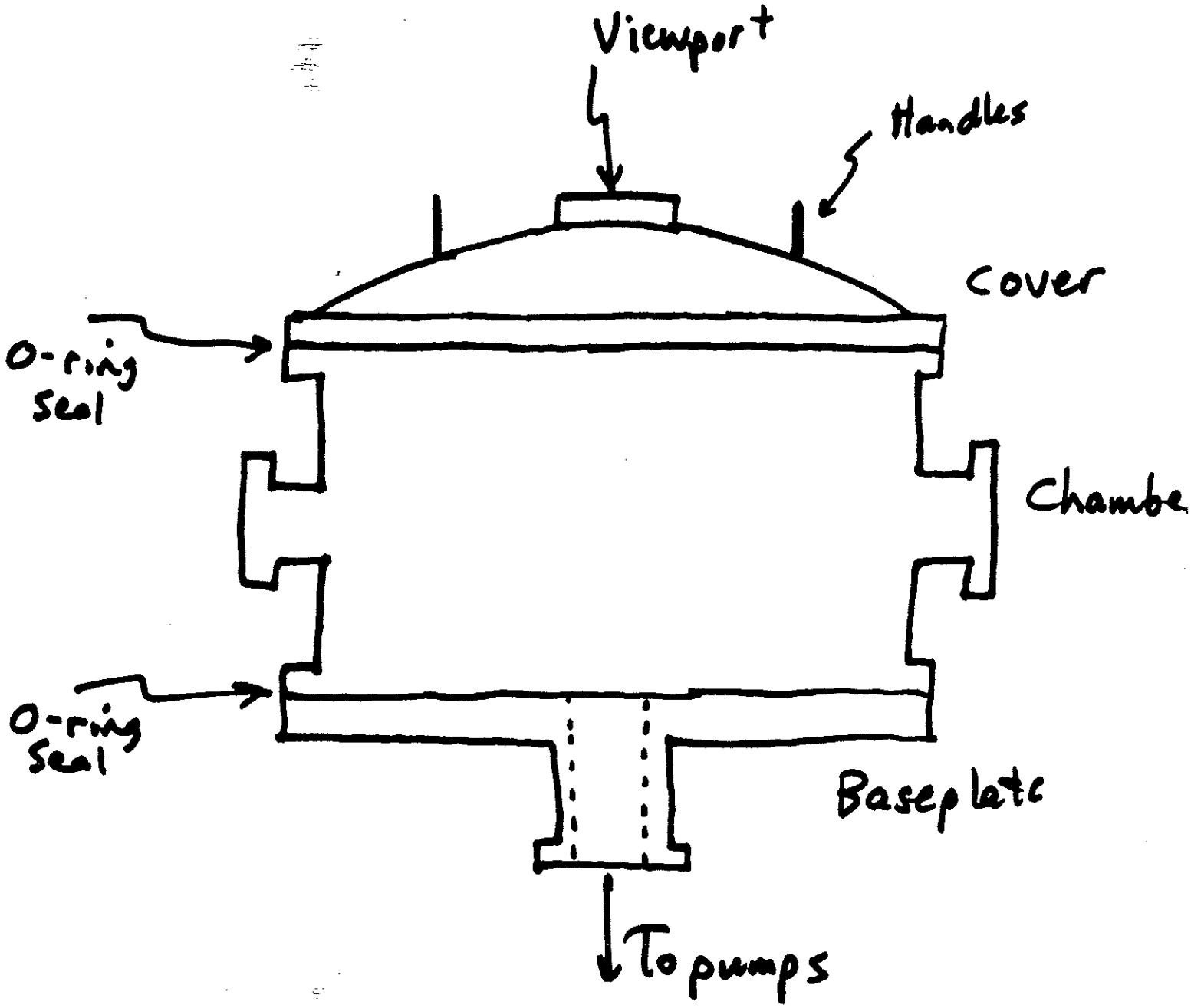
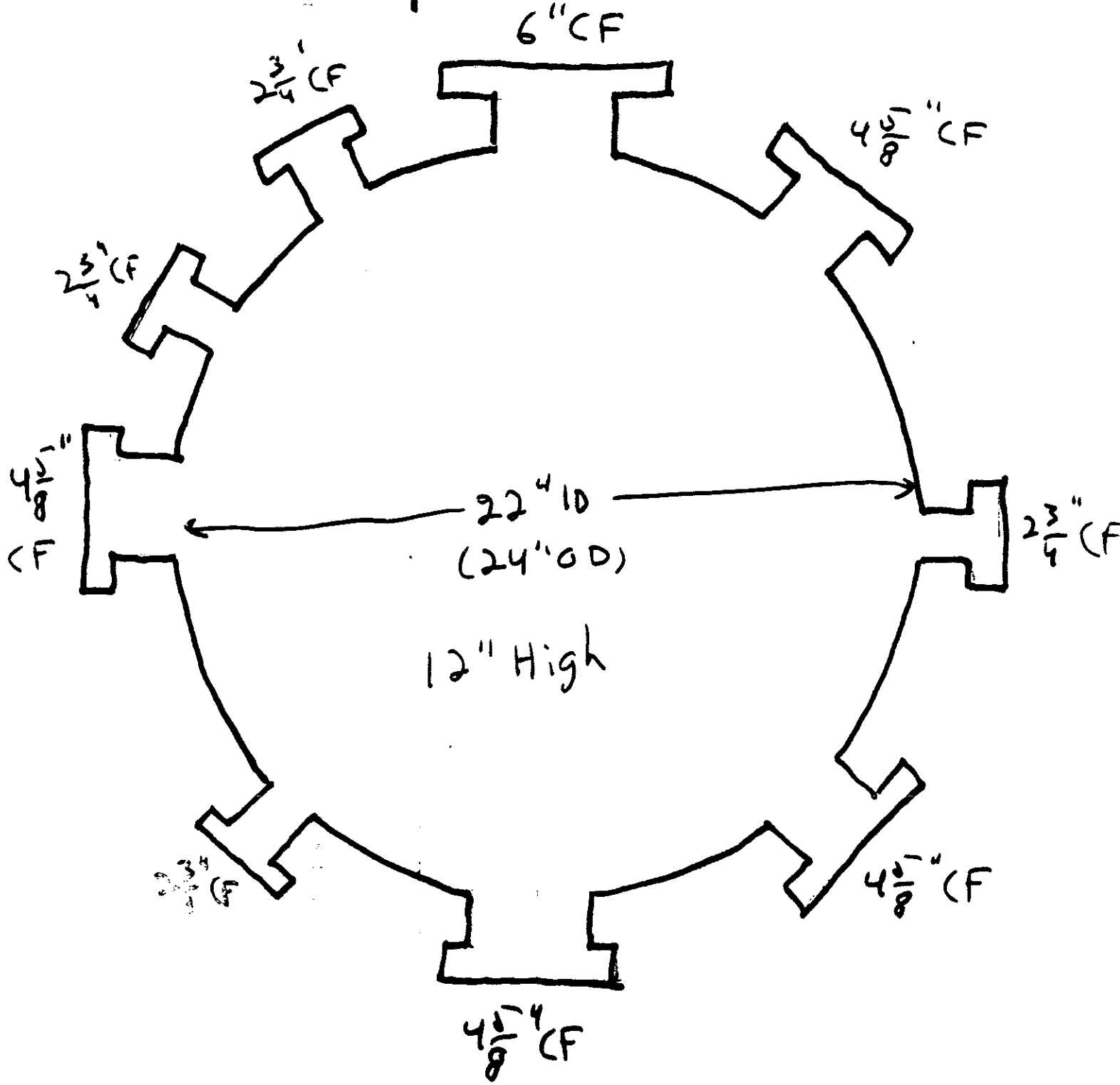


VACUUM CHAMBER:

Side View

VACUUM CHAMBER:

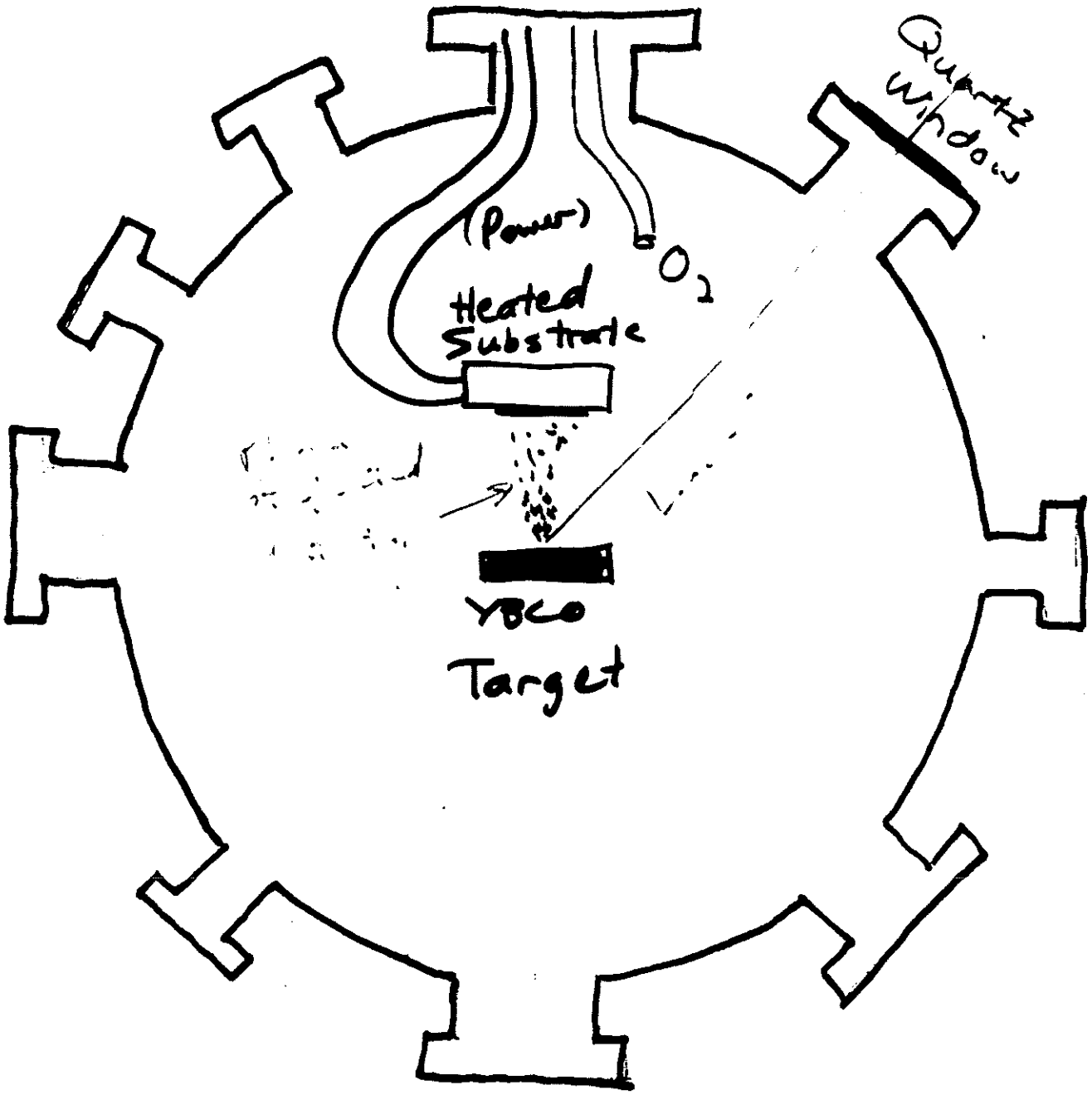
Top View



CHAMBER/PORT SIZES

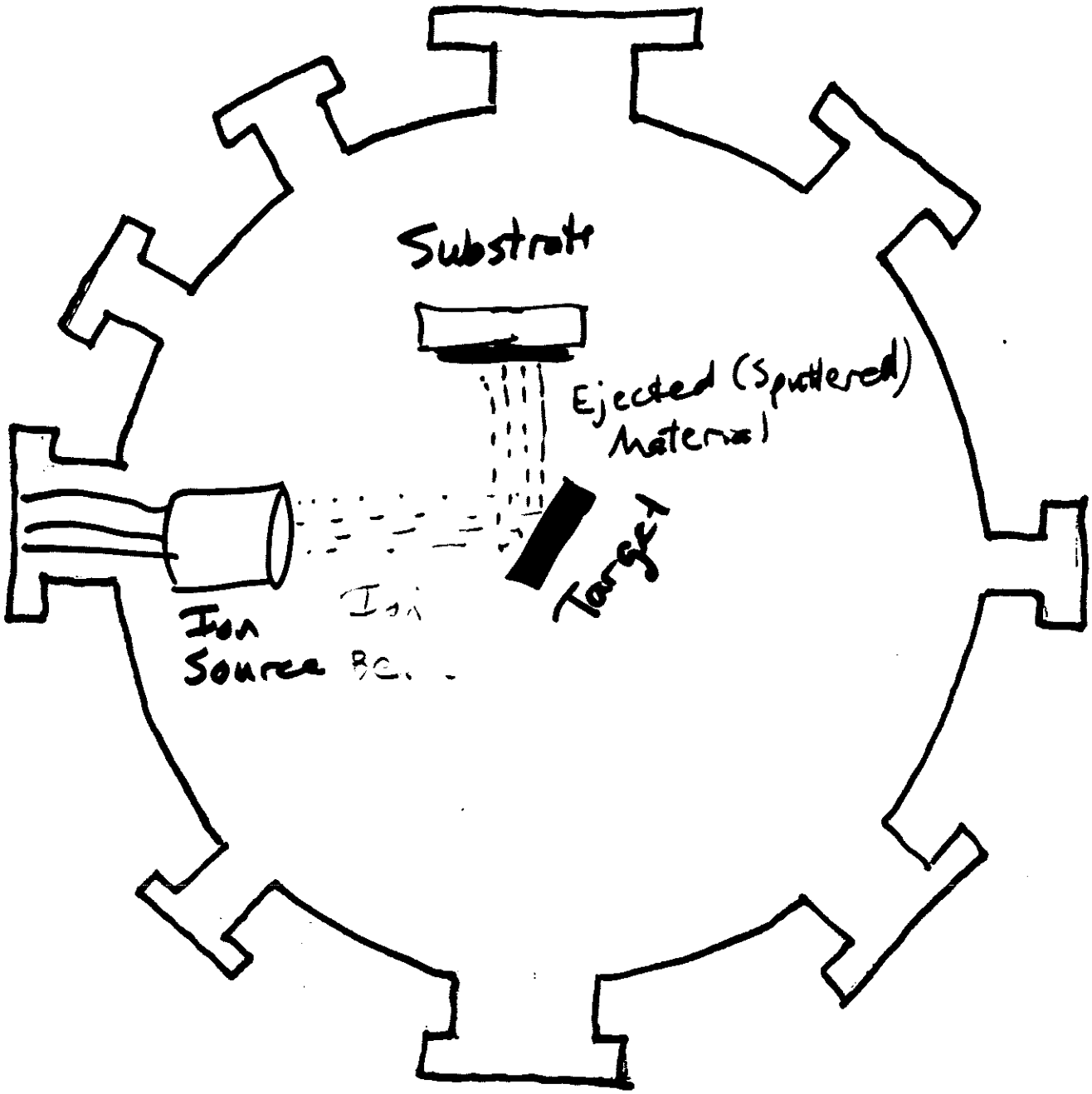
VACUUM CHAMBER:

Top View



VACUUM CHAMBER:

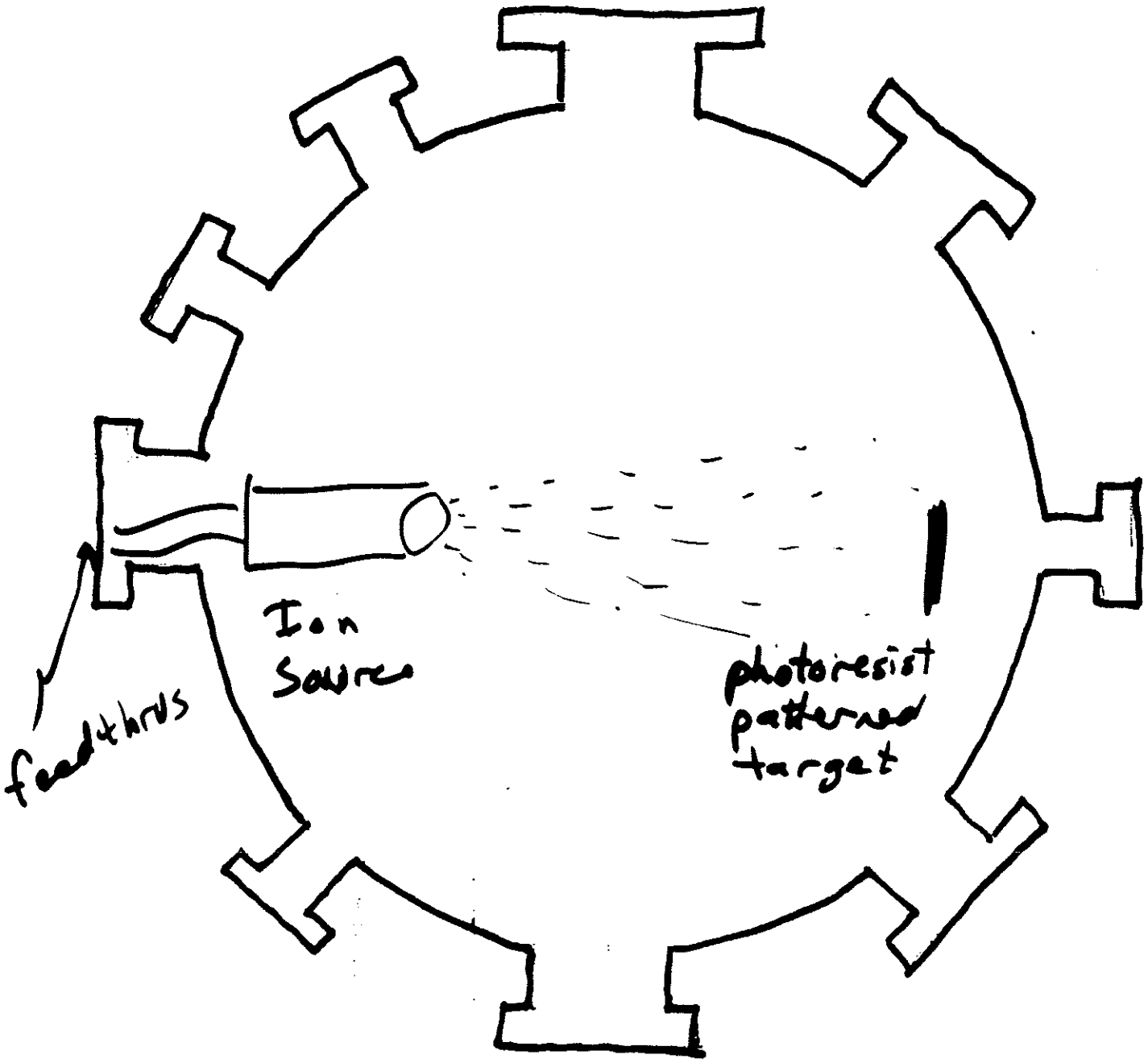
Top View



Not to scale

VACUUM CHAMBER:

Top View



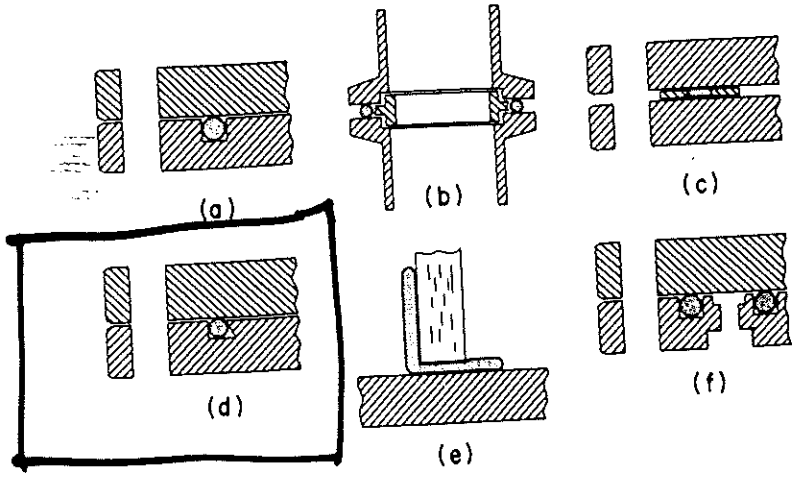


Fig. 17.8 Elastomer seal geometries: (a) rectangular groove, (b) ISO-KF flange with centering ring, (c) confined gasket, (d) dovetail groove, (e) L-gasket, (f) double gasket with differential pumping port.

Elastomer Seals

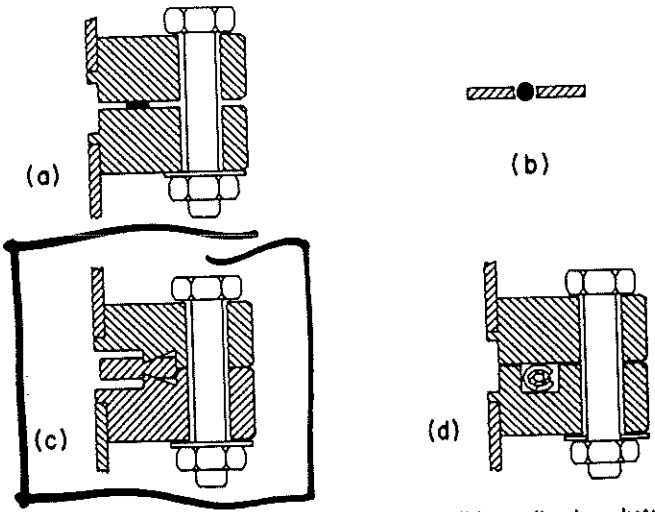
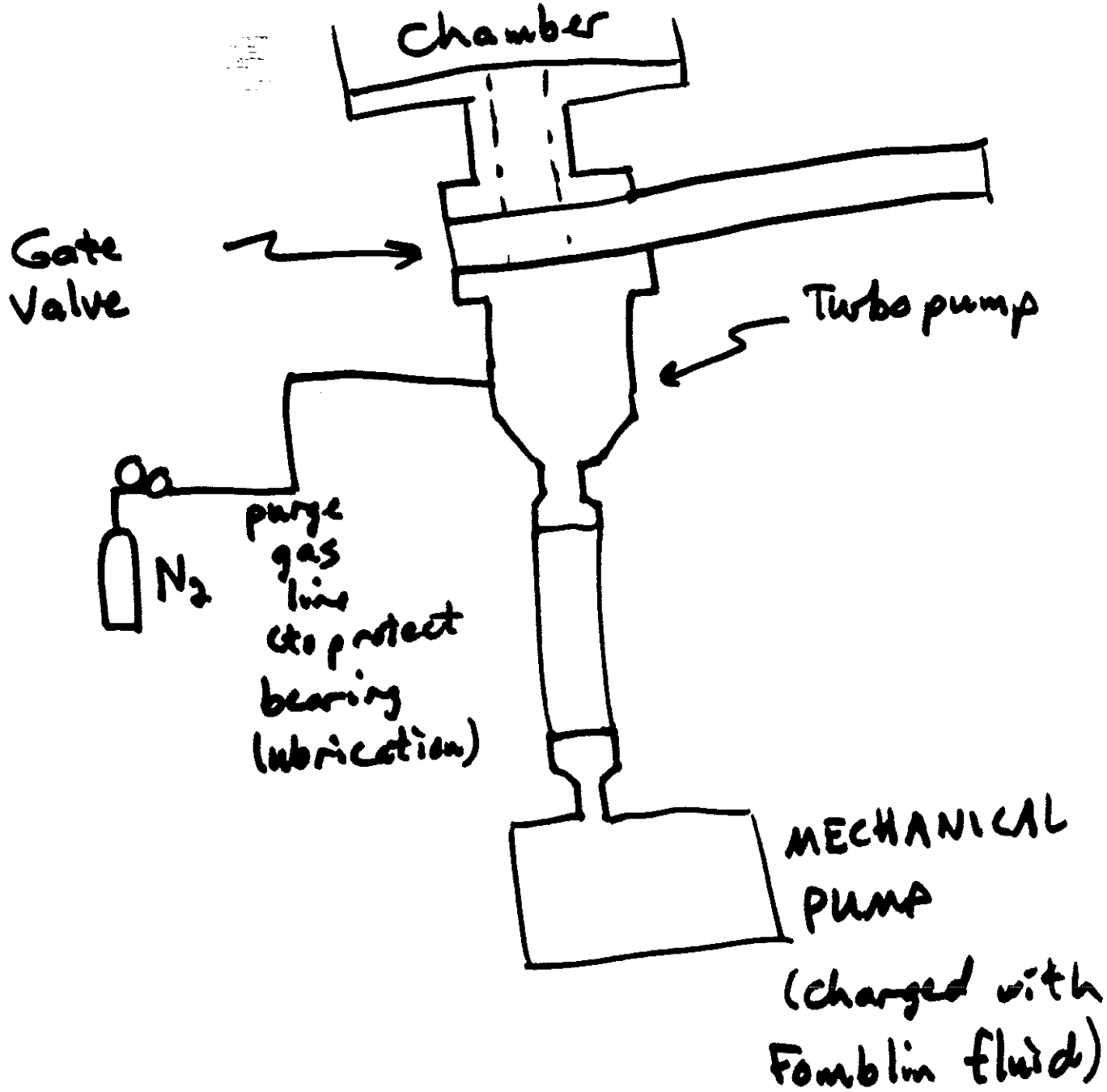


Fig. 17.9 Metal gasket seal geometries: (a) wire seal; (b) confined gasket; (c) ConFlat type knife edge seal; (d) Helicoflex seal.

Con-flat Seal



PUMPING SYSTEM

11 ■ Gate Valves

■ HV & UHV VITON SEAL BELLOWS CONFLAT SS

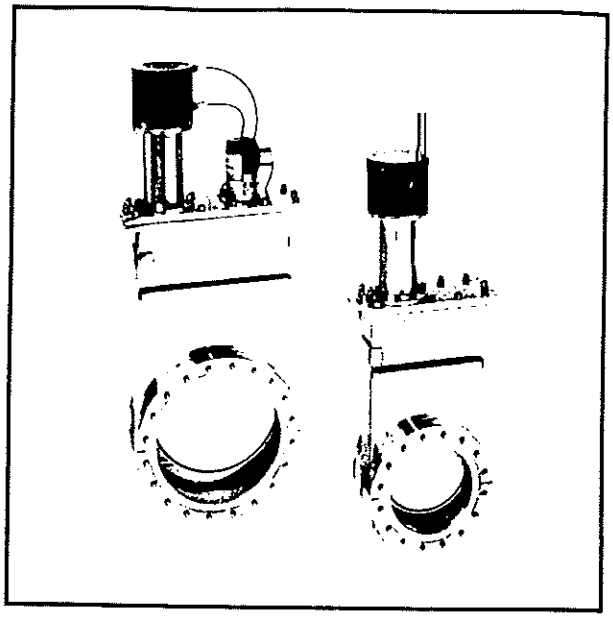
MODELS SG (MV) and SG (PV)

These stainless steel gate valves are reliable, economical, general-purpose valves for HV and UHV service. The Conflat-flanged valves are available from 5/8" to 12" bore.

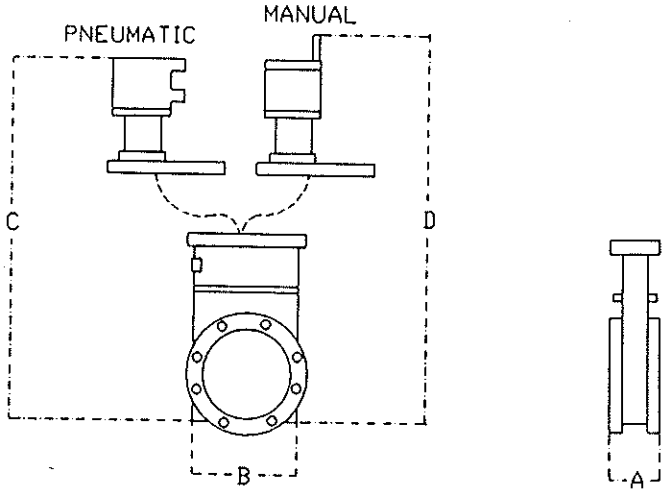
All valves have Viton O-ring seals for the gate and all have bellows sealed actuators. The bonnet seals (which seal the bellows to the body of the valve) can be either Viton O-ring or OFHC copper gasket. All valves are available with either manual or pneumatic actuators. All pneumatic valves are supplied complete with the appropriate 115 VAC solenoid valve at no extra charge.

They have high conductance and are compact because of a short stroke actuator used in the design. The gate carriage is an anti-scuff design to protect the O-ring seal during operation. The useful pressure range of these valves is from atmosphere to 10^{-10} torr for the metal bonnet seal and 10^{-9} torr for Viton seal models.

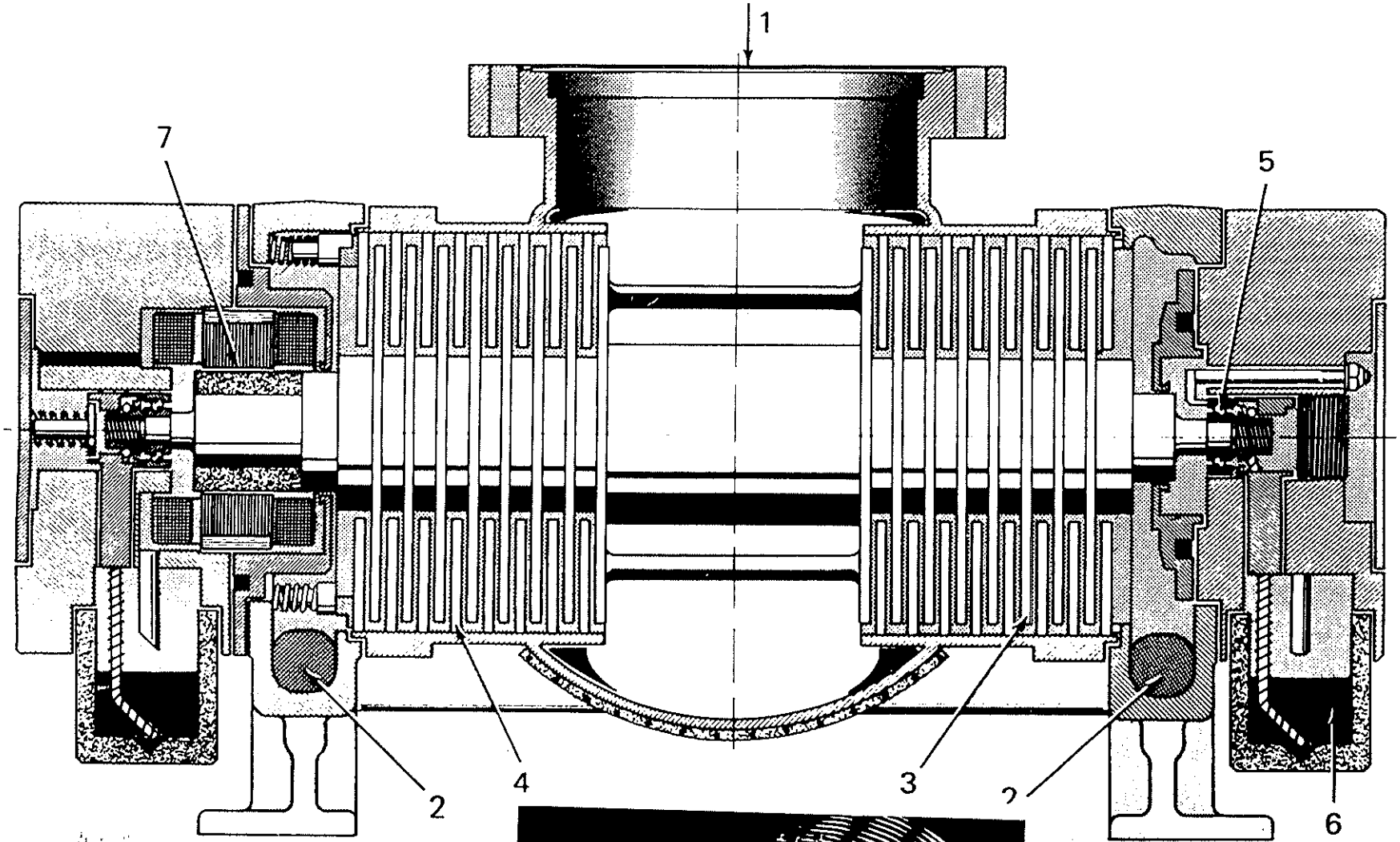
The electro-pneumatic versions will close, or remain closed, on power loss. If already closed, the valve will also stay closed upon loss of air pressure.

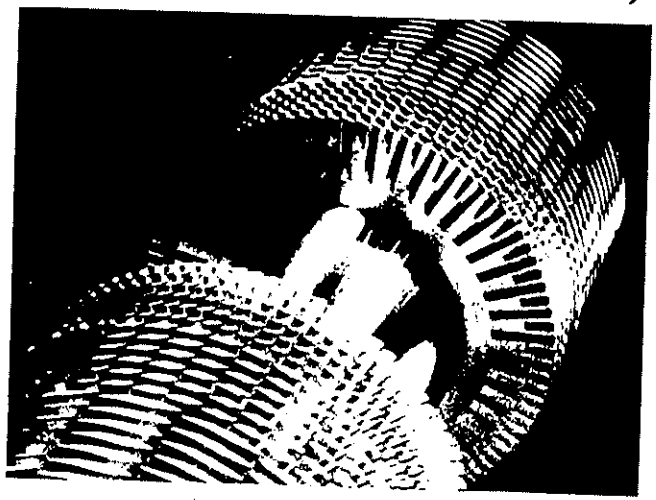


The valves can be baked to 200°C under vacuum in the open position and to 120°C with the valve closed. (The pneumatic cylinder should be excluded from the bakeout zone.)



Kurt J. Lesker Company





Turbo molecular

Pump

Pressure Gauging / Control

Atm ⟶ 10^{-6} or 5×10^{-7} Torr

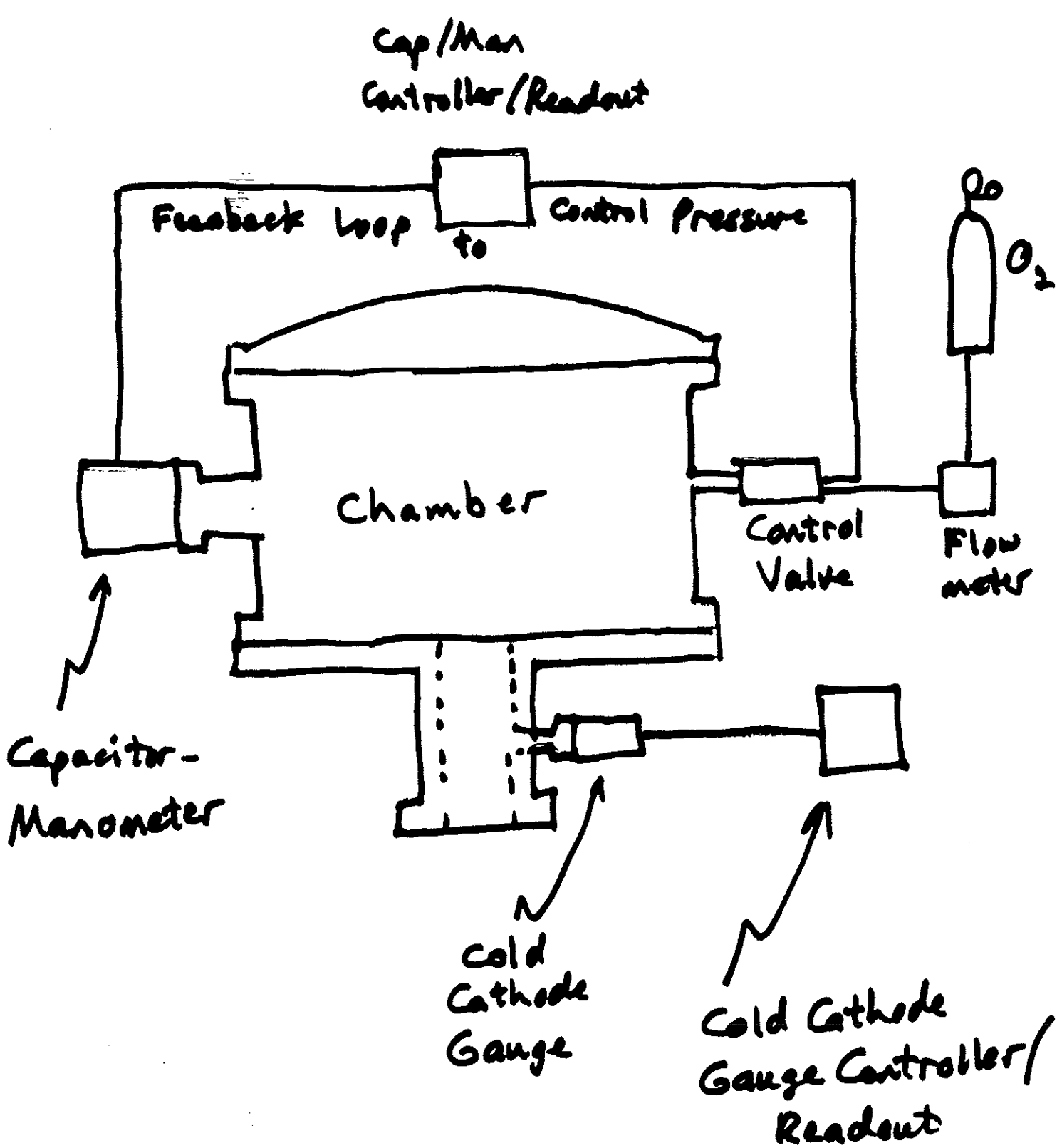
(760 torr = 1 Atm)

Atm ⟶ 1 torr

Capacitor Manometer

1 torr ⟶ 10^{-10} torr

Cold Cathode Gauge



PRESSURE GAUGING/CONTROL SYSTEM

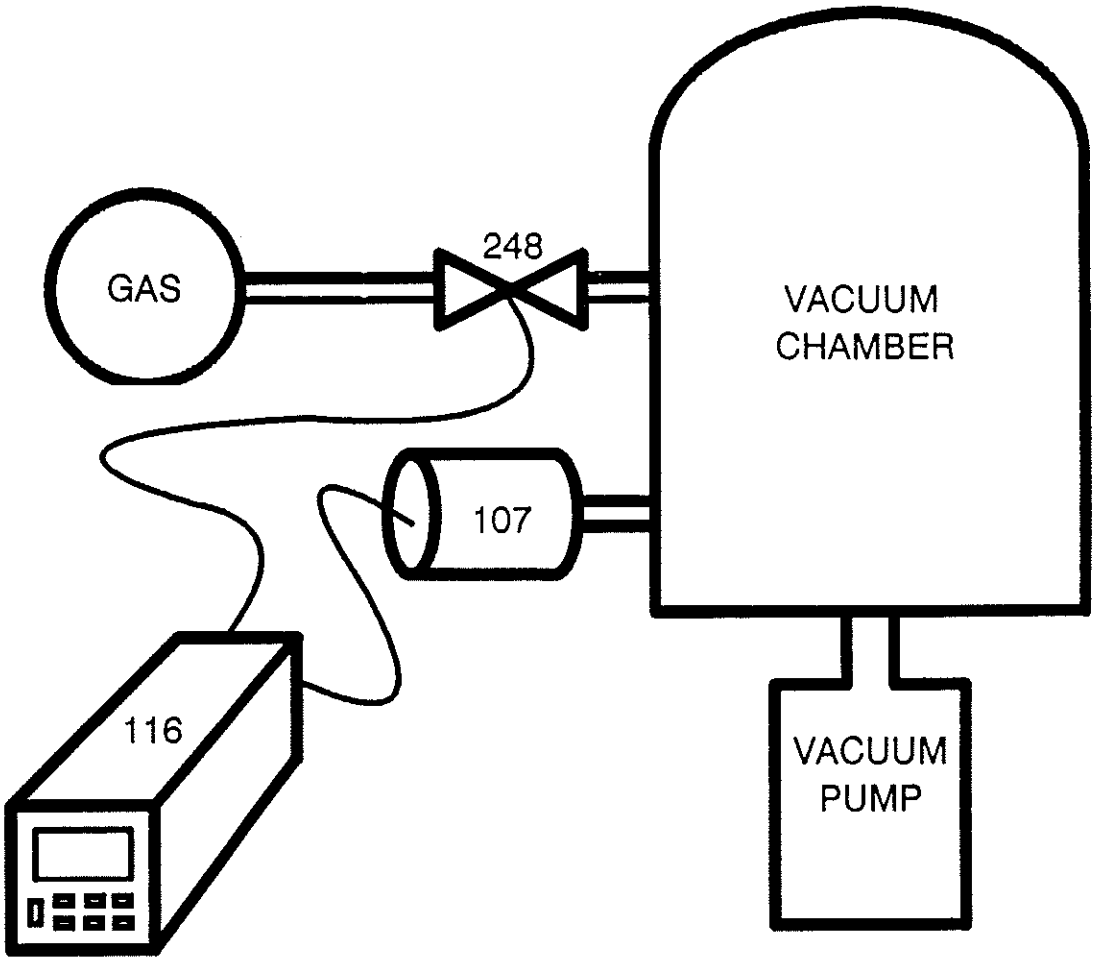
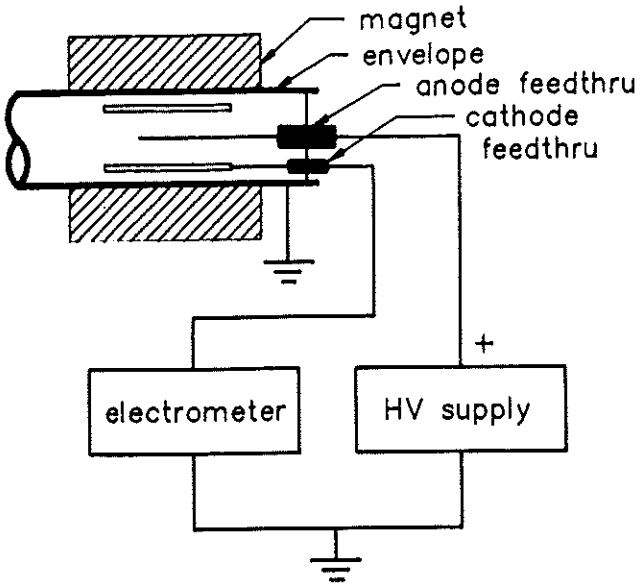
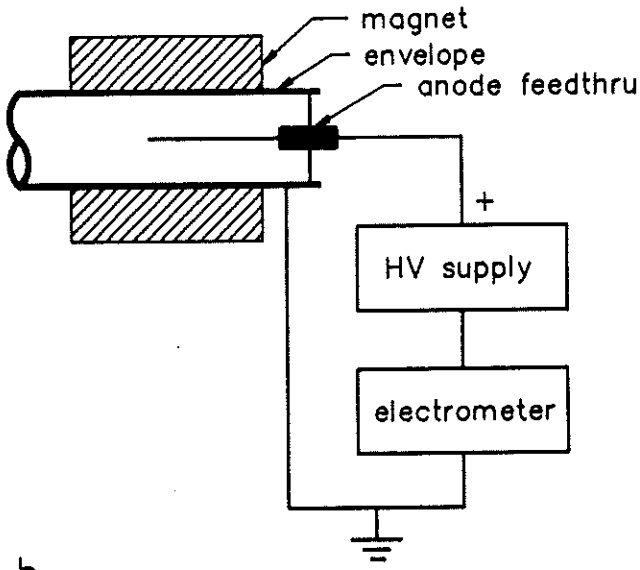


FIGURE 3-1
Basic Gas Inlet Pressure Control System

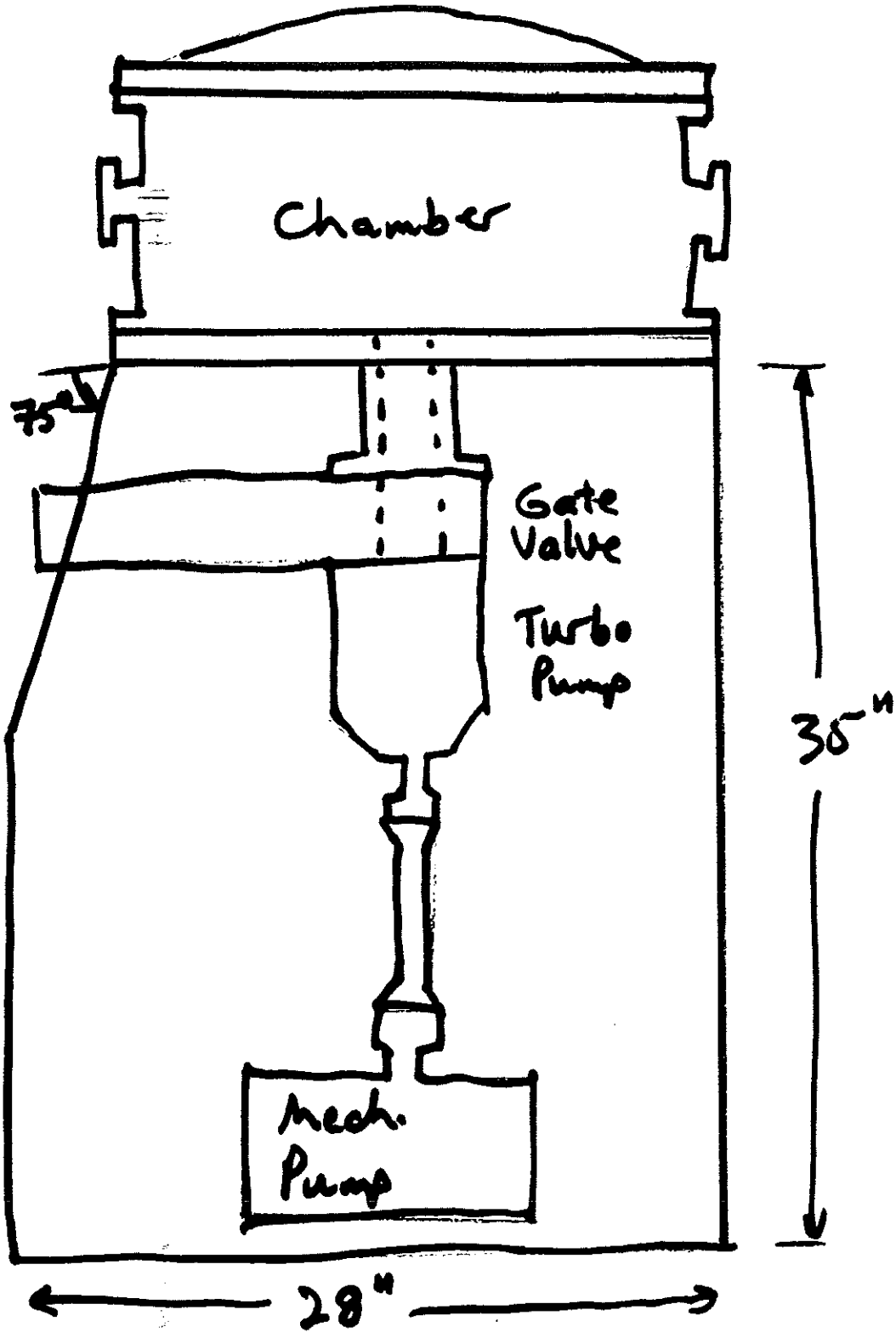


a.

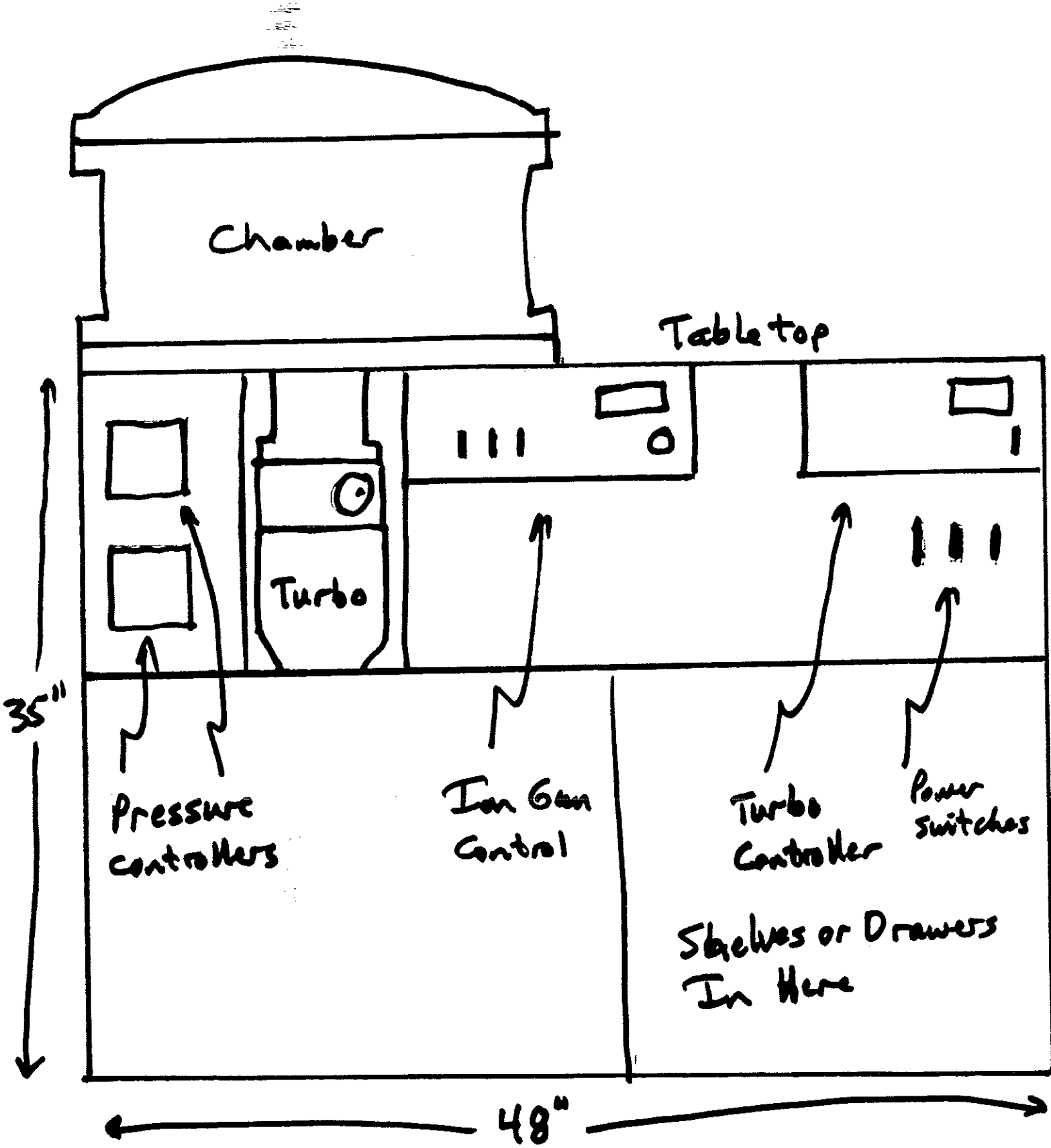


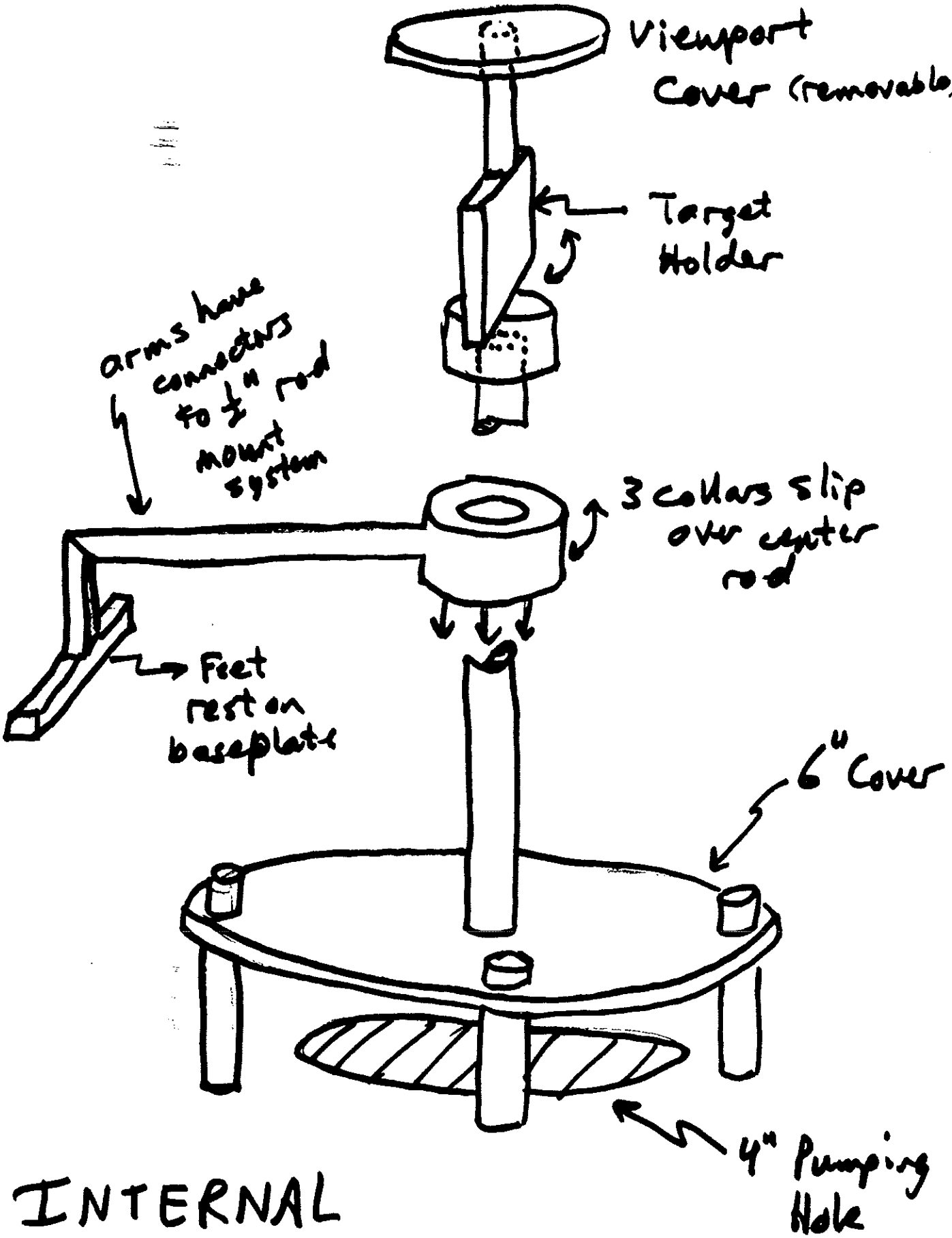
b.

COLD CATHODE TUBE DESIGNS
Figure 1



STAND: Side View


Chamber
Tabletop
Turbo
35"
Pressure controllers
Ion Gun Control
Turbo Controller
Power switches
Shelves or Drawers In Here
48"



INTERNAL
MOUNT SYSTEM