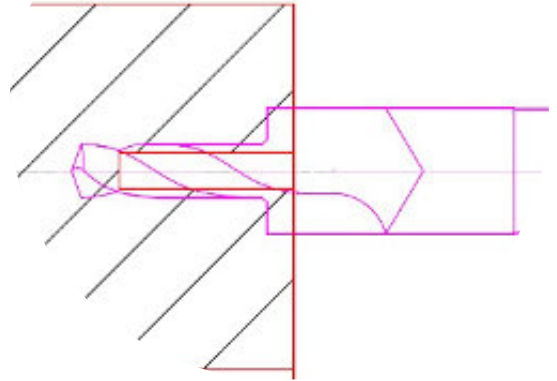


PANTHER SERIES

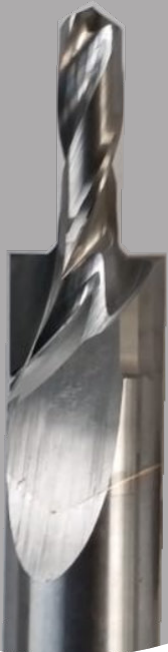
UNCOMPROMISED TOOL GEOMETRY FOR UNCOMPROMISED PERFORMANCE!

APPLICATION

- Combined pre-drilling and spot-facing are a requirement at different places in the same orientation of the part
- Drilling at depths $2xD$ and above where Step-burnishing drills are run at lower parameters (BUE observed)



- Conventional Burnishing drills + spot facing tools have neutral axial rake which reduce chip evacuation while drilling due to a straight flute. To improve chip evacuation, it is required to go in for Thru/V-Coolant combination. When drill depth is more than $2 \times D$ and spot facing diameter is bigger than $2 \times$ Pilot Diameter single helical drill is prone to breakages. Special carbide grade enhances performance.
- To bring uncompromised performance to both drilling and spot facing we have combined the geometry to provide helical flutes for drilling and desirable axial rake for spot-facing.
 - Helical geometry for drilling improves cutting efficiency and better chip evacuation reducing the BUE and easy re-grinding.
 - Drill point geometry can be suited for solid drilling/Core hole type with W-Geometry (further improving the axial position).
 - We have standardised the design to accommodate for Solid/Lugged solution with/without through coolant provision as per Customer requirement and application.



LOWER CONTACT TIME DUE TO IMPROVED FEED RATES RESULTS IN LOWER CYCLE TIME AND CONTROLLED COSTS