AROSTOP

Length measuring system Arostop AS20M



User manual/Parts list
Version 2026-10

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1. Introduction

Thank you for choosing an Arostop system. We are happy to have you in our long list of satisfied customers.

1.1 Warranty

No part of this system, or parts thereof, and data from this publication may be reproduced in any form without the written permission of the manufacturer.

NOTE	**All non-regulatory improvements to treatment, inadequate care, application and/or maintenance, interventions or conversions to the system will void the warranty.**

1.2 Disclaimers

Arostop is not liable for accidents and unsafe situations or damage resulting from:

- Ignoring warnings or operation rules as displayed on the system or in this manual;
- Use of the system for other applications or different conditions than those specified in this manual;
- Changes to the system.
  This includes applying non-original replacement parts and changing the operating program;
- Inadequate maintenance.

	**If these conditions are not adhered to, the manufacturer is not liable for the consequence upon failure to the system, such as damage to the products, business interruption, loss of production, etc.**

1.3 Standard system and accessories

The following supplied parts are standard with the system:

1. This user manual.

1.4 Not belonging to the system

NOTE	• **The connections to existing, not by Arostop supplied system parts;**

1.5 Using the manual

It is required that the operator has read and understood this manual before starting operating of the system or carrying out maintenance.
This manual is part of the delivery scope and should stay with the system at all times.
Pay attention to any text indicated in **bold** with the indication '**NOTE**' or with a warning sign.

Any work not specified in this user manual has to be carried out by the manufacturer of the system.

2. Safety

	**Read this chapter carefully, as it lists important information concerning safety.** **This system is designed so it can be used and maintained safely. This applies to application, conditions and requirements as described in this manual. Reading this manual and following the instructions given is mandatory for anyone working with the system.**

NOTE	**In addition to this manual, observe applicable laws and safety regulations, as well as rules for the protection of the environment and for the prevention of accidents.**

The simple maintenance can be carried out by the operator.

NOTE	**Activities not described in this manual may only be carried out by expert personnel.**

Keys or special tools that are included in order to limit access to certain areas or features must be kept separate from the system. Only people with the required knowledge or instructions may be allowed to use this special equipment.

2.1 Rules for general safety



1. The operators of this system must be qualified and well trained in the operation of the system.
2. The operators must be aware of the capacities of the system and the proper use of guards and protections provided with the system.
3. Use of protective clothing is mandatory.
   Do not wear loose fitting clothing. Safety shoes, protective gloves and protective goggles are required.
4. Make sure unauthorized individuals, like children and animals, do not have access to the system.
5. Never place any body parts in or under any of the system's moving parts.
6. Do not remove or disable safety devices.
7. Ensure adequate lighting.
8. The operator must check the system for notable changes to the system, either in sound or appearance, at least once every shift. Any changes should immediately be reported to the responsible supervisor.
9. Use water mixed cool lubricating substances.
10. Keep general statutory regulations for accident prevention in mind.
11. Keep the area around the system free of any material that would impede the operator's access to the system.
12. Always keep the manual with the system.
13. Avoid any work on the system that may endanger your own or your colleague's safety.
14. All of the guards, adjustable restrictors and awareness barriers must be installed on the system and kept in good working condition. Replace worn or damaged parts immediately with authorized parts.

15. Strictly comply with all warning labels and decals on the system. Never remove any of the labels. Replace worn or damaged labels immediately.
16. Always disconnect and shut off the power supply when performing maintenance work on the system.
17. Never modify this system in any way without the written permission of the manufacturer.
18. Create a program of routine inspection and maintenance for this system. Make sure all repairs and adjustments are made in accordance with the manufacturer's instructions.

2.2 Prohibited use

	**The system cannot be used for the following applications:**

- Applications requiring direct contact with food;
- Transporting of animals or persons;
- Products processes other than described, see system specification.

	**The following provide an unnecessary risk and are therefore prohibited:**

- Sitting, standing or being on the system in any way;
- Placing objects on the systemry during production.

2.3 Personal protective equipment

	**Personal protective equipment, such as gloves, safety glasses and safety shoes are mandatory while operating the system. Protections required for working with the products apply without prejudice.**

2.4 Warnings on the system

There are no warnings on the system.

NOTE	**Risks are described in Chapter 5.**

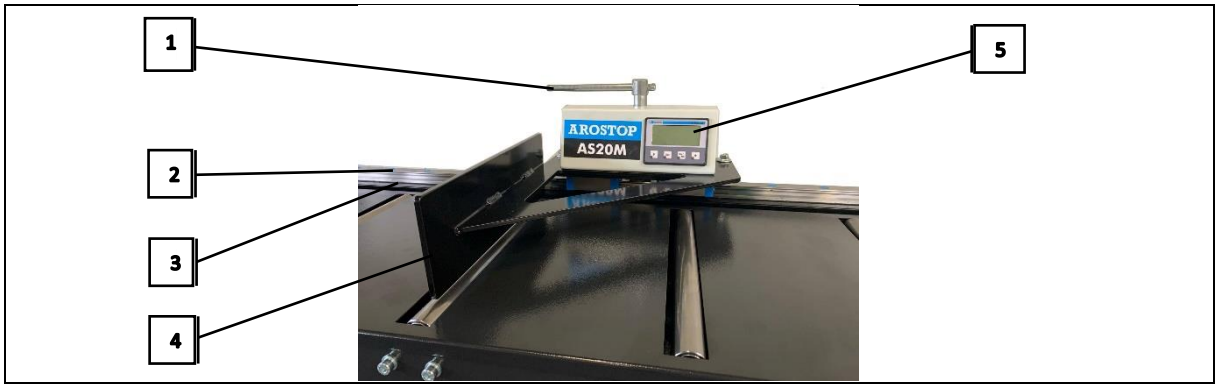
2.5 Protection of the environment

NOTE	**There are no specific risks relating to the environment with regards to use, maintenance and removal of this system.** **Dispose of all items related to the system in accordance with local laws and regulations.**

3. General

3.1 About the system

The length measuring system Arostop AS20 MB is a system to position material to the right length. It consists of a steel angle, linear guide, magnetic measuring tape, and a stopper or clamp. The total length of the system is on customer specification. The system is controlled with a digital readout.



1	Clamp	4	Stop plate
2	Rail	5	Digital readout
3	Steel angle		

The systems are constructed and equipped with a linear guide. A measuring unit is mounted around it. This complete unit is to be mounted on a conveyor.
The system can be manually transported to the desired position.

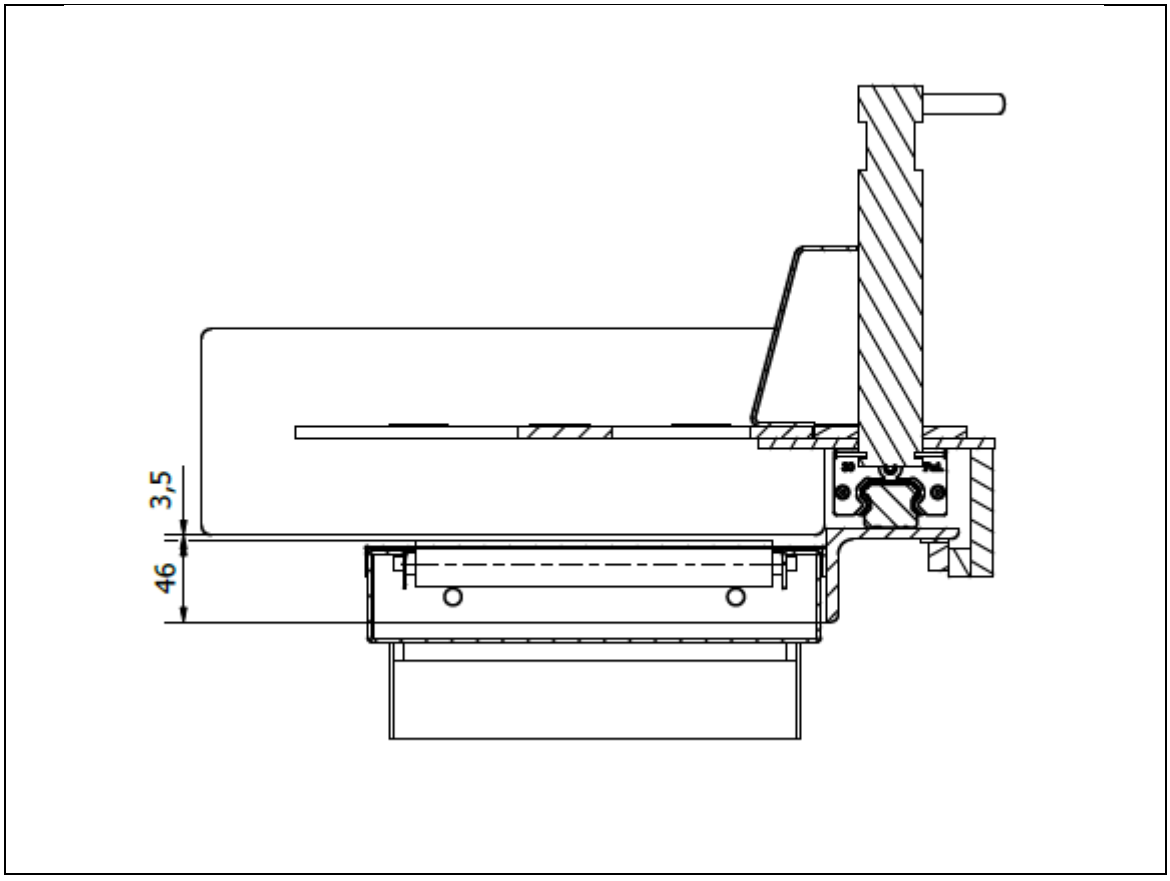
NOTE	Test if the desired length is correct before starting work.

3.2 Installation

3.2.1 Mechanical

	**Mechanical installation should always be carried out by qualified professionals.**

1. Fix the system to a stable conveyor;
2. Level the stopper arm on 5 mm horizontally above the conveyor;
3. Adjust the stopper arm 90º square to the sawing blade.



3.2.2 Parameter calibration

See chapter 4.5.

3.2.3 Counter direction

- Counter direction can be adjusted in the parameters.

3.3 First use

	**The system must be thoroughly checked before first use, after repairs or long-term storage.**

Check the following:

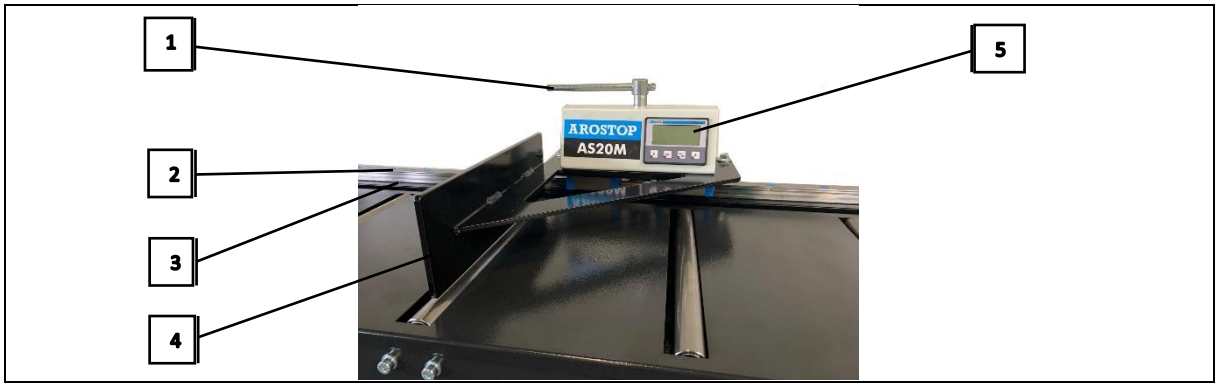
1. If all moving parts can move;
2. Visual check for damaged parts;
3. All mechanical controls function correctly;
4. Parameters are in order.

NOTE	**The change of improper operation is greater than normal during business counting. Take additional safety precautions if necessary.**

4. Operation

4.1 System construction

- Steel angle profile with rack-and-pinion gear, guide and a stopper.
- A measuring unit is mounted around the steel angle profile.
- The whole system is controlled by an Arostop controller.



1	Clamp	4	Stop plate
2	Rail	5	Digital readout
3	Steel angle		

4.2 Workplace

The work space should be at least one meter in width along the entire front and rear of the system, where all required actions can be carried out.

4.3 Working with the system

WARNING	**Before starting the system, read the following chapters:** • **Chapter 1 – Foreword** • **Chapter 2 – Safety** • **Chapter 4 – Operation** • **Chapter 5 – Dangers**

4.4 Operators

The system can be operated by any adult who has read this manual. Special training is not required.

4.5 Operating instructions

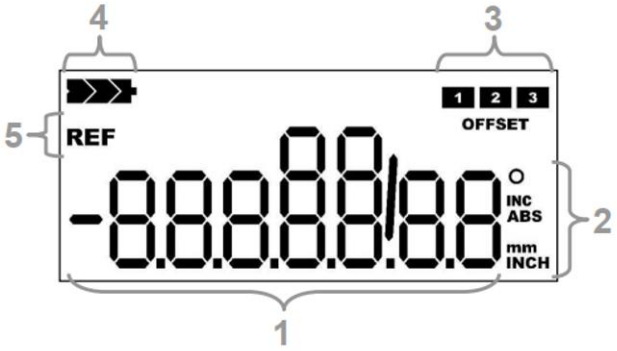


Control keys

The operation of the device is divided into the parameter level (see section 4.5.3), the operator level (see section 4.5.5) and the initialization level.
All operating parameters can be put in through the Parameter level (see section 4.5.3.6).
At the operator level the basic functions are available, depending on the software version.
In the initialization level, only the basic operations such as sensor calibration or resetting the unit will run on default parameters (company setting).
All entries are made solely on the 4 front-mounted buttons or keyboard shortcuts of the buttons. The displays occur through the integrated LCD screen.

4.5.1 Overview – Display

The following display icons or segments of the LCD-display are used in this software version:



1	Segments for numeric and text display (including signs, decimal points, fraction display)
2	Symbols for units and display mode
3	Icons for active tool offset 1 … 3
4	Battery-status icons
5	REF symbol: unit needs to be referenced

For different applications, the symbol may be changed for the unit by parameter (P02), e.g. the ‘°’-symbol for angle measurement (see section 4.5.3.6).
The standardization of the indicator value must be done manually with the corresponding multiplication factor (P08) and the decimal point (P03). See section 4.5.3.6.
In the Inch-mode, an additional fraction display is available.

4.5.2 Key-overview

The function of the keys in the parameter level is shown on the button in de dark box at the bottom left. The function at the operating level is shown in the bright field size:

Keys	Function at the operating level (see 10.5)	Function at the parameter level (see 10.3)
F P	Base-keys for keyboard shortcuts	Parameter level enable/disable
Set →	Fraction display in the Inch mode	Next digit (decades) select
Incr / Abs ↑	Incremental enable/disable	Increases the value by 1
* +/-	Tool-offsets enable/disable	Sign change

Keys	Function at the initialization level
F P	If the device is activated the calibration is triggered
Incr / Abs ↑	If the device is activated the parameters are reset to factory settings and causes a calibration

4.5.3 Parameter level

➔ Adjust settings

4.5.3.1 Activate parameter level

Hold for approx. 3 seconds, then press each once.



The parameter level is activated with this key. After approx. 3 seconds, the display shows ‘P01’for the first parameter. When the button is actuated again, the corresponding parameter value is displayed, which can then be changed. This way, all the parameters are successfully selected.

4.5.3.2 Election of the decade

Press once.



With this key, the decade will be advanced by a passage left to right. The selected, changeable decade is flashing on the display.

4.5.3.3 Change value

Press once.



With this key, the value in the selected decade is always increased by 1 (0 … 9 or 0/1)

4.5.3.4 Change sign



With this key the sign can be changed for some parameters (negative sign is only possible if the value is not ZERO).

4.5.3.5 Leave parameter level

Hold for approx. 3 seconds in parameter level.



All parameters will be retentively stored in the internal flash memory when leaving the parameter level.

4.5.3.6 Parameter list

Parameter:	Description:	Default:
P01: A	System configuration: A = 0: Counting positively A = 1: Counting negatively	0
P02: A	Display mode (affect only the display of symbols!) A = 0: mm-Mode / Display symbol „ mm “ A = 1: Inch-Mode / Display symbol „ Inch “ A = 2: mm-Mode / Display symbol „ m “ A = 3: mm-Mode / Display symbol „ ° “ A = 4: mm-Mode / Display non symbol	0
P03: A	Decimal point (0 ... 4) → only for mm-Mode	2
P05: ABC	Keylock: A: Key „Set“ (0= activated / 1= deactivated) B: Key „Incr/Abs“ (0= activated / 1= deactivated) C: Key „*“ (0= activated / 1= deactivated)	000
P07: A	Resolution: (starting with Firmware V1.50) A = 0: Resolution 0,01 mm A = 1: Resolution 0,1mm	0
P08:	Multiplication factor (0,0001 ... 9,9999)	1,0000
P09:	Reference value (-9999999 ... +9999999)	0
P10:	Offset 1 (-9999999 ... +9999999)	0
P11:	Offset 2 (-9999999 ... +9999999)	0
P12:	Offset 3 (-9999999 ... +9999999)	0
P13: A	Configuration Offset (0...3) A = 0: offset cannot be activated A = 1: offset 1 can be activated A = 2: offset 1 & 2 can be activated A = 3: offset 1 & 2 & 3 can be activated	3
P90:	(without function)	0
P99:	Indicator in the company version	x.xx

4.5.3.7 Switching from inches to mm

1. Press and hold the F key to enter the parameter menu.
2. Navigate to parameter P02 and set it to 1 for inches and 0 for mm.
3. Press and hold the F key to save the change and exit the menu.

4.5.4 Initialization level

➔ Resetting the parameter and calibration

4.5.4.1 Calibration

NOTE	**The calibration is already factory-made and must not run again normally.** **In a few cases a re-calibration of the device after the installation can achieve an advancement of the accuracy, because with a re-calibration the additional mounting factors (angular deviation, parallelism, etc.) are included.**

CAUTION	**The magnetic sensor must be in the maximum distance range on the tape during calibration!**

1. Switch off the device (remove battery or plug)

Press and hold the key.



2. While pressing the key, turn the device on again.
3. The sensor calibration is initiated and ‘CAL 0’ is displayed.
4. The sensor now has to be moved slowly in a direction on the magnetic tape. The process of the calibration is shown by the display ‘CAL 1 … CAL 4’.
5. After finishing the calibration, the device will start automatically in the operator level.

NOTE	**If an error code ‘ERROR 1 … ERROR 10’ is displayed after the calibration, the installation of the sensor has to be verified and the calibration has to be repeated.**

4.5.4.2 Load default parameters and simultaneous calibration

NOTE	**Already changed parameters will be overwritten by the default parameter! If it is necessary, write down the current setting before loading default parameters.**

1. Switch off the device (remove battery or plug)

Press and hold the key.



2. While pressing the key, turn the device on again.
3. All parameters are reset to factory settings. Furthermore, the sensor calibration is triggered.

➔ Sensor calibration: see section 4.5.4.1.

4.5.5 Function at the operator level

➔ Working with the device.

4.5.5.1 Actual value to reference

Press both keys simultaneously once.



With this shortcut, the actual value (display value) on the adjustable reference value is set (in absolute mode, this is only possible when the offset is not enabled).
The reference value can be entered with the parameter **P09**.

4.5.5.2 Direct entry reference value

(function is accessible at firmware 1.30)

Press both keys simultaneously once.



With this key combination, the value to reference P09 can be entered without switching into the parameter level (see section 4.5.3).
After pressing the keys for approx. 3 seconds, the display shows the text ‘P09’.
If the keys are released, the value to reference P09 appears, and this value can also be changed in the parameter level.

Press the key once to save the value to reference.



4.5.5.3 Switching incremental or absolute

Press the key once.



With this key, the indicator is switched from absolute mode to incremental mode:

➔ The display value is temporarily set to ZERO, the symbol ‘INC’ appears in the display.

Actuating the key again, the absolute is activated and the symbol ‘ABS’ is displayed.

4.5.5.4 Activation offset measurements

Press the key once.



This key enables/disables each of the three adjustable offset dimensions (only available in absolute mode). In each case an offset is added to the display value.

The activation of an offset level is indicated by the symbols: 1 2 3

The offset measurements can be entered in the parameter P10, P11 and P12.

Additionally, parameters can be determined with P13, whether and how many offset measurements can be selected.

4.5.5.5 Fraction display in the Inch-mode

Press once.



With this key, the display can be changed in the Inch-mode (parameter P02 = 1) as follows:

Press once:	Display Inch-fraction display	1/64 Inch
Press once:	Display Inch-fraction display	1/32 Inch
Press once:	Display Inch-fraction display	1/16 Inch
Press once:	Inch-Decimal display	0.001 Inch

Etc.

5. Risks

	**Read this chapter carefully!**

- Never place any body parts into or under any of the system's moving parts.
- Never put hands between the stopper and the material.
- Avoid system work that may endanger your own or your colleague's safety.
- Never modify the system without the written approval of the manufacturer.

6. Other

6.1 Transport

NOTE	**Immediately after receiving the system, make a general check of the system. In case of any visible damage, inform the transporter and the manufacturer.**

The system can be transported together with the measuring trolley.
The control must be transported on a pallet.

6.2 Storage

Store the system is a dry room. After prolonged storage, the system must be checked by an onsite technician.

NOTE	**If the system is brought from a cold environment into a warm environment, temporary condensation can occur, on the outside of the system but also on internal electrical parts. This can damage the system and is dangerous for the operator.**

6.3 Repair and maintenance

1. Always enable safety devices before making a test run.

6.4 Maintenance schedule

Daily	Ensure the work area is tidy.
	Remove any off-cuts from the system.
	Verify that the system's sizing is correct.
	Ensure the rail is dust and dirt free.
	Clean the magnetic measuring tape with a clean, dry cloth.
Monthly	Check all anchorages.
Every 6 months	Check the mounting of the reading head.

6.5 Cleaning

	Observe the following safety rules: • Never clean the system with spray water. • Never use compressed air. **Cleaning personnel must be given proper instructions to safely clean the system.**

6.6 Repairs

NOTE	**Repairs must only be carried out by mechanics who have the correct data.**

6.7 Replacing parts

All parts to be replaced shall meet at least the specifications of the original parts.
All parts can be ordered from the manufacturer.
The system consists of standard components (commercially available) and specific parts (produced exclusively for this system).

Standard components:

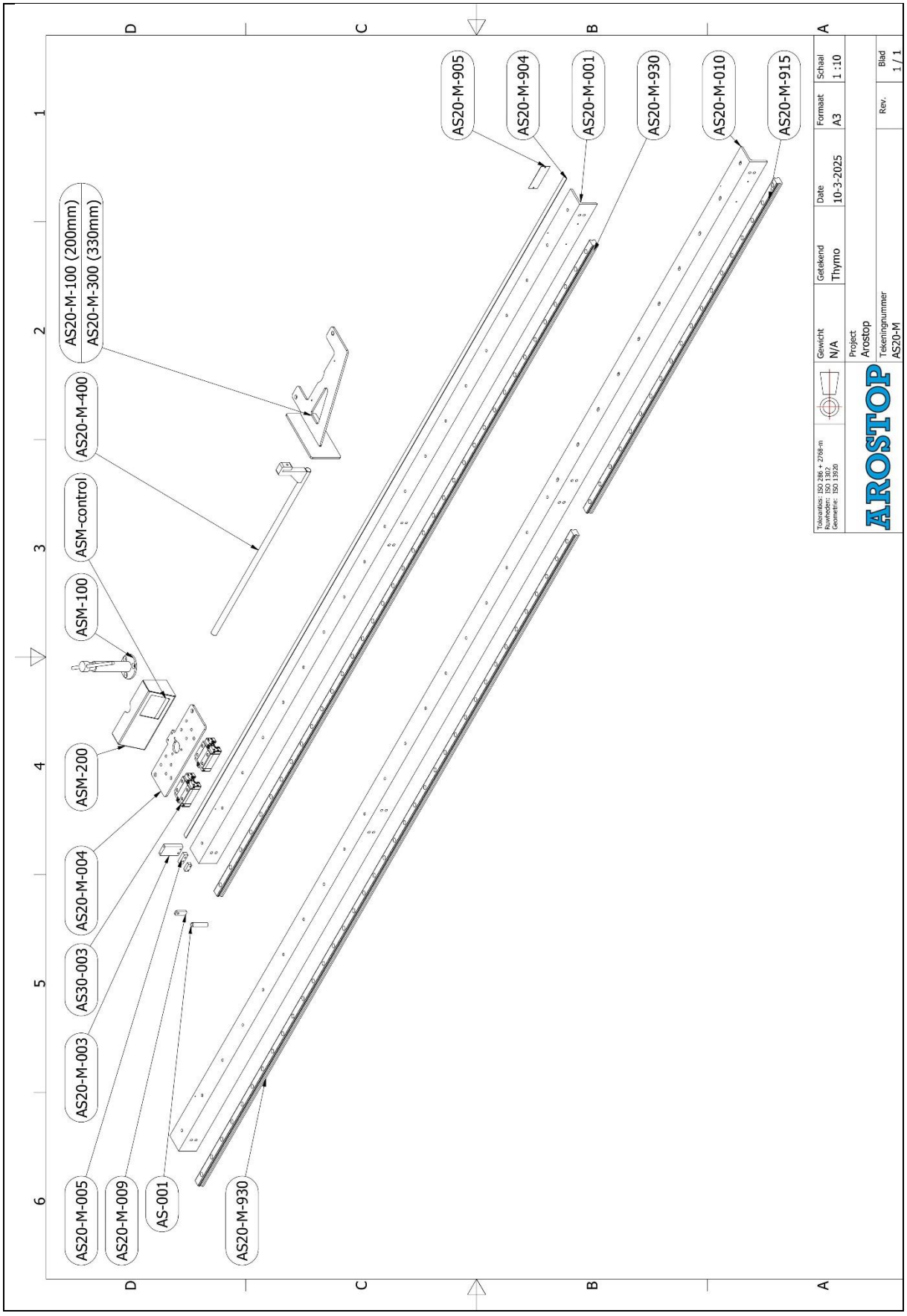
- If possible, use original manufacturer.
- If there are doubts about the specifications, refer to the manufacturer.

Specific components:

- Only spare parts supplied by the manufacturer may be applied.

	**Not following these rules may affect the safety and warranty of the system!**

6.8 Exploded view

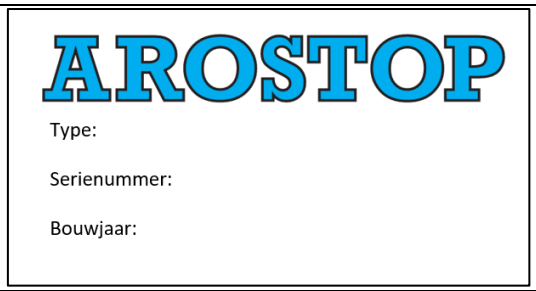


6.8 Decommission

When the system is decommissioned, the waste management rules in force at the place and time of decommissioning must be observed. Only known materials are incorporated in the system.

7. Identification on the system

The following identification marker is placed on the system:



8. System specifications

System:	Arostop length measuring system
Type:	20M
Noise level:	<70 dB(A)
Products:	positioning plates, flat, and profile steel

8.1 Connection requirements

8.1.1 Electric

Battery voltage	1,5 V

8.1.2 Physical conditions

Ambient operating temperature	+5 to +40 ºC
Transport temperature	+5 to +50 ºC
Rel. humidity	30% to 70%, not condensing
Lighting	normal ambient lighting

- This system is not indented for use in the open air.
- The system is not suitable for an explosive environment.
- Use the system only for the intended purposes.