



## Steering systems

The steering units are hydrostatic. This means that there are no mechanical connections between the steering column and the wheels. Instead, there are hydraulic pipes and hoses between the steering unit and steering cylinders.

The steering unit consists of a rotary valve and flow meter. The steering unit connects to the vehicle's wheels via the steering column. By turning the steering wheel, oil is directed via the rotary valve and flow meter from the steering system pump to the L or R cylinder ports, depending on the direction of rotation.



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### THE RANGE – cm<sup>3</sup>/REV DISPLACEMENT



- Reactive units: in a neutral position, the external forces transmitted from the ground to the wheels reach the steering wheel making it turn.
- Non-reactive units: in the neutral position, the steering unit prevents the external forces transmitted from the ground to the wheels from reaching the steering wheel.
- Open-centre units: in the neutral position, there is an internal and direct connection between the pump and the tank. This type of unit requires fixed displacement pumps.
- Closed-centre units: in the neutral position, the connection between the pump and the tank is closed. This type of unit requires variable displacement pumps.
- Load Sensing system: in the steering systems equipped with load sensing control, the steering unit, and the other hydraulic functions can be fed by means of one single pump. Moreover, the LS steering system allows you to save energy by introducing an LS pump.



Warehouse



Design



Support



Service

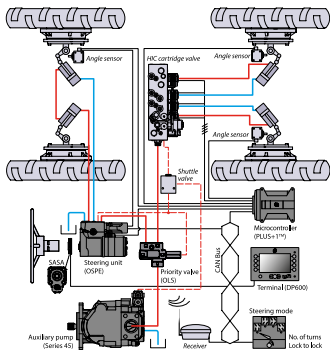


Consulting

## Turnkey solutions

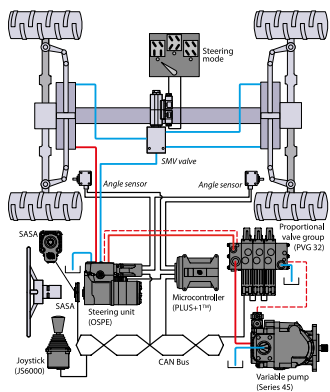
SACE s.r.l. provides complete hydraulic and electronic systems. One single supplier for all your requirements.

# Applications



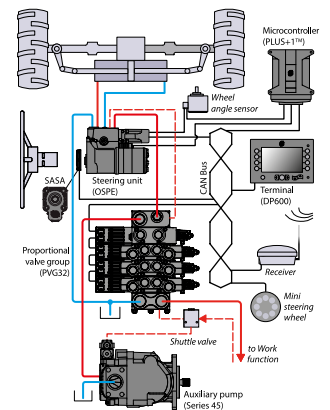
## STANDARD STEERING SYSTEM

The steering unit uses the hydraulic power generated by a dedicated gear pump to control the vehicle's steering angle.



## STEERING SYSTEM WITH LOAD SENSING CONTROL

In this type of vehicle, The circuit consists of a pump with variable displacement pistons with LS control, a PVG proportional valve, configured to interface with the steering unit and the steering unit itself.



## ELECTRONICALLY CONTROLLED STEERING SYSTEM

This type of system uses a steering unit with a built-in power control. This allows you to steer the vehicle by turning the steering wheel or using the joystick. This system is completed by a valve (SMV), which allows you to change the vehicle's operating response (only front wheel steering, four-wheel steering, active steering or crab steering).

## ELECTRONICALLY CONTROLLED STEERING SYSTEM

This type of system uses a piston pump, which generates hydraulic power. A priority valve manages both steering and the PVG valves. The system is equipped with an electronic system and an electrically controlled valve for GPS steering.

## ACCESSORIES

Priority valves, steering columns and steering wheels are available for all the systems, according to your vehicle's installation requirements.

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