Hilliard® Brake Models: A300-T200 AS / A300-T300 AS

Technical Data Sheet

The A300 is an arm style caliper brake designed to accept a large selection of Hilliard thrusters. These thrusters include spring applied hydraulic released, spring applied pneumatic released, hydraulic applied spring released, and pneumatic applied spring released. The A300 requires a minimum disc diameter of 12" and is offered in 4 sizes to accommodate a 3/4”, 1”, 1-3/16”, and 1-1/2” thick disc. The design of the caliper allows the user to quickly convert between right and left handed designs eliminating the need for multiple part numbers.

The AS thruster is a direct applied thruster that is pneumatically applied spring released. The Pneumatic applied thrusters are offered in multiple sizes to meet the needs of our customers.

The T200 thruster produces a maximum braking force of 950 pounds at the maximum operating pressure of 80 psi.
The T300 thruster produces a maximum braking force of 3200 pounds at the maximum operating pressure of 66 psi.

A300-T200 AS / A300-T300 AS Brake Calipers

Maximum Operating Pressure: 80 Psi
Total Brake Weight: 33 lbs. (14.9 kg)
Caliper Weight: 24 lbs. (10.8 kg) Thruster Weight: 9 lbs. (4.1 kg)
Friction Pad Area: 14.5 SQ. IN. (100 SQ Cm)
Air Volume: 7.9 in.³
Brake Path: 2.625 in (67 mm)

Maximum Operating Pressure: 66 Psi
Total Brake Weight: 45 lbs. (20.32 kg)
Caliper Weight: 24 lbs. (10.8 kg) Thruster Weight: 21 lbs. (9.52 kg)
Friction Pad Area: 14.5 SQ. IN. (100 SQ Cm)
Air Volume: 71.8 in.³
Brake Path: 2.625 in (67 mm)
Braking Torque (lb-ft) = 245 * (Disc Radius (in) - 1.34)

Braking Torque (lb-ft) = Braking Force (lb) X Disc Radius (in) - 1.35 (in)
Braking Torque at Max. Operating Pressure(lb.-feet)= 79 * (disc Radius(in))-1.34)
# A300 CALIPER WITH T200 AS THRUSTER

<table>
<thead>
<tr>
<th>Caliper Model</th>
<th>“A” Disc Thickness</th>
<th>“B”</th>
<th>“C”</th>
<th>“D”</th>
<th>“E”</th>
<th>“F”</th>
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<tbody>
<tr>
<td>A300-13</td>
<td>1/2”</td>
<td>1.48”</td>
<td>2.95”</td>
<td>5- 1/4”</td>
<td>4”</td>
<td>12- 13/16”</td>
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<td>1”</td>
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**Graph:**
- **Disc Diameter (inches):**
- **Braking Torque (lb. ft):**
  - 12
  - 16
  - 20
  - 24
  - 28
  - 32
  - 36
  - 40

The graph illustrates the relationship between disc diameter and braking torque for different caliper models.
## A300 CALIPER WITH T300 AS THRUSTER

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### Braking Torque vs. Disc Diameter

![Graph showing braking torque vs. disc diameter](image-url)

- **X-axis**: Disc Diameter (inches)
- **Y-axis**: Braking Torque (lb-ft)
- **Legend**: Lines represent different braking torques, with colors and line styles indicating specific torque values.
AS Thruster: Pneumatically Applied / Spring Released

- Clamp Nut
- External Retaining Ring
- Piston Housing
- Wiper (Pushrod)
- O-Ring (Piston Housing)
- Seal Housing
- Spring
- Pushrod
- Seal (Piston)
- Piston
- Seal (Pushrod)
- O-Ring (Piston Housing)
- Cover

* Recommended Spare Part (Seals & O-Rings Available As A Kit)