



# PROJECT STEEL

*Engineering excellence in conveyors  
and complete transport systems*



## Mobile Belt Conveyor



Website



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Mobile Conveyors by Project Steel are modern, heavy-duty solutions for handling bulk materials in demanding industrial environments. A modular, segment-based design enables straightforward adjustment of conveyor length and configuration to suit the requirements of a specific project.

Equipped with optional integrated infeed hoppers, height-adjustable supports, and an optional wheeled undercarriage, the conveyors provide high mobility and rapid on-site assembly/commissioning. A robust steel structure and components from reputable manufacturers ensure reliability and long service life under heavy-duty operating conditions.



Fig. 1 Mobile conveyor with infeed hopper

Thanks to compatibility with both temporary and permanent process layouts, our mobile conveyors are well suited to aggregates, mining, power generation, agri-food, and recycling applications, fully meeting the evolving needs of the market.



Fig. 2 Mobile conveyor in designated environment - our client reported: *"We're ready to go!"* 2

**Typical applications of our mobile conveyors:**

- Mining and open-pit operations
- Aggregates and gravel pits
- Recycling and municipal waste
- Construction and roadworks
- Cement plants and lime plants
- Metallurgy and coke plants
- Conventional power and alternative fuels
- Renewable energy (biogas, pellets)
- Seaports and river quays
- Intermodal and rail terminals
- Bulk storage facilities
- Chemical industry
- Wood-processing and pellet industry
- Pulp and paper mills
- Food industry (dry bulk ingredients)
- Agriculture and grain elevators/collection points
- Small plants and underground mines
- Tunnel construction and underground works

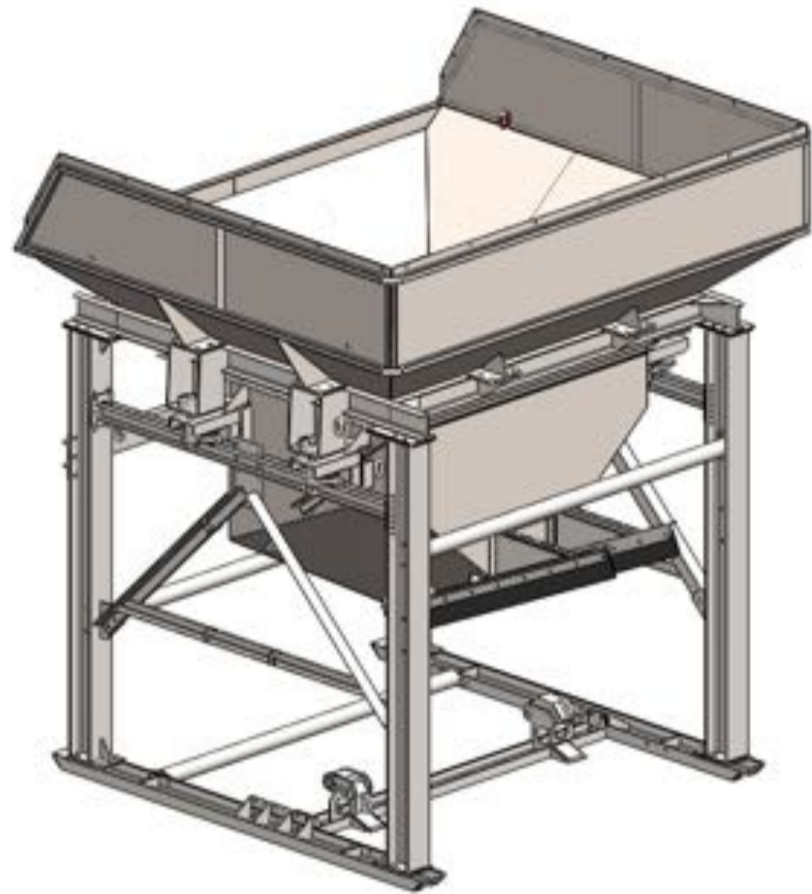


Fig. 3 Infeed hopper of the mobile conveyor

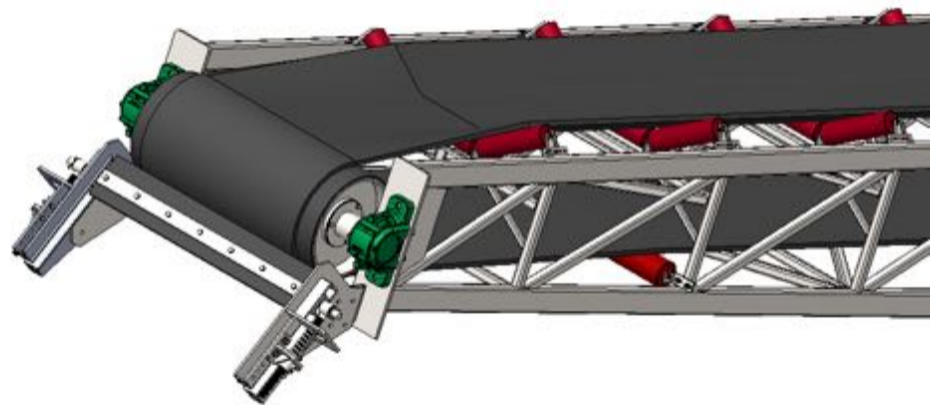


Fig. 4 Conveyor boom with head pulley



Fig. 5 Mobile conveyor with infeed hopper — top view



Fig. 6 Mobile conveyor in operating configuration and working position

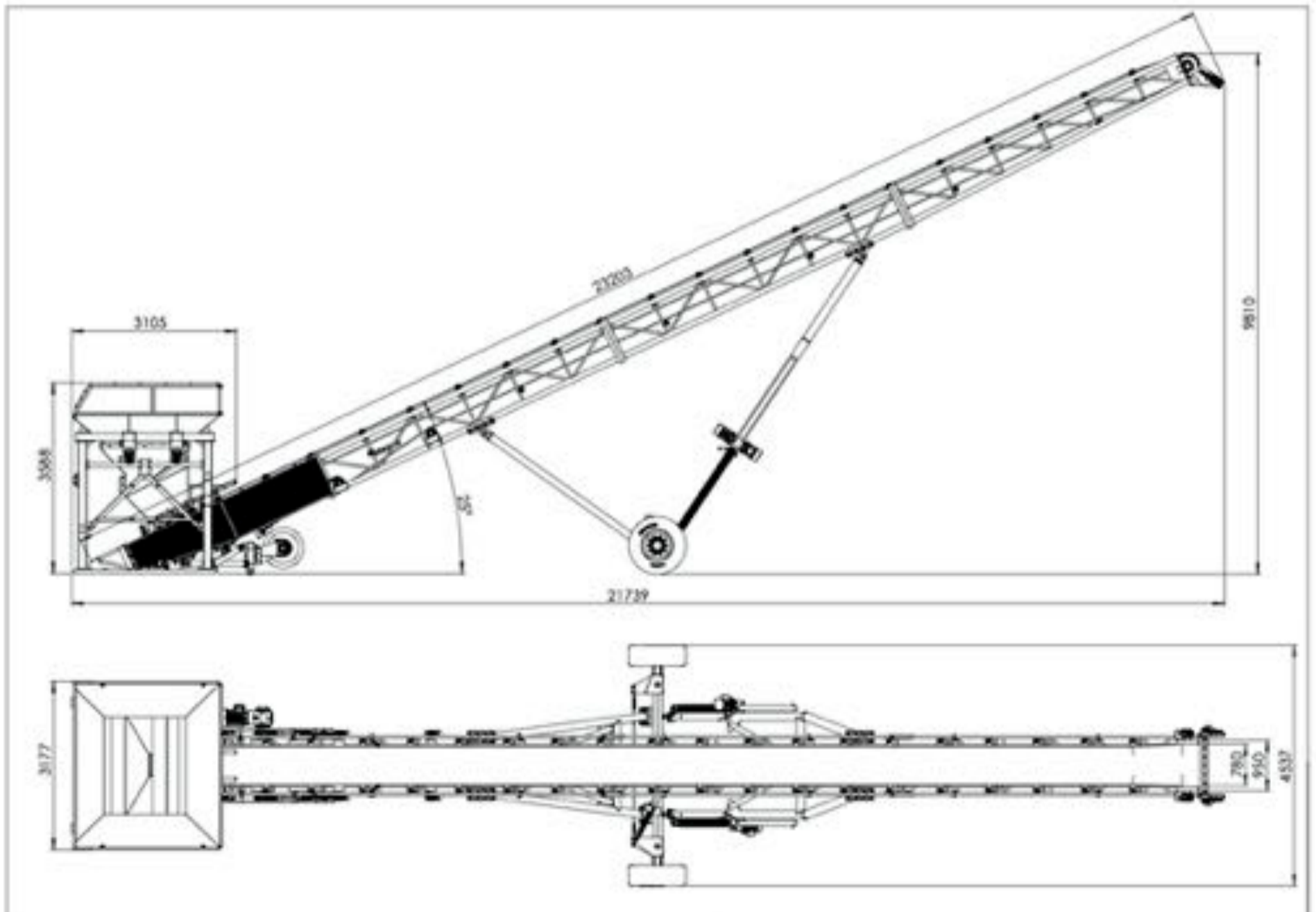


Fig. 7 Mobile conveyor — right-side and top view

The presented mobile conveyor with infeed hopper is designed for handling rock salt. Each subsystem used in its construction has been selected and adapted to the specific environmental conditions of the operating site.

Parameter	Value
Temperature (environmental)	Up to 35°C
Humidity	Up to 90%
Transportation material	Rock Salt

Table 1. Operating conditions and performance of the mobile conveyor

Parameter	Unit	Value
Troughing Angle	(°)	32
Belt Speed	[m/s]	1.1
Conveyor Throughput	[t/h]	200
Lift (discharge) Height	[m]	4.5 to 9.8
Conveyor Drive Power	[kW]	15
Transport Length of the Conveyor	[m]	21.8
A-weighted Sound Pressure Level	[dBa]	Max. 85

Table 2. Technical characteristics of the mobile conveyor

## Optional / customised specifications of the mobile conveyors

Parameter	Unit	Standard Value	Options
Throughput	[t/h]	150	Up to 800
Belt Width	[mm]	800	400-1600
Speed	[m/s]	2.0	0.3-3.5 (VFD)
Incline	(°)	18	Up to 22 (Chevron)
Length	[m]	24	Up to 120
Drive Power	[kW]	11	4-90
Frame Material	-	S355	SS304/SS316, Galvanised
Coating	-	C4-H 240 $\mu$ m	C5-M 320 $\mu$ m
Belt Type	-	EP 400/3	Oil-Resistant, FDA, Chevron
Noise	[dBa]	Approx. 80 @ 1m	$\leq$ 78 @ 1m
IP/ATEX	-	IP55	IP66, ATEX 21/22
Safety	-	Guards, pull-cord	Light curtains, interlocks

Table 3. Specifications of the customised mobile conveyor

### Key Benefits:

- Up to 20% lower energy use via optimised idlers and VFD
- 2x faster installation: Prefabricated sections, shared support points
- Safe operation: guards, pull-cord, misalignment and slip sensors
- C5-M corrosion resistance - outdoor and coastal duty

### Quick Spec:

- 150-800 t/h | 400-1600 mm | 0.3-3.5 m/s | up to 120 m | 0-22°
- Frame: S355, galvanised/painted; SS304/316 option
- Belt; EP/FDA/chevron, primary & return scrapers
- Controls PLC (Siemens/AB), Profinet/Ethernet/IP

### Optional equipment:

- Belt scales, magnetic separators, metal detector, skirting, covers, chutes, service platforms, dust extraction

### Docs & compliance:

- CE, O&M manual, 2D/3D (STEP, DWG), EPLAN, FAT/SAT. ATEX 21/22
- Full documentation package available in Polish and English

## Advantages at a glance

- Modular design - fast assembly and easy length adjustment
- High mobility - available with wheeled chassis and adjustable height
- Long service life - S355 or stainless steel (SS304/316) with C5-M coating
- Energy efficiency - optimised idlers and VFD drive system
- Safety - misalignment and slip sensors, pull-cord emergency stop
- ATEX 21/22 and CE compliance
- Easy integration with existing conveyor systems

## Case study / testimonial

- **Mining** - Installed at a limestone quarry in southern Poland, the Project Steel mobile conveyor reduced material handling by over 20% and significantly simplified logistics between storage areas.
- **Renewable energy / biomass** - The use of a mobile conveyor in a biomass pellet plant enabled flexible material flow management and increased line capacity by 15% without the need for permanent infrastructure expansion.
- **Shipyard / Intermodal** - At a Baltic seaport terminal, the Project Steel mobile conveyor enabled rapid deployment of a temporary loading line and full compatibility with the existing PLC control system.
- **Recycling sector** - At a municipal waste recycling facility, our mobile belt conveyor was implemented as a flexible link between the unloading zone and the sorting line. The modular structure and adjustable height enabled quick reconfiguration according to variable material flow. The VFD-based control system allowed precise belt speed control and reduced energy consumption by approximately 18%.



Fig. 8 Mobile conveyor for recycling sector (bottles) - one of the realised projects.