



Mikron Machining systems for the production
of electric and electronic connectors



Mikron transfer machines for the cost efficient and high volume production of precision parts

Mikron offers the best solutions for maximum piece rates in the electric/electronic industry, including electronic/electrical contacts, connector shells, and accessories, even where a large number of operations per piece are required.

Mikron high-precision rotary transfer solutions ensure:

Very high output, up to 28,000 pieces/hour

- » Process efficiency, from 8 to 24 stations
- » Impressive cost per part savings
- » Precise deburring of workpieces
- » Ability to machine entire parts in a single operating cycle
- » Ability to machine directly from wire

High-performance machining solutions from Mikron Machining enable our customers to set new production standards for many different applications such as:

- » Electronic components
- » Connectors
- » Plugs, sockets
- » Housings
- » Computer (hard disk cases, IC connectors, read/write head arms for hard disk drives)
- » Fiber optics
- » E-mobility connectors

Renowned suppliers in the electric/electronic industry trust our extensive experience in high volume workpiece manufacturing.



Downsize your production costs with Mikron high-performance machining solutions!



Ø 5 mm
L 10 mm

Fiber optic ferrule

Stainless steel
50 pcs/min on Mikron Multistar LX-24



Ø 7 mm
L 12 mm

Contact bushing

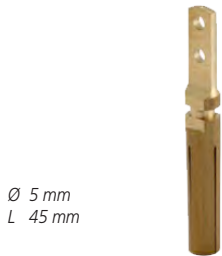
Brass
50 pcs/min on Mikron Multistar CX-24



Ø 4 mm
L 9 mm

Neon pin

Brass
520 pcs/min on Mikron Multistar LX-24



Ø 5 mm
L 45 mm

Connector

Brass
50 pcs/min on Mikron Multistar CX-24



Ø 2.5 mm
L 28 mm

Connector pin

Brass
36 pcs/min on Mikron Multistar LX-24



Ø 4.0 mm
L 42 mm

Connector pin

Brass
50 pcs/min on Mikron Multistar LX-24



Ø 5 mm
L 45 mm

Connector pin

Brass
50 pcs/min on Mikron Multistar CX-24



7.2 x 4.3 x 31.8 mm

Connector pin

Brass
120 pcs/min on Mikron Multistar LX-24



Ø 6.0 mm
L 42 mm

Connector socket

Brass
35 pcs/min on Mikron Multistar CX-24



8 x 8 28 mm

Connector pin

Brass
35 pcs/min on Mikron Multistar CX-24



7 x 8 x 30 mm

Connector socket

Brass
50 pcs/min on Mikron Multistar LX-24



Ø 5.0 mm
L 24 mm

Connector socket

Brass
50 pcs/min on Mikron Multistar CX-24

When it comes to high-volume production,
Mikron is the best partner!



9 x 9 x 20 mm

Electro clamp

Brass

160 pcs/min on Mikron Multistar LX-24



8 x 8 x 14 mm

Connector

Brass

140 pcs/min on Mikron Multistar LX-24



8 x 8 x 28 mm

Connector pin

Brass

35 pcs/min on Mikron Multistar CX-24



Ø 1.5 mm
L 2.3 mm

Pogo pin

Brass

140 pcs/min on Multistar LX-24

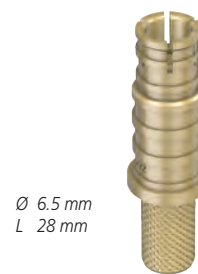


Ø 4.0 mm
L 26 mm

Connector pin

Brass

140 pcs/min on Mikron Multistar LX-24

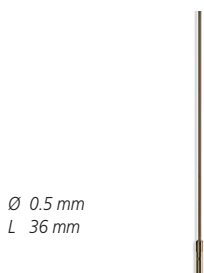


Ø 6.5 mm
L 28 mm

E-mobility connector

Brass

50 pcs/min on Multistar CX-24

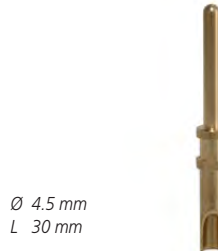


Ø 0.5 mm
L 36 mm

Special connector

Brass

25 pcs/min on Multistar CX-24



Ø 4.5 mm
L 30 mm

Connector pin

Brass

50 pcs/min on Mikron Multistar CX-24

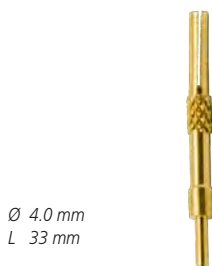


6 x 7 x 28 mm

Connector pin

Brass

160 pcs/min on Mikron Multistar LX-24



Ø 4.0 mm
L 33 mm

Connector

Brass

55 pcs/min on Mikron Multistar CX-24



Ø 9 mm
L 32 mm

Locking contact

Brass

10 pcs/min on Multistar NX-24

Mikron Multistar LX-24

The Multistar LX-24 with 24 work stations and up to 44 working spindles ensures a smooth mass production.

With the Multistar LX-24, parts can be machined from below and above or from the side. Other additional features are the 24 intermediate stations, which allow measurement, monitoring and cleaning procedures during the same run.

A highly unique system! Up to 600 simple workpieces can be produced per minute. Separating the work fields doubles, triples or quadruples the production rate at the same high processing speed. This same parallel concept enables complete production of different workpieces within a single run.

- » Highest processing speed
- » Absolute reliability
- » Minimal maintenance required



WORLD
CLASS
PRODUCTION



Mikron Multistar LX-24

Mikron Multistar CX-24

What makes the Multistar CX-24 so special? Its unbeatable precise performance and speed.

The Multistar CX-24 controls spindle movements with linear curves. The quickly interchangeable control curves provide processing flexibility, and 24 additional intermediate stations enable measuring, flipping over of the workpiece – also in different shape, monitoring and cleaning procedures in the processing cycle.

- » Precise serial production of part families and demanding workpieces
- » $\pm 2.5 \mu\text{m}$ table index accuracy
- » Up to 44 machining units operating simultaneously at 24 stations, assuring a very high output rate
- » Multistar CX-24 CNC version with up to 20 CNC axis available



40
PERFORMER

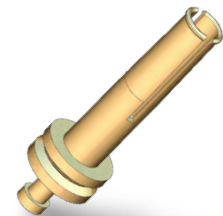
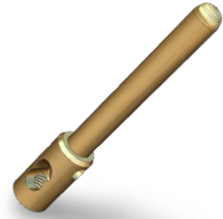


Mikron Multistar CX-24

Mikron VX

Full CNC high-precision rotary transfer machine with 10 or 12 workstations for variable production batch sizes

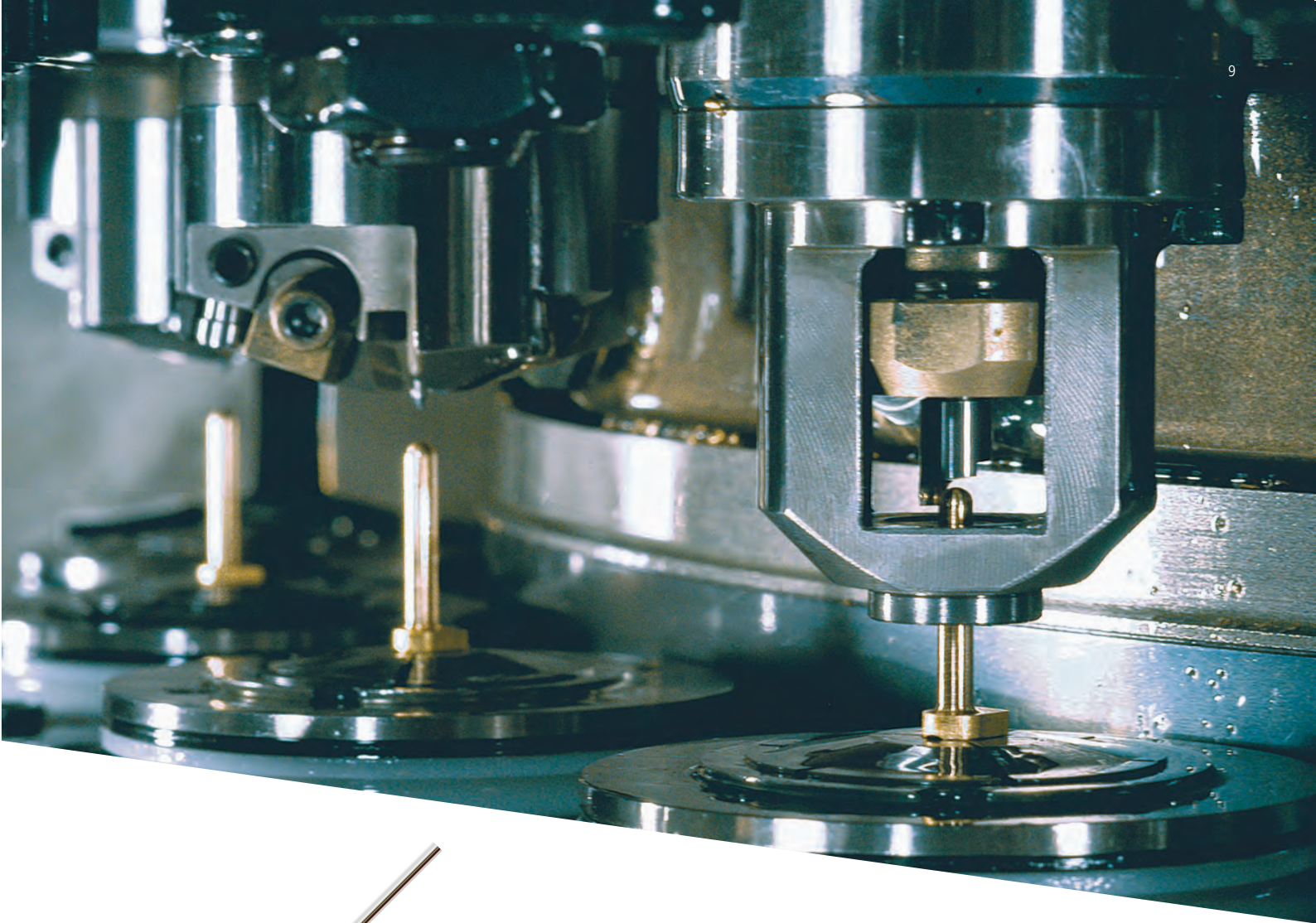
- » Maximum workpiece dimensions of up to 40x40x80 mm (optional 40x40x160 mm)
- » Complete machining on 6 faces
- » Pre-machining directly on bar/wire (out of cycle, parallel to the main process time). Clamping of the workpiece on the machined surface for subsequent operations



MAKING ON
SIDES FROM
BAR/WIRE
OR BLANK

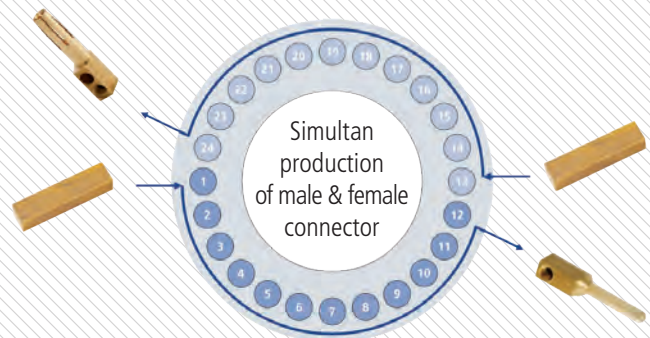


Mikron VX



Mikron Multistar can be equipped with an advanced bushing guide systems that hold the part near the cutting tool during the turning operations, assuring high precision, no vibrations, and perfect surface finish for very challenging Diameter/Length ratio (70xD); example \varnothing 0.5mm length 36mm

Thanks to the 24 stations and up to 44 cutting tools simultaneously in action, Mikron Multistar enables the concurrent production of pins and sockets on the same machine simplifying the logistic, less warehouse space and enables the just-in-time delivery. Eliminating the changeover step saves time and increases the number of production hours per year, which lowers the hourly cost.



NEW standard machining solution for pin & socket with extra benefit Mikron Multistar CX-24^{CONTACTS}



Mikron Multistar CX-24^{CONTACTS}

maximum performance with a NEW standardized machining solution suited for the most requested contact typologies and types.

YOUR EXTRA BENEFIT
SIGNIFICANT DELIVERY TIME REDUCTION

SEND US YOUR DRAWING!

We will check if your contact is qualified for the new Mikron Multistar CX-24^{CONTACTS} and send you an unbeatable quotation.

4 TYPICAL EXAMPLES OF
SUITABLE CONTACTS:



60 or 120*
pcs/min



50 or 100*
pcs/min



55 or 110*
pcs/min



50 pcs/min

scale 1:1

* Double cycle

TYPICAL CASE HISTORY Socket

On Mikron Multistar CX-24



The challenge

- » **High Volume production of approx. 12 million pieces/year**
- » Part Dimension: Ø 2.54mm L 15mm
- » Raw material (brass) supply from wire coil
- » Approximately 20 operations such as turning, milling, drilling, reaming, deburring, forming, 100% extraction force measurement integrated in the process
- » Tolerances: External Ø (turned) ±0.01mm, Internal Ø (reamed) ±0.01mm, length between machined surfaces ±0.02mm



UP-SIDE DOWN

Exclusivity Mikron: the part is flipped-over and fixed in an alternative collet, in a different section-shape, for the machining of the other side of the part.

The traditional solution

Production area:
136.2 m²



Required machines:
16



Employees:
3.2 + 3.2 + 3.2



Cost/part



Raw material from bar-stock

Mikron: The innovative solution

Production area:
38.64 m²



Required machines:
1 Mikron Multistar CX-24 & 1 Mikron TF-120



Employees:
0.5 + 0.5 + 0.5

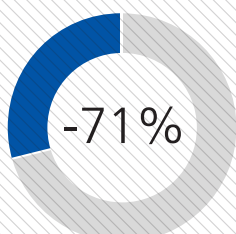


Cost/part

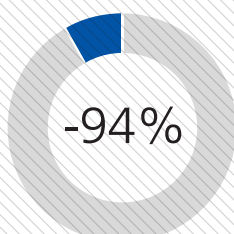


Raw material from wire coil

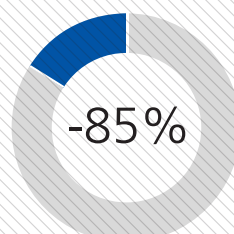
Your advantage



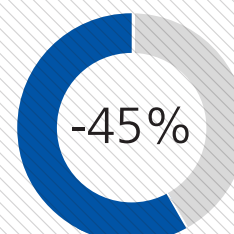
Production area



Machines



Employees



Cost/part

Mikron Machining

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