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# werka 2026

**- TOP SELECTED -**

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Werka Deutschland GmbH

## Digital Caliper



- accuracy according to DIN 862
- large LCD display
- inductive measurement system
- made of stainless steel, hardened
- buttons: ON/OFF, mm/inch, ZERO
- deliver with inspection report

No.	Range	Reading	Accuracy	Euro/pc
2229 - 150	0 - 150 mm/0 - 6"	0.01 mm/0.00005"	0.02 mm	57.00
2229 - 200	0 - 200 mm/0 - 8"	0.01 mm/0.00005"	0.03 mm	83.50
2229 - 300	0 - 300 mm/0 - 12"	0.01 mm/0.00005"	0.03 mm	112.00

## IP67 Water - Proof Digital Caliper



- TOP quality, accuracy according to DIN 862
- IP67 protection, water and dust resistant
- stainless steel, hardened
- four way measurement
- new designed precision and high quality construction
- with INC, MODE, HOLD and POWER/0 four buttons
- in plastic box
- deliver with inspection report

No.	Range	Reading	Accuracy	Euro/pc
210 - 7756	0 - 150 mm/0 - 6"	0.01 mm/0.00005"	0.02 mm	89.00

## IP67 Water - Proof Digital Caliper 0.001 mm



- Top quality
- accuracy according to DIN 862
- large LCD display.
- IP67 protection, water and dust resistant
- inductive measurement system
- made of stainless steel, hardened
- buttons: INC, mm/inch, 0/ON/OFF
- deliver with inspection report

No.	Range	Reading	Accuracy	Euro/pc
2230 - 150	0 - 150 mm/0 - 6"	0.001 mm/0.00005"	0.01 mm	115.00
2230 - 200	0 - 200 mm/0 - 8"	0.001 mm/0.00005"	0.02 mm	145.00
2230 - 300	0 - 300 mm/0 - 12"	0.001 mm/0.00005"	0.02 mm	185.00

## Digital Caliper



- accuracy according to DIN 862
- inductive measurement system
- made of stainless steel, hardened
- buttons: ON/OFF, mm/inch, ZERO
- deliver with inspection report
- packet in plastic box

No.	Range	Reading	Accuracy	Euro/pc
210 - 8895	0 - 150 mm/0 - 6"	0.01 mm/0.00005"	0.02 mm	43.50
210 - 8901	0 - 200 mm/0 - 8"	0.01 mm/0.00005"	0.03 mm	65.00
210 - 8918	0 - 300 mm/0 - 12"	0.01 mm/0.00005"	0.03 mm	92.00

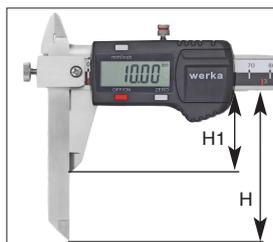
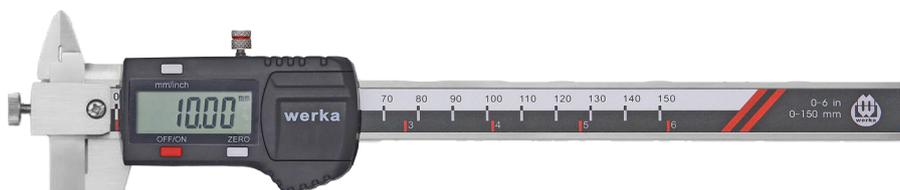
## Digital Caliper, TOP



- made of stainless, hardened
- new designed precision ang high quality construction
- four way measurement
- with mm/inch, ABS, OFF/ON, ZERO buttons
- deliver with inspection report
- In plastic box

No.	Range	Reading	Accuracy	Euro/pc
2236-150	0 - 150 mm/0 - 6"	0.01 mm/0.00005"	0.02 mm	56.00

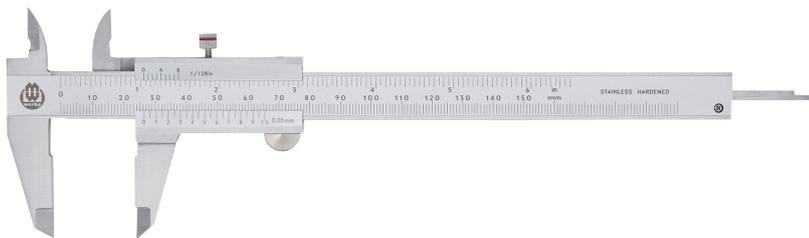
## Digital Offset Caliper



- suitable for measuring the external dimensions of special high and low surface groove
- made of stainless steel
- with mm/inch, OFF/ON, ZERO buttons
- In plastic box

No.	Range	Reading	Accuracy	H	H1	Euro/pc
2254-150	0 - 150 mm/0 - 6"	0.01 mm/0.00005"	0.04 mm	73 mm	40 mm	174.00
2254-200	0 - 200 mm/0 - 8"	0.01 mm/0.00005"	0.05 mm	79.5 mm	50 mm	213.00

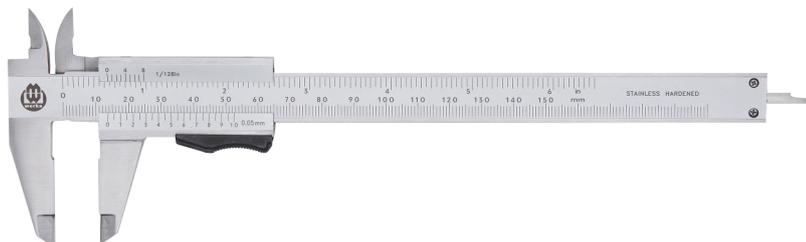
## Precision Vernier Caliper



- made of stainless, hardened
- satin chrome finished
- with upper set screw, Metal thumb
- deliver with inspection report
- In plastic box

No.	Range	Reading	Accuracy	Euro/pc
<b>210 - 0016T</b>	0 - 150 mm/0 - 6"	0.05 mm/1/128"	0.05 mm	39.00
<b>210 - 0023T</b>	0 - 200 mm/0 - 8"	0.05 mm/1/128"	0.05 mm	54.50
<b>210 - 0030T</b>	0 - 300 mm/0 - 12"	0.05 mm/1/128"	0.05 mm	76.50

## Precision Vernier Caliper



- accuracy according to DIN862
- stainless steel
- satin chrome finished, hardened
- with thumb lock, flat depth rod
- four way measurement
- backside with thread table
- in plastic box
- deliver with inspection report

No.	Range	Reading	Accuracy	Euro/pc
<b>210 - 0122</b>	0 - 150 mm/0 - 6"	0.05 mm/1/128"	0.05 mm	35.00
<b>210 - 9309</b>	0 - 200 mm/0 - 8"	0.05 mm/1/128"	0.05 mm	50.00

## Dial Caliper



- made of stainless steel
- with fine adjustment wheel
- with shock-proof function
- flat depth rod
- with locking screw
- deliver with inspection report
- packed in plastic box

No.	Range	Reading	Accuracy	Euro/pc
<b>2300 - 150T</b>	0 - 150 mm	0.01 mm	0.03 mm	77.50
<b>2300 - 200T</b>	0 - 200 mm	0.01 mm	0.04 mm	99.00
<b>2300 - 300T</b>	0 - 300 mm	0.01 mm	0.04 mm	138.00

## Dial Caliper



- made of stainless steel
- with fine adjustment wheel
- with shock-proof function
- flat depth rod
- with locking screw
- deliver with inspection report
- packed in plastic box

No.	Range	Reading	Accuracy	Euro/pc
<b>2301 - 150T</b>	0 - 150 mm	0.02 mm	0.03 mm	72.00
<b>2301 - 200T</b>	0 - 200 mm	0.02 mm	0.04 mm	92.00
<b>2301 - 300T</b>	0 - 300 mm	0.02 mm	0.04 mm	130.00

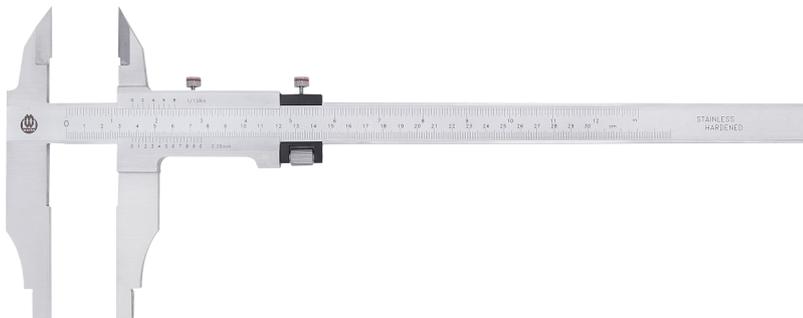
## Digital Dial Caliper, IP 67



- full color LCD
- analog electronic pointer and analog digital display simultaneously
- built-in rechargeable lithium battery, magnetic suction charging port
- with six kinds of resolution
- back light display
- made of stainless steel
- IP67 Protection, water and dust resistant
- accuracy according to DIN 862
- with DATA, MENU, SET/0 buttons
- delivery with an inspection report
- prime plastic box

No.	Range	Reading	Accuracy	Euro/pc
2262 - 150	0 - 150 mm	0.01 mm	0.02 mm	127.00
2262 - 200	0 - 200 mm	0.01 mm	0.03 mm	161.00
2262 - 300	0 - 300 mm	0.01 mm	0.03 mm	209.00

## Workshop Vernier Caliper



- stainless steel, hardened
- satin chrome finished
- monoblock, Knife points
- for outside and inside measurement
- with fine adjustment
- in plastic box
- deliver with inspection report

No.	Range	Reading	Length Of Jaw	Accuracy	Inside Measuring	Euro/pc
213 - 8425	0 - 300 mm/0 - 12"	0.05 mm/1/128"	100 mm	± 0.07 mm	20 mm	100.00
213 - 8432	0 - 500 mm/0 - 20"	0.05 mm/1/128"	150 mm	± 0.09 mm	20 mm	265.00
213 - 8449	0 - 1000 mm/0 - 40"	0.05 mm/1/128"	150 mm	± 0.10 mm	20 mm	710.00

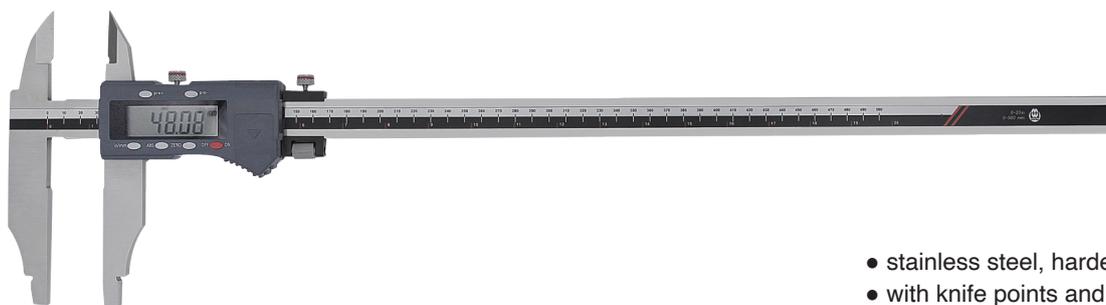
## Workshop Vernier Caliper



- stainless steel, hardened
- satin chrome finished
- monoblock
- for outside and inside measurement
- with fine adjustment
- in plastic box
- deliver with inspection report

No.	Range	Reading	Length Of Jaw	Accuracy	Inside Measuring	Euro/pc
213 - 8395	0 - 300 mm/0 - 12"	0.05 mm/1/128"	100 mm	± 0.07 mm	20 mm	97.00
2105 - 301	0 - 300 mm/0 - 12"	0.05 mm/1/128"	150 mm	± 0.08 mm	20 mm	153.00
213 - 8401	0 - 500 mm/0 - 20"	0.05 mm/1/128"	150 mm	± 0.09 mm	20 mm	242.00
213 - 8418	0 - 1000 mm/0 - 40"	0.05 mm/1/128"	150 mm	± 0.10 mm	20 mm	625.00

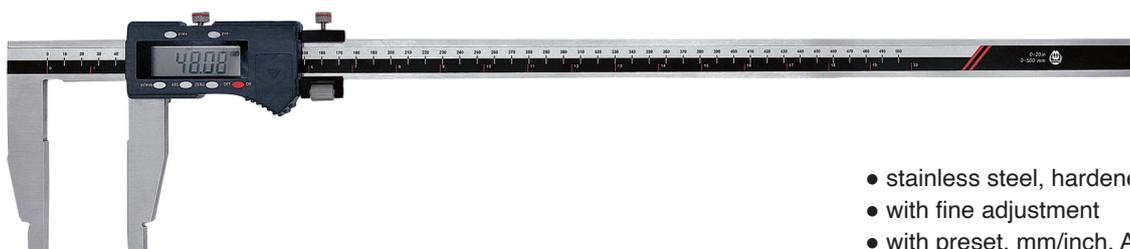
## Workshop Digital Caliper



- stainless steel, hardened
- with knife points and fine adjustment
- with preset, mm/inch, ABS, ZERO, OFF/ON buttons
- deliver in plastic box
- with inspection report

No.	Range	Reading	Length Of Jaw	Accuracy	Inside Measuring	Euro/pc
213 - 8609	0 - 300 mm/0 - 12"	0.01 mm/0.0005"	100 mm	± 0.05 mm	20 mm	187.00
213 - 8616	0 - 500 mm/0 - 20"	0.01 mm/0.0005"	150 mm	± 0.06 mm	20 mm	335.00
213 - 8623	0 - 1000 mm/0 - 40"	0.01 mm/0.0005"	150 mm	± 0.07 mm	20 mm	685.00

## Workshop Digital Caliper



- stainless steel, hardened
- with fine adjustment
- with preset, mm/inch, ABS, ZERO, OFF/ON buttons
- 3 V CR 2032 battery
- deliver in plastic box
- with inspection report

No.	Range	Reading	Length Of Jaw	Accuracy	Inside Measuring	Euro/pc
213 - 8579	0 - 300 mm/0 - 12"	0.01 mm/0.0005"	100 mm	± 0.05 mm	20 mm	179.00
213 - 8586	0 - 500 mm/0 - 20"	0.01 mm/0.0005"	150 mm	± 0.06 mm	20 mm	280.00
213 - 8593	0 - 1000 mm/0 - 40"	0.01 mm/0.0005"	150 mm	± 0.07 mm	20 mm	660.00

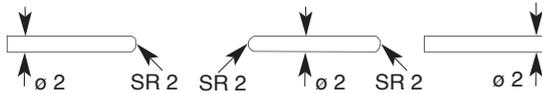
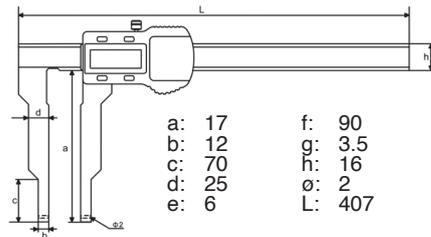
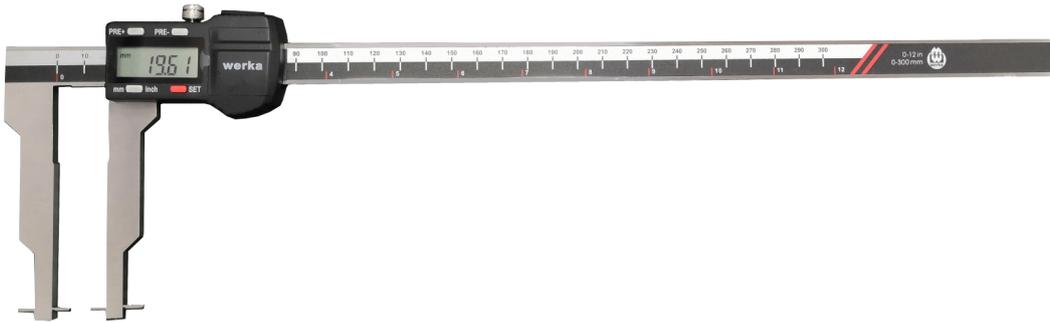
## IP67 Digital Depth Gauge



- top quality, accuracy according to DIN 862
- IP 67 protection, water and dust resistant
- stainless steel, hardened
- finely ground and lapped depth base
- new designed precision and high quality construction
- with INC, MODE, HOLD and POWER/O four buttons
- in plastic box
- deliver with inspection report

No.	Range	Reading	Length Of Jaw	Accuracy	d	Euro/pc
211 - 7930	150 mm/6"	0.01 mm/0.0005"	100 mm	± 0.03 mm	11.0 mm	98.50
211 - 7947	200 mm/8"	0.01 mm/0.0005"	100 mm	± 0.03 mm	11.0 mm	120.00
211 - 7954	300 mm/12"	0.01 mm/0.0005"	150 mm	± 0.04 mm	13.5 mm	162.00

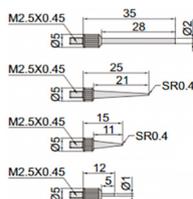
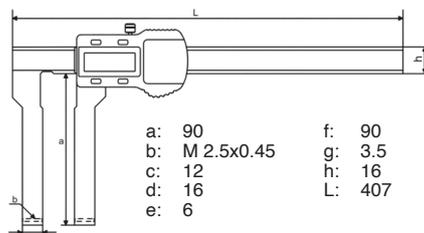
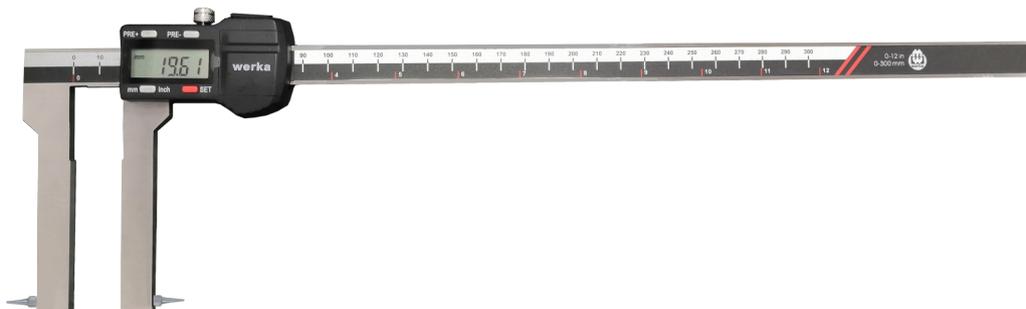
## Digital Caliper with Interchangeable Probes



- various probes for the measurement of different inside and outside grooves
- made of stainless steel
- extended jaws, interchangeable probes
- ON/OFF, Reset at any position
- mm/inch, (+/-) Preset
- with data output, stop screw for the vernier
- deliver with 4 pairs of standard probes
  - 12 mm spherical and flat points
  - 20 mm spherical and flat points
  - 20 mm spherical points
  - 20 mm flat points
- deliver with inspection report and manual
- plastic box

No.	Range	Reading	Accuracy	Euro/pc
2235 - 300B	0 - 300 mm	0.01 mm	0.04 mm	265.00

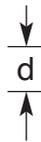
## Digital Caliper with Interchangeable Probes



- various probes for the measurement of different inside and outside grooves
- made of stainless steel
- extended jaws, interchangeable probes
- ON/FF, Reset at any position
- mm/inch, (+/-)Preset
- with data output, stop screw for the vernier
- deliver with 4 pairs of standard probes
  - round points, 1 pair ø 2 x 28 mm
  - conical points, 1 pair SR 0.4 x 21 mm
  - conical points, 1 pair SR 0.4 x 11 mm
  - pin points, 1 pair ø 1 x 5 mm
- deliver with an inspection report and a manual
- plastic box

No.	Range	Reading	Accuracy	Euro/pc
2235 - 300	0 - 300 mm	0.01 mm	0.04 mm	265.00

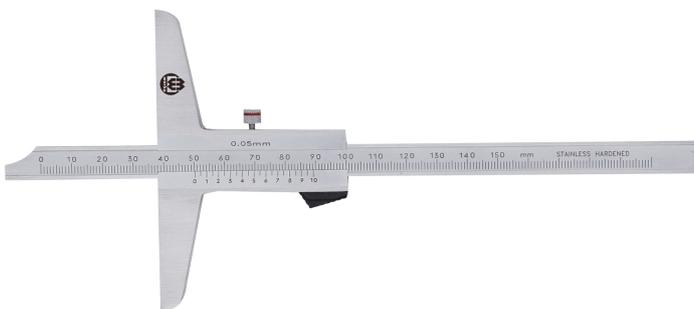
## Digital Depth Gauge with Pin



- made of stainless steel
- measuring face with pin, used for small hole depth measurement
- large LCD display, easy reading
- OFF/ON, ZERO, mm/inch
- stop screw for the vernier
- deliver with an inspection report
- prime plastic box

No.	Range	Reading	Length Of Jaw	Accuracy	d	Euro/pc
2248 - 150C	150 mm/6"	0.01 mm/0.0005"	100 mm	± 0.02 mm	11.0 mm	87.00
2248 - 200C	200 mm/8"	0.01 mm/0.0005"	100 mm	± 0.02 mm	13.5 mm	106.00

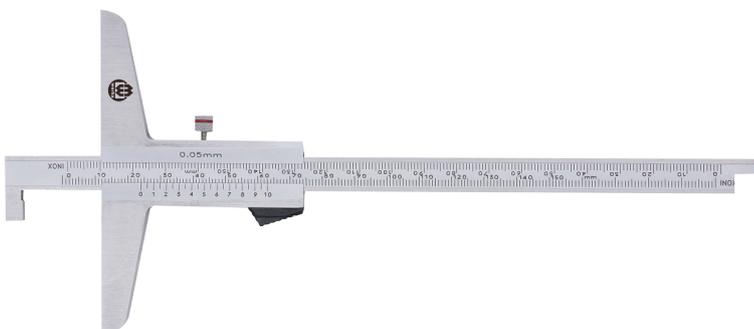
## Vernier Depth Gauge



- accuracy according to DIN 862
- made of stainless steel, hardened
- scale and nonius satin chrome finished
- packed in plastic box
- deliver with inspection report

No.	Range	Reading	Length Of Jaw	Accuracy	d	Euro/pc
211 - 0146	0 - 150 mm	0.05 mm	100 mm	± 0.05 mm	11.5 mm	34.50
211 - 9507	0 - 200 mm	0.05 mm	100 mm	± 0.05 mm	11.5 mm	41.50
211 - 0153	0 - 300 mm	0.05 mm	100 mm	± 0.05 mm	11.5 mm	55.30
211 - 0160	0 - 500 mm	0.05 mm	150 mm	± 0.05 mm	11.5 mm	87.50

## Vernier Depth Gauge with Single Hook



- accuracy according to DIN 862
- made of stainless steel, hardened
- Scale and nonius satin chrome finished
- double scales enable to use as normal depth gauge
- packed in plastic box
- deliver with inspection report

No.	Range	Reading	Length Of Jaw	Accuracy	d	Euro/pc
211 - 0207	0 - 150 mm	0.05 mm	100 mm	± 0.05 mm	11.5 mm	65.00
211 - 0214	0 - 300 mm	0.05 mm	100 mm	± 0.05 mm	11.5 mm	93.00

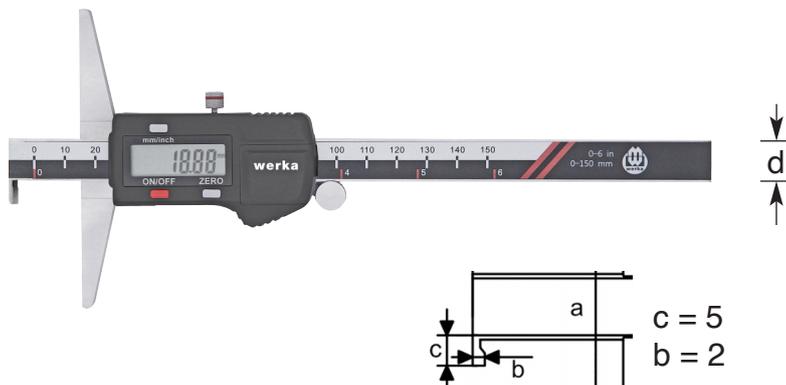
## Digital Depth Gauge



- made of stainless steel
- large LCD display, easy reading
- OFF/ON, ZERO, mm/inch
- stop screw for the vernier
- delivered with an inspection report
- prime plastic box

No.	Range	Reading	Length Of Jaw	Accuracy	d	Euro/pc
2247 - 150	150 mm/6"	0.01 mm/0.0005"	100 mm	± 0.02 mm	11.0 mm	59.00
2247 - 200	200 mm/8"	0.01 mm/0.0005"	100 mm	± 0.02 mm	11.0 mm	82.00
2247 - 300	300 mm/12"	0.01 mm/0.0005"	150 mm	± 0.03 mm	13.5 mm	106.00

## Digital Depth Gauge with Single Hook



- made of stainless steel
- measuring face with hook, used for thickness measurement
- large LCD display, easy reading
- OFF/ON, ZERO, mm/inch
- stop screw for the vernier
- delivered with an inspection report
- prime plastic box

No.	Range	Reading	Length Of Jaw	Accuracy	d	Euro/pc
2248 - 150	150 mm/6"	0.01 mm/0.0005"	100 mm	± 0.02 mm	11.0 mm	87.00
2248 - 200	200 mm/8"	0.01 mm/0.0005"	100 mm	± 0.02 mm	11.0 mm	105.00
2248 - 300	300 mm/12"	0.01 mm/0.0005"	150 mm	± 0.03 mm	13.5 mm	146.00

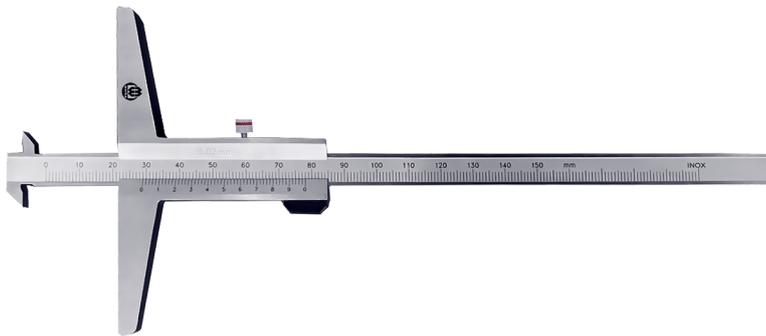
## Digital Depth Gauge with Double Hook



- made of stainless steel
- measuring face with double hook, used for thickness measurement
- large LCD display, easy reading
- OFF/ON, ZERO, mm/inch
- stop screw for the vernier
- deliver with an inspection report
- prime plastic box

No.	Range	Reading	Length Of Jaw	Accuracy	d	Euro/pc
2248 - 150A	150 mm/6"	0.01 mm/0.0005"	100 mm	± 0.02 mm	11.0 mm	107.00
2248 - 200A	200 mm/8"	0.01 mm/0.0005"	100 mm	± 0.02 mm	11.0 mm	126.00
2248 - 300A	300 mm/12"	0.01 mm/0.0005"	150 mm	± 0.03 mm	13.5 mm	165.00

## Vernier Depth Gauge with Double Hook



- made of stainless steel, hardened
- scale and nonius satin chrome finished
- measuring face with double hook, can measure the width of groove and position of groove
- deliver with inspection report
- packed in plastic box

No.	Range	Reading	Length Of Jaw	Accuracy	d	Euro/pc
2107 - 5150D	0 - 150 mm	0.05 mm	100 mm	± 0.05 mm	11.5 mm	58.00
2107 - 5200D	0 - 200 mm	0.05 mm	100 mm	± 0.05 mm	11.5 mm	65.00
2107 - 5300D	0 - 300 mm	0.05 mm	150 mm	± 0.05 mm	11.5 mm	84.00

## Mini Vernier Height Gauge



- made of stainless steel
- satin chromed plated scale
- with carbide scriber
- with fine adjustment

No.	Range	Reading	Accuracy	Euro/pc
2108 - 2150 - MN	150 mm	0.02 mm	± 0.03 mm	162.00
2108 - 2200 - MN	200 mm	0.02 mm	± 0.03 mm	207.00

## Vernier Height Gauge



- accuracy according to DIN862
- made of stainless steel
- with fine adjustment
- carbide-tipped scriber
- scale and nonius satin chrome finished
- sturdy cast iron base, lacquered and lapped bottom working face
- packed in plastic case
- with inspection report

No.	Range	Reading	Accuracy	Euro/pc
216 - 7633	300 mm	0.05 mm	± 0.06 mm	103.00
216 - 7640	600 mm	0.05 mm	± 0.10 mm	204.00

## Vernier Height Gauge with Adjustable Guide Bar



- accuracy according to DIN 862
- made of stainless steel
- with fine adjustment
- adjustable scale bar, carbide-tipped scriber
- carbide-tipped scriber
- scale and nonius satin chrome finished
- sturdy cast iron base, lacquered and lapped bottom working face
- packed in plastic case
- with inspection report

No.	Range	Reading	Accuracy	Euro/pc
216 - 7657	300 mm	0.02 mm	± 0.06 mm	250.00
216 - 7664	600 mm	0.02 mm	± 0.10 mm	355.00

## Mini Digital Height Gauge



- made of stainless steel
- ON/OFF, ZERO, mm/inch
- auto powered off
- with carbide scriber
- with fine adjustment

No.	Range	Reading	Accuracy	Euro/pc
2226 - 150 - MN	150 mm / 6"	0.01 mm/0.0005"	± 0.03 mm	185.00
2226 - 200 - MN	200 mm / 8"	0.01 mm/0.0005"	± 0.03 mm	219.00

## Digital Height Gauge



- made of stainless steel
- with fine adjustment
- carbide-tipped scriber
- powered by 3V battery
- with TOL, ON/OFF/PRE, HOLD, ZERO/ABS/, mm/in, DIR buttons
- sturdy cast iron base, lacquered and lapped bottom working face
- packed in plastic case
- with inspection report

No.	Range	Reading	Accuracy	Euro/pc
216 - 8661	300 mm / 12"	0.01 mm/0.0005"	± 0.04 mm	206.00
216 - 8678	600 mm / 24"	0.01 mm/0.0005"	± 0.05 mm	390.00

## Outside Micrometers



- accuracy according to DIN 863
- with ratchet friction thimble,
- carbide measuring face
- frame painted, scale chrome finished
- from size 25 - 50 mm including setting gauge
- deliver in cardbox
- with inspection certificate

No.	Range	Reading	Accuracy	Euro/pc
217 - 5400	0 - 25 mm	0,01 mm	0,004 mm	33.00
217 - 5417	25 - 50 mm	0,01 mm	0,004 mm	43.00
217 - 5424	50 - 75 mm	0,01 mm	0,005 mm	46.50
217 - 5431	75 - 100 mm	0,01 mm	0,005 mm	55.00
217 - 5448	100 - 125mm	0,01 mm	0,006 mm	66.00
217 - 5455	125 - 150mm	0,01 mm	0,006 mm	80.50

## Outside Micrometer set



- U-shaped frame with plate, painted frame
- ratchet friction thimble device
- with setting gauge and spanner
- deliver with an inspection report
- (3100 - T4) 4 pcs in 1 set, plastic box
- (3100 - T6) 6 pcs in 1 set, aluminum box

No.	Range	Reading	Accuracy	Euro/Set
3100 - T4	0 - 100 mm	0.01 mm	0,004 mm	161.00
3100 - T6	0 - 150 mm	0.01 mm	0,005 mm	285.00

## Digital Outside Micrometers IP65



- accuracy according to DIN 863
- IP65 protection, water and dust resistant
- painted framed, with ratchet friction thimble and thimble chrome finished
- carbide measuring face
- with ON/OFF, in/mm and ZERO three buttons
- from size 25 - 50 mm including setting gauge
- data output with mini USB interface
- in plastic box
- deliver with inspection report

No.	Range	Reading	Accuracy	Euro/pc
217 - 6049	0 - 25 mm/0 - 1"	0.001 mm/0.00005"	0.003 mm	120.00
217 - 6056	25 - 50 mm/1 - 2"	0.001 mm/0.00005"	0.003 mm	136.00
217 - 6063	50 - 75 mm/2 - 3"	0.001 mm/0.00005"	0.004 mm	154.00
217 - 6070	75 - 100 mm/3 - 4"	0.001 mm/0.00005"	0.004 mm	173.00

## Internal Micrometer



- with round carbide measuring face
- thimble chrome finished
- with ratchet friction thimble
- with inspection certificate
- deliver in card box

No.	Range	Reading	Accuracy	Note	Euro/pc
217 - 6261	5 - 30 mm	0,01 mm	0,005 mm	with setting ring	107.00
217 - 6278	25 - 50 mm	0,01 mm	0,005 mm	with setting ring	115.00
217 - 6285	50 - 75 mm	0,01 mm	0,007 mm	-	130.00
217 - 6292	75 - 100 mm	0,01 mm	0,008 mm	-	146.00

## Three Point Internal Micrometer Set



- for blind hole, satin chrome finished
- with carbide measuring points from 12 mm
- with setting rings and extension
- with inspection certificate
- packed in aluminum box

No.	Range	Reading	Accuracy	Setting Ring $\phi$	Extension Rods	d	Euro/Set
217 - 6476	6 - 12 mm, 3 pcs	0,001 mm	0,004 mm	6, 8, 10 mm	100 mm	1.5 mm	880.00
217 - 6483	12 - 20 mm, 2 pcs	0,005 mm	0,004 mm	16 mm	150 mm	0.5 mm	445.00
217 - 6490	20 - 50 mm, 4 pcs	0,005 mm	0,005 mm	25, 40 mm	150 mm	0.5 mm	1,240.00
217 - 6506	50 - 100 mm, 4 pcs	0,005 mm	0,005 mm	62, 87 mm	150 mm	0.5 mm	1,620.00

## Digital Three Point Internal Micrometer Set



- IP65 protection, water and dust resistant
- for blind hole
- with carbide measuring points from 12mm
- satin chrome finished
- with setting rings and extension
- button: ON/OFF/SET, ABS/INC/UNIT
- packed in aluminum box
- with inspection certificate

No.	Range	Reading	Accuracy	Setting Ring $\phi$	Extension Rods	d	Euro/Set
217 - 4187	6 - 12 mm, 3 pcs	0,001 mm	0,004 mm	6, 8, 10 mm	100 mm	1.5 mm	1,4050.00
217 - 4194	12 - 20 mm, 2 pcs	0,005 mm	0,004 mm	16 mm	150 mm	0.5 mm	990.00
217 - 3043	20 - 50 mm, 4 pcs	0,005 mm	0,005 mm	25, 40 mm	150 mm	0.5 mm	2,066.00
217 - 3050	50 - 100 mm, 4 pcs	0,005 mm	0,005 mm	62, 87 mm	150 mm	0.5 mm	2,374.00

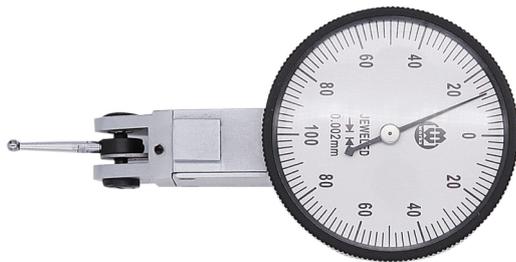
## Digital Indicator



- large display for easy reading
- scale with glass rail for precision sampling
- stem  $\varnothing 8$  mm h6, with analog pointer
- tolerance range setting, deviation judgement
- Max and Min data can be searched and stored
- with USB data output
- absolute and relative measurement, data preset
- buttons: in/mm, ABS, ZERO/ON, T, M
- packed in plastic box
- deliver with certificate

No.	Range	Reading	Accuracy	Euro/pc
221 - 9156	0 - 12.7 mm/0 - 0.5"	0.01 mm/0.0005"	$\pm 0.015$ mm	121.00
221 - 9163	0 - 25.4 mm/0 - 1"	0.01 mm/0.0005"	$\pm 0.020$ mm	135.00
221 - 9170	0 - 50.8 mm/0 - 2"	0.01 mm/0.0005"	$\pm 0.030$ mm	270.00
221 - 9187	0 - 12.7 mm/0 - 0.5"	0.001 mm/0.00005"	$\pm 0.005$ mm	206.00
221 - 9194	0 - 25.4 mm/0 - 1"	0.001 mm/0.00005"	$\pm 0.010$ mm	248.00

## Dial Test Indicators



- high performance of magnetic proof because of high quality brass main body
- jeweled bearing for high sensitivity and long life
- carbide contact point  $\varnothing 2$  mm for long life
- total 3 dovetails for fixing attachments
- supply with accessories: clamping stems  $\varnothing 6$  mm and  $\varnothing 8$  mm
- packed in card box
- deliver with certificate

No.	Range	Reading	Bezel Dia.	Length Of Stylus	Euro/pc
220 - 7046	0 - 0.8 mm	0.01 mm	30 mm	16.5 mm	71.00
220 - 7053	0 - 0.8 mm	0.01 mm	37.5 mm	16.5 mm	72.00
220 - 7060	0 - 0.2 mm	0.002 mm	37.5 mm	16.0 mm	117.00

## Dial Test Indicators with Long Probe



- high performance of magnetic proof because of high quality brass main body
- jeweled bearing for high sensitivity and long life
- carbide contact point  $\varnothing 2$  mm for long life
- total 3 dovetails for fixing attachments
- supply with accessories: clamping stems  $\varnothing 6$  mm and  $\varnothing 8$  mm
- packed in card box
- deliver with certificate

No.	Range	Reading	Bezel Dia.	Length Of Stylus	Euro/pc
4104 - 28	0 - 0.8 mm	0.01 mm	37.5 mm	46.4 mm	117.00

## Dial Indicator, 0 - 10 mm, Shockproof



- DIN 878
- shockproof
- metal casing
- inside Tolerance markers
- stem  $\varnothing 8$  mm h6
- with flat back and one lug back as accessory
- packed in cardbox
- deliver with certificate

No.	Range	Reading	Bezel Dia.	Accuracy	Euro/pc
220 - 6971	0 - 10 mm	0.01 mm	58 mm	$\pm 0.015$ mm	61.00

## Dial Indicator, 0 - 10 mm



- DIN 878
- metal casing
- inside Tolerance markers
- stem  $\varnothing 8$  mm h6
- with flat back and one lug back as accessory
- packed in cardbox
- deliver with certificate

No.	Range	Reading	Bezel Dia.	Accuracy	Euro/pc
220 - 6964	0 - 10 mm	0.01 mm	58 mm	$\pm 0.015$ mm	44.00

## Dial Indicator



- metal casing
- inside Tolerance markers
- stem  $\varnothing 8$  mm h6
- with flat back
- conforms to manufacturer standard
- packed in cardbox
- deliver with certificate

No.	Range	Reading	Bezel Dia.	Accuracy	Euro/pc
220 - 8879	0 - 20 mm	0.01 mm	58 mm	$\pm 0.020$ mm	53.00
220 - 6988	0 - 30 mm	0.01 mm	58 mm	$\pm 0.025$ mm	88.00
220 - 6995	0 - 50 mm	0.01 mm	58 mm	$\pm 0.04$ mm	131.00
4102 - 100	0 - 100 mm	0.01 mm	80 mm	$\pm 0.05$ mm	265.00

## Precision Comparator Stand



- measuring surface fine ground and diamond lapped
- precision clamp with fine adjustment, range 1 - 1.2 mm
- with  $\phi$  8 mm and 3/8" clamping hole
- natural granite base
- packed in card box

No.	Working Table	Flatness Of Working Table	Thickness of the base	Column	Euro/pc
7132 - G150	150 x 100 mm	2.0 $\mu$ m	40 mm	$\phi$ 25 x 180 mm	250.00
7132 - G210	210 x 150 mm	2.0 $\mu$ m	50 mm	$\phi$ 25 x 180 mm	370.00

## Precision Comparator Stand



- with ceramic working table
- precision clamp with fine adjustment range 1 - 1.2 mm
- with  $\phi$  8 mm and 3/8" clamping hole
- cast base
- packed in cardbox

No.	Working Table	Flatness Of Working Table	Thickness Of The Base	Column	Euro/pc
7132 - C80	80 x 80 mm	1.5 $\mu$ m		$\phi$ 25 x 180 mm	355.00

## Magnetic Stand



- super locking power
- for dial indicators shank  $\phi$  6 mm/8 mm and with dovetail for dial test indicators
- with fine adjustment
- prismatic magnetic base with ON/OFF switch (aluminium switch)
- packed in cardbox

No.	Magnetic Force	Base (LxWxH)	Main Stem	Branch Stem	Euro/pc
7131 - 80	80 Kg	60x50x55 mm	12 x 175 mm	10 x 165 mm	55.50
7131 - 100	100 Kg	73x50x55 mm	16 x 250 mm	16 x 200 mm	70.50

## Universal Magnetic Stand



- super locking power
- for dial indicators shank  $\phi$  6 mm/8 mm and with dovetail for dial test indicators
- with fine adjustment
- prismatic magnetic base with ON/OFF switch
- packed in cardbox

No.	Magnetic Force	Base (LxWxH)	Arm Length	Euro/pc
7128 - 80	80 Kg	60x50x55 mm	275 mm	99.00
7128 - 100	100 Kg	73x50x55 mm	355 mm	111.00
7128 - 101	100 Kg	73x50x55 mm	415 mm	120.00

## Mini Universal Magnetic Stand



- mini type
- for dial indicators shank 8 mm and with dovetail for dial test indicators
- with fine adjustment
- prismatic magnetic base with ON/OFF switch
- packed in cardbox

No.	Magnetic Force	Base (LxWxH)	Arm Length	Euro/pc
230 - 8203	40 Kg	36x35x30 mm	187 mm	89.00

## Magnetic Stand MINI Type



- suitable for measuring small working pieces or use in confined space
- for dial indicators shank  $\phi$  8 mm
- magnetic base
- packed in cardbox

No.	Magnetic Force	Base (LxWxH)	Euro/pc
7130 - 20	20 Kg	73x37x12 mm	37.00

## Bore Gauge with dial indicator



- with dial indicator
- reading 0.01 mm
- with inspection certificate

No.	Range	Reading	Measuring Depth	Accuracy	Repeatability	Euro/pc
220 - 7114	6 - 10 mm	0.01 mm	40 mm	± 0.012 mm	0.003 mm	166.00
220 - 7121	10 - 18 mm	0.01 mm	100 mm	± 0.012 mm	0.003 mm	161.00
220 - 7138	18 - 35 mm	0.01 mm	150 mm	± 0.012 mm	0.003 mm	140.00
220 - 7145	35 - 50 mm	0.01 mm	150 mm	± 0.012 mm	0.003 mm	141.00
220 - 7152	50 - 160 mm	0.01 mm	150 mm	± 0.012 mm	0.003 mm	142.00

## Bore Gauge Set 18 - 160 mm



- 3 gauges: 18 - 35, 35 - 50 and 50 - 160 mm
- with a 0 - 10 mm dial indicator
- reading 0.01 mm
- accuracy 0.012 mm
- repeatability 0.003 mm
- measuring depth 150 mm
- WERKA test certificate
- robust plastic case

No.	Range	Euro/pc
4106-S03	18 - 160 mm	325.00

## Bore Gauge with Digital Indicator



- with digital Indicator
- reading 0.002 mm
- tolerance range setting, deviation judgement
- Max and Min data can be searched and stored
- with USB data output
- absolute and relative measurement, data preset
- buttons: in/mm, ABS, ZERO/ON, T, M
- with inspection certificate

No.	Range	Reading	Measuring Depth	Accuracy	Repeatability	Euro/pc
221 - 7213	6 - 10 mm	0.002 mm	40 mm	± 0.012 mm	0.003 mm	236.00
221 - 7220	10 - 18 mm	0.002 mm	100 mm	± 0.012 mm	0.003 mm	233.00
221 - 7237	18 - 35 mm	0.002 mm	150 mm	± 0.012 mm	0.003 mm	202.00
221 - 7244	35 - 50 mm	0.002 mm	150 mm	± 0.012 mm	0.003 mm	203.00
221 - 7251	50 - 160 mm	0.002 mm	150 mm	± 0.012 mm	0.003 mm	204.00

## Bore Gauge Set with Digital Indicator 18 - 160 mm



- 3 gauges, 18 - 35. 35 - 50 and 50 - 160 mm
- with a 0-12.7 mm digital indicator
- reading 0.002 mm
- accuracy 0.012 mm
- repeatability 0.003 mm
- measuring depth 150 mm
- WERKA test certificate
- robust plastic case

No.	Range	Euro/pc
4206-S03	18 - 160 mm	385.00

## Electronic Zero Setting Gauge



- with LED signal light
- magnetic base
- LED light up when the cutting tool touch the head
- 1.5 V Battery, LR44

No.	Total Height	Accuracy	Euro/pc
7413 - 01	50 mm	0.01 mm	151.00

## Digital Tool Setting Gauge



- inductive measurement system
- LED Display
- response speed 1.6 m/s
- IP 65 protection grade
- light indicating at "0.000"
- auto power off, when no operation for 5 minutes
- low voltage alarm

No.	Total Height	Accuracy	Euro/pc
235 - 9521	50 mm	0.01 mm	107.00

## Digital Level Box



- suitable for inclination and angle measurement
- made of Al alloy, with magnets
- range 4 x 90°
- auto power off (1x AAA battery)
- operation temperature: 0°C - +50°C
- delivered with a manual, colorful box
- ON/OFF, Reset

No.	Size	Accuracy	Euro/pc
6103 - 02	60 x 60 x 20 mm	0.1°	40.50

## Digital Spirit Level



- made of high quality special cast iron
- V-groove suitable for shaft or round parts
- button: ON/OFF, M, HOLD
- packed in plastic box

No.	Size	Accuracy	Euro/pc
6133 - G200	200 mm	0.02 mm	485.00

## Spirit Level



- made of special cast iron
- with high resistance to wear
- V-groove on the bottom

No.	Size	Accuracy	Euro/pc
6126-1502	150 mm	0.02 mm	112.00

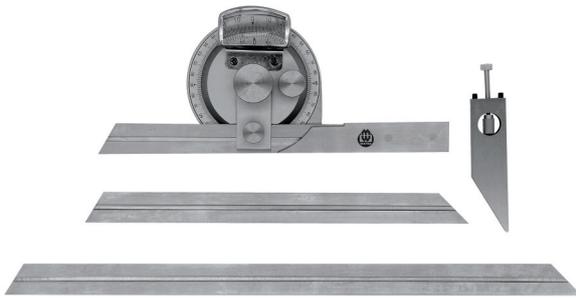
## Spirit Level



- robust aluminum body
- measuring face with magnets
- large LCD display easy to read
- with backlight
- ON/OFF, Unit: mm/m, %, in/ft
- sound setting, calibration
- operation temperature: 0°C ~ +50°C
- with a hanging hole, Battery: 2 AAA
- delivered with a black bag

No.	Size	Accuracy	Euro/pc
6128-600	600 mm	0.05°	79.00

## Universal Bevel Protractors



- made of stainless steel
- laser marking graduation
- all measuring face hardened and lapped
- with fine adjustment, adjustable bezel
- acute angle base as standard accessory
- measuring range 360°
- reading 5', accuracy  $\pm 5'$
- packed in cardbox

No.	Ruler	Euro/pc
242 - 0504	150, 200, 300 mm	117.00

## Digital Protractors



- measuring range 10 - 170°
- made of stainless steel, hardened and fine ground
- LCD display with clear reading
- with locking screw

No.	Size	Range	Reading	Accuracy	Euro/pc
6105-150E	100 x 150 mm	10° - 170°	0.05°	$\pm 15'$	89.00
6105-200E	150 x 300 mm	10° - 170°	0.05°	$\pm 15'$	115.00
6105-300E	200 x 400 mm	10° - 170°	0.05°	$\pm 15'$	135.00

## Digital Protractors



- made of stainless steel
- scale mm/inch, reading: 1 mm, 1/32"
- LCD display, auto power off
- with locking mechanism
- operation temperature: 0°C ~ +50°C
- with hanging holes
- delivered with a manual, colorful box
- ON/OFF, reset

No.	Rule	Euro/pc
6104-300D	300 mm	33.50

## Precision Inspection Beveled Edge Square



- DIN 875/00
- made of stainless steel
- with two bevelled edges, hardened
- working surface lapped

No.	Size	Section	Accuracy	Euro/pc
240 - 1273	50 x 40 mm	14 x 10 mm	DIN 875/00	20.30
240 - 1280	75 x 50 mm	14 x 10 mm	DIN 875/00	24.50
240 - 1297	100 x 70 mm	18 x 12 mm	DIN 875/00	27.00
240 - 1303	150 x 100 mm	24 x 14 mm	DIN 875/00	44.00
240 - 1310	200 x 130 mm	28 x 16 mm	DIN 875/00	56.50

## Precision Inspection Squares 90°



- DIN 875/1
- made of stainless steel
- working surface lapped

No.	Size	Section	Accuracy	Euro/pc
240 - 0894	75 x 50 mm	15 x 5 mm	DIN 875/1	11.70
240 - 0900	100 x 70 mm	20 x 5 mm	DIN 875/1	13.95
240 - 0917	150 x 100 mm	25 x 5 mm	DIN 875/1	19.50
240 - 0924	200 x 130 mm	30 x 6 mm	DIN 875/1	29.50
240 - 0948	300 x 200 mm	40 x 8 mm	DIN 875/1	58.50

## Precision Inspection Squares with Base 90°



- DIN 875/1
- made of stainless steel
- working surface lapped

No.	Size	Section	Accuracy	Euro/pc
240 - 0979	75 x 50 mm	15 x 5 mm	DIN 875/1	18.75
240 - 0986	100 x 70 mm	20 x 5 mm	DIN 875/1	22.00
240 - 0993	150 x 100 mm	25 x 5 mm	DIN 875/1	28.50
240 - 1006	200 x 130 mm	30 x 6 mm	DIN 875/1	40.00
240 - 1020	300 x 200 mm	40 x 8 mm	DIN 875/1	67.00

## Acute Angle Squares 45°



- DIN 875/2
- flat type
- made of stainless steel
- packed in cardbox

No.	Size	Section	Accuracy	Euro/pc
240 - 2034	100 x 70 mm	20 x 5 mm	DIN 875/2	19.50
240 - 2058	150 x 100 mm	20 x 5 mm	DIN 875/2	24.50
240 - 2065	200 x 130 mm	20 x 5 mm	DIN 875/2	30.00

## Acute Angle Squares 45°



- DIN 875/2
- with base
- made of stainless steel
- packed in cardbox

No.	Size	Section	Accuracy	Euro/pc
240 - 2096	100 x 70 mm	20 x 5 mm	DIN 875/2	22.50
240 - 2119	150 x 100 mm	20 x 5 mm	DIN 875/2	29.00
240 - 2126	200 x 130 mm	20 x 5 mm	DIN 875/2	41.00

## Hexagon Squares 120°



- DIN 875/2
- flat type
- made of stainless steel
- packed in cardbox

No.	Size	Section	Accuracy	Euro/pc
240 - 2287	75 x 75 mm	15 x 5 mm	DIN 875/2	18.80
240 - 2294	100 x 100 mm	20 x 5 mm	DIN 875/2	26.50
240 - 2317	200 x 200 mm	30 x 6 mm	DIN 875/2	35.50

## Mitre Squares 135° With Base



- DIN 875/2
- with base
- made of stainless steel
- packed in cardbox

No.	Size	Section	Accuracy	Euro/pc
240 - 2324	100 x 70 mm	20 x 5 mm	DIN 875/2	22.50
240 - 2348	150 x 100 mm	20 x 5 mm	DIN 875/2	27.50
240 - 2355	200 x 130 mm	25 x 5 mm	DIN 875/2	36.50

## Precision Inspection Beveled Edge Square



- DIN 874/00
- made of special steel, black oxide
- bevelled edge, fine ground and lapped
- with black insulation handle

No.	Size	Accuracy	Euro/pc
241 - 1372	100 mm	DIN 875/00	13.35
241 - 1396	150 mm	DIN 875/00	16.75
241 - 1402	200 mm	DIN 875/00	21.50
241 - 1419	300 mm	DIN 875/00	41.50
241 - 1433	500 mm	DIN 875/00	88.50

## Taper Gauge



- for quick measurement of gap width
- made of stainless steel

No.	Range	Reading	Accuracy	Euro/pc
2601 - 06A	0.4 - 6 mm	0.05 mm	0.04 mm	47.50
2601 - 10A	0.5 - 10 mm	0.05 mm	0.07 mm	50.50
2601 - 15A	1 - 15 mm	0.10 mm	0.08 mm	53.50

## Taper Cone Cylinder Gauge



- made of special steel
- hardened and fine ground
- matt chrome finish
- knurled handle (black oxide),  
made of - aluminium

No.	Range	Reading	Accuracy	Euro/pc
2601 - 06	1 - 6.5 mm	0.1 mm	0.06 mm	51.00
2601 - 15	3 - 15 mm	0.1 mm	0.06 mm	54.50
2601 - 30	15 - 30 mm	0.1 mm	0.06 mm	82.00

## Small Taper Bore Gauge



- for fast measurement of smaller bore diameter
- with protective cover
- packed in plastic box

No.	Range	Reading	Accuracy	Euro/pc
2601 - 05	0.1 - 5 mm	0.01 mm	0.03 mm	223.00

## Steel Gauge Block Sets



- according to DIN EN ISO 3650 for metric
- made from high quality alloy steel
- hardness of measuring face  $\geq$  HRC 64
- with individual certificate
- packed in wooden box

No.	Pcs/Set	Nominal Size	Degree	Euro/Set
<b>280 - 5127</b>	32	1 x 1.005 mm	0	385.00
		9 x 1.01 - 1.09 mm		
<b>280 - 5134</b>	32	9 x 1.10 - 1.90 mm	1	238.00
		9 x 1 - 9 mm		
<b>280 - 5097</b>	47	4 x 10 - 30, 50 mm	0	545.00
		1 x 1.005 mm		
<b>280 - 5103</b>	47	20 x 1.01 - 1.20 mm	1	340.00
		7 x 1.30 - 1.90 mm		
<b>280 - 5066</b>	87	9 x 1 - 9 mm	0	875.00
		10 x 10 - 100 mm		
<b>280 - 5073</b>	87	9 x 1.001 - 1.009 mm	1	540.00
		49 x 1.01 - 1.49 mm		
		19 x 0.5 - 9.5 mm		
		10 x 10 - 100 mm		

## Plug Gauge Set



- made of special steel
- finely ground and lapped
- standard DIN 2245
- tolerance H7
- deliver with certificate
- prime plastic box

No.	Content	Euro/Set
<b>5107 - S7</b>	3, 4, 5, 6, 8, 10, 12 mm	153.00

## Plug Gauge Set



- made of special steel
- finely ground and lapped
- DIN 13, right, Go and NOG tips
- tolerance 6H
- deliver with certificate
- prime plastic box

No.	Content	Euro/Set
<b>5109 - S7</b>	M 3, M 4, M 5, M 6, M 8, M 10, M 12 mm	214.00

## Laser Distance Meter



- basic type
- portable and ergonomic design
- built-in electronic angle sensor
- fast measurement and timely response
- large LCD display, easy to reading
- measuring unit: m / ft / in
- laser class: II (< 1 mW)
- function: distance measurement, Max/Min, Area, Volume, Pythagorean theorem measurement, Add/subtract, Data storage
- auto power off (Battery: 2 x AAA )
- dimension: 115 x 50 x 23 mm. weight: 82 g
- packed in display box

No.	Range	Accuracy	Euro/pc
526-040E	0.05 - 40 mm	± 2 mm	50,20
526-080E	0.05 - 80 mm	± 2 mm	60,20
526-100E	0.05 - 100 mm	± 2 mm	67,20

## Laser Distance Meter With Camera Assist



- professional type, designed for the outdoor measurement profession
- portable and ergonomic design
- built-in electronic angle sensor, real-time electronic angle
- fast measurement and timely response
- with camera assist, with voice broad casting
- large LCD display, easy to reading
- with 1/4" tripod connecting thread
- measuring unit: m / ft / in
- laser class: II (< 1 mW)
- function: Distance measurement, Max/Min, Area, Volume, Pythagorean theorem measurement, Add/subtract, Data storage, electronic angle
- with an 800 mAh rechargeable lithium battery and can also be installed with AAAx3 battery, Auto power off
- dimension: 134 x 56 x 27 mm. weight: 127 g
- with a soft package, packed in display box

No.	Range	Accuracy	Euro/pc
526-150P	0.05 - 150 mm	± 2 mm + 50 x 10 <sup>-6</sup> x D *	256.00
526-200P	0.05 - 200 mm	± 2 mm + 50 x 10 <sup>-6</sup> x D *	285.00

## Mini Tachometer



Mini Tachometer is a reliable digital non-contact tachometer used to measure rotation speed of motors and other machines.

- LCD backlight
- auto measuring range
- up to 99999 display; overload display, "OL"
- RPM measurement and revolution count
- Max/Min, data hold. Singal trigger/laser-on-indication
- refresh rate: 1 s to 7 s (> 120 rpm for 1 s)
- target distance: 50 - 200 mm, Measuring angle: ± 30°
- power: 3 x 1.5 V battery (AAA)
- low battery/auto power off indication
- dimension: 183.8 x 56 x 34 mm
- weight: 85 g (excl. battery)

No.	Range	Reading	Accuracy	Euro/pc
527-201	10 - 9999.9 RPM	0.1 RPM	± (2 + 0.04% x R)	37.50
	10000 - 99999 RPM	1 RPM	± (2 + 0.04% x R)	
	0 - 99999 counts	1 counts	± 1	

## Wooden Moisture Meter



- suitable for measuring the moisture content of wood and building materials
- ambient temperature and Environmental humidity measurement
- with pin measuring tips
- single point measurement and Multi-point averagemasurement
- Max/Min measurement
- built in characteristic parameters of 7 different kinds of wood and building materials
- Data hold
- automatic power off
- Low battery indicator
- power: 3 x 1.5 V Alkaline battery

### Material and Their Measuring Range:

- A: Beech, spruce, larch, birch, cherry, walnut: 8.8 - 54.8 %
- B: Oak, pine, maple, ash, douglas fir, eucalyptus: 6.8 - 47.9 %
- C: Cement mortar layer, concrete: 0.9 - 22.1 %
- D: Anhydrous gypsum mortar layer: 0.0 - 11.0 %
- E: Cement mortar: 0.7 - 8.6 %
- F: Lime mortar, gypsum: 0.6 - 9.9 %
- G: Brick: 0.0 - 16.5 %

No.	Range	Accuracy	Euro/pc
525-190	Temperature: - 20° - 60° C	- 20° - 0° C: ± 1,5° C 0° - 45° C: ± 1,0° C 45° - 60° C: ± 1,5° C	53,50
	Humidity: 0 - 99,9 %	0 - 20 %: ± 6 RH 20 - 80 %: ± 5 RH 80 - 99,9 %: ± 6 RH	

## Infrared Thermometer



Industrial infrared thermometer, suitable for steel industry, glass industry, baking, cold storage, maintenance industry, supermarket food processing, etc

- the safety level complies with EN61326 and EN60825
- high and low temperature alarm, Temperature difference alarm (MAX/MIN display)
- fast measurement, response speed less than 0.5 s
- color LCD display with backlight
- adjustable laser emissivity
- 12 infrared measurement points
- laser power: < 1 mW (630 - 650 nm)
- target distance ratio: 12: 1
- spectral range: 8 - 14 μm
- auto power off
- packed in display box

No.	Range	Reading	Accuracy	Power	Dimension x Weight	Euro/pc
523-5055	thermocouple: - 50° - 550° C	1° C	- 50° - 0° C: ± 3° C 0° - 550° C: ± 2° C	2 x 1.5 V (AAA)	145 x 92 x 45 mm 100 g	36.50
523-5080	thermocouple: - 50° - 800° C	1° C	1° ± 1.5° C	9 V (6F22)	160 x 111 x 48 mm 130 g	68.20
	ambient Temp.: - 10° - 60° C	1° C	± 1° C			
	humidity: 0% - 99° RH	1%	± 4% RH			



### Technical Data

Measuring range:	HV: 50 - 1599; HRC: 20 - 68; HB: 76 - 650; HRB: 41 - 105; HLD: 170 - 960
Resolution:	0.1 HR, 1 HV, 1 HB, 1 HLD, 0.1 HS
Measuring accuracy:	HV: ±3% HV; HRC: ±1.5 HRC; HB: ±3% HB; HL: ±8 HL
Ultrasonic probe:	Standard delivery: 2 Kg
Impact devices:	Standard delivery: D
Hardness scales:	Vickers (HV); Rockwell C (HRC); Rockwell A (HRA); Rockwell B (HRB); Brinell (HB)
Display:	Measurement value, Max, Min, Ave, Sing mode, Batch mode, etc.
Data storage:	1000 group test results and 20 group calibration data
Data transfer:	Bluetooth
Continuous Working Period:	10 h (turn off the backlight)
Working Environment:	Temperature: - 10°C - 50°C
Humidity:	30% - 80% R.H.
Battery Voltage:	4.2 V
Charge Mode:	USB
Dimension:	165x85x22 mm
Weight:	≤ 500 g (probe not included)

- Ultrasonic hardness tester 447-9392 is a NDT durometer due to the contact indentation is too small to observe, it is one of the excellent solution to test hardness of finished products, such as the mold, gear, shaft, rod, screw, rails, etc.
- very compact size with integrated probe.
- one instrument two applications - Support ultrasonic probe and Leeb impact device.
- metal shell - Metallic texture, shield electromagnetic interference effectively, improve instrument stability.
- color screen display - display the current measurement value accumulative measurement value, Max, Min and Ave value.
- bluetooth transferring - support wireless Bluetooth print and data transferring.
- mass storage: save 1000 groups data.
- calibration access: save 20 groups calibration data without doing calibration for the same material over and over.

### Delivery

1 x Main unit	1 x 2 Kg Manual probe
1 x Impact devices type D	1 x Rockwell hardness block
1 x Leeb hardness block	1 x Probe cable
1 x Accessories Box	1 x USB Cable
1 x Operation Manual	1 x Packing list, Manual

No.	Measuring Rang and Resolution	Euro/pc
447 - 9392	HV: 50 - 1599 x 1 HV; HRC: 20 - 68 x 0.1 HR; HB: 76 - 650 x 1 HB; HRB: 41 - 105 x 1 HLD; HLD: 170 - 960 x 0.1 HS	7,050.00

## Portable Hardness Tester with Mini Printer



- standards: ASTM A956, DIN50156
- supports full angle measurement without the need for manual direction setting
- carbon steel, cast steel, alloy tool steel, stainless steel, gray cast iron, ductile iron, cast aluminum, brass, bronze, copper, forged steel, rolling mill
- with mini thermal printer
- probe type D
- accuracy:  $\pm 6$  HL
- power: battery 3 x AAA
- dimensions: 152 x 83 x 27 mm
- weight: 190 g

### Delivery

1 x Main unit	1 x Impact devices type D
1 x Mini-printer	1 x Leeb hardness block
1 x Accessories Box	1 x Charger
1 x Operation Manual	

No.	Measuring rang and resolution			Euro/pc
447 - 9422	HV: 80 - 950 x 1 HV; HRB: 38.4 - 99.5 x 1 HLB;	HRC: 20 - 68.4 x 0.1 HR; HLD: 32.5 - 99.5 x 0.1 HS	HB: 81 - 654 x 1 HB;	1.485.00

## Portable Hardness Tester, High Accuracy



- standards: GB/T 17394.1-2014, ASTM A956, JJG747-1999, DIN50156
- supports full angle measurement without the need for manual direction setting
- carbon steel, cast steel, alloy tool steel, stainless steel, gray cast iron, ductile iron, cast aluminum, brass, bronze, copper, forged steel, rolling mill
- probe type D
- accuracy:  $\pm 0.3\%$ ; (HL =  $800 \pm 2$  HL)
- TFT color display, suitable for outdoor use
- with magnetic suction function
- upper and lower limit alarms, graphical display
- power: battery 2 x AA
- dimensions: 48 x 28 x 145 mm
- weight: 158 g

No.	Measuring Rang and Resolution			Euro/pc
447 - 9419	HV: 45 - 1221 x 1 HV; HRB: 1.2 - 139.7 x 1 HLB;	HRC: 1.3 - 74.7 x 0.1 HR; HLD: 170 - 960 x 0.1 HS	HB: 28 - 1027 x 1 HB;	1.765.00

## Coating Thickness Gauge



### Technical Data

Measuring range:	0 - 1500 $\mu\text{m}$
Resolution:	0.1 $\mu\text{m}$ (0 - 99.9 $\mu\text{m}$ ), 1 $\mu\text{m}$ (100 - 1500 $\mu\text{m}$ )
Accuracy:	$\pm 2\%$ H+1 $\mu\text{m}$ H = coating thickness
Measurement Mode:	Single/Continuous
Unit Options:	$\mu\text{m}$ / mil
Thinnest Substrate:	0.3 mm
Maximal Curvature:	convex 5 mm/ concave 25 mm
Operating Conditions:	Temperature: - 10 - 50 $^{\circ}\text{C}$ Humidity: 0 - 85% RH
Power Supply:	2x AAA Battery (1.5V)
Dimensions:	101x61x26 mm
Weight:	54 g (without Batteries)

- widely used in manufacturing, such as metal manufacturing, chemical, commodity inspection and other measurement fields area.
- 2 in1 for steel and aluminum
- adopt high-speed MCU and advanced algorithm to ensure the accuracy and efficiency of measurement.
- the instrument supports fast measurement and continuous measurement, and the measurement speed can reach 0.3 s/time
- the wear-resistant metal probe can ensure stable data when measuring on hard or rough surfaces, and the probe wears more than 500,000 times
- small in size, light in weight and easy to carry
- wide measurement range, high precision and good stability, which can meet the measurement of ultra-thin coatings
- automatic power off, Large LCD display, easy to reading
- prime plastic box

No.	Range	Euro/pc
542 - 0252	0 - 1500 $\mu\text{m}$	300.00

## Ultrasonic Thickness Gauge



### Technical Data

Working mode:	There are two working modes of thickness measurement: single mode and scan mode
Display:	LCD LCD with backlight
Measuring unit:	mm/in
Resolution:	0.1 mm / 0.01 mm / 0.001inch
Accuracy:	$\pm(0.5\% n+0.05 \text{ mm})$ , depends on materials and conditions
Measurement Period:	4 times per second for single point mode and 10 times per second for scan mode
Sound Velocity:	1000 m/s - 9999 m/s
Data storage:	Memory for up to 20 files (99 values for each file) of stored values
Operating Conditions:	Temperature: 0 - 40 $^{\circ}\text{C}$ Humidity: < 85% RH
Power Supply:	4x1.5 V AAA (UM - 4) Battery
Dimensions:	142x72x34 mm
Weight:	175 g (Not Including Batteries)

- used for measuring thickness and corrosion of pressure vessels, chemical equipment, boilers, oil storage tanks, etc. in industries of petroleum, shipbuilding, power station and machine manufacturing.
- Multi-mode: Pulse - Echo mode (used for flaw and pit detection) and Echo - Echo mode (used for measurements eliminating paint or coating thickness)
- using the latest high performance and low power consumption microprocessor technology
- automatic memory material code and sound velocity value, convenient to use
- use USB/RS - 232 data output to connect with PC
- with coupling status prompt function
- automatic power off

No.	Range	Euro/pc
543 - 1030	Pulse - Echo mode: 1.0 mm - 300 mm (in steel)	625.00
	Echo - Echo mode: 3 mm - 30 mm	



- This hand-held roughness tester is ergonomically designed and a mechanical-electrical integration product, small and light, easy to operate. It is very much applicable for the measurement (e.g. plane, curvature, oblique plane, hole, groove, shaft) on site such as roughness inspection for parts in IQC warehouse, semi-finished products area and workshop etc.
- split design for flexible use with brackets
- measuring range up to 160  $\mu\text{m}$
- 3.8 in TFT touch screen, clear and direct roughness graphs
- with BT to support wireless connection with smartphone and mini printer
- big data memory, 100 readings and graphic groups record
- auto power off, Premium PCB and software design

### Technical Data

Measuring range:	Z - axis vertical: $\pm 80 \mu\text{m}/\pm 160 \mu\text{m}$ X - axis horizontal: 20 mm
Resolution:	Z - axis vertical 0.01 $\mu\text{m}/\pm 20 \mu\text{m}$ , 0.02 $\mu\text{m}/\pm 40 \mu\text{m}$ , 0.04 $\mu\text{m}/\pm 80 \mu\text{m}$ , 0.08 $\mu\text{m}/\pm 160 \mu\text{m}$
Parameters:	Z - axis vertical Ra, Rz, Rq, Rt, Rp, Rv, R3z, R3y, Rz(JIS), Rs, Rsk, Rsm, Rku, Rmr, Ry(JIS), Rmax, Rpk, Rk, Rpk, Rvk, Mr1, Mr2
Standards:	ISO, ANSI, DIN, JIS
Graphics:	material ratio curve, roughness profile, contour
Filters:	RC, PC - RC, Gauss, D - P
Sampling Length:	0.25, 0.8, 2.5 mm
Assessment length:	$L_n = l_r \times n$ , $n = 1 - 5$
Measuring principle:	differential conductance displacement sensor
Contact tip:	diamond, taper 90°, radius of contact tip 5 $\mu\text{m}$
Measuring force:	< 4 mN
Guide:	carbide, radius of moving direction
Moving speed:	$l_r = 0.25$ , $V_t = 0.135 \text{ mm/s}$ ; $l_r = 0.8$ , $V_t = 0.5 \text{ mm/s}$ $l_r = 2.5$ , $V_t = 1 \text{ mm/s}$ ; Return $V_t = 1 \text{ mm/s}$
Accuracy error:	< $\pm 10 \%$
Repeatability:	< 6%
Power:	Built-in Lion rechargeable battery, Charge host: 64x53x160 mm, Drive: 23x27x115 mm
Size:	
Host Weight:	380 g
Temperature:	Operating temperature: - 20°C - 40°C Storage: - 40°C - 60°C
Humidity:	< 90% RH

### Delivery 490-9538

Host	Charger	Drive sensor
Stylus	Probe	Small bracket
Calibration blocks	Operation Manual	Connection Cable
USB cable	Carrying case	

No.	Range, Z - axis	Euro/pc
490 - 9538	$\pm 80 \mu\text{m} / \pm 160 \mu\text{m}$	2,695.00

- Granit stand for hand-held roughness tester

No.	Range	Table	Euro/pc
WP - 490 - P01	300 mm	400x250x70 mm	975.00

## Hand-Held Refractometer

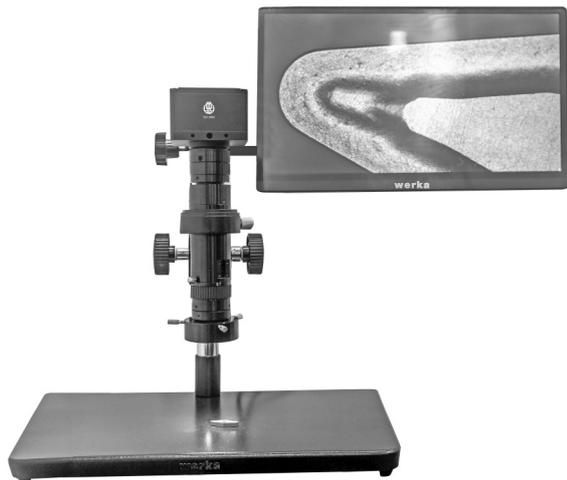


Hand-Held Refractometer is developed for working with sugar related liquids (fruit juices, soft drinks, wine), help monitor and control sugar concentrations in foods and beverages. It's also commonly used for controlling the concentration of various industrial fluids cutting lubricants and flux rinsing compounds.

- built-in automatic temperature compensation system
- compensation temperature range 10° - 30° C
- for measuring the optimal concentration of liquids
- rugged stainless steel housing with rubber handle
- with adjusting screw, folding cover, with rubber eye cup, quality optic
- size: 172 x  $\phi$ 29mm
- delivery in a case

No.	Range	Reading	Accuracy	Note	Euro/pc
522-0354	0 - 32% Brix	0.2 % Brix	$\pm 0.2 \%$	top quality	95,70
522-1469	0 - 32% Brix	0.2 % Brix	$\pm 0.2 \%$	economic type	32,50

## Digital Measuring Microscope with 4k



### Technical Data

Magnification:	≈ 17.6X - 120X
Camera sensor:	1/1.8" CCD
Pixel:	8 M
Resolution:	3840 x 2160
Frame rate:	4K: 30fps, 1080P: 60 fps
Port:	HDMI
Frequency:	1 GHZ
Power:	Adapter
Worktable:	570 x 300 mm
Net weight:	7.6 kg

- 4K megapixel image, large screen, according to enterprise standard
- with 4K high-definition camera, up to 8M pixel
- auto white balance and exposure
- with picture taking and video shooting function
- built-in software with more than 40 measuring applications
- pictures and videos saved to a flash drive
- step zoom lens 0.7 X - 4.5 X, ratio 6.4:1
- with a 15.6" 4K display
- camera with HDMI port X1 and USB port X2
- LED light source, with a controller
- with a worktable stand

### • delivery

1 x Main unit	1 x 15.6" 4K display
1 x LED lights	1 x Light controller
1 x worktable	1 x 16G flash drive
1 x wireless mouse	1 x calibration plate
1 x Packing list	1 x Manual

No.	Magnification	Resolution	Worktable	Euro/pc
521 - 2664	17.6x - 120x	2840 x 2160	570 x 300 mm	3,720.00

## 3D Motorized Rotation Video Microscope



### Technical Data

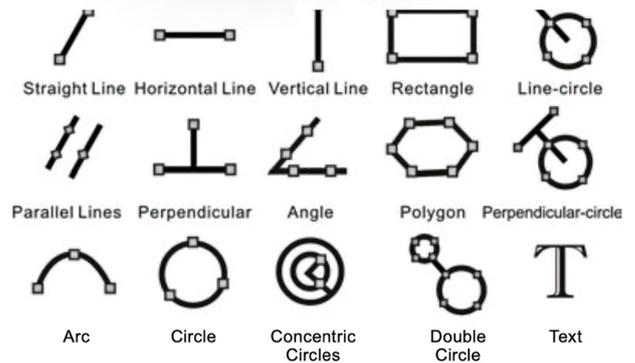
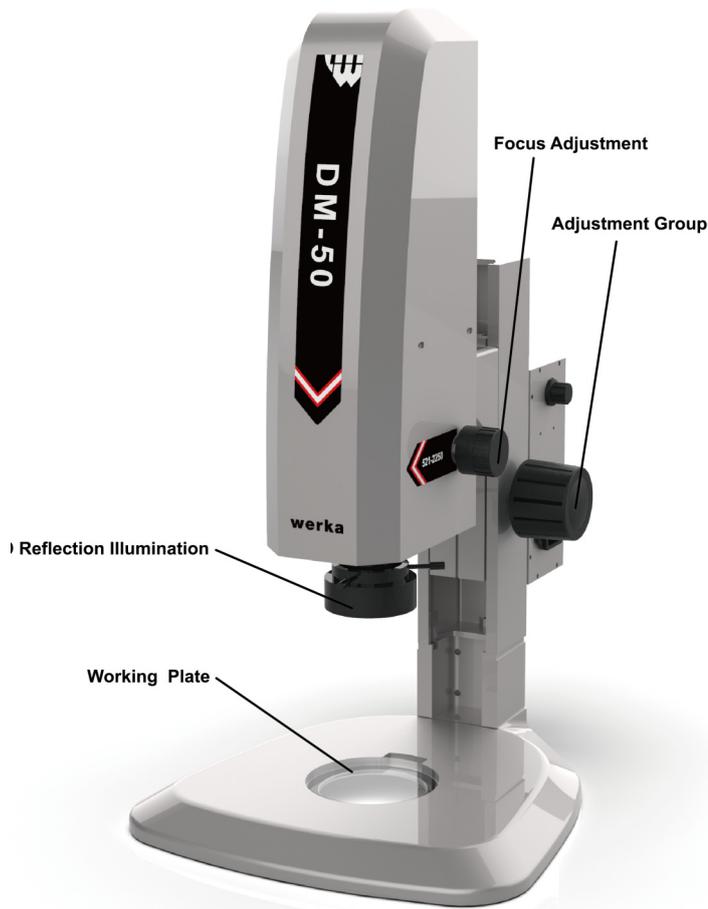
Magnification:	≈ 25X - 150X
Focus:	20 mm
View field:	18x3.5 mm
View angle:	45°
Camera sensor:	1/2"CCD, 2 M pixel
Resolution:	1920x1080
Frame rate:	60 fps
Port:	HDMI
Rotation speed:	4 RPM
Power:	220 V/ 50/60 Hz
Worktable:	320x240 mm
Net weight:	7.2 kg

- 360° rotation lens, high definition, according to enterprise standard
- 1080P high-definition 3D image
- automatic white balance and exposure
- with picture taking and video shooting function saved into a flash drive
- rotation driven by an import DC motor, 45° view angle
- step zoom lens 0.7X - 4.5X, ratio 6.4:1
- with an operation software
- 2 M Pixel Camera, with a 13" display
- camera with HDMI port X1 and USB port X2
- with a controller
- with a worktable stand

### • delivery

1 x Main unit	1 x 13" display
1 x rotation controller	1 x Worktable
1 x 16G flash drive	1 x Wireless mouse
1 x Packing list	1 x Manual

No.	Magnification	View field	Worktable	Euro/pc
521 - 2657	25x - 150x	18 x 3.5 mm	320 x 240 mm	4,640.00



DM - 50 can measure straight lines, angles, concentric circles, parallel lines, point to line distance, point and line to concentric circles, diameter, circumference and area, length and width of rectangle, and can calculate circumference and area. It can measure the polygon and calculate its area. All the corresponding measurement report can be output to Udisk.

## Technical Data

Electronic Magnification:	8x - 206x (HDMI 16:9 21.5" Monitor)
Optical Objective:	0.7x - 4.5x zoom lens Zoom ratio: 6.5:1 0.5x C - mount camera adapter
Camera Parameters:	2M pixe (1920x1080) Image size:1/2.8" Frames per second:1080P@60fps
Measuring Function:	Linear dimensions such as distance, perimeter, area, angle, radian, width, height, and radius elements are measured
Measurement Accuracy:	0.02mm - 0.003mm
Illumination:	Adjustable LED surface illumination
Microscope Stand:	Z - axis travel:100mm
Power Supply:	AC90 - 204 V, 50 - 60 Hz
Dimension (LxWxH):	375x285x500 mm
Net Weight:	6.5 Kg

- It can be applied to incoming inspection, production inspection, material research, PCB and SMT inspection analysis, printing, textile inspection, biological anatomy, medical testing and other fields.
- integral design
- Built-in high-definition HDMI integrated camera, directly connected to HDMI display, can take pictures or videos;
- with high definition 0.7 - 4.5X parallel continue zoom lens, it is much more convenience and fast to switch objective magnification;
- with adjustable LED surface reflection illumination, is able to control brightness independently;
- with 2 mega pixel auto focus camera, no need to waste time for manual focus frequently;
- with its own measurement function, it can measure linear dimensions such as distance, perimeter, area, angle, radian, width, height, and radius elements.

## • delivery

1 x Instrument Main Unit	1 x Monitor: 16:9, 21.5"
1 x Mouse	1 x USB Flash Disk
1 x Power adapter: DC 5V (Camera), DC 12V (illumination)	
1 x Operation manual	1 x Warranty card
1 x Certificate	1 x Packing list

No.	Optical Objective	Electronic Magnification	Z - Achse	Accuracy	Euro/pc
521 - 2013	0.7x - 4.5x	8x - 206x	100 mm	0.02 mm - 0.003 mm	6,150.00

## Flex Head Combination Wrenches



- made by heat-treated Chrome Vanadium Steel
- professional plating prevents wrenches from corrosion.
- 72 teeth needs as little as 5° to move fasteners while a regular wrench needs 30° of sweep space.
- flexible head tilts 180° at any interval with continuous head tension.
- specially designed for working on automotive engine and confined space.
- superior life-time test

No.	Size	Length	Euro/pc
9219-06	6	136	8.00
9219-07	7	136	9.20
9219-08	8	136	9.50
9219-09	9	143	10.00
9219-10	10	161	10.70
9219-11	11	168	11.50
9219-12	12	174	11.90
9219-13	13	180	12.00
9219-14	14	193	13.40
9219-15	15	200	14.00
9219-16	16	218	14.90
9219-17	17	233	15.40
9219-18	18	239	15.80
9219-19	19	250	16.40



- Set with roll pocket

No.	Pc/Set	Size mm	Euro/pc
9219-404	4	10 - 13 - 17 - 19	54.90
9219-408	8	8 - 10 - 12 - 13 - 16 - 17 - 18 - 19	99.00
9219-414	14	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19	154.00

## Ratvhet Wrenches, 4 in 1



- 1 tool - 4 wrench sizes
- forward/reverse switch
- made of heat-treated chrome vanadium steel for strength exceeding international specifications.
- matt-hardened all-steel construction for continuous use
- quick and easy to use



No.	Size	Euro/pc
9216-4600	8 x 10 + 12 x 13 mm	16.70
9216-4601	9 x 11 + 14 x 15 mm	17.00
9216-4602	10 x 13 + 17 x 19 mm	18.30
9216-4603	16 x 17 + 18 x 19 mm	19.90

- Set with roll pocket

No.	Pc/Set	Size mm	Euro/pc
9216-4605	3	8 x 10 + 12 x 13 mm 9 x 11 + 14 x 15 mm 16 x 17 + 18 x 19 mm	54.90

## Combination Wrenches



- made by heat-treated Chrome Vanadium Steel for strength exceeding international specifications.
- professional plating prevents wrenches from corrosion.
- 72 teeth needs as little as 5° to move fasteners while a regular wrench needs 30° of sweep space.
- 15° offset ratchet head helps to reduce swing obstacles and to minimize knuckle fatigue.
- specially designed for working on automotive engine and confined space.
- superior life-time test.



- Set with roll pocket

No.	Size	Length	Euro/pc
9217-06	6	135	5.60
9217-07	7	135	5.90
9217-08	8	135	6.20
9217-09	9	142	6.40
9217-10	10	158	6.70
9217-11	11	167	6.90
9217-12	12	173	7.50
9217-13	13	179	7.70
9217-14	14	189	7.90
9217-15	15	199	8.20
9217-16	16	215	8.40
9217-17	17	232	9.20
9217-18	18	238	9.80
9217-19	19	247	10.20

No.	Pc/Set	Size mm	Euro/pc
9217-404	4	10 - 13 - 17 - 19	34.90
9217-408	8	8 - 10 - 12 - 13 - 16 - 17 - 18 - 19	72.90
9217-414	14	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19	97.00

## Reversible Combination Wrenches



- made by heat-treated Chrome Vanadium Steel for strength exceeding international specifications.
- professional plating prevents wrenches from corrosion.
- 72 teeth needs as little as 5° to move fasteners while a regular wrench needs 30° of sweep space.
- reversible switch enables ratchet to move from either direction.
- 15° offset ratchet head helps to reduce swing obstacles and to minimize knuckle fatigue.
- specially designed for working on automotive engine and confined space.
- superior life-time test.



- Set with roll pocket

No.	Size	Length	Euro/pc
9218-06	6	135	6.70
9218-07	7	135	7.70
9218-08	8	135	7.90
9218-09	9	142	8.30
9218-10	10	158	8.90
9218-11	11	167	9.60
9218-12	12	173	9.90
9218-13	13	179	10.00
9218-14	14	189	11.20
9218-15	15	199	11.70
9218-16	16	215	12.40
9218-17	17	232	12.80
9218-18	18	238	13.20
9218-19	19	247	14.50
9218-21	21	285	18.90
9218-22	22	285	20.90
9218-24	24	325	22.90
9218-27	27	359	31.30
9218-20	30	425	34.80
9218-32	32	425	38.10

No.	Pc/Set	Size mm	Euro/pc
9218-404	4	10 - 13 - 17 - 19	41.90
9218-408	8	8 - 10 - 12 - 13 - 16 - 17 - 18 - 19	75.90
9218-414	14	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19	127.00
9218-420	20	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 - 30 - 32	227.00

## Torque Wrench With A Readable Window



- according to DIN EN ISO 6789
- bidirectional use available
- chromed tube, hardened
- with a fine tuning device to adjust the torque precisely
- a window for easy reading
- Incl. WERKA workshop's test certificate
- high quality plastic case

No.	Size	Metric	Adj. min unit	Length	Euro/pc
9202-1405	1/4"	5 - 15 Nm	0.1 Nm	323 mm	225.00
9202-3820	3/8"	20 - 100 Nm	0.5 Nm	400 mm	239.00
9202-1260	1/2"	60 - 340 Nm	1 Nm	620 mm	310.00

## Torque Wrench, Accuracy ± 3%



- according to DIN EN ISO 6789
- accuracy ± 3%
- bidirectional use available
- chromed head
- with a fine tuning device to adjust the torque precisely
- delivery with certificate

No.	Size	N.m	Fine scale	Length	Euro/pc
9201-1405	1/4"	5 - 15 Nm	0,25 Nm	245 mm	34,00
9201-3810	3/8"	10 - 60 Nm	0,5 Nm	305 mm	41,90
9201-1240	1/2"	40 - 220 Nm	1 Nm	500 mm	64,20
9201-1260	1/2"	60 - 330 Nm	2 Nm	590 mm	72,00

## Digital Torque Wrench



- according to DIN EN ISO 6789
- clockwise and counterclockwise both operated
- accuracy clockwise ± 2%, counterclockwise 2.5%
- peak hold and real time mode
- buzzer and LED indication (reach preset torque value)
- four units (ft-lb, in-lb, N-m, kgf.cm)
- 99 records can be stored
- power: 2 x AA battery (Not included)
- auto-shut down within 5 minutes

No.	Size	N.m	Length	Euro/pc
9211-1401	1/4"	1.5 - 30 Nm	390 mm	171.00
9211-3810	3/8"	3 - 60 Nm	420 mm	182.80
9211-1230	1/2"	17 - 340 Nm	655 mm	194.00



### Double funktion

1. Standard function  
For use in non limited spaces, levering of ratchet turns square.
2. Rotation function  
Opening function for handle (turning back the handle) changes ratchet to rotation function.  
Turning the handle moves the square; no levering needed.

- In rotation function the minimal needed turning angle is close to 0 degrees.
- Because of easy opening and fixing function for the handle. Changing from normal function to rotating function is always possible, without losing the nut or screw. ONE HAND OPERATION.
- Already opened screws can be turned off easily with the rotation function.
- The new developed 2 components handle offers sensitive and ergonomic working style.
- The changing between right / left turning usage will be done by square-section straight-through shank.
- Overtops DIN and ANSI requirements in standard operation.

No.	Size	Length	Euro/pc
9220-9644	1/4"	173 mm	59.00
9220-9651	3/8"	238 mm	68.00
9220-9668	1/2"	287 mm	81.00

# Ratchet Set



### Ratchet with double funktion

1. Standard function  
For use in non limited spaces, levering of ratchet turns square.
2. Rotation function  
Opening function for handle (turning back the handle) changes ratchet to rotation function.  
Turning the handle moves the square; no levering needed.

All parts in foam insert, ideal for inserting in tool cases or in drawers of workshop trolleys

### 37 pcs/set

- 1 x Double funktion ratchet 1/4", 173 mm
- 1 x Spinner handle 110 mm
- 2 x Extensions 50 and 100 mm
- 1 x Universal join 1/4"
- 1 x Socket bit adapter 1/4" to 1/4"
- 13 x Sockets: external hexagon  
4 - 4.5 - 5 - 5.5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14
- 18 x Bits, external hexagon  
PH1, PH2, PH3 / PZ1, PZ2, PZ3 / H3, H4, H5, H6 / T8, T10, T15, T20, T25, T27, T30, T40

Dimension: 23.5 x 14.5 x 4 cm



No.	Ratchet Size	Pcs/set	Euro/pc
9220-1437	1/4"	37	58.00



## 31 pcs/set

- 1 x Double funktion ratchet 3/8", 238 mm
- 2 x Extensions 75 and 150 mm
- 1 x Universal joint: 3/8"
- 1 x Socket bit adapter 3/8" to 1/4"
- 8 x Sockets: external hexagon  
10 - 12 - 13 - 14 - 15 - 16 - 17 - 19
- 18 x Bits, external hexagon  
PH1, PH2, PH3 / PZ1, PZ2, PZ3 / H3, H4, H5, H6 /  
T8, T10, T15, T20, T25, T27, T30, T40

Dimension: 23.5 x 14.5 x 4 cm

No.	Ratchet Size	Pcs/set	Euro/pc
9220-3831	3/8"	31	85.00



## 32 pcs/set

- 1x Double funktion ratchet 1/2", 287 mm
- 2 x Extensions 125 and 250 mm
- 1 x Universal joint 1/2"
- 2 x Spark Plug Sockets 16, 21mm
- 19 x Sockets: external hexagon  
8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19  
- 20 - 21 - 22 - 24 - 27 - 30 - 32
- 5 x Sockets: external hexagon, long 13 - 14 - 15 - 17 - 19
- 1 x 3-Way Adapter 3/8" to 1/2"
- 1x Adapter for ratchet 3/4" to 1/2"

Dimension: 37.5 x 26.5 x 5.5 cm

No.	Ratchet Size	Pcs/set	Euro/pc
9220-1232	1/2"	32	120.00



## 57 pcs/set

- 1 x Double funktion ratchet 1/4" +
- 1 x Spinner handle 110 mm
- 2 x Extensions 50 and 100 mm
- 1 x Bit adapter 1/4" to 1/4"
- 1 x Universal joint: 1/4"
- 1 x Socket bit adapter
- 13 x Sockets: external hexagon  
4 - 4.5 - 5 - 5.5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14
- 18 x Bits, external hexagon  
PH1, PH2, PH3 / PZ1, PZ2, PZ3 / H3, H4, H5, H6 /  
T8, T10, T15, T20, T25, T27, T30, T40
- + 1x Double funktion ratchet 1/2":
- 2 x Extensions 125 and 250 mm
- 1 x Universal joint 1/2"
- 1 x 3-Way Adapter 3/8" to 1/2"
- 14 x Sockets: external hexagon  
10 - 13 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24  
- 27 - 30 - 32

- + 1x Adapter 3/4" to 1/2"

Dimension: 37.5 x 26.5 x 5.5 cm

No.	Ratchet Size	Pcs/set	Euro/pc
9220-1257	1/4" + 1/2"	57	150.00

## Socket for Ratchet, matt chrome-plated



9221-13



9226-13



9227-13



9227-43

### Socket for ratchet 1/4", made of CV steel

No.	Size	Length	Euro/pc
9221-04	4	25 mm	3.30
9221-045	4,5	25 mm	3.30
9221-05	5	25 mm	3.30
9221-06	6	25 mm	3.30
9221-07	7	25 mm	3.30
9221-08	8	25 mm	3.30
9221-09	9	25 mm	3.30
9221-10	10	25 mm	3.30
9221-11	11	25 mm	3.30
9221-12	12	25 mm	3.30
9221-13	13	25 mm	3.30
9221-14	14	25 mm	3.30

### Socket for ratchet 3/8", made of CV steel

No.	Size	Length	Euro/pc
9226-10	10	28 mm	3.50
9226-11	11	28 mm	3.50
9226-12	12	28 mm	3.50
9226-13	13	28 mm	3.50
9226-14	14	28 mm	3.50
9226-15	15	28 mm	3.50
9226-16	16	28 mm	3.50
9226-17	17	28 mm	3.50
9226-18	18	28 mm	3.50
9226-19	19	28 mm	3.50

### Socket for ratchet 1/2", made of CV steel

No.	Size	Length	Euro/pc
9227-08	8	38 mm	3.50
9227-09	9	38 mm	3.50
9227-10	10	38 mm	3.50
9227-11	11	38 mm	3.50
9227-12	12	38 mm	3.50
9227-13	13	38 mm	3.50
9227-14	14	38 mm	3.50
9227-15	15	38 mm	3.50
9227-16	16	38 mm	3.50
9227-17	17	38 mm	3.50
9227-18	18	38 mm	3.50
9227-19	19	38 mm	3.50
9227-20	20	38 mm	4.00
9227-21	21	38 mm	4.00
9227-22	22	38 mm	4.00
9227-24	24	38 mm	5.20
9227-27	27	42 mm	5.20
9227-30	30	45 mm	6.50
9227-32	32	45 mm	6.50
9227-43	13	77 mm	4.00
9227-44	14	77 mm	4.00
9227-45	15	77 mm	4.00
9227-47	17	77 mm	4.00
9227-49	19	77 mm	4.00

## Torx Socket for Ratchet



- made of CV steel, matt chrome-plated

No.	Torx Size	Size	Length	Euro/pc
9221-E4	E4	1/4"	25 mm	3.30
9221-E5	E5	1/4"	25 mm	3.30
9221-E6	E6	1/4"	25 mm	3.30
9221-E7	E7	1/4"	25 mm	3.30
9221-E8	E8	1/4"	25 mm	3.30
9226-E10	E10	3/8"	30 mm	3.50
9226-E12	E12	3/8"	30 mm	3.50
9226-E14	E14	3/8"	30 mm	3.50
9226-E16	E16	3/8"	30 mm	3.50
9226-E18	E18	3/8"	30 mm	3.50
9226-E20	E20	3/8"	30 mm	3.50

## Spark Plug Socket for Ratchet 1/2"



- Spark plug socket for ratchet 1/2"
- made of CV steel, matt chrome-plated
- Hexagonal, for manual operation
- With rubber retainer for securing spark plugs

No.	Size	Length	Euro/pc
9227-56	16	65 mm	9.40
9227-61	21	65 mm	9.40

## Adapter Set for Ratchet Wrench, 4 pcs/set



- for using of ratchet wrenches with socket or bits
- made of CV steel, matt chrome-plated

No.	Content	Euro/pc
9225-06.1	1 x 10 mm to 1/4" Bit	3,50
9225-06.2	1 x 10 mm to 1/4" Socket	3,50
9225-06.3	1 x 13 mm to 3/8" Socket	3,50
9225-06.4	1 x 19 mm to 1/2" Socket	3,50
9225-06 SET	1 x 10 mm to 1/4" Bit 1 x 10 mm to 1/4" Socket 1 x 13 mm to 3/8" Socket 1 x 19 mm to 1/2" Socket	12.90

## Extensions for Ratchet



- made of CV steel, matt chrome-plated

No.	Size	Length	Euro/pc
9222-141	1/4"	50 mm	3.50
9222-142	1/4"	100 mm	3.90
9222-381	3/8"	75 mm	4.20
9222-382	3/8"	150 mm	4.80
9222-121	1/2"	125 mm	5.20
9222-122	1/2"	150 mm	5.80

## Adapter for Ratchet



- made of CV steel, matt chrome-plated

No.	from	to	Length	Euro/pc
9225-01	3/8"	1/2"	44 mm	3.30
9225-02	1/2"	3/8"	36 mm	3.30
9225-03	3/4"	1/2"	50 mm	4.50

## Adapter for Ratchet for Using of Bits



- for using of ratchet with hex bits 1/4"
- made of CV steel, matt chrome-plated

No.	from	to	Length	Euro/pc
9225-04	1/4"	Bit	25 mm	2.50
9225-05	3/8"	Bit	30 mm	2.50

## Dr. Universal Joint



- made of CV steel, matt chrome-plated

No.	Size	Length	Euro/pc
9223-141	1/4"	38 mm	4.50
9223-381	3/8"	54 mm	4.90
9223-121	1/2"	73 mm	5.20

## Sliding Bar



- made of CV steel, matt chrome-plated

No.	Size	Length	Euro/pc
9224-141	1/4"	110 mm	3.90

## Socket for Ratchet, matt chrome-plated



9221-13



9226-13



9227-13



9227-43

### Socket for ratchet 1/4", made of CV steel

No.	Size	Length	Euro/pc
9221-04	4	25 mm	3.30
9221-045	4,5	25 mm	3.30
9221-05	5	25 mm	3.30
9221-06	6	25 mm	3.30
9221-07	7	25 mm	3.30
9221-08	8	25 mm	3.30
9221-09	9	25 mm	3.30
9221-10	10	25 mm	3.30
9221-11	11	25 mm	3.30
9221-12	12	25 mm	3.30
9221-13	13	25 mm	3.30
9221-14	14	25 mm	3.30

### Socket for ratchet 3/8", made of CV steel

No.	Size	Length	Euro/pc
9226-10	10	28 mm	3.50
9226-11	11	28 mm	3.50
9226-12	12	28 mm	3.50
9226-13	13	28 mm	3.50
9226-14	14	28 mm	3.50
9226-15	15	28 mm	3.50
9226-16	16	28 mm	3.50
9226-17	17	28 mm	3.50
9226-18	18	28 mm	3.50
9226-19	19	28 mm	3.50

### Socket for ratchet 1/2", made of CV steel

No.	Size	Length	Euro/pc
9227-08	8	38 mm	3.50
9227-09	9	38 mm	3.50
9227-10	10	38 mm	3.50
9227-11	11	38 mm	3.50
9227-12	12	38 mm	3.50
9227-13	13	38 mm	3.50
9227-14	14	38 mm	3.50
9227-15	15	38 mm	3.50
9227-16	16	38 mm	3.50
9227-17	17	38 mm	3.50
9227-18	18	38 mm	3.50
9227-19	19	38 mm	3.50
9227-20	20	38 mm	4.00
9227-21	21	38 mm	4.00
9227-22	22	38 mm	4.00
9227-24	24	38 mm	5.20
9227-27	27	42 mm	5.20
9227-30	30	45 mm	6.50
9227-32	32	45 mm	6.50
9227-43	13	77 mm	4.00
9227-44	14	77 mm	4.00
9227-45	15	77 mm	4.00
9227-47	17	77 mm	4.00
9227-49	19	77 mm	4.00

## Torx Socket for Ratchet



- made of CV steel, matt chrome-plated

No.	Torx Size	Size	Length	Euro/pc
9221-E4	E4	1/4"	25 mm	3.30
9221-E5	E5	1/4"	25 mm	3.30
9221-E6	E6	1/4"	25 mm	3.30
9221-E7	E7	1/4"	25 mm	3.30
9221-E8	E8	1/4"	25 mm	3.30
9226-E10	E10	3/8"	30 mm	3.50
9226-E12	E12	3/8"	30 mm	3.50
9226-E14	E14	3/8"	30 mm	3.50
9226-E16	E16	3/8"	30 mm	3.50
9226-E18	E18	3/8"	30 mm	3.50
9226-E20	E20	3/8"	30 mm	3.50

## Spark Plug Socket for Ratchet 1/2"



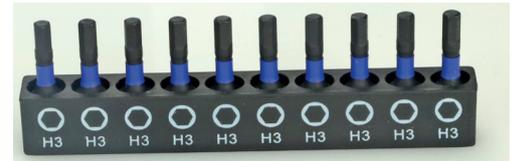
- Spark plug socket for ratchet 1/2"
- made of CV steel, matt chrome-plated
- Hexagonal, for manual operation
- With rubber retainer for securing spark plugs

No.	Size	Length	Euro/pc
9227-56	16	65 mm	9.40
9227-61	21	65 mm	9.40

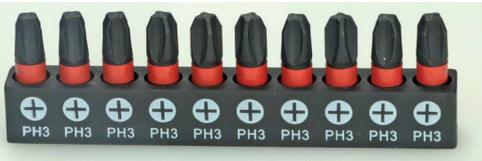


- made of S2 steel
- 1/4" (C6.35)
- 10 pcs/set

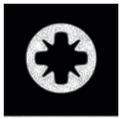
No.	Size	Length	Euro/set
9228-SL2	SL2	25 mm	3.50
9228-SL25	SL2.5	25 mm	3.50
9228-SL3	SL3	25 mm	3.50
9228-SL4	SL4	25 mm	3.50
9228-SL45	SL4.5	25 mm	3.50
9228-SL5	SL5	25 mm	3.50
9228-SL6	SL6	25 mm	3.50



No.	Size	Length	Euro/set
9228-H15	H1.5	25 mm	3.50
9228-H2	H2	25 mm	3.50
9228-H25	H2.5	25 mm	3.50
9228-H3	H3	25 mm	3.50
9228-H4	H4	25 mm	3.50
9228-H5	H5	25 mm	3.50
9228-H6	H6	25 mm	3.50
9229-H15	H1.5	50 mm	4.50
9229-H2	H2	50 mm	4.50
9229-H25	H2.5	50 mm	4.50
9229-H3	H3	50 mm	4.50
9229-H4	H4	50 mm	4.50
9229-H5	H5	50 mm	4.50
9229-H6	H6	50 mm	4.50



No.	Size	Length	Euro/set
9228-PH0	PH0	25 mm	3.50
9228-PH1	PH1	25 mm	3.50
9228-PH2	PH2	25 mm	3.50
9228-PH3	PH3	25 mm	3.50
9228-PH4	PH4	25 mm	3.50
9229-PH1	PH1	50 mm	4.50
9229-PH2	PH2	50 mm	4.50
9229-PH3	PH3	50 mm	4.50
9229-PH4	PH4	50 mm	4.50



No.	Size	Length	Euro/set
9228-PZ0	PZ0	25 mm	3.50
9228-PZ1	PZ1	25 mm	3.50
9228-PZ2	PZ2	25 mm	3.50
9228-PZ3	PZ3	25 mm	3.50
9229-PZ0	PZ0	50 mm	4.50
9229-PZ1	PZ1	50 mm	4.50
9229-PZ2	PZ2	50 mm	4.50
9229-PZ3	PZ3	50 mm	4.50



No.	Size	Length	Euro/set
9228-T5	T5	25 mm	3.50
9228-T6	T6	25 mm	3.50
9228-T7	T7	25 mm	3.50
9228-T8	T8	25 mm	3.50
9228-T9	T9	25 mm	3.50
9228-T10	T10	25 mm	3.50
9228-T15	T15	25 mm	3.50
9228-T20	T20	25 mm	3.50
9228-T25	T25	25 mm	3.50
9228-T27	T27	25 mm	3.50
9228-T30	T30	25 mm	3.50
9228-T40	T40	25 mm	3.50
9229-T5	T5	50 mm	5.50
9229-T6	T6	50 mm	5.50
9229-T7	T7	50 mm	5.50
9229-T8	T8	50 mm	5.50
9229-T9	T9	50 mm	5.50
9229-T10	T10	50 mm	5.50
9229-T15	T15	50 mm	5.50
9229-T20	T20	50 mm	5.50
9229-T25	T25	50 mm	5.50
9229-T27	T27	50 mm	5.50
9229-T30	T30	50 mm	5.50
9229-T40	T40	50 mm	5.50



No.	Size	Length	Euro/set
9228-TH8	TH8	25 mm	3.50
9228-TH10	TH10	25 mm	3.50
9228-TH15	TH15	25 mm	3.50
9228-TH20	TH20	25 mm	3.50
9228-TH25	TH25	25 mm	3.50
9228-TH27	TH27	25 mm	3.50
9228-TH30	TH30	25 mm	3.50
9228-TH40	TH40	25 mm	3.50

## Extension for Bit 1/4"



- made of CV steel
- 1/4" (C6.35)

No.	Size	Length	Euro/pc
9228-V60	1/4"	60 mm	1.50

## Adapter for Socket 1/4"



- made of CV steel
- 1/4" (C6.35)

No.	Size	Length	Euro/pc
9228-AP	1/4"	25 mm	1.00

## Magnetic Bits Holder 1/4"



- 1/4" (C6.35)

No.	Size	Length	Euro/pc
9228-HO1	1/4"	68 mm	3.50

## Bit Set, 32 pcs/set



- made of S2 steel, length 25 mm
- 1/4" (C6.35)
- in a sturdy case with a transparent lid

No.	Content	Euro/set
9228-S1	PH1, 2 x PH2, PH3 PZ 1, 2 x PZ2, PZ3 H3, H4, H5, H6 SL3, SL4, SL5, SL6 T10, T15, T20, T25, T27, T30, T40 TH10, TH15, TH20, TH25, TH27, TH30, TH40 1/4" Adapter, 25 mm Magnetic Bits Holder, 68 mm	19.50

## Storage Case for Small Parts



- transparent lid with carrying handle
- 9 fields, flexibel division
- dimension 28 x 18 x 7 cm
- stackable

No.	Dimension	Inner Dimension	Euro/set
WKCASE1	280 x 180 x 70 mm	265 x 175 x 48 mm	6,50

## Pointed Chisel With Hand Protector



- firm grip and optimum protection thanks to the 2K plastic handle with impact-resistant head.
- high-quality chrome-vanadium-molybdenum steel
- tip ground to 4 mm

No.	Size mm	Euro/pc
8100-6548	300	14.50

## Flat Chisel With Hand Protector



- firm grip and optimum protection thanks to the 2K plastic handle with impact-resistant head.
- high-quality chrome-vanadium-molybdenum steel
- tip ground to 4 mm

No.	Size mm	Euro/pc
8100-6549	300	14.50

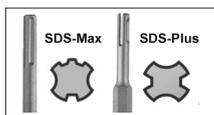
## Pointed Chisel SDS-plus or SDS-max

MADE  
IN  
GERMANY



- for general chiseling and breaking up of masonry, concrete and loose stone
- for creating openings and breakthroughs in concrete, brick masonry and many other materials.

Made in Germany.



No.	Type	Size mm	Euro/pc
8100-9640	SDS-plus	250	7.50
8100-9641	SDS-max	400	10.90

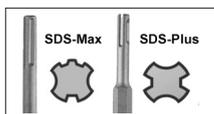
## Spade Chisel SDS-plus or SDS-max

MADE  
IN  
GERMANY



- universally applicable
- with greater added cutting action.
- for universal removal of materials in larger quantities, e.g. plaster or stone flooring.

Made in Germany.



No.	Type	Size mm	Euro/pc
8100-9642	SDS-plus	250 x 40	12.90
8100-9643	SDS-max	400 x 50	18.90

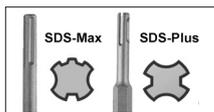
## Flat Chisel SDS-plus or SDS-max

MADE  
IN  
GERMANY



- universally applicable with additional breaking action.
- for adjustment work in masonry and concrete, joint restorations and exposing rebar.
- also for removing remaining mortar and excess concrete.

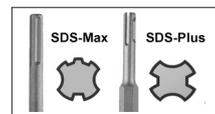
Made in Germany.



No.	Type	Size mm	Euro/pc
8100-9648	SDS-plus	250 x 20	7.60
8100-9649	SDS-max	400 x 25	10.90

## Chisel Set SDS-plus or SDS-max

MADE  
IN  
GERMANY



No.	Type	Size mm	Euro/Set
8100-9650	SDS-plus	Pointed chisel 250 Spade chisel 250 x 40 Flat chisel 250 x 20	26.00
8100-9651	SDS-max	Pointed chisel 400 Spade chisel 400 x 50 Flat chisel 400 x 25	41.00

## 2-flute Stone Drill With Carbide Steel, SDS-plus



- optimised for drilling with very high speeds.
- the special hard metal plate in the drill head creates micro fractures in the material during drilling, which enables a higher drilling speed.
- the centring tip facilitates highly precise drilling.
- the reinforcement chamfers ensure reduced friction while simultaneously increasing drilling speed.
- increased fracture resistance thanks to the spiral back.



delivery:  
until  $\varnothing$  14 x 210 in Self-service bag  
with Euro hole  
from  $\varnothing$  14 x 450 in Twist pack

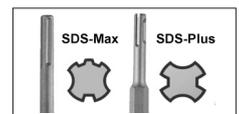
### 7 pcs/set

each one 5 x 110, 6 x 110, 6 x 160, 8 x 110, 8 x 160, 10 x 160 and 12 x 160 mm

No.	Euro/Set
8100-9606	23.10

No.	$\varnothing$ x L mm	Shank	Euro/pc
8100-9610	4 x 110	SDS-Plus	2.10
8100-9611	5 x 110	SDS-Plus	1.90
8100-9612	5 x 160	SDS-Plus	2.30
8100-9613	6 x 110	SDS-Plus	2.10
8100-9614	6 x 160	SDS-Plus	2.20
8100-9616	6 x 210	SDS-Plus	3.20
8100-9617	6 x 260	SDS-Plus	4.10
8100-9618	8 x 110	SDS-Plus	2.40
8100-9619	8 x 160	SDS-Plus	2.50
8100-9620	8 x 210	SDS-Plus	3.30
8100-9621	10 x 210	SDS-Plus	3.60
8100-9622	10 x 260	SDS-Plus	4.20
8100-9623	10 x 450	SDS-Plus	8.20
8100-9624	12 x 210	SDS-Plus	4.50
8100-9626	12 x 260	SDS-Plus	5.40
8100-9627	12 x 310	SDS-Plus	6.90
8100-9628	12 x 450	SDS-Plus	8.70
8100-9629	14 x 210	SDS-Plus	5.70
8100-9630	14 x 310	SDS-Plus	7.40
8100-9631	14 x 450	SDS-Plus	10.50
8100-9632	16 x 260	SDS-Plus	9.20
8100-9633	16 x 450	SDS-Plus	15.20
8100-9634	18 x 250	SDS-Plus	14.00
8100-9636	18 x 300	SDS-Plus	15.20
8100-9637	18 x 450	SDS-Plus	16.80

## 4-flute Stone Drill With Carbide Steel, SDS-plus or SDS-max



- particularly suitable for large drill holes in concrete and natural stone.
- the cutting symmetry prevents catching when hitting the reinforcement.
- large, robust secondary cutting edges with dynamically curved cutting edges actively support the main insert during rapid drilling progress.
- the centering tip with a 130° tip angle ensures precise drilling and optimal guidance during drilling.
- the patented, core-reinforced spiral achieves the optimum balance between volume and fracture resistance.
- vibrations are dampened, more impact energy is applied to the carbide cutting edges, and drilling dust is excellently removed.
- even breaks through reinforcement.
- it is particularly suitable for concrete and natural stone.
- the reinforcement chamfers ensure optimal drilling behavior and prevent catching on reinforcement.
- the four spiral lands operate evenly, reducing spiral wear.
- the centering point facilitates positioning and precise drilling.
- the symmetry of the solid carbide cutting edges prevents catching on reinforcement.
- 4-spiral helix geometry for smoother operation and low-vibration drilling.
- up to 50% longer service life.



delivery:  
until  $\varnothing$  12 x 210 in Self-service bag  
with Euro hole  
from  $\varnothing$  12 x 450 in Twist pack

### 7 pcs/set

each one 5 x 110, 6 x 110, 6 x 160, 8 x 110, 8 x 160, 10 x 160 and 12 x 160 mm

No.	Euro/Set
8100-9656	42.00

No.	$\varnothing$ x L mm	Shank	Euro/pc
8100-9670	5 x 115	SDS-Plus	4.30
8100-9671	5 x 165	SDS-Plus	4.80
8100-9672	6 x 115	SDS-Plus	4.30
8100-9673	6 x 165	SDS-Plus	4.80
8100-9674	6 x 215	SDS-Plus	6.10
8100-9675	6 x 265	SDS-Plus	7.10
8100-9676	6,5 x 265	SDS-Plus	11.50
8100-9677	8 x 115	SDS-Plus	5.40
8100-9678	8 x 165	SDS-Plus	5.80
8100-9679	8 x 215	SDS-Plus	6.00
8100-9680	8 x 265	SDS-Plus	7.80
8100-9681	10 x 165	SDS-Plus	6.00
8100-9682	10 x 215	SDS-Plus	7.00
8100-9683	10 x 265	SDS-Plus	7.80
8100-9684	10 x 455	SDS-Plus	17.00
8100-9685	12 x 160	SDS-Plus	6.40
8100-9686	12 x 210	SDS-Plus	7.50
8100-9687	12 x 260	SDS-Plus	8.90
8100-9688	12 x 310	SDS-Plus	12.10
8100-9689	12 x 450	SDS-Plus	19.00
8100-9690	14 x 210	SDS-Plus	12.00
8100-9691	14 x 260	SDS-Plus	14.10
8100-9692	14 x 310	SDS-Plus	15.00
8100-9693	14 x 450	SDS-Plus	19.00
8100-9694	16 x 260	SDS-Plus	19.00
8100-9695	16 x 450	SDS-Plus	25.50
8100-9696	18 x 250	SDS-Plus	22.00
8100-9697	18 x 450	SDS-Plus	25.20
8100-9660	20 x 520	SDS-Max	46.00
8100-9661	22 x 320	SDS-Max	41.00
8100-9662	22 x 520	SDS-Max	48.00
8100-9663	25 x 520	SDS-Max	50.00
8100-9664	28 x 570	SDS-Max	52.00
8100-9665	30 x 570	SDS-Max	62.00
8100-9666	32 x 570	SDS-Max	65.00
8100-9667	35 x 570	SDS-Max	69.00
8100-9668	40 x 570	SDS-Max	98.00



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