



**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/02/2762

Dated: 09-02-2023

Date of Test: 13-02-2023

To,

**Sr. Manager Projects**  
**Izhar Construction (Pvt) Ltd**  
**Construction of Riphah Medical City Gulberg Greens Islamabad.**

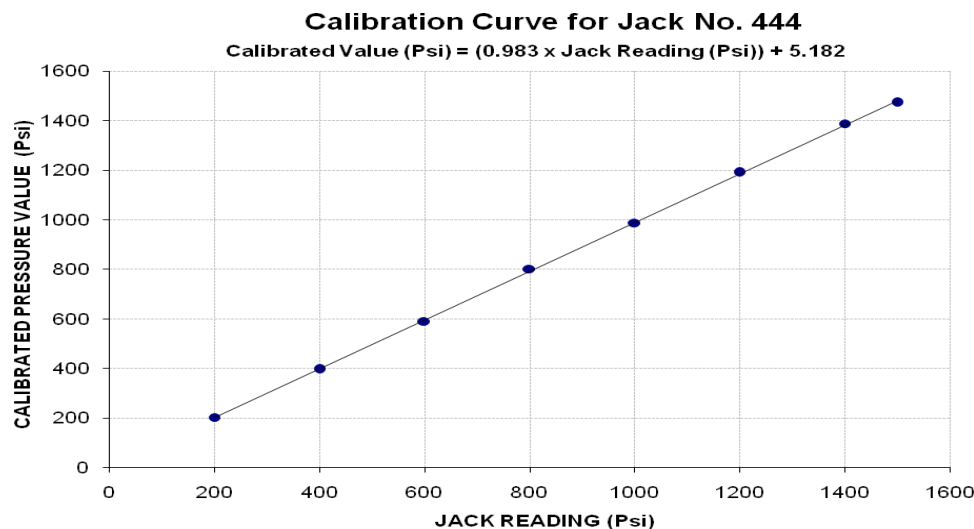
Subject: - **CALIBRATION OF HYDRAULIC JACK WITH PRESSURE GAUGE**  
**(MARK: TFL/02/2762) (Page # 1/3)**

Reference to your Letter No. IZHAR/RIPHAH/028/2023, Dated: 09/02/2023 on the subject cited above. One Hydraulic Jack No. 444 with Pressure Gauge No. NR 135 as received by us has been calibrated. The results are tabulated as under:

**Total Range : Zero - 5500 (Psi)**  
**Calibrated Range : Zero - 1500 (Psi)**

<b>Jack Reading (Psi)</b>	200	400	600	800	1000	1200	1400	1500
<b>Calibrated Load (kg)</b>	26000	51000	76000	103000	127000	153200	178500	189400
<b>Calibrated Pressure (Psi)</b>	202	396	591	801	987	1191	1387	1472

The Ram Area for Calibration = 283.64 in<sup>2</sup>



**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](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



**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/02/2762

Dated: 09-02-2023

Date of Test: 13-02-2023

To,

**Sr. Manager Projects**  
**Izhar Construction (Pvt) Ltd**  
**Construction of Riphah Medical City Gulberg Greens Islamabad.**

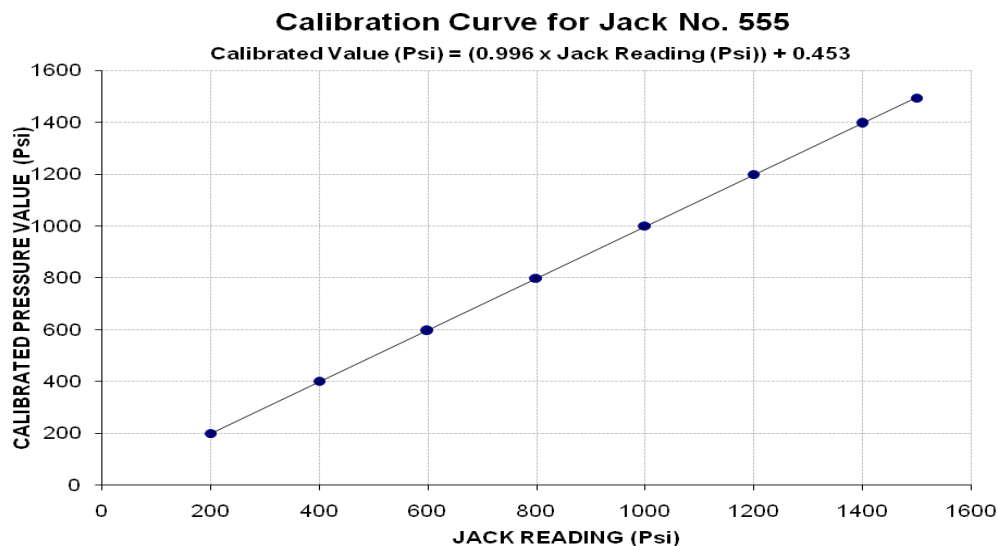
**Subject: - CALIBRATION OF HYDRAULIC JACK WITH PRESSURE GAUGE**  
**(MARK: TFL/02/2762) (Page # 2/3)**

Reference to your Letter No. IZHAR/RIPHAH/028/2023, Dated: 09/02/2023 on the subject cited above. One Hydraulic Jack No. 555 with Pressure Gauge No. NR 140 as received by us has been calibrated. The results are tabulated as under:

**Total Range : Zero - 5500 (Psi)**  
**Calibrated Range : Zero - 1500 (Psi)**

<b>Jack Reading (Psi)</b>	200	400	600	800	1000	1200	1400	1500
<b>Calibrated Load (kg)</b>	25700	51500	76600	102600	128600	154200	179500	192200
<b>Calibrated Pressure (Psi)</b>	200	400	595	797	1000	1199	1395	1494

The Ram Area for Calibration = 283.64 in<sup>2</sup>



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

Note:

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



**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/02/2762

Dated: 09-02-2023

Date of Test: 13-02-2023

To,

**Sr. Manager Projects**  
**Izhar Construction (Pvt) Ltd**  
**Construction of Riphah Medical City Gulberg Greens Islamabad.**

**Subject: - CALIBRATION OF DIAL GAUGES (MARK: TFL/02/2762) (Page # 3/3)**

Reference to your Letter No. IZHAR/RIPHAH/028/2023, Dated: 09/02/2023 on the subject cited above. Four Dial Gauges as received by us have been calibrated on standard calibration device. The results are tabulated as under.

**Total Range : Zero - 50 (mm)**  
**Calibrated Range : Zero - 50 (mm)**

<b>Standard Reading</b>	<b>Dial Gauge Readings</b>			
	<b>Dial Gauge No. I (3900419)</b>	<b>Dial Gauge No. II (3910316)</b>	<b>Dial Gauge No. III (3910261)</b>	<b>Dial Gauge No. IV (3900485)</b>
400	391	394	392	391
800	792	791	791	791
1200	1193	1191	1191	1192
1600	1594	1590	1592	1592
2000	1995	1990	1993	1993
2400	2394	2390	2394	2395
2800	2795	2791	2794	2794
3200	3195	3191	3193	3195
3600	3596	3592	3593	3595
4000	3998	3992	3994	3994
4400	4398	4391	4393	4394
4800	4797	4791	4794	4794
5000	4997	4991	4994	4993

**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](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



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

To,

Engr. Asif Naveed  
 Asian Consulting Engineers Pvt. :td  
 Provision of Infrastructural Academic Operational Facilities to The Punjab University of  
 Technology Rasul, Mandi Bahauddin.3.  
 (Construction of Residences Grade (15, 17), Grade (11, 14), Boundary Wall, Gate and  
 Gate Pillars, Observation Posts Group. OHR- 50,000 Gallon, 4 nos. and installation  
 including Boring and Chamber)(Group # 06)

Reference # CED/TFL **2765** (Dr. Rizwan Azam)

Dated: 10-02-2023

Reference of the request letter# AsCE/PUT-RSL/2023-RE-14

Dated: 09-02-2023

**Tension Test Report** (Page -1/7)

Date of Test 13-02-2023

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 <sup>2</sup> )		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	0.372	3	0.373	0.11	0.109	3400	4900	68200	68500	98200	98800	1.00	12.5	Mughal Supreme
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**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](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



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

To,

Engr. Asif Naveed  
 Asian Consulting Engineers Pvt. :td  
 Provision of Infrastructural Academic Operational Facilities to The Punjab University of  
 Technology Rasul, Mandi Bahauddin.3.  
 (Construction of Academic Block # 01),(Group # 01)

Reference # CED/TFL **2765** (Dr. Rizwan Azam)

Dated: 10-02-2023

Reference of the request letter# AsCE/PUT-RSL/2023-RE-15

Dated: 09-02-2023

**Tension Test Report** (Page -2/7)

Date of Test 13-02-2023

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 <sup>2</sup> )		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	0.376	3	0.375	0.11	0.110	3400	5200	68200	67850	104200	103800	1.30	16.3	Ittehad Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**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](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



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

To,

Engr. Asif Naveed  
 Asian Consulting Engineers Pvt. :td  
 Provision of Infrastructural Academic Operational Facilities to The Punjab University of  
 Technology Rasul, Mandi Bahauddin.3.  
 (Construction of 04 Nos. Student Hostel),(Group # 04)

Reference # CED/TFL **2765** (Dr. Rizwan Azam)

Dated: 10-02-2023

Reference of the request letter# AsCE/PUT-RSL/2023-RE-17

Dated: 09-02-2023

**Tension Test Report** (Page -3/7)

Date of Test 13-02-2023

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 <sup>2</sup> )		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	0.370	3	0.372	0.11	0.109	3400	5000	68200	68980	100200	101500	1.20	15.0	Ittehad Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**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](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



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

To,

Engr. Asif Naveed  
 Asian Consulting Engineers Pvt. :td  
 Provision of Infrastructural Academic Operational Facilities to The Punjab University of  
 Technology Rasul, Mandi Bahauddin.3.  
 (Construction of Residences Grade 20 & above, Grade 18 to 19 and Bachelor Faculty  
 Hostel),(Group # 05)

Reference # CED/TFL **2765** (Dr. Rizwan Azam)

Dated: 10-02-2023

Reference of the request letter# AsCE/PUT-RSL/2023-RE-18

Dated: 09-02-2023

**Tension Test Report** (Page -4/7)

Date of Test 13-02-2023

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 <sup>2</sup> )		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	0.379	3	0.377	0.11	0.112	2600	3800	52100	51380	76200	75100	0.90	11.3	PK Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**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](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
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- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

To,

Engr. Asif Naveed  
 Asian Consulting Engineers Pvt. :td  
 Provision of Infrastructural Academic Operational Facilities to The Punjab University of  
 Technology Rasul, Mandi Bahauddin.3.  
 (Construction of OHR, Group # 06)

Reference # CED/TFL **2765** (Dr. Rizwan Azam)  
 Reference of the request letter# AsCE/PUT-RSL/2023-RE-13

Dated: 10-02-2023  
 Dated: 09-02-2023

**Tension Test Report** (Page -5/7)

Date of Test 13-02-2023  
 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 <sup>2</sup> )		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	0.371	3	0.372	0.11	0.109	3500	5100	70200	70820	102200	103200	1.40	17.5	Mughal Supreme
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

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

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- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples





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

To,

Engr. Asif Naveed  
 Asian Consulting Engineers Pvt. :td  
 Provision of Infrastructural Academic Operational Facilities to The Punjab University of  
 Technology Rasul, Mandi Bahauddin.3.  
 (Construction of Academic Block # 02), (Group # 02)

Reference # CED/TFL **2765** (Dr. Rizwan Azam)  
 Reference of the request letter# AsCE/PUT-RSL/2023-RE-16

Dated: 10-02-2023  
 Dated: 09-02-2023

**Tension Test Report** (Page -6/7)

Date of Test 13-02-2023  
 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 <sup>2</sup> )		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	0.382	3	0.378	0.11	0.112	3400	5200	68200	66670	104200	102000	1.10	13.8	Ittehad Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**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](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



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

To,

Engr. Asif Naveed  
 Asian Consulting Engineers Pvt. :td  
 Provision of Infrastructural Academic Operational Facilities to The Punjab University of  
 Technology Rasul, Mandi Bahauddin.3.  
 (Construction of Admin Block, Central Library and Student Service Centre, Group # 03)

Reference # CED/TFL **2765** (Dr. Rizwan Azam)

Dated: 10-02-2023

Reference of the request letter# AsCE/PUT-RSL/2023-RE-12

Dated: 09-02-2023

**Tension Test Report** (Page -7/7)

Date of Test 13-02-2023

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 <sup>2</sup> )		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	0.372	3	0.373	0.11	0.109	3500	4500	70200	70630	90200	90900	0.90	11.3	Mughal
2	0.371	3	0.372	0.11	0.109	3700	4700	74200	74860	94200	95100	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**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](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



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

To,  
 M/S Al-A'Zamiyya Block Phase I  
 Lahore

Reference # CED/TFL **2766** (Dr. Rizwan Azam)  
 Reference of the request letter# Alz./ST/002

Dated: 10-02-2023  
 Dated: 10-02-2023

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

Date of Test 13-02-2023  
 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 <sup>2</sup> )		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	0.368	3	0.371	0.11	0.108	3900	5000	78200	79560	100200	102000	1.30	16.3	
2	0.368	3	0.371	0.11	0.108	4000	5000	80200	81530	100200	102000	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 Laboratories**  
**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](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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**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/02/2768

Dated: 10-02-2023

Date of Test: 13-02-2023

To,

**M/S Hajveri Power T.R.W**  
**Lahore**

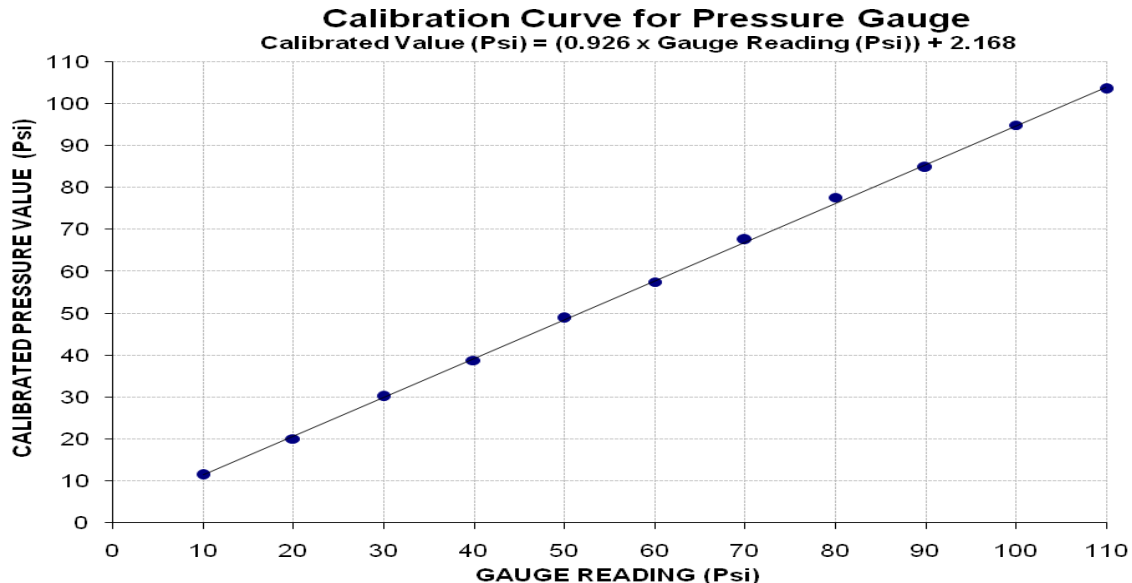
Subject: - **CALIBRATION OF PRESSURE GAUGE (MARK: TFL/02/2768)** (Page # 1/1)

Reference to your Letter No. nil, Dated: 10/02/2023 on the subject cited above. One Pressure Gauge as received by us has been calibrated. The results are tabulated as under:

**Total Range : Zero - 150 (Psi)**  
**Calibrated Range : Zero - 110 (Psi)**

Pressure Gauge Reading (Psi)	10	20	30	40	50	60	70	80	90	100	110
Calibrated Load (kg)	160	280	420	540	680	800	940	1080	1180	1320	1440
Calibrated Pressure (Psi)	11	20	30	39	49	57	68	78	85	95	103

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



**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](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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**Pakistan. Ph: 92-42-99029202**

Ref: CED/TFL/02/2769

Dated: 10-02-2023

Dated: 11-02-2023

To

**Q.C Officer**  
**M.E.L (Steel Division)**  
**Chiniot**

Subject:- **CALIBRATION OF UNIVERSAL TESTING MACHINE OF 2000kN**  
**(MARK: CED/TFL/02/2769)**

Reference to your letter No. Nil, dated: 02/02/2023 on the subject cited above. One Universal Testing Machine (Model: WAW-2000E) has been calibrated by using standard calibration device. The results are tabulated as under:

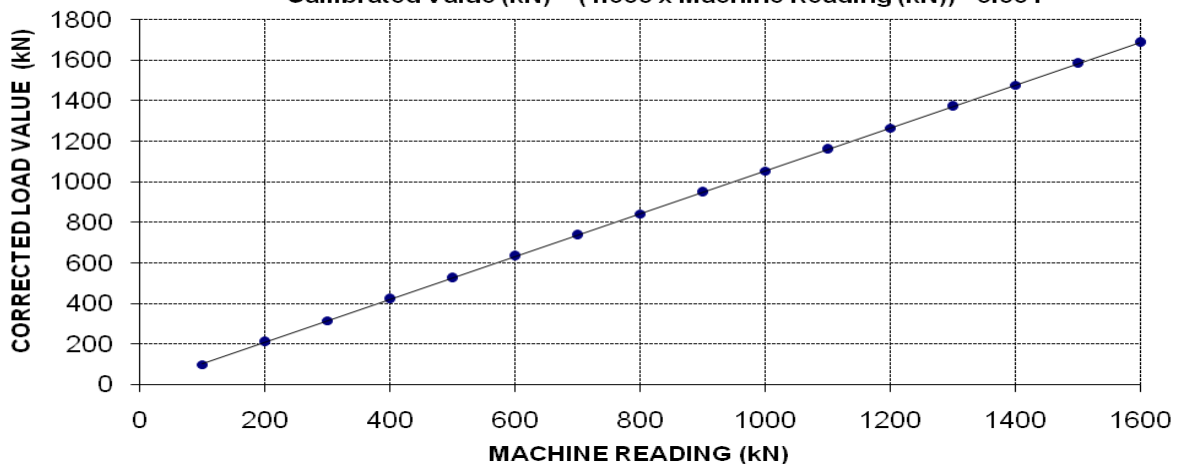
**Total Range : Zero - 2000 (kN)**

**Calibrated Rang : Zero - 1600 (kN)**

Machine Reading (kN)	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600
Corrected Load Value (kN)	97	209	315	420	524	632	736	842	947	1054	1159	1264	1370	1476	1582	1685

**CALIBRATION CURVE FOR UNIVERSAL TESTING MACHINE**

**Callibrated Value (kN) = (1.056 x Machine Reading (kN)) - 3.651**



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

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**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/02/2770

Dated: 13-02-2023

Date of Test: 13-02-2023

To,

**M/S Bemsol Private Limited**  
**Lahore**

Subject: - **CALIBRATION OF PRESSURE GAUGE (MARK: TFL/02/2743)** (Page # 1/1)

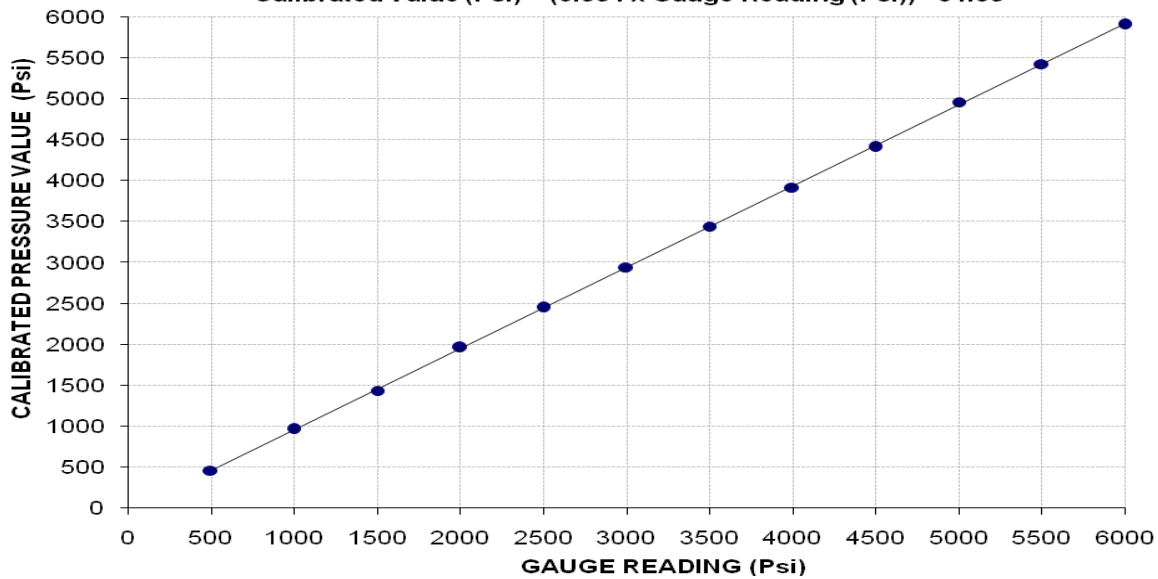
Reference to your Letter No. BPL/UT/202302131, Dated: 11/02/2023 on the subject cited above. One Pressure Gauge No. GP-10S (5431202803), Make ENERPAC as received by us has been calibrated. The results are tabulated as under:

**Total Range : Zero - 10000 (Psi)**  
**Calibrated Range : Zero - 6000 (Psi)**

Pressure Gauge Reading (Psi)	500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
Calibrated Load (kg)	6400	13400	20000	27300	34100	41000	47900	54500	61400	69000	75500	82200
Calibrated Pressure (Psi)	460	963	1437	1961	2450	2945	3441	3915	4411	4957	5423	5905

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

**Calibration Curve for Pressure Gauge No. GP-10S (5431202803)**  
**Calibrated Value (Psi) = (0.991 x Gauge Reading (Psi)) - 34.39**



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

Note:

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

To,

Project Manager  
 Renaissance International Pvt Ltd.  
 Construction of RCC Roof Slab for Grid Station control Room at LMC Project,  
 Sheikhpura Road, Lahore

Reference # CED/TFL 2773 (Dr. Rizwan Azam)  
 Reference of the request letter# QC/23/048

Dated: 13-02-2023  
 Dated: 12-02-2023

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

Date of Test 13-02-2023  
 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 <sup>2</sup> )		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	3500	4700	70200	69510	94200	93400	1.30	16.3	FF Steel
2	0.383	3	0.379	0.11	0.113	3600	5100	72200	70500	102200	99900	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
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**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
 Resident Engineer,  
 Orbit Developers Private Limited  
 The Spring Atrium, Gulberg Lahore

Reference # CED/TFL 2774 (Dr. Rizwan Azam)  
 Reference of the request letter# NIL

Dated: 13-02-2023  
 Dated: 13-02-2023

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

Date of Test 13-02-2023  
 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 <sup>2</sup> )		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	0.362	3	0.368	0.11	0.106	3200	4800	64200	66250	96200	99400	1.10	13.8	
2	0.361	3	0.367	0.11	0.106	3300	4900	66200	68620	98200	101900	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

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

Note:

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