

## MINIMUM TORQUE REQUIREMENTS FOR FIELD PROVIDED ACTUATORS ON STANDARD RUSKIN COMMERCIAL CONTROL DAMPERS

Model	With Seals	Without Seals
CD35, CD355	5 in. lbs./sq. ft.	2 1/2 in. lbs./sq. ft.
CD36, CD356, IL35	7 in. lbs./sq. ft.	N/A
<b>Opposed Blades:</b> CD40, CD403, CD50, CD504, CD51, CD60, IL60	5 in. lbs./sq. ft.	N/A
<b>Parallel Blades:</b> CD40, CD403, CD50, CD504, CD51, CD60, IL60	7 in. lbs./sq. ft.	N/A
CDR25 (Diameter in inches)	([4 x Dia.] + 20) in. lbs.	(1 1/2 x Dia.) in. lbs.
CDRS25 (Diameter in inches)	([4 x Dia.] + 20) in. lbs.	N/A
CDRS15 (Diameter in inches)	(1 1/2 x Dia.) in. lbs.	(1 1/2 x Dia.) in. lbs.
CD40x2	14 in. lbs./sq. ft.	N/A
CDT150, CDT150BF	11 in. lbs./sq. ft.	N/A
TED50, TED50XT	9 in. lbs./sq. ft.	N/A

**NOTE:**

Minimum torque requirement is 20 in. lbs. Torque values are given for system pressure below 2 1/2" w.g. For higher pressures\*, use the following formula:

$$\left( \frac{\text{Design Pressure (in. w.g.)}}{2\frac{1}{2} \text{ w.g.}} \right) \times \text{Ruskin Minimum Torque (in. lbs.)} = \text{Design Pressure Torque Requirement}$$

\*Refer to specific model literature for pressure limitations

**Example:** At 5" w.g., a parallel blade CD36 with seals would require 14 in. lbs. of torque per square foot.

$$\left( \frac{5 \text{ w.g.}}{2\frac{1}{2} \text{ w.g.}} \right) \times 7 \text{ in. lbs.} = 14 \text{ in. lbs.}$$

**Newton Meter Conversion:**

1 in. lb. = 0.113 newton meters  
1 newton meter = 8.850 in. lbs.

***RUSKIN***<sup>®</sup>

3900 Dr. Greaves Rd.  
Kansas City, MO 64030  
(816) 761-7476  
FAX (816) 765-8955  
[www.ruskin.com](http://www.ruskin.com)