



SECKLER

**Flexible robot microblasting system –  
SECKLER *robosandero*.**  
The robot blasting system for your perfect parts.

# Always precise, uniform and repeatable results. With SECKLER *robosandero*. From SECKLER.

SECKLER *robosandero* is designed for the automatic microblasting of simple to complex parts ranging in size up to approximately 60 x 60 x 100 mm. This is a microblasting system with up to four individually programmable and adjustable blasting guns that provide the flexibility and adaptability for precise, uniform and repeatable part finish.

## Mode of operation

The operator manually loads parts onto pallets and then places the pallet into the two drawers. The two drawers are a standard feature of the system for feeding parts into and out of the system. Other in-feed/outfeed options are available, which include a pallet conveyor and pallet stacking system.

The robot picks a raw part from the pallet and guides the part through a sleeve that is located in the flexible wall between the robot and microblasting chamber.

The sleeve in the wall and the robot end-effector couple together to create a seal allowing the part to be microblasted without exposing the robot or area outside the microblasting chamber to the blasting media or dust.

The flexible wall is made of an abrasion-resistant material that can

handle the abrasive media and also allow the 6-axis robot the freedom to manipulate the part as needed during the microblasting process to get the best results for each unique part type.

After the blasting process has been completed, the part is thoroughly blown off in the blasting chamber and then placed back into the pallet. The cycle repeats until all the parts have been processed in the pallet.

Once the pallet of parts have been microblasted, the robot will automatically move to the second pallet of parts and begin picking parts for microblasting. While the robot is servicing the second pallet, the operator can remove the pallet of finished part from the drawer and insert the next pallet to be processed.

## Types of applications

- + Automotive
- + Watch/Jewelry
- + Medical technology
- + Consumer goods

## Base blasting system

- + Four blasting guns
- + Four feed injectors for pre-acceleration of the blasting media
- + Vacuum sensor in the blast cabinet
- + Blasting media level sensor
- + Proportional valves for blasting and delivery pressure
- + Filter regulator
- + Robot docking station with sleeve
- + Blow-off device for sleeve
- + Blow-off device for workpieces
- + Cyclone with cyclone flap
- + Insert sieve
- + Adjustable fan unit
- + Two cartridge filters with automatic cleaning
- + HEPA filter unit
- + Extraction with dust container

## Options

- + Automatic blasting media supply
- + Noise protection housing for extraction and infeed

Up to four blasting guns are included with the base system. Additional blasting guns that can be added as an option.

## + High flexibility

Thanks to the user-friendly programming, this cell is suitable for microblasting of small parts in a wide range of shapes and variants

## + Better process controlling

Continuous blasting agent flow and reduction of blasting agent consumption

## + High and repetitive quality

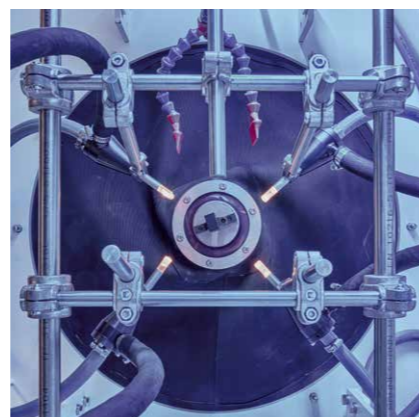
The desired surface texture can be achieved reliable and replicable with flexible parameters



Robot above pallet consists of:

- + Robot end-effector
- + Pallet drawer

Robot docking station with sleeve



## Flexible software with a user-friendly interface

The SECKLER *robosandero* software allows the control of the following micro blasting and robot parameters:

- + Material pressure and dosing of the blasting media quantity
- + Feed pressure
- + Blasting time
- + Number of pallets
- + Number of parts
- + Flip parts yes/no, before/after microblasting
- + Workpiece management for up to 1000 parts

The system consists of two chambers. The robot cell houses the pallets with the workpieces and the robot end-effector for the workpiece handling. The second chamber houses the microblasting system, which is equipped with four individually programmable guns and several blow-off nozzles.

## What is the iepco micro sandblasting technology?

It is a dry micro blasting method with a defined blasting media (grain size, grain hardness and grain geometry) to positively influence the micro topography of the surface in various forms and qualities.

### Goals of the iepco micro blasting technology

- + Surface cleaning
- + Surface compression
- + Increase of the bearing share
- + Micro deburring
- + Adhesive base preparation
- + Surface texturing
- + Exact defined edge fillet
- + Removal of "droplets" and sharpening burrs
- + Compression, smoothing and polish of workpiece surface
- + 100% reproducible

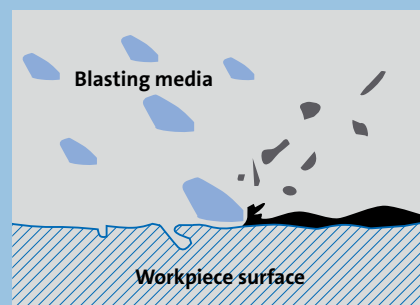
### Blasting media

- + Aluminum oxide
- + Ceramic blasting media
- + Silicates
- + Stainless blasting media
- + Tempered glass balls
- + Synthetic blasting media
- + Organic blasting media for sensitive mold cavity
- + Blasting media with tribological additives on surface of blasting shots

iepco is the expert for a perfect finishing of surfaces. The leading know-how is based on more than 50 years of experience in this field.

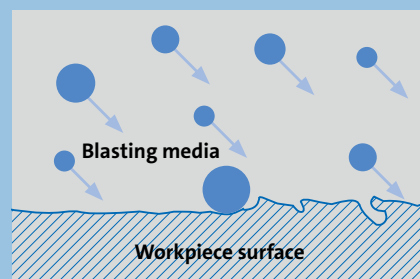
Combined with the most modern technology and comprehensive advisory service iepco offers together with SECKLER cost efficient overall solutions – specially tailored to your individual requirements.

### 1st step: Cleaning



Clean and uniformed surfaces with fine, sharp-edged micro blasting media. At the same time, all the loose parts are removed. It can also be provided with an adhesive base preparation.

### 2nd step: Compression



Compression of the surface with simultaneous embedded additives. Increase of the tribological characteristics for applications.

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