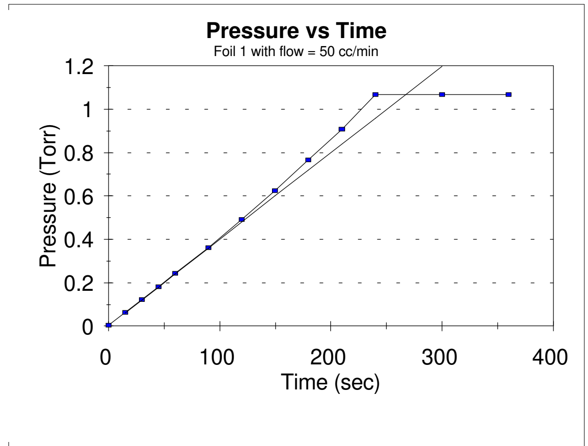
PNEUMATIC CAPACITANCE OF FOILS

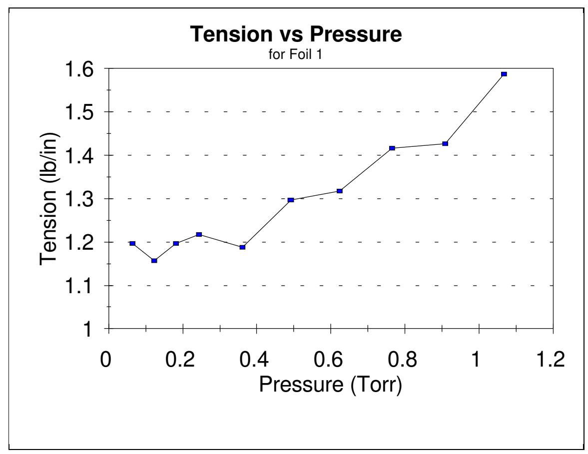
From: Pg 10-11 E614(1)

r =	0.17	m	Cf =	(Pi)r^4/8T
1 Nt/m^2 =	0.0075	Torr		
1 Nt =	4.45	lb	T =	(Pi)r^4/8Cf
Flow =	0.050	l/min		

FOIL01 -- "NEW" FOIL

Time (sec)	Press (Torr)	Incr Vol (Litres)	Capacity (L/Torr)	Tension (Nt/m)	Tension (lb/in)
0	0.004				
15	0.064	0.013	0.208	210	**1.20**
30	0.122	0.013	0.216	203	**1.16**
45	0.182	0.013	0.208	210	**1.20**
60	0.243	0.013	0.205	213	**1.22**
90	0.362	0.025	0.210	208	**1.19**
120	0.492	0.025	0.192	227	**1.30**
150	0.624	0.025	0.189	231	**1.32**
180	0.766	0.025	0.176	248	**1.42**
210	0.909	0.025	0.175	250	**1.43**
240	1.068	0.025	0.157	278	**1.59**
300	1.068				
360	1.068				
	Average for 240 sec		0.188	233	**1.33**
	Average for 120 sec		0.205	213	**1.22**
	Average for 60 sec		0.209	209	**1.19**
	Average for 30 sec		0.212	206	**1.18**





Expected deflection 4.3 mm
Measured deflection 4.5 +/- 0.5 mm