

5023-SA | SPRING APPLIED AIR RELEASED CALIPER DISC BRAKE

KEY BENEFITS

Bronze &
stainless steel
construction

Easy brake pad
replacement

Well matched to
Kobelt's standard
range of 2"
ventilated discs

Putting you in control.

Constructed entirely of bronze and stainless steel, Kobelt's spring applied disc brakes are built to last in the harshest, most corrosive conditions.

The brake features a shoe design which allows the brake pads to be easily and quickly changed while leaving the caliper in place.

Available with several options, these caliper disc brakes are well suited for parking or emergency braking duty on draw works, hoists, winches and more.

SPECIFICATIONS

PART NO.	NORMAL FORCE ¹	PRESSURES	
		RELEASE	HOLD-OFF
5023-SA	7930 lbs [35.03 kN]	88 psi [6.1 bar]	79 psi [5.5 bar]
5023-SA75	6770 lbs [30.1 kN]	76 psi [5.2 bar]	66 psi [4.6 bar]
5023-SA70	6090 lbs [27.1 kN]	68 psi [4.7 bar]	59 psi [4.1 bar]
5023-SA60	5120 lbs [22.8 kN]	55 psi [3.8 bar]	49 psi [3.4 bar]

Maximum Pressure: 150 psi [10.3 bar]

Port Size: 3/8 NPT

Actuator Volume: 46.2 in³ [757 cc]

Temperature Range: -40°F...+131°F
-40°C...+55°C

Disc Thickness: 2 in [51 mm]

Max Running
Clearance: .06 in [1.5 mm]

Minimum
Disc Diameter: 20 in [508 mm]

Maximum
Disc Diameter²: unlimited

Total Pad Area: 53.4 in² [344 cm²]

Weight: 77 lbs [35 kg]

¹Torque:

$$T_B = 2F_N\mu \left(\frac{OD-4.50}{24} \right)$$

Where:

T_B = brake torque (ft-lbf)

F_N = normal force (lbf)

μ = coefficient of friction

= 0.35 (nonferrous)

= 0.38 (ferrous disc)

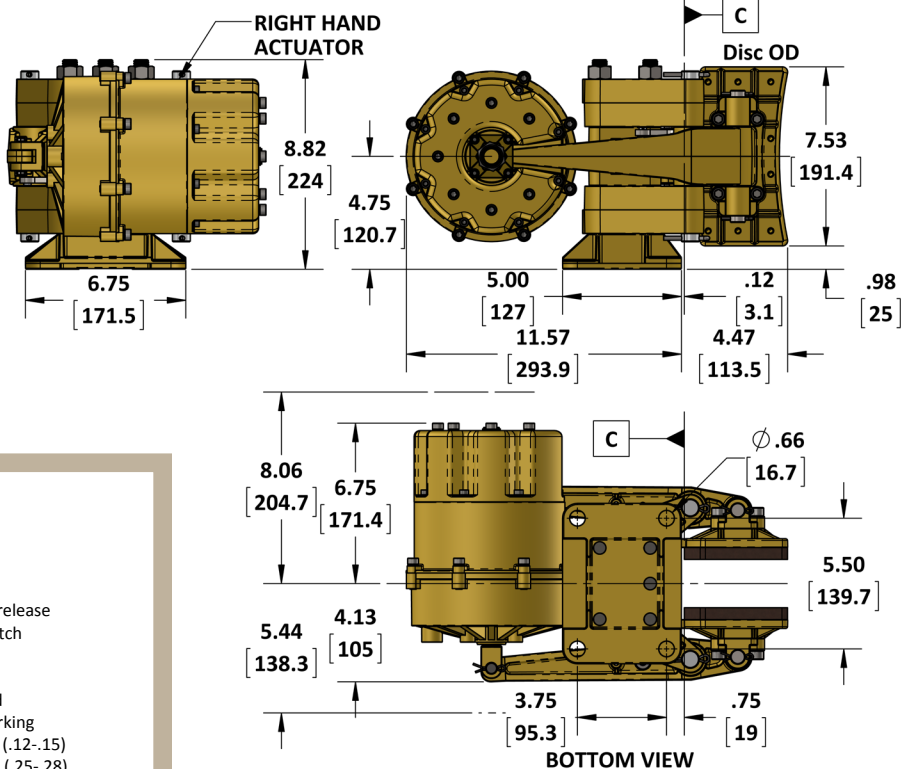
OD = brake disc diameter (in)

Friction values are theoretical and for reference only. They are based on properly bedded and burnished linings acting on a rotor at 20°C, manufactured to required specifications.

²Requires a minimum 4.34 in
[110 mm] wide face

SPECIFICATIONS

FOOT MOUNTED VERSION



Brake Model Code Key

5023- [] - [] - [] - [] - []

Added options

- R = manual release
- LS = limit switch

Friction material

- (blank) = standard
- N = non-sparking
- C = low COF (.12-.15)
- E = mid COF (.25-.28)

Disc thickness

- (blank) = 2.000 in
- 175 = 1.750 in
- 150 = 1.500 in
- 125 = 1.250 in
- 100 = 1.000 in

Actuator handing

- LH = springs on left hand side
- RH = springs on right hand side

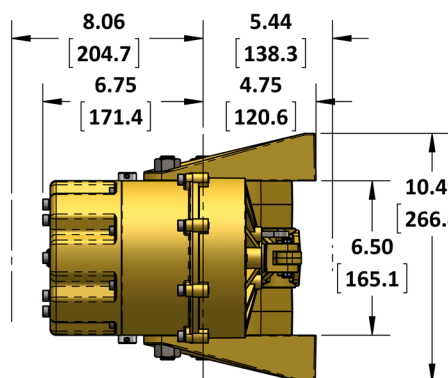
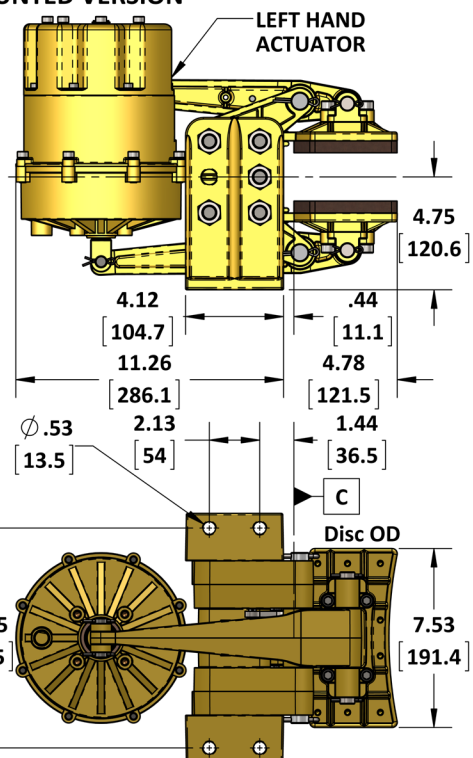
Mounting code

- (blank) = foot mounted
- W = side mounted

Actuator code

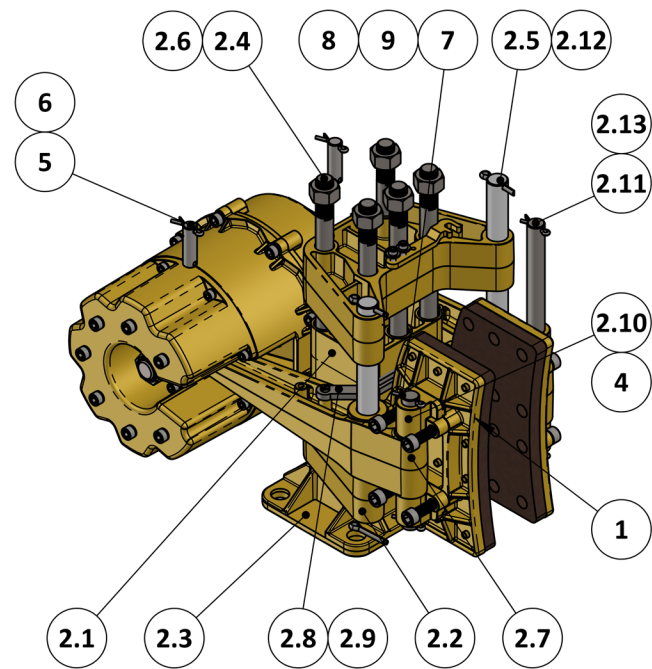
- SA = 87 psi release
- SA75 = 76 psi release
- SA70 = 66 psi release
- SA60 = 55 psi release

SIDE MOUNTED VERSION



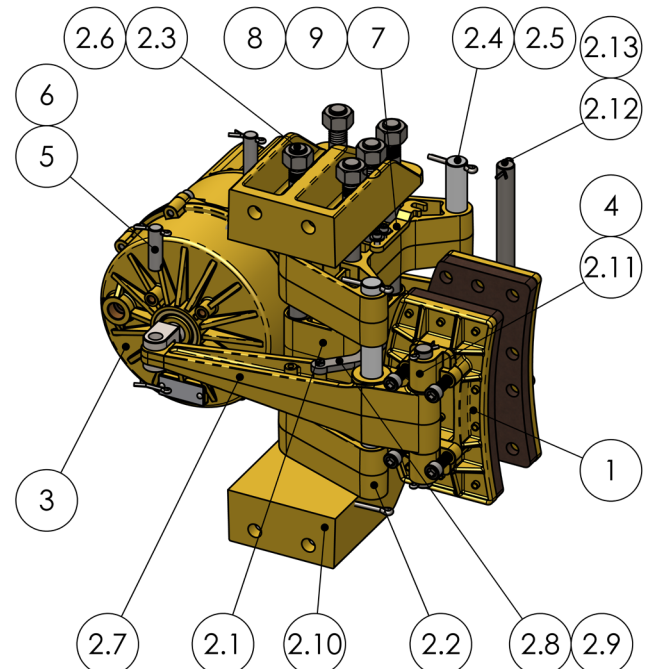
PARTS LISTING

5023-SA Caliper Brake



ITEM	QTY.	PART NUMBER	5023-SA DESCRIPTION
1	2	5021-LS	SHOE ASSEMBLY, 5021 CALIPER, 1/2" K5
2	1	5023-SUB	SUB-ASSEMBLY 5023 CALIPER
2.1	1	5021-0003	SPACER, 5021 CALIPER
2.2	2	5023-0002	SADDLE, 5023 CALIPER
2.3	1	5021-0001	FOOT
2.4	5	5021-0023	TIE ROD
2.5	2	5021-0022	SADDLE PIN 5021 CALIPER
2.6	5	1022-0116	HEX NUT - REGULAR; 5/8-11 UNC GR 18-8
2.7	2	5023-0004	LEVER 5023 CALIPER
2.8	2	5021-0011	BALANCING LINK PART 1 5021 CALIPER
2.9	2	5021-0226	LINK PIN 5/16 UNC X 7/8 LG
2.10	4	5021-0006	HINGE BLOCK
2.11	2	5021-0021	SHOE PIN 5021 CALIPER
2.12	4	1026-0820	COTTER PIN; 3/16 DIA x 1 1/4 LG, 18-8
2.13	4	1026-0516	COTTER PIN; 1/8 DIA X 1 LG. 18-8
3	1	6230-80	ACTUATOR; SPRING/AIR, 80 PSI
4	8	1002-1216	SCREW, SKT HD CAP, 3/8-16 UNC X 1, SS
5	2	6230-0010	CLEVIS PIN 1/2" DIA
6	4	1026-0516	COTTER PIN; 1/8 DIA X 1 LG. 18-8
7	2	5021-0012	BALANCE LINK NO. 2 5021 CALIPER
8	4	1023-0108	WASHER FLAT #10 TYPE A SS
9	4	1002-0808	SCREW, SKT HD CAP, #10 UNC x 1/2 LG, SS

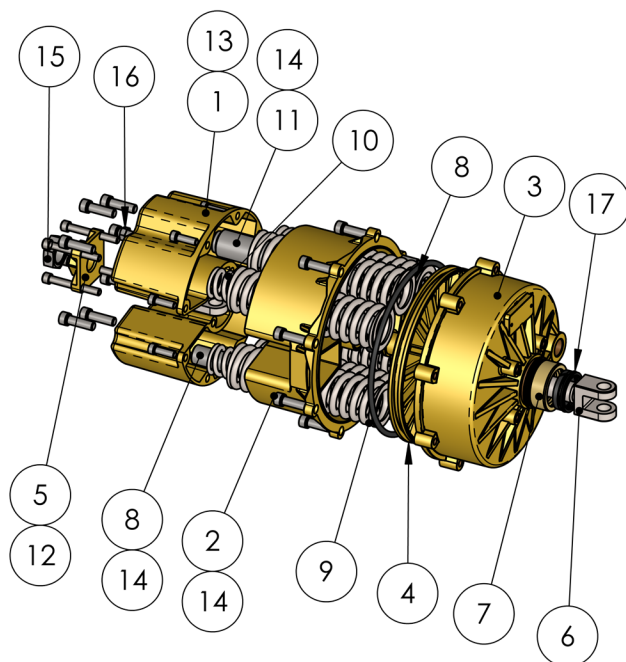
5023-SAW Caliper Brake



ITEM	QTY.	PART NUMBER	5023-SAW DESCRIPTION
1	2	5021-LS	SHOE ASSEMBLY, 5021 CALIPER, 1/2" K5
2	1	5023-SUB-W	SIDE MOUNT SUB-ASSEMBLY, 5023 CALIPER
2.1	1	5021-0003	SPACER, 5021 CALIPER
2.2	2	5023-0002	SADDLE, 5023 CALIPER
2.3	5	5021-0023	TIE ROD
2.4	2	5021-0022	SADDLE PIN 5021 CALIPER
2.5	4	1026-0824	COTTER PIN, 3/16 x 1 1/2, 18-8
2.6	10	1022-0116	HEX NUT - REGULAR; 5/8-11 UNC GR 18-8
2.7	2	5023-0004	LEVER 5023 CALIPER
2.8	2	5021-0011	BALANCING LINK PART 1 5021 CALIPER
2.9	2	5021-0226	LINK PIN 5/16 UNC X 7/8 LG
2.10	2	5021-0101	SIDE MOUNT BRACKET, 5021 CALIPER
2.11	4	5021-0006	HINGE BLOCK
2.12	2	5021-0021	SHOE PIN 5021 CALIPER
2.13	4	1026-0516	COTTER PIN; 1/8 DIA X 1 LG. 18-8
3	1	6230-80	ACTUATOR; SPRING/AIR, 80 PSI
4	5	1002-1216	SCREW, SKT HD CAP, 3/8-16 UNC X 1, SS
5	2	6230-0010	CLEVIS PIN 1/2" DIA
6	4	1026-0516	COTTER PIN; 1/8 DIA X 1 LG. 18-8
7	2	5021-0012	BALANCE LINK NO. 2 5021 CALIPER
8	4	1023-0108	WASHER FLAT #10 TYPE A SS
9	4	1002-0808	SCREW, SKT HD CAP, #10 UNC x 1/2 LG, SS

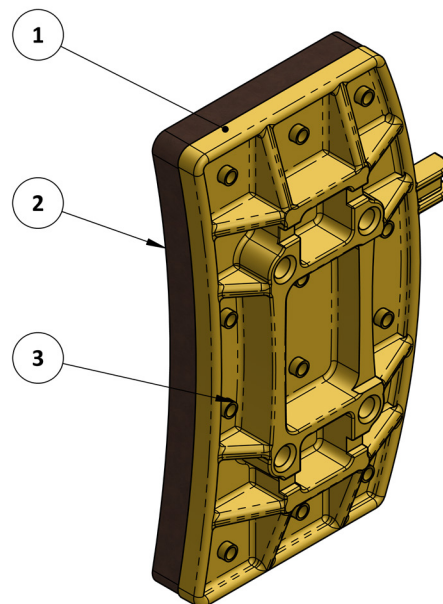
PARTS LISTING

6230-80 Actuator



ITEM	QTY.	PART NUMBER	6230-80 DESCRIPTION
1	1	6230-0001	SPRING HOUSING COVER
2	1	6230-0101	SPRING HOUSING, CENTRE
3	1	6230-0002	ACTUATOR HEAD 6230 ACTUATOR
4	1	6230-0003	PISTON AIR 6230 ACTUATOR
5	1	6230-0004	CLEVIS BRACKET 6230 & 6232 ACTUATOR
6	2	6230-0005	CLEVIS, 3/4 UNC X 0.50 DIA
7	1	6230-PHB	SEAL CARRIER 6230 ACTUATOR
8	4	6230-0012	SPRING GUIDE - 3/4"
9	6	1201-0158	SPRING COMP 1.68 OD X .250 WIRE X 9.5L
10	4	1201-0159	SPRING COMP 1.15 OD X .177 WIRE X 9.5L
11	2	6230-0011	SPRING GUIDE 1"
12	4	1002-1032	1/4-20X2, SOCKET HEAD CAP SCREW, STAINLESS STEEL
13	8	1002-1012	SCREW CAP SKT HD 1/4UNC X3/4 GR 18-8
14	15	1002-1116	SCREW SCKT HD 5/16-18 UNC X 1 SS
15	1	1022-0217	NUT JAM 3/4-10 UNC SS
16	1	1022-0110	NUT HEX 1/4-20 UNC 18-8
17	1	6230-RK-W	SEAL KIT, 6230 ACTUATOR

5021-LS Caliper



ITEM	QTY.	PART NUMBER	5021-LS DESCRIPTION
1	1	5021-0005	SHOE 5021 CALIPER
2	1	5021-0147	LINING 5021 1/2" NON-SPARKING
3	12	1033-1007	RIVET, 1/4 X 7/16 (10-7), BRASS

Note: Parts lists are applicable to standard models only.