

**Dihart®**



## REAMAX®

The new dimension  
in high performance reaming

REAMAX®



info



**KOMET®**  
GROUP

## REAMAX®

### More performance. More flexibility.

Dihart's high-speed reaming tools REAMAX® provide maximum cutting capacity through multiple cutting edges and offers all the advantages of replaceable cutting inserts in one system.

#### REAMAX® sets standards:

- Maximum efficiency and complete process reliability
- Low vibrations during maximum cutting speed
- No re-setting when blades are replaced
- Maximum flexibility for combining cutting materials and coatings along with diameters and geometry of the replaceable inserts are available and can be chosen for each specific application
- Made to measure, available within the shortest time
- Precise repeatability
- Maximum replacement accuracy
- Designed especially for inner coolant supply and minimal lubrication
- Diameter 12.5 up to 40 mm
- Length of bore 3 x D and 5 x D

The modular reaming tool consists of a tool holder with cylindrical shaft and the REAMAX®-replaceable insert. A high precision short taper ensures the connection between the replaceable insert and the collet. Precise repeatability of the diameters and an immediate continuation of machining with a new carbide insert are guaranteed.

### Simplest possible replacement.

The REAMAX® replaceable insert is fixed on to the tool holder with a tie-rod and a clamping nut. There is no need for time and cost intensive setting to the final size as the inserts are manufactured specifically for each application to the exact diameter and tolerance. With REAMAX® replacement time is no idle time.



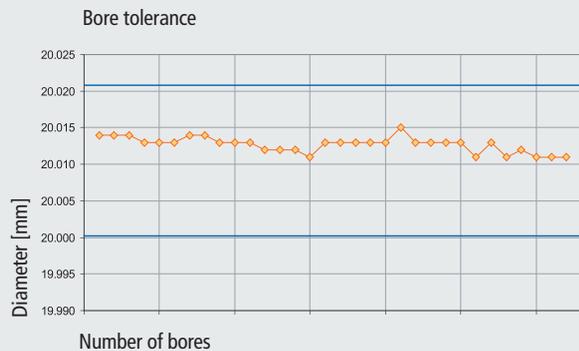
### Flexibility and swiftness through cell-manufacturing

For REAMAX® Dihart has chosen for ultra modern cell-manufacturing. The advantages: shorter delivery time for standard- and special dimensions. Special measurement requirements and individual geometry without an increase in price.

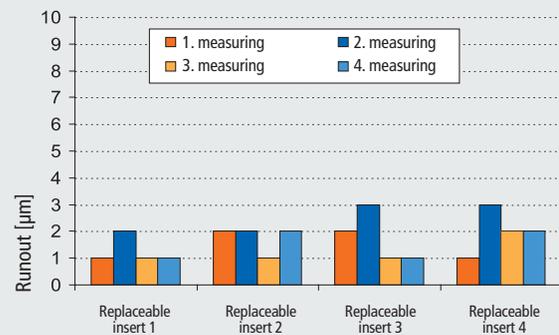


## Maximum process efficiency and accurate repeatability

### Result in steel with REAMAX® -replaceable insert



### Replacement precision of the REAMAX® -interface



### Application examples

#### Pump housing



#### Brake caliper



#### Challenge

**Material**  
GG25  
**Diameter**  
24.04 0/-0.047  
**Length of bore**  
25 und 35 mm  
**Surface**  
Ra 3.2

GS500 (GGG55)  
18.05 0/-0.04  
42 mm  
Ra 1.6

#### Solution

**Tool**  
REAMAX®  
-holder DAH 81  
**Cutting material**  
ASG  
01  
**Cutting data**  
 $v_c$  90 m/min  
 $S$  1200 n<sup>-1</sup>  
 $f$  1.3 mm/n<sup>-1</sup>  
 $f$  1550 mm/min



REAMAX®  
-holder DAH 81-  
Hydraulic chuck  
DST  
07  
170 m/min  
3000 n<sup>-1</sup>  
1.0 mm/n<sup>-1</sup>  
3000 mm/min



#### Advantage for the customer

**Tool life**  
370 m or 6155 workpieces  
**Primary processing time**  
3 s per workpiece  
**Surface**  
Ra 2.4

180 m or 4250 bores  
0.5 s per bore  
Ra < 1.6

# REAMAX® – replaceable inserts

## New standards are set in cutting capacity

The REAMAX® -reaming system guarantees maximum cutting capacity in your production line.

With the REAMAX® -replaceable inserts you have a remarkable wide variety. With toolholders in only six different dimensions the complete diameter span from 12.5 to 40.0 mm is covered. At the same time all reliable cutting geometries are available for the new REAMAX® -series in Dihart's usual high quality standard.

Dihart cutting geometries specifically for applications for critical cutting operations can be generated by Dihart.

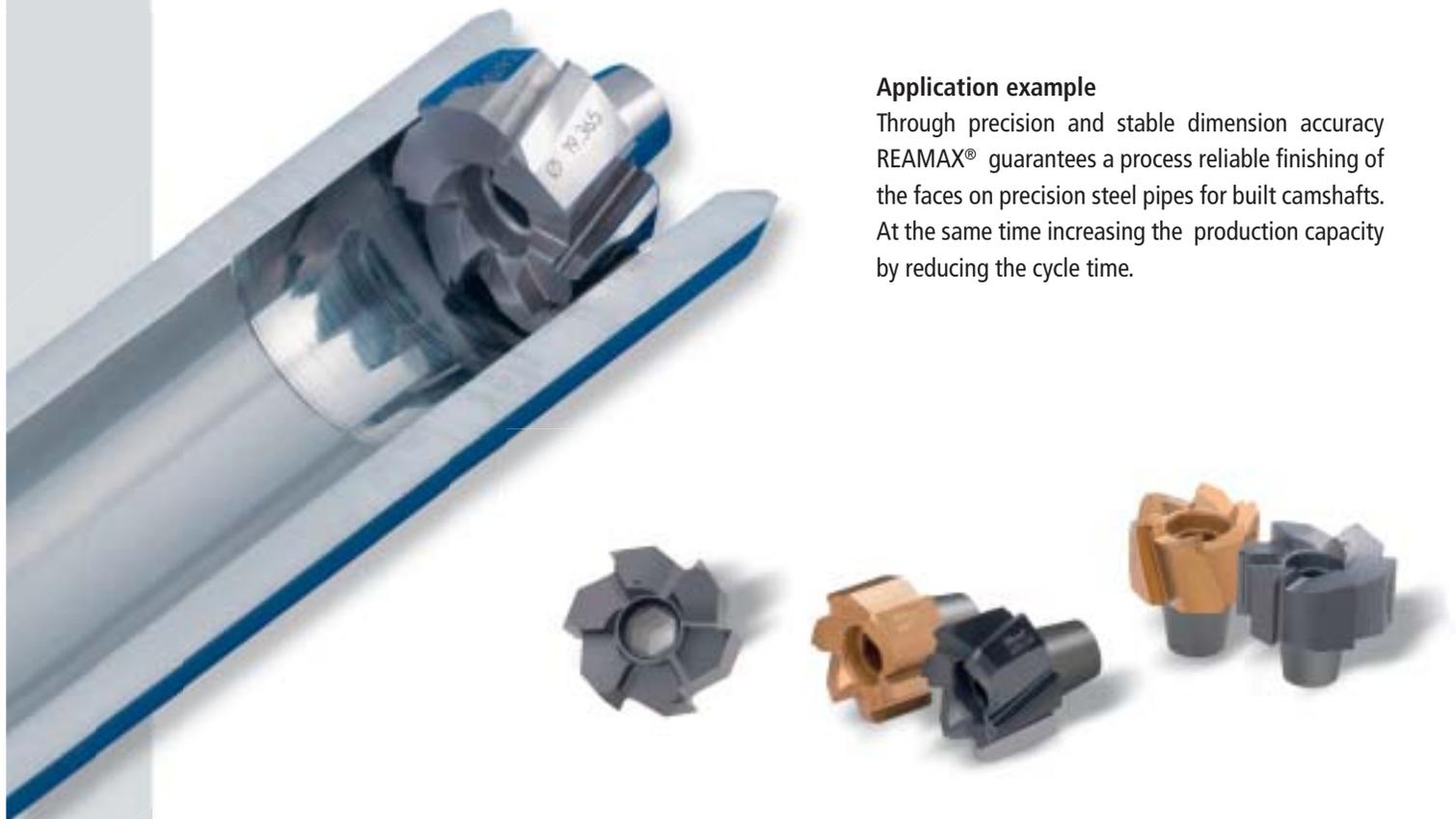
### REAMAX® -toolsystem

#### Available in following specifications:

- Tool attachments with cylindrical shank in 3 x D and 5 x D
- Tool attachment with DAH connection in 5 x D
- Diameter span 12.5 – 40 mm
- Straight fluted and left hand spiralled
- Replaceable inserts with 6 – 8 cutting blades
- Cutting materials carbide and DST
- Coatings TiN, DBG and DJC
- Geometries for specific applications
- The inserts are ground to 2/3 of the tolerance of the bore

### Application example

Through precision and stable dimension accuracy REAMAX® guarantees a process reliable finishing of the faces on precision steel pipes for built camshafts. At the same time increasing the production capacity by reducing the cycle time.



 **KOMET**<sup>®</sup>  
GROUP

KOMET GROUP GmbH  
Zeppelinstrasse 3 · D-74354 Besigheim  
Tel. +49 (0) 7143.373-0 · Fax +49 (0) 7143.373-233  
info@kometgroup.com · www.kometgroup.com

 **Dihart**<sup>®</sup>

Dihart AG Precision Tools  
Industriestrasse 2 · CH-4657 Dulliken  
Tel. +41 (0) 62.2854-200 · Fax +41 (0) 62.2854-299  
info@dihart.ch · www.kometgroup.com