

## A-36 Chemical Composition

	<b>Plate*</b>				
	Up thru 3/4	Over 3/4 thru 1-1/2	Over 1-1/2 thru 2-1/2	Over 2-1/2 thru 4	Over 4
Carbon	0.25	0.25	0.26	0.27	0.29
Manganese	--	.80/1.20	.85/1.20	.85/1.20	.85/1.20
Phosphorus	0.04	0.04	0.04	0.04	0.04
Sulphur	0.05	0.05	0.05	0.05	0.05
Silicon	.40 max	.40 max	.15/.40	.15/.40	.15/.40
Copper min % when copper steel is specified	0.20	0.20	0.20	0.20	0.20

\* Note: For each reduction of 0.01% below the specified carbon maximum, an increase of 0.06% manganese above the specified maximum will be permitted, up to the maximum of 1.35%.

	<b>Shapes*</b>	<b>Bars</b>			
	All	Up thru 3/4	Over 3/4 thru 1-1/2	Over 1-1/2 thru 4	Over 4
Carbon	0.26	0.26	0.27	0.28	0.29
Manganese	--	--	0.60/0.90	0.60/0.90	0.60/0.90
Phosphorus	0.04	0.04	0.04	0.04	0.04
Sulphur	0.05	0.05	0.05	0.05	0.05
Silicon	.40 max	.40 max	.40 max	.40 max	.40 max
Copper min % when copper steel is specified	0.20	0.20	0.20	0.20	0.20

\* Manganese content of 0.85/1.35% and silicon content of 0.15/0.40% is required for shapes with flange thickness over 3 in.

### Typical A36 Mechanical Properties\*

Tensile Strength:	58,000 - 80,000 psi
Min. Yield Point:	36,000 psi **
Elongation in 2":	23%

\* See ASTM Specification for specific adjustments.

\*\* Yield Point 32,000 psi for plates over 8 in.