

SHARK technology®



SHARK connectors



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.

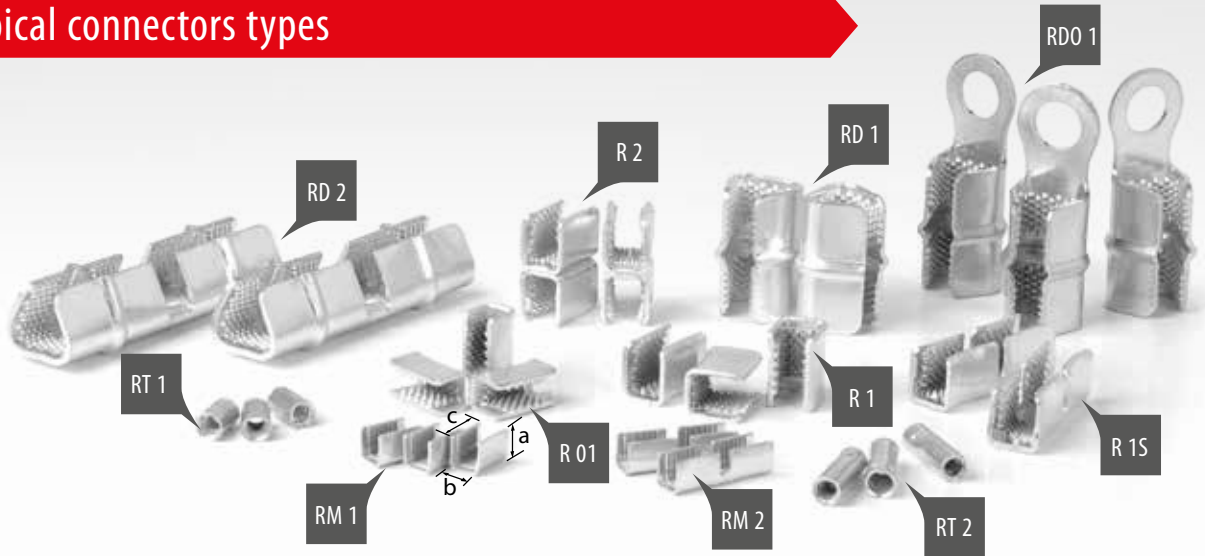


Possibility of adapting connectors for customer's needs.

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 U (2004) 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.
- **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.
- **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.
- **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 any presently used by customer.

Typical connectors types



Wire material	Connector type	Round wires		Rectangular wires range [mm]				Total cross section [mm ²]	Connector's dimensions [mm]			Crimping tool
		Diameters range [mm]		Thickness		Width			a	b	c	
		Ømin	Ømax	min	max	min	max					
Cu	RT 1	0,5	1,5					1,77	Ø7	-	11	GRT 1, EGRT 1
	RT 2	0,5	1,5					3,54	Ø7	-	22	
Al	RT 1	0,8	1,9					1,77	Ø7	-	11	
	RT 2	0,8	1,9					3,54	Ø7	-	22	
Cu	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	
Al	RM 1	0,8	2,2	-	-	-	-	3,5	8	8	12,5	
	RM 2	0,8	2,2	-	-	-	-	3,5x2	8	8	28	
Cu / Al	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 15	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	
Cu	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	
Al	RDO 1			3,15	4	5	14,5	25-65	19	23,5	65,5	
	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	

* recommended ranges



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



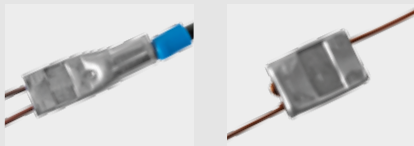
- Head for SHARK connectors:
- RT 1, RT 2
 - on winding enameled and non-enameled wires
 - equipped with SRT dies
 - PRT quick coupler
- Length: 330 mm; Weight: 2,7 kg



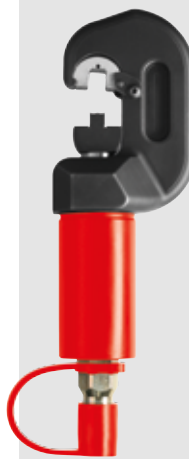
Crimping dies for GRT 1 head

SRT Crimping dies

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
 - on winding enameled and non-enameled wires
 - works with SR dies
 - PT quick coupler
- Length: 330 mm; Weight (without dies): 5,6 kg



Crimping dies for GR 1 head

SR 01 Crimping dies

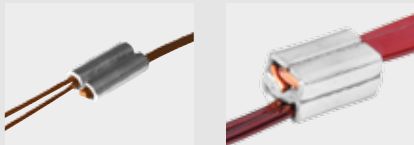
Used for R 01 connectors.

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



AH 300R, AH 300RM, AH 400RD, AH 200RT Electric hydraulic units



AH 300R
AH 300RM
AH 400RD
AH 200RT

Electric hydraulic power unit:

- pressure: 200÷650 bar
- power supply voltage: 3 x 400V (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, ZRT for GRT 1
- 3m long hydraulic hose

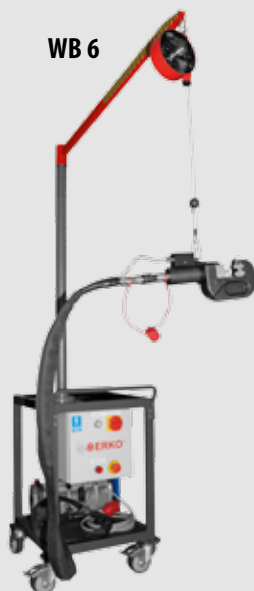
AH 300R3 + WB6 – Special design



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

WB 6



WB 7



Trolley with extension arm along appropriate hydraulic drive and head, form integrated work site as in picture.

WB 1

