

Parts for Eyeglasses



Machining systems for
the eyewear industry



Mikron Machining Systems

Ideal solutions for spectacles parts

In the field of glasses production the research for methods to increase the ergonomic aspects of the frames, the use of new materials and the continuous technological improvement has made it possible to increase the quality of eyeglasses to a remarkable point. Modern production of eyeglasses components requires machining systems which offer high output, accuracy and flexibility.



The state-of-the-art designed Mikron machining systems are the perfect answer to meet all the requirements for the economical production of **spectacles parts** such as **hinges and temples**.

Mikron has been operating for years in conjunction with the most renowned suppliers of pieces for eyeglasses, providing them with the most suitable processing solution: the **NAM** and **NAD systems**.

Highlights of NAM and NAD, transfer systems for machining spectacles parts:

- Pre-processing, directly on the wire or on the bar prior to cutting (turning included)
- Complete processing of the piece, including the operations of drilling, threading, milling, turning and broaching
- Automatic processing of different parts (up to 24) from a single wire, and by the discharge of these pieces into an automatic sorter
- The machine modules can be overlapped, coupled or turned at will: vertically, horizontally and tangentially
- For each application it can be selected the most appropriate spindle: high speed (40,000 rpm), high power (3 kW), for broaching, for threading etc.
- The CNC is capable of recognising the exact position of the spindle modules and of correcting their position as necessary
- Up to 18 working stations can simultaneously process from 3 different positions, ensuring high productivity even in case of complex pieces
- The table is rotated in only 0.4 seconds (all movements included), therefore reducing idle times to a minimum

References

In Asia clients such as Ching Lan (TW) and Globe (CN) all use NAM systems. In Europe, in the field of luxury glasses (made of alloy with copper base and of titanium), the most famous suppliers of pieces for these articles, such as Luxottica (IT), OBE (DE), Visottica (IT) and Redtenbacher (AT), all use NAD systems.

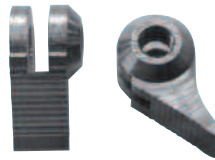
Example of typical eyeglass components machined with NAM and NAD systems from Mikron



Curved hinge:
complete machining CuNi18Zn20,
18 pieces/min. on NAM-8 (complete machining)



Built-in hinge:
machining from wire, material CuNi18Zn20,
20 pieces/min. on NAM-8 (complete machining)



Right and left hinges:
simultaneous machining in double wire,
material CuNi18Zn20, 50 pieces/min. on NAM-8
(complete machining)



Complete machining:
material CuNi18Zn20, 20 pieces/min. on NAM-10



Complete machining:
material Titan 4, 22 pieces/min. on NAM-10

NAD-4 – the flexible transfer system

- Workpiece dimension up to 40x40x80mm
- Machining from wire, bar or blank
- Modular construction easily adaptable to individual production needs
- Ideal for batch sizes starting from 100 parts and chaotic machining
- Configuration with 2 linear stations or 4 rotary stations
- 4-axis pre-machining of wire/bar before clamping



NAM-8, NAM-10 – for unbeatable cost per part

- Workpiece dimension up to 40x40x80mm
- Machining from wire, bar or blank
- System with 8 or 10 workstations
- Pre-machining of wire prior to clamping
- Full CNC flexibility
- Up to 36 tools simultaneously in operation

Mikron Tool – the partner for innovative cutting technology

- Development and production of superior quality tools for demanding application requirements
- Long product life and excellent cutting properties
- High precision and perfect surface finishing thanks to the synergy between machines and cutting tools
- Cost effective production



Mikron Machining Your contacts

Headquarter

Mikron SA Agno

Via Ginnasio 17
CH-6982 Agno
Tel. +41 91 610 61 11
Fax +41 91 610 66 80
mag@mikron.com

Mikron Tool SA Agno

Via Campagna 1
CH-6984 Bioggio
Tel. +41 91 610 40 00
Fax +41 91 610 40 10
mto@mikron.com

Mikron GmbH Rottweil

Berner Feld 71
D-78628 Rottweil
Tel. +49 741 5380 0
Fax +49 741 5380 580
mro@mikron.com

Mikron SAS Nerviano

Via S. Ambrogio 16
I-20015 Parabiago (MI)
Tel. +39 0331 55 12 22
Fax +39 0331 55 12 86
mnv@mikron.com

Mikron Corp. Monroe

200 Main Street
P.O. Box 268
Monroe, CT 06468 / USA
Tel. +1 203 261 31 00
Fax +1 203 268 47 52
mmo@mikron.com

Mikron Taiwan Office

P.O. Box 91-251
Taipei, Taiwan R.O.C.
Tel. +886 2 2231 07 07
Fax +886 2 2231 01 07
mtw@mikron.com

