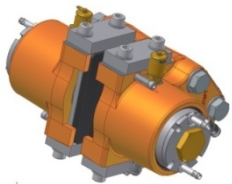


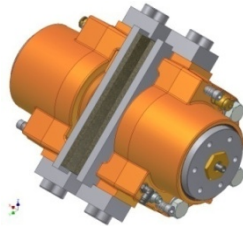
8 INDUSTRIAL DISC BRAKES

CONVEYOR

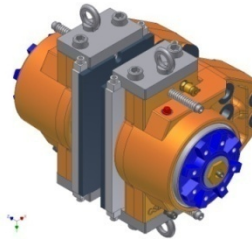
1.0 CSB-CB-SA Models



CSB-CB-200-SA



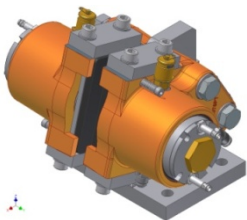
CSB-CB-300-SA



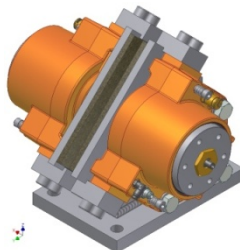
CSBH-CB-3000-SA



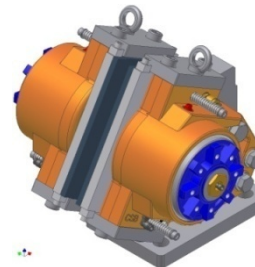
CSB-CB-5000-SA



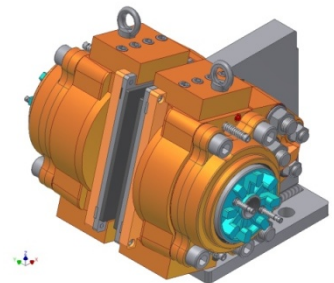
CSB-CB-200-SAFM



CSB-CB-300-SAFM

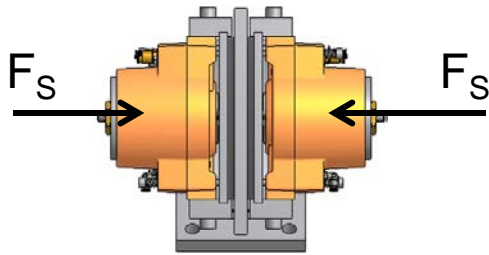


CSBH-CB-3000-SAFM



CSB-CB-5000-SAFM

2.0 Principles of Operation



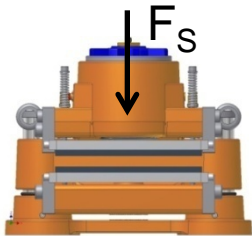
2.1 SPRING APPLIED SA

F_S – SPRING FORCE

- This force is the applied spring force that would be applied to the disc at 1mm spring extension.
- i.e. 1mm per side retracted clearance

F_C – CLAMPING FORCE = $2 \times F_S$

F_B – BRAKING FORCE = $F_C \times \mu$



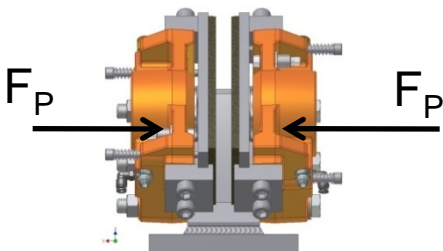
2.2 SPRING APPLIED MONOSPRING SAMS (Available upon request)

F_S – Spring Force

- This force is the applied spring force that would be applied to the disc at 1mm spring extension.
- i.e. 0.5mm per side retracted clearance

F_C – CLAMPING FORCE = F_S

F_B – BRAKING FORCE = $F_C \times \mu$



2.3 PRESSURE APPLIED PA (Available upon request)

F_P – Hydraulic Pressure Force

- All other forces as per 2.1 above.

2.4 BRAKING TORQUE

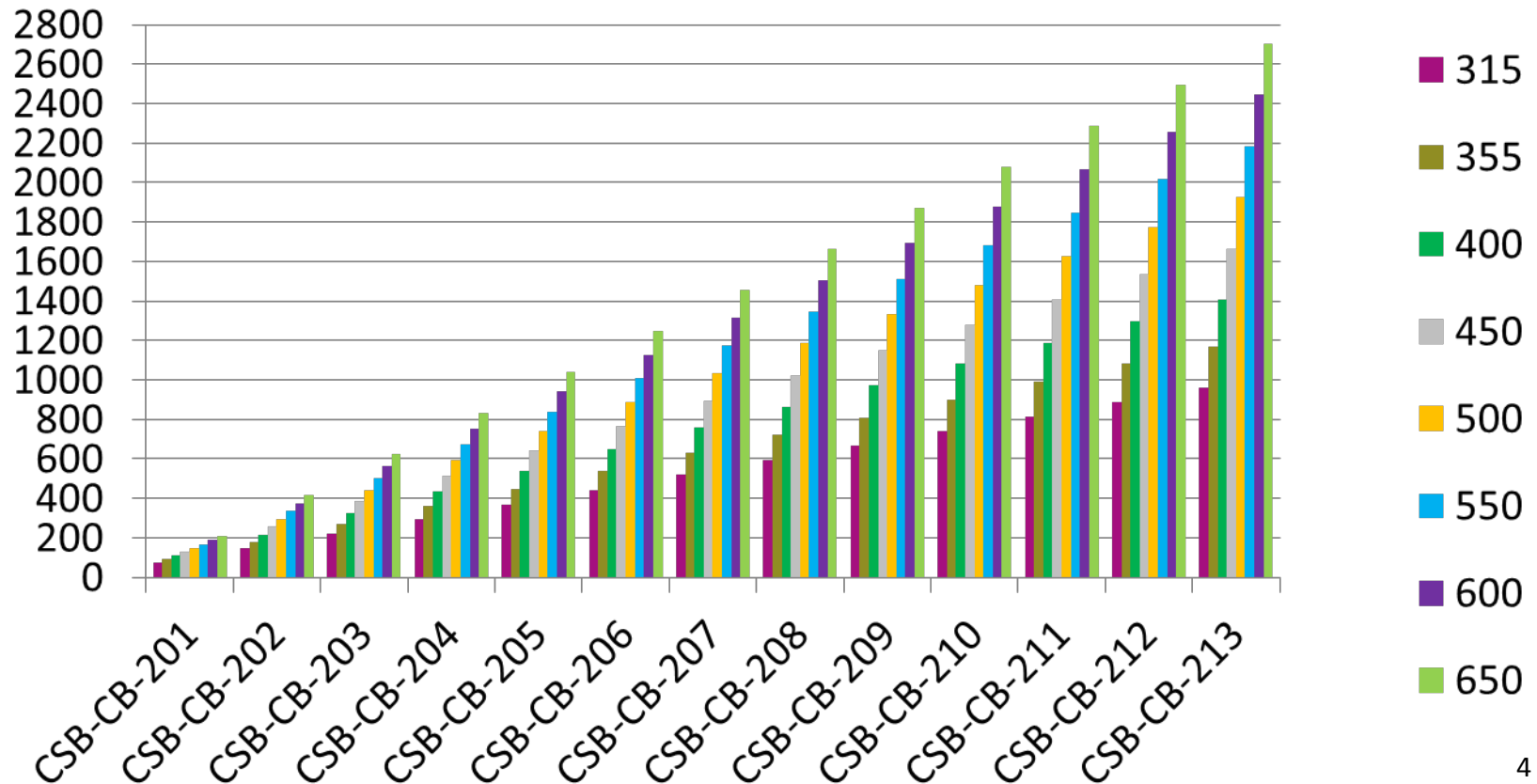
$M_B = F_B \times (\text{disc diameter} - \text{brake lining width}) / 2$

3.0 Product Matrix

3.1 CSB-CB-200-SA

**BRAKING
TORQUE (Nm)**

DISC DIAMETER (mm)

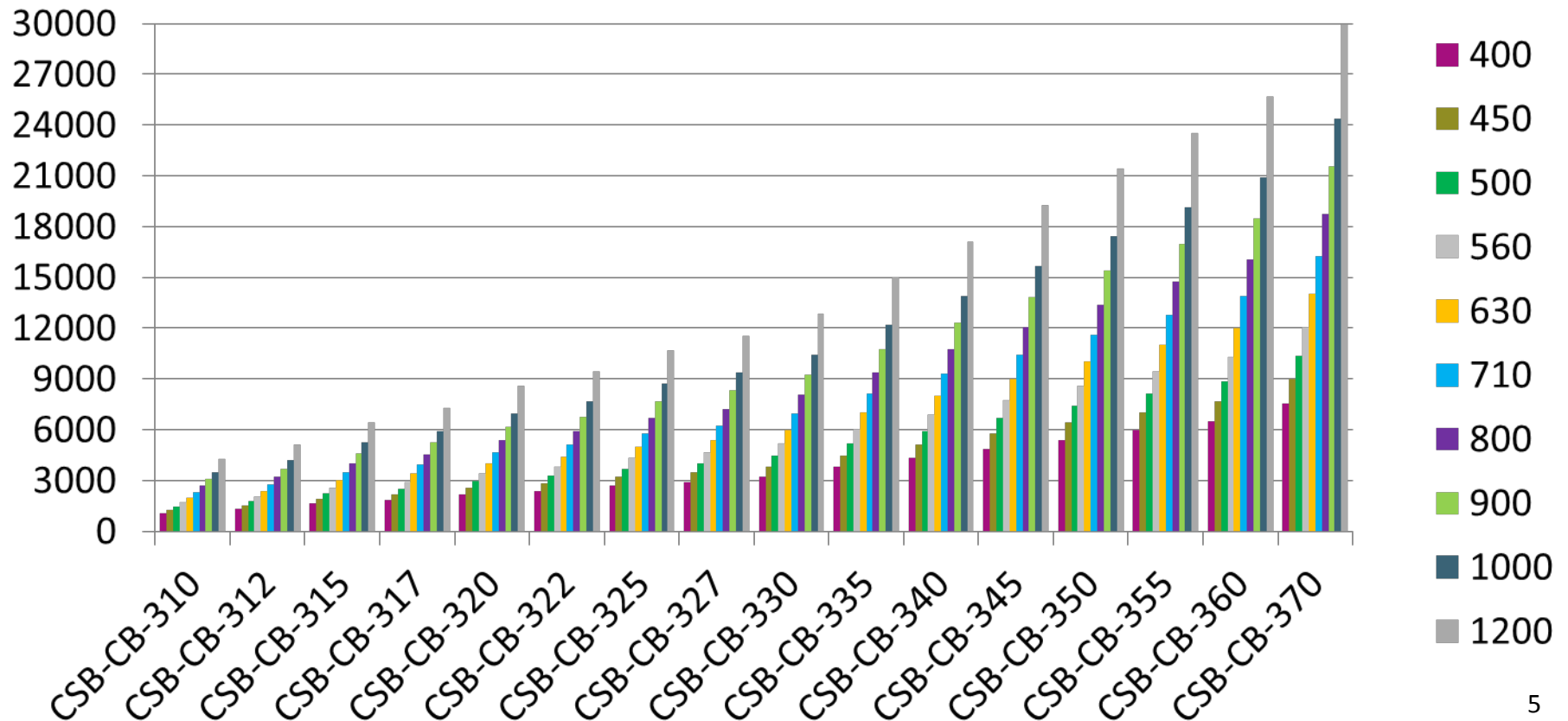


3.0 Product Matrix

3.2 CSB-CB-300-SA

**BRAKING
TORQUE (Nm)**

DISC DIAMETER (mm)

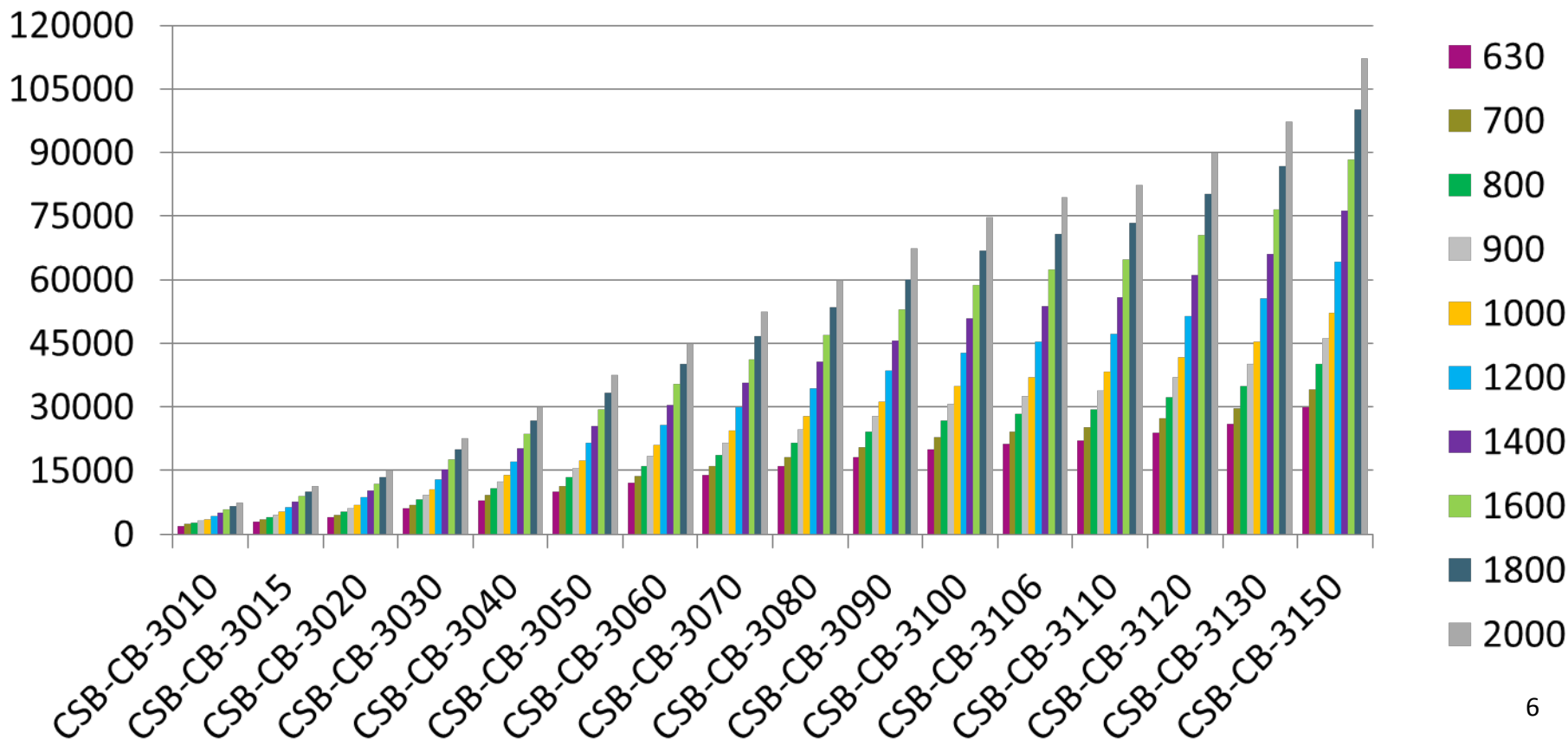


3.0 Product Matrix

3.3 CSBH-CB-3000-SA

**BRAKING
TORQUE (Nm)**

DISC DIAMETER (mm)

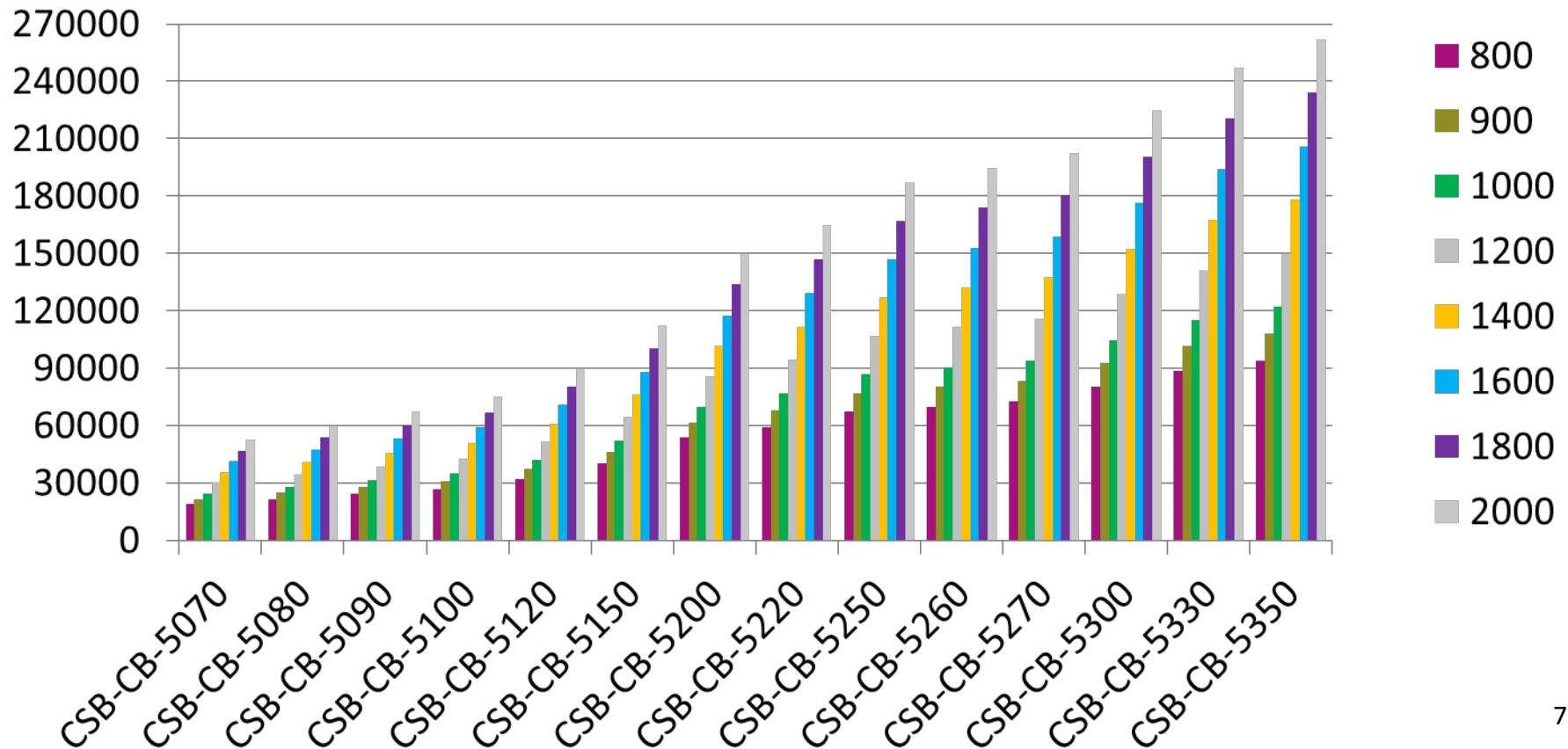


3.0 Product Matrix

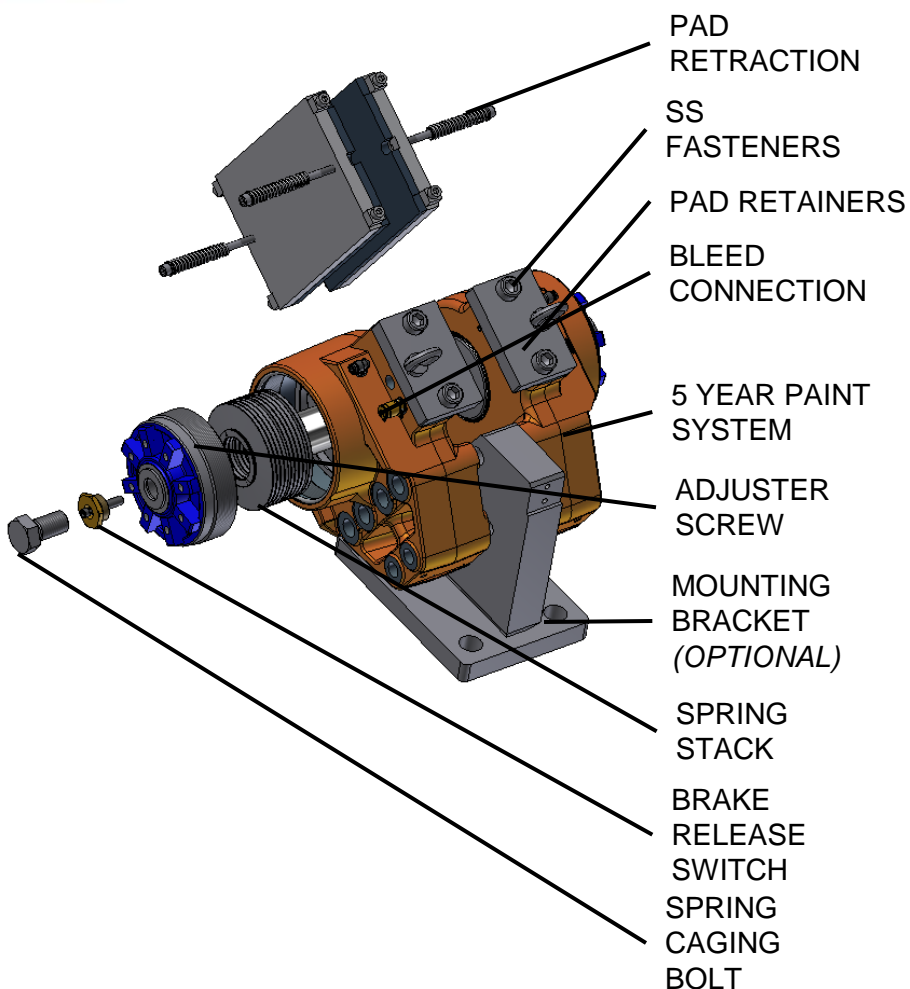
3.4 CSB-CB-5000-SA

**BRAKING
TORQUE (Nm)**

DISC DIAMETER (mm)

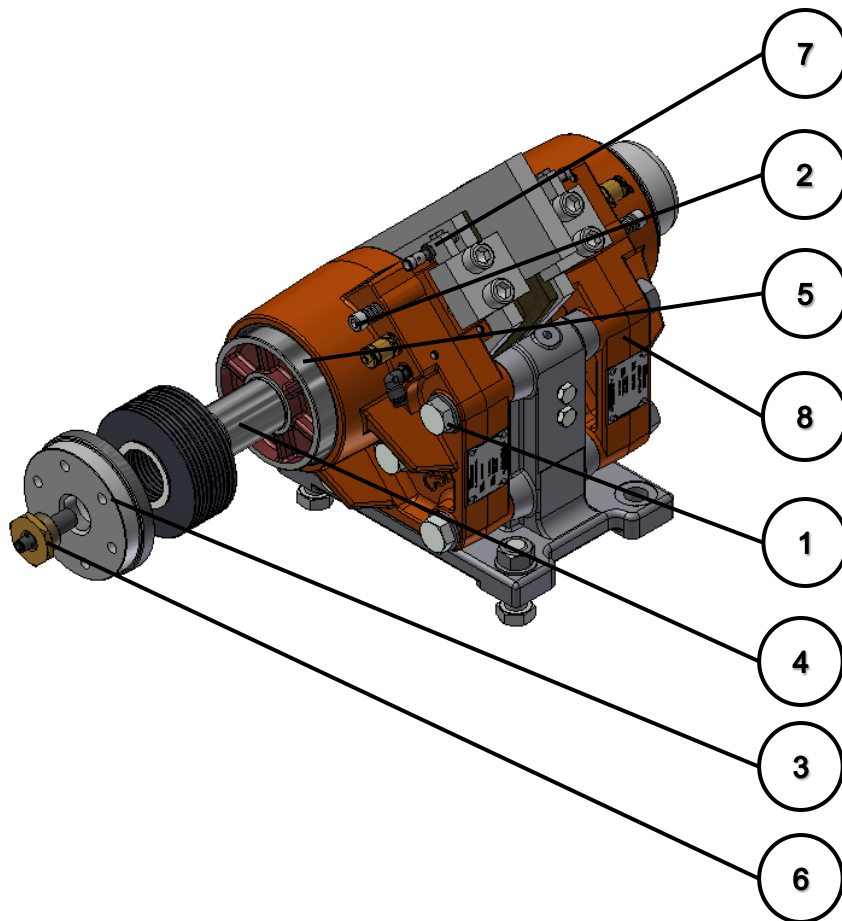


4.0 Design Highlights



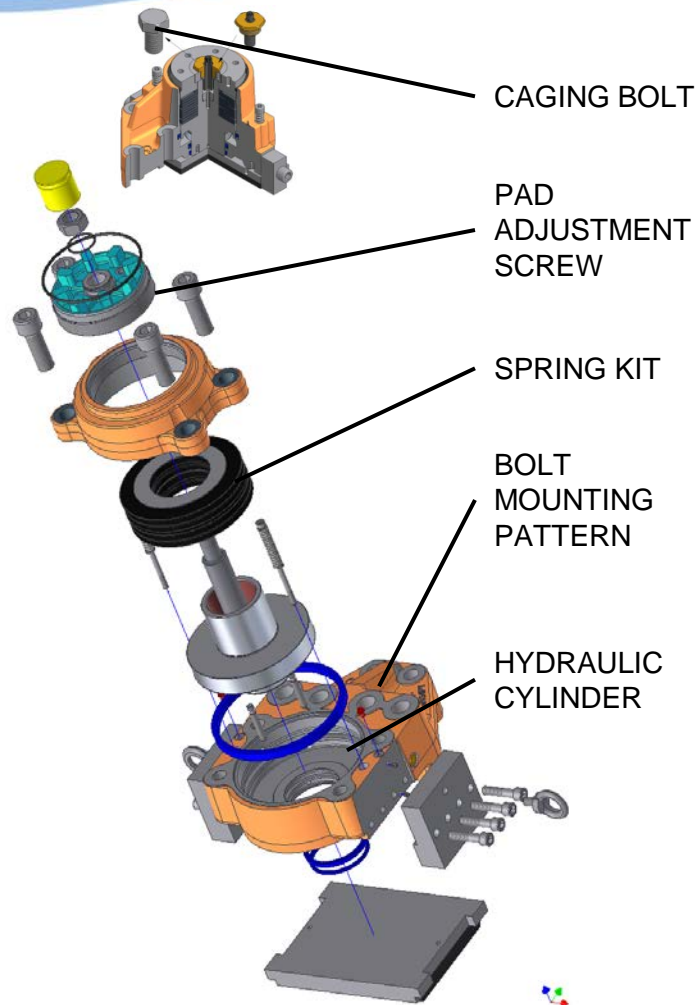
- Full range of incremental size, each size increment designed specifically to provide the exact braking force necessary for safe conveyor braking.
- The CSB CB Brake is available in
 - SA - Spring Applied with No Foot Mount Bracket
 - SAFM - Spring Applied with Foot Mount Bracket
- Compact design with very few moving parts.
- Each brake supplied with spring caging bolt.
- External corrosion protection including 5 Year paint system.
- Corrosion protection upgrade package, refer to 4.1.
- Reduced operating pressure. All brakes designed to operate at less than 170 Bar.
- Fully integrated brake pad & adjusting screw.
- Hydraulic oil drain ports on all cylinders.
- Air bleed port to ease start up & maintenance.
- Interchangeable with other leading brand.
- Direct acting pushes piston against brake pad.
- Spring caging bolt allows the brake to be shipped in release position for easy installation. The caging bolt allows the brake to be taken out of service in case of emergency or for maintenance purposes.

4.1 Corrosion protection upgrade package



1. All structural bolts & fasteners
2. Pad retraction screws & springs
3. Adjuster screw
4. Spring guide
5. Piston & piston rod
6. Brake release switch & holder
7. All switch brackets
8. 5 year powder coat paint system

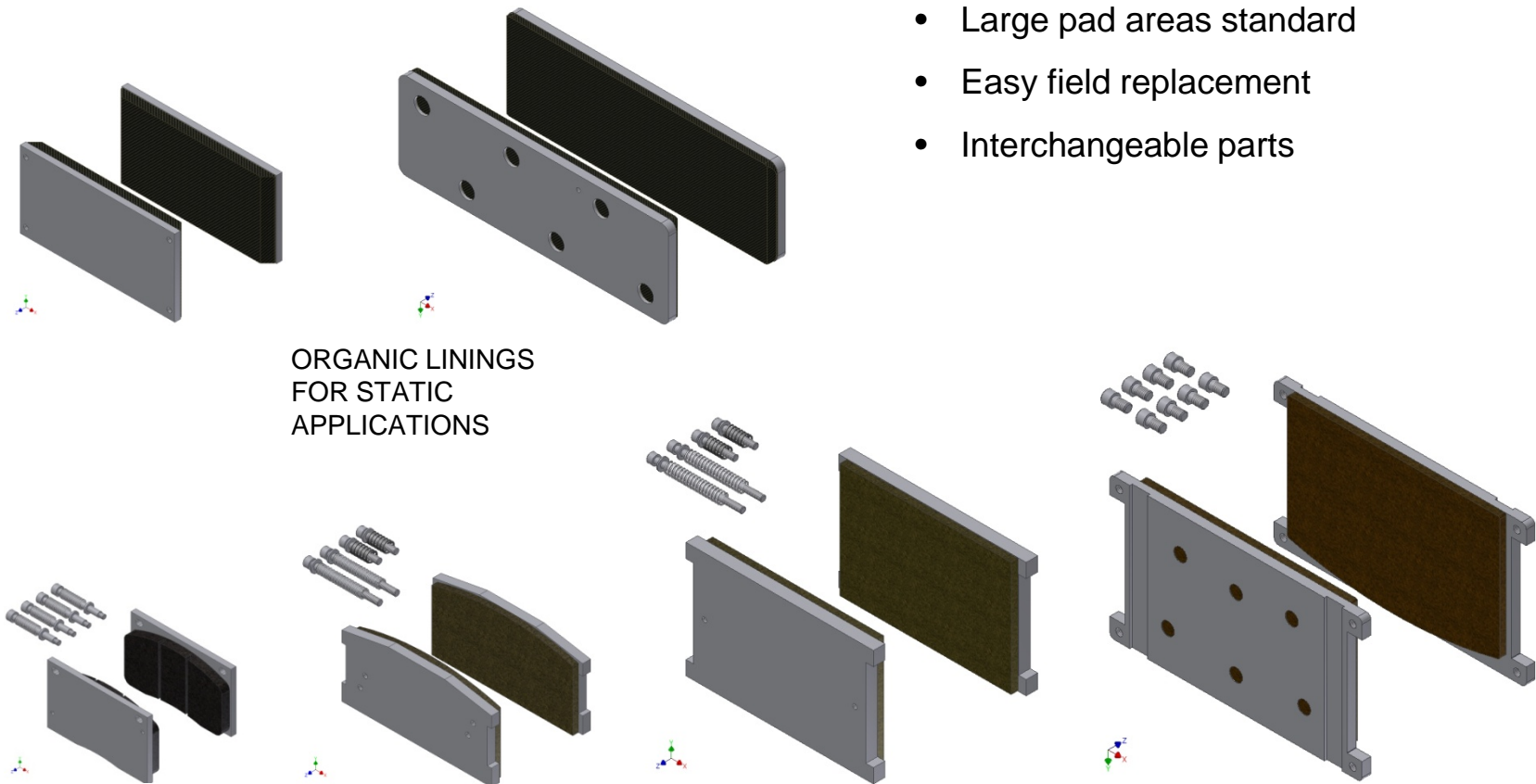
5.0 Standard Features



- All spring kit assemblies certified.
- Each brake supplied with certified performance certificate.
- All hydraulic cylinders provided with drain ports.
- All hydraulic cylinders provided with air bleed ports.
- All brakes standard with 5 Year Zinc Rich Paint system.
- All brakes provided with caging bolt.
- Pad adjustment screw standard on all spring cylinders.
- Bolt mounting pattern interchangeable with leading brand name product.
- 100% interchangeable brake pad kits.

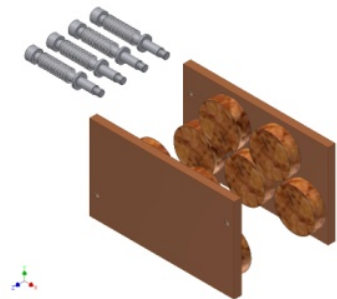
6.0 Organic Lining Brake Pads

- Large pad areas standard
- Easy field replacement
- Interchangeable parts

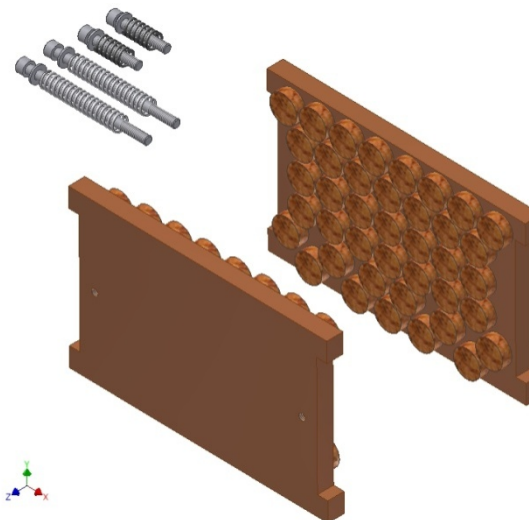
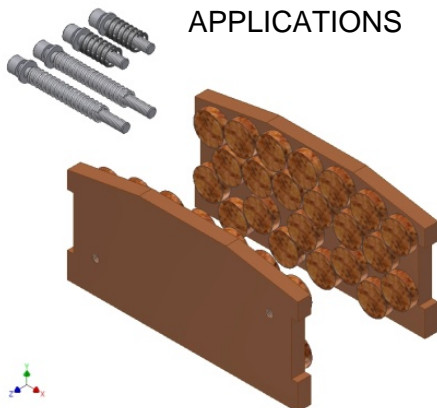


7.0 Sintered Metallic Brake Pads

- Easy replacement
- Interchangeable parts
- Pad Retraction Springs



SINTERED METALIC
LININGS FOR DINAMIC
APPLICATIONS



8.0 Design Options



ADJUSTMENT TOOL



TOOL BRACKET KIT



BLEED HOSE



BRAKE RELEASE
PROXIMITY SWITCH



PAD WEAR
PROXIMITY SWITCH



PROXIMITY
SWITCH CABLE



ELECTRICAL KIT



DRAIN BOTTLE KIT



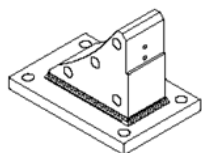
EXPANSION
CHAMBER KIT



HAND PUMP
TEST KIT



MANUAL RELEASE
KIT



FOOT MOUNT BRACKET



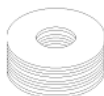
BOLT KIT



TEST POINT
CONNECTORS KIT



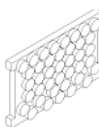
HOSE & FITTING
KIT



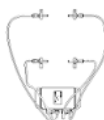
SPRING KIT



ORGANIC LINING
KIT



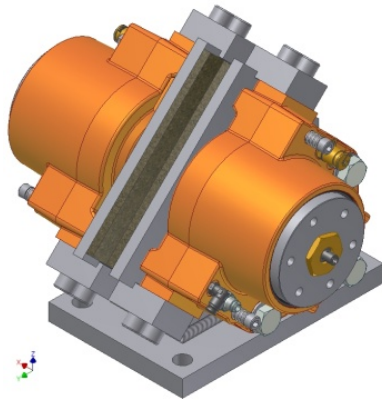
SINTERED LINING
KIT



COMPUTER
MONITORING
SYSTEM KIT

1. Adjustment tool
2. Tool bracket kit
3. Bleed hose & fitting kit
4. Brake release switch
5. Pad wear switch
6. Proximity switch cable connector
7. Electrical kit
8. Drain bottle kit
9. Expansion chamber kit
10. Hand pump test kit
11. Manual release kit
12. Foot mount bracket
13. Bolt kit
14. Test point connectors kit
15. Hose & fitting kits.
16. Spring kit
17. Organic lining kit
18. Sintered lining kit
19. Computer monitoring system kit

9.0 Standards



All Hillmar products are designed & manufactured in accordance with the following standards.

9.1 Design standards.

9.2 Performance standards.

9.3 Document standards.

9.4 Production & Quality standards.

9.5 Packaging standards.

All Hillmar products are delivered with Hillmar commitment to customer satisfaction.

