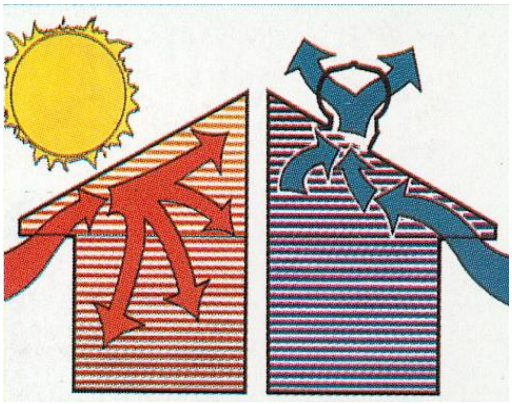
# The main benefits of Lomanco ventilation turbines

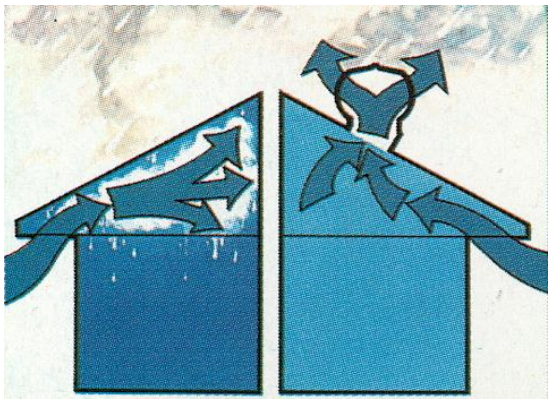
Lomanco ventilation turbines effectively ventilate roofs, ventilation shafts within tower blocks, attics, stores, production plants, agricultural buildings, cellars and other spaces. The turbines ensure proper ventilation throughout the year and they remove unwanted moisture from the roof deck and significantly extend its life.

---

## Why to ventilate with Lomanco turbines?

| Summer | Winter |
|---|---|
| Reduces temperature and prevents overheating of the loft or attic space | Constantly ventilates the roof |
| Permanent air exchange reduces activity of wood pests | Reduces the formation of condensate and the subsequent formation of mold and wood-destroying fungi |
| Reduces operating cost of air-conditioning | Reduces leakage of condensate into the wall and plaster backsliding |
| Extends the life of your roof and roof construction | |





## Roof ventilation

Each roof requires proper ventilation. Moisture resulting from adverse weather conditions must not stay in the roofing system to settle and condense. The turbines ensure an active, continuous and permanent ventilation. Especially metal roofs suffer from condensation. And then Lomanco ventilation turbines are the solution.

### • Permanent ventilation of the roof structure

Installation of Lomanco turbines ensures proper ventilation throughout the year. The turbines remove unwanted moisture from the roof structure and significantly extend its life.

### • Reduce energy bills

The turbines reduce your energy bills as they are operated by the cheapest energy source – the wind. In the case that the building is air-conditioned, the turbines exhaust the most of the overheated air and they reduce energy load of the air conditioning. Lomanco also offers network-independent solution for locations with no electricity access, and those thinking green – solar powered Energo Eko turbine.

### • Ensure regular exchange of air

Turbines continuously ventilate interiors, manufacturing and storage facilities, factories and agricultural buildings e.g. cowsheds, stables etc. Regular air exchange is essential for life.

| Recommended frequency of air exchange in interiors | |
|---|---|
| Living rooms, offices | 2 - 3 x per hour |
| Storage halls | 2 - 10 x per hour |
| Medium-duty industrial operations | 8 - 10 x per hour |

---

## Ventilation of apartment houses

Ventilation turbines Lomanco serve for ventilation of shafts, which completely ventilate bathrooms, WC, kitchen extractors etc. in apartment houses, blocks of flats and other large buildings.
Ventilation turbines Lomanco substitute electrical ventilator, which is noisy and often out of order. We recommend to combine Lomanco turbines and small axial ventilators. To regulate the ventilation it is appropriate to use gratings that allow you to close or open individual room outputs. We only recommend the most powerfull **ventilation turbines Lomanco type BIB 14 and Lomanco TIB 14!** All the other types do not achieve the required parameters and do not fulfill the requirements for ventilation!

- Lomanco turbines substitute electric ventilators – a low acquisition costs and zero operating costs secure high savings
- Use of Lomanco turbines ensures genuine draft in the shaft and it prevents blending the odours from individual apartments.
- Savings for operating costs returns the purchase price approximately in one year

## Why to use Lomanco turbines instead of central electric ventilator

Each apartment house must have a quality solution for ventilation of bathrooms, lavatories and kitchens. Ventilation is solved by ventilation shaft. Existing system usually installed in apartment houses uses for the ventilation a central electric ventilator which is controlled from individual apartments. Vent switched on in one apartment launches a forced ventilation in all apartments connected to the ventilation shaft. Activation of the central ventilator is noisy and resonates to all floors. Other disadvantage is fact that the electric ventilator can be switched on at any day or night hour. Another major weakness are frequent failures and need for maintenance.

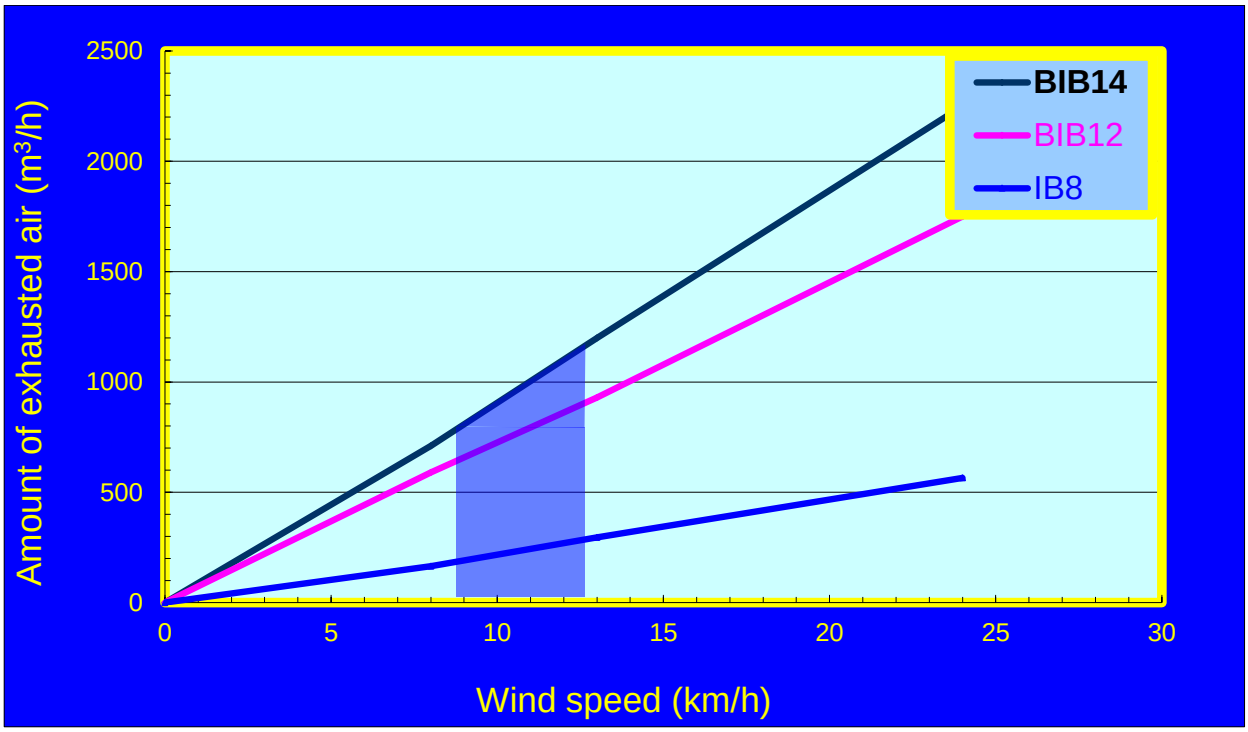
## Substitution of existing ventilation system by ventilation turbines Lomanco

Ventilation turbines Lomanco work without motor drive and fully use green energy, energy of the air. During the ventilation of the shafts the turbines use natural air flow, when the temperature of outside air is lower than temperature of interior. Lomanco turbines ensure smooth draft into the shafts, preventing reverse draft and mixing of odours from individual apartments.

## Operating cocts

Maintenance-free ventilation turbines Lomanco do need no electricity. In the case that individual ventilators are used, the turbines save up to 90 % costs compared to full electric powered systems.

## Lomanco effeciency chart



# Technical design of LOMANCO ventilation turbines

## Lomanco construction

- All-aluminium rust-free construction
- Rigid spider-type structure
- Riveted at every connection
- Permanently lubricated upper and lower ball bearings ensure long life and no maintenance
- Tested to withstand winds of 110 mph
- Exclusive vari-pitch base adjusts to 0° - 45° roof pitch
- 21 air-foil curved vanes with rolled vane edges to deflect water
- Lifetime warranty

## Lomanco bearings

Only the finest quality bearings are used in the Lomanco® Whirlybird® turbine ventilators. Other turbines may skimp on bearing quality, but at Lomanco, we know that **bearings are the heart of the turbine**. If they're out of round, poorly sealed or made with inferior materials, they simply won't last or run as quietly as the Whirlybird turbine. Compare and you'll see the difference. You'll see why Lomanco lasts forever. Guaranteed!

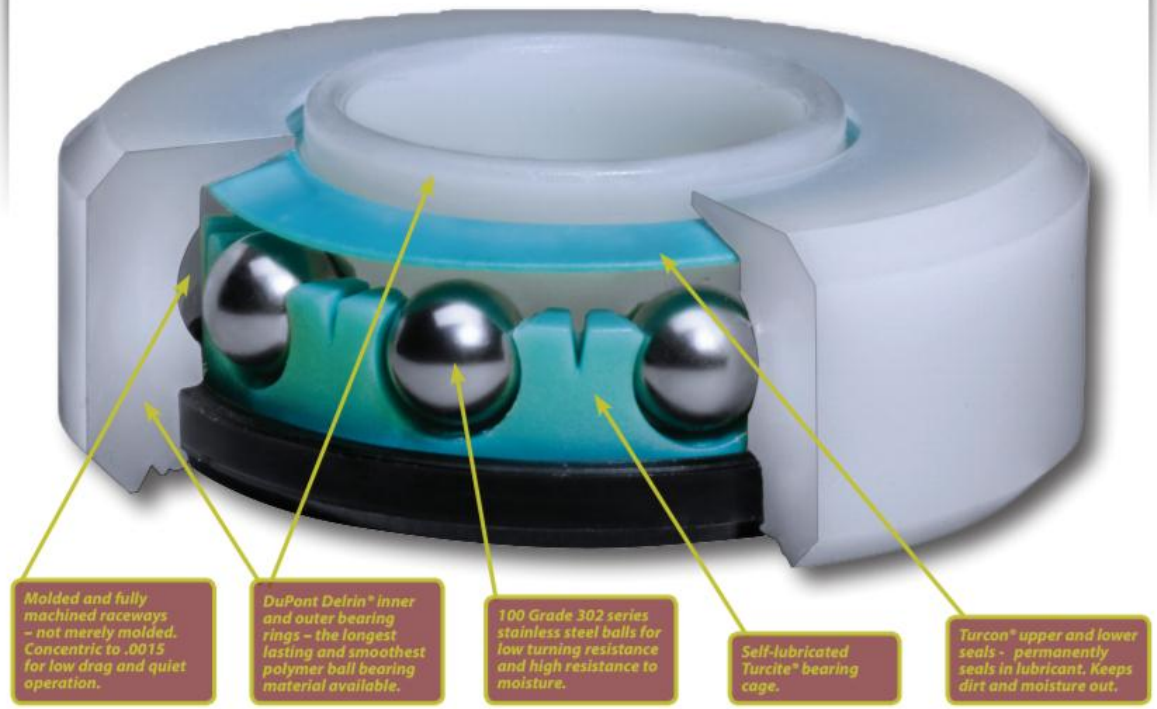
- Molded and fully machined raceways – not merely molded. Concentric to .0015 for low drag and quiet operation
- DuPont Delrin® teflon coated inner and outer bearing ring – the longest lasting and smoothest polymer ball bearing material available
- 100 Grade 302 series stainless steel balls for low turning resistance and high resistance to moisture
- Self-lubricated Turcite® bearing cage
- Turcon® upper and lower seals - permanently seals lubricant. Keeps dirt and moisture out
- Ultrasonically welded and sealed bearing cap

LOMANCO VENTS Turbine Bearings

# The Bare Facts

Only the finest quality American-made bearings are used in the **Lomanco® Whirlybird®** turbine ventilator. Other turbines may skimp on bearing quality, but at Lomanco, we know that bearings are the heart of the turbine. If they're out of round, poorly sealed or made with inferior materials, they simply won't last or run as quietly as the **Whirlybird** turbine.

Compare and you'll see the difference. You'll see why Lomanco lasts forever. Guaranteed.




**Compare Lomanco Bearing Quality**

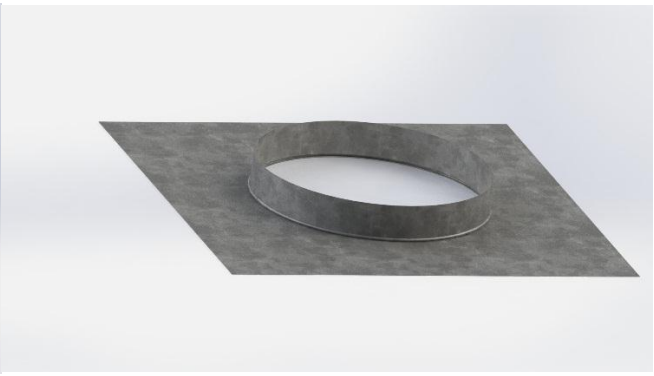
| *Design Feature* | *Lomanco* | *Competitors* |
|---|---|---|
| Delrin® bearing rings | Yes | No |
| Made completely in the USA | Yes | No |
| 100 Grade 302 series stainless balls | Yes | No |
| Concentric to .0015 | Yes | No |
| Fully machined raceways | Yes | No |
| Turcon® seals | Yes | No |
| Self-lubricated Turcite® bearing cage | Yes | No |

The unique teflon DuPont bearing ring ensures high resistance to large temperature differences. The upper and lower bearings are completely closed and permanently lubricated that ensure **long life and no maintenance.** Thanks to the housing the bearing is also silenced, which is unique within this category of ventilation products.

## Bases

Bases are used for easy installation of Lomanco turbines into the most common roofing

- standard aluminium base is a part of each BIB/BEB turbine set
- universal bases are suitable for profiled metal roofs or tiled roofs
- bases for extension parts and splitter are available for all diameters in galvanized version


## Turbine neck

Neck is adjustable according to the roof pitch

- type Lomanco GT12, IB8+VP8 – suitable roof pitch 0° - 27°
- type Lomanco BIB – suitable roof pitch: 0° - 45°


# Model series

| BIB | TIB | GT 12 | IB 8 + VP 8 |
|---|---|---|---|
|  |  |  |  |

## Colour versions:

- basic - aluminium
- brown
- brick red (12" only)
- black
- white
- khaki (14" only)

## Lomanco model series specification

| Type marking/diameter | Color | Cat. No. | Version |
|---|---|---|---|
| **BIB 12 (12"-305 mm)** | aluminium | 1,00 | complet |
| **BIB 12 c (12"-305 mm)** | brown | 1,01 | complet |
| | brick red | 1,04 | complet |
| | black | 1,02 | complet |
| | white | 1,03 | complet |
| **BIB 14 (14"-356 mm)** | aluminium | 1,10 | complet |
| **BIB 14 c (14"-356 mm)** | brown | 1,11 | complet |
| | black | 1,12 | complet |
| | white | 1,13 | complet |
| | khaki | 1,09 | complet |

| | | | |
|---|---|---|---|
| **TIB 12 (12"-305 mm)** | aluminium | 1,05 | rotary head |
| **TIB 12 c (12"-305 mm)** | brown | 1,06 | rotary head |
| | black | 1,07 | rotary head |
| | white | 1,08 | rotary head |
| **TIB 14 (14"-356 mm)** | aluminium | 1,14 | rotary head |
| **TIB 14 c (14"-356 mm)** | brown | 1,15 | rotary head |
| | black | 1,16 | rotary head |
| | white | 1,17 | rotary head |
| **GT 12 (12"-305 mm)** | galvanized steel | 1,21 | complet |
| **BEB 14** | aluminium | 1,71 | complet<br>reinforced construction |
| **IB 8 (8"-203 mm)** | aluminium | 1,19 | rotary head |
| **VP 8 (8"-203 mm)** | aluminium | 1,20 | adjustable neck and base for IB 8 |

- marking TIB and IB8 is used for separate rotary head
- marking BIB is used for complete products (head, adjustable neck and base for non-profile roofing)
- marking VP8 is used for adjustable neck and square base for separate rotary head IB8

complet = head + adjustable neck + base

In the case of extreme weather conditions as permanent extremely strong wind or gusty winds it is possible to use very durable, externally braced **Lomanco turbine BEB 14**, tested to withstand winds of 150 m.p.h. (240 km/h). Ordinary Lomanco turbines BIB 14 are certified for the wind speed of 121 mph (195 km/h).

## Calculating the ventilation of interiors using LOMANCO turbines (m3/h)

| Type/wind speed | 8 km/h | 13 km/h | 24 km/h |
|---|---|---|---|
| **BIB 12** | 590 m3/h | 930 m3/h | 1750 m3/h |
| **BIB 14** | 710 m3/h | 1200 m3/h | 2250 m3/h |
| **GT 12** | 590 m3/h | 930 m3/h | 1750 m3/h |
| **IB 8** | 165 m3/h | 295 m3/h | 565 m3/h |
| **TIB 12** | 590 m3/h | 930 m3/h | 1750 m3/h |
| **TIB 14** | 710 m3/h | 1200 m3/h | 2250 m3/h |

## Calculating the ventilation of roof structure (number of units)

| Ventilated area | IB 8 | BIB 12 | BIB 14 |
|---|---|---|---|
| **0-90 m2** | 3 | 2 | 2 |
| **90-140 m2** | 6 | 2 | 2 |
| **140-185 m2** | 9 | 3 | 2 |
| **185-230 m2** | 12 | 4 | 3 |
| **230-275 m2** | 12 | 4 | 3 |

## Calculating the sufficient size of fresh air intakes (cm2/pc)

| Ventilated area | IB 8 | BIB 12 | BIB 14 |
|---|---|---|---|
| **0-90 m2** | 1006 | 1508 | 1508 |
| **90-140 m2** | 782 | 2346 | 2346 |
| **140-185 m2** | 689 | 2067 | 3100 |
| **185-230 m2** | 642 | 1972 | 2570 |
| **230-275 m2** | 768 | 2305 | 3072 |

# Accessories for Lomanco turbines

## Extension parts

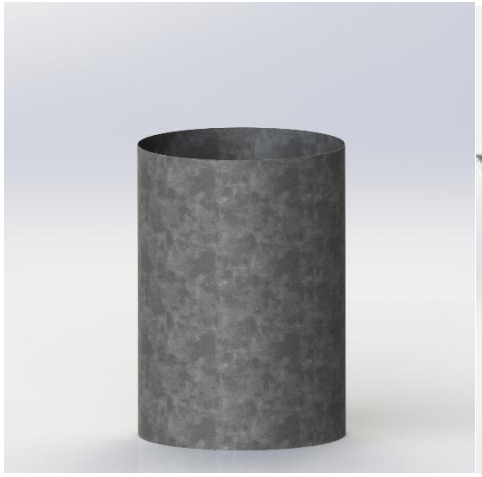
Extension parts are used for placing Lomanco ventilation turbines above the ridge of the roof. Extension parts are delivered in lengths of 50 cm and 100 cm for all diameters. The parts are supplied in galvanized version.

| Matching turbine | Length | Model series | Cat. No. |
|---|---|---|---|
| **IB 8** | 50 cm | P 8-50 | 1,75 |
| | 100 cm | P 8-100 | 1,76 |
| **BIB 12, TIB 12, GT 12** | 50 cm | P 12-50 | 1,77 |
| | 100 cm | P 12-100 | 1,78 |
| **BIB 14, TIB 14** | 50 cm | P 14-50 | 1,79 |
| | 100 cm | P 14-100 | 1,80 |

## Bases for entension parts and splitters

Bases are used for installation of extension parts and splitters into flat roofs. Bases are not profiled and they include fixed collar. They can also be used as a base for turbine heads Lomanco TIB / IB. Bases are not designed for pitched roofs and profiled roofing.

| Matching extension | Model series | Cat. No. |
|---|---|---|
| **P 8-50/100** | Base P 8 | 1,81 |
| **P 12-50/100** | Base P 12 | 1,82 |
| **P 14-50/100 + splitter** | Base P 14 | 1,83 |

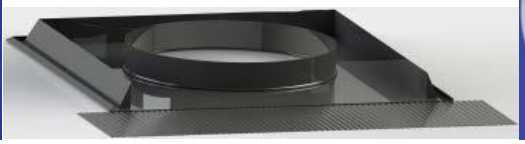


# Accessories for Lomanco turbines

## Universal base

Universals bases allow easy installation of Lomanco turbines directly into the most common roofings, especially clay tiled and profiled metal roofings.

| Matching turbine | Color | Cat. No. |
|---|---|---|
| **BIB 12** | brick red | 1,60 |
| | dark brown | 1,61 |
| | black | 1,62 |
| **BIB 14** | brick red | 1,65 |
| | dark brown | 1,66 |
| | black | 1,67 |

## Pipe flashings

Pipe Flashings are used for installation of Lomanco turbines in profiled metal roof coverings. The pipe flashings make sure, that the roof stays waterproofed for many years and they are easy to install even into very complicated roof shapes.

- Dektite DFE Premium flashing
- Edges with a flexible aluminium strip
- The square base fits any prepared hole on most roof profiles
- Absolutely waterproof seal
- A multi-application flashing with a highly durable EPDM cone and base

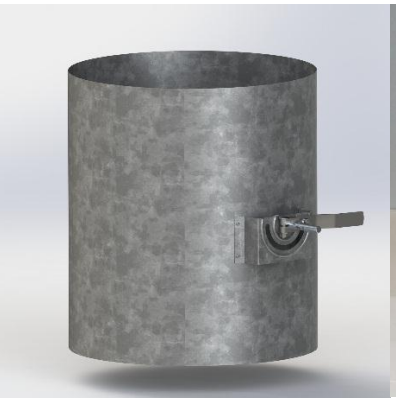
| Matching turbine | Model series | Cat. No. |
|---|---|---|
| **IB 8** | DEKTITE DFE 106B | 1,72 |
| **BIB 12** | DEKTITE DFE 107B | 1,73 |
| **BIB 14** | DEKTITE DFE 109B | 1,74 |

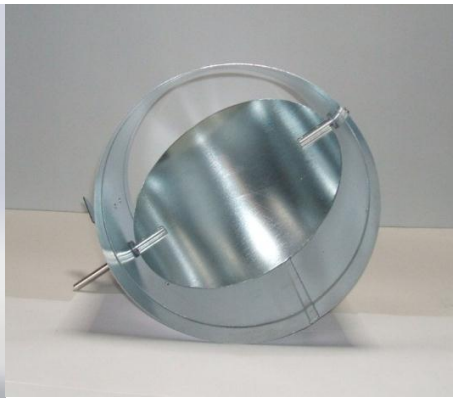
# Accessories for Lomanco turbines

## Regulation flaps

Regulation flaps allow you to control the amount of exhausted air directly below the turbine. This is an indirect control of the turbine, reducing exhausted air. Flaps are supplied either manually or electrically operated for all diameters. Electromechanical flaps have only closed or open position. Electromechanical flaps are not supplied with fitted cabling and switches. The flaps reduce heat losses in heated areas in winter and at the same time they ensure maximum ventilation of hot air in the summer.

| Matching turbine | Model series | Control | Cat. No. |
|---|---|---|---|
| **IB 8** | K 8 | manual | 1,54 |
| **BIB 12, TIB 12** | K 12 | manual | 1,55 |
| **BIB 14, TIB 14** | K 14 | manual | 1,56 |
| **IB 8** | K 8 | electric | 1,38 |
| **BIB 12, TIB 12** | K 12 | electric | 1,39 |
| **BIB 14, TIB 14** | K 14 | electric | 1,40 |





LOMANCO® VENTS

1946 70 2016

70 YEARS OF VENTILATION QUALITY, SERVICE & SUPPORT

# Accessories for Lomanco turbines

## Splitters

Splitters are made for the cases, where is necessary to connect two Lomanco ventilation turbines to one outlet. This case is most likely to occur where there are in one collection chamber placed two ventilation shafts, or where it is necessary to increase the overall performance of continuous ventilation. Splitters are produced in galvanized version for turbines BIB14 and TIB14 only. Splitters must be always anchored.

**Ideal solution for multi-storey buildings (7+ floors)**

| Matching turbine | Model series | Cat. No. |
|---|---|---|
| **BIB 14, TIB 14** | R 14 splitter | 1,43 |