

Approval of SITEMA Safety Catchers for use as a mechanical restraint device in hydraulic presses.

The European Standard **DIN EN 693 Machine tools - Safety - Hydraulic presses** ascertains the following facts:

Where there is a risk of injury (force exceeding 150 Newton) from a gravity fall of the slide/ram a mechanical restraint device, e.g. a scotch, shall be provided to be inserted in the press for use during repair or any necessary intervention between the tools other than normal manual feeding.

On presses with an opening stroke length of more than 500 mm and a depth of table of more than 800 mm, the device shall be permanently fixed and integrated with the press.

The following document approves that SITEMA Safety Catchers can be used **as a mechanical restraining device** (german: Hochhalteinrichtung) in this case.

It is referring to several standard **DIN EN 693, DIN EN 692, DIN EN 12622, DIN EN 201, DIN EN 289** and says that the approved product is complying with the relevant rules.

Certification number: **02 023**

for Safety Catchers **type KR** with accessories

see A40E page 2

Certification number: **02 025**

for Safety Catchers **type K** with accessories

see A40E page 5

These certifications are only valid over a specific period. After this time a new certification will be issued.

The first certification has been issued in the year 1984.

Below you find an English translation of the German original. The German original can be downloaded on [www.sitema.com / TI-A40-DE](http://www.sitema.com/TI-A40-DE).

Certificate
No. **MHHW 02 023**
dated **17.11.2009**

Deutsche Gesetzliche
Unfallversicherung



Expert Committee for mechanical engineering, lifting
equipment, metallurgical plants and rolling mills
Testing and Certification Body in BG-Test

BG-Test Certificate

Name and address of the certificate holder: **SITEMA Gesellschaft für Sicherheitstechnik und Maschinenbau mbH**
Im Mittelfeld 10
76135 Karlsruhe

Name and address of the manufacturer - see above -

Product description: **Restraining Device**

Type: **Single acting safety catcher, Type KR
with and without spring base (FS) • with and without lowering detector (AS)**

Intended use
Installation in: **a)** mechanical presses conforming to DIN EN 692; **b)** hydraulic presses conforming to DIN EN 693; **c)** folding presses conforming to DIN EN 12622; **d)** injection moulding machines with vertical closing motion conforming to DIN EN 201; **e)** rubber and plastics machines conforming to DIN EN 289 (for clamping away from the rest position)

Test basis:

- ◆ Basic principles for the testing and certification of presses (GS-MHHW-01), Issue 08/2007
- ◆ Basic principles for the testing and certification of injection moulding machines (GS-MHHW-20), Issue 08/2007
- ◆ **DIN EN 692:2006** "Machine Tools – Mechanical Presses – Safety"
- ◆ **DIN EN 693:2001** "Machine Tools – Safety – Hydraulic Presses"
- ◆ **DIN EN 12622:2001** "Machine Tools – Safety – Hydraulic Folding Presses"
- ◆ **DIN EN 201:1997** "Rubber and Plastics Machines – Injection Moulding Machines – Safety Requirements"
- ◆ **DIN EN 289:2004** "Plastics and Rubber Machines – Presses – Safety Requirements"

Related test report: dated September 1983 and 16th November 2009

Remarks: - see appendix -

- **Follow-up certificate to Test No. 02 022, dated 01.08.2009** ■
- **Follow-up certificate to Test No. 02 023, dated 12.07.2006** ■

The tested model conforms to the requirements stated in § 4 Section 1 of the Equipment and Product Safety Act. The tested model conforms to the applicable provisions of the **EC Machinery Directives** 98/37/EG (valid until 28.12.2009) and 2006/42/EG (valid from 29.12.2009).

The certificate holder is authorised to attach the BG-mark shown overleaf to products conforming to the tested model, with the addenda quoted under 'Remarks' where appropriate.

This certificate will become invalid at the latest on: **01.10.2014**

The Testing and Certification Order of September 2008 makes additional rulings about validity, extensions of validity and other conditions.

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(Dipl.-Ing. Heinke)

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Mark of the Testing and Certification Body MHHW 612.1:612.28-Ub Schu/bt

PZB09MA_D
09.08

Rear of the BG-Test Certificate



1) Certificate number

If necessary, the BG-mark must be provided with an addendum corresponding to the details on the certificate. The appearance of the mark will differ from the sample on certificates with supplementary addenda.

Appendix

BG-Test Certificate No. 02 023 dated 17.11.2009

<p>Sitema Ges. für Sicherheitstechnik und Maschinenbau Im Mittelfeld 10 76135 Karlsruhe</p>	<p>Restraining Device, Type: Single acting safety catcher, Type KR with and without spring base (FS) with and without lowering detector (AS)</p>
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Remarks:

- The manufacturer of the machine must install the restraining device according to the manufacturer's specifications and the requirements of the applicable product standard.
- The manufacturer of the machine must either select the restraining device so that in the new condition at least 1.5 times the weight of the load can be supported in the worst case, and provide an automatic device to test for holding force at a sufficiently high frequency
 or
 select the restraining device so that in the new condition at least 2 times the weight of the load can be supported in the worst case.
- If the manufacturer of the machine does not provide an automatic device to test for holding force, he must specify in his operating instructions a deadline for the holding force test which depends on the utilisation of the machine and the requirement rate for the restraining device, within which time the holding force will not decline unacceptably.
- Test loading: 1.5 times the weight of the load in the worst case.
- If the manufacturer of the machine does not provide an automatic device to test for holding force, he must implement a solution whereby the holding force can be checked while the restraining device is installed and describe the performance of the holding force test in the operating instructions for the machine.
- The manufacturer of the machine must install the post for the restraining device so that it is protected from the influence of high-viscosity lubricants or separating agents.

(Dipl.-Ing. Heinke)

Düsseldorf, 17.11.2009

Deutsche Gesetzliche
Unfallversicherung



Certificate
No. **MHHW 02 025**
dated **17.11.2009**

Expert Committee for mechanical engineering, lifting
equipment, metallurgical plants and rolling mills
Testing and Certification Body in BG-Test

BG-Test Certificate

Name and address of the certificate holder: **SITEMA Gesellschaft für Sicherheitstechnik und Maschinenbau mbH**
Im Mittelfeld 10
76135 Karlsruhe

Name and address of the manufacturer - see above -

Product description: **Restraining Device**

Type: **Single acting safety catcher, Type KR
with and without spring base (FS) • with and without lowering detector (AS)**

Intended use
Installation in: **a)** mechanical presses conforming to DIN EN 692; **b)** hydraulic presses conforming to DIN EN 693; **c)** folding presses conforming to DIN EN 12622; **d)** injection moulding machines with vertical closing motion conforming to DIN EN 201; **e)** rubber and plastics machines conforming to DIN EN 289 (for clamping away from the rest position)

Test basis:

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- ◆ **DIN EN 201:1997** "Rubber and Plastics Machines – Injection Moulding Machines – Safety Requirements"
- ◆ **DIN EN 289:2004** "Plastics and Rubber Machines – Presses – Safety Requirements"

Related test report: dated September 1983 and 16th November 2009

Remarks: - see appendix -

- **Follow-up certificate to Test No. 02 024, dated 01.08.2009** ■
- **Follow-up certificate to Test No. 02 025, dated 12.07.2006** ■

The tested model conforms to the requirements stated in § 4 Section 1 of the Equipment and Product Safety Act. The tested model conforms to the applicable provisions of the **EC Machinery Directives** 98/37/EG (valid until 28.12.2009) and 2006/42/EG (valid from 29.12.2009). The certificate holder is authorised to attach the BG-mark shown overleaf to products conforming to the tested model, with the addenda quoted under 'Remarks' where appropriate.

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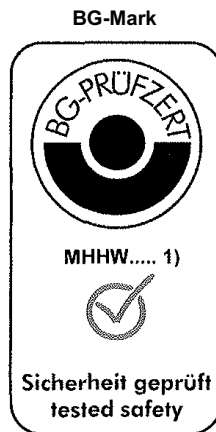
The Testing and Certification Order of September 2008 makes additional rulings about validity, extensions of validity and other conditions.

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PZB09MA_D
09.08

Rear of the BG-Test Certificate



1) Certificate number

If necessary, the BG-mark must be provided with an addendum corresponding to the details on the certificate. The appearance of the mark will differ from the sample on certificates with supplementary addenda.

Appendix

BG-Test Certificate No. 02 025 dated 17.11.2009

<p>Sitema Ges. für Sicherheitstechnik und Maschinenbau Im Mittelfeld 10 76135 Karlsruhe</p>	<p>Restraining Device, Type: Single acting safety catcher, Type KR with and without spring base (FS) with and without lowering detector (AS)</p>
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Remarks:

- The manufacturer of the machine must install the restraining device according to the manufacturer's specifications and the requirements of the applicable product standard.
- The manufacturer of the machine must either select the restraining device so that in the new condition at least 1.5 times the weight of the load can be supported in the worst case, and provide an automatic device to test for holding force at a sufficiently high frequency
 or
 select the restraining device so that in the new condition at least 2 times the weight of the load can be supported in the worst case.
- If the manufacturer of the machine does not provide an automatic device to test for holding force, he must specify in his operating instructions a deadline for the holding force test which depends on the utilisation of the machine and the requirement rate for the restraining device, within which time the holding force will not decline unacceptably.
- Test loading: 1.5 times the weight of the load in the worst case.
- If the manufacturer of the machine does not provide an automatic device to test for holding force, he must implement a solution whereby the holding force can be checked while the restraining device is installed and describe the performance of the holding force test in the operating instructions for the machine.
- The manufacturer of the machine must install the post for the restraining device so that it is protected from the influence of high-viscosity lubricants or separating agents.

(Dipl.-Ing. Heinke)

Düsseldorf, 17.11.2009