



5024-A FLUID APPLIED BRAKE CALIPER

The model 5024 is a very compact and high torque brake caliper. All the components on this caliper are shared with the Model 5027 except for the lever and shoe arrangement. This caliper lends itself ideally for many industrial and marine applications. Kobelt's latest design and manufacturing innovations are incorporated in this caliper, thus years of trouble-free service can be expected. The diaphragm actuator is extremely responsive to varying fluid pressure and precise control can be exercised over the braking application. Maximum supply pressure to the actuator should not exceed 100 psi (6.9 bar).

The actuator clevises can be adjusted to compensate for lining wear. The clearance between disc and brake shoe can therefore be maintained at the optimum. In cycling applications, a tremendous amount of compressed air can be saved by the shorter stroke of the actuator piston.

SPECIFICATIONS

Clamping force	25740 lbf	(114.5 kN)
Maximum disc thickness	2 in.	(51 mm.)
Req. disc face	4 in.	(102 mm)
Total lining area	75 sq. in.	(483 sq. cm)
Lining thickness	0.625 in.	(15.8 mm)
Max allowable lining wear	0.42 in.	(10.6 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
Maximum pressure	100 psi	(6.9 bar)
Actuator volume	90 cu. in.	(1475 cu. cm)
Weight	97 lbs.	(44 kg)
Materials	Die cast silicon bronze with stainless steel hardware	

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

STANDARD VENTILATED KOBELT DISCS: 2.0 in. (51 mm)

Disc diam. inches. mm.	18 457	20 508	25 635	30 762	35 889	40 1016	45 1143	50 1270
Acting rad. feet meters	0.58 0.18	0.67 0.20	0.88 0.27	1.08 0.33	1.29 0.39	1.50 0.46	1.71 0.52	1.92 0.58
Torque ‡ ft-lb kg-m	6116 846	7060 976	9419 1302	11779 1629	14138 1955	16498 2281	18857 2607	21217 2933
Max. RPM	3070	2750	2200	1800	1550	1350	1200	1070

‡ Brake torques are theoretical values only

Ordering number: 5024-A

When ordering brake calipers for discs smaller than the standard thickness, shim kits are to be used. Add the last four digits of the appropriate shim kit to the part number. Example 5024-A caliper set for 1" thick disc, the order number is **5024-A1000**

For the use of shim kits on discs thinner than standard of 2 in., refer to the table below:

Disc thickness	Part Number	Total Shim Size
1.50 in. (38.1 mm)	5024-1500	0.50 in. (12.7 mm) one shim (1/4") per side
1.00 in. (25.4 mm)	5024-1000	1.00 in. (25.4 mm) one shim (1/2") per side
0.50 in. (12.7 mm)	5024-0500	1.50 in. (38.1 mm) two shims (1/2" & 1/4") per side

5024-A

Disc Diameter									
inches	18	20	25	30	35	40	45	50	
mm	457	508	635	762	889	1016	1143	1270	
Dimension "E"									
inches	10.0	11.0	13.5	16.0	18.5	21.0	23.5	26.0	
mm	254	279	343	406	470	533	597	660	
Dimension "G"									
inches	24.0	25.0	27.5	30.0	32.5	35.0	37.5	40.0	
mm	610	635	699	762	826	889	953	1016	

Item	Qty	Part No.	Description
1	1	5024-0001	Foot
2	2	5024-0002	Saddle
3	1	5024-0003	Spacer
4	2	5024-0004	Lever
5	2	5024-0005	Shoe
6	4	5024-0006	Hinge Block
7	2	5024-0007	Lining
8	*	5024-0008	1/4" Shim
9	*	5024-0009	1/2" Shim
10	2	5024-0011	Balancing Link No. 1
11	2	5024-0012	Balancing Link No. 2
12	2	5024-0021	Shoe Pin
13	2	5024-0022	Saddle Pin
14	5	5024-0023	Tie Rod
15	2	5024-0026	Link Pin
16	4	1026-0824	Cotter Pin
17	4	1026-1028	Cotter Pin
18	4	1002-1010	Socket Hd. Cap Screw
19	8*	1002-1420	Socket Hd. Cap Screw
19	*	1002-1424	Socket Hd. Cap Screw (shim kit)
19	*	1002-1432	Socket Hd. Cap Screw (shim kit)
20	5	1022-0117	Nut
21	40	1033-1007	Rivet
37	4	1023-0232	Flat Washer

6130 Fluid Applied Pot

22	2	6130-0001	End Cap
23	2	6130-0002	Centre Housing
24	2	6130-0003	Diaphragm Washer
25	2	6130-0005	Clevis
26	6	6130-0007	Guide Pin
27	4	6130-0008	Spacer
28	6	1201-0162	Spring
29	6	1022-0211	Hex Jam Nut
30	4	1001-1020	Hex. Hd Screw
31	12	1001-1064	Hex. Hd Screw
32	12	1022-0410	Hex Nut (plated)
33	2	6230-0010	Pin
34	4	1026-0516	Cotter Pin
35	2	1105-0030	Diaphragm
36	1	1101-1265	"O" Ring

* Quantity may vary with options

