

To,

Engr. Bilawal Mahmood (A/Resident Engineer ECSP PSCS)  
Engineering Consultancy Services Punjab (Pvt.) Ltd.  
Engineering Procurement & Construction and Operatio & Maintenance of Nineteen (19) Districts  
(Smart Safe Cities Phase-II) Project for 19 District Phase-II (Kot Addu)

Reference # CED/TFL 7232 (Dr. Rizwan Riaz)  
Reference of the request letter # ECSP/PSCS/ARE/18

Dated: 17-07-2025  
Dated: 11-05-2025

### Tension Test Report (Page-1/2)

Date of Test 21-07-2025  
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 <sup>2</sup> )		Yield Load (kN)	Breaking Load (kN)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.364	10	0.369	0.120	0.107	36.70	48.00	68727	77067	89888	100796	1.3	16.3	Sheikoo Steel
2	0.364	10	0.369	0.120	0.107	36.70	48.00	68727	77019	89888	100734	1.2	15.0	Sheikoo Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**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. Bilawal Mahmood (A/Resident Engineer ECSP PSCS)  
Engineering Consultancy Services Punjab (Pvt.) Ltd.  
Engineering Procurement & Construction and Operatio & Maintenance of Nineteen (19) Districts  
(Smart Safe Cities Phase-II) Project for 19 District Phase-II (Taunsa)

Reference # CED/TFL 7232 (Dr. Rizwan Riaz)  
Reference of the request letter # ECSP/PSCS/ARE/011

Dated: 17-07-2025  
Dated: 02-06-2025

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

Date of Test 21-07-2025  
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 <sup>2</sup> )		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	37.20	48.00	69663	78029	89888	100682	1.1	13.8	Sheikoo Steel
2	0.366	10	0.370	0.120	0.107	37.00	48.20	69288	77416	90262	100850	1.2	15.0	Sheikoo Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

<b>Bend Test</b>	
10mm Bar Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by:

To,

Mr. Muhammad Ibrar (Project Manager)  
Innovative ® Construction Company  
Kingdom Arena Ruda Lahore

Reference # CED/TFL 7234 (Dr. Rizwan Riaz)  
Reference of the request letter # Ruda/10

Dated: 18-07-2025  
Dated: 18-07-2025

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

Date of Test 21-07-2025  
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 <sup>2</sup> )		Yield Load (kN)	Breaking Load (kN)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.362	3	0.368	0.110	0.106	37.00	45.00	75587	78192	91931	95099	1.0	12.5	-
2	0.368	3	0.371	0.110	0.108	37.20	45.50	75996	77303	92952	94551	1.2	15.0	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Bend Test														

Test Performed and Verified by:

To,  
 Mr. Muhammad Nadeem Akhtar (Resident Engineer)  
 Nespak (Pvt.) Ltd.  
 Reconstruction / Rehabilitation of G.T. Road From Quaid-E-Azam Interchange (Lahore Ring Road)  
 to Wahga Border in District Lahore (Part-A) (Jamal Poles)

Reference # CED/TFL 7235 (Dr. Rizwan Riaz)  
 Reference of the request letter # Nespak/GT-W/MNA/050

Dated: 18-07-2025  
 Dated: 15-07-2025

**Tension Test Report** (Page-1/2)

Date of Test 18-07-2025  
 Gauge Length 2 inches  
 Description Steel 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 <sup>2</sup> )	(kg)	(kg)	(MPa)	(MPa)	(inch)		
1	MS Base Plate	20.00 x 31.40	628.00	20100	27730	314.0	433.2	1.1	55.0	-
2	MS Base Plate	20.00 x 31.50	630.00	19880	27850	309.6	433.7	1.1	55.0	-
3	MS Elec. Pole Shee	4.90 x 31.20	152.88	5520	7650	354.2	490.9	1	50.0	-
4	MS Elec. Pole Shee	4.80 x 30.80	147.84	5610	7540	372.3	500.3	0.9	45.0	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

**Note: Only 4 Samples for Tensile and 0 Samples for Bend test**

**Bend Test**


Test Performed and Verified by:

To,

Mr. Muhammad Nadeem Akhtar (Resident Engineer)

Nespak (Pvt.) Ltd.

Reconstruction / Rehabilitation of G.T. Road From Quaid-E-Azam Interchange (Lahore Ring Road) to Wahga Border in District Lahore (Part-A)

Reference # CED/TFL 7235 (Dr. Rizwan Riaz)

Dated: 18-07-2025

Reference of the request letter # Nespak/GT-W/MNA/048

Dated: 15-07-2025

### Tension Test Report (Page-2/2)

Date of Test 21-07-2025

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 <sup>2</sup> )		Yield Load (kN)	Breaking Load (kN)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.412	3	0.393	0.110	0.121	36.00	49.20	73544	66790	100511	91280	1.3	16.3	Ravi Steel
2	0.404	3	0.389	0.110	0.119	35.20	48.20	71910	66588	98468	91180	1.3	16.3	Ravi Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**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,  
 Ms. Mahwish Rana (Material Engineer DHA Lab)  
 M/s DHA Multan.  
 M/s Malik Akhtar Pipe Factory

Reference # CED/TFL **7236** (Dr. Rizwan Riaz)  
 Reference of the request letter # 701/13/Lab/65/DHA

Dated: 18-07-2025  
 Dated: 17-07-2025

**Tension Test Report** (Page -1/1)  
 Date of Test 21-07-2025  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test

Sr. No.	Weight (lbs/ft)	Diameter/ Size (mm)		Area (in <sup>2</sup> )	Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)	Ultimate Stress (psi)	Elongation (inch)	% Elongation	Remarks
		Nominal (mm)	Actual								
1	0.162	6	6.25	0.048	1320	1680	61130	77800	1.40	17.5	-
2	0.155	6	6.11	0.045	1990	2450	96470	118800	1.00	12.5	-
3	0.074	4.75	4.23	0.022	920	1020	92940	103100	1.20	15.0	-
4	0.073	4.75	4.21	0.022	940	1020	95910	104100	0.90	11.3	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
<b>Note: only four samples for tensile and two samples for bend test</b>											
Bend Test											
6mm Bar Bend Test Through 180° is Satisfactory											
4.75mm Bar Bend Test Through 180° is Satisfactory											

Test Performed and Verified by:

To,

Major Muhammad Haris

Garrison Engineer (A)-II Gwa

CA No.CEA-CZ-58/2025-Const of 15 x Watch Towers at 177 Br Bn Engr Qbd:

Reference # CED/TFL 7237 (Dr. Rizwan Riaz)

Dated: 18-07-2025

Reference of the request letter # 6000-1148/17/E-6

Dated: 11-07-2025

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

Date of Test 21-07-2025

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 <sup>2</sup> )		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	36.70	52.70	74974	74787	107661	107392	0.9	11.3	3/8"
2	0.372	3	0.373	0.110	0.109	37.00	53.00	75587	76049	108274	108935	0.8	10.0	3/8"
3	0.368	3	0.371	0.110	0.108	35.7	51.7	72932	74150	105618	107382	1.0	12.5	3/8"
4	0.378	3	0.376	0.110	0.111	36.7	53	74974	74238	108274	107211	1.1	13.8	3/8"
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Only 4 Samples for Tensile and 0 Samples for Bend test

#### Bend Test

Test Performed and Verified by:

To,

Mr. Muhammad Azmat (Resident Engineer Nespak-Turpak JV Site Office)  
Nespak (Pvt.) Ltd. JV Turpak International (Pvt.) Ltd.  
Reconstruction of Lady Wellington Hospital, Lahore  
(AF Steel)

Reference # CED/TFL 7238 (Dr. Rizwan Riaz)  
Reference of the request letter # 4729/13/MA/04/311

Dated: 18-07-2025  
Dated: 17-06-2025

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

Date of Test 21-07-2025  
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 <sup>2</sup> )		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	0.11	35.20	50.00	71910	72157	102145	102495	1.3	16.3	-
2	0.372	3	0.373	0.110	0.109	34.70	49.70	70889	71315	101532	102143	1.3	16.3	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

<b>Bend Test</b>	
# 3 Bar Bend Test Through 180 Degree is Satisfactory	

Test Performed and Verified by:

To,

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

Reference # CED/TFL

7240 (Dr. Rizwan Riaz)

Dated: 18-07-2025

Reference of the request letter #

HRLE/SKG/2025/Hunza/10-20.470/213

Dated: 18-07-2025

### Tension Test Report

(Page-1/1)

Date of Test

21-07-2025

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 <sup>2</sup> )		Yield Load (kN)	Breaking Load (kN)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
				Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.413	10	0.393	0.120	0.121	39.20	50.20	73408	72639	94007	93023	1.6	20.0	-
2	0.408	10	0.391	0.120	0.12	38.00	49.50	71161	71173	92697	92712	1.6	20.0	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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:

Ref: CED/TFL/07/7241

Dated: 18-07-2025

Dated of Test: 21-07-2025 (Dr. Rizwan Riaz)

To

**Mr. Riaz Ahmed (General Manager)**  
**M/s National Technocommercial Services (Private) Limited**  
**Lahore**

**Subject: - BREAKING LOAD TEST OF LUG No. MK-59 (NTS with Harding)**  
**(Page # 1/2)**

Reference to your Letter No. NTS/DC/Lug Sample/59/2/DC/25, dated: 18/07/2025, on the subject cited above. Two Lugs with assembly as received by us have been tested. The results are tabulated as shown below:

<b>Sr. No.</b>	<b>Diameter</b>	<b>Length</b>	<b>Breaking Load</b>	<b>Remarks</b>
	(mm)	(mm)	(kg)	
<b>1</b>	<b>44</b>	<b>66.50</b>	<b>13700</b>	<b>Collar Failure</b>
<b>2</b>	<b>44</b>	<b>66.50</b>	<b>13500</b>	<b>Collar Failure</b>
-	-	-	-	-
<b>Only two samples for test</b>				

Test Performed and Verified by:

Ref: CED/TFL/07/7241

Dated: 18-07-2025

Dated of Test: 21-07-2025 (Dr. Rizwan Riaz)

To

**Mr. Riaz Ahmed (General Manager)**  
**M/s National Technocommercial Services (Private) Limited**  
**Lahore**

**Subject: - BREAKING LOAD TEST OF LUG) No. MK-2 No. 43A (ATR) (NTS with  
Harding)**  
**(Page # 2/2)**

Reference to your Letter No. NTS/DC-Lug 43A/DC/25-3, dated: 18/07/2025, on the subject cited above. One Lug with assembly as received by us has been tested. The results are tabulated as shown below:

<b>Sr. No.</b>	<b>Nominal Diameter</b>	<b>Length</b>	<b>Breaking Load</b>	<b>Remarks</b>
	(mm)	(mm)	(kg)	
<b>1</b>	<b>44</b>	<b>59.00</b>	<b>13800</b>	<b>Collar Failure</b>
-	-	-	-	-
-	-	-	-	-
<b>Only one sample for test</b>				

Test Performed and Verified by: