



cromox[®]

PREMIUM BRAND OF KETTEN WÄLDER GMBH

USER MANUAL

cromox[®] SWIVEL EYE SCREW CDS-PSA



Swivel Eye Screw CDS-PSA
as Personal Protective Equipment

TABLE OF CONTENTS

1. GENERAL SAFETY INSTRUCTIONS.....	4
2. OPERATING CONDITIONS.....	4
3. APPLICATION.....	5
4. ASSEMBLY.....	5
4.1. GENERAL INFORMATION.....	5
4.2. LOAD-BEARING SUBSTRUCTURE / SURFACE.....	6
4.3. INSTALLATION PROCESS.....	7
5. MAINTENANCE.....	7
6. DECLARATION OF CONFORMITY.....	8
7. APPLIED STANDARDS AND REGULATIONS, TESTING BODY.....	8
8. SCOPE OF DELIVERY.....	9
9. DOCUMENTATION.....	9
9.1. INSPECTION REPORT.....	9
9.2. SEQUENCE OF REGULAR INSPECTIONS AND REPAIRS.....	9



Instructions for safe use and hazard prevention.

Please retain this safety notice/manufacturer's declaration for the entire duration of use.

1. GENERAL SAFETY INSTRUCTIONS

The described components may only be used by trained and authorized personnel.

This manual provides guidance for safe handling and hazard prevention.

This operating manual/manufacturer's declaration must be retained for the entire period of use. We hereby declare [supported by certification in accordance with DIN EN ISO 9001-2015] that the following design complies with the relevant underlying safety and health requirements. This declaration becomes void if the design is modified without our approval or if the product is used improperly. It will also become invalid if regular inspections are not carried out.

The lifting eye bolt, hereinafter referred to as CDS-PSA, serves as an anchorage point for the attachment or securing of personal protective equipment (PPE) after proper installation.

- It must be ensured that the CDS-PSA is only used by individuals who have been instructed in its safe use and possess the necessary knowledge.
- The user must be mentally and physically capable of performing tasks involving fall hazards. This can be verified, for example, by an occupational health examination such as the G41 guideline.
- Depending on the version and labeling, the maximum load capacity must be observed:
CDS-PSA-2: 1 - 2 persons
CDS-PSA-3: 1 - 3 persons
- Ketten Walder GmbH assumes no responsibility in cases where the load capacity is exceeded.
- Continuous rotational movements must be avoided to prevent the risk of the anchorage point loosening.
- If this product is sold in countries other than Germany, it is essential for the user's safety that the reseller provides usage, maintenance, and inspection instructions in the respective national language.

2. OPERATING CONDITIONS

The CDS-PPE is made from highly corrosion-resistant duplex steel AISI 318LN [1.4462/S31803] and is therefore very resistant to stress corrosion cracking and pitting corrosion, even in environments with high chloride exposure or low pH.

This allows for long-term outdoor use under all weather conditions, including offshore applications.

Other potential areas of application include the food sector, chemical industry, construction, nuclear industry, environmental technology, and recreational sectors.

The typical operating temperature range is between -40°F [-40°C] and +140°F [+60°C]. Manufacturer specifications for the thread-locking adhesive must also be observed.

The user is responsible for storing the CDS-PSA and the mounted sling in such a way that exposure to aggressive media that could compromise safety is avoided.

The CDS-PSA may only be used if the above conditions are met.



3. APPLICATION

The CDS-PSA is approved for the overhead protection of people against falls. The maximum permissible load must be observed and may not be exceeded under any circumstances.

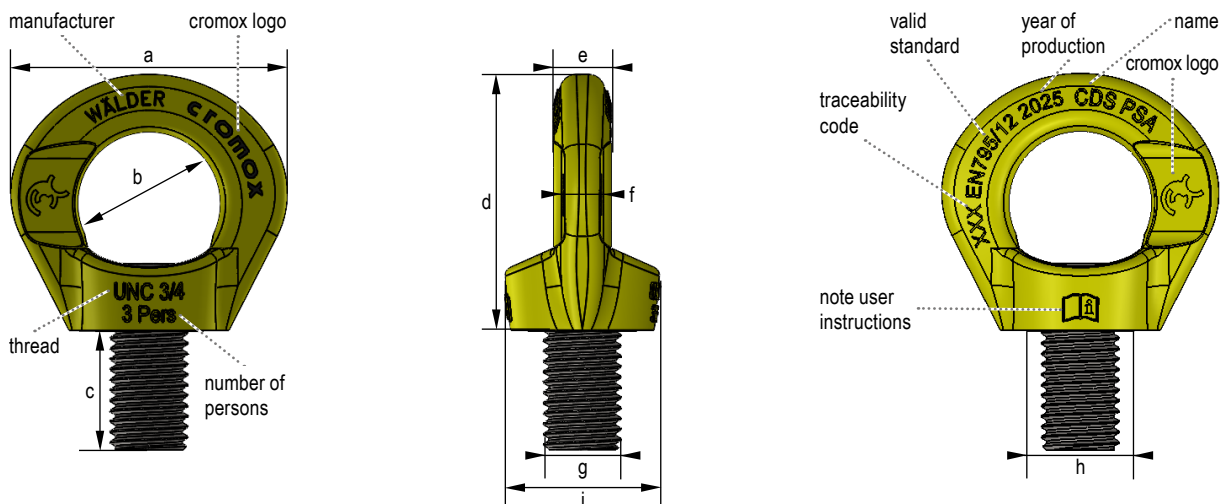
Anchoring devices of Type A in accordance with DIN EN 795, section 3.2.1, are permanently attached to the supporting substructure. An additional fastener is required to achieve a permanent connection.

The CDS-PSA must be screwed into the pre-designed thread using a suitable hex key and a torque wrench. The required tightening torque is given in the table under section 4.3. [3].

Thread-locking adhesives such as Staloc, Loctite, or similar can be used as fastening agents. The manufacturer's specifications must be observed.

Additionally, the installation instructions in section 4 must be followed.

Marking and dimensions



Type	a	b	c	d	e	f	g	h	i
CDS-PSA-2	59.1	30.0	22-200	56.0	12.0	6.8	12.0	21.0	31.9
CDS-PSA-3	67.6	35.0	25-200	62.5	14.0	8.6	16.0	27.5	37.7

4. ASSEMBLY

4.1. GENERAL INFORMATION

Before first use, please ensure that:

- The delivery corresponds to the order.
- The inspection certificate or factory certificate is available.
- The marking with the load capacity [or chain dimensions and grade] is present and matches the order.
- The CDS-PSA may only be used in combination with other personal protective equipment in accordance with DIN EN 363.

Before every use, the CDS-PSA must be visually inspected by a competent person for obvious signs of damage, corrosion, or wear. If any such defects are found, the CDS-PSA must no longer be used. It must be immediately removed from service and clearly marked as permanently decommissioned.

For already installed CDS-PSA units, the threaded connection and full rotatability of the lifting ring must be checked.

Before installing the connecting element, the lifting ring must be aligned in the direction of the applied load.

Only full-body harnesses compliant with DIN EN 361 may be used as body support components in a fall arrest system.

The requirements of the German Occupational Health and Safety Ordinance (BetrSichV) must be fulfilled.

Sharp-edged connecting elements should be avoided to prevent damage to the CDS-PSA.

When combining equipment components into a fall protection system, it must be ensured that all parts are compatible with each other.

There must be no risks arising from the combination of components that could impair the proper functioning of any individual part or the entire system.

It is not permitted to use carabiners conforming to DIN 5290 with the CDS-PSA.

Sufficient clearance behind the user must be ensured at the worksite to prevent impact with the ground or other obstacles in the event of a fall.

If the CDS-PSA is used as part of a fall arrest system, the user must be equipped with a device (e.g., an energy absorber) that limits the maximum dynamic forces to 6 kN.

The environmental and application conditions must be known to the user.

An emergency plan must be in place that accounts for all foreseeable incidents during work.

If there is any doubt regarding safe use, the CDS-PSA must immediately be taken out of service for safety reasons.

Reuse is only permitted after inspection and approval by a competent person.

If the CDS-PSA has been subjected to a fall, it must be taken out of service immediately. Reuse is only permitted with written confirmation from a competent person.

Only components and parts provided by Ketten Walder GmbH may be used. In the case of frequent use involving multiple screwing and unscrewing processes, wear of the thread may occur. In such cases, the screw and securing nut must be replaced. Such repairs may only be carried out by the manufacturer. No modifications or additions to the CDS-PSA are allowed without prior approval by the manufacturer. The manufacturer reserves the exclusive right to perform repairs.

4.2. LOAD-BEARING SUBSTRUCTURE / SURFACE

The supporting structure must be suitable for the installation of the CDS-PSA. It can be made, for example, from the following materials:

- Steel (minimum grade 1.0037/S235JR)
- Cast iron
- Light metal alloys, e.g. aluminum alloys
- Non-ferrous metals
- It is important to choose a base material that can absorb the applied forces without plastic deformation and also provides sufficient thread strength. In case of doubt, a structural engineer should be consulted.



- The mounting surface must be flat to ensure that the CDS-PSA lifting ring sits securely and firmly on the substructure.
- Before screwing the CDS-PSA into the intended threaded hole, the thread depth must be checked. The threaded portion of the CDS-PSA must be able to be fully screwed in, and the mounting surface must lie flush against the supporting structure.

4.3. INSTALLATION PROCESS

1. Preparing the installation site

- Observe the requirements for the supporting structure as outlined in section 4.2.
- The installation location should be selected so that the connecting element to be mounted remains freely movable and is not guided over sharp edges when under load. The position of the anchorage point should be chosen to ensure that the fall height is as low as possible in the event of a fall.
- The installation site must be clearly marked for identification purposes, e.g., with color coding.

2. Creating the threaded hole

- Select an appropriate drill that matches the required thread size for the CDS-PSA to be installed and drill blind holes. The depth of the blind holes must be such that the CDS-PSA can be fully screwed in until the mounting surface lies flush.
- For through holes, the requirements of DIN EN 20273 must be observed.
- The thread depth must be at least 1.5 times the thread diameter. For base materials with a tensile strength of less than 200 N/mm², the thread size must be selected so that the thread's load-bearing capacity meets the required specifications.
- Cut the necessary internal thread for the specific CDS-PSA type using a suitable thread cutter, according to the table in section 3.

3. Installation of the CDS-PSA

Use a thread-locking compound to ensure a permanent connection between the CDS-PSA and the substrate. Screw the CDS-PSA into the load-bearing substructure prepared in accordance with section 4.2. using a suitable hex key and a torque wrench. The torque specified in the following table must be observed.

Type	To secure max. persons	Thread	Tightening torque (Nm)	Wrench size allen key
CDS-PSA-2	2	M 12	25	8
CDS-PSA-3	3	M 16	50	10
CDS-PSA-3	3	UNC 3/4	100	10

5. MAINTENANCE

Proper functioning, correct installation, and condition according to intended use are essential for the safety of the user. Therefore, the CDS-PSA lifting point must be inspected for its usability as personal protective equipment by a competent person, in strict accordance with this operating manual:

- before each use,
- after exceptional events,
- after any damage,
- and at least once a year.

The inspection must be carried out in type, scope, and intervals in accordance with BetrSichV §3 (German Ordinance on Industrial Safety and Health). If necessary, the intervals must be shortened depending on the specific working conditions. The annual inspection must be performed by a qualified person in accordance with DIN EN 365.

The following criteria must be met:

- All markings, load capacity information, product name, and manufacturer details on the lifting eye must be clearly legible.
- The CDS-PSA must be complete (eye body, bolt, and locking nut).
- The eye body, bolt, and locking nut must not be bent or worn.
- The eye body, bolt, and locking nut must be free from cracks, corrosion, notches, or other material defects.
- The CDS-PSA must not have loosened from the mounting surface (bolt assembly).
- The CDS-PSA must not have undergone heat treatment (e.g. by welding objects to it), as this would negatively affect its load-bearing capacity.
- The eye body must rotate smoothly and completely, without jamming.
- All inspections performed, as well as any repairs carried out, must be documented in the enclosed inspection record (see section 9).

During storage or transport of the CDS-PSA, it must be ensured that no mechanical or thermal influences, as well as abrasive chemicals, acids, or fumes, can impair the function or condition of the CDS-PSA.

Any modifications or additions to the CDS-PSA must be approved in advance by Ketten Walder GmbH. Repairs may only be performed by the manufacturer.

6. DECLARATION OF CONFORMITY

We hereby confirm that the personal protective equipment placed on the market by us under the name "CDS-PSA" is identical in design and construction to the version that is part of the EC type-examination certificate ZP/B055/14, issued by the notified body "DEKRA Testing and Certification GmbH", registration number 0158.

In the event of any modification to the equipment that has not been approved by us, this declaration shall lose its validity.

This certificate must be retained by the user for the entire period of use, or for a minimum of 13 years.

The safety instructions for the product must be read and followed before use.

7. APPLIED STANDARDS AND REGULATIONS, TESTING BODY

Applied standards and regulations

- DIN EN 795
- DIN CEN/TS 16415:2017
- DIN EN 365
- DIN EN 50308
- OSHA 1926.502
- German Ordinance on Industrial Safety and Health (BetrSichV) §§ 3 and 10

Testing body

Registration number: 0158

DEKRA Testing and Certification GmbH - Certification Body
Dinnendahlstrae 9
44809 Bochum
Germany



8. SCOPE OF DELIVERY

Standard scope of delivery

- cromox® swivel eye screw (CDS-PSA)
- User manual

9. DOCUMENTATION

9.1. INSPECTION REPORT

	Type ▼	Designation ▼	Ident.-Nr. ▼
Manufacturer ▶	Ketten Wälder GmbH		
Address ▶	Im Gewerbegebiet 5 83093 Bad Endorf Germany		
Phone ▶	+49 (0)8053 2029-0		
E-Mail ▶	info@ketten-waelder.de		
	Year of production ▼	Purchase date ▼	Date of first use ▼

9.2. SEQUENCE OF REGULAR INSPECTIONS AND REPAIRS

Date ▼	Inspection ▼	Repair ▼	Detected damage ▼	
	○	○		
Measures taken ▼		Name / signature of responsible person ▼	Date of next regular inspection ▼	

Date ▼	Inspection ▼	Repair ▼	Detected damage ▼	
	○	○		
Measures taken ▼		Name / signature of responsible person ▼	Date of next regular inspection ▼	

Date ▼	Inspection ▼	Repair ▼	Detected damage ▼	
	<input type="radio"/>	<input type="radio"/>		
Measures taken ▼		Name / signature of responsible person ▼	Date of next regular inspection ▼	

Date ▼	Inspection ▼	Repair ▼	Detected damage ▼	
	<input type="radio"/>	<input type="radio"/>		
Measures taken ▼		Name / signature of responsible person ▼	Date of next regular inspection ▼	

Date ▼	Inspection ▼	Repair ▼	Detected damage ▼	
	<input type="radio"/>	<input type="radio"/>		
Measures taken ▼		Name / signature of responsible person ▼	Date of next regular inspection ▼	

Date ▼	Inspection ▼	Repair ▼	Detected damage ▼	
	<input type="radio"/>	<input type="radio"/>		
Measures taken ▼		Name / signature of responsible person ▼	Date of next regular inspection ▼	

Date ▼	Inspection ▼	Repair ▼	Detected damage ▼	
	<input type="radio"/>	<input type="radio"/>		
Measures taken ▼		Name / signature of responsible person ▼	Date of next regular inspection ▼	

Date ▼	Inspection ▼	Repair ▼	Detected damage ▼	
	<input type="radio"/>	<input type="radio"/>		
Measures taken ▼		Name / signature of responsible person ▼	Date of next regular inspection ▼	

Date ▼	Inspection ▼	Repair ▼	Detected damage ▼	
	<input type="radio"/>	<input type="radio"/>		
Measures taken ▼		Name / signature of responsible person ▼	Date of next regular inspection ▼	

Date ▼	Inspection ▼	Repair ▼	Detected damage ▼	
	<input type="radio"/>	<input type="radio"/>		
Measures taken ▼		Name / signature of responsible person ▼	Date of next regular inspection ▼	

Date ▼	Inspection ▼	Repair ▼	Detected damage ▼	
	<input type="radio"/>	<input type="radio"/>		
Measures taken ▼		Name / signature of responsible person ▼	Date of next regular inspection ▼	

Date ▼	Inspection ▼	Repair ▼	Detected damage ▼	
	<input type="radio"/>	<input type="radio"/>		
Measures taken ▼		Name / signature of responsible person ▼	Date of next regular inspection ▼	

Date ▼	Inspection ▼	Repair ▼	Detected damage ▼	
	<input type="radio"/>	<input type="radio"/>		
Measures taken ▼		Name / signature of responsible person ▼	Date of next regular inspection ▼	

Date ▼	Inspection ▼	Repair ▼	Detected damage ▼	
	<input type="radio"/>	<input type="radio"/>		
Measures taken ▼		Name / signature of responsible person ▼	Date of next regular inspection ▼	

KETTEN WÄLDER GMBH
IM GEWERBEGBIET 5
83093 BAD ENDORF
GERMANY

+49 (0)8053 2029-0
INFO@KETTEN-WAELDER.DE

KETTEN-WAELDER.DE