-1/2	1			
6	5-8	4-5	1-1/4 THRU 2-1/2	1-2		
7		6	3-4	2-1/2 THRU 3-1/2	1	
8		8	5-8	4-5	1-1/4 THRU 2-1/2	
9		10		6	3-4	1-1/4 THRU 2-1/2
10		12		8	5-6	3-4
11		14		10	8	5-6
12		16		12	10	8
13				12-14	12	10
14				16	14	12
					16-18	14-16
					20	18-20
					24	24

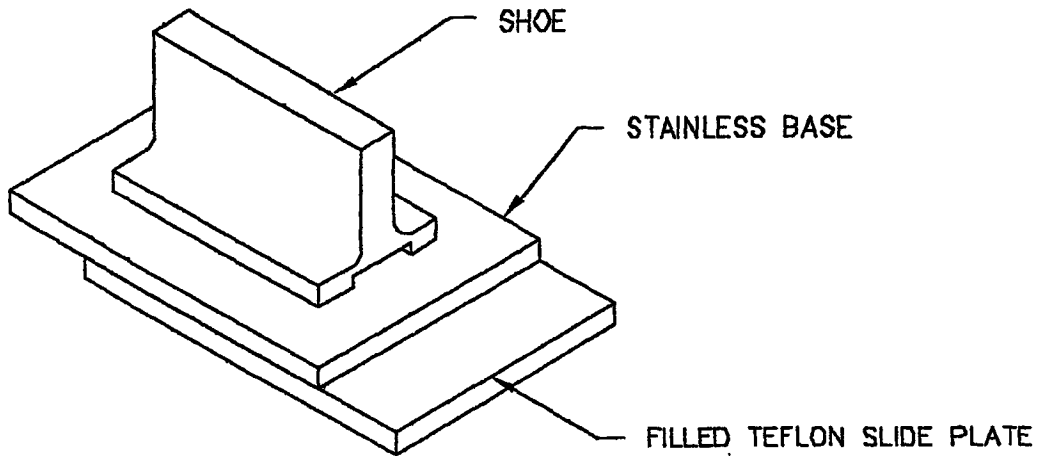


FIG. 287

TEE SHOE WITH TEFLON SLIDE PLATE\_\_\_\_\_FIG. 287

ORDERING:

DETAIL DRAWING IS REQUIRED FROM CUSTOMER  
FOR CUSTOM FABRICATION

SPRING CUSHION SUPPORT \_\_\_\_\_ FIG. 288

MATERIAL:

STEEL

ORDERING:

SPECIFY NAME, FIGURE NUMBER,  
SPRING SIZE

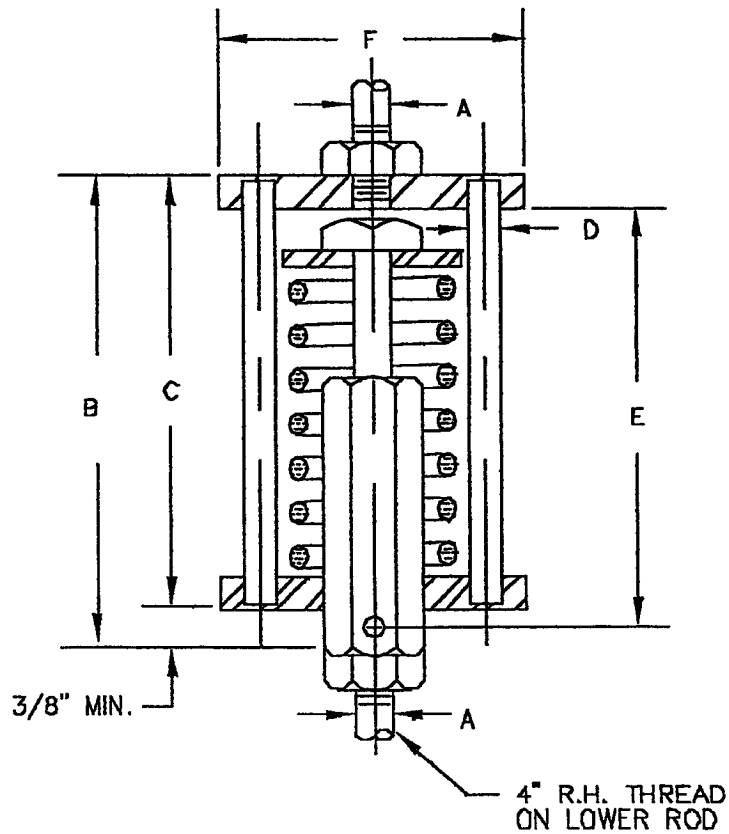


FIG. 288

DIMENSIONS (INCHES)

SPRING SIZE NO.	ROD A	B		C	D	E	F	MAXIMUM DEFLECTION	MAXIMUM LOAD (LBS.)	SPRING RATE LBS. PER IN.	WEIGHT LBS. PER 100
		MIN.	MAX.								
1	3/8	4-1/2	6-1/2	4-1/8	1/4	3-3/4	2-3/8	2	52	28	180
2	3/8	4-1/2	6-1/4	4-1/8	5/16	3-3/4	3-1/8	1-3/4	115	66	238
3	1/2	5-7/8	7-3/4	5-1/2	3/8	5	2-3/4	1-7/8	163	87	287
4	1/2	5-7/8	7-5/8	5-1/2	3/8	5	3-1/4	1-3/4	266	152	350
5	5/8	6-3/4	8-3/4	6-3/8	1/2	5-3/4	4-1/8	2	400	200	680
6	3/4	8-3/8	10-7/8	B	1/2	7-3/8	4-5/8	2-1/2	600	240	982

MATERIAL:  
STEEL

ORDERING:  
SPECIFY NAME, FIGURE NUMBER,  
ROD SIZE, IF USED WITH FIG. 77  
SINGLE PIPE ROLL, PIPE ROLL MUST  
BE ORDERED SEPARATELY

NOTE:  
THE RETAINERS ARE CORED TO THE  
DIMENSIONS AS SHOWN, BUT CAN BE  
DRILLED OR REAMED LARGER TO  
SATISFY THE HANGER ROD REQUIRED.

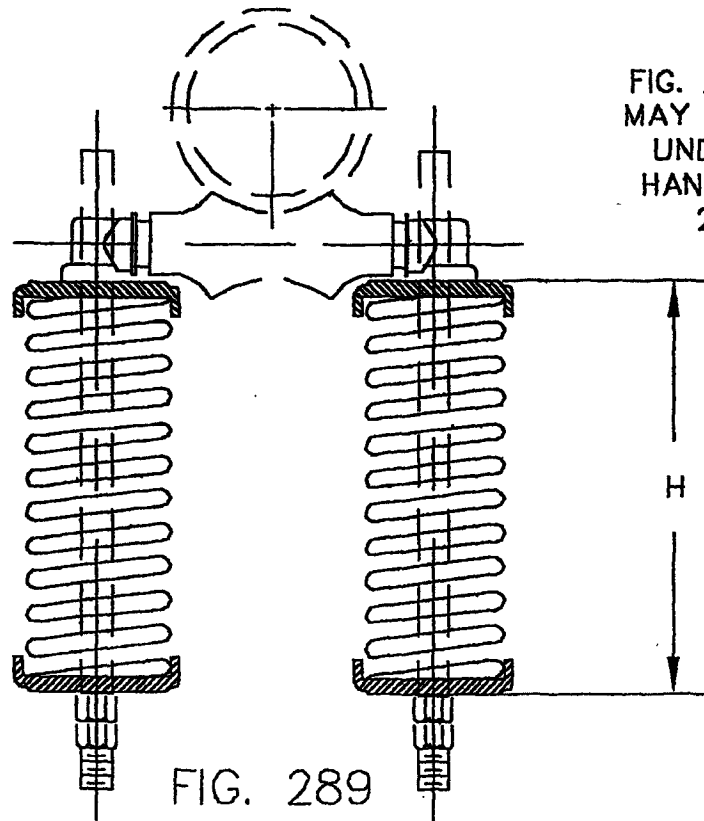


FIG. 289 SPRINGS  
MAY ALSO BE USED  
UNDER TRAPEZE  
HANGERS FIG. 27,  
28, OR 31.

FIG. 289

DIMENSIONS (INCHES)

SPRING NO.	SPRING RATE POUNDS PER INCH PER SPRING	MAXIMUM LOAD AT 1-1/4 INCH DEFLECTION TWO SPRINGS	CUP DIAMETER	SPRING HEIGHT H	WEIGHT PER 100	MIN ROD SIZE
A	26	65	2-3/8	3-1/4	110	3/8
B	66	165	2-3/8	3-1/4	142	3/8
C	87	218	2-3/8	4-1/4	156	3/8
D	152	380	2-3/8	4-1/4	218	3/8
1	214	535	2-3/8	6-1/4	408	3/8
2	600	1500	4	5-3/4	1074	1/2
3	1200	3000	4-1/2	8-7/8	2600	7/8