

To,

Construction Manager

Ittefaq Building Solutions (Pvt.) Ltd.

Residence of Mr. Abdullah Imtiaz / Mr. Noor-ul-Amin, House No. 605/613, Block Z, Phase3,
DHA Lahore

Reference # CED/TFL 7173 (Dr. Rizwan Riaz)

Dated: 03-07-2025

Reference of the request letter # Nil

Dated: 03-07-2025

Tension Test Report (Page-1/1)

Date of Test 04-07-2025

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	0.378	3	0.376	0.110	0.111	36.50	49.00	74566	73825	100102	99107	1.1	13.8	-
2	0.379	3	0.376	0.110	0.111	36.50	49.00	74566	73744	100102	98999	1.1	13.8	-
3	0.381	3	0.377	0.110	0.112	36.7	49.2	74974	73750	100511	98869	1.1	13.8	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 3 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. Akram (Material Engineer)
 Maaksons Engineering Corporation (Pvt.) Ltd.
 Enertech Head Office Building Lahore
 (Mughal Steel)

Reference # CED/TFL 7176 (Dr. Rizwan Riaz)
 Reference of the request letter # Mak-Enertech-01

Dated: 03-07-2025
 Dated: 03-07-2025

Tension Test Report (Page-1/1)

Date of Test 04-07-2025
 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	0.11	34.50	45.70	70480	70366	93361	93209	1.1	13.8	-
2	0.372	3	0.373	0.110	0.109	32.70	44.50	66803	67169	90909	91408	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. Muhammad Uzair Akbar (Sr. Site Engineer)
Akhuwat
Construction of Akhuwat Library at Akhuwat College Kasur
(Mughal Steel)

Reference # CED/TFL 7179 (Dr. Rizwan Riaz)
Reference of the request letter # Nil

Dated: 03-07-2025
Dated: 03-07-2025

Tension Test Report (Page-1/1)

Date of Test 04-07-2025
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	0.109	34.70	43.00	70889	71573	87845	88693	1.2	15.0	-
2	0.374	3	0.374	0.110	0.11	34.70	43.50	70889	71038	88866	89054	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,

Engr. M. Bilawal Mahmood (A /Resident Engineer ECSP PSCS)
Engineering Consultancy Services Punjab (Pvt.) Ltd.
Engineering Procurment & Construction and Operation & Maintenance of Nineteen (19) Districts
(Smart Safe Cities Phase-II) Project for 19 Districts Phase-II (Mughal Supreme)

Reference # CED/TFL 7180 (Dr. Rizwan Riaz)
Reference of the request letter # ECSP/PSCS/ARE/14

Dated: 03-07-2025
Dated: 08-05-2025

Tension Test Report (Page-1/5)

Date of Test 04-07-2025
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 (mm)	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	10	0.369	0.120	0.107	36.00	47.00	67416	75516	88015	98591	1.1	13.8	-
2	0.362	10	0.368	0.120	0.106	36.70	47.20	68727	77478	88390	99644	1.1	13.8	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test	
10mm Bar Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by:

To,

Engr. M. Bilawal Mahmood (A /Resident Engineer ECSP PSCS)
Engineering Consultancy Services Punjab (Pvt.) Ltd.
Engineering Procurment & Construction and Operation & Maintenance of Nineteen (19) Districts
(Smart Safe Cities Phase-II) Project for 19 Districts Phase-II (Mughal Supreme)

Reference # CED/TFL 7180 (Dr. Rizwan Riaz)
Reference of the request letter # ECSP/PSCS/ARE/17

Dated: 03-07-2025
Dated: 10-04-2025

Tension Test Report (Page-2/5)

Date of Test 04-07-2025
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 (mm)	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	10	0.371	0.120	0.108	34.70	46.20	64981	71975	86517	95828	1.1	13.8	-
2	0.363	10	0.368	0.120	0.107	34.70	45.00	64981	73117	84270	94820	1.1	13.8	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test	
10mm Bar Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by:

To,

Engr. M. Bilawal Mahmood (A /Resident Engineer ECSP PSCS)
Engineering Consultancy Services Punjab (Pvt.) Ltd.
Engineering Procurment & Construction and Operation & Maintenance of Nineteen (19) Districts
(Smart Safe Cities Phase-II) Project for 19 Districts Phase-II (Mughal Supreme)

Reference # CED/TFL 7180 (Dr. Rizwan Riaz)
Reference of the request letter # ECSP/PSCS/ARE/16

Dated: 03-07-2025
Dated: 10-04-2025

Tension Test Report (Page-3/5)

Date of Test 04-07-2025
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 (mm)	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	0.359	10	0.367	0.120	0.106	34.50	45.20	64607	73412	84644	96181	1.0	12.5	-
2	0.368	10	0.371	0.120	0.108	37.70	48.00	70599	78371	89888	99783	1.1	13.8	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test	
10mm Bar Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by:

To,

Engr. M. Bilawal Mahmood (A /Resident Engineer ECSP PSCS)
Engineering Consultancy Services Punjab (Pvt.) Ltd.
Engineering Procurment & Construction and Operation & Maintenance of Nineteen (19) Districts
(Smart Safe Cities Phase-II) Project for 19 Districts Phase-II (Mughal Supreme)

Reference # CED/TFL 7180 (Dr. Rizwan Riaz)
Reference of the request letter # ECSP/PSCS/ARE/15

Dated: 03-07-2025
Dated: 16-03-2025

Tension Test Report (Page-4/5)

Date of Test 04-07-2025
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 (mm)	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	0.368	10	0.371	0.120	0.108	36.00	46.70	67416	74783	87453	97011	0.9	11.3	-
2	0.363	10	0.369	0.120	0.107	37.20	47.20	69663	78320	88390	99374	1.0	12.5	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test	
10mm Bar Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by:

To,

Engr. M. Bilawal Mahmood (A /Resident Engineer ECSP PSCS)
Engineering Consultancy Services Punjab (Pvt.) Ltd.
Engineering Procurment & Construction and Operation & Maintenance of Nineteen (19) Districts
(Smart Safe Cities Phase-II) Project for 19 Districts Phase-II (Mughal Supreme)

Reference # CED/TFL 7180 (Dr. Rizwan Riaz)
Reference of the request letter # ECSP/PSCS/ARE/14

Dated: 03-07-2025
Dated: 10-03-2025

Tension Test Report (Page-5/5)

Date of Test 04-07-2025
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 (mm)	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	10	0.370	0.120	0.107	35.50	45.50	66479	74244	85206	95158	0.8	10.0	-
2	0.363	10	0.369	0.120	0.107	35.00	45.70	65543	73682	85581	96208	0.9	11.3	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Note: Only 2 Samples for Tensile and 1 Samples for Bend test														

Bend Test	
10mm Bar Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by:

To,

Mr. Rashid Kamran (Resident Engineer /E.R)
Nespak (Pvt.) Ltd.
Construction of Electric Bus Depot at Green Town, Lahore.
(Aziz Steel)

Reference # CED/TFL 7181 (Dr. Rizwan Riaz)
Reference of the request letter # 4792/13/RK/05/74

Dated: 03-07-2025
Dated: 30-06-2025

Tension Test Report (Page-1/1)

Date of Test 04-07-2025
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	0.368	3	0.371	0.110	0.108	30.70	46.20	62717	63842	94382	96075	1.2	15.0	-
2	0.375	3	0.374	0.110	0.11	34.50	50.50	70480	70407	103166	103059	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 Rehman Engineering Solution

Reference # CED/TFL **7182** (Dr. M. Rizwan Riaz)
Reference of the request letter # Nil

Dated: 03-07-2025
Dated: 02-07-2025

Tension Test Report (Page – 1/1)
Date of Test 04-07-2025
Description Wire Rope Ceiling Tensile Test

Sr. No.	Nominal Diameter	Breaking Load	Remarks / Coil No.
	(mm)	(kg)	
1	12mm x 700mm	8900	-
2	16mm x 700mm	16500	-
3	22mm x 700mm	23600	-
-	-	-	-
Only three samples for Test			

Test Performed and Verified by:

Ref: CED/TFL/07/7185

Dated: 04-07-2025

Dated of Test: 04-07-2025 (Dr. Rizwan Riaz)

To

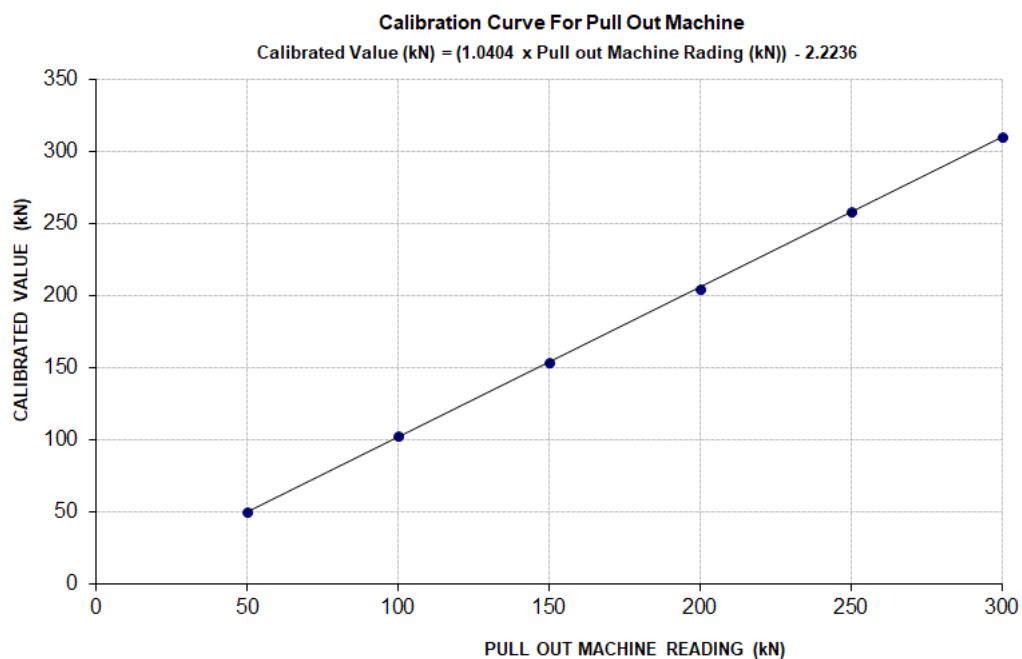
Laboratory Manager
China Gezhouba Group Company Limited
300 MW Balakot Hydro Power Project.

Subject: - CALIBRATION OF PULL OUT MACHINE (MARK: TFL/07/7185) (Page -1/1)

Reference to your Letter No. Nil, dated: 04/07/2025 on the subject cited above. One Pull Out Machine as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 500 (kN)
Calibrated Range : Zero - 300 (kN)

Hydraulic Jack Reading (kN)		50	100	150	200	250	300
Calibrated Load	(kg)	5050	10450	15700	20850	26350	31600
	(kN)	50	103	154	205	258	310



Test Performed and Verified by: