

POSITIVE															
#	Reference Value	Pressure Calibrator MAX 75 kPa			Bourdon Gauge 1			Bourdon Gauge 2			Bundenberg Pressure Gauge		Hg Glass Manometer (+) MAX 32 cm Hg		
		kPa	bar	bar $P_{abs}$	psi	bar	bar $P_{abs}$	kN/m <sup>2</sup>	bar	bar $P_{abs}$	bar	bar $P_{abs}$	cm Hg	bar	bar $P_{abs}$
1		0	0	1.013	1	0.069	1.082	1	0.01	1.023	-0.05	0.963	0.4	0.005	1.018
2		5.7	0.057	1.070	2	0.138	1.151	8	0.08	1.093	0	1.013	3.5	0.047	1.060
3		10.4	0.104	1.117	2.6	0.179	1.192	14	0.14	1.153	0.04	1.053	5.3	0.071	1.084
4		16	0.160	1.173	3.4	0.234	1.247	20	0.20	1.213	0.10	1.113	7.4	0.099	1.112
5		21.1	0.211	1.224	4.1	0.283	1.296	25	0.25	1.263	0.15	1.163	9.4	0.125	1.138
6		27.7	0.277	1.290	5	0.345	1.358	30	0.30	1.313	0.22	1.233	11.6	0.155	1.168
7		34.2	0.342	1.355	6	0.414	1.427	39	0.39	1.403	0.29	1.303	14.2	0.189	1.202
8		40	0.400	1.413	6.8	0.469	1.482	45	0.45	1.463	0.35	1.363	16.4	0.219	1.232
9		46.1	0.461	1.474	7.6	0.524	1.537	50	0.50	1.513	0.4	1.413	18.7	0.249	1.262
10		52.2	0.522	1.535	8.5	0.586	1.599	57	0.57	1.583	0.47	1.483	21	0.280	1.293

NEGATIVE															
#	Reference Value	Pressure Calibrator MAX 75 kPa			Bourdon Gauge 1			Bourdon Gauge 2			Bundenberg Pressure Gauge		Hg Glass Manometer (+) MAX 32 cm Hg		
		kPa	bar	bar $P_{abs}$	psi	bar	bar $P_{abs}$	kN/m <sup>2</sup>	bar	bar $P_{abs}$	bar	bar $P_{abs}$	cm Hg	bar	bar $P_{abs}$
1		0	0	1.013	1.2	0.083	1.096	2.5	0.025	1.038	-0.05	0.963	0.4	0.005	1.018
2		-5.6	-0.056	0.957	0.4	0.028	1.041	-1	-0.01	1.003	-0.1	0.913	-0.7	-0.009	1.004
3		-12.1	-0.121	0.892	-0.5	-0.034	0.979	-9	-0.09	0.923	-0.16	0.853	-3.7	-0.049	0.964
4		-18	-0.180	0.833	-2	-0.138	0.875	-15	-0.15	0.863	-0.24	0.773	-5.4	-0.072	0.941
5		-21.8	-0.218	0.795	-2.8	-0.193	0.820	-20	-0.20	0.813	-0.27	0.743	-6.8	-0.091	0.922
6		-25.4	-0.254	0.759	-4	-0.276	0.737	-23	-0.23	0.783	-0.3	0.713	-8.2	-0.109	0.904
7		-29.3	-0.293	0.720	-6	-0.414	0.599	-27	-0.27	0.743	-0.35	0.663	-9.6	-0.128	0.885
8		-33.6	-0.336	0.677	-7.1	-0.490	0.523	-32	-0.32	0.693	-0.4	0.613	-11.3	-0.151	0.862
9		-37.6	-0.376	0.637	-8.3	-0.572	0.441	-36	-0.36	0.653	-0.44	0.573	-12.8	-0.171	0.842
10		-41.7	-0.417	0.596	-9.5	-0.655	0.358	-40	-0.40	0.613	-0.49	0.523	-14.4	-0.192	0.821

Mercury manometer Pressure = Density × Gravity × Height in metres = 13600 × 9.81 × Hg height in metres

Atmospheric Pressure (Patm) from the Digital Manometer This is a fill-in line with a specific length: \_\_\_\_\_mbar (1000 mbar = 1 bar)

Borden Gauge 1, Bourden Gauge 2, and Bundenberg Gauge offsets

## Explanation of Calculations

- For the bar columns, I converted from the base unit in each section:
  - kPa  $\Rightarrow$  bar: Divided by 100, i.e.,  $\text{Pressure}_{\text{bar}} = \frac{\text{Pressure}_{\text{kPa}}}{100}$
  - psi  $\Rightarrow$  bar: Multiplied by 0.06895, i.e.,  $\text{Pressure}_{\text{bar}} = \text{Pressure}_{\text{psi}} \times 0.06895$
  - kN/m<sup>2</sup>  $\Rightarrow$  bar: Divided by 100 (since 1 kN/m<sup>2</sup> = 1 kPa), i.e.,  $\text{Pressure}_{\text{bar}} = \frac{\text{Pressure}_{\text{kN/m}^2}}{100}$
  - cm Hg  $\Rightarrow$  bar: Multiplied by 0.01333, i.e.,  $\text{Pressure}_{\text{bar}} = \text{Pressure}_{\text{cm Hg}} \times 0.01333$
- For the “bar  $P_{\text{abs}}$ ” columns, I added the standard atmospheric pressure of 1.013 bar to the gauge pressure values:

$$P_{\text{abs}} = P_{\text{gauge}} + 1.013 \text{ bar}$$

- All values are formatted to 3 decimal places for consistency.
- I preserved all the highlighted cells (with the blue and yellow backgrounds) exactly as in your original table.

The table is now complete and ready to be included in document.