



Who performs a special, extraordinary service,  
**is a hero.**

# Heroes.

by SIBRE

Who has special abilities like extraordinary strength,  
speed or endurance,  
**is a hero.**



*Sure to be Safe*

the new **USB 5** series

# The world of industrial brakes

The SIBRE Siegerland Bremsen GmbH is a worldwide operating, medium-sized company of traditions with meanwhile over 60 years of company history.

From the very first the company engages in the development and production of brake systems for the industry. Right from the start value was set on technical innovation, the most modern manufacturing technology and high customer use. Production procedures are continuously supervised by a quality management system. The aim of the product development is an optimum combination of a top-quality product, the easiest use and market-driven price both for plant engineers and plant operators.

We have upgraded the well proven design of our USB thrust disc brakes, the new generation is even more reliable and efficient and comes with several new design features.



# Heroes.

by SIBRE



Standardized functional principle, available in 5 different sizes  
Designed for all applications in a crane (gantry, boom, slewing, hoist)  
Identical conditions in regards to installation, adjustment and maintenance



Improved brake linings  
More stable friction coefficient and brake torque  
Extended lifetime



Parallel opening of brake shoes  
Simplified alignment of the brake system  
Minimized risk of sliding between disc and linings



Optimized spring guiding unit  
Reduced noise emission  
Extended lifetime of brake spring



Upgraded manual release system  
Increased operational safety for manual load lowering



Enhanced corrosion protection  
By design features and improved coating

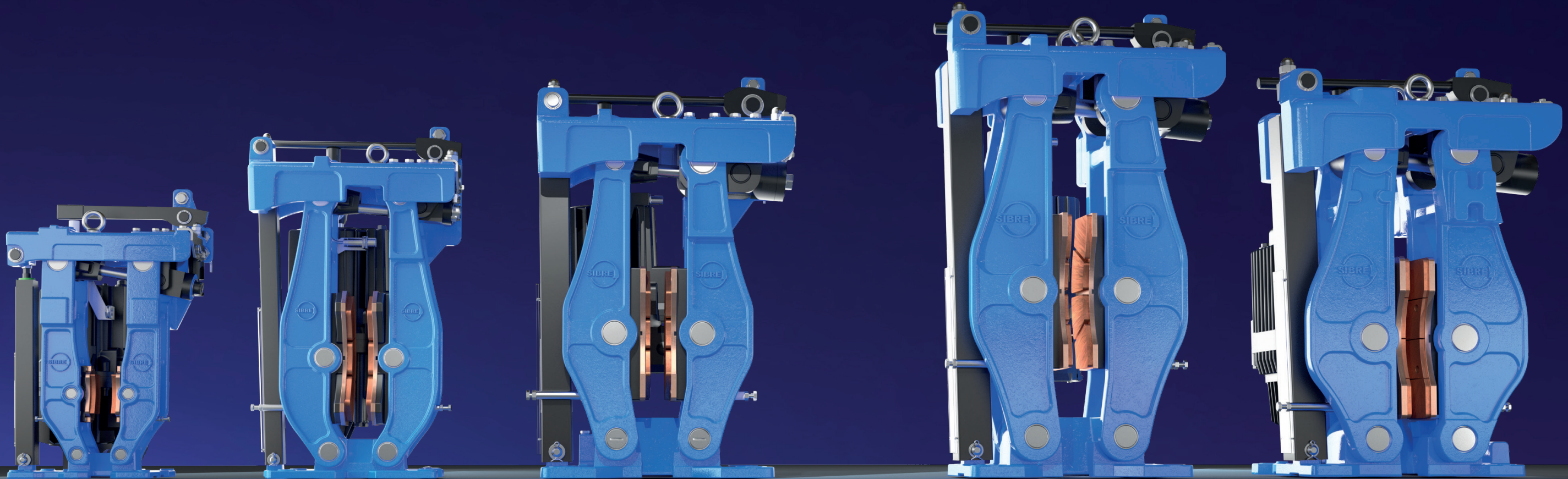


Additional options for status monitoring  
Load cells for measuring the brake torque  
PT100 temperature sensors for the brake linings  
Linear position sensor for monitoring of thruster stroke  
Linear position sensor for torque adjustment

# Heroes.

by SIBRE

five dimensions — one concept



## USB 5 05

Braking torque:  
100 - 690 Nm

Centre height:  
160 mm

Weight:  
46 kg

## USB 5 I

Braking torque:  
550 - 5.500 Nm

Centre height:  
230 mm

Weight:  
85 kg

## USB 5 II

Braking torque:  
1.300 - 9.800 Nm

Centre height:  
280 mm

Weight:  
175 kg

## USB 5 III

Braking torque:  
3.500 - 26.000 Nm

Centre height:  
370 mm

Weight:  
250 kg

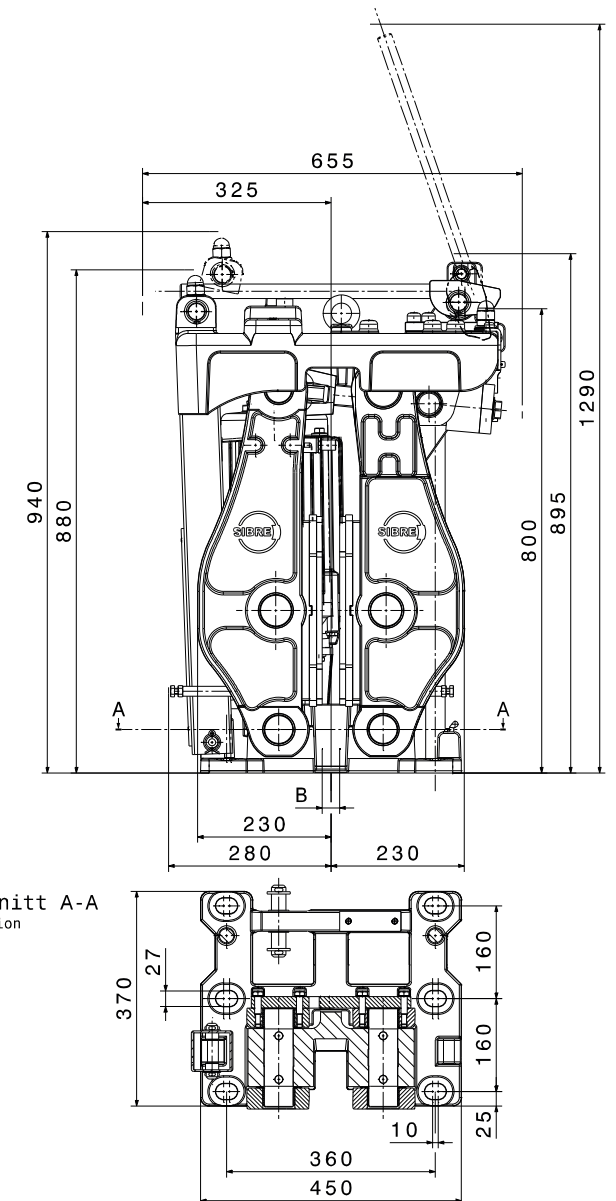
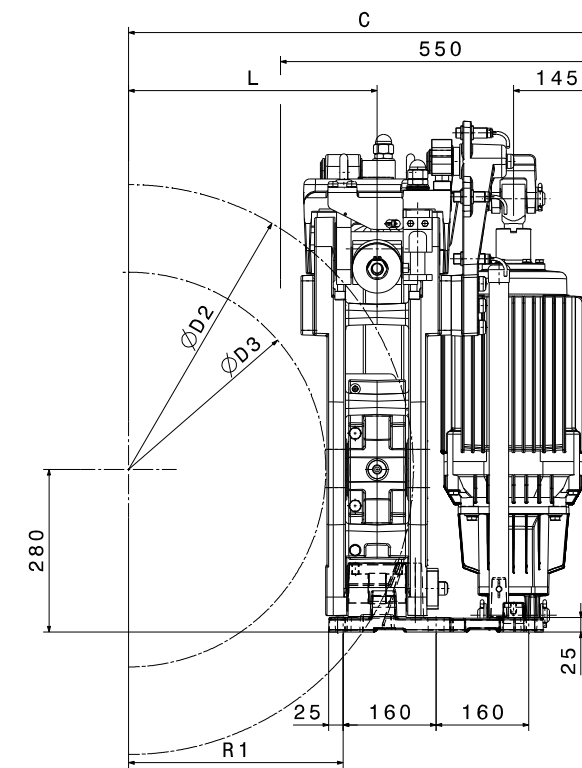
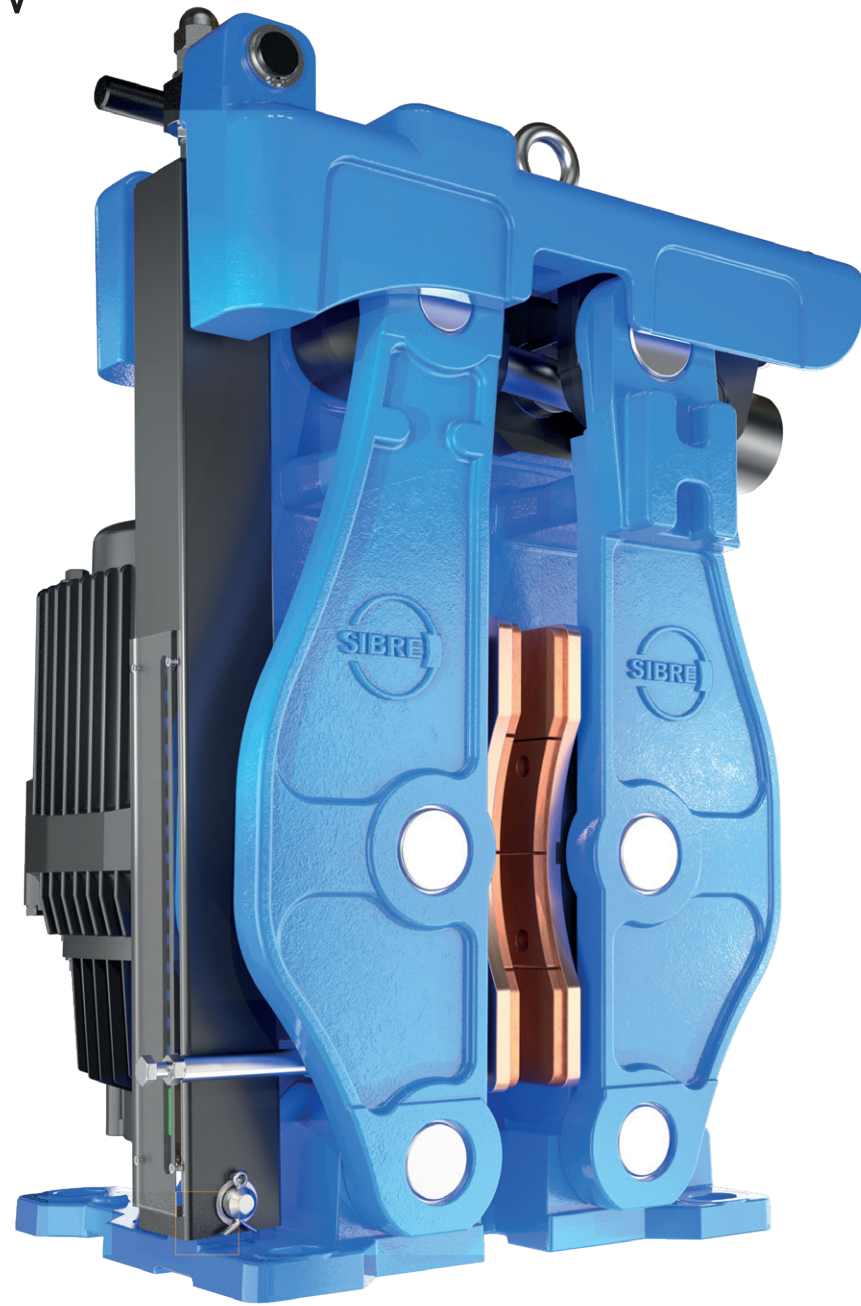
## USB 5 V

Braking torque:  
6.000 - 29.000 Nm

Centre height:  
280 mm

Weight:  
285 kg

disc brake  
**USB 5 V**

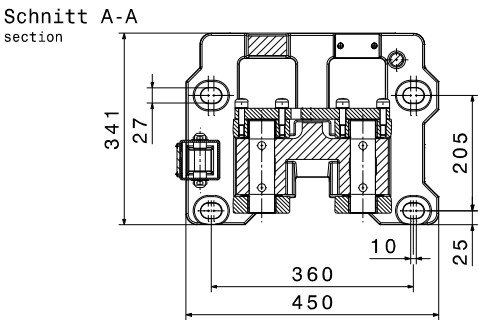
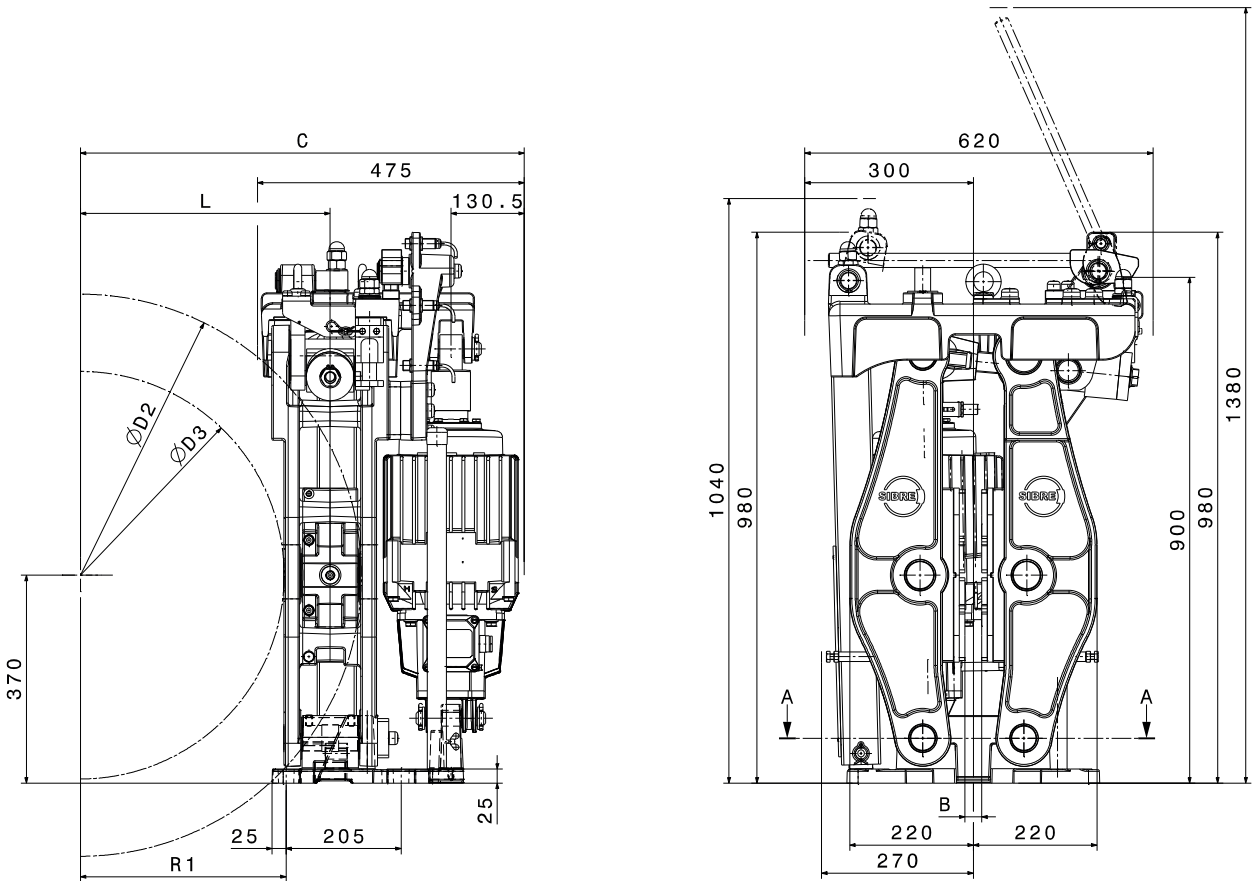
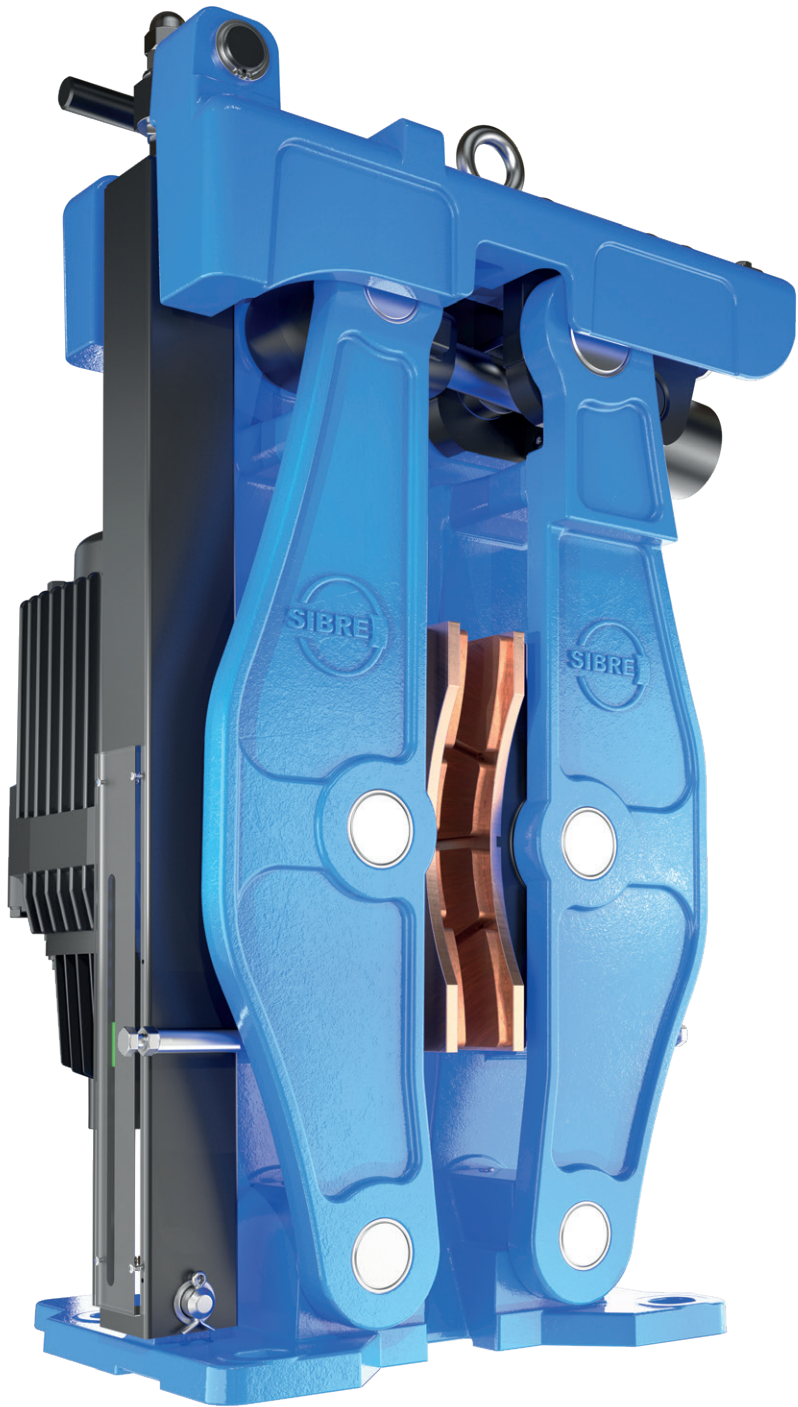


D2: outer disc diameter  
D3: max. coupling or hub-Ø  
B: disc width = 30 mm  
L: R1 + 58.5 mm

- Brake linings of sintered material with standard brake disc material S355J2G3
- The specified braking torques are based on an average friction coefficient  $\mu_m = 0,4$  with grinded and optimum conditioned brake linings up to a sliding speed of 60 m/s. Deviating parameters can reduce the friction-coefficient
- Please contact us when using thrusters with lifting- and/ or lowering valves
- Weight without thruster: 285 kg
- Thruster position: For 500/8 as shown, all others turned by 180°
- Available options:
  - Special executions for low and high ambient temperature
  - Manual release
  - Inductive sensors for indication "brake open", "brake closed" and/ or "pad wear"
  - Temperature sensor for brake linings
  - Load cell for monitoring of clamping force

| Thruster type    |     |     |     | 201/12                 |                  | 301/12           |                  | 400/8            |                  | 500/8            |                  |
|------------------|-----|-----|-----|------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Dimensions in mm |     |     |     | Braking torque M in Nm |                  |                  |                  |                  |                  |                  |                  |
| D2               | D3  | R1  | C   | M <sub>min</sub>       | M <sub>max</sub> | M <sub>min</sub> | M <sub>max</sub> | M <sub>min</sub> | M <sub>max</sub> | M <sub>min</sub> | M <sub>max</sub> |
| 630              | 310 | 185 | 620 | 6000                   | 9000             | 8000             | 12500            | 8000             | 15500            | 7000             | 16500            |
| 710              | 390 | 225 | 660 | 7500                   | 10500            | 9000             | 14500            | 9000             | 18000            | 8500             | 19500            |
| 800              | 480 | 270 | 705 | 8500                   | 12000            | 10500            | 16500            | 10500            | 21000            | 10000            | 22500            |
| 900              | 580 | 320 | 755 | 9500                   | 13500            | 12000            | 19000            | 12000            | 24000            | 11000            | 25500            |
| 1000             | 680 | 370 | 805 | 11000                  | 15500            | 14000            | 21500            | 14000            | 27000            | 12500            | 29000            |

# disc brake **USB 5 III**

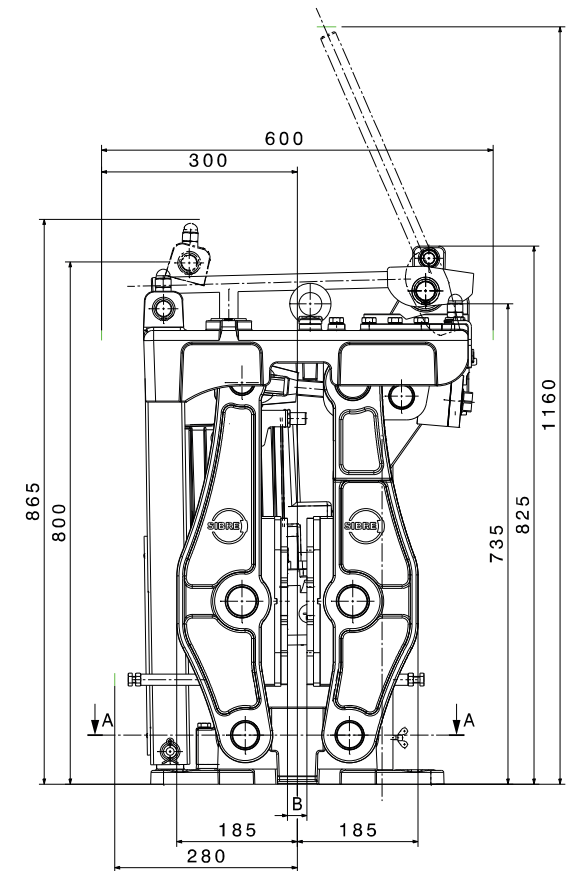
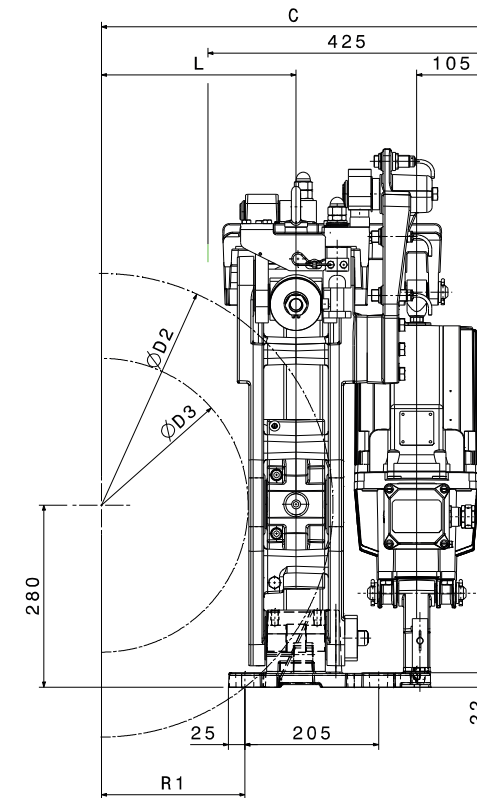
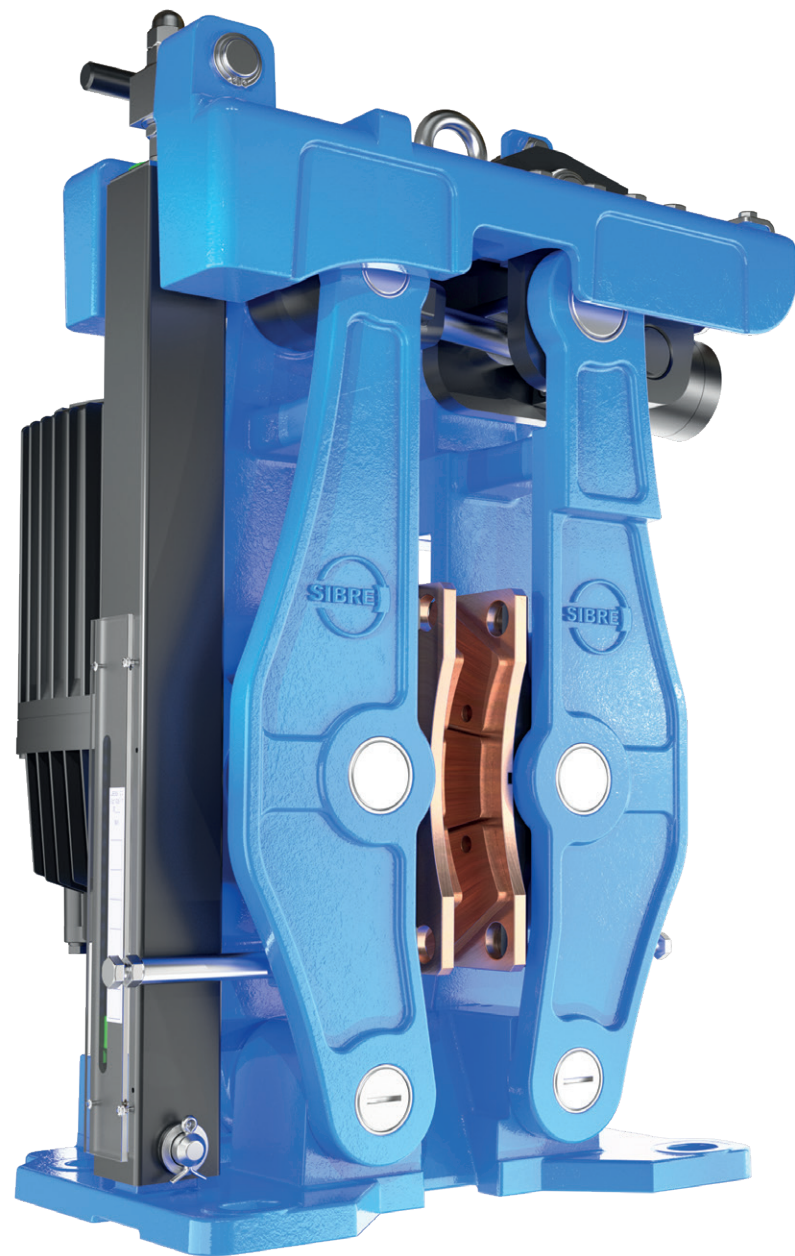


D2: outer disc diameter  
D3: max. coupling or hub-Ø  
B: disc width = 30 mm  
L: R1 + 78.5 mm

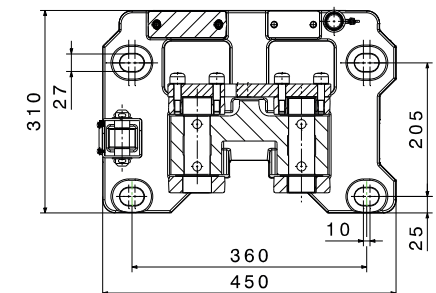
- Brake linings of sintered material with standard brake disc material S355J2G3
- The specified braking torques are based on an average friction coefficient  $\mu_m = 0,4$  with grinded and optimum conditioned brake linings up to a sliding speed of 60 m/s. Deviating parameters can reduce the friction-coefficient
- Please contact us when using thrusters with lifting- and/ or lowering valves
- Weight without thruster: 250 kg
- Available options:
  - Special executions for low and high ambient temperature
  - Manual release
  - Inductive sensors for indication “brake open”, “brake closed” and/ or “pad wear”
  - Temperature sensor for brake linings
  - Load cell for monitoring of clamping force

| Thruster type    |     |     |     | 121/6                  |                  | 201/6            |                  | 301/6            |                  | 400/6            |                  |
|------------------|-----|-----|-----|------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Dimensions in mm |     |     |     | Braking torque M in Nm |                  |                  |                  |                  |                  |                  |                  |
| D2               | D3  | R1  | C   | M <sub>min</sub>       | M <sub>max</sub> | M <sub>min</sub> | M <sub>max</sub> | M <sub>min</sub> | M <sub>max</sub> | M <sub>min</sub> | M <sub>max</sub> |
| 560              | 298 | 140 | 564 | 3500                   | 4500             | 4000             | 7000             | 6000             | 10500            | 6500             | 13000            |
| 630              | 380 | 181 | 605 | 4000                   | 5500             | 5000             | 8000             | 7000             | 12000            | 7500             | 15500            |
| 710              | 455 | 221 | 645 | 4500                   | 6000             | 5500             | 9500             | 8500             | 14000            | 9000             | 17500            |
| 800              | 535 | 266 | 690 | 5000                   | 7000             | 6500             | 11000            | 9500             | 16000            | 10000            | 20000            |
| 900              | 630 | 316 | 740 | 6000                   | 8000             | 7500             | 12500            | 11000            | 18500            | 11500            | 23000            |
| 1000             | 725 | 366 | 790 | 6500                   | 9000             | 8500             | 14000            | 12500            | 20500            | 13000            | 26000            |

# disc brake USB 5 II



Schnitt A-A  
section

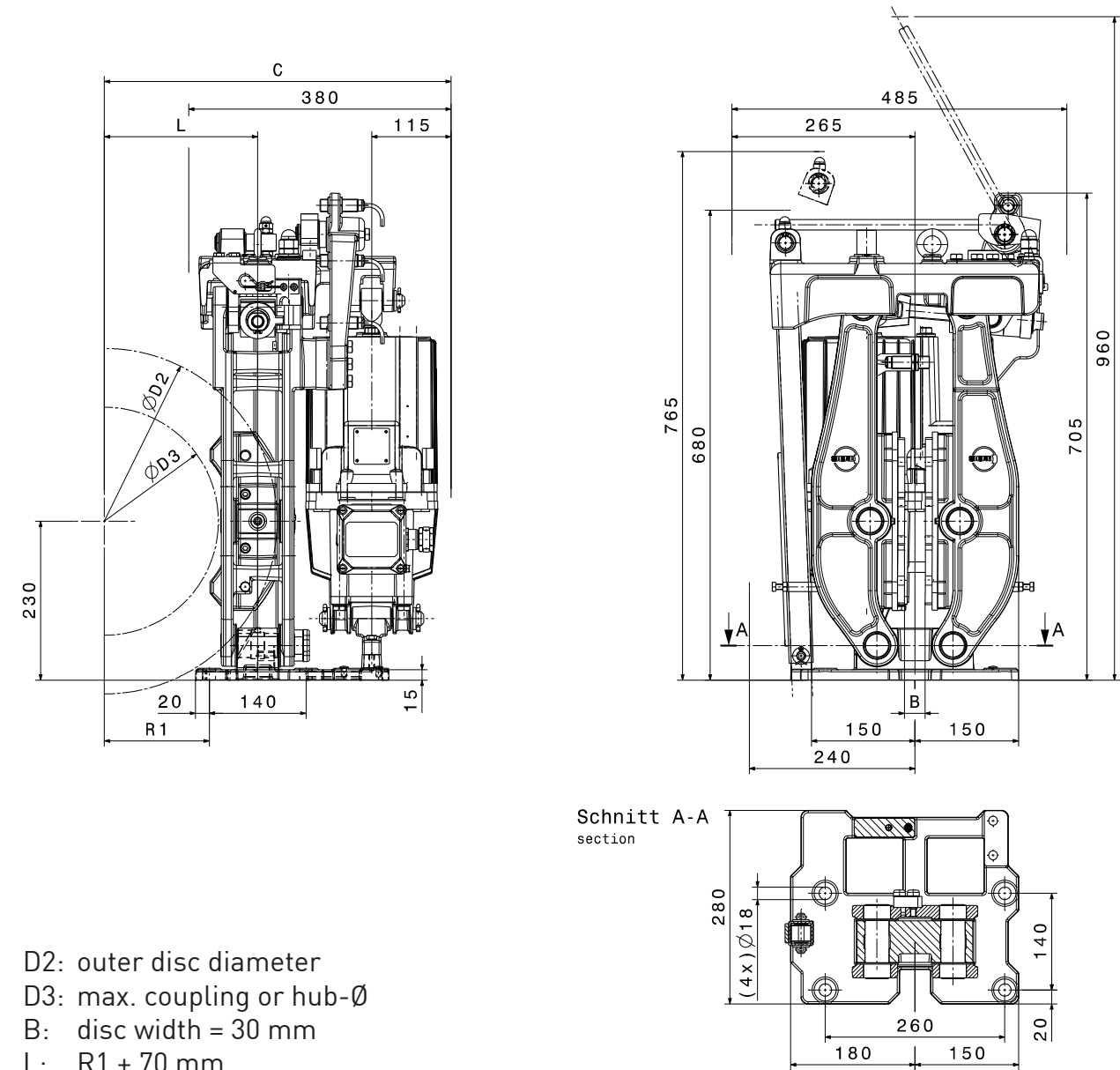


D2: outer disc diameter  
D3: max. coupling or hub-Ø  
B: disc width = 30 mm  
L: R1 + 78,5 mm

- Brake linings of sintered material with standard brake disc material S355J2G3
- The specified braking torques are based on an average friction coefficient  $\mu_m = 0,4$  with grinded and optimum conditioned brake linings up to a sliding speed of 60 m/s. Deviating parameters can reduce the friction-coefficient
- Please contact us when using thrusters with lifting- and/ or lowering valves
- Weight without thruster: 175 kg
- Available options:
  - Special executions for low and high ambient temperature
  - Manual release
  - Inductive sensors for indication "brake open", "brake closed" and/ or "pad wear"
  - Temperature sensor for brake linings
  - Load cell for monitoring of clamping force

| Thruster type    |     |     |     | 50/7                   |                  | 80/7             |                  | 125/7            |                  |
|------------------|-----|-----|-----|------------------------|------------------|------------------|------------------|------------------|------------------|
| Dimensions in mm |     |     |     | Braking torque M in Nm |                  |                  |                  |                  |                  |
| D2               | D3  | R1  | C   | M <sub>min</sub>       | M <sub>max</sub> | M <sub>min</sub> | M <sub>max</sub> | M <sub>min</sub> | M <sub>max</sub> |
| 450              | 190 | 95  | 465 | 1300                   | 2000             | 1500             | 3200             | 1700             | 4900             |
| 500              | 240 | 120 | 490 | 1500                   | 2300             | 1700             | 3600             | 1900             | 5600             |
| 560              | 300 | 150 | 520 | 1800                   | 2700             | 2000             | 4200             | 2200             | 6400             |
| 630              | 370 | 185 | 555 | 2100                   | 3100             | 2300             | 4800             | 2500             | 7400             |
| 710              | 450 | 225 | 595 | 2400                   | 3600             | 2600             | 5600             | 2900             | 8500             |
| 800              | 530 | 270 | 640 | 2700                   | 4100             | 3000             | 6400             | 3300             | 9800             |

# disc brake USB 5 |

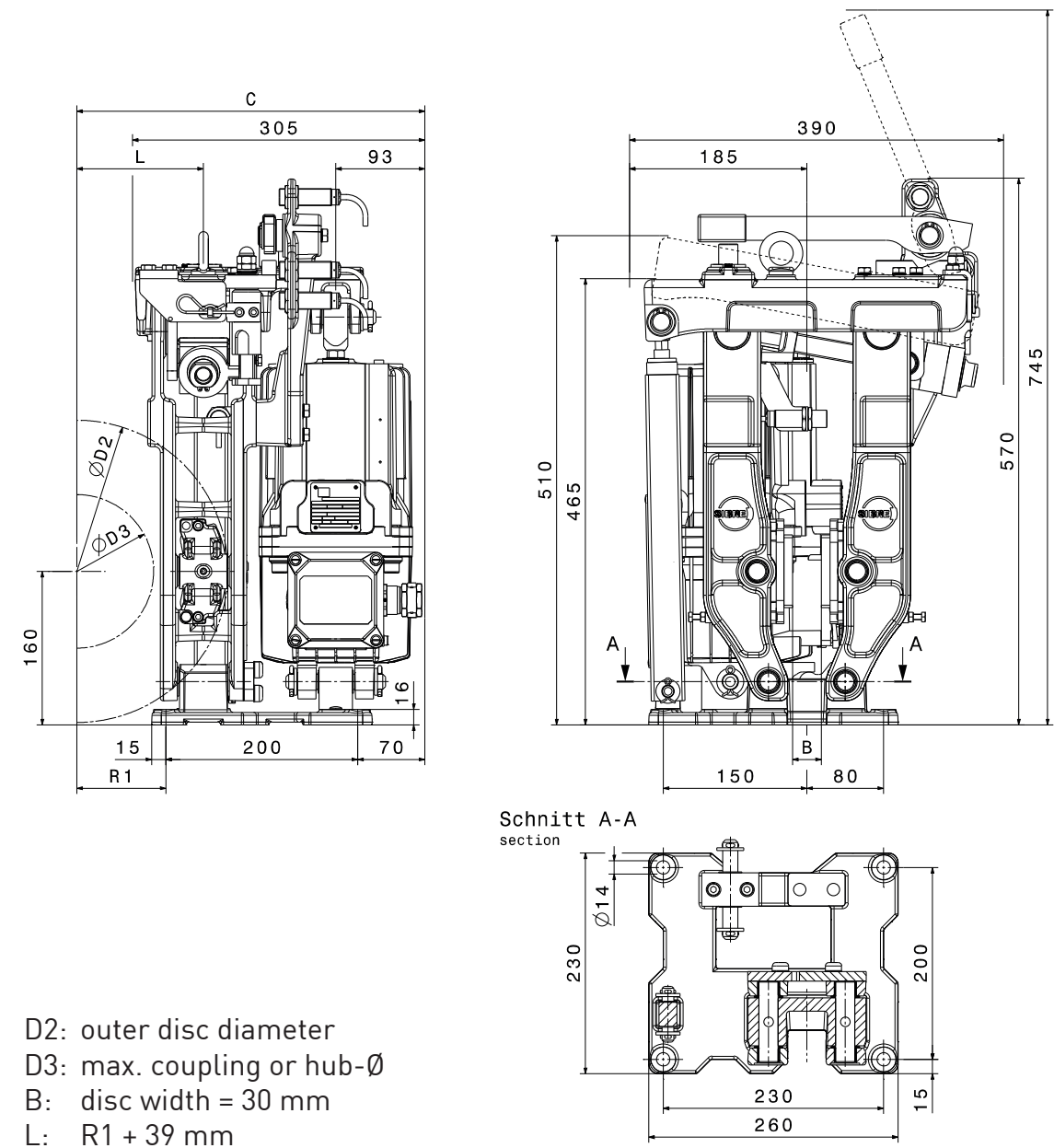


- Brake linings of sintered material with standard brake disc material S355J2G3
- The specified braking torques are based on an average friction coefficient  $\mu = 0,4$  with grinded and optimum conditioned brake linings up to a sliding speed of 60 m/s. Deviating parameters can reduce the friction-coefficient
- Please contact us when using thrusters with lifting- and/ or lowering valves
- Weight without thruster: 85 kg
- Available options:
  - Special executions for low and high ambient temperature
  - Manual release
  - Inductive sensors for indication “brake open”, “brake closed” and/ or “pad wear”
  - Temperature sensor for brake linings
  - Load cell for monitoring of clamping force

| Thruster type    |     |      |       | 30/5                   |                  | 50/6             |                  | 80/6             |                  |
|------------------|-----|------|-------|------------------------|------------------|------------------|------------------|------------------|------------------|
| Dimensions in mm |     |      |       | Braking torque M in Nm |                  |                  |                  |                  |                  |
| D2               | D3  | R1   | C     | M <sub>min</sub>       | M <sub>max</sub> | M <sub>min</sub> | M <sub>max</sub> | M <sub>min</sub> | M <sub>max</sub> |
| 355              | 180 | 75.5 | 425.5 | 550                    | 850              | 950              | 1700             | 900              | 2200             |
| 400              | 230 | 102  | 452   | 650                    | 950              | 1100             | 1900             | 1000             | 2600             |
| 450              | 280 | 127  | 477   | 750                    | 1100             | 1200             | 2200             | 1200             | 3000             |
| 500              | 330 | 152  | 502   | 850                    | 1200             | 1400             | 2500             | 1300             | 3400             |
| 560              | 390 | 182  | 532   | 1000                   | 1400             | 1600             | 2900             | 1500             | 3900             |
| 630              | 450 | 217  | 567   | 1100                   | 1600             | 1900             | 3300             | 1700             | 4400             |
| 710              | 530 | 257  | 607   | 1300                   | 1900             | 2100             | 3800             | 2000             | 5100             |

disc brake

**USB 5 05**



D2: outer disc diameter  
D3: max. coupling or hub-Ø  
B: disc width = 30 mm  
L: R1 + 39 mm

- Brake linings of sintered material with standard brake disc material S355J2G3
- The specified braking torques are based on an average friction coefficient  $\mu_m = 0,4$  with grinded and optimum conditioned brake linings up to a sliding speed of 60 m/s. Deviating parameters can reduce the friction-coefficient
- Please contact us when using thrusters with lifting- and/ or lowering valves
- Weight without thruster: 46 kg
- Available options:
  - Special executions for low and high ambient temperature
  - Manual release
  - Inductive sensors for indication “brake open”, “brake closed” and/ or “pad wear”
  - Temperature sensor for brake linings
  - Load cell for monitoring of clamping force

| Thruster type    |     |     |     | 23/5                   |                  | 30/5             |                  |
|------------------|-----|-----|-----|------------------------|------------------|------------------|------------------|
|                  |     |     |     | 220-50                 |                  | 300-50           |                  |
| Dimensions in mm |     |     |     | Braking torque M in Nm |                  |                  |                  |
| D2               | D3  | R1  | C   | M <sub>min</sub>       | M <sub>max</sub> | M <sub>min</sub> | M <sub>max</sub> |
| 250              | 75  | 61  | 331 | 100                    | 210              | 100              | 390              |
| 280              | 105 | 76  | 346 | 130                    | 240              | 130              | 450              |
| 315              | 140 | 93  | 363 | 150                    | 270              | 150              | 520              |
| 355              | 180 | 113 | 383 | 180                    | 310              | 180              | 600              |
| 400              | 220 | 135 | 405 | 210                    | 360              | 210              | 690              |

# The SIBRE world of industrial brakes

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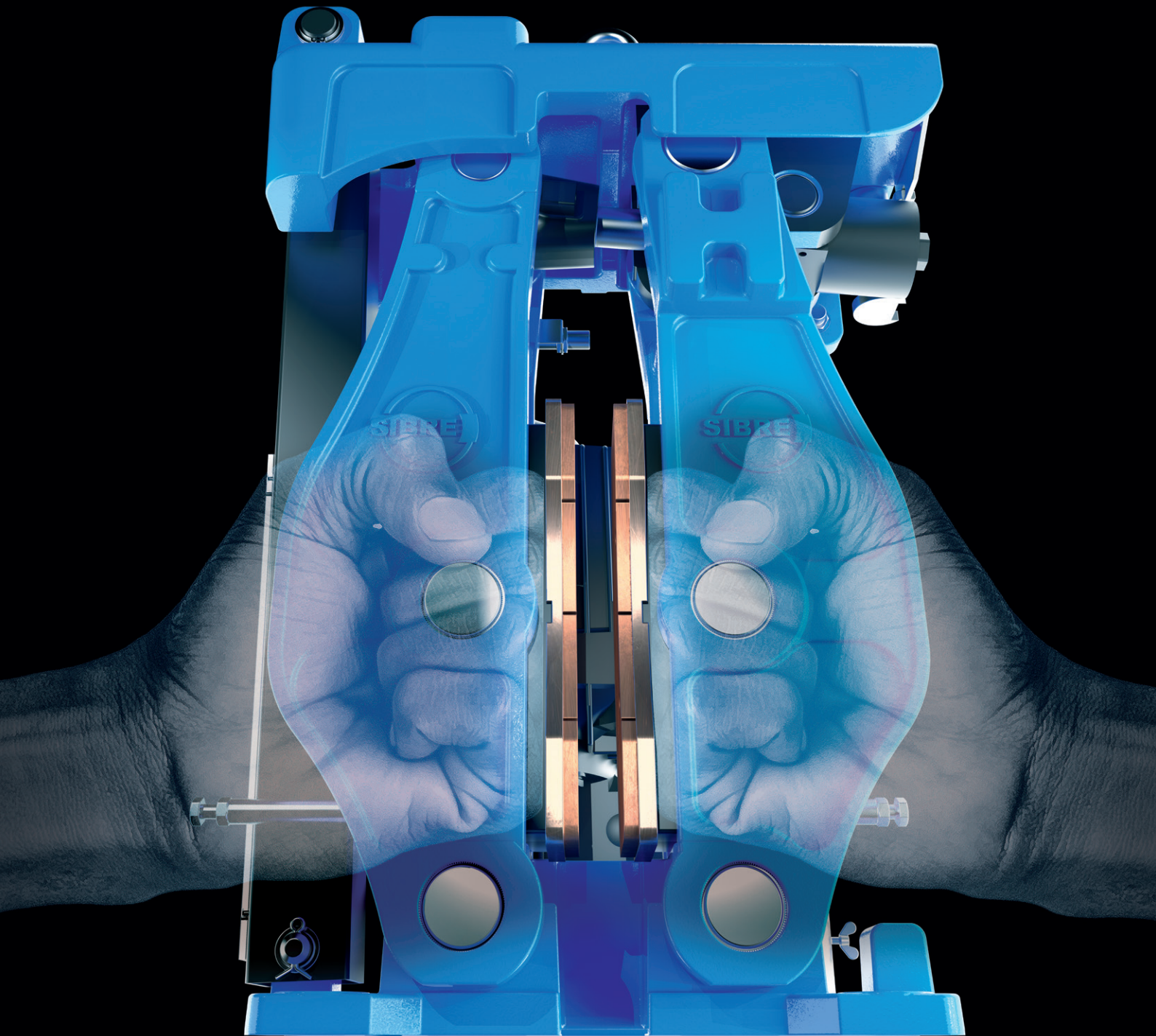
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