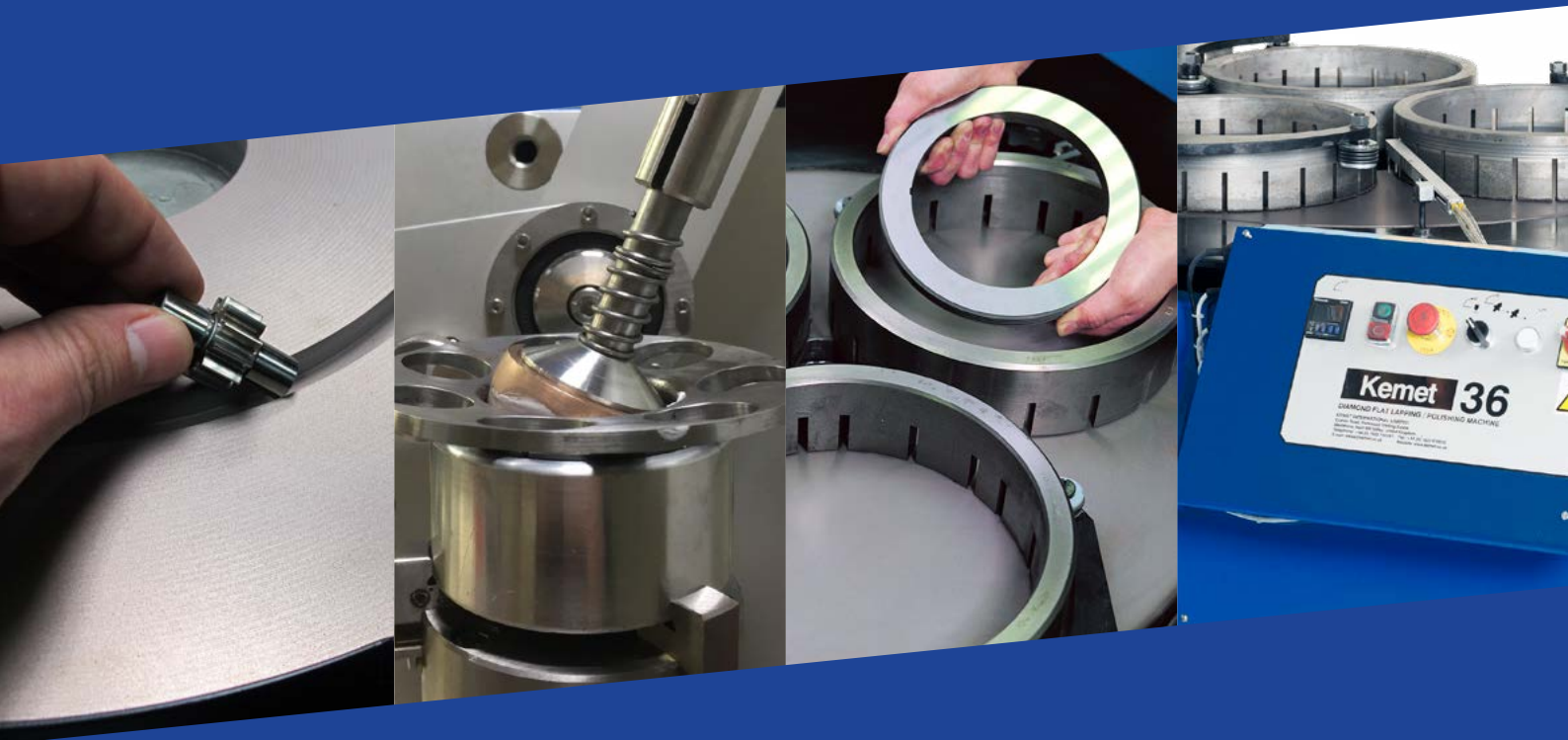


Kemet USA Inc

Precision Lapping | Polishing | Cleaning

PRECISION LAPPING AND POLISHING SYSTEMS



Local Technical Support In Houston. Items stocked in our Texas Warehouse.
sales@kemetusainc.com www.kemetusainc.com

Contents

MACHINES 1-12

15" to 120" Lapping Machines	1-5
Spherical Lapping	6
Match Lapping	7
Small Lapping Machine	8
Dual Face Lapping	8
Thin Section Lapping	9
Chemical Mechanical Polishing	9-10
Custom Lapping Machines	10

CONSUMABLES 11-22

Lapping Plates	11-13
Cast Iron Plates	12-13
Conditioning Rings	13
Diamond Products	14
Diamond Pastes	15
Liquid Diamond	16
Lubricating Fluids	17
Conventional Abrasives	17-19
Abrasive Pastes & Powders	18
Lapping Oil	18
Diamond Compound / Paste	19
Lapping Film	19-20
Diamond Grinding Pads	20
Polishing Pads	21
Workholding & Fixtures	22
Polishing Stand with Paper	22

ACCESSORIES 23-26

Dispenser Systems	23
Lapping Machine Maintenance	24
Flatness Measuring Equipment	24 - 25
Portable / Hand Lapping Kits	26

CLEANING & TECHNICAL SUPPORT 27-31

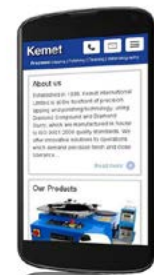
Ultrasonic Cleaners	27-28
Lapping Service	29
Kemet Technical Support	30
Training & Quality Assurance	31

Ordering Information

Telephone:
+44(0)1622 755287

Email:
sales@kemetusainc.com

Website:
www.kemetusainc.com



UK Head Office
Kemet International Ltd, Parkwood Trading Estate
Maidstone, Kent ME15 9NJ, UK

Local Technical Support In Houston.
Items stocked in our Texas Warehouse.

Catalog version: 2606



**Free Sample Testing
To Find Your Optimum
Lapping Solution**
(see page 29)

NEW!
**OptiPol
Liquid Diamond**
(see page 16)



Kemet Precision Lapping and Polishing Systems

Since 1938, Kemet has been at the forefront of precision polishing technology, producing diamond pastes, slurries and composite lapping and polishing materials in our purpose built facilities, strictly manufactured to ISO 9001:2015 quality standards. Kemet Precision Lapping and Polishing Systems offer the most efficient and reliable method of producing precise surface geometry and finish whether flat, contoured or spherical. Our machines and systems are at the forefront of today's advanced lapping technology, especially when used with Kemet Diamond products. Kemet Diamond quality and grading enables reliable precision lapping to be performed in production situations.

Now a truly international organization, Kemet's activities span the world, spearheaded by companies in eight countries, all sharing the same commitment to customer support. This, along with more than 85 years of experience, means Kemet are here to provide you with the technical support to overcome all your lapping, polishing and cleaning challenges.

Industries and Applications

Aerospace

Pumps and Valves
Turbine Parts
Engine Assemblies
Spacers

Medical Devices

Fiber Scopes
Surgical Instruments
Hip and Knee Joints
Pacemaker Parts

Electronics

Disc Drive Heads
CD Molds
Laminations
Smart Phones

Technical Ceramics

Alumina - Zirconia
Silicon Carbide
Piezo Ceramics
Ferrite

Electro Optics

Plano Optics
Laser Rods and Prisms
Fiber Optics
Sensors
Sapphire
ALN

Tool and Die

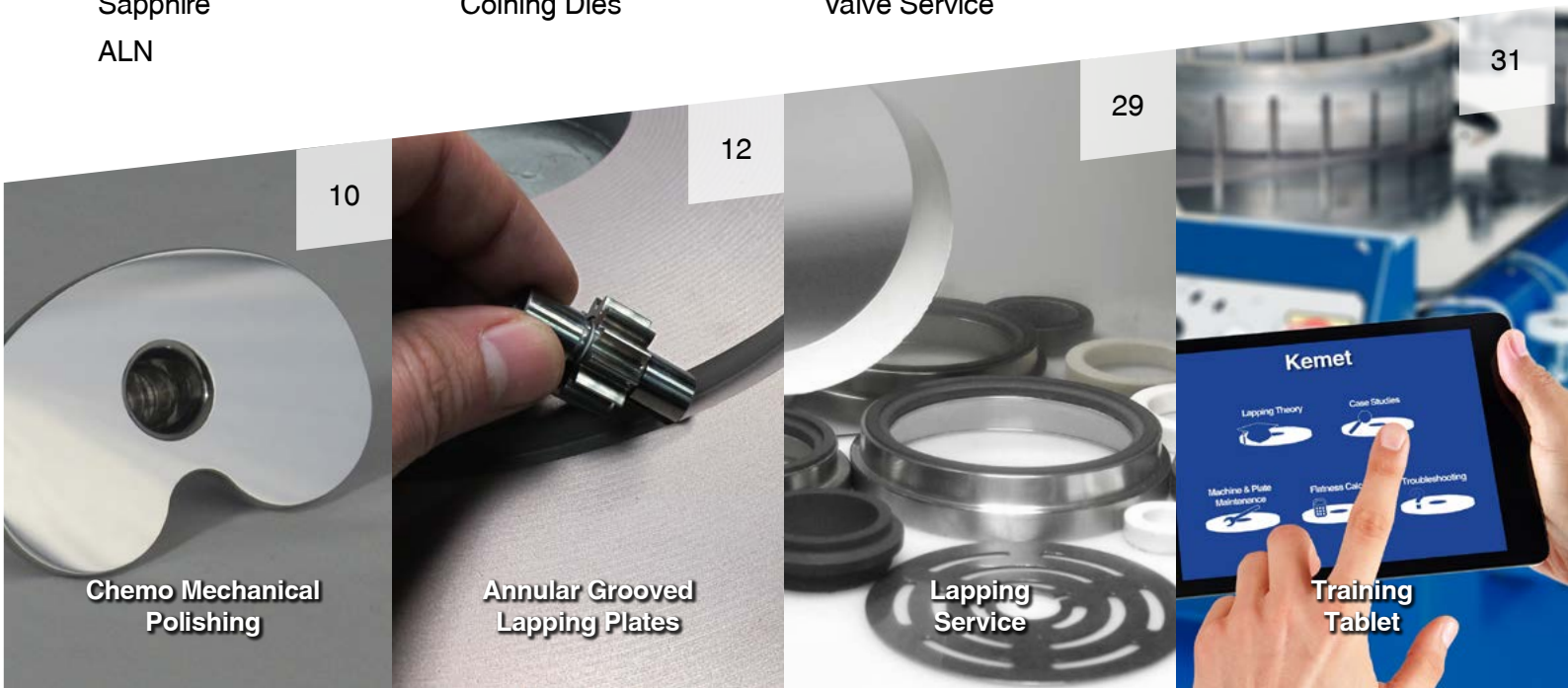
Molds and Inserts
Printing Plates
Slitter Knives
Extrusion Dies
Coining Dies

Pumps & Valves

Fuel Pumps
Hydraulic Pumps
Mechanical Seals
Gate Valves
Valve Service

Automotive

Diesel Injectors
Airbag Initiators
Piston Rings
Fuel Pumps



Chemo Mechanical Polishing

Annular Grooved Lapping Plates

Lapping Service

Training Tablet

Lapping Machines

Kemet's Advanced Lapping Technology

Kemet offers a comprehensive range of standard lapping and polishing systems for use across all industrial sectors. Special purpose machines can also be developed for specific applications.

Benefits:

- Faster polishing process
- One operation surface finish
- Faster material removal
- Cleaner environment conditions
- Significant reduction in lapping costs
- Reduced inspection requirements
- Optimum geometry and surface finish
- Better utilization of machine time
- Pre set parameters
- Reduced rejections
- Semi skilled operation

Lapping Machine Options

Open Face

The open face machines are for use where work pieces are either large in size and can be lapped under their own weight or where pressure application by hand weights is sufficient.



Pneumatic Lift

The pneumatic lift machines will raise and lower the weights and also apply pressure where necessary. All are fitted with mandatory safety controls.



Kemet Lapping Machine Capacity Chart

Not sure which machine to go for? Scan the QR code for the Lapping Machine Capacity Calculator or browse to this page <https://www.kemet-international.com/us/products/flatlapping/diamond-lapping-machines>



Conditioning Ring Spec		Machine Model									
		15	20	24	36	40	48	56	72	84	120
Inside Diameter (inches)	3 Rings	5 1/2"	7 1/2"	9 3/4"	14 1/2"	16"	19 7/8"	22 3/4"	-	-	-
	4 Rings	-	-	8 1/4"	12 11/16"	-	17"	20 7/8"	27 1/4"	32"	40"

Kemet 15/20 Models

The bench-mounted Kemet 15 and 20 Lapping Machines have a rigid metal construction with a height-adjustable worktable. The machines incorporate a digital Process Timer and a fully automatic Liquid Diamond Dispensing System.

Features & Benefits:

- Bench mounted
- Produces optically flat surfaces with high precision surface finish
- Fully controllable Kemet Electronic Dispensing System accurately meters diamond abrasive onto the lapping plate - Reduces lapping costs
- Built-in abrasive system for conditioning Kemet Composite Plates
- Easily transportable
- Electrical System complies with EN 60 204
- Easy to adapt for special lapping applications
- Only small quantities of diamond abrasive and non-toxic fluids are used - Reduces waste



Options:

- Variable or fixed speed
- Lift-Off disc system on model 15"
- Pneumatic lift on model 20"

Other Versions:

- Chemical polishing version (see pages 10 for KemCol and DiaCol)
- Clipper Blade sharpening machine

Lift-Off Disc System	Machine Model 15
Aluminum Drive Plate	361002
Aluminum Lift-Off Disc	361001
Kemet Iron Lift-Off Disc	351025
Kemet Copper Lift-Off Disc	351121
Kemet XP Lift-Off Disc	351226
Kemet Tin Lift-Off Disc	351314

Recommended Consumables	Machine Model		
	15	20	
Cast Iron Lapping Plate (Lapped finish**)	Serrated	362400	362402
	Solid	362401	362403
Kemet Copper Lapping Plate	351102	351103	
Kemet Copper SP2 Lapping Plate	351159	351964	
Kemet Iron Lapping Plate	351002	351081	
Kemet PR3 Lapping Plate	351340	351374	
Kemet Tin Lapping Plate	351305	351320	
Kemet XL Lapping Plate	351356	351375	
Kemet XP Lapping Plate	351202	351266	
Dasty Industrial Degreaser (for cleaning lapping plate) - see page 28			

Huge range of other accessories and consumables available for the Kemet 15 & 20 Models

* Other voltages available upon request

** May need additional conditioning depending on application

Machine Model	15	20	
Lapping Plate outside Diameter	15"	20"	
Lapping Plate Speed	70 rpm	70 rpm	
No. of Conditioning Rings	3	3	
Conditioning Ring inside Diameter	5 1/2"	7 1/2"	
Max load per Conditioning ring	86 lbs	117 lbs	
Height of Open Face Machine	26 3/8"	27 9/16"	
Height of Pneumatic Lift Machine	N/A	38"	
Working Height	12 3/16"	15 3/16"	
Depth of Machine	26"	30 11/16"	
Width of Machine	29 15/16"	34 3/4"	
Standard Electrical Supply	110V-1Ph-60Hz		
Main Drive Motor	0.37 kW	0.75 kW	
Abrasive pump motor	0.18 kW	0.18 kW	
Approx. Weight	Open Face	300 lbs	441 lbs
	Pneumatic	N/A	849 lbs

Recommended Accessories	Machine Model	
	15	20
Plastic Faced Conditioning Rings - Set of 3	361521	361874
Cast Iron Conditioning Rings - Serrated - Set of 3	360203	361027
Ceramic Faced Conditioning Rings - Set of 3	361522	361982
Zytel Roller Bearing Assemblies - Set of 6	360212	360212
O-rings for Zytel Bearings - Set of 6	360270	360270
Flatness Gauge	361304	

Recommended Abrasive Consumables	Code
Kemox HSR - For Plate conditioning	300195
Diamond Slurry - (see page 16 for range available)	

Kemet 24/36 Models

Both Kemet 24 and 36 machines have rigid welded tubular section steel frames, supporting the gearbox, drive motor and worktable. With the option of a diamond dispensing system they also house an integral abrasive compound feed and waste tanks behind lift-off panels. The Kemet 36 machine incorporates a soft starting feature, which smoothly accelerates the Kemet Composite or cast iron lapping plate from stand still to full speed (optional extra for Kemet 24).



Open Face Version

Features & Benefits:

- Produces optically flat surfaces with high precision surface finish
- Fully controllable Kemet Electronic Dispensing System accurately meters diamond abrasive onto the Kemet Composite Lapping Plate, reducing lapping costs and waste
- Built-in abrasive system for conditioning Kemet Composite Lapping Plates
- Suitable for large parts or large volume production
- Electrical System complies with EN 60 204

Options:

- Variable speed up to 70 rpm
- Temperature control (water cooled plates)
- 3 or 4 conditioning rings
- Col-K chemical polishing versions
- Full Perspex guarding available
- Peristaltic Slurry delivery system

Option	Open Face		Pneumatic Lift	
Machine Model	24	36	24	36
Height	36 1/4"	37 13/16"	75 13/16"	77 3/16"
Working Height	-	-	45 1/4"	50"
Width	47 1/4"	56 1/2"	48 13/16"	59 1/4"
Depth	53 1/8"	64 9/16"	53 1/8"	64 9/16"
Approx. Weight	1,268 lbs	2,568 lbs	1,543 lbs	2,756 lbs
Lapping Plate outside Diameter	24"	36"	24"	36"
Lapping Plate Speed	58 rpm	58 rpm	58 rpm	58 rpm
Nº of Conditioning Rings	3 or 4	3 or 4	3 or 4	3 or 4
Conditioning Ring inside Diameter	3 ring	9 3/4"	14 1/2"	9 3/4"
	4 ring	8 1/4"	12 11/16"	8 1/4"
Max load per Conditioning ring	3 ring	551 lbs	772 lbs	551 lbs
	4 ring	441 lbs	661 lbs	441 lbs
Main Drive Motor	1.5 kW	4 kW	1.5 kW	4 kW
Abrasive pump motor	0.18 kW	0.18 kW	0.18 kW	0.18 kW
Air Requirements	4 Bar min	4 Bar min	4 Bar min	4 Bar min
Standard Electrical Supply	208-220V-3Ph-60Hz or 460-480V-3Ph-60Hz*			

Electronic Dispensing Equipment Standard on all above Models (see page 23)
* Other voltages available upon request

Other Machine Models available	
Machine Model	40
Lapping Plate outside Diameter	40"
Conditioning Ring inside Diameter for 3 rings	16"

Recommended Accessories			Machine Model	
			24	36
Conditioning Rings	Set of 3 for 3 Ring Machine	Plastic Faced	361539	**
		Cast Iron - Serrated	360208	360278
	Set of 4 for 4 Ring Machine	Ceramic Faced	361528	**
		Cast Iron - Serrated	360274	360682
Zytel Roller Bearing Assemblies - Set of 6			360214	360259
O-rings for Zytel Bearings - Set of 6			360672	360270
Roller Bearing Assemblies - Set of 6			360213	360259
O-rings for Roller Bearings - Set of 24			-	360659
Flatness Gauge			361304	

Recommended Consumables		Machine Model	
		24	36
Cast Iron Lapping Plates (Lapped finish***)	Serrated	362404	362406
	Solid	362405	362407
Kemet Copper Lapping Plate		351106	351124
Kemet Copper SP2 Lapping Plate		351177	351965
Kemet Iron Lapping Plate		351006	351010
Kemet PR3 Lapping Plate		351357	351343
Kemet Tin Lapping Plate		351306	351315
Kemet XL Lapping Plate		351376	351377
Kemet XP Lapping Plate		351206	351227
Dasty Industrial Degreaser (for cleaning lapping plate) - see page 28			

Huge range of other accessories and consumables available for the Kemet 24 & 36 Models
** Available on request

*** May need additional conditioning depending on application

Kemet 48/56 Models

These Precision Diamond Flat Lapping & Polishing Machines, are available as open face and pneumatic lift with a diamond dispensing system. Equipped with a serrated lapping plate consisting of 16 segments* for the Kemet 48 and 24 segments for the Kemet 56, the individual cast iron segments are faced with Kemet Composite material and bolted to a support plate.

* Solid plate option available for Kemet 48"

Option	Open Face		Pneumatic Lift	
Machine Model	48	56	48	56
Height (H)	39 3/4"	40 9/16"	92 1/2"	89"
Working Height (WH)	-	-	54 3/4"	55 1/8"
Width (W)	59 7/16"	66 15/16"	59 7/16"	66 15/16"
Depth (D)	78 3/4"	79 1/2"	99 3/16"	99 3/16"
Approx. Weight	7,496 lbs	9,039 lbs	8,818 lbs	11,023 lbs
Lapping Plate outside Diameter	48"	56"	48"	56"
Lapping Plate Speed	48 rpm	48 rpm	48 rpm	48 rpm
Conditioning Ring inside Diameter	3 ring	19 7/8"	19 7/8"	22 3/4"
	4 ring	17"	17"	20 7/8"
Max load per Conditioning ring	3 ring	827 lbs	827 lbs	882 lbs
	4 ring	717 lbs	772 lbs	772 lbs
Main Drive Motor	7.5 kW	11 kW	7.5 kW	11 kW
Abrasive pump motor	0.18 kW	0.18 kW	0.18 kW	0.18 kW
Abrasive Tank capacity	30 gal	30 gal	30 gal	30 gal
Waste tank capacity	10 gal	10 gal	10 gal	10 gal
Standard Electrical Supply	460-480V-3Ph-60Hz*			

* Other voltages available upon request

Recommended Accessories	Machine Model	
	48	56
Cast Iron Conditioning Rings - Serrated for 4 Ring Machine - Set of 4	360642	*
Cast Iron Conditioning Rings - Serrated for 3 Ring Machine - Set of 3	360833	360910
Roller Bar Bearing Assembly	360729	360869
Flatness Gauge	361304	

Recommended Consumables	Machine Model		
	48	56	
Cast Iron Segments for	3 Rings - Set of 16	360265	361860
	4 Rings - Set of 16	360776	362216
Lapping Plates for 3 Rings	Kemet Iron	351161	351170
	Kemet Copper	351174	*
	Kemet Copper SP2	*	*
Lapping Plates for 4 Rings	Kemet Iron	351042	351183
	Kemet Copper	*	*
	Kemet Copper SP2	*	*

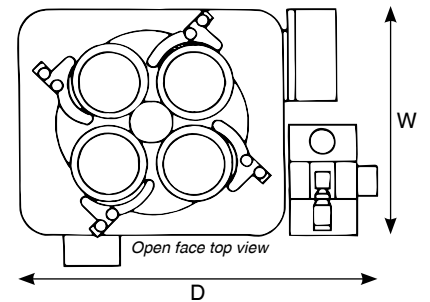
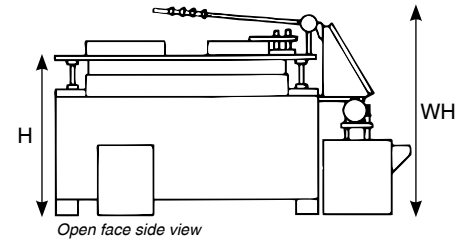
Dasty Industrial Degreaser (for cleaning lapping plate) - see page 28

Huge range of other accessories and consumables available for the Kemet 48 & 56 Models

* Available on request

Features & Benefits:

- Higher capacity
- 3 or 4 conditioning rings
- "Heavier and larger parts (up to 19 7/8" for Kemet 48 and 22 3/4" for Kemet 56)
- Water cooling option available
- Ideal for Gate Valves



Kemet 72/84/120 Models

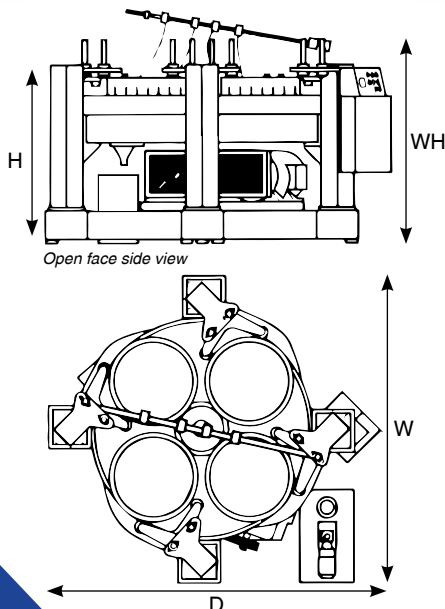
For larger lapping applications Kemet offer machines with a 72", 84" or 120" segmented plate, in high density cast iron or faced with Kemet composites.

Features & Benefits:

- Set within a mesh guard, a side mounted motor transmits the drive via multiple v-belts to a mechanical reduction gearbox at the center of a cruciform shaped steel structure.
- Four stations, the roller yokes mounted on hollow section upright columns at the end of each arm, which also support the trough around the lap plate.
- Electronic soft start to smoothly accelerate the lap plate to full speed is time adjustable to suit individual process conditions.
- Suitable for use with conventional abrasive slurries or Kemet Diamond slurries.
- Electronic diamond dispenser and stirrer unit provides fully controlled metering of liquid diamond and lubricating fluid to each station, via dispensing bars and spray heads, to ensure even distribution and minimize consumable costs and waste.
- Free-standing conventional abrasive reservoir/stirrer/pump supplies four individually adjustable feeds to each of the stations.
- Water cooling option available



Open Face Version



Option	Open Face			Pneumatic Lift		
	72	84	120	72	84	120
Machine Model	72	84	120	72	84	120
Approx. Height (H)	53 1/8"	59 1/16"	*	108 13/16"	*	*
Working Height (WH)	-	-	-	*	*	*
Approx. Width (W)	119 1/8"	102 3/8"	*	119 1/8"	102 3/8"	*
Approx. Depth (D)	121"	102 3/8"	*	121"	102 3/8"	*
Approx. Weight	13,228 lbs	19,842 lbs	*	22,046 lbs	26,455 lbs	*
Lapping Plate outside Ø	72"	84"	118 1/8"	72"	84"	118 1/8"
Approx. Lapping Plate Speed	30 rpm	20 rpm	18 rpm	36 rpm	20 rpm	18 rpm
No. of Conditioning Rings	4	4	4	4	4	4
Conditioning Ring inside Ø	27 1/4"	32"	40 3/8"	27 1/4"	32"	40 3/8"
Max load per Conditioning ring	4,409 lbs	4,960 lbs	*	4,409 lbs	4,960 lbs	*
Main Drive Motor	15 kW	30 kW	*	15 kW	30 kW	*
Abrasive pump motor	0.18 kW	0.18 kW	0.18 kW	0.18 kW	0.18 kW	0.18 kW
Abrasive Tank capacity	31 gal	31 gal	35 gal	31 gal	31 gal	35 gal
Waste tank capacity	10 gal	10 gal	15 gal	10 gal	10 gal	15 gal
Standard Electrical Supply	460-480V-3Ph-60Hz**					

* Designed to customer specification
 ** Other voltages available upon request

KemiSphere II - Bench Top Spherical Lapping Machine

The Kemisphere II is a small single station spherical lapping and polishing machine ideal for either matching 2 spherical forms together or, with appropriate tooling, has the ability to lap and polish spherical forms to better than 5µm roundness with a mirror finish. It's a perfect replacement for jobs currently hand lapped together, and its bench top design makes it a useful addition to any workshop involved in spherical lapping.

Features & Benefits:

- 3 motors with independent variable speed control
- Siemens PLC and HMI
- Pressure application system
- Benchtop machine
- Process parts up to 4" diameter
- Programmable sweep start and finish point
- Single button process start
- Manual and jog facility for simple machine setting
- CE marked
- Fully guarded with interlocks
- Dimensions: 35 11/16" x 41 9/16" x 21 5/8"
- 230V-1Ph-50/60Hz
- Product code: 359316



Kemet Spherical Lapping Machine

The Kemet Spherical Lapping Machine laps and polishes pre-machined spherical balls and cups to a mirror finish with the capability of achieving roundness better than <3 microns.

Features & Benefits:

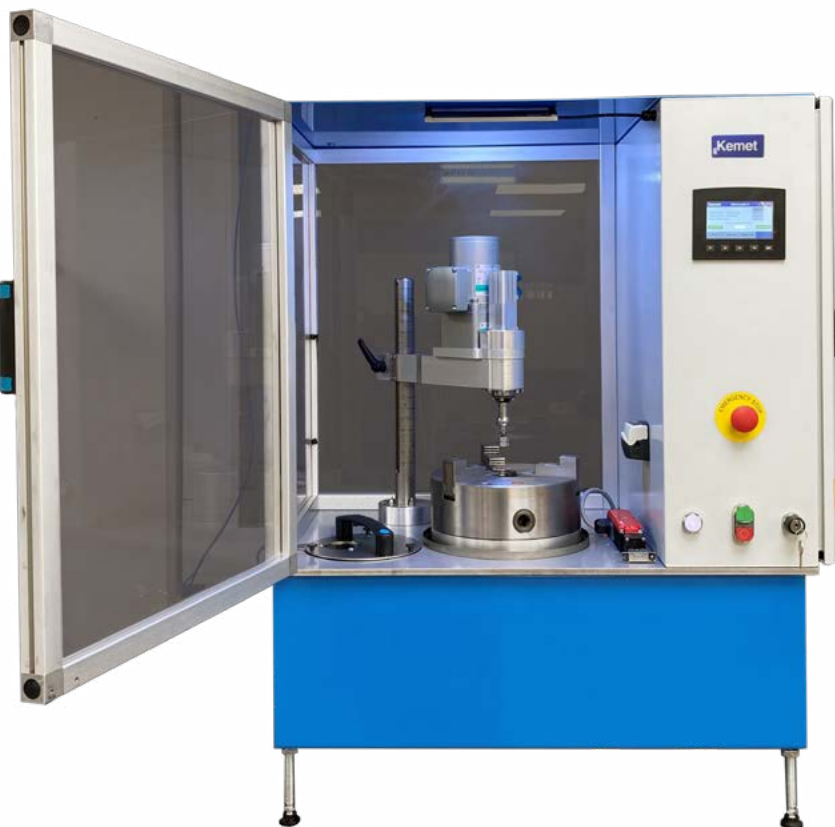
- 6 motors all with independent variable speed to provide complete control
- Size: 63" (W) x 32 5/16" (D) x 98 7/16" (H)
- Lapping and polishing pressures applied pneumatically
- Average process time less than 5 mins
- Simple change from ball to cup polishing action
- Manual and jog facility provided for setting up
- Fully guarded with auto lifting door access
- Comes complete with initial tooling set
- Full manual and training provided
- Low running costs
- Dual process timers
- Single button process start
- Lighting provided
- Smooth and silent running
- CE marked. Electrical supply 230V-1 Ph-50Hz or 110V-1Ph-60Hz
- Air: 3 bar max
- Product code: 360061



KemTech SpheriMatch II - Match Lapping Machine

The KemTech SpheriMatch II provides an automated method to match lap two valve halves, or similar components, together: For example - matching the concave barrel of a hydraulic piston pump to its convex swash plate. These faces need a perfectly matching radius to maintain performance and minimize leakage.

The SpheriMatch enables the removal of even deep scoring and final match lapping of bodies up to 11" tall and ranging from 3" to 11 13/16" diameter.



SpheriMatch II:

- 11 13/16" diameter chuck with variable speed
- Servo controlled sweep arm with programmable start finish points
- Dimensions: HxWxD (40 1/4" x 33 15/16" x 21 5/8")
- 4.3" Unitronic HMI & PLC
- Abrasive stirrer
- WM FD114 Peristaltic Pump
- Motorised Driven head
- 230V-1Ph-50/60Hz
- Product Code: 359007

With a fully programmable process timer, this versatile machine can match lap curved or flat surfaces, of the same or different materials, with variable rotation speeds up to 70 rpm and a range of sweep arm strokes and speeds to suit the components being lapped.

Used in combination with Kemet's diamond compounds and conventional aluminum oxide pastes, the Spherimatch is an essential tool for any hydraulic servicing center.

Kemet offer trials complete with a full test report showing process times and stages for each pair of parts.



Match lapped 4 15/16" piston pump body and swash plate

One component part is held in a fully guarded, three jaw chuck with reversible jaws and the opposing part located under the sweep arm with a specially designed location and anti-rotation fixture. Pressure is applied to the top part being lapped.

Double Sided Precision Lapping and Polishing

Kemet's dual face processing equipment simultaneously machines, laps, and polishes both surfaces of high-precision components across a wide range of materials, achieving tight dimensional tolerances with minimal component stress. A five-carrier drive mechanism ensures uniform material handling, while adjustable plate and carrier speeds via AC frequency drives allow operators to fine-tune parameters for each application.

Optional features include precision thickness control, load cell force management, and HMI touch screen controls for enhanced monitoring and process optimization.

These systems serve industries such as microelectronics, photonics, and specialized materials processing, handling silicon and sapphire substrates, optical elements, watch crystals, piezoelectric components, and storage device parts. Custom-engineered solutions are also available for unique processing requirements.



DUAL FACE LAPPING

Technical Specifications	DS 6	DS 9	DS 12	DS 16	DS 18
Lapping Plate Dimensions	14 3/4" x ID 5 7/8"	25 3/8" x ID 9 1/4"	29 5/8" x ID 10 1/4"	45 1/2" x ID 14 3/16"	49 11/16" x ID 21 1/16"
Maximum Component Diameter	4 5/16"	7 1/16"	8 11/16"	15 3/8"	15 3/8"
Carrier Pitch Circle Diameter	5 1/2" (PCD)	9" (PCD)	11 3/16" (PCD)	16 11/16" (PCD)	16 11/16" (PCD)
Carrier Quantity	5 units			6 units	
Minimum Component Thickness	0.003"				0.012"
Lower Plate Rotational Speed (RPM)			0 - 60 RPM		
Carrier Directional Control	CW & CCW				
System Dimensions (WxLxH)	36 5/8" x 27 9/16" x 76"	58 1/4" x 34 5/8" x 94 1/2"	63 3/8" x 47 1/4" x 94 1/2"	79 1/2" x 59 1/16" x 89"	99 5/8" x 74 13/16" x 89"
Approximate Weight	1,764 lbs	3,968 lbs	5,071 lbs	14,330 lbs	15,432 lbs
Power Requirements	460-480V-3Ph-50/60Hz				

Twin Lap - Dual Face Lapping

The Kemet Twin Lap M machine is a small but versatile bench mounted machine ideally suited for small workshops and laboratories for double sided lapping and comes fully equipped and ready to use. The Twin Lap L and XL are floor standing machines. In certain circumstances, larger components can be accommodated.

Technical Specifications	Twin Lap M	Twin Lap L	Twin Lap XL	
Dimensions (HxDxW)	24 13/16" x 30 11/16" x 30 5/16"	62 3/16" x 31 1/2" x 30 5/16"	81 1/8" x 39 3/8" x 44 1/2"	
Capacity	OD max component size	2.00"	4.49"	6.69"
	Max thickness	0.787"	1.181"	1.575"
	Thickness +/- 0.0002". Flatness < 0.00002"			
Maximum plate force	11 lbs	44 lbs	132 lbs	
Outer ring gear speed	0 - 111 rpm 60W DC drive	0 - 26 rpm 300W DC drive	0 - 30 rpm 300W DC drive	
Inner sun gear speed	0 - 125 rpm 60W DC drive	0 - 64 rpm 300W DC drive	0 - 50 rpm 300W DC drive	
Approx. Weight	176 lbs	661 lbs	1,433 lbs	
Standard Tooling	One Cast iron lap plate, one set cast iron conditioning gears, one set top plate weights, one set work carriers			
Optional Tooling	Stainless steel backing plates. Polishing pads. Conditioning brushes			
Optional Features	Electronic thickness control. Stainless steel 316 parts for corrosion resistant processing			
Electrical supply	110V-1Ph-60Hz	480V-3 Phase-50Hz or 380V-single phase-60Hz		



Kemet 300L2 - Small Lapping Machine

The smallest of our range of lapping machines, the benchtop mounted Kemet 300L2 is fitted with a 11 13/16" lapping plate, driven by a high torque variable speed motor. Depending on the application, the machine can be fitted with either a serrated cast iron plate or a choice of one of Kemet's composite plates to suit the application.

A single control ring, with an OD of 5 1/2" and ID of 4 15/16", located in a ring style holder, runs between 3 rollers and is adjustable for both height and position.

Options		Product Code
Handweight (4 13/16" diameter)		345450
Conditioning ring, 5 1/2" OD x 4 15/16" ID x 1 9/16" height		345434
Plastic faced conditioning ring		345454
	Aluminum	345537
Lift-Off Disc (11 13/16" diameter)	Kemet Iron	351415
	Kemet Copper	351414
	Kemet Copper SP2	351411
Cast Iron Plate	Solid	351413
	Serrated	351412

Specification

- 11 13/16" diameter plate
- High Torque Motor (1 HP)
- Variable speed ranges 50 - 100rpm
- Digital Timer 0 - 99 mins
- Dimensions: 17 11/16" x 31 1/2" x 15 3/4"
- Weight 93 lbs
- 110V-1Ph-60Hz
- Product Code: 345347A



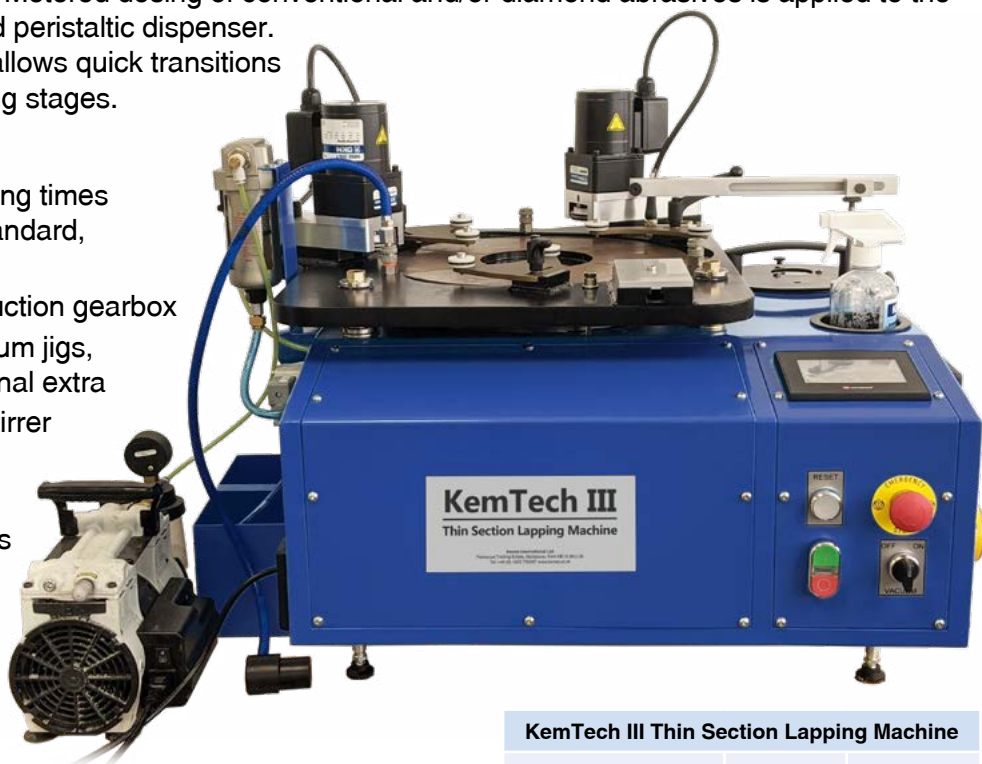
KemTech III Thin Section Lapping Machine

The KemTech III Thin Section Lapping Machine is able to accurately lap and polish thin sections mounted on glass slides down to 20 microns. Metered dosing of conventional and/or diamond abrasives is applied to the lapping plate using the integrated peristaltic dispenser. The Kemet Lift-Off Disc system allows quick transitions between the lapping and polishing stages.

Features & Benefits:

- Driven rings, for faster processing times (2 included with machine as standard, 3rd an optional extra)
- Sealed, maintenance free, reduction gearbox
- Connectors to suit Kemet vacuum jigs, which are available as an optional extra
- Integrated abrasive tank with stirrer
- Accurate peristaltic dispensing system for metered dosing
- Capacity for up to 3 vacuum jigs
- Variable Speed up to 70 rpm
- Stand-alone vacuum pump
- 4.3" HMI Touchscreen
- Water trap and filter
- Aluminum LOD for Polishing
- Cast Iron serrated LOD for Lapping

Also available in 20" with guarding



KemTech III Thin Section Lapping Machine

Voltage	230V	110V
	1ph - 50/60hz	
Product code	359842	359842A

Kemet DiaCol & KemCol - Super Finishing Machines

The Kemet DiaCol and KemCol are versatile lapping, polishing and super finishing machines. The DiaCol supports the complete range of processes from conventional lapping with cast iron plates and aluminum oxide or silicon carbide slurries, precision diamond lapping and polishing with a Kemet composite lapping plate and diamond slurries, through to super finishing CMP (Chemo Mechanical Polishing) using a CHEM-H pad and Col-K polishing media. The KemCol builds on this with stainless steel elements in place of painted components for longer life and contamination-free polishing, making it ideal for CMP and Cerium Oxide based polishing applications. Cerium oxide suspensions and powders are available upon request. Both machines are available in 15", 20" and 24". The DiaCol and KemCol are both fully stainless steel construction.

Features & Benefits:

- Stainless steel body, worktable, drive plate, conditioning rings, roller bearing assemblies and pressure weights
- Conventional abrasive system and Kemet Diamond dispensing system with stirrer
- Ceramic faced or stainless steel conditioning rings for contamination free polishing
- Integrated fully programmable peristaltic pump fitted as standard
- Polished stainless steel yokes for easier cleaning
- Aluminum lift-off disc system optional
- Suitable for Kemet magnetic polishing pad system for easy pad change
- 110V-1Ph-60Hz



Machine Model	15	20	24
Height	15 3/4"	27 9/16"	36 1/4"
Working Height	12 3/16"	15 3/16"	-
Width	31 1/2"	34 3/4"	47 1/4"
Depth	25 5/8"	30 11/16"	53 1/8"
Nett Weight	198 lbs	441 lbs	1,268 lbs
Polishing Pad Diameter	15"	20"	24"
No of conditioning rings	3	3	3 or 4
Inside diameter of conditioning rings	5 1/2"	7 1/2"	9 3/4"
Main Motor (kW)	0.37	0.75	1.5

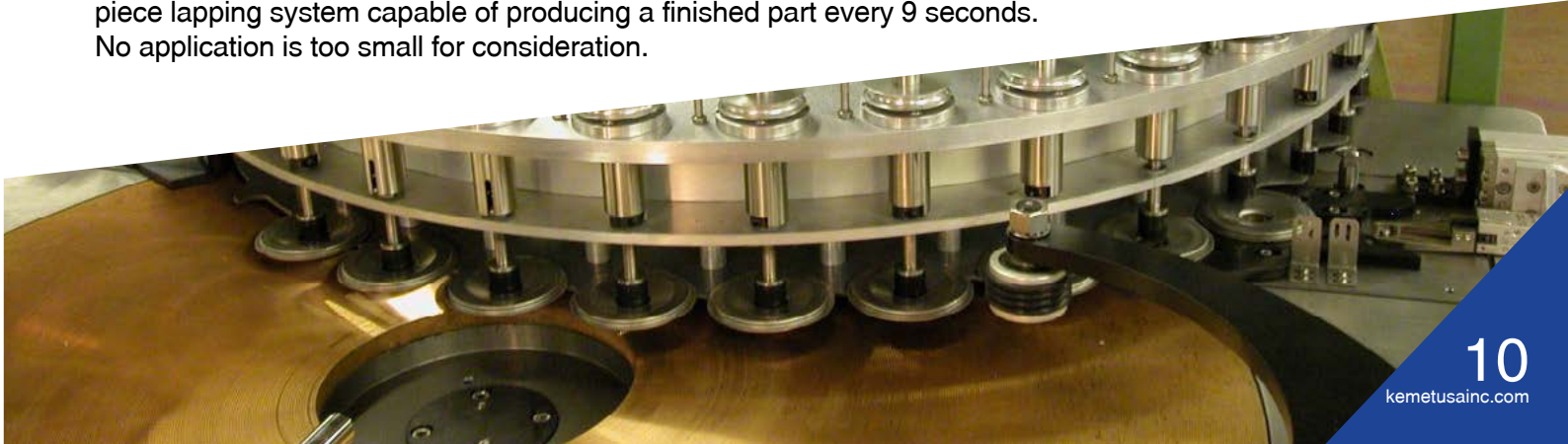
Machine dimensions are due to change late 2026 for the DiaCol and KemCol



Titanium medical device polished with Col-K (X)

Automated & Custom Lapping Machines

As well as these standard flat, spherical, match lapping machines, Kemet also offer a custom machine manufacturing service for applications where an off the shelf system is not available. This can be as basic as converting a hand finishing operation to an automated process, or as complex as a conveyor fed single piece lapping system capable of producing a finished part every 9 seconds. No application is too small for consideration.



Lapping Consumables

Kemet Composite Lapping Plates

Manufactured from a homogeneous mixture of synthetic resins and metal particles, the plates are designed for Kemet's advanced lapping technology, perfectly compatible with Kemet's extensive range of Liquid Diamonds.

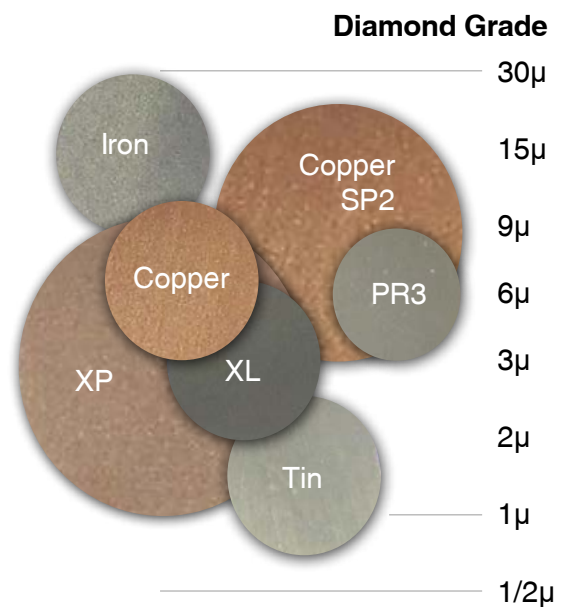
Benefits

- Holds diamond particles firmly, ensuring both efficient stock removal and repeatable component surface finish
- Ductile qualities cushion the diamond particles, preventing damage to the workpiece
- Produced in varying hardness values so that even the softest material can be safely lapped with diamond particles without the fear of impregnation
- Easy control for optimum flatness
- Lapping/polishing plates available to fit all makes of lapping machines with plate diameters up to 120"
- Recommended when high precision flatness and surface finish are required
- Dissipates heat and prevents laminar flow of lapped surfaces
- Supplied with a cast iron backing plate for maximum stability

Composite Material	Plate Diameter (inches)			
	15	20	24	36
Kemet Iron	351002	351081	351006	351010
Kemet Copper	351102	351103	351106	351124
Kemet Copper SP2	351159	351964	351177	351965
Kemet XP	351202	351266	351206	351227
Kemet PR3	351340	351374	351357	351343
Kemet Tin	351305	351320	351306	351315
Kemet XL	351356	351375	351376	351377

Custom sizes and grooving are available

Composite Material	Description
Kemet Iron	The most commonly used plate. For general purpose stock removal and lapping operations
Kemet Copper	Used to lap softer materials where fine lapping and polishing are the primary requirements
Kemet Copper SP2	Can be used for lapping and/or polishing hard and medium hardness materials
Kemet XP	Gives improved flat polished surfaces on many materials. Flat mirror-like surfaces can be produced on many hard materials
Kemet PR3	Used to generate highly reflective surface finish. Ideal for pre-pad polishing for minimum roll off
Kemet Tin	One of the softest Kemet Plates used for mirror polishing with fine grades of Kemet Liquid Diamond
Kemet XL	Replacement for Lead/Tin plate, used for mirror polishing



Kemet Composite Lapping Rods

For use with Kemet's diamond compounds, Kemet composite rods are manufactured from a homogeneous mix of synthetic resins, metal particles and other materials. Produced in a variety of hardness values, the softest materials can be safely lapped with Kemet Diamond compound. They are commonly used to improve the surface quality of parts following lapping with Kemet Helilaps.

Type	Diameter Size		
	1" x 6"	2" x 6"	3" x 6"
Kemet Iron	352101	352102	352103
Kemet Copper	352104	352105	352106
Kemet XP	352113	352108	352114
Kemet Tin	352107	352116	352163



Cast Iron Lapping Plates / Segments

Kemet offer a wide range of cast iron lapping plates and segments to suit most lapping machines.

Cast Iron Lapping Plates (Lapped finish**)	Plate Diameter (inches)			
	15	20	24	36
Serrated	362400	362402	362404	362406
Solid	362401	362403	362405	362407

* Other sizes available on request

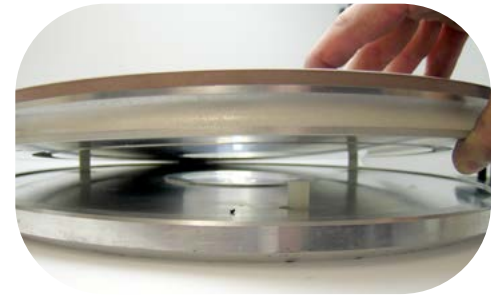
** May need additional conditioning depending on application



Lift-Off Disc System

Suitable for multistage processing when workshop space is a premium or budget constraints only allow a single machine. Kemet Lapping Plates are available as Lift-Off Discs 11 13/16" or 15" diameter. Discs are supplied mounted on an aluminum backing plate, which locates onto an aluminum drive plate by means of three pegs. Lift-Off Discs can be easily changed and are recommended for light duty work where general flatness and precision finish are required.

Description	11 13/16"	15"
Aluminum Drive Plate	-	361002
Aluminum Lift-Off Disc	345114	361001
Kemet Iron Lift-Off Disc	351303	351025
Kemet Copper Lift-Off Disc	345117	351121
Kemet Copper SP2 Lift-Off Disc	351381	362276
Kemet XP Lift-Off Disc	351219	351226
Kemet Tin Lift-Off Disc	-	351314

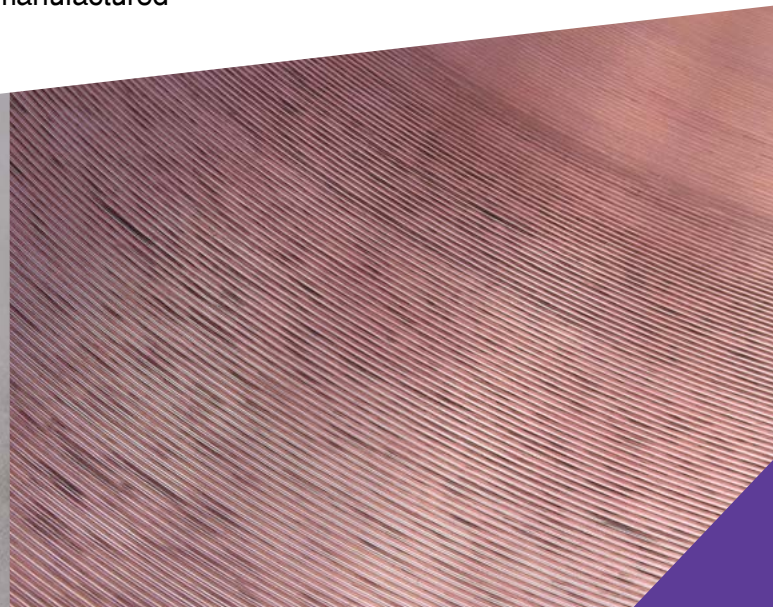
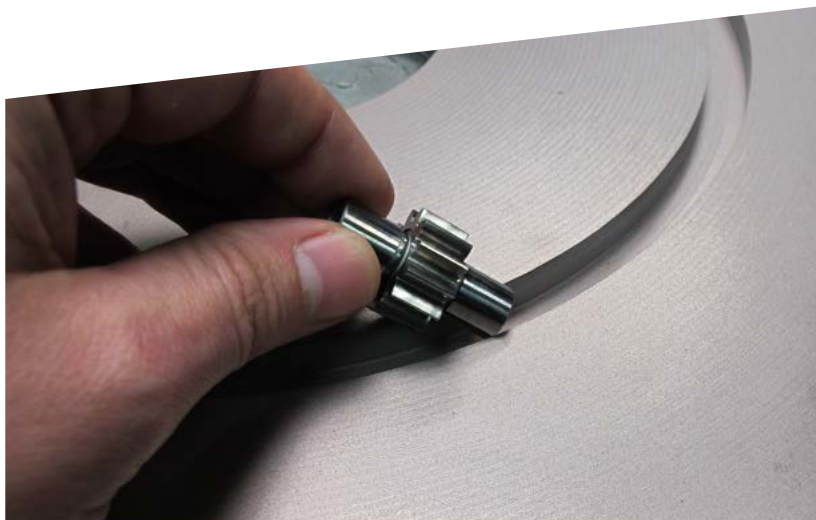


Lapping Plate Grooving

Lapping plates can be supplied grooved to suit specific applications. A cross hatched pattern is common on Cast Iron Hand Lapping plates and Dual Face Machine plates and gives increased stock removal rates due to increased surface pressure and the additional cutting edges generated on each groove. A Spiral groove pattern is used primarily when polishing parts that need to have a good surface finish and flatness, allowing contamination to be carried away from the cutting surface and making it easier to keep the lapping plate contact surface flat. The edges of the groove maintain good stock removal even though the diamond particle size may be small.

Annular Grooved Plates

These plates are designed for precision shoulder lapping of a wide range of parts, such as fuel pump gear faces and pressure relief valve caps. These are custom manufactured and the groove width and depth of plates need to be specified when ordering.



Cast Iron Hand Lapping Plates

The Cast Iron plates are made from high quality, low porosity gray cast iron (Grade 300 to BS1452). These are used with an abrasive grit, applied in paste form to give a uniform dull matt finish on a wide variety of metallic and non-metallic materials. Other sizes available.



Hand Lap Plate	Disc Diameter									
	2"	3"	4"	6"	8"	10"	12"	18"	20"	24"
c/hatch grooves		-	-	361021	360835	360830	360198	360707	362516	361029
Solid	361733	361797	361736	361738	361739	361997	360264	360762	-	361193
Hand Lap Plate	Square (WxLxH) 12" x 12" x 2"									
c/hatch grooves	362473									



Soft Metal Hand Lapping Plates

The Soft Metal plates are made of Tin.

Description	6"	12"
Hand Lap Plate SOFT METAL	361049	361046

Conditioning Rings

Cast Iron Conditioning Rings available as solid or serrated. Replacements are available to fit most flat lapping machine models. Plastic faced and ceramic faced conditioning rings are also available and these are used for polishing rather than lapping operations.



Lapping Machine	Cast Iron Serrated		Plastic Faced	Ceramic Faced
	3 Ring	4 Ring		
Kemet300L2	-	-	345454	-
Kemet 15	360203	-	361399	361522
Kemet 20	361027	-	362736	361982
Kemet 24	360208	360274	361665	361528
Kemet 36	360278	360682	361981	362523
Kemet 40	360683	*	-	-
Kemet 48	360833	360642	-	-

Dressing Pads

Kemet Diamond Dressing Pads come in two different varieties - coarse and fine. They are self adhesive and are fixed to the bottom of cast iron conditioning ring for rapid plate flatness correction on Kemet Lapping Machines.



Grade	Unit	Code
Fine	Pack of 8	361524
Coarse	Pack of 8	361525
Fine	Pack of 12	361526
Coarse	Pack of 12	361527

Diamond Dressing Ring

For rapid correction of Kemet Composite Lapping Plates, particularly when convex, the Diamond Dressing Ring is supplied with Grit 80 diamond pellets bonded to a cast iron conditioning ring.

Lapping Machine	Dressing Ring
Kemet 15	362677
Kemet 24	362678
Kemet 36	362668

The Diamond Dressing Ring has proven to be significantly faster than using traditional materials.



Diamond Products

Kemet offer a wide range of standard and special Diamond Products formulated and manufactured in our quality controlled laboratories. Each is a special blend of diamond powder with a specific grading and concentration in a chemical carrier to give the optimum:

- Stock removal and surface finish.
- Ease of cleaning.
- Temperature resistance.
- Lubricity to prevent drying out.

With ever changing technologies, new Kemet Diamond Products are continually being developed to meet specific requirements. These products may well incorporate different types of diamond to suit the application such as synthetic or natural, monocrystalline or polycrystalline powder, suspended in a wide range of chemical carriers.

Our laboratories can also help to develop formulations specific to your application.

Micron	Grade
0.1	140,000*
0.25	25,000*
1	14,000*
3	8,000*
6	3,000*
8	1,800*
14	1,200*
25	600
45	300
60	230
90	170

*Estimated

• Diamond Grading

The exceptionally close grading standards developed by Kemet exceed many international standards and guarantee that Kemet Diamond Products are manufactured to the closest tolerances.

• Quality Control

Microscopic and computer analysis of the diamond powder ensures that it is exactly the correct grading and shape to maximize cutting performance.

• Consistency of Performance

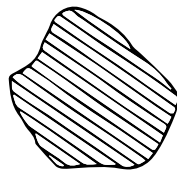
Strictly manufactured to ISO 9001:2015 quality assurance standards - our guarantee that the quality will be consistent.

• User Friendly

Manufactured from the highest purity chemicals - safe to use and friendly to the environment.

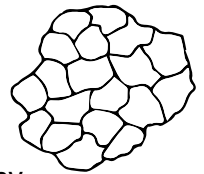
Monocrystalline:

This diamond has tough resilient crystal structure that gives sustained cutting power. It is the type of diamond used most commonly in Kemet Diamond Compounds and Slurries.



Polycrystalline:

Structure is 'raspberry-like', i.e. each particle is in fact a number of very small particles of microcrystallites bonded together. Stock removal and surface finish is better due to the many cutting points of the polycrystalline crystal.



Diamond Spray

Water soluble diamond spray manufactured from Monocrystalline or Polycrystalline Diamond Powder. Supplied in 100g Pump Spray Dispenser.



Micron	Monocrystalline	Polycrystalline
1/10	116000	-
1/4	116001	116036
1/2	116002	-
1	116003	116037
3	116004	116038
6	116005	116039
9	116006	116040
15	116007	116041

Diamond Stick

Water soluble stick diamond compound, manufactured from Monocrystalline or Polycrystalline Diamond Powder.

- Eliminating the need for spatulas or manual application
- Allows easy application of Diamond Compound
- Supplied in 10g Applicator Stick

Micron	Monocrystalline	Polycrystalline
1	113189	113201
3	113190	113202
6	113191	113203
8	113192	113204
14	113193	113205



Diamond Pastes

Type KD

Universal Diamond Compound for rapid stock removal and superfine surface finish. Soluble in both oil and water.

Type W

Recommended for precision engineering and electronic applications where water based products are preferred. Water Soluble Diamond Compound. Ideal for use on polishing cloths.

Type L

Oil Soluble Diamond Compound specially developed for use on hard materials such as Tungsten Carbide, hardened Steels and Ceramics. High thermal stability of the chemical carrier ensures that Kemet Diamond Compound resists frictional heat, remains stable, and keeps its suspension properties under operating conditions.

DiaVers

Oil-based carrier with superior lubricant qualities to improve the surface finish. Stable to 200°C which allows working on moulds in situ which have not yet cooled. Sharper diamond particles for superior cutting action. Better adhesion to laps such as felts or wooden laps. VOC Free*

SupaFinish

Oil based Polycrystalline Diamond Compound Developed for use in medical industry. Ideal for tough polishing applications where final surface finish is critical.



SupaFinish

Micron	10g Syringe
1	151400
3	151401
6	151402

	Micron	Color	Grade	Type KD			Type W			Type L			DiaVers			
				5g AppliKator	10g Syringe	20g Syringe	5g AppliKator	10g Syringe	20g Syringe	5g AppliKator	10g Syringe	20g Syringe	5g AppliKator	10g Syringe	20g Syringe	
Final Polishing	1/10	Grey	C2	111002	111126	111095	-	-	-	-	-	-	-	-	-	
	1/4	Grey	C2	111004	111128	111097	-	-	-	-	-	-	-	-	-	
	1	Blue	C1	111005	111129	111098	113005	113129	113098	112001	112069	112052	115558	115541	115548	
			C2	111006	111130	111099	113006	113130	113100	112002	112070	112053				
			C3	111007	111131	111100	113007	113131	113099	-	-	-				
	3	Green	C1	111008	111132	111101	113008	113132	113101	112003	112071	112054	115507	115542	115549	
			C2	111009	111133	111102	113009	113133	113102	112004	112072	112055				
			C3	111010	111134	111103	113010	113134	113103	-	-	-				
			C4	111011	111135	111104	113011	113135	113104	-	-	-				
	Lapping & Polishing	6	Yellow	C1	111012	111136	111105	113012	113136	113105	112005	112073	112143	115508	115543	115550
				C2	111013	111137	111106	113013	113137	113106	112006	112074	112138			
				C3	111014	111138	111107	113014	113138	113107	-	-	-			
8		Red	C1	111015	111139	111108	113015	-	113108	112007	112075	112058	115559	115544	115551	
			C2	111016	111140	111109	113016	113141	113109	112008	112076	112059				
			C3	111017	111141	111110	113017	-	113110	-	-	-				
			C4	111018	111142	111111	113018	113142	113111	-	-	-				
14		Brown	C1	111019	111143	111112	113019	113143	113112	112009	112077	112060	115560	115545	115552	
			C2	111020	111144	111113	113020	113144	113113	112010	112078	112061				
			C3	111021	111145	111114	113021	113145	113127	-	-	-				
Rapid Stock Removal		25	Mahogany	C1	111022	111146	111115	113022	113146	113115	112011	112079	112062	115561	115546	115553
				C2	111023	111147	111116	113023	113147	113116	112012	112080	112063			
	C3			111024	111148	111117	113024	113148	113166	-	-	-				
	45	Purple	C1	111025	111149	111118	113025	113149	113118	112013	112081	112064	115562	115557	115555	
			C2	111026	111150	111119	113026	-	113119	112014	112082	112065				
			C3	111027	111151	111120	113027	113151	113120	112015	112086	112066				
	60	Orange	C1	111028	111152	111121	113028	113152	113121	112016	112085	112067	115563	115547	115554	
			C2	111029	111153	111122	113029	113154	113122	-	-	-				
	90	Cream	C1	111030	111154	111123	-	-	113123	112017	112084	112068	-	-	-	
			C2	111031	111155	111124	113031	113153	113124	-	-	-				

Each micron size is available in a range of concentrations:- (C1 lowest concentration; C4 highest concentration).

* ZERQ Volatile Organic Compounds (VOC) - not classified as an atmospheric pollutant and offer health and safety benefits. VOCs are organic chemicals that have a high vapour pressure at ordinary room temperature, some of which can be dangerous to human health and/or cause harm to the environment.

Liquid Diamond

Our range of Kemet Liquid Diamond products are available as oil soluble, water soluble or as emulsions. The chemical composition of the carrier fluids is carefully controlled to ensure that they are compatible both with the Kemet Lapping Plate and the components being lapped.

- Precision graded diamond particles in a fluid
- Optimum viscosity and chemical composition of each Liquid Diamond Product gives fast stock removal with the ability to produce superfine surface finishes
- Specially formulated Liquid Diamond Products enable parts to be easily cleaned
- Suitable for dispensing with the Kemet Electronic Dispensing System thus eliminating wastage and reducing lapping costs



Micron	TYPE K (Oil / water emulsion) An excellent, low viscosity oil/water emulsion suitable for all general purpose lapping						TYPE O (Oil based) An excellent, general purpose, low viscosity oil based suspension suitable for heavy parts and high volumes						
	400g			2000g			400g			2000g			
	Standard	Strong	Extra Strong	Standard	Strong	Extra Strong	Standard	Strong	Extra Strong	Standard	Strong	Extra Strong	
A	1	211004	211024	211044	211084	211105	-	216004	216024	-	216085	216104	-
	2	211005	211025	-	-	-	-	216005	216025	216045	216081	216105	-
	3	211006	211026	211046	211086	211106	211126	216006	216026	216046	216086	216106	216097
	4.5	211007	211027	211047	211087	211107	211127	216007	216027	216047	216087	216108	-
B	6	211008	211028	211054	211088	211108	211128	216008	216028	216048	216088	216107	216148
	8	211009	211029	-	211089	211109	211129	216009	216029	216049	216089	216109	216150
	10	211010	211030	211050	211085	211110	211130	216016	216030	216050	216095	216098	-
	14	211011	211031	211051	211091	211111	211131	216011	216031	216051	216092	216111	-
C	25	211012	211032	211052	211092	211112	211133	216012	216032	216052	216090	216112	-
	45	211013	211033	211053	211093	-	-	216013	216033	216053	216094	216113	216144

A = Final Polishing **B = Lapping & Pre-polishing** **C = Rapid Stock Removal**

Other micron grades available on request

FastCut

FastCut offers a water based version that, in tests, has exceeded the performance of oil based products by as much as 25%.

- Excellent stock removal
- Easy to clean & non-foaming
- Lubricating Fluid Type W9 recommended with FastCut

OptiPol

Optipol is a water soluble, high concentration slurry using polycrystalline diamond powder. These slurries are excellent for silicon carbide, carbon and tungsten carbide “gas seals”, where a mirror finish, with a 3 light band convex flatness is required without the need to touch-up with a polishing pad process.

Micron	FastCut	
	400g	2000g
1	219416	219417
3	219418	219419
6	219420	219421
8	219422	219423
10	219435	219439
14	219424	219425
25	219426	219427

Micron	OptiPol	
	400g	2000g
0.1	250650	250654
1	250651	250655
3	250652	250656



* ZERQ Volatile Organic Compounds (VOC) - not classified as an atmospheric pollutant and offer health and safety benefits. VOCs are organic chemicals that have a high vapour pressure at ordinary room temperature, some of which can be dangerous to human health and/or cause harm to the environment.

Diamond Suspension



Aquapol is the next generation of **water based** diamond suspensions for sample preparation. Available in monocrystalline (Aquapol-M) and polycrystalline (Aquapol-P). Aquapol is easy to clean and non-foaming.

Low viscosity, high concentration, **oil based** suspensions available in monocrystalline (Type OM) and polycrystalline (Type OP).

- Uniform suspension of diamond particles, no agitation required
- Suitable for dispensing by Kemet Electronic Dispenser or alternative systems
- **ZERO** Volatile Organic Compounds (VOC*)
- Color coded for easy identification
- Supplied in 400g bottles with trigger spray. Other sizes available
- Lubricating Fluid Type W9 recommended with AquaPol

Aquapol-M			Aquapol-P			TYPE OM		TYPE OP	
Water Based Monocrystalline			Water Based Polycrystalline			Oil Based Monocrystalline		Oil Based Polycrystalline	
Micron	400g	1 Liter	Micron	400g	1 Liter	Micron	Code	Micron	Code
1/10	219471	219490	1/10	219472	219484	1/10	216321	1/10	216341
1/4	219459	219491	1/4	219461	219485	1/4	216323	1/4	216342
1/2	219457	219492	1/2	219463	219486	1/2	216322	1/2	216343
1	219450	219493	1	219452	219487	1	216324	1	216344
3	219440	219494	3	219453	219488	3	216326	3	216346
6	219448	219495	6	219454	219482	6	216328	6	216347
9	219442	219496	9	219455	219483	9	216329	9	216349
15	219444	219497	15	219456	219489	15	216331	15	216350
25	219446	219498				25	216332	25	216351
						45	216333		

Note to users of WM/WP water based suspensions - these are still available

Type WFP

Specially developed to obtain the best results for polishing water-sensitive materials. Short preparation times due to high concentration polycrystalline diamond suspensions. Recommended use with WF Lubricating fluid.

- Oil and water-free
- Does not contain alcohol
- Non-Hazardous for shipping
- Environmentally friendly
- Miscible with alcohol

Type WFP	
Micron	400g
1	250677
3	250676
6	250678

EasyPol - Diamond & Lubricant in a Single Application



Easypol is a diamond suspension and lubricant combination, resulting in faster and simpler metallographic sample preparation. These suspensions result in high stock removal, allowing preparation time to be reduced.


- Lower cost of consumables
- Reduction in preparation time
- Easy to use and clean
- Water based

Micron	EasyPol (For routine metallographic sample preparation)			EasyPol+ (Special formula for reduced polishing times)		
	500ml	2.5 Liters	5 Liters	500ml	2.5 Liters	5 Liters
1/4	250600	-	-	-	-	-
1	250601	250621	250619	250606	250628	250613
3	250602	250618	250622	250607	250629	250614
6	250603	250623	250624	250608	250630	250615
9	250604	250625	250617	250609	250631	250616
15	250605	250626	250627	250610	250632	250633

* **ZERO** Volatile Organic Compounds (VOC) - not classified as an atmospheric pollutant and offer health and safety benefits. VOCs are organic chemicals that have a high vapour pressure at ordinary room temperature, some of which can be dangerous to human health and/or cause harm to the environment.

Lubricating Fluids

- Assists Kemet Diamond Products to cut and polish more effectively by absorbing frictional heat and diluting the lapping residue.
- Lubricant performance remains stable even when under high pressure.
- Manufactured from high purity chemicals.

Type	 *	Description	Soluble in	Color	450ml Trigger spray	2.5 Litres	25 Litres
W	Yes	Recommended for use on all Kemet Polishing Cloths as it helps to extend their life	Water	Clear	301201	301101	301151
W9	Yes	Recommended for use with FastCut Liquid Diamond & AquaPol	Water	Clear	301533	301527	301530
W2		Developed for use with Kemet Diamond Suspension, particularly when used with Kemet Lapping Plates.	Water	Clear	301202	301102	301205
GW2			Water	Light green	301514	301108	**
Blue		Improves cutting and polishing performance on cloths or plates	Water	Blue	301200	301156	**
LS		Where components need to undergo a water based cleaning operation after lapping	Oil/Water	Blue	301204	301104	**
K	Yes	Assists smooth running of the lapping operation and helps to ensure a cleaner process	Oil	Clear	301178	301124	301125
R OS2		For use where water is not permitted	Oil	Red	301513	301512	**
OS	Yes	Recommended when polishing tooling, molds and similar components	Oil	Blue	301203	301103	301112

** Available on request



Kemox - Abrasive Slurry

Kemox is a conventional lapping abrasive that has been suspension treated so that the abrasive particles do not settle out into a hard sediment in the bottom of the abrasive tank. Kemox is available in water soluble (Kemox-W) or oil soluble (Kemox-O) formulations in 5 or 20 Litres. The abrasive concentration is always correct and eliminates the health and safety risk of adding powder to oil.

Product	5 Litres	Description	Product	5 Litres	Description
Kemox O-960	300101	Oil Based. Finest surface finish on soft components	Kemox O-400	300105	Oil Based. Plate conditioning and matt lapping where good stock removal and a matt lap is required
			Kemox O-400S	300111	
Kemox O-950	300102	Oil Based. Finer surface finish on soft components	Kemox HSR	300195	Oil Based. Faster stock removal for plate reconditioning
Kemox O-900	300103				
Kemox O-800	300104	Oil Based. General aluminum oxide lapping where a scratch free matt lap is required	Kemox W-800	300143	Water based
Kemox O-800S	300112		Kemox W-400	300141	
Kemox O-800 (Fine)	300107		Water based where oil can't be used. Finer surface finish on soft components	Kemox W-950	300152
Kemox O-800 FHC	300109				
			Kemox W-2800 (SiC)	300131	Silicon Carbide 2800



Kemox SF - Aluminum Oxide Treated Suspension

Benefits

- Extremely strict selection process for particle size, shape and hardness to ensure maximum polishing performance over an extended life cycle
- Superior surface finish & excellent stock removal rate
- Easy clean up and Long life
- Low viscosity to promote improved flow for polishing materials

Size	Code
5 Litre	300199
3.8 litres	300200
1 Litres	300207

* ZERO Volatile Organic Compounds (VOC) - not classified as an atmospheric pollutant and offer health and safety benefits. VOCs are organic chemicals that have a high vapour pressure at ordinary room temperature, some of which can be dangerous to human health and/or cause harm to the environment.





Col-K - Colloidal Silica Suspension

A Liquid polish used on Kemet Chem Cloth to produce the ultimate in high quality mirror polishes on polishing machines. A part abrasive, part chemical polishing action makes **Col-K** well suited to polishing difficult materials such as Stellite and Cobalt Chrome. **Col-K(X)** has been specially developed to mirror polish Titanium without the need for any chemical additives. **Col-K(R)** has been designed for polishing silicon nitride, glass, sapphire, alumina, and metal/ceramic composites. **Col-K (NC)** is a non-crystallising version.

Product	Size		
	1 Litre	5 Litres	20 Litres
Col-K	600262	600212	600204
Col-K (X)	*	600267	600288
Col-K (R)	600269	600285	*
Col-K (NC)	600261	600199	600202

* Available on request

Lapping Pastes & Powders

Kemet manufacture a wide range of abrasive lapping pastes. Our range of Silicon Carbide and Aluminum Oxide pastes have many applications but are particularly suited to the lapping of mechanical seals and valve seats. The pastes are **water soluble** and safe to use.



Product	Type	Micron	FEPA Grade	Powders		Product	Type	Micron	FEPA Grade	Pastes 1kg
				5 kg	25kg					
Green Silicon Carbide	Fine	3	1200	361537	361616	Silicon Carbide	Fine	3	1200	361547
		5	1000	361535	361536			5	1000	361552
	Medium	9	600	361563	361631		Medium	7	800	362616
		17	400	361512	361579			9	600	361514
	Coarse	37	280	361532	361629		Coarse	17	400	361551
		75	180	361541	361653			23	360	361548
Black Silicon Carbide	Medium	9	600	361562	361651		Coarse	30	320	361558
		22.8	360	361648	361649			37	280	361538
	Coarse	37	280	361646	361647			75	180	361549
Aluminum Oxide	Medium	7	800	361676	361615		Aluminum Oxide	Fine	109	120
		9	600	361555	361614	3			1200	361544
	Coarse	23	360	361554	361561	Medium		5	1000	361624
		7	800	361545	361543			9	600	361543
	Coarse	13	500	361546	361542	Coarse		23	360	361542
		23	360	361554	361561					



Universal Lapping Oil

Lubrication is necessary for a smooth running condition between the lap plate and conditioning rings and to help evenly disperse the abrasive product on the lap plate. The Lapping vehicle used with any abrasive powder should be properly matched in order to give the best cutting action possible, maintain even dispersion of abrasive throughout the lapping surface, and produce uniform finishes. The proper lapping vehicle in conjunction with the right abrasive will reduce lapping time and reduce the amount of slurry needed to complete the job. A typical mix would be 1kg of abrasive to 5 Litres of lapping oil.

Size	Code
5 Litres	361516
25 Litres	361517
205 Litres	361498

Diamond Lapping Film

Kemet precision coated diamond abrasive lapping film products are specifically engineered to meet all your ultra-fine, consistent polishing and final finishing requirements.

- Wide range of engineered, tightly-graded micron-sized particles. Ensures consistent, long-lasting polishing. Generates scratch free surfaces; achieving Ra values under 1 micro-inch on hard materials, including HVOF depositions. Improves coolant access at point of contact
- Proprietary resin system improves adhesion to substrate
- Uniform 3 mil polyester film backing, ensures film flatness and improved part geometry
- Compatible with most machinery attachments and all coolants, allowing quick film replacement
- Long life and offers high yields, reduced rework, and uses fewer steps for lowest total abrasive costs



LAPPING FILM

Microns	Roll Width	Roll Length	Disc Diameter	Sheet Size
1, 3, 9	$\leq 12''$	50' - 150'	$\leq 12''$	$\leq 12'' \times 12''$
9, 15, 30, 45, 60, 76, 100	$\leq 12''$	50' - 150'	$\leq 12''$	$\leq 12'' \times 12''$
1, 3, 6	$\leq 12''$	50' - 150'	$\leq 12''$	$\leq 12'' \times 12''$

Standard roll \leq widths 50, 100 and 200 mm. Other \leq widths are available on request.

Micron	9 1/16" x 11"	11 13/16" Ø (PSA)
0.5	362901	362997
1	362549	362998
3	362550	363004
6	362902	363002
9	362903	363001
15	362040	363000
30	362904	362999

Kemet Diamond Lapping Film, Plain Backed

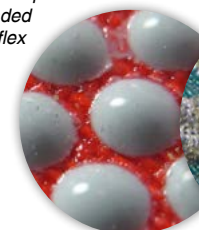
Diaflex - Diamond Grinding

Kemet Diaflex is a self adhesive, flexible diamond material which combines the long life and aggressive cutting action of diamond with the flexibility of cloth. It is supplied in either discs or squares, and a wide range of grit sizes. The diamond is either nickel bonded (N) or resin bonded (R). It is suitable as a grinding step in either metallographic sample preparation or flat lapping. Diaflex can be supplied as plain backed.

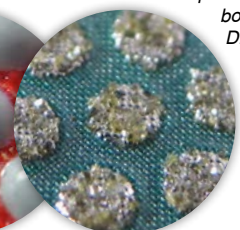


Grade	Grit / Micron Size	Disc					Square		
		5 7/8"	7 7/8"	9 1/16"	9 13/16"	11 13/16"	3 15/16" x 3 15/16"	5 7/8" x 5 7/8"	11 13/16" x 11 13/16"
Green (N)	60 / 250	342074	342025	342075	342076	342068	342011	342013	342048
Black (N)	120 / 125	342001	342002	342077	342026	342027	342014	342070	342049
Red (N)	200 / 74	342004	342005	342067	342028	342029	342016	342036	342050
Yellow (N)	400 / 40-50	342006	342007	342071	342030	342031	342018	342066	342051
White (N)	800 / 20-30	342032	342008	342072	342033	342034	342020	342037	342052
Yellow / White (R)	800 / 20-30	342078	342035	342079	342080	342047	342038	342044	342053
Blue (R)	1800 / 6-12	342042	342009	342073	342081	342084	342043	342021	342054
Orange (R)	12000 / 1-3	342069	342010	342082	342083	342085	342022	342023	342055

Close-up of resin bonded Diaflex



Close-up of nickel bonded Diaflex










Kemet Polishing Pads

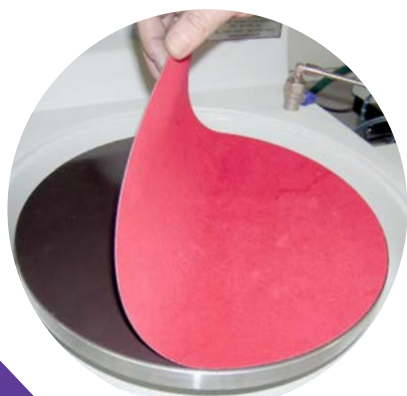
Flat polished surfaces on many softer materials can only be produced with polishing pads. Available to suit most grinder/polisher and flat lapping machines, Kemet offers the widest range of self-adhesive and metallic backed polishing pads. These are generally split into three types: Chemo-textile, Nap and Synthetic Silk

Type	Description	Square
		5" x 5"
Sphericroth A	For general purpose, single use spherical polishing pads.	341998
Sphericroth B		341966
NLH	For high gloss spherical polishing	341276

POLISHING PADS

Name	Type	Description	Use with Recommended Diamond Micron size	Ø 12"	Ø 15"	Ø 24"	Ø 36"	Color
PSU-M	Chemo-textile These are manufactured to the highest standards with accurately controlled uniform thickness. Self-adhesive. Non-woven pads manufactured specially for polishing processes.	These medium and hard chemo-textile cloths are for smoothing and polishing operations.	15 micron and finer	341010	341011	341012	341035	
PSU-MM (magnetic)				341813	341814	341837	341838	
NSH-B	Nap Cloths For final polishing stages of preparation, Kemet Nap Type Cloths are available with a range of softness and nap length. They give a more gentle polish, and are ideal for softer specimens and components. All cloths are self-adhesive unless marked 'plain'.	A short nap cloth with woven backing used for metallographic and some optical polishing operations.	3 micron and finer	341203	341243	-	341259	
NSH-BM (magnetic)				341262	341264	341265	341266	
NLH		A longer, stiffer nap cloth.	6 micron and finer	341206	341248	-	-	
NLH-M (magnetic)				341267	341296	-	-	
CHEM-H		For use with a chemical mechanical polishing process with colloidal silica suspension.		341784	341865	341786	341866	
CHEM-HM (magnetic)				341853	341854	341856	341855	
MRE		Synthetic flock on a flexible waterproof carrier. A more heavy duty cloth.	6 micron and finer	341714	341715	341877	341942	
MRE-M (magnetic)				341817	341818	341819	341828	
ASFL	Synthetic Silk Durable woven structure, developed for finishing metal specimens and components.	Synthetic silk pad with durable woven structure for mirror finishing of most metals.	6 micron and finer	341111	341112	341113	341140	
ASFL-M (magnetic)				341177	341178	341179	-	
MSFL		Will polish metal flat, and to a mirror finish.	3 micron and finer	341755	341756	341757	341759	

Supplied in packs of 10. Other sizes available on request.



Magnetic Polishing Pad Systems

The Kemet magnetic disc system is suitable for Kemet's range of magnetic polishing pads (marked 'magnetic' above), diamond grinding and fine grinding discs, and any magnetic consumable from other suppliers.

- Easy to change and cloths last longer
- No adhesive breakdown problems
- Faster and cleaner cloth changes
- No metal disc involved so safe to use

Magnetic Disc Size	Code
Ø 12"	345772
Ø 15"	345773
Ø 24"	345774
Ø 36"	345775

Workholding and Holders

Workholding is one of the most important factors when carrying out a lapping operation. The flatness of a part can be adversely affected by incorrect workholding.

For continuous lapping of the same range of parts, it makes sense to have sets of profiled workholders. A full range of blank workholders 1/8" or 1/4" thick are available. We can also supply pre-profiled workholders on request.

Lapping Machine	Diameter	Thickness	Code
Kemet 15	5 7/16"	1/8"	360206
Kemet 15	5 7/16"	1/4"	360678
Kemet 20	7 7/16"	1/8"	362460
Kemet 24 (3 ring)	9 11/16"	1/8"	360269
Kemet 24 (3 ring)	9 11/16"	1/4"	360232
Kemet 36 (3 ring)	14 3/8"	1/8"	360280
Kemet 36 (3 ring)	14 3/8"	1/4"	360285
Kemet 48 (3 ring)	19 13/16"	1/4"	360248
Kemet 56 (3 ring)	22 11/16"	1/4"	362498



Kemet Facing kit

The Kemet facing kit consists of a non-skid rubber pad. This pad can be fixed to the bottom surface of the hand weight to hold parts without a workholder and protect the parts being lapped. The hand weight with the pad is then placed directly on top of the parts which have been positioned inside the conditioning ring. Lapping can occur and the parts will not skid out of position.

Lapping Machine	Code
Kemet 300L2	362458
Kemet 15	361503
Kemet 20	361972
Kemet 24	361504
Kemet 36	361509



Dycem

This non-slip material has a protective film on both sides, which will keep the material clean until ready to use. Dimensions: 16" x 29' 6"

Product	Code
Dycem	361505



Foam Tape

Double sided self-adhesive foam tape. Dimensions: 1/8" thick, 2" wide and 82' long. Use in combination with Dycem

Product	Code
Foam Tape	361506



Polishing Stand with Paper

Recommended for polishing workpieces to produce reflection needed for viewing under monochromatic light sources. The heavy-duty polishing table is provided with a tensioning mechanism for smooth pulling of the polishing paper.

Product	Code
Hand Polishing Paper 164' x 12"	Grit 2000 362162 Grit 3000 362029
Polishing Stand (13 3/4" x 11")	361560



Lapping Accessories

Electronic Dispenser System



The Kemet Electronic Dispenser distributes Liquid Diamond and Lubricating Fluid by means of touch sensitive settings. The digital display shows dispensing intervals, durations and air pressure at a glance. The dispenser achieves great accuracy, eliminating wastage and simplifying cost control.

The Kemet Liquid Diamond Stirrer Unit maintains a consistent distribution of diamond particles within the slurry by using a small non-contaminant plastic coated paddle magnet, which ensures even diamond suspension. The Kemet Dual Dispensing Bar can be positioned to dispense Liquid Diamond and Lubricating Fluid accurately on to the plate without spray bounce.

- Supplied as standard with Kemet Flat Lapping and Polishing Machines and Plates
- Easily fitted to existing conventional Flat Lapping Machines to improve productivity
- Fully controlled metering of Liquid Diamond and Lubricating Fluid using independent pressure and time settings
- Electrical system complies with EN 60 204.
- Can also be used as a standalone unit for custom applications that require controlled dispensing
- Dispenser Service Kit available to keep the unit in optimal use - Product Code: 362530

Electronic Dispenser

Height	Width	Depth (exc. air filter)	Nett Weight	Code
5 7/8"	9 1/16"	5 7/8"	3.74kg	360499

Dispenses Kemet Liquid Diamond and Lubricating Fluid automatically at pre-set intervals in conjunction with a lapping and polishing machine cycle timer.

Air requirements: 1 Bar min - 2 Bar max. **Air pressure:** Dual circuit. **Air pressure display:** Bar or psi
Adjustable duration of spray: 1-9 seconds. **Adjustable intervals of spray:** 1-999 seconds
Spray memory: Standard. **Manual override:** Standard
Electrical supply: 110V or 220V - 240V / 50Hz or 60Hz (self adjusting for supply voltage & frequency)



Liquid Diamond Stirrer Unit

Height	Width	Depth	Power	Code
4 3/4"	3 9/16"	8 7/16"	50Hz or 230V	360534
			60Hz 110V	360536

Quiet electric unit has fully variable speed control and is provided with a magnetic stirrer paddle also holds the bottle for the lubricating fluid



Single Spray Head

Length	Code
9 13/16"	360514
15"	360512

Supplied with bottle, cap and plastic tubing



Dual Dispensing Bar & Bottles

Type	Length	Reach	Adjustable Height	Section of head	Bottle capacity	Code
Standard	13 3/8"	10 1/4"	3 15/16"	13/16" x 13/16"	400ml	360511
Long	19 1/2"	16 5/16"	3 15/16"	13/16" x 13/16"	400ml	360510

Supplied complete with two bottles and plastic tubing. Fully adjustable head for vertical and radial positioning

Flatness Gauges

The Kemet 9" Flatness Gauge is used to monitor a lapping plate's flatness and to give an indication of the flatness the plate will produce on a given part size. The gauge comes with a calibrated single-sided master setting block and is supplied with instructions.

- Span of Gauge: 9 5/16"
- 1 Micron Accuracy
- Recalibration service available
- Suitable for lapping plates 15" to 36" diameter

Product	Code
9" Flatness Gauge	361304



Color Coded Flatness Gauge

Kit includes additional features for the flatness gauge, making it much easier and quicker for reading the lapping plate flatness. Suitable for 24 and 36 inch lapping machines.

Product	Code
Color Coded Flatness Gauge Kit <i>(Different kits available depending on machine & setup)</i>	Contact Kemet



Straight Edges to Measure Plate Flatness

Steel straight edges to measure plate flatness. Manufactured to DIN 874.

Description	For Lapping Machine Model				
	15	20	24	36	48
Length	19 11/16"	19 11/16"	29 1/2"	39 3/8"	59 1/16"
Cross section	1 9/16" x 5/16"	1 9/16" x 5/16"	2" x 3/8"	2" x 3/8"	2 3/8" x 1/2"
Code	361501	360864	361502	360239	360861



Monochromatic Light Source

This compact, CE-marked light source is easily transportable and produces clear flatness readings when used with Kemet Optical Flats. It features a long-life sodium light source and comes with a detachable power lead and a side-mounted on/off switch. Supplied with a flatness reading interpretation chart, compliance certificate, and instructions.

Size	Voltage	Country Plug	Code
Medium 16 1/8" x 17 5/16" x 12 3/16" HxWxD	220V	UK	361201
	230V	European	361313
	110V	USA	363044
Large 18 1/8" x 21 5/8" x 15 3/4" HxWxD	220V	UK	361201A
	110V	UK	361211A
	110V	USA	363044A

Product	Code
Replacement Bulb 35W Sodium lamp	362607



Maintenance Kits

Maintenance kit for Kemet 36 (and larger) Diamond Lapping machines - Product code: 362220
 Electronic Dispenser Service Kit - Product code: 362530

Optical Flats

Produced from Quartz, Kemet Optical Flats are available in single and double sided, 1/4 and 1/10* light band accuracy, in sizes from 1” up to 24” diameter**. They are supplied boxed with Interferogram Certificate of Conformity with full traceability to international standards. Special optical flats are available on request.



Size (inches)		Single Sided		Double Sided	
Diameter	Thickness	1/4	1/10	1/4	1/10
1”	3/8”	361220	361221	361237	361238
2”	3/8”	361222	361223	361215	361239
3”	19/32”	361224	361225	361705	361240
4”	19/32”	361226	361227	361210	361241
5”	25/32”	361228	361229	361242	361214
6”	1”	361123	361231	361216	361243
8”	1 3/16”	361232	361233	361219	361244
10”	1 3/8”	361234	361235	361217	361245
12”	1 9/16”	361218	361236	361246	361247

* Higher accuracy available on request.
 ** Larger sizes made to order with configurations such as squares, rectangles and donut shapes and custom thickness are available.



Optical Flat Stands

Large optical flats (10” diameter and above) are heavy. If they are placed directly onto a thin component such as mechanical seals, they can cause distortion of the component and incorrect light band readings. Kemet Optical Flat Stands allow the part to be placed onto the optical flat surface meaning there is no distortion. They also allow a single large optical flat to be used on a wide range of part sizes.

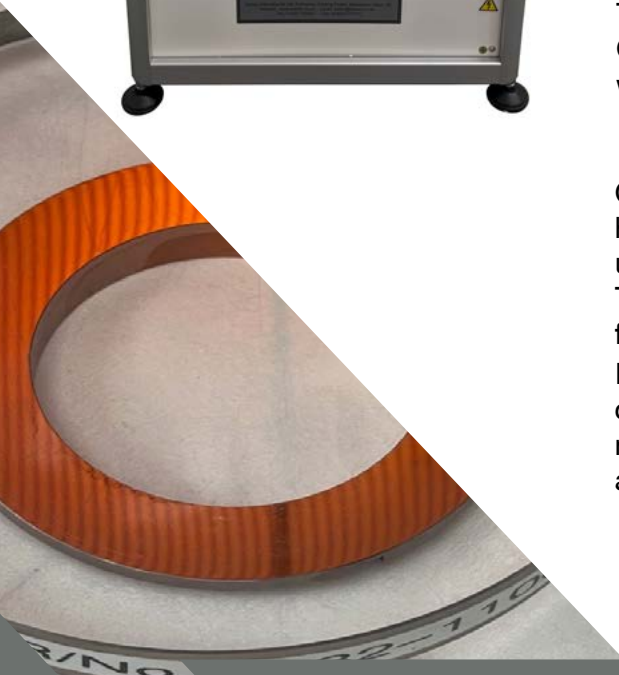
Optical Flat Cleaning and Care Kit

This Kit is used for cleaning Kemet Optical Flats. Taking special care of these will ensure accuracy and long service.

Product	Code
Optical Flat Cleaning and Care Kit	362555

Optical flats are used to check the flatness of a substrate. When a high quality optical flat is placed on top of a polished substrate and used with a monochromatic light source, light bands are formed. The number of rings or straight lines shown is an indication of how flat the part is.

It is important to regularly calibrate optical flats and Kemet offers a calibration service to lambda/20 using 4” and 12” interferometers to measure the flatness of the optical flat and provide interferograms and inspection certificates.



Kemet offers an Optical Flat reconditioning and calibration service

Pressure Relief Valve Lapping Kit

Incorrect lapping and or the use of improper equipment is a major contributor to seat leakage, which in turn leads to high emission rates and costs in loss of process. Kemet have produced a lapping kit that can be used on Tyco, Crosby, and Anderson Greenwood pressure relief valves.

Description & Contents	Code
15 Lapping / Polishing blocks, double sided (D through T2 orifice sizes). 1 x Applikator of 3 Micron Kemet Diamond Compound. 1 x Applikator of 14 Micron Kemet Diamond Compound. Bramet Silicon Carbide self adhesive papers. Grades 60, 120, 180, 320 Grit. Housed in strong plastic case (Weight approx 11.5 Kg).	352900



Kemet Portable Hand 3 Lap Kit

Suited for flat lapping and polishing by hand. It contains three lapping plates, each with its own grade of Kemet Diamond Compound. This makes it possible to process many components in three stages, from lapping through to polishing. Each lapping plate is backed with anti-slip matting and aluminum backing plate.

Description & Contents	Code
Kemet Composite Plate for lapping, Kemet Composite Plate for smoothing, Kemet Composite Plate for polishing. All 6" diameter on an aluminum backing plate. 1 x 10g Kemet Diamond Compound Applikation Stick - 25 Micron. 1 x 10g Kemet Diamond Compound Applikation Stick - 8 Micron. 1 x 10g Kemet Diamond Compound Applikation Stick - 3 Micron. 1 x Kemet OS Lubricating Fluid. 1 x Aluminum case with Operating Instructions.	352206



Kemet Carbon Seal Lapping Kit

Kemet have developed a portable kit for dry lapping of carbon mechanical seals. The kit consists of a lapped aluminum substrate and 5 superfine polishing discs. The specially designed discs allow carbon seals to be polished without the need for any added loose abrasive. This alleviates loose abrasive impregnation into the carbon face.

Description & Contents	Code
12" diameter Kemet lapping plate. Kemet portable case for ease of transport. Special polishing discs (Pack 5). Consumables to extend the life of the lapping discs	352565



Kemet Hand Lap Kits

Kemet hand lap kits allow components to be lapped and/or polished by hand in minutes rather than hours. Ideal for components manufactured from ceramics, tungsten carbide, ni-resist etc. Kemet portable hand lapping kits are also ideally suitable for low volume production, when optimum surface finish is required, and where it is not economical to purchase a lapping or polishing machine.

Type (13 11/16" dia)	Contents	Applikation Stick	Code
Type L Kit (Lapping)	1 x 13 11/16" Kemet Composite Plate. 1 x 10g Kemet Diamond Compound Applikation Stick.	25 Micron	352216
Type P Kit (Polishing)	1 x Kemet OS Lubricating Fluid. 1 x Aluminum case with Operating Instructions.	3 micron	352208
Type SP Kit (Super Polishing)		3 micron	352370



Ultrasonic Cleaning & Fluids

Lapping and polishing always leaves behind contaminants such as abrasives, fluids, and material particles on finished parts. Aqueous ultrasonic cleaning is the most effective way to remove them. The ultrasonic action reaches into complex part geometries while staying gentle enough to protect even mirror polished surfaces.

Kemet offers a full line of advanced ultrasonic cleaning equipment, built with the latest technology to deliver consistent, reliable results. Whether you need to clean multiple parts at once, meet validated cleaning requirements, or inspect individual parts with spray cleaning, we have you covered. For high volume production, we supply fully automated multi stage wash, rinse, and dry systems, available with or without part handling, and fully enclosed if needed.

Our biodegradable cleaning fluids are specially formulated concentrated detergents, available in neutral, alkaline, and acid options. They work in two ways: reducing surface tension to boost ultrasonic cavitation, and breaking down and binding the contaminants loosened during the cleaning cycle.

We always recommend testing any cleaning fluid on a sample part first to make sure it won't affect your material, and we are happy to provide free trials to help you find the best process for your application.

Free Ultrasonic Cleaning Trials



Hand Cleaning Solutions

CO - 42 Cleaning Fluid

Designed for cold use and applied by spray, brush, cloth or full immersion, CO42 is a highly efficient degreasing fluid similar in performance to 1.1.1 Trichloroethane, but without the ozone depleting properties.

Size	Container	Code
450ml	Trigger Spray	302103
5 Litres	Metal	302102
25 Litres	Metal	302101
200 Litres	Metal	302105

C70 Solvent Cleaning Fluid

A versatile and highly efficient cleaning and degreasing fluid with a fast evaporation rate for removing grease, oil and residues from all metals and ceramics. Supplied in a pressurised container, complete with detachable extended spray tube for reaching into the most difficult areas, C70 contains NO ozone depleting substances.

Size	Container	Code
500ml	Aerosol	302114
500ml	Aerosols (Pk 12)	302115

- C70 and CO-42 are **NOT** approved for use at elevated temperatures or in ultrasonic cleaning machines.

Kemet Light-Industrial Ultrasonic Cleaners for Precision Cleaning

The K-Sonic Benchtop Ultrasonic Cleaner is available in three sizes, the K-Sonic 6, 12, and 30, covering all your small component cleaning needs. Each unit features an adjustable heated tank ranging from 86°F to 176°F in 9°F increments, with an LED display that lights up once your target temperature is reached.

Cycle times are fully flexible with individual settings from 1 to 5 minutes, extendable in 5 minute increments up to 30 minutes, plus a continuous ON mode for uninterrupted operation of up to 6 hours. An audible alert notifies the operator when the cycle is complete.

Built for durability, the tank, basket, and housing are all stainless steel. The unit stands on four non-slip feet to keep water away from the electronics, and a rear drain valve is easily operated by a side mounted handle. Carry handles make the unit easy to move, and the lid doubles as a drip tray for convenient loading and unloading.

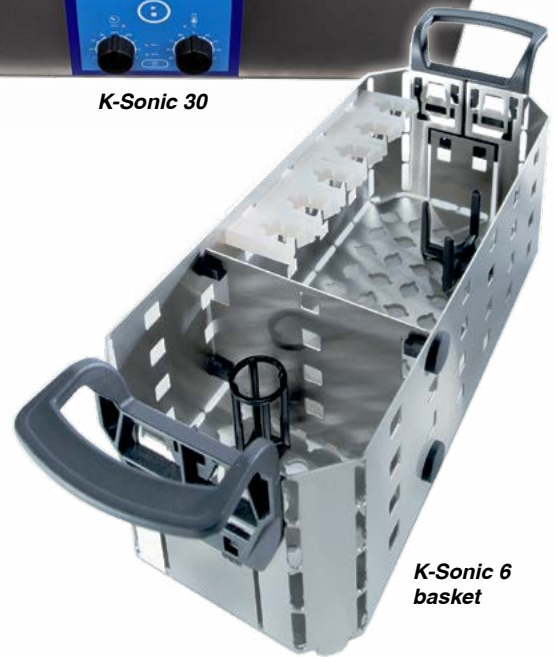
Operating at 37 kHz, the K-Sonic offers two performance modes to match your application:

Eco Mode - Reduces cavitation power for cleaning sensitive or soft materials, minimizing the risk of surface damage while also lowering noise and extending tank life.

Dynamic Mode - Maximizes sound field distribution for peak cleaning performance on tough, hard-to-remove contamination.



K-Sonic 30



K-Sonic 6 basket

Technical information	K-Sonic 6	K-Sonic 12	K-Sonic 30
Tank total volume (l)	5.9	12.9	27.5
Recommended tank operating capacity (l)	4.3	10	22
Ultrasonic power effective (W)	150	200	300
Heating power (W)	400	800	1200
Unit ext. dim. W/D/H (inches)	14 9/16 x 8 7/8 x 11	14 15/16 x 12 3/8 x 13	22 5/8 x 14 3/4 x 13
Tank int. dim. W/D/H (inches)	11 x 5 1/8 x 5 7/8	10 13/16 x 8 7/16 x 7 13/16	18 11/16 x 10 5/8 x 7 13/16
Basket int. dim. W/D/H (inches)	7 11/16 x 4 1/8 x 1 15/16	9 13/16 x 7 11/16 x 5 5/16	17 11/16 x 10 x 5 5/16
Weight (kg)	5.1	7.5	11.0
Voltage	230V-single phase-50Hz or 110V-single phase-60Hz		
Product Code	359482K	359484K	359486K

The basket's punched base and side walls work with a range of versatile pins, with perforations strategically placed to maximize cavitation access. Parts of all sizes, from large industrial components to delicate lab glassware, watch parts, and jewelry, can be individually secured. This allows more parts to be cleaned in a single load, boosting productivity and making efficient use of water, cleaning agents, energy, and time.

Dasty Industrial Degreaser

For hand cleaning, this product is extremely effective for thoroughly degreasing all mechanical parts as well as large surfaces and perfect for cleaning off lapping residue. Thanks to its ultra-concentrated formula, Dasty easily removes grease, mineral oil, scale, etc. and is biodegradable, safe for shipping and contains no ozone depleting chemicals.

- **Dasty can be used in diluted form in ultrasonic cleaning machines - contact Kemet for more information.**

Size	Code
1 Litre	362936
Box of 12	362962



Kemet Technical Centers



Lapping and Polishing Services

If your components require optimum flatness to perform to specification, if they are difficult to lap, or you have a particularly tight deadline to meet, Kemet's Sub Contract Service is the answer. We are renowned for our service, reliability and quality, and we specialize in fast turnaround times. Our machines are equipped with both standard and special lapping plates to enable us to process most types of components. We are able to lap and/or polish components up to 21".

All work is returned with a Certificate of Conformity covering the generated surface finish and flatness, relative to the customer's drawing or specification. Kemet Europe B.V. in The Netherlands and Kemet Far East in Singapore also offer lapping and polishing of components for companies who have high surface finish requirements, but don't have the necessary equipment or expertise.

Free Lapping Trials*



For more Lapping case studies
browse to kemet-international.com/us/products/flatlapping
* Depending if custom tooling is required

Research & Development Facilities

Our R&D and contract lapping center in Singapore and Shenzhen offer the latest machines and equipment to process a wide variety of materials such as; optical glasses, YAG materials, various filter glasses, Sapphire, Ceramics and much more.



Process Development

We regularly assist customers by developing new products and processes, utilizing the very latest in precision flat lapping technology. Customers' samples are evaluated, free-of-charge. Comprehensive reports are issued covering all aspects of the process, including details of abrasive, lapping plate, workholding, inspection, cleaning and the likely consumable costs involved. Here are some of the materials we are able to process:

Acrylic	Ceramic	Gold	Silicon Carbide
Alloys	Chrome Plate	Graphite	Sintered Materials
Alumina	Cobalt Chrome	Inconel (Cobalt/Nickel)	Stainless steel
Aluminum	Compact Disc	Keronite (ceramic)	Steel
Aluminum Nitride	Concrete Cement	Molybdenum	Steel (Hard)
Anodised Aluminum	Copper	Nimonic Steel	Titanium
Beryllium Copper	Diamond Tools	Nickel	Tool Steel
Bone	Epoxy Resin	Piston Rings	Toughened Steel
Boron Carbide	Ferrite	Plastic	Tungsten carbide
Brass	Fiber Optic	Polyetherimide	Tungsten Copper
Bronze	Film Guide	Quartz	Vulcanised Fiber
Carbon	Gallium Arsenide	Sapphire	Zinc Selenide
Carbon Fiber	Germanium	Silicon	Zirconate (Lead) Titanate
Cast iron	Glass	Silicon Aluminum Alloy	

If a material does not appear in the list, please contact Kemet on **+44 (0)1622 755287**. All processed samples are returned with detailed technical process reports including detailed surface finishing measurements, free of charge.

Kemet After Sales Service, Support & Servicing

Our team of in-house technical specialists, dedicated engineers and technical representatives are always on hand to offer advice and assistance. Internationally, our world-wide network of Kemet subsidiary companies and exclusive distributors have fully qualified technicians and engineers to help solve lapping, polishing and ultrasonic cleaning problems. Our laboratories use the latest lapping, polishing and ultrasonic cleaning equipment and surface measurement systems to develop improvements to customers processes or to solve specific lapping and polishing problems.

Repairs & Servicing: Kemet offer a range of options to suit your requirements. These include: A visit by your local Kemet technical representative to assess the problem; Sending the equipment to Kemet for an initial investigation for which a small fee is chargeable; A 'one-off' service visit/assessment by one of our service engineers; A full service agreement tailored to suit your requirements.

After Sales Support: Our After Sales department can work with you to determine the best course of action with your enquiry, defining maintenance requirements and strategy and the resources needed. Kemet offers the full range of accessories and spares required for your equipment. Critical components are held in stock by Kemet and/or our suppliers to provide the fastest possible response. Our commitment is to respond to all after-sales technical enquiries within 24 hours either via phone or email.



Kemet's Quality Assurance

Kemet operates a Quality Management System which complies with the requirements of ISO 9001:2015 for the following scope: The manufacture of diamond abrasive compounds in solid, paste, liquid and aerosol form for high precision lapping and polishing. The manufacture of composite lap materials produced in a variety of shapes for high-precision lapping and polishing.



Free Sample Testing & Reports



Free Technical Support & Consulting



Over 85 Years of Superior Service



Training

We offer training programs covering all aspects of lapping and polishing in our Technical Center or on your site. Courses can be tailored to your specific requirements. These courses are limited to up to 10 people so your specific needs and requirements receive our full attention. The course covers a mixture of theory and practical, but most time is spent getting “hands-on” experience. Typical subjects are:

- Theory of lapping and polishing
- Setting up and operating machines
- Flatness control and measurement
- Types of abrasive
- Lapping plate types
- Workholding methods
- Surface finish measurement
- Product cleaning and inspection

Kemet's Lapping training tablet offers the best alternative to face-to-face training where you can learn at your own pace. The tablet is also ideal if you have received training from Kemet but need a refresher or if you are troubleshooting issues related to Lapping. The training tablet also includes a flatness calculator for working out the required flatness gauge reading to reach your desired flatness and some case studies.





Falling behind? Get lapping!



Components require optimum flatness and/or finish? Are difficult to lap? A tight deadline? Kemet provide a precision lapping and polishing service with a fast turnaround.

Renowned for reliability and quality, our facilities and expertise enable us to lap and polish most components and materials to a specific surface finish and flatness, all with a CoC to a given specification and precision cleaned in our Cleaning Technical Center. Contact Kemet for a free quotation.

Kemet USA Inc



Kemet International Ltd. Subsidiary Companies

Singapore

Kemet Far East Pte Ltd

Netherlands

Kemet Europe B.V

Korea

Kemet Korea

Malaysia

Kemet Precision (M) SDN BHD

China

Kemet China Ltd

Australia

Kemet Australia Pty Ltd

Kemet Products are available through a worldwide Network of Authorised Distributors in

Europe Americas Asia Middle East Australasia Africa

Local Technical Support In Houston. Items stocked in our Texas Warehouse.

sales@kemetusainc.com www.kemetusainc.com