

# MATERIAL DATA SHEET



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## ASTM A694 F65

Condition of supply:-	<i>As Rolled/Forged, Annealed, Quenched &amp; Tempered</i>
Surface Condition:-	<i>Black, Bright, Proof machined, Machined to Requirements</i>

### Description:

ASTM A694 Grade F65 is a **low alloy steel**, often selected for its high yield capabilities combined with its excellent low temperature toughness and weldability. It is typified by having moderate strength and impact toughness and is used extensively for the manufacture of flanges and fittings, well suited to be used for low temperature high pressure applications where features like tensile strength and resistance to corrosion are not of prime importance.

### Typical Applications:

Forged Flanges, Hubs, Valves and bespoke shapes such as Block Tee's.

### Typical Chemical Composition:

	C	Si	Mn	S	P	Cr	Mo	Cu	Al	Ti	V
Min	0.10	0.15	1.25				0.15		0.015		0.05
Max	0.14	0.25	1.4	0.003	0.025	0.15	0.20	0.20	0.025	0.05	0.07

### Mechanical Properties – ASTM

Tensile Strength Min, Ksi [Mpa]	Yield Strength min, ksi [MPa]	Elongation %	Reduction of area min, %	Charpy J -46c	Hardness HB
>77 [530]	>65 [450]	>20	>45	.45	152-235

### Machining

F65 is readily machinable allowing processes such as Sawing, Turning, Drilling, Boring and Milling to be relatively easily achieved.

### Welding

F65 is readily weldable by most commonly accepted techniques

### Form of supply:

Material can be supplied, Black Annealed - Rolled/Forged Bar, Proof Machined, Bright Turned or Ground Bar, Cut Pieces or Machined to customer specification.

### Size ranges from:

100mm diameter - 800mm diameter

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