TECHNICAL SPECIFICATION

TS*R* 40 (125ft) TRACKED RADIAL TELESCOPIC STACKER

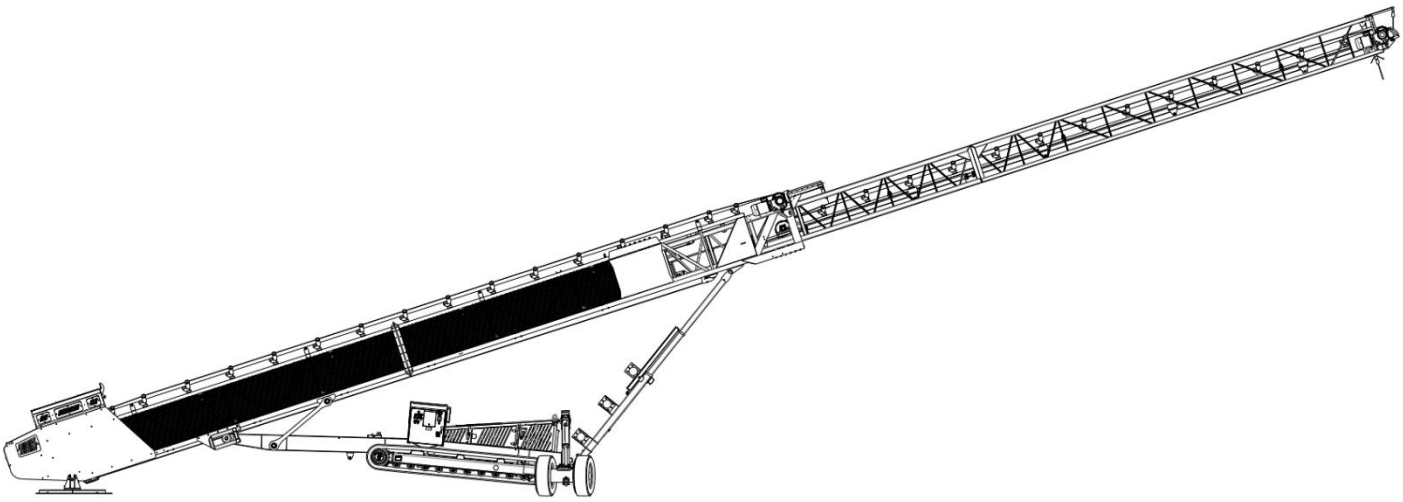


TS*R*40

Telestack®
Mobile Bulk Material Handling

Jan-25

TSR 40 – TRACKED RADIAL TELESCOPIC STACKER



The Tracked Radial Telescopic Stacker offers a unique material handling solution for the Quarrying, Mining, and Rail Transportation industries and can also be utilised in Ports & Inland Terminals for Ship/Barge Loading and Unloading. The radial, telescopic and luffing features allow the operator full control when stockpiling a range of materials whilst eliminating segregation, degradation, contamination, and compaction of material. The innovative design allows for up to **+30%** larger stockpile capacity when compared to conventional fixed length conveyor systems with the added benefit of increased site mobility to that of the regular radial telescopic stacker design.

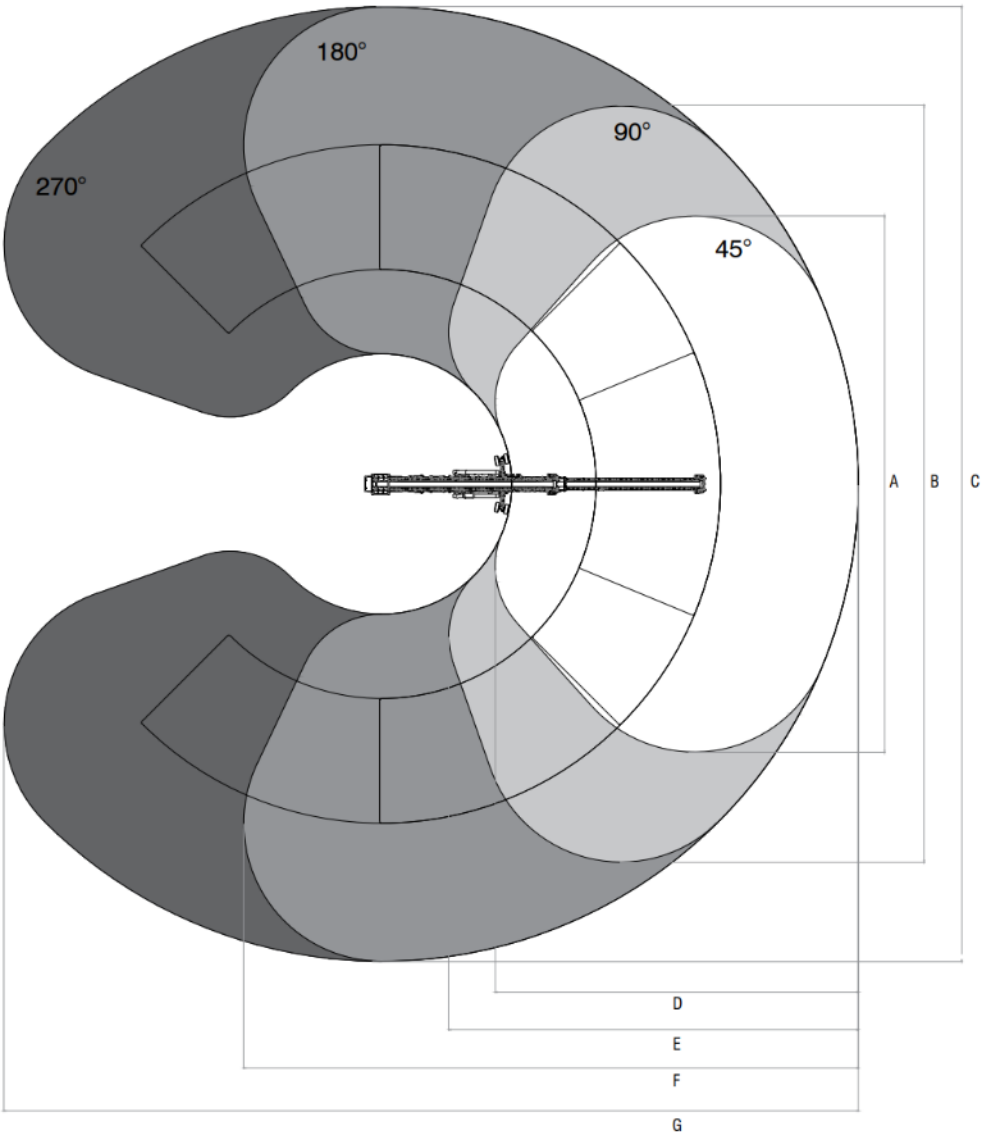
TYPICAL APPLICATIONS

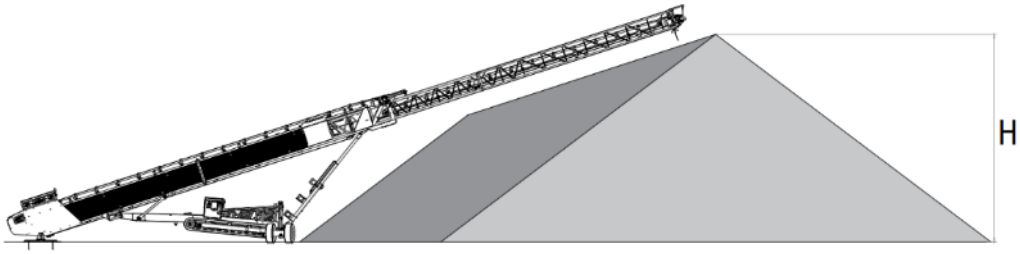
- Stockpiling (Automatically) from secondary crushers and screens
- Stockpiling crushed stone, sand and gravel, mineral ores
- Stockpiling construction and demolition waste, top soil, coal, grain etc
- Receiving crushed material and stockpiling safely over a quarry face/bench
- Working as part of a mobile system on short to medium term projects
- Ship loading directly to vessels
- Loading directly to trucks or rail wagons
- Telescopic mobile link conveyor

KEY FEATURES

- **RORO – 'Site to Site' Transport easily via Ro-Ro designed Radial Telescopic conveyor**
- Conveying material reduces dust levels, noise levels and carbon footprint
- Conveying material eliminates the high cost of dump truck or shovel haulage and is the most cost-efficient and environmentally sound method of material transfer
- Increased production capacities
- Lower capital investment
- Flexible and reliable mobile material handling equipment
- Reduced labour and operator costs
- Eliminate segregation, degradation, contamination, and compaction
- Minimal civils' and planning permission required as it is mobile equipment
- Paint specification, Cream: RAL 7032, Red: RAL 3001
- Options available

STOCKPILING CAPABILITIES





Using the telescopic feature enables the user to stockpile up to **30%** more than conventional fixed boom radial stacking conveyors.

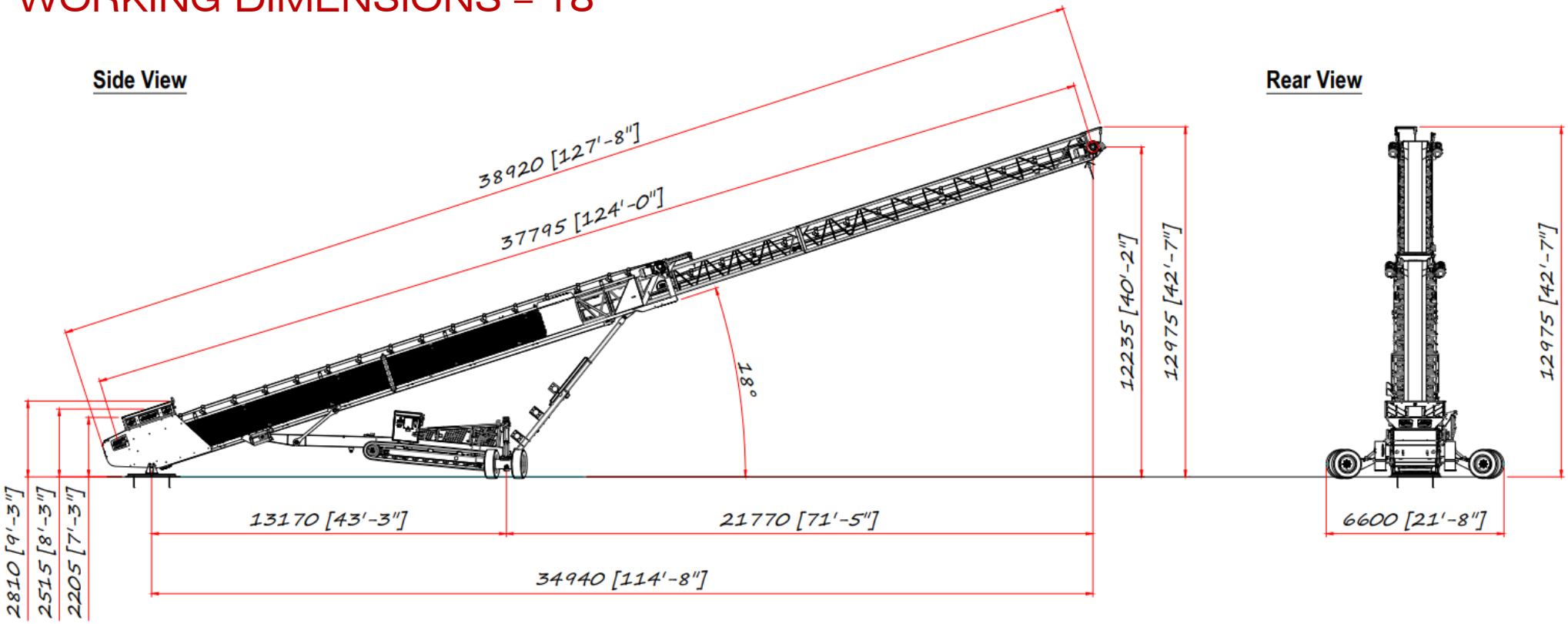
All stockpiling capacities shown are calculated based on 18° operation angle, and material, with bulk density of 1.6 T/m³ (100 lb/ft³), and stockpile angle of repose 37°.

Detail	Stockpile Dimensions	
	Metric	Imperial
A	58.6m	192’ 1”
B	82.6m	271’
C	104.3m	342’ 3”
D	39.7m	130’ 4”
E	44.8m	147’
F	67.2m	220’ 8”
G	93.5m	306’ 7”
H	11.4m	37’ 4”

	Stockpile Capacity (Volume)		Stockpile Capacity (Mass)	
	m³	yd³	Tonnes	Ton
0°	3,531	4,618	5,650	6,228
45°	9,757	12,762	15,611	17,208
90°	16,125	21,091	25,800	28,440
180°	28,862	37,750	46,179	50,904
270°	41,598	54,408	66,557	73,366

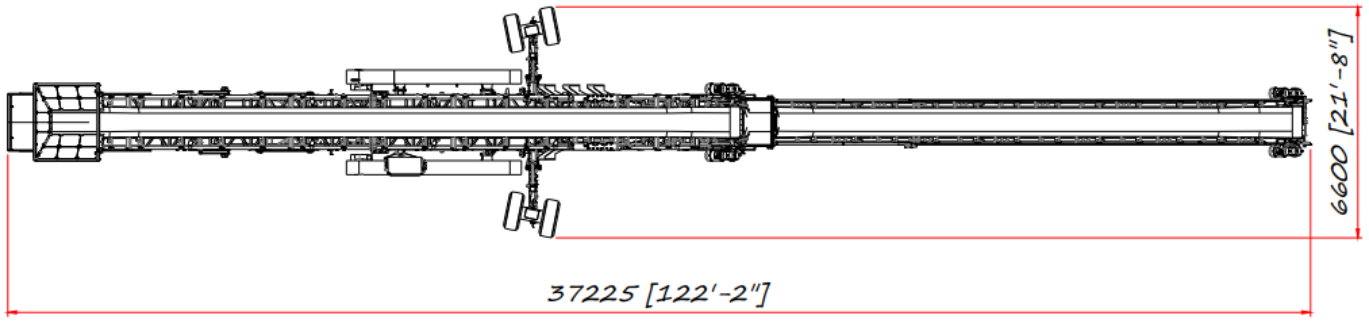
WORKING DIMENSIONS – 18°

Side View



Rear View

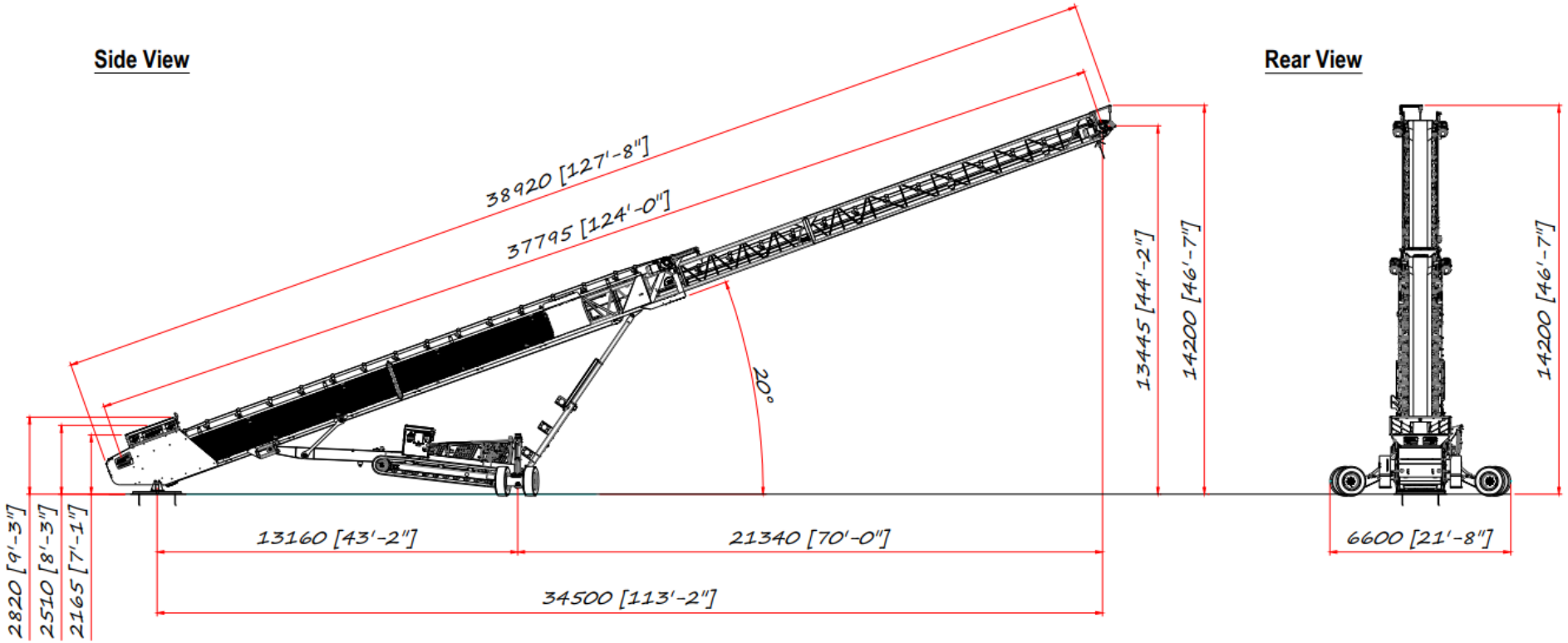
Plan View



	Metric	Imperial
Overall Length	37.2m	122’ 2”
Machine Working Length (18°)	34.9m	114’ 8”
Discharge Height (18°)	12.2m	40’ 2”
Feed in Height (Rear)	2.5m	8’ 3”
Operating Width	6.6m	21’ 8”

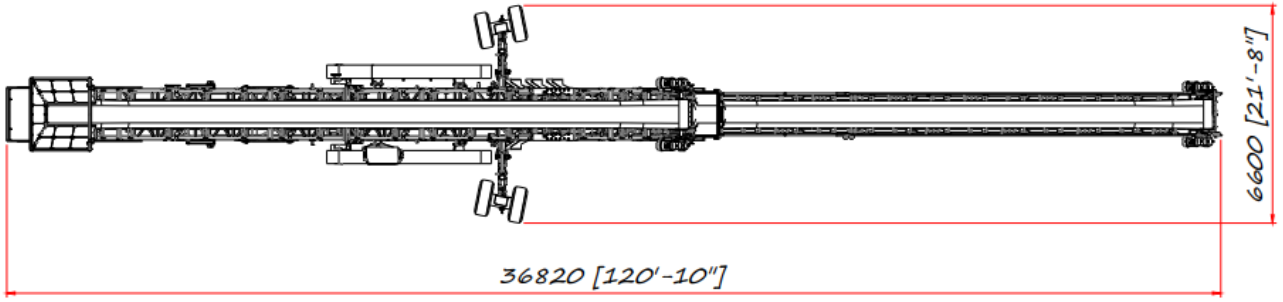
WORKING DIMENSIONS – Fully Raised

Side View



Rear View

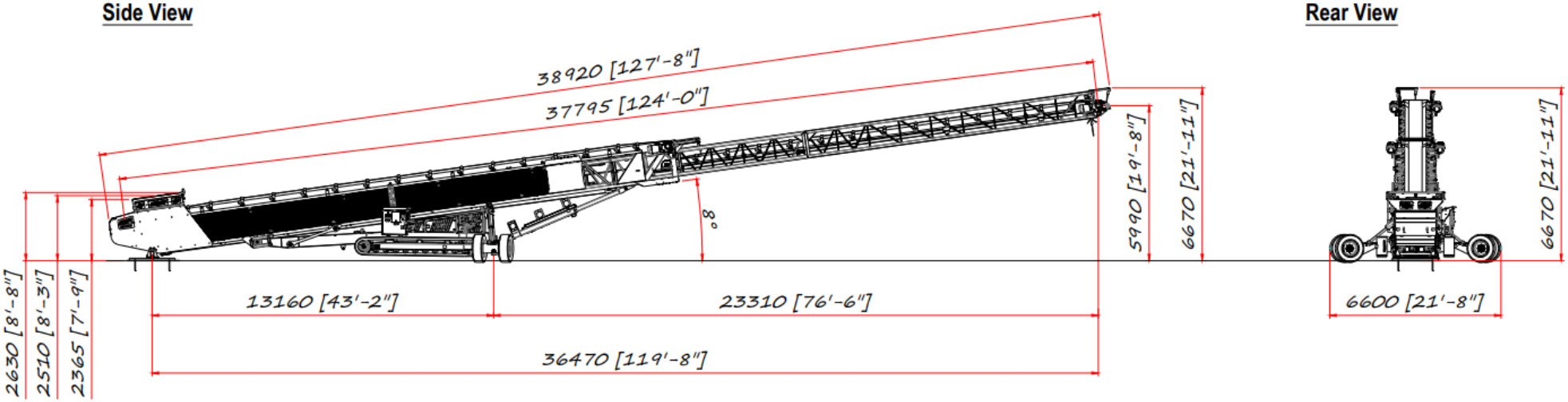
Plan View



	Metric	Imperial
Overall Length	36.8m	120’ 10”
Machine Working Length (20°)	34.5m	113’ 2”
Discharge Height (20°)	13.4m	44’ 2”
Feed in Height (Rear)	2.5m	8’ 3”
Operating Width	6.6m	21’ 8”

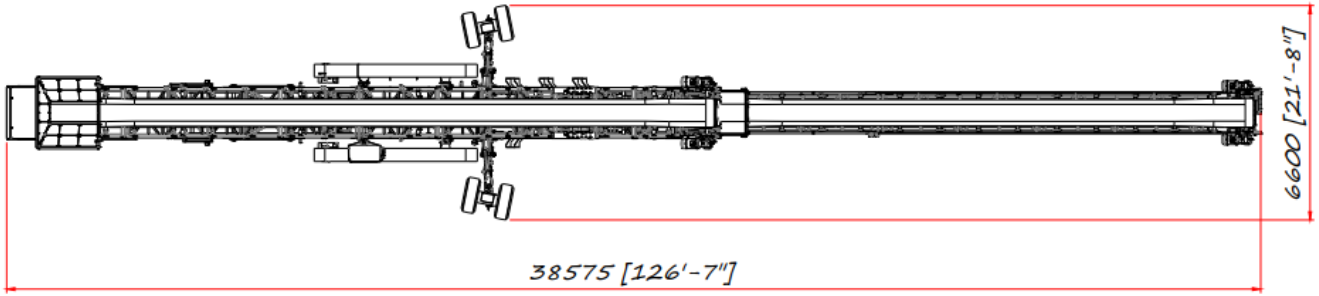
WORKING DIMENSIONS – Fully Lowered

Side View



Rear View

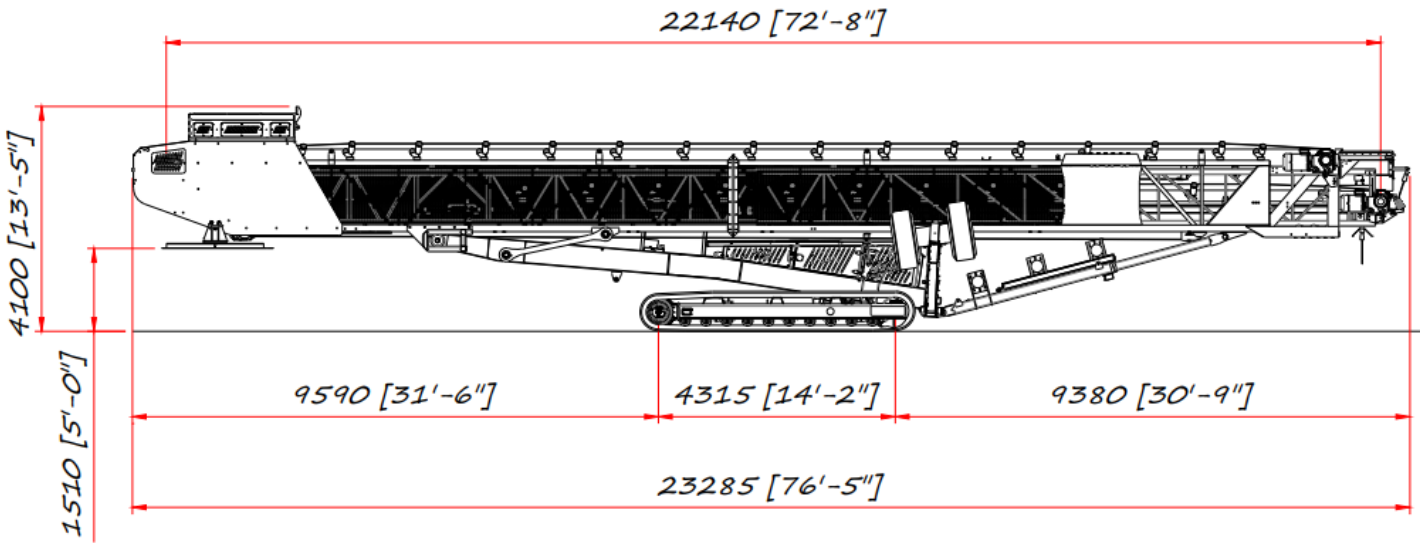
Plan View



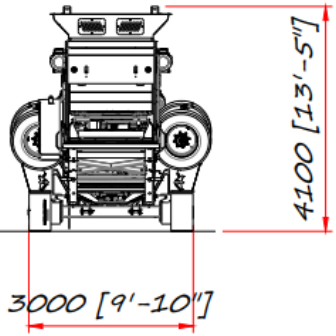
	Metric	Imperial
Overall Length	38.6m	126' 7"
Machine Working Length (8°)	36.5m	119' 8"
Discharge Height (8°)	6.0m	19' 8"
Feed in Height (Rear)	2.5m	8' 3"
Operating Width	6.6m	21' 8"

TRANSPORT DIMENSIONS – SITE TRANSPORT (Radial wheels mounted)

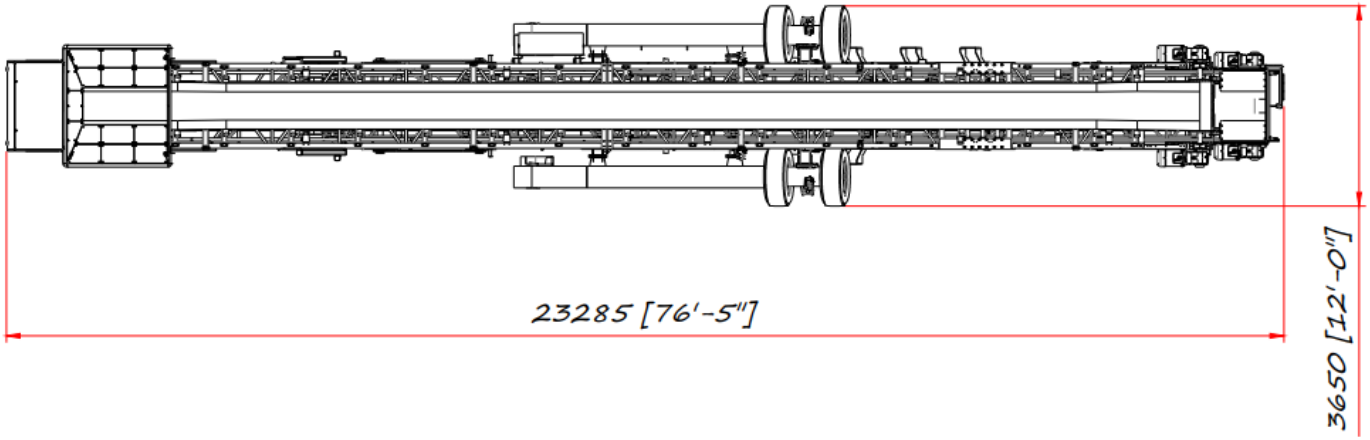
Side View



Rear View



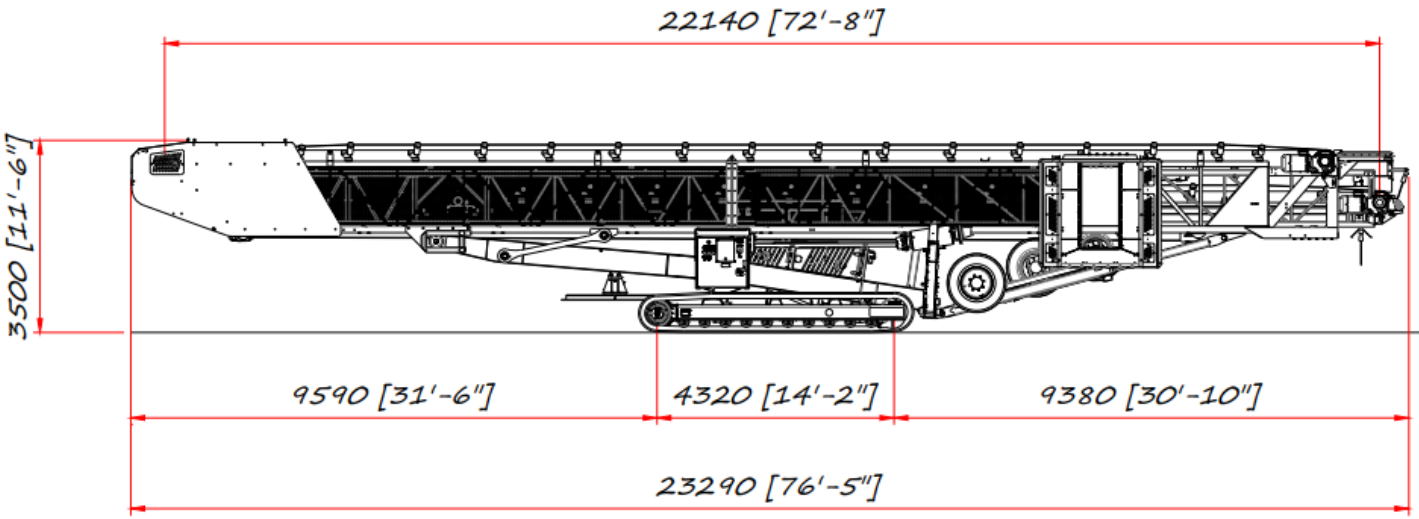
Plan View



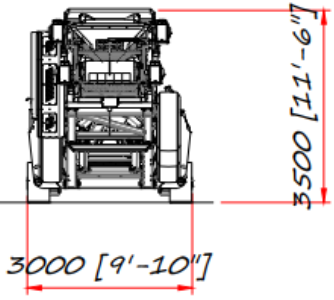
	Metric	Imperial
Transport Length	23.3m	76' 5"
Transport Width	3.7m	12'
Transport Height	4.1m	13' 5"
Overall Weight	32 Tonnes (Approx)	70,548 lbs (Approx)

TRANSPORT DIMENSIONS – SITE TO SITE TRANSPORT (Radial Wheels removed)

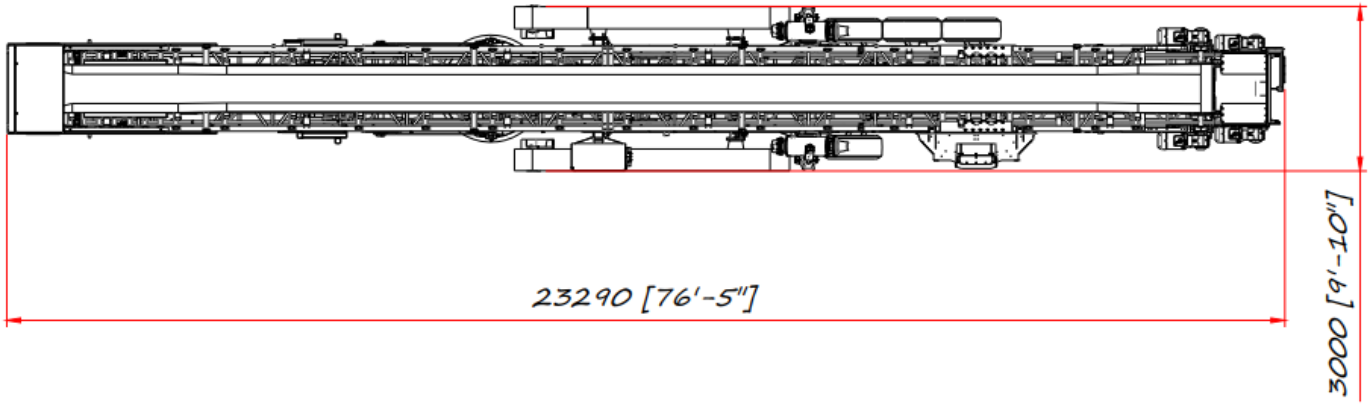
Side View



Rear View



Plan View



	Metric	Imperial
Transport Length	23.3m	76' 5"
Transport Width	3.0m	9' 10"
Transport Height	3.5m	11' 7"
Overall Weight	32 Tonnes (Approx)	70,548 lbs (Approx)

Feedboot & Counterweight

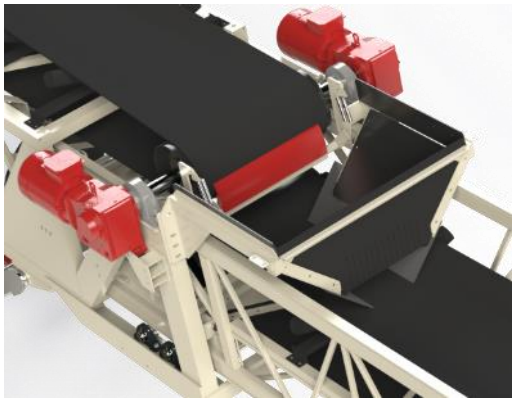
- Tapered style feedboot for larger target area and surge capacity
- 102mm (4”) rubber impact centre rollers in close spacing for extra impact absorption
- Dimensions:
  - Width – 2,080mm (6’ 10”)
  - Length – 1,825mm (6’)
  - Construction – 6mm (1/4”) Plate
  - Standard Liners – 6mm (1/4”) Mild Steel
- Rubber skirting around feedboot-belt interface to seal and prevent material spillage
- Removable turntable style plinth with ground securing bolt points for radial function
- Welded plinth positioning points with pinned lock for toolless assembly / removal





Outer Conveyor

- Proven ‘Lattice Frame’ structure provides maximum strength with reduced overall mass
- Open lattice design allows increased accessibility & ease of maintenance, maximising uptime and productivity
- 900mm (36”) wide EP400 3 Ply, 4mm + 2mm belting as standard
- 102mm (4”) diameter, three-roll, adjustable troughing roller set – 35° trough angle as standard
- 127mm (5”) spiral return roller at conveyor head
- 102mm (4”) plain return rollers along remainder of conveyor
- 2 x 15kW electric drive motors as standard (IP66 rated)
- 406mm (16”) diameter, rubber lagged head drum
- Primary face scraper at conveyor head to remove excess debris from the belt
- Plough scraper located on belt interior at tail drum to remove debris from internal belt surface





Inner Conveyor



- Lattice frame inner structure design
- 900mm (36”) wide EP400 3 Ply, 4mm + 2mm belting as standard
- 102mm (4”) diameter, three-roll, adjustable troughing roller set – 35° trough angle as standard
- 127mm (5”) spiral return roller at conveyor head
- 102mm (4”) plain return rollers along remainder of conveyor
- 2 x 11kW electric drive motors as standard (IP66 rated)
- Primary face scraper at conveyor head to remove excess debris from the belt
- Plough scraper located on belt interior at tail drum to Remove debris from internal belt surface
- Telescoping feature reaching lengths from 23m to 38m



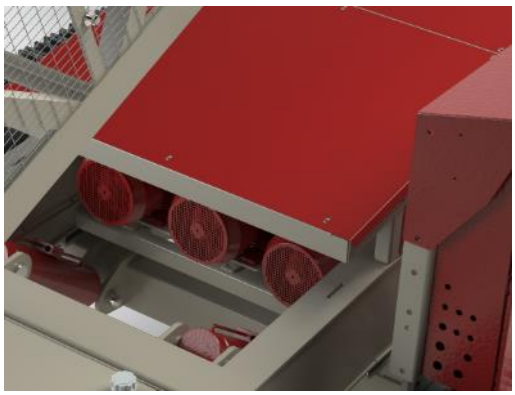
Undercarriage



- Fully self-contained design for all unit workings within a centralised chassis
- Large locking canopy access doors for ease of maintenance with added security / safety
- Gull wing radial wheels with hydraulic raise and lower functionality, including transport position
- Twin cylinder luffing trestle including mounting positions for radial wheels when in RORO configuration
- Heavy duty FL6 tracks mounted centrally to the underside of the chassis
  - Track centre length – 4,300mm (14’ 1”)
  - Machine track width – 3,000mm (9’ 10”)
  - Track shoe width – 400mm (1’ 4”)
- Hydraulic dual ram track raise and lower for radial function
- Cam-arm style rear mount, to maintain constant radial wheel radius when raising and lowering conveyor



Power & Control



- 135 kVA (Prime) – 3 Phase - Tier IV Final / Stage V – Brand: Perkins - Integrated Electric Hydraulic generator to power all functions of the Unit – Tracked (Mobility) and Operational Functions (Conveyor belts)
- 2 x 15kW Electro-hydraulic powerpacks for track mobility
- 1 x 11kW Electro-hydraulic powerpacks to operate all other machine movements:
  - raise / lower conveyor
  - raise / lower radial gull wings
  - raise / lower tracks
  - radial movement

- 3kW electric driven winch to operate conveyor telescoping functionality
  - 13mm (1/2") diameter wire rope

- Optional Removal of Generator from Under-carriage to power via power cable ONLY. Unit can only be powered using trailing cable for site transport / operation.

CONTROL PANEL
Machine includes an integrated control panel for all functions of the unit: Start / stop conveyor from this panel. Features include: Integrated Estop, Machine start stop, Fault Reset, Isolator with both touch screen and push button control.

FAULT DIAGNOSITICS / OPERATION
Touch HMI screen panel with operational views and fault diagnostics that will highlight any faults within the conveyor system for easy review and resolution.

PUSH BUTTON
Additional Push buttons mounted to the panel for ease of operation and manual control.



IP 66 RATED ENCLOSURE
Water/Dust resistant enclosure for optimum electrical component protection against harsh elements and conditions.

MAIN ISOLATOR
Main safety measure for switching off all machine functions.

MALE/FEMAILE PLUG SLOTS
Male and female plug slots for quick connection to 3 phase power. (Unplug generator power cable / Plugin 3 x phase cable).



Hydraulics

- Cast iron pump mounted on main electro-hydraulic drive
- Access doors / panels provide easy access for maintenance and servicing requirements
- Standardised hydraulic tank including fill level gauge, low level sensor and locking filler cap
  - Capacity - 273 litre (60 US gallon)
  - Oil type - Type 32
- All machine movement functions driven electro-hydraulically – Raise / lower conveyor, raise / lower radial gull wings, raise / lower tracks, radial movement, and tracked movement





PAINT OPTIONS & SPECIFICATION

PRE-PAINT PREPARATION

- All steel work Degreased/Cleansed
- Shot blasted in accordance with standard SA 2.5
- Steel shot blasted with synthetic mineral silicate using a grain size of 0.2 – 1.5mm, to give a high cleaning rate and etch acceptable for coatings

Option ID	Micron Finish	Coats					Finish range DFT (µm)
		1	2	3	4	5	
Telestack P1 (Standard)	**140**	K3	PU	PU (Flash)	N/A	N/A	120µm - 155µm
Telestack P2 (Marine)	**250**	Zinc	K3	PU	PU (Flash)	N/A	250µm - 300µm
Telestack P3 (Special)	**300**	Zinc	K3	K3	PU	PU (Flash)	275µm - 325µm

- **A – K3 – High Build Two-Pack Epoxy Primer -** A high performance two-pack epoxy primer designed to meet the exacting requirements of the agricultural and construction equipment markets, used in all applications
- **B – Zinc Rich Epoxy Primer –** Zinc based epoxy primer with capability for high build application, used in Marine and very abrasive applications
- **C – PU - High Solids Two-Pack Polyurethane Finish –** High performance Two-pack polyurethane designed to meet the exacting requirements of the ACE and materials handlings market, can be used in all applications

COLOUR

- RAL – 7032 – Telestack Cream
- RAL – 3001 – Telestack Red

All steel work fully painted, including inside edges of holes / cut-outs, along edges and underneath / hidden faces not normally viewed.

**(All externally purchased items shall have a nominal DFT of 50-100µm, as delivered to Telestack. If additional paint is required, this must be discussed up front with the sales team.)*

OPTIONAL EXTRAS

Control & Electrical

- Radio Remote control – All conveyor functions
- TSRM (tail shaft rotation monitor & plug / socket ton interlink auxiliary equipment
- Front interlock on inner conveyor discharge point (Stops unit if secondary system stops)
- LED floodlights fitted to outer and inner conveyor (Removed for transport)
- VSD (variable speed drives) mounted to outer and inner conveyor to control belt speed for handling a range of materials
- Stainless steel control panel upgrade
- Removal of Integrated Genset in Chassis - Driven by Plugged Cable Only for Tracking and Operation

Feedboot & Liners

- Upgrade 6mm (1/4”) Hardened steel liners (feedboot and transfer point)
- Bolt in fall-break in feedboot
- 350mm feedboot extensions (Removed for transport)

Belting / Drums

- Belt upgrade – EP500 3 ply, 5 + 1.5mm (Medium duty applications)
- Belt upgrade – EP600 4 ply, 6 + 2mm (Heavier duty applications)
- Chevron Belt Upgrade – EP 400 3 ply, 4 + 2mm (Aggregate / standard applications)
- Ceramic lagged drive drum upgrade on outer and inner conveyor

Tracks

- Track shoes upgraded to flat steel with chamfered edge for protection of working surface

Dust Containment

- Water spray bar at discharge point (Inner conveyor)
- Canvas dust covers on outer conveyor only (Removed for transport)
- Galvanised dust covers on outer conveyor only (Removed for transport)
- Enclosed head chute mounted at conveyor discharge point – Square to square, open design with rubber flaps (Removed for transport)

Paint Options

- Non Standard colour paint (RAL number must be advised below in "Additional Info”
- 250 Micron Marine Grade Paint Finish (Structure Only)

TRANSPORT

'RoRo'

- Machine can be transported via low loader trailer (As shown) with all features folded into transport position.





Containerisation

- Telestack units can be packed into 40ft (12m) containers for efficient and economic global travel
- The equipment is designed, manufactured, built and fully tested in the factory before dispatch
- The client can inspect the completed unit during the testing procedure in the Telestack factory for approval if required



TSR-40 TRANSPORT – SET-UP GUIDE (15 minutes)

One of the main advantages of the TSR 40, tracked radial telescopic stacker, is the ability to transport the unit via low loader in the '**RORO**' configuration. The following set-up sequence outlines the process of the unit arriving to site and the steps taken to reach an operational configuration.



1. Unit arrives via low loader transport – Unit designed with transport sizing no larger than: 3m wide, and 3.5m tall.





2. Unit is tracked off low loader under its own power. Low loader then removed.



3. Hopper and radial wheels unbolted and removed from their transport mountings.



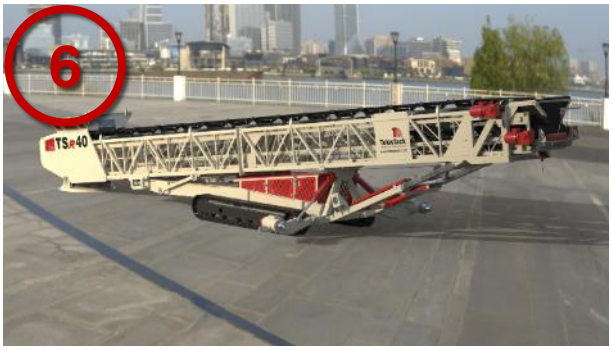


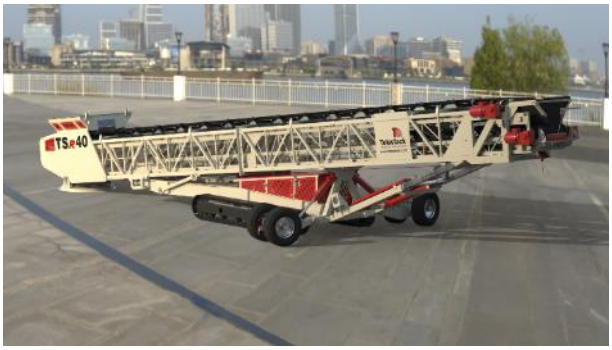
4. Unit tail is lowered so rear plinth is resting on the ground. Rear plinth is un-pinned from the chassis transport position.





5. Unit tail is risen slightly and tracked forward to locate and pin the rear plinth into the operational position. Feedboot mounted when tail is lowered, and rear plinth secured.





6. Radial arms are lowered partially, and wheels fitted.



7. Radial arms lowered fully and tracks raised allowing ground clearance for radial operation.

The telescopic boom can now be raised and extended to the desired operational height / length.

AFTERSALES

Dedicated Facility With A Dedicated Team - Telestack after-sales department quickly solve problems to ensure the safe and efficient operation of Telestack equipment in the field and support regular maintenance and uptime of the product. Parts packages are tailored to suit the equipment, the application, and the location.

The Correct Part First Time, Every Time – Our spare part team does extensive research into ensuring that you receive the correct parts ASAP. Telestack will go above and beyond to get your machines up and going. All of our Telestack Spares teams do extensive internal training regarding the spare parts on your machine.

Consistent Quality that you Have Come to Expect from Telestack – Consistent quality is at the heart of what we do. Internal quality checks exist to ensure that you receive the correct part and that is of sufficient quality.

What We Do – Within the Spares department we continuously build and develop strong relationships with our customers, putting your needs at the fore. Particularly in relation to after ales support, spare parts queries, shipping and transport and assistance with technical knowledge where possible. We have a team dedicated to assist you with all issues relating to after sales.

Aftersales Contact Info

Tel: +44 (0)28 8225 1100
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TSR40


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THE
POWER
TO MOVE
MATERIALS

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