

DIFFERENCES OF THE PLIERS

MATERIALS

Depending on the model and the requirements, we use high-alloyed tool steels or high-grade ball bearing steel (chrome steel) from selected suppliers.

CONSTRUCTION

We manufacture pliers with four different joint constructions (joint) depending on the application and design of the pliers.

Lay-on joint

The simplest form for joining the two halves of a pair of pliers is the lap joint. Here, the levers are put on top of each other and connected by a hinge pin. This construction is only used for very crude pliers.

Lap joint

For a single joint, the joint surfaces are also milled out so that the halves fit into one another and can be connected using a hinge pin.

Box joint

The most complex construction is the box joint. In a very special process, one lever is passed through the joint of the other lever which is opened using heat. The joint is then pressed together and connected with a pin. This construction ensures the best parallel motion of the tips and an extremely long service life.

Screw joint

The screw joint is manufactured with highly precise joint surfaces, ensuring smooth motion of the pliers and a uniform, low-friction open-close movement. In combination with the basic hardness of the high-quality chrome-vanadium ball bearing steel, the screw design provides a very high cutting performance with a long service life.



LAY-ON JOINT



LAP JOINT



BOX JOINT



SCREWED JOINT

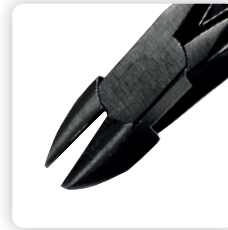
SURFACES

Over the decades we have developed surface properties that meet the wide ranging applications and requirements arising in daily use.

This involves properties such as corrosion protection, hardness, abrasion, spalling, smoothness and surface roughness in order to ensure the optimal work results.

CUTTING SHAPE AND CUTTING PERFORMANCE

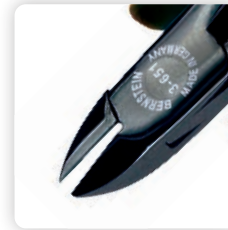
The service life of the cutting tips depends on their sharpness. The sharper the edge (full flush) the quicker the wear. That's why semi-flush pliers are preferable as long as flush or shock-reducing cutting is not required.



BURNISHED
(free of glare and reflections)



**HIGH-GLOSS
STEEL POLISHED**



**FINE POLISHED AND
GLOSSY BURNISHED**
(free of glare and reflections)



MATT FINISH
(free of glare and reflections)

Semi flush

This can be used for hard and soft steel wires and soft materials, such as copper wire. The cut leaves a pyramid-like tip at the end of the wire.



SEMI FLUSH

Flush

This provides an almost flush cut. It can be used for soft steel wires and copper wire. The cut is slightly shock reduced. It only leaves a very small tip at the end of the wire.



FLUSH

Full flush

This cuts completely flush and provides an extremely sharp cut. It is used exclusively for soft steel wires and copper wire and has a largely shock-reducing cut. It cuts absolutely plane-parallel.



FULL FLUSH

Special flush

This is used to cut glass fibre, Kevlar, etc. Fitted with carbide insert. Inserted with hard metal tips, designed for constant stress. These are also for tough nickel, electrode and tungsten wires.



SPECIAL FLUSH

WIRE QUALITIES AND SYMBOLS

(N/mm² = tensile strength)

- **soft wire:** 220 - 250 N/mm²
- ◐ **medium hard wire:** 750 - 800 N/mm²
- **hard wire:** 1600 - 1800 N/mm²
- Ⓟ **Piano wire:** 2200 - 2300 N/mm²