



# Manual



## DriveRadar® DataConverter



## Table of contents

<b>1</b>	<b>General information</b> .....	<b>4</b>
1.1	About this documentation .....	4
1.2	Content of the documentation.....	4
1.3	Other applicable documentation .....	4
1.4	Short designation .....	4
1.5	Structure of the warning notes .....	5
1.5.1	Meaning of signal words .....	5
1.5.2	Structure of section-related safety notes.....	5
1.5.3	Structure of embedded safety notes .....	5
1.6	Decimal separator in numerical values .....	6
1.7	Rights to claim under limited warranty .....	6
1.8	Product names and trademarks.....	6
1.8.1	Trademark of Beckhoff Automation GmbH .....	6
1.9	Copyright notice .....	6
<b>2</b>	<b>Safety notes</b> .....	<b>7</b>
2.1	Preliminary information .....	7
2.2	Target group .....	7
2.3	Network security and access protection .....	7
2.4	Designated use .....	7
<b>3</b>	<b>System description</b> .....	<b>8</b>
3.1	Introduction .....	8
3.2	Functions .....	8
3.3	Operating principle.....	8
3.4	Added value .....	8
<b>4</b>	<b>Project planning information</b> .....	<b>9</b>
4.1	Requirements.....	9
4.2	Software.....	9
4.3	Licensing.....	9
<b>5</b>	<b>Installation</b> .....	<b>10</b>
<b>6</b>	<b>User interface</b> .....	<b>11</b>
<b>7</b>	<b>Options</b> .....	<b>12</b>
<b>8</b>	<b>Conversion</b> .....	<b>13</b>
8.1	Manual conversion.....	13
8.2	Automatic conversion.....	13
	<b>Index</b> .....	<b>14</b>

## 1 General information

### 1.1 About this documentation

This documentation is an integral part of the product. The documentation is intended for all employees who perform work on the product.

Make sure this documentation is accessible and legible. Ensure that persons responsible for the systems and their operation as well as persons who work with the product independently have read through the documentation carefully and understood it. If you are unclear about any of the information in this documentation, or if you require further information, contact SEW-EURODRIVE.

### 1.2 Content of the documentation

The descriptions in this documentation apply to the software and firmware versions applicable at the time of publication. These descriptions might differ if you install later software or firmware versions. In this case, contact SEW-EURODRIVE.

### 1.3 Other applicable documentation

Observe the corresponding documentation for all further components.

Always use the latest edition of the documentation and the software.

The SEW-EURODRIVE website ([www.sew-eurodrive.com](http://www.sew-eurodrive.com)) provides a wide selection of documents for download in various languages. If required, you can also order printed and bound copies of the documentation from SEW-EURODRIVE.

### 1.4 Short designation

The following short designation is used in this documentation.

Designation	Short designation
DriveRadar® DataConverter	Software
Industrial Internet of Things	IIoT

## 1.5 Structure of the warning notes

### 1.5.1 Meaning of signal words

The following table shows the grading and meaning of the signal words for safety notes.

Signal word	Meaning	Consequences if disregarded
<b>⚠ DANGER</b>	Imminent hazard	Severe or fatal injuries
<b>⚠ WARNING</b>	Possible dangerous situation	Severe or fatal injuries
<b>⚠ CAUTION</b>	Possible dangerous situation	Minor injuries
<b>NOTICE</b>	Possible damage to property	Damage to the product or its environment
<b>INFORMATION</b>	Useful information or tip: Simplifies handling of the product.	

### 1.5.2 Structure of section-related safety notes

Section-related safety notes do not apply to a specific action but to several actions pertaining to one subject. The hazard symbols used either indicate a general hazard or a specific hazard.

This is the formal structure of a safety note for a specific section:



#### **SIGNAL WORD**

Type and source of hazard.

Possible consequence(s) if disregarded.

- Measure(s) to prevent the hazard.

### Meaning of the hazard symbols

The hazard symbols in the safety notes have the following meaning:

Hazard symbol	Meaning
	General hazard

### 1.5.3 Structure of embedded safety notes

Embedded safety notes are directly integrated into the instructions just before the description of the dangerous action.

This is the formal structure of an embedded safety note:

**⚠ SIGNAL WORD** Type and source of hazard. Possible consequence(s) if disregarded. Measure(s) to prevent the hazard.

**1.6 Decimal separator in numerical values**

In this document, a period is used to indicate the decimal separator.

Example: 30.5 kg

**1.7 Rights to claim under limited warranty**

Read the information in this documentation. This is essential for fault-free operation and fulfillment of any rights to claim under limited warranty. Read the documentation before you start working with the product.

**1.8 Product names and trademarks**

The brands and product names in this documentation are trademarks or registered trademarks of their respective titleholders.

**1.8.1 Trademark of Beckhoff Automation GmbH**

EtherCAT® is a registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.

**1.9 Copyright notice**

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## 2 Safety notes

### 2.1 Preliminary information

The following general safety notes serve the purpose of preventing injury to persons and damage to property. They primarily apply to the use of products described in this documentation. If you use additional components, also observe the relevant warning and safety notes.

### 2.2 Target group

**Software specialist** Any work with the software may only be performed by a specialist with suitable training. A specialist in this context is someone who has the following qualifications:

- Appropriate training
- Knowledge of this documentation and other applicable documentation
- SEW-EURODRIVE recommends additional training for products that are operated using this software.

### 2.3 Network security and access protection

A bus system makes it possible to adapt electronic drive technology components to the particulars of the machinery within wide limits. There is a risk that a change of parameters that cannot be detected externally may result in unexpected but not uncontrolled system behavior and may have a negative impact on operational safety, system availability, or data security.

Ensure that unauthorized access is prevented, especially with respect to Ethernet-based networked systems and engineering interfaces.

Use IT-specific safety standards to increase access protection to the ports. For a port overview, refer to the respective technical data of the device in use.

### 2.4 Designated use

The DriveRadar<sup>®</sup> DataConverter is used to convert IIoT sensor data with device-specific code from the JSON files generated by the DriveRadar<sup>®</sup> DataCollector into conventional units.

Observe the documentation for the components used.

Unintended or improper use of the product may result in severe injury to persons and damage to property.

## 3 System description

### 3.1 Introduction

Implementing a smart factory requires recording device data to obtain valuable insights on the state and diagnostics of machines and systems.

With its automatic recording and saving of IIoT sensor data from electronic SEW drive systems of generation B (control cabinet and decentralized drive technology), the DriveRadar® DataCollector enables easy access to the required information.

The device-specific, coded values from the JSON files generated by the DriveRadar® DataCollector are converted into conventional units manually or automatically and are saved using the DriveRadar® DataConverter.

For this purpose, the DriveRadar® DataConverter is additionally set up on customers' IT systems, edge units or SEW controllers close to the process.

### 3.2 Functions

Overview of the software features:

- IIoT sensor data coded for specific devices (Scope data and device parameter data) from the JSON files generated by the DriveRadar® DataCollector are converted into conventional physical units
- Manual or automatic conversion
- Source and target directories for JSON files can be chosen as required

### 3.3 Operating principle

The DriveRadar® DataConverter opens one or several JSON files from a specified data source, converts the data of the data source, and saves the JSON file(s) in a specified target directory under a user-defined file name.

### 3.4 Added value

The software offers the following benefits:

- Easy connection to the DriveRadar® DataCollector
- Flexible further processing of IIoT raw data retrieved from SEW devices



## 4 Project planning information

### 4.1 Requirements

Correct project planning and proper installation of the devices are required for successful startup and operation.

For detailed project planning information, refer to the documentation of the respective devices.

### 4.2 Software

The following software is required for operating the software:

- Microsoft Windows (64 bits) 7 or later
- Microsoft .NET Framework as of version 4.7.2
- DriveRadar® DataCollector

For more detailed information on the hardware requirements of the individual software components, see the documentation for the respective software.

### 4.3 Licensing

No licenses are required for operating the software.

The software is available free of charge under the Online Support of the SEW-EURODRIVE website ([www.sew-eurodrive.com](http://www.sew-eurodrive.com)).

## 5 Installation

1. Download the software from the Online Support section on the SEW-EURODRIVE website ([www.sew-eurodrive.com](http://www.sew-eurodrive.com)).
2. Double-click the installation file `setup.exe`. If your PC is not connected to the Internet, double click on `DataConverterSetup.msi`.
  - ⇒ The installation wizard opens.



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3. Follow the installation wizard.
  - ⇒ After accepting the license agreement, selecting users and choosing the destination directory, the software is installed on the PC.

### INFORMATION

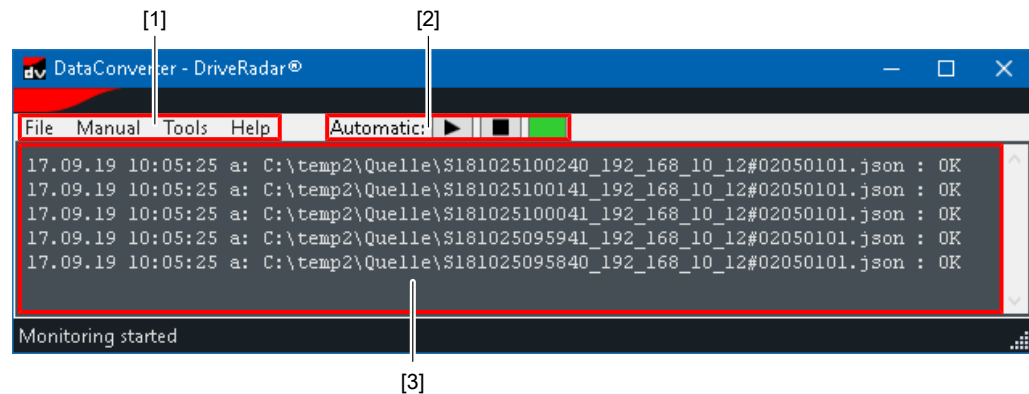


Aside from the program folders, files for configuration are created in the folder `C:\ProgramData\SEW\DataConverter`. To ensure proper functioning of the software, these files must not be deleted or moved. Make sure the signed in user has reading and writing rights for this directory.

4. Start the software.
  - ⇒ The software opens and is ready to use.

## 6 User interface

The software user interface provides the following sections:

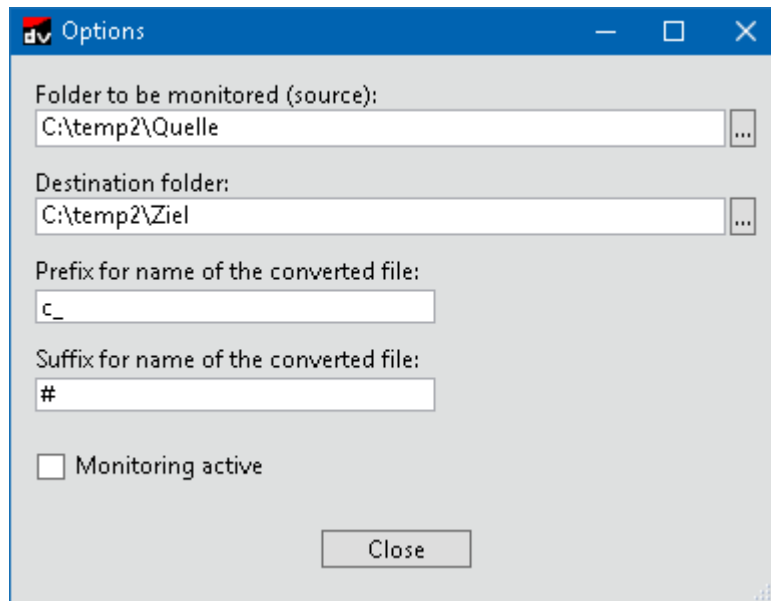


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No.	Use
[1]	Menu bar of the software
[2]	Control elements for automatic conversion with buttons for starting or stopping automatic conversion, and a status display (green: automatic conversion enabled)
[3]	List/log of the last converted files with date, time, source file name, and conversion state (e.g. display of possible errors such as incorrectly set parameters)

## 7 Options

The [Tools] > [Options] menu offers the following options for operating the software:



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- **Folder to be monitored (source)**  
Specify a directory that is monitored for automatic conversion of JSON files in this directory.
- **Destination folder**  
Specify a directory where the converted JSON files are saved after having been converted manually or automatically. Take account of necessary access rights and available memory size.

### INFORMATION



Use the two options described in the following to prevent the source file from being overwritten by a target file with the same name as the source file.

- **Prefix for name of the converted file**  
Specify a character or a string of characters to be prefixed to the file name of converted JSON files. (See screenshot, e.g. *c\_Source file name*)
- **Suffix for name of the converted file**  
Specify a character or a string of characters to be appended to the file name of converted JSON files. (See screenshot, e.g. *Source file name#*)
- **Monitoring active**  
Enable the checkbox if you wish to activate automatic conversion of JSON files in the directory specified for being monitored (corresponds to the [Start monitoring] button on the menu bar).

## 8 Conversion

### 8.1 Manual conversion

Various options concerning the data source are possible for converting JSON files manually. The target directory specified in the "Options" (→ 12) menu is always used as the storage location for converted JSON files.

Proceed as follows:

- ✓ You have already specified the target directory in the "Options" (→ 12) menu.
- 1. Choose "Convert" from the menu bar and click on the required data source:
  - **Source folder...**  
Convert all JSON files in the source directory specified in the "Options" (→ 12) menu, and save them to the target directory.
  - **Folder...**  
Convert all JSON files from a source directory to be selected, and save them to the target directory.
  - **File...**  
Convert one or several JSON files to be selected, and save to target directory.
- 2. Navigate to the required source directory or to the required source file and confirm your selection with [OK].
  - ⇒ The selected source data are converted and are saved to the specified target directory. Any performed conversions are listed in the monitoring list on the "User interface" (→ 11).

### 8.2 Automatic conversion

The software allows for monitoring a specified directory. This means that JSON files that are added to this directory will be converted automatically and saved to a specified target directory. Files that are already included in the directory are not converted when activating the automatic conversion function.

Proceed as follows:

- ✓ You have already specified the directory to be monitored (e.g. the output directory of the DriveRadar® DataCollector) and the target directory in the "Options" (→ 12) menu.
- 1. For automatic conversion click the [Start folder monitoring] button on the menu bar with the control elements. Instead you can enable the "Monitoring active" check box in the "Options" (→ 12) menu.
  - ⇒ Automatic conversion is active (monitoring state: green). JSON files in the specified source directory and JSON files that are added to this directory will be converted and saved to the specified target directory. Any performed conversions are listed in the monitoring list on the "User interface" (→ 11).
  - ⇒ To stop automatic conversion, click the [Stop folder monitoring] button on the menu bar with the control elements on the "User interface" (→ 11).

**Index**

**C**

Copyright notice ..... 6

**D**

Decimal separator ..... 6

**E**

Embedded safety notes..... 5

EtherCAT®

Beckhoff trademark ..... 6

**H**

Hazard symbols

Meaning..... 5

**N**

Notes

Designation in the documentation ..... 5

Meaning of the hazard symbols ..... 5

**P**

Product names ..... 6

Project planning..... 9

**R**

Rights to claim under limited warranty ..... 6

**S**

Safety notes

Bus systems ..... 7

Designation in the documentation ..... 5

Meaning of the hazard symbols ..... 5

Preliminary information..... 7

Structure of embedded ..... 5

Structure of section-related ..... 5

Section-related safety notes ..... 5

Signal words in safety notes..... 5

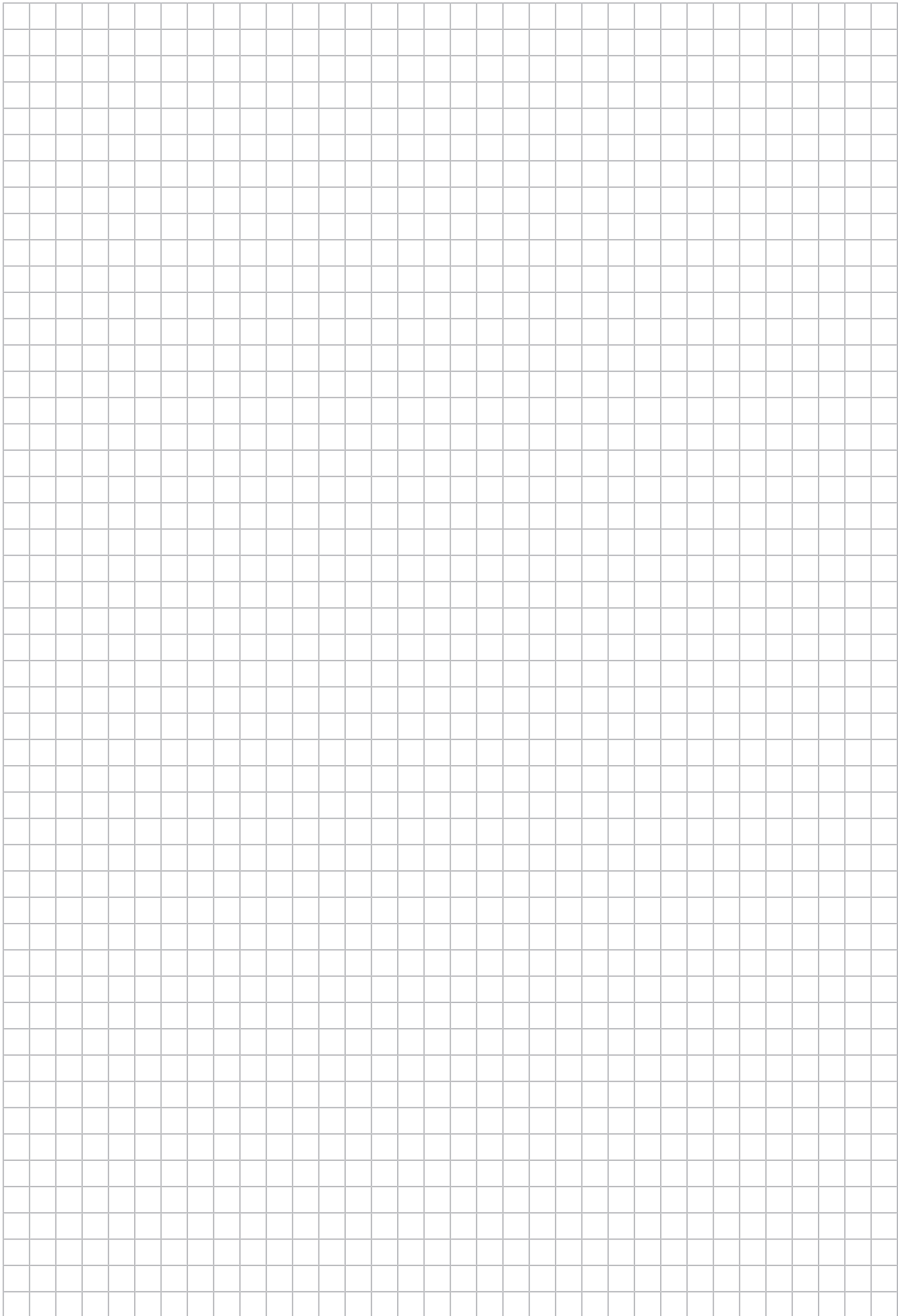
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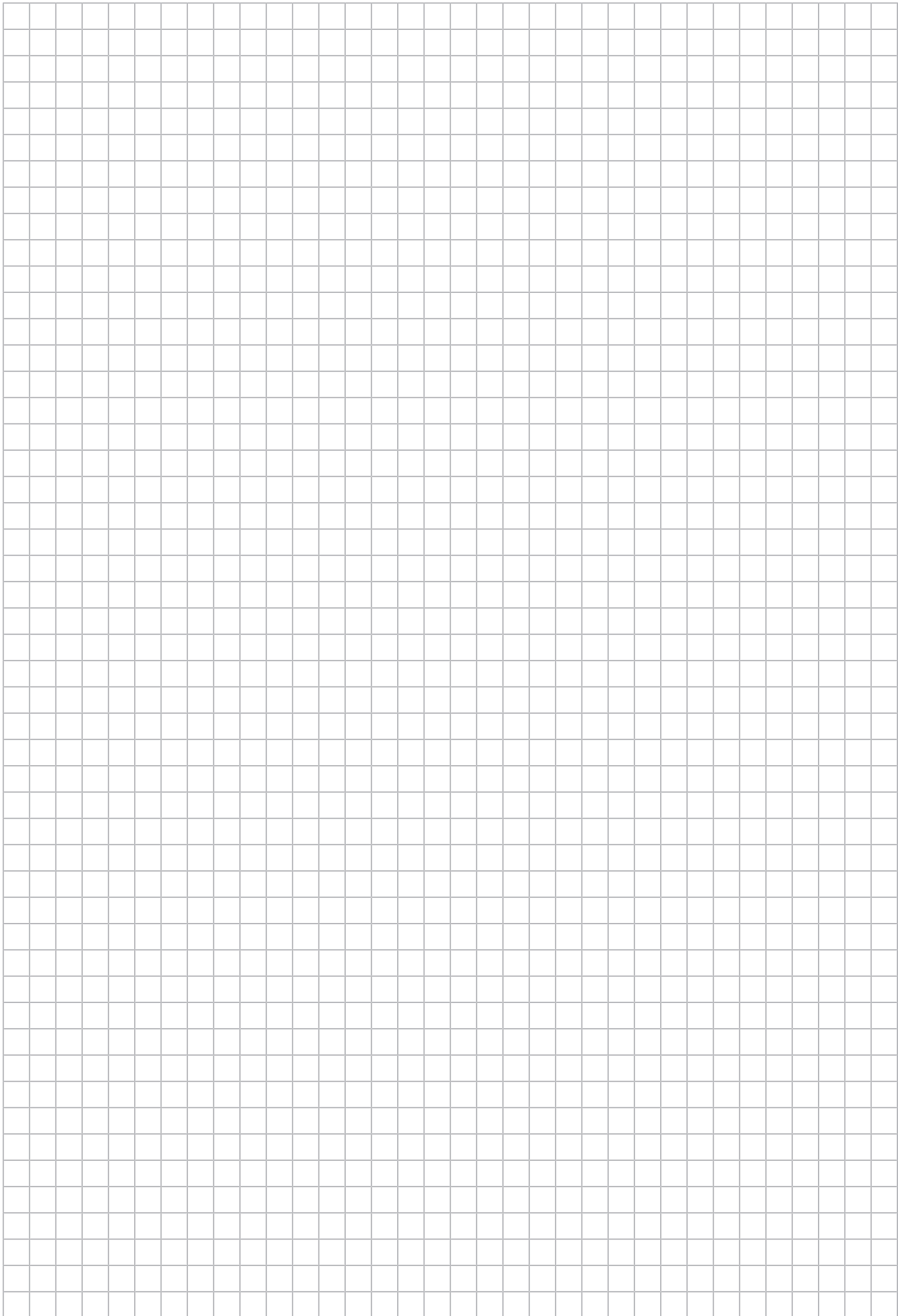
Target group ..... 7

Trademarks ..... 6

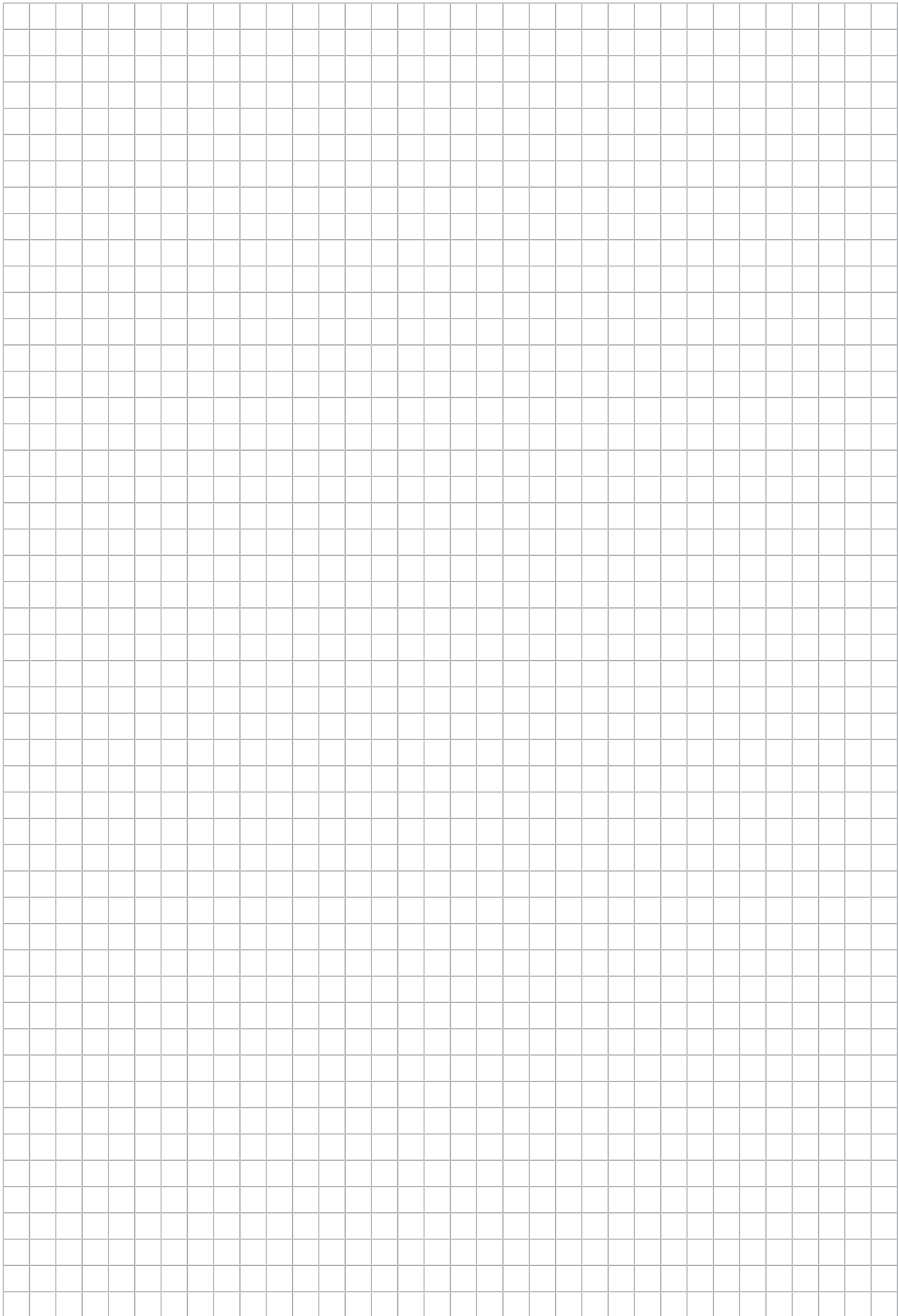
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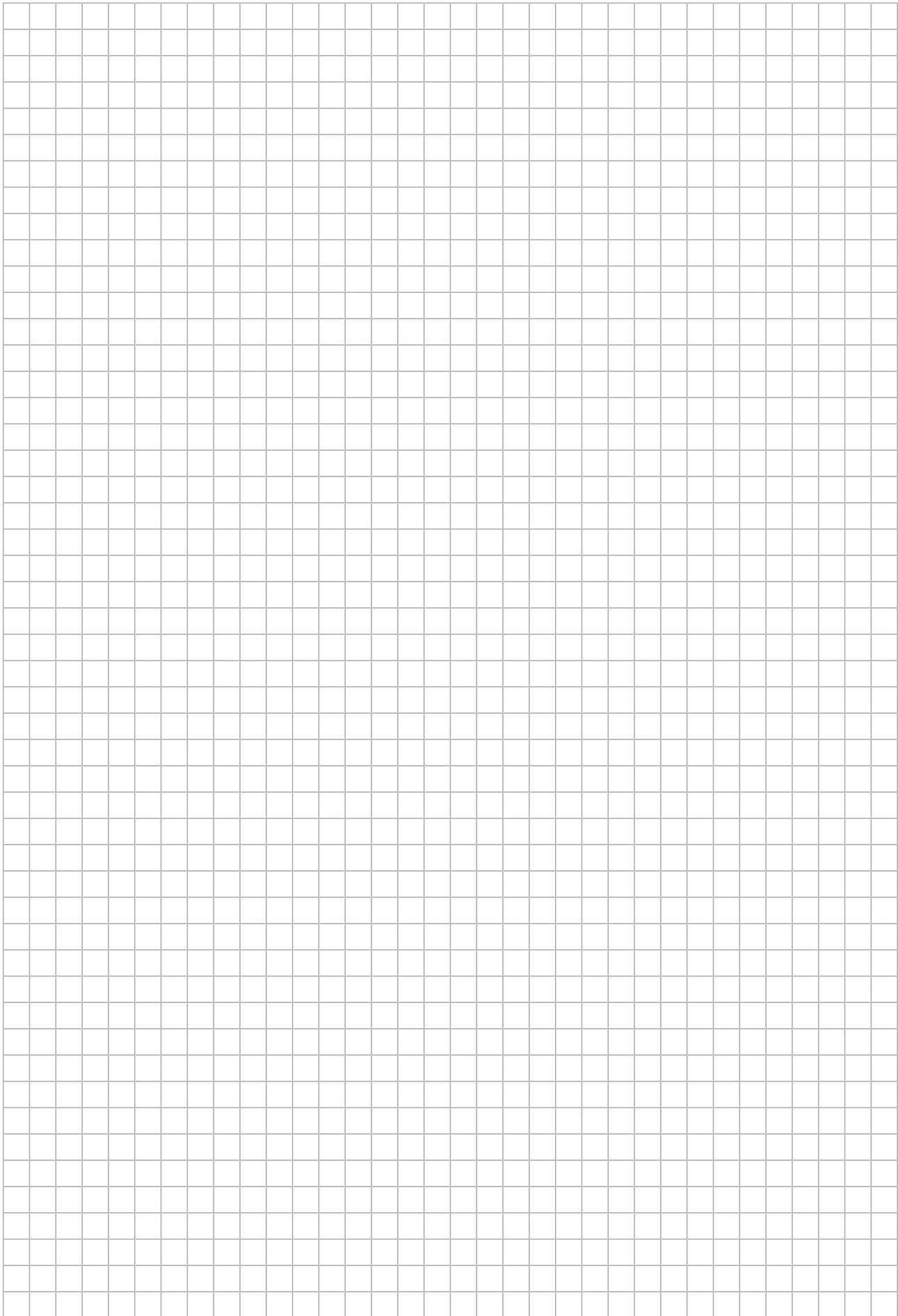
Use, designated ..... 7

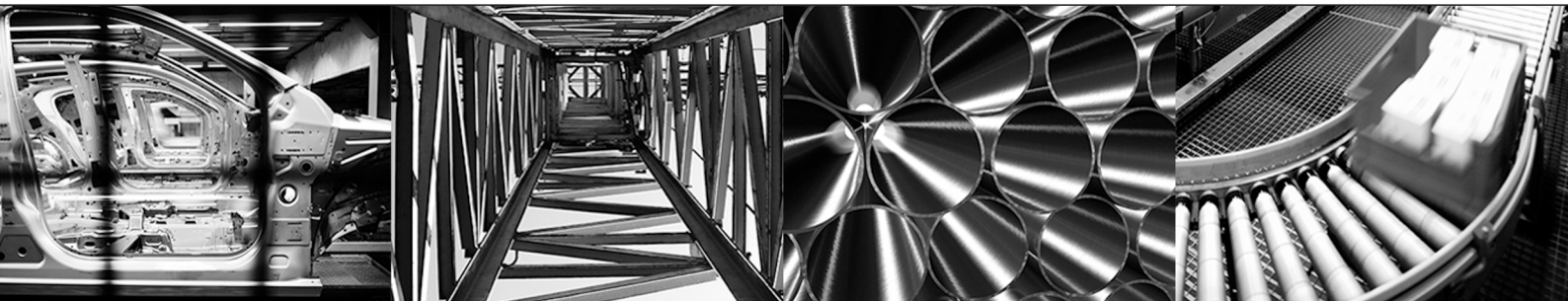


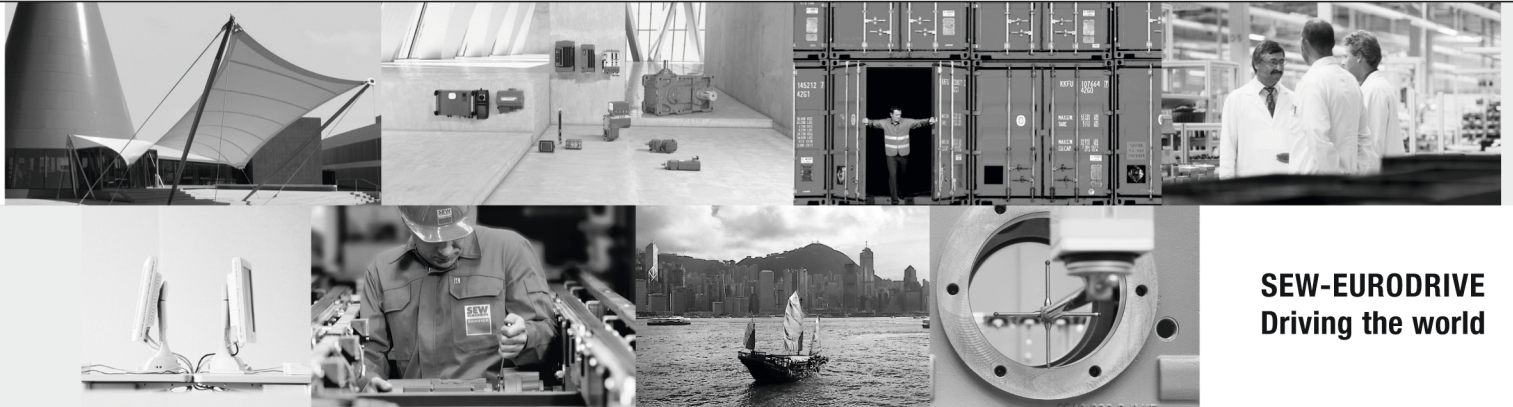












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