

SIDEROS

 **ENGINEERING**



DUST COLLECTORS
FOR CUTTING AND WELDING



DOWNDRAFT TABLES AND AUTOMATION
FOR CUTTING MACHINES



MATERIAL STORAGE
FOR SHEET METAL, TUBES AND BARS



3 AXIS WELDING POSITIONERS
FOR WELDING AND ASSEMBLY



HEAD AND TAILSTOCK POSITIONERS
FOR WELDING AND ASSEMBLY



STRAIGHTENING PRESSES
FOR STEEL PLATES



DEBURRING TUMBLERS
FOR OXY AND PLASMA

 **ENGINEERED
AND MANUFACTURED
IN ITALY**

www.siderosengineering.com

EN/EU

WHO WE ARE



SIDEROS ENGINEERING has been operating for over 35 years worldwide in the field of machinery for plate fabrication, and it owes its success particularly to the high quality of its own products and to its constant commitment to R&D, innovation and industrialization of new products. Founded in 1981, Sideros Engineering has developed an enviable competitive advantage: the possibility of testing all new prototypes and the new technologies for a period of at least one year at BELLONI LAMIERE, a steel service center and fabrication shop operating since 1958, belonging to the same Industrial Group; this combination enables SIDEROS ENGINEERING to constantly monitor the machines installed, thus allowing the optimization of products before their launch on the market and their subsequent industrialization. It is important to emphasize that Sideros Engineering is the only company in the world able to propose a wide range of complementary equipment to welding and cutting machines.

www.siderosengineering.com



SIDEROS MACHINERY is the new automation division of Sideros Engineering: born in 2019, aimed to give more importance and focus to automation applied to the Sideros Engineering products, in particular on cutting and welding applications.

Technology and innovation of our machines are now developed by a new and young division, which can take advantage of great experience and knowledge developed in 40 years in Sideros Engineering.

 ENGINEERED
AND MANUFACTURED
IN ITALY





BELLONI LAMIERE, founded by Vincenzo Belloni in 1958, has been among the first companies in Italy supplying high quality oxy-fuel cut and machined parts. Today, after over “half a century” is among the few companies in Italy that can be proud of such a long presence and experience in metal plates processing industry. The quality of the products supplied, the accuracy of inspections during the working processes, and the punctuality make **BELLONI LAMIERE** a reliable benchmark at the European level.

Over the years Belloni Lamiere has specialized more and more in the following processes:

- Oxy-fuel cutting: metal plates of several thicknesses are cut by high performance cutting machines
 - Straightening: equipped with 3 Hydraulic Presses with movable vertical rods, movable cylinders and rotating hammer.
- Other services:
- Milling: it is performed by a 12 mt CNC control milling machine
 - Sandblasting, deburring, heat treatments and machining.



Today **BELLONI LAMIERE** has become the main Test and demo Center of Sideros Engineering. Every year, Sideros tests and develops dozens of new products and technologies directly on-site. This great experience has led Sideros to design and manufacture reliable and technological advanced products over the past 35 years.

www.bellonilamiere.com



LOTUS was founded in 1980 and it is specialized in aluminium and stainless-steel fabrication. The products manufactured by Lotus are distributed and appreciated all over the world, thanks to their high-quality standards and design technical features. The main products include:

- Aluminium loading ramps
- Aluminium and stainless-steel walkways, stairs and platforms
- Aluminium and Stainless Steel structures



www.lotusalluminio.com

CARTRIDGE DUST COLLECTORS

EcoLine®



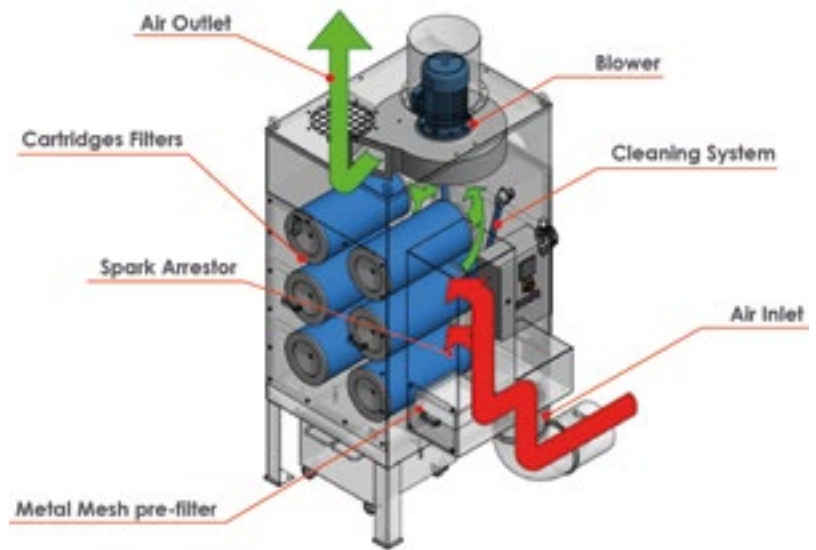
The Sideros Engineering dust collectors have marked a significant turn in the industrial filtration, thanks to their high performances, compactness and technology applied to the units. Sideros Engineering has been the first company in the world to introduce a new philosophy in dust collectors design, integrating in one unit the motor fan, the filters and the spark arrestor. Sideros dust collectors can be used for dusts and fumes generated by: thermal cutting, welding, deburring, grinding and polishing.

MODELS

| | | ECO 2 C | ECO 2 V | ECO 4 | ECO 6 | ECO 9 | ECO 12 | ECO 16 | ECO 24 |
|-------------------|-------------|---------|-----------|-----------|-----------|-----------|------------|------------|-------------|
| CARTRIDGES | N° | 2 | 2 | 4 | 6 | 9 | 12 | 16 | 24 |
| SURFACE | m² | 42 | 42 | 84 | 126 | 189 | 252 | 336 | 504 |
| AIRFLOW | m³/h | 1800 | 1500/2000 | 2400/3600 | 3600/5400 | 5400/8100 | 7200/10000 | 9600/12000 | 11000/15000 |
| VALVES | N° | 2 1" | 2 1" | 4 1" | 6 1" | 9 1" | 12 1" | 16 1" | 12 2" |
| HEIGHT | mm | 1200 | 2100 | 2200 | 2600 | 3270 | 3700 | 3800 | 4000 |
| DEPTH | mm | 1500 | 1100 | 1320 | 1420 | 1620 | 1620 | 1800 | 2400 |
| WIDTH | mm | 800 | 750 | 1250 | 1300 | 1950 | 1950 | 2300 | 2500 |
| WEIGHT | Kg | 320 | 450 | 610 | 750 | 1300 | 1500 | 1700 | 2380 |

ADVANTAGES

- High performances and efficiency
- Robustness of the unit
- Compact and fully welded
- Automatic cleaning of the filters
- Low energy consumption
- Filtration class: M
- Filtration efficiency: with particulate 0.3 micron at 99.997%
- Low maintenance costs
- Fire protections (Metallic pre-filter and spark arrestor)



TOP GRADE Cartridge Filters have been used on the Sideros dust collectors for over 35 years, from the portable units (ECO 2C), to the larger ones with 24 cartridges, ECO 24 CT.

- Reduced pressure drops
- Flame retardant (flame proof)
- Longer life
- Higher filtering quality
- Possibility to release the filtered air into the workplace
- Constant performances over time
- 70% Cellulose, 30% nanofiber
- Designed for metal dust applications

| | Mod. PP23 - PP15 | Mod. PP26 |
|------------------------------|---|---------------------|
| FILTERING SURFACE | 21 m ² | 23.6 m ² |
| SIZES (ext. Ø X L.) | 324 X 660 | 352 X 660 |
| FILTRATION EFFICIENCY | Particulate 0.5 micron at 99.9999% Particulate 0.3 micron at 99.997% | |
| FILTRATION CLASS | EN 779 - F7 , BIA - M | |
| MAX. TEMPERATURE | 65° C continuous, 80°C max. peak | |
| COMPOSITION | Synthetic nano-fibres on cellulose substrate | |

EcoAmbient

The **ECO AMBIENT** is a dust collector designed to purifies and filter the polluted air of a workplace, releasing breathable and clean air in the environment. The Ambient dust collectors are developed to work in presence of dust produced by welding, grinding, deburring and thermal cutting processes.



MODELS

| | Filters | Filtration Surface | Air Flow |
|----------------------|----------------|---------------------------|-------------------|
| | N° | m ² | m ³ /h |
| ECO 2 Ambient | 2 | 42 | 3.000 |
| ECO 4 Ambient | 4 | 84 | 5.000 |
| ECO 6 Ambient | 6 | 126 | 7.500 |
| ECO 9 Ambient | 9 | 189 | 10.000 |

FEATURES

- Automatic cartridges cleaning system
- Adjustable, multidirectional nozzles for clean air flow and direction control
- Large air intake grid(s) for maximum reach
- Very low noise level: 70 dB
- HEPA filter to ensure absolute filtration
- Easy-to-use 180 mm HMI
- Filtration efficiency: 99.997% - 0.3 micron
- Filtration Class: M - MERV 20
- Filter media: nanofiber/cellulose

ACCESSORIES

- Hepa Filter
- Pm2.5 and Pm10 Dust Sensors
- Energy efficiency airflow automatic regulations
 - Supervisory software for multiple units
 - Wi-fi connection
- AirSword UV-Lamps

AirSword

The ECO AMBIENT dust collectors can be equipped with AirSword UV-C lamps, able to perform the photocatalytic oxidation PCO™.

The photochemical reaction generated by PCO™ can efficiently eliminate bacteria, viruses including COVID-19, in the ambient air.





REINFORCED DUST COLLECTORS FOR ALUMINIUM

The Aluminium dust, in a particular concentration, or if in contact with an ignition source (i.e.: sparks, flames or electrical discharges) might catch on fire or explode. The Reinforced dust collectors are designed to reduce the effects of hypothetical explosions inside the unit, in presence of aluminium dust or chips involved in the process.

The main features are:

- Reinforced structure with thicker steel plates
- Calibrated pressure relief vents for overpressures caused by explosions
- Air diverters to avoid explosions go back to the machine
- All ATEX components to prevent explosions caused by aluminium dust or chips
- ATEX Complied Unit



APPLICATIONS

- Aluminium alloys and titanium processing
- Laser cutting
- Plasma cutting
- Grinding
- Welding
- Smoothing
- Deburring

ADVANTAGES

- Workplace safety
- Pressure relief vents
- Reinforced structure
- ATEX complied
- ATEX components
- Air diverter to avoid explosions go back to the machine



APPLICATIONS :

- Laser cutting
- Plasma cutting
- Welding
- Deburring

SafeFlow

CaCO₃ DISPENSERS

The calcium carbonate gravimetric dispenser has been designed to prevent and reduce the risk of explosions and fires inside the dust collector or in the connecting pipes, during the processing of aluminium dusts. The DISPENSER is installed on the pipe run upstream the dust collector.

ADVANTAGES

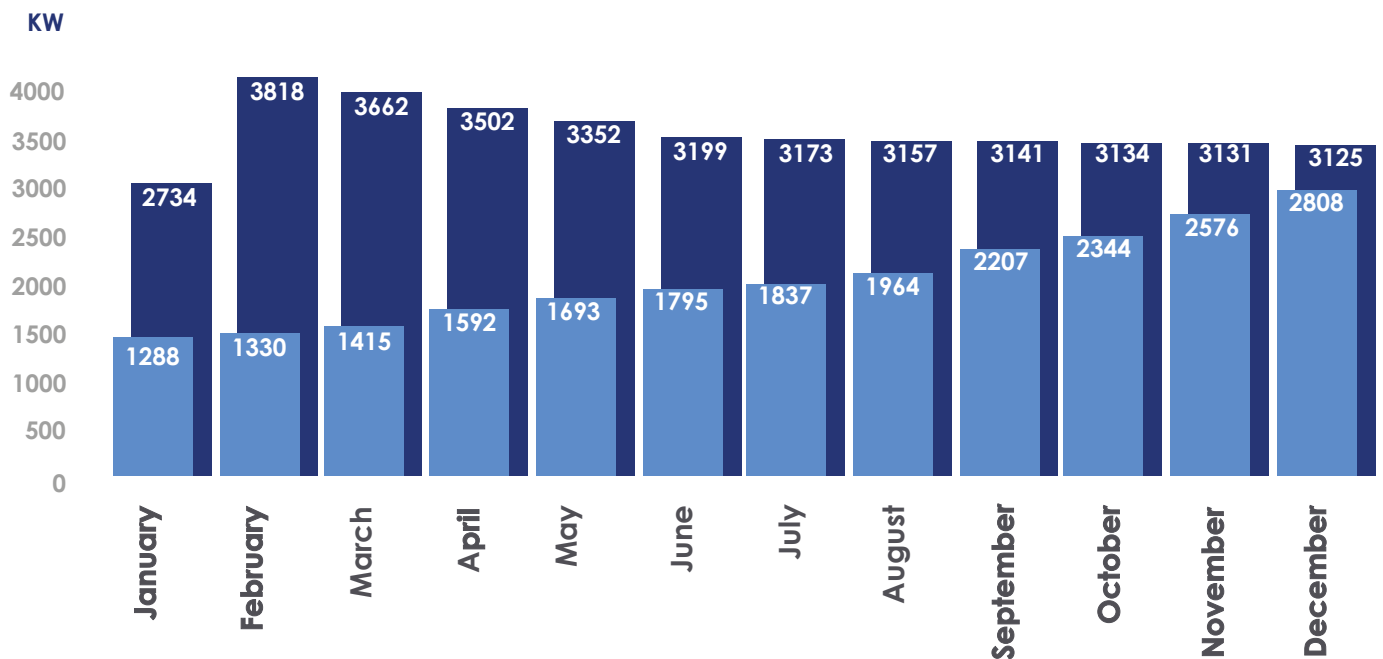
- Workplace safety
- Quick installation
- No maintenance costs
- Applicable to any type of dust collector
- Tailored scheduling
- Minimum footprint
- Can be turned on when necessary



ENERGY SAVING SYSTEMS

To meet the increasing demand of machines with low energy consumption and reduced environmental impact, Sideros Engineering has introduced ECOTECH Eco-Mode System. ECOTECH is a PLC and a Touch Screen Based system, which continuously adjusts and controls the number of rpm of the fan motor according to the clogging of the filters as well as monitoring the general operation state of the dust collector, even remotely.

POWER INPUT - Analysis carried out on a ECO 6 HC/S with 7,5 kw motor



ANNUAL CONSUMPTION :



ECOTECH KW 22.849



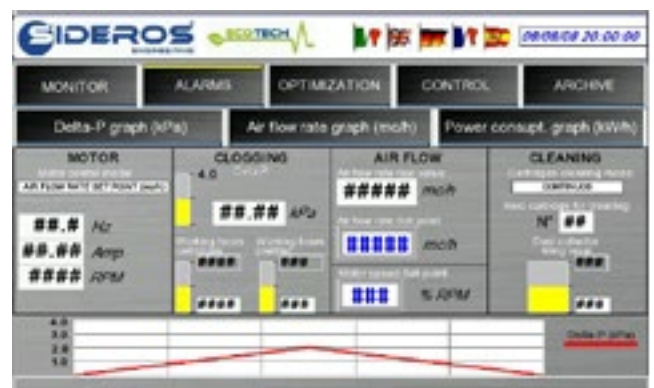
STANDARD KW 39.128

Return on investment (ROI) : 7 months

Annual energy saving of about € 3.288 (0.19€ Kw)

FEATURES AND ADVANTAGES

- Electric energy saving up to 60%
- Noise reduction up to 40%
- Longer life of cartridge filters
- Mechanical wear reduction up to 40%
- Heating costs reduction
- Air flow self-adjustment depending on the filters clogging
- On-board control through colour LCD Touch screen panel
- Remote monitoring in real time of all parameters
- Wi-Fi connectivity



FastClean

DUST SCREW CONVEYOR

FASTCLEAN is an automatic screw conveyor for the extraction of dust from the discharge hopper of the dust collector to a drum or a big bag.



FLEXIBLE SCREW CONVEYOR WITH COLLECTING DRUM 200 L (52 Gal)



FLEXIBLE SCREW CONVEYOR WITH BIG BAG 1.000 L (264 Gal)

HIGH CAPACITY DUST DISCHARGING SYSTEMS



DRUM RAISED DISCHARGE 200 L (52 Gal)



BIG BAG RAISED DISCHARGE 1000 L (264 Gal)

CarbonBox

Recommended for applications with the presence of oxides, gas and odorous substances.



HepaFilter

Absolute filtration. Recommended for indoor application.



SparkArrestor

Placed on the floor between the dust collector and the machine.



DUST COLLECTORS

Eco Oil

OIL MIST COLLECTORS

The Oil mist collectors can be installed for stand alone machines or as centralized extraction system for a series of Machine Tools or Machining Centers, where dust and oil mist are involved. The Sideros Engineering Team sizes and recommend the proper Oil Mist Collector according to the quantity and type of machine tools to be connected with. Our Oil Mist Collectors are suitable for a wide variety of industries such as: mechanical workshops, aerospace, automotive, railways, defense, fabrication etc.



FEATURES AND ADVANTAGES

- Improvement of workers health and productivity
- Machine cleanness and efficiency
- Reduction of maintenance costs
- Minor Pollution in the machining shop
- Airflow: 2.500 - 19.000 m³/h

Vortex

CYCLONE PRE-FILTRATION SYSTEM

The cyclone pre-filtration system, besides acting as protection against sparks and fires, it divides and conveys, heavier dusts and chips from fine dusts into a collection bin.

Thanks to the cyclone and its centrifugal force, the partially filtered air goes straight to the main dust collector to get filtered, leading to a longer cartridges life and a fire prevention.

APPLICATIONS

Deburring, Polishing, Sawing, Thermal cutting and other applications where heavy dusts, chips or metal mesh mixed with fine dusts are involved.



FEATURES AND ADVANTAGES

- Longer cartridge filters life
- Greater protection of the main dust collector against sparks and fires
- Suitable to separate chips and heavy dusts from fine dusts



WET DUST COLLECTORS IN STAINLESS STEEL



The ECOWET SERIES stainless steel wet dust collector has been designed to capture combustible/hazardous dusts from different applications through the power of the water filtration.

FEATURES:

- Interior Baffle Section
- Special Mist Filters
- Low Maintenance
- Electronic Water Level Control
- Stainless Steel Construction
- Automatic electronic float valve controls level of water when unit is running
- Durable corrosion resistant construction

APPLICATIONS:

Sanding, Grinding, Deburring, Polishing, Suitable for explosive dusts such Aluminum and Titanium

MODELS

| Model | Airflow m ³ /h | Static Pressure mm h ² o | Motor Kw |
|-------------------|------------------------------|--|-------------|
| ECOWET 20 | 2.000 | 190 | 2,2 |
| ECOWET 40 | 4.000 | 225 | 4 |
| ECOWET 60 | 6.000 | 210 | 5,5 |
| ECOWET 80 | 8.000 | 230 | 7,5 |
| ECOWET 100 | 10.000 | 220 | 11 |

PORTABLE DUST COLLECTORS

The ECO 2C and ECO T cartridge dust collectors are designed to extract and filter fumes and dust produced by welding, grinding and manual plasma cutting. Thanks to their portability, they can be carried around the factory in different positions with maximum flexibility.

TECHNICAL DATA ECO 2C

- Airflow: 1800 m³/h
- Noise level: 72 dB
- Fan motor: 2.2 Kw

FILTRATION ECO 2C

- Flame retardant TOP GRADE cartridge filters
- Filtration efficiency: 99.997 % at 0.3 micron
- Total filtering surface: 42m²
- Cleaning system: automatic through compressed air.

TECHNICAL DATA ECO T

- Airflow: 1300 m³/h
- Noise level: 70 dB
- Fan motor: 1.1 Kw

FILTRATION ECO T

- Aluminium prefilter, class G2
- Acrylic prefilter, class G4
- HEPA filter (High Efficiency Particle Arrestor), class H12
- Filtration efficiency: 99,5%, class H12



WELDING AND GRINDING

CENTRALIZED FUME EXTRACTION PLANTS



Centralized suction plants are seized according to existing regulatory requirements, on welding and grinding applications.

Their configuration (plant air flow and number of stations) is customized according to Customer's requirements as well as to the production lay-out. The Extraction systems can be integrated, with:

- Fixed suction arms from 10 ft up to 23 ft
- Movable suction arms on conduits
- Reeling drums
- Suction hoods
- Fixed welding and deburring benches
- Robot cells

Automatic pressure sensors, connected to the dust collector, optimize the electric and pneumatic consumptions of the plant according to real working requirements.

DOWNDRAFT BENCHES

The Sideros Engineering Down Draft benches have been designed heavy duty to last longer, and to let the operators work in total safety and in a health. They can be integrated to the the ECOLINE dust collectors, in order to extract smoke and dusts produced during cutting, welding and grinding processes.

ADVANTAGES

- Reduced pollution in the workplace
- Side and back wall has a dual function: extraction of smoke and the barrier against sparks
- No maintenance nor additional costs for spare parts
- Flexibility of use: side and back walls are removable, to let the possibility of placing workpieces with dimensions larger than the bench
- Dust and scrap are collected in specific collecting drawers at the bottom of the bench
- Heavy duty design to support weight up to 3600 kg (8,000 lbs)





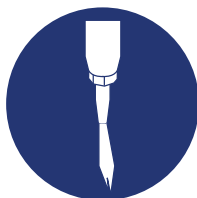
Downdraft table Sirius HD

Since the '70s, Belloni Lamiere steel service center, part of the Sideros Engineering industrial group, has tested and used the downdraft tables produced and developed by Sideros Engineering. Over the decades, Sideros Engineering downdraft tables have been optimized, automatized, and therefore produced on industrial scale for being more competitive on the local and the export market. Sideros Engineering downdraft tables feature a solid frame, able to support heavy-duty metal plates, mainly used in applications, such as Oxy-fuel, high power Plasma and Laser Cutting, Drilling.

Modularly and zoned designed, the Sideros downdraft tables are provided with an integrated suction system, equipped with one or more suction channels, depending on the cutting width and the application.

Sideros Engineering offers 76 down drafttables configurations, all industrialized and continuously monitored at Customers locations in order to receive constant performance feedback.

APPLICATIONS



OXYFUEL CUTTING



PLASMA CUTTING



PLASMA + DRILLING



LASER CUTTING

Models

Orion
Polaris

Orion
Sirius
Sirion

Orion with
Brass / AL Pins

Lasertab



Movable Suction Bucket, SYNCROMATIC

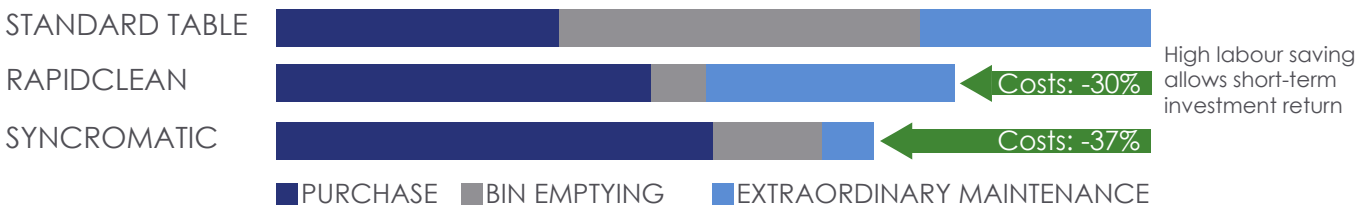
MOVABLE SUCTION BUCKETS

The latest born is the SYNCROMATIC downdraft tables. it is a revolutionary downdraft table equipped with movable bucket, which extracts fumes and dust as well as collecting the scrap and the small cut parts.

The process is automatically performed by the Synchronization of the movable bucket with the cutting machine through the use of encoders and Lasers.

ADVANTAGES

- Very high suction efficiency
- Slag collection in only one bin
- Short slag bin emptying time
- Easy and quick to install with all cutting machine brands
- The total absence of wear parts (cylinders, valves and pneumatic pipes) drastically decreases machine downtimes caused by maintenance interventions
- Integrable with any kind of cutting technology (Plasma, Laser and Oxy-fuel)
- Heavy duty design for thicknesses up to 300 mm (12")





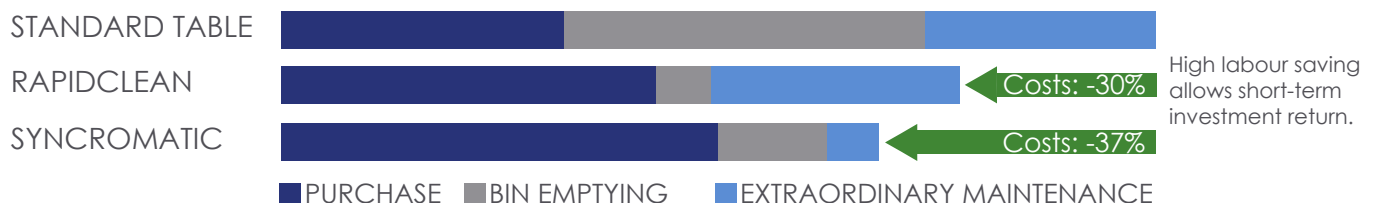
Downdraft Table Orion 3 with dual scraping system

SELF CLEANING DOWN-DRAFT TABLES

Perfectly integrated with the ORION and POLARIS downdraft tables, Rapidclean has been designed to automatize the cleaning process of the old downdraft tables with slag containers, performing the automatic extraction of slag produced during the cutting processes.

ADVANTAGES

- Automatic extraction of slag during the thermal cutting of plates
- It avoids expensive machine downtimes to empty the standard slag bins
- Only 1 slag bin to empty
- Abatement of maintenance and downtime costs
- Low maintenance
- Suitable for heavy duty applications
- SMOKE FREE table
- Suitable for Plasma, Laser and Oxy-fuel applications
- Single or double RAPIDCLEAN available according to table width
- Patented technology





Shuttle Table 3000 x 9000 (10 X 30 ft)

SHUTTLE TABLES FOR THERMAL CUTTING MACHINES

SPRINTER SHUTTLE TABLE has been designed to be integrated into any Laser and Plasma cutting machines requiring automation to transfer pallets from the loading/unloading bay to the main cutting area. SPRINTER can be supplied with downdraft table and enclosure. Minimum size mt 1.5 x 3 (5 x 10 ft) maximum size 4 x 15 mt (13 x 50 ft)

ADVANTAGES

- Extremely reduced transfer times of the pallets from loading/unloading bay to the cutting area
- Easy and quick integration with the cutting machine
- Possibility to include protection enclosure
- Heavy duty design for plates up to 125 mm (5 in)
- Possibility to integrate the Rapidclean slag removal system
- Possibility to process metal sheets and plates in locations without overhead cranes





2000 X 6000 (6.5 X 20 ft) water Table with variable water level

WATER TABLES FOR THERMAL CUTTING MACHINES

WaterTable is a water containment table with a fixed or raised / lowered water level.

MODELS

- Table with fixed water level
- Table with raise/lower water level (3 levels)

ADVANTAGES

- Total abatement of the fumes and dusts produced during the plate cutting
- Noise and light reduction
- Slag and mud collecting bins

VibroClean

Vibroclean is a self cleaning downdraft table equipped with single or multiple vibrating conveyors, properly sized according to the application. The vibrating conveyors are placed at the base of the downdraft table to convey the slag and small cut drops into a collection bin placed at the end of the table. Vibroclean can be installed on laser, plasma and oxyfuel cutting machines. It can also be integrated with the Sideros Engineering pallet changers.

ADVANTAGES

- Automatic slag extraction during the cutting.
- Avoidance of expensive machine downtimes for cleaning operations.
- Improved safety.
- Emptying of a single high-capacity slag bin.
- Low maintenance costs.
- Suitable for heavy duty plasma, oxyfuel and laser cutting applications.
- SMOKE FREE table.



HEAD AND TAILSTOCK WELDING POSITIONERS

SyncroLift®



SLC 150 With Trailer

Sideros Engineering Head & Tailstock Positioners are used to weld and assembly long and large weldments in many different application fields.

Besides the benefits of ergonomics and safety during welding and assembly applications, the revolutionary feature of Syncrolift is the compactness and the portability of both columns, thanks to their dedicated hydraulic jacks.

The result is an extreme flexibility in the factory. Syncrolift features two main axis: Electrical elevation/descent, and Electrical 360° left/right rotation.

A typical configuration is composed of a motorized headstock positioner with an idler tailstock.

ADVANTAGES

- Master and idler column with rotating mounting plates
- Hydraulic jacks for column positioning.
- Servo-motor, ball screw and encoder control for Up & Down motion
- Servo-motor, gear reducer and encoder control for Rotation
- 10" Touch Screen HMI for positioning set up
- Safety three sholds setting and diagnostics
- Hand held control pad
- Automatic load levelling
- Redundant safeties
- Servo motor brake ball screw thread geometry and mechanical Stopper.
- Low maintenance
- 240/400/480/600 Volt – 3 phase – 50/60 Hz.
- Patented design

OPTIONALS

- Foot pedal for rotation control.
 - TCS programmable control for automatic positioning with 7" touch screen.
 - Idler column on rails.
 - 400/800/1200 Amp rotary ground.
 - Double rotation torque.
 - Custom column height.
 - Custom load capacity (over 30000 kg / 66000 lbs).
- Also available**
- SLC M series – with double Rotation Torque capability
 - SLC S series – with Single Column set up

HEAD AND TAILSTOCK WELDING POSITIONERS

SyncroLift®



SLC 60 With Chassis

| MODELS | LOADING CAPACITY (Kg) | MAX TORQUE (Nm) | MIN TABLE HEIGHT (mm) | MAX TABLE HEIGHT (Kg) |
|---------|-----------------------|-----------------|-----------------------|-----------------------|
| SLC 20 | 2.000 | 3.000 | 350 | 1.800 |
| SLC 40 | 4.000 | 3.500 | 350 | 1.900 |
| SLC 60 | 6.000 | 5.500 | 450 | 1.950 |
| SLC 100 | 10.000 | 7.500 | 500 | 1.950 |
| SLC 120 | 12.000 | 10.000 | 550 | 1.950 |
| SLC 150 | 15.000 | 15.000 | 550 | 2.000 |
| SLC 200 | 20.000 | 22.000 | 550 | 1.850 |
| SLC 250 | 25.000 | 25.000 | 700 | 1.850 |
| SLC 300 | 30.000 | 35.000 | 750 | 2.000 |
| SLC 400 | 40.000 | 50.000 | 850 | 2.000 |
| SLC 600 | 60.000 | 62.000 | 1.500 | 2.500 |

PRODUCTIVITY & PROFITS



MANUAL WELDING/ ASSEMBLY

■ WELDING DEFECTS

■ WORKING HANDLING

■ WELDING TIME

APPLICATION



Fabrication



Agriculture



Transportation



Oil and Gas



Railway



Aerospace



Defence

3 AXIS WELDING POSITIONERS



ROTOLIFT is a **3 Axis Hydraulic Positioner** and handler specifically designed for assembling and welding operations. Thanks to its functional features, the machine considerably reduces the handling of the workpiece and therefore the use of traditional lifting systems.

ROTOLIFT is an ergonomic machine featuring great flexibility. Its innovative feature is the possibility not only to tilt and rotate the workpiece, but also to lift and lower it.

ADVANTAGES

- Reduction of weldments handling time
- Minor use of traditional lifting equipment
- Safer and more ergonomic working environment
- Lifting, tilting and rotation of a weldment on a single machine
- Improvement of welding quality
- Fast return on investment (ROI)
- Simplified welding procedure specifications (WPS)
- 3 axis: elevation, rotation, tilting
- Patented design

PRODUCTIVITY & PROFITS



COSTS: -40%



MANUAL
WELDING/
ASSEMBLY

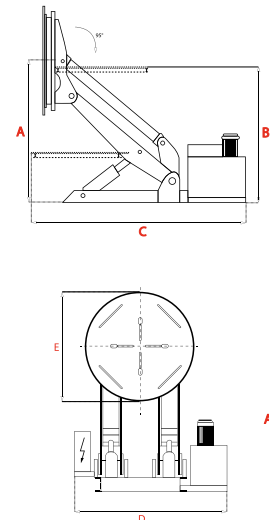
■ WELDING DEFECTS

■ WORKING HANDLING

■ WELDING TIME

TECHNICAL FEATURES

| MODELS | MAX. CAPACITY Kg | MAX. TABLE TILTING ° | TILT TORQUE Nm | ROTATION TORQUE Nm | ROTATION TIME | | HEIGHT WITH VERTICAL TABLE | | HEIGHT WITH HORIZ. TABLE | | LENGTH OVERALL C mm | WIDTH OVERALL DIMENSION D mm | | TABLE DIMENSION E mm | MACHINE WEIGHT Kg |
|----------|---------------------|----------------------------|----------------------|--------------------------|------------------|---------------|-------------------------------------|-----------|--------------------------------|-----------|------------------------------|---------------------------------------|----------------|-------------------------------|-------------------------|
| | | | | | Oleo rpm | Eleff. rpm | Min mm | Max mm | Min mm | Max mm | | mm | mm | | |
| RL 1250 | 1250 | 95 | 4900 | 490 | 2 | 2 | 540 | 1120 | 700 | 1280 | 1760 | 1630 | Ø 800 | 757 | |
| RL 2000 | 2000 | 95 140* | 7850 | 1570 | 1.7 | 2 | 550 | 1300 | 650 | 1400 | 1850 | 1660 | Ø 800 | 930 | |
| RL 3000 | 3000 | 95 140* | 11750 | 2350 | 1.5 | 2 | 740 | 1590 | 720 | 1570 | 2400 | 1825 | 1100 X 1100 | 1477 | |
| RL 4500 | 4500 | 95 140* | 21200 | 5300 | - | 1.5 | 830 | 2080 | 880 | 2130 | 2590 | 2270 | 1500 X 1500 | 2500 | |
| RL 6500 | 6500 | 95 | 31900 | 7500 | - | 1.5 | 910 | 2380 | 950 | 2420 | 3600 | 2410 | 1500 X 1500 | 3424 | |
| RL 8500 | 8500 | 95 | 41700 | 8000 | - | 1 | 980 | 2740 | 1180 | 2840 | 4450 | 2480 | 1500 X 1500 | 4360 | |
| RL 11000 | 11000 | 95 | 53950 | 10700 | - | 1 | 1100 | 2900 | 1300 | 3200 | 4900 | 2500 | 1800 X 1800 | 5100 | |
| RL 13000 | 13000 | 95 | 63750 | 15600 | - | 1 | 970 | 2710 | 1260 | 3000 | 4500 | 2500 | 1800 X 1800 | 5480 | |
| RL 18000 | 18000 | 95 | 88290 | 17651 | - | 1 | 1070 | 2770 | 1300 | 3000 | 4875 | 2800 | 1800 X 1800 | 6500 | |

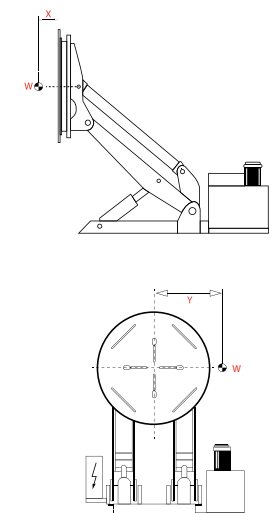


* Optional

The data are indicative and subject to change without notice

ALLOWED LOADS

| | | | | | | | | | | | | | | | |
|----------|----------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|--------------------|--|--|
| RL 1250 | w - Kg x - mm y - mm | 1250 400 40 | 1000 490 50 | 800 600 60 | 600 790 80 | 400 1160 120 | | | | | | | | | |
| RL 2000 | w - Kg x - mm y - mm | 2000 400 80 | 1700 460 90 | 1400 550 100 | 1100 700 120 | 800 950 160 | 600 1260 210 | 400 1800 300 | | | | | | | |
| RL 3000 | w - Kg x - mm y - mm | 3000 400 80 | 2500 530 100 | 2100 640 120 | 1700 820 160 | 1300 1150 230 | 900 2000 420 | 500 3300 670 | 300 3900 790 | | | | | | |
| RL 4500 | w - Kg x - mm y - mm | 4500 480 120 | 3900 540 140 | 3300 620 160 | 2700 740 190 | 2100 950 240 | 1500 1280 330 | 1200 1600 410 | 900 2100 540 | 600 3100 790 | 300 6100 1500 | | | | |
| RL 6500 | w - Kg x - mm y - mm | 6500 500 120 | 5700 560 140 | 4900 640 160 | 4100 750 180 | 3300 920 220 | 2500 1200 290 | 2100 1400 340 | 1700 1700 420 | 1300 2200 550 | 900 3100 630 | 500 5580 730 | | | |
| RL 8500 | w - Kg x - mm y - mm | 8500 500 95 | 7500 560 110 | 6500 640 130 | 5500 750 150 | 4500 910 190 | 3500 1140 240 | 3000 1300 280 | 2500 1550 340 | 2000 1930 400 | 1500 2550 550 | 1000 3750 820 | | | |
| RL 11000 | w - Kg x - mm y - mm | 11000 500 90 | 9800 550 110 | 8250 650 130 | 7130 750 150 | 5850 900 200 | 4550 1150 250 | 3950 1300 290 | 3150 1550 350 | 2500 1950 440 | 1800 2600 590 | 1210 3700 840 | 900 4900 900 | | |
| RL 13000 | w - Kg x - mm y - mm | 13000 500 120 | 11000 585 140 | 9000 710 165 | 7500 840 190 | 6000 1000 230 | 4500 1300 300 | 3500 1650 375 | 3000 1900 430 | 2500 2250 500 | 1800 3100 685 | 1200 4600 1000 | | | |
| RL 18000 | w - Kg x - mm y - mm | 18000 500 100 | 15000 585 110 | 12000 650 130 | 10500 750 150 | 7850 900 180 | 6350 1150 240 | 5100 1300 270 | 9800 1550 340 | 2700 1950 440 | 1200 2600 610 | 700 3700 900 | | | |



The data are indicative and subject to change without notice

3 AXIS WELDING POSITIONERS

RotoLift®



2 VERSIONS

HYDRAULIC: hydraulic lifting, tilting and rotation

ELECTRIC: hydraulic lifting and tilting

Electric rotation with VFD for speed control.

LOAD CAPACITIES

- kg 1250;
- kg 2000;
- kg 3000;
- kg 4500;
- kg 6500;
- kg 8500;
- kg 11000;
- kg 13000;

ACCESSORIES

- Rotary ground from 600 to 1500 Amp.
- Foot pedal control for L/R rotation
- Customized rotary table
- Tilting up to 140°
- TCS programmable control for automatic

- positioning through 7" touch screen.
- Increased rotation torque
- Customized color
- Detachable hydraulic power unit and electric board

ScissorLift®

It is a **Scissor Lift Table** designed to improve the operators efficiency during assembly and welding processes. It is proposed in 2 main versions: Standard (Up/Down movements) and with Electrical Table Rotation. The models equipped with rotary tables, feature clockwise and counterclockwise electrical rotation and speed control with potentiometer. Load Capacities up to 5.000 kg (11,000 lbs) – Max Dimensions: 2000 x 4000 (6.5 x 13 ft)

ADVANTAGES

- Minor use of lifting equipment
- Improved Work Efficiency
- Improved Safety at Work





SYNCROLIFT L-Type with tank

The **L-TYPE positioner** represents the newest product developed in Sideros: it's an **evolution of the standard head and tailstock positioners**. It performs an optimum ergonomics for welding and assembly processes, thanks to the possibility of turning the working piece by 180°.

The positioner is composed by a fixed column and a rotating arm, performing 3 main movements: upward/downward movements, turning over and rotation by 360°. The L type positioner can also be easily customized in height, length of the arm and in load capacity up to 10.000 kg



SYNCROLIFT with cradle with industrial boiler

The **Cradle Type SYNCROLIFT Positioner** (2 fixed columns and a turning cradle) is equipped with a main cradle and a motorized rotary plate on which is loaded the piece. Even in this case, the positioner performs 4 main movements: upward/downward movement, turning over and rotation by 360°. Finally, the cradle type SYNCROLIFTS can also be customized in height, length of the cradle and in load capacity up to 20.000 kg.

SHEET METAL VERTICAL STORAGE

SpazioMatic®



2000 mm X 6000 mm, Double Tower

Spaziomatic Sheet Metal Vertical Storage is an automated storage and retrieval system for sheet metal. Spaziomatic features an elevator to deposit and retrieve drawers and deliver them directly to the load/unload bay at a safe working height. The load capacity per drawer can be up to 5000 kg (11,000 lbs). Thanks to its features, companies can take advantage of vertical space to save footprint and improve their material workflow. The Sideros Engineering Vertical Storage can be customized to accommodate a variety of sheets size as well as other flat material such as plywood, plastic, moulds, boxes and components.

STANDARD MODELS*

- 1.250 x 2.500 mm (4 x 8 ft)
- 1.500 x 3.000 mm (5 x 10 ft)
- 1.500 x 4.000 mm (5 x 13 ft)
- 1.500 x 6.000 mm (5 x 20 ft)
- 2.000 x 4.000 mm (6 x 13 ft)
- 2.000 x 6.000 mm (6 x 20 ft)
- 2.500 x 6.000 mm (8x 20 ft)

* Larger and longer sizes upon request

ADVANTAGES

- Material handling costs reduction
- Reduced storage footprint
- Efficient material storage and flow
- Increased workplace safety
- Updated inventory status
- Fast ROI
- Heavy Duty design
- User friendly Touch screen control

STANDARD CONFIGURATIONS

Single Tower with front load/unload



Single tower with front load and back unload



Double tower with shuttle with front load/unload





6500 mm X 850 mm, 6 Towers

Spaziomatic Bar Stock Vertical storage is an automated storage and retrieval system for Bar Stock, Pipes, Tubes and Profiles. Spaziomatic features an elevator to deposit and retrieve drawers and deliver them directly to the load/unload bay at a safe working height. The load capacity per drawer can be up to 5000 kg (11,000 lbs). Thanks to its features, companies can take advantage of vertical space to save footprint and to improve their material workflow. The Sideros Engineering Vertical Storage can be customized to accommodate a variety of long material as well as flat material such as moulds, boxes, spare parts, bundles and components in general.

STANDARD MODELS*

- 700 X 4,000 mm (2.3 x 13 ft)
- 900 x 4,000 mm (3 x 13 ft)
- 700 x 6,000 mm (2.3 x 20 ft)
- 900 x 6,000 mm (3 x 20 ft)
- 700 x 7,000 mm (2.3 x 23 ft)
- 900 x 7,000 mm (3 x 23 ft)

* Larger and longer sizes upon request

ADVANTAGES

- Material handling costs reduction
- Reduced storage footprint
- Efficient material storage and flow
- Increased workplace safety
- Updated inventory status
- Fast ROI
- Heavy Duty design
- User friendly Touch screen control

STANDARD CONFIGURATIONS

Single Tower with front load/unload



Double tower with front load/unload



4 tower systems with shuttle and front load/unload



AUTOMATED LOAD AND UNLOAD SYSTEMS

LoadMaster

Loadmaster is a **Loading & Unloading System** to automate the handling of metal sheets on laser and plasma cutting machines, efficiently and in safety. Loadmaster loads new metal sheets on the pallet changer of the cutting machine, and automatically unload the cut parts through a tines system.



Loadmaster is suitable for the following sheet sizes:

1.500 x 3.000 mm (5 x 10 ft)

2.000 x 4.000 mm (6.5 x 13 ft)

2.000 x 6.000 mm (6.5 x 20 ft)

Maximum sheet thickness 25 mm (1 in).

ADVANTAGES

- Automatic loading of new metal sheets through a vacuum caps system
- Automatic unloading of the processed metal sheets through a tines system
- Loadmaster can work independently and without user's supervision
- Loadmaster can be easily integrated with all types of laser/plasma-cutting machines
- Reduction of manual material handling and consequent potential injuries
- Industry 4.0 ready

LoadMaster + SpazioMatic

The **Loadmaster** can be integrated with the **Spaziomatic** sheet metal storage system. The integration of the tower to the load/unload system delivers a constant back up of metal sheets to run the cutting machines also on unattended night shifts, increasing the overall productivity of the factory.





Sideros **PME hydraulic press** features an extremely robust and sturdy basement, portal frame, and cylinder to guarantee an excellent reliability and performance on heavy duty cycles. It has been designed to straighten metal plates, Oxy-fuel and Plasma cut parts and metal structures.

MAIN COMPONENTS

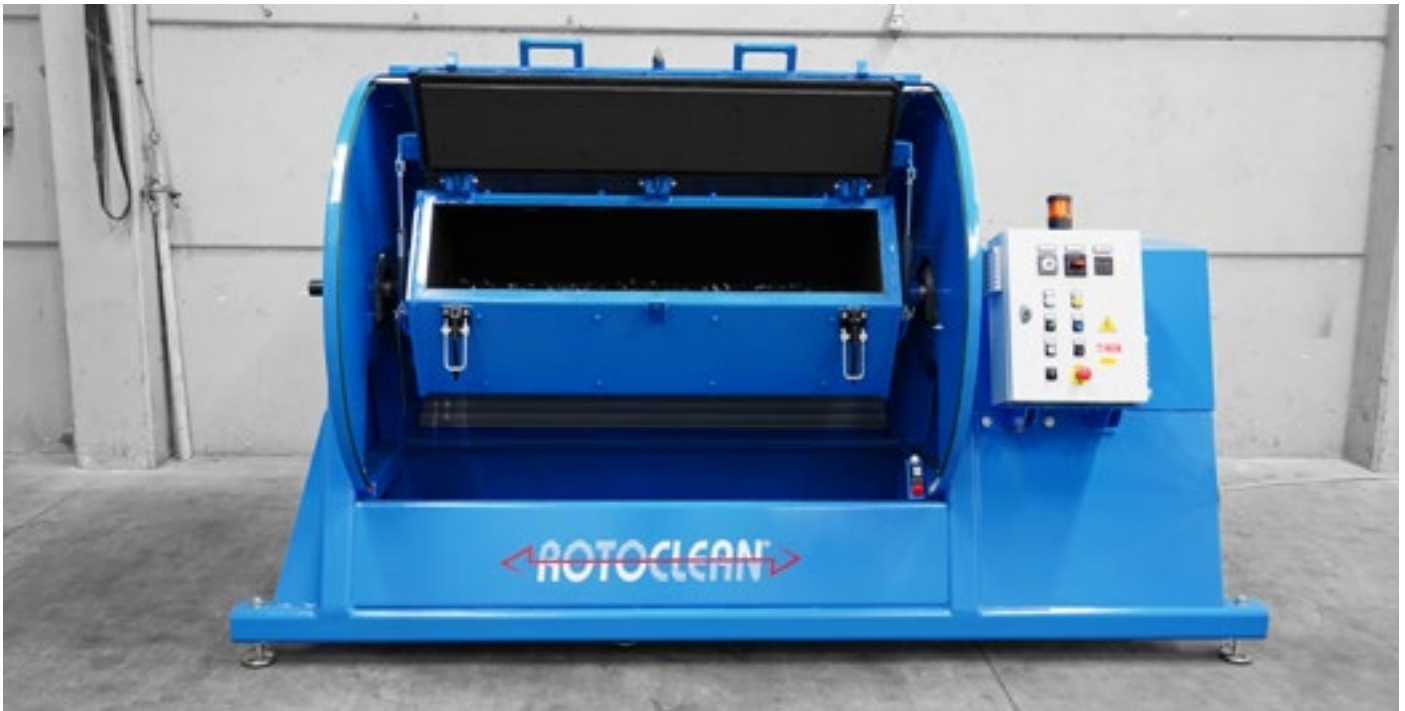
- **Structure:** in high quality steel, fully-welded, composed of movable portal frame and basement
- **Hydraulic cylinder:** made of highly resistant and very thick steel
- **Cylinder supporting trolley:** applied to the vertical rod beam, it enables the transversal movement of the cylinder
- **Movable vertical rod:** the movement of the movable vertical rod is driven by two sturdy self-blocking motor-reducers.
- **Hydraulic system and power unit:** all hydraulic components are carefully selected among the best international brands
- **Control panel:** ergonomically positioned, it controls all press functions

APPLICATIONS

- Straightening of Oxy-Fuel and Plasma cut parts
- Straightening of metal structures

| WORK POWER | WORKING AREA | AVAILABLE ACCESSORIES |
|--------------------|------------------------|--|
| 250 ton 500 ton | mt 4 x 2 mt 5 x 2,5 | Cylinders, integrated in the basement, to lift and turn upside down the parts to be processed. |

ROTOCLEAN



RotoClean®

DEBURRING TUMBLERS FOR OXY-FUEL, PLASMA AND LASER CUT PARTS

Compact, safe and efficient, ROTOCLEAN deburring tumblers allow a quick and low-cost removal of slag, burr, calamine and rust from oxy fuel, plasma and Laser cut parts in complete safety and ergonomics. ROTOCLEAN tumblers replace traditional, expensive and dangerous manual grinding operations. It is Equipped with a safety enclosure, which totally embeds the rotary drum, it preserves the operator from any hazardous contact with the machine.

The **vulcanized rubber** applied inside the drum and the safety protection contribute to considerably reduce the noise level produced during the cleaning of the parts. The access door to the drum is equipped with hydraulic cylinders, which make its opening quick and safe.



■ LABOR COSTS

■ ELECTRICITY

■ CONSUMABLES

High labour saving allows
**short-term investment
return**

ADVANTAGES

- Higher productivity
- Lower operating costs
- Noise level reduction
- Heavy duty design
- Safe to use
- No maintenance needed
- Certified quality

MODELS

- ROTOCLEAN OXY
- ROTOCLEAN EVO
- ROTOCLEAN MINI



TECHNICAL SPECS.

| | RotoClean^{OXY} | RotoClean^{EVO} | RotoClean^{MINI} |
|----------------------------------|---|--|---|
| Description | ROTOCLEAN OXY is the tumbler dedicated to the heaviest applications, designed to deburr mainly oxy fuel cut parts, where quantities and weights involved are higher. | ROTOCLEAN EVO is the tumbler specifically designed to deburr medium-light pieces, mostly cut with plasma and laser, designed to ensure a very high quality surface finishing. | ROTOCLEAN MINI , has been designed for customers who needs to process reduced quantities of parts, and needs a reduced footprint on the floor. It is suitable for any kind of cut parts. |
| Finishing Level | ★★★★★ | ★★★★★ | ★★★★★ |
| Loading capacity | 750 kg (200 kg of cleaning media + 550 kg of part) | 600 kg (250 kg of cleaning media + 350 kg of parts) | 300 kg (100 kg of cleaning media + 200 kg of parts) |
| Cleaning media | Manganese balls | Cast iron pyramids | Manganese balls |
| Height | 1.751 mm | 1.445 mm | 1.291 mm |
| Dimensions of the hexagon | 1.175 x 440 mm | 1.355 x 280 mm | 624 x 270 mm |
| Length | 1.336 mm | 980 mm | 1.008 mm |
| Width | 2.800 mm | 2.980 mm | 1.700 mm |
| Motor Power | 3 kw | 3 kw | 1,5 kw |
| Weight | 1.995 kg | 1.660 kg | 650 kg |

OPTIONS ON REQUEST

- Tumbler's Rotation Speed control through VFD Inverter and potentiometer, to customize parts quality finishing
- Bottom Parts Unloading
- Top Parts Loading
- Dust collector;
- Additional soundproof enclosure (65/70 Db)
- "Industry 4.0" Integration

REFERENCES

CLAAS

AGCO
Your Agriculture Company

AIRBUS

ALSTOM

AREVA

BOSCH

CAT

CNH

EADS
DEFENCE
& SECURITY

FINCANTIERI

GENERAL ATOMICS
AERONAUTICAL

GENERAL DYNAMICS

General Electric

Hoval

JOHN DEERE

KOMATSU

KRONES

LIEBHERR

Navantia

GENERAL DYNAMICS
Bath Iron Works

RATP

Rexroth
Bosch Group

RIELLO

ROLLS ROYCE

Eni Saipem

SIEMENS

Solar Turbines
A Caterpillar Company

stx France

ThyssenKrupp

TOYOTA
MATERIAL HANDLING

TRAIL KING
Industries

BMW

The added value of our products includes a full and efficient after-sale service support supplied by highly qualified internal personnel able to propose the best solutions even for the most exigent customers



ON LINE SUPPORT: for troubleshooting and machines diagnostics



REMOTE DIAGNOSTICS: Tele-assistance support can considerably reduce intervention times in the event of failures or malfunctioning



SOFTWARE UPGRADE: Our Software department releases frequently software upgrades to improve the performances of our machines

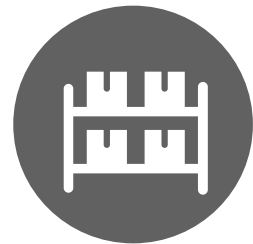
SCHEDULED MAINTENANCE

It is carried out within 24/48 hours by our specialized technicians according to the type of machine and the customer's needs. Sideros proposes preventive maintenance aimed to maintain the machines in the best operative and efficient conditions.



SPARE PARTS STOCK

Spare parts are always in stock and ready to be shipped to our customers for all Sideros products. They are available for immediate needs for parts failure or for ordinary maintenance. Spare parts are always available at our Headquarter and at our Chicago branch.



TRAINING COURSES

Training classes are regularly organized in Sideros and at customer locations. They are dedicated to plants managers, maintenance managers, machine operators, sales force including our distributors and representatives in order to make them more responsive to the problems and to the customer technical requirements. Training courses include theoretical lectures in class through multimedia material, and tours in the production facility and demo center.




TRAINING COURSES HELP TO:

- Minimize machines downtime
- Identify malfunctioning quicker
- Increase production yield
- Optimize investments yield
- Ensure a longer life of machines
- Reduce production costs




HEADQUARTER



 HEADQUARTER
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