GTDHR First

- HRU with efficiency ≥ 75%
- Counterflow
- Qv ≤ 4500 m³/h
- Horizontal, side by side

High effiency heat recovery units type GTDHR First

Heat recovery unit with high efficiency 90%. The range consists of 4 sizes and 5 types for air flows from 200 up to 3500 m³/h. Each model **GTDHR** is equipped with 2 adjustable air flows.
The **GTDHR First** is an autoregulating unit, for use in a temperate climate.

Application

- Automatic ventilation and high efficiency heat recovery of air in non residential and industrial applications
- Efficiency of the heat exchanger of more than 90% (EN308), in accordance with RT2012 and the directive ErP 2009/125/EC
- Air filtration, temperature control
- Compact monobloc ventilation unit, with plug & play and energy-saving control system (EN 15232)

Composition

- Structure with aluminium profiles, thermal bridge free
- Corners in reinforced polyamide
- Double skinned panels with high-density glass wool insulation 50 mm M0 (60kg/m³)
- Outer layer: prelacquered steel plate (RAL 7035) with protection sheet
- Inner layer: galvanized steel plate
- Internal elements access panel equipped with security bolt
- Corner pieces for floor or ceiling mounting
- Round connections with lip seals
- Condensation tray and drain dia 20mm
- Built in 100% Bypass, motorised and auto regulating
- Built in regulation with front display IP65
- FREE-COOLING and NIGHT-COOLING function
- Built in temperature sensors (4)
- Built in clock for two flow rate function
- Built in week clock and public holidays
- Safety switch
- Pressostat on inlet filter **F7**
- Pressostat on each fan

Fan

- Single inlet centrifugal fan with back draw blades, statically and dynamically balanced G6.3 according to DIN ISO 1940
- Direct driven EC motor with thermal protection, efficiency class IE3 (Premium Efficiency)
- Fan mounted on anti-vibration blocs
- Plug fan with epoxy coating, brand Ziehl Abegg (GTDHR 9010 in galvanized steel, brand EBM Papst)
- Direct driven EC current motor with electronic commutation (EC) with high efficiency, thermal protection and integrated speed control
- The EC technology has brought together high efficient EC motors with low energetic consumption for the management, control and the supervision of the duty point (regulation from 10 to 100%)

- Low noise level for a better acoustic comfort

Exchanger

- Static flux counter-flow exchanger made of seawater resistant aluminium, brand Klingenburg type GS
- Efficiency 90% at -10°C/90% inlet air - +20°C/50% on exhaust air (EN308)

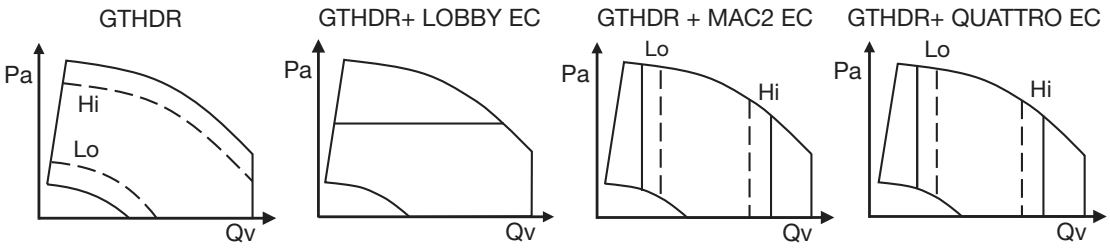
Filter

- Filters are placed directly in front of the components for optimal protection
- Mounted on sliding rails with lip seals to ensure efficient air tightness
- Basic **GTDHR First** type has one **F7** (inlet air) and one **G4** (exhaust air) filters, thickness 100 mm
- **F7** high efficiency filter: 10x higher filtration surface than a gravimetric filter and life span 2.5x longer

Options

- **GTDHR DIVA®EC*:** Proportional ventilation between two air duties (high and low speed) for each fan. With built-in CO2 sensor in the exhaust side of the unit
- **GTDHR LOBBY®EC*:** Constant pressure ventilation for each fan
- **GTDHR MAC2®EC*:** Two adjustable constant airflows for each fan. (except for the GTDHR 9008)
- **GTDHR QUATTRO®EC*:** Proportional ventilation between two constant air duties (high and low speed) for each fan (except for the GTDHR 9008). With built-in CO2 sensor in the exhaust side of the unit

* this regulation will be integrated in the unit. It is not possible to add this regulation afterwards



Certification

- In conformity with EUROVENT classifications according to EN1886 and EN13053
- Standard construction with double skinned panels of 50mm
- Resistance of the casing: Class 2
- Air tightness: Class L1
- Conductivity: T2
- Thermal bridge: TB2
- Exterior panel made of steel lacquered 10/10^{e}
  - Finish RAL7035 - 25µm, gloss 40%, film 80µm
  - Primer RAL7032 - 5µm
- Inner panel made of galvanized steel 10/10^{e}
- Insulation: high density 50mm mineral wool, 60kg/m³, class M0
- Structure with aluminium profiles cold bridge free

Accessories

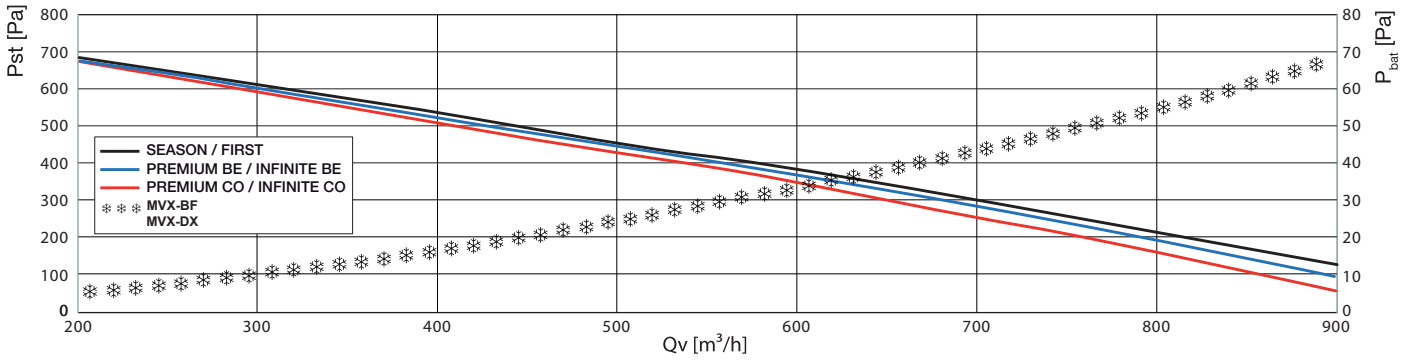
- Rain roof type **GTDXHR-TCDF H** for outside application, pre-printed sheet RAL 7035
- Motorizable opposite blade damper type **MVX-RM**
- Galvanized rain canopy type **MVX-AGC** with bird screen
- Flexible sleeves type **MTS** diameter 250 to 630mm
- External display **E-DSP 10**
- Amplifier **EO-R230K**

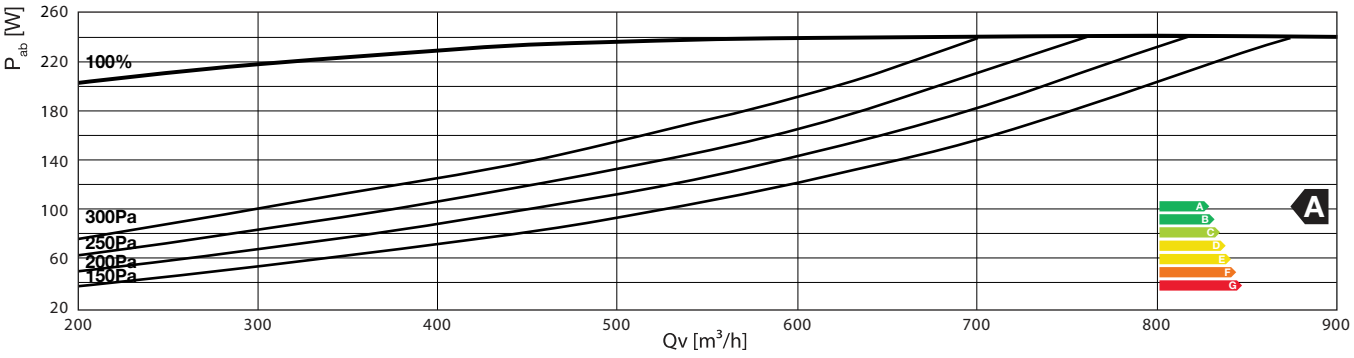
Order example

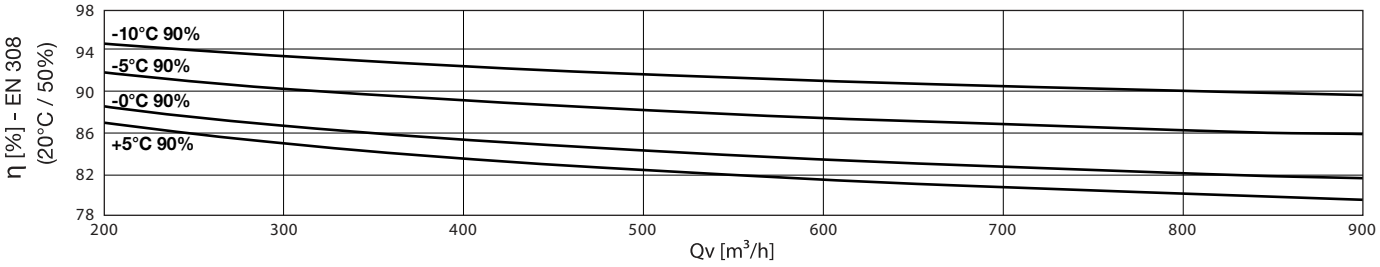
GTDHR 9023 FL-L
Explanation
GTDHR = type heat recovery unit
9023 = size **6**
F = First
FL = First + LOBBY EC
FD = First + DIVA EC
FM = First + MAC2 EC
FQ = First + QUATRO EC
L = configuration

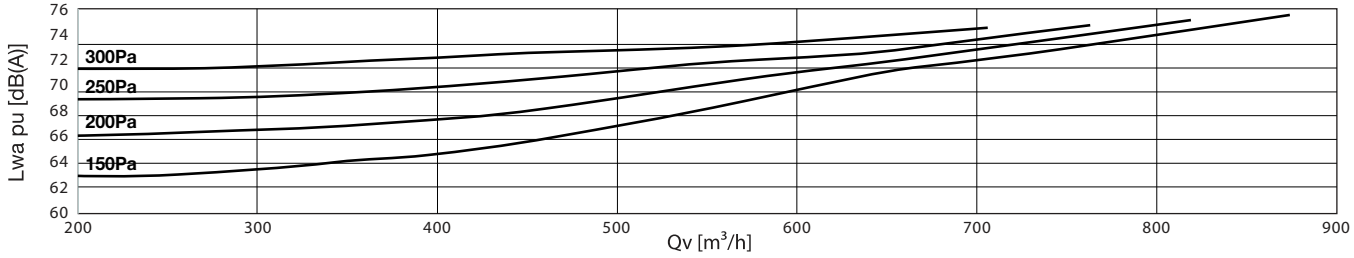
Selection curves

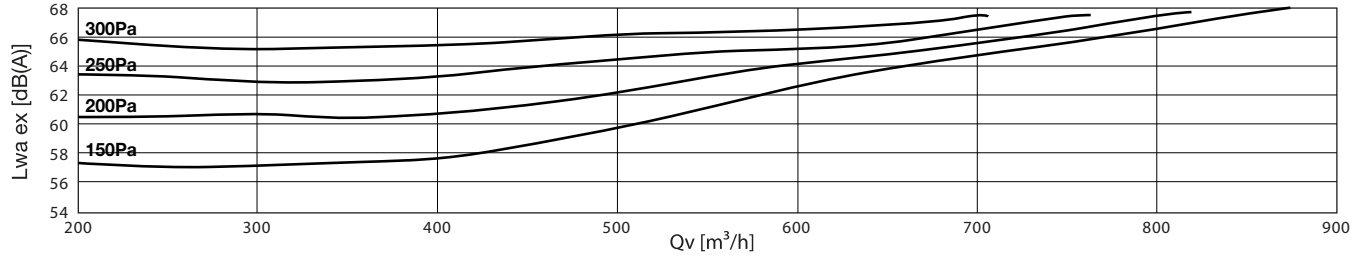
GTDHR(V) 9008

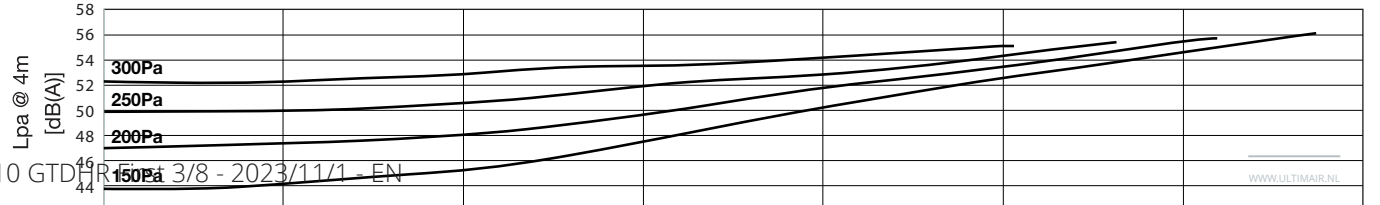






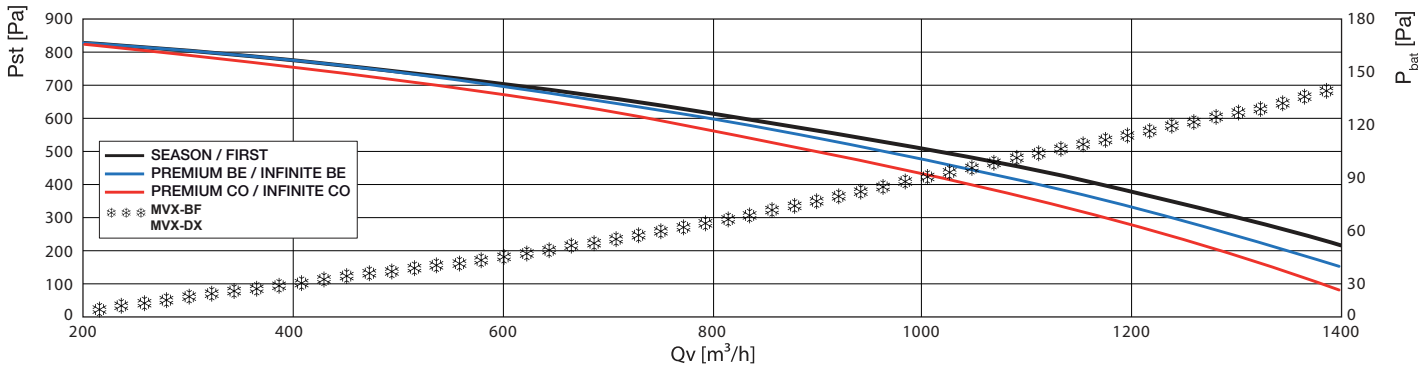


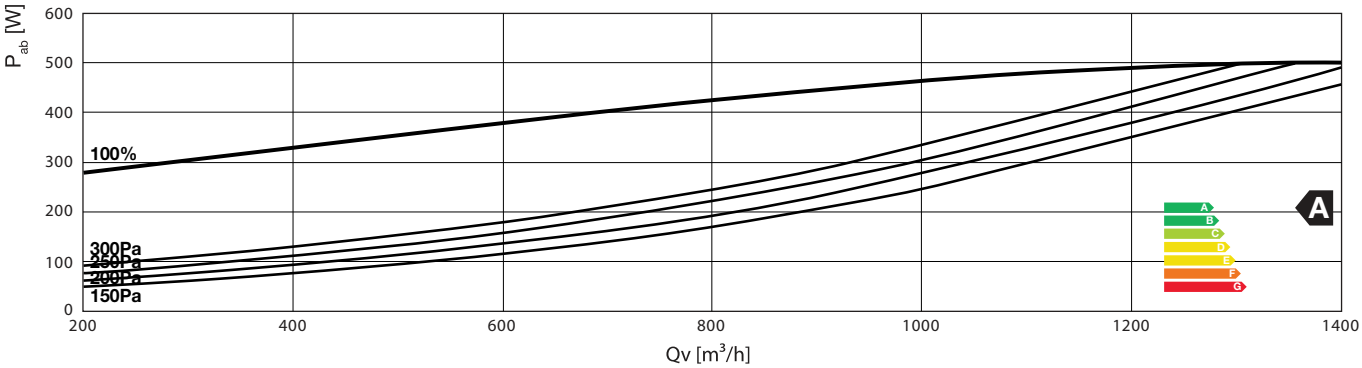


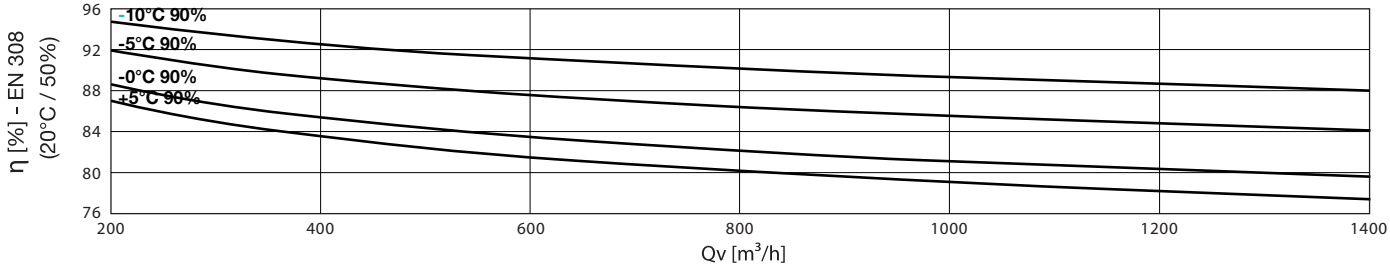


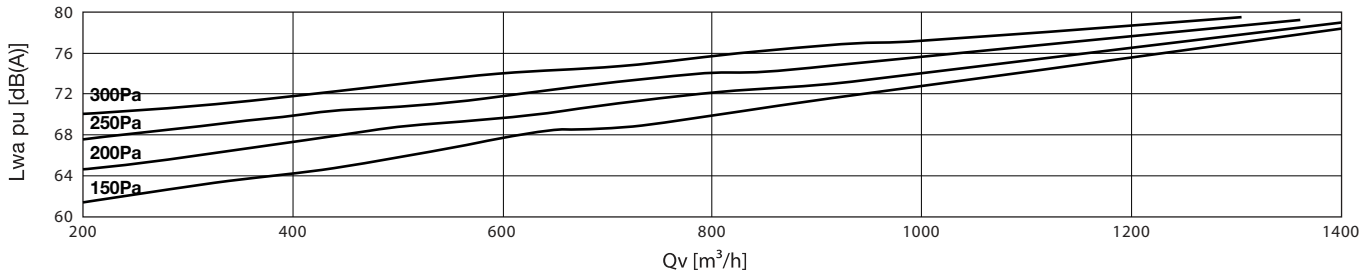
Selection curves

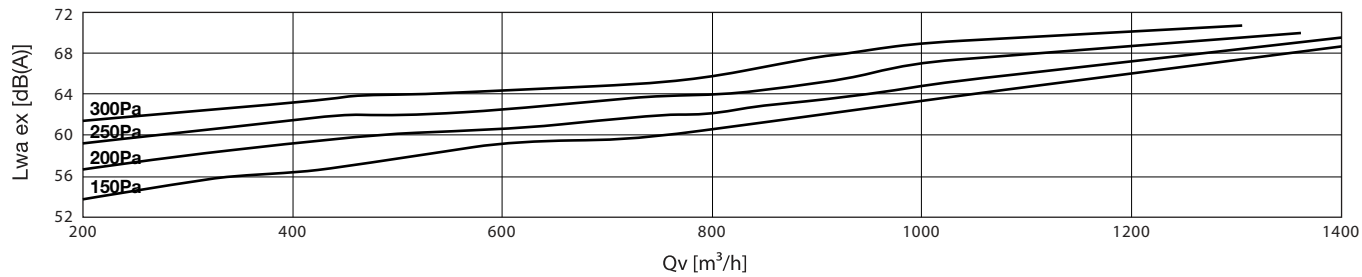
GTDHR(V) 9010

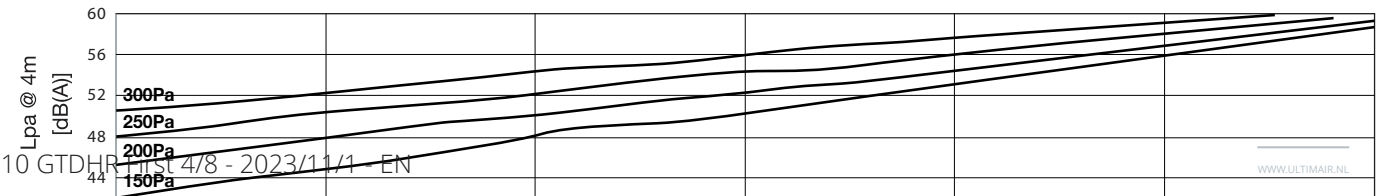






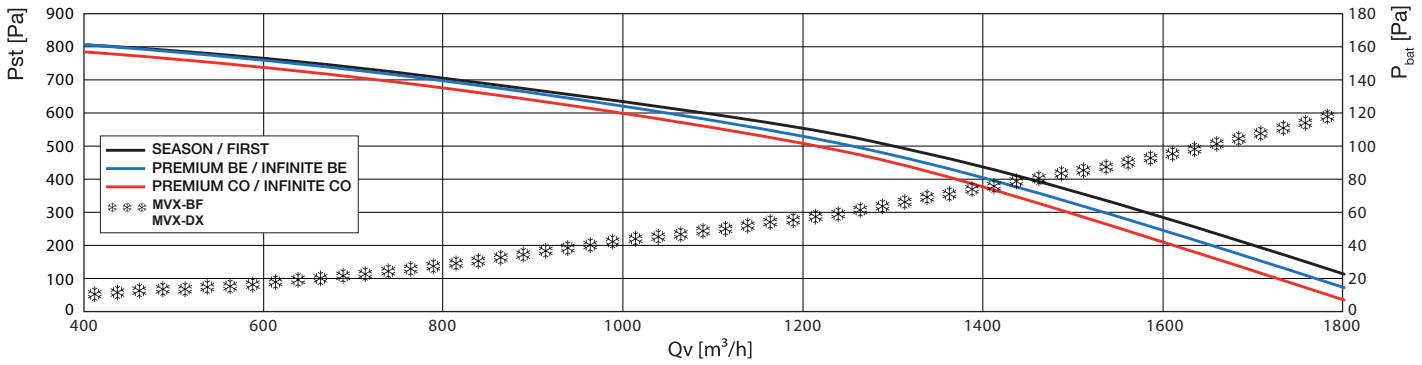


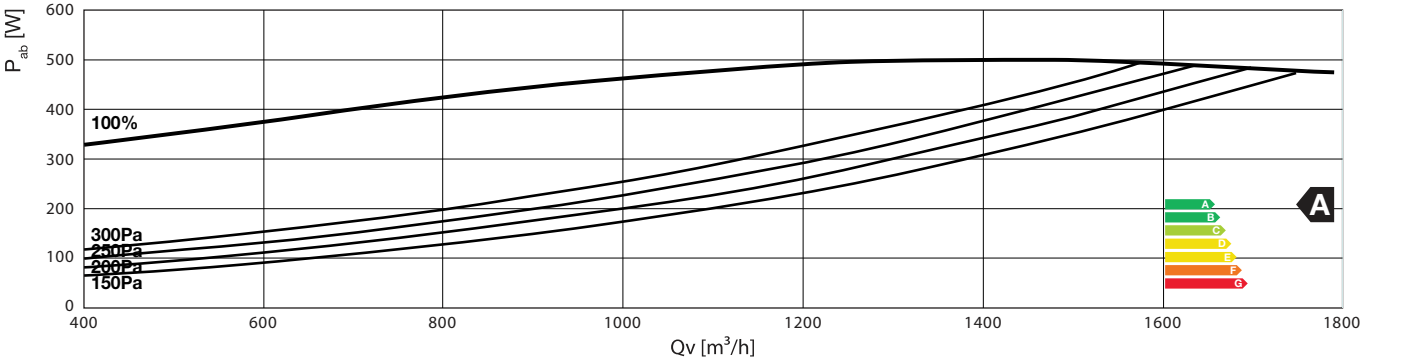


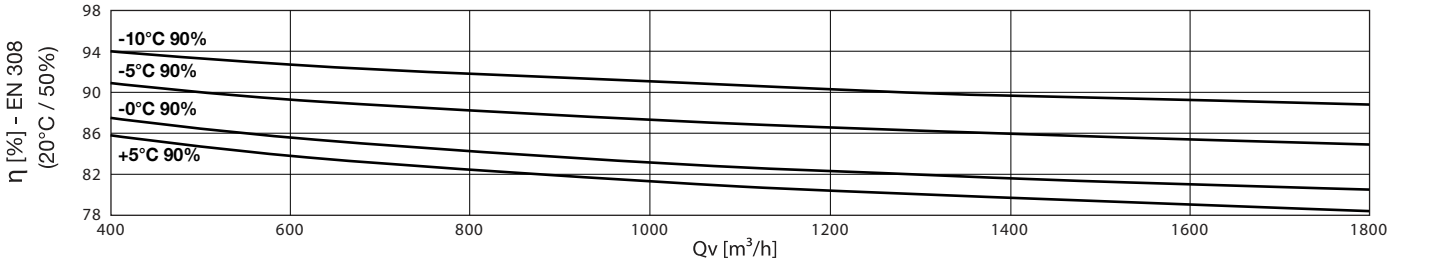


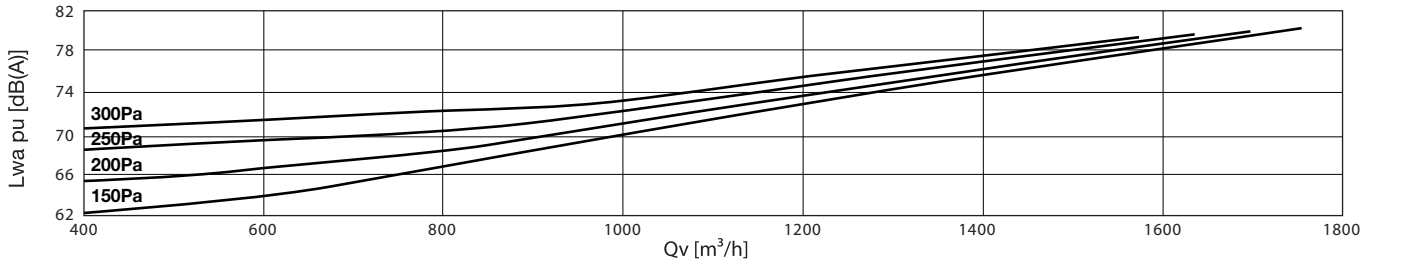
Selection curves

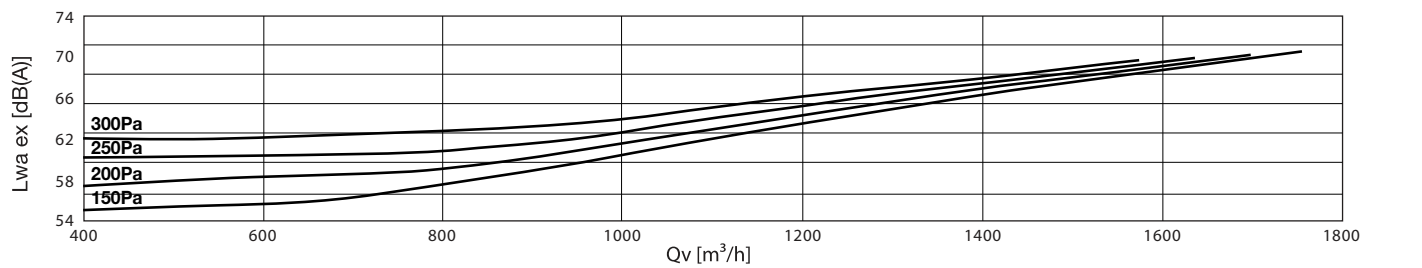
GTDHR(V) 9016

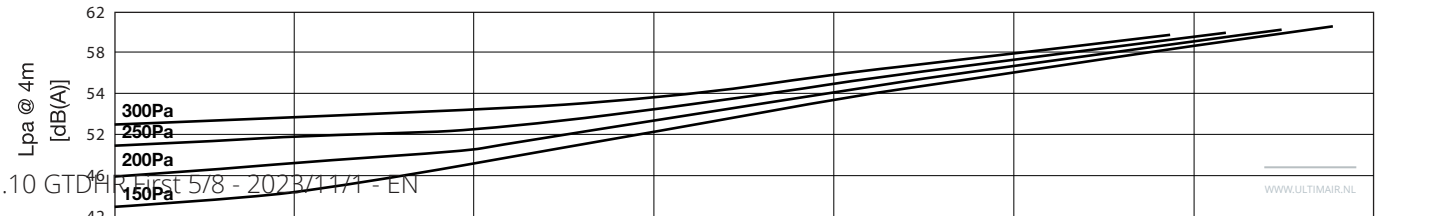






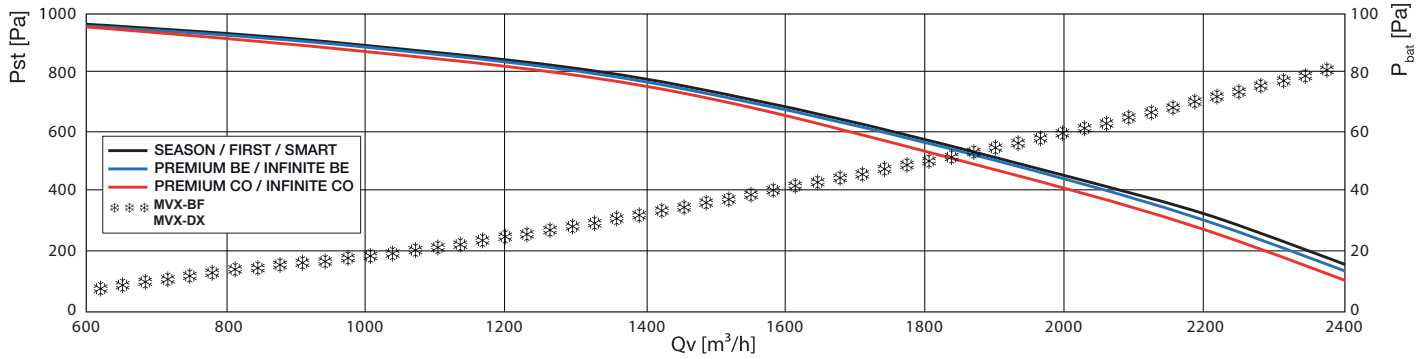


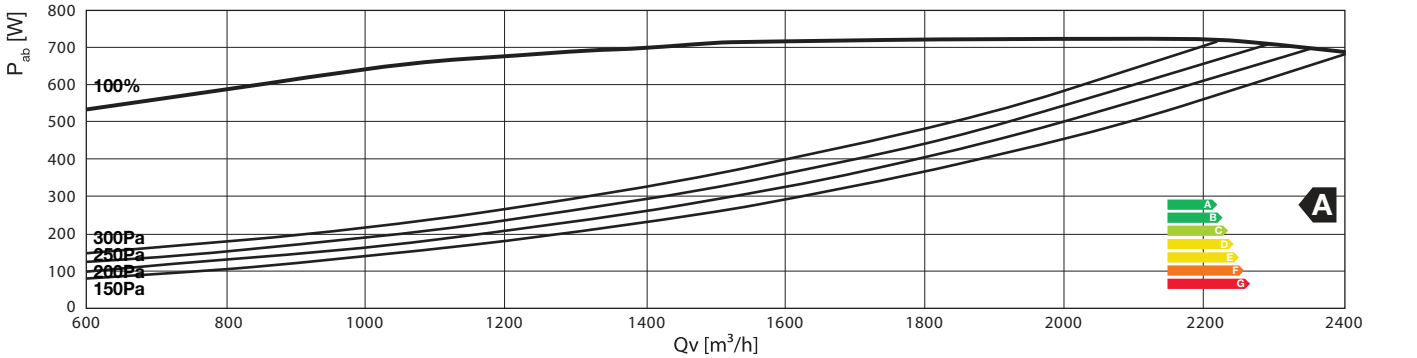


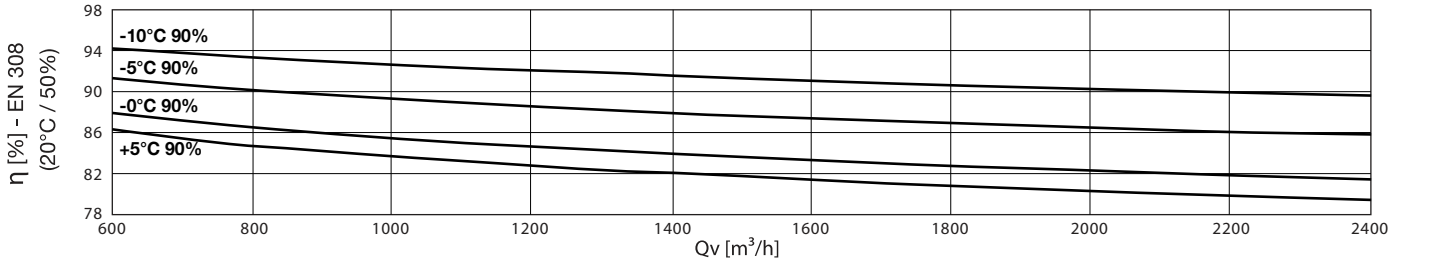


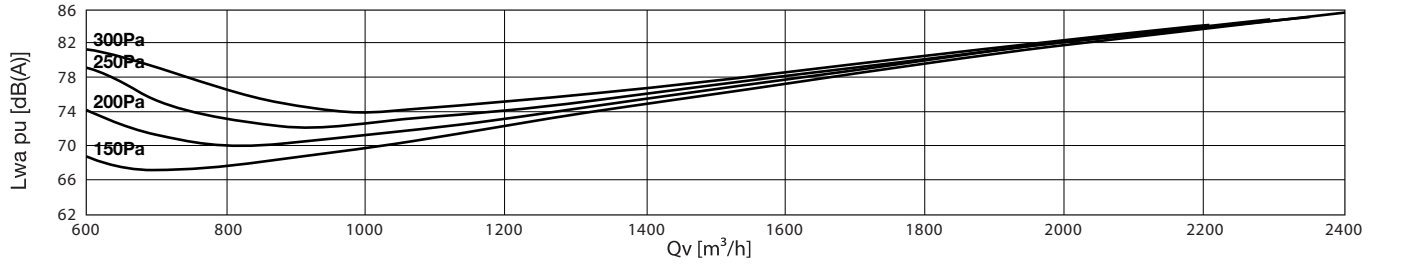
Selection curves

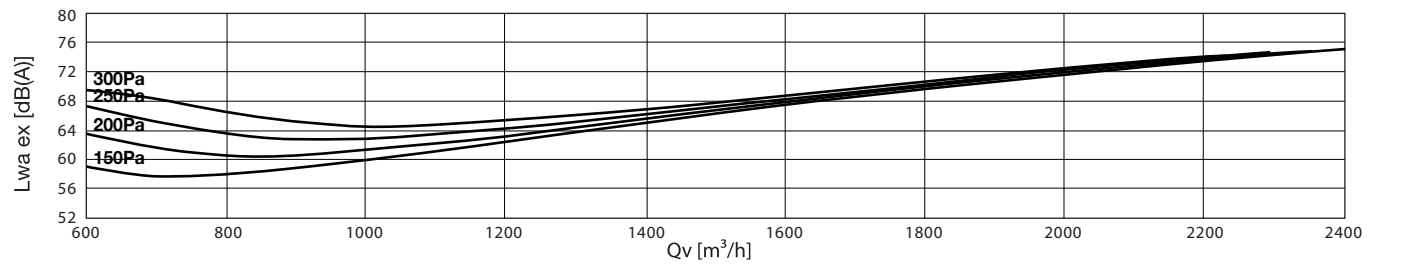
GTDHR(V) 9023

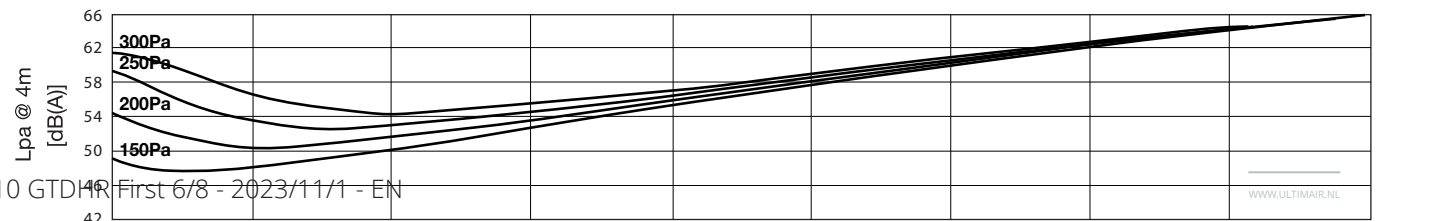






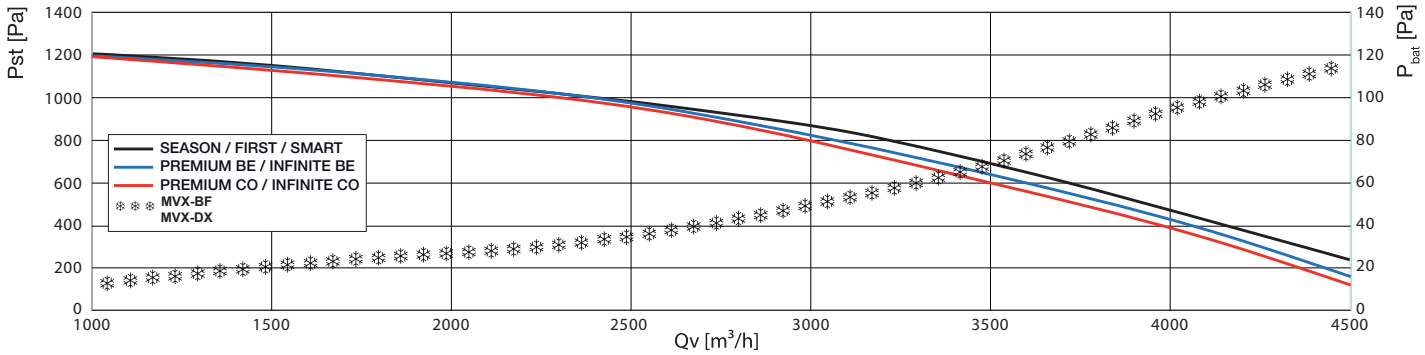


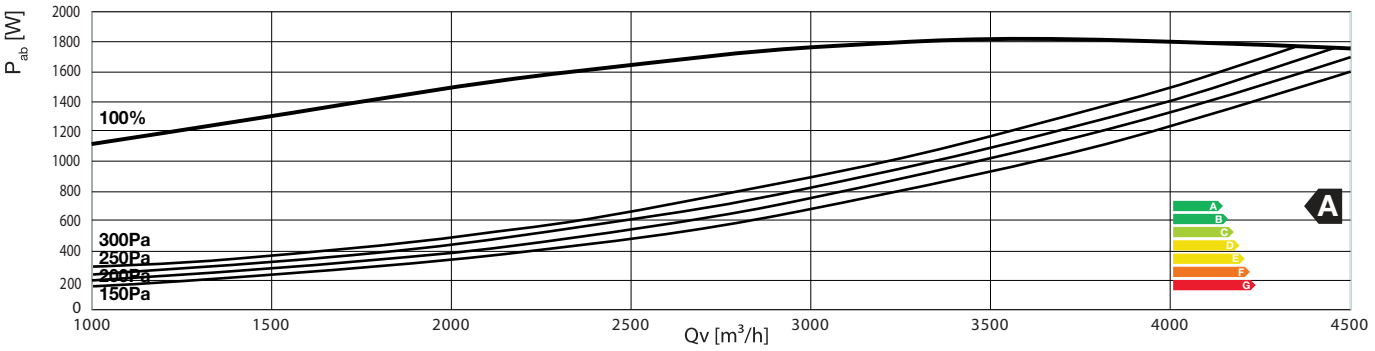


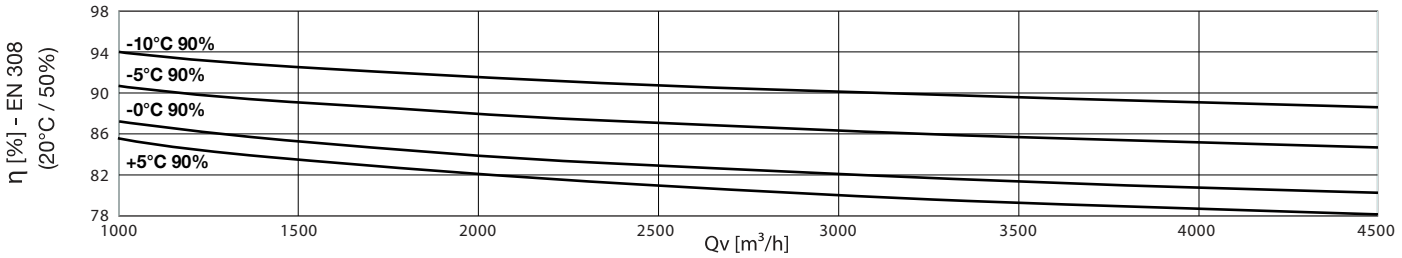


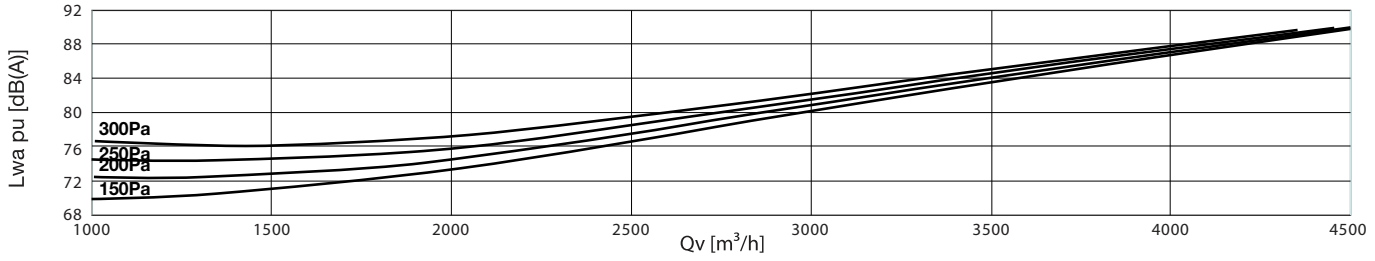
Selection curves

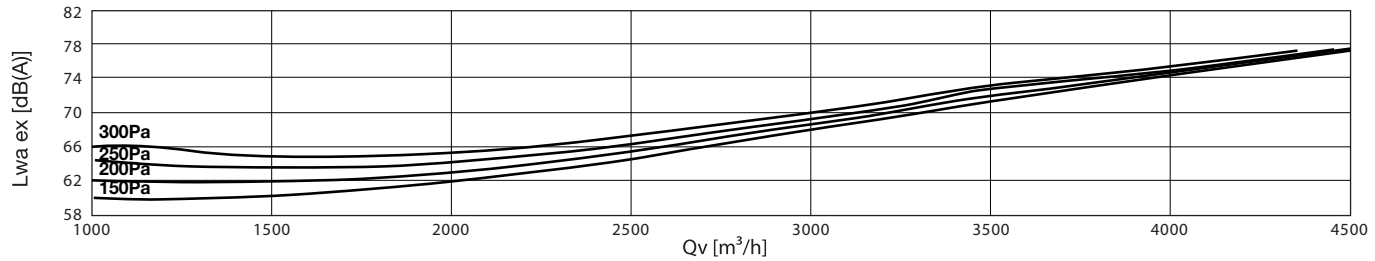
GTDHR(V) 9035

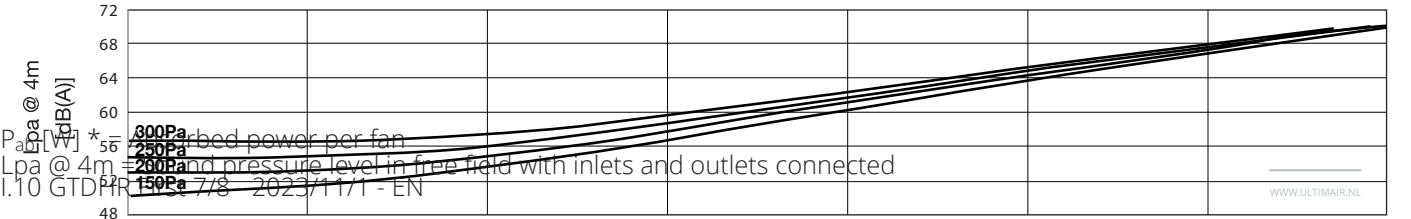












Pa [W] *= absorbed power per fan
Lpa @ 4m = sound pressure level in free field with inlets and outlets connected

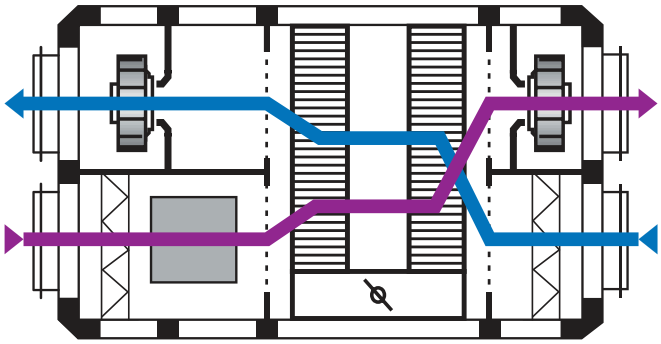
Technical data									
	Qv,max [m³/h]	Ps,max @ Qv,max [Pa]	U [V]	P [W]	Imax [A]	tm [°C]	to [°C]	IP	Lpa @ 4m [dB(A)]
GTDHR 9008	800*	250*	1 x 230	2 x 220	3.40	60	-20	IP44	32
GTDHR 9010	980*	500*	1 x 230	2 x 485	6.20	60	-20	IP54	37
GTDHR 9016	1550*	400*	1 x 230	2 x 505	7.80	40	-20	IP54	39
GTDHR 9023	2300*	350*	1 x 230	2 x 900	7.80	40	-20	IP54	43
GTDHR 9035	3500*	700*	3 x 400	2 x 2500	8	40	-20	IP54	44

*Fancurve is adjustable by means of the integrated regulation.
t_m = maximum air temperature
t_o = minimum operating temperature
Lpa @ 4m = Sound pressure level at 4m

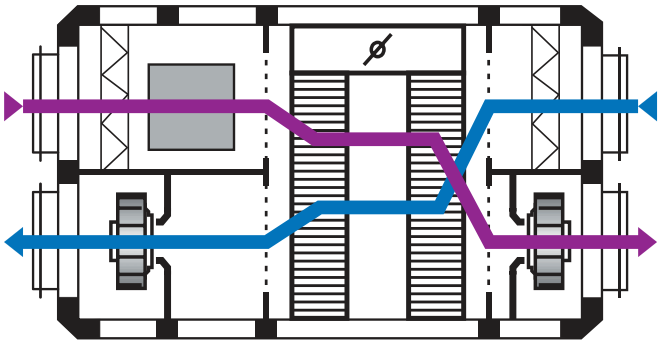
Horizontal configurations - side by side flow - top view

■ GTDHR 9008 - 9035

L



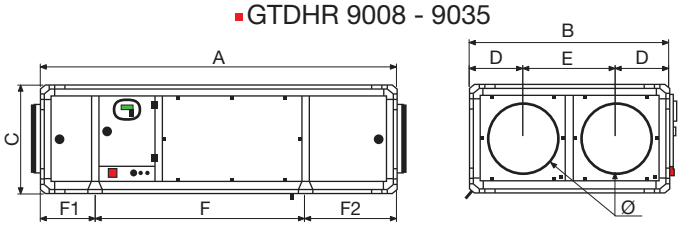
P



Blue arrow: Fresh air
Purple arrow: Return air

Product drawing horizontal configuration

■ GTDHR 9008 - 9035



Dimensions													
	Ø [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	F1 [mm]	F2 [mm]	G [mm]	J [mm]	K [mm]	Kg
GTDHR First 9008	315	1915	915	505	255	405	1097	362	456	465	245	540	215
GTDHR First 9010	315	1915	915	505	255	405	1097	362	456	465	245	540	215
GTDHR First 9016	400	2230	1115	605	305	505	1261	362	607	565	345	690	310
GTDHR First 9023	450	2345	1315	705	355	605	1376	362	607	565	445	690	400
GTDHR First 9035	500	2625	1515	805	405	705	1520	450	655	640	545	740	550

Attention

- The GTDHR 9048 and 9070 only exist in vertical configuration