KONVEKTA
AIR CONTROL EQUIPMENT

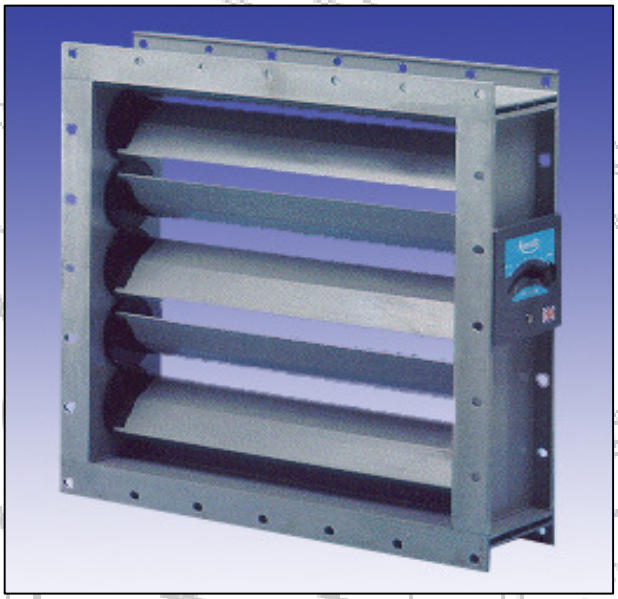
K500

PVC CORROSION RESISTANT DAMPER

K500 PVC

Description:

- **K500-PVC - Plastic corrosive resistant multi-leaf opposed blade volume control damper**



Applications:

- **The K500-PVC opposed blade volume control damper is a corrosive resistant product for use in corrosive atmospheres and with aggressive media**
- **These multi-leaf dampers are primarily used in air conditioning and ventilation systems for volume control, pressure control and air balance**
- **Swimming pool installations**
- **Fume cupboard extract systems**
- **Variable air volume fume cupboard systems**
- **Wash down dampers**
- **Agricultural stores**

Quality – Investment – Innovation

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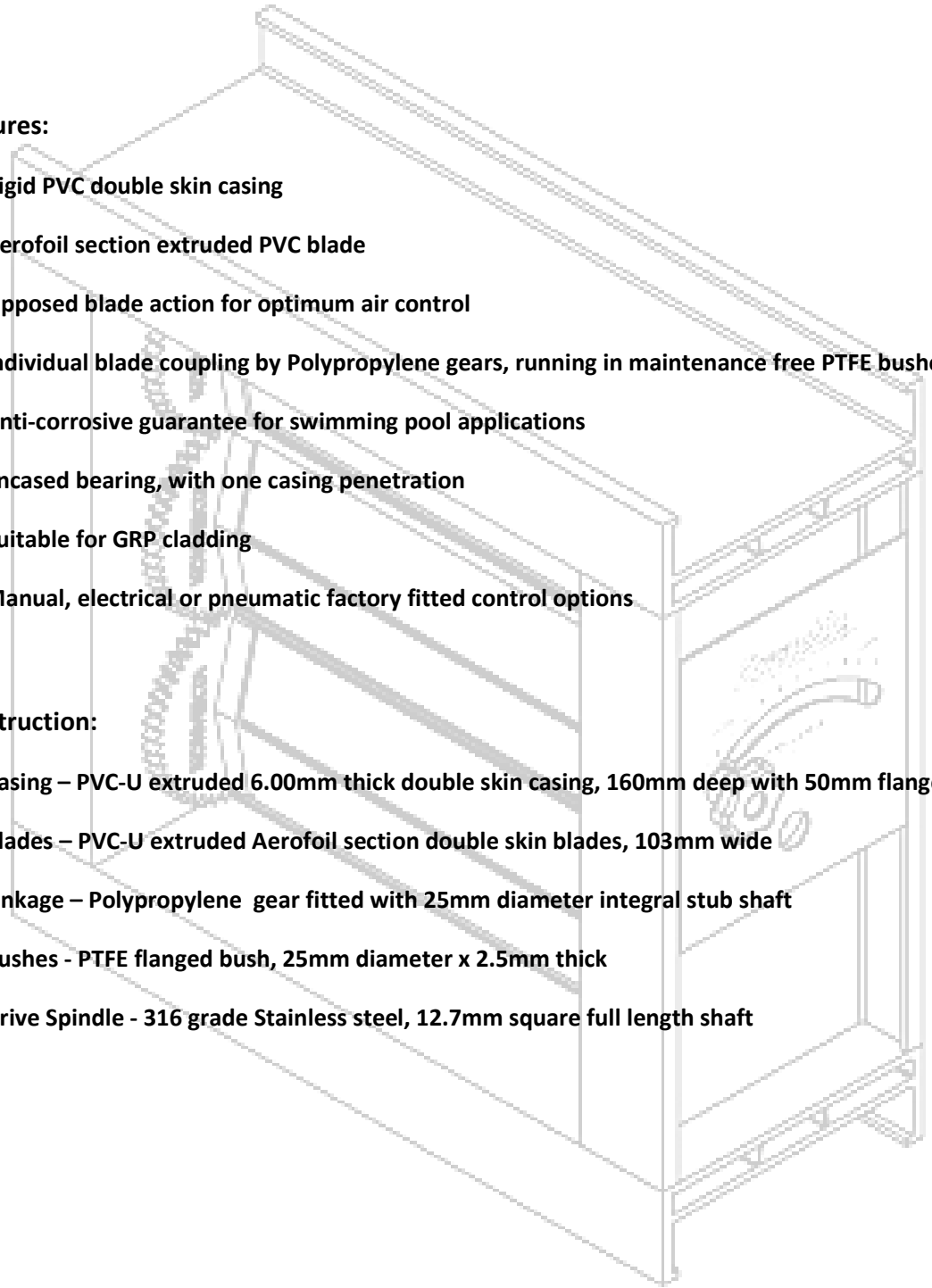

Features:

- **Rigid PVC double skin casing**
- **Aerofoil section extruded PVC blade**
- **Opposed blade action for optimum air control**
- **Individual blade coupling by Polypropylene gears, running in maintenance free PTFE bushes**
- **Anti-corrosive guarantee for swimming pool applications**
- **Encased bearing, with one casing penetration**
- **Suitable for GRP cladding**
- **Manual, electrical or pneumatic factory fitted control options**

Construction:

- **Casing – PVC-U extruded 6.00mm thick double skin casing, 160mm deep with 50mm flanges**
- **Blades – PVC-U extruded Aerofoil section double skin blades, 103mm wide**
- **Linkage – Polypropylene gear fitted with 25mm diameter integral stub shaft**
- **Bushes - PTFE flanged bush, 25mm diameter x 2.5mm thick**
- **Drive Spindle - 316 grade Stainless steel, 12.7mm square full length shaft**

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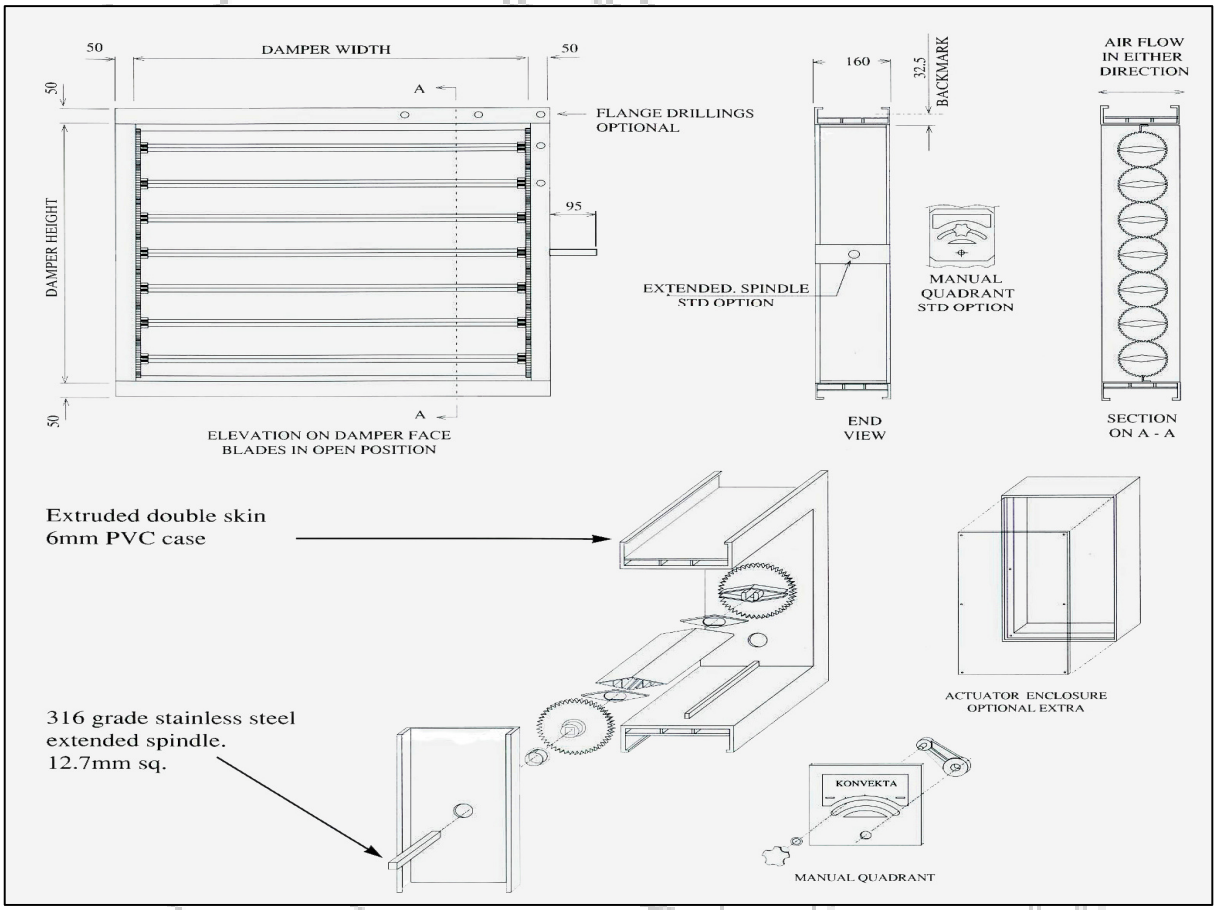
Damper Construction



Size Range:

- **100 W x 108 H to 1000 W x 1250 H in a single module**
- **For larger multiple module assemblies, please consult our technical department for details**
- **Circular, flat oval, spigot & flanged units are available**

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Options:

- **GRP clad casings**
- **Low Leakage damper using specially coated K200 aluminium blades with EPDM edge seals**
- **Circular, spigot and flange connections**
- **Flange drillings**
- **Backing flanges**
- **Complimentary range of PVC non-return dampers**
- **External linkages or gears**

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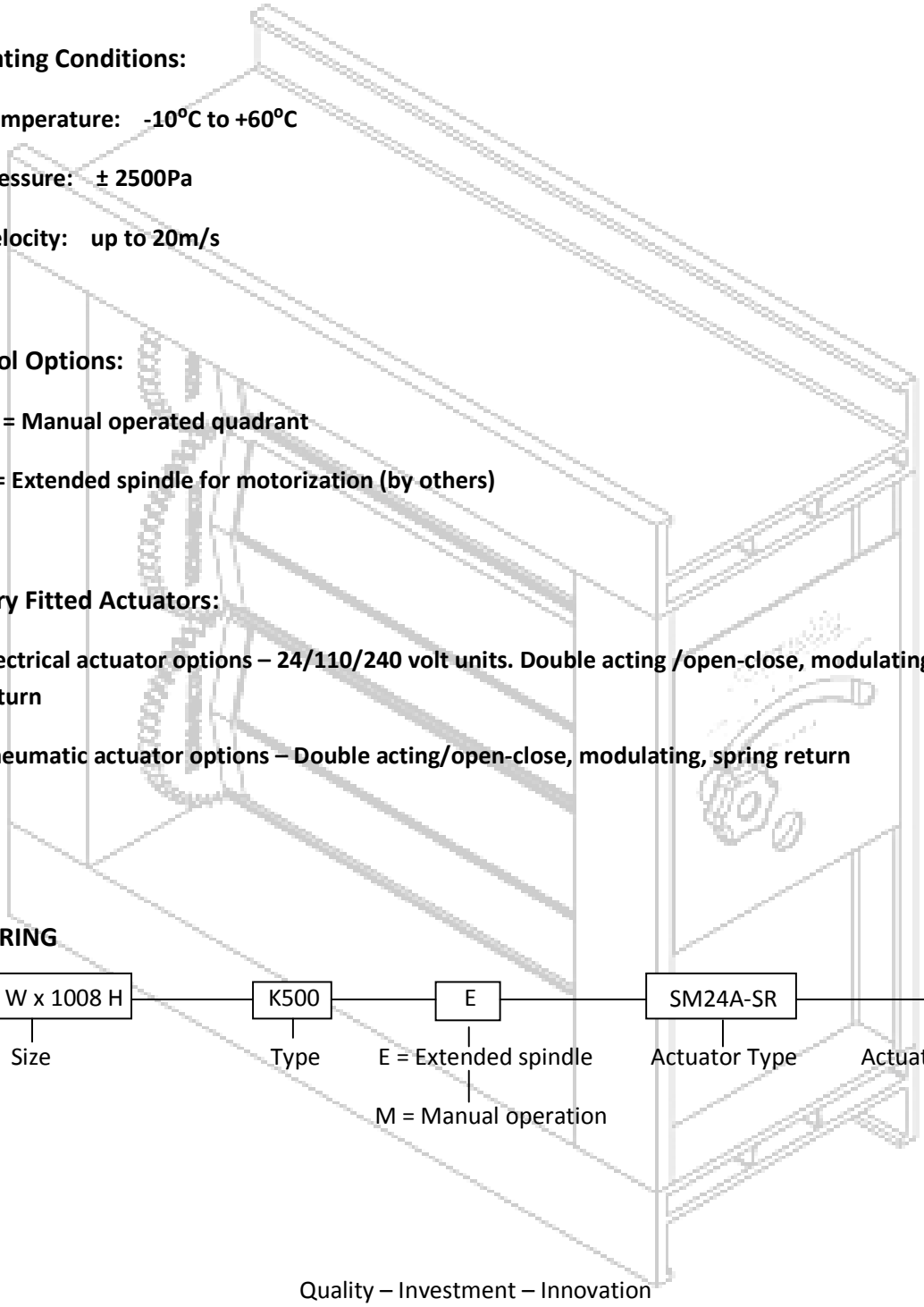

Operating Conditions:

- **Temperature: -10°C to +60°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

1000 W x 1008 H	K500	E	SM24A-SR	AE
Size	Type	E = Extended spindle M = Manual operation	Actuator Type	Actuator Enclosure

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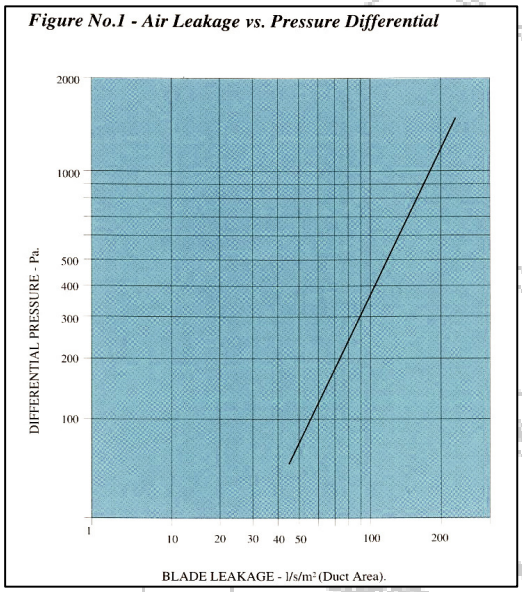
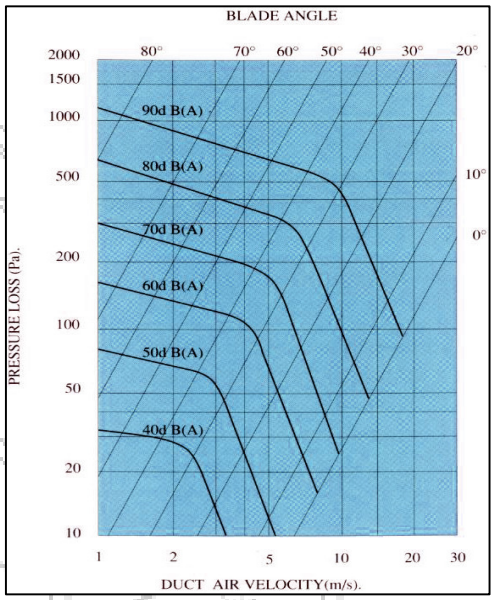
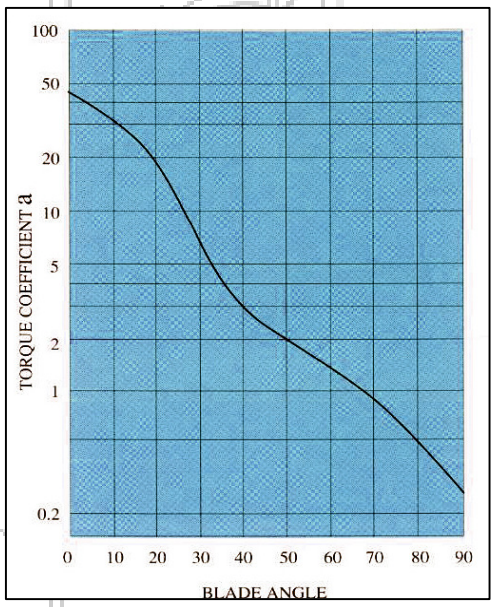
Figure No.1 - Air Leakage vs. Pressure Differential





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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