



*Sure to be Safe*

Siegerland Bremsen

# SIBRE

Siegerland Bremsen GmbH

THE WORLD OF ADVANCED BRAKE TECHNOLOGY

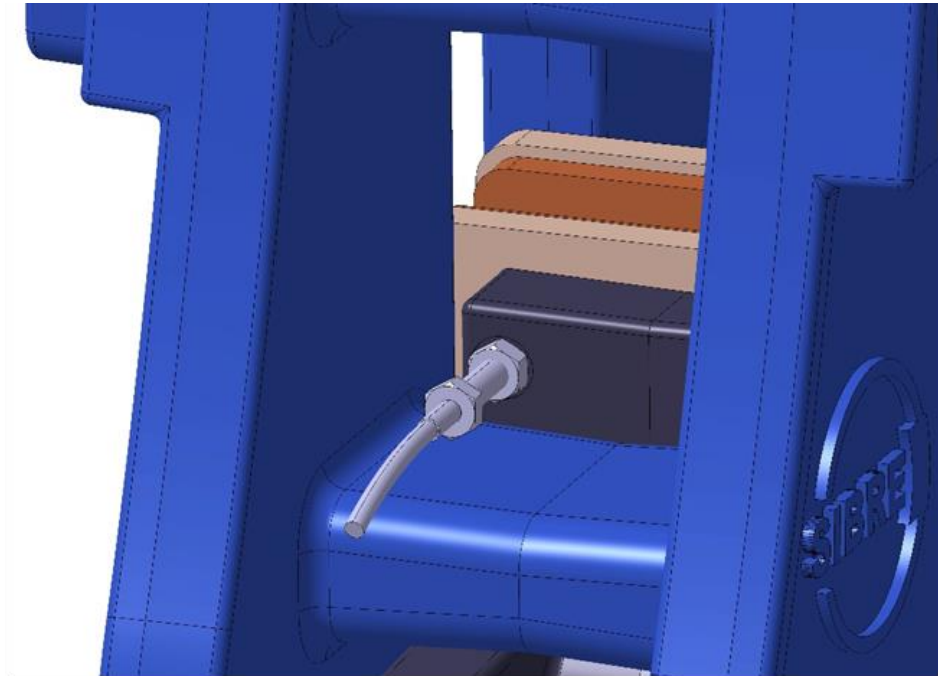
# SIBRE Siegerland Bremsen GmbH

- Private owned Company
- Founded in 1958
- Headquarter in Haiger (Germany)
- Assembly plant in Eschenburg (Germany)
- Total production area approx. 17.500 m<sup>2</sup>
- Employees: approx. 250
- 11 International branches

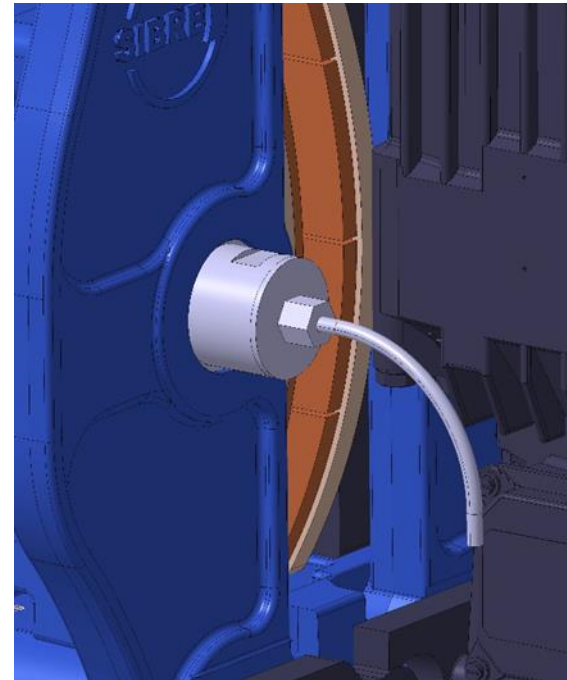


# SSM SIBRE Status Monitoring

All USB5 brakes are prepared for additional sensors



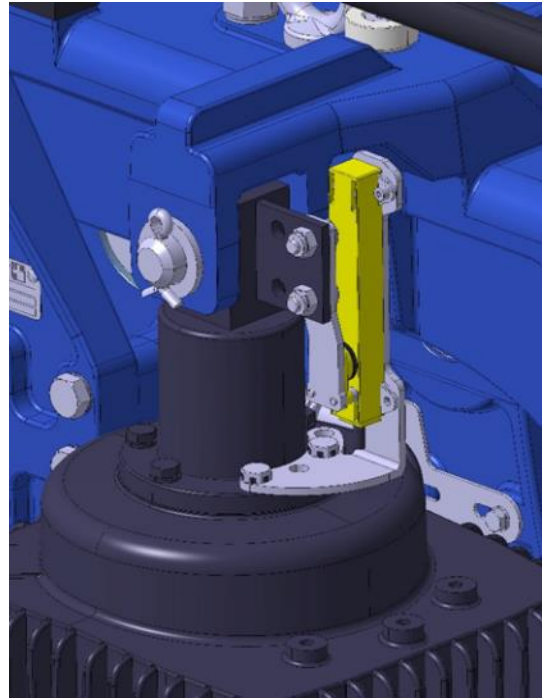
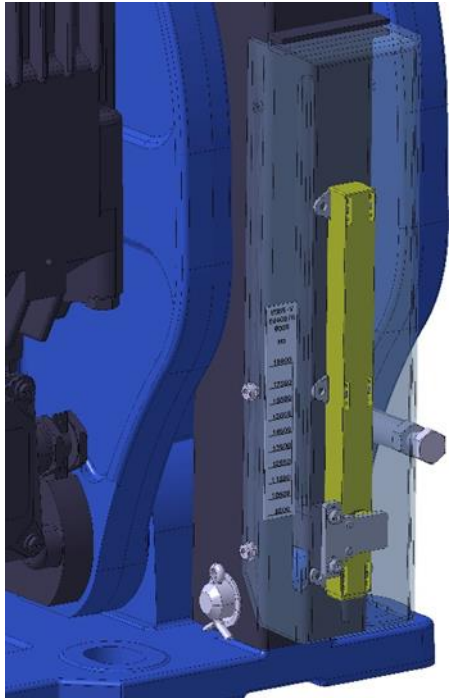
PT 100 temperature sensors for brake linings



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

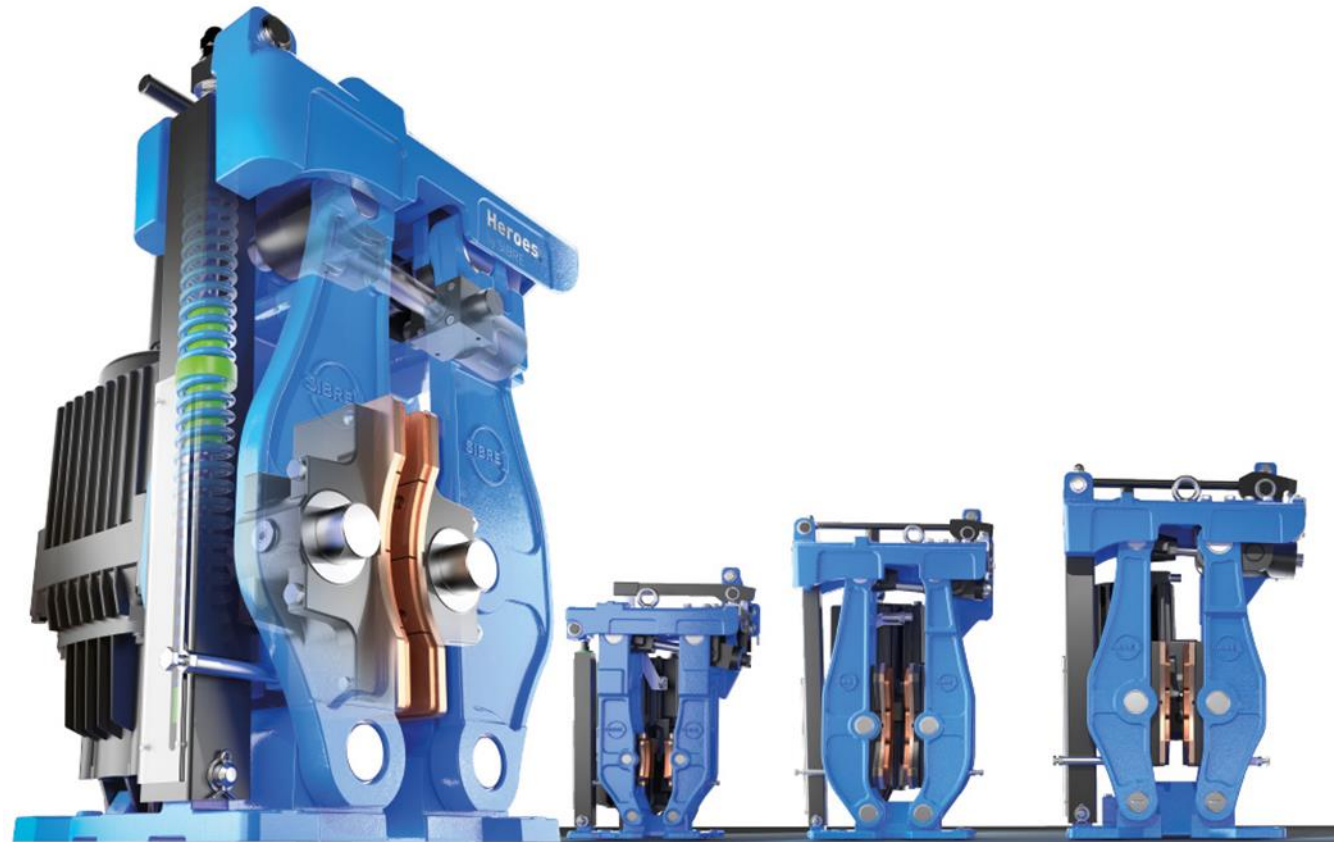
*SIBRE Cloud  
Remote Help Desk*



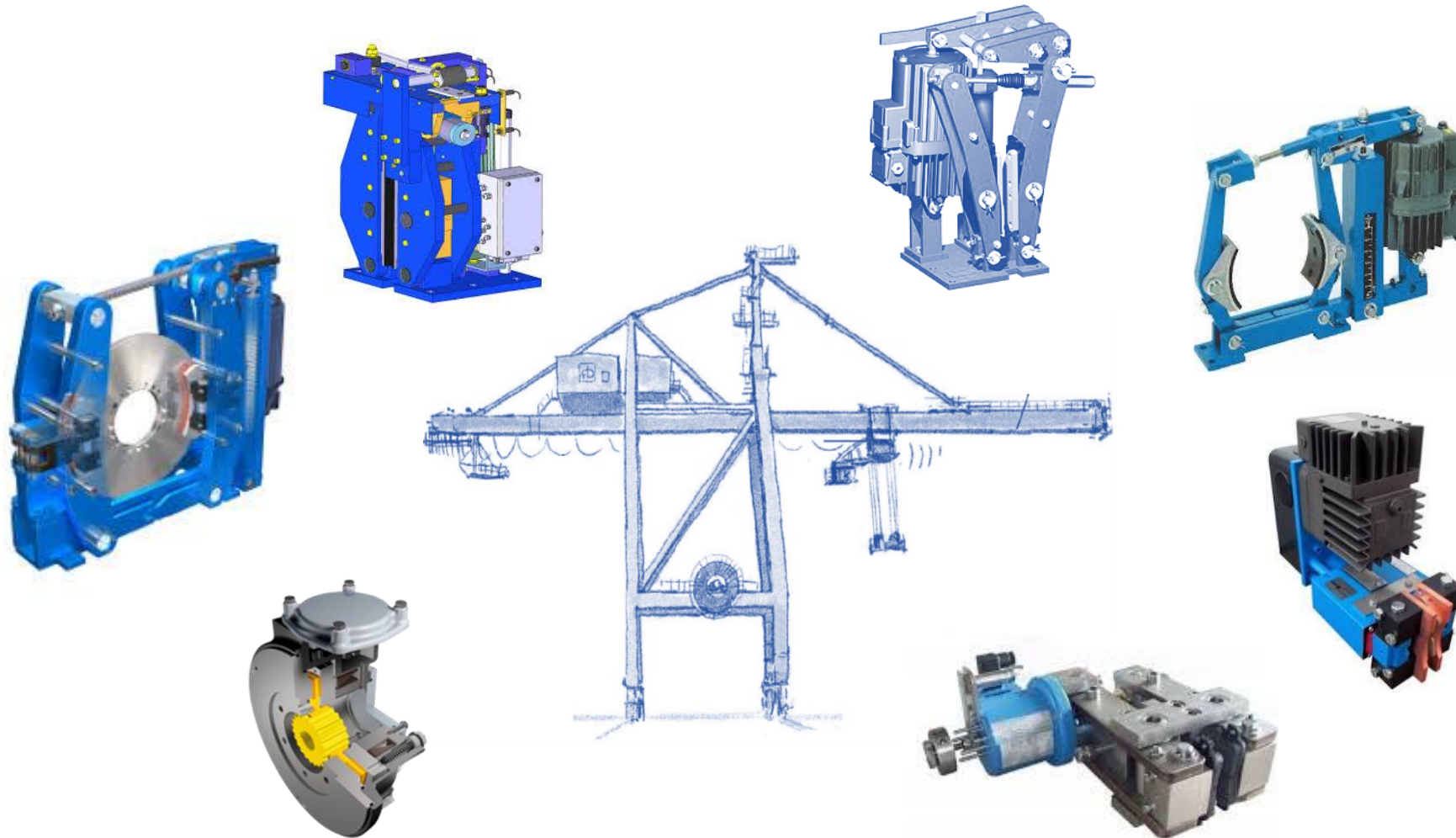


# USB5 – The latest generation of thruster disc brakes

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**

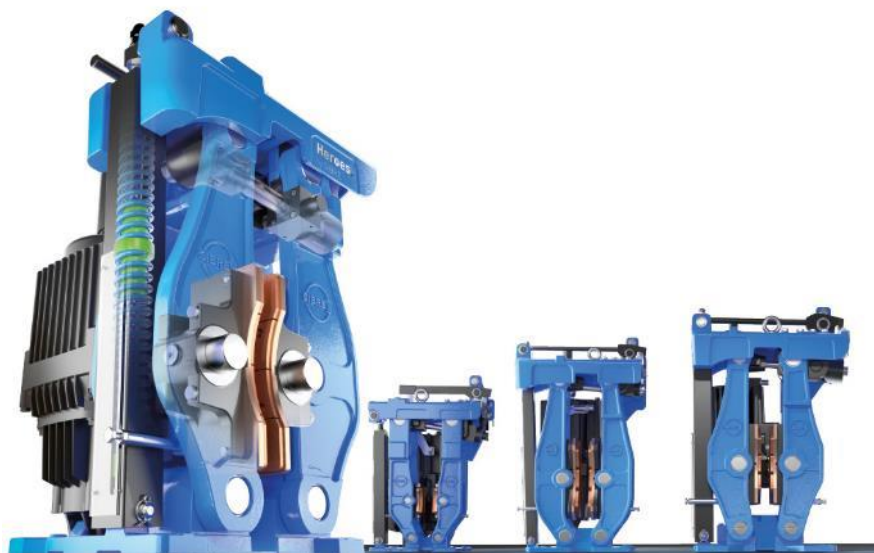
Brake torque:  
6.000 - 29.000 Nm

centre height:  
280 mm

weight:  
285 kg

# Designed for all applications in a crane

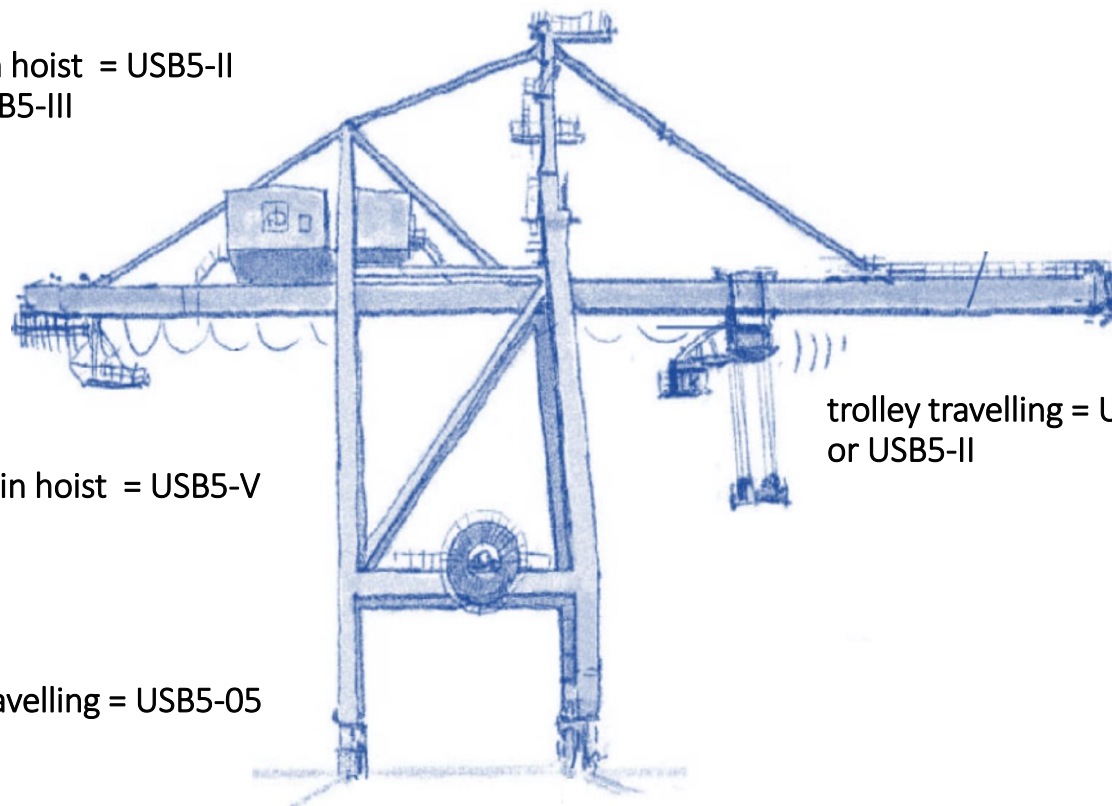
Identical conditions in regards to installation, adjustment and maintenance



boom hoist = USB5-II  
or USB5-III

main hoist = USB5-V

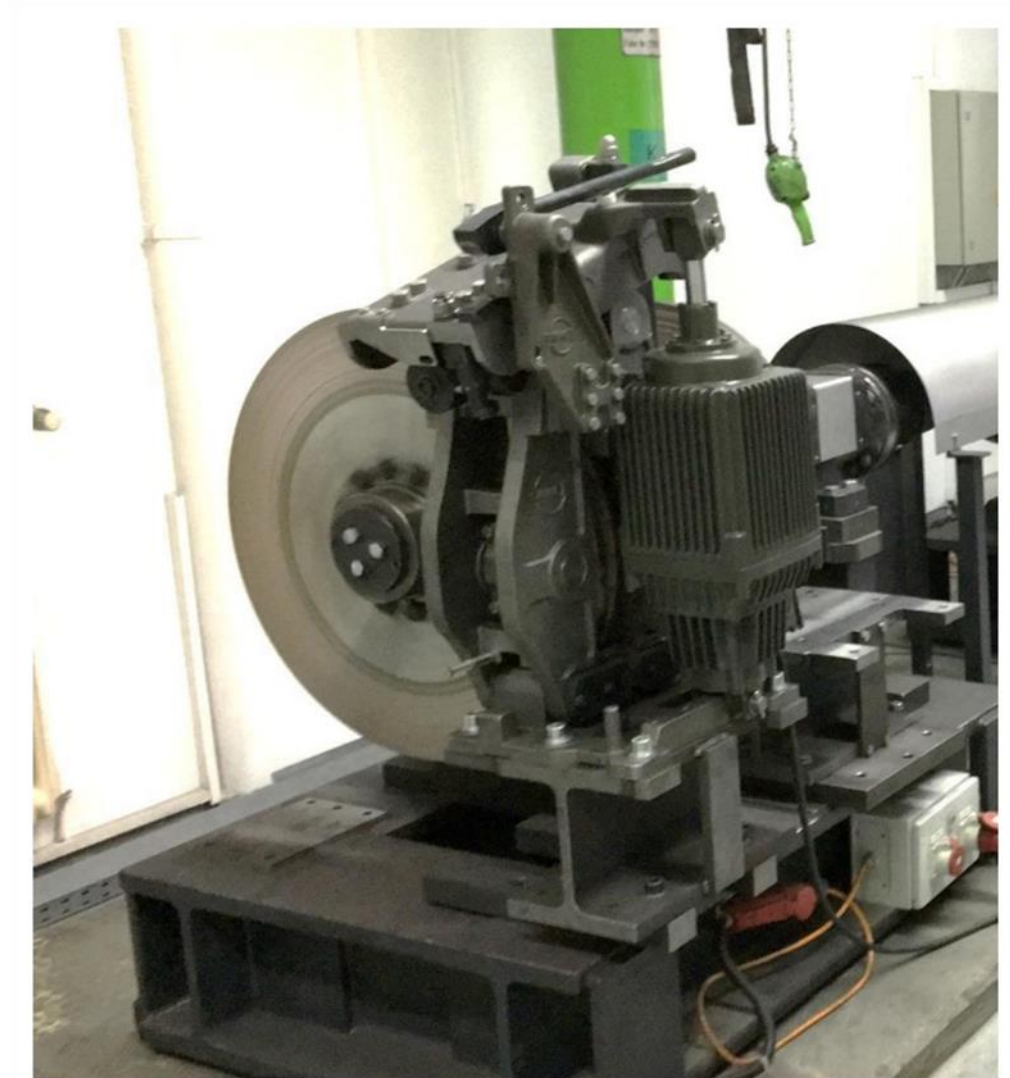
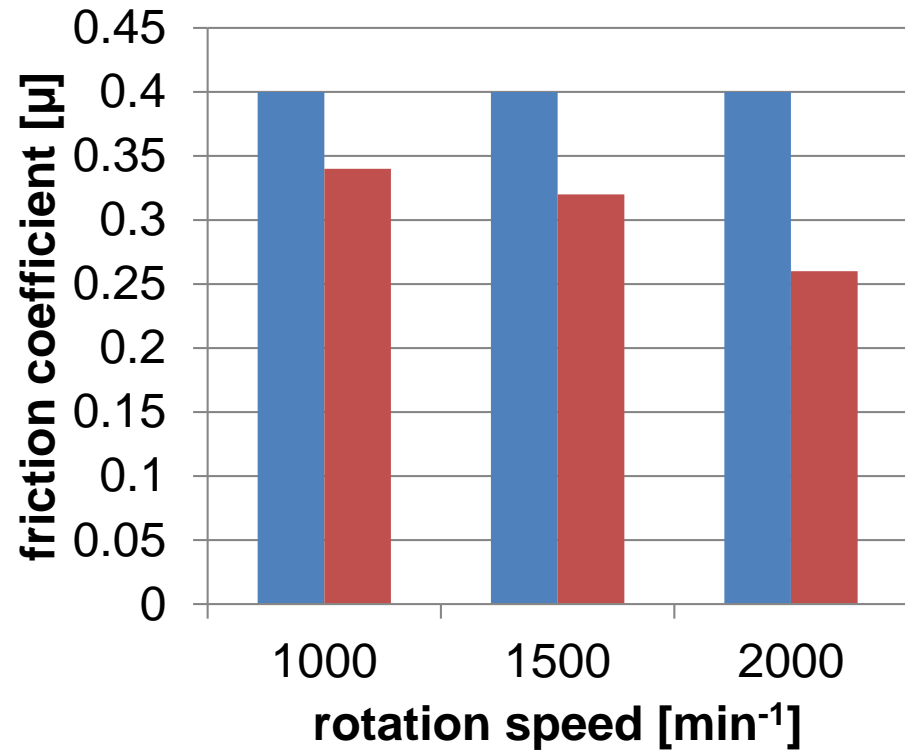
gantry travelling = USB5-05



trolley travelling = USB5-I  
or USB5-II

# Improved brake linings

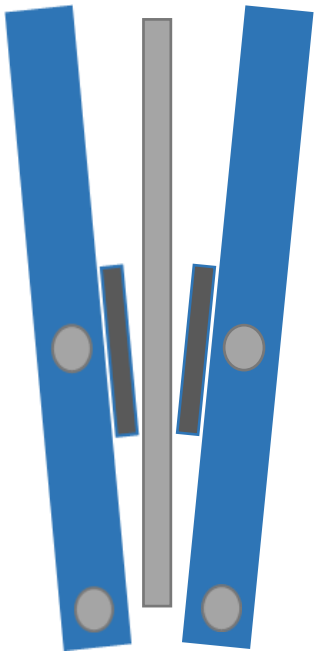
More stable friction coefficient and brake torque



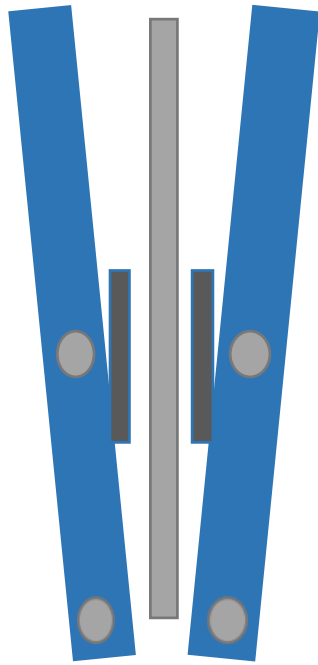
# Parallel opening of brake shoes

Simplified alignment of the brake system

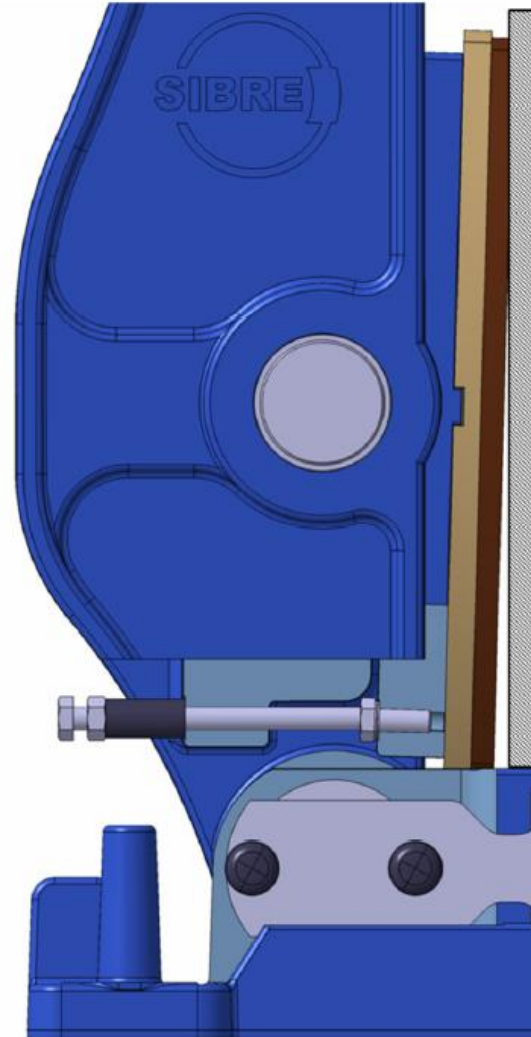
Minimized risk of sliding between disc and linings



Conventional design



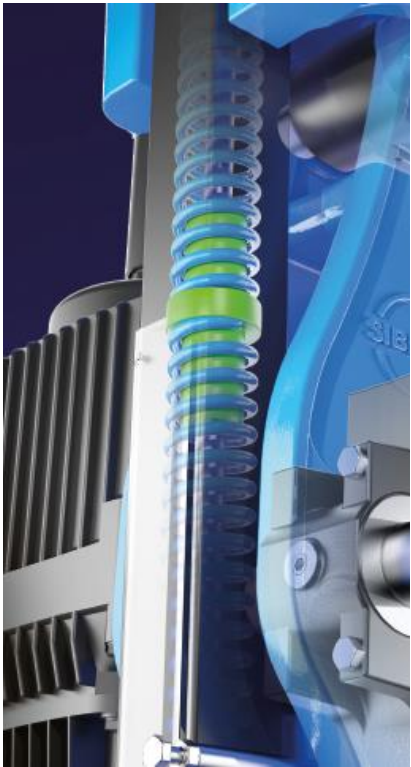
USB5 design



# Optimized spring unit

Reduced noise emission

Extended lifetime of brake spring

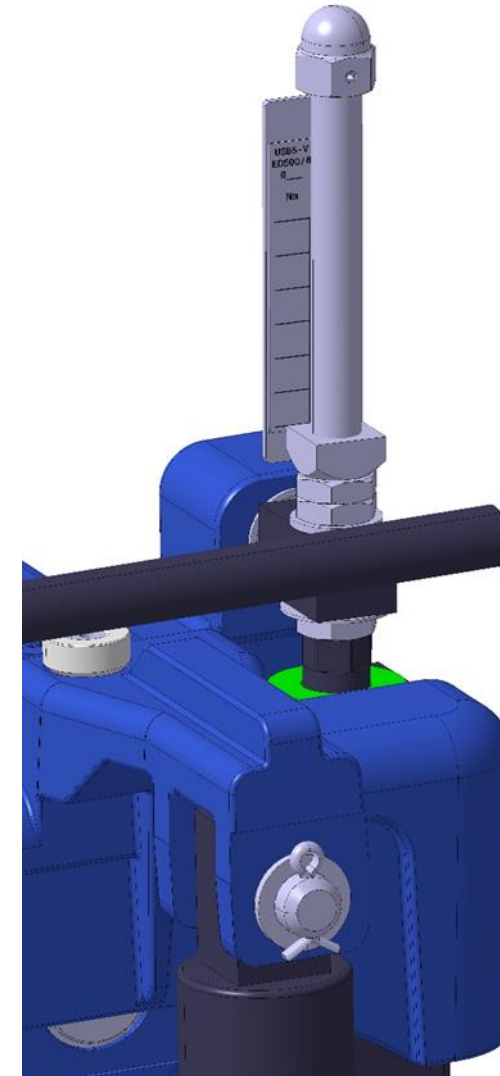


2 short springs instead of 1 long spring  
-> reduced sidewise deflection

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

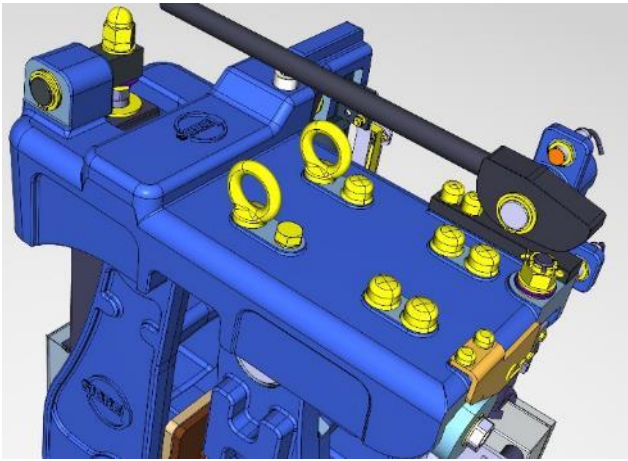
-> more easy to activate and control the torque

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 !