

DIN EN ISO 16092-2



ICS 25.080.01

Together with DIN EN ISO
16092-1:2019-08,
supersedes
DIN EN 692:2009-10 and
DIN EN 692 Corrigendum
1:2012-10

Machine tools safety –**Presses –**

**Part 2: Safety requirement for mechanical presses (ISO 16092-2:2019);
English version EN ISO 16092-2:2020,
English translation of DIN EN ISO 16092-2:2021-04**

Werkzeugmaschinen-Sicherheit –

Pressen –

Teil 2: Sicherheitsanforderungen für mechanische Pressen (ISO 16092-2:2019);
Englische Fassung EN ISO 16092-2:2020,
Englische Übersetzung von DIN EN ISO 16092-2:2021-04

Sécurité des machines-outils –

Presses –

Partie 2: Exigences de sécurité pour les presses mécaniques (ISO 16092-2:2019);
Version anglaise EN ISO 16092-2:2020,
Traduction anglaise de DIN EN ISO 16092-2:2021-04

Document comprises 71 pages

Translation by DIN-Sprachendienst.

In case of doubt, the German-language original shall be considered authoritative.

A comma is used as the decimal marker.

National foreword

This standard includes safety requirements.

The text of ISO 16092-2:2019 has been prepared by Technical Committee ISO/TC 39 “Machine tools”, Subcommittee SC 10 “Safety” in collaboration with Technical Committee CEN/TC 143 “Machine tools — Safety” (Secretariat: SNV, Switzerland).

The standards developed by ISO/TC 39/SC 10 in collaboration with CEN/TC 143 apply in particular to machine tools and complement the relevant type A and type B standards on the subject of general safety of machinery (see Introduction to ISO 12100:2010 for a description of type A, type B and type C standards).

The responsible German body involved in its preparation was *DIN-Normenausschuss Werkzeugmaschinen* (DIN Standards Committee Machine Tools), NA 122-10-01 AA “Safety machine tools — Presses and metal forming machines”, which played a major role in the development of this International Standard and provided the German translation.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directives.

This document describes the current state of technology as regards safety and occupational health in the presence of mechanical presses for the cold working of metals. It is a type C standard for machines meeting the essential safety and health requirements laid down in Annex I of the revised Machinery Directive (Directive 2006/42/EC).

DIN EN ISO 16092-2 applies to mechanical presses in particular. General safety requirements which apply equally to all types of presses are summarized in DIN EN ISO 16092-1. For this reason, this standard should always be used in connection with DIN EN ISO 16092-1. The standards series DIN EN ISO 16092 consists of the following parts:

- DIN EN ISO 16092-1: *Machine tools safety — Presses — Part 1: General safety requirements*
- DIN EN ISO 16092-2: *Machine tools safety — Presses — Part 2: Safety requirements for mechanical presses*
- DIN EN ISO 16092-3: *Machine tools safety — Presses — Part 3: Safety requirements for hydraulic presses*
- DIN EN ISO 16092-4: *Machine tools safety — Presses — Part 4: Safety requirements for pneumatic presses*

The DIN documents corresponding to the documents referred to in this document are as follows:

ISO 12100:2010	DIN EN ISO 12100:2011-03
ISO 13849-1:2015	DIN EN ISO 13849-1:2016-06
ISO 13849-2:2012	DIN EN ISO 13849-2:2013-02
ISO 13855:2010	DIN EN ISO 13855:2010-10
ISO 16092-1:2017	DIN EN ISO 16092-1:2019-08
ISO 16092-3:2017	DIN EN ISO 16092-3:2019-08
IEC 61800-5-1:2007+A1:2016	DIN EN 61800-5-1:2017-11

For current information on this document, please go to DIN’s website (www.din.de) and search for the document number in question.

Amendments

This standard differs from DIN EN 692:2009-10 and DIN EN 692 Corrigendum 1:2012-10 as follows:

- a) the safety functions have been adapted from categories to Performance Levels;
- b) the standard has been updated in line with the state of the art.

Previous editions

DIN EN 692: 1996-08, 2006-02, 2009-10

DIN EN 692 Corrigendum 1: 2012-10

National Annex NA (informative)

Bibliography

DIN EN ISO 12100:2011-03, *Safety of machinery — General principles for design — Risk assessment and risk reduction (ISO 12100:2010)*

DIN EN ISO 13849-1:2016-06, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design (ISO 13849-1:2015)*

DIN EN ISO 13849-2:2013-02, *Safety of machinery — Safety-related parts of control systems — Part 2: Validation (ISO 13849-2:2012)*

DIN EN ISO 13855:2010-10, *Safety of machinery — Positioning of safeguards with respect to the approach speeds of parts of the human body (ISO 13855:2010)*

DIN EN ISO 16092-1:2019-08, *Machine tools safety — Presses — Part 1: General safety requirements (ISO 16092-1:2017)*

DIN EN ISO 16092-3:2019-08, *Machine tools safety — Presses — Part 3: Safety requirements for hydraulic presses (ISO 16092-3:2017)*

DIN EN 61800-5-1:2017-11, *Adjustable speed electrical power drive systems — Part 5-1: Safety requirements — Electrical, thermal and energy (IEC 22G/397A/CD:2019)*

English Version

Machine tools safety -
Presses -
Part 2: Safety requirement for mechanical presses
(ISO 16092-2:2019)

Sécurité des machines-outils -
Presses -

Partie 2: Exigences de sécurité pour les presses mécaniques
(ISO 16092-2:2019)

Werkzeugmaschinen-Sicherheit -
Pressen -

Teil 2: Sicherheitsanforderungen für mechanische Pressen
(ISO 16092-2:2019)

This European Standard was approved by CEN on 29 July 2020.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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European foreword

This document (EN ISO 16092-2:2020) has been prepared by Technical Committee ISO/TC 39 "Machine tools" in collaboration with Technical Committee CEN/TC 143 "Machine tools - Safety" the secretariat of which is held by SNV.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2021, and conflicting national standards shall be withdrawn at the latest by March 2021.

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

This document supersedes EN 692:2005+A1:2009.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZA, which is an integral part of this document.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 16092-2:2019 has been approved by CEN as EN ISO 16092-2:2020 without any modification.

Annex ZA (informative)

Relationship between this European Standard and the essential requirements of EU Directive 2006/42/EC aimed to be covered

This European Standard has been prepared under a Commission's standardization request "M/396 Mandate to CEN and CENELEC for Standardisation in the field of machinery " to provide one voluntary means of conforming to essential requirements of Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast).

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding essential requirements of that Directive, and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Annex I of Directive 2006/42/EC

The relevant Essential Requirements of Directive 2006/42/EC	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
1.1.2 Principles of safety integration	5.1	
1.1.8 Seating		not covered
1.2. Control systems	5.2/5.3/5.4/5.5	
1.3.2 Risk of break-up during operation	5.2.5/5.2.10.1	
1.3.3 Risk due to falling or ejected objects	5.2.5/5.2.7/5.2.10.1/5.2.10.3/5.3.6	
1.3.7 Risks related to moving parts	5.5.1/5.5.2.1/5.5.3.1	
1.3.8 Choice of protection against risks arising from moving parts	5.5.1/5.5.2.1/5.5.3.1	
1.3.9 Risks of uncontrolled movements	5.2.6.1/5.2.10.2/5.4.1/5.4.2.1/5.4.6/5.4.7/5.5.1/5.5.3.1	