

New Product Information

DC-SX parting blades and clamping blocks with thro' coolant supply

2017-06

Cutting edge cooling in a nutshell

In machining, coolants are primarily used for cooling, lubricating and chip evacuation. Flood coolant is still the most widely used.

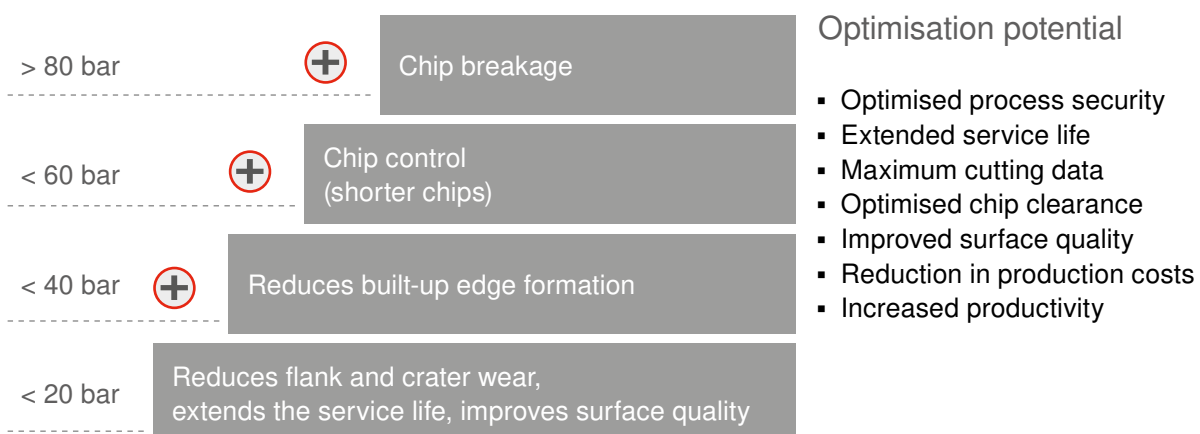
However, even the best coolant is of no use if it does not get to the cutting edge. We are confronted with this problem during grooving or parting off in particular. The cutting edge is completely shielded during this process: from above by chips, from underneath by the cutting insert and from the side by the workpiece.

Tools with targeted thro' coolant are opening up new opportunities for increasing productivity.

With DirectCooling (DC), a new tool generation from Ceratizit, the above problems are now a thing of the past.

Product presentation

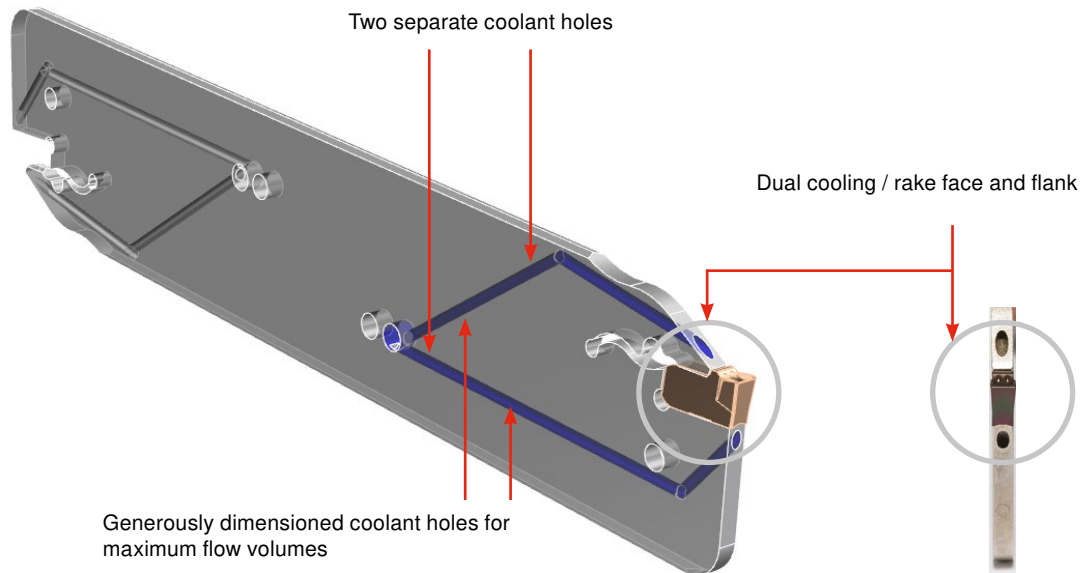
Our tried-and-tested single blade SX grooving system is now available with targeted DirectCooling (DC) thro' coolant. The coolant is guided through two coolant holes – one above and one below the grooving insert – straight to the point where it will be most effective: the cutting edge itself. Coolant is transferred to the blade via specially developed DC clamping blocks. By using DirectCooling, machining results can be improved significantly even at the lowest pressures.



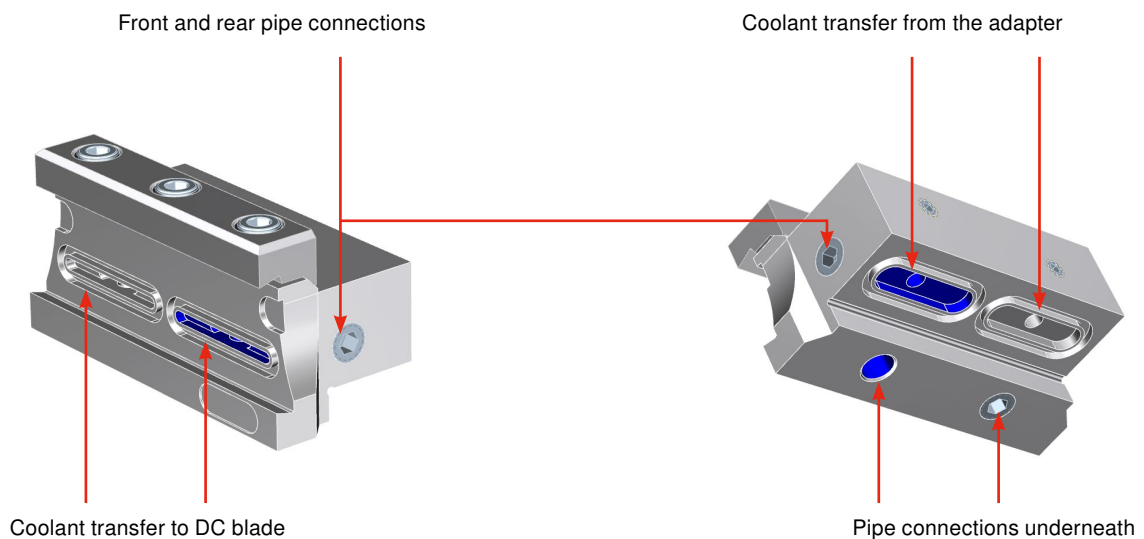
System description

Like the existing system without thro' coolant, the new DC-SX grooving system works on the block and blade principle or via adapters with direct connections to the machine (VDI, etc.).

DirectCooling blade



DirectCooling clamping block



Advantages and Benefits

Advantages	Benefits
Highest flow volume of all thro' coolant blades on the market	The best machining results, even with reduced pump output
Single-piece sealing screw made from steel (for standard blades)	Process-secure spare part for easy handling and a long service life
The most versatile clamping block on the market	Designed for direct coolant transfer and pipe connections
DC system tailored to the new grooving grades	Maximum cutting data and service lives

Application areas

Depending on the customer's criterion, DC thro' coolant can be used successfully in the following situations:

- **Parting off**
 - Deep grooves
 - General grooving
- **Stainless steels**
- **Super alloys**
- **Soft/adhesive materials**
- Volume production
- Automated production

Competitor comparison

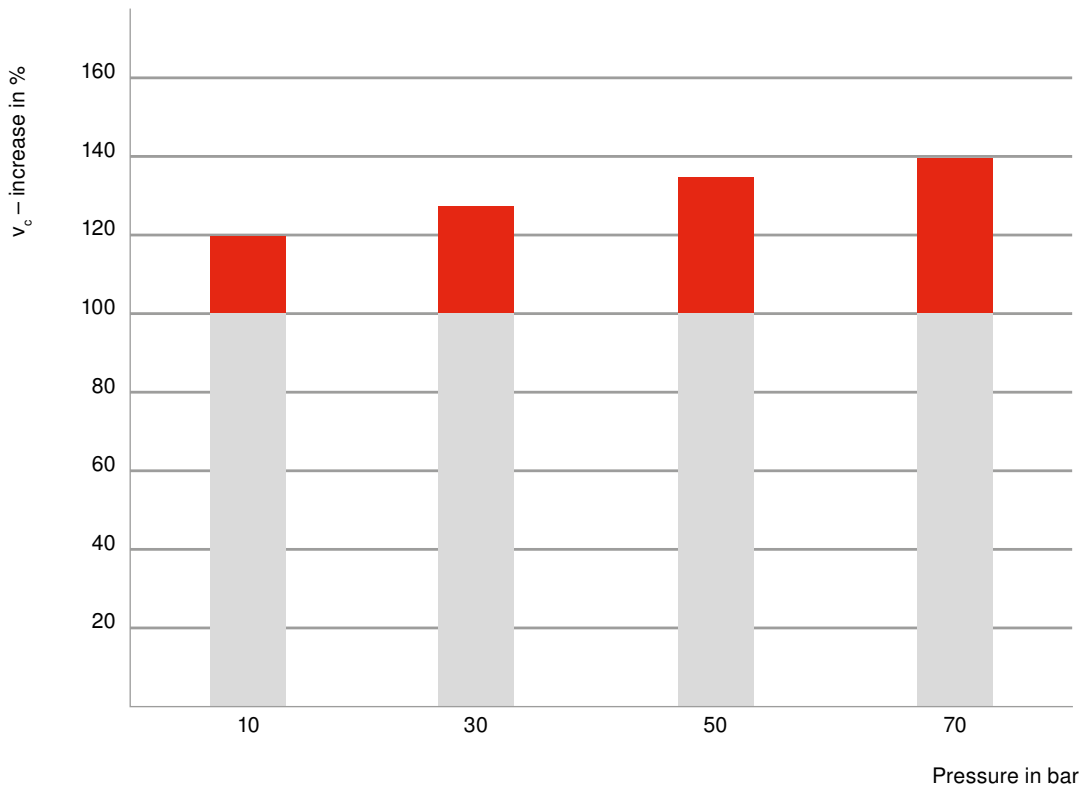
Clamping blocks				
Version	Competitor 1	Competitor 2	Competitor 3	Ceratizit
R/N/L	R or L	N	N	N
Side pipe connection	✓	✓		✓
Hose connection underneath	✓		✓	✓
Direct transfer to shank	✓ ¹			✓ ²

¹ Ground surfaces required

² With sealing ring

Cutting parameters

DC systems can usually be used at cutting speeds roughly 20–40 % higher than conventionally cooled grooving tools. An increase of feed is not advisable.



Product programme

Standard DC-SX blade



12157054	XLCFL 2602-DC-SX2
12157057	XLCFL 3202-DC-SX2
11998599	XLCFR 2602-DC-SX2
12157058	XLCFR 3202-DC-SX2
11998604	XLCFN 2603-DC-SX3
11998607	XLCFN 3203-DC-SX3
12157056	XLCFN 2604-DC-SX4
11998613	XLCFN 3204-DC-SX4
12157059	XLCFN 3205-DC-SX5

Reinforced DC-SX blade



12157061	XLCFL 2608-DC-SX3
12157063	XLCFL 3208-DC-SX3
12157062	XLCFR 2608-DC-SX3
12157064	XLCFR 3208-DC-SX3

Reinforced Contra DC-SX blade



12157065	XLCFL 3208C-DC-SX3
12157066	XLCFR 3208C-DC-SX3

Split clamping block for DC-SX blades



12063229	SBN 2020-26-DC
12157025	SBN 2020-32-DC
12063234	SBN 2525-32-DC
12157040	SBN 3232-32-DC
12063236	SBN 12-26-DC-E*
12063245	SBN 16-32-DC-E*

* (Inch – Version for US market)

Sales support

- See the CERATIZIT e-techstore for prices and availability