

# HEULE CASE STUDY

## Precision Machining Application VEX-S



### Saving Cycle Time While Drilling and Deburring Aluminum

#### Challenge

Drilling holes in aluminum produces long chips that wrap around the tool, making it necessary to debur the holes in a separate operation. This manufacturer in the aerospace industry was looking for a solution to reduce cycle time.

#### Application details:

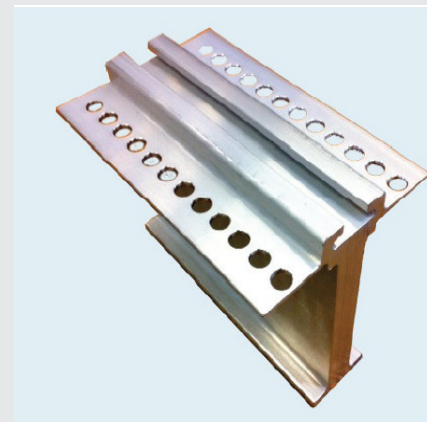
- Bore: Ø11.0 mm
- Bore Depth: Ø2.0 mm
- Material: Aluminum

#### Solution:

To effectively perform this application and cut cycle time, we chose the VEX-S tool for the drilling operation, with internal coolant and bore depth 1xd, along with the SNAP tool for the deburring operation. Both tools were coated with DLC for use in aluminum.

#### Machining Parameters:

Speed: 5000rev/min  
Feed: 0.1 mm/rev  
Cooling: internal cooling



#### Results:

With the VEX-S and the correct cutting data, it became possible to machine thin aluminum profiles without the risk of the shavings interfering and stalling the process. The customer was very happy with a shortened cycle time while producing a higher quality part.