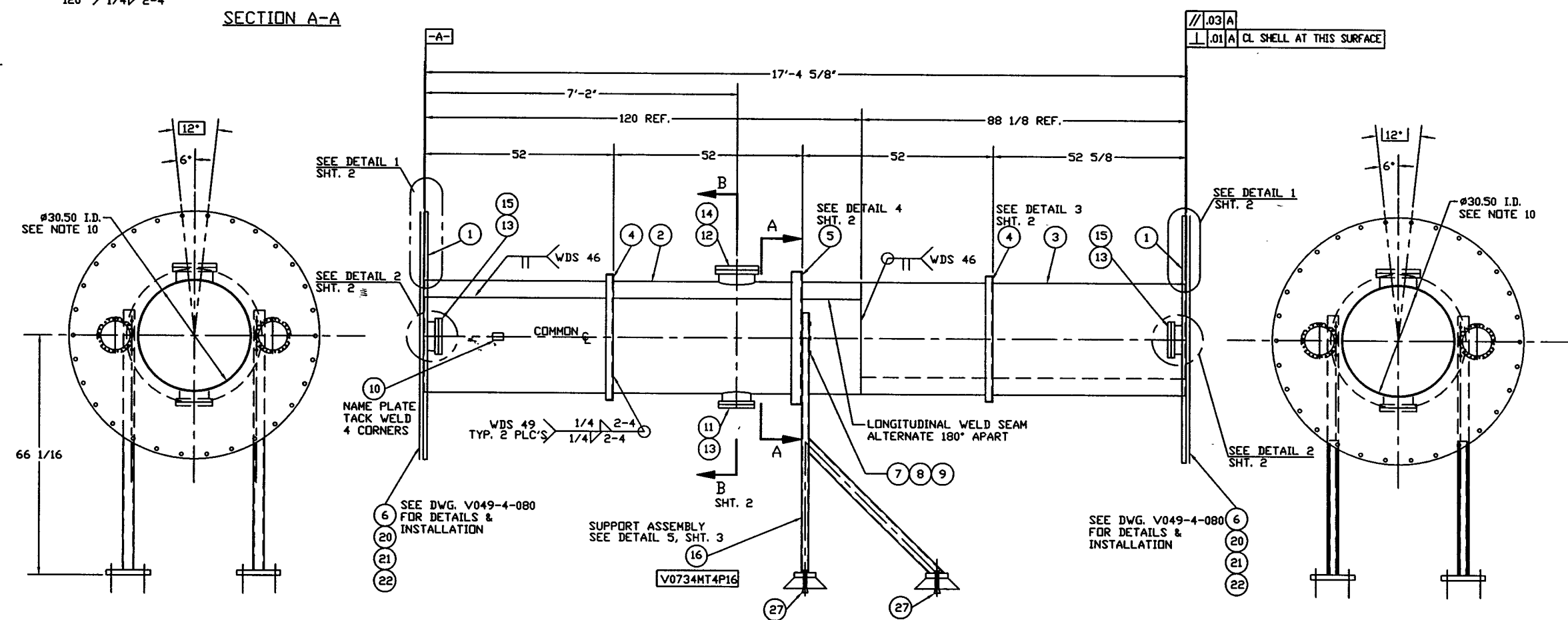
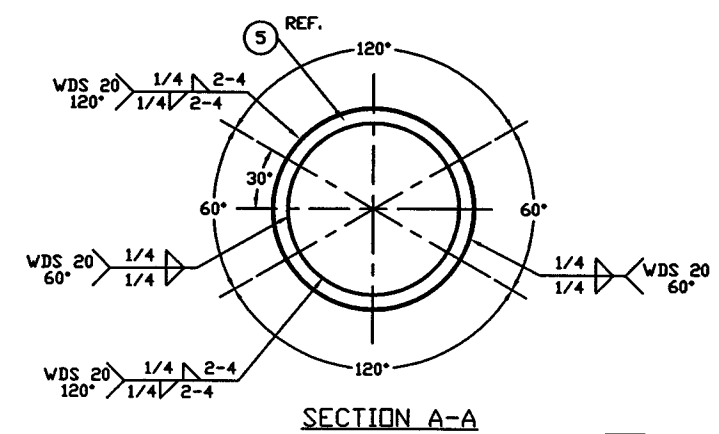


NOTES:

1. SPOOL FABRICATION TO BE IN ACCORDANCE WITH SPEC. V049-2-097.
2. MACHINING AND ROLLING PER SPEC V049-2-136.
3. PLATES PRIOR TO ROLLING MUST HAVE DIAGONAL CORNER TO CORNER DIMENSIONS WITHIN 1/16" OF EACH OTHER.
4. DO NOT USE CARBON STEEL BRUSHES OR BRUSHES CONTAMINATED WITH CARBON STEEL ON STAINLESS OR ALUMINUM MATERIAL.
5. STRUCTURAL STEEL FABRICATION AND PAINTING TO BE IN ACCORDANCE WITH SPEC. V049-2-139.
6. CLEAN PER SPEC V049-2-015.
7. LEAK TEST AND METHOD PER PSI SPEC V049-2-014.
8. CERTIFIED MANUFACTURER'S MATERIAL TEST REPORTS REQUIRED AS NOTED.
9. THE CENTERLINES OF ALL SHELLS AND FLANGES ARE TO LIE ON THE COMMON CENTERLINE WITHIN ± 1/16".
10. EACH SHELL IS TO BE MARKED WITH THE PSI PART NO.
11. WDS NO'S. REFER TO WELD DATA SPEC. V049-2-084.
12. FOR FLANGE DETAILS SEE DWG. V073-4-005.
13. BOLT HOLES OF ALL FLANGES TO STRADDLE VERTICAL CENTERLINE. +/- .015
14. CONFLAT FLANGES ARE TO HAVE PROTECTIVE COVERS AT ALL TIMES DURING AND AFTER MANUFACTURING.
15. CONFLAT LEAK CHECK SLOTS ARE TO BE POSITIONED ON VERTICAL CENTERLINE.

ITEM	PART NUMBER	SUFFIX	QTY	UM	DESCRIPTION
1	V0734005		2	EA	FLANGE DTL OFFSET, FLAT F, 31.06" ID X 68.500
2	V073M006		1	EA	SHELL, SST 304/304L, 30.5" ID X 120" LG
3	V0734MT4P1		1	EA	SHELL, SST 304/304L, 30.5" ID X 88.125" LG
4	V049M815		1	EA	STIFFENING RING 2" X 2" X 1/4" THK ANGLE 304 SST
5	V049M820		1	EA	STIFFENING RING 3" X 3" X 1/4" THK ANGLE 304 SST
6	V0494080G4		2	EA	SHIPPING COVER ASSY, 68.5" OD FLANGE
7	V049M753		3	EA	BOLT, HEX, 5/8-11UNC X 3 1/2 LG, A325
8	V049M755		3	EA	NUT, HEX, 5/8-11UNC, A325
9	V049M773		3	EA	WASHER, LOCK, 5/8 A325
10	V049M740		1	EA	PSI NAME PLATE 2'x3'
11	V049M320		3	EA	HALF NIPPLE, SST 304L, CONFLAT 10" OD, 5" LG, 250VT
12	V049M310		3	EA	HALF NIPPLE, SST 304L, CONFLAT 12" OD, 5" LG, 250VT
13	202667		3	EA	BLANK FLG, CONFLAT, 10" OD, 304L SST
14	202549		3	EA	BLANK FLG, CONFLAT, 12" OD, 304L SST
15	V073M013		3	EA	HALF NIPPLE, SST 304L, CONFLAT 10" OD, 4" LG, 250VT
16	V0734MT4P16		2	EA	SUPPORT ASSEMBLY
17	202671		3	EA	GASKET, DFHC, CONFLAT 10" OD
18	-		1	EA	21 FT TUBE RECT 3" X 2" X 3/16" A500 GR-B
19	-		3	EA	FT BAR FLAT 6" X 1 3/8" A36
20	202678		3	EA	BOLT, SA193 B7, HEX HD 7/8-9UNC X 1.6
21	202679		3	EA	NUT, SA193 B7, HEX HD 7/8-9UNC
22	202581		3	EA	WASHER, STL, 1 3/4 OD X 15/16 ID X 1/4 THK
23	202552		3	EA	GASKET, DFHC, CONFLAT 12" OD
24	V049M777		152	EA	BOLT, 18-8 SST, 5/16-18 X 2 1/2 LG
25	V049M782		152	EA	NUT, SILICON BRZ, HEX 5/16-18
26	V049M785		304	EA	WASHER, 18-8 SST, FLAT, 5/16"
27	-		8	EA	1" CONCRETE ANCHOR BOLT BY OTHERS

* ELECTROLESS NICKEL PLATE
 ** REUSE FROM PREVIOUS LIGO PROJECT



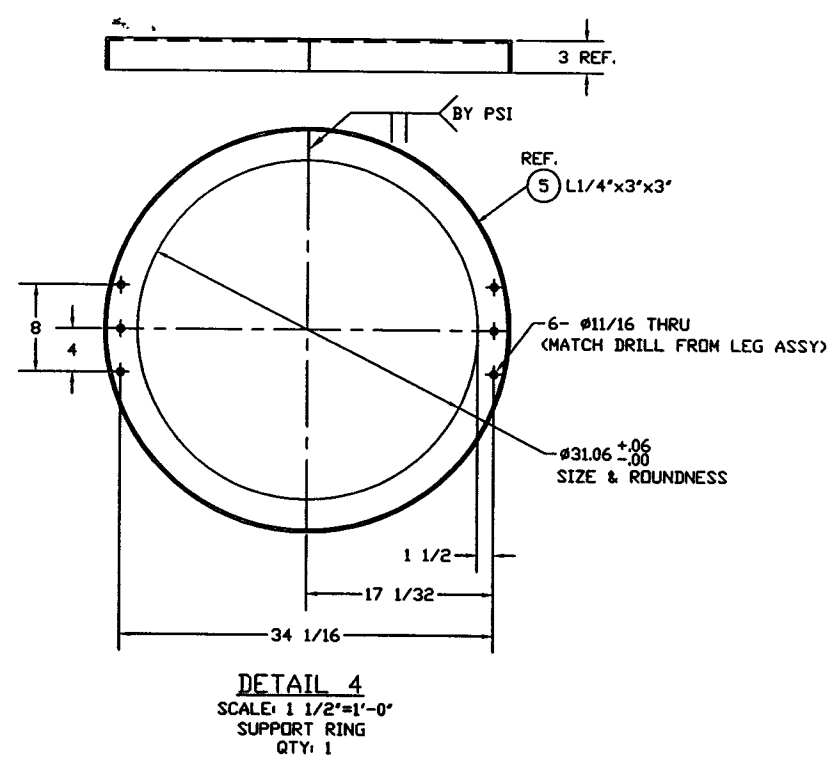
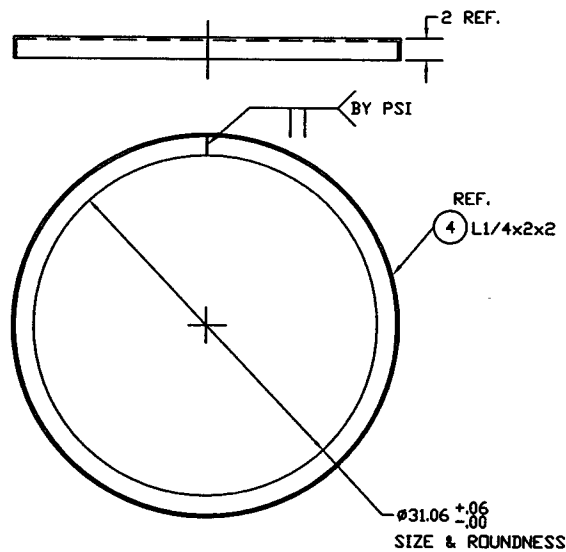
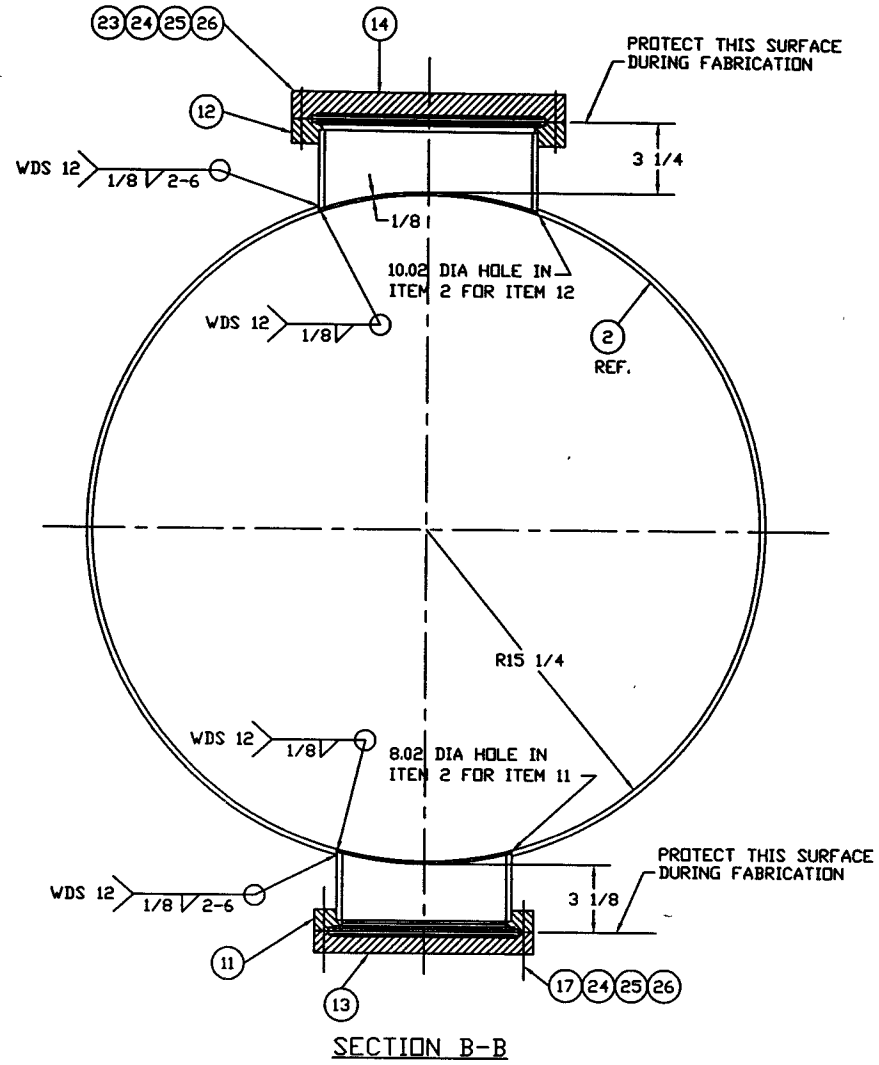
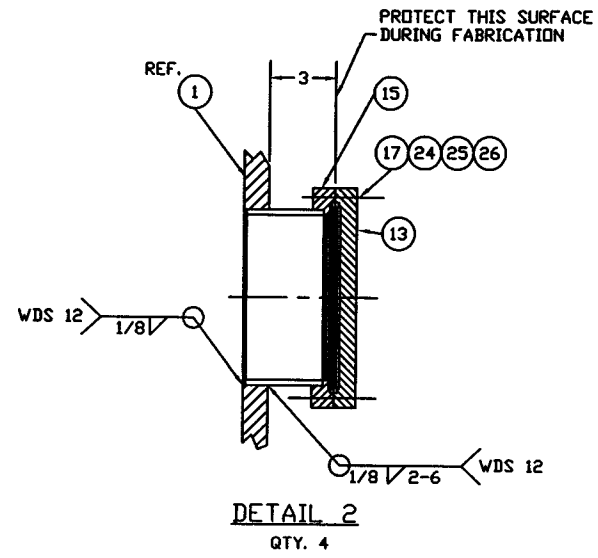
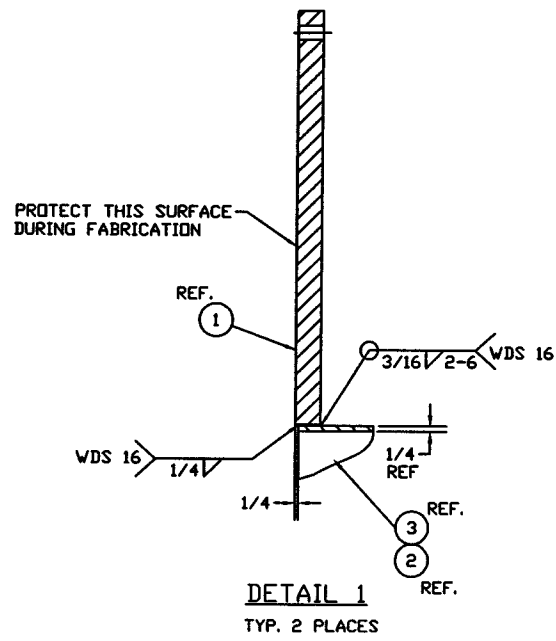
FOR INFO. ONLY

JAN 16 1998

TAG NO: MT-4

<p>PROPRIETARY AND CONFIDENTIAL</p> <p>THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION BELONGING TO PROCESS SYSTEMS INTERNATIONAL, INC. OR ITS AFFILIATED COMPANIES AND SHALL BE USED ONLY FOR THE PURPOSE FOR WHICH IT WAS SUPPLIED. IT SHALL NOT BE COPIED, REPRODUCED OR OTHERWISE USED, NOR SHALL SUCH INFORMATION BE FURNISHED IN WHOLE OR IN PART TO OTHERS EXCEPT IN ACCORDANCE WITH THE TERMS OF ANY AGREEMENT UNDER WHICH IT WAS SUPPLIED OR WITH THE PRIOR WRITTEN CONSENT OF PROCESS SYSTEMS INTERNATIONAL, INC. AND SHALL BE RETURNED UPON REQUEST.</p>		<p>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES</p> <p>TOLERANCES:</p> <p>FRACTIONAL ± .01</p> <p>ANGULAR ± .01</p> <p>WELD ± .01</p> <p>PLATE ± .01</p> <p>THREE PLACE DECIMAL ± .005</p> <p>FINISHED SURFACE RING ± .005</p> <p>BREAK CORNERS IN REMOVE ALL BARRS</p>		<p>DO NOT SCALE THIS DRAWING</p>		<p>0 RELEASED FOR CLIENT APPROVAL AND FABRICATION</p>		<p>12.03.97 0009</p>		<p>SCALE 3/4"=1'-0"</p>	
DWG. NO.	DESCRIPTION	USED ON	REV	REV	DESCRIPTION	CHKD	DRWN	DATE	DCDR	SHEET	OF 3
7	REFERENCE DRAWINGS	NEXT ASS'Y: V073-5-001			ISSUE DESCRIPTION					1	3

L190-D980106-00-V

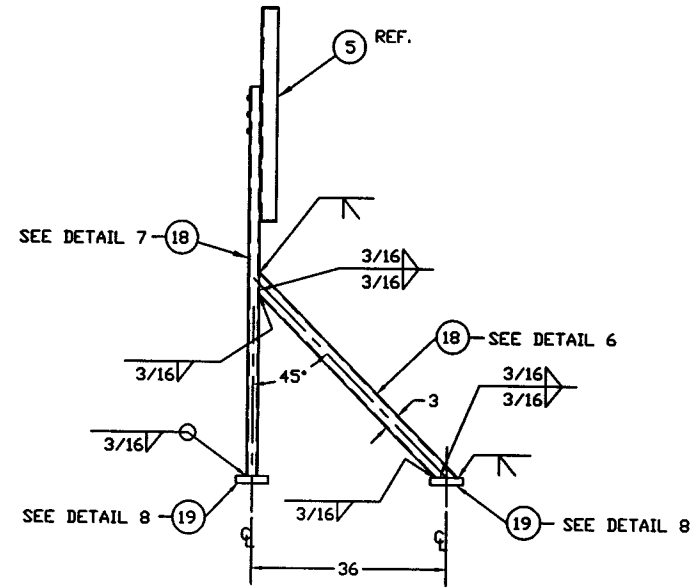
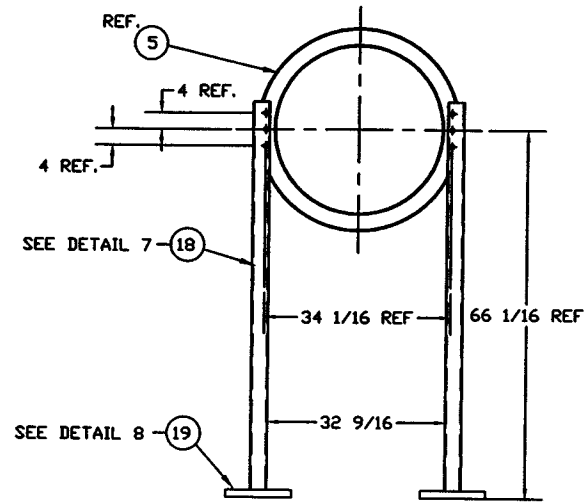


FOR INFO. ONLY

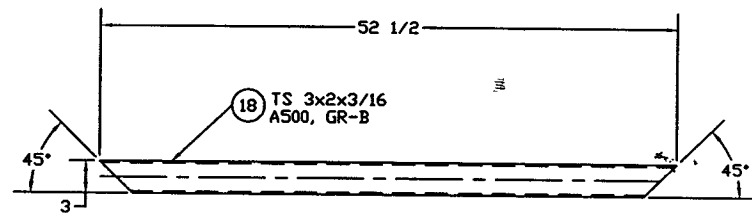
JAN 16 1996

PROCESS SYSTEMS INTERNATIONAL INC. <small>30 WALKUP DR. WESTBOROUGH, MASSACHUSETTS 01581 USA</small>			
BEAM TUBE SPOOL MT-4 30.50"ID x 60.50"ID MODE CLEANER TUBE LIGO MIT VACUUM EQUIPMENT			
<small>CAD FILE</small> 4MT4S2	<small>SIZE</small> D	<small>REV. NO.</small> V073-4-MT4	<small>REV.</small> 0
<small>SCALE</small> 1/4	<small>SHEET</small> 2 OF 3		

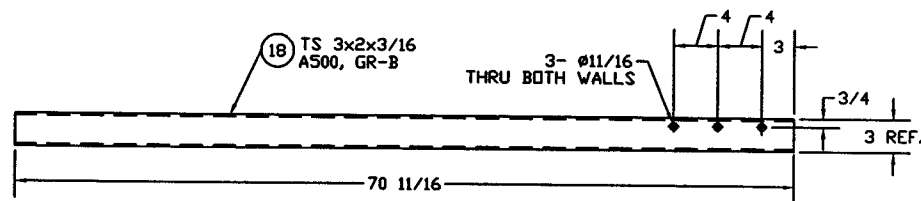
Nov 26, 1996 - 081012



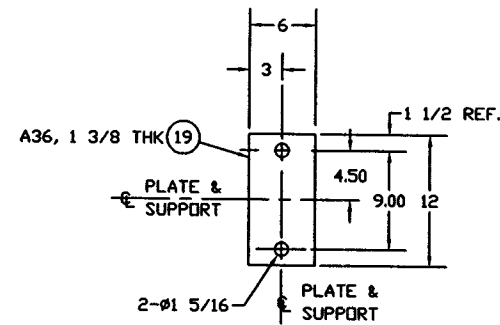
DETAIL 5
SUPPORT ASSEMBLY, ITEM 16
PART NUMBER: V0734MT4P16



DETAIL 6
SUPPORT BRACE
QTY: 2



DETAIL 7
SUPPORT LEG
QTY: 2
(1 AS SHOWN)
(1 OPP HAND)



DETAIL 8
SUPPORT PAD
QTY: 4

FOR INFO. ONLY

JAN 16 1998

PROCESS SYSTEMS INTERNATIONAL INC. 20 WALKUP DR. WESTBOROUGH, MASSACHUSETTS 01581 USA			
BEAM TUBE SPOOL MT-4 30.50"ID x 60.50"ID MODE CLEANER TUBE LIGO MIT VACUUM EQUIPMENT			
CAD FILE 4MT4S3	SIZE D	DWG. NO. V073-4-MT4	REV. 0
SCALE NONE	SHEET 3 OF 3		