# **KUMATECH**

# **USER MANUAL**

# BASIC LINE DESTACKER/STACKER - Pallet storage



**Date of drawing up report:** 26-05-2025 **Serial number:** 6063-310-00

KUMATECH Hooieeuwsels 6 5761 DC Bakel

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#### CE marking.

This machine is up proved with CE marking. This means that the machine complies with the applicable European directives. The accompanying Declaration of Conformity indicates which directives these are.



We assume that you, your employees and others who use or will in contact with the machine are aware of how to handle the machine. This includes the correct use, maintenance and repair of the machine as described in this user manual. This includes that employees are familiar with the use of machines through training or experience.



Only use the Machine in accordance with the instructions in this manual.

Contact KUMATECH BV if you doubt about your operation.

#### Disclaimer:

KUMATECH BV excludes liability for unsafe situations, accidents and damage resulting from:

- Ignoring warnings or instructions as indicated on the machine or in this documentation.
- Use for other applications or under conditions other than those specified in this documentation.
- Changes Destacker/Stacker. This also includes the use of other than original spare parts.
- Inadequate maintenance.
- The unauthorized removal of safety caps and / or guards.
- Improper use of the machine.

KUMATECH BV is not responsible for consequential damage in the event of machine malfunctions (e.g., damage to products, business interruptions).

#### **Guarantee:**

The warranty conditions apply to this machine according to METAALUNIE CONDITIONS

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#### **DECLARATION OF CONFORMITY**

(According to Annex II.1.A of the Machinery Directive)

Regarding the Machinery Directive. We KUMATECH BV Hooieeuwsels 6 NL-5761 DC Bakel the Netherlands

Authorised as compiler of the technical file:

**KUMATECH BV** 

W. Kuunders, Hooieeuwsels 6, 5761 DC Bakel,

Declare under your own responsibility: We are the machine manufacturer with:

Type number: 6063-000-00

#### **Comments:**

This statement applies to the "De-Stacker" type only and excludes any kind of connected equipment and connected functions.

The declaration no longer applies if the equipment is modified and / or if (spare) parts are used that are not in the (spare) parts list, without written permission from KUMATECH BV.

Place: Bakel

Date: 16-07-2024

Name: KUMATECH BV Director: Willem Kuunders

# Content

1	Mad	chine description	5
	1.1	Description of machine and application	5
	1.2	Application possibilities Destacker/Stacker	6
	1.3	Transport pallet	7
	1.4	Table of go and no-go pallets	8
2	Mad	chine specifications	9
	2.1	Machine data	9
	2.2	Physical conditions of use	9
	2.3	Applied directives and standards	9
3	Mad	chine control	10
	3.1	Operators and Production Personnel	10
	3.2	Personal protective equipment (PPE)	10
	3.3	Operation of the machine	10
	3.4	Operation Destacker	11
	3.5	Operation Stacker	14
4	Mai	ntenance	16
	4.1	General maintenance instructions	16
	4.2	Regular maintenance tasks	17
	4.3	Spare parts	17

#### How to use this documentation.

This documentation is specially written for the people who work De-Stacker. Further known as the operator. Operators should read the entire manual.



The manual is intended for everyone who works on the machine.

KUMATECH BV has a technical construction file of the machine.

This file consists of the following parts:

- A risk analysis of the vehicle with a description of the necessary measures to be applied.
- The technical documentation of the components that are part of the vehicle.
- An inspection report and test reports with the aspects on which the vehicle has been tested.
- Report with calculations performed on the machine.
- CE documentation with accompanying CE declaration, which describes the standards to which the vehicle complies.
- Vehicle quality assurance report to ensure repeatability of the vehicle's safety in series production.



The text parts that are important for the safety of persons are printed in red.



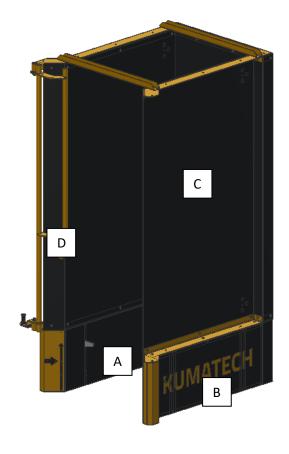
Important tips or references are provided with the highlighted pictogram and bold like this text.

# 1 Machine description

#### 1.1 Description of machine and application

The machine as produced by KUMATECH B.V. is intended for the following application: Part and/or the entire internal process is used with the Destacker/Stacker.

- A. Lifting part
- B. De-Stacker
- C. Extension
- D. Gate



#### A: Lifting part

The De-Stacker is equipped with a mechanical lifting mechanism that makes use of some springs and pins.

#### **B:** Destacker/Stacker

The De-Stacker is the part where the lifting part is mounted in. It also holds the extension. There are two different variants the Destacker and the Stacker

#### C: Extension

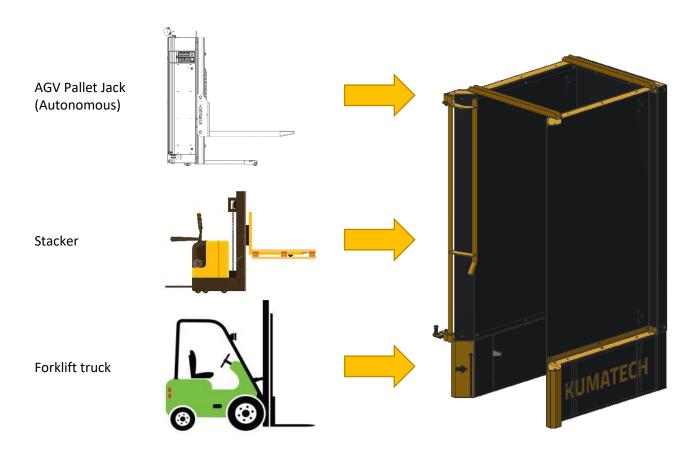
As an option, extensions have to be mounted on the standard De-Stacker. 15 pallets can be stored with 1 extension and 30 pallets with 2 extensions. A maximum of 2 extensions can be mounted on the De-Stacker.

#### **D: Protection bracket**

If the Destcaker/Stacker is equipped with 1 or more elevations, a protection bracket is mounted. This bracket provides a safe workplace for the Destacker/Stacker.

#### 1.2 Application possibilities Destacker/Stacker

As described earlier, the Destacker/Stacker is intended to partially automate internal logistics. It is possible to store and export pallets via the following applications:





BEWARE!!

Different add-on parts and/or options are necessary for different application options.

## 1.3 Transport pallet

When using a standard Destacker/Stacker, only one type of pallet can be used. This type is a type of "Euro pallet".



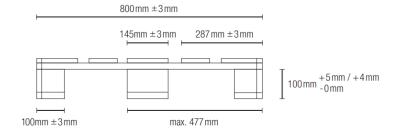
Only "EPAL Euro pallets" with standard dimensions and tolerances can be stored with the Destacker/Stacker.

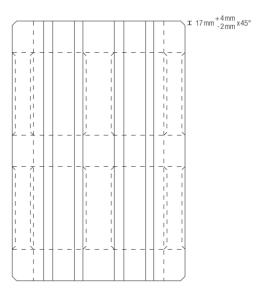
The specifications to which the pallet must comply are listed below:

## **Euro pallet specifications:**

Boards: 11 Nails: 78 Blocks: 9 Length: 800 mm With: 1200 mm Hight: 144 mm Weight approx.: 25 kg Safe working load AGV inclusive Pallet: 1000 kg







#### 1.4 Table of go and no-go pallets

A "euro pallet" can be damaged during transport in the past. Kumatech advises to use new or recently repaired original "EPAL Euro pallets".

If the customer's choice is to transport used Euro pallets, there are several requirements that the Euro pallet must meet. These requirements are listed in the table below:



Only "EPAL Euro pallets" with minimal damage according to the table go and no-go's can be transported with AGV Tractor Tom and lift.

#### Table of go and no-go pallets.

#### Go



Changes on top of the pallet Does not matter



One of the boards is missing Does not matter



The "EUR" mark is missing Does not matter

Safe

Plastic pallet (1200 x 800 x144 mm)

Safe











#### No Go



The width of the pallet changes

#### Not safe

Bottom side of the pallet changes Corner of pallet is missing

#### Not safe

Corner of pallet is missing

Not safe



A block of the pallet is missing

Not safe



A single lower leading board is damaged

Not safe



# 2 Machine specifications

#### 2.1 Machine data

Specifications:	
Product:	Destacker/Stacker
Type number:	6063-000-00
Serie number:	DS-ST-6063000
Weight standard:	125 kg
Weight + extension:	400 Kg
Weight + 2 extensions:	675 Kg
Environment:	For indoor use only
Construction year:	2024
Supplier:	KUMATECH Hooieeuwsels 6 5761 DC Bakel T - +31 (0) 492 - 238 006 E - info@kumatech.nl

#### 2.2 Physical conditions of use

The following physical conditions apply for this:

During transport / storage: +0 to 55 [C °] Ambient temperature, operating: +5 to 40 [C °] Altitude: Up to 2,000 [m]

Relative humidity (RH): 30% to 80% non-condensing Lighting: normal ambient lighting Environment: Only for indoor use



The machine is not intended for outdoor use.

The machine is not suitable for an explosion hazardous environment.

## 2.3 Applied directives and standards

See the Declaration of Conformity.



There are no special facilities for working with: hazardous chemical substances, pharmaceutical or biological substances, therapeutic products, explosive substances.

#### 3 Machine control

#### 3.1 Operators and Production Personnel

The machine can be operated by an adult who is familiar with the operating instructions and safety parts as described in the accompanying user documentation.

#### 3.2 Personal protective equipment (PPE)

For the operation of the Machine, the operator is obliged to comply with the following personal safety regulations and personal protective equipment:

- Safety shoes
- Do not wear loose clothing, necklaces, rings, bracelets, etc.



When in doubt about wearing personal protective equipment for certain activities, always ask an expert in this area.

#### 3.3 Operation of the machine

For operation, we assume the situation that the following actions have already been performed:

- The operator has checked whether all safety provisions are present and functioning properly.
- The operator has read the whole manual and understands the whole manual

# 3.4 Operation Destacker

Step	Description	Image
1	Take a look if there is a minimum of 1 pallet in the Destacker. And if there is a maximum of 15/30 pallets in the Destacker because of the brackets on top (depends on the use of 1 or 2 extensions).	
2	Drive in the Destacker as seen on the picture. Otherwise there could be a chance that the operator will lift the pallet at the wrong place.	

3	Drive in the pallet until the stacker hits the other pallets.	DC 15
4	Lift the stack of pallets above the arrow (40cm).	
5	Drop the stack off pallets until the lowest pallet comes loose from the stack of pallets.	Barre DC

6 Drive out the Destacker with the pallet on your forks.



# 3.5 Operation Stacker

Step	Description	Image
1	Take a is there is a maximum of 14/29 pallets in the Stacker (depends on the use 1 or 2 extensions). Otherwise the inserted pallet would not fit because of the brackets on top.	
2	Drive in the Stacker as seen on the picture. Otherwise there could be a collision between the other pallets.	

3	Drive in the Stacker until the stacker hits the other pallets.	DC 7/5
4	Lift the stack of pallets above the arrow (40cm).	
5	Drop the stack of pallets and drive out the Stacker.	

#### 4 Maintenance



Only personnel with appropriate training and experience should operate or maintain the machine. Operation or maintenance of the machine by untrained or inexperienced personnel can result in injury, including death, to themselves or others, and damage to the equipment.

#### 4.1 General maintenance instructions

Maintenance is of great importance for the reliability and life cycle of the machine and its components. It is the responsibility of the user to detect defects in the operation of the machine in good time and to prevent them. This can prevent excessive wear of the parts and damage to the machine. During preventive and / or corrective maintenance of the machine, the following actions must be taken, depending on the work to be performed:

- Like any industrial installation, routine inspections and maintenance work should be
  performed. In general, it can be said that setting up and running a preventive maintenance
  program (or addition to an existing maintenance program) promotes the operation,
  reliability, and durability of the system at the lowest cost. It is recommended that all
  measurements performed, maintenance work, calamities, etc. are recorded in a logbook.
- Many accidents with machines happen during maintenance and repair.
- That is why it is important to observe the safety requirements. Below are important safety points. These and the safety points from chapter 2 must be observed.
- The machine must be out of use, empty, clean, and cooled down before any maintenance can be performed.
- Think about your own safety and the safety of others. Do not do things that could be considered unsafe.
- If a protection must be removed for maintenance, replace it immediately after maintenance. The machine must not be operated without the necessary safety devices.

Preventive maintenance is carried out annually, at least the following activities must be carried out:

 Thorough inspection of all parts for damage or defects, if in doubt always replace parts or have them assessed by a competent person.



Any parts that are worn out or damaged to such an extent that they cannot be used safely must be replaced.

#### 4.2 Regular maintenance tasks



Maintenance on the De-Stacker may only be carried out when the machine is completely out of use.

Part	Maintenance	Specification	Length of time
Side plates Front plates	Visual control	Check for contamination of the parts. Too much contamination can affect the performance of the machine.	Weekly
	No specific skills	Clean the outside of the robot with a damp cloth.	
Outside the machine	Visual control	Check for details such as damage, breakages and defects.	Weekly
	No specific skills	Contact manufacturer	
Lifting part	Visual control	Check for details such as damage, wear, breakages and defects.	Weekly
	No specific skills		
		Contact manufacturer	

#### 4.3 Spare parts

Replacement of parts must be done efficiently and with original spare parts. KUMATECH BV has a construction file of all machines in which all data of the machine is kept. Follow the following rules for a quick and correct handling of your order:

- Destacker/Stacker type
- Type of malfunction
- Serial number (see rating plate on the back of the dispenser).
- Year of production.
- Part name
- Number of parts required.

Address your order to:

KUMATECH BV Hooieeuwsels 6 5761 DC Bakel

T-+31 (0) 492 238006

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