

78399

Punch holder

**Design**

- Creates a safe distance between the user's hand and the hammer head of the manual drive-in punch
- Protects against injuries caused by missed strikes and slips
- Spring-locked quick change device
- Suitable for all manual drive-in punches with a maximum shaft cross-section of 20 x 20 mm

**Applications**

Stable and durable metal construction for industrial use.



78399

Weight kg	78399	...
0.45		101

78400 - 78401

Number and letter punch sets extra quality

**Design**

Font DIN 1451 medium-narrow up to 5 mm, larger = narrow. With visible engraving, bright-drawn material in satin-gloss-matt finish, normal version left engraved – legible impression.

**Note:**

Right engraving – mirror-image impression for moulds and dies available on request.

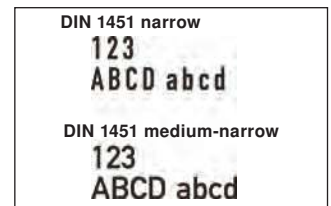
**Applications**

For normal requirements up to strengths of approx. 800 N/mm<sup>2</sup>. For punching in iron, steel, leather, wood and plastic.



78400 - 78401

Font height mm	Hardness engraving HRC	Version	0 - 9		A - Z	
			78400	...	78401	...
2	58 - 60	In plastic box		102		102
3	58 - 60	In plastic box		103		103
4	58 - 60	In plastic box		104		104
5	58 - 60	In plastic box		105		105
6	58 - 60	In plastic box		106		106
8	58 - 60	In plastic box		107		107
10	58 - 60	In plastic box		108		108
12	58 - 60	In plastic box		109		109
15	58 - 60	In plastic box		110		



78403 - 78404

Number and letter punch sets extra extra quality

**Design**

Plain polished, font DIN 1451 medium-narrow up to 5 mm, higher = narrow. Normal design left engraved, legible impression.

**Applications**

For rigorous requirements up to strengths of approx. 1200 N/mm<sup>2</sup>.

Font height mm	Hardness engraving HRC	Version	0 - 9		A - Z	
			78403	...	78404	...
2	58 - 60	In plastic box		102		102
3	58 - 60	In plastic box		103		103
4	58 - 60	In plastic box		104		104
5	58 - 60	In plastic box		105		105
6	58 - 60	In plastic box		106		106
8	58 - 60	In plastic box		107		107
10	58 - 60	In plastic box		108		108



78403 - 78404

78406 - 78407

Number and letter punch sets special class

**Design**

Plain polished according to DIN 7353/1451 narrow, hardened and tempered impact head. Normal design left engraved, legible impression.

**Applications**

For the toughest requirements, workpieces up to 2000 N/mm<sup>2</sup>.

Font height mm	Hardness engraving HRC	Hardness at impact end HRC	Version	0 - 9		A - Z	
				78406	...	78407	...
2	58 - 60	38 - 46	In plastic box		102		102
3	58 - 60	38 - 46	In plastic box		103		103
4	58 - 60	38 - 46	In plastic box		104		104
5	58 - 60	38 - 46	In plastic box		105		105
6	58 - 60	38 - 46	In plastic box		106		106
8	58 - 60	38 - 46	In plastic box		107		107
10	58 - 60	38 - 46	In plastic box		108		108



78406 - 78407

Workshop equipment

**78412 - 78413**

**Number and letter punch sets with depth limit**

**Design**

With depth limit, plain polished, with visible engraving and tempered impact head, typeface in accordance with DIN 1451 medium. Normal design left engraved – legible impression.

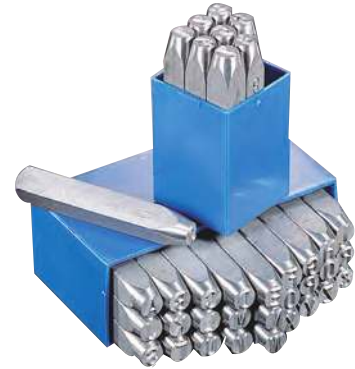
**Applications**

For the most demanding applications, for punching in steel.

**Note:**

Right engraving – mirror-image impression for moulds and dies available on request.

78412 - 78413



Font height mm	Hardness engraving HRC	Hardness at impact end HRC	Version	0 - 9		A - Z	
				78412	...	78413	...
2	58 - 60	38 - 46	In plastic box		103		103
3	58 - 60	38 - 46	In plastic box		104		104
4	58 - 60	38 - 46	In plastic box		105		105
5	58 - 60	38 - 46	In plastic box		106		106
6	58 - 60	38 - 46	In plastic box		107		107
8	58 - 60	38 - 46	In plastic box		108		108
10	58 - 60	38 - 46	In plastic box		109		109

**78415**

**Number and letter punch**

**Design**

Precision design made of CrMo special steel. The punched mark is directly legible.

**Applications**

Suitable for marking steel with strength up to 1300 N/mm<sup>2</sup>. Several types of steel can be inserted next to each other in the steel holder (see table).

**Set composition**

A	A	B	B	C	C	D	D	E	E	E	F	F	G	G	H	H	I		
I	I	J	J	K	K	L	L	L	M	M	N	N	N	O	O	P	P	Q	
R	R	R	S	S	T	T	T	U	U	V	V	W	W	X	X	Y	Z	&	/
/	-	-	.	.	.	.	1	1	1	2	2	2	3	3	3	4	4		
4	4	5	5	5	6	6	7	7	7	8	8	8	9	9	9	0	0	0	0

Set contents	
1	Hand holder,
100	Individual steel types A-Z and 0-9, / (forward slash), . (full stop), , (comma) and - (hyphen).

Font height mm	Max. mounting options per holder	Version	78415	...
1.5	12	In plastic box		202
2.5	12	In plastic box		203
3.0	9	In plastic box		204
5.0	8	In plastic box		205



78415

**78420**

**Marking stencil sets**

**Design**

Made of aluminium, block letters.

**Applications**

For signing, identification, marking etc. with paint or ink.

Font height mm	0 - 9		A - Z	
	78420	...	78420	...
20		201		210
30		202		211
40		203		212
60		205		214
80		206		215
100		207		216



78420 201-207

78420 210-216

**78422**

**Metal etcher**

**Design**

With 2 refills. Green universal etching solution.

**Applications**

For identification, marking and signing in precision engineering, tool manufacture and mechanical

engineering, storage and in the warehouse. For steel, copper, nickel, tin and lead, as well as their alloys.

	Pack = Units	78422	...
Etcher	-		101
Spare refills	5		102






78422

Workshop equipment

Info

Overview of pictograms for chalk and markers

	Rough and oily Iron		Glass, porcelain
	Smooth and clean iron		Rubber, tyres
	Hot iron		Paper, cardboard
	Stainless steel		Dry wood
	Stone, brick		Damp wood
	Asphalt, macadam		Textiles
	Plastic		

Workshop equipment

67330

Oil pastel pencils



**Markal**<sup>®</sup>

67330 101  
Oil pastel pencil  
Design

- Hex
- Without paper sleeve

**Applications**

Versatile oil chalk. For signing/marketing cold or warm steel, metals, wood, paper, cardboard.

67330 102

Holder with push button

Design

- The metal teeth of the holder keep the chalk fixed during use and thus secure the marker
- The push mechanism makes it easy to extend and retract the chalk



67330 101



67330 102



Colour	Length cm	Pack = pieces	Oil pastel pencil		Holder	
			67330	...	67330	...
Yellow	-	12		101		
-	11.4	-				102

78424

Blackboard chalk



**Markal**<sup>®</sup>

Design  
Square.

**Applications**

For writing on blackboards.

78424



Colour	Dimensions mm	Pack = pieces	78424	...
White	90 x 13 x 13	12		101

78419

## Soapstone chalk



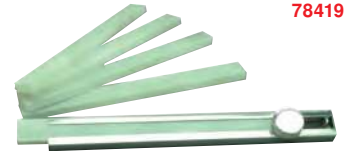
# Markal®

Natural soapstone chalk, square.

## Applications

For marking metal before welding.

78419



Dimensions mm	Pack = pieces	78419	...
100 x 10 x 10	50		101

78421

## Solid paint markers Markal B Paintstik



# Markal®

- The real paint formula has superior marking performance on oily, icy, wet, dry or cold surfaces and is weather-resistant and UV-resistant
- The real paint provides permanent, clearly visible markings

- The solid paint marker eliminates replacement tips, sharpening or priming, increasing productivity
- Easy-to-hold, recyclable paperboard holder protects Paintstik for maximum use

## Applications

Can be used for marking rough, rusty, smooth and dirty surfaces.

78421 101



78421 102



Colour	Standard size mm	Standard size inch	Temperature range °C	78421	...
White	17	11/16	-46 to 66		101
Yellow	17	11/16	-46 to 66		102

78423

## Quik Stik® Mini paint marker



# Markal®

- Compact solid paint marker in a convenient twist-up, plastic holder that is ideal for finer line marking on smooth or rough surfaces
- Plastic holder with clip-cap stores easily in a pocket and keeps hands and clothing clean

- Easily advances by turning the knob, allowing for full extension and retraction of the marker
- The colour paint dries quickly (5-7 minutes) and leaves bold, permanent marks on virtually any surface, whether wet, smooth, rough or hot, weather-resistant and UV-resistant paint

78423 101



78423 102



Colour	Size mm	Temperature range °C	78423	...
White	6	-18 to 200		101
Yellow	6	-18 to 200		102

78426

## Permanent marker



# Markal®

## Applications

Indelible marking on all smooth surfaces, such as

paper, cardboard, plastic and metal. Rounded tip. Long service life.

78426



Colour	Line thickness up to mm	Pack = pieces	78426	...
Black	3	12		101
Blue	3	12		102
Red	3	12		103

78427

## Industrial paint marker



# Markal®

- Universal, quick-drying paint marker
- Pigmented ink without the addition of toluene and

- xylene, low odour
- For lightfast, water-resistant and wipe-off-resistant marking of dark and transparent material
- Valve-controlled ink flow for uniform lines

- Line thickness 2-4 mm

78427



Colour	Pack = Units	78427	...
Black	12		101
Blue	12		102
Red	12		103
Yellow	12		104
White	12		105

78429

## CD marker



# Markal®

Indelible ink. Quick-drying, UV-/water resistant. Nylon tip Ø 10 mm.

## Applications

On clean, smooth surfaces: CDs, paper, metal, plastic.

78429



Colour	Heat resistance up to approx. °C	78429	...
Black	100		101



78425

Tube markers



**Markal®**

78425 101-103

Disposable tube markers

Design

- Disposable marker with hardened steel ball tip for quick and easy marking
- Perfect adhesion to all surfaces (rusty, rough, oily, damp etc.) and all materials (metal, wood, rubber, concrete, plastic etc.)
- Paint without halogens (chlorine), heavy metals (Pb, Zn, Cd) or hydrocarbons, so environmentally friendly
- Resistant to mineral oil and salt fog, weather resistant, indelible, quick-drying
- 1-year guarantee on writing quality!

78425 201

Stainless steel tube marker

Design

- Metal-ball tube marker that meets the requirements of the European nuclear industry
- The low-sulphur and low-chloride contents allow safe marking on stainless steel
- May be safely used on stainless steel and other alloy metals where corrosion resistance is important
- The aluminium squeeze tube and thick paint make it suitable for vertical and overhead surfaces
- The low-sulphur and low-chloride paints are resistant to weather, water and UV



78425 301

High-temperature tube marker

Design

- Metal-ball tube marker is ideal for hardening and heat treatments
- Markings applied at ambient temperature hold at temperatures up to 1000°C
- The aluminium squeeze tube and thick paint make it suitable for rough, vertical and overhead surfaces with excellent adhesion on oily and wet surfaces

Applications

High-temperature paint, ideal for welding seams, ingots, casting, forging and other hardening parts.

78425 101



78425 102



78425 103



78425 201



78425 301



Colour	Content ml	Writing thickness mm	Heat resistance °C	78425	...
White	60	3	200		101
Yellow	60	3	200		102
Red	60	3	200		103
White	60	3	200		201
White	60	3	1000		301

78431

Screw locking varnish



**Markal®**

Design

- Maximum-visibility locking varnish for quick and easy visual inspection: Security checks or changes to original settings on assemblies, facilitates identification of any accidental or deliberate adjustment movements
- Outstanding adhesion to a wide variety of surfaces
- Ideal for use on connectors, bolts, nuts, parts and assemblies after they have been set to the correct tension or position
- The sealing varnish suitable for alloys, free of heavy metals for safe use on metal
- Significantly more content compared with other products on the market (50 ml paint) for a longer service life and reduced work downtime

Applications

In industry and trades.



**NEW**

78431 101



78431 102



78431 103



78431 104



Colour	Content ml	Ambient temperature °C	Temperature resistance °C	78431	...
White	50	-20 to 70	200		101
Yellow	50	-20 to 70	200		102
Red	50	-20 to 70	200		103
Orange	50	-20 to 70	200		104

35448

**Pica Dry deep hole marker**



35448 101

**Pica Dry deep hole marker**

**Design**

- Marks and writes on almost all material surfaces (on dry, damp, smooth, rough, dusty, oily, bright or dark surfaces)
- Replaceable special lead made of graphite
- Automatic lead feed - Stainless steel tube
- Integrated sharpener on the front in the protector
- Practical quiver protector with special clip
- Marking on smooth surfaces can be wiped off with a damp cloth

35448 102-105

**Pica Dry replacement lead set**

**Design**

- For all surfaces
- Can be wiped off with a damp cloth
- Best output
- Best contrast
- Already sharpened
- Lead diameter 2.8 mm
- In a practical and robust plastic box

35448 102

**Comprising:**

- 4 graphite leads
- 2 red leads
- 2 yellow leads

35448 103

**Comprising:**

- 10 graphite leads

35448 104

**Comprising:**

- 10 red leads

35448 105

**Comprising:**

- 10 yellow leads

**Note:**

Red and yellow colour protect against high temperatures.

35448 101



	Colour	Pack = pieces	35448	...
Marker	-	-	101	
Refill set	Graphite, red, yellow	8	102	
Lead set	graphite	10	103	
Lead set	red	10	104	
Lead set	yellow	10	105	

35448 102



35448 103



35448 104



35448 105



35449

**Pica Ink deep hole marker**



**Design**

- Ideal for hard-to-reach areas
- Writes on all dry material surfaces
- Permanent ink, removable with alcohol and spiri
- Marking width 1–2 mm
- Can be left open for 1 day

- Self-adjusting patented stainless steel telescopic tip
- Practical quiver protector with special clip for one-handed operation

35449 101



35449 102



	Colour	35449	...
Marker	red	101	
Marker	black	102	

Workshop equipment

# Labellers

78428

## Labeller

### 2-axis labeller Markierteufel (MarkingMaster)

#### Design

Dot peen marking machine for labelling, identifying and marking nameplates and solid materials. Pneumatic dot peen marking head, 2-axis stepper motor - path control integrated in the housing. Serial interface for PC connection. Standard software with operation in standard Windows if desired, with pull-down menus, hotkeys and toolbar and status bar. Easily create the labelling layout: Texts, graphic elements (circles, squares and much more), counting function, free scaling of the objects, automatic date marking and much more.

### Applications

Labels steel, non-ferrous metals, plastics and much more.

78428



Dimensions approx. mm	Connection V	Compressed air bar	Labelling field mm	78428	...
250 x 260 x 160	240	6	80 x 50		101

78430

## Labelling devices

#### Note:

Further labelling systems and flexible identification systems available on request.

### 78430 101

#### 2-axis labeller EasyMarker

#### Design

With LED work area lighting. CNC-controlled needle marker. Labelling system for directly marking iron and non-ferrous metals, plastics, hardened materials. Especially in light of ISO 9000, this instrument facilitates marking, identification and traceability of workpieces. Simply enter the data using the keyboard (included). The input can be controlled on the LC display. Input data - insert workpiece - press start - finished!

#### Functions:

Fixed text, continuous numbers, automatic date, linear- angle- and circular marking, automatic zero-setting, teach in, variable type height (in increments of 0.1 mm), CE logo marking, mm/inch conversion. Software in three languages.

### 78430 102

#### 3-axis labeller EasyMarker with easyROT80

#### Design

Similar to art. no. 78430 101, additionally for labelling cylindrical or multi-edge parts. Full software support for path-controlled cylinder marking as well as for timed operation with freely selectable timing angle. Can also be used as a 2-axis instrument for marking workpieces on table surfaces.

78430 101



78430 102



Technical data:		78430 101	78430 102
Type		EasyMarker	EasyMarker with easyROT80
Speed in	mm/sec	100	100
Height adjustment	mm	300	300
Impact frequency up to	Hz	400	400
Imprinting force	N	100	100
Stroke	mm	5	5
Labelling speed	up to	4 characters/sec	4 characters/sec
Connection	Volt	240	240
Compressed air	bar	6	6
Travel paths	x/y/z	100 x 100	100 x 100 x 200
Max. workpiece Ø	mm	-	200
Max. workpiece weight	kg	50	10
Table size	mm	300 x 300	500 x 300
Chuck Ø	mm	-	80
Tip height	mm	-	120
Dimensions	mm	300 x 650 x 350	500 x 650 x 350
Weight approx.	kg	18	25

Type	78430	...
EasyMarker		101
EasyMarker with easy ROT80		102



Workshop equipment



**78450 - 78454**

**Design**

Labellers for high-speed production of self-adhesive labels.

1 + 1 year warranty for art. no. 78450.

2 + 1 year warranty for art. no. 78452-78454.

**Note:**

For label tape cassettes see art. no. 78456 to 78459. For batteries see art. no. 39900.

**78450**



**Rhino 5200 in case**

**Design**

Meets all ANSI, TIA/EIA-606-A- labelling standards. Direct access keys automatically adjust size, spacing and format of labels for wires and cables, terminal blocks, patch panels and applications with vertical and fixed length. Pre-programmed symbol library. Non-slip rubber coating protects device from damage. Belt loop keeps your hands free. Backlit display. Nylon tape 19 mm white, quick start guide, Li-ion batteries or 6 AA batteries (not included).

**Applications**

For fast, professional printing of barcodes, labelling of wires, cables, buttons, modules and fixed lengths using quick access keys in industry, audio/video, security, maintenance, construction, electrical engineering and data communication and radio/television.

**78452**

**LabelManager 360 D**

**Design**

In a box with tape 19 mm, black/white. Supplied with a Li-ion battery and charger.

**78453**

**LabelManager 280**

**Design**

- Professional portable labeller
- Computer-style QWERTZ keyboard
- With PC connection capability

With labelling tapes 12 mm/9 mm, black/white.

Supplied with a Li-ion battery, mains power supply adapter, transport case, USB cable.

**Applications**

Use standalone or connected to a PC or MAC via USB to print barcodes, logos, labels etc. with the DYMO Label software.

**78454**

**LabelManager 210 D**

**Design**

In a box with tape 12 mm/3 m, black/white. Batteries not included.

**78455**

**Mains power supply adapter**

**Applications**

For art. no. 78454.



78450



78452



78454



78453



78455



Art. no.	78450	78452	78453	78454
Features	Rhino 5200 in case	LabelManager 360 D	LabelManager 280	LabelManager 210 D
Printing method	Thermal transfer	Thermal transfer	Thermal transfer	Thermal transfer
Print resolution dpi	180	180	180	180
Max. number of lines	5	2	2	2
Max. print height mm	18	13.5	8.1	9.6
Printing speed mm/s	-	10.0	10.0	6.8
Cassette type	IND	D1	D1	D1
Tape width mm	6, 9, 12, 19	6, 9, 12, 19	6, 9, 12	6, 9, 12
Keyboard type	ABC	QWERTZ	QWERTZ	QWERTZ
Number of keys	61	63	58	57
RACE (quick key input)	x	x	x	x
Display number of characters	2 x 15	2 x 16	2 x 14	2 x 13
LC display size mm	-	66 x 36	56 x 28	60 x 17
Number of characters/symbols	> 100	221	221	132
Number of fonts	-	3	3	1
Number of font sizes	7	7	6	6
Number of font styles	5	7	18	7
Effects	x	x	x	x
Memory last label	x	x	x	x
Label memory	> 100	9	9	9
Dynamic memory	x	x	x	x
Preferred formats	x	x	x	x
Tape section	Manual	Manual	Manual	Manual
Device dimensions W x D x H mm	235 x 295 x 105	215 x 245 x 85	107.5 x 206 x 46.5	155 x 165 x 65
Batteries	6 Mignon AA/Li-ion	Li-ion	Li-ion	5 Mignon AA
Mains power supply adapter (optional)	x	x	x	x

DYMO Rhino 5200 in case	DYMO LM 360 D	DYMO LM 280	DYMO LM 210 D	Mains power supply adapter
78450	78452	78453	78454	78455
201	301	301	101	101



78456

Label tape cassettes IND for DYMO Rhino 5200



Applications

Label tape cassettes IND for Rhino 5200.

Label tape Material	Colour	Width mm	Tape length m	78456	...
Nylon	Yellow	12	3.5		201
Nylon	Yellow	19	3.5		202
Nylon	White	12	3.5		203
Nylon	White	19	3.5		204
Polyester	White	12	5.5		301
Polyester	White	19	5.5		302
Vinyl	White	12	5.5		401
Vinyl	White	19	5.5		402
Vinyl	Yellow	12	5.5		403
Vinyl	Yellow	19	5.5		404



78456

78457 - 78459

Label tape cassettes for DYMO



Design

In tape cassette D1.

Note:

Also suitable for DYMO labellers type Pocket, 1000, 2000, 3500, 4500, 5000, 5500.

Tape width	Tape length m	9 mm	12 mm	19 mm	...
Label tape cassette Colour		78457	...	78458	...
Black/transparent	7		101		201
Black/white	7		104		204
Black/yellow	7		109		209



78457 - 78459

78460 - 78464

Electric engraver (marking device)

Design

- Cable,
- Plug,
- Earthing plate.

78460

Design

- Including stylus with 3 scriber points.

Applications

For labelling metal.

78461

Design

- Including metal stylus with 3 scriber points,
- 1 branding pencil with 3 hot loops.

Applications

For labelling metal, leather, plastic and wood.

78462 101

78462 102



78463

78464



78461



Alternating current V	Transformer VA	Stylus mm	Version	78460	...	78461	...
230	40	1.2 x 25	In wooden case			201	301

	Use for	Dimensions mm	Pack = pieces	78462	...	78463	...	78464	...
Spare stylus	Metal labelling	-	-			101			
Spare stylus	Wood labelling	-	-			102			
Spare stylus	-	1.2 x 25	10				201		
Spare stylus	-	1.5 x 25	10				202		
Earth terminal	-	-	-						101

Workshop equipment

78465

## Engraving device

**Markal**<sup>®</sup>**Design**

- Electric drive based on the vibrating anchor system, with double insulation and no maintenance
- Very easy-to-handle moulded plastic housing
- Continuous and precise adjustment of the maximum stroke length (impact strength)

**Applications**

For clean, hands-free labelling and marking, as well as for engraving of all metals, glass, plastic, stone, wood and leather, etc.

**Scope of delivery:**

- 1 diamond graver
- 1 carbide graver
- 1 modelling graver for wood, plastic
- 1 graver adapter



78465



Type	Stroke length mm	Volt	Hz	Version	78465	...
Vibogravc VG490	3	230	50/60	Plastic case		101

78466

## Compressed-air marker

**PFERD**

78466 101

**Marker MST 31 M****Design**

- Exhaust air to the front,
- Air consumption 25-30 l/min.,
- Clear air supply hose Ø 4 mm,
- Frequency 500-600 strokes/sec,
- Hose length 2000 mm,
- Operating pressure 6-7 bar,
- Air supply hose included,
- The compressed-air marker is patented based on a new principle with approximately 3x the frequency of previous compressed-air-operated markers,
- With cemented carbide engraving needle,
- No harmful vibrations are transferred to the hand while working.

**Applications**

For applying markings and labels to metal, glass, plastic and even hardened tool steel.

78466 101



78466 201-203



Type	Tape width mm	Valve type	Needle size	78466	...
MST 31 M	Medium	Rotary valve	-		101
Spare carbide engraving needle	-	-	Fine		201
Spare carbide engraving needle	-	-	Medium		202
Spare carbide engraving needle	-	-	Coarse		203

78474

## Metal marking device

78474 201

**Model PICO 10-30-3/Timer****Design**

With time control, acoustic signal, overload and short-circuit protection, temperature limiter. Power 30 VA, input 220 V~ - 50/60 Hz, output 12 V~/AC.

**Applications**

For permanent dark product marking on plain metals. Suitable for tools, e.g. dies, cutters, drills, turning tools, saw blades, steel and cutlery, surgical instruments, parts for the chemical industry, cooking and catering technology, heating and plumbing fixtures.

**Set contents**

- 1 Marking punch,
- 1 Electronic stencil set,
- 1 Contact plate,
- 1 Container for electrolyte,
- 1 Marking device,
- 1 Cable for marking punch,
- 1 Bottle of electrolyte,
- 1 Bottle of Neutralin,
- 1 Cable for contact plate with
- 1 Alligator clip.

78474

Application	Contents	Version	78474	...
PICO 10-30-3/Timer	-	In plastic case		201
Electrolyte	General purpose	500 ml	-	102
Electrolyte	Non-rusting materials	500 ml	-	103
Neutralin	Neutralising	500 ml	-	108
Wax template	For self-labelling	100 pieces	-	109



**78475 Tool tag sets**

**Design**

Stamped aluminium, with hole and sequential numbering. Round, with knurled ring.



78475

Set numbered from - to	Thickness mm	Ø mm	Set = pieces	78475	...
1 - 10	1	27	10		101
11 - 20	1	27	10		102
21 - 30	1	27	10		103
31 - 40	1	27	10		104

Set numbered from - to	Thickness mm	Ø mm	Set = pieces	78475	...
41 - 50	1	27	10		105
51 - 60	1	27	10		106
61-70	1	27	10		107
Without no.	1	27	10		111

**78480 - 78490 Sealing pliers**

**78480**

**Sealing pliers**

**Design**

Nickel-plated, with elbow lever transmission and plastic-coated handles, without engraving.

**Applications**

For lead seals.

**78485**

**Lead seals (cylinder seals).**

Pack = 1000 units.

**78490**

**Seal wire**

Zinc-plated, 0.5 x 0.3 mm thickness, in 20 cm long pieces, bundle approx. 1/2 kg (= 1000 pieces).

Seal Ø mm	Length mm	Sealing pliers		Lead seals		Seal wire	
		78480	...	78485	...	78490	...
8	125		101		201		
10	175		102		202		
-	-						101



78480

**78605 Strong magnets**

**Design**

Bridge-shaped magnet with high adhesive force and through-bore for mounting.

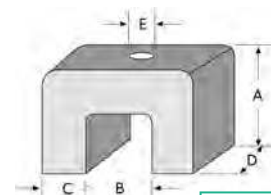
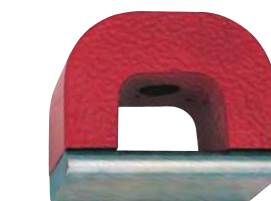
**Applications**

For holding, lifting, positioning and installation purposes.

**Note:**

Size 4 with 2 bores.

Size	A mm	B mm	C mm	D mm	E mm	Adhesive force N	Application temp. of magnet max. °C	Paint max. °C	78605	...
1	20.0	15.0	7.5	20.0	5.2	45	450	300		201
2	25.0	20.0	10.0	25.0	5.0	90	450	300		202
3	30.0	23.0	11.0	30.0	5.0	118	450	300		203
4	34.9	34.9	11.1	44.5	7.9	235	450	300		204



78605

**78606 Bar magnets**

**Design**

Pack = 2 units.

Axial magnetised through the length. Cross-section/Ø: unmachined. Tolerances: Length +/- 0.1 mm, cross-section round +0/-0.2 mm, cross-section flat +/-0.2 mm.

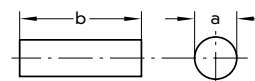
**Applications**

By lining up individual magnets, bar magnets can be formed in any length.

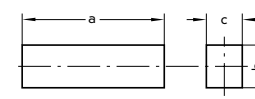
**78606 201-208**

In pairs.

Size	Shape	a mm	b mm	c mm	Adhesive force N	Application temp. of magnet max. °C	Paint max. °C	78606	...
11	Round	6	20	-	4	450	300		201
12	Round	8	24	-	7	450	300		202
13	Round	10	30	-	12	450	300		203
14	Flat	20	10	5	6	450	300		204
16	Flat	60	15	5	20	450	300		206
18	Flat	75	15	10	14	450	300		208



78606 201-203



78606 204-208

Workshop equipment