



**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

Ref: CED/TFL/11/37394

Dated: 19-11-2021

Dated of Test: 24-11-2021

To  
M/S Etihad Town (Pvt) Ltd.  
Raiwind Road Lahore

Subject: - CALIBRATION OF PRESSURE GAUGE (MARK: TFL/11/37394) (Page # 1/3)

Reference to your Letter No. Nil, Dated: 06/11/2021 on the subject cited above. One Pressure Gauge No. 1 as received by us has been calibrated. The results are tabulated as under:

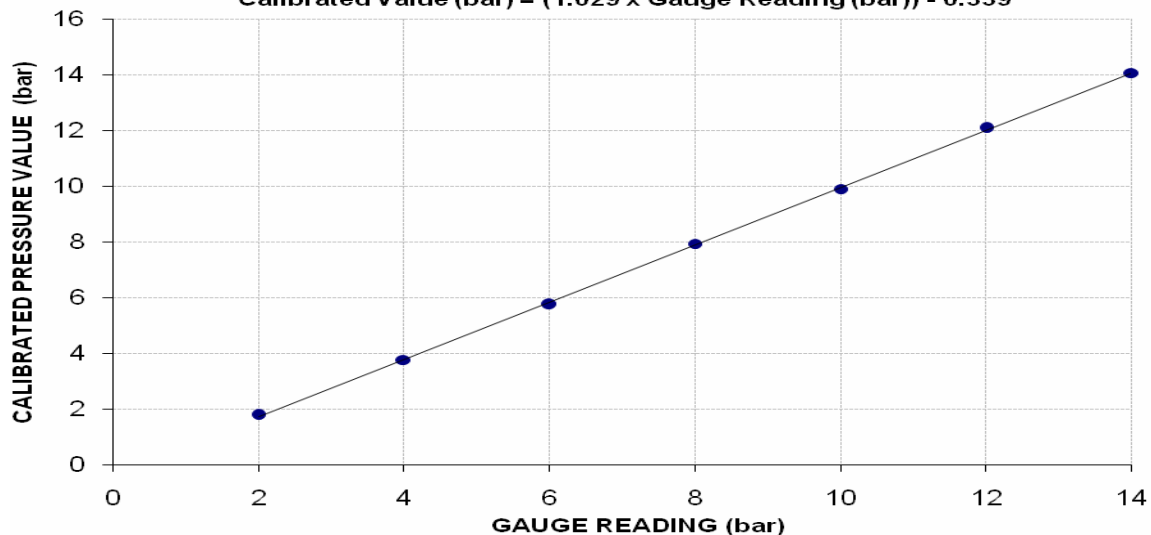
**Total Range : Zero - 16 (bar)**  
**Calibrated Range : Zero - 14 (bar)**

Pressure Gauge Reading (bar)	2	4	6	8	10	12	14
Calibrated Load (kg)	360	760	1160	1600	2000	2440	2840
Calibrated Pressure (bar)	1.78	3.76	5.75	7.92	9.91	12.09	14.07

The Ram Area of Calibration = 198 cm<sup>2</sup>

**Calibration Curve for Pressure Gauge No. 1**

**Calibrated Value (bar) = (1.029 x Gauge Reading (bar)) - 0.339**



**I/C Testing Laboratories**  
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Note:

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[http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\\_reports](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
- 2- The above results pertain to sample /samples supplied to this laboratory.
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Dated: 19-11-2021

Dated of Test: 24-11-2021

To  
M/S Etihad Town (Pvt) Ltd.  
Raiwind Road Lahore

Subject: - CALIBRATION OF PRESSURE GAUGE (MARK: TFL/11/37394) (Page # 2/3)

Reference to your Letter No. Nil, Dated: 06/11/2021 on the subject cited above. One Pressure Gauge No. 2 as received by us has been calibrated. The results are tabulated as under:

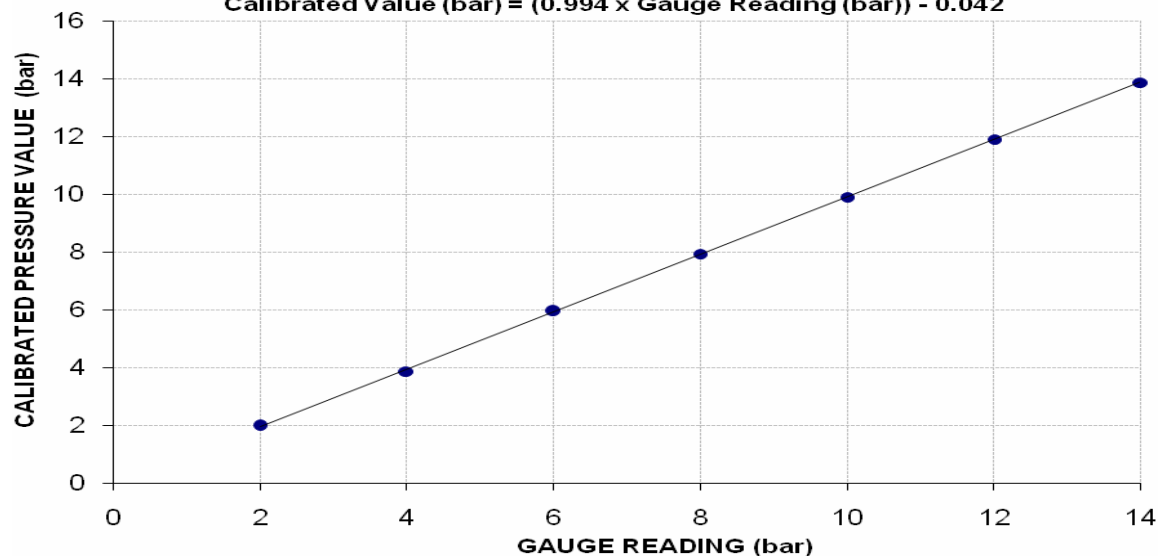
**Total Range : Zero - 16 (bar)**  
**Calibrated Range : Zero - 14 (bar)**

Pressure Gauge Reading (bar)	2	4	6	8	10	12	14
Calibrated Load (kg)	400	780	1200	1600	2000	2400	2800
Calibrated Pressure (bar)	1.98	3.86	5.94	7.92	9.91	11.89	13.87

The Ram Area of Calibration = 198 cm<sup>2</sup>

**Calibration Curve for Pressure Gauge No. 2**

**Calibrated Value (bar) = (0.994 x Gauge Reading (bar)) - 0.042**



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Ref: CED/TFL/11/37394

Dated: 19-11-2021

Dated of Test: 24-11-2021

To  
M/S Etihad Town (Pvt) Ltd.  
Raiwind Road Lahore

Subject: - CALIBRATION OF PRESSURE GAUGE (MARK: TFL/11/37394) (Page # 3/3)

Reference to your Letter No. Nil, Dated: 06/11/2021 on the subject cited above. One Pressure Gauge No. 3 as received by us has been calibrated. The results are tabulated as under:

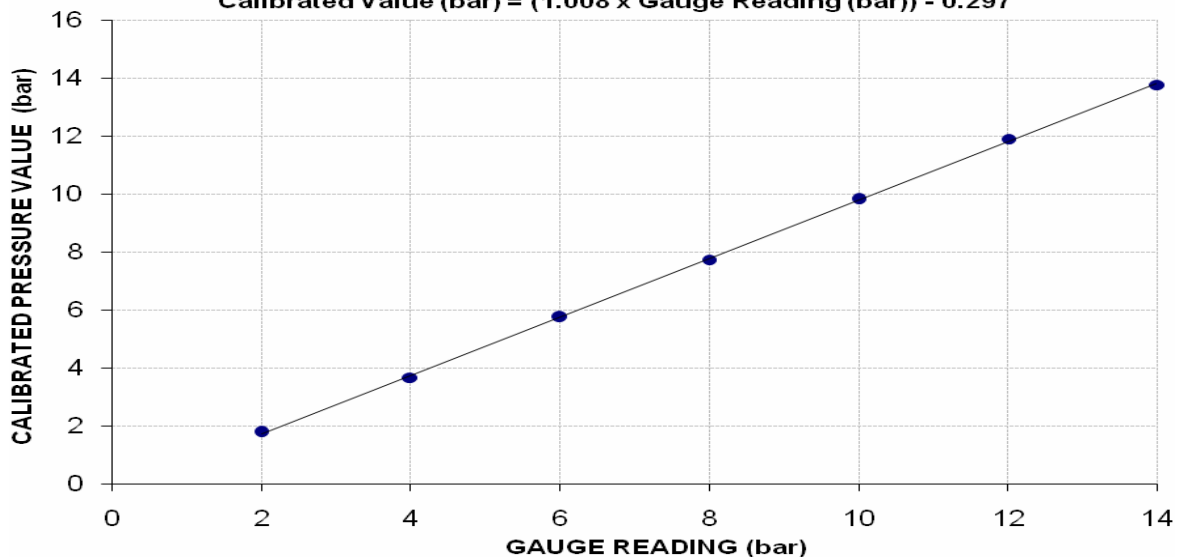
**Total Range : Zero - 16 (bar)**  
**Calibrated Range : Zero - 14 (bar)**

Pressure Gauge Reading (bar)	2	4	6	8	10	12	14
Calibrated Load (kg)	360	740	1160	1560	1980	2400	2780
Calibrated Pressure (bar)	1.78	3.67	5.75	7.73	9.81	11.89	13.77

The Ram Area of Calibration = 198 cm<sup>2</sup>

**Calibration Curve for Pressure Gauge No. 3**

**Calibrated Value (bar) = (1.008 x Gauge Reading (bar)) - 0.297**



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To,  
 Assistant Engineer  
 ECSP Tribal Area DG Khan  
 Provision of Clean Drinking Water by Aab-e-Pak Authority (Phase 1) South Zone Tribal Area  
 DG Khan

Reference # CED/TFL 37407 (Dr. Ali Ahmed) Dated: 23-11-2021  
 Reference of the request letter # ECSP-PAPA/SOUTH-DGK/ARE/01 Dated: 18-10-2021

**Tension Test Report** (Page -1/1)

Date of Test 24-11-2021  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.383	3/8	0.378	0.11	0.112	3400	4300	68200	66620	86200	84300	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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To,  
 Chairman  
 ABS Developers Pvt. Ltd  
 Bahria Town, Lahore

Reference # CED/TFL 37408 (Dr. Ali Ahmed)  
 Reference of the request letter # Nil

Dated: 23-11-2021  
 Dated: 23-11-2021

**Tension Test Report** (Page -1/1)

Date of Test 24-11-2021  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.377	3/8	0.375	0.11	0.111	3200	5000	64200	63720	100200	99600	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

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To,  
 Sr. Project Manager  
 Izhar Group of Companies  
 Construction of Nestle Head Office

Reference # CED/TFL 37411 (Dr. Ali Ahmed)  
 Reference of the request letter # ICPL/NHO/LAB/07

Dated: 23-11-2021  
 Dated: 23-11-2021

**Tension Test Report** (Page -1/1)

Date of Test 24-11-2021  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (mm)		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.375	10	9.52	0.12	0.110	3900	4800	71650	77960	88184	96000	1.10	13.8	Mughal Steel
2	0.375	10	9.52	0.12	0.110	3900	4900	71650	77890	90021	97900	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
10mm Dia Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
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To,  
 Resident Engineer - 2  
 ACES  
 Sector- H,  
 Civil Infrastructure Development Works DHA Multan

Reference # CED/TFL **37412** (Dr. Ali Ahmed)  
 Reference of the request letter # ACES-DHAM-NLC-044

Dated: 23-11-2021  
 Dated: 22-11-2021

**Tension Test Report** (Page -1/1)

Date of Test 24-11-2021  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (mm)		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.413	10	9.98	0.12	0.121	4600	5500	84510	83540	101044	99900	0.80	10.0	Amreli steel
2	0.413	10	9.99	0.12	0.121	4600	5400	84510	83460	99207	98000	0.60	7.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
10mm Dia Bar Bend Test Through 180° is Satisfactory														

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