

# 5020-SA | SPRING APPLIED AIR RELEASED CALIPER DISC BRAKE

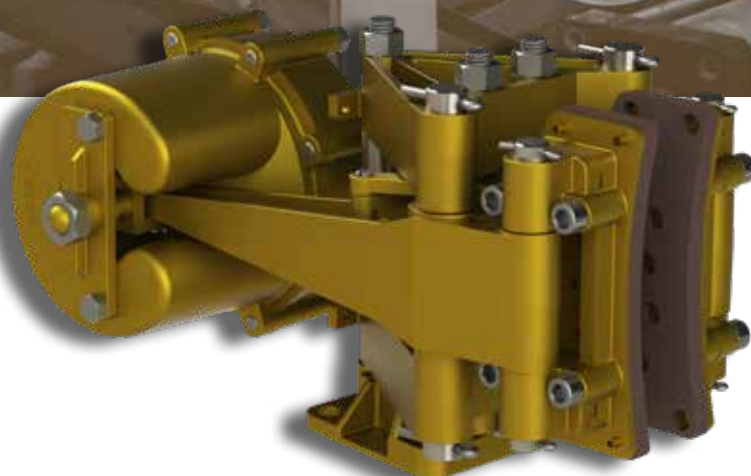


## KEY BENEFITS

Bronze & stainless steel construction

Easy brake pad replacement

Well matched to Kobelt's standard range of 1¼" ventilated discs



## Putting you in control.

For over three decades, Kobelt has been manufacturing rugged, durable disc brakes for the oil and gas, mining, material handling and manufacturing industries. Constructed of bronze and stainless steel, Kobelt's disc brakes are built to last in the harshest conditions.

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 <sup>1</sup>	PRESSURES	
		RELEASE	HOLD-OFF
5020-SA	4700 lbs [20.9 kN]	102 psi [7.1 bar]	89 psi [6.2 bar]
5020-SA90	4250 lbs [18.9 kN]	87 psi [6.0 bar]	79 psi [5.4 bar]
5020-SA75	3530 lbs [15.7 kN]	76 psi [5.2 bar]	65 psi [4.5 bar]
5020-SA60	2970 lbs [13.2 kN]	62 psi [4.3 bar]	53 psi [3.7 bar]

Maximum Pressure:	250 psi	[17.2 bar]
Port Size:	¼ NPT	
Actuator Volume:	15.3 in <sup>3</sup>	[250 cc]
Temperature Range:	-40°F...+120°F -40°C...+49°C	
Disc Thickness:	1¼ in	[32 mm]
Max Running Clearance:	.06 in	[1.5 mm]
Minimum Disc Diameter:	12 in	[229 mm]
Maximum Disc Diameter:	unlimited <sup>2</sup>	
Total Pad Area:	26 in <sup>2</sup>	[84 cm <sup>2</sup> ]
Weight:	21 lbs	[9.5 kg]

<sup>1</sup>Torque:

$$T_B = 2F_N \mu \left( \frac{OD - 2.96}{24} \right)$$

Where:

T<sub>B</sub> = brake torque (ft-lbf)

F<sub>N</sub> = normal force (lbf)

μ = coefficient of friction

= 0.35 (nonferrous)

= 0.38 (steel)

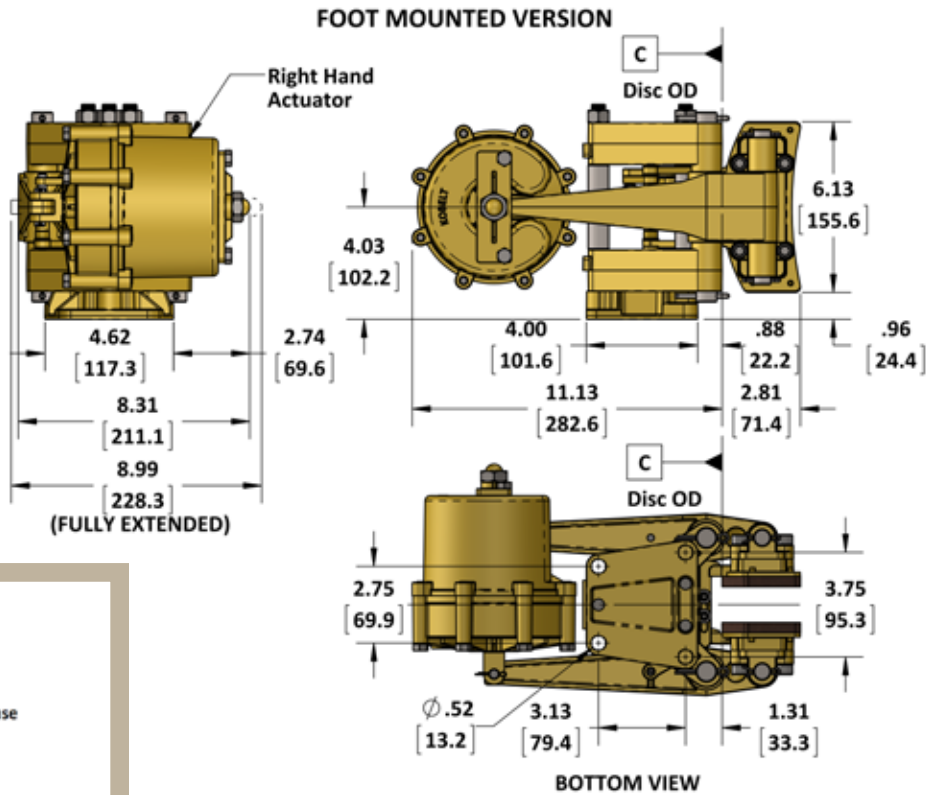
= 0.41 (cast iron)

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.

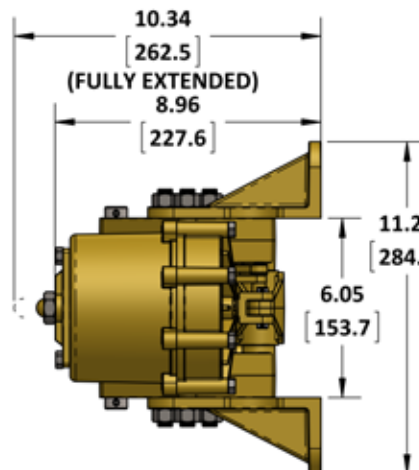
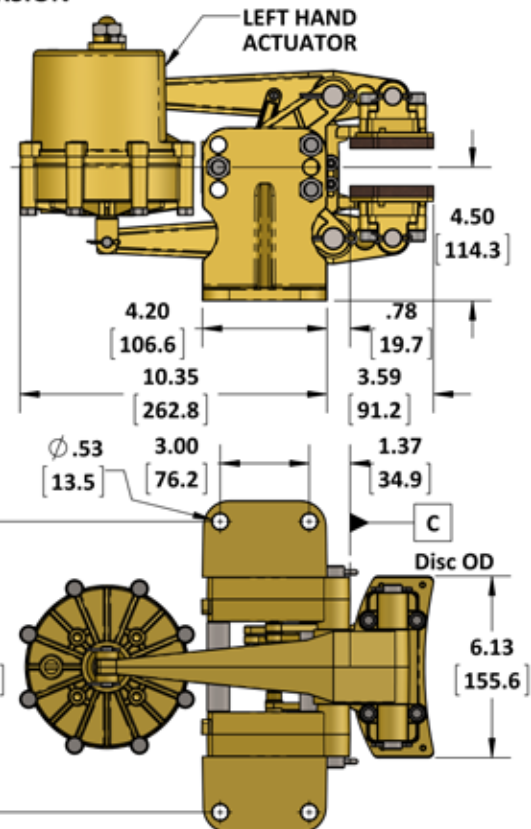
OD = brake disc diameter (in)

<sup>2</sup>Requires a minimum 2.38 in [60 mm] wide face

# SPECIFICATIONS



## SIDE MOUNTED VERSION



### Brake Model Code Key

5020- [ ] - [ ] - [ ] - [ ] - [ ]

#### 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) = 1.250 in
- 100 = 1.000 in
- 075 = 0.750 in
- 050 = 0.500 in

#### Actuator handing

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

#### Mounting code

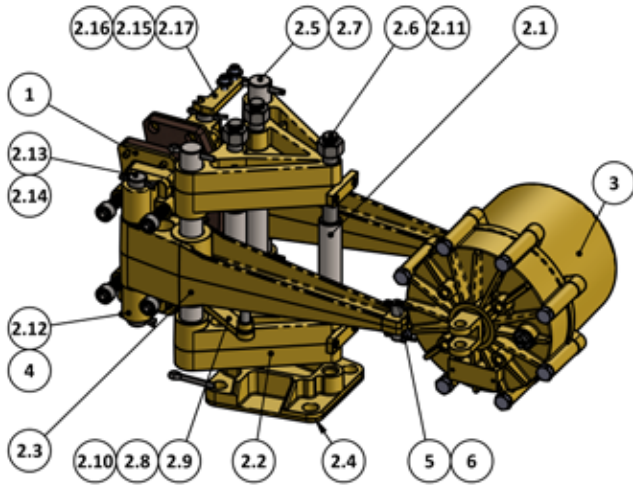
- (blank) = foot mounted
- W = side mounted

#### Actuator code

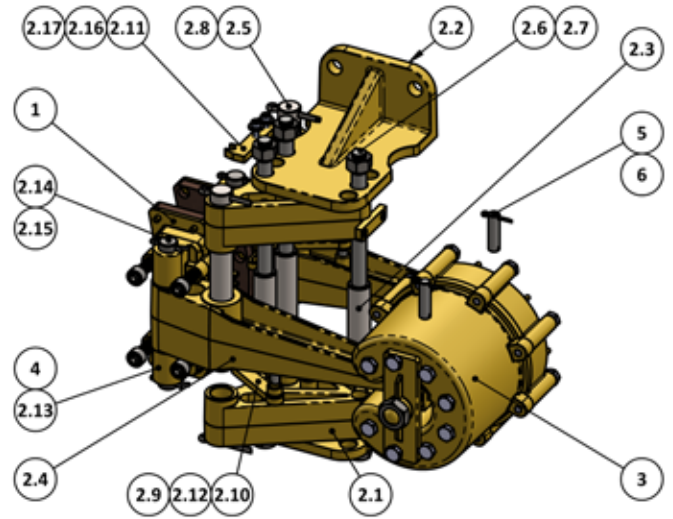
- SA = 102 psi release
- SA90 = 87 psi release
- SA75 = 76 psi release
- SA60 = 62 psi release

# PARTS LISTING

## 5020-SA Caliper Brake



## 5020-SAW Caliper Brake

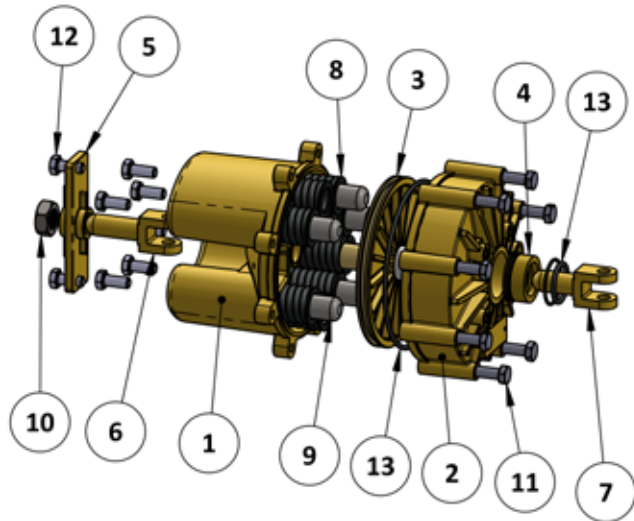


ITEM	QTY.	PART NUMBER	5020-SA DESCRIPTION
1	2	5020-LS	SHOE ASSEMBLY, 3/8IN LINER, K5
2	1	5020-SUB	SUB ASSEMBLY, 5020 CALIPER
2.1	3	5020-0003	SPACER, .75IN OD X 3.05IN LG, AISI 303
2.2	2	5020-0002	SADDLE, 5020 CALIPER
2.3	2	5021-0004	LEVER, 5021 CALIPER
2.4	1	5020-0001	BASE, 5020 CALIPER
2.5	2	5020-0022	SADDLE PIN, .75IN OD X 6.81IN LG, AISI 303
2.6	3	5020-0023	TIE ROD, 1/2-13 X 7.38IN LG, PARTIAL THREAD, 17-4PH
2.7	4	1026-0820	PIN, COTTER, 3/16IN X 1-1/4IN, 18-8 SS, ASME B18.8.1
2.8	2	5021-0126	PIN, LINK, 5/16-18 X 5/16IN OD X 1.18IN LG, AISI 303
2.9	2	5020-0011	BALANCING LINK NO.1, 5020 CALIPER
2.10	2	5020-0027	SPACER, 1/2IN OD X .272IN LG, C36000
2.11	3	1022-0114	NUT, HEX, 1/2-13, 18-8 SS, ASME B18.2.2
2.12	4	5021-0006	HINGE BLOCK, 5021
2.13	2	5021-0021	SHOE PIN, 5/8 OD X 5.58 LG, AISI 303
2.14	4	1026-0516	PIN, COTTER, 1/8IN X 1IN, 18-8 SS, ASME B18.8.1
2.15	4	1002-0808	SCREW, SKT HEAD, 10-24 X 1/2, 18-8 SS, ASTM F837
2.16	4	1023-0108	WASHER, FLAT, #10, 7/16 OD, 18-8 SS
2.17	2	5020-0012	BALANCING LINK; PART 2, 5020 CALIPER
3	1	6212	ACTUATOR - SPRING APPLIED; 102 psi RELEASE
4	8	1002-1216	SCREW, SKT HEAD, 3/8-16 X 1, 18-8 SS, ASTM F837
5	2	6112-0010-L	PIN, 3/8IN OD X 1.39IN LG, AISI 303
6	4	1026-0312	PIN, COTTER, 3/32IN X 3/4IN, 18-8 SS, ASME B18.8.1

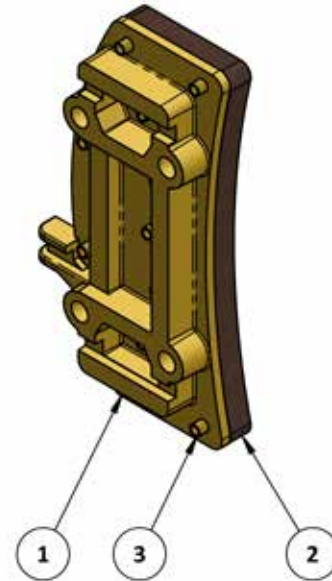
ITEM	QTY.	PART NUMBER	5020-SAW DESCRIPTION
1	2	5020-LS	SHOE ASSEMBLY, 3/8IN LINER, K5
2	1	5020-SUB-W	SUB ASSEMBLY, BRAKE CALIPER, WALL MOUNT
2.1	2	5020-0002	SADDLE, 5020 CALIPER
2.2	2	5020-0028	BRACKET; SIDE MOUNT, 5020 CALIPER
2.3	3	5020-0003	SPACER, .75IN OD X 3.05IN LG, AISI 303
2.4	2	5021-0004	LEVER, 5021 CALIPER
2.5	2	5020-0022	SADDLE PIN, .75IN OD X 6.81IN LG, AISI 303
2.6	3	5020-0023-W	TIE ROD; SIDE MOUNT CALIPER
2.7	6	1022-0114	NUT, HEX, 1/2-13, 18-8 SS, ASME B18.2.2
2.8	4	1026-0824	COTTER PIN, 3/16 x 1 1/2, 18-8
2.9	2	5021-0126	PIN, LINK, 5/16-18 X 5/16IN OD X 1.18IN LG, AISI 303
2.10	2	5020-0011	BALANCING LINK NO.1, 5020 CALIPER
2.11	2	5020-0012	BALANCING LINK; PART 2, 5020 CALIPER
2.12	2	5020-0027	SPACER, 1/2IN OD X .272IN LG, C36000
2.13	4	5021-0006	HINGE BLOCK, 5021
2.14	2	5021-0021	SHOE PIN, 5/8 OD X 5.58 LG, AISI 303
2.15	4	1026-0516	PIN, COTTER, 1/8IN X 1IN, 18-8 SS, ASME B18.8.1
2.16	4	1002-0808	SCREW, SKT HEAD, 10-24 X 1/2, 18-8 SS, ASTM F837
2.17	4	1023-0108	WASHER, FLAT, #10, 7/16 OD, 18-8 SS
3	1	6212	ACTUATOR - SPRING APPLIED; 102 psi RELEASE
4	8	1002-1216	SCREW, SKT HEAD, 3/8-16 X 1, 18-8 SS, ASTM F837
5	2	6112-0010-L	PIN, 3/8IN OD X 1.39IN LG, AISI 303
6	4	1026-0312	PIN, COTTER, 3/32IN X 3/4IN, 18-8 SS, ASME B18.8.1

# PARTS LISTING

## 6212 Actuator



## 5020-LS Caliper Brake



ITEM	QTY.	PART NUMBER	6212 DESCRIPTION
1	1	6212-0001	SPRING HOUSING
2	1	6212-0002	PISTON HOUSING
3	1	6212-0003-K	PISTON, CHROMED
4	1	6212-PHB	PISTON HOUSING BUSHING
5	1	6212-0004	MOUNTING BRACKET FOR LEVER
6	1	6212-0005-L	CLEVIS, LONG, 5/8 UNC X 3/8 PIN
7	1	6212-0005-S	CLEVIS, SHORT, 5/8 UNC X 3/8 PIN
8	8	1201-0035	SPRING: 4412 HEAVY BLACK
9	6	6212-0016	SPRING GUIDE (HEAVY)
10	1	1022-0216	NUT, JAM, 5/8-11, SS
11	8	1001-1136	SCREW, HX HD CAP, 5/16-18 X 2-1/4, 18-8
12	8	1001-1112	SCREW HEX HEAD, 5/16-18 X 3/4, 18-8
13	1	6212-RK	SEAL KIT, 6212 ACTUATOR

ITEM	QTY.	PART NUMBER	5020-LS DESCRIPTION
1	1	5020-0005	SHOE
2	1	5020-0007	BRAKE LINING, 3/8" K5, 5020 CALIPER
3	11	1033-0807	RIVET, BRAKE, 3/16 x 7/16

Note: Parts lists are applicable to standard models only.