external blind



## **Head rail:**

The head rail is made of steel, it is U-shaped, cold-rolled, galvanized, of size 58x56x0.65 mm, hemmed on both sides, the profile is open downwards. For an extra charge, there is an option of the extruded, raw aluminium head rail of size 57x59x1.4 mm. Front installation or into the ceiling using universal holders.

## **Bottom rail:**

The bottom rail is made of an extruded aluminium profile, of size 92x12.5 mm, silver anodized as standard. For an extra charge, there is an option of a powder RAL colour. Grey or black plastic caps on the sides. The bottom rail, tiltable as standard, is closed with a fitted slat. Optionally, for an extra charge, it can be provided with an integrated locking system which serves as a lock against the lifting of the plate of the slats (this function is effective only in the closed state).

#### **Slats:**

Aluminium slats, cold-rolled, Z-shaped, slightly curved, of high-elastic special alloy, crack, scratch and shock-resistant, surface finish — double-layered baked paint, 91 mm wide, 0.42 mm thick. The slat is provided with stainless steel hooks to hold the ladder. A plastic sealing profile is embedded in the front hem which serves for better fitting of the slats on each other and thus for more perfect darkening. In the basic offer, there are 23 stock slat colours.

## **Guiding of slats:**

# 1. In guide rails (standard):

Guide rails are made of an extruded aluminium profile, silver anodized as standard. For an extra charge, there is an option of a powder RAL colour with black plastic sealing for damping the noise while the blind is running. Guide rails can be mounted laterally into the masonry or using telescopic or fixed brackets. Plastic guiding pins of slats are firmly connected with slats by ultrasonic welding. Guiding pins are in each slat, the pin is always one on the left side and one on the right side, and in the last two slats the pins are placed on both sides. Pins are grey or black.

Types of guide rails:

VL 1 – single guide rail intended for installation into the reveal, 20x18 mm

VL 2 – single guide rail intedned for installation via the bracket, 20x20 mm

VL 3 — double guide rail intended for installation via the bracket, 40x20 mm

VL 4 – single guide rail, round, Ø 41 mm

VL 5 – double guide rail, round, Ø 41 mm

VL 6 – reinforced guide rail 20x40 mm (standard for self-supporting version)

VL 7 — built-in guide rail 18x18.5 mm, collar 35 mm

VL 8 – closed guide rail 84x29 mm

VL 9/66 - closed guide rail 77x24 mm

VL 9/90 - closed guide rail 101x24 mm

VL 9/113 - closed guide rail 125x24 mm

# 2. In wire:

Guide wires are made of stainless steel Ø 3 mm and covered with polyamide (transparent or black). Wires are anchored using holders (plastic or metal) in the head rail, then they are passed through holes in slats, of size 5.9x9.8 mm. In case of the wire guiding, there is a hole cut out in the front hem of the slat with the embedded sealing, and thereby achieving better fitting of the slats on each other and better darkening. Holes in slats are hemmed, thus the protection of the wire against worning out is increased. Wires are tightened using springs placed in the holders in the head rail, and attached in the lower part using tensioning screws located in the wire holders.

# external blind

# **Tape reelers:**

Plastic tape reelers with one-sided tilting (double-sided tilting is an option). The plate of the slats is lowered in the closed state towards the outside. The tilting of slats is continuously adjusted when changing the direction in any position of the blind. The plate is lifted with the slats in the horizontal state (for double-sided tilting — in the closed state inwards). For an extra charge, there is an option of the reeler with open version (ARBS — Arbeitstellung). The slats are lowered in the tilted state (approximately 38°) and when lifted, the slats are tilted by approximately 10° inwards. In the ARBS version, the slats can be tilted only in the lower end position.

#### **Shaft:**

The shaft is made of an extruded aluminium profile of round shape Ø 14 mm with a groove.

#### **Tape**:

The pulling tape of size 8x0.34 mm, with maximum protection against UV radiation, increased resistance to abrasion, shrinkage and weather conditions. The tape has a high breaking strain of up to 900 N, guaranteed thickeness with high precision. The tape can be black or grey. The tape is guided through the holes in slats, of size 9x5 mm. The size of the hole is minimized as much as possible to reduce the passage of solar radiation. For an extra charge, the holes in slats can be equipped with plastic protection to increase the tape resistance to wearing out.

#### Ladder:

Solid terylen-polyester, nonshrinkable, reinforced with aramid fibres, it minimizes undesirable stretching and shrinking of the ladder. The ladder can be grey or black. Slats are attached to the ladder using a stainless steel hook.

## **Operation:**

## 1. Operation by crank:

Lifting and lowering of the plate of slats and its tilting is carried out using a hand crank and maintenance-free conical gearbox with a ratio 2:1 or 3:1 depending on the size of the plate. The bushing with a joint bearing is pulled into the interior using a cardan  $\Box$  6x6 mm, or  $\Box$  8x8 mm. The crank rod is made of an aluminium profile Ø 15.5 mm, with a bending crank and plastic holder, powder painted in white or grey.

#### 2. Operation by motor:

Lifting and lowering of the plate of slats and its tilting is carried out using an electric motor 230 V/AC, 50 Hz, IP 54. Every motor is equipped with the upper and lower end stop and a fuse against overheating or overloading. Connection via Hirschmann 3 cable connector. Motors are controlled by a local switch or remote control.

# **Painting:**

In case of powder RAL painting for an extra charge, products are painted according to the GSB standard.



# Basic colour variants

