

ITEM	PART NUMBER	SUFFIX	QTY	UM	DESCRIPTION
1	V0494020		2	EA	FLANGE, GROOVED, 72 1/4" ID X 80" OD
2	V0494BIP2		1	EA	SHELL, 304/304L SST, 1/4" THK
3			25	SF	PLATE, A36, 1 3/8" THK
4			2	SF	PLATE, A36, 1 3/8" THK
5	V049M814		1	EA	RING ANGLE, 304 SST 4" X 4" X 1/4"
6			28	FT	TUBING, RECT 4" X 4" X 1/2" A500 GRB
7	V049M759		3	EA	BOLT, 5/8-11 UNC X 5 1/2" LG A325
8	V049M753		3	EA	NUT, 5/8-11 UNC, A325
9	V049M773		3	EA	LOCK WASHER, 5/8" STL
10			16	EA	ANCHOR MULTI HVA 1" DIA X 12 3/8" MEN EMBEDMENT HAS SUPER ROD
11	V049M852		3	EA	BAR, 4"x3/8", SST 304
12	202678		3	EA	BOLT, SA193 B7, HEX 7/8-UNCx4LG
13	202679		3	EA	NUT, SA193 B7, HEX 7/8-UNC
14	202581		3	EA	WASHER, STL, 1 3/4 O.D.x1 5/16 I.D.x1/4" THK
15	V049M820		2	EA	O-RING, VITRON (PER SPEC V049-2-045)
16	V049M821		2	EA	O-RING, VITRON (PER SPEC V049-2-045)
17	V0494BIP17		2	EA	SUPPORT ASSY
18	V049M822		1	EA	RING ANGLE, 304 SST (4x4x1/2)
19	V0494061		2	EA	3/4" O.D. ELBOW X 2 3/4" O.D. CF
20	V0494080G5H		1	EA	SHIPPING COVER ASSY
21	V049M740		1	EA	PSI NAME PLATE
22	V049M829		13	FT	T.S. 6"x4x1/2" A500 GRC
23	C388316-1D		3	FT	BAR, 1 1/2"x1", A36
24	V049M800		3	EA	BOLT, 5/8-11 UNCx7 1/2" LG A325

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- NOTES:
- BOM FOR MODIFICATIONS FOR TAG NO'S LB-1A & LB-1C IS V0494B1G1. USE ITEM NO'S 22, 23, & 24 FOR V0494B1G1 ONLY.
 - THIS VERTICAL LEG TO BE CHANGED TO T.S. 6"x4x1/2", A500 GRC, P/N V049M829 TYP. BOTH SIDES OF BEAM MANIFOLD FOR TAG NO LB-1A & LB-1C ONLY
 - WDS NO'S REFER TO WELD DATA SPEC V049-2-084
 - STRUCTURAL STEEL FABRICATION TO BE IN ACCORDANCE WITH SPECIFICATION #V049-2-039
 - EACH FINISHED SHELL IS TO BE MARKED WITH A SEQUENTIAL PSI SERIAL NUMBER THE NUMBER IS TO BE MADE FROM THE DRAWING PLUS THE SEQUENTIAL NUMBER V0494B1-01, 02, ETC
 - PLATES PRIOR TO ROLLING MUST HAVE DIAGONAL CORNER TO CORNER DIMENSIONS WITHIN 1/16" OF EACH OTHER
 - MACHINING & ROLLING PER SPEC V049-2-136
 - THE CENTER LINES OF ALL SHELLS AND FLANGES ARE TO LIE ON THE COMMON CENTER LINE WITHIN +/- 1/16
 - LEAK TEST & METHOD PER PSI SPEC. V049-2-014
 - CERTIFIED MANUFACTURER'S MATERIAL TEST REPORTS REQUIRED AS NOTED.
 - BOLT HOLES OF ALL FLANGES TO STRADDLE VERTICAL CENTERLINE, +/- .015
 - CLEAN PER SPEC. V049-2-015
 - DO NOT USE CARBON STEEL BRUSHES OR BRUSHES CONTAMINATED WITH CARBON STEEL ON STAINLESS OR ALUMINUM MATERIAL.
 - SPOOL FABRICATION TO BE IN ACCORDANCE WITH SPEC V049-2-097
 - FOR FLANGE DETAILS SEE DWG V049-4-020
 - THESE FLANGES EACH INCLUDE AN ANNULAR CHANNEL BETWEEN O-RINGS, MANIFOLD TO A SINGLE PUMPOUT PORT ON EACH CHAMBER, SEE DWG V049-4-061

USE BOM NO.S V0494B1 WITH TAG NO'S WB-1A, WB-1B, LB-1B, & LB-1D
 USE BOM NO.S V0494B1G1 WITH TAG NO'S LB-1A, & LB-1C

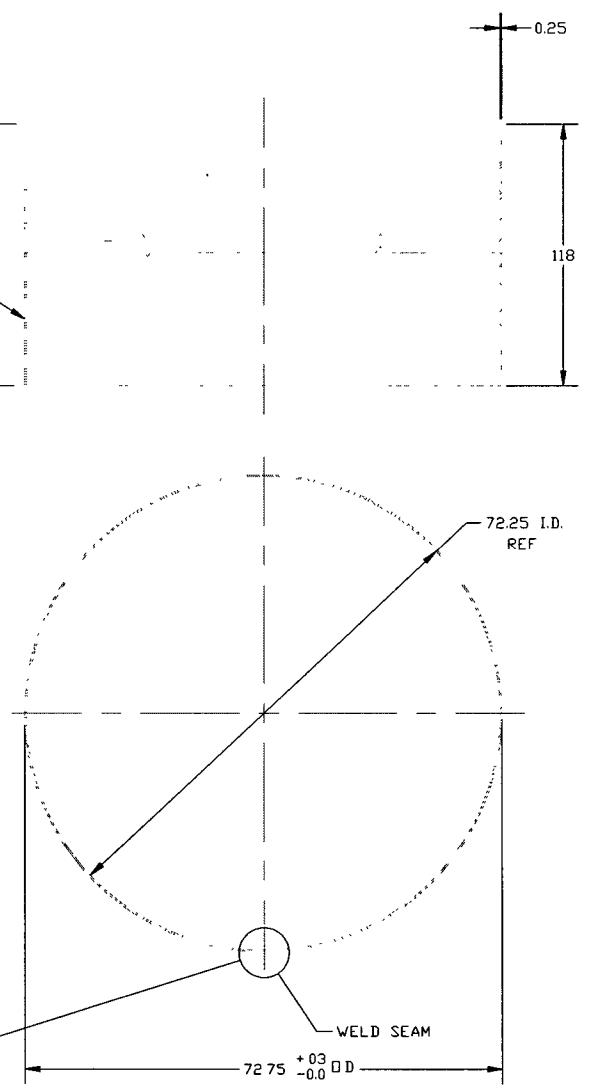
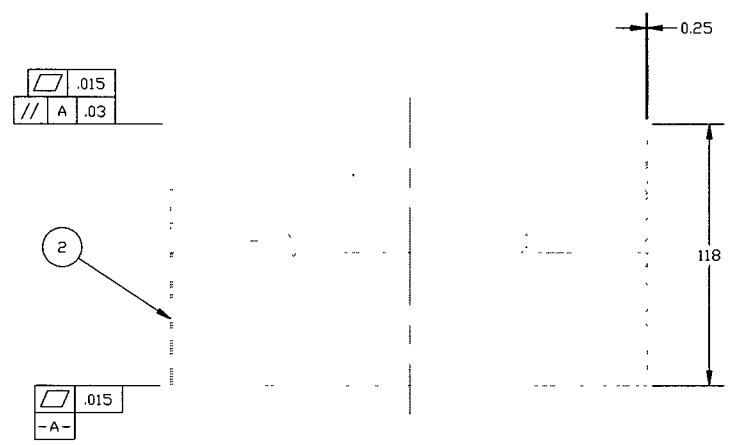
LIGO-D961150-05-V APPROX. WEIGHT: 3528#

PROPRIETARY AND CONFIDENTIAL	SYMBOL	CHARACTERISTIC	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES FRACTIONAL ± .03 ANGULAR ± .30° MIN 12" TWO PLACE DECIMAL ± .03 THREE PLACE DECIMAL ± .015 FINISHED SURFACE AND BREAK CONTOUR TO REMOVE ALL BURRS	5	REISSUED FOR LA-PER RFC V049-C78	LD	10/29/97	0565	PROCESS SYSTEMS INTERNATIONAL, INC.
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.	□	FLATNESS		4	REISSUED FOR FAB/SHIPPING AS NOTED	SPIDER	5/15/97	0485	20 WALKER DR. WESTBOROUGH, MASSACHUSETTS 01581 USA
	○	CYLINDRICITY		3	REISSUED FOR FABRICATION	PV	11/22/96	0180	
	//	PARALLELISM		2	DESIGN UPDATE/ISSUED FOR FAB	PV	10/9/96	0339	
	⊥	PERPENDICULARITY		1	DESIGN UPDATE / FABRICATION (SHELL ONLY)	PV	10/1/96	0283	
	∠	ANGULARITY	DO NOT SCALE THIS DRAWING	0	ISSUED FOR FDR	DA	4/29/96	0145	
	⊕	TRUE POSITION	USED ON	REV	DESCRIPTION	CHKD	DRWN	DATE	BECH
	⊙	CONCENTRICITY	NEXT ASS'Y		ISSUE DESCRIPTION	SCALE	1-1/2" = 1"		

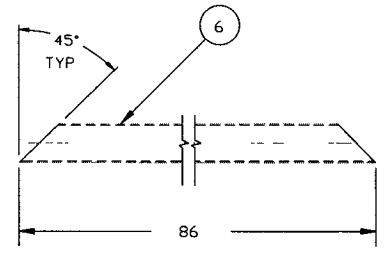
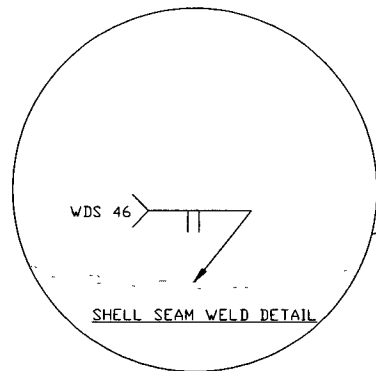
SPPOOL B-1
 72.25" ID
 LIGO VACUUM EQUIPMENT

CS FILE: V0494B1/4B1S1
 SHEET: V049-4-B1
 1 OF 3

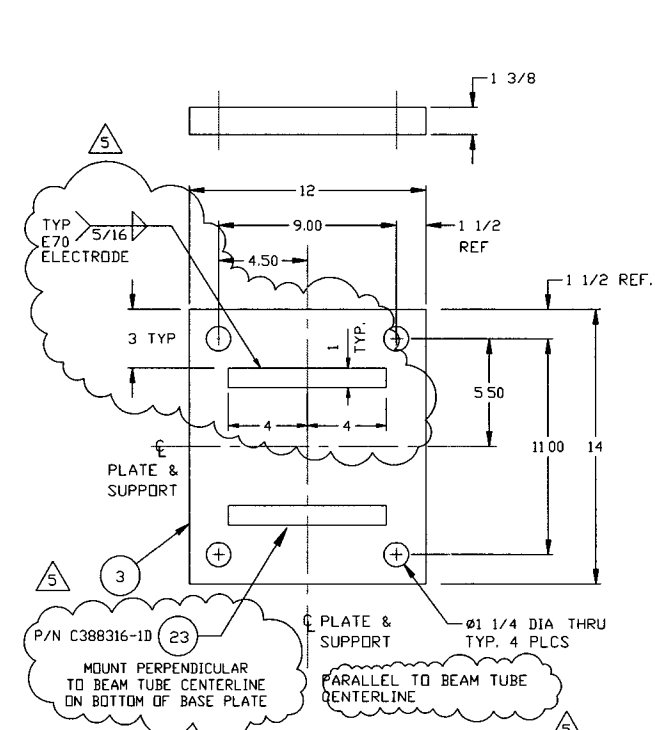
Dec 21, 1997 - 084047



DETAIL "1"
QTY: 1
MAKE FROM V049M154-1

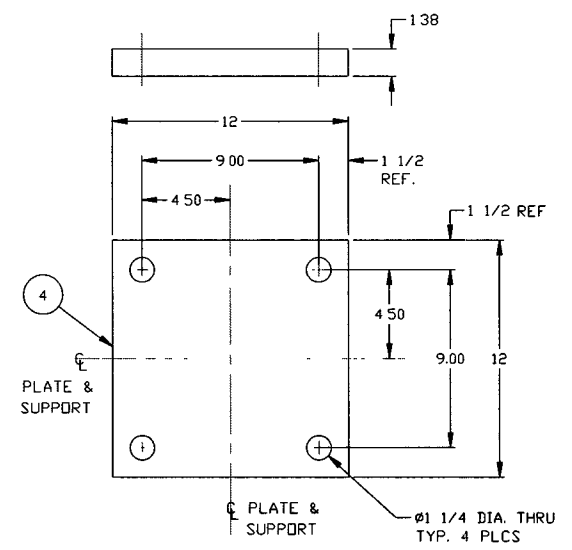


DETAIL "3"
QTY: 2

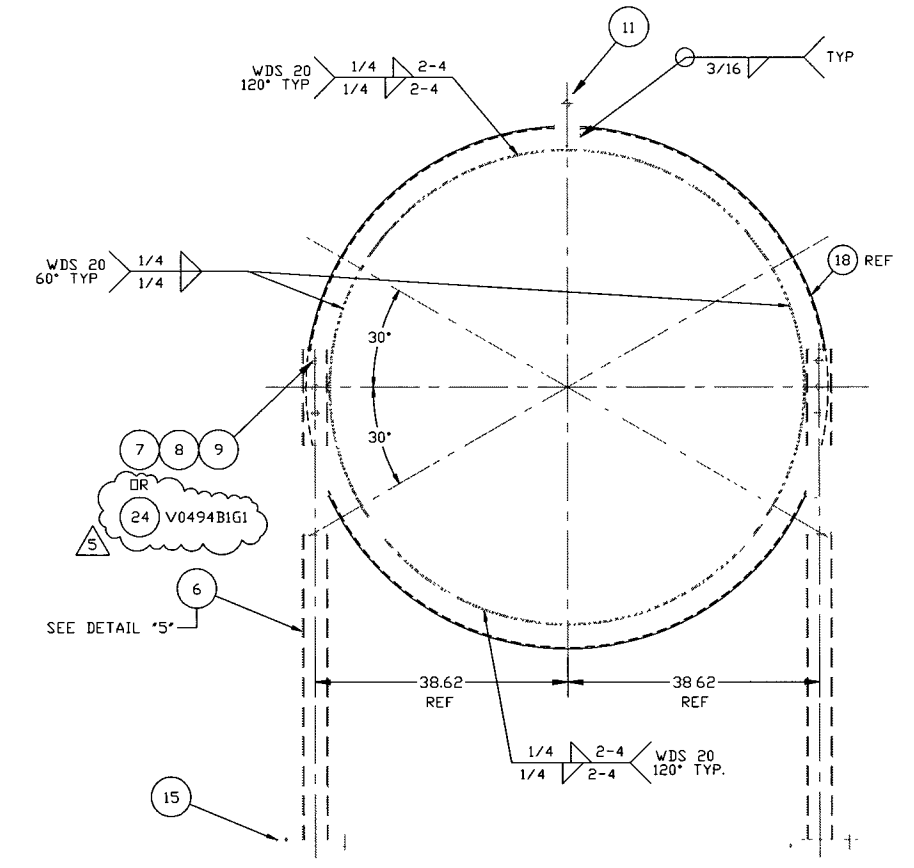


DETAIL "2"
QTY: 2

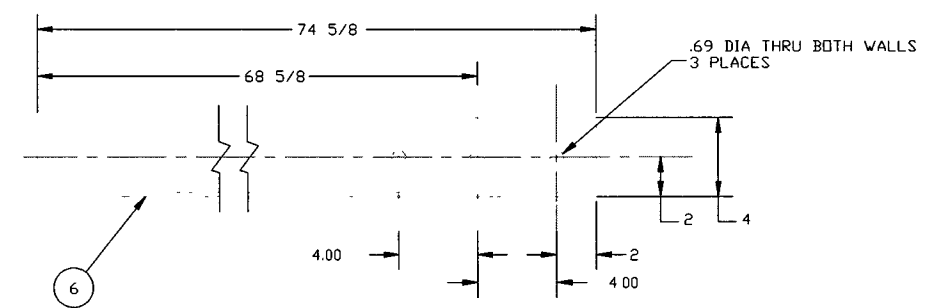
NOTE: ITEM NO 23 IS ONLY REQ'D ON BOM V0494B1G1



DETAIL "4"
QTY: 2



SECTION "A"-A"



DETAIL "5"
QTY: 2

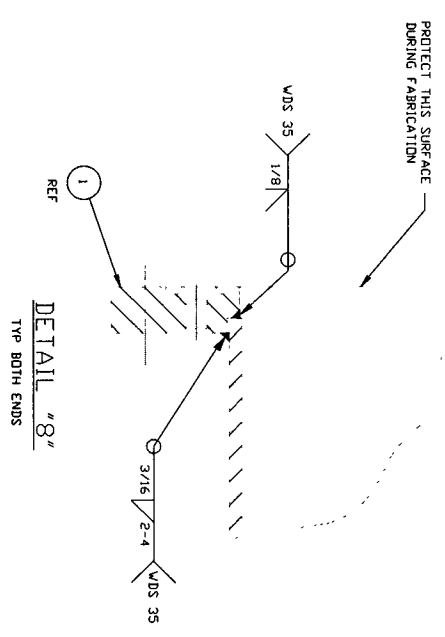
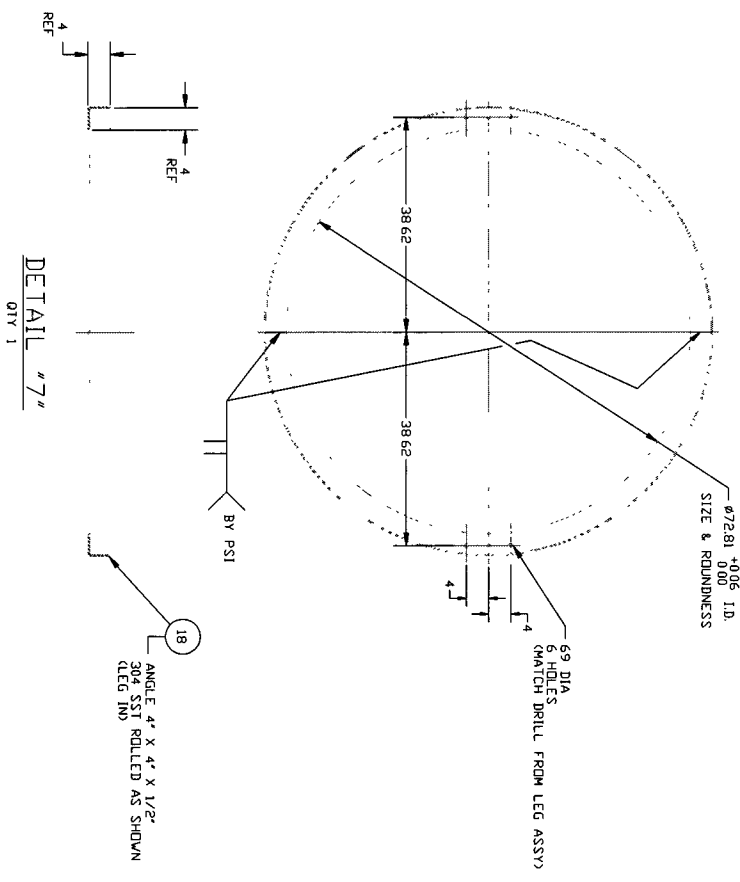
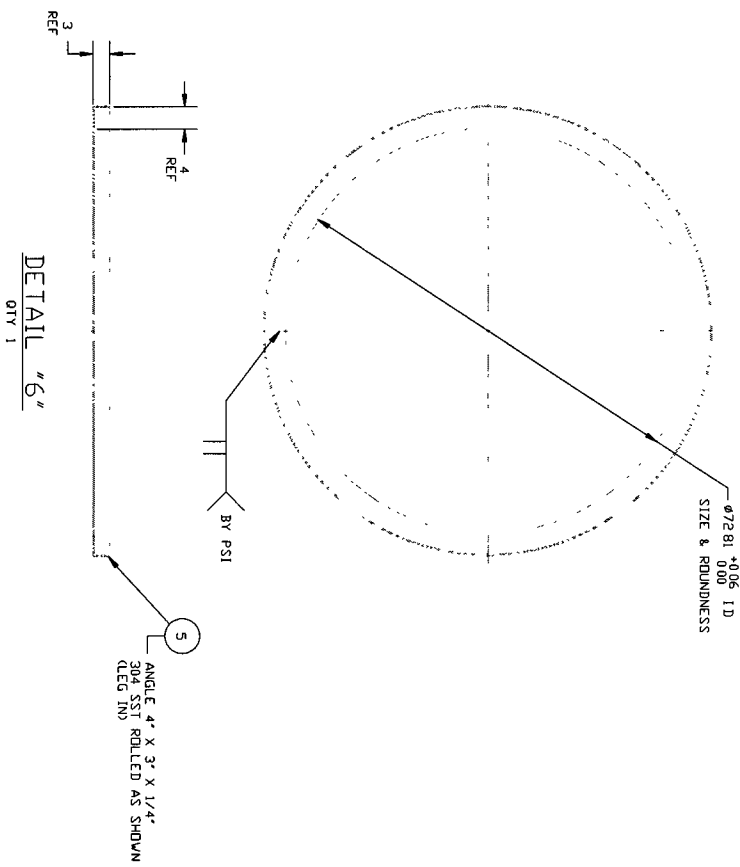
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PROCESS SYSTEMS INTERNATIONAL INC. 20 WALKUP DR. WESTBOROUGH, MASSACHUSETTS 01581 USA			
SPOOL B-1 72.25" I.D. LIGO VACUUM EQUIPMENT			
DWG FILE V0494B1/4B1S2	SIZE D	DWG NO. V049-4-B1	REV U
SCALE AS NOTED	SHEET 2 OF 3		REV U

Oct 31, 1997 - 084429

EDUCATION VERSION - NOT FOR COMMERCIAL USE

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PROCESS SYSTEMS INTERNATIONAL, INC. 20 WILSON ST. WESTBOROUGH, MASSACHUSETTS 01581 USA	
SPINDLE B-1 72.25" I.D. LIGD VACUUM EQUIPMENT	
DATE FILED V0494B/48153	DATE D
AS NOTED	REV C
3 OF 3	