Operating Manual

GEDA

Construction Waste Chutes
Standard
Comfort

GEDA® ORIGINAL

Fachausschuss Bau
Prüf- und Zertifizierungsstelle
im BG-PRÜFZERT

Hauptverband der gewerblichen
Berufsgenossenschaften

GS-Prüfbescheinigung

02053
Bescheinigungs-Nummer

Name und Anschrift des Bescheinigungsinhabers: (Auftraggeber)	GEDA-Dechentreiter GmbH & Co. KG Mertinger Straße 60 D 86663 Asbach-Bäumenheim	
Name und Anschrift des Herstellers:	siehe oben	
Zeichen des Auftraggebers:	Zeichen der Prüf- und Zertifizierungsstelle: 672.82-GE	Ausstellungsdatum: 15.06.2007

Produktbezeichnung:	Schuttrutsche (incl. Befestigung)
Typ:	Bauschuttrutsche incl. Gerüst-, Brüstungs-, Schrägdach- und Flachdachsicherung
Bestimmungsgemäße Verwendung:	Abwerfen von Bauschutt

Prüfgrundlage:	BGV C 22 UVV "Bauarbeiten 04.93 BGV D 8 UVV "Winden, Hub- und Zuggeräte" 01.97 Neben allgemeinen Normen wurden insbesondere verwendet: DIN 1050, DIN 1055, DIN 4114, DIN 15018, DIN 763, DIN 15020, DIN 3060, DIN 3069, DIN 2440, DIN 2395 und DIN 5299
Bemerkungen:	Ersetzt die Prüfbescheinigung Bau 02053 vom 21.05.2002

Das geprüfte Baumuster stimmt mit den in § 7 Absatz 1 Satz 2 des Geräte- und Produktsicherheitsgesetzes genannten Anforderungen überein.
Der Bescheinigungsinhaber ist berechtigt, das umseitig abgebildete GS-Zeichen an den mit dem geprüften Baumuster übereinstimmenden Produkten anzubringen. Der Bescheinigungsinhaber hat dabei die umseitig aufgeführten Bedingungen zu beachten.

Diese Bescheinigung einschließlich der Berechtigung zur Anbringung des GS-Zeichens wird spätestens ungültig am:

30.06.2012

Weiteres über die Gültigkeit, eine Gültigkeitsverlängerung und andere Bedingungen regelt die Prüf- und Zertifizierungsordnung vom April 2004.

Unterschrift (Dipl.-Ing. Hans Fellberg)

Unterschrift (Dipl.-Ing. Joachim Edeler)

HAUPTVERBAND DER GEWERBLICHEN BERUFSGENOSSENSCHAFTEN · FACHAUSSCHUSS BAU

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GS verification certificate

1 Safety information / technical specification

This safety information must be read and observed by all persons who are entrusted with work on the construction waste chute or with the installation/dismantling of the construction waste chute or who supervise or instruct such people. Non-compliance with the safety information releases GEDA from any liability.

1.1 Proper use

- The disposal of solid, non-combustible, non-toxic construction waste which is smaller in size in every dimension than the smallest diameter of the construction waste chute. Use is only permitted by persons authorised by the operating company in non-public areas.

Improper use, non-compliance with the manual, the use of insufficiently qualified personnel, and the use of non-approved spare parts excludes any liability on the part of the manufacturer.

1.2 Operation/limitations of the construction waste chute

Use of the chute must comply with:

- the information on proper use.
- the technical data/features.
- all laws/regulations that must be complied with by the operating company.
- all other information in this manual.

Installation/disassembly of the construction waste chute without having read the manual beforehand is prohibited. The manual must be kept safe for future use. GEDA is not liable for any damage arising from non-compliance with the manual.

1.3 Modifications/alterations

Unauthorised modifications/alterations can have an unforeseeable influence on safety. For this reason, unauthorised modifications/alterations are prohibited.

1.4 Foreseeable misuse

Any use of the construction waste chute that deviates from the conditions specified above and from the stated purpose is strictly prohibited.

This in particular includes use:

- in a publicly accessible area.
- in a potentially explosive area.
- without securing the filling points to guard against people/material falling in.
- as an (emergency) chute for people.
- as an internal transport/logistics/conduit system, e.g. for transporting foodstuffs, e.g. cereals, for humans/animals to a lower floor.
- for the disposal of burning, hot or combustible materials (including cigarettes) or materials at risk of deflagration as a result of the release of solvents, for example.
- for the disposal of hazardous substances such as materials containing asbestos, for example.
- of a combination of parts from different construction waste chute systems.

1.5 Inspections

The construction waste chute must be inspected for damage each time before it is set up, following every blockage and at regular intervals (at least once a year). Replace damaged parts immediately. Continued use is prohibited until the damaged parts have been replaced.

1.6 Existing residual hazards

GEDA construction waste chutes have been designed and manufactured according to the current state of the art. There are, however, – as with all products – residual hazards. These are:

Energies

- Potential energy of the components / potential energy of jammed construction waste.

Component failure

- As a result of improper use, inadequate maintenance or incorrect operation.

1.7 Regarding use by authorised people

1.7.1 Operator/installer

A person who, as a result of his/her training and experience, is capable of carrying out the functions and activities associated with use. This also includes avoiding potential risks and hazards that may occur during operation.

1.8 Ordering spare parts

Spare parts are ordered exclusively through the manufacturer/representative.
Only original GEDA spare parts may be used. Only original GEDA spare parts guarantee full function as well as safety and reliability.
Please supply the following details with each order for spare parts:

- Item no. / Model / Name / Order quantity

1.9 Storage

- No jolts or vibrations.
- No abrasive, corrosive substances.
- Parts must be protected against pest damage (insects, rodents, etc.).

1.10 Disposal

The construction waste chute must be professionally dismantled at the end of its service life and disposed of in an environmentally friendly way according to national regulations.

Construction waste chute / filling funnel	Polyethylene	02 PE-HD
Frame / hand winch / chains / ropes / eyelets	Hot-dip galvanised steel Chromated steel (yellow)	

1.11 Dust-protection measures

GEDA provides the following components for reducing dust exposure.

- Dust cover for covering the filler neck.
- Protective covers for containers.
- Dust collar for covering the bottom chute element.

1.12 Warranty

This manual does not contain any warranty agreements. These can be found in the General Terms and Conditions of Business. Proper use is a precondition for the warranty.

1.13 Manufacturer

GEDA Dechentreiter GmbH & Co. KG

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1.14 Copyright

2 Obligatory safety instructions

2.1 Basic conduct when working with the construction waste chute

- The construction waste chute must be used with an awareness of hazards, in a technically fault-free condition and according to the instructions in this manual.
- If there is any lack of clarity regarding proper condition or correct operation, these points must be clarified. Operation is prohibited until the matter is clarified.
- Unauthorised persons must be kept away; if necessary set up warning notices.
- All safety regulations relevant to the respective job/activity must be adhered to.
- Responsibilities for different activities must be clearly identified and adhered to. Lack of clarity greatly compromises safety.
- Rectify any faults that occur which fall within the context of your responsibility.
- If faults occur outside your responsibility, inform your superior immediately.
- Wear personal protective equipment.
- If there is soiling, take appropriate measures (e.g. dry and clean) for all floors, steps, pedestals and platforms to prevent falling and slipping.
- It is prohibited to attach banners etc. that alter the wind load.
- A fall-protection device must be worn when working at heights > (2.0 m).
- Avoid producing explosive dust.
- The area surrounding the waste container must be secured against entry by unauthorised individuals. If the construction waste chute is deflected, the area blocked off must be increased in size accordingly.
- Since the plastic of the construction waste chute is combustible, the usual safety precautions must be taken to avoid fires during storage/use.

2.2 Transport

- During transport, the load must be secured according to international transport guidelines.

2.3 Installation

- Precautionary measures stipulated by the company for avoiding fires, explosions, dust, gas, steam and smoke must be observed.
- Appropriate lifting gear must be used when working with heavy parts.
- Adhere to the minimum requirements for thoroughfares, paths and emergency exits.

2.4 Avoiding blockages

- Observe the maximum deflection of the construction waste chute.
- Observe the maximum size of the bulk material.
- Constantly monitor the discharge opening for the rubble.
- To eliminate blockages, do not work beneath the discharge opening or distort the construction waste chute.

2.5 Repair/maintenance

- All relevant persons must be informed about how to carry out the work before work begins.
- Use appropriate measures to ensure that dismantled parts do not fall down.
- Loss of balance as a result of handling heavy parts/tools. Only lift heavy parts/tools with a second person or appropriate lifting equipment.
- Only use new parts according to their intended use and within the specifications of the technical data.
- Test the parts to ensure that they are functioning correctly after the work. Make sure that no hazards will arise as a result of commissioning the construction waste chute.

2.6 Cleaning

- Only use suitable, non-combustible cleaning agents. Risk of fire and explosion as a result of using combustible cleaning materials.
- Label damp areas with the appropriate warning signs.
- Wear personal protective equipment.
- Do not use any abrasive substances for cleaning.
- Do not use steam-jet equipment/high-pressure cleaners.

2.7 Conduct in an emergency

- Company instructions relating to conduct in an emergency and the evacuation plan must be observed.

3 Obligations of the operating company

3.1 Identifying hazards at the place of use

The operating company must identify all hazards at the place of use and must take the necessary health and safety measures.

3.2 Duty to provide training/qualifications

The operating company clearly defines the responsibilities of the personnel. The operating company is obliged to train all persons authorised to use the construction waste chute in the correct handling of the chute before using it for the first time, according to the respective area of activity and responsibility of the authorised individual and using practical exercises.
Training will cover at least the following:

- the scope and limitations of the area of activity and responsibility of the groups of people in question.
- safety-conscious conduct.
- avoiding hazards / conduct in an emergency.
- correct use/installation/dismantling.
- the meaning of the warning signs, notices and pictograms at the construction site.
- use and inspection of the personal protective equipment.

This training must be documented and repeated at regular intervals.

3.3 Lighting/paths

The filling points and paths for transporting the construction waste to the chute must be lit appropriately and secured to safeguard against falls.

3.4 Checking correct and proper condition and use

At regular intervals, the operating company must take appropriate measures to check that the construction waste chute is being used according to the intended use, that no modifications or manipulations have been made to the construction waste chute and that all parts are functioning fully.

3.5 Provision of personal protective equipment

The operating company must provide personal protective equipment appropriate to the respective place of use and purpose.
Protective equipment must be checked at regular intervals to ensure function and completeness. All national and trade association regulations relating to protective equipment must be observed in addition to this information.

4 Installation/dismantling

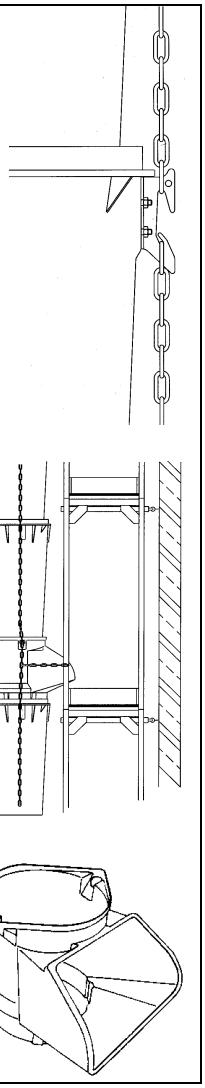
The GEDA construction waste chute is suitable for virtually all installation situations on account of the versatile mounting options.
The construction waste chute is generally installed using the hand winch. When using other installation aids, it must be ensured that they are suitable for the intended purpose and for the loads which occur.

Important information relating to installation:

- Intermediate fastening points must be provided every 10 metres (fastening = 2.5 kN). GEDA provides appropriate chains with carabiners for this purpose. The construction waste chute must not be deflected by the intermediate fastening points.
- When releasing the rope of the hand winch to pull up the construction waste chute, there must be at least two turns remaining on the rope drum.
- Only pull the construction waste chute up vertically. Otherwise there is the risk that the lifting equipment will be overloaded and damaged.
- The construction waste chute must hang freely. It must not rest against scaffolding tubes etc.
- Avoiding twisting the suspension chains.
- If the construction waste chute is also intended to be filled from intermediate storeys, the corresponding branching points must be provided when pulling up the construction waste chute. An intermediate fastening point must be provided at each branching point for filling.
- If the intermediate tie rod for mounting the filling funnel has to be removed from the scaffolding, then scaffolding tubes must be attached to the left and right up to the funnel.

Proceed as follows for installation of the construction waste chute:

- Fasten chute frame according to the specific installation situation (see there).
- Insert hand winch into the assembled chute frame. Unwind the rope to approx. 1 metre above the ground (see there).
- Hang carabiners in the holes in the construction waste chute.
- Use the hand winch to pull the construction waste chute up far enough so that the next element of the construction waste chute can be suspended. Repeat procedure until the installation height is reached.
- Suspend the top chute tube in the two eyelets of the chute frame.
- Remove hand winch.
- Place the filling funnel on the top chute tube and secure. Ensure that the filling funnel rests against the edge of the chute.

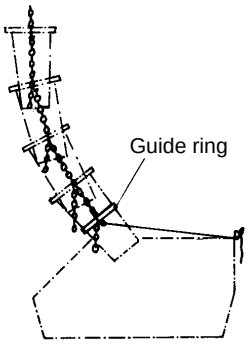


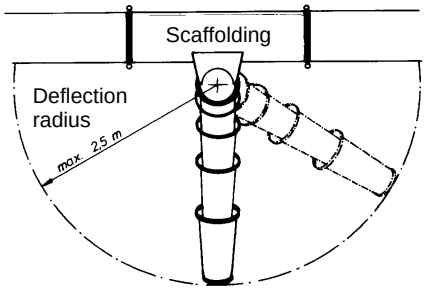
4.1 Deflection of the construction waste chute

Deflection leads to a high level of wear of the chute and the suspension structure. If the construction waste chute is to be deflected, the following points must be taken into consideration:

4.1.1 Maximum deflection

As the deflection radius increases, there is an increase in the risk of a blockage in the construction waste chute. Deflection at a maximum ratio of 10:1 (i.e. max. 1 m deflection over 10 m), but not more than 2.5 m over the overall length of the construction waste chute.





4.1.2 Make the distance between suspension points shorter in the area of the deflection

Make the distance between the suspension points of the construction waste chute shorter in the area of the deflection.
(Effective length of an element only 0.7 - 0.8 m).

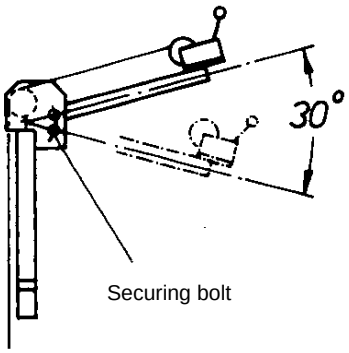
4.1.3 Use guide ring

Use a guide ring on the bottom elements and fasten to the container using both ropes.

4.1.4 Use wear insert

In the case of coarse / sharp-edges rubble (e.g. bricks), use wear inserts in the area of the deflection. It is also possible to install wear inserts retrospectively.

4.2 Hand winch

➢ The hand winch is used exclusively for pulling up / lowering the construction waste chute. ➢ The hand crank is inserted into the respective chute frame. ➢ The hand winch can be pinned in two positions. When used with the parapet clamp, the hand winch must be moved to the lower position. To do this, loosen the screw, move the hand winch and screw the screw back in again.	

4.3 Installation on the scaffolding

WARNING

The suitability of the scaffolding for installation of a construction waste chute (strength and stability) must always be ensured. The following loading assumptions must be used as the basis for the calculation:

Vertical load:

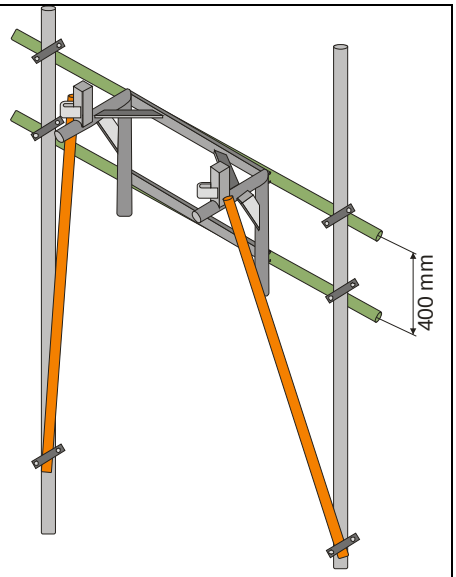
Formula: 320 kg + 10 kg per metre of installation height.
This gives the following:
5 metre installation height = 370 kg
10 metre installation height = 420 kg
20 metre installation height = 520 kg
30 metre installation height = 620 kg
40 metre installation height = 720 kg

Horizontal load

Calculated from the wind load.

Fastening

- Fasten the two scaffolding areas to the building (2.5 kN).
- Attach two scaffolding tubes to the outside of the scaffolding approx. 400 mm apart from each other using rigid scaffolding couplers.
- Fasten the chute frame to the two horizontal tubes using four rigid scaffolding couplers.
- Brace the chute frame using two further scaffolding tubes and four swivel couplers.



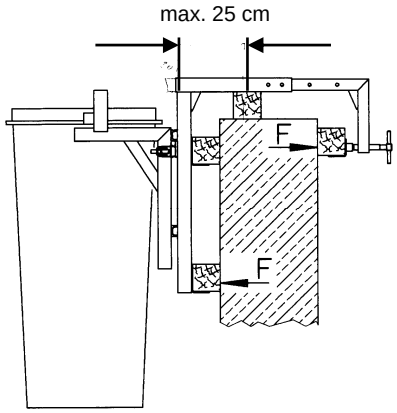
4.4 Installation on a window reveal or parapet wall

Maximum installation height:
Concrete = 40 m
Masonry (min. 36 cm) = 20 m

In the case of masonry, the forces must be dissipated into the masonry over a large area by sufficiently sized load-distributing substrate material, e.g. square timber or sectional steel. In areas with a reduced wall thickness (e.g. radiator recesses), the load-distributing substrate materials must accordingly be larger in size.

Attaching parapet clamps

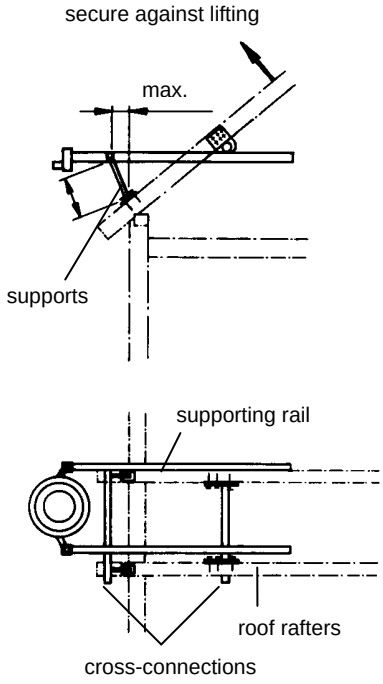
- Bolt parapet clamp to chute frame.
- Ensure that the transverse spar of the chute frame rests on the parapet clamp. Fasten square timbers to the parapet frame in according to the structural conditions.
- Suspend the complete unit over the parapet and fasten to the tie bar.
- Further assembly of the construction waste chute as described above.



4.5 Installation on a sloping roof

WARNING
Only fasten to load-bearing parts of sloping roofs, e.g. rafters. Never attach to roof battens.
Max. Installation hight = 20 m.

- Bolt support rails to the front cross-connectors in accordance with the distance between rafters.
- Push the sloping-roof frame from outside over one or two rafters.
- Secure using the adjustable cross-connector.
- Support the support rail on the rafters using the adjustable supports. Supports must as far as possible stand vertically.
- Moving the rear cross-connection and/or adjusting the supports aligns the sloping-roof frame horizontally.
- Fasten sloping-roof frame to the support plates.



4.6 Installation on a flat roof

WARNING

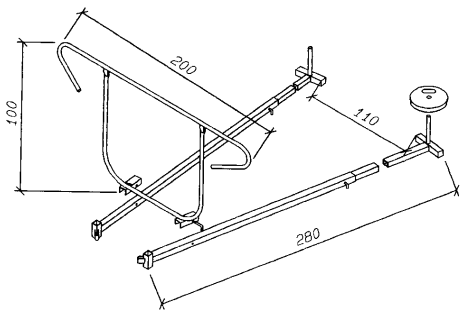
When installing on a flat roof, the construction waste chute is installed at least two metres away from the building edge. If this is not possible, appropriate safety rails must be provided.

Push the flat-roof frame outwards but only so far that the cross-connection still rests on the edge of the roof. The flat-roof frame must not lie concavely. Use load-distributing substrate materials.

Place counterweights (Item no.: 01912) on the extension tubes according to the installation height.

Installation height	Number of counterweights
Up to 6 m	2 pcs
Up to 11 m	4 pcs
Up to 17 m	6 pcs
Up to 22 m	8 pcs
Up to 28 m	10 pcs
Up to 33 m	12 pcs
Up to 40 m	14 pcs

- The flat-roof frame consists of two supporting tubes and one cross-connector with a safety guard.
- Lay supporting tubes on the flat roof accordingly. Install cross-beam with safety railing. Insert extension tube into the supporting tubes and secure using bolts.



4.7 Dismantling

The same regulations and safety instructions as described for assembly apply for disassembly.
Disassembly is generally carried out in reverse order to assembly.