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Scraper Types Electronic Scraper



Type BS 40

BIAX Universal Scraper, heavy-duty model particularly suitable for:

- extreme heavy scraping work in large machine construction
- steel scraping work on guide-beds and machine columns, in case of turbines, transmissions and in pump construction.

Order number:

230 V – 200 040 100
115 V – 200 040 110

Type BL 40

BIAX Universal Scraper, light model particularly suitable for:

- heavy scraping
- standard scraping
- fine scraping
- precision scraping and oil-tight scraping.

Also suitable for dovetail guides and prisms in conjunction with special blades.

Order number:

230 V – 200 040 130
115 V – 200 040 140

Accessories

at the BS 40 incl.
grab handle, ratchet screw

at the BL40
not incl.

Order number:

ratchet screw 201 324 905
grab handle 203 004 748



BS 40



BL 40



ratchet screw



grab handle

| Designation | BS 40 | BS 40 | BL 40 | BL 40 |
|--|-------------------|----------------|----------------|----------------|
| AC Voltage: | 230 Volt | 115 Volt | 230 Volt | 115 Volt |
| Order number: | 200 040 100 | 200 040 110 | 200 040 130 | 200 040 140 |
| Electronically variable strokes up to: | min ⁻¹ | 2.400 | 2.400 | 2.400 |
| Infinitely variable stroke length: | mm | 0-20 | 0-20 | 0-20 |
| Power consumption: | Watt | 320 | 320 | 320 |
| Noise level: | dB(A) | 82 | 82 | 82 |
| Weight: | kg | 4,7 | 4,7 | 3,7 |
| Dimension: | L x W x H mm | 440 x 80 x 107 | 440 x 80 x 107 | 440 x 80 x 107 |

Scraper Types

Electronic Scraper



BL 10



HM 10



BL 10



HM 10

Type BL 10

BIAX Universal Scraper, light model
particularly suitable for:

- plastic scraping
- standard scraping
- fine scraping
- precision scraping and oil-tight scraping.

Also suitable for dovetail guides and prisms in conjunction with special blades.

Order number:

230 V – 200 040 300

115 V – 200 040 310

Type HM 10

BIAX Half-moon Pattern Scraper
particularly suitable for:

- scraping oil-pockets
- for optically pleasing surfaces.

Order number:

230 V – 200 040 330

115 V – 200 040 340

| Designation | BL 10 | BL 10 | HM 10 | HM 10 |
|--|----------------------------|---------------|---------------|---------------|
| AC Voltage: | 230 Volt | 115 Volt | 230 Volt | 115 Volt |
| Order number: | 200 040 300 | 200 040 310 | 200 040 330 | 200 040 340 |
| Electronically variable strokes up to: | min ⁻¹ 2.400 | 2.400 | 2.400 | 2.400 |
| Infinitely variable stroke length: | mm 0-10 | 0-10 | 0-20 | 0-20 |
| Power consumption: | Watt 320 | 320 | 320 | 320 |
| Noise level: | dB(A) 82 | 82 | 82 | 82 |
| Weight: | kg 2,7 | 2,7 | 2,7 | 2,7 |
| Dimensions: | L x W x H mm 385 x 67 x 92 | 385 x 67 x 92 | 385 x 67 x 92 | 385 x 67 x 92 |

Scraper Types

Pneumatic Scraper

Type DL 40

**BIAX Universal Scraper
light model
particularly suitable for:**

- heavy scraping
- standard scraping
- fine scraping and oil-tight scraping.

Also suitable for dovetail guides and prisms in conjunction with special blades.

Order number

200 040 060

connection via oil supply unit with pressure reducing valve, filter and oiler.



DL 40

| | | Accessories (not incl.) | | |
|------------------------------------|-----------------------------|-------------------------|-------------------------------|------------------------------------|
| Designation | DL 40 | Oil Supply Unit | Special oil | Hose Unit |
| Order number: | 200 040 060 | 001 367 045 | BIAX 0,5 Liter 001 365 602 | with sound absorber 001 366 530 |
| number of strokes at 6 bar: | min ⁻¹ 1.400 | | | |
| Infinitely variable stroke length: | mm 0-20 | | | |
| Power: | Watt 350 | | | |
| Noise level: | dB(A) 75 | | | |
| Connecting thread: | R 1/4" | | | |
| Weight: | kg 3,6 | | | |
| Dimensions: | L x W x H mm 440 x 80 x 107 | | | |
| Air consumption at strain: | l/min 600 | | | |
| Hose amplitude: | mm 10 | | | |

Application

Scraping

Scraping interrupted surfaces

When working on motor blocks, pumps, turbine and transmission housings etc., the surfaces are first of all cleaned, deburred and then applied the engineers blue. In case of boreholes and threaded holes, the material appears at the edge of the hole. This burr must always be removed before initial scraping.

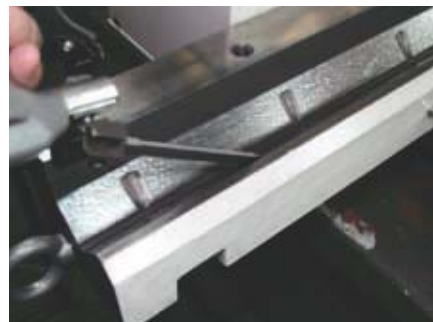
In case of holes or other interruptions, it is necessary to "scrape round" these and under no circumstance to "scrape over" them. In case of interruptions by oil grooves, always make sure that a blade with a large cutter curvature is used. This prevents the blade from hooking into the oil groove.

In order to facilitate scraping, if possible the oil groove should be milled after scraping.

Scraping dovetails and prisms

Because of their poor accessibility by hand, it is difficult to scrape the dovetail guides, which frequently occur in machine tool production. For this reason, an angled prolonged clamp holder was developed for the scraper BL 40. The blade has a thin carbide tip so that the dovetail can be scraped up to the acute angle.

If the dovetail or prisms guide is easily accessible, a tool displaced by 90° is recommended. This model does not hinder the skilled worker and permits good visibility of the workpiece. Dovetail guide may not be too steeply scraped. Experience has shown that a scraping direction at 45° to the guide is the most advantageous.



The scraping tool — the influence of various radii and angles on the scraping results

The treatment of each workpiece with the scraper begins with prescraping or roughing. In this operations, it is not yet necessary to ensure small bearing points. Therefore, a blade with a large radius is used in order to enable rational working.

Blades with a large radius also have a large effective surface with which a wide scrape is obtained. Only after several scraping over and touching up operations do more and more bearing points appear. The blade radius must now be smaller in order to effectively treat the individual bearing points.

Operation of the scraper

The scraper guarantees precision workmanship.
Please note the following instructions:

Hold the scraper head with your left hand, put four fingers below the leather strap and the thumb over it. The right hand holds the motor and helps to guide the scraper. A left-hand should hold the machine in reverse. When working in a horizontal position, press the scraper against your hip. Thereby the power of recoil (force of reaction) will be absorbed.

Electronic adjustment of the stroke rate/min:

(only for electronic models)

The adjustment wheel of the electronic unit is in the rear.

Stroke adjustment

The stroke adjustment is identical for the types BS 40, BL 40, BL 10 and DL 40.

Slide the scraper shoe to the front reversal point. In this position, the adjustment screw appears on the underside of the housing.

Use the enclosed Allen wrench SW 6 for stroke adjustment. Turning to right increases the stroke, turning to left reduces it.

The holes in the bell help to position the adjustment screw correctly.

Operation of the scraper

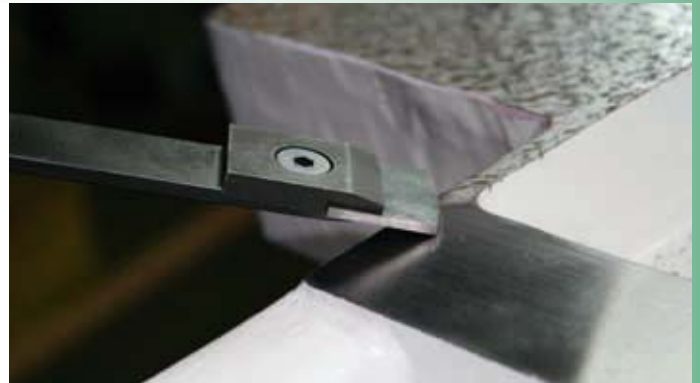


Operation Scraping

1st Step: Prescraping

The part to be trimmed has already been prepared (precision milled, dressed or ground). The first scraping step creates the base.

For machine scraping, a blade or scraping insert (25 mm or 30 mm) with a large cutter radius (depending on the size of the workpiece) and a stroke of 12 mm to 20 mm are chosen. The cutter of the scraping tool is placed onto the workpiece at an angle of approx. 45°. The scraper is moved horizontally across the workpiece at a speed that allows the stroke to just overlap. After scraping the complete surface, this procedure is repeated once again and at 90° to the first scrape.



2nd Step: Plane scraping

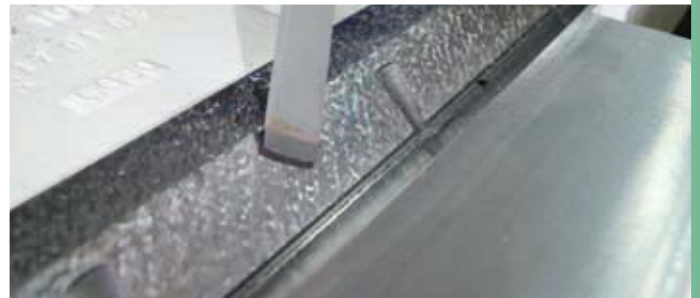
In this case, scraping is performed parallel to the opposing corners. This procedure requires a somewhat shorter stroke (6 mm to 12 mm) and a narrower blade (15 mm, 20 mm or 25 mm).

After the surface has been prescraped, the point projecting from the plane or bearing accuracy are scraped until a satisfactory result is obtained.



3rd Step: Finish scraping

The quality of the surface to be scraped increases with the number of bearing points. Initially, bearing points are large and exist only in a small number. If the stroke is reduced (2 mm to 6 mm) and if 15 mm or 20 mm scraping tools are used, the large bearing points are scraped off provided that no pressure is applied when guiding the scraper over the surface (it is not necessary to raise the scraper). A rhythm can be quickly developed and the result is that several and smaller bearing points are distributed over the entire surface.



Precision scraping, resp. oil-tight scraping

The maximum number of bearing points (mostly 24-40 per square inch) results in the distribution of fine and extremely fine recesses of 2-3 μ . They cause good adhesion of the oil film and thus considerably reduce the condition of mixed friction during start-up. The depth of the oil pocket is determined by the demands, which will later be placed on the scraped surface. Large loads require relatively deep oil pockets (approx. 6-8 μ) in order to guarantee the perfect formation of an oil film even after a long period of operation. An oil pocket depth of approx 2-4 μ is expedient for low loads. The deep oil pockets are obtained by using a spring-tempered scraper blade with a small radius.

However, flatter recesses are obtained with a large blade radius. The choice of the scraper contact angle is also important. A large contact angle causes deep oil pockets, and a small contact angle causes flat oil pockets. Depending on the appearance of the points, in precision and oil-tight scraping these are handled more or less intensively, depending on their bearing capacity. In order to obtain an interspersed appearance, the surface is scraped in four directions each displaced by 90° and thus pattern scraping is unnecessary. Surfaces scraped this way look like arbitrarily composed chessboards. In any case, the same amount of bearing points will be obtained as if the surface were handscraped. The correct stroke length (refer to the diagram p. 8) as well as the use of a spring-tempered scraper blade are preconditions for this.



All about scraping

Scrape over all visible marks resulting from grinding, planing, milling, etc. at angles of 45°.

Large stroke with BIAx clamp holder KL 130 and BIAx scraping insert 25x30 mm.

Clean lapped blades increase the smoothness of the scraped surface, simply scraping and prevent marks.

Scrape over the surface-over operation, alter the scraping direction so that the scraping tool does not hook into the recesses of the preceding scraping-over operation.

Uniform light at the workplace without shadows is important.

After scraping and before spotting, remove all chips.

In case of gray cast iron, all hard plastics and non-ferrous materials, use carbide-tipped scraping tools.

Only scrape over hard steel with carbide-tipped scraper blades or inserts with a negative cutting angle.

Better removal of chips is obtained by means of a lubricant.

Lightly dye the spotting tools with the spotting roller. The bearing points cannot be seen in their true size if the engineers' blue is too thick or uneven.

Remove scraping residues with a fine grain sharpening stone.

When spotting, move the spotting insert with uniform movement and without pressure over the surface. Too much or uneven pressure results in incorrect scraping.

Do not move the spotting insert too far over the corners; excessive weight and pressure ruin the scraping pattern.

Repeat the scraping procedure until a maximum of 40% bearing area is obtained in case of sliding surfaces, and up to 90% bearing area is obtained in case of flanged surface.

The scraping depths can be determined by means of a peak-to-valley height measuring instrument.

Sharpen in good time the blade of the carbide-tipped scraper tool with the BIAx scraper blade grinding and lapping machine.

Only sharp scraping tools remove small particles and lead to good results with little effort.

Frequently clean the spotting insert with cleaning fluid.

The scraping time consists not only of scraping but also of: Roughing and spotting the workpiece. Checking the scraped surface for bearing points. Measuring parallelism and accurate positioning. Sharpening the scraping tools.

Large surface are easier to scrape than small, interrupted surface. Dovetails, prisms guides, recesses and vertical surface are difficult to scrape.

Machine scraping or manual scraping?

The advantages of machine scraping are evident in practice. The technical development has surpassed the methods of the past and contributed towards the elimination of prejudices. Companies and employees have profited from this.

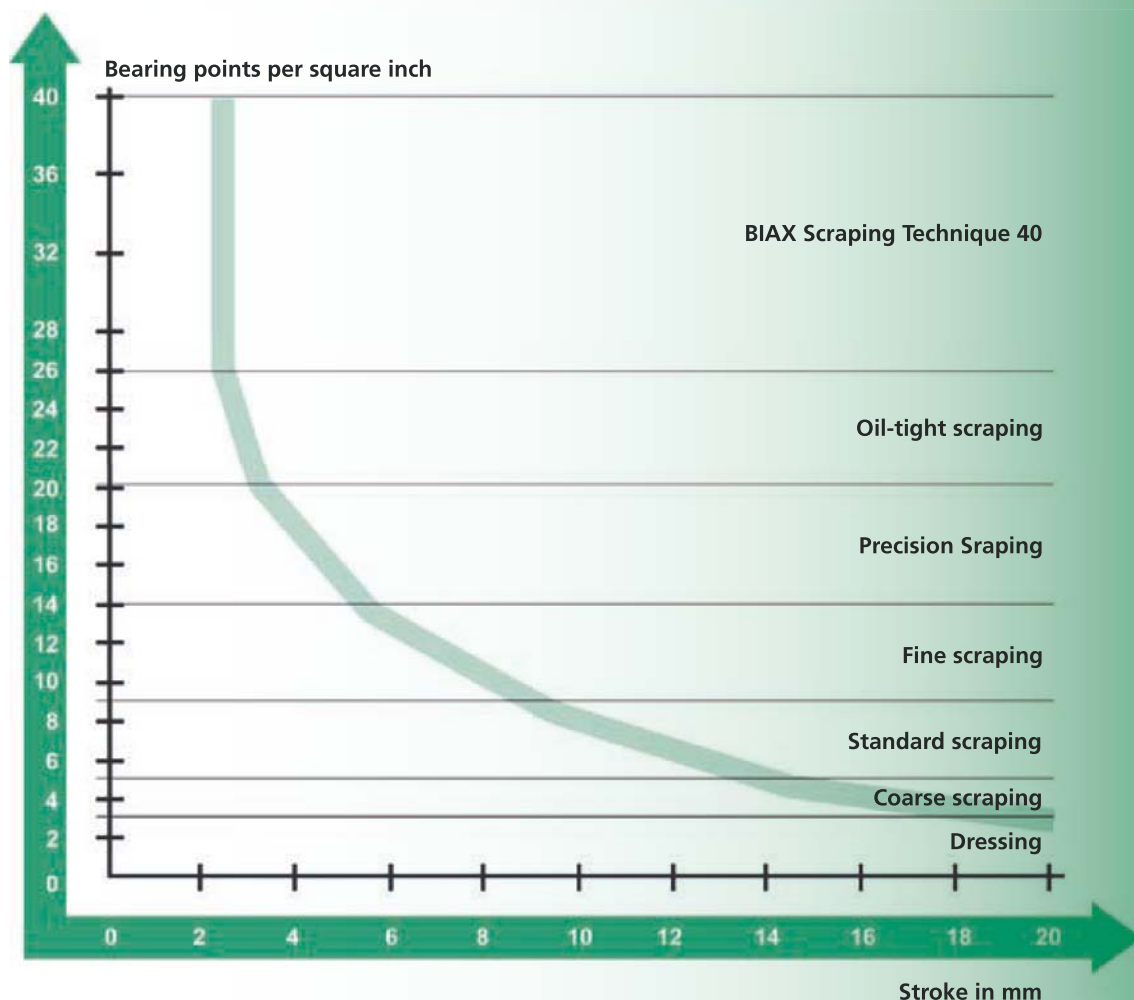
The hard competition on the market forces companies to rationalize and forces employees to do their best. This results in improved products and better market chances.

Modern machines can solve production problems. But in this own way, the skilled worker, the trained scraper, is affected. Therefore, ways and means have to be found to eliminate difficult physical exertion, to protect workers' health and to increase efficiency.

The worker can now connect his own scraping rhythm with that of the BIAx scraper and can shape maximum surface qualities without effort.

The BIAx scraper is the technically fully developed, electronically variable, modern hand-held tool for easier, quicker and better scraping.

Recommended
value
for
bearing points



Recommended
value
for
applications

Recommended value for applications

| | | | | | | | |
|--------------------------------------|---------------------|----------|----------|----------|----------|--------|--------|
| Scraping inserts (LxW) | | 30/40 ST | 25/30 ST | 25/35 ST | 25/20 ST | - | - |
| Scraping blades (W) | | - | 30 | 25 | 20 | - | 15 |
| Spring-mounted scraping blades (WxL) | | - | 30/150 | 25/150 | 20/150 | 20/150 | 15/150 |
| Cast iron | Grey cast | | x | x | x | | x |
| | Malleable cast iron | | x | x | x | | x |
| | Cast steel | x | x | x | x | x | x |
| | Heavy metal casting | | x | x | x | | x |
| Heavy metal | Steel | x | x | x | x | x | x |
| | Brass | | x | x | x | | x |
| | Cooper | | x | x | x | | x |
| | Bronze | | x | x | x | | x |
| Plastics | PE | | x | x | x | | x |
| | Polyamide | | x | x | x | | x |
| | PTFE | | x | x | x | | x |
| | PVC | | x | x | x | | x |
| | Laminated plastic | | x | x | x | | x |
| | Hard materials | | x | x | x | | x |

In special cases. We will advise on the selection of the correct scraper blade.

Scraping vertical surfaces

Thanks to its unlimited mobility, the new BIAx precision scraper is best suited to scraping vertical surfaces. As the manual scraping of vertical surfaces is linked with physical effort, the effort-saving operation of this device is demonstrated particularly well in this example. It is obvious that time and expense is saved due to lesser physical stressing of the worker. For vertical scraping, the BIAx scraper is used together with a pulley, which, thanks to its method of operation, makes the scraper almost weightless at any height, if properly adjusted. It is possible to perform crosswise scraping in both upwards and downwards direction. The pulley is suspended at an appropriate height from an available beam of the hall construction, on a derrick or even better on a column with a swivelling jib. This should be suspended in such a way that, when hanging freely, the machine just comes into contact with the surface to be scraped. Thanks to its unlimited mobility, the new BIAx precision scraper is best suited to scraping vertical surfaces. As the manual scraping of vertical surfaces is linked with physical effort, the effort-saving operation of this device is demonstrated particularly well in this example. It is obvious that time and expense is saved due to lesser physical stressing of the worker. For vertical scraping, the BIAx scraper is used together with a pulley, which, thanks to its method of operation, makes the scraper almost weightless at any height, if properly adjusted. It is possible to perform crosswise scraping in both upwards and downwards direction. The pulley is suspended at an appropriate height from an available beam of the hall construction, on a derrick or even better on a column with a swivelling jib. This should be suspended in such a way that, when hanging freely, the machine just comes into contact with the surface to be scraped.

Mounting machine tools

When repairing machine tools, it is no longer necessary to dismantle these in order to repair clogged up sliding surfaces on a planing machine. As a rule, compacted material due to clogged up sliding surfaces is extremely hard. Such areas are cleared with the BIAx electronic scraper BS40.

For this purpose, a carbide-tipped scraper blade or carbide-tipped insert is used in conjunction with the clamp-holder KL130; the blade width and blade radius depend on the size of the workpiece. The cutting angle is a negative angle of 0-5° in order to handle a large amount of material. The clogged up hard surface is roughened with a large stroke. Subsequently, the surface is scraped to the desired degree of quality with the BIAx electronic scraper BL40 in conjunction with a spring-tempered scraper blade.

Scraping of Half moon patterns

Grinded surfaces can be prepared with half moon patterns with the BIAx Half Moon scraper. Half moon patterns are convex areas which keep the oil and due to this they offer a permanent Lubrication of the sliding surface.

The permanent lubrication of the sliding surface will be guaranteed due to the in and out flow of the lubricant. Due to this can the Half moon patterns be specially recommended for this Matter. Additional are half moon pattern prepared surfaces very impressive.

Use: The half moon scraper will be moved in a line over work piece surface. Constant patterns are A result of constant feed. Depending on the wished depth of the convex areas the tilt angle has to vary.

- Big tilt angel creates deeper areas
- Small tilt angel creates lower areas
- Big blade radius creates big half moon patterns
- Small blade radius creates small half moon patterns

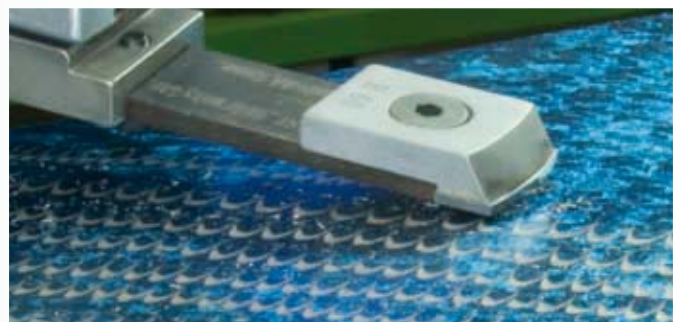
Operation scraping

Influence of different blade radius and tilt angles on the scraping result

Scraping of machine casting, grey casting, brass, bronze and hard material will vary as follows:

Are you looking for Big chip removal or small chip removal? Last case can be done with an, standard BIAx blade with an negative cutting angle of 3,5°, which is standard delivered. As negative the cutting angle on the blade is, as smoother and as less grooves are in the surfaces.

To prepare machine bodies (grey cast iron) which are extremely contorted, the cutting angle should be grinded with an negative Cutting angle of 0 – 1°. This offers a higher removal of material.”



Applications

Scraping

How to scrap gray cast iron?

This material is predominantly used in the production of machine tools. In this case, only carbide-tipped scraper blades and carbide inserts are suitable. If a large amount of material is to be removed, then scrape with a long stroke and a wide blade with a negative cutting angle of $0 - 1^\circ$. After obtaining the desired base, you can begin with finishing.

How to scrap wax castin?

It is easily to scrape this type of cast. It may be necessary to alter the cutting angle of the insert in order to obtain the desired results.

How to scrap steel with a high resistance of more than 700 N/mm^2 ?

The BIAx scraper with a steel scraper blade or insert is predominantly used for steel scraping. The scraping method is the same as for cast steel. The use of lubricant such as, for example, emulsion or petroleum (agents containing no grease) improves surface quality. In case of the steel scraper insert, the cutting angle should generally be 32° and, in case of a resistance of more than 700 kp/mm^2 , the insert radius should be 60 mm. Steel with an extremely high resistance can also be scraped with carbide tipped-blades.

How to scrap cast steel?

It is impossible to say in advance whether a negative or positive angle should be used in this case. A solution to this question can only be found by trying out various cutting angles.

How to scrap non-ferrous metals?

These materials are mainly used between sliding surfaces, which operate under enormous pressures. They are simply scraped with a negative ground carbide-tipped scraper blade or insert. Best suited is the BIAx precision electronic scraper BL40 or the BIAx compressed air scraper DL40.

How to scrap brass and red bronze?

Brass and red bronze can be scraped lightly. Negatively ground carbide-tipped scraper blades or inserts are used.

How to scrap aluminium?

We recommend carbide-tipped scraper blades and inserts to scrape aluminium. Whether a positive or negative cutting angle should be used depends on the material strength. The alloy determines the correct cutting angle. A water-soluble cutting emulsion (containing no grease) ensures a clean and smooth surface.

How to scrap bronze?

Bronze is easy to scrape. Like in case of brass, negatively ground cutters should be used.

How to scrap white metal?

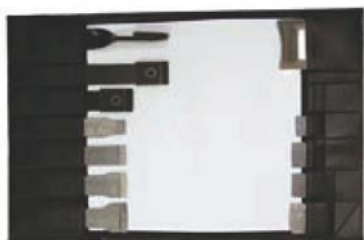
This material is easy to scrape with the BIAx precision electronic scraper BL40 or the BIAx compressed air scraper DL40. The stroke rate must be adjusted to $700 - 800\text{ strokes/min}^{-1}$. The cutting angle should be a negative angle of $20 - 25^\circ$ with a large blade or insert radius. This way, large bearing points are obtained and a large bearing area. Alcohol is well suited as lubricant.

Blade Assortments

Assortment No. 10

Order number:

210 099 710



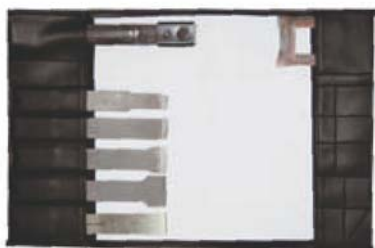
BIAX Blade Assortment No. 10,
for scraper type BS 40, BL 40, BL 10 und DL 40

| Contents | | |
|------------------|----------------------------|----------|
| Clamp holder: | KL 80, KL 130, KL 130 V | |
| Control Gauge: | | |
| Scraper inserts: | 25/20, 25/25, 25/30 | 30/40 ST |
| Scraper blades: | 15/90, 20/90, 25/90, 30/90 | |

Assortment No. 20

Order number:

210 098 910



BIAX Blade Assortment No. 20,
for scraper type BS 40, BL 40, BL 10 und DL 40

| Contents | | |
|-----------------|--------------------------------|-----------|
| Clamp holder: | KL 170 | |
| Control Gauge: | | |
| Scraper blades: | 15/150, 20/150, 25/150, 30/150 | 20/150 ST |

Assortment No. 30

Order number:

210 099 510



BIAX Blade Assortment No. 30,
for scraper type HM 10

| Contents | |
|------------------------------------|--------------------------------------|
| half-moon pattern scraper inserts: | R 60/20, R 90/20, R 120/20, R 150/20 |

Assortment No. 31

Order number:

210 099 500



BIAX Blade Assortment No. 31,
for scraper type HM 10

| Contents | |
|-----------------------------------|--------------------------|
| Clamp holder: | KL 70 |
| half-moon pattern scraper blades: | R 60, R 90, R 120, R 150 |

Assortment No. 40

Order number:

210 098 500












BIAX Blade Assortment No. 10,
for scraper technic 40

| Contents | | |
|-----------------|------------------------|--------------------------|
| Control Gauge: | | |
| Scraper blades: | 15/90/R 20, 20/90/R 40 | 15/150/R 20, 20/150/R 40 |





Scraping tools Scraper blades

BIAX-Scraper inserts






| | | | | | | |
|----------------------|---|---|---|--|---|---|
| Function | Carbide for prescraping and finished scraping | | | | | |
| |  |  |  |  |  |  |
| Type | 20/25 | 25/25 | 25/30 | 25/20 | 25/20 | 25/30 |
| Order number: | 001 400 203 | 001 400 205 | 001 400 207 | 001 400 219 | 001 400 220 | 001 400 221 |
| Dimensions (LxW): mm | 25x20 | 25x25 | 25x30 | 25x20 | 25x20 | 25x30 |
| Cutter radius: mm | 60 | 90 | 140 | 300 | 300 | 300 |
| Cutting angle: | -3,5° | -3,5° | -3,5° | -3,5° | -3,5° | -3,5° |

| | | | |
|----------------------|---|--|--|
| Funktion | Can be used as grinding gauge, for control scraping blade radius, for controlling bearing points, for cleaning particles from the workpiece | HSS- specially for scraping steel | |
| |  |  |  |
| Type | | 25/30 ST | 30/40 ST |
| Order number: | 003 001 639 | 001 400 209 | 001 400 210 |
| Dimensions (LxW): mm | 60x50 | 25x30 | 30x40 |
| Cutter radius: mm | - | 60 | 60 |
| Cutting angle: | - | +32° | +32° |







BIAX-Clamp holder for scraper inserts

| | | | | |
|----------------------|---|---|---|--|
| Function | Standard short type | Extended flexible | Turned for places of difficult access | For scraping at points with difficult access in conjunction with scraping blades |
| |  |  |  |  |
| Type | KL 80 | KL 130 | KL 130 V | KL 170 |
| Order number: | 007 004 696 | 007 004 695 | 007 004 679 | 008 002 791 |
| Dimensions (LxW): mm | 85x23 | 135x23 | 134x23 | 170x24 |

BIAX-Carbide-tipped blades 90 mm

| Function | dovetail guides for narrow guides | Standard blades for narrow guides | Standard blades prescraping | Prescraping | Prescraping |
|---------------------|---|---|--|---|---|
| |  |  |  |  |  |
| Type | 10/90 | 15/90 | 20/90 | 25/90 | 30/90 |
| Cutter radius: mm | 60 | 60 | 60 | 90 | 140 |
| Order number: | 001 400 401 | 001 400 403 | 001 400 405 | 001 400 407 | 001 400 409 |
| Cutter radius: mm | - | 20 | 40 | - | - |
| Order number: | - | 001 400 413 | 001 400 414 | - | - |
| Dimensions (WxB) mm | 90 x10 | 90x15 | 90x20 | 90x25 | 90x30 |
| Cutting angle: | -3,5° | -3,5° | -3,5° | -3,5° | -3,5° |

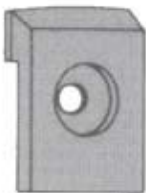

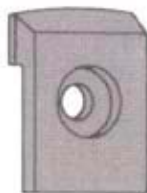
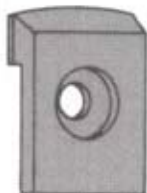
BIAX-Carbide-tipped blades 150 mm

| Function | Special blades for finishing scraping, spring-mounted type | | | | | HSS blade for scraping steel |
|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |
| 90° turned blades on enquiry | | | | | | |
| Type | 10/150 | 15/150 | 20/150 | 25/150 | 30/150 | 20/150 ST |
| Cutter radius: mm | 60 | 60 | 60 | 90 | 140 | 60 |
| Order number: | 001 401 901 | 001 401 902 | 001 401 903 | 001 401 904 | 001 401 905 | 001 401 906 |
| Cutter radius: mm | - | 20 | 40 | - | - | - |
| Order number: | - | 001 401 910 | 001 401 911 | - | - | - |
| Dimensions (LxW): mm | 150x10 | 150x15 | 150x20 | 150x25 | 150x30 | 150x20 |
| Cutting angle: | -3,5° | -3,5° | -3,5° | -3,5° | -3,5° | +32° |


Scraping tools

Clamp holder and scraper inserts for pattern scraping





BIAX-Scraper inserts for scraper type HM 10

| | | | | |
|----------------------|---|---|---|---|
| Function | Carbide-tipped Standard type - robust design, for pattern scraping | | | |
| |  |  |  |  |
| Type | R 60 | R 90 | R 120 | R 150 |
| Order number: | 001 400 902 | 001 400 905 | 001 400 907 | 001 400 908 |
| Dimensions (LxW): mm | 34 x 23 | 34 x 23 | 34 x 23 | 34 x 23 |
| Cutter radius: mm | 60 | 90 | 120 | 150 |
| Cutter angle: | -3,5° | -3,5° | -3,5° | -3,5° |
| Pattern size: | small | standard | large | extra large |

BIAX-Clamp holder

| | |
|----------------------|---|
| Funktion | for scraping blade inserts |
| |  |
| Type | KL 70 |
| Order number: | 007 004 699 |
| Dimensions (LxW): mm | 75 x 20 |

BIAX-Half-moon pattern scraper blades HM10

| | | | | |
|----------------------|---|---|---|---|
| Function | Carbide-tipped Deep oil pockets guarantee the continuous flow of oil without rupturing of the oil film | | | |
| |  |  |  |  |
| Type | R 60/20 | R 90/20 | R 120/20 | R 150/20 |
| Order number: | 001 400 415 | 001 400 416 | 001 400 417 | 001 400 418 |
| Dimensions (LxW): mm | 90 x 20 | 90 x 20 | 90 x 20 | 90 x 20 |
| Cutter radius: mm | 60 | 90 | 120 | 150 |
| Pattern size: | small | standard | large | extra large |

| | | |
|---|-------------|-----|
| BIAx-Scraper accessories | | |
| Hand scraper for the use of BIAx-Scraper blades | | |
| Order number: | 200 004 201 | |
| Dimensions: | Länge mm | 400 |
| | | |

| | | |
|---|-------------|-----|
| BIAx-Scraper accessories | | |
| Hand scraper for the use of BIAx-Scraper blades | | |
| Order number: | 200 004 401 | |
| Dimensions: | Länge mm | 445 |
| | | |

| | | |
|--|-------------|--|
| BIAx-Scraper accessories | | |
| Tuschierfarbe zum Einfärben von Tuschierwerkzeugen | | |
| Order number / blue | 001 402 201 | |
| Order number / red | 001 402 202 | |
| | | |

| | | |
|--|------------------|-------------|
| BIAx-Scraper accessories | | |
| Roller for applying engineers'blue on master plates jigs | | |
| Order number 001 402 302 | molton ø x width | 35 x 120 mm |
| Order number 001 402 303 | rubber ø x width | 50 x 150 mm |
| | | |



BIAx-Scraper blade grinding and lapping machine SKM 80

This machine is used to grind and lap carbide-tipped scraper blades, changing inserts, turning tools, reversible inserts, etc.

The grinding table can be swivelled vertically for each positive and negative cutting angle grind. An integrated coolant pump guarantees wet grinding. Thanks to its compact design and low weight, the SKM80 is easily transportable and can be connected everywhere by means of the 230 / 400 V motor.



| Technical Data | | Order number: 210 098 700 |
|-------------------------------------|--|---------------------------|
| Table swivelling by 200 x 110 mm | swivelling by +/- 15° | |
| Dimensions: | 450 x 250 mm | |
| Weight: | 35 kg | |
| Motor: | 230/400 V - 50 Hz - 2700 min ⁻¹ - 184 W | |
| | | |
| Enclosed accessories | | |
| Diamond wheel: | Ø80 x 10 mm Korn D 50 | Order number: 001 451 405 |
| Abrasive: | 0,5 Liter | Order number: 001 950 211 |
| Sharpening stone for diamond wheel: | | Order number: 001 365 503 |
| | | |