



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

Reference # CED/TFL **34901** (Dr. M Rizwan Riaz) Dated: 15-05-2020
 Reference of the request letter # DB-78/DAR/RE/ME/2020/0218 Dated: 14-05-2020

Tension Test Report (Page – 1/3)

Date of Test 05-06-2020
 Gauge length 2 inches
 Description Structural Pipe & MS Plate Steel Strip Tensile Test as per ASTM A-36

Sr. No.	Designation		Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	-----		(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	Structural Pipe	1"x2"x3mm	14.90x3.00	44.70	1200	2500	263.36	548.66	0.50	25.00	
2		1"x2"x3mm	15.90x3.00	47.70	1300	2600	267.36	534.72	0.50	25.00	
3	Structural Pipe	1"x2"x3mm	18.00x3.00	54.00	1400	2700	254.33	490.50	0.50	25.00	
4		1"x2"x3mm	16.80x3.00	50.40	1300	2700	253.04	525.54	0.45	22.50	
5	Structural Pipe	1"x2"x3mm	16.80x3.00	50.40	1300	2500	253.04	486.61	0.50	25.00	
6		1"x2"x3mm	16.80x3.00	50.40	1300	2500	253.04	486.61	0.50	25.00	
7	MS Plate	10mm	19.60x10.00	196.00	5400	8500	270.28	425.43	0.80	40.00	
8		10mm	19.60x10.00	196.00	5500	8600	275.28	430.44	0.75	37.50	
Only Eight Samples for Tensile Test											
Bend Test											

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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

Reference # CED/TFL **34901** (Dr. M Rizwan Riaz)
Reference of the request letter # DB-78/DAR/RE/ME/2020/0218

Dated: 15-05-2020
Dated: 14-05-2020

Weight & Size Test Report (Page – 2/3)

Date of Test 05-06-2020
Gauge length -----
Description Structural Pipe Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	Outer Deminsion		Thickness	Remark
					X ₁	X ₂		
	-----	(g)	(cm)	(kg/m)	(mm)	(mm)	(mm)	
1	1"x2"x3mm	1962	60.90	3.22	50.50	25.00	3.15	
2	1"x2"x3mm	1976	60.50	3.27	50.50	25.00	3.00	
3	1"x2"x3mm	1951	60.60	3.22	50.50	25.00	3.00	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
Only Three Samples for Test								

I/C Testing Laboratoires
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To,
Resident Engineer
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Punjab Agriculture Food and Durg Authority's Science Enclave, Lahore Pakistan

Reference # CED/TFL **34901** (Dr. M Rizwan Riaz)
Reference of the request letter # DB-78/DAR/RE/ME/2020/0218

Dated: 15-05-2020
Dated: 14-05-2020

Weight & Size Test Report (Page – 3/3)

Date of Test 05-06-2020
Gauge length -----
Description MS Plate Weight and Size Test

Sr. No.	Designation	Weight	Length	Width	Weight per Unit Area	Thickness	Remark
	(mm)	(g)	(cm)	(cm)	(kg/m ²)	(mm)	
1	10	3586	61.20	78.20	7.49	10.00	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
Only One Sample for Test							

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UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
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Department of Civil Engineering
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Ref: CED/TFL/06/34930, 946

Dated: 01-06-2020

Dated of Test: 05-06-2020

To
M/S Top Class Engineers
Lahore

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/06/34930)

Reference to your Letter No. Nil, Dated: 01/06/2020 on the subject cited above. One Hydraulic Jack as received by us has been calibrated. The results are tabulated as under:

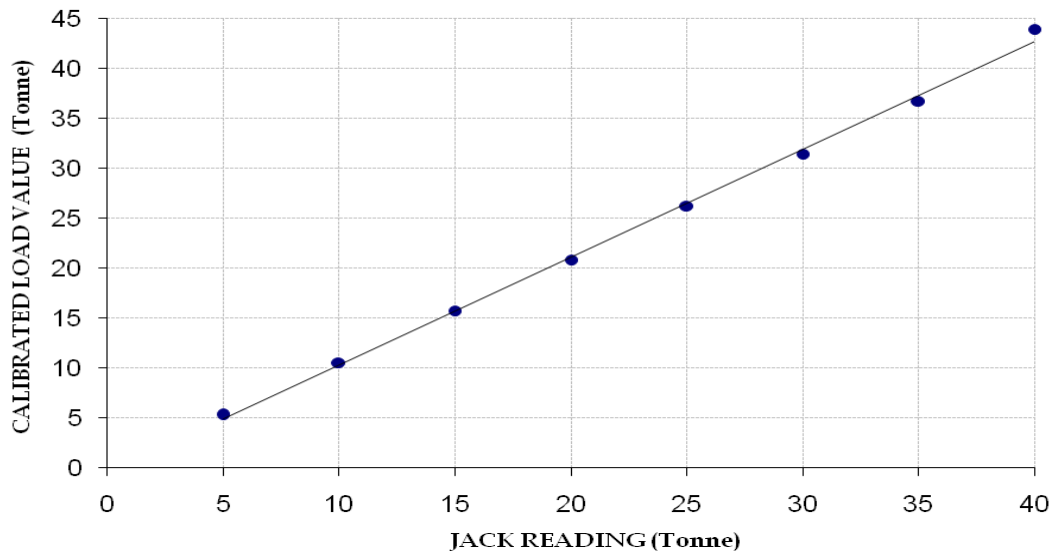
Total Range : Zero - 50 (Tonne)
Calibrated Range : Zero - 40 (Tonne)

Hydraulic Jack Reading (Tonne)	5	10	15	20	25	30	35	40
Calibrated Load (kg)	5300	10500	15700	20800	26200	31400	36700	43900
Calibrated Load (Tonne)	5.30	10.50	15.70	20.80	26.20	31.40	36.70	43.90

1 Tonne = 1000 Kg

Calibration Curve For Jack

Calibrated Value (tonne) = (1.080 x Jack Reading (tonne)) - 0.492



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

To,
 QAQC Engineer
 Guarantee Engineers (Pvt) Ltd
 Construction of ETP at US & Dynamo Mills (Pvt) Ltd.

Reference # CED/TFL **34931** (Dr. M Rizwan Riaz)
 Reference of the request letter # ETP/GE/2020/ME/05

Dated: 01-06-2020
 Dated: 01-06-2020

Tension Test Report (Page -1/1)

Date of Test 05-06-2020
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (mm)		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.403	10	9.86	0.12	0.118	4300	5400	78998	80090	99207	100600	0.90	11.3	
2	0.399	10	9.82	0.12	0.117	4100	5200	75324	77000	95533	97700	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
10mm Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
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Pakistan. Ph: 92-42-99029202

To,
 Akhtar Rasul
 Team Overcs Architects
 Lahore

Reference # CED/TFL **34934** (Dr. M Rizwan Riaz)
 Reference of the request letter # Nil

Dated: 03-06-2020
 Dated: 02-05-2020

Tension Test Report (Page -1/1)

Date of Test 05-06-2020
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.411	3/8	0.392	0.11	0.121	4300	5300	86200	78500	106200	96800	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
3/8" Dia 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
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University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
 Executive Engineer (PMU)
 University of Sargodha
 (Construction of Multipurpose Hall Package-01, University of Sargodha)

Reference # CED/TFL **34935** (Dr. M Rizwan Riaz)
 Reference of the request letter # SU/PMU/PC/490

Dated: 03-06-2020
 Dated: 19-05-2020

Tension Test Report (Page -1/1)

Date of Test 05-06-2020
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.368	3/8	0.371	0.11	0.108	3700	4900	74200	75400	98200	99900	1.00	12.5	
2	0.368	3/8	0.371	0.11	0.108	3600	4800	72200	73360	96200	97900	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
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Pakistan. Ph: 92-42-99029202

To,
 Project Manager
 Aujla & Associates
 Royal Palm City Housing Scheme, Gujranwala

Reference # CED/TFL **34936** (Dr. M Rizwan Riaz)
 Reference of the request letter # Nil

Dated: 03-06-2020
 Dated: 01-06-2020

Tension Test Report (Page -1/1)

Date of Test 05-06-2020
 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 ²)		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	0.397	3	0.385	0.11	0.117	5400	6200	108200	102070	124300	117200	0.70	8.8	
2	0.400	3	0.387	0.11	0.118	5300	6100	106200	99300	122300	114300	0.70	8.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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 Laboratoires
UET Lahore, Pakistan.

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To,
 Chief Resident Engineer
 NESPAK
 Construction/ Improvement & Rehabilitation of at Grade Works along Lahore Orange Line
 Metro Train Corridor Package-1 (Section-I) Ring Road to Daroghwala Chowk (Both Side)

Reference # CED/TFL **34939** (Dr. M Rizwan Riaz)
 Reference of the request letter # 4042/13/FAM/Steel-162

Dated: 04-06-2020
 Dated: 01-06-2020

Tension Test Report (Page -1/1)

Date of Test 05-06-2020
 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 ²)		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	0.415	3	0.394	0.11	0.122	4000	5300	80200	72310	106200	95900	1.10	13.8	Mughal Steel
2	0.413	3	0.393	0.11	0.122	4000	5300	80200	72540	106200	96200	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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 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

To,
 M/S Defence Housing Authority.
 Lahore Cantt
 (Proposed Commercial Plaza, DRGCC Ph-III, DHA Ph-VI (M/s Construct))

Reference # CED/TFL **34940** (Dr. M Rizwan Riaz)
 Reference of the request letter # 408/241/E/Lab/903/5165

Dated: 04-06-2020
 Dated: 04-06-2020

Tension Test Report (Page -1/1)

Date of Test 05-06-2020
 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 ²)		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	0.366	3	0.370	0.11	0.108	3300	4700	66200	67570	94200	96300	1.00	12.5	Kamran Steel
2	0.369	3	0.372	0.11	0.108	3200	4600	64200	65030	92200	93500	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 Laboratoires
UET Lahore, Pakistan.

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To,
M/S Defence Housing Authority.
Lahore Cantt
(Proposed Commercial Plaza, DRGCC Ph-III, DHA Ph-VI (M/s Construct))

Reference # CED/TFL **34941** (Dr. M Rizwan Riaz)
Reference of the request letter # 408/241/E/Lab/904/5168

Dated: 04-06-2020
Dated: 04-06-2020

Tension Test Report (Page -1/1)

Date of Test 05-06-2020
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 ²)		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	3500	4900	70200	71320	98200	99900	0.90	11.3	Kamran Steel
2	0.370	3	0.372	0.11	0.109	3600	5000	72200	72990	100200	101400	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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 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

To,
 Assistant Civil Engineer
 PSIC SIE-IV Gujranwala
 (Construction of Building & Boundary Wall at SIE IV Gujranwala)

Reference # CED/TFL **34942** (Dr. M Rizwan Riaz) Dated: 04-06-2020
 Reference of the request letter # PSIC/SIE-IV-GRW/By Hand Dated: 01-01-2020

Tension Test Report (Page -1/1)

Date of Test 05-06-2020
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.371	3/8	0.373	0.11	0.109	3500	4900	70200	70710	98200	99000	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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