

## Electronics

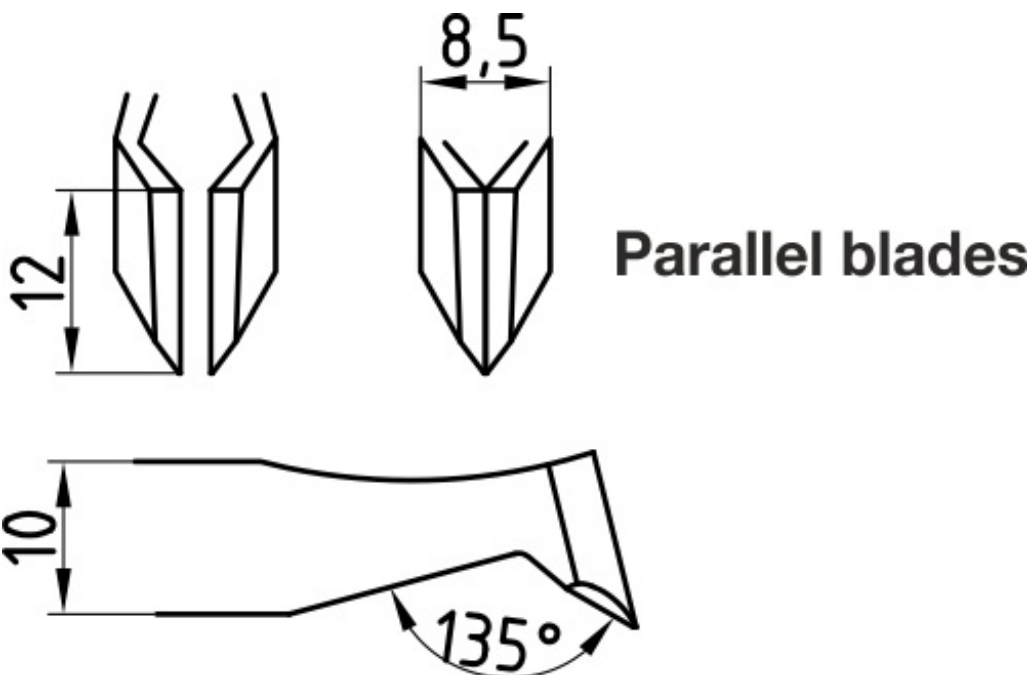
Tweezers

15AP High Precision Cutting Tweezers



4 3/4" 120 mm

Cutting tweezers for soft copper, gold, silver, magnetic wires



## General Notes

### Carbon steel (Material number 1.1221, Ck60, AISI 1060)

- contains from 0,57-0,65 wt% carbon
- magnetizable
- will be hardened by heat treatment, max. hardness 57 HRC
- poor resistance to corrosion
- used where strength and/or hardness are of primary concern.
- typical applications include tweezers and cutting tools for the electronic industry, watch-makers, jewelers applications.

## Composition

Component	Wt. %	Component	WT. %	Component	Wt. %
C	0.57-0.65	Si	0.15-0.35	Cr	≤0.4
P	≤0.035	S	≤0.035		

## Mechanical properties

State	
Density	7.9 g/cm <sup>3</sup>
Hardness	55-57 HRC
Tensile strength, ultimate:	850-1000 MPa
0.2 Yield stress	550 MPa
Modulus of elasticity	200 GPa

## Thermal properties

Coef. of lin. therm expansion:	11 E-6/°C	20°C-100°C
Coef. of lin. therm expansion:	12 E-6/°C	20°C-300°C
Specific heat capacity:	0.502 J/(g·K)	
Thermal conductivity	52 W/(m·K)	

## Electrical properties

Resistivity	0.8 E-4 Ohm.cm
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