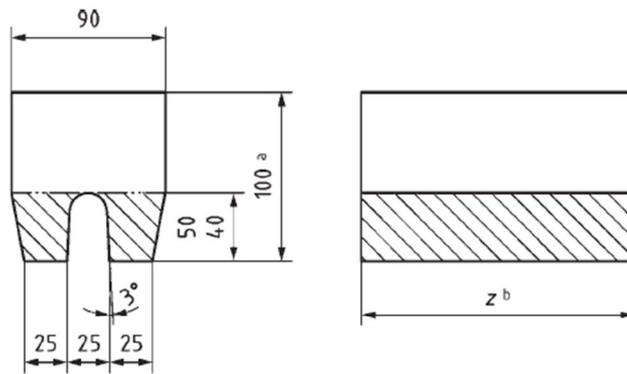


# Allegato 1: Geometria campioni

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UNIstore - 2012 - 368525

EN 1563:2011 (E)

Dimensions in millimetres



## Key

<sup>a</sup> For information only.

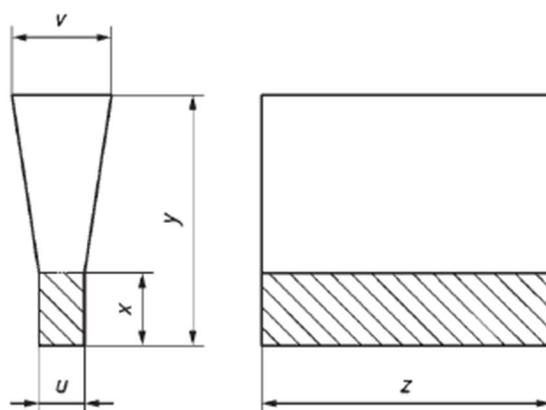
<sup>b</sup> The length  $z$  shall be chosen to allow a test piece of dimensions shown in Figure 5 to be machined from the sample.

The thickness of the sand mould surrounding the samples shall be at least 40 mm.

Figure 1 — Separately cast or side-by-side cast samples — Option 1: U-shaped sample

EN 1563:2011 (E)

Dimensions in millimetres



Dimension	Type			
	I	II	III	IV
$u$	12,5	25	50	75
$v$	40	55	100	125
$x$	25	40	50	65
$y^a$	135	140	150	175
$z^b$	A function of the test piece length			
<sup>a</sup> For information only.				
<sup>b</sup> $z$ shall be chosen to allow a test piece of dimensions shown in Figure 5 to be machined from the cast sample.				

The thickness of the sand mould surrounding the samples shall be at least:

- 40 mm for types I and II;
- 80 mm for type III and IV.

Figure 2 — Separately cast or side by side cast samples — Option 2: Y-shaped sample

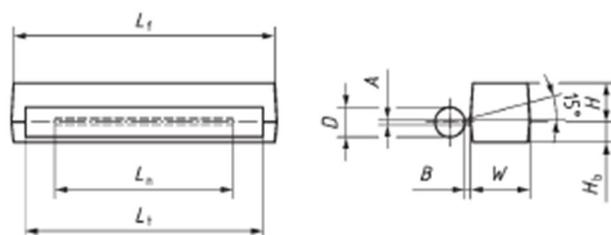
Dimensions in millimetres



Type a



Type b



Type c

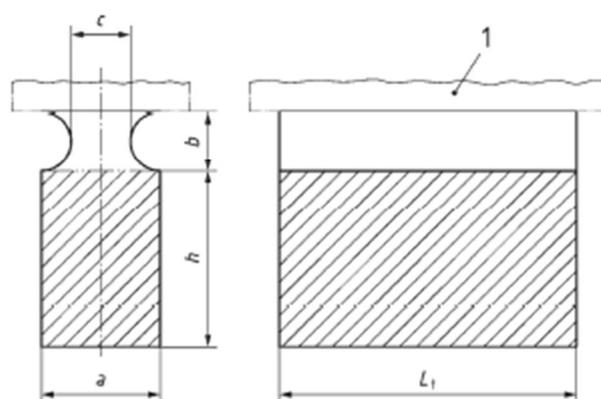
Type	A	B	D	H	H <sub>b</sub>	L <sub>t</sub>	L <sub>n</sub>	L <sub>t</sub>	W
a	4,5	5,5	25	50	—	L <sub>t</sub> + 20	L <sub>t</sub> - 50	a	100
b	4,5	5,5	25	50	—	L <sub>t</sub> + 20	L <sub>t</sub> - 50		50
c	4,0	5,0	25	35	15	L <sub>t</sub> + 20	L <sub>t</sub> - 50		50

<sup>a</sup> L<sub>t</sub> shall be chosen to allow a test piece of dimensions shown in Figure 5 to be machined from the cast sample.

The thickness of the sand mould surrounding the samples shall be at least 40 mm.

Figure 3 — Separately cast or side-by-side cast samples — Option 3: Round bar-shaped sample

EN 1563:2011 (E)



Key

1 casting

Dimensions in millimetres

Type	Relevant wall thickness of castings $t$	$a$	$b$ max.	$c$ min.	$h$	$L_t$
A	$t \leq 12,5$	15	11	7,5	20 to 30	a
B	$12,5 < t \leq 30$	25	19	12,5	30 to 40	
C	$30 < t \leq 60$	40	30	20	40 to 65	
D	$60 < t \leq 200$	70	52,5	35	65 to 105	

<sup>a</sup>  $L_t$  shall be chosen to allow a test piece of a dimension shown in Figure 5 to be machined from the cast sample.

The thickness of the sand mould surrounding the samples shall be at least

- 40 mm for types A and B;
- 80 mm for type C and D.

If smaller dimensions are agreed, the followings relationships apply:

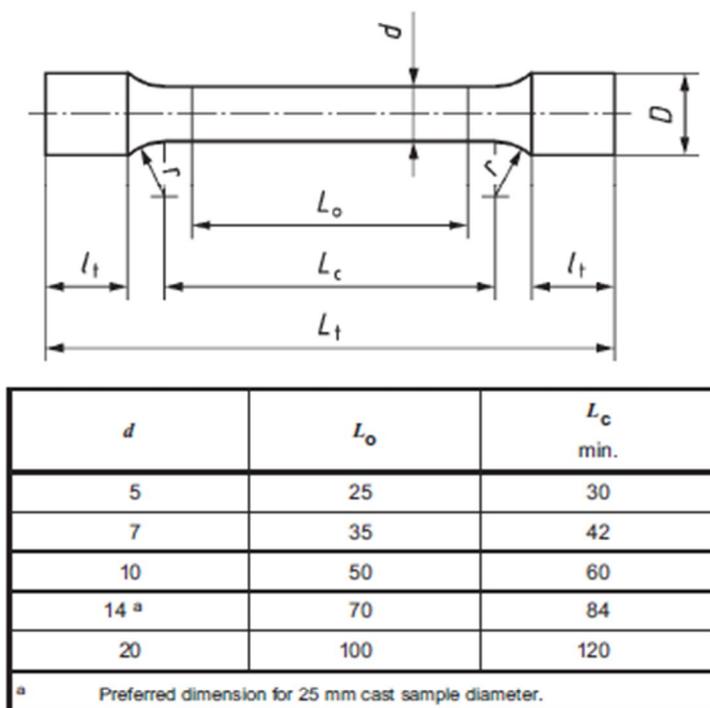
$$b = 0,75 \times a$$

$$c = 0,5 \times a$$

Figure 4 — Cast-on samples

EN 1563:2011 (E)

Dimensions in millimetres



where

- $L_0$  is the original gauge length, i.e.  $L_0 = 5 \times d$ ;
- $d$  is the diameter of the test piece along the gauge length;
- $L_c$  is the parallel length,  $L_c > L_0$  (in principle,  $L_c - L_0 \geq d$ );
- $L_t$  is the total length of the test piece, which depends on  $L_0$ ;
- $r$  is the transition radius, which shall be at least 4 mm.

NOTE The method of gripping the ends of the test piece, together with their length  $l_1$  may be agreed between the manufacturer and the purchaser.

Figure 5 — Tensile test piece

## 9.2 Impact test

The impact test shall be carried out on three Charpy V-notched impact test pieces (see Figure 6) in accordance with EN ISO 148-1:2010, using test equipment with an appropriate energy to determine the properties correctly.

Dimensions in millimetres

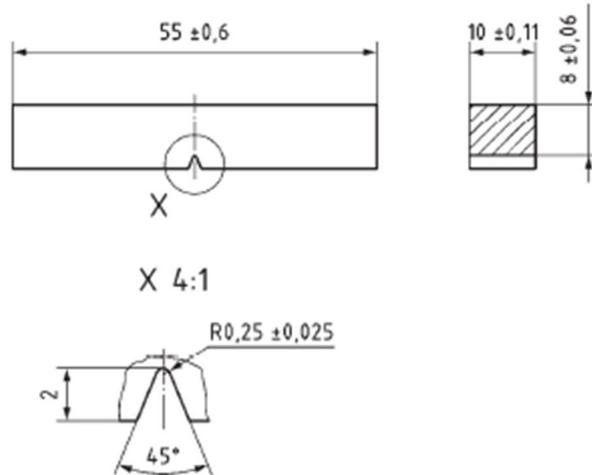


Figure 6 — Charpy V-notched impact test piece