#### UNIOR d.d.

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EN 2 UNIOR® Tools for electricians 2017



**Insulated tools** 

Cable cutting, stripping and crimping tools

**Tools for electronic use** 

General









#### A COMPLETE SOLUTION - A COMPLETE LIFE CIRCLE





# **FORGING PARTS AND SINTER**

By drop forging steel and machining, we make forging parts for control mechanisms and gearboxes, supporting parts of chassis, components for drive shafts and sinter forging parts for the most renowned European and global makers of vehicles: VW, Audi, Renault, Dacia, BMW, ZF, Lemförder & ZF, Lenksysteme, Jtekt, GKN, Arvin Meriton, BPW, Schäffler KG, Betek and Cimos. Various certificates, tests and awards for excellence confirm the quality of forging parts made in Unior.

# **SPECIAL MACHINES**

Unior mechanical equipment provides comprehensive solutions, ranging from the concept stage to the finished product. Besides specific CNC machine tools for the serial working of aluminium castings or forging parts, Unior also offers flexible production cells, machines for deep hole drilling, for working ends and for working chassis parts, machines with a rotary table and special purpose machines. Unior is a supplier of machines for renowned car manufacturers such as VW, BMW, Audi, Daimler etc.





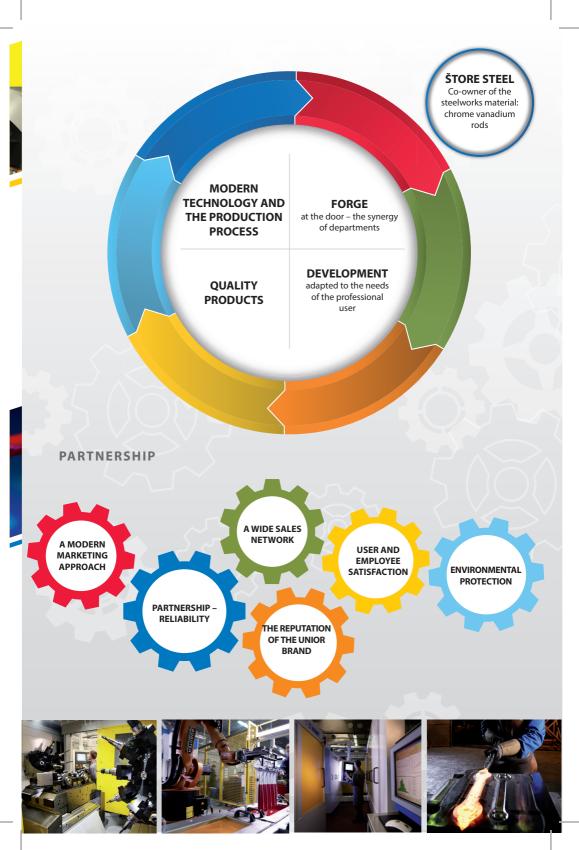
#### **TOURISM**

Unior, which operates in the shelter of the Pohorje mountain range, surrounded by an attractive landscape, is developing two interrelated tourist centres. The Rogla climatic health resort, Olympic centre and winter sports centre is especially interesting for professional athletes and recreational athletes, while the Terme Zreče spa is ideal for those seeking health and wellbeing. Both connected health resorts with their modern capabilities are an excellent choice for family holidays, health rehabilitation and preparation for top athletes.

www.rogla.eu | www.terme-zrece.eu

#### **HAND TOOLS**

The development of Unior hand tools constantly follows the requirements of professional and amateur craftsmen all over the world. Top quality materials and original design solutions are the basis of the extreme practicality, effectiveness and long service life of more than 5,500 hand tools. The availability of tools is ensured by a multi branch distribution network. With its cold forged products, Unior is an important supplier of tools for the European industry.



# Milestones of the Unior corporation

## From Styria to the world

On the outskirts of the Pohorje Mountains, the first ironworks (foundries) were established in the 18th century. They operated as larger forges, in which land and tradesmen's tools were fashioned by hand.

# Infinite enthusiasm gives us the strength to reach milestones

Through permanent development while realising the necessity of changes and a competitive advantage we are consistently taking on new challenges with regard to all activities of the company thus ensuring successful operations.



In 1919 the Štajerska železoindustrijska družba (Styrian Iron Industry Company) forging plant, with the shortened name Štajerska Zrece, was established. It produced forged hand tools for farming, forestry and various other trades.



In 1950 the plant, burned down during the war and partially renovated in the years following the war and bearing the new name of Tovarna kovanega orodja Zrece (TKO) came under state ownership. New capacities (tool shop and hand tools mechanical processing plant) comprised the basis for developing two production lines: hand tools and drop forgings.



In the 1970s the plant equipped with a new development strategy also obtained a new name: Unior, towards Rovanega orodja Zrece. The new name was formed from the words "Universal Tools) by which the company had been known for a long time."





In the mid-1970s Unior began building the Rogla climatic health resort and Olympic centre on Pohorje, and a few years later construction of the Terme Zrece spa commenced and with it, the Tourism Programme.



In 1997 this successful Slovenian company with stable international partnerships was transformed into the UNIOR, d. d. joint stock company. Already at that time, the company had been operating in accordance with ISO 9001 quality standards.



By the 1980s Unior had established its name as an important partner of the European automotive industry, namely as one of the largest European producers of light forgings and as one of the largest European producers of connecting rods for petrol engines. Initial development was enabled by a contract with the Renault concern, on the basis of which a joint-venture plant for the production of forgings was built in Zrece. At the same time, Unior developed its production of homokinetic joints and machine tools, initially intended for the company's own needs.

Unior Joint-Stock Company is today one of the largest and most important Slovenian exporters, With it's five production segments company follows the tradition of a high quality and innovation. Committed to high utilization of own capacities, Unior enhances the brand awarness through more than 2400 employers and 32 group companies around the world.



2017







# INSULATED TOOLS

#### **Ultimate protection**

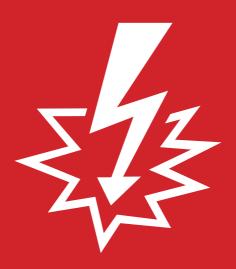
Unior insulated VDE tools ensure ultimate protection even when used around live circuits with up to a 1000-volt potential. The utility of all tools is thoroughly verified by means of the impact strength, electrical, flame-retardancy, insulation adhesion and stamp tests, with each tool being tested individually.

#### **High-quality steel**

Insulated wrenches, pliers, shears, screwdrivers and other tools for working with electrical and other power installations are made of high-quality tool steel with added protection, and designed for simple and safe use.

#### **VDE** regulations

VDE insulated and tested according to the VDE regulations, Unior tools for work in electrically live environments meet the requirements of the internationally acknowledged European EN 60900 standard.





#### FLAME RETARDANCY TEST

The flame is applied to the test piece for 10 seconds. The test piece is acceptable if the height of the flame on the burning handle does not exceed 120 mm in an observation period of 20 seconds after the burner has been removed.



#### **ELECTRICAL TEST (10KV)**

Before testing the tools are immersed in a bath of water at 23° C for 24 hours +- 5 hours. The test pieces are acceptable if there is no electrical discharge, spark over or flashover, and if the current leakage is less than 1mA for 20 mm insulation.



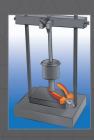
#### **INSULATION TEST**

Before testing the test piece is heated to 70 C -/+  $2^{\circ} \text{ C}$  for 168 hours. The hanger is loaded with weights (500 N). The duration of test is 3 minutes. The test piece is acceptable if the handle remains firmly attached to the conducting part.



#### STAMP TEST

The indenter is loaded with a weight of 20 N and is applied to the centre of the handle. The test is successful if the test piece subsequently passes the electrical test.



#### **IMPACT TEST**

The test is carried out at an temperature of -23°C. The hammer is allowed to fall freely on the test piece 3 times. The test piece is acceptable if the handle is not cracked, broken or does not show signs of flaking.





£1000V

Hand tools for live working up to 1000 V A.C.



Sign of the institution certifying the tools (VERBAND DEUTSCHER ELEKTROTECHNIKER).



A sign indicating that the tools are in accordance with the signed standard (DIN), which prescribes the basic demands for tools (dimension, hardness, mechanical testing etc.).





# Features of Unior's pliers

#### **VDE BI line**

- · material: special tool steel
- · drop forged, entirely hardened and tempered
- · cutting edges induction hardened
- · head polished
- surface finish: chrome plated to standard EN12540
- · heavy duty double component handles
- · jet stamp UNIOR

#### **VDE DP line**

- · material: special tool steel
- · drop forged, entirely hardened and tempered
- · cutting edges induction hardened
- · head polished
- surface finish: chrome plated to standard EN12540
- double layered insulation VDE tools, double safety
- establish wear of your VDE DP tools, just in time



#### Features of Unior's wrenches

#### Wrenches

· material: chrome vanadium





#### **ORANGE AS A WARNING SIGN**

The double plastic protection of the VDE tools ensures double safety, because it enables the recognition of worn out tools in due time. When the tool gets worn out, an orange colour appears (the second protection layer), which is a sign that the tool should be replaced immediately.



Safe tool

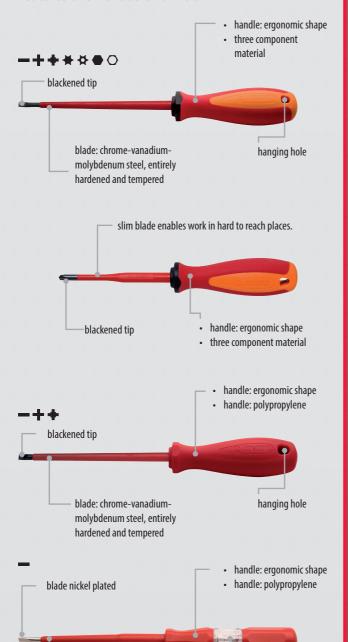


Worn out tool – immediate replacement





#### Features of Unior's screwdrivers



blade: chrome-vanadium-

hardened and tempered

molybdenum steel, entirely

lamp

#### **ERGONOMIC HANDLE!**

The combination of hard and soft surface improves the load factor and ensures smooth screwing. The handle was developed in such a way that it takes care of the user's health because it reduces the tension of the hand muscle.





Large hand contact area = more torque power





Ergonomic handle design = protecting your hand

● \$\frac{1000V}{\omega\_{\text{p'e}}}\$

# 110/2VDEDP

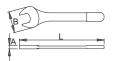
# Insulated single open end wrench

- · material: chrome vanadium
- head: chrome plated according to EN12540
- made according to standard EN60900

#### Advantages:

- double layered double coloured insulation for additional safety
- · controled with electrical test

#### Important!





	<b>©</b>	L	В	Α	ů	=
618370	6	72	16	6.9	19	1E
618331	7	82	16.1	6.9	26	1E
617801	8	95	21	7	30	1E
621575	9	100	24.5	7.5	35	18
612175	10	105	24.5	7.5	42	18
612176	11	112	26	7.5	51	113
612177	12	125	28	8	65	113
612178	13	132	30.5	8.5	76	113
612179	14	140	33	8.5	84	113
612180	15	150	35	9	96	113
621576	16	154	40	10	118	113
612181	17	157	40	10	137	113
621577	18	165	44	11	151	1E
612182	19	170	44	11	170	1E
618333	20	175	46.4	12.2	184	113
619201	21	180	48.8	12.5	213	113
612183	22	195	49	13	234	1E
618335	23	210	52.8	13.1	251	113
612184	24	220	56	14	311	113
621578	26	235	59	15	361	Œ
617802	27	240	59	15	387	Œ
621579	28	245	66	15.8	440	Œ
618336	30	260	66.1	15.8	518	1E
618337	32	275	71.4	17.6	620	1E

## 110/2VDEDPCB

Set of insulated open end wrenches in carton box



1000V DE 6

	P	ñ	T
612676	10 - 24 / 10	1200	1E
	110/2VDEDP (10, 11, 12, 13	3, 14, 15, 17, 19, 22, 24)	

# **180/2VDEDP**

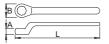
## Insulated single offset ring wrench

- material: chrome vanadium
- head: chrome plated according to EN12540
- made according to standard EN60900

#### Advantages:

- double layered double coloured insulation for additional safety
- controled with electrical test

#### Important!





	<b>©</b>	L	В	А	ů	ŧ
621580	6	155	13.5	8.5	51	1E
621581	7	155	15	9	57	1E
621582	8	160	16.5	9.5	62	ΙE
621583	9	160	17.5	10	72	ĪΕ
612185	10	162	19.5	11	81	ĪΕ
612186	11	175	20	11.5	97	ĪΕ
612187	12	185	21.5	11.5	112	ĪΕ
612188	13	185	23	12.5	113	ĪΕ
612189	14	190	25.5	13	136	ĪΕ
612190	15	195	27	13.5	146	ĪΕ
621584	16	190	27.5	14.5	175	ĪΕ
612191	17	208	30.5	15.5	185	ĪΕ
621585	18	195	30	15.5	210	IE .
612192	19	227	33	15.5	233	ĪΕ
621586	20	245	34.5	16.2	273	1E

	0	L	В	А	ů	=
619202	21	244	36.4	13.2	307	1E
612193	22	250	37.5	17.5	300	16
621587	23	250	39.8	16.8	333	16
612194	24	255	42	18.5	428	ΤΕ
621588	26	265	44	18	450	16
621589	27	270	44.8	18	411	16
621590	28	280	36.5	18.5	488	16
621591	30	310	47	19	574	16
621592	32	325	51.5	19.5	647	1E



# 250/1VDEDP

#### Insulated adjustable wrench

- material: chrome vanadium
- surface finish: chrome plated according to EN12540
- made according to standard EN60900

#### Advantages:

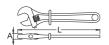
- double layered double coloured insulation for additional safety
- controled with electrical test
- · with scale

#### Important!

• if second layer is visible, replace your VDE tool with a new one.

#### Caution!

 $\bullet \ \textit{Adjust the tool before using!} \ \textit{Adjustment while working is life dangerous.}$ 





	<i>&gt;</i>	L	А	<b>@</b>	ů	T
621917	150	165	35	23	182	16
616849	200	215	35	28	355	113
616850	250	265	35	32	579	113
616851	300	310	36	38	871	113
622065	380	390	35	50	1505	1E





# 180/2AVDEDP

# Insulated single ring wrench, offset 90°

- · material: chrome vanadium
- head: chrome plated according to EN12540

#### Advantages:

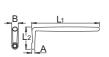
- double layered double coloured insulation for additional safety
- · controled with electrical test

#### Important!

• if second layer is visible, replace your VDE tool with a new one.

#### Usage

· For holding the nuts while screwing.





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	<b>(a)</b>	L1	L2	В	А	ů	8
619123	10	220	78	18.2	10	151	1E
619124	12	220	78	21.2	10	172	1E
619125	13	220	78	23.3	11	156	1E
619126	14	230	85	24.4	11.6	206	1E
619127	17	255	100	29.3	13.8	306	1E
619128	19	255	103	30.6	13	276	1E
619129	20	267	107	33.3	16	344	1E
619130	22	265	115	35.8	16	326	1E
619131	24	265	115	38.8	16.9	412	1E

∆1000V № **⑤** 

# Set of insulated single offset ring wrench in carton box



	<b>₽</b>	ñ	T
612677	10 - 24 / 10	1820	1F
(	<b>180/2VDEDP</b> (10, 11,	12, 13, 14, 15, 17, 19, 22, 24)	

#### 196/2BVDEDP

#### Insulated T-handle

- · material: chrome vanadium
- · entirely hardened and tempered
- head: chrome plated according to EN12540
- made according to standard EN60900

#### Advantages:

- double layered double coloured insulation enable additional safety
- · controled with electrical test

#### Important!





		L	D	В	ů	7
619116	3/8"	210	20	145	369	16
619117	1/2"	210	24	145	456	1E



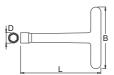
# Insulated socket wrench with T-handle, long type

- · material: chrome vanadium
- · entirely hardened and tempered
- head: chrome plated according to EN12540
- made according to standard EN60900

#### Advantages:

- · double layered double coloured insulation enable additional safety
- · controled with electrical test

#### Important!





	<b>(-)</b>	L	В	D	ů	*
619143	10	300	160	20	439	1E
619150	11	300	160	21	460	Œ
619151	12	300	160	24	495	Œ
619152	13	300	160	24	492	Œ
619153	14	300	160	27	422	Œ
619154	17	300	160	30	640	Œ
619155	19	300	160	32	757	Œ
619156	20	300	160	34	737	Œ
619157	21	300	160	34	772	Œ
619158	22	300	160	34	806	Œ
619159	23	300	160	45	780	Œ
619160	24	300	160	45	875	Œ

## 213/2VDEDP

# Insulated four way rim wrench

- head: chrome plated according to EN12540
- made according to standard EN60900

#### Advantages:

- · double layered double coloured insulation for additional safety
- · controled with electrical test

#### Important!

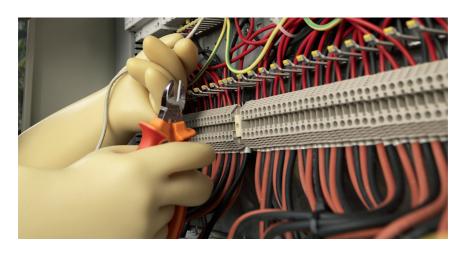
• if second layer is visible, replace your VDE tool with a new one.





\$1000V PE 60000

	•	<b>6</b>	<b>©</b>	<b>@</b>	L	ů	Ŧ
619093	10	11	14	17	207	450	1E
619094	11	12	13	17	207	450	1E
619095	10	13	14	17	207	450	1E
619096	11	13	14	17	207	450	1E
619097	13	17	19	22	207	450	1E



#### 220/3LVDEDP

# Insulated hexagon wrench

- · material: chrome vanadium
- · entirely hardened and tempered
- made according to standard EN60900

#### Advantages:

- double layered double coloured insulation enable additional safety
- · controled with electrical test

#### Important!

• if second layer is visible, replace your VDE tool with the new one.





1000V PE G

	•	L1	L2	ů	=
619136	3	130	26	20	4B
619137	4	145	31	31	4B
619138	5	165	36	53	4B
619139	6	188	40	73	4B
619140	8	206	49	135	4B
619141	10	234	55	221	4B
619142	12	262	58	346	4B

## 220TVDE

## Insulated hexagon T wrench



- · controled with electrical test
- made according to standard EN60900



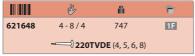


	•	L	В	ů	7
619132	4	200	69	98	1E
619133	5	203	69	105	1E
619134	6	207	98	126	1E
619135	8	209	99	145	IE .

#### 220TVDE4PB

Set of insulated hexagon T wrenches in plastic box







# 







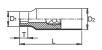
#### Insulated socket 3/8"

- · material: chrome vanadium
- drop forged, entirely hardened and tempered
- head: chrome plated according to EN12540
- made according to standard EN60900

#### Advantages:

- double layered double coloured insulation for additional safety
- · controled with electrical test

#### Important!





	<b>(a)</b>	D1	D2	L	Т	ů	T
619161	10	18.7	23	46.5	10	26	4B
619162	11	20.7	23	46.5	10	40	4B
619163	12	21.8	23	46.5	10	40	4B
619164	13	23	23	46.5	10	43	4B
619165	14	24.9	23	46.5	14	50	4B
619166	17	28.6	23	49	15	70	4B
619167	19	31.4	23	49	17	74	4B
619168	22	35	23	51	17	104	4B

#### 22 The first step to safe work

With the use of insulated ratchets and sockets VDE, you will forget all efforts and essentially improve the productivity of work. Because of its safety and simplicity, the high-quality tools will totally satisfy your expectations. A special feature is the lock system and mechanism for socket turnoff which enable faster use of the tool.

#### 236/2HXVDEDP

#### Insulated hexagonal screwdriver socket 3/8"

- · material: socket: chrome vanadium, chrome plated
- · material: bit: special tool steel, anticorosive oiled
- · entirely hardened and tempered
- made according to standard EN60900

#### Advantages:

- · double layered double coloured insulation for additional safety
- · controled with electrical test

#### Important!





	•	L	L1	D	ů	=
619171	4	67	6	23.6	46	4B
619172	5	67	7.4	24.4	49	4B
619173	6	67	8.5	23.4	48	4B
619174	8	67	9.4	24	54	4B
619175	10	67	10.2	23.4	70	4B









Lever for changing the direction

handles are insulated with double layered double coloured insulation for additional safety



#### **238.1AVDEDP**

#### Insulated reversible ratchet 3/8"

- material: special tool steel
- · Lever for changing the direction
- made according to standard EN60900

#### Advantages:

- · double layered double coloured insulation for additional safety
- · with 36 teeth
- minimal angle of turn 10°
- · controled with electrical test

#### Important!





		L	В	Α	ů	#
619118	3/8"	200	72	42	375	1E

#### 238.4/2VDEDP

#### Insulated extension bar 3/8"

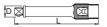
- · material: chrome vanadium
- · drop forged, entirely hardened and tempered
- head: chrome plated according to EN12540
- made according to standard EN60900

#### Advantages:

- · double layered double coloured insulation for additional safety
- · controled with electrical test

#### Important!

• if second layer is visible, replace your VDE tool with a new one.





1000V DYE 3/8"

		<i>&gt;</i>	L	D	ů	#
619169	3/8"	125	144	17	151	4B
619170	3/8"	250	268	17	281	4B

#### 239VDEDP6P10

#### Insulated socket set 3/8" in plastic box

• Dimension of box: 244 x 207 x 59







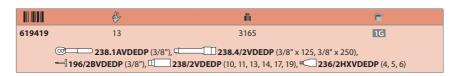




# Insulated socket set 3/8" in metal box

• Dimension of box: 448 x 198 x 54







# 190/2VDEDP

# Insulated socket 1/2"

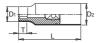
- · material: chrome vanadium
- · material. Chrome variation
- drop forged, entirely hardened and tempered
   This is a second se
- head: chrome plated according to EN12540
- made according to standard EN60900

#### Advantages:

- · double layered double coloured insulation for additional safety
- · controled with electrical test

#### Important!

• if second layer is visible, replace your VDE tool with a new one.





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	<b>⊚</b>	D1	D2	L	Т	ů	7
617803	8	18	27.4	54.6	12	65	4B
621593	9	51.5	17.1	26.5	12	74	4B
612195	10	18	26	51.5	12	72	4B
612196	11	19.5	26.5	51.5	12	75	4B
612197	12	20.5	26.5	51.5	12	74	4B
612198	13	21.5	26.5	51.5	12	77	4B
612199	14	22.5	26.5	51.5	12	75	4B
621594	15	51.5	23.5	26.5	12	78	4B
621595	16	51.5	26	25.2	12	82	4B
612200	17	28	26	51.5	12	83	4B
621596	18	51.5	28.5	26.5	12	94	4B
612201	19	30	28	51.5	14	96	4B
621597	20	51.5	31.3	27.3	14	106	4B
621598	21	51.5	32.5	28.2	14	115	4B
612202	22	34	29	51.5	14	108	4B
621599	23	53.5	35.1	29.4	14	132	4B
612203	24	37	32.5	55	16	158	4B
621600	26	55.5	38.8	33.2	16	173	4B
617804	27	40.5	32.5	58	18	176	4B
621601	28	56.5	41.3	33.4	20	195	4B
621602	30	59.5	44	37.1	22	247	4B
621603	32	59.5	46.6	39.4	22	284	4B



## 190/2LVDEDP

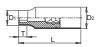
# Insulated socket 1/2", long type

- · material: chrome vanadium
- drop forged, entirely hardened and tempered
- head: chrome plated according to EN12540
- made according to standard EN60900

#### Advantages:

- double layered double coloured insulation for additional safety
- · controled with electrical test

#### Important!





619104         10         96         20.7         27         27         116         4B           619105         11         96         21.6         27         27         116         4B           619106         12         96         22.6         27         27         123         4B           619107         13         96         23.3         27         27         127         4B           619108         14         96         25.8         27         35         134         4B           619109         15         96         26.8         27         35         132         4B           619110         16         96         27.4         27         35         143         4B           619111         17         96         30         27         35         151         4B           619112         18         96         31.7         27         35         174         4B           619113         19         96         32         27         35         170         4B           619114         20         96         33.4         27         35         20         4B								
619105         11         96         21.6         27         27         116         4B           619106         12         96         22.6         27         27         123         4B           619107         13         96         23.3         27         27         127         4B           619108         14         96         25.8         27         35         134         4B           619109         15         96         26.8         27         35         132         4B           619110         16         96         27.4         27         35         143         4B           619111         17         96         30         27         35         151         4B           619112         18         96         31.7         27         35         174         4B           619113         19         96         32         27         35         170         4B           619114         20         96         33.4         27         35         188         4B		<b>(a)</b>	L	D1	D2	Т	ů	Ŧ
619106         12         96         22.6         27         27         123         48           619107         13         96         23.3         27         27         127         48           619108         14         96         25.8         27         35         134         4B           619109         15         96         26.8         27         35         132         4B           619110         16         96         27.4         27         35         143         4B           619111         17         96         30         27         35         151         4B           619112         18         96         31.7         27         35         174         4B           619113         19         96         32         27         35         170         4B           619114         20         96         33.4         27         35         200         4B           619115         21         96         33         27         35         188         4B	619104	10	96	20.7	27	27	116	4B
619107         13         96         23.3         27         27         127         48           619108         14         96         25.8         27         35         134         48           619109         15         96         26.8         27         35         132         4B           619110         16         96         27.4         27         35         143         4B           619111         17         96         30         27         35         151         4B           619112         18         96         31.7         27         35         174         4B           619113         19         96         32         27         35         170         4B           619114         20         96         33.4         27         35         200         4B           619115         21         96         33         27         35         188         4B	619105	11	96	21.6	27	27	116	4B
619108       14       96       25.8       27       35       134       4B         619109       15       96       26.8       27       35       132       4B         619110       16       96       27.4       27       35       143       4B         619111       17       96       30       27       35       151       4B         619112       18       96       31.7       27       35       174       4B         619113       19       96       32       27       35       170       4B         619114       20       96       33.4       27       35       188       4B         619115       21       96       33       27       35       188       4B	619106	12	96	22.6	27	27	123	4B
619109         15         96         26.8         27         35         132         4B           619110         16         96         27.4         27         35         143         4B           619111         17         96         30         27         35         151         4B           619112         18         96         31.7         27         35         174         4B           619113         19         96         32         27         35         170         4B           619114         20         96         33.4         27         35         200         4B           619115         21         96         33         27         35         188         4B	619107	13	96	23.3	27	27	127	4B
619110       16       96       27.4       27       35       143       4B         619111       17       96       30       27       35       151       4B         619112       18       96       31.7       27       35       174       4B         619113       19       96       32       27       35       170       4B         619114       20       96       33.4       27       35       200       4B         619115       21       96       33       27       35       188       4B	619108	14	96	25.8	27	35	134	4B
619111       17       96       30       27       35       151       4B         619112       18       96       31.7       27       35       174       4B         619113       19       96       32       27       35       170       4B         619114       20       96       33.4       27       35       200       4B         619115       21       96       33       27       35       188       4B	619109	15	96	26.8	27	35	132	4B
619112       18       96       31.7       27       35       174       4B         619113       19       96       32       27       35       170       4B         619114       20       96       33.4       27       35       200       4B         619115       21       96       33       27       35       188       4B	619110	16	96	27.4	27	35	143	4B
619113       19       96       32       27       35       170       48         619114       20       96       33.4       27       35       200       48         619115       21       96       33       27       35       188       4B	619111	17	96	30	27	35	151	4B
619114       20       96       33.4       27       35       200       4B         619115       21       96       33       27       35       188       4B	619112	18	96	31.7	27	35	174	4B
<b>619115</b> 21 96 33 27 35 188 4B	619113	19	96	32	27	35	170	4B
	619114	20	96	33.4	27	35	200	4B
621604 22 06 23.6 20.6 25 213 AP	619115	21	96	33	27	35	188	4B
<b>621004</b> 22 90 33.0 29.0 33 213 45	621604	22	96	33.6	29.6	35	213	4B
<b>621605</b> 24 96 35.6 31.6 35 238 4B	621605	24	96	35.6	31.6	35	238	4B

#### 192/2HXVDEDP

#### Insulated hexagonal screwdriver socket 1/2"

- material: socket: chrome vanadium, chrome plated
- · material: bit: special tool steel, anticorosive oiled
- · entirely hardened and tempered

#### Advantages:

- double layered double coloured insulation enable additional safety
- · controled with electrical test

#### Important!

• if second layer is visible, replace your VDE tool with a new one.





	•	L	L1	D	ů	#
615173	4	76	18	27	76	4B
615174	5	76	18	27	73	4B
615175	6	76	18	27	80	4B
615176	8	76	18	27	96	4B
615177	10	76	18	27	110	4B

#### 190.5/2VDEDP

#### Insulated offset handle 1/2"

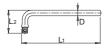
- · material: chrome vanadium
- · drop forged, entirely hardened and tempered
- · surface finish: chrome plated according to EN12540
- made according to standard EN60900

#### Advantages:

- double layered double coloured insulation for additional safety
- · controled with electrical test

#### Important!

• if second layer is visible, replace your VDE tool with a new one.





	L1	L2	ů	T
615178	250	72	408	ĪΕ



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# The first step to safe work

With the use of insulated ratchets and sockets VDE, you will forget all efforts and essentially improve the productivity of work. Because of its safety and simplicity, the high-quality tools will totally satisfy your expectations. A special feature is the lock system and mechanism for socket turnoff which enable faster use of the tool.



#### **190.1AVDEDP**

#### Insulated reversible ratchet 1/2"

- · material: chrome vanadium
- · Lever for changing the direction
- made according to standard EN60900

#### Advantages:

- · double layered double coloured insulation for additional safety
- with 36 teeth
- minimal angle of turn 10°
- controled with electrical test

#### Important!





		L	В	А	ů	T
619119	1/2"	245	50	80	667	1E







#### 190VDE6P11A

# Insulated socket set 1/2" in metal box

• Dimension of box: 321 x 198 x 54





	₩	ů	7			
612678	11	2620	1G			
<b>190/2VDEDP</b> (10, 11, 12, 13, 14, 17, 19,						
22, 24), <b>190.1AVDEDP</b> (1/2"),						
190.4/2VDEDP (1/2" x 125)						

#### 190VDE6P11

# Insulated socket set 1/2" in metal box

• Dimension of box: 448 x 198 x 54





190.1AVDEDP (1/2"),

190.4/2VDEDP (1/2" x 125)

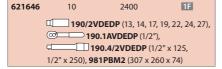
#### 190VDE6P10

# Insulated socket set 1/2" in plastic box

• Dimension of box: 307 x 260 x 70







#### 190VDEDP6P13B

# Insulated socket set 1/2" in metal box

• Dimension of box: 321 x 198 x 54





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1/2"

	<b>₽</b>	ů	T				
619420	13	3096	1G				
<b>190/2VDEDP</b> (8, 10, 11, 12, 13, 14, 17,							
19,22, 24, 27), <b>190.1AVDEDP</b> (1/2"),							
	19	<b>0.4/2VDEDP</b> (1/2	" x 125)				

#### 190VDE12P11L

Insulated socket set 1/2"- long type in metal box







# When you can rely on your tools

Due to universal use, these pliers are also intended for cutting and clenching. It is possible to clench flat or round material and to cut softer and hard wires and cables. Its strong and durable blades make this tool one you can rely on.



#### 406/1VDEBI

#### **Combination pliers**

- · material: special tool steel
- · drop forged, entirely hardened and tempered
- · cutting edges induction hardened
- · head polished
- surface finish: chrome plated to standard EN12540
- · heavy duty double component handles
- made according to standard ISO 5746 and EN 60900







	L	В	С	А	ů	7
610421	160	24	35	9.5	224	4B
610422	180	27	38	10	274	4B
610423	200	29	41	10.5	344	4B
610424	220	32	47	11	424	4B
cutting capa	city (10N=1kg)					
	L		max 1600 N	/mm² <b>ØT</b>	max 650 N/	mm²Ø <b>T</b>
610421	160		1,6	1	2,0	
610422	180	180		1,8		
610423	200		2,0		2,5	
610424	220		2.0		3.0	

## **406/1VDEDP**

#### **Combination pliers**

- · material: special tool steel
- · drop forged, entirely hardened and tempered
- cutting edges induction hardened
- · head polished
- surface finish: chrome plated to standard EN12540
- made according to standard ISO 5746 and EN 60900

#### Advantages:

 handles are insulated with double layered - double coloured insulation for additional safety

#### Important!

• if second layer is visible, replace your VDE tool with a new one.



619180

619181

200

220



2,5

3,0

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	L	В	С	А	ů	7
619177	140	23	32	8	157	4B
619178	160	24	35	9.5	219	4B
619179	180	27	38	10	269	4B
619180	200	29	41	10.5	321	4B
619181	220	32	47	11	376	4B
cutting cap	acity (10N=1kg)					
	L		max 1600	max 1600 N/mm² <b>ØT</b>		/mm² <b>Ø</b> ₹
619177	140		1,6		2,0	
619178	160		1	1,6		)
619179	180		1,8		2,5	



2,0

2,0

#### 420/1VDEBI

#### Linemen's pliers

- · material: special tool steel
- · drop forged, entirely hardened and tempered
- cutting edges induction hardened
- · head polished
- surface finish: chrome plated to standard EN12540
- · heavy duty double component handles
- made according to standard EN 60900





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	L	В	C	Α	ů	=		
610425	180	24	45	11	241	4B		
cutting capacity (10N=1kg)								
	L		max 1600 N/mm² <b>ØT</b>		max 650 N/mm² <b>Ø</b> ₹			
610425	180		1,8		2,5			

# 420/1VDEDP

#### Linemen's pliers

- · material: special tool steel
- · drop forged, entirely hardened and tempered
- cutting edges induction hardened
- · head polished
- surface finish: chrome plated to standard EN12540
- made according to standard EN 60900

#### Advantages:

• handles are insulated with double layered - double coloured insulation for additional safety

#### Important!





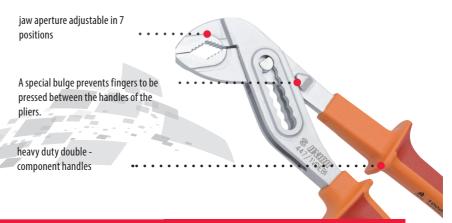
	L	В	C	Α	ů	=			
619176	180	24	45	11	221	4B			
cutting cap	cutting capacity (10N=1kg)								
	L		max 1600 l	N/mm²Ø <b>T</b>	max 650 N/mm² <b>ØT</b>				
619176	18	)	1,	1,8		;			





WATERPUMP PLIERS

With the universal pliers VDE you will be able to achieve an optimal transmission to the working platform without great effort. When clasping pipes and nuts, the pliers ensure a clean grip without any traction. With special anti-traction protection which stops your hands of directly touching the working platform and with that the possibility of finger injury during work is reduced. The adjustable jaw into 7 positions enables the jaws of the pliers to adapt to different types of work piece without changing the pliers.



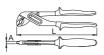
#### 447/1VDEBI

#### Insulated waterpump box joint pliers

- · material: chrome vanadium
- · drop forged, entirely hardened and tempered
- · working surfaces induction hardened
- surface finish: chrome plated to standard EN12540
- · heavy duty double component handles
- made according to standard ISO 8976 and EN 60900

#### Advantages:

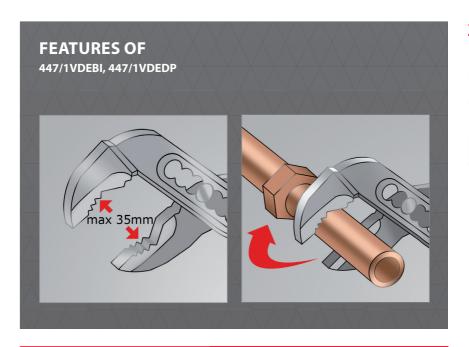
- jaw aperture adjustable in 7 positions
- A special bulge prevents fingers to be pressed between the handles of the pliers.





<u>⊹</u>1000V <u></u> **6≥ €** 

	L	Α	Ö	ů	*
611993	240	6.5	35	367	4B



#### 447/1VDEDP

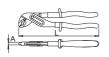
#### Waterpump box joint pliers

- material: chrome vanadium
- drop forged, entirely hardened and tempered
- working surfaces induction hardened
- surface finish: chrome plated to standard EN12540
- made according to standard ISO 8976 and EN 60900

#### Advantages:

- handles are insulated with double layered double coloured insulation for additional safety
- jaw aperture adjustable in 7 positions
- A special bulge prevents fingers to be pressed between the handles of the pliers.

#### Important!



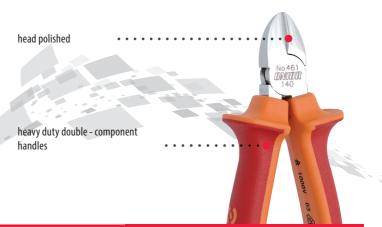


	L	Α	U	ů	**
619199	240	6.5	35	382	4B



# 36 Minimum effort – maximum transmission

The Diagonal cutting nippers VDE with its precise cutting edges offer exact and better cutting of wires with minimum effort and maximum transmission. Due to the reduced wearing out of cutting edges, the useful life of the pliers gets longer.



#### 461/1VDEBI

#### **Diagonal cutting nippers**

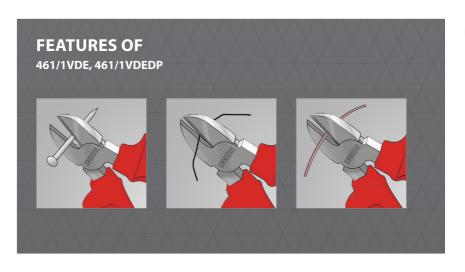
- · material: special tool steel
- · drop forged, entirely hardened and tempered
- · cutting edges induction hardened
- · head polished
- surface finish: chrome plated to standard EN12540
- · heavy duty double component handles
- made according to standard ISO 5749 and EN 60900





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	L	В	A	C	ů	=
610426	140	19	9.5	18	169	4B
610427	160	22.5	10	22	214	4B
cutting capa	acity (10N=1kg	g)				
	L		max 1600 N/mm² <b>Ø↑</b>		max 650 N/mm² <b>Ø</b> ₹	
610426	140		1,6		2,0	
610427	160		1,6		2,5	



# 461/1VDEDP

# Diagonal cutting nippers

- material: special tool steel
- drop forged, entirely hardened and tempered
- cutting edges induction hardened
- · head polished
- surface finish: chrome plated to standard EN12540
- made according to standard ISO 5749 and EN 60900

#### Advantages:

• handles are insulated with double layered - double coloured insulation for additional safety

#### Important!

• if second layer is visible, replace your VDE tool with a new one.





₹1000V **Æ** 

L	D	A			•					
140	19	9.5	18	174	4B					
160	22.5	10	22	224	4B					
cutting capacity (10N=1kg)										
l	-	max 1600 N/mm² <b>Ø</b> ₹		max 650 N/mm² Ø <b>T</b>						
14	10	1,	6	2,0						
16	50	1,	6	2,5						
	140 160 acity (10N=1kg L	140 19 160 22.5	140 19 9.5 160 22.5 10 acity (10N=1kg) L max 1600 140 1,	140 19 9.5 18 160 22.5 10 22 acity (10N=1kg)  L max 1600 N/mm²Ø <b>T</b> 140 1,6	140 19 9.5 18 174 160 22.5 10 22 224 acity (10N=1kg)  L max 1600 N/mm²Øf max 650 N, 140 1,6 2,0					

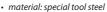
# 38 Minimum effort – maximum transmission

The Diagonal cutting nippers VDE with its precise cutting edges offer exact and better cutting of wires with minimum effort and maximum transmission. Due to the reduced wearing out of cutting edges, the useful life of the pliers gets longer.



### 462/1VDEBI

### Multifunctional diagonal cutting nippers



- · drop forged, entirely hardened and tempered
- · cutting edges induction hardened
- · head polished
- surface finish: chrome plated to standard EN12540
- · heavy duty double component handles
- made according to standard EN 60900

#### Advantages:

• Stripping off insulation of single conductors 1,5 mm2 and 2,5mm2



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	L	В	Α	С	ů	T				
624060	160	22,5	10	22	214	4B				
cutting capacity (10N=1kg)										
	L		max 1600	N/mm²Ø <b>T</b>	max 650 N/mm² <b>Ø</b> ₹					
624060	160		1,	,6	2,5					

A



### **462/1VDEDP**

### Multifunctional diagonal cutting nippers

- · material: special tool steel
- drop forged, entirely hardened and tempered
- cutting edges induction hardened
- head polished
- surface finish: chrome plated to standard EN12540
- made according to standard EN 60900

### Advantages:

- Stripping off insulation of single conductors 1,5 mm2 and 2,5mm2
- handles are insulated with double layered double coloured insulation for additional safety

### Important!

• if second layer is visible, replace your VDE tool with a new one.



		L	В	А	С	ııı	T		
624061	1	60	22,5	10	22	224	4B		
cutting capacity (10N=1kg)									
	L	max 1600 N	l/mm² <b>Ø</b> ₹	max 650 N/mm² <b>∅T</b>					
624061	160	1,6	;	2,5					



# 466/1VDEBI

# Heavy duty diagonal cutting nippers



- · drop forged, entirely hardened and tempered
- cutting edges induction hardened
- · head polished
- surface finish: chrome plated to standard EN12540
- · heavy duty double component handles
- made according to standard ISO 5749 and EN 60900





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	L	В	А	С	ů	T				
610428	180	28	11	20	316	4B				
611756	200	27	11	21	344	4B				
cutting capacity (10N=1kg)										
	L		max 2150	N/mm²Ø <b>†</b>	max 650 N/mm² Ø <b>T</b>					
610428	180		1	1,8		)				
611756	200		2	,0	3,5					

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### **466/1VDEDP**

### Heavy duty diagonal cutting nippers

- · material: special tool steel
- drop forged, entirely hardened and tempered
- cutting edges induction hardened
- head polished
- surface finish: chrome plated to standard EN12540
- made according to standard ISO 5749 and EN 60900

#### Advantages:

• handles are insulated with double layered - double coloured insulation for additional

#### Important!

• if second layer is visible, replace your VDE tool with a new one.



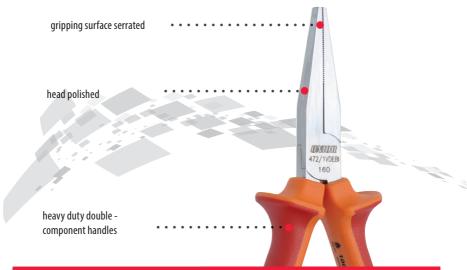


	L	В	A	С	ů	T				
619195	180	28	11	20	303	4B				
619196	200	27	11	21	351	4B				
cutting capacity (10N=1kg)										
	L	L		max 2150 N/mm² <b>Ø↑</b>		/mm² <b>Ø</b> †				
619195	180		1	1,8		)				
619196	200		2	2,0		5				



# 42 Very precise and durable

Due to its universal use, ergonomic design and useful life of the product, Unior tries to satisfy the needs and wishes of the user. With the technology of creating a hand-friendly tool, work with less effort becomes much easier and effective. The pliers are very durable and precise when working with wires.



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### 472/1VDEBI

### Long flat nose pliers

- · material: special tool steel
- · drop forged, entirely hardened and tempered
- · head polished
- surface finish: chrome plated to standard EN12540
- · heavy duty double component handles
- gripping surface serrated
- made according to standard ISO 5745 and EN 60900



	L	В	С	Α	ů	7
610430	160	16	49	9	146	4B



# 472/1VDEDP

### Long flat nose pliers

- material: special tool steel
- drop forged, entirely hardened and tempered
- head polished
- surface finish: chrome plated to standard EN12540
- made according to standard ISO 5745 and EN 60900

#### Advantages:

- handles are insulated with double layered double coloured insulation for additional safety
- gripping surface serrated

#### Important!

• if second layer is visible, replace your VDE tool with a new one.





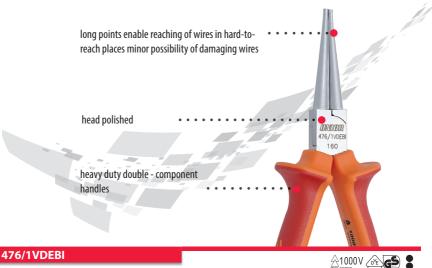
	L	В	С	А	ů	T
619182	140	15	39	8	114	4B
619183	160	16	49	9	153	4B



<u></u>1000V <u>№ </u>

# **Quality in shape**

The production of the VDE pliers is based on constant quality control. In each stage of production, the pliers are individually checked and tested to prevent the possibility of failures on the tools and increases safety during use. The advantage of long round nose pliers is its exact clenching, bending, and curving of wires and making slings.



## 476/1VDEBI

### Long round nose pliers

- · material: special tool steel
- · drop forged, entirely hardened and tempered
- · head polished
- surface finish: chrome plated to standard EN12540
- · heavy duty double component handles
- made according to standard ISO 5745 and EN 60900

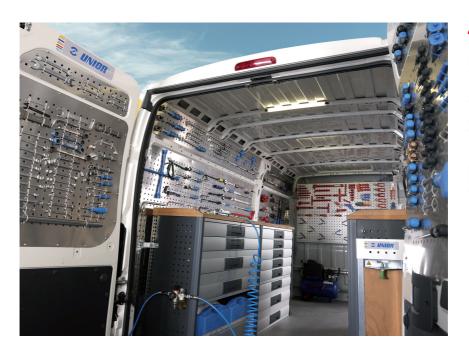
### Advantages:

- · long points enable reaching of wires in hard-to-reach places
- · minor possibility of damaging wires





	L	В	Α	C	D	ů	7
610431	140	15	9	39	2	116	4B
610432	160	16	10	49	2.5	126	4B



# 476/1VDEDP

### Long round nose pliers

- · material: special tool steel
- drop forged, entirely hardened and tempered
- · head polished
- surface finish: chrome plated to standard EN12540
- made according to standard ISO 5745 and EN 60900

### Advantages:

- handles are insulated with double layered double coloured insulation for additional safety
- long points enable reaching of wires in hard-to-reach places
- minor possibility of damaging wires

#### Important!

• if second layer is visible, replace your VDE tool with a new one.





	L	В	Α	С	D	ů	7
619184	140	15	9	39	2	114	4B
619185	160	16	10	49	2.5	139	4B





# 506/1VDEBI

# Long nose pliers with side cutter

- · material: special tool steel
- drop forged, entirely hardened and tempered
- · cutting edges induction hardened
- · head polished
- surface finish: chrome plated to standard EN12540
- · heavy duty double component handles
- made according to standard ISO 5745 and EN 60900

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#### Advantages:

- also for clenching and separating of from cables and other sensitive objects
- · gripping surface serrated



610435



2,0

	L	В	D	Α	С	ů	#
610434	140	15	2	8	39	115	4B
610435	160	16	2.5	9	49	137	4B
cutting car	pacity (10N=	1kg)					
		L		ax 1600 N/mm <sup>2</sup>	ØŦ	max 650 N/mm² <b>ØT</b>	
610434		140		1,6		2,0	

1,6

1000V PE 5



# 506/1VDEDP

# Long nose pliers with side cutter

- · material: special tool steel
- drop forged, entirely hardened and tempered
- cutting edges induction hardened
- · head polished
- surface finish: chrome plated to standard EN12540

160

• made according to standard ISO 5745 and EN 60900

#### Advantages:

- handles are insulated with double layered double coloured insulation, which enables additional safety
- also for clenching and separating of from cables and other sensitive objects
- gripping surface serrated

#### Important!

• if second layer is visible, replace your VDE tool with the new one.



619188



2,0

	1	В	D	А	C	ů	7			
	L	Б	U	A						
619187	140	15	8	8	39	125	4B			
619188	160	16	2.5	9	49	157	4B			
cutting cap	cutting capacity (10N=1kg)									
		L	ma	max 1600 N/mm²Ø <b>T</b>		max 650 N/mm² Ø <b>T</b>				
619187		140		1,6		2,0				

1,6





# 508/1VDEBI

# Long nose pliers with side cutter and pipe grip, straight

- · material: special tool steel
- drop forged, entirely hardened and tempered
- cutting edges induction hardened
- · head polished
- surface finish: chrome plated to standard EN12540
- · heavy duty double component handles
- made according to standard ISO 5745 and EN 60900

#### Advantages:

- also for clenching and separating of from cables and other sensitive objects
- · gripping surface serrated





	L	В	D	A	С	ii ii		
610436	170	17	2.5	9	61	156	4B	
610437	200	17	2.5	9	77	191	4B	
cutting cap	pacity (10N=	1kg)						
		L	ma	ax 1600 N/mm <sup>2</sup>	ØŦ	max 650 N/mm² <b>Ø</b> ₹		
610436		170		1,6				
610437	200			1,8		2,5		

<u></u>1000V <u>№</u>

### **508/1VDEDP**

# Long nose pliers with side cutter and pipe grip, straight

- · material: special tool steel
- drop forged, entirely hardened and tempered
- cutting edges induction hardened
- · head polished
- surface finish: chrome plated to standard EN12540
- made according to standard ISO 5745 and EN 60900

#### Advantages:

- · handles are insulated with double layered double coloured insulation, which enables additional
- also for clenching and separating of from cables and other sensitive objects
- · gripping surface serrated

#### Important!

• if second layer is visible, replace your VDE tool with the new one.





	L	В	D	Α	С	ů	*	
619189	170	17	2.5	9	61	162	4B	
619190	200	17	2.5	9	77	201	4B	
cutting capacity (10N=1kg)								
		L max 1600 N/mm $^2$ Ø $\overline{\mathbf{f}}$ max 650 N/mm $^2$ Q				ım²Ø <b>T</b>		
619189		170		1,6		2,0		
619190	200			1,8		2,5		



# 50 Difficult-to-reach places are history

VDE tools will surprise you each time of use. Thin precise points can handle difficult and impossible tasks and reach difficult-to reach-places. The long bent jaws enable simple and precise clenching of nuts and screws.

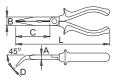
### **512/1VDEBI**

### Long nose pliers with side cutter and pipe grip, bent

- · material: special tool steel
- · drop forged, entirely hardened and tempered
- · cutting edges induction hardened
- · head polished
- surface finish: chrome plated to standard EN12540
- · heavy duty double component handles
- made according to standard EN 60900

#### Advantages:

- the long bent jaws enable simple and precise clenching of nuts and screws
- the strong jaws enable good grip
- jaws bent to an angle of 45°
- · gripping surface serrated





	L	В	D	А	С	ů	T	
610438	170	17	2.5	9	61	152	4B	
610439	200	17	2.5	9	77	204	4B	
cutting capacity (10N=1kg)								
		L	ma	max 1600 N/mm² Ø <b>T</b> max 650 N/mm²			m² <b>Ø</b> Ŧ	
610438		170		1,6		2,0		
610439	200			1,8		2,5		



the long bent jaws enable simple and precise clenching of nuts and screws

> jaws bent to an angle of 45° gripping surface serrated

handles are insulated with double layered - double coloured insulation for additional safety



### **512/1VDEDP**

### Long nose pliers with side cutter and pipe grip, bent

- · material: special tool steel
- · drop forged, entirely hardened and tempered
- · cutting edges induction hardened
- · head polished
- surface finish: chrome plated to standard EN12540
- made according to standard EN 60900

#### Advantages:

- handles are insulated with double layered double coloured insulation for additional safety
- the long bent jaws enable simple and precise clenching of nuts and screws
- the strong jaws enable good grip
- jaws bent to an angle of 45°
- · gripping surface serrated

### Important!

• if second layer is visible, replace your VDE tool with a new one.





	L	В	U	А	C	- 0		
619191	170	17	2.5	9	61	156	4B	
619192	200	17	2.5	9	77	201	4B	
cutting capacity (10N=1kg)								
	L			max 1600 N/mm²Ø <b>T</b> max 650 N/mm²Ø <b>T</b>			ım²Ø <b>T</b>	
619191		170		1,6		2,0		
619192	200			1,8		2,5		



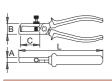
In collaboration with our users and various professionals from hand tools, a certain number of analyses and tests of pliers were carried out. The result is a comfortable use, perfect grip and reduced pressure on the hand itself.



### 478/1VDEBI

### Wire stripping pliers

- · material: special tool steel
- · drop forged, entirely hardened and tempered
- · cutting edges induction hardened
- · head polished
- surface finish: chrome plated to standard EN12540
- · heavy duty double component handles
- stripping capacity: up to max 0.6 10mm2
- · spring for reopening
- · made according to standard EN 60900





	L	•	В	Α	C	ů	7
610433	160	0.6-10	18	9	40	178	4B



# 478/1VDEDP







### Wire stripping pliers

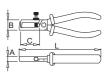
- · material: special tool steel
- · drop forged, entirely hardened and tempered
- cutting edges induction hardened
- head polished
- stripping capacity: up to max 0.6 10mm2
- made according to standard EN 60900

### Advantages:

- handles are insulated with double layered double coloured insulation for additional safety
- spring for reopening

#### Important!

• if second layer is visible, replace your VDE tool with a new one.





	L	•	В	Α	С	ů	=
619186	160	0.6-10	18	9	40	167	4B

# 54 A mixture of functionality and high quality

The shears are a mixture of functionality, high quality, reliability, and durability. They ensure reduced possibility of injuries on eventual contact with an electric conductor up to 1000 V.



### **580/1VDEBI**

#### Cable shears

- material: special tool steel
- drop forged, entirely hardened and tempered
- cutting edges induction hardened
- head polished
- surface finish: chrome plated to standard EN12540
- · heavy duty double component handles
- made according to standard EN 60900

### Important!

· for cutting cables without steel wire





△1000V № **⑤** 

	L	А	Ö	ů	*
610440	170	18	10	339	4B
610441	230	22	17	444	4B



# 580/1VDEDP

#### Cable shears

- · material: special tool steel
- drop forged, entirely hardened and tempered
- cutting edges induction hardened
- · head polished
- surface finish: chrome plated to standard EN12540
- made according to standard EN 60900

### Advantages:

• handles are insulated with double layered - double coloured insulation for additional safety

#### Important!

- if second layer is visible, replace your VDE tool with a new one.
- for cutting cables without steel wire





	L	A	U	ů	8
619197	170	18	10	226	4B
619198	230	22	17	409	4B



56

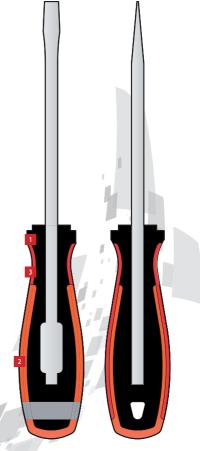
# TBI handles for screwdrivers are composed of three layers, namely:

- layer: black PP (polypropylene) which surrounds the stem of the screwdriver and is extremely solid, preventing the turning of the screwdriver stem in the handle at high torque
- 2. layer: orange PP (polypropylene) which surrounds the 1st layer of the handle is very stiff and ensures the constant shape of the handle under various environmental effects
- 3. layer: red TPE (thermoplastic elastomer) which partially surrounds the 2nd layer of the handle is a medium-strength material that gives the handle its final ergonomic shape, ensures a pleasant and non-slipping grip and thereby the achievement of high torques

Able to fit a variety of screw profiles and exhibiting innovative threecomponent handles, UNIOR screwdrivers ensure great efficiency and a slip-proof grip.

The screwdrivers are made of chrome-vanadium-molybdenum steel and are additionally chrome or nickel plated. The superior quality of materials used in the Unior line of screwdrivers is complemented by ergonomically designed handles to provide an excellent hold. With its combination of soft and hard surfaces, the special, three-component handle — a Unior patent — ensures comfort and efficient performance with minimum strain on the wrist while working. The soft material ensures maximum gripe even when oily.

Along with the varied consistency of the plastic handle practically eliminating the danger of the screwdriver slipping in the hand, the improved grip also ensures greater torque. This can also be achieved by inserting a rod in the perforation added with this purpose to all handles functioning also as a hanging hole for handier storage.





handle: ergonomic shape three component material

slim blade enables work in hard to reach places.



### **604VDETBI**

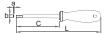


### SLIM electrician's screwdriver with insulated blade, VDE TBI

- · blade: chrome-vanadium-molybdenum steel, entirely hardened and tempered
- blackened tip
- · handle: ergonomic shape
- · three component material
- hanging hole
- made according to standard EN60900

#### Advantages:

- · model with slim blade
- Although of the slim blade, screwdriver enables the same functionality and safety by working as usual insulated screwdriver.
- · slim blade enables work in hard to reach places.





	axb	С	L	ů	=
624063	0,6 x 6,5	100	185	39	4B
624064	0,8 x 4,0	100	185	43	4B
624065	1,0 x 5,5	125	225	75	4B
624066	1,2 x 6,5	150	260	113	4B

### **611VDETBI**

# Flat-crosstip (SL/PH) SLIM screwdriver with insulated blade, VDE TBI



- blade: chrome-vanadium-molybdenum steel, entirely hardened and tempered
- · blackened tip
- handle: ergonomic shape
- · three component material
- · hanging hole
- · made according to standard EN60900

#### Advantages:

- · model with slim blade
- Although of the slim blade, screwdriver enables the same functionality and safety by working as usual insulated screwdriver.
- slim blade enables work in hard to reach places.





	+	С	L	ů	7
624071	SLPH 1	80	180	60	4B
624072	SLPH 2	100	210	94	4B

### **614VDETBI**

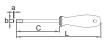


### Crosstip (PH) SLIM screwdriver with insulated blade, VDE TBI

- · blade: chrome-vanadium-molybdenum steel, entirely hardened and tempered
- blackened tip
- · handle: ergonomic shape
- · three component material
- · hanging hole
- made according to standard ISO 8764-1,2 and EN 60900

#### Advantages:

- · model with slim blade
- Although of the slim blade, screwdriver enables the same functionality and safety by working as usual insulated screwdriver.
- slim blade enables work in hard to reach places.





	+	С	L	ů	*
624067	PH 1	80	180	60	4B
624068	PH 2	100	210	94	4B

### **624VDETBI**

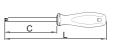


### Double-crosstip (PZ) SLIM screwdriver with insulated blade, VDE TBI

- blade: chrome-vanadium-molybdenum steel, entirely hardened and tempered
- blackened tip
- handle: ergonomic shape
- · three component material
- · hanging hole
- made according to standard ISO 8764-1,2 and EN 60900

### Advantages:

- model with slim blade
- Although of the slim blade, screwdriver enables the same functionality and safety by working as usual insulated screwdriver.
- slim blade enables work in hard to reach places.





	+	С	L	ů	*
624069	PZ 1	80	180	60	4B
624070	PZ 2	100	210	93	4B

### **603VDE**

# Electrician's screwdriver with insulated blade, VDE

- blade: chrome-vanadium-molybdenum steel, entirely hardened and tempered
- blackened tip
- handle: ergonomic shape
- · handle: polypropylene
- · hanging hole
- made according to standard EN60900





	axb	С	L	ů	=
616470	0.4 x 2.5	75	160	33	4B
616471	0.5 x 3.0	100	185	37	4B
616472	0.6 x 3.5	100	185	39	4B
616473	0.8 x 4.0	100	185	43	4B
616474	1.0 x 5.5	125	225	75	4B
616475	1.2 x 6.5	150	260	113	4B
616476	1.2 x 8.0	175	295	163	4B
616477	1.6 x 10.0	200	320	115	4B

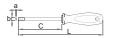
### **603VDETBI**



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### Electrician's screwdriver with insulated blade, VDE TBI

- blade: chrome-vanadium-molybdenum steel, entirely hardened and tempered
- · blackened tip
- handle: ergonomic shape
- three component material
- hanging hole
- made according to standard EN60900





	axb	С	L	ů	7
616436	0.4 x 2.5	75	160	33	4B
616437	0.5 x 3.0	100	185	37	4B
616438	0.6 x 3.5	100	185	39	4B
616439	0.8 x 4.0	100	185	43	4B
621247	1.0 x 4.5	125	225	75	4B
616440	1.0 x 5.5	125	225	75	4B
616441	1.2 x 6.5	150	260	113	4B
616442	1.2 x 8.0	175	295	163	4B
621248	1.6 x 10.0	200	320	115	4B

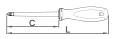


# 613VDETBI



### Crosstip (PH) screwdriver with insulated blade, VDE TBI

- blade: chrome-vanadium-molybdenum steel, entirely hardened and tempered
- · blackened tip
- handle: ergonomic shape
- three component material
- hanging hole
- made according to standard ISO 8764-1,2 and EN 60900





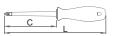
	+	С	L	ů	=
616443	PH0	60	145	34	4B
616444	PH1	80	180	60	4B
616445	PH2	100	210	94	4B
616446	PH3	150	270	104	4B
616447	PH4	200	320	230	4B

### **613VDE**



### Crosstip (PH) screwdriver with insulated blade, VDE

- blade: chrome-vanadium-molybdenum steel, entirely hardened and tempered
- blackened tip
- · handle: ergonomic shape
- · handle: polypropylene
- · hanging hole
- made according to standard ISO 8764-1,2 and EN 60900





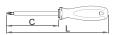
	+	С	L	ů	*
616478	PH0	60	145	34	4B
616479	PH1	80	165	60	4B
616480	PH2	100	200	94	4B
616481	PH3	150	260	104	4B

# 613VDETBI



### Crosstip (PH) screwdriver with insulated blade, VDE TBI

- blade: chrome-vanadium-molybdenum steel, entirely hardened and tempered
- · blackened tip
- handle: ergonomic shape
- three component material
- hanging hole
- made according to standard ISO 8764-1,2 and EN 60900





	+	С	L	ů	Ť
616443	PH0	60	145	34	4B
616444	PH1	80	180	60	4B
616445	PH2	100	210	94	4B
616446	PH3	150	270	104	4B
616447	PH4	200	320	230	4B

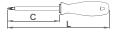
### **623VDE**



### Double-crosstip (PZ) screwdriver with insulated blade, VDE

- blade: chrome-vanadium-molybdenum steel, entirely hardened and tempered
- · blackened tip
- handle: ergonomic shape
- · handle: polypropylene
- · hanging hole
- made according to standard ISO 8764-1,2 and EN 60900





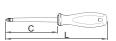
	+	С	L	ů	*
616482	PZ0	60	145	34	4B
616483	PZ1	80	165	60	4B
616484	PZ2	100	200	93	4B
616485	PZ3	150	260	156	4B

### **623VDETBI**



### Double-crosstip (PZ) screwdriver with insulated blade, VDE TBI

- blade: chrome-vanadium-molybdenum steel, entirely hardened and tempered
- blackened tip
- · handle: ergonomic shape
- · three component material
- hanging hole
- made according to standard ISO 8764-1,2 and EN 60900

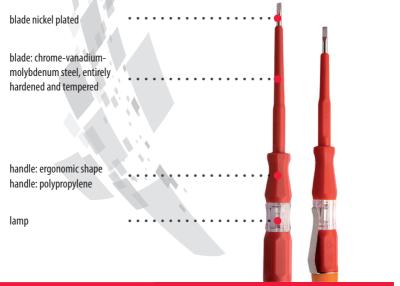




	+	C	L	ů	=
616460	PZ0	60	145	34	4B
616461	PZ1	80	180	60	4B
616462	PZ2	100	210	93	4B
616463	PZ3	150	270	156	4B

# For safe testing

When testing voltage, the voltage tester is a simple and irreplaceable tool. It is one of the safest tests for checking voltage

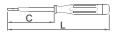


# 630VDE

### Voltage tester 220 - 250 V

• dimension 140 with clip





1000V DE 65

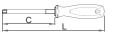
	axb	С	L	ů	#
617659	0.5 x 3.0	60	140	13	4A
617660	0.6 x 3.5	90	180	24	4A

### **620VDETBI**



### Hexagon screwdriver with insulated blade VDE TBI

- blade: chrome-vanadium-molybdenum steel, entirely hardened and tempered
- blackened tip
- handle: ergonomic shape
- · three component material
- · hanging hole
- made according to standard EN60900





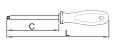
	•	С	L	ů	=
616448	2.5	75	160	34	4B
616449	3	75	175	37	4B
616450	4	75	175	68	4B
616451	5	75	185	93	4B
616452	6	100	210	128	4B
616453	8	100	210	203	4B

### **621VDETBI**



### Screwdriver with insulated blade VDE TBI with TX profile

- · blade: chrome-vanadium-molybdenum steel, entirely hardened and tempered
- · blacken tip
- handle: ergonomic shape
- · three component material
- · hanging hole
- made according to standard EN60900





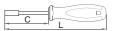
	*	С	L	ů	*
616454	TX 10	60	140	35	4B
616455	TX 15	80	180	37	4B
616456	TX 20	80	180	43	4B
616457	TX 25	80	180	63	4B
616458	TX 27	100	210	76	4B
616459	TX 30	100	210	98	4B

1000V & G

# 629VDETBI

### Insulated socket wrench with VDE TBI handle

- blade: chrome-vanadium-molybdenum steel, entirely hardened and tempered
- handle: ergonomic shape
- three component material
- · hanging hole
- made according to standard EN60900
- made according to standard DIN 3125





	<b>©</b>	С	L	ů	=
616464	5.5	125	225	103	4B
616465	6	125	225	103	4B
616466	7	125	235	123	4B
621429	7/35	135	245	125	4B
616467	8	125	235	140	4B
623341	9	125	235	124	4B
616468	10	125	235	157	4B
623342	11	125	235	159	4B
616469	13	125	245	186	4B



### 385VDEDP

#### Insulated knife

- · blade from high alloy steel
- · double layered double coloured insulation for additional safety
- · with blade guard



	L	ů	Ť
615494	180	136	1E



### Insulated knife

- · blade from high alloy steel
- · double layered double coloured insulation for additional safety
- · with blade guard





	L	ů	T
619101	180	78	1E







### 385CVDEDP

#### Insulated knife

- · blade from high alloy steel
- · handles are insulated with double layered double coloured insulation for additional safety
- · surface finish: phosphated to standard DIN 12476
- · with blade guard
- · blade hardened at min. 55 HRc
- · rounded blade, 60mm long
- · ergonomic handle, with slip quard
- · handle with finger hook for good transmission of force
- Material of steel blade provides maximum sharpness and durability by dismantling of cables
- · blade protected with PVC protection

# **385BVDE**

### Insulated knife

- blade from high alloy steel
- plastic handle
- with blade guard
- · blade with cable guard shoe

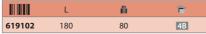
#### Usage:

• for dismantling PVC cable insulation













	L	Α	ů	7
625610	220	60	180	1E

<u></u>\$1000∨

### 1350VDE

### Wedge

· plastic material





	L	В	Α	ů	*
619103	165	19	35	49	1E

### 1340VDEDP

### Straight tweezers

- material: stainless steel
- made according to standard EN60900

### Advantages:

- double layered double coloured insulation enable additional safety
- · controled with electrical test

### Important!

 if second layer is visible, replace your VDE tool with the new one.

# 1341VDEDP

#### Bent tweezers

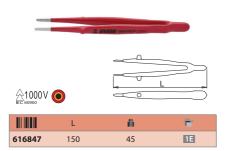
- · material: stainless steel
- made according to standard EN60900

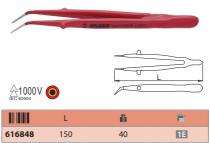
### Advantages:

- double layered double coloured insulation enable additional safety
- · controled with electrical test

### Important!

 if second layer is visible, replace your VDE tool with the new one.







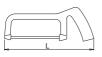
# 753VDEDP

### Insulated saw

- · replaceable blade
- made according to standard EN60900

### Advantages:

- double layered double coloured insulation, for additional safety
- if second layer is visible, replace your VDE tool with a new one.





€1000V

	L	ů	8
615502	150	276	1E

<u></u>1000 V **(** 

# 750VDEDP

### Insulated saw

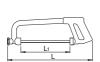
• made according to standard EN60900

#### Advantages:

• double layered - double coloured insulation, for additional safety

### Important!

• if second layer is visible, replace your VDE tool with a new one.





	L	L1	ů	*
619098	460	270	815	Œ

# 1351VDE

# Plastic clamp

• plastic material



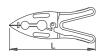


	L	ĥ	7
619099	160	77	1E

# 1352VDE

### Plastic clamp

• plastic material





	L	ů	T
619100	140	54	1E

<u></u>1000V

# Tool sets for easier choice

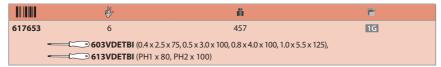
The composition of various sets is based on continuous cooperation with local professional users of insulated VDE Unior tools. Sets prepared in advance follow the needs of individual activity. Special sets of VDE tools for users dealing with electrical voltage have also been produced. It is a high quality selection of inexpensive tools.



Set of screwdrivers VDE TBI





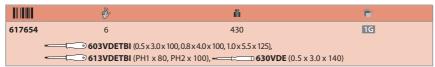


### 603CS6ATVT



Set of screwdrivers VDE TBI with voltage tester



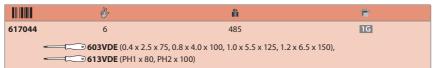


### 603CS6VDE

Set of screwdrivers VDE

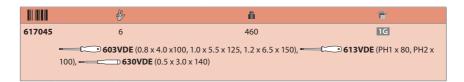






Set of screwdrivers VDE with voltage tester





### 603CS6VDETBI

Set of screwdrivers VDE TBI





	<b>₽</b>	ů	*
617042	6	530	1 <b>G</b>
	<b>603VDETBI</b> (0.4×2.5×75,0		6.5 x 150),
	613VDETBI (PH1 x 80, PH2	2 x 100)	

# 603CS6AVDE

Set of screwdrivers VDE







### **603CS6TVDETBI**

\$1000V PE S -+

Set of screwdrivers VDE TBI with voltage tester



	₽.	ů	+	
617043	6	505	1G	
	<b>603VDETBI</b> (0.8 x 4.0 x 1	00, 1.0 x 5.5 x 125, 1.2 x 6.5 x 150), <b>←</b>	<b>613VDETBI</b> (PH1 x 80,	PH2
	x 100), <b>630VDE</b> (0.5 x 3	3.0 x 140)		

# 603CS6ATVD



Set of screwdrivers VDE with voltage tester



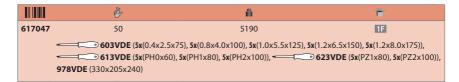
	₽	ů	Ť
617656	6	390	1G
	<b>603VDE</b> (0.5x 3.0 x 100, 100), <b>630VDE</b> (0.5 x 3.0	'	<b>613VDE</b> (PH1 x 80, PH2 x

### 603S50VDE

1000V PE S ---

Set of screwdrivers VDE on display stand





Set of screwdrivers VDE TBI on display stand



	₩	ů	7			
617046	50	5620	1F			
	• 603VDETBI (5x(0.4x2.5x75),					
	5x(0.8x4.0x100), 5x(1.0x5.5x125), 5x(1.2x6.5x150), 5x(1.2x8.0x175)),					
	•—— 613VDETBI (5x(PH0x60), 5x(PH1x80), 5x(PH2x100)),					
	623VDETBI (5x(PZ1x8	80), <b>5x</b> (PZ2x100)), <b>978VDE</b> (330x205x24	0)			

# 620CS6VDETBI

Set of insulated hexagon screwdrivers VDE TBI





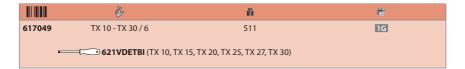
	₽.	ů	Ŧ	
617048	2.5 - 8 / 6	580	1G	
<b>620VDETBI</b> (2.5, 3, 4, 5, 6, 8)				

## **621CS6VDETBI**

Set of insulated screwdrivers VDE TBI with TX profile





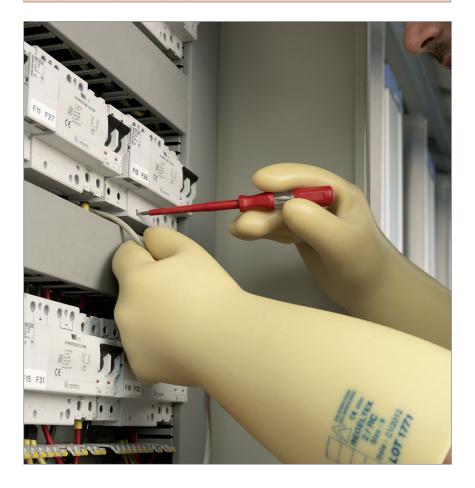


# Set of insulated socket wrenches with VDE TBI handle





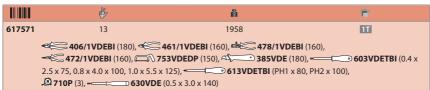
	elly	ů	*
617050	5.5 - 13 / 6	865	1G
-	<b>629VDETBI</b> (5.5, 6, 7, 8,	, 10, 13)	



Tool set VDE BI in bag.







## 906VDEBI

Tool set VDE BI in bag.





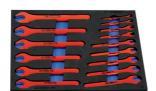
	P	ů	T
617573	6	911	11
		<b>406/1VDEBI</b> (180), <b>603VDE</b> (2×100), <b>630VDE</b> (0.5 × 3.0 × 1	



1000V DE 60900

## 964VDE1

Set of insulated open end wrenches in SOS tool tray



	₽.	ů	7	
621782	6 - 24 / 15	2500	1F	
<b>110/2VDEDP</b> (6, 7, 8, 10, 12, 13, 14, 15, 17, 19, 20, 21, 22, 23, 24), <b>VL964VDE1</b> (374 x 364 x 30)				

# VL964VDE1

SOS tool tray for 964VDE1

	В	L	Н	ñ	*
621781	374	364	30	112	1V

# 964VDE2

Set of insulated offset ring wrenches in SOS tool tray





	₽	ů	*	
621784	10 - 24 / 11	2600	1F	
<b>180/2VDEDP</b> (10, 11, 12, 13, 14, 15, 17, 19, 21, 22, 24), <b>VL964VDE2</b> (374 x 364 x 30)				

# VL964VDE2

SOS tool tray for 964VDE2

	В	L	Н	ů	*
621783	374	364	30	112	1V

# 964VDE3

Set of insulated pliers in SOS tool tray





	&	ů	Ħ
621786	12	3200	1E
	406/1VDEDP (180), 420 (160), 466/1VDEDP (180), 478/1VDEDP (160), 506/1VDED (170), VL964VDE3 (564	A72/1VDEDP (160), 47 DP (160), 508/1VDEDP	

# VL964VDE3

SOS tool tray for 964VDE3

	В	L	Н	ñ	*
621785	564	364	30	168	1V

# 964VDE5

Set of insulated socket wrenches 1/2" in SOS tool tray



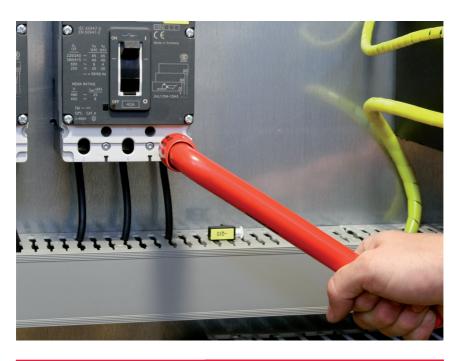


	₽.	ů	Ť		
621790	8 - 32 / 18	2200	1E		
190/2VDEDP (8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 27, 30, 32), VL964VDE5 (188 x 364 x 30)					
	VE904VDE3 (188 x 304 x 30)				

# VL964VDE5

SOS tool tray for 964VDE5

	В	L	Н	ů	*
621789	188	364	30	56	1V

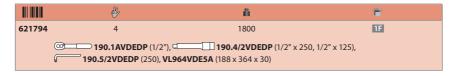


# 964VDE5A

Set of insulated accessories 1/2" in SOS tool tray







## VL964VDE5A

SOS tool tray for 964VDE5A

	В	L	Н	ů	*
621793	188	364	30	56	1V

## 964VDE5L



Set of long insulated socket wrenches 1/2" in SOS tool tray



	&	ů	*		
621792	10 - 24 / 14	2500	1E		
190/2LVDEDP (10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24), VL964VDE5L (374 x 364 x 30)					

# VL964VDE5L

SOS tool tray for 964VDE5L

	В	L	Н	ů	7
621791	374	364	30	112	1V

## 964VDE6



Set of insulated hexagon T-wrenches in SOS tool tray



	&	ů	7		
621796	4-8/4	645	1F		
220TVDE (4, 5, 6, 8), VL964VDE6 (188 x 364 x 30)					

# VL964VDE6

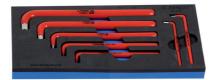
SOS tool tray for 964VDE6

	В	L	Н	ů	*
621795	188	364	30	56	1V

## 964VDE7



Set of insulated hexagon wrenches SOS tool tray



	&	ů	*		
621798	3 - 12 / 7	1000	1F		
<b>220/3LVDEDP</b> (3, 4, 5, 6, 8, 10, 12), <b>VL964VDE7</b> (188 × 364 × 30)					

# VL964VDE7

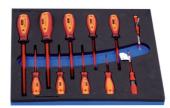
SOS tool tray for 964VDE7

	В	L	Н	ů	*
621797	188	364	30	56	1V

# 964VDE8A



Set of insulated flat screwdriver VDETBI in SOS tool tray



	₿	ů	Ť		
621800	11	1300	1F		
	<b>603VDETBI</b> (0.4 x 2.5 x 75, 0.5 x 3.0 x 100, 0.6 x 3.5 x 100, 0.8 x 4.0 x 100, 1.0 x 4.5 x 125, 1.0 x				
	5.5 x 125, 1.2 x 6.5 x 150, 1.2 x 8.0 x	175, 1.6 x 10.0 x 200), <b></b>	<b>DVDE</b> (0.5 x 3.0 x 140, 0.6 x 3.5 x		
	180), <b>VL964VDE8A</b> (374 x 364 x 30)	)			

# VL964VDE8A

SOS tool tray for 964VDE8A

	В	L	Н	ñ	**
621799	374	364	30	112	1V

## **964VDE8B**



Set of insulated crosstip screwdriver VDETBI in SOS tool tray





#### VL964VDE8B

SOS tool tray for 964VDE8B

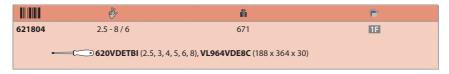
	В	L	Н	ů	=
621801	188	364	30	56	1V

# 964VDE8C



Set of insulated hexagon screwdriver VDETBI in SOS tool tray





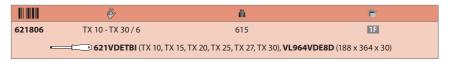
# VL964VDE8C

SOS tool tray for 964VDE8C

	В	L	Н	ů	*
621803	188	364	30	56	1V

Set of insulated screwdriver VDETBI with TX profile in SOS tool tray





#### **964VDE8E**



Set of insulated socket wrenches with VDETBI handle in SOS tool tray



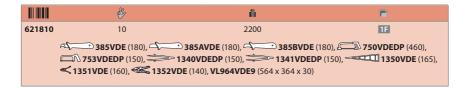
	<b>₽</b>	ů	Ħ		
621808	5.5 - 13 / 6	934	1E		
629VDETBI (5.5, 6, 7, 8, 10, 13), VL964VDE8E (188 x 364 x 30)					

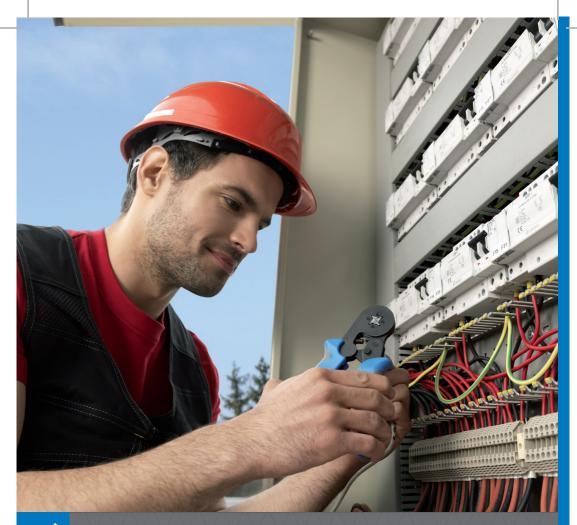
#### 964VDE9



Set of insulated tools in SOS tool tray









# CABLE CUTTING, STRIPPING AND CRIMPING TOOLS

## **Ergonomic handles**

With ergonomic handles and a specially designed grip, surface Unior pliers provide maximum comfort at work and high efficiency with minimum strain.

#### **Surface protection**

The pliers are made of excellent steel with special improved composition. Several models come with additional chrome surface protection.

#### **High precision**

With their perfect design and technological superiority, Unior pliers ensure a high precision hold in any instance of general or dedicated use.



#### 380

## Wire stripper

· material: polyamide

#### Advantages:

- adjustable length stop of 5-12 mm
- easily accessible built in side cutter for max. 2mm

#### Usage

 fully insulated automatic wire stripper for all common standed and solid conductors of 0, 2-6mm2



	<b>@</b>	ů	=
610925	0.2 - 6	117	1E

#### 385H

#### Cable stripper with hook knife

· material: polyamide

#### Advantages:

- no damage of the inner conductors can occur due to infinitely variable adjustment of the cutting depth
- the swivel blade automatically turn from circular to longitudinal cut

#### Usage

• accurate, fast and safe stripping of all common round cables of 4-28 mm2



	<b>-</b>	ů	Ŧ
610930	4 - 28	91	1E

#### 385.1H

#### Blade for 385H

	ů	ŧ
623377	20	1E

#### 385G

## Cable stripper with straight knife

· material: polyamide

#### Advantages:

- no damage of the inner conductors can occur due to infinitely variable adjustment of the cutting depth
- the swivel blade automatically turn from circular to longitudinal cut

#### Usage

• accurate, fast and safe stripping of all common round cables of 4-28 mm2



	<b></b>	ii	T
610931	4 - 28	92	1E

# 478/1BI

#### Wire stripping pliers

- material: special tool steel
- drop forged, entirely hardened and tempered
- · cutting edges induction hardened
- head polished
- surface finish: chrome plated to standard EN12540
- · heavy duty double component handles

#### Advantages:

- · spring for reopening
- stripping capacity: up to max 0.6 10mm2





	L	•	В	Α	С	ů	=
607882	160	0.6-10	18	9	40	178	4B

Crimping cable terminals up to  $\emptyset$  4.0 mm.



The pliers can be used for crimping insulated spade terminals.



The ground part of the jaw is intended for gripping objects with sensitive surfaces.



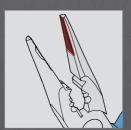
Cutting wires from Ø 2.2 mm to Ø 4.0 mm.



Stripping off insulations from Ø 2.2 mm to Ø 3.0 mm.



Stripping off insulations from Ø3.5 mm to Ø4.0 mm.



Multi-toothed jaw prevents slipping and enables a better grip of cables, wires etc.



heavy duty double - component handles



Winding hard wire and bending rings up to Ø 3.5 mm. Rings can be bent to the right or to the left, since the tool has appropriate teeth on both sides of the jaw.

#### 514/1BI

#### Multifunctional electricians pliers

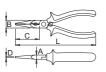
- · material: special tool steel
- · drop forged, entirely hardened and tempered
- · cutting edges induction hardened
- head polished
- surface finish: chrome plated to standard EN12540
- · heavy duty double component handles

#### Advantages:

- 7 different functions
- · multi-toothed jaw
- · ergonomically shaped handle
- extra strong grip
- Extra strong grip the design and shape of the handles give the hand more leverage during use, enabling more stability and safer transmission of force.
- hiah durability
- Multi-toothed jaw prevents slipping and enables a better grip of cables, wires etc.

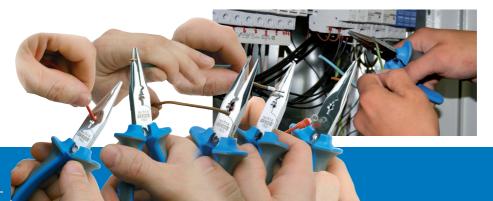
#### Usage

- Winding hard wire and bending rings up to Ø 3.5 mm. Rings can be bent to the right or to the left, since the tool has appropriate teeth on both sides of the jaw.
- The ground part of the jaw is intended for gripping objects with sensitive surfaces.
- The pliers can be used for crimping insulated spade terminals.
- Stripping off insulations from Ø 2.2 mm to Ø 3.0 mm.
- Stripping off insulations from Ø 3.5 mm to Ø 4.0 mm.
- Cutting wires from Ø 2.2 mm to Ø 4.0 mm.
- Crimping cable terminals up to Ø 4.0 mm.

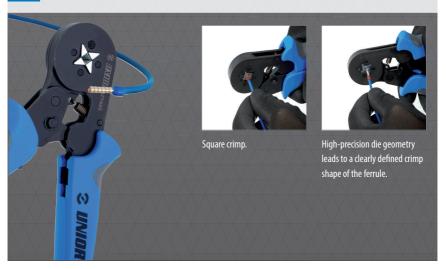




	L	В	D	Α	С	ů	#
612782	160	16	2.5	9	49	141	4B
cutting car	cutting capacity (10N=1kg)						
	L			ax 1600 N/mm <sup>2</sup>	ØŦ	max 650 N/m	nm² <b>Ø</b> ₹
612782		160		1,6		2,0	







# 427/4AG

# Crimp grip pliers

- · material: sheet metal
- surface finish: phosphated to standard DIN 12476
- · heavy duty double component handles

#### Advantages:

- strong metal crimping profile with electrical plating
- reinforced connecting spring for longer usage life
- square crimping performs a better contact than traditional crimping profile

#### Usage

• for cord end sleeves 0,08 - 10mm<sup>2</sup>/AWG28 - 7



		7
621550	433	16

#### 427/4CG

#### Crimp grip pliers

- · material: sheet metal
- surface finish: phosphated to standard DIN 12476
- · heavy duty double component handles

#### Advantages:

• special designed clamping jaws hold the wire securely during the stripping process

#### Usage

- swivel knob micro-adjusts for thinner wire to 30AWG (0.05mm<sup>2</sup>) or thicker wire to 8AWG (8mm<sup>2</sup>)
- crimp non-insulated terminals 10-22AWG (1.5 to 6.0mm²)
- crimp insulated terminals 10-22AWG (1.5 to 6.0mm²)
- crimp auto ignition terminals 7 to 8mm



	ů	₩
621552	378	1G

## 427/4DG

#### Modular crimping pliers

- · material: sheet metal
- · surface finish: phosphated to standard DIN 12476
- · heavy duty double component handles

#### Advantages:

• exact crimping process due to parallel crimping

#### Usage

- for crimping 6- and 8-pole Western plugs type RJ 11/12 (9.65 mm width) and type RJ 45 (11.68 mm width)
- · tool for cutting and stripping unshielded ribbon telephone cables
- · with additional stripping device for round cables
- · with length cutter and dismantling knife for ribbon cables 6 and 12 mm width



	ı	Ħ
621553	401	1G

#### 427/2FG

#### Crimp grip pliers

- · material: sheet metal
- jaws hardened to 38-40HRC
- · very easy to handle

#### Advantages:

- hexagon crimping
- · the respective cross-section is set by rotating profile disks
- Dented 6-position rotating dies 6, 10, 16, 25, 35, 50mm<sup>2</sup>
- · lever transmission permits light force transfer





	<b>=</b>	ů	T
621555	6 - 50	1350	1D

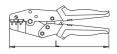
#### 428/4

#### Crimp lever pliers

- · material: sheet metal
- jaws drop forged from special tool steel, entirely hardened and tempered
- toggle joint ensures high compression pressure with little effort
- · heavy duty plastic handles
- re-changeable head-spare part
- surface finish: phosphated to standard DIN 12476

#### Usage

• for insulated terminals (0,5-6mm²)





	•	L	ů	+
602327	0.5 - 6	240	575	1E

#### 428.1/4

#### Spare parts for art. 428/4

· spare head



	ů	Tir
602328	161	ΊΕ

#### 428/4AGPB

# Set of grip crimp pliers with exchangeble jaws in plastic box

- · material: sheet metal
- surface finish: phosphated to standard DIN 12476
- · heavy duty double component handles
- Dimension of box: 307 x 260 x 55

#### Advantages:

- ratchet crimp system ensures reliable work
- quick changing system for 4 different types of jaws

#### Usage

- for insulated terminals AWG10-12/14-16/18-22 (4-6/1.5-2.5/0.5-1.0mm<sup>2</sup>)
- for non-insulated terminals AWG14-6 (0.2-16mm²)
- for cord end terminals AWG22-6 (0.5-16mm<sup>2</sup>)
- for BNC/TNC coax conectors RG-58, RG-59/62. Hex connectors 0.255 (6.48mm²), 0.213 (5.41mm²), 0.068 (1.73mm²)





	ů	₩
621557	1315	1G

# 428.4/4AG

Spare jaw for coax and hex conectors for 428/4AG





	ů	#
621958	55	1E

# 428.2/4AG

Spare jaw for non-insulated terminals for 428/4AG









	ů	#
621956	55	1E



# 428.1/4AG

Spare jaw for insulated terminals for 428/4AG











	iii	=
621955	57	1E

# 428.3/4AG

Spare jaw for cord end terminals for 428/4AG











	ii	审
621957	74	1E

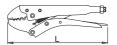
#### 426/3A

## Crimp - grip pliers

- · material: sheet metal
- tool steel jaws, oil hardened, phosphated
- · handles nickel plated
- toggle joint ensures high compression pressure with little effort

#### Usage

• for insulated terminals (0,5-6mm²), for cutting cables and wires





	<b>@</b>	L	ů	#
601138	0.5 - 6	220	512	1E

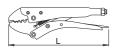
#### 426/3B

## Crimp - grip pliers

- · material: sheet metal
- tool steel jaws, oil hardened, phosphated
- toggle joint ensures high compression pressure with little effort
- · handles nickel plated

#### Usage

• for non insulated terminals (0,5-10mm²), for cutting cables and wires





	<b>@</b>	L	ů	#
601139	0.5 - 10	220	484	1E





#### 425/4A

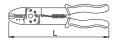
## **Crimping pliers**

- · material: sheet metal
- · entirely hardened and tempered
- surface finish: phosphated to standard DIN 12476
- · heavy duty plastic handles

#### Usage

 for insulated and closed non insulated terminals (1,5-6mm²), for cutting cables, screws and stripping insulation





	<b>-</b>	L	ů	₩
601136	1.5 - 6	240	320	1E

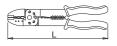
## 425/4B

# **Crimping pliers**

- · material: sheet metal
- · entirely hardened and tempered
- surface finish: phosphated to standard DIN 12476
- · heavy duty plastic handles

#### Usage

 for insulated and non insulated open terminals (1,5-6mm²), for cutting cables, screws and stripping insulation





	<b>@</b>	L	ů	₩
601137	1.5 - 6	240	320	1E

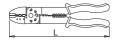
#### 425/4AB

#### **Crimping pliers**

- · material: sheet metal
- entirely hardened and tempered
- surface finish: phosphated to standard DIN 12476
- · heavy duty plastic handles

#### Usage

 for non insulated standard and closed terminals (1,5-6mm<sup>2</sup>), for cutting cables, screws and stripping insulation





	•	L	ů	Ŧ
605806	1.5 - 6	240	320	1E

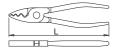
#### 424/4P

#### **Crimping pliers**

- material: special tool steel
- · drop forged, entirely hardened and tempered
- · head surface finish: finely ground
- surface finish: phosphated to standard DIN 12476
- · handles plastic dipped

#### Usage

• for non insulated terminals (dim. 140 from 0,5-2,5mm<sup>2</sup>, dim. 180 0,25-16mm<sup>2</sup>)





	•	L	ii	₩
607949	0.5 - 2.5	140	144	4B
607950	0.25 - 16	180	258	4B





# 503/4P

# **Telephone pliers**

- material: special tool steel
- drop forged, entirely hardened and tempered
- cutting edges induction hardened
- · head surface finish: finely ground
- surface finish: phosphated to standard DIN 12476
- · handles plastic dipped





	L	В	Α	C	iii	#
607863	140	17	9	35	99	4B

#### 503/4AP



#### Telephone pliers

- · material: special tool steel
- drop forged, entirely hardened and tempered
- cutting edges induction hardened
- · head surface finish: finely ground
- surface finish: phosphated to standard DIN 12476
- · handles plastic dipped





	L	В	D	Α	С	ů	T
607330	160	16	0.8	9	49	104	4B





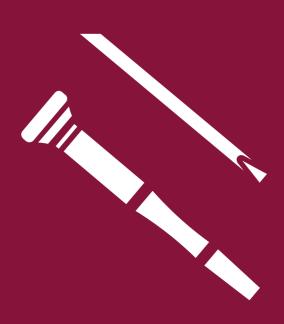
# TOOLS FOR ELECTRONIC

#### **Precision**

Tools for electronic use are distinguished by precision of manufacture and excellent functionality, which guarantees a complete match with the object being worked on, even in hard to access places.

#### **Effectiveness**

The tool provides several functions, such as cutting, removing and pressing cables, which makes work faster and without additional physical strain.

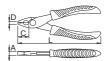


# 406/4E

## **Electronic combination pliers**

- · material: special tool steel
- drop forged, entirely hardened and tempered
- cutting edges induction hardened
- heavy duty double component handles





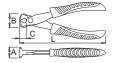
	L	В	С	Α	iii	=
620069	120	13.6	15.8	8.2	90	4B

## 455/4E

# Electronic pliers - front cutter

- material: special tool steel
- drop forged, entirely hardened and tempered
- $\bullet \ \ cutting \ edges \ induction \ hardened$
- · heavy duty double component handles





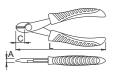
	L	В	С	Α	ů	=
620071	110	16.6	8.1	13.2	94	4B

# 461/4E

#### **Electronic side cutter**

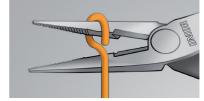
- material: special tool steel
- drop forged, entirely hardened and tempered
- heavy duty double component handles





	L	В	Α	С	ů	T
620072	115	13	8.2	13.5	95	4B



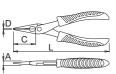


#### 508/4E

## Electronic long nose pliers, straight

- material: special tool steel
- drop forged, entirely hardened and tempered
- cutting edges induction hardened
- gripping surface serrated
- heavy duty double component handles



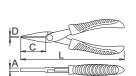




PLIER:

# **Electronic flat nose pliers**

- material: special tool steel
- drop forged, entirely hardened and tempered
- gripping surface serrated
- heavy duty double component handles

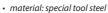




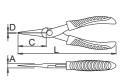
	L	С	А	ů	=
620070	135	32.5	8.2	105	4B

#### 506/4E

# **Electronic long nose pliers**



- drop forged, entirely hardened and tempered
- · heavy duty double component handles





	L	В	D	А	С	ů	T
620073	140	12.6	3.2	2.4	41.8	99	4B

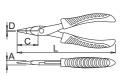


#### 512/4E

# Electronic long nose pliers, bent

- · material: special tool steel
- drop forged, entirely hardened and tempered
- heavy duty double component handles





	L	В	D	Α	ıllı	=
620075	140	12.6	3.2	8.2	97	4B

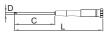


#### 619E

#### **Electronic Screwdriver with TS profile**



- ergonomic heavy duty double component handle
- tip coated with anticorrosion protection
- · handle with rotating cap
- for pentalobe screws
- use: for newer models of apple iphones



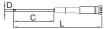


	*	С	L	D	ů	=
623364	TS 1	60	153	2,5	13	4A

#### 621E

## Electronic screwdriver with TX profile

- material: blade chrome vanadium, entirely hardened and tempered
- ergonomic heavy duty double component handle
- tip coated with anticorrosion protection
- handle with rotating cap



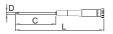


	*	С	L	D	ů	#
604546	TX 4	60	153	3	12	4A
604547	TX 5	60	153	3	12	4A
608310	TX 6	60	153	3	13	4A
608311	TX 7	60	153	3	14	4A
608312	TX 8	60	153	3	12	4A
608313	TX 9	60	153	3	15	4A
608314	TX 10	60	153	3	14	4A
608315	TX 15	60	153	3.5	17	4A
608316	TX 20	80	173	4	19	4A

# 625E

## Double-crosstip (PZ) electronic screwdriver

- material: blade chrome vanadium, entirely hardened and tempered
- ergonomic heavy duty double component handle
- tip coated with anticorrosion protection
- handle with rotating cap





	+	С	L	D	ů	#
608308	PZ 0	60	153	3	13	4A
608309	PZ 1	80	173	4.5	26	4A







#### 615E

# Crosstip (PH) electronic screwdriver

- material: blade chrome vanadium, entirely hardened and tempered
- ergonomic heavy duty double component handle
- tip coated with anticorrosion protection





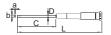


	+	С	L	D	ů	Ŧ
608304	PH 000	60	153	2.5	12	4A
608305	PH 00	60	153	2.5	12	4A
608306	PH 0	60	153	3	14	4A
608307	PH 1	80	173	4.5	22	4A

# 605E

#### Flat electronic screwdriver

- material: blade chrome vanadium, entirely hardened and tempered
- ergonomic heavy duty double component handle
- tip coated with anticorrosion protection
- · handle with rotating cap





	axb	С	L	D	ů	T
608296	0.25x1.2	60	153	2.5	10	4A
608297	0.23x1.5	60	153	2.5	11	4A
608298	0.3x1.8	60	153	2.5	12	4A
608299	0.4x2.5	75	168	2.5	12	4A
608300	0.5x3.0	100	193	3	13	4A
608301	0.5x3.0	150	243	3	18	4A
608302	0.8x4.0	100	193	4	23	4A
608303	0.8x4.0	150	243	4	28	4A

SETS

# 403A

Set of electronic pliers in bag





	P	ů	₹		
620212	6	733	ĪΕ		
<b>≪ 406/4E</b> (120), <b>≪ 455/4E</b> (110), <b>≪ 461/4E</b> (115), <b>≪ 472/4E</b> (135), <b>≪ 506/4E</b> (140), <b>≪ 512/4E</b> (140)					

# 403C

Set of electronic pliers and screwdrivers in plastic box

• Dimension of box: 307 x 260 x 55







	<b>₽</b>	ů	Ŧ			
621692	11	975	1G			
<b></b>						
60, PH 0 x 60, PH 1 x 80), <b>472/4E</b> (135),						
	<b>455/4E</b> (110), <b>461/4E</b> (115), <b>508/4E</b> (135)					

Set of electronic pliers in carton box





	<b>₽</b>	ů	T
620963	3	350	1G
	<b>406/4E</b> (120), <b>461/4E</b> (1	15), <b>508/4E</b> (135)	



# 608CS5E

Set of electronic screwdrivers in carton box



	₽.	ů	=
620962	5	133	1G
	<b>615E</b> (PH 000 x 60, PH	00 x 60, PH 0 x 60, PH 1 x 80),	
-	<b>625E</b> (PZ 0 x 60)		

SETS

Set of electronic screwdrivers in carton box



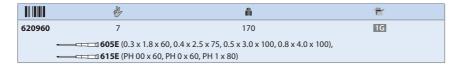
		P	ů	Ŧ
6	520959	5	131	1G
		<b>605E</b> (0.23 x 1.5 x 60, 0	.3 x 1.8 x 60, 0.4 x 2.5 x 75, 0.5 x 3.0 x 1	100, 0.8 x 4.0 x 100)

# 607CS7E

-+

Set of elektronic screwdrivers in carton box







Set of electronic screwdrivers with TX profile in carton box





	₽,	ů	=		
620961	TX 6 - TX 20 / 7	166	1G		
<b>621E</b> (TX 6, TX 7, TX 8, TX 9, TX 10, TX 15, TX 20)					

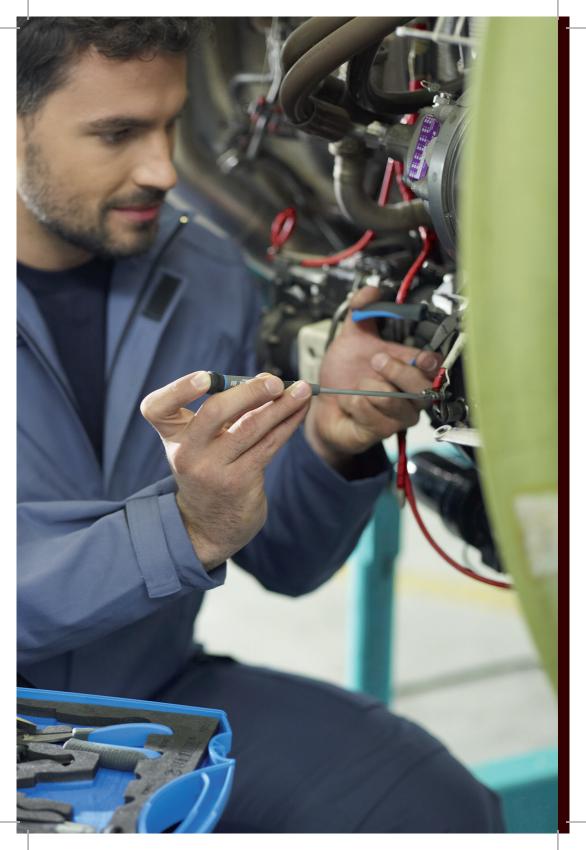
# 607S50E



Set of electronic screwdrivers on display stand



	&	ů	₩
609953	50	1600	1F
	<b>605E</b> ( <b>5x</b> (0.25x1.2x60),	5x(0.23x1.5x60), 5x(0.3x1.8x60), 5x(0.4x2.	5x75), <b>5x</b> (0.5x3.0x100)),
	615E (5x(PH000x60), 5x	x(PH00x60), <b>5x</b> (PH1x80)), ————— <b>625</b>	<b>SE</b> ( <b>5x</b> (PZ0x60), <b>5x</b> (PZ1x80)),
	978E (230x135x185)		





#### Magnetizer/demagnetizer

- · material: ABS
- blue colour





	В	Α	ů	T
612866	52	30	91	1E



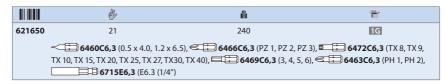
#### 6776PB21

# Bits set in plastic box

• Dimension of box: 145 x 85 x 40







# 6778FBS1

Bits set



	&	ů	#
624050	11	96	1G
	<b>6460C6,3</b> (0.8 x 5.5, 1.2 x 6.5 PZ 3), <b>6715E6,3</b> (E6.3(1		3), <b>4466C6,3</b> (PZ1, PZ 2,

# 6778FBS2

Bits set



	ap.	ii	Ŧ
624051	11	96	1G
	6463C6,3 (PH 1, PH 2, PH 3 TX 25, TX 30),	8), <b>466C6,3</b> (PZ 1, PZ 2, PZ 3) <b>6,3</b> (E6.3(1/4")	<b>, ■                                   </b>

# 6778FBS3

Bits set



	eg/2	ů	=
624052	11	96	1G
	<b>6463TINC6,3</b> (PH 1, PH 2, PH 3), <b>64</b>	<b>466TINC6,3</b> (PZ 1, PZ 2, PZ 3),	6715E6,3 (E6.3(1/4")



#### Locksmiths' hammer

- · material: special tool steel
- drop forged
- striking face and nose induction hardened
- · surface finish: lacquered
- ash wood handle with special oval wedge
- made according to standard DIN 1041





	gr	Α	L	ů	=
601796	100	13 x 13	260	145	1C
601797	150	15 x 15	280	225	1C
601799	200	17 x 17	280	280	1C
601801	250	18 x 18	300	340	1C
601802	300	20 x 20	300	380	1C
601803	400	22 x 22	310	487	1C
601804	500	25 x 25	320	625	1C
601805	600	26 x 26	330	720	1C
601806	800	30 x 30	350	955	1C
601807	1000	33 x 33	360	1150	1C
601808	1250	34 x 34	380	1430	1C
601809	1500	37 x 37	380	1690	1C
601810	2000	41 x 41	400	2195	1C

#### 809

#### Masons' hammer



- · drop forged
- · striking face and nose induction hardened
- · surface finish: lacquered
- chrome plated metal tubular handle with plastic grip





	gr	Α	L	ů	#
601825	650	20 x 20	300	851	1C

#### 812A

#### Locksmiths' hammer

- · material: special tool steel
- drop forged
- striking face and nose induction hardened
- · surface finish: lacquered
- ash wood handle with protective plastic sleeve and fitted with roll pin and oval wedge
- made according to standard DIN 1041





	gr	Α	L	ů	+
602536	200	17 x 17	280	275	1C
602537	300	20 x 20	300	380	1C
602538	500	25 x 25	320	646	1C
602539	800	30 x 30	350	960	1C
603164	1000	33 x 33	360	1170	1C

#### 817

#### Club hammer

- · material: special tool steel
- drop forged
- striking faces induction hardened
- · surface finish: lacquered
- ash wood handle with special oval wedge
- made according to standard DIN 6475





	gr	Α	L	ů	Ŧ
601840	1000	36 x 36	260	1065	1C
601841	1250	38 x 38	260	1305	1C
601842	1500	40 x 40	280	1525	1C
601843	2000	44 x 44	300	2050	1C





#### 665/6A

#### Electrician's chisel

- · material: chrome vanadium
- · drop forged
- entirely hardened and tempered
- tip induction hardened
- · surface finish: lacquered



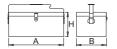
	L	•	В	ů	=
60850	250	8	10	110	1P
6085	<b>D1</b> 250	10	10	160	1P

#### 960/6

#### Installers tool box

- ecological lacquered with cadmium and lead free colour
- · with synthetic belt





	Α	В	Н	ů	=
603673	550	200	230	5200	1K
612989	620	200	230	4900	1K

#### **909PES**

#### **Electrical bag**

- · Material: polyester
- · Lock, rings, rivets, buckle, protective knob made from metal, chrome plated
- number of pocket: 28





	Α	В	Н	ů	Ŧ
624057	420	140	320	2400	1E

#### **Electrical bag**

- Material: artificial leather 650 g, pocket walls 450g
- Lock, rings, rivets, buckle, protective knob made from metal, chrome plated
- number of pocket: 28





	Α	В	Н	ů	=
601939	420	140	320	2400	1F

#### 909/1

# **Electrical bag**

- Material: artificial leather 650 g, pocket walls 450g
- Lock, rings, rivets, buckle, protective knob made from metal, chrome plated
- number of pocket: 11





	Α	В	Н	å	=
602552	350	110	300	1542	1F

#### 909/1PES

# **Electrical bag**

- Material: polyester
- · Lock, rings, rivets, buckle, protective knob made from metal, chrome plated
- number of pocket: 11



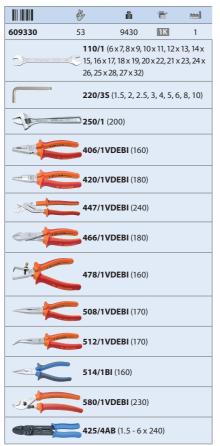


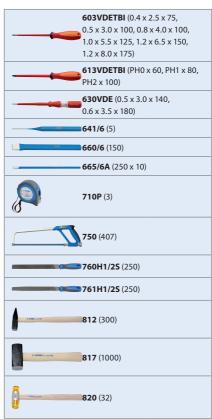
	Α	В	Н	ů	#
624058	350	110	300	1540	1F

#### 1000T

#### Tool set

• Designed for basic maintenance in electro installations.







Tool set VDE in tool case





000T

	egy.	ů	#	
608541	53	15800	1F	
<b>1000T , 969S</b> (485 x 380 x 175), <b>969.5S</b>				

# 971/3VDE

Tool set in tool case





1000AD

	€E	ů	#			
612548	343	10969	1F			
	1000AD, 969S (485 x 380 x 175), 969.5S					

Tool set in tool case





1000AC

	P	ů	T	
604575	21	14000	1F	
1000AC, 969S (485 x 380 x 175), 969.5S				





# 710P

# Measuring tape

- plastic double component casing
- with stop and clip





	m	ft	d	ů	<u> </u>
612131	2	0	16	113	4A
612132	3	0	16	140	4A
612133	5	0	19	230	4A
612134	8	0	25	441	4A
612135	10	0	25	470	4A
612784	2	6	16	111	4A
612785	3	10	16	140	4A
612786	5	16	19	225	4A
612787	8	26	25	431	4A
612788	10	33	25	474	4A

# GENER

#### **Utility knife**

- · double component handle
- 3 automatic exchangeable snap-off blades inside the handle
- blade with 13 snap-off blades
- blade from high alloy steel





	L	В	iii	₩
616853	160	18	99	4A

#### 556B

#### **Utility knife**

- · double component handle
- 8 automatic exchangeable snap-off blades inside the handle
- · blade with 13 snap-off blades
- · blade from high alloy steel





	L	В	ů	=
612136	160	18	167	4A

# 556.1B

#### Set of 10 spare blades for utility knife 556A and 556B

- · blade can only be moved with cutting block forward
- when the blade is blunt, it can be snapped off
- when the last blade has been used, the remnant of the blade can be removed by pushing cutting block forward
- · new blade can be inserted with by pushing cutting block backwards



	L	В	ů	=
612137	100	18	75	15

#### Flat tweezers

· material: stainless steel



	L	А	ů	7
619280	160	2	25	4A

#### 1343

#### Bent flat tweezers

· material: stainless steel





	L	А	ů	+
619281	155	2	26	4A

#### 1344

#### Flat tweezers

• material: stainless steel





	L	A	ů	=
619282	140	1.5	18	4A

#### 1345

#### Pointed tweezers

· material: stainless steel





	L	A	ů	=
619283	115	1.5	11	4A

# **GENERAL**

#### 1346

# Bent pointed tweezers

• material: stainless steel



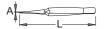


	L	A	ů	=
619284	165	2	28	4A

#### 1347

#### **Cross pointed tweezers**

• material: stainless steel





	L	A	ů	Ŧ
619285	115	1.2	15	4A

#### 1348

# Spade pointed tweezers

• material: stainless steel

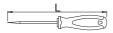




	L	А	ů	+
619286	120	1	12	4A

# 639A

Awl with round straight blade





	L	ů	₹
617773	165	31	4B

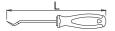




	L	ů	₩
617774	165	31	4B

# 639C

Awl with round, double bent blade

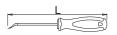




	L	ů	<b>T</b>
617775	165	31	4B

# 639D

Awl with round, double bent small blade





	L	ů	Ť
617776	165	31	4B

# 639PB

Awl set



	₽\$	ů	₩
617777	4	140	1F
	<b>────── 639A</b> (165), <b>────</b> ──	<b>© 639B</b> (165), <b>✓───── 639C</b> (165),	
	<b>639D</b> (165)		

#### Hacksaw frame

- light compact with ergonomically designed handle
- · three blade position
- blade storage in the frame for max. 5 blades
- frame chrome plated, handle blue lacquered
- art. 750/1 with one blade





	L	L1	L1	ů	=
601890	407	310	12"	780	1Z

#### 750B

#### Hacksaw

- light compact with ergonomically designed handle
- frame chrome plated, handle blue lacquered
- · two blade position

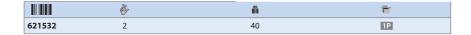




	L	L1	ů	+
621531	400	300	731	1Z

# 750.1B

Spare blade for 750B, 2 pcs set



#### 753P

#### Saw

- plastic handle
- · replaceable blade





	L1	L	ů	+
612164	150	260	192	1Z

# 753W

#### Saw

- wooden handle
- · adjustable handle
- · replaceable blade





	L1	L	ů	₩
612163	150	305	127	1Z

# 753.1

Spare blade for 753P, 753W and 753VDE, 2 pcs set

	ů	<b>T</b>
617281	3	1E

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