

5023-A FLUID APPLIED BRAKE CALIPER

This caliper was designed especially for high torque stopping applications. It is ideally suited for emergency stops and propeller shaft installations. It will take our standard 2" x 4" disc series. This brake caliper is available in both air and spring applied versions.

The actuators are equipped with two fluid supply ports. These ports are common internally, and in most cases, only one port is needed for connection to the source of control. Varying the control pressure causes an absolutely proportional increase or decrease in brake torque. It is for this reason that very sensitive braking control can be obtained. The maximum fluid supply is 100 psi (6.9 bar).

Kobelt has developed a whole series of brake discs to fit our calipers. These are available from 18 inches up to 50 inches in diameter.

SPECIFICATIONS

Clamping force	16000 lbf	(71.1 kN)
Max. disc thickness	2 in.	(51 mm)
Req. disc face	4 in.	(102 mm)
Total lining area	60 sq. in.	(387 sq. cm)
Lining thickness	0.5 in.	(12.7 mm)
Max. allowable lining wear	0.30 in.	(7.6 mm)
Average wear rate	0.005 cu. in./HP-hr	(0.082 cu. cm/HP-hr)
Coefficient of friction	0.45 – 0.5	at 20° - 260°C
Max. pressure	100 psi	(6.9 bar)
Actuator volume	55 cu. in.	(901 cu. cm)
Weight	52 lb.	(23.5 kg)
Materials	Die cast silicon bronze with stainless steel hardware	

Ordering Information

5023-A Fluid Applied Brake Caliper

When ordering brake calipers for discs smaller than the standard thickness, shim kits are available for the adjustment (refer to the shim kit table below). Add the last four digits of the appropriate kit to the code when ordering.

Example: *5023-A1250* is a 5023-A brake caliper set for 1¼" thick disc.

Important: Use only hydraulic fluid or air. Standard seals are not compatible with brake fluid.

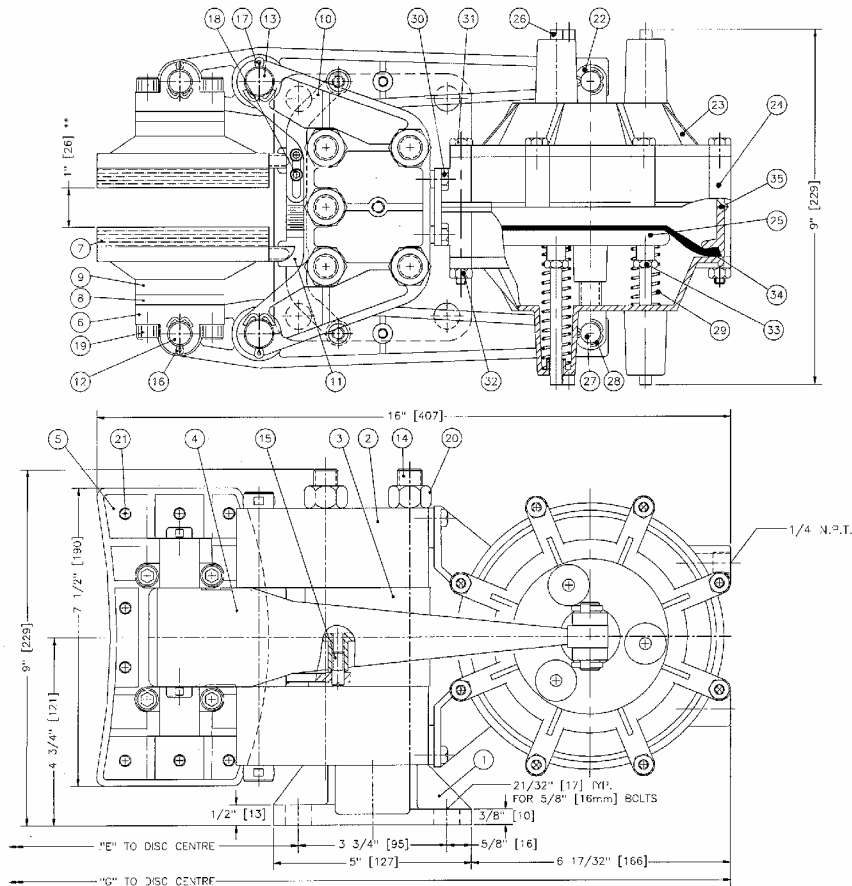
STANDARD VENTILATED KOBELT DISC: 2 in. (51mm)

Disc Dia.	18	20	25	30	35	40	45	50
inches	18	20	25	30	35	40	45	50
mm	457	508	635	762	889	1016	1143	1270
Acting Rad.								
ft	0.58	0.67	0.88	1.08	1.29	1.50	1.71	1.92
meter	0.18	0.20	0.27	0.33	0.39	0.46	0.52	0.58
Torque ‡								
ft-lb	3890	4476	5943	7410	8876	10343	11810	13276
kg-m	538	619	822	1024	1227	1430	1633	1835
Maximum RPM	3070	2750	2200	1800	1550	1350	1200	1070

‡ Brake torques are theoretical values only

Disc thickness	Shim Kit Part number	Total shim size
1.50 in. (38.1 mm)	5023-1500	0.50 in (12.7 mm) 1 shim (1/4") per side
1.25 in. (31.8 mm)	5023-1250	0.75 in (19 mm) 1 shim (3/8") per side
1.00 in. (25.4 mm)	5023-1000	1.00 in. (25.4 mm) 2 shims (1/4") per side
0.75 in. (19 mm)	5023-0750	1.25 in. (31.8 mm) 2 shims (3/8"+1/4") per side
0.50 in. (12.7 mm)	5023-0500	1.50 in. (38.1 mm) 2 shims (3/8") per side

5023-A Dimensions and Parts List



Item	Qty	Part No.	Description
1	1	5021-0001	Foot
2	2	5023-0002	Saddle
3	1	5021-0003	Spacer
4	2	5023-0004	Lever
5	2	5021-0005	Shoe
6	4	5021-0006	Hinge Block
7	2	5021-0007	Lining
8	*	5021-0008	1/4" Shim
9	*	5021-0009	3/8" Shim
10	2	5021-0011	Balancing Link No. 1
11	2	5021-0012	Balancing Link No. 2
12	2	5021-0021	Shoe Pin
13	2	5021-0022	Saddle Pin
14	5	5021-0023	Tie Rod
15	2	5021-0226	Link Pin
16	4	1026-0516	Cotter Pin
17	4	1026-0824	Cotter Pin
18	4	1002-0808	Socket Hd. Screw
19	8 *	1002-1216	Socket Hd. Cap Screw (standard)
19	*	1002-1220	Socket Hd. Cap Screw (-1500/1250 shim kit)
19	*	1002-1224	Socket Hd. Cap Screw (-1000/0750 shim kit)
19	*	1002-1228	Socket Hd. Cap Screw (-0500 shim kit)
20	5	1022-0116	Nut
21	24	1033-1007	Rivet

Disc Diameter		18	20	25	30	35	40	45	60
inches		18	20	25	30	35	40	45	60
mm		457	508	635	762	889	1016	1143	1270
Dimension "E"		9.63	10.63	13.13	15.63	18.13	20.63	23.13	25.63
inches		9.63	10.63	13.13	15.63	18.13	20.63	23.13	25.63
mm		245	270	334	397	461	524	588	651
Dimension "G"		20.5	21.5	24.0	26.5	29.0	31.5	34.0	36.5
inches		20.5	21.5	24.0	26.5	29.0	31.5	34.0	36.5
mm		521	546	610	673	737	800	864	927

6120 Fluid Applied Pot			
22	2	6120-0001	Pot Clevis
23	2	6120-0002	End Cap
24	2	6120-0003	Centre Housing
25	2	6120-0004	Diaphragm Washer
26	6	6120-0005	Guide Pin
27	2	6120-0006	Pin
28	4	1026-0312	Cotter Pin
29	6	1201-0185	Spring
30	4	1001-1008	Hex. Hd Screw
31	8	1001-1056	Hex Bolt
32	8	1022-0410	Hex Nut (plated)
33	6	1022-0211	Hex Jam Nut
34	2	1105-0020	Diaphragm
35	1	1101-2166	"O" Ring

* Quantity may vary with options