

**NUSANTARA TECHNOLOGIES SDN BHD (187753-D)**

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Attention : **MR. WONG CHIN WAI** No. of : 8
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Dear Sir,

RE : STANDARD QUOTATION FOR MECHANICAL NDT TESTING (FOR YEAR 2019) – REVISION 1

With reference to the above matter, we are pleased to quote as following:

A. MECHANICAL TESTING

No.	Description	Rate/pc RM)	
		Carbon Steel	Stainless Steel
1	Material Thickness : 0-13 mm		
1.1	Tensile Test	135	160
1.2	Bend Test (Root and Face)	85	95
1.3	Fracture or Nick Break Test	90	100
1.4	Hardness Test	225	250
1.5	Macro Etch Examination	155	165
1.6	Charpy Impact test		
	- at 0° C to minus 40° C	140	150
	- at minus 41° C to minus 80° C	150	160
	- at minus 81° C to minus 120° C	165	175
	- at minus 121° C to minus 196° C	180	190
2	Material Thickness : 14-25mm	CS	SS
2.1	Tensile Test	155	175
2.2	All-weld Tensile Test	200	220
2.3	Through Thickness Test	265	280
2.4	Bend Test (Root and Face)	90	100
2.5	Fracture or Nick Break Test	100	110
2.6	Hardness Test	250	275
2.7	Macro Etch Examination	165	175
2.8	Charpy Impact test		
	- at 0° C to minus 40° C	145	155
	- at minus 41° C to minus 80° C	155	165
	- at minus 81° C to minus 120° C	170	180
	- at minus 121° C to minus 196° C	185	200

3	Material Thickness : 26-39 mm	CS	SS
3.1	Tensile Test	175	195
3.2	All-weld Tensile Test	220	230
3.3	Through Thickness Test	280	300
3.4	Bend Test (Root and Face)	100	110
3.5	Fracture or Nick Break Test	110	120
3.6	Hardness Test	275	300
3.7	Macro Etch Examination	180	200
3.8	Charpy Impact test		
	- at 0° C to minus 40° C	155	165
	- at minus 41° C to minus 80° C	165	175
	- at minus 81° C to minus 120° C	180	195
	- at minus 121° C to minus 196° C	205	215
4	Material Thickness : 40-54 mm	CS	SS
4.1	Tensile Test	185	205
4.2	All-weld Tensile Test	240	260
4.3	Through Thickness Test	300	320
4.4	Bend Test (Root and Face)	105	115
4.5	Hardness Test	300	325
4.6	Macro Etch Examination	200	230
4.7	Charpy Impact test		
	- at 0° C to minus 40° C	165	175
	- at minus 41° C to minus 80° C	175	185
	- at minus 81° C to minus 120° C	190	200
	- at minus 121° C to minus 196° C	205	215
5	Material Thickness : 55-69 mm	CS	SS
5.1	Tensile Test	195	215
5.2	All-weld Tensile Test	260	280
5.3	Through Thickness Test	315	340
5.4	Bend Test (Root and Face)	120	130
5.5	Hardness Test	325	350
5.6	Macro Etch Examination	220	230
5.7	Charpy Impact test		
	- at 0° C to minus 40° C	175	185
	- at minus 41° C to minus 80° C	185	195
	- at minus 81° C to minus 120° C	200	210
	- at minus 121° C to minus 196° C	215	235
6	Material Thickness : 70-84 mm	CS	
6.1	Tensile Test	205	
6.2	All-weld Tensile Test	280	
6.3	Through Thickness Test	330	
6.4	Bend Test (Root and Face)	130	
6.5	Hardness Test	350	
6.6	Macro Etch Examination	240	
6.7	Charpy Impact test		
	- at 0° C to minus 40° C	185	
	- at minus 41° C to minus 80° C	195	
	- at minus 81° C to minus 120° C	210	
	- at minus 121° C to minus 196° C	225	

7	Material Thickness : 85-99 mm	CS
7.1	Tensile Test	215
7.2	All-weld Tensile Test	300
7.3	Through Thickness Test	345
7.4	Bend Test (Root and Face)	140
7.5	Hardness Test	375
7.6	Macro Etch Examination	260
7.7	Charpy Impact test	
	- at 0° C to minus 40° C	195
	- at minus 41° C to minus 80° C	205
	- at minus 81° C to minus 120° C	220
	- at minus 121° C to minus 196° C	235
8	Material Thickness : 100-114mm	CS
8.1	Tensile Test	225
8.2	All-weld Tensile Test	320
8.3	Through Thickness Test	360
8.4	Bend Test (Root and Face)	150
8.5	Hardness Test	400
8.6	Macro Etch Examination	280
8.7	Charpy Impact test	
	- at 0° C to minus 40° C	205
	- at minus 41° C to minus 80° C	215
	- at minus 81° C to minus 120° C	230
	- at minus 121° C to minus 196° C	245
9	Material Thickness : 115-129 mm	CS
9.1	Tensile Test	235
9.2	All-weld Tensile Test	340
9.3	Through Thickness Test	375
9.4	Bend Test (Root and Face)	160
9.5	Hardness Test	425
9.6	Macro Etch Examination	300
9.7	Charpy Impact test	
	- at 0° C to minus 40° C	215
	- at minus 41° C to minus 80° C	225
	- at minus 81° C to minus 120° C	240
	- at minus 121° C to minus 196° C	255
10	Material Thickness : 130-144 mm	CS
10.1	Tensile Test	245
10.2	All-weld Tensile Test	360
10.3	Through Thickness Test	390
10.4	Bend Test (Root and Face)	170
10.5	Hardness Test	450
10.6	Macro Etch Examination	320
10.7	Charpy Impact test	
	- at 0° C to minus 40° C	225
	- at minus 41° C to minus 80° C	235
	- at minus 81° C to minus 120° C	250
	- at minus 121° C to minus 196° C	265

11	Material Thickness : 145-159mm	CS
11.1	Tensile Test	255
11.2	All-weld Tensile Test	380
11.3	Through Thickness Test	405
11.4	Bend Test (Root and Face)	180
11.5	Hardness Test	475
11.6	Macro Etch Examination	340
11.7	Charpy Impact test	
	- at 0° C to minus 40° C	240
	- at minus 41° C to minus 80° C	250
	- at minus 81° C to minus 120° C	265
	- at minus 121° C to minus 196° C	280

12	Material Thickness : 160-174mm	CS
12.1	Tensile Test	275
12.2	All-weld Tensile Test	400
12.3	Through Thickness Test	425
12.4	Bend Test (Root and Face)	200
12.5	Hardness Test	500
12.6	Macro Etch Examination	360
12.7	Charpy Impact test	
	- at 0° C to minus 40° C	255
	- at minus 41° C to minus 80° C	265
	- at minus 81° C to minus 120° C	280
	- at minus 121° C to minus 196° C	295

13	Material Thickness : 175-189 mm	CS
13.1	Tensile Test	295
13.2	All-weld Tensile Test	420
13.3	Through Thickness Test	445
13.4	Bend Test (Root and Face)	220
13.5	Hardness Test	525
14.6	Macro Etch Examination	380
14.7	Charpy Impact test	
	- at 0° C to minus 40° C	270
	- at minus 41° C to minus 80° C	280
	- at minus 81° C to minus 120° C	295
	- at minus 121° C to minus 196° C	310

14	Material Thickness : 190-204 mm	CS
14.1	Tensile Test	315
14.2	All-weld Tensile Test	440
14.3	Through Thickness Test	465
14.4	Bend Test (Root and Face)	240
14.5	Hardness Test	550
14.6	Macro Etch Examination	400
14.7	Charpy Impact test	
	- at 0° C to minus 40° C	285
	- at minus 41° C to minus 80° C	295
	- at minus 81° C to minus 120° C	310
	- at minus 121° C to minus 196° C	325

15	Material Thickness : 205-219 mm	CS
15.1	Tensile Test	335
15.2	All-weld Tensile Test	460
15.3	Through Thickness Test	485
15.4	Bend Test (Root and Face)	260
15.5	Hardness Test	575
15.6	Macro Etch Examination	420
15.7	Charpy Impact test	
	- at 0° C to minus 40° C	300
	- at minus 41° C to minus 80° C	310
	- at minus 81° C to minus 120° C	325
	- at minus 121° C to minus 196° C	340

16	Material Thickness : 220-234 mm	CS
16.1	Tensile Test	355
16.2	All-weld Tensile Test	480
16.3	Through Thickness Test	505
16.4	Bend Test (Root and Face)	280
16.5	Hardness Test	600
16.6	Macro Etch Examination	440
16.7	Charpy Impact test	
	- at 0° C to minus 40° C	315
	- at minus 41° C to minus 80° C	325
	- at minus 81° C to minus 120° C	340
	- at minus 121° C to minus 196° C	355

17	Material Thickness : 235-250 mm	CS
17.1	Tensile Test	375 ✓
17.2	All-weld Tensile Test	500 ✓
17.3	Through Thickness Test	525 ✓
17.4	Bend Test (Root and Face)	300 ✓
17.5	Hardness Test	625 ✓
17.6	Macro Etch Examination	460 ✓
17.7	Charpy Impact test	
	- at 0° C to minus 40° C	330 ✓
	- at minus 41° C to minus 80° C	340 ✓
	- at minus 81° C to minus 120° C	355 ✓
	- at minus 121° C to minus 196° C	370 ✓

Note: Transverse tensile test for material greater than 40mm thickness, tested with multiple samples.

B. MECHANICAL TEST ON ROUND BAR :

- 1) Round bar size : 250.00 mm Ø and below
 - i. Tensile Test (Round Tensile) RM 290/pc ✓
 - ii. Charpy Impact Test RM 475/set (3 pcs) ✓
 - iii. Chemical Analysis (Spectrometer)
 - a. Without Nitrogen content RM 580/pc ✓
 - b. With Nitrogen content RM 750/pc ✓
 - iv. Hardness test
 - a. Vickers Hardness (HV)
 - First 5 point RM 225/point ✓
 - Subsequence point RM 10/point ✓
 - b. Brinell Hardness (HB)
 - First 5 point RM 275/point ✓
 - Subsequence point RM 15/point ✓

- 2) Round bar size : 250.00 mm Ø to 350.00 mm Ø
 - i. Tensile Test (Round Tensile) RM 315/pc ✓
 - ii. Charpy Impact Test RM 500/set (3 pcs) ✓
 - iii. Chemical Analysis (Spectrometer)
 - a. Without Nitrogen content RM 580/pc ✓
 - b. With Nitrogen content RM 750/pc ✓
 - iv. Hardness test
 - a. Vickers Hardness (HV)
 - First 5 point RM 250/point ✓
 - Subsequence point RM 10/point ✓
 - b. Brinell Hardness (HB)
 - First 5 point RM 300/point ✓
 - Subsequence point RM 15/point ✓

No.	Description	Unit Price(RM)
C.	NON-DESTRUCTIVE TESTING ON WQT AND WPS	
1	Ultrasonic Testing(UT)	250 ✓
2	Magnetic Particle Testing(MT)	150 ✓
3	Dye Penetrant Testing(PT)	150 ✓
4	Gamma Radiography Testing	
	Film Radiographic Rate	
4.1	-first films size 4"x10" or 4" x 15"	100 ✓
	-first films size 7" x 17"	150 ✓
4.2	-subsequence film	
	-ASTM Class 2 size 4" x 10"	30/film ✓
	-ASTM Class 2 size 4" x 15"	35/film ✓
	-ASTM Class 2 size 7" x 17"	70/film ✓
	-ASTM Class 1 size 4" x 10"	35/film ✓
	-ASTM Class 1 size 4" x 15"	40/film ✓
	-ASTM Class 1 size 7" x 17"	85/film ✓
5	X-Ray Radiography Testing(RT)	
	Film Radiographic Rate	
5.1	-first films size 4"x10" or 4x15"	250 ✓
	-first films size 7" x 17"	350 ✓
5.2	-subsequence film	
	-ASTM Class 2 size 4" x 10"	45/film ✓
	-ASTM Class 2 size 4" x 15"	50/film ✓
	-ASTM Class 2 size 7" x 17"	100/film ✓
	-ASTM Class 1 size 4" x 10"	55/film ✓
	-ASTM Class 1 size 4" x 15"	60/film ✓
	-ASTM Class 1 size 7" x 17"	120/film ✓
D.	a. Reproduce Report w/o photograph	150/set
	b. Photograph (additional)	25/photograph

E. ON SITE (at Senawang)				
1.	PMI Examination	Unit	Normal Day	Rest Day / PH
	a. With XRF analyser			
	i. Men and Equipment	Day/team	1800	2250 ✓
	ii. Overtime (exceed 8 hrs)	Hour/team	220	250 ✓
	b. With Spectrometer/Masterpro analyser			
	i. Men and Equipment	Day/team	3000	3750 ✓
	ii. Overtime (exceed 8 hrs)	Hour/team	375	470 ✓
2.	Ferrite Measurement (Ferrite scope)			
	i. Men and Equipment	Day/team	1100 (Revised price)	1500 ✓
	ii. Overtime (exceed 8 hrs)	Hour/team	155	225 ✓
3.	Ultrasonic Thickness Measurement (UTM)			
	i. Men and Equipment	Day/team	750	1200 ✓
	ii. Overtime (exceed 8 hrs)	Hour/team	90	135 ✓
4.	Mob demob (Senawang workshop)	trip	250	
5.	Mob demob (Telok Gong workshop)	trip	150	

Terms & Conditions

1. Terms of Payment:
 - Mode of payment :
 - 30 days from date of invoicing, payment shall be in cash if credit limit has exceeded.
2. In the event of the job or project is postponed, cancelled, deferred or prevented from being carrying out by client once manpower and equipment have been mobilised/deployed to the site, **70% charged will be imposed on man & equipment rate and 100% charged on mob demob.**
3. Price Validity: Until end of 2019.
4. Full terms and conditions of quotation applied as per doc no.: MAT/Q/L/2019 & MAT/Q/WS/2019.

FOR NUSANTARA TECHNOLOGIES SDN BHD


MOHD DIAH BABA
Operations Director


WONG CHIN WAI
QA/QC Manager
Favelle Favco Cranes (M) Sdn. Bhd.

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