

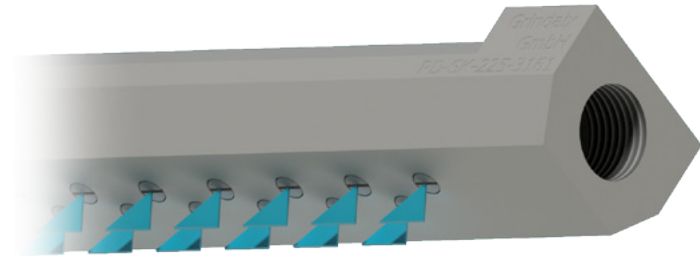


Coolant Supply Systems for

# PLANE-PARALLEL GRINDING

Improve your productivity  
Reduce your CO2 emissions

- + Reduction of the grinding burn risk
- + Longer grinding wheel service life
- + Increased productivity
- + Massive reduction of the total cooling lubricant consumption up to 60% possible
- + Robot production process



## OUR SOLUTION

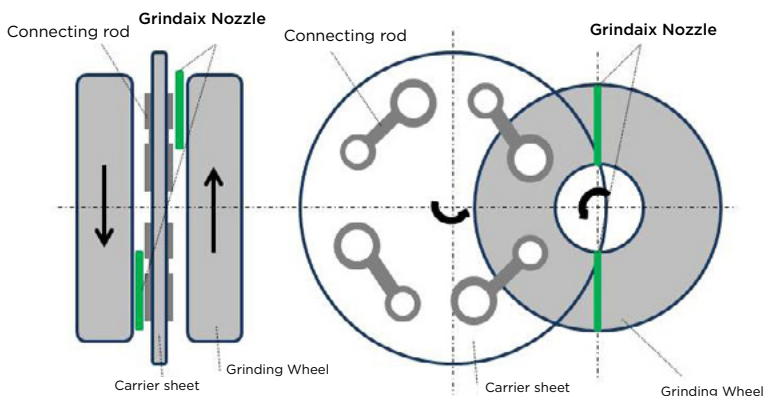
Individually designed Grindaix nozzles for plane-parallel grinding allow a precise coolant supply.



In this complex grinding process, the supply of cooling lubricant to the machining zone is so difficult because the components move through the grinding gap via the rotor wheel and the supply point is therefore constantly changing. In order not to cool the components over the entire travel length of the rotor wheel, the Grindaix team recommends the Grindaix nozzle, which was specially developed for the process. With a supply pressure of up to 40 bar, the nozzle impregnates the pore spaces of the grinding wheel with cooling lubricant in such a way that sufficient cooling of the grinding process is made possible. At the same time, the grinding wheel is kept permanently clean and cleaned of clogging and dressing residues.

## SAMPLE CALCULATION (FOR OIL)

Nozzle	Pressure	Volume flow
Cleaning nozzle	40 bar	140 l/min
	60 bar	175 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.



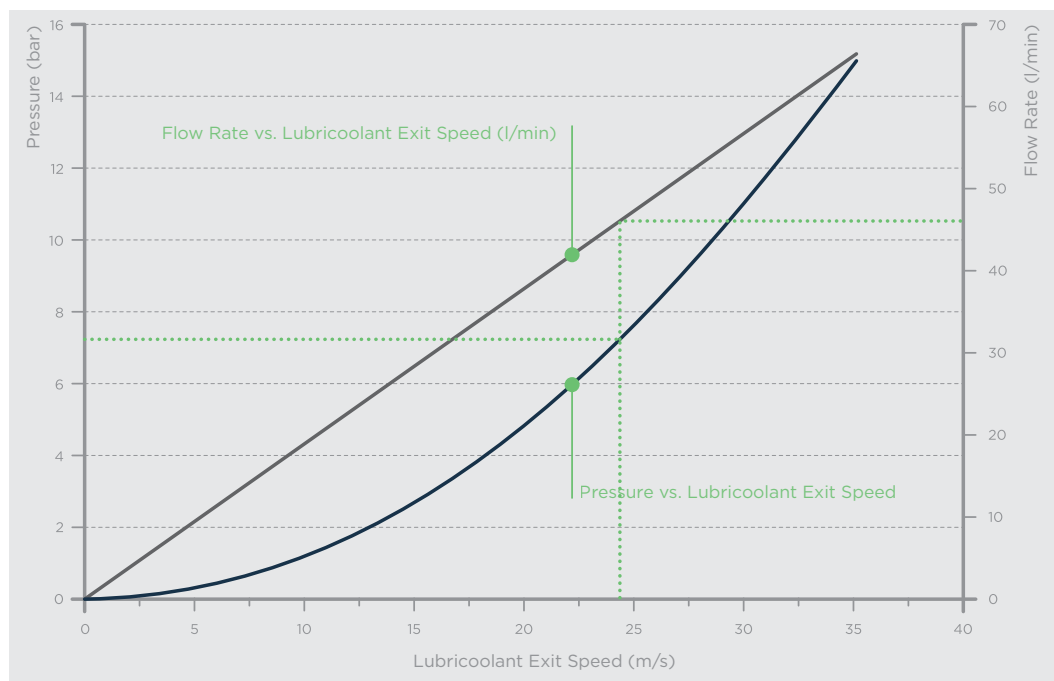
It shows the total pressure (static and dynamic) that would be measured directly in front of the nozzle. This pressure does not correspond to your pump pressure or the delivery head of the pump.

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.

### Auxiliary Equipment

Name	Description
Pressure Sensor	analog/digital
Pressure Sensor Connector	standard 1/4"
Compressed Air Connector	nozzle cleaning $\varnothing$ 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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