

# Elpress System



Product brochure

## Elpress Traction Catalogue

Reliable Results





## Environment policy

Within ELPRESS AB we shall always work with ongoing improvements reducing our influence on the environment. This shall be achieved by using resources in an environment promoting way and by reducing the amount of emissions and waste. We shall meet the legal requirements with a good margin. Our products shall be designed to minimise environmental influence related to

- Manufacture
- Use, and
- Final disposal

All ingredients, materials and components with a negative environment influence shall gradually be exchanged. Our processes as well as our places and methods of work shall be designed and adapted in order to minimise environmental influence and to avoid injury and health hazard to persons.

Information and training shall constitute normal activities in the company to stimulate interest in environment issues with all ELPRESS' employees and to support personal development and participation in the environment work of the company.

Our suppliers and commissioned partners shall be chosen and influenced in such a way that they can add to our fulfilment of the environment policy.

Our customers shall be informed of our environment work and form co-operation partners to spread knowledge and advice to the parties of the distribution chain, all in order to safeguard the proper use, stocking and final disposal of our products.

We shall continuously evaluate the results of the environment work. We shall demonstrate openness concerning information on our work and our effect on the environment.

## Quality

Good quality forms the basis for development with high productivity and competitiveness. Our quality concept addresses our customers, our suppliers and ourselves. With quality we understand our ability to meet internal as well as external customer requirements and expectations regarding the use of our products and services.

### Quality declaration

Our overall quality target shall be to surpass the quality in products and services offered to the market by our competitors. Our attitude shall be characterized by ongoing improvements, with the ambition also to be regarded a natural partner in relevant quality work. Each and every employee of Elpress AB shall give priority the responsibility for quality in his/her daily work. All work regarding quality improvements is supported by the company management.

As a means to fulfil this quality declaration, the requirements of the quality standard ISO 9001 shall be applied as a general standard for the quality work within Elpress AB.



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# SYSTEM ELPRESS

**System Elpress** symbolizes our **cornerstones** – safety and quality. In order to achieve a secure connection we offer **certified solutions** of the combination cable, terminal and tool.

For the installation to be accurate, the installer should undergo training in crimping technology at **Elpress Academy**.



For non-standard solutions you can **consult** us and let our own production and laboratory verify your solution. A preventive **service** maintenance of the tool is the base for the system to work.

**Certification, Academy, Consulting and Service is System Elpress – your secure connection!**



*We manufacture tested systems for electrical connectors  
and their tools. You get a secure connection*

# SYSTEM ELPRESS CERTIFICATION



**We offer:**

- Tool delivered with a certificate
- Verified and tested combination of cable, terminal and tool
- Certified solutions for customized product development
- Product approval in accordance with UL, DNV and CSA
- Third part quality and environment certification in accordance with ISO9001 and ISO14001



In order to achieve a secure connection we offer certified solutions of the combination cable, terminal and tool.

This is so that you as customer can feel secure when you use our system and be sure that a safe connection will be made when our products are used correctly.



## FOR YOUR SAFETY

### The System includes:

- Terminal, connector
- Crimping tool
- Correct cable
- Trained and skilled operator

The system is developed and tested in accordance with existing norms and standards, for example IEC.

### Product development

- Customized solutions
- Specialized segment solutions
- Leading technology in our industry
- Innovative products







Quality & environment certified and approved according to

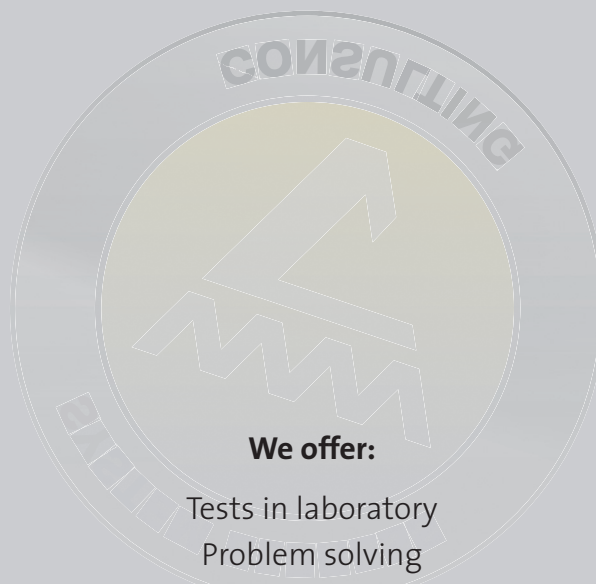
- ISO 14001
- ISO 9001
- DNV
- UL





*We have the necessary resources for you  
to maintain the highest quality*

# SYSTEM ELPRESS CONSULTING



**We offer:**

Tests in laboratory  
Problem solving

Technical and customer support  
Customized terminals and tools  
Audits and validations at your premises



## WHY CONSULT US?

We have been developing, manufacturing and marketing complete cable crimping systems for electrical connectors with more than 50 years of experience. We have therefore the best knowledge and equipment for your requirements and demands.

### **You will have access to:**

- Our technical department that develops constructions according to your needs.
- Our production who can manufacture unique solutions.
- Our laboratory who can supply for example
  - Electrical tests
  - Mechanical tests
  - Corrosion- and environmental tests

*Contact us and let us assist you.*







*Your educated personnel ensures the final quality of products and services.  
Our Academy certificate is a quality document between you and your customer*

# SYSTEM ELPRESS ACADEMY



**We focus on the following four areas:**

- Utility sector and installers
- Transformer manufacturers
- Traction/Train manufacturers
- Wind Power manufacturers



# WHO AND HOW DO WE EDUCATE?

## Utility and installation personnel

### Level 1

General training for all staff. Provides a general knowledge of crimping in all areas;

- Crimping in general
- Terminals below 10 mm<sup>2</sup>
- Cu-connectors over 10 mm<sup>2</sup>
- Al-connectors from 16 mm<sup>2</sup>
- Cu-branching
- Bolt connections
- Deep earthing
- Standards and requirement
- Safety and maintenance

The program combines theory and practice and concludes with a written test. Course participants will receive certificate after completed education.

### Level 2

Education aimed primarily at supervisors, engineers, designers and quality departments. Provides a deeper knowledge of the crimping and maintenance routines. After completed training, the competence is indicated with a certificate.

### Documentation

After completed training each participant receives a certificate of the fulfilled education.

### Time and place

A complete training seminar level 1 takes 2 days and you can decide whether the training should be at your premises or held in Elpress' training facility. Training level 2 takes approximately 1 day depending on scope.

### Price

Base-price seminar level 1 EUR350/person.

Seminar level 2 EUR500/person.

Price can vary depending on the scope and number of participants. Maximum number of participants per seminar is 15. Travel expenses for the training officer are additional costs.

## Transformer manufacturers

### Level 1

For operators who work daily in the production. The aim is to train personnel in the special conditions applying in the transformer manufacturing. The education concerns;

- Crimping in general
- Management of tools
- Calculations and preparation for crimping
- Work procedure
- Quality inspection
- Safety in use
- Preventive maintenance in daily production

The training consists of a theoretical and a practical part and ends with a written test. Course participants will receive certificate after completed education.

### Level 2

Education aimed primarily at supervisors, designers and quality departments. Provides a thorough knowledge of calculations, tool selection and management, problems and solutions and quality assessment. Completed training gives a certified authorization in the field.

### Documentation

Course participants will receive Elpress Work Manual for transformer manufacture and a certificate of the fulfilled education.

### Time and place

A complete training seminar level 1 takes 1 day and the training takes place in your facilities. Training level 2 takes approximately 1 day depending on scope.

### Price

Base-price seminar level 1 EUR250/person.

Seminar level 2 EUR500/person.

Price can vary depending on the number of participants. For efficiency the maximum number of participants per seminar is 10. Travel expenses for the training officer are additional costs.

*A follow-up of the certificates is necessary*





Each training has two levels: a basic education for all staff, and a training targeted at designers, supervisors and quality controllers. It is also possible to adjust the training so the content fits the needs of the company. You can also decide whether the training should be at your premises or held in Elpress' training facility.

## Traction/Train manufacturers

### Level 1

Educate staff in the special demands and external conditions that apply in the manufacture of rail traffic. The education concerns;

- Crimping in general
- Management of tools
- Work procedure
- Elpress Dual-technology
- Quality control
- Safety in use
- Preventive maintenance in daily production

The training consists of a theoretical and a practical part and ends with a written test. Course participants will receive certificate after completed education.

### Level 2

Education aimed primarily at supervisors, designers and quality departments. Provides a thorough knowledge of the selection of tools and management, problems and solutions and quality assessment. Completed training gives a certified authorization in the field.

### Documentation

After completed training each participant receives a certificate of the fulfilled education.

### Time and place

A complete training seminar level 1 takes 1 day and you can decide whether the training should be at your premises or held in Elpress' training facility. Training level 2 takes approximately 1 day depending on scope.

### Price

Base-price seminar level 1 EUR250/person.

Seminar level 2 EUR500/person

Price can vary depending on the number of participants. For efficiency the maximum number of participants per seminar is 15. Travel expenses for the training officer are additional costs.

## Wind Power manufacturers

### Level 1

Educate staff in the special demands and external conditions that apply in the manufacture of wind turbines. The education concerns;

- Crimping in general
- Management of tools
- Work procedure
- Elpress Dual-technology
- Quality inspection
- Safety in use
- Preventive maintenance in daily production

The training consists of a theoretical and a practical part and ends with a written test. Course participants will receive certificate after completed education.

### Level 2

Education aimed primarily at supervisors, engineers and designers and quality departments. Provides a thorough knowledge of the selection of tools and management, problems and solutions and quality assessment. Completed training gives a certified authorization in the field.

### Documentation

After completed training each participant receives a certificate, showing the scope of the education, together with a compendium about crimping.

### Time and place

A complete training seminar level 1 takes 1 day and you can decide whether the training should be at your premises or held in Elpress' training facility. Training level 2 takes approximately 1 day depending on scope.

### Price

Base-price seminar level 1, EUR250/person.

Seminar level 2 EUR500/person

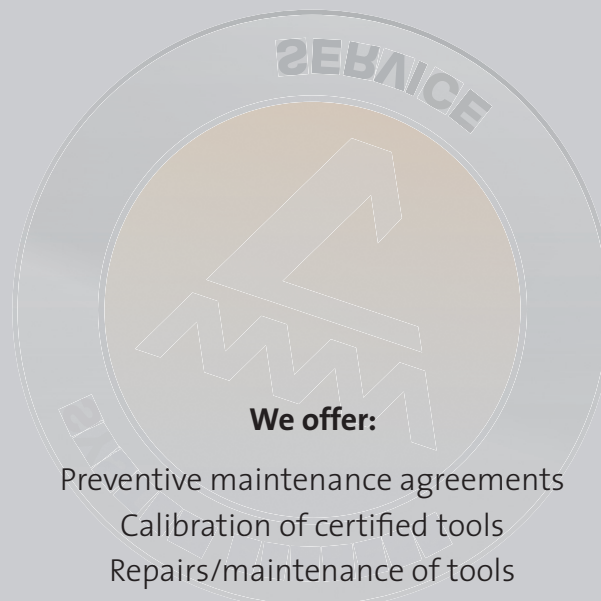
Price can vary depending on the number of participants. For efficiency the maximum number of participants per seminar is 15. Travel expenses for the training officer are additional costs.

*A follow-up of the certificates is necessary*



*Preventive maintenance agreements  
secure the quality of your connection*

# SYSTEM ELPRESS SERVICE



- Preventive maintenance agreements
- Calibration of certified tools
- Repairs/maintenance of tools
- Crimping systems for rent
- Sales of spare parts



# WHAT IS THE BEST SOLUTION FOR YOU?

## Preventive maintenance agreements

Our Service offers you a flexible solution for enhanced security, with rapid service and high availability:

- Planned and preventive maintenance guarantees high performance for your equipment.
- Regular service intervals minimize the risk of unforeseen stoppages by indicating any safety or functional defects and by recommending measures to avoid such problems.
- Regular service intervals are normally implemented every 12 months at a fixed price.
- The price is based on the service level solution and equipment.
- A certificate is issued after the equipment has complied with calibration requirements. • The maintenance can be performed at your premisses.

## Elpress Basic

Elpress Basic service agreement includes following points:

- Preventive maintenance, calibration with certification.
- General inspection of the tool
- Safety aspects in accordance with declaration of conformity (Compliance with Machine Safety Directive, Low Voltage Directive, EMC Directive)
- Function test
- Checking of accessories, e.g. crimp dies etc.
- Issue of Certificate

The inspection follows Elpress final inspection and acceptance inspection requirements.

## Elpress Advance

Elpress Advance service agreement includes following points:

- Elpress Basic + corrective maintenance

Includes the Calibration/certification and wear & tear repairs at a fixed price.

## Calibration of certified tools

The calibration follows the same inspection points and requirements as Elpress Basic, but it is the customer's responsibility to send the tool for calibration.

## Purchased a new product?

Send the Product registration form to Elpress and Elpress Basic is included for free the first year.



## What's special with Traction applications?

During several years Elpress has had contact with manufacturers of traction units, like trains, trams and such, or with their sub-suppliers of cable assemblies. In these contacts it has been more and more apparent that there is quite a spectrum of different requirements that is regarded highly relevant to the use in rolling stock.

- First of all comes of course the requirements of electrical properties and mainly the current carrying capacity. These requirements must be seen in the light of high currents and current peaks in lowest possible conductor areas and the requirements of flexible conductors.
- Traction applications may include tough corrosion resistance requirements.
- Vibrations as well as static loads may occur and be of the most different types. The connection must stand these loads.

Elpress has gone through which tests that may be used to verify that our terminals and connectors together with our crimp systems meet the Traction application requirements. Together with customers the following test standards have been regarded relevant:

- Electrical properties - IEC61238-1, Class A. This is a relatively new standard corresponding to or in many cases superceding most earlier European standards.
- Environmental requirements - DIN V 40 046, part 37. The chosen part of this German standard states a very tough test where hydrogen sulphide is used as the aggressive substance.
- Static loads normally form part of established electrical tests and this is the case also in the IEC-Standard referred to above. The load limits are often rather low but in the Swedish Standard SEN 245010 relatively high

load limits are given and these are therefore used here.

- Vibration tests are hard to carry through in a representative manner. This is due to the very different load patterns that every build-in case may give. A European test for railway applications - EN 50155 - has been used in applicable parts.



*Crimping is a System Technology. This means that it is the combination of a chosen terminal or connector and a matching crimp tool, all determined by the specific conductor that will result in the desired connection properties.*

## Crimping with the DUAL System



This System has been developed to meet the hard combined requirements from manufacturers with tough applications with the best result.

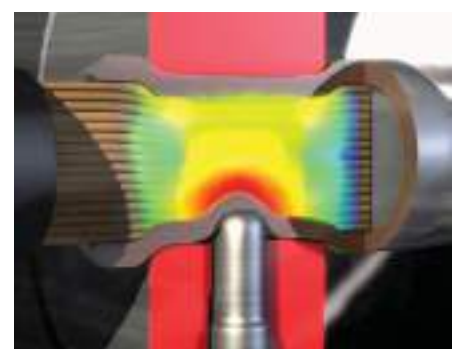
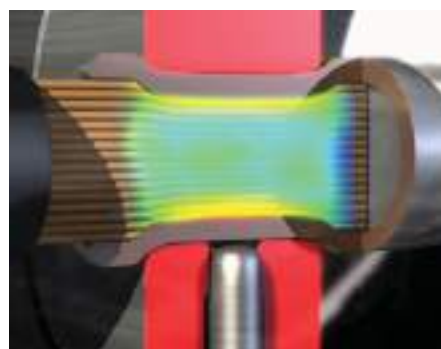
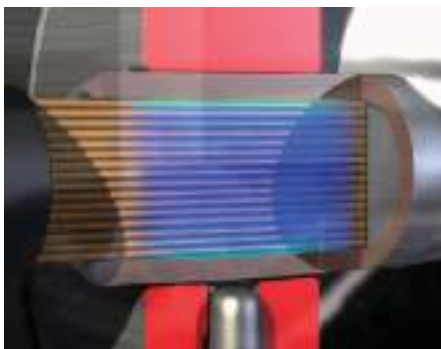
The DUAL technology combines the desired properties from an optimal hexagonal crimp with those of a limited indent crimp.

This results in tight contact surfaces without damage to the conductor strands.

We call this technology, for which patent is applied, the Elpress DUAL System where the name points at split crimp sequence that starts with a hexagonal crimp and, without separation of the dies, is finished by an additional indent crimp.

The DUAL Crimp is performed by the crimp heads DV1300 and DV1300C or battery powered crimp tool PVL1300DUAL, using

the crimp dies DBxx available from 10 to 300 mm<sup>2</sup>. The crimp heads are powered by the normal Elpress hydraulic pumps P4000 (foot pump), PS710 (mains and battery operated hydraulic pump) or P1000 (mains powered pump).



# General information about Cu terminals

## Cu-connections

Elpress Cu-connections are produced from electrolytic 99.9% copper. Terminals and through connectors exist in a large variety of types for stranded as well as for flexible conductors. C-sleeves for earth conductor branch off also come in a large number of sizes. If a standard type is not suitable, we produce tailor made designs specific to the application.

KR/KRF terminals and KS/KSF connectors may be used for both stranded and flexible conductors.

By crimping Elpress terminals and connectors with Elpress crimp tools, connections are achieved that meet the requirements of SEN 245010, BS 4579:1, VDE 0220:1, EN-IEC 61238:1 whichever is applicable.

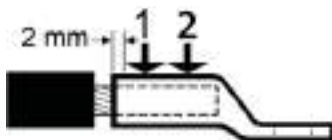


## UL approved terminals

UL is an American standard which is also internationally accepted. Elpress standard Cu terminals of types KR/KS, KRF/KSF are UL approved according to no. E205350. Cu terminals of types KR/KS, KRF/KSF are for stranded and flexible copper wires, classes 2 and 5 according to IEC 60228, and have a working area of 1-300 mm<sup>2</sup>.

## Number of crimps

Normally only one crimp per conductor end is needed up to and including 150 mm<sup>2</sup> and two crimps for larger areas. For detailed information reg no. of crimps, see tables for dies/tools. If possible multiple crimps should be positioned with a few mm distance from each other and from the neck end. In many cases however, overlapping crimps have to be made for space reasons.



Crimp sequence with two adjacent crimps.

## Markings on Cu-connections

Elpress marking system for Cu-connectors shows logotype, conductor area and ID-number for crimp die to be used. This system enables final inspection of proper die use as the die number is automatically imprinted by the die on the crimped barrel.



### Marking of tube terminals

<b>32</b> (on the terminal neck)
ID-no. for the hexagonal die
<b>(Elpress logo) 300-16F</b> (on the palm)
300 = Cu-conductor area, mm <sup>2</sup>
16 = hole for screw M16
F = KRF



### Marking of connectors

<b>(Elpress logo) 27</b>
ID-no. for hexagonal die
<b>185 F</b> (possible screen area and an earth-sign)
185 = Cu-conductor area, mm <sup>2</sup>
F = KSF

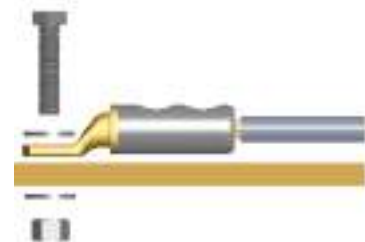
## Stud holes in terminal palms

Screw-dimension	Hole diameter tolerance H13 (Ø mm)
M 3	3,2
M 4	4,3
M 5	5,3
M 6	6,4
M 8	8,4
M 10	10,5
M 12	13
M 16	17
M 20	21
M 24	25

## Screws and washers

The following apply to bright galvanized nuts and screws in strength class 8.8 used for connecting terminals to Cu and Al bus bars:

- Always use a torque wrench to ensure that they are tightened to the right torque. Ensure it is regularly calibrated in accordance with the supplier's instructions.
- Use the recommended torque in accordance with the screw manufacturer's instructions.
- Always use a hard flat washer to reduce friction between the installation surface and hole edge pressure, min hardness HB200.
- A spring washer in accordance with DIN 6796 may be used together with a flat washer to further increase strength in advanced applications.
- Assemble as shown in image.



Screw	Tightening torque (Nm)
M5	5
M6	9
M8	21
M10	41
M12	70
M14	110
M16	170
M20	340

## Tube terminals 16 - 300 mm<sup>2</sup>, KRF

- Data: electrolytic copper, tin plated.
- Cable inspection hole, for stranded (class 2) and flexible (class 5) Cu-conductors.
- UL-approved.

Marking example KRF: 70 10F (Elpress logotype included)

70 = mm<sup>2</sup>    10 = palm hole for M10    F = type KRF, for stranded and flexible conductors



AWG/MCM	Cat. no. mm <sup>2</sup> - bolt hole M	mm W	d	N	N <sub>1</sub>	L	Pcs/ pack	Die no.
6	KRF16-6	13,0	6,0	8,0	9,0	34	100	9
6	KRF16-8	13,0	6,0	8,0	9,0	34	100	9
6	KRF16-10	16,0	6,0	10,0	11,0	38	100	9
6	KRF16-12	22	6,0	12,0	13,0	47	100	9
4	KRF25-6	16,0	8,0	8,0	10,0	39	100	11
4	KRF25-8	16,0	8,0	8,0	10,0	39	100	11
4	KRF25-10	17,0	8,0	10,0	11,0	42	100	11
4	KRF25-12	22	8,0	12,0	13,0	47	100	11
2	KRF35-6	18,0	9,0	10,0	11,0	47	100	13
2	KRF35-8	18,0	9,0	10,0	11,0	47	100	13
2	KRF35-10	18,0	9,0	10,0	11,0	47	100	13
2	KRF35-12	22	9,0	12,0	14,0	52	100	13
1/0	KRF50-6	21	11,0	11,0	12,0	50	100	14,5
1/0	KRF50-8	21	11,0	11,0	12,0	50	100	14,5
1/0	KRF50-10	21	11,0	11,0	12,0	50	100	14,5
1/0	KRF50-12	21	11,0	12,0	14,0	53	100	14,5
1/0	KRF50-16	27	11,0	15,0	17,0	59	100	14,5
2/0	KRF70-6	25	13,0	11,0	12,0	55	50	17
2/0	KRF70-8	25	13,0	11,0	12,0	55	50	17
2/0	KRF70-10	25	13,0	11,0	12,0	55	50	17
2/0	KRF70-12	25	13,0	12,0	14,0	58	50	17
2/0	KRF70-16	28	13,0	15,0	17,0	64	50	17
4/0	KRF95-8	29	15,0	15,0	17,0	69	50	20
4/0	KRF95-10	29	15,0	15,0	17,0	69	50	20
4/0	KRF95-12	29	15,0	15,0	17,0	69	50	20
4/0	KRF95-16	29	15,0	15,0	17,0	69	50	20
250	KRF120-10	32	17,0	15,0	17,0	73	25	22
250	KRF120-12	32	17,0	15,0	17,0	73	25	22
250	KRF120-16	32	17,0	15,0	17,0	73	25	22
300	KRF150-10	36	19,0	15,0	16,0	80	25	25
300	KRF150-12	36	19,0	15,0	16,0	80	25	25
300	KRF150-16	36	19,0	15,0	16,0	80	25	25
300	KRF150-20	36	19,0	19,0	19,0	87	25	25
350	KRF185-10	39	21	15,0	16,0	86	20	27
350	KRF185-12	39	21	15,0	16,0	86	20	27
350	KRF185-16	39	21	15,0	16,0	86	20	27
350	KRF185-20	39	21	19,0	19	93	20	27
500	KRF240A-10	42	22,5	19	20	96	10	30
500	KRF240A-12	42	22,5	19	20	96	10	30
500	KRF240A-16	42	22,5	19	20	96	10	30
500	KRF240A-20	42	22,5	19	20	96	10	30
600	KRF300A-10	46	24,5	15	19	93	10	32
600	KRF300A-12	46	24,5	15	19	93	10	32
600	KRF300A-16	46	24,5	20	20	99	10	32
600	KRF300A-20	46	24,5	23	25	107	10	32
600	KRF300A-24	46	24,5	23	25	107	10	32



## Tube terminals with two stud holes 35 - 300 mm<sup>2</sup>, KRF

- Data: electrolytic copper, tin plated.
- Cable inspection hole, for stranded (class 2) and flexible (class 5) Cu-conductors.
- UL-approved.

Marking example KRF: 70 10F (Elpress logotype included)

70 = mm<sup>2</sup> 10 = palm hole for M10 F = type KRF, for flexible and stranded conductors



AWG/MCM	Cat. no. mm <sup>2</sup> , bolt hole, cc-measure	mm W	d	N	N <sub>1</sub>	L	Pcs/ pack	Die no.
2	KRF35-10X2-24-26	18,5	9	11	16	78	100	13
1/0	KRF50-10X2-24-26	20,5	11	11	16	82	100	14,5
2/0	KRF70-10x2-24-26	25	13,0	11	17	86	50	17
2/0	KRF70-12X2-40	25	13,0	12	18	103	25	17
4/0	KRF95-10X2-24-26	29	15,0	11	19	93	25	20
4/0	KRF95-12X2-40	29	15,0	12	18	109	25	20
250	KRF120-10X2-24-26	32	17,0	11	19	97	25	22
250	KRF120-12X2-40	32	17,0	12	19	113	25	22
300	KRF150-10X2-24-26	36	19,0	11	19	104	25	25
300	KRF150-12X2-40	36	19,0	12	19	120	20	25
350	KRF185-10X2-24-26	39	21	13	19	111	20	27
350	KRF185-12X2-40	39	21	12	20	126	20	27
500	KRF240A-10X2-24-26	42	22,5	11	22	115	10	30
500	KRF240A-12X2-40	42	22,5	12	21	130	10	30
600	KRF300A-12X2-40	46	24,5	12	22	136	5	32

## Tube terminals 45°, 10 - 240 mm<sup>2</sup>, KRF

- Data: electrolytic copper, tin plated.
- Cable inspection hole, for stranded (class 2) and flexible (class 5) Cu-conductors.
- UL-approved.

Marking example KRF: 70 10F (Elpress logotype included)

70 = mm<sup>2</sup> 10 = palm hole for M10 F = type KRF, for stranded and flexible conductors



AWG/MCM	Cat. no. mm <sup>2</sup> , Bolt, 45°	mm W	d	N	N <sub>1</sub>	A	Pcs/ pack	Die no.
8	KR10-6-45GR	13,0	5,0	6,5	11,5	19	100	8
8	KR10-8-45GR	13,5	5,0	8,5	12,0	19	100	8
6	KRF16-6-45GR	13,0	6,0	6,5	11,5	23	100	9
6	KRF16-8-45GR	13,5	6,0	8,5	12,0	23	100	9
4	KRF25-6-45GR	17,0	8,0	6,5	11,5	24	100	11
4	KRF25-8-45GR	17,0	8,0	8,5	12,0	24	100	11
4	KRF25-10-45GR	17,0	8,0	11,5	13,5	24	100	11
2	KRF35-6-45GR	18,0	9,0	6,5	11,5	30	100	13
2	KRF35-8-45GR	18,0	9,0	8,5	12,0	30	100	13
2	KRF35-10-45GR	18,0	9,0	11,5	13,5	30	100	13
1/0	KRF50-8-45GR	21	11,0	8,5	17,5	31	100	14,5
1/0	KRF50-10-45GR	21	11,0	11,5	18,5	31	100	14,5
1/0	KRF50-12-45GR	21	11,0	12,5	19,5	31	100	14,5
2/0	KRF70-8-45GR	25	13,0	8,5	17,5	35	50	17
2/0	KRF70-10-45GR	25	13,0	11,5	18,5	35	50	17
2/0	KRF70-12-45GR	25	13,0	12,5	19,5	35	50	17
4/0	KRF95-10-45GR	29	15,0	11,5	18,5	40	50	20
4/0	KRF95-12-45GR	29	15,0	12,5	19,5	40	50	20
4/0	KRF95-16-45GR	29	15,0	15,5	20,5	40	50	20
250	KRF120-10-45GR	32	17,0	11,5	18,5	43	25	22
250	KRF120-12-45GR	32	17,0	12,5	19,5	43	25	22
250	KRF120-16-45GR	32	17,0	15,5	20,4	43	25	22
300	KRF150-10-45GR	36	19,0	11,5	18,5	49	25	25
300	KRF150-12-45GR	36	19,0	12,5	19,5	49	25	25
300	KRF150-16-45GR	36	19,0	15,5	20,5	49	25	25
350	KRF185-10-45GR	39	21	11,5	18,5	55	20	27
350	KRF185-12-45GR	39	21	12,5	19,5	55	20	27
500	KRF240A-10-45GR	42	24	11,5	18,5	57	10	30
500	KRF240A-12-45GR	42	24	12,5	19,5	57	10	30

## Tube terminals 90° degrees 10 - 240 mm<sup>2</sup>, KRF

- Data: electrolytic copper, tin plated.
- Cable inspection hole, for stranded (class 2) and flexible (class 5) Cu-conductors.
- UL-approved.

Marking example KRF: 70 10F (Elpress logotype included)

70 = mm<sup>2</sup> 10 = palm hole for M10 F = type KRF, for stranded and flexible conductors



AWG/MCM	Cat. no. mm <sup>2</sup> , Bolt	mm W	d	N	N <sub>1</sub>	A	Pcs/ pack	Die no.
8	KR10-6-90GR	13,0	5,0	6,5	11,5	15	100	8
8	KR10-8-90GR	13,5	5,0	8,5	12,0	15	100	8
6	KRF16-6-90GR	13,0	6,0	6,5	11,5	16,5	100	9
6	KRF16-8-90GR	13,5	6,0	8,5	12,0	16,5	100	9
4	KRF25-6-90GR	17,0	8,0	6,5	11,5	18,5	100	11
4	KRF25-8-90GR	17,0	8,0	8,5	12,0	18,5	100	11
4	KRF25-10-90GR	17,0	8,0	11,5	13,5	18,5	100	11
2	KRF35-6-90GR	18,0	9,0	6,5	11,5	22,5	100	13
2	KRF35-8-90GR	18,0	9,0	8,5	12,0	22,5	100	13
2	KRF35-10-90GR	18,0	9,0	11,5	13,5	22,5	100	13
1/0	KRF50-8-90GR	21	11,0	8,5	17,5	30,5	100	14,5
1/0	KRF50-10-90GR	21	11,0	11,5	18,5	30,5	100	14,5
1/0	KRF50-12-90GR	21	11,0	12,5	19,5	30,5	100	14,5
2/0	KRF70-8-90GR	25	13,0	8,5	17,5	31,5	50	17
2/0	KRF70-10-90GR	25	13,0	11,5	18,5	31,5	50	17
2/0	KRF70-12-90GR	25	13,0	12,5	19,5	31,5	50	17
4/0	KRF95-10-90GR	29	15,0	11,5	18,5	32,5	50	20
4/0	KRF95-12-90GR	29	15,0	12,5	19,5	32,5	50	20
4/0	KRF95-16-90GR	29	15,0	15,5	20,5	32,5	50	20
250	KRF120-10-90GR	32	17,0	11,5	18,5	34,5	25	22
250	KRF120-12-90GR	32	17,0	12,5	19,5	34,5	25	22
250	KRF120-16-90GR	32	17,0	15,5	20,5	34,5	25	22
300	KRF150-10-90GR	36	19,0	11,5	18,5	37,5	25	25
300	KRF150-12-90GR	36	19,0	12,5	19,5	37,5	25	25
300	KRF150-16-90GR	36	19,0	15,5	20,5	37,5	25	25
350	KRF185-10-90GR	39	21	11,5	18,5	42,5	20	27
350	KRF185-12-90GR	39	21	12,5	19,5	42,5	20	27
500	KRF240A-10-90GR	42	24	19	19	52	15	30
500	KRF240A-12-90GR	42	24	19	24	52	15	30

## Cu-terminals 50 - 240 mm<sup>2</sup>, KRFN, with narrow palm

- Data: electrolytic copper, tin plated.
- Cable inspection hole, for flexible and stranded Cu-conductors, class 2 and class 5.
- Easy to mount through conduits, enables pre-assembly.

Marking example KRF: 70 10F (Elpress logotype included)

70 = mm<sup>2</sup>    10 = palm hole for M10    F = type KRF, for stranded and flexible conductors



Cat. no. mm <sup>2</sup> , Bolt	mm W	d	D	N	N <sub>1</sub>	L <sub>1</sub>	L	Pcs/Pack	Die no.
KRFN50-6	18	11	14,5	11	11	40	51	100	14,5
KRFN50-8	18	11	14,5	11	11,5	40	51	100	14,5
KRFN50-10	18	11	14,5	11	11,5	40	51	100	14,5
KRFN70-6	20	13,0	17,0	11	11,5	45	56	50	14,5
KRFN70-8	20	13,0	17,0	11	11,5	45	56	50	17
KRFN70-10	20	13,0	17,0	11	11,5	45	56	50	17
KRFN95-8	24	15,0	20,0	11	12	50	61	50	20
KRFN95-10	24	15,0	20,0	11	13	51	62	50	20
KRFN95-12	24	15,0	20,0	12	14	52	64	50	20
KRFN120-8	26	17,0	22,0	11	12	54	65	50	22
KRFN120-10	26	17,0	22,0	11	13	55	66	50	22
KRFN120-12	26	17,0	22,0	12	14	56	68	50	22
KRFN150-10	30	19,0	25,0	11	13	62	73	50	25
KRFN150-12	30	19,0	25,0	12	14	63	75	50	25
KRFN185-10	32	21,0	27,0	11	14	69	80	25	27
KRFN185-12	32	21,0	27,0	12	15	70	82	25	27
KRFN185-16	32	21,0	27,0	15	16	71	86	25	27
KRFN240A-10	38	22,5	29,0	11	16	73	84	50	30
KRFN240A-12	38	22,5	29,0	12	15	72	84	50	30
KRFN240A-16	38	22,5	29,0	15	18	75	90	50	30



KRFN terminals suitable for narrow spaces.



Easy to mount through conduits.

## Through connectors 10 - 300 mm<sup>2</sup>, KS/KSF

- Data: electrolytic copper, tin plated.
- Cable inspection hole and cable stop, for stranded (class 2) and flexible (class 5) Cu-conductors.
- UL-approved.

Marking example: 20 95F 111 (earth-sign) Elpress logotype included

20 = die no. 95 = mm<sup>2</sup> F = type KSF, stranded and flexible conductors

111 = screen, mm<sup>2</sup>



AWG/MCM	Cat. no. mm <sup>2</sup>	Screen cross section	mm d	D	L	Pcs/ pack	Die no.
8	KS10		5,0	8,0	30	100	8
6	KSF16	15	6,0	9,0	35	100	9
4	KSF25	21-29	8,0	11,0	35	100	11
2	KSF35	41	9,0	13,0	35	100	13
1/0	KSF50	57	11,0	14,5	45	50	14,5
2/0	KSF70	72-88	13,0	17,0	45	50	17
4/0	KSF95	111	15,0	20	45	50	20
250	KSF120		17,0	22	55	50	22
300	KSF150		19,0	25	65	25	25
350	KSF185		21	27	70	25	27
500	KSF240A		22,5	29	70	25	30
600	KSF300A		24	31,5	75	10	32

## Through connectors with partition 10 - 300 mm<sup>2</sup>

- Data: electrolytic copper, tin plated.
- With partition to prevent oil-leakage, for stranded (class 2) and flexible (class 5) Cu-conductors.

Marking example: 20 95F 111 (earth-sign) Elpress logotype included

20 = die no. 95 = mm<sup>2</sup> F = type KSF, stranded and flexible conductors

111 = screen, mm<sup>2</sup>



AWG/MCM	Cat. no. mm <sup>2</sup>	Screen cond. area	mm d	D	L	Pcs/ pack	Die no.
8	KS10M		5,0	8,0	36	100	8
6	KSF16M	15	6,0	9,0	37	100	9
4	KSF25M	21-29	8,0	11,0	38	100	11
2	KSF35M	41	9,0	13,0	41	100	13
1/0	KSF50M	57	11,0	14,5	48	50	14,5
2/0	KSF70M	72-88	13,0	17,0	49	50	17
4/0	KSF95M	111	15,0	20	56	50	20
250	KSF120M		17,0	22	63	50	22
300	KSF150M		19,0	25	64	25	25
350	KSF185M		21	27	74	25	27
500	KSF240AM		22,5	29	76	1	30
600	KSF300AM		24,5	31,5	88	1	32

## Patented DUAL SYSTEM for crimping flexible conductors in KRF/KSF-connectors for demanding applications, 10 - 300 mm<sup>2</sup>

### Crimp sequence

The crimp starts with an optimized hexagonal crimp and then makes a small indent in the same crimp cycle to further improve gas tightness as well as electrical and mechanical properties.

### Particulars:

- patented crimp technique
- for crimping of flexible Cu-terminals according to IEC60228, type class 5
- crimps terminals type KRF and through connectors type KSF
- for extra tough environments like cars and train, where the connections except electrical properties also are exposed to such as corrosion, mechanical strength and vibration
- meet the requirements in IEC/EN 61238:1
- meet the requirements of corrosion according to DIN V 40 046, part 37
- meet the requirements for vibration according to EN 50 155
- meet the requirements of mechanical strength according to SEN 24 50 10

## PVL1300DUAL

PVL1300DUAL-US, supplied with a 115 VAC charger.

Battery powered crimp tool for crimping of type KRF/KSF 10-300 mm<sup>2</sup> in demanding applications.

### Particulars:

- ergonomic design that optimizes the balance of the tool in the users hand
- buzzing signal and flashing light if right pressure is not achieved
- LED lightning for work in dark environments
- possibility to document each crimp for unique service control
- crimp force 124 kN (13 ton)
- crimps/charge: 60-120 depending on size and temperature
- crimp time: 4-12 s depending on size
- working temperature -20°C to +40°C
- environmental friendly battery, Li-Ion Makita, 3.0 Ah, 18V
- battery charger Li-Ion Makita, charging time 22 min
- LED indication of charge status
- supplied with robust plastic case, battery, charger and instruction
- PVL1300DB, supplied with 2 batteries
- weight 5.4 kg, (incl battery)
- dimensions 412 x 319 x 75

### Accessories:

- PVBP-LI-ION 3Ah, 18 V Li-Ion, extra battery



PVL1300DUAL



Crimp types

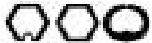




DV1300



Crimp geometries



DUAL+regular crimps

## DV1300

Crimp head for crimping of Cu terminals type KRF/KSF 10 - 300 mm<sup>2</sup>. Used with footpump P4000 or battery / mains powered pump PS710.

### Particulars:

- crimp head with the patented DUAL CRIMP technique which starts with an optimized hexagonal crimp and then makes a small indent in the same crimp cycle to further improve gas tightness as well as electrical and mechanical properties
- DUAL dies are available for 10 - 300 mm<sup>2</sup>
- crimps terminals type KRF and through connectors type KSF
- conventional accessories as shown for V1300 can be used (without DUAL-function)
- DV1300 can also be used with regular crimp dies for the 1300-system
- no die holders are necessary when using DUAL dies
- weight 3.4 kg
- dimensions Ø 74 mm x 265 mm

## DV1300C

C-fork type crimp head, open to one side, for crimping of Cu terminals type KRF/KSF 10 - 300 mm<sup>2</sup>. Used with footpump P4000 or battery / mains powered pump PS710.

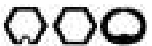
### Particulars:

- Crimp head with the patented DUAL CRIMP technique which starts with an optimized hexagonal crimp and then makes a small indent in the same crimp cycle to further improve gas tightness as well as electrical and mechanical properties
- DUAL dies are available for 10 - 300 mm<sup>2</sup>
- crimps terminals type KRF and through connectors type KSF
- conventional dies as for V1300C can be used (without DUAL-function)
- DV1300C can also be used with regular crimp dies for the 1300C-system  
no die holders are necessary when using DUAL-dies
- weight 4.9 kg
- dimensions 285 mm x 140 mm

DV1300C



Crimp geometries



DUAL + regular crimps

# Accessories for crimping flexible Cu-conductors in the DUAL Crimp system DV1300, DV1300C and PVL1300DUAL

## DUAL crimp dies

Supplied in pairs.

For crimping of flexible Cu conductors in terminals type KRF or connectors type KSF.  
No die holders necessary.



Die pair 13DB20.



Die pair 13DCB20.

AWG/MCM	mm <sup>2</sup>	Dies for DV1300 and PVL1300DUAL	Dies for DV1300C	No. of crimps
8	10	13DB8	13DCB8	1
6	16	13DB9	13DCB9	1
4	25	13DB11	13DCB11	1
2	35	13DB13	13DCB13	1
1/0	50	13DB14,5	13DCB14,5	1
2/0	70	13DB17	13DCB17	1
4/0	95	13DB20	13DCB20	1
250	120	13DB22	13DCB22	2
300	150	13DB25	13DCB25	2
350	185	13DB27	13DCB27	2
500	240	13DB30	13DCB30	2
600	300	13DB32	13DCB32	2



## Pumps

### P4000

Elpress hydraulic footpump.

P4000



#### Particulars:

- unique design in high tensile aluminium alloy
- low weight, 8.6 kg, incl. 2.2 m hose
- standard setting 630 bar (max setting to 700 bar)
- safety valve for relief at all pressures
- a pressure gauge can be attached to indicate working pressure
- ergonomic design
- high finish anodised surface - easy to keep clean
- high efficiency two-step oil flow
- simple foot operated off-loading (piston return) after automatic stop at full pressure
- robust and stable to work with
- practical storage position for hose

### P1000

P1000 is a secure, lean produced 2-step pump as an economical alternative for industrial use where simplicity and reliability is required. The pump is supplied with Elpress safety hose with quick coupling. The robust although light weight-ed design allows intensive use in most cases. The pump is CE-approved.

P1000



#### Particulars:

- function Self holding pressure during crimp cycle, automatic return after completed crimp
- hydraulic pressure: Working range 0-63 (70) MPa, adjustable
- hydraulic flow: Low pressure (up to 1.5 MPa) approx. 0.8 l/min, High pressure (more than 1,5 MPa) 0.2 l/min
- oil volume 2 l (usable 1,8 l)
- oil hydraulic oil ISOVG32
- measures, w x d x h approx. 250 x 150 x 384 mm (excl. hose)
- weight 15 kg (incl. hose)
- mains connection 230 V AC 50/60 Hz
- allowable voltage fluctuation: Rated voltage  $\pm$  5%
- electric motor 0.25 kW, Class E insulation, open type commutated motor 230 V, 50/60 Hz single-phase, Max. current: 2.8 A (5 min.)
- protection class IP20
- environment temperatures 0 - 40°C
- CE-approved: Machine safety 98/37/CE, LVD 73/23/EEC
- hydraulic hose 2.4 m, quick coupling, manoeuvre handle 12 V AC
- mains cord 1.5 m earth plug

# PS710 POWERMAN

- light weight and handy pump designed according to customer request

SMALL ON THE  
OUTSIDE...



**BIG**

ON THE INSIDE...



## PS710

The Elpress pump PS710 Powerman for crimping can do a lot more than you can see on the outside. It can be used in the field or in cable harness production and it is powerful and reliable, but above all it allows you to quality assure your crimping in a completely new way.

PS710 is a hydraulic battery / mains powered pump for crimping with advanced control and supervision of the crimp procedure. It is equipped with a flexible system for almost all crimp applications where high performance and reliability is required. The pump is suitable as well in cable harness manufacturing as for electrician work in the installation field.

The pump consists of three basic versions, PS710D- E and R, all of which enable customised solutions. PS710D can easily be connected to a network and printer, and communicates with the PC in real time for optimum control.

The field version PS710E has been developed for technicians in the distribution network or industry where communication with the PC goes via USB, which enables technicians to have full control of crimping quality.

PS710R is the simple variant without data communication and is suitable for users who need a reliable standard product (without documented traceability). PS710 has power source for every kind of crimping work.

### Technical data:

- possible to use different working pressures, 0 to 700 Bar.
- PC software, Analyzer, for crimp analysis and quality process integration
- can be used with a PC in a data network with a printer
- oil flow at 20 bar: 0.6 litre/min (PS710D 1.2 litre/min)
- oil volume: 1.0 litre
- oil type: HYDREX MV 22 (hydraulic oil, mineral type) or similar
- mains power 100-240 VAC 50-60 Hz
- Li-ion battery 28.8 V, 3.0 Ah
- crimps/battery charge: 120 crimps with Cu 150 mm<sup>2</sup>
- charger 230 VAC 50 Hz, 10.8-28.8 V, charging time 65 min
- protection class IP54
- ambient temperature - 15 to 40 °C
- CE-approved: Machine safety 98/37/EG, Electro magnetic compatibility 2004/108/EG, Low voltage directive 73/23/EEG, ROHS 2002/95/EC, WEEE 2002/96/EC
- small dimensions 370x250x160 mm
- weight approx. 11 kg

## PS710D

For the cable harness manufacturer.

### Technical data:

- unique electronic system together with a special PC-software
- process control and analysis, SPC – each crimp can be traced
- communication to PC in real-time, immediate quality check
- integrated communication through CAN with Elpress CS2500 unit
- high flow hydraulic pump for fastest crimping movement
- can be used with a PC in a data-network with a printer
- to be used with crimp station CS2500



## PS710E

For the installer working in the distribution network or in the industry.

### Technical data:

- small size and low weight make it easy to use in every situation
- highest performance both with Li-ion battery 28.8 V and mains power
- display with keypad for full pump status information to operator
- possibility to have crimps stored in control system
- PC communication with USB
- to be used with crimp head system 1300, 250 or 1470



### Standard solutions:

## PS710E251 \*

### Included:

- pump E-version
- mains cable (for EU)
- hydraulic hose 2.5 m
- battery
- charger
- strap

## PS710E501 \*

### Included:

- pump E-version
- mains cable (for EU)
- hydraulic hose 5.0 m
- battery
- charger
- strap

\* for customers outside EU-countries, please contact Elpress

# Crimp station for industrial crimping needs, KRF/KSF-terminals 10 - 300 mm<sup>2</sup>

## CS2500

Crimp station CS2500 offers effective production with highest operator safety. Advanced intelligent features combined with simplicity make the product unique.



Crimp station CS2500.



Analyzer, crimp station CS2500 and pump PS710D.

### Particulars:

- designed for continuous production of Cu tubeterminals, 10-300 mm<sup>2</sup>.
- fast locking and unlocking of terminals, with low force, makes the total crimp cycle short.
- constructed to give high personal safety
- high crimping force up to 250 kN, self- adjusting for optimal durability of tool and accessories.
- one crimpcycle regardless crimp size.
- Elpress patented DUAL System is used.
- Elpress Hydraulic pump unit, of type PS710 with foot pedal and with advanced control and supervision is attached
- CE-approved, fulfilling machine safety regulations.
- PC- software for crimp analysis is available.
- to be used with mains powered pump PS710D.
- Dimensions, pump unit 390 x 225 x 225 mm
- Weight, pump unit 12.3 kg
- Dimensions, mains unit 390 x 225 x 140 mm
- Weight, mains unit 8.6 kg
- Dimensions, crimp unit 200 x 350 x 340 mm
- Weight, crimp unit 59.5 kg

### Dies

Supplied in pairs.

For crimping of Cu-terminals and connectors, KRF/KSF.

Used without die holders.

Dies 13DCB20.



AWG/MCM	mm <sup>2</sup>	Dies	No. of crimps
8	10	13DCB8	1
6	16	13DCB9	1
4	25	13DCB11	1
2	35	13DCB13	1
1/0	50	13DCB14,5	1
2/0	70	13DCB17	1
4/0	95	13DCB20	1
250	120	20DCB22	1
300	150	20DCB25	1
350	185	20DCB27	1
500	240	20DCB30	1
600	300	20DCB32	1

## Analyzer, software for analysis of crimps and system calibration

The Analyzer computer software is used for quality assurance of crimping work. In a simple way all crimps can be examined in a PC. This unique SPC-tool, Statistic Process Control, give the opportunity to look upon crimping as a measurable process. By definition, process control is a statistical program for systematic studies of variations in operational performance. Import and export of information to customers or just internal can now be realized, as well as printing reports.



The Analyzer computer software is used for quality assurance of crimping work.

### Particulars:

- Elpress Analyzer improves total quality
- helps the operator
- provides a tool for process improvement
- monitors and measure all crimps
- supports preventive maintenance of equipment
- creates traceability and documents
- makes communication easy
- increases user competence
- eliminates defective crimps
- delivered with instructions for use



# Instructions for operation and safety

The method of crimping requires very high forces. Elpress hydraulic and mechanical tools provide these in the safest way. Without proper instructions being available and carefully followed, full safety can however not be achieved. Every Elpress tool is accompanied by detailed instructions of how to use the tool. Read these instructions very carefully prior to use.

### Correct use of the tools:

- increases productivity
- increases life expectancy
- ensures the quality of the operations
- minimizes the risk for accidents

### Safety rules

Here are some simple and common rules which Elpress recommend all users to apply:

- Before crimping, a careful **visual inspection** of the tool should be performed. Pump, crimp tool, presshead, forks, connections, hoses and other accessories are checked to ensure that they are clean and without defects. Check that the accessories are correctly inserted into the tool before use.
- All operators must wear **safety equipment** such as protective goggles, gloves and safety shoes. This is a general precaution against working injuries and is normally a requirement according to the local industrial safety rules.
- The pressure in the hydraulic pumps must be checked regularly.
- Hydraulic pressure should not be applied in a hose which is sharply bent. The hose is specially made for high operational

pressure and **cannot be replaced** by any other type.

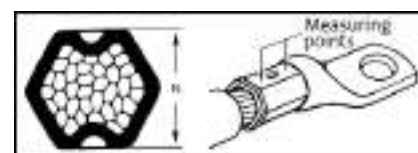
- The tools must be calibrated at usage related intervals (at least yearly), for example with a gauge. Contact Elpress for more information.
- Check that the right tool and die-set combination have been chosen for the terminal or conductor which is to be crimped.
- Hydraulic tools must never be carried by the hose or coupling.
- Be careful, do not drop heavy objects on the hydraulic hose. It can damage the reinforcement and cause leakage. If a leakage occurs, oil at high pressure can pierce the skin with resulting internal injuries. In such cases always seek medical advice at once.
- Check that the work object is electrically switched off before the crimping starts. The tools are not designed for use on live circuits.
- Remember that all crimping tools deliver high forces. Do not stand in front of a tool in the direction of the pressforce.
- Be aware of the risk of pinch and cut injuries when operating. This includes all types of crimp tools and cable cutters.
- If there is a suspected defect on a crimping system, always contact Elpress authorized service department. Do not use the part in question until serviced.

### Checking crimp results

Ensure that a tool has performed the correct crimp and the desired deformation is achieved. This deformation provides mechanical resistance as well as excellent electric characteristics.

The following is considered for copper **terminals and connectors**:

- Inspect the measure "N" on the hexagonal faces where the impressions of the crimp dies are made. See measuring points on following page.
- Measure with a sliding caliper on either side of the impression and compare with the "N"-dimension in the table. In the cases where the impression is missing, the "N"-dimension is measured in the direction of the crimp force. Note that the hexagon is often not symmetric.
- If the result of measuring exceeds the "N"-dimension (according to the table on the next page) after a correctly performed crimp, contact Elpress authorized service department.



Type KRF/KSF with DUAL-dies			
AWG/ MCM	Cu conductor mm <sup>2</sup>	DUAL- dies No.	max N mm
8	10	DB/DCB8	6,7
6	16	DB/DCB 9	7,7
4	25	DB/DCB11	9,2
2	35	DB/DCB13	10,8
1/0	50	DB/DCB14,5	11,8
2/0	70	DB/DCB17	13,8
4/0	95	DB/DCB20	16,0
250	120	DB/DCB22	17,9
300	150	DB/DCB25	20,3
350	185	DB/DCB27	21,9
500	240	DB/DCB30	24,1
600	300	DB/DCB32	25,9

# Maintenance and certification agreements

## General

To safeguard the tool quality, Elpress can offer our customers maintenance and certification agreements. In such an agreement the inspection intervals, based on use, are established. Thereafter we call in the tools and perform the necessary actions to achieve a trouble-free function. These actions are recorded and a certificate is sent back with the tool.

The inspections may also be performed at the customers premises.

## Preventive maintenance agreement

Elpress Service offer a flexible solution for enhanced security, with rapid service and high availability:

- Planned and preventive maintenance guarantees better performance for your equipment.
- Regular service intervals minimise the risk of unforeseen stoppages by indicating any safety or functional defects and by recommending measures to avoid such problems.
- Regular service intervals are normally implemented every 12 months at a fixed price.
- The price is based on the service level solution and tool equipment.
- A certificate is issued after the equipment has complied with calibration requirements.

*Elpress service agreements are arranged per product, tool and service level:*

### Elpress Basic

**Preventive maintenance, calibration with certification**

### Elpress Advance

**Includes Elpress Basic + corrective maintenance**

### Elpress Basic

**Calibration with certification**

This forms the basis of a service agreement and includes the following points:

- General inspection of the tool
- Safety aspects in accordance with declaration of conformity  
(Compliance with Machine Safety Directive, Low Voltage Directive, EMC Directive)
- Function test
- Checking of accessories, e.g. crimp dies etc.
- Issue of Certificate

The inspection follows Elpress final inspection and acceptance inspection requirements.

### Elpress Advance

**Elpress Basic + corrective maintenance**

- Includes the above Calibration/certification and wear & tear repairs at a fixed price.

## Terms

- Exchange equipment may normally be offered if the customer so needs until his equipment is ready to be returned.
- Such exchange equipment must be sent back complete with its packing and without delay to Elpress.
- Possible damage will be repaired and charged.

General materials used when repairing the tool will not be charged separately. Maintenance agreements are set up for 12 month periods and our fees are charged in advance. Notice of termination is three months before the end of a period.



*Elpress service department, calibration of crimp tool PVL1300.*

## The Elpress product range

Since more than 40 years Elpress is the leading manufacturer and supplier of crimp systems on the Scandinavian market. Through our own sales companies in Denmark, Germany and Beijing China and through representatives we are close to most customers.



### The Elpress product range covers

- Pre-insulated and un-insulated terminals 0,25 - 6 mm<sup>2</sup>
- Copper terminals and connectors 0,75 - 1000 mm<sup>2</sup>
- Aluminium and bi-metal terminals and connectors 16 - 1200 mm<sup>2</sup>
- Manual, hydraulic and mains-/battery powered crimp tools
- Stripping and cutting tools
- Deep earthing material

Elpress stocks a wide range of standard items but we also work close to the end users to be able to supply special designs.  
Please contact us or our representatives for details.



# Earthing bus bars

ADDED  
PRODUCTS



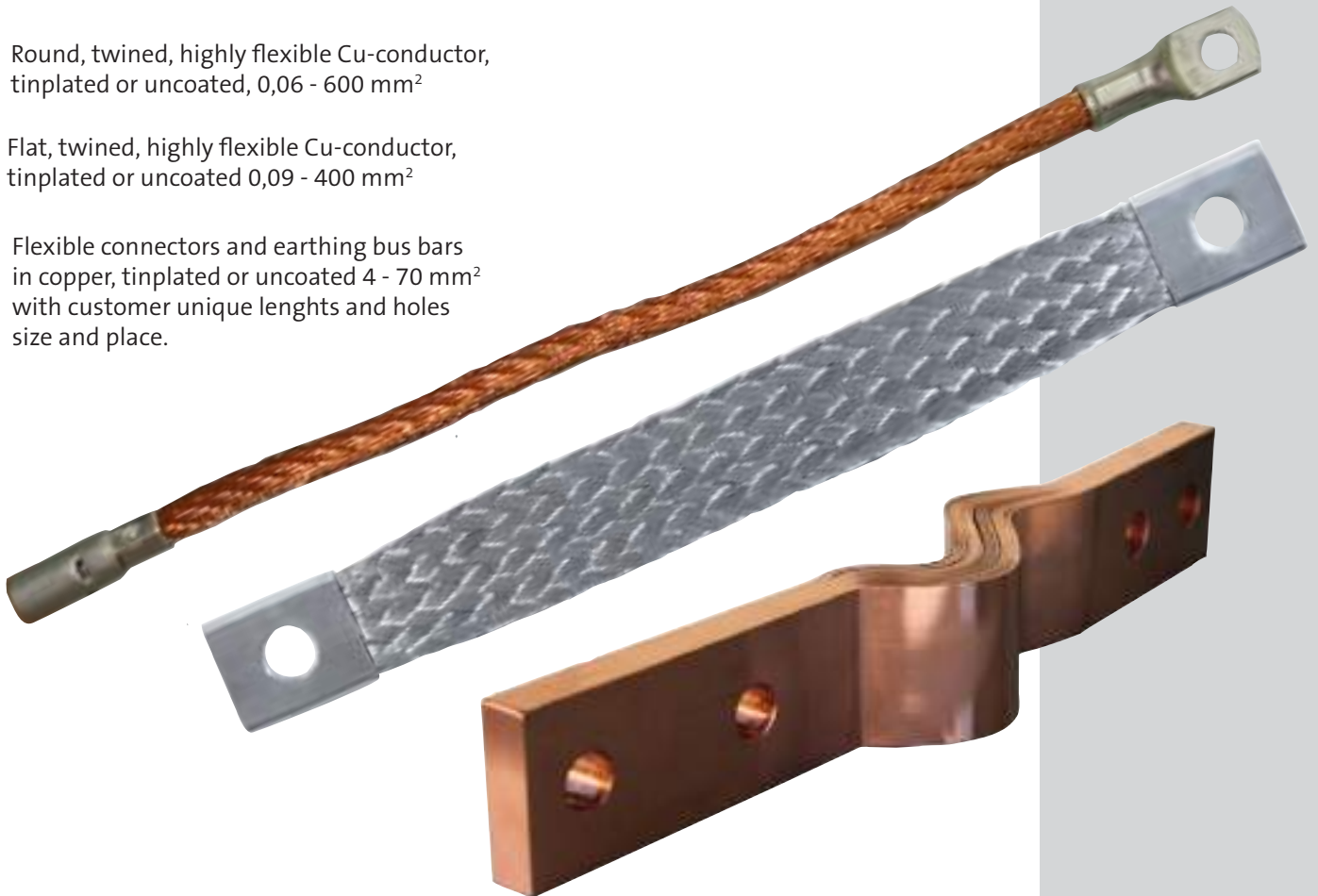
**ELPRESS ADDED PRODUCTS** - products with new possibilities

## Highly flexible connectors and earthing bus bars

Elpress supply a broad range of flexible and highly flexible connectors and earthing bus bars. The flexible solutions which is demanded of this type of connectors is often customer unique and Elpress can also supply earthing bus bars in other material such as stainless steel, aluminum and insulated connectors.

### Product Overview

- Round, twined, highly flexible Cu-conductor, tinned or uncoated, 0,06 - 600 mm<sup>2</sup>
- Flat, twined, highly flexible Cu-conductor, tinned or uncoated 0,09 - 400 mm<sup>2</sup>
- Flexible connectors and earthing bus bars in copper, tinned or uncoated 4 - 70 mm<sup>2</sup> with customer unique lengths and holes size and place.



*Stainless steel, aluminum and insulated connectors can also be supplied after your demand.*



# Contact us

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# Elpress

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