OUR BEST OFFERS

THE LATEST DEALS FROM HAHN+KOLB





TABLE OF CONTENTS

| | MACHINING AND CLAMPING | PAGE | 4 |
|---|------------------------|------|----|
| | | | |
| | | | |
| | MEASURING AND TESTING | PAGE | 10 |
| | | | |
| | | | |
| | WORKSHOP EQUIPMENT | PAGE | 18 |
| | | | |
| | GENERAL TOOLS | PAGE | 22 |
| | | | |
| \ | | | |
| | GRINDING TECHNOLOGY | PAGE | 28 |

OUR BEST OFFERS \ CUTTING TOOLS

<u>ATORN</u>® HSS centre drill, form A

FOR UNIVERSAL USE UP TO 1000 N/MM²





Radial relief grinding ensures optimum chip breaking



Robust metal box

Spiral-fluted design with relief grinding

Uncoated design

Application:

For centre drilling on conventional and CNC machines.

Design:

- Spiral-fluted design with relief grinding
- Ø 0.5-0.8, ground on one side
- Uncoated design

Set contents: each 1 x 1 mm/ 1.6 mm/5 mm; 2 x 2 mm/2.5 mm/4 mm;

3 x 3.15 mm

Ref. no. 900

| Ø 9 | b | ± <u>+</u> | | f steel 700 ● | 11001 |
|--------|----------|------------|------|---------------|----------|
| mm | mm | mm | mm | mm/r | Ref. no. |
| 0.5 | 3.15 | 0.6-0.8 | 25 | 0.01 | 005 |
| 0.8 | 3.15 | 1-1.2 | 25 | 0.02 | 008 |
| 1 | 3.15 | 1.3-1.6 | 31.5 | 0.02 | 010 |
| 1.25 | 3.15 | 1.6-1.9 | 31.5 | 0.03 | 012 |
| 1.6 | 4 | 2-2.4 | 30.3 | 0.03 | 016 |
| 2 | 5 | 2.5-2.9 | 40 | 0.04 | 020 |
| 2.5 | 6.3 | 3.1-3.6 | 45 | 0.05 | 025 |
| 3.15 | 8 | 3.9-4.4 | 50 | 0.05 | 031 |
| 4 | 10 | 5-5.6 | 56 | 0.06 | 040 |
| 5 | 12.50 | 6.3-6.9 | 63 | 0.07 | 050 |
| 6.3 | 16 | 8-8.6 | 71 | 0.08 | 063 |

| Application | St | eel (N/mm | 1 ²) | Stainles | ss steel | Alum | inium | Bra | ass | Bro | nze | Plastics | Graphite/ | GG(G) | Tita- | Nickel | Super | Hard m | naterial |
|-------------|------|-----------|------------------|------------------|-----------------|-------|-------|-----|-----|-------|------|----------|-----------|-------|---------------|--------|-------|------------|------------|
| No. | <700 | <1000 | <1300 | Marten- sitic | Auste- nitic | Short | | | I | Short | Long | | G(C)FK | GJMW | nium alloy | alloy | alloy | <55 HRC | <65 HRC |
| 11001 | 35 | 20 | 10 | 10 | | 50 | 70 | 40 | 30 | 35 | 30 | 20 | 10 | 20 | | | | | |





DIN 338 5xD HSSE U4 type twist drill

WITH FOUR-FACED POLISHED SECTION







Application:

Universal use in all material groups up to a strength of 1300 N/mm².

Advantage:

- 4-faced polished section for drilling without centring
- For universal use: tool costs minimised and greater flexibility for the user

• Extremely hard, low-friction, temperature-resistant and form-fitting TiNAIOX coating ensures greater service life

| Cutting material HSSE HSSE Cutting material | HSSE | HSSE |
|---|------------|------------|
| Surface Uncoated TiNAIOX Surface | Uncoated | Tinalox |
| f steel 1000 ● 11023 11037 | 11023 | 11037 |
| mm mm mm/r Ref. no. Ref. no. mm mm mm/r mm/r | Ref. no. | Ref. no. |
| 1 12 34 0.03 081 081 6 57 93 0.11 | 371 | 371 |
| 1.1 14 36 0.03 091 091 6.1 63 101 0.11 | 373 | 373 |
| 1.2 16 38 0.03 101 101 6.2 63 101 0.11 | 375 | 375 |
| 1.3 16 38 0.03 111 111 6.3 63 101 0.11 | 377 | 377 |
| 1.4 18 40 0.03 121 121 6.4 63 101 0.12 | 379 | 379 |
| 1.5 18 40 0.03 131 131 6.5 63 101 0.12 | 381 | 381 |
| 1.6 20 43 0.03 141 141 6.6 63 101 0.12 | 383 | 383 |
| 1.7 20 43 0.03 151 151 6.7 63 101 0.12 | 385 | 385 |
| 1.8 22 46 0.03 161 161 6.8 69 109 0.12 | 387 | 387 |
| 1.9 22 46 0.03 171 171 6.9 69 109 0.13 | 389 | 389 |
| 2 24 49 0.03 181 181 7 69 109 0.13 | 391 | 391 |
| 2.1 24 49 0.03 192 192 7.1 69 109 0.13 2.2 27 53 0.04 202 202 7.2 69 109 0.13 | 393 | 393 |
| | 396 | 396 |
| 2.3 27 53 0.04 210 210 7.3 69 109 0.14 | 398 | 398 |
| 2.4 30 57 0.04 220 220 7.4 69 109 0.14 2.5 30 57 0.04 230 230 7.5 69 109 0.14 | 400 402 | 400 402 |
| | 402 | 402 |
| 2.6 30 57 0.04 240 240 7.6 75 117 0.14 2.7 33 61 0.04 250 250 7.7 75 117 0.14 | 405 | 405 |
| 2.8 33 61 0.04 260 260 7.8 75 117 0.15 | 407 | 407 |
| 2.8 33 61 0.04 270 270 7.9 75 117 0.15 | 411 | 411 |
| 3 33 61 0.04 280 280 8 75 117 0.15 | 414 | 414 |
| 3 35 61 0.04 280 280 6 75 117 0.13 3.1 36 65 0.04 282 282 8.1 75 117 0.15 | 416 | 416 |
| 3.2 36 65 0.04 286 286 8.2 75 117 0.15 | 418 | 418 |
| 3.3 36 65 0.05 289 289 8.3 75 117 0.15 | 420 | 420 |
| 3.4 39 70 0.05 291 291 8.4 75 117 0.15 | 423 | 423 |
| 3.5 39 70 0.05 293 293 8.5 75 117 0.15 | 425 | 425 |
| 3.6 39 70 0.05 296 296 8.6 81 125 0.15 | 427 | 427 |
| 3.7 39 70 0.06 299 299 8.7 81 125 0.15 | 429 | 429 |
| 3.8 43 75 0.06 302 302 8.8 81 125 0.16 | 432 | 432 |
| 3.9 43 75 0.06 305 305 8.9 81 125 0.16 | 434 | 434 |
| 4 43 75 0.06 310 310 9 81 125 0.16 | 436 | 436 |
| 4.1 43 75 0.06 314 314 9.1 81 125 0.16 | 438 | 438 |
| 4.2 43 75 0.07 316 316 9.2 81 125 0.16 | 441 | 441 |
| 4.3 47 80 0.07 319 319 9.3 81 125 0.16 | 443 | 443 |
| 4.4 47 80 0.07 324 324 9.4 81 125 0.16 | 445 | 445 |
| 4.5 47 80 0.07 326 326 9.5 81 125 0.16 | 447 | 447 |
| 4.6 47 80 0.08 329 329 9.6 87 133 0.16 | 450 | 450 |
| 4.7 47 80 0.08 332 332 9.7 87 133 0.16 | 452 | 452 |
| 4.8 52 86 0.08 335 335 9.8 87 133 0.16 | 454 | 454 |
| 4.9 52 86 0.08 337 337 9.9 87 133 0.16 | 456 | 456 |
| 5 52 86 0.08 341 341 10 87 133 0.16 | 459 | 459 |
| 5.1 52 86 0.09 344 344 10.2 87 133 0.16 | 461 | 461 |
| 5.2 52 86 0.09 349 10.5 87 133 0.17 | 466 | 466 |
| 5.3 52 86 0.09 352 352 11 94 142 0.17 | 473 | 473 |
| 5.4 57 93 0.09 355 355 11.5 94 142 0.17 | 480 | 480 |
| 5.5 57 93 0.1 358 358 12 101 151 0.18 | 488 | 488 |
| 5.6 57 93 0.1 361 361 12.5 101 151 0.18 | 494 | 494 |
| 5.7 57 93 0.1 364 364 13 101 151 0.18 | 500 | 500 |
| 5.8 57 93 0.1 367 367 13.5 108 160 0.18 | - | 507 |
| 5.9 57 93 0.1 369 369 14 108 160 0.19 | - | 514 |

| Application | St | eel (N/mm | n²) | Stainless steel Aluminium | | | Brass Bronze | | | Plastics | Graphite/ | | Tita- | Nickel | | Hard m | naterial | | |
|-------------|------|-----------|-------|---------------------------|-----------------|-------|--------------|-------|------------|----------|------------|----|--------|--------|---------------|--------|----------|------------|------------|
| No. | <700 | <1000 | <1300 | Marten- sitic | Auste- nitic | Short | Long | Short | Short Long | | Short Long | | G(C)FK | GJMW | nium alloy | alloy | alloy | <55 HRC | <65 HRC |
| 11023-11037 | 40 | 20 | 10 | 10 | 8 | 60 | 80 | 70 | 45 | 40 | 30 | 30 | 10 | 30 | 10 | 10 | 10 | | |

OUR BEST OFFERS \ CUTTING TOOLS



Pitch of the drill Ø

0.1 mm

0.1 mm

0.5 mm

0.5 mm + core drill

0.5 mm

0.1 mm

ATORN[®] ORION[®]

5xD HSS twist drill set

IN METAL BOX

<u>ATORN</u>°

Steam-treated

HSS

11042

Ref. no.

011

Surface

Type

Cutting material

Number of pieces

Quantity

50

41

24

25

ORION

Steam-treated

HSS

11044

Ref. no.

021

051

061

071

Application:

Proven standard geometry for universal use in steel, non-ferrous metal and cast i ron material groups up to a strength of 1000 N/mm².

Design:

 Twist drill with universal standard geometry

Advantage:

- Long-term proven cutting geometry: very good all-round properties and precise cutting behaviour
- Steam treatment ensures a good level of adhesion to the drill and increases the service life
- · The robust and user-friendly metal box guarantees reliable protection and easy
- Universal use up to 1000 N/mm²

| Application | St | eel (N/mr | n²) | Stainle | ss steel | Alum | inium | Bra | ass | Bro | nze | Plastics | Graphite/ | | Tita- | Nickel | | Hard m | naterial |
|-------------|------|-----------|-------|------------------|-----------------|-------|-------|-------|------|-------|------|----------|-----------|------|---------------|--------|-------|------------|------------|
| No. | <700 | <1000 | <1300 | Marten- sitic | Auste- nitic | Short | Long | Short | Long | Short | Long | | G(C)FK | GJMW | nium alloy | alloy | alloy | <55 HRC | <65 HRC |
| 11042-11044 | 30 | 20 | | 10 | | 40 | 60 | 70 | 45 | 40 | 30 | 20 | 10 | 25 | | | | | |

ATORN®

Composition of set

1.0-5.9

6.0-10.0

1.0-10.0

1.0-10.5

1.0-13.0

1.0-10.0

DIN 338 5xD HSSE UNI type multi-twist drill set

THE TROUBLESHOOTER IN STAINLESS STEEL PROCESSING



Application:

The newly developed multi-twist drill has been specifically developed for mobile use on cordless drill screwdrivers and drills. The drill works to optimum effect up to a panel thickness of 5 mm.

Design:

- 135° tip angle and optimised centre grinding
- 40° twist angle

| A | dvanta | age |
|---|--------|-----|
| _ | Thron | for |

- Three-faced polished section on the shank
- · For optimal power transmission and fixing in the drill chuck
- · Slippage is a thing of the past

| Composition of set | | 2.0-8.0 | 1.0-10.0 | 1.0-13.0 |
|----------------------|----------|---------|----------|----------|
| Pitch of the drill Ø | mm | 1 | 0.5 | 0.5 |
| Number of pieces | Quantity | 6 | 19 | 25 |
| 11032 | Ref. no. | 001 | 002 | 003 |

| Application | St | eel (N/mn | n²) | Stainless steel Aluminium | | | | | ass | Bro | nze | Plastics | Graphite/ | | Tita- | Nickel | | Hard m | naterial |
|-------------|------|-----------|-------|---------------------------|-----------------|-------|------|-------|------|-------|------|----------|-----------|------|---------------|--------|-------|------------|------------|
| No. | <700 | <1000 | <1300 | Marten- sitic | Auste- nitic | Short | Long | Short | Long | Short | Long | | G(C)FK | GJMW | nium alloy | alloy | alloy | <55 HRC | <65 HRC |
| 11032 | 30 | 20 | 10 | 10 | 10 | 50 | 60 | 50 | 45 | 40 | 30 | 20 | 15 | 30 | 10 | 10 | 10 | | |



Application:

To drill out broken-off screw taps up to a hardness of 63 HRC using bench-type or column-type drills, wet or dry machining

ATORN®

Drill extractor set for machine tap

FOR HARDENED STEELS UP TO 63 HRC



at a rotation speed of 1000-2000 rpm in hand-feed or for wet machining on CNC machines at a rotation speed of 1400-2400 rpm and a feed rate of 0.03 to 0.06 per revolution. The drill bit has a service life of 3 to 5 screw taps.

Design:

• Precision-ground drill extractor for solid carbide TiN screw tap with three cutting edges for M3, M4, M5, M6, M8, M10, M12

| 13521 | Ref. no. | 300 |
|-------|----------|-----|
|-------|----------|-----|



Combi thread bit set

ALL IN ONE OPERATION

Application:

For producing metric threads (drill, thread, deburr and clean thread in one operation!) for portable use on cordless drill screwdrivers and hand drills in clockwise rotation and anti-clockwise rotation in steel, non-ferrous metals and (cast iron) material groups up to a strength of 700 N/mm² up to 1xD thread depth in single-part production.

Design:

- Precision-ground, right-hand screw tap set with drill step and 1/4" hexagon drive
- HSS for M3, M4, M5, M6, M8, M10
- · For high demands on process reliability and service life

Advantage:

· High productivity



Tap drilling, thread cutting, deburring.



Composition of set

1 of each combi screw tap bit M3/M4/ M5/M6/M8/M10

13407

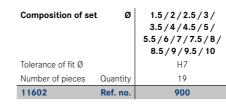
200

| plication | St | eel (N/mm | 1 ²) | Stainles | s steel | Alumi | nium | Bra | iss | Bro | nze | Plastics | Graphite/ | GG(G) | Tita- | | Super | Hard m | aterial |
|-----------|------|-----------|------------------|------------------|-----------------|-------|------|-------|------|-------|------|----------|-----------|-------|---------------|-------|-------|------------|------------|
| No. | <700 | <1000 | <1300 | Marten- sitic | Auste- nitic | Short | Long | Short | Long | Short | Long | | G(C)FK | GJMW | nium alloy | alloy | alloy | <55 HRC | <65 HRC |
| 13407 | • | • | | | | • | • | • | • | • | • | • | | | | | | | |

ATORN[®]

HSS hand reamer set





FOR UNIVERSAL USE UP TO 1000 N/MM²

Application:

For producing H7 fit tolerances by hand in the through hole or for interrupted cutting conditions in the material groups of steel, (stainless steel), non-ferrous metals, (cast metal) and (special alloys) up to a strength of 1000 N/mm² in individual part production.

• Precision-ground design with 7–8° left-hand spiral

• For highest demands on dimensional accuracy and service life

| Application | St | eel (N/mn | n²) | Stainle | ss steel | Alum | inium | Brass | | Bro | nze | Plastics | Graphite/ | | Tita- | Nickel | Super | Hard m | naterial |
|-------------|------|-----------|-------|------------------|-----------------|-------|-------|-------|------|-------|------|----------|-----------|------|---------------|--------|-------|------------|------------|
| No. | <700 | <1000 | <1300 | Marten- sitic | Auste- nitic | Short | Long | Short | Long | Short | Long | | G(C)FK | GJMW | nium alloy | alloy | alloy | <55 HRC | <65 HRC |
| 11302 | • | • | 0 | 0 | 0 | • | 0 | • | 0 | • | 0 | 0 | | 0 | 0 | 0 | | | |

OUR BEST OFFERS \ CUTTING TOOLS

<u>ATORN</u>®

Solid carbide end mill sets for steel up to 52 HRC or 65 HRC

4 ROCKTEC 52/65 COATED CUTTERS















Application:

Hard milling tools from ATORN offer you the best conditions for efficient hard machining: with their special form of edge treatment and new coatings, the RockTec 52 and RockTec 65 sets ensure the highest degree of precision, an optimum service life and the perfect level of performance when working with hard materials. Its quality and performance make the ATORN range a reliable tool in all areas of the tool and mould construction.

Design:

- Standard design end mill for processing up to 52 HRC and 65 HRC
- Centre cutting
- · Cutting edge finish
- HA shaft in line with DIN 6535
- With clearance
- 1 x Ø 6/8/10/12 mm in set

| , | Feed RT65 - hardene | d materials | h5 mm mm/Z mm/Z | 6 0.03 | 8 0.04 0.03 | 10 0.05 0.04 | |
|---|------------------------|-------------|-----------------------|-----------|-------------------|--------------------|------------|
| Cutting edge Ø h9 mm 6 8 10 12 Cutting edge length mm 16 20 22 25 Clearance length mm 20 30 32 37 Total length mm 50 64 70 75 Clearance Ø mm 5.5 7.4 9.2 11 Shaft Ø h5 mm 6 8 10 12 Feed RT52 - steel < 1000 N/mm² mm/Z 0.03 0.04 0.05 0.06 | | • | h5 mm mm/Z | 6 0.03 | 8 0.04 | 10 0.05 | 12 0.06 |
| Cutting edge Ø h9 mm 6 8 10 12 Cutting edge length mm 16 20 22 25 Clearance length mm 20 30 32 37 Total length mm 50 64 70 75 Clearance Ø mm 5.5 7.4 9.2 11 Shaft Ø h5 mm 6 8 10 12 | Feed RT52 - steel < 1 | 1000 N/mm² | h5 mm | 6 | 8 | 10 | 12 |
| Cutting edge Ø h9 mm 6 8 10 12 Cutting edge length mm 16 20 22 25 Clearance length mm 20 30 32 37 Total length mm 50 64 70 75 Clearance Ø mm 5.5 7.4 9.2 11 | | | | | | | |
| Cutting edge Ø h9 mm 6 8 10 12 Cutting edge length mm 16 20 22 25 Clearance length mm 20 30 32 37 Total length mm 50 64 70 75 | Shaft Ø | | mm | 5.5 | 7.4 | 9.2 | 11 |
| Cutting edge Ø h9 mm 6 8 10 12 Cutting edge length mm 16 20 22 25 Clearance length mm 20 30 32 37 | Clearance Ø | | | | | | |
| Cutting edge Ø h9 mm 6 8 10 12 Cutting edge length mm 16 20 22 25 | Total length | | mm | 50 | 64 | 70 | 75 |
| Cutting edge Ø h9 mm 6 8 10 12 | Clearance length | | mm | 20 | 30 | 32 | 37 |
| | Cutting edge length | | mm | 16 | 20 | 22 | 25 |
| Set contents Ø 6-12 mm each 1x 1x 1x 1x | Cutting edge Ø | | h9 mm | 6 | 8 | 10 | 12 |
| | Set contents Ø 6-12 | mm | each | 1x | 1x | 1x | 1x |
| | Sat analysis (I. / 10) | | | l 4 | l 4 | l 4 | I 4 |

| Application | St | eel (N/mn | n²) | Stainles | ss steel | Alum | inium | Bra | ass | Bro | nze | Plastics | Graphite/ | GG(G) | Tita- | | Super | Hard m | naterial |
|-------------|------|-----------|-------|------------------|-----------------|-------|-------|-------|------|-------|------|----------|-----------|-------|---------------|-------|-------|------------|------------|
| No. | <700 | <1000 | <1300 | Marten- sitic | Auste- nitic | Short | Long | Short | Long | Short | Long | | G(C)FK | GJMW | nium alloy | alloy | alloy | <55 HRC | <65 HRC |
| 10000 630 | 160 | 150 | 120 | 114 | 100 | | | | | | | | | 130 | 100 | 90 | 80 | 70 | |
| 10000 631 | | 200 | 180 | 140 | | | | | | | | | | | | | 95 | 140 | 120 |

ORION°

Solid carbide HPC end mill set

WITH EDGE PROTECTION CHAMFER









Application:

HPC end mill set with unequal twist and pitch for universal rough and smooth machining.

| et contents Ø 6-12 mm | each | 1x | 1x | 1x | 1x |
|--|----------|------|------|------|------|
| utting edge Ø | mm | 6 | 8 | 10 | 12 |
| utting edge length | mm | 13 | 21 | 22 | 26 |
| learance length | mm | 19 | 25 | 30 | 36 |
| otal length | mm | 57 | 63 | 72 | 83 |
| learance Ø | mm | 5.8 | 7.7 | 9.7 | 11.6 |
| haft Ø | mm | 6 | 8 | 10 | 12 |
| eed per tooth - steel < 1000 N/mm ² | mm | 0.05 | 0.06 | 0.07 | 0.08 |
| 6851 | Ref. no. | | 29 | 98 | |
| | | | | | |

| Set contents Ø 6-16 mm | each | 1x | 1x | 1x | 1x | 1x |
|---|----------|------|------|------|------|------|
| Cutting edge Ø | mm | 6 | 8 | 10 | 12 | 16 |
| Cutting edge length | mm | 13 | 21 | 22 | 26 | 36 |
| Clearance length | mm | 19 | 25 | 30 | 36 | 42 |
| Total length | mm | 57 | 63 | 72 | 83 | 92 |
| Clearance Ø | mm | 5.8 | 7.7 | 9.7 | 11.6 | 15.5 |
| Shaft Ø | mm | 6 | 8 | 10 | 12 | 16 |
| Feed per tooth - steel < 1000 N/mm ² | mm | 0.05 | 0.06 | 0.07 | 0.08 | 0.12 |
| 16851 | Ref. no. | | | 299 | | |

Design:

- Solid carbide ultra-fine grain, ULTRA
- Straight shank in line with DIN 6535 HB
- Unequal twist angle of 35°/38°



ORION°

Type N extra long solid carbide HPC end mill, 4 cutting edges



Design:













WITH CLEARANCE

- Straight shank in line with DIN 6535 HB

- Unequal twist angle of 35°/38°
- With edge protection chamfer
- Chip breaker on every flute

Advantages:

- · Optimal suitability for trochoidal cutting
- With chip breaker geometry for short
- HPC geometry for maximum feed rates and smooth running

| Cutting edge Ø | e8 mm | 6 | 8 | 10 | 12 | 16 | 20 |
|---|----------|------|------|------|------|------|------|
| Cutter length I2 | mm | 18 | 24 | 31 | 41 | 51 | 61 |
| Clearance length | mm | 24 | 30 | 38 | 46 | 58 | 74 |
| Length | mm | 62 | 68 | 80 | 93 | 108 | 126 |
| Clearance Ø | mm | 5.8 | 7.7 | 9.7 | 11.6 | 15.5 | 19.5 |
| Shaft Ø | mm | 6 | 8 | 10 | 12 | 16 | 20 |
| Edge protection chamfer length | mm | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Number of cutting edges | Quantity | 4 | 4 | 4 | 4 | 4 | 4 |
| Feed per tooth - steel < 1000 N/mm ² | mm | 0.05 | 0.06 | 0.07 | 0.08 | 0.11 | 0.13 |

| Application | St | eel (N/mn | n²) | Stainles | ss steel | Alum | inium | Bra | ass | Bro | nze | Plastics | Graphite/ | | Tita- | Nickel | | Hard m | naterial |
|-------------|------|-----------|-------|------------------|-----------------|-------|-------|-------|------|-------|------|----------|-----------|------|---------------|--------|-------|------------|------------|
| No. | <700 | <1000 | <1300 | Marten- sitic | Auste- nitic | Short | Long | Short | Long | Short | Long | | G(C)FK | GJMW | nium alloy | alloy | alloy | <55 HRC | <65 HRC |
| 16851 | 230 | 190 | 150 | 120 | 100 | | | 350 | 300 | 240 | 280 | | | 160 | 100 | 70 | 70 | | |

<u>ATORN</u>®

3D edge finder

WITH DIAL GAUGE

Dial gauge very easy to read off





Can be used with all tool and eroding machines



Robust metal housing

Application:

Suitable for defining and setting the workpiece reference points on all 3 axes (X, Y and Z) on all milling machines and machining centres. The workpiece is measured in any direction with the measuring probe until both indicators are at '0'.

Design:

- Direct path measurement in Z axis, can be used vertically and horizontally, concentricity can be readjusted via four screws
- Nominal breaking point on the measuring probe prevents damage to the workpiece or dial gauge
- IP 67 degree of protection

Scope of delivery:

Incl. No. 23924 004 probe insert

Housing width 65 65 Probe head diameter Clamping shaft Ø 57 Dial gauge Ø 57 Scale interval 0.01 0.01 Probe insert length Tool chuck SK 40 Repeat accuracy (+/-) 0.01 0.01 IP degree of protection 67 23924 010 020





Probe insert

FOR 3-D EDGE FINDER

Application:

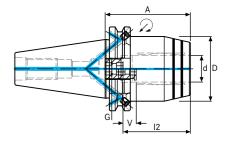
Replacement probe insert for 3-D edge finder, **ref. no. 23924 010–020.**

 Nominal breaking point on measuring probe prevents damage to 3-D edge

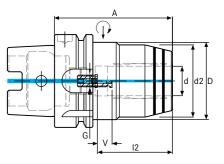
| Probe head Ø | mm | 4 | 8 |
|-----------------------|----------|------|------|
| Probe insert length | mm | 33 | 75 |
| Repeat accuracy (+/-) | mm | 0.01 | 0.01 |
| 23924 | Ref. no. | 004 | 008 |

Design:











High-performance hydro expansion chuck

SHORT, HEAVY-DUTY DESIGN



Application:

For high-precision and centric clamping of milling, drilling and reaming tools – particularly with milling and heavy-duty machining during rough machining.

Design:

- Axial longitudinal adjustment
- Reducing sleeves for flexible applications

- Coolant pressure up to 80 bar
- Very high concentricity (< 3 μm)
- Heat-resistant up to 100 °C

Advantages:

- Sturdy version ideal for HPC+HSC metal cutting
- Damping properties to increase duration of tools and service life of machine spindle
- Very high torque transfer
 (Ø 20 = 650 Nm/Ø 32 = 890 Nm)
- All common shanks can be clamped (Ø tolerance h6)
- Vibration-damping effect minimises micro ruptures and improves the surface quality of the tool

| Tool chuck | | SK 40 | SK 50 | HSK 63 | HSK 100 |
|---------------------|----------|--------|--------|---------|---------|
| Clamping Ø d | mm | 20 | 32 | 20 | 32 |
| DIN | | - | - | 69893-1 | 69893-1 |
| ISO | | 7388-1 | 7388-1 | - | - |
| Form | | AD/AF | AD/AF | A | A |
| Projection length A | mm | 64.5 | 72 | 80 | 100 |
| External Ø D | mm | 49 | 72 | 52.5 | 75 |
| Tapered Ø d2 | mm | - | - | 49 | 70 |
| Clamping depth I2 | mm | 51 | 61 | 51 | 61 |
| 23338 | Ref. no. | 020 | 032 | - | - |
| 23738 | Ref. no. | - | - | 020 | 032 |

Pocket vernier callipers IP67

ATORNº ORIONº

Application:

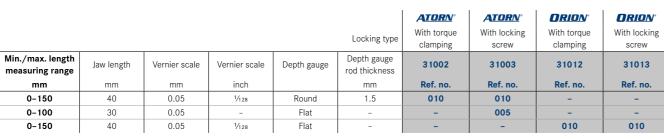
For measuring external, internal, step and depth dimensions.

Design:

- Scale and vernier scale with anti-glare, brushed chromium-plated finish
- Hardened measuring and guidance faces

Delivery:

In case





Electronic pocket vernier callipers

IN A PRACTICAL CASE

Large digits: height: 11 mm

Application:

For measuring external, internal, step and depth dimensions.

Design:

- ON/OFF
- Zero setting at any position
- mm/inch changeover
- Large digits: height: 11 mm
- Ref. no. 211-231: AUTO OFF

Advantage:

Ref. no. 231: suitable for marking jobs, with cemented carbide measuring surfaces.

Scope of delivery:

In a case, with battery (1 x type SR 44 1.55 V)



| Min./max. length measuring range | mm | 0-100 | 0-1 | 150 |
|----------------------------------|----------|-------|-----|-----|
| Jaw length | mm | 30 | 4 | 0 |
| Length of cross tips | mm | 14 | 1 | 6 |
| Digit increment | mm | 0.01 | 0.0 | 01 |
| Depth gauge | | Flat | FI | at |
| 31170 | Ref. no. | 201 | 211 | 231 |





Switched on by the ON button or automatically switched on by calliper movement

Particularly energy-saving electronics



IP 67 electronic pocket vernier callipers

BATTERY LIFE UP TO 3 YEARS

Design:

- ON/OFF
- Zero setting at any position
- mm/inch changeover
- AUTO OFF
- ABS function

Scope of delivery:

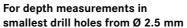
In a case, with battery (1 x 3 V lithium, type CR 2032)

| Min./max. length measuring range | mm | 0-150 | 0-150 |
|----------------------------------|----------|-------|-------|
| Jaw length | mm | 40 | 40 |
| Length of cross tips | mm | 16 | 16 |
| Digit increment | mm | 0.01 | 0.01 |
| Depth gauge | | Round | Flat |
| 31173 | Ref. no. | 202 | 203 |



IP 67 electronic pocket vernier callipers

MM/INCH CHANGEOVER



Length: 22 mm



| Min./max. length measuring range | mm | 0-150 | 0-200 | 0-200 |
|----------------------------------|----------|-------|-------|-------|
| Jaw length | mm | 40 | 50 | 60 |
| Length of cross tips | mm | 16 | 19 | 21 |
| Digit increment | mm | 0.01 | 0.01 | 0.01 |
| Depth gauge | | Flat | Flat | Flat |
| 31177 | Ref. no. | 115 | 120 | 130 |
| | | | | |

LET'S WORK TOGETHER.

with narrow probe tip concept

Depth gauge: flat design

Design:

- ON/OFF
- Zero setting at any position
- AUTO OFF
- ABS function

Scope of delivery:

In a case, with battery (1 x 3 V lithium, type CR 2032)



Measuring instrument set

FOR UNIVERSAL USE

Design:

Pocket vernier callipers 150 mm, micrometer 0–25 mm, scale 200 mm, flat square 100 x 70 mm, hardened straight edge 100 mm, spring divider 125 mm.

Scope of delivery:

In case

| 31320 | Ref. no. | 160 |
|-------|----------|-----|





Reading parts are glare free brushed chromium-plated

Carbide-tipped measuring faces



Micrometer and micrometer sets

WITH SPINDLE CLAMP

| Min./max. length measuring range | mm | 0-25 | 25-50 | 50-75 | 75-100 |
|----------------------------------|----------|------|-------|-------|--------|
| Vernier scale | mm | 0.01 | 0.01 | 0.01 | 0.01 |
| Measuring surface diameter | mm | 6.5 | 6.5 | 6.5 | 6.5 |
| Measuring spindle increments | mm | 0.5 | 0.5 | 0.5 | 0.5 |
| Spindle clamping | | Yes | Yes | Yes | Yes |
| 31330 | Ref. no. | 005 | 025 | 050 | 075 |

Scope of delivery:

Ref. no. 005: single device in case;

Ref. no. 025-075, 100-150: in a case, with setting dimensions

| М | icı | roi | m | et | er | se | ts |
|---|-----|-----|---|----|----|----|----|
| | | | | | | | |

| Min./max. length measuring range | mm | 0-100 | 0-150 |
|----------------------------------|----------|-------|-------|
| Measuring surface Ø | mm | 6.5 | 6.5 |
| Measuring spindle increments | mm | 0.5 | 0.5 |
| Spindle clamping | | Yes | Yes |
| 31331 | Ref. no. | 100 | 150 |





Electronic dial gauge with large, high contrast display

DESIGNED FOR PRODUCTION AND LABORATORY

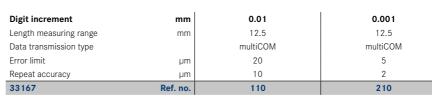
Design:

- · Absolute function
- · Automatic switch-off
- Preset function
- IP 52 degree of protection
- Reversible counting direction

ORION

Advantages:

- Key lock to prevent unintentional adjustment
- Switched on using the ON button or automatically switched on by calliper movement





Scope of delivery:

With battery (1 x 3 V lithium type CR 2032)

ORION®

Electronic dial gauge

IP 40 DEGREE OF PROTECTION

Design:

- · Absolute function
- Tolerance value entry

| Digit increment | mm | 0.01 |
|------------------------|----------|------|
| Length measuring range | mm | 12.5 |
| Error limit | μm | 30 |
| Repeat accuracy | μm | 10 |
| 33168 | Ref. no. | 010 |

Advantages:

- Aluminium housing with sturdy plastic cover
- mm/inch changeover

Scope of delivery:

Calibration certificate, additional back of dial with clamping lug, battery type SR44, in case

ATORN®

Lever gauge probes

3 DOVETAIL MOUNTING SURFACES

Advantages:

- Aluminium housing with sturdy plastic cover
- Metallic outer ring
- Anti-magnetic components
- Measuring mechanism on ruby bearings
- Automatic switching of callipers direction
- Measuring probe with cemented carbide ball

| Ø | mm | 32 | 40 | 32 | 40 |
|--|----------|------|------|------|------|
| Scale interval | mm | 0.01 | 0.01 | 0.01 | 0.01 |
| Ball Ø | mm | 2 | 2 | 2 | 2 |
| Length of measuring sensor from centre of ball | mm | 16.6 | 16.6 | 35.7 | 35.7 |
| Swivel range measuring probe | Degrees | 240 | 240 | 240 | 240 |
| Length measuring range | mm | 1 | 1 | 0.5 | 0.5 |
| Measurement force | N | 0.15 | 0.15 | 0.15 | 0.15 |
| 33310 | Ref. no. | 010 | 020 | 030 | 040 |



Scope of delivery:

lever gauge probes, measuring probe with carbide ball, Ø 8 mm clamping shank for mounting on measuring stands, measuring probe key with case





Measuring pin material

Measuring depth

33518 Set

ORION

ON/OFF

Application:

Min./max. length measuring range

Internal precision measuring instrument

INDIVIDUALLY OR AS A SET

Application:

For measuring bore diameters using the 2-point comparison measuring method.

Ref. no.

Ref. no.

HOLD ZERO

Design:

- Repeat limit 1 µm
- Fixed measuring pin and moving probe bolt made of hardened steel

Advantage:

Ref. No. 400: very large measuring range is possible.

Scope of delivery:

Ref. no. 018–050: in wooden case (without precision pointer)





35-60

178

035

400

50-150

178

050

Electronic inclinometer

WITH HOLD FUNCTION

Design:

Arrow in display shows direction of

18-35

176

018

Arrow in display shows direction of gradient

· Display in degrees or percentages

- Base with narrow V-shaped recess for attachment to shafts
- 1 base with adhesive magnets
- Digit increment 0.1° or 0.1 %
- Error limit 0° and 90° = 0.1° intermediate

dimensions = 0.2°

- Short and compact shape
- Rotating display for overhead measurements

Delivery:

Advantage:

With battery (1 x 3 V lithium type CR2032) and holster

ORION®

Laser distance measuring instruments

IN CASE

Application:

For non-contact measurement of lengths, areas and volumes.

for easy and rapid measurement of inclina-

Ref. no.

010

Advantage:

- Extensive time and cost savings
- Fast and accurate measurement thanks to the visible laser target point

Delivery:

Measuring instrument, batteries, operating instructions, protective case

40 100 Coverage distance +/-2 +/-2 Measuring accuracy IP 54 IP 54 IP degree of protection Laser category 2M 2M Continuous measurement / area measurement / Continuous measurement/area measurement/ Measuring functions volume measurement / length measurement volume measurement/length measurement With addition/subtraction Yes Yes Space calculation Yes Yes Automatic switch-off Yes Yes Yes Yes Indirect measurement Yes Yes With tripod socket Measured value storage No No Length x width x height 121 x 56 x 28 121 x 56 x 28 150 150 Weight 37062 040





Digital inspection camera

MICRO CA-25™

Application:

For detailed visual inspections at short range.

Design:

- 2.4" colour LCD display with 480 x 234 pixel resolution
- Aluminium camera head with ultra-bright LED illumination
- Flexible camera cable watertight to 3 m

Advantage:

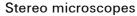
- Live images transmitted to external device via video output
- Digital 180° screen rotation for upright image display

Delivery:

Micro CA-25™, camera head 17 mm with 0.9 m, RCA/cinch cable, attachable tools: mirror, hook and magnet, 4x 1.5 V AA batteries, transport case

| Image rotation | | 360° (2 x 180°) |
|--------------------------|----------|-----------------|
| Field of vision | Degrees | 72 |
| Screen size | inch | 2.4 |
| External memory on SD ca | ard | up to 32 GB |
| Camera head Ø | mm | 17 |
| Number of LEDs | Quantity | 4 |
| Cable length | m | 0.9 |
| Video output | | PAL |
| 41500 | Ref. no. | 025 |





LET'S WORK TOGETHER

WITH INTERCHANGEABLE LENSES

Application:

For simple viewing of mechanical components, electronic PCBs and for general surface inspections.

Design:

- Interchangeable lenses with 20x and 40x magnification
- $\bullet\,$ Binocular lens barrel with 45° viewing angle
- $\bullet\,$ Eyepieces rotatable by 360°
- Working distance 95 mm
- Halogen incident and transmitted lighting

Advantage:

- $45\,^\circ$ viewing angle for convenient and effortless work

Delivery:

Stand, microscope head and holder, eyepieces and eye cups

| Eyepiece type | WF 10x/20 |
|----------------------|-------------------|
| Field of view figure | 20 |
| Lens tube type | Binoculars |
| Incident light | Halogen spotlight |
| 41612 R | ef. no. 020 |



MarSurf PS 10 mobile roughness measuring device

WITH REMOVABLE FEED UNIT

Application:

(Mahr)

Compact, mobile roughness measuring device for standard roughness measurements in production facilities and measuring rooms.

Design:

- Stylus instrument with feed unit for skid-type probe
- Calibration standard integrated in feed unit
- Roughness parameters in line with DIN ISO, JIS and ASME
- Inductive skid button with 2 µm diamond stylus tip

Advantage:

- Simple and intuitive operation, no training required
- Reliable measurement using automatic cut-off selection (patented)
- Possible to measure in all directions: horizontally, vertically and overhead

| Surface roughness measuring range | μm | 350 |
|--|----------|--------------|
| Surface roughness scanning path | mm | 1.5/4.8/15 |
| Threshold wave length | mm | 0.25/0.8/2.5 |
| Measurement profile memory (number of single readings) | Quantity | 500,000 |
| Measurement profile memory (number of profiles) | Quantity | 3900 |
| Data transmission type | | MarConnect |
| 47100 | Ref. no. | 020 |

HAHN+KOLB



Tool trolley

WITH 6 DRAWERS WHICH CAN BE EXTENDED ON BOTH SIDES

6 drawers which can be extended on both sides, protected against falling out

Sturdy steel construction with tabletop made of plastic



| Dimensions H x W x D | mm | 930 x 605 x 375 |
|-----------------------------------|----------|-----------------|
| Drawers internal dimensions W x D | mm | 480 x 325 |
| 50278 | Ref. no. | 510 |

Suitable accessories

| | | 5-piece non-slip mats set | Divider strip |
|-------|----------|---------------------------|---------------|
| 50278 | Ref. no. | 512 | 515 |

Design:

- Sturdy steel construction with tabletop made of plastic
- 6 drawers which can be extended on both sides, protected against falling out
- · Drawers with slit strips for dividing with separation sheets
- Drawer front heights: 4 x 45 mm, 1 x 120 mm, 1 x 210 mm
- 4 ball-bearing wheels, 2 of which can be
- steered, 1 steering roller can be locked
- RAL 7035, light grey, powder-coated







Wheeled workbenches

WITH HIGH-QUALITY ANKE BEECH TOP

Design:

- · Solidly welded sheet steel structure with end-to-end closed rear wall
- · Push handlebar on one front side
- Partial extension

- ANKE workbench top panel made of solid beechwood, glued together lengthwise in bars, thickness 40 mm
- With wheel block
- Central locking, cylinder lock

Powder-coated surface:

- Cabinet RAL 7035 light grey
- Fronts RAL 5010, gentian blue

| Working height mm 850 | | 850 | 970 | 970 | |
|----------------------------------|----------|--------------------|--------------------|----------------------|----------------------|
| Plate (L x D x T) | mm | 1,050 x 650 x 40 | 1,050 x 650 x 40 | 1,050 x 650 x 40 | 1,050 x 650 x 40 |
| Load-bearing capacity | kg | 600 | 600 | 600 | 600 |
| Dynamic load-bearing capacity | kg | 400 | 400 | 400 | 400 |
| Load-bearing capacity per drawer | kg | 100 | 100 | 100 | 100 |
| Drawer front height | mm | 90 / 150 / 2 x 180 | 90 / 150 / 2 x 180 | 150 / 90 / 180 / 270 | 150 / 90 / 180 / 270 |
| Draw width (inner dimension) | mm | 410 | 410 | 940 / 410 | 940 / 410 |
| Drawer depth (inner dimension) | mm | 540 | 540 | 540 | 540 |
| Door right | | No | Yes | No | Yes |
| Number of fixed rollers | Quantity | 2 | 2 | 2 | 2 |
| Number of steering rollers | Quantity | 2 | 2 | 2 | 2 |
| Material of the wheel | | Solid rubber | Solid rubber | Solid rubber | Solid rubber |
| Wheel diameter | mm | 125 | 125 | 125 | 125 |
| 50272 | Ref. no. | 080 | 090 | 100 | 110 |



Robust table trolley

LOAD-BEARING CAPACITY 500-600 KG

LET'S WORK TOGETHER.

Application:

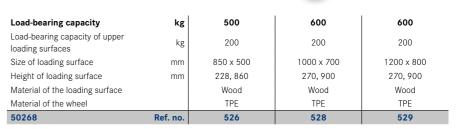
For heavy-duty industrial use.

Design:

- 2 steering rollers, 2 fixed castors
- Alternatively with 2 wheel blocks or Total Stop

Powder-coated surface:

• Brillant blue RAL 5007









Work mats made from PVC

- With RedStop™ non-slip backing to prevent mats sliding on smooth floors
- Non-slip surface R10 to DIN 51130 and BG Rule BGR181
- Upper surface resistant to most chemicals
- Temperature-resistant from -20 to +70°C
- Fire safety class Bfl-S1 according to DIN EN 13501-1
- Material thickness: 14 mm

Advantages:

- Checker plate design enables easy turning on the spot
- Reduces the occurrence of signs of fatigue over long periods of standing

Note:

Bulk stock up to max. length 22.8 m: we will be happy to cut the desired length to size. Mats which have been cut to size cannot be returned.

| Colour | | Black | | | | Black/ | yellow | | |
|----------------|---------|-------------------------|-------------------------|--------------------------|--------------------------|-------------------------|-------------------------|--------------------------|--------------------------|
| Length x width | mm | Running metres x 600 | Running metres x 910 | Running metres x 1220 | Running metres x 1520 | Running metres x 600 | Running metres x 910 | Running metres x 1220 | Running metres x 1520 |
| 50225 Re | ef. no. | 630 | 631 | 632 | 633 | 634 | 635 | 636 | 637 |

Work mats made from either natural or nitrile rubber

WITH HOLE STRUCTURE





Ref. No. 150 made of natural rubber

Ref. No. 155 made of nitrile rubber

Design:

Ref. no. 150: for dry and wet (but not oily) industrial working areas, e. g. on packing tables, workbenches, assembly/laboratory areas or inspection stands.

Ref. no. 155: for high durability in wet, oily and industrial environments. highly resistant against oils, greases, chemicals.

- Slip prevention R10 in accordance with EN 13552
- Non-slip shock-absorbing fatigue-inhibiting effect insulating problem-free flow of liquids through special nipple

| Length x width | mm | 1500 x 900 | 1500 x 900 |
|-----------------------------|----------|-----------------|---------------------------------------|
| Material | | Natural rubber | Nitrile rubber |
| Material thickness | mm | 14 | 14 |
| Colour | | Black | Blue |
| Resistance against | | - | Oil / acids / fats / petrol / coolant |
| Surface structure | | perforated/open | perforated/open |
| Min./max. temperature resis | tance °C | -20/+130 | -20/+160 |
| Suitable for wet areas | | No | Yes |
| 50225 | Ref. no. | 150 | 155 |

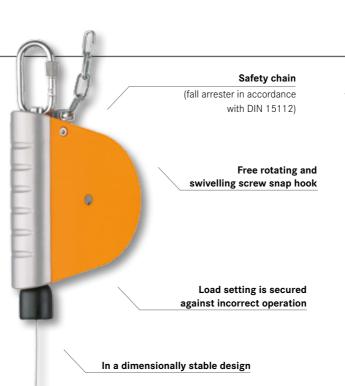
Work mats made of nitrile rubber, dimpled design

FOR A PLEASANT AND SECURE POSITION



- Resistant to most chemicals, fats and oils, therefore can be used in almost all industrial areas
- Temperature-resistant from -20 to +160 °C
- With all-round bevelled edges for safe access

| Length x width | mm | 900 x 600 | 1,200 x 900 |
|----------------|----------|-----------|-------------|
| Height | mm | 14 | 14 |
| 50225 | Ref. no. | 500 | 510 |



AUTOSTAT

Spring balancers (retrievers)

TOOL TO HAND WHENEVER YOU NEED IT

The AUTOSTAT spring balancers facilitate many work processes in assembly and production. The attached work tool is safely withdrawn to the starting position after use and is always ready to hand.

- Housing made of extremely impact-resistant special plastic
- Cable feed limitation is impact absorbing and adjustable
- The load is attached via a safe snap hook

Safety device:

- Riveted load-bearing spring made from high-strength special
- Insulated suspension, shape-stabilized structure

Cable pull of 1600 mm or 2,500 mm (depending on type)

| Туре | | | 7200 0800 | | | 7211 0800 | |
|-----------------------|----------|-------|-----------|---------|-------|-----------|-------|
| Load-bearing capacity | kg | 0-0.5 | 0.3-1.5 | 1.2-2.5 | 0.5-2 | 1.5-3 | 3-5.5 |
| Cable extraction | mm | 1600 | 1600 | 1600 | 2500 | 2500 | 1800 |
| Weight | kg | 0.4 | 0.5 | 0.6 | 0.8 | 0.8 | 0.8 |
| 77001 | Ref. no. | 300 | 301 | 302 | 311 | 312 | 313 |

Permanent NEO lifting magnet

BESTSELLER FOR OVER 25 YEARS

Application:

For secure lifting of sheet metals, profiles, panels, round- and bar-shaped parts or for loading and unloading machines.

Design:

- With 2 longitudinal poles and vee block
- High-quality neodymium magnetic material
- Large load lug
- · Delivery with test certificate

Advantage:

- Robust, low-maintenance, user-friendly
- · Easy to switch on and off by shifting
- · The hand lever, with safety latch



| Load-bearing capacity | kg | 150 | 300 | 600 |
|--|----------|--------|--------|--------|
| Load-bearing capacity for round material | kg | 50 | 125 | 250 |
| Tear-off weight certified | kg | 400 | 800 | 1600 |
| For round material Ø min./max. | mm | 50-100 | 60-200 | 65-270 |
| Suitable for min. sheet thickness | mm | 2 | 4 | 6 |
| Surface area length | mm | 95 | 151 | 246 |
| Surface area width | mm | 60 | 100 | 120 |
| Tare weight | kg | 3 | 10 | 19 |
| 77301 | Ref. no. | 011 | 013 | 015 |

Hinge cover

and safety lid support

Cover panel with 3 pockets and module plug-in system

Robust aluminium frame with edge protection against impact

Removable tool panel with 21 pockets

2 lockable anti-tilt locks and combination lock



Tool case

IN HIGHLY IMPACT-RESISTANT ABS PLASTIC

Design:

- Hinge cover and safety lid support
- Removable tool panel with 21 pockets
- Cover panel with 3 pockets and module plug-in system
- Robust aluminium frame with edge protection against impact
- 2 lockable anti-tilt locks and combination lock
- · Adjustable carry belt
- Document compartment in lid

Scope of delivery:

Without contents

| Material | | ABS |
|--|--------|-----------------|
| Internal length x internal width x internal height | mm | 430 x 340 x 170 |
| 55480 | Ref no | 010 |

ATORN®

Parallel vice

WITH A REAR OPENING ACTION. **MADE OF GREY CAST IRON**

Advantages:

| Weight 51028 | kg Ref. no. | 24 002 |
|----------------|----------------|-----------|
| Clamping depth | mm | 80 |
| Jaw width | mm | 125 |

• Excellent clamping precision thanks to long, prismatic precision guide

• Spindle protected from dirt and damage by covering







Socket wrench set

WITH HEXAGONAL INSERTS, 1/2"

Design:

- Chromium-vanadium steel
- Ratchet with 2-component handle and locking button

Advantage:

- High-quality insertion tools to robust, long-lasting industry-standard specification
- Individual parts are securely stored and transported using clamping function
- · Any missing tools are instantly detected thanks to sizerelated tool recesses

| E0E7E | Dof no | 200 |
|---|--------|----------|
| Cardan joints | mm | 70 |
| T-handles | mm | 300 |
| Extension | mm | 125, 250 |
| Ratchet | inch | 1/2 |
| Long inserts with hexagonal output provided | mm | 16, 21 |
| Inserts with hexagonal output provided | mm | 10 to 32 |
| Number of pieces | | 25 |
| Drive | inch | 1/2 |
| | | |



ORION

Socket wrench set $\frac{1}{4}$ ", $\frac{3}{8}$ " and $\frac{1}{2}$ " - 172-piece

IN PLASTIC CASE

Design:

• Chromium-vanadium steel

Advantage:

- High-quality insertion tools to robust, long-lasting industry-standard specification
- Ratchets with 2-component handle and locking button
- Individual parts are securely stored and transported using clamping function
- · Any missing tools are instantly detected thanks to sizerelated tool recesses

Scope of delivery:

1 socket wrench set 1/4", 3%" and 1/2" in impact-resistant plastic

| 58010 | Ref. no. | 500 |
|-------|----------|-----|



Slotted & Phillips screwdriver set

WITH WOODEN HANDLE

Design:

- · Chromium-vanadium steel blade
- · Wooden handle with leather cap
- · Continuous blade with hexagonal shoulder

| Slot sizes | mm | 4.5 / 5.5 / 7 / |
|------------------|----------|-----------------|
| Number of pieces | | 6 |
| Output | | PH1/PH2 |
| 52730 | Ref. no. | 800 |



HAHN+KOLB

22

ATORN®

TORX screwdriver sets

FOR TORX® SCREWS FROM TX10



Application:

For turning safety screws (centre pin in profile).

Design:

- Chrome-vanadium/molybdenum steel
- Fully hardened
- Brushed chromium-plated
- Blackened tip
- 3-component power grip, with large soft area

Advantage:

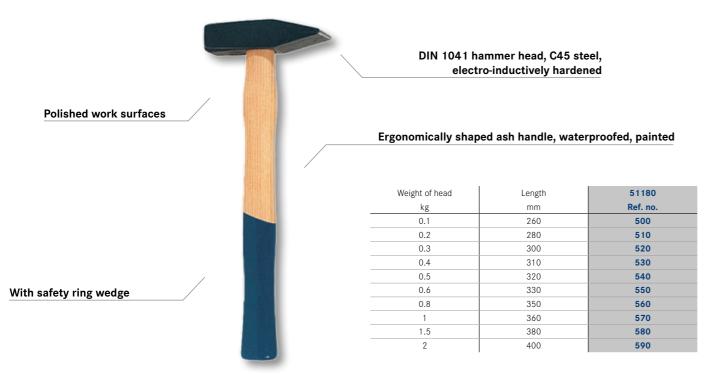
- 3-component power grip with large soft area for comfortable use and effortless work
- Better accuracy of fit with longer service life

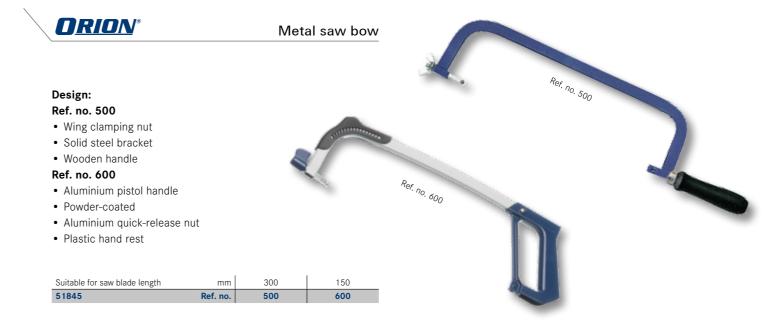
| 52144 | Ref. no. | 904 |
|------------------|----------|--|
| Number of pieces | | 7 |
| Surface | | Chromium-plated |
| Output | | TX8 / TX9 / TX10+P / TX15+P / TX20+P / TX25+P / TX30+P |
| | | |

ORION[®]

Machinist's hammer with ash handle

WITH SAFETY RING WEDGE









Hexagonal screwdriver set with ball head

5-PIECE

Design:

- Hexagonal ball head
- Chromium-vanadium steel blade
- Hardened
- Straight version

Advantage:

- ball head enables screws to be tightened at angles of up to 30°
- 3-component power grip with large soft area for comfortable use and effortless work

| m-plated |
|----------|
| /6 /8 |
| |





Scraper set

4-PIECE

Design:

- Stainless steel blades
- Can be ground
- Blade widths: 20/32 mm
- Blade length: 55/105 mm

Advantage:

- Non-slip plastic grip fits perfectly in your hand
- With stainless steel cap indestructible

| 53704 | Ref. no. | 500 |
|-----------------|----------|---------|
| Handle material | | Plastic |





Folding utility knife

Design:

- For all standard trapezoidal blades
- With steel belt clip

Advantages:

- Ergonomically shaped aluminium handle
- Reliable locking of blade when folded out
- Padded thumb area for highly precise cutting pressure
- Quick-action lever ensures quick changeover of blades without tools
- Blade compartment integrated into the handle with 5 spare blades

| Blade width | mm | 18.7 |
|-------------|----------|------|
| Length | mm | 160 |
| 53644 | Ref. no. | 200 |





Utility knife with trapezoidal blades

BLADE AUTOMATICALLY RETRACTS

Design:

Die-cast housing

Advantages:

- Safe working processes thanks to automatic blade retraction
- Ergonomic handle with soft component
- blades are changed without needing to screw them on

| 53642 | Ref. no. | 700 |
|-------------|----------|------|
| Length | mm | 162 |
| Blade width | mm | 18.7 |



Application:

Ref. no. 010: for universal cutting of a wide range of materials.

Ref. no. 020: to cut and strip PVC cables.

ATORN®

Work knives and electrician's knives

NON-SLIP

Design:

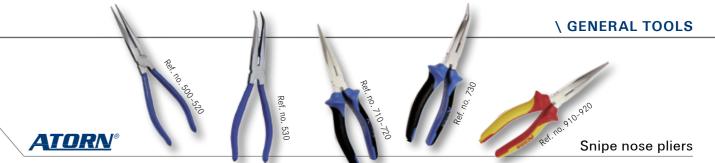
Ref. no. 010:

- Rustproof blade with serrated edge
- Blue plastic grips
- Blade is locked via pushbutton
- Blade stopper

Ref. no. 020:

- Rustproof blade with two stripping notches
- Red plastic grips
- Blade with lock

| Length | mm | 190 | 191 |
|--------|----------|-----|-----|
| 53603 | Ref. no. | 010 | 020 |



Application:

For gripping, holding and cutting.

Design:

- Serrated gripping surfaces
- Inductively hardened cutting edges for hard and soft wire

Advantage:

• **Ref. no. 710–920:** safe, ergonomic and effortless work thanks to 2-component handles

| Design | Length | Surface | VDE certified | Handle material | 53092 |
|---|--------|---------------------|---------------|---------------------|----------|
| | mm | | | | Ref. no. |
| Straight head, flat-round jaws, form A, special tool steel, oil-hardened | 140 | Plain | No | PVC | 500 |
| Straight head, flat-round jaws, form A, special tool steel, oil-hardened | 160 | Plain | No | PVC | 510 |
| Straight head, flat-round jaws, form A, special tool steel, oil-hardened | 200 | Plain | No | PVC | 520 |
| Bent head, flat-round jaws, form B, 45°, special tool steel, oil-hardened | 200 | Plain | No | PVC | 530 |
| Straight head, flat-round jaws, form A, special tool steel, oil-hardened | 160 | Chromium- plated | No | 2-component plastic | 710 |
| Straight head, flat-round jaws, form A, special tool steel, oil-hardened | 200 | Chromium- plated | No | 2-component plastic | 720 |
| Bent head, flat-round jaws, form B, 45°, special tool steel, oil-hardened | 200 | Chromium- plated | No | 2-component plastic | 730 |
| Straight, flat-round jaws, form A, hardened tool steel | 160 | Chromium- plated | Yes | 2-component plastic | 910 |
| Straight, flat-round jaws, form A, hardened tool steel | 200 | Chromium- plated | Yes | 2-component plastic | 920 |

ATORN®

Circlip pliers

Application:

For mounting and removing inner retaining rings in drill holes.

Design:

Plain surface

- Chromium-vanadium steel
- · Polished joint
- Bronzed tips
- Straight tips in accordance with DIN 5256 C

| | | | Straight head | | Head angled 90° |
|--------|-----------------------------|------|---------------|------|-----------------|
| Length | Suitable for Ø min./max. | Туре | 53136 | Туре | 53137 |
| mm | mm | | Ref. no. | | Ref. no. |
| 140 | 8-13 | J O | 500 | J 01 | 500 |
| 140 | 12-25 | J 1 | 510 | J 11 | 510 |
| 180 | 19-60 | J 2 | 520 | J 21 | 520 |
| 225 | 40-100 | J 3 | 530 | J 31 | 530 |
| 310 | 85-140 | J 4 | 540 | J 41 | 540 |

| | | | Straight head | | Head angled 90° |
|--------|--------------------------|------|---------------|------|-----------------|
| Length | Suitable for Ø min./max. | Туре | 53145 | Туре | 53148 |
| mm | mm | | Ref. no. | | Ref. no. |
| 140 | 3-10 | Α 0 | 510 | A 01 | 510 |
| 140 | 10-25 | A 1 | 520 | A 11 | 520 |
| 180 | 19-60 | A 2 | 530 | A 21 | 530 |
| 225 | 40-100 | A 3 | 540 | A 31 | 540 |
| 310 | 85-140 | A 4 | 550 | A 41 | 550 |

Advantage:

 hardened and wear-resistant tips for secure holding of the rings







Universal absorbent rolls

PARTICULARLY TEAR-RESISTANT

Application:

For daily use for leaks and drips around the machine, on floors and at workstations.

Advantages:

- 8-ply for outstanding tear resistance
- Ideal for the work place and easy to keep clean and secure
- Absorbs oils, water, coolants and solvents





| Design | | Medium | Heavy | Light | Heavy | Light | Medium |
|----------------------------|----------|-------------|-------------|-----------|-----------|-------------|-----------|
| Length x width | cm | 6100 x 61 | 4600 x 61 | 9100 x 76 | 4600 x 76 | 9100 x 61 | 6100 x 76 |
| Perforation width x length | cm | 25.5 x 30.5 | 25.5 x 30.5 | 25.5 x 38 | 25.5 x 38 | 25.5 x 30.5 | 25.5 x 38 |
| Suction volume | I/VPE | 128 | 123 | 152 | 152 | 123 | 161 |
| Type description | | MAT 185 | MAT 202-01 | MAT 225 | MAT 230 | MAT 245 | MAT 411 |
| 69746 | Ref. no. | 185 | 202 | 225 | 230 | 245 | 411 |





BLUE absorbent socks with fast-acting vermiculite filler

ABSORB LARGE QUANTITIES OF OIL, WATER, COOLANT AND SOLVENT





Before

- Suction hose Ø x length cm 8 x 122 8 x 122 Suction volume per hose 2.8 2.8 40 20 Number per packet Quantity BLUE 4048 Type description **BLUE 2048** 69746 Ref. no. 020
- Can be placed flexibly around machines, corners and in tight
- Adapt to the floor and form a solid dyke



PIG MAT TABLET® pack with 10 PIG universal absorbent mats

ABSORBS OILS, WATER, COOLANTS AND SOLVENTS

| Type description 69746 | Ref. no. | MAT 127 280 |
|---------------------------|----------|----------------|
| Number per packet | Quantity | 1 |
| Suction volume per tablet | L | 8.25 |
| Length x width | cm | 51 x 36 |
| Design | | Heavy |

Advantages:

- The easily portable tablet has a pull-up tab for hanging and a sturdy cardboard backing for standing it up
- Contains 50% recycled material and is therefore particularly environmentally friendly



Hard design – ideal for grinding edges



High removal rate together with durability

Cutting discs for steel

EXTRA THIN



Rough grinding discs for steel/cast iron

HIGH REMOVAL RATE WITH LONG SERVICE LIFE

Application:

For deburring, chamfering, fettling and pre/post-machining of welded seams.

| Disc Ø x disc thickness | mm | 115 x 7 | 125 x 7 | 180 x 7 | 230 x 7 |
|-----------------------------|----------|---------|---------|---------|---------|
| Number of pieces per packet | Quantity | 25 | 25 | 10 | 10 |
| 76100 | Ref. no. | 115 | 125 | 180 | 230 |



For burr-free cutting of thin-walled pipes, sheet steel and profiles.

Advantage:

Application:

- Very hard cutting disc for extremely short cutting times
- Extremely short cutting times

| Disc Ø x disc thickness | mm | 115 x 1 | 125 x 1 | 180 x 1.5 | 230 x 1.9 |
|-----------------------------|----------|---------------|---------------|---------------|---------------|
| Form | | 41 (straight) | 41 (straight) | 41 (straight) | 41 (straight) |
| Number of pieces per packet | Quantity | 50 | 50 | 25 | 25 |
| 76109 | Ref. no. | 115 | 125 | 180 | 230 |

74A30T11BF725 115 x 1,0 x 22,23



Cutting discs for INOX

IRON AND SULPHUR FREE

| Disc Ø x disc thickness | mm | 115 x 1 | 125 x 1 | 180 x 1.5 | 230 x 1.9 |
|-----------------------------|----------|---------------|---------------|---------------|---------------|
| Form | | 41 (straight) | 41 (straight) | 41 (straight) | 41 (straight) |
| Number of pieces per packet | Quantity | 50 | 50 | 25 | 25 |
| 76115 | Ref. no. | 115 | 125 | 180 | 230 |



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| | item | I | Quantity | Price iii € |
| Please state your number when placing an ord | der over the phone. | | | |
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FOR ALL KINDS OF LEVERAGE WORK

ORION Non-slip plastic grip ORION fits perfectly in your hand ORION With impact-resistant specification

Angled blades



Lever bar set

4-PIECE

Design:

- Angled blades
- Lever bar lengths: 200, 300, 450, 600 mm

Advantage:

- Non-slip plastic grip fits perfectly in your hand
- With impact-resistant grip indestructible and robust in application

| Handle m | aterial | mm | Plastic |
|----------|---------|----------|---------|
| 55617 | | Ref. no. | 010 |

