AUBERT&DUVAL

Steel

BED

43CrMo4

SPECIFICATIONS

43CrMo4

COMPOSITION

Carbon	0.43
Chromium.....	1.00
Molybdenum.....	0.20

TYPICAL MECHANICAL PROPERTIES

- Annealed condition: heat to 825°C followed by slow cooling.
  - Brinell Hardness: 217

HEAT TREATMENT REFERENCE

- Oil quench from 850°C. Temper at 675°C.
  - UTS: 1000 N/mm^2
  - 0.2 % Yield strength: 800 N/mm^2
  - Elongation (5d): 19 %
  - Impact strength KCU: 95 J/cm^2

APPLICATIONS

- Various wera resistant mechanical parts.
- Ball screws.
- Flattening rolls.

CHARACTERISTICS

- After heat treatment to UTS 880/1050 N/mm^2, this steel can be surface hardened by induction treatment.
- After hardening, surface hardness is approximately 700 Vickers.

HEAT TREATMENT

- Harden:
  - Heat to 850°C.
  - Oil quench.
- Temper:
  - Depending on properties required.

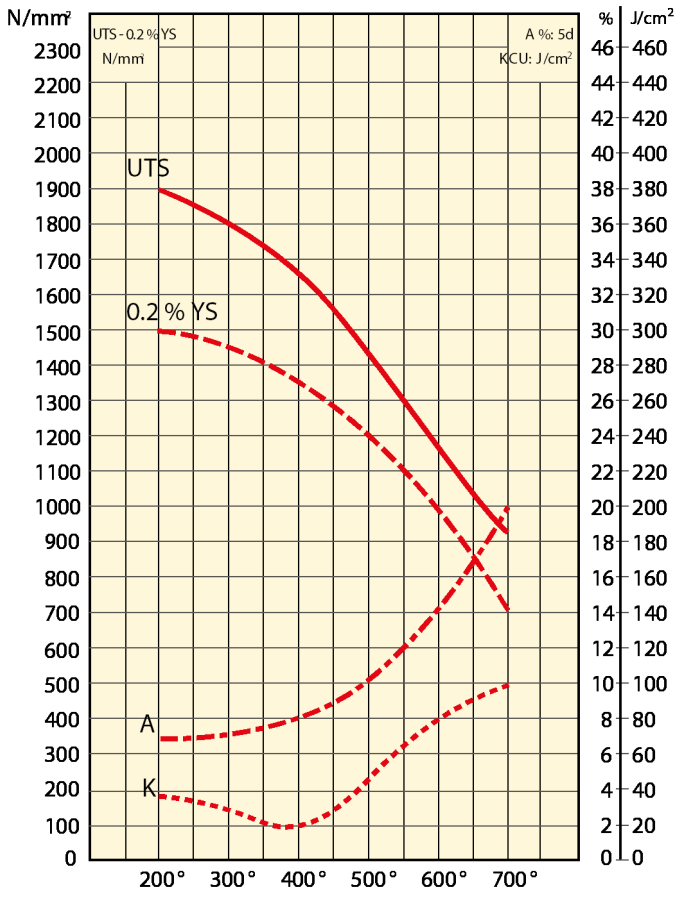
PHYSICAL PROPERTIES

- Density: 7.8
- Mean coefficient of expansion in m/m.°C:
  - between 20°C and 100°C: 11.6×10^{-6}
  - between 20°C and 700°C: 14.6×10^{-6}
- Critical points:
  - Ac 1: 740°C
  - Ac 3: 800°C

FORGING

- 1100/900°C

TEMPERING CURVE



Heated to 850°C, oil quenched.

(Heat treatment on rough machined blanks)

Contact:

www.aubertduval.com