

SSF Grade	Representative Specifications			Typical Chemical Analysis							Minimum Physical Properties								
	ASTM	Government	Other	Carbon	Manganese	Silicon	Sulfur	Phosphorus	Nickel	Chromium	Molybdenum	Heat Treatment	Tensile ksi	Yield ksi	Elongation %	Reduction Area %	Charpy ft-lbs@40	Charpy ft-lbs@RT	Hardness
1025	A 27 (Up to Grade 70-40)	QQS 681 Grade 70-40	AAR M201 Grade B	.19 - .25	.80 - 1.20	.30 - .60	0.03 max	0.03 max	0.30 max	0.30 max	0.20 max	Normalized	70	40	22	30	10 ft-lbs	15 ft-lbs	140
	A 148 Grade 80-50	QQS 681 Grade 80-50	SAE J435 080	.19 - .25	.60 - .95	.35 - .50	0.03 max	0.03 max	0.20 max	0.30 max	0.20 max	Quenched & Tempered	80	50	22	35	15 ft-lbs	35 ft-lbs	200
610	A 148 Grade 90-60	QQS 681 Grade 90-60	Grade 4 Class A	.21 - .28	.65 - 1.00	.30 - .65	0.03 max	0.03 max	0.20 max	0.30 max	.15 - .30	Quenched & Tempered	90	60	20	40	20 ft-lbs	20 ft-lbs	250
8630	A 148 Grade 115-95	QQS 681 Grade 120-95	A 487 Grade 4 Class E	.27 - .35	.60 - .90	.30 - .65	0.03 max	0.03 max	.40 - .70	.40 - .80	.15 - .30	Quenched & Tempered	115	95	14	30	15 ft-lbs	35 ft-lbs	250
603	A 148 Grade 130-115	QQS 681 Grade 130-115		.23 - .27	.80 - 1.05	.25 - .65	0.03 max	0.03 max	.70 - 1.00	.50 - .90	.30 - .45	Quenched & Tempered	130	115	11	25	10 ft-lbs	25 ft-lbs	250
4320	A 148 Grade 105-85	QQS 681 Grade 105-85		.17 - .21	.70 - 1.00	.35 - .60	0.03 max	0.03 max	1.5 - 2.00	.55 - .90	.35 - .45	Quenched & Tempered	105	85	17	35	25 ft-lbs	40 ft-lbs	280
4330	A 148 Grade 150-135	QQS 681 Grade 150-135		.26 - .32	.60 - .90	.30 - .65	0.03 max	0.03 max	1.65 - 2.00	.35 - .70	.20 - .30	Quenched & Tempered	150	135	7	18	5 ft-lbs	20 ft-lbs	280
AR Irons	A 532 Class II Type D			2.0-3.3	2.0 max	1.0-2.2	0.03 max	0.10 max	2.5 max	18.0-23.0	3.0 max	Hardened							600 HB
	A 532 Class III Type A			2.0-3.4	2.0 max	1.5 max	0.03 max	0.10 max	2.5 max	23.0-30.0	3.0 max	Hardened							600 HB

Spokane Industries specializes in carbon and low alloy steels as well as abrasion resistant chrome iron . Alloys listed are representative, others are available.

For more information contact us at info@spokaneindustries.com