



Minimum Quantity Lubrication (MQL) and Cryogenic Cooling
in machining processes

MQL AND CRYOGENIC COOLING in machining processes

BeCold equipment technology combines Minimum Quantity Lubrication (MQL) with cooling provided by liquid CO₂. The **combination of these two systems** results in excellent machining performance.

HRE Hidraulic offers different **BeCold** equipment series which can be adapted to different needs.

WHY USE cryogenic machining?

As a result of the industrial sector becoming highly competitive, **reducing production costs** together with the use of technologies with **lower environmental impact** are vital in the development of new applications.

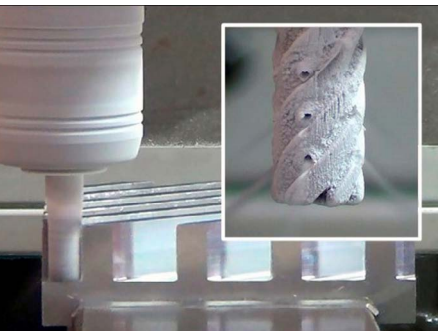
BeCold equipment is fitted with an innovative system which combines Minimum Quality Lubrication (MQL) and CO₂ cryogenic cooling to achieve performances equivalent or sometimes even better than traditional wet machining.

Removing or reducing conventional cutting fluids is paramount to succeed and the advantages offered by Cryogenic Machining make it the best option.



BCD-V2-XXX

Cabinet dimensions: 500x500x300mm



main APPLICATIONS

MILLING	Finishing	Tempered steel	<input type="radio"/>	DRILLING	Peck drilling	Titanium	<input checked="" type="checkbox"/>	
		Inconel 718	<input checked="" type="checkbox"/>				Carbon / Glass fibre	<input checked="" type="checkbox"/>
	Roughing	Stainless steel	<input checked="" type="checkbox"/>	TURNING	Conventional	AISI 304L	<input type="radio"/>	
		Aluminium	<input checked="" type="checkbox"/>					
		Cr-Ni steel	<input checked="" type="checkbox"/>			Hard-turning	ASP23	<input checked="" type="checkbox"/>
		Tool steel	<input type="radio"/>					
		Titanium	<input checked="" type="checkbox"/>					
		Structural steel	<input type="radio"/>					
	Carbon / Glass fibre	<input checked="" type="checkbox"/>						
	Plastics	<input checked="" type="checkbox"/>						

Use is highly recommended due to many advantages

Similar to conventional process, with cost savings

I+D+i



recent ARTICLES

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<https://doi.org/10.1016/j.jclepro.2016.08.030>

Nozzle design for combined use of MQL and cryogenic gas in machining.
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Internal cryolubrication approach for Inconel 718 milling.
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