

# ***SBG***



***The total solution for  
Stick Blade Grinding***

# **ANCA<sup>®</sup>**

# **SBG** *The ANCA solution for stick blade grinding*

The ANCA Stick Blade Grinder (SBG) is your total solution for the manufacture and reconditioning of stick blades used in the production of hypoid bevel gears.

Used in automotive differentials, hypoid bevel gears are a fundamental component in automotive drive train technology.

Therefore, automotive manufacturers seek to manufacture these components to the highest consistency and quality, while also looking for ways to operate more efficiently.

ANCA SBG is a precision CNC grinding machine, designed as a total solution for the automated manufacture and reconditioning of stick blades that are used in production milling, or hobbing, of hypoid bevel gears.

The SBG's rigid machine construction, intuitive software and complete automation sets you up for unmanned production of the highest quality stick blades for the automotive industry.



## **Features to meet the needs of stick blade regrinders**

ANCA's SBG has been developed to suit the requirements of stick blade grinding. Features include:

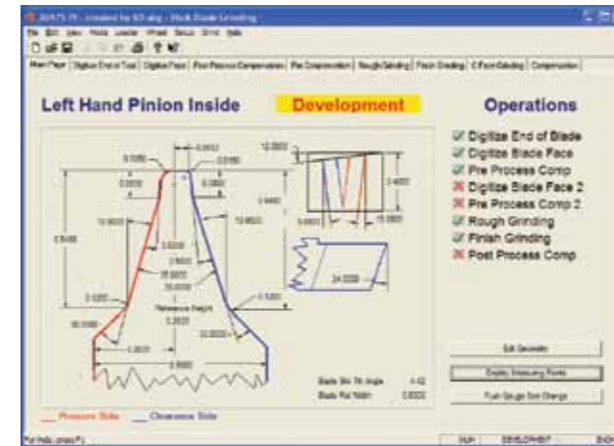
- A dedicated blade holding chuck able to accommodate a range of blade sizes up to 19 x 28 mm (0.75" x 1.1")
- Being equally capable of manufacturing new, or resharpening used stick blades
- The ability to grind HSS and carbide stick blades
- Unmanned continuous grinding with ANCA tool loading systems
- On-machine wheel dressing



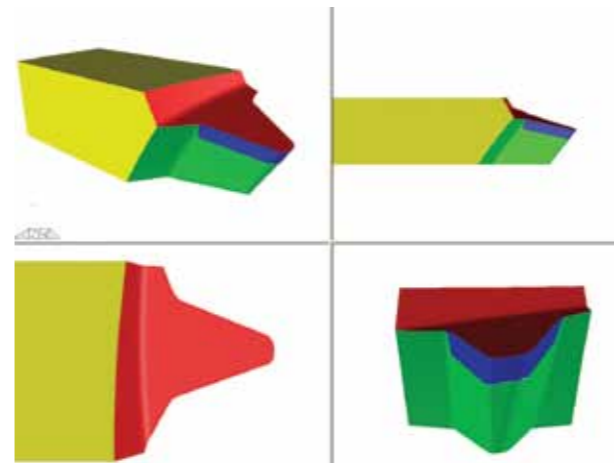
## **ANCA's SBG Dedicated Software**

As with all ANCA grinding machines, ANCA's software enhances SBG's flexibility and ease of use with:

- A Windows based user interface
- Customised reading of industry standard Gleason 300CG, or Klingelnberg KiMOS stick blade summary files including RSR, TRI-AC, ARCON and SPIRON
- The ability to adjust blade profile to improve cutting performance or gear geometry
- Development and production mode controls and user access levels for parameter adjustment



- Administrator software that allows the connection of multiple SBG machines to a single network point allowing the monitoring of production status and compensation of machines
- Compensation of blade from either Gleason 562 measurement results, Klingelnberg P40 measurement results, or from a bench-top push gauge
- ANCA CIMulator3D software for complete offline simulation of the grinding process virtually eliminating on machine set-up grinding



## **SBG's specialist stick blade processes ensure quality**

The SBG has specific stick blade grinding and measurement cycles that ensure the precision and quality of the final product. These include:

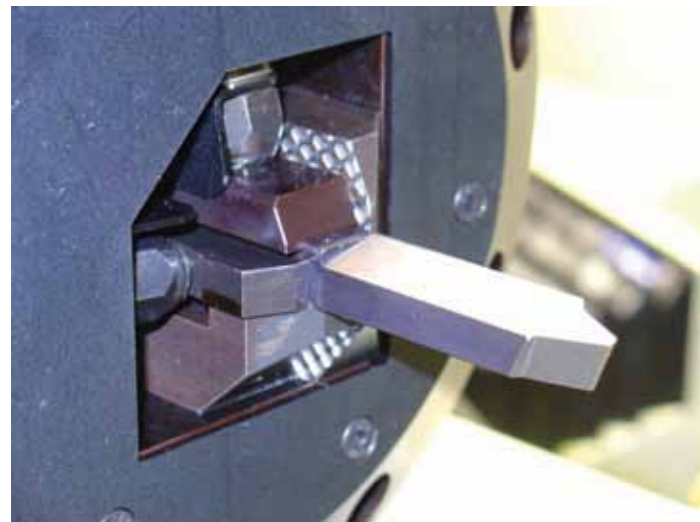
- Automatically digitising the stick blade to accurately locate its position and compensate for any tool misalignment
- Manufacturing and regrinding cycles that include rough and finish grinding of profile with primary and secondary relief and C-face
- Post grinding process blade digitising to automatically compensate for wheel wear and process thermal drift relative to a master blade



## **ANCA global support is part of your investment**

ANCA SBG is the choice of industry which is looking for the ultimate in high precision, reliability and flexibility.

It is designed to meet the demands of a competitive industry, and is supported by ANCA's worldwide team of technical specialists. Confidence that ANCA is the right choice goes beyond the machine. The ANCA team will be your partner with application and machine support from initial training, to ongoing maintenance.



## CNC Data

ANCA 5DX, Pentium 4, min. 512 Mb, 15" Touch Screen, Ethernet, CD Read and Write/DVD Read Only

## Software axes (patented)

B, V, U, W, A

## Work piece

Small chuck From 10mm x 12.7mm (0.4" x 0.5")  
up to 15mm x 15mm (0.6" x 0.6")  
Large chuck From 10mm x 12.7mm (0.4" x 0.5")  
up to 19mm x 28mm (0.75" x 1.1")

## Drive system

ANCA Digital (SERCOS standard) / Linear axes direct-drive ballscrew / Rotary axes direct drive

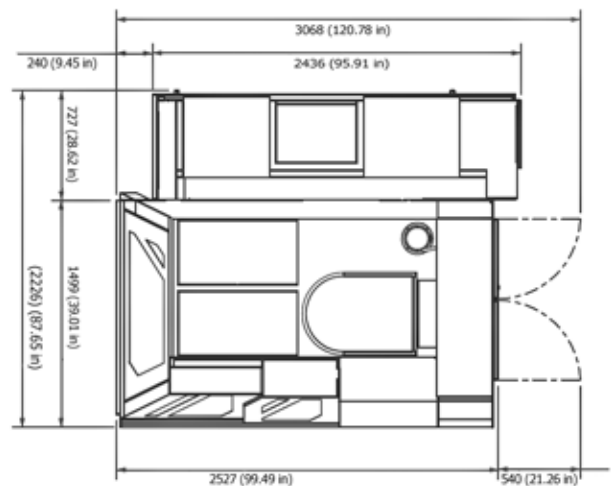
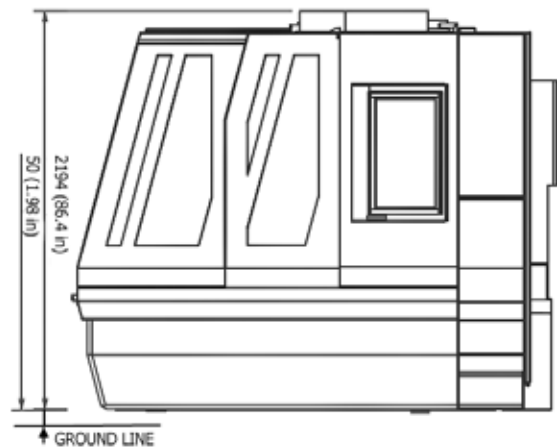
## Machine data

Grinding spindle Bi-directional direct drive  
37 kW/49 HP (peak)  
10,000 RPM (15,000 RPM option)  
Integral direct drive  
BIG Plus BT 40  
Grinding wheel Max Ø203 mm (8")  
Wheel bore Ø50.8 mm (2")  
Two wheel packs Max 4 wheels each

## Other data

Electrical power 25KVA  
Probe system Renishaw  
Coolant system External  
Machine base ANCAcrete (Polymer concrete)  
Colour RAL 7035 / RAL 5014  
Weight Approximately 8200 kg (18,040 lbs)  
Floor plan Width: 2527 mm (100")  
Depth: 1499 mm (59")  
Height: 2244 mm (88")

*ANCA reserves the right to alter or amend specifications without prior notice*



*Shown with RoboMate loader*

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