

# Material Handling System & Equipment

Engineering, Procurement & Construction





## **Trough/ Belt Conveying Systems**

#### **Product Range:**

Customized solution for various materials, capacities and belt width as follows:

• Material handled: Coal, Limestone, Gypsum, Iron Ore, Bauxite, Fertilizers, Bagasse, Sugar etc.,

Capacity : Up to 6500 TPH

• Belt width : 650 mm to 2400 mm

• Belt speed : Up to 6.5 m/s

Isgec can supply complete belt/trough conveying system along with all other auxiliary equipment like crusher, screen, DE system, DSS, Wagon tippler, Apron feeders, sampling units etc.

Isgec can also provide cross country conveyor solutions having difficult terrain.







# **Bulk Material Handling**

## **Pipe Conveyor**

Pipe conveyor is modern transfer system which can minimize various operational problems occurs in conventional belt conveyor systems i.e. spillage of material, limitation with difficult terrain and curves.

## **Product Range:**

Customized solution for various materials, capacities and pipe out side diameter as follows:

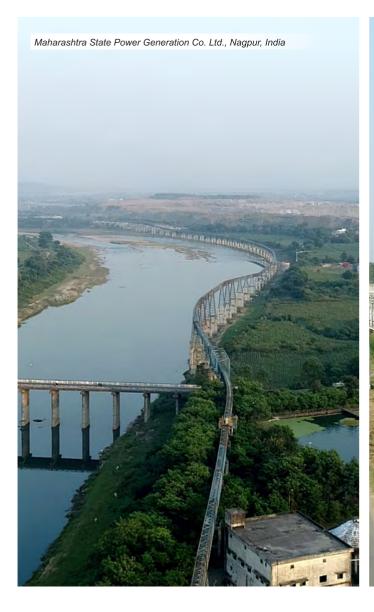
• Material handled : Coal, Limestone, Iron Ore, Bauxite, etc.

Capacity : Up to 4000 TPHPipe OD : 200 mm to 700 mmBelt speed : Up to 6.5 m/s

Isgec has vast experience in difficult terrain, River Crossing, various obstacle and can provide optimum solutions due to its strong In house engineering capabilities.

## **Special Features of Pipe Conveyor**

- · Horizontal and vertical curves suitable for site requirements
- Reduced Spillage of Material loaded from belt
- Environment friendly Dust Free Transportation
- Low Maintenance
- · Maintenance trolley can be provided instead of walkways







# **Terminal Equipments**

#### State-of-the-art Technology

All Equipment design based on latest European Technology following FEM standard.

#### **Product Range:**

## **Rubber Tyre Gantry Crane**

• Span : 5 to10 Container Wide + Truck Lane

• Lifting height : 1 Over 2 to 1 Over 6

• SWL : 41 MT Single lift / 50 & 60 MT Option Available

• Wheels : 8 or 16 Nos.

## **Rail Mounted Gantry Crane**

• Span : 21 to 50 m

• Lifting height : 1 Over 2 to 1 Over 7

• SWL : 41 MT Single lift / 50 or 60 MT Optional Available

• Wheels / Corner: 4 or 6 Nos.

• Cantilever : Up to 15 to 20 m

#### **Special Features of RTGC / RMGC**

• 8 Ropes Reeving System

· Electrically Operated Spreader

· Energy Chain for Festooning

· Anti-collision system

Auto-steering with Optional DGPS available for RTG

#### Source of Power for RTGC / RMGC

- Electrically Operated with CRD / Bus Bar System
- · Battery Operated
- Diesel Engine Operated
- Hybrid





# Port/Cargo

# **Terminal Equipments**

## **Product range:**

#### **Grab Type Ship Unloader**

• Material handled : Coal, Limestone, Iron Ore, Fertilizers, etc.

Lifting capacity : 45 MT to 72 MT Payload

• Out reach : Up to 53 m

Ship size : 40000 DWT to 200000 DWTRail span : As per customer requirement

#### **STS Crane**

• Lifting capacity : 41 MT Single lift / 65 MT Optional

Lifting height : Up to 45 m
Out reach : Up to 53 m
Container rows : Up to 22 Nos.

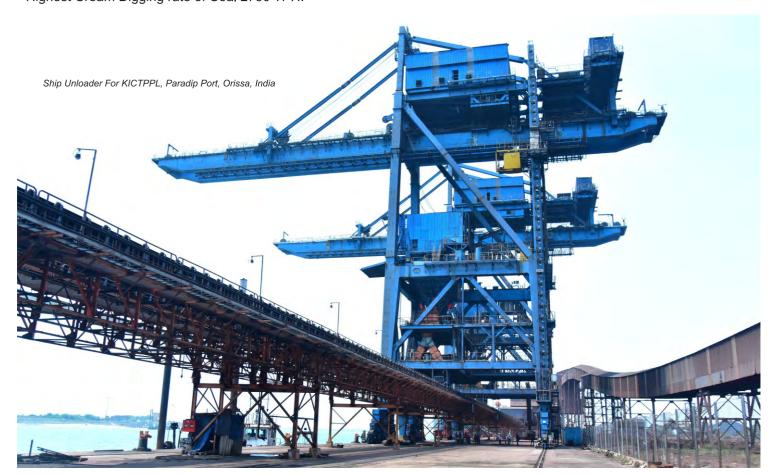
• Rail span : As per customer requirement

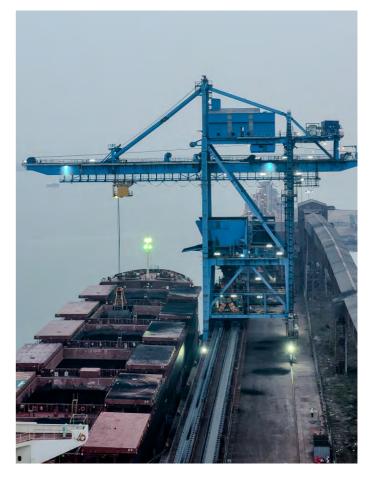
#### **Special Features of STS / SUL**

- · High Tensile Steel for main structure
- · Simultaneous Drive motion for Gantry, trolley, hoist
- · Direct driven travel wheels
- Vessel Stack Profiling for STS
- Truck Positioning System for STS
- · Anti-collision System
- · Energy Chain for Festooning

#### **Highlights of executed Ship Unloader:**

- One of the highest capacity Grab having 52.5 Cubic mts. volumetric capacity for Coal.
- Highest Cream Digging rate of Coal 2750 TPH.







#### **Product range:**

Customized solution for various materials, capacities and belt width as follows:

• Material handled: Coal, Limestone, Iron Ore, Bauxite, etc.

• Boom Length : Up to 60 m

Capacity : Up to 10000 TPH

## **Stacker Cum Reclaimer Design Variants**

- Bucket Wheel Stacker cum Reclaimer
- Reversible Stacker cum Reclaimer
- · Slewing / Non-Slewing Stacker
- Luffing Stacker





#### **Product range:**

- · Customized solution for various materials and capacities.
- Perfect blending for any type of material like Sticky & Wet.
- Blending ratio of more than 10 with correct combination of stackers and reclaimers.
- Highest International state-of-the-art solution with Lowest energy consumption.

#### **Reclaimer Type**

Portal Reclaimer • Side Scraper Reclaimer • Bridge Reclaimer

#### **Special Features of Reclaimer**

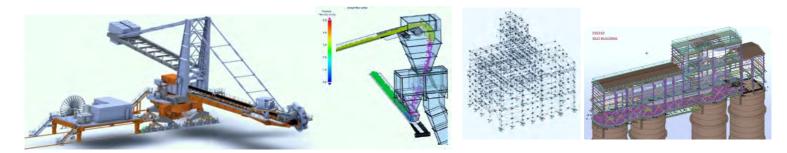
Skew monitoring • Direct driven travel wheels • Anti-collision System • Energy Chain for Festooning





# **Design Capabilities**

Excellence in providing engineering solutions by using following software for 3D Modelling, FEM Analysis, Flow Analysis, Conveyor Calculations, Structural Detailing, Structural Analysis and Raw Material Optimization.

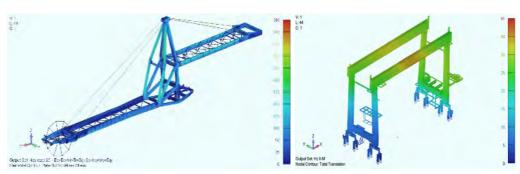


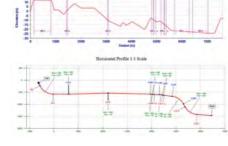
Solid Works

DEM Newton Professional

STAAD Pro

Tekla





Femap Nastran

SideWinder - Conveyor Design

# **Manufacturing, Erection & Commissioning**

#### Yamunanagar Shop

Total Area : 180,000 Sqm
Shop Covered Area : 95,000 Sqm
Crane Capacity : 200 MT
Open Yard Fabrication : 4,000 Sqm



#### Dahej Shop

Total Area
Shop Covered Area
Crane Capacity
Open Yard Fabrication
210,392 Sqm
13,972 Sqm
300 MT
15,552 Sqm



Isgec's strong team of construction management has vast experience of Erection, Commissioning and Start-up services. construction management not only ensures timely and safe installations but also imparts training to client's personnel for latest O & M practices and trouble shooting.









# **Product Range**

# **Material Handling**

Belt Conveying System

Pipe Conveyors

Rapid Loading System

Ash Handling System

# Port / Cargo **Terminal Equipment**

Rubber Tyre Gantry Crane

Rail Mounted Gantry Crane

Ship Unloader & Loader

Ship to Shore Crane

## **Yard Equipment**

**Bucket Wheel Stacker Reclaimers** 

Side Scraper & Bridge Reclaimer

Circular Stacker Reclaimers

Portal Reclaimers



A-4, Sector 24, Noida - 201 301 India Tel.: +91-120-4085001 / 5002 Email: gurvinder.singh@isgec.co.in, vivek.singh@isgec.co.in

www.isgec.com