Harshad

50 YEARS

Harshad
GROUP

Jewellery Tools | Machinery | Packaging | Display

JEWELLERY EQUIPMENT CATALOGUE

2024

About Us

Dubai, 50 years back, a barren deserted land was inhibited by a very modest population of various nationalities, this was when our founder Late Mr. Hargovind Dhakan (Babubhai) stepped into this land and started working as a Goldsmith.

While working as a Goldsmith, he faced many problems in sourcing the tools he required to make Jewellery. Being a true entrepreneur, he turned this problem into an opportunity and started bringing various tools from India and selling them in Dubai while he still continued working as a goldsmith.

Soon the demand rose as the population started increasing and he tapped this by introducing his three sons into the business, who soon took-over and expanded the business rapidly, sourcing the products from all over the world. It is then, and now, when Harshad is a brand in itself and the most reputed Tools, Machinery, Display and Packaging Material dealer in the Middle East, We are a one-stop-shop catering to all the needs of the Jewellery industry.

Having undergone restructuring in 2016, Harshad Group today signifies the highest level of customer service, Reliability and In-depth knowledge of the trade. Today we are proudly serving the MENA region via 10 branches and our wide spread dealer network and represent various prestigious international brands of the Industry from all over the world, a few of whom, you will see in this catalogue.

Our motto is to provide top-notch service along with customer satisfaction, based on our experience of the market and the industry. We also provide tailor made solutions for manufacturing workshops, which begin from the smallest imaginable consumables to the most technologically advanced machinery present in the industry. We are also dealing in the Jewellery Packaging Boxes and Display Materials. Our clientele includes practically the entire Middle Eastern Sector, which makes us very adaptable and flexible to different markets.

Our newly inaugurated EXPERIENCE CENTRE in the heart of Gold Souq (Dubai) is a step forward to push innovation and R&D to give you an unmatched experience while shopping for your technology needs.

Do let us know about your valuable queries and order, we shall be more than happy to assist you.

Harshad Group

Contents

Mettler Toledo JET Series
Jewellery Balances

METTLER TOLEDO

JET gold and carat balances deliver the accuracy you need for weighing diamonds, gemstones, gold and precious metals.

Designed to Perform
Advanced weighing technologies, solid construction, and special design features deliver the accuracy you need for weighing jewellery and precious metals.

Intuitive Touch Screen Operation
The large colour touch screen is easy to read, even under the dazzling glare of shop lights, while the user interface is simple for anyone to use.

Automatic Performance Testing
JET balances use internal weights to automatically test and adjust the balance, helping to ensure that weighing performance remains true.

∗ Intuitive user interface
∗ Statistical data analysis
∗ Secondary display option
∗ Hook for weighing below the balance

∗ Robust design with overload protection
∗ Bluetooth option
∗ Data transfer function
∗ 17 weighing units

Interface
RS232, USB Host, USB Device

Touchscreen
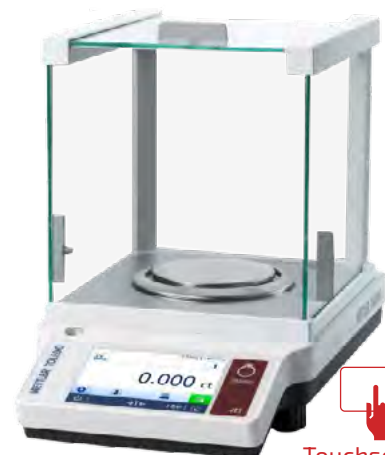
Touchscreen

Gold Balance

Model	Capacity	Readability
JET303G	320 g	0.001 g
JET603G	620 g	0.001 g
JET1003G	1020 g	0.001 g
JET1002G	1200 g	0.01 g
JET2002G	2200 g	0.01 g
JET3002G	3200 g	0.01 g
JET4002G	4200 g	0.01 g
JET6002G	6200 g	0.01 g
JET12002G	12200 g	0.01 g
JET6001G	6200 g	0.1 g

Weighing pan diameter (models JET303G – JET1003G) – 120 mm
Weighing pan size (models JET1002G – JET12002G) – 180 x 180 mm

Carat Balance

Model	Capacity	Readability
JET503C	505 ct / 101 g	0.001 ct / 0.1 mg
JET703C	700 ct / 140 g	0.001 ct / 0.1 mg
JET1103C	1100 ct / 220 g	0.001 ct / 0.1 mg
JET1603C	1600 ct / 320 g	0.001 ct / 0.1 mg

Weighing pan diameter (models JET503G – JET1603G) – 90 mm

Explore more
https://www.harshad.com/mettler-toledo-JET-scales

Precious Metal Weighing Balance

JE Series Gold and Carat Balances

JE balances fulfil all your daily jewellery weighing requirements with simple and reliable balances. Enjoy the large, bright screen and have all essential balance functions at your fingertips.

Thanks to the internal test weights, you can test and adjust your balance at any time with just the touch of a button to ensure ongoing accuracy. The solid construction provides high stability to ensure fast results and prevent the balance from moving if accidentally bumped.

Built from high quality materials, JE balance will provide you with years of reliable service.

Interface : RS232 x1

Model	Capacity	Readability
JE203G	220 g	0.001 g
JE303G	320 g	0.001 g
JE503G	520 g	0.001 g
JE1002G	1200 g	0.01 g
JE2002G	2200 g	0.01 g
JE3002G	3200 g	0.01 g
JE4002G	4200 g	0.01 g
JE5002G	5200 g	0.01 g

Model	Capacity	Readability
JE503C	505 ct / 101 g	0.001 ct / 0.1 mg
JE703C	700 ct / 140 g	0.001 ct / 0.1 mg
JE1103C	1100 ct / 220 g	0.001 ct / 0.1 mg

JL Series Gold Balance JL1502GE/JL602GE

Specification	JL602GE	JL1502GE
Maximum Capacity	620 g	1520 g
Readability	0.01 g	0.01 g
Minimum Weight (U=1% , k=2), typical	1.4 g	1.4 g
Adjustment	External	External
Repeatability	0.007 g	0.007 g
Settling Time	2 s	N/A
Dimensions	225 x 67 x 194 mm	225 x 67 x 194 mm
Housing	Plastic ABS/PC	Plastic ABS/PC
Interface	RS232	RS232
Balance Model	Gold	Gold
Display	LCD backlit display	LCD backlit display
Guaranteed Repeatability	0.01g	0.01 g
Linearity	0.03 g	0.03 g
Temperature Accuracy (±)	10 ppm/°C	10 ppm/°C
Material Number	30113832	30113831

Strong and lightweight, for weighing jewellery anywhere.

Space-saving Design: The ultra-sleek design is perfect for small spaces. These light and compact balances are easy to carry to wherever you want to weigh.

Bright Display: The backlit display with large figures is easy to read in both bright and dim lighting conditions.

Designed to last: A stainless steel weighing pan and robust construction ensure reliable performance, day after day.

JL 1502 GE / JL 602 GE

Explore more
https://www.harshad.com/Mettler-Toledo-JE-and-JL-Series

Mettler Toledo JP Series
Jewellery Balances

METTLER TOLEDO

High capacity balances built to last..
Accurately weigh your heavy loads: 16200 g & 32200 g capacity, 0.1 g readability, large platform, overload protection, FACT fully automatic internal adjustment, full metal housing.

Perfect for Heavy Loads
JP balances are extremely solid and do not move when accidentally bumped or tilt when heavy items, such as bullion, are placed on the weighing pan.

Large Weighing Platform
The large weighing pan accommodates big items with ease. The high stability enables items such as gold bullion to be placed securely on the balance.

Easy to Read Display
The high contrast display has large bright numbers that are easy to read, even in challenging lighting conditions.

JP16001G / JP32001G

Specification	JP16001G	JP32001G
Maximum Capacity	16200 g	32200 g
Readability	0.1 g	0.1 g
Minimum Weight (U=1% , k=2), typical	14 g	14 g
Adjustment	Internal/FACT	Internal/FACT
Repeatability (Typical)	0.07 g	0.07 g
Weighing Pan Dimensions (W x D)	351 x 245 mm	351 x 245 mm
Settling Time	1 s	1 s
Dimensions (W x D x H)	363 x 346 x 118 mm	363 x 346 x 118 mm
Housing	Die-cast aluminum	Die-cast aluminum
Interface	USB Device, RS232	USB Device, RS232
Balance Model	Gold	Gold
Display	High Contrast Display HCD	High Contrast Display HCD
Resolution	0.1g	0.1 g
Material Number	11143045	11143048

Explore more
https://www.harshad.com/mettler-toledo

Micro Balance
WXTJ3DU

Precise weighing for your smallest jewellery samples. 1.2 / 3.2 g capacity, 0.001 / 0.01 mg readability, high resolution weighing cell, touch screen, FACT fully automatic internal adjustment, practical size. The WXTJ microbalance offers unsurpassed accuracy down to 1 microgram for weighing your smallest precious samples.

Highly Accurate Weighing
Weigh jewelry accurately with a fiane range up to 1.2 g with readability 0.001 mg (= 1 µg) and from 1.2 g to 3.2 g with 0.01 mg readability (= 10 µg).

High Stability for Fast Results
The WXTJ balance has a solid steel and aluminum housing. This offers a high level of stability, meaning you get fast and accurate results.

Specification	
Maximum Capacity	1.2 g/ 3.2 g
Readability	0.001 mg; 0.01 mg
Repeatability (limit)	0.001 mg
Repeatability (typical)	0.0008 mg
Minimum Weight (U=1%, k=2), typical	0.16 mg
Adjustment	Internal / FACT
Weighing Pan Diameter	32 mm
Legal for Trade	No
Minimum Weight (UPS, 0.1%), typical	1.6 mg
Linearity, limit	0.02 mg
Linearity, typical	0.006 mg
Settling Time	5 s
Housing	Die-cast aluminum
Interfaces	RS 232
Balance Model	Carat; Gold
Display	Touchscreen
Guaranteed Repeatability	0.001 mg
Dimensions (W x D x H)	127 x 261 x 165 mm
Material Number	30335763

Explore more
https://www.harshad.com/Mettler-Toledo-Microbalance

Semi-Micro Balance
JE 155 DUG/00

Precise weighing for small jewellery samples. 42 / 152 g capacity, 0.01 / 0.1 mg readability, bright and clear back-lit LCD, internal adjustment, passcode protection, overload protection, metal base. JE semi-micro balance enables you to weigh gold and diamonds to 5 decimal places with the utmost accuracy.

Precise Results
Weigh to 5 decimal places with the utmost accuracy. This dual range balance offers full range readability of 0.1 mg with 0.01 mg in the fine range.

Easy Performance Testing
Ensure accuracy by testing your balance regularly with the internal weights. At just the touch of a button, the balance tests and adjusts itself.
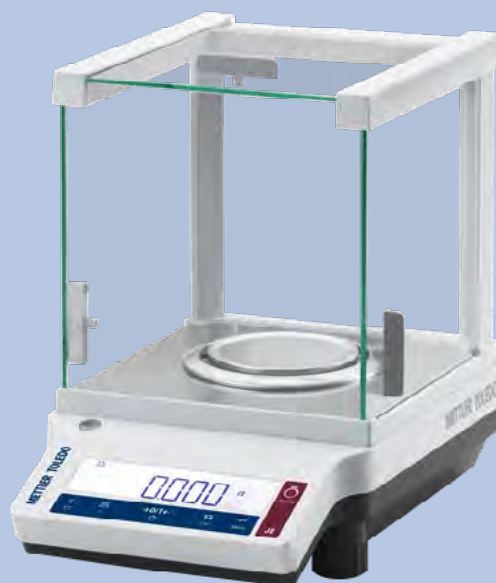
* Bright Display with Large Numbers
* Convenient Levelling
* Easy Density Measurement
* 8 Applications
* 16 Weight Units
* Designed to Last

Specification	
Maximum Capacity	42 g / 152 g
Readability	0.01 mg; 0.1 mg
Readability (Certified)	1 mg
Repeatability (typical)	0.02 mg
Minimum Weight (U=1%, k=2), typical	4 mg
Adjustment	Internal
Weighing Pan Diameter	80 mm
Legal for Trade	No
Minimum Weight (UPS, 0.1%), typical	40 mg
Linearity, limit	0.2 mg
Linearity, typical	0.1 mg
Settling Time	5 s
Housing	Die-cast aluminum, ABS
Interfaces	RS 232
Balance Model	Carat; Gold
Display	LCD Backlit Display
Guaranteed Repeaability	0.06 mg
Dimensions (W x D x H)	210 x 344 x 279 mm
Material Number	30398936

Explore more
https://www.harshad.com/Mettler-Toledo-Microbalance

Ohaus PJX Series
Gold and Carat Balances

The PJX Series offers a range of Jewellery Balances for weighing precious metals and stones in a variety of capacities and readabilities. The PJX Series is OIMLapproved and ideal for legal-for-trade applications. The PJX features an auxiliary display that can be easily connected to provide simultaneous viewing of results for both trader and customer. Select models come with a built-in internal adjustment system.

Applications
Basic Weighing, Parts Counting, Percent Weighing, Density Determination

Display
Backlit Liquid Crystal Display (LCD)

Operation
AC adapter (included)

Communication
RS232 interface and Mini-Din port (for connecting auxiliary display)

Construction
Metal base, plastic top housing, removable stainless steel pan, removable glass draftshield or side doors, integrated weigh-below-hook, security bracket, calibration lock and in-use cover

Design Features
User-selectable environmental filters and brightness settings, auto-tare, auto-dim, user-selectable span calibration points, software lockout and reset menu, user-selectable communication settings and data print options, user-definable project and user IDs, software overload/underload indicator, stability indicator

Model	Capacity	Readability
PJX822	820 g	0.01 g
PJX1602	1600 g	0.01 g
PJX2202	2200 g	0.01 g
PJX3202	3200 g	0.01 g
PJX4202	4200 g	0.01 g
PJX5202	5200 g	0.01 g
PJX6202	6200 g	0.01 g
PJX2201	2200 g	0.1 g
PJX4201	4200 g	0.1 g
PJX6201	6200 g	0.1 g

Weighing pan size (models PJX822 - PJX6202) - 180 mm
Weighing pan size (models PJX2201 - PJX6201) - 180 mm

Model	Capacity	Readability
PJX203	40 g / 200 ct	0.0001 g; 0.001 ct
PJX803	160 g / 800 ct	0.0001 g; 0.001 ct
PJX1203	240 g / 1200 ct	0.0001 g; 0.001 ct
PJX1603	320 g / 1600 ct	0.001 g; 0.005 ct
PJX2503	500 g / 2500 ct	0.001 g; 0.005 ct

Weighing pan size (models PJX203 - PJX1203) - 90 mm
Weighing pan size (models PXJ1603 - PJX2503) - 120 mm

Explore more
https://www.harshad.com/ohaus

Ohaus SJX Series
Jewellery Scales

Designed for a wide range of regular and trading applications, the Class ll certified SJX Carat and Gold balances are ideal for weighing jewellery, precious metals, gemstones etc. Equipped with superior overload protection, large backlit display, fast stabilization time, multiple weighing units, application modes and connectivity options, these slim balances offer a truly user-friendly weighing experience.

Applications
Weighing, Parts Counting, Percent Weighing, Check Weighing, Totalization, Density Determination, Display Hold

Display
Backlit Liquid Crystal Display (LCD)

Operation
AC adapter (included) or 4 AA Batteries (Not included)

Communication
RS232, USB Host, USB Device, Ethernet or Bluetooth® (available as an accessory)

Construction
ABS housing, stainless steel pan, ABS draftshield (1mg model only), weigh below hook, transportation lock, manual calibration lock switch, security slot, adjustable levelling feet, illuminated up-front level indicator.

Design Features
Stability indicator, mechanical and software overload/underload protection, low battery indicator, auto shut-off, auto tare, scoop on 64g model, weight on 64g SJX/E model only.

Model	Capacity	Readability
SJX323	64 g	0.001 g
SJX622	620 g	0.01 g
SJX1502	1500 g	0.01 g
SJX3202	3200 g	0.1 g
SJX6201	6200 g	0.1 g
SJX8200	8200 g	1 g

Explore more
https://www.harshad.com/ohaus

Ohaus Ranger 7000
Compact Bench Scale

Ranger 7000, a top of the line compact scale for even the most complex industrial applications.

It offers the best of every ingenious feature that make OHAUS industrial products the right tools for your toughest weighing jobs.
Ranger 7000 boasts the highest resolution, largest display, most application modes and connectivity options, as well as the largest memory library of any industrial compact bench scale in the OHAUS portfolio.

∗ 10 advanced application modes, peripheral device control and an optional kit for a second scale platform.
∗ Extremely durable scale design. Features IP54 rated metal housing and sealed metal terminal.
∗ With SmarText 2.0 software and a 109 mm LCD display, the advanced functionality of Ranger 7000 is simple to use with minimal training.

R71MHD15/R71MHD35

Specifications	
Weighing units	kg, g, lb, oz, lb:oz, custom units
Application modes	Weighing with statistics, parts counting, percent weighing, check weighing/counting, dynamic weighing (display hold), filling, formulation, differential weighing, density weighing, sieve Analysis
Display	109 mm TFT graphic LCD
Keypad	8 function, 5 soft, 12 numeric membrane keys
Stabilization time	1 second
Interface	Standard RS232, USB device, USB host Optional ethernet, 2nd RS232, 2nd scale, 2 In/4 Out discrete I/O

Model	R71MHD15	R71MHD35
Capacity, Readability	15 kg x 0.0001 kg 15000 g x 0.1 g	35 kg x 0.0001 kg 35000 g x 0.1 g
Min. recommended APW	0.005 g	
Min. recommended sample weight	2 g	
Max. displayed resolution	1 : 150000	1 : 350000
Internal counting solution	1 : 3000000	1 : 7000000
Linearity/Repeatability	± 2d	
Calibration	AutoCal™, Span or linear	
Power	100-240 VAC / 50/60 Hz Universal Power Supply, Rechargeable Lithium Battery (Optional)	
Platform dimensions (W x D x H)	377 x 311 x 48 mm	
Base housing dimensions (W x D x min H)	377 x 311 x 128 mm	
Display dimensions (W x D x H)	267 x 118 x 72 mm	
Shipping dimensions	665 x 525 x 330 mm	
Net weight	10.9 kg	
Shipping weight	14.4 kg	

Explore more
https://www.harshad.com/ohaus

Ohaus PX125D
Semi Micro Balance

The Pioneer PX5 combines essential weighing functionality with competitive performance, offering high accuracy and repeatability for applications in laboratory, industrial and education settings. The PX5 is affordably priced, and intuitively designed for intelligent operation with a second line display for additional information, and USB and RS232 connectivity for easy communication.

Applications
Basic Weighing, Parts Counting, Percent Weighing, Animal Weighing, Density Determination, Formulation

Display
Backlit Liquid Crystal Display (LCD); Second line display for additional information or guidance (dot matrix)

Operation
AC adapter (included)

Communication
RS232 and USB device (included); GLP/GMP data output with real-time clock (except US version)

Construction
Metal base, plastic top housing, removable stainless steel pan, glass draftshield, integrated weigh-below-hook, security bracket, calibration lock and in-use cover

Design Features
User-selectable environmental filters and brightness settings, auto-tare, auto-dim, user-selectable span calibration points, software lockout and reset menu, userselectable communication settings and data print options, user-definable project and user IDs, software overload/underload indicator, stability indicator, four operating languages

Specification	
Maximum Capacity	52 g / 120 g
Readability	0.01 mg; 0.1 mg
Repeatability (typical)	0.02 mg; 0.1 mg
Internal Calibration	AutoCal™ - Automatic
Weighing Pan Diameter	80 mm
Legal for Trade	OIML
Minimum Weight (UPS, 0.1%), typical	20 mg
Linearity	0.0001 mg
Settling Time	10 s
Pan Construction	Stainless Steel
Interfaces	USB; RS 232
Balance Model	Carat; Gold
Display	2-Line LCD with Backlight
Dimensions	321 x 309 x 209 mm
Weight	4.5 kg
Units of Measurement	Singapore Tael; Ounce Troy; Pennyweight; Grain; Kilogram; Tical; Custom; Milligram; Momme; Newton; Taiwan Tael; Gram; Hong Kong Tael; Pound; Tola; Mesghal; Carat; Ounce
Working Environment	operability guaranteed between 5°C and 40°C; 10°C – 30°C, 80%RH, non-condensing

Explore more
https://www.harshad.com/ohaus

XRF Systems for Gold and Precious Metal Analysis

Tailor-made for analysing gold and precious metals with its GOLDSCOPE SD® series, Fischer offers a tailored solution for the non-destructive testing of gold and precious metals. The hardware and software of these robust X-ray fluorescence instruments is adapted to the unique requirements of the jewellery and gold sector.

Your benefit: Unbeatable value for money! With the GOLDSCOPE you buy only what you really need to test gold, jewellery and precious metals.

GOLDSCOPE SD®
510

GOLDSCOPE SD®
515, 520, 550

Features:
∗ Compact and sturdy desktop instrument for non-destructive material analysis using X-ray fluorescence
∗ Hardware and software geared to the measurement tasks most relevant for gold and precious metals
∗ Comfortable measuring thanks to a spacious chamber and bottom-up measurement direction
∗ 4 models, suited to any application
∗ Complaint with EN 61010, DIN ISO 3497 and ASTM B 568

Application:
∗ Purchase and sale of gold
∗ Analysis of precious metals, dental alloys
∗ Jewellery manufacture
∗ Certification: solutions for refineries, assay offices and hallmarking

The handling of the XRF devices is tailored to the needs of the precious metals and jewellery industry. The most important measuring tasks for analysing gold and precious metals are already pre-programmed in the operating software, WinFTM. All you have to do is place the sample on the measurement window and press start. This makes the valuation of jewellery and coins foolproof.

Explore more
https://www.harshad.com/fischer

General Specification	
Intended Use	Energy dispersive X-ray measuring instrument (EDXRF) to analyse precious metals
Design	GOLDSCOPE SD 510: Bench top unit with towards the front opening hood, GOLDSCOPE SD 515, 520, 550: Bench top unit with upwards opening hood
Measuring Direction	Bottom Up
Electrical Data	
Power Supply And Consumption	AC 115 or 230 V, 50/60 Hz, max. 120 W without evaluation PC
Protection Class	IP40
Environmental Conditions	
Operating temperature	10 °C – 45 °C / 50 °F – 113 °F
Storage/Transport temperature	0 °C – 50 °C / 32 °F – 122 °F
Relative humidity	≤ 95 %
Sample Alignment	
Sample positioning	Manually
Video microscope	High-resolution CCD colour camera for optical monitoring of the measurement location along the primary beam axis, Crosshairs with a calibrated scale (ruler) and spot-indicator, Adjustable LED illumination
Zoom factor	Digital 1x, 2x, 3x, 4x
Evaluation Unit	
Computer	Windows®-PC
Software	WinFTM® optimized for GOLDSCOPE SD, including Gold Setup GOLDSCOPE with measuring applications for gold and jewellery

Standards	GOLDSCOPE SD® 510	GOLDSCOPE SD® 515	GOLDSCOPE SD® 520	GOLDSCOPE SD® 550
CE Approval		EN 61010, EN 61326		
X-Ray Standard		DIN ISO 3497 and ASTM B 568		
Approval	Individual acceptance inspection as a fully protected instrument according to German radiation protection law	Fully protected instrument with type approval according to current radiation protection legislation.		

Sample Stage		
Design Max. sample weight [kg/lb]		Fixed sample support 13/29
Usable sample placement area [mm/in]	305 x 490/12 x 19.3	310 x 320/12.2 x 12.6
Max. sample height [mm/in]	130/5.1	90/3.5

	GOLDSCOPE SD® 510	GOLDSCOPE SD® 515	GOLDSCOPE SD® 520	GOLDSCOPE SD® 550
Applications				
Recommended area of application	Small retail shops	Highend retail showrooms, Small assaying offices	Refineries, Assaying offices and Hallmarking centers	Hallmarking centers, Jewellery manufacturing, Assaying offices
Dimensions				
External Dimensions W x D x H (mm/in)	405 x 588 x 426 / 16 x 23 x 17	403 x 588 x 365 / 16 x 23.2 x 14.4		
Weight (kg/lb)	Approx. 45 / 99	Approx. 45 / 99		
X-Ray Source				
X-Ray tube	Tungsten tube, thermally stabilized		Micro-focus tungsten tube with beryllium window	
High voltage, three steps	30, 40, 50 kV	30, 40, 50 kV	30, 40, 50 kV	10, 30, 50 kV
Max. anode current	1 mA			
Primary filter, material and thickness (µm/mils)	None	None	Fixed Al 500/19.7	6x Changable: Ni 10/0.4 no filter Al 1000/39.4 Al 500/19.7 Al 100/3.9 Mylar® 100/3.9
Aperture Collimator Ø (mm/mils)	Fixed Standard 1.0/39 Option 0.6/24	Fixed Standard 1.0/39 Option 0.6/24 or 1.0/39; 2.0/79	Fixed Standard 1.0/39 Option 0.6/24 or 1.0/39; 2.0/79	4x Changable: 0.2/8; 0.6/24; 1.0/39; 2.0/79
Smallest measurement spot* Ø (mm/mils)	Approx. 0.7/28*	Approx. 0.7/28*	Approx. 0.7/28*	Approx. 0.3/12*
	* depends on the measuring distance and on the aperture, the actual measurement spot size is shown in the video image			
X-Ray Detection				
Detector type	Silicon PIN detector peltier-cooled		Silicon Drift Detector (SDD), peltier-cooled	
Resolution fwhm for Mn-K_a[eV]	≤ 180		≤ 160	
Element range	S (16) to U (92)		Al (13) to U (92)	
Measuring distance (mm/in)	0 - 25/0 - 1, distance compensation with patented DCM method for simplified measurements at varying distances. For particular applications or for high demand on accuracy an additional calibration might be necessary.			
Repeatability for gold, measurement time 60 sec	≤ 1 ‰ with aperture 1.0 mm	≤ 1 ‰ with aperture 1.0 mm	≤ 0.5 ‰ with aperture 1.0 mm	≤ 0.5 ‰ with aperture 1.0 mm
Order				
Order number	605-684	605-685	605-686	605-687
	incl. Gold Setup GOLDSCOPE with factory calibrated measuring applications for gold and jewellery			

GOLDSCOPE SD 520/550 - DPP+
Digital Pulse Processor (DPP+)

Fischer X-ray Fluorescence (XRF) measuring devices are continuously optimized to achieve higher precision in shorter measurement times. That is why we have developed our new digital pulse processor DPP+ completely in-house.

The DPP+ is one of the central elements of an X-ray fluorescence spectrometer which processes high count rates.

Achieve up to 45% reduction in absolute standard deviation with same measuring time

Reduce your measurement time by a factor of 3 with the same absolute standard deviation

Secure your Silicon Drift Detector (SDD) detector with a Grid protection

Features:
* Modern Silicon Drift Detector (SDD) for high accuracy and a good detection sensitivity.
* High-resolution colour video camera for precise determination of the measurement spot.
* Bench-top unit with upward opening hood.
* Detector: new SDD detector with 20 mm2 (160 eV)
* Micro-focus tungsten tube with beryllium window
* Fitted with the new Digital Pulse Processor (DPP+)

Applications
* Jewellery, precious metals and dental alloys.
* Precious Metal Analysis eg. Gold, Silver and Platinum group elements such as Iridium, Ruthenium, Osmium, Rhenium.
* Measuring coating thickness on sterling silver, rhodium finishes or gold alloys.
* Determination of complex multi layer-coating system.

Gold Refinery   Gold Manufacturing   Tunch and Assaying

Explore more
https://www.harshad.com/fischer

GOLDSCOPE SD 520/550 - DPP+

General Specification	
Intended use	Energy Dispersive X-Ray Fluorescence measuring instrument (EDXRF) for precious metal, alloy analysis and coating thickness measurement in hallmarking, testing, tunch assaying offices, refineries and gold manufacturing.
Design	Bench top unit with upwards opening hood
Measuring direction	From bottom to top
X-Ray tube	Micro-focus tube with beryllium window
Measurement spot	Depending on the measuring distance and on the aperture, the actual measurement is shown in video image.

	GOLDSCOPE® SD 520 DPP+	GOLDSCOPE® SD 550 DPP+
High voltage (three steps [kV])	30, 40, 50	10, 30, 50
Measurement spot	Fixed AI 500	6x changeable: Ni 10, no filter, AI 1000, AI 500, AI 100, Mylar ® 100
Apertures (Collimators) Ø [mm]	Fixed, Standard 1.0 mm Option 0.6 / 2.0 mm	4x changeable: 0.2, 0.6, 1.0, 2.0 mm

Environmental Condition	
Operating temperature	10 °C – 40 °C
Storage/transport temperature	0 °C – 50 °C
Relative humidity	≤ 95 %

X-Ray Detector	Standard (20mm^2)	Optional (50mm^2)
X-ray detector Resolution (fwhm for Mn-Kα)	Silicon Drift detector with peltier cooling ≤ 140 eV	Silicon Drift detector with peltier cooling ≤ 140 eV
Element range	Aluminum Al (13) – Uranium U (92)	
Measuring distance*	0 – 25 mm	

*Distance compensation with patented DCM method for simplified measurements at varying distances.
For particular applications or for higher demands on accuracy an additional calibration might be necessary.

GOLDSCOPE SD 520/550 – DPP+

	GOLDSCOPE® SD 520 DPP+	GOLDSCOPE® SD 550 DPP+
Sample Alignment		
Video microscope	High-resolution CCD colour camera for optical monitoring of the measurement location along the primary beam axis, Crosshair with a calibrated scale (ruler) and spot-indicator, Adjustable LED illumination	
Zoom Factor	Digital 1x, 2x, 3x 4x	

Electrical Data		
Power source	AC 115 V or AC 230 V 50 / 60 Hz	
Power consumption	max. 120 W, without evaluation PC	
Protection class	IP 40	

Target Dimension		
External dimensions	403 x 588 x 365 mm (Width x depth x height)	
Usable sample placement area	310 x 320 mm / 12.2 x 12.6	
Maximum sample height	90 mm	
Weight approx	45 kg	

Evaluation Unit		
Computer	Windows based PC	
Software standard	Fischer WinFTM®	

Standards		
X-Ray standards	DIN ISO 3497 and ASTM B 568	

Order

GOLDSCOPE SD 520 / 550 DPP+
Part No.
GOLDSCOPE SD 520 – DPP+ IN1003066
GOLDSCOPE SD 550 – DPP+ IN1003063

Solution for Hallmarking Centres

GOLDSCOPE® SD 520 and GOLDSCOPE® SD 550 devices are equipped with the new digital pulse processor DPP+ as a standard option
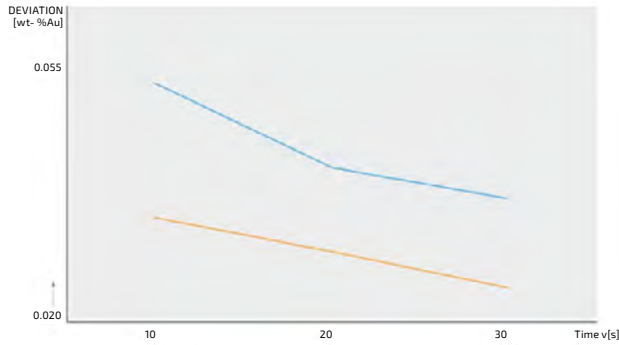
950 gold (23 carat): Absolute standard deviation (precision) against measurement time
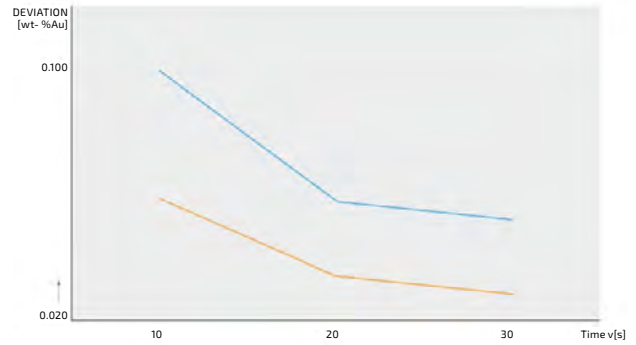
585 gold (14 carat): Absolute standard deviation (precision) against measurement time

Higher count rates with very good energy resolution:
New SDD Detector with DPP+

— Old DPP

— New SDD Detector with DPP+

Fischer XAN 220

X-Ray Source	
X-ray tube	Micro-focus tungsten tube with beryllium window
High voltage, three steps (kV)	30, 40, 50
Aperture (Collimator) Ø (mm/mils)	0.6/23.6, 1.0/39, 2.0/79
Measurement spot	Aperture Ø plus 200 µm (8 mils)

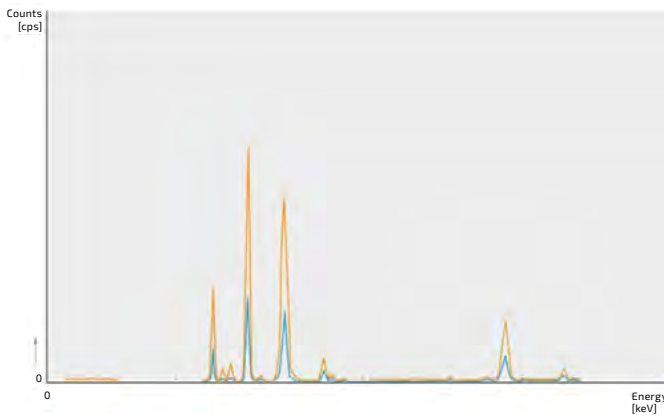| X-Ray Detection	
Detector type	Silicon Drift Detector (SDD), peltier-cooled
Resolution fwhm for Mn-Kα (eV)	≤ 160
Measuring distance*	0 ... 25 mm (0 ... 1 in)
Repeatability for gold	≤ 0.5 ‰ with measurement time 60 sec
Usable sample placement area (mm/in)	310 x 320 / 12.2 x 12.6
Max. sample height (mm/in)	90/3.5

Dimensions	
External dimensions W x D x L (mm / in)	403 x 588 x 365 / 16 x 23.2 x 14.4
Weight	approx. 45 kg

Fischer XAN 250

X-Ray Source	
X-ray tube	Micro-focus tungsten tube with beryllium window
High voltage, three steps (kV)	10, 30, 50
Aperture (Collimator) Ø (mm/mils)	0.2/7.9, 0.6/23.6, 1.0/39.4, 2.0/78.7;
Measurement spot* Ø (mm/mils)	approx. 0.3/11.8*

X-Ray Detection	
Detector type	Silicon Drift Detector (SDD), peltier-cooled
Resolution fwhm for Mn-Kα (eV)	≤ 160
Measuring distance*	0 ... 25 mm (0 ... 1 in)
Element Range	Aluminum (13) to Uranium (92), up to 24 elements simultaneously
Usable sample placement area (mm/in)	310 x 320 / 12.2 x 12.6
Max. sample height (mm/in)	90/3.5

Dimensions	
External dimensions W x D x L (mm / in)	403 x 588 x 365 / 16 x 23.2 x 14.4
Weight	approx. 45 kg

Explore more
https://www.harshad.com/fischer

Vanta Element Series
XRF Analyzer

The Vanta Element XRF analyzer series provides elemental analysis for fast alloy grade identification and sorting at an affordable price. The series is available in two cost-effective models:

* **Vanta Element analyzer** for affordable alloy ID
* **Vanta Element-S analyzer** for affordable alloy ID, including light element detection for magnesium (Mg), aluminum (Al), silicon (Si), sulfur (S), and phosphorus (P)

Both models feature fast grade ID and clear on-screen grade comparison to speed up metal testing for scrap sorting, metal manufacturing, and precious metals analysis.

Rugged, Affordable Handheld XRF
Built for demanding environments, the analyzer delivers a lower cost of ownership.

* IP54 rated for protection against dust and moisture
* Drop tested (MIL-STD-810G) to protect against falls and reduce the need for costly repairs
* Rated for continuous testing from -10 °C to 45 °C (14 °F to 113 °F)
* Stainless-steel faceplate for wear protection
* Easy, toolless window replacement

Specification	Vanta Element	Vanta Element - S
Excitation Source	2W X-ray tube with 35kV tungsten anode	4W X-ray tube with 50kV silver anode
Primary Beam Filtration	Fixed aluminum filter wheel	4 position filter wheel
Detector	Silicon PIN detector	Silicon drift detector (SDD)
Power	Removable 14.4 V Li-ion battery or 18 V power transformer 100-240 VAC, 50-60 Hz, 70 W max	
Display	800 x 480 (WVGA) LCD with capacitive touch screen	
Operating Environment	Temperature: -10 °C to 50 °C (14°F to 122 °F) at 100% duty cycle; Humidity: 10% to 90% relative humidity non-condensing	
Connectivity	USB, WLAN (with optional adaptor), Bluetooth (with optional adaptor)	
Dimensions (W x H x D)	83 x 289 x 242 mm (3.25 x 11.4 x 9.5 in)	
Weight	1.54 kg (3.39 lb) with battery, 1.32 kg (2.91 lb) without battery	

Explore more
https://www.harshad.com/olympus

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Vanta Series
Handheld XRF Analyzer

The Vanta analyzer is our most advanced handheld X-ray fluorescence (XRF) device for customers who demand laboratory-quality results in the field. It provides rapid, accurate elemental analysis and alloy identification for high-throughput XRF testing.

Vanta handheld XRF analyzers are built to be tough. Their rugged, durable design makes them resistant to damage in challenging industrial environments for greater uptime and a lower cost of ownership.

With an intuitive user interface and customizable software, the Vanta XRF series is easy to use with minimal training for high throughput and a fast return on investment. Featuring innovative and proprietary Axon Technology™, Vanta analyzers give you accurate results and help boost productivity no matter the environment or working conditions.

* Exceptionally durable under extreme conditions.
* Superior analytics.
* Optional wireless LAN and Bluetooth® for real-time data sharing. Cloud technology enabled.
* Intuitive user interface.

Specification	
Excitation Source	4-watt X-ray tube with application-optimized anode material (rhodium (Rh), silver (Ag), or tungsten (W)) L series (W): 35 kV (2 watts)
Primary Beam Filtration	L series: Fixed aluminum filter and no internal collimation
Detector	L series: Silicon PIN detector
Power	Removable 14.4 V Li-ion battery with hot-swap capability 18 V power transformer 100-240 VAC, 50-60 Hz, 70 W max
Display	800 x 480 (WVGA) LCD with capacitive touch screen
Operating Environment	-10 °C to 50 °C (14°F to 122 °F), (continuous duty cycle with optional fan); Humidity: 10% to 90% relative humidity non-condensing
Aiming Camera	Full VGA CMOS camera (optional)
Panoramic Camera	5-megapixel CMOS camera
Connectivity	USB, WLAN (with optional adaptor), Bluetooth (with optional adaptor)

Explore more
https://www.harshad.com/olympus

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Vanta GX
Precious Metal Analyzer

Vanta GX precious metal analyzer is an accurate, easy to use, and nondestructive, the analyzer proves the purity of gold, silver, platinum, palladium, and other precious metals in seconds.

* Uses trusted and sophisticated analytics to test jewelry without damaging it.
* Provides an answer at the push of a button to save time in the showroom.
* Includes an alert for gold plating for fraud detection.

Elements

Detects up to 27 elements including,
* Ag - Silver
* Au - Gold
* Pt - Platinum
* Pd - Palladium

Features

* Lightweight and compact
* Easy-to-open lid
* Viewing window
* Lights up during testing
* Clear, bright touch screen
* USB ports for data transfer
* Lid locks
* 18 V power connection
* PC software
* Web user interface

Specification	
Excitation Source	2-watt X-ray tube: 35 kV, 50 µA maximum Tungsten (W) anode
Detector	Silicon PIN diode Silicon drift detector Thermo-electrically cooled, high resolution
Operating Environment	Temperature: -10 °C to 40 °C (14 °F to 122 °F) Humidity: 10% to 90% relative humidity, noncondensing
Operating System	Linux Application software: Evident-proprietary data acquisition and processing package
Camera	Full colour VGA camera
Power	100–240 VAC, 50–60 Hz, 70 watts at 18 V and 3.9 A
Display	Full color touch-screen display: 800 × 480 (WVGA) 16-bit transflective LCD with capacitive touch screen supporting gesture control
Spot Size	6 mm nominal diameter
Connectivity	1 mini USB and 2 full size USB
Dimensions (W x D x H)	Closed: 239.3 x 324.1 x 357.3 mm (9.42 x 12.76 x 14.07 in) Open: 239.3 x 390.8 x 387.8 mm (9.42 x 15.39 x 15.27 in)
Sample Chamber Dimensions (W x D x H)	176.7 x 173.4 x 93.9 mm (6.96 x 6.83 x 3.70 in)
Weight	10 kg (22 lb)

Explore more
https://www.harshad.com/olympus

Gold/Platinum Tester GK
Precious Metal Tester

ALFA MIRAGE

GKS-300	
Capacity	0.001 - 300 g
Gold, White gold	9 - 24 K and %
Platinum	Pt600 - 1000
Silver	600 - 1000
Density	0.001 g/cm^3

GKS-3000	
Capacity	0.01 - 3000 g
Gold, White gold	9 - 24 K and %
Platinum	Pt600 - 1000
Silver	600 - 1000
Density	0.01 g/cm^3

GK-300	
Capacity	0.01 - 300 g
Gold, White gold	9 - 24 K and %
Density	0.01 g/cm^3

Explore more
https://www.harshad.com/alfa-mirage

Midas Density Kit
Gold Purity Tester

✻ Just two simple steps, the purity of precious metals and gold karat can be showed rapidly and accurately. No stains and scratches left on gold after testing.

✻ The gold K number and density, platinum Pt value and density can be accurately measured in only 5 seconds.

✻ More intuitive and more rapid to identify gold authenticity.
✻ With the mixture proportion function, it can test other precious metals, such as: platinum, silver, palladium, copper, rhodium, etc.

✻ Can also be used as a precision electronic balance.

	MDK 300	MDK 1200	MDK 3000
Maximum Weight	300 g	1200 g	3000 g
Minimum Weight	0.01 g	0.01 g	0.01 g
Weight Resolution	5 g	8 g	10 g
Density Resolution	0.01 g/cm^3	0.01 g/cm^3	0.01 g/cm^3
Measuring Time	5 seconds	5 seconds	5 seconds

Explore more
https://www.harshad.com/midas

Water Filtration

These filtering systems are used under the sink in the jewellery industry, to recover small parts of precious metals through filters that can have a filtering degree as small as 1 absolute micron.

Advantages

* Quick payback time
* Recovery of up to 99% of the metal in solution
* Easy to use
* Minimal maintenance

Specification

Made in PP, which guarantees high mechanical and chemical resistance to both acid & alkaline solution
Suitable for water at hand washing stations

Process water after performing:
Magnetic
Ultrasonic
Drum polish
Handwash
Floor cleaning

Filtration Bags:

WF-05 (Undersink)

WF-08

WF-10

Machine	Filters	Qty	Micron
WF-10	Thread	7	10 µ
	Paper	72	1 µ absolute
WF-08	Thread	1	50 µ
	Bag	1	1 µ absolute
WF-05	Bag 1	3	10 µ
	Bag 2	1	1 µ absolute

Types of Filtration

Carbon caniater

Disc

Oilsorb canister for degreasing process

High flow JUMBO pleated cartridge

Various cartridges for different applications

Explore more
https://www.harshad.com/lafonte

2 Tap Sink
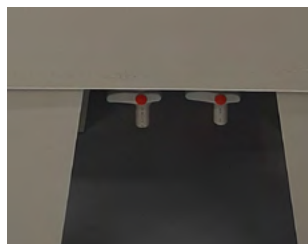
Specifications	
Filter	PolyPropylene (PP)
Construction	Corrosion resistance materials
Dimensions (L x D x H)	960 x 620 x 1250 mm
Weight	30 kg

1 Tap Sink

Specifications	
Dimensions (L x W x H)	680 x 550 x 1250 mm
Weight	15 kg

KO-MAX
Silence - 70

Component
* Main body
* Power plug
* LED Grinding box + Adapter
* 1500mm Flexible hose

Optional Accessories
* Pocket Filter
* Table
* Foot switch (For suction on/off)

GA-10-L

Technical Specifications

Power supply	AC 220V-240V, 50/60Hz, single phase AC 100V-120V, 50/60Hz, single phase
Motor RPM	32000 RPM
Air pressure	23.7 kPa (230 V); 25.2 kPa (120 V)
Air flow	3750 l/min (230 V); 3660 l/min (120 V)
Body materials	ABS, PP, PC
Output power	1251 W (230 V); 1247 W (120 V)
Current	5.2 A (230 V); 10 A (120 V)
Control panel	Suction level display, filter arm, vacuum motor
1st filter	Medium filter
2nd filter	ULPA filter (99.9995 %)
3rd filter	Carbon filter
4th filter	Air filter
Noise level	Max. 55 dB
Suction level	1 – 9 steps
Motor operating temperature	0 – 40 C
Dimensions (Body) W x D x H	295 x 330 x 790 mm
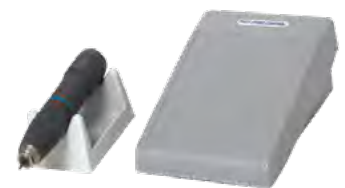
· This device can be linked with micromotor controller.
· Filter replacement (cleaning) alarm by pneumatic sensor.

Explore more
https://www.harshad.com/KO-MAX

KO-MAX
Silence - CAM 100

Component
* Main body
* CAM interlocking cable
* Suction hose 2.5 meters

Optional Accessories
* Pocket Filter

C-100-G

Technical Specifications	
Power supply	AC 220V–240V, 50/60Hz, single phase AC 100V–120V, 50/60Hz, single phase
Motor RPM	32000 RPM
Air pressure	23.7 kPa (230 V); 25.2 kPa (120 V)
Air flow	3750 l/min (230 V); 3660 l/min (120 V)
Body materials	ABS, PP, PETG
Output power	1251 W (230 V); 1247 W (120 V)
Current	5.2 A (230 V); 10 A (120 V)
Control panel	Suction level display, filter arm, vacuum motor
1st filter	ULPA filter (99.9995 %) / Pocket filter (Option)
2nd filter	Air filter
Noise level	Max. 55 dB
Suction level	1 - 9 steps
Motor operating temperature	0 - 40 C
Dimensions (Body) W x D x H	295 x 330 x 485 mm

· This device can be linked with micromotor controller.
· Filter replacement (cleaning) alarm by pneumatic sensor.

Explore more
https://www.harshad.com/KO-MAX

2kg Refinery Plant
2GRP

Specifications
Titanium tank - 16-24in
PPT unit - 24/24
Glass condenser - 14 in
Acid storage glass tank - 6 l - 3pcs
Acid dousing AODD pump - 1/4 in - 3pcs
Filter trolley - 18/12 in - 2pcs
Filter trolley AODD pump - 1/4 in - 2pcs
2 stage fume scubber
1 hp vertical pump
1 hp blower

5kg Refinery Plant
5GRP

Specifications
Titanium reactor
200ltr pp precipitation tank
Hot plate with temperature control
Glass condenser - 24in
2hp air pump
Pp filter unit - 2pcs
10ft tower scrubber
2hp blower
1hp caustic soda dousing pump
Etp plant - 500ltr
500ltr collection tank
100ltr treated water tank
100ltr waste sludge storage tank
1hp turbine blower
Caustic soda auto dousing pump
Carbon/Sand filter
150 lpm magnet pump
Single SS fume scrubber - 6ft/12in
1hp / 1440 rpm blower

25kg Refinery Plant
25GRP

Specifications

Titanium tank - 30 in/24 in

Titanium sheet 3mm. grade 1

1.5 in titanium ball valve

3kW hot plate

Stand with gear box

Stand with staircase

Plc for hot plate / staring motor / acid sousing pump

Titanium Tank

PPT Unit

Specifications

Ppt unit - 900/900mm

Stand and staircase

1000 rpm motor with thirstier drive

Bottom discharge pinch valve

500 ltr. Smbs storage tank with 1/4 inch aodd pump

20inch condenser

PP filter unit - 600/600mm

1/2 inch debam (boxer-ib-50) model aodd pump

Top side acrylic cover

Specifications

Tower scrubber - 10 ft

PP caustic soda tank - 1200/1200/600 mm

PP tower - ø 600 mm/ H 2400 mm

PP pol ring - 1in/200kg

100lpm acid dousing pump

150 mm pp / 2.5 kg pipeline

PP blower 1 hp/1440 rpm / 12 in

Specifications

Tower scrubber - 18 ft

PP caustic soda tank - 1500/1500/600 mm

PP tower - ø 900 mm/ H 4500 mm

PP pol ring - 1in/360kg

150lpm acid dousing pump

150 mm pp / 2.5 kg pipeline

PP blower 3 hp/1440 rpm / 16 in

Tower Scrubber 10ft   **Tower Scrubber 18ft**

50kg Refinery Plant
50GRP

1 Year Service + Free Setup Included

Specifications

Titanium tank – 30 in/36 in
Titanium sheet 3mm. grade 1
1.5 in titanium ball valve
3kW hot plate
Stand with gear box
Stand with staircase
Plc for hot plate / staring motor / acid sousing pump
Pump (1plc for 2 tank)

Titanium Tank

Specifications

Ppt unit – 900/900mm
Stand and staircase
1000 rpm motor with thirstier drive
Bottom discharge pinch valve
500 ltr. Smbs storage tank with 1/4 inch aodd pump
20inch condenser
PP filter unit – 600/600mm
1/2 inch ARO make aodd pump
Top side acrylic cover

PPT Unit

Specifications

Tower scrubber – 10 ft
PP caustic soda tank – 1200/1200/600 mm
PP tower – ø 600 mm/ H 2400 mm
PP pol ring – 1in/200kg
100lpm acid dousing pump
150 mm pp / 2.5 kg pipeline
PP blower 1 hp/1440 rpm / 12 in

Tower Scrubber 10ft

Specifications

Tower scrubber – 18 ft
PP caustic soda tank – 1500/1500/600 mm
PP tower – ø 900 mm/ H 4500 mm
PP pol ring – 1in/360kg
150lpm acid dousing pump
150 mm pp / 2.5 kg pipeline
PP blower 3 hp/1440 rpm / 16 in

Tower Scrubber 18ft

100kg Refinery Plant
100GRP

1 Year Service + Free Setup Included

200kg Refinery Plant
200GRP

RapidShape S20
Professional 3D Printer

The most economic professional printer suited for casting shops, design offices and jewellery companies.

With the compact and practical S20 printer, you have the ability to professionally yet easily convert any type of jewellery design into printed parts. As one of the fastest printers on the market, you can drastically shorten your lead time and also benefit from excellent service as well as the highest reliability and precision of print results.

Low Acquisition Cost

Professional Entry

Fine or Regular Versions available

* Certified auto calibration sensor
* Robust swivelling door
* HD resolution projector

* Remote control possible by TeamViewer
* Resin handling system
* 60000 hrs lifetime LED

Technical Specifications	S20
Building Area	133 x 75 mm
Native Pixel	± 30 μm
Max. Part Height	110 mm
Light Source	405 nm, HD resolution high power LED
Resolution	1920 x 1080 px
Dimensions (W x D x H)	335 x 541 x 349 mm
Connections	WLAN, TCP/IP, USB
Control	7" display, 3 button control
Recommended for	Highest demand in micropave design Highest demand in regular rings and stone settings and college rings

RapidShape S30+
Semi-automated 3D Printer

Fast, flexible and semi automated: The workhorse for casting shops, design offices and jewellery manufacturers.

Greater efficiency for professional print results – the S30+ ease of use and intuitive user interface allow fast, high volume print results with consistent quality. The optional automated part separation module (ASM, patents pending) enables cutting of parts without manual operation. Furthermore, the temperature-controlled resin reservoir provides process stability and improves part quality even more at maximum speed.

Optional: Automatic Separation Module (ASM)

User friendly

Designed for volume production

Fine, regular or large version available

* Large touch-screen
* Resin handling system (RHS)
* Remote control through TeamViewer®

* Resin temperature control
* Certified auto calibration (ACCS)
* Knowledge Center Access

Specifications	S30+ Fine	S30+ Regular	S30+ Large
Building Area	84 x 47 mm	101 x 57 mm	133 x 75 mm
Native Pixel	± 21.5 µm	± 26 µm	± 34.5 µm
Max. Part Height		150 mm	
Light Source		405 nm, UV LED	
Resolution		1920 x 1080 px	
Dimensions (W x D x H)		335 x 541 x 349 mm	
Connections		WLAN, TCP/IP, USB	
Control		7" Touch Display, Touch Control	
Recommended for	Micropave design and stone setting	Regular rings and college rings	Larger pieces like bangles and statues with large surfaces
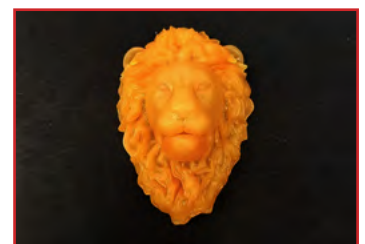
Explore more
https://www.harshad.com/-3D-Printing-Rapidshape

RapidShape S50+
For Professional Manufacturing

The S50+ is our new workhorse for printing any indication. With a print range three times larger than the S30+ and the optional, patented separation unit, you can catapult the number of pieces per day many times over.

Your printed parts are automatically separated from the build platform after printing is finished and collected in a big collection basket. The next print job is then started immediately, without manual intervention.

An Automated Refill unit ensures that there is always a sufficient level of printing material in the reservoir.

Automatic Separation Module (ASM)

Automatic Resin Refill Unit

Open System

* Automatic Separation Module (ASM)*
* Resin temperature control
* Automatic door opener
* Material identification (RFID)
* Certified auto calibration (ACCS)
* Integrated force feedback
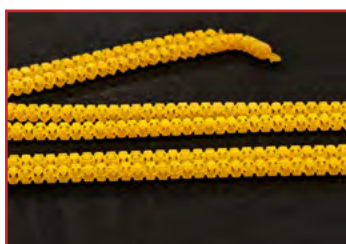
Specifications	S50+ / S50+ ASM
Building Area	231 x 130 mm
Native Pixel	± 30 μm
Max. Part Height	300 mm (with ASM : 80 mm)
Light Source	405 nm LED
Resolution	4K
Dimensions (W x D x H)	600 x 570 x 1660 mm
Connections	WLAN, Ethernet, USB
Control	10" LCD display, touch-screen

*Available both with and without Automatic Separation Module (ASM)

Explore more
https://www.harshad.com/-3D-Printing-Rapidshape

RapidShape S90+
Standalone

A true industrial printer designed for 24/7 production under 100% load, whether for filigree or large jewellery designs.

The patented force feedback technology enables the highest production rate with the lowest production costs per part and without compromising quality. Modular high performance sub-systems including a dual-circuit cooling system with heat exchanger ensure optimal operation.

24/7 Industrial continuous manufacturing

E/pcs Lowest cost per parts

* Optional automatic resin refill
* Connection to process.net database system
* AC controlled interior for continuous use
* Remote control by TeamViewer®
* Certified auto calibration (ACCS)
* Web browser access

S90+ Standalone	
Building Area	231.5 x 137.3 mm
Native pixel	± 22.5 µm
Max. part height	125 mm
Light source	405 nm ultra high UV LED
Resolution	2560 x 1520 px
Dimensions (W x D x H)	443 x 625 x 1593 mm
Connections	TCP/IP, USB
Control	10" LCD display, touch control

Explore more
https://www.harshad.com/-3D-Printing-Rapidshape

RapidShape S90+
Cabinet

A true industrial printer designed for 24/7 production under 100% load, whether for filigree or large jewellery designs.
The patented force feedback technology enables the highest production rate with the lowest production costs per part and without compromising quality. Modular high performance sub-systems including a dual-circuit cooling system with heat exchanger ensure optimal operation.
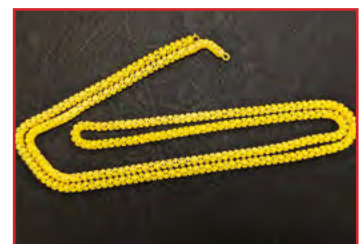
Automatic Separation Module (ASM)

Optional with cabinet or conveyor belt

24/7 Industrial continuous manufacturing

* Automatic Separation Module (ASM)
* Optional automatic resin refill
* Ultra high 4K resolution projector
* Connection to process.net database system

* AC controlled interior for continuous use
* Remote control by TeamViewer®
* Certified auto calibration (ACCS)
* Web browser access

S90+ Standalone	
Building Area	232 x 137 mm
Native pixel	± 22.5 µm
Max. part height	80 mm
Light source	405 nm ultra high UV LED
Resolution	2560 x 1520 px
Dimensions (W x D x H)	625 x 800 x 1593 mm
Connections	TCP/IP, USB
Control	10" LCD display, touch control
Versions	Standalone Conveyor (Specifications on request)

Explore more
https://www.harshad.com/-3D-Printing-Rapidshape

PioNext D136
LCD 3D Resin Printer

13.6" 7K Large Printing Size
Professional 3D Printer

Pionext D136 is designed for high-precision printing of models and other objects. It features a large printing size of 298x165x300mm. A high resolution of 6480x3600 pixels, and an XY axis accuracy of 0.046mm.

The printer uses an integrated light source, which results in high-quality prints with smooth surfaces and fine details.

The Pionext D136 is a versatile printer that can be used for a variety of applications. It is also relatively easy to use, making it a good choice for both beginners and experienced users.

13.6" 7K monochrome screen		Extra large print size
XY axis accuracy 46 μm		Self-developed LCD technology
Stable Z-axis structure		High speed release film

Product Specifications	D136
Light source configuration	UV integrated lamp beads (wavelength 405 nm)
Resolution	7K 13.6" black and white screen (6480 x 3600 px)
Print size	298 x 165 x 300 mm
Overall size	480 x 376 x 770 mm
Slicing software	PioNext Box
Slice format	STL, OBJ
Printing speed	1 ~ 4 s/layer
Lifting speed	60 - 300 mm/min
Print layer thickness	0.01 - 0.1 mm
Touchscreen	5" capacitive touchscreen
Support consumables	405nm photosensitive resin, compatible with third-party resin
Z - axis type	Double linear guide + ball screw
Voltage	100 - 240 V AC, 50/60 Hz
Current	4 - 5 A
Power	500 W

PL2000 & PL2000 Plus
3D Wax Printer

Fast and Affordable Jewelry Wax Printer

30% higher production
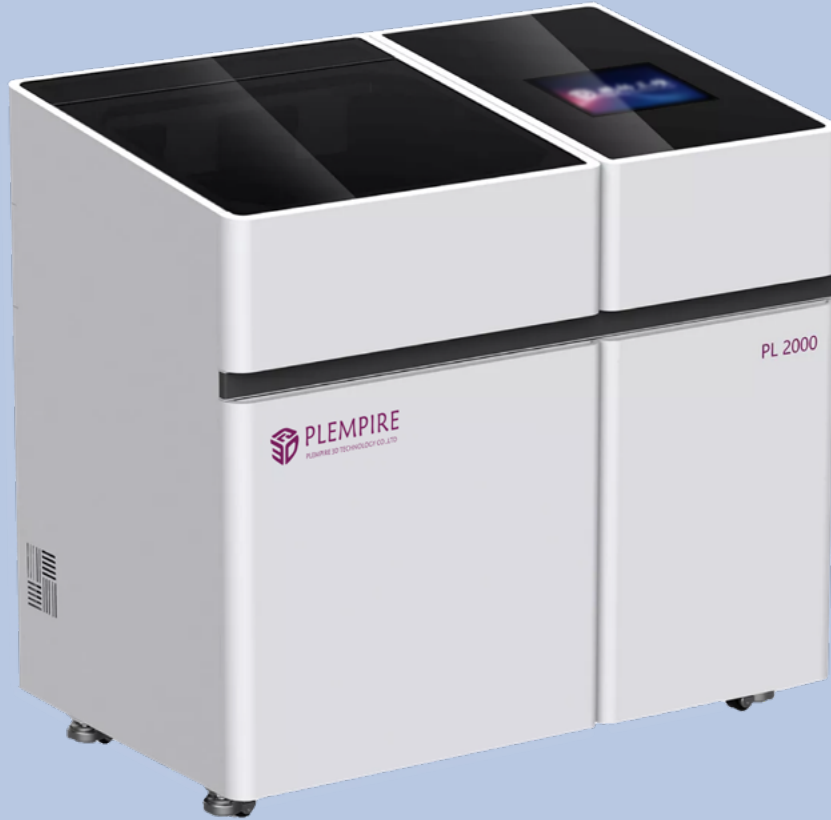
PLEMPIRE PL2000 wax printers is suitable for mass production of jewelry with high efficiency and high precision molding. The PLEMPIRE PL2000 wax printers uses MultiJet Printing (MJP) technology, which can print ultra-fine wax-type workpieces with a large print interface thickness of only 0.016mm. The surface quality of the printed workpiece is excellent. With extremely fine details and precision enabling fast workflows and large batches customized, directly casting to improve casting production efficiency.

High Resolution
Fine modeling up to 1200 x 1200 x 1600 DPI, 16μ layers

High Contrast
Deep purple(YHK601) molding wax, white support wax(YHK-102)

Simple Operation
Easy to learn, short-term training can be operated

Versatility
software is fully compatible with the Multi-Jet Printer family
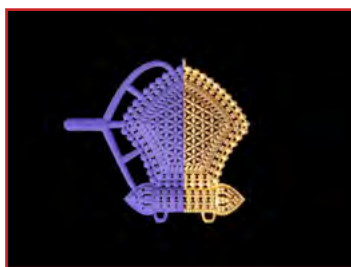
Molding Process

Hand Drawing > 3D Design > CAD Layout > 3D Printing

Finished Product < Post Processing < Casting Wax Tree < 3D Print Model

Explore more
https://www.harshad.com/plempire

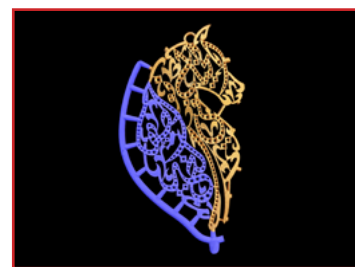| Product Specifications	PL2000	PL2000 Plus
Build volume (X Y Z)	294 x 212 x 150 mm	294 x 212 x 150 mm
Resolution (X Y Z)	1200 x 1200 x 1600 DPI, 16µ layers	1200 x 1200 x 1600 DPI, 16µ layers
Accuracy	±0.1016 mm per 25.4 mm part dimension	±0.1016 mm per 25.4 mm part dimension
Build Speed (mm/hr) in Z	1 lane : 5.08 mm/hr 2 Lane : 2.54 mm/hr 3 lane : 1.78 mm/hr	1 lane : 7.50 mm/hr 2 Lane : 3.50 mm/hr 3 lane : 2.40 mm/hr
Build Speed (hr/mm) in Z	1 lane : 0.19 hr/mm 2 Lane : 0.39 hr/mm 3 lane : 0.59 hr/mm	1 lane : 0.13 hr/mm 2 Lane : 0.29 hr/mm 3 lane : 0.42 hr/mm
File format	STL, SLC, OBJ, AMF, MJPDDD	STL, SLC, OBJ, AMF, MJPDDD
Material package	1.17 kg build, 1.3 kg support bottles: maximum machine capacity - 2 builds & 2 bottles	1.2 kg build, 1.35 kg support bottles: maximum machine capacity - 2 builds & 2 bottles
Dimensions (W x D x H)	1200 x 790 x 1165 mm	1272 x 780 x 1210 mm
Net weight	350 kg	350 kg
Gross weight	510 kg	510 kg
Voltage & Current	220 – 240 V AC, 50/60 Hz, 15A	220 – 240 V AC, 50/60 Hz, 15A
Input/Output	220 – 240 V AC, 50 Hz, 10 A Single C14 socket	220 – 240 V AC, 50 Hz, 10 A Single C14 socket

Wanhao Curing box
Boxman1

Automatically cure your SLA, DLP, or LCD 3D prints with Wanhao's Boxman-1. The UV post-curing chamber is equipped with 4 UV LED light sources and mirrors. These are placed inside the box in such a way that your component(s) are perfectly illuminated from all sides. This ensures that your object cures evenly from all sides. By adding UV light, the free radicals in the resin polymerize almost completely and your part automatically receives the final material properties.

The UV device outputs steady, focused and consistent UV lights to cure the printouts printed with photopolymer resins in a short period. The post curing process increases the hardness and durability of the printed products.

Properties:
∗ UV post-curing chamber for DLP, SLA and Daylight 3D prints
∗ 4 UV LED sources cure from each side
∗ Large interior of: 320x200x200 (LxWxH mm)

∗ Give components their final material properties
∗ Works with resin for DLP, SLA and daylight 3D printers
∗ Optimized for Wanhao UV resin

Technical Specifications	
Light source	UV
Power	200 W
Voltage	24 V
Wavelength	405 nm
Emitting area (LxWxH)	320 x 200 x 200 mm
Touch screen display (LxW)	57.6 x 43.2 mm
Fan size (LxWxH)	85 x 85 x 10 mm
Perspective screen (LxW)	150 x 60 mm
Bulb warranty	2000 hours
Dimensions (LxWxH)	430 x 300 x 350 mm
Net weight	14.5 kg
Certification	CE, FCC
Usage	Curing print model

Explore more
https://www.harshad.com/wanhao

MasterInject MJ 01
Single Workstation

MJ-01 SMART

Standard wax injector with single right station for single operator, equipped with aluminum tank (capacity of 4.5 kg), 25 cm³ piston injection system, external and removable 7 "touch screen , RFID reader and writer (optional), self-centering clamp C13 (Dim. 130x120 x50 / 65 mm) and pump included VAP14.

MJ 01-C13	
System Pressure	6 Bar
Power	240 V AC/ 120 V AC(Optional)
Dimensions (W x D x H)	Machine : 580 x 340 x 480 mm Packing : 750 x 550 x 650 mm
Weight	Machine : 30 kg Packing : 54 kg

MasterInject MJ 02
Double Workstation

MJ-02 SMART

Standard double-station wax injector for single or double operator, equipped with;
* Aluminum tank (capacity of 4.5 kg)
* 2 x 25 cm³ injection pistons
* 2 x external and removable 7-inch touch screens
* 2 x RFID readers and writers (optional)
* 2 x C13 self-centering pliers (Size 130x120x50/65 mm)
* Pump included VAP14

MJ 02-C13	
System Pressure	6 Bar
Power	240 V AC/ 120 V AC(Optional)
Dimensions (W x D x H)	Machine : 920 x 340 x 480 mm Packing : 1150 x 550 x 650 mm
Weight	Machine : 46 kg Packing : 75 kg

Explore more
https://www.harshad.com/masterix

MasterInject MI 03
Automatic Wax Injector

MASTERIX

Features MI-03 SMART

Fully automatic wax injector for single or double operator, equipped with aluminum tank (4.5 kg capacity), 10 cm³ piston injection system, 7 "touch screen, RFID reader and writer, self-centering pliers (Dim. 100x100X50 mm) automatic tire loader and unloader (Dim. 100x100 mm), cooling system for molds and pump included VAP14.

Technical Advantages

∗ The molds, even of different sizes, are automatically loaded into the gripper, the processing cycle starts automatically. The operator does not have to press any keys. Quick and simple
∗ The gripper centers the mold preparing it for injection. The mold parameters are set or automatically read on the RFID Tag, if present in the mold. Significant time savings.
∗ The mold is automatically injected according to the set parameters. Easy for the operator
∗ The mold is rotated and automatically discharged onto the cooler in front of the operator. Immediate and compact
∗ The cooler keeps the temperature of the molds constant, speeding up the cooling of the waxes. The cooler temperature can be set and adjusted directly from the touch screen.

Economic Advantages

∗ Elimination of waiting times and consequent reduction of operator downtime. Increase in production
∗ Strong increase in production, quality of models produced, elimination of waste.
∗ Recommended for inexperienced operators.

MI 03	
System Pressure	6 Bar
Power	240 V AC/ 120 V AC(Optional)
Dimensions (W x D x H)	Machine : 920 x 340 x 480 mm Packing : 1150 x 550 x 650 mm
Weight	Machine : 46 kg Packing : 75 kg

Continuous Production Cycle

1. Vertical Mould Charging
2. Automatic Mold Centering
3. Automatic Clamp Loading
4. Injection System 25 cm³
5. Automatic Unloading
6. Mould Cooling Included

Explore more
https://www.harshad.com/masterix
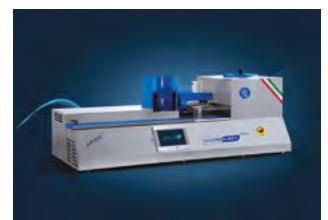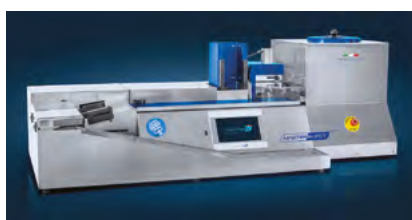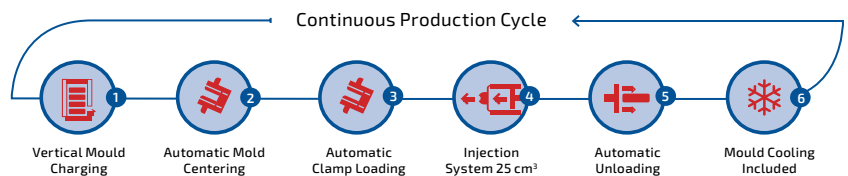
Accessories for Injectors
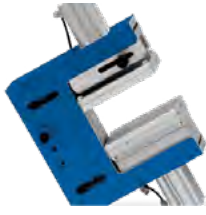
C 10 Clamp
Interchangeable standard clamp, plate size 100x100x45/65 mm

C 13 Clamp
Interchangeable medium clamp, plate size 130x120x45/65 mm

C 15 Clamp
Interchangeable big clamp, plate size 150x130x55/70 mm
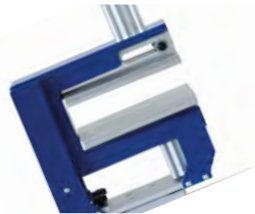
C 20 Clamp
Interchangeable clamp, plate size 200x150x65/75 mm
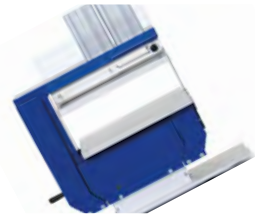
C 25 Clamp
Interchangeable clamp, plate size 250x200x85 mm

| Injection Piston S50 | Injection Piston S100 | Custom Nozzle | Slide Mould SL-03 | Slide Mould SL-03+ | Round RFID Tag 15 mm | Rectangle RFID Tag 45 x 28 mm |

Coolers for Moulds

Cooler CO-04D	
Dimensions (L x W x H)	400 x 210 x 80 mm
Plate Dimensions	400 x 100 mm
Weight	4 kg

Cooler CO-06D	
Dimensions (L x W x H)	600 x 210 x 80 mm
Plate Dimensions	600 x 120 mm
Weight	5 kg

Wax of New Generation

UNIVERSAL MASTERIX BLUE WAX
Wax suitable for all processes. Very flexible and elastic, it is particularly recommended for medium to high difficulty pieces. Shiny finish.

EXTRAFLUID RED
Extra Fluid red wax for filigree models.
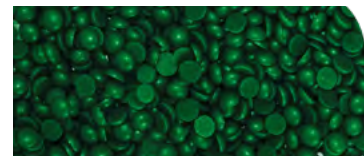
SUPER MASSIVE GREEN
Green wax with very low shrinkage designed for massive models.
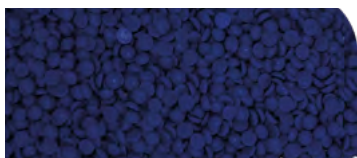
DARK DIAMOND
Flexible and break-resistant wax, dark in color for a perfect and easy setting.

SOLUBLE WAX
Wax totally soluble in water at room temperature, non-toxic, for the production of hollow pieces.

Explore more
https://www.harshad.com/masterix

Eshin Wax Injector

∗ Simple design and easy operation
With the touch panel attached, the operation is easy to understand compared to the conventional model. With VWI and DAC integrated, the design is simple compared to conventional model.

∗ Vacuum control system
Vacuum control makes is possible adjust the air bubble on the wax surface.

∗ Height adjustment system
The clamp can be easily adjusted by turning the handle by hand, so that the nozzle can be fitted in to rubber mold hole.

∗ Memory 3000 memory

Specifications

Power supply		Japan and US :single phase AC 100/ 115 V±10%, 50/60 Hz Foreign countries excluding US:single phase AC 230 V±10%, 50/60Hz
Air supply source		0.40 ~ 0.70 MPa/ pressure gauge: 0 ~ 0.2 MPa (0 ~ 2 kgf/cm2)
Clamp option	Rubber mold size (max)	**Normal** 80(W) x 90(D) x 40(H)
		Multi 160(W) x 162(D) x 85 (H)
Temperature setting range wax tank and nozzle		40.0 ~ 90.0°C (103 ~ 193 °F)
Setting range of primary pressure		10 ~ 300 kPa
Vacuum timer setting range		0 ~ 999.99 seconds
Vacuum setting range		–50 ~ –100 kPa
Clamp pressure setting range		30 ~ 350 kPa
Wax capacity		Around 3 kg
Heating timer		Calender system
External dimensions (WxDxH)		450 x 310 x 450 mm
Weight		around 25 kg

Clamp (Optional)

Normal clamp : conventional type
Multi clamp : the multi clamp can be mounted to medium to large size mould to large sided molds. X and Y axis of the clamp position can be adjusted.

Premium Wax Product Range

Finest Filigree - R36WF
Injection Temp: 68°C / 155°F

Finest Filigree is specifically designed for injecting detailed patterns and providing a wax that is flexible and strong enough to enable removal from the mould without damage. Finest filigree is also recommended for stone in place setting.

General Purpose - R37WF
Injection Temp: 65°C / 150°F
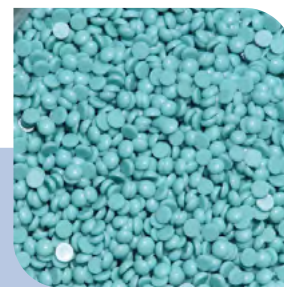
General Purpose wax is a formulation which is suitable for most jewellery designs. This product has a balanced set of characteristics for the most demanding wax applications, with good flow, low shrinkage and easy to read. This wax is available in aqua, burgundy and turquoise.

R1 Burgundy - Injection Temp: 71°C / 160°F

Type R1 is a high quality economic all purpose wax that covers a variety of applications, R1 is formulated to produce wax patterns with a high level of surface finish and detail reproduction across a wide range of item cross sections and designs.

Type R32WP Injection Temp: 69°C / 156°F
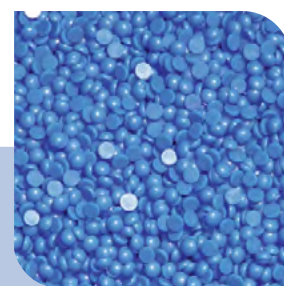
R32WP has a high flexibility, low hardness and is ideal for most patterns produced in the modern wax room.

Technical Data	R32WP
Flow (cPs)	192
Hardness (N)	180.8
Flexibility (N)	425
Solidification Point (°C)	64
Linear Shrinkage (%)	1.81
Injection Temp. (°C)	69

Golden River wax additive makes jewellery injection waxes flow like water !

With Golden River wax additive, there is no need to change waxes or clean out your wax pot with all the work, mess and delay that it causes. Just add a handful or two of Golden River wax additive to your current pot and see the improved flow almost immediately.
Later you can add more of your original wax to return to normal conditions.

Explore more
https://www.harshad.com/injection-wax

Investment Powders

HARSHAD QUANTUM

Harshad Quantum is a robust investment yet still produces excellent quality castings with superb surface nish and neness of detail. When mixed Harshad Quantum wets up readily producing a slurry which has greater ow characteristics and allows for the nest of detail of the wax pattern to be faithfully reproduced; Harshad Quantum also "cleans of the mould very easily.

HARSHAD EXCEL

For the casting of Brass, Silver and Yellow Gold up to 18ct Harshad has travelled the world to source the highest quality, pure raw materials and additions, to ensure premier performing consistent products are produced. Harshad Excel benets from the high quality cristobalite that is tailored to our exact specification.

Investment Powder CLASSIC

A superb solution for all gold, silver and brass castings, SRS Classic has been the reliable choice of jewellery factories for more than fifteen years. Extremely user friendly powder suitable for Brass, Silver and all yellow gold casting.

Investment Powder STONECAST

Special application powder for stone-in-place casting or wax setting. SRS can be relied on for highly effective solutions for stone-in-place castings because it is SRS who pioneered the inclusion of special additives into investment powder for this kind of application.

Investment Powder SILK

Top quality powder especially suited to palladium white and 18k & 22k gold. For gold casting nothing surpasses the quality of SRS Silk. This is our flagship product which is composed of the highest quality and concentration of unmineralised cristobalite.

Synergy Investment Powder

Manufactured With NANO Technology
A Premium Investment Powder for Resin/CAD casting, which has been tested and approved worldwide. Synergy was developed by G3D in the United Kingdom - tried and tested by jewellery manufacturers worldwide. It is designed Primarily for investing, burnout and Direct Casting of your resin/wax patterns.
Synergy is an investment powder for CAD/CAM resin direct casting

Maximus

CIMO Investment Mixers

MINI MIX

Tabletop unit, especially designed for platinum investment mixing and small single flask filling.

Mini Mix	
Max. Flask Size	ø 90 mm, h 120 mm
Voltage	220 V, Single Phase
Dimensions (W x D x H)	280 x 350 x 620 mm
Weight	16 kg
	Supplied Without Vacuum Pump

ST. LOUIS 92 - 2KG

St. Louis 92 - 2KG	
Max. Powder Capacity	2 kg
Max. Flask Size	ø 120 mm, h 160 mm
Voltage	220 V, Single Phase (110V on request)
Dimensions (W x D x H)	280 x 350 x 850 mm
Weight	19 kg
	Supplied Without Vacuum Pump

ST. LOUIS 92 - 4KG

St. Louis 92 - 4KG	
Max. Powder Capacity	4 kg
Max. Flask Size	ø 150 mm, h 200 mm
Voltage	220 V, Single Phase (110V on request)
Dimensions (W x D x H)	280 x 350 x 950 mm
Weight	21 kg
	Supplied Without Vacuum Pump

Explore more
https://www.harshad.com/cimo

St. Louis 82 BP (Base/Pump) - 6KG

Vacuum investment mixer for multiple flask filling in one single process.

St. Louis 82 BP - 6KG	
Investment Capacity	6 kg
Max. Flask Size	ø 280 mm, h 200 mm
Voltage	220 V, Single Phase
Power	2000 W
Motor Power	280 W
Vacuum Pump	Included
Dimensions (W x D x H)	420 x 420 x 1750 mm
Weight	98 kg
Packaging Dimensions	590 x 960 x 1240 mm
Packaging Weight	125 kg

St. Louis 2000 - 14KG

St. Louis 2000 - 14 kg	
Investment Capacity	14 kg
Investing Flask	Multiple
Max. Flask Height	350 mm
Flask Plate Diameter	330 mm
Voltage	220 V
Power	2500 W
Vacuum Pump	Included
Pump	40 m³
Dimensions (W x D x H)	620 x 660 x 1720 mm
Weight	150 kg

St. Louis 2000 - 22KG

St. Louis 2000 - 22KG	
Investment Capacity	22 kg
Flask Processing	Multiple
Max. Flask Height	400 mm
Flask Plate Diameter	450 mm
Voltage	220 V,Single Phase; 380 V, Three Phase(Pump)
Power	2500 W
Vacuum Pump	Included
Pump	100 m³
Dimensions (W x D x H)	720 x 800 x 1750 mm
Weight	210 kg

Explore more
https://www.harshad.com/cimo

St. Louis 2002 - 14KG Automatic

St. Louis 2002 - 14KG Automatic	
Investment Capacity	14 kg
Flask Processing	Multiple
Max. Flask Size	ø 330 mm, h 350 mm
Voltage	220 V, Single Phase
Power	2200 W
Vacuum Pump	Included
Pump	40 m^3
Dimensions (W x D x H)	620 x 660 x 1720 mm
Weight	220 kg
Packaging Dimensions	820 x 900 x 1900 mm
Packaging Weight	205 kg

St. Louis 2002 - 22KG Automatic

St. Louis 2002 - 22KG Automatic	
Investment Capacity	22 kg
Flask Processing	Multiple
Max. Flask Size	ø 450 mm, h 400 mm
Voltage	220 V, Single Phase; 380 V, Three Phase (Pump)
Power	2500 W + 1000 W
Vacuum Pump	Included
Pump	100 m^3/h
Dimensions (W x D x H)	720 x 800 x 1720 mm
Weight	150 kg
Packaging Dimensions	820 x 820 x 1900 mm
Packaging Weight	280 kg

Accessories

Chambers and mixers for Mini mix, 92-2, 92-4, 82-6, 2000-14, 2000-22, 2002-14 & 2002-22

Kit o ring   Vacuum filter 92   Vacuum filter 82   Water filter 2000   Vacuum filter 2000   Spring   Valve

Explore more
https://www.harshad.com/cimo

48

Argenta APE 800
Temperature Controlled Burnout Furnaces

The furnace is used for heating the foundry cuvettes in the program specified by the producers of casting masses. Thermal insulation is made of ecological aluminosilicate fiber. The furnace is factory-equipped with a programmer, ensuring the implementation of two different programs, sixteen cycles each, with the possibility of setting the temperature of the cycle, its duration and temperature increase over time. It is possible to start the casting program with a delay. By default, on the first program, the stove is set to the popular 12-hour heat-up program. The program of the controller also ensures the execution of the program according to the entered assumptions, even in the event of a power failure and re-connection.

normal burnout cycle
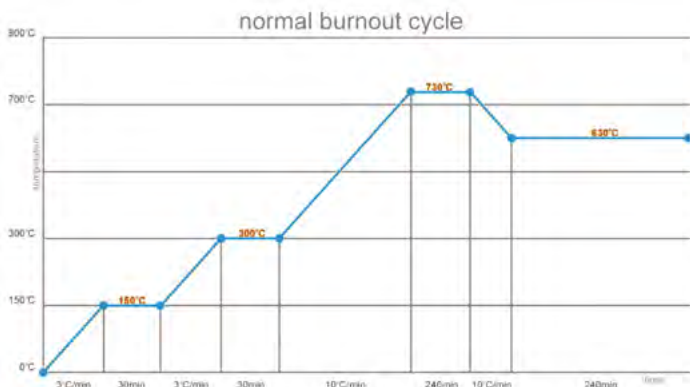
Specifications	
Rated Voltage	220 - 240 V / 50 - 60 Hz
Rated Power	2400 W
Temperature	800°C
Adjustable Temperature Rise	1 - 10 °C/min
Number of Casting Programs	2
Number of Episodes in Program	16
Maximum Program Delay	40 days
Dimensions (Casting Chamber)	370x410x270 mm
External Dimensions (W x D x H)	700 x 640 x 530 mm
Weight	43 kg

Auto Temperature Burnout Furnaces

G3D furnaces are all delivered complete with a digital controller that has 9 individual programs. These digital controllers are available to purchase as a standalone unit, to retrofit to your existing furnace. All G3D furnaces are manufactured from stainless steel, and are specifically designed to give excellent performance for the jewellery casting process.

GS 4

GS 15

GS 40T

Specification	GS 4	GS 12	GS 15	GS 40T	Bespoke
Flask Capacity (6" x 4" Flange Type)	4	8	15	27	Specially designed for customers' requirements
Internal Dimensions	225 x 225 x 225 mm	340 x 340 x 340 mm	380 x 380 x 405 mm	410 x 640 x 440 mm	
External Dimensions	435 x 500 x 550 mm	550 x 700 x 700 mm	610 x 813 x 914 mm	730 x 1030 x 1620 mm	
Weight	56 kg	98 kg	130 kg	276 kg	

Burnout Procedure

Legend: Standard — Stone in Place — Lower to Casting Temp

Casting Temp 730°C
Casting Temp 630°C

150/H R
200/H R
150/H R
200/H R
230° C

Temperature°C (0–800)
Time in Hours (0–16)

Explore more
https://www.harshad.com/G3D
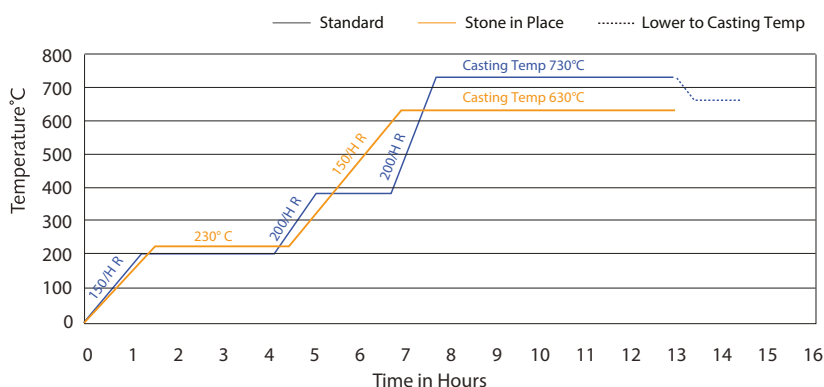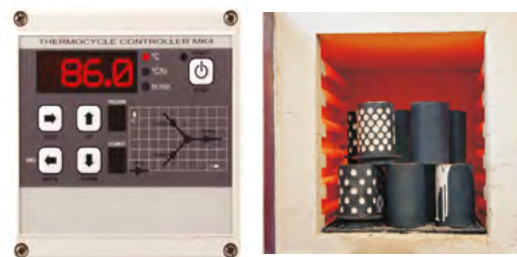
Kaname Rotary Burnout Furnace

✱ **Maximum and Protected Burnout Temperature -950 °C**
This overheat protected temperature makes the furnace perfect for casting stone in place, gold, silver, platinum and also compatible for resin casting.

✱ **Separate Door for Upper and Lower sections**
Reduced the cooling of the mold by 68% (at 600 degrees) making it possible to control the temperature of the mold more accurately during casting.

✱ **Heat Distribution Control**
There is minimum difference between the heater and chamber, this results in even distribution in the flask thereby giving equally good burnout from top to bottom of the casting tree irrespective of the location of the flask in the furnace.

✱ **Separate thermocouples for upper and lower tables**

✱ **Eliminated Afterburner fan**
Structural changes made to reduce smoke and odour without afterburner fan.

Specifications	
Power supply	AC 380 V ±10% (15 kVA) 50/60 Hz
Power consumption	Main heater: 13.3 kVA (380 V) Afterburner (AB): 3.7 kVA (380 V)
Temperature setting range	0 - 850 °C (maximum operating temperature) 32 - 1562 °F (maximum operating temperature)
Minimum temperature display unit	1 °C (2 °F)
Rotational position of rotary tables	1 - 48
Operation steps	12 steps
Number of memories	20
Maximum permissible height of flask	230 mm
Number of flask that can be set up	H 250 mm x ø 130 - 21 H 230 mm x ø 100 - 37
Number of tables	2
External Dimensions (W x D x H)	895 x 1023 x 1800 mm
Weight	About 460 kg

Old Model

	EBF-L (Old Model)	Kaname RBF (New Model)
Door	1 Door	2 Door
Electrical box	Side of the body	Under the body
Foot switch	Attached	Not attached
Afterburner fan	Attached	Not attached
Overheat prevention	Attached	Option
AB bobbin heater position	Upright	Sideways
Burnout step	8	12
Thermocouple position	Between the tables	Next to each table

2 Door

By dividing the door from one to two, the upper and lower doors open and close during casting to allow air to enter the furnace.
This makes it possible to control the temperature of the mold during casting more accurately.
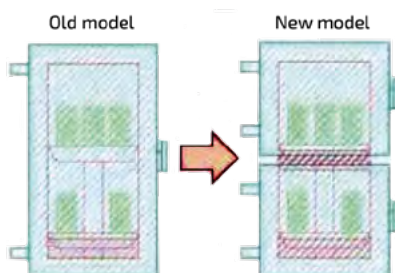
Thermocouple

In the old model, the thermocouple was placed between the upper and lower tables.
In the new model, a thermocouple is installed next to the mold on the upper and lower tables so that the temperature can be measured as close to the mold as possible.
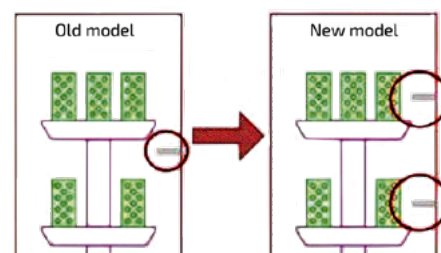
Program & Logging

By increasing the number of steps from 8 to 12, it is possible to set the user's ideal program. The set value, current value, and current value of the burnout program are measured and recorded, and can be downloaded to a personal computer.
AB ON / OFF can be set for each step.

Afterburner Fan

Structural changes have been made to reduce smoke and odour without afterburner fan.
By eliminating afterburner fan, the problem that odours pass through the afterburner quickly was improved.

Oncel Rotating Dewaxing Burnout Furnace

Rotating Burnout / Dewaxing Furnace has been developed with 25+ year experience in jewellery casting equipment, under deep metallurgical knowledge and engineering principles.

The furnace has been engineered to solve the weak points of world known manufacturers.

Main advantage of furnace is high energy efficiency and temperature uniformity during whole operation. Heater capacities and locations are perfectly calculated and settled with detailed calculations and modelling.

This design prevents non-homogeneous or overheating of asks, also do not let any damage to heaters or chamber by non-qualied workers.

The chamber body is made of special high temperature resistant stainless steel.

A standard burnout operation can be done within 30-50 % lower energy of competitor furnaces.

Technical Specification	
Flask capacity	28-40 (dia. 100 mm x h:300 mm)
Flask height	up to 300 mm
Heating power	10 kW, (15 kW as option) T Max : 800 °C
Power supply	380 V 50 Hz, 3 phase , 5 cable input
Design	Energy saving high insulation design
Heating chamber	High temperature grade heating chamber
Heating method	Hidden heaters, allows whole chamber to act as heating element and prevents heater deformation during operation
Control	Touchscreen HMI interface with 20 step recipe control
Timer	AutoSchedule timer function
Exhaust control	Pneumatic exhaust control
Over temperature protection	Standard
Number of rotating tables	Standard 2 floor rotating table for uniform heating
Table position control	Table position control on HMI
Automatic exhaust valve	Standard
Door control	Pneumatic Auto Door with pedal control
Dimensions	1150 x 1200 x 2000 mm

Explore more
https://www.harshad.com/oncel
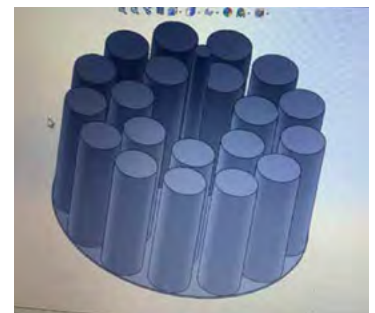
Indutherm Casting Machines

Mini Casting Systems

Vibration Technology (MC 20V)

Vibration Technology (MC 100V)

MC 16   MC 20V   MC 100V

	MC 16	MC 20V	MC 100V
Performance Max. / Electrical connection	3.5 kW 230 V, Single phase	3.5 kW 230 V, Single phase	8 kW 3x400 V, three phase
Maximum Temperature	2000 °C	2000 °C	2000 °C
Capacity			
Crucible Volume	100g Au 18ct / 110 g Steel / 200 g Pt	100g Au 18ct / 110 g Steel / 200 g Pt	450 g 18ct / 250 g Steel / 500 g Pt
for use of flasks up to	up to ø 30/50/65/80 mm x 80 mm h	up to ø 30/50/65/80 mm x 80 mm h	up to ø 80/100 mm x 120 mm h
Handling + Control			
Control Panel	by LCD display, full text read out	by LCD display, full text read out	by LCD display, full text read out
Automatic Vacuum Function	✓	✓	✓
Automatic Overpressure function	✓	✓	✓
Casting also under vacuum only	✓	✓	✓
Vacuum or Overpressure after casting	✓ –1 up to +2 bar	✓ –1 up to +3 bar	✓ –1 up to +3 bar
Vibration System	-	✓	✓
Supply: Cooling water, Inert gas argon or nitrogen	✓	✓	✓
Temperature Measurement/ Control	✓ Up to 1300 °C (Optional) Up to 1600 °C	✓ Up to 2000 °C	✓ Up to 2000 °C
Quality Management			
Interface RS 232	✓	✓	✓
GMS Modem	(Optional)	(Optional)	(Optional)

Standard - "✓"   Not Available - "-"

Explore more
https://www.harshad.com/indutherm

Indutherm MC 60V

This small high-performance casting machine is ideal for smaller production quantities and can be used for jewellery alloys such as gold, silver, copper and bronze, as well as for alloys of brass and aluminium. Thanks to the vacuum and overpressure functions and the many automatic control features, the machine provides first class castings with little work

Vibration Technology

Main benefits

∗ Very simple use, short training period, very good results even by operators with less experience in casting techniques

∗ 3,5 kW generator enables quick melting periods

∗ Thorough mixing of metal by induction generator (low frequency tuning)

∗ Melting under vacuum for reduced danger of oxidation

∗ Excellent mould filling because of inert gas / over-pressure, max. 2 bars

∗ Excellent ratio machine size to capacity: flasks up to Ø 100 mm x 120 mm h

Specifications	MC 60V
Performance Max. / Electrical connection	3.5 kW 230 V, Single phase
Maximum Temperature	1300 °C
Capacity	
Crucible Volume	450 g 18ct / 300 g Ag 935
for use of flasks up to	up to ø 80/100 mm x 120 mm h
Handling + Control	
Control Panel	by LCD display, full text read out
Automatic Vacuum Function	✓
Automatic Overpressure function	✓
Casting also under vacuum only	✓
Vacuum or Overpressure after casting	✓ -1 up to +3 bar
Vibration System	✓
Supply: Cooling water, Inert gas argon or nitrogen	✓
Temperature Measurement/Control	✓ Up to 1300 °C
Quality Management	
Interface RS 232	✓
GMS Modem	(Optional)

Standard - "✓" Not Available - "-"

Indutherm VC 400

The ideal machine for smaller companies producing moderate quantities, but need considerably more capacity than that offered by MC machines.

VC 400	
Performance Max. / Electrical connection	3.5 kW 230 V or 4.5 kW 3x400 V
Maximum Temperature	1400 °C
Capacity	
Crucible Volume	170 cm^3 = 2.5 kg Au 18 ct
for use of flasks up to	ø 130mm / 240 mm h
Handling + Control	
Vibration Technology	–
Pneumatic Bell Lock	–
Maximum Pressure	1.5 bar
Program	20 temperature programs
Dual Temperature Control	(Optional)
Flask and Chamber Lift	Switch
Turbo Pressure PLUS System	✓
Turbulence Reduction Software	–
Quality Management	
Interface RS 232	✓
GMS Modem	✓
Accessories	
Sintering Kit (for diffusion bonding)	(Optional)

Standard - "✓"   Not Available - "-"

Indutherm VC 440

The VC 440 is designed to be robust and easy to use. Major functions are controlled by automatic system. All relevant parts are water cooled.

VC 440	
Performance Max. / Electrical connection	3.5 kW 230 V or 4.5 kW 3x400 V
Maximum Temperature	1400 °C
Capacity	
Crucible Volume	170 cm^3 = 2.5 kg Au 18 ct
for use of flasks up to	ø 130 mm / 240 mm h
Handling + Control	
Vibration Technology	–
Pneumatic Bell Lock	✓
Maximum Pressure	1.5 bar
Program	20 temperature programs
Dual Temperature Control	✓
Flask and Chamber Lift	Button powered
Turbo Pressure PLUS System	✓
Turbulence Reduction Software	✓
Quality Management	
Interface RS 232	✓
GMS Modem	(Optional)
Accessories	
Sintering Kit (for diffusion bonding)	(Optional)
Also available as granulating unit	540mm, if VC 440 has flask lift

Standard - "✓"   Not Available - "-"

Explore more
https://www.harshad.com/indutherm

Indutherm VC 450

INDUTHERM
Erwärmungsanlagen GmbH

Performance	
Power Max. / Electrical connection	4.5 kW, 3x400 V
Maximum Temperature	1400 °C
Capacity	
Crucible Volume	170 cm^3 = 2.5 kg Au 18 ct
for use of flasks up to	ø 130 mm / 240 mm h (Optional) ø 160mm / 400 mm h
Handling + Control	
Vibration Technology	–
Pneumatic Bell Lock	✓
Maximum Pressure	1.5 Bar
Programs	20
Program Control	LCD display, full text display
Dual Temperature Control	(Optional)
Flask and Chamber Lift	✓
Turbo Pressure PLUS System	–
Turbulence Reduction Software	✓
Quality Management	
Interface RS 232	✓
Data Printer	(Optional)
GMS Modem	(Optional)
Accessories	
Sintering Kit (for diffusion bonding)	(Optional)
Granulation Tank	(Optional)

The VC 450 is equipped with a completely new generator and a program control system with LCD display.

Standard - "✓"   Not Available - "-"

Indutherm VC 450 HV

Performance	
Power Max. / Electrical connection	4.5 kW, 3x400 V
Maximum Temperature	1400 °C
Capacity	
Crucible Volume	170 cm^3 = 2.5 kg Au 18 ct
for use of flasks up to	ø 130 mm / 240 mm h (Optional) ø 160mm / 400 mm h
Handling + Control	
Vibration Technology	✓
Pneumatic Bell Lock	✓
Maximum Pressure	1.5 Bar
Programs	20
Program Control	LCD display, full text display
Dual Temperature Control	(Optional)
Flask and Chamber Lift	✓
Turbo Pressure PLUS System	✓
Turbulence Reduction Software	✓
Quality Management	
Interface RS 232	✓
GMS Modem	(Optional)
Accessories	
Sintering Kit (for diffusion bonding)	(Optional)
Granulation Tank	(Optional)

The VC 450V is equipped with INDUTHERM vibration system & additional gas tank.

Vibration Technology

Standard - "✓"   Not Available - "-"

Explore more
https://www.harshad.com/indutherm

Indutherm VC 480 V

The VC 480 V comes with an 8 kW generator, an advanced program control with 100 casting programs, automatic mold and chamber lift, variable vacuum in the Flask chamber and the INDUTHERM vibration system.

Performance	
Power Max. / Electrical connection	8 kW 3x400 V
Maximum Temperature	1600 °C
Capacity	
Crucible Volume	170 cm³ = 2.5 kg Au 18 ct
for use of flasks up to	ø 130mm / 240 mm h (Optional) ø 160mm / 400 mm h
Handling + Control	
Vibration Technology	✓
Pneumatic Bell Lock	✓ Switch
Maximum Pressure	1.5 Bar
Programs	100 temperature programs
Program Control	LCD display, full text display
Dual Temperature Control	(Optional)
Flask and Chamber Lift	✓
Variable Vacuum Flask Chamber	✓
Turbo Pressure PLUS System	✓
Turbulence Reduction Software	✓
Quality Management	
Interface RS 232	✓
GMS Modem	(Optional)
Accessories	
Sintering Kit (for diffusion bonding)	(Optional)
Granulation Tank	(Optional)

Vibration Technology

Standard – "✓"   Not Available – "-"

Indutherm VC 650 V

VC 650 V for high speed and casting quality with high crucible capacities, sweep mode vibration system and up to 3 bar overpressure that are essential for large productions.

Performance	
Power Max. / Electrical connection	12 kW 3x400 V
Maximum Temperature	1700 °C
Capacity	
Crucible Volume	245 cm³ = 3.6 kg Au 18 ct; (Optional) 386 cm³ = 5.8 kg Au 18 ct (Optional) 700 cm³ = 10.5 kg Au 18 ct
for use of flasks up to	ø 130mm / 240 mm h (Optional) ø 160 mm / 400 mm h
Handling + Control	
Vibration Technology	✓
Pneumatic Bell Lock	✓
Maximum Pressure	3 Bar
Programs	100
Program Control	LCD display, full text display
Dual Temperature Control	(Optional)
Flask and Chamber Lift	✓
Turbo Pressure PLUS System	✓
Turbulence Reduction Software	✓
Quality Management	
Interface RS 232	✓
GMS Modem	(Optional)
Accessories	
Sintering Kit (for diffusion bonding)	(Optional)
Granulation Tank	(Optional)

Vibration Technology

Explore more
https://www.harshad.com/indutherm

Standard – "✓"   Not Available – "-"

Indutherm Continuous Casting Machines

Whatever you want to cast we have a perfect solution

Performance	CC 400 / VCC 400	CC 1000 / VCC 1000	CC 3000 / VCC 3000
Power Max. / Electrical connection	15 kW, 3x400 V/3x208 V	25 kW, 3x400 V	30kW, 3x400 V
Maximum Temperature	1500 °C	1500 °C	1500 °C
Capacity			
Crucible Volume	✔ 285 cm^3 = 4.2 kg Au 18 ct (Optional) 400 cm^3 = 6.0 kg Au 18 ct	✔ 1500 cm^3 = 22 kg Au 18 ct	✔ 3400 cm^3 = 51 kg Au 18 ct
Wire Production Up to	✔ ø 15 mm	✔ ø 30 mm	✔ ø 40 mm
Tube Production Up to	✔ ø 30 mm	✔ ø 40 mm	✔ ø 50 mm
Sheet Production	✔ 50 x 8 mm (Optional) 60 x 8 mm	✔ 100 x 10 mm	✔ 130 x 12 mm
Handling + Control			
100 Programs	LCD display, full text display	LCD display, full text display	LCD display, full text display
Vacuum/inert gas overpressure	(-) CC 400 / (✔)VCC 400	(-) CC 1000 / (✔) VCC 1000	(-) CC 3000 / (✔) VCC 3000
Neutral inert gas atmosphere	✔	✔	✔
Optical die temperature measurement	✔	✔	✔
Die cooler with protective gas flushing	✔	✔	✔
Secondary Cooler	✔	✔	✔
End bar sensor	✔	✔	✔
Quality Management			
Interface RS 232	✔	✔	✔
Data Printer	✔	✔	✔
GMS Modem	✔	✔	✔
Accessories			
Quatro drawing unit	(Optional)	(Optional)	(Optional)
Center alignment	(Optional)	(Optional)	(Optional)
Sintering kit	(Optional)	-	-
Granulation Tank	(Optional)	(Optional)	(Optional)
Bending unit	(Optional)	(Optional)	(Optional)
Simultaneous casting of several wires	-	(Optional)	(Optional)
Coiling equipment	-	(Optional)	(Optional)

Standard - "✔"   Not Available - "-"

Explore more
https://www.harshad.com/indutherm

Indutherm Induction Melting Units

MU 200

Flexible melting furnaces designed to melt gold and silver alloys and as well as aluminum, bronze, brass a.s.o. Due to the strong induction generator (15 kW) and the low induction frequency the stirring effect of the metal is excellent. The V or VV versions include one or two additional extra large capacity vacuum chambers. The short distance between melting and pouring leads to high quality cast even with filigree parts.

Performance	MU 200	MU 200 C
Power Max. / Electrical connection	3.5 kW 230 V or 6 kW 3x400 V	15 kW 3x400 V
Maximum Temperature	1300 °C or 1500 °C	2000 °C
Capacity		
Crucible Volume	155 cm^3 = 2.0 kg Au 18 ct	155 cm^3 = 2.5 kg Pt
for use of flasks up to	up to ø 160 mm	up to ø 160 mm
Handling + Control		
Temperature measurement by thermocouple	✓	-
Temperature Control	✓	✓
Temperature Programs	20	-
Quality Management		
RS232, Ethernet, USB Interface Diagnostic System	✓	✓
GSM Modem for Remote Service	(Optional)	(Optional)

Standard – "✓"   Not Available – "-"

Explore more
https://www.harshad.com/indutherm

Indutherm MU 400

Performance	MU 400 (MUV/ MUVV 400)
Power Max. / Electrical connection	10 kW, 3x400 V
Maximum Temperature	1500 °C
Capacity	
Crucible Volume	MU/MUV/MUVV 400 : 400 cm³ = 5.0 kg Au 18 ct
for use of flasks up to	up to ø 160 mm / 400 mm h (MUV/MUVV)
Handling + Control	
Temperature measurement by thermocouple	✓
Temperature Control	✓
Temperature Programs	20
Quality Management	
Interface RS232	✓
GSM Modem	(Optional)

Standard – "✓"   Not Available – "-"

Indutherm MU 700 – 1200

Performance	MU 700 – 1200 (MUV/ MUVV 700 – 1200)
Power Max. / Electrical connection	12 – 15 kW, 3x400 V
Maximum Temperature	1500 °C
	MU 700: 12 kW MU 900: 15 kW MU 1200: 15 kW
Capacity	
Crucible Volume	MU/MUV/MUVV 700 : 700 cm³ = 9 kg Au 18 ct MU/MUV/MUVV 900 : 900 cm³ = 13 kg Au 18 ct MU/MUV/MUVV 1200 : 1200 cm³ = 18 kg Au 18 ct
for use of flasks up to	up to ø 160 mm / 400 mm h (MUV/MUVV)
Handling + Control	
Temperature measurement by thermocouple	✓
Temperature Control	✓
Temperature Programs	20
Quality Management	
Interface RS232	✓
GSM Modem	(Optional)

MUV Series

Standard – "✓"   Not Available – "-"

Indutherm Tilting Furnaces

4Tilting Furnaces for melting and casting large quantities into ingots or shell moulds
These machines are designed...
* for melting large quantities, for example in the recycling sector
* for casting large parts into shell-casting moulds

Indutherm TF series – tried and tested in foundries, refineries and precious metal merchants across the world:
Our tilting furnaces are mainly used in two areas:
* for melting down large quantities of metal such as antique gold or manufacturing residues like casting waste, scrap or swarf. 30 kW output and low-frequency tuning means fast melting – even for large volumes – and excellent through-mixing.
* for casting large, heavy components e.g. after slip casting

TF 2000/4000

TF 6000/12000

Performance	TF 2000/4000	TF 6000/12000
Power Max. / Electrical connection	25 - 30 kW 3x400 V	40 - 60 kW 3 x 400 V
Maximum Temperature	1500 °C	1500 °C
	TF 2000 : 25 kW TF 4000 : 30 kW	TF 6000 : 40 kW TF 12000 : 40 kW / 60 kW
Capacity		
Crucible Volume	TF 2000 : 2000 cm^3 = 30 kg Au 18 ct TF 4000 : 4000 cm^3 = 60 kg Au 18 ct	TF 6000 : 6000 cm^3 = 90 kg Au 18 ct TF 12000 : 12000 cm^3 = 180 kg Au 18 ct
Handling + Control		
Tilting	By lever	Motor driven (remote control)
Temperature Control	By LCD display, full text readout	By LCD display, full text readout
Temperature Programs	20	100
Quality Management		
Interface RS 232, Ethernet, USB Interface, Diagnostic System	✓	✓
GMS Modem for Remote Service	(Optional)	✓

Standard - "✓"   Not Available - "-"

Explore more
https://www.harshad.com/indutherm

Indutherm Granulating Machines

The Granulating Machines GU 500, GU 1000, GU 3000 and GU 12000

These machines are developed especially for granulating of metal bullions into proper grains. They are used with a separate removable granulation tank (no tank integrated) and are available with crucible sizes from 170 cm³ up to 12000 cm³.

GU 500   GU 3000   GU 12000

	GU 500	GU 1000	GU 3000	GU 12000
Crucible Volume (cm³)	245 – 368	1500	3400	12000
Volume (kg Au 18 ct)	3.6 – 5.7	22.0	51.0	180.0
Volume (kg Ag)	2.4 – 3.8	14.0	34.0	120.0
Volume (kg Cu)	2.1 – 3.3	12.0	30.0	105.0
Generator (kW 400 V)	10	25	30	40

Pull out handle for easy removal of the tank insert

Pour off the recidual water

then pour off the granules

Explore more
https://www.harshad.com/indutherm

Indutherm Accessories

Graphite crucible & stopper rod for VC400/440/450/480V

Graphite crucible for casting VC200/300/500/650V

Ceramic crucible for MC50,60

Crucible bottom insulation MU200

Crucible bottom insulation VC400/450/480V

Crucible bottom insulation VC600/650

Crucible bottom insulation TF1200

Crucible cover fibre with handle, TF1200

Crucible shield for 78mm crucible, VC500/600, CC400

Crucible shield 108 VC600

Crucible shield diam=110mm

Crucible shield TF1200 up to 1300°C

Crucible shield for VC400-VC480V

Crucible shield ring TF1200

Filling cone VC400-VC480V

Sealing rod ceramic 1400C

Crucible safety cover for MC50/60/100V, VTC100V

Sinter metal filter for VC - Brass

Vacuum filter inlet 1/2" White

Vacuum filter for MC series

Die insulation for crucible 110mm

Thermocouple type N for MC60, MC100V upto 1300°C

Thermocouple type N for VC650 upto 1300°C

Thermocouple S type MU200

Thermocouple type K for wall measurement

Crucible tong

Die for sheet 5x40mm

Die for sheet 12mm

Air Filter GB-202 Pressure sensor

Pressure sensor for VC series

Sensor position cylinder

Air filter vacuum pump

Pressure regulator

Flask gasket graphite 169/110mm

Flask gasket red silicon

Mini Melting Machine

Water Chiller

Specifications	
Capacity	2 kg Gold
Power	5 kW
Power supply	220V, 1 phase 50/60 Hz
Working metals	Gold, Silver, Copper
Max temperature	1300 °C
Melting time	3 ~ 4.5 mins
Cooling water	Tap water or pure water
Dimensions (L x W x H)	580 x 330 x 300 mm
Weight	28.5 kg

Medium Frequency Melting Furnace

Specifications	
Capacity	5 kg
Power	12 kW
Power supply	380 V, ± 15%
Phase	3
Dimensions (L x W x H)	500 x 500 x 950 mm
Weight	80 kg

Explore more
https://www.harshad.com/midas-melting

2kg Induction Melting Machine

Specifications	
Capacity	2 kg
Output	3.5 kW
Oscillate frequency	10 - 15 kHz
AC	230V ±10% (50/60Hz)
Crucible capacity	2 kg, Gold
Max temperature	1200 °C
Melting time	10 - 12 mins ±10%
Cooling water	Water cooling (Water chiller)
Technology	IGBT
Voltage indication	1 Phase voltage indication with color code (Red)
Thermocouple	K-type
Electric wire STD ISI Certified	RR Cable or Finolex Cable
Heavy line internal wiring	Fiber glass heavy insulated wire
IGBT	Semikron Germany made
Modules	Semikron Germany made
Auto cut-off mode	By Temperature controller and thermocouple

Inbuilt Chiller

6kg Induction Melting Machine

Specifications	
Capacity	6 kg
Output	7.5 kW
Oscillate frequency	10 - 15 kHz
AC	440V ±10% (50/60Hz)
Crucible capacity	6 kg, Gold
Max temperature	1200 °C
Melting time	12 - 15 mins ±10%
Cooling water	Water cooling (Water chiller)
Technology	IGBT
Thermocouple	K-type
Electric wire STD ISI Certified	RR Cable or Finolex Cable
Heavy line internal wiring	Fiber glass heavy insulated wire
IGBT	Semikron Germany made
Modules	Semikron Germany made
Auto cut-off mode	By Temperature controller and thermocouple
MCB	Schneider France made

Explore more
https://www.harshad.com/midas-melting

10kg Induction Melting Machine

The Midas induction melting machine features a number of advantages over other types of melting furnaces, including:

Faster melting times: Induction melting is a very efficient process, which means that the Midas machine can melt metal quickly. This is important for applications where time is critical, such as jewelry making.

Precise temperature control: The Midas machine has a digital temperature controller that allows you to set the exact melting temperature. This ensures that your metal is melted evenly and consistently.

Easy to use: The Midas machine is very easy to use. Simply place your metal in the crucible, set the temperature, and press the start button. The machine will do the rest.

Specifications	
Capacity	10 kg
Output	12 kW
Oscillate frequency	10 - 15 kHz
AC	440V ±10% (50/60Hz)
Crucible capacity	10 kg, Gold
Max temperature	1200 °C
Melting time	15 - 17 mins ±10%
Cooling water	Water cooling (Water chiller)
Technology	IGBT
Thermocouple	K-type
Electric wire STD ISI Certified	RR Cable or Finolex Cable
Heavy line internal wiring	Fiber glass heavy insulated wire
IGBT	Semikron Germany made
Modules	Semikron Germany made
Auto cut-off mode	By Temperature controller and thermocouple
MCB	Schneider France made

Explore more
https://www.harshad.com/midas-melting

Powder Breaker Machine

Specifications	
Dimensions (L x W x H)	2180 x 600 x 1700 mm
Weight	100 kg
Tank 1	
Diameter	600 mm
Diameter	600 mm
Tank 2	
Diameter	600 mm
Diameter	900 mm
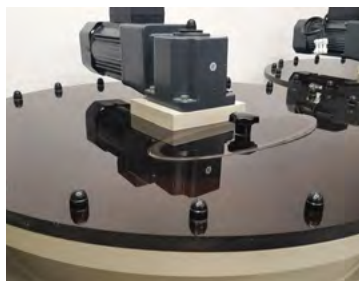
Water Jet Machine

Main Features

∗ Effective removal of plasters from molds after casting.
∗ WaterJet adjustable until a pressure of 120 bar.
∗ Ecological technology: works without acids, solvents or other substances harmful to the environment.
∗ Stainless steel booth with internal lighting.
∗ Supplied as standard: washing pump at 120 bar, high pressure hose for connection to the washing booth and supporting trolley.

	Idroget 120
Power supply	220 V, 50 Hz
Pump power	2.2 hp
Pump pressure adjustable	120 bar
Pump delivery rate	8 ltr/min
External dimensions (L x D x H)	620 x 500 x 1400 mm

Vacuum Pump

Rotary vane is synonymous with a robust, functional construction. R5 rotary vane vacuum pumps are characterized by an optimum design and perfectly synchronized components and materials. The constantly high vacuum level in continuous operation is ensured by recirculating oil lubrication and state of the art precision manufacturing. A sophisticated oil separator ensures efficient use of oil.

	R5 RA 0025 F	R5 RA 0040 F
Nominal pump speed	25 m^3/h	40 m^3/h
Ultimate pressure	0.1 hPa (mbar)	0.1 hPa (mbar)
Nominal motor rating	1.0 kW	1.4 kW
Nominal motor speed	1500 min^{-1}	1500 min^{-1}
Power consumption at 100 mbar	0.8 kWh	1.1 kWh
Power consumption at ultimate pressure	0.5 kWh	0.6 kWh
Noise level (ISO 2151)	60 dB (A)	63 dB (A)
Oil capacity	1 l	1 l
Weight approx.	36 kg	42 kg
Dimensions (L x W x H)	585 x 284 x 263 mm	625 x 284 x 263 mm
Gas inlet / outlet	G 1 ¼" / G 1 ¼"	G 1 ¼" / G 1 ¼"

Water Chiller Tank

Specifications	
Tank Capacity	200 l
AC Unit	2 tonn

Plating
Precious solution for pen and bath plating

Au Yellow 1N-14k	Au Yellow 2N-18k	Au Yellow 3N	Au Yellow 4N	Au Yellow 5N	Au Pink 6N	Au Yellow 24k
Au Light Brown	Au Dark Brown	Ru Light Gray	Ru Dark Gray	Ru Extra Black	Pd White	Pt White
Rh White 110	Rh White 120	Rh White 140	Rh Black	Rh Blue	Au Green	Ag White

Catafor
Coloured and transparent cataphoretic lacquers

101	102 T	102 C	103 T	103 C	104 T	110 C	111 C	112 T	112 C	113 T	113 C
104 C	105 T	105 C	106 T	106 C	107 T	403 H	404 H	405 H	401 L	401 H	402 H
107 C	108 T	108 C	109 T	109 C	110 T	406 H	402 HM	403 HM	404 HM	405 HM	406 HM
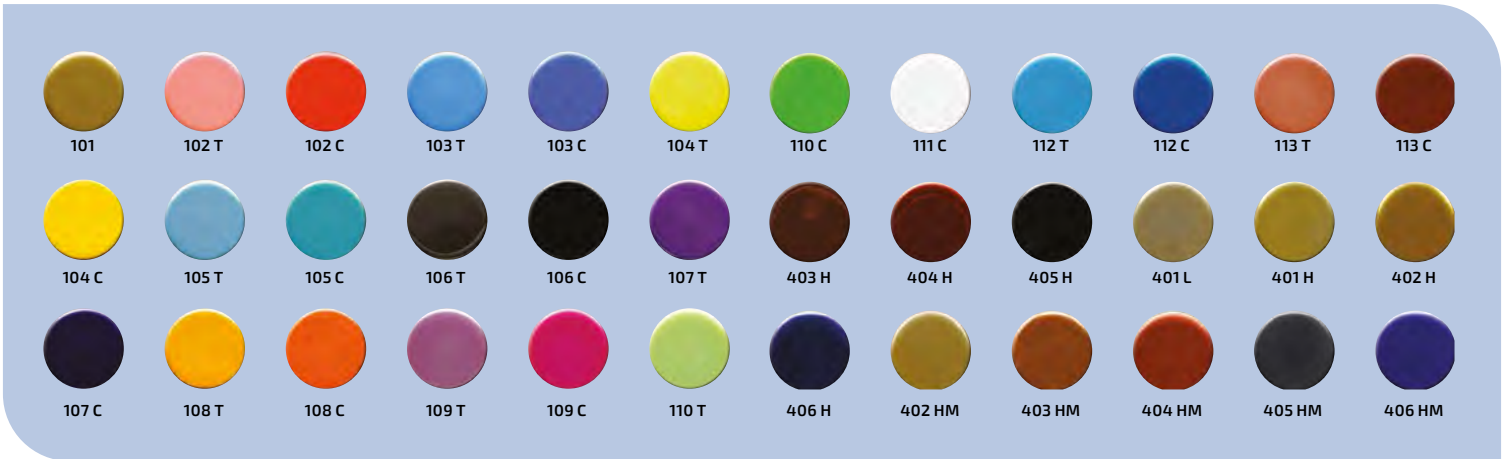
Cleanor
Electrolytic degreasers, Ultrasonic degreasers & Neutralizing for plating processes
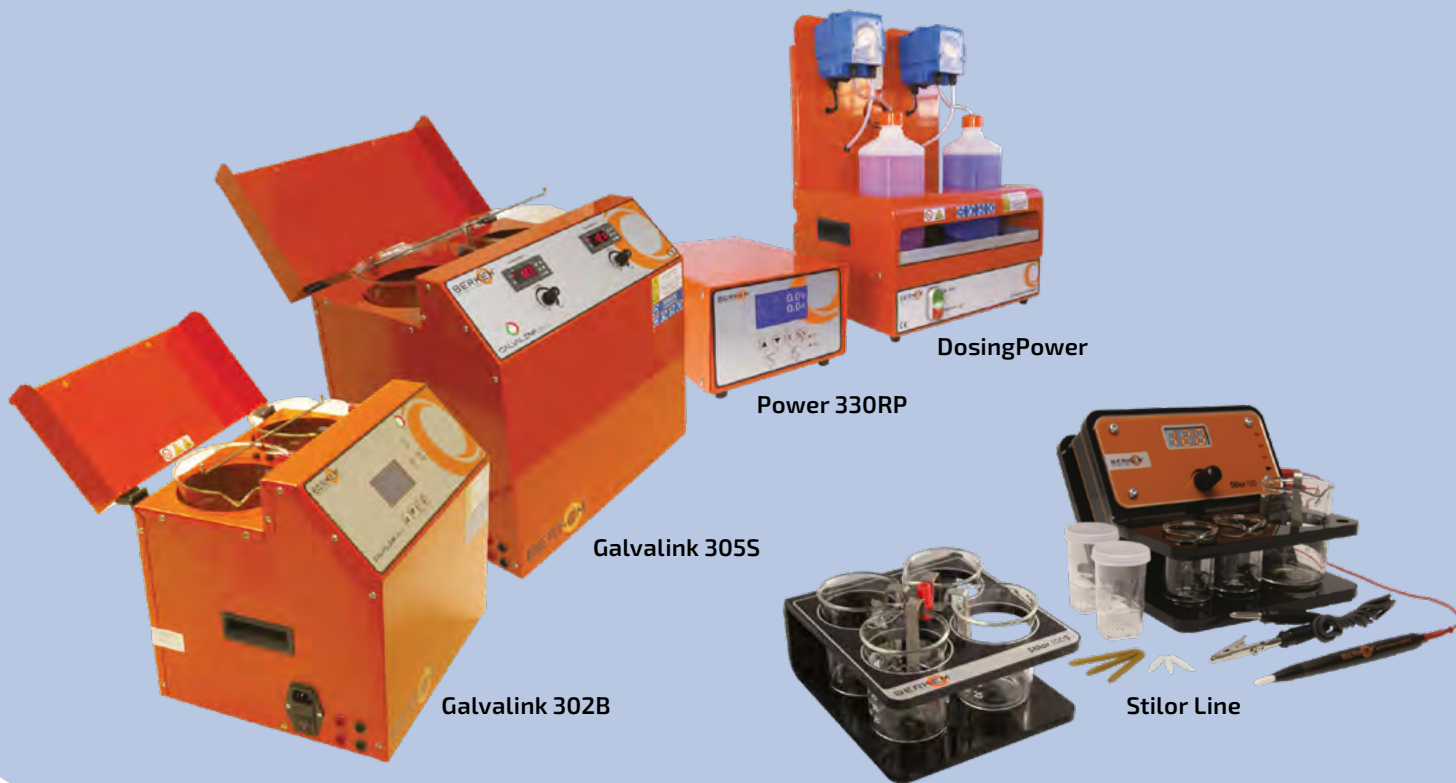

Whitenor
Platinum- Ruthenium solution for bath plating (ready to use). Bright white deposit

WHITENOR 102 is the surprising Berkem process for Platinum-Ruthenium-based decorative and thickness galvanic baths that guarantees extremely white and shiny deposits perfect alternative to rhodium, pure platinum and palladium solutions. The shiny white color is free of any yellowish reflections.

Berkem Plating Machinery

DosingPower

Power 330RP

Galvalink 305S

Galvalink 302B

Stilor Line

GALVALINK is the Berkem modular plating systems line that is compact and versatile.
* 2 pyrex glass beakers
* Powerful variable speed magnetic stirrer
* Thermostatic heating

GALVALINK 302B: galvanic base module with digital programmable rectifier, 2 litres pyrex glass beakers, 1 heater, 1 stirrer, 1 Ti/Pt anode and I stainless steel anode.

GALVANIK 3025 and 305S: galvanic satellite module with 2 or 5 litres pyrex glass beakers. 2 heaters, 2 stirrers. 2 Ti/Pt anodes.

POWER is the line of high performing digital programmable rectifiers studied for use in plating systems both for electro-deposition of metals and for electrochemical surface treatment.

* Possibility of supplying programmable ramp voltage for application of cataphoretic coat.
* Multi amperminutemeters for consumption control.
* Automatic dosing pump connection.

DOSINGPOWER is the innovative automatic dispenser designed by Berkem to restore plating baths based on their real consumption reducing manual intervention, waste and dosing errors. It works only connected to POWER rectifiers which, thanks to the built-in computer, calculates the ampere minutes necessary to activate the dispenser.

* 2 dosing pumps (individually managed by the power rectifier
* Management of 2 different mixes of replenisher or different dosage

STILOR is the exclusive small machine for pen and bath plating for small surface, to decorate the surrounding zones and details, perfect to carry out repairs.

STILOR 100 is the main unit for precise pen plating equipped with:

* Digital display for voltage regulation (2-13 V
* **STILOR 101** pen with a pure platinum collar
* **STILOR 102** pen with a graphite electrode for larger surfaces.
* Wires.
* 2 glass containers for plating solution.
* 1 glass beaker with Ti/Pt anode for degreasing or small baths.

STILOR 100S is the satellite unit that connect to STILOR 100 becomes a mini plating system for bath with 150 ml glass backers and Ti/Pt anodes.

Combi Rhodium Machine

Designed for electroplating gold, silver, rhodium, nickel and copper, as well as for electrolytic degreasing and electropolishing. There is the possibility to connect a pen for local painting

Equipment included:

* 4 Pyrex beakers - 2 litre capacity
* 1 steel anode for degreasing
* 1 platinised titanium anode for gold and rhodium plating
* 1 protective covers made of acid-proof polycarbonate
* 1 cable object holder

Specifications	Combi
Tanks	4 x 2 lt
Heating power	150 W
Current	15 Amps
Voltage converter	0 - 15 V
Adjustable thermostat	0 - 120 °C
Timer	Manual or automatic, 0 - 60 seconds
Voltage	220 V
Construction	Steel body
Dimensions (W x D x H)	670 x 370 x 400 mm
Weight	21 kg

Independent heating switch and power switch

Flash Rhodium Machine

| Specifications	Flash
Tanks	2 x 1 lt
Current	10 Amps
Dimensions (W x D x H)	250 x 300 x 350 mm
Weight	12 kg

COLORIT Enameling System

The modern ColorIt gives the designers countless opportunities to produce distinctive and colorful creations.

The color-fast tones are available in a number of nuances and can also be freely mixed, giving you virtually limitless design possibilities.

ColorIt composite material with ceramic reinforcement can be applied quickly and easily, hardened permanently under blue light and ground and polished mechanically.

The material is adhesion, shock and wear resistant, making it ideal for high-quality and individual designs.

Features

* Composite material with ceramic reinforcement
* Biocompatible and patented
* Quick and easy to process, grind and polish
* Adhesion-, scratch-, shock- and wear-resistant
* Can be sterilised. Meets medico-technical requirements
* Color-fast and UV-stable
* Finished workpieces can be galvanised
* High-quality and individual color design
* Resistant to acids, alkalis and many solvents

Explore more
https://www.harshad.com/colorIT
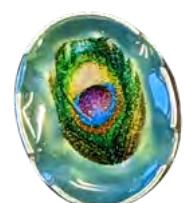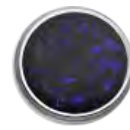
COLORIT Colour Kit

Basic White
(PAN White C)

Deep Yellow
(PAN 108 C)

Trend Blueberry
(PAN 19-2820 TPX)

Eyefect Saphyre XL
on Deep Black

Deep Black
(PAN Black 6 C)

Basic Yellow
(PAN 116 C)

Trend Orange
(PAN 1655 C)

Trend Raspberry
(PAN 19-1860 TPX)

Eyefect Amber XL
on Deep Black

Pearl Red
on Deep Black

Deep Red
(PAN 200 C)

Trend Pink
(PAN 205 C)

Trend Raspberry
Cream
(PAN 16-1715 TPX)

Eyefect Malachit
on Deep Black

Pearl Green
on Deep Black

Deep Blue
(PAN Reflex Blue C)

Trend Sky Blue
(PAN 301 C)

Trend Mocca
(PAN 19-1217 TP)

Eyefect Jade
on Deep Black

Pearl Blue
on Deep Black

Deep Green
(PAN 561 C)

Trend Kiwi
(PAN 360 C)

Trend Coffee Liquer
(PAN 18-0930 TPX)

Crash Ice
on Deep Black

Pearl White
on Deep Black

Trend Lime Punch
(PAN 13-0550 TPX)

Trend Ice Blue
(PAN 315 C)

Trend Coffee Latte
(PAN 15-1116 TPX)

Gun Powder
on Deep Black

H + M

ElettroLaser MS-3.5

80 Joules

The MS-3.5 is a manual welding system, ideal for goldsmiths and dental technicians who need precision and accuracy for quick welding and finishing operations. MS-3.5, small and ultra-compact, with reduced consumption, but with the peculiarities of the classic bench welder.

It is possible to weld: gold, platinum, chrome cobalt, steel, palladium, silver with and without the addition of wire.

7" Touchscreen   Motorized Spot   LED Lighting

Features

* 7" colour touch screen display
* 100 programmable memories
* High brightness shutter LCD
* Easily accessible controls
* Powerful led lights

* Low weight and dimensions
* Argon gas inlet
* Water and air cooling
* USB interface (optional)

Specifications	MS-3.5 80J
Laser source and wavelength	Nd: YAG 1064 nm
Average power	30 W
Peak power	4 kW
Energy	80 J
Impulse time	0.1 to 20 ms
Pulse frequency	0.5 to 6 Hz
Spot diameter	0.2 to 2.0 mm
Stop setting	Motorized
Wave programs	Pulse shaping 6 presets
Memories cell stored	100
External control	7" colour touchscreen
Input power	230 V AC, 50/60 Hz (110 V on request)
Type	Desktop
Argon nozzle	Yes

Explore more
https://www.harshad.com/elettrolaser
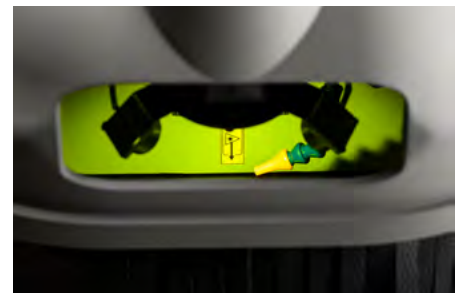
ElettroLaser Master 4.0

165 Joules

Master 4.0 is a laser welding machine designed and developed mainly for goldsmiths and dental laboratories, but which is also well suited for multiple processes in different industrial sectors where maximum welding precision is required.

The new design with incorporated armrests and the latest generation reinforced body increase comfort and usability, together with the 7" capacitive display and the joystick inside the welding chamber.

WI-FI   7" Touchscreen   Integrated Camera

Features

* 7" colour touch screen display
* 100 memories storage cells with name
* Stereomicroscope 10x by Leica
* High brightness shutter LCD
* Internal joystick to the welding chamber
* Powerful led lights

* Low weight and dimensions
* Integrated camera
* Datalogger web interface
* No water filling need
* Ethernet port RJ 45 included

Specifications	Master 4.0
Laser source and wavelength	Nd: YAG 1064 nm
Average power	100 W
Peak power	6.5 kW
Energy	165 J
Impulse time	0.1 ÷ 25 ms
Pulse frequency	0.5 ÷ 30 Hz
Spot diameter	0.2 ÷ 2.0 mm
Stop setting	Motorized
Wave programs	Pulse shaping 6 presets
Memories cell stored	100
Internal chamber control	Joystick
External control	7" colour touchscreen
Input power	230 V AC, 50/60 Hz (110 V on request)
Ampere	10 A
Dimensions (LxDxH)	715 x 672 x 516 mm
Weight	30 kg

ElettroLaser Mega 5.0
230 Joules

Manual laser welding machine, suitable for companies and laboratories with medium / large productions.

Equipped with a large welding chamber, Mega 5.0 is one of the lasers that offers the greatest flexibility as regards both the power and size of the objects it can weld.

The new attractive design is equipped with a double cooling system that allows it to be used even in tropical environments with high temperatures without incurring thermal blocks.

WI-FI   **7" Touchscreen**   **Integrated Camera**

Features

* LED cold and white light in the chamber
* Integrated camera
* 7" colour touch screen display
* Demonstration videos uploaded
* Stereomicroscope 10x by Leica

* Double powerful integrated cooling system
* Internal joystick to the welding chamber
* Wide welding chamber
* Wi-Fi connection
* Ethernet port RJ 45 included

Specifications	Mega 5.0
Laser source and wavelength	Nd: YAG 1064 nm
Average power	100 W
Peak power	9 kW
Energy	230 J
Impulse time	0.1 ÷ 25 ms
Pulse frequency	0.5 ÷ 30 Hz
Spot diameter	0.2 ÷ 2.0 mm
Stop setting	Motorized
Wave programs	Pulse shaping 6 presets
Memories cell stored	100
Internal chamber control	Joystick
External control	7" colour touchscreen
Input power	230 V AC, 50/60 Hz (110 V on request)
Ampere	10 A
Dimensions (LxDxH)	850 x 500 x 500 mm
Weight	35 kg

Mega 5.0 3D

Explore more
https://www.harshad.com/elettrolaser

ElettroLaser Mega 6.0

245 Joules

Professional welding laser to perform micro-welds, an evolution of the Mega SILVER, inherits all the best features of this family, such as the large welding chamber and the double cooling system.

Equipped with SMOOTH SPOT technology, it allows easier distribution of the filler material and a better surface finish of the weld.

Developed mainly for those who weld silver and / or highly reflective materials, and for intensive productions, which aim to digitize their business. The Mega 6.0 can also be equipped with the 3D VISION system for a stereoscopic view of the welding area.

WI-FI   7" Touchscreen   Integrated Camera

Features

* Big laser road
* Smooth and filled spot
* Integrated camera
* 7" colour touch screen display
* Demonstration videos uploaded

* Stereomicroscope 10x by Leica
* Double powerful integrated cooling system
* Powerful lamp
* High energy real available along the process
* Ethernet port RJ 45 included

Specifications	Mega 6.0
Laser source and wavelength	Nd: YAG 1064 nm
Average power	100 W
Peak power	10 kW
Energy	245 J
Impulse time	0.1 ÷ 25 ms
Pulse frequency	0.5 ÷ 30 Hz
Spot diameter	0.3 ÷ 2.0 mm
Stop setting	Motorized
Wave programs	Pulse shaping 6 presets
Memories cell stored	100
Internal chamber control	Joystick
External control	7" colour touchscreen
Input power	230 V AC, 50/60 Hz (110 V on request)
Ampere	10 A
Dimensions (LxDxH)	850 x 500 x 500 mm
Weight	35 kg

Mega 6.0 3D

ElettroLaser MegaHIT 300

MegaHIT 300 was developed mainly for industrial applications and factories working with precious metals and is equipped with double in-line resonator that enables it to achieve an output of 300 J of effective energy.

Thanks to the double in-line laser bar, together with an enhanced capacitor bank, it allows to deliver greater power than the standard and guarantees greater ease in welding reflective materials such as silver.

The new cooling system, entirely designed by Elettrolaser, integrated into the pedestal, guarantees intensive use of the machine.

WI-FI   7" Touchscreen   Integrated Camera

Features

* LED cold and white light in the chamber
* Wide welding chamber
* Integrated camera
* 7" colour touch screen display
* Stand Alone

* Internal joystick
* 100 programmable memories
* 24/7 non-stop working
* Ethernet port RJ 45 included

Specifications	MegaHIT 300	MegaHIT 300 3D
Laser source and wavelength	Nd: YAG 1064 nm	
Average power	150 W	
Peak power	15 kW	15 kW
Energy	0.1 to 300 J	0.1 to 300 J
Impulse time	0.1 to 20 ms	
Pulse frequency	0.5 to 40 Hz	
Spot diameter	0.2 to 2.0 mm	
Stop setting	Motorized	
Wave programs	Pulse shaping 6 presets	
Memories cell stored	100	
Internal chamber control	Joystick	
External control	7" colour touchscreen	
Input power	230 V AC, 50/60 Hz (110 V on request)	
Ampere	16 A	
Type	Pedestal	
Dimensions (LxDxH)	923 x 549 x 1267 mm	
Weight	85 kg	

Explore more
https://www.harshad.com/elettrolaser

Midas Laser Welder

Full enclosed protective cover, Guaranteeing the separation of operator and machine, Dust proof Environmental

Exchangeable working table, 10s for one time table exchanging, effective saving of artificial feeding time

High thickness metal frame working bed, processed by hot quenching, more stable working bed structure

Characteristics :

* Stability and reliability of light path system and control system.

* Imported original fiber lasers, high and stable function, lifespan is over 100000 hours.

Specifications	
Laser source	Nd: YAG
Wavelength	1064 nm
Rated power	200 W
Single pulse energy	80 J
Pulse width	0.1 - 10 ms
Pulse frequency	≤ 50 Hz
Beam diameter	1.0 - 3.0 mm
Welding wire diameter	0.1 - 4.0 mm, 0.1 - 5.0 mm, 0.1 - 6.0 mm
Observing system	Microscope
Chamber illumination	LED lamp
Parameter memorisation	10 groups
Protection alert	Yes
Language display	English
Shield gas supply	One line quick connection (Argon)
Cooling system	Water chiller
Running environment	Temperature 5 - 30 °C, Humidity 5 - 75 %
Power supply	220 V ±10%, 50/60 Hz
Welding chamber dimensions (LxWxH)	300 x 450 x 150 mm
Dimensions (LxWxH)	920 x 560 x 1220 mm
Weight	150 kg

Laser Cutters, Markers & Engravers

FiberLUX NANO

The 'mini' model by ElettroLaser was developed by incorporating the research and innovations of the FiberLUX series, offering a high quality laser at an accessible price. FiberLUX NANO comes with a fully accessible working chamber thanks to the absence of hatches, and an output marking power of 20W and 30W.

Specifications	FiberLUX Nano 20	FiberLUX Nano 30
Output power	20 W	30 W
Wavelength	1064 nm	
M2	<1.8	
Power supply	230 V, 50-60Hz (optional 110 V)	
Absorbed power	250 W	350 W
Working space dimensions	250 x 250 x 310 mm	
Weight	35 kg	35 kg
Focal 100 : marking area/spot	60 x 60 / 16 µm	
Focal 160 : marking area/spot	100 x 100 / 26 µm	
Speed of galvo head	5000 mm/s	
Max. pulse energy	up to 1 mJ	
Max. frequency	60 kHz	
Cooling system	air cooled	
Pulse duration	100 ns at 20 kHz	
Laser class	IV	

FiberLUX EL & EL Lite

ELETTROLASER FiberLUX EL is a high performant product on the market, at a very competitive price; perfect solution both for the small/medium laboratory and for who enter for the first time in the marking process world. EL line offers the right compromise between the lower-end FiberLUX NANO line and the higher-end FibeLux PRO.

Specifications	FiberLUX EL 20	FiberLUX EL 30	FiberLUX EL 50
Output power	20 W	30 W	50 W
Wavelength	1064 nm		
M2	<1.8		
Power supply	230 V, 50-60Hz (optional 110 V)		
Absorbed power	250 W	350 W	350 W
Working space dimensions	250 x 250 x 350 mm		
Weight	55 kg	55 kg	55 kg
Focal 100 : marking area/spot	60 x 60 / 16 µm		
Focal 160 : marking area/spot	100 x 100 / 26 µm		
Speed of galvo head	5000 mm/s	5000 mm/s	7000 mm/s
Max. pulse energy	up to 1 mJ		
Max. frequency	60 kHz	60 kHz	100 kHz
Cooling system	air cooled		
Pulse duration	100 ns at 20 kHz	100 ns at 20 kHz	120 ns at 20 kHz
Laser class	IV		
Light version available	Yes		

Explore more
https://www.harshad.com/elettrolaser

FiberLUX PRO

It can be used to mark objects of any metal, engrave photographs, logos, trademarks. Equipped with a motor-driven Z-axis with movement resolution of 0.01 mm, and an innovative, user-friendly focus system with overlapping pointers, it can also be equipped with an internal videocam inside the laser chamber, for optimization of processing and possible remote assistance.

Every machine can be equipped with a range of options such as: high precision rotating axis system, electro-pneumatic plate driver (feeder) with ELETTROLASER software, exhaust fan, clamp for blocking pieces, movable in the X and Y axes, and a system of pneumatic hatch opening. The built-in PC with touch-screen of the new PRO version, supply to the machine the USB and Ethernet ports. Fiberlux becomes a machine able to communicate and make the operator independent, able to modify files while the machine executing on its job.

| Specifications	FiberLUX PRO 20	FiberLUX PRO 30	FiberLUX PRO 50	FiberLUX PRO 70	FiberLUX PRO 100	FiberLUX PRO 200
Output power	20 W	30 W	50 W	70 W	100 W	200 W
Wavelength	1064 nm					
M2	<1.6					
Power supply	230 V, 50-60Hz (optional 110 V)					
Absorbed power	300 W	300 W	300 W	450 W	450 W	900 W
Working space dimensions	250 x 250 x 350 mm					
Weight	55 kg	55 kg	55 kg	60 kg	60 kg	130 kg
Focal 100:marking area/spot	60 x 60 / 16 µm					
Focal 160:marking area/spot	100 x 100 / 26 µm					
Focal 210:marking area/spot	160 x 160 mm / 34 µm					
Speed of galvo head	Up to 7000 mm/s					
Max. pulse energy	up to 1.5 mJ					
Max. frequency	1000 kHz				400 kHz	
Cooling system	air cooled					
Pulse duration	10 to 200 ns				30 to 100 ns	
Laser class	IV/I (no for lite version)					

Explore more
https://www.harshad.com/elettrolaser

FiberLUX 3D

It can be used to mark any metal object, engrave photos, logos, trademarks and texts even with surface unevenness approximately 35 mm. The new 3D, thanks to the complete restyling, can be provided standalone (with its pedestal support), or even in the traditional desktop version, if it is necessary to protect the spaces.

Specifications	FiberLUX 3D 20	FiberLUX 3D 30	FiberLUX 3D 50	FiberLUX 3D 70	FiberLUX 3D 100
Output power	20 W	30 W	50 W	70 W	100 W
Wavelength	1064 nm				
M2	<1.6				
Power supply	230 V, 50-60Hz (optional 110 V)				
Absorbed power	500 W	500 W	500 W	600 W	650 W
Working space	280 x 380 x 350 mm				
Weight	55 kg	55 kg	55 kg	60 kg	60 kg
Focal 100: marking area/spot	60 x 60 / 11 µm				
Focal 160: marking area/spot	110 x 110 / 26 µm				
Speed of galvo head	6000 mm/s				
Max. pulse energy	up to 1.5 mJ				
Max. frequency	1000 kHz				
Cooling system	air cooled				
Pulse duration	10 to 200 ns				
Laser class	IV/I (no for lite version)				
Focus range in Z 100 mm focal lense	10 mm				
Focus range in Z 160 mm focal lense	30 mm				
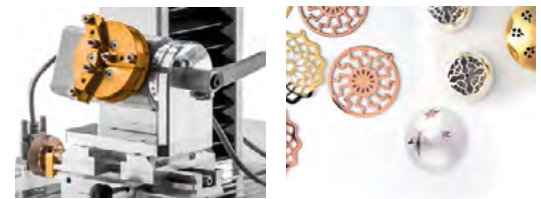
LCC (Laser Cutting Cabinet)

Applications achievable with LCC are the cut and the processing of: components of prototyping, jewellery (gold, silver, platinum, titanium, steel etc.), medical instruments, components automotive, aerospace ed electronic, and much more.

Specifications	LCC 150 W	LCC 300 W
Output power	150 W	300 W
Motion controller	3 axis	
Power supply	230 V, 50-60Hz	
Laser head option	Cutting head	
Working area	150 x 150 mm	
Weight	182 / 210 kg	
Max processing speed/axis	15 mm/sec	
Oxygen ready	Components for one tank, regulator included	
Acceleration	Max 1g	
Repeat accuracy/axix	± 0.127 mm	
Linear drive travel X/Y/Z	X Axis max 150 mm / Y Axis 150 mm / Z Axis manual micrometer adjustment	
Cooling system	Air cooled	
Electrical/Manual door	483 x 483 mm	
Laser class/Machine class	IV/I	
XYZ table	Lead screw with anti backlash nut harden rails, guides and guide rollers	

Explore more
https://www.harshad.com/elettrolaser

Accessories

Welding

Table
Motorized support up-down (plexiglass)

R Axis Rotation System
For welding of circular objects

Viewfinder Cap
Removable hygienic covers for laser microscopes

Oval Spot
Oval spot for chain and wire welding

0,1 Spot
Micro-shot for high precision welding

Data Logger
RSS remote supervisor system - Connection of all ELETTROLASER machines equipped with WIFI

Marking & Cutting
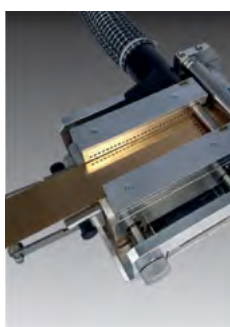

Camera
For easier object positioning

Self Centering Chuck (R - axis)
External & internal marking for rings and bracelets

XY Clamp
For manual positioning axis x/y

Dust Aspirator
To recover 99.9% of precious metals

Drag and Clamp Plate
For automatic cutting of objects

Automatic Door Open
For industrialization of production

Stand
Stand with PC support

Scanner Detection
Advanced piece position auto-detection system

Laser Marking Machines

The Midas marker is a desktop laser engraving machine that provides the most economical solution that meets a wide range of production needs.

Vertical openings on all three sides provide easy access with a pass through option when needed. Long parts that won't fit in the cabinet are easily marked with 3 sides open.

The robust structure has a working table made of hard anodized aluminium with pre-drilled holes for fixture of parts quickly.

Technical Specifications	
Laser source	Fiber laser
Laser power	20 W
Laser wavelength	1064 nm
Beam quality	1.2
Laser frequency	20 - 200 kHz
Laser lifespan	50000 hours (average)
Min. life width	0.02 mm
Min. character height	0.2 mm
Repeatability	0.001 mm
Marking table	X, Y and Z axis table
Marking depth	Up to 1.0 mm
Power supply	220 V, Single phase (Standard)
Weight	23 kg

Explore more
https://www.harshad.com/midas-laser
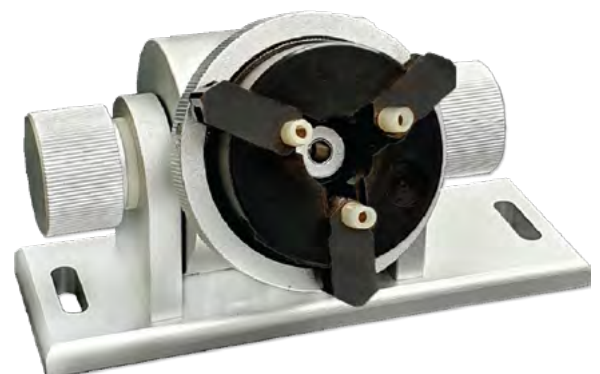
Laser Cutter & Engraver

Midas laser machine is one kind of professional laser marking equipment which integrated light, machine & electricity. The key components are imported, our machine with advantages of novel style, unique structure, convenient operation, high frequency modulation, high marking speed and precision, stable performance, widely used in all kinds of metallic and non-metallic surface for permanent marker. Midas 50W is using the most advanced laser technology, optical fiber as medium, through absorbing or releasing energy from the laser, the galvanometer changing track and lens focused on the work piece surface, in accordance with the system pre-install path in work piece surface movement which in the process of evaporation vaporization, exposing deep mark.

Components of the laser machine:

* Laser source
* Laser scanner
* F-theta lens
* Control board & marking software
* Computer
* Lifting pillar
* 2D working table
* Power supply.

Technical Specifications	
Laser source	Raycus (50W), JPT (80W, 100W, 200W)
Laser wavelength	1064 nm
Average output power	50 W, 80 W, 100 W
Pulse energy	1 mJ
Pulse width	90 - 150 ns
Modulation frequency range	50 ~ 100 kHz
Maximum linear speed	7000 mm/s
Resolution	12 µrad
Repeatability	8 µrad
Marking range	110 x 110 mm (optional)
Minimum line width	0.01 mm
Minimum character height	0.02 mm
Cooling method	Air cooling
Laser power	0.5K/AC 220V/50-60Hz (optional 110 V)
Light path lifting stroke	Movements itinerary 285 mm
Environment requirement	0 ~ 35 °C

Explore more
https://www.harshad.com/midas-laser
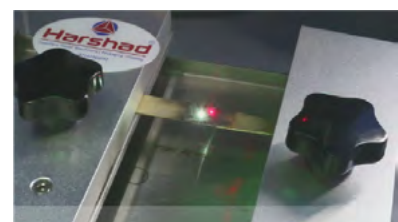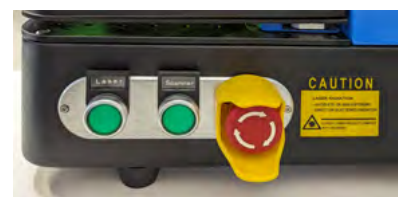
Pulse Arc/Resistance Welding systems

mPulse 30

The mPulse 30 power settings range from 3.0ws to 30ws, in 1ws increments—that's 27 different power settings to choose from.

100 C

The Orion 100 C provides up to 100 joules of pulse-arc welding energy. The 100 C also yield as low as 3 joules of energy.

mPulse Plus

With a 30ws power potential, the mPulse Plus can be used by anyone and has the power to tackle all sorts of jobs.

Technical Specifications	mPulse Plus	100c	150s	200i
Welding energy range	3 - 30 J	3 - 100 J	1 - 150 J	0.2 - 200 J
Weld spot diameter	≈ 0.75 - 1.5 mm	≈ 0.75 - 2.5 mm	≈ 0.5 - 3.5 mm	≈ 0.2 - 4.5 mm
Display (touch screen)	110 mm	130 mm	200 mm	250 mm
Weld speed	1 weld/2 seconds	1 weld/0.7 seconds	1 weld/0.3 seconds	1 weld/0.2 seconds
High frequency agitation options	None	Basic	Multiple	Advanced
Dimensions w/o scope	139 x 133 x 92 mm	273 x 152 x 169 mm	305 x 127 x 254 mm	406 x 127 x 267 mm
Save setting space	0	30	1000	Unlimited
5x magnification	(Standard)	(Standard)	(Standard)	(Standard)
Full IR & UV protection	(Standard)	(Standard)	(Standard)	(Standard)
Arc start technology		(Standard)	(Standard)	(Standard)
Track mode		(Standard)	(Standard)	(Standard)
Basic screen metal presets		(Standard)	(Standard)	(Standard)
Adaptive weld ignition				(Standard)
Dynamic energy adjustment				(Standard)
Multiple welding waveforms				(Standard)
PICO mode				(Standard)
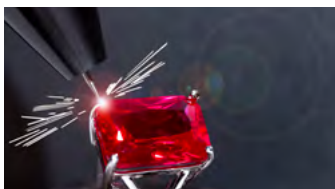
Accessories
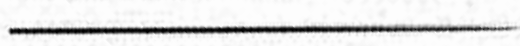
0.5 mm x 66mm Tungsten Electrodes
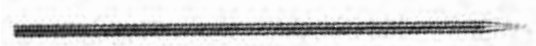
1.0 mm x 66mm Tungsten Electrodes

Explore more
https://www.harshad.com/orion

Avalon Electropolishing Machines

Electropolishing is an electrochemical process that removes the outer layer of materials on a metal part without rounding the edges . It offers unique advantage of treating the areas on the work-piece, which is not approachable by common mechanical process. Moreover the finishing effect can be achieved in a very short time - from 5 to 35 min.

IQ PRO

IQ ECO

Jigs for all types of jewelry

Technical Specifications	IQ PRO	IQ ECO
Power	230 V / 50 Hz	230 V / 50 Hz
Installed power	0.7 kW	0.4 kW
Operating voltage	0 - 30 V	0 - 30 V
Operating current	16 A max.	6 A max.
Number of hooks	80	32
Noice level	60 - 65 dB	60 - 65 dB
Dimensions (W x D x H)	1050 x 1050 x 650 mm	810 x 1220 x 510 mm
Weight	170 kg	88 kg
Media	Plastic media 2 - 3 mm Electrolyte EP4 for Gold	
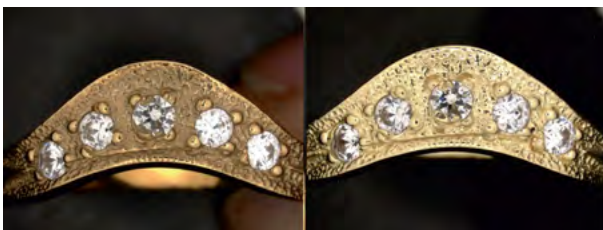
Before   **After**

Before   **After**

Before   **After**

Explore more
https://www.harshad.com/avalon-finishing

Avalon Disc Finishing Machines

TE Series (Stand-alone)

TE18

TE10x2

TE18x3

Model	Working bowl capacity	Working bowl inside diameter	Dimensions	Weight	Power	Supply
TE10	10 l	265 mm	460 x 910 x 1800 mm	101 kg	0.6 kW	230 V
TE10x2	2 x 10 l	2 x 265 mm	920 x 910 x 1800 mm	184 kg	1.2 kW	230 V
TE10x3	3 x 10 l	3 x 265 mm	1350 x 910 x 1800 mm	274 kg	1.8 kW	230 V
TE18	18 l	320 mm	460 x 910 x 1800 mm	124 kg	0.8 kW	230 V
TE18x2	2 x 18 l	2 x 320 mm	890 x 910 x 1800 mm	235 kg	1.2 kW	230 V
TE18x3	3 x 18 l	3 x 320 mm	1350 x 910 x 1800 mm	340 kg	1.8 kW	230 V
TE30	30 l	400 mm	500 x 1040 x 1800 mm	168 kg	1.5 kW	230 V
TE60	60 l	525 mm	1270 x 1160 x 1690 mm	365 kg	4.0 kW	3 x 400 V

EC Series (Table-top)

EC6

EC10

EC18

Model	Working bowl capacity	Working bowl inside diameter	Dimensions	Weight	Power	Supply
TE10	10 l	265 mm	460 x 910 x 1800 mm	101 kg	0.6 kW	230 V
TE10x2	2 x 10 l	2 x 265 mm	920 x 910 x 1800 mm	184 kg	1.2 kW	230 V
TE10x3	3 x 10 l	3 x 265 mm	1350 x 910 x 1800 mm	274 kg	1.8 kW	230 V

Explore more
https://www.harshad.com/avalon-finishing

Avalon Round Vibratory Machines

W and WE Series

W50

W100

W15

WE6

WE10

Model	Working bowl capacity	Working bowl inside diameter	Dimensions	Weight	Power	Supply
W15	15 l	360 mm	500 x 590 x 890 mm	128 kg	0.49 kW	230 V
W50	50 l	560 mm	770 x 660 x 1150 mm	202 kg	0.61 kW	230 V
W100	100 l	772 mm	960 x 900 x 1180 mm	263 kg	0.7 kW	230 V
WE6	6 l	280 mm	340 x 350 x 420 mm	22 kg	0.14 kW	230 V
WE10	10 l	310 mm	440 x 380 x 440 mm	30 kg	0.14 KW	230 V

Explore more
https://www.harshad.com/avalon-finishing

Avalon Trough Vibrating Machines

WR Series

WR30 MINI

WR60 MINI

WR60

WR120

Model	Working bowl capacity	Dimensions	Weight	Power	Supply
WR30 Mini	30 l	540 x 240 x 300 mm	101 kg	0.28 kW	230 V
WR30	30 l	780 x 760 x 1180 mm	150 kg	0.28 kW	230 V
WR60 Mini	60 l	990 x 520 x 810 mm	211 kg	0.44 kW	230 V
WR60	60 l	1350 x 520 x 810 mm	266 kg	0.44 kW	230 V
WR120	120 l	1510 x 920 x 1200 mm	610 kg	1.7 kW	230 V

Explore more
https://www.harshad.com/avalon-finishing

Media

Procelian Chips (Wet Process)

CMG/CMP ø1	CMG/CMP ø1.5	CMG/CMP ø3	CMG/CMP ø4
CMG/CMP 2x5	CMG/CMP 2x10	CMG Mix	CMP Mix
CMG/CMP ø5	CMG/CMP ø6		

Stainless Steel Shots (Wet Process)

Ball ø1	Ball ø2	Ball ø2.4	Ball ø2.7
Satellite 2x3	Satellite 3x4	Satellite 6x4	Ball ø3.2
Steel Mix			

Plastic Chips (Wet Process)

01PS10	02PS10	03PS14	05PS10	06PS10	07PS12
01PP10	02PP10	03PP18	05PP10	06PP10	Zircon Beads

Walnut Shells, Pastes (Dry Process)

H-1/050	H-1/100	H-1/400	H-1/500	PA-2	PA-1
2.4 – 4.0 mm	1.7 – 2.4 mm	0.4 – 0.8 mm	0.2 – 0.5 mm	Grinding	Polishing

Mass of Chips

Type of the chip	Machine	Plastic chip (kg)		Porcelain Media (kg)		Ceramic Media (kg)		Walnut Shell (kg)	Stainless Steel Stell (kg)
		PPPS 10 - 15	PPPS 20	CMG CPM	Roll 6x15	CG 6x6	CG 15x15	H1-100 – H1-500	Mix
TE/EC	EC6	4	5	6	6	6	4	3	18
	EC10 / TC10	5	7	9	9	9	7	4	25
	TE 18	11	13	18	20	15	15	7	50
	TE30	20		34	40	32	30		
	TE60	45					60		-
W	WE6	5	4.5	8	8	7.5	7	-	20
	WE10	7	6.5	10	10	10	9	5	27
	W8	4.5	5	8	8	7	6.5	-	19
	W15	13	15	18	20	20	18	-	54
	W50	35	42	55	57		50	-	-
	W100	80	83	125	130		130	-	-
WR	WR20	-	-	-	-	-	-	-	60
	WR30	25	26		30	32	30	-	-
	WR60	40		63	65		55	-	-
	WR120	115			150	175	155	-	-

Rotation Speed

Machine	Min. RPM	Min. Hz	Max. RPM	Max. Hz	1 Hz = RPM
WE6	1800	30	3000	50	60
WE10	1800	30	3000	50	60
W8	1200	20	3000	50	60
W15	1200	20	3000	50	60
W50	1200	20	3000	50	60
W100	1200	20	3000	50	60
WR30	1050	35	1950	65	30
WR60	1050	35	1950	65	30
WR120	1050	35	1950	65	30
TE6	149,76	14,4	520	50	10,4
TE10	140,112	16,8	500,4	60	8,34
TE18	129,87	19,5	399,6	60	6,66
TE30	120	20	330	55	6
TE60	80	13,6	330	55,85	5,908683975
PM200S	566	10	2830	50	56,6
PM500	560	10	2800	50	56

Midas Vibro Machine
Mars
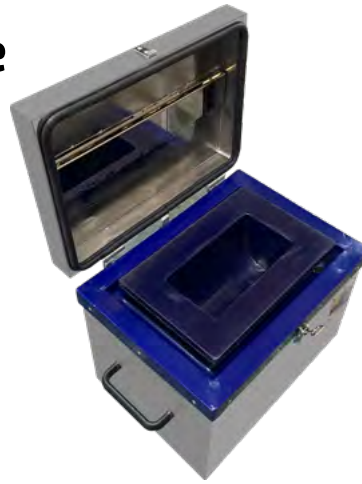
Specifications	VB01	VB02	VB03	VB05	VB07
Power supply	230 V, 1 Phase	230 V , 1 Phase	230 V , 1 Phase	230 V , 1 Phase	230 V , 1 Phase
Power consumption	250 W	500 W	750 W	1 kW	1 kW
Media S.S. capacity	12 kg	18 kg	25 kg	30 kg	40 kg
Article capacity upto	1 kg	2 kg	3 kg	5 kg	7 kg
Dimensions	14" x 18" x 20"	15" x 18" x 21"	15" x 22" x 23"	16" x 23" x 24"	17" x 24" x 28"
Bowl dimensions	11" x 5" x 6"	11" x 7" x 7"	15" x 7" x 7"	13" x 7" x 9"	20" x 7" x 9"
Bowl type	PU Lined	PU Lined	PU Lined	PU Lined	PU Lined

Lunex Polish Machine
Jupiter

Lunex Machine is a newly developed grinding machine with automated frequency and PLC touch screen. It has a reliable and durable polyurethane bowl with adjustable speed and frequency control. The attached dosing pump with variable speed ensures consistent results in each process.

Features & Advantages:
* Noise less & Zero pollution
* PLC Touch Screen
* Easy to operate & better surface finish
* Speed & Time Variable
* Auto Cutoff
* Dosing pump with Variable speed
* Water drainage System include
* Media outlet

Specifications			
Capacity	5 ltr	8 ltr	22 ltr
Power supply	230 V, single phace	230 V, single phace	230 V, single phace
Power consumption	1 kW	1.2 kW	1.6 kW
Bowl Material	Polyurethane	Polyurethane	Polyurethane
Controller	HMI with A/C Drive	HMI with A/C Drive	HMI with A/C Drive
Weight	100 kg approx	150 kg approx.	250 kg approx.
Bowl dimensions	337 x 110 x 165 mm	400 x 130 x 187 mm	525 x 190 x 255 mm
Machine dimensions	L 22"x W 24"x H 39"	L 24"x W 24"x H 40"	L 28"x W 32"x H 42"
Controller Dimensions	L 14" x W 14" x H 42"	L 14"x W 14"x H 42"	L 14"x W 14"x H 42"

Explore more
https://www.harshad.com/midas

Spinner Polish Machine
Saturn

Specifications	
Capacity	23 ltr
Power supply	230 V, single phace
Power consumption	1.6 kW
Capacity	Up to 5 kg
Bowl Material	Polyurethane
Controller	HMI with A/C Drive
Weight	100 kg approx.
Bowl dimensions	ø 520 x H 260 mm
Machine dimensions	L 28"x W 22"x H 30"
Controller Dimensions	L 15"x W 15"x H 40"

Magnetic Polisher
Pluto

Specifications	
Power supply	230 V, single phace
Power consumption	1 kW
Capacity	1 kg (media 500 g)
Bowl dimensions	10" x 8" Acryllic
Speed	2800 rpm
Timer	Digital up to 99 mins
Motion	Reverse/Forward
Machine dimensions	L 13.5"x W 13.5"x H 16"
Weight	25 kg approx.

Midas Dryer DM-18

Midas DM-18 Dryer is designed to dry objects of different shapes and sizes. It ensures accurate drying of polished parts, which is important for objects with shiny surfaces.

Features & Advantages:
* M.S. body
* Digital temperature controller
* Digital time controller
* Corn cob Media

Specifications	
Power supply	230 V AC, single phace
Power Consumption	3 kW
Basket Dimensions	17.5" x 13.5" x 3.5"
Dimensions	30" x 17" x 39"
Weight	75 kg approx.

Explore more
https://www.harshad.com/midas

Polishing Machines

EK 3   EK 4   EK 5   EK 6

Specifications	EK 3	EK 4	EK 5	EK 6
Polishing Motor Power	0.75 kW / 1 hp	0.75 kW / 1 hp	1.1 kW / 1 hp	2 x 1.1 kW / 1 hp
Vacuum Motor Power	0.75 kW / 1 hp	1.1 kW / 1.5 hp	2.2 kW / 4 hp	3 kW / 4 hp
Vacuum Suction Power	3500 m³/h	4500 m³/h	5500 m³/h	6300 m³/h
Motor Speed	2800 RPM	2800 RPM	2800 RPM	2800 RPM
Max. Brush Diameter	270 mm	270 mm	270 mm	270 mm
Number of Workers	1	2	2	2
Voltage	220 V/50-60 hz	220 V/50-60 hz	220-380 V/50-60 Hz	380 V/50-60 Hz
Emergency Stop	Yes	Yes	Yes	Yes
Light System	LED	LED	LED	LED
Case	Standard	Standard	Super Case	Super Case
Weight	74 kg	120 kg	180 kg	220 kg
External Dimensions	760 x 60 x 121 mm	1130 x 700 x 1220 mm	1250 x 680 x 1660 mm	1450 x 680 x 1670 mm
Front Case	-	-	1250 x 520 x 1230 mm	1350 x 520 x 1230 mm
Rear Case	-	-	1250 x 540 x 1650 mm	1400 x 590 x 1650 mm

Angel Double Side Bench Polish

Specifications	
Motor Power	550W, 220V 1 phase
Motor RPM	2800 rpm
Vacuum Motor Power	1.1 kW, 220V
Vacuum Motor Flow	1900 - 2700 m³/h
Dimensions (WxLxH)	600 x 1440 x 1150 mm
Box (LxW)	40 x 40 mm

Angel Single Side Bench Polish

Specifications	
Motor Power	550W, 220V 1 phase
Motor RPM	2800 rpm
Vacuum Motor Power	1.1 kW, 220V
Vacuum Motor Flow	1900 - 2700 m³/h
Dimensions (WxLxH)	600 x 860 x 1160 mm
Box (LxW)	40 x 40 mm
Weight	75 kg

Explore more
https://www.harshad.com/harshad-group

Elma Ultrasonic Cleaners

The Elmasonic Easy series includes 9 units of different sizes and is characterized by simple, user-friendly operation.

∗ Permanently integrated Sweep-function with 100 % ultrasonic power at a frequency of 37 kHz
∗ Activatable Pulse-function is suited to remove tenacious, mineral soiling and polishing pastes. The ultrasonic power is increased up to 20 %, so that any soiling will be removed easily and quickly.
∗ Limit temperature with visual warning when bath temperature reaches the set limit temperature
∗ preventing the coagulation of proteins and protecting sensitive items from damage due to high temperatures.
∗ Protection against splashwater with higher unit feet
∗ Equipped with heating from Easy 30 H upwards
∗ Equipped with drain duct on the rear from the Easy 60 H upwards

	Easy 10 H	Easy 20 H	Easy 30 H	Easy 40 H	Easy 60 H	Easy 100 H	Easy 120 H	Easy 180 H	Easy 300 H
Ultrasonic Frequency (Hz)	37	37	37	37	37	37	37	37	37
Tank Capacity Max. (l)	0.8	1.75	2.75	4.52	5.75	9.5	12.75	18.0	28.0
Tank Labour Capacity (l)	0.7	1.2	1.9	3.2	4.3	7.5	11.3	12.9	20.6
Ultrasonic Power Effective (W)	30	35	80	140	150	150	200	200	300
Heating Power (W)	60	120	200	200	400	400	800	800	1200
Unit External Dim. WxDxH (mm)	206x120x186	176x176x219	264x176x219	263x176x269	341x196x269	339x281x272	342x285x322	371x347x322	544x347x322
Tank Internal Dim. WxDxH (mm)	190x85x59	137x123x99	255x124x99	240x118x149	281x132x149	281x222x149	276x216x199	303x273x199	477x274x199
Basket Internal Dim. WxDxH (mm)	177x73x30	112x103x50	198x106x50	190x105x75	255x115x75	255x200x75	250x190x115	280x250x115	455x250x115
Weight (kg)	2.0	2.1	3.3	4.0	5.1	5.9	7.5	8.5	11.0

Elmasonic EASY for cleaning jewellery and watch parts
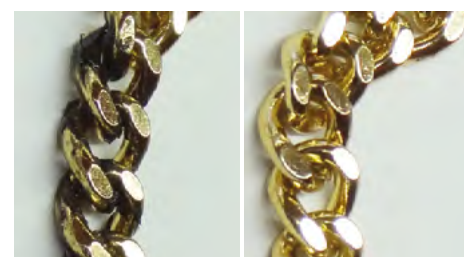
Removal of polishing pastes

Explore more
https://www.harshad.com/elma

Elma Steam Jet

Elmasteam 8 Basic

The compact Elmasteam 8 basic with 8 bar steam pressure is the ideal steam cleaning machine for smooth and environmentally friendly pre- and final cleaning tasks.

Elmasteam 8 Med

The Elmasteam 8 med steam jet cleaner is the ideal tool to pre-clean burrs, drills and electro-surgical instruments, instruments and smoothly removes even tenacious contaminations

Elmasteam 4.5 basic HP   Elmasteam 4.5 basic

In the field of watches and jewellery, Elmasteam 4.5 basic is suited to clean worn and mounted jewellery as well as watch straps, jewellery chains and rings - also with set stones. With 4.5 bar steam pressure even sensitive parts are safely and effectively cleaned.

Specifications	Elmasteam 4.5 Basic / Elmasteam 4.5 Basic HP	Elmasteam 8 Basic	Elmasteam 8 Med
Max operating pressure	4.5 bar	8.0 bar	8.0 bar
Pressure tank capacity	4.0 l	5.0 l	5.0 l
Max. tank capacity	3.3 l	3.8 l	3.8 l
Power supply	220 – 240 V / 115 – 220 V 50 – 60 Hz	220 – 240 V 50 – 60 Hz	220 – 240 V 50 – 60 Hz
Power consumption	2800 W (220-240 V) 1650 W (115-220 V)	3120 W	3120 W
Steam temperature (Tank)	max. 155 °C	max. 185 °C	max. 185 °C
Steam temperature (Nozzle)	max. 135 °C	max. 160 °C	max. 160 °C
Dimensions (W x D x H)	250 x 320 x 420 mm	260 x 355 x 520 mm	315 x 350 x 520 mm
Weight	6.75 kg	20 kg	20 kg

Explore more
https://www.harshad.com/elma

Logimec Ultrasonic & Steam Cleaner

Model	Tank Capacity	Tank Dimension	External Dimension	Heating Power	Ultrasonic Max	Ultrasonic Frequency	Voltage
170H	1.7 l	150x135x100	175x160x260	150 W	140 W	26 kHz	230 V
270HD	2.75 l	240x137x100	315x175x255	250 W	150 W	26 kHz	230 V
430HD	5 l	240x137x170	315x175x330	250 W	300 W	26 kHz	230 V
570HD	6.5 l	300x150x170	375x190x330	500 W	300 W	26 kHz	230 V
950HD	10.5 l	300x240x170	375x280x335	500 W	550 W	26 kHz	230 V
1600HD	16 l	375x175x240	525x295x420	1500 W	800 W	38 kHz	230 V
25LT HD	25 l	350x250x300	550x450x870	1500 W	950 W	26 kHz	230 V
50LT HD	50 l	500x250x400	700x450x920	3000 W	1200 W	26 kHz	230 V
80LT HD	80 l	650x250x500	810x490x950	4500 W	1500 W	26 kHz	400 V Trifase +Neutro
90LT HD	92 l	540x400x430	690x550x900	4500 W	1500 W	26 kHz	400 V Trifase +Neutro
100LT HD	100 l	670x300x500	810x490x950	6000 W	1800 W	26 kHz	400 V Trifase +Neutro
200LT HD	200 l	700x500x550	840x750x1000	6000 W	2800 W	26 kHz	400 V Trifase +Neutro

Steam Jets

E 5003

E 5004

Explore more
https://www.harshad.com/logimec

Eitan Steam Cleaners

LSE-6

A simple and effective solution for your jewellery cleaning problems.

Applications
* Metal treatment for facing with various materials including the Light Cure method
* Porcelain surface cleaning between firing steps.
* Cleaning and rising in all processing stages.
* Eliminates other cleaning procedures such as ultrasonic or detergents .

Specifications	LSE-6
Capacity	6 litres
Warm up time	15 - 20 mins
Voltage	110 V and 220 V
Dimensions (L x W x H)	550 x 220 x 420 mm
Net weight	20 kg

LSE-20/2-A

Powerful steam cleaner for the large jewellery manufacturers. Fast and effective cleaning tool for the high volume, around the clock production.

Applications
* Metal treatment for facing with various materials including the Light Cure method
* Porcelain surface cleaning between firing steps.
* Cleaning and rising in all processing stages.
* Eliminates other cleaning procedures such as ultrasonic or detergents .

Specifications	LSE-20/2-A
Capacity	20 litres
Warm up time	15 mins
Voltage	110 V and 220 V
Dimensions (L x W x H)	600 x 610 x 770 mm
Net weight	65 kg

Explore more
https://www.harshad.com/eitan
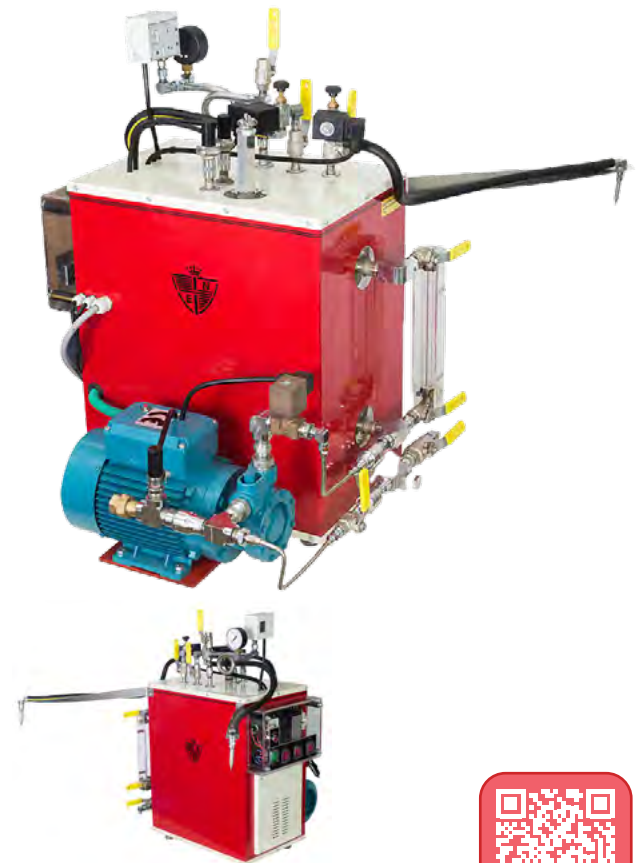
Ceia Metal Detectors

PD240CB

The PD240CB is a handheld metal detector that combines high reliability and ergonomics with advanced detection and operator signalling features. Long detection range for weapons and minimum metal targets, effective sensitivity to all alloys exceeds the latest security standards and has high immunity to external metal masses.

PD240

The PD240 is a handheld metal detector that combines high reliability and ergonomics with advanced detection and operator signalling features. Effective sensitivity to all metals, full compliance with the latest security standards and has high immunity to external metal masses are among the main peculiarities of this device.

Explore more
https://www.harshad.com/ceia

Garret Super Scanner V

The Garrett Super Scanner is the most recognized hand-held metal detector in the world.
Originally designed for use at the 1984 Olympic Games, and continually updated to meet evolving metal detection needs.

Ultimate sensitivity: Exceeds NIJ 0602.02 standard
∗ Detects medium sized pistol from 9" distance
∗ Large knife from 6" distance
∗ Box cutters from 5" distance
∗ Handcuff key from 4" distance
∗ Razor blades from 3" distance
∗ 22-caliber long rifle cartridge from 2" distance
∗ Foil-wrapped drugs and tiny jewellery from 1" distance

All metal detection
Detects ferrous, non-ferrous and stainless steel weapons, contraband, and other metallic objects.

Self Calibrating

Large 203 mm (8") scan surface

Sharp audible alarm and bright red LED

Rugged, high impact ABS case

Specifications	
Three color LED indication	Green LED = On Amber LED = Low Battery Red LED = Alarm
Operating temperatures	–37 °C (–35 °F) to 70 °C (158 °F)
Humidity	to 95% non condensing
Audio frequency	2 kHz warble
Tuning	Automatic
Width	83 mm (3.25")
Thickness	41 mm (1.625")
Length	420 mm (16.5")
Total weight	500 g (17.6 oz)
U.S Trademarks	1,754,933 and 3,236,345
Battery requirments	one 9V (included)
Warranty	2 Years, Limited parts/labour

Accessories (Sold separately)

Rechargeable battery kit

Earphone

Leather belt loop harness

Belt Holder

Explore more
https://www.harshad.com/garrett

Elettronica Todescato Pure Gas Generators

L/45

It is the smallest and most portable welding model. It can produce 45 Lt / h and it is ideal for single operators.

L/80

It is designed for the use of 2 torches at the same time, you may also use just 1 torch if desired. L/80 is ideal for working in pairs or conveying the whole power of the machine into a single (1) torch.

L/160

It is designed for the use of 4 torches at the same time. L/160 is ideal for working in pairs or conveying all the power of the machine into a single torch. With this unit, using the SPECIAL TORCH, you can also CAST items up to 25 grams.

L/350

You can use one single 350 lt flame, or up to 7 small flames. NO CO2 emissions (just water vapour).

L/700

You can use one single 700 lt flame, or up to 14 small flames. The gauge needle, gives the operator better visual display in order to have better regulation control.
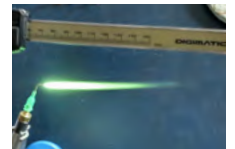
Model	L/45	L/80	L/160	L/350	L/700
Gas production	45 lt/h	80 lt/h	160 lt/h	350 lt/h	700 lt/h
Demineralized water	22 cc/h	41 cc/h	82 cc/h	0.175 lt/h	0.35 lt/h
Alcohol consumption	9 cc/h	15 cc/h	30 cc/h	57 cc/h	115 cc/h
Alcohol capacity	153 cc	225 cc	282 cc	0.68 lt	1 lt
Max power	280 W (220-230 V)	590 W (220-230 V)	950 W (220-230 V)	1.5 kW (220-230 V)	3 kW (220-230 V)
Electrolytic solution	0.5 lt	1 lt	3 lt	6 lt	10 lt
Dimensions	285 x 230 x 290 mm	385 x 285 x 360 mm	465 x 335 x 415 mm	550 x 300 x 650 mm	600 x 350 x 750 mm
Weight	14 kg	25 kg	45 kg	95 kg	130 kg
Working pressure	1 bar	1 bar	1 bar	1 bar	1 bar

Explore more
https://www.harshad.com/Elettronica-Todescato

H4 Gas Generator

Features

* Electronic control of electrolyte liquid
* Automatic control of working pressure
* Safety pressure switch
* Analogic instrumentation
* Condensate collector and safety filter
* 6-position power regulator

Technical Specifications	
Gas Production	150 ltr/h
Power	1.55 kW
Power supply	230 V - 50/60 Hz
Weight	43 kg
Length	470 mm
Depth	320 mm
Height	450 mm

H12 Gas Generator

Features

* Electronic control of electrolyte liquid
* Automatic pressure control
* Safety pressure switch
* Digital instrumentation
* Condensate collector and safety filter
* 6-position power regulator
* Automatic refill of distilled water
* Wheeled structure

Technical Specifications	
Gas Production	450 ltr/h
Power	4.5 kW
Power supply	380 V - 50/60 Hz
Weight	165 kg
Length	600 mm
Depth	750 mm
Height	900 mm

Graficarbo Electric and Gas Furnaces

Electric furnace for melting precious metals
Complete with graphite crucible, graphite stirrer and clamp

	GF1100N1D	GF1100N2D	GF1100N3D	GF1100N4D
Capacity	1 kg	2 kg	3 kg	4 kg
Power	850 W	1300 W	1700 W	1800 W
Max Temperature	1120 °C	1120 °C	1120 °C	1120 °C
Power Connection	Single phase, 220 V	Single phase, 220 V	Single phase, 220 V	Single phase, 220 V
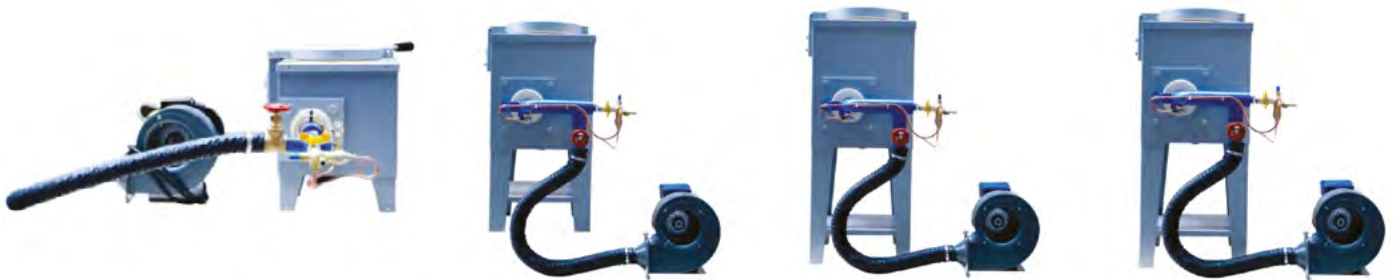
Blast furnace P2, with forced air/gas burner, efficient thermal insulation ceramic fiber.
Available with LPG or natural gas burner, equipped with single or three phase electric fan.

	GF502	GF510	GF511	GF512
Capacity, Au	5 kg	8 kg	15 kg	35 kg
Weight	20 kg	50 kg	60 kg	80 kg
Dimensions	230x230x320 mm	320x320x500 mm	320x320x780 mm	350x350x870 mm

Explore more
https://www.harshad.com/graficarbo

Duravel Melting Furnace

* Certificated CE
* 1150 °C
* Digital electronic system
* Type K thermocouple
* Patented system to replace heating element in 3 minutes
* Very durable and easy to repair

Model	Capacity, Au	Volt	Power	Max. temperature	Dimensions L x D x H	Weight
Italy 1	0.5 - 1 kg	220V/50H 110V/60Hz	0.7 kW	1150 °C	340 x 220 x 340 mm	7 kg
Italy 3	2 - 3 kg	220V/50H 110V/60Hz	1.1 kW	1150 °C	340 x 220 x 380 mm	8 kg
Italy 5	3 - 5 kg	220V/50H 110V/60Hz	1.1 kW	1150 °C	340 x 220 x 380 mm	8 kg

Explore more
https://www.harshad.com/lion

Lion Melting Furnace

Explore more
https://www.harshad.com/lion

Specifications	EM - I 1	EM - I 2
Capacity	1.000 kg	2.000 kg
Temperature control	0 - 1200 °C	0 - 1200 °C
Display	Dual	Dual
Power consumption	950 W	1200 W
Input power	220 V	220 V
Machine dimension	260 x 250 x 440 mm	280 x 280 x 460 mm
Machine weight	9.0 kg	11.0 kg

Specifications	EM - G 1	EM - G 2
Capacity	1.000 kg	2.000 kg
Temperature control	0 - 1200 °C	0 - 1200 °C
Display	Dual	Dual
Power consumption	950 W	1200 W
Input power	220 V	220 V
Machine dimension	370 x 210 x 300 mm	530 x 430 x 780 mm
Machine weight	15.0 kg	20.0 kg

Melting Items

Crucibles

All kinds of crucibles for cupellation, induction, open melting and gas furnaces available in all sizes, can also be made for customers.

Casting Crucibles

Article and Model	Sizes	Drawing	Graphite
YASUI KT17 cod. 25006900-Crogiolo	D. 70 x 128	FXC 10-289	G347
YASUI cod. 25090410-Stopper	D. 23.5 x 145	FXC 10-290	G347
YASUI - Stopper	D. 23.5 x 133	FXC 10-553	G347
YASUI cod. 25090800-Stopper	D. 16 x 145	FXC 10-300	G347
YASUI K2A K3A cod. 25105000-Crogiolo	D. 70 x 89	FXC 10-558	G347
YASUI K2A K3A cod. 25100110-Stopper	D. 23.5 x 129	FXC 10-559	G347
YASUI K4 cod. 25106000-Crogiolo	D. 70 x 124	FXC 10-557	G347
YASUI 2E-Crogiolo	D. 70 x 128	FXC 10-94	G347
YASUI KT14 KT15 Kg 1-Crogiolo	D. 61 x 88	FCC 4-64	G347
YASUI KT14 KT15 Kg 0.5-Crogiolo	D. 54 x 82	FCC 4-66	G347
YASUI 1200 Crogiolo	D. 64 x 104	FCC 4-65	G347
TOP CAST Crogiolo TVC 3/5	D. 68 x 120	FXC 10-172	G347
TOP CAST Crogiolo TVC 10	D. 78 x 120	FXC 10-173	G347
TOP CAST Crogiolo TVC 12	D. 88 x 130	FXC 10-174	G347
TOP CAST Stopper TVC	D. 12 x 158	FXC 10-220	G347

Article and Model	Sizes	Drawing	Graphite
Indutherm VC 400 - Crogiolo	D. 68 x 120	FXC 10-461	G347
Indutherm VC 500 - Crogiolo	D. 78 x 120	FXC 10-462	G347
Indutherm VC 4/500 - Stopper	D. 12 x 174	FXC 10-101/b	G347
Indutherm VC 650 - Crogiolo	D. 88 x 120	FXC 10-450	G347
Indutherm VC 650 - Stopper	D. 14/12 x 174	FXC 10-438	G347
Indutherm VC 600 - Crogiolo	D. 88 x 130	FXC 10-492	G347
Schultheiss VPC60 - Crogiolo	D. 74 x 136	FXC 10-221	G347
Schultheiss VPC60 - Crogiolo per	D. 74 x 136	FXC 10-466	G347
Schultheiss VPC60 Mini- Crog	D. 74 x 106	FXC 10-221/SM	G347
Schultheiss VPC60 - Ceramica	D. 105 x 137	FXC 10-458	Rerattario
Schultheiss VPC60 - Stopper	D. 14/12 x 162	FXC 10-217	G347
Schultheiss VPC100 - Crogiolo	D. 90 x 136	FXC 10-620	G347
Schultheiss VPC40 gr500 Crogiolo	D. 52 x 75	FXC 10-585	G347
Schultheiss VPC40 gr300 Crogiolo	D. 40 x 75	FCC-A1001	G347

Continuous Casting Crucibles

Continuous Casting Dies

Indutherm Continuous Casting Crucibles & Dies

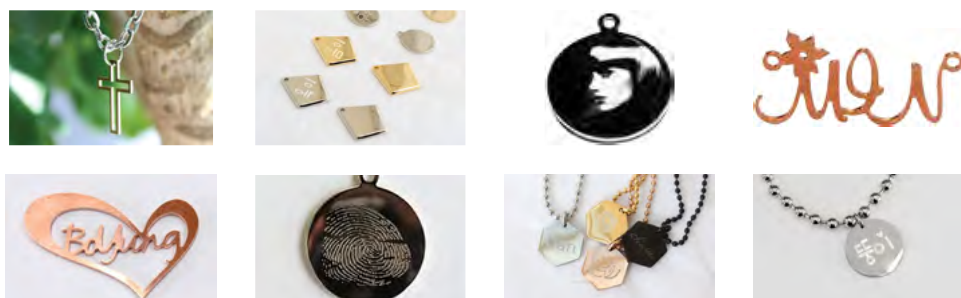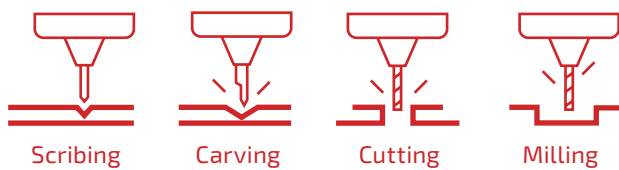Presion Casting Crucibles

Magic E3

MAGIC™-E3 is an engraving machine capable of engraving, cutting, and marking on diverse kinds of materials in different forms and sizes.

This 3rd generational multipurpose desktop engraving machine improved engraving functionality, structural stability, performance, and design dramatically. The system is designed to directly engrave on varied products and materials such as plates like labels, name tags, and nameplates, and materials like acryl and brass.

| Scribing | Carving | Cutting | Milling |

* Engrave on acryl, various kinds of plastics, wood, modeling board, etc.
* Mark on all kinds of metals including stainless steel, aluminum, and brass
* Engrave on glass, plastics, etc.
* Cut gold, silver, brass, aluminum, acryl, various kinds of plastics, wood, etc.
* Carve 2.5D relief
* Wide work range to engrave on large-scale materials

* Support different engraving tools including endmill, V-cutter, and scribing tools
* Intuitive and simple engraving position control based on the embedded camera and laser
* Automatically measure material height and tool length
* Cost-efficient maintenance with low supplies cost
* Small-sized and easy and simple for anyone to use
* MagicEngrave™ software for easy and quick engraving

Magic E3	
Resolution	0.0025mm(XY) / 0.000625mm(Z) / 0.028125° (A)
Max material height	40 mm
XYZ axis stroke	151mm (X) x 132mm (Y) x 39mm (Z)
Flat engraving area	151 mm x 132 mm
Power consumption	25 W
Voltage	AC 100 ~ 240 V, 50/60 Hz
Dimensions (W x D x H)	310 x 350 x 320 mm
Weight	25 kg
Temperature/Humidity	0 ~ 40° / 10 ~ 85 %
Bluetooth	Bluetooth BLE(Bluetooth 5.0) / Communication Range: Class 2(32.8ft) / Tx Output: MAX +4dBm / Frequency Band: 2.4 GHz

Explore more
https://www.harshad.com/magic

Magic E4

MAGIC™-E4 is an engraving machine capable of engraving, cutting, and marking on various kinds of materials in different forms and sizes.

This 3rd generational multipurpose desktop engraving machine improved engraving functionality, structural stability, performance, and design, among others. The system is designed to directly engrave on varied products and materials such as plates like labels, name tags, and name plates, and materials like acryl and brass. It's easy enough for anyone to utilize for multiple purposes engraving and marking of signage, souvenir, promotional gifts, industrial name plate/parts, etc., and cutting and machining of acryl, wood, modeling board, etc.

Scribing   Carving   Cutting   Milling

∗ Engrave on acryl, various kinds of plastics, wood, modelingboard etc.
∗ Mark on all kinds of metals including stainless steel, aluminum, and brass.
∗ Engrave on glass, plastics, etc.
∗ Cut gold, silver, brass, aluminum, acryl, various kinds of plastics, wood, etc.
∗ Carve 2.5D relief.
∗ Wide work range to engrave on large-scale materials.

∗ Support different engraving tools including endmill, V-cutter, and scribing tools.
∗ Intuitive and simple engraving position control based on the embedded camera and laser.
∗ Automatically measure material height and tool length.
∗ Cost-efficient maintenance with low supplies cost.
∗ Small-sized and easy and simple for anyone to use.
∗ MagicEngrave™ software for easy and quick engraving.

Magic E4	
Resolution	0.0025mm(XY) / 0.000625mm(Z) / 0.028125° (A)
Max material height	60 mm
XYZ axis stroke	241mm (X) x 179mm (Y) x 40mm (Z)
Flat engraving area	241 mm x 179 mm
Power consumption	25 W
Voltage	AC 100 ~ 240 V, 50/60 Hz
Dimensions (W x D x H)	402 x 376 x 352 mm
Weight	26 kg
Temperature/Humidity	0 ~ 40° / 10 ~ 85 %
Bluetooth	Bluetooth BLE(Bluetooth 5.0) / Communication Range: Class 2(32.8ft) / Tx Output: MAX +4dBm / Frequency Band: 2.4 GHz

Explore more
https://www.harshad.com/magic

Magic E7

MAGIC-E7 is a 3rd generational desktop engraving machine with revolutionary functionality, structural stability, performance and design based on the CNC engraver application know-how accumulated during the 1st through 2nd generations.

MAGIC-E7 boasts of user-friendly design, stronger performance, innovative usability and functionality, along with various device options expanding functionality that meets diverse customer needs. This customer-friendly multipurpose desktop engraver has aesthetic and modern design which looks wonderful in any places.

* Multifunctional from jewellery manufacturing/ engraving to industrial marking.
* Easy to use and compact-sized for anyone to use.
* Stronger cutting performance and 2 times higher resolution that of the equivalent models.
* Both flat clamp and rotary clamp embedded.
* Supporting all- engraving, cutting, and marking.

* Auto measuring of materials and tools.
* Simple position control using a camera and laser guide
* Diverse clamps and auxiliary devices expanding functionality.
* MagicEngrave™ software provided, easy and convenient to use.

Technical Specifications	
Resolution	0.0025mm(XY) / 0.000625mm(Z) / 0.028125° (A)
Max material height	60 mm
Rotary outer diameter	17.5 ~ 80 mm
Rotary inner diameter	14 ~ 78 mm
XYZ axis stroke	236.5mm (X) x 179mm (Y) x 40mm (Z)
Flat engraving area	112 mm x 100 mm
Spindle RPM	Max. 15000 RPM
DC motor output	38 W
Power consumption	47 W
Voltage	AC 100 ~ 240 V, 50/60 Hz
Dimensions (W x D x H)	402 x 376 x 352 mm
Weight	25.8 kg (57 lb)
Temperature/Humidity	0 ~ 40 °C / 10 ~ 85 %
Bluetooth	Bluetooth BLE(Bluetooth 5.0) / Communication Range: Class 2(32.8ft) / Tx Output: MAX +4dBm / Frequency Band: 2.4 GHz

Explore more
https://www.harshad.com/magic
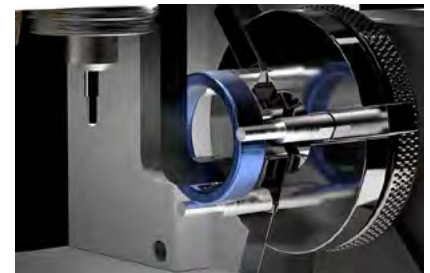
Magic S3
Desktop Marking machine

Magic™-S3 is easy and simple to use and provides a wide range of functions and powerful performance to meet different customer needs. The small-sized multipurpose engraver's modern design is aesthetically pleasing and looks nice in any place.

Magic™-S3 is an engraving machine for flat-type materials in different sizes. The system is designed to directly engrave on varied products and materials for anyone to easily and quickly utilize for multiple purposes engraving and marking of pet IDs, jewellery accessory, cosmetic/perfume case, industrial name plate/parts, etc.

∗ Mark gold, silver, brass, aluminum, stainless steel, aluminum various kinds of plastics, wood, etc.
∗ High-quality marking on specular surfaces using a dedicated diamond tool.
∗ Intuitive and simple control of engraving position based on the embedded camera and laser.

∗ Automatically measures the height of the material.
∗ Cost-efficient maintenance with low supplies cost.
∗ Small-sized and easy and simple for anyone to use.
∗ Comes with MagicEngrave™ software that supports easy and quick marking.

Magic S3	
Resolution	0.0025mm(XY) / 0.000625mm(Z) / 0.028125° (A)
Max material height	40 mm
XYZ axis stroke	151mm (X) x 132mm (Y) x 39mm (Z)
Flat engraving area	151 mm x 132 mm
Power consumption	24 W
Voltage	AC 100 ~ 240 V, 50/60 Hz
Dimensions (W x D x H)	310 x 345 x 321 mm
Weight	20 kg
Temperature/Humidity	0 ~ 40° / 10 ~ 85 %
Bluetooth	Bluetooth BLE(Bluetooth 5.0) / Communication Range: Class 2(32.8ft) / Tx Output: MAX +4dBm / Frequency Band: 2.4 GHz

Explore more
https://www.harshad.com/magic

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Magic S4
Desktop Marking machine

Magic™-S4 is a marking machine for flat-type materials in different sizes. The third-generation multi-purpose desktop marking machine comes with revolutionary changes in its functionality, structural stability, performance, and design. The single set of machine is designed to deal with all complex aspects peculiar to labels, name tags, and nameplates, and materials for anyone to easily and quickly utilize for multiple purposes –marking of signage, souvenir, promotional materials, industrial name plate/parts, etc.

Magic™-S4 is easy and simple to use and provides a wide range of functions and powerful performance to meet different customer needs. The medium-sized multi-purpose engraver's modern design is aesthetically pleasing and looks nice in any place

* Mark gold, silver, brass, aluminum, stainless steel, aluminum various kinds of plastics, wood, etc.
* Comes with wide work range, making it possible to engrave on large-scale materials.
* High-quality marking on specular surfaces using a dedicated diamond tool.
* Intuitive and simple control of engraving position based on the embedded camera and laser.

* Automatically measures the height of the material .
* Cost-efficient maintenance with low supplies cost.
* Small-sized and easy and simple for anyone to use.
* Comes with MagicEngrave™ software that supports easy and quick marking.

Magic S4	
Resolution	0.0025mm(XY) / 0.000625mm(Z) / 0.028125° (A)
Max material height	60 mm
XYZ axis stroke	241mm (X) x 179mm (Y) x 40mm (Z)
Flat engraving area	241 mm x 179 mm
Power consumption	24 W
Voltage	AC 100 ~ 240 V, 50/60 Hz
Dimensions (W x D x H)	402 x 376 x 352 mm
Weight	24 kg
Temperature/Humidity	0 ~ 40° / 10 ~ 85 %
Bluetooth	Bluetooth BLE(Bluetooth 5.0) / Communication Range: Class 2(32.8ft) / Tx Output: MAX +4dBm / Frequency Band: 2.4 GHz

Explore more
https://www.harshad.com/magic

Magic S7
Desktop Engraving Machine

Magic S7 is a major jewellery marking device that is available and applied widely in the global jewellery/accessory markets.
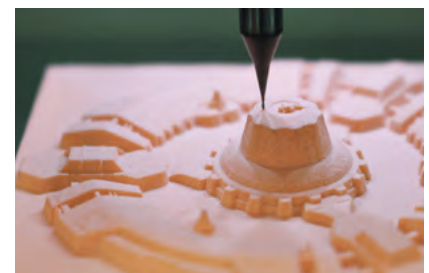
The third-generation multipurpose desktop marking machine comes with revolutionary changes in its functionality, structural stability, performance, and design. The single set of machine is designed to deal with all complex aspects peculiar to jewellery marking in terms of different forms, materials, and sizes, so anyone can enjoy easy and quick marking on a variety of jewellery products such as rings, pendants, and bangles.

* Makes it possible to mark on various jewellery products such as inner/outer diameter of rings, pendants, bracelets, bangles, etc.
* Mark gold, silver, brass, aluminum, stainless steel, aluminum various kinds of plastics, wood, etc.
* All-in-one engraver for both flat and rotary engraving.
* Intuitive and simple control of engraving position based on the embedded camera and laser.

* High-quality marking on specular surfaces using a dedicated diamond tool.
* Automatically measures the height of the material.
* Cost-efficient maintenance with low supplies cost.
* Small sized and easy and simple for anyone to use.
* Comes with MagicEngrave™ software that supports easy and quick marking.

Technical Specifications	
Resolution	0.0025mm(XY) / 0.000625mm(Z) / 0.028125° (A)
Max material height	60 mm
Rotary outer diameter	17.5 ~ 80 mm
Rotary inner diameter	14 ~ 78 mm
XYZ axis stroke	236.5mm (X) x 179mm (Y) x 40mm (Z)
Flat engraving area	112 mm x 100 mm
Spindle RPM	Max. 15000 RPM
DC motor output	38 W
Power consumption	47 W
Voltage	AC 100 ~ 240 V, 50/60 Hz
Dimensions (W x D x H)	402 x 376 x 352 mm
Weight	25.8 kg (57 lb)
Temperature/Humidity	0 ~ 40 ℃ / 10 ~ 85 %
Bluetooth	Bluetooth BLE(Bluetooth 5.0) / Communication Range: Class 2(32.8ft) / Tx Output: MAX +4dBm / Frequency Band: 2.4 GHz

Explore more
https://www.harshad.com/magic

Durston Rolling Mills

Features include
* Large control panel which features
  - Forward and reverse buttons
  - Two further buttons to speed up and slow down rolling speed.
  - Low oil indicator
  - Lamp switch (if optional lamp has been chosen)
* Variable speed as standard
* Powerful 4kW motor
* Heavy duty cast iron gearbox
* Automatic lubrication to bearings
* Quiet operation (Mill is almost silent)
* Emergency stop buttons
* Extension roller incorporating several half rounds
* Steel base, constructed of thick steel plate for optimal strength and rigidity.

Optional
* Roller gap meter
* Work lights
* Front coiler
* Rear coiler

Safety
* Emergency stop buttons
* Safety bas at front and rear
* Inverter safely stored inside guarding
* Extension rollers behind the black covers of safety
* Top covers, covering gears ensuring no one traps their fingers
* CE marked. A must to prove the safety of the machine. Which in turn secures the safety of you and your workers.

FSM 160

DRM 130 Double side power

DRM 130

Manual Mills - DRM 130

Highly efficient 5-1 gearbox
One piece cast iron construction for maximum strength and rigidity
Extension rollers with 4 half rounds
Maintenance free bearings
Large easy and read calibrated discs
Can also be supplied without reduction gearbox

Lion Rolling Mill

Heavy Duty 2 Speed Double Head Rolling Mill

Specifications	RMDH 76	RMDH 90	RMDH 004	RMDH 004+	RMDH 005
Rolls width x diameter	152 x 76 mm/ 6" x 3"	160 x 90 mm/ 6.3" x 3.54"	152 x 101 mm/ 6" x 4"	203 x 101 mm / 8" x 4"	203 x 107 mm /8" x 5"
Wire grooves from - to	0.75 - 10	0.71 - 12 mm, 27 groves	0.75 - 12	0.71 - 14	0.71 - 14
Max. sheet width can be rolled	90	100	100	125	150
Max. apertures of rolls	38	38	38	38	42
No. of half round grooves	2	2	2	2	2
Max. roller speed	11.66 m/min	13.5 m/min	14.5 m/min	14.5 m/min	16 m/min
Min. roller speed	7.73 m/min	7.07 m/min	-	-	-
Depth per rotation of staring	0.66	066	0.99	0.99	0.99
Power supply	2+3 hp, 440 V 3 phase	2+3 hp, 440 V 3 phase	5 hp /3.75kW, 3 phase	7.5 hp /4.31kW, 3 phase	7.5 hp /4.31kW, 3 phase
Machine dimension	1230 x 680 x 1500 mm	1220 x 720 x 1600 mm	1400 x 550 x 150 mm	1500 x 550 x 1550 mm	1500 x 600 x 160 mm
Weight	450 kg	505 kg	600 kg	800 kg	900 kg

Rolling Mill Combined Double Head with Gear Box
RMDH 003

Specifications	RMDH 003
Rolls width x diameter	152 x 76 mm/ 6" x 3"
Wire grooves from - to	0.75 - 10
Max. sheet width can be rolled	100
Max. apertures of rolls	35
No. of half round grooves	2
Max. roller speed	11.66 m/min
Depth per rotation of staring	0.66
Emergency brake	Optional
Auto lubricating system	Optional
Power supply	2 hp/1.5 kW, 1 phase
Machine dimension	1070 x 510 x 1320 mm
Weight	365 kg

Explore more
https://www.harshad.com/lion

Rolling Mill Single Head Compact
RMSC 002

Specifications	RMSC 002
Rolls width x diameter	127 x 63.5 mm / 5" x 2.5"
Wire grooves from - to	0.75 - 9
Max. sheet width rolled	50
Max. apertures of rolls	35
No. of half round grooves	2
Max. roller speed	7.25 m/min
Depth per rotation of staring	0.50
Lubricating system	Manual pump attached
Power supply	1.5 hp/1.1 kW, 1 phase
Machine dimension	580 x 420 x 650 mm
Weight	127 kg

Hi-Speed Hydraulic Cutting Press

Specifications	5 ton	10 ton	15 ton	20 ton	25 ton
Piston	45 mm	60 mm	60 mm	65 mm	70 mm
Max. stroke	75 mm	75 mm	75 mm	75 mm	75 mm
Speed at 1" setting	50	60	50	50	50
Table size	400 x 300	470 x 380	510 x 380	510 x 380	510 x 380
Hole in table center	50 mm	80 mm	80 mm	80 mm	80 mm
Ram to table	125 mm	180 mm	180 mm	180 mm	180 mm
Pump	Double	Double	Double	Double	Double
Oil tank	34 ltr	34 ltr	60 ltr	80 ltr	80 ltr
Motor	1.5 hp, 3 phase	2 hp, 3 phase	2 hp, 3 phase	2 hp, 3 phase	2 hp, 3 phase
Operating	M/S/A	M/S/A	M/S/A	M/S/A	M/S/A
Dimension (cm)	60 x 80 x 165	60 x 80 x 165	68 x 102 x 165	68 x 102 x 165	68 x 102 x 165
Weight	300 kg	340 kg	380 kg	400 kg	440 kg

Wire Drawing Machine
6 Pass/8 Pass/12 Pass

Specifications	WDM 6 Pass/ 8 Pass/ 12 Pass
Wire diameter rduction capacity	14 - 38 S.W.G.
Power supply	1.5 hp / 1.12 kW - 1 Phase
Wire drawing speed	22.8 m/min
Coolant pump	0.12 hp / 0.09 kW, 3 phase
Coolant tank capacity	7.5 ltr
Machine dimensions	1060 x 430 x 1160 mm
Macine net. weight	220 kg
Shipping dimensions	1200 x 600 x 1300 mm
Shipping weight	260 kg

Top veiw

Castaldo LiuqaFast ICE RTV

Rapid molds from rapid prototypes

Finished molds in as little as 30 minutes

No Heat - No Pressure - No Shrinkage - No Waiting

New LiquaFast™ ICE from Castaldo® is transparent two part 0% shrinkage RTV silicone molding rubber that cures very rapidly at normal room temperature and cures faster at slightly warmer temperatures.

That means you can make a mold from your CAD CAM, RP and SLA models in the morning, and shoot waxes 30 minutes later and cast them that afternoon. No more waiting.

∗ New LiquaFast ICE makes strong, tough, tear-resistant permanent molds that last and last and do not become soft with age.
∗ LiquaFast ICE works well with all RP types, including hard-to-mold Solidscape® designs
∗ LiquaFast ICEs' low viscosity makes it easy to measure, mix and pour
∗ Normal cure time: only 60 - 90 minutes. Faster cure possible at only 50 °C/120 °F
∗ Economical: Costs far less than traditional silicone RTV materials.

Physical Properties	
Appearance	Transparent, blue
Shrinkage	0.0 %
Working time at 23 °C/73 °F	15 minutes
Setting time at 23 °C/73 °F	60 - 90 minutes
Setting time at 50 °C/120 °F	30 minutes
Hardness	40 - 43 Shore A
Cure system	Platinum
Mixing ratio	1 : 1 by weight
Viscosity	8500 cps
Tensile strength	3.5 ±0.5 N/mm², 508 ±73 psi
Tear strength	9 ±2.0 N/mm², 108 ±11 psi
Density	Specific gravity 1.12
Shelf life	8 months

Explore more
https://www.harshad.com/castaldo

Zhermack RTV2

Zhermack RTV2 poly addition silicone rubbers are particularly suited to the lost wax casting process commonly used in the jewellery sector. Silicone rubbers can be used to reproduce a large number of copies from an original master.

They allow the tiniest details to be copied faithfully, facilitate finishing and are highly compatible with the materials typically used in jewellery.

The high dimensional stability of Zhermack silicone rubbers' makes them the ideal solution for luxury jewellery artefact, where the highest standards of quality are demanded. Moulds can be used for over 20 years if properly preserved.

Zhermack silicone rubbers are available in a choice of colours: clear (for users who prefer to see the master object inside the silicon rubber during the cutting phase) and coloured (for more expert users).

HT 33 Transparent

Mold Making

Zhermack's silicone rubbers for mold making guarantee high accuracy in the reproduction of details, easy release from the mold and an extended working life, thanks to high dimensional stability and broad-spectrum chemical compatibility.

RTV2 poly addition silicone rubbers are highly elastic, have high mechanical properties, and high dimensional stability. Oil free version is available for a greater dimensional stability.

Product benefits:

∗ Low viscosity for very precise details
∗ Molds ready in 3h30 'at 23 ° C
∗ High dimensional stability
∗ High mechanical properties that allow a high number of copies
∗ Durability
∗ Precision in reproduction

Chemical & Physical Properties	
Mixing ratio	1 : 1
Viscosity of pre-catalyzation mixture	7000 - 8000 cP
Density of the base component	1.09 g/cc
Density of the catalyst component	1.09 g/cc
Working time at 23 °C	WT = 20' - 22'
Setting time at 23 °C	ST = 180'
Shore A hardness after 24 hours	33 ±2 shA
Tensile strength	4.7 N/mm^2
Elongation at break	430 %
Tear strength	16 ±2 N/mm
Reproduction of detail	2 micron
Dimensional variation after 24 hours	–0.05 %

Explore more
https://www.harshad.com/zhermack

Finishing Items

A Tradition Of Quality - Ahead Through

As early as 50 years ago, when the first polisher started being produced, Pforzheim goldsmith suppliers were being provided with silicone polishers.

Pforzheim the centre of the German jewellery industry, fosters the further development of special qualities and instruments. Special form of polishers are abrasives - from soft pumice to diamond grits are created to meet the requirements of jewellery manufactures.

Pandora Introduces The New Concept Of Exclusive In His Brand

We are specialized in high quality alloys, ad-mixing excellent raw materials. Palladium alloys for white gold are our top quality choice, which is worldwide preferred by producers of high jewellery.

The same attention and research is dedicated to our yellow and red alloys. That is why we are pleased to consider our customers as members of our Exclusive club, in which they can find a full range of alloys for their productions. They are followed d by Exclusive consultants, who are skilled both for technical and commercial solutions.

Our sales consultants are also skilled in suggestions and instructions about all our items, including the new galvanic process cataphoretic to get modern, intense colours.

If our range of alloys should not meet the customer's requirements, we are specialized in tailoring alloys exclusively on specific requests for particularly important projects.

Multi 600 series

Easily changeable to Knee Control or desktop (2 solutions) with one unit.

Multi 600

As one of representative laboratory brush-less controllers, Multi 600 provides a multifunction performance both desktop type and knee control type. As having a digital LCD, a performer can catch the speed easily during the work. It also has a self diagnosis function that enables a performer to find the problem very easily. Through its auto-cruise function Multi 600 guarantees convenience and perfect work.

Available speed foot control pedal provides very good convenience while precise laboratory works.

Speed range: 1000 ~ 50000 rpm
Torque: 7.8 Ncm
Motor: BM50S1
Variable foot speed control pedal: FS-60N

Variable speed foot pedal

Knee control style
Mounting bracket for knee control

BM50S1

Multi 600 Standard

For laboratory brush-less Micromotor
Vertical Desktop Style

Speed range: 1000 ~ 50000 rpm
Torque: 7.8 Ncm
Motor: BM50S1

Multi 600 Duo

Dual Control System
(Brush-less and brush micromotor can be available)
Desktop and knee type can be available
Speed range: 1000 ~ 50000 rpm
Motor: BM40S1 (8.5 Ncm) / SH37LN (4.5 Ncm)

Dialux Polishing Compound

Dialux is made of carefully graded abrasives and bonding agents. This section process allows the compound good adhesion to the fibres of brushes, buff and felts. Only a minimal amount of compound needed.

* **Blue Dialux** – A universal type of polishing compound that can be used on all metals.
* **White Dialux** – Perfect for sterling silver and other silver alloys.
* **Green Dialux** – Used to polish hard metals such as stainless steel and chrome.
* **Red Dialux** – Optimal results on yellow gold.
* **Orange Dialux** – Produces a high shine on soft metals.
* **Yellow Dialux** – Used on brass and copper.
* **Gray Dialux** – Used to produce a high shine on platinum and other hard surfaces.

Explore more
https://www.harshad.com/dialux

Luxor High Quality Polishing Line

LUXOR® line is a world awarded brand in high-quality polishing. It includes pastes, polishing discs but also a microfiber and a cleaning solution, particularly used in jewellery and watchmaking activities.

LUXOR® line, appreciated for its excellent final polished results, covers all the polishing operations:
preparation, polishing, finishing, super finishing.

Its exclusive formulation allows also a much easier cleaning of your parts.

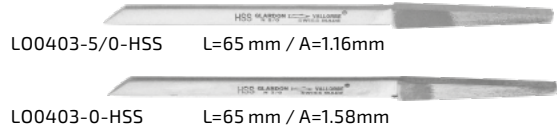|		Phase	Polished Surface	Associated Discs
Luxor Green	3	Medium preparation	Gold, Silver	MB, TP
Luxor Blue	1	Dry preparation	Lacquers	TPB, STV, MOC2
Luxor Grey	1	Soft preparation	Gold, Platinum, Silver	TPB, STV
Luxor White	0,3	Fine polishing	All metals	TPB, STV, MOC2
Luxor Yellow	0,5	Super finishing	Gold, Copper alloys, Brass	LAG, STV, MOC2
Luxor Orange	0,1	Super finishing	All metals	LAG, STV, MOC2

Luxor Green   Luxor Blue   Luxor Grey   Luxor White   Luxor Yellow   Luxor Orange

Explore more
https://www.harshad.com/luxor

LA2401 - Pillar

LA2402 - Halfround

LA2403 - Crossing

LA2405 - Knife

LA2406 - Warding

LA2407 - Three Square

LA2408 - Square

LA2409 - Oval

LA2410 - Round

LA2411 - Barrette

LO0401 - Flat edge

LO0401-2-HSS	L=65 mm / A=0.2mm		LO0401-2-WS	L=80 mm / A=0.2mm
LO0401-4-HSS	L=65 mm / A=0.4mm		LO0401-4-WS	L=80 mm / A=0.4mm
LO0401-6-HSS	L=65 mm / A=0.6mm		LO0401-6-WS	L=80 mm / A=0.6mm
LO0401-8-HSS	L=65 mm / A=0.8mm		LO0401-8-WS	L=80 mm / A=0.8mm
LO0401-10-HSS	L=65 mm / A=1mm		LO0401-10-WS	L=80 mm / A=1mm
LO0401-12-HSS	L=65 mm / A=1.2mm		LO0401-12-WS	L=80 mm / A=1.2mm
LO0401-14-HSS	L=65 mm / A=1.4mm		LO0401-14-WS	L=80 mm / A=1.4mm
LO0401-16-HSS	L=65 mm / A=1.6mm		LO0401-16-WS	L=80 mm / A=1.6mm

LO0402 - Round edge

LO0402-2-HSS	L=65 mm / A=0.2mm		LO0402-6-WS	L=80 mm / A=0.6mm
LO0402-6-HSS	L=65 mm / A=0.6mm		LO0402-8-WS	L=80 mm / A=0.8mm
LO0402-12-HSS	L=65 mm / A=1.2mm		LO0402-10-WS	L=80 mm / A=1.0mm
LO0402-16-HSS	L=65 mm / A=1.6mm		LO0402-12-WS	L=80 mm / A=1.2mm

LO0403 - Onglette

| LO0403-5/0-HSS | L=65 mm / A=1.16mm | | LO0403-1-HSS | L=65 mm / A=1.78mm |
| LO0403-0-HSS | L=65 mm / A=1.58mm | | LO0403-2-HSS | L=65 mm / A=1.94mm |

LO0406 - Knife

LO0406-18-WS	L=80 mm / A=1.8mm		LO0406-18-HSS	L=65 mm / A=1.8mm
LO0406-26-WS	L=80 mm / A=2.6mm		LO0406-20-HSS	L=65 mm / A=2.0mm
LO0406-30-WS	L=80 mm / A=3.0mm		LO0406-22-HSS	L=65 mm / A=2.2mm
			LO0406-26-HSS	L=65 mm / A=2.6mm

Explore more
https://www.harshad.com/vallorbe

Chicago Pneumatic
Engraving Pen

Benefits
* Long lasting due to Premium quality components.
* Easy handling and Comfortable use.
* Adjustable power for a variety of applications and materials such as: metals, plastics, ceramics, and glass.

Specifications	
Throttle	Ring
Required pressure	90 PSI
Air Inlet NTP	1/4 in
Min. hose	1/4 in
Housing	Aluminum
Speed	Variable
Type	Industrial duty
Length	5 in
Item	Air Scribe
Hose length	96 in
CFM	1 : 1
Blows per minute	13500
Zoro number	G3934323
Mfr Number	CP9361

Motor details
The 1/6 hp, ball bearing series SR has 33% more power than our older 1/8 hp motors, and 66% more than our original 1/10 hp models. The added power helps to reduce stalling or slowing down under normal workloads.

Small & Pocket Scales

Tanita Balances

1479J2 Digital Mini Scale

1479Z Digital Mini Scale

1479V Digital Mini Scale

1479S-300GD Digital Mini Scale

KP-400M High Capacity Scale

1475T High Capacity Scale

1230 Mini Diamond Scale

KP-104-300 Digital Pocket Scale

KP-104-200 Mini Scale

KP-103 Mini Scale

1210N Diamond Scale

KP-601 500 Carat Scale

Truweigh Balances

TruWeigh BLAZE
100g x 0.01g / 600g x 0.1g - Black

TruWeigh APEX
100g x 0.01g / 600g x 0.1g - Black

TruWeigh mini collapsible bowl
100g x 0.01g - Black/Red bowl

TruWeigh Enigma
500g x 0.01g / 3000g x 0.1g - Silver

Précis Electronic Balance

Features-
Auto shut off(optional).
Auto calibration.
Auto zero tracking.
Auto back light optional.
Large LCD6 digits 15mm hight).
Low battery indication.
Stability indication
G/oz/lb/ozt/twt/dwt/ct/gn

Explore more
https://www.harshad.com/small-scales

Presidium Diamond/Moissanite Testers

What is Moissanite?
It is a mineral stone that can be procudes in a laboratory at a fraction of the cost of a naturally mined diamond and bears a close resemblance to diamond.

Multi Tester III (PMuT III)
The popular trusted all in one portable tester that instantly identifies diamonds, moissanites and even other simulants.

Multi Tester II (PMT II)
Distinguish moissanite from diamonds immediately with this handheld instrument.

The Diamond Mate Series (PDMT-A/PDMT-C)
The handy diamond tester that verifies the authenticity of diamonds. Comes in battery and rechargeable versions
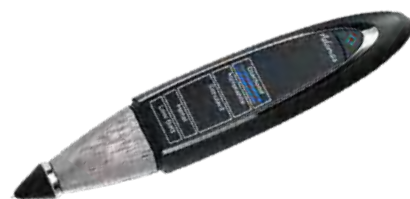
Presidium® Gem Tester II

The most trusted and sought after coloured gemstone tester has been redesigned with the user in mind to be more compact, sturdy and portable.
The Presidium gem tester II (PGT II) provides users with a quick and easy way to identify diamonds/moissanites and separate up to 15 common coloured gemstones based on their thermal properties.

Gauges & Scales
The only gauges in the world that directly converts dimensions to carat values

Gem Computer Gauge (PGCG)
The world's only all-in-one gauge that measures stone sizes and estimates the weight & stone identity with a smart integrated software.

Electronic Gemstone Gauge (PEGG)
Clear and instantaneous digital display of gemstone's measurements including carat values with an accuracy of 1/100 mm.

Dial Gauge (PDG)
Easy to read analogue dial with mm measurements, corresponding carat conversion scale & an inner measuring display for US ring sizes.

Explore more
https://www.harshad.com/presidium

Presidium Synthetic Diamond Screener

Synthetic Diamond Screener II is a portable desktop device developed by Presidium to help screen out Type IIa colorless diamonds (usually CVD/HPHT laboratory-grown diamonds) from the natural Type Ia colorless diamond.

Benefits
∗ Help to screen out Type IIa diamonds likely to be laboratory-grown diamonds
∗ Tests on diamonds within a range in dimension from 1.5 mm in width and up to 5 mm in height (approx. 0.02 to 10 carat size)
∗ Tests on polished diamonds of popular cuts such as brilliant round cut, emerald cut, baguette cut, etc
∗ Can be used on both loose and mounted diamonds (on jewelry with open-back setting)
∗ For use on colorless diamonds from D Color down to J Color

Features
∗ Advanced technology that measures a diamond's UV light transmittance ability.
∗ 2 colour coded (blue/red) indicator light bars to give a low or high reading of UV light absorption with blue light indicating Natural Diamond and red light indicating Type IIa Diamond.
∗ Instantaneous clear results within 2 seconds.
∗ Blue light to illuminate the testing pad.
∗ A 5 mm metal bar to conveniently raise the test probe for successive testing on loose stones.
∗ Test button will blink in red to alert if the device is unable to detect any stones on the photo-detector.
∗ USB port for alternative power source and connectivity.
∗ Exterior base foam padding to ensure non-slip sturdiness and prevent scratches to surfaces.
∗ Energy-saving auto power-off of device after 10 minutes without operation
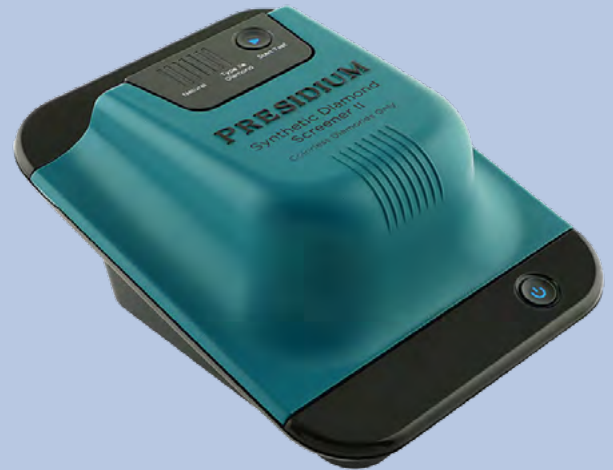
Specifications	
Power & battery	4 x AAA alkaline batteries USB port to be used with USB cable and appropriate Presidium Universal USB Power Adaptor
Recommended operating conditions	Only for Colorless Diamonds of: Color Grade: D Color to J Color Carat Size: 0.02 carat to >10 carats Cut: For all cuts as long as gemstone has a flat surface Mounted Jewelry: For jewelry with "open-back" setting
Dimensions (L x W x H)	130 x 100 x 65 mm
Weight	210 g

Explore more
https://www.harshad.com/presidium

Diamond Accessories

A complete range of diamond accessories used in the diamond industry are available in stock at all times.

Special orders of high-end machines can also be mad upon customer request.
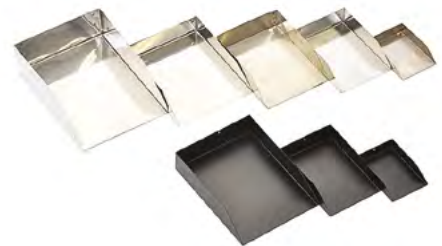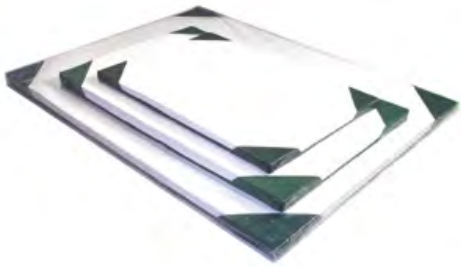
Diamond Setting Tools

A complete range of diamond setting tools used in the diamond industry are available in stock at all times.

Special orders of high-end machines can also be mad upon customer request.

Polariscope

Gemstone Refractometer

LED Diamond Desk Lamp

2 Tube Lamp

3 Tube Lamp

Satellite Turntable

Setting Ball

Microscope

Graver Mach & Handpiece

Bench Tools

Adjustable Piercing
Saw Frame

Jewellers Saw Frame
(German Type)

Junior hacksaw Frame

Loupes

Ring Clamp Wedge Type

Ring Clamp Bottom

Ring Stick A-Z & 1-6
with Strip

Ring Size Wedding
H-Z & 1-6

Pin Vise Swivel Head

Archimedean Drill

Precision Pin Vise

Graver Handles

Graver Chuck with
Rotating Handle

Peg Clamp

Combination Bench
Pin and Anvil

Anvil

Bow Drill

Precision Bench Vise

Bench Vise Plate

C-Clamp with V-Block

Chasing Hammer

Burnisher Curved

Prong Pusher - Grooved

Diamond Sieves

Tube Holder

Scalpel Handle

Third Hand Base

Connoisseurs Beauty Treatment for Jewellery

WHEN YOUR JEWELRY IS CLEAN, YOU DAZZLE!

Before   After

CONNOISSEURS DIAMOND DAZZLE STIK

Gem LightBox Pro

Revolutionize your jewelry photography

The GemLightbox Pro enables jewelers to effortlessly capture high-quality images and videos using only their smartphone.

Showcase your entire inventory, from dangling pieces to flat designs.
Simply download the GemLightbox App, connect via Bluetooth, and click to capture.

Photography Automation
Capture 4 photos and 1 video in just one click. Automate your entire photography process in 15 seconds.

Two Built-in Turntables
Plug and play, 2 built-in turntables to capture both flat and hanging pieces.

Pro Adjustable Lighting
Point and shoot lights in any direction you want.
Capture true color the way you want it.

Accessories for all Jewelry Types
Accessories are made for rings, earrings, bracelets, necklaces, and watches

Specifications	
Dimensions (L x W x H)	350 x 265 x 271 mm
Weight	11.8 kg (Gross), 3.3 kg (Net)
Power	Input 110-240V, Output 12V 3.0A
Media Output	.JPG & .MP4, Up to 3032x3032 pixels
Compatibility	iOS or Android Mobile Devices
Max Wt. Capacity	1.0kg (Bottom), 0.7kg (Top)

Accessories

Smartphone holder

Sparkle light & Yellow light

Adjustable watch holder

T-Bar earing stands

Necklace stand

Explore more
https://www.harshad.com/picup-media-gem-light-box-pro

Jewellery Boxes

Large quantities of all kinds of boxes (Wood, PU, Leather, Velvet, etc.) available in all sizes and various colours. All types of jewellery printing of customer logos and insert customisation can also be done as per customer's requirements.

D – Series

Velvet Series

Wood Series

Jewellery Display

Wide range of window and shelf display made in various materials, colours and sizes are available.
All the displays can be customized according to the needs of the order. We also take contracts for whole showroom display

Acrylic Display & Stone Boxes

Acrylic stands and raise bars for the display of all types of jewellery can be found in our store.

A wide range of stone and coin boxes of various shapes and sizes are available.

Explore more
https://www.harshad.com/bellezza

Shopping Bags

Bags can be made to order according to customer specifications.
Plain bags available in all sizes. Printing of customer logos can be done too.

Pouch

A wide variety of pouches available in various materials for stand alone rings, earrings, pendants, bracelets, chains, bangles and mix pouches for small sets, big sets and 5 sets.

Explore more
https://www.harshad.com/bellezza

Protective Carry Cases

Produced with practical, innovative features and optional extras including custom foam cushioning, partitions. Unaffected by dents, scratches and corrosion.
Protect your delicate and expensive machines.

HAR001

HAR002

HAR003

HAR004

METTLER TOLEDO

Annual Maintenance Contract

12 FREE of cost visits in a year

--> Visit for major breakdown diagnosis

--> Visit for Calibration with standard weights

--> Paid Calibration Certificate valid for 1 year

--> Your flexibility to schedule the visit

--> Visits include cleaning & calibration of device

--> Standby scale will be provided until the service

--> Hardware failure/Handling errors do not cover this AMC. Customer shall pay for the service & repairing cost.

--> Spare parts are not included in this free service & customer shall bear the expense if they are required until it is not a manufacturing defect.

15% Discount on Spare parts cost

Management holds the right for any further change in the rules & regulations

Harshad GROUP
Jewellery Tools | Machinery | Packaging | Display

Design, Print, Cast!
Reliable Service Center in UAE

CAD Designing

Harshad Group offers jewellery CAD designing as a service using high-end software like Matrix, Rhino. Our in-house CAD designing experts think outside of the box to create custom jewellery for hobbyist, Boutiques or small manufacturers.
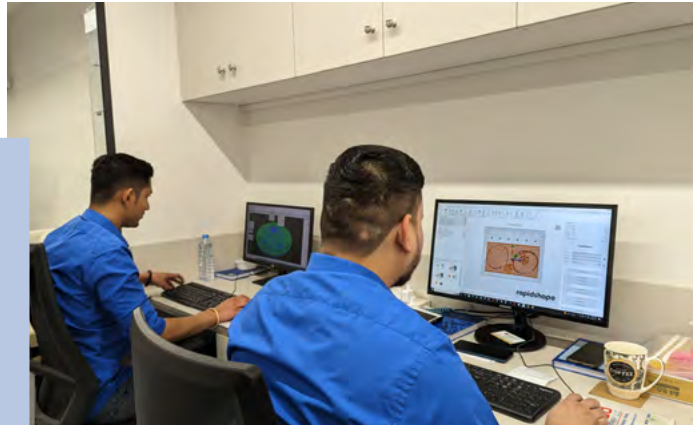

CAM

3D printer from **RapidShape** are used to create models which physically represent the way the final products will look. These 3D printers give excellent high quality resin prototypes, and are among the fastest machines that can finish a print job. In addition we use different resins according to the designs to deliver perfect results using the Open Resin System in the machines.

Jewellery Casting

For years we have trusted our top of the line **Indutherm** casting machines to perform our R&D and customer castings, it has never failed us. Be it 14k, 18K, 21K, 22K, 24K gold or silver jewellery. The yellow, rose and white gold all comes out flawless with unimaginable minimal loss figures.

You can trust us to deliver the highest quality of casting in a timely manner.
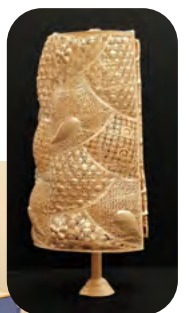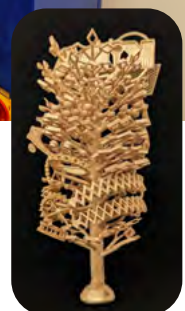
Our Services

3D Designing

3D Print Centre

Casting Services

Casting Process Consultancy

Plating Process Consultancy

Turnkey Factory/ Workshop setup

Machine Repairing & Servicing

Weighing Balances Repairing & Servicing

Visit our website www.harshad.com to check all of our products

![Harshad Group 50 Years logo]

50 YEARS

Harshad GROUP ®

Jewellery Tools | Machinery | Packaging | Display

SCAN & CHAT TO INQUIRE

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(Display)
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