

MARKING AND CLEANING TOOLS



CLAMPING. SCREWING. LOCKING.





SKALENEINSTELLUNG-6 Z--1

BESTELL-NR 17475	AMF-WRITER, EXTRA LARGE,	NADEL 60R10
BESTELL-NR 17418	AMF-WRITER, LARGE,	NADEL 90R10
BESTELL-NR 17426	AMF-WRITER, LARGE,	NADEL 90R05
BESTELL-NR 17434	AMF-WRITER, MEDIUM,	NADEL 90R10
BESTELL-NR 17442	AMF-WRITER, MEDIUM,	NADEL 90R05
BESTELL-NR 17459	AMF-WRITER, SMALL,	NADEL 90R05
BESTELL-NR 17467	AMF-WRITER, SMALL,	NADEL 90R03

AMF-WRITER

... AND YOUR MACHINE WILL MARK ECONOMICALLY

The AMF-Writers are tools for the permanent marking of workpieces. They are preferably clamped in Weldon chucks and mounted in the machine spindle of a CNC machine.

Marking is achieved by a combination of material compaction and compression. With the special needle, engraving is produced as if by rolling by means of an extremely hard ball bearing. The tool can be used with or without spindle rotation. Due to the special design and a high quality support bearing, this tool can provide even and high quality marking without height adjustment of the machine spindle on smooth, uneven and rough surfaces with a deviation between 3 and 7mm. The tool is infinitely adjustable to for use on different materials, surface hardness and depth of marking.

Used on the surface of 45 HRC hardened steel a marking distance of more than 70km is possible wear free.

This tool is particularly economical thanks to the low acquisition costs, long service life and tremendous time saving.

Your benefits at a glance:

- > the surface is not weakened or damaged, but is compressed and thus strengthened
- > high marking speeds are possible
- > high wear resistance and thus long service life
- > also suitable for thin-walled workpieces
- > no burr appears on the marking line
- > high-quality type face
- > unevenness of the workpiece is compensated for
- > also suitable for marking round surfaces (up to 15°)
- > depending on the design, it is possible to mark surfaces with a hardness of up to 57 HRC
- > no rotational speed necessary, i.e. the machine spindle is preserved
- > no generation of noise



No. 1400WXL20

AMF-Writer

Marking tool, design Extra Large, suitable for 20 mm Weldon chucks.

Order no.	Needle	D1	D2	D3	D4	D5	L1	L2	L3	L4	R1	Weight [g]
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
17475	60R10	4	20	26	40	46	124	113	74	36	1,0	318

Application:

This tool is particularly suitable for marking with large fonts and wide line width on high-strength materials with a hardness of up to 50 HRC. Workpiece unevenness of up to 7 mm is compensated for. A marking speed of up to 200 m/min can be run, spindle speeds of 0 – 300 1/min are allowed. The workpiece surface can be dry as well as wet for processing.

Features:

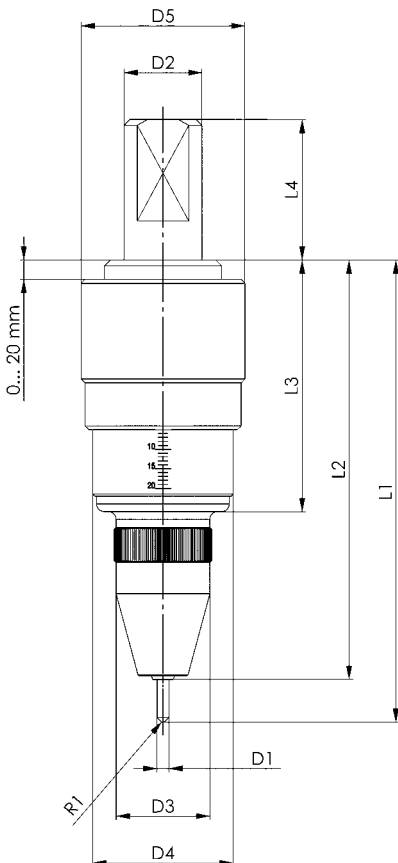
The AMF-Writer Extra Large has reinforced guides and a wider special needle. The adjustment of the pre-tensioning force on the marking needle is infinitely variable by means of a knurled nut and can be determined via a scale. The adjustment by means of the knurled nut makes the tool ideally suitable for small and medium lot sizes. The tools should preferably be mounted in 20 mm Weldon chucks.

Advantage:

- extremely high wear resistance
- particularly suitable for the marking of high-tensile materials
- convenient adjustment by means of a knurled nut (also possible in clamped state)

On request:

Replacement needles are available on request.



Subject to technical alterations.

No. 1410WL20
AMF-Writer

 Marking tool, design Large,
 suitable for 20 mm Weldon chucks.

Order no.	Needle	D1	D2	D3	D4	D5	L1	L2	L3	L4	R1	Weight
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[g]
17418	90R10	3	20	24	36	42	119	108	65	36	1,0	243
17426	90R05	3	20	24	36	42	119	108	65	36	0,5	243

Application:

The tool is suitable for marking a wide variety of materials such as aluminium, titanium, steel, bronze, copper, brass, plastics etc.

There is a choice of 2 types of needles:

- The needle 90R10 is particularly suitable for marking with large fonts and wide line width on high-strength materials with a hardness of up to 50 HRC.
- The needle 90R05 is particularly suitable for marking with small fonts and medium line width on surfaces with a hardness of up to 55 HRC.

Workpiece unevenness of up to 5 mm is compensated for. A marking speed of up to 200 m/min can be run, spindle speeds of 0 – 300 1/min are allowed. The workpiece surface can be dry as well as wet for processing.

Features:

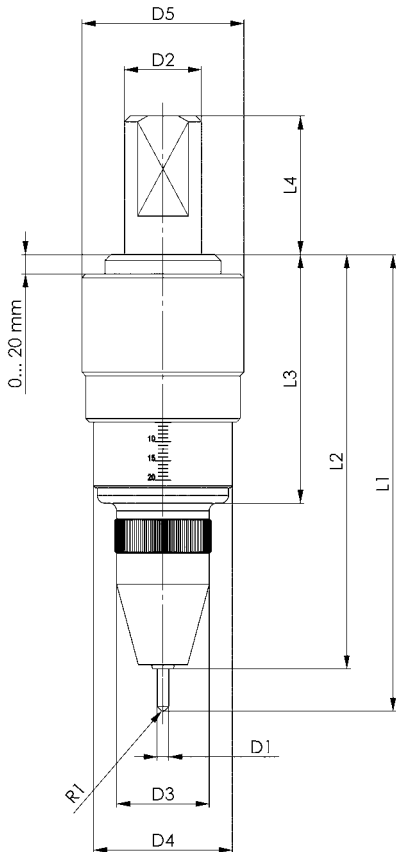
The AMF-Writer Large has high-precision guides and a tough special needle. The adjustment of the pre-tensioning force on the marking needle is infinitely variable by means of a knurled nut and can be determined via a scale. The adjustment by means of the knurled nut makes the tool ideally suitable for small and medium lot sizes. The tools should preferably be mounted in 20 mm Weldon chucks.

Advantage:

- high wear resistance
- suitable for the marking of a wide variety of materials
- convenient adjustment by means of a knurled nut (also possible in clamped state)

On request:

Replacement needles are available on request.



Subject to technical alterations.

No. 1420WM20

AMF-Writer

Marking tool, design Medium, suitable for 20 mm Weldon chucks.

Order no.	Needle	D1 [mm]	D2 [mm]	L1 [mm]	L2 [mm]	R1 [mm]	Weight [g]
17434	90R10	3	20	98	88	1,0	78
17442	90R05	3	20	98	88	0,5	78

Application:

The tool is suitable for marking a wide variety of materials such as aluminium, titanium, steel, bronze, copper, brass, plastics etc.

There is a choice of 2 types of needles:

- The needle 90R10 is particularly suitable for marking with large fonts and wide line width on high-strength materials with a hardness of up to 50 HRC.
- The needle 90R05 is particularly suitable for marking with small fonts and medium line width on surfaces with a hardness of up to 55 HRC.

Workpiece unevenness of up to 5 mm is compensated for. A marking speed of up to 200 m/min can be run, spindle speeds of 0 – 300 1/min are allowed. The workpiece surface can be dry as well as wet for processing.

Features:

The AMF-Writer Large has high-precision guides and a tough special needle. The adjustment of the pre-tensioning force on the marking needle is infinitely variable by means of an internal screw that can be adjusted using a hexagon socket.

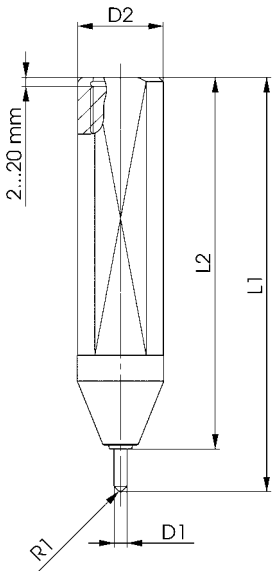
Since this tool has to be removed from the chuck for adjustment, it is ideally suitable for large-batch production. It should preferably be mounted in 20 mm Weldon chucks.

Advantage:

- high wear resistance
- suitable for the marking of a wide variety of materials
- compact design

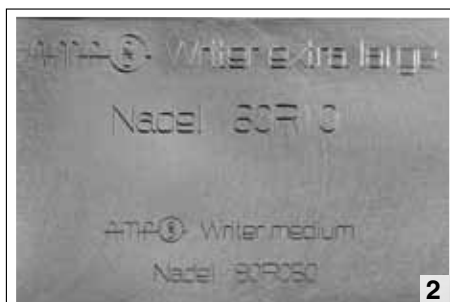
On request:

Replacement needles are available on request.



Examples of marking on various materials:

1. stainless steel 2. aluminium 3. plastics



Subject to technical alterations.

No. 1430WS12
AMF-Writer

 Marking tool, design Small,
 suitable for 12 mm Weldon chucks.

Order no.	Needle	D1 [mm]	D2 [mm]	L1 [mm]	L2 [mm]	R1 [mm]	Weight [g]
17459	90R05	3	12	71	66	0,5	24
17467	90R03	3	12	71	66	0,3	24


Application:

The tool is suitable for marking a wide variety of materials such as aluminium, titanium, steel, bronze, copper, brass, plastics etc.

There is a choice of 2 types of needles:

- The needle 90R05 is particularly suitable for marking with small fonts and medium line width on surfaces with a hardness of up to 55 HRC.
- The needle 90R03 is particularly suitable for marking with small fonts and small line width on surfaces with a hardness of up to 57 HRC.

Workpiece unevenness of up to 3 mm is compensated for. A marking speed of up to 200 m/min can be run, spindle speeds of 0 – 300 1/min are allowed. The workpiece surface can be dry as well as wet for processing.

Features:

The AMF-Writer Small has high-precision guides and a tough special needle. The adjustment of the pre-tensioning force on the marking needle is infinitely variable by means of an internal screw that can be adjusted using a hexagon socket.

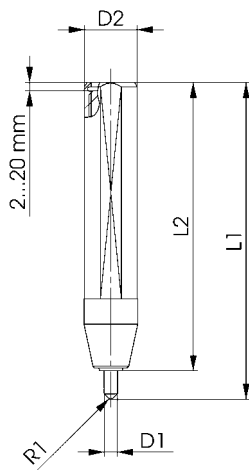
Since this tool has to be removed from the chuck for adjustment, it is ideally suitable for large-batch production. It should preferably be mounted in 20 mm Weldon chucks.

Advantage:

- high wear resistance
- suitable for the marking of a wide variety of materials
- compact design

On request:

Replacement needles are available on request.



Subject to technical alterations.



AMF-CLEANER

... AND YOUR MACHINE CLEANS ITSELF

AMF-Cleaners are tools for cleaning workpieces, tools and the interior of CNC machines. They are preferably clamped in Weldon chucks and mounted in the machine spindle of a CNC machine.

AMF Cleaners use through spindle coolant or compressed air.

AMF Cleaners in Stick design are available in lengths of 30, 100 and 180mm and are ideally suitable for cleaning swarf from workpieces, vices and fixtures prior to unloading the workpiece and before the next workpiece is loaded. The spindle can be static or a slow rotation may be used to improve cleaning operation.

AMF Cleaners in the Ball design are available with horizontal or vertical connection to the machine spindle and are designed for cleaning the entire interior working area of the machine tool. The user selects which nozzles to open which controls the direction and pressure of the jet. Moving and rotating the spindle under constant flow of coolant achieves an excellent and systematic cleaning of the machine interior.

Our AMF-Cleaners are characterised by low acquisition costs and a long service life - their time saving will impress you.

Your benefits at a glance:

- > repeatable, systematic and thorough cleaning
- > no aerosol pollution harmful to the health of the machine operator
- > reduction of the cleaning time
- > preserves the machine guides
- > no risk of injury due to swarf



No. 1500CC-03

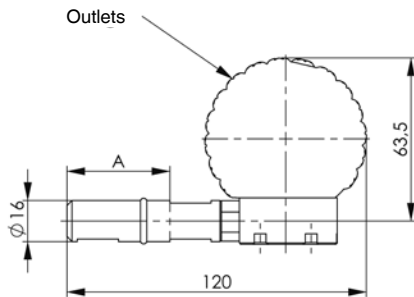
AMF-Cleaner

in Clean Case.
Cleaning tool for mounting in the machine spindle, suitable for 16 mm Weldon chuck.

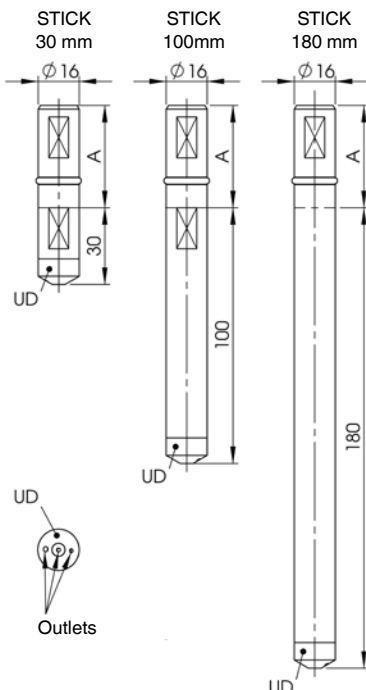
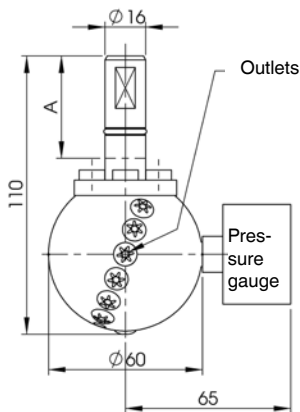
Consisting of:

- 1 AMF-Cleaner, Ball horizontal
 - 1 AMF-Cleaner, Ball vertical
 - 1 AMF-Cleaner, Stick 30 mm
 - 1 AMF-Cleaner, Stick 100 mm
 - 1 AMF-Cleaner, Stick 180 mm
 - 3 Universal nozzles
 - 1 Manometer
 - 1 Adapter piece
 - 1 Ball joint
 - 4 Spare locking screws
 - 1 Hexagon screw-driver
- Operating instructions

BALL HORIZONTAL



BALL VERTICAL



Order no.	Insertion depth A (mm)	Dimensions of case LxWxH	Weight [g]
	[mm]		
17558	40	270 x 230 x 70	1637

Application:

BALL:

The cleaning area of the AMF-Cleaner is 360° and can be arranged by the number of opened outlets. The horizontal design of the tool with lateral connection makes it possible to even clean the spindle nose. With the control design it is possible to also attach a manometer that can check the status of the pump, filter and entire supply line.

STICK:

This tool is absolutely essential for the automation of a CNC machine.

It gives the machine the ability to mechanically clean workpieces and clamping jigs. The effect of the AMF-Cleaner is adaptable to the local conditions by the option of selecting different starting positions with a rotating tool. Its structural form and various lengths make it particularly suitable for cleaning boreholes, pockets, indentations or other contours. The intensity of the cleaning nozzle can additionally be influenced by the 3 different universal nozzles (UD). The adapter piece makes it possible to interconnect and extend 2 cleaners for penetrating into low-lying work areas. The ball joint also makes a sloping position of the nozzle possible that can influence the angle of the jet. The AMF-Cleaner cleans at high-speed and can be integrated into the automation cycle quickly and easily by means of a short subroutine.

Features:

BALL:

Operating range	up to 360°
Pressure range KSS	5 up to 120 bar
outlets (horizontal)	15 pieces
outlets (vertical)	14 pieces
Minimal speed	5 1/min
Maximum speed	100 1/min
Working fluid	Cooling lubricant
Weight horizontally-arranged.	409 g
Weight vertically arranged.	331 g

STICK:

Pressure range KSS	5 to 120 bar
Pressure range of compressed air	5 to 10 bar
Outlets	3 pieces
Minimum speed	30 1/min
Maximum speed	400 1/min
Working fluid	Cooling lubricant, Compressed air
Weight arrangement L=30	50 g
Weight arrangement L=100	133 g
Weight arrangement L=180	208 g

Advantage:

BALL:

- repeatable, systematic and thorough cleaning of the interior of the machine
- no aerosol pollution harmful to the health of the machine operator
- Reduction of the cleaning time

STICK:

- repeatable, systematic and thorough cleaning of the workpiece or clamping jig
- no aerosol pollution harmful to the health of the machine operator
- Reduction of the cleaning time



Subject to technical alterations.

These conditions of sale apply to business conducted with companies, legal entities in the public sector, and legal entities with special budget in the public sector. Our deliveries and services are carried out exclusively on the basis of the conditions stated below. Deviating purchasing conditions of the buyer will not become part of the contract, not even through acceptance of the order, unless we have expressly accepted them.

1. Offer and entering into a contract

The basis of our delivery contracts is the latest edition of our catalogue. Orders are not considered as accepted until they have been confirmed by us in writing. When goods are supplied from stock and, for organisational reasons, you receive no separate confirmation, the invoice has the additional function of confirming the order. Details of dimensions and weights, and illustrations, drawings and data are not binding and may be changed by us at any time. Deviations cannot be excluded.

2. Prices

Prices are quoted in EUR ex-works excluding turnover tax, packing, freight, carriage, and insurance. Unless otherwise agreed, our list prices on the day of delivery apply. In order to cover our costs, orders under EUR 50.– net value are subject to a small order surcharge of EUR 10.–.

3. Delivery

Delivery delays are quoted to the best of our knowledge but without guarantee. Agreed delivery delays begin on the day we accept the order and refer to the completion of the goods in our works.

4. Transfer of risk

Risks are transferred to you when the goods are passed to a specific person, company, or organisation that is charged with the execution of carriage of the goods. This applies also to partial deliveries and when we have accepted the costs of carriage, delivery or erection. The risks are also transferred to you when you have defaulted on acceptance.

5. Dispatch

Goods are supplied ex-works. Dispatch is at your cost and risk. Scheduled, FOB, and CIF deliveries are also at your risk. In the absence of specific instructions concerning dispatch, we will arrange same as we think fit, but without accepting any responsibility for choosing the cheapest or most suitable method of dispatch. We make a handling charge of EUR 5.– if goods are sent at your request to a third party. You accept that your order can be supplied in partial deliveries insofar as this is reasonable.

6. Reservation of proprietary rights

Goods delivered remain our property until payment of all claims has been received in full or until redemption of cheques given in payment. The cancellation of individual positions in an open invoice and the drawing of a balance and its acceptance do not affect proprietary rights. You have the right to dispose of the goods as a normal commercial transaction, but you are forbidden to pawn, mortgage, or transfer ownership of them in settlement of a debt or debts. You surrender to us herewith your right to payment for goods for which we reserve our proprietary rights. You have the right to collect these payments as long as you meet your obligations to us. If we request it, you are obliged to name the third party and we have the right to publish this information and the transfer of rights.

7. Cancellation rights due to late payment or insolvency

If you do not pay for the goods by the time payment is due, and if you have not paid after expiry of a reasonable time limit set by us, we have the right to withdraw from the contract and demand the return of goods already supplied. Rights under § 323 BGB (BGB = German civil law code) remain otherwise unaffected. Application for the opening of insolvency proceedings gives us the right to withdraw from the contract and demand the immediate return of goods supplied before the bankruptcy court orders protective measures.

8. Packaging

Packages comply with the German packaging regulations (WO). Disposable packaging is charged at cost. The packaging is not returnable.

9. Tooling costs

In the absence of any agreement to the contrary, tooling made for the execution of an order remains our property in all cases. This applies even if we have made a charge for a proportion of the tooling costs.

10. Payment

Our invoices are payable net within 30 days of the date of the invoice, or with 2% discount if paid within 10 days. Invoices below EUR 50.– are payable immediately without discount. Our credit notes and your charges on us reduce the amount subject to discount. Late payment entitles us to interest at the rate the bank charges us for a current account overdraft but at least 8 percent above the current base rate of the European Central Bank. If payment is overdue, we are entitled, after giving you notice in writing, to cease fulfilling our obligations under the contract until payment is received.

11. Offsetting exclusion

You can only offset payments with legally-established or unopposed counter claims.

12. Guarantee

If you come to an agreement with us on properties of the goods, we include this agreement in our technical specifications. If we have to supply to your drawings, specifications, samples, etc., you accept the risk associated with suitability for the intended purpose. The point in time at which risk is transferred is decisive for the contractual condition of the goods. The deterioration of parts subject to wear in the course of normal use does not constitute a defect. If the goods supplied are defective, we will – at our choice and within a reasonable time limit set by you – supply a replacement or repair the goods. If such repair or replacement is not satisfactory, you have the right to reduce the price or withdraw from the contract. Any further guarantee claims are excluded. Recognisable defects must be notified at the latest within 10 days of receipt and defects that are not recognisable must be notified as soon as they are discovered. The guarantee period is 24 months and starts with dispatch of the goods from our works.

13. Hindered or impossible performance

If we are prevented from meeting our obligation by some unforeseeable event (e.g. disruption of our plant, or delay in the delivery of important raw materials), which, in spite of taking all reasonable care appropriate to the circumstances of the case, we have been unable to avert, and it has become impossible to execute the delivery or service punctually, the delivery delay will be extended to an appropriate extent.

14. Liability

Except in the case of injury to life or limb, or damage to health caused by our breach of duty, we are only liable in the event of intent or culpable negligence on our part.

15. Customer specials

Orders for customer specials must be in writing and include binding details of execution, quantities etc. For technical reasons we reserve the right to supply 10% more or less than the quantity specified. If technical changes or cancellations are required, the costs incurred will be charged to the customer.

16. Deliveries of samples and return of goods

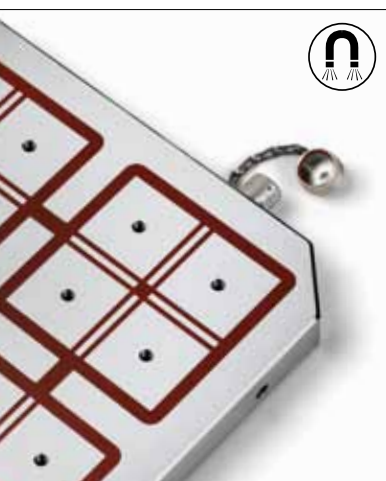
Samples will be charged. When goods have been sent for testing or as samples, we will credit you with the additional price against subsequent orders, as long as the net contract value is at least EUR 125.–. The return of goods is only possible with prior agreement. Customer specials may not be returned. For goods returned for reasons outside our responsibility (e.g. wrongly ordered), we charge 10% of the value of the goods but at least EUR 7.50, to cover administration costs.

17. Place of fulfilment, court of jurisdiction

The place of fulfilment for all obligations arising from this contract is D-70707 Fellbach. The court of jurisdiction for any legal dispute arising from this contract is D-71332 Waiblingen. (All disputes that arise from this contract or about its validity will be decided by a court of arbitration according to the Arbitration Rules of the German Committee for Arbitration Courts/Settlement and Arbitration Procedure of the International Chamber of Commerce. Such decisions will be final and normal legal procedures are excluded.) German law applies (BGB and HGB = civil and commercial codes). The application of UN purchasing law (CISG) is excluded.

18. Validity clause

If individual conditions should be found to be not legally valid, the remaining conditions continue to apply. The invalid conditions will be replaced by conditions which fulfil as closely as possible the commercial intent of the contract with reasonable consideration of the interests of both parties. With the publication of these Conditions for Sales, Deliveries and Payment, all previous versions become invalid. This does not apply to contracts agreed before publication.



MAGNETIC CLAMPING TECHNOLOGY



HYDRAULIC CLAMPING SYSTEMS



„ZERO-POINT“ CLAMPING SYSTEM



CLAMPING AND FIXTURE SYSTEMS



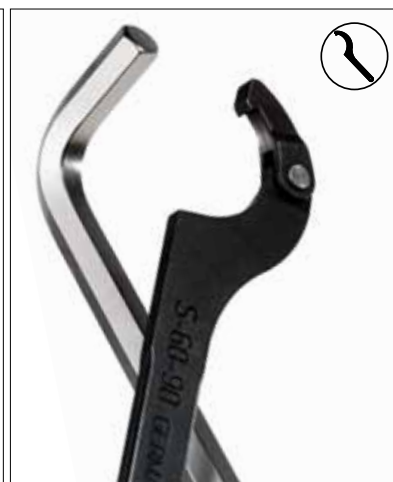
TOGGLE CLAMPS, MANUAL AND PNEUMATIC



VACUUM CLAMPING TECHNOLOGY



STANDARD CLAMPING ELEMENTS



HAND TOOLS



CLAMPING. SCREWING. LOCKING.

Catalogue Order no. 515429 · € 1,75