OHL-KD – Knock Down Louver

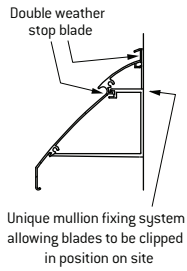
Model: **OHL-KD**

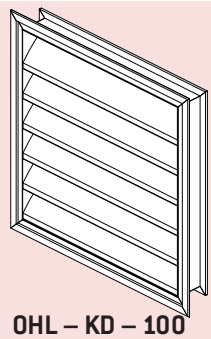
Description

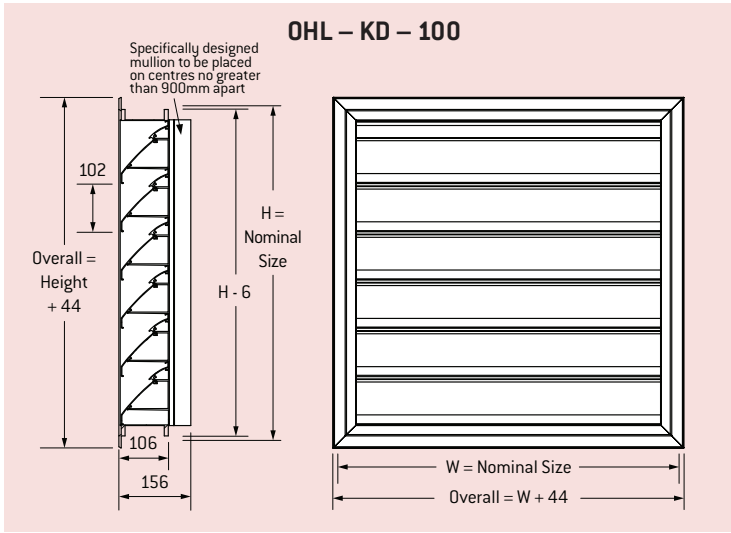
The Holyoake OHL-KD (Knock Down) is an attractive high performance louver available in two styles, both featuring on site assembly at the point of installation.
The system is ideally suited for larger louvers and difficult on site installation. The on site assembly system of the OHL-KD eliminates expensive transport and lifting machinery that would otherwise be involved with a pre-assembled louver installation.

The framing system enables the OHL-KD to be installed in metal clad buildings with ease. The louver penetration surround should be formed and flashed by the cladding contractor before the OHL-KD louver system is assembled in situ. Similarly the framing system is ideal for masonry and other wall systems.

Based on proven Holyoake louver technology the louver blade features two water stops on its front face. The blades overlap one another blocking line of sight through the louver and minimising water carryover. The system may be assembled as a continuous louver showing no visible vertical mullion support bars.*
***Note: Blade spacing may be adjusted to suit specific project requirements. Other blade size and type configurations may be available. Contact your local Holyoake branch.**




OHL – KD – 100



Construction

The OHL-KD is constructed entirely of 6063 T5 extruded aluminium mechanically locked together ensuring a solid resilient structure.
All parts may be powder coated at the Holyoake factory before being transported to site.

- Blade spacing 102 mm.
- Bird or insect screen may also be added as an option.

Installation

The specifically designed aluminium extrusions have been developed to provide very simple on site fabrication.

Notes on Selecting Weather Louvers

Air velocity through the free area of a louver must be identified. Only this velocity will determine the extent to which water penetration due to weather, will occur. It also establishes pressure drop. The chart indicates typical water penetration for louvers in this section. No manufacturer guarantees that an outside louver will prevent water penetration under all conditions of wind and rain and we are no different in this regard. However, water penetration will be minimised if free area velocities, as obtained from the tables in this section, are used in conjunction with this chart and velocities lower than those indicated for given penetration levels are selected.

Performance Notes

1. When velocities through louvers cannot be controlled, water penetration performance cannot be guaranteed.
2. Chart based on Standard Air Density of 1.2Kg / m^3.

Performance Note

The OHL-KD may be used in both intake and exhaust situations. Due to the high effective pressure area the pressure drop through the louver is relatively low, while the double water stop and overlapping blade design minimise water penetration.

Guide Product Weights	
	Approximate Weight in Kg
Size	OHL-KD 100
300 x 300	3
500 x 500	6
900 x 900	16
1200 x 1200	27
1500 x 1800	46
2500 x 2000	81

Model: **OHL-KD 100**

Effective pressure area (sq. metres)

Width "W", mm.	300	450	600	750	900	1050	1250	1500	1750	2000	2250	2500
Height "H", mm.											0.1	
300	0.01	0.02	0.03	0.04	0.05	0.05	0.06	0.08	0.09	0.10	0.12	0.13
400	0.03	0.04	0.06	0.07	0.09	0.10	0.12	0.15	0.18	0.20	0.23	0.26
500	0.04	0.06	0.08	0.11	0.13	0.15	0.18	0.22	0.26	0.30	0.34	0.38
600	0.05	0.08	0.11	0.14	0.17	0.19	0.25	0.30	0.35	0.40	0.45	0.50
700	0.06	0.10	0.14	0.18	0.22	0.24	0.31	0.37	0.43	0.50	0.56	0.63
800	0.07	0.12	0.17	0.21	0.26	0.29	0.37	0.44	0.52	0.60	0.67	0.75
900	0.09	0.14	0.19	0.25	0.30	0.34	0.43	0.52	0.60	0.69	0.78	0.87
1000	0.10	0.16	0.22	0.28	0.34	0.38	0.49	0.59	0.69	0.79	0.89	1.00
1100	0.11	0.18	0.25	0.32	0.39	0.43	0.55	0.66	0.78	0.89	1.00	1.12
1200	0.12	0.20	0.28	0.35	0.43	0.48	0.61	0.73	0.86	0.99	1.12	1.24
1300	0.14	0.22	0.30	0.39	0.47	0.53	0.67	0.81	0.95	1.09	1.23	1.37
1400	0.15	0.24	0.33	0.42	0.51	0.57	0.73	0.88	1.03	1.18	1.34	1.49
1500	0.16	0.26	0.36	0.46	0.56	0.62	0.79	0.95	1.12	1.28	1.45	1.61
1600	0.17	0.28	0.39	0.49	0.60	0.67	0.85	1.03	1.20	1.38	1.56	1.74
1700	0.18	0.30	0.41	0.53	0.64	0.72	0.91	1.10	1.29	1.48	1.67	1.86
1800	0.20	0.32	0.44	0.56	0.68	0.77	0.97	1.17	1.37	1.58	1.78	1.98
1900	0.21	0.34	0.47	0.60	0.73	0.81	1.03	1.24	1.46	1.67	1.89	2.11
2000	0.22	0.36	0.50	0.63	0.77	0.86	1.09	1.32	1.54	1.77	2.00	2.23

0.2 0.3 0.5 0.75 1.0 1.5

Pressure requirement for outside louvers

Velocity, m/s **	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5
Intake*	2	4	7	11	16	22	29	37	45	55	65	77	89	102
Exhaust*	1	3	5	8	11	15	19	24	30	37	43	51	59	68

*Total Pressure Pa (N/m²) ** Velocity corresponding to Effective Pressure Area m³/s = Velocity Times Effective Pressure Area.

Example of selection for outside louvers

Select an outside louver for exhausting 0.581 m³/s with a pressure requirement of 11 Pa (N/m²).

1. From pressure requirement table a velocity of 3.0 m/s is indicated as acceptable for an exhaust pressure of 11 Pa (N/m²).
2. The effective pressure area corresponding to this velocity and air quantity is

$$\text{Area} = \frac{\text{m}^3/\text{s}}{\text{velocity}} = \frac{0.581}{3} = 0.19\text{m}^2$$

3. For a model OHL-KD 100 louver, an effective pressure area of 0.19 m² is satisfied by a 1050 wide x 600 high; 600mm x 900mm high, etc.

OHCL, OHL, OHL-D, OHL-DRC, & OHL-LAOGS

Louver Description Code Examples and Suggested Specifications

OHCL – [F / C] – [102 / 124] – W x H – OPTIONS – FINISH

- OHCL: Model - Closable Outside Horizontal Louver
- F / C: Frame Style (F = Flange, C = Channel)
- 102 / 124: Blade size & configuration
- W x H: Opening
- OPTIONS: 24 V AC/DC Motor, 230 V AC Motor
- FINISH: Powder Coat, Anodised, Mill Aluminium

Closable Horizontal Outside Louvers shall be of extruded aluminium construction with black anodised blades with integral flange and extruded vinyl edge seal. Fixed blades incorporate expanded aluminium bird screen.
Blade closure is via Gang Linkage bars either manually, or by a factory fitted linear motor.
Closable Louvers shall be Series OHCL.
All shall be as manufactured by Holyoake.

OHL – [F / C] – [34 / 45 / 102 / 124] – W x H – [BM/IS] – FINISH

- OHL: Model - Outside Horizontal Louver
- F / C: Frame Style (F = Flange, C = Channel)
- 34 / 45 / 102 / 124: Blade size & configuration
- W x H: Opening
- BM/IS: Bird Mesh or Insect Screen
- FINISH: Powder Coat, Anodised, Mill Aluminium

Horizontal Outside Louvers shall be of extruded aluminium construction with 100 mm blades fixed at their ends with stainless steel screws into a welded aluminium frame. The bottom louver shall overlap the frame and the structure shall be designed to withstand a wind load of 95 Kg/m².
Louvers shall be type OHL - F - 102.
All shall be as manufactured by Holyoake. [Example specification shown is for a flanged OHL-F-102).

OHL – [F / C] – D – W x H – [BM/IS] – FINISH

- OHL: Model - Outside Horizontal Louver
- F / C: Frame Style (F = Flange, C = Channel)
- D: Drainable Blade
- W x H: Opening
- BM/IS: Bird Mesh or Insect Screen
- FINISH: Powder Coat, Anodised, Mill Aluminium

Drainable Horizontal Outside Louvers shall be of extruded aluminium construction with blades which drain through vertical down pipes to discharge water at the bottom of the louver.
Louvers shall be type OHL - D.
All shall be as manufactured by Holyoake.

OHL – [F / C] – DRC – W x H – SECURITY MESH – OPTIONS – FINISH

- OHL: Model - Outside Horizontal Louver
- F / C: Frame Style (F = Flange, C = Channel)
- DRC: Drainable Closable Blade
- W x H: Opening
- SECURITY MESH: Gym Mesh
- OPTIONS: 24 V AC/DC Motor, 230 V AC Motor
- FINISH: Powder Coat, Anodised

Drainable Closable Horizontal Outside Louvers, shall be of extruded aluminium construction, with special overlapping drainable closable blades and complete with extruded aluminium security mesh on the rear.
Blade closure is via Linkage bars in a concealed cavity, either manually, or by a suitable factory fitted motor.
Drainable Closable Louvers shall be Series OHL - DRC.
All shall be as manufactured by Holyoake.

OHL – LAOGS – W x H – [BM/IS] – FINISH

- OHL: Model - Outside Horizontal Louver
- LAOGS: Type
- W x H: Opening
- BM/IS: Bird Mesh or Insect Screen
- FINISH: Powder Coat, Anodised, Mill Aluminium

OHL - LAOGS Horizontal Outside Louvers shall be constructed from welded aluminium construction. Bird Mesh is fitted to the rear as standard.
Louvers shall be type OHL-LAOGS.
All shall be as manufactured by Holyoake.

OVL, OHL-KD, PHL, ST2/4 & LOUVER DOOR

Louver Description Code Examples and Suggested Specifications

OVL – [F / C] – [99 / 148] – W x H – [BM/IS] – FINISH

- OVL — Model - Outside Vertical Louver
- [F / C] — Frame Style (F = Flange, C = Channel)
- [99 / 148] — Blade Size and Configuration
- W x H — Opening
- [BM/IS] — Bird Mesh or Insect Screen
- FINISH — Powder Coat Anodised Mill Aluminium

Vertical Outside Louvers shall be of extruded aluminium construction with blades fixed at ends with stainless steel screws into a mitred and mechanically locked extruded aluminium frame. Intermediate blade stabilizing spacer clips shall be fitted where blade length exceeds 900mm and the structure shall be designed to withstand a wind load of 95kg/m^2.

Louvers shall be type OVL-C-99.

All shall be as manufactured by Holyoake.

(Example specification shown is for OVL-C-99).

OHL-KD – 100 – W x H – [BM/IS] – FINISH

- OHL-KD — Model - Outside Horizontal Louver - Knock Down
- 100 — Blade Style
- W x H — Opening
- [BM/IS] — Bird Mesh or Insect Screen
- FINISH — Powder Coat Anodised Mill Aluminium

OHL-KD (Knock Down) Outside Horizontal Louvers shall be manufactured from aluminium extrusion and are supplied in Kit Form for on site assembly, by others. The louver blades shall be sight proof, complete with two water stops and may be provided in a powder coat finish, with Bird Mesh, or Insect Screen.

Louvers shall be type OHL - KD - 100.

All shall be as manufactured by Holyoake.

PHL – [102 / 124] – W x L x H – [BM/IS] – FINISH

- PHL — Model - Penthouse Louver
- [102 / 124] — Blade Style
- W x L x H — Opening x Height
- [BM/IS] — Bird Mesh or Insect Screen
- FINISH — Powder Coat Mill Aluminium

PHL Penthouse Louvers shall be constructed from welded aluminium extrusion with mitred corners. Heavy, extruded aluminium blades and heavy gauge aluminium roof, with bird mesh, or insect screen.

Penthouse Louvers shall be Series PHL-102, or PHL-124.

All shall be as manufactured by Holyoake.

[OHL – ST2 / ST4] – W x H – FINISH

- OHL – ST2 / ST4 — Model - ST2 (2 Row) ST4 (4 Row) Sound Trap
- W x H — Opening
- FINISH — Mill Aluminium

OHL-ST Sound Trap attachments shall be constructed of a number of cylindrical sound absorbing elements, all housed in a sheet aluminium surround which matches the selected OHL louver.

Sound Traps shall be Series OHL - ST2, or OHL - ST4.

All shall be as manufactured by Holyoake.

OHL-LOUVER DOOR – [F / C] – [34 / 45 / 102 / 124 / D] – W x H – [BM/IS] – FINISH

- OHL-LOUVER DOOR — Model - Outside Horizontal Louver Door
- [F / C] — Frame Style (F = Flange, C = Channel)
- [34 / 45 / 102 / 124 / D] — Blade Size and Configuration
- W x H — Opening
- [BM/IS] — Bird Mesh or Insect Screen
- FINISH — Powder Coat Anodised Mill Aluminium

OHL-LOUVER DOORS are robustly constructed with Aluminium box section frames and extruded aluminium blades of the size and configuration required. High quality stainless steel hinges shall be used to support the relevant door loads. A 'High Quality' lock set and handle shall be provided as standard, as well as rubber seals to eliminate door rattle.

Louver Doors shall be Series OHL-Louver Doors.

All shall be as manufactured by Holyoake.

OHL – [F / C] – 100WT – W x H – [BM/IS] – FINISH

- OHL — Model - Two stage weather trap louver
- [F / C] — Frame Style (F = Flange, C = Channel)
- 100WT — Blade Size and Configuration
- W x H — Opening
- [BM/IS] — Bird Mesh or Insect Screen
- FINISH — Powder Coat Anodised Mill Aluminium

Horizontal Outside weather trap louvers shall be of extruded aluminium construction with 100mm front blades fixed at their ends and complete with second stage blades at the rear. The bottom louver shall overlap the frame and the structure shall be designed to withstand a wind load of 95 kg/m2.

Louvers shall be type OHL-F-100WT.

All shall be as manufactured by Holyoake.

Visit www.productspec.net/holyoake for product drawings in REVIT.