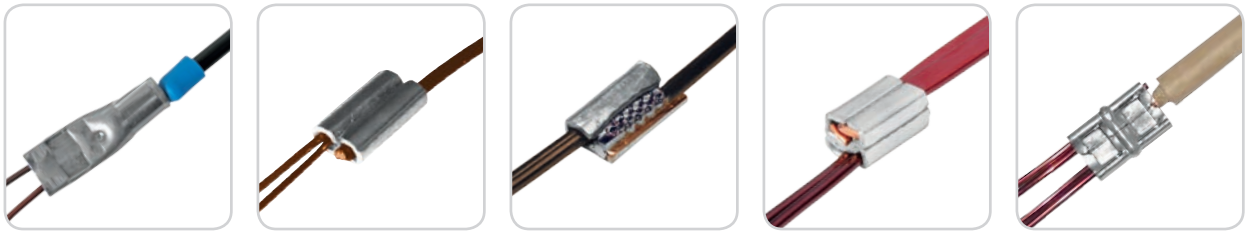
ERKO®

ERKO TECHNOLOGY
FOR TRANSFORMERS MANUFACTURERS

we implement individual solutions



Certificates

Instytut Elektrotechniki
Electrotechnical Institute
Zespół Certyfikacji Wyrobów Elektrotechnicznych
Certification Group of Electrotechnical Products
AC 168

04-703 Warszawa, ul. Mieczysława Pożaryskiego 28
tel.: +48 22 11 25 264, fax: +48 22 11 25 445, www.iel.waw.pl, e-mail: ncw@iel.waw.pl

CERTYFIKAT ZGODNOŚCI
CERTIFICATE OF CONFORMITY

Nr: DN/201/2016

NAZWA I ADRES POSIADACZA CERTYFIKATU: Name and address of the certificate holder: Zakłady Metalowe ERKO, R. Pętlak Spółka Jawna Bracia Pętlak, ul. Ks. J. Hanowskiego 7, 11-042 Jonkowo
NAZWA I ADRES PRODUCENTA: Name and address of the manufacturer: Zakłady Metalowe ERKO, R. Pętlak Spółka Jawna Bracia Pętlak, ul. Ks. J. Hanowskiego 7, 11-042 Jonkowo
NAZWA WYROBU: Product: Złączki REKIN / REKIN connectors
TYP / ODMIANA KONSTRUKCYJNA: Type / Constructional form: R1, R2, R01, RM1, RM2
PARAMETRY: / Ratings: VERTE
NORMY ODNIESIENIA: / Reference standards: PN-EN 61238-1:2004
SPRAWOZDANIA Z BADAŃ: / Test Reports: 6868/LAR/05
NAZWY LABORATORIÓW: / Testing laboratories: Laboratorium Badawcze Aparatury Rozdzielczej IEI (Laboratorium badawcze akredytowane przez PCA, Nr AB 074)

TERMIN WAŻNOŚCI CERTYFIKATU: / This Certificate is valid till: 2019-11-07

NA PODSTAWIE WYŻEJ WYMIENIONEGO SPRAWOZDANIA Z BADAŃ STWIERDZA SIĘ, ŻE WYROBY SĄ ZGODNE Z WYMAGANIAMI POWYŻSZEJ NORMY.
On the basis of the above test report this is to certify that products fulfil the requirements of the above standard.

CERTYFIKAT JEST WAŻNY DLA WYROBÓW MAJĄCYCH IDENTYCZNE CECHY, KONFIGURACJĘ I WYPOSAŻENIE JAK BADANE PRÓBKI.
Refers only to the products having identical characteristics and arrangement as the sample submitted for testing.

PROGRAM CERTYFIKACJI PCW 1/NCW/DN TYPU 1a WG PN-EN ISO/IEC 17067:2014-01 (BADANIE TYPU, PRZEGLĄD I OCENA DOKUMENTACJI, WYDANIE CERTYFIKATU).
Certification scheme PCW 1/NCW/DN type 1a acc. to PN-EN ISO/IEC 17067:2014-01 (type test, evaluation of documentation, issue of certificate).

Kierownik Jednostki Certyfikującej
Head of the Certification Body
Dyrektor Instytutu Elektrotechniki
Director of the Electrotechnical Institute

Warszawa: / Warsaw: 2016-11-08
dr hab. Wiesław Wilczyński, prof. IEI

Instytut Elektrotechniki
Electrotechnical Institute
Zespół Certyfikacji Wyrobów Elektrotechnicznych
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tel.: +48 22 11 25 264, fax: +48 22 11 25 445, www.iel.waw.pl, e-mail: ncw@iel.waw.pl

CERTYFIKAT ZGODNOŚCI
CERTIFICATE OF CONFORMITY

Nr: DN/202/2016

NAZWA I ADRES POSIADACZA CERTYFIKATU: Name and address of the certificate holder: Zakłady Metalowe ERKO, R. Pętlak Spółka Jawna Bracia Pętlak, ul. Ks. J. Hanowskiego 7, 11-042 Jonkowo
NAZWA I ADRES PRODUCENTA: Name and address of the manufacturer: Zakłady Metalowe ERKO, R. Pętlak Spółka Jawna Bracia Pętlak, ul. Ks. J. Hanowskiego 7, 11-042 Jonkowo
NAZWA WYROBU: Product: Złączki REKIN / REKIN connectors
TYP / ODMIANA KONSTRUKCYJNA: Type / Constructional form: R1S
PARAMETRY: / Ratings: VERTE
NORMY ODNIESIENIA: / Reference standards: PN-EN 61238-1:2004
SPRAWOZDANIA Z BADAŃ: / Test Reports: 7831/NBR/09
NAZWY LABORATORIÓW: / Testing laboratories: Laboratorium Badawcze Aparatury Rozdzielczej IEI (Laboratorium badawcze akredytowane przez PCA, Nr AB 074)

TERMIN WAŻNOŚCI CERTYFIKATU: / This Certificate is valid till: 2019-11-07

NA PODSTAWIE WYŻEJ WYMIENIONEGO SPRAWOZDANIA Z BADAŃ STWIERDZA SIĘ, ŻE WYROBY SĄ ZGODNE Z WYMAGANIAMI POWYŻSZEJ NORMY.
On the basis of the above test report this is to certify that products fulfil the requirements of the above standard.

CERTYFIKAT JEST WAŻNY DLA WYROBÓW MAJĄCYCH IDENTYCZNE CECHY, KONFIGURACJĘ I WYPOSAŻENIE JAK BADANE PRÓBKI.
Refers only to the products having identical characteristics and arrangement as the sample submitted for testing.

PROGRAM CERTYFIKACJI PCW 1/NCW/DN TYPU 1a WG PN-EN ISO/IEC 17067:2014-01 (BADANIE TYPU, PRZEGLĄD I OCENA DOKUMENTACJI, WYDANIE CERTYFIKATU).
Certification scheme PCW 1/NCW/DN type 1a acc. to PN-EN ISO/IEC 17067:2014-01 (type test, evaluation of documentation, issue of certificate).

Kierownik Jednostki Certyfikującej
Head of the Certification Body
Dyrektor Instytutu Elektrotechniki
Director of the Electrotechnical Institute

Warszawa: / Warsaw: 2016-11-08
dr hab. Wiesław Wilczyński, prof. IEI

Instytut Elektrotechniki
Electrotechnical Institute
Jednostka Certyfikująca Wyroby Elektrotechniczne
Certification Body of Electrotechnical Products

04-703 Warszawa, ul. Mieczysława Pożaryskiego 28
tel.: +48 22 812 33 89, fax: +48 22 615 75 35, www.iel.waw.pl, e-mail: ncw@iel.waw.pl

CERTYFIKAT ZGODNOŚCI
CERTIFICATE OF CONFORMITY

Nr: DN/142-1/2014

NAZWA I ADRES POSIADACZA CERTYFIKATU: Name and address of the certificate holder: Zakłady Metalowe ERKO R. Pętlak spółka jawna Bracia Pętlak 11-042 Jonkowo, ul. ks. Jana Hanowskiego 7
NAZWA I ADRES PRODUCENTA: Name and address of the manufacturer: Zakłady Metalowe ERKO R. Pętlak spółka jawna Bracia Pętlak 11-042 Jonkowo , ul. ks. Jana Hanowskiego 7
NAZWA WYROBU: / Product: Złączki i końcówki do przewodów miedzianych / Connectors and lug terminals for copper conductors
TYP / ODMIANA KONSTRUKCYJNA: Type / Constructional form: RT-1, RT-2 (Złączki / Connectors) RTO-1 (Końcówki / Lug terminals)
PARAMETRY: / Ratings: VERTE
NORMY ODNIESIENIA: / Reference standards: PN-EN 61238-1:2004, EN 61238-1:2003 [IDT], IEC 61238:2003
SPRAWOZDANIE Z BADAŃ: / Test Report: 8015/NZL/NBR/10
LABORATORIUM BADAWCZE: Testing Laboratory: Laboratorium Badawcze Aparatury Rozdzielczej IEI (AB 074)

TERMIN WAŻNOŚCI CERTYFIKATU: / This Certificate is valid till: 2018-07-10

NA PODSTAWIE WYŻEJ WYMIENIONEGO SPRAWOZDANIA Z BADAŃ STWIERDZA SIĘ, ŻE WYROBY SĄ ZGODNE Z WYMAGANIAMI POWYŻSZYCH NORM, CO WSKAZUJE NA PRZYDATNOŚĆ TYCH WYROBÓW DO STOSOWANIA W POLSKIEJ ELEKTROENERGETYCE.
On the basis of the above test report this is to certify that products fulfil the requirements of the above standards, what points to usefulness of these products for application to Polish power engineering.

CERTYFIKAT JEST WAŻNY DLA WYROBÓW MAJĄCYCH IDENTYCZNE CECHY, KONFIGURACJĘ I WYPOSAŻENIE JAK BADANE PRÓBKI.
Refers only to the products having identical characteristics and arrangement as the samples submitted for testing.

SYSTEM CERTYFIKACJI – 1a WG PKN-ISO/IEC GUIDE 67:2007 (BADANIE TYPU, PRZEGLĄD I OCENA DOKUMENTACJI, WYDANIE CERTYFIKATU).
Certification system – 1a acc. to ISO/IEC Guide 67:2004 (type test, evaluation of documentation, issue of certificate).

Kierownik Jednostki Certyfikującej
Head of the Certification Body
Dyrektor Instytutu Elektrotechniki
Director of the Electrotechnical Institute

Warszawa: / Warsaw: 2014-06-27
dr hab. Wiesław Wilczyński, prof. IEI

Instytut Elektrotechniki
Electrotechnical Institute
Zespół Certyfikacji Wyrobów Elektrotechnicznych
Certification Group of Electrotechnical Products
AC 168

04-703 Warszawa, ul. Mieczysława Pożaryskiego 28
tel.: +48 22 11 25 264, fax: +48 22 11 25 445, www.iel.waw.pl, e-mail: ncw@iel.waw.pl

CERTYFIKAT ZGODNOŚCI
CERTIFICATE OF CONFORMITY

Nr: DN/223/2017

NAZWA I ADRES POSIADACZA CERTYFIKATU: Name and address of the certificate holder: Zakłady Metalowe ERKO, R. Pętlak Spółka Jawna Bracia Pętlak, ul. Ks. J. Hanowskiego 7, 11-042 Jonkowo
NAZWA I ADRES PRODUCENTA: Name and address of the manufacturer: Zakłady Metalowe ERKO, R. Pętlak Spółka Jawna Bracia Pętlak, ul. Ks. J. Hanowskiego 7, 11-042 Jonkowo
NAZWA WYROBU: Product: Końcówki i złączki REKIN / REKIN tips and connectors
TYP / ODMIANA KONSTRUKCYJNA: Type / Constructional form: RD 1, RD 2 i RDO 1
PARAMETRY: / Ratings: VERTE
NORMY ODNIESIENIA: / Reference standards: PN-EN 61238-1:2004
SPRAWOZDANIA Z BADAŃ: / Test Reports: 7449/LAR/07
NAZWY LABORATORIÓW: / Testing laboratories: Laboratorium Badawcze Aparatury Rozdzielczej IEI (Laboratorium badawcze akredytowane przez PCA, Nr AB 074)

TERMIN WAŻNOŚCI CERTYFIKATU: / This Certificate is valid till: 2020-02-29

NA PODSTAWIE WYŻEJ WYMIENIONEGO SPRAWOZDANIA Z BADAŃ STWIERDZA SIĘ, ŻE WYROBY SĄ ZGODNE Z WYMAGANIAMI POWYŻSZEJ NORMY.
On the basis of the above test report this is to certify that products fulfil the requirements of the above standard.

CERTYFIKAT JEST WAŻNY DLA WYROBÓW MAJĄCYCH IDENTYCZNE CECHY, KONFIGURACJĘ I WYPOSAŻENIE JAK BADANE PRÓBKI.
Refers only to the products having identical characteristics and arrangement as the sample submitted for testing.

PROGRAM CERTYFIKACJI PCW 1/NCW/DN TYPU 1a WG PN-EN ISO/IEC 17067:2014-01 (BADANIE TYPU, PRZEGLĄD I OCENA DOKUMENTACJI, WYDANIE CERTYFIKATU).
Certification scheme PCW 1/NCW/DN type 1a acc. to PN-EN ISO/IEC 17067:2014-01 (type test, evaluation of documentation, issue of certificate).

Kierownik Jednostki Certyfikującej
Head of the Certification Body
Dyrektor Instytutu Elektrotechniki
Director of the Electrotechnical Institute

Warszawa: / Warsaw: 2017-03-01
dr hab. Wiesław Wilczyński, prof. IEI

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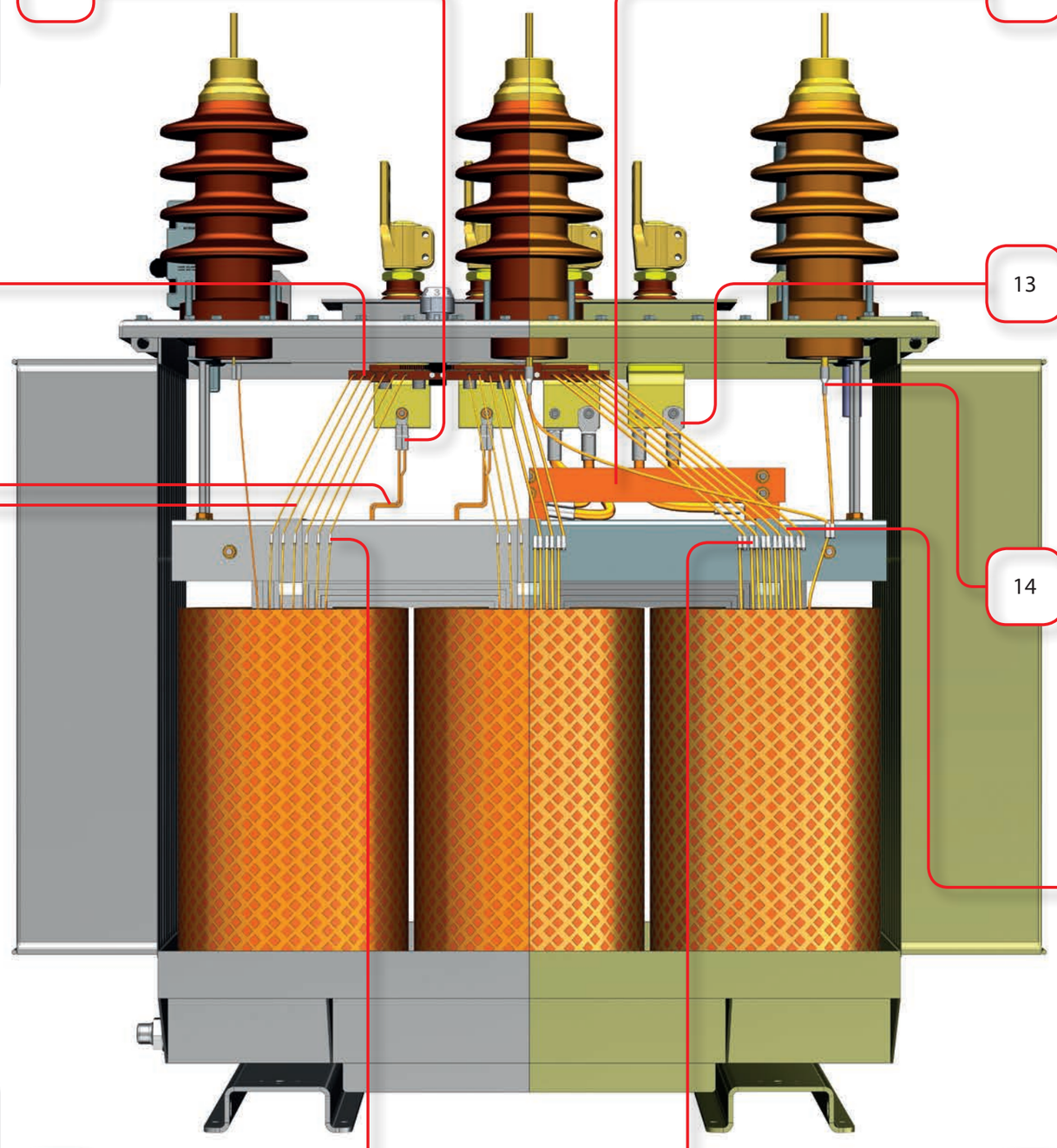

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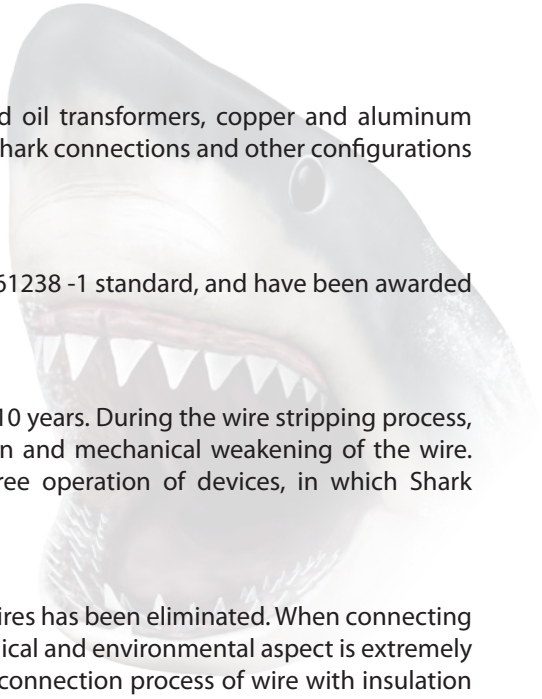
SHARK Technology



Shark technology is dedicated to connect winding enameled wires in motors and oil transformers, copper and aluminum wires, round and rectangular wires. We provide technical advice by recommending Shark connections and other configurations according to arrangements with customer.

Quality of connection.

Connections made with Shark connectors conform with the requirements of PN-EN 61238 -1 standard, and have been awarded a certificate issued by Electrotechnical Institute from Warsaw.

Durable connection

Connections made with Shark connectors have been in use in transformers for over 10 years. During the wire stripping process, usually there is a narrowing of the wire, which results in reduction of cross section and mechanical weakening of the wire. Use of Shark technology eliminates this problem, leading to a longer trouble-free operation of devices, in which Shark connectors and terminals are installed.

Clean technology

Thank to use of Shark technology, process of removing enamel insulation from the wires has been eliminated. When connecting wires there is no need to secure the transformer against generated impurities. Ecological and environmental aspect is extremely important. Use of Shark connectors and terminals eliminates hazardous waste. The connection process of wire with insulation or enamel requires mechanical or chemical methods. Mechanical stripping method is scraching of insulation, causing dust and pollution. Another method is burning off or hard soldering with silver additive, causing environmental pollution with toxic elements. This methods also requires special operator's skills. The chemical method is dissolution of insulation in corrosive substances. Both methods are subject to a number of technological and environmental disadvantages. Shark Technology eliminates above problems. As a result, there is no dusty work environment, no toxic elements polluting the environment. There are no impurities, which are dangerous during oparation of transformer. Risk of a short circuit is reduced, during further work of the transformer, what results in increased trouble-free operation of the entire electric network.

Environment friendly technology

Shark connector fast and reliably replaces harmful to the environment soldering and enamel insulation burning processes.

Easy operation

Dedicated and efficient tools and ERKO team help in preparing technology, enable trouble free implementation of Shark technology at customer's plant.

Increased efficiency

All our customers who implemented Shark technology gained a significant increase in performance comparing to previously used technology.

Economical technology

Elimination of preparatory processes, energy consuming soldering process, reduction of stored connectors range, high efficiency of the process makes Shark technology more beneficial than traditional methods. The traditional methods of connecting wires requires from operators use of precision, complicated technology and dedicated tools for each cross-section. Shark connection ensures repeatability and efficiency. Furthermore ERKO offers dedicated and efficient tools for the smooth implementation of Shark technology.

Universal technology

With one Shark connector one can make connection using wires of different cross-section, shape and material. Having over a dozen of connectors, any wire within scope of Shark connectors can be connected . We are able to recommend alternative connection solution for presently used by customer. Connected wires can be enameled, made of copper or aluminum. Shark connectors can be used to connect round and rectangular wires, and are applicable (with appropriate rules) to connect solid wires, as well as multiwires without insulation. In connection made with Shark technology, teeth of the connector bite through the enamel and into the core of connected wires. Therefore made connection is electrically and mechanically reliable.

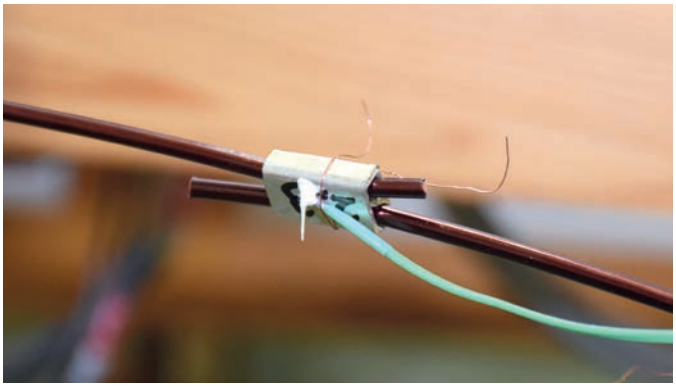
Possibility of adapting connectors for customer's needs.

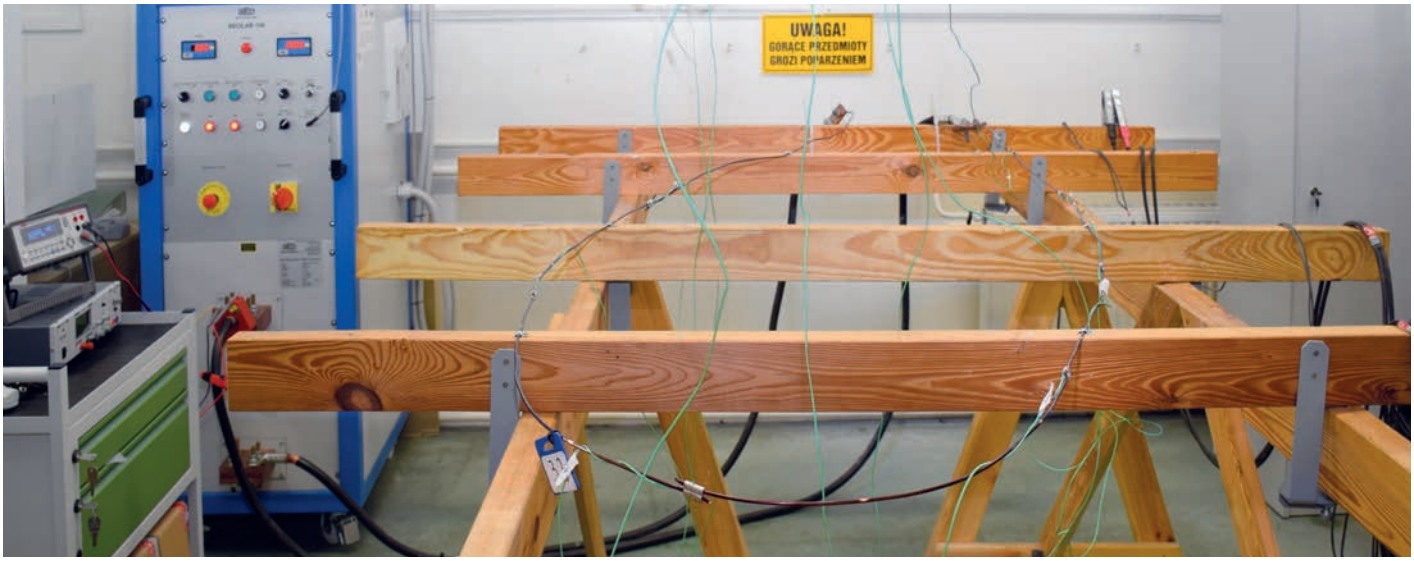
Research and testing

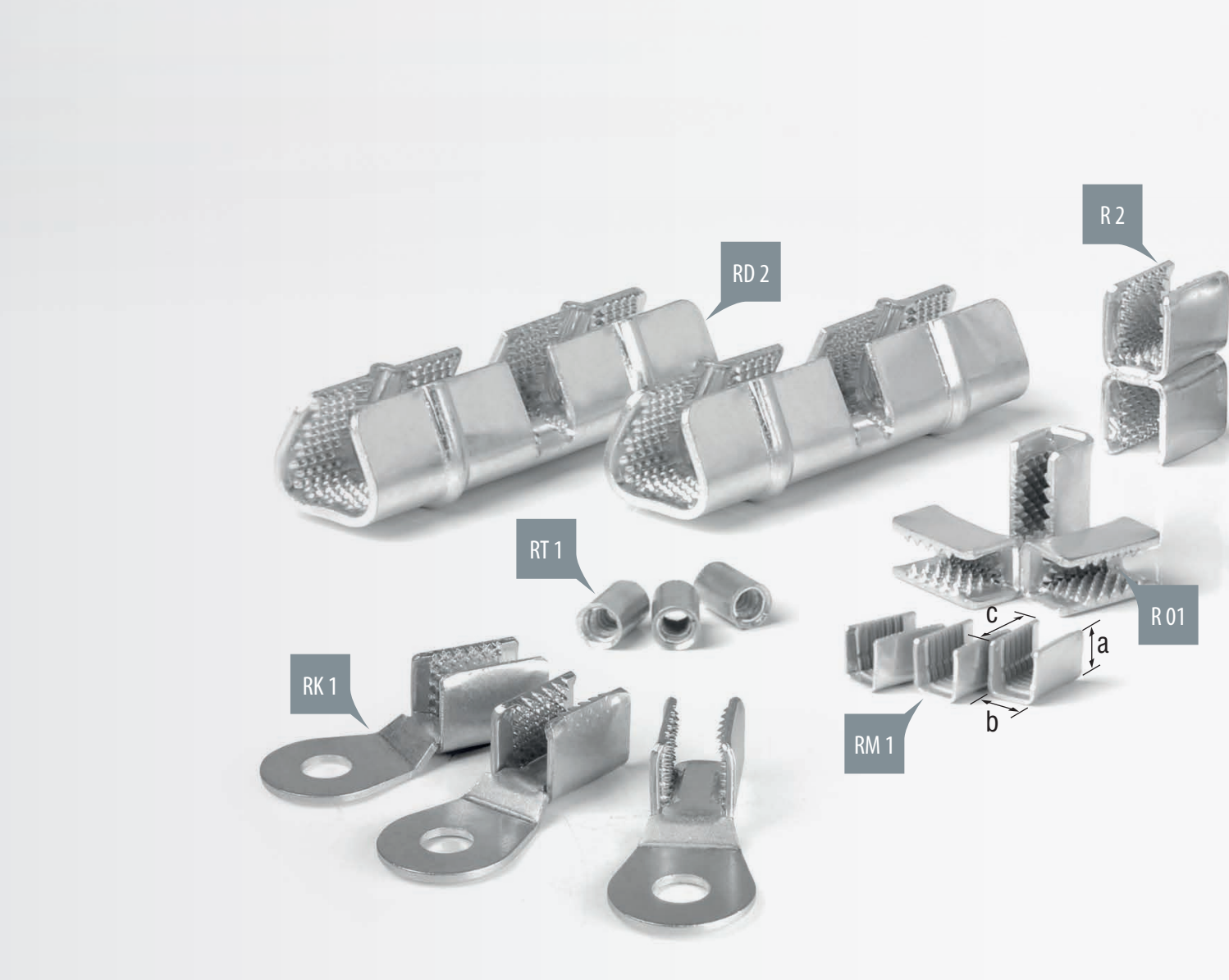
On request, we carry out testing to evaluate the performance of Shark connections and tools used for the connections. The tests are based on the PN-EN 61238-1: 2004 standard.

During the tests, the following assumptions are made:
- the connection can not introduce additional resistance to the circuit
- during cyclic heating process of the connectors, its temperature must not exceed the temperature of the conductor on which they are installed.

In order to carry out the tests, we perform so called test chain. It is made by a series connection, using tested Shark connectors, of identical length of the conductor. The length of conductors connecting each connector is strictly defined in the PN-EN 61238-1: 2004 standard.







RECOMMENDED FOR Cu WIRES

Connector type	Round wires Diameters range [mm]		Rectangular wires range [mm]				Total cross section [mm²]	Connector`s dimensions [mm]			Crimping tools
			thickness		width						
	Ø min	Ø max	min	max	min	max		a	b	c	
RT 1	0,5	1,5					1,77	Ø7	-	11	GRT 1, EGRT 1
RT 2	0,5	1,5					3,54	Ø7	-	22	
RM 1	0,55	1,5	-	-	-	-	3,5	8	8	12,5	GRM 1, EGRM 1
RM 2	0,55	1,5	-	-	-	-	3,5x2	8	8	28	
R 01	1,5	3	2	4,5	2	2,3	10,5	10,5	10	19,5	GR 1
R 1	1,5	5	2	4,1	2	7,1	26,6	14,5	13	19,5	
RK 1**	1,5	4	2	4,1	2	7,1	26,6	14,5	13	49	
R 1S	1,5	5	2	4,1	2	7,1	26,6x2	14,5	13	42	
R 2	1,5	5	2	4,1	2	7,1	26,6x2	29	13	19,5	
RDO 1			2,15*	4	5*	14,5	25-65	19	23,5	65,5	GRD 1
RD 1			2,15*	4	5*	14,5	25-65	19	23,5	36,5	
RD 2			2,15*	6,5	5*	14,5	25-65x2	19	23,5	81,5	

* recommended ranges
** hole for M8, M10, M12 screw

RECOMMENDED FOR Al WIRES

Connector type	Round wires Diameters range [mm]		Rectangular wires range [mm] thickness		width		Total cross section [mm²]	Connector`s dimensions [mm]			Crimping tools
	Ø min	Ø max	min	max	min	max		a	b	c	
RT 1	0,8	1,9					1,77	Ø7	-	11	GRT 1, EGRT 1
RT 2	0,8	1,9					3,54	Ø7	-	22	
RM 1	0,8	2,2	-	-	-	-	3,5	8	8	12,5	GRM 1, EGRM 1
RM 2	0,8	2,2	-	-	-	-	3,5x2	8	8	28	
R 01	1,5	3	2	4,5	2	2,3	10,5	10,5	10	19,5	GR 1
R 1	1,5	5	2	4,1	2	7,1	26,6	14,5	13	19,5	
R 1S	1,5	5	2	4,1	2	7,1	26,6x2	14,5	13	42	
R 2	1,5	5	2	4,1	2	7,1	26,6x2	29	13	19,5	
RK 1**	1,5	4	2	4,1	2	7,1	26,6	14,5	13	49	
RDO 1			3,15	4	5	14,5	25-65	19	23,5	65,5	GRD 1
RD 1			3,15	4	5	14,5	25-65	19	23,5	36,5	
RD 2			3,15	6,5	5	14,5	25-65x2	19	23,5	81,5	

** hole for M8, M10, M12 screw

EGRT Battery powered hydraulic press

Battery powered press for SHARK connectors:

- RT 1, RT 2
- on winding enameled and non-enameled wires
- equipped with SRT dies
- efficient Li-Ion battery
- automatic retraction when maximum pressure is achieved
- automatic off switch ending operation cycle after a proper crimping is complete – indicated by green LED, not accurate crimping cycle – indicated by red LED
- electronic record of operation cycle – data transfer via USB

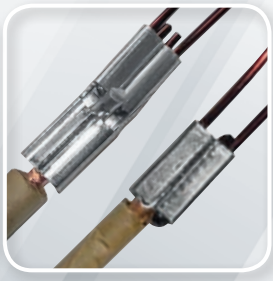
Length: 463 mm; Weight: 3 kg

EGRM Battery powered hydraulic press

Battery powered press for SHARK connectors:

- RM 1, RM 2
- on winding enameled and non-enameled wires
- equipped with SRM dies
- efficient Li-Ion battery
- automatic retraction when maximum pressure is achieved
- automatic off switch ending operation cycle after a proper crimping is complete – indicated by green LED, not accurate crimping cycle – indicated by red LED
- electronic record of operation cycle – data transfer via USB

Length: 401 mm; Weight: 2,9 kg



GRT 1 Hydraulic head

Head for SHARK connectors:

- RT 1, RT 2
- on winding enameled and non-enameled wires
- equipped with SRT dies
- PRT quick coupler

Length: 330 mm; Weight: 2,7 kg

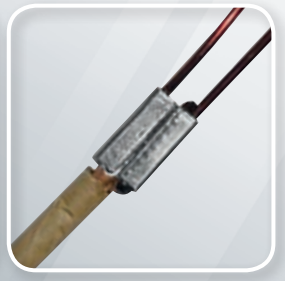
Crimping dies SRT
Used for RT 1, RT 2 connectors

GRM 1 Hydraulic head

Head for SHARK connectors:

- RM 1, RM 2
- on winding enameled and non-enameled wires
- equipped with SRM dies
- ZT quick coupler

Length : 220 mm; Weight : 1,5 kg



GR 1 Hydraulic head

Head for SHARK connectors:

- R 1, R 1S, R 2, R 01, RK 1
- on winding enameled and non-enameled wires
- works with SR dies
- PT quick coupler

Length: 330 mm; Weight (without dies): 5,6 kg

SR 01 Crimping dies
Used for R 01 connectors

SR 1 Crimping dies
Used for R 1, R 1S connectors

SR 2 Crimping dies
Used for R 2 connectors

GRD 1 Hydraulic head

Head for SHARK connectors:

- RD 1, RD 2, RDO 1
- on winding enameled and non-enameled wires
- equipped with SRD dies
- PT quick coupler

Length: 420 mm; Weight: 18,5 kg

Electric hydraulic units

AH 300R

AH 300RM

AH 400RD

AH 200 RT

Electric hydraulic power unit:

- pressure: 200 ÷ 650 bars
- power supply voltage: 3 x 400 V/230 V (sequence of phases unimportant)
- power: 1,1 kW
- efficiency: 0,66 ÷ 1,33 l/m
- works with hydraulic heads GR 1, GRM 1, GRT 1, GRD 1
- equipped with hydraulic hose
- quick coupler: PM for GR 1 and GRD 1, ZM for GRM 1, PRM for GRT 1
- 2,5m long hydraulic hose

Special design

AH 300 R3 + WB6

Electric hydraulic power unit (for GR 1, GRM 1 and GRT 1 hydraulic heads) with trolley and WB 6 extension arm form integrated work site enabling work with three different heads.

Trolley with WB extension arm

Trolley with extension arm with heads GR 1, GRT 1, GRM 1, GRD 1 and appropriate hydraulic unit form integrated work site as in picture.

WB 6 WB 7 WB 1

Hand presses for tap changers

PRPL PRPD

Hand presses for tap changers
PRPL 2,5
- the diameter of the copper tube: inner 3 mm, outer 5 mm
- copper multi wire of 7 strands, each of a diameter of 0.65 mm

PRPD 3
- the diameter of the copper tube: inner 3 mm, outer 5 mm
- diameter of solid copper wire 3 mm

PRPD 5
- the diameter of the copper tube: inner 5 mm, outer 7 mm
- diameter of solid copper wire 5 mm



Battery powered hydraulic presses for tap changers

EPPL_2,5 EPPD_3 EPPD_5

Battery powered hydraulic presses for tap changers
EPPL 2,5
- the diameter of the copper tube: inner 3 mm, outer 5 mm
- copper multi wire of 7 strands, each of a diameter of 0.65 mm

EPPD 3
- the diameter of the copper tube: inner 3 mm, outer 5 mm
- diameter of solid copper wire 3 mm

EPPD 5
- the diameter of the copper tube: inner 5 mm, outer 7 mm
- diameter of solid copper wire 5 mm

Special features:
- efficient Li-Ion battery
- automatic retraction when maximum pressure is achieved
- automatic off switch ending operation cycle after a proper crimping is complete
- electronic record of operation cycle – data transfer via USB

Length: 436 mm; Weight: 3,6 kg



EGPP Battery powered bender

Battery powered bender for aluminium and cooper rectangular wires.

- (Thickness) x (width) in the range (2 ÷ 5.5 mm) x (3 to 12 mm)
- max. cross section 63mm^2

Special features:

- efficient Li-Ion battery
- automatic retraction when maximum pressure is achieved
- automatic off switch ending operation cycle after a proper crimping is complete
- electronic record of operation cycle – data transfer via USB

Length: 402 mm; Weight: 2,6 kg




EWPB battery powered punching tool

Battery powered punching tool for aluminium and cooper bundle of sheet metal

- the width of the bundle of sheet metal 30 ÷ 55 mm
- punching holes with a diameter of 6.5 ÷ 13 mm

Size range of bundle of aluminium sheet

- the thickness of a single sheet metal 0,3 ÷ 0,5 mm
- the number of sheets bundled 3 ÷ 8 pieces

Size range of bundle of copper sheet

- the thickness of a single sheet metal 0,3 ÷ 0,4 mm
- the number of sheets bundled 3 ÷ 8 pieces

Special features:

- efficient Li-Ion battery
- automatic retraction when maximum pressure is achieved
- automatic off switch ending operation cycle after a proper crimping is complete
- electronic record of operation cycle – data transfer via USB

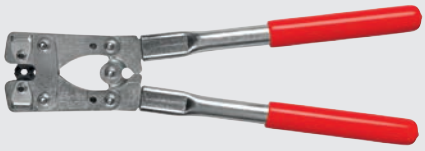
Length: 420 mm; Weight: 4,4 kg




Cable Terminals for multi - wire Cu cables

Terminal	Symbol	Cross section [mm²]	Crimping dies	Form of crimping on the wire	According to DIN standard
	KCR	10÷625	 ZS		●
	KCS	2,5÷400	 ZS		
	KC90	6÷240	 ZS		●
	KCS90	6÷400	 ZS		●
	KC45	6÷240	 ZS		
	KCS45	6÷400	 ZS		
	KLR	16÷300	 ZS		
	KLA	0,5÷400	 ZS		
	KLB	0,5÷120	 ZS		
	TA	0,5÷185	 ZT		●
	TE	0,14÷150	 ZT		●

Hand press

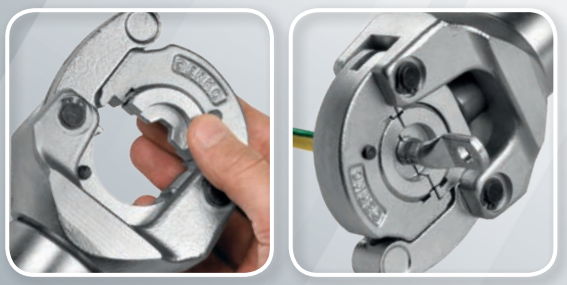
Tool	Symbol	Type of terminals	Cross section [mm²]	Form of crimping on the wire
	T10	TA, TE, TV	0,5 ÷ 10	
	T16S	TA, TE, TV	0,08 ÷ 16	
	PR50	KCR, KCS, KC90, KCS90, KC45, KCS45	6 ÷ 50	
	PR120	KCR, KCS, KC90, KCS90, KC45, KCS45	10 ÷ 120	
	PR150	KCR, KCS, KC90, KCS90, KC45, KCS45	25 ÷ 150	

GZ 300 Hydraulic head

Hydraulic head for:

- ring terminals without insulation (ZA dies) of 10 ÷ 120 mm²
- ring terminals with insulation (ZE dies) of 10 ÷ 120 mm²
- cable end-sleeves with and without insulation (ZT dies) of 25 ÷ 185 mm²
- Cu tubular terminals and connectors on cable conductors (ZS dies) of 6 ÷ 300 mm²
- Al tubular terminals and connectors on cable conductors (ZS dies) of 16 ÷ 240 mm²
- round forming Al sector conductors (ZF dies) of 16 ÷ 240 mm²

Designed for electrical works of high intensity.
Works with H 800 hydraulic pump and AH 100, AH 500, AH 550, AH 500L electric hydraulic units.



Cable terminals crimping.

Al sector conductors round forming.

EPZC 300 Battery powered hydraulic press

Battery powered hydraulic press for:

- ring terminals without insulation (ZA dies) of 10 ÷ 120 mm²
- ring terminals with insulation (ZE dies) of 10 ÷ 120 mm²
- cable end-sleeves with and without insulation (ZT dies) of 25 ÷ 185 mm²
- Cu tubular terminals and connectors on cable conductors (ZSC dies) of 6 ÷ 300 mm²
- Al tubular terminals and connectors on cable conductors (ZSC dies) of 16 ÷ 240 mm²
- round forming Al sector conductors (ZF dies) of 16 ÷ 240 mm²

Special features:

- automatic off switch ending operation cycle after a proper crimping is complete – indicated by green LED, not accurate crimping cycle – indicated by red LED
- electronic record of operation cycle – data transfer via USB
- efficient lithium-ion battery
- automatic pressure control
- flip top, rotatable by 330° head

EPZ 300N Battery powered hydraulic press

Battery powered hydraulic press for:

- ring terminals without insulation (ZA dies) of 10 ÷ 120 mm²
- ring terminals with insulation (ZE dies) of 10 ÷ 120 mm²
- cable end-sleeves with and without insulation (ZT dies) of 25 ÷ 185 mm²
- Cu tubular terminals and connectors on cable conductors (ZS dies) of 6 ÷ 300 mm²
- Al tubular terminals and connectors on cable conductors (ZS dies) of 16 ÷ 240 mm²
- round forming Al sector conductors (ZF dies) of 16 ÷ 240 mm²

Special features:

- capacity of lithium-ion battery
- automatic retraction after crimping is complete
- flip top, rotatable by 360° head
- electronic control and record of crimping cycle accuracy
- battery level and periodic check-up indicator

AH 100 Electric hydraulic unit

Electric hydraulic power unit:

- equipped with 2,5 m hydraulic hose with PM quick coupler
- works with all ERKO hydraulic heads and devices (equipped with PT quick coupler)
- power supply voltage 24V. The capacity of built-in battery 9 Ah
- efficiency: 0,31 L/min at 630 bar
- IP41 degree of protection
- useful amount of oil: 0,65 l

Dimensions: 415x315x220 mm; Weight: 20kg
Includes battery charger.
NOTE: as option AC adapter 230V AC/24V DC with Index AH_100-AC/DC allowing work independently from the battery.

Electric hydraulic unit

AH 500 / AH 550

Electric hydraulic power units:

- equipped with hydraulic hose with PM quick coupler
- works with all ERKO hydraulic heads and devices (equipped with PT quick coupler)
- 2,5 m long hydraulic hose

Dimensions: 520x370x690 mm; Weight: 43kg
On request possibility of manufacturing with many pressure ports and other length of hydraulic hose. Working at 380 bar pressure reduces load on the head during operation in which 380 bar is sufficient and ensures correct cycle performance.

Special features	AH 500	AH550
power supply voltage	3x400V/230V 1x230V (for non intensive work)	3x400V/230V
power	0,85 kW	1,4 kW
efficiency	0,66 l/min	1,33 l/min

Cable Shears

RC 54 RC 54S

Cable shears for aluminium and copper single- and multi- wires. Ratcheting mechanism enables cutting wires with different diameters, minimizes force needed to cut the cable.

Type	Cutting Al reinforced steel cables [mm]	Cutting steel cables [mm]	Cutting Al and Cu single- and multistrand cables [mm]	Cross section [mm²]	length [mm]	weight [g]
RC 54	n/a	n/a	up to 54	480	310	800
RC 54S	up to 25 mm	up to 9,5 mm	up to 54	477	350	1200

Paper insulation stripper

SIPD SIPL

Pliers for soft wire cutting and stripping:

- soft wire diameter – 2 mm
- stripping diameters – 1,5 mm and 2,5 mm

Special features:

- blade hardness ca. 60 HRc
- material: chromium-vanadium steel
- long term use even for intensive work
- non-sparking, anti-slip, two-component insulated grips with elastomer insert.

Length: 160 mm; Weight: 220 g
NOTE: ability to work under voltage up to 1000V

Busbar processing station

SH 800PLC

Station for precise cutting, bending, hole punching, inserting nuts, offsetting Al and Cu busbars:

- busbar width from 30 ÷ 125 mm
- busbar thickness 5 ÷ 12 mm
- bending angle range up to 90°

Special features:

- equipped with LED touch screen programmed in: Polish, Russian, English, German and Czech (other languages on request)
- equipped with electronic, programmable bending angle sensor (setting precision 1°)
- equipped with measuring rulers enabling precise positioning of 0,1mm
- precise height adjustment of hole punching head (0,2mm precision)
- burr-free round and oval holes punching
- burr-free busbars cutting
- built-in reliable hydraulic drive
- automatic identification of inserted dies
- bending angle correction complying busbar flexibility
- electronic lenght measurement of cut busbar (up to 6m)
- electronic lenght measurement of bent and punched busbar (up to 0,5m or 1,2m)
- busbar offsetting repeatability
- additional worktop
- tilt, rotatable touch screen
- equipped with control socket
- equipped with port for ERKO hydraulic heads (hose with PM 630 bar quick coupler)

Have a look at our full ofer on www.erko.pl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