

**Product group:** twist drill  
**Workpiece:** drive wheel  
**Material group:** P 3.1 - Cementation steels, Heat-treatable steels, Cold work steels, etc.  $\leq 1000 \text{ N/mm}^2$   
**Material:** 42CrMo4V (1.7225, Rm = 950-1100N/mm<sup>2</sup>)

**Application conditions**

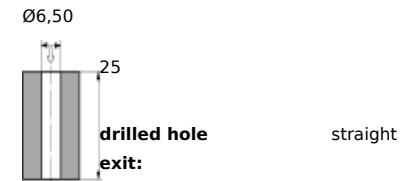
**before**

**Machine type** CNC machine  
 - Manufacturer Victor Taichung  
 - Machining plane vertical  
 - Internal cooling [bar] emulsion, 30 bar  
**Tool adaptation** hydro-expansion chuck  
**Coolant-lubricant** E - emulsion  
 - System internal  
**Tool** 5xD Spiralbohrer  
 - Article number N/V  
 - Manufacturer Diverse  
 - cutting material HM  
 - coating Diverse  
**Cutting speed [m/min]** 100  
 - feed f [mm/rev] 0,20  
**tool life (no. of drilled holes)** 2.500  
**tool path [m]** 62,50  
**Problem / Advantage** • low tool life

Germany / Christian Schwierz

**drilled hole diameter:** Ø6,50

**drilled hole depth [mm]:**



**after**

CNC machine  
 Victor Taichung  
 vertical  
 emulsion, 30 bar  
 hydro-expansion chuck  
 E - emulsion  
 internal  
**BASIC-Drill 5xD**  
**TA211344.0650**  
**EMUGE**  
 HM  
**TIALN-T63**  
 100  
 0,20  
 6.000  
**150,00**  
 • increased tool life

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