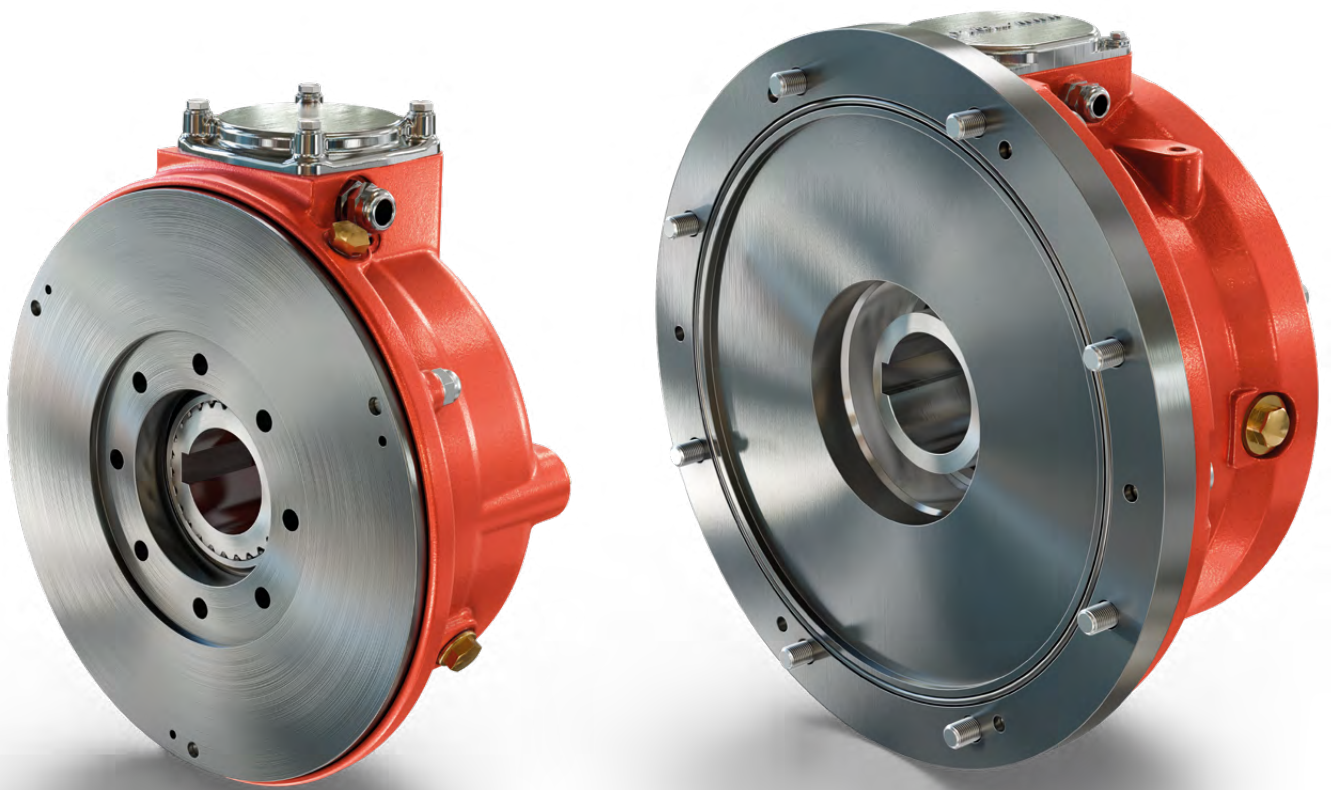




*your reliable partner*



# ROBA-stop<sup>®</sup> S

Water-proof, robust monoblock brake

[www.mayr.com](http://www.mayr.com)

**ROBA-stop® S** have two functions. During standard operation they work as holding brakes. When the drives have been switched off the brakes hold the system safely in position. During critical operational situations, e.g. with **EMERGENCY STOP** or power failure, **ROBA-stop® S** are designed to absorb peak loads with high friction work. These brakes are designed for vertical and horizontal operations.

### Dust and waterproof

Completely enclosed brake design corresponds to protection class IP 67.

### Permanent protection against corrosion

Protection class IP 67, a high-quality brake body primary coating, chromed interior parts or use of stainless steel ensure protection against corrosion.

### Easy handling

Compact construction and small outer diameters mean easy brake handling.

### Minimum maintenance requirements

Should the friction linings be worn, just readjust the air gap or replace the rotor with its friction linings.

### Minimum operating expenses

High working reliability and low maintenance expenditure reduce the operating expenses of the brake to a minimum.

### Condensation water inspection

Regular inspection is possible via a drain plug.

### Rectifier

A rectifier integrated in the terminal box allows a brake connection to AC-supply. The magnetic coil is designed as a DC-coil.

### Wear inspection

An additional microswitch can be installed into the **ROBA-stop® S** which monitors the wear on the friction linings.

### ① Brake housing and integral terminal box

The one-piece cast iron housing with integrated terminal box is extremely robust and, therefore, protected against mechanical damages.

### ② Optimum protection for electrical equipment

The electrical supply and the inspection and monitoring function microswitches are completely protected inside the cast terminal box.

### ② Release Monitoring

The **ROBA-stop® S** is fitted with a microswitch for release monitoring. The microswitch emits a signal when the brake is opened.

### Tacho attachment

The brake body can be fitted with a tacho attachment. If no tacho is used, the coil carrier is closed by a cover.

### Emergency Hand Release

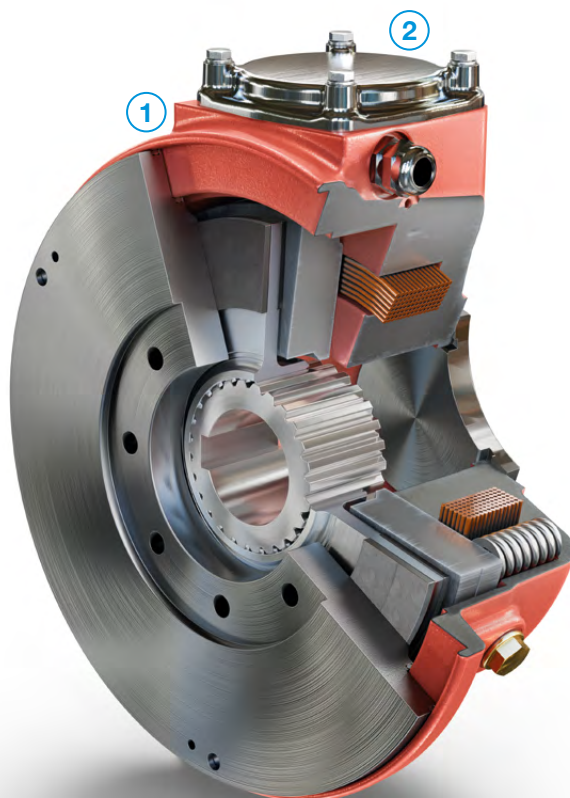
The seawater brake is fitted with an emergency hand release. The brake can be released mechanically via two screws (bracket hand release available on request).

### Inspection without system downtimes

A threaded hole allows fast inspection of the air gap without dismantling the brake or system stoppage.

### Motors with self-ventilation

In order to assemble the **ROBA-stop® S** onto motors with continuous shafts on the B-bearing side, the closed standard-cover on the brake rear side is exchanged for the open cover with integrated radial shaft sealing ring.



### Anti-condensation heating

This heating system prevents condensation water inside the brake. Its usage is especially recommended at temperatures below zero degrees Celsius or in high air humidity.

### Braking torque

By changing the number of springs, the braking torque can be adapted to the customer's requirements.

## Quality, Experience, Competence



# CERTIFICATE



This is to certify that

  
Ihr zuverlässiger Partner

**Chr. Mayr GmbH + Co. KG**  
Eichenstraße 1  
87665 Mauerstetten  
Germany

with the organizational units/sites as listed in the annex

has implemented and maintains a **Quality Management System**.

Scope:  
Development, manufacturing and distribution of couplings, clutches, brakes, transmission units, electrical drive and control technology. Electrical accessories and power supplies for clutches and brakes

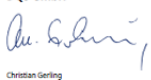
Through an audit, documented in a report, it was verified that the management system fulfills the requirements of the following standard:

**ISO 9001 : 2015**

|                              |             |
|------------------------------|-------------|
| Certificate registration no. | 003384 QM15 |
| Date of revision             | 2024-07-05  |
| Valid from                   | 2024-07-10  |
| Valid until                  | 2027-07-09  |
| Date of certification        | 2024-06-14  |




**DQS GmbH**



Christian Gierling  
Managing Director

Accredited body: DQS GmbH, August-Schmidt-Straße 21, 50823 Frankfurt am Main, Germany  
The validity of the certification can only be verified by the QR code.



1 / 2

Electronically published by ABS Hamburg.  
Reference W00336832, dated 26-Nov-2025



|                      |                                |
|----------------------|--------------------------------|
| CERTIFICATE NUMBER   | 25-0336832-PDA                 |
| EFFECTIVE DATE       | 25-Nov-2025                    |
| EXPIRY DATE          | 24-Nov-2030                    |
| ABS TECHNICAL OFFICE | Hamburg Engineering Department |

## CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

**CHR. MAYR GMBH + CO. KG**  
located at

**EICHENSTRASSE 1, D-87665 MAUERSTETTEN, Germany**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate:

Product: Brake, Electromagnetic  
Model: RobaStop-S  
8/856, ..., 9/856, ..., 10/856, ..., 11/856.

Endorsements:  
Tier: 3 - Type Approved, unit certification not required

This Product Design Assessment (PDA) Certificate remains valid until 24/Nov/2030 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping  
  
Esteban Malazon, Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A/1.5.3 Terms and Conditions of the Request for Product Type Approval and Agreement (2018).

Certificate of Product Design Assessment Rev 3  
of 1

Page 1

Sensitivity: Internal & Restricted

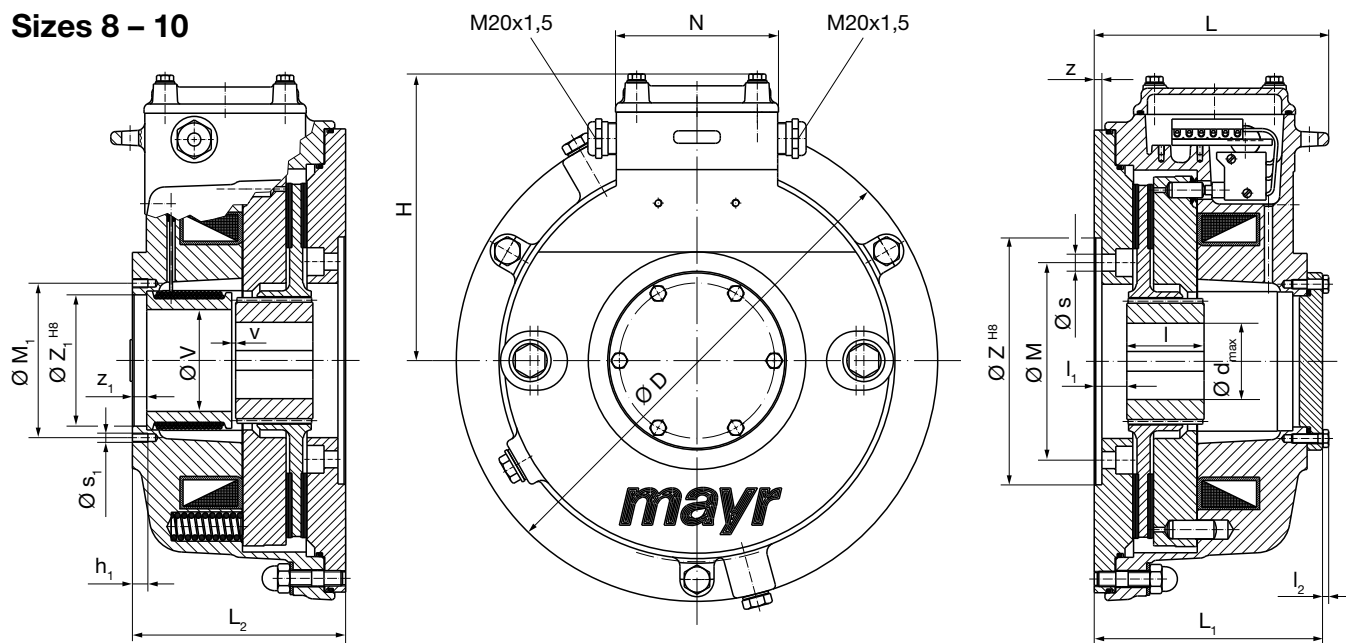
  
C US  
LR 108927



ROBA-stop® S back views with hand release

## Dimension sheet [mm]

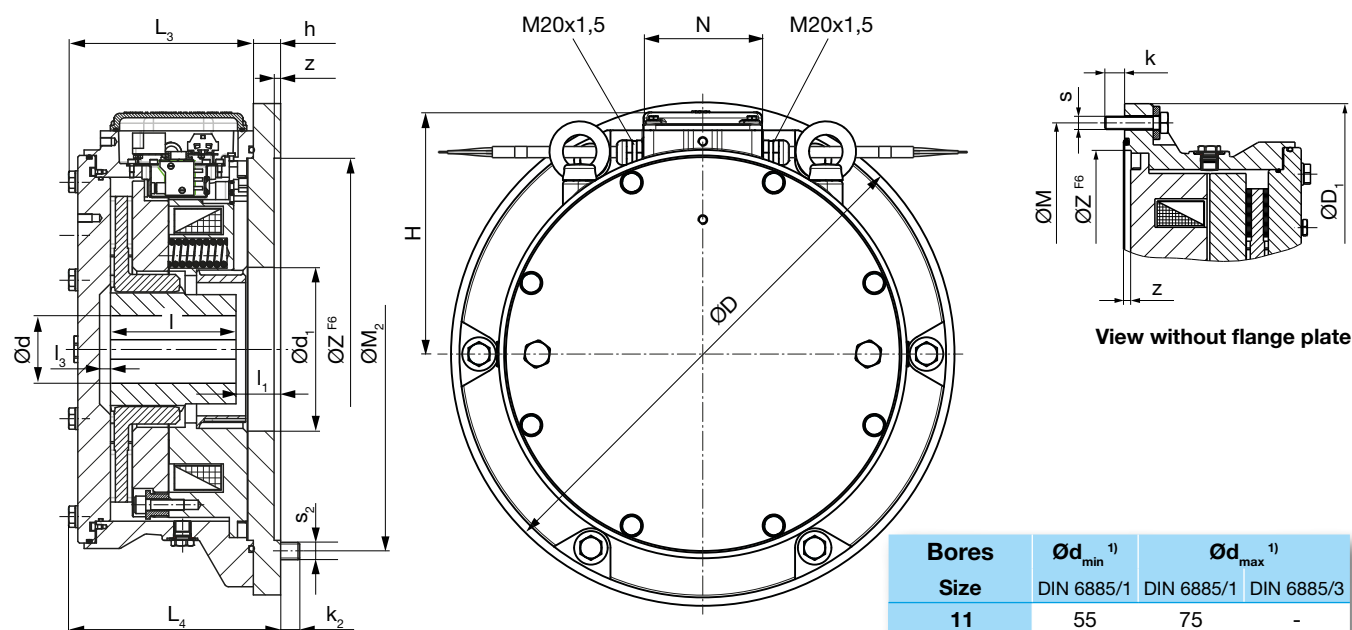
### Sizes 8 – 10



| Size | ØD  | H   | h <sub>1</sub> | L     | L <sub>1</sub> | L <sub>2</sub> | l <sup>1)</sup> | l <sub>1</sub>    | l <sub>2</sub> | ØM  | ØM <sub>1</sub> | N   | s       | s <sub>1</sub> | ØV | v                  | Z   | Z <sub>1</sub> | z | z <sub>1</sub> |
|------|-----|-----|----------------|-------|----------------|----------------|-----------------|-------------------|----------------|-----|-----------------|-----|---------|----------------|----|--------------------|-----|----------------|---|----------------|
| 8    | 240 | 155 | 10             | 143.5 | 118            | 108            | 35              | 12                | 4              | 100 | 100             | 109 | 6 x ø9  | M6             | 46 | 6.5                | 130 | 85             | 5 | 5.5            |
| 9    | 270 | 167 | 10             | 138.5 | 128.5          | 118.5          | 35              | 18                | 4              | 110 | 100             | 109 | 8 x ø9  | M6             | 50 | 6.5                | 140 | 85             | 5 | 6              |
| 10   | 310 | 185 | 10             | 152.0 | 148            | 138            | 50              | 21 <sub>-10</sub> | 4              | 128 | 100             | 109 | 8 x ø11 | M6             | 66 | 2.0 <sup>+10</sup> | 160 | 85             | 5 | 9              |

| Bores<br>Size | Ød <sub>min</sub> <sup>1)</sup> | Ød <sub>max</sub> <sup>1)</sup> |            |
|---------------|---------------------------------|---------------------------------|------------|
|               | DIN 6885/1                      | DIN 6885/1                      | DIN 6885/3 |
| 8             | 25                              | 45                              | -          |
| 9             | 25                              | 47                              | 50         |
| 10            | 25                              | 57                              | 60         |

### Size 11



| Bores<br>Size | Ød <sub>min</sub> <sup>1)</sup> | Ød <sub>max</sub> <sup>1)</sup> |            |
|---------------|---------------------------------|---------------------------------|------------|
|               | DIN 6885/1                      | DIN 6885/1                      | DIN 6885/3 |
| 11            | 55                              | 75                              | -          |

| Size | ØD <sub>1</sub> | ØD  | ØD <sub>1</sub> | H   | h  | k  | k <sub>2</sub> | L <sub>3</sub> | L <sub>4</sub> | l <sup>1)</sup> | l <sub>1</sub> | l <sub>3</sub> | ØM  | ØM <sub>2</sub> | N   | s       | s <sub>2</sub> | Z   | z |
|------|-----------------|-----|-----------------|-----|----|----|----------------|----------------|----------------|-----------------|----------------|----------------|-----|-----------------|-----|---------|----------------|-----|---|
| 11   | 150             | 450 | 435             | 217 | 25 | 24 | 17.5           | 169.1          | 194.1          | 115             | 40.8           | 10             | 400 | 400             | 106 | 6 x M12 | 8 x M16        | 350 | 6 |

1) Please observe the load on the shaft or key!



## Technical Data and Order Number

| Technical Data                                     |                      |                                      | Size                  |                        |                       |                        |
|----------------------------------------------------|----------------------|--------------------------------------|-----------------------|------------------------|-----------------------|------------------------|
|                                                    |                      |                                      | 8                     | 9                      | 10                    | 11                     |
| Braking torque <sup>2)</sup>                       | M <sub>1</sub>       | [Nm]                                 | 100                   | 200                    | 400                   | 800                    |
| Braking torque <sup>2)</sup> with overexcitation   | M <sub>1</sub>       | [Nm]                                 | 150                   | 300                    | 480                   | 1200                   |
| Max. speed                                         | n <sub>max</sub>     | [rpm]                                | 3400                  | 3000                   | 3000                  | 3000                   |
| Electrical power                                   | P <sub>20</sub>      | [W]                                  | 85                    | 100                    | 120                   | 268                    |
|                                                    | ACH <sup>3)</sup>    | [W]                                  | 15                    | 15                     | 21                    | on request             |
| Moment of inertia rotor + hub for d <sub>max</sub> | I                    | [10 <sup>-4</sup> kgm <sup>2</sup> ] | 17.9                  | 33.7                   | 84.8                  | 360.6                  |
| Tightening torque fixing screws                    | s                    | [Nm]                                 | 23                    | 23                     | 46                    | 61                     |
|                                                    | s <sub>2</sub>       | [Nm]                                 | -                     | -                      | -                     | 122                    |
| Friction work                                      | per 0.1 mm wear      | Q <sub>0.1</sub>                     | 44 x 10 <sup>6</sup>  | 54.5 x 10 <sup>6</sup> | 70 x 10 <sup>6</sup>  | 95 x 10 <sup>6</sup>   |
|                                                    | up to re-adjustment  | Q <sub>N</sub>                       | 132 x 10 <sup>6</sup> | 272 x 10 <sup>6</sup>  | 420 x 10 <sup>6</sup> | 475 x 10 <sup>6</sup>  |
|                                                    | up to wear on rotor  | Q <sub>ges.</sub>                    | 308 x 10 <sup>6</sup> | 545 x 10 <sup>6</sup>  | 770 x 10 <sup>6</sup> | 1900 x 10 <sup>6</sup> |
| Weight                                             | with flange plate    | [kg]                                 | 19                    | 26                     | 42                    | 95                     |
|                                                    | without flange plate | [kg]                                 | -                     | -                      | -                     | 86                     |

2) Tolerance: + 40 % / - 20 %. Other braking torques available on request.

3) ACH = Anti-condensation heating, standard voltages [VAC]: 115; 230.

### Order number – Sizes 8 - 10

| — / 8 5 6 . 4 1 7 . — / — / — / — |               |                                                                                                        |             |                           |                           |                                |  |  |
|-----------------------------------|---------------|--------------------------------------------------------------------------------------------------------|-------------|---------------------------|---------------------------|--------------------------------|--|--|
| Size<br>8<br>9<br>10              | Terminal box: | with terminal<br>with half-wave rectifier<br>with bridge rectifier                                     | 1<br>4<br>5 | Voltage * [VDC]<br>± 10 % | Bore<br>Ø d <sup>H7</sup> | Keyway<br>acc.                 |  |  |
|                                   | Options:      | - Anti-condensation heating<br>- Microswitch for wear inspection<br>- Other Types available on request |             | 24<br>104<br>180<br>207   | (Dimensions<br>page 4)    | DIN 6885/1<br>or<br>DIN 6885/3 |  |  |

Example: 9 / 856.417.4 / 104 / 30 / 6885/1

\* Standard voltages [VDC]: 24; 104; 180; 207 Permitted voltage tolerance: ± 10 % acc. DIN IEC 60038.

### Order number – Size 11

| — / 8 5 6 . 4 1 — . — / — / — / — |                   |                                                                                                     |                  |                            |                           |                |  |  |
|-----------------------------------|-------------------|-----------------------------------------------------------------------------------------------------|------------------|----------------------------|---------------------------|----------------|--|--|
| Size<br>11                        | Additional Parts: | without additional parts<br>flange plate<br>flange plate + wear monitoring<br>wear monitoring       | 3<br>5<br>6<br>8 | Voltage ** [VDC]<br>± 10 % | Bore<br>Ø d <sup>H7</sup> | Keyway<br>acc. |  |  |
|                                   | Terminal box:     | with terminal<br>with half-wave rectifier<br>with bridge rectifier                                  | 1<br>4<br>5      | 24<br>104<br>180<br>207    | (Dimensions<br>page 4)    | DIN 6885/1     |  |  |
|                                   | Options:          | - Anti-condensation heating<br>- Tacho attachment possibility<br>- Other Types available on request |                  |                            |                           |                |  |  |

Example: 11 / 856.413.5 / 180 / 60 / 6885/1

\*\* Standard voltages [VDC]: 24; 104; 180; 207. Permitted voltage tolerance: ± 10 % acc. DIN IEC 60038.

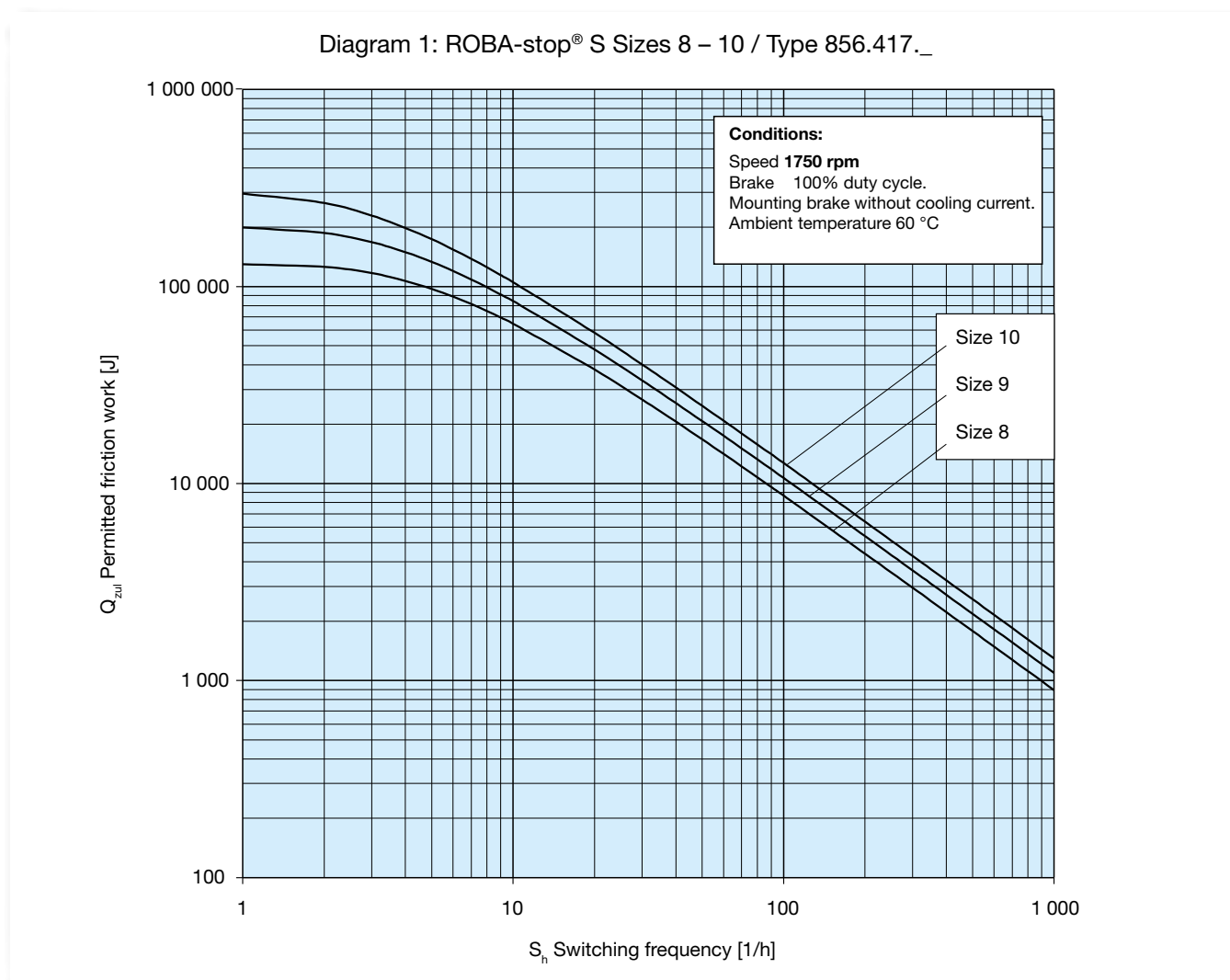


On request ROBA-stop® S brakes can also be delivered with UL approval.

## Friction Power Diagrams

### Permitted Brake Friction Work

The permitted friction work dependent on the switching frequency, as shown in the characteristic curves (pages 6 and 7) must not be exceeded. Diagrams 1 and 2 show the permitted friction work  $Q_{perm}$  for the various brake sizes and speeds (1750 rpm with brake Sizes 8 – 10 and 1000 rpm with brake Size 11) with reference to the switching frequency on which it is based.



For higher speeds than 1750 rpm (Size 8,9 and 10): Please contact the manufacturers for information on the permitted friction work  $Q_{r zul}$ !

Diagram 2: ROBA-stop<sup>®</sup> S Size 11 / Type 856.41\_.\_

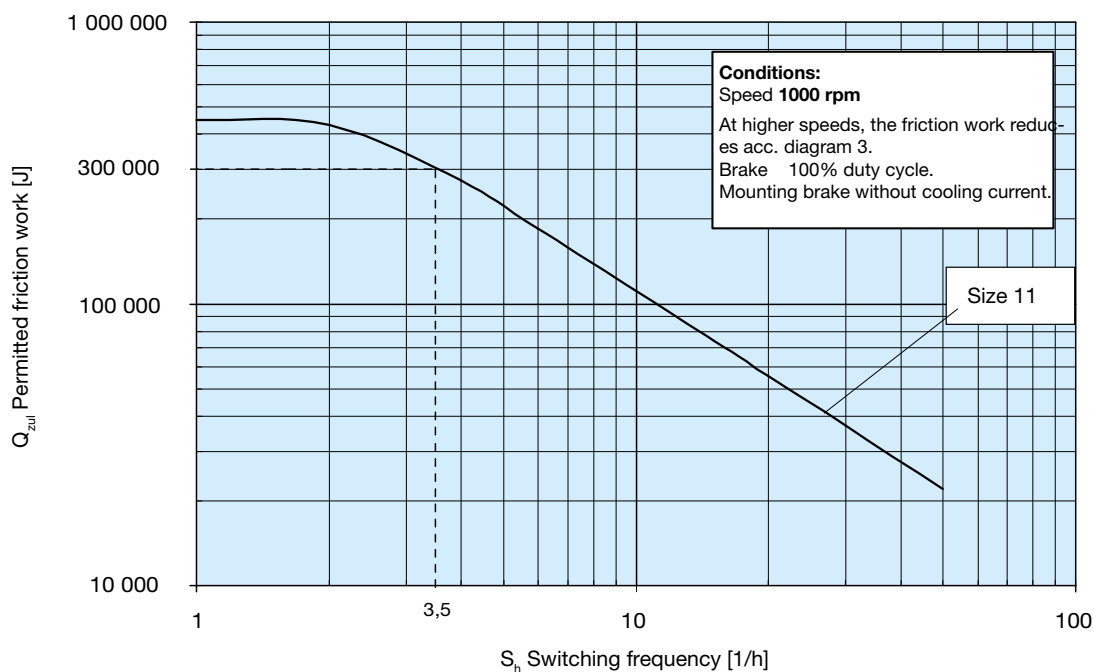
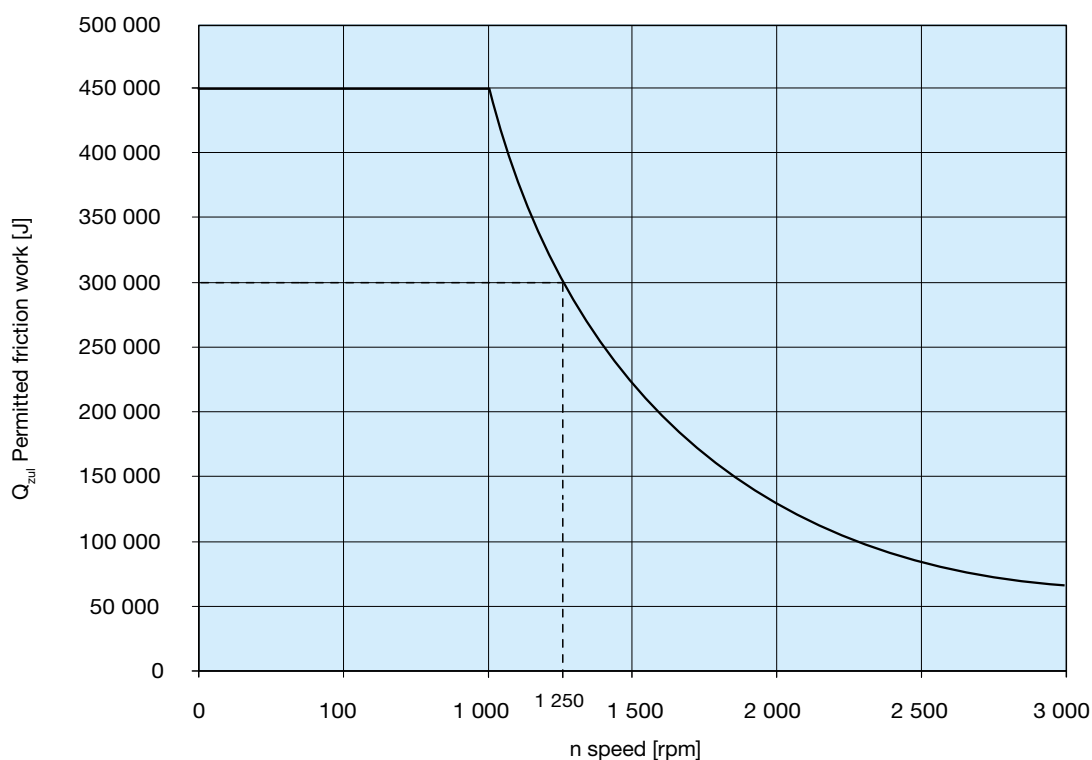


Diagram 3: ROBA-stop<sup>®</sup> S Size 11 / Type 856.41\_.\_



For higher speeds than 1000 rpm (Size 11): Please observe diagram 3!

**Design example for a speed of 1250 rpm:**

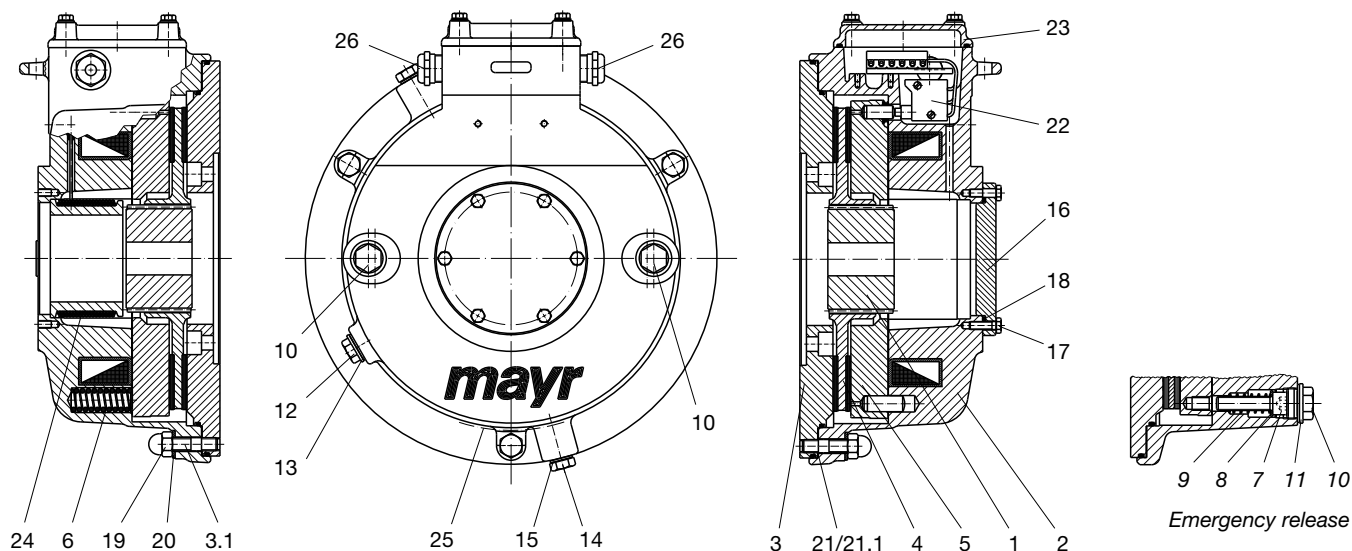
Permitted friction work  $Q_{zul}$  for 1250 rpm from diagram 3: 300 000 J.

This value limits the permitted friction work  $Q_{zul}$  acc. diagram 2 for low switching frequencies (here up to 3.5 switchings per hour).

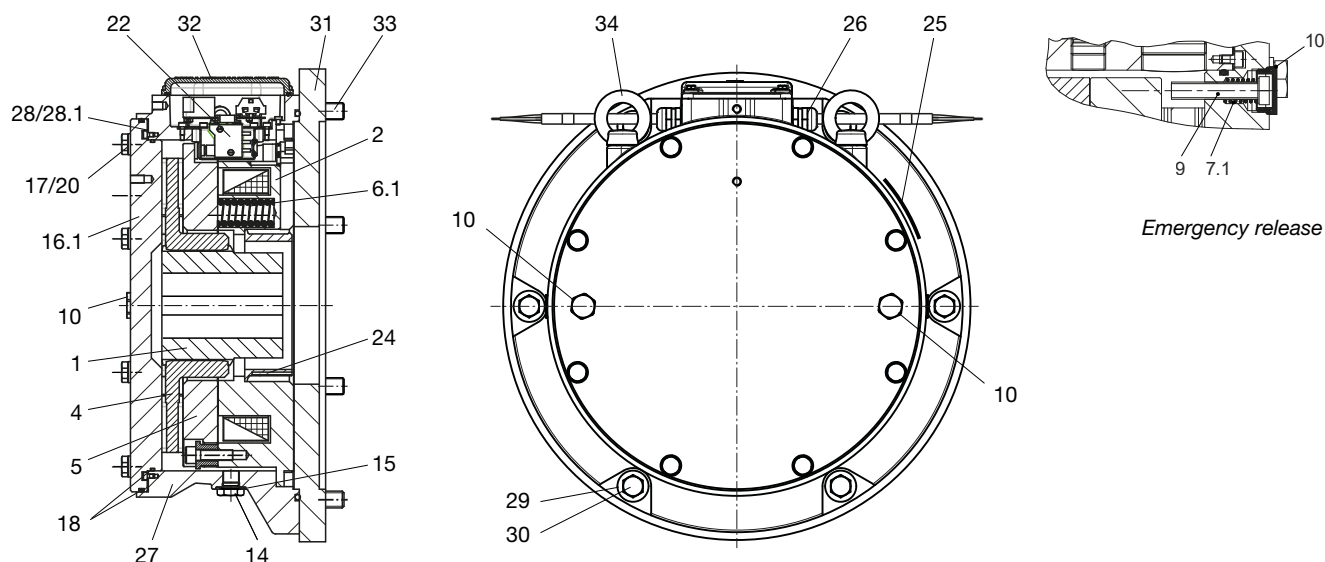
The permitted friction work  $Q_{zul}$  reduces acc. diagram 2 with higher switching frequencies.

## Technical Explanations

### Sizes 8 – 10



### Size 11



### Parts List

|            |                             |             |                                  |                 |           |                                  |
|------------|-----------------------------|-------------|----------------------------------|-----------------|-----------|----------------------------------|
| <b>1</b>   | Toothed hub                 | <b>10</b>   | Screw plug                       | DIN 7604        | <b>22</b> | Microswitch (assembly)           |
| <b>2</b>   | Coil carrier (assembly)     | <b>11</b>   | Copper sealing ring              | DIN 7603 A      | <b>23</b> | Terminal (box assembly)          |
| <b>3</b>   | Flange plate (assembly)     | <b>12</b>   | Screw plug                       | DIN 7604        | <b>24</b> | Heating (assembly) (option)      |
| <b>3.1</b> | Stud screws                 | <b>13</b>   | Copper sealing ring              | DIN 7603 A      | <b>25</b> | Type tag                         |
| <b>4</b>   | Rotor (assembly)            | <b>14</b>   | Screw plug                       | DIN 7604        | <b>26</b> | Cable gland                      |
| <b>5</b>   | Armature disk (assembly)    | <b>15</b>   | Copper sealing ring              | DIN 7603 A      | <b>27</b> | Housing                          |
| <b>6</b>   | Thrust spring               | <b>16</b>   | Sealing cover                    |                 | <b>28</b> | Adjusting plate (28.1 cap screw) |
| <b>6.1</b> | Thrust spring internal pole | <b>16.1</b> | Brake plate                      |                 | <b>29</b> | Washer                           |
| <b>6.2</b> | Thrust spring external pole | <b>17</b>   | Hexagon head screw               | DIN EN ISO 4017 | <b>30</b> | Hexagon head screw               |
| <b>7</b>   | Cap screw                   | <b>18</b>   | O-ring                           | DIN 3771        | <b>31</b> | Flange plate (Option)            |
| <b>7.1</b> | Hexagon head screw          | <b>19</b>   | Cap nut                          | DIN 1587        | <b>32</b> | Cover (completely)               |
| <b>8</b>   | Washer                      | <b>20</b>   | Washer                           | DIN EN ISO 7089 | <b>33</b> | Cap screw                        |
| <b>9</b>   | Thrust spring               | <b>21</b>   | Distance washer (21.1 cap screw) |                 | <b>34</b> | Eyebolt                          |



## Type

### Standard

- Release monitoring
- Emergency hand release
- Terminal block
- Condensat drain screw
- Air gap inspection opening
- Protection IP 67
- Protected against corrosion

### Options

- Wear inspection
- Hand release
- Hand release with locking mechanism
- Installed rectifier
- Anti-condensation heating
- Tacho attachment possible (Standard Sizes 8 – 10)
- Available without flange plate (only on Size 11)

## Installation Conditions

**Before installing the ROBA-stop® S brake, please observe the following points:**

- The eccentricity of the shaft end in relation to the mounting pitch circle must not exceed 0.4 mm.
- The axial run-out deviation of the screw-on surface to the shaft must not exceed the permitted axial run-out tolerance acc. DIN 42955. Larger deviations can lead to a drop in torque, to continuous grinding of the rotor and to overheating.
- The rotor and brake surfaces must be oil and grease-free.

## Brake Installation

Please find a detailed installation description in the Installation and Operational Instructions for the product.

### Sizes 8 – 10:

- 1) Loose the cap nuts (19) and remove the washers (20).
- 2) Remove the flange plate (3) from the brake by hitting the double end studs (3.1) lightly with a plastic hammer.
- 3) Screw the flange plate (3) onto the motor bearing shield or onto the machine wall (to be sealed customer-side; if you have any questions concerning the sealing, please contact the manufacturer).
- 4) Mount the toothed hub (1) onto the shaft and secure it axially.
- 5) Push the rotor (4) onto the toothed hub (1) by hand.
- 6) Push the brake over the double end studs (3.1) and position it onto the flange plate (3).
- 7) Screw the brake on using the cap nuts (19) with washers (20) placed under them.
- 8) Unscrew the screw plug (10) incl. the copper sealing ring (11).
- 9) Unscrew both emergency release screws (7) from the armature disk (5).
- 10) Screw the screw plugs (10) incl. the copper sealing rings (11) back in, making sure that the emergency release screws (7) are spring applied.
- 11) Check the air gap: 0.2 on Size 8; 0.25 on Sizes 9 – 10.

### Size 11:

- 1) Only for design with flange plate (Pos. 31/option): Loosen the hexagon head screws (30) and remove the flange plate from the brake. Screw the flange plate to the machine wall using the cap screws (33) (must be sealed customer-side).
- 2) Remove the brake plate (16.1) by loosening the hexagon head screws (17).
- 3) Take the rotor (4) out of the brake.
- 4) Mount the toothed hub (1) onto the shaft and secure it axially.
- 5) Screw the brake onto the flange plate (31) or the customer-side brake surface.
- 6) Push the rotor (4) onto the toothed hub (1) by hand.
- 7) Mount the brake plate (16.1) again. Please make sure that the emergency release has the correct angular position.
- 8) Check the air gap: 0.45 Size 11.

## Adjusting the Braking Torque

The ROBA-stop® S are set manufacturer-side to the nominal torque or the braking torque requested on order. In order to reduce the braking torque, the brake must be dismantled and the thrust springs must be removed.

Braking torque adjustment takes place via different configuration variants of the thrust springs in the coil carrier:

Sizes 8 – 10: Always two springs (6) opposite each other must be removed or inserted to make sure that there is an even load on the armature disk (5).

Size 11: Braking torque adjustment is carried out by evenly removing or adding thrust springs (6.1 and 6.2) to the internal or external pole of the coil carrier (2).

## Air Gap Inspection

The nominal air gap between the armature disk (5) and the coil carrier (2) is set manufacturer-side to 0.2 on Size 8, to 0.25 on Sizes 9 – 10 and to 0.45 on Size 11.

However, the air gap between the armature disk (5) and the coil carrier (2) increases due to wear on the friction linings. The wear condition of the rotor (4) must be monitored in regular air gap inspections.

Air gap inspection on a de-energized brake!

- 1) Unscrew the screw plug (12) incl. the copper sealing ring (13).
- 2) Check the air gap using a feeler gauge. The air gap value must lie between the nominal air gap value and the max. air gap value. (Max. air gap: Size 8 = 0.75; Size 9 = 1.0; Size 10 = 1.1; Size 11 = 1.65). Once the max. air gap has been reached, the air gap must be re-adjusted.

## Air Gap Re-adjustment

### Sizes 8 – 10

The air gap can be re-adjusted once by removing the distance washers (21) between the flange plate (3) and the coil carrier (2).

- 1) Unscrew the screw plugs (10) incl. the copper sealing rings (11).
- 2) Screw in both emergency release screws (7) evenly up to its limit onto the coil carrier (2).
- 3) Loosen the cap nuts (19) with the washers (20).
- 4) Remove the brake from the flange plate (3).
- 5) Unscrew the distance washers (21) from the flange plate (3).
- 6) Push the brake over the double end studs (3.1) and position it onto the flange plate (3).
- 7) Screw the brake on using the cap nuts (19) or washers (20).
- 8) Procedure as described in "Brake Installation, Sizes 8 – 10", according to points 9) – 11).

In case the air gap exceeds the max. value again and the distance washers (21) have already been removed, the rotor (4) must be replaced.

### Size 11:

The air gap can be re-adjusted twice. This is done by removing one layer of adjusting plate (Item 28) on the housing (27).

- 1) Remove the brake plate (16.1) by loosening the hexagon head screws (17).
- 2) Loosen the cap screws (28.1), remove one layer of adjusting plate (28). Tighten the cap screw (28.1) again.
- 3) Procedure as described in "Brake Installation, Sizes 11", according to points 7) – 8).

Once the max. air gap has been reached again, the rotor (4) must be replaced.

Please keep a replacement rotor in stock in order to avoid system downtimes.

## Replacement of Worn Parts

The rotor (4), the armature disk (5) and the toothed hub (1) are parts which are subject to wear.

- 1) Follow the procedure as described in section "Air Gap Re-adjustment":
  - Size 8 – 10 according to points 1 – 4
  - Size 11 according to point 1
- 2) Check the parts subject to wear and replace them if necessary.
  - Replacing the Rotor:
    - Size 11: Attach the adjusting plate (28) to the housing (27) using the cap screws (28.1). (adjusting plate and cap screws are part of the replacement rotor delivery).
    - Sizes 8 – 11: Replace the rotor (4).
    - Sizes 8 – 10: Screw the distance washers (21) onto the flange plate (3) using the cap screws (21.1). (Distance washer and cap screws are part of the replacement rotor delivery).
- 3) Mount the brake according to "Brake Installation":
  - Sizes 8 – 10 according to points 6 – 7 and points 9 – 10
  - Size 11 according to point 7
- 4) Check the air gap:

## Release Monitoring

The ROBA-stop<sup>®</sup> S is equipped with a microswitch for release monitoring as part of the standard delivery. The microswitch emits a signal when the brake is opened. The microswitch is completely enclosed inside the terminal box. It can easily be replaced, re-adjusted and tested by removing the terminal box cover and the terminal block/rectifier.

## Wear Inspection (Option)

An additional microswitch for wear monitoring can be integrated into the ROBA-stop<sup>®</sup> S. It emits a signal before the max. permitted wear is exceeded.

## Anti-condensation Heating (Option)

The ROBA-stop<sup>®</sup> S can be equipped with an anti-condensation heating. An AC coil installed inside the brake prevents condensation and its consequences.

### Attention!

**The projecting key must not collide with the heating.**

## Condensation Drain Screw

Condensation water draining can be carried out via the drain screw (14) at the bottom of the brake. The hole is normally closed.

## Emergency release

In case of malfunction or power failure, the brake remains closed; it cannot be released electrically.

Emergency release can be carried out manually.

- Unscrew the screw plugs (10) inc. the copper sealing rings (11).
- - Sizes 8 – 10 Screw in both emergency release screws (7) evenly into the armature disk (5).
  - Size 11: Screw in both emergency release screws (7.1) evenly.
- The brake is released and the rotor is free.

## Electrical connection

The ROBA-stop<sup>®</sup> S brake is equipped with a DC coil. Inside the terminal box, a terminal block or rectifier is installed.



#### Guidelines on the Declaration of Conformity

A conformity evaluation has been carried out for the product (electromagnetic safety brake) in terms of the EC Low Voltage Directive 2014/35/EU. The Declaration of Conformity is laid out in writing in a separate document and can be requested if required.

#### Guidelines on the EMC Directive (2014/30/EU)

The product cannot be operated independently according to the EMC Directive. Due to their passive state, brakes are also non-critical equipment according to the EMC. Only after integration of the product into an overall system can this be evaluated in terms of the EMC. For electronic equipment, the evaluation has been verified for the individual product in laboratory conditions, but not in the overall system.

#### Guidelines on the Machinery Directive (2006/42/EC)

The product is a component for installation into machines according to the Machinery Directive 2006/42/EC. The brakes can fulfil the specifications for safety-related applications in coordination with other elements. The type and scope of the required measures result from the machine risk analysis. The brake then becomes a machine component and the machine manufacturer assesses the conformity of the safety device to the directive. It is forbidden to start initial operation of the product until you have ensured that the machine accords with the regulations stated in the directive.

#### Guidelines on the ATEX Directive

Without a conformity evaluation, this product is not suitable for use in areas where there is a high danger of explosion. For application of this product in areas where there is a high danger of explosion, it must be classified and marked according to directive 2014/34/EU.

### Safety Regulations

Brakes may generate several risks, among others:



During the risk assessment required when designing the machine or system, the dangers involved must be evaluated and removed by taking appropriate protective measures.

**To prevent injury or damage, only professionals and specialists are allowed to work on the devices.** They must be familiar with the dimensioning, transport, installation, initial operation, maintenance and disposal according to the relevant standards and regulations.

### Application Conditions



The catalogue values are guideline values which have been determined in test facilities. It may be necessary to carry out your own tests for the intended application. When dimensioning the brakes, please remember that installation situations, braking torque fluctuations, permitted friction work, run-in behaviour and wear as well as general ambient conditions can all affect the given values. These factors should therefore be carefully assessed, and alignments made accordingly.

- ☐ Mounting dimensions and connection dimensions must be adjusted according to the size of the brake at the place of installation.
- ☐ The magnetic coils are designed for a relative duty cycle of 100%, if no other values are stated.
- ☐ The braking torque is dependent on the present run-in condition of the brake.
- ☐ The brakes are only designed for dry running. The torque is lost if the friction surfaces come into contact with oil, grease, water or similar substances or foreign bodies.
- ☐ Manufacturer-side corrosion protection of the metallic surfaces.
- ☐ The rotors may rust up and block in corrosive ambient conditions and/or after long periods of storage.

**Ambient temperature - 20 °C bis + 40 °C**

### Grounding Connection

The brake is designed for Protection Class I. This protection covers not only the basic insulation, but also the connection of all conductive parts to the protective conductor (PE) on the fixed installation. If the basic insulation fails, no contact voltage will remain. Please carry out a standardized inspection of the protective conductor connections to all contactable metal parts!

### Protection

**IP67:** Dust-proof and protected against contact as well as against temporary submersion under water.

### Intended Use

mayr<sup>®</sup>-brakes have been developed, manufactured and tested in compliance with the DIN VDE 0580 standard and in accordance with the EU Low Voltage Directive as electromagnetic components. During installation and operation of the product, the requirements for the standard must be observed.

mayr<sup>®</sup>-brakes are for use in machines and systems and must only be used in the situations for which they are ordered and confirmed. Using them for any other purpose is not allowed.

### Guidelines for Electromagnetic Compatibility (EMC)

In accordance with the EMC directive 2004/108/EC, the individual components produce no emissions. However, functional components e.g. mains-side energisation of the brakes with rectifiers, phase demodulators, ROBA<sup>®</sup> switch devices or similar controls can produce disturbance which lies above the allowed limit values.

For this reason it is important to read the Installation and Operational Instructions very carefully and to keep to the EMC Directives.

### Standards, Directives and Regulations Used

VDE 0580 Electromagnetic devices and components, general specifications

|                       |                                                                                          |
|-----------------------|------------------------------------------------------------------------------------------|
| 2014/35/EU            | Low voltage directive                                                                    |
| CSA C22.2 No. 14-2010 | Industrial Control Equipment                                                             |
| UL 508 (Edition 17)   | Industrial Control Equipment                                                             |
| EN ISO 12100-1        | Safety of machinery – General principles for design - Risk assessment and risk reduction |
| EN 61000-6-4          | Interference emission                                                                    |
| EN 61000-6-2          | Interference immunity                                                                    |
| EN 60204-1            | Electrical equipment of machines                                                         |

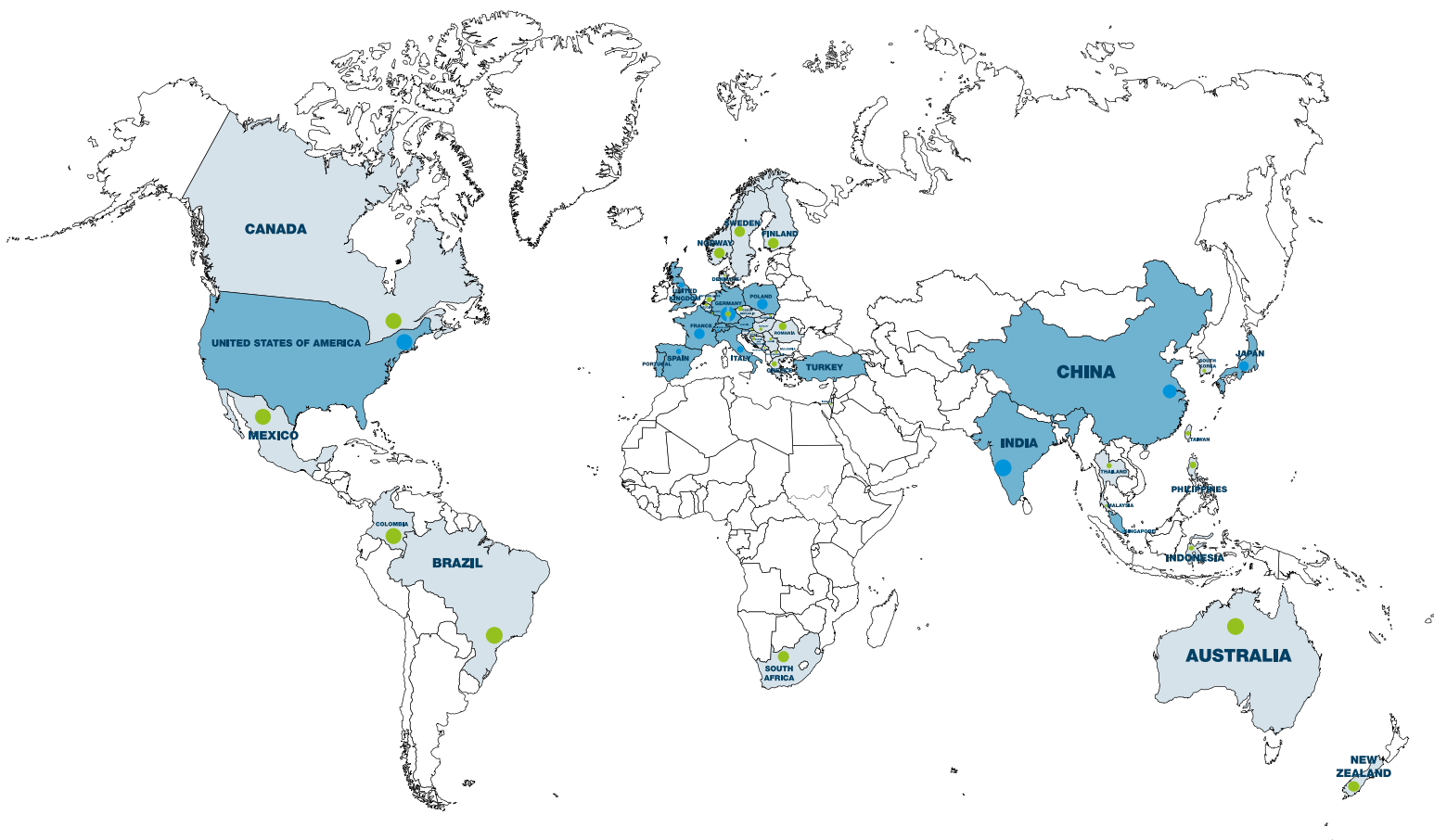
### Liability

- The information, guidelines and technical data in these documents were up to date at the time of printing. Demands on previously delivered brakes are not valid.
- Liability for damage and operational malfunctions will not be taken if:
  - the Installation and Operational Instructions are ignored or neglected.
  - the brakes are used inappropriately.
  - the brakes are modified.
  - the brakes are worked on unprofessionally.
  - the brakes are handled or operated incorrectly.

### Guarantee

- The guarantee conditions correspond with the Chr. Mayr GmbH + Co. KG sales and delivery conditions.
- Mistakes or deficiencies are to be reported to mayr<sup>®</sup> at once.

# MANY LOCATIONS ONE QUALITY



Stammhaus



Subsidiaries



Representatives

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87665 Mauerstetten



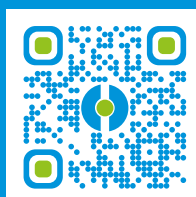
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## ADDITIONAL INFORMATION

For everything you need to know about the ROBA-stop® S, including downloads and configuration – simply scan the QR code!