## MULTI-STEP DRILLS - HSS DM 05

## Standard execution with 2 chip spaces, spiral grooved.

- More precise hole diameter through cylindrical steps.
- Immediate deburring through the next step.
- Drilling of sheet metals as thin as 4 mm possible.
- Use coolant stick!
- The keyway allows the drill to make a chipping cut during drilling for better chip removal.
- Longer cutting edge compared to the usual straight groove and noticeably easier cutting.
- Laser-etched scale in the chip space to indicate the bore diameter achieved.

DescriptioBore range		Shank Ø	Length	ProdNo.
AMS-30	6 - 30 mm x 2 mm	10.0	98 mm	08072
Multi-Step Drill – SVB		10.0		08016
Pre-drill specifically for punches & die		es		
Steps Ø 8.5 - :	11.5 - 12.5 - 16.5 - 21.0			



Prod.-No. 08072

Prod.-No. 08016

**Standard values for the use of ALFRA Multi-step drills**This drill was developed to bore perfectly round and deburred holes in sheet metal from 4 - 6 mm thick. The transition forms a radius which serves to deburr or bevel the hole at the same time. While conical one-lip bits drill a slightly tapered hole, our ALFRA multi-step drill achieves a cylindrical hole. The tools have axial-radial relief grindings and can be lightly reground on the breast of the cutting tooth.

We recommend the use of pillar drilling machines, however, the small ALFRA Multi-step drills can be used on adjustable hand drilling machines. Sufficient cooling using ALFRA coolant stick or a bore emulsion is imperative.

R.P.M. Guiding Values							
Туре	sheet steel S235	V2A sheets	non-ferrous metals	plastics soft			
drill	800	360	1000	1000			
counter- sink	500 - 180	50 - 70	800 - 400	1000 - 40			
	drill counter-	Type sheet steel 5235  drill 800  counter- 500 180	Type sheet steel S235 sheets  drill 800 360  counter- 500 180 50 70	Type         sheet steel 5235         V2A sheets metals           drill         800         360         1000           counter- 500 x 180         50 x 70         800 x 600			