Konvekta LTD

K300/K400

CONTROL / BALANCE DAMPER

K300, K400

Description:

- **K300 Stainless Steel Control / Balancing volume control dampers**
- **K400 Galvanised Control / Balancing volume control dampers**

Applications:

- **Multi-leaf dampers primarily used in air conditioning and ventilation systems**
- **Ductwork system balancing**
- **Air control within ductwork system/air handling units i.e. air control at mixing box, face and bypass dampers, etc.**
- **K300 stainless steel damper is for use in both corrosive atmospheres and within the food industry**
- **K300 stainless steel damper is used for wash down of coils within air handling units**
- **Suitable for high pressure/velocity installations**

Quality – Investment – Innovation

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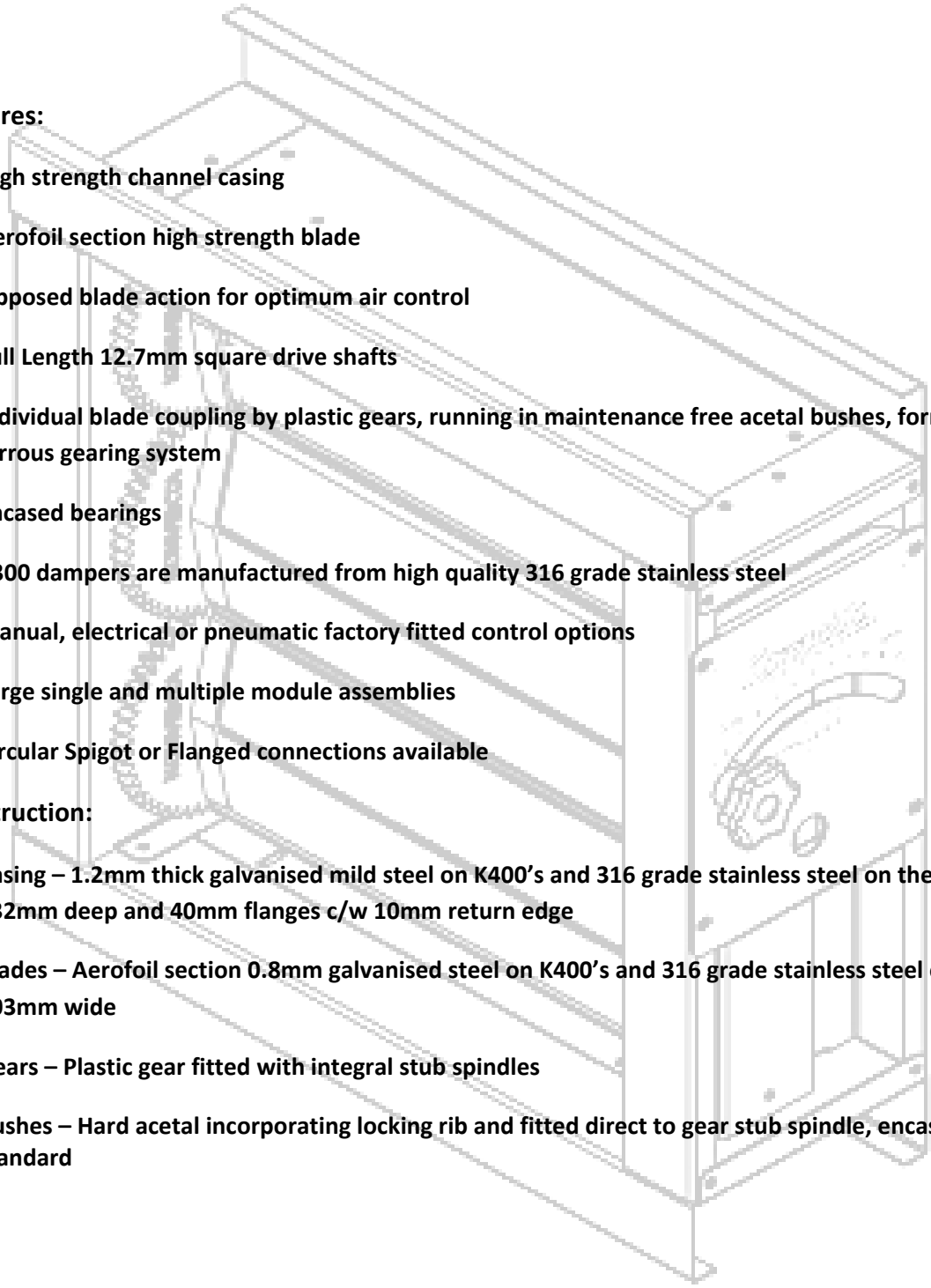

Features:

- **High strength channel casing**
- **Aerofoil section high strength blade**
- **Opposed blade action for optimum air control**
- **Full Length 12.7mm square drive shafts**
- **Individual blade coupling by plastic gears, running in maintenance free acetal bushes, forming a non-ferrous gearing system**
- **Encased bearings**
- **K300 dampers are manufactured from high quality 316 grade stainless steel**
- **Manual, electrical or pneumatic factory fitted control options**
- **Large single and multiple module assemblies**
- **Circular Spigot or Flanged connections available**

Construction:

- **Casing – 1.2mm thick galvanised mild steel on K400's and 316 grade stainless steel on the K300's, 132mm deep and 40mm flanges c/w 10mm return edge**
- **Blades – Aerofoil section 0.8mm galvanised steel on K400's and 316 grade stainless steel on the K300's, 103mm wide**
- **Gears – Plastic gear fitted with integral stub spindles**
- **Bushes – Hard acetal incorporating locking rib and fitted direct to gear stub spindle, encased as standard**

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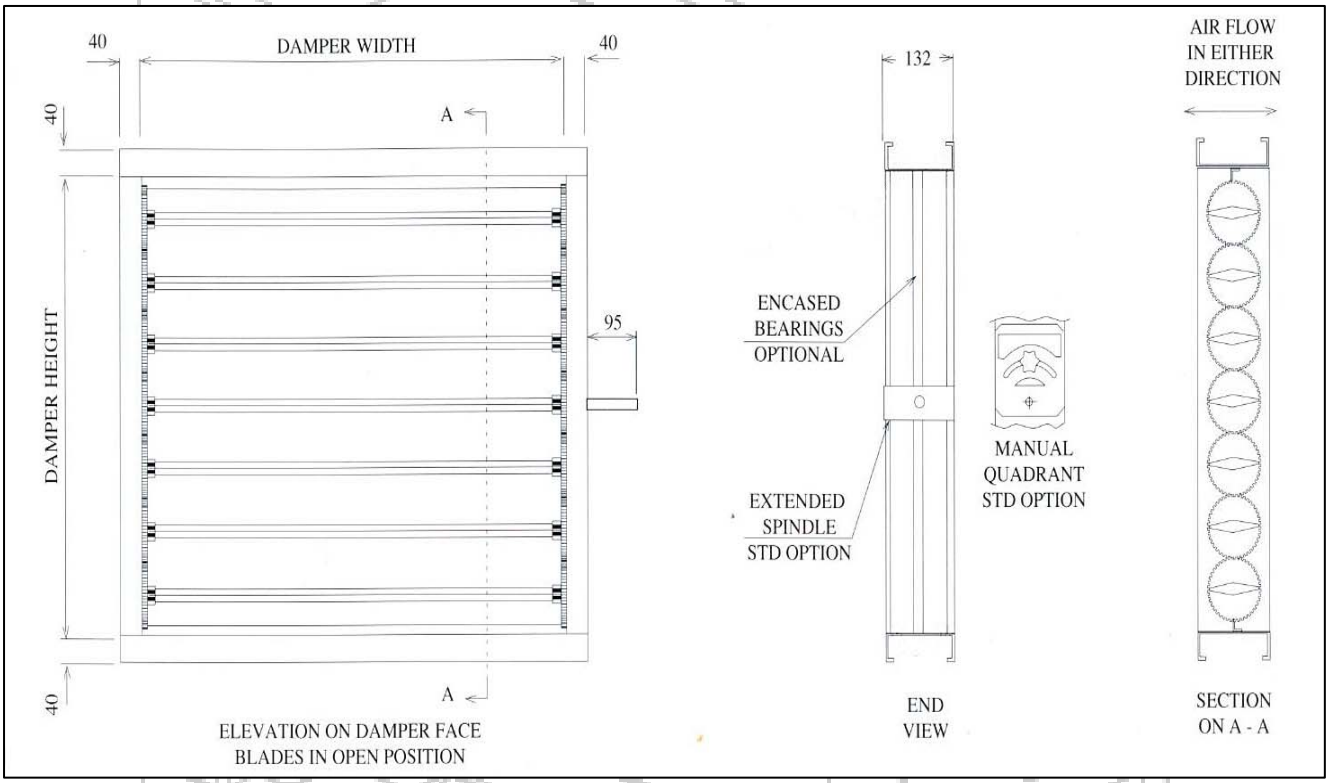
Damper Construction



Size Range:

- **100 W x 108 H to 1250 W x 1250 H in a single module**
- **Multiple module assemblies available**
- **Circular, flat oval, spigot & flanged units are available**

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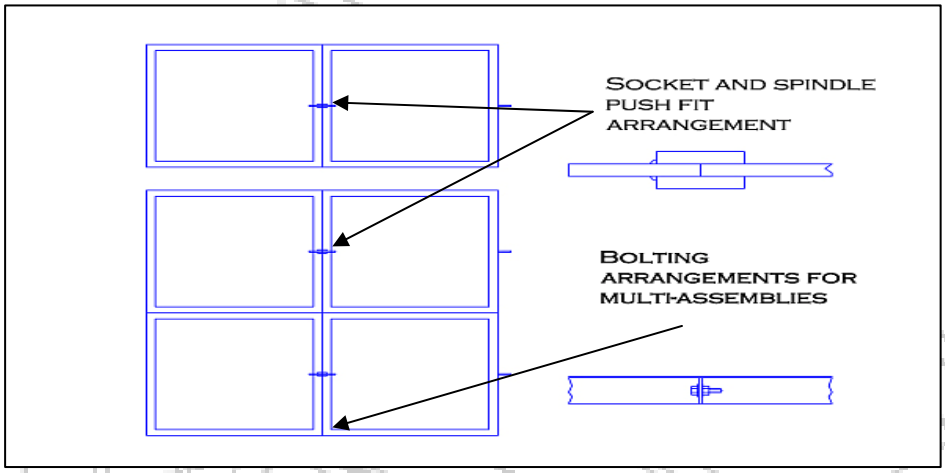
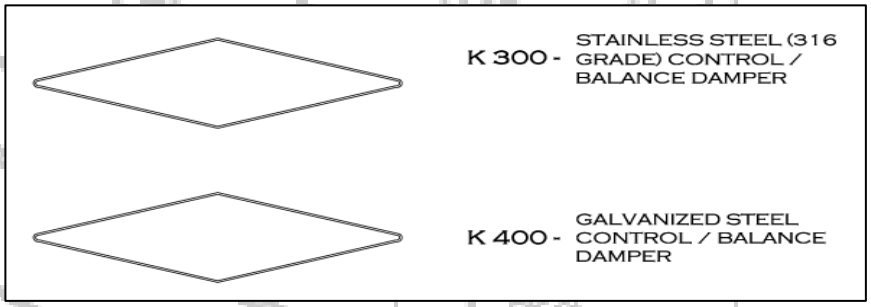


Typical Multibank Arrangements



Blade Section

Options:

- **Damper casing materials available in Aluminium and PVC**
- **Dampers incorporating oilite or stainless steel bearings**
- **External linkages or gears**
- **Parallel bladed dampers**
- **High temperature application dampers**
- **Face and bypass dampers**
- **Damper cases to suit customer requirements**
- **Flange drillings**
- **Powder coated casing & blades**

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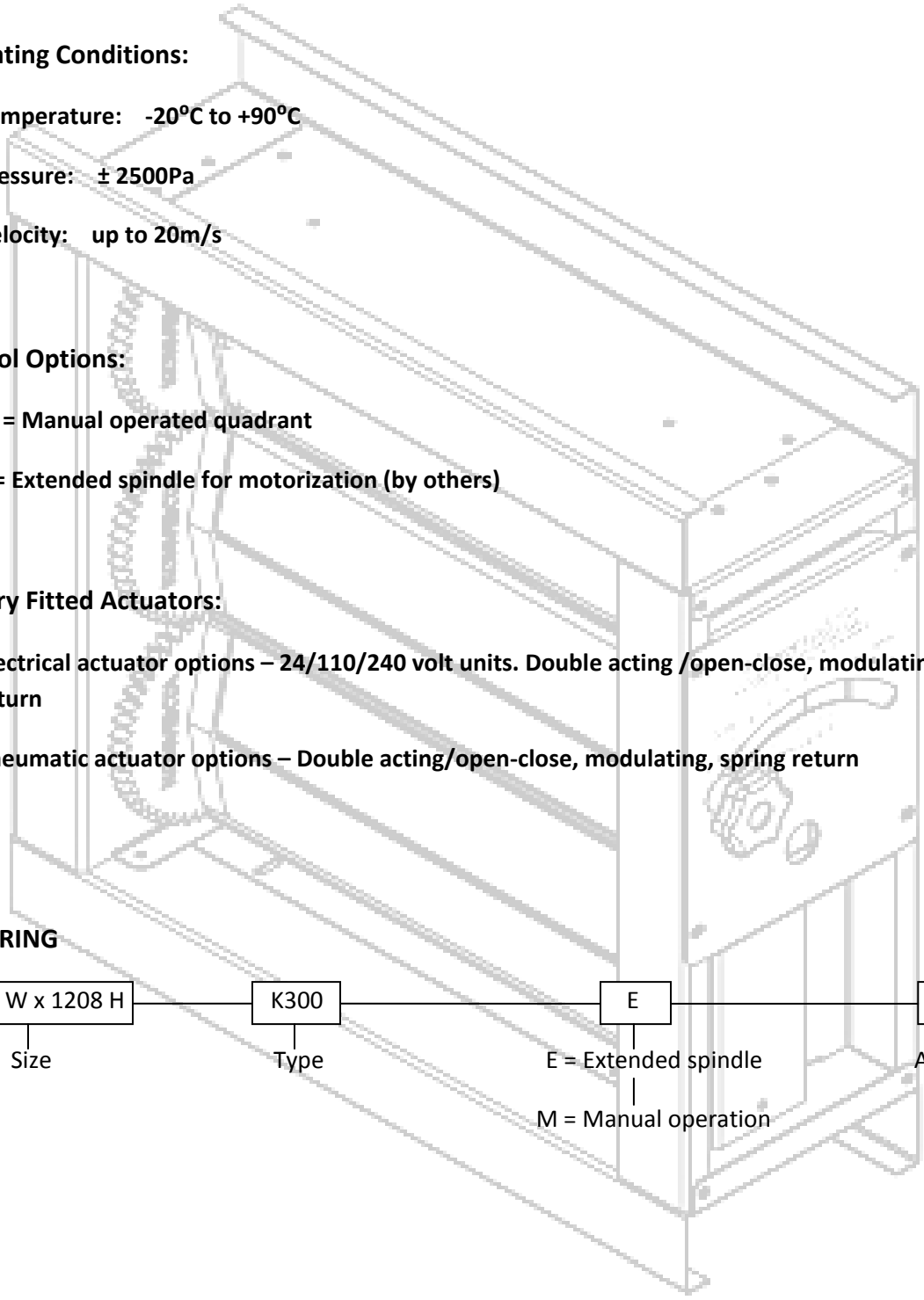

Operating Conditions:

- **Temperature: -20°C to +90°C**
- **Pressure: ± 2500Pa**
- **Velocity: up to 20m/s**

Control Options:

- **M = Manual operated quadrant**
- **E = Extended spindle for motorization (by others)**

Factory Fitted Actuators:

- **Electrical actuator options – 24/110/240 volt units. Double acting /open-close, modulating, spring return**
- **Pneumatic actuator options – Double acting/open-close, modulating, spring return**

ORDERING

1200 W x 1208 H	K300	E	SM24A-SR
Size	Type	E = Extended spindle M = Manual operation	Actuator Type

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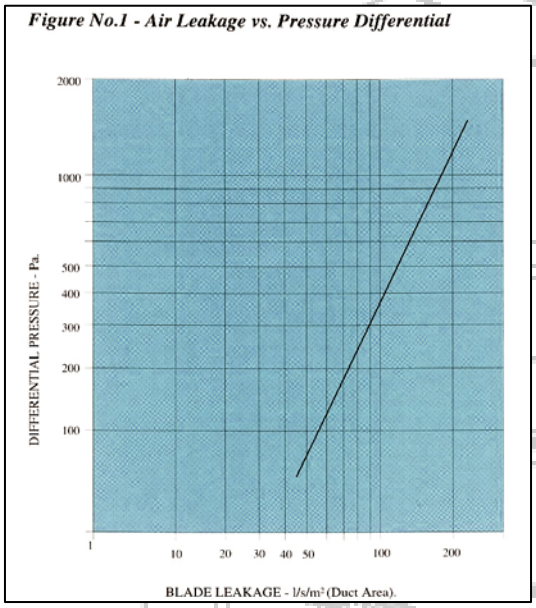
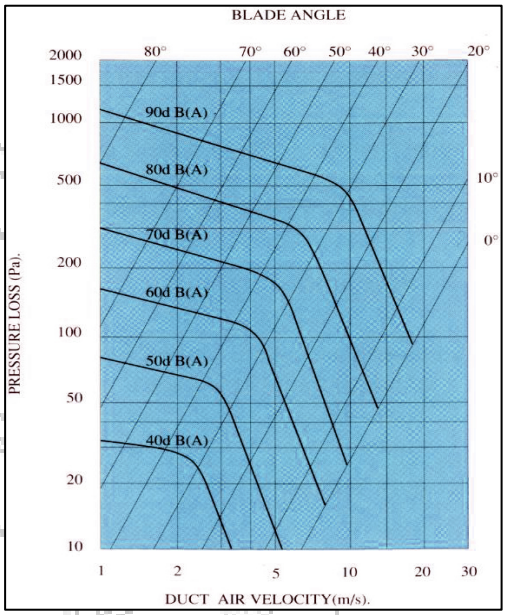
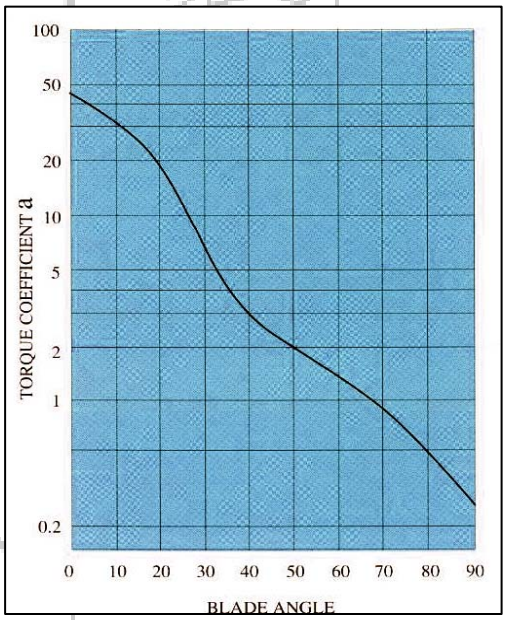




LA-A-Weighted sound power level related to a 0.5m² duct (dB(A))
Correction factors for noise levels

A (m²)	0.5	1.0	1.5	2.0	3.0	4.0
K (db)	0	+3	+5	+6	+8	+9



1. **Damper torque due to aerodynamic loading**

   T air = $\frac{a \times \Delta p \times A}{100}$

2. **Damper torque required to close the dampers**

   T c = 20A

   a- Torque coefficient
   Δp- Total pressure difference across damper (Pa)
   A- Damper area (in²)
   T- Torque (Nm)

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