EDER ENGINEERING

OVER 70 YEARS OF EXCELLENCE

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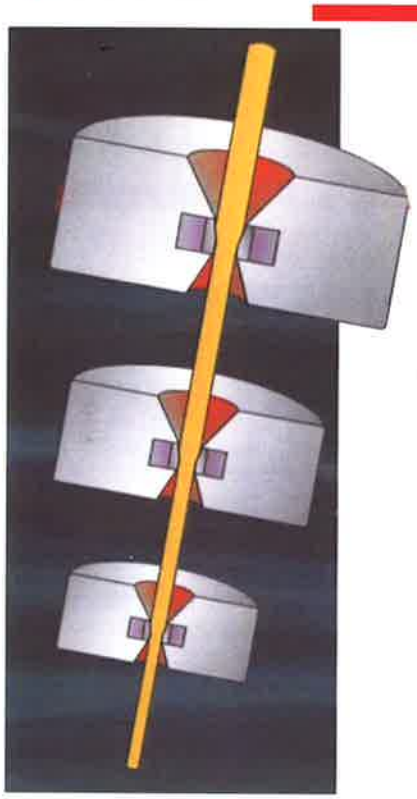

State-of-the-art Machines for processing of precision DIAMOND-/PCD Die-Tools

Easy to understand and to operate!

Available in advanced Standard-, and Semiautomatic Execution.

EDER ENGINEERING

OVER 70 YEARS OF EXCELLENCE

Just Go For It!

EDER ENGINEERING EDER ENGINEERING GmbH EDER ENGINEERING

DIE & DIE MAKING TECHNOLOGY THAT SERVICES THE WORLD

Over 75 YEARS

LEADING EDER DRAWING DIE RECONDITIONING MACHINES WORLDWIDE

TRUST OUR PROVEN EXPERTISE FOR OVER 75 YEARS

Investing in EDER machines benefits the customer

- Reduced necessary stock of dies and as such less cost
- Considerably longer die service life and higher tons of drawn wire
- Easy to operate machines– minimum of personnel required
- Accurate and flexible refurbishment at any time required
- Increased competitiveness, e.g. for „just-in-time orders“
- Full transparency over your die-stock and refurbishment cost
- Complete in-house independence

This simply is the prime key for achieving optimal economy in any wire drawing– and cable plant.

EDER Engineering GmbH
Peter-Jordan-Str. 12/3 A-1190 Vienna / AUSTRIA
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Supply of technology

EDER Engineering GmbH/Ltd.
precision die-tools
for the international wire-/cable industry

and equipments

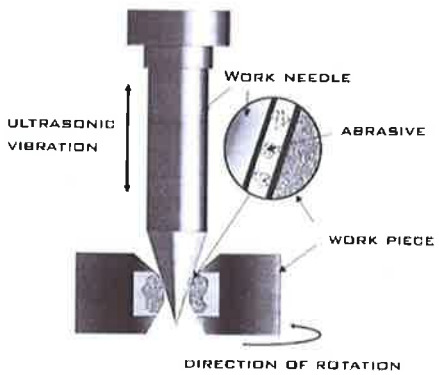
SURVEY/GUIDELINE:

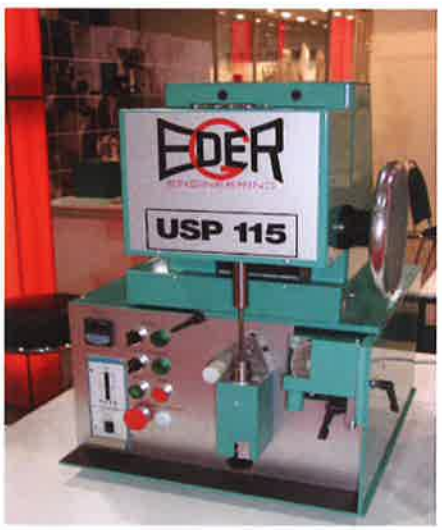
Illustrated survey of a basic ND/PCD die reconditioning workshop equipment line

EXECUTION: basic version, usually consisting of:

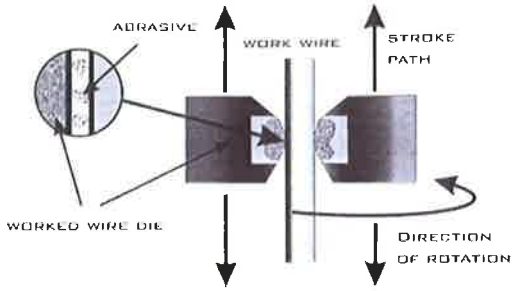
Ultrasonic Die-Tool Cleaning Tank Units POWERSONIC
(for cleaning all dies prior to inspection and/or during reconditioning)

Die-Inspectioning Microscope (e.g. Model DIM ZOOM 160)
(to inspect the dies prior to/during reconditioning to make a suitable diagnosis = identification of the damage's location and the extent of wear in worn-out die-tools).





Ultrasonic Die Processing Machines (e.g. USP-TWIN, USP-115), suitable in power/die-size-workrange to meet the needed throughput and kind of dies / semi-automations incorporated
suitable for working of all die-cones, reprofiling, de-ringing, enlargements, polishing etc



Wire-type Sizing/Polishing Machines (e.g. HGM-21, CGM, UFW), with suitable amount of work-spindles, die size workrange and stroke-speed, meeting needed throughput and kind of dies ***for working of the cylindrical die-bearing, for blending/rounding off the profile etc.***

Measuring and Wire Pulling Devices - Precision MICROMETERS, Profilometers etc.
for checking the diametrical dimension and/or elongations of the dies prior/during/after reconditioning)

DIAPOL Diamond Materials:

Working Material Packages/Consumbles

e.g. diamond powders/ pastes/ suspensions workneedles etc.

EDER DIAPOL DIAMOND PASTES/COMPOUNDS

Special DIAMOND SUSPENSIONS

EDER DIAMOND POWDERS

Diamond Plated Grinding Pins

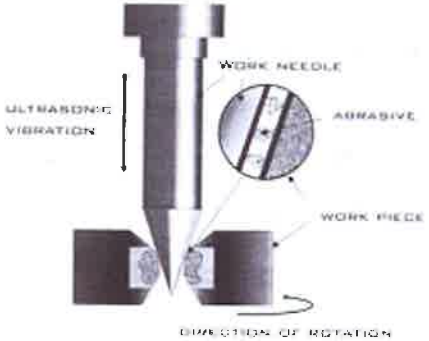
Technical Assistance Worldwide

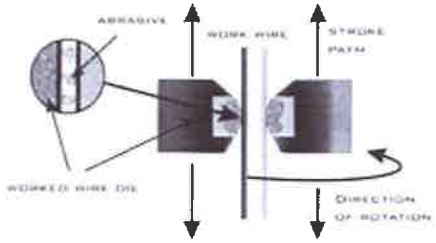
can get offered, upon special request, if needed for:

Training to operate the equipment perfectly
usually often not required for EDER- machines, as these are easy to understand and operate.

Die Working Know How- Updating- Mediation
sometimes required, if no suitable experience existing.

DIAMOND/ PCD DIE WORKING MACHINES SURVEY





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OVER 70 YEARS OF EXCELLENCE

Ultrasonic ND/PCD Die Working Equipment

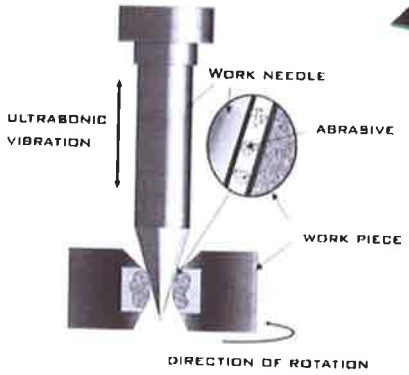
for the conical die-geometry (grinding + polishing)

USP-115

Semi-automatic **Ultrasonic Die Processing Machine** with outstanding efficiency and easy to perform operation. Available in three versions for all Ø-ranges.

Workrange:

USP-115/UF: 0,05 - 3,0 mm Ø
USP-115/F: 0,10 - 8,0 mm Ø
USP-115/P: 0,30 - 20,0 mm Ø



USP-TWIN

First ever Ultrasonic Machine for ND +PCD Dies with two (!) workstations :

Compensating increasingly less available human expert skills in die tool processing, same time **offering up to double potential.**
Workrange: 0.05 - 20 mm Ø

This advanced EDER-conception, **can be controlled by one single operator only** and can handle both small and medium to large die bore sizes simultaneously. Therefore model **USP-TWIN** is setting new standards for die processing and die repairing workshops now.

USP-115

in Working Position / Arbeitsposition :

EDER ENGINEERING
OVER 70 YEARS OF EXCELLENCE

Ultrasonic ND/PCD Die Working Equipment

for the conical die-geometry (grinding + polishing)

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Semi-automatic **Ultrasonic Die Processing Machine** with outstanding efficiency and easy to perform operation. Available in three versions for all Ø-ranges.

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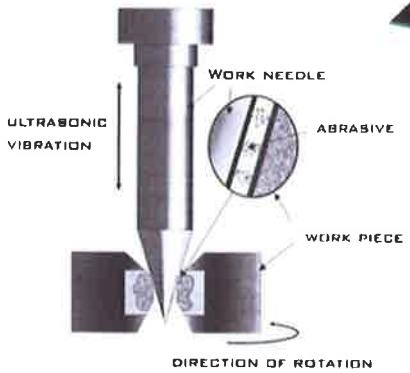

USP-TWIN

First ever Ultrasonic Machine for ND +PCD Dies with two (!) workstations :

Compensating increasingly less available human expert skills in die tool processing, same time **offering up to double potential.**
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USP-115

in Working Position / Arbeitsposition :

EDER ENGINEERING
OVER 70 YEARS OF EXCELLENCE

USP-115: Semi-automatic Ultrasonic ND/PCD Die Working Equipment:

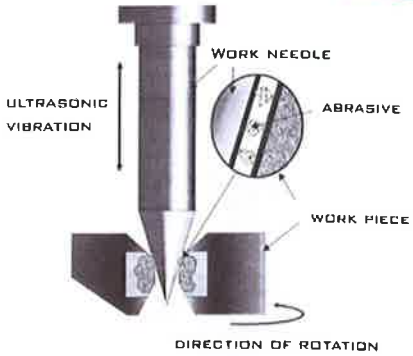
for the conical die-geometry (grinding + polishing)

USP-115:

Semi-automatic Ultrasonic Die Processing Machine with outstanding efficiency, large workrange* and easy to perform operation. Available in three versions for all die-Ø ranges.

Workrange:

USP-115/UF: 0,05 - 3,0 mm Ø
USP-115/F*: **0,10 - 8,0 mm Ø**
USP-115/P: 0,30 - 20,0 mm Ø



A UNIQUE EDER ULTRASONIC DIE WORKING MACHINE :
USP-115 - Outstanding Advantages:

Automatic frequency / amplitude control !

Efficient working pressure adjustment system !

Built-in workneedle reshaping device !

Swivelling Turntable for mirrorpolishing of PCD dies !

Most working parameters being automatically established and maintained throughout all operations !

Automatic re-start whenever the work needle has reached the pre-set working pressure!

Fail safe operation protections incorporated !
(soft-start, overload cutout, short circuit protection, idle running protection, malfunction indication etc.)

Extremely long service-life without needing spare parts !

Simple installation, taking into operation, easy to use !

Eder Engineering GmbH

Peter-Jordan-Str. 12/3, A-1190 Vienna, Austria .Tel: ++43 1 367 49 49-13,
Fax: ++43 1 367 49 49-49
E-mail: office@eder-eng.com, Website: www.eder-eng.com

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DIE & DIE MAKING TECHNOLOGY THAT SERVICES THE WORLD

USP-TWIN:

Two(2) ULTRASONIC WORKSTATIONS deal with large quantities of PCD dies and cut die reconditioning time considerably

USP-TWIN: High Potential Ultrasonic Equipment

EDER
ENGINEERING
OVER 70 YEARS OF EXCELLENCE

Ultrasonic ND/PCD Die Working Equipment

for the conical die-geometry (grinding + polishing)

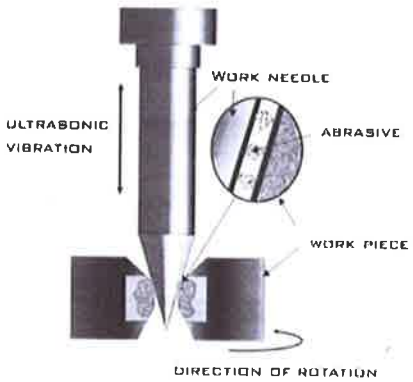
USP-TWIN

First ever Ultrasonic Machine for ND +PCD Dies with two (!) workstations :

Compensating increasingly less available human expert skills in die tool processing, same time offering up to double potential.

This advanced EDER-conception, can be controlled by one single operator only and can handle both small and medium to large die bore sizes simultaneously.

Therefore model **USP-TWIN** is setting new standards for die processing- and die repairing workshops, especially with higher throughputs of (multiwire-line) dies !



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DIE & DIE MAKING TECHNOLOGY THAT SERVICES THE WORLD

Featuring the **USP-TWIN** - Semiautomatic dual workstation ultrasonic diamond /PCD die processing machine. This advanced EDER-conception can be handled by one single operator only and can work both small and medium to large die bore sizes simultaneously. It offers two independent ultrasonic workstations, one for the smaller die bore-sizes (0.05-3.0 mm Ø /.002" - .12"Ø = **UF**) and another one for the medium to large size range (1.0 – 8.0 mm Ø / .004" - .23"Ø = **F**), releasing the die-workshop personnel considerably and doubling output. An ideal solution for companies reconditioning larger quantities of dies.(multiwire).

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precision die-tools
diamond working materials

EDER Engineering GmbH/Ltd.

Supply of technology and equipments for the international wire-/cable industry

USP-TWIN

SEMIAUTOMATIC DUAL WORKSTATION ULTRASONIC MACHINE

This advanced EDER-conception can be controlled by one single operator only and can handle both small and medium to large bore sizes simultaneously.
It offers two independent ultrasonic workstations, one for the smaller die bore-sizes (0.05-3.0 mm Ø /.002" - .12"Ø = UF) and another one for the medium to large size range (1.0 – 8.0 mm Ø /.004" - .23"Ø = F), releasing the die-workshop personnel considerably.

EDER-Austria have designed this sophisticated but easy to operate high efficiency Ultrasonic machine to make the best use of increasingly less available human expert skills in die tool processing and - due to its universal application, oustanding capacity and extented workrange - the **USP-TWIN now is offering up to double efficiency !**

Suitable for profiling, de-ringing, enlarging and polishing of round wire drawing dies made from suitable Natural diamond, Monodies or PCD material within the indicated die bore size ranges, model USP-TWIN is setting new standards in die-workshops.

Main features:

Both workstations have been equipped with an efficient **titanum piezo-ultrasonic head/probe** each, which are perfectly adjusted to

a) one **UF-150 W** (left side) and **b)** one **F-300 W** (right side) semiconductor technology-**Generator** each, with all functions suitably built-in, to ensure optimum and largely automatic operations.
(automatic frequency/amplitude control, fail safe systems, advanced pressure setting system, additional power setting etc.)

Furthermore, the **USP-TWIN** is equipped with two integrated needle reshaping systems, one swinging /swivelling die-turntable and intelligent working pressure setting devices, as well as with one timer for each workstation to limit workcycles as required. Take up devices for standard die-casing dimensions are available too.

Electrical supply:	*230V +/- 10%, 50/60 Hz, single phase, 2 x 2.200 W (2 x 2,2 kW) (others possible - charged at cost)*
Dimensions:	*approx. 650 x 400 x 750 MM (W x D x H)*
Weight:	*appr. 130 Kgs. net*
Execution:	*as per a.m. description. Completely ready for use.*

Repairing machines for larger throughput of drawing dies

THE wire and cable industry is increasingly using higher speed multi-wire drawing machines, using PCD wire drawing dies in each line simultaneously, and wearing them out relatively quickly, so that they often have to queue for reconditioning at die workshops, where skilled operators or suitable die reconditioning machines might be in short supply.

A growing number of PCD dies mounting up with a need to be reconditioned can cause bottlenecks in existing die workshops, as there are either not enough human experts or insuffi cient equipment potential available.

To solve this problem, Eder-Austria has designed two intelligent but easy-to-operate machines, to accommodate a lack of expert skills in die tool maintenance while off ering the necessary machining potential and capacity to continuously recondition the increasing amount of dies awaiting repair. Both machines off er a large die-size work range, from 0.05 to 9mm Ø.

The **USP-Twin** is a powerful and versatile ultrasonic machine with two independent workstations that are suitable for profi ling, de-ringing, enlarging and polishing of tapered die-profi le portions in round ND/PCD wire drawing dies.

It can be controlled by a single operator, reconditioning two dies simultaneously, and so practically doubling output. The USP-Twin is equipped with two integrated needle reshaping systems, swinging die-polishing turntables and intelligent work pressure setting devices, as well as a timer for each workstation to limit work cycles as required.

After the working of the tapered die portions, it is necessary to calibrate and polish the cylindrical bearing portion of the dies, and with a high-speed wire type equipment of equal potential, to avoid a possible bottleneck in the overall refurbishment of the worn-out multi-wire drawing dies.

The second machine – **model HGM-21** – has a solid-column construction with integrated worktables, switchboard and SIMATIC control device. It also features two independent workstations, handled by one only operator and able to work all ND/PCD dies within the complete multi-wire die size range.

Each of the independent stations features an automatic work-cycle stop, as well as an optical and acoustic stop indicator.

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USP-TWIN

EDER ENGINEERING YEARS OF EXCELLENCE

HGM-21

EDER
ENGINEERING
OVER 70 YEARS OF EXCELLENCE

Wire- Type ND/PCD Die Working Equipment

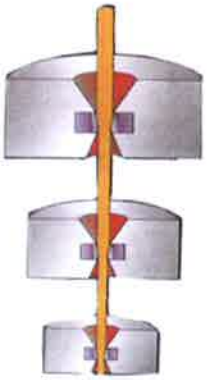
for the calibration + polishing of the bearing

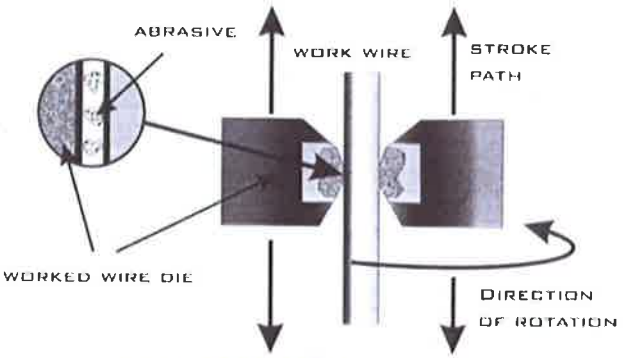
HGM-21

High speed wire-type sizing & polishing machine with 2 independent workstations controlled by a Simatic PLC device program and designed for the sizing/ polishing of die-bearings, rounding off and blending of die-profiles, with out-standing performance and **offering a uniquely extented workrange.***

Workrange:

***HGM-21 Standard:** 0,05 - 2,0 mm Ø
***with LWS device:** - 4,5 mm Ø
***with Maxispindle-Set:** - 10,0 mm Ø



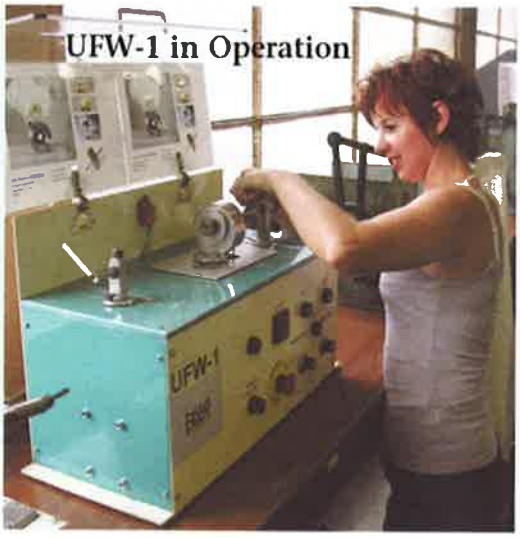


for processing of ultrafine ND/PCD die bore sizes

UFW-1

Specialist horizontal wire-type sizing/polishing machine, available in Standard- and *Advanced Version (*with external angle-adjustment device).

Workrange:
0,01 - 0,30 mm Ø



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DIE & DIE MAKING TECHNOLOGY THAT SERVICES THE WORLD

HGM-21:

HIGH SPEED WIRE-TYPE SIZING/POLISHING MACHINE

with two independent workspindles, allowing a most versatile processing of wire drawing dies made from Diamond/ PCD and in the uniquely wide die-workrange between 0.05 up to 10 mm Ø

HGM-21:

HIGH SPEED WIRE-TYPE SIZING/POLISHING MACHINE

with two workspindles, allowing a most versatile processing of wire drawing dies made from Natural Diamond, Monodies, PCD.

APPLICATIONS: sizing of the bearings / rounding-off/blending of the die-profile etc.

WORKRANGE:
a) at the **2 Standard-Spindles** appr. 0.05 - 2 mm Ø (ND/PCD dies)
b) at „**LWS**“* large wire spanners up to max. 4.5 mm Ø (PCD dies)
c) at „**Maxispindle-sets**“ * up to max. 10 mm Ø (large PCD dies)

SPECIAL FEATURES:

Solid column unit construction, with integrated worktable, switchboard and SIMATIC control device. Featuring two independent standard-workspindles, easily exchangable against LWS or Maxispindle/s optionals, allowing a perfect adjustment of this versatile HGM-21 machine to any prevailing working condition requirements, be it materialwise (ND or PCD), or sizewise (small-, medium- and large bore-diameters).

RESULT:

No other 2-spindle wire-type sizing/polishing machine can offer these unique advantages as to exagorating versatility, superior working potential and easy to perform successful operations.

ADVANTAGES of Model HGM-21 in brief :

- **Easy operations possible are**: sizing/calibration, rounding-off/blending and even
- tapered die-profile processing up to a max. angle of 2alpha = 30°.
- Each independent spindle features an automatic workcycle-stop, as well as an optical- and acoustic stop indicator, to assist and to release the die-shop personnel considerably, who therefore also can operate other machinery aside too.
- Both workspindles are programmed and controlled by an advanced Simatic CPL unit.

TECHNICAL DATA :

DIMENSIONS :	appr. 700 x 650 x 750 mm (L x W x H)
NET-WEIGHT :	appr. 240 Kgs. net.
ELECTRICAL SUPPLY:	230V, +/-10%, 50/60 Hz, 1phase, 2000 Watts
CONTROLS :	SIMATIC, programmable, with control display
STROKE-SPEED :	50 - 2 x 450 (=total 900) strokes per minute / adjustable
STROKE-PATH :	80 mm
Die-Turntable Rotation:	200 - 2000 r.p.m. / adjustable
Angle-Adjustment :	+/-15° = max. 30°
EXECUTION :	completely ready for operation.

OPTIONALS available: *a) as LWS or Maxispindle, b) AWF-automatic wire advance. .c) swivelling die-turntable. (if requested)*

EDER Engineering GmbH

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OVER 70 YEARS OF EXCELLENCE

Wire- Type ND/PCD Die Working Equipment

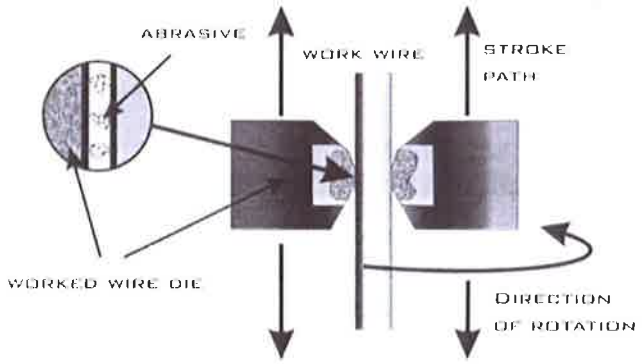
for the calibration + polishing of the bearing

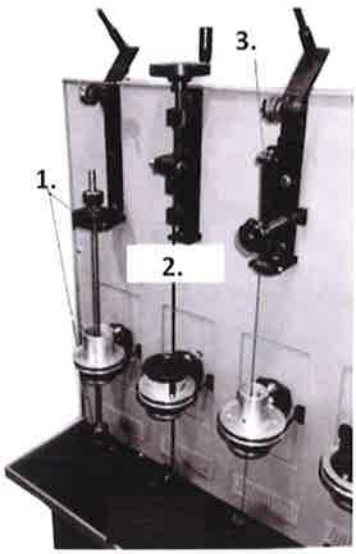
HGM-21

High speed wire-type sizing & polishing machine with 2 independent workstations controlled by a Simatic PLC device program and designed for the sizing/ polishing of die-bearings, rounding off and blending of die-profiles, with out-standing performance and **offering a uniquely extented workrange.***

Workrange:

***HGM-21 Standard:** 0,05 - 2,0 mm Ø/.002"- .080"
***with LWS device:** - 4,5 mm Ø/ up to .18"
***with Maxispindle-Set** - 10,0 mm Ø up to .40"





HGM-21

1. Maxispindle

2. LWS-Device
(Large Wire Spanner
Drahtkraftsystem)

3. Standard-Spindle

HGM-21

HIGH SPEED WIRE-TYPE SIZING/POLISHING MACHINE

with two independent workspindles, allowing a most versatile processing of wire drawing dies made from Natural Diamond, Monodies, PCD.

EASY APPLICATION:

sizing+polishing of the die-bearings,
rounding-off/blending of the die-profile etc.
One single operator can easily handle both workstations.

RESULT:

No other 2-spindle wire-type sizing/polishing machine can offer these unique advantages as to exagorating versatility, superior working potential and easy to perform successful operations. Both workspindles are programmed and controlled by an advanced Simatic CPL unit. Each independent spindle features an automatic workcycle-stop.

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CGM-1* CGM-1/AF**

MONOSPINDLE WIRE TYPE SIZING AND POLISHING SPECIALIST MACHINE FOR SUPERFINE TO FINE TUNGSTEN CARBIDE - DIAMOND - MONODIES AND PCD DIE-TOOLS WITH ROUND BORES 0.05 - 2 MM Ø

(with LWS up to 4,5mm Ø /with Maxispindle-Set:up to 8mm Ø)

Model CGM - 1/AF** additionally is equipped with an automatic wire feeding (AF -) system, which means an optimal release of the die - shop personnel, whenever working fine bore dies of up to 0.70 mm diameter. (.028“).

1) CGM - 1 Short Description

Solid Monospindle block unit with die - turntable and integrated special wire tigthening - device. Adjustable variable die - turntable rotation and oscillation stroke speed. Workcycle - limitation provided by means of a programmable stroke (Meter) Counter - device. Angles of up to 30° (2 alpha) can get adjusted, also allowing rounding - off and profile - blending operations. Soft start to prevent wire breakage.
Model „**CGM - 1/ AF****“can be used in both standard mode (CGM - 1) and automatic wire feeding mode (**AF**), as to needs.

If required, the **CGM – 1*** unit`s standard workspindle can get exchanged against an optional „**LWS - device**“ (Large Wire Tightener Spindle) leading to an upgrading of this unit`s workrange up to max. 8 mm Ø.

2) Applications:

Sizing / calibration of the cylindrical die - bearing. Polishing of the bearing. Rounding - off / blending of the die - profile.

3) Technical Data:

Standard Workrange : 0.05 - 2 MM Ø .
Up to max. 8 mm Ø, if ordered with LWS+ Maxispindle devices.

Stroke speed:	adjustable max. 450 strokes / Min.
Stroke - length:	50 MM
Die Turntable Rotation:	0 - 2000 r.p.m.
Angle - adjustment:	max. 30° (2 alpha)
Recommended AF-Functions:	up to max. 0.70 MM Wire - Ø (.028“)
Dimensions:	approx. 600 x 400 x 630 MM (L x W x H)
Net Weight:	approx. 95 Kgs.
Electrical Supply required:	230 V +/- 10%, 50 / 60 Hz., 1 phase, 500 Watts

For any further information requested, please refer to EDER Engineering Austria or to your local EDER - Representation. We shall be glad to assist you best possible at any times.

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1190 VIENNA/AUSTRIA - Peter-Jordan-Str. 12/3,
Tel.: +43-1-3674949-13, E-Mail: office@eder-eng.com

EDER UFW-1: Fine-Ø Die Working Equipment

For processing of ultrafine ND/Mono/PCD die bore sizes, we can offer following models:

UFW-1

Specialist horizontal wire-type sizing/polishing machine
available in Standard- and *Advanced Version (*with external angle-adjustment device).

Workrange:

0,01 - 0,30 mm Ø (=0.004“- 0.012“ Ø)

UFW Standard model

***UFW-1 Advanced:**
Allowing to change angle processing without stopping the operation.
(e.g. for blending of transitions etc.)

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Supply of technology

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precision die-tools
for the international wire-/cable industry

and equipments

Technical Data of the UFW-1 and UFW-1/A :

Voltage ..... 230V +/-10%, 50/60Hz,1ph.

Power..... 300 Watt

Stroke travel-length .....60 mm

Stroke speed ..... max. 250/Min.,adjustable

Die-Turntable rotation .....0 -.2.000 r.p.m.,adjustable

Take-up for die-casings .....25/28 mm Ø (Standard)

Work-cycle endurance limitation .....by means of a Timer

Angle adjustment .....max. 50°. Each side of the working wire can get adjusted 25° sidewards after stopping the machine´s operation.

Model UFW-1/A.....allows change of angles even during operation.

Dimensions . ..... appr.600x280x265mm (L x W x H)

Weight . .....appr. 30 Kgs. net.

(Technical modification reserved, due to possible technical progress)

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Eder Engineering GmbH / Ltd.

TECHNICAL ASSISTANCE / TAKING INTO OPERATION
TRAINING / SOFTWARE / KNOW HOW TRANSFER

Even the best available HARDWARE (machines, production lines, devices, tools etc.) will be of no advantage whenever no suitable SOFTWARE (operational Know How, experted education, training, specific production Know How etc.) will exist !

EDER-Austria and with their multilingual and experienced experts, are in a perfect condition to offer YOU the following TECHNICAL ASSISTANCES, if required:

Technical Assistance Worldwide





For all EDER DIE-TOOL WORKING EQUIPMENT:

Installation
Commissioning
Taking into operation
Operational Education
Training and re-training
Die-tool processing Know How
Updating of existing Know How etc.

All these Technical Assistances, for psychological reasons, can get best submitted at the customers' plants and under their relevant existing infrastructure existing.

Only good die tools draw good wire

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REQUEST INFORMATION

Reconditioning precision drawing dies on a regular basis is essential to the production of consistently high quality wire. It enables longer uninterrupted wire drawing processes, improved performances and distinctly higher tonnages of perfectly drawn wire, thus beating your hard competition!

EDER supplies leading die-tool working technology (hard- & software) to more than 80 countries all over the world and 46 international EDER- Representations are ready to care for customers in the relevant countries at any time required.

In order to allow us establishing a perfectly suitable proposition/offer for an advanced die-tool working equipment/line and according to your specific needs and infrastructure, please submit us your following information, which will be dealt with under our strictest confidence of course.

Required operation:	☐ **Reconditioning of drawing dies** ☐ **Production of drawing dies**
Kind of dies:	☐ **Tungsten Carbide (TC)** ☐ **Natural Diamond Dies (ND)** ☐ **PCD Dies**
Die-diameter range (in mm/or inches")	☐ **min. Ø** ☐ **max. Ø**
Die inventory throughput quantity to be worked per period (day/week/month/year)	(and please indicate it for each kind of dies)
Plant working time/Shifts (per day or week or year-hours)	
Local electrical supply (voltage/frequency/phases pls.)	
Local climatical conditions (min./max. workshop temperature+humidity)	
We do require an OFFER	
Required Content of this OFFER	☐ Only the die-working machine/s ☐ The equipment and all necessary ancillary devices ☐ The equipment and the spare part kit/s ☐ The equipment plus all ancilliary devices plus spare part kits ☐ Including all working materials - for the start-up period only ☐ Including all working materials - for one year ☐ Including Operational Training - at customer's plant ☐ Including Operational Training - at EDER's TSC in Austria ☐ Including mediation of die-tool working Know How - at EDER/TSC ( ) ☐ Including mediation of the die-tool working Know How - at customer's plant
Requested Offer	☐ Ex works/FCA ☐ DAP ☐ DAT
Preferred mode of payment	☐ Cash/TT ☐ L/C ☐ C.A.D ☐ Others
Other requests	
Currency	☐ EURO ☐ USD
In case of your interest in an offer from EDER-Austria, please indicate your full address. It will us be a pleasure to provide you with our most favourable quotation soonest possible and perfectly suiting your specific individual demand:	
Company	
Address	
Zip	
City	
Telephone	
Fax	
E-Mail	

EDER
ENGINEERING
OVER 70 YEARS OF EXCELLENCE

Die Workshop Ancillary Equipment

POWERSONIC Ultrasonic Die-Tool Cleaning Tank Units

with built-in heating devices (controlled by a thermostat) and equipped with a timer, component basket and lid. Available in various tank volumes as required.

VDSU- Vacuum Drawing Die Suction Unit

This ancillary die-workshop device has been developed to clean die-bores from severe liquid dirt, such as drawing emulsions and other liquid working materials etc. by means of an integrated powerful suction pump system.

USP- Fine Workneedle Soldering & Straightening Unit LZ 1

Small 3mm Ø-workneedles for the USP-115 UF , F, or other Ultrasonic machines can get firmly soldered and centered at this device.

EDER- KNS Special Needle Grinding Unit

For grinding of new and reshaping of worn out steel-workneedles, as they are used at Eder and various other tungsten carbide die working machines.

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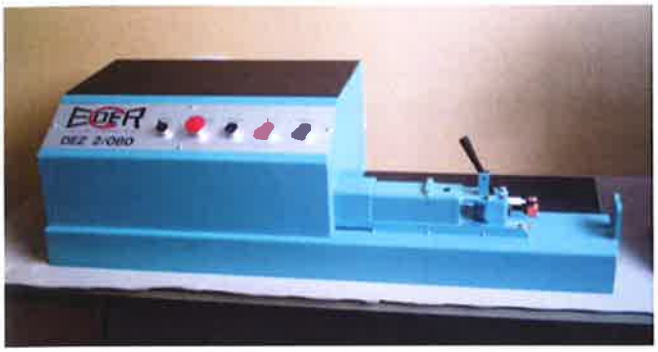


DEZ 2/080- Wire Pulling Device for Drawing of Measuring Wires

Electrically activated wire pulling device for drawing of **measuring wires** for diameter control of drawing dies with round bores, by means of subsequent wire diameter measurement.

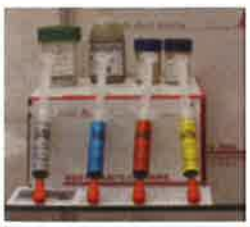
This auxiliary die-workshop unit has been designed to easen the pulling/drawing through of measuring wires in wire drawing dies of between about 0.10 up to 4.00 mm diameter. (larger Ø-ranges possible).

ZTE- Wire Pulling and Elongation Measuring Device

Electrically activated wire pulling device for introduction-drawing of wires and **measuring of elongations** for a relevant controlling of drawing die sets with round bores.

DIM-ZOOM 160 Drawing Die Inspectioning Microscope

equipped with zoom lens system allowing magnifications between 7x-160x, all necessary illuminations and take-up for die-casings. This allows a perfect inspection and judgement of the dies' bore condition at any time.



Further scope of supplies:

Working material kits for all equipment
Diamond Powders/-Pastes/ and Diamond Suspensions
Grinding-/Polishing-/Calibrating-/ and Measuring Pins.
Single Machines / Die Reconditioning Workshop Lines.
Turnkey Die Production Plants.
Technical Assistance
(Training / Upgradings/ Know How)

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OVER 70 YEARS OF EXCELLENCE

Working Materials / Consumbles:

Scope of supplies:

"DIAPOL" Working material kits

Diamond Pastes, -Powders. -Suspensions.
Workneedles for grinding and polishing /
Calibration pins/wires. etc..

Supply of complete lines with machines and necessary ancillary devices for the repair and manufacture of all kinds of precision dies.

Technical assistance, Installation, Training, Supply of Know-How, Upgradings etc.

.. all adapted to the specific needs of any customer.

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precision die-tools
diamond working materials

EDER Engineering GmbH/Ltd.

Supply of technology and equipments for the international wire-/cable industry

BRIEF SURVEY:

Advantages of all EDER Drawing Die Working Equipments versus competitors' machinery

1. **Designed on the basis of over 75 years of praxis and expertise in die-tool processing.**

OVER 75 YEARS OF EXCELLENCE !

2. **Very easy to operate.**
(simplified operator controls)

3. **Human labour / Personnel requirements are down to a mere minimum.**
(Extensive automations incorporated, largely compensating for the increasingly less available human skills in die-shops)

4. **Suitable for both, die-production and reconditioning.**
(designed on the requirements of daily praxis)

5. **Latest technology and EU machinery safety regulations are fully considered.**

6. **Outstanding efficiency and versatility.**

7. **Extremely fast-, precise and largely reproducible operations.**

8. **Low maintenance requirements granted.**
(only high quality, wear resistant materials/components are used in all EDER conceptions, therefore the need for spare parts hardly does exist for a long time).

9. **„Longevity".**
*(e.g. Over 50 years ago, EDER-Austria designed the first Ultrasonic Machine, suitably powered to process the then new PCD dies. This model, „**USP-110**" - despite being already more than a quarter of a Century old - is still largely used in many die-shops all over the world)*

10. **Excellent ratio of price to efficiency - potential - usability.**

Please mind that once a customer has installed advanced EDER-equipments in his die- workshop, he will enjoy a fast return of his investment and a long-life usability, easily compensating any competitors' conventional, eventually slightly cheaper machinery.

For more detailed information, please refer to your local EDER-agency in your country, or to EDER Engineering-Austria directly, whichsoever preferred.

EDER Engineering – Vienna / AUSTRIA

SURVEY: ADVANCED EDER DRAWING DIE REPAIRING MACHINES in operation in GILROD CABLE PLANT (Dec. 2021)

EDER MACHINES in global Action:

THAI HITACHI CO.

EDER Diamond/PCD Die Workshop – Electrocable Co.

75 years of Eder-Austria

Eder Engineering-Austria is celebrating its 75th anniversary as a pioneer in supplying the international wire and cable industry with new products and technologies.

Siegfried Eder, who worked as a key technical manager of a large wire and cable manufacturing plant in Vienna, Austria, founded Eder Engineering in January 1947. The company started out with the production of tungsten carbide drawing die tools, later including natural diamond, then began also designing and making die processing equipment.

In the years following the end of World War II, all of these products were widely needed, and considerable expansion in both production scope and exports abroad took place, beginning with neighbouring countries such as Germany, Hungary and Yugoslavia. The production scope at the time was around 80 per cent die tools, 15 per cent machines and 5 per cent technical assistance.

Dr Kurt Eder - the founder's son and now CEO of the company - in the late 1960s produced the first Compax/PCD drawing die tools, and a specifically designed new line of more powerful equipment. Soon after, Eder-Austria shifted its portfolio to mainly making advanced die-tool working machines and software.

With an export quota of around 98 per cent, Eder Engineering now supplies regular customers in more than 80 countries, offering semi- and fully automatic concepts for the production and/or reconditioning of ultra-hard precision die tools made from tungsten carbide, natural diamond and synthetic PCD.

The regular reconditioning of drawing dies is essential to the production of consistent high-quality wire. Tens of thousands of costly diamond/PCD die tools are in permanent use in wire drawing mills and cable plants, particularly in multi-wire drawing operations. A high degree of machine automation helps to lower the cost of die repair, making all operations easily performed and limiting the intervention of human personnel.

Dr Eder says that his insistence on innovation has kept the company at the forefront: "The requirements of the wire and cable industry worldwide keep changing and it is crucial for us to reinvent the wheel all the time." The next generation of the Eder family is standing by to continue serving the international wire and cable industry with advanced die-tool processing equipment.

Siegfried Eder in 1952

Dr Kurt Eder, CEO

Eder Engineering GmbH
www.eder-eng.com

EDER ENGINEERING

EDER ENGINEERING GmbH

EDER ENGINEERING

DIE & DIE MAKING TECHNOLOGY THAT SERVICES THE WORLD

Over 75 YEARS

LEADING EDER DRAWING DIE RECONDITIONING MACHINES WORLDWIDE

TRUST OUR PROVEN EXPERTISE FOR OVER 75 YEARS

Investing in EDER machines benefits the customer

- Reduced necessary stock of dies and as such less cost
- Considerably longer die service life and higher tons of drawn wire
- Easy to operate machines– minimum of personnel required
- Accurate and flexible refurbishment at any time required
- Increased competitiveness, e.g. for „just-in-time orders“
- Full transparency over your die-stock and refurbishment cost
- Complete in-house independence

This simply is the prime key for achieving optimal economy in any wire drawing– and cable plant.

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EDER ENGINEERING

ONLY GOOD DIES DRAW GOOD WIRE!

Reconditioning used diamond / PCD dies on a regular, on going basis is essential for the production of consistent high quality wire. Well maintained dies produce longer uninterrupted runs, excellent wire surface quality and improved performance leading to higher outputs.

Eder Engineering's range of specialist diamond / PCD die working machinery is designed to process diamond / PCD wire drawing dies quickly and efficiently.

EDER ENGINEERING ADVANCED DIAMOND / PCD RANGE

- Easy to understand and operate.
- Suitable for both the reconditioning and production of die tools.
- Range includes Standard, Semiautomatic and fully automatic machinery.
- High degree of automation ensured - even on Standard units.
- Universal flexibility and application.
- Highest possible efficiency.
- Designed in full conformity to the latest EU machinery safety regulations.
- From a company with over 75 years experience in the wire, cable and tooling industries.

OUR MANUFACTURING PROGRAMME:

Equipment for the repair and manufacture of diamond / PCD dies.

Equipment for the repair and manufacture of Tungsten Carbide dies.

Supply of single machines, complete die workshops and turnkey die tool manufacturing plants.

Complete hardware / software packages, Know How and Technical Assistance.

Die tool inspection and measuring equipment.

Ultrasonic die tool cleaning tanks.

Diamond powders, suspensions, pastes, work pins etc.

Working material packages, tuned to customers' specific needs.

Note: Due to continuous product improvement, specifications contained within this brochure are liable to change without notice.

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