



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

To,  
 Acting Project Director  
 Air University Multan Campus  
 Construction of Boys HostelII, Air University Multan Campus  
 (FF Steel)

Reference # CED/TFL **34138** (Dr. Usman Akmal)  
 Reference of the request letter # MUX/AUMC/BH1/2019/013

Dated: 06-11-2019  
 Dated: 29-10-2019

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

Date of Test 07-11-2019  
 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	0.373	0.11	0.109	3700	4900	74200	74780	98200	99100	1.10	13.8	
2	0.372	3	0.373	0.11	0.109	3700	4900	74200	74620	98200	98900	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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.**

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To,  
Resident Engineer (PMD)  
AL-Imam Enterprises Pvt.Ltd  
Construction of Penta Square, Phase-V, DHA, Lahore

Reference # CED/TFL **34116** (Dr. Safer Abbas)

Dated: 31-10-2019

Reference of the request letter # Al-Imam/746/PS-1/DHA/LHE/983

Dated: 31-10-2019

**Seamless/Flattening Test Report** (Page – 1/2)

Date of Test 07-11-2019

Description MS Pipe Seamless Test as per ASTM A 106

Sr. No.	Designation	Test Type	Observation/Results
1	Pipe (32mm)	Ductility	No crack was observed
		Soundness	No evidence of lamination noticed
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
<b>Only One Sample for Test</b>			

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

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To,  
Resident Engineer (PMD)  
AL-Imam Enterprises Pvt.Ltd  
Construction of Penta Square, Phase-V, DHA, Lahore

Reference # CED/TFL **34116** (Dr. Safer Abbas)  
Reference of the request letter # Al-Imam/746/PS-1/DHA/LHE/983

Dated: 31-10-2019  
Dated: 31-10-2019

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

Date of Test 07-11-2019  
Gauge length -----  
Description MS Pipes Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	External Diameter	Internal Diameter	Wall Thickness	Remark
	(mm)	(g)	(mm)	(kg/m)	(mm)	(mm)	(mm)	
1	32	212	60.00	3.53	40.50	33.20	3.65	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
<b>Only One Sample for Test</b>								

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**UET Lahore, Pakistan.**

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To,  
Resident Engineer (PMD)  
AL-Imam Enterprises Pvt.Ltd  
Construction of Penta Square, Phase-V, DHA, Lahore

Reference # CED/TFL **34117** (Dr. Safer Abbas)  
Reference of the request letter # Al-Imam/746/PS-1/DHA/LHE/980

Dated: 31-10-2019  
Dated: 31-10-2019

**Seamless/Flattening Test Report** (Page – 1/2)

Date of Test 07-11-2019  
Description MS Pipe Seamless Test as per ASTM A 106

Sr. No.	Designation	Test Type	Observation/Results
1	Pipe (25mm)	Ductility	No crack was observed
		Soundness	No evidence of lamination noticed
2	Pipe (50mm)	Ductility	No crack was observed
		Soundness	No evidence of lamination noticed
3	Pipe (100mm)	Ductility	No crack was observed
		Soundness	No evidence of lamination noticed
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
<b>Only Three Samples for Test</b>			

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To,  
Resident Engineer (PMD)  
AL-Imam Enterprises Pvt.Ltd  
Construction of Penta Square, Phase-V, DHA, Lahore

Reference # CED/TFL **34117** (Dr. Safer Abbas)  
Reference of the request letter # Al-Imam/746/PS-1/DHA/LHE/980

Dated: 31-10-2019  
Dated: 31-10-2019

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

Date of Test 07-11-2019  
Gauge length -----  
Description MS Pipes Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	External Diameter	Internal Diameter	Wall Thickness	Remark
	(mm)	(g)	(mm)	(kg/m)	(mm)	(mm)	(mm)	
1	25	158	60.00	2.63	32.90	26.00	3.45	
2	50	327	60.10	5.44	62.40	52.50	3.95	
3	100	940	60.25	15.60	113.70	102.70	5.50	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
<b>Only Three Samples for Test</b>								

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**UET Lahore, Pakistan.**

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**Test Floor Laboratory**  
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**Pakistan. Ph: 92-42-99029202**

To,  
 Assistant Director-II  
 Building Research Station  
 Lahore  
 (AF Steel)

Reference # CED/TFL **34133** (Dr. Usman Akmal)  
 Reference of the request letter # 154-R/2997

Dated: 05-11-2019  
 Dated: 31-10-2019

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

Date of Test 07-11-2019  
 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 <sup>2</sup> )		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	0.377	3/8	0.376	0.11	0.111	3200	5000	64200	63660	100200	99500	1.10	13.8	
2	0.372	3/8	0.373	0.11	0.109	3200	4900	64200	64570	98200	98900	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

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

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To,  
M/S Bilal Corporation  
Lahore

Reference # CED/TFL **34134** (Dr. Ali Ahmed)  
Reference of the request letter # Nil

Dated: 05-11-2019  
Dated: 05-11-2019

**Bend Test Report** (Page – 1/2)

Date of Test                07-11-2019  
Description                Pegg (Hook) Bend Test

<b>Bend Test</b>
Pegg (Hook) Bend Test Through 180° is Failed (Numerous cracks appeared, extending into the metal)
<b>Only One Sample for Bend Test</b>

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

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To,  
M/S Bilal Corporation  
Lahore

Reference # CED/TFL **34134** (Dr. Ali Ahmed)  
Reference of the request letter # Nil

Dated: 05-11-2019

Dated: 05-11-2019

**Size Test Report** (Page – 2/2)

Date of Test 07-11-2019

Description Pegg (Hook) Size Test

Sr. No.	Designation	Thickness	Remark
1	Pegg (Hook)	7.90	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
<b>Only One Samples for Test</b>			

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To,  
 Site Engineer  
 Zikar Constructions  
 31-K Model Town.

Reference # CED/TFL **34137** (Dr. Usman Akmal)  
 Reference of the request letter # Nil

Dated: 06-11-2019  
 Dated: 06-11-2019

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

Date of Test 07-11-2019  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile 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	0.427	3	0.400	0.11	0.126	3300	4700	66200	57940	94200	82600	1.50	18.8	Afco Steel
2	0.424	3	0.399	0.11	0.125	3300	4600	66200	58320	92200	81300	1.30	16.3	
3	0.379	3	0.377	0.11	0.111	3600	4700	72200	71220	94200	93000	1.30	16.3	Mughal Steel
4	0.380	3	0.377	0.11	0.112	3500	4600	70200	69130	92200	90900	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only four samples for tensile test</b>														
Bend Test														

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To,  
 Project Manager  
 Liberty Builders  
 (Construction of Zee Avenue-Ramada Hotel & Suites 17-A Cooper Road, Lahore)

Reference # CED/TFL **34142** (Dr. M Rizwan Riaz)  
 Reference of the request letter # CONC-20190707-A

Dated: 07-11-2019  
 Dated: 07-11-2019

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

Date of Test 07-11-2019  
 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	0.374	3	0.374	0.11	0.110	3570	4660	71600	71660	93400	93600	0.70	8.8	Model Power
2	0.359	3	0.367	0.11	0.106	3590	4740	72000	74910	95000	99000	0.80	10.0	
3	0.365	3	0.370	0.11	0.107	3670	5050	73600	75330	101200	103700	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only three samples for tensile and one sample for bend test</b>														
Bend Test														
# 3 Bar Bend Test Through 180° is Satisfactory														

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