

Ref: CED/TFL/09/7559

Dated: 29-09-2025

Date of Test: 06-10-2025 (Dr. Safeer Abbas)

To,

Syed Saghir Sabir (Director: Operations & Business Development)
Direct Line Engineering Corporation

Subject: - CALIBRATION OF LOAD CELL WITH DIGITAL INDICATOR
(MARK: TFL/09/7559)

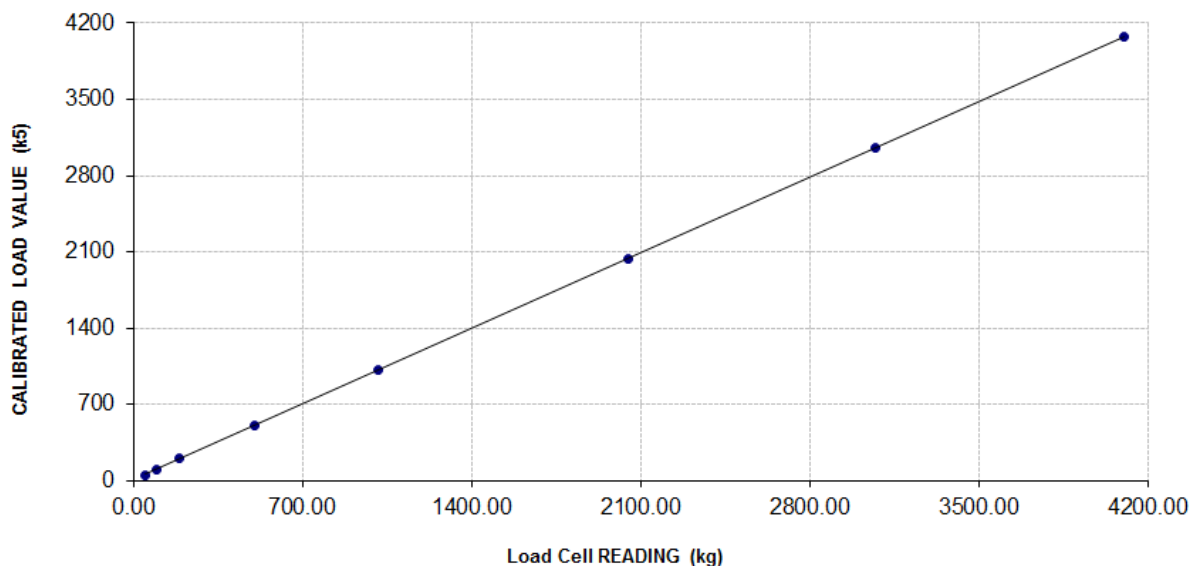
Reference to your Letter No. DLE/M-09/CAL-OS/040, Dated: 29/09/2025 on the subject cited above. One Load Cell with Digital Indicator, Model (Max Technologies: CZS 308) as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 5000 (kg)
Calibrated Range : Zero - 5000 (kg)

Load Cell Reading (kg)		45.3	96.3	189.5	501.0	1012.8	2046.3	3075.0	4105.0
Calibrated Load (kN)		0.5	1.0	2.0	5.0	10.0	20.0	30.0	40.0
Calibrated Load (kg)		51.0	101.9	203.9	509.7	1019.4	2038.7	3058.1	4077.5

CALIBRATION FOR LOAD CELL MAX TECHNOLOGIES: CZS 308

Calibrated Value (kg) = (0.9909 x Load Cell Value (kg)) + 11.287



Test Performed and Verified by:

To,
 Landmark Developers
 The Oasis Grand-14

Reference # CED/TFL 7585 (Dr. Rizwan Riaz)
 Reference of the request letter # Nil

Dated: 02-10-2025
 Dated: 02-10-2025

Tension Test Report (Page-1/1)

Date of Test 06-10-2025
 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	0.381	3	0.377	0.110	0.1118	34.70	51.50	70889	69735	105209	103497	1.1	13.8	-
2	0.382	3	0.378	0.110	0.1123	34.70	51.70	70889	69419	105618	103428	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,

Engr. Mehar Ali Qureshi (Resident Engineer)
Alhamra Town, Lahore
Construction of Main Entrance Gate at Al-Hamra Town Lahore

Reference # CED/TFL 7587 (Dr. Rizwan Riaz)
Reference of the request letter # ALHM/EG/7324

Dated: 02-10-2025
Dated: 30-09-2025

Tension Test Report (Page-1/1)

Date of Test 06-10-2025
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	0.370	3	0.372	0.110	0.1088	36.20	44.70	73953	74746	91318	92297	1.2	15.0	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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. Fahad Hussain (Material Engineer ECSP)
Engineering Consultancy Services Punjab (Pvt.) Ltd.
Revamping of Bansra Gali Zoological Garden, Murree.

Reference # CED/TFL 7588 (Dr. Rizwan Riaz)
Reference of the request letter # 446/ECSP/RBM/05/FH/09

Dated: 02-10-2025
Dated: 10-09-2025

Tension Test Report (Page-1/1)

Date of Test 06-10-2025
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	0.358	3	0.366	0.110	0.1052	31.50	46.70	64351	67296	95403	99769	1.2	15.0	-
2	0.369	3	0.371	0.110	0.1083	33.20	48.00	67824	68877	98059	99582	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,

Resident Engineer
Engineering Consultants Services Punjab, Changa Manga Kasur
Resident Supervision of Construction of "Master Planning Implementation for Eco-Tourism at Changa Manga & Wetlands in Punjab" (Aziz Steel)

Reference # CED/TFL 7589 (Dr. Rizwan Riaz)
Reference of the request letter # RE/ECSP/CHNGAPARK/03

Dated: 02-10-2025

Dated: 01-10-2025

Tension Test Report (Page-1/1)

Date of Test 06-10-2025

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	0.366	3	0.370	0.110	0.1075	30.20	44.70	61696	63101	91318	93398	1.0	12.5	-
2	0.368	3	0.371	0.110	0.1081	29.70	44.00	60674	61724	89888	91444	1.1	13.8	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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. Muhammad Asif (Material Engineer)

Nespak (Pvt.) Ltd.

Expansion of Terminal Building and Allied Facilities at Allama Iqbal International Airport (AIIAP), Lhr
(Kamran Steel) (Witness by: Mr. Muhammad Asif (Material Engineer))

Reference # CED/TFL 7590 (Dr. Rizwan Riaz)
Reference of the request letter # 3043/50Q/MSB/108/1509

Dated: 02-10-2025

Dated: 01-10-2025

Tension Test Report (Page-1/1)

Date of Test 06-10-2025

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	0.367	3	0.371	0.110	0.108	33.00	46.50	67416	68673	94995	96766	1.2	15.0	-
2	0.369	3	0.371	0.110	0.1083	32.20	46.20	65781	66791	94382	95830	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. Ishtiaq Ahmad
 Precast Building Systems (Pvt.) Ltd.

Reference # CED/TFL **7592** (Dr. Rizwan Riaz)
 Reference of the request letter # P-4/UET/01/2025

Dated: 02-10-2025
 Dated: 02-10-2025

Tension Test Report (Page -1/1)

Date of Test 06-10-2025
 Gauge length 600 mm
 Description Steel Strand Tensile Test as per ASTM A-416

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		% Elongation	Remarks / Coil No.
	(mm)	(kg/1000m)	(kg/1000m)	(kg)	(kN)	(kg)	(kN)		
1	9.53 (3”/8)	430.0	445	8800	86.33	10100	99.08	>3.50	xx
2	9.53 (3”/8)	430.0	445	7200	70.63	9900	97.12	>3.50	xx
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
Only two sample for Test									

- Note:
1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM – A416a
 2. Load versus percentage strain graphs are attached

Test Performed and Verified by:

To,

Mr. Muhammad Shabbir Sandhu (Material Engineer)
EPCM Consultants
WWTP/ICB/PICIIP-08A Sahiwal
(Sheikhoo Steel)

Reference # CED/TFL 7593 (Dr. Rizwan Riaz)
Reference of the request letter # 3976/11/MMA/SWL/WWTP/01/405

Dated: 02-10-2025
Dated: 01-10-2025

Tension Test Report (Page-1/3)

Date of Test 06-10-2025
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	0.1096	39.20	49.50	80082	80357	101124	101471	1.3	16.3	-
2	0.393	3	0.383	0.110	0.1154	34.50	54.20	70480	67193	110725	105561	1.1	13.8	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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. Muhammad Shabbir Sandhu (Material Engineer)
EPCM Consultants
WWTP/ICB/PICIIP-08A Sahiwal
(Sheikhoo Steel)

Reference # CED/TFL 7593 (Dr. Rizwan Riaz)
Reference of the request letter # 3976/11/MMA/SWL/WWTP/01/404

Dated: 02-10-2025
Dated: 01-10-2025

Tension Test Report (Page-2/3)

Date of Test 06-10-2025
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	0.375	3	0.375	0.110	0.1102	39.20	49.50	80082	79964	101124	100975	1.2	15.0	-
2	0.363	3	0.368	0.110	0.1066	35.20	44.50	71910	74216	90909	93824	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. Muhammad Shabbir Sandhu (Material Engineer)
EPCM Consultants
WWTP/ICB/PICIIP-08A Sahiwal
(Sheikhoo Steel)

Reference # CED/TFL 7593 (Dr. Rizwan Riaz)
Reference of the request letter # 3976/11/MMA/SWL/WWTP/01/361

Dated: 02-10-2025
Dated: 18-09-2025

Tension Test Report (Page-3/3)

Date of Test 06-10-2025
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	0.360	3	0.367	0.110	0.1057	34.50	43.70	70480	73374	89275	92940	1.0	12.5	-
2	0.376	3	0.375	0.110	0.1104	39.50	49.70	80695	80396	101532	101157	1.0	12.5	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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,

Engr. Shahzad Khurram Khan (Chief Resident Engineer)
Osmani & Company (Pvt.) Ltd.

(Procurement No. AIIC-06) Construction of Sewer & Water Supply Networks at Main Arterial, Chiniot Sahianwala and Sem Nala Roads Including Balance Works at Main Arterial Road and Rerouting

Reference # CED/TFL 7595 (Dr. Rizwan Riaz)
Reference of the request letter # CRE/AIIC-06/Lab/2052

Dated: 03-10-2025

Dated: 26-09-2025

Tension Test Report (Page-1/1)

Date of Test 06-10-2025

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	0.366	3	0.370	0.110	0.1076	35.50	44.20	72523	74114	90296	92278	1.2	15.0	-
2	0.365	3	0.369	0.110	0.1072	37.70	45.70	77017	79038	93361	95809	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,
M/s Tauheed Builders
-
-

Reference # CED/TFL 7596 (Dr. Rizwan Riaz)
Reference of the request letter # Nil

Dated: 03-10-2025
Dated: 03-10-2025

Tension Test Report (Page-1/1)

Date of Test 06-10-2025
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	0.374	3	0.374	0.110	0.11	35.50	42.70	72523	72510	87232	87217	1.0	12.5	-
2	0.377	3	0.375	0.110	0.1107	37.50	44.50	76609	76148	90909	90362	1.0	12.5	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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:

Ref: CED/TFL/10/7597

Dated: 03-10-2025

Dated of Test: 06-10-2025 (Dr. Rizwan Riaz)

To,

Mr. Shahid Ul Islam

NESPAK (Pvt.) Ltd.

Construction of Road Connecting Sub Division Wazir to Bannu Circular Road

ADp No. 1496/200237 (2024-25)

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/10/7597) (Page -1/2)

Reference to your Letter No. SDW/AIP/4040/025/SI/08/0889, Dated: 02/10/2025 on the subject cited above. One Hydraulic Jack No. 409 with Gauge No. SF409 as received by us has been calibrated. The results are tabulated as under:

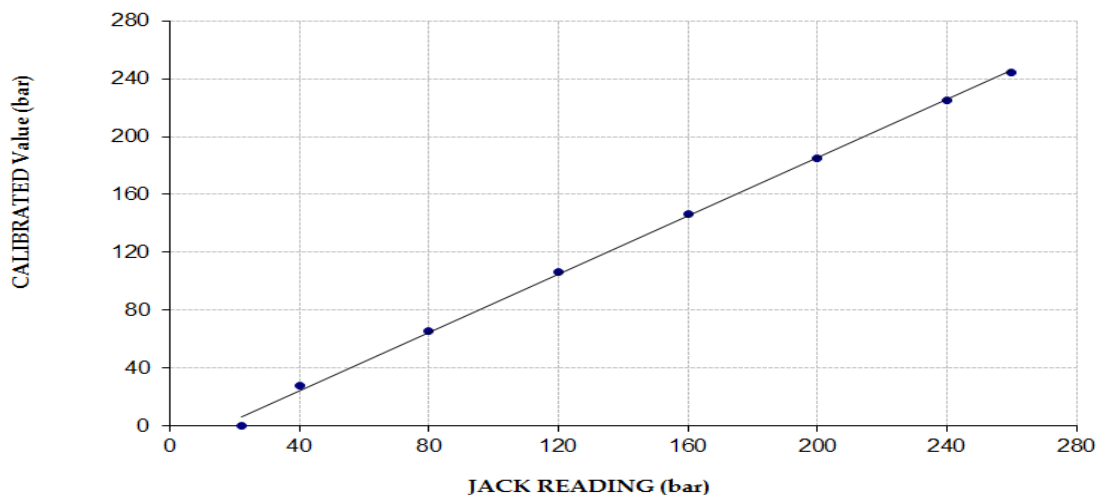
Total Range : Zero - 1000 (bar)
Calibrated Range : Zero - 260 (bar)

Hydraulic Jack Reading (bar)	22	40	80	120	160	200	240	260
Calibrated Load (kg)	0	21000	49400	79400	109800	138400	168600	183000
Calibrated Pressure (bar)	0	28	66	106	147	185	225	245

The Ram Area use for Calibration = 733.975 cm²

Calibration Curve For Jack No. 409 Gauge No. SF 409

Calibrated Value (bar) = (1.0078 x Jack Reading (bar)) - 16.141



Test Performed and Verified by:

Ref: CED/TFL/10/7597

Dated: 03-10-2025

Dated of Test: 06-10-2025 (Dr. Rizwan Riaz)

To,

Mr. Shahid Ul Islam

NESPAK (Pvt.) Ltd.

Construction of Road Connecting Sub Division Wazir to Bannu Circular Road

ADp No. 1496/200237 (2024-25)

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/10/7597) (Page -2/2)

Reference to your Letter No. SDW/AIP/4040/025/SI/08/0889, Dated: 02/10/2025 on the subject cited above. One Hydraulic Jack No. 410 with Gauge No. SF410 as received by us has been calibrated. The results are tabulated as under:

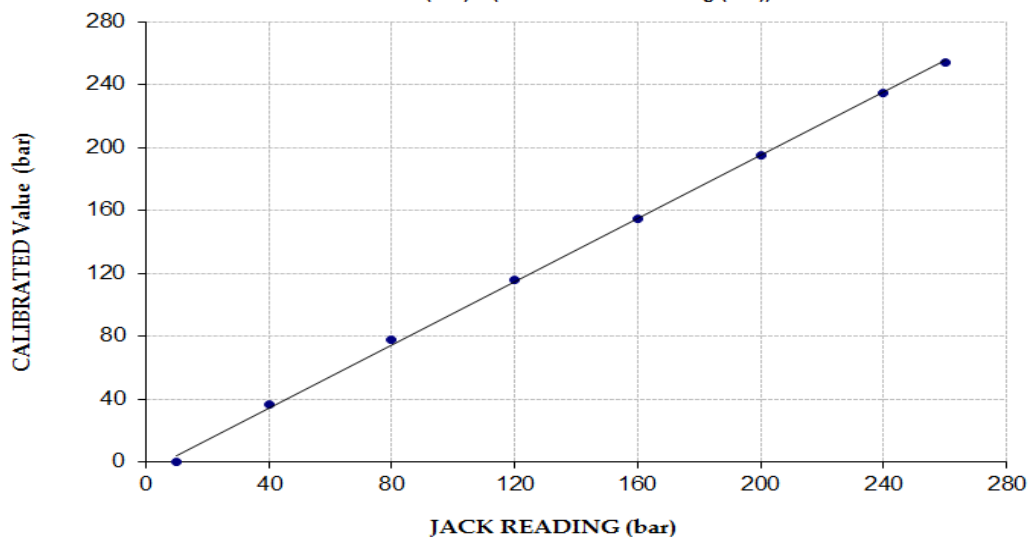
Total Range : Zero - 1000 (bar)
Calibrated Range : Zero - 260 (bar)

Hydraulic Jack Reading (bar)	10	40	80	120	160	200	240	260
Hydraulic Jack Load (kg)	0	27200	58000	86400	116000	146200	175600	190000
Calibrated Pressure (bar)	0	36	77	115	155	195	235	254

The Ram Area use for Calibration = 733.975 cm²

Calibration Curve For Jack No. 410 Gauge No. SF 410

$$\text{Calibrated Value (bar)} = (1.0034 \times \text{Jack Reading (bar)}) - 5.7085$$



Test Performed and Verified by:

To,

Mr. Ghulam Abbas (XEN)

GE (Army)-II LRC

Enc-A-86/2025 "Upgradation of Parking Shed Area, Hard Standing and Ext Svcs Facilities at Pmad Colony Lahore

Reference # CED/TFL 7598 (Dr. Rizwan Riaz)

Dated: 03-10-2025

Reference of the request letter # 6003/43/E6

Dated: 03-10-2025

Tension Test Report (Page-1/1)

Date of Test 06-10-2025

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	0.386	3	0.380	0.110	0.1135	30.20	42.00	61696	59790	85802	83152	1.7	21.3	-
2	0.387	3	0.380	0.110	0.1137	30.20	42.00	61696	59695	85802	83019	1.3	16.3	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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,

Sub Divisional Officer

Buildings Sub Division No.5, Lahore

Construction of 28 Nos. Residences (Double Storey) for BS-1 to 10 for Vwarders One at District Jail
Lahore (Group No.2) (OHR)

Reference # CED/TFL 7599 (Dr. Rizwan Riaz)

Dated: 03-10-2025

Reference of the request letter # 4869/5th

Dated: 25-09-2025

Tension Test Report (Page-1/1)

Date of Test 06-10-2025

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	0.361	3	0.367	0.110	0.1061	36.20	46.50	73953	76698	94995	98521	1.3	16.3	-
2	0.382	3	0.378	0.110	0.1123	33.50	49.20	68437	67052	100511	98477	1.5	18.8	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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,

Engr. M. Tausif (Project Manager Civil)
Zubair Grains Products (Pvt.) Ltd., Sahiwal

-

Reference # CED/TFL 7601 (Dr. Rizwan Riaz)
Reference of the request letter # Nil

Dated: 06-10-2025

Dated: 06-10-2025

Tension Test Report (Page-1/1)

Date of Test 06-10-2025

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	37.20	49.20	75996	77117	100511	101993	1.2	15.0	-
2	0.376	3	0.375	0.110	0.1103	36.70	49.70	74974	74742	101532	101217	1.1	13.8	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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: