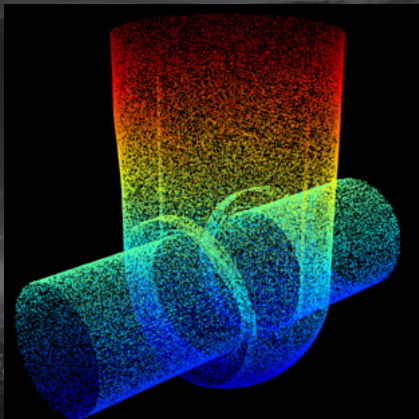
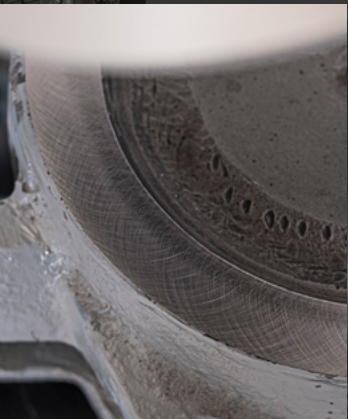


LarsLap[®]

VALVE REPAIR SOLUTIONS

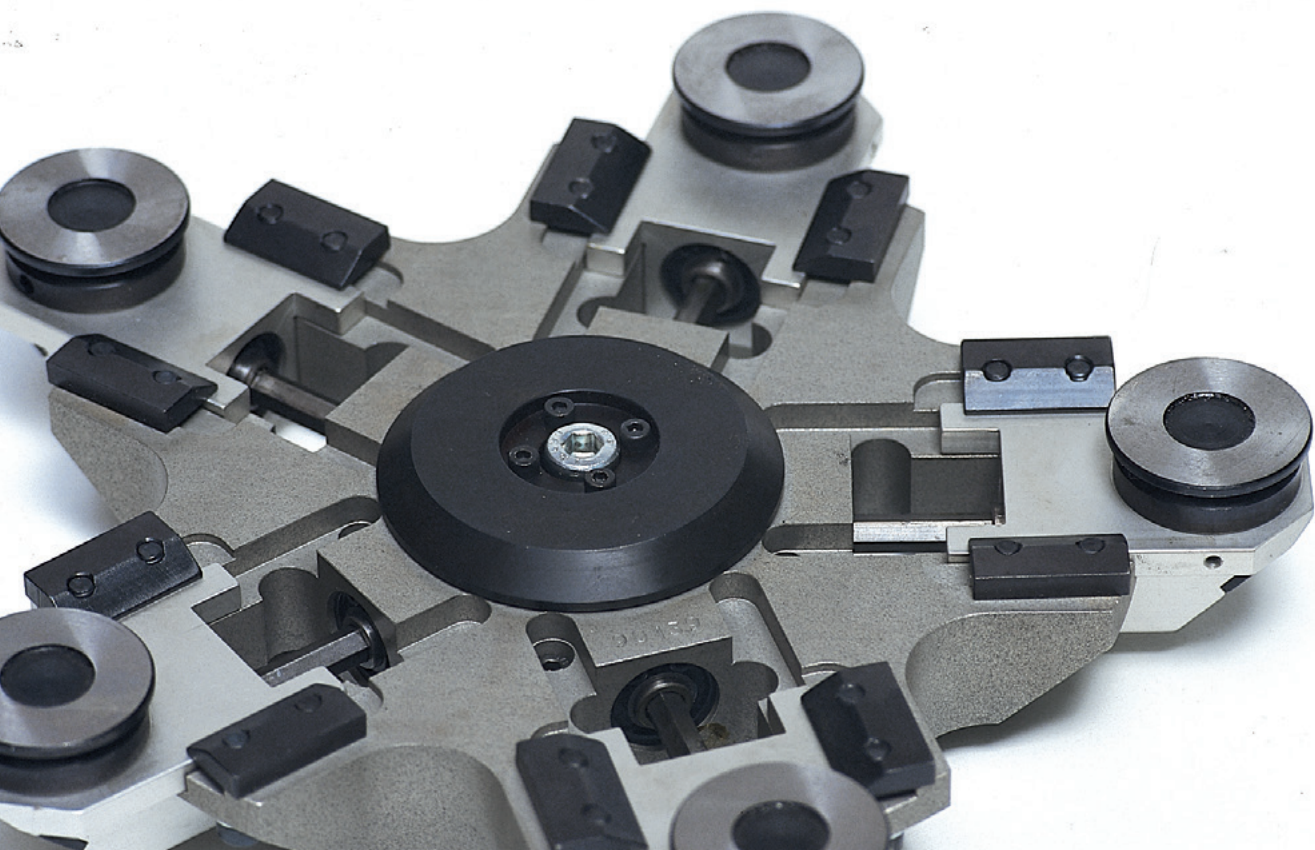
FROM 5 STAR TO 5 TIMES THE GRINDING SPEED



LARSLAP KEEPS YOU AHEAD!

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GRINDING MATERIAL**
Hand lapping kit and accessories to
maximize your equipment



Gate, Globe, Safety relief valves
or wedges? Doesn't matter!
Larslap has the solution for you.

LarsLap®

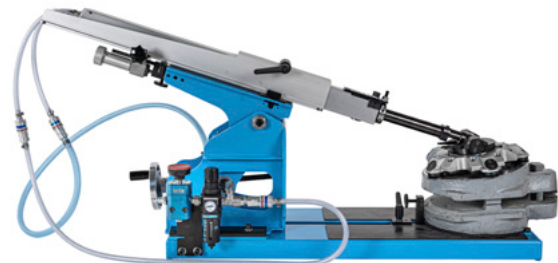


LarsLap keeps you ahead

With individual mechanically driven grinding heads, you will achieve the perfect crosshatch pattern.

Wedges

Our machines are versatile with the mounting plate for wedges.



On-site grinding

With the mounting frame you can easily and securely attach the machine directly on your valve.

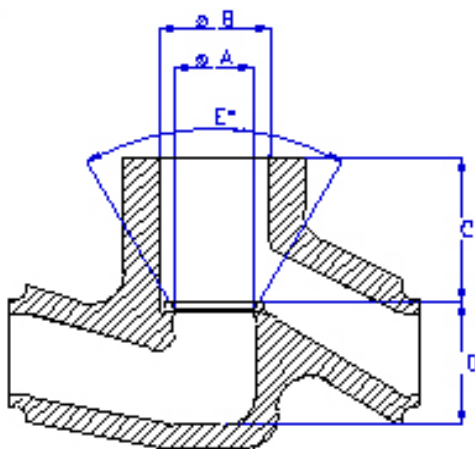
A quick and easy use hand held machine.

Ideal for globe, control and safety valves.

- Suitable for valves with flat and/or angled seats
- Flat seats $\varnothing 8 - 150 \text{ mm}$ (1/4" - 6")
- Angled seats $\varnothing 8 - 65 \text{ mm}$ (1/4" - 2 1/2")
- Guiding plates for a more precise grinding
- Available with compressed air drive unit (6-7 bar), electric battery drive unit or electric 110/220 V drive unit
- All drive units are reversible and have variable grinding speed
- Self adhesive grinding discs for quick attachment to the grinding plates and cones
- Only three sizes of abrasive grinding discs required for full seat size range
- Supplied with rough, medium and fine grinding discs
- Heavy duty carrying/storage case for the complete machine with all the necessary accessories
- Extended grinding plates available
- Self-adhesive grinding discs 40 to 1000 grit are available
- Diamond grinding discs available



MODEL K & K UNIVERSAL SPECIFICATIONS



A Min:	8 mm
A Max:	150 mm
B Min:	18 mm
B Max:	170 mm
C Min:	80 mm
C Max:	280 mm
D Min:	20 mm
E:	30 (2 x 15)
E:	40 (2 x 20)
E:	60 (2 x 30)
E:	75 (2 x 37,5)
E:	90 (2 x 45)
Carrying case:	530 x 400 x 240 mm
Total weight:	20 kg (42 lb)

New universal drive attachment for your own choice of drive unit.

Allows you to use a standard drilling machine
of your choice as the motor.

- Suitable for valves with flat and/or angled seats
- Flat seats $\varnothing 8 - 150 \text{ mm}$ ($1/4" - 6"$)
Angled seats $\varnothing 8 - 65 \text{ mm}$ ($1/4" - 2 1/2"$)
- Guiding plates for a more precise grinding
- Self adhesive grinding discs for quick attachment
to the grinding plates and cones
- Only three sizes of abrasive grinding discs
required for full seat size range
- Supplied with rough, medium and fine grinding discs
- Heavy duty carrying/storage case for the complete machine
with all the necessary accessories
- Extended grinding plates available
- Self-adhesive grinding discs 40 to 1000 grit are available
- Diamond grinding discs available
- Hexagon drive shaft for standard drill chuck 10mm



For touch up, inspection and lighter grinding.

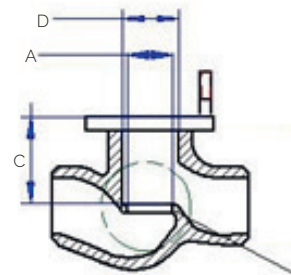
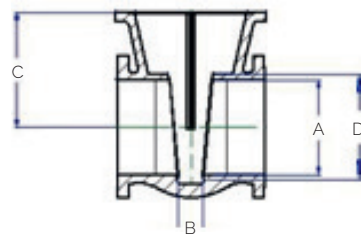
Ideal for gate, globe, check, safety, and control valves.

- Suitable for valves with flat seats \varnothing 50 – 200 mm (2" – 8")
- Individually driven grinding heads for absolute flat seats
- Available with compressed air drive unit (6 – 7 bar), electric battery drive unit or electric 110/220V drive unit
- All drive units are reversible and have variable grinding speed
- Easy to change between gate and globe valve grinding
- Only three sizes of abrasive discs required for full seat range
- Self-adhesive grinding discs for fast attachment to the grinding heads.
- Supplied with rough, medium and fine grinding discs
- Heavy duty carrying/storage case for the complete machine with all the necessary accessories
- Grinding heads for angled seats are available
- Self-adhesive grinding discs 40 to 1000 grit are available
- Diamond grinding discs available
- Adjustable guiding plates for extra stability available



MODEL FL-H SPECIFICATIONS

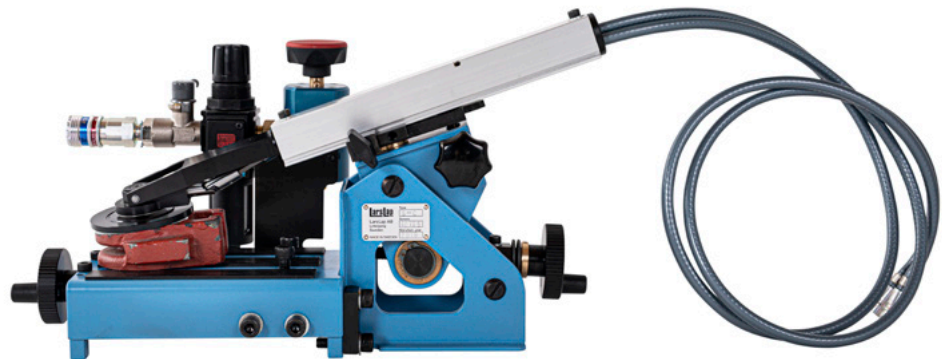
A:	50 – 200 mm (2" – 8")
B:	39 mm (1,56") min
C:	100mm (4") min 600mm (24") standard 1000 mm (60") max (option)
D:	80 – 257 mm (3,20" – 10,8")
Carrying case:	750 x 615 x 135mm (30" x 24" x 5")
Total weight:	17 kg (37,5 lb)



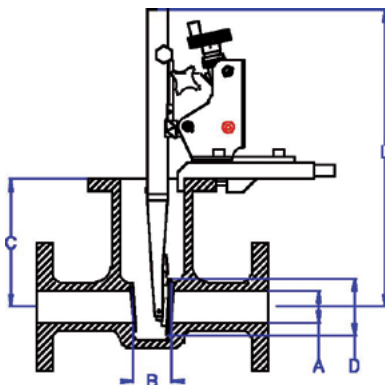
A small, portable machine with the unique LarsLap mounting system.

Ideal for gate and parallel slide valves, discs and wedges.

- Suitable for valves with flat seats 25 – 100mm (1" – 4")
- 3° angle grinding plates as standard
- Air drive unit standard 6 – 7 bar
- Electric drive unit available
- Variable grinding speed on all drive units
- Supplied with a mounting plate for grinding discs and wedges
- Only three sizes of abrasive discs required for full seat size range
- Self-adhesive grinding discs for quick attachment to the grinding heads
- Supplied with rough, medium and fine grinding discs
- Heavy duty carrying/storage case for the complete machine with all the necessary accessories
- Self-adhesive grinding discs 40 to 1000 grit available
- Diamond grinding discs available



MODEL S SPECIFICATIONS



A:	25 – 100 mm (1"-4")
B:	19 mm (0,74") min
C:	40 mm (1,6") min 350 mm (13,8") max
D:	35 – 120 mm (1,38" – 4,72")
L:	320 mm (12,6") min 440 mm (17,3") max
Carrying case:	600 x 470 x 230 mm (23,6" x 18,5" x 9")
Total weight:	15 kg (33,75 lb)

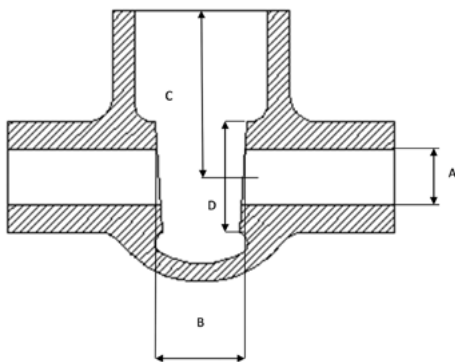
A handheld machine for gate valves and wedges with flat seats.

Very slim design without compromising the strength.

- Suitable for valves with flat seats $\varnothing 10-50\text{mm}$ (0.4"– 2")
- Air drive unit standard 6-7 bar
- Various grinding speeds for close control of the finished surface
- Only three sizes of abrasive discs required for full seat size range
- Self-adhesive grinding discs for quick attachment to the grinding heads
- Supplied with rough, medium and fine grinding discs
- Heavy duty carrying/storage case for the complete machine with all the necessary accessories
- Self-adhesive grinding discs available in 40 grit to 1000 grit
- Diamond grinding discs available



MODEL SH SPECIFICATIONS



A:	10 – 50 mm (0.4"– 2")
D:	20 – 65 mm (0.8" – 2.5")
B:	15 mm (0.5")
C:	120 mm (4.7")

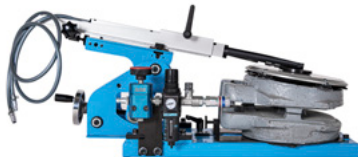
Carrying case: 570 x 390 x 170mm
(22.4" x 15.3" x 6.7")

Total weight: 9 kg (19,8 lb)

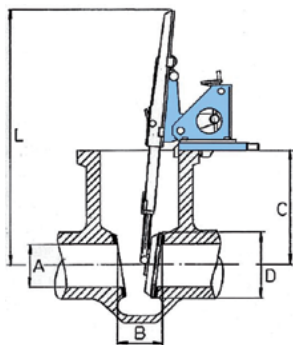
Individually driven grinding heads: means perfect results in a short amount of time.

A midrange portable machine for gate, parallel slide, globe, check, safety and control valves, discs and wedges.

- Suitable for valves with flat Seats \varnothing 50 – 300 mm (2" – 12")
- Individually driven grinding heads for perfectly flat seats
- Gives you an absolutely flat sealing surface.
- Air drive unit as standard 6 – 7 bar
- Electric drive unit available
- Variable grinding speed on all drive units
- Supplied with a mounting plate for grinding discs and wedges
- Self-adhesive grinding discs for quick attachment to the grinding heads
- Supplied with rough, medium and fine grinding discs
- Heavy duty carrying/storage case for the complete machine with all the necessary accessories
- Extended grinding heads available
- Very thin section driving heads available
- Grinding heads for angled seats available
- Self-adhesive grinding discs 40 to 1000 grit available
- Diamond grinding discs available



MODEL FL SPECIFICATIONS

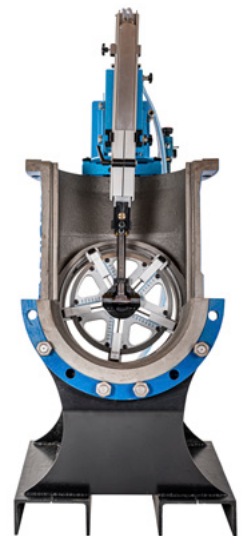
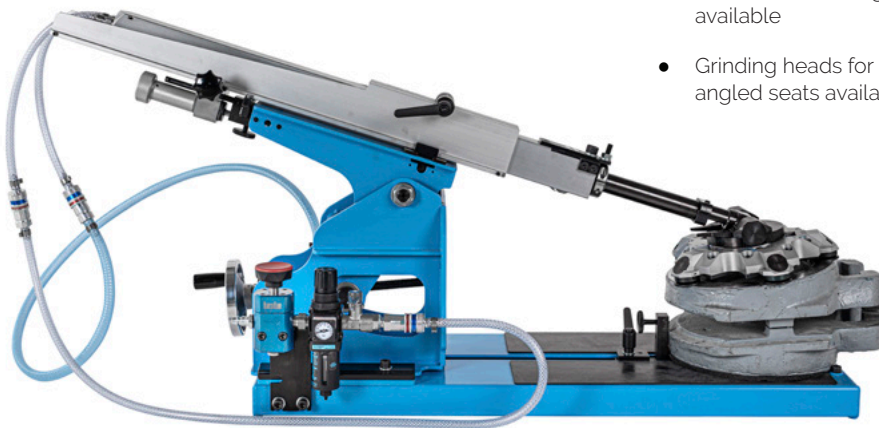


A:	50 – 300 mm (2" – 12")
B:	39 mm (1,56") min
C:	100 mm (4") min 600 mm (24") standard 1000 mm (60") max (option)
D:	80 – 357 mm (3,20" – 14,8")
L:	570 mm (22,8") min
Carrying case:	760 x 560 x 280mm (30,4" x 22,4" x 11,2")
Total weight:	39 kg (87,8 lb)

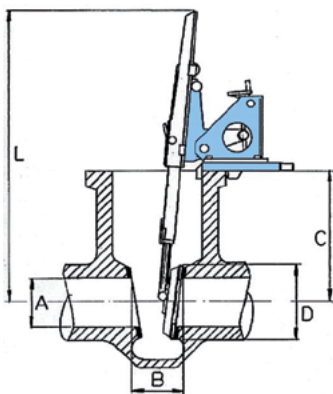
Unique flexibility to grind both gate and globe valves.

A large range, portable machine ideal for gate, parallel slide, globe, check, safety and control valves, discs and wedges.

- Suitable for valves with flat seats \varnothing 150 – 1300 mm (6" – 52")
- Individually driven grinding heads for an absolute flat sealing surface
- The driving heads have diametrically adjustable grinding heads
- Tilting driving head gives flexibility to grind both gate and globe valves with the same drive unit
- Air drive unit as standard 6 – 7 bar
- Electric drive unit available as alternative
- Variable grinding speed on all drive units
- Self-adhesive grinding discs for quick attachment to the grinding heads
- Supplied with rough, medium and fine grinding discs
- Heavy duty carrying/storage case for the complete machine with all the necessary accessories
- Self-adhesive grinding discs 40 to 1000 grit available
- Diamond grinding discs available
- Adaptor plates for wider seats available
- Thin section driving heads available
- Grinding heads for angled seats available



MODEL G SPECIFICATIONS



A:	150 – 1300 mm (6" – 52")
B:	68 mm (2,72") min
C:	100 mm (4") min 900 mm (36") standard 1500 mm (60") max (option)
D:	150 – 1371 mm (6" – 54,8")
L:	730 mm (29,2") min
Carrying case:	960 x 520 x 380 mm (15,2" x 20,8" x 38,4")
Total weight:	67 kg (148 lb)

Unique self centering, easy to use clamping system.

Ideal for globe, control and safety valves with flat or angled seats.

This machine is mounted to the valve body using a unique three segments, adjustable, self centering jaw chuck, allowing a quick and accurate set up whether in the workshop or on site. Available with electric or pneumatic drive, the Model DF/DG valve grinding machine system can be supplied as a standard kit or customized to suit your exact requirements.

- Suitable for valves with flat and angle seats \varnothing 50 – 800mm (2" – 32")
- Absolutely flat sealing surface
- Individually driven grinding heads
- Air drive unit as standard 6 – 7 bar
- Variable grinding speed on all drive units
- Fine adjustment of pressure for precise grinding of surface
- Self-adhesive grinding discs for quick attachment to the grinding heads
- Supplied with rough, medium and fine grinding discs
- Heavy duty carrying/storage case for the complete machine with all the necessary accessories
- Cone segments in different angles available
- Self-adhesive grinding discs 40 to 1000 grit are available
- Diamond grinding discs available



MODEL D SPECIFICATIONS

Model D base unit comes in two sizes:

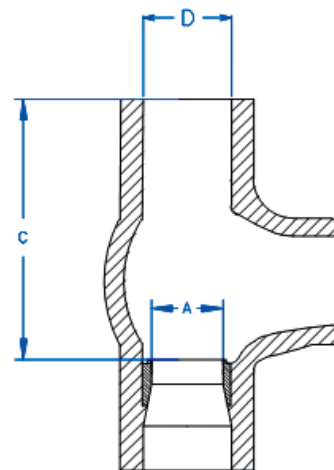
Model DF

Internal diameter	A:	40 – 300 mm
External diameter	D:	80 – 357 mm
Maximum depth	C:	500 mm

Model DG

Internal diameter	A:	140 – 861 mm
External diameter	D:	150 – 871 mm
Maximum depth	C:	1000 mm

Carrying case:	950 x 520 x 370 mm (38" x 21" x 15")
Total weight:	50 kg (110 lbs)



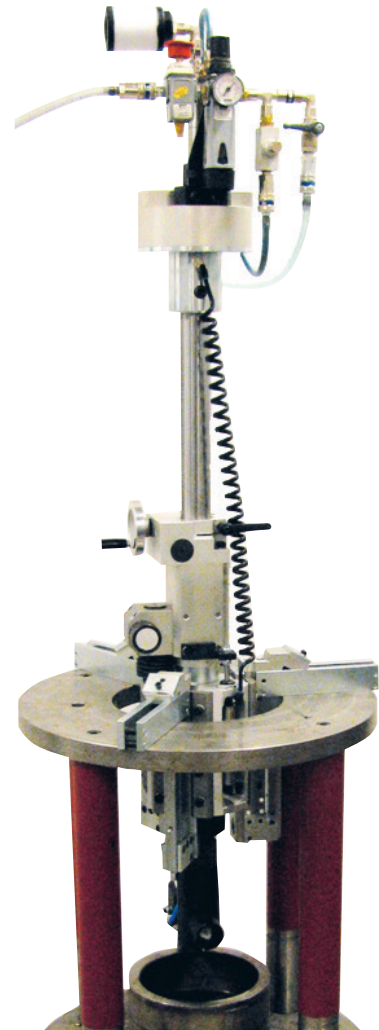
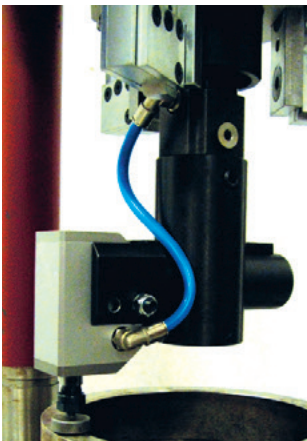
A portable, easy to mount, cutting, milling and grinding machine.

Ideal for globe, safety and control valves.

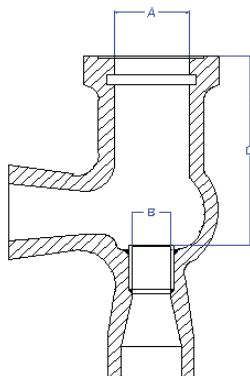
As a rule, control and reduction valves of the globe type have an integrated plug that narrowly constrains the tolerances for the seat position. In the event of damage to the seat, it is often unfeasible or extremely expensive to dismantle the valve from the pipe system in order to repair it in the workshop. If the damage is to be repaired in situ, the device to be used must be of stable construction

without being bulky or heavy. As these valves show a large range of dimensional variation, the repair device must be adaptable to the largest possible mounting and seat area.

Possible repairs include the grinding of gasket surfaces damaged by crushing or abrasion, of damage cylindrical a plane control areas, various treatments of gasket welds and cutting the seats in situ. The LarsLap model C has been designed to ensure flexibility as well as speed and ease of handling.



MODEL C SPECIFICATIONS



Model C base unit comes in three sizes

Model C1

B: \varnothing 25 – 250 mm (1" – 10")

A max: 450 mm (18")

C max: 600 mm (24")

Model C2

B: \varnothing 50 – 400 mm (2" – 16")

A max: 600 mm (24")

C max: 1000 mm (40")

Model C3

B: \varnothing 300 – 800 mm (12" – 32")

A max: 900 mm (36")

C max: 1000 mm (40")

A portable grinding cabinet for contaminated wedges.

Make it possible to lap/grind contaminated wedges in an uncontaminated area.

Takes away the need for contaminated transports of wedges to safe areas.

By creating a low pressure inside the cabinet, the contaminated dust will be vacuumed from the cabinet through a special filter system developed for radioactive dust. The filtering system as well as the inside environment is controlled by high grade DOS measuring system for absolute safety. Cabinet can't be opened if inside environment is not below safe values. Filtering system is computer monitored, and when it's time for filter change or any failure occur the machine will not start.

All components, including the vacuum creating system are special made for radioactive purposes and developed in close relation with nuclear power industry according to their requirements.



- **Suitable for wedges with flat seats**
Ø 100 – 400mm (Ø 4" – 15")
- Individually driven grinding heads for an absolute flat surface
- The grinding heads and driving heads can be changed and combined to suit different seat sizes
- The driving heads have diametrically adjustable grinding heads
- Tilting driving heads take away angle errors and make setting fast and easy for operator
- Tilt table and grinding pressure fully adjustable from outside and adjustable during grinding process
- Variable grinding speed adjustable during grinding process
- Electric driven 220V/1 phase
- Adjustable pivot stands for stabile operation
- Self-adhesive grinding discs for quick attachment to the grinding heads
- Supplied with rough, medium and fine grinding discs
- Internal storage for tools and equipment
- Supplied with all tools needed for operating of the machine
- Cabinet is made in stainless steel
- Self-adhesive grinding discs 40 to 1000 grit available
- Diamond grinding discs available
- Adaptor plates for wider seats available

A vertical grinding and lapping machine.

Especially for reworking sealing surfaces at valve and or other work pieces.

The complete model STM of the LarsLap equipment is provided for use on globe, gate, safety and control valves and gate valve wedges. One does not need an additional machine or accessory to work on each individual valve type.

However, any standard machine can be customized to meet the customer's specific requirements.

For example, one may start with a modified machine for globe valves and expand that model as the budget permits. The machine is operated by a user friendly computerized touch screen with all necessary information like grinding speed or direction can be monitored.

- **Suitable for Gate valves, Globe valves, Safety-valves, Swing check, discs and wedges. (Contact LarsLap for size information)**
- 220V or 110V 1 phase
- Tilting driving heads gives flexibility and minimizes operator errors
- Tilt table available
- Rotation table available
- Variable grinding speed on drive units
- Self-adhesive grinding discs for quick attachment to the grinding heads/plates
- Supplied with rough, medium and fine grinding discs
- Workshop bench stand with internal tool storage available
- Machine will be supplied with all the necessary tools for operating the machine
- Self-adhesive grinding discs 40 to 1000 grit available
- Diamond grinding discs available



Stationary when needed.

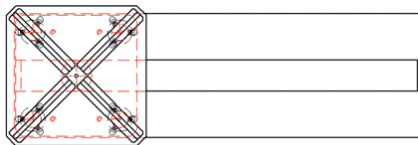
Faster and easier than working with an ordinary stationary machine.

The STC table makes it possible to work in the shop with your LarsLap equipment just as you would do with a stationary machine. In most cases actually faster and easier than working with an ordinary stationary machine.

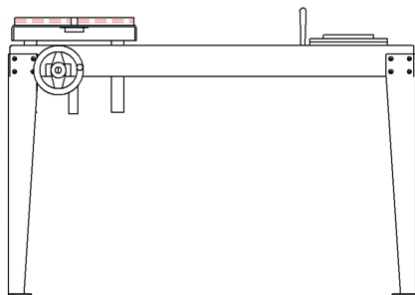
- Quick and easy set up
- Works with S, FL and G
- Gate and globe valve grinding
- Lifting table available depending on size range
- Creates a good working environment



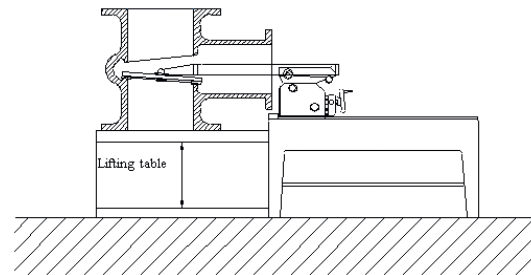
MODEL STC DESCRIPTION



STC with external lifting table suitable for large range Model G



STC with lifting table suitable for S, FL and G



Grind valves and cuts costs.

LarsLap Lapblock makes grinding valves and gasket rings easier and more affordable. A unique diamond composite material provides a more reliable result and superior durability. Since neither grinding paste nor chemicals are needed, Lapblock also helps you reduce the environmental impact of your work.

Easier grinding

The grinding disc of the LarsLap Lapblock is made from a stable aluminium core coated with a diamond composite surface. This keeps weight low while providing an abrasive surface that lasts significantly longer than conventional discs.

When grinding, all you need to add is ordinary water. No grinding paste is needed, which eliminates the risk of old abrasive particles being left on the disc and interfering with grinding. The grinding disc of the LarsLap Lapblock is available in different grades of coarseness, from 1 µm to 40 µm. You can easily change the disc yourself. After grinding, the unit can be cleaned quickly and easily. The grinding disc is easily reconditioned using the cleaning block provided and rinsed with water. The lattice pattern of the disc is specially designed to provide optimum grinding and water drainage.

Lower costs

LarsLap helps you cut costs in several ways. Thanks to the unique diamond composite material, the grinding disc lasts significantly longer than normal discs. The disc can also be smoothed off when necessary, so you don't have to buy a new disc when you decide it is worn out. Instead, you simply send it in for maintenance and receive it back in as-new condition.

Because the abrasive material already contains diamond, there is no need for you to purchase or keep a stock of expensive diamond fragments in various grades of coarseness.



Practical carry case

LarsLap Lapblock is supplied complete with a practical carry case made from tough plastic, containing a water bottle, cleaning block and stainless steel container to collect the water that runs off during grinding. When cleaning the unit, you can easily remove this container from the case to empty it and rinse it out with water. LarsLap Lapblock is suitable for stationary use in the workshop and can readily be taken along for on-site work.

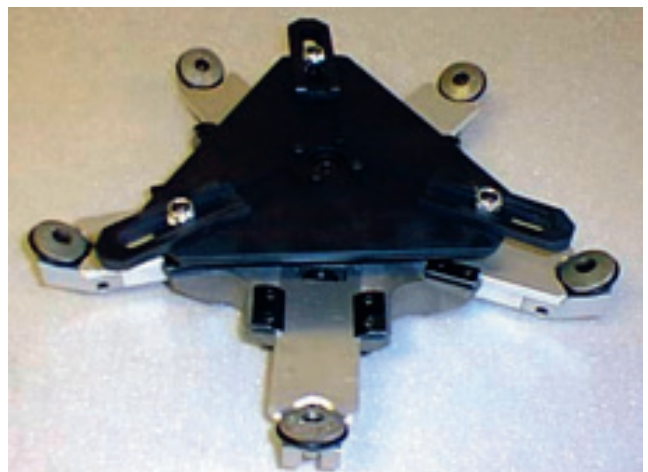
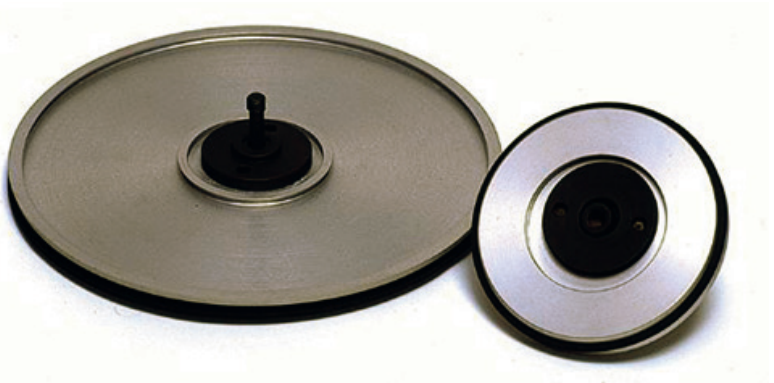
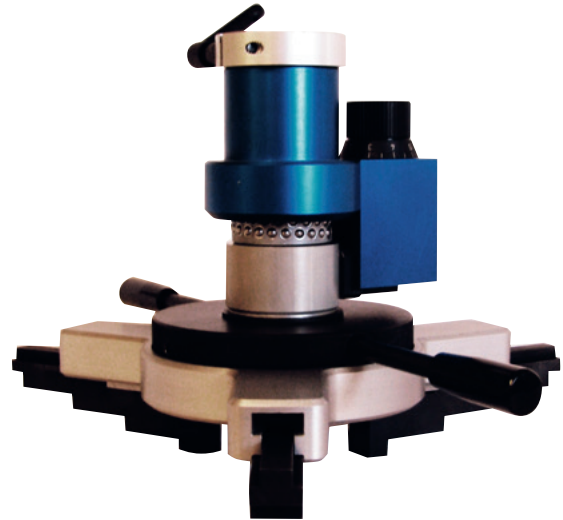
A greener alternative

Using LarsLap Lapblock not only simplifies grinding work and cuts costs. You are also helping the environment, since no chemicals are needed for grinding or cleaning. The absence of chemicals also means you eliminate the risk of skin irritation as a result of grinding work.

Maximize the use of your equipment

A wide selection of accessories, all to fit your needs.

Since no day looks like the other, We at LarsLap have developed a range of accessories that will help you meet the challenges of valve grinding. Everything from dust stoppers to OD kits specially designed for that specific job. We are always standing by to give you what you need. All the accessories are always produced to meet the high standards of quality and ingenuity that you require.



We take grinding seriously.

Get the right performance out of your machine.

To be able to get the most out of a formula F1 car everything has to be perfect, from the aerodynamics to the material the buttons are made of. One of the most crucial things on the car is the tires. If you have the wrong tires, it doesn't matter how good the rest of the car is, it will not perform. Same thing with a valve grinder, the efficiency of the machine relies on the grinding discs used. The wrong discs for the wrong purpose will either slow you down drastically or in

worst case, damage the valve.

LarsLaps Ceramix grinding discs are specially designed for valve grinding. They have been proven in our facilities and out on the field.

To make you sure that you get the best out of your machine we have a wide selection of grinding discs all the way from 40 grit down to 3 microns. All selected to fit your needs.





LarsLap supply Aluminum oxide and diamond paste in many grit sizes.



LarsLap supply a full range of grinding accessories to suit all models. Cast iron and diamond faced discs including special angled discs.



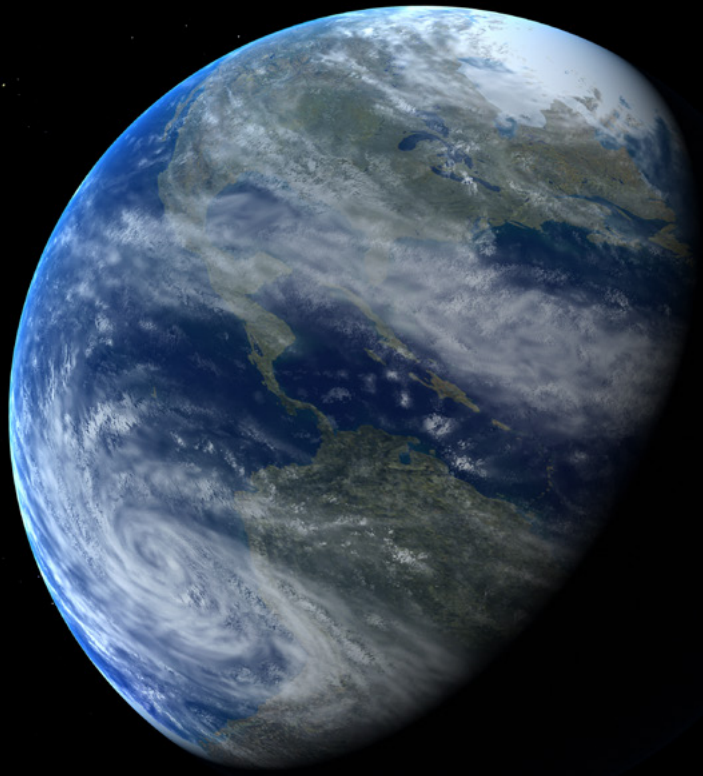
High speed grinding tools.



LarsLap paste 80 - 1200 grit.



All LarsLap grinding paper has been thoroughly tested for quality and performance both in the field and in the workshop. LarsLaps own brand together with 3M, provides almost any grit size or material.



Success in the world market

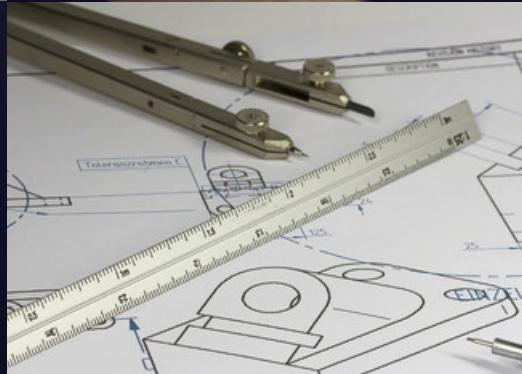
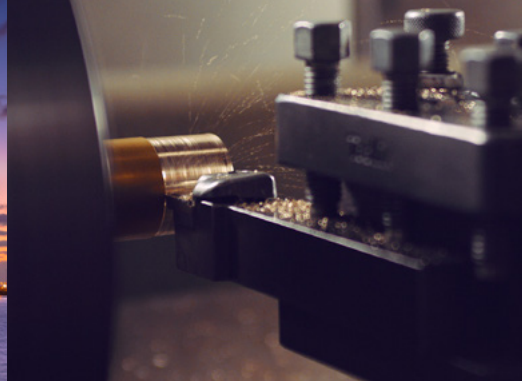
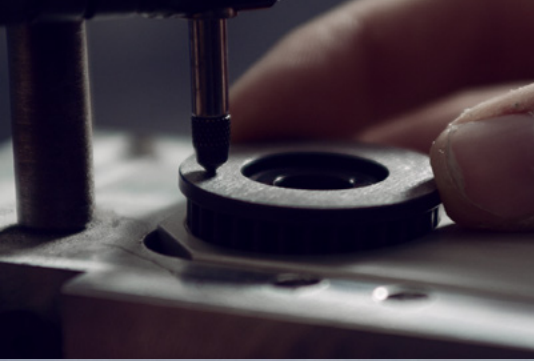
Following up its achievements in the field of valve reconditioning and servicing in the Swedish nuclear power and process industries, LarsLap has successfully exported its machines to numerous countries. Satisfied customers from different parts of the world have commented favourably on the quality, performance and cost benefits of LarsLap grinders. In their words, *'LarsLap supply the best and most comprehensive range of portable valve grinders on the market'*.

The proof of this is that customers keep coming back to order more machines and accessories. In response to numerous requests from customers the world over, LarsLap has contributed to applications development by adapting grinders for use with special-purpose valves.

Product development

Many years experience in the nuclear power and process industries lie behind the development of the unique valve grinding systems for which we are known today. Increasingly rigorous environmental standards and a changing economic climate have set a premium on speed of operation, reliability and quality maintenance equipment. But success cuts both ways. Complacency is a luxury we cannot afford in today's rapidly changing world. So with us, product development remains a constant, central concern. At our workshops, new and better machines, grinding products, techniques and accessories are under continuous development. Our customers and contacts in industry are a constant source of valuable feedback and information, an asset which we put to good use in an effort to make an outstanding product line even better.

Contact us for information on our product and service line – and join us at the cutting edge.





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