



Minimum quantity lubrication MQL

EFFICIENT

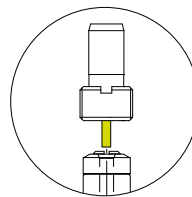
Optimal distribution of cooling lubrication at lowest coolant consumption

RELIABLE

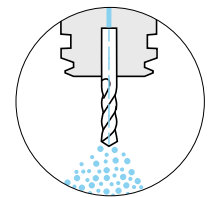
Optimized feeding through the toolholder directly to the internally cooled cutting tool

powRgrip®

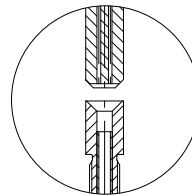
The most versatile tool clamping system – for today and tomorrow



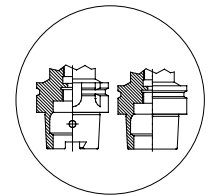
Designed for 1-channel MQL systems



For tools with internal cooling



For tool shanks according to DIN 69090-3



Available for HSK-A 63 and HSK-E 40



Minimum quantity lubrication MQL online



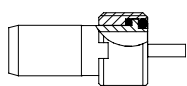
for powRgrip®

Efficient machining with lowest consumption through MQL and powRgrip®

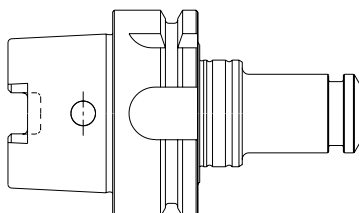
Minimum quantity lubrication (MQL) is the term used to describe cooling lubrication systems which use a mixture of compressed air and a very small quantity of oil (<50ml/h) for optimized machining.

The ideal supply of the oil-air mixture, through the machine until it exits at the cutting edge, is essential for successful machining with MQL.

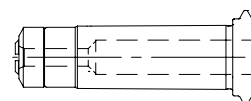
Due to changes in the cross-section as well as chambers, which lead to a turbulence the mixture can change and lead to an irregular mixing ratio. The powRgrip® solution designed for MQL applications consists of a coolant tube fitted with a lance, which directs the mixture through the collet directly to the tool. They are suitable for 1-channel MQL systems and tool shanks according to DIN 69090-3.



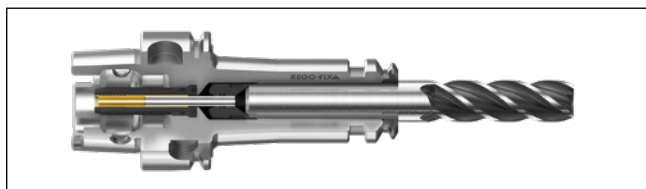
Coolant tube KSR



Toolholder

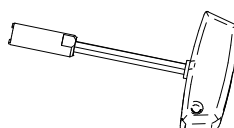


PG MQL-N collet



Type	Part. No.	Type	Part. No.	Suitable for Toolholder	L1
MQL PG-Collet		MQL – Cooling lubricant tube			
PG 15-MQL-N / Ø 5.00 mm	8415.05001	KSR 40-MQL PG 15 x 074	7211.40153	HSK 40 / PG 15 x 074	42 mm
PG 15-MQL-N / Ø 6.00 mm	8415.06001	KSR 40-MQL PG 15 x 080	7211.40154	HSK 40 / PG 15 x 080	48 mm
PG 15-MQL-N / Ø 8.00 mm	8415.08001	KSR 40-MQL PG 15 x 100	7211.40155	HSK 40 / PG 15 x 100	68 mm
PG 15-MQL-N / Ø 10.00 mm	8415.10001	KSR 40-MQL PG 15 x 120	7211.40156	HSK 40 / PG 15 x 120	88 mm
PG 25-MQL-N / Ø 10.00 mm	8425.10001	KSR 63-MQL PG 15 x 080	7211.63154	HSK 63 / PG 15 x 080	49 mm
PG 25-MQL-N / Ø 12.00 mm	8425.12001	KSR 63-MQL PG 15 x 120	7211.63156	HSK 63 / PG 15 x 120	89 mm
PG 25-MQL-N / Ø 16.00 mm	8425.16001	KSR 63-MQL PG 15 x 160	7211.63158	HSK 63 / PG 15 x 160	129 mm
PG 25-MQL-N / Ø 20.00 mm	8425.20001	KSR 63-MQL PG 25 x 100	7211.63255	HSK 63 / PG 25 x 100	58 mm
PG 25-MQL-N / Ø 1/4"	8425.06351	KSR 63-MQL PG 25 x 120	7211.63256	HSK 63 / PG 25 x 120	78 mm
PG 25-MQL-N / Ø 1/2"	8425.12701	KSR 63-MQL PG 25 x 160	7211.63258	HSK 63 / PG 25 x 160	118 mm
PG 25-MQL-N / Ø 5/8"	8425.15881				

Type	Part. No.
Key KSR	
SKR 40	7212.40000
SKR 63	7212.63000



SKR