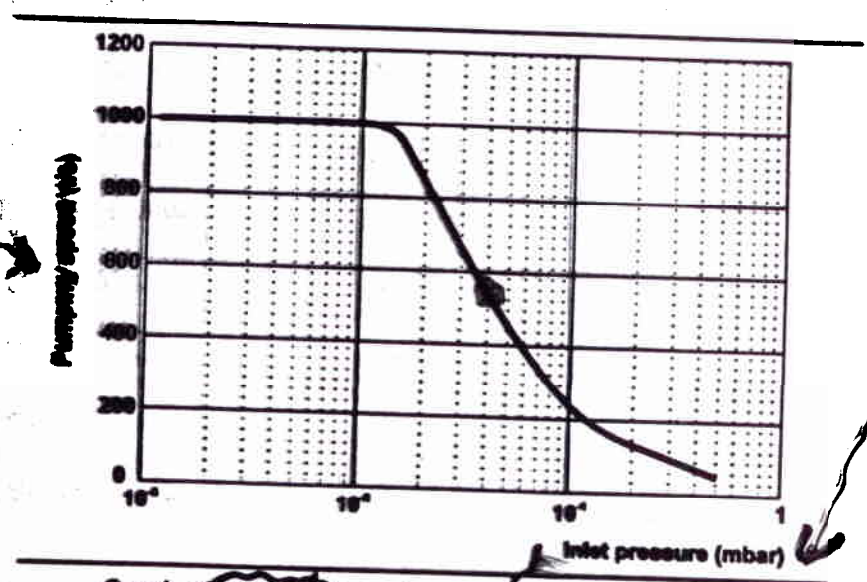


Bypass	CMT RIN (Torr)	CELL (Torr)	CM1 (Torr)	IGD4 (Torr)	P1 (vac)
1/2 open	42	5.5	0.37	9E-6	180
Open	37	9.8	0.62	1E-4	230
Closed	46			2E-6	

$q_{12} \approx 380 \frac{d^4}{L} \frac{P_1^2 - P_2^2}{2 \bar{P} \cdot \Delta P} T \cdot l/s$   
 $\sim 20 \text{ l/s} @ \bar{P} \cdot \Delta P = 1$

$P_2 \approx \frac{q_{12}}{S}$   
 $\approx \frac{20}{650}$   
 $\approx 0.04 \text{ mbar}$



Graph of nitrogen pumping speed vs inlet pressure