High-tech lubricants for deep drilling

BECHEM coolants and deep drilling oils are process fluids specially adapted to the high demands of deep drilling. They are formulated for gun drilling, drilling, boring, turning, burnishing and tube processing. They ensure optimal results even under the most difficult conditions, such as deep drilling of specialty materials that produce high temperatures.

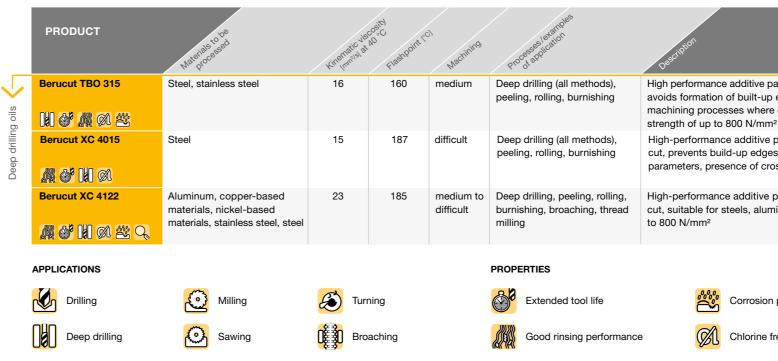
Coolants for deep drilling processes

Removing the associated heat that is produced during the heavy cutting processes is a critical aspect for the coolant. Water-miscible BECHEM coolants yield economic advantages during deep drilling by offering the highest performance ranges and eliminating the need for additional washing steps. The outstanding cooling effect of the BECHEM coolants prevents the production of thick smoke and excessive heating of the work piece even during the most difficult cutting processes. The BECHEM coolants have an additive package that achieves the same tool life for the guide pads and cutting tools as compared to deep drilling oils.

Deep drilling oils

Deep drilling oils of the Berucut series also ensure optimal results even under the most difficult conditions and can withstand any challenge in serious production. Thanks to innovative additive components, demanding products can be reliably and economically processed to achieve excellent surfaces. The compatibility of BECHEM products with materials and processing systems is of fundamental importance and is an integral part of the research and development work for high-performance lubricants from the very start. BECHEM offers its customers an extensive range of application-related services in connection with selecting and using a coolant suitable for the respective process

	PRODUCT	Waler and the seal	Minad Ol 23 1993	Lippcatonarce	Processes	Description
Contains	BECHEM Avantin 438	High alloyed steels, nickel- based alloys	28	***	Deep drilling, broaching, cylinder tube processing, severe forming operations	Semi-synthetic h maximum tool lif
	BECHEM Avantin 455	Aluminum, nonferrous metals, titanium, steel	30	***	Demanding metal cutting operations, machining of engine blocks, cylinder heads, gearbox housings, pistons	Excellent surface aerospace indus
Mineral oil-free	BECHEM Avantin 4409	ADI-materials, high-tensile stainless steels, nickel-based alloys	0	* * * * *	Deep drilling, broaching, cylinder tube processing, demanding forming operations	Fully synthetic hi qualities, can als
	Berufluid AS 1008	Steel, titanium, aluminum	0	****	Drilling, turning, milling, optical components, control and regulation technology	Fully synthetic hi properties, excel centrally supplie



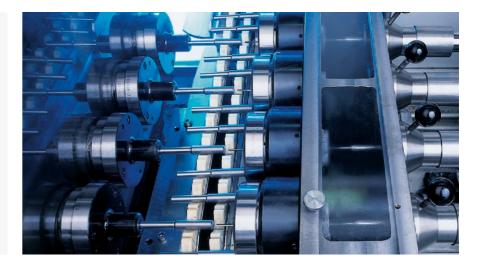
Advantages of BECHEM high-performance coolants

Coolants

- Extended tool lifes
- Economical and efficient consumption
- Low foaming
- Good skin tolerance
- Biostable
- Chlorine-free
- Boron and FAD-free

Deep drilling oils

- Excellent performance
- No foaming
- High flash point
- No skin irritation
- High safety for users
- Chlorine-free



high-performance formulation for excellent surface qualities and life

ce qualities especially of aluminum alloys used in the automotive and Jstrv

high-performance formulation, highest tool life, excellent surface also be used as additive and for forming processes

high-performance formulation, optimal tool life, excellent cooling ellent filterability, reduced aerosol formation, for individually and ied systems

 \blacklozenge = low ... \blacklozenge \blacklozenge \blacklozenge \blacklozenge \blacklozenge = very high

High performance additive package for excellent surfaces, highest cutting performance, avoids formation of built-up edges, excellent cooling properties, supports demanding machining processes where cross-bores are no problem, for steels with a tensile

High-performance additive package for excellent surfaces, high performance in the cut, prevents build-up edges, strong cooling effect, supports demanding processing parameters, presence of cross-bores is not a problem

High-performance additive package for excellent surfaces, high performance in the cut, suitable for steels, aluminum and nickel base alloys with tensile strengths of up

Corrosion protection



Low residue level



Chlorine free