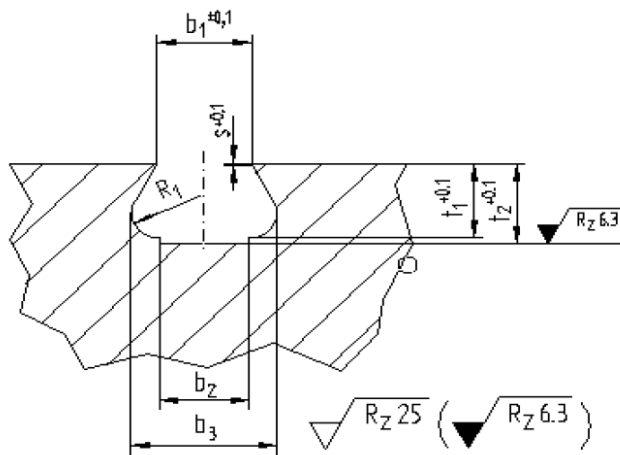


## 1. Application and purpose

The groove is used to accept round sealing rings in components where the groove must be **milled** (e.g. in doors). This standard applies for circular and rectangular groove shapes. It also specifies the groove dimensions

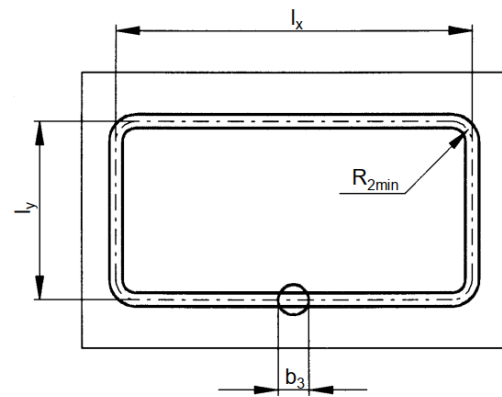
## 2. Groove form and shape

Groove form



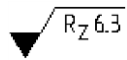
Groove shape (rectangular)

(Dimensional example)



$b_3$  = Specify the max. Diameter of the end mill, specify position of the mill turned groove on drawing. Turned groove is simultaneously used as degassing hole. Provide with more holes if necessary

$R_{2min}$  = 2 x profile diameter



= Vacuum sealing area: No flutes or furrows transverse to sealing

$b_2$  u.  $t_2$  = Groove base can be finely soothed with mill cutter or mill shaping cutter according to material and necessity. The step can be omitted

$b_1$ ,  $b_3$ ,  $t_1$ ,  $s$  u.  $R_1$  describe the shape of the mill shaping cutter.

Standardisation	Edited: V. Bauer	Edition			
	Checked: Moser	April 25			

Table 1

Round seal		Groove								Cross section ratio <sup>1)</sup> Round seal/ Groove	Mill shaping cutter LO-part. No.
Profile -Ø	Cross-section <sup>1)</sup>	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	t <sub>1</sub>	t <sub>2</sub>	s	R <sub>1</sub>	Cross-section <sup>1)</sup>		
4	12,56	3,7	3,5 <sup>+0,2</sup>	5,5	3,05	3,1	0,3	1,0	14,59	0,86	10068 075
5	19,63	4,6	4 <sup>+0,6</sup>	6,9	3,85	3,9	0,33	1,3	23,13	0,85	10068 077
6	28,27	5,5	5 <sup>+0,5</sup>	8,3	4,55	4,6	0,36	1,5	32,89	0,86	10068 082
8	50,26	7,3	7 <sup>+0,3</sup>	10,8	6,05	6,1	0,4	2,2	57,3	0,88	10068 085
10	78,54	9,3	8,5 <sup>+0,6</sup>	13,9	7,55	7,6	0,47	2,5	91,41	0,86	10068 087
12	113,10	11,1	10 <sup>+0,9</sup>	16,55	9,15	9,2	0,51	3,2	131,87	0,86	10068 088

1) = for nominal dimensions

<b>Standardisation</b>	Edited: V. Bauer	Edition				
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### 3. Specifications in drawings

e.g. for a trapezoid groove with round sealing ring and 8 mm profile diameter

#### Trapezoid groove 8 LHH-N 355.012

### 4. Mill shaping cutter

#### 4.1 Identification, manufacturer

Mill shaping cutter HSSE-PM TICN, right-hand cutting, straight-toothed, serrated.

Dimensions depending on profile diameter of the round sealing ring according to table 1.

Manufacturer: Prototyp-Werke GmbH  
Postfach 1162  
D-77732 Zell-Harmersbach

#### 4.2 Cutting data recommendation of manufacturer

Table 2

Mill shaping cutter for Profile- Ø	N = rpm		f = feed mm/min	
	Stainless steel	Steel	Stainless steel	Steel
4	1990	5390	103	410
5	1600	4315	82	353
6	1325	3600	131	475
8	1020	2775	100	450
10	800	2160	116	485
12	700	1900	110	570

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