

WASTE-TO-ENERGY

# MOVING GRATE/ ROLLER GRATE



Mitsubishi Power is a power solutions brand  
of Mitsubishi Heavy Industries.

**Mitsubishi Power Europe GmbH**

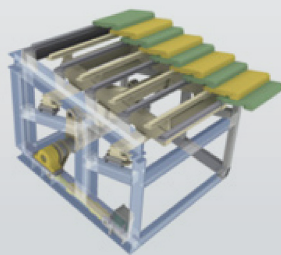
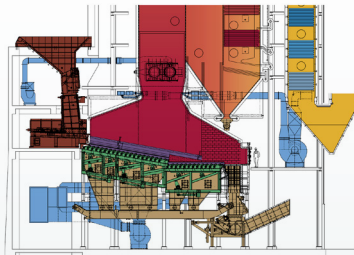
# OUR GRATE TECHNOLOGY MAKES THE DIFFERENCE

Whether in power plants for pure steam/electricity generation or in thermal waste-to-energy plants: Mitsubishi Power's firing systems are used in almost all areas of energy conversion and are always optimally adapted to the specified requirements.

## MOVING GRATE

### TECHNICAL DATA (TYPICAL VALUES)

- Grate inclination: 10°
- Number of grate zones: 3 pieces
- Grate length: 9.2 – 10.8 m
- Grate width: no limitation, due to modular design
- Grate bar material: Cr Ni steel according to Mitsubishi Power specification



Environmentally friendly incineration requires special concepts and measures for domestic and municipal waste, commercial waste, refuse-derived fuel (RDF), residual waste disposal and biomass of all kinds. Depending on the waste calorific values, different grate systems are used. Medium and high calorific waste fuels require incineration grates with grate bar cooling systems, such as our own water-cooled moving grate systems. Low- or medium-calorific waste fuels, use patented air-cooled grate bars.

The Mitsubishi Power Europe moving grate is characterized by its robust design and high throughput capacity. External hydraulic drives use a lever system to control the feed and return strokes of the movable rows of grate bars in each grate zone in accordance with the control requirements. The fixed and moving rows of grate bars are arranged alternately one behind the other in a grate track and are each mounted on separate grate frames. The uniform motion sequence and the - due to the grate bar design - long stroke movement in the feed result in a smooth furnace operation. In contrast to a short-stroke process, this motion sequence is characterized by less wear.

Another advantage is the additional cooling effect due to the overlapping of the grate bars as a result of the long stroke to the grate bar head. In addition to the moving grate system, a Mitsubishi Power Europe roller grate system can also be used depending on the application. The robust roller grate system has a modular design consisting of six grate rollers. It is used for low- or medium-calorific residual materials. In a continuous alternation, part of the roll circumferential surface passes through the furnace, while the side facing away from the furnace is air-cooled. This alternation reduces the thermal load on the grate surface

## ROLLER GRATE

### TECHNICAL DATA (TYPICAL VALUES)

- Grate inclination: 20°
- Number of grate rolls: 6 pieces
- Grate length: 14.8 m
- Grate width: up to max. 8.0 m
- Continuous module
- Grate bar material: GG

