

CLAMPING FIXTURES

(Additionally required) clamping fixtures will be quoted separately upon receipt of workpiece drawings. The documentation is delivered in standard version as follows:

- Assembly drawing(s) as per Gleason standard for drawings with Gleason title block
- Dimensions: metric
- Language: German or German/English
- File format: PDF

(Other versions against extra charge.)

CUTTING TOOLS

To assure full utilization of the capabilities of the machine we recommend purchase of the required tools together with the machine.

ADDITIONAL EQUIPMENT AND ACCESSORIES

have been or will be designed for the wide range of application of our machines.

Please advise if you wish to receive a supplementary quotation for your specific requirement.

Compliance with technical specifications regarding the machine design might require extra charges.

If we have to comply with any such specification for your machine please advise.

EQUIPMENT PROCURED BY CUSTOMER

We can assume **no** warranty for any accessories or equipment etc. procured by the customer.

AMBIENT TEMPERATURE

» **Shaving, honing and threaded wheel grinding machines:**

Room temperature for operating a standard machine is between 15° and 40° Celsius.

Permissible thermal fluctuation of the room temperature during machine operation is up to max. 4° Celsius. Humidity: 20 % to 85 % (non-condensing)

» **Hobbing and Shaping machines:**

Room temperature for operating a standard machine is between 15° and 35° Celsius.

Permissible thermal fluctuation of the room temperature during machine operation is up to max. 4° Celsius. Humidity: 20 % to 85 % (non-condensing)

» **Grinding machines:**

Room temperature for operating a standard machine is between 18° and 26° Celsius.

For a constantly high operating quality the room temperature fluctuation during machine operation should not exceed 2° Celsius. Humidity: 20 % to 85 % (non-condensing)

Differing conditions as well as special quality requirements might require additional machine equipment (such as special cooler, warm-up program).

If the machine will be operated outside the above mentioned range of temperature and humidity we will **not** take any warranty for damages.

PROCESS MATERIALS

Process materials, e.g. lubricants, coolants, hydraulic oil etc., are **not** included in the scope of delivery of our machines but will have to be procured by the customer according to our recommendations and/or specifications.

MAINTENANCE SERVICES

Professional and reliable service allows you to ensure highest productivity and consequently increase the profitable efficiency of your machine investment. Comprehensive and entire first-hand service is provided by Gleason-PFAUTER specialists.

Our service pays off by:

- » Increased economic efficiency through maximum machine availability
- » Transparent cost planning
- » Reduction in internal service and maintenance costs
- » Minimization of lost output and scrapped parts
- » Ready capacity availability of for greater competitiveness
- » Ability to maintain machine value

As a result from the requirements of our customers, our service strategy consists of several levels of service. We would be pleased to offer a service package tailored to your individual convenience.

CE MARKING

Our machines are in accordance with the European Machine Directive 2006/42 EG.

On request, we will provide an EC Conformity Statement.

For a machine documentation as per the machine directive it is required to take a photo of the machine after commissioning at customer's plant. For this we take your kind approval for granted.

RISK ASSESSMENT

The risk assessment and calculations as per ISO 13849 are part of the required technical documents according to the Machinery Directive 2006/42. These documents contain information that are intended for internal use only. The risk analysis and calculations as per ISO 13849 can thus not be delivered with the documentation for the machine. On appointment, these documents can be viewed at the premises of Gleason. Please note that these documents are prepared in German only. We kindly ask for your special approval and refer to the VDW industry report dated August 2012 as well as the guideline for the application of the Machinery Directive 2006/42/EC, published by the European Commission Enterprise and Industry, 2nd Edition 2010, paragraph 393.

COMPRESSED AIR

If the equipment requires compressed air the machine is designed for a compressed air supply according to ISO 8573-1:

Solid contamination according to ISO 8573: Class 4

(permissible particle size maximum 0.015 mm, particle density maximum 8 mg/m³)

Maximum pressure dewpoint according to ISO 8573: Class 4 (pressure dewpoint 3 °C)

In addition, the pressure dewpoint must be at least 10 °C below ambient temperature!

Oilfree compressed air.

Residual oil contamination according to ISO 8573: Class 4

(Permissible residual oil of compressors maximum 0.1 mg/m³ for HEES fluids (synthetic esters) and bio-oils and maximum 5 mg/m³ for mineral oil)

Required pressure at inlet of our air preparation unit: minimum 4.0 bar - 5.0 bar (depending on machine type).

Additional notes regarding Grinding Machines:

COOLANT

We recommend the use of CASTROL coolant "Variocut G 600 SP" for grinding.
All calculated and guaranteed grinding times are based on the exclusive use of this coolant.

Address in Germany: Deutsche Castrol Industrieöl GmbH
Postfach 30 12 49
20305 Hamburg
GERMANY

or the relevant agencies abroad.

FIRE PROTECTION

The grinding oil used with our grinding machines for process cooling creates a mixture of oil mist and air during the operation which is basically inflammable. For the unlikely case of fire, the machine is equipped with a fire alarm system according to European machine guidelines.