

# AISI 440A (~X70CrMo15)

## Material Designation

440A	ASTM
S44002	UNS
~1.4109	DIN

## Standards

ASTM F899

## Chemical Composition Mass-%

	C	Si	Mn	P	S	Cr	Mo
min.	0,60	-	-	-	-	16,0	-
max.	0,75	1,00	1,00	0,040	0,03	18,0	0,75

Customer specific restrictions upon request

## Properties

AISI 440A is a Cr-Mo-alloyed stainless martensitic steel with good hardenability and excellent wear resistance.

## Delivery Condition

✂ annealed (+A)

## Application Area

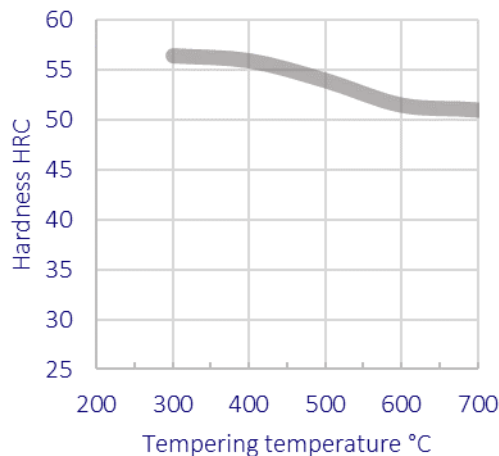
High demands on wear as well as on cutting edge retention. High surface qualities.

## Typical Applications

- ✂ Surgical instruments
- ✂ Fuel injections systems
- ✂ Cutting tools
- ✂ Ball and roller bearings

## Heat Treatment Guideline Values

	Temperature [°C]	Cooling medium
Annealing (+A)	850 - 880	Furnace, Air
Quenching and tempering (+QT)	950 - 1050 (Hardening)	Oil, gas, air, subzero treatment
	Tempering to required hardness according to tempering graph <sup>1</sup>	Air



<sup>1</sup>Tempering graph: Hardening temperature 1038 °C, oil. Risk for temperature embrittlement for tempering temperatures between 400 - 580 °C

## Quality

- ISO 9001
- ISO 14001
- ISO 50001
- Approvals acc. to standards like ABS, BV, DNV ...
- Customer specific approval certificates

## Innovation

- Fully automated ultrasonic testing up to dia. 1000 mm
- CO<sub>2</sub>-reduction by innovative heat treatment solutions

## Flexibility

- Product range from fine wire to forging
- Directly from stock close at hand

## Individuality

- Dimensions
- Tolerances
- Surface qualities
- Delivery conditions

## Your personal contact:

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