INTERNATIONAL STANDARD

ISO 10907-2

First edition
2007-11-15

Tools for moulding — Locating rings —

Part 2: Locating rings for mounting with thermal insulating sheets in small or medium moulds (types C and D)

Outillage de moulage — Bagues de centrage —

Partie 2: Bagues de centrage pour montage avec feuille d'isolation thermique dans les petits et les moyens moules (types C et D)

Reference number
ISO 10907-2:2007(E)

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 10907-2 was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 8, *Tools for pressing and moulding*.

ISO 10907 consists of the following parts, under the general title *Tools for moulding — Locating rings*:

— *Part 1: Locating rings for mounting without thermal insulating sheets in small or medium moulds (types A and B)*

— *Part 2: Locating rings for mounting with thermal insulating sheets in small or medium moulds (types C and D)*

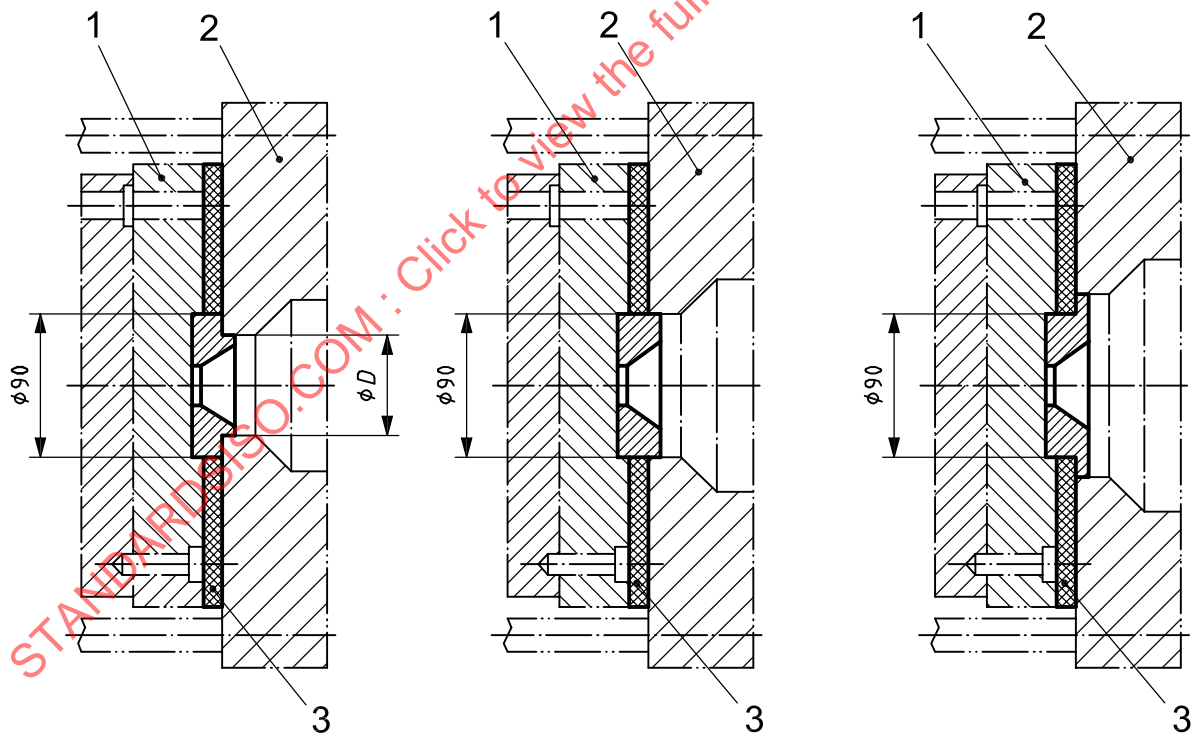
Tools for moulding — Locating rings —

Part 2: Locating rings for mounting with thermal insulating sheets in small or medium moulds (types C and D)

1 Scope

This part of ISO 10907 specifies the basic dimensions and tolerances, in millimetres, of locating rings, for the mounting of moulds (see Figure 1) with thermal insulating sheets, suitable for injection moulding machines up to size E12, in accordance with EUROMAP 2, types C (with bore) and D (without bore).

It also gives material guidelines and hardness requirements, and specifies the designation of the locating rings that conform to it.



Key

1 mould, fixed half
2 machine platen
3 thermal insulating sheet (ISO 15600)

Figure 1 — Examples of mounting of locating rings (type C)

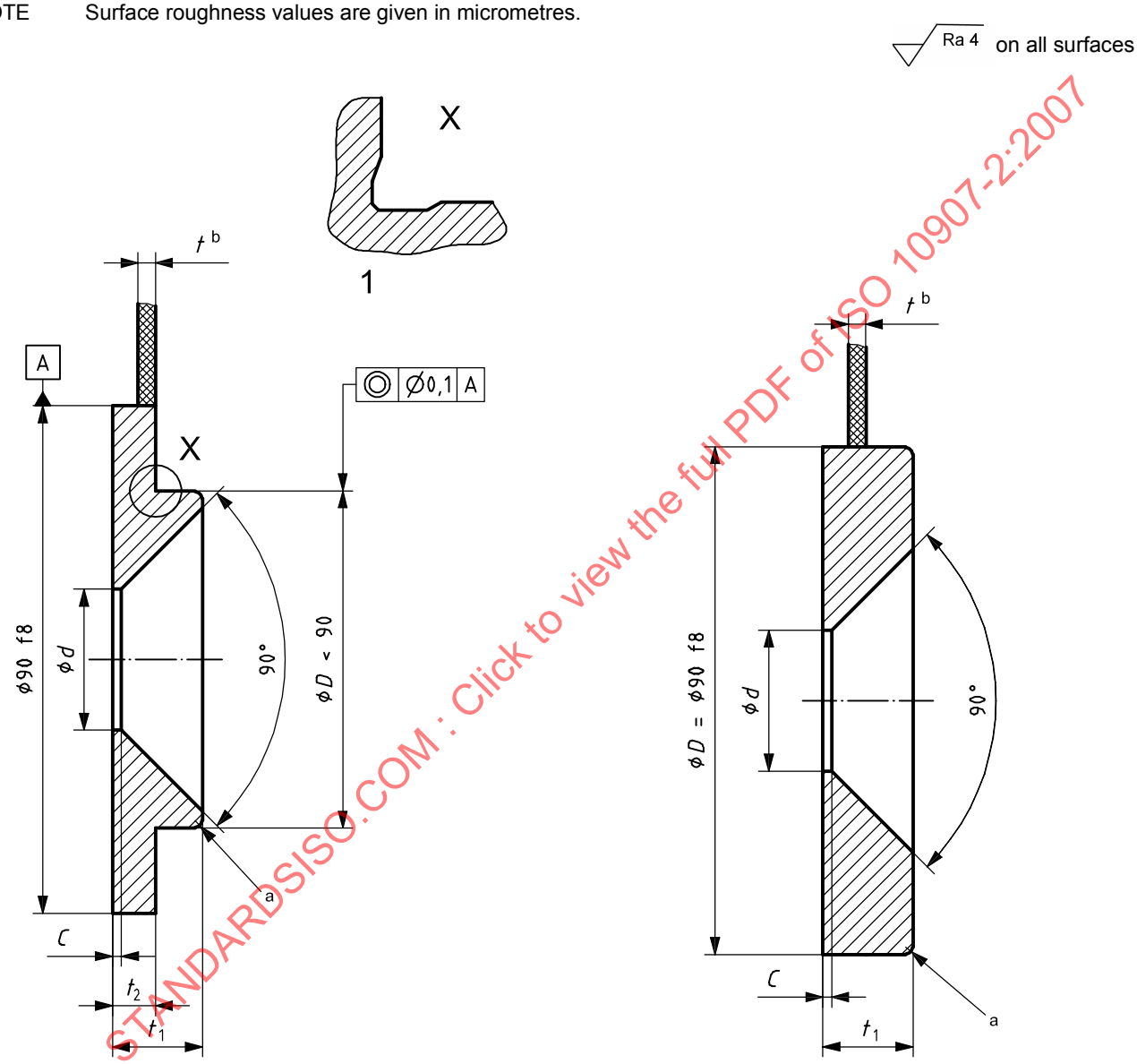
2 Dimensions

2.1 Locating rings with bore — Type C

A type C locating ring is preferably used for fixed mould halves.

The dimensions of type C locating rings shall conform to the indications given in Figures 2 to 4 and Table 1.

NOTE Surface roughness values are given in micrometres.



Key

1 undercut (left to the manufacturer's discretion)

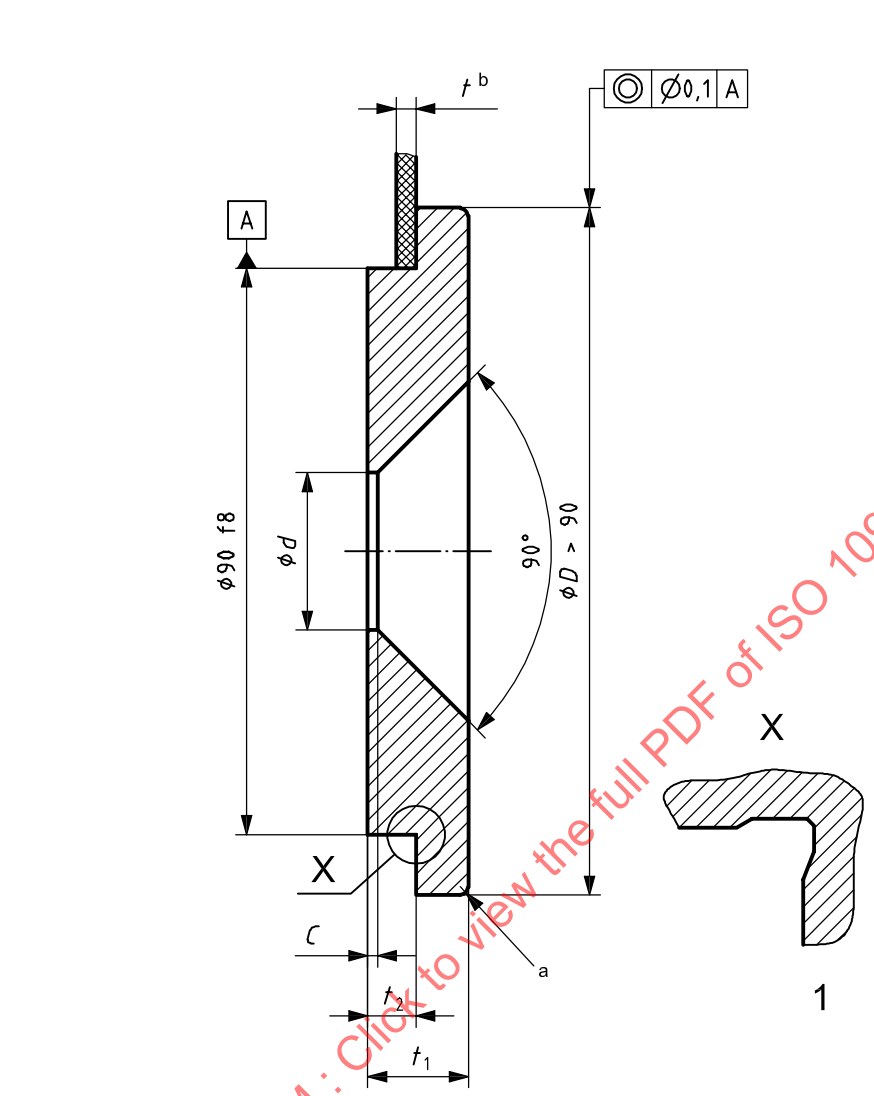
a Radius or chamfer is left to the manufacturer's discretion.

b Position of thermal insulation sheet.

NOTE Dimension C is left to the manufacturer's discretion.

Figure 2 — D < 90 mm

Figure 3 — D = 90 mm



Key

1 undercut (left to the manufacturer's discretion)

a Radius or chamfer is left to the manufacturer's discretion.

b Position of thermal insulation sheet.

NOTE Dimension C is left to the manufacturer's discretion.

Figure 4 — $D > 90$ mm

Table 1 — Dimensions of locating rings with bore — Type C

Dimensions in millimetres

D f8	$d \pm 0,1$				$t_{2\,-0,2}^{\;0}$ [b]		Figure reference
					10	14	
	25	28	32	40	$t_1 \pm 0,2$ [b]		
60	×				18,5	22,5	Figure 2
63	×		×				Figure 2
80 [a]	×	×	×				Figure 2
90	×	×	×				Figure 3
100 [a]	×	×	×	×			Figure 4
110	×	×	×	×			Figure 4
125 [a]	×	×	×	×			Figure 4
160 [a]		×	×	×			Figure 4

[a] Diameters according to EUROMAP 2 (European Committee of Machinery Manufacturers for the Plastics and Rubber Industries).

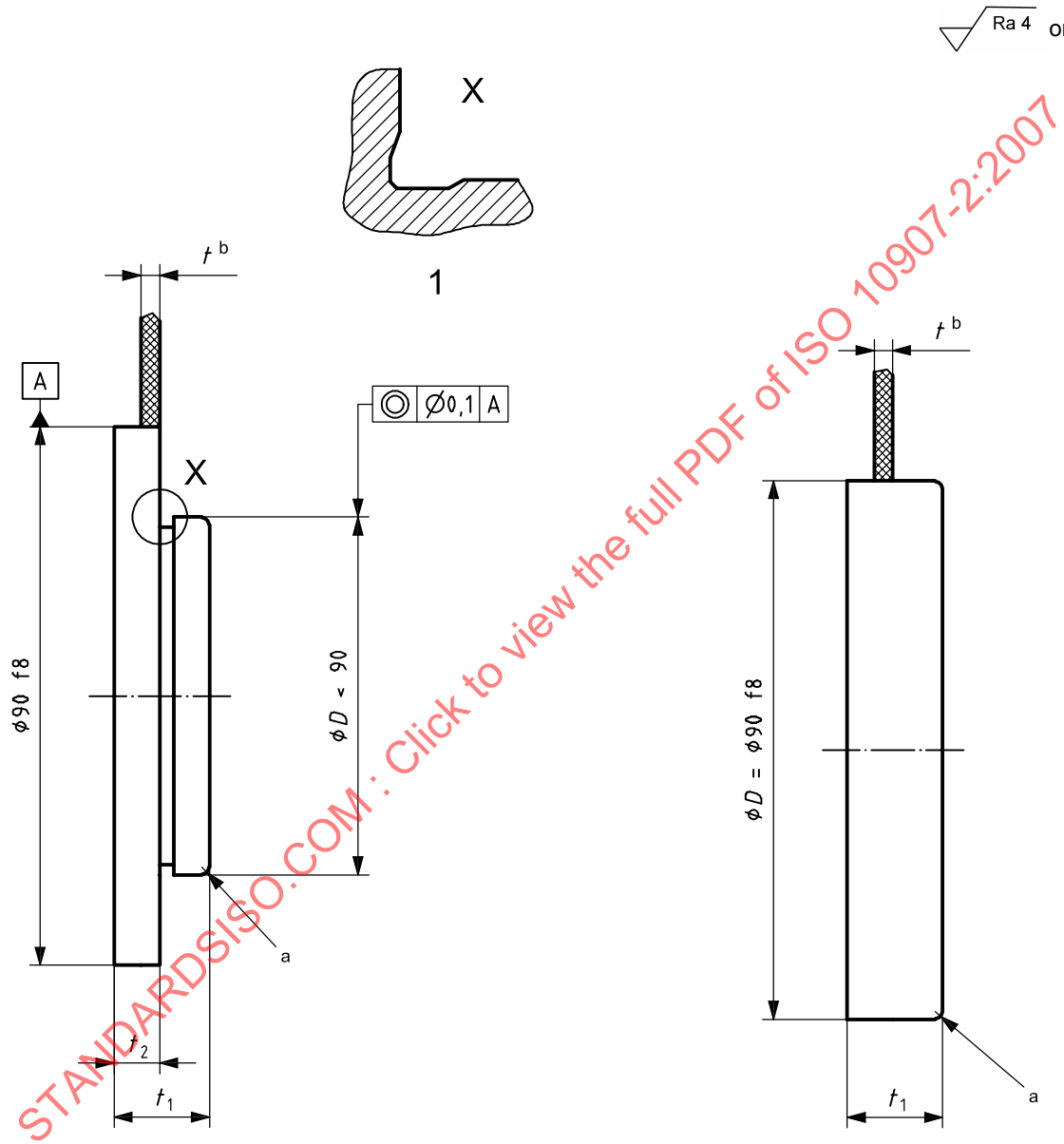
[b] Thicknesses t_1 and t_2 are adapted to thicknesses $t = 6$ mm and $t = 10$ mm of thermal insulating sheets in accordance with ISO 15600.

2.2 Locating rings without bore — Type D

A type D locating ring is preferably used for moveable mould halves.

The dimensions of type D locating rings shall conform to the indications given in Figures 5 to 7 and Table 2.

NOTE Surface roughness values are given in micrometres.



Key

1 undercut (left to the manufacturer's discretion)

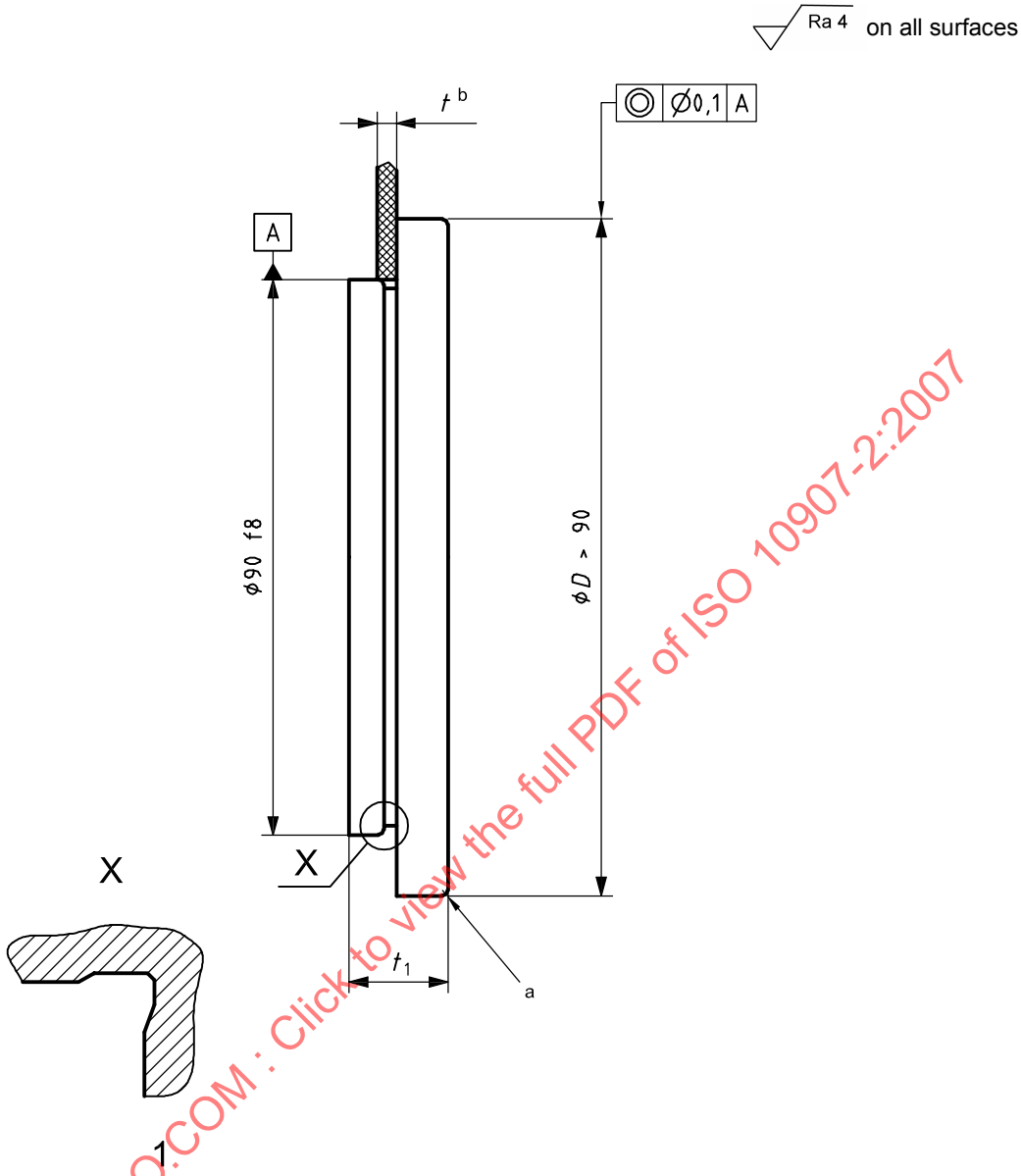
a Radius or chamfer is left to the manufacturer's discretion.

b Position of thermal insulation sheet.

NOTE Dimension C is left to the manufacturer's discretion.

Figure 5 — $D < 90$ mm

Figure 6 — $D = 90$ mm



Key

1 undercut (left to the manufacturer's discretion)

a Radius or chamfer is left to the manufacturer's discretion.

b Position of thermal insulation sheet.

Figure 7 — D > 90 mm

Table 2 — Dimensions of locating rings without bore — Type D

Dimensions in millimetres

D f8	$t_{2\,-0,2}^{\ 0}$ [b]		Figure reference
	10	14	
	$t_1 \pm 0,2$ [b]		
60	18,5	22,5	Figure 2
63			Figure 2
80 [a]			Figure 2
90			Figure 3
100 [a]			Figure 4
110			Figure 4
125 [a]			Figure 4
160 [a]			Figure 4

[a] Diameters according to EUROMAP 2 (European Committee of Machinery Manufacturers for the Plastics and Rubber Industries).

[b] Thicknesses t_1 and t_2 are adapted to thicknesses $t = 6$ mm and $t = 10$ mm of thermal insulating sheets in accordance with ISO 15600.

3 Material

The material shall be steel with a minimum yield strength 370 N/mm^2, with the grade being left to the manufacturer's discretion.

4 Designation

Locating rings in accordance with this part of ISO 10907 shall be designated as follows:

a) “locating ring”;

b) reference of this part of ISO 10907, i.e ISO 10907-2;

c) the type of locating ring (C or D);

d) the diameter, D, in millimetres;

e) the diameter, d, (only for type C) in millimetres;

f) the thickness, t_1, in millimetres.

EXAMPLE 1 A locating ring type C, for mounting with insulating sheets in small or medium moulds, of diameter $D = 100$ mm, diameter $d = 32$ mm and thickness $t_1 = 18,5$ mm is designated as follows:

Locating ring ISO 10907-2 C - 100 × 32 × 18,5

EXAMPLE 2 A locating ring type D, for mounting with insulating sheets in small or medium moulds, of diameter $D = 100$ mm and thickness $t_1 = 18,5$ mm is designated as follows:

Locating ring ISO 10907-2 D - 100 × 18,5