



Innovative Braking and Controls Worldwide

## Caliper Disc Brakes

for applications requiring  
static and/or dynamic braking



*Spring Apply, Hydraulic Apply,  
and Mechanical Apply Brakes*



# 520 Series Caliper Disc Brake



## Model Numbers

Brake Fluid  
02-520-151

Hydraulic Oil  
02-520-152

### SPECIFICATIONS

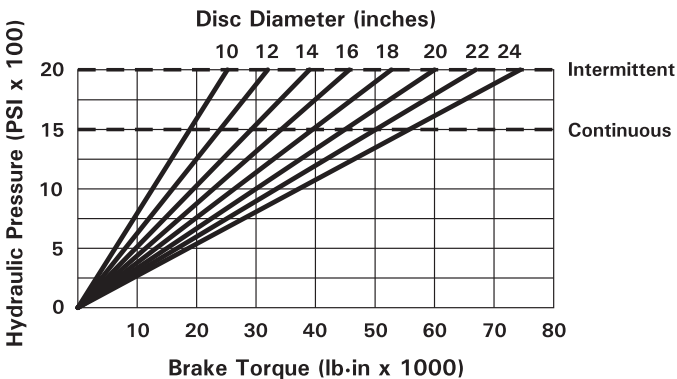
- Disc diameter: 9 inch to unlimited
- Disc thickness: 0.25 inch minimum
- Total lining contact area: 8.88 inch<sup>2</sup>
- Continuous duty pressure: 1500 PSI
- Intermittent duty pressure: 2000 PSI
- Actuating volume: 0.30 inch<sup>3</sup> nominal
- Caliper material: ductile iron
- Caliper finish: zinc chromate
- Lining thickness: 0.56 inch
- Usable lining thickness: 0.48 inch
- Lining material: non-asbestos, lead free
- Piston diameter: 2.50 inch
- Approximate weight: 16 lb
- Porting: 1/8-27NPTF

### DESCRIPTION

Fixed caliper disc brake, hydraulic apply with opposed hardcoat anodized aluminum pistons. The split caliper disc brakes are mounted using a spacer or torque member between the caliper halves. These brakes can also be purchased as a single caliper half assembly. In either case, the customer supplies fittings, tubing assembly, hardware, and spacer.

Designed for medium torque, drive line mounted, and stationary equipment applications.

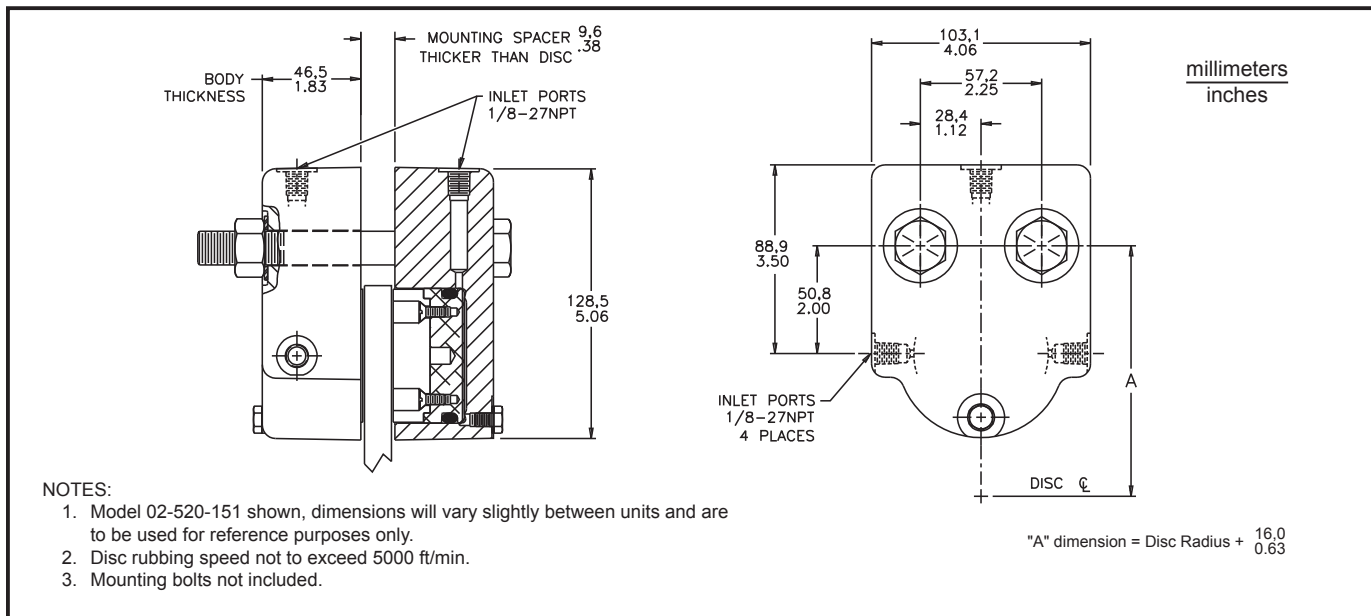
Consult MICO Applications Department for other models.



### TORQUE FORMULA (Bt = Brake Torque)

$$Bt = \text{PSI} \times 3.43 \times (\text{Disc Radius} - 1.25) \text{ for hole}$$

NOTE: Maximum torque achieved only after brake has been properly adjusted and burnished, see Technical Notice (Form No. 81-950-016).



#### NOTES:

1. Model 02-520-151 shown, dimensions will vary slightly between units and are to be used for reference purposes only.
2. Disc rubbing speed not to exceed 5000 ft/min.
3. Mounting bolts not included.



# MICO<sup>®</sup>

## 520 Series Caliper Disc Brake

### Model Numbers

Brake Fluid  
02-520-201

Hydraulic Oil  
02-520-202

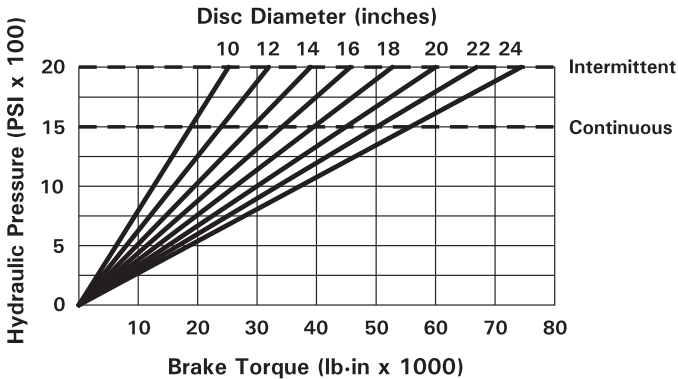
### DESCRIPTION

Fixed caliper disc brake, hydraulic apply with opposed pistons. Split calipers with one piston per caliper half.

Brake torque is transmitted directly to the housing protecting the piston from side loads. Dust boot and o-ring seal protects hardcoat anodized aluminum piston from contaminants. Features quick-change type linings and internal porting.

Applications include pivotal steering assists, winch clutches, drivelines, various vehicles, and equipment requiring fade-free braking.

Consult MICO Applications Department for other models.



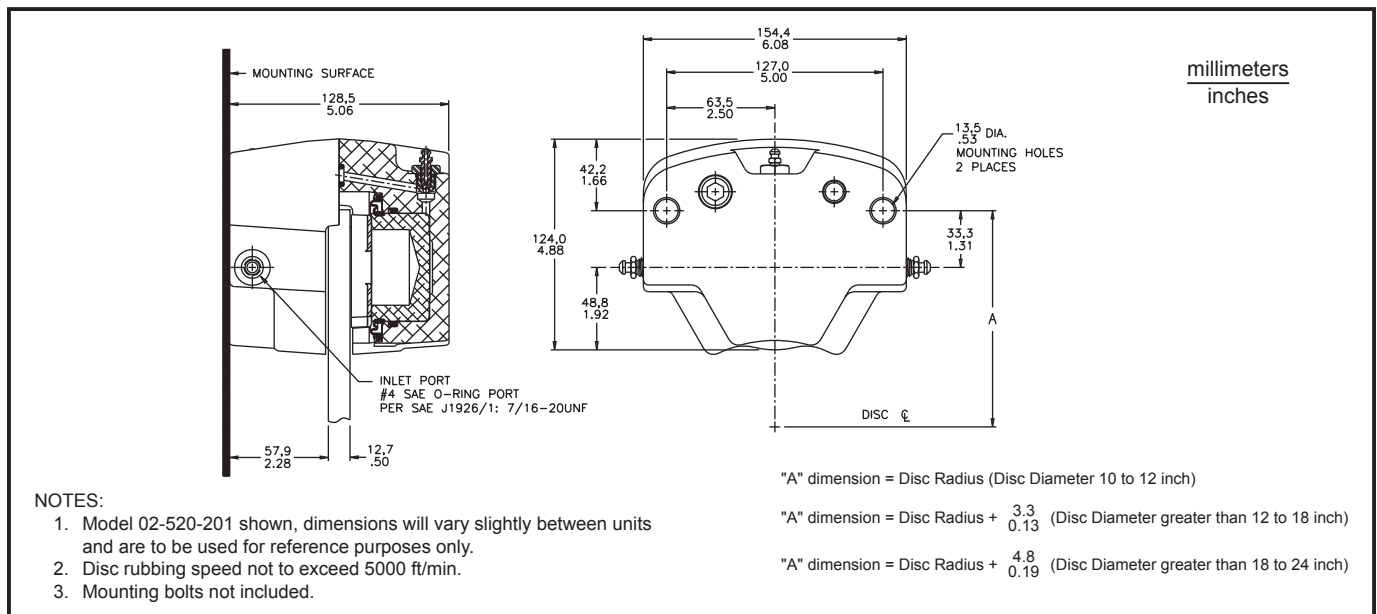
### SPECIFICATIONS

- **Disc diameter:** 10 to 24 inches
- **Disc thickness:** 0.50 inch
- **Total lining contact area:** 15.74 inch<sup>2</sup>
- **Continuous duty pressure:** 1500 PSI
- **Intermittent duty pressure:** 2000 PSI
- **Actuating volume:**
  - 500 PSI / 0.32 inch<sup>3</sup>
  - 1000 PSI / 0.37 inch<sup>3</sup>
  - 1500 PSI / 0.45 inch<sup>3</sup>
  - 2000 PSI / 0.54 inch<sup>3</sup>
- **Caliper material:** aluminum
- **Caliper finish:** clear anodized
- **Lining thickness:** 0.37 inch
- **Usable lining thickness:** 0.37 inch
- **Lining material:** non-asbestos, lead free
- **Piston diameter:** 2.50 inch
- **Approximate weight:** 10 lb
- **Porting:** No. 4 SAE o-ring port per SAE J1926/1: 7/16-20

### TORQUE FORMULA (Bt = Brake Torque)

$$Bt = \text{PSI} \times 3.43 \times (\text{Disc Radius} - 1.25)$$

**NOTE:** Maximum torque achieved only after brake has been properly adjusted and burnished, see Technical Notice (Form No. 81-950-016).





# MICO®

## 520 Series Caliper Disc Brake

### Model Numbers

**Brake Fluid**  
02-520-261  
02-520-265

**Hydraulic Oil**  
02-520-260

### SPECIFICATIONS

- **Disc diameter:** 12 to 36 inch  
(consult MICO, Inc. for larger sizes)
- **Disc thickness:** 0.50 inch 02-520-260  
0.50 inch 02-520-261  
1.00 inch 02-520-265
- **Total lining contact area:** 33.63 inch<sup>2</sup>
- **Continuous duty pressure:** 2000 PSI
- **Intermittent duty pressure:** 2500 PSI
- **Actuating volume:**  
500 PSI / 0.38 inch<sup>3</sup>  
1000 PSI / 0.49 inch<sup>3</sup>  
1500 PSI / 0.59 inch<sup>3</sup>  
2000 PSI / 0.68 inch<sup>3</sup>  
2500 PSI / 0.79 inch<sup>3</sup>
- **Caliper material:** ductile iron
- **Caliper finish:** electroless nickel
- **Lining thickness:** 0.37 inch
- **Usable lining thickness:** 0.37 inch
- **Lining material:** non-asbestos, lead free
- **Piston diameter:** 3.50 inch
- **Porting:** No. 4 SAE o-ring port per SAE J1926/1: 7/16-20
- **Approximate weight:** 22 lb

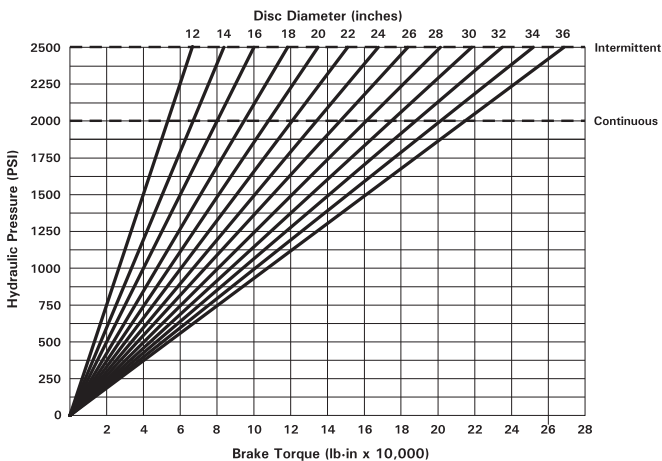
### DESCRIPTION

Fixed caliper, hydraulic apply with opposed pistons.

Flexibility of the split caliper design makes it possible to use a variety of disc thicknesses. This design also allows the brake to be mounted with the torque member between the caliper halves. In this case the torque member serves as the spacer.

Designed for use with vehicles or stationary equipment requiring fade-free braking. Also available as caliper half assembly, contact MICO, Inc.

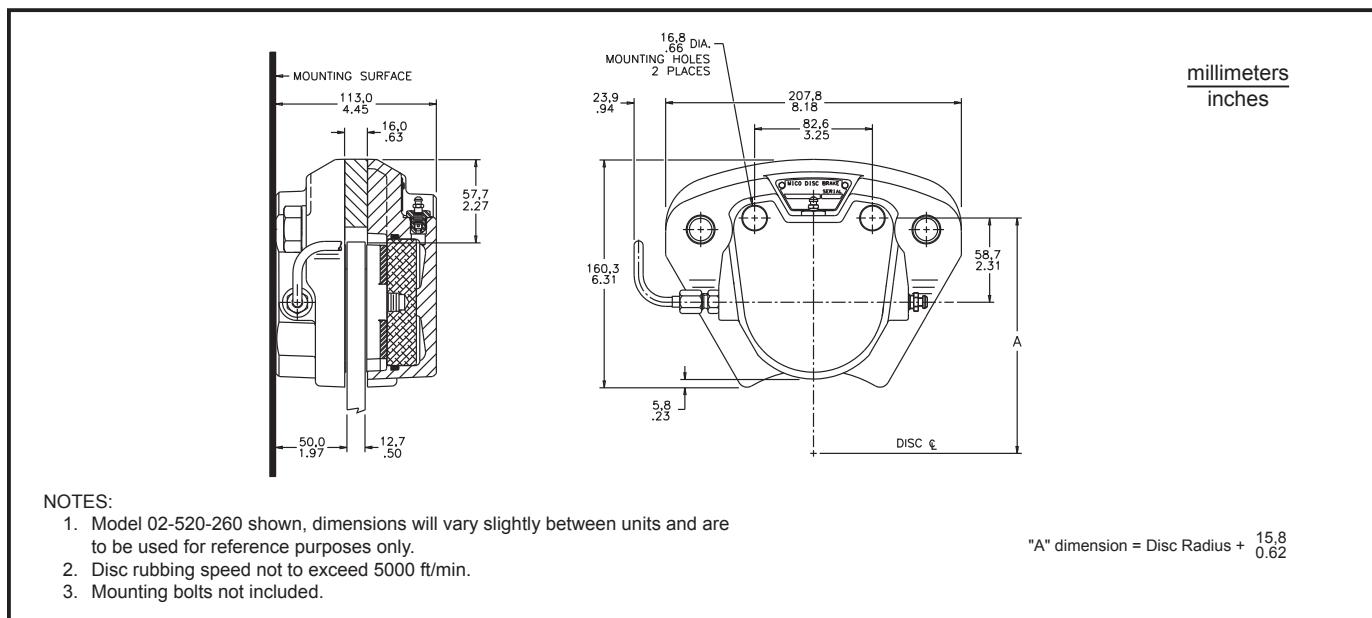
Consult MICO Applications Department for other models.



### TORQUE FORMULA (Bt = Brake Torque)

$$Bt = \text{PSI} \times 6.72 \times (\text{Disc Radius} - 2.00)$$

**NOTE:** Maximum torque achieved only after brake has been properly adjusted and burnished, see Technical Notice (Form No. 81-950-016).





# MICO<sup>®</sup>

## 520 Series Caliper Disc Brake

### Model Numbers

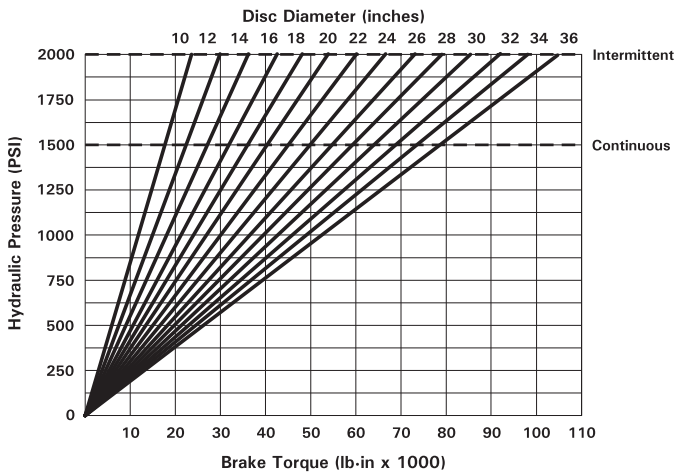
Brake Fluid  
03-520-281

Hydraulic Oil  
03-520-282

### DESCRIPTION

Fixed caliper, hydraulic apply with opposed pistons. One piece single caliper with internally ported fluid passages to both hardcoat anodized aluminum pistons.

Consult MICO Applications Department for other models.

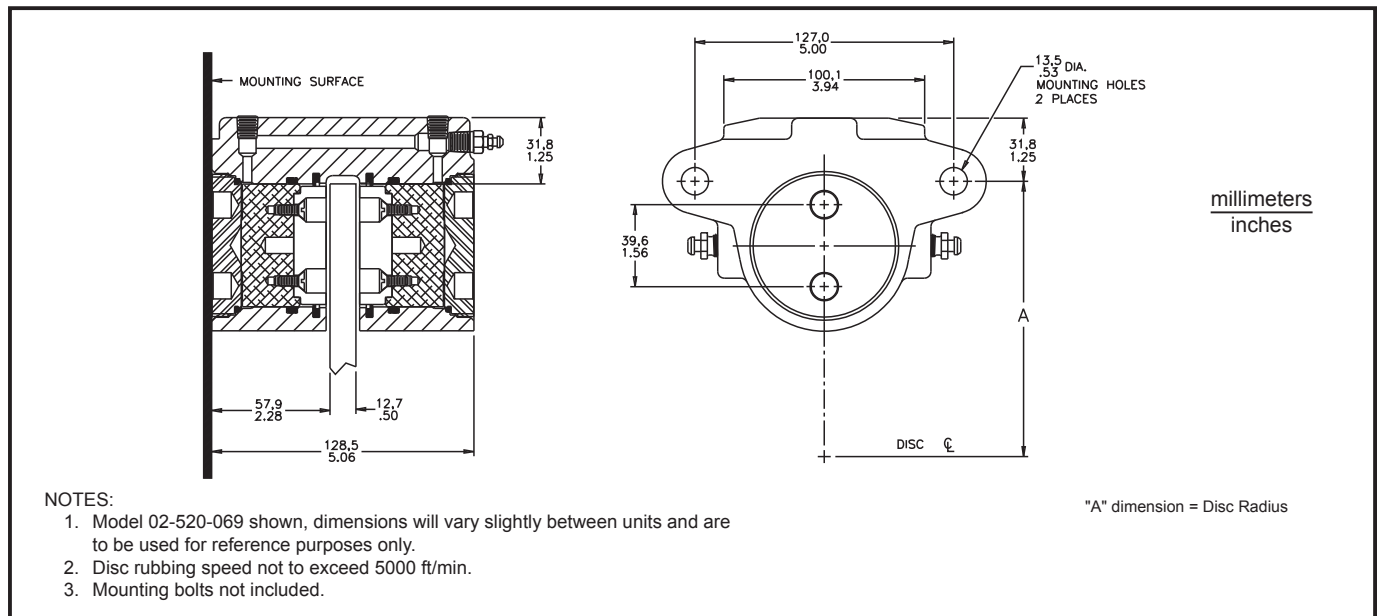


### SPECIFICATIONS

- **Disc diameter:** 9 to 36 inch
- **Disc thickness:** 0.50 inch
- **Total lining contact area:** 7.82 inch<sup>2</sup>
- **Continuous duty pressure:** 1500 PSI
- **Intermittent duty pressure:** 2000 PSI
- **Actuating volume:**
  - 500 PSI / 0.30 inch<sup>3</sup>
  - 1000 PSI / 0.40 inch<sup>3</sup>
  - 1500 PSI / 0.43 inch<sup>3</sup>
  - 2000 PSI / 0.48 inch<sup>3</sup>
- **Caliper material:** ductile iron
- **Caliper finish:** zinc chromate yellow
- **Lining thickness:** 0.50 inch
- **Usable lining thickness:** 0.44 inch
- **Lining material:** non-asbestos, lead free
- **Piston diameter:** 2.37 inch
- **Porting:** No. 4 SAE o-ring port per SAE J1926/1: 7/16-20
- **Approximate weight:** 14 lb

**TORQUE FORMULA** (Bt = Brake Torque)  
 $Bt = \text{PSI} \times 3.09 \times (\text{Disc Radius} - 1.187)$

**NOTE:** Maximum torque achieved only after brake has been properly adjusted and burnished, see Technical Notice (Form No. 81-950-016).





# MICO<sup>®</sup>

## 520 Series Caliper Disc Brake

### Model Number

Hydraulic Oil  
02-520-300

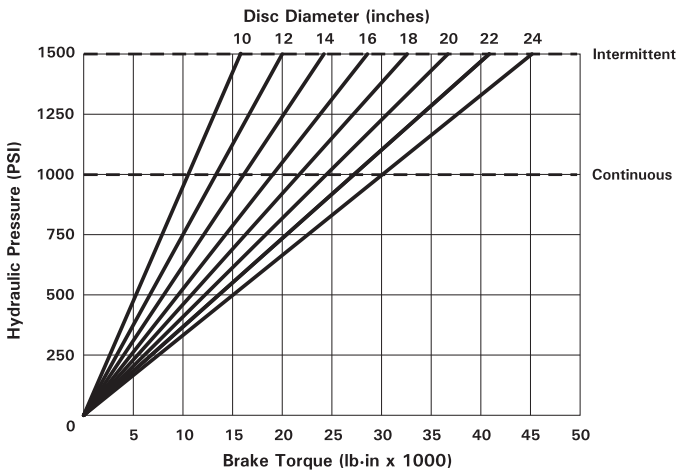
### SPECIFICATIONS

- **Disc diameter:** 10 inch to unlimited
- **Disc thickness:** 1.00 inch
- **Total lining contact area:** 12.4 inch<sup>2</sup>
- **Continuous duty pressure:** 1000 PSI
- **Intermittent duty pressure:** 1500 PSI
- **Actuating volume:** 0.25 in<sup>3</sup>
- **Caliper material:** ductile iron
- **Caliper finish:** vinyl primer
- **Lining thickness:** 0.66 inch
- **Usable lining thickness:** 0.32 inch
- **Lining material:** non-asbestos, lead free
- **Piston diameter:** 2.25 inch
- **Porting:** #4 SAE o-ring port per SAE J1926/1: 7/16-20
- **Approximate weight:** 17 lb

### DESCRIPTION

This 520 Series MICO Brake is used in service braking applications. It uses a modulated hydraulic pressure source, such as a master cylinder, to control brake torque. The brake can also be mounted in virtually any position. The cross-over tube allows hydraulic pressure to the two caliper halves to actuate the piston in each half. This brake has a lining retractor mechanism which reduces unnecessary lining wear by maintaining a constant lining to rotor disc clearance distance while the brake is not applied.

Consult MICO Applications Department for other models.



### TORQUE FORMULA (Bt = Brake Torque)

$$Bt = \text{PSI} \times 2.78 \times (\text{Disc Radius} - 1.20)$$

**NOTE:** Maximum torque achieved only after brake has been properly adjusted and burnished, see Technical Notice (Form No. 81-950-016).

