



### **Contents**

#### **Summary**

Scaper Types	2 + 3 + 4
Application	4 + 5 + 6 + 9
Operating Instructions	s 5
Recommended value	7 + 8
Scraping of several ma	aterials 10
Scraping Tools	11 + 12 + 13 + 14
Hand scraper, Enginee	rs´ blue, Roller 15
Scraper blade and grir	nding machine 15

## 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

## **Scraper Types Electronic Scraper**





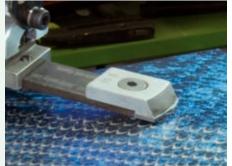




Designation		BS 40	BS 40	BL 40	BL 40
AC Voltage:		230 Volt	115 Volt	230 Volt	115 Volt
Order number:		200 040 100	200 040 110	200 040 130	200 040 140
Electronically variable strokes up to:	min <sup>-1</sup>	2.400	2.400	2.400	2.400
Infinitely variable stroke length:	mm	0-20	0-20	0-20	0-20
Power consumption: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

## Scraper Types Electronic Scraper





HM 10





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: r	min <sup>-1</sup>	2.400	2.400	2.400	2.400
Infinitely variable stroke length:	mm	0-10	0-10	0-20	0-20
Power consumption:	Vatt	320	320	320	320
Noise level:	dB(A)	82	82	82	82
Weight: k	кg	2,7	2,7	2,7	2,7
Dimensions: L x W x H r	mm	385 x 67 x 92			

## 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 pleasuring surfaces.

#### Order number:

230 V - 200 040 330 115 V - 200 040 340

## **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.



			Accessories (not incl.)		
Designation		DL 40	Oil Supply Unit	Special oil	Hose Unit
Order number:		200 040 060		BIAX 0,5 Liter	with sound absorber
			001 367 045	001 365 602	001 366 530
number of strokes at 6 bar:	min <sup>-1</sup>	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 F	l 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.

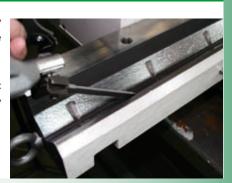
In case of holes or other interruptions, it is necessary to "scrape round" these and under no circumstance to "scraper over" them. In case of interruptions by oil grooves, always make sure that a blade with a large cutter curvature is used. This prevents the blade from hooking into the oil groove.

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 prescaping 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.

## Operation of the scraper

## 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.

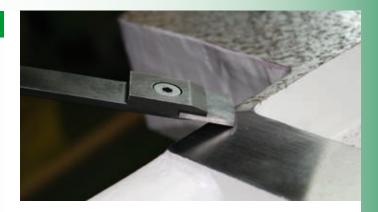


## Operation Scraping

## 1st Step: Prescraping

The part to be trimmel 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.



## 2<sup>nd</sup> Step: Plane scraping

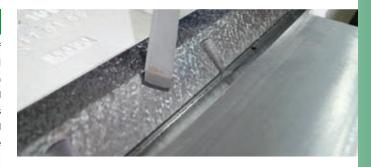
In this case, scraping is performed parallel to the opposing corners. This procedure requires a somewhat shorter stroke (6 mm to 12 mm) and a narrower blade (15 mm, 20 mm or 25 mm).

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

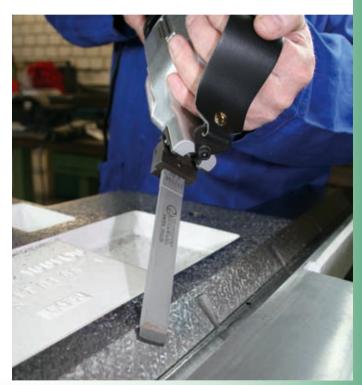
The quality of the surface to be scraped increases with the number of bearing points. Initially, bearing points are large and exist only in a small number. If the stroke is reduced (2mm to 6mm) and if 15mm or 20mm scraping tools are used, the large bearing points are scraped off provided that no pressure 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 fines recesses of  $2-3\mu$ . They cause good adhesion of the oil film and thus considerable 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.  $6-8\mu$ ) in order to guarantee the perfect formation of an oil film even after a long period of operation. An oil pocket depth of approx  $2-4\mu$  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 form grinding, planing, milling. etc. at angles of 45°.

Large stroke with BIAX clamp holder KL130 and BIAX scraping insert 25 x 30 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 alls 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 gain sharping 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. Sharping 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 marked forces companies to rationalalize and forces employees to do their best. This results in improved products and better market chances.

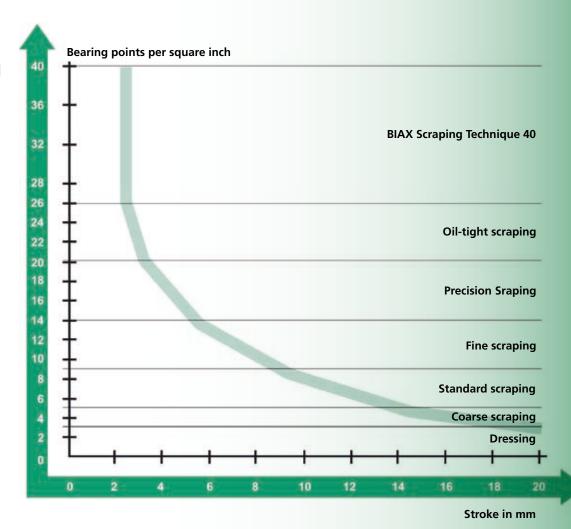
Modern machines can solve production problems. But in this own way, the skilled worker, the trained scraper, is affected. Therefore, ways and means have to be found to eliminate difficult physical exertion, to protect workers' health and to increase efficiency.

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 technicallly fully developed, electronically variable, modern hand-held tool for easier, quicker and better scraping.



Recommended value for bearing points



Recommended value for applications

Rec	Recommended value for applications							
Scrap	oing inserts (LxW)	30/40 ST	25/30 ST	25/35 ST	25/20 ST	-	-	
Scrap	oing blades (W)	-	30	25	20	-	15	
Sprin scrap	g-mounted ing blades (WxL)	-	30/150	25/150	20/150	20/150	15/150	
	Grey cast		х	х	х		х	
iron	Malleable cast iron		х	х	х		х	
Cast iron	Cast steel	х	х	х	х	х	х	
	Heavy metal casting		х	х	х		х	
<u>is</u>	Steel	х	х	х	х	х	х	
met	Brass		х	х	х		х	
Heavy metal	Cooper		х	х	х		х	
뿐	Bronze		х	х	х		х	
	PE		х	х	х		х	
	Polyamide		х	х	x		х	
Plastics	PTFE		х	х	х		х	
Plas	PVC		х	х	x		х	
	Laminated plastic		х	x	х		х	
	Hard materials		х	х	Х		х	

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 pully 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 swiveling 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 pully, 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 pully 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 BS 40.

For this purpose, a carbide-tipped scraper blade or carbide-tipped insert is used in conjunction with the clamp-holder KL130; the blade with 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 scrapper 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

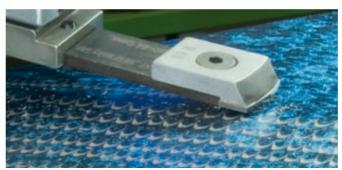
## Influence of different blade radius and tilt angles on the scrapping result

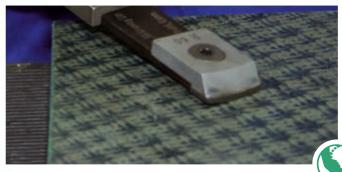
Scrapping of machine casting, grey casting, brass, bronze and hard material will vary as follows:

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  $0-1^\circ$ . 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<sup>2</sup>?

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/mm², 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 strokes/min<sup>-1</sup>. The cutting angle should be a negative angle of 20-25° with a large blade or insert radius. This way, large bearing points are obtained 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 ur	nd 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	
Tot scraper type Tilvi To	
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							
Туре	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	25 x 20	25 x 25	25 x 30	25 x 20	25 x 20	25 x 30		
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	g steel
Туре		25/30 ST	30/40 ST
Order number:	003 001 639	001 400 209	001 400 210
Dimensions (LxW): mm	60 x 50	25x30	30 x 40
Cutter radius: mm	-	60	60
Cutting angle:		+32°	+32°

BIAX-Clamp holder for scraper inserts						
Funktion	Standard short type	I		For scraping at points with difficult access in conjunction with scraping blades		
				90		
Туре	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	85 x 23	135 x 23	134 x 23	170x24		

BIAX-Carbide-tipped blades 90 mm						
Function		dovetail guides for narrow guides	Standard blades for narrow guides	Standard blades prescraping	Prescraping	Prescraping
Туре		10/90	15/90	20/90	25/90	30/90
Cutter radius:	mm	60	60	60	90	140
Order number:		001 400 401	001400403	001 400 405	001 400 407	001 400 409
Cutter radius:	mm	-	20	40	-	-
Order number:	700 PO	- 00 10	001400413	001 400 414	- 00 25	- 00 20
Dimensions (W x B)	mm	90 x10	90x15	90 x 20	90 x 25	90 x 30
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	001401903	001 401 904	001 401 905	001401906
Cutter radius: mm	-	20	40	-	-	-
Order number:	-	001401910	001401911	450.25	450 20	450.20
Dimensions (LxW): mm	150 x 10	150 x 15	150 x 20	150 x 25	150 x 30	150 x 20
Cutting angle:	-3,5°	-3,5°	-3,5°	-3,5°	-3,5°	+ 32°

# Scraping tools Clamp holder and scraper inserts for pattern scraping

BIAX-Scra	per inser	rts for scraper t	ype HM 10			
Function		Carbide-tipped Standard type - robust design, for pattern scraping				
Туре		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	
unktion		for scraping blade inserts	<b>(B)</b>			
Туре		KL 70				
Order number:		007 004 699				
Dimensions (LxW):	mm	75 x 20				
		ttern scraper blades HM10				
BIAX-Half	-moon pa	•	lades HM10			
unction		Carbide-tipped Deep oil pockets guarantee th	ne continuous flow of oil withou	nt rupturing of the oil film	Γ	
Гуре		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	

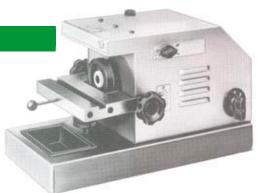
### **Accessories**

BIAX-Scraper accessories Hand scraper for the use of BIAX-Scraper Order number: Dimensions: Länge mm	blades 200 004 201 400		
BIAX-Scraper accessories Hand scraper for the use of BIAX-Scraper	blades		0 0
Order number:  Dimensions: Länge mm	200 004 401 445		
BIAX-Scraper accessories Tuschierfarbe zum Einfärben von Tuschierv	verkzeugen		
Order number / blue Order number / red	001 402 201 001 402 202		ā .
	er plates jigs ø x width ø x width	35 x 120 mm 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 <sup>-1</sup> - 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











## Schmid & Wezel GmbH & Co. Maschinenfabrik

Maybachstr. 2 D-75433 Maulbronn Tel +49(0)7043/102-0 Fax +49(0)7043/102-78 biax-verkauf@biaxefa.com www.biax-germany.com Druckluftwerkzeuge Pneumatic Tools Outils pneumatiques





#### **CH BIAX Maschinen GmbH**

Industrieplatz
CH-8212 Neuhausen/Rheinfall
Tel +41(0)52/6747979
Fax +41(0)52/6746564
info@biax.ch
www.biax-schweiz.com

Schaber Scrapers Grattoirs

Hartmetall-Werkzeuge Carbide Tools Outils en carbure de tungstène



### Schmid & Wezel Hilsbach GmbH & Co.

Breite Str. 38 D-74889 Sinsheim-Hilsbach Tel +49(0)7260/91 33-0 Fax +49(0)7260/91 33-25 sw.hilsbach@biaxefa.com

www.biax-flexwellen.de

Biegsame Wellen Flexible Shafts Machines à arbre flexible



## Schmid & Wezel GmbH & Co. Maschinenfabrik

Maybachstr. 2 D-75433 Maulbronn Tel +49 (0) 70 43 / 102 - 0 Fax +49 (0) 70 43 / 102 - 78 efa-verkauf@biaxefa.com www.efa-germany.com Fleischereimaschinen Meat Processing Machines Machines pour l'industrie de la viande

### I BIAX Italia S.r.I.

Via Cavour, 15 I-38068 Rovereto Tel +39(0)464/433124 Fax +39(0)464/489952

biaxitalia@biaxitalia.com www.biaxitalia.com