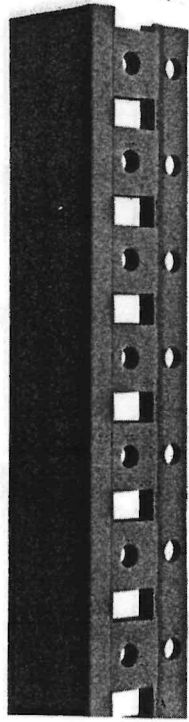
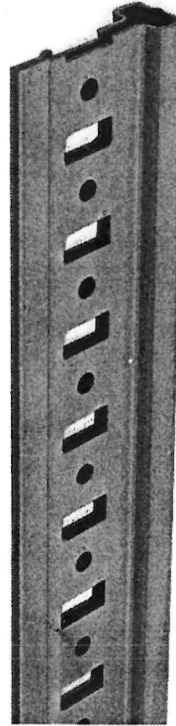


HIGH RISE & BEADED POSTS INSTALLATION INSTRUCTIONS



HIGH RISE POST

BEADED POST



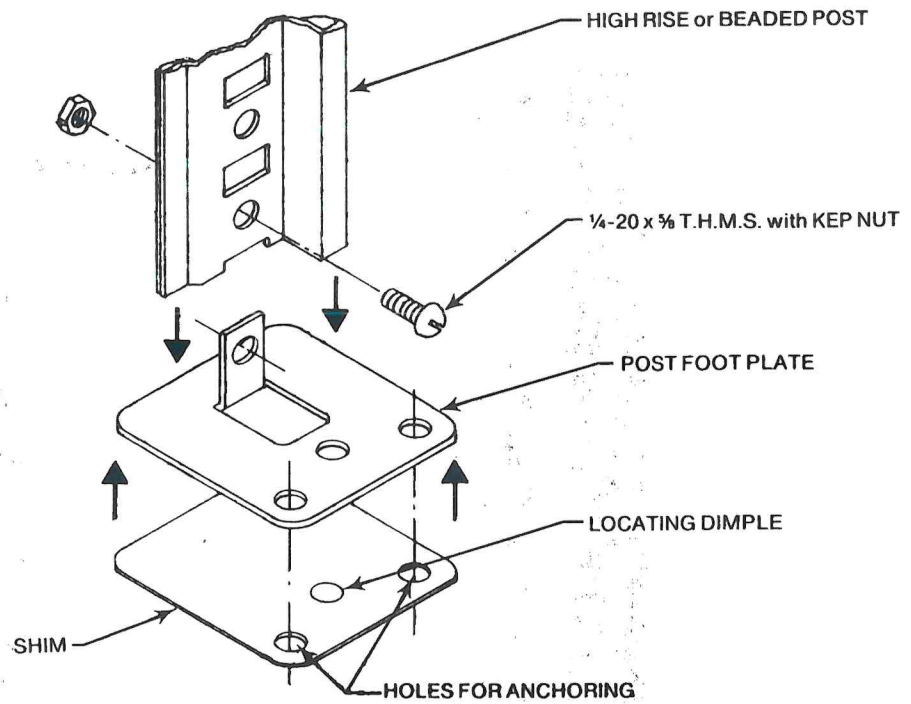
IMPORTANT - PRODUCT LIABILITY INFORMATION

READ ALL INSTRUCTIONS BEFORE PROCEEDING. VITAL INFORMATION PERTAINING TO PROPER SET-UP AND CAUTIONS ARE INCLUDED. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE.

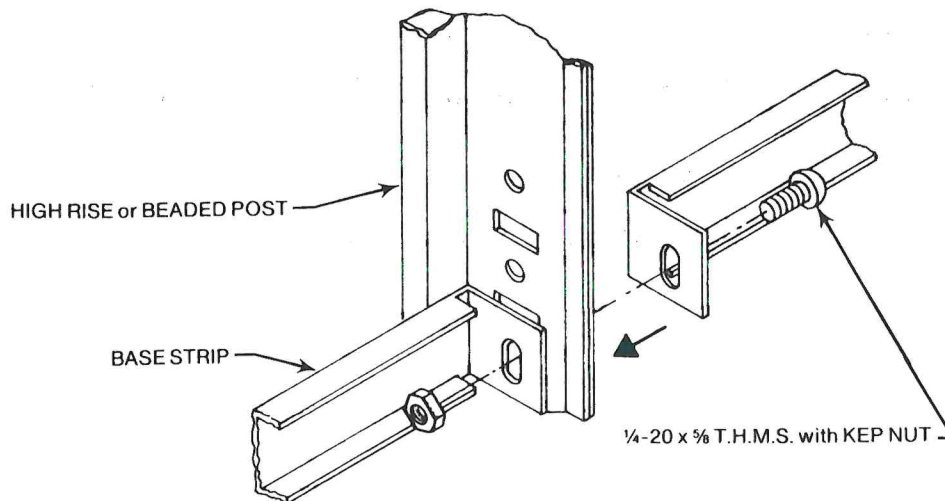
BORROUGHS CORPORATION

3002 N. BURDICK STREET • KALAMAZOO, MI 49007-1291
800-748-0227 • 616-342-0161 • FAX: 616-342-4161

1. FOOT PLATE AND SHIM

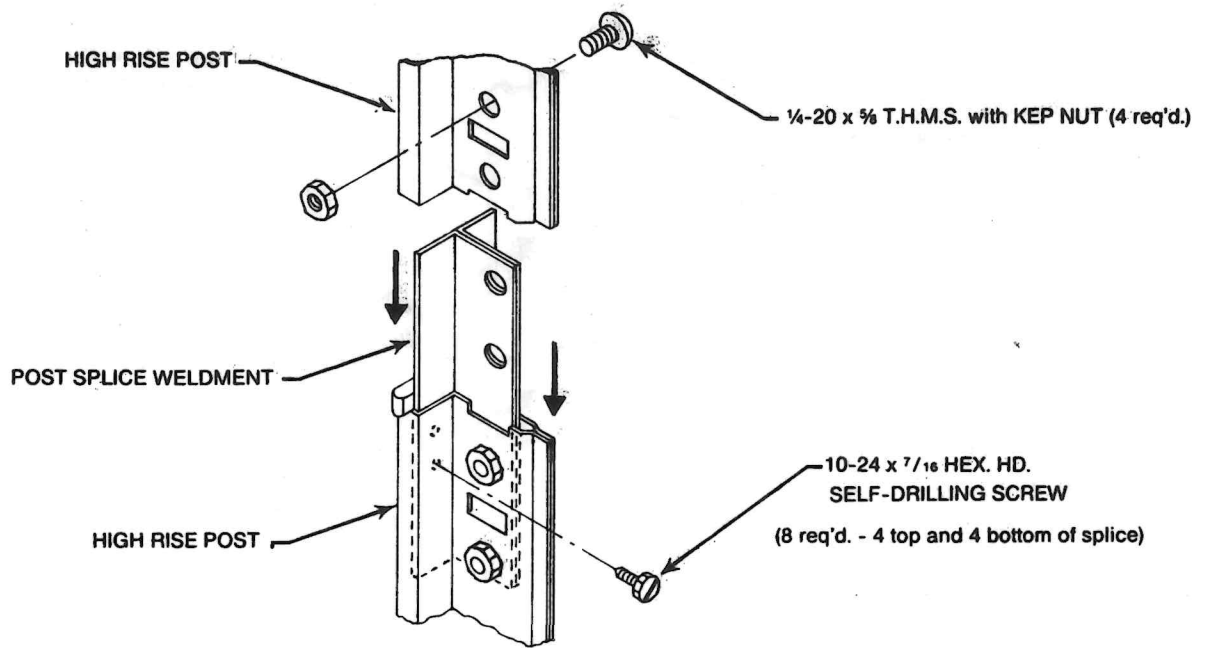


2. BASE STRIP

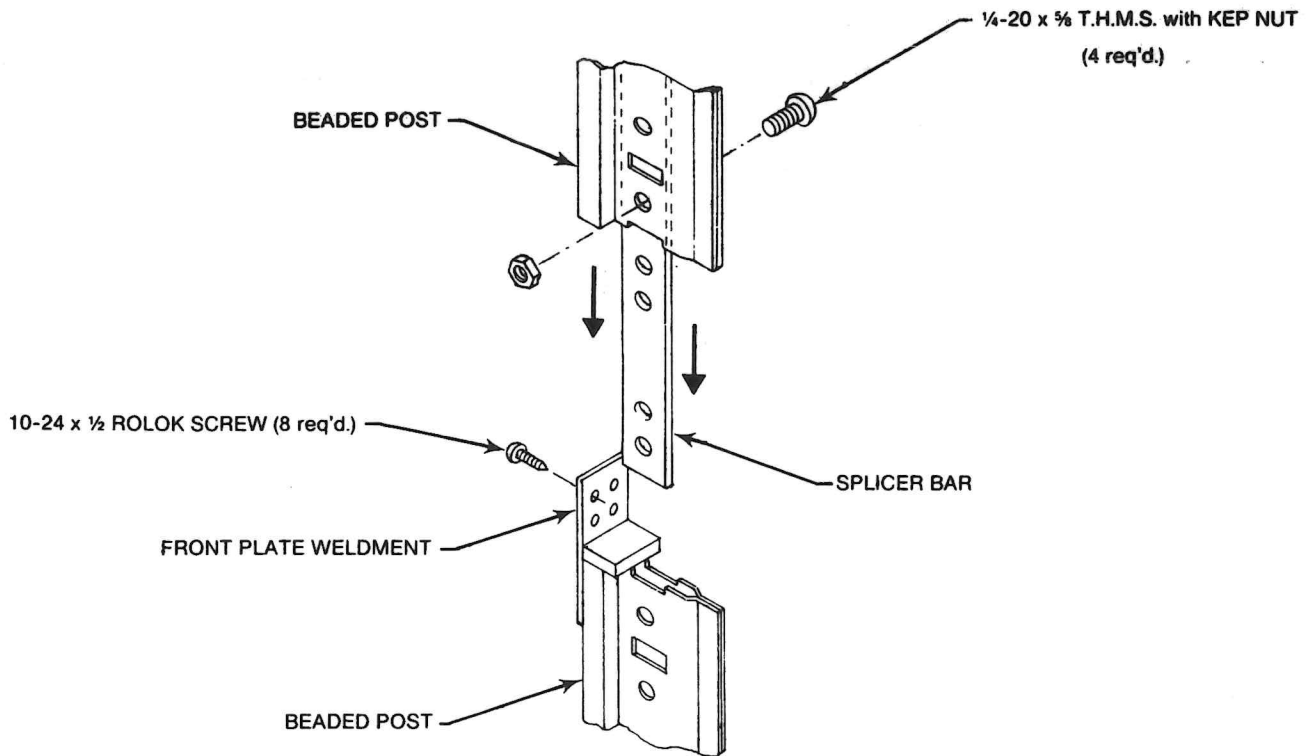


Base Strips are required on all units which do not have the bottom shelf bolted in.

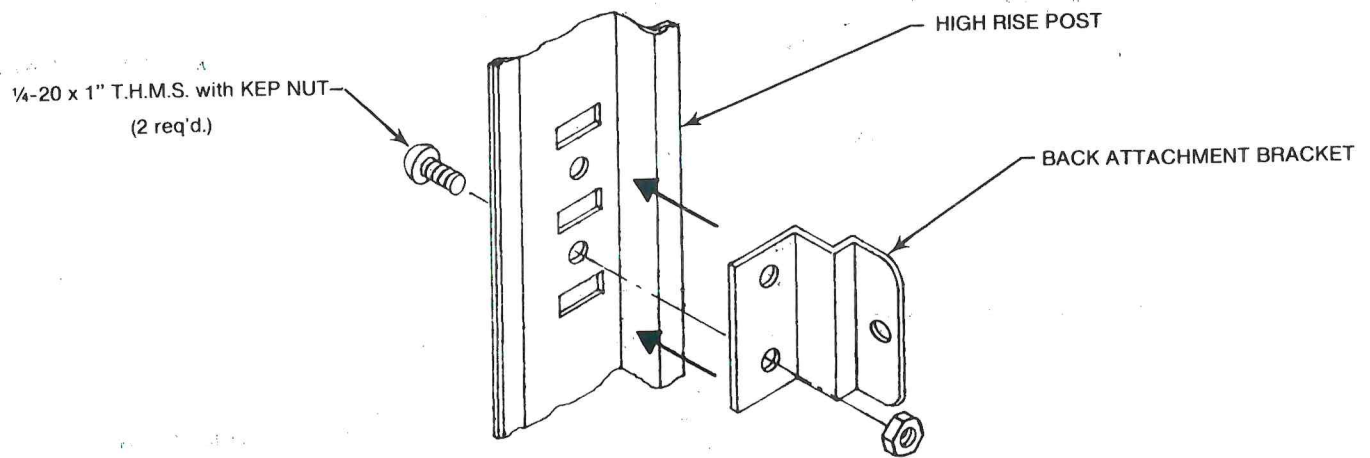
3. HIGH RISE POST SPLICE



4. BEADED POST SPLICE

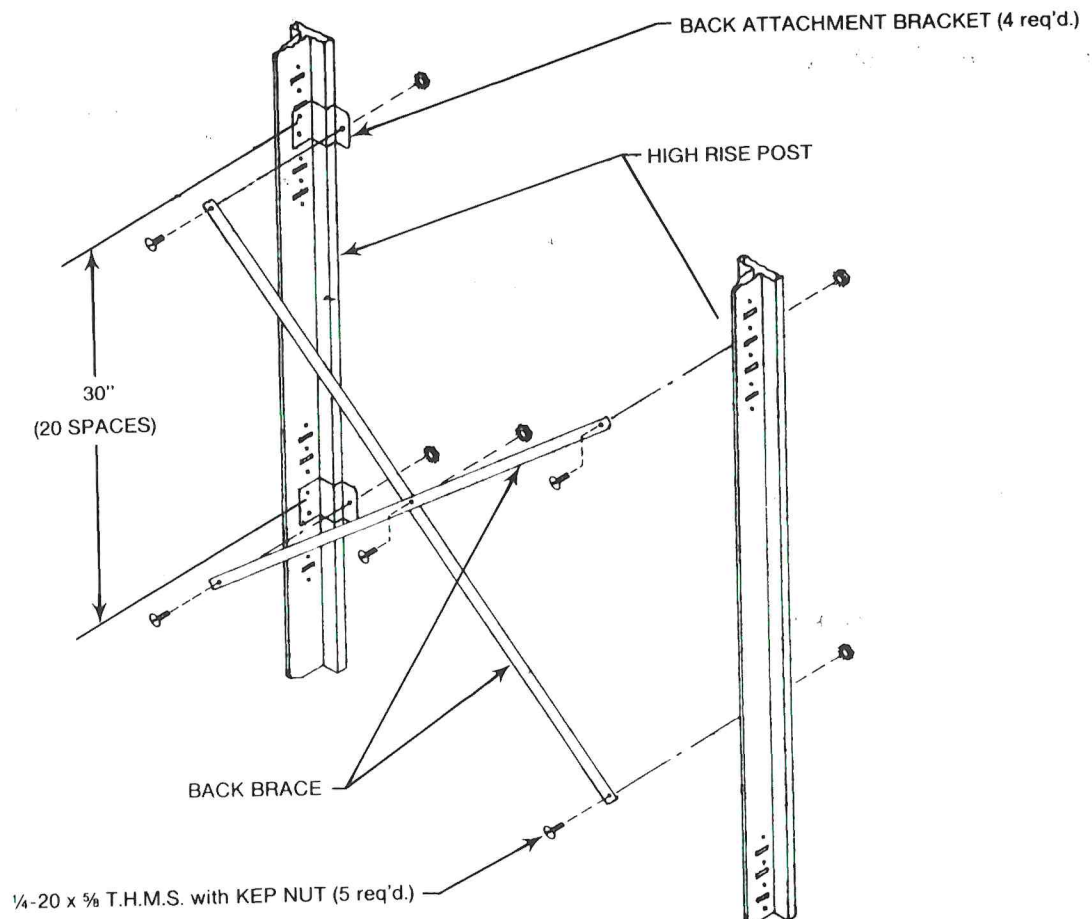


5. BACK ATTACHMENT BRACKET

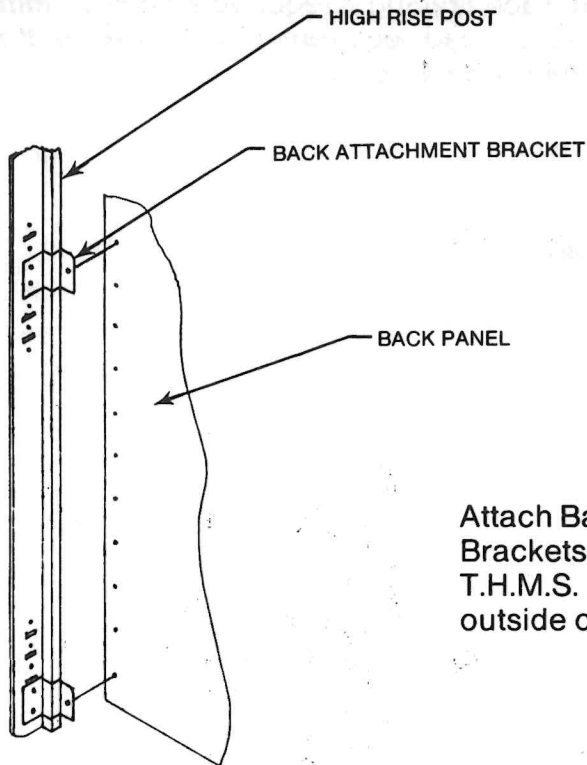


6. BACK BRACE

Back Bracing is attached with 30" between ends. Quantity is determined by standard bracing recommendations.



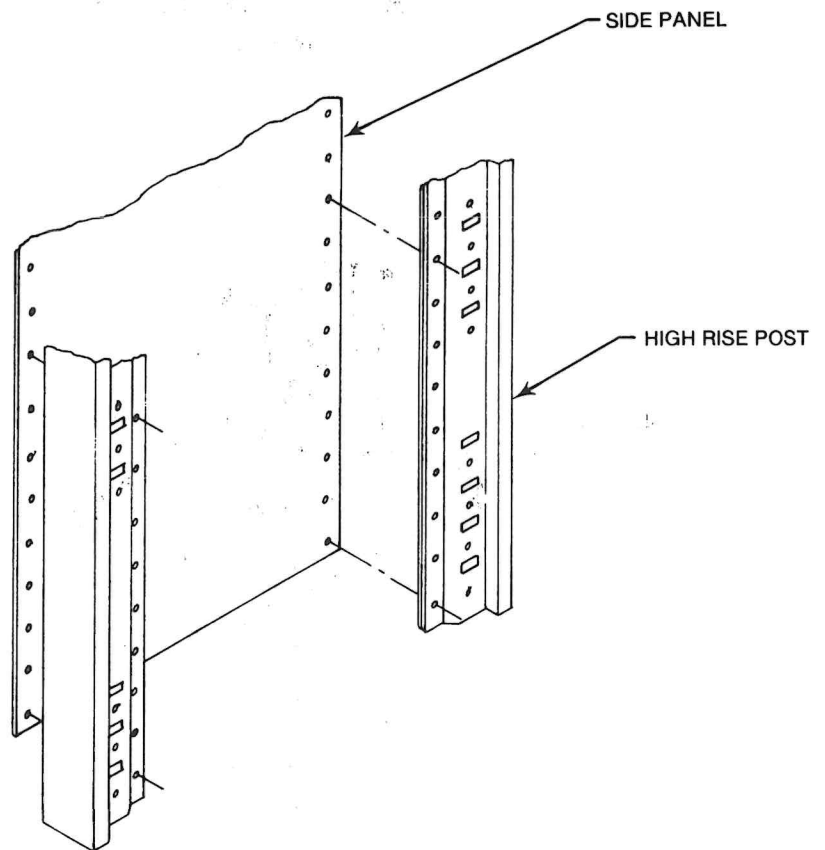
7. BACK PANEL



Attach Back Panel to High Rise Post with Back Attachment Brackets SPACED 30" (OR LESS) on center. Use $\frac{1}{4}$ -20 x $\frac{5}{8}$ T.H.M.S. with Kep Nuts at required locations. Backs go outside of single face units or between back to back units.

8. SIDE PANEL

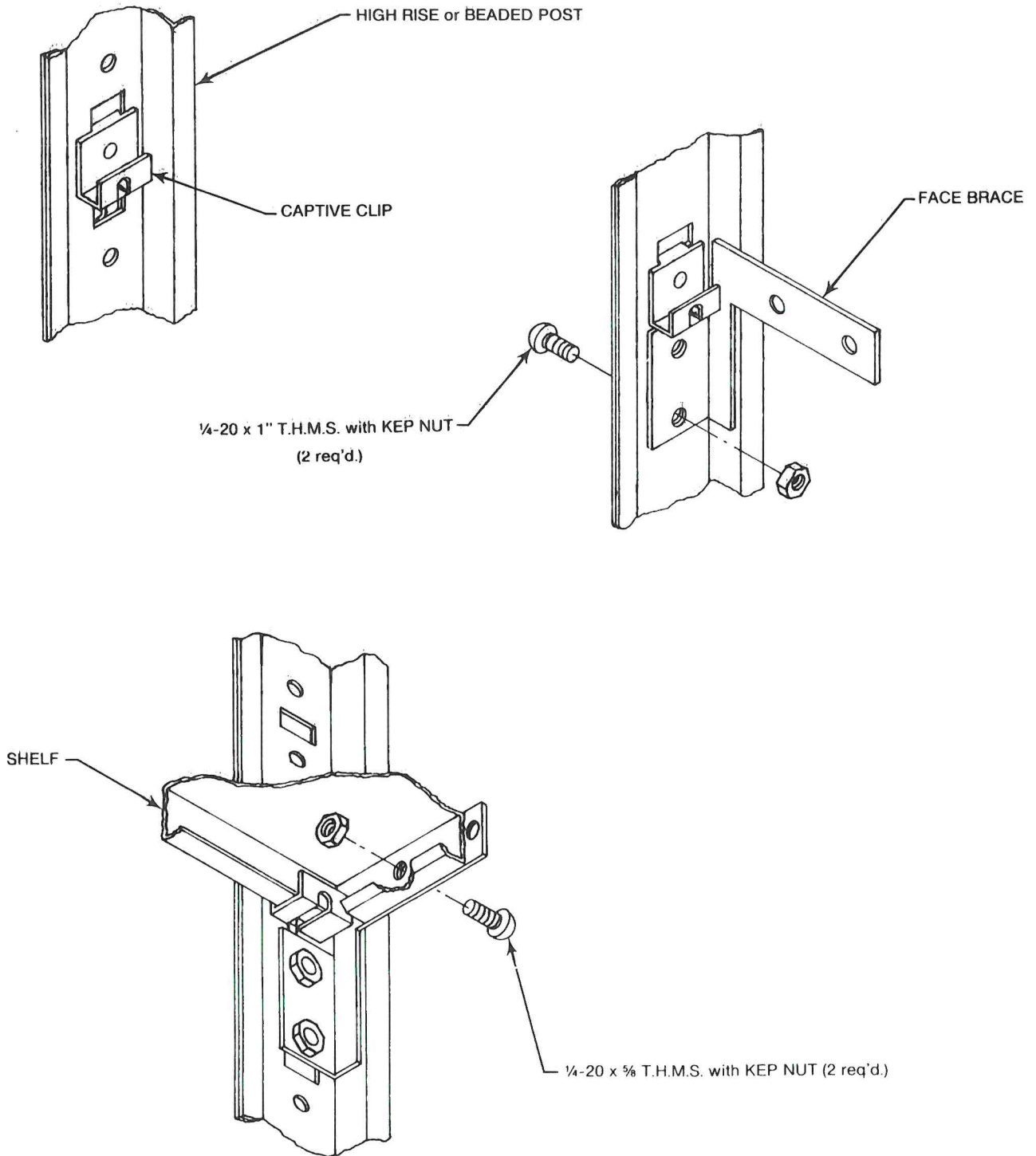
Attach Side Panel to Post on 12" centers. Use $\frac{1}{4}$ -20 x $\frac{5}{8}$ T.H.M.S. with Kep Nuts as required.



NOTE: Beaded Posts have welded closed sides with Angle Posts in back. Side Bracing on both the High Rise Post and the Beaded Post is identical to the Bracing on standard Industrial Shelving (Ref. last page of this manual).

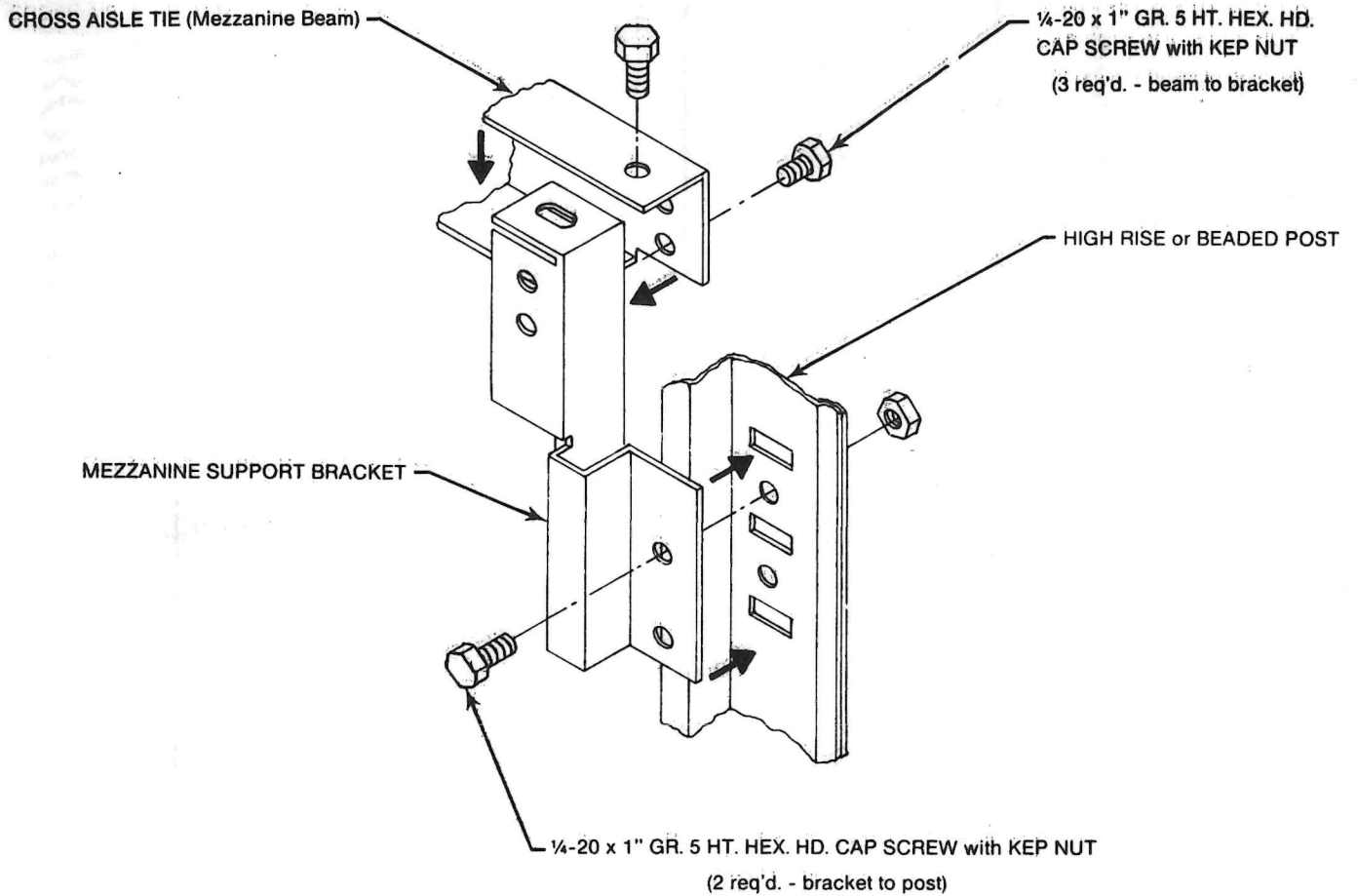
9. SHELF

Instructions for Shelf with Face Bracing shown. Face Bracing is required at shelves immediately below each splice and at intervals determined by load requirements. Shelves without Face Bracing mount on 4 Captive Clips at level positions on 4 Posts.



10. MEZZANINE BRACKET

Mezzanine Brackets may be located on Posts at 1½" increments.





BORROUGHS
A DIVISION OF LEAR SIEGLER, INC.

3002 N. BURDICK STREET • KALAMAZOO, MICHIGAN 49007 • (616) 342-0181

SWAY BRACING

RECOMMENDATIONS

FOR UNITS 99" & LESS IN HEIGHT

NO. UNITS	8	7	6	5	4	3	2	1
NO. BRACES	10	9	8	7	6	5	5	3

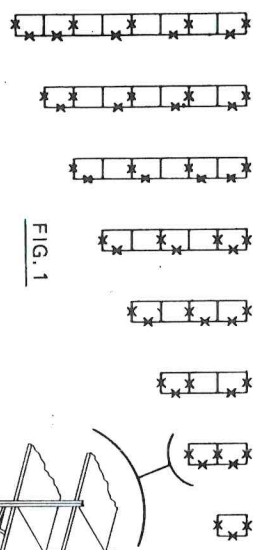


FIG. 1

SINGLE ROW		DOUBLE ROW													
8	7	6	5	4	3	2	1	8	7	6	5	4	3	2	1
16	14	13	11	10	8	6	3	16	14	13	11	10	8	6	3

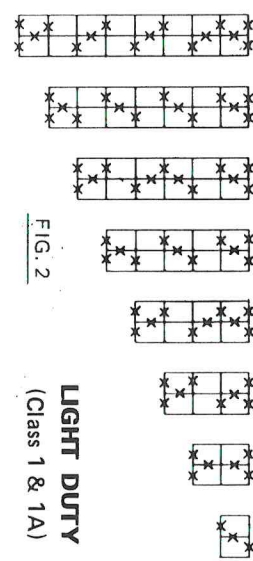


FIG. 2

LIGHT DUTY
(Class 1 & 1A)

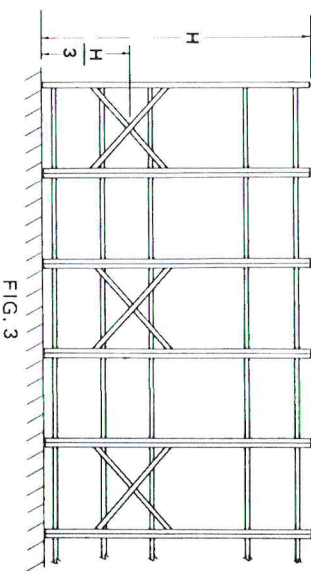


FIG. 3

BORROUGHS' SWAY BRACING IS DESIGNED SO THERE WILL ALWAYS BE 30 INCHES BETWEEN ATTACHING BOLTS ON THE SAME POST.

NOTE:
FOR CRITICAL SHELF LOCATIONS, MINOR CHANGES TO THESE RECOMMENDATIONS ARE COMPLETELY ACCEPTABLE.

Both single and double rows may use sway braces as in figures 1 and 2. Note that the end and back of the first and last section of each row always contain a sway brace. Every other intermediate and every other back should contain a sway brace. The height location of the sway brace is determined as in figure 3, where the center line of the cross is "height divided by 3" up from the bottom.

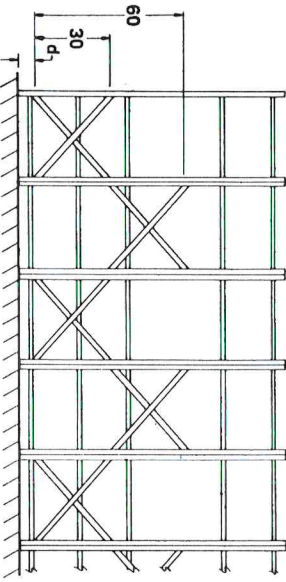


FIG. 4

HEAVY DUTY
(Class II & III)

For rigidity in heavy duty applications, a pair of sway braces should be put in every opening at the heights illustrated in figure 4. Each open end should be braced as illustrated in figure 4A.

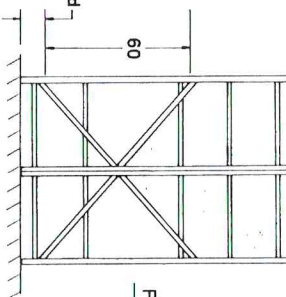


FIG. 4A

d = minimum reasonable distance (e.g. 4.5 - 6.0 inches)

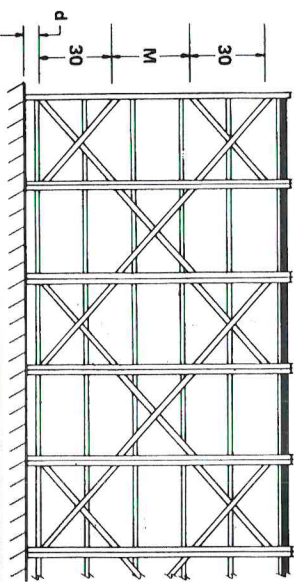


FIG. 5

MEZZANINE APPLICATION

For rigidity in mezzanine applications, two (2) sway braces should be put in every other opening at the heights illustrated in figure 5. The intervening openings should be braced with one (1) pair of sway braces as shown. The term "d" equals the distance for mounting the sway braces to the post from the floor. Bolt the front of the center shelf and the front of the top shelf and the base strip in place. The open ends should be braced as illustrated in figure 5A.

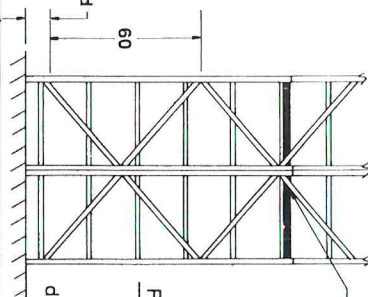


FIG. 5A

d = minimum reasonable distance (e.g. 4.5 - 6.0 inches)

M = Maximum distance possible - up to and including 30 inches.

connection point as close as possible to mezzanine level - may be either above or below level.

PLEASE NOTE: FAILURE TO FOLLOW THESE SWAY BRACING RECOMMENDATIONS COULD RESULT IN AN IM-PROPER INSTALLATION, SHELVING COLLAPSE, PERSONAL INJURY AND/OR COMMODITY LOSS.

Sway Bracing Recommendations

STEEL SHELVING

For Units 99" and Less in Height

		Single Row						
No. Units	8	7	6	5	4	3	2	1
No. Braces	10	9	8	7	6	5	4	3

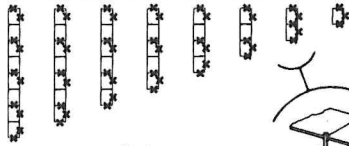


Fig. 1

		Double Row						
No. Units	16	14	12	10	8	6	4	2
No. Braces	16	14	13	11	10	8	6	3

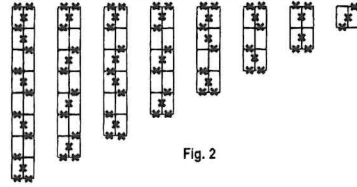
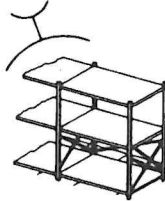


Fig. 2



NOTE:
FOR CRITICAL SHELF LOCATIONS, MINOR CHANGES
TO THESE RECOMMENDATIONS ARE ACCEPTABLE.

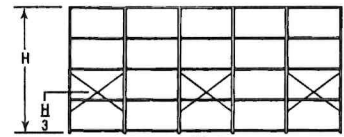


Fig. 3
Back Brace

Light Loading

Both single and double rows may use sway braces as in Figures 1 and 2. The end and back of the first and last section of each row always contains a sway brace. Every other intermediate and every other back should contain a sway brace. The height location of the sway brace is determined as in Figure 3, where the center line of the cross is "height divided by 3" up from the bottom.

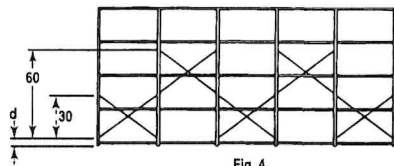


Fig. 4
Back Brace

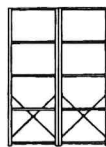


Fig. 4A
Side Brace

Standard Loading

For rigidity in standard duty applications, a pair of sway braces should be put in every opening at the heights illustrated in Figure 4. Each open end should be braced as illustrated in Figure 4A.

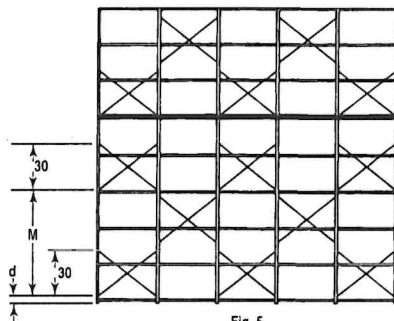


Fig. 5
Back Brace



Fig. 5A
Side Brace

Connection point as close as possible to mezzanine level- may be either above or below level.

M = maximum distance possible - up to and including 30"

d = minimum reasonable distance (e.g. 4.5" - 6.0")

Multi-Level Application

For rigidity in mezzanine applications, two sway braces should be put in every other opening at the heights illustrated in Figure 5. The intervening openings should be braced with one pair of sway braces as shown. The term "d" equals the distance for mounting the sway braces to the post from the floor. Bolt the front of the center shelf and the front of the top shelf and the base strip in place. The open ends should be braced as illustrated in Figure 5A.

For Units Over 99" High

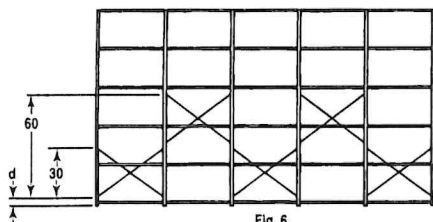


Fig. 6
Back Brace

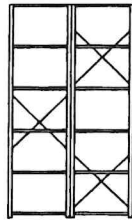


Fig. 6A
Side Brace

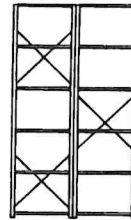


Fig. 6B
Side Brace

NOTE:
FOR CRITICAL SHELF LOCATIONS, MINOR CHANGES TO THESE RECOMMENDATIONS ARE ACCEPTABLE.

Light Loading

For rigidity, Borroughs recommends that one pair of sway braces be installed in each open end and open back. Sway brace height is as shown in Figure 6. Figure 6A and 6B are an end and an intermediate, respectively. The bracing patterns are opposite each other and should alternate from one end of a row down to the other end. Pre-assembly of the two uprights is identical.

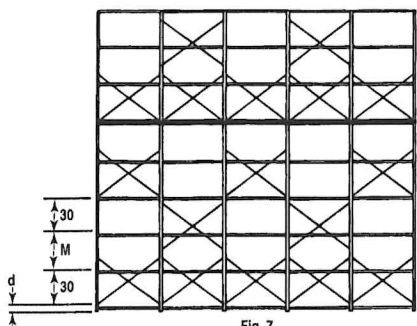


Fig. 7
Back Brace

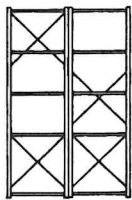


Fig. 7A
Side Brace



Fig. 7B
Side Brace

Connection point as close as possible to mezzanine level- may be either above or below level.

M = maximum distance possible - up to and including 30"

d = minimum reasonable distance (e.g. 4.5" - 6.0")

Standard Loading and Multi-Level

For rigidity, Borroughs recommends that sway braces be used in open backs as illustrated in Figure 7. Sway brace height is as shown in Figure 7. Bolt the front of the center shelf and the front of the top shelf and the base strip in place. Sway bracing for the ends of sections should be installed as shown in Figure 7A for heavy-duty and Figure 7B for multi-level applications.

