



**gFlex** by grindaix

Flexible articulated metal tube system



**grindaix**

A QUAKER HOUGHTON COMPANY

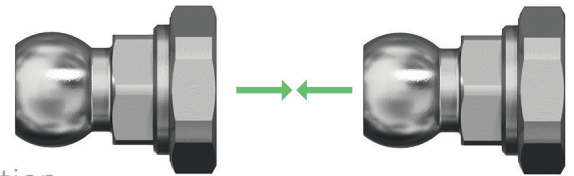




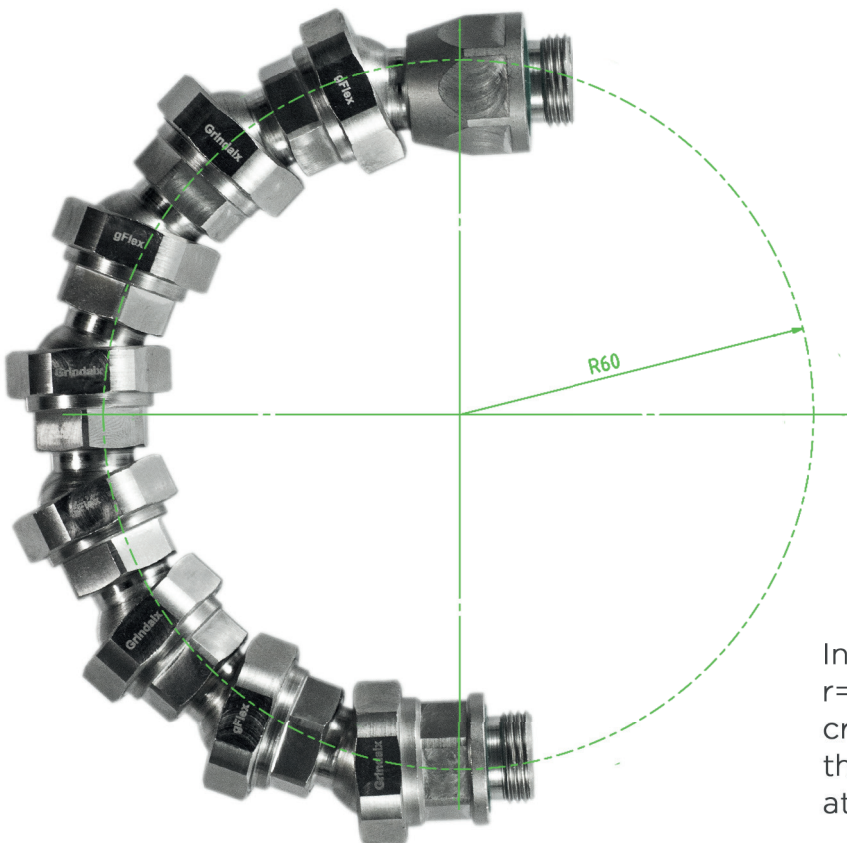
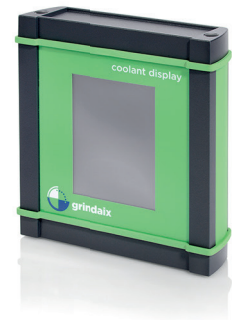


# Advantages gFlex

- + pressure stability and leak tightness  
up to 50 bar lubricoolant pressure
- + maximum flexibility  
may be combined with ALL Grindaix nozzles  
(cooling, cleaning, extinguishing, flushing, saturating)
- + flow-optimized  
minimum pressure losses due to specially designed  
lubricoolant line  
incl. lubricoolant pressure/volume flow characteristic curve
- + easy assembly  
simple handling due to mechanical pre-tensioning of  
the basic elements  
profile sealing rings at the machine and nozzle connection
- + industry 4.0  
incl. pressure sensor connection  
incl. characteristic curves for all tube system lengths  
incl. connection for lubricoolant display unit (p, Q, vKSS) -  
Coolant Display, Coolant Monitoring System

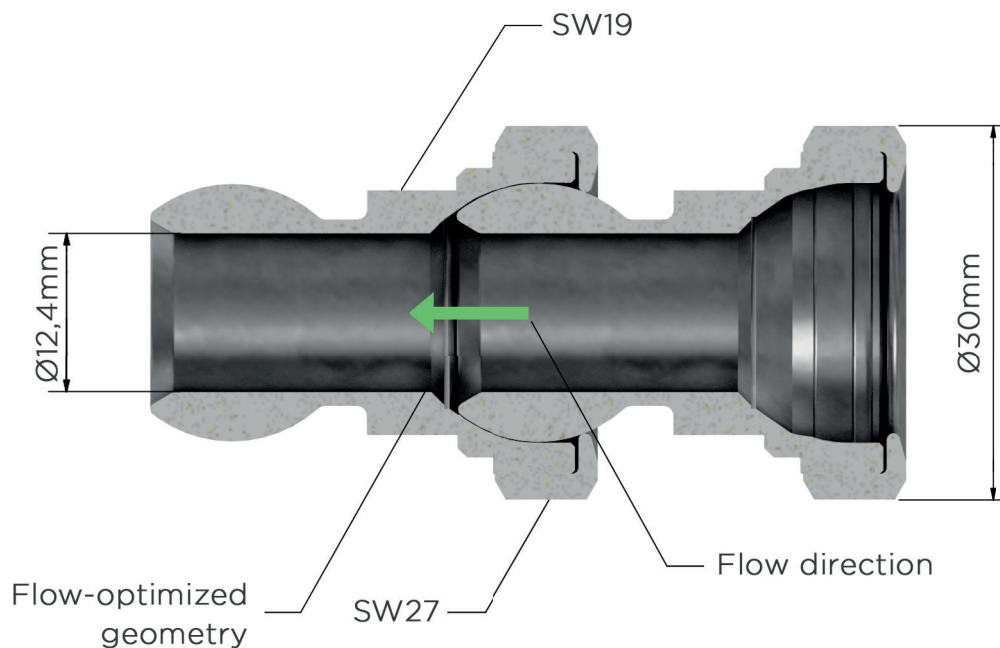


mechanically pre-tensioned



In spite of the low bending radius of  $r=60$  mm, the gFlex has an internal cross-section of up to 12.4 mm and thus ensures maximum volume flow at minimum pressure loss.

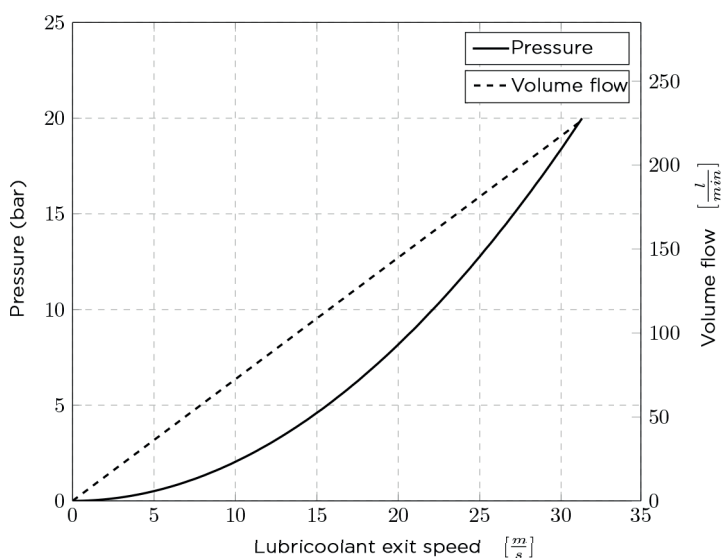
# Technical specification



## gFlex

Pressure losses in the supply line between the pump and the nozzle are an important topic in lubricoolant supply technology. That is why we have developed the gFlex in such a way that it combines optimum flow properties with flexibility and stability. We have precisely determined the pressure loss due to pipe friction resistance, thereby allowing you to specify the design of your lubricoolant supply in detail. Another advantage is that the special construction of the gFlex means that hardly any dirt can settle in the tube.

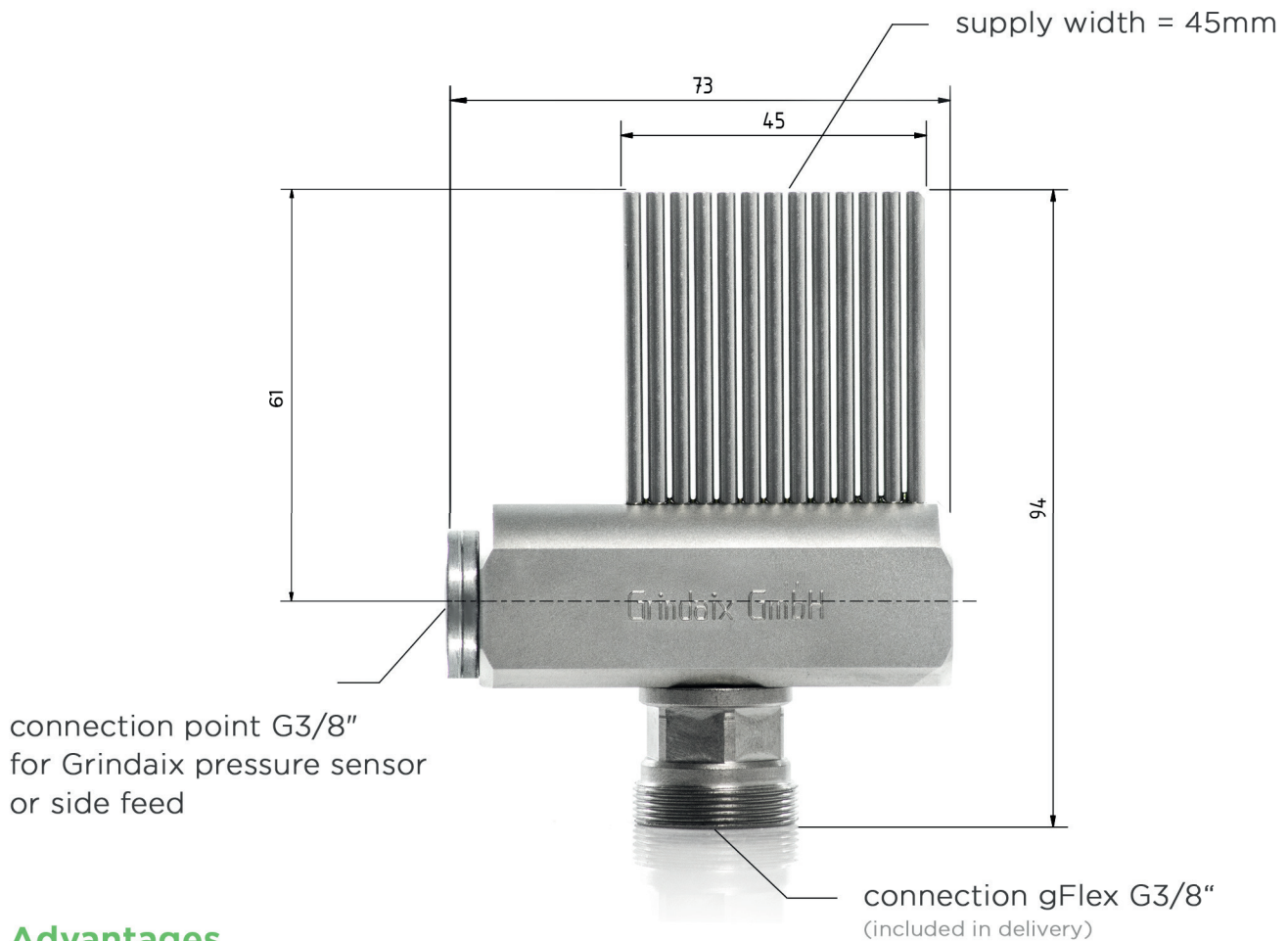
## gFlex-characteristic curve



With the aid of gFlex characteristic curves, you can correctly determine the supply of the Grindaix nozzle based on the volume flow required for your process.



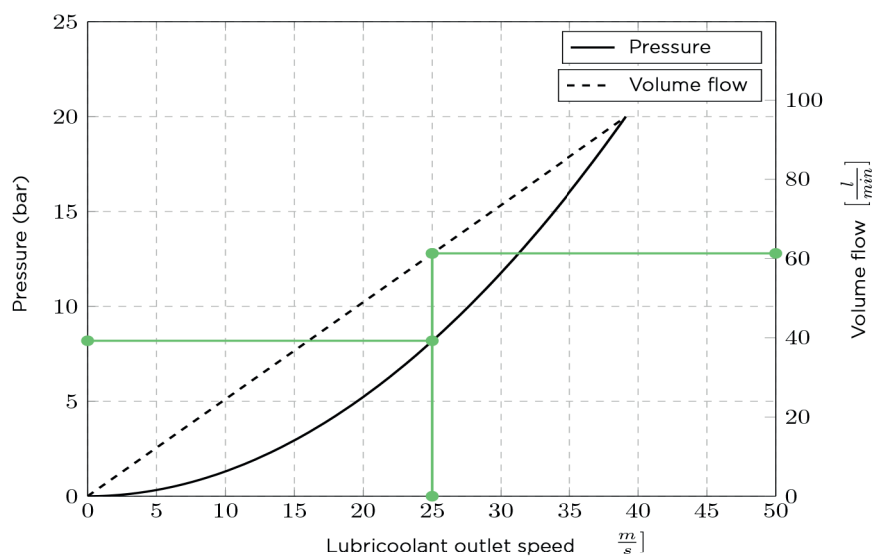
# ND-45-gFlex



## Advantages

- + needle nozzle with 45 mm supply width
- + variable connection possibility via two supply apertures
- + easy assembly
- + compatible with the Grindaix Coolant Pointer, Coolant Display and Coolant Monitoring System
- + long service life due to the special Grindaix assembly process

## Grindaix-characteristic curve



The Grindaix nozzle characteristic curve allows you to determine the supply to your nozzle in a customized way based on the volume flow required for your process.



# gFlex components

26mm	gFlex machine adapter available in G1/4", G3/8", G1/2", G3/4"	(gFlex-M-02-[XXX])
22mm	gFlex basic element 32mm operating pressure of 50 bar	(gFlex-M-01-032)
42mm	gFlex basic element 50mm operating pressure of 50 bar	(gFlex-M-01-050)
71mm	gFlex basic element 80mm operating pressure of 50 bar	(gFlex-M-01-080)
111mm	gFlex basic element 120mm operating pressure of 50 bar	(gFlex-M-01-120)
142mm	gFlex basic element 150mm operating pressure of 50 bar	(gFlex-M-01-150)
22mm	gFlex nozzle adapter available in G1/4", G3/8", G1/2", G3/4"	(gFlex-M-02-[XXX])
	gFlex needle nozzle available in supply width of 45mm and 85mm pressure sensor optional (Coolant Display)	(ND-45-gFlex) (ND-85-gFlex)





## Description

## Item number



Basic element L=50mm  
Basic element L=80mm  
Basic element L=120mm  
Basic element L=150mm

### Basic element (01)

gFlex-M-01-050  
gFlex-M-01-080  
gFlex-M-01-120  
gFlex-M-01-150



Adapter G1/4" (machine side)  
Adapter G3/8" (machine side)  
Adapter G1/2" (machine side)  
Adapter G3/4" (machine side)  
Adapter G1/4" (nozzle side)  
Adapter G3/8" (nozzle side)  
Adapter G1/2" (nozzle side)  
Adapter G3/4" (nozzle side)  
Quick changer G3/8" (machine side)  
Quick changer G1/2" (machine side)

### Adapter (02)

gFlex-M-02-M14  
gFlex-M-02-M38  
gFlex-M-02-M12  
gFlex-M-02-M34  
gFlex-M-02-D14  
gFlex-M-02-D38  
gFlex-M-02-D12  
gFlex-M-02-D34  
gFlex-M-02-S38  
gFlex-M-02-S12



Anglepiece  
Anglepiece 45°  
Anglepiece 90°  
Adapter G1/4" (inner thread)  
Pressure intake G3/8" + Minimes

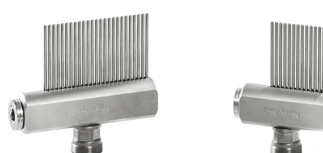
gFlex-M-02-TS  
gFlex-M-02-W45  
gFlex-M-02-W90  
gFlex-M-02-A14  
gFlex-M-02-DA



Round nozzle Ø2,0mm  
Round nozzle Ø4,0mm  
Round nozzle Ø6,0mm  
Round nozzle Ø8,0mm  
Angle nozzle 45° Ø4mm  
Angle nozzle 90° Ø4mm  
Needle nozzle (supply width 45mm)  
Needle nozzle (supply width 85mm)

### Nozzle (03)

gFlex-M-03-RD2  
gFlex-M-03-RD4  
gFlex-M-03-RD6  
gFlex-M-03-RD8  
gFlex-M-03-WD45  
gFlex-M-03-WD90  
ND-45-gFlex  
ND-85-gFlex







# gFlex

[www.grindaix.de/coolant-product/gflex](http://www.grindaix.de/coolant-product/gflex)



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