

Ref: CED/TFL/10/7630

Dated: 13-10-2025

Date of Test: 16-10-2025 (Dr. Ali Ahmed)

To,

**Engr. Farrukh Alvi (Deputy General Manager Works)
Habib Rafiq Engineering (Pvt.) Ltd.
101 Tower, Lahore.**

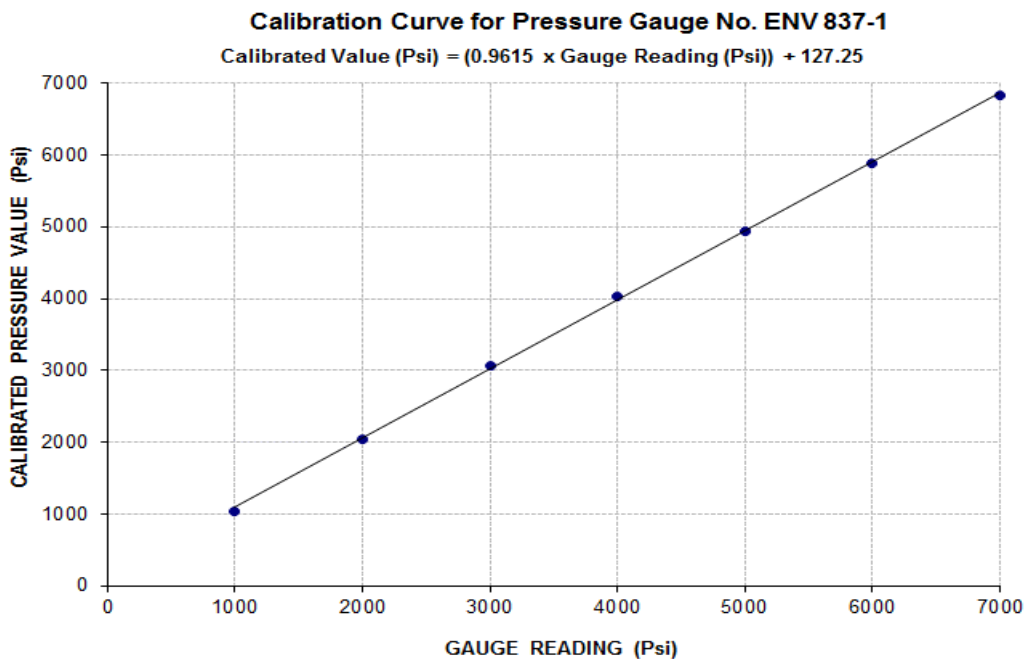
Subject: - CALIBRATION OF PRESSURE GAUGE (MARK: TFL/10/7630) (Page # 1/1)

Reference to your Letter No. HRLE/SKG/2025/SPT/240, Dated: 13/10/2025 on the subject cited above. One Pressure Gauge no. ENV 837-1 as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 10000 (Psi)
Calibrated Range : Zero - 7000 (Psi)

Pressure Gauge Reading (Psi)	1000	2000	3000	4000	5000	6000	7000
Calibrated Load (kg)	14500	28400	42600	56000	68700	82000	95000
Calibrated Pressure (Psi)	1042	2040	3060	4023	4935	5890	6824

The Ram Area for Calibration = 198 cm²



Test Performed and Verified by:

To,
 Sinaco Engineers (Pvt.) Ltd.
 Construction of Storage Area & Shredder Building of Ittehad Chemical Industries

Reference # CED/TFL 7640 (Dr. Ali Ahmad)
 Reference of the request letter # 00527-2025

Dated: 15-10-2025
 Dated: 07-10-2025

Tension Test Report (Page-1/1)

Date of Test 16-10-2025
 Gauge Length 2 inches
 Description MS Plate Strips Tensile Test Report

Sr. No.	Designation	Size of Strip	X Section Area	Yield Load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(Inch)	(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(inch)		
1	MS Plate	29.70 x 4.70	139.59	4990	6850	350.7	481.4	0.6	30.0	5mm
2	MS Plate	29.40 x 8.00	235.20	10140	13830	422.9	576.8	0.7	35.0	8mm
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

Note: Only 2 Samples for Tensile and 0 Samples for Bend test

Bend Test										

Test Performed and Verified by:

To,

Mr. Anwar ul Haq (Project Manager)
IKAN Engineering Services (Pvt.) Ltd.
Construction of Zong MSC Faisalabad
(Ittehad Steel) (Witness by: Mr. Saleem)

Reference # CED/TFL 7641 (Dr. Ali Ahmad)
Reference of the request letter # IKAN-FSD-SITE-UET/060

Dated: 15-10-2025
Dated: 15-10-2025

Tension Test Report (Page-1/1)

Date of Test 16-10-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in ²)		Yield Load (kN)	Breaking Load (kN)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.375	3	0.375	0.110	0.1102	31.20	44.20	63739	63632	90296	90145	1.4	17.5	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Only 1 Samples for Tensile and 1 Samples for Bend test

Bend Test	
# 3 Bar Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by:

To,

Mr. Mohsin Ali (Project Manager)
AF Builders
(Mughal Supreme Steel)

Reference # CED/TFL 7642 (Dr. Ali Ahmad)
Reference of the request letter # Nil

Dated: 15-10-2025
Dated: 15-10-2025

Tension Test Report (Page-1/1)

Date of Test 16-10-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in ²)		Yield Load (kN)	Breaking Load (kN)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.371	3	0.373	0.110	0.109	37.00	45.70	75587	76255	93361	94185	1.2	15.0	3/8"
2	0.368	3	0.371	0.110	0.1081	37.50	45.00	76609	77931	91931	93517	1.0	12.5	3/8"
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Only 2 Samples for Tensile and 1 Samples for Bend test

Bend Test	
# 3 Bar Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by:

To,

Mr. Asim Mushtaq (General Manager Factory)
Master Offisys

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Reference # CED/TFL 7643 (Dr. Ali Ahmad)
Reference of the request letter # PEMH05-13

Dated: 15-10-2025

Dated: 14-10-2025

Tension Test Report (Page-1/1)

Date of Test 16-10-2025

Gauge Length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in ²)		Yield Load (kN)	Breaking Load (kN)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.369	3	0.372	0.110	0.1084	35.50	46.50	72523	73593	94995	96396	1.1	13.8	-
2	0.368	3	0.371	0.110	0.1082	35.50	46.50	72523	73713	94995	96554	1.4	17.5	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Only 2 Samples for Tensile and 1 Samples for Bend test

Bend Test

3 Bar Bend Test Through 180 Degree is Satisfactory

Test Performed and Verified by:

To,

Mr. Maqsood Ahmad (Q.S)
Professional Construction Services (Pvt.) Ltd.
Construction of Academics Block, Admission & Marketing Office, Namal University, Mianwali

Reference # CED/TFL 7644 (Dr. Ali Ahmad)
Reference of the request letter # PCS/25/Eng-81-A

Dated: 15-10-2025
Dated: 15-10-2025

Tension Test Report (Page-1/1)

Date of Test 16-10-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in ²)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
				Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.370	3	0.372	0.110	0.1087	39.50	46.50	80695	81641	94995	96109	0.9	11.3	-
2	0.369	3	0.372	0.110	0.1084	37.70	46.20	77017	78130	94382	95746	1.1	13.8	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Only 2 Samples for Tensile and 0 Samples for Bend test

Bend Test														

Test Performed and Verified by:

To,

Mr. Yahya Jan (Area Engineer)
Attock Petroleum Limited
APL Retail Outlet Izmir Town Lahore (Reinforcement of the Boundary Wall and Tank Pit)

Reference # CED/TFL 7645 (Dr. Ali Ahmad)
Reference of the request letter # APL/Engg/UETLab/10/13-01

Dated: 15-10-2025
Dated: 13-10-2025

Tension Test Report (Page-1/1)

Date of Test 16-10-2025
Gauge Length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in ²)		Yield Load (kN)	Breaking Load (kN)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.373	3	0.374	0.110	0.1097	30.70	43.50	62717	62891	88866	89113	1.5	18.8	-
2	0.376	3	0.375	0.110	0.1105	30.50	44.00	62308	62035	89888	89493	1.2	15.0	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Only 2 Samples for Tensile and 1 Samples for Bend test

Bend Test	
# 3 Bar Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by:

To,

Mr. Ghulam Abbas (XEN)

GE (Army)-II LRC

Enc-A-84/2025: Construction of 8 x D Type Flats (G+3), Block No.2 at PMAD Colony Lahore

Reference # CED/TFL 7646 (Dr. Ali Ahmad)

Dated: 15-10-2025

Reference of the request letter # 6003/91/E6

Dated: 13-10-2025

Tension Test Report (Page-1/1)

Date of Test 16-10-2025

Gauge Length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in ²)		Yield Load (kN)	Breaking Load (kN)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.365	3	0.370	0.110	0.1074	42.00	52.70	85802	87910	107661	110306	0.7	8.8	3/8"
2	0.363	3	0.369	0.110	0.1067	43.00	53.00	87845	90588	108274	111655	0.7	8.8	3/8"
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Only 2 Samples for Tensile and 1 Samples for Bend test

Bend Test	
# 3 Bar Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by:

To,

Mr. Ghulam Abbas (XEN)

GE (Army)-II LRC

Enc-A-87/2025: Construction of 8 x D Type Flats (G+3), Block No.1 at PMAD Colony Lahore

Reference # CED/TFL 7647 (Dr. Ali Ahmad)

Dated: 15-10-2025

Reference of the request letter # 6003/90/E6

Dated: 13-10-2025

Tension Test Report (Page-1/1)

Date of Test 16-10-2025

Gauge Length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (#)	Actual Diameter (inch)	Area (in ²)		Yield Load (kN)	Breaking Load (kN)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.371	3	0.372	0.110	0.1089	32.70	47.70	66803	67489	97446	98447	1.3	16.3	3/8"
2	0.370	3	0.372	0.110	0.1086	33.00	48.00	67416	68279	98059	99315	1.4	17.5	3/8"
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Only 2 Samples for Tensile and 1 Samples for Bend test

Bend Test	
# 3 Bar Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by: