



Self-steering axles & Steering axles

DUAL MODE

Automatic self-steering axle

ATE



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For vehicles equipped with a suspension fitted with two or more axles, the use of one or several steering axles, self steering or automatic self-steering axles represents the most common solution for the prevention of the tire scrub phenomenon during operations and bends while securing the stability and the safety of the towed set.

Steering axles **DUAL-MODE** type, can be equipped on demand with a locking cylinder (**self-steering axle**) or a steering cylinder (**steering axle**). Automatic self-steering axles **ATE** are designed to allow the wheels to follow the movement of the trailer in forward gear as in reverse gear. **It's the best choice to reduce considerably the tire scrub phenomenon.**

DUAL-MODE

Self-steering

Self-steering axles

- **Self-steering axles** are equipped with one central realigning and locking hydraulic cylinder. They are also equipped with two shock absorbers, directly assembled on the cylinder support. Self-steering axles are adjusted for low speed operations however it must be locked at a higher speed.



Steering

Steering axles

- **Steering axles** are equipped with one compact and efficient control hydraulic cylinder. Its optimized dimension allows the reduction of the work pressure for a more comfortable drive. Steering axles are adjusted for uninterrupted use whatever the speed of the vehicle.

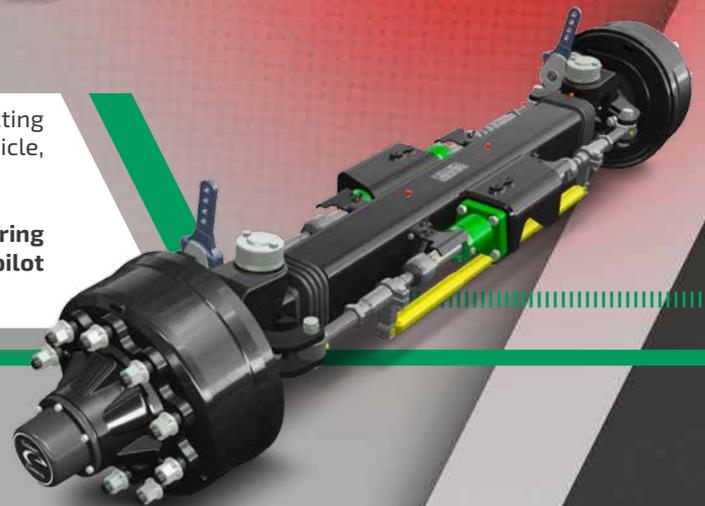


Auto Self-steering

Auto Self-steering ATE

The automatic self-steering axles **ATE** hold two connecting rods locked in turns depending on the direction of the vehicle, allowing the axle to negotiate sharp turns adequately.

You have the options to choose the automatic self-steering axle with a manually operated control or the autopilot version which works in a self contained way.



DUAL-MODE

The Dual-Mode system is a compact and functional product due to new technical evolutions.

A key component: The hydraulic cylinder includes the connexion rod and allows a precise control of the wheels.

SELF-STEERING



- Self-steering axle Dual Mode type SMP

Load: 8 - 10 tons
Available in square of 90, 100 and 110.

- Self-steering axle Dual Mode type STP2

Load: 10 - 12 tons
Available in Teknoax 130 and 150.

- Self-steering axle Dual Mode type SWP2

Load: 12 - 15 tons
Teknoax 150.

- Self-steering axle Dual Mode type SXA

Load: 15 - 18 tons
Full square 150



- Steering axles Dual Mode type SMB

Load: 8 - 10 tons
Available in square of 90, 100 and 110.

- Steering axles Dual Mode type STB2

Load: 10 - 12 tons
Available in Teknoax 130 and 150.

- Steering axles Dual Mode type STJ

Load: 10 - 13 tons
Available in 130 and 150.

- Steering axles Dual Mode type SWB2

Load: 12 - 15 tons
Teknoax 150.

- Steering axles Dual Mode type SXB

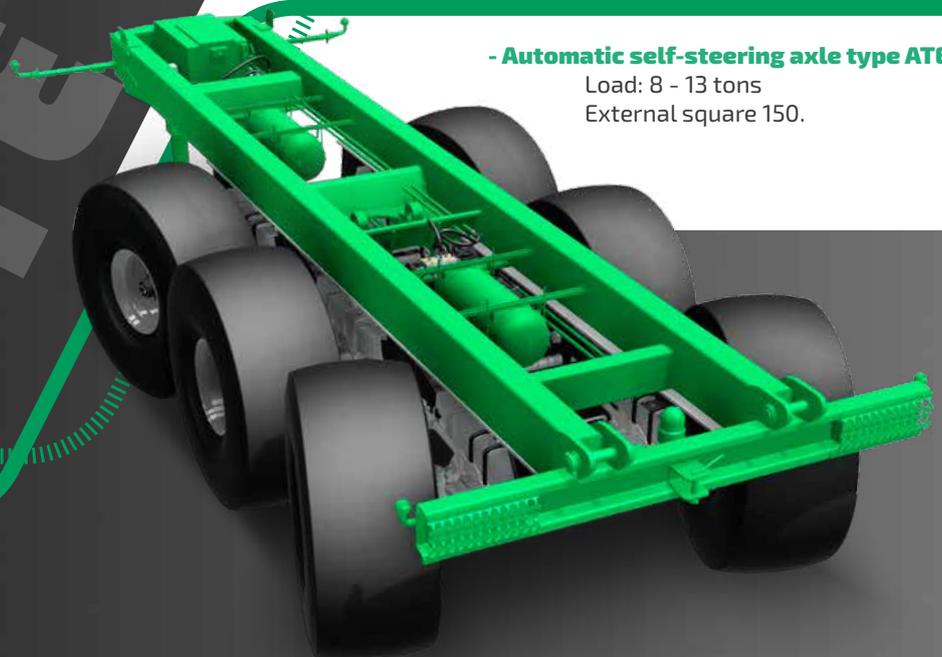
Load: 15 - 18 tons
Full square 150

STEERING

AUTO SELF-STEERING

- Automatic self-steering axle type ATE

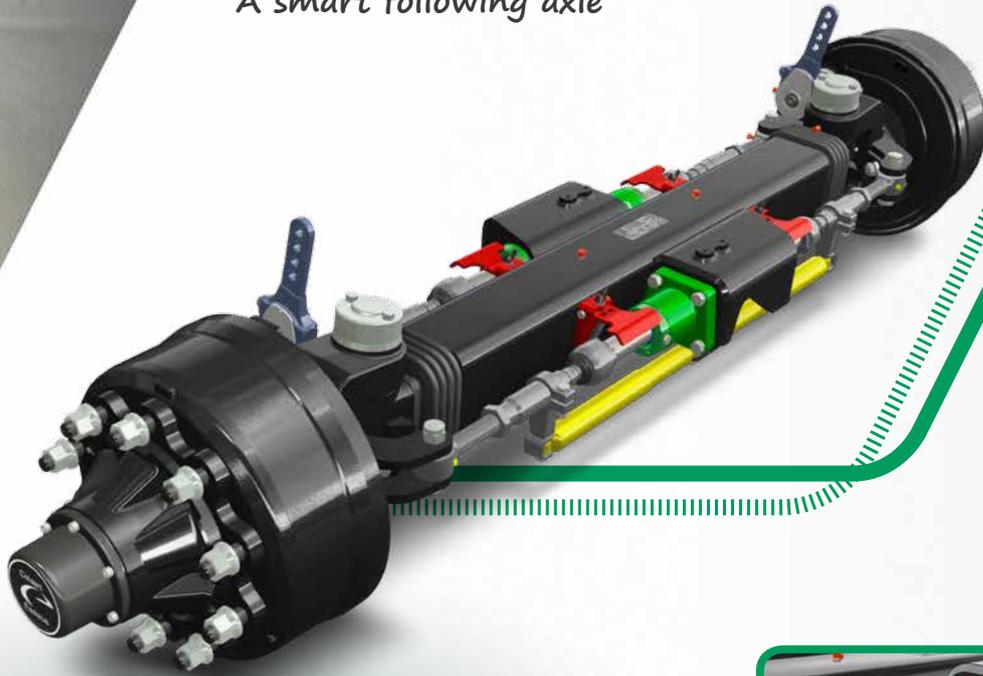
Load: 8 - 13 tons
External square 150.





Automatic Self-steering axle ATE

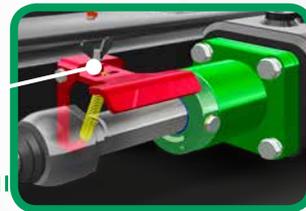
A smart following axle



“... in forward gear as in reverse gear”

Locking system

ATE axle has a smart locking system to block the connection bars for maintenance or non-use of the axle. This is a fully mechanical system that does not require a power supply.



Protective rubber

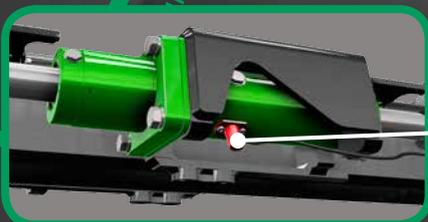
The protective rubbers provide effective protection.

Blocking cylinders

These cylinders have been specially studied for ATE axles, they are assembled on supports type "cartridge".

Sliding body

The axle body is reinforced. The exterior of the sleeve is a square 150mm.



Position sensors

The position sensors assembled on the cylinders are ensuring the position of the axle according to the coupled tractor and to secure the convoy.

> Automatic self-steering axle with manual control:

The automatic self-steering axle with manual control is equipped with locking cylinders operated by the user. The operating direction is not detected automatically, the axle is controlled by the user.

> Automatic self-steering axle:

Colaert Essieux offers a system that automatically controls the automatic self-steering axle ATE. This system manages the operation in forward gear and in reverse gear of the vehicle, without the user's intervention and allows to concentrate fully on the driving, ensuring a better safety.

Automatic self-steering axles are independent of the tractor. Whatever the configuration of the vehicle, the wheels are always placed in the ideal trajectory both in forward and reverse gear.

The coupling of the tractor is simple and classic: it does not require specific set up like for the steering axle systems as the «power» steering axles or others. The control of the automatic self-steering axle(s) adapts itself quickly in the tractor booth. The unit control is adapted to the hydraulic circuit of the tractor, with variable or fixed.

The booth control unit allows the control of the manual or automatic locking (from a predefined speed) for the automatic axle(s).

“The coupling of the tractor is simple...”

Hydraulic distribution block

Electrically controlled, it enables the locking of the self-steering axles depending on the tractor operating direction detected by the sensor.
(with or without LOAD SENSING)

Electronic box

It enables the user to define the parameters of the operation of the automatic self-steering axles.

Hydraulic and electrical connexions

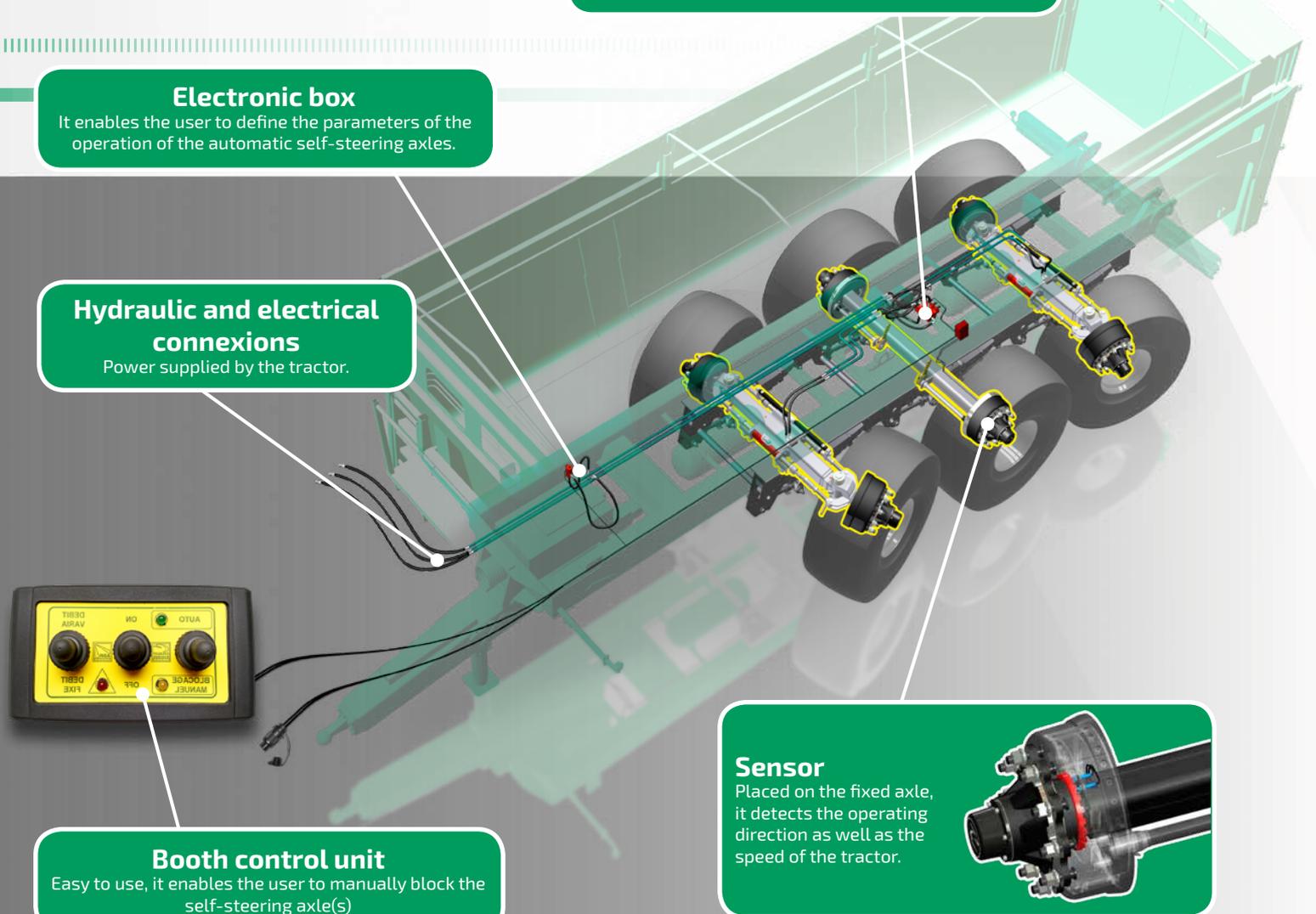
Power supplied by the tractor.

Booth control unit

Easy to use, it enables the user to manually block the self-steering axle(s)

Sensor

Placed on the fixed axle, it detects the operating direction as well as the speed of the tractor.





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