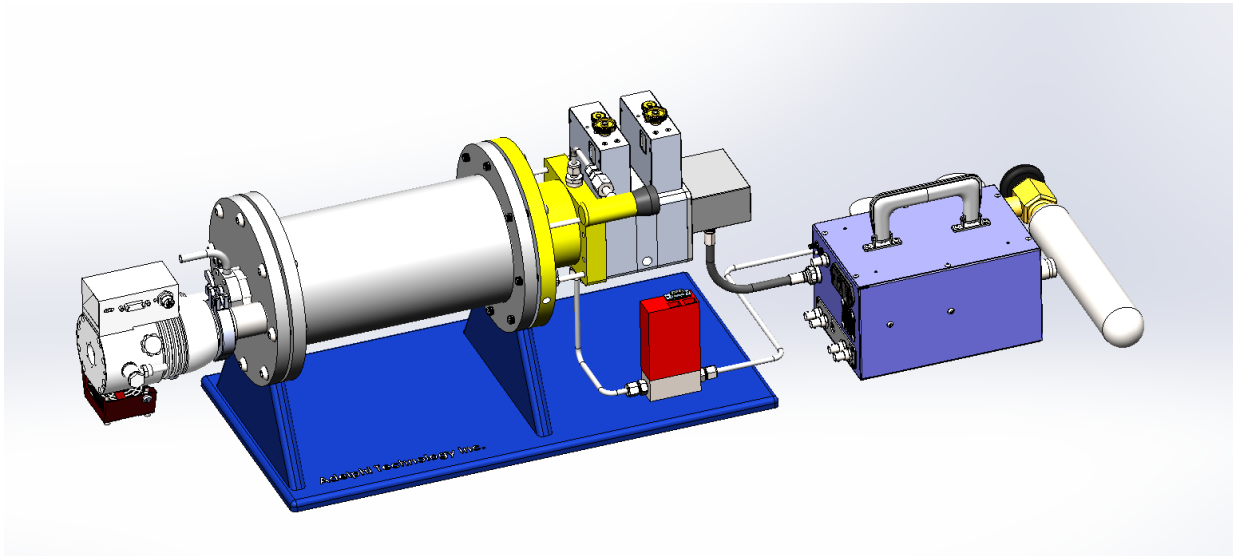


DD-108 Specifications



Performance:

Maximum fast neutron output: 1×10^8 n/s.

Neutron output stability: 5% or better over one hour (measured by HV current) after initial warm-up.

Neutron live time: 99% or higher

Ambient temperature around generator should be maintained at $< 35^\circ\text{C}$ during operation

Components:

Generator Head

Integrated ion source and target acceleration, 15-cm diameter tube

Negative biased target

Turbo pump

Pressure gauge on ion source

Mass flow controller for D_2 flow.

Microwave drive & waveguide

Tuner: remote software controlled with position feedback

Electronics rack (54cm wide x 80 cm deep x 65cm tall), includes:

High Voltage Power Supply

Control electronics module

Roughing Pump and vacuum control

Ancillary

Heat exchanger for ion source: Fluorinert FC3283

Heat exchanger for target: Fluorinert FC3283

Control computer with Adelphi proprietary control software

Power Requirements:

North American Customers:

2x Single Phase 110VAC 15A

Asian and Australian Customers (except Japan):

2x Single Phase 220VAC 15A

Japanese Customers:

2x Single Phase 200VAC 15A

European Customers:

2x Single Phase 230VAC 15A

Middle Eastern Customers:

2x Single Phase 230VAC 15A

Environmental requirements:

Operating Temperature: 5 to 35°C operating

Humidity: 5% to 85%, non-condensing

Warranty

System warranty: 1 year

Lifetime

Tube lifetime: Unlimited with proper maintenance

Maintenance Schedule:

Target:	10,000 hours
Vacuum pumps:	as per subcomponent manufacturer recommendation
Electronics rack components:	as per subcomponent manufacturer recommendation
Cooling systems:	maintain adequate coolant level as needed

Documentation to be provided:

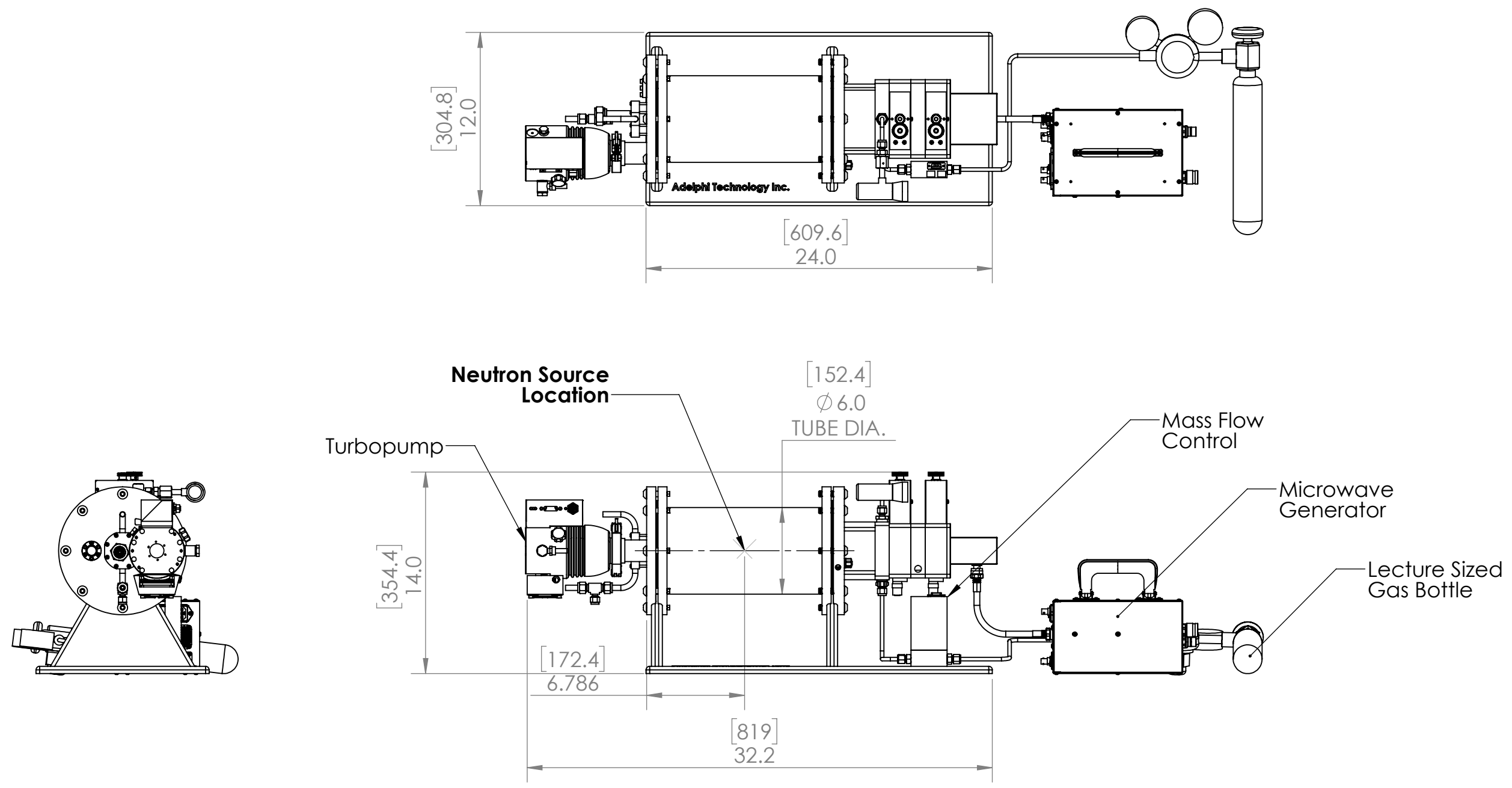
DD108 Manual

Factory Checkout Results

8 7 6 5 4 3 2 1

D
C
B
A

D
C
B
A



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UNLESS OTHERWISE SPECIFIED:			
DIMENSIONS ARE IN INCHES			
TOLERANCES:			
ANGULAR: MACH ± 0.5°			
TWO PLACE DECIMAL ±0.01			
THREE PLACE DECIMAL ±0.005			
INTERPRET GEOMETRIC TOLERANCING PER:			
MATERIAL	11in*17in		
FINISH			
NEXT ASSY	USED ON		
APPLICATION			

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
 TOLERANCES:
 ANGULAR: MACH ± 0.5°
 TWO PLACE DECIMAL ±0.01
 THREE PLACE DECIMAL ±0.005

INTERPRET GEOMETRIC TOLERANCING PER:

MATERIAL 11in*17in

FINISH

DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	AXC	2/25/13
CHECKED	AXC	
ENG APPR.	AXC	
MFG APPR.		
Q.A.		
Machining oil must be sulfur-free		
CONFIGURATION NAME: Default		

ADELPHI TECHNOLOGY INC. 2003 E. Bayshore rd. Redwood City, CA 94063		
TITLE: Neutron Generator Main Assembly		
SIZE B	DWG. NO. NS26-200	REV A
SCALE: 1:8	WEIGHT:	SHEET 2 OF 2

8 7 6 5 4 3 2 1