

Diamond Award 2019



DST 20-CA electric Wall Saw

Hilti Corporation



Description of the jobsite/product

- **Title of the jobsite/product:** DST 20-CA electric Wall saw
- **Description of the jobsite/case story:** The DST 20-CA an innovative wall saw in the 20 kW class (constituting the main wall saw product class globally) that comes without an external frequency converter. It is a masterpiece of engineering combining frequency converter and drive unit in one housing, supplemented by a very innovative cutting assistant (CutAssist) allowing for a high degree of automation.
- The result is a powerful yet lightweight product with outstanding robustness. Unmatched productivity for both large and small jobs. High cutting performance and minimal setup time.
- **When did the job/product start (aaaa/mm/dd)?:** 2018/04/01

Description of the jobsite/product



The key focus of Hilti has always been the quest for productivity. Around 15 years ago we started our journey with the introduction of the DS TS20-E, which had almost the same power as contemporary hydraulic units, however with only a quarter of the weight.

Now, 15 years later, we are proud to have the successor product, the DST 20-CA.

It boosts productivity enormously by having all components integrated in one lightweight housing with 32 kg, while having the same power output as hydraulic systems - 30% more power than its predecessor. Furthermore we have given it the CutAssist functionality - an assistant that allows to automate cutting sequences - easily entered on the graphic display of the wire less remote control.

The combination of fast setup due to **lightweight design** and **system integration** combined with the **automation** provided by **CutAssist** make the DST 20-CA the product we have dreamt to have - driving productivity for our customers.

Complexity of planning and execution

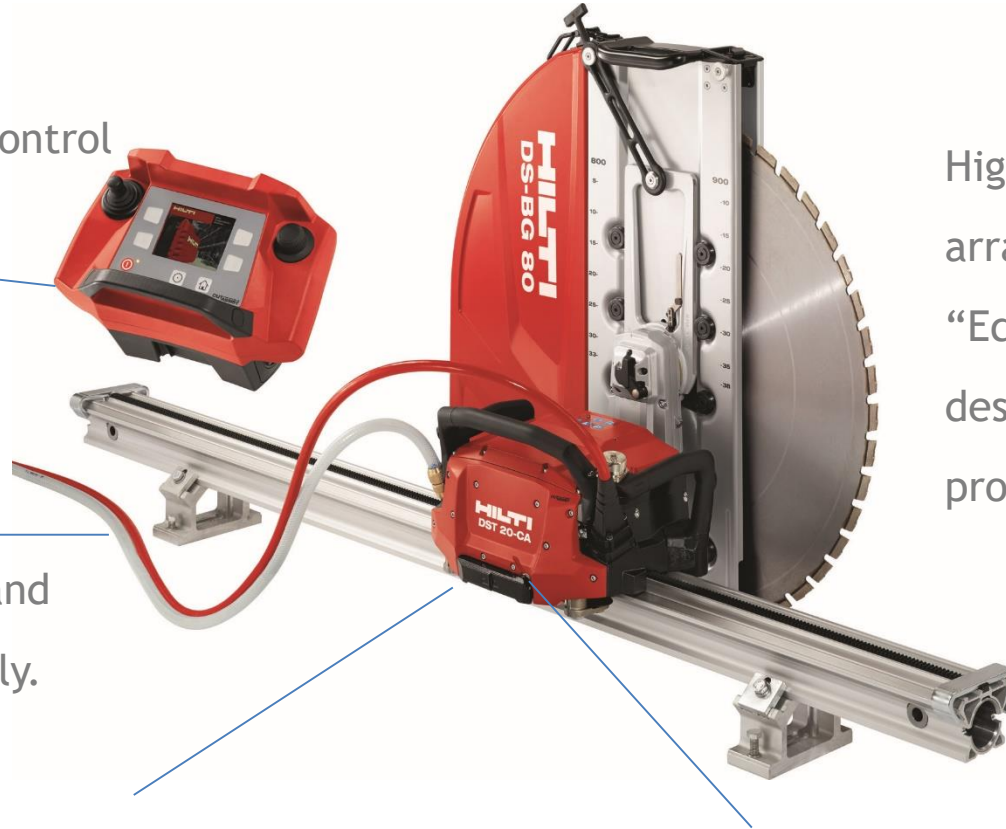


The DST 20-CA was a very big challenge for our development. Integration of a 40 kg heavy and 50x20x40 cm large frequency converter box into a laptop-size electronics was necessary to integrate the whole electronics into one housing with motor and gearbox. Furthermore, lightweight design had to be deployed to reduce the weight of all mechanical components to reach our weight target of 32 kg for the whole saw head, while keeping the robustness on Hilti-Standard.

To design this product we had to transform the development team to a high degree. To be successful we needed to increase the number of software and electronics specialists while keeping our excellent mechanical engineers to work on lightweight design. Agile development methodology played a crucial role to align the high number of parallel tasks necessary to successfully complete the project - including thousands of hours of testing.

Innovative elements

Wireless remote control
with CutAssist.



One power cable and
one water hose only.

Integrated design with motor
and frequency converter in one
housing with only 32 kg

Ergonomic handle and
locking concept

High performance
arranged diamond
“Equidist” saw blades
designed to maximize
productivity.

Thanks for your attention



Contact

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