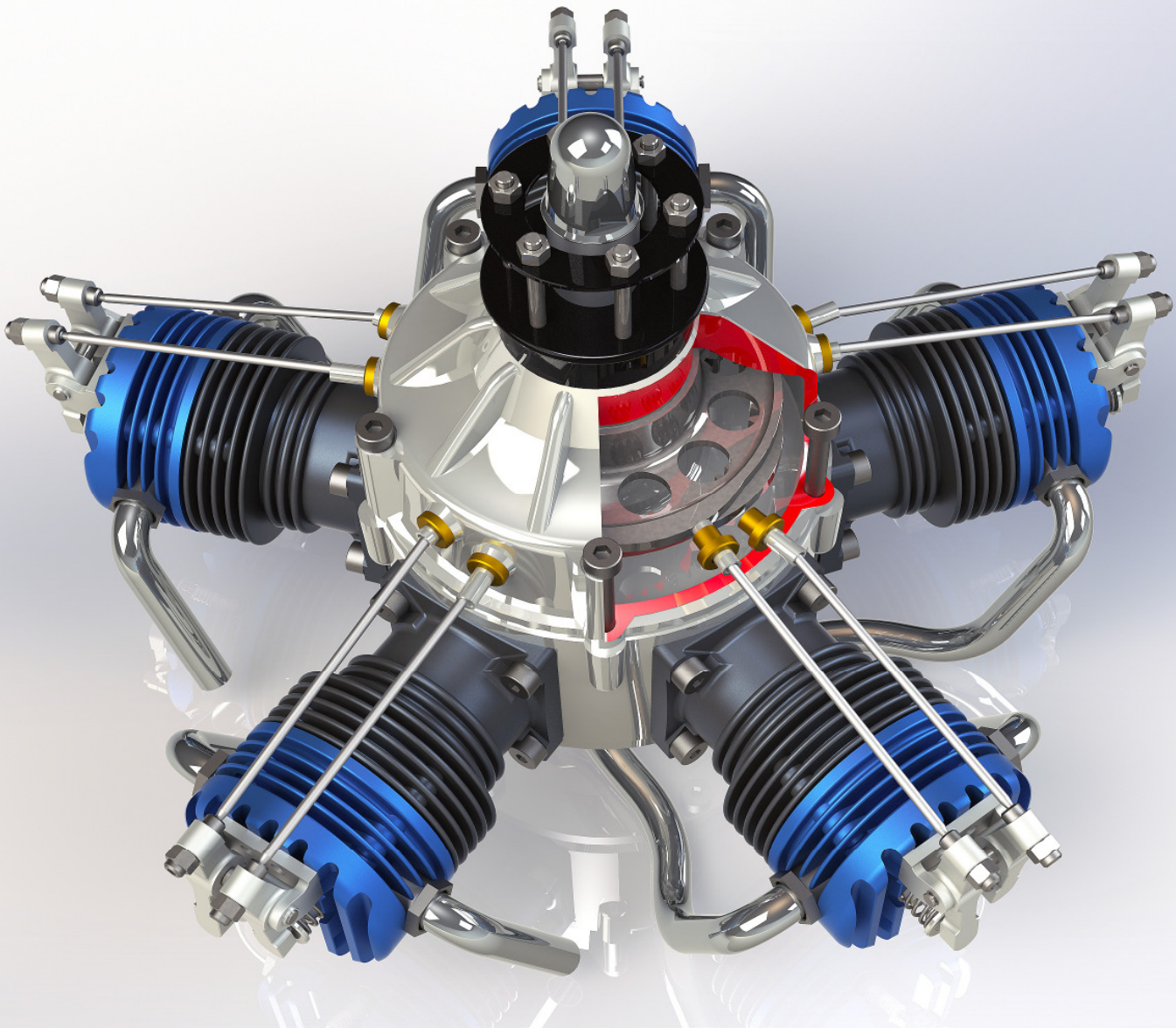


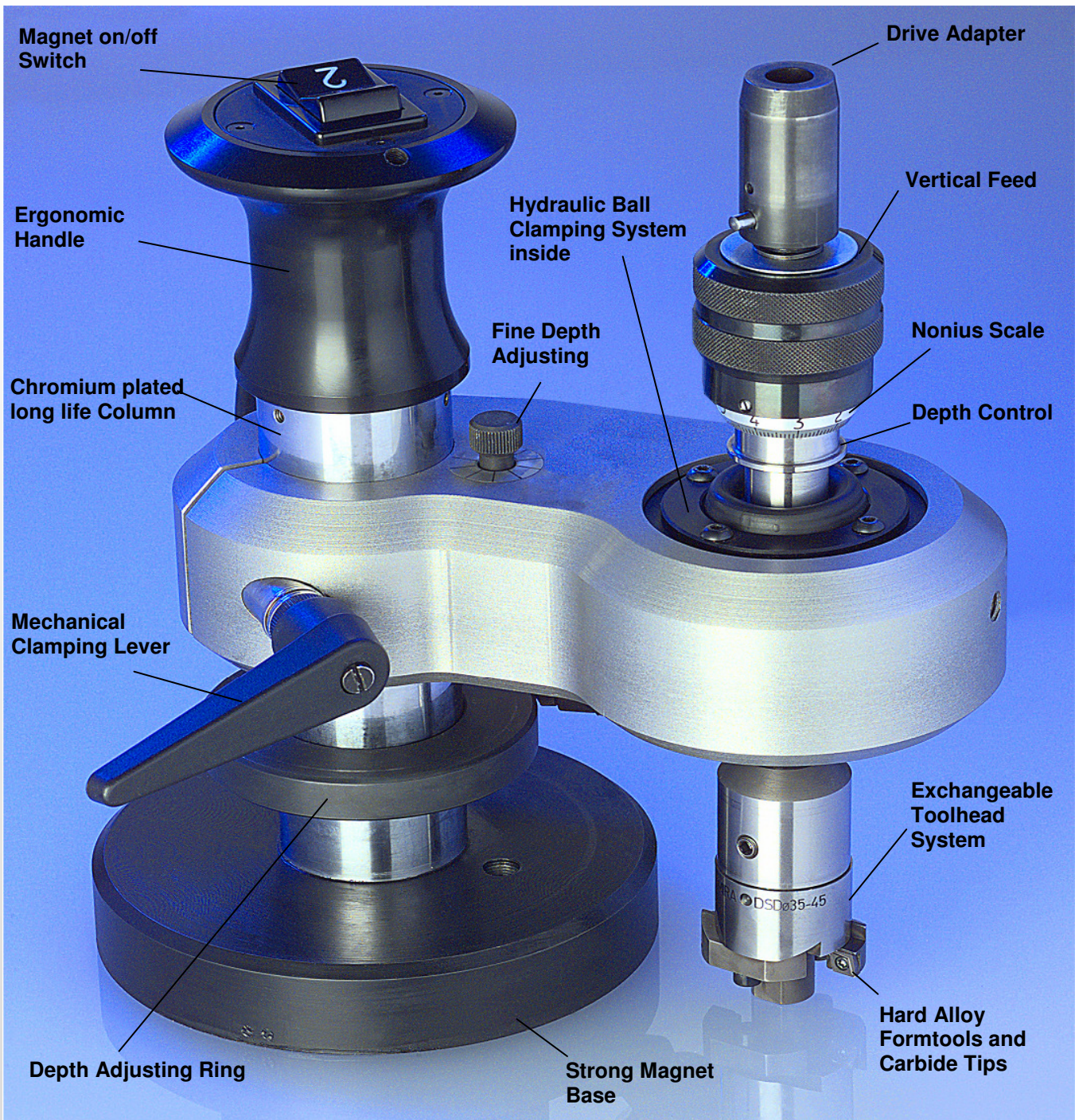
**MIRA<sup>®</sup>**



***Tooling and Equipment for  
Aero Engine Rebuilding***

# MIRA<sup>®</sup>

# VGX-21 System



The VGX-21 Valve Seat Refacing Unit has been developed for the specialised Petrol and Diesel Cylinder-head Workshop. The highly accurate valve seat processing is achieved by a spherical spindle guide bearing and a unique hydraulic ball clamping system. An almost pressure free centering and braceless fixing of the MIRA<sup>®</sup> rotary head is made possible. Based on these features, the MIRA VGX-21 unit will continuously achieve precise and concentric valve seats!

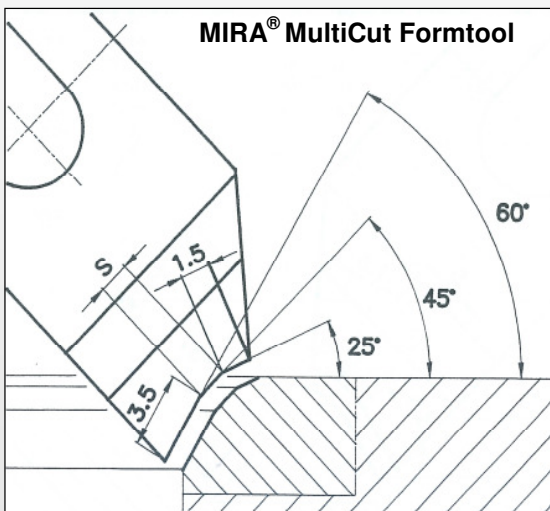
## ***Perfect MultiCut Valve Seat Refacing***

# MIRA®

## VGX-21 AeroKit

The MIRA® AeroKit has been specially designed for valve seat cutting and counterbore processing on blind cylinders of CONTINENTAL and LYCOMING Aero Engines.

MIRA® Spindle Extensions and a vast range of MIRA® Multicut Formtools and Centering Pilots allowing precise and fast valve seat refacing and counterboring operations - deep down of any blind Aero cylinder.



### Standard MIRA® Aero Toolkit includes:

- VGX-21 Valve Seat Refacing Unit (110/230V)
- DT1 tool head (processing  $\varnothing$  21-45mm)
- 200mm extension shaft
- AV-Aero Cylinderhead Support for wall mounting incl. moveable steel base plates / 04 clamping elements
- Vario-Drive stepless Electronic Drive Unit
- 06 customer selected MIRA® SKX MultiCut Formtools
- 06 customer selected MIRA® FD Centering Pilots

### Optional Equipment

- DT2 tool head (processing  $\varnothing$  37-55mm)
- DSD double-edged tool for counterboring  $\varnothing$ 44-55mm
- Custom Made Extension Shafts
- EM25-75mm Adjusting Micrometer
- MIRA® MULTIVAC Vacuum Test Unit

**Complete Aero Toolkit for blind cylinders!**



# AeroKit Accessories

## MIRA® Vario-Drive System



The **Vario-Drive** enables a fatigue-free and time saving refacing of valve seats. It guarantees a smooth and even cutting motion.

The **Vario-Drive** System is stepless adjustable between 50-200 1/min.

The MIRA MULTIVAC is a versatile test unit for any sealing tests on cylinderheads after rebuilding. The Multivac can also be used on installed engines for rapid diagnosis on vacuum related components up to a max. vacuum of 800mbar.



MIRA® MULTIVAC

## Service & Product Support



MIRA products are shipped worldwide. Replacement parts and after sales service will be provided by your local MIRA distributor or direct from the MIRA factory in Switzerland.

MIRA technical product support is available by phone, fax, email or Skype account. Personal product training is available at the MIRA training centre in Switzerland upon request.

All Swiss Made MIRA quality products are backed by a limited 24 months factory warranty!

MIRA is the registered trademark of the MINELLI CORPORATION Switzerland. MIRA products are protected by international patents and patents pending. MIRA reserves the right to change product design, specifications and prices without prior notice.



## SWISS ENGINE REBUILDING TECHNOLOGY

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