



**Battery Powered - Pedestrian Operated - Move Wheeled Loads**

# Company Profile



Tractive Power Ltd is an innovative materials handling company that design, manufacture and supply our own range of electrically controlled pedestrian tractive units.

Our electric vehicles are an excellent solution to manual handling and health and safety issues within the workplace. Battery powered and designed to push, pull and manoeuvre loads of up to 50

tonnes on rails and 12.5 tonnes on castors our electric tugs ensure you have safe and efficient handling for your operators.

Years of experience within the market together with utilising the latest design software and control systems enables us to offer you some of the most advanced, compact tractive units on the market.

All of our Tractive Power range can be operated by a single user in a safe and efficient way eliminating the need for extra manpower. We also offer a range of services that will ensure you get the exact support you need.

*Slopes and rough surfaces will increase the amount of force required to push and pull a load*



## In House Design

Tractive Power have their own design facility which gives us full control over the products we supply to you, the customer. Our experience in the mechanical engineering industry means, that not only can we customise our range to suit your requirements but also offer bespoke design and manufacture of one off products specifically made to meet your needs.

## Free Consultation and Advice

Our staff have a wealth of experience in the pedestrian operated vehicle market, so if you have a load moving application and you're not sure how to address it, then one of our sales engineers will speak to you and discuss your application. Either give Tractive Power a call or request a site visit. We are here to advise and offer a solution.

## Operator Training

Tractive Power also offer their own operator training on delivery, or refresher training during the service life of the product. Whichever you require we will ensure your employees are competent users and supply training certificates for their records.

## Servicing

Tractive Power offer a range of service options to suit your requirement. We want to ensure you have the after sales support and have the maximum usage from your Tractive Power product once we have delivered. Just enquire for a full list of options.

## Case Study

A company manufacturing prefabricated plant rooms, used a railed lattice system to move the rooms around the manufacturing shop floor. Each plant room could weigh up to 6,000kg which would require 6 employees to move the load. Every time a plant room had to be moved, employees would have to stop the work they were doing to assist. Some employees would complain of bad backs or shoulders due to the physical exertion.

A single Tractive unit was introduced to address the issue. One man could now safely move the load with no physical effort. The company managed to reduce injuries and increase production with the implementation of the Tractive Unit.

### Market Sectors Served

- Aerospace
- Textiles
- Pharmaceutical
- Food industry
- Rail
- Airport
- Supermarket
- Retail
- Automotive
- Engineering manufacturing

### Applications Moving

- Railed bogeys
- Kiln karts
- Stillages
- Wheeled trolleys
- Supermarket trolleys
- Airport trolleys
- Roll cages

## Key Benefits

**Addresses manual handling and Health and safety issues.**

**Streamline production and increase productivity.**

**Battery powered pushers and tugs with no emissions.**

**Single user operation.**

**Pedestrian operated with no license required as mandatory.**

**Designed for all working environments indoors and out.**

# TT50



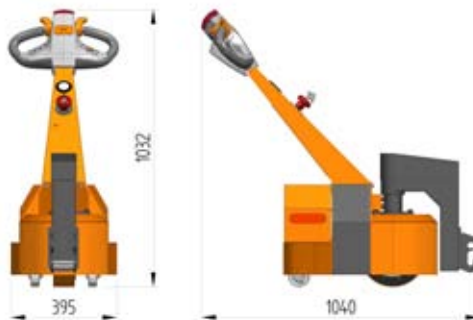
## Wheels and Tyres

Drive Wheel: Polyurethane

Rear Castor: Polyurethane

## Construction

Mild steel, Tractive Power orange / black powder coat



## Safety

Anti trap emergency reverse

E-stop battery isolator

Electro-magnetic brake - Fail to safe

## Gauges

Battery/Hour meter with fault code display

## Power

Gearbox	Planetary
Motor Power	24V 800W
Controller	24V 200A AC Control

## Batteries and charging

Battery Capacity	26A/h
Charger Type	onboard auto voltage detect
Output	8 Amp
Input	100-240V
Recharge time:	8 hrs

## Towing

Towing Capacity	on Castors 1000kg on Rails 5000kg
Max. Weight Transfer	800Kg
Draw Bar Pull	500N

## Driving

Max. Speed	6Kph
Min. Turning Circle	1.4m
Steering	Manual



*11% of manual handling - related RIDDOR accidents investigated by HSE involved pushing and pulling.*

## Power

Gearbox	Planetary
Motor Power	24V 1000W
Controller	24V 200A AC Control

## Batteries and charging

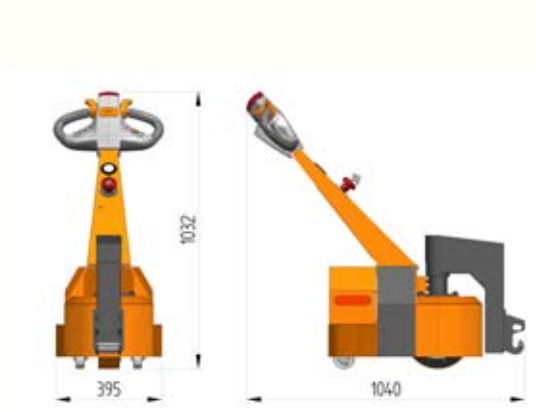
Battery Capacity	26A/h
Charger Type	onboard auto voltage detect
Output	8 Amp
Input	100-240V
Recharge time:	8hrs

## Towing

Towing Capacity	on Castors 2000kg on Rails 10000kg
Max. Weight Transfer	800Kg
Draw Bar Pull	1000N

## Driving

Max. Speed	6Kph
Min. Turning Circle	1.4m
Steering	Manual



### Safety

Anti trap emergency reverse  
E-stop battery isolator  
Electro-magnetic brake - Fail to safe

### Gauges

Battery/Hour meter with fault code display

### Wheels and Tyres

Drive Wheel: Polyurethane  
Rear Castor: Polyurethane

### Construction

Mild steel, Tractive Power orange / black  
powder coat



*The risk of injury also increases over longer distances and when the frequency of pushing and pulling does not provide sufficient rest or recovery time.*



# TP250 Compact



## Wheels and Tyres

Drive Wheel: Solid black rubber  
Rear Castor: Polyurethane castor

## Construction

Mild steel, Tractive Power orange / black powder coat

## Safety

Anti trap emergency reverse  
E-stop battery isolator  
Electro-magnetic brake - Fail to safe

## Gauge

Battery/Hour meter with fault code display



*12% more accidents involved pulling rather than pushing.*

## Power

Gearbox	Transaxle
Motor Power	24V 1000W
Controller	24V 200A AC Control

## Batteries and charging

Battery Capacity	85A/h
Charger Type	onboard auto voltage detect
Output	10 Amp
Input	100-240V
Recharge time:	8 hrs

## Towing

Towing Capacity	on Castors 5000kg on Rails 20000kg
Max. Weight Transfer	800Kg
Draw Bar Pull	2500N

## Driving

Max. Speed	6Kph
Min. Turning Circle	0.9m
Steering	Manual

# TP500 Compact

## Power

Gearbox	Transaxle
Motor Power	24V 1200W
Controller	24V 350A AC Control

## Batteries and charging

Battery Capacity	85A/h
Charger Type	onboard auto voltage detect
Output	10 Amp
Input	100-240V
Recharge time:	8hrs

## Towing

Towing Capacity	on Castors 10000kg on Rails 40000kg
Max. Weight Transfer	800kg
Draw Bar Pull	5000N

## Driving

Max. Speed	6Kph
Min. Turning Circle	0.9m
Steering	Manual



### Safety

Anti trap emergency reverse  
E-stop battery isolator  
Electro-magnetic brake - Fail to safe

### Gauge

Battery/Hour meter with fault code display



### Wheels and Tyres

Drive Wheel: Solid black rubber  
Rear Castor: Polyurethane castor

### Construction

Mild steel, Tractive Power orange / black powder coat



35% of pushing and pulling accidents involved wheeled objects.

# TP250



## Wheels and Tyres

Drive Wheel: Solid black rubber  
Rear Castor: Polyurethane castor

## Construction

Mild steel, Tractive Power orange / black powder coat



## Safety

Anti trap emergency reverse  
E-stop battery isolator  
Electro-magnetic brake - Fail to safe

## Gauge

Battery/Hour meter with fault code display



*Large amounts of effort required to start or stop a load moving highly contribute to pushing or pulling related injuries.*

## Power

Gearbox	Transaxle
Motor Power	24V 1000W
Controller	24V 200A AC Control

## Batteries and charging

Battery Capacity	85A/h
Charger Type	onboard auto voltage detect
Output	10 Amp
Input	100-240V
Recharge time:	8 hrs

## Towing

Towing Capacity	on Castors 5000kg on Rails 20000kg
Max. Weight Transfer	800kg
Draw Bar Pull	2500N

## Driving

Max. Speed	6Kph
Min. Turning Circle	1.65m
Steering	Manual



## Power

Gearbox	Transaxle
Motor Power	24V 1200W
Controller	24V 350A AC Control

## Batteries and charging

Battery Capacity	85A/h
Charger Type	onboard auto voltage detect
Output	10 Amp
Input	100-240V
Recharge time:	8hrs

## Towing

Towing Capacity	on Castors 10000kg on Rails 40000kg
Max. Weight Transfer	800kg
Draw Bar Pull	5000N

## Driving

Max. Speed	6Kph
Min. Turning Circle	1.65m
Steering	Manual



### Safety

Anti trap emergency reverse  
E-stop battery isolator  
Electro-magnetic brake - Fail to safe

### Gauge

Battery/Hour meter with fault code display



### Wheels and Tyres

Drive Wheel: Solid black rubber  
Rear Castor: Polyurethane castor

### Construction

Mild steel, Tractive Power orange / black  
powder coat



*Repetitive manual pushing and pulling are high risk factors to employees injury.*

# TP500HD



## Wheels and Tyres

Drive Wheel: Solid black rubber  
Rear Castor: Polyurethane castor

## Construction

Mild steel, Tractive Power orange / black powder coat



## Safety

Anti trap emergency reverse  
E-stop battery isolator  
Electro-magnetic brake - Fail to safe

## Gauge

Battery/Hour meter with fault code display



*The Labour Force Survey (LFS) indicates that MSD cases, including those caused by manual handling, account for more than a third of all work-related illnesses.*

## Power

Gearbox	Transaxle
Motor Power	24V 1200W
Controller	24V 350A AC Control

## Batteries and charging

Battery Capacity	85A/h
Charger Type	onboard auto voltage detect
Output	10 Amp
Input	100-240V
Recharge time:	8 hrs

## Towing

Towing Capacity	on Castors 12000kg on Rails 50000kg
Max. Weight Transfer	800kg
Draw Bar Pull	6500N

## Driving

Max. Speed	6Kph
Min. Turning Circle	1.65m
Steering	Manual

# Additional Couplings

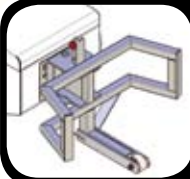


## ADJUSTABLE HEIGHT PUSHPAD

Generally used for pushing loads in a straight line.

Applications include train bogies and railed trolleys

1



## ROLL CAGE COUPLING

For pushing nested roll cages.

The TP500 will move up to 250 roll cages in one go

2



## FIFTH WHEEL CHANNEL COUPLING

Used for moving wheeled or semi-wheeled loads, this coupling can lift one end of the trolley to steer the load on its rear wheels - used on A-frames, food processing machinery and stillages.

3



## FIFTH WHEEL QUICK LATCH

Our standard male female configuration.

Use our female quick latch to fix to your wheeled loads and standardise the connection point for all your wheeled loads.

4



## PAPER ROLL COUPLING

Used to move paper rolls or cable drums.

This coupling is used for pushing the drum or roll on its circumference

5

Our Tractive units provide the power to move the load but have to be attached by a simple coupling interface to get your product from A to B. Pushing and pulling in a straight line uses a fixed coupling system secured to the front of the Tractive unit. Steering requires our 5th wheel arm arrangement that allows the Tractive unit to steer 90 degrees left or right.

Pivoting 360 degrees on the spot through the differential gearbox means the Tractive Pusher is extremely manoeuvrable, and negotiates the most difficult routes. Tractive Power manufactures a range of standard couplings as shown below. However, if your application requires something more unique, Tractive Power can design a coupling to your specific requirements.



*Manual handling around obstacles can create risks by the worker trying to avoid collision. Large amounts of effort are required to start or stop loads moving or even to keep it moving.*

# Application Gallery



*Moving a 3000kg coating trolley*



*Moving a 6000kg aircraft engine*



*Moving a 3000kg roll of fabric within the textiles industry*



*Moving 2000kg landing gear parts for refurbishment*



*Moving 2000kg kiln trolleys*





*Moving cable drums in the rail industry*



*Moving up to 200 nested roll cages in the dairy Industry*



*Moving steel fabricated pipelines*

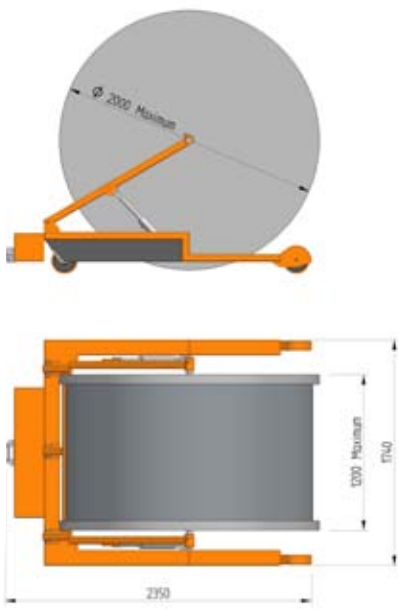


*Moving stainless steel silos for food processing manufacture*



*Moving coach chassis*

# Cable Drum



## Description

The cable drum trolley is designed to be used with the TP range. The trolley will hydraulically lift your cable drum and can be moved with our Tractive unit. The Tractive Unit supplies the power and control for the lift and lower of the cable drum as well as the motive power to move it around your facility.

## Wheels and Tyres

Polyurethane

## Construction

Mild Steel, Tractive Power orange/black powder coat.

## Cable drum trolley Specifications

Max. lifting capacity	2000kg
Max. Reel diameter	2000mm
Max. Reel width	1200mm
Lift and Lower	Powered Hydraulics

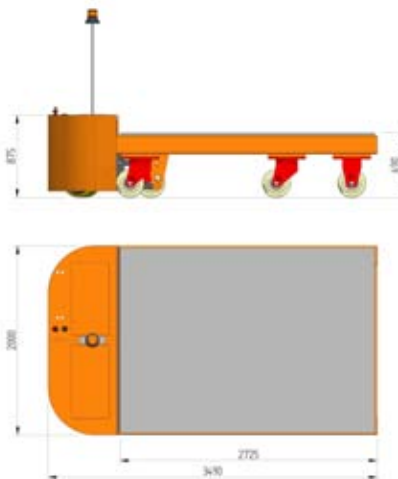
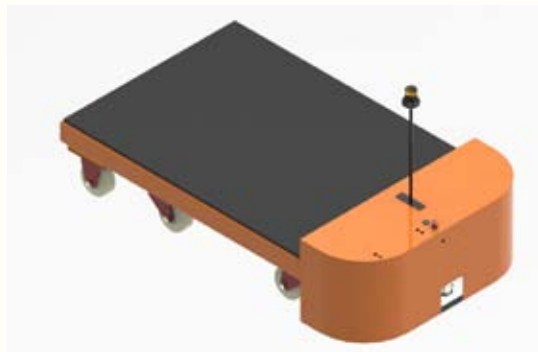
*An estimated 9.5 million working days were lost due to Work Related MSDs, an average of 17 days lost for each case. This represents 40% of all days lost due to work related ill-health in 2014/15*





*Lifting and manoeuvring a 2m diameter cable drum with the TP250*

# TBC30 - Tractive Burden Carrier



## Wheels and Tyres

Drive Wheel: Polyurethane  
Castor: Nylon or Polyurethane

## Construction

Mild steel, Tractive Power orange / black powder coat

## Safety

E-stop, Battery Isolator, Electro-magnetic brake  
Fail to safe

*Research shows that operations which exceed the guideline figures for manually pushing/pulling of 20kgs for men and 16kgs for women by more than a factor of two may represent a serious risk of injury.*



## Power

Gearbox	1 x Planetary
Motor Power	48V 6000W
Controller	400A AC Control Dual Drive

## Batteries and charging

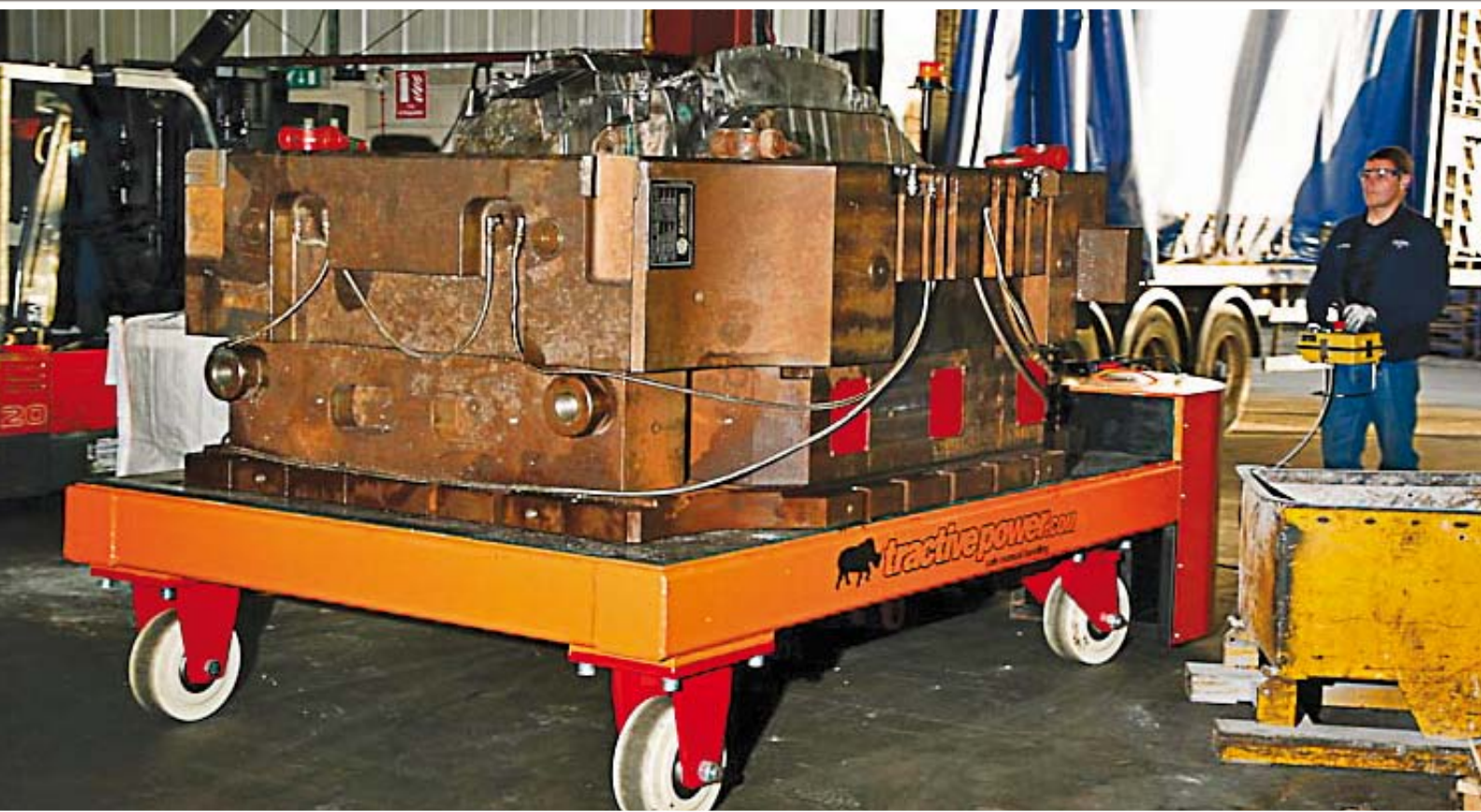
Battery Capacity	320A/h
Charger Type	Floor Mount
Output	40Amp
Input	240V
Recharge time:	8hrs

## Towing

Towing Capacity	30 tonnes
Max. Weight Transfer	5000Kg
Draw Bar Pull	15000N

## Driving

Max. Speed	6Kph
Min. Turning Circle	7m
Steering	Manual





# TRO350 Specification Sheet



## Wheels and Tyres

Drive Wheel: Solid rubber

## Construction

Mild steel chassis / grey powdercoat

## Safety

E-stop battery isolator

Electro-magnetic brake - Fail to safe

## Gauges

Battery/Hour meter with fault code display



*Pushing and pulling on slippery surfaces can cause sudden jolts and injury. This can be controlled with the use of a powered Tractive unit.*

## Power

Gearbox	Transaxle
Motor Power	24V 2800W
Controller	24V AC Control

## Batteries and charging

Battery Capacity	24V 465A/h
Charger Type	Floor Standing 24V
Output	
Input	240V
Recharge time:	8-12 hrs

## Towing

Towing Capacity	on Castors 5000kg
Max. Weight Transfer	
Draw Bar Pull	3200N

## Driving

Max. Speed	7 - 12.5km/h
Min. Turning Circle	1.22m
Steering	Manual

# TRO570 / TRO590 Specification Sheet

## Power

Gearbox	Transaxle
Motor Power	48V 4500W
Controller	48V AC Control

## Batteries and charging

Battery Capacity	48V 345A/h
Charger Type	Floor Standing 48V
Output	15 Amp
Input	240V
Recharge time:	8-12 hrs

## Towing

Towing Capacity	TRO570 - on Castors 7000kg TRO590 - on Castors 9000kg
Draw Bar Pull	TRO570 - 5500N TRO590 - 7500N
Draw Bar Pull	5500N

## Driving

Max. Speed	8.5 - 18km/h
Min. Turning Circle	1.65m
Steering	Manual



### Wheels and Tyres

Drive Wheel: Solid rubber

### Construction

Mild steel chassis / grey powdercoat

### Safety

E-stop battery isolator

Electro-magnetic brake - Fail to safe

### Gauges

Battery/Hour meter with fault code display



*Loads that have stood for longer periods of time can cause flat spotting on wheels. This dramatically increases the starting force required to push or pull a load.*



**Contact us to find an International distributor near you...**

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