



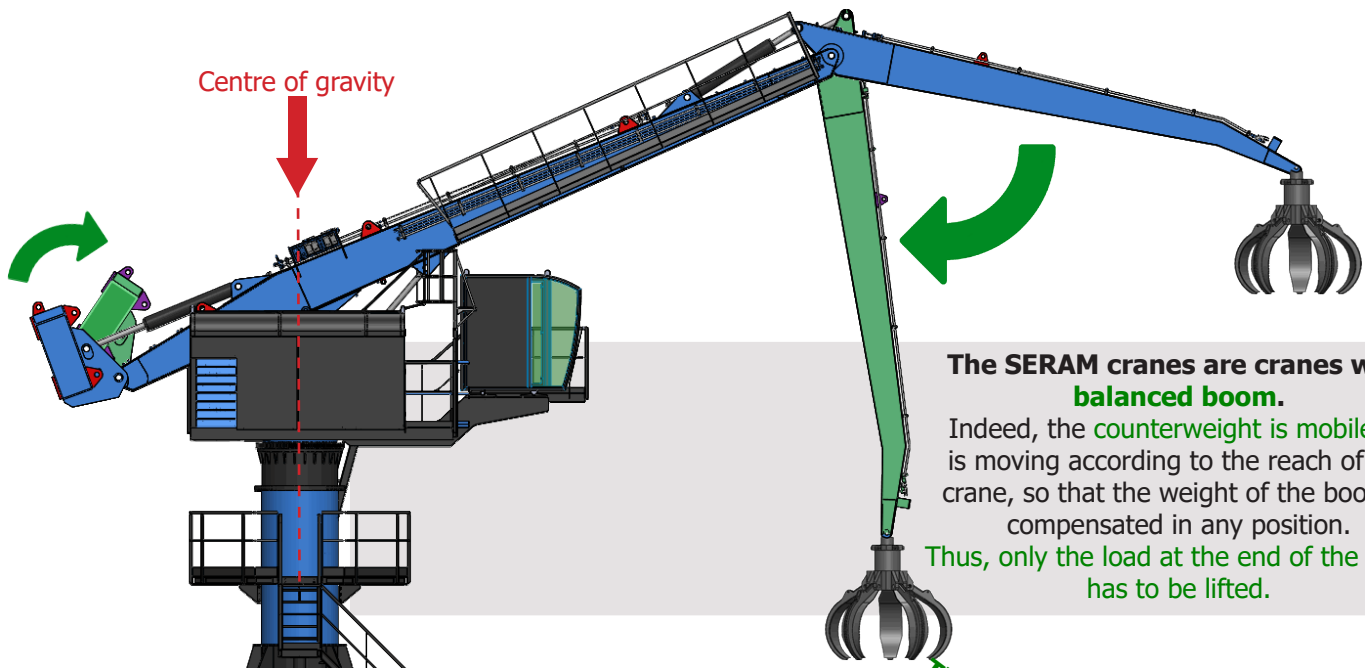
EQUILIBRIUM HANDLING CRANE

Equilibrium **SERIES 4**

ES420, ES422, ES425

SERAM
L'EXPERIENCE

The Hydraulic Balance System



The SERAM cranes are cranes with **balanced boom**.

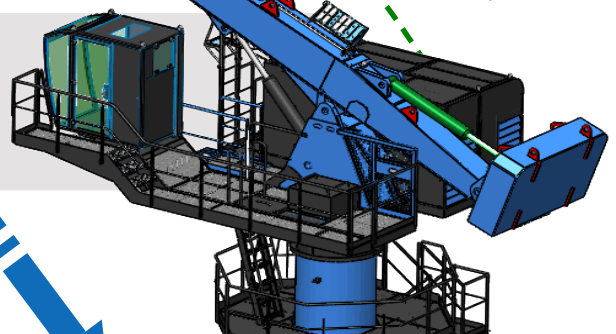
Indeed, the counterweight is mobile. It is moving according to the reach of the crane, so that the weight of the boom is compensated in any position.

Thus, only the load at the end of the boom has to be lifted.



The synchronisation of the counterweight according to the boom is made through a fully hydraulic connection. This technology is patented worldwide.

The synchronisation of the cylinders, through hydraulic connection,



Unequalled operating costs

Up to 80% of energy savings compared to a thermic excavator

Thermic excavator

100%

Electrical non balanced excavator

50%

50% savings

Electrical balanced crane SERAM

25%

75% savings

Low working pressure = Exceptional life-time

The average working pressure is half lower than for a conventional excavator, the components are then less sollicitated, for the same performances

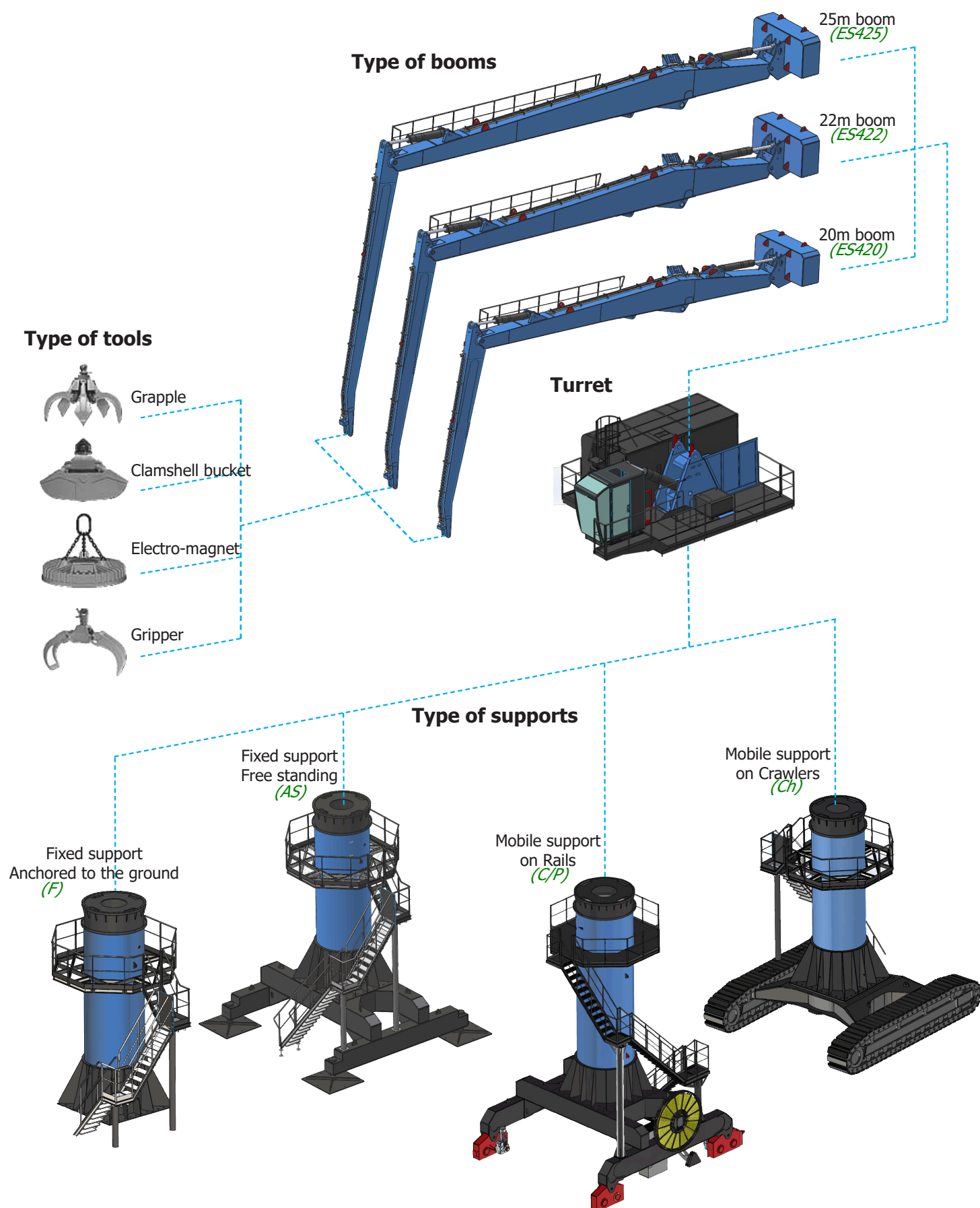
Non balanced excavator

~320 bars

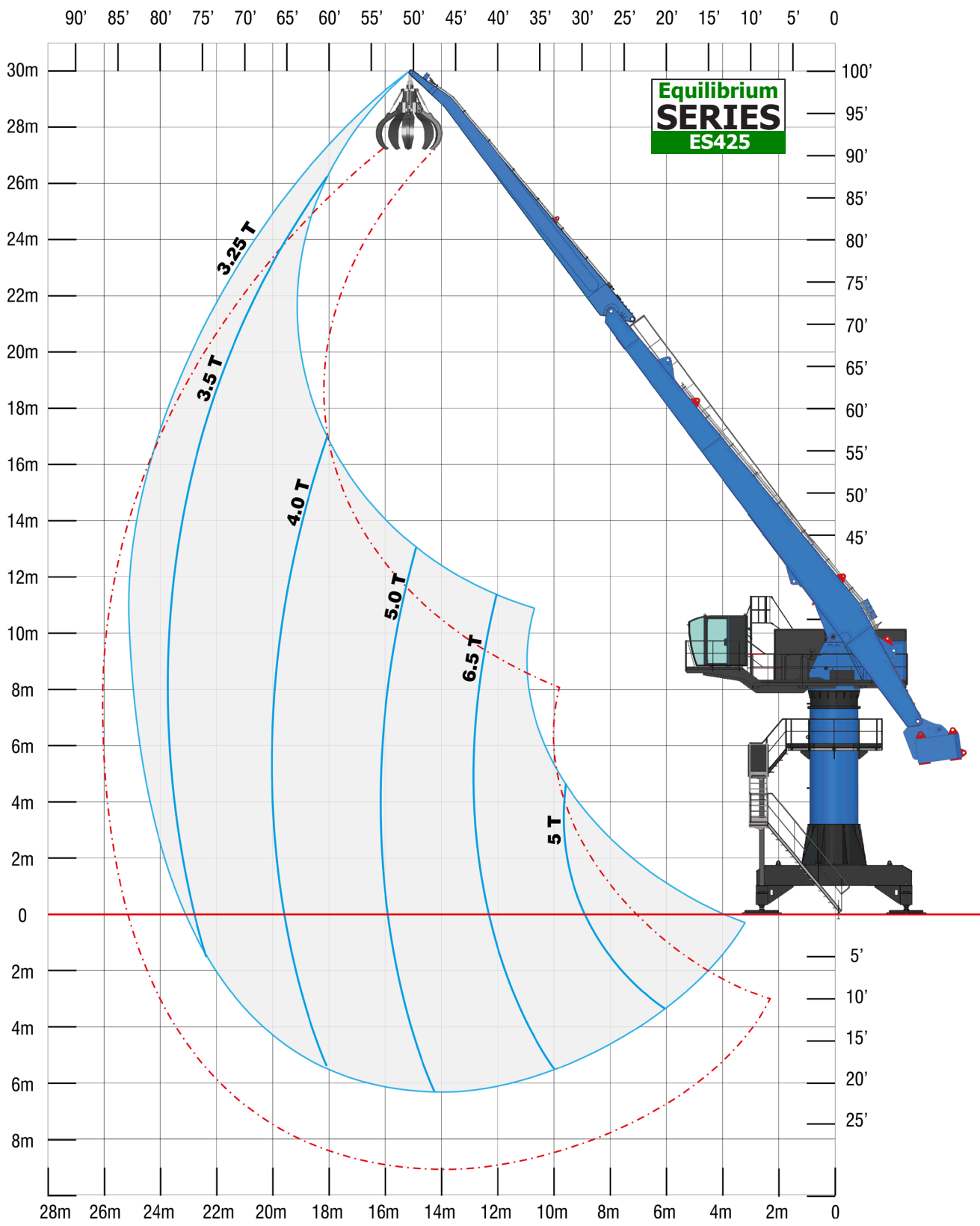
Electrical balanced crane SERAM

~150 bars

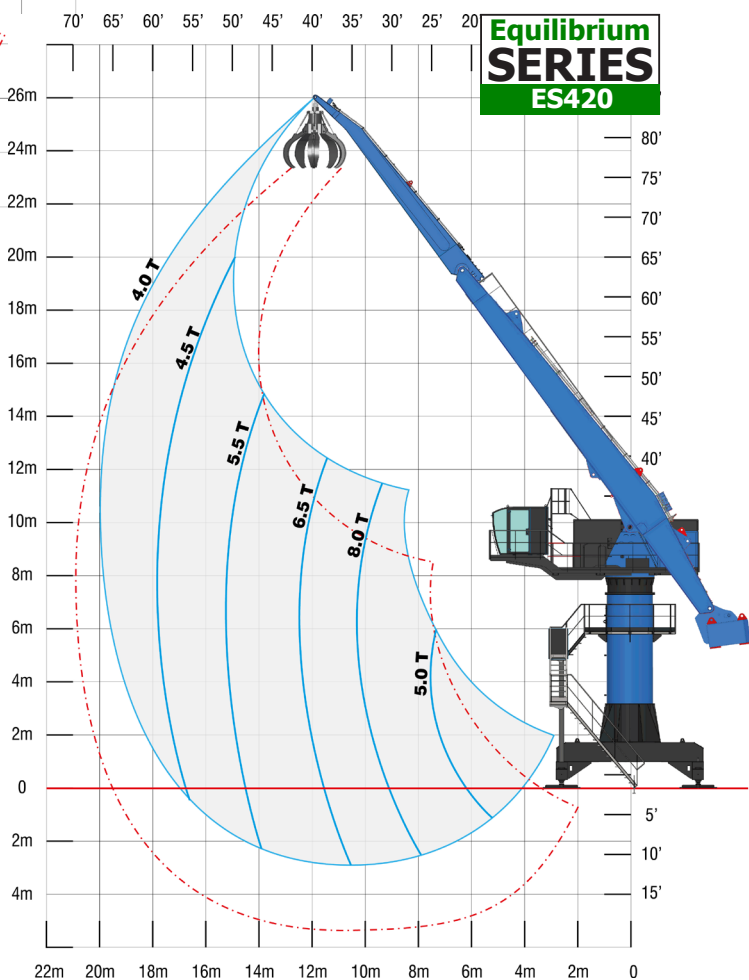
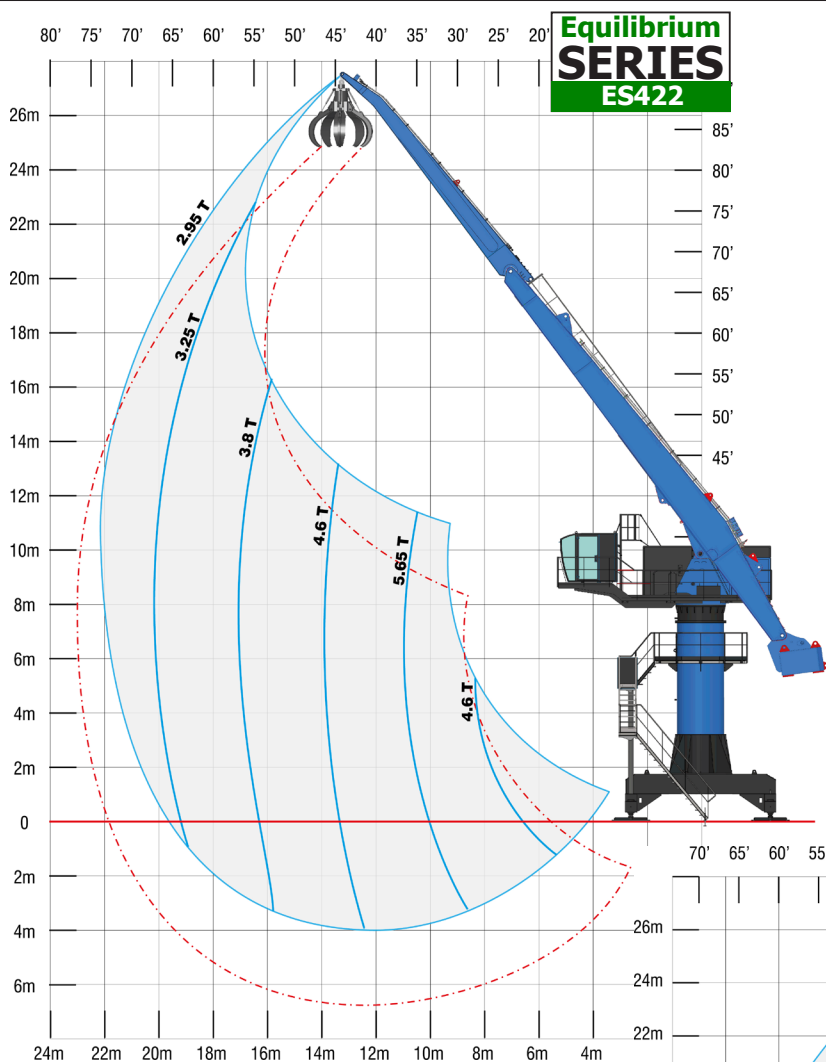
The different components



Load chart



Load chart



Technical data

GENERAL FEATURES

	ES420	ES422	ES425
Power	80 t/m	80 t/m	80 t/m
Horizontal maximum reach	20 m	22 m	25 m
Lifting capacity at full reach	4 t	3.6 t	3.2 t
Length of the main arm	11.5 m	12.5 m	14 m
Length of the dipper arm	8.5 m	9.5 m	11 m
Weight (with free standing support)	78 t	80 t	83 t

ELECTRICAL SYSTEM

Power of the main electrical motor	110 kW
Type of start of the main motor	Star-delta or speed drive
Voltage	400V / 480V / 600V - 50Hz/60Hz

HYDRAULIC SYSTEM

Pumps for the movements of the boom	210 cc
Average working pressure	180 bars
Pump for rotation	105 cc
Capacity of the tank	1000 litres
Filtration	2 filters of 10 microns
Cooling system	In line
Lubricating system	1 group with 3 separated circuits

ROTATION

Rotation motor	1 motor MS50
Ø of the ring gear	Ø 1790mm
Rotating speed	4 rpm

CYLINDERS

Type of cylinders	220mm x 120mm x 1450mm
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TYPE OF SUPPORT

Fixed support anchored to the ground	Base of 4m x 4m - Ht: 8m
Fixed support, free standing	Chassis of 5.5m x 5.5m - Ht: 8m
Mobile support on rails	Trolley of 5.5m x 5.5m - Ht: 8m
Mobile support on crawlers	Upon request

OPERATING CABIN

- New raised and advanced operating cabin, in order to optimize the overview in the different feeding areas (shears, shredders, vessels, etc...).
- Large glazed area, athermic and safety type.
- Comfortable standard equipment: manipulators with control console, reversible air conditioning, control and monitoring screen, adjustable driver seat, MP3 player, etc...

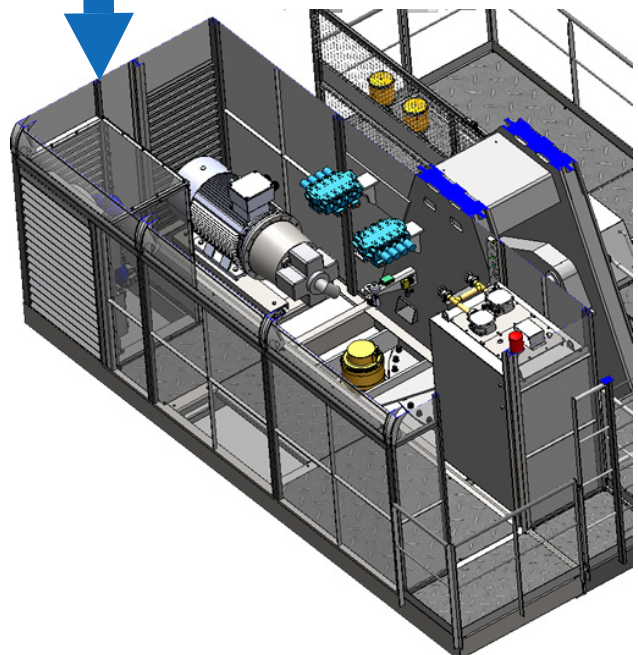
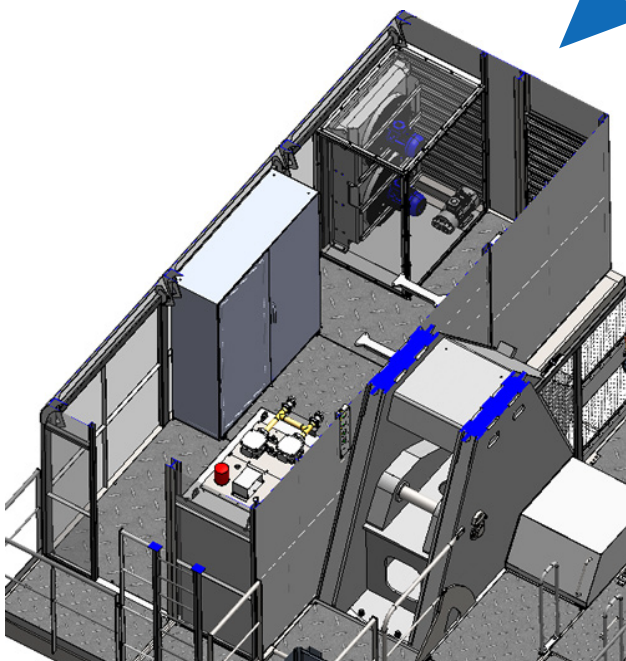


Technical data

MACHINE ROOM

The machine room now includes the entire motor pump group, but also the coolers and the electrical cabinet. A set designed for easy and accessible maintenance.

This machine room can be thermally insulated and equipped with a heating system, for use in the cold countries.



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SERAM did not wait for the climate emergency to manufacture clean machines, since **SERAM** has chosen **electricity** to power its cranes **from 1973**.

SERAM patented **the balanced boom in 1984**, saving 45% of electrical energy*.

SERAM - An Ecological and Economic Awareness 

SERAM

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