



**Iron- & Steelmaking**



**Casting applications**



**Rolling applications**



**Support facilities**

**Maintenance Free  
Sliding Materials in the  
Iron & Steel Industry**

## Deva and the steel industry

### Federal-Mogul DEVA GmbH

- has manufactured selflubricating slide bearings and plates for more than 50 years
- has been focused on the Iron & Steel industry for more than 40 years
- has optimized materials for the toughest conditions in the Iron & Steel industry
- is used in countless applications within this sector throughout the world by major OEM's and end-users

## Quality

### Deva is certified according to all major requirements:

- DIN EN ISO 9001
- ISO 14001
- QS 9000
- EMAS II
- VDA 6.1
- EN ISO TS 16 949

## Materials

Federal-Mogul Deva manufactures a wide range of sintered selflubricating bearing materials where the dry lubricant is uniformly dispersed within the metallic matrix. For sliding elements in the Iron & Steel industry three major material groups are used:

### deva.metal<sup>®</sup>

deva.metal<sup>®</sup> is a sintered selflubricating product. The advantage of this monolytic material is the possibility to machine complex geometrical shapes and still maintain the selflubricating properties of the material throughout the entire machined part.

- Selflubricating properties even at minute movements
- Applicable for high load, corrosion resistant, stick-slip free, thick walled
- Applicable at highest temperatures

## Materials (continued)

### deva.bm<sup>®</sup>

deva.bm<sup>®</sup> is a selflubricating composite sliding material consisting of a steel backing and a deva.metal<sup>®</sup> sliding layer. A special hot rolling sintering technology guarantees perfect and reliable bonding of the sintered deva.metal<sup>®</sup> layer to the steel backing. For increased service lifetime and reliability.

- Thin walled fits into almost any space
- Selflubricating properties even at minute movements
- The steel backing allows highest loads
- stick-slip free, corrosion resistant depending on the steel backing.

### deva.glide<sup>®</sup>

deva.glide<sup>®</sup> selflubricating materials consist of highly wear resistant copper cast alloys with evenly distributed solid lubricant plugs specially designed for the required application.

- Allows maintenance free operation in many cases where today lubricated bronze is used.
- Thick walled, high wear resistance
- Applicable for large diameters

**For further detailed material data as well as design and installation proposals please refer to the individual material handbooks and ask for assistance.**

## Trademarks

deva.bm<sup>®</sup>, deva.bm<sup>®</sup>9P, deva.metal<sup>®</sup>, devaglide<sup>®</sup>, devatex<sup>®</sup> are registered trademarks of **Federal-Mogul Deva GmbH**  
**D - 35260 Stadtallendorf**  
**Germany**



### Reference applications:

- **Charging cars**
  - wheels
- **Tap hole drilling machines**
  - track rollers, guide bearings
- **Blast furnace gas separator**
  - sealing packing
- **Torpedo cars**
  - tilting bearings
- **Converter main bearing**
  - sliding bearing
- **Ladle bearing**
  - ladle hanger bearing
- **Inert gas system**
  - coupling bearings

### Reference applications:

- **Ladle turret**
  - swivel bearings
- **Ladle turret**
  - thrust bearings for hydraulic cylinders
- **Ladle tilting chair**
  - sliding bearings
- **Tundish**
  - track rollers, sliding plates
- **Caster**
  - adjustable strand guide
- **Dummy bar chain**
  - chain bearings
- **Torch cutting line**
  - guide bearing system

**DEVA Advantages at a glimpse:**

- Application - specific design and problem solving
- Specialized application manager assisting with expert knowledge world wide
- Wide range of materials to ideally suit your application
- World wide sales network
- R & D support facilities
- Full range of test facilities
- Assembly assistance
- Bearing inspection service
- Certified

## Rolling Process



## Supporting processes



### Reference applications:

- **Slap reduction press**
  - guide ways of the fixation rollers
- **Rolling stand, work roll**
  - changing shoes
- **Rolling stand, back-up roller**
  - slipper plates
- **Screw down**
  - guide bearings
- **Screw down, step down plates**
  - guide elements
- **Rolling stand, roller changing system**
  - guide elements

### Reference applications:

- **Shears**
  - blade guide ways, toggle links
- **Coiler, mandrel**
  - sliding system
- **Coiler, belt winder**
  - linkage system
- **Levellers, roller adjusting wedges**
  - guide ways
- **Cooling beds**
  - roller system
- **Coil handling equipment, walking beam**
  - guide ways, rollers
- **Coil handling equipment, tilting chair**
  - guide ways
- **And many more**

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# Sales Organisation



Almost all major OEM's and steel producers are using more and more DEVA® products successfully in their lines.

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