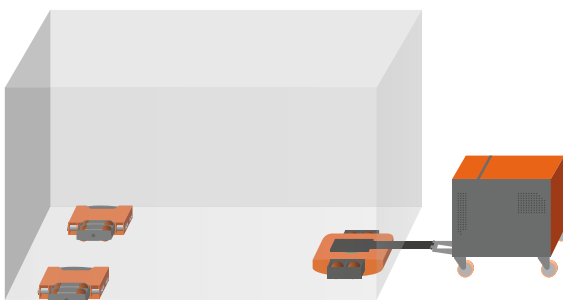


Up to 75 ton capacity

Apollo

Innovative system
for handling heavy
loads, safely



Apollo is a fully modular equipment designed to simplify industrial handling work by overcoming all common obstacles.

Small ramps, gate rails, grates, cross channels or uneven floors will no longer be a problem!

Thanks to its design and features, only one person is needed to move and position your heavy machinery without the need for forklift trucks.



Overcome

common obstacles, small ramps and inclines safely



Traverses

uneven floors thanks to elastic 'PRO-GRIP' wheels.



Increases

your productivity by significantly reducing working time

What is the Apollo system

Apollo is a fully modular system for handling loads of up to 75 tonnes, consisting of a power unit and three skates arranged in a triangle (in the standard configuration).

It is designed like a LEGO*: you choose the power unit, the self propelled steering trolley and a pair of rear rollers (fixed or steerable).

The whole becomes a 'system' that can be implemented at any time by simply upgrading one of the 3 components to increase performance and capacity.

Configurations beyond the standard allow the machine to be composed according to your needs:

- ✓ with all three units steering;
- ✓ two steered front units and two fixed rear rollers;
- ✓ two front units and two rear rollers, all steered

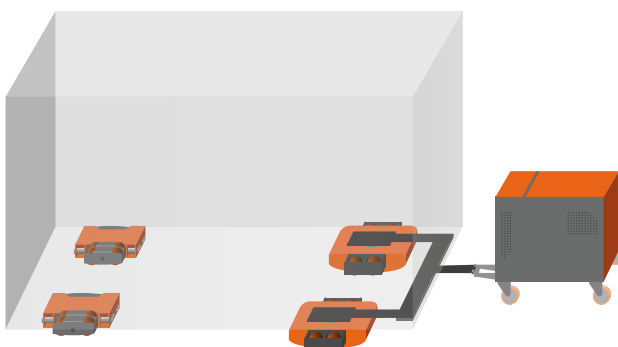
**LEGO® is a trademark of The Lego Group*



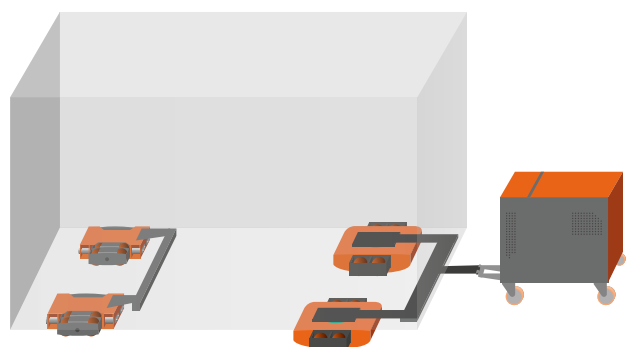
Classic set up on 3 support points



All three units steering;

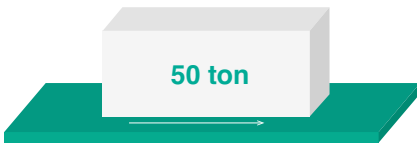


Dual front self propelled units and fixed rear rollers

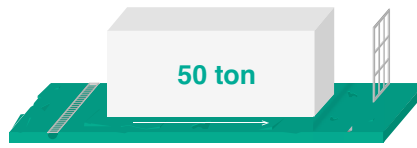


Dual front self propelled unit, all four units steering

Because power matters



Any equipment, even with low power but very hard wheels, can move a load on a perfect, flat and smooth floor... but...



If the floor is not smooth, but has obstacles of any kind - the power required to perform the same handling *increases several fold*.



When you face a ramp or slope, the power required to overcome this obstacle *increases exponentially*.

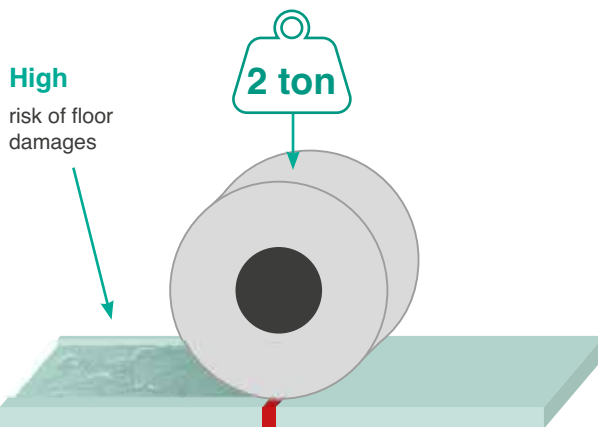
This is why we have developed a special traction system, which helps to overcome all the classic obstacles and slopes in total safety, both for the transported machinery and for the operator.

Apollo's PowerPacks guarantee many times more pulling power than any similar equipment, as well as autonomy for a whole working day.

- ✓ Hydraulic motors
- ✓ Autonomy > 8 hours
- ✓ Overcoming obstacles
- ✓ Slope up to 5%
- ✓ 100% remote controlled
- ✓ Proportional control

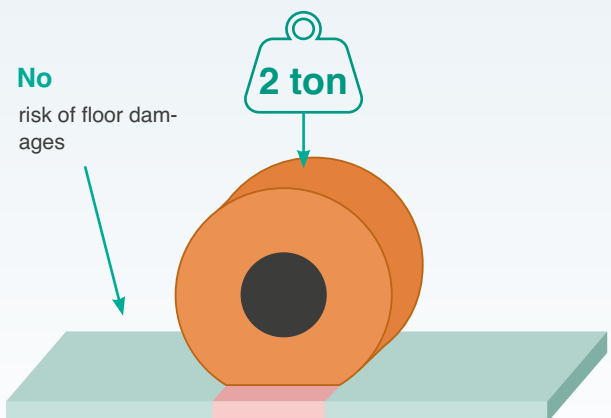
Apollo's winning solution comes from the combination between traction power and wheel grip given by our exclusive *"PRO-GRIP" polymer*.

Classic hard plastic wheels



Other manufacturers are using hard plastic or metal wheels that transmit very high specific ground pressure, which means a high risk of damaging floors.

Mouvers "PRO-GRIP" wheels



The 'PRO-GRIP' polymer wheel distributes the pressure evenly, reducing it by 8 to 12 times. Increases traction capacity and works very well even on uneven floors.



very high ground pressure



low adherence and stability



only on flat, smooth floors



100% safety and stability



high adherence



on any floor

PowerPack



Hydraulic power

with high efficiency
motor-pump system.



High power

to override obstacles
and gradients up to 5%



100% remote control

by radio remote control
with proportional joy-sticks



Proportional controlled movements

with max speed set up by potentiometer



Quick coupling

to swap self propelled unit FST
when needed.



Autonomy up to 8 working hours

to handle most demanding jobs



MINI POWER 230V AC

The smallest in the series, 230V AC power supply makes it usable in any industrial or non-industrial environment.

Inverter-controlled motor and silenced pump connected to a proportional hydraulic distributor for smooth handling.



FULL POWER 400V AC

Power unit with three-phase AC power supply. Soft start, complete with variable displacement piston pump and proportional distributor with load sensing system.

It can work without any time limit, 24 hours a day in the harshest conditions thanks to the air-oil heat exchanger fitted as standard.



EASY POWER BATTERY 48V DC

Compact battery-powered power pack suitable for non-continuous use during the working day. Can be connected to the FST8 and FST15 self propelled skates..

Hydraulic unit with motor-pump system controlled by inverter. Proportional hydraulic distributor for high sensitivity and excellent traction control.



FULL POWER 48V DC

Battery version with large autonomy reserve and constant torque. Can be connected to the FST8 and FST15 and FST25 self propelled skates.

Enhanced hydraulic system with variable displacement piston pump and proportional distributor with load sensing system: optimum management of battery consumption and precise traction control.



FULL POWER 400V AC control unit in version 4.0

This control unit is very similar to the others, but incorporates all the functionality and devices required to comply with the requirements of the New National Transition 4.0 Plan.

The Apollo system equipped with this control unit is certified “4.0 ready” and can control all Apollo series self-propelled skates up to 75 tonnes capacity. In addition, it is equipped with two additional hydraulic lines to control various options such as the RTS steerable rear trolleys or the forks of the Mouvers Transpallet.



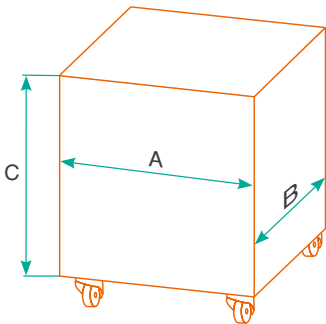
The main difference to the other models is in the ability to send and receive data, either directly via remote connection or with a QR code reader supplied as standard.



Appropriate sensors allow monitoring the status of the machine in real time and provide user with remote technical assistance directly on the machine from the factory service.



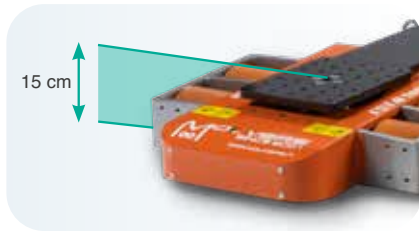
Both the radio remote control and the control panel are adapted to these new functionalities and facilitate the dialogue between the operator and the machine and between the machine and the company's premises..



	MINI POWER 230V AC	FULL POWER 400V AC	EASY POWER 48V DC	FULL POWER 48V DC	FULL POWER 400V AC 4.0
(A) mm	770	770	695	1010	810
(B) mm	800	770	860	770	780
(C) mm	370	840	930	990	920
kW, up to	3	9	6	9	9
Autonomy	No limit	No limit	6 - 8	8 - 10	No limit



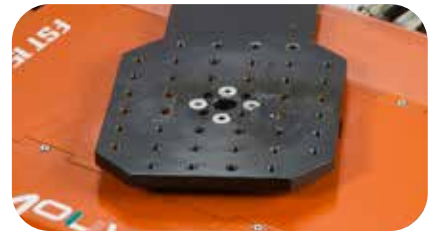
FST powered steering skates



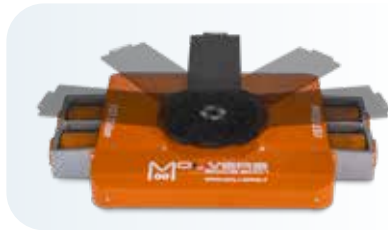
Loading height of 150 and 160 mm - the smallest and shallow in our business



Non marking heavy duty wheels with "PRO-GRIP" polymer. Full traction on all wheels



Support plate with threaded holes to secure the load



Radius of rotation around its own axis for working in confined spaces



Quick couplings to configure the machine according to the job



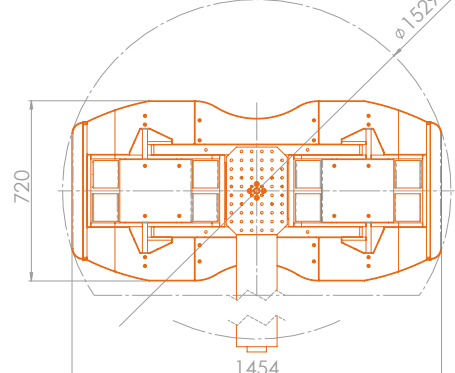
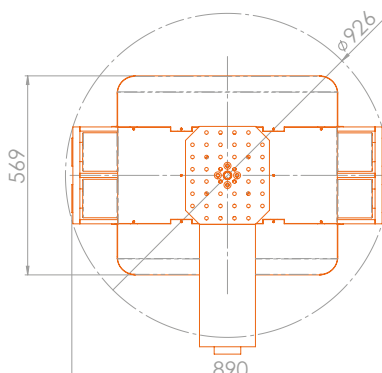
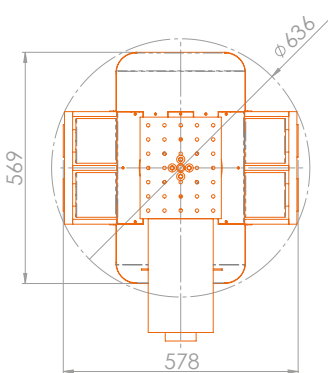
Frame with generous angle of attack and exit to tackle slopes or descents



FST8

FST15

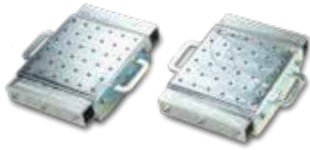
FST25



	FST 8	FST 15	FST 25
Payload on support plate, kgs	8.000	15.000	25.000
Gross weight kgs	up to 24.000	up to 45.000	up to 75.000
Dimensions o/a, mm	580 x 580	900 x 570	1460 x 720
Support plate height, mm	150	150	160
Dead weight, kg	85	150	350

RT rear rollers

RT15



RT25



COMBO RT30



COMBO RT50



Mouvers rear rollers are designed to work on any type of floor, even in difficult conditions.

Each pair of wheels is mounted on a cantilever arm. This ensures correct and even weight distribution on all wheels, especially when negotiating small ramps, gradients and various obstacles.



Mouvers rear trolleys are among the smallest and lowest in the market with a height of only 150 and 160 mm.



The tilting system helps distribute the weight evenly over all wheels regardless of steps and various obstacles.



Durable 'PRO-LOAD' elastic polymer non-marking wheels mounted on roller bearings for durability and smooth drive.



The support plate with threaded holes allows easy and fast load securing for maximum safety while working.

	RT15	RT25	COMBO RT30	COMBO RT50
Payload (per pair), kgs	15.000	25.000	30.000	50.000
Support plate size, mm	310 x 310	310 x 450	270 x 330	320 x 420
O/A dimensions, mm	440 x 470	590 x 450	650 x 500	500 x 800
Loading height, mm	150	150	155	160

*RT 15 and 25 rollers are modular and may be reassembled under the respective Combo plate that connects two of them to double payload.



TwinSet FST side by side connection

Optional



Classic set up with 3 support points



TwinSet featuring 4 support points

To move flexible loads, distribute the weight evenly or simply to relocate support points, it is often necessary to operate a system on 4 supports.

The TwinSet system allows you to connect 2 FST powered skates together and control them from just one power pack and radio control.

By adding a pair of RT trolleys or RTS steering trolleys at the rear, the 4-support points system is realized.



Thanks to the modularity of the Apollo system, we can therefore use 2 self-propelled FST8 and FST15 units with a linkage device that allows both control from a single control unit and synchronised steering.

The TwinSet system is currently available for the FST8 and FST15 self-propelled skates and can be powered and controlled by all PowerPacks.



RTS rear steering rollers



To give you maximum flexibility when manoeuvring in tight spaces, we have developed hydraulically compensated rear steerable trolleys.

This type of rollers allows you to move the transported machinery in any direction, regardless of the position of the support points.

The RTS 15 and RTS 30 are the world's first hydraulically steering rear rollers with hydraulic load compensation; very useful when used with the 4-point support system.



The wheels of the RTS trolleys are made of PRO-LOAD polymer, same as used on the RT rear trolleys.



The load support plate, with threaded holes, allows securing the load for maximum safety.



The wheels and the entire suspension device are assembled on tilting supports, for even distribution of the load.



The steering angle up to 45° to allow maximum flexibility in movement.



Steering is controlled directly by the Apollo power pack via a dedicated third hydraulic line.



The whole Apollo set up with RTS rear rollers is controlled through the radio remote control of the power pack.

Hydraulic compensation for 4-point operation

RTS rollers can be used in conjunction with TwinSet front set up to realize a 4-point support system with all steering units. This means a significant increase in manoeuvrability, load capacity and safety.

To compensate for differences in ground flatness, a hydraulic piston with a stroke of 30 mm is installed in the centre of each RTS roller. This system helps keeping all four units in contact with floor, just as trailers and semi-trailers with hydraulic suspension do.

When using the classic 3-point ground system, the compensation system can be disabled.

2 models available:

RTS 15: 2 wheel sets - 7,5 ton payload on each unit, 15 ton payload on the two

RTS 30: 4 wheels sets - 15 ton payload on each unit, 30 ton payload on the two



12 ton modular Transpallet

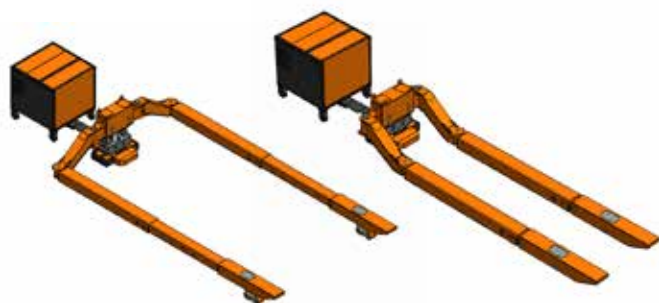
Aiming to providing its customers with the opportunity to make the most of their investment in the Apollo system, Mouvers has designed and manufactured a new attachment to be coupled to its machines. This makes it possible to acquire new business with just the integration of the Transpallet system to the Apollo machines already available.

The Transpallet is a system with large extendable forks that can be positioned at various widths to suit the object to be handled.

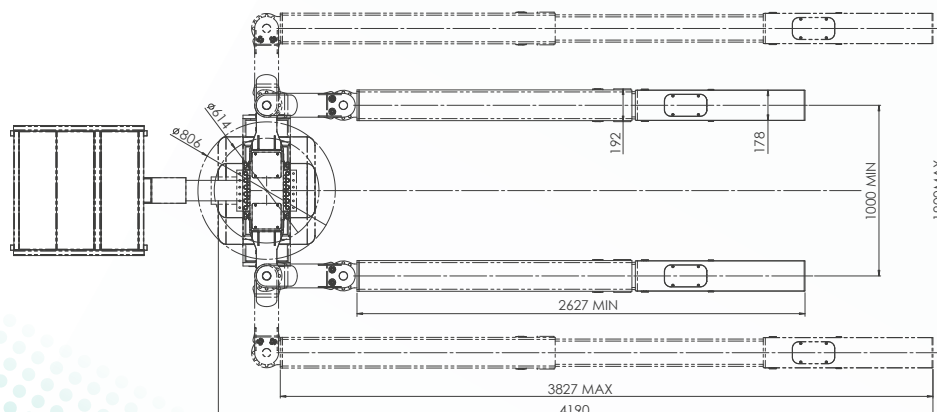
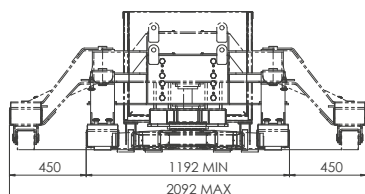


The Transpallet is powered directly from Apollo's Power Pack and controlled by the same radio control unit. If the customer already has an Apollo machine, he simply needs to purchase the Transpallet attachment and connect it to begin working with it!

The Transpallet works with all Apollo PowerPacks, it can handle weights up to 12 tonnes and lift them 130mm.



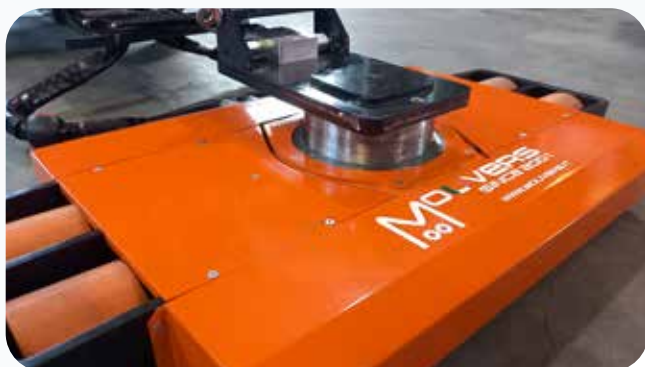
Self propelled unit	FST 8 o FST 15
Loading capacity	12 ton
forks height	152 mm
Single fork width	192 mm
Fork lifting stroke	130 mm
Minimum width	1.192 mm
Maximum width	2.092 mm
Minimum fork length	2.627 mm
Maximum fork length	3.827 mm



Apollo Industry

The Apollo INDUSTRY series is a new pick-and-carry machine that is perfectly suited to the various handling needs in the production industry environment.

This system, in line with Mouvers' other machines, is inspired by the modularity of the individual parts, allowing our customers to create the system to their needs in a very simple way by using the most suitable accessory.



Like the entire Apollo series self-propelled units, the INDUSTRY roller is equipped with PRO-GRIP wheels and all wheel drive to provide the right compromise between grip and smoothness and to guarantee grip and safety even on slight inclines.

The INDUSTRY self-propelled skate has very compact dimensions: height of the loading platform is only 170 mm, load capacity of 6 or 12 tonnes on itself, and maximum total mass of 18 or 36 tonnes.

Can be connected to Apollo battery power packs or 400VAC power pack.

Radio control for all functions and manual emergency controls.

Model	Industry 6	Industry 12
Load pick up height	170 mm	170 mm
Pick up capacity	6 ton	12 ton
Gross weight	18 ton	36 ton
Lifting stroke of pick up plate	40 mm	40 mm
Working speed, depending on power pack	Max: 24 mt / min	Max: 12 mt / min



The FST INDUSTRY self-propelled and steerable skate is equipped with a lifting and coupling system that can be attached to any object already fitted with wheels. Similar to a truck fifth wheel it can be connected to Mouvers handling systems such as low bed platforms with a lifting height of only 250 mm and available in various widths and lengths. It can as well be connected to the Transpallet which forks have a minimum loading height of 150 mm and can be adjusted to suit the size of your goods to be handled.



What you should consider before investing your money in an industrial handling equipment

- | | | | |
|----|--|---------------------------------|--------------------------------|
| 01 | Versatility
Does the machine you are evaluating have to perform several different jobs, in confined spaces and under difficult conditions? | YES
<input type="checkbox"/> | NO
<input type="checkbox"/> |
| 02 | Power
Do you need to move heavy loads over uneven floors and over various obstacles such as grates, holes or door rails? | YES
<input type="checkbox"/> | NO
<input type="checkbox"/> |
| 03 | Driving on slopes
Would you like to handle heavy loads on ramps or slopes without the aid of a forklift truck and safely? | YES
<input type="checkbox"/> | NO
<input type="checkbox"/> |
| 04 | Safety
Would you like to keep your employees safe so as to avoid any risk of injury due to handling? | YES
<input type="checkbox"/> | NO
<input type="checkbox"/> |
| 05 | Modularity
Would you like to have a machine that can be easily upgraded into a more powerful and versatile one in the future? | YES
<input type="checkbox"/> | NO
<input type="checkbox"/> |

If you answered YES to at least 3 questions, then you need an extremely reliable, powerful and modular tool that can save you time, resources and safely perform different types of handling!

The only solution you can find on the market that meets all these parameters is **Apollo**



Call to have a demonstration
+39 049 5806578



Or email
sales@mouvers.it



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