



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/06/5187

Dated: 03-06-2024

Dated of Test: 06-06-2024

To,

Engr. Muhammad Ihsan
RE, NESPAK
Dualization & Improvement of Old Banu Road / Domail - Khurram Road Project (P - 01)

Subject: - CALIBRATION OF PRESSURE GAUGE (MARK: TFL/05/5187) (Page -1/2)

Reference to your Letter No. 3968/OBR/P-01/RE/MI/1345, Dated: 01/06/2024 on the subject cited above. One Pressure Gauge No. AES-310 as received by us has been calibrated. The results are tabulated as under:

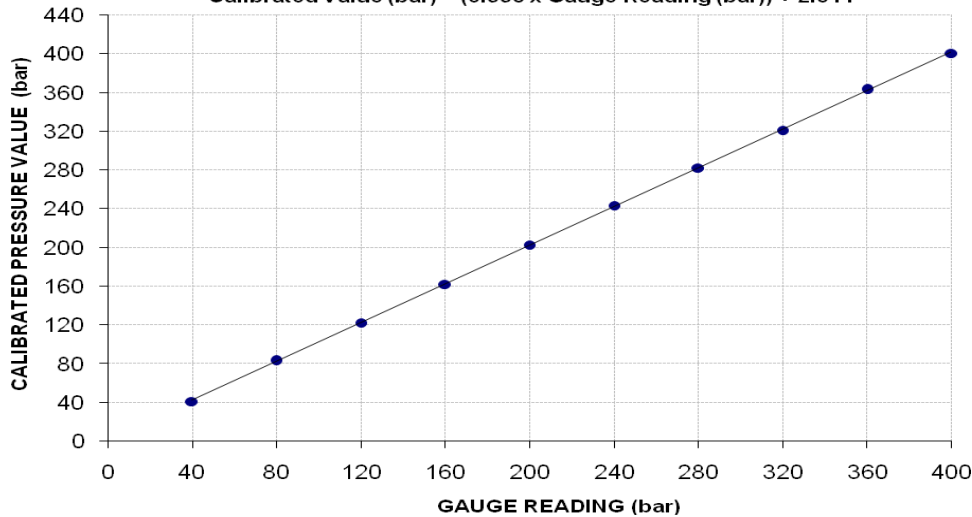
Total Range : Zero - 1000 (bar)
Calibrated Range : Zero - 400 (bar)

| Pressure Gauge Reading (bar) | 40 | 80 | 120 | 160 | 200 | 240 | 280 | 320 | 360 | 400 |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Calibrated Load (kg) | 8300 | 16800 | 24700 | 32800 | 41000 | 49200 | 57000 | 64900 | 73300 | 80900 |
| Calibrated Pressure (bar) | 41 | 83 | 122 | 162 | 203 | 244 | 282 | 321 | 363 | 401 |

The Ram Are use for Calibration = 198 cm²

Calibration Curve for Pressure Gauge No. AES 310

Calibrated Value (bar) = (0.998 × Gauge Reading (bar)) + 2.641



I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
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.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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Dated of Test: 06-06-2024

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To,

Engr. Muhammad Ihsan
RE, NESPAK
Dualization & Improvement of Old Banu Road / Domail - Khurram Road Project (P - 01)

Subject: - CALIBRATION OF PRESSURE GAUGE (MARK: TFL/05/5187) (Page -2/2)

Reference to your Letter No. 3968/OBR/P-01/RE/MI/1345, Dated: 01/06/2024 on the subject cited above. One Pressure Gauge No. AES-320 as received by us has been calibrated. The results are tabulated as under:

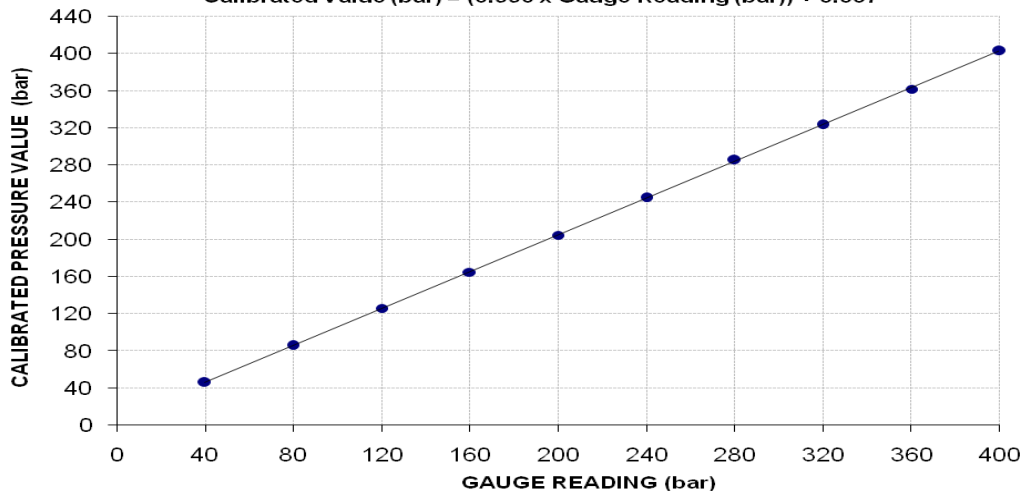
Total Range : Zero - 1000 (bar)
Calibrated Range : Zero - 400 (bar)

| Pressure Gauge Reading (bar) | 40 | 80 | 120 | 160 | 200 | 240 | 280 | 320 | 360 | 400 |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Calibrated Load (kg) | 9300 | 17300 | 25400 | 33300 | 41300 | 49400 | 57600 | 65300 | 73100 | 81400 |
| Calibrated Pressure (bar) | 46 | 86 | 126 | 165 | 205 | 245 | 285 | 323 | 362 | 403 |

The Ram Are use for Calibration = 198 cm²

Calibration Curve for Pressure Gauge No. AES 320

Calibrated Value (bar) = (0.990 × Gauge Reading (bar)) + 6.637



I/C Testing Laboratories
UET Lahore, Pakistan.

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To,
AM - Purchase
Gharibwala Cemenet Limited.

Reference # CED/TFL **5225** (Dr. Waseem Abbass)
Reference of the request letter # Nil

Dated: 06-06-2024
Dated: 06-06-2024

Tension Test Report (Page -1/1)

Date of Test 06-06-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No. | Weight (lbs/ft) | Diameter/ Size | | Area (in ²) | | Yield load (kg) | Breaking Load (kg) | Yield Stress (psi) | | Ultimate Stress (psi) | | Elongation (inch) | % Elongation | Remarks |
|--|--------------------|-------------------|------------------|----------------------------|--------|--------------------|--------------------------|-----------------------|--------|--------------------------|--------|----------------------|--------------|---------|
| | | Nominal (#) | Actual (inch) | Nominal | Actual | | | Nominal | Actual | Nominal | Actual | | | |
| 1 | 0.419 | 10 | 10.06 | 0.12 | 0.123 | 4130 | 5830 | 75875 | 73960 | 107107 | 104400 | 1.00 | 12.5 | |
| 2 | 0.416 | 10 | 10.03 | 0.12 | 0.122 | 4100 | 5800 | 75324 | 73830 | 106556 | 104500 | 1.00 | 12.5 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only two samples for tensile and one sample for bend test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| 10mm Dia Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

Witness by Asim Sohail (AM - Purchase, Gharibwala Cement Limited, Pace Tower, Hread Office, Lahore.

I/C Testing Laboratoires
UET Lahore, Pakistan.

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