

Coolant Supply Systems for

BEVEL GEAR GRINDING

Improve your productivity
Reduce your CO2 emissions

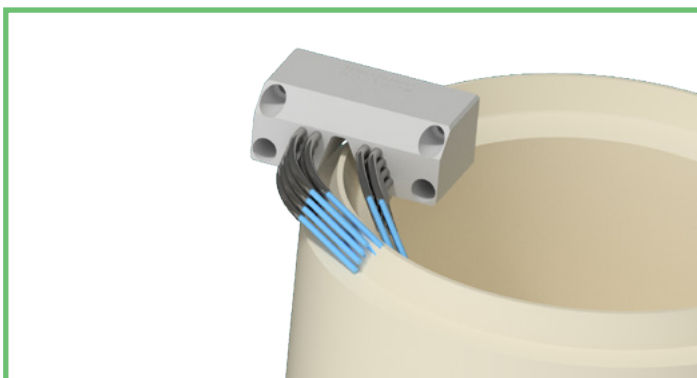
For bevel gear grinding, Team Grindaix recommends the use of a specially designed nozzle set consisting of a Grindaix cleaning and Grindaix feed nozzle.

FUNCTION

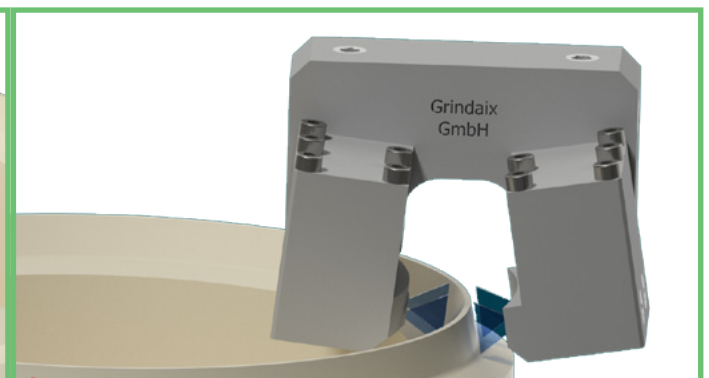
The cleaning of the grinding cup wheel is a special task in the process, as it is necessary to create suitable free pore spaces in the cup wheel topography. These pore spaces enable the cooling lubricant to be transported cleanly into the machining zone later on using the special Grindaix feed nozzle.

SAMPLE CALCULATION (FOR OIL)

Nozzle	Pressure	Volume flow	Exit Speed
Needle nozzle	5 bar	30 l/min	20 m/s
Cleaning nozzle	40 bar	20 l/min	-



Grindaix Supply nozzle



Grindaix Cleaning nozzle

! OUR SOLUTION

Individually designed Grindaix nozzles for bevel gear grinding allow a targeted coolant supply.

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.

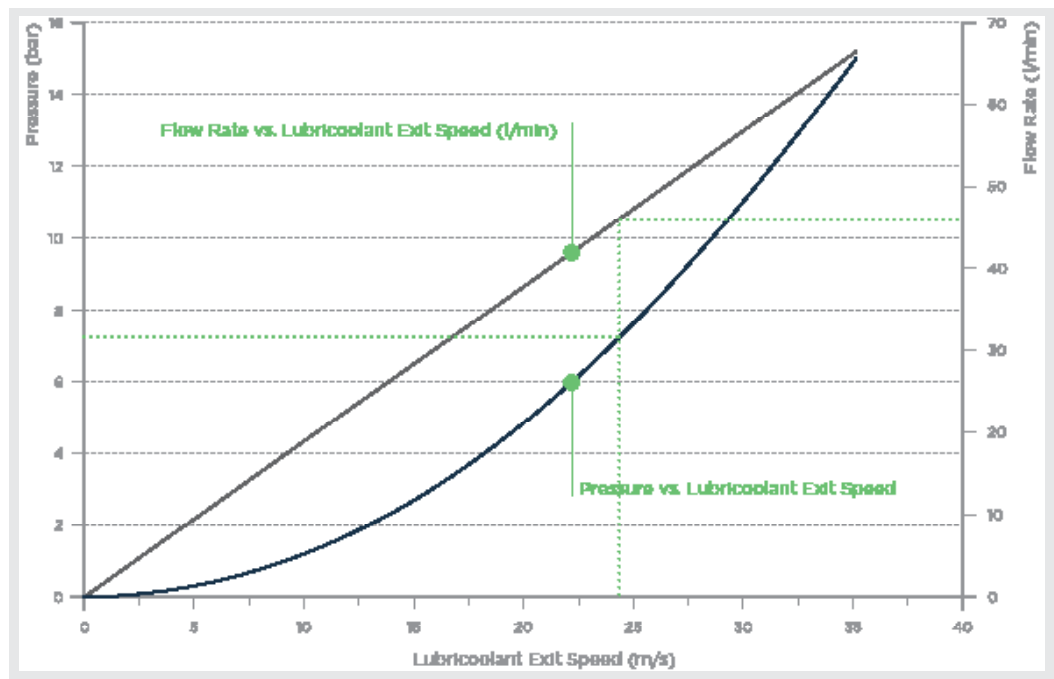
! It shows the total pressure (static and dynamic) that would be measured directly in front of the nozzle. This pressure does not correspond to your pump pressure or the delivery head of the pump.

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

Grindaix GmbH

Marie-Curie-Straße 8
D-50170 Kerpen

+49 2273 • 95373 20
+49 2273 • 95373 5

info@grindaix.de
www.grindaix.de

