



Professional Insulated Tools

Supporting
Arc Flash Protection



Innovations that work



10,000 Volt
Tested
1000 Volt Rated



Insulated Testing Procedure



Strength Test

Insulated tools are individually tested. Each tool must resist a voltage of 10,000 Volt AC. This is a 10-fold safety factor.



Cold Hit Test

Insulated tools must comply with cold hit test. Insulated tools are then cooled down to a temperature of minus 25°C. Under this condition the insulation must still absorb hits and impacts without breaking or splintering.



Resistance Test Of The Insulation

After being kept in the water for 24 hours, the tools will be put under 10,000 Volt AC for three minutes. There the current leakage is measured. No current bridge between the insulated and the non-insulated part is acceptable.



Material Pressure Test

Under a pressure load of 20 N, at a temperature of 70°C and a test voltage of 5,000 Volt AC. No penetration of the insulation is allowed.



Test Of Adhesive Power

The adhesive power of the insulation is tested by holding the tool for 168 hours at 70°C and afterwards subjecting in to a tensile force of 500 Nm for three minutes. This test ensures that the insulation will still be firm and remain snug against the unit body.



Material Flame Test Resistance

The insulation material used is a flame resistant plastic, which reduces risk of fire.

Arc Flash Protection:

Wiha Insulated tools can be a vital component in your Arc Flash protection strategy. What is Arc Flash?

ARC FLASH

An Arc Flash is an electrical explosion due to a fault condition or short circuit when either a phase to ground or phase to phase conductor is connected. Arc flashes cause electrical equipment to explode, resulting in an arc-plasma fireball. Temperatures may exceed 35,000° F (the surface of the sun is 9000° F). These high temperatures cause rapid heating of surrounding air and extreme pressures, resulting in an arc blast. The arc blast will likely vaporize all solid copper conductors which will expand up to 67,000 times its original volume when it is vaporized. The result of this violent event is usually destruction of the equipment involved, fire, and severe injury or death to any nearby people.

WHY ARC FLASHES HAPPEN

There are a variety of reasons why an Arc Flash can occur, but most of them are preventable. Most arc flashes occur when maintenance workers are manipulating live equipment for testing or repair and accidentally cause a fault. Improper tools, improper electrical equipment, corrosion of equipment, improper work techniques and lack of training are just some of the events that can lead to a devastating arc flash or arc blast.

ARC FLASH COMPLIANCE

There are four main regulations that govern electrical safety and arc flash:

1. OSHA Standards 29-CFR, Part 1910. Occupational Safety and Health Standards. 1910 sub part S (electrical) Standard number 1910.333 specifically addresses Standards for Work Practices and references NFPA 70E. OSHA 29CFR 1910.335 (a) (1)(i) requires the use of protective equipment when working where a potential electrical hazard exists and 29CFR 1910.132(d)(1) which requires the employer assess the workplace for hazards and the need for personal protective equipment. OSHA compliance is required by any plant building or facility.
2. The National Fire Protection Association (NFPA) Standard 70 - 2002 "The National Electrical Code" (NEC) contains requirements for warning labels.
3. NFPA 70E provides guidance on implementing appropriate work practices that are required to safeguard workers from injury while working on or near exposed electrical conductors or circuit parts that could become energized. Part II 2-1.3.3 regarding Arc Flash Analysis states that a "Flash Hazard Analysis shall be done before a person approaches any exposed electrical conductor or circuit part that has not been placed in an electrical safe work condition". This Arc Flash Hazard Analysis must be done to determine the level of Personal Protection Equipment PPE that a worker must use, and the Arc Flash Boundary in inches along with the incident energy found at each location. Each panel must be marked with an ANSI z535 approved Arc Flash Warning Label.
4. The Institute of Electronics and Electrical Engineers (IEEE) 1584 - 2002 Guide to Performing Arc-Flash Hazard Calculations

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<http://www.martinarcflash.com>

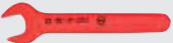
OSHA

Wiha tools assists with compliance of OSHA CFR29 1910 (Sub Parts electrical standard)



NEW
From Wiha

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Wiha Insulated Pliers/Cutters

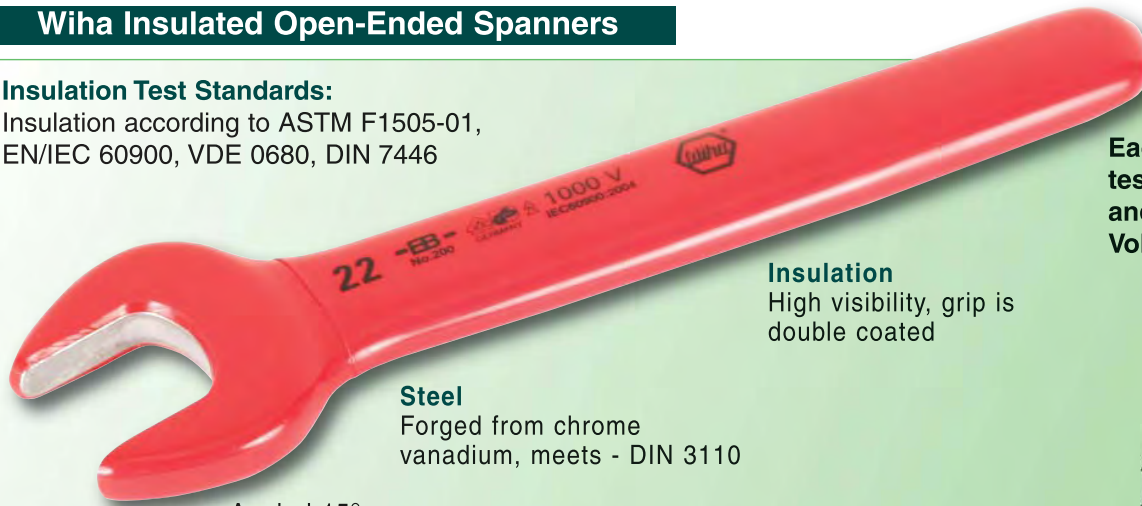
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Wiha Insulated Open-Ended Spanners

Insulation Test Standards:

Insulation according to ASTM F1505-01,
EN/IEC 60900, VDE 0680, DIN 7446



Each tool individually
tested to 10,000 volts
and certified to 1000
Volt ac or 1500 Volt dc

Insulation

High visibility, grip is
double coated

Steel

Forged from chrome
vanadium, meets - DIN 3110

Angled 15°

1000V



1000Volt

201 Inch Open-Ended Spanners, With Insulated Handle

Insulation According to VDE Specification 0680 and EN/IEC 60900,
DIN 7446, up to 1000 Volt. Individually Tested. Chrome-vanadium
steel, hardened. Angled 15°.

Item No.	ØMM Inch	OAL mm	OAL Inch	lbs.	pkg.
201 33	5/16	100	3.9	.05	1
201 35	3/8	105	4.1	.07	1
201 36	7/16	117	4.6	.09	1
201 37	1/2	140	5.5	.15	1
201 38	9/16	146	5.7	.15	1
201 40	5/8	158	6.2	.20	1
201 41	11/16	165	6.5	.23	1
201 42	3/4	178	7.0	.33	1
201 44	13/16	191	7.5	.42	1
201 45	7/8	192	7.6	.44	1
201 46	15/16	201	7.9	.51	1
201 47	1	213	8.4	.61	1
201 48	1-1/16	233	9.2	.79	1
201 49	1-1/8	233	9.2	.77	1

* Lengths are +/- 5% due to coating process



1000Volt

201 90 Set 14 Pcs. Insulated Inch Open End Insulated Spanners

Item	 MM		OAL	 MM		OAL	
No.	Inch		Inch	Inch		Inch	lbs.
201 90	201 33	5/16	3.9	201 42	3/4	7.0	3.0
	201 35	3/8	4.1	201 44	13/16	7.5	
	201 36	7/16	4.6	201 45	7/8	7.6	
	201 37	1/2	5.5	201 46	15/16	7.9	
	201 38	9/16	5.7	201 47	1	8.4	
	201 40	5/8	6.2	201 48	1-1/16	9.2	
	201 41	11/16	6.5	201 49	1-1/8	9.1	



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201 92 Set 8 Pcs. Insulated Inch Open End Insulated Spanners

Item		 MM	OAL		 MM	OAL	
No.		Inch	Inch		Inch	Inch	lbs.
201 92	201 33	5/16	3.9	201 38	9/16	5.7	1.4
	201 35	3/8	4.1	201 40	5/8	6.2	
	201 36	7/16	4.6	201 41	11/16	6.5	
	201 37	1/2	5.5	201 42	3/4	7.0	



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200 Metric Open-Ended Spanners, With Insulated Handle

Insulation According to VDE Specification 0680 and EN/IEC 60900, DIN 7446, up to 1000 Volt. Individually Tested. Chrome-vanadium steel, hardened. Angled 15°.

Item No.		OAL	OAL		
	mm	mm	Inch	lbs.	pkg.
200 06	6	97	3.8	.04	1
200 07	7	98	3.9	.05	1
200 08	8	104	4.1	.07	1
200 09	9	108	4.3	.07	1
200 10	10	107	4.2	.08	1
200 11	11	118	4.6	.11	1
200 12	12	129	5.1	.11	1
200 13	13	137	5.4	.17	1
200 14	14	150	5.9	.19	1
200 15	15	151	5.9	.17	1
200 16	16	164	6.5	.22	1
200 17	17	162	6.4	.24	1
200 18	18	173	6.8	.33	1
200 19	19	178	7.0	.32	1
200 22	22	196	7.7	.39	1
200 24	24	211	8.3	.58	1
200 27	27	218	8.6	.60	1
200 30	30	235	9.3	.90	1
200 32	32	237	9.3	.93	1



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200 91 Set 15 Pcs. Metric Open End Insulated Spanners

Item			OAL			OAL	
No.		mm	mm	mm		mm	lbs.
200 91	200 06	6	97	200 14	14	150	3.0
	200 07	7	98	200 15	15	151	
	200 08	8	104	200 16	16	164	
	200 09	9	108	200 17	17	162	
	200 10	10	107	200 19	19	178	
	200 11	11	118	200 22	22	196	
	200 12	12	129	200 24	24	211	
	200 13	13	137				



 **1000Volt**

200 93 Set 8 Pcs. Metric Open End Insulated Spanners

Item			OAL			OAL	
No.		mm	mm	mm		mm	lbs.
200 93	200 06	6	97	200 13	13	137	1.4
	200 07	7	98	200 14	14	150	
	200 08	8	104	200 17	17	162	
	200 10	10	107	200 19	19	178	

Use & Care Guide For Insulated Tools:

Store tools to minimize risk of damage to insulation, always wear approved eye protection. Inspect insulation prior to each use of any insulated tool. Use insulated tools where the ambient temperature is between -20 to +70° C. Have a qualified safety technician visually inspect insulation on tools annually for safe use.

WARNING!

Insulated Tools are intended to provide protection against accidental contact with charged energized circuits. For maximum safety we recommend de-energizing all circuits whenever possible before starting work on electrical apparatus or conductors. Always visually inspect insulation on tools before use, do not use tools if insulation shows signs of wear or damage to the insulated areas of the tool. Wear appropriate eye protection when using hand tools. Use NFPA70E certified insulated protective outer wear when appropriate.



Wiha Insulated Ratchet Wrenches

Insulation Test Standards:

Insulation according to ASTM F1505-01,
EN/IEC 60900, ISO 3110 Specification



Steel
Forged from chrome
vanadium, meets - DIN 3110

Each tool individually
tested to 10,000 volts
and certified to 1000
Volt ac or 1500 Volt dc

1000V



1000Volt



1000Volt

213 Inch Insulated Ratchet Wrenches, With Insulated Handle

Insulation According to EN/IEC 60900, ISO 3110 specification, up to
1000 Volt. Individually Tested. Blade chrome-vanadium steel,
hardened. Insulation molded directly onto blade.

Item No.	ØMM	OAL	OAL	Wrench	Weight
	Inch	mm	Inch		lbs. pkg.
213 25	3/8	140	5.5		.15 1
213 27	7/16	143	5.6		.15 1
213 29	1/2	154	6.1		.18 1
213 31	9/16	162	6.4		.22 1
213 33	5/8	177	7.0		.30 1
213 35	3/4	209	8.2		.46 1

212 Metric Insulated Ratchet Wrenches, With Insulated Handle

Insulation According to EN/IEC 60900, ISO 3110 specification, up to
1000 Volt. Individually Tested. Blade chrome-vanadium steel,
hardened. Insulation molded directly onto blade.

Item No.	ØMM	OAL	OAL	Wrench	Weight
	mm	mm	Inch		lbs. pkg.
212 08	8	125	4.9		.08 1
212 10	10	140	5.5		.12 1
212 12	12	150	5.9		.18 1
212 13	13	152	6.0		.18 1
212 14	14	163	6.4		.22 1
212 17	17	193	7.6		.38 1
212 19	19	210	8.3		.45 1



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213 91 Set 6 Pcs. Inch Insulated Ratchet Wrenches

Item		 MM	OAL		 MM	OAL	
No.		Inch	Inch		Inch	Inch	lbs.
213 91	213 25	3/8	5.5	213 31	9/16	6.4	1.95
	213 27	7/16	5.6	213 33	5/8	7.0	
	213 29	1/2	6.1	213 35	3/4	8.2	

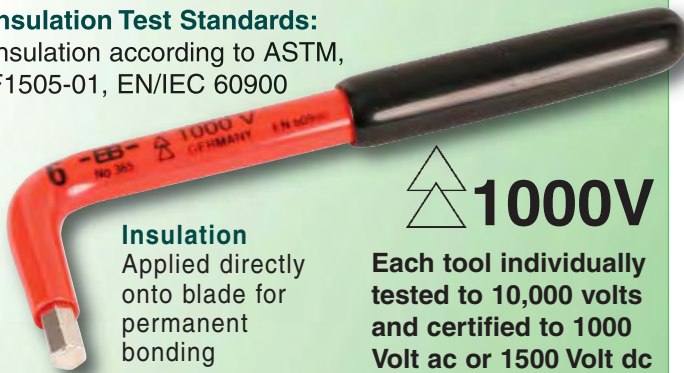
212 90 Set 7 Pcs. Metric Insulated Ratchet Wrenches

Item		 MM	OAL		 MM	OAL	
No.		mm	mm		mm	mm	lbs.
212 90	212 08	8	4.9	212 14	14	6.4	2.10
	212 10	10	5.5	212 17	17	7.6	
	212 12	12	5.9	212 19	19	8.3	
	212 13	13	6.0				

Wiha Insulated Hex L-keys

Insulation Test Standards:

Insulation according to ASTM,
F1505-01, EN/IEC 60900



1000V

Insulation

Applied directly
onto blade for
permanent
bonding

Each tool individually
tested to 10,000 volts
and certified to 1000
Volt ac or 1500 Volt dc



1000Volt

136 Inch Insulated Hex L-keys, With Insulated Handle

Insulation According to IEC 60900 specification, up to 1000 Volt.

Individually Tested. Blade chrome-vanadium steel, hardened.

Item No.	ØMM	OAL	OAL	lbs.	pkg.
	Inch	mm	Inch		
136 63	1/8	104	4.1	.04	1
136 65	5/32	104	4.1	.05	1
136 66	3/16	134	5.3	.10	1
136 67	7/32	134	5.3	.12	1
136 68	1/4	134	5.3	.14	1
136 69	5/16	144	5.7	.24	1
136 62	3/8	234	9.2	.51	1
136 64	1/2	234	9.2	.77	1



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136 90 Set 8 Pcs. Insulated Inch Hex L-keys

Item			OAL			OAL	
No.		Inch	Inch		Inch	Inch	lbs.
136 90	136 63	1/8	4.1	136 68	1/4	5.3	2.10
	136 65	5/32	4.1	136 69	5/16	5.7	
	136 66	3/16	5.3	136 62	3/8	9.2	
	136 67	7/32	5.3	136 64	1/2	9.2	



1000Volt

136 Metric Insulated Hex L-keys, With Insulated Handle

Insulation According to IEC 60900 specification, up to 1000 Volt.

Individually Tested. Blade chrome-vanadium steel, hardened.

Item No.	ØMM	OAL	OAL	lbs.	pkg.
	mm	mm	Inch		
136 53	3	130	5.1	.04	1
136 54	4	120	4.7	.06	1
136 55	5	140	5.5	.10	1
136 56	6	140	5.5	.13	1
136 58	8	150	5.9	.24	1
136 59	10	220	8.7	.51	1
136 57	12	260	10.2	.77	1



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136 91 Set 7 Pcs. Insulated Metric Hex L-keys

Item		 MM	OAL	 MM		OAL	
No.		mm	mm	mm		mm	lbs.
136 91	136 53	3	130	136 58	8	150	1.85
	136 54	4	120	136 59	10	220	
	136 55	5	140	136 57	12	260	
	136 56	6	140				



Wiha Insulated Electrician's Knives

Insulation Test Standards:

Insulation according to ASTM, EN/IEC, VDE Specification
Individually tested



Insulation
molded on for permanent bonding

1000V

Each tool individually tested to 10,000 volts & rated to 1000 Volt ac or 1500 Volt dc



1000Volt

150 00 Insulated Electrician's Cable Stripping Knife, With Insulated Handle, Insulation according to VDE specification, up to 1000 Volt. Individually Tested. Blade tool steel, hardened, molded directly on. Cover included.

Item No.	Blade mm	OAL mm	OAL Inch	lbs.	pkg.
150 00	50	216	8.5	.23	1



1000Volt

150 03 Insulated Electrician's Cable Stripping Knife, With Insulated Handle, Insulation according to VDE specification, up to 1000 Volt. Individually Tested. Straight, partly insulated, strong blade. Insulation molded directly on. Cover included.

Item No.	Blade mm	OAL mm	OAL Inch	lbs.	pkg.
150 03	50	230	9.0	.23	1



1000Volt

150 50 Insulated Stripping Knife, With Insulated Handle Insulation according to VDE specification, up to 1000 Volt. Individually Tested. Blade tool steel, hardened. Insulation molded directly on. Hooked cutting edge, half-round ground. Cover included.

Item No.	Blade mm	OAL mm	OAL Inch	lbs.	pkg.
150 50	35	222	8.75	.22	1

Wiha Insulated Cable Cutters

For cutting solid aluminum & copper conductors



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119 50 Cable Cutter, With Insulated Handle

Insulation according to EN/IEC 60900, ASTM F1505 specification, up to 1000 Volt. Individually Tested. Blade alloyed tool steel.

Induction hardened.

Item No.	OAL mm	OAL Inch	Capacity mm	Capacity Inch	lbs.	pkg.
119 50	500	19.6	12	1/2"	3.0	1

For cutting multi strand aluminum & copper cables



1000Volt

408 00 Large Capacity Cable Cutter, With Insulated Handle

Insulation according to EN/IEC 60900, ASTM F1505 specification, up to 1000 Volt. Individually Tested. Easy cutting blades, dropped forged, oil hardened. Cuts 250mm², 500mm² & cable diameters of 35/50mm. Not to be used on steel rods.

Item No.	OAL mm	OAL Inch	Capacity mm	Capacity Inch	lbs.	pkg.
408 00	800	31.5	50	1/2"	8.0	1



1000Volt

292 40 Waterpump Pliers, With Insulated Handle

Insulation according to EN/IEC 60900, DIN ISO 8976, ASTM F1505 specification, up to 1000 Volt. Individually Tested. Box joint.

Chrome-vanadium steel, drop forged, oil hardened.

Item No.	OAL mm	OAL Inch	Capacity mm	Capacity Inch	lbs.	pkg.
292 40	240	9.5	7/8"		1.1	1

Wiha Insulated 1/4" Sockets & Sets



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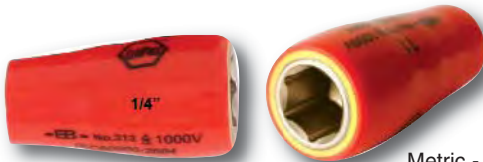
Inch - 6 Point

313 Insulated 1/4" Drive Sockets - 6 Point, Insulation according to ASTM F1505-01, DIN 7448 specification, up to 1000 Volt.

Individually Tested. Chrome-vanadium steel, forged, oil-hardened.

Item				
No.	Inch	lbs.	pkg.	
313 36	3/16	.03	1	
313 37	7/32	.03	1	
313 38	1/4	.03	1	
313 39	9/32	.04	1	
313 40	5/16	.04	1	
313 41	11/32	.04	1	
313 42	3/8	.04	1	
313 43	7/16	.05	1	
313 44	1/2	.06	1	
313 45	9/16	.07	1	

*Sockets must be used with insulated ratchets & extensions



1000Volt

Metric - 6 Point

313 Insulated 1/4" Drive Sockets - 6 Point, Insulation according to ASTM F1505-01, DIN 7448 specification, up to 1000 Volt.

Individually Tested. Chrome-vanadium steel, forged, oil-hardened.

Item				
No.	mm	lbs.	pkg.	
313 26	5	.03	1	
313 27	6	.03	1	
313 28	7	.03	1	
313 29	8	.04	1	
313 30	9	.04	1	
313 31	10	.05	1	
313 32	11	.05	1	
313 33	12	.06	1	
313 34	13	.06	1	
313 35	14	.07	1	

*Sockets must be used with insulated ratchets & extensions



1000Volt

128 51 Insulated 1/4" Drive Ratchet, EN 60900

Chrome-Vanadium steel. Reversible.

Item	OAL	OAL		
No.	Inch	mm	Inch	lbs. pkg.
128 51	1/4"	140	5.5	.28 1



1000Volt

313 90 13 Pc. Insulated 1/4" Drive Socket Set - Inch

CV steel, forged, oil-hardened sockets. Insulated after EN/IEC 60900.

Item No. 313 90 Set includes the following:

3/16, 7/32, 1/4, 9/32, 5/16, 11/32,	
lbs. 3/8, 7/16, 1/2, 9/16"	
1.39 12854 1/4" x 50mm Extension Bar	
12855 1/4" x 100mm Extension Bar	
12851 1/4" Ratchet - 140mm	



1000Volt

313 91 13 Pc. Insulated 1/4" Drive Socket Set - Metric

CV steel, forged, oil-hardened sockets. Insulated after EN/IEC 60900.

Item No. 313 91 Set includes the following:

5, 6, 7, 8, 9, 10, 11, 12, 13, 14mm	
lbs. 12854 1/4" x 50mm Extension Bar	
1.41 12855 1/4" x 100mm Extension Bar	
12851 1/4" Ratchet - 140mm	



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290 06 Insulated 1/4" Drive T-handle, With Insulated Handle

Insulation according to EN/IEC 60900, specification, up to 1000 Volt.

Individually Tested. Blade chrome-vanadium steel, hardened.

Item	OAL	OAL		
No.	Inch	mm	Inch	lbs. pkg.
290 06	1/4"	160	6.2"	.41 1



1000Volt

128 Insulated 1/4" Extension Bars, ASTM F1505-01, EN/IEC 60900 Chrome-Vanadium steel.

Item	OAL	OAL		
No.	Inch	mm	Inch	lbs. pkg.
128 54	1/4"	50	2.0	.06 1
128 55	1/4"	100	3.9	.12 1



Wiha Insulated 3/8" Sockets & Sets



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Inch - 6 & 12 Point

314 Insulated 3/8" Drive Sockets - 6 & 12 Point, Insulation according to VDE, DIN 7448 specification, up to 1000 Volt. Individually Tested. Chrome-vanadium steel, forged, oil-hardened.

Item No.	Inch	lbs.	pkg.	
314 25	1/4	.07	1	6 point
314 28	9/32	.07	1	6 point
314 29	5/16	.07	1	12 point
314 30	11/32	.07	1	12 point
314 31	3/8	.07	1	12 point
314 32	7/16	.07	1	12 point
314 33	1/2	.09	1	12 point
314 34	9/16	.09	1	12 point
314 35	5/8	.10	1	12 point
314 36	11/16	.13	1	12 point
314 37	3/4	.14	1	12 point
314 38	13/16	.16	1	12 point
314 39	7/8	.18	1	12 point

*Sockets must be used with insulated ratchets & extensions



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Metric - 12 Point

315 Insulated 3/8" Drive Sockets - 12 Point, Insulation according to VDE, DIN 7448 specification, up to 1000 Volt. Individually Tested. Chrome-vanadium steel, forged, oil-hardened.

Item No.	mm	lbs.	pkg.	
315 06	6	.07	1	
315 07	7	.07	1	
315 08	8	.07	1	
315 09	9	.07	1	
315 10	10	.07	1	
315 11	11	.08	1	
315 12	12	.10	1	
315 13	13	.10	1	
315 14	14	.10	1	
315 15	15	.10	1	
315 16	16	.10	1	
315 17	17	.11	1	
315 18	18	.12	1	
315 19	19	.14	1	
315 20	20	.15	1	
315 21	21	.17	1	
315 22	22	.18	1	
315 24	24	.26	1	

*Sockets must be used with insulated ratchets & extensions



1000Volt

314 93 10 Pc. Insulated 3/8" Drive Socket Set - Inch

CV steel, forged, oil-hardened sockets. Insulated to EN/IEC 60900.

Item No. 314 93 Set includes the following:

	5/16, 3/8, 7/16, 1/2,
lbs.	9/16, 5/8, 11/16, 3/4"
2.4	12856 3/8" x 125mm Extension Bar
	12852 3/8" Ratchet - 280mm



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315 90 10 Pc. Insulated 3/8" Drive Socket Set - Metric

CV steel, forged, oil-hardened sockets. Insulated to EN/IEC 60900.

Item No. 315 90 Set includes the following:

	8, 10, 11, 12, 13, 14, 17, 19mm
lbs.	12856 3/8" x 125mm Extension Bar
2.41	12852 3/8" Ratchet - 280mm



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314 91 16 Pc. Insulated 3/8" Drive Socket Set - Inch/Metric

CV steel, forged, oil-hardened sockets. Insulated to EN/IEC 60900.

Item No. 314 91 Set includes the following:

	5/16, 3/8, 7/16, 1/2,
lbs.	9/16, 5/8, 11/16, 3/4"
2.01	8, 10, 11, 12, 13,
	14, 17, 19mm

Wiha Insulated 3/8" Sockets & Sets



△ 1000Volt

314 95 24 Pc. Insulated 3/8" Drive Socket Set - Inch
CV steel, forged, oil-hardened sockets. Insulated to EN/IEC 60900.

Item No. 314 95 Set includes the following:

	1/4, 9/32, 5/16, 11/32, 3/8, 7/16
	1/2, 9/16, 5/8, 11/16, 3/4" Sockets
lbs.	12856 3/8" x 125mm Extension Bar
9.07	12857 3/8" x 250mm Extension Bar
	12852 3/8" Ratchet - 190mm
	15000 Insulated Electrician's Knife - 50mm
	Slotted: 3.5, 4.5, 6.5mm
	Phillips: 1, 2, 3
	32806 6.3" Long Nose Pliers
	32818 8.0" Combo Pliers
	32832 6.3" Diagonal Cutters

*Sockets must be used with insulated ratchets & extensions



△ 1000Volt

315 92 24 Pc. Insulated 3/8" Drive Socket Set - Metric
CV steel, forged, oil-hardened sockets. Insulated to EN/IEC 60900.

Item No. 315 92 Set includes the following:

	6, 7, 8, 9, 10, 11, 12,
	13, 14, 17, 19mm Sockets
lbs.	12856 3/8" x 125mm Extension Bar
9.08	12857 3/8" x 250mm Extension Bar
	12852 3/8" Ratchet - 190mm
	15000 Insulated Electrician's Knife - 50mm
	Slotted: 3.5, 4.5, 6.5mm
	Phillips: 1, 2, 3
	32806 6.3" Long Nose Pliers
	32818 8.0" Combo Pliers
	32832 6.3" Diagonal Cutters

*Sockets must be used with insulated ratchets & extensions



△ 1000Volt

128 52 Insulated 3/8" Drive Ratchet, EN 60900
Chrome-Vanadium steel. Reversible.

Item	OAL	OAL		
No.	Inch	mm	Inch	lbs. pkg.
128 52	3/8"	190	7.5	.87 1



△ 1000Volt

128 Insulated 3/8" Extension Bars, EN/IEC 60900
Chrome-Vanadium steel.

Item	OAL	OAL		
No.	Inch	mm	Inch	lbs. pkg.
128 56	3/8"	125	4.9	.29 1
128 57	3/8"	250	9.8	.57 1



△ 1000Volt

290 09 Insulated 3/8" Drive T-handle
Insulation according to EN/IEC 60900 specification, up to 1000 Volt Rated. Individually Tested. Blade chrome-vanadium steel, hardened.

Item	MM	OAL	OAL		
No.	Inch	mm	Inch	lbs.	pkg.
290 09	3/8	200	7.9"	.55	1

Each tool individually tested to 10,000 volts & certified to 1000 Volt ac or 1500 Volt dc



Wiha Insulated 1/2" Sockets & Sets

1000Volt



Inch - 6 & 12 Point

317 Insulated 1/2" Drive Sockets - 6 & 12 Point, Insulation According to ASTM F1505-01, DIN 7448 specification, up to 1000 Volt. Individually Tested. Chrome-vanadium steel, forged, oil-hardened.

Item				
No.	Inch	lbs.	pkg.	
317 03	5/16	.16	1	6 point
317 04	11/32	.16	1	12 point
317 05	3/8	.16	1	12 point
317 07	7/16	.16	1	12 point
317 08	1/2	.16	1	12 point
317 09	9/16	.17	1	12 point
317 10	5/8	.19	1	12 point
317 12	11/16	.19	1	12 point
317 13	3/4	.21	1	12 point
317 14	13/16	.23	1	12 point
317 15	7/8	.26	1	12 point
317 16	15/16	.30	1	12 point
317 18	1	.32	1	12 point
317 20	1-1/8	.44	1	12 point
317 22	1-1/4	.58	1	12 point

*Sockets must be used with insulated ratchets & extensions



1000Volt

Metric - 6 Point



316 Insulated 1/2" Drive Sockets - 6 Point, Insulation According to VDE, DIN 7448 specification, up to 1000 Volt. Individually Tested.

Item				
No.	mm	lbs.	pkg.	
316 08	8	.15	1	
316 09	9	.15	1	
316 10	10	.16	1	
316 11	11	.16	1	
316 12	12	.16	1	
316 13	13	.17	1	
316 14	14	.17	1	
316 15	15	.17	1	
316 16	16	.19	1	
316 17	17	.19	1	
316 18	18	.20	1	
316 19	19	.21	1	
316 20	20	.25	1	
316 21	21	.25	1	
316 22	22	.28	1	
316 23	23	.29	1	
316 24	24	.30	1	
316 26	26	.37	1	
316 27	27	.41	1	
316 28	28	.44	1	
316 30	30	.51	1	
316 32	32	.55	1	

*Sockets must be used with insulated ratchets & extensions



1000Volt

Inch - 12 Point

317 90 24 Pc. Insulated 1/2" Drive Socket Set - Inch

CV steel, forged, oil-hardened sockets. Insulated to EN/IEC 60900.

Item No. 317 90 Set includes the following:

	3/8, 7/16, 1/2, 9/16, 5/8, 1/16, 3/4, 13/16, 7/8, 15/16, 1" Sockets
lbs.	12858 1/2" x 125mm Extension Bar
11.63	12859 1/2" x 250mm Extension Bar
	12853 1/2" Ratchet - 260mm
	15000 Insulated Electrician's Knife - 50mm
	Slotted: 3.5, 4.5, 6.5mm & Phillips: 1, 2, 3
	32806 6.3" Long Nose Pliers
	32818 8.0" Combo Pliers
	32832 6.3" Diagonal Cutters



Metric

1000Volt

Inch - 6 Point

316 91 24 Pc. Insulated 1/2" Drive Socket Set - Metric

CV steel, forged, oil-hardened sockets. Insulated to EN/IEC 60900.

Item No. 316 91 Set includes the following:

	8, 9, 10, 12, 13, 14, 15, 17, 19, 22, 24mm Sockets
lbs.	12858 1/2" x 125mm Extension Bar
11.39	12859 1/2" x 250mm Extension Bar
	12853 1/2" Ratchet - 260mm
	15000 Insulated Electrician's Knife - 50mm
	Slotted: 3.5, 4.5, 6.5mm & Phillips: 1, 2, 3
	32806 6.3" Long Nose Pliers
	32818 8.0" Combo Pliers
	32832 6.3" Diagonal Cutters

Wiha Insulated 1/2" Socket accessories



 **1000Volt**

128 53 Insulated 1/2" Drive Ratchet, IEC/EN 60900

Chrome-Vanadium steel. Reversible.

Item		OAL	OAL		
No.	Inch	mm	Inch	lbs.	pkg.
128 53	1/2"	260	10.2	1.55	1



 **1000Volt**

128 Insulated 1/2" Extension Bars, EN/IEC 60900

Chrome-vanadium steel.

Item		OAL	OAL		
No.	Inch	mm	Inch	lbs.	pkg.
128 58	1/2"	125	4.9	.45	1
128 59	1/2"	250	9.8	.91	1



 **1000Volt**

290 12 Insulated 1/2" Drive T-handle, With Insulated Handle

Insulation according to EN/IEC 60900 specification, up to 1000 Volt. Individually Tested. Blade chrome-vanadium steel, hardened.

Item		OAL	OAL		
No.	Inch	mm	Inch	lbs.	pkg.
290 12	1/2	200	7.9"	.68	1

Use & Care Guide For Insulated Tools:

Store tools to minimize risk of damage to insulation, always wear approved eye protection, Inspect insulation prior to each use of any insulated tool. Use insulated tools where the ambient temperature is between -20 to +70° C. Have a qualified safety technician visually inspect insulation on tools annually for safe use.

WARNING!

Insulated Tools are intended to provide protection against accidental contact with charged energized circuits. For maximum safety we recommend de-energizing all circuits whenever possible before starting work on electrical apparatus or conductors. Always visually inspect insulation on tools before use, do not use tools if insulation shows signs of wear or damage to the insulated areas of the tool. Wear appropriate eye protection when using hand tools. Use NFPA70E certified insulated protective outer wear when appropriate.

Wiha Insulated 1000Volt Tools

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Wiha Insulated 1000Volt Pliers/Cutters

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Wiha Insulated TorqueControl Tools



1000V

Includes Certificate

285 Insulated TorqueVario-S, With Window Scale Insulation

up to 1000 Volt. EN/IEC 60900

EN ISO 6798, BS EN 26789, ASME B107.14M, +/- 6% Accuracy
Ergonomic multi-component handle, light and compact. Handle sizes proportioned to optimize torque range. Audible and perceptible click when torque setting has been attained. Includes Certificate

Item No.	Range				
	Inch lbs.	Increments	mm	lbs.	pkg.
285 14	7.5 - 20	.5 Inch lbs	126 - 131	.43	1
285 16	10 - 50	2 Inch lbs	133 - 138	.40	1
285 20	20 - 70	2 Inch lbs	137 - 142	.69	1

Each TorqueVario handle has unique serial number and certificate of calibration



287 Insulated Slotted Interchangeable Blades For TorqueVario-S

Slotted tip blades on narrow 5/32 Hex shafts. High alloy chrome-vanadium-molybdenum tool steel, hardened.

Item No.	mm	Inch	mm	lbs.	Nm	pkg.
287 01	3.0	.118	190	.07	0.6	1
287 03	3.5	.139	190	.07	1.1	1
287 05	4.0	.157	190	.07	2.5	1
287 07	5.5	.216	190	.07	3.8	1

These Insulated Blades work in Insulated handles only



287 Insulated Phillips Interchangeable Blades For TorqueVario-S

Phillips tip blades on narrow 5/32 Hex shafts. High alloy chrome-vanadium-molybdenum tool steel, hardened.

Item No.	Size	mm	mm	lbs.	Nm	pkg.
287 10	0	190	4.0	.07	0.9	1
287 11	1	190	4.0	.07	3.8	1
287 12	2	190	4.0	.07	5.5	1

These Insulated Blades work in Insulated handles only

Wiha Multi-Bit Screwdrivers

Six Tools in One!



380 Sets Multi-Bit Screwdriver Sets with Wiha Powerhandle,

cellulose-acetate, impact resistant. Snap-lock rotatable cap. Chambered bit holder equipped with transparent selector and 6 bits. 1/4" Bit holder, stainless steel. Shaft chrome-vanadium-molybdenum steel, hardened, chrome-plated. Packaged in clear blister package. Blade Length = 120mm (4.7") Overall Length = 230mm (9")

380 06 Slotted/Phillips Multi-Bit Screwdriver with Wiha Powerhandle and insulated shaft.

Set includes the following 1/4" bits:

Slotted Sizes:	5.5, 6.5mm	lbs.
Phillips Sizes:	0, 1, 2, 3	.39

380 07 Slotted/Phillips/Square Multi-Bit Screwdriver with Wiha Powerhandle and insulated shaft.

Set includes the following 1/4" bits:

Slotted Sizes:	6.5, 8.0mm	lbs.
Phillips Sizes:	1, 2	.39
Square Sizes:	1, 2	

Insulation meets EN 60900

Insulated Terminal Block Xeno Screwdrivers

Combination Slotted/Phillips Terminal Block Drivers



1000Volt



307 Combination Terminal Block Xeno Screwdriver, With Wiha SoftFinish® Handle

Insulation According to ASTM F-1505-01, New VDE Specification 0682/part 201 and EN/IEC 60900, NFPA70E.

Individually Tested. Blade CVM steel, hardened, black finish. Insulation molded directly onto blade. Wiha-SoftFinish® handle, multi-component, cushion grip. For combination Slotted/Phillips head terminal screws.

Item No.	Size	mm	mm	Inch	lbs.	pkg.
307 00	1	80	191	7.5	1.23	10
307 01	2	100	218	8.6	1.23	10

Wiha Insulated T-handles

Insulation Test Standards:

Insulation according to EN/IEC 60900,
ASTM F-1505-01, New VDE 0682/part 201,
DIN 7437, NFPA70E

Responds to OSHA's use
specification 29 CFR1910

Each tool individually
tested to 10,000 volts
and rated to 1000 Volt
ac or 1500 Volt dc



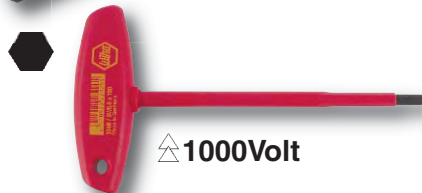
Insulation

Molded directly onto blade
for permanent bonding

Blade

CVM tool steel, hardened
to average 58/60RC

 **1000V**



 **1000V**

334 Inch T-handle, With Wiha-Molded Handle Insulation According to ASTM F-1505-01, New VDE Specification 0682/part 201 and EN/IEC 60900, NFPA70E,  up to 1000 Volt. Individually Tested. Blade CVM steel, hardened. Insulation molded directly onto blade. Wiha-SoftFinish® handle, multi-component.

Item						
No.	Inch	Inch	Inch	mm	lbs.	pkg.
334 81	5/32	5.9	6.9	176	.09	10
334 82	3/16	5.9	6.9	176	.15	10
334 83	7/32	5.9	6.9	176	.19	10
334 85	1/4	5.9	7.1	176	.20	10
334 86	5/16	5.9	7.1	176	.26	10
334 87	3/8	5.9	7.1	176	.44	10



 **1000V**

334 Metric T-handle, With Wiha-Molded Handle Insulation According to ASTM F-1505-01, New VDE Specification 0682/part 201 and EN/IEC 60900, NFPA70E,  up to 1000 Volt. Individually Tested. Blade CVM steel, hardened. Insulation molded directly onto blade. Wiha-SoftFinish® handle, multi-component.

Item						
No.	mm	mm	Inch	mm	Inch	lbs.
334 41	4.0	150	5.9	176	6.9	.09
334 43	5.0	150	5.9	182	7.1	.15
334 45	6.0	150	5.9	182	7.1	.18
334 47	8.0	150	5.9	182	7.1	.26



 **1000V**

334 90 Set 6 Pcs. Inch T-handle Hex

Item						
No.	Inch	mm	Inch	mm	lbs.	
334 90	334 81	5/32	6.9	334 85	1/4	7.1
	334 82	3/16	6.9	334 86	5/16	7.1
	334 83	7/32	6.9	334 87	3/8	7.1



 **1000V**

334 91 Set 4 Pcs. Metric T-handle Hex

Item						
No.	mm	mm	mm	mm	.99 lbs.	
334 91	334 41	4.0	6.9	334 45	6.0	7.1
	334 43	5.0	7.1	334 47	8.0	7.1



Wiha Insulated Screwdrivers with SoftFinish® Cushion Grip Handle

Insulation Test Standards:

Insulation according to EN/IEC 60900, ASTM F-1505-01, New VDE 0682/part 201, DIN 7437, NFPA70E

Responds to OSHA's use specification 29 CFR1910

Each tool individually tested to 10,000 volts and rated to 1000 Volt ac or 1500 Volt dc

SoftFinish® handle

solid molded core with soft outer cushion grip. 40% more torque than conventional handles

Insulation

Molded directly onto the blade for permanent bonding

Blade

CVM tool steel, hardened to average 58/60RC

1000V



page 21



1000Volt



1000Volt

320 Slotted Screwdriver, With Wiha-SoftFinish® Handle

Insulation According to ASTM F-1505-01, New VDE Specification 0682/part 201 and EN/IEC 60900, NFPA70E, **1000 Volt.**

Individually Tested. Blade high alloy chrome-vanadium-molybdenum steel, hardened, black finish. Insulation molded directly onto blade.

Wiha-SoftFinish® handle, multi-component, cushion grip.

Item	mm	Inch	mm	Inch	mm	Inch	lbs.	pkg.
No.	mm	Inch	mm	Inch	mm	Inch	lbs.	pkg.
320 05	2.0	.078	60	3.0	164	6.5	.05	10
320 10	2.5	.098	75	3.0	179	7.1	.06	10
320 12	3.0	.118	100	4.0	204	8.0	.07	10
320 15	3.5	.139	100	4.0	204	8.0	.07	10
320 17	4.0	.157	100	4.0	211	8.3	.12	10
320 23	4.5	.177	100	4.0	211	8.3	.12	10
320 24	4.5	.177	125	5.0	236	9.3	.12	10
320 27	4.5	.177	150	6.0	261	10.2	.14	10
320 25	4.5	.177	175	7.0	286	11.2	.13	10
320 28	4.5	.177	200	8.0	311	12.3	.15	10
320 31	5.5	.216	125	5.0	243	9.5	.15	10
320 26	5.5	.216	175	7.0	293	11.5	.21	10
320 34	6.0	.236	150	6.0	268	10.6	.21	10
320 39	6.5	.255	150	6.0	268	10.6	.21	10
320 42	8.0	.315	175	7.0	299	11.8	.34	10
320 45	10.0	.393	200	8.0	318	12.5	.39	10

321 Phillips Screwdriver, With Wiha-SoftFinish® Handle

Insulation According to ASTM F-1505-01, New VDE Specification 0682/part 201 and EN/IEC 60900, NFPA70E, **1000 Volt.**

Individually Tested. Blade high alloy chrome-vanadium-molybdenum steel, hardened, black finish. Insulation molded directly onto blade.

Wiha-SoftFinish® handle, multi-component, cushion grip.

Item							
No.	Size	mm	Inch	mm	Inch	lbs.	pkg.
321 00	0	60	2.4	164	6.5	.06	10
321 01	1	80	3.0	191	7.5	.12	10
321 02	2	100	4.0	218	8.6	.20	10
321 03	3	150	6.0	268	10.6	.34	10
321 04	4	200	8.0	318	12.5	.39	10



1000Volt

320 90 Set 4 Pcs. Slotted & Phillips

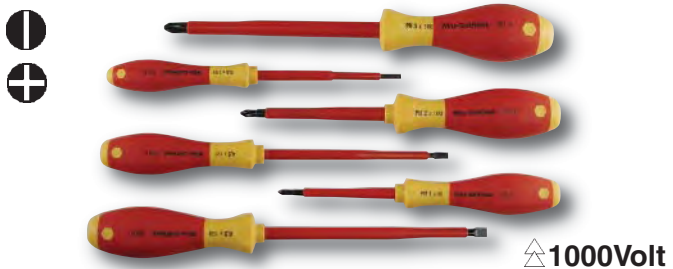
Set 4 Pcs. Slotted & Flanges							
Item							
No.		mm	mm	mm	Size	mm	.76 lbs.
320 90	320 15	3.5	100	0.6	321 01	1	80
	320 24	4.5	125	1.0	321 02	2	100

Wiha Insulated Screwdriver Sets



320 91 Set 5 Pcs. Slotted & Phillips

Item No.		mm	mm	mm	Size	mm	lbs.
320 91	320 12	3.0	100	0.6	321 01	1 80	1.31
	320 24	4.5	125	1.0	321 02	2 100	
	320 39	6.5	150	1.2			



320 92 Set 6 Pcs. Slotted & Phillips

Item No.		mm	mm	mm	Size	mm	lbs.
320 92	320 15	3.5	100	0.6	321 01	1 80	1.31
	320 24	4.5	125	1.0	321 02	2 100	
	320 39	6.5	150	1.2	321 03	3 150	



320 93 Set 10 Pcs. Slotted & Phillips

Item No.		mm	mm	Size	mm	lbs.
320 93	320 05	2.0	60	321 00	0 60	1.63
	320 10	2.5	75	321 01	1 80	
	320 12	3.0	100	321 02	2 100	
	320 15	3.5	100	321 03	3 150	
	320 24	4.5	125			
	320 39	6.5	150			



1000Volt

320 94 Set 13 Pcs. Slotted & Phillips

Item No.		mm	mm	Size	mm	lbs.
320 94	320 05	2.0	60	321 00	0 60	2.3
	320 10	2.5	75	321 01	1 80	
	320 12	3.0	100	321 02	2 100	
	320 15	3.5	100	321 03	3 150	
	320 24	4.5	125			
	320 26	5.5	175			
	320 39	6.5	150			
	320 42	8.0	175			
	320 45	10.0	200			

1000Volt



321 90 Set 15 Pcs. Slotted, Phillips & Inch Nut Drivers

Item No.		Size	mm	mm	mm	lbs.
321 90	321 01	1	80	320 42	8.0 175	6.0
	321 02	2	100	320 39	6.5 150	
	321 03	3	150	320 24	4.5 125	
				320 15	3.5 100	
	322 64	1/4	5.0	320 12	3.0 100	
	322 67	5/16	5.0	320 10	2.5 75	
	322 70	3/8	5.0	320 05	2.0 60	
	322 73	7/16	5.0			
	322 76	1/2	5.0			



Wiha Insulated Nut Drivers



1000Volt

322 Nut Driver, With Wiha-SoftFinish® Handle Insulation
According to ASTM F-1505-01, New VDE Specification 0682/part 201 and EN/IEC 60900, NFPA70E, up to 1000 Volt. Individually Tested.
Blade CVM steel, hardened. Insulation molded directly onto blade. Deep drawn 1" socket. Wiha-SoftFinish® handle, multi-component.

Item No.	mm	mm	mm	Inch	lbs.	pkg.
322 06	4.0	125	236	9.3	.15	10
322 09	5.0	125	236	9.3	.16	10
322 12	5.5	125	236	9.3	.16	10
322 15	6.0	125	236	9.3	.16	10
322 18	7.0	125	243	9.6	.25	10
322 21	8.0	125	243	9.6	.25	10
322 24	9.0	125	243	9.6	.25	10
322 27	10.0	125	243	9.6	.27	10
322 30	11.0	125	243	9.6	.37	10
322 33	12.0	125	243	9.6	.38	10
322 36	13.0	125	243	9.6	.39	10



1000Volt

322 Nut Driver, With Wiha-SoftFinish® Handle. Inch sizes.

Item No.	Inch	Inch	mm	Inch	lbs.	pkg.
322 55	5/32	5.0	236	9.3	.15	10
322 58	3/16	5.0	236	9.3	.15	10
322 61	7/32	5.0	236	9.3	.16	10
322 64	1/4	5.0	243	9.5	.24	10
322 67	5/16	5.0	243	9.5	.25	10
322 68	11/32	5.0	242	9.5	.26	10
322 70	3/8	5.0	243	9.5	.26	10
322 73	7/16	5.0	243	9.5	.36	10
322 76	1/2	5.0	243	9.5	.39	10
322 78	9/16	5.0	243	9.5	.39	10
322 80	5/8	5.0	243	9.5	.41	10

322 96 Set 11 Pcs. Nut Driver Inch Sizes 1000Volt

Item No.	Inch	Inch	Inch	Inch	lbs.
322 96	322 55	5/32	5.0	322 70	3/8 5.0
	322 58	3/16	5.0	322 73	7/16 5.0
	322 61	7/32	5.0	322 76	1/2 5.0
	322 64	1/4	5.0	322 78	9/16 5.0
	322 67	5/16	5.0	322 80	5/8 5.0
	322 68	11/32	5.0		



1000Volt

Item No.	mm	mm	mm	mm	lbs.
322 91	322 15	6.0	125	322 24	9.0 125
	322 18	7.0	125	322 27	10.0 125
	322 21	8.0	125		



1000Volt

Item No.	mm	mm	mm	mm	lbs.
322 93	322 09	5.0	125	322 21	8.0 125
	322 12	5.5	125	322 27	10.0 125
	322 15	6.0	125	322 36	13.0 125
	322 18	7.0	125		



1000Volt

Item No.	Inch	Inch	Inch	Inch	lbs.
322 92	322 61	7/32	5.0	322 70	3/8 5.0
	322 64	1/4	5.0	322 76	1/2 5.0
	322 67	5/16	5.0		



1000Volt

Item No.	Inch	Inch	Inch	Inch	lbs.
322 94	322 58	3/16	5.0	322 70	3/8 5.0
	322 61	7/32	5.0	322 73	7/16 5.0
	322 64	1/4	5.0	322 76	1/2 5.0
	322 67	5/16	5.0		

Wiha Insulated **TORX®** Screwdrivers



325 **TORX®** Screwdriver, With Wiha-SoftFinish® Handle
Insulation According to ASTM F-1505-01, New VDE Specification
0682/part 201 and EN/IEC 60900, NFPA70E, Δ up to 1000 Volt.
Individually Tested. Blade high alloy cvm steel, hardened, black
finish. Insulation molded directly onto blade.

Item	No.	Size	mm	Inch	mm	Inch	lbs.	pkg.
325 05	T5	60	2.4	164	6.5	.06	10	
325 11	T6	60	2.4	164	6.5	.06	10	
325 16	T7	60	2.4	164	6.5	.06	10	
325 21	T8	60	2.4	164	6.5	.06	10	
325 26	T9	60	2.4	164	6.5	.06	10	
325 31	T10	60	2.4	164	6.5	.06	10	
325 36	T15	80	3.0	191	7.5	.12	10	
325 41	T20	80	3.0	191	7.5	.12	10	
325 46	T25	80	3.0	198	7.8	.17	10	
325 51	T27	100	4.0	218	8.6	.20	10	
325 56	T30	100	4.0	218	8.6	.20	10	
325 61	T40	150	6.0	274	10.8	.30	10	



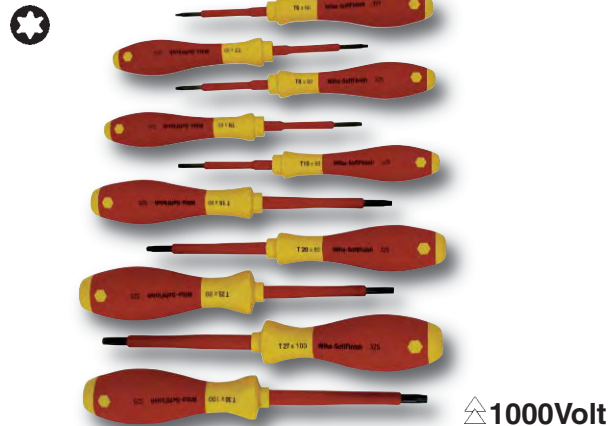
325 90 Set 6 Pcs. **TORX®**

Item	No.	Size	mm	Size	mm	lbs.
325 90	325 21	T8	60	325 36	T15	80
	325 26	T9	60	325 41	T20	80
	325 31	T10	60	325 46	T25	80



326 50 Retaining Ring Bit Holding Screwdriver, With Wiha-SoftFinish® Handle Insulation According to ASTM F-1505-01 and EN/IEC 60900, NFPA70E, Δ up to 1000 Volt. Blade high alloy CVM steel, hardened, black finish. Insulation molded directly onto blade. Wiha-SoftFinish® handle, multi-component. Holds 1/4" drive bits.

Item	No.	Size	mm	Inch	mm	Inch	lbs.	pkg.
326 50	1/4"	60	2.4	164	6.5	.06	10	



325 92 Set 10 Pcs. **TORX®**

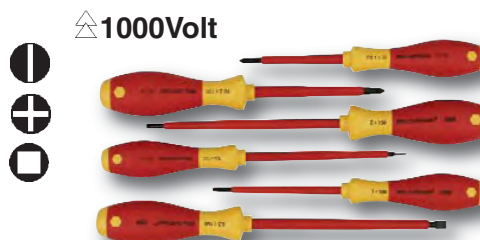
Item	No.	Size	mm	Size	mm	lbs.
325 92	325 11	T6	60	325 36	T15	80
	325 16	T7	60	325 41	T20	80
	325 21	T8	60	325 46	T25	80
	325 26	T9	60	325 51	T27	100
	325 31	T10	60	325 56	T30	100

Wiha Insulated Square Tip Screwdrivers



358 Square Tip Screwdriver, With Wiha-SoftFinish® Handle
Insulation According to ASTM F-1505-01, New VDE Specification
0682/part 201 and EN/IEC 60900, NFPA70E, Δ up to 1000 Volt.
Individually Tested. Blade high alloy cvm steel, hardened, black
finish. Insulation molded directly onto blade.

Item	No.	Size	mm	Inch	mm	Inch	lbs.	pkg.
358 11	1	100	4.0	210	8.2	.12	10	
358 12	2	150	6.0	268	10.5	.19	10	

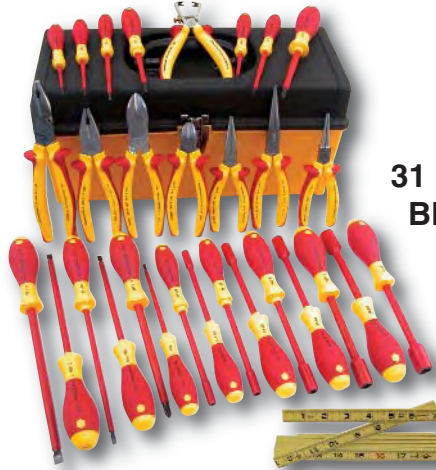


358 90 Set 6 Pcs. Insulated Slotted, Phillips & Square Drivers

Item	No.	Size	mm	Size	mm	lbs.
358 90	321 01	1	80	320 24	4.5	125
	321 02	2	100	320 39	6.5	150
	358 11	1	100			
	358 12	2	150			



Wiha Insulated Pliers - Comfort Grip Handle



31 pc.
BIG

1000Volt

328 96 31 Pc. Pliers & Screwdriver Set. Insulation According to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E, up to 1000 volt. Individually Tested. Pliers drop-forged from special tool steel, individually high frequency induction hardened, chrome/nickel plated, mirror-polished. Set includes 6ft. Fiber glass folding ruler.

328 96 31 Pc. Master Electrician's Insulated Set

Item# 32896	Set Includes:	⚡ lbs. 12.75
32806 - 6.3" Long Nose Pliers	32832 - 6.3" Side Cutters	
32808 - 8" Long Nose	32838 - 8" High Leverage Cutters	
32816 - 7" Linemans	32860 - 6.3" Stripping Pliers	
32820 - 9" Combination Pliers	32870 - 6.3" Round Nose Pliers	
32255 - Ins Nut Driver 5/32"	32005 - Insulated Slotted 2.0	
32258 - Ins Nut Driver 3/16"	32010 - Insulated Slotted 2.5	
32261 - Ins Nut Driver 7/32"	32012 - Insulated Slotted 3.0	
32264 - Ins Nut Driver 1/4"	32015 - Insulated Slotted 3.5	
32267 - Ins Nut Driver 5/16"	32024 - Insulated Slotted 4.5	
32270 - Ins Nut Driver 3/8"	32026 - Insulated Slotted 5.5	
32273 - Ins Nut Driver 7/16"	32039 - Insulated Slotted 6.5	
32276 - Ins Nut Driver 1/2"	32042 - Insulated Slotted 8.0	
32278 - Ins Nut Drivers 9/16"	32045 - Insulated Slotted 10.0	
32100 - Insulated Phillips #0	32102 - Insulated Phillips #2	
32101 - Insulated Phillips #1	32103 - Insulated Phillips #3	

Use & Care Guide For Insulated Tools:

Store tools to minimize risk of damage to insulation, always wear approved eye protection, inspect insulation prior to each use of any insulated tool. Use insulated tools where the ambient temperature is between -20 to +70° C. Have a qualified safety technician visually inspect insulation on tools annually for safe use.

WARNING!

Insulated Tools are intended to provide protection against accidental contact with charged energized circuits. For maximum safety we recommend de-energizing all circuits whenever possible before starting work on electrical apparatus or conductors. Always visually inspect insulation on tools before use, do not use tools if insulation shows signs of wear or damage to the insulated areas of the tool. Wear appropriate eye protection when using hand tools. Use NFPA70E certified insulated protective outer wear when appropriate.

Wiha Insulated Pliers - Comfort Grip Handle



Master Electrician's Set



61 pc.
BIGGER

1000Volt

328 98 61 Pc. Master Electrician's Set. Insulation According to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E, up to 1000 volt. Individually Tested. Pliers drop-forged from special tool steel, individually high frequency induction hardened, chrome/nickel plated, mirror-polished. Set includes 6ft. Fiber glass folding ruler.

328 98 61 Pc. Master Electrician's Insulated Set

Item# 32898	Set Includes:	⚡ lbs. 24.22
32804 - 8" Bent Nose Pliers	32820 - 9" Combination Pliers	
32806 - 6.3" Long Nose Pliers	32832 - 6.3" Side Cutters	
32807 - 6.3" Bent Nose Pliers	32838 - 8" High Leverage Cutters	
32808 - 8" Long Nose	32846 - 9" Cable Cutters	
32810 - 6.3" Long Flat Nose	32860 - 6.3" Stripping Pliers	
32816 - 7" Linemans	32870 - 6.3" Round Nose Pliers	
32255 - Ins Nut Driver 5/32"	32005 - Insulated Slotted 2.0	
32258 - Ins Nut Driver 3/16"	32010 - Insulated Slotted 2.5	
32261 - Ins Nut Driver 7/32"	32012 - Insulated Slotted 3.0	
32264 - Ins Nut Driver 1/4"	32015 - Insulated Slotted 3.5	
32267 - Ins Nut Driver 5/16"	32024 - Insulated Slotted 4.5	
32270 - Ins Nut Driver 3/8"	32026 - Insulated Slotted 5.5	
32273 - Ins Nut Driver 7/16"	32039 - Insulated Slotted 6.5	
32276 - Ins Nut Driver 1/2"	32042 - Insulated Slotted 8.0	
32278 - Ins Nut Driver 9/16"	32045 - Insulated Slotted 10.0	
32280 - Ins Nut Driver 5/8"	32100 - Insulated Phillips #0	
32209 - Ins Nut Driver 5.0mm	32101 - Insulated Phillips #1	
32212 - Ins Nut Driver 5.5mm	32102 - Insulated Phillips #2	
32215 - Ins Nut Driver 6.0mm	32103 - Insulated Phillips #3	
32218 - Ins Nut Driver 7.0mm	32521 - Insulated Torx T8	
32221 - Ins Nut Driver 8.0mm	32526 - Insulated Torx T9	
32227 - Ins Nut Driver 10.0mm	32531 - Insulated Torx T10	
32236 - Ins Nut Driver 13.0mm	32536 - Insulated Torx T15	
33441 - Ins T-handle Hex 4.0mm	32541 - Insulated Torx T20	
33443 - Ins T-handle Hex 5.0mm	32546 - Insulated Torx T25	
33445 - Ins T-handle Hex 6.0mm	32551 - Insulated Torx T27	
33447 - Ins T-handle Hex 8.0mm	32556 - Insulated Torx T30	
33481 - Ins T-handle Hex 5/32"	33485 - Ins T-handle Hex 1/4"	
33482 - Ins T-handle Hex 3/16"	33486 - Ins T-handle Hex 5/16"	
33483 - Ins T-handle Hex 7/32"	33487 - Ins T-handle Hex 3/8"	

Wiha Insulated Pliers with High Visibility Comfort Grip Handle



1000Volt

328 91 10 Pc. Pliers & Screwdriver Set. Insulation According to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E, Δ up to 1000 volt. Individually Tested. Pliers drop-forged from special tool steel, individually high frequency induction hardened, chrome and nickel plated, mirror-polished. In zipper carry case

Item# 32891 Set Includes:  lbs. 5.44	
32818 - 8" Combination Pliers	32808 - 8" Long Nose
32838 - 8" Side Cutters	32848 - 6.75" Cable Cutters
32860 - 6.3" Universal Wire Stripper	
32101 - Insulated Phillips #1	32024 - Insulated Slotted 4.5
32102 - Insulated Phillips #2	32039 - Insulated Slotted 6.5
32103 - Insulated Phillips #3	



1000Volt

328 95 14 Pc. Pliers & Screwdriver Set. Insulation According to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E, Δ up to 1000 volt. Individually Tested. Pliers drop-forged from special tool steel, individually high frequency induction hardened, chrome and nickel plated, mirror-polished. In zipper carry case.

328 95 14 Pc. Pliers & Screwdriver Set. In zipper case	
Item# 32895 Set Includes:  lbs. 6.50	
32808 - 8" Long Nose	32832 - 6.3" Side Cutters
32820 - 9" Combination Pliers	32838 - 8" High Leverage Cutters
32860 - 6.3" Stripping Pliers	32010 - Insulated Slotted 2.5
32101 - Insulated Phillips #1	32012 - Insulated Slotted 3.0
32102 - Insulated Phillips #2	32015 - Insulated Slotted 3.5
32103 - Insulated Phillips #3	32024 - Insulated Slotted 4.5
32005 - Insulated Slotted 2.0	32039 - Insulated Slotted 6.5



1000Volt

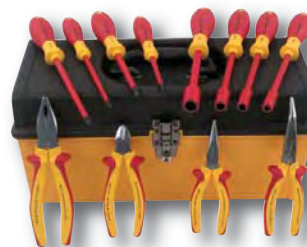
328 88 11 Pc. Pliers & Screwdriver Set. In Canvas Pouch	
Item# 32888 Set Includes:  lbs. 2.88	
32806 - 6.3" Long Nose	32832 - 6.3" Side Cutters
32818 - 8" Combination Pliers	32860 - 6.3" Stripping Pliers
32024 - Insulated Slotted 2.5	32100 - Insulated Phillips #0
32039 - Insulated Slotted 3.5	32101 - Insulated Phillips #1
32101 - Insulated Slotted 4.5	32102 - Insulated Phillips #2
32102 - Insulated Slotted 6.0	



1000Volt

328 92 10 Pc. Pliers & Screwdriver Set. Insulation According to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E, Δ up to 1000 volt. Individually Tested. Pliers drop-forged from special tool steel, individually high frequency induction hardened, chrome and nickel plated, mirror-polished. In molded tool box

Item# 32892 Set Includes:  lbs. 6.64	
32804 - 8" Bent Nose	32818 - 8" Combination Pliers
32806 - 6.3" Long Nose	32832 - 6.3" Side Cutters
32100 - Insulated Phillips #0	32012 - Insulated Slotted 3.0
32101 - Insulated Phillips #1	32024 - Insulated Slotted 4.5
32102 - Insulated Phillips #2	32039 - Insulated Slotted 6.5



1000Volt

328 94 12 Pc. Pliers & Screwdriver Set. In molded tool box	
Item# 32894 Set Includes:  lbs. 7.73	
32804 - 8" Bent Nose	32818 - 8" Combination Pliers
32806 - 6.3" Long Nose	32832 - 6.3" Side Cutters
32024 - Insulated Slotted 4.5	32264 - Insulated Nut Driver 1/4"
32039 - Insulated Slotted 6.5	32267 - Insulated Nut Driver 5/16"
32101 - Insulated Phillips #1	32270 - Insulated Nut Driver 3/8"
32102 - Insulated Phillips #2	32276 - Insulated Nut Driver 1/2"



△1000Volt

323 92 Set 7 Pcs. Protorn Soft Grip Insulated Slotted/Phillips Screwdriver & 8" Lineman's Pliers Set Insulation standards according to EN/IEC 60900, ASTM F-1505-01, new VDE 0682/part201, DIN 7437, NFPA70E, draft 11/90. Blade CVM steel, hardened.

Item No.	↓	⊕	⊖	⊕	⊖	⊕
	mm	mm	Size	mm	lbs.	
323 92	470 12	3.0(1/8")	100	471 00	0	60
	470 24	4.5(3/16")	125	471 01	1	80
	470 39	6.5(1/4")	150	471 02	2	100
323 56	8" Lineman's Pliers					



△1000Volt

470 91 Set 6 Pcs. Protorn Soft Grip Insulated Slotted & Phillips Screwdriver Set Insulation standards according to EN/IEC 60900, ASTM F-1505-01, new VDE 0682/part201, DIN 7437, NFPA70E, draft 11/90. Blade CVM steel, hardened, black finish.

Item No.	↓	⊕	⊖	⊕	⊖	⊕
	mm	mm	Size	mm	lbs.	
470 91	470 12	3.0(1/8")	100	471 00	0	60
	470 24	4.5(3/16")	125	471 01	1	80
	470 39	6.5(1/4")	150	471 02	2	100



△1000Volt

323 91 4 Pc. Protorn Insulated Pliers & Cutters Set Insulation standards according to EN/IEC 60900, ASTM F-1505-01, DIN/ISO, NFPA70E. Pliers drop-forged from special tool steel, individually high frequency induction hardened, chrome and nickel plated, mirror polished. In roll up pouch.

Item No.	323 91	Set includes the following:
⚡	32356	- 8" Lineman's Pliers With Cutters
lbs.	32361	- 8" Long Nose Pliers With Cutters
3.4	32364	- 6.3" Diagonal Cutters
	32370	- 10" Water Pump Pliers

*Pliers & Cutters are made in Taiwan



△1000Volt

323 90 11 Pc. Protorn Pliers & Driver Set. Insulation According to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E, △ up to 1000 volt. Individually Tested. In molded tool box

Item#	32390	Set Includes:	⚡ lbs. 7.5
		8.0" Linemans Pliers	6.3" Long Nose Pliers W/Cutter
		8.0" Long Nose Pliers W/Cutter	6.3" Diagonal Cutter
		8.0" High Leverage Cutter	
47100	- Insulated Phillips #0	47012	- Insulated Slotted 3.0mm(1/8")
47101	- Insulated Phillips #1	47024	- Insulated Slotted 4.5mm(3/16")
47102	- Insulated Phillips #2	47039	- Insulated Slotted 6.5mm(1/4")



△1000Volt

328 99 7 Pc. Pliers & Screwdriver Set. Insulation According to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E, △ up to 1000 volt. Individually Tested. Pliers drop-forged from special tool steel, individually high frequency induction hardened, chrome and nickel plated, mirror-polished. In molded tool box

Item#	32899	Set Includes:	⚡ lbs. 5.39
		32816	- 7.0" Combination Pliers
		32830	- 5.5" Diagonal Cutters
		32806	- 6.3" Long Nose
47012	- Insulated Slotted 3.0(1/8")	47101	- Insulated Phillips #1
47024	- Insulated Slotted 4.5(3/16")	47102	- Insulated Phillips #2

Wiha Insulated Pliers & Cutters

Insulation Standards:

EN/IEC 60900, ASTM F-1505-01,
and or According to VDE 0682/part 201,
NFPA70E

 **1000V**

Cutters additionally
induction hardened

Soft grip ergonomically
designed handle body

Safety slip
guard

Hard chrome finish for
long lasting corrosion
protection

**Tools Meet 10,000 Volt Test Standards
Rated to 1000 Volt ac or 1500 Volt dc**

Insulated Combination Lineman's Pliers



 **1000volt**

328 Combination Pliers. Insulation According to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E,  up to 1000 volt.

Individually Tested. DIN ISO 5746 Extra long cutting edge for flat & round cables. Serrated jaws. Cutting edges additionally induction hardened to approx. 60HRC. Special CV tool steel forgings, Chrome finish. Use for gripping and holding as well as cutting soft and hard wires and cables. Two component soft grip ergonomic handles.

Item No.		mm	Inch	Cutting Capacity Copper AWG	Pkg.	wt.
328 14	Z01016006	160	6.3	#10	1	.53
328 16	Z01018006	180	7.0	#9	1	.58
328 18	Z01020006	200	8.0	#8	1	.72

Insulated High Leverage Combination Pliers

Lineman's



 **1000volt**

With Lower Serrated Pulling Jaws

328 High Leverage Combination Pliers. Insulation According to EN/IEC 60900, ASTM F-1505-01, NFPA70E,  up to 1000 volt.

Individually Tested. DIN ISO 5746

Extra long cutting edge for flat and round cables. Serrated upper jaws and lower pulling jaws. Cutting edges additionally induction hardened to approx. 64HRC. C 60 Special tool steel. Use for gripping, pulling & holding as well as cutting wires and cables ranging in hardness from soft to extremely hard. Two component soft grip ergonomic handles.

Item No.		mm	Inch	Cutting Capacity Copper AWG	Pkg.	wt.
328 20	Z02022506	225	9.0	#4	1	.79

Use & Care Guide For Insulated Tools:

Store tools to minimize risk of damage to insulation, always wear approved eye protection, Inspect insulation prior to each use of any insulated tool. Use insulated tools where the ambient temperature is between -20 to +70° C. Have a qualified safety technician visually inspect insulation on tools annually for safe use.

WARNING!

Insulated Tools are intended to provide protection against accidental contact with charged energized circuits. For maximum safety we recommend de-energizing all circuits whenever possible before starting work on electrical apparatus or conductors. Always visually inspect insulation on tools before use, do not use tools if insulation shows signs of wear or damage to the insulated areas of the tool. Wear appropriate eye protection when using hand tools. Use NFPA70E certified insulated protective outer wear when appropriate.



Wiha Insulated Pliers & Cutters

Insulated Diagonal Cutters



1000volt

328 Diagonal Cutters. Insulation According to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E, Δ up to 1000 volt. Individually Tested. DIN ISO 5749 Low wear lap joint, riveted and able to withstand high levels of load. Lightweight action, clean cutting. Long term cutting is achieved through additional inductive hardening to approx. 60 HRC. Special tool steel hardened and tempered. For soft & medium hard wire. 32832 & 32834 for soft, hard & piano wire.

Item No.		mm	Inch	Cutting Capacity Copper AWG	Pkg. wt.
328 30	Z12014006	140	5.5	#6	1 .47
328 32	Z12016006	160	6.3	#6	1 .49
328 34	Z12018006	180	7.0	#6	1 .62

Insulated High Leverage Diagonal Cutters



1000volt

328 High Leverage Diagonal Cutters. Insulation According to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E, Δ up to 1000 volt. Individually Tested. DIN ISO 5749 Semi-circular. Low wear lap joint, riveted and able to withstand high levels of load. Lightweight action, clean cutting. Long term cutting is achieved through additional inductive hardening to approx. 64 HRC. C 60 special tool steel hardened and tempered to high quality. For soft, hard and piano wire, lay-on joint, optimized power transmission.

Item No.		mm	Inch	Cutting Capacity Copper AWG	Pkg. wt.
328 35	Z16016006	160	6.3	#6	1 .54
328 36	Z16018006	180	7.0	#5	1 .57
328 38	Z16020006	200	8.0	#4	1 .64

Insulated Electrician's Diagonal Cutters



1000volt

328 Diagonal Cutters W/Stripping Holes. Insulation According to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E, Δ up to 1000 volt. Individually Tested.

Drop-forged from special tool steel, cutters additionally induction hardened (approx. 60 HRC), chrome-nickel plated, mirror-polished. Ergonomic comfort grip with slip guard. Holes in the cutting edge for stripping copper wire of Ø 1.5 and 2.5. Strips AWG sizes #10 & #14.

Item No.		mm	Inch	Cutting Capacity Copper AWG	Pkg. wt.
328 61	Z14016006	160	6.3	#6	1 .54

Insulated Cable Cutters



1000volt

328 Cable Cutters. Insulation According to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E, Δ up to 1000 volt. Individually Tested. Drop-forged from durable CV steel, cutters additionally induction hardened, chrome & nickel plated, Mirror-polished. For copper and aluminum cables (not for steel wires), integrated release spring, one-hand locking, adjustable joint, anti-squeeze feature.

Item No.		mm	Inch	Min mm	Max mm	Pkg. wt.
328 46	Z50023006	210	8.3	17	40	1 .98
328 48	Z50017006	170	6.75	10	60	1 .67



Wiha Insulated Pliers & Cutters

Insulated Long Nose Pliers



328 Long Nose Pliers With Cutters. Insulation According to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E,  up to 1000 volt. Individually Tested. Drop-forged from special tool steel, cutters additionally induction hardened (approx. 60 HRC), chrome-nickel plated, mirror-polished, ergonomic comfort grip with slip guard, half-round jaws, serrated gripping surface.

Item No.		mm	Inch	Cutting Capacity Copper AWG	Pkg.	wt.
328 06	Z05016006	160	6.3	#10	1	.32
328 08	Z05020006	200	8.0	#8	1	.42

Insulated Bent Nose Pliers

Angled 40°



328 Bent Nose Pliers With Cutters. Insulation According to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E,  up to 1000 volt. Individually Tested.

Drop-forged from special tool steel, cutters additionally induction hardened (approx. 60 HRC), chrome-nickel plated, mirror-polished. Ergonomic comfort grip with slip guard. Half-round jaws, serrated gripping surface, nose bent 40°.

Item No.		mm	Inch	Cutting Capacity Copper AWG	Pkg.	wt.
328 04	Z05120006	200	8.0	#8	1	.43
328 07	Z05116006	160	6.3	#10	1	.32

Round Nose Pliers



328 Round Nose Pliers. Insulation According to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E,  up to 1000 volt. Individually Tested. Drop-forged from special tool steel, individually induction hardened, chrome and nickel plated, mirror-polished. Ergonomic comfort grip with slip guard. Serrated jaws.

Item No.		mm	Inch	Pkg.	wt.
328 70	Z09016006	160	6.3	1	.31

Insulated Long Flat Nose Pliers



328 Long Flat Nose Pliers. Insulation According to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E,  up to 1000 volt. Individually Tested. DIN ISO 5745 Extra long head. Serrated Jaws are induction hardened. Special CV tool steel forgings, Chrome finish. Two component Soft Grip handles. Use for Gripping and right-angle bending of wires and sheet metal parts.

Item No.		mm	Inch	Pkg.	wt.
328 10	Z07016006	160	6.3	1	.39

Insulated Stripping Pliers



328 Stripping Pliers. Insulation According to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E,  up to 1000 volt. Individually Tested. Heavy duty forged with induction hardened cutting edges for even stripping of insulation. Drop-forged from special tool steel, chrome and nickel plated, mirror-polished. Ergonomic comfort grip with slip guard. Spring and adjusting screw, for stripping up to Ø 5mm/#4 Awg.

Item No.		mm	Inch	Stripping Capacity Copper AWG	Pkg.	wt.
328 60	Z55016006	160	6.3	#4 - #28	1	.36



2 Pc. Insulated Pliers and Cutters



328 81 2 Pc. Insulated Pliers Set In Pouch

Insulation According to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E, up to 1000 volt. Individually Tested. DIN ISO 5746 Cutting edges additionally induction hardened to approx. 60HRC. Special CV tool steel forgings, Chrome finish. Two component soft grip ergonomic handles. 2 pc. set includes:

Item#	32881	Set Includes:	
	32818	Combination Pliers - 200mm	lbs. 1.33
	32832	Diagonal Cutters - 160mm	

2 Pc. Insulated Pliers and Cutters



328 83 2 Pc. Insulated Pliers Set In Pouch

Insulation According to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E, up to 1000 volt. Individually Tested. DIN ISO 5746 Cutting edges additionally induction hardened to approx. 60HRC. Special CV tool steel forgings, Chrome finish. Two component soft grip ergonomic handles. 2 pc. set includes:

Item#	32883	Set Includes:	
	32806	Long Nose Pliers With Cutters - 160mm	lbs. .94
	32832	Diagonal Cutters - 160mm	

2 Pc. Insulated Pliers and Cutters

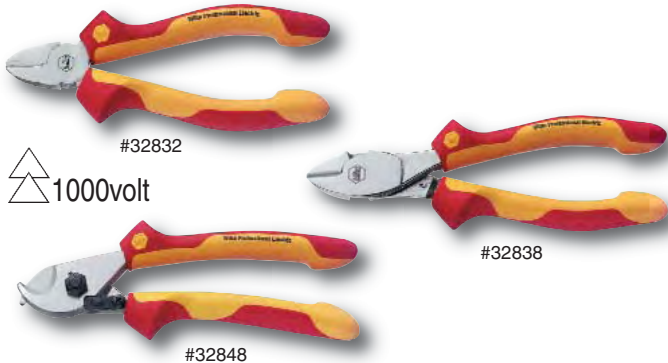


328 85 2 Pc. Insulated Pliers Set In Pouch

Insulation According to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E, up to 1000 volt. Individually Tested. DIN ISO 5746 Cutting edges additionally induction hardened to approx. 60HRC. Special CV tool steel forgings, Chrome finish. Two component soft grip ergonomic handles. 2 pc. set includes:

Item#	32885	Set Includes:	
	32806	Long Nose Pliers With Cutters - 160mm	lbs. 1.18
	32838	High Leverage Diagonal Cutters - 200mm	

3 Pc. Insulated Cutters Set



328 87 3 Pc. Insulated Cutters Set

Insulation According to VDE 0682/part 201, EN/IEC 60900, ASTM F-1505-01, NFPA70E, up to 1000 volt. Individually Tested. DIN ISO 5746 Cutting edges additionally induction hardened to approx. 60HRC. Special CV tool steel forgings, Chrome finish. Two component soft grip ergonomic handles. 3 pc. set includes:

Item#	32887	Set Includes:	
	32832	Diagonal Cutters - 160mm	lbs.
	32838	High Leverage Diagonal Cutters - 200mm	1.77
	32848	Cable Cutters - 170mm	



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Use & Care Guide For Insulated Tools:

Store tools to minimize risk of damage to insulation, always wear approved eye protection, Inspect insulation prior to each use of any insulated tool. Use insulated tools where the ambient temperature is between -20 to +70° C. Have a qualified safety technician visually inspect insulation on tools annually for safe use.

WARNING!

Insulated Tools are intended to provide protection against accidental contact with charged energized circuits. For maximum safety we recommend de-energizing all circuits whenever possible before starting work on electrical apparatus or conductors. Always visually inspect insulation on tools before use, do not use tools if insulation shows signs of wear or damage to the insulated areas of the tool. Wear appropriate eye protection when using hand tools. Use NFPA70E certified insulated protective outer wear when appropriate.



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Wiha Quality Tools

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To:



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