



Sure to be Safe

Siegerland Bremsen

SIBRE

Siegerland Bremsen GmbH

THE WORLD OF ADVANCED BRAKE TECHNOLOGY

SIBRE Siegerland Bremsen GmbH

- Private owned Company
- Founded in 1958
- Headquarter in Haiger (Germany)
- Assembly plant in Eschenburg (Germany)
- Total production area approx. 17.500 m²
- Employees: approx. 250
- 11 International branches

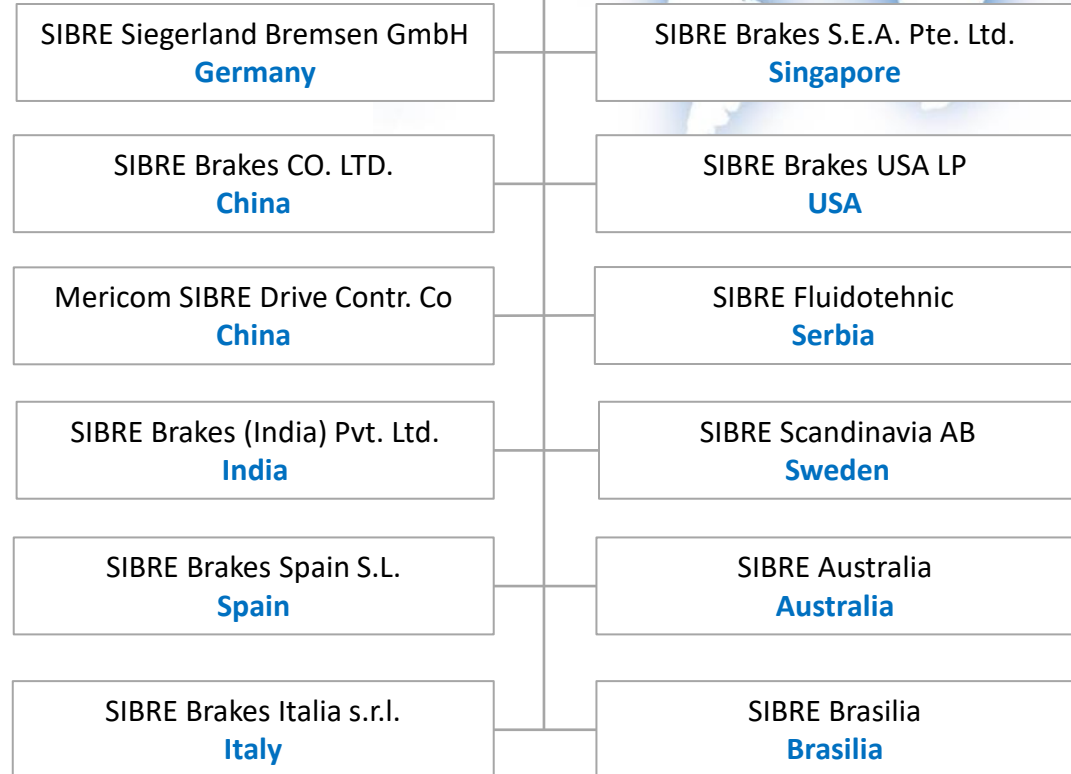


international presence

- more than 250 employees
- 11 SIBRE subsidiaries
- more than 50 partners / agents



SIBRE Holding GmbH & Co Kg



Investing in future

- 2 new production facilities in Germany
- 20 new CNC machines
- 2 new testing rigs
- Semi-automated paint shop



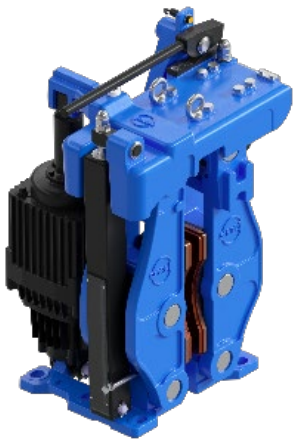
SIBRE application

- container handling (60%)
- mining sector (20%)
- steel mills (20%)
- special application (...%)

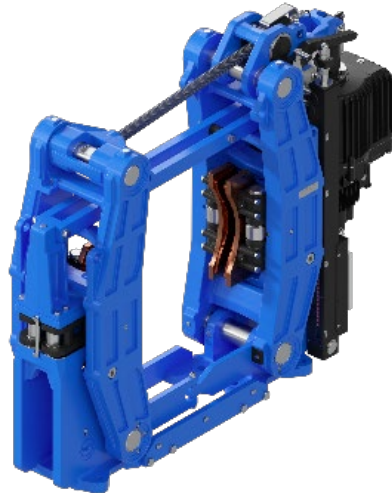


Portfolio

USB
disc brake



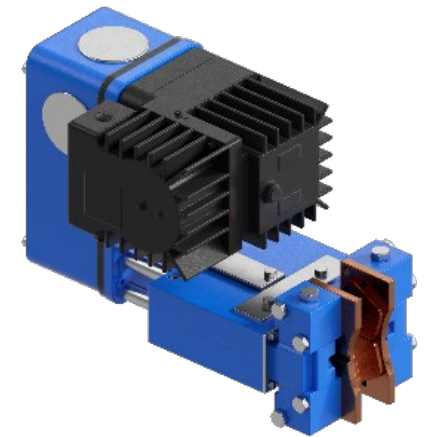
TEXU
disc brake



TE
drum brake (DIN15435)



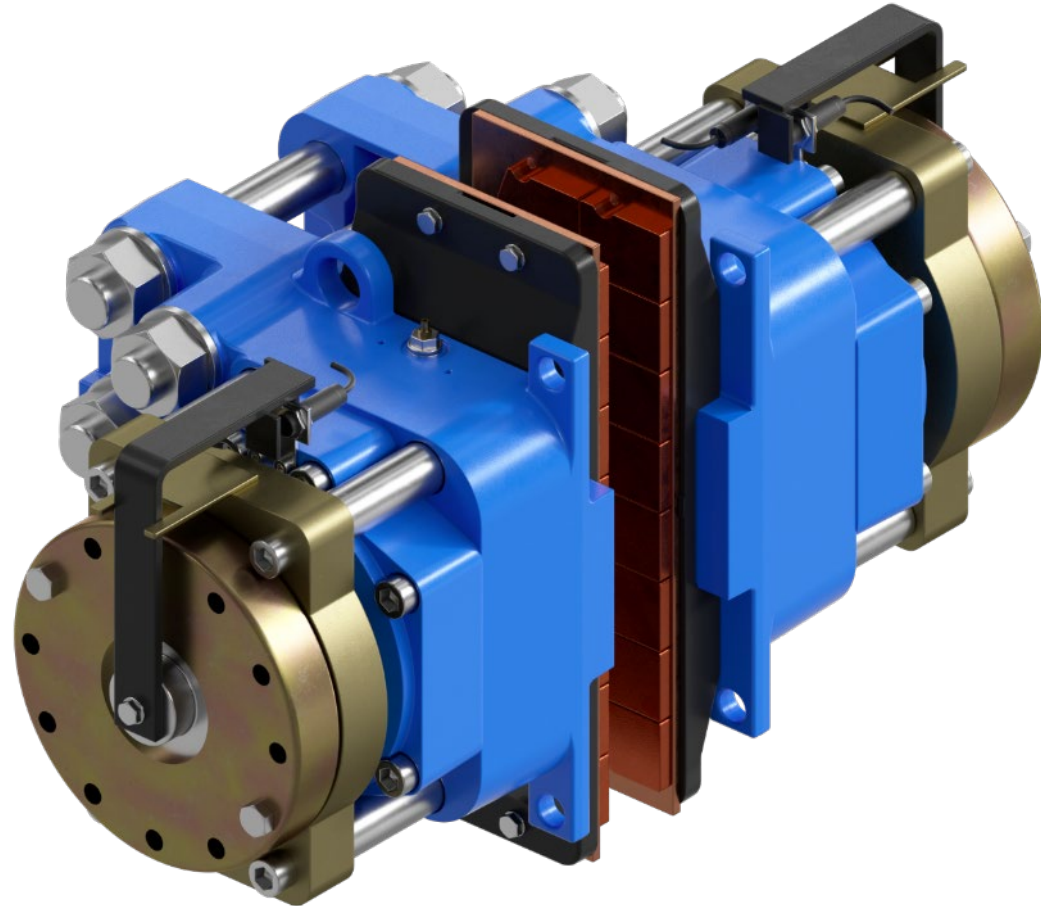
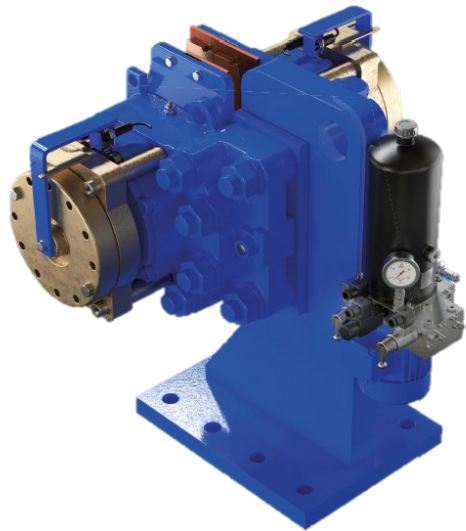
CB
Compact calliper brake



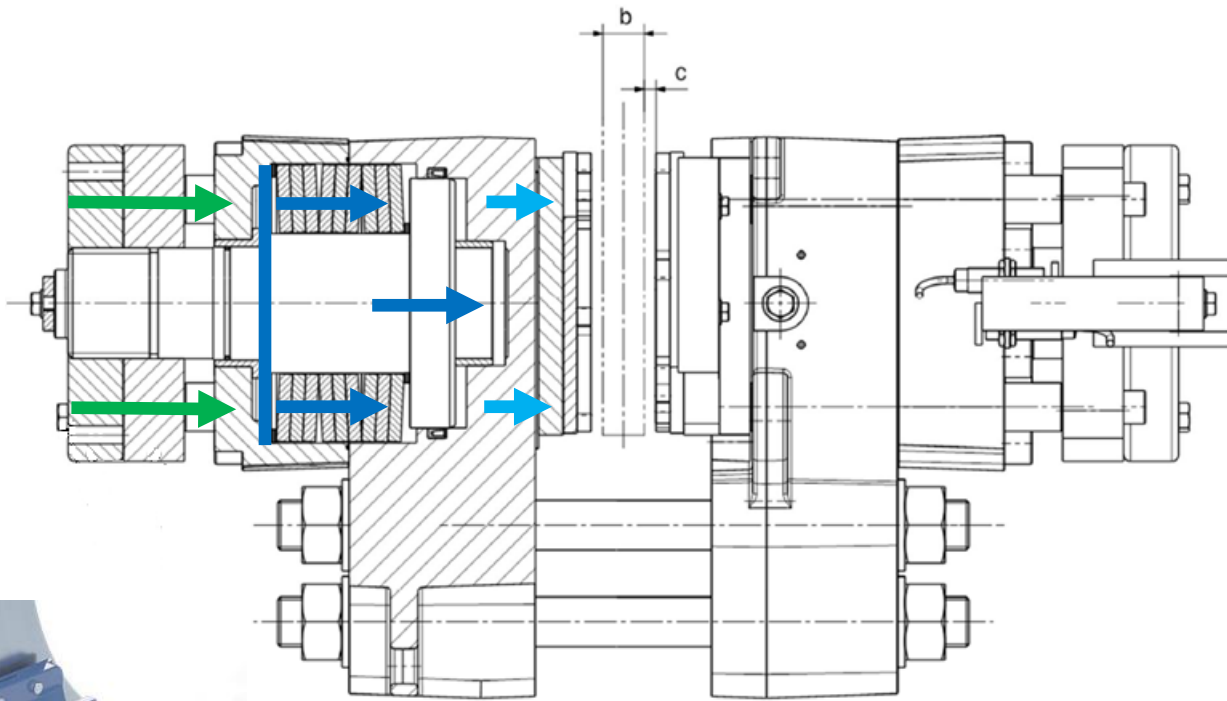
range of products

emergency brakes

SHI / SHI FC
emergency brake



SHI design benefits

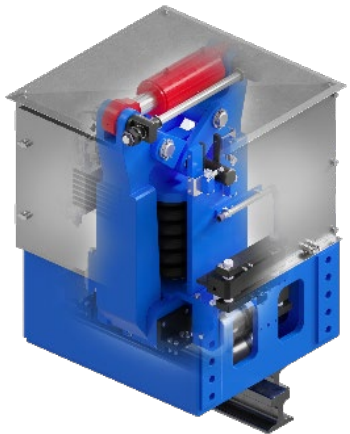


- + favorable force-transmission on disc
- + no radial forces on piston/ sealings
- + simple and fast wear compensation
- + suitable for different disc-dimensions

- 1) *extending cup-springs*
- 2) *transmission to piston*
- 3) *transmission to pressure pins*
- 4) *transmission to linings/disc*

Portfolio

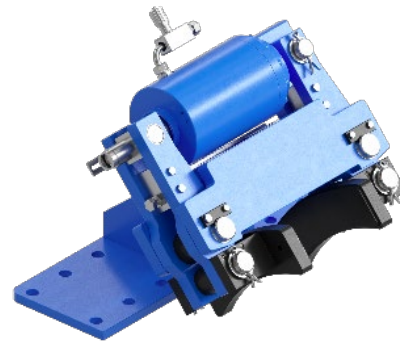
RB
rail clamp



RPS
rail pusher



RHI
wheel brake



RKB
wheel chock



RTCB
rail brake



range of products

further product scope

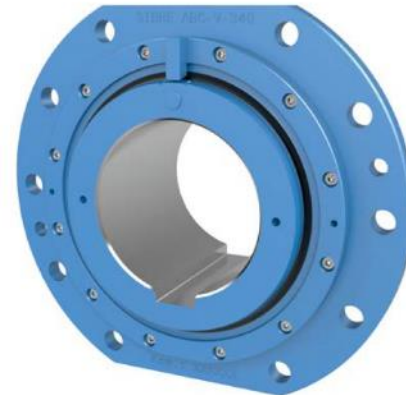
**SIBRE Crane wheels
DIN 15090**



**SIBRE crane wheels
SRA / SRN**



**SIBRE Drum
couplings**



**SIBRE high speed
couplings**



range of products

further product scope

SIBRE buffers



SIBRE crane hooks



SIBRE backstops



SIBRE Rope sheaves



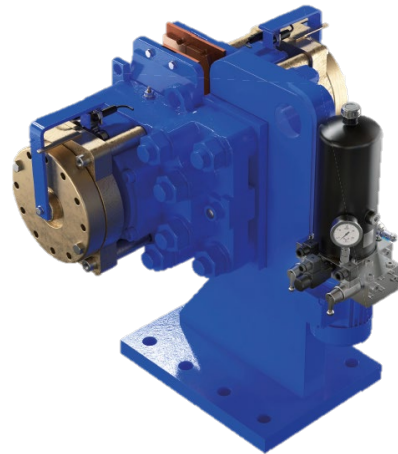
range of products

release units

EMG thrusters



HPU 2KW



HPU 3KW

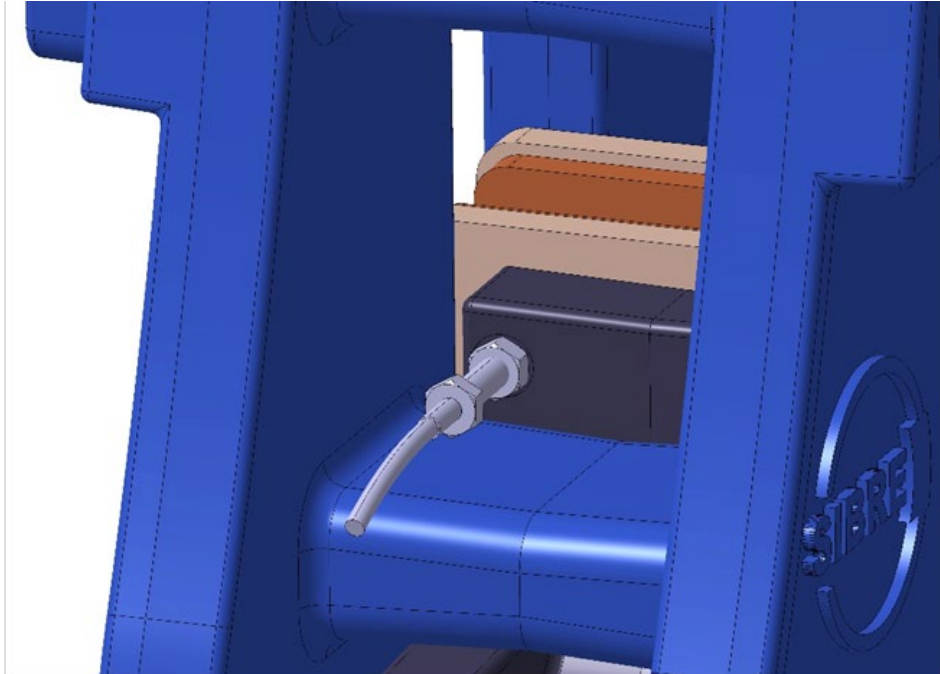


Solenoids &
Cylinders

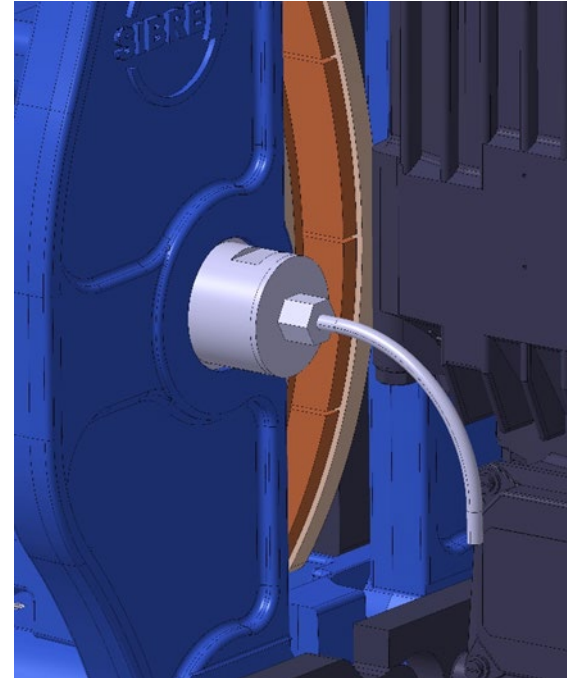


SSM SIBRE Status Monitoring

All USB5 brakes are prepared for additional sensors



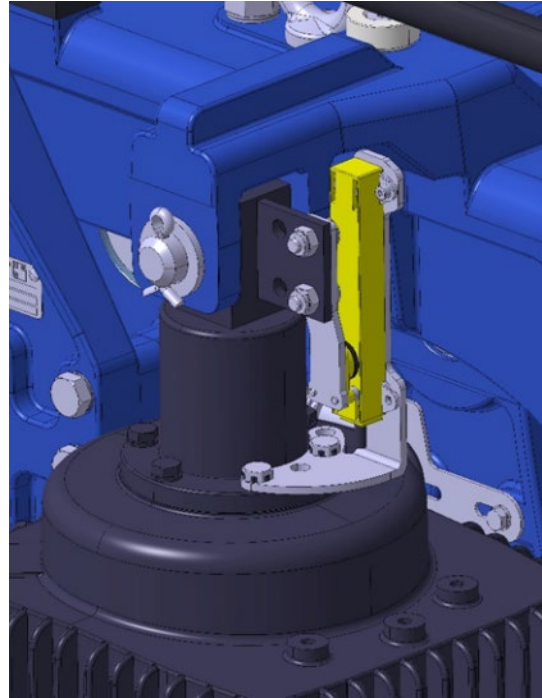
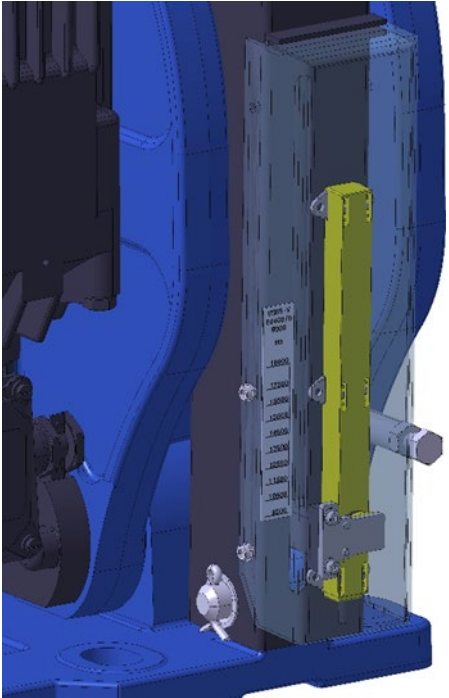
PT 100 temperature sensors for brake linings



Load cells for brake force and torque measurement

SSM SIBRE Status Monitoring

All USB5 brakes are prepared for additional sensors



Position sensor (4-20mA) for torque adjustment

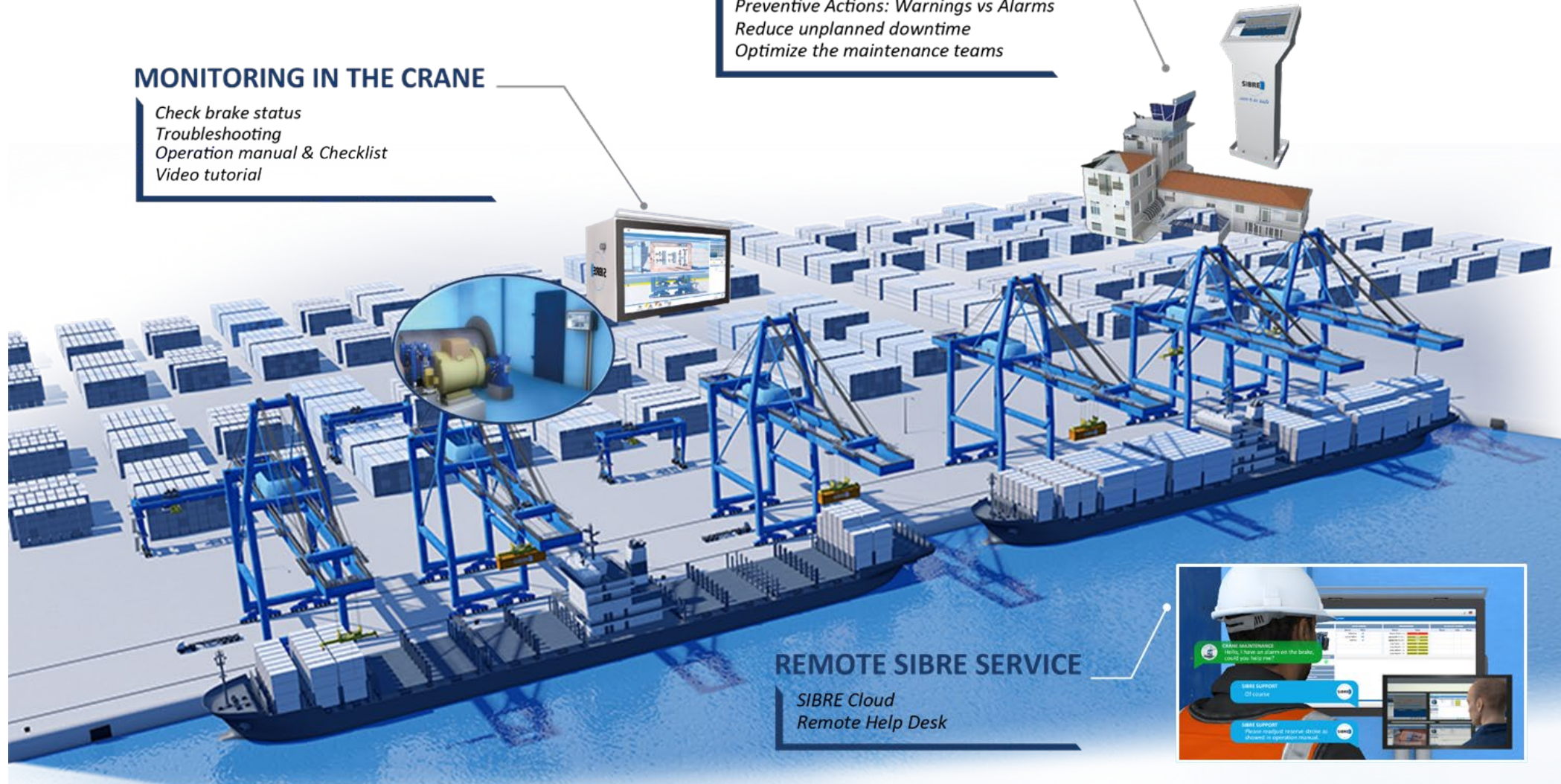
Position sensor (4-20mA) for thruster stroke

REMOTE MONITORING

From maintenance office, etc.
Preventive Actions: Warnings vs Alarms
Reduce unplanned downtime
Optimize the maintenance teams

MONITORING IN THE CRANE

Check brake status
Troubleshooting
Operation manual & Checklist
Video tutorial



REMOTE SIBRE SERVICE

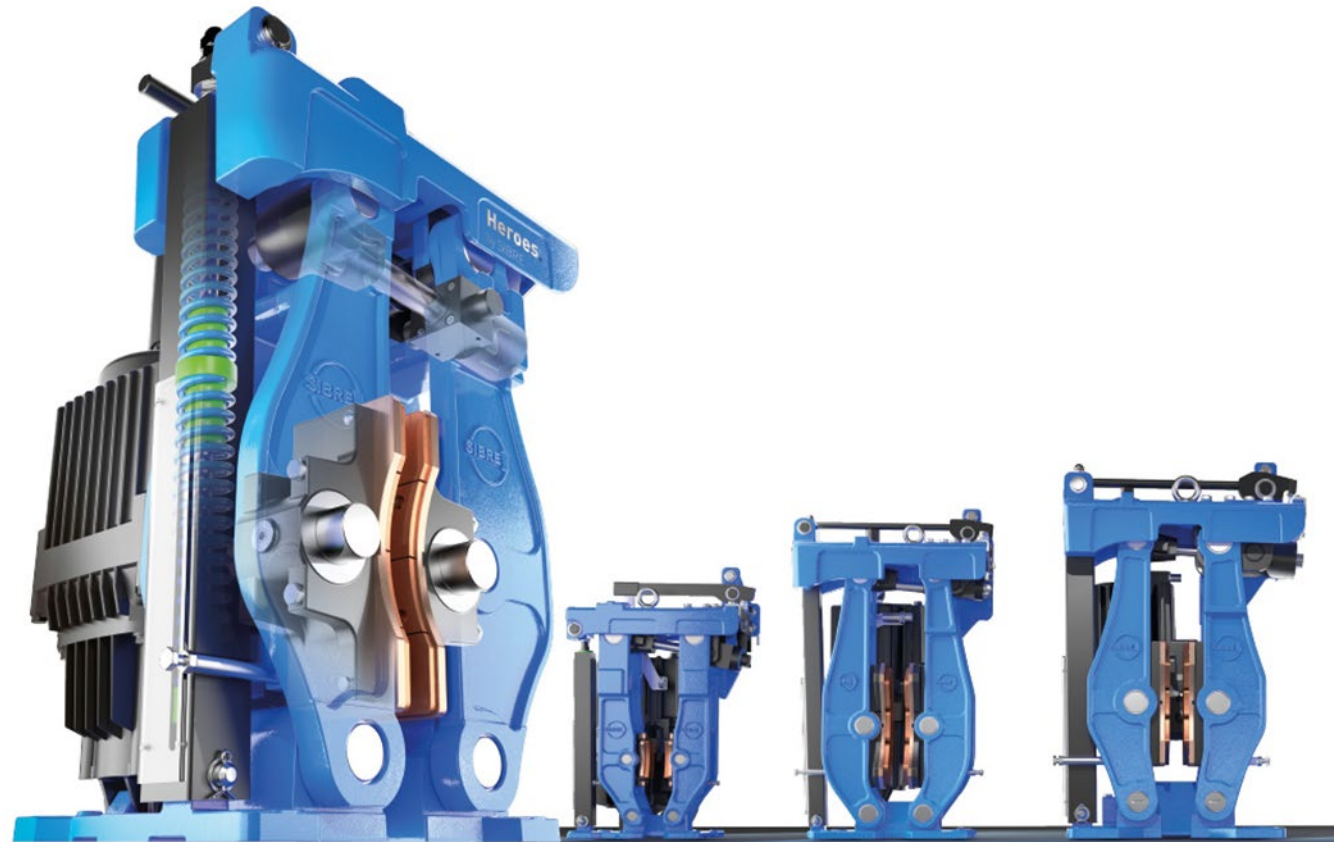
SIBRE Cloud
Remote Help Desk



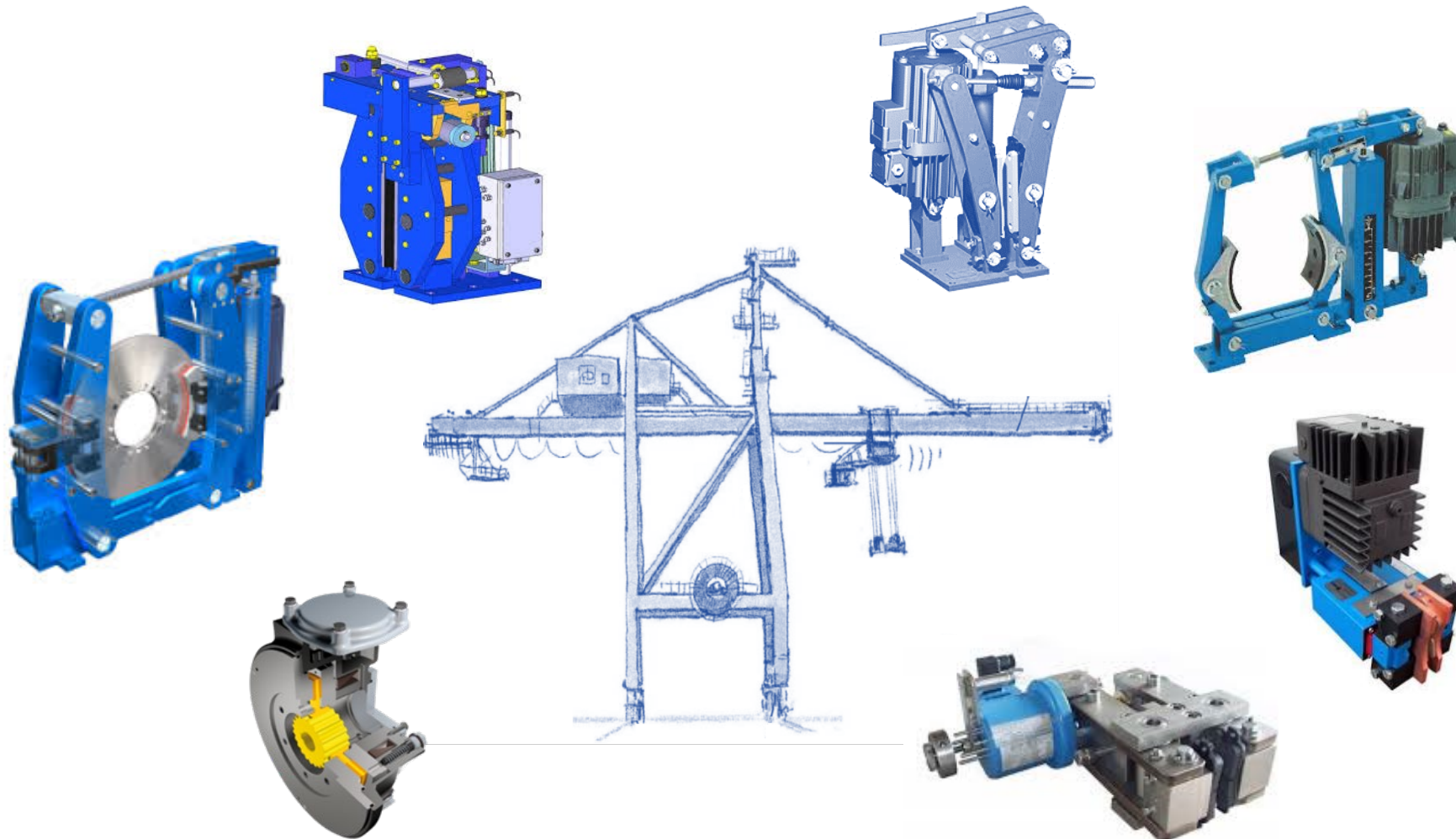


USB5 – The latest generation of thruster disc brakes

Developed for container cranes



Different types of brakes in STS cranes



Standardized functional principle, available in 5 different sizes



USB5-05

brake torque:
100 - 690 Nm

centre height:
160 mm

weight:
46 kg



USB5-I

brake torque:
550 – 5.500 Nm

centre height:
230 mm

weight:
85 kg



USB5-II

brake torque:
1.300 - 9.800 Nm

centre height:
280 mm

weight:
175 kg



USB5-III

brake torque:
3.500 - 26.000 Nm

centre height:
370 mm

weight:
250 kg



USB5-V

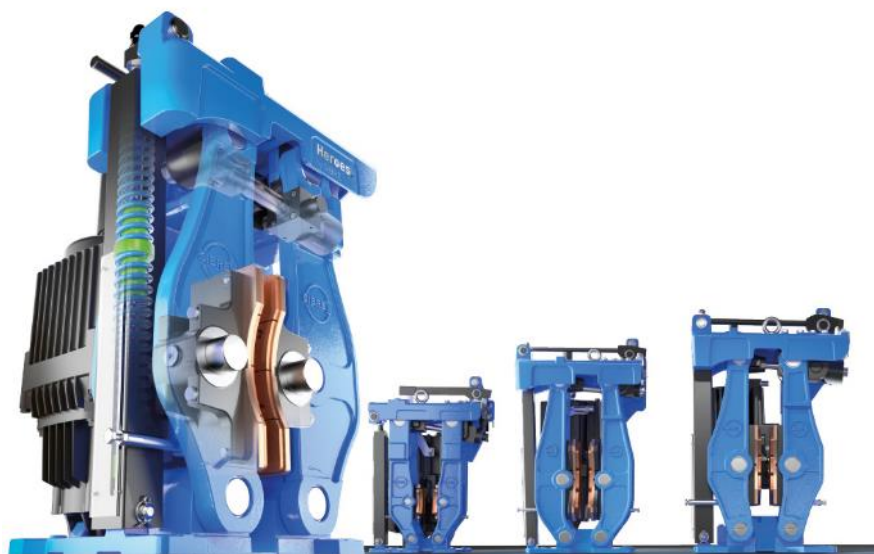
Brake torque:
6.000 - 29.000 Nm

centre height:
280 mm

weight:
285 kg

Designed for all applications in a crane

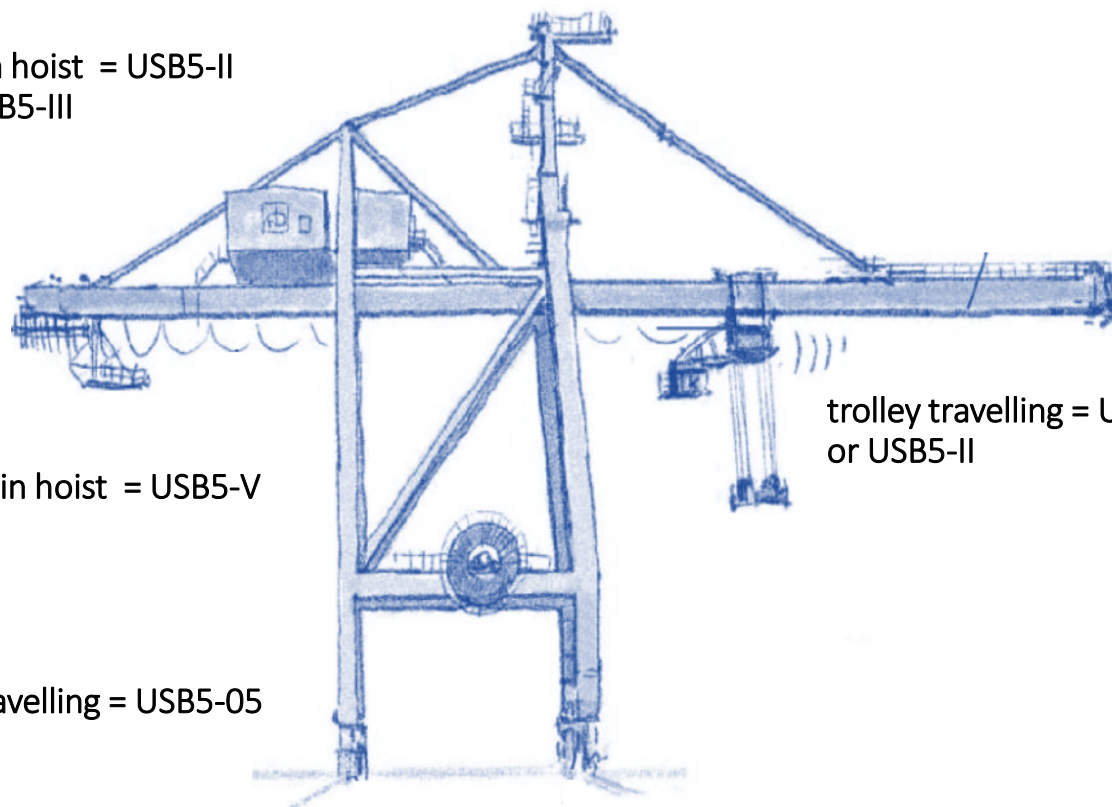
Identical conditions in regards to installation, adjustment and maintenance



boom hoist = USB5-II
or USB5-III

main hoist = USB5-V

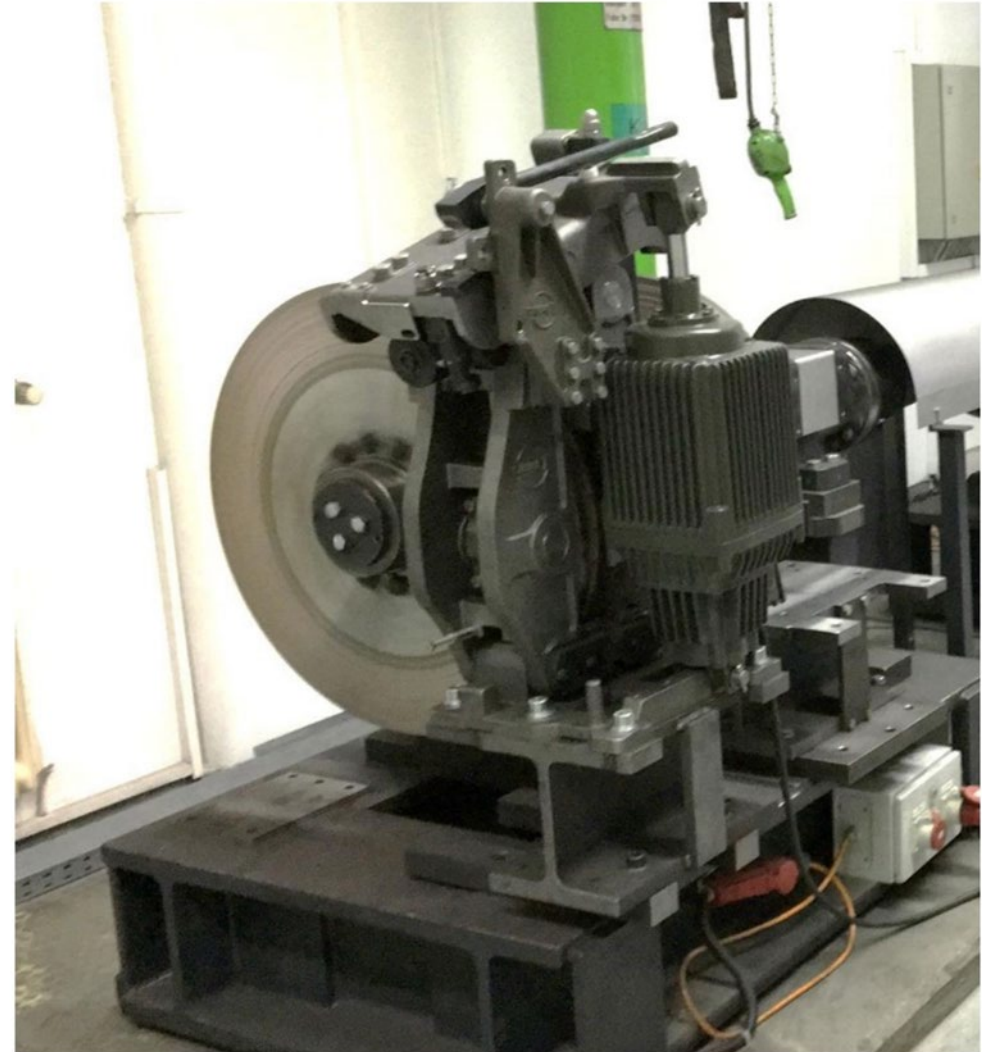
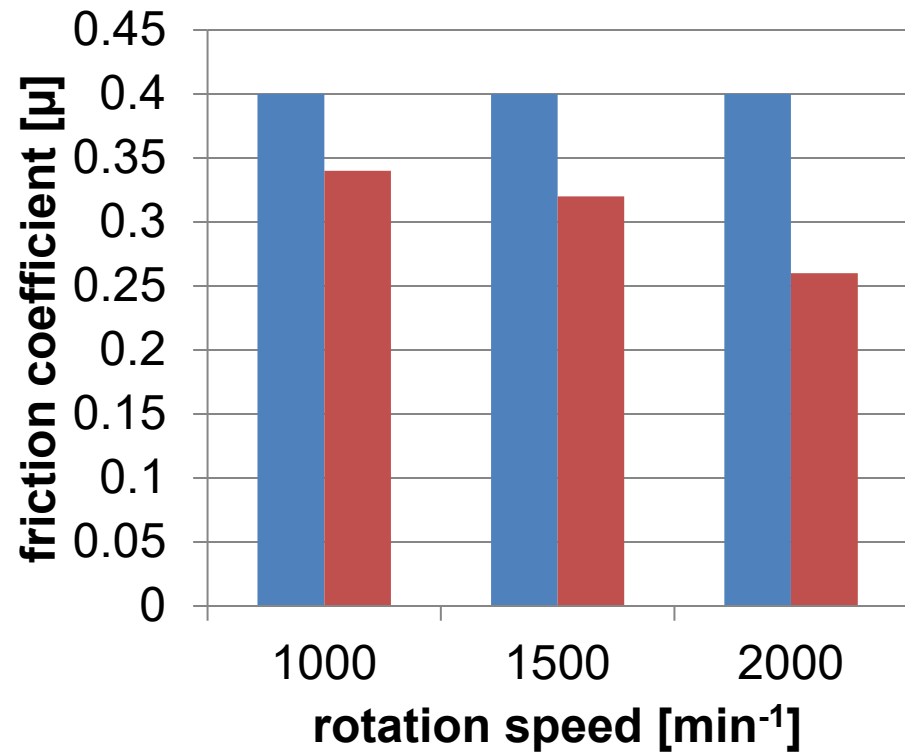
gantry travelling = USB5-05



trolley travelling = USB5-I
or USB5-II

Improved brake linings

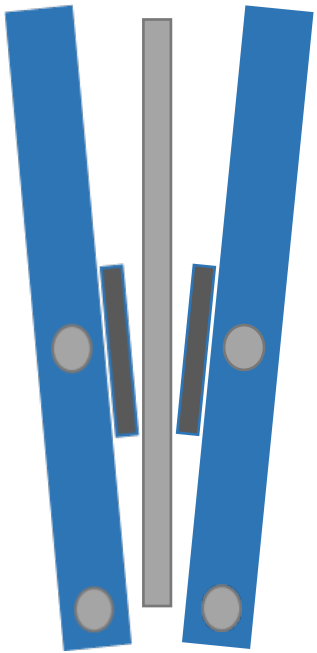
More stable friction coefficient and brake torque



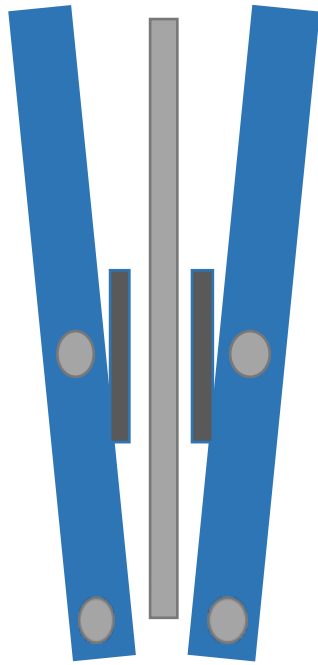
Parallel opening of brake shoes

Simplified alignment of the brake system

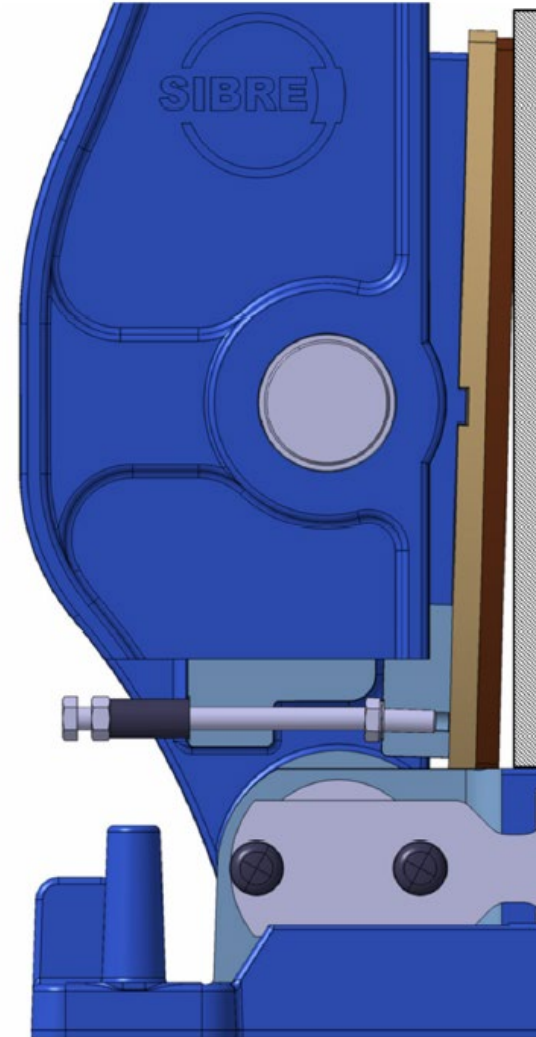
Minimized risk of sliding between disc and linings



Conventional design



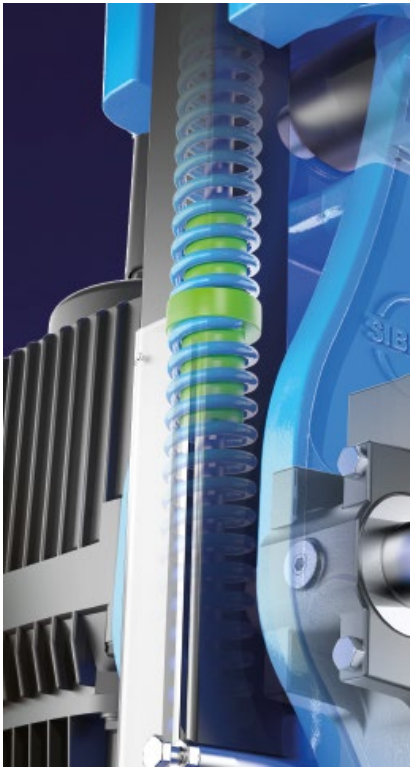
USB5 design



Optimized spring unit

Reduced noise emission

Extended lifetime of brake spring

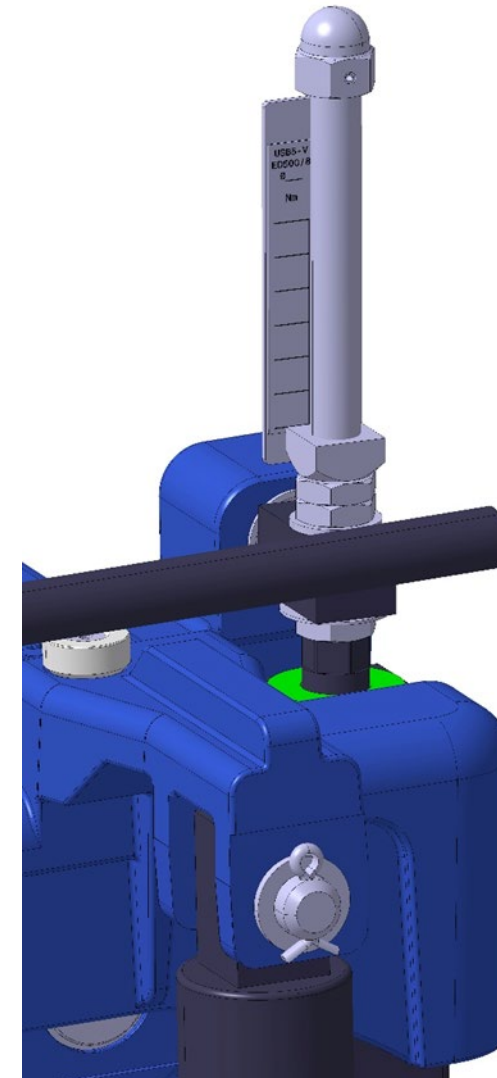


2 short springs instead of 1 long spring
-> reduced sidewise deflection

Guiding piston made of synthetic material
-> reduced wear and noise

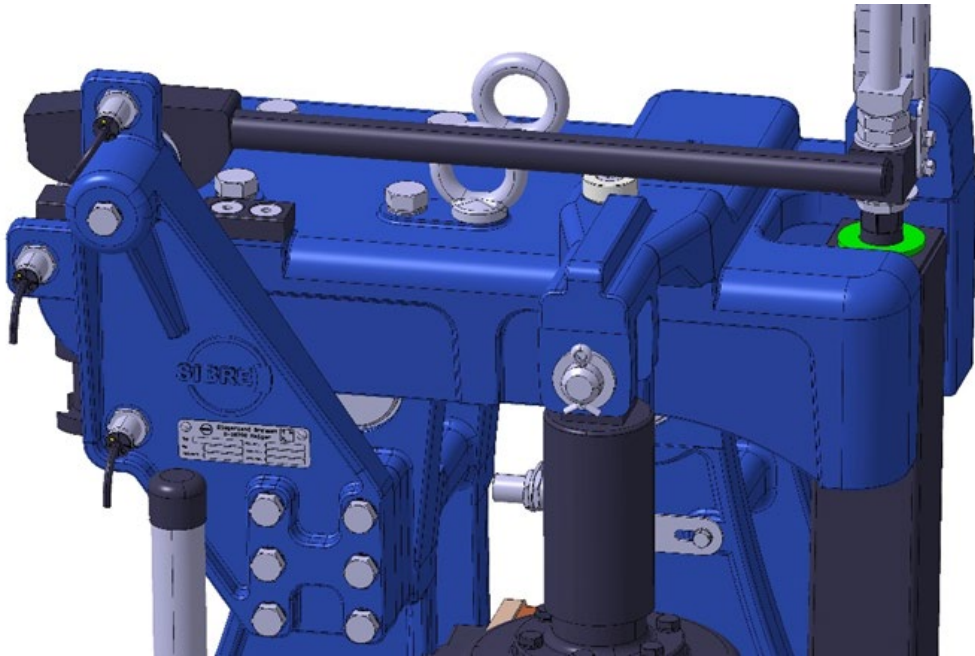
All sizes with square spring tube
-> possible to close the scale opening

Optionally with top mounted torque scale
-> easy access from each side



Upgraded manual release system

Increased operational safety for manual load lowering



Optimized ratio of lever system

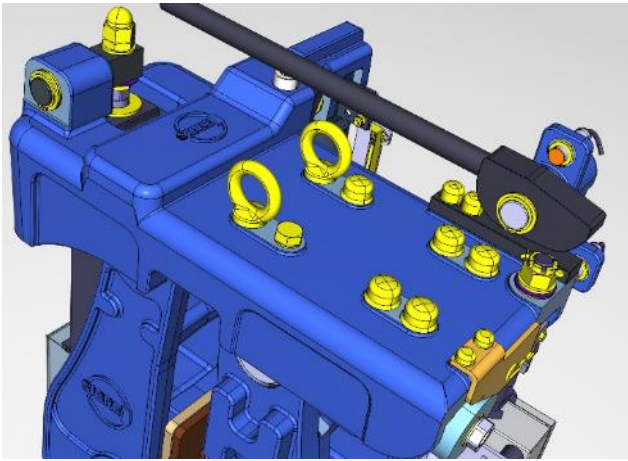
-> more easy to activate and control the torque

Just one casted part for mounting of lever and sensors

-> no need to adjust mounting flags for sensors

Enhanced corrosion protection

By design features and improved coating



Optimized cover without any deepening
-> no stagnant water

All screws, bolts and washers made of stainless steel
-> grade A4-80 (if available)
-> outer screws additionally protected with covers

Unpainted parts made of higher grade material and Sinox coated
(Instead of tenifer treatment)

All unused holes closed with plugs



Summary

USB5 brakes with SSM (SIBBRE Status Monitoring)



- Increased operational safety
- Reduced maintenance requirements
- Extended product life span



Many thanks for your attention !