

Rev C.





C120: the scrubbing machine fully equipped for every cleaning task

The C120 isn't only a scrubbing machine. It represents the new Comac philosophy because it brings with it innovative technology, design, comfort and excellent performance. The C120 is designed around the latest cleaning technologies, but bearing in mind daily cleaning tasks and therefore built to meet the needs of the user.



THE EVOLUTION OF THE RANGE

With the C120, the unmistakable style of the C range reaches a new level of evolution to deal with every cleaning job in the logistics and industrial context and in large car parks. But it's designed to work with light dirt too, for example in large-scale retailing areas, shopping centers, stations and airports.

Equipped to enable the user to take full advantage of all Comac's technology, the C120 is an industrial scrubbing machine with a robust design and an "intelligent" core able to revolutionise the traditional idea of cleaning. It is fitted, in fact, with the most advanced safety functions so the user can concentrate completely on what really counts: cleaning.

The pre-sweeping unit collects small solid debris directly in the relative hopper. This means the vacuuming results are always excellent as no residue can reach the C120 squeegee.

PRE-SI

Unique at first sight

EEPING WA

The C 120 is synonymous with evolution and uniqueness when it comes to the new sweeping-scrubbing system as well: it consists of a pre-sweeping unit with two side brushes and two cylindrical brushes, followed by a scrubbing unit with three disc brushes. This means the C 120 is perfectly equipped to guarantee optimum performance whatever the cleaning task, even involving small solid residue.

The C 120 adapts to every dirt condition but, thanks to the configurations, optional features and accessories available, there is the outstanding possibility to create a "tailor-made" machine that's ideal for your own cleaning requirements.

THE CHOICE LIES IN YOUR HANDS, WITH THE TWO POSSIBLE C120 CONFIGURATIONS:

Π

......

Programmi

ÊCO

STD

Essential is a simpler, more essential machine, indispensable for all cleaning operations which are primarily focused on excellent performance.

Bright, meanwhile, is a richer configuration, capable of offering optimal performance combined with the maximum levels of existing technology for scrubbing machines in this category.

You can also choose the drive most suitable for the place where you will use the C120:

the battery-powered version for working with zero emissions in indoor areas, or the Bi-Fuel version with dual supply to extend the level of autonomy so you can work in large outdoor spaces as well.





BATTERY

BI-FUEL

Smart Working Space

Welcome on board the C120, where the work position is relaxed and comfortable. And to make the cleaning tasks even more simple, all the smart functions of the C120 are at your complete disposal to enhance operating pleasure and comfort.

A highly comfortable seat with armrests and a headrest, for a comfortable driving position that simplifies manoeuvres.

Lowered footboard so you can easily climb onto the machine.

Touch screen display, so all the smart functions of the Bright configuration are at your service.

Rear view camera for the Bright configuration, so you can check the cleaning results without having to turn around.

- Ample space in the driving position.
- Smooth steering for an even more comfortable driving experience.

Steering wheel derived from the automotive sector, designed to ensure comfort and a first class operating experience.

Lever for forward movement and reverse close to the steering wheel so you can easily select one of the 3 pre-set work speeds.

Safety

has no obstacles

Comac's most innovative technologies are fully integrated on the C120 to handle any cleaning challenge safely and with peace of mind

LED courtesy lights pack upon request to increase the visibility of the parts where the operator may be required to perform maintenance

Blinking light to ensure the working machine is visible

Side bumper wheels to protect both the C120 and the surrounding area during manoeuvres



to make the C120 visible while it is working

111

Blue Safety Spotlight that projects a light beam on the ground to indicate the presence of the C120 in advance, thereby increasing safety in warehouses and places where large quantities of materials are handled

Safety is simple



 Possibility to have a personalised password in order to use the scrubbing machine, to protect it from any risk of tampering or improper use but also to enable personalised access on the basis of the user

The possibility to install an anti-collision sensor on the rear part of the machine is an excellent aid for preventing accidents during use

THE PROPERTY.

A detailed ergonomic study has enabled optimal adaptation of the manmachine system, to provide the operator with a comfortable and wellprotected seat. The working position is raised and decentralised, to boost visibility Emergency Stop to lock all the C120 functions in the event of an emergency





(3)

The rear view camera in the Bright configuration supports the operator, allowing him to use the display to check for any obstacles in maximum safety when moving in reverse

The C120 can be fitted with front and rear bumpers to protect it from accidental knocks and minimise any possible damage, thereby safeguarding both the scrubbing machine and the investment

Perfect drying in a single passage, with no marks or residue, thanks to the dual vacuum motor.

com

Remarkable autonomy, thanks also to the capacity of the large tanks.

Maximum visibility guaranteed by the front and rear LED lights fitted as standard.

Comfort and safety ensured by the hydraulic brake, which acts on the rear wheels.

Maximum adherence on any type of floor, thanks to the next generation front AC motorwheel. The motorwheel in the front position enables optimal manoeuvrability even in congested spaces and, furthermore, gives the C120 a greatly reduced turning circle.

Top level effectiveness thanks to the Pressure Monitoring system that constantly checks the power delivered to the brushes by the motors.

IBO

Limit-free cleaning thanks to the possibility of a moving scrubbing brush head: on activating a simple control, the brush head comes out to the right to reach the dirt that settles up against walls.

Enhanced productivity because the C120 can handle ramps with a slope of up to 20%, so it can be used in various contexts.

A continuous sensor positioned on the steering wheel axle recognises the exact position of the motorwheel and automatically reduces the speed of the machine in accordance with working requirements.

The speed is constantly controlled during descent, to counter the force of gravity and avoid any sudden acceleration.

Electric brake installed on the front motorwheel to act as a parking brake, controlling traction during both upward and downward movements.

The **character** lies in the details

Because it's the **details** that make the difference

निमा

2

- 😴 The structure, robust materials and practical design give the C 120 excellent long-lasting reliability.
- S Steel frame with cataphoresis painting for better corrosion resistance.
- Steel brush head for robustness and reliability over time.
- G Bumpers in R.I.M. polyurethane a material that makes them highly resistant to impact.
- $\overline{\zeta}$ All the mechanical parts are protected inside the machine body.
- 5 Top level brush head performance with the minimum energy consumption, thanks to the new drive system with high-efficiency gearmotors.
- $\overline{\zeta}$ Reduced ownership and maintenance costs with the brushless brush motors.
 - Brush head, squeegee and squeegee support in steel a material that makes them robust and ideal for anti-corrosion treatment.

Intelligence is simple

The marked lines of the C120 exterior enclose next generation Comac technology. And it's all aided by the perfect ergonomics of the digital instrumentation that helps boost the driving comfort, ensuring optimum access to the necessary information.

This super-advanced scrubbing machine is thus rendered simple and easy to use, allowing you to communicate directly with the machine. All the data gathered by the C 120 are transformed into accessible information so you can control every aspect of the cleaning task.

The technologies used on the C120 continue to amaze in terms of user-friendliness too.

Working program selector that makes the C120 extremely easy to use, thanks to the possibility to choose the type of job to be carried out: transfer, scrubbing and drying, or scrubbing only, or drying only.

A simple, handy control near the selector is used to activate the pre-sweeping unit only when required by the specific dirt conditions.

The moving scrubbing brush head is activated by a handy button in the Essential configuration, or via the touch screen display in the Bright configuration.

Eco, Standard and Plus modes: the three cleaning programs of the Bright configuration that allow you to use specific amounts of water, detergent and pressure on the basis of the dirt conditions.

No training costs, thanks to the video tutorials and the use and maintenance manual that can be seen on the touch screen display in the Bright configuration, allowing even less experienced personnel to use the C120 in the right way.



A green soul

The C120 is fitted out with all the Comac technologies designed to respect the environment, save resources and reduce cleaning costs by optimising work times The C120 design already takes into consideration its final destination at the end of its working life, with an eye to the recovery rather than disposal of those materials that can easily be recycled.

Thanks to the working programs, maintenance cleaning tasks can be carried out in ECO Mode to reduce the consumption of water and detergent. Furthermore, the ECO Mode function allows the noise level to be reduced, making this scrubbing machine suitable for quiet jobs while saving energy and increasing autonomy.

If the C120 is fitted with ReWater technology, this means it has a filtering system for re-using the scrubbing solution yet still maintaining excellent cleaning results. It's the perfect solution for large logistics or production areas as it saves on water, detergent, pit-stop time, and therefore costs.

In the event of short stops, the Stop&Go technology puts solution delivery on hold and stops the brushes, so the brush head rises automatically. So that consumptions are optimized and waste reduced.

The Comac Dosing System adapts the amount of solution to the specific dirt, to reduce the flow and minimise waste while improving the cleaning results.

Constant Solution Flow technology ensures the even distribution of the solution across all the C120 brushes, thereby reducing waste and boosting the effectiveness of the cleaning action.

connot

Designed to **perform**, but without waste

The self-levelling side splash guards keep the water within the working width, while the V-shape of the squeegee allows it to be directed to the centre to facilitate vacuum, achieving a uniform cleaning result.

The castor wheels enable the squeegee to follow all the movements of the scrubbing machine.

The Bright configuration can be enhanced with Intelligent Pressure Monitoring - a sensor that controls the position of the brush head to constantly and accurately measure the pressure exerted on the brushes, thereby helping the operator to deal with even the most stubborn dirt.

The solution level sensor in the Bright configuration constantly updates the operator on the solution level in the tank.

The C120 offers the possibility to use the Comac Dosing System which adapts the amount of solution to the specific dirt, eliminating the excess and reducing solution consumption by up to 50%.



Connected at the maximum levels

Comac Fleet Care is the tool that enables the optimal management of Comac machine fleets. Thanks to digitalisation, it is possible to communicate with the C120, collect data and transform this into meaningful, useful information for the management of cleaning operations. With CFC, you can control a single machine or the whole fleet anywhere and at any time. This allows you to save money, improve safety, boost performance and monitor consumption



Job analysis

personalised to meet your own needs: on the basis of the job, the place, a single machine or the whole fleet. This gives you a graphic visualisation of all the most important aspects of the cleaning tasks.



Telemetry

that allows you to view the machine status information in real time, so you can see if there are any issues. You can make a remote check on the condition of the components and the whole machine, to understand if its full potential is being used.



Two-way information flow

enabling you to receive information from the machine, but also to alter some of its parameters from a distance.



Highlighting of issues and knocks

so you can intervene quickly and identify any incorrect machine behaviour. In addition, with the data collection function you can see the machine status in the 30 seconds prior to the impact and the 10 seconds after it, giving you a better idea of the causes and extent of the fault.





Battery management

to maximise their lifespan. You can see the status of the batteries, how they're used and how they're recharged, so you can correct any incorrect aspects.



Tag management

so the machine can only be used by authorised personnel. You can also choose to limit the use of a certain tag on a certain machine, thus preventing if from being used by people without the right training.



Detailed reports that can be personalised

so you always have what you consider to be the most useful information ready to hand. You can download the report whenever you want, or opt to receive a personalised one directly in your email at regular intervals.



Analysis of the environmental impact

of each single cleaning job, thanks to the estimate calculated on each individual machine. The charts help you understand how much energy is consumed during each intervention and how much is needed to recharge the batteries. But also the amount of detergent solution used and the CO₂ produced every day for each task. With this information, you can see the impact of the cleaning tasks and intervene to make them more sustainable. A wide choice of smart functions are at your disposal to maximise performance, simplify maintenance and enhance the pleasure of using the C 120.



Spray Tool for spraying the solution on surfaces that cannot be reached with the scrubbing machine, and for cleaning the tanks in the most simple and effective way.



Suction Tool for cleaning even the areas hardest to reach, with the aid of the vacuum wand.



Wide opening of the tanks so they can be better cleaned and sanitised inside, to prevent dirt from settling and producing bad odours.



Basket filter to catch any debris, preventing it from settling on the bottom of the recovery tank.



Anti-foam filter positioned to protect the suction motors from any foam produced by the detergent.



Fast Filling System for quickly filling the clean water tank, even when the operator is not present.



New stainless steel fixing system on the squeegee, allowing the rubber blades and splash guards to be replaced without the need for tools.



Parts which require daily maintenance are distinguished by their yellow colour, making them easy to identify.



The brush head can be extracted on the left-hand side to facilitate the inspection and replacement of the central disc brush.



The brushes and the coupling system have been designed to greatly facilitate the hooking and unhooking operation.

STANDARD EQUIPMENT	C120 B Essential	C120 B Bright	C120 B Bright Full	C120 Bi-Fuel Essential
Comfort				
Hour meter	•	•	•	•
Touch screen display	-	٠	•	-
On board video tutorials	-	•	•	-
Brush uncoupling knob	•	٠	٠	•
Eco Mode and Plus Mode	-	٠	٠	
3-level speed adjustment	•	•	٠	•
Squeegee rubber blades and splashguard in 40Sh, usable on the 4 sides	•	•	٠	•
Maintenance elements identifiable by their yellow colour	•	•	•	•
Indicator light for solution tank in reserve	•	•	٠	•
Highly comfortable, adjustable seat with armrests and headrest	•	•	٠	•
Decentralised driving position	•	•	٠	•
Safety				
Emergency stop	•	•	٠	•
Automatic parking brake with assisted start on upward sloping ground	•	•	٠	•
Hydraulic working brake	•	•	٠	•
Bumpers in R.I.M. polyurethane	٠	٠	٠	٠
Anti-skid wheels	•	•	٠	•
Dead man's switch	•	•	٠	•
Control system for speed and stability on bends	•	•	•	•
Reversing buzzer	•	٠	٠	•
Horn	•	•	•	•
LED headlights with 2 levels of intensity	•	•	•	•
LED rear lights plus stop light	•	•	٠	•
Stop&Go	•	•	٠	•

OPTIONAL	C120 B Essential	C120 B Bright	C120 B Bright Full	C120 Bi-Fuel Essential
CDS (Comac Dosing System)	With button	• Touch screen	• Touch screen	• With button
CFC (Comac Fleet Care)	٠	٠	٠	٠
ST (Spray Tool)	With button	• Touch screen	Standard Touch screen	• With button
ST (Suction Tool)	With button	• Touch screen	Standard Touch screen	• With button
IPM (Intelligent Pressure Monitoring)	-	•	Standard	-
Brush head with right-hand movement	With button	• Touch screen	Standard Touch screen	• With button
Rear view camera	-	•	Standard	-
Anti-collision sensors	٥	•	Standard	•
Continuous solution level sensor	-	Standard	Standard	-
Courtesy lights pack	٠	•	Standard	٠
CED (Comac Electrostatic Disinfector)	٥	•	٠	
ReWater	•	٠	-	٠

ACCESSORIES	C120 B Essential	C120 B Bright	C120 B Bright Full	C120 Bi-Fuel Essential
Quick-refill device for water	٠	•	Standard	•
Seat belts	٠	•	٠	٠
Overhead guard	٠	•	•	٠
Front bumper kit in steel	٠	•	٠	٠
Rear bumper kit in steel	•	٠	٠	٥

TECHNICAL DESCRIPTION		C120	C120 Bi-Fuel
Solution tank		320	320
Recovery tank	1	320	320
Detergent tank capacity (CDS versions)		24	24
Working width (scrubbing brush head)	mm	1230	1230
Working width (sweeping brush head)	mm	1430	1430
Squeegee width	mm	1295	1295
Drying width	mm	1350	1350
Lateral movement of scrubbing brush head	mm	75	75
Theoretical productivity up to	sq.m./h	14300	14300
Estimated productivity up to	sq.m./h	11011	11011
Autonomy	h	6	
Sound pressure level (ISO 11201)	dB (A)	< 70	< 70
Disc brush	(no.) mm	(3) 430	(3) 430
Cylindrical brushes	(no.) mm	(2) 160×898	(2) 160×898
Brush pressure up to	kg	150	150
Scrubbing brush head motor	(no.) V/W	(3) 36/750 AC	(3) 36/750 AC
Brush rotations on scrubbing brush head	rpm	180	180
Sweeping brush head motor	(no.) V/W	(2) 36/350 AC	(2) 36/350 AC
Brush rotations on sweeping brush head	rpm	650	650
Suction motor	(no.) V/W	(2) 36/650	(2) 36/650
Traction	-	front, automatic (electric brake)	front, automatic (electric brake)
Traction motor	V/W	36/2000 AC	36/2000 AC
Forward speed	km/h	0÷10	0÷10
Working speed	km/h	0÷7.7	0÷7.7
Gradeability	%	12.5	12.5
Gradeability for transportation	%	20	20
Batteries (no.)	V/Ah (C5)	Box-36/640	
Batteries weight	kg	637	
Machine weight	kg	818	918
Machine dimensions $(I \times w \times h)$	mm	2420×1310×1830	2420x1310x1830



COMAC S.p.A. Via Maestri del Lavoro, 13 - 37059 Santa Maria di Zevio - Verona - ITALY Tel. 045 8774222 - www.comac.it - com@comac.it

Comac S.p.A. org. cert. ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, SA 8000:2014