

## **Product Information**

Automatic notch-cutting machine



ZwickRoell ZNO 2010 notch-cutting machine

### Applications

CTA: 46405 128603

The ZwickRoell ZNO 2010 notch-cutting machine is used for notching plastics specimens to ASTM D256, ASTM D6110, EN ISO 179, EN ISO 180 and EN ISO 8256 (Charpy and Izod tests).

Studies have shown that the dimensioning of the notch and the accuracy of its positioning have an effect on the measured energy. Close attention should therefore be paid to the accuracy of the notching.

Sturdy construction combined with safe, simple and reliable operation make the ZwickRoell notch-cutting machine the ideal tool for producing notched specimens from all types of plastic.

## **Function description**

A milling cutter is used to produce a V-shaped notch on one side of the specimen. Key aspects are the radius and remaining specimen width in the notch base.

The specimen are clamped together in a bundle, then notched in one operation.

A measuring device is optionally available for checking notch depth.



Interchangeable specimen magazine

The entire notching operation is carried out in accordance with the relevant CE regulations.

Various cutters are available for different materials and notch radii, and are easy to change.

## Advantages and features

- Stepless adjustment of cutting speed and feed rate
- Operator-friendly display for rapid setting of new parameters
- Manual notch-depth setting via fine-pitch screwadjuster
- Plexiglass safety hood
- Quick-action gripping device allows specimens to be clamped quickly and easily
- Single-tooth polycrystalline diamond milling cutter for optimum notch production
- Connection for external compressed air supply for specimen cooling
- Optional: Digital measuring instrument for checking notch depth



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## **Technical data**

Туре	ZNO 2010	ZNO 2010	
Item No.	035841	1025418	
Tool:			
Diameter	63	63	mm
Feed speed	70 to 500	70 to 500	mm/min
Feed:			
Feed length	80	80	mm
Rotational speed	200 to 1000	200 to 1000	r.p.m
Compressed air connection (cooling),	8	8	bar
max.			
Power specifications	230 / 50/60 / 2.5	110 / 50/60 / 2.5	V/Hz/kVA
Dimensions (H x W x D)	430 x 640 x 440	430 x 640 x 440	mm
Weight, approx.	45	45	kg

#### **Accessories required**

#### Universal clamping fixture (1x required if interchangeable magazine not ordered)

Description	Item number
Universal clamping fixture for max. 12 specimens	042618
As per ISO 179 Type 1 and ISO 180, ISO 8256 Type 1 (from 1 mm), ASTM D256 and ASTM	
D6110	

#### Milling cutter (1x required)

Туре	Notch angle [°]	Notch radius rN [mm]	Item no.
Single-tooth polycrystalline diamond milling cutter	45	0.25 ±0.05 (notch type A)	373059
Single-tooth polycrystalline diamond milling cutter	45	1.00 ±0.05 (notch type B)	373065
Single-tooth polycrystalline diamond milling cutter	45	0.10 ±0.02 (notch type C)	373066
Single-tooth carbide cutter	45	0.25 ±0.05 (notch type A)	002294
Single-tooth carbide cutter	45	1.00 ±0.05 (notch type B)	002296
Single-tooth carbide cutter	45	0.10 ±0.02 (notch type C)	002298
Single-tooth carbide milling cutter as per DIN 53453 (standard withdrawn), for U- notch with width 0.8 mm	-	-	017196

#### **Optional accessories**

## Interchangeable specimen magazine for producing double notches

 Description
 Item number

 Interchangeable magazine for 16 specimens as per ISO Type 1, ISO 180, ISO 8256 Type 1 (from 1 mm)
 042620

Specimen dimensions: length 80 mm, width 10 mm, thickness 4 mm

All data at ambient temperature.



# **Product Information**

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Description	

For producing double notches

Item No.	373067	
	Width-remaining measuring instrun	nent for notching.
Туре	digital gauge	
Measuring transducer	-	mm
Measuring pressure	-	kPa
Contact speed	-	mm/s
Measurement range:	0 to 12	mm
Resolution	-	μm
Accuracy	1	μm
Connection to PC	via multiplexer (Item Nos. 316078, 31790	7 or 316372)
Supplier:	-	

		45° ± 1°	45° ± 1°	45° ± 1°
		Radius of the notch base r <sub>N</sub> = 0.25 ±0.05 mm	Radius of the notch base r <sub>N</sub> = 1.00 ±0.05 mm	Radius of the notch base r <sub>N</sub> = 0.10 ±0.02 mm
Standard	Specimen size (L x W x H)	Shape A	Shape B	Shape C
ISO 179-1	80 x 10 x 4 mm	single or double notch	single or double notch	single or double notch
ISO 180	80 x 10 x 4 mm	single notch	single notch	-
ISO 8256-1	80 x 10 x 0 to 6 mm	double notch	-	-
ASTM D256	2.5" × 0.5" × 0.125" to 0.5"	single notch	-	-
ASTM D6110	5.0" × 0.5" × 0.125" to 0.5"	single notch	-	-

Item number