



**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 Pak Elektron Limited  
Ferozpur Road, Lahore  
(M/s Mid Pakistan Coil Center – IGP No. 35166)

Reference # CED/TFL **35454** (Dr. Qasim Khan)  
Reference of the request letter # I & QC

Dated: 02-10-2020  
Dated: 02-10-2020

**Tension Test Report** (Page – 1/1)

Date of Test 05-10-2020  
Gauge length 2 inches  
Description M.S. C.R Sheet Strip Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(mm)	(mm)	(mm <sup>2</sup> )	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	1.2	32.00x1.20	38.40	920	1080	235.03	275.91	0.50	25.00	
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<b>Only One Sample for Tensile Test</b>										
<b>Bend Test</b>										

To,

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

Note:

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

Reference # CED/TFL **35457** (Dr. Qasim Khan)  
 Reference of the request letter # ST/UET/20201005

Dated: 05-10-2020  
 Dated: 05-10-2020

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

Date of Test 05-10-2020  
 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 <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	0.365	3	0.369	0.11	0.107	3200	5100	64200	65830	102200	105000	1.00	12.5	Ittefaq Steel
2	0.367	3	0.370	0.11	0.108	3400	5300	68200	69540	106200	108500	1.20	15.0	
3	0.364	3	0.369	0.11	0.107	3300	5200	66200	68020	104200	107200	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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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Ref: CED/TFL/10/35459

Dated: 05-10-2020

Dated of Test: 05-10-2020

To  
**Project Director**  
**DGKIC, IDAP**  
**Establishment of Sardar Fateh Muhammad Khan Buzdar Institute of Cardiology, D.G Khan**  
Subject: - **CALIBRATION OF HYDRAULIC JACK WITH PRESSURE GAUGE**  
**(MARK: TFL/10/35459) (Page # 1/3)**

Reference to your Letter No. PD(DGKIC)/IDAP/2020/100702, dated: 02/10/2020 on the subject cited above. One Hydraulic No. H.J.N XJ999150-0844471 with Pressure Gauge No. AISI 316 as received by us has been calibrated. The results are tabulated as under:

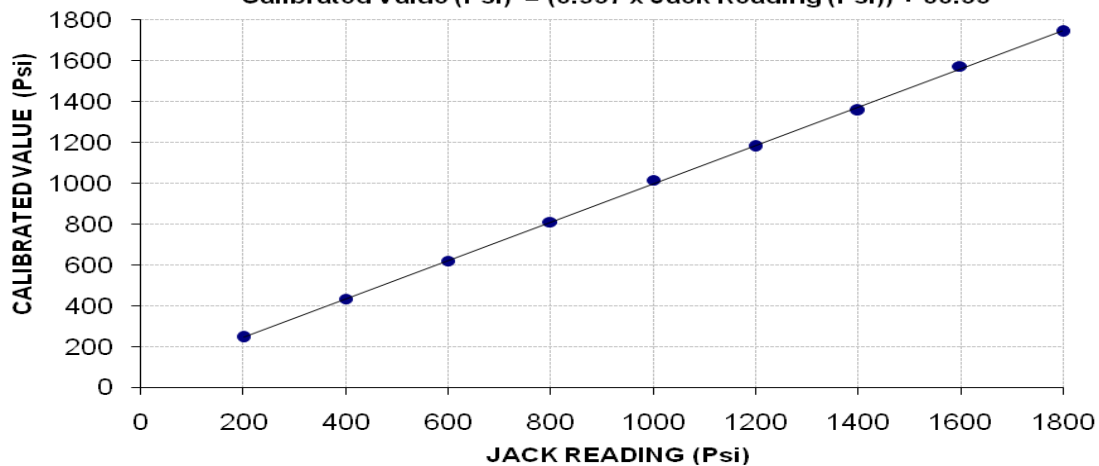
**Total Range : Zero - 20000 (Psi)**  
**Calibrated Range : Zero - 1800 (Psi)**

Hydraulic Jack Reading (Psi)	200	400	600	800	1000	1200	1400	1600	1800
Calibrated Load (kg)	26800	47200	67733	88533	110800	128800	147867	171733	190000
Calibrated Pressure (Psi)	245.64	432.62	620.82	811.46	1015.55	1180.53	1355.29	1574.04	1741.46

The Ram Area of Jack = 240.53 in<sup>2</sup>

**Calibration Curve For Jack No. XJ 999150 - 0844471**

**Calibrated Value (Psi) = (0.937 x Jack Reading (Psi)) + 60.35**



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Ref: CED/TFL/10/35459

Dated: 05-10-2020

Dated of Test: 05-10-2020

To

**Project Director**

**DGKIC, IDAP**

**Establishment of Sardar Fateh Muhammad Khan Buzdar Institute of Cardiology, D.G Khan**

**Subject: - CALIBRATION OF HYDRAULIC JACK WITH PRESSURE GAUGE**  
**(MARK: TFL/10/35459) (Page # 2/3)**

Reference to your Letter No. PD(DGKIC)/IDAP/2020/100703, dated: 02/10/2020 on the subject cited above. One Hydraulic No. H.J.N XJ999150-0843157 with Pressure Gauge No. AISI 316 as received by us has been calibrated. The results are tabulated as under:

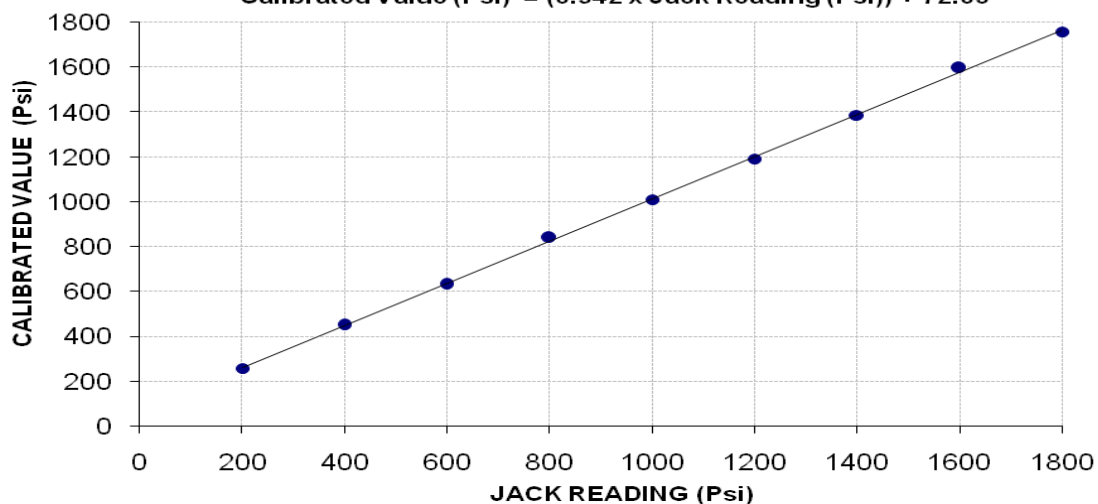
**Total Range : Zero - 20000 (Psi)**  
**Calibrated Range : Zero - 1800 (Psi)**

Hydraulic Jack Reading (Psi)	200	400	600	800	1000	1200	1400	1600	1800
Calibrated Load (kg)	28200	49200	69000	91600	110200	130000	151400	174200	192000
Calibrated Pressure (Psi)	258.47	450.95	632.43	839.57	1010.05	1191.53	1387.67	1596.65	1759.79

The Ram Area of Jack = 240.53 in<sup>2</sup>

**Calibration Curve For Jack No. XJ 999150 - 0843157**

**Calibrated Value (Psi) = (0.942 x Jack Reading (Psi)) + 72.05**



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**UET Lahore, Pakistan.**

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Ref: CED/TFL/10/35459

Dated: 05-10-2020

Dated of Test: 05-10-2020

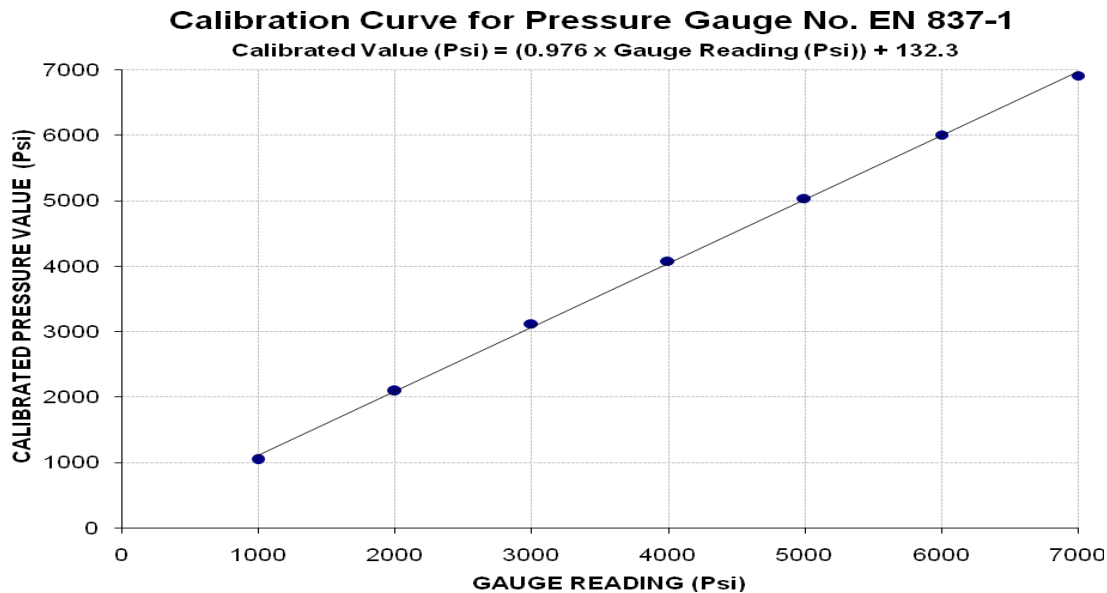
To  
**Project Director**  
**DGKIC, IDAP**  
**Establishment of Sardar Fateh Muhammad Khan Buzdar Institute of Cardiology, D.G Khan**  
Subject: - **CALIBRATION OF PRESSURE GAUGE (MARK: TFL/10/35459) (Page # 3/3)**

Reference to your Letter No. PD(DGKIC)/IDAP/2020/100704, dated: 02/10/2020 on the subject cited above. One Pressure Gauge No. EN 837-1 as received by us has been calibrated. The results are tabulated as under:

**Total Range : Zero - 10000 (Psi)**  
**Calibrated Range : Zero - 7000 (Psi)**

<b>Hydraulic Jack Reading (Psi)</b>	1000	2000	3000	4000	5000	6000	7000
<b>Calibrated Load (kg)</b>	14500	29100	43400	56800	70100	83600	96200
<b>Calibrated Pressure (Psi)</b>	1041.58	2090.35	3117.57	4080.13	5035.52	6005.27	6910.37

The Ram Area of Jack = 198 cm<sup>2</sup>



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