



Solmec

- ☐ 100 LS
- ☒ **180 ESC**
- ☐ 200 ESC
- ☐ 300 ESC
- ☐ 400 ESC
- ☐ 500 ESC





HANDLING MACHINE SERIES 180 ESC (Electronic Synchron Control)

Solmec handling machines are designed and built using the best materials and components available on the market in order to guarantee reliability, performances, safety, and high residual value.

Each machine is a result of an half century of knowledge and innovations.

The 180 ESC series involves four versions.

The first, has a 4,8 m gooseneck boom and a telescopic stick (2,6 - 3,5 m), very useful to work in close and limited spaces.

The second, has a 5,5 m straight boom and a telescopic stick (3,2 - 4,1 m). The third, has an industrial straight stick to ensure a large reach. The fourth, has a selector arm as stick, perfect to work on waste selecting and recycling.

While planning this series 180 ESC, preference was given to obtain fast and reliable machines with small running costs. The diesel engine more powerful of the category, able to produce high torque with low rpm, permits to work fast and silently already at 70% of rpm. As a consequence it is possible to have very low fuel costs and long life of the engine.

Big productivity, maximum reliability, together with little fuel consumption, make of this 180 ESC series machines, the most profitable in the category of the medium handling machines.



The engine cover: Easy access to the engine and components simplifies servicing. Internal special soundproofing covers made of polyurethane foam with a very thin sheet of lead that retains noise. Slots for air exchange turned on the top so to avoid air and noise directly on the operator.

Hydraulic oil tank pressurized with air filtration system.

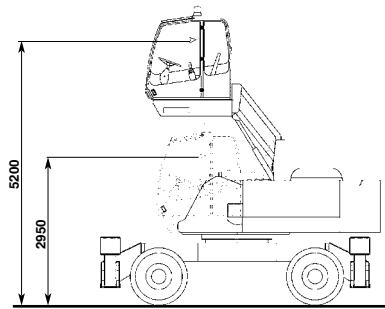
Nitrogen charged accumulators increase movements fluidity and operator's comfort.

Centralized automatic greasing system, as standard to make easier service operations.

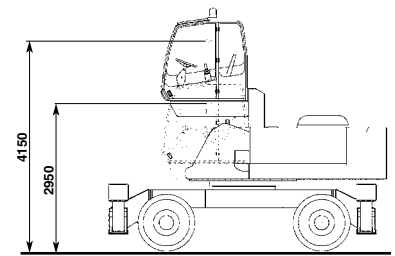
Large radiators, fitted side by side, so to simplify cleaning, and built of aluminium with coarse-mesh to allow a better thermic exchange avoiding occlusion of air passages. As standard is fitted a reversible fan with automatic timer to clean radiators for 20 seconds each working hour without operator's action.



Operators cabin with hydraulic parallelogram elevation has a 5,2 m high reach (operator's eye), and permits always a safety distance of the load content in the grab. It is possible, on request, to have a vertical elevation system, and, with a 50 cm fixed extension, permit the operator's eye to reach 4,7 m.



Parallelogram hydraulic **cabin**.



Vertical hydraulic **cabin**.



Operators cabin with big windows for a better visibility. The front window, with double wiper, opens completely disappearing under the top of the cab. A rotating orange light, standard fitted, on the top of the cab guarantee a good visibility also during the darker hours of the day. It is possible, as option, to fit extra working lights on stick and on the undercarriage to increase visibility. As option it is possible to fit a front window screen or a total protection of the cab.

Undercarriage with large double rows ball bearing slew ring, and ballast blocks fitted on the centre of the frame to drop the centre of gravity, increasing the stability of the machine in any working condition.





COMFORT SERIES 180 ESC (Electronic Synchron Control)

The clear visual **instrumentation panel** allows monitoring of all machines functions also all information concerning the engine, battery voltage, fuel level, diagnostic codes, hydraulic system, liquids levels and temperatures. There are also controls dedicated to auxiliary functions and for light warnings that advise the operator when air or hydraulic oil filters are congested, or when the machine reaches stability level, highness of the grab from the ground or distance of it from the centre of the machine, total or partial hour counter, hours from the next service, list of controls for auxiliary functions. As option, it is possible to fit a GPRS system to make immediately any information available to be controlled.



Display

Keyboard

Comfortable guide

Well pneumatically sprung, extra large seat with 10 regulation modalities, safety seat belt with winding mechanism, adjustable arms, headrest, and seat heating. In addition, an integrated safety device to turn on machine controls only when the operator is in driving position and the safety arm rest is in the down position.

Standard air conditioner

With 5 vents to cool the air in the cab and to dehumidify it, avoiding windows steaming up. Heating winter and summer ventilation device are standard fitted.

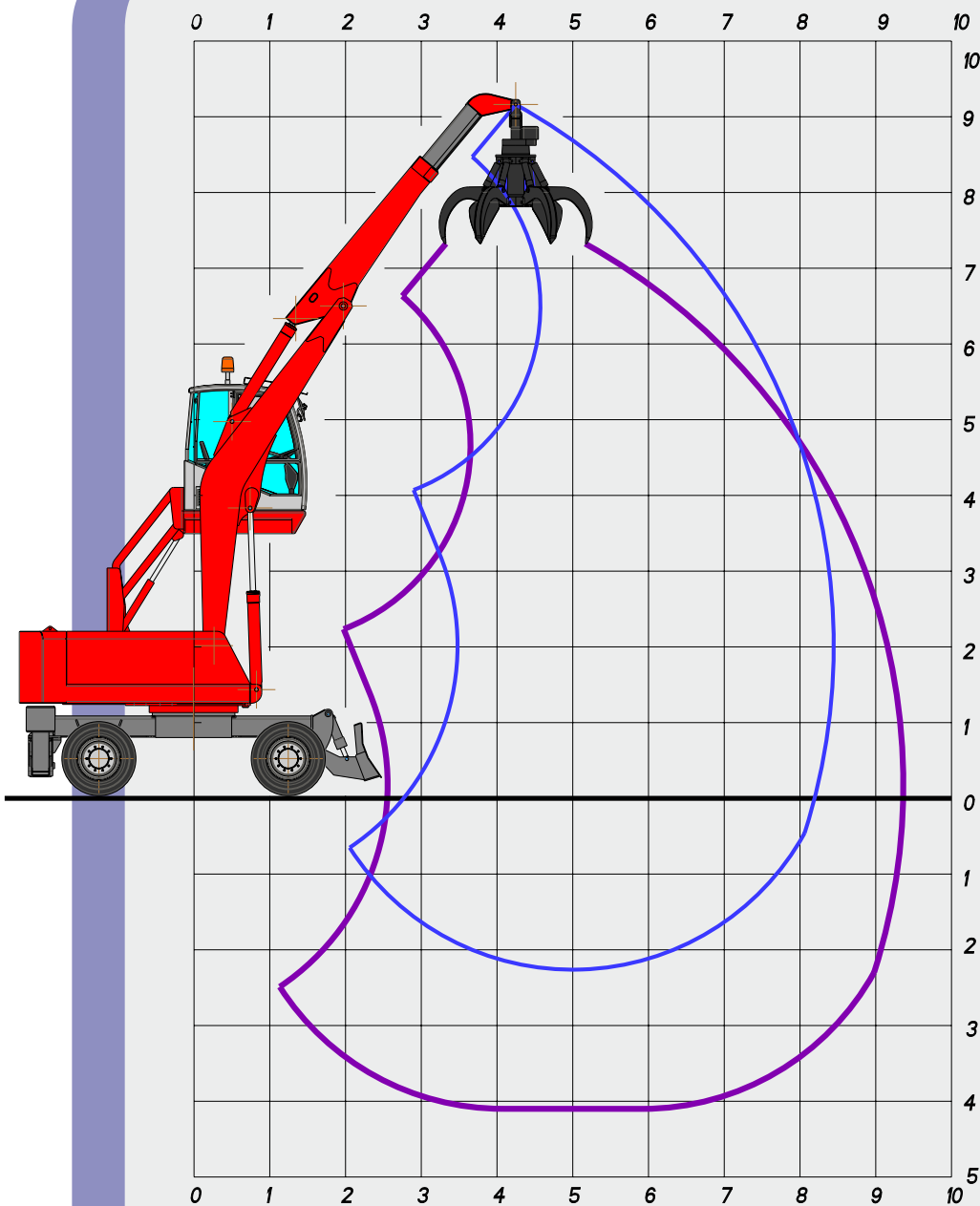
Radio with CD player (as option).



The new 180 series can stand up to any comparison

180 ESC

All technology at operator's service



**WORKING
DIAGRAM FOR
SCRAP HANDLING**

**Gooseneck boom
4.80 m**

**Telescopic stick
2,60 - 3,50 m**

SUGGESTED ORANGE PEEL GRABS

	FOR SCRAP		FOR WASTE
MODEL	SRV 405	SCE 455	SRR 655
Opening (m)	1,75	1,85	2,01
Capacity (l)	400	450	650
Weight without rotator (kg)	900	800	820

All informations for an optimal choice

180 ESC



LIFTING CAPACITIES TONS

LIFTING RANGE (m)

HEIGHT METRES	CONFIGURATION	3,5			5,0			6,5			8,0			8,4		
8,0	○○				4,87*	4,87*	4,28									
	┐┐				4,87*	4,87*	4,24*									
	┐┐				4,87*	4,87*	4,24*									
6,0	○○				4,42*	4,42*	3,89	4,56*	4,07	3,05						
	┐┐				4,42*	4,42*	3,85*	4,56*	4,56*	3,97*						
	┐┐				4,42*	4,42*	3,85*	4,56*	4,56*	3,97*						
4,0	○○	5,46*	5,46*	4,82	4,73*	4,73*	4,16	5,06*	3,99	2,99	3,87	2,85	2,14			
	┐┐	5,46*	5,46*	4,75*	4,73*	4,73*	4,12*	5,06*	5,06*	4,40*	3,89*	3,89*	3,38*			
	┐┐	5,46*	5,46*	4,75*	4,73*	4,73*	4,12*	5,06*	5,06*	4,40*	3,89*	3,89*	3,38*			
2,0	○○	11,3*	8,92	6,69	7,51	5,45	4,09	5,15	3,78	2,84	3,80	2,79	2,09	3,14*	2,55	1,91
	┐┐	11,3*	11,3*	9,90*	7,88*	7,88*	6,86*	6,23*	6,23*	5,00	4,85*	4,85*	3,68	3,14*	3,14*	2,73*
	┐┐	11,3*	11,3*	9,90*	7,88*	7,88*	6,86*	6,23*	6,23*	5,42*	4,85*	4,85*	4,22*	3,14*	3,14*	2,73*
0,0	○○	8,66*	8,12	6,09	7,09	5,07	3,80	4,94	3,59	2,69	3,73	2,72	2,04			
	┐┐	8,66*	8,66*	7,53*	8,67*	8,67*	7,08	6,51*	6,51*	4,83	4,81*	4,81*	3,62			
	┐┐	8,66*	8,66*	7,53*	8,67*	8,67*	7,54*	6,51*	6,51*	5,66*	4,81*	4,81*	4,18*			
-2,0	○○	11,3*	7,96	5,97	6,93	4,92	3,69	4,87	3,52	2,64						
	┐┐	11,3*	11,3*	9,82	8,00*	8,00*	6,96*	5,75*	5,75*	4,78						
	┐┐	11,3*	11,3*	9,87*	8,00*	8,00*	6,96*	5,75*	5,75*	5,00*						



LIFTING CAPACITIES ON LONGITUDINAL AXIS



LIFTING CAPACITIES ON 360° WITHOUT SAFETY FACTOR



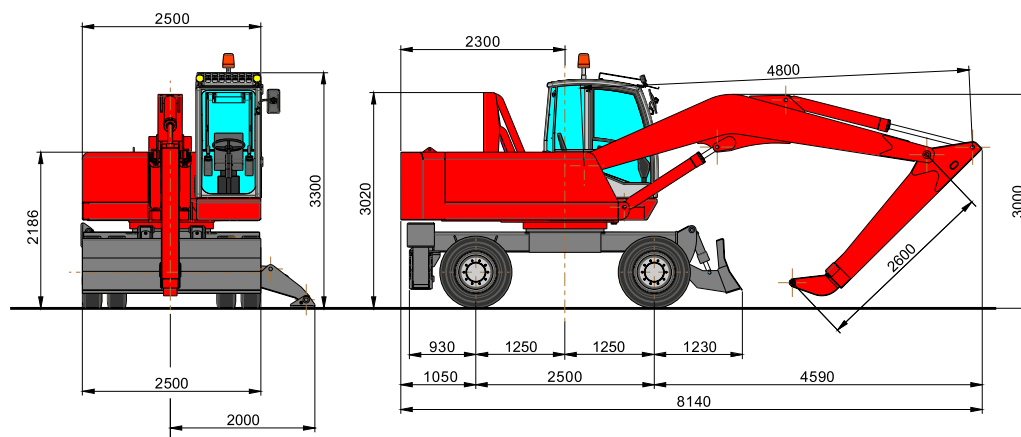
LIFTING CAPACITIES ON 360° ACCORDING WITH
ISO 10567 STANDARD

* = HYDRAULIC LIMIT

LIFTING CAPACITIES ARE ON HOOK WITHOUT GRABS, MACHINE STATIC, LEVEL SOLID GROUND,
WITH AXLE LOCKED.

OPERATING WEIGHT BLADE, OUTRIGGERS, FULL RUBBER TYRES, GOOSENECK BOOM 4.80 m,
TELESCOPIC STICK 2.60 - 3.50m, SRV 405 ORANGE PEEL GRAB WITH ROTATOR

DIMENSIONS

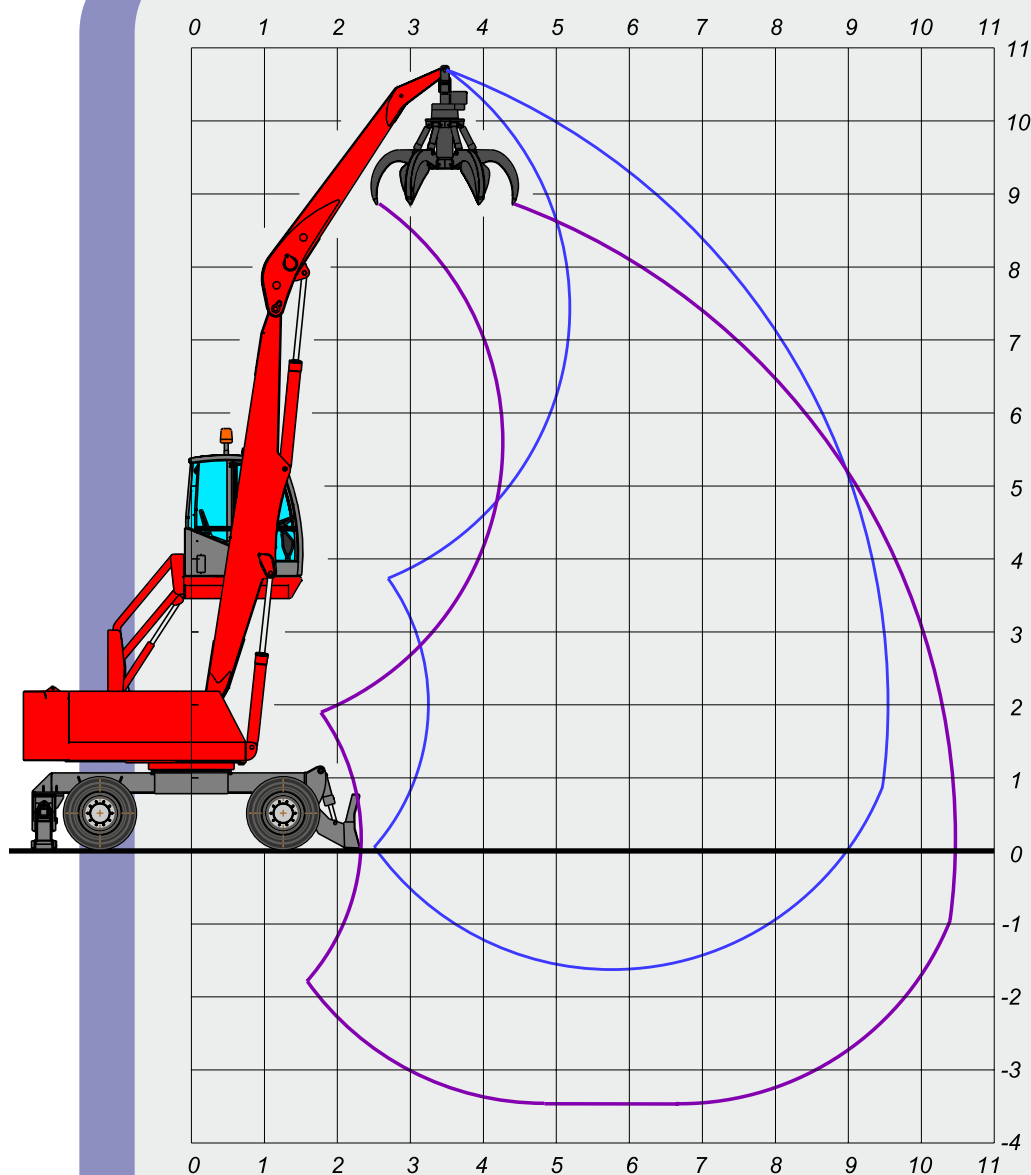


OPERATING WEIGHT 20.000 KG

The new 180 series can stand up to any comparison

180 ESC

All technology at operator's service



WORKING DIAGRAM FOR SCRAP HANDLING

Straight boom
5.50 m

Industrial stick
4.00 m

SUGGESTED ORANGE PEEL GRABS

	FOR SCRAP	FOR WASTE
MODEL		SRR 655
Opening (m)		2,01
Capacity (l)		650
Weight without rotator (kg)		820

All informations for an optimal choice

180 ESC



LIFTING CAPACITIES TONS

LIFTING RANGE (m)

HEIGHT METRES	CONFIGURATION	3,0			5,0			7,0			9,0			9,5		
10,0	○○				5,60*	4,99	3,74									
	┐┐				5,60*	5,60*	4,88*									
	┘┘				5,60*	5,60*	4,88*									
8,0	○○				6,93	5,12	3,84	4,16	3,06	2,30						
	┐┐				7,28*	7,28*	6,34*	5,33*	5,33*	4,03						
	┘┘				7,28*	7,28*	6,34*	5,33*	5,33*	4,64*						
6,0	○○				7,07	5,21	3,91	4,19	3,09	2,31						
	┐┐				7,94*	7,94*	6,91*	7,22*	5,40	4,05						
	┘┘				7,94*	7,94*	6,91*	7,22*	6,99	5,24						
4,0	○○	7,37*	7,37*	6,42*	6,70	4,87	3,65	4,05	2,96	2,22	2,76	1,99	1,49			
	┐┐	7,37*	7,37*	6,42*	10,3*	8,84	6,63	7,41	5,25	3,94	5,01	3,59	2,69			
	┘┘	7,37*	7,37*	6,42*	10,3*	10,3*	8,82	7,76	6,84	5,13	5,22*	4,66	3,50			
2,0	○○				6,20	4,40	3,30	3,86	2,77	2,08	2,71	1,94	1,45	2,49	1,77	1,33
	┐┐				11,5*	8,29	6,22	7,18	5,05	3,79	4,94	3,53	2,65	4,04*	3,24	2,43
	┘┘				11,5*	11,1	8,37	7,53	6,62	4,97	5,19	4,60	3,45	4,04*	4,04*	3,17
0,0	○○	3,79*	3,79*	3,30*	5,83	4,06	3,05	3,71	2,63	1,97	2,67	1,90	1,42			
	┐┐	3,79*	3,79*	3,30*	10,9*	7,89	5,92	7,00	4,89	3,67	4,66*	3,49	2,61			
	┘┘	3,79*	3,79*	3,30*	10,9*	10,7	8,04	7,35	6,45	4,84	4,66*	4,56	3,42			



LIFTING CAPACITIES ON LONGITUDINAL AXIS



LIFTING CAPACITIES ON 360° WITHOUT SAFETY FACTOR



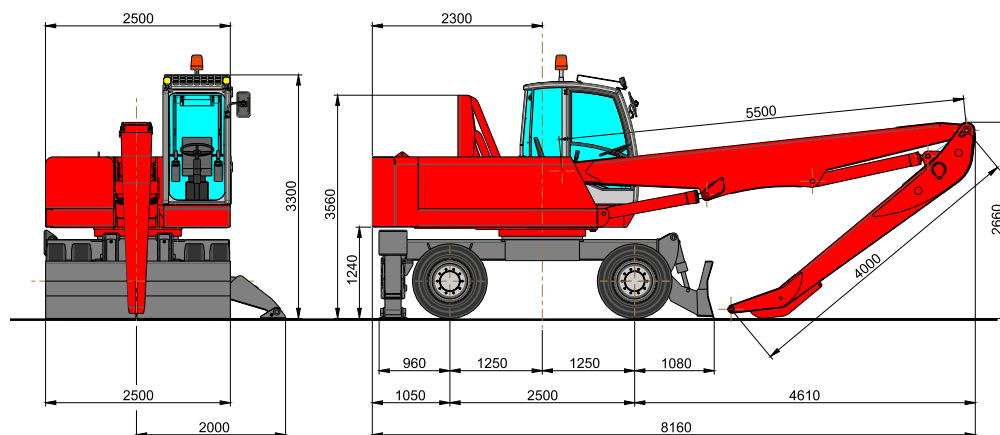
LIFTING CAPACITIES ON 360° ACCORDING WITH ISO 10567 STANDARD

* = HYDRAULIC LIMIT

LIFTING CAPACITIES ARE ON HOOK WITHOUT GRABS, MACHINE STATIC, LEVEL SOLID GROUND, WITH AXLE LOCKED.

OPERATING WEIGHT BLADE, OUTRIGGERS, FULL RUBBER TYRES, STRAIGHT BOOM 5.50 m, INDUSTRIAL STICK 4.00 m, SRV 405 ORANGE PEEL GRAB WITH ROTATOR

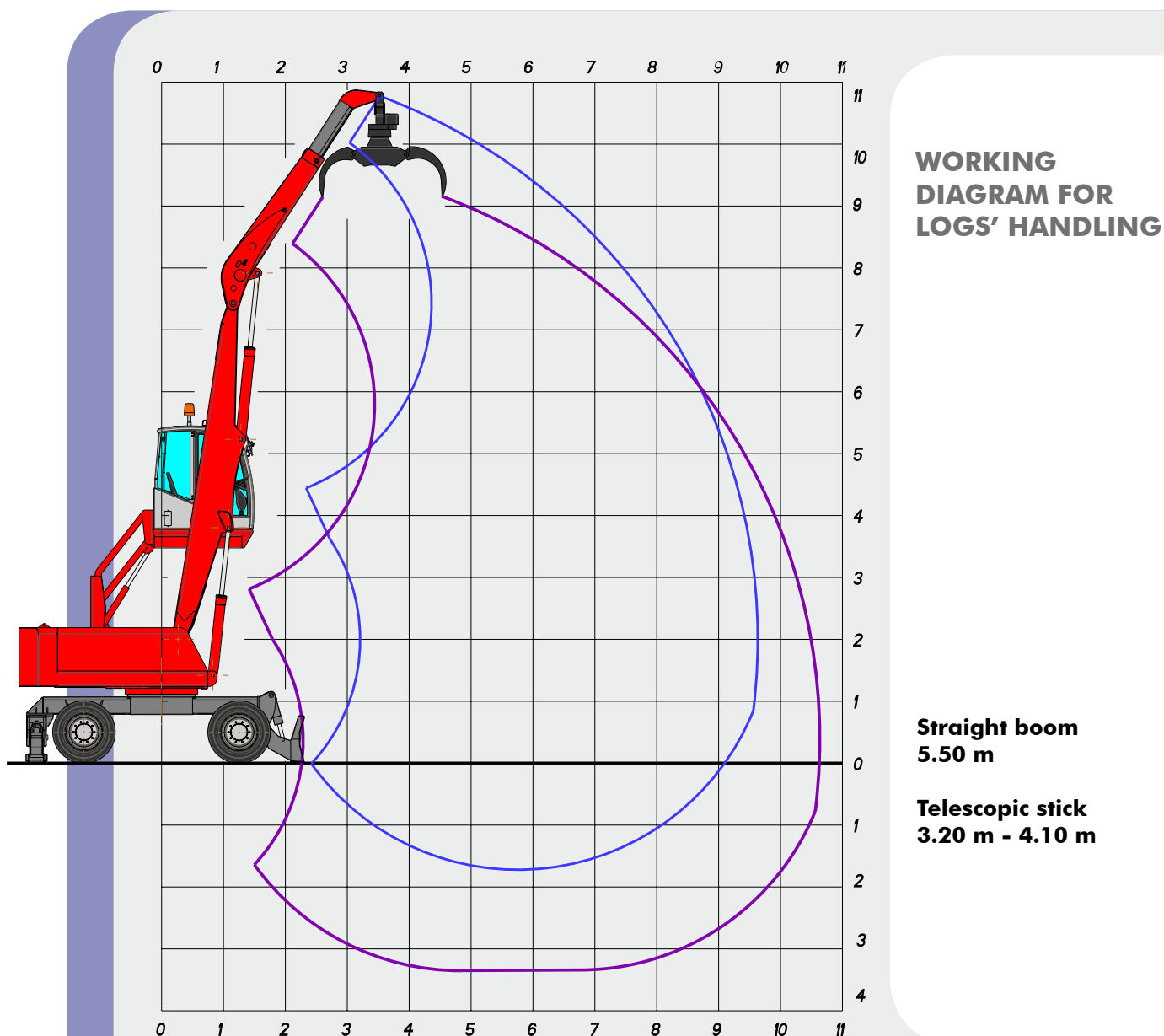
DIMENSIONS



OPERATING WEIGHT 20.600 KG

180 ESC

All technology at operator's service



WORKING DIAGRAM FOR LOGS' HANDLING

MODEL	WITH CROSSED TEETH			WITH SIMPLE CLOSING TEETH
	SR 220	SHU 420 S	SHU 520 S	SR 53
Opening (m)	2,16	2,10	2,30	2,15
Area (m ²)	0,60	0,42	0,52	0,70
Weight without rotator (kg)	800	320	420	730

All informations for an optimal choice

180 ESC



LIFTING CAPACITIES TONS

LIFTING RANGE (m)

HEIGHT METRES	CONFIGURATION	3,0			5,0			7,0			9,0			9,6		
10,0	○○				5,67*	4,95	3,71									
	┌┐				5,67*	5,67*	4,93*									
	└└				5,67*	5,67*	4,93*									
8,0	○○				6,78	4,93	3,70	4,07	2,97	2,23						
	┌┐				8,37*	8,37*	6,69	5,27*	5,27*	3,96						
	└└				8,37*	8,37*	7,28*	5,27*	5,27*	4,58*						
6,0	○○				6,98	5,12	3,84	4,08	2,98	2,23						
	┌┐				7,63*	7,63*	6,63*	6,98*	5,28	3,96						
	└└				7,63*	7,63*	6,63*	6,98*	6,87	5,16						
4,0	○○	7,17*	7,17*	6,22*	6,60	4,76	3,57	3,93	2,84	2,13	2,65	1,88	1,41			
	┌┐	7,17*	7,17*	6,22*	9,87*	8,73	6,55	7,29	5,13	3,85	4,89	3,47	2,60			
	└└	7,17*	7,17*	6,22*	9,87*	9,87*	8,59*	7,63	6,72	5,04	5,14	4,55	3,41			
2,0	○○				6,05	4,26	3,19	3,72	2,64	1,98	2,58	1,81	1,36	2,33	1,62	1,22
	┌┐				11,3*	8,13	6,10	7,03	4,91	3,68	4,82	3,40	2,55	3,79*	3,07	2,30
	└└				11,3*	11,0	8,25	7,38	6,48	4,86	5,06	4,47	3,35	3,79*	3,79*	3,03
0,0	○○	3,11*	3,11*	2,71*	5,65	3,89	2,92	3,56	2,48	1,86	2,53	1,76	1,32			
	┌┐	3,11*	3,11*	2,71*	10,8*	7,70	5,77	6,85	4,73	3,55	4,65*	3,35	2,51			
	└└	3,11*	3,11*	2,71*	10,8*	10,5	7,89	7,19	6,30	4,72	4,65*	4,42	3,31			



LIFTING CAPACITIES ON LONGITUDINAL AXIS



LIFTING CAPACITIES ON 360° WITHOUT SAFETY FACTOR



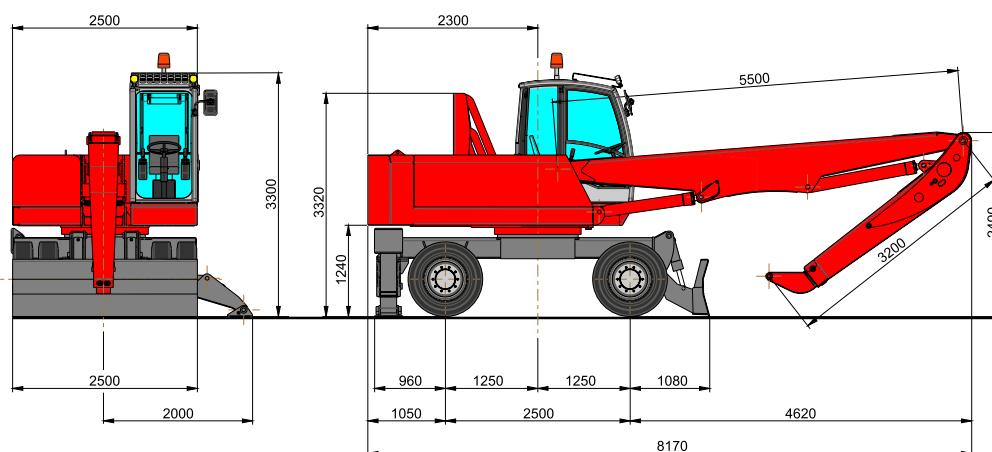
LIFTING CAPACITIES ON 360° ACCORDING WITH ISO 10567 STANDARD

* = HYDRAULIC LIMIT

LIFTING CAPACITIES ARE ON HOOK WITHOUT GRABS, MACHINE STATIC, LEVEL SOLID GROUND, WITH AXLE LOCKED.

OPERATING WEIGHT WITH BLADE, OUTRIGGERS, FULL RUBBER TYRES, STRAIGHT BOOM 5.50 m, TELESCOPIC STICK 3.20 - 4.10 m, SHU420S GRAB WITH ROTATOR.

DIMENSIONS

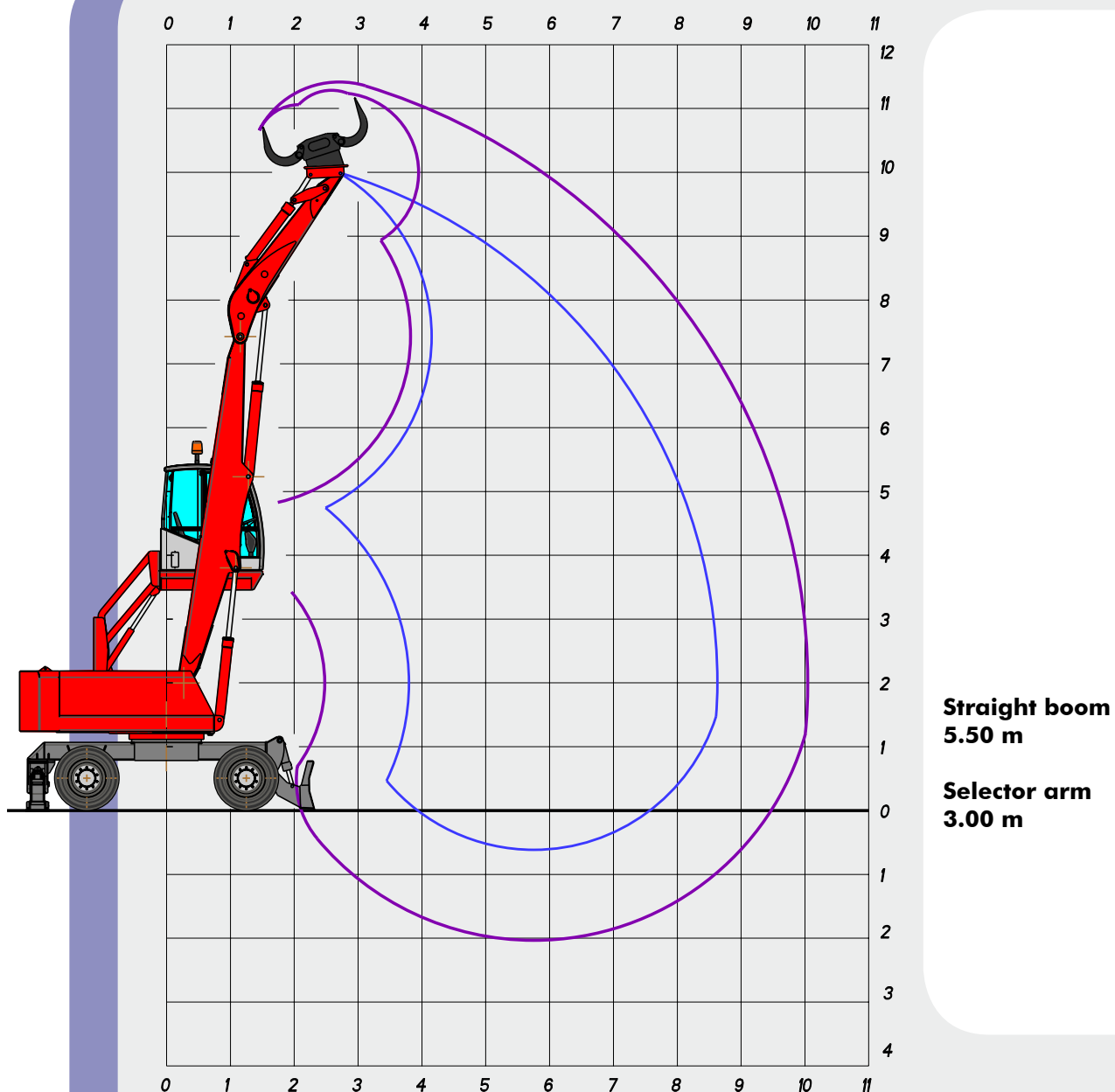


OPERATING WEIGHT 21.000 KG

The new 180 series can stand up to any comparison

180 ESC

All technology at operator's service



SELECTOR GRAB

MODEL	SRS 500
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Opening (m)	1,80
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Capacity (l)	500
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Weight without rotator (kg)	850
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All informations for an optimal choice

180 ESC



LIFTING CAPACITIES TONS

LIFTING RANGE (m)

HEIGHT METRES	CONFIGURATION	4,0			6,0			8,0			8,6		
8,0	○○	6,41*	5,29	3,96									
	└┐	6,41*	6,41*	5,57*									
	└└	6,41*	6,41*	5,57*									
6,0	○○	6,68*	5,20	3,90	4,19	3,09	2,32						
	└┐	6,68*	6,68*	5,81*	6,51*	5,40	4,05						
	└└	6,68*	6,68*	5,81*	6,51*	6,51*	5,66*						
4,0	○○	6,71	4,85	3,63	4,03	2,94	2,21	2,78	2,00	1,50			
	└┐	8,56*	8,56*	6,66	6,91*	5,23	3,92	5,00*	3,60	2,70			
	└└	8,56*	8,56*	7,45*	6,91*	6,91*	6,01*	5,00*	5,00*	4,09			
2,0	○○	7,00	4,87	3,65	3,88	2,78	2,09	2,72	1,94	1,46	2,49	1,78	1,33
	└┐	11,2*	9,55	7,16	7,01*	5,09	3,82	4,93*	3,54	2,65	3,73*	3,24	2,43
	└└	11,2*	11,2*	9,77*	7,01*	7,01*	6,10*	4,93*	4,93*	4,04	3,73*	3,73*	3,24*
0,0	○○	7,40	5,06	3,79	3,84	2,73	2,04	4,16	3,06	2,30			
	└┐	7,81*	7,81*	6,80*	6,13*	5,08	3,81	4,24*	4,24*	3,69*			
	└└	7,81*	7,81*	6,80*	6,13*	6,13*	5,33*	4,24*	4,24*	3,69*			



LIFTING CAPACITIES ON LONGITUDINAL AXIS



LIFTING CAPACITIES ON 360° WITHOUT SAFETY FACTOR



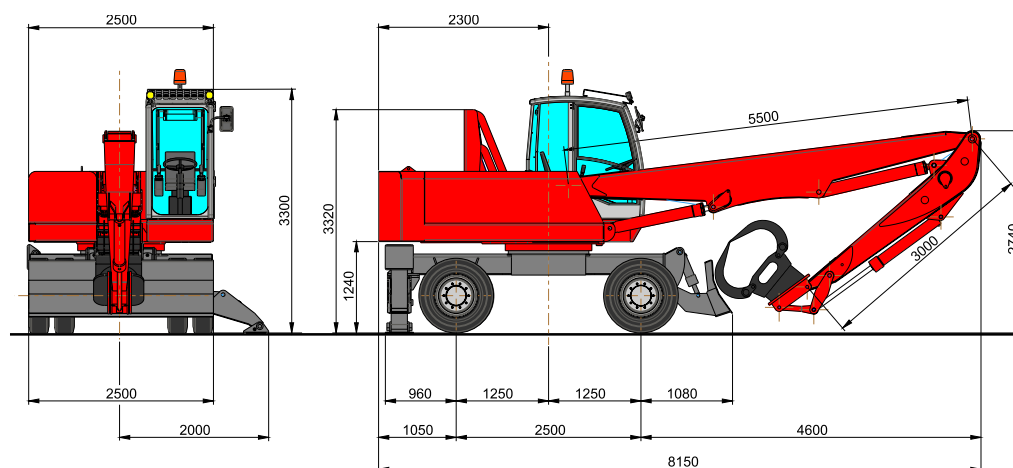
LIFTING CAPACITIES ON 360° ACCORDING WITH
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LIFTING CAPACITIES ARE ON HOOK WITHOUT GRABS, MACHINE STATIC, LEVEL SOLID GROUND,
WITH AXLE LOCKED.

OPERATING WEIGHT WITH BLADE, OUTRIGGERS, FULL RUBBER TYRES, STRAIGHT BOOM 5.50 m,
SELECTOR ARM 3.00 m, SRS 500 SELECTOR GRAB.

DIMENSIONS



OPERATING WEIGHT 21.000 KG

TECHNICAL DATA

DIESEL ENGINE	TCD 2012C L4 2V - Emission controlled (CE 97/68/CE - Step 3 et TIER 3) with electronically controlled injection - 4 cylinders inline - turbocharged with intercooler - common rail - direct injection - water cooled - electric starting system 24V - displacement 4040 cm ³ . Power: 92 kW (125 CV) @ 2100 rpm Max torque: 520 Nm @ 1600 rpm Tank Capacity: 220 l
HYDRAULIC SYSTEM	Open circuit LOAD SENSING + ELECTRONIC SYNCRON CONTROL - variable displacement axial piston pumps with oil flow adjustment according to the load requirements and with electronic engine speed sensing regulation. Max. flow: 285 l/mn Hydraulic tank capacity: 260 l Gear pump for joystick: Max pressure: 30 bar Gear pump for brakes and steering: Max pressure: 145 bar Gear pump for auxiliary: Max pressure: 120 bar Gear pump for engine fan: Max pressure: 150 bars Max flow: 300 bars hydraulic circuit capacity: 310 l Max flow: 23 l/min Max flow: 46 l/min Max flow: 46 l/min Max flow: 29 l/min Hydraulic oil cooling by means aluminium large mesh heat exchange combined with engine radiator. Hydraulic fan with controlled and proportional speed in function of the liquids temperature with automatic inversion adjustable from the dashboard. LOAD SENSING system distributor block with simultaneous movements independent of the load and without interaction with synchronised control of all functions.
TRAVEL	Hydrostatic with 4 wheel drive by means of a variable displacement hydraulic axial piston motor mounted on a two speed gearbox hydraulically operated from the cab coupled to the rear axle Travel controlled by two separate pedals (one for each travelling direction). Travel speed (in both directions): working speed: from 0 to 6 Km/h travel speed: from 0 to 16 Km/h Differential axles 2.50 mt wide with planetary reduction gears on the hubs. Braking valve integrated on the hydraulic motor.
STEERING	Hydraulic steering system powered by an independent pump. The floating steering axle can be hydraulically locked from the cabin in any position.
BRAKES	SERVICE BRAKES: wet, maintenance-free multidisk brakes integrate into rear axle via foot pedal. PARKING AND EMERGENCY BRAKES: Multidisk spring applied/pressure released parking brakes.
TYRES	N° 8 full rubber tyres "SUPERELASTIC" front and rear twinned 10.00 x 20 with n° 4 rubber spacer rings between tyres. N° 8 front and rear twinned "WIDE WALL" tyres 10.00 x 20 as optional
SLEWING	Unlimited rotation in both directions by means of an axial piston hydraulic motor with integrated control valve, splined to a double stage reduction gear with oil bath gears. - Anti-shock valves protect the system. High diameter double row ball bearing ring with internal teeth. Max rotation speed: 8 rpm Overall dimensions of rotating turret: 2,36 m
OPERATOR'S CAB	Hydraulically operated raising driver's cab mounted on a parallelogram linkage (vertical raising on request) installed on silent block with large windows of tinted heat resistant safety glass; front sliding window, and lateral opening window. Winter heating and summer ventilation and air conditioning installed as standard. Radio preset. Double windscreen wiper with washer. "GRAN COMFORT" operator's seat with pneumatic shock absorbing suspension, headrest, lumbar support, belt winder, electric seat heating device and armrests adjustable height and angle. Many possibilities of adjustment according to operator's weight and size with joysticks incorporated in its arms. AUTO-IDLE electronic accelerator with two automatic preselected rpm. The instrumentation includes: Engine speed indicator, fuel level, water thermometer. Display shows: hour counter, hydraulic oil temperature, Volt, oil engine pressure, fuel consumption, engine diagnostics, and maintenance program. Warning lights showing: air cleaner and oil filter clogging, park brake, low fuel, brakes failure, lights, hydraulic oil low level.
HYDRAULIC CONTROLS	N° 2 hydraulically controlled joysticks to carry out four operations each with electric push-button incorporated Electro switch for grab rotator and for dipper telescopic extension (if installed). Electro switch for outriggers and/or front blade. Electro switch for magnet (if installed) Electro hydraulic devices for controlling gear box, parking brakes, hydraulic raising of the cab, front axle oscillation lock.
BOOMS	Centralised automatic greasing system as standard. For dimensions see each model.
SOUND LEVELS	SOUND LEVELS (EEC Directive 2000/14/CE) Inside cab: LpA 76 dB (A)
ELECTRO-MAGNETIC COMPATIBILITY	In accordance with EEC Directive 89/336
OVERLOAD WARNING DEVICE	Dir. 98/37/CE In accordance with EEC DIRECTIVES 98/37 this device provides to check the crane stability while loading in accordance with loads and distances (as standard). Optical warning advise danger and conditions locking movement when the stability limits are reached. Visualising of the lifting charge and the liftable charge limit, in each position.



SOLMEC 50 YEARS MOVING THE MARKET

Solmec Manufactures Rehandling machines on Wheels, Tracked and on Pedestal. Solmec are the market leader in rehandling in the Italian market and have gained an important position throughout Europe. Versatility, reliability and Stability are the strength points that have made Solmec a major manufacturer in the material handling business. The Solmec machines are designed to work in Scrap Metal industry, Timber Yards and Sawmills, Waste Recycling Depots, Car Dismantlers, Tanneries, Harbours and Railway companies. Solmec is the machine for rehandling material.

SOLMEC QUALITY

Solmec handling machines are made of first class components and materials, and obtained with a continuous updating of working process, and following the most rigid European laws in the matter of safety on work.

MODELS

In order to completely satisfy customers requests, Solmec has developed a range made of more than 15 models: a large and various offer for any request.

series 100LS

series 180ESC

series 200ESC

series 300ESC

series 400ESC

series 500ESC



100 LS

180 ESC

200 ESC

300 ESC

400 ESC

500 ESC

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