

Full Specifications of Dimak Sectional Doors

Sectional doors are modern door systems used in buildings like **factories, warehouses, and garages**. They consist of the following components:

- Door panels,
- Shaft, spring, bearing plates, and drum system,
- Accessories like hinges, bottom bracket assemblies, wheels, and cables,
- Operator system.

General principles of the door system:

- Panels are mounted to each other using **hinges**.
- **Wheels** attached to the hinges guide the panels along **C-shaped rails** fixed to the building.
- The upper shaft system secures the **torsion springs and drum assembly** to the building structure via bearing plates.
- **Torsion springs** are tensioned to balance the weight of the door.
- The counterforce of the door's weight, provided by the torsion springs, is transmitted to the bottom bracket (equipped with a cable break safety device) through cables wound around the drums.
- A motor driving the shaft moves the door panels up and down along the rails, opening and closing the door.
- Depending on the architectural structure of the building, **different mounting systems** are used (NL, HL, VL, LHR).

Panel Specifications of Dimak Sectional Doors

The sectional door panels consist of **painted galvanized steel** on both sides, with **high-density EPS** as the core material.

The panels are **ISO 9001** certified and manufactured by Dimak.

Panels are **540 mm in height** and **60 mm thick** (0.45 mm + 0.45 mm painted steel + 58 mm EPS filling).

The inner and outer steel surfaces are **riveted** to prevent separation.

Fitted with seals at panel joints to prevent **thermal bridging**.

During production, polyurethane adhesive penetrates the EPS filling, ensuring firm adhesion to the metal surfaces and preventing panel swelling.

Exterior and interior surfaces are painted **with primer and finish layers** over galvanized steel.

Panels are resistant to all weather conditions, textured with an **embossed finish**, and weigh approximately **10-11 kg/m²**.

Standard colors include **RAL 9002, RAL 9006, and RAL 7016**, with optional custom colors available at an extra cost.

Hardware Specifications of Dimak Sectional Doors

For doors **wider than 6.5 meters**, profiles are added behind the panels to increase resistance to wind loads.

The type and size of components (**springs, cables, drums**) are determined by Dimak based on door dimensions.

Torsion springs balance the door's weight, making it easy to open and close.

Springs are painted, with a standard lifespan of **15-20 thousand cycles**.

- Made of steel compliant with **EN (DIN) 10270-1-SH standards**, the springs undergo shot blasting and heat treatment processes to enhance durability.
- Optional** spring break safety systems are available.
- Steel cables** used for smooth operation are polypropylene-core reinforced and vary in thickness (3-6 mm) based on door weight.
- Vertical rails are **high-strength** L and C sections.
- Cable break safety systems are **standard**.
- Door rails and brackets are made of 2 mm and 1.8 mm galvanized steel, adapted to different mounting types (**standard, low, high, vertical**).
- Rails** are specially shaped to prevent wheels from coming out.
- Hinges connecting door panels are galvanized.
- Optional **PVC-framed acrylic windows** (640x336 mm) with triple thermal glass are available, providing a thermal transmittance value of 2 W/m²K.
- Optional **pedestrian service doors** (standard 85x190 cm) can be added for doors up to 5 meters wide.
- Doors can be operated **manually or with an electrical operator**. In case of power failure, doors can be operated manually.
- Manual operation may include a chain hoist mechanism, depending on door size.
- An optional **optosensor safety system** is available in the bottom rubber seal to reverse the door if an obstacle is detected.
- Optional **sliding lock systems** can be implemented.

Sealing Specifications of Dimak Sectional Doors

- Special joint sections and integrated 3x30 mm **PDM sponge strips** provide sealing between panels.
- Flexible **rubber external seals** ensure sealing between door panels and the top and side walls.
- A specially hollowed **rubber gasket**, fitted into the bottom panel profile, ensures sealing between the door and the ground.