



# Air Control Dampers

## Stainless Steel Airtight 165AS

- Air Tight dampers for tight shut off applications
- Grade 316 Stainless Steel for corrosion resistance
- Blade seals and side seal for leakage rate of 3 l/s/m<sup>2</sup> at 100Pa
- Aerofoil section blades for low air flow resistance in fully open position
- Contra rotating blades with linkage operation allows for expansion at high temperatures
- Nylon or bronze bearings ensure maintenance free long life



### 165L

- Blade width 165mm
- Casing Depth 185mm
- Maximum Module Size:  
Width(A)mm 1600mm  
Height(B)mm 1600mm
- Operating temperature
- Nylon bearings -40°C to +100°C max
- PTFE bearings -40°C to +150°C max
- Brass bearings -40°C to +300°C max

### Casing

The damper frame of 1.2mm stainless steel (316) is extremely rigid to prevent distortion, which can result in binding blades. To minimize resistance and turbulent air flow the top and bottom frame sections are profiled to fill the space left by using standard blade sizes. Above the maximum module size units may be ganged and coupled for site assembly. The casings are fitted with top and bottom sealed stops to limit blade rotation to 180° and prevent leakage in the closed position.

### Blades

Aerofoil section blades ensure minimum flow resistance in the fully open position. The roll formed section, in 0.7mm stainless steel, produces a high strength structure allowing long blade lengths with minimum deflection under pressure conditions. The blades are fitted with 12mm stainless steel stub shafts. Blade edge seals in silicon rubber are compressed as the dampers close to provide positive sealing, with almost zero leakage through the blades.

### Operation

To allow for expansion at high temperatures the units utilise an external linkage giving contra rotational blade operation. Manufactured from 316 material the mechanism offers the same level of corrosion and temperature resistance as the main components of the damper.



## Bearings

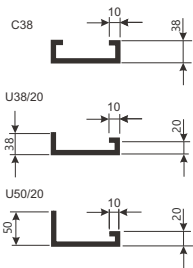
High density nylon bearing are designed to operate for the life of the damper without the need for lubrication or any other form of maintenance. The standard bearings are suitable for working temperatures up to 100°C. For higher temperatures PTFE or Brass Bearings are available.

## Seals

To minimize air leakage the blades are fitted with closed cell neoprene end seals to fully seal the gap between blade end and side frame. These seals are finished with a PTFE face which rotates against a PTFE ring allowing maximum, air tight, seal compression whilst maintaining low operating torque. Consult graphs for specific performance data.

## Flanges

Three standard flange profiles are available as follows:



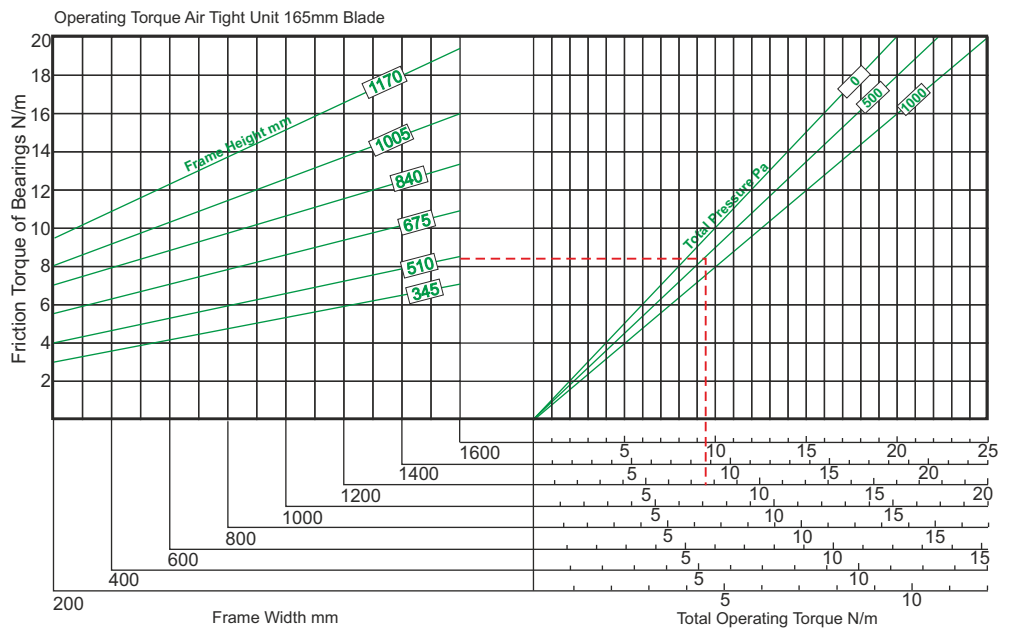
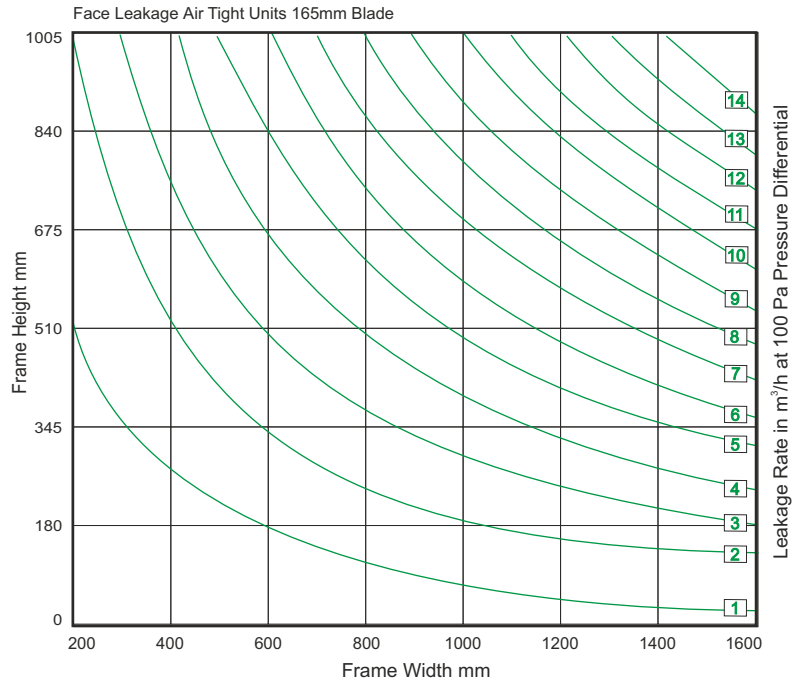
In addition flanges may be formed and drilled to match proprietary systems such as Mez or Ductmate. Non standard profiles are available.

## Actuation

Rega dampers may be supplied with manual operating quadrant or 12mm shaft for motorised control. If required the units can be factory fitted with pneumatic or electric actuators to customer specification. For motor sizing torque ratings may be taken from the graphs. For multi module units coupled for driving by one motor add 5Nm, for each join, to the total torque of the individual modules.

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## Stainless Steel Dampers 165LS



### Operating Torque Example

Airtight Damper 500mm high x 1200mm wide  
Pressure 500Pa

Total Operating Torque 9 N/m



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