HIGH STRENGTH PLATES & PROFILES has served North American manufacturers for over 25 years. Since 1985, we have stocked and processed a wide variety of high strength and abrasion resistant steel plate and sheet.

We focus on being problem solvers, from product application to cost effective production. Our team has the experience and expertise to match our steel to your application and the ability to process your parts using some of the most innovative processing equipment anywhere in the world.

CORE PRODUCTS

HS 100 (A514 / QT 100 / T1 / MA)
HS 400 / AR 400
HS 450 / AR 450
HS 500 / AR 500
HS 550 / AR 550
Swebor 450 / 500 / 525 sheet
SA1750CR

PROCESSING CAPABILITIES

- High performance plasma & oxyfuel
- Downdraft & underwater cutting
- 1500 & 2000 ton brake press forming
- Machining, milling & drilling
- Tapping, countersinking & counterboring
- Bevelling & rotary grinding
- In-house CAD department
- CWB certified welding
- ISO 9001

We group our products into categories that encompass a variety of trade names and engineering standards, such as HS 100, HS 400, and HS 500. We stock thicknesses from 3mm to 6".

We have selected only quality steel producers as suppliers, including ThyssenKrupp Steel, SSAB and Essar Algoma. We are the North American distributor for Swebor sheet.

Instead of moving cut steel plates to your facility for a series of additional finishing operations, let us produce your steel parts to the most exacting specifications as a single supplier on our customized machines.

One stop shopping has never been easier.

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HIGH STRENGTH PLATES & PROFILES INC.

METRIC CONVERSIONS

Metric/Imperial Strength Conversions

Values are rounded to the nearest multiple of 0.5 kgf/mm^2 or 0.2 tonf/in^2 or 0.5 ksi

p.s.i.	ksi	N/mm^2	kgf/mm^2	tonf/in^2
51,000	51	350	35.5	22.6
55,000	55	380	38.5	24.6
59,500	59.5	410	42	26.6
62,500	62.5	430	44	27.8
66,500	66.5	460	47	29.6
71,000	71	490	50	31.8
74,000	74	510	52	33
78,500	78.5	540	55	35
82,500	82.5	570	58	37
87,000	87	600	61	38.8
91,500	91.5	730	64	40.8
96,000	96	660	67	42.8
100,000	100	690	70	44.8

Hardness conversion table*

Approximate equivalent hardness number for steel

Brinell indentation diameter, mm	Brinell hardness number, 3000 kg 10 mm tungsten carbide ball	Rockwell hardness Number		Vickers diamond pyramid hardness number	Shore sclero-scope hardness number	Approx. tensile strength 1000 psi
		B-scale 100 kg load 1/16 in. ball	C-scale 150 kg load brale penetrator			
2.25	745	–	65.3	840	91	–
–	710	–	63.3	780	87	–
2.35	682	–	61.7	737	84	–
2.40	653	–	60.0	697	81	–
2.45	627	–	58.7	667	79	–
2.50	601	–	57.3	640	77	–
2.55	578	–	56.0	615	75	–
2.60	555	–	54.7	591	73	298
2.65	534	–	53.5	569	71	288
2.70	514	–	52.1	547	70	274
2.75	495	–	51.0	528	68	264
2.80	477	–	49.6	508	66	252
2.85	461	–	48.5	491	65	242
2.90	444	–	47.1	472	63	230
2.95	429	–	46.7	455	61	219
3.00	415	–	44.5	440	59	212
3.05	401	–	43.1	425	58	202
3.10	388	–	41.8	410	56	193
3.15	375	–	40.4	396	54	184
3.20	363	–	39.1	383	52	177
3.25	352	(110.0)	37.9	372	51	170
3.30	361	(109.0)	36.6	360	50	163
3.35	331	(108.5)	35.5	350	48	158
3.40	321	(108.0)	34.3	339	47	152
3.45	311	(107.5)	33.1	328	46	147
3.50	302	(107.0)	32.1	319	45	143
3.55	293	(106.0)	30.9	309	43	139
3.60	285	(105.5)	29.9	301	–	136
2.65	277	(104.5)	28.8	292	41	131
3.70	269	(104.0)	27.6	284	40	128
3.75	262	(103.0)	26.6	276	39	125
3.80	255	(102.0)	25.4	269	38	121
3.85	248	(101.0)	24.2	261	37	118
3.90	241	100.0	22.8	253	36	114
3.95	235	99.0	21.7	247	35	111

Hardness conversion table (contd.)*

Approximate equivalent hardness number for steel

Brinell indentation diameter, mm	Brinell hardness number, 3000 kg 10 mm tungsten carbide ball	Rockwell hardness Number		Vickers diamond pyramid hardness number	Shore sclero-scope hardness number	Approx. tensile strength 1000 psi
		B-scale 100 kg load 1/16 in. ball	C-scale 150 kg load brale penetrator			
4.00	229	98.2	20.5	241	34	109
4.05	223	97.3	(18.8)	234	–	104
4.10	217	96.4	(17.5)	228	33	103
4.15	212	95.5	(16.0)	222	–	100
4.20	207	94.6	(15.2)	218	32	99
4.25	201	93.8	(13.8)	212	31	97
4.30	197	92.8	(12.7)	207	30	94
4.35	192	91.9	(11.5)	202	29	92
4.40	187	90.7	(10.0)	196	–	90
4.45	183	90.0	(9.0)	192	28	89
4.50	179	89.0	(8.0)	188	27	88
4.55	174	87.8	(6.4)	182	–	86
4.60	170	86.8	(5.4)	178	26	84
4.65	167	86.0	(4.4)	175	–	83
4.70	163	85.0	(3.3)	171	25	82
4.80	156	82.9	(0.9)	163	–	80
4.90	149	80.8	–	156	23	–
5.00	143	78.7	–	150	22	–
5.10	137	76.4	–	143	21	–
5.20	131	74.0	–	137	–	–
5.30	126	72.0	–	132	20	–
5.40	121	69.8	–	127	19	–
5.50	116	67.6	–	122	18	–
5.60	111	65.7	–	117	15	–

* The indentation and hardness values in the foregoing table are taken from Approximate Equivalent Hardness Numbers from The SAE Handbook, Society of Automotive Engineers and ASTM 370. The values shown in parentheses are beyond the normal range of the test scale and are given only for comparison with other values.

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