



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/03/34808

Dated: 09-03-2020

Dated of Test : 11-03-2020

To
Resident Engineer
Mid City Housing Society, Faisalabad

Subject: - CALIBRATION OF PRESSURE GAUGE (MARK: TFL/03/34808) (Page # 1/2)

Reference to your Letter No. Mid/01/2020, Dated: 05/03/2020 on the subject cited above. One Pressure Gauge No. 1 (EN 837-1) as received by us has been calibrated. The results are tabulated as under:

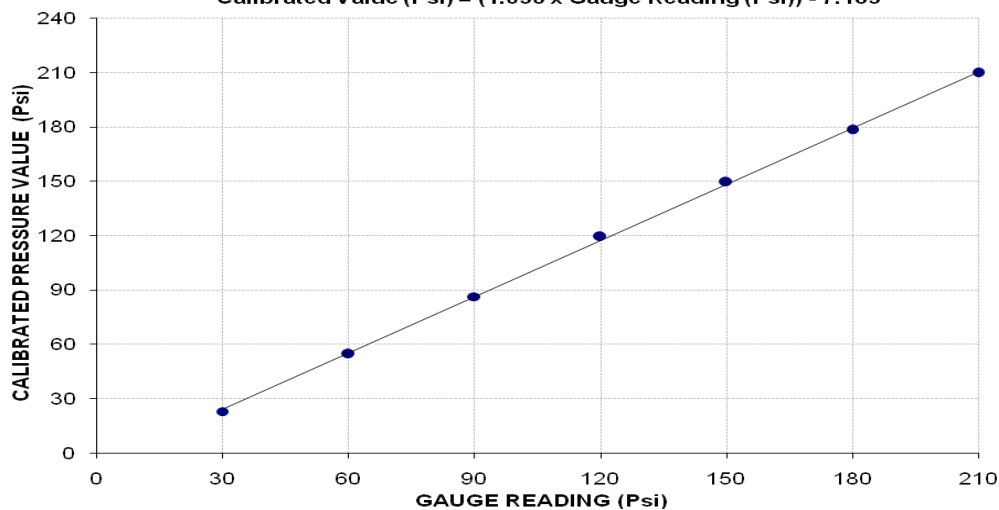
Total Range : Zero - 240 (Psi)
Calibrated Range : Zero - 210 (Psi)

Pressure Gauge Reading (Psi)	30	60	90	120	150	180	210
Calibrated Load (kg)	320	760	1200	1660	2080	2480	2920
Calibrated Pressure (Psi)	22.99	54.59	86.20	119.24	149.41	178.15	209.75

The Ram Area use for Calibration = 198 cm²

Calibration Curve for Pressure Gauge No. 1

Calibrated Value (Psi) = (1.036 x Gauge Reading (Psi)) - 7.183



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Note:

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Dated: 09-03-2020

Dated of Test : 11-03-2020

To
Resident Engineer
Mid City Housing Society, Faisalabad

Subject: - CALIBRATION OF PRESSURE GAUGE (MARK: TFL/03/34808) (Page # 2/2)

Reference to your Letter No. Mid/01/2020, Dated: 05/03/2020 on the subject cited above. One Pressure Gauge No. 2 (EN 837-1) as received by us has been calibrated. The results are tabulated as under:

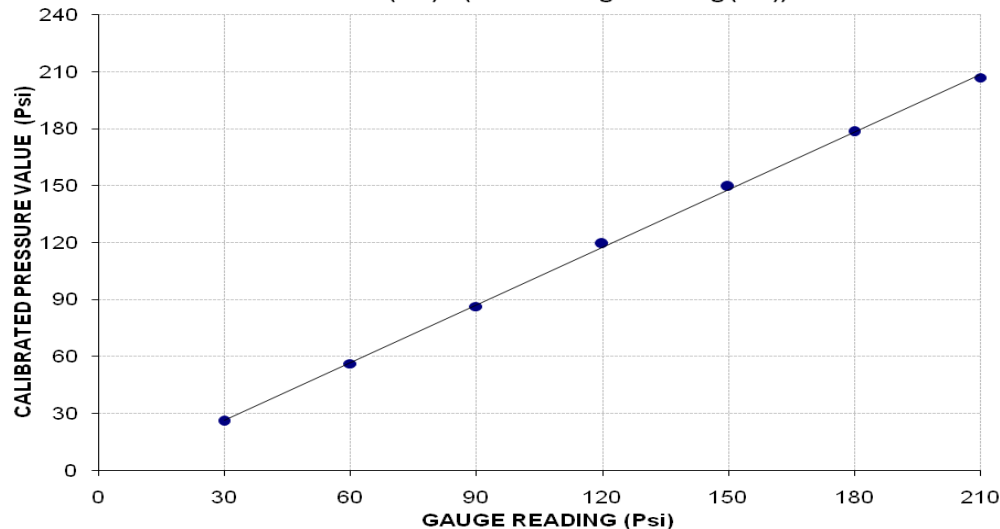
Total Range : Zero - 240 (Psi)
Calibrated Range : Zero - 210 (Psi)

Pressure Gauge Reading (Psi)	30	60	90	120	150	180	210
Calibrated Load (kg)	360	780	1200	1660	2080	2480	2880
Calibrated Pressure (Psi)	25.86	56.03	86.20	119.24	149.41	178.15	206.88

The Ram Area use for Calibration = 198 cm²

Calibration Curve for Pressure Gauge No. 2

Calibrated Value (Psi) = (1.012 × Gauge Reading (Psi)) - 4.104



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To,
 Chief Engineer (HVDC) NTDC
 National Transmission & Despatch Company Ltd
 +600 kV 4000 MW Biple HVDC Matiari Lahore Transmission Line (CPEC Project) (Lot-4)
 (Kamran Steel, SPO-10-Lot-4)
 Reference # CED/TFL **34813** (Dr. Qasim Khan) Dated: 10-03-2020
 Reference of the request letter # 9526-28/CE/HVDC/LHR Dated: 09-03-2020

Tension Test Report (Page -1/1)

Date of Test 11-03-2020
 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	4.185	10	1.252	1.27	1.230	41000	57400	71200	73460	99700	102900	1.50	18.8	
2	4.283	10	1.266	1.27	1.259	41200	57200	71500	72130	99300	100200	1.40	17.5	
3	4.341	10	1.275	1.27	1.276	35000	44400	60800	60450	77100	76700	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only three samples for tensile and three samples for bend test														
Bend Test														
#10 Bar Bend Test Through 180° is Satisfactory														
#10 Bar Bend Test Through 180° is Satisfactory														
#10 Bar Bend Test Through 180° is Satisfactory														

Witness by Ali Ahmed (NTDC), M. Bilal Butt (OE) & Zafar Iqbal (CET Lot 4)

I/C Testing Laboratoires
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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
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To,
 Project Manager (WASO)
 PAEC, Chashma
 Construction of Metrological Building at PNPFC, Wan Bhchran

Reference # CED/TFL **34814** (Dr. Qasim Khan)
 2020

Dated: 10-03-

Reference of the request letter # PM(CH)/WASO/PNPFC/9/19/666

Dated: 09-03-2020

Tension Test Report (Page -1/2)

Date of Test 11-03-2020
 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	0.377	3	0.376	0.11	0.111	3400	5000	68200	67670	100200	99600	1.40	17.5	
2	0.379	3	0.376	0.11	0.111	3300	5000	66200	65370	100200	99100	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
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To,
 Project Manager (WASO)
 PAEC, Chashma
 Construction of Officer Hostel at PNPFC, Wan Bhchran

Reference # CED/TFL **34814** (Dr. Qasim Khan) Dated: 10-03-2020
 Reference of the request letter # PM(CH)/WASO/PNPFC/11/19/667 Dated: 09-03-2020

Tension Test Report (Page -2/2)

Date of Test 11-03-2020
 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	0.378	3	0.376	0.11	0.111	3300	5100	66200	65430	102200	101200	1.30	16.3	
2	0.379	3	0.377	0.11	0.111	3300	5000	66200	65330	100200	99000	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 Resident Engineer
 Architectural & Civil Engineering Services
 M/s Usman Engineers (Pvt) Ltd
 OIC – Rumanza Golf Course, DHA Multan
 (SJ Steel)
 Reference # CED/TFL **34816** (Dr. Qasim Khan)
 Reference of the request letter # ACES-DHAM-RGC-193

Dated: 10-03-2020
 Dated: 05-03-2020

Tension Test Report (Page -1/1)

Date of Test 11-03-2020
 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 ²)		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	4000	5000	73487	79910	91858	99900	1.10	13.8	
2	0.379	10	9.56	0.12	0.111	4100	5100	75324	81180	93696	101000	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
10mm Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratories
UET Lahore, Pakistan.

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To,
 Project Manager
 Roots International School
 Roots International School Palm Tree Campus Sialkot

Reference # CED/TFL **34818** (Dr. Qasim Khan)
 Reference of the request letter # RIS/SB/SKT0629022020

Dated: 10-03-2020
 Dated: 29-02-2020

Tension Test Report (Page -1/1)

Date of Test 11-03-2020
 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 ²)		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	0.406	3/8	0.390	0.11	0.119	3400	5300	68200	62800	106200	97900	1.20	15.0	
2	0.402	3/8	0.388	0.11	0.118	3500	5200	70200	65310	104200	97100	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 Project Manager
 NESPAK
 Storm Water Drainage System from Haji Camp to River Ravi via Lakshmi Chowk, McLeod Road, Nabha Road, Chuburji and Sham Nagar, Lahore

Reference # CED/TFL **34820** (Dr. Qasim Khan)
 Reference of the request letter # 3882/11/MIA/01/520

Dated: 10-03-2020
 Dated: 02-03-2020

Tension Test Report (Page -1/1)

Date of Test 11-03-2020
 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	0.357	3	0.365	0.11	0.105	3700	4800	74200	77810	96200	101000	1.20	15.0	
2	0.352	3	0.363	0.11	0.104	3700	4700	74200	78760	94200	100100	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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