

3M[™] Straight Line Laminator Single Head Manual

Original Assembly and Operation Instructions

Effective: August 2022

Table of Contents

1.0	Ge	eral Information	4
	1.1	Introduction	4
	1.2	Other Applicable Product Documentation	4
		121 Company Vulkan Technic GmbH	<u>Д</u>
		1.2.2. Eurther Applicable Draduet Decumentation	 Л
	1 0		4
	1.3	Representation in this Manual	5
		1.3.1 Figures	5
		1.3.2 Reference	5
		1.3.3 Handling Instruction	5
	1.4	Used Abbreviations and Terms	5
	1.5	Standard Warranty Disclaimer and Limited Remedy	6
	1.6	Copyright Protection	6
2.0	Saf	etv 7	
_	2.1	Responsibility of the Operator	8
	22	Intended Lise	8
	2.2		0
	2.0		0
	2.4		8
	2.5	Requirements for the Site of Operation	8
	2.6	Mandatory Signs Used	9
	2.7	Personal Protective Equipment	9
	2.8	Warning Signs Used	10
	2.9	Warning Notices	10
	2.10	General Safety Information	10
	~ (
3.0	Sat	ety Devices	. 11
3.0	Sat 3.1	Ety Devices Type Plate	. 11 11
3.0	Sat 3.1	Plate 3.1.1 General Information	. 11 11 11
3.0	Sat 3.1	Stype Plate Stype Plate 3.1.1 General Information 3.1.2 Type Plate Continuous Laminator	. 11 11 11 11
3.0 4.0	Sat 3.1 De	Ety Devices. Type Plate 3.1.1 General Information. 3.1.2 Type Plate Continuous Laminator. ign and Functions.	• 11 11 11 11 • 11
3.0 4.0	Sat 3.1 De : 4.1	Ety Devices. Type Plate 3.1.1 General Information. 3.1.2 Type Plate Continuous Laminator. ign and Functions. Technical Data	. 11 111111 . 11 . 11
3.0 4.0	Sat 3.1 De: 4.1	Stype Plate 3.1.1 General Information 3.1.2 Type Plate Continuous Laminator ign and Functions Image: Continuous Laminator Technical Data Image: Continuous Laminator Overview — Decign and Eunctions Image: Continuous Laminator	. 11 11 11 11 11 11
3.0 4.0	Sat 3.1 De: 4.1 4.2	Ety Devices. Type Plate 3.1.1 General Information. 3.1.2 Type Plate Continuous Laminator. ign and Functions. Technical Data Overview — Design and Functions.	<pre>. 11111111111111121212</pre>
3.0 4.0	Sat 3.1 Des 4.1 4.2 4.3	Stype Plate 3.1.1 General Information 3.1.2 Type Plate Continuous Laminator ign and Functions Image: Continuous Laminator Technical Data Image: Continuous Laminator Overview Design and Functions Workplaces Image: Continuous Laminator	 . 11 11 11 11 11 12 12 12
3.0 4.0	Sat 3.1 De: 4.1 4.2 4.3	Stype Plate 3.1.1 General Information. 3.1.2 Type Plate Continuous Laminator. ign and Functions. Technical Data Overview — Design and Functions. Workplaces. 4.3.1 Workplace "Production".	 . 11 11 11 11 11 12 12 12 12
3.0 4.0	Sat 3.1 De: 4.1 4.2 4.3	Stype Plate. 3.1.1 General Information. 3.1.2 Type Plate Continuous Laminator. ign and Functions. Technical Data Overview — Design and Functions Workplaces. 4.3.1 Workplace "Production". 4.3.2 Workplace for Media Change .	 . 11 11 11 11 11 12 12 12 12 12 13
3.0 4.0	Sat 3.1 De 4.1 4.2 4.3 4.4	Stype Plate. 3.1.1 General Information. 3.1.2 Type Plate Continuous Laminator. ign and Functions. Technical Data Overview — Design and Functions Workplaces. 4.3.1 Workplace "Production". 4.3.2 Workplace for Media Change Function	• 11 11 11 • .11 11 12 12 12 12 13 13
3.0	Sat 3.1 De 4.1 4.2 4.3 4.4	Pevices. Type Plate 3.1.1 General Information. 3.1.2 Type Plate Continuous Laminator. ign and Functions. Technical Data Overview — Design and Functions Workplaces. 4.3.1 Workplace "Production" 4.3.2 Workplace for Media Change Function Process Sequence.	 11 11 11 11 11 12 12 12 12 12 13 13 14
3.0	De 3.1 4.1 4.2 4.3 4.4 4.5	Pevices. Type Plate 3.1.1 General Information. 3.1.2 Type Plate Continuous Laminator. ign and Functions. Technical Data Overview — Design and Functions Workplaces. 4.3.1 Workplace "Production" 4.3.2 Workplace for Media Change Function Process Sequence. 4.5.1 Application Process SGA 500 R with Product Guide	. 11 11 11 . .11 12 12 12 12 12 13 13 14 14
3.0	Sat 3.1 De: 4.1 4.2 4.3 4.4 4.5	Type Plate. 3.1.1 General Information. 3.1.2 Type Plate Continuous Laminator. ign and Functions. Technical Data Overview — Design and Functions . Workplaces. 4.3.1 Workplace "Production". 4.3.2 Workplace for Media Change . Function . Process Sequence. 4.5.1 Application Process SGA 500 R with Product Guide . 4.5.2 Application Process SGA 500 L with Product Guide.	. 11 11 11 . .11 . .12 12 12 12 13 13 14 14 15
3.0 4.0 5.0	Sat 3.1 De: 4.1 4.2 4.3 4.4 4.5 Ass	Pevices. Type Plate 3.1.1 General Information. 3.1.2 Type Plate Continuous Laminator. ign and Functions. Technical Data Overview — Design and Functions Workplaces. 4.3.1 Workplace "Production" 4.3.2 Workplace for Media Change Function Process Sequence. 4.5.1 Application Process SGA 500 R with Product Guide 4.5.2 Application Process SGA 500 L with Product Guide	• 11 11 11 11 12 12 12 12 12 12 13 14 14 15 16
3.0 4.0 5.0	Sat 3.1 De: 4.1 4.2 4.3 4.4 4.5 4.4 5.1	aty Devices. Type Plate 3.1.1 General Information. 3.1.2 Type Plate Continuous Laminator. ign and Functions. Technical Data Overview — Design and Functions Workplaces. 4.3.1 Workplace "Production". 4.3.2 Workplace for Media Change Function Function Process Sequence. 4.5.1 4.5.1 Application Process SGA 500 R with Product Guide 4.5.2 Application Process SGA 500 L with Product Guide 4.5.2 Application Process SGA 500 L with Product Guide Mounting Stand R/L Mounting Stand R/L	• 11 11 11 11 12 12 12 12 12 13 13 14 14 15 16
3.0 4.0 5.0	Sat 3.1 De 4.1 4.2 4.3 4.4 4.5 4.4 4.5 5.1 5.2	aty Devices. Type Plate 3.1.1 General Information. 3.1.2 Type Plate Continuous Laminator. ign and Functions. Technical Data Overview — Design and Functions Workplaces. 4.3.1 Workplace "Production". 4.3.2 Workplace for Media Change Function Process Sequence. 4.5.1 Application Process SGA 500 R with Product Guide 4.5.2 Application Process SGA 500 L with Product Guide. 4.5.2 Application Rrocess SGA 500 L with Product Guide. Mounting Stand R/L SGA 500 R-05-30	• 11 11 11 11 • 11 12 12 12 12 13 13 13 13 14 14 15 • 16 17
3.0 4.0 5.0	Sat 3.1 De: 4.1 4.2 4.3 4.4 4.5 4.4 4.5 5.1 5.2 5.3	ty Devices. Type Plate 3.1.1 General Information. 3.1.2 Type Plate Continuous Laminator. ign and Functions. Technical Data Overview — Design and Functions Workplaces. 4.3.1 Workplace "Production". 4.3.2 Workplace for Media Change Function Process Sequence. 4.5.1 Application Process SGA 500 R with Product Guide 4.5.2 Application Process SGA 500 L with Product Guide. embly Groups with Hazard Designation and Labeling Mounting Stand R/L SGA 500 R-05-30	• 11 11 11 11 12 12 12 12 13 13 14 14 15 • 16 17 18
3.0 4.0 5.0	Sat 3.1 De: 4.1 4.2 4.3 4.4 4.5 4.4 4.5 5.1 5.2 5.3 5.4	Aty Devices. Type Plate 3.1.1 General Information. 3.1.2 Type Plate Continuous Laminator. ign and Functions. Technical Data Overview — Design and Functions Workplaces. 4.3.1 Workplace "Production". 4.3.2 Workplace for Media Change Function Process Sequence. 4.5.1 Application Process SGA 500 R with Product Guide 4.5.2 Application Process SGA 500 L with Product Guide. embly Groups with Hazard Designation and Labeling Mounting Stand R/L SGA 500 L-05-30 SGA 500 L-05-30 SGA 500 L-05-55	• 11 11 11 11 12 12 12 12 12 12 12 13 14 15 16 16 17 18 19
3.0 4.0 5.0	Sat 3.1 De 4.1 4.2 4.3 4.4 4.5 4.4 4.5 5.1 5.2 5.3 5.4 5.5	Aty Devices. Type Plate 3.1.1 General Information. 3.1.2 Type Plate Continuous Laminator. ign and Functions. Technical Data Overview — Design and Functions Workplaces. 4.3.1 Workplace "Production" 4.3.2 Workplace for Media Change Function Process Sequence 4.5.1 Application Process SGA 500 R with Product Guide 4.5.2 Application Process SGA 500 L with Product Guide 4.5.2 Application Process SGA 500 L with Product Guide Mounting Stand R/L SGA 500 R-05-30 SGA 500 R-05-30 SGA 500 R-30-55 SGA 500 R-30-55 SGA 500 R-30-55	• 11 11 11 11 12 12 12 12 12 12 12 13 13 14 14 15 16 17 18 19
3.0 4.0 5.0	Sat 3.1 3.1 4.2 4.3 4.4 4.5 4.4 4.5 5.1 5.2 5.3 5.4 5.5 5.6	Type Plate . 3.1.1 General Information. 3.1.2 Type Plate Continuous Laminator. ign and Functions. Technical Data Overview — Design and Functions Workplaces. 4.3.1 Workplace for Media Change Function Process Sequence. 4.5.1 Application Process SGA 500 R with Product Guide 4.5.2 Application Process SGA 500 L with Product Guide 4.5.2 Application Process SGA 500 L with Product Guide 4.5.2 Application Process SGA 500 L with Product Guide 4.5.2 Application Process SGA 500 L with Product Guide Mounting Stand R/L SGA 500 R-05-30 SGA 500 R-05-30 SGA 500 R-30-55 SGA 500 R-30-55 SGA 500 Product Guide for SCA 500 Product Guide Guide Sca 500	• 11 11 11 11 12 13 14 15 16 16 16 16 17 11 12 12 12 12 13 14 15 16 16 16 16 17 11 12 12 12 12 13 14 15 16 17 11 12 13 14 15 18 17 18 19 20 19 20 19 20 19 20 20 19
3.0 4.0 5.0	Sat 3.1 3.1 4.2 4.3 4.4 4.5 4.4 4.5 5.1 5.2 5.3 5.4 5.5 5.6 5.7	type Plate. 3.1.1 General Information. 3.1.2 Type Plate Continuous Laminator. ign and Functions. Technical Data Overview — Design and Functions Workplaces. 4.3.1 Workplace "Production". 4.3.2 Workplace for Media Change Function Process Sequence. 4.5.1 Application Process SGA 500 R with Product Guide 4.5.2 Application Process SGA 500 L with Product Guide 4.5.2 Application Process SGA 500 L with Product Guide 4.5.2 Application Process SGA 500 L with Product Guide 4.5.3 Mounting Stand R/L SGA 500 R-05-30 SGA 500 L-05-30 SGA 500 R-05-30 SGA 500 R-30-55 SGA 500 R-30-55 SGA 500 R-30-55 SGA 500 R-30-55 SGA 500 R-30-55 SGA 500 R-30-55 SGA 500 R-30-55 SGA 500 R-05-80 Product Guide for SGA 500 Product Guide for SGA 500 Application Pallere	• 11 11 11 11 12 12 12 12 13 13 14 14 15 16 17 18 19 20 21 21 20 21 12 13 13 14 14 15 16 17 19 20 19 20 19 20 19 20 21 19 20

Table of Contents

6.0	Operation6.1Initial Operation6.2Standard Setting Compression Spring6.3Installation of the Unit6.4Setting up the Unit with the Product Guide6.5Setting the Track Width at the Adjustable Deflection Pulley6.6Setting the Track Position6.7Setting the Tape Brake6.8Threading Diagram — SGA 500 R.6.9Threading Diagram — SGA 500 L.	22 22 23 24 27 29 30 31 32
7.0	Assembly/Installation	33
8.0	Errors/Malfunctions	33
9.0	Service and Maintenance. 9.1 Maintenance and Replacement. 9.1.1 Maintenance and Replacement of the Deflection Pulley 9.1.2 Maintenance and Replacement of the Adjustable Deflection Pulley 9.1.3 Maintenance and Replacement of the Downholder 9.1.4 Maintenance and Replacement of the Application Roller. 9.2 Maintenance Schedule 9.3 Cleaning Schedule.	34 34 35 35 35 36 36 36
10.0	Disassembly	37
11.0	Storage	.37
12.0	Disposal 12.1 Safe Disposal 12.2 Packaging	38 . 38 . 38
13.0	Annex13.1 Documents Vulkan Technic13.2 Documents Purchased Parts SGA500 05-30	39 . 39 . 39
14.0	Manufacturer Contact Information	39

1.0 General Information

1.1 Introduction

This documentation describes a manual workplace (here the 3M[™] Straight Line Laminator Single Head) for the application of single-sided or double-sided adhesive tape to different product surfaces (e.g., glass, metal profile, etc.).

Design Continuous Laminator

Single-track adhesive tape.

1.2 Other Applicable Product Documentation

1.2.1 Company Vulkan Technic GmbH

This manual is supplemented by further regulations, project-specific instructions and other secondary documents (drawings and more in-depth information about system components, tables, etc.) as part of the overall documentation. This manual contains direct references to the respective relevant document in the corresponding sections.

For supplementary documents to these instructions, such as assembly drawings and parts lists, the following notes apply:

- All plans and drawings are for information only and are not subject to updating.
- The disclosure, the reproduction of these drawings and/or plans as well as utilization and notification to third parties are not permitted without the express permission of the manufacturer. Non-compliance constitutes explicit abuse and makes you liable for damages.
- All rights in the event of a patent grant or utility model registration remain reserved.

1.2.2 Further Applicable Product Documentation

The supplier documentations (in the annex) must also be followed, as they are an integral part of the overall system.

Similarly, the stipulations for accident prevention and occupational safety and environmental protection — based on the regulations of the country of use — including the work instructions of the operator, are to be followed.

1.3 Representation in this Manual

1.3.1 Figures

All figures in this document may differ from the real system and have no claim to completeness. Details can be found in the detailed drawings and technical documents referred to in this documentation.

1.3.2 Reference

Cross references to figures are set in brackets in the text. The number indicates the figure number; the letter indicates the item in the figure. Example: (Figure 1C) means Figure 1, Item C.

References to chapters or pages are printed in *bold italics*. Example: See chapter *Safety Advice*.

References to external documents are represented in italics and in a frame.

Example: For further information please refer to the manufacturer documentation.

Button or switch designations are set in quotation marks. Example: Press illuminated button "System On".

Designations from a digital user interface are marked with the following character formatting. Example: Press button "System On".

1.3.3 Handling Instruction

If the operating instructions consist of several operating steps to be carried out in succession, the steps are numbered. The steps are to be carried out in the order given. Results of the steps are in italics and indented. Paragraphs that contain the result of a step which needs to be checked by the operator are preceded by a check mark (\checkmark).

Example:

- 1. Release a locking bolt (Step). The swivel lever moves down (Result of the Step).
- The application roller is in operation position (the operator must check if the application roller is down).

1.4 Used Abbreviations and Terms

Abbreviation	Explanation
CW	Clockwise

1.5 Standard Warranty Disclaimer and Limited Remedy

Product Selection and Use: Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product in accordance with all applicable instructions and with appropriate safety equipment, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

Warranty, Limited Remedy, and Disclaimer: Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement or repair of the 3M product or refund of the purchase price. Warranty claims must be made within one (1) year from the date of 3M's shipment.

Limitation of Liability: Except for the limited remedy stated above, and except to the extent prohibited by applicable law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

Disclaimer: 3M industrial and occupational products are intended, labeled, and packaged for sale to trained industrial and occupational customers for workplace use. Unless specifically stated otherwise on the applicable product packaging or literature, these products are not intended, labeled, or packaged for sale to or use by consumers (e.g., for home, personal, primary or secondary school, recreational/sporting, or other uses not described in the applicable product packaging or literature), and must be selected and used in compliance with applicable health and safety regulations and standards (e.g., U.S. OSHA, ANSI), as well as all product literature, user instructions, warnings, and other limitations, and the user must take any action required under any recall, field action or other product use notice. Misuse of 3M industrial and occupational products may result in injury, sickness, death, or property damage. For help with product selection and use, consult your on-site safety professional, industrial hygienist, or other subject matter expert. For additional product information, visit 3M.com.

1.6 Copyright Protection

This manual is to be treated confidentially. It may only be used by the group of persons authorized to do so. The transfer to third parties is only allowed with written permission from 3M.

All documents are protected in terms of copyright law. The transfer and reproduction of documents — including excerpts — as well as the utilization and communication of their contents is not permitted without express written permission. Non-compliance constitutes an offence and makes you liable for damages.

We reserve all rights to exercise industrial property rights.

2.0 Safety

2.1 Responsibility of the Operator

The operator of the system is obliged to implement the relevant legal regulations concerning occupational safety. He must ensure that the system is operated as intended and in a perfect, functioning condition. The operator must:

- Know and implement the applicable regulations on occupational safety. The operator must identify additional risks that arise from the special working conditions at the location of the system in a risk assessment. Based on the risk assessment, the operator must compile operating instructions for operating the system. The operating instructions must always correspond to the current state of rules and standards and must be updated when changes are made.
- Ensure that only staff is deployed who have the required training, qualification and authority for the respective task and have been briefed on the special conditions at the system's location.
- Clearly regulate and specify the responsibilities of the staff for installation, operation, maintenance and cleaning.
- Regulate the responsibility for the operation of the system and allow the staff to refuse instructions from third parties that impair safety.
- Ensure that all employees have read and understood the parts of this documentation that are relevant for their work. They must instruct the staff on safety on a regular basis.
- Make sure that the documentation is always in a legible condition and is available in full in the immediate vicinity of the system.
- Ensure that all safety and warning notices attached to the system are present, clean and legible.
- Ensure and regularly check that, in addition to the occupational safety regulations in this manual, the applicable local and national safety, accident prevention and environment protection regulations are complied with.
- Provide the staff with the required personal protective equipment.
- Secure hazard areas that arise between the system and devices on operator side.
- Ensure that the system is always in perfect condition.

2.2 Intended Use

This system is an unfinished machine and only designed for the intended use described below:

• Manual workplace for the application of single-sided or double-sided adhesive tape to different product surfaces.

The system may only be operated in a perfect technical condition and may only be commissioned and started-up according to regulation by the operating company.

No changes, additions or modifications to the system may be carried out without the express written permission of 3M. Such changes may endanger the safety and are considered unintended use.

The system is an independent manual workplace, which must not be integrated into other areas of the system.

The operating company is solely liable for damage caused by unintended use. Other prerequisites for intended use are:

- Compliance with all valid operating instructions of the operator
- Compliance with the instructions in this documentation
- The regular performance of repair work as stipulated in this manual and in the manufacturer documentation.

2.3 Improper Use

Any use of the system exceeding the use described in chapter 2.4 Intended Use. This includes:

- Structural changes to the system
- Use of forbidden utilities and auxiliaries

Foreseeable misuse is also forbidden. This includes among other things:

• Use of unauthorized product contours

2.4 Noise Pressure Level

In the operational environment of the system, a noise pressure level of 75 dB (A) is not exceeded under the intended use of the system.

2.5 Requirements for the Site of Operation

The operating site of the system must fulfill the following requirements and conditions:

- Dry, closed, dust-free environment
- Room temperature: 18 to 28°C
- Relative humidity: 95% at maximum
- No operation in explosive environment
- Smoke-free environment

2.6 Mandatory Signs Used

Sign	Meaning
	General mandatory sign.
	Important! Read the operating instruction before you operate the machine and keep it in a safe place. Make sure that the operating instruction is available all the time during the assembly, initial operation, and maintenance work. 3M cannot provide any warranty in relation to the readability of the CD for the storage period required. Please archive a printed copy of the operating instruction.

2.7 Personal Protective Equipment

When performing maintenance, personal protective equipment must be worn in order to minimize hazards. Signs placed in the work area regarding personal protective equipment are to be followed.

Sign	Meaning
	Wear safety goggles: To protect the eyes from whirled/flying debris.
	Wear safety gloves: To protect hands from abrasions and injuries, irritating and corrosive substances and from burns.

2.8 Warning Signs Used

Sign	Meaning
	Warning: Danger of hand injuries.
	Warning: Danger in the area when cutting tape.
	Warning: Caution.

2.9 Warning Notices

Warning notices are particularly highlighted in this manual compared to the rest of the text.

The warning notices must be followed strictly in order to ensure accident-free work and to prevent personal injury or material damage. The following category of warning notices will be used:

NOTE: Important information for an efficient and undisturbed work flow.

2.10 General Safety Information

Warning notices are particularly highlighted in this manual compared to the rest of the text.

The warning notices must be followed strictly in order to ensure accident-free work and to prevent personal injury or material damage. The following category of warning notices will be used:

Sign	Meaning
	Danger of hand injuries/crushing in the area of the moving parts. Warning crushing hazards — The system may only be operated at the intended positions.

3.0 Safety Devices

3.1 Type Plate

3.1.1 General Information

The type plates are located at defined locations and must not be removed or covered. If parts of the system are replaced, it must be ensured that type plates located there are placed back on the new parts.

3.1.2 Type Plate Continuous Laminator

The type plate is located at the front of the base plate. The registered serial number can be found on the attached type plate.

Figure 1



4.0 Design and Functions

4.1 Technical Data

Dimensions L x W x H approx. (in the standard setting and without adhesive tape roll)	385mm x 512mm x 240mm 385mm x 512mm x 266mm 385mm x 512mm x 290mm	
Dimensions L x W x H approx.	1008mm x 596mm x 100mm	
Max. Roll Ø	500mm	
Inner Ø	75mm (3 in.)	



A	Continuous Laminator SGA 500 R Tape Version: 05-30; 30-55; 10-50; 55-80
В	Continuous Laminator SGA 500 L Tape Version: 05-30; 30-55; 10-50; 55-80
С	Product Guide Version: SGA 500

Figure 3



4.3 Workplaces

4.3.1 Workplace "Production"

Figure 4







NOTE: To change the adhesive tape roll in the system please see chapter **6.8** *Threading Diagram* — *SGA 500 R* and chapter **6.9** *Threading Diagram* — *SGA 500 L*.

4.4 Function

The manual workplace (here the Continuous Laminator SGA500) is used for the application of single-sided or double-sided adhesive tape to different product surfaces.

4.5 **Process Sequence**

4.5.1 Application Process SGA 500 R with Product Guide

Figure 6



1. The unit is set up according to chapter 6.2 Setting Up the Unit.

the adhesive tape on the product surface.

- 2. Loosen the locking bolt (Figure 6C) and pull the hand lever (Figure 6D) upwards. The swivel lever with the application roller (Figure 6B) swivels down. The unit is ready.
- 3. Guide the product to be bonded over the right side onto the set-up product guide (Figure 6A) under the application roller (Figure 6B) and push it further down the roller conveyor. Always repress the beginning of the adhesive tape on the first product. The compression spring holds the application roller down and thus ensures the necessary contact pressure of
- 4. Push a second product on the roller conveyor and pass both of them under the application roller. As soon as the first product is a little behind the application roller, cut the adhesive tape between the two products.

NOTE: Danger in the area when cutting the tape. Danger of cutting. Wear protective gloves. Do not reach into the blade.



- 5. Push another product on the roller conveyor so that the second product with the tape applied is behind the application roller and proceed as described above.
- 6. Pull the hand lever (Figure 6D) down when you finish the process in order to lift the application roller and to fix the locking bolt again.

The swivel lever with the application remains in the upper position. The unit is not ready.



Figure 7



- 1. The unit is set up according to chapter 6.2 Setting Up the Unit.
- 2. Loosen the locking bolt (Figure 7C) and pull the hand lever (Figure 7D) upwards. The swivel lever with the application roller (Figure 7D) swivels down. The unit is ready.
- 3. Guide the product to be bonded over the right side onto the set-up product guide (Figure 7A) under the application roller (Figure 7D) and push it further down the roller conveyor. Always repress the beginning of the adhesive tape on the first.

The compression spring holds the application roller down and thus ensures the application of the adhesive tape to the product surface.

4. Push a second product on the roller conveyor and pass both of them under the application roller. As soon as the first product is a little behind the application roller, cut the adhesive tape between the two products.

NOTE: Danger in the area when cutting the tape. Danger of cutting. Wear protective gloves. Do not reach into the blade.



- 5. Push another product on the roller conveyor so that the second product with the tape applied is behind the application roller and proceed as described above.
- 6. Pull the hand lever (Figure 7B) down when you finish the process in order to lift the application roller and to fix the locking bolt again.

The swivel lever with the application remains in the upper position. The unit is not ready.

5.0 Assembly Groups with Hazard Designation and Labeling

Several hazard labels, symbols and notes are attached to the system. These warnings, symbols, or notes may be attached to the system as adhesive labels or plates.

The attached adhesive labels or plates must not be removed or covered.

Dirty or damaged adhesive labels or plates must be cleaned or replaced to ensure a perfect recognition.

If parts of the system are replaced, please make sure that the spare parts or replacing parts bear the respective adhesive labels or plates.

NOTE: For the meaning of the hazard and warning labels please refer to the documentation of the respective components as well.



5.1 Mounting Stand R/L









Danger in the area of the moving parts. Risk of crushing — Watch out for moving parts when threading the tape.





5.3 SGA 500 L-05-30



Danger in the area of the moving parts. Risk of crushing — Watch out for moving parts when threading the tape.







Danger in the area of the moving parts. Risk of crushing — Watch out for moving parts when threading the tape.







Danger in the area of the moving parts. Risk of crushing — Watch out for moving parts when threading the tape.







5.7 Application Rollers

Application Roller with Rubber Coating, 70° Shore

ltem	Designation	Item Number
1	Application roller Ø50×40 mm	120766-V
2	Application roller Ø50×60 mm	202958-C
3	Application roller Ø50×80 mm	159990-V

Application Roller with PU Coating

ltem	Designation	Item Number
1	Application roller Ø50×40 mm	449170-C
2	Application roller Ø50×50 mm	159865-V
3	Application roller Ø50×60 mm	159852-V

6.0 Operation

6.1 Initial Operation

The initial operation is carried out by personnel of 3M.

NOTE: Before commissioning by the customer or handover to production, the system must receive a final inspection and be checked for safety and released by the customer.

CAUTION: To reduce the risks associated with pinching which, if not avoided, could result in minor or moderate injury:- Keep hands, hair, loose clothing, and jewelry away from rollers and spring. Always position body as instructed per user instructions.

6.2 Standard Setting Compression Spring

It is generally recommended to carry out the application work with the standard setting (Figure 15B, second mounting position from below) of the compression spring.

NOTE: Excessive pressure during application leads to stretching of the tape and possibly to faulty production.

The mounting position of the compression spring in the base plate should only be changed in exceptional cases. There are seven mounting positions. (Figure 14A).

Figure 14

NOTE: Adjustment and maintenance work on the compression spring should only be carried out by instructed persons or qualified personnel.









Figure 15



- 1. Unlock the locking bolt (Figure 15A) to release the spring tension.
- 2. Unhook the compression spring on one side of the spring holder (Figure 15E).
- 3. Loosen the lock nut M8 DIN 934, spanner size 13 (Figure 15C) and unscrew the base plate connector (Figure 15D).
- 4. Screw the base plate connector (Figure 15D) into another mounting position (Figure 15B) and lock it with the nut M8 DIN 934, spanner size 13 (Figure 15C).
 Mounting position upwards: Increasing the spring tension.
 Mounting position downwards: Decreasing the spring tension.
- 5. Hook the compression spring with the loosened side back into spring holder (Figure 15E). The compression spring is newly adjusted.

6.3 Installation of the Unit

The unit is mounted by the operator on an existing worktable. This can be done using the two mounting brackets (Figure 16A).

Figure 16



- 1. Place the unit in the desired position on the worktable.
- 2. Remove the cover from the mounting bracket (Figure 16C).
- 3. Use an Allen key size 6 for screw M8 (Figure 16B) to loosen or tighten it. The continuous laminator is installed.

6.4 Setting Up the Unit with the Product Guide

Before you can work with the unit, it must be set up for the corresponding product.



- 1. Loosen the three bolts (Figure 17B) M8×20 DIN EN ISO 4762, Allen key size 6, at the back of the mounting bracket.
- 2. Move the mounting bracket to the desired position. The attached scale (Figure 17A) serves as an adjustment aid for the distance between the product stop and the center of the bonding track.
- 3. Tighten the three bolts (Figure 17B) M8×20 DIN EN ISO 4762, Allen key size 6, at the back of the mounting bracket. The track center is set up.



- 4. Hold the base plate of the bonding head firmly using the handle bar (Figure 18C) and release the locking lever (Figure 18B).
- 5. Move the base plate to the desired position using the handle bar (Figure 18C). The attached scale (Figure 18A) serves as an adjustment aid for the height of the product.
- 6. Tighten the locking lever (Figure 18B) again. The application height is set up.
- 7. Adjust the correct track position.

NOTE: To set up the track position in the unit please see chapter **6.6** Setting the *Track Position*.



Figure 19



8. Adjust the width of the adhesive tape at the deflection pulley (Figure 19A).

NOTE: To set up the width of the adhesive tape roll in the unit please see chapter **6.5 Setting the Track Width on the Adjustable Deflection Pulley**.

Figure 20



9. Put the adhesive tape roll on the tape mounting (Figure 20A) and adjust the tape brake, if necessary.

NOTE: To set up the tape brake in the unit please see chapter 6.7 Setting the Tape Brake.



Figure 21



10. Thread the adhesive tape (Figure 21) according to the threading diagram.



- 11. Adjust the guide rail (Figure 22A) for the lower product stop. To do so, loosen the two locking levers (22B) on the product guide and move the guide rail to the desired position. The attached scale (Figure 22C) serves as an adjustment aid for the width of the product.
- 12. Tighten the two locking levers (Figure 22B) again. The product is set up. The continuous laminator is ready.

Figure 22

6.5 Setting the Track Width at the Adjustable Deflection Pulley

The adjustable deflection pulley (Figure 23A) is set up depending on the adhesive tape width. There is a separate deflection pulley (Figure 23) for each SGA size but they are set up identically.

Figure 23



Туре	Information
	SGA 500 R 05-30mm SGA 500 L 05-30mm
	SGA 500 R 30-55mm
	SGA 500 R 55-80mm





- 1. Remove the adhesive tape roll from the tape mounting, and the adhesive tape from the rollers (Figure 24A).
- 2. Loosen the locking washer at the adjustable deflection pulley (Figure 24B) and turn it counter-clockwise from the adjusting sleeve (Figure 24B).

Figure 25



- 3. Turn the adjusting sleeve (Figure 25A) counter-clockwise to increase the track width on the adjustable deflection pulley. Turn the adjusting sleeve clockwise to decrease the track width on the adjustable deflection pulley.
- 4. Adjust the track width to the new tape width (Figure 25B). To do so, turn the adjusting sleeve (Figure 25A) clockwise to the corresponding track width.

NOTE: Make sure that the adhesive tape can move properly in the new track.



5. Turn the locking washer (Figure 26B) clockwise against the adjusting sleeve to fix it in place. The new track width is set up.

Figure 26

6.6 Setting the Track Position

Depending on which track on the product surface the adhesive tape is applied to, it is necessary to adjust the position of the tape mounting (Figure 27A) and the adjustable deflection pulley (Figure 27B).



Туре	Core Mounting
SGA 500 R 05-30 SGA 500 L 05-30 SGA 500 R 30-55	3", 2" long
SGA 500 R 55-80	3", 3" long



- 1. Loosen the lock nut M16×1, DIN 439, spanner size 24 (Figure 28A). For counter-holding, there is a slot on the other side of the threaded axle (Figure 28F).
- 2. Change the position of the adjustable deflection pulley (Figure 28B) by screwing the threaded axle out or in.
- 3. Tighten the lock nut M16×1, DIN 439, spanner size 24 (Figure 28A) again. The adjustable deflection pulley is now positioned to the new bonding track.
- 4. Loosen the lock nut M18×1, spanner size 27 (Figure 28C) at the tape mounting (Figure 28D).
- 5. Change the position of the tape mounting (Figure 28D) by screwing the threaded axle out or in.
- 6. Tighten the lock nut M18×1, spanner size 27 (Figure 28C) again. Die tape mounting is now positioned to the new bonding track.

NOTE: Make sure that the stop of the tape is collinear with both settings (Figure 28E).



6.7 Setting the Tape Brake

The adhesive tape roll is put on the tape mounting (Figure 29A). Different designs have different tape mountings (Figure 29/Table).

Figure 29

Туре	Core Mounting
SGA 500 R 05-30 SGA 500 L 05-30 SGA 500 R 30-55	3", 2" long
SGA 500 R 55-80	3", 3" long

To ensure that the tape is unrolled slowly and evenly in the work process, the tape brake of the tape mounting must be adjusted. Make sure that the tape is not subjected to strong tension.



Figure 30

- 1. Use an Allen key size 5 at the axle mount (Figure 30B) to fix it.
- 2. Use an open-end spanner size 17 to turn the nut (Figure 30B) on the axle mount.
 - A. Turning clockwise: the spring is tensioned further, the force of the tape brake increases.
 - B. Turning counter-clockwise: the spring is further released, the force of the tape brake decreases.
- 3. Check the speed when the adhesive tape is unwound. When everything is properly set, remove all tools from the work area. The tape brake is set up.

6.8 Threading Diagram — SGA 500 R









7.0 Assembly/Installation

The installation of the system on site is carried out by the operator in consultation with the manufacturer.

The installation site of the system must be suitable to take the loads that occur during operation of the system. Sufficient lighting must be provided.

For further information regarding the assembly of the individual components please refer to the manufacturer information.

8.0 Errors/Malfunctions

Possible Error	Possible Cause of Error	Remedy
Adhesive tape not clean.	Soiling on the rollers,	Clean rollers and downholder.
Adhesive tape does not stick to the product.	the downholder.	
Adhesive tape tears.	Tape brake set too strong.	Change the setting of the tape brake. See chapter 6.7 Setting <i>the Tape Brake</i> .
Bonding track not correct. Track course is wrong.	Track position not correctly set.	Check the track position and the setting, if necessary. See chapter 6.5 Setting the Track Width at the Adjustable Deflection Pulley and chapter 6.6 Setting the Track Position.
Adhesive tape sticks to the rollers.	Defective rollers.	Check and replace rollers, if necessary.
	Non-stick coating of the adjustable deflection pulley is defective.	Check and replace adjustable deflection pulley, if necessary.

9.0 Service and Maintenance

9.1 Maintenance and Replacement

NOTE: Defects discovered during maintenance must be reported immediately to the supervisor. The equipment must not be used until the defects have been rectified. All maintenance work is to be documented in a log book and verified with date and signature (Who, when, what, particularities, wear part requirements...). **Make sure to check for worn parts and replace if necessary.**

The application roller, the downholder and the two deflection pulleys must be cleaned regularly. If the parts contribute more quickly to an insufficient production quality, the corresponding rollers or the downholder can also be cleaned daily, if necessary.

In case of major wear, it may be necessary to replace the rollers, the two deflection rollers and the downholder.

Figure 33

9.1.1 Maintenance and Replacement of the Deflection Pulley

- 1. To replace the deflection pulley (Figure 33A) remove the retaining ring (Figure 33D) and pull the washer (Figure 33C) and the deflection pulley (Figure 33B) off the axle.
- 2. Assembly takes place in reverse order.





- 1. To replace the adjustable deflection pulley (Figure 34A) remove the retaining ring (Figure 34E). This allows you to pull off the complete deflection pulley (Figure 34B, Figure 34C, Figure 34D).
- 2. For cleaning work it is sufficient to turn the locking washer (Figure 34D) and the adjustable sleeve (Figure 34C) off the base element (Figure 34B) in assembled state and clean the affected areas.
- 3. Assembly takes place in reverse order.



9.1.3 Maintenance and Replacement of the Downholder

- 1. To work on the downholder, first remove the application roller, see chapter **10.1.4 Maintenance and** *Replacement of the Application Toller*.
- 2. To replace the downholder (Figure 35A) remove the retaining ring (Figure 35D).
- 3. Now you can pull the bearing sleeve (Figure 35C) off the downholder axle (Figure 35B).
- 4. Assembly takes place in reverse order.
- 5. To replace the compression spring (Figure 35E) remove the two bolts M2.5, DIN EN ISO 4762, Allen key size 2 (Figure 35F).
- 6. Pull the spring holder (Figure 35G) off the swivel lever and take the compression spring out of the locating bore (Figure 35E).
- 7. Put a new compression spring in the locating bore of the spring holder (Figure 35G).
- 8. Assembly takes place in reverse order.

9.1.4 Maintenance and Replacement of the Application Roller



- 1. To replace the application roller (Figure 36A) remove the retaining ring (Figure 36E).
- 2. Then you call pull the washer (Figure 36D) and the application roller (Figure 36C) off the axle of the application roller (Figure 36B).
- 3. Assembly takes place in reverse order.

9.2 Maintenance Schedule

Assembly Group	Interval	Work to be Performed
Continuous Laminator	As required.	Over time, residues of the adhesive tape may deposit. In case of increased wear, it may be necessary to replace highly stressed components.
Non-stick Coated Parts	Monthly/immediately when adhesive tape begins to stick!	Check for damages and non-stick effect and replace, if necessary.

9.3 Cleaning Schedule

Assembly Group	Interval	Work to be Performed
Continuous Laminator	Every 3 days. Daily if necessary.	Cleaning of the coated deflection pulleys. Over time, residues of the adhesive tape may deposit. Remove moderate soiling with FT 100, heavy soiling with GS 200. Please Note: No mechanical cleaning!

NOTE: Please observe the operating instructions of the respective purchased parts as well.



10.0 Disassembly

Dismantling of the system is necessary for:

- Another location.
- At the beginning of the last phase of the system's life (when the purpose of the system is no longer served or there is corresponding wear and tear).

Dismantling may only be carried out by specialist personnel who are trained and qualified for this task. Wear personal protective equipment. This is important for:

- The determination of the appropriate safety instructions.
- The handling of any waste materials in connection with compliance with EU or respective national legislation on environmental protection at the time of decommissioning.
- The locally applicable laws, rules and regulations and the safety instructions in this manual are to be complied with.
- When handling utilities and auxiliaries, follow the safety instructions applicable to the respective product. Follow the safety data sheets for the utilities and auxiliaries.

For further information regarding the disassembly please refer to the manufacturer documentation.

11.0 Storage

The following rules apply to the storage of the system:

- Pack or conserve the system/components well.
- Store dry. Maximum relative humidity: 50-70%.
- Do not store outdoors.
- Do not expose to frost.
- Protect against direct sunlight.
- Store dust-free.
- Protect stored components against mechanical shocks and damage.

12.0 Disposal

12.1 Safe Disposal

The proper disposal of the components is the responsibility of the system operator. The local regulations regarding the disposal of utilities and auxiliaries must be observed.

Clean assembly groups and components properly and dismantle them in compliance with the applicable local occupational safety and environment protection regulations.

Recycle dismantled components:

- Scrap metals.
- Recycle plastic elements.
- Dispose of leftover components sorted by their material composition.

The local municipal authority or specialized waste management companies provide information on environmentally sound disposal.

12.2 Packaging

Environmentally sound disposal preserves the environment and allows a sustainable and efficient handling of resources.

- Comply with national and local regulations concerning the disposal of packaging.
- Dispose of packaging in such a way that a high degree of re-use and recycling is possible.

Improper disposal of packaging may be harmful to the environment and is a waste of valuable resources.

For further information regarding the disposal of the individual assembly groups see manufacturer documentation.

13.0 Annex

13.1 Documents Vulkan Technic

Umbrella Term	Document Name
Assembly Group Drawings	
011	Layout SGA 500 with Product Guide
021	SGA 500 Continuous Laminator
022	Product Guide Unit

13.2 Documents Purchased Parts SGA500 05-30

Supplier	Document Name
Ganter	Data sheet, Handlebars GN 310.pdf
	Data sheet, Rulers, Indicator arrows GN 711, GN 711.1.pdf
	Data sheet, Locking bolt GN 607.1.pdf
	Data sheet, Adjustable locking lever GN 604.pdf
	Data sheet, Cylinder heads GN 519.2.pdf
Glacier	ggb-datasheet-ggb-bp25- sintered bronze –plain bearing.pdf
Misumi	Data sheet, Spring anchors SAIPO8-20.pdf
	Data sheet, Rollers.pdf
Norelem	08910_A_Datasheet_4371_ drill bushes with collar _DIN_172_Shape_Ade.pdf

The purchase parts documentation will only be supplied in digital form with the enclosed data medium.

14.0 Manufacturer Contact Information

Vulkan Technic GmbH

Vulkanstraße 1 D-54578 Wiesbaum

Telephone: +49 6593/998-0 Fax: +49 6593/998-100

E-mail: info@vulkantechnic.de Web: www.vulkantechnic.de

For warranty & technical support:

3M-Matic[™] Equipment Center 6299 Dressler Rd. NW, North Canton, OH 44720

Telephone: 800-344-9883 Fax: 877-847-5883

CSR Email: CSPD-CSR@combi.com Web: www.store.combi.com/cspd

For spare parts:

Combi Packaging Systems LLC | CSPD Division 6299 Dressler Road NW North Canton, Ohio 44720

Telephone: 800-344-9883 Fax: 877-847-5883

CSR Email: CSPD-CSR@combi.com Web: www.store.combi.com/cspd



Industrial Adhesives and Tapes Division 3M Center, Building 225-3S-06 St. Paul, MN 55144 USA

Phone 1-800-362-3550 Web 3M.com/VHB 3M is a trademark of 3M. Used under license in Canada. All other trademarks are property of their respective owners. Please recycle. © 3M 2022. All rights reserved.