

Specifications for vacuum equipment required to support chamber repair/upgrade effort in Thin Film Lab:

1) Nominal 20 Inch Cryopump with the following minimum performance specifications:

Pumping Speed (liters/sec):

Water Vapor	30,000
N2	10,000
H2	15,000
Ar	8,000

Pumping Capacity (std. liters):

Ar	5,500
H2	45

Throughput (sccm):

Ar	1000
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Crossover Pressure (torr-liters): 500

Temperature Sensor: Si Diode w/ electrical connector

High Vacuum Flange: ISO 500

Fore Vacuum Flange: KF 40 or CF 2.75

Over-Pressure Relief Valve

2) Cryo Compressor:

Water Cooled

480V, 3 Phase, 60 Hz

10 ft. Flexible Gas Lines

10 ft. Cold Head Cable

Remote Operation Connector