

# Konveкта LTD

CONTROL/BALANCE  
DAMPERS

K300, K400

## APPLICATIONS

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

## BLADE SELECTION



**K300 -** Stainless steel (316 grade) control/balance damper.



**K400 -** Galvanised steel control/balance damper.

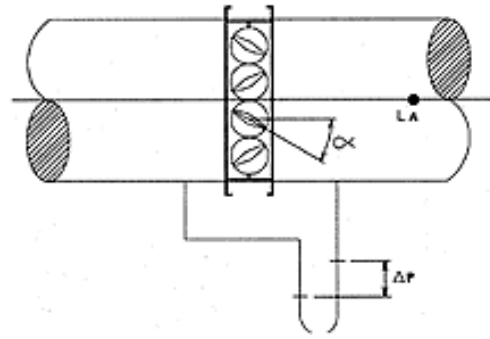
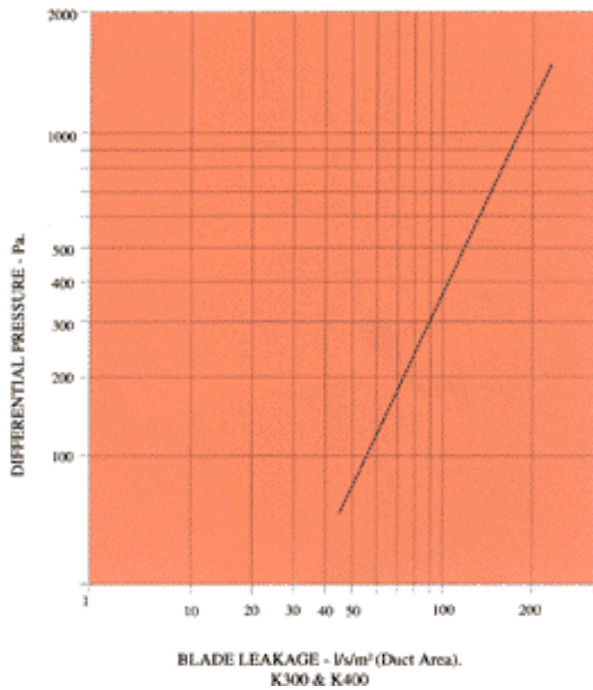


## FEATURES

- High strength channel casing.
- Roll formed aerofoil section blade with grooved seam interlocking joint forming high strength construction.
- Opposed blade action for optimum control.
- Individual blade coupling by ABS gears running in maintenance free Acetal bushes, forming non-ferrous gearing system.
- Encased Bearings.
- K300 dampers are manufactured from high quality stainless steel (316 grade).
- Manual, electrical & pneumatic, factory fitted control options.
- Large single modules and multi assemblies.
- Flanged and spigoted casings.

## PERFORMANCE DATA

Figure No.1 - Air Leakage vs. Pressure Differential



LA-A-Weighted sound power level related to a 0.5m<sup>2</sup> duct (dB(A))  
Correction factors for noise levels

| A (m <sup>2</sup> ) | 0.5 | 1.0 | 1.5 | 2.0 | 3.0 | 4.0 |
|---------------------|-----|-----|-----|-----|-----|-----|
| K (db)              | 0   | +3  | +5  | +6  | +8  | +9  |

Figure No.2 Pressure drop/Regenerated Noise vs. Velocity

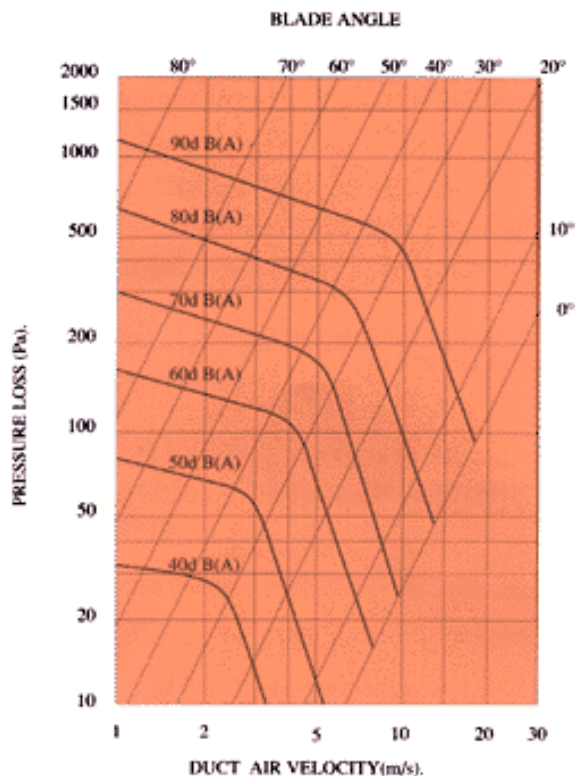
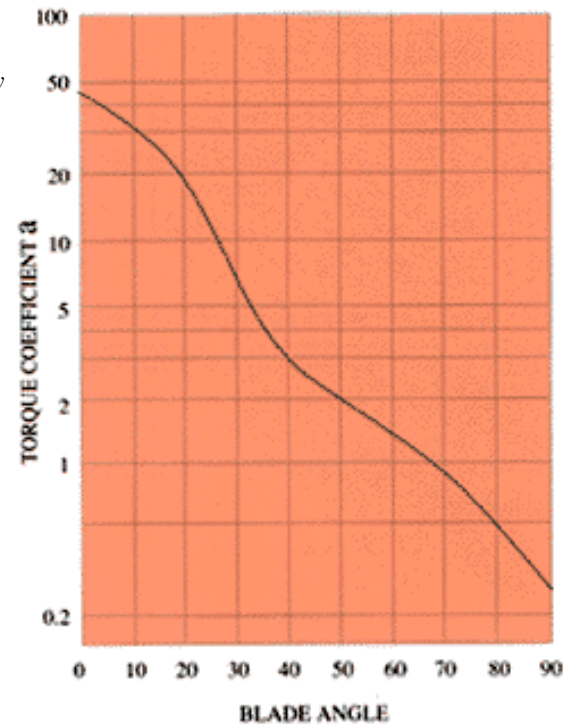


Figure No.3 Damper Torque

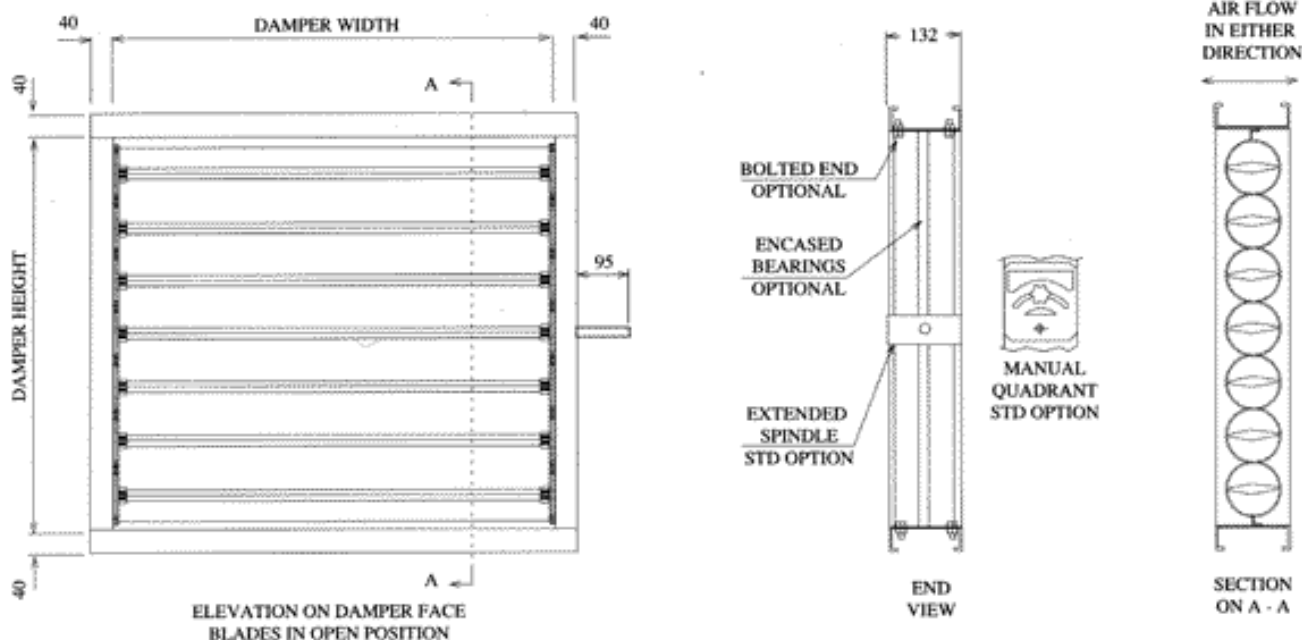


1. Damper Torque due to Aerodynamic loading

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

- a - Torque coefficient
- $\Delta p$  - Total pressure difference across damper (Pa)
- A - Damper area (m<sup>2</sup>)
- T - Torque (Nm)

## CONSTRUCTION DATA

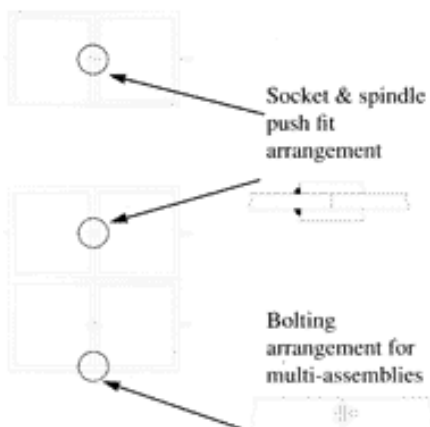


### SIZE RANGE

- 100W x 108H to 15000W x 2008 H in a single module.
- Circular, flat oval spigoted & flanged units available

### MULTIPLE DAMPER ASSEMBLIES

- Damper modules interlock together with push fit installation.



For larger assemblies refer to Technical Sales

### CONTROL OPTIONS

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

#### FACTORY FITTED ACTUATORS

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

### FACE & BYPASS DAMPERS

Face and bypass damper arrangement for installation with heat exchanges and cooling coils.



## SPECIFICATIONS

### Type K400 (K300)

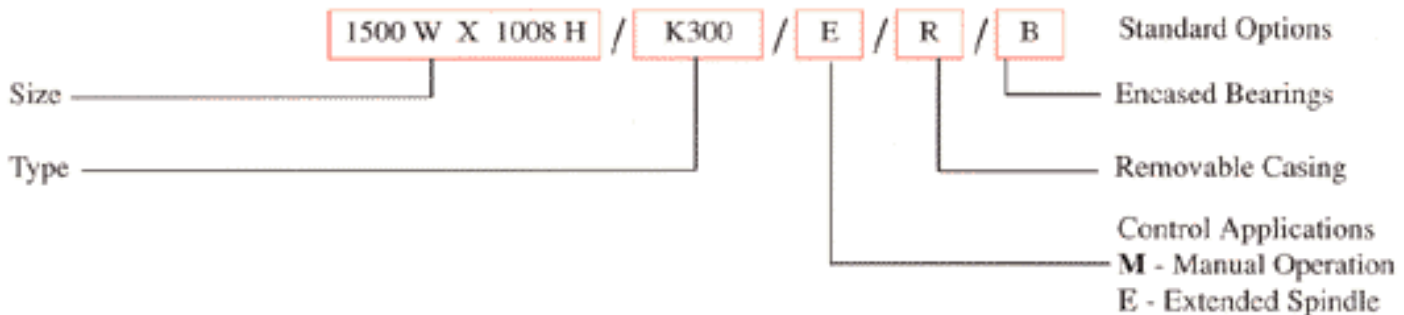
**Description:-** Control/Balancing volume control dampers

- Construction:-**
- Casing** - 1.2mm thick galvanised mild steel (316 grade stainless steel) casing 132mm deep and 40mm flanges c/w 10mm return edge. Removable casing as an option.
  - Blades** - Aerofoil section 0.8mm galvanised steel (316 grade stainless steel) Roll formed blade 103mm wide.
  - Bushes** - Hard Acetal incorporating locking rib and fitted direct to gear stub spindle. Bushes can be encased as an option.
  - Gears** - ABS plastic gear fitted with intergral stub spindles.

## OPERATING CONDITIONS

|             |                    |
|-------------|--------------------|
| Temperature | - - 20°C to + 70°C |
| Pressure    | - ± 2500 Pa        |
| Velocity    | - up to 20m/s      |

## ORDERING



## SPECIALS

- Damper casing material of aluminium and PVC available.
- Painted casing & blades.
- Damper incorporating oilite or stainless steel bearings.
- Parallel bladed dampers.
- High temperature to 120°C constant.
- Face and By-Pass dampers.
- Damper case sizes to suit customer's requirements.

# Konvekta

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We reserve the right to make specification changes without prior notice or obligation