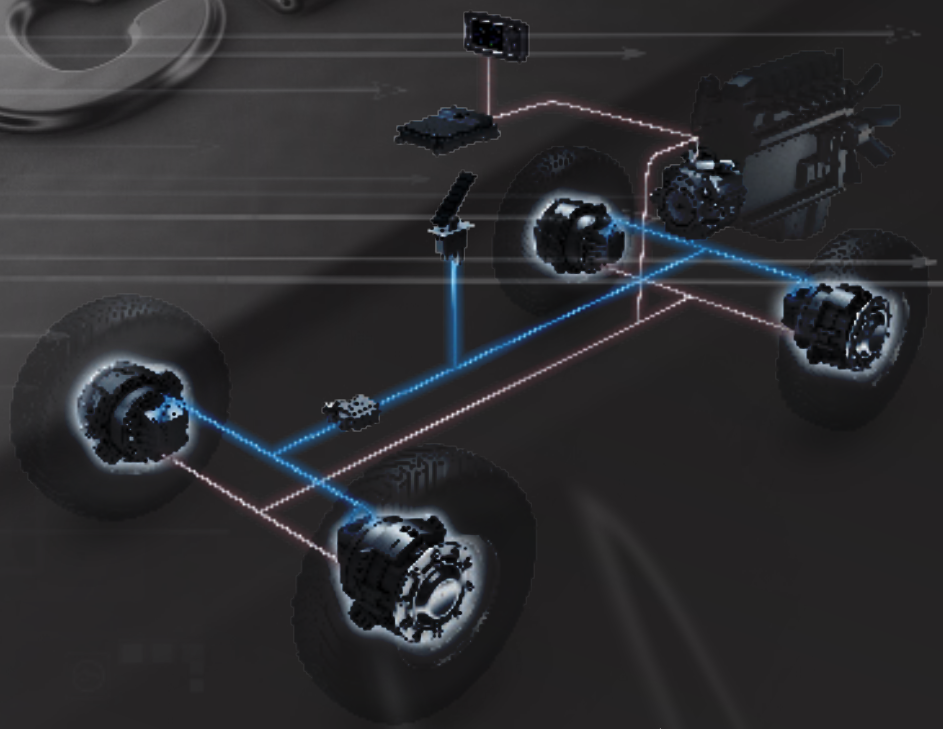
HIGH PERFORMANCE

Driving innovation further



POCLAIN
Hydraulics

No compromise on
efficiency or energy savings

HIGH PERFORMANCE

High power and speed
for more productivity

HIGH PERFORMANCE

Controlled performance
whatever the environment

HIGH PERFORMANCE

Safety and comfort
in any situation

High Performance

Demanding applications need highly performing hydraulic drive

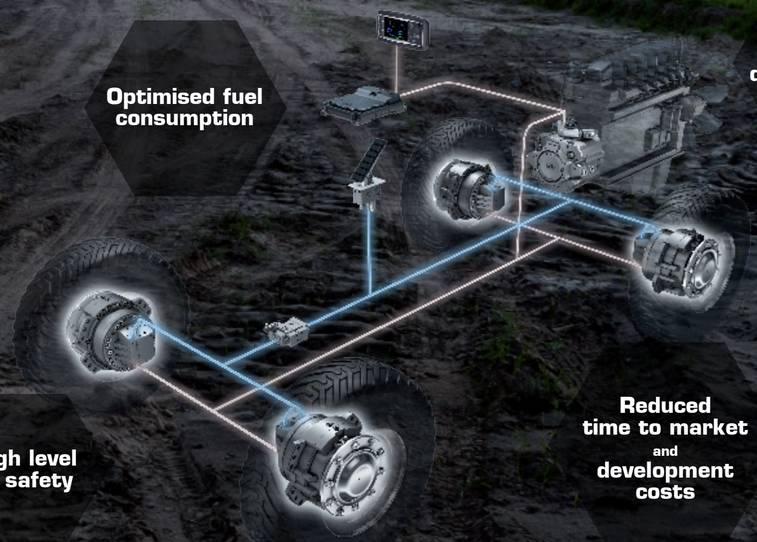
The High Performance system based on Poclain Hydraulics' innovation is notable for achieving performance well above current standards.

When combined within the same transmission, the components of the High Performance range reveal their full potential.

The unique design of the High Performance system enables it to function under extreme pressure and speed conditions, and achieve outstanding energy efficiency that minimises the machines' fuel consumption.

The design studies and validation tests put in place by our teams mean that our High Performance system is perfectly in line with your machines' architecture and performance. Time to market will be accelerated in order to reduce your development costs.

HIGH PERFORMANCE

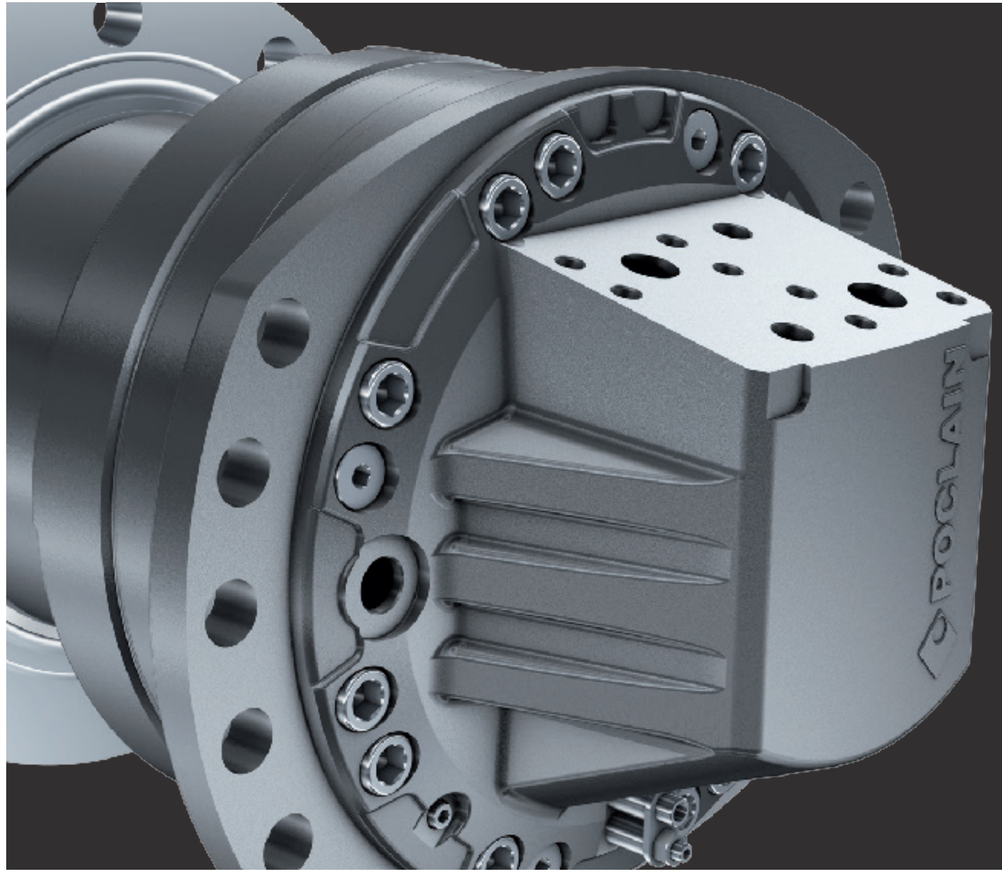


Optimised fuel consumption

Unmatched driving comfort

High level of safety

Reduced time to market and development costs



From
1 430 cm^3/rev.
[87 in^3/rev.]
to 3 520 cm^3/rev.
[215 in^3/rev.]

Up to
505 rpm

Up to
24 kN.m
[17.7 klb.ft]

Up to
280 kW
[375 HP]

Up to
500 bar
[7,252 PSI]

Up to
3 speeds

Hydraulic motors
MHP 20 and MHP 27

Thanks to their innovative design, the MHP20 and MHP27 motors will offer superior performances (Higher speed and power, working pressure of 500 bar [7,252PSI]) compared to conventional cam-lobe motors. These characteristics make these components suitable for any applications requiring highly performing hydraulic drives, such as agricultural machines, drilling rigs or industrial.

But besides their performance, the MHP 20 and MHP 27 motors will also allow improvement of the overall efficiency of the transmission resulting in lower fuel consumption for the machine, while ensuring long and reliable life time, required for the most demanding applications.

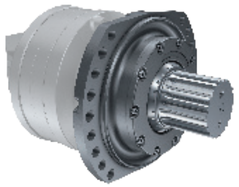
		MHP 20	MHP 27
Displacement	Displacement range cm^3/rev [in^3/rev]	1 430 - 2 430 [87 - 148]	1 890 - 3 520 [115 - 215]
Speed	Continuous max. speed rpm	up to 505	up to 340
Torque	Max. torque N.m [lb.ft]	up to 16 700 [12,317]	up to 24 000 [17,701]
Power	Max. power kW [HP]	up to 200 [268]	up to 280 [375]
Pressure	Max. pressure bar [PSI]	500 [7,252]	500 [7,252]
Weight*	kg [lb]	170 [275]	170 [275]

* Weight for MHP20 and MHP27 wheel flange motors

Various output shaft design

Wheel flange

Male splined shaft

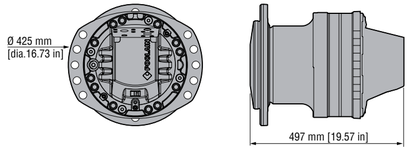


Shaft for shrink disc

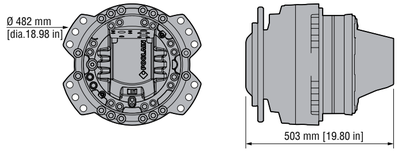
Hydraulic motors
MHP 20
MHP 27

Main dimensions

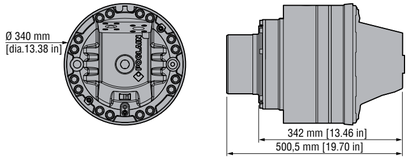
Wheel flange motor



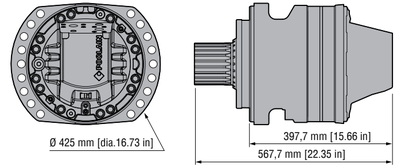
Wheel flange motor with C27 combined brake



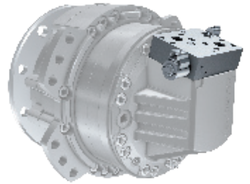
Shrink disc motor



Splined shaft motor



Flanged valve



Designed with a flat porting surface, the MHP 20 and MHP 27 motors can receive valves blocks, which will can flanged on top of their cover in order to enhance the control (electrical command for shifting) and facilitate the plumbing.

Brake offer

The C27 combined brake available on MHP 20 and MHP 27 motors, combines dynamic and parking brake ability and offers powerful and reliable braking performance thanks to its closed design (wet discs technology) not sensitive to external pollution.

		C27 combined brake
Dynamic brake	Max. torque N.m [lb.ft]	33 000 [24,340]
	Control pressure bar [PSI]	80 [1160]
	Max. permissible energy kJ [kcal]	1 000 [239]
Parking brake	Parking brake torque (new brake) N.m [lb.ft]	18 000 [13,276]
	Max. / mini. debraking brake bar [PSI]	135 / 100 [1,958 / 1,450]

With the C27 combined brake, the MHP20 and MHP27 motors are available with two different mountings position to offer more flexibility.

Mounting on bearing support

Mounting on cover

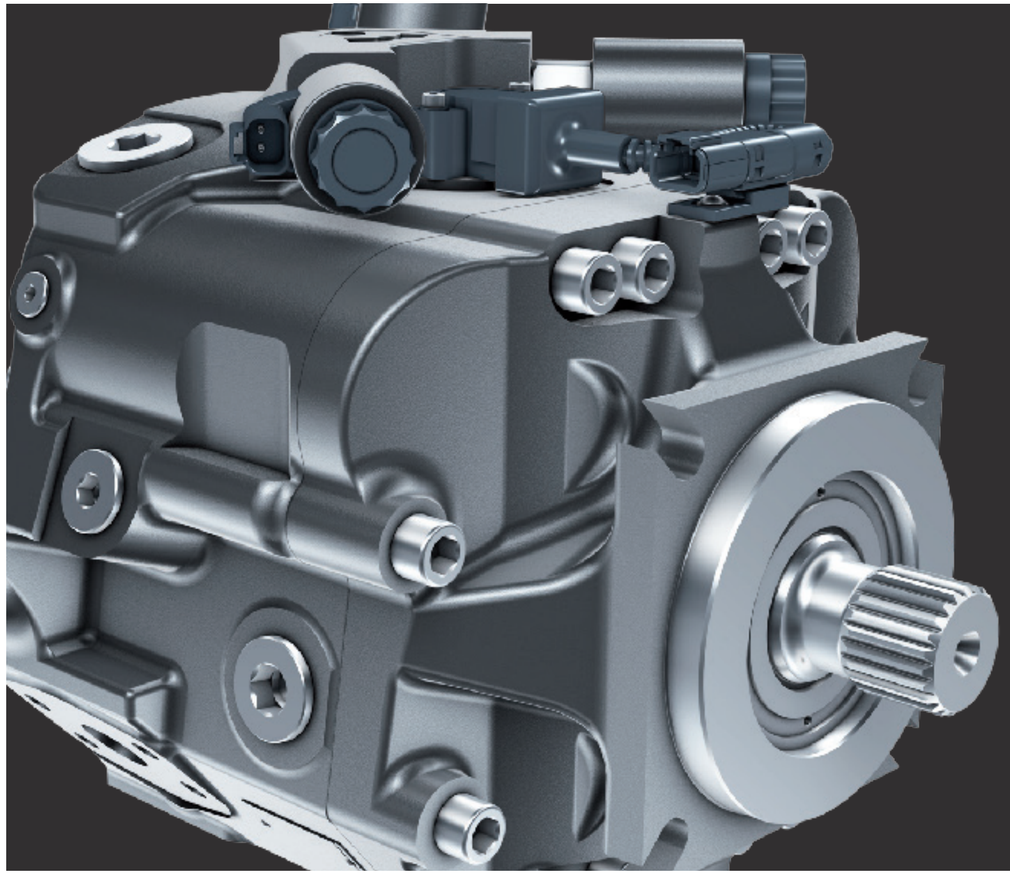
MHP motors

Boosted Braking™

More safety for self-propelled machines

The Boosted Braking™ option is available on MHP 20 and MHP 27 motors as an integrated feature. Boosted Braking™ offers increased hydrostatic braking capabilities. It enables regulation requirements to be met in terms of braking distances, while reducing the use of the dynamic brakes. Boosted Braking™ braking capabilities are independent of the installed diesel engine's retardation capacity. It also avoids engine over-speed when braking.

Applicable to all machines subject to high and/or repeated deceleration, both on the road and in the field. Boosted Braking™ is especially recommended for machines with diesel engines with a low retardation capacity.



From
85 cm^3/rev.
[5.18 in^3/rev.]
to 130 cc/rev.
[7.93 in^3/rev.]

Up to
3850 rpm

Up to
223 kW
[299 HP]

Up to
500 bar
[7,252 PSI]

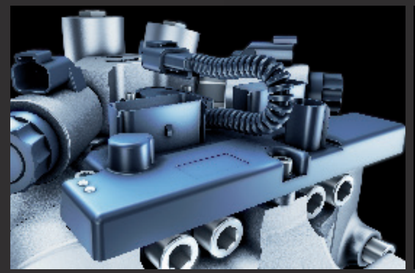
Compact

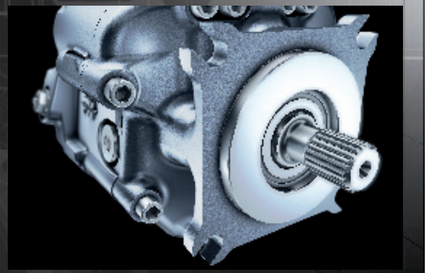
Hydraulic pumps
PW/PWe 085 and PW/PWe 096

Users of your machines expect reliability, precision and performance that minimize energy costs and maximize productivity and user comfort.

The PW/PWe pump range has been designed by Poclain Hydraulics with great attention to reliability, compactness, energy efficiency and high power density. This range of pumps will contribute to the commercial success of your machines by providing maximum added value, which is sure to satisfy your customers.

The PWe pump, with its embedded electronics, contains all the software functions required for a high-performance machine. Its Plug & Drive ™ system simplifies integration and reduces your development times and costs.





Efficiency

Machines' ecological and economic impacts are key concerns for you and your customers.
The PW/PWe range has been designed with the aim of providing a pump offering a high level of efficiency, synonymous with a reduction in fuel consumption.

92% efficiency

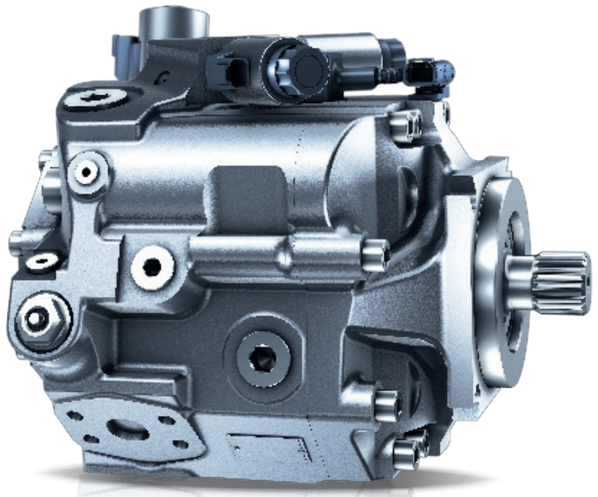
Axial compactness

The technical solutions required by the new anti-pollution standards reduce the space available in engine compartments.
The PW/PWe range meets these new integration constraints perfectly by offering the best axial compactness on the market.

278 mm [10.94 in]
(axial length)

Robustness & Reliability

500 bar [7,252 PSI]



Hydraulic pumps
PW/PWe 085
PW/PWe 096

High Power

Overall efficiency is one of your machines' characteristics. By augmenting pressure and speed to unrivalled levels, the PW/PWe range will boost your machines' productivity, to your customers' great satisfaction.

3850 rpm

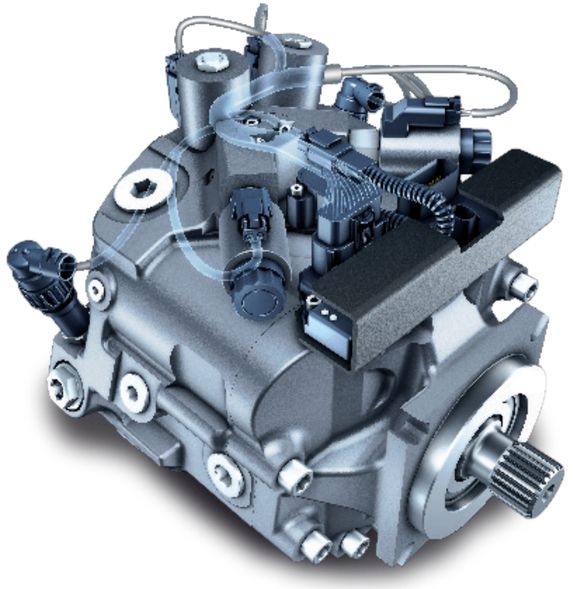
Accuracy

User comfort and safety are selection criteria for your customers. The PW/PWe range has an exclusive electronic control that ensures it behaves precisely, dynamically and safely.
Coupled with dedicated Electronic Control Units, your machines can meet current and future demands for comfort, safety and performance.

Control SA

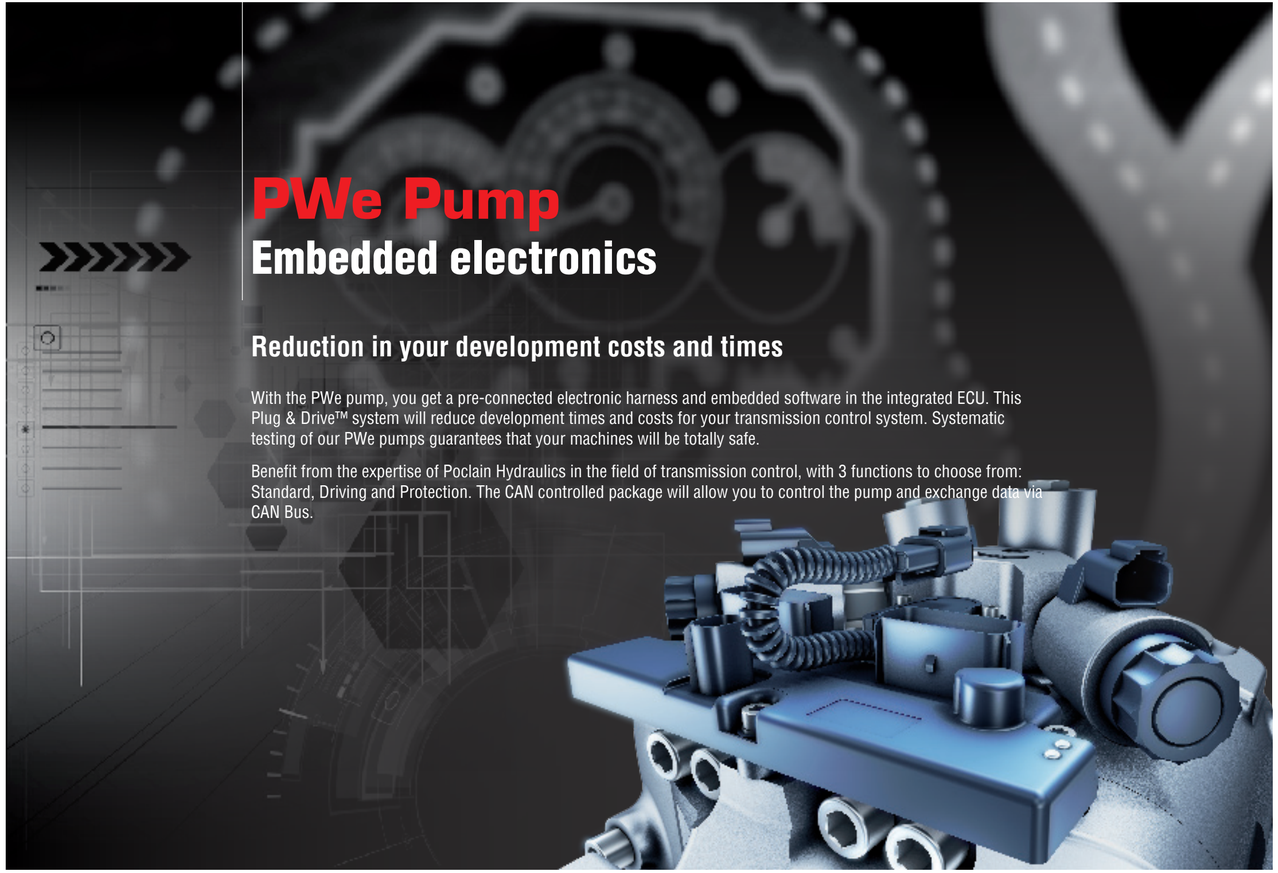
High value added

Plug & Drive™



		PW/PWe 085	PW/PWe 096	PW/PWe 115	PW/PWe 130
Displacement	cm^3/rev [in^3/rev]	85,2 [5.20]	96,4 [5.88]	-	-
Speed	Continuous max. speed rpm	3 650	3 650	-	-
	Intermittent max. speed rpm	3 850	3 850	-	-
Pressure	Continuous max. pressure bar [PSI]	450 [6,527]	400 [5,802]	-	-
	Intermittent max. pressure bar [PSI]	500 [7,252]	450 [6,527]	-	-
Weight	kg [lb]	71 [157]	71 [157]	-	-

		PW/PWe 085	PW/PWe 096	PW/PWe 115	PW/PWe 130
Main options	Speed sensor	■	■	-	-
	Temperature sensor	■	■	-	-
	Pressure sensor	■	■	-	-
	Exchange valve	■	■	-	-
	Integrated filter with pollution indicator	■	■	-	-

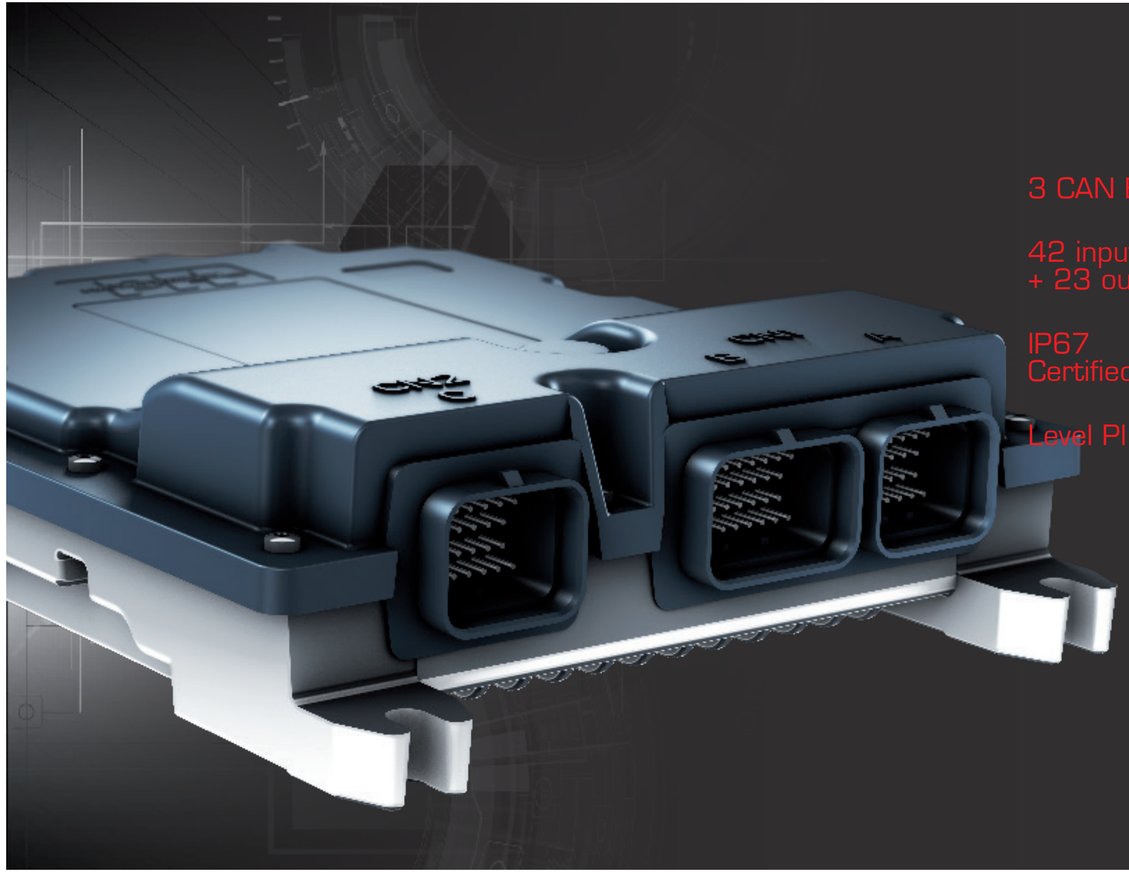


PWe Pump
Embedded electronics

Reduction in your development costs and times

With the PWe pump, you get a pre-connected electronic harness and embedded software in the integrated ECU. This Plug & Drive™ system will reduce development times and costs for your transmission control system. Systematic testing of our PWe pumps guarantees that your machines will be totally safe.

Benefit from the expertise of Poclain Hydraulics in the field of transmission control, with 3 functions to choose from: Standard, Driving and Protection. The CAN controlled package will allow you to control the pump and exchange data via CAN Bus.



3 CAN BUS

42 inputs
+ 23 outputs

IP67
Certified E

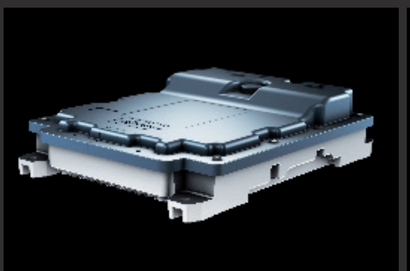
Level Pl d

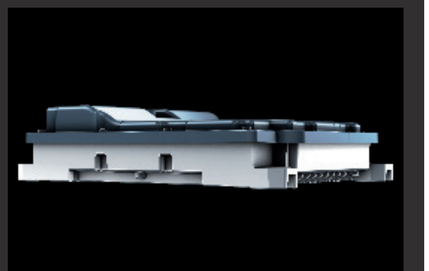
Electronic Control Units
SD-CT 200 and SD-CT 300

Your customers expect simple machines that are comfortable to use, and adapt to different work and road conditions while achieving high performances and reduced energy costs.

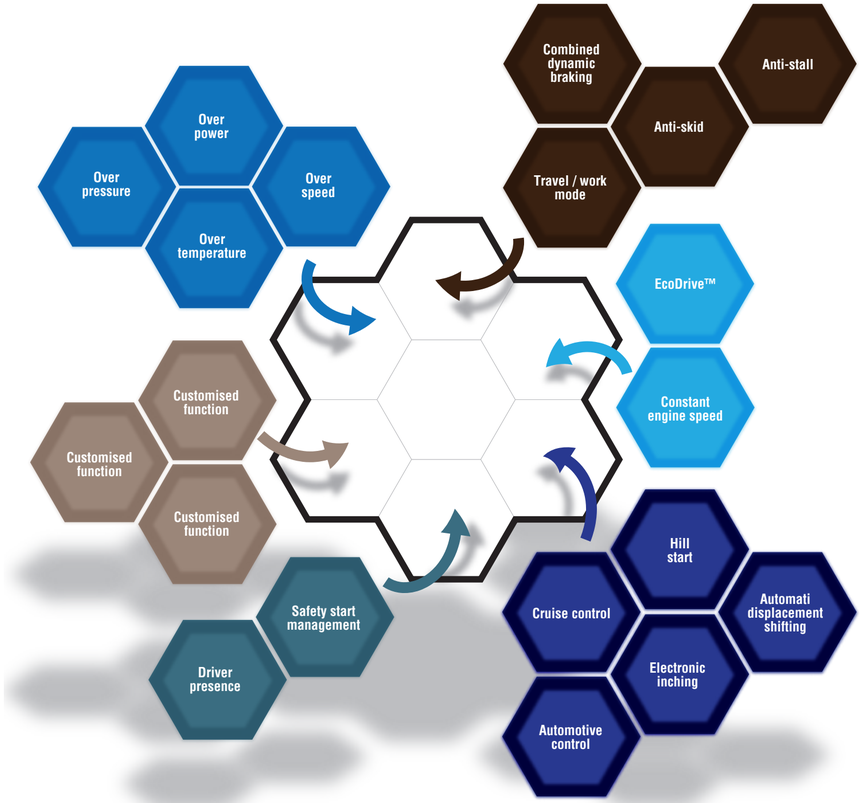
The SD-CT 200 and SD-CT 300 ECUs bring the added value of high-performance electronic controls, resulting in an increase in productivity, energy efficiency and user comfort.

The available software function library enables the SD-CT 200 and SD-CT 300 ECUs to bring you safety, comfort, productivity and protection of the machine and the environment. You can then customize the control of your hydrostatic transmission to meet your customers' expectations as fully as possible, which will help to make your machines a commercial success.





Software functions ready to use



Protection

Your machines' life span is one of your main concerns and is an increasingly pressing demand. With the SD-CT ECU range and the associated protection functions, the transmission's hydraulic components are used under the best possible conditions and do not deteriorate prematurely.

Productivity / Environment

To meet productivity and environmental criteria, it's not enough to just have high-performance components: electronics have become essential to achieve the performance levels your customers demand.
The SD-CT ECUs range and associated functions bring you all the benefits of Poclain Hydraulics' experience in the field of hydrostatic transmissions.

Comfort

Comfort and ergonomics standards for machines have come a long way. Users have to focus on working the machine. The SD-CT ECUs range and associated functions make your machines simple and enjoyable to drive, allowing the driver to give all their attention to the work they have to do.

Safety

The safety of your machines' users is of crucial importance. The SD-CT ECUs range and associated safety functions ensure the machine works under the safest possible conditions for your customers.

Electronic Control Units
SD-CT 200
SD-CT 300

		SD-CT 200	SD-CT 300	PWe
Protection	Over temperature	▪	▪	▪
	Over power	▪	▪	▪
	Over pressure	▪	▪	▪
	Over speed	▪	▪	▪
Productivity	Anti-skid	▪	▪	▪
	Traction control	▪	▪	▪
	Combined dynamic braking	▪	▪	
	Anti-stall	▪	▪	▪
Comfort	Automatic displacement shifting	▪	▪	
	Cruise control	▪	▪	▪
	Electronic inching	▪	▪	▪
	Hill start	▪	▪	▪
	Automotive control	▪	▪	▪
Safety	Safety start management	▪	▪	▪
	Driver presence	▪	▪	▪
	Light and noise control	▪	▪	▪
Environment	EcoDrive™	▪	▪	
	Constant engine speed	▪	▪	▪

Electronic Control Unit SD-CT

EcoDrive™ Function

Reduced consumption in work and road modes

The EcoDrive™ solution is applicable to all machines with an electronic pump control and internal combustion engine control by CAN Bus.

Completely automatic, the EcoDrive™ function requires no particular action from the driver and always selects the best combination of internal combustion engine speed and pump displacement.

Machines fitted with the EcoDrive™ function are therefore much more eco-friendly, with reduced fuel consumption, CO_2 emissions and noise impact.

Poclain Hydraulics specializes in the design, manufacture and marketing of hydrostatic transmissions.

We are above all a partner you can rely on to accompany you through the design and sizing of your hydrostatic transmission. We supply the complete transmission (from pumps to motors, including valves and electronic control) and can also test your machine on our proving ground, insuring you receive a reliable, long-term hydraulic solution.

Poclain Hydraulics brings 50 years of experience to agricultural, construction, material handling and on road markets to name a few. We are specialized in the development and global production of high torque ground drives and related components.

Our success is based on a wide range of products, our high quality standards and a strong culture of innovation.

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