

# MACHINE MOVERS

MODELS MINIFORCE 30t ST. 60t – 150t TBC. 60t – 100t



# WHAT IS A SELF-PROPELLED TROLLEY?

The self-propelled trolley consist of a front rotating traction car (**ST-TBC**) of reduced dimensions (given the great capacity they have) and a pair of fixed rear trolleys (**CT**), that perform a function similar to that of the rear axle of a truck, carrying out the displacement and the maneuvers equivalent to this type of transport, but without limitation in the rotation of the tractor unit.

It supports large loads thanks to its multiple wheels of polyamide wheels and tight diameter, mounted on a tilting system (there is also the possibility of including some wheels of polyurethane to improve traction). It has a very low height because it is designed to be placed under any type of structure, machine or element and thus be able to move them, supported by the load on its rotating plate, with free rotation, which is coordinated with the couple of rear trolleys (CT) or of another type of rolling incorporated under load.

All the self-propelled tanks are controlled by a radio control or an auxiliary control with cable (both supplied in all the trolleys).

Its maximum speed is 5m / min, it is designed for flat use (no inclinations). But it could be used on ramps up to a maximum of 3 degrees (although the certification does not contemplate it and is under the responsibility of the customer, since they do not have brakes, only motor, and the capacity calculated is reduced by including inclination). In case of particular needs, default brake can be incorporated.



We are currently working on the fully electric **OX-STB** version, with mixed power to the grid and batteries, and in a much more compact configuration.

If you need more information do not hesitate to contact our technical and commercial team.









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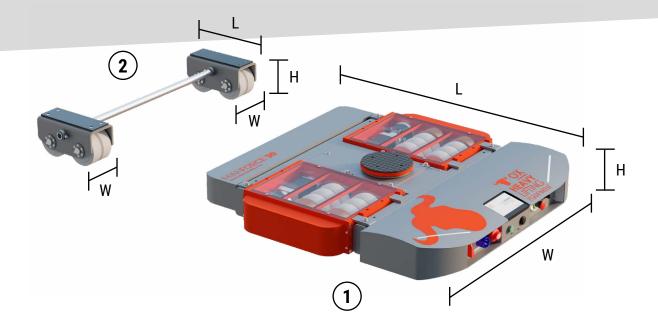












### NEW MINIFORCE30

NEW Self-Propelled Trollley with a 30t capacity, **the only one on the market capable of working with monophase 220v and with batteries with a touch control screen,** Wi-Fi connection, camera and a height of 175 mm, the lowest on the market in its category. Speed of up to 5.5 m/min and autonomy of up to 1.5 h.

With rear trolleys.

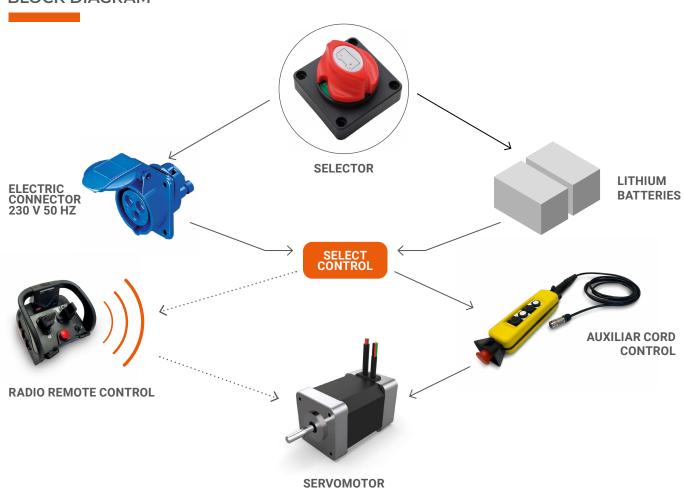
MODEL	MINIFORCE30 / STB30 "v2"	PAIR REAR TROLLEYS STB-30	
Code	801STB2030	801CT2030	
Load Capacity	15.000 Kgs	15.000 kgs/pair	
Pulling Capacity	30.000 Kgs	-	
Number of Castors	16	8	
Type of Castors	4xPU* & 12xPA**	PA**	
Traction Wheels	4xPU*		
Polyurethane Wheels Size	150 x 63 mm	150 x 60 mm	
Polyamide Wheels Size	148 x 63 mm		
Height (H)	180 mm	180 mm	
Dimensions (LxW)	1.213 x 1.190 mm	320 x 183 mm	
Connecting bar	-	2 unid Diam. 32 x 1190 mm	
	-		
Support surface	Diam.Turnplate 210 mm	Rectangular plate 310 x 100 mm	
Weight	380 kgs	15 kg	
Turning radius	751 mm	-	
Radio remote control	1x - Danfoss Mod. TM IK2.MP08V	-	
Cable Control	4 m	-	
A/C Powered	230 V 50/60 Hz	-	
D/C Powered	48 VDC	-	
Adjustable Speed	2 speeds and variator	-	
Max speed	6,5 mts/min	-	
Op. Battery time	5 h	-	
Charging time	3,5 h	-	
Battery type	Lithium 48 VDC 72 AH	-	
Touch Screen	LCD	-	
Screen dimensions	7 Inches	-	
Screen connectivity	WIFI	-	

\*PU: Polyurethane \*\*PA: Polyamide

# MINIFORCE30 SPECIFICATIONS

- Self propelled trolleys (turn 360°).
- Super-reduced Height
- The first one being powered by two options: lithium batteries and cable 230 V 50 Hz. With low consumption servo-motors
- Chain and pinion transmission in Polyurethane wheels
   + additional support Polyamide wheels.
- Supplied with a remote control and an auxiliar cord control.
- 2 speeds: slow and quick. And Adjustable speed.
- Touch panel control screen with WIFI connection to supply distance maintenance

#### MINIFORCE30 BLOCK DIAGRAM



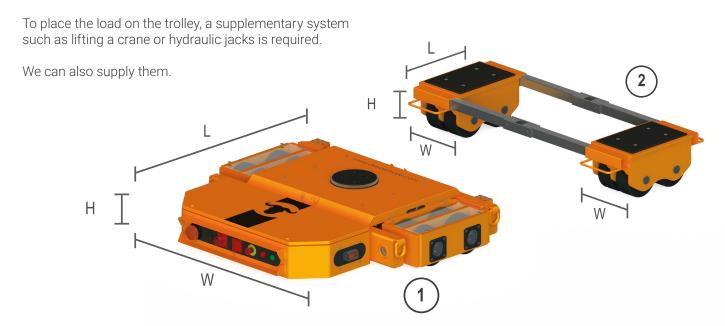








The ST models have direct three-phase power to the grid, without lifting cylinder nor batteries. It consists of the base of the range, being the most economical, since it must be connected to the grid by means of an electric cable.



MODEL	OX-ST-060 V1	PAIR REAR TROLLEYS OX-CT-060	OX-ST-100 V3	PAIR REAR TROLLEYS OX-CT-100	
Code	801ST1060	801CT1060	801ST3100	801CT1100	
Load Capacity	30.000 Kgs	30.000 kgs/pair	50.000 Kgs	50.000 kgs/pair	
Pulling Capacity	60.000 Kgs	-	100.000 Kgs	-	
Number of castors	12	12	18	16	
Type of castors	12xPA*	12xPA*	18xPA*	16xPA*	
Traction wheels	12xPA*	-	18xPA*	-	
Polyurethane wheels size	-	-	-	-	
Polyamide wheels size	200 x 100 mm	200 x 100 mm	200 x 100 mm	200 x 100 mm	
Height (H)	302 mm	302 mm	315 mm	315 mm	
Dimensions (LxW)	1.509 x 1.520 mm	371 x 302 mm	1.582 x 1.919 mm	497 x 315 mm	
Connecting bar	-	50X50 Square 1.200 mm x2	-	50X50 Square 1.200 mm x2	
Support surface	Diam.Turnplate 283 mm	-	Diam.Turnplate 283 mm	-	
Weight	790 kgs	130 Kgs/pair	1.070 kgs	180 Kgs/pair	
Turning radius	1.086 mm	-	1.086 mm	-	
Radio remote control	1x - Teleradio PNS-R15141	-	1x - Teleradio PNS-R15141	-	
Cable Control	1x	-	1x	-	
A/C Powered	400 V 50/60Hz	-	400 V 50/60Hz	-	
D/C Powered	-	-	<u>-</u>	-	
Adjustable Speed	1 speed with acceleration & deceleration ramp	-	1 speed with acceleration & deceleration ramp	-	
Max speed	ed 5 mts/min		5 mts/min	-	

<sup>\*</sup>PA: Polyamide

# OX-ST SPECIFICATIONS

- Self propelled trolleys (turn 360°).
- Power: 380 VAC III 50 Hz. Optional: different tensions and frequencies.
- Chain and pinion transmission in every wheel.
- Supplied with a remote control and an auxiliar cord control.
- Speed betwen 4 or 5 m/min (or to be agreed).
   With speed variator.
- · Polyamide wheels.



**AUXILIAR CORD CONTROL** 

# **OX-ST**BLOCK DIAGRAM

380 VAC three-phase powered trolley. This model comes with a geared motor that creates rotation on the wheels.





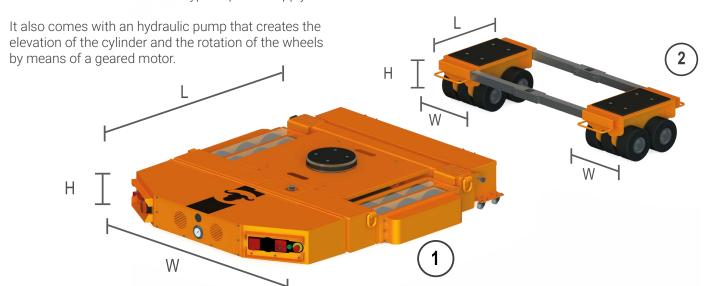








This is the most complete model. This model can operate with three-phase mains (380 Vac) or with batteries. You can choose the type of power supply.



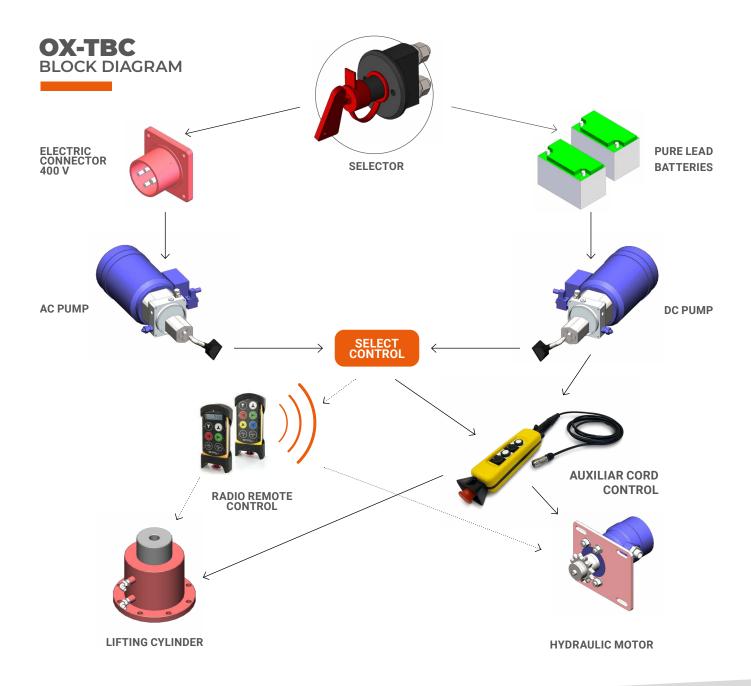
MODEL	OX-TBC-060 V1	PAIR REAR TROLLEYS 0X-CT-060	OX-TBC-100 V1	PAIR REAR TROLLEYS OX-CT-100		
Code	801TBC1060	801CT1060	801TBC1100	801CT1100		
Load Capacity	30.000 Kgs	30.000 kgs/pair	50.000 Kgs	50.000 kgs/pair		
Pulling Capacity	60.000 Kgs	-	100.000 Kgs	-		
Number of castors	12	12	18	16		
Type of castors	12xPA*	12xPA*	18xPA*	16xPA*		
Traction wheels	12xPA*	-	18xPA*	-		
Polyurethane wheels size	-	-	-	-		
Polyamide wheels size	200 x 100 mm	200 x 100 mm	200 x 100 mm	200 x 100 mm		
Height (H)	302 mm	302 mm	315 mm	315 mm		
Dimensions (LxW)	1.882 x 1.678 mm	371 x 302 mm	1.880 x 1.934 mm	497 x 315 mm		
Connecting bar	-	50X50 Square 1.200 mm x2	-	50X50 Square 1.200 mm x2		
Support surface	Diam. Turnplate 283 mm	-	Diam.Turnplate 283 mm	-		
Weight	968 kgs	130 Kgs/pair	1.095 kgs	180 Kgs/pair		
Turning radius	1.220 mm	- 1.221 mm		-		
Radio remote control	1x - Teleradio PNS-R15141	-	1x - Teleradio PNS-R15141	-		
Cable Control	1x	-	1x	-		
A/C Powered	400 V 50/60Hz	-	- 400 V 50/60Hz			
D/C Powered	24 VDC	-	24 VDC	-		
Adjustable Speed	1 speed	-	1 speed	-		
Max speed	4 mts/min	-	3 mts/min	-		
Op. Battery time	1 - 1,5 hrs	-	1 - 1,5 hrs -			
Charging time	8 hrs	- 8 hrs		-		
Battery type	Pure lead batteries	-	Pure lead batteries	-		
Hydraulic cylinder	1 x 30.000 kgs WLL	-	1 x 50.000 kgs WLL	-		
Cylinder stroke	70 mm	-	70 mm	-		

\*PA: Polyamide

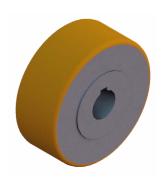


# MACHINE MOVERS ECIFICATIONS

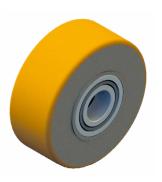
- Self propelled trolleys (turn 360°)
- Power: 380 VAC III 50 Hz and by battery module Optional: different tension and frequency
- Chain and pinion drive in every wheel
- Supplied with a remote control and an auxiliar cord control
- Main rotating hydraulic cylinder (lift 70 mm the whole load)
- Speed: betwen 3 or 4 m/min (or to be agreed)
- Polyamide wheels



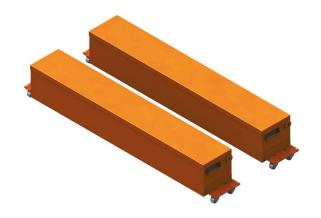
# MACHINE MOVERS ACCESORIES AND SPARE PARTS



CH Trolley traction wheel.



RD Rear-trolley wheel with bearing.



#### **POLYURETHANE** WHEFTS

In case the floor is very slippery it is recommended to use polyurethane wheels (in combination with polyamide wheels) for better traction.

CODE	DESCRIPTION (WHEEL / PIN)						
801PU200CH	200 x 100 / 45						
801PU200RD	200 x 100 / 45						
801PU250CH	200 x 100 / 60						
801PU250RD	200 x 100 / 60						

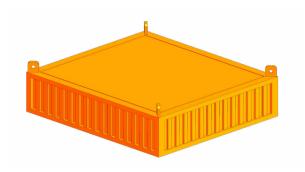
#### **AUXILIARY** BATTERY BOX

All TBC trolleys are supplied with a battery box for continuous use of approximately 45-60 min approx. This time may vary depending on the conditions of use, load, type of floor, etc.

The auxiliary battery box is a box with wheels for quick change of the supplied with the original trolley, so that we double the working time.

The change can be made in one minute.

CODE	DESCRIPTION
801TBC1CBAUX	Auxiliary Battery Box



#### TRANSPORT BOXES

We supply all our trolleys with treated wooden box (not included in the price of the trolley) with cover, for better transport and handling.

But we can design any type of box, metallic for example, for better storage.



#### **PAINTING. FINISH. SERIGRAPHY.**

We offer you the possibility to customize your product by chosing the RAL paint you wish, serigraphy with your company logo, etc...













# MACHINE MOVERS ROTATING TROLLEYS FECHNICAL FEATURES & OPTIONS

#### **TECHNICAL FFATURES**

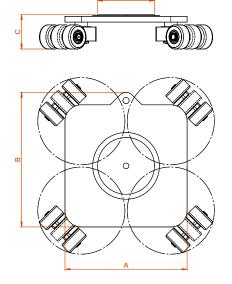
- Rotating trolley (rotates 360°).
- Mobile platform with free wheels.
- Loads from 3,2 to 6 tons.
- It can be combined with manual trolleys.
- · Polyamide wheels.
- It is recommended the transported load to be two thirds of the capacity of the set of rotating trolleys chosen by the customer.
- The transported load must cover at least 70% of the support rubber surface (dimension D) and the weight must be centered.
- The rotating trolleys have a Ø20mm central hole that allows the customer to fix the load to the device. As well as a lateral hole of Ø22mm to place a shackle of 3.25t to manipulate the trolley with no load on it.

#### **OPTIONS**

- · Steel wheels.
- · Galvanized finish.
- · Other dimensions can be manufactured under request

CODE	DESCRIPTION	WLL (t)	PLATFORM DIMENSIONS (mm) A B C D			mm) D	NUMBER AND Material of Wheels	WHEEL DIMENSIONS O x E (mm)	WEIGHT (kg)
801CG232	OX-CG 3,2 Rotating Trolley	3,2	380	425	115	Ø200	8 polyurethan	ø 85 x 40	31
801CG240	OX-CG 4 Rotating Trolley	4	380	425	115	Ø200	8 polyurethan	ø 85 x 40	31
801CG248	OX-CG 4,8 Rotating Trolley	4,8	430	475	120	Ø200	12 polyurethan	ø 85 x 40	48
801CG260	OX-CG 6 Rotating Trolley	6	430	475	120	Ø200	12 polyurethan	ø 85 x 40	48

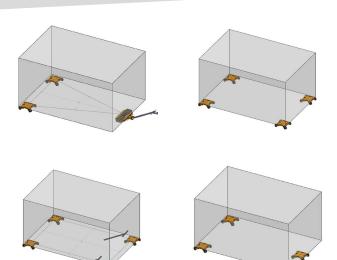




# ROTATING TROLLEYS POSSIBLE USES

#### **POSSIBLE USES**

It is mandatory to use, at least, three points of support and the center of gravity has to be known and centered. You can combine the manual trolleys and the rotating trolleys.



#### **INCLUDED** ACCESSORIES



#### **OPTIONAL** ACCESSORIES

