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/12/34399 **Dated: 30-12-19**
Dated of Test: 03-01-2020

To,
Resident Engineer
Dar Engineering
Punjab Agriculture Food and Durg Authority's Science Enclave, Lahore Pakistan

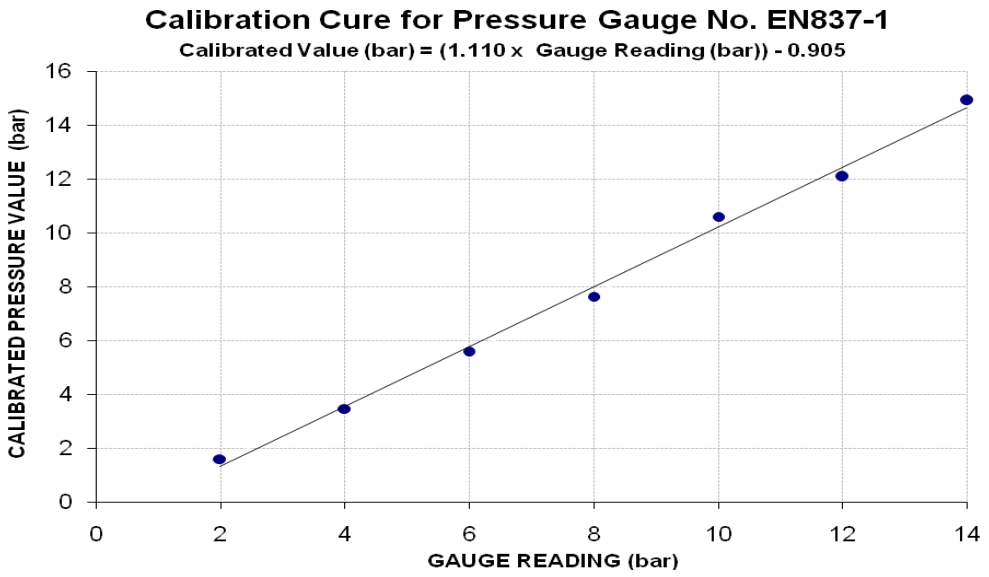
Subject: **- CALIBRATION OF PRESSURE GAUGE (MARK: TFL/12/34399)** (Page -1/2)

Reference to your Letter No. DB-78/DAR/RE/ME/2019/0211, Dated: 30/12/2019 on the subject cited above. One Pressure Gauge No. EN837-1 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)	320	700	1130	1540	2140	2440	3010
Calibrated Pressure (bar)	1.58	3.47	5.60	7.63	10.60	12.09	14.91

The Ram Are use for Calibration = 198 cm^2



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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To,
Resident Engineer
Dar Engineering
Punjab Agriculture Food and Durg Authority's Science Enclave, Lahore Pakistan

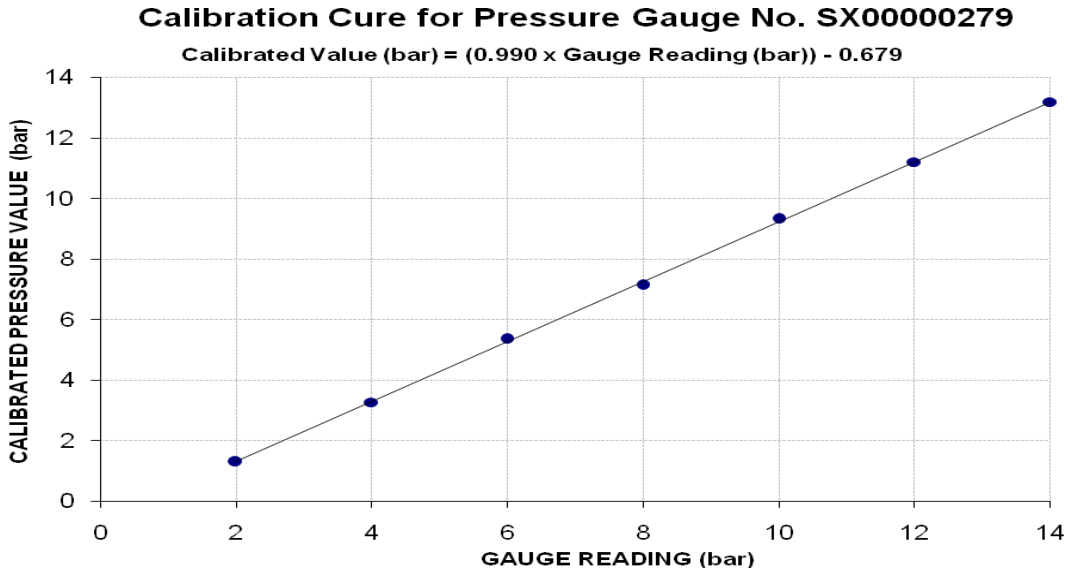
Subject: **- CALIBRATION OF PRESSURE GAUGE (MARK: TFL/12/34399)** (Page -2/2)

Reference to your Letter No. DB-78/DAR/RE/ME/2019/0211, Dated: 30/12/2019 on the subject cited above. One Pressure Gauge No. SX00000279 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)	260	660	1080	1440	1880	2260	2660
Calibrated Pressure (bar)	1.29	3.27	5.35	7.13	9.31	11.19	13.18

The Ram Are use for Calibration = 198 cm^2



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To,
Project Manager
Areaa Insaat Sanayi ve Tacard Ltd.
Consulate Building Renovation Work Project

Reference # CED/TFL **34419** (Dr. Qasim khan) Dated: 02-01-2020
Reference of the request letter # A-TCL-01/2020 Dated: 02-01-2020

Tension Test Report (Page -1/1)

Date of Test 03-01-2020
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (inch)		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Grade
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.384	3/8	0.379	0.11	0.113	3400	5400	68200	66480	108200	105600	1.10	13.8	Ittefaq
2	0.363	3/8	0.369	0.11	0.107	3600	4600	72200	74370	92200	95100	0.90	11.3	Mughal
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180º is Satisfactory														
3/8" Dia Bar Bend Test Through 180º is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
M/S Defence Housing Authority.
Lahore Cantt
(Infra Dev Works, Pkg-6, Block H & K, (Prism-9) DHA Ph-IX (M/s FWO)

Reference # CED/TFL **34420** (Dr. Ali Ahmed) Dated: 02-01-2020
Reference of the request letter # 408/241/E/Lab/808/3403 Dated: 26-12-2019

Tension Test Report (Page -1/1)

Date of Test 03-01-2020
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.380	3	0.377	0.11	0.112	3500	4900	70200	69010	98200	96700	1.10	13.8	Mughal Steel
2	0.378	3	0.376	0.11	0.111	3400	4900	68200	67510	98200	97300	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only two samples for tensile and one sample for bend test

Bend Test

#3 Bar Bend Test Through 180º is Satisfactory

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
Project Manager
Liberty Builders
(Construction of Zee Avenue-Ramada Hotel & Suites 17-A Cooper Road, Lahore)

Reference # CED/TFL **34423** (Dr. Ali Ahmed) Dated: 03-01-2020
Reference of the request letter # ST/UET/20200103-A Dated: 03-01-2020

Tension Test Report (Page -1/1)

Date of Test 03-01-2020
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.371	3	0.373	0.11	0.109	3700	4900	74200	74760	98200	99100	1.00	12.5	Model
2	0.369	3	0.371	0.11	0.108	3300	4800	66200	67130	96200	97700	1.00	12.5	
3	0.379	3	0.377	0.11	0.111	3500	4900	70200	69280	98200	97000	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only three samples for tensile and one sample for bend test														
Bend Test														
# 3 Bar Bend Test Through 180º is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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