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OUR VALUES



OUR SINCERITY

About our relationships Transparency of exchanges Time-bound



OUR PROXIMITY

By our accessibility By listening to your needs By our accompaniment





OUR SIMPLICITY

Our global solutions About our business About our organizations OUR CREATIVITY

From our experts Boldly In pursuit of excellence

Our brand CLAS "Garage Solutions" based in Savoie (France), was created in 1996.

We have always been an innovative player in technical equipment and tools for light vehicles, commercial vehicles and heavy goods vehicles.

Today, we are evolving towards an ecosystem offering global solutions beneficial to all our partners.

We adapt to your needs and budgets, keeping it simple and responsive with expert, passionate men and women at the heart of digitalization at your service.

Strengthening our leadership in France, we are expanding to become a key international player.

IN BRIEF

SOME MAJOR EVOLUTIONS

What a year! Developments, major innovations at your service! To improve our response to your needs, we have been working hard for the past 12 months!

CATALOG... A NEW BEGINNING!

The catalog renewal

We have reviewed all our product categories for maximum simplicity.

There are **six main product groups** spread over **two universes**:

• on one side, all products dedicated to workshop equipment,

• on the other side, products dedicated to **vehicle repair**.

We have adjusted our product groups to better respond to your different activities and **follow the natural process of intervention**. Color codes and pictograms are here to guide you.



It will be much easier to discover our wide range of new products, more than 450 this year, from equipment to technical tools to hybrid and electrics, in an extensive and ever-expanding line-up.



B-LINE RANGE IN FULL (R)EVOLUTION



Combining budget and technicity for a non-intensive use, our B-Line range is expanded.

You will find more products, a wider range of solutions and many new developments.

You will discover these products along the catalog, as well as in a dedicated orange leaflet at the end of the catalog.

PARTNERSHIPS WHICH ARE CLOSE TO OUR SPIRIT

The Club Technique Auto, a corporate approach that is part of our DNA!

We are involved in technical trainings for professionals and learning centers, with the "Club Technique Auto", founded in association with brands SNR[®] and Elring[®].

The aim of the CTA (Club Technique Auto) is to share our knowhow by increasing the awareness of the to good practices by educating them to new technologies with the help of specific tools.

Several trainings have already taken place and many more are to come, follow us on club-technique-auto.com





Beyond educating! innovating!

We are always seeking new ideas and synergies, and in partnership with SNR[®], we have developed new exclusive and innovative product solutions that meet the most demanding technical and durability requirements. Discover them in the "Bearing" or "CV joint" categories.

DIGITAL YOU SAID?!

Always increasing digitization

Over the last few years, we have increased our investment in the digitalization of the brand, a choice on our part but also because of the success we have achieved:

- more online orders
- process dematerializations (after-sales service, returns,...)

• increase of video supports: one year of CLAS goes live, technical videos, tutorials...

Be sure to visit our different social networks.

And even if the time is digital, don't forget that behind all this, there are **women and men at your service**!













WORKSHOP SOLUTIONS



To make the research easier, we have separated products related to mechanical equipment from those dedicated to vehicles maintenance.

In this section, you will find all products to equip a workshop, from heavy equipment (such as post lifts and tire machines) to the tiniest (hand tools) including the classic workshop tools: inspection lamps, reels, jacks...



WORKSHOP EQUIPMENT



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IN BRIEF

ONE COMPANY - ONE TEAM!

Beyond a company, a team! In full growth...

CLAS "Garage Solutions" is a team of passionated **women and men**, experts, committed to supporting you.

To achieve this, we have consolidated in all departments of the company by hiring people who combine **know-how and expertise** while encouraging internal promotion.



Choosing CLAS means buying a product and the service that goes with it.

Establishing a **long-lasting relationship** based **on trust** with each of our customers is one of our priorities. Every day, we do our utmost to meet your needs and offer you adapted SOLUTIONS that save you energy and time.

It is a story of tools but also a story of MEN.



IMPROVING & TESTING

Our team of technicians test our tools daily in real life situations.

Their experience allows us to remain in a dynamic of progressive and continuous improvement, to have ideas and to put them to the test in only a few hours...

Thanks to our real-life testing laboratory, we develop a strong link between our Sales and Technical departments, always with a view to offering relevant tools that meet real needs.

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WORKSHOP EQUIPMENT

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4 POST LIFTS

• lifting by wheels hold

- the vehicle can also be lifted under the body if the lift is equipped with auxiliary lift.
- useful for operating on heavier vehicles than compact cars.

Bonus: it can also be used to store one car under and another on the deck.

ADVANTAGES:

many different applications

SCISSOR LIFTS

- lifting by wheels or underbody holds
- mono or double scissors (lifting up to 2m)
- especially suitable for tire specialists, body repair or workshops with low ceilings.

There are also scissor lifts with auxiliary lift for geometry.

ADVANTAGES:

• high lifting speed and low service requirements



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OUR POST LIFT RANGE

Reference	Туре	CAPACITY	BODY REPAIR	ROCKER PANEL	PAINTING	TIRES	GEOMETRY
PE 1000	1 post	ЗT	•		•	•	
PE 2000 - PE 2001	2 posts	4T		•		•	
PE 2004 - PE 2005	2 posts	4T		•		•	
PE 2008 - PE 2003 - PE 2009	2 posts	4T		•		•	
PE 2002 - PE 2006 - PE 2007	2 posts	5T		•		•	
PE 2010 - PE 2011 - PE 2012	2 posts	6Т		•		•	
PE 4000	4 posts	5.5T	•		•		
PE 4001	4 posts	5.5T	•		•		•
PE 4002	4 posts	5T	•		•	•	•
PE 6000 - PE 6002	scissor	ЗT	•		•	•	
PE 6001 - PE 6005	double scissor	ЗT	•		•	•	
PE 6004	double scissor	3.5T	•		•	•	
PE 6006	simple scissor	5T	•		•	•	•
PE 6007	simple scissor	5.5T	•		•	•	•
PE 8000 - PE 8001	lift table	ЗT	•		•	•	

Post lift bridge references in bold can be mounted on screeds of less than 20 cm.



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SINGLE POST LIFTS

(PE 1000) 1 COLUMN MOBILE POST LIFT 3T

Electro-hydraulic post lift.

Flexibility of use: easily manoeuvrable thanks to its travel kit, without floor fixation. Working comfort: equipped with an access ramp with a 100mm high lowered ground clearance for simplified vehicle pick-up. Small footprint: compact, ideal for small spaces. High variability: multiple lifting capacities thanks to the 4 telescopic arms in 2 parts and adjustable threaded pads (100 - 170mm). Optimized work thanks to fast lifting and lowering times (+/- 45 seconds). Simple operation: lifting and lowering via control box. Maximum safety: electromagnetic unlocking of the safety catches, without mechanical lever, emergency lowering system in case of power failure. Particularly suitable for painting and bodywork activities, brake and tyre service. Powder coated.

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2 POST LIFTS • LIFTS

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2 POST LIFTS

(PE 2001) 2 COLUMNS ASYMETRIC POST LIFT 4T

Electro-hydraulic post lift.

Hydraulic unit: fast ascent and descent (+/- 40 seconds).

Multiple lifting capacities thanks to the telescopic arms in asymmetrical version (short front 3 stages from 560mm to 995mm - long rear 2 stages from 660 to 1210mm).

ads

A-0 3000KG

Adjustable pads on 55mm stroke screw. Electromagnetic unlocking of the safety notches, overload safety and hose rupture.

System synchronisation: by cable. Cylinder, chain and cable protection strip included on each column.

Particularly suitable for repair activities.

European origin, powder coated.



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FINANCING

Consult your distributor

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400V

Specifications:

- lifting height: 126-1890mm
 lifting time: +/- 40s
 lowering time: +/- 40s
 drive power: 2.2 kW

- electrical voltage of the drive: (3 ~) 400/50 V/Hz

220V version available on request.

Options:

• PE0007: Mercedes / Iveco 105-135mm spacer sets

(PE 2004)

2 COLUMNS POST LIFT 4T HIGH PASSAGE 3876mm 2.2Kw

Electro-hydraulic post lift.

Push cylinder on cart, without chain.

Hoses and cables pass through the top for optimum working comfort, allowing free access under the vehicle for equipment (cylinders, oil recovery system, etc.), making it easier to clean the workshop.

Multiple lifting capacities thanks to the telescopic arms in asymmetrical version (front 3 stages from 560 to 995mm, rear long 2 stages from 660 to 1210mm) allowing precise lifting of low or utility vehicles.

Adjustable pads on 55mm stroke screw equipped with 70mm extension.

Electromagnetic unlocking of the safety notches, overload safety and hose rupture. System synchronisation: by cable.

Cylinder, chain and cable protection strip included on each column.

Particularly suitable for repair activities.

European origin, powder coated.



- lifting time: +/- 40s
- lowering time: +/- 40s
- drive power: 2.2 kW
- electrical voltage of the drive: (3 ~) 400/50 V/Hz
- strength/quality of concrete: 200mm-C20/25

220V version available on request.

Options :

• PE0007: Mercedes / Iveco 105-135mm spacer sets



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Electro-hydraulic post lift.

Hoses and cables pass through the top for optimum working comfort, allowing free access under the vehicle for equipment (cylinders, oil recovery system, etc.), making it easier to clean the workshop. Hydraulic unit: quick up and down (+/- 40 seconds). Adjustment possibility, equipped with a position Securing device for precise intervention, gearbox assembly, nut alignment... Multiple lifting capacities thanks to the telescopic arms in asymmetrical version.

(front short 3 stages from 640 to 1200mm, rear long 2 stages from 775 to 1550mm) allowing a precise lifting of low or utility vehicles.

Adjustable pads on 55mm stroke screw equipped with 70mm and 160mm extension.

Electromagnetic unlocking of the safety notches, overload safety and hose rupture.

Bevelled columns for large door openings. Hydraulic synchronization system.

Particularly suitable for repair activities.

Made in Europe, powder coated.





Height adjustable to the millimeter

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(PE 2003)

2 COLUMNS POST LIFT 4T HIGH PASSAGE 4470mm 2.6kw



2 COLUMNS POST LIFT 4T HIGH PASSAGE 5070mm 2.6kw

Specifications:

- lifting height: 65-1980mm- lifting time: +/- 40s
- lowering time: +/- 40s
- drive power: 2.6 kw- electrical voltage of the drive: (3~) 400/50 V/Hz
- strength/quality of concrete: 200mm-C20/25

Options:

• PE0007: Mercedes / Iveco extension sets 105-135mm



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(PE 2002) 2 COLUMNS SYMETRIC POST LIFT 5T HIGH PASSAGE 3870mm 2.6Kw NOTE -Especially adapted to repair activities on commercial vehicles and 4x4. Multi-jointed arms Electro-hydraulic post lift. Hoses and cables pass through the top for optimum working comfort, allowing free access under the vehicle for equipment (cylinders, oil recovery system, etc.), making it easier to clean the workshop. Hydraulic unit with fast up and down (+/- 50s). Adjustment possibility, equipped with a position securing device for precise intervention, gearbox assembly, nut alignment... Multiple lifting capacities thanks to the telescopic arms in symmetrical 3-stage version from 860 to 1700mm for precise vehicle lifting. Adjustable pads on 55mm stroke screw equipped with 70mm and 160mm extension. Electromagnetic unlocking of the safety catches, overload safety and hose rupture. Hydraulic synchronization system. Made in Europe, powder coated. FINANCING Consult your distributor PE 2006) 2 COLUMNS SYMETRIC POST LIFT 5T HIGH PASSAGE 4470mm 2.6Kw leight adjustable to (PE 2007) the millimeter 2 COLUMNS SYMETRIC POST LIFT 5T HIGH PASSAGE 5070mm 2.6Kw 3785 Specifications: • lifting height: 95-2050mm 3100 lifting time: +/- 50s lowering time: +/- 50s drive power: 2.6 kW - 4470 - 5070 • electrical voltage of the drive: (3 ~) 400/50 • strength/quality of concrete: 200mm-C20/25 V/Hz 南 V50-X-XL 1895 | 2050 3870

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Options:

• PE0007: Mercedes / Iveco 105-135mm spacer sets



(PE 2010) 2 COLUMNS POST LIFT 6T HIGH PASSAGE 3870mm 2.6Kw

Electro-hydraulic post lift.

Hoses and cables pass through the top for optimal working comfort, allowing free access under the vehicle for equipment (jacks, oil recuperator...), making it easier to clean the workshop. Hydraulic unit: quick up and down with adjustment possibility, equipped with a position securing

device for precise intervention, gearbox assembly, nut alignment... Multiple lifting capacities thanks to the articulated arms in symmetrical version (3 stages from 790 to

Multiple lifting capacities thanks to the articulated arms in symmetrical version (3 stages from 790 to 1890mm) allowing lifting adjustable to the millimeter of vehicles. Adjustable pads on 55mm stroke screw equipped with 70mm and 160mm extensions.

Adjustable pads on 55mm stroke screw equipped with 70mm and 160mm extensions Electromagnetic unlocking of the safety notches, overload safety and hose rupture. Hydraulic synchronization system.

Particularly suitable for repair activities on extended commercial vehicles, 4x4, micro cars. Made in Europe, powder coated.







Large scope of application

PE 2011

2 COLUMNS POST LIFT 6T HIGH PASSAGE 4480mm 2.6Kw

PE 2012

2 COLUMNS POST LIFT 6T HIGH PASSAGE 5080mm 2.6Kw

Specifications:

- lifting height: 100-1920mm
- lifting time: +/- 80s
- lowering time: +/- 100s
- drive power: 2.6kW
- electrical voltage of the drive: (3 -) 400/50 V/Hz • strength/quality of concrete: 200mm-C20/25

Options :

• PE0007: Mercedes / Iveco 105-135mm spacer sets



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4 POST LIFTS • LIFTS

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TO CONSIDER !

(PE 7000)

HYDROPNEUMATIC ROLLING JACK 3T







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Specifications:

- lifting height: 196- 846mm
- lifting time: +/- 45s
 lowering time: +/- 45s
- width/length raceways: 490/5190mm
 adjustable distance between raceways: 800-1100mm

Camping cars and vans

- air supply 8bar • drive power: 2.2 kw
- electrical voltage of the drive: (3 -) 400/50 V/Hz
 strength/quality of concrete: 200mm-C20/25

Other versions available on request



PE 4001 4 COLUMNS POST LIFT FLAT OSCILLATION TRACK 5.5T

Electro-hydraulic post lift.

Working comfort: One-piece access ramps, quick and easy positioning of the vehicle, see ramp option for low ground clearance vehicles, allows quick repair or inspection, 5.19 m long tracks. Equipped with guides for optional lifting crossbeam.

Maximum safety: lifting by single cylinder, driving 4 cables, pneumatic release of the safety catches, safety system in case of cable breakage, emergency lowering system in case of power failure, intermediate stop and audible signal.

Suitable for mechanical intervention, cars, light vehicles, camper vans, construction site machinery, ideally designed for geometry and technical control with these front slots for

optional swash plate and slip plate at the rear.

European origin, powder coated.



(PE 7000)

HYDROPNEUMATIC ROLLING JACK 3T

Accessory of PE 6006/PE 6007/PE 4000/ PE 4001/PE 4002



Max. 1 /3∖



Specifications:

- lifting height: 246-1896mm
 lifting time: +/- 45s
- lowering time: +/- 45s
- width/length raceways: 490-5190mm
- adjustable distance between raceways: 800-1100mm
- air supply 8bar
- drive power: 2.2 kw
- electrical voltage of the drive: (3 ~) 400/50 V/Hz
- strength/quality of concrete: 200mm-C20/25

Other versions available on request



4 POST LIFTS • LIFTS

(PE 4002)

4 COLUMNS POST LIFT 5T AUXILIARY LIFT 3.5T

Electro-hydraulic post lift.

Working comfort: access ramps equipped with an auxiliary lift with a capacity of 3.5T with pneumatic safety.

fast and easy positioning of the vehicle with low ground clearance, allows a quick repair or inspection, 5.19m long and 640mm wide paths. Suitable for mechanical intervention, VL, VUL, camping car, construction equipment.

European origin, powder coated.





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Specifications:

- lifting height: 250-1890mm
 lifting time: +/- 45s
 lowering time: +/- 55s

- width/length raceways: 640 /5190mm
- air supply 8bar
- drive power: 2.2 kw
- electrical voltage of the drive: (3 -) 400/50 V/Hz strength/quality of concrete: 200mm-C20/25

Other versions available on request









SCISSOR LIFTS

(PE 6000) MOBILE SCISSOR LIFT DUAL CYLINDER LOW RAISE 3T

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Especially adapted to painting, bodywork and brake and tyre service activities.

Ease of access: 105mm high lowered floor passage, lockable access ramps for extended lifting platforms.

Up and down control by push buttons on control box.

Working comfort: easy movement thanks to its set of 3 removable wheels and its traction handle. Scissors control by double hydraulic master-slave system.

Powerful lifting: extended mechanical tilting lever system, for full power lift at the lowest point 105mm. Maximum safety: double hydraulic safety system (without mechanical detent or compressed air), emergency lowering system in case of power failure, intermediate anti-crushing stop according to CE standards and audible signal. European origin.







TO CONSIDER! PE 0006 SUV KIT FOR SCISSOR LIFTS Accessory of PE 6000/PE 6002 Superior Constants Supe



Possible external

intervention

SCISSOR LIFT DUAL CYLINDER LOW RAISE 3T

Specifications:

- lifting height: 105-960mm
- lifting time: +/- 20s
- lowering time: +/- 20s
- width/length raceways: 530/1450-2036mm
- synchronization control by photocell
- drive power: 2.2 kw
- electrical voltage of the drive: (3 ~) 400/50 V/Hz
- 220V version on request



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PE 6006)

Especially adapted for technical inspection, geometries, repair and adjustment of headlights. Installation possibilities: floor-standing or floor built-in for LV and LCV.

Working comfort: quick and easy mounting of the vehicle on the 220mm extra-low deck. Maximum safety: 2 thrust cylinders, 1 cylinder with mechanical secure position hold (rack and pinion) for position stabilization. European origin, powder coated.

> Extra low-profile 220mm



TO CONSIDER !

(PE 0012)

UV KIT FOR HIGH SCISSOR LIFTS

Accessory of PE 6006/PE 6007





Specifications:

- lifting height: 220-1860mm
- lifting time: +/- 50s
- lowering time: +/- 60swidth/length raceways: 620/5030mm
- system sync: photo cell
- drive power: 2.2 kw
- electrical voltage of the drive: (3 ~) 400/50 V/Hz

220V version on request

Contents:

- rear slip plates
- slots for swivel trays
- auxiliary lift 5.5T, lift height 450mm with ramp extension L: 1450mm to 2000mm
- guide rails for a lifting crossbeam

Options:

- PE7000: 3T pneumatic lifting crossbar
- EG8380: pair of turntables
- PE0004: front slip plates
- PE0000 : galvanized option for lifts



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PE 6007

SCISSOR LIFT 5T AUXILIARY LIFT 3.5T

Especially adapted for technical inspection, geometries, repair and adjustment of headlights. Installation possibilities: floor-standing or floor built-in for LV and LCV.













Maximum safety: 1 push cylinder with mechanical secure position hold (rack) for position stabilization. Safety is pneumatic. Made in Europe, powder coated.

Specifications:

- lifting height: 350-2155mm
- lifting time: +/- 65s
- lowering time: +/- 60swidth/length raceways: 625/5400mm
- system sync: photo cell
- drive power: 2.6kw
- electrical voltage of the drive: (3 ~) 400/50 V/Hz

Contents:

Slip plates Slots for swivel trays Auxiliary lift 3500 kg, lift height 425mm with ramp extension L: 1430mm to 2050mm Guide rails for a lifting crossbeam

Options:

- EG8380: pair of turntables
- PE0003: 6-movement front sliding plate for technical control
- PE7000: 3T pneumatic lifting crossbar
- PE0008: access ramp extension 1600mm



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(PE 8000)

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BODY REPAIR LIFT TABLE MONO CYLINDER WITH MECHANIC LOCK 3T



Underbody preparation table for body builders, allows the vehicle to be lifted to the desired height for an ergonomic working position, protects against MSDs.

Ideal for small dent removal, work on rocker panels, sanding, painting...

To be embedded, electro-hydraulic operation,

single-cylinder version, with mechanical hold-in position safety device (rack and pinion).

Opening of the 4 arms equipped with 120° buffers European origin, powder coated hinges.

Specifications:

- lifting time: +/- 50 s
- lowering time: +/- 60 s
- working height: 260-1730mm
- closed dimension: L. 2348 X W. 700mm
- max. open dimension L. 2836 X W. 1610mm
- drive power 2.2 kW 220bar
- electrical voltage of the drive: (3 ~) 400V/50 Hz
- air supply 6/8bar
- weight: 780kg

(PE 8001) BODY REPAIR LIFT TABLE DUAL CYLINDER 3T

European origin, powder coated hinges.

Underbody preparation table for body builders, allows the vehicle to be lifted to the desired height for an ergonomic working position, protects against MSDs. Ideal for small dent removal, work on rocker panels, sanding, painting... To be embedded, electro-hydraulic operation, double-cylinder version, with mechanical hold-in position safety device (rack and pinion). Opening of the 4 arms equipped with 120° buffers.



Specifications:

- lifting time: +/- 50 s
- lowering time: +/- 60 s
- working height: 125-1300mm
- closed dimension: L. 1960 X W. 880mm
- max. open dimension: L. 2303 X W. 1668mm
- drive power 2.2 kW 220bar
- electrical voltage of the drive: (3 ~) 400V/50Hz
- air supply 6/8bar
- weight: 880kg



WORKSHOP EQUIPMENT



WHEEL SERVICE EQUIPMENT



CHOOSE YOUR TIRE CHANGER - KEY POINTS TO CONSIDER

- use: intensive or occasional?
- tire dimension in your current process?

To consider:

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You may wish to install a wheel lift assistant close to your machine to reduce (MSDs).

AUTOMATIC OR SEMI-AUTOMATIC?

Besides the financial investment, the difference is primarily in the way the arm is used.

Semi-automatic: the main column stays in its position, only the arm rotates sideways. Main advantage: reduced space requirement.

Automatic: the arm works by a pneumatic system that makes it tilt backwards by pressing the pedal. It allows to center automatically the wheel. Perfect for tire specialists.

For the calibration, the automatic tire changers have adjustments of the bucket reducing the effort of the operator during the execution of the task.

To better understand the difference, let's take the example of replacing 4 tires. The adjustment of the automatic tire machine made on the first wheel will remain valid for the next three.

THIRD ARM?

Essential support for mounting and dismounting **run-flat tires**, the third arm extends the range of action of the tire changers even further.

Car manufacturers, especially BMW, and manufacturers (Michelin, Dunlop, GoodYear, Continental, Pirelli, Bridgestone...) are encouraging more and more of these new reinforced sidewall tires because they do not require the vehicle to be immediately immobilized in the event of a flat tire.

The 3rd arm is then used as a reinforcement to get these very stiff wheels out of the rim groove without damaging them.

OUR RANGE

Referance	Auto	Speed	3rd arm	Wheels Ø	Wheels width	Advantage
DM 0500BL	semi-auto	1	-	10 to 21″	3 to 12"	Perfect for occasional use
DM 1522	automatic	1	yes	10 to 24"	3 to 12"	Standard 220V power supply
DM 1501	automatic	2	yes	10 to 24"	3 to 12"	Economical solution
DM 2000	automatic	2	yes	13 to 28"	3 to 15"	Gonflage tubeless



(DM 0500BL)

SEMI-AUTOMATIC TIRE CHANGER 10"-21" 1 SPEED SYSTEM 230V

Semi automatic tire changer designed for effortless mounting and removal of tires. Suitable for cars, commercial vehicles and 4x4 tires.

For warranty purposes, installation and start-up must be performed by a professional.





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Specifications:

- max. tire width: 3"-12"
- outside clamp: 10"-18"
- inside clamp: 12"-21"
- turntable rotation speed: 6.5rpm
- ergonomic and intuitive foot pedal
- working air pressure: 8-10bar
- air purifier and oil lubricator
- tubeless inflator safety valve: 3.5bar
- power: 0.85-1.1kW
- bead breaker arm power: 2500kg
- weight: 177kg

Comes with:

- SA0172: plastic protection for the
- dismounting heads soles
- SA8903: 5 protective clips
- SA8906: 4 pieces jaw cover set
- 1 lever with protection for alu rims



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TIRE CHANGERS • WHEEL SERVICE EQUIPMENT



| **CLAS** | 35



4 MOTORBIKE JAW SET

Accessory of DM 2000/DM 0500BL/DM 1501/DM 1522

Motorcycle jaws allowing:

- stability during assembly
- respect of the rims thanks to the sheathed jaws
- Wheel diameter compatibility depending on machines:
- DM0500BL: from 6"
- DM1522/DM1501: from 6" • DM2000: from 8"

Suitable for many wheels as scooter and motorbike wheels with or

without brake disk & belt drive, kart wheels, convex or alloy wheel rims. Installation on jaws with a max. width of 45mm.



TIRE CHANGERS • WHEEL SERVICE EQUIPMENT





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CHOOSE YOUR WHEEL BALANCER - KEY POINTS TO CONSIDER



• use: intensive or occasional?

• tire dimension in your current process?

To consider:

You may wish to install a wheel lift assistant close to your machine to reduce (MSDs)..

MEASURING MODE

Manual: Enter the offset, the rim width and the diameter on the keyboard. Perfect for occasional use or low volume tires.

Automatic: the measurements are detected and recognized by the machine. The automatic wheel balancers are supplied with a laser pointer which serves as a guide for positioning the balancing weight. Perfect for tire specialists or mounting centers

3D screen?

The 3D screen allows a comfortable operation with visualization of the mass position on the screen. The information on the balancing in progress is accessible in real time.

Reference	Taking of measures	Wheels Ø	Wheels width	Laser pointer	Brake	Lighting
EQ 1000	manually	28" max.	1,5 to 20"	no	-	-
EQ 2100	automatic	28" max.	1,5 to 20"	yes	electro magnetic	LED



All of our wheel balancers are suitable with light vehicles, commercial vehicles and motorcycles.



The electromagnetic brake allows to stop the wheel directly at the right place, without manual adjustment.



WHEEL BALANCERS · WHEEL SERVICE EQUIPMENT



MOTORIZED WHEEL BALANCER WITH DIGITAL DISPLAY

Motorized wheel balancer equipped with a large digital display and manual measurement of 3 parameters for precise, simple and rapid work on wheels for LV, LCVs and 4x4s.



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- Functions:
- european software • automatic cycle
- multipurpose keys
- static and dynamic program (dual plane) in a single measuring run
- 9 modes: 7 Alu (hidden
- weight)+Optimization+Motocycle balancing • automatic reset/Machine calibration: 50g
- weights
- auto diagnostic with error codes
- multiple operator function
- simultaneous display of weights and weight positions
- measuring precision: ±1g
- display precision: 1g/5g

Specifications:

- power supply voltage: 220V-50Hz
- dimensions (wheel guard opened): 1550x1160x1490mm
- sound level < 69dB
- digital display (automatic standby mode if the machine is not being in use after 5min)
- max. wheel diameter: 1100mm
- max. wheel weight: 70kg
- rim diameter: 1-28"
- rim width: 1.5-20"
- wheel 3 parameters manual measurement
- automatic wheel guard
- one balance time: 7s
- rotating speed: 140rpm
- shaft: L.210mm-Ø40mmx4mm
- ergonomic and functional weight holder top with large trays for different types of counterweights and tools.
- 4 storage media

- support of positioning weight
- weight: 149kg



- Supplied with:
- EQ6521BL: 4 counterweights from 42 to 137mm Ø40mm
- 12mm hex wrench
- SA8305: rim width caliper
 SA8905: calibration weight 50g
- OC8034: tire pliers
- EQ6404BL: fast nut Ø40x4mm with bowl/joint/ compression ring

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EQ 2100

AUTOMATIC WHEEL BALANCER 3D DIGITAL DISPLAY+LASER POINTER

Motorized wheel balancer with a large digital display. Measures 3 parameters automatically for precise, simple and quick wheel balancing for cars, LCVs and 4x4s.







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WHEEL BALANCERS • WHEEL SERVICE EQUIPMENT





44 | **CLAS** |



(OE 9000)

ELECTRIC & RECHARGEABLE WHEEL LIFTER MAX. 60kg

Allows wheels for cars, LCVs and 4x4s to be effortlessly lifted to the height of the vehicle on the ramp. Allows wheels to be moved around the workshop.





Specifications:

- lifting capacity: 60kg
- wheels 135/80 R13 to 295/25 R22
- max height of the hub: 145cm
- up/down control integrated in the handle
- lifting speed: 0.14m/s
- lifting system-motorized screw
- 4 swiveling wheels for greater maneuvrability
- anti-fall security feature
- emergency stop button
- reels to facilitate rotation to position the wheel on the hub
- IED indicators:
- Battery charge level
- Max. charge capacity exceeded
- emergency stop function deployed
- engine temperature of the upper screw
- batteries 12V 12Ah
- charger: 220V-AC
- dimensions: L.725xW.800xH.1710mm

Limits the risks of accident Lifts wheels effortlessly







wheels with brakes

/1.2

46 | **CLAS** |

WORKSHOP EQUIPMENT

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bar

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bar



PISTON COMPRESSOR

- Direct or coaxial drive: the head is directly powered by the engine. An economical solution for occasional use.
- Belt drive: Independent engine and compressor. Possibility of low speed operation and soundproofed version.
- Intermittent use.

ADVANTAGE: low service requirement with annual draining

SCREW COMPRESSOR

Regular use at a constant flow rate. Service: schedule servicing, oil draining, filter and seal replacement

ADDITIONAL ACCESSORY

• Dryer

Required when using tools that require dry air such as painting tools. The dryer should be selected according to the flow rate of the applied compressor.

• Filtration

Required for the system depolluting, used for painting applications. The filters should only be used with a dryer. Service: annual filter replacement.

Reference	Technology	Capacity	Pressure (bar)	Air flow rate (I/min)	Application
OP 3603	piston	50 L	8	240	Private
OP 3600	piston	100 L	10	320	Additional or
OP 3601	piston	150 L	10	320	mobile use
OP 3602	piston	200 L	10	320	Professional: 1 companion
OP 3604	piston	270 L	11	650	Professional: 2 to 3 companions
OP 3605	piston	500 L	11	600	
OP 3612	piston	270 L	11	850	
OP 3608	piston	3 L	11	850	Professional: 3+ companions
OP 3606	piston	500 L	11	1182	
OP 3609	piston	3 L	11	1182	
OP 3610	screw	-	10		Tire & body shop
OP 3611	screw	-	10		Tire & body shop





| **CLAS** | 49



(OP 3605)

BELT COMPRESSOR 500I 7.5HP

Specifications: • belt drive

- dual cooling collectors for maximum efficiency
- 1450 rpm
- volume generated: 600I/min
- max pressure: 11bar
- engine power: 5.5hp-4kW
- twin-cylinder
- electrical supply: tri 400V



OP 3606)

BELT COMPRESSOR SPEED 500I 10HP

Specifications: belt drive

- dual cooling collectors for maximum efficiency
- 1100 rpm
- volume generated: 1182I/min
- max pressure: 11bar
- engine power: 10hp-7.5kW
- twin-cylinder
- electrical supply: tri 400V

10 нр 77 ав 500 L

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₩ 10 HP 68 dB

Low space requirement

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7.5 HP 76 dB

270 L

68 dB

\$

400V

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400V

NEW



(OP 3608)

SILENT BELT COMPRESSOR 7.5HP

Specifications:

- belt drive
- integrated 3-litre tank mounted on vibration dampers
- dual electric ventilators with thermostatic control
- easily readable hour counter
- 1150 rpm
- volume generated: 850 l/min
- max pressure: 11bar
- engine power: 7.5hp-5.5kW twin-cylinder
- electrical supply: tri 400V



SILENT BELT COMPRESSOR 10HP

Specifications:

- integrated 3-litre tank mounted on vibration dampers
- dual electric ventilators with thermostatic control
- easily readable hour counter
- 1100 rpm
- volume generated: 1182 l/min • max pressure: 11bar • engine power: 10hp-7.5kW
- twin-cylinder • electrical supply: tri 400V OP 3612 VERTICAL COMPRESSOR 270I 7.5HP

Specifications:

- belt drive
- 1150 rpm
- volume generated: 850 l/min
- max pressure: 11bar • engine power: 7.5hp-5.5kW
- twin-cylinder • electrical supply: tri 400V

NEW



NEW

AIR COMPRESSOR 15HP ON TANK + DRYER

The screw compressor will allow you to work with a maximum of air for a minimum of energy consumed. This solution has an extended service life and we recommend it for intensive use.

The compressor has been designed to operate continuously under the most demanding conditions of use: tire operators, multiple operators, extensive air networks, numerous downpipes and end connections.. Particular attention has been paid to the design of this equipment in order

to respond to daily problems: low maintenance costs and ease of use.

Specifications: • volume generated: 1500 l/min

- tank: 500L
- dryer included

(OP 3611)

- max pressure: 10bar
 engine power: 15hp-11kW
- electrical supply: tri 400V



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- volume generated: 2000 l/min
- max pressure: 10bar
- engine power: 20hp-15kW
- electrical supply: tri 400V



AIR COMPRESSORS • SCREW AIR COMPRESSORS

Our tanks are supplied with safety valves and pressure gauges as a standard feature. On request, we can supply plugs, fittings and hoses.

NEW

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500

(OP 3613)

PAINTED VERTICAL TANK 500I 11bar

Specifications:

- capacity: 500L
- 11 bar
- dimensions: Ø 600mmxh. 2060mm

• weight: 125kg

(OP 3614) PAINTED VERTICAL TANK 500I 16bar

Specifications:

- capacity: 500L
- 16 bar
- dimensions: Ø 600mmxh. 2060mm
- weight: 125kg



WORKSHOP EQUIPMENT

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AIR PIPE FITTINGS

CLAS



AIR PIPES MATERIAL

The choice of material has a significant influence on the flexibility, weight, performance and durability of the air pipe.

If the pipe material is not adapted to the workplace conditions, the pipe will quickly break down or underperform. For example, when using the pipe outdoors or in a cold room, consider a material that keeps its flexibility.

Material	PVC	Steel	Aluminum
Advantage	Economical	Durable High mechanical resistance	Easy to install and use Lightweight - Adjustable size High mechanical resistance Durable
Kei points	Tricky to set up Weak: expansion, risk of leaking. Permanent set up (glued)	Set up by a professional Risk of leaking screw connections. Permanent set up	CLAS CHOICE

CLAS offers you the following kits:

- customized solution (adjustable depending on the complexity of the room to be set up)
- Full kits (no design study, immediate quotation, all in one, choice of pre-established settings)

To choose the right diameter for your needs, please refer to our guide below. On the left side, your compressor and its specifications, then the distance between your compressor and the furthest point used to allow you to select your diameter.

And finally, our recommendation according to the number of companions.

	YOUR COMPRESSOR			AIR KIT SIZE			AIR KIT SIZE		CLAS SO	LUTIONS	
Pov	ver	Air flow	v rate	Lengt	ength and diameter Reference						
kW	CV	l/min	m3/h	50m	100m	150m	Nb of companions	KR 2016	KR 3020	KR 4425	KR 6032
2,2	3	250	15	Ø16	Ø16	Ø20	1	•			
4	5	450	27	Ø20	Ø20	Ø20	2 - 3		•		
5,5	7,5	600	36	Ø20	Ø20	Ø25	3 and more		•		
7,5	10	800	48	Ø20	Ø25	Ø25	3 and more			•	
11	15	1500	90	Ø25	Ø25	Ø32	3 and more			•	
15	20	2000	120	Ø25	Ø32	Ø32	3 and more			•	•

AIR PIPE AND FITTING KITS • AIR PIPE FITTINGS



(KR 2016)

ALUMINUM AIR PIPE AND FITTING KIT Ø16mm L.20m 3 DOWNPIPES

Aluminum components for tubes, and technopolymer fittings make this system a safe, durable network, with no risk of corrosion or pipe deformation. Economical, thanks to its quick assembly: no gluing, no welding or crimping, works by interlocking,

lockina High adaptability with these multiple connectors, and by its compatibility for existing network recovery.

The kit can be modulated at any time and allows an economic projection at any time (estimate not essential).

Mounting accessories: see website.



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• recommendation: 7.5HP • working pressure: 13 bar / 190 psi

CONTENTS

	ALUMINUM PIPE Ø16mm LENGTH 4M	10
	COMPOSITE SLEEVE Ø16mm	5
Q	SET OF 10 CLAMP 16mm M8	2
	COMPOSITE ELBOW 90° FOR Ø16mm	3
	EQUAL COMPOSITE TEE Ø16mm	2

•	COMPOSITE TAPERED MALE THREADED STRAIGHT FITTING Ø16xM1/2"G	3
	ALUMINUM FEMALE WALL BRACKET 1/2"x1/2"G	3
	FLEXIBLE DE CONNEXION FILETE 16x1/2"	2M
3	MALE THREADED VALVE Ø16mm 1/2 "G	1
5	SPECIAL WRENCH NUT TIGHTENING Ø16 TO Ø20	1



P 20 m

(KR 3020)

ALUMINUM AIR PIPE AND FITTING KIT Ø20mm L.30m 4 DOWNPIPES

Aluminum components for tubes, and technopolymer fittings make this system a safe, durable network, with no risk of corrosion or pipe deformation. Economical, thanks to its quick assembly: no gluing, no welding or crimping, works by interlocking, locking.

High adaptability with these multiple connectors, and by its compatibility for existing network recovery.



Recommended: 5HP or 7.5HP compressor

COMPOSITION

	ALUMINUM PIPE Ø20mm LENGTH 4M	15		COMPOSITE TAPERED MALE THREADED STRAIGHT FITTING Ø20xM1/2"G	4
	COMPOSITE SLEEVE Ø20mm	5		APPLIQUE À SORTIE TARAUDÉE	3
Â	10 CLAMP SET 20mm M8	3		FLEXIBLE DE CONNEXION FILETE 16x1/2"	2M
	COMPOSITE ELBOW 90° FOR Ø20mm	4	1	VALVE FOR PIPE Ø25 FEMALE THREADED F 3/4 "G	1
B	EQUAL COMPOSITE TEE Ø20mm	3	5	SPECIAL WRENCH NUT TIGHTENING Ø16 TO Ø20	1

30 m WARRANTY

36 m WARRA

(KR 4425)

ALUMINUM AIR PIPE AND FITTING KIT Ø25mm L.36m 5 DOWNPIPES

Aluminum components for tubes, and technopolymer fittings make this system a safe, durable network, with no risk of corrosion or pipe deformation.

Economical, thanks to its quick assembly: no gluing, no welding or crimping, works by interlocking, locking.

High adaptability with these multiple connectors, and by its compatibility for existing network recovery.

The kit can be modulated at any time and allows an economic projection at any time (estimate not essential). Mounting accessories: see website.



CONTENTS

	ALUMINUM PIPE Ø25mm LENGTH 4M	18
	ALUMINUM PIPE Ø20mm LENGTH 4M	5
	COMPOSITE SLEEVE Ø25mm	9
Q	10 CLAMP SET 25mm M8	4
Q	10 CLAMP SET 20mm M8	1
	COMPOSITE ELBOW 90° FOR Ø25mm	5
	COMPOSITE TEE REDUCED ON CENTER Ø25X20	5
	EQUAL COMPOSITE TEE Ø25mm	1

Ĵ	CAP Ø25mm	1	
-	COMPOSITE TAPERED MALE THREADED STRAIGHT FITTING Ø25x1/2 "G	1	
	APPLIQUE MURALE 1 SORTIE TARAUDEE	5	
9	FLEXIBLE DE CONNEXION FILETE 3/4" M x3/4" F	2M	
3	VALVE FOR PIPE Ø25 FEMALE THREADED F 3/4 "G	1	
\mathbf{x}	SPECIAL WRENCH NUT TIGHTENING Ø16 TO Ø20	1	
\sim	SPECIAL WRENCH NUT TIGHTENING Ø25 TO Ø32	1	
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compressor

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CONTENTS

	ALUMINUM PIPE Ø32mm LENGTH 4m	30	KR 7038
	ALUMINUM PIPE Ø20mm LENGTH 4M	8	KR 7036
	COMPOSITE SLEEVE Ø32mm	15	KR 7017
Q	10 CLAMP SET 32mm M8	3	KR 7012
Q	10 CLAMP SET 20mm M8	2	KR 7010
	COMPOSITE ELBOW 90° FOR Ø32mm	6	KR 7007
Q.,	COMPOSITE TAPPING FLANGE FOR PIPE Ø32xØ20	8	KR 7046

(OP 0706)

TO CONSIDER !

	EQUAL COMPOSITE TEE Ø32mm	2	KR 7076
	CAP Ø32mm	1	KR 7025
0	TUBE MULTICOUCHE CINTRABLE	2M	
\bigcap	FLEXIBLE LINK Ø32mm	1	KR 7031
a??	PIPPING VALVE Ø32	1	KR 7058
$\boldsymbol{\succ}$	SPECIAL WRENCH NUT TIGHTENING Ø16 TO Ø20	1	KR 7054
$\mathbf{\mathcal{F}}$	SPECIAL WRENCH NUT TIGHTENING Ø25 TO Ø32	1	KR 7055







AIR PIPE AND FITTING PARTS • AIR PIPE FITTINGS

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EQUAL COMPOSITE TEE FOUAL COMPOSITE TEF Ø16mm KR 7073 KR 7074 EQUAL COMPOSITE TEE Ø20mm KR 7075 EQUAL COMPOSITE TEE Ø25mm KR 7076 EQUAL COMPOSITE TEE Ø32mm EQUAL COMPOSITE TEE Ø40mm KR 7077 WARRAI COMPOSITE TEE REDUCED COMPOSITE TEE REDUCED ON CENTER Ø20X16 KR 7063 KR 7064 COMPOSITE TEE REDUCED ON CENTER Ø25X16 KR 7065 COMPOSITE TEE REDUCED ON CENTER Ø25X20 KR 7066 COMPOSITE TEE REDUCED ON CENTER Ø32X20 KR 7067 COMPOSITE TEE REDUCED ON CENTER Ø40X20 KR 7068 COMPOSITE TEE REDUCED ON CENTER Ø40X25 ΤN THREADED WALL BRACKET KR 7033 THREADED ALUMINUM WALL LIGHT IN-OUT-F1/2G KR 7034 THREADED ALUMINUM WALL LIGHT IN-OUT-F3/4G KR 7033 - KR 7034 KR 7069 KR 7069 ALUMINUM FEMALE WALL BRACKET 1/2"x1/2"G KR 7070 ALUMINUM FEMALE WALL BRACKET Ø20x1/2"G KR 7071 ALUMINUM FEMALE WALL BRACKET Ø22x1/2"G KR 7072 ALUMINUM FEMALE WALL BRACKET Ø25x1/2"G KR 7078 ALUMINUM WALL MOUNTING 3 THREADS F1/2"G WITH 1/4" PRE-DRILL PURGE KR 7079 ALUMINUM WALL MOUNTING 1 SUPPLY THREAD F1/2"G x2 EXITS F1/2"G WITH 1/4" PRE-DRILL PURGE KR 7070 KR 7079 - KR 7080 KR 7078 KR 7080 ALUMINUM WALL MOUNTING 1 SUPPLY THREAD F3/4"G x2 EXITS WITH 1/4" PRE-DRILL PURGE KR 7071 KR 7072 5 WARRAN COMPOSITE TAPERED MALE THREADED STRAIGHT FITTING KR 7081 COMPOSITE TAPERED MALE THREADED STRAIGHT FITTING Ø16xM1/2"G KR 7082 COMPOSITE TAPERED MALE THREADED STRAIGHT FITTING Ø20xM1/2"G COMPOSITE TAPERED MALE THREADED STRAIGHT FITTING Ø20xM3/4"G KR 7083 COMPOSITE TAPERED MALE THREADED STRAIGHT FITTING Ø25x1 "G KR 7084 KR 7085 COMPOSITE TAPERED MALE THREADED STRAIGHT FITTING Ø25x1/2 "G KR 7086 COMPOSITE TAPERED MALE THREADED STRAIGHT FITTING Ø25x3/4 "G KR 7087 COMPOSITE TAPERED MALE THREADED STRAIGHT FITTING Ø32x1 "G KR 7088 COMPOSITE TAPERED MALE THREADED STRAIGHT FITTING Ø32x1"1/4G KR 7089 COMPOSITE TAPERED MALE THREADED STRAIGHT FITTING Ø40x1 "G KR 7090 COMPOSITE TAPERED MALE THREADED STRAIGHT FITTING Ø40x1"1/2G KR 7091 COMPOSITE TAPERED MALE THREADED STRAIGHT FITTING Ø40x1"1/4G

CAP

 KR 7022
 CAP Ø16mm

 KR 7023
 CAP Ø20mm

 KR 7024
 CAP Ø25mm

 KR 7025
 CAP Ø32mm

 KR 7026
 CAP Ø40mm



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AIR PIPE FITTINGS • AIR PIPE AND FITTING PARTS

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KR 7030	FLEXIBLE LINK Ø25mm
KR 7031	FLEXIBLE LINK Ø32mm
KR 7032	FLEXIBLE LINK Ø40mm



ALUMINIUM DIVERSION

FLEXIBLE LINK

KR 7021	ALUMINUM DIVERSION FOR DOWNPIPE Ø16mm L.500mm
KR 7019	ALUMINUM DIVERSION FOR DOWNPIPE Ø20mm L.500mm
KR 7020	ALUMINUM DIVERSION FOR DOWNPIPE Ø25mm L.500mm

THREADED VALVE

KR 7060	1" WALL MOUNTING VALVE FOR PIPE Ø25
KR 7061	1"1/2 WALL MOUNTING VALVE FOR PIPE Ø32
KR 7062	1"1/2 WALL MOUNTING VALVE FOR PIPE Ø40

KR 7027	MALE THREADED VALVE Ø16mm 1/2 "G
KR 7050	VALVE FOR PIPE Ø20 FEMALE THREADED F 1/2 "G
KR 7051	VALVE FOR PIPE Ø25 FEMALE THREADED F 3/4 "G
KR 7052	VALVE FOR PIPE Ø20 MALE THREADED 1/2 "G
KR 7053	VALVE FOR PIPE Ø25 MALE THREADED 3/4 "G
KR 7057	PIPPING VALVE Ø25
KR 7058	PIPPING VALVE Ø32
KR 7059	PIPPING VALVE Ø40





VALVE FOR PIPE F



VALVE FOR PIPE M

MALE THREADED VALVE



PIPING VALVE



SPECIAL WRENCH NUT TIGHTENING

KR 7054	SPECIAL WRENCH NUT TIGHTENING Ø16 TO Ø20	
KR 7055	SPECIAL WRENCH NUT TIGHTENING Ø25 TO Ø32	
KR 7056	SPECIAL WRENCH NUT TIGHTENING Ø40 TO Ø50	





WORKSHOP EQUIPMENT

X-CLEAN 5

ECO-CLEAN 5W

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WORKSHOP FURNITURE

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BODYWORK HANDLING • BODYWORK PARTS HANDLING





Fixing:

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- 250mm wide centre distance
- 155mm deep centre distance

Supplied with:

• brush Ø200mm





(OM 4066)

PARALLEL JAW CLAMPS 150mm QUICK TUBE HOSE APPROACH

Specifications:

- jaw width: 150mm
- jaw height: 20mm
- opening: 180mm
- interchangeable steel jaws
- supplied with revolving base with 3 anchoring points



NOTE -Small workshop equipment p.136

X

\$

220V

900

w

Releasable jaw system allowing you to make adjustments to the jaw immediately.

OM 4068

PARALLEL JAW CLAMPS 205mm QUICK TUBE HOSE APPROACH

Specifications:

- jaw width: 205mm
- jaw height: 22mm
- interchangeable steel jaws
- tube, anvil and horn jaws
- jaw opening: 260mm
- supplied with revolving base with 3 anchoring points (180x225mm)

WORKSHOP EQUIPMENT

EXHAUST GAS EXTRACTION

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CHOOSE YOUR EXHAUST GAS EXTRACTION - KEY POINTS TO CONSIDER



- vehicle type: LV, LCV, very low vehicle?
 - space and set up required in the workshop?

TO CONSIDER!:

You should know that French health insurance recommends suction rates adapted to each vehicle (order of December 9, 2020):

- higher than 400m3/h for cars
- higher than 1000m3/h for trucks

The French government provides financial support, so check if you are eligible.

PNEUMATIC EXTRACTORS

With these systems, it is the equipment that goes to the vehicle to proceed to the extraction.

- ADVANTAGES
- lightweight
- easy to move

ELECTRIC EXTRACTORS

Mobile extractors

The extractor goes towards the vehicle. Our EG 0428 has a flexible extension to reach difficult to access exhausts (especially when installed under the bumpers) as well as dual exhausts. Consider providing space to store the exhaust hose.

ADVANTAGES:

- mobile
- no more exhaust height requirements
- universal

Suction unit

The car goes to the equipment in order to proceed to the extraction. This equipment requires a fixed wall or ceiling installation.

A dual exhaust allows you to work on 2 vehicles at the same time or on a vehicle with a dual exhaust. **ADVANTAGE**: standard equipment

Reel

The car goes to the equipment in order to proceed to the extraction. This equipment requires a fixed wall or ceiling installation. CLAS offers you a solution for cars and trucks.. **ADVANTAGE**: compact size

Reference TYPE		Vacuuming	dB	Special features		
EG 0428	pneumatic	600 - 730 m3/h	< 70 dB	Universal		
EG 0421	pneumatic	420 - 680 m3/h	< 68 dB	Compact size		
EG 0424	pneumatic	1050 - 1500 m3/h	< 70 dB	Compact size & HGV compatible		
EG 0422	pneumatic	500 - 680 m3/h	< 68 dB	Wall or ceiling installation		
EG 0423	pneumatic	500 - 680 m3/h	< 68 dB	Wall or ceiling installation		

ReferenceTYPEEG 0409electric		Pressure	power supply Ø	Special features	
		6 bar	Ø 10mm		
EG 0405	electric	5 to 8 bar	Ø 10mm	Dual output feature available	









SA 3212	EXHAUST END Ø75mm
SA 3222	EXHAUST END Ø100mm
SA 3231	RUBBER NOZZLE WITH CLIP Ø125mm
SA 3233	OVAL EXHAUST END (DUAL PIPE) Ø100

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(EG 0428)

EXTRACTOR UNIT GAS PORTABLE



(EG 0421)

GAS EXTRACTOR REEL Ø100mm 0.75kW



Specifications:

• noise level 68dB

- stop catch
- automatic reel with stop device at end of travel
 metal fan 220V, 750W, 4.6A
- 10m non-crush rubber hose Ø100mm-200°C
- rubber funnel with CO plug
 extractor: +/-700m3/h
 discharge: Ø160mm
 width: 130cm

- depth: 78cm
- including fixing brackets







SA 3219	METER CRUSH-PROOF 200°C EXHAUST PIPE Ø150mm
SA 3232	EXHAUST END Ø150mm

Spare part of EG 0424/EG 0428Accessory of SA 3232

Accessory of SA 3219/EG 0424



WORKSHOP EQUIPMENT



HIMU

STORAGE SPILL CONTAINMENT

STORAGE SPILL CONTAINMENT

SPILL CONTAINMENT

Ref.	Lenght (mm)	Width (mm)	Height (mm)	Capacity (L)	Storage capacity (Kg)	Grating	Drum(s)/ Cubitainer(s)	Handling
HU 0210	400	300	155	10	50	Amovible	-	with forklift
HU 0220	600	405	155	20	50	Amovible	-	with forklift
HU 0230	800	400	155	30	50	Amovible	-	with forklift
HU 0235	1000	600	175	60	200	Amovible	-	with forklift
HU 0265	1200	800	175	100	200	Amovible		with forklift
HU 0120	1600	800	150	110	1.350			with forklift
HU 0240	1600	1600	150	230	2700			laid flat
HU 0251	1310	910	380	250	650	-		palett on tray
HU 0250	1300	750	440	250	650	Amovible	6	laid flat
HU 0450	1380	1290	480	480	1250	Amovible	6 6 6 6	with forklift
HU 0255	1380	1290	480	1100	2000	Amovible		with forklift
HU 0260	2450	1450	575	1100	3000	Amovible		with forklift

CHARGING CHOICE



There are several possibilities:

- platform: placed on the ground, lowered for a small footprint
- retention tray: place for forks, for handling with a transpallet
- pallet retention bin: the pallet (1200x800) is placed directly on the bin



STORAGE SPILL CONTAINMENT



CLAS 73

(HU 0250)

SPILL CONTAINMENT TRAY 250I 2 DRUMS



• for 1 or 2 drums

(HU 0450)

- removable plastic slats
- dimensions: L.1300xW.750xH.440mm
- compatible with forklifts and pallet trucks

SPILL CONTAINMENT TRAY 480I 4 DRUMS

ΤN

Max. Kg

650

Max. T

4<u>80</u> L 250

- for 1 to 4 drums
- removable plastic slats

• cubic format (not included)

dimensions: L.1450xW.1450xH.1000mm
compatible with forklifts and pallet trucks

- dimensions: L.1380xW.1290xH.480mm
- compatible with forklifts and pallet trucks

(HU 0255)

SPILL CONTAINMENT TRAY 11001



STORAGE SPILL CONTAINMENT



CLAS | 75
(HU 0290)

٥ 2 SPILL STORAGE SET WITH DRUM 250I





250

650

• dimensions: L.995xW.1565xH.2100mm

• storage of chemical products and hazardous waste

• opening on 2 sides



MORE

Extract from article 10 of the decree of February 2, 1998 (France):

I. Any liquid that could pollute the groundwater or soil must be stored within a bund wall with a retention capacity of at least the larger of the following two volumes:

• 100% of the capacity of the largest storage tank,

50% of the total capacity of all the storage tanks combined,

(...) For the storage of containers with a unit capacity equal to or less than 250 liters, the retention capacity must be at least:

• In the case of fl ammable liquids, with the exception of lubricants, 50% of the total capacity of the barrels,

In other cases, 20% of the total capacity of the barrels, (...) II. The bund wall must be leak-proof for the substances it may have to contain and resistant to physical and chemical attack by these substances. This must also be the case for its shut-oi device, which must be kept closed.

It must be possible to test the leak proofing of the associated tank(s) at any time (...)

Tanks or recipients containing incompatible substances must not be stored within the same bund wall (...)

SOURCE: Ministry of Ecology, Energy, Sustainable Development and the Sea (AIDA, INERIS)

WORKSHOP EQUIPMENT



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WHORKSHOP HEATER

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CHOOSE YOUR HEATER - KEY POINTS TO CONSIDER

A 38100 area to heat up? • fuel type? • combustion type? To consider: All our heaters work with a 230V/400V power supply even if the

fuel type is different.

WHICH POWER FOR MY AREA TO HEAT?







2 - Determine the difference between the desired temperature and the minimum outdoor temperature: T in °C (ex.: desired temperature 15°C, minimum outdoor temperature -10°C, Temperature difference = 25°C)

3 - What is the insulation quality of the building? K You must take into consideration the insulation quality of the building K = 1.2 = very well insulated building (walls + insulated roof)

K = 2.4 = medium insulated building (insulated roof)

K = 3,5 = poorly insulated building uninsulated walls + roof)

K = 4 = non-insulated building (walls + corrugated roof)

THE DIFFERENT FUELS



Fuel heating

- powerful: suitable for large volumes
- mobile or hanging
- direct or indirect combustion



Gas heating

- mobile or hanging
- direct combustion
- butane or propane

Electric heating

- easy to use
- self-contained
- no combustion emission

Scan

to see our

online tool

- light and compact
- fast temperature rise

THE COMBUSTION



Indirect combustion

• with exhaust chimney

• especially suitable for rooms with poor ventilation or where people are likely to be present

• separates the burnt gases from the hot air flow: ability to bring the heat flow to the requested area. direct or indirect blowing (with optional ducting)



Direct combustion

• with exhaust chimney

 recommended for well ventilated open spaces such as car

- workshops. • No separation of burnt gases and hot air
- flows: no ducting possible
- direct blowing



WHORKSHOP HEATER

Reference	SUNBEAM range	ANTARES range	V40	MIZAR PX range	MIZAR P range	K2 range	KAFER range
Combustion	-	indirect	radiant	direct	direct	direct	direct
Evacuation	no	yes		no	no	no	no
Fuel	ELEC	FUEL	FUEL	FUEL	FUEL	BUTANE PROPANE	BUTANE PROPANE
Heating capacity	from 1 720 to 15 480 Kcal/h	from 17 200 to 69 316 Kcal/h	34 400 Kcal/h	from 14 280 to 43 000 Kcal/h	from 51 600 to 90 300 Kcal/h	from 20 000 to 82 850 Kcal/h	from 10 320 to 25 800 Kcal/h
ĸw	from 2 to 18 kW	from 20 to 80 kW	140 kW	from 16,5 to 50 kW	from 60 to 105 kW	from 23 to 97,5 kW	from 12 to 30 kW
Tank capacity	-	35 to 120 L	55L	20 to 35 L	70 to 120 L	-	-
Area to heat	20 to 90 ^{sqm}	200 to 800 ^{sqm}	100 to 400 ^{sqm}	165 to 500 ^{sqm}	600 to 1050 ^{sqm}	230 to 800 ^{sqm}	50 à 150 ^{sqm}
Highlight	Easy to use	Ductable	Fast temperature rise	no chimney, no civil works	Large volume	no chimney, no civil works	Low space requirement





ELECTRICAL HEATER SUNBEAM

<image>

Ideal for heating small offices, shops or waiting rooms. Not suitable for heating the workshop.

Metal structure painted with epoxy powders Two heating levels Possibility to use the fan only

Ambient thermostat for temperature setting Safety thermostat for machine protection

Armoured element Inox

Motor with thermal protection

Cable and plug included on all models



REF	DESIGNATION	kW	Tension	Heating capacity (Kcal/h)	Air flow rate	Power consumption	
7700025	ELECTRICAL HEATER SUNBEAM 30	2-3	230V/50Hz	1.720 2.580	300m³/h	13 Amp.	
7700083	ELECTRICAL HEATER SUNBEAM 90	6-9	400V/50Hz	5.160 7.740	650m³/h	13 Amp.	
7700023	ELECTRICAL HEATER SUNBEAM 150	9-15	400V/50Hz	8.600 12.900	950m³/h	22,5 Amp.	
7700024	ELECTRICAL HEATER SUNBEAM 180	9-18	400V/50Hz	10.320 15.480	1500m³/h	22,5 Amp.	



FUEL HEATERS · WHORKSHOP HEATER



INDIRECT DIESEL OIL HEATER + EXCHANGER ANTARES





INDIRECT DIESEL OIL HEATER + EXCHANGER ANTARES 20

Metal structure painted with epoxy powders Stainless steel fully proof combustion chamber Electronic flame check with photo-resistance and equipment Safety thermostat for excess temperature Post-ventilation device for combustion chamber cooling Efficiency up to 90% Pre-set for ambient thermostat Suitable for max. 12 meters ducting with standard conveyor and spiral pipe kit Suitable for closed environments Combustion head with clean air suctioning from outside and

separated ventilation (only for mod. Antares 100)



INDIRECT DIESEL OIL HEATER + EXCHANGER ANTARES 50



INDIRECT DIESEL OIL EATER + EXCHANGER ANTARES 70



REF	DESIGNATION	CAPACITY	kW	Tension	Heating capacity (Kcal/h)	Air flow rate	Power consumption	Fuel consumption (kg/h)
5100240.4	INDIRECT DIESEL OIL HEATER + EXCHANGER ANTARES 20	35 L	20	230V/50Hz	17.200	1250m³/h	200W	1.69
5100298.5	INDIRECT DIESEL OIL HEATER + EXCHANGER ANTARES 25	35 L	25	230V/50Hz	21.500	1250m³/h	200W	2.14
5100174.3	INDIRECT DIESEL OIL HEATER + EXCHANGER ANTARES 30	70 L	32	230V/50Hz	27.520	1900m³/h	300W	2.5
5100167.3	INDIRECT DIESEL OIL HEATER + EXCHANGER ANTARES 50	70 L	48,5	230V/50Hz	41.280	1900m³/h	300W	4.0
5100168.3	INDIRECT DIESEL OIL EATER + EXCHANGER ANTARES 70	120 L	71,3	230V/50Hz	61.318	3500m ³ /h	750W	6.0
5100221.3	INDIRECT DIESEL OIL HEATER + EXCHANGER ANTARES 80	120 L	80,6	230V/50Hz	69.316	3900m³/h	750W	6.8



DIRECT DIESEL OIL HANGING HEATER + EXCHANGER ANTARES

<image>

Metal structure painted with epoxy powders Stainless steel fully proof combustion chamber Electronic flame check with photo-resistance and equipment Safety thermostat for excess temperature Post-ventilation device for combustion chamber cooling Efficiency up to 90% Pre-set for ambient thermostat Suitable for max. 12 meters ducting with standard conveyor and spiral pipe kit Suitable for closed environments Combustion head with clean air suctioning from outside and separated ventilation (only for mod. Antares 100)



REF	DESIGNATION		Tension	Heating capacity (Kcal/h)	Air flow rate	Power consumption	Fuel consumption (kg/h)
5100180.3	INDIRECT DIESEL OIL HANGING HEATER + EXCHANGER ANTARES 50	48,5	230V/50Hz	41.280	1900m³/h	300W	4.0
5100182.3	INDIRECT DIESEL OIL HANGING HEATER + EXCHANGER ANTARES 70	71,3	230V/50Hz	61.318	3500m³/h	750W	6.0
5100379.3	INDIRECT DIESEL OIL HANGING HEATER + EXCHANGER ANTARES 80	80,6	230V/50Hz	69.318	3900m³/h	750W	6.8



FUEL HEATERS • WHORKSHOP HEATER

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DIRECT DIESEL OIL HEATER MIZAR PX





DIRECT DIESEL OIL HEATER MIZAR PX 20



DIRECT DIESEL OIL HEATER MIZAR PX 50

Metal structure painted with epoxy powders Stainless steel fire box Electronic flame check with photo-resistance Post-ventilation device for combustion chamber cooling Safety thermostat for excess temperature Model 15 portable Models 20-30-40-50 trolley-mounted Suitable for open or semi-open environments Pre-set for ambient thermostat Diesel oil gear pump



REF	DESIGNATION	CAPACITY	kW	Tension	Heating capacity (Kcal/h)	Air flow rate	Power consumption	Fuel consumption (kg/h)
5100510	DIRECT DIESEL OIL HEATER MIZAR PX 15	20 L	16,5	230V/50Hz	14.280	500m³/h	150W	1.40
5100512	DIRECT DIESEL OIL HEATER MIZAR PX 20	20 L	20	230V/50Hz	17.200	500m³/h	150W	1.65
5100432.1	DIRECT DIESEL OIL HEATER MIZAR PX 30	35 L	30	230V/50Hz	25.800	1750m³/h	150W	2.53
5100434.2	DIRECT DIESEL OIL HEATER MIZAR PX 40	35 L	40	230V/50Hz	34.400	1750m³/h	150W	3.37
5100436.2	DIRECT DIESEL OIL HEATER MIZAR PX 50	35 L	50	230V/50Hz	43.000	1750m³/h	200W	4.22





Stainless steel fire box Electronic flame check with photo-resistance Safety thermostat for excess temperature Suitable for open or semi-open environments Pre-set for ambient thermostat Models 60-80-105 available also hanging

(€) 	
FINANCING	
Consult your distributor	

FUEL HEATERS • WHORKSHOP HEATER

REF	DESIGNATION	CAPACITY	kW	Tension	Heating capacity (Kcal/h)	Air flow rate	Power consumption	Fuel consumption (kg/h)
5100238.2	DIRECT DIESEL OIL HEATER MIZAR P 60	70 L	60	230V/50Hz	51.600	1900m³/h	300W	5.06
5100262.2	DIRECT DIESEL OIL HEATER MIZAR P 60 HANGING	-	-	230V/50Hz		-	-	-
5100239.2	DIRECT DIESEL OIL HEATER MIZAR P 80	120 L	80	230V/50Hz	68.800	3500m³/h	150W	6.75
5100263.2	DIRECT DIESEL OIL HEATER MIZAR P 80 HANGING	-	-	230V/50Hz		-	-	-
5100173.2	DIRECT DIESEL OIL HEATER MIZAR P 105	120 L	105	230V/50Hz	90.300	3500m³/h	150W	8.80
5100179.2	DIRECT DIESEL OIL HEATER MIZAR P 105 HANGING	-	-	230V/50Hz		-	-	







Metal structure painted with epoxy powders Piezoelectric ignition (M) Safety device using thermocouple and thermostat (M) Electronic check device (E) Flame safety check Motor with thermal protection Power delivery control Suitable for open or semi-open environments

REF	DESIGNATION	kW	Heating capacity (Kcal/h)	Air flow rate	Power consumption	Fuel consumption (kg/h)
6001210	GAS HEATER K2 CG 850 M	52,8-97,5	45.410 82.850	3250m³/h	150W	3.77 7.15
6000800.1	GAS HEATER K2 CG 850 E 52,8-97,5		45.410 82.850	3250m³/h	150W	3.77 7.15





Ø ↓ 230V

WARRANTY



REF DES	IGNATION	kW	Heating capacity (Kcal/h)	Air flow rate	Power consumption	Fuel consumption(kg/h)
6001180 ELEC	TRONIC GAS HEATER K2 CG-E 300	23,4-37,3	20.081 32.078	1000m³/h	80W	1.81 2.90
001190 ELEC	TRONIC GAS HEATER K2 CG-E 400	30,7-46,5	26.400 40.000	1600m³/h	103W	2.37
6001202 ELEC	TRONIC GAS HEATER K2 CG-E 600	46-69	40.000 60.000	3270m³/h	188w	3.55 5.40

MANUAL DIRECT GAS HEATER K2 CG-M Suitable for open or semi-open environments

Metal structure painted with epoxy powders Burner in stainless steel Flame safety is checked using a thermostat thermocouple and solenoid valve Piezoelectric ignition Power delivery control Motor with thermal protection Gas type: propane or butane G 30-31



REF	DESIGNATION	kW	Tension	Heating capacity (Kcal/h)	Air flow rate	Power consumption	Fuel consumption (kg/h)
6001173.1	MANUAL DIRECT GAS HEATER K2 CG-M 300	23,4-37,3	230V/50Hz	20.081 32.078	1000m³/h	80W	1.81 2.90
6001183.1	MANUAL GAS DIRECT HEATER K2 CG-M 400	30,7-46,5	230V/50Hz	26.400 40.000	1600m³/h	103W	2.37
6001195.1	MANUAL DIRECT GAS HEATER K2 CG-M 600	46-69	230V/50Hz	40.000 60.000	3270m³/h	188w	3.55 5.40



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DIRECT GAS HEATER KAFER



Suitable for open or semi open environments Metal structure painted with epoxy powders Burner in stainless steel Control box in thermoplastic material with degree of insulation IP 44 Flame safety is checked using a thermostat thermocouple and solenoid valve Piezoelectric ignition

Motor with thermal protection

Gas type Propane or Butane G 30-31



Accessories : see our website

REF	DESIGNATION	kW	Tension	Heating capacity (Kcal/h)	Air flow rate	Power consumption	Fuel consumption (kg/h)
6001107.1	DIRECT GAS HEATER KAFER 75 F	12	230V/50Hz	10.320	350m³/h	29W	0.94
6001124.1	DIRECT GAS HEATER KAFER 100 R	6-15	230V/50Hz	5.160 12.900	350m³/h	29W	0.44 1.09
6001132	DIRECT GAS HEATER KAFER 180 R	16-30	230V/50Hz	13.760 25.800	650m³/h	80W	1.12 2.10







1 inch (in) = 1 pouce = 2,54cm 1 foot (ft) = 1 pied = 30,48cm 1 yard (yd) = 1 verge = 0,9144m 1 mile (mi) = 1 mille = 1,6093km 0,6214mile = 1 kilomètre 1 nautical mile = 1 mille marin = 1,852km



1 square inch (sq.in) =1 pouce carré = 6,4516cm2 1 square foot (sq.ft) = 1 pied carré = 9,2903dm2 1 square yard (sq.yd) = 1 verge carré = 0,8361m2 4840 square yard (sq.yd) = 1 acre = 0,4047ha 1 square mile (sq.mi) = 1 mille carré = 2,590km2

1 cubic inch (cu.in) = 1 pouce cube = 16,3872cm3

1 cubic yard (cu.yd) = 1 verge cube = 0,7646m3

1 cubic foot (cu.ft) = 1 pied cube = 28317cm3

1 once (US) (fl .oz) = 0,0296l

1 once (UK) (fl .oz) = 0,0284|



1 ounce (oz) = 1 once = 28,3495g 1 pound (lb) = 1 livre (UK) = 0,4536kg 1 short ton (tn) = 1 tonne courte (US) = 0,9072t 1 long ton (tn) = 1 tonne forte (UK) = 1,0160t 1 hundredweight (US) (cwt) = 0,4536quintal 1 hundredweight (UK) (cwt) = 0,5080quintal



100kPa = 1 bar = 14,503psi 1,01325bars = 1 atm = 101,325kPa

1 quart (US) (qt) = 0,94631 1 quart (UK) (qt) = 1,13651 1 gallon (US) (gal) = 3,78531 1 gallon (UK) (gal) = 4,54601 1 barrel of oil = 1 baril de petrol = 0,1590m3



1 C° = 5/9 (°F-32) Conversion Celsius to Fahrenheit : C° = 5/9 (°F-32)





TIGHTENING TORQUE CONVERSION TABLE

The international unit is Nm (Newton x meter)

CONVERT Nm

1Nm = 0,102Mkg 1Nm = 0,738Ft-lbs 1Nm = 8,851In-lbs 1Nm = 141,84In-Oz

CONVERT Ft-Ibs

Foot-pound in Newton meter: 1Ft-Ib = 1,35 Nm Foot-pound in mètre kilo: 1Ft-Ib = 0,138 Mkg Foot-pound in Inch-pound: 1Ft-Ib = 12 In- Ibs

CONVERT In-lbs

1 In-lbs = 0,1128Nm 1 In-lbs = 0,015Mkg 1 In-lbs = 0,083Ft-lbs 1 In-lbs = 15,873In-Oz

INGRESS PROTECTION RATING

1st digit: Solid particle protection

- O No protection
- 1 Protected against solid particles superior to 50mm
- 2 Protected against solid particles superior to 12mm
- 3 Protected against solid particles superior to 2,5mm
- 4 Protected against solid particles superior to à 1mm
- 5 Dust protected
- 6 Dust tigh

2nd digit: Liquid ingress protection

- O No protection
- 1 Protected against dripping water
- 2 Protected against dripping water when tilted up to 15° from the vertical
- 3 Protected against spraying water when tilted up to 60° from the vertical
- 4 Protected against splashing water jets from any direction
- 5 Protected against water jets from any direction by a nozzle
- 6 Protected against powerful water jets from any direction
- 7 Protected against immersion
- 8 Protected against long-lasting immersion according to specified conditions

LEGEND



GENERAL

	Highlighted product			LCV/HGV			Ķ	Pro ele	oduct with ctrical plug
WARRANT	Warranty period			LV/LCV			- }	Pei	trol
	No warranty		30 W	Power			<mark>-</mark> }	Die	esel
WARRANT	Lifetime warranty		Ц))) dB	Decibel level			_ }	AD)blue®
IP 43	IP rating		₩₩ ™/*	Vibrations			<u>Á</u> QUICK LIFT		iicklift device ting range)
IP 57 PRO	Professional IP rating) 12 m	Cable/hose len	ngth			Lo	w profile
Î	Magnetic		60 L	Capacity			-\000 5 LED	LE	D quantity
Ø	Powered by battery		Max. Kg	Maximum load			- <u>`</u> . Сов	СС	OB LED
Ţ	Impact wrench use recommended		<u>مت</u> ر.	Use oiler			43-48V	Ter	nsion
来 R134a	Product for R134a air conditioning gas		森 R1234yf	Product for a conditioning		1234yf	₩ 2 HP	Mo	otorization
TN	Tariff Normal		TE	Tariff Equipm	nent				
RE	CESSES								
•	Flat	۲	Double Hex fema	ale	0	Ribe		0	XZN
0	Square	0	Torx		۲	Ribe female		۲	XZN female
0	Phillips		Torx E		\odot	Ribe tamperproof			Superlock
0	Hex	Θ	Torx temperproc	of	\odot	TS		\bigcirc	End ball Hex
	Hex female	0	Torx plus		\odot	TS plus		0	Pozidrive
0	Hex tamperproof	۲	Torx plus female			TS plus female			

PHILLIPS*: registered trademark of Phillips Screw Co.* TORX*: registered trademark of Camcar / Textron, Texas XZN*: registered trademark of Bauer-Schaulte RIBE*: registered trademark of Richard Berger POZIDRIV*: registered trademark of European Industrial Services Collier Clic*: registered trademark of CAILLAU Circlips*: registered trademark of Nomel Blackson®: registered trademark of Henkel Loctite Haldex®: registred trademark of Haldex Traction Systems AdBlue®: registred trademark of Verband der Automobilindustrie e.V. (VDA) VITON®: registred trademark of DuPont Performance Elastomers L.L.C. OETIKER®: registred trademark of Oetiker Schweiz AG NTN-SNR® : registered trademark of NTN-SNR Bearings.

TERMS AND CONDITIONS OF SALE

CLAS Equipements - Terms and conditions of sale

Article 1 - PREAMBLE

Purpose of these conditions of sale (" General Terms and Conditions" or "T&C") is to define the respective obligations and responsibilities of CLAS Equipements and its clients acting within the framework of professional activity (hereinafter the" Client(s)") in their preactivity (hereinater the contractual relationships related to the sale of supplies by CLAS Equipements. The term "Supply(ies)" refers to the services, systems, materials and products sold by CLAS Equipements. These T&C are the reference documentation basis of the commercial relationships between CLAS Equipements and Clients.

These T&C prevail over the general conditions of purchase of the Client except with the prior and express written agreement of CLAS Equipements.

Any waiver to enforce a provision of these T&C shall not be deemed as a waiver of such provision of or any other provision of these T&C.

In the event that provisions of these T&C will be considered as invalid by a competent jurisdiction, the other provisions will remain valid. In such case, CLAS Equipements will, at its option, replace, such canceled provision by a valid provision.

Article 2 - GENERAL CONTRACTUAL TERMS

Proposals, offers , including its printed catalog or the same published on its website, or quotes issued by CLAS Equipements are valid only during the period defined by CLAS Equipements and are governed by the present T&C supplemented or amended by Special Conditions (see below).

The Client remains solely and fully responsible for the use of the Supplies even when information, advice or drawings have been communicated to him by CLAS Equipment . Since the Supplies are sold by the Client to an end user ("User"), such Client warrants (i) to sell them only to professionals and (ii) to provide all the information, advice and CLAS Equipments' scheme that this latter will have communicated to him and (iii) will not be released of its own obligations. The Client will ensure that all its obligations under these T&C will be, under his that all its obligations under these Tack will be, under his own responsibility, a minima, transferred and assigned to the User so that, this latter, will be able to benefit of the contractual warranty ("CLAS Warranty") detailed in these T&C). In this regard, it is specifically the Client and the User responsibilities, as professionals by nature, to check this information, advices or drawings provided by CLAS. In case of any doubt, Client/User shall contact CLAS Equipements. The absence of request sent to CLAS Equipements at following website address https:// www.clas.com/en/contact-us at section service contact "S.A.V", implies a full understanding of the conditions of use of the Supplies.

The User shall attach with the request sent to https:// www.clas.com/en/contact-us a written copy of the the invoice provided by Client to justify the purchase of the Supply. In case CLAS Equipements answers to such a request despite absence of an invoice sent by the User, it shall, in no circumstances, be considered as an implicit acknowledgment of granting rights to this User.

Article 3 - FORMATION OF THE CONTRACT

All orders shall be sent in writing by Client, including All orders shall be sent in writing by client, including by email or in a dematerialized manner from his client account. It shall ensure the complete references of the Supplies and the related quantity are indicated or it shall refer explicitly to a quote or a proforma invoice issued by CLAS Equipements without any modification.

In any case, CLAS Equipements will make its best efforts to send a definitive acknowledgment of receipt of the order within one working day, which will be the final binding document. This acknowledgment of receipt may take the form of a letter, email or fax. In the absence of acknowledgment of receipt of the order, the initial offer issued by CLAS Equipements will be the contractual basis between the Parties., unless they expressly agree in writing to derogate.

Any purchase order with reference to its conditions of purchase or on the back of its printed order form sent or communicated by the Client to CLAS Equipments shall not be deem as an acceptance of such purchase conditions by CLAS Equipements.

Furthermore, without any limitation, incomplete incorrect information sent or communicated by the Client, could generate misunderstanding or errors preventing CLAS Equipements in the execution of the order and it could not be attributed to CLAS Equipements.

Some orders are subject to prior opening of a client account, for instance, for orders related to the online catalog on the website www.clas.com

CLAS Equipements may decide, at its option, not to

agree to such a request to open a client account or owed on the due date stated on the invoice and / or not wish to enter into a contract with the Client for any legitimate reasons it may have, such as, the non-coverage of the contract by a sustainable credit insurance, the inadequacy of the Client's commercial practices with CLAS Equipements' policies, without any right for the Client to claim any compensation whatsoever.

The terms and conditions hereof may be subject to specific terms and conditions " Special conditions". These Special conditions will be decided by CLAS Equipements at its option by any mean, such as, in each dedicated Client account on the website www.clas.com These particular terms and conditions may derogate from the present T&C on several topics :

Discount on Catalog Prices

- Shipping costs
- Specific payment terms

Orders placed by the Client from its Client' account may therefore include Special Conditions and therefore orders for Supplies will be governed by the present T&C supplemented by the Special Conditions.

Article 4 - SUPPLIES

CLAS Equipements' Supplies are exhaustively listed in the pre-contractual documents (catalog, proforma invoice ...) or contract (acknowledgment receipt ...).

It is the responsibility of the Client to ensure, taking into account the characteristics of the Supplies, that they correspond to its needs, in particular with respect to the technical specifications. The Client must ensure that all material and organizational conditions are met to enable the satisfactory and safe implementation and use of the Supplies, such as trained and qualified personnel to use the Supplies, a proper environment (premises, air conditioning, fluids, protections ...). Client is aware and informed that CLAS Equipements headquarter is located in France and so the Supplies comply with the laws and regulations in force in France.

When the Supplies must comply with local standards of the place of use, in particular for safety, other than a French or European technical standard to which CLAS Equipments declares to comply, the Client shall assume all the consequences resulting therefrom and CLAS Equipments shall not be held responsible in particular for incidents occurring during their use.

The Client hold and harmless CLAS Equipements for any consequences that may result from his own omissions or negligence.

Article 5 - CHANGES

Any modification of the contract which would be Any modification of the contract which would be requested by the Client, after its conclusion, will have to be expressly accepted by CLAS Equipements in writing with the express intent to derogate. Any request for modification of the contract shall not be taken into consideration when it comes after Supplies' shipment.

Any request for modification of the order by the Client will be the subject of a new proposal from CLAS Equipements. In case of refusal of modification by CLAS Equipements or disagreement of the Client on changes of any kind (technical or financial) related to a change request, CLAS Equipements will deliver the Supplies in the conditions and according to modalities identified in the original contract.

No termination, suspension or termination of the contract by the Client may take place without the express, prior written consent of CLAS Equipements, and under conditions that Client will indemnify this latter from any harmful consequences.

Article 6 - PRICE - PAYMENT TERMS

Except in the case of Special conditions stated in the contract, the prices of the Supplies sold are those listed in the catalog or price list in force when order is issued and / or, where applicable, in the specific commercial proposal sent to the Client, for the duration stated on these documents. These prices are firm and definitive. They are expressed in Euro, net and without VAT.

Price are provided on ex-Works incoterm basis (EXW - ex works - Incoterm CCI 2010) at CLAS Equipements headquarter with standard packaging. In any case, they do not include the costs of loading and unloading, transportation, customs, if any, and insurances remain Client responsibility.

Any particular special request, especially for sales outside France mainland, shall be subject to a specific offer of CLAS Equipements that derogates expressly. In any case any customs fees, and insurance will remain the exclusive responsibility of the Client. CLAS Equipements reserves the right to change prices at any time by giving prior written notice of thirty (30) calendar days. Invoices are

commercial proposal.

The contrats entered between CLAS Equipements with a Client whose registered office is located in France mainland with provision of Supplies in France mainland, will be paid by bank transfer or by check within thirty (30) days end of month from the availability of Supplies or performance of the services by CLAS Equipements.

The contracts between CLAS Equipements with a Client whose headquarter are located outside France mainland with a final destination of Supplies out of France mainland, will be billed prior the availability of the Supplies and such invoice shall be fully paid before CLAS Equipements will inform the Client of disposal of said Supplies. These terms apply regardless of the incoterm chosen.

All other terms of payment shall be prior agreed in writing between CLAS Equipements and the Client.

The payment deadlines shall not be delayed, and the Client is prohibited from applying debits notes or compensation without the express prior written consent of CLAS Equipements.

CLAS Equipments reserves the right to demand the payment of the Supplies on the date of acknowledgment receipt of the order by CLAS Equipments (cash payment) (i) if the financial situation of the Client requires to do it, or (ii) if the Client has not paid all or part of the amounts due in previous order, or (iii) no sufficient quarantee of complete payment has been given by the guarantee of complete payment has been given by the Client.

In case of refusal by the Client of these modalities of payment without any sufficient guarantee being proposed by this latter, CLAS Equipements may, at its option, refuse any order from this Client. Indeed, the parties will have not been entering into any agreement. Thus, no Supply will be delivered, and Client will not being able to claim any compensation of any kind whatsoever.

CLAS Equipements publishes its catalog once a year and therefore the Supplies may in the meantime be subject to variations in (i) exchange rates as well as (ii) customs duties and/or transit fees, borne by CLAS Equipements. Therefore, CLAS Equipements reserves the right to pass these variations on the selling price of the Supplies. Before any order confirmation the Client will be notified of such changes.

In case of changes due to unpredictable circumstances at the date when the parties entered into the contract, if such changes make the execution excessively burdensome for CLAS Equipements that this latter had not approved at this time to assume such risk, CLAS Equipements shall have all rights to request to renegotiate the contract with the Client.

In the event of refusal or failure of the renegotiation, the parties may agree to terminate the contract at the date and under the conditions they determine, or by mutual agreement, to request a Court to adapt it. Failing to do so within a reasonable time, the Court may at the request of a party, revise or terminate the contract at the date and according to the terms it determines.

The Parties expressly agree that the failure to pay on the due date of any payment term shall have automatic effect, without prior notice, to execute (i) the immediate payment of any other invoice, whether due or not due, even if a bank draft has been issued, and (ii) at the discretion of CLAS Equipements, either the suspension of deliveries or the prepayment of any order in progress, CLAS Equipements, reserves the possibility, in case of default of the Client and after formal notice remained unsuccessful for thirty (30) days, to cancel orders not yet executed.

Any amount not paid at the due date by a Client whose headquarter is located in France shall pay a lump sum compensation for recovery costs of forty (40) euros and late penalties equal to the rate applied by the European Central Bank (ECB) plus ten (10) percentage points.

When the headquarter of the Client is located outside France any outstanding amount not paid at due date will generate the payment by the Client of a lump sum compensation for recovery costs of one hundred (100) euros and extra late penalties as defined above.

The reference rate of the ECB is applicable on 1st of January for the first half of a calendar year and on 1st of July for the second half of a calendar year.

These penalties are automatically due and will automatically be withdrawn from the Client's account.

Article 7 - DELIVERY - TRANSFER OF RISKS

The delivery of the Supplies shall take place in accordance with the terms and conditions set out in accordance with the terms and conditions set out in CLAS Equipements' proposal and in accordance with Article 6 of these T&C.. Thus, once the delivery is carried out in accordance with Article 6 (Ex-Works), the Client acknowledges that the carrier is responsible for the transportation of the Supplies. Therefore, Client has no right to request for damages compensation or penalties to CLAS Equipements, in case of failure to deliver the Supplies and / or damage to the Supplies during

shippina.

If the Client does not collect the Supplies within one (1) month of the sending of a written notice of availability of the Supplies, the storage and security costs may be charged to the Client by CLAS Equipements.

If the parties have expressly agreed to derogate from the terms of Article 6 and so, that CLAS Equipements will assume the delivery of the Supplies, in such case, the delivery time is given for information only and without guarantee, whatever the incoterm chosen. Exceeding these deadlines shall not authorize Client to any deductions or indemnities against CLAS Equipements. In case of delay exceeding 4 weeks in France mainland, and 8 weeks outside France mainland, the Client may request the cancellation of the order. The installments already paid will be credited back to Client by CLAS Equipements. It is expressly agreed that deliveries outside France mainland may be made by fraction. Therefore, in such case, the acceptance by the Client of these new terms, implies that this latter shall not request the resolution of the Order since he will have accepted other terms with all the consequences that it could generate against him.

The deadlines agreed are also legally suspended by any event beyond CLAS Equipements control, especially in case of force majeure, as defined in Article 8 of these T&C and resulting in delaying delivery. Thererfore, CLAS Equipements will not be responsible in case of delay or suspension of the delivery of the Supplies.

As soon as the Supplies are at the disposal of the Client, risk of loss and damages are transferred to this latter.

In any event, delivery of the Supplies can only occur when the Client has fulfilled all its obligations with respect to CLAS Equipements.

Article 8 - FORCE MAJEURE

In case of situation of force majeure (unforeseeable event, irresistible and external), CLAS Equipments may at its option suspend, in whole or in part, the execution of orders, until said case of force majeure will be terminated.

Is considered as a case of force majeure within the meaning of these T&C (i) any event as defined legally and / or by case law and (ii) any of the following events : the total or partial strikes limiting CLAS Equipements operations or its suppliers, subcontractors or carriers and any event of interruption of transport, supply of energy, raw materials or spare parts.

Article 9 - RESERVATION OF TITLE

The transfer of ownership of the Supplies by CLAS Equipements to the Client is subject to full payment of the price in principal, costs and interests.

The Client shall refrain from (i) any transformation, incorporation or assembly of the Supplies before its full payment, and (ii) selling or pledging the Supplies until the property has been transferred to this latter.

The Client shall immediately inform CLAS Equipements of the seizure, requisition or confiscation of the Supplies for the benefit of a third party, and shall inform the third party creditor of the existence of this retention of title clause for the benefit of CLAS Equipements.

In the event of non-payment of the full price in principal, costs and interest on the due date, CLAS Equipements may (i) require at any time the return of the Supplies sold, at the expense and risk of the Client and (ii) decide the resolution of contract with notice sent by any means and without further formality, without prejudice of any damages that may be claimed by CLAS Equipements. In this case, the Client authorizes CLAS Equipements and his carrier, to enter during the working hours in the premises where the Supplies are located and to remove them. The Client agrees that all the Supplies acquired from CLAS Equipements shall remain easily identifiable in its premises.

These provisions do not prevent the transfer of the risks of loss and deterioration of the Supplies in the conditions of Article 7 of these T&C.

Subject to applicable law in force, in the event of the opening of insolvency procedure for recovery or liquidation, orders in progress will be automatically resolved, and CLAS Equipments reserves the right to claim the Supplies in stock at Client premises. In case the Supplies will be sent back to CLAS Equipments, the amounts resident of a participal back of CLAS. amounts paid, total or partial, shall be retained by CLAS Equipements as compensation.

Article 10 - CONTRACTUAL WARRANTY

This contractual warranty ("CLAS Warranty") applies only to the Supplies sold by CLAS Equipements to the Client, who may transfer them to the User provided that the Client meets or request User to meet the following candidinate following conditions.

The CLAS Warranty does shall apply to the User under the following conditions:

User is a professional of after-market automotive sector.

- User is able to demonstrate that the Supplies for which it requests the application of the warranty have been billed by a CLAS Equipements' Client.

These conditions specific to the User are cumulative with the other conditions and terms of the CLAS

Warranty below.

Each Supply of CLAS Equipements has a pictogram that indicates the duration of the contractual warranty or not of the Supply ("NO", 2, 3, 4, 5 years, etc ...). This information is available on the website www.clas.com and on the CLAS Equipements catalog.

The warranty period is limited to the time indicated by the pictogram "CLAS Warranty" from the date of delivery to the User by the Client. Are excluded from any "CLAS Warranty", Supplies categorized as consumables identified by the pictogram " N O ".

10.1 - Non-conformities of the Supplies covered by the CLAS Warranty

CLAS Equipements warrants the Supplies for the non-conformities resulting from a defect within the limits of the technical and contractual specifications of the Supplies and within the limits of the provisions hereafter.

CLAS Warranty applies only to the Supplies entering into the scope of a contract between CLAS Equipements and a Client, and with the exception of Supplies provided by CLAS Equipements in the frame of such contract but not invoiced for whatever reason. Since Supplies would have been sold by User to a third party, CLAS Equipements will not provide any longer CLAS Warranty for such Supplies. CLAS Equipements will decide, at its option, of the modalities of application of said CLAS Warranty limited to the repair or replacement of the Supplies. Repair or replacement will not extend the initial time allowed by the CLAS Warranty. CLAS Warranty period starts on the date of possession by either the Client or the User, depending on who requests it.

CLAS Warranty will not apply when:

- non-conformities are the result of products or parts used by the Client / User with the Supplies $% \left({\left({n_{\rm s}} \right)^2 } \right)$

- an intervention of a third party occurred on the Supplies sold by CLAS Equipements,

- non-conformities relating to unexpected events or force majeure and for any replacements or repairs resulting from accidents, abrasion, corrosion, normal wear and tear of the Supplies, deterioration resulting from negligence, defective supervision or maintenance and defective use of the Supplies,

- use in abnormal conditions or for operations and / or with unforeseen elements, lack of qualification or experience of the personnel,

- bad storage conditions of the Supplies delivered,

- bad installation or not in accordance with the state of the art (bad connection, defective power supply) of Supplies.

10. 2 - Client Obligations

Application of CLAS Warranty requires Client / User will provide all evidences allowing CLAS Equipements to assess the root cause of the non-conformity subject to this warranty.

Client shall provide all written justifications to support the alleged root-cause.

The absence of evidences provided within 3 calendar months of the initial CLAS Warranty activation will terminate CLAS warranty and so the related CLAS Equipements' obligations.

CLAS Equipments could, at its option, refuse the application of the CLAS Warranty in case of non-payment by the Client of all amounts or part of any order. In such case, Client shall be fully responsible of Users' requests in this respect and CLAS Equipments will be entitled to ask compensation to Client if the User's request cause any damage to CLAS Equipments. requests cause any damage to CLAS Equipements.

Application of this CLAS Warranty implies that any Supplies sent back to CLAS Equipements must be prior agreed by this latter by an express prior written consent and, in such case, it will be done at sole Client's expenses

Any costs supported by CLAS Equipements in respect of the CLAS Warranty that are finally not covered by CLAS Warranty shall be borne exclusively by the Client / User.

Upon receipt of the Supplies, the Client is required to check the good condition and quantity of the Supplies delivered. In this context, the Client must inform CLAS Equipements, within forty-eight (48) hours from receipt of the Supplies by the Client/User, of any detailed reservations this latter may have. After this period, no claim, of any nature whatsoever, relating to apparent non-conformity, will be accepted by CLAS Equipements. It is the Client responsibility to manage the requests of Users on this basis, a minima, according to the same conditions as CLAS Equipements, knowing that any deviation with Users will be Client' duty.

10.3 Damages

CLAS Warranty is strictly limited to the obligations defined above and it is expressly agreed that CLAS Equipements will not be bound by any other compensation, damages or interest of any kind.

Article 11 - OTHER WARRANTIES

CLAS Equipment undertakes to warrant the Supplies, in addition to the CLAS Warranty of Article 10, only in case of mandatory applicable warranty of the law and according to the applicable law in accordance with the terms of Article 15.

Article 12 - RESPONSIBILITY

In no event shall CLAS Equipements be liable for indirect and / or immaterial, consequential or non-consequential damages resulting from the performance of its obligations under the contract, for example, without being exhaustive, loss of incomes, loss of profits, operating losses, any business troubles, knowing that the Client and his insurer waive any recourse pagingt CLAS Equipments and its ingurare. against CLAS Equipements and its insurers.

In any circumstances, the overall and cumulative liability of CLAS Equipements will not exceed, the total amount paid to CLAS Equipements under the order or contract concerned by Client.

Article 13 - INTELLECTUAL PROPERTY

Quotations, proposals, catalogs and globally all the documents delivered or sent by CLAS Equipements to the Client, as well as the related intellectual property rights, are and remain the exclusive property of CLAS Equipements or under licensed, even though the Client has been asked to contribute to the costs.

In no event these documents may be reproduced without the prior written consent of CLAS Equipements. This provision survives the expiration of the order or contract.

It is understood that the Client will have no intellectual property rights relating to the Supplies except with the express and written agreement of CLAS Equipements.

The Client warrants that the User will hold and harmless The Client warrants that the User will hold and harmless CLAS Equipements from any claim or infringement claim that may be made against this latter by reason of a combined use of the Supplies with another product constituting as a whole an infringement of the intellectual property rights of third parties. In addition, the Client shall indemnify CLAS Equipements of all harmful consequences that could arise from this cituation. situation

Article 14 - ASSIGNMENT

The contract is concluded intuitu personae according to the person of the Client and shall not be transferred without the express, prior and written acceptance of CLAS Equipements.

Article 15 - APPLICABLE LAW - JURISDICTION

By express agreement between the parties, these T&C are governed

between CLAS Equipements and the Client (1)whose headquarter is in France by French law and, as a supplementary, by the Vienna Convention on the International Sale of Goods, or,

between CLAS Equipements and the Client (2) whose headquarter is outside France, by Swiss law, and, as a supplement, by the Vienna Convention on the International Sale of Goods.

These conditions are available in French. In the event that they are translated into one or more languages, and that they are translated into one of more languages, and in the event of contradiction or discrepancy between the French version and the translation in any other language, the French version will prevail over the translated version.

All disputes related to these T&C about validity, interpretation, execution, termination and/or consequences will be submitted :

(1) provided that the Client has its headquarter in France, to the competent public jurisdiction of the CLAS Equipements headquarter in Chambéry (France).

(2) provided that the Client's headquarter is located outside France, shall be decided by arbitration in accordance with the Swiss Rules of International Arbitration of the Swiss Chambers' Arbitration Institution in force on the date on which the notice of arbitration is filed in accordance with this Regulation.

- a. The number of arbitrator is: one:
- b. The seat of arbitration shall be Geneva (Switzerland);
- c. The arbitration language will be in French.

d. The defendant shall submit to the Secretariat a reply to the notice of arbitration, as well as, any counterclaim or means of compensation, within fifty (15) days from the date on which it receives the notice of arbitration. The deadline for the appointment of an arbitrator will be fifty (15) days. If the circumstances required, the Court may modify these time limits. The expedited procedure will apply, and the dispute will be decided solely on documentation.

e Parties may also decide at any time to submit the dispute to mediation under the Swiss Rules of Commercial Mediation of the Swiss Chambers' Arbitration Institution.

CONTACTS

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FOR ANY INQUIRIES ABOUT OUR PRICES

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ecosystem

In accordance with the provisions of the Code of the environment as regards Waste of Electrical and Electronic Equipment (WEEE) professional (Articles R.543-172 and following), CLAS EQUIPEMENT answers its obligations by adhering to ECOSYSTEM. ECOSYSTEM is an eco-organization approved by the Public Authorities, with nonlucrative goal, and pursuing a mission of general interest of collection, depollution and recycling of the Waste of the Electric and Electronic Equipment (DEEE). CLAS EQUIPEMENT brings thus to its customers the guarantee to be able to benefit from the offer of service of collection and recycling proposed by ECOSYSTEM for the professional electrical equipment which arrives at the end of life. More information on www.ecosystem.eco or 0809 540 590 (free number + price of a local call)

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The origin of the paper comes from sustainably managed forests and controlled sources.





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