



### PRODUCT DESCRIPTION

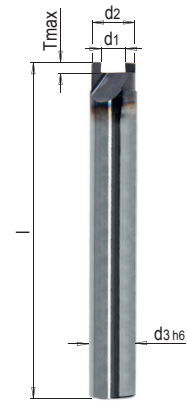
- » Matching the E 2130 and E 21311 O-rings
- » The best surfaces for the best tightness
- » Optimised groove bores for a perfect fit for the o-ring seal

### MATERIAL

» Carbide, TiAlN coated

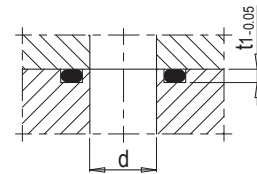


Z	l	T max.	d3	d2	d1	No.	EUR
2	100	2.9	12	11.8	6.2	WZB 12112/11,8 / 6,2	< >
2	100	2.9	14	13.75	8.15	WZB 12112/13,75/ 8,15	< >
2	130	2.9	16	15.75	10.15	WZB 12112/15,75/10,15	< >
2	130	2.9	18	17.7	12.1	WZB 12112/17,7 /12,1	< >



Tool		Machining		O-ring (E 2130, E 21311)					
Countersink for O-rings	d2	d1	Hole d	t1	d1	d2	O-ring	Recommended	
WZB 12112/11,8 / 6,2	11.8	6.2	$\leq 5$	1.6	8	12	8x2	●	
				1.2	9	12	9x1.5		
WZB 12112/13,75/ 8,15	13.75	8.15	$\leq 6$	1.6	10	14	10x2	●	
				1.2	11	14	11x1.5		
WZB 12112/15,75/10,15	15.75	10.15	$\leq 8$	1.6	12	16	12x2	●	
				1.4	12.4	16	12.4x1.8		
				1.2	13	16	13x1.5		
WZB 12112/17,7 /12,1	17.7	12.1	$\leq 10$	1.6	14	18	14x2	●	

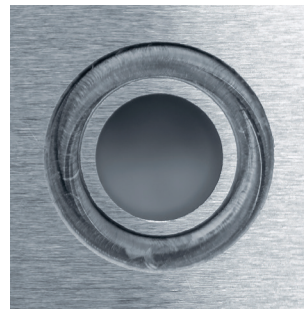
### MACHINING



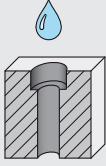
### O-RING GROOVE CUT WITH A CARBIDE COUNTERSINK WZB 12112



### O-RING GROOVE CUT WITH A SMALL END MILLING CUTTER




## REFERENCE VALUES FOR DRILLING

WZB 12112	Material	Strength	Vc <sup>1</sup> m/min.	≤ d			
				12	14	16	18
				f <sup>2</sup> (mm/u)			
	1.1730	640 N/mm <sup>2</sup>	60	0.05	0.05	0.05	0.05
	1.2083	780 N/mm <sup>2</sup>	50	0.05	0.05	0.05	0.05
	1.2083	52 HRC	25	0.04	0.04	0.04	0.04
	1.2085	1080 N/mm <sup>2</sup>	50	0.05	0.05	0.05	0.05
	1.2162	660 N/mm <sup>2</sup>	60	0.05	0.05	0.05	0.05
	1.2162	52 HRC	25	0.04	0.04	0.04	0.04
	1.2311	1080 N/mm <sup>2</sup>	60	0.05	0.05	0.05	0.05
	1.2312	1080 N/mm <sup>2</sup>	60	0.05	0.05	0.05	0.05
	1.2316	1010 N/mm <sup>2</sup>	50	0.05	0.05	0.05	0.05
	1.2343	780 N/mm <sup>2</sup>	50	0.05	0.05	0.05	0.05
	1.2343	52 HRC	25	0.04	0.04	0.04	0.04
	1.2379	780 N/mm <sup>2</sup>	50	0.05	0.05	0.05	0.05
	1.2714HH	1350 N/mm <sup>2</sup>	50	0.05	0.05	0.05	0.05
	1.2767	830 N/mm <sup>2</sup>	60	0.05	0.05	0.05	0.05
	1.2767	52 HRC	25	0.04	0.04	0.04	0.04
	1.2842	775 N/mm <sup>2</sup>	60	0.05	0.05	0.05	0.05
	Steel	1400 N/mm <sup>2</sup>	45	0.05	0.05	0.05	0.05

1) Vc: cutting speed (m/min.)

2) f: feed per revolution (mm/rev.)

 You can find further materials and cutting values in the cutting data calculator.