

OTAI SPECIAL STEEL is STS3 steel stockholders and suppliers from china. more 16 years experience in JIS STS3 tool steel round bar, flat bar and plate supply.

JIS STS3 Steel is a high quality Cold work tool steel, It belong to the high quality high carbon alloy tool steel. Oil Quenched & Tempered Hardenss is 28-34 HRc. JIS STS3 steel Annealing delivery hardenss less than 250HB.

Related Specifications ASTM A29/A29M DIN EN 10083/3 JIS G4404 GB/T 3077

Form of Supply

JIS STS3 tool steel, we can supply the round bar, steel flat bar, plate, hexagonal steel bar and steel square block. JIS STS3 steel Round bar can be sawn to your required lengths as one offs or multiple cut pieces. STS3 steel Rectangular pieces can be sawn from flat bar or plate to your specific sizes. Ground tool steel bar can be supplied, providing a quality precision finished bar to tight tolerances.



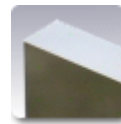
Round



sheet



Square



Plate

Chemical composition

C(%)	0.90~ 1.00	Si(%)	≤0.35	Mn(%)	0.90~ 1.20	P(%)	≤0.030
S(%)	≤0.030	Cr(%)	0.50~1.00	V (%)	--	W(%)	0.50~ 1.00

STS3 steel Heat treatment Related

- **Annealing of STS3 Tool steel**

Slowly heated to 740-760 °C (1364-1400°C) and allow enough times, let the steel to

be thoroughly heated, Then cool slowly in the furnace. The STS3 tool steel will get MAX 250 HB (Brinell hardness) .

- **Hardening of STS3 tool steel**

STS3 steels should be heated uniformly to 780-820°C (1436-1508°F) until completely heated through. If needed, the steels can be preheated at 300-500°C (572-932°F). About 30 min/per 25 mm of ruling section is to be provided and then the steels should be immediately quenched in oil.

- **Tempering of STS3 tool steel**

Tempering of STS3 steels is performed at 100-350°C (212-662°F), Soak well at the selected temperature and soak for at least one hour per 25mm of total thickness. Get Rockwell C hardness of 55 to 64.

Temperature [°C]	100	150	200	250	300	350
Hardness [HRC]	64-63	63-62	62-61	60-59	58-57	56-55

Mechanical Properties

The mechanical properties of STS3 tool steels are outlined in the following table.

Elastic modulus (@399°C/750°F, hardened to 62 HRC)	Elastic modulus (hardened to 62 HRC)	Yield (0.2%, hardened to 55 HRC)	Yield (0.2%, hardened to 60 HRC)	Yield (0.2%, hardened to 62 HRC)	Yield (0.2%,hardened to 50 HRC)
GPa	GPa	Mpa	Mpa	Mpa	MPa
172	193	1800	2150	2200	1350

Applications

STS3 steels are mainly used for short run tooling for cold forming dies, blanking dies, and cutting tools operating at ambient temper.

STS3 tool steel typical applications include medium run dies, intricate press tools, drawing punches, broaches, bushings, lathe centres, chuck jaws, master cavity sinking hobs, paper cutting machine knives, plug gauges, thread gauges and precision measuring tools. Also commonly used in applications such as cams, cloth cutting knives, cold taps, reamers, collets, cutting hobs, strip slitting cutters, trimmer dies, tube expander rolls, plastic moulds and wood working knives.

Regular size and Tolerance

Others STS3 have not specified size, pls [contact](#) our experienced sales team.

Processing

JIS STS3 tool steel round bar and flat sections can be cut to your required sizes. STS3 tool steel ground bar can also be supplied, providing a high quality tool steel precision ground tool steel bar to your required tolerances. JIS STS3 steel is also available as Ground Flat Stock / Gauge Plate, in standard and nonstandard sizes.

Contact our experienced sales team to help you with your STS3 tool steel questions and enquiry by [Email](#) or Telephone. The questions will be reply in 24 hours.

OTAI SPECIAL STEEL CO., LTD

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