VOLUME CONTROL DAMPER

MODEL: LLAD

FEATURES

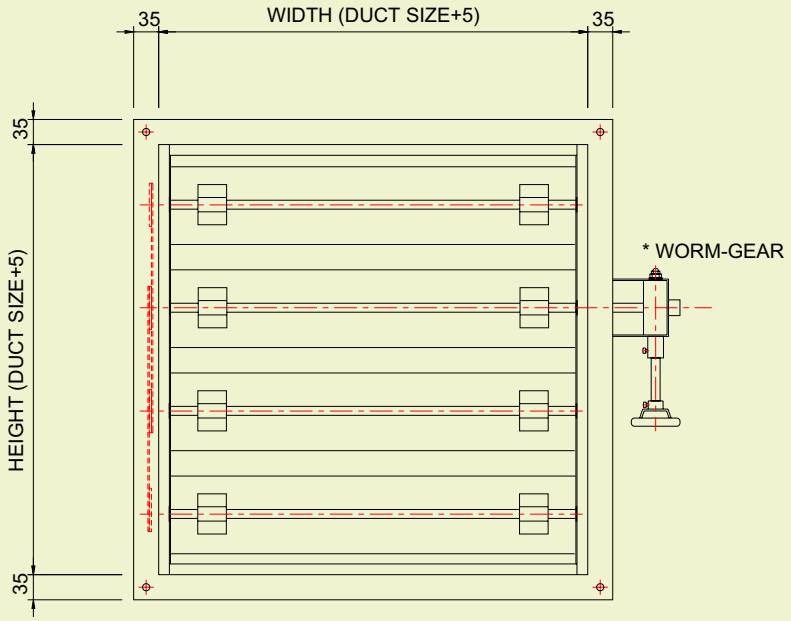
- Low leakage type: air leakage rate better than 0.10$m^3/s/m^2$ at 1000 Pa.
- Blades and frame are constructed of high quality corrosion resistant galvanised steel.
- Opposed blade action is standard.
- Damper height exceeding 300mm supplied in multiple blades.
- Length of Damper blade exceeding 1000mm is supplied with intermediate mullion.
- Control operation is done manually by using worm-gear as standard.
- Unless specified, otherwise damper comes without matching flange.
- Standard depth of damper is 210mm.
- SUS is available on request.
- Aerofoil blades are available upon request.

ACCESSORIES

Additional angle flanges x 2 with matching holes to damper to be fixed to the duct and connected to damper.

ORDER KEY

LLAD

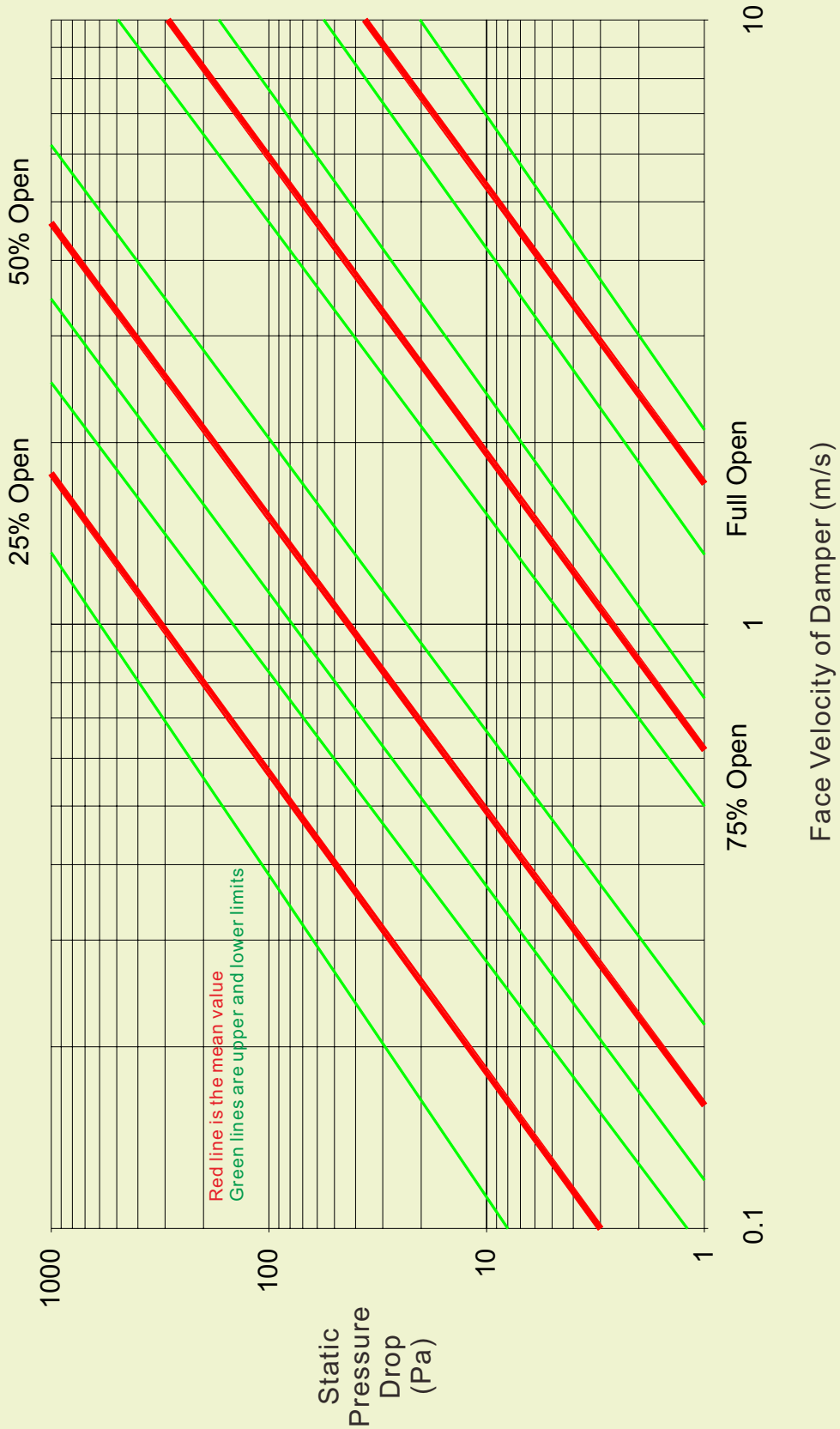


* Unique Worm-Gear design
(Registered Singapore Patent No. 167/91)

KYODO reserves the right to make changes without written notice. The actual product might differ from pictures shown. Drawings are not meant to show exact details of every aspects of the product.

TECHNICAL PERFORMANCE CURVE

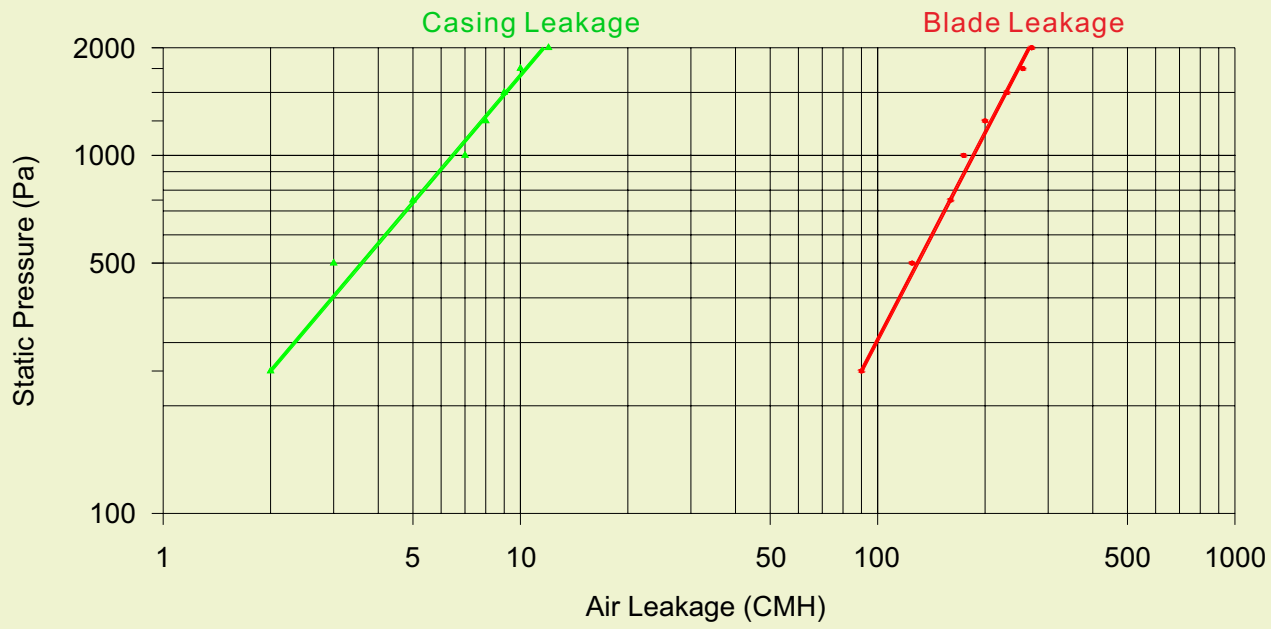
MODEL: LLAD



KYODO®
KYODO reserves the right to make changes without written notice. The actual product might differ from pictures shown.
Drawings are not meant to show exact details of every aspects of the product.

TECHNICAL PERFORMANCE CURVE

MODEL: LLAD



※ Data based on test conducted by kyodo on a W1000mm x H1000mm xD210mm damper.

KYODO®
KYODO reserves the right to make changes without written notice. The actual product might differ from pictures shown.
Drawings are not meant to show exact details of every aspects of the product.

Standard Data for Flanges
(ISO 15138)

Dimensions in millimetres

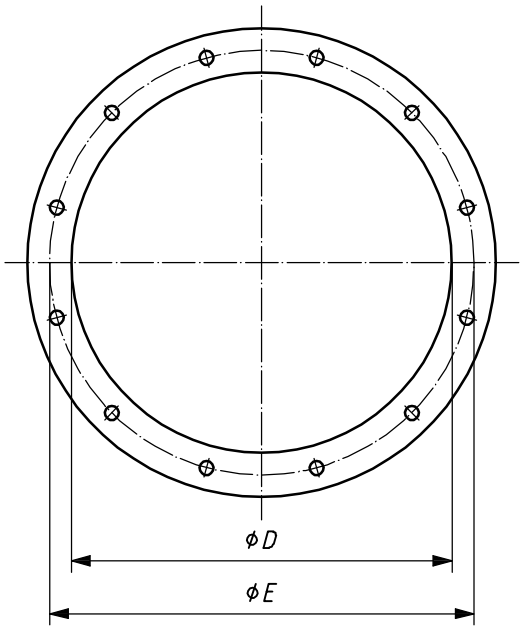


Figure E.1 — Circular flanges

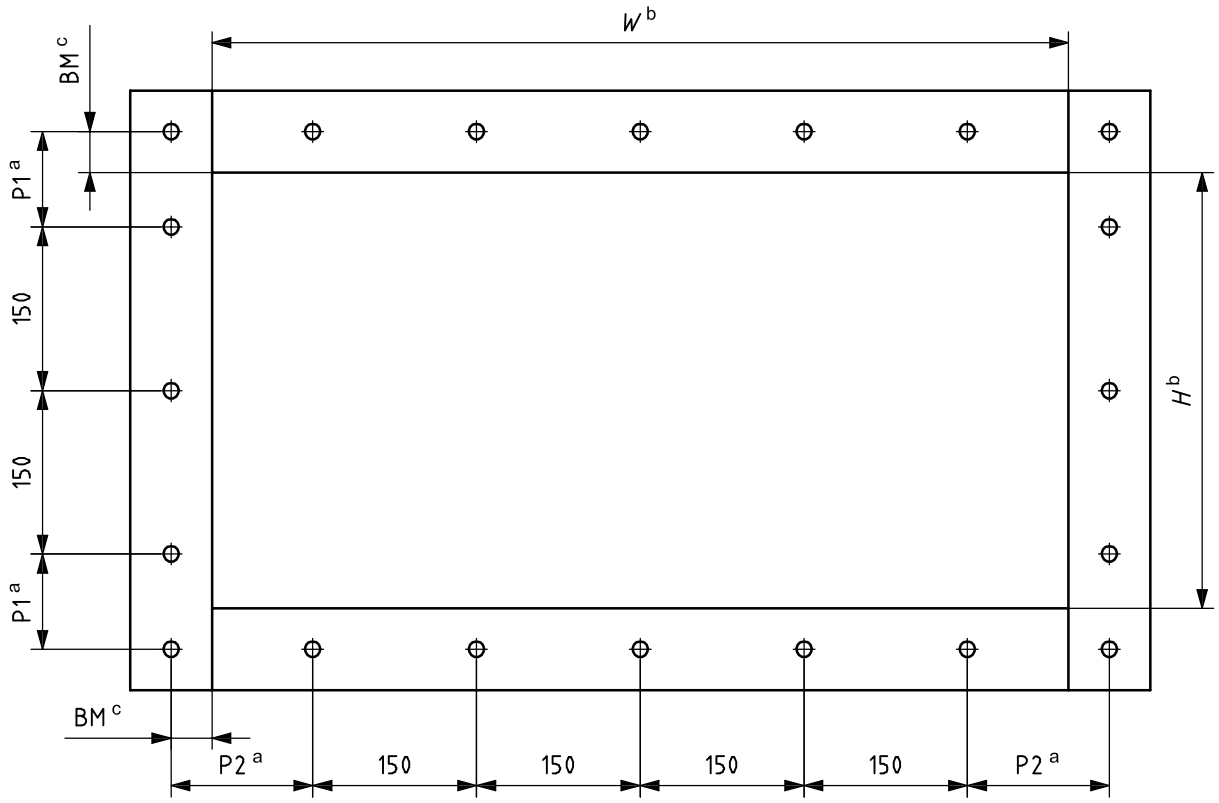
Table E.1 — Standard data for circular flanges

Nominal duct size (Ø*D*) mm	Bolt circle (Ø*E*) mm	Flange (flat bar) mm	Bolt hole size mm	Bolt size	No. of bolts
100	145	40 × 4	10	M8	4
125	170				
160	205				
200	245				8
250	295				
315	360				
355	400				
400	459	50 × 5	12	M10	12
450	509				
500	559				
560	619				16
630	689				
710	769				
800	859				24
900	959				
1 000	1 059				
1 120	1 209	80 × 8	14	M12	32
1 250	1 339				
1 400	1 489				

KYODO®
KYODO reserves the right to make changes without written notice. The actual product might differ from pictures shown.
Drawings are not meant to show exact details of every aspects of the product.

Standard Data for Flanges
(ISO 15138)

Dimensions in millimetres



a 75 < P1 ⩽150; 75 < P2 ⩽150.

b The nominal duct size (internal) is equal to W times H.

c "BM" is the back mark, the distance from the inside duct to centreline hole.

Figure E.2 — Rectangular flanges

Table E.2 — Standard data for rectangular flanges [a, b]

Nominal duct longest side W mm	Back mark mm	Flat bar or angle iron mm	Bolt hole size mm	Bolt size
⩽ 350	20	40 × 4 40 × 40 × 4	10	M8
> 350, ⩽ 1 000	30	50 × 5 50 × 50 × 5	12	M10
> 1 000	40	80 × 8 80 × 80 × 8	14	M12

a Flanges shall be continuously welded on both sides.

b Flanges shall be made from the same material as the duct.

LLAD

KYODO®
KYODO reserves the right to make changes without written notice. The actual product might differ from pictures shown.
Drawings are not meant to show exact details of every aspects of the product.