
**Tools for pressing — Ball-lock punch
retainers —**

**Part 3:
Type E, reduced for heavy duty**

*Outillage de presse — Porte-poinçons pour poinçons à bille —
Partie 3: Type E, réduits pour tôles épaisses*



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Foreword

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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 11900-3 was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 8, *Tools for pressing and moulding*.

ISO 11900 consists of the following parts, under the general title *Tools for pressing — Ball-lock punch retainers*:

- Part 1: Types A and B, rectangular and square for light duty
- Part 2: Types C and D, reduced for light duty
- Part 3: Type E, reduced for heavy duty

Tools for pressing — Ball-lock punch retainers —

Part 3: Type E, reduced for heavy duty

1 Scope

This part of ISO 11900 specifies the dimensions and tolerances, in millimetres, of reduced ball-lock punch retainers, type E, for heavy duty, and of their backing plug, the main use being retention of ball-lock punches in accordance with ISO 10071-2, when punching holes in steel sheets.

It also gives material guidelines and hardness requirements, and specifies the designation of ball-lock punch retainers in accordance with this part of ISO 11900.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 273, *Fasteners — Clearance holes for bolts and screws*

ISO 3290:2001, *Rolling bearings — Balls — Dimensions and tolerances*

ISO 4762, *Hexagon socket head cap screws*

ISO 8735, *Parallel pins with internal thread, of hardened steel and martensitic stainless steel*

ISO 10071-2¹⁾, *Tools for pressing — Ball-lock punches — Part 2: Ball-lock punches for heavy duty*

3 Dimensions

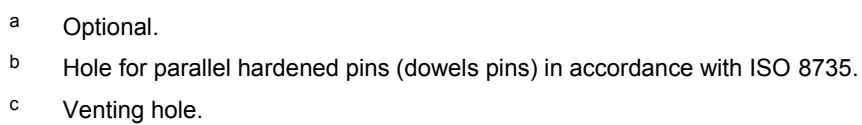
3.1 General tolerance

The general tolerance for all dimensions not individually toleranced is $\pm 0,25$ mm.

3.2 Type E reduced ball-lock punch retainer

See Figure 1 and Table 1.

1) To be published.



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