

# TECHNICAL SPECIFICATION

TB 52 – 52m (170ft) TELESCOPIC BOOM SHIP-LOADER



EXPORT

  
**Telestack**<sup>®</sup>  
Mobile Bulk Material Handling

# TB 52 – TELESCOPIC BOOM SHIP-LOADER



Telestack has decades of experience throughout every part of the logistics chain from pit to port and port to plant and they continue to provide innovative and reliable mobile bulk material handling systems to its worldwide customer base. Telestack have thousands of installations across the globe in a range of applications and their products offer enhanced flexibility and efficiency in handling dry bulk material, whether from the pit, the port or plant.

At Telestack we strive to fill the maximum expectations demanded by our customers and in doing this every Telestack Ship-loader is completely designed, manufactured and built with the customer's specific requirements in mind. Taking this into consideration every machine that leaves our factory is unique and bespoke to the customer based on application, commodity and customer specification. The below table gives a flavour of the materials already being handled throughout the world.

Alumina Ore	Bark	Barley	Slag	Peat	Limestone
Bauxite	Bran	Calcium Carbide	Sugar	Quartz	Manganese Ore
Caliche	Cement Clinker	Clay	Wood Pallets	Sand	Sinter
Coal (Thermal)	Coke	Copper Ore	Soda Ash	Pet Coke	Nickel Ore
Dolomite	Fertilizer	Grain	Sulphur	Rock	Zinc Ore
Granite	Gravel	Gypsum	Woodchips	Sandstone	Wheat
Iron Ore	Lignite	Lime	Stone, Crushed	Salt	Fish Meal

## TB 52 – WHY USE MOBILE?

The use of mobile systems throughout Ports and Inland Terminals is ever expanding globally. The innovative nature of the Telestack range means Operators have the ultimate flexible solution for handling dry bulk in the Port/Terminal. The Telestack range offers many benefits to your operation including:

- Increased mobility increases flexibility when handling your dry bulk
- No civil construction or planning permissions required
- Lower CapEx investment when compared to fixed infrastructure & mobile harbour cranes
- Environmental considerations – integrated dust extraction & containment systems
- Ideal for multi-cargo berths when handling dry bulk/containers/break bulk
- Perfect investment for stevedoring companies ensuring lower costs per tonne
- Multi-functional equipment – same units for shiploading/ship-unloading, stacking & reclaiming
- Short lead times from order to operational – Typically 10-24 weeks

# TB – UNDERSTANDING OUR TECHNOLOGY

## RADIAL FEATURE

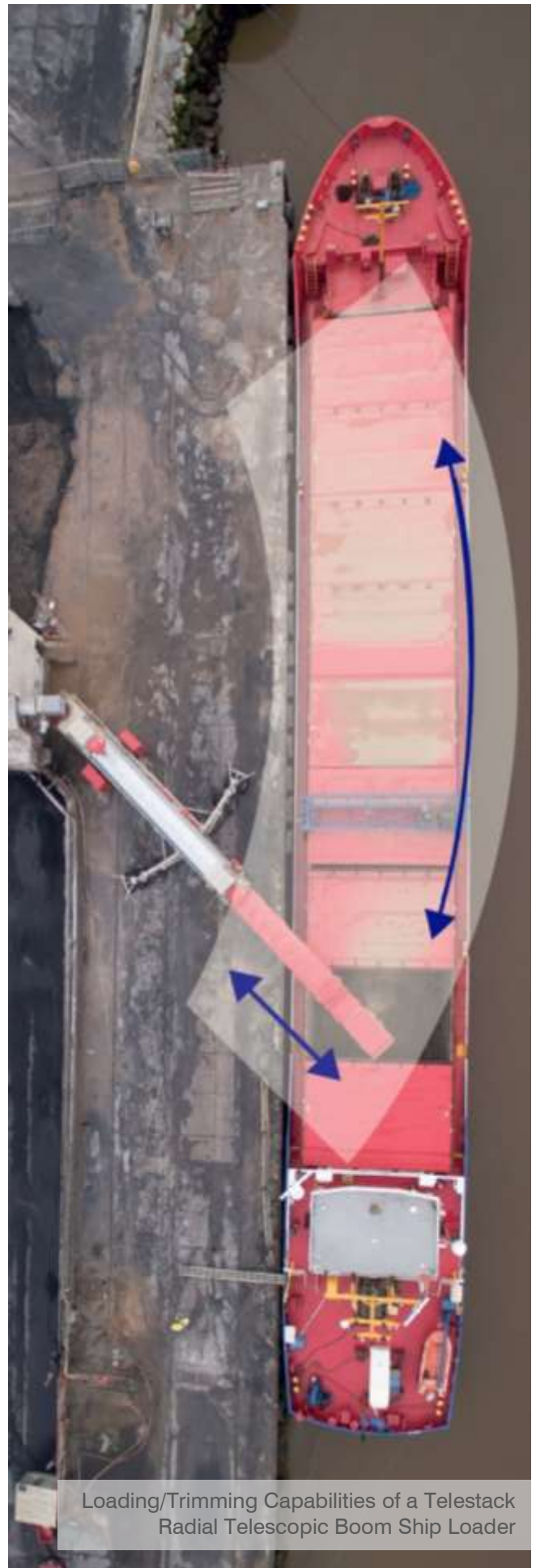
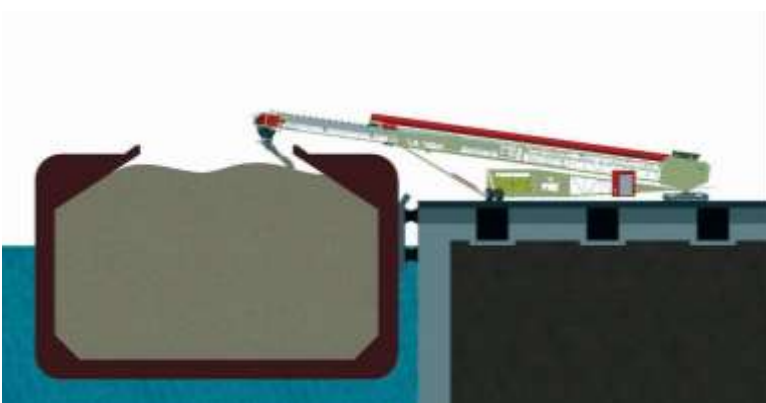
The Radial Feature allows the operator to easily trim the hatch or multiple hatches from one feeding position

- Operator can load a number of hatches from one single feed-in point without re-positioning the equipment
- Flexible loading procedure which allows for increased production rates
- Telestack mobile ship-loaders are hydraulically driven left/right, which ensures the feeding equipment does not have to move or stop during the loading process
- Radial function allows the ship-loader to be positioned in a number of central loading points, allowing multiple hatches to be loaded while minimizing the hatch change times
- The luffing feature (raise/lower) of the radial telescopic offers the operator flexibility to easily raise or lower the entire conveyor section depending on the free-board

## TELESCOPIC FEATURE

The Telescopic Feature can trim a number of hatches without moving the feeding system

- The Telescopic Boom Ship-loader retracts and extends in and out allowing the operator to trim the vessel with ease, without moving or stopping the equipment, all via the integrated radio remote control system
- The use of the telescopic technology eliminates the downtime caused in production by having to move the equipment with a more efficient and effective process, especially during final stages of loading when trimming the vessel



Loading/Trimming Capabilities of a Telestack Radial Telescopic Boom Ship Loader



# METHODS OF FEEDING

## TITAN – BULK RECEPTION FEEDERS



### BULK RECEPTION FEEDER

Telestack offer a range of Track Mounted, Wheel Mounted and Static Bulk Reception Hoppers to enable the client to load from trucks, wheel loaders and ADT's which will feed directly into the Telescopic Boom Ship-loader. This eliminates double handling of the material which enables direct loading from truck to ship.

## HOPPER FEEDERS



### HOPPER FEEDERS

Telestack offer a range Track Mounted, Wheel Mounted and Static Hopper Feeders. These are classified by hopper capacity, varying from 12m<sup>3</sup>-24 m<sup>3</sup>. Hopper feeders are sized according to capacity required, pay loader size and material specification.

## MOBILE LINK CONVEYORS



### MOBILE LINK CONVEYORS

Telestack offer a range of mobile link conveyors, varying in lengths depending on the site requirements. The use of mobile link conveyors eliminates/reduces haulage costs from warehouse/stockyard via trucks or wheel loaders to the ship-loader.

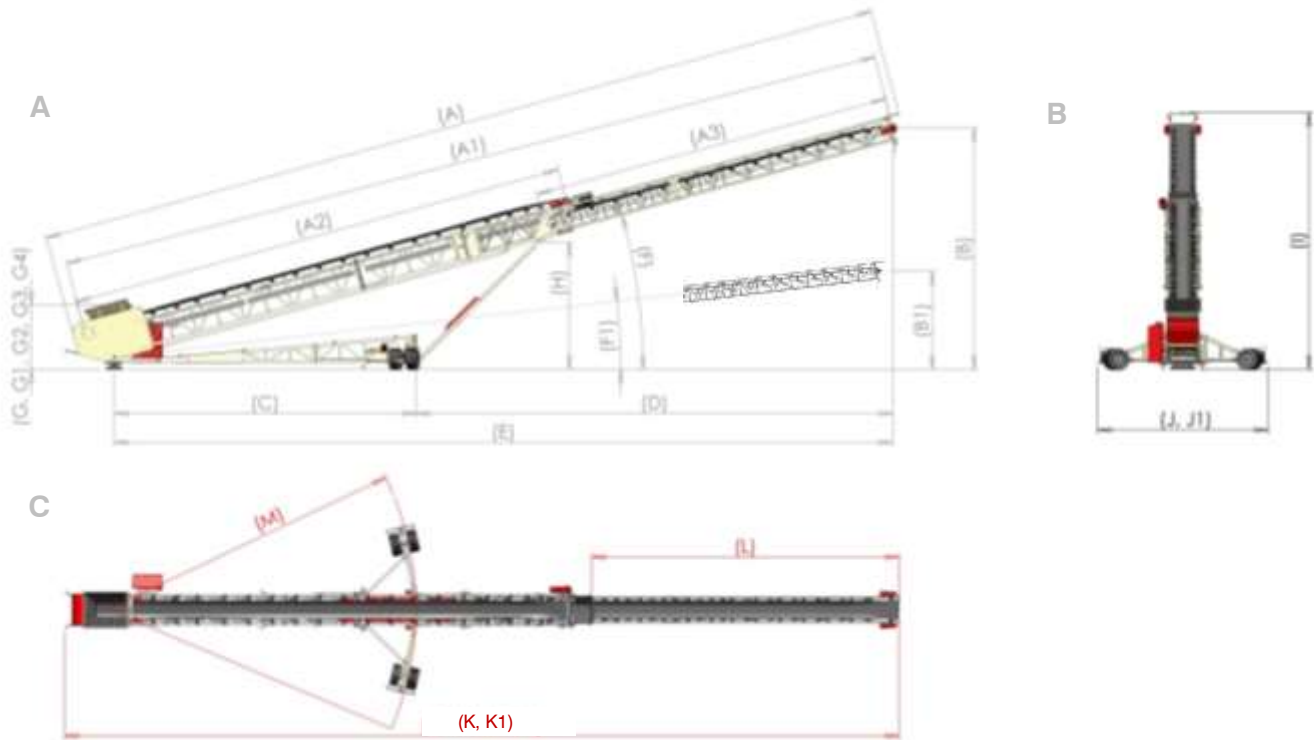
## OVERHEAD/TRIPPER CONVEYOR



### OVERHEAD TRIPPER/STATIC FEED CONVEYOR

Telestack ship-loaders can be designed to accept feed from overhead conveyors, tripper conveyors or existing infrastructure.

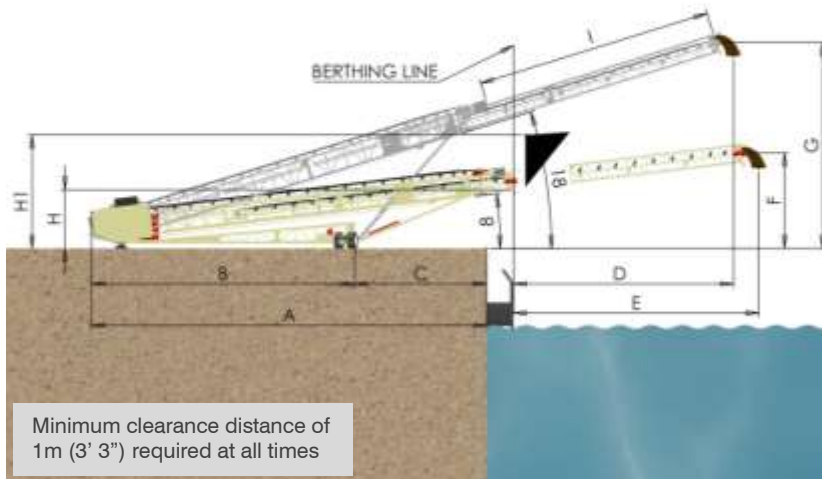
# TB 52 – GENERAL DIMENSIONS



Section	Detail	Distance Detail	Metric	Imperial
A	A	Conveyor Length (End to End)	52.48m	172' 2"
	A1	Conveyor Length (Pulley to Pulley)	51.56m	169' 2"
	A2	Outer Conveyor Length	31.44m	103' 2"
	A3	Inner Conveyor Length	21.68m	71' 2"
	B	Discharge Height (Operational)	17m	55' 9"
	B1	Discharge Height (Fully Lowered)	8.4m	27' 7"
	C	King Pin to Front of Wheels	21.22m	69' 7"
	D	Wheels to Discharge Point	26.74m	87' 9"
	E	Slew Pin to Discharge Point	47.98m	157' 5"
	F	Angle of Inclination (Operational)	18°	18°
	F1	Angle of Inclination (Fully Lowered)	8°	8°
	G	Feed in Height (Standard Plinth)	3.38m	11' 1"
	G1	Feed in Height (Wheeled Bogie)	3.78m	12' 5"
	G2	Feed in Height (Electric Tracks)	4.48m	14' 8"
	G3	Feed in Height (Diesel Tracked Bogie)	4.48m	14' 8"
	G4	Feed in Height (All Wheel Travel)	5.82 m	19' 1"
H	Conveyor Clearance Height (18°)	9.3m	30' 6"	
B	I	Operational Height	17.42m	57' 2"
	J	Operation Width (Single Bogie)	8.32 m	27' 4"
	J1	Operation Width (Double Bogie)	11.54m	37' 10"
C	K	Working Length (Operational)	50.78m	166' 7"
	K1	Working Length (Fully Lowered)	52.84m	140' 4"
	L	Telescopic Boom Extension Distance	19.75m	64' 10"
	M	Radial Arc (Radius)	21.08m	69' 2"

# TB 52 – SHIPLOADING WORKING DIMENSIONS

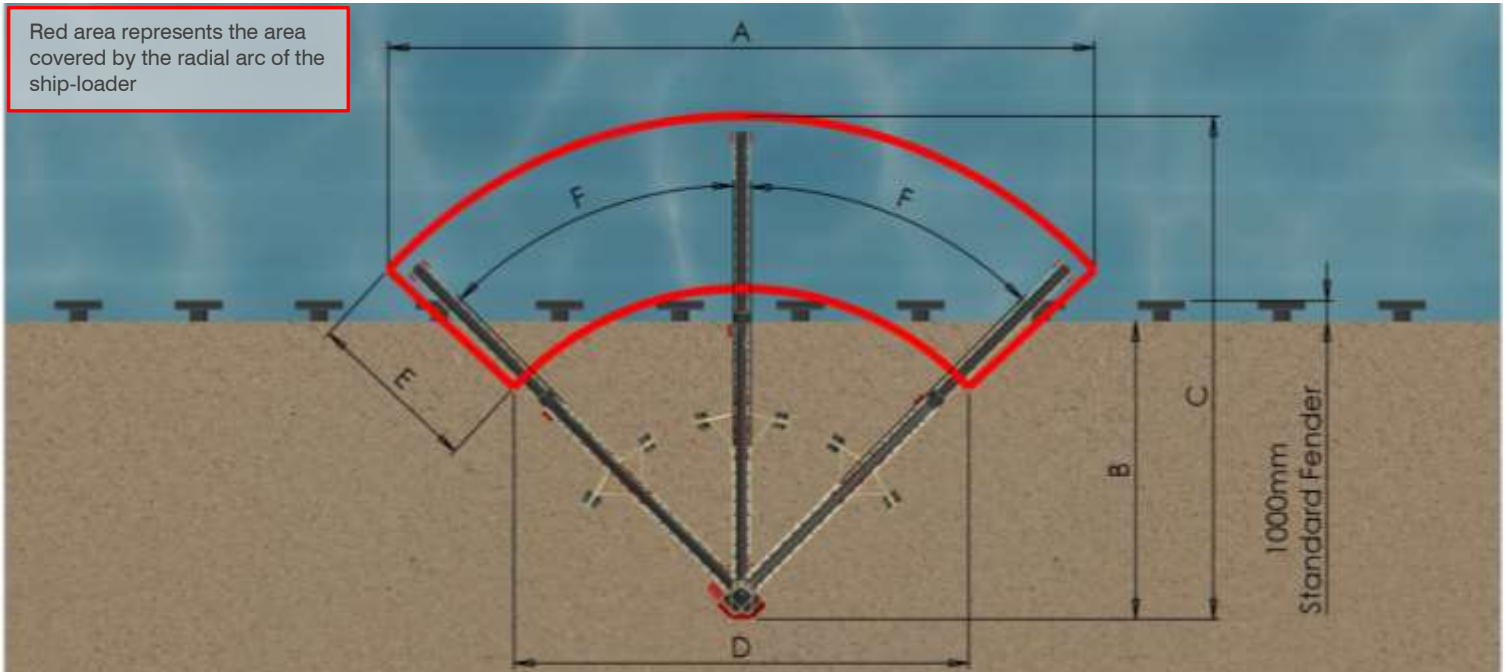
## JETTY DIMENSIONS



Detail	Distance Detail	Metric	Imperial
A	Minimum Quay Width	32.9m	107' 11"
B	Undercarriage Length	23.4m	76' 9"
C	Clearance Distance (Machine Behind the Berthing line)	9.5m	31' 2"
D	Berthing Line to the Centre Point of Material Discharge (Fully Raised)	16.74m	54' 1"
E	Berthing Line to the Centre Point of Material Discharge (Fully Lowered)	18.96m	62' 2"
F	Discharge Height (Fully Lowered)	8.4m	27' 7"
G	Discharge Height (Fully Raised)	17.0m	55' 9"
H	Clearance Height (Fully Lowered)	4.96m	16' 3"
H1	Clearance Height (Operational)	9.86m	32' 4"
<i>Based on this maximum free board of the machine is 8.1m, maximum freeboard at start of loading process</i>			
I	Telescopic Boom Extension Distance	19.75m	64' 10"

*\*(Dimensions based on machine fully retracted at berthing line, allowing 1m fender)*

Red area represents the area covered by the radial arc of the ship-loader



Detail	Distance Detail	Metric	Imperial
A	Maximum Radial Travel Distance of Extended Conveyor at 90° Radial Arc	68.98m	229' 7"
B	Distance from the rear of Conveyor to the Edge of the Jetty/Quayside	33.96m	111' 5"
C	Distance from Rear of Conveyor to Discharge Point	51.04m	167' 5"
D	Maximum Radial Travel Distance of Retracted Conveyor at 90° Radial Arc	41.5m	136' 2"
E	Telescopic Boom Extension Distance	19.5m	63' 12"
F	Total Radial Angle (F+F)		90°



# TB 52 – VESSEL LOADING CAPABILITY



## SHIP-LOADER SELECTION GUIDE

	Barge	Coaster	Handysize	Handymax	Panamax	Baby Cape
TB-32	✓	✓	X	X	X	X
TB 52	✓	✓	✓	✓	X	X
TB-52	✓	✓	✓	✓	✓	X
TB-58	✓	✓	✓	✓	✓	✓
Freeboard Height Range (Typical)	0-3m (0'-9'11")	2-6m (6'7"-19'8)	4-8m (13'1"-26'3")	6-10m (19'8"-32'10")	10-14m (32'10"-45'11")	16m (52'6")
DWT (Typical)	100-10,000 DWT	500-6,000 DWT	10,000 – 30,000 DWT	30,000 – 60,000 DWT	60,000 – 80,000 DWT	80,000 – 120,000 DWT

## VESSEL LOADING APPLICATIONS

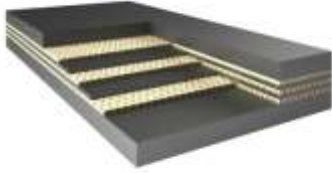
*\*(More Case studies and references available upon request)*

Telestack offers a wide range of mobile ship-loaders to load barges, coasters and larger vessels. Telestacks unique range of ship loaders are designed taking into consideration maximum and minimum freeboard heights, beam and quayside widths



# TB 52 – STANDARD FEATURES

## BELTING



### WEAR RESISTANT BELTING

Robust design means it performs well when handling heavy and abrasive materials. High wear and cut resistance, excellent impact protection and stretch resistance when faced with materials such as gravel, coal etc.

### CLEATED/CHERON BELTING

This belting is used for transporting free flowing material up inclined angles normally over steep angles. The integrally moulded cleats ensure maximum longevity through the service of the ship-loader.

### HEAT RESISTANT BELTING

Typically used in various industries when transporting hot and abrasive materials. Can perform with temperatures up to 200°C and suitable for handling hot materials such as clinker, cement, coke, slag etc.

### OIL RESISTANT BELTING

To prevent against swelling when transporting oily materials, this belting prevents the belt curling on the conveyor where it would become ineffective at transporting material.

### FLAME PROOF BELTING

Specifically used in applications where the risk of fire and spread of fire needs to be prevented or controlled, such as mines, confined or enclosed spaces that could be a potential safety risk for the operators.

### COLD TEMPERATURE BELTING

Specifically used in applications where the ship-loader will be faced with adverse weather conditions and sub-zero temperatures.

Widths range from 800mm (32”) to 1500mm (60”) available based on application/commodity  
 Grades range EP 400 3 PLY (4+2mm) to EP 630 4PLY (6+2mm) based on application/commodity

## TROUGHING AND RETURN ROLLERS

### TROUGHING ROLLERS

127mm (5”) Dia Troughing Rollers, 3 Roll Sets as standard. Troughing rollers are set at particular degree depending on belt width, commodity and application. CEMA rated or equivalent and upgrade to galvanised roller board option available (*Marine Spec*).



### PLAIN RETURN ROLLER

102mm (4”) Diameter Plain Return Roller. Sized depending on application, commodity and belt type (Plain/Chevron).



### DISC RETURN ROLLER

150mm (6”) Diameter Spiral Return Roller. Commissioned depending on application, sized and belt type (Plain/Chevron).



## DRIVES & BEARINGS

### SHAFT MOUNTED ELECTRIC DRIVES

Shaft mounted helical bevel gearbox with direct drive motor mounted on inner and outer conveyor.

Electric Drive Motors, IP 66 and IE3 Efficiency as Standard.

All motors are sized and specified based on individual application, commodity and project parameters, as this will vary from project to project.

Mounted on SKF Bearings



ELECTRIC SHAFT MOUNTED DRIVES



## WINCH SYSTEM



### WINCH DRIVE SYSTEM

The Telescopic Boom Conveyor is extended and retracted using a wire rope and winch system.

Electric Drive Motors, IP 66 Rated as standard and IE3 Efficiency as Standard.

Heavy duty wire rope used for optimum tensile strength, whilst guarding against failure.

Emergency rope break system built into every conveyor as standard, which will activate in the unlikely event of a wire rope break scenario.

## HYDRAULICS

### ELECTRO-HYDRAULIC POWER PACK

Electro-hydraulic power pack with 50-200 litre oil reservoirs (Depending on Application or Commodity). This power pack operates all hydraulic functions – Raise/Lower conveyor, radial left and right, raise/lower under-carriage and any other hydraulic functions

### TELESCOPIC TRESTLE

The telescopic trestle raises and lowers the conveyor boom.

### INTERNAL HYDRAULIC WHEEL DRIVE

Hydraulic wheel drive for left and right movement



HYDRAULIC POWER PACK



TELESCOPIC TRESTLE



HYDRAULIC WHEEL DRIVE

## UNDERCARRIAGE/CHASSIS

### UNDERCARRIAGE

Heavy duty lattice frame undercarriage to support the telescopic boom conveyor during operation



LATTICE FRAME DESIGN

# TB 52 – MOBILITY OPTIONS

## RADIAL PLINTH (STANDARD)

Radial plinth allows the machine to be bolted/ fixed to the ground in a static/stationary application. Plinth allows the machine to radial left and right.



## WHEELED DOLLY UNIT

Wheeled dolly unit with integrated tow hitch that allows the machine to be transported around site via wheel loader or other ancillary on-site vehicles.

## DIESEL/ELECTRIC TRACKED BOGIE

Diesel Hydraulic/Electro-Hydraulic driven tracks for site movement with pendant remote control to allow self-propelled site movement (Rubber track pads upgrade optional).



## ALL WHEEL TRAVEL MODE

Self-propelled All Wheel Travel System for optimum mobility for ship-loader relocation, from hatch-to-hatch and vessel trimming (All modes are detailed below).

## ALL WHEEL TRAVEL

Telestack's market leading mobility system, offering optimum flexibility when manoeuvring the machine around the jetty. The five modes offer complete mobility during ship-loader relocation, from hatch-to-hatch and vessel trimming. The Mobility System is radio remote controlled by an operator from either the jetty or the vessel.

### IN-LINE TRAVEL

Enabling the machine to easily travel to and from the Berthing Line/Vessel

### CAROUSEL MODE

Enabling full 360° rotary movement of the machine for manoeuvring on tight jetty's with restricted space

### RADIAL MODE

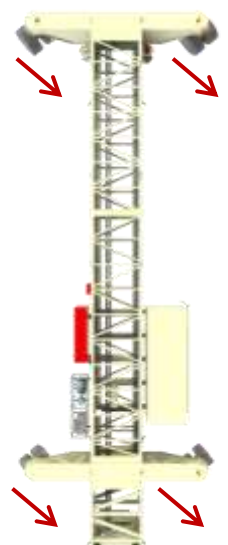
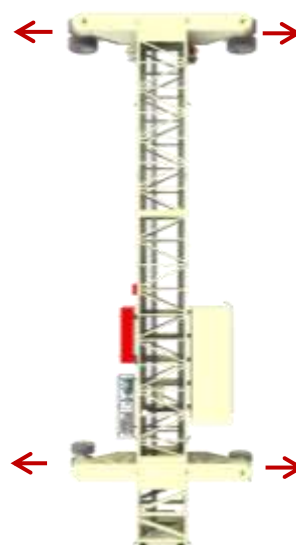
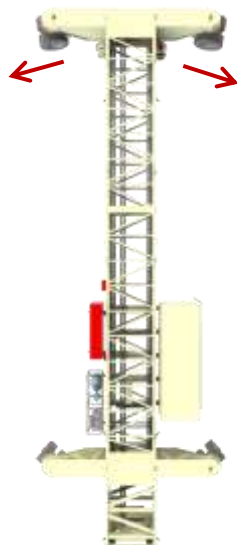
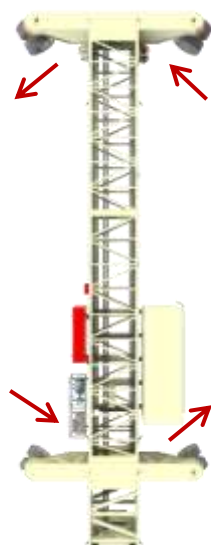
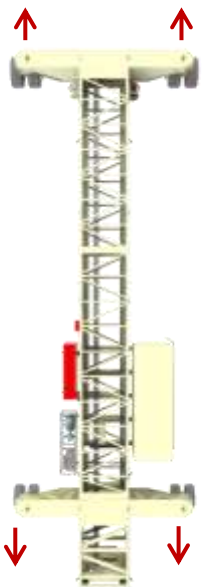
Enabling the machine to trim multiple hatches from one fixed feed in point

### PARALLEL TRAVEL

Allowing fast hatch to hatch transition.

### CRAB MODE

Enabling a narrower footprint of machine on jetty/quayside where width is limited



# TB 52 – DUST SUPPRESSION & CONTAINMENT OPTIONS

All Dust Suppression & Containment Features are Optional Extras

## FULLY SEALED FEED-IN-POINT

This minimizes the dust emissions when transferring between feeding conveyor and the Telescopic Boom Ship-loader

## GALVANISED DUST COVERS (OUTER)

This minimizes the dust emissions and keeps the material dry when the material is flowing on the outer conveyor. The galvanized finish ensures that they are long lasting and eliminates rust or corrosion in harsh environments

## FULLY SEALED TRANSFER POINTS

This eliminates dust and spillage on the transfer point from the outer to the inner conveyor. With fully enclosed belt to chute point to eliminate dust and spillage around the vessel (Outer/Inner under tray option available)

## WATER SPRAY BARS

Full dust suppression water spray bars that spray a constant flow of water on the material as it flows from the inner conveyor. By wetting the material, it ensures that there is minimal dust on site as the material is transferred. Located:

- Discharge Point
- Outer to Inner
- Front of Feedboot

## INTEGRATED DUST SUPPRESSION UNITS

By using pneumatic technology these dust extraction units, significantly reduce dust emissions from the feed-in and transfer point (In the feed in point and from outer to inner conveyor).

- 1 x Dust Extraction System in front of Feed-boot
- 1 x Dust Extraction System at Transfer point from outer to inner conveyor
- 1 x Compressor, Enclosure, piping and wiring integrated into Telectack system

## CANVAS DUST COVERS (INNER)

This minimizes the dust emissions and keeps the material dry when the material is flowing on the inner conveyor. These retractable dust covers ensure that the conveyor is covered when using the telescopic feature.

## CONTAINED DUST SUPPRESSION CHUTE

Range of chutes available depending on application and material

- Rubber Sock
- 360° Radial Trimming Chute
- Deflector Chute (Fore And AFT)
- Telescopic Free-fall Chute
- Telescopic Steel Free-fall Chute
- Telescopic Cascade Chute



# TB 52 – DISCHARGE & CHUTE OPTIONS

*\*(Optional Dust extraction at each transfer and discharge point)*

## NO CHUTE AS STANDARD

Free flow of non-dusty material from the conveyor. Used in situations where degradation of the product and dust emission is not critical.



## SQUARE TO ROUND WITH RUBBER DISCHARGE CHUTE

Directional square to round chute used in conjunction with rubber sock enabling to operator to direct material into the hatch.



## Deflector Chute (Fore And Aft)

This chute is used to direct the material either fore or aft, used in conjunction with the telescopic boom, this enables the operator to direct material under coaming areas.



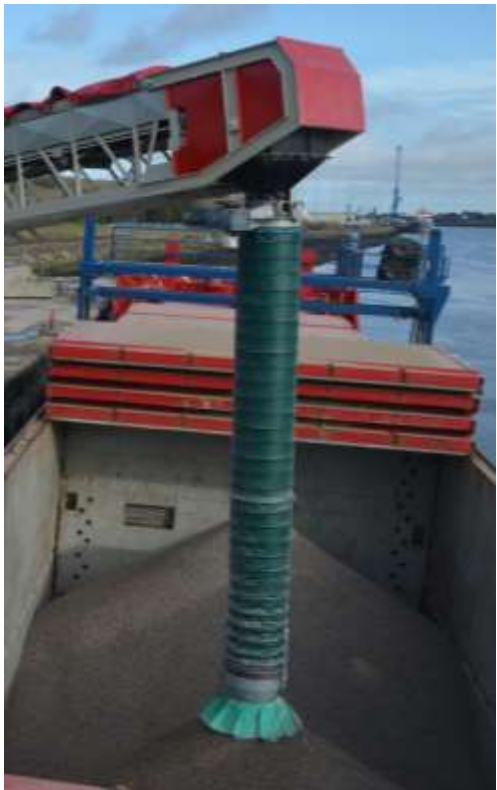
## 360° RADIAL TRIMMER

This chute is used to direct the material 360° rotation from discharge point, used in conjunction with the Telescopic Boom, this enables the operator to direct material under coaming areas.



## TELESCOPIC FREE-FALL CHUTE

The free-fall system greatly minimises dust emissions when loading the vessel, allowing a straight and unhindered fall for the material into the vessel. *(Optional Dust extraction at discharge point)*



## TELESCOPIC CASCADE CHUTE

The cascade system minimises dust emissions and material degradation. Controlled decent to reduce the velocity of the material as it descends through the chute.



## TELESCOPIC STEEL CHUTE

The Steel Telescopic Freefall Chute is used where a 360° trimmer/deflector chute is required to direct material at bottom of chute.



*\*(Chute selection will have influences to final cost and design of machine)*

# TB 52 – 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 – 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 50-100 µm, as delivered to Telestack. If additional paint is required this must be discussed up front with the sales team.)*



STANDARD TELESTACK PAINT COLOUR



CUSTOM MACHINE COLOURS AVAILABLE

## SHIP-LOADER CONTROL SYSTEMS

### CONTROL PANNEL MIMIC

Machine includes a separate control panel for AC Voltage. Start / stop conveyor from this panel. Features include: Integrated Estop, Machine start stop, Fault Reset, Dual Language Mimic, Isolator, etc.



### DUAL LANGUAGE MIMIC

### FAULT DIAGNOSTICS (L.E.D)

Fault-diagnostic panel, with L.E.D indications that will highlight any faults within the conveyor system for easy review and resolution.



### PLUG AND PLAY ELECTRICS

Quick link system that enables quick connection between bolted sections, ensuring easy assembly and operation

### MALE/FEMALE PLUG SLOTS

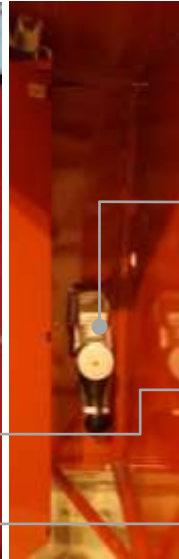
Male and female plug slots for quick connection to 3 phase quayside power.

### 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



## MACHINE POWER OPTIONS

### ON SHORE PLUG IN POWER

Standard Telestack shiploading equipment is typically run of 3 phase quay side power. Telescopic Boom Ship-loaders are supplied with the ability to plug directly into a quay side power source with pre-fitted panels and plugs, offering a plug in and go solution.



3 PHASE POWER SUPPLY

### INTERGRATED GENERATOR

Generator integrated into the undercarriage that allows the ship-loader to be operated and manoeuvred without the need for an external power source. All functions of the unit are powered from the integrated generator allowing for a fully autonomous and mobile unit.



INTERGRATED GEN-SET



# TB 52 – OPTIONS

## ELECTRICAL OPTIONS

- **Radio Remote Control**
  - o Controls the conveyor's raise / lower, slewing left / right, telescopic in / out and conveyor start and stop functions, also including an emergency stop.(All function remote control).
- **Isolators on Each Individual Motor**
  - o Additional safety measure for conveyors which do not have access walkways, double trapped key locks and gates.
- **TSRM and Plug and Socket to Interlock Auxiliary Mobile Equipment**
  - o A quick link system to enable the Telestack conveyor to connect to the feeding conveyor, to ensure that there is communication between both units. Requires tail shaft rotation monitor option also.
- **Secondary Safety Limit Switches on Wheel Drive**
  - o This provides a double back-up of secondary limit switches on each wheel drive and physical bars situated on the wheel drive path to eliminate any possibility of the conveyor traveling beyond its intended radial slewing distance.
- **Pull Chords on Dual Access Walkways**
  - o This provides another safety feature when availing of the dual access walkways. Pull chords are installed the length of each side of the walkway including e-stop controls.
- **Belt Rip Detection**
  - o This is a safety feature which indicates to the operator is the belt is ripped and atomically stops the conveyor to minimise further damage. This is specifically used when handling sharp materials, in which the operator can monitor the belt integrity.
- **Anti-Collision Tilt Switches**
  - o This is another safety feature which ensures that the unit does not collide with any other equipment on site. This minimises operator errors and potential damage to the conveyor.
- **Stainless Steel Housing for Electrical Components**
  - o Eliminates possible rust or corrosion very harsh conditions by enclosing important electrical components in stainless steel housing.
- **L.E.D Lighting**
  - o This is lighting installed on the discharge points of both outer and inner conveyor to allow for night time operation. This ensures that production rates are maintained throughout the operation.
- **Change Over Switches (Change from gen-set power to 3 phase electric power)**
  - o Changeover switch fitted in control panel + 1 x plug and socket control panel. With isolator, MCCB, contactor, plug and socket fitted.
- **Belt Skewing Switches (Inner & Outer Conveyor)**
  - o A system to warn the operator if the belt is drifting unnecessarily to either left or right hand side.
- **Emergency Rope Break System**
  - o Safety brake device / clamp used to control the inner boom. Will activate in unlikely event of rope break scenario of the inner conveyor.
- **Winterisation Upgrade (Operation down to minus 40 degree applications)**
  - o This includes: Contactors in panel, heating to hydraulic tank, Low temperature hydraulic oil, Anti-condensation heating to drive motors, LED emergency light in panel, Control panel heaters, Electrical cabling to minus 40 degrees, Motor and Gearbox upgrades, Winterised bearing upgrade, belting upgrade.
- **Enclosed Integrated Generator Set into Undercarriage of conveyor**
  - o Tier 2 generator that allows the conveyor to operate and move independently without the need for an external power source (*Tier 3 and 4 Models Available*).
- **VSD (Variable Speed Drive)**
  - o Mounted in the electric control panel, allowing the operator to adjust the speed of the belting to increase/decrease throughput
- **Operator Cabins**
  - o Enclosed operator cabins with the option for light, heat and air conditioning
- **Miscellaneous Electrical Options**
  - o Blocked Chute Probes
  - o Ultrasonic Height Sensor with timer for stockpiling
  - o Tail Shaft Rotation Monitors
  - o ATEX Conformity
  - o Visual and Audible Alarms
  - o Anti-condensation heaters in motors
  - o Air conditioned electric control panel



CONTROL PANNEL



INTERGRATED GEN-SET



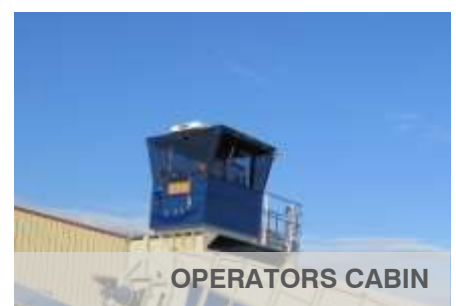
LED FLOOD LIGHTS



RADIO REMOTE CONTROL



BELT SKEWING SENSORS



OPERATORS CABIN

## WALKWAYS

- **Dual Access Galvanized Walkways on Outer Conveyor**
  - o This allows for easy servicing, monitoring and maintenance of the conveyor in use. Also, it increases the safety of the operator on site.
  - o This includes galvanized flooring, kick plates and hand-railing
- **Gates at Top of Steps for Security and Safety**
  - o This is an effective safety feature which ensures the conveyor cannot be turned on or operated when maintenance is taking place from the walkway.



## WEAR LINERS & HOPPER EXTENSIONS

- **Hopper Feed-boot Extension**
  - o Increased hopper height to reduce dust or spillage when discharging into the feed area during surges of material. This also allows for a wider target area for the feeding equipment.
- **Fully Sealed Feedboot**
  - o Extended length feedboot, enclosed with circular inlet, with material deflectors, extended skirting and double sealing (Recommended for free flowing and dusty applications)
- **Abrasive Resistant Lining in the Feed-boot and Transfer Point**
  - o Bolted into the feed-boot and transfer point (Outer to inner) to prolong the life and resistance of the feed-boot to wear. Used in applications with large lump sizes and abrasive material.
- **ULFPL Lined Tapered Feed-boot and Transfer Point (Low friction liners)**
  - o Bolted into the feed-boot and transfer point (Outer to inner) to allow the sticky material to flow freely at these points. These low friction liners ensure the sticky material does not block the material transfer points.

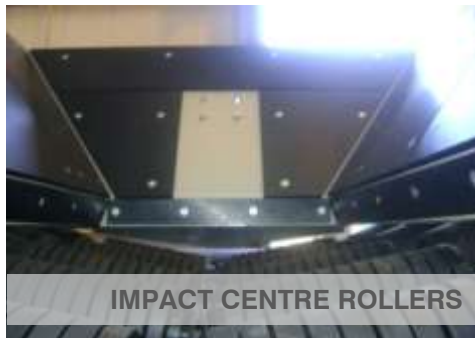


## BELT WEIGHTERS AND IMPACT PROTECTION

- **Single Idler Belt Weighing System**
  - o Installed on the conveyor to provide accurate measurement and recording of batch weights, flow rates and belt speed. This is installed just passed the feed-boot for maximum efficiency.
- **Double Idler Belt Weighing System**
  - o Installed on the conveyor to provide accurate measurement and recording of batch weights, flow rates and belt speed. The double idler is installed just passed the feed-boot (2 x idlers) for maximum efficiency and accuracy.
- **USB Data Logging System to Download Information from Belt Weigher to PC**
  - o This is an optional upgrade to the Belt weigher control panel for extracting all the information from the panel into your computer system for review and analysis in a table format
- **Impact Bed Under Feed-Boot and Impact Centre Rollers on Inner Conveyor**
  - o Upgraded impact bed under feed-boot for increased protection in transfer point for larger lump sized material. This minimizes the impact and wear in this area
  - o The impact centre rollers on the length of the inner conveyor provide protection on the transfer from outer to inner conveyor. They are included the entire length so depending on the position of the telescopic inner there is protection provided throughout



USB DATA LOGGER



IMPACT CENTRE ROLLERS



LOW FRICTION IMPACT BED

## MISCELLANEOUS

- **Hydraulic Oil Upgrade**
  - o **U68 Hydraulic Oil in Hydraulic Tank** – This is specialized hydraulic oil for operation in hot climates and specific temperatures to ensure optimum operation in the hydraulic system
- **Roller, Scraper and Drum Options**
  - o **2 Belt Tracking Rollers - Includes 2 x rubber lagged return rollers (Outer and Inner Conveyor)** – This is recommended upgrade to ensure the belt is tracking when handling ranges of material and when the ship-loader is being fed at different heights and angles
  - o **Ceramic Lagging on the Drive Drums** - Ceramic lagged head drive drum to increase traction of drive drums on the belt. Both inner and outer head drums are ceramic lagged
  - o **Rubber Lagging on Non-Drive Drums** - Rubber lagged tail drive drums to increase traction of tail drums on the belt. Both inner and outer tail drums are rubber lagged.



CERAMIC LAGGED DRUM




SELF ALIGNING TRACKING ROLLER



## SAFETY & INDUSTRY STANDARDS

All Telestack machines are compliant with the following standards:

- **BS EN 618:2002 +A1:2010** - Continuous handling equipment and systems.
- **BS EN 953:1997+A1:200** - Safety of Machinery - Guards
- **BS EN ISO 13857:2008** Safety of Machinery - safety distances to prevent hazard zones being reached by upper and lower limbs
- **BS EN ISO 12100:2010** - Safety of Machinery - General principles of design - Risk assessment and risk reduction
- **BS EN ISO 13850:2008** - Safety of Machinery – Emergency Stop Equipment
- **BS EN 60204-1:2006 + A1:2009** - Safety of Machinery – Electrical Equipment of Machines
- Safety and EMC requirements for equipment for mechanical handling of bulk materials except fixed conveyors
- **CE Certified** 

## QUALITY & MANUFACTURING STANDARDS

**Scope of Supply** - The Design, Manufacture and Installation of Bulk Material Handling Systems – Servicing Ports, Mining and Quarrying Industries on a Global Scale

- **ISO 9001:2008** - Quality Management Systems Certified
- **ISO 14001:2004** - Environmental Management Certified
- **OHSAS 18001:2007** - Occupational Health and Safety Management



## 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 for approval if required

## 'Ro-Ro'

- Units shipped fully assembled

## Flat-Bed/Trailer Transportation

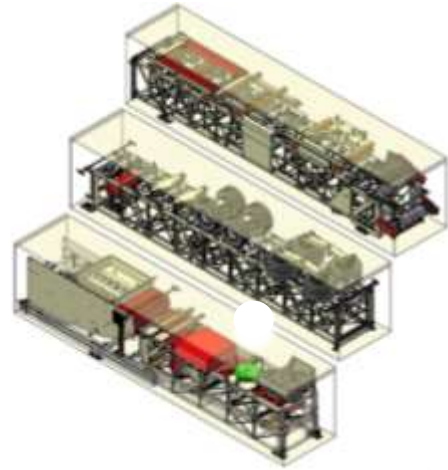
- Shipped in 2/3 large pre-assembled sections for quick setup on site

## Assembly

- Typically assembly time is approximately 3-4 days for a typical Ship-loader
- All sections are bolted together so no welding is required on site
- All units are pre-wired with each unit using plug-&-socket technology for interlinking the sections and auxiliary equipment, eliminating complex electrical work on site
- The units include fully built and tested hydraulic systems, eliminating complex assembly on site

## Testing & Training

- All units are fully assembled, quality checked, tested and broken down before they left the factory significantly reduce commissioning time on site
- Telestack can supply (If required) an installation engineer to oversee the process, dry/wet commission the unit and provide detailed training for the operators



## 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. Telesatck will go above and beyond to get your machines up and going. All of our Telesatck 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

**Email:** [spares@telesatck.com](mailto:spares@telesatck.com)

**Web:** [www.telestack.com/aftersales/](http://www.telestack.com/aftersales/)





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**THE  
POWER  
TO MOVE  
MATERIALS**

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