

A close-up photograph of a disc finishing machine. The machine's interior is filled with a dense, swirling mass of small, light blue metal discs. A hand is visible in the center, holding a small cluster of these discs. The machine's structure is dark, and the overall scene is brightly lit, highlighting the texture of the metal discs.

## DISC FINISHING MACHINES OF THE SERIES ECO AND EF

## DISC FINISHING MACHINES

### Application

- Processing of small parts
- Thanks to a high rotational speed, the processing times are reduced by a factor of 6-10 compared to the vibratory systems
- Cleaning and rinsing processes can be well integrated



## DISC FINISHING MACHINES

### Application procedure

- The process takes place in an open top process container where the bottom is formed as a disc. This disc will rotate on its own axis.
- Work pieces and abrasive or polishing media in the process container will be set into a twister like motion by the rotative movement of the disc.
- In between the work pieces and the media there will be a very intense processing.
  - Around 20 times more effective than in conventional vibratory machines.
- In the wet process the removed material from the work pieces will be flushed out by a water-compound-mixture.



## DISC FINISHING MACHINES

### Compound/water mixture

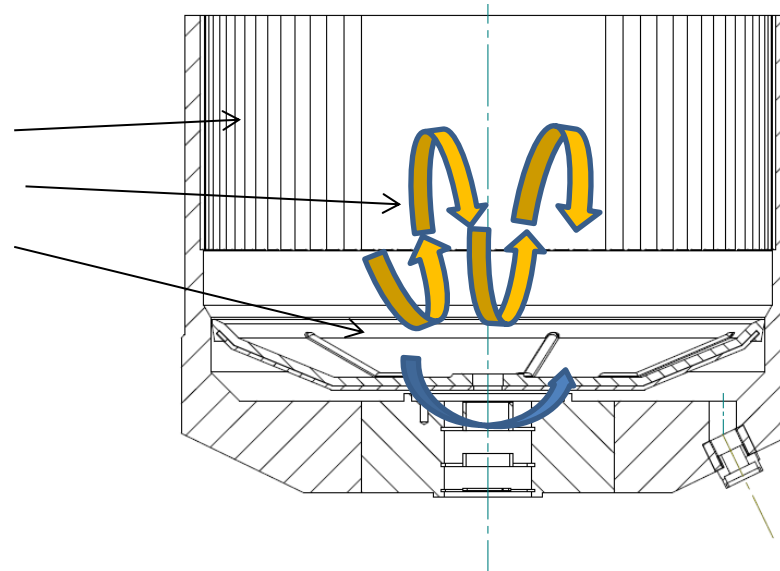
- Compound usually is a tensides containing cleaning agent which has the following tasks
  - Corrosion protection
  - Keeping the workpieces and abrasives clean
  - Removal of the processes waste
  - Creates bright surfaces if required



## DISC FINISHING MACHINES

Cross section of a process container

- Stationary cylinder
- Movement of the media
- Rotating disc



## DISC FINISHING MACHINES

### Advantages

- Fast, absolutely reliable and capable
- Economical processing, also of small work pieces.  
(e.g. turned parts with  $\varnothing$  3 mm, sheet thickness 2 mm)
- Easy handling
- Wide range from deburring to high gloss polish



## DISC FINISHING MACHINES

SERIES ECO / EF  
SERIES ECO-MAXI  
SERIES ECO-MINI



# DISC FINISHING MACHINES

## Properties

- Application: Wet processing
- Ideal for deburring turning and milling parts
- Designed for medium to large series
- Versatile for various surface finishing requirements
- Table-top machine ECO 9/18 or stand alone machine Easy Finish 9/18/32
  
- Advantages:
  - Economical in price and maintenance
  - Patented gap adjustment system via a set screw (from 3 mm to 0.4 mm)
  - Robust and inexpensive





# DISC FINISHING MACHINES

## Series ECO 9/18

- Application: Wet grinding and wet polishing
- Ideal for deburring turning and milling parts
- As a solution to process work pieces close to the CNC machine
- Saving up to 90% of conventional processing times
- Designed for deburring, grinding and polishing
- Designed for medium to large series
- Low wear



[Video](#)

# DISC FINISHING MACHINES

## Series EF (Easy Finish)

- Application: Wet grinding and wet polishing
- Ideal for deburring turning and milling parts
- As a solution to process work pieces close to the CNC machine
- For industrial large scale production
- For industrial use for jewellery manufacturers
- Very powerful and easy to use
- Thanks to a new designed process container and disc
  - Designed for a good flow of media and work pieces
  - Optimal movement of media
  - No swirling
  - Particularly fine grinding and polishing
- For perfect, clean surfaces without marks of emery traces or casting skin residues
- Process for grinding time grinding approx. 2-3 hours, polishing approx. 1.5 hours



## DISC FINISHING MACHINES

### Series EF (Easy Finish)

- Advantages:
  - Patented gap adjustment system for very thin jewellery parts (0.5 mm thickness)
  - Highest process reliability and processing quality
  - Very smooth surfaces
  - Brilliant gloss, comparable to a polish by hand



# DISC FINISHING MACHINES

## Series EF (Easy Finish)

- Basic equipment:
  - Process container 9l / 18l; Hot cast and thus particularly wear-resistant
  - Touch-screen-operated with digital display of process time, speed, errors, compound and other important process parameters.
    - Parameters individually adjustable for slowly-end function (Speed reduction) & interval function
  - Speed control via frequency converter
  - Peristaltic pump with float switch
  - Compound / water reservoir with 80 l filling volume
  - Sieve for "wet processing": Ø 14 mm hole



# DISC FINISHING MACHINES

## Series EF (Easy Finish)

- Options:
  - Drawer system for storage of media
    - Integrated into the machine frame
    - For 2 media containers
  - Cascade container
    - Filling volume 120 l
    - For closed loop
    - Includes sludge drip tray and filter bag for filtering the accumulated waste



# DISC FINISHING MACHINES

## Series ECO-MAXI

- Fully equipped base unit for the use of all three processing methods
  - ECO-Maxi "basic"
- Individual models for just one processing methods
  - ECO-Maxi „magnetic“
  - ECO-Maxi „wet“
  - ECO-Maxi „dry“



# DISC FINISHING MACHINES

## Series ECO-MAXI

- Advantages:
  - High profitability
  - Ideal for smaller scale production
  - Saving up to 60% of their conventional production costs
  - Clean and bright workpiece surfaces
  - For perfect, clean surfaces without marks of emery traces or casting skin residues
  - Preparation of the surface so that hand polish quality can be achieved
  - Shine also on difficult-to-access, filigree areas
  - Complete removal of oxide discolorations and investment powder residues
  - Flexible use
    - Use of three separate or up to three different processing methods with only one machine



# DISC FINISHING MACHINES

## Series ECO-MAXI „basic“

- Fully equipped base unit for the use of all three processing methods
- Modular concept of the ECO-Maxi
- Ideal for small scale production
- High profitability
- Savings of up to 60% of conventional production costs
  
- ECO-Maxi "basic"
  - Fully equipped base unit
  - Three processing methods
  - Flexible exchange of process containers
  - Base unit is designed to optimally support all three processes





# DISC FINISHING MACHINES

## Series ECO-MAXI „basic“

- Basic equipment:
  - LCD display showing speed and process time
  - Speed control via frequency converter
  - Bayonet fastening for the process containers
  - Automatic process container recognition
  
- Options
  - Exchangeable process container Ø 225 mm for magnetic polishing (weight: 5 kg)
  - 6 l Exchangeable process container for wet processing including dosing pump and waste water container (5.5 kg)
  - 6 l Exchangeable process container for dry processing (2.5 kg)



## DISC FINISHING MACHINES

### Series ECO-MAXI „magnetic“

- Application magnetic polishing
- Preparation of jewellery before wet processing
- Replacement for conventional electrolytic polishing bath
- Process time approx. 15 - 30 minutes:
  - Complete removal of oxide discolorations and investment powder residues
  - Shine, also on difficult-to-access, filigree areas
- Basic equipment (not expandable):
  - Timer
  - Speed control via frequency converter up to 1900 rpm
  - Automatic change of direction of rotation
  - 6 l process container
  - 200 g stainless steel pins M 4/7
  - 1 l compound SC 25



## DISC FINISHING MACHINES

### Series ECO-MAXI „wet“

- Application: Wet grinding
- First results after a processing time of 3 - 4 hours
- Conventional procedure lasts several days
- Use of special "soft" grinding media → Workpiece surface does not get harder
- The formation of the orange skin is thus reliably prevented
  
- Two versions:
  - Standard model for jewellery
  - Industrial version



## DISC FINISHING MACHINES

### Series ECO-MAXI „wet“

- Advantages:
  - Removal of emery traces or casting skin residues
  - Clean and bright workpiece surfaces
  - Little need for space
  - No additional drain and water supply required
  - Simply "plug and play"



# DISC FINISHING MACHINES

## Series ECO-MAXI „wet“

- Application:
  - As an entry-level machine in turning and milling shops
  - For small series and prototype construction
  
- Basic equipment:
  - Timer
  - Speed control via frequency converter
  - Bayonet fastening for the process container
  - 6 l Exchangeable process container for wet processing including dosing pump and waste water container
  - Control with LCD display
  
- Options
  - Starter kit for wet processing; sieve for “wet processing”, Ø 14 mm holes



# DISC FINISHING MACHINES

## Series ECO-MAXI „dry“

- Application: Dry polishing
- Polishing granules made of crushed walnut shells
- Finest surfaces with material removal in the micro range
  
- Jewellery:
  - Without damage of pre-set diamonds, cubic zirconia or pearls
  - Process time for pre-polishing approx. 2 - 3 hours, final polishing approx. 30 minutes
  - Very smooth surfaces
  - Brilliant shine, comparable to hand polishing



## DISC FINISHING MACHINES

### Series ECO-MAXI „dry“

- Basic equipment (not expandable):
  - Timer
  - Speed control via frequency converter
  - Bayonet fastening for the process container
  - 6 l process container for dry processing
  
- Options:
  - Starter kit for dry processing; sieve for “dry processing”, Ø 4 mm holes, ring holder for heavy jewellery (for more than 7 grams/piece)



## DISC FINISHING MACHINES

### Series ECO-mini

- Bestseller in terms of economy
- Technology of large, industrially used disc finishing machines in a small one
- Patented technology allows the use of the finest granulates with the result of a sensational gloss
- As polished by hand
- In addition, the used plastic media prevent the formation of an unsightly orange skin on jewellery
- The machine is easy to operate with a time switch and operates quietly and dust-free





## DISC FINISHING MACHINES

### Series ECO-mini

- Advantages:
  - Highly efficient
  - Smallest and most economical “finishing center” on the market
  - Machine easy to use
  - Quiet and dust-free



# DISC FINISHING MACHINES

## Series ECO-mini

- Application for wet processing
  - ECO-mini "wet"
  - Micro, zero- or prototype series for the removal of casting skin or emery traces
  - The subsequent polishing is considerably simplified and accelerated
- Application for dry processing
  - ECO-mini "dry"
  - For polishing on tarnished or worn jewellery
- applications
  - Micro, zero or prototype series
  - Jewellery manufacturers and jeweller's shops
  - For single processing of heavy, complex workpieces



## DISC FINISHING MACHINES

### Series ECO-mini „wet“

- Basic equipment:
  - Dosing pump and waste water tank
  - 2.6 kg high-quality plastic media
  - 1 l Universal compound for all metals
- Options
  - Starter kit for wet processing



## DISC FINISHING MACHINES

### Series ECO-mini „dry“

- Basic equipment:
  - 1 kg of high quality impregnated walnut granule type H1/100 (coarse)
  - 1 kg high quality impregnated walnut granule type H1/500 (fine)
  - 1 tube of polishing paste type P 6 (110 grams)
  - Small sieving scoop
- Options for ECO-mini dry
  - Ring holder for heavy jewellery (for more than 7 grams/piece)
  - Starter kit for dry processing



**THANK YOU FOR YOUR ATTENTION.**