



## WOHWA Slide Gates Sealed Gates Shut-Off Gates

### Features / Benefits

- Industrial Duty version
- Heavy Duty version
- Motors from 0.9 to 2.2 kW
- Motors and drives easily replaceable
- Bolted wear-resistant lining
- Fully galvanized
- Adjustable PU sealings (Vulkollan®)
- Tight Transfer Chute
- Special water drainage systems





## WOHWA Slide Gates Sealed Gates Shut-Off Gates

### History

Over 60 years ago, the volumetric method for batching and blending freely flowing bulk materials was developed. The precise and energy saving batching and blending method that uses WOHWA slide gates replaced the industrial methods commonly used at that time. Today, more than 40,000 WOHWA discharge gates in combination with more than 2,500 WOHWA blending and weighing systems are used by WOHWA customers all over the world. Many of these systems have been operating reliably for several decades.

### Professionalism

WOHWA Slide Gates have a modular design allowing for a high degree of flexibility, easy maintenance and short delivery times. All necessary components are cut by a laser cutter, welded by a robot, hot-dip galvanized, and can be adapted to individual customer requirements.

- Robust design (Industrial Duty, Heavy Duty)
- Maintenance-free gear motor / bearings
- All bearings lubricated for life
- All parts hot-dip galvanized

### Quality

All WOHWA production and service processes have been certified as per **DIN ISO EN 9001**.

### High vertical integration

All essential components of WOHWA feeding devices are manufactured in-house at our German plant by highly qualified employees using the latest state-of-the-art manufacturing methods (laser cutting, welding robots ...).







### Guaranteed and quick spare parts provisioning

All spare parts for WOHWA feeding devices can quickly and easily be delivered to every customer.

### Continuous development and improvement

All WOHWA discharge devices are continually developed and improved by specially trained and experienced engineers, and adapted to new requirements and applications emerging on the market.

### The principle

The bulk material quantity discharged from a silo per unit of time (discharge capacity in  $m^3/h$  or  $t/h$ ) remains constant with a given opening area, with consistent and pourable bulk material, and with a material column of  $>1.5$  m.

With crushed stone and gravel, the specific discharge capacity is 40 to 60  $t/h$  per  $dm^2$  opening area. This hour-glass principle is the most economical production method for blending multiple aggregate gradings or for direct reclaim.

Belt feeders or batching combinations (slide gate with belt feeder) are the better solution for handling materials that do not flow readily (crushed sand, wet sand) and when small blend proportions of coarse-grained materials are required.

### Modular design

The modular design of all WOHWA slide gates (cut out by laser, welded by a robot, hot-dip galvanized, and bolted) allows to adapt the gate size individually to any outlet. Therefore, all the different WOHWA slide gates and feeding devices can be combined with each other and adapted to any application.

### Drive mechanism

The robust drive rack and all drive components have been carefully selected and matched to provide reliable driving power.

- 0.9 kW motor (Industrial Duty version)
- 2.2 kW motor (Heavy Duty version)
- Robust worm gear box with brake
- Motors and gear boxes easily replaceable

All WOHWA slide gates or sealed gates can be combined with all WOHWA belt feeders and weigh belt feeders.

All slide gate components can be replaced without need to empty the stockpile or silo first. Individual solutions for diverse applications with different slide gate types.





## WOHWA Slide Gates / Slide Gate with Water Drainage Type 01.1. Industrial Duty

Slide gate for freely flowing, coarse-grained bulk materials

### Discharge opening sizes

Width from 200 to 600 mm  
Length from 200 to 700 mm  
In 100-mm steps

### Types of drive mechanism

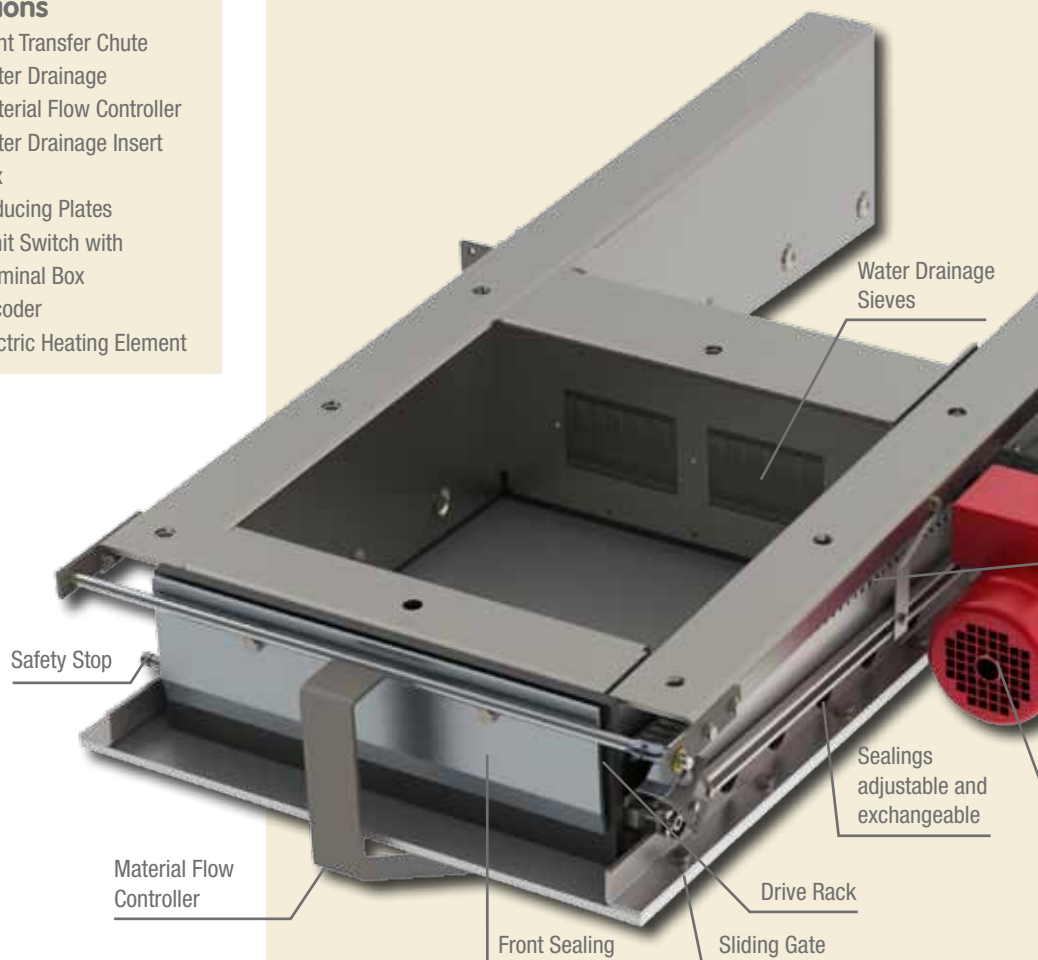
- Worm Gear Drive 0.9 kW, 230/400 V, 50/60 Hz, IP rating: 65
- Opening/Closing speed approx. 100 mm/sec
- Slip-On Crank for manually closing the gate in emergencies (part of the standard scope of supply)
- Pneumatic Cylinder
- Hand Wheel/Slip-On Crank
- Hasp Chain

### Sensors

- Optionally 24 V/220 V/110 V Limit Switch NC/NO/contactless
- Detection of opening width via encoder with 4-20 mA/0-10 V analog output signal

### Options

- Tight Transfer Chute
- Water Drainage
- Material Flow Controller
- Water Drainage Insert Box
- Reducing Plates
- Limit Switch with Terminal Box
- Encoder
- Electric Heating Element



### 1 Tight Transfer Chute

The new “tight transfer box” prevents material from spilling so that the mechanical parts of the discharge gate cannot get soiled. All parts of the discharge gate are freely accessible.

### 2 Reducing Plates

The feed rate can be further reduced with the installation of additional, bolted reducing plates.

### 3 + 7 Limit Switch Rail with Terminal Box

Hermetically sealed and contactless limit switches are used for transmitting the exact

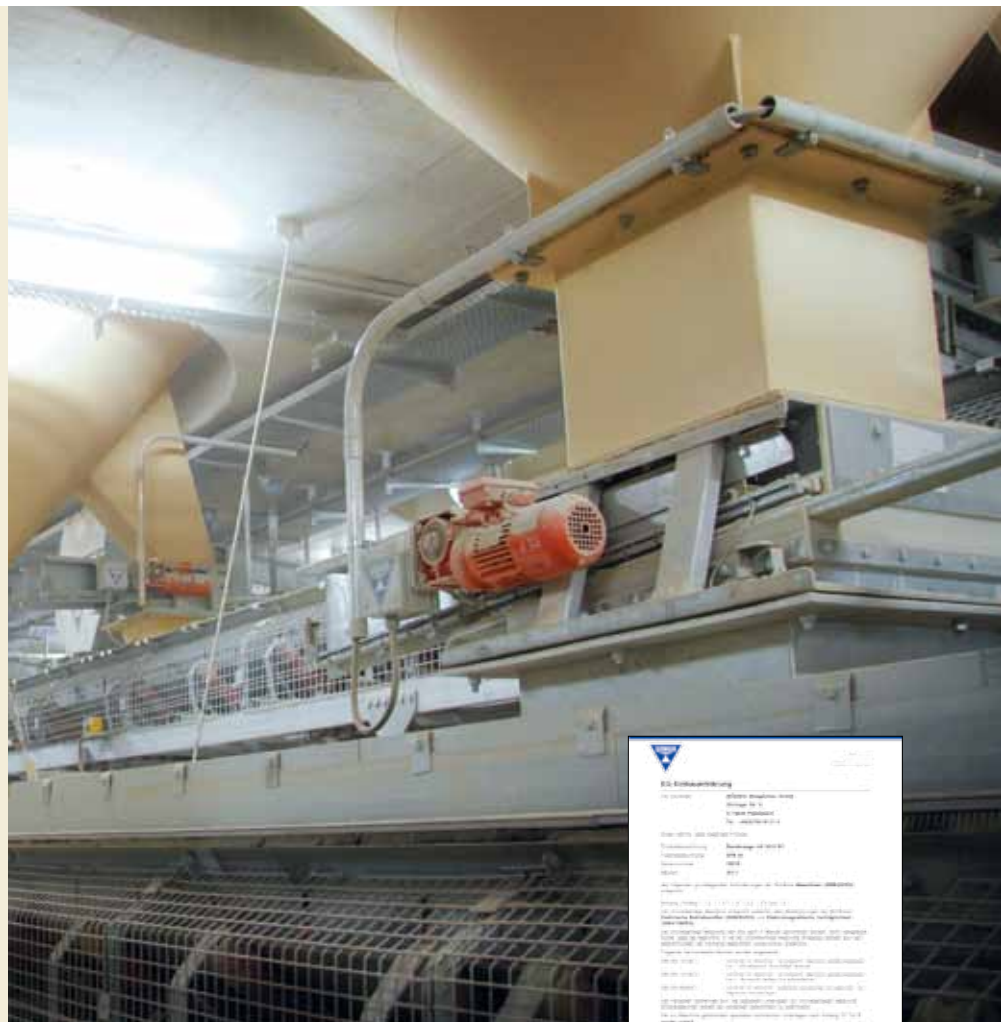
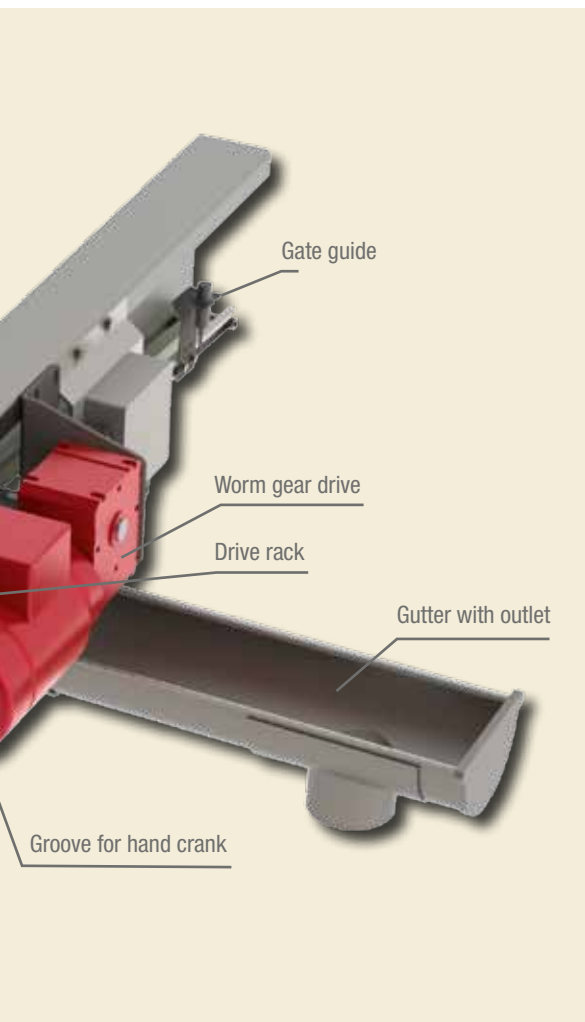
gate position to the control system. The terminal box allows easy on-site connection of the slide gate to the control system.

### 4 Drive Rack

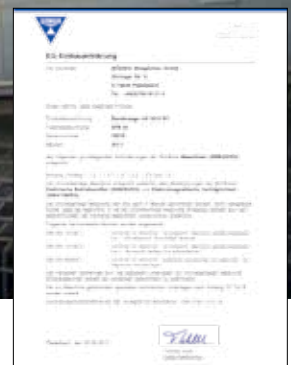
The maintenance-free, self-cleaning and easily exchangeable drive rack guarantees safe closing of the gate.

### 5 Water Drainage Insert Box

The additional insert box with stainless-steel drainage sieves can easily be mounted in the slide gate. It increases and improves the drainage capacity for products with a high residual moisture content, e.g. washed sand.



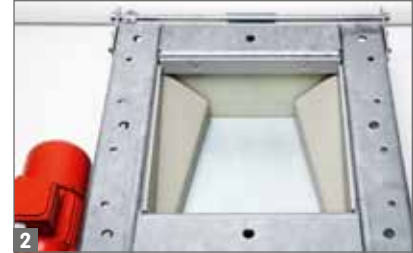
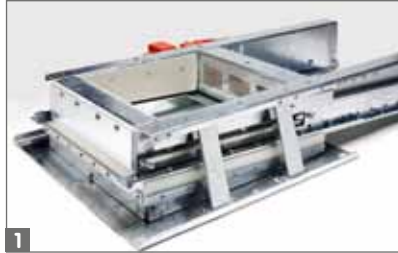
EC Declaration of Incorporation





## 6 Water Drainage

Easily exchangeable stainless-steel drainage sieves (various gap widths available for different bulk materials) allow to drain the area directly above the slide gate when it is closed, avoiding accidental ejection of material during opening.



## 8 Replacement of motor and gear box

The drive unit is mounted on one of the sides (either side possible) and can easily and quickly be replaced.



## 9 Heating Element

An optional heating element mounted directly below the sliding gate heats the gate and the material to guarantee gate opening at low temperatures.



## 10 Positive Closure

During gate closing, coarse particles are pushed into the positive closure (sealed with polyurethane) to guarantee tight closing.



## 11 Wear-Resistant Lining

Bolted and easily replaceable wear-resistant linings guarantee the safe operation of the slide gate (material no. 1.8715, available in 8 or 20 mm thickness).



## 12 Simple system integration

High-resolution encoders can be used to transmit the gate's opening position to the control system as an analog signal 4-20 mA or 0-10 V.



# WOHWA Slide Gates / Slide Gate with Water Drainage Type 01. Heavy Duty

Slide gate for freely flowing, coarse-grained bulk materials

## Discharge opening sizes

Width from 400 to 1.000 mm  
Length from 400 to 1.000 mm  
In 100-mm steps

## Type of drive mechanism

- Worm Gear Drive 2.2 kW, 230/400 V, 50/60 Hz, IP rating: 65
- Opening/Closing speed approx. 100 mm/sec

## Sensors

- Optionally 24 V/220 V/110 V Limit Switch NC/NO/contact-less
- Detection of opening width via encoder with 4-20 mA/0-10 V analog output signal

## Options

- Tight Transfer Chute
- Water Drainage
- Material Flow Controller
- Water Drainage Insert Box
- Reducing Plates
- Limit Switch with Terminal Box
- Encoder
- Electric Heating Element

## 1 Drive Rack

The maintenance-free, dirt-repelling and easily exchangeable drive rack with solid tube-type teeth guarantees safe closing of the gate.

## 2 Wear-Resistant Lining

Bolted and easily replaceable wear-resistant linings guarantee the safe operation of the slide gate (material no. 1.8715, available in 8 or 20 mm thickness).

## 3 Positive Closure

During gate closing, coarse particles are pushed into the positive closure (sealed with polyurethane) to guarantee tight closing.

## 4 Drive Mechanism

A strong helical-bevel-gear motor (2.2 kW) opens and closes the sliding gate safely.

## 5 Tight Transfer Chute

The tight transfer chute prevents dust formation at the point of transfer to the collecting conveyor belt. All limit switches and sealings are accessible via assembly openings.

## Reducing Plates

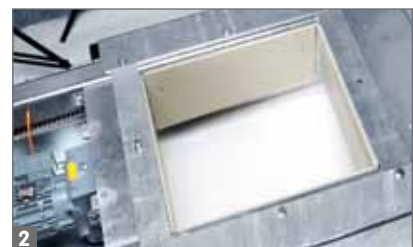
The feed rate can be further reduced with the installation of additional, bolted reducing plates.

## Limit Switch with Terminal Box

Hermetically sealed and contact-less limit switches are used for transmitting the exact gate position to the control system. The terminal box allows easy on-site connection of the slide gate to the control system.

## Water Drainage

Easily exchangeable stainless-steel drainage sieves (various gap widths available for different bulk materials) allow to drain the area directly above the slide gate when it is closed, avoiding accidental ejection of material during opening.





## WOHWA Double-Flange Sealed Gate Type 08. Industrial Duty

Slide gate for freely flowing, fine-grained bulk materials (max. particle size 3 mm).

### Discharge opening sizes

Width from 200 to 500 mm  
Length from 200 to 600 mm  
In 100-mm steps

### Types of drive mechanism

- Worm Gear Drive 0.9 kW, 230/400 V, 50/60 Hz, IP rating: 65
- Opening/Closing speed approx. 100 mm/sec
- Slip-On Crank for closing the gate in emergencies (part of the standard scope of supply)
- Pneumatic cylinder
- Hand Wheel
- Hasp Chain

### Sensors

- Optionally 24 V/220 V/110 V Limit Switch NC/NO/contactless
- Detection of opening width via encoder with 4-20 mA/0-10 V analog output signal

### Options

- Water Drainage Insert Box
- Limit Switch with Terminal Box
- Encoder

### 1 Water Drainage Box

An additional water drainage box, mounted directly above the slide gate 08., allows to drain very fine materials with a high degree of residual moisture content. Stainless-steel drainage sieves (various gap widths available for different bulk materials) are mounted in the drainage box and allow to drain the area directly above the slide gate when it is closed, avoiding accidental ejection of material during opening. For controlled water drainage, the box has outlets to locally provided piping.

### 2+ 4 Sealings

The sliding gate runs in sealings that are adjustable from the exterior and safely tighten the gate.

### 3 Easy replacement of rollers

The rollers on which the gate slides can easily and quickly be replaced from the exterior.

### 5 Emergency shut-off

Slip-On Crank for closing the gate in emergencies.

### 6 Limit Switch with Terminal Box

Hermetically sealed and contactless limit switches are used for transmitting the exact gate position to the control system. The terminal box allows easy on-site connection of the slide gate to the control system.

### 6 Drive Rack

The maintenance-free, self-cleaning and easily exchangeable drive rack guarantees safe closing of the gate.

### 7 Additional drive mechanism

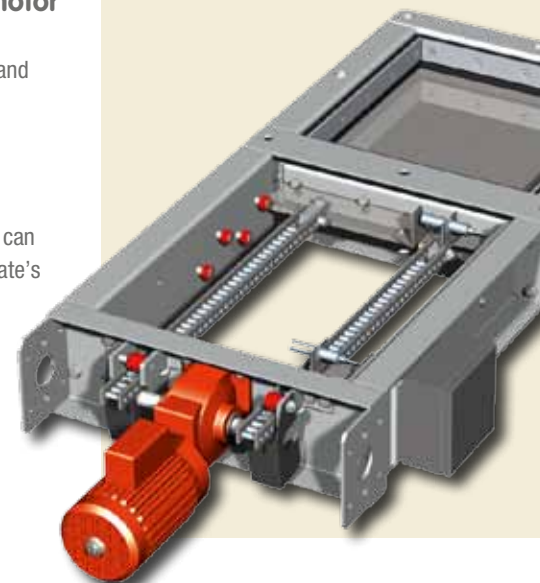
Pneumatic cylinder

### Replacement of motor and gear box

The drive unit can easily and quickly be replaced.

### Simple system integration

High-resolution encoders can be used to transmit the gate's opening position to the control system as an analog signal 4-20 mA or 0-10 V.







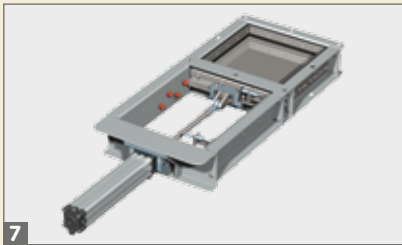
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## Double Flange Sealed Gate Type 03.

Slide gate for fine-grained and dustlike bulk materials (max. particle size 3 mm, not completely dust-tight).

### Discharge opening sizes

Width from 200 to 500 mm  
Length from 200 to 500 mm  
In 100-mm steps

### Types of drive mechanism

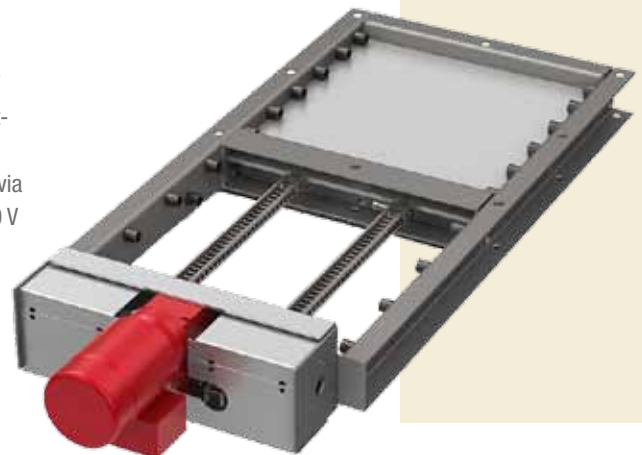
- Worm Gear Drive 0.9 kW, 230/400 V, 50/60 Hz, IP rating: 65
- Opening/Closing speed approx. 100 mm/sec
- Slip-On Crank for closing the gate in emergencies (part of the standard scope of supply)
- Hand Wheel/Slip-On Crank
- Hasp Chain

### Sensors

- Optionally 24 V/220 V/110 V Limit Switch NC/NO/contactless
- Detection of opening width via encoder with 4-20 mA/0-10 V analog output signal

### Options

- Limit Switch with Terminal Box
- Encoder



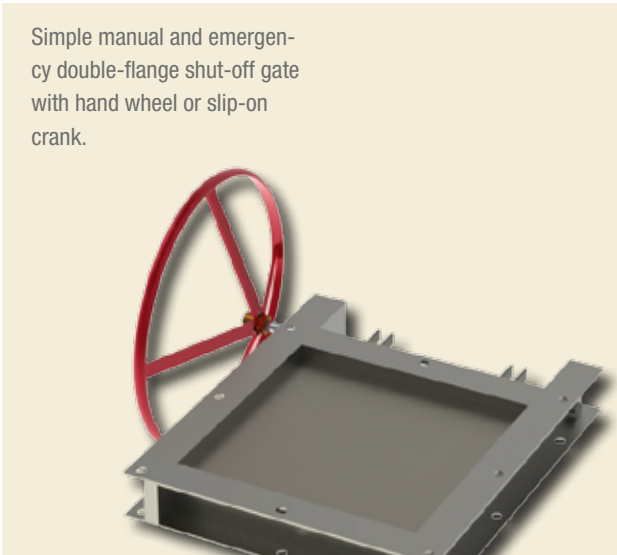


## WOHWA Slide Gates



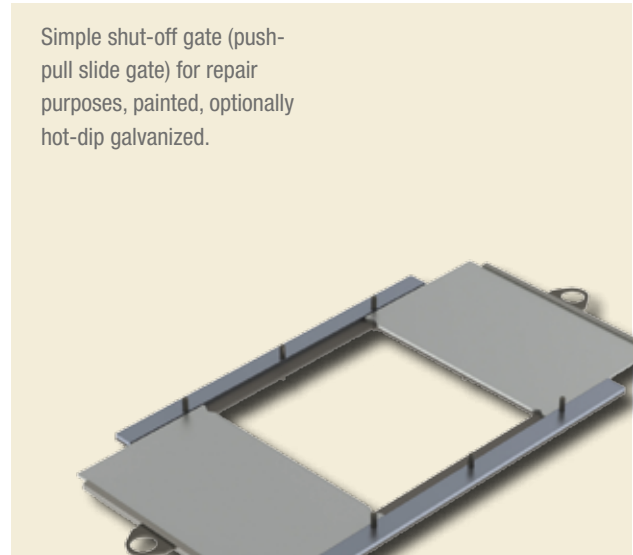
### Double-Flange Shut-Off Gate Type 02.

Simple manual and emergency double-flange shut-off gate with hand wheel or slip-on crank.



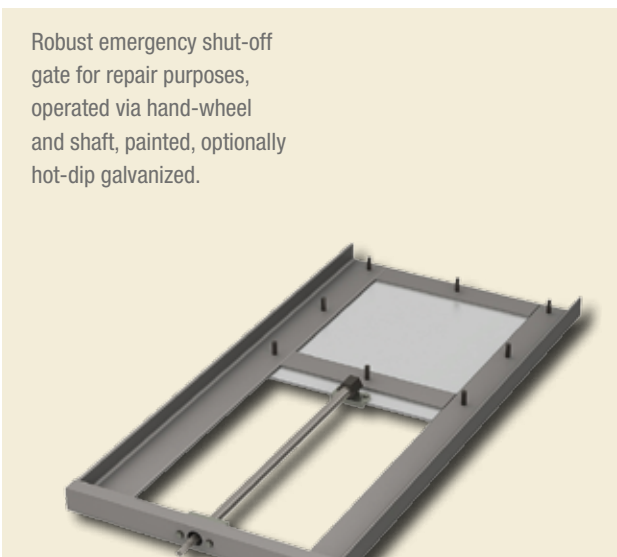
### Emergency Shut-Off Gate Type 09.

Simple shut-off gate (push-pull slide gate) for repair purposes, painted, optionally hot-dip galvanized.



### Emergency Shut-Off Gate Type 99.

Robust emergency shut-off gate for repair purposes, operated via hand-wheel and shaft, painted, optionally hot-dip galvanized.



### Pin Gate Type 089.

Emergency shut-off gate for coarse-grained materials (push-pull slide gate).

