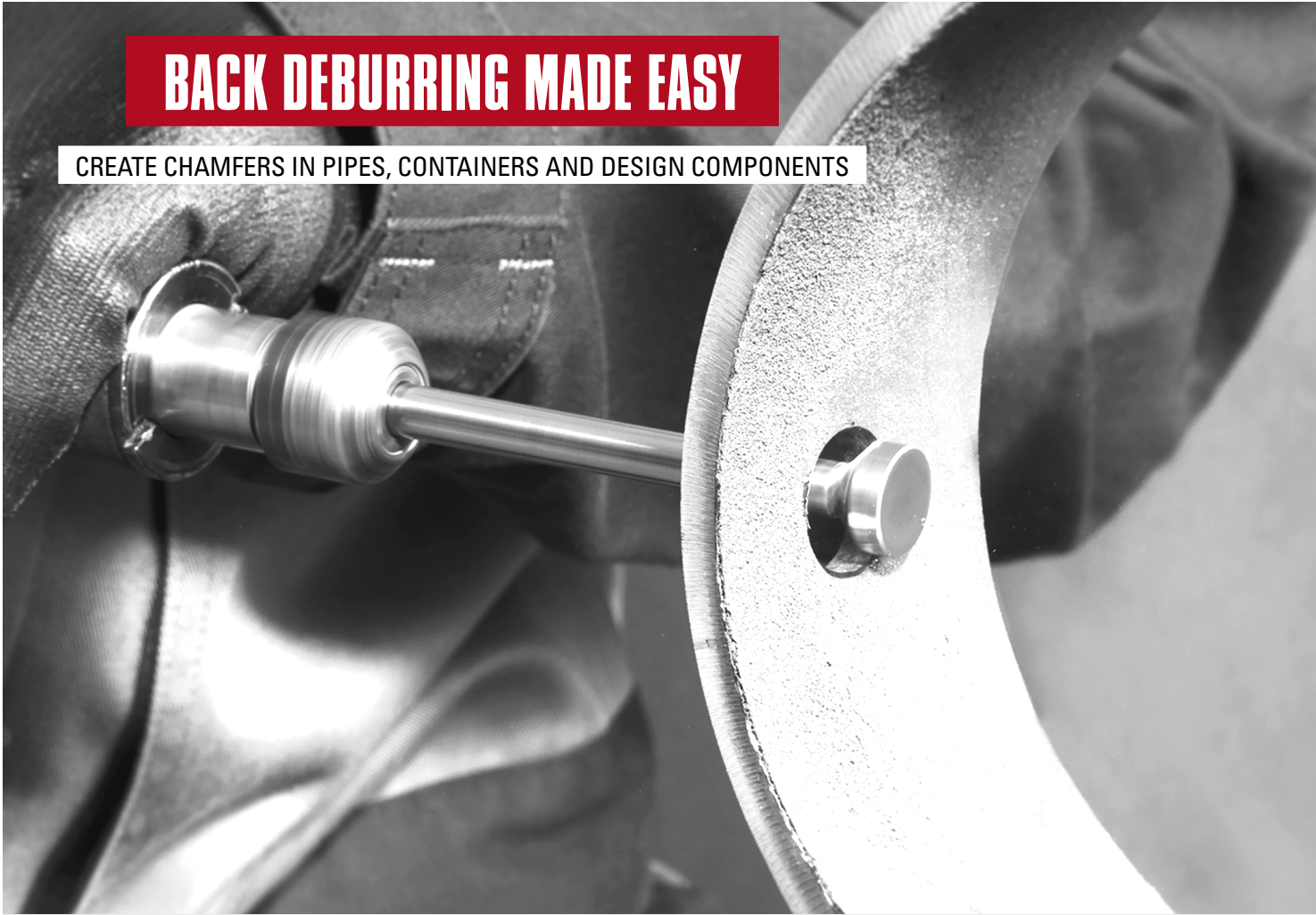
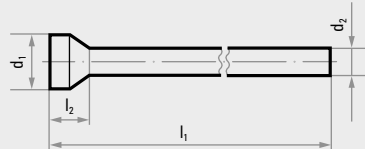
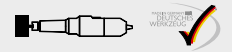


# BACK DEBURRING MADE EASY

CREATE CHAMFERS IN PIPES, CONTAINERS AND DESIGN COMPONENTS



## Z3 Universal inverse deburring tool (internal)



- defined 45° bevel
- for different bore diameters
- variable chamfer width
- fast work result

### Applications:

- back deburring of boreholes on difficult-to-reach areas
- excellent for use in pipes, containers and design components
- back chamfering of boreholes



Product number	Description	Cut	d <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	l <sub>1</sub> mm	Pack contains
A10170504303	HFT 0504.03	Z3 Universal	5	4	3	40	1
A10170705303	HFT 0705.03	Z3 Universal	7	5	3	40	1
A10171006603	HFT 1006.06	Z3 Universal	10	6	6	60	1
A10171207603	HFT 1207.06	Z3 Universal	12	7	6	65	1
A10171610603	HFT 1610.06	Z3 Universal	16	10	6	70	1
A10171610803	HFT 1610.08	Z3 Universal	16	10	8	120	1
A10171811803	HFT 1811.08	Z3 Universal	18	11	8	120	1

Recommended for: ● Steel ● Inox/Steel ● Aluminium ● Cast material ● Titanium



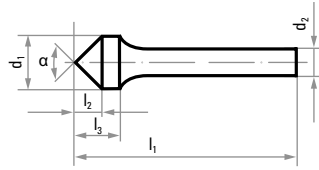
### SAFETY ADVICE

Reduced speed for burrs with a total length  $l_1 = 120$  mm: max. 11,000 m<sup>2</sup>



## Z3 Universal burr for deburring

- Remove burrs quickly and easily with the Z3 Universal burr in shape J for perfect deburring.
- for different bore diameters
- with single cut for universal applications



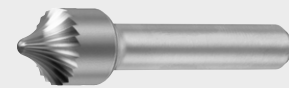
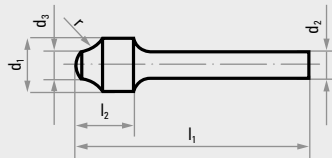
★★☆

Product number	Description	Cut	Similar to DIN 8033	d <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	l <sub>1</sub> mm	l <sub>3</sub> mm	α	Pack contains
A10080660603	HFJ 0605.06	Z3 Universal	KSJ 0605	6	5	6	50	–	60°	1
A10081090603	HFJ 1010.06	Z3 Universal	KSK 1005	10	5	6	50	10	90°	1
A10081060603	HFJ 1013.06	Z3 Universal	KSJ 1008	10	9	6	53	13	60°	1
A10081690603	HFJ 1613.06	Z3 Universal	KSK 1608	16	8	6	53	13	90°	1
A10081690803	HFJ 1613.08	Z3 Universal	KSK 1608	16	8	8	53	13	90°	1
A10081660603	HFJ 1616.06	Z3 Universal	KSJ 1613	16	14	6	56	16	60°	1

Recommended for:  Steel  Inox/Steel  Aluminium  Cast material  Titanium



## Z3 + Z5 burrs for deburring (external)



- perfectly shaped to fit boreholes of varying size

★★☆

Product number	Description	Cut	d <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	l <sub>1</sub> mm	l <sub>3</sub> mm	Pack contains
A10140812603	HFR 0812.06	Z3 Universal	8	12	6	52	3	1
A10141015603	HFR 1015.06	Z3 Universal	10	15	6	55	2	1
A10141215603	HFR 1215.06	Z3 Universal	12	15	6	55	6	1
A10141215803	HFR 1215.08	Z3 Universal	12	15	8	55	6	1
A10141315603	HFR 1315.06	Z3 Universal	13	15	6	55	3	1
A10141315803	HFR 1315.08	Z3 Universal	13	15	8	55	3	1
A10141315605	HFR 1315.06	Z5 Hard	13	15	6	55	3	1

Recommended for:  Steel  Inox/Steel  Aluminium  Cast material  Titanium