



14th Edition...

Conference on Alternative Fuel and Raw Materials Usage (AFR)

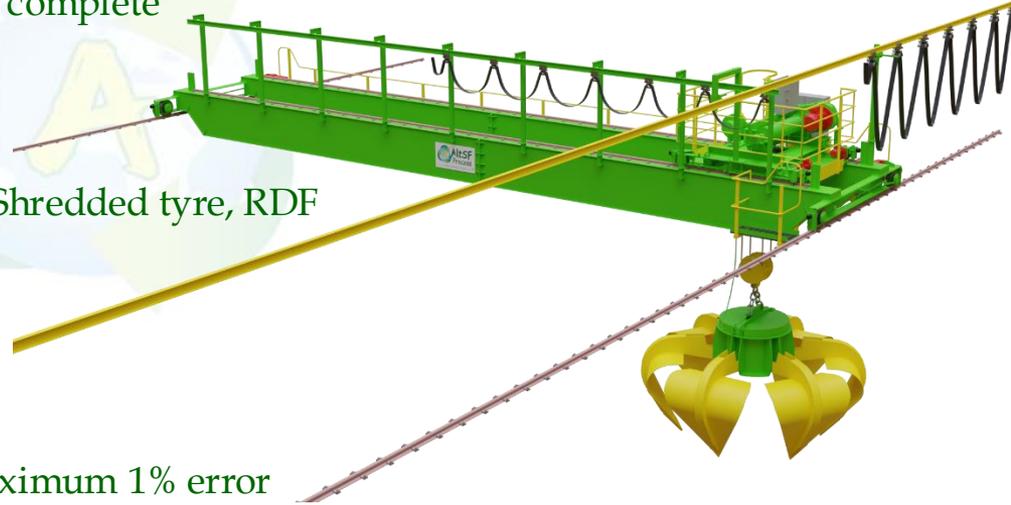
Prepare for Net-Zero: AFR Material in Cement Manufacturing
23 & 24 October 2024 Courtyard, Raipur



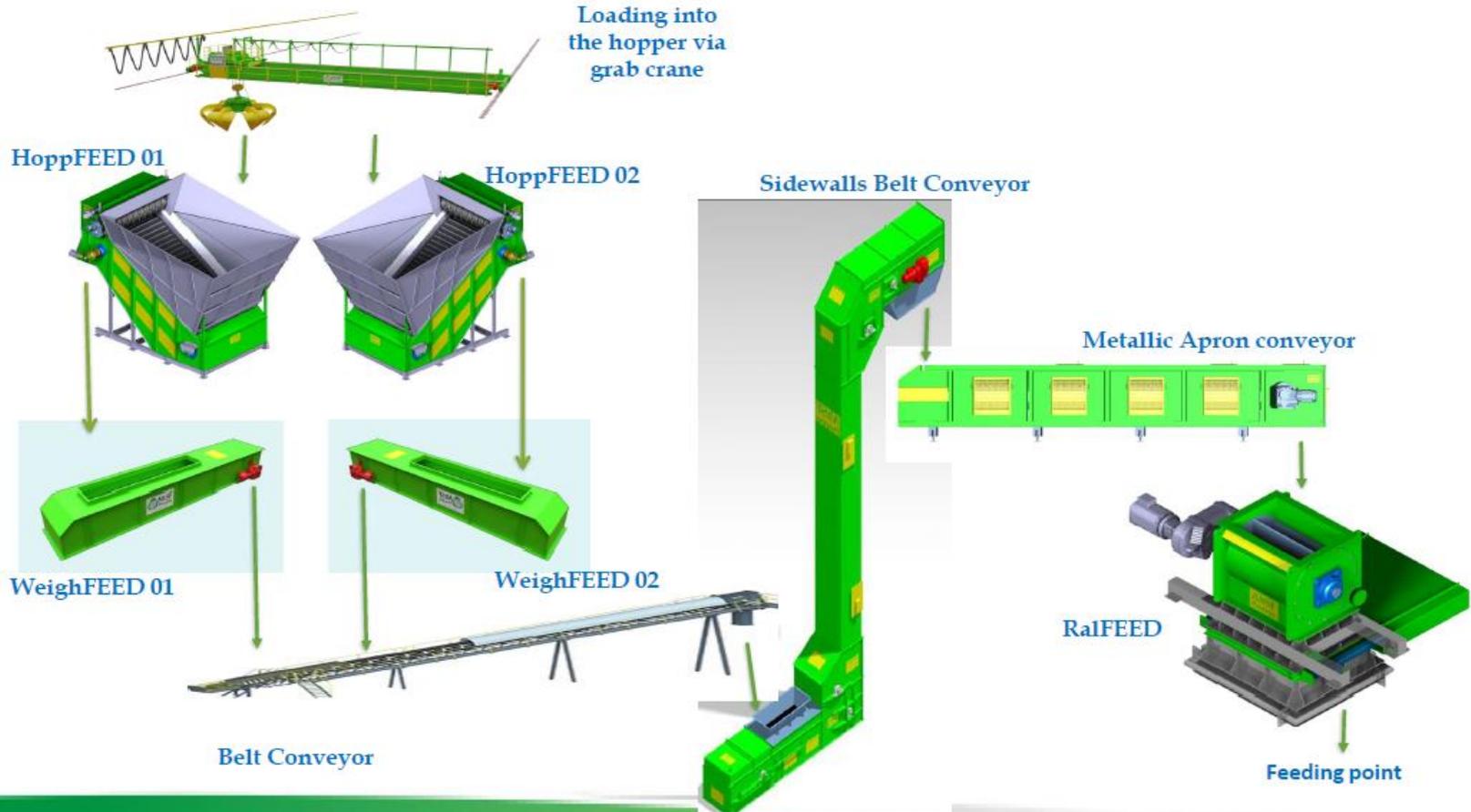
Alternate Solid Fuels (AltSF) Co-processing Case Study - Cimpor Souselas

Project Specifications & Contract

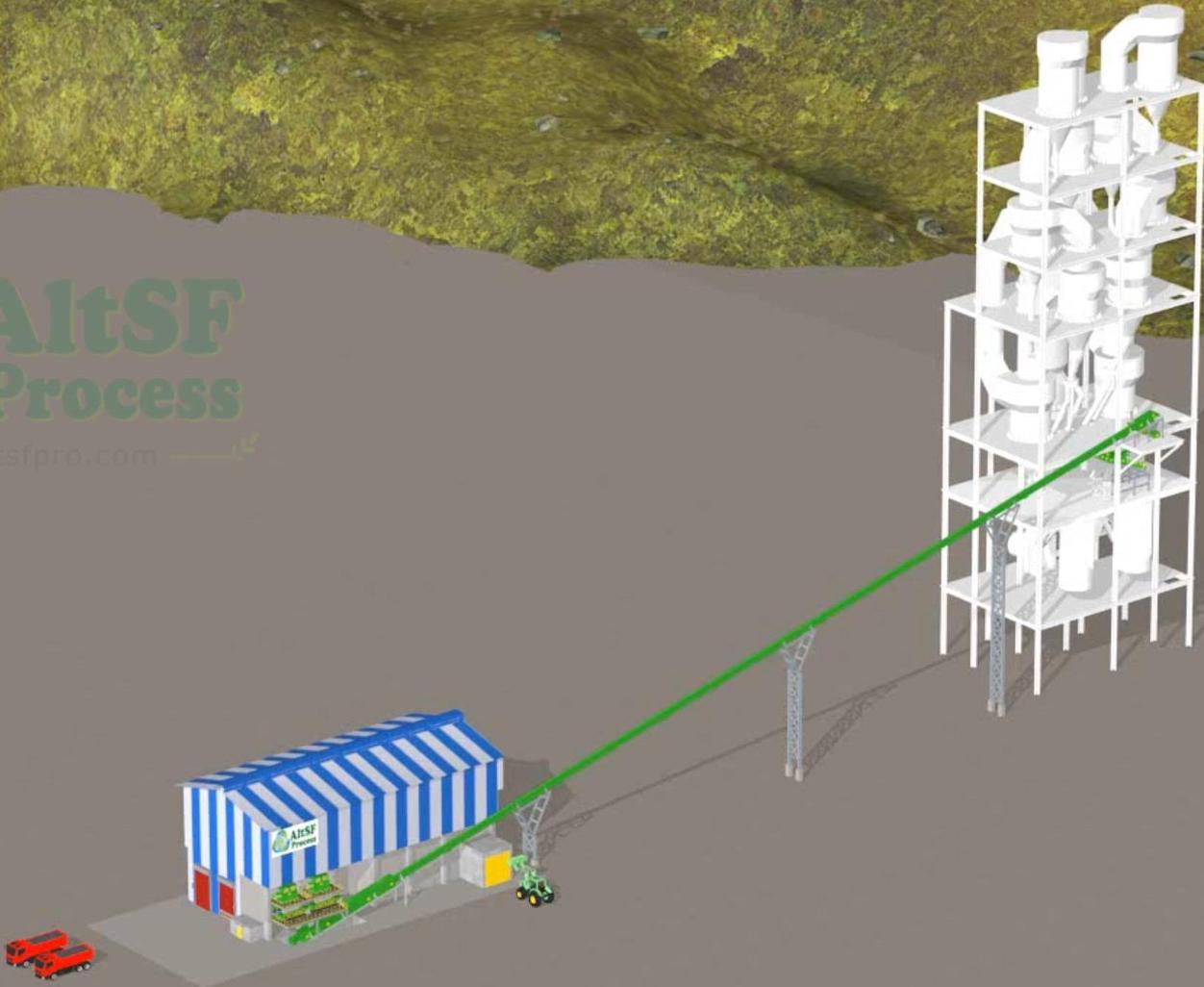
- ★ Purchase order June-2024 & delivery by March-25
- ★ Project for complete fully automated Grab crane, extraction & weighing solution (2x) Belt conveyor, Side walls belt conveyor 1200, Metallic apron conveyor & RalFEED including complete automation.
- ★ Feeding Capacity: 15 tph
- ★ Alternate fuels to be used, but not limited to : Shredded tyre, RDF pellets & Biomass
- ★ Density of the material : 0.1 to 0.5 t/m³
- ★ Moisture content: up to 21%
- ★ Weighing accuracy guarantee: 15tph : with maximum 1% error
- ★ Smooth material flow for entire range of alternative fuels



Project – FLOW SHEET







Alternate solid fuels - examples



Fine Tire Chips



Cut Tires



Wood chips



Biomass



Fine shredded
paper



Plastic waste



Refuse derived
fuel (RDF)



Whole tires



Rice husk



Medical scrap
containers



FMCG rejects

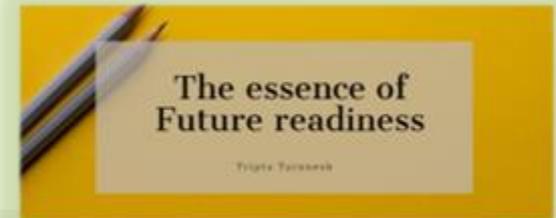


Pharma/medical
waste

Acceptable range of AltSF for co-processing
Grain size < 300mm
Density 0.1 to 1 t/m³

Flexibility

dream



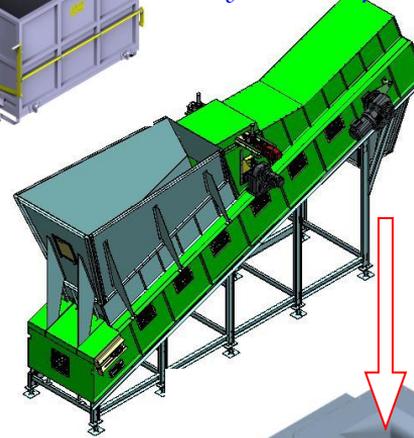
AFR Starter kit (< 5 TPH)



**High speed
Hoist**

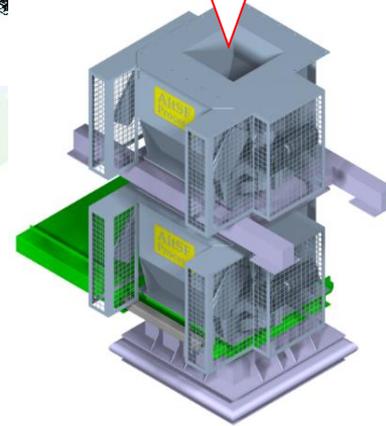


Container
Easy bottom opening



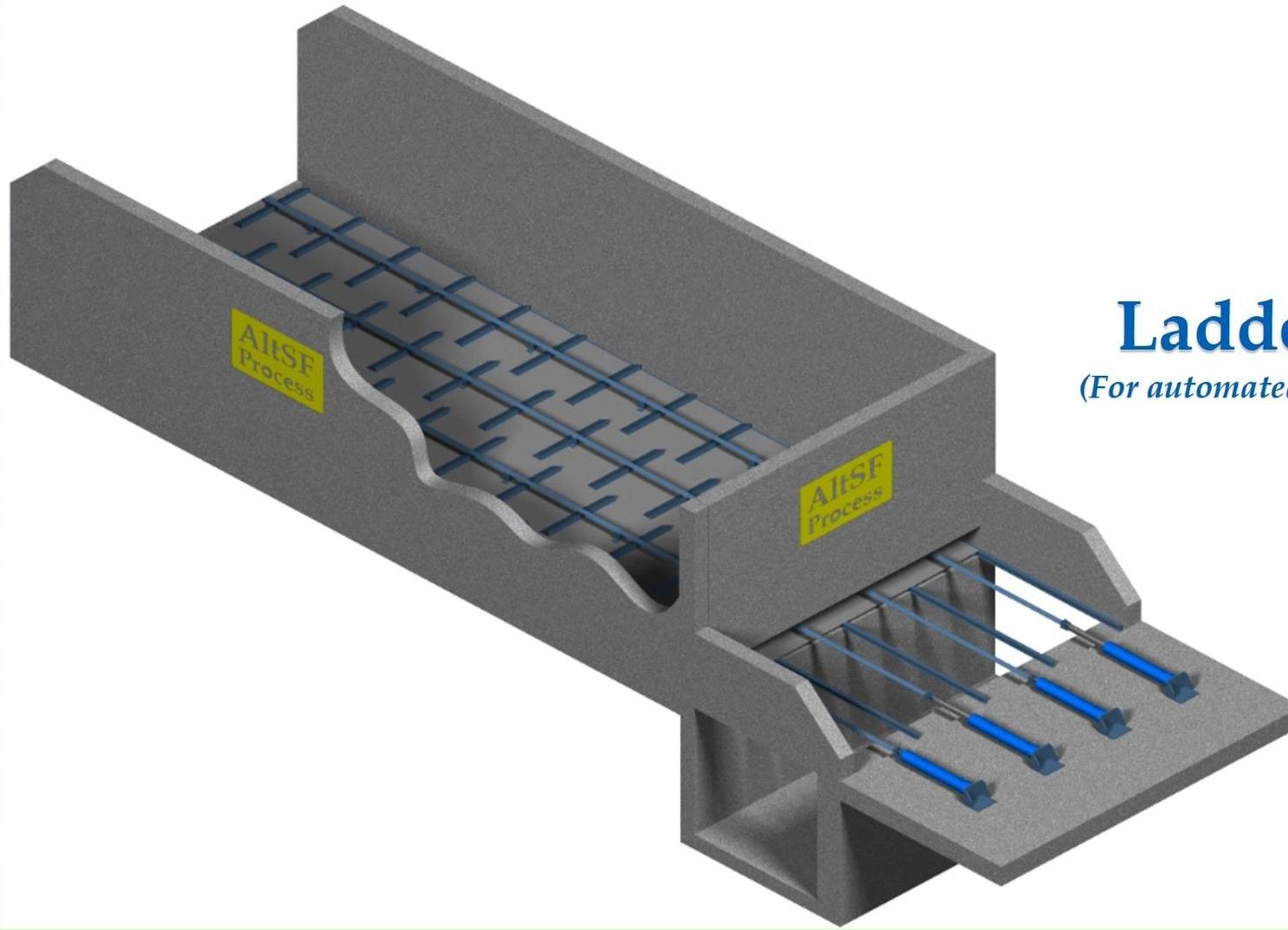
DosiFEED
*Recommended to install
in PHT*

Container (2 m³)
*Easy bottom opening, container
filling from top*



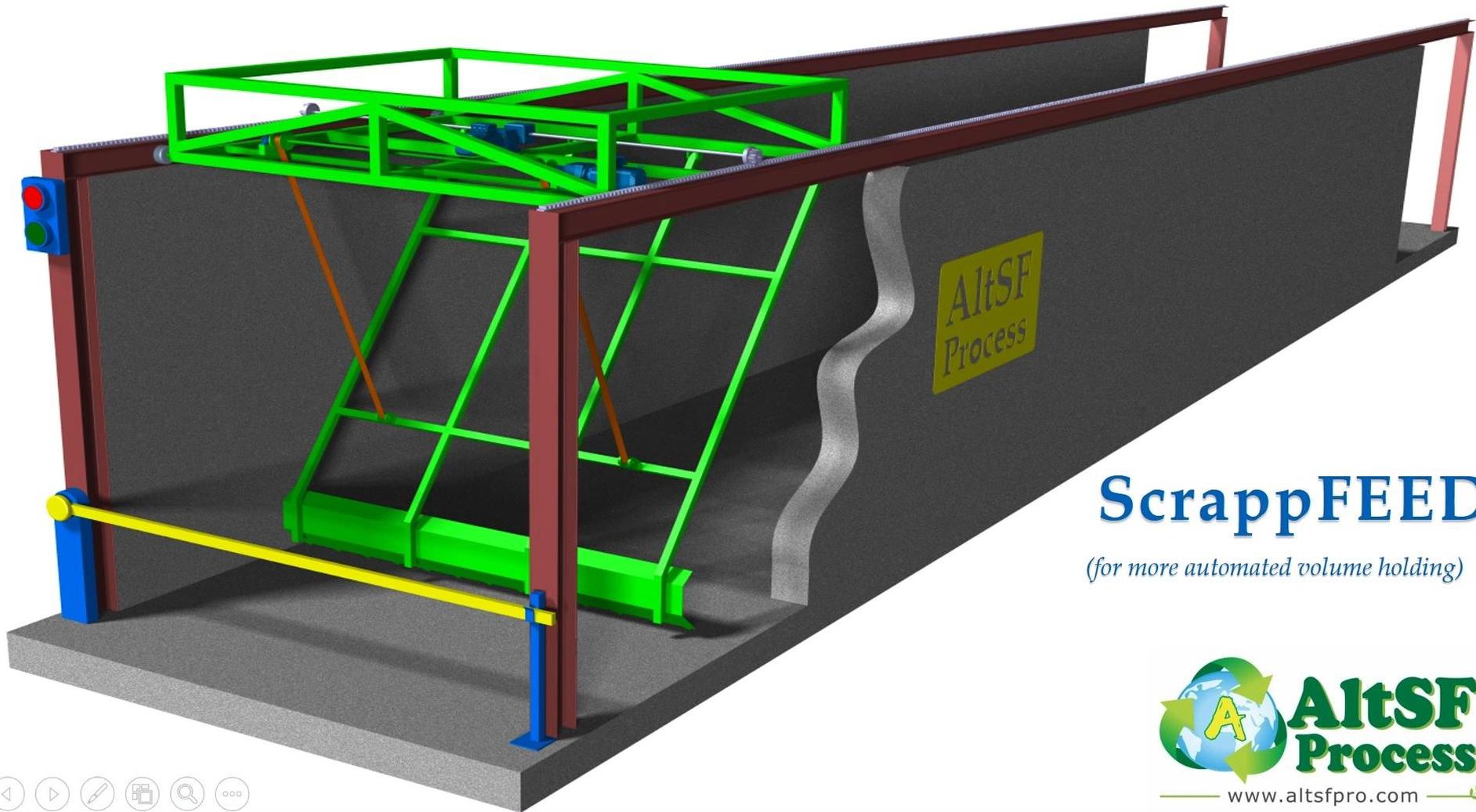
CalFEED
*(Double valve with
refractory safety gate)*

Feeding ↓ to calciner



LadderFEED

(For automated batch extraction)

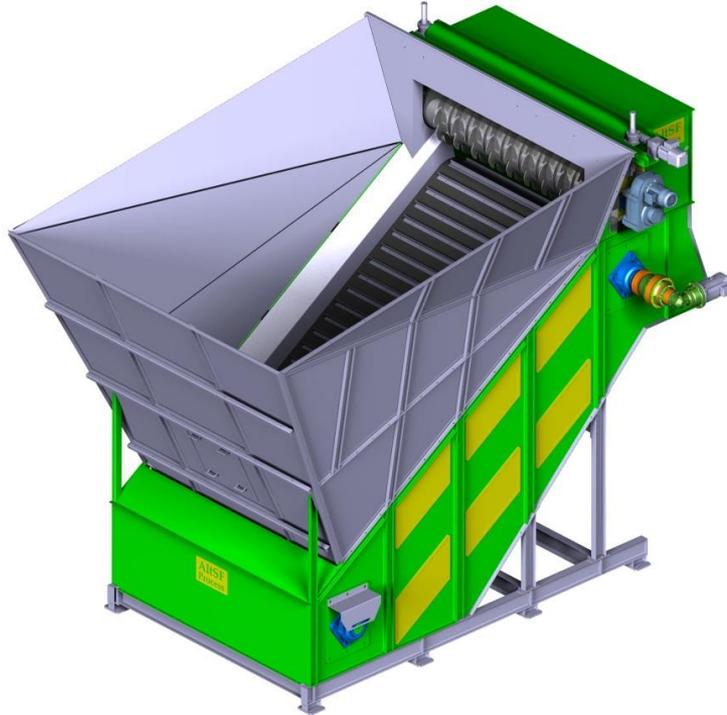


ScroppFEED

(for more automated volume holding)



HoppFEED *(for effective extraction)*



- ★ Synchronized with the dosing belt to control feeding as required
- ★ Rugged design with high hopper capacity of up to 30 m³
- ★ Accepts material from tippler truck, front loader, garb crane directly. Three point support for apron.
- ★ Regulating drum and regulating foil is provided to ensure uniform output discharge
- ★ Feeding capacity of up to 400 m³/h
- ★ Radar sensor, jamming sensor, position sensors, zero speed switch provides it necessary process control along with Siemens standards PLC system

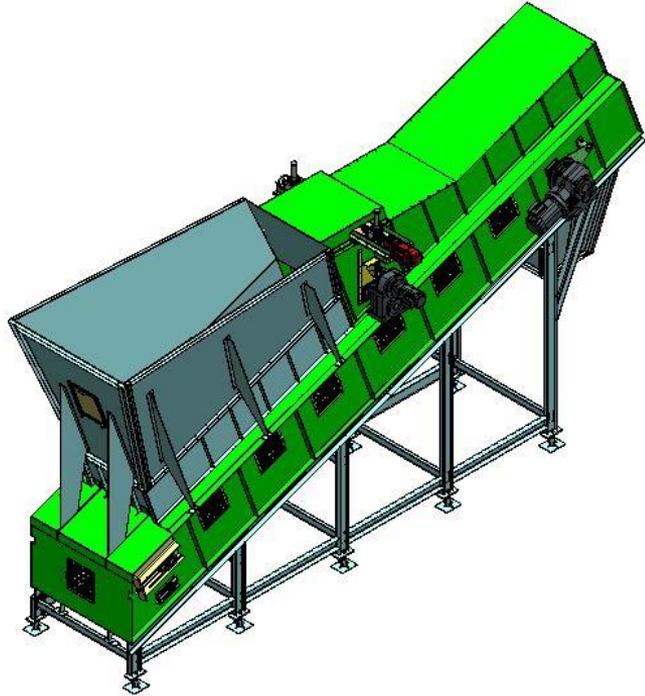
HoppFEED XL *(for effective extraction with high volume storage)*

NEW



- ★ Synchronized with the dosing belt to control feeding as required
- ★ Rugged design with high hopper capacity of up to 150 m³
- ★ Accepts material from tippler truck, front loader, garb crane directly.
- ★ Regulating drum and regulating foil is provided to ensure uniform output discharge
- ★ Feeding capacity of up to 200 m³/h
- ★ Hydraulic as well as chain apron moving floor

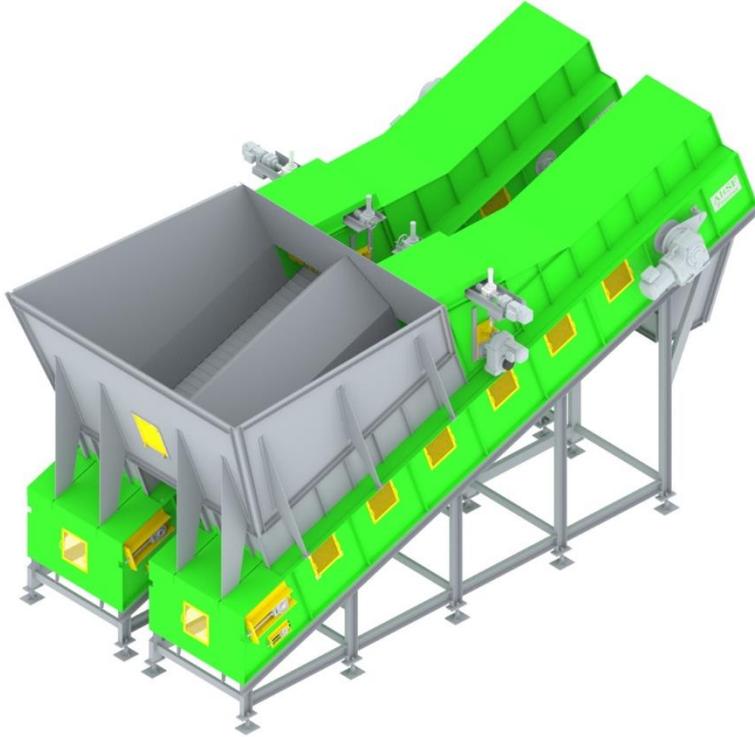
DosiFEED *(for compact extraction & dosing)*



- ★ Compact design with hopper & dosing arrangement
- ★ Rugged design hopper capacity of 7 m³
- ★ Regulating drum and regulating foil is provided to ensure uniform output discharge.
- ★ Special weighing bridge designed for accurate weighing & dosing based on core siemens support.
- ★ Feeding capacity of up to 300 m³/h
- ★ Complete automation with process sensors and PLC for efficient & safe control

Double DosiFEED

(for compact extraction & dosing into two lines)



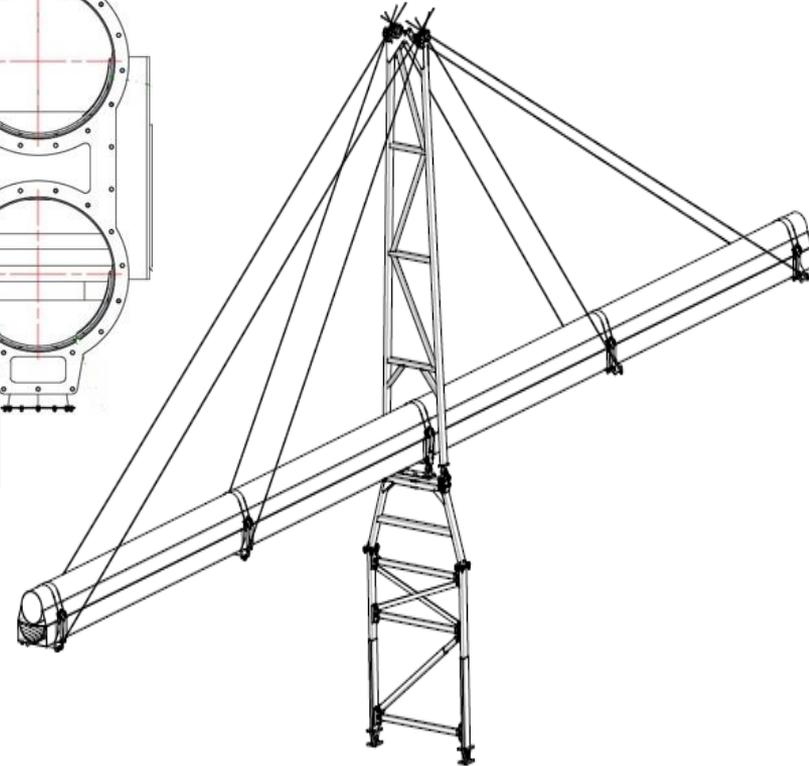
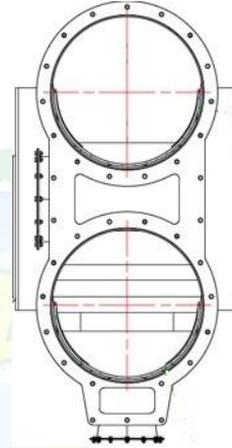
- ★ Compact design with hopper & dosing arrangement for two lines
- ★ Rugged design hopper capacity of 15 m³
- ★ Regulating drum and regulating foil is provided to ensure uniform output discharge in each line.
- ★ Common hopper with uniform distribution by Radar sensor hopper level measurement.
- ★ Feeding capacity of up to 300 m³/h in each line
- ★ Complete automation with process sensors and PLC for efficient & safe control

AbcFEED: Air supported Belt Conveyor



Two standard pipe
structure for
higher speed of
2.5 m/s

Blower
arrangement
for belt lifting



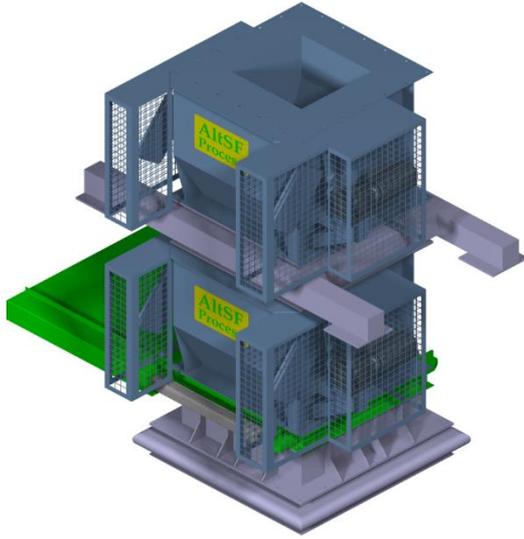
Long distance support up to 50m

Side Walls Belt Conveyor



CalFEED

(Double valve airlock with pneumatic refractory safety shut off gate)



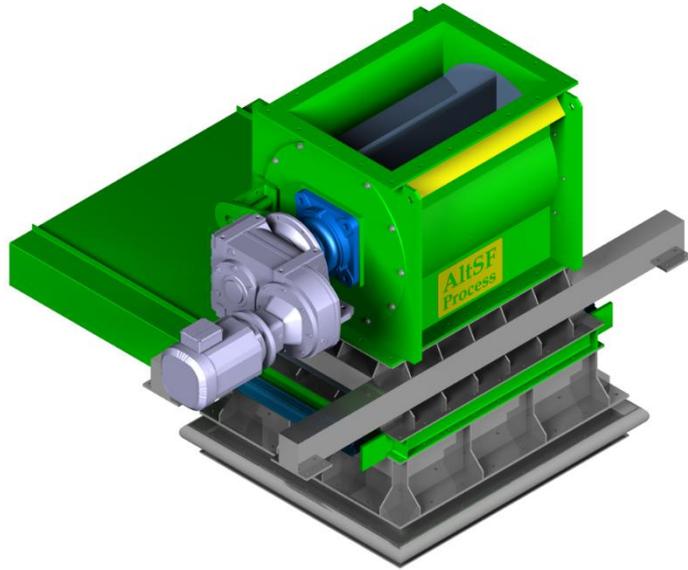
- ★ Compact and accommodative design for material of higher particle size and moisture content
- ★ Spring action technology to avoid system tripping or motor overload at minor blockages
- ★ Electrically operated system with minimal cycle time
- ★ Unique cam arrangement for quick flap closing and shuddering action to ensure self cleaning of flaps.
- ★ Safe operation with high grade steel and safety gate for isolation of the system
- ★ Internal refractory lining for safeguarding against up to 1400 degree temp.
- ★ Safety gate provided with refractory as well as air receiver tank and panel, for quick action even in case of plant air is not available

CalFEED

(Alternate fuels feeding double valve & safety gate)

RalFEED

(Rotary valve airlock with pneumatic safety gate)



- ★ Handling capacity of 400 m³/hr (up to 60 tph)
- ★ Continuous and smooth feeding of material to the calciner
- ★ Equipped with counter knives for cutting through long ribbon type material
- ★ Compact and accommodative design for feeding at higher capacity
- ★ Safe operation with high grade steel and safety shut-off gate for isolation of system
- ★ High torque rotor for cutting force



AltSF feeding in cement factory near Kodad, Hyderabad

Training & Services

.....we serve differently
...positive user experience
... customization & support
....in stock - critical spares
.....less downtime



References



SHARJAH CEMENT
FACTORY



References Global



PORTUGAL

- ★ Cimpor - Souselas (25 tph)

SENEGAL

- ★ Dangote Cement - Senegal (15 tph)

NIGERIA

- ★ Dangote Cement - Obajana II (15 tph)
- ★ Dangote Cement - Obajana IV (15 tph)

REPUBLIC OF THE CONGO

- ★ Dangote Cement - Congo (15 tph)

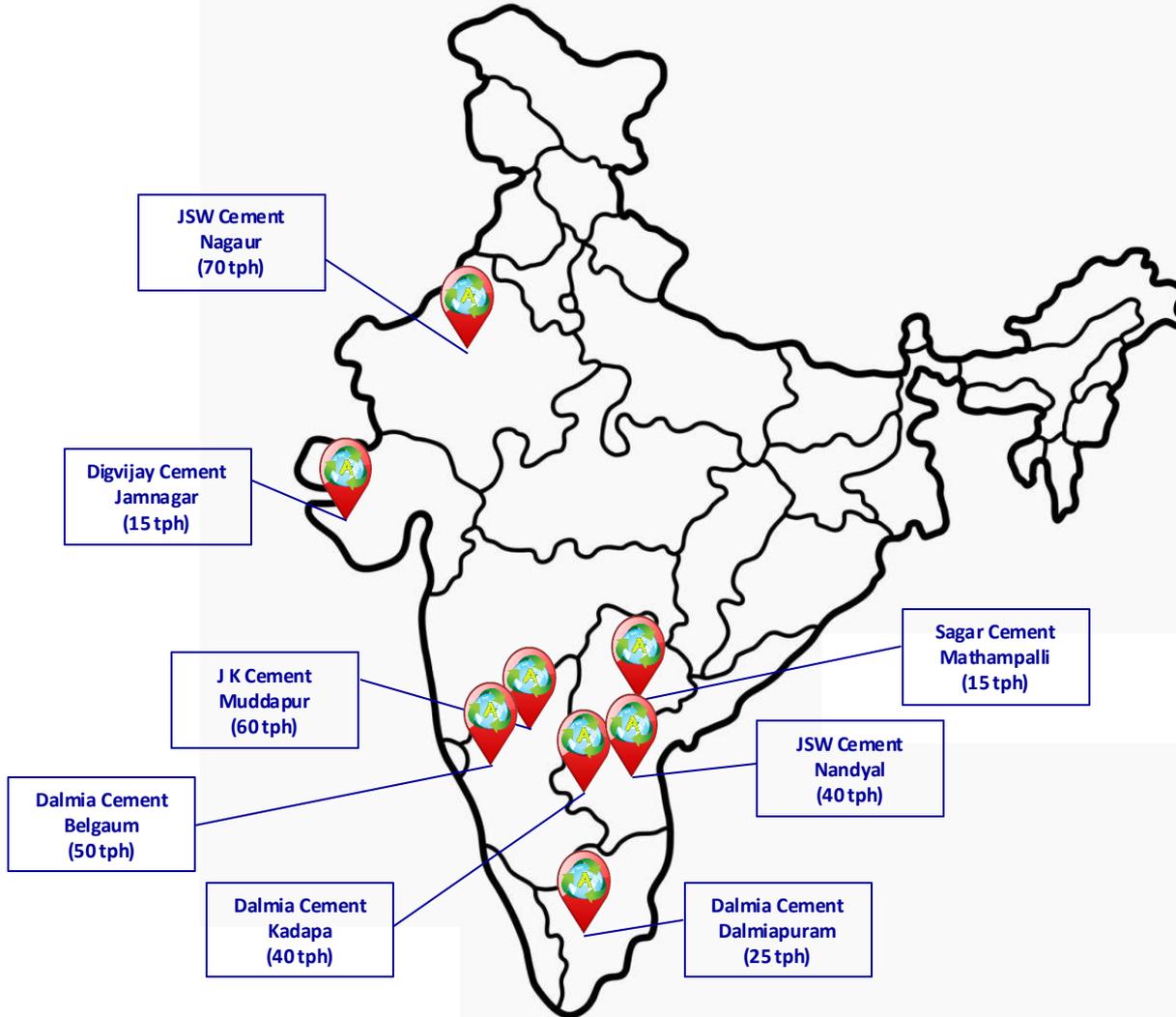
UNITED ARAB EMIRATES

- ★ Sharjah Cement (10 tph)
- ★ JSW Cement FZE (2 tph)

BHARAT

- ★ J K Cement - Muddapur (60 tph)
- ★ JSW Cement - Nandyal (40 tph)
- ★ Sagar Cement Mat hampalli (15 tph)
- ★ Digvijay Cement - Jamnagar (15 tph)
- ★ Dalmia Cement - Kadapa (40 tph)
- ★ Dalmia Cement - Dalmiapuram (25 tph)
- ★ Dalmia Cement - Belgaum (50 tph)
- ★ JSW Cement - Nagaur (70 tph)

References *in* India



Thank you



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