





#### Gleser is a specialist in broaching technology

Gleser GmbH is a family-run company which has specialised in broaching technology. The range of services includes commission work, broaching technology, CNC turning and milling, as well as the sale of broaching machines and broaching tools, and sharpening services for them.

#### Top-quality commission broaching

At our Velbert location we perform commission processing in the area of (hard) broaching to your exact specifications. With over 5000 broaching tools, we can provide short delivery times within a few days or even hours. We accept even the challenge of difficult components, because we are specialists in broaching technology.

#### Environmental protection matters to us

For us, environmental protection is more than just words—we act accordingly. We have two photovoltaic systems for energy generation, multiple rainwater collection tanks with a total volume of 40,000 litres, and a solar thermal plant for heating hot water.

#### We are certified

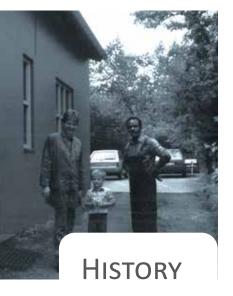
Quality is our greatest asset and what we are measured against. This was confirmed for us through certification to DIN ISO 9001 and to DIN EN 9100 for aerospace and defence.

#### Markets in 2017

For many years, customers in many different industries have put their trust in our quality and experience. In 2017 our customer base was composed as follows: 40% automotive, 15% construction industry, 5% machine engineering, 5% aviation industry, 5% agricultural machinery, 20% sale of tools, and 10% from other industries.







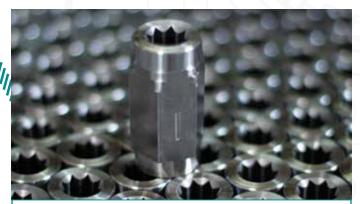


1986	Foundation of the sole proprietorship Jürgen Gleser RAUMTECHNIK – SYSTEMFERTIGUNG Takeover of the Mokronowski company, Velbert, which had existed for 30 years.
1989	Change of name to Gleser GmbH. Managing director and shareholder: Jürgen Gleser
1991	Construction of production hall
1993	Company takeover of the broaching company Rita Kurz, Solingen
2005	Certification to DIN ISO 9001:2000
2009/2010	Building of 2nd production hall
2011	Certification to DIN ISO 9001:2008
2011	2nd managing director, Dr. Ing. André Gleser, joins
2015	Certification to DIN EN 9100:2010 for aerospace and defence



# AT A GLANCE

#### **Services**



#### Maximum quality is our benchmark

Gleser GmbH implements complex processes through its extensive machine park. Turned and milled parts with profiles and toothed sections are manufactured in full. Your wishes and requirements are the focal point for us.

Which operations may we perform for you?

- Internal broaching
- External broaching
- Sharpening of broaching tools
- CNC turning
- CNC milling
- Ramming/drawing
- Gearing measurement
- Gear cutting
- Coating
- Internal and external round grinding

#### **Products**



#### Products and solutions - right for you

In addition to commission work Gleser GmbH, as an experienced and established service provider for broaching technology, also offers you an extensive product portfolio. This includes complex broaching tools for internal or external gear cutting, with matching pullers where required. Also consumer goods such as handwheels or spline plugs and gauges.

Our self-developed (hard) broaching machines round out our product portfolio.

Contact us, also about special broaching tools. For every problem we offer a high-quality solution.

Product portfolio overview:

- Broaching tools
  - Keyway broaching tools
  - Big-sized broaching tools
  - Internal broaching tools
  - Special broaching tools
- Handwheels
- Pullers
- Spline plugs and gauges
- Rifling broaches
- Rack dies
- (Hard) broaching machines



## **Tool lists**



#### We offer a wide range of options

You will find the interactive tool lists on our homepage www.gleser-online.de. This makes it easier for you to find the right tool for your product. For this, we offer you a wide selection of forms and sizes.

- Grooves
- Square
- Hexagonal
- Octagonal
- Rectangular
- Double hexagonal
- Double square
- Splined hubs
- Notch-toothed hubs
- Polygons
- Round
- Round with flat surface
- Swallowtail
- Custom profiles
- Toothed hubs
- Two-faced slot

## Quality



#### Quality is our strength

We are certified to DIN EN ISO 9001 and DIN EN 9100.

Gleser GmbH's quality management system as per DIN EN ISO 9001 and DIN EN 9100 for aerospace and defence ensure a high level of consistent quality upon which customers can rely.

Continuous controls are performed with the aid of numerous measuring instruments. In particular, gear measurements in small modules from 0.2 upwards.

To ensure quality in general, and to increase manufacturing quality in particular, we operate a Klingelnberg PNC 30 cog measurement machine with 4 axes.

We are also happy to perform measurements on commission for your components.



# **SERVICES**

#### Maximum quality is our benchmark

Internal broaching

Gleser GmbH is a renowned machining company which accepts complex projects and, by applying its extensive experience, is able to process your components reliably. From processing highly specialised single parts, all the way to high-volume orders. Our extensive machine park and the in-depth technical knowledge of our employees provide a wide range of processing options.

External broaching

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Our services

- Internal broaching
- External broaching
- Sharpening of broaching tools
- Gear cutting
- Coating
- Internal and external round grinding
- Ramming/drawing
- CNC turning
- CNC milling
- Gearing measurement
- Quality assurance



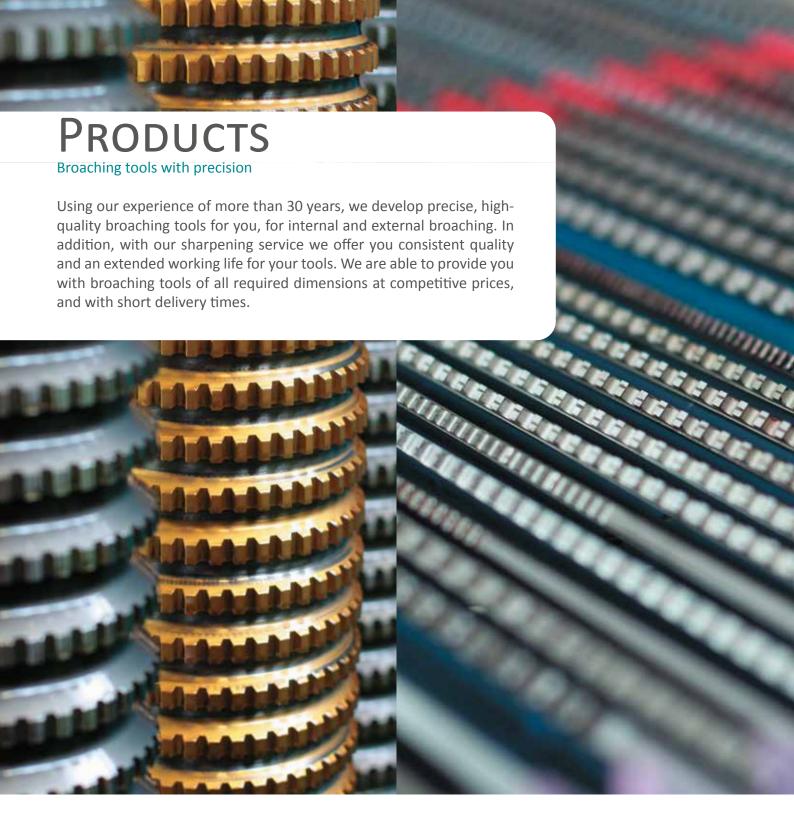
Coating

Gear cutting



Sharpening of broaching tools





## Big-sized broaching tools

For many profile forms, e.g. square, hexagonal, octagonal, involute gearing, splines, wedge profiles...

#### Dimensions:

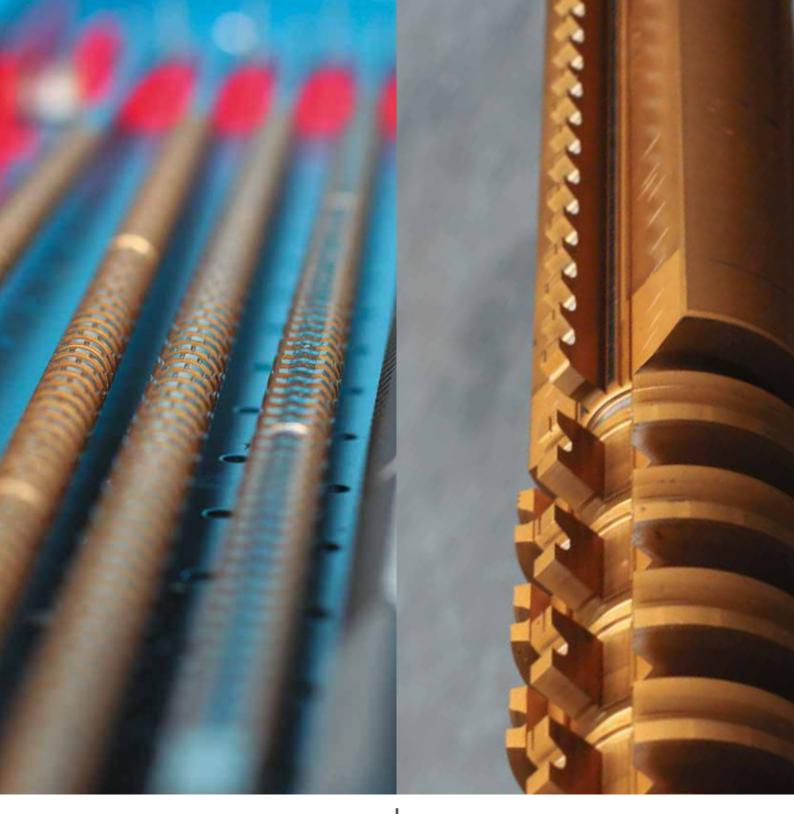
Lengths up to 2500 mm and diameters up to 300 mm possible.

## Keyway broaching tools

For drive-type fastenings as per DIN 6885 or similar. Standard models are available for you in our online shop, www.gleser-shop.de. We offer you models with or without chamfers, in high-speed steels (HSS) or powder-metallurgical (PM) steels.

Deliveries ex-stock.





## Internal broaching tools

For many profile forms, e.g. square, hexagonal, octagonal, involute gearing, splines, wedge profiles, and other forms.

High gearing qualities (up to IT 8 as per DIN 3962) can be achieved with full-form cutting tools.

Equally, we can offer you hard broaches made from solid carbide metal with multilayer coatings to eliminate the hardening distortions which follow heat treatment.

## Special broaching tools

For many profile types, specific to customer requirements. To reduce the costs from wear, a broach bushing was attached to this sample tool, and the bushing can be replaced when wear becomes excessive.

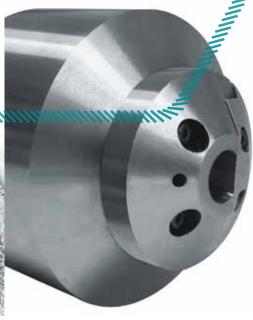


## **OTHER PRODUCTS**

Products and solutions - right for you

Are you looking for products manufactured to high quality, such as handwheels, pullers, or spline plugs and gauges? Then visit our online shop at www.gleser-online.de, where we also offer the development of rifling broaches, or find out about our (hard) broaching machines.







#### Handwheels

Gleser GmbH specialises in handwheels of very varied designs. Profiles and grooves can be applied to the handwheels completely to your individual requirements.

Standard models are available for you in our online shop. Deliveries ex-stock.

#### **Pullers**

We supply pullers as per DIN 1418 in various designs and sizes. These are suitable for broaching tools with shanks as per DIN 1417. Pullers for broaching tool shanks as per DIN 1415 are also available.

Standard models are available for you in our online shop. Deliveries ex-stock.

## Spline plugs and gauges

In our supply range we also offer gearing plug gauges and gearing ring gauges for various gears. We will be happy to issue you with a works calibration certificate with the specified tests and the required gear standard. Exactly to your requirements.











## Rifling broaches

Gleser GmbH is an independent German company which also has extended its expertise to the development and supply of tools for aerospace, defence, and arms. We have many years experience in the production of high-quality, precision broaching tools. We develop and manufacture our rifling broaches in close collaboration with our customers. We offer you a high-quality manufacturing service to standards DIN EN 9100 (aerospace and defence) and **DIN EN ISO 9001.** 

### Rack dies

Gleser GmbH provides you with perfectly fitting rack dies. We are able to manufacture almost any millable profile for you.

We calculate for you the necessary length of the rack dies, based on your gear data.

#### Variants:

- Involute gearing
- Splines

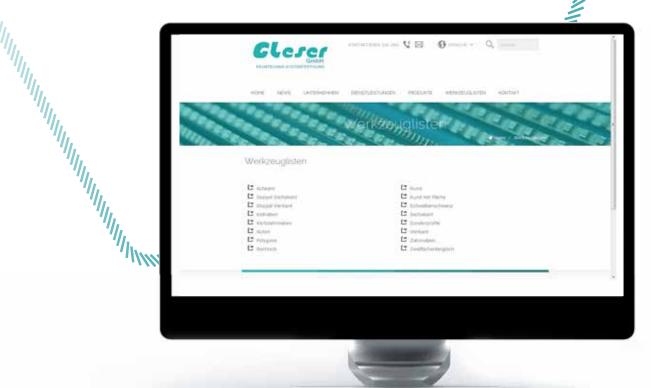
## (Hard) broaching machines

Our machines are designed both for soft and for dry broaching applications. With a hard broaching machine, the electro-mechanical drive of the ball screw allows a maximum broaching speed of 60 m/min. to be achieved. The rigid construction and the precise transport by the off-loader allow the machine to minimise vibrations during the manufacturing process, and thus to increase tool life.



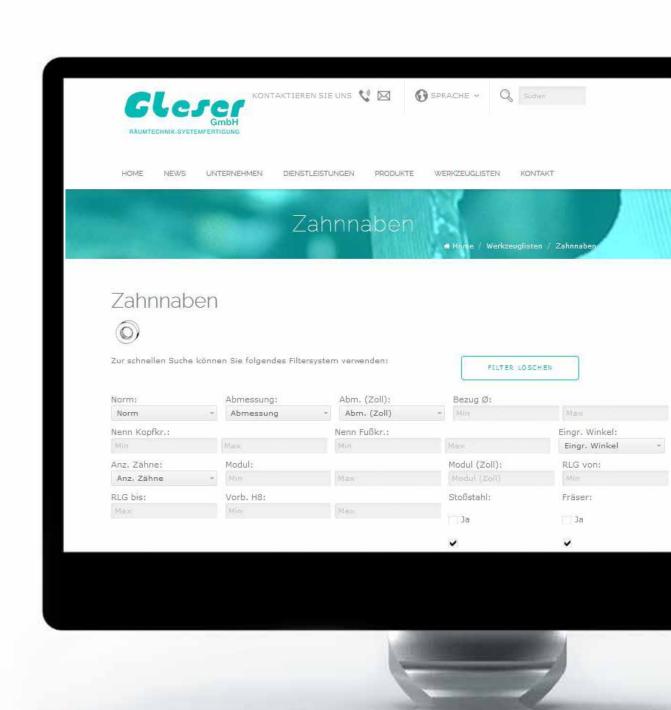
# TOOL LISTS

We offer a wide range of options

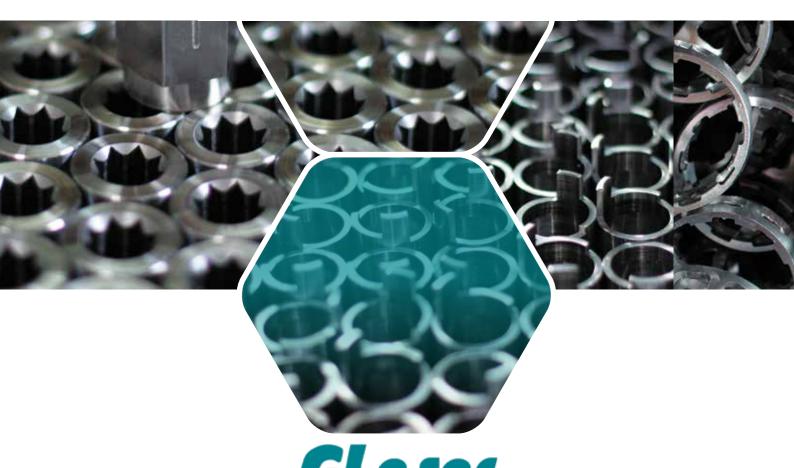


With more than 5000 different broaching tools, gear cutters, and shaper tools we provide you with a wide range of options for creating your product. You will find our lists of stocked tools on the Internet at www.gleser-online. de. There you can simply and conveniently select the appropriate profile form, and then search for the matching broaching tool, gear cutter, or shaper tool. For this, also use our filter system for the respective tool type, and select your search by standards and dimensions. If you cannot find the appropriate tool, then please contact us to enquire. We can always offer alternative manufacturing methods.









#### **BROACHING TECHNOLOGY - SYSTEM MANUFACTURE**

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