grindaix
A QUAKER HOUGHTON COMPANY

COOLANT SUPPLY SYSTEMS FOR

GEAR GRINDING

In gear grinding, the special **Grindaix dual nozzle** allows the gear screw to be cleaned efficiently and at the same time ensures an adequate supply of coolant for the grinding process.



Variant 1: Needle nozzle

- Dual nozzle: cleaning and cooling in one nozzle
- Only one supply centrifugal pump required
- Incl. Coolant Pointer
- Incl. Coolant Display

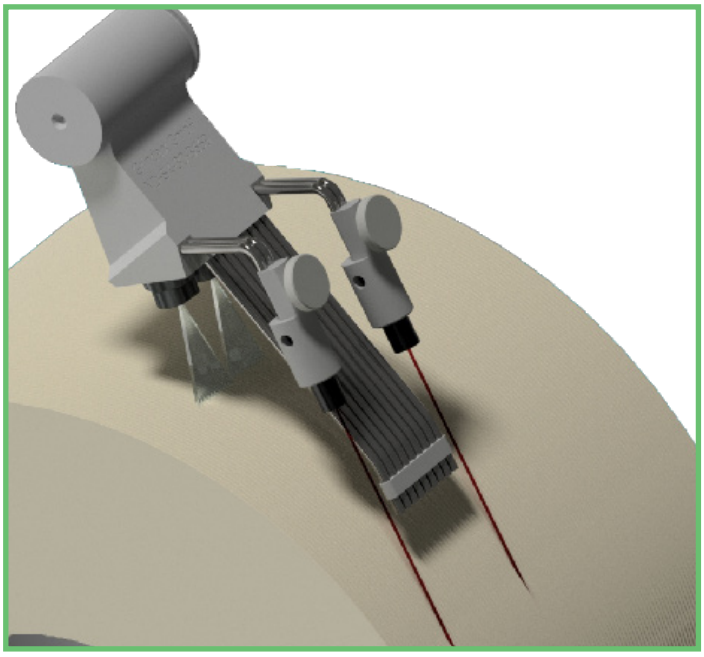
Improve your Productivity
Reduce your CO_2 Emissions

FUNCTION

Shortly before the machining point, the hobbing screw is first freed from clogging and then the free pore spaces are filled with coolant.

Due to the rotational movement of the rolling screw, the coolant is guided into the machining zone. The Grindaix Dual Nozzles for generating grinding are suitable for use under oil and emulsion and are available for all worm and gear geometries.

The **Coolant Pointer** is attached via suitable holders. This enables exact positioning in the grinding gap for optimum coolant supply.



2 in 1 nozzle

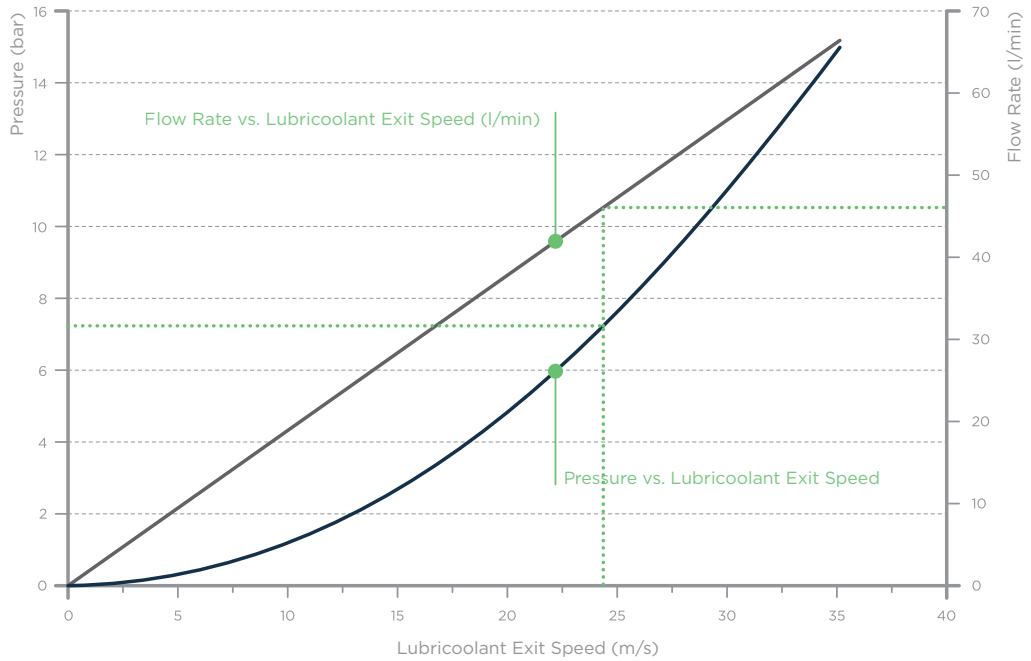
SAMPLE CALCULATION (FOR OIL)

Nozzle	Pressure	Volume flow	Exit speed
Dual-Nozzle	20 bar	86 l/min	
Proportion of needle nozzle		64 l/min	38 m/s
Proportion of cleaning nozzle		22 l/min	

THE NOZZLE CHARACTERISTIC CURVE

The nozzle diagram is intended to provide you with a first aid for the realisation of a suitable supply of the nozzle with regard to pressure and volume flow.
It shows the total pressure (static and dynamic) that would be measured directly in front of the nozzle. This pressure does not correspond to your pump pressure or the delivery head of the pump.
Pressure losses in the supply line between pump and nozzle as well as influences of possible other cooling lubricant outlets on the same supply line are not considered. These factors can be included and evaluated in a COOLANT AUDIT offered by us. Only in this way can your system be designed to optimise consumption.
Starting from the print, you will find the corresponding coolant outlet speed directly. Using the grey straight line you will then find the correlation between the cooling lubricant outlet speed and the associated cooling lubricant volume flow.

EXAMPLE NOZZLE CHARACTERISTIC CURVE



ORDER INFORMATION

Grindaix Nozzle	
Name	Description
ND-SK-	The nozzles are individually designed for the geometric parameters of the grinding application. All nozzles incl. characteristic curves.

Zubehör	
Name	Description
Pressure Sensor	analog/digital
Pressure Sensor Connector	standard 1/4“
Compressed Air Connector	nozzle cleaning ø 1/4“
Wear Protection	available in all widths and geometries
Profile geometry stabilizer	available in all widths and geometries
Coolant Pointer	laser adjustment aid - nozzle positioning
Coolant Display	device for grinding burn monitoring

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