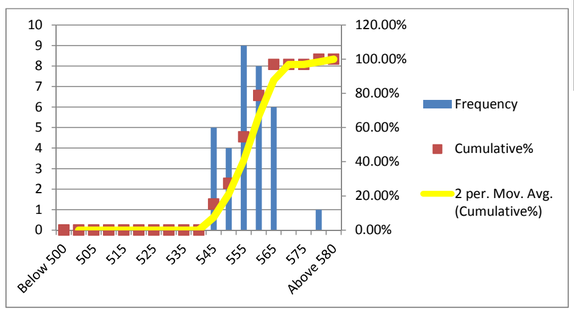
Campaign Length: 27.06.16 to 27.06.16
Total Production: 691.118 MT
Billet Rolled: JSW-246
Product: Xtreme 500W (32 mm)

YIELD STRENGTH

Mean	556.667
Median	555
Mode	555
Std. Dev.	7.773
Min	545
Max	580
Count	33

Bin	Frequency	%	Cumulative%
Below 500	0	0.00%	0.00%
500	0	0.00%	0.00%
505	0	0.00%	0.00%
510	0	0.00%	0.00%
515	0	0.00%	0.00%
520	0	0.00%	0.00%
525	0	0.00%	0.00%
530	0	0.00%	0.00%
535	0	0.00%	0.00%
540	0	0.00%	0.00%
545	5	15.15%	15.15%
550	4	12.12%	27.27%
555	9	27.27%	54.55%
560	8	24.24%	78.79%
565	6	18.18%	96.97%
570	0	0.00%	96.97%
575	0	0.00%	96.97%
580	1	3.03%	100.00%
Above 580	0	0.00%	100.00%
	33		

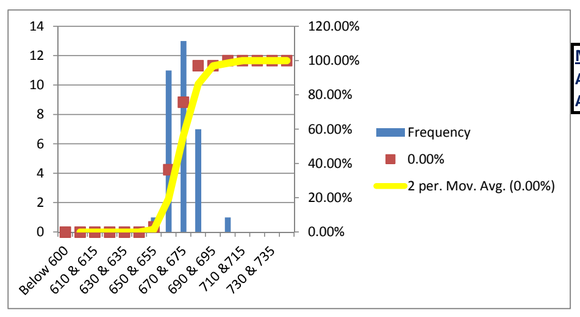


MINIMUM REQUIREMENTS
As per ISO 6935-2: 500 Mpa
As per ASTM A-615: 420 Mpa

ULTIMATE STRENGTH

Mean	671.061
Median	670
Mode	670
Std. Dev.	9.98
Min	655
Max	700
Count	33

Bin	Frequency	%	Cumulative%
Below 600	0	0.00%	0.00%
600 & 605	0	0.00%	0.00%
610 & 615	0	0.00%	0.00%
620 & 625	0	0.00%	0.00%
630 & 635	0	0.00%	0.00%
640 & 645	0	0.00%	0.00%
650 & 655	1	3.03%	3.03%
660 & 665	11	33.33%	36.36%
670 & 675	13	39.39%	75.76%
680 & 685	7	21.21%	96.97%
690 & 695	0	0.00%	96.97%
700 & 705	1	3.03%	100.00%
710 &715	0	0.00%	100.00%
720 & 725	0	0.00%	100.00%
730 & 735	0	0.00%	100.00%
Above 735	0	0.00%	100.00%
Total	33		

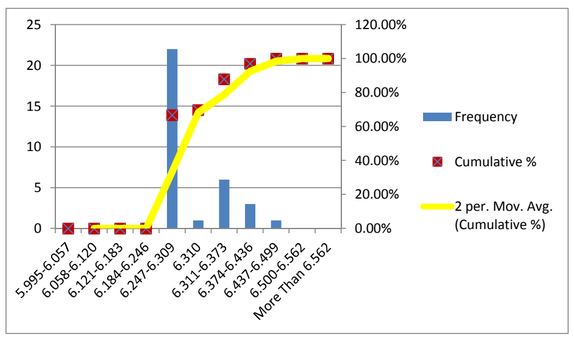


MINIMUM REQUIREMENTS
As per ISO 6935-2: 575 Mpa
As per ASTM A-615: 620 Mpa

UNIT WEIGHT

Mean	6.303
Median	6.286
Mode	6.280
Std. Dev.	0.045
Min	6.259
Max	6.447
Count	33

	Bin	Frequency	%	Cumulative %
	Less Than 5.995	0	0.00%	0.00%
-5%	5.995-6.057	0	0.00%	0.00%
-4%	6.058-6.120	0	0.00%	0.00%
-3%	6.121-6.183	0	0.00%	0.00%
-2%	6.184-6.246	0	0.00%	0.00%
-1%	6.247-6.309	22	66.67%	66.67%
0%	6.310	1	3.03%	69.70%
1%	6.311-6.373	6	18.18%	87.88%
2%	6.374-6.436	3	9.09%	96.97%
3%	6.437-6.499	1	3.03%	100.00%
4%	6.500-6.562	0	0.00%	100.00%
5%	More Than 6.562	0	0.00%	100.00%
	Total	33		

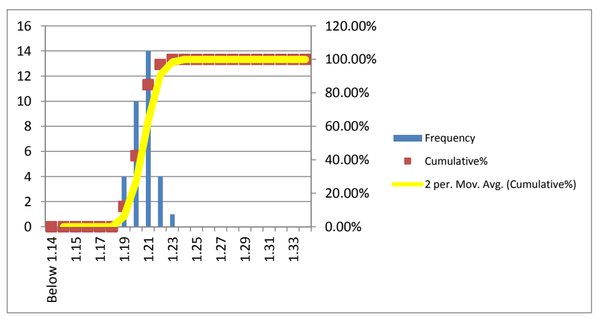


MINIMUM REQUIREMENTS
As per ISO 6935-2: ± 4%
As per ASTM A-615: -6%

T/Y RATIO

Mean	1.206
Median	1.21
Mode	1.20
Std. Dev.	0.010
Min	1.19
Max	1.23
Count	33

Bin	Frequency	%	Cumulative%
Below 1.14	0	0.00%	0.00%
1.14	0	0.00%	0.00%
1.15	0	0.00%	0.00%
1.16	0	0.00%	0.00%
1.17	0	0.00%	0.00%
1.18	0	0.00%	0.00%
1.19	4	12.12%	12.12%
1.20	10	30.30%	42.42%
1.21	14	42.42%	84.85%
1.22	4	12.12%	96.97%
1.23	1	3.03%	100.00%
1.24	0	0.00%	100.00%
1.25	0	0.00%	100.00%
1.26	0	0.00%	100.00%
1.27	0	0.00%	100.00%
1.28	0	0.00%	100.00%
1.29	0	0.00%	100.00%
1.30	0	0.00%	100.00%
1.31	0	0.00%	100.00%
1.32	0	0.00%	100.00%
1.33	0	0.00%	100.00%
1.34& More	0	0.00%	100.00%
Total	33		

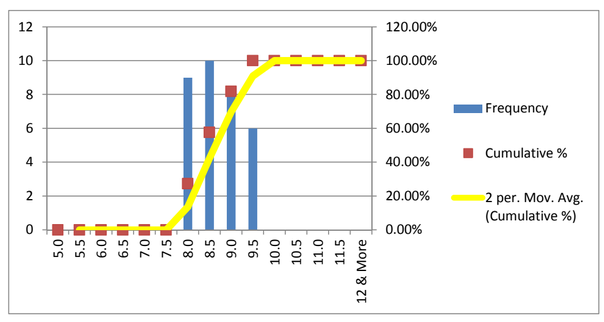


MINIMUM REQUIREMENTS
As per ISO 6935-2: T/Y: 1.15
As per ASTM A-615: Not Required

ELN. AT MAX. FORCE (Agt)(GL-200 mm)

Mean	8.667
Median	8.5
Mode	8.5
Std. Dev.	0.540
Min	8.0
Max	9.5
Count	33

Bin	Frequency	%	Cumulative %
5.0	0	0.00%	0.00%
5.5	0	0.00%	0.00%
6.0	0	0.00%	0.00%
6.5	0	0.00%	0.00%
7.0	0	0.00%	0.00%
7.5	0	0.00%	0.00%
8.0	9	27.27%	27.27%
8.5	10	30.30%	57.58%
9.0	8	24.24%	81.82%
9.5	6	18.18%	100.00%
10.0	0	0.00%	100.00%
10.5	0	0.00%	100.00%
11.0	0	0.00%	100.00%
11.5	0	0.00%	100.00%
12 & More	0	0.00%	100.00%
Total	33		

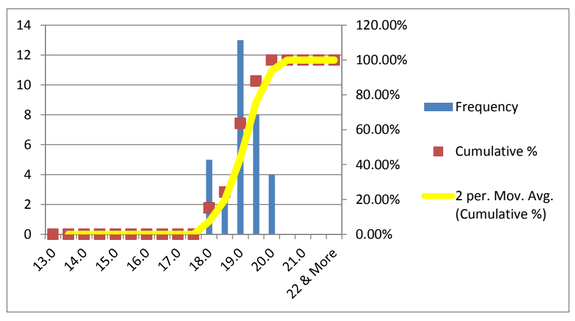


MINIMUM REQUIREMENTS
As per ISO 6935-2: 7%
As per ASTM A-615: Not Required

ELN. AFTER FRACTURE (A5)(GL-5D)

Mean	19.045
Median	19.0
Mode	19.0
Std. Dev.	0.604
Min	18.0
Max	20.0
Count	33

Bin	Frequency	%	Cumulative %
13.0	0	0.00%	0.00%
13.5	0	0.00%	0.00%
14.0	0	0.00%	0.00%
14.5	0	0.00%	0.00%
15.0	0	0.00%	0.00%
15.5	0	0.00%	0.00%
16.0	0	0.00%	0.00%
16.5	0	0.00%	0.00%
17.0	0	0.00%	0.00%
17.5	0	0.00%	0.00%
18.0	5	15.15%	15.15%
18.5	3	9.09%	24.24%
19.0	13	39.39%	63.64%
19.5	8	24.24%	87.88%
20.0	4	12.12%	100.00%
20.5	0	0.00%	100.00%
21.0	0	0.00%	100.00%
21.5	0	0.00%	100.00%
22 & More	0	0.00%	100.00%
Total	33		

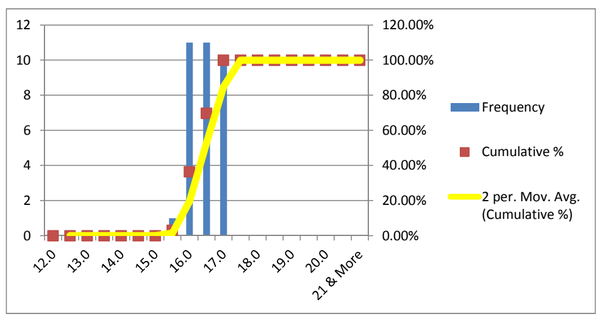


MINIMUM REQUIREMENTS
As per ISO 6935-2: 14%

ELN. AFTER FRACTURE (A)(GL-203.2 mm)

Mean	16.455
Median	16.5
Mode	16.0
Std. Dev.	0.440
Min	15.5
Max	17.0
Count	33

Bin	Frequency	%	Cumulative %
12.0	0	0.00%	0.00%
12.5	0	0.00%	0.00%
13.0	0	0.00%	0.00%
13.5	0	0.00%	0.00%
14.0	0	0.00%	0.00%
14.5	0	0.00%	0.00%
15.0	0	0.00%	0.00%
15.5	1	3.03%	3.03%
16.0	11	33.33%	36.36%
16.5	11	33.33%	69.70%
17.0	10	30.30%	100.00%
17.5	0	0.00%	100.00%
18.0	0	0.00%	100.00%
18.5	0	0.00%	100.00%
19.0	0	0.00%	100.00%
19.5	0	0.00%	100.00%
20.0	0	0.00%	100.00%
20.5	0	0.00%	100.00%
21 & More	0	0.00%	100.00%
Total	33		



MINIMUM REQUIREMENTS
As per ASTM A-615: 7%

BEND TEST:
ALL THE SAMPLES IN THIS CAMPAIGN PASSED THE BEND TEST MAINTAINING MANDREL DIA 5D

MINIMUM REQUIREMENTS
As per ISO 6935-2: 6D
As per ASTM A-615: 7D

REBEND TEST:
ALL THE SAMPLES IN THIS CAMPAIGN PASSED THE REBEND TEST MAINTAINING MANDREL DIA 7D

MINIMUM REQUIREMENTS
As per ISO 6935-2: 10D
As per ASTM A-615: Not Required

Nominal Diameter D	Unit Weight	Yield or Proof Strength R_{eH}	Ultimate Tensile Strength R_m	T/Y Ratio	% Total Elongation at Maximum Force A_{gt}	% Elongation after Fracture A	% Elongation after Fracture A	Height of Transverse Rib	Height of Longitudinal Rib
(mm)	(Kg/m)	(MPa)	(MPa)		GL:200mm	GL: 203.2 mm	GL: 5D	mm	mm
32	6.447	580	700	1.21	8.0	16.0	18.0	2.55	1.02
32	6.390	555	685	1.23	8.5	16.0	20.0		
32	6.350	565	685	1.21	9.0	16.5	19.0		
32	6.279	565	680	1.20	8.5	16.5	19.0		
32	6.285	560	680	1.21	8.5	16.0	19.5		
32	6.280	560	670	1.20	9.0	16.5	19.5		
32	6.313	560	670	1.20	8.5	16.5	19.5		
32	6.320	555	660	1.19	9.0	16.0	20.0		
32	6.285	560	670	1.20	8.5	16.5	19.5		
32	6.290	555	660	1.19	8.5	15.5	20.0		
32	6.277	555	675	1.22	8.5	16.0	18.0		
32	6.316	555	670	1.21	9.0	17.0	19.0		
32	6.322	545	660	1.21	9.5	16.0	19.0		
32	6.401	555	665	1.20	8.5	16.5	19.5		
32	6.270	565	685	1.21	9.5	17.0	19.0		
32	6.275	565	685	1.21	8.0	17.0	18.5		
32	6.286	560	675	1.21	9.5	16.0	18.5	2.4	1.1
32	6.310	560	675	1.21	8.0	16.5	19.0		
32	6.389	565	670	1.19	9.5	16.5	19.0		
32	6.259	560	675	1.21	8.0	17.0	18.0		
32	6.268	565	680	1.20	8.0	17.0	19.0		
32	6.278	550	660	1.20	8.0	16.0	19.5		
32	6.280	550	670	1.22	9.0	17.0	18.0		
32	6.286	545	655	1.20	8.5	17.0	19.5		
32	6.314	545	665	1.22	9.5	16.5	19.0		
32	6.260	560	670	1.20	9.0	17.0	19.0		
32	6.266	555	660	1.19	8.0	16.5	18.5		
32	6.270	550	660	1.20	8.0	16.5	18.0		
32	6.277	545	660	1.21	9.0	16.0	19.0		
32	6.280	555	670	1.21	9.5	17.0	19.5		
32	6.288	555	670	1.21	8.5	17.0	20.0		
32	6.298	545	665	1.22	8.0	16.0	19.0		
32	6.302	550	665	1.21	9.0	16.0	19.0		