FERMILAB Technical Division

QUALITY CONTROL REPORT

DATE=4/28/2009 TIME=8:21:51 AM
PART NAME : D00000008122765A_V8
REV NUMBER :
SER NUMBER :
STATS COUNT : 1

ILC CRYOMODULE HELIUM VESSEL
G3_He_VESSEL_ASSEMBLY
INSPECTED PER C. GRIMM
RF# 89495
INSPECTOR: O. LIRA
4/10/09

MM DIM PROF3= PROFILE OF PLANE DATUM_A FORMONLY

AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	0.000	0.270	0.250	0.000	0.270	0.020

MM DIM PROF2= PROFILE OF PLANE BOTTOM_DATUM_A FORMONLY

AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	0.000	0.295	0.250	0.000	0.295	0.045

// MM DIM PARL1= PARALLEL OF PLANE BOTTOM_DATUM_A,RFS TO PLANE DATUM_A,RFS EXTEND=0.000

AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	0.000	0.295	0.250	0.000	0.295	0.045

⊥ MM DIM PERP1= PERPEND OF PLANE FACE_ROLLER_PAD_R,RFS TO PLANE BOTTOM_DATUM_A,RFS EXTEND=0.000

AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	0.000	0.093	0.500	0.000	0.093	0.000

⊥ MM DIM PERP2= PERPEND OF PLANE FACE_ROLLER_PAD_L,RFS TO PLANE BOTTOM_DATUM_A,RFS EXTEND=0.000

AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	0.000	0.184	0.500	0.000	0.184	0.000

⊕ MM DIM LOC1= LOCATION OF PLANE DATUM_A

AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Z	12.000	11.942	0.250	0.250	-0.058	0.000
FL	0.000	0.270	0.000	0.000	0.270	0.270

⊕ MM DIM LOC2= LOCATION OF PLANE BOTTOM_DATUM_A

AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Z	-12.000	-12.066	0.250	0.250	-0.066	0.000
FL	0.000	0.286	0.000	0.000	0.286	0.286

MM DIM DIST1= 2D DISTANCE FROM PLANE RING_B_PLANE TO PLANE RING_C_PLN PAR TO YAXIS

AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	275.000	275.122	0.800	0.800	0.122	0.000

MM DIM PERP3= PERPEND OF PLANE RING_B_PLANE,RFS TO CYLINDER B_C_CYLINDER,RFS EXTEND=0.000

AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	0.000	0.463	0.500	0.000	0.463	0.000

MM DIM PERP4= PERPEND OF PLANE RING_C_PLN,RFS TO CYLINDER B_C_CYLINDER,RFS EXTEND=0.000

AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	0.000	0.136	0.500	0.000	0.136	0.000

MM DIM LOC6= LOCATION OF CYLINDER PIPE_2PHASE_CYL1

AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
PA	141.000	141.220	1.000	1.000	0.220	0.000

MM DIM FLAT1= FLATNESS OF PLANE BACK_FACE_PLN1

AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	0.000	0.074	0.500	0.000	0.074	0.000

MM DIM FLAT1= FLATNESS OF PLANE FRONT_FACE_PLN1

AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	0.000	0.014	0.500	0.000	0.014	0.000

MM DIM LOC7= LOCATION OF CIRCLE 230_BACK_ID_CIR1

AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
X	0.000	-1.006	0.250	0.250	-1.006	0.756
Z	0.000	0.440	0.250	0.250	0.440	0.190
D	230.000	229.269	0.250	0.000	-0.731	0.731
RN	0.000	1.570	0.250	0.000	1.570	1.320

MM DIM LOC8= LOCATION OF CIRCLE 230_FRONT_ID_CIR1

AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
X	0.000	-0.237	0.250	0.250	-0.237	0.000
Z	0.000	0.982	0.250	0.250	0.982	0.732
D	230.000	229.403	0.250	0.000	-0.597	0.597
RN	0.000	2.545	0.250	0.000	2.545	2.295

MM DIM DIST2= 2D DISTANCE FROM PLANE BACK_FACE_PLN1 TO PLANE FRONT_FACE_PLN1 PAR TO YAXIS

AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	979.400	977.601	0.800	0.800	-1.799	0.999

MM DIM PARL2= PARALLEL OF CYLINDER PIPE_2PHASE_CYL1,RFS TO CYLINDER B_C_CYLINDER,RFS EXTEND=0.000

AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	0.000	5.983	0.500	0.000	5.983	5.483

// MM DIM PARL3= PARALLEL OF CYLINDER PIPE_2PHASE_CYL1,RFS TO CYLINDER 235_CYL1,RFS EXTEND=0.000

AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	0.000	6.539	0.500	0.000	6.539	6.039

MM DIM LOC13= LOCATION OF CIRCLE RINGB_OD_CIR

AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
X	0.000	0.000	0.250	0.250	0.000	0.000
Z	0.000	0.000	0.250	0.250	0.000	0.000
D	298.000	298.591	0.250	0.000	0.591	0.341

MM DIM LOC9= TRUE POSITION OF CIRCLE RINGB_CIR1

AX	NOMINAL	MEAS	+TOL	-TOL	BONUS	DEV	OUTTOL
PR	141.000	140.546				-0.454	
PA	120.000	119.921				-0.079	
DF	12.682	12.682	0.250	0.000		0.000	0.000
TP	RFS		0.130		0.000	0.989	0.859
RN	0.000	0.003	0.250	0.000		0.003	0.000

MM DIM LOC10= TRUE POSITION OF CIRCLE RINGB_CIR2

AX	NOMINAL	MEAS	+TOL	-TOL	BONUS	DEV	OUTTOL
PR	141.000	140.467				-0.533	
PA	60.000	60.061				0.061	
DF	12.693	12.693	0.250	0.000		0.000	0.000
TP	RFS		0.130		0.000	1.108	0.978
RN	0.000	0.013	0.250	0.000		0.013	0.000

MM DIM LOC11= TRUE POSITION OF CIRCLE RINGB_CIR3

AX	NOMINAL	MEAS	+TOL	-TOL	BONUS	DEV	OUTTOL
PR	141.000	141.105				0.105	
PA	0.000	0.091				0.091	
DF	7.891	7.891	0.250	0.000		0.000	0.000
TP	RFS		0.130		0.000	0.494	0.364
RN	0.000	0.006	0.250	0.000		0.006	0.000

MM DIM LOC12= TRUE POSITION OF CIRCLE RING_C_CIR1

AX	NOMINAL	MEAS	+TOL	-TOL	BONUS	DEV	OUTTOL
PR	141.100	141.100				0.000	
PA	15.000	15.081				0.081	
DF	9.034	9.034	0.250	0.000		0.000	0.000
TP	RFS		0.130		0.000	0.398	0.268
RN	0.000	0.002	0.250	0.000		0.002	0.000

MM DIM LOC14= TRUE POSITION OF CIRCLE RING_C_CIR2

AX	NOMINAL	MEAS	+TOL	-TOL	BONUS	DEV	OUTTOL
PR	141.000	140.962				-0.038	
PA	45.000	45.054				0.054	
DF	9.037	9.037	0.250	0.000		0.000	0.000
TP	RFS		0.130		0.000	0.278	0.148
RN	0.000	0.002	0.250	0.000		0.002	0.000

MM DIM LOC15= TRUE POSITION OF CIRCLE RING_C_CIR3

AX	NOMINAL	MEAS	+TOL	-TOL	BONUS	DEV	OUTTOL
PR	141.000	140.900				-0.100	
PA	135.020	135.008				-0.012	
DF	9.000	9.000	0.250	0.000		0.000	0.000
TP	RFS		0.130		0.000	0.210	0.080
RN	0.000	0.005	0.250	0.000		0.005	0.000

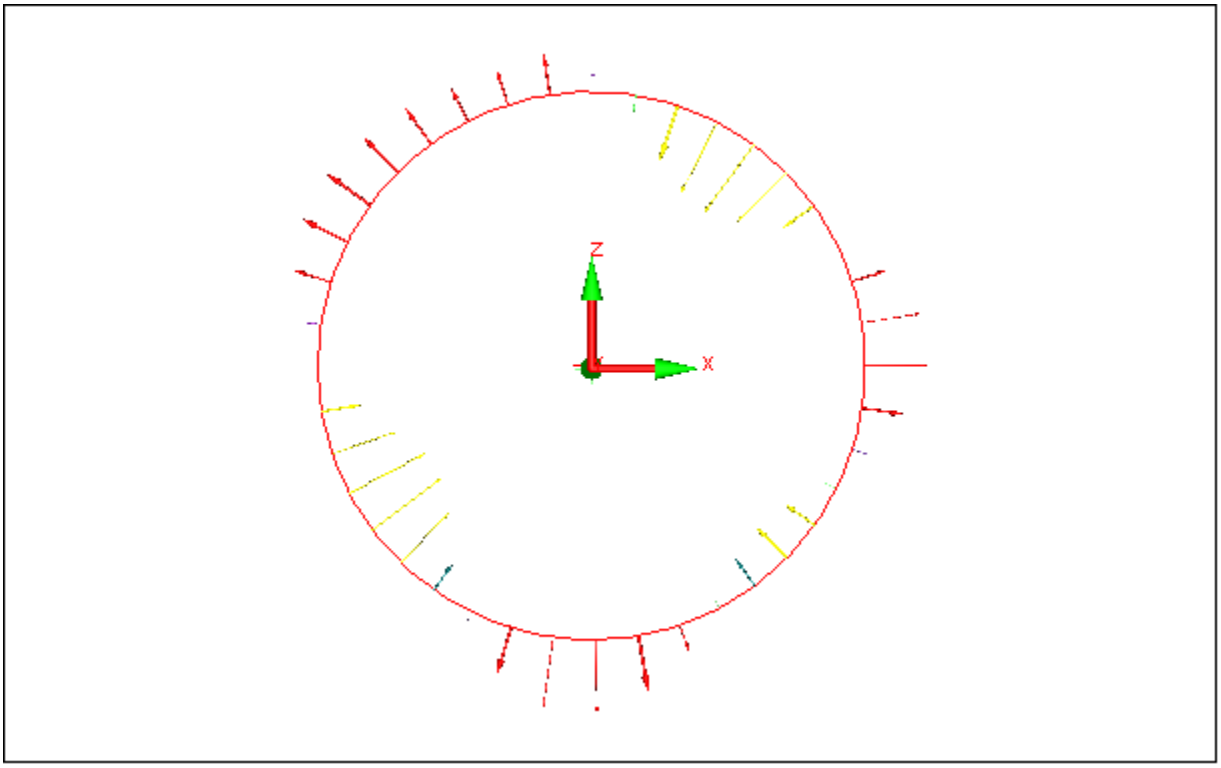
MM DIM LOC16= TRUE POSITION OF CIRCLE RING_C_CIR4

AX	NOMINAL	MEAS	+TOL	-TOL	BONUS	DEV	OUTTOL
PR	141.000	140.780				-0.220	
PA	165.000	165.026				0.026	
DF	9.019	9.019	0.250	0.000		0.000	0.000
TP	RFS		0.130		0.000	0.458	0.328
RN	0.000	0.002	0.250	0.000		0.002	0.000

MM DIM LOC17= LOCATION OF CIRCLE RING_C_OD_CIR1

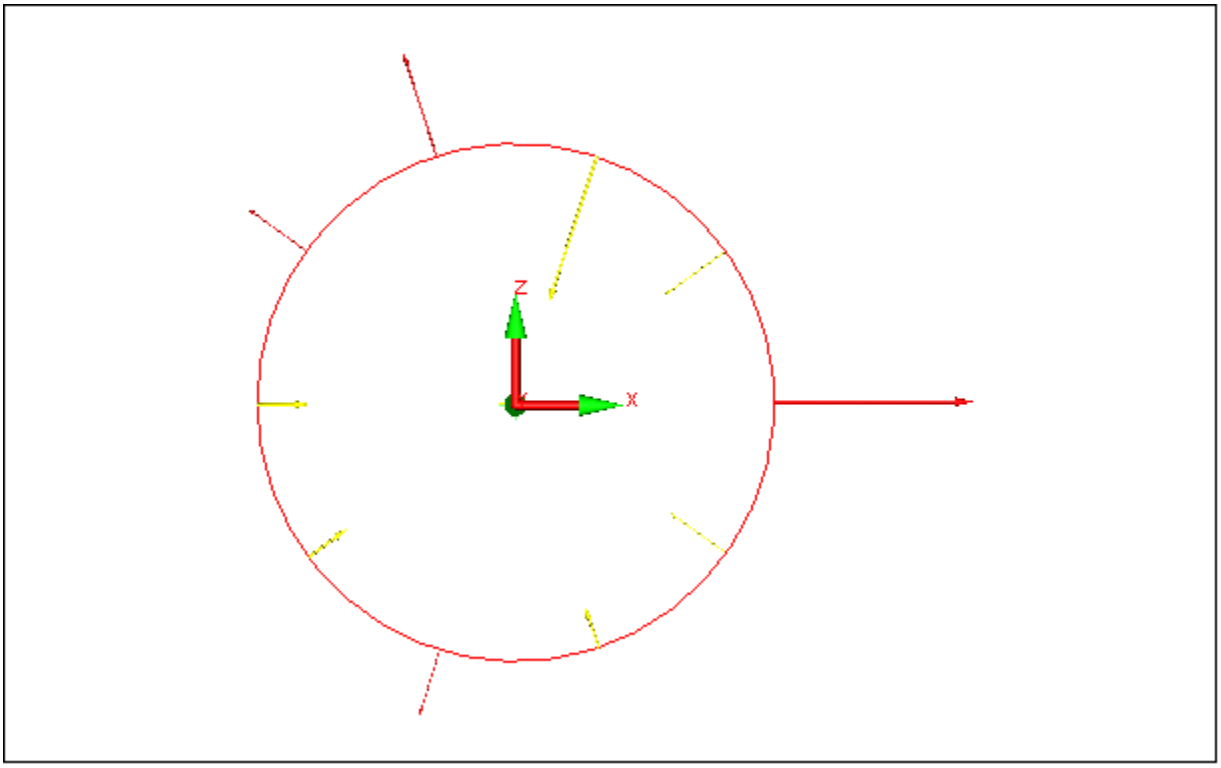
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
X	0.000	0.000	0.250	0.250	0.000	0.000
Z	0.000	0.000	0.250	0.250	0.000	0.000
D	298.000	297.706	0.250	0.000	-0.294	0.294
RN	0.000	0.499	0.250	0.000	0.499	0.249

MM	DIM LOC18= LOCATION OF CIRCLE BACK_235_OD_CIR					
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
D	235.000	235.186	0.250	0.000	0.186	0.000
RN	0.000	0.701	0.250	0.000	0.701	0.451



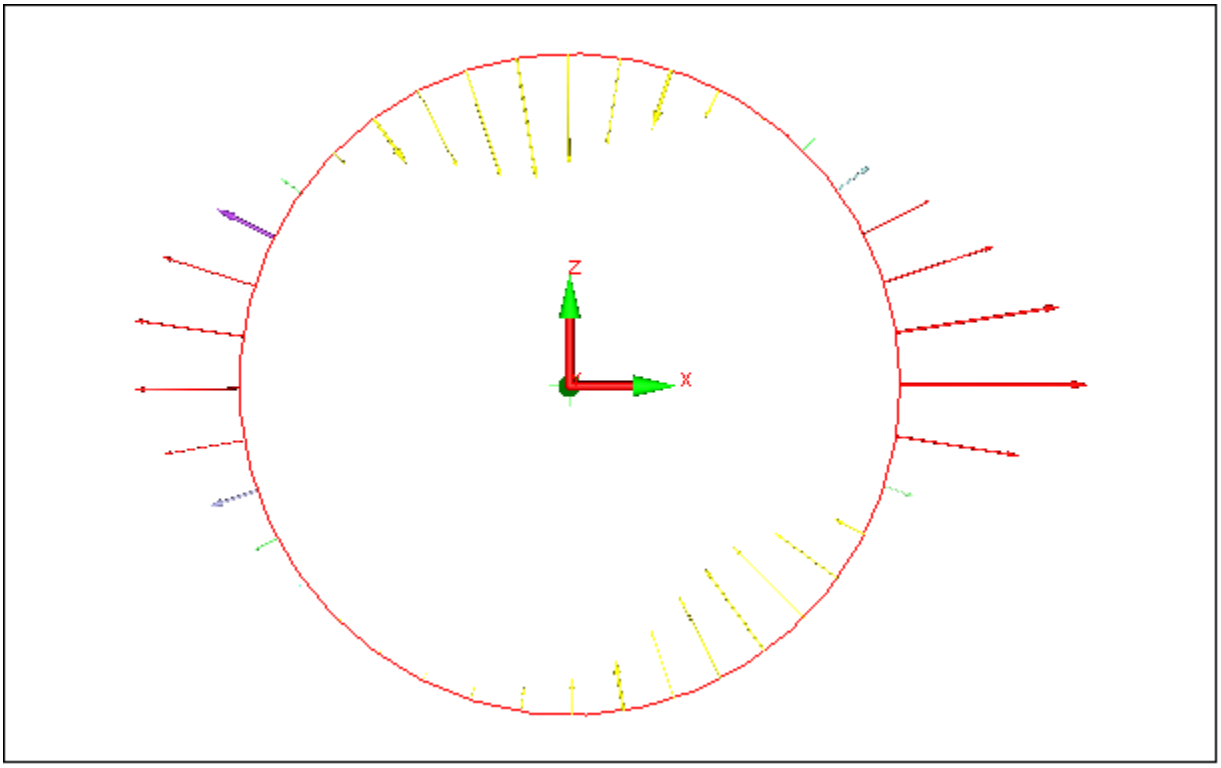
BACK 235 DIA. OD CIRCLE X100

MM	DIM LOC19= LOCATION OF CIRCLE 230_BACK_ID_CIR1					
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
D	230.000	229.269	0.250	0.000	-0.731	0.731
RN	0.000	1.570	0.250	0.000	1.570	1.320



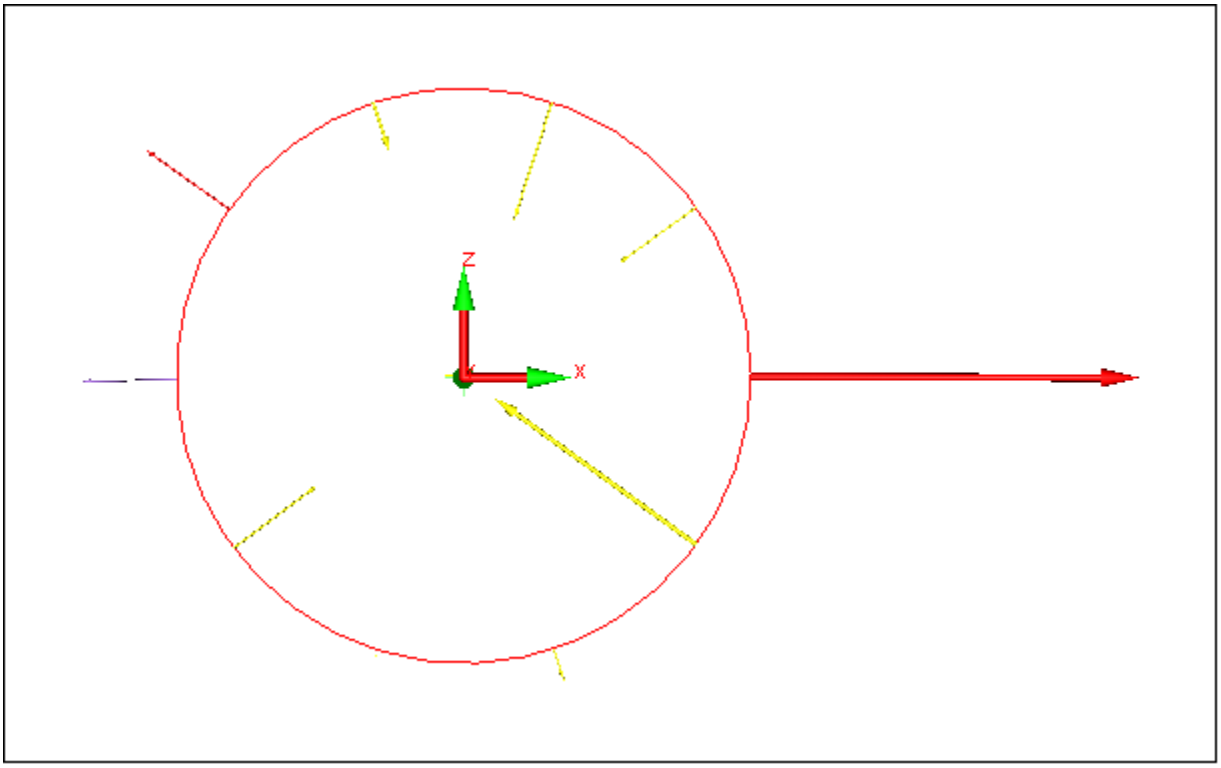
BACK 230 DIA. ID CIRCLE X100

MM	DIM LOC20= LOCATION OF CIRCLE FRONT_235_OD_CIR					
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
D	235.000	235.159	0.250	0.000	0.159	0.000
RN	0.000	1.108	0.250	0.000	1.108	0.858



FRONT 235 DIA. OD CIRCLE X100

MM	DIM LOC21= LOCATION OF CIRCLE 230_FRONT_ID_CIR1					
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
D	230.000	229.403	0.250	0.000	-0.597	0.597
RN	0.000	2.545	0.250	0.000	2.545	2.295



FRONT 230 DIA. ID CIRCLE X100

END OF MEASUREMENT FOR

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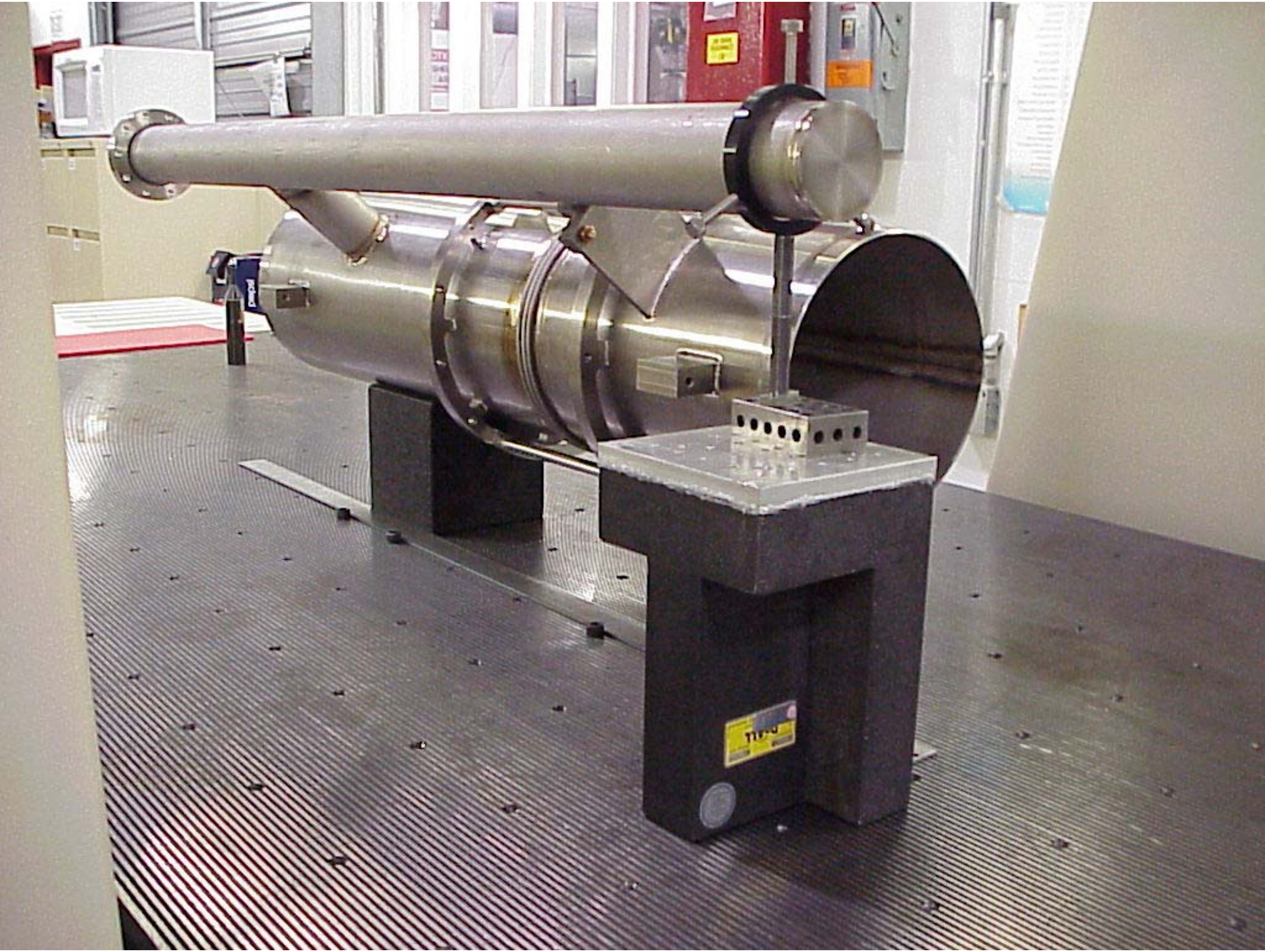
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