

### GRINDAIX TEST STAND TECHNOLOGY

## Professional test environment for the examination of lubricoolant nozzles

## Your advantages

- Factual nozzle comparison benchmark
- Exactly reproducible evaluation of the coolant supply
  - Beam quality, beam expansion
  - Radiance per distance value
  - Air cushion penetration
  - Nozzle-specific characteristic curve recording (pressure, volume flow, outlet velocity)
- For all nozzle types (incl. cleaning nozzles)
- For oils and emulsions

## Our possibilities...



As developers and manufacturers of technically sophisticated coolant supply systems, we want to continuously improve our products and know everything about their operating conditions when used in the production environment.

We have a total of four self-sufficient test benches for the investigation of the most varied nozzle properties, which are used daily for the further development of Grindaix lubricoolant technologies.

In this way we generate, in addition to precise knowledge for the improvement of our coolant supply systems, precise knowledge about optimal supply strategies for coolant nozzles, depending on the existing process parameters.

"We want to know what comes in the end!"



#### Your results

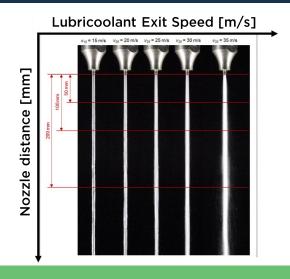
Our test bench runs offer various test focuses for coolant supply systems, which we convert into usable results for our customers:

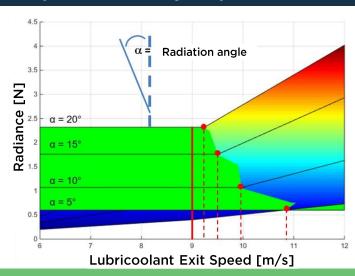
- + Creation of nozzle characteristic curves (p, Q, vKSS)
- + Jet pattern evaluation of free jet nozzles
- + Determination of radiance profiles
- + Air cushion simulation and test of air cushion penetration
- + Examination of components with media of different viscosity

All tests with lubricoolant nozzles are carried out under the conditions that actually exist in the customer's production environment. A direct adaptation of the gained knowledge to the coolant supply of a machine tool is therefore possible.



## Supply conditions are recorded optically and metrologically





## Use our test bench technology!



We offer the examination of cooling lubricant nozzles on our test benches as a straightforward service.

Save yourself lengthy tests or the "trying out" of optimal supply parameters of your coolant nozzles.

We take care of it!

#### We investigate for you

- Radiance F (N/mm2)
- Beam quality (droplet, wave, atomisation, beam expansion)
- Relationships between pressure-volume flow outlet velocity
- Ability to penetrate the air cushion

#### Book your test bench test now!

Fast, reproducible, comparable examination of your lubricoolant nozzle? We will!

How to book your test bench run:

- 1) Ask for availability at duesentest@grindaix.de
- 2) Specification of your operating conditions (grinding wheel peripheral speed, type of coolant; your coolant supply pressure before the nozzle, volume flow, possible blasting angle range, etc.)
- 3) Cooling lubricant nozzle conveniently sent by parcel
- 4) You will receive your nozzle cleaned and returned to you in a package after the test is completed
- 5) You will receive a test report with all results

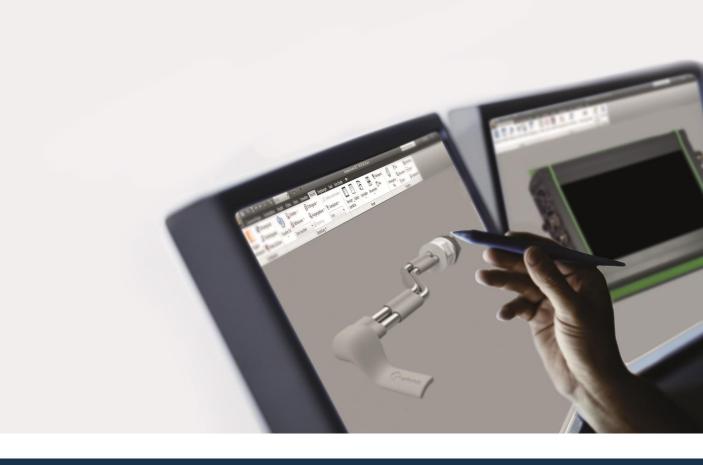
### Objective comparison of coolant supply systems

We provide you with a scientifically clean and objective comparison of different coolant supply system solutions!

On request, we can compare various coolant supply systems (including your own designs) for you, taking into account the intended operating conditions, and make a possible optimisation recommendation based on the test results.







# Your professional partner Around all lubricoolant system questions

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