Schenck Process

STEEL INDUSTRY OVERVIEW

we make processes work
IBS Heavy

Industries:
• Cement
• Sand & gravel
• Coal (users)
• Steel
• NF-metals
• Power plants (fossil)
• Foundries
• Gypsum
• Vibrating machines
• Screening technology

Applications:
• HD continuous feeding systems
• Coal dust feeding
• Heavy load weighing technology
• Secondary fuel feeding
• Static weighing technology
• Train & truck loaders
• Mass flow & raw material acquisition
• Screening, shake-out, cooling, drying and vibratory transport systems for foundries
• Hot material - screening, cooling
• Extraction in the process industry
• Spare parts
• Repairs
• Commissioning

Products:
• LinaClass® and RotaClass® Screens
• Heavy load weighing modules
• Rail Scales
• Feeders
• Conveying
• Filtration
• Injection
STEEL PLANT OVERVIEW
Raw material: Unloading and preparation

- Crane scale
- Belt scale
- Hopper scale
- Weighfeeder
- Screen
- Dryer
- Stock piles
- Truck unloading station
- Railway scales and unloading station
Coking plant

Coal

Fines

Loss-in-weight feeder

Weighfeeder

Conveyor belt

Crusher

Screen

Conveyor belt

Coal tower

Feeder

Screen

Hopper scale

Coal filling car

Weighing rail

Coke ovens battery
Blast furnace: Burdening, reduction, smelting

- Vibro feeder
- Screen
- Hopper scale
- Weigh belt feeders
- Check Measuring Methods
- Top hopper scale
- Blast furnace
- Coal injection scale
- Pig iron
- Torpedo ferry scale
Steel work: Smelting, Alloying

- Hopper scale
- Vibro feeder
- Weighfeeder, LIW
- Converter
- Crane scale
- Ladle ferry scale
- Electric arc furnace
- Secondary Metallurgy
- Scrap yard
Casting

- Teeming crane scale
- Ladle turret scale
- Tundish scale
- Roller conveyor scale
Milling and product finishing

- Crane scale
- Coil scale
- Roller conveyor scale
- Mould scale for profiles
- Raising platform scale
ACTUAL INSTALLATIONS
Weighing - Main Components

1. Weighbeams
2. Weighdisc
3. Radial Force Sensors
4. Measuring Eyes
Crane Scales

1. Are completely mobile allowing weighing to take place at every position in the production area
2. Increase safety of crane operation
3. Allow total mass balancing and yield optimisation
4. Removes guess work
Crane Scales

Installation of pre-assembled weighing units at the mechanical interface between wheelbase and trolley frame:

- low installation headroom required (about 200-300 mm)
- quick installation by maintaining the existing fixation elements
- no change of the crane statics
Crane Scales

Replacement of the existing upper sheave block by a weighing upper sheave block:

- no extra installation headroom required
- extremely quick installation (typically 16 hours) of the pre-assembled small weighing sheave block (size about 1 x 1 m)
- no change of the crane statics
Ladle Weighing

1. Decrease Losses with accurate tare weights
2. Maximize Capacity both when filling and emptying
3. Increase Safety

Ladle turret scale
Tundish scale

Turret Weighing
Ladle Weighing

Ladle Supports
Rail Car Weighing

1. Turret Shuttle Cars
2. Coke cars
3. Scrap cars

On Car
Rail Car Weighing

1. Legal for Trade (coming soon)
2. Cars entering or leaving plant
3. Bulk Materials
4. Scrap Cars
5. Simple Installation

In the Rail
Screens

1. Classification of ore, limestone, coal, coke, pellets, hot and cooled sinter, HBI/DRI (hot-briquetted iron / direct iron reduction) and stock additives
2. Dewatering
3. Crusher relief

Hot Sinter Screens
Screens

Cold Sinter Screens

Coke Classification Screen
Screens

HBI/DRI Screen

HBI Cooler
Basic Material Handling & Metering Equipment

Spheri® Valves

DMO Feeders

Dust Filters
Any Questions?