

Sachgebiet Maschinen, Robotik und Fertigungsautomation

Tools / Moulds and Dies

Outside the scope of the EC Machinery Directive 2006/42/EC

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Translation of German version

In particular, manufacturers and users of tools, dies and moulds for presses, injection moulding and die-casting machines are often not sure as to whether or not these products are covered by the scope of the EC Machinery Directive 2006/42/EC [1] (CE marking, EC declaration of conformity required). This „Fachbereich AKTUELL“ is intended to provide guidance in assessing whether these products are covered by the scope of the EC Machinery Directive. It is explained if tools, moulds and dies are covered by the terms of the EC Machinery Directive „machinery“, „interchangeable equipment“ or „partly completed machinery“.

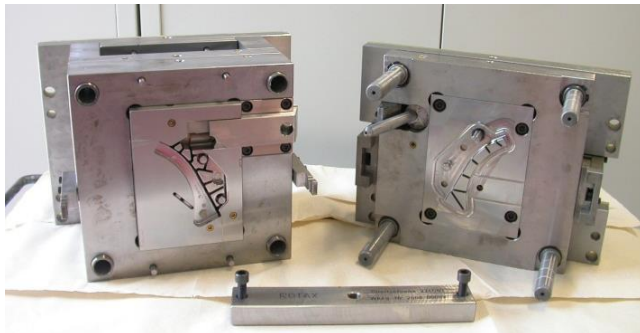


Figure 1: Mould halves of an injection mould

1 Machinery

According to MD, article 2, item a), machinery which obtains CE marking has to fulfill the following characteristics:

- a. Machines have to be fitted with a drive system other than directly applied human or animal effort or they have to be designed to be provided with a drive system.
- b. Machines have to consist of an assembly of linked parts at least one of which moves.
- c. Machines have to perform a specific application, e. g. machining a product, (milling, sawing etc.) or lifting loads.

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Item c applies to tools, moulds and dies only in conjunction with the associated press, injection moulding or die-casting machine. No parts can be machined or manufactured solely with the tool.

Since all the above mentioned characteristics have to be fulfilled **at the same time**, the term “machinery” does not apply to simple tools, moulds and dies in contrast to complex tools with e. g. own drive systems. A CE marking is not applicable in this context.

Although hydraulic cylinders and similar devices which are installed in the tool do not drive the tool, they may be considered, however, as separate drive system. This special case is dealt with in paragraph 3 of this „Fachbereich AKTUELL“.

2 Interchangeable equipment

Interchangeable equipment has to be provided with CE marking as well and has to fulfill the following characteristics according to MD, article 2, item b):

- d. Interchangeable equipment means a device which is assembled with machinery or tractor by the operator himself.
- e. Interchangeable equipment changes the function of machinery or attributes a new function.

Tools, moulds and dies for presses, injection moulding and die-casting machines are usually

replaced by qualified personnel (set-up personnel) and not by the machine operator so that item d. does not apply.

Simple tools, moulds and dies do not change the function of the machine so that item e. does not apply either.

It furthermore applies according to Machinery Directive that tools are no interchangeable equipment. Tools in this context are “components” which neither upgrade a function nor change it.

Thus, a CE marking for simple tools, moulds and dies with regard to interchangeable equipment is not applicable. It has to be pointed out in addition that the provisions of the Machinery Directive concerning interchangeable equipment are particularly intended to cover attachments for agricultural and construction machinery, e. g. mower cutting bars, spray and spreader systems [3].

3 Partly completed machinery

Finally it has to be clarified whether simple tools, moulds and dies are covered by the term “partly completed machinery”. Partly completed machinery does neither receive a CE marking nor an EC declaration of conformity. Instead of this, the product has to be accompanied by the declaration of incorporation and assembly instructions. Partly completed machinery has to fulfill the following characteristics:

- f. Partly completed machinery is an assembly which is almost machinery.
- g. Partly completed machinery cannot in itself perform a specific application.
- h. A drive system is partly completed machinery.
- i. Partly completed machinery is only intended to be incorporated into or assembled with other machinery or other partly completed machinery or equipment.
- j. Partly completed machinery should form new machinery with that other machinery or other partly completed machinery in which it is incorporated or with which it is assembled.

An industrial robot for example is partly completed machinery since it “almost” represents a machine. In order to perform a specific (production) application, only a few components need to be added such as, e. g. gripper, conveying systems.

This does not apply to tools, moulds and dies. It is not sufficient to add a few components only in order to produce parts. For tools, moulds and dies, the entire basic machine has to be added in order to perform an application. This does even not

change if the tool or the injection mould has e.g. single individually driven hydraulic cylinders.

Thus, simple tools, moulds and dies for presses, injection moulding and die-casting machines are not covered by the term „partly completed machinery“.

4 Summary and limits of application

The aforementioned explanations show that simple tools, moulds and dies for presses, injection moulding and die-casting machines are not covered by the Machinery Directive 2006/42/EC.

This does not mean, however, that tools, moulds and dies may be unsafe. Each product which is provided on the German market automatically falls within the scope of the Product Safety Act [2]. These products do neither require a CE marking nor an EC declaration of conformity. The products need to be safe according to the state of the art. This also includes accompanying documents if required for the safe use of the product.

Complex tools with e.g. own drives etc. may be assessed however, as interchangeable equipment but in no case as partly completed machinery.

The working group “Machinery” of the European Commission is planning a European harmonized document for the classification of tools, moulds and dies. Relevant proposals have been prepared by the coordination body of the notified bodies (see [3]). Further documents are not yet available.

This „Fachbereich AKTUELL” has been prepared by the expert committee woodworking and metalworking, subcommittee machinery, robotics and automation.

The expert committee woodworking and metalworking is composed of representatives of the German Social Accident Insurance Institutions, federal authorities, social partners, manufacturers and users.

This „Fachbereich AKTUELL” is particularly intended to help manufacturers and users of tools/ dies / moulds for presses, injection moulding and die-casting machines in assessing whether or not tools, moulds and dies are covered by the scope of the Machinery Directive.

The provisions according to individual laws, regulations and standards remain unaffected by

this „Fachbereich AKTUELL“ or the information sheet.

This „Fachbereich AKTUELL“ replaces the same-titled version, which was published as of July 2018. An updating has become necessary due to editorial amendments.

Further information sheets of the expert committee woodworking and metalworking are available for download on the internet [5].

As to the aims of the „Fachbereich AKTUELL“ or DGUV information, refer to DGUV information FBHM-001, “Aims of the DGUV information” published by the expert committee woodworking and metalworking.

German Bibliography:

- [1] Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery (Machinery Directive), Official Journal of the European Union, No. L 157/24 of 9 June 2006 with corrigendum in the Official Journal L76/35 of 16 March 2007.
- [2] Gesetz über die Bereitstellung von Produkten auf dem Markt (Produktsicherheitsgesetz - ProdSG), Ausfertigungsdatum: 08.11.2011 (BGBl. I S. 2178, 2179; 2012 I S. 131), zuletzt geändert durch Art. 435 der Verordnung vom 31.8.2015 I 1474.
- [3] Coordination of Notified Bodys. Machinery Directive 2006/42/EC CNB/M/04.082. Date 2011-09-01
- [4] Guide to application of the Machinery Directive 2006/42/EC, 2nd Edition, June 2010, General Editor Ian Fraser, European Commission
- [5] Internet: www.dguv.de/fb-holzundmetall Publikationen oder www.bghm.de Webcode: <626>

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Figure 1: FBHM, SG MRF, Hünig 05/2013

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Deutsche Gesetzliche
Unfallversicherung e.V. (DGUV)

Glinkastraße 40
10117 Berlin
Telefon: +49 30 13001-0 (Zentrale)
Fax: +49 30 13001-6132
E-Mail: info@dguv.de
Internet: www.dguv.de

Sachgebiet „Maschinen, Robotik und Fertigungsautomation“
im Fachbereich „Holz und Metall“
der DGUV > www.dguv.de Webcode: d544779