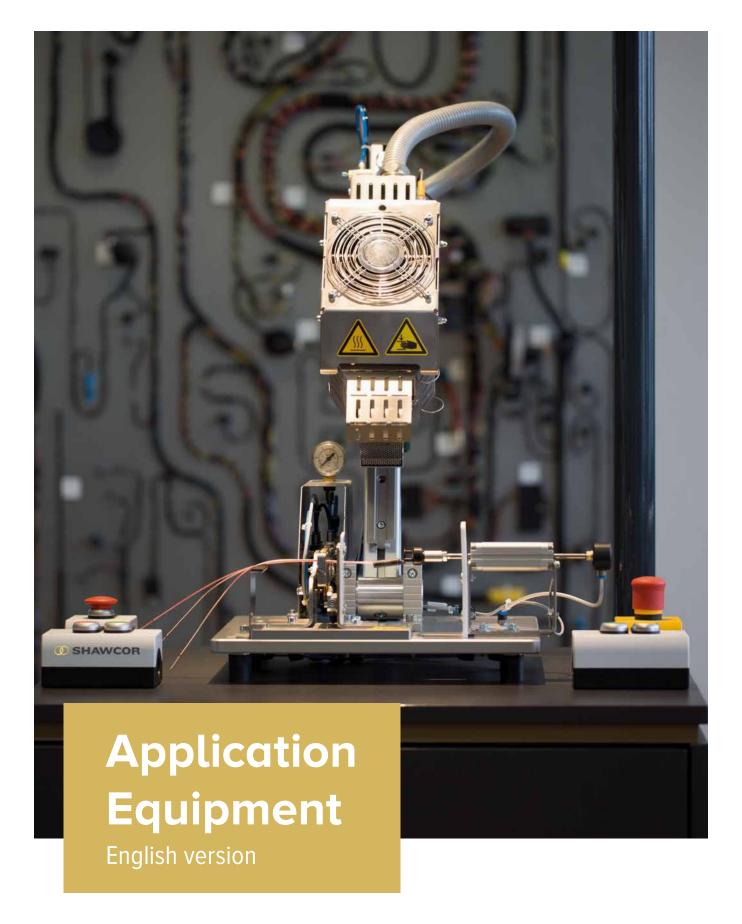
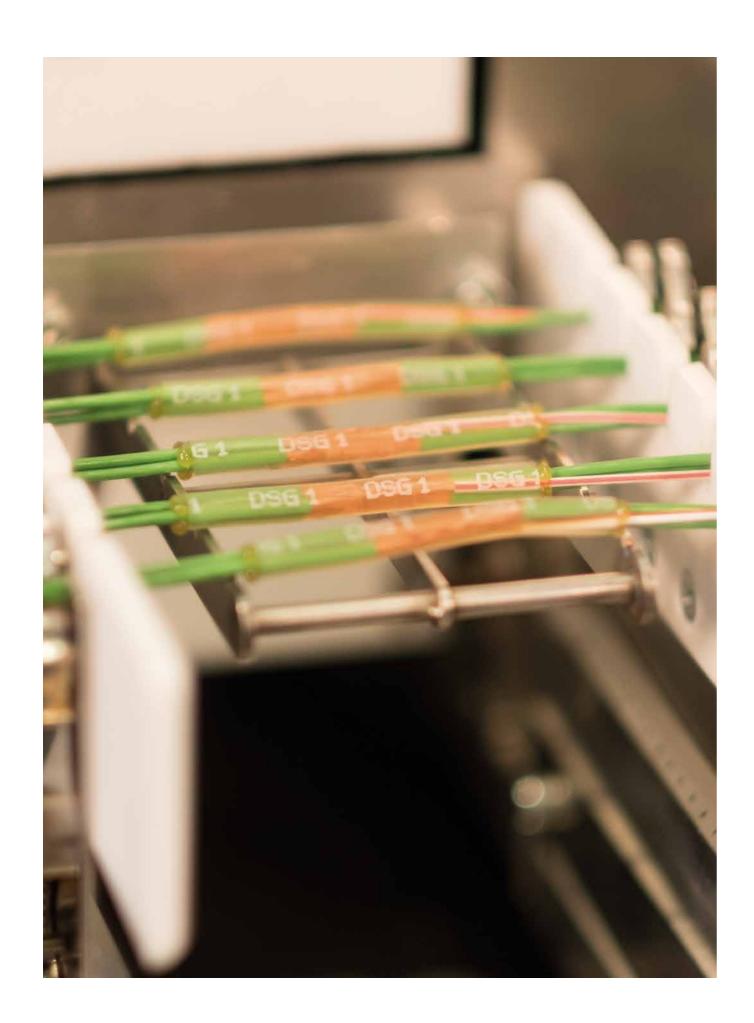
DSG-CANUSA PRODUCTS







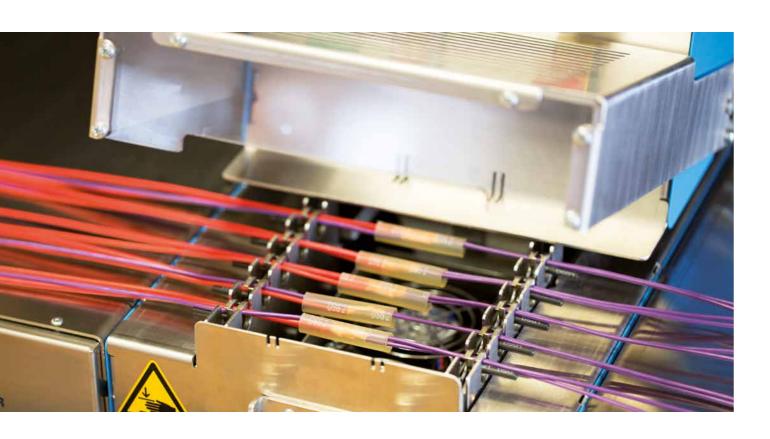


Technical expertise and exceptional skill

For more than 45 years, DSG-Canusa is known for developing and producing high-quality heat shrink tubing and cold-applied accessories. In addition to the heat and cold shrink tubing product line, we provide a full range of technically advanced shrink appliances. Years of experience in processing heat shrink materials have resulted in the creation of a variety of processing devices, from a simple heat gun to high-performance shrink tunnels.

Being part of the energy services provider Shawcor with over 6,000 employees in over 20 countries, we combine the resources, expertise and technologies to maintain a reputation for excellence that stems from our unparalleled customer service and catalogue of top quality products.



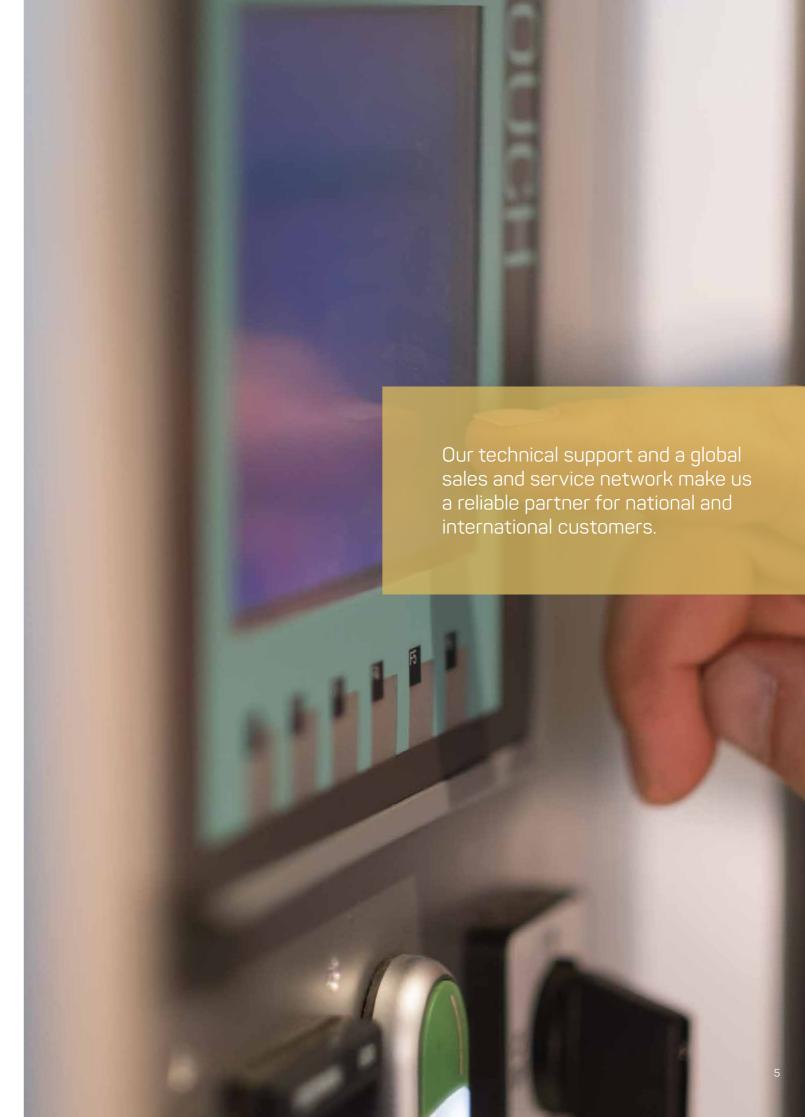


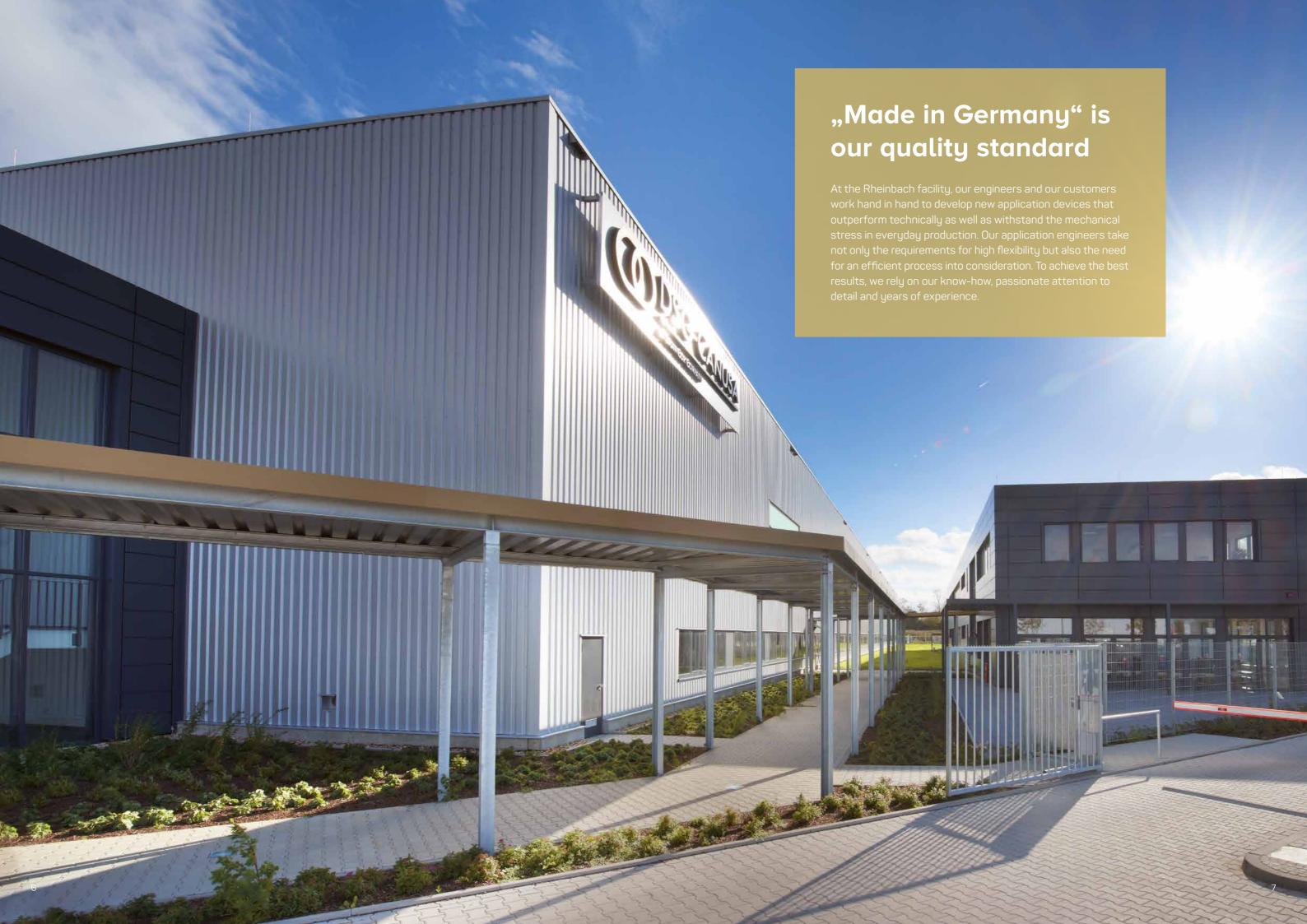
In-House design expertise

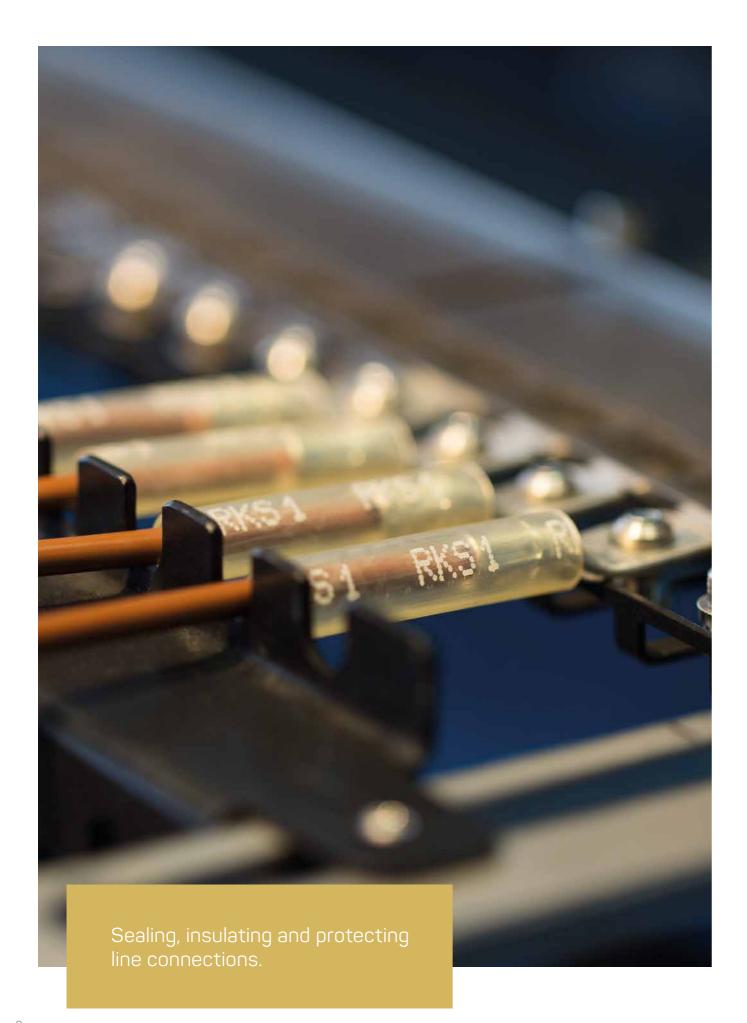
The Connection Systems Machine Technology Center designs and builds our DERAY® application equipment. When developing new devices, this team can rely on years of design and application experience.

The main characteristics of all our devices are state of the art technical designs that enable continuously improving shrinking temperatures and times, a high level of operator convenience, automation and a maximum of production efficiency.

These attributes apply to our hot air based equipment, our infrared technologies and to the quality of all components.







Shrinking devices

- 10 DERAY®-BOARD-WORKMAN RFID
- 12 DERAY®-BOARD-WORKMAN TP ADE
- 14 DERAY®-LEAKAGE TESTER
- 16 DERAY®-DOCKMAN JUNIOR ENDSPLICE
- **18 DERAY®-FST 750-S**
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DERAY®-BOARD-WORKMAN RFID DSG-CANUSA PRODUCTS





DERAY®-Board-Workman RFID is designed for mobile, manual use on the cable board. It is used for the semi-automatic shrinking of lines and multicore cable sets for longitudinal water sealing.

FEATURES AND BENEFITS

- Mobile use on the cable wire board
- Selection of up to 200 processing programs
- Working on up to 40 docking points on wiring board per cycle
- Docking point with RFID-chip, position detection on the wiring board
- USB scanner port
- Relationship with customer's CPU system through RS232 on request
- Relationship with customer's CPU system through TCP/IP and OPC UA on request
- Cooling nozzles: compressed air
- Machine hours counter
- Temperature monitoring
- Adjustable parameters: shrink time, shrink temperature, cooling time
- CE and RoHs conformity

10



DOCKING POINTS ON WIRING BOARD PER CYCLE

AUTOMATIC POSITION DETECTION ON THE WIRING BOARD

APPLICATIONS:

Parallel splices, end splices, ColdMelt Lite sealing system

APPLICATION SAMPLE:







Before the start of production, the main code needs to be transferred to the shrink device. The identification by RFID happens as soon as the work tool is docked at the docking point. The process parameters of the selected shrink point appears on the display, the shrinking process can be started. After the shrinking process is completed, the shrink chamber opens and the shrinking head returns to its home position. The cooling system helps to ensure that any emerging adhesive hardens rapidly and the completed cables are soon ready for further processing.

ORDER INFORMATION

DERAY®-Board-Workman RFID

PRODUCTS / SIZES

DSG-Canusa Heat Shrink Products

- Maximum tubing diameter up to 30 mm
- Maximum tubing length up to 60 mm

For other products and sizes contact DSG-Canusa Application Engineering.

SCOPE OF DELIVERY

- Shrinking machine
- Control unit
- 3 external tip switches: start/stop, abord, emergency stop
- · Operating manual (ENG, DE)

Control unit

TECHNICAL DATA

PROPERTY	
Electrical connection	1/N/PE AC 230 V 50-60 Hz
Electrical current consumption	app. 1.1 kW/h at 275 °C shrink temperature
Electrical power consumption	max. 3.6 kW
Rated current	16 A
Electrical fuse protection at the owner	16 A
Degree of protection	Control unit: IP 54 Shrink head: IP 20
Shrink temperature	150 °C - 300 °C (302 °F - 572 °F)
Pneumatic connection	4.5 - 10 bar (65.3 - 145 psi)
Pneumatic work pressure	5 bar (72 psi)
Heating air shrink chamber adjustable	0.5 - 1.0 bar (7.3 - 14.5 psi)
Air consumption	150 - 180 ltr/min. (5.3 - 6.4 cfm)
Ambient temperature	10 °C - 45 °C (50 °F - 113 °F)
Sound pressure level	app. 67 dB(A)
Dimensions and weight	
Shrinking machine	w 700 x h 520 x d 350 mm w 27.6 x h 20.5 x d 13.8 in 40 kg (88.2 lbs)

w 360 x h 500 x d 580 mm

w 14.2 x h 19.7 x 22.8 in 15 kg (33.1 lbs)

High application variety through various shrink chamber sizes

Uniform heat distribution via shrink chambers

ACCESSORIES

- RFID docking points
- Barcode scanner

DERAY®-BOARD-WORKMAN TP ADE DSG-CANUSA PRODUCTS







Outer diameter detection unit allows safe process



DESCRIPTION

DERAY®-Board-Workman TP ADE is a mobile shrink machine which is used on the cable board with a balancer. The appliance has been designed to seal and isolate ultrasonically welded and crimped end splices on stationary and mobile cable boards in transfer lines. Once at the defined shrink points, the shrinking unit is locked to the cable board at the indicated docking points.

FEATURES AND BENEFITS

- Mobile use on the cable wire board
- Save and easy use
- Automatic outer diameter detection system and assignment of shrinkage parameters
- Shrink chambers are available in various sizes, in a quick-change system
- Relationship with customer's CPU system through RS232 on request
- Relationship with customer's CPU system through TCP/IP and OPC UA on request
- Process optimization by using scanners is possible
- Day cycle counter and total cycle counter
- Temperature monitoring
- Adjustable parameters: Process parameter, process time, cooling time
- CE and RoHs conformity



Ø 30-45 mm

SHRINK CHAMBERS AVAILABLE

OUTER DIAMETER
DETECTION AND AUTOMATIC
ALLOCATION OF SHRINK
PARAMETERS

APPLICATIONS:

End splices on wiring harness cable board

APPLICATION SAMPLE:



OPERATION

The unleaded end splice is set into the outer diameter recognition device and the ADE system is closed. The software determines the correct shrinkage parameters. The shrinkage unit moves into the shrinking position and the shrinking process begins. After the end of the process, the shrinkage will move back to the home position, the shrinking tube cap will undergo cooling, the ADE unit opens and releases the finished end splice again. The cooling helps to ensure that the inserted cables are soon ready for further processing.

ORDER INFORMATION

DERAY®-Board-Workman TP ADE

PRODUCTS / SIZES

DSG-Canusa Heat Shrink Products

- Maximum tubing diameter up to 35 mm
- Maximum tubing length up to 70 mm

For other products and sizes contact DSG-Canusa Application Engineering.

SCOPE OF DELIVERY

- Shrinking machine
- Control unit
- Emergency stop button
- External process stop button
- Balancer
- Operating manual (ENG, DE, ES)

TECHNICAL DATA

TEOTIMORE DATA	
PROPERTY	
Electrical connection	1/N/PE AC 230 V 50-60 Hz
Electrical current consumption	app. 1.1 kW/h at 275 °C shrink temperature
Electrical power consumption	max. 3.6 kW
Rated current	16 A
Electrical fuse protection at the owner	16 A
Degree of protection	Control unit: IP 54 Shrink head: IP 20
Shrink temperature	150 °C - 275 °C (302 °F - 527 °F)
Pneumatic connection	6 - 10 bar (87 – 145 psi)
Pneumatic work pressure	5 bar (72 psi)
Air consumption	150 - 180 ltr/min. (5.3 - 6.4 cfm)
Length corrugated pipe connecting hose	15 m (49 ft)
Ambient temperature	10 °C - 45 °C (50 °F - 113 °F)
Sound pressure level	app. 67 dB(A)
Dimensions and weight	
Shrinking machine	w 600 x h 400 x d 330 mm w 27.6 x h 15.7 x d 13 in 20 kg (44 lbs)
Control unit	w 420 x h 220 x d 800 mm w 16.5 x h 8.6 x 31.5 in

Shrink chambers: Width: 24 - 36 - 48 - 60

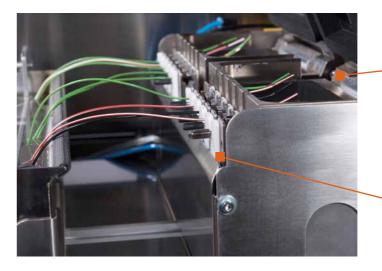
ACCESSORIES

mm (0.94 - 1.42 - 1.89 - 2.36 inch); Internal diameter: 30 and

45 mm (1.18 and 1.77 inch)

DERAY®-LEAKAGE TESTER DSG-CANUSA PRODUCTS







Consistent heat distribution because of shrink chamber



DESCRIPTION

The DERAY®-Leakage testing device is built in a desktop version and is especially designed for the leaking test of crimped and welded wire applications assembled with heat shrink tubes.

The testable wire cross sections are 0.13 mm² - 10 mm².

FEATURES AND BENEFITS

- Testing of up to 20 lines for leaks
- Cable diameter from 0.13 mm² 10 mm²
- Pressure monitoring in each test chamber
- Automatic test cycle
- Adjustable parameters: Testing time, pressure
- Overpressure for standard tests: 0.5 1.0 bar
- CE and RoHs conformity



Up to 20
LINES PER CYCLE

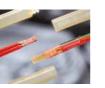
0.13 - 10 mm² cross cable section automatic test cycle

APPLICATIONS:

Parallel and end splice, ring- and tubular terminal application

APPLICATION SAMPLE:





OPERATION

The DERAY®-Leakage tester is used to check the watertightness of the crimped or welded cables covered with a heat shrink tube. The cables to be tested are placed in a tank filled with water and tested with compressed air. A maximum of 20 lines can be tested simultaneously, which are taken up by a holder during the testing period. The test pressure shall be set to 0.5 - 1.0 bar according to the test procedure. The inspection process is activated by simultaneous closing of the safety hoods. The four pressure chambers located under the protective covers close automatically and the pre-selected pneumatic test pressure begins to build up. Leaks in crimped or welded lines and those fitted with heat-shrink tubing will become visible through rising bubbles in the water. After the process is completed, the safety hoods and pressure chambers are automatically opened, and the cable-fastener is automatically unlocked.

ORDER INFORMATION

DERAY®-Leakage Tester

For other products and sizes contact DSG-Canusa Application Engineering.

SCOPE OF DELIVERY

- Leakage tester
- Four gaskets
- Operating manual (ENG, FR, DE)

TECHNICAL DATA

Control unit

PROPERTY	
Electrical connection	1/N/PE AC 230 V 50-60 Hz
Electrical power consumption	0.12 kW
Rated current	1A
Electrical fuse protection at the owner	16 A
Degree of protection	IP 40
Pneumatic connection	5 - 10 bar (72.5 - 145 psi)
Pneumatic work pressure	5.5 bar (79.8 psi)
Ambient temperature	10 °C - 45 °C (50 °F - 113 °F)
Sound pressure level	app. 70 dB(A)
Dimensions and weight	
	w 1403 x h 760 x d 670 mm

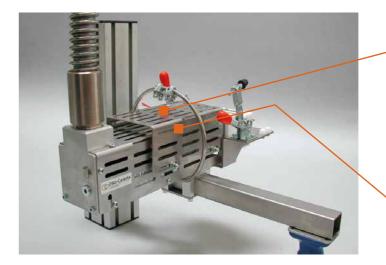
w 55.2 x h 29.9 x d 26.4 in

111 kg (242.5 lbs)

ACCESSORIES

 Two external emergency buttons (additionally)







Two-sided insertion of end splice possible

Splice clamping in shrink mouth

DESCRIPTION

The DERAY®-DockMan Junior Endsplice is a semi-automatic hot air shrink appliance for processing heat shrinking tubing in wiring systems. It is primarily used for mobile, manual use on the cable board with a balancer. The appliance has been designed specifically to process ultrasonically welded- and crimped end splices on stationary and mobile forming boards in transfer lines. Once at the defined shrink points, the shrinking unit is locked to the cable board at the indicated docking points.

FEATURES AND BENEFITS

- Mobile use on the cable wire board
- Safe and easy use
- Low-cost processing
- Automatic control of shrink temperature and process time
- High flexibility as the appliance can be docked to any position on the forming board
- Weight-neutral suspension device
- Relationship with customer's CPU system through RS232 on request
- Relationship with customer's CPU system through TCP/IP and OPC UA on request
- Stand-by heating
- CE and RoHs conformance



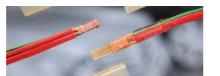
EASY HANDLING

INEXPENSIVE PROCESSING

APPLICATIONS:

End splices on cable board

APPLICATION SAMPLE:



OPERATION

The mobile shrink unit automatically moves to the preselected operating position and the shrink process starts. Positioning of the mobile shrink unit is effected via a docking station. The preselected shrink temperature is controlled automatically. Opening and closing of the shrink chamber takes place pneumatically. Once shrinking is complete, the shrink unit returns to its ready position.

ORDER INFORMATION

DERAY®-DockMan Junior Endsplice

PRODUCTS / SIZES

• DERAY®-SpliceMelt Sizes 1 to 3, length max. 65 mm

For other products and sizes contact DSG-Canusa Application Engineering.

ACCESSORIES

Shrink chambers:

Width: 100 mm

SCOPE OF DELIVERY

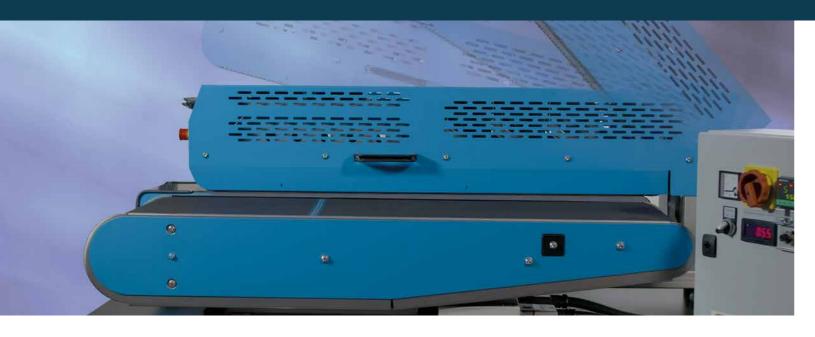
- Shrinking machine
- Control unit
- External emergency stop
- Balancer
- Operating manual (ENG, DE)

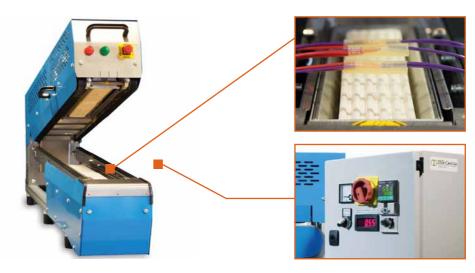
TECHNICAL DATA

TECHNICAL DATA	
PROPERTY	
Electrical connection	1/N/PE AC 230 V 50-60 Hz
Electrical current consumption	app. 1.1 kW/h at 275 °C shrink temperature
Electrical power consumption	max. 3.6 kW
Rated current	16 A
Electrical fuse protection at the owner	16 A
Degree of protection	Control unit: IP 54 Shrink head: IP 20
Pneumatic connection	6 - 10 bar (87 - 145 psi)
Pneumatic work pressure	5 bar (72 psi)
Air consumption	150 - 180 ltr/min. (5.3 - 6.4 cfm)
Heating air shrink chamber adjustable	0.5 - 1.0 bar (7.3 - 14.5 psi)
Shrink temperature at the IR heater	150 °C - 275 °C (302 °F - 527 °F)
Ambient temperature	10 °C - 45 °C (50 °F - 113 °F)
Sound pressure level	app. 67 dB(A)
Dimensions and weight	
Shrinking machine	w 190 x h 540 x d 430 mm w 7.4 x h 21.2 x d 16.9 in 18 kg (39.6 lbs)
Control unit	w 600 x h 400 x d 330 mm w 27.6 x h 15.7 x d 13 in

19 kg (41.9 lbs)

DERAY®-FST 750-S DSG-CANUSA PRODUCTS





Infrared ceramic heating elements up to 550 °C

Easy handling and use

DESCRIPTION

The DERAY®-FST 750-S is a semi-automatic shrink tunnel with infrared heating elements. The shrink device is designed to process heat shrinking products to seal and insulate ultrasonically welded- and crimped splice joints.

The maximum sum of nominal cable cross section per inserted splice is \max 10 mm^2 .

FEATURES AND BENEFITS

- IR ceramic heating elements, lifetime approximately 10,000 hrs
- Simple and easy handling
- Cooling system with two fans
- Speed: 30-210 cm / min
- Automatic control of shrink temperature
- Large opening for object removal
- Adjustable parameters: Shrink temperature, speed
- CE and RoHs conformity



Up to 10 mm²

190 mm
INTEGRATED COOLING ZONE

APPLICATIONS:

Parallel splices

APPLICATION SAMPLE:



OPERATION

The DERAY®-FST 750-S is equipped with two IR ceramic heating elements. The objects to be shrunk are transported by two parallel running transport belts. The upper and lower conveyor belts are driven via motor gear units. Once the shrinking process is complete, two object cooling fans cool the finished items. The cooling system helps to ensure that the finished items can be quickly released for further processing.

ORDER INFORMATION

DERAY®-FST 750-S

PRODUCTS / SIZES

- DERAY®-SpliceMelt: Sizes 1 to 4, length max. 75 mm
- HFTX: Sizes 1 to 4, length max. 75 mm
- Single wall shrink tube: length max. 90 mm, max. diameter 20 mm

For other products and sizes contact DSG-Canusa Application Engineering.

SCOPE OF DELIVERY

- Shrinking machine
- Control unit
- Operating manual (ENG, FR, DE)

ACCESSORIES

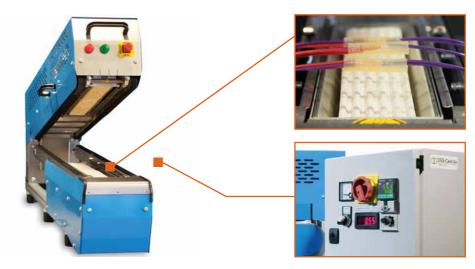
Calibration sensor

TECHNICAL DATA

TECHNICAL DATA	
PROPERTY	
Electrical connection	1/N/PE AC 230 V 50-60 Hz
Electrical power consumption	3.5 kW
Rated current	16 A
Electrical fuse protection at the owner	16 A
Degree of protection	IP 20
Power of IR-heating unit	4 x 800 W
Shrinking zone	500 mm (19.7 in)
Cooling zone	190 mm (7.5 in)
Shrink temperature at the IR heater	300 °C - 550 °C (572 °F - 1022 °F)
Ambient temperature	10 °C - 45 °C (50 °F - 113 °F)
Sound pressure level	app. 50 dB(A)
Dimensions and weight	
Shrinking machine	w 320 x h 470 x d 1170 mm w 12.6 x h 18.5 x d 46.1 in 70 kg (154.3 lbs)
Control unit	w 310 x h 420 x d 220 mm w 12.2 x h 16.5 x 8.7 in 15 kg (33 lbs)

DERAY®-FST 950-D DSG-CANUSA PRODUCTS





Infrared ceramic heating elements up to 550 °C

Easy handling and use

DESCRIPTION

The DERAY®-FST 950-D is a semi-automatic shrink tunnel with infrared heating elements. The shrink device is designed to process heat shrinking products to seal and insulate ultrasonically welded and crimped splice joints.

The maximum sum of nominal cable cross section per inserted splice is \max 10 mm^2 .

FEATURES AND BENEFITS

- IR ceramic heating elements, lifetime approximately 10,000 hrs
- Safe and easy use
- Big opening for the insertion of objects
- Double drive through upper and lower transport conveyor belts
- Cooling System with three fans
- Speed: 30-210 cm / min
- Temperature monitoring
- Adjustable parameters: Temperature, speed
- CE and RoHs conformity



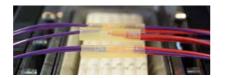
Up to 10 mm²

300 mm INTEGRATED COOLING ZONE

APPLICATIONS:

Parallel splices

APPLICATION SAMPLE:



OPERATION

The DERAY®-FST 950-D is equipped with two IR ceramic heating elements. The objects to be shrunk are transported by two parallel running transport belts. The upper and lower conveyor belts are driven separately via motor gear units. Once the shrinking is complete, three object cooling fans cool the finished items. The cooling system helps to ensure that the finished items can be quickly released for further processing.

ORDER INFORMATION

DERAY®-FST 950-D

PRODUCTS / SIZES

- DERAY®-SpliceMelt: Sizes 1 to 4, length max. 75 mm
- HFTX: Sizes 1 to 4, length max. 75 mm
- Single wall shrink tube: length max. 90 mm, max. diameter 20 mm

For other products and sizes contact DSG-Canusa Application Engineering.

SCOPE OF DELIVERY

- Shrinking machine
- Control unit
- Operating manual (ENG, FR, DE)

ACCESSORIES

- Calibration sensor
- Conveyer belt

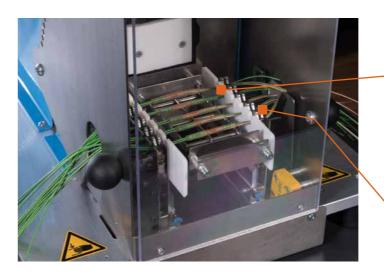
TECHNICAL DATA

PROPERTY	
Electrical connection	1/N/PE AC 230 V 50-60 Hz
Electrical power consumption	3.5 kW
Rated current	16 A
Electrical fuse protection at the owner	16 A
Degree of protection	IP 20
Power of IR-heating unit	4 x 800 W
Shrinking zone	500 mm (19.7 in)
Cooling zone	300 mm (11.8 in)
Shrink temperature at the IR heater	300 °C - 550 °C (572 °F - 1022 °F)
Ambient temperature	10 °C - 40 °C (50 °F - 104 °F)
Sound pressure level	app. 50 dB(A)
Dimensions and weight	
Shrinking machine	w 320 x h 490 x d 1300 mm w 12.6 x h 19.3 x d 51.2 in 84 kg (185.2 lbs)
Control unit	w 310 x h 420 x d 220 mm w 12.2 x h 16.5 x 8.7 in 15 ka (33 lbs)

DERAY®-PSP-D

DSG-CANUSA PRODUCTS







5-splice wire fixation

Position marks

DESCRIPTION

The DERAY®-PSP-D is a semi-automatic bench-top shrink appliance with infrared heating elements. Designed to process heat shrinking products to seal and insulate up to five ultrasonically welded and crimped splice joints at one time.

The maximum sum of nominal cable cross section per inserted splice is max. 2.5 mm².

FEATURES AND BENEFITS

- IR ceramic heating elements, lifetime approximately 10,000 hrs
- Safe and easy use
- Processing of up to five splices per cycle
- Cooling System: Compressed air
- Pneumatic protection cover
- Adjustable parameters: shrink time, shrink temperature, cooling time
- Semi-automatic calibration
- Relationship with customer's CPU system through RS232 on request
- Relationship with customer's CPU system through TCP/IP and OPC UA on request
- CE and RoHs conformity



5
SPLICES PER CYCLE

10 khrs
LONG LIFE HEATING
ELEMENTS

APPLICATIONS:

Parallel splices, end splices

APPLICATION SAMPLE:



OPERATION

The DERAY®-PSP-D is equipped with a 5-splice holder. Position marks facilitate the insertion and positioning the splice and heat shrink tubing. After the safety hood is locked, the two IR-heating elements move forward to the working position. After the shrinking procedure, the heating elements move back to the home position and cooling nozzles begin to cool down the completed application. The cooling system helps to ensure that the inserted cables are quickly moving to the next procedural step and helps to harden any leaking adhesive rapidly. At the end of the shrinking process, the safety hood unlocks, and the 5-way splice holder is opened. The operator removes the processed splices.

ORDER INFORMATION

DERAY®-PSP 240-S

PRODUCTS / SIZES

• DERAY®-SpliceMelt Sizes 1 and 2, length max. 50 mm

For other products and sizes contact DSG-Canusa Application Engineering.

SCOPE OF DELIVERY

- Shrinking machine
- Operating manual (ENG, RO, DE)

ACCESSORIES

Calibration sensor

TECHNICAL DATA

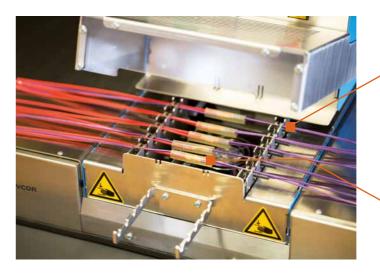
PROPERTY	
Electrical connection	1/N/PE AC 230 V 50-60 Hz
Electrical power consumption	800 watt
Rated current	8 A
Electrical fuse protection at the owner	16 A
Degree of protection	IP 20
Pneumatic connection	5 - 8 bar (87 - 116 psi)
Shrink temperature at the IR heater	200 °C - 550 °C (392 °F - 1022 °F)
Distance of IR-ceramic heating elements	30mm - 50mm (1.18 in - 2.0 in)
Ambient temperature	10 °C - 45 °C (50 °F - 113 °F)
Sound pressure level	app. 60 dB(A)
Dimensions and weight	
	600 } 050 1 000

Shrinking machine

w 600 x h 850 x d 900 mm w 23.6 x h 33.5 x d 40 in 40 kg (88.2 lbs)

DERAY®-PSP 240-S DSG-CANUSA PRODUCTS







5-splice wire fixation



Parallel- and end splices processable

DESCRIPTION

The DERAY®-PSP 240-S shrinking machine is a semiautomatic unit designed to install and shrink splice sealing products with a maximum of 5 splices in one work operation onto ultrasonically welded or crimped splice joints. The maximum sum of nominal cable cross section per inserted splice is 15 mm².

The stand-alone workstation is designed for manually applying splice assembled with DERAY®-SpliceMelt heat shrink tube or caps.

FEATURES AND BENEFITS

- IR ceramic long life heating elements, lifetime approximately 10,000 hrs
- Application: Parallel & end splices
- Up to 5 splices per cycle
- Process optimization by using barcode scanners is possible
- $\bullet \quad$ Relationship with customer's CPU system through RS232 on request
- Relationship with customer's CPU system through TCP/IP and OPC UA on request
- Cooling system: fan and/or compressed air
- Machine hours and cycle counter
- Piece counter
- Pneumatic protection cover
- Adjustable parameters: shrink time, shrink temperature, cooling time
- Semiautomatic calibration
- CE and RoHs conformity



5
SPLICES PER CYCLE

from 6 Sec.

10 k hrs

LONG LIFE HEATING ELEMENTS

APPLICATIONS:

Parallel splices, end splices

APPLICATION SAMPLE:





OPERATION

The shrinking machine is equipped with one holder for manual insertion of up to 5 splices. Positioning aids make it easy to get the splices and heat shrink tubes positioned correctly. The shrinking process starts automatically by closing the safety hood. Once the safety hood has locked, the pneumatically driven object holder moves back into the machine's shrinking zone. The lower and the upper IR heating elements start the heating procedure. After the shrinking procedure, the safety hood opens automatically. If preselected, fans or air cooling nozzles are activated and cool the shrink points. The cooling helps to ensure that the inserted splices are soon ready for further processing and quickly hardens the emerging adhesive.

ORDER INFORMATION

DERAY®-PSP 240-S

PRODUCTS / SIZES

- DERAY®-SpliceMelt: Sizes 1 to 3, length max. 65 mm
- DERAY®-SpliceMelt Cap: Sizes 1 to 2, length max. 50 mm
- HTFX: Sizes 1 to 3, length max. 65 mm

For other products and sizes contact DSG-Canusa Application Engineering.

SCOPE OF DELIVERY

- Shrinking machine
- Control unit
- Operating manual (ENG, FR, PI, UA, RO, BG, DE)

ACCESSORIES

- Supporting surface to the left and right of application holder
- Calibration sensor
- Barcode scanner

TECHNICAL DATA

TECHNICAL DATA		
PROPERTY		
Electrical connection	1/N/PE AC 230 V 50-60 Hz	
Electrical power consumption	1.8 kW	
Rated current	8 A	
Electrical fuse protection at the owner	16 A	
Degree of protection	IP 20	
Pneumatic connection	5 - 8 bar (87 - 116 psi)	
Shrink temperature at the IR heater	550 °C (1022 °F)	
Ambient temperature	10 °C - 45 °C (50 °F - 113 °F)	
Sound pressure level	ca. 60 dB(A)	
Dimensions and weight		
Shrinking machine	w 255 x h 280 x d 600 mm w 10 x h 11 x d 23.6 in 25 kg (55.1 lbs)	
Control unit	w 490 x h 270 x d 640 mm w 19.3 x h 10.6 x d 25.2 in 15 kg (33.1 lbs)	

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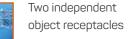
DERAY®-SHUTTLE 240 / 60 DSG-CANUSA PRODUCTS







Height adjustment upper heating unit



DESCRIPTION

The DERAY®-Shuttle 240 / 60 is a single table-top workstation and a semi-automatic shrinking device for sealing and insulating ultrasonically welded- and crimped ring cable lugs, tubular cable lugs and end splices. The shrink device has two independent frames, in which up to 20 applications can be shrunk per cycle.

The machine is capable of processing cable cross sections of up to 85 mm².

FEATURES AND BENEFITS

- IR ceramic heating elements, lifetime approximately 10,000 hrs
- Two independent frames
- Processing of up to 20 ring terminals or tubular cable lug applications per cycle, depending on the cable cross section
- Object frames to be designed in regard to specific application
- Relationship with customer's CPU system through RS232 on request
- Relationship with customer's CPU system through TCP/IP and OPC UA on request
- Process optimization by using barcode scanners is possible
- Cooling System: Fan
- Machine hours and cycle counter
- Speed: 6 99 cm / min
- Processing sleeves with up to 90 mm length
- Height adjustment upper heating unit
- Temperature- and speed-monitoring
- Adjustable parameters: Shrink time, shrink temperature, cooling time
- Semi-automatic calibration
- CE and RoHs conformity



Up to 20
APPLICATIONS PER CYCLE

Up to 85 mm² cable cross sections processable

APPLICATIONS:

Ring terminals, tubular cable lugs, end splices

APPLICATION SAMPLE:





OPERATION

The shrinking device DERAY®-Shuttle 240 / 60 has two object receivers for manual insertion of the tubing lines previously fitted with heat-shrink tubing. After an object has been swung into the DERAY®-Shuttle 240 / 60 shrinking machine, an automatic shrinking process begins. Two infrared ceramic elements heat the shrink tube. During the shrinking process the operator continues to load/unload the second object receiver. Following the shrinking process, a cooling cycle is activated and the applications are cooled by fans.

ORDER INFORMATION

DERAY®-Shuttle 240 / 60

PRODUCTS / SIZES

- DERAY®-SpliceMelt/-caps: Sizes 1 to 3
- DERAY®-RKS: Sizes 1 to 3
- DERAY®-ACT: Sizes 1 to 3

For other products and sizes contact DSG-Canusa Application Engineering.

SCOPE OF DELIVERY

- Shrinking machine
- Operating manual (ENG, PL, RU, DE)

ACCESSORIES

- Calibration sensor
- Barcode scanner

TECHNICAL DATA

TEOMINIOAL DATA	
PROPERTY	
Electrical connection	1/N/PE AC 230 V 50-60 Hz
Electrical power consumption	1.8 kW
Rated current	7.8 A
Electrical fuse protection at the owner	16 A
Degree of protection	IP 20
Pneumatic connection	4.5 - 10 bar (65.3 - 145 psi)
Shrink temperature at the IR heater	650 °C (1202 °F)
Ambient temperature	10 °C - 45 °C (50 °F - 113 °F)
Sound pressure level	app. 60 dB(A)
Dimensions and weight	
Shrinking machine	w 1450 x h 580 x d 1060 mm w 57 x h 22.8 x d 41.7 in 105 kg (231.4 lbs)

DERAY®-SPLICEMAN IR

DSG-CANUSA PRODUCTS





Easy handling and selection of programs via touch panel

Infrared quartz heating elements up to 530 °C

DESCRIPTION

DERAY®-SpliceMan IR is a semiautomatic unit with infrared heating elements designed to seal and insulate ultrasonically welded- and crimped splice joints.

The maximum sum of nominal cable cross section per inserted splice is \max 38 mm^2 .

FEATURES AND BENEFITS

- IR Quartz emitters
- Up to 125 data sets storable
- Safe and easy use
- Cost efficient process
- Relationship with customer's CPU system through RS232 on request
- Relationship with customer's CPU system through TCP/IP and OPC UA on request
- Data connection with ultrasonic welding machine
- Process optimization by using barcode scanners is possible
- Compressed air not required
- Adjustable parameters: Shrink time, shrink temperature
- Optional use of manual or automatic calibration
- CE and RoHs conformity



Up to 125

from 6 Sec.

APPLICATIONS:

Parallel splices

APPLICATION SAMPLE:



OPERATION

The shrinking device DERAY®-SpliceMan IR is equipped with two quartz radiating lamps. The shrink device has an object receptacle for the manual insertion of a parallel splice. After locating the splice sealing product over the splice, the automatic shrinking process is started by pushing the two start buttons. The heating chamber closes around the splice joints. At the end of the shrinking process, the heating chamber returns to the home position and the finished splice joint is ejected forward.

ORDER INFORMATION

DERAY®-SpliceMan IR

PRODUCTS / SIZES

- DERAY®-SpliceMelt: Sizes 1 to 3, length max. 65 mm
- HFTX: Sizes 1 to 3, length max. 65 mm
- CHPA: Sizes 1 to 3, length max. 65 mm

For other products and sizes contact DSG-Canusa Application Engineering.

SCOPE OF DELIVERY

- Shrinking machine incl. control panel
- Operating manual (ENG, DE)

ACCESSORIES

- Calibration sensor
- Barcode scanner

TECHNICAL DATA

PROPERTY	
Electrical connection	1/N/PE AC 230 V 50-60 Hz
Electrical power consumption	0.5 kW
Rated current	2 A
Electrical fuse protection at the owner	16 A
Degree of protection	IP 20
Shrink temperature at the IR heater	530 °C (986 °F)
Shrink time	6 - 99 sec. depending on wire cross section and number of wires
Ambient temperature	10 °C - 45 °C (50 °F - 113 °F)
Sound pressure level	app. 50 dB(A)
Dimensions and weight	
Shrinking machine	w 330 x h 475 x d 550 mm w 13 x h 18.7 x d 21.7 in 22 kg (48.5 lbs)

DERAY®-WORKMAN TP

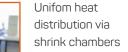
DSG-CANUSA PRODUCTS







High application variety through various shrink chamber sizes



DESCRIPTION

The DERAY®-WorkMan TP is a semi-automatic bench-top hot air shrink appliance. This universal appliance can be used for both pre-assembly and wire harness series production purposes. It is used for the processing of heat shrinking products for example on brakepipes and seat belt applications.

FEATURES AND BENEFITS

- Universal bench-top shrink applicance
- Simple and easy handling via Siemens touch panel
- Shrink chambers available in various sizes
- Quick-change system for shrink chambers
- Relationship with customer's CPU system through RS232 on request
- Relationship with customer's CPU system through TCP/IP and OPC UA on request
- Process optimization by using barcode scanners is possible
- Day cycle and total cycle counter
- Temperature control through Siemens CPU
- Adjustable parameters: Shrink time, shrink temperature, cooling time
- CE and RoHs conformance



Up to 125

Ø 30–80 mm SHRINK CHAMBERS AVAILABLE

APPLICATIONS:

Battery Cables, Brake- and Air Conditioning Pipes, Connectors, Seatbelt Buckles, Cable Bundle Sealing

APPLICATION SAMPLE:



OPERATION

First, the heat shrink covered object must be fixed in the holding device. The assigned shrink parameters to the object can be selected either manually or by means of a scanner. Then the shrinking process must be started by using both hands for safety reasons. Now the mobile shrink unit automatically moves to the operating position and the shrink process begins. Opening and closing of the shrink chamber takes place pneumatically. In addition, an after cooling time or a continuous cool time can be selected. Once shrinking is complete, the mobile shrink unit returns to its ready position.

ORDER INFORMATION

DERAY®-WorkMan TP

PRODUCTS / SIZES

DSG-Canusa Heat Shrink Products

- Maximum tubing diameter up to 70 mm
- Maximum tubing length up to 210 mm

For other products and sizes contact DSG-Canusa Application Engineering.

SCOPE OF DELIVERY

- Shrinking machine
- Control unit
- Emergency buttonTwo-hand safety start button
- Operating manual (ENG, DE, FR)

ACCESSORIES

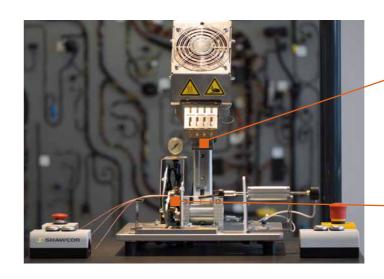
- Barcode scanner
- Shrink chambers:
 Width: up to 210 mm;
 Internal diameter: up to 80 mm

TECHNICAL DATA

TECHNICAL DATA	
PROPERTY	
Electrical connection	1/N/PE AC 230 V 50-60 Hz
Electrical current consumption	app. 1.1 kW/h at 275 °C shrink temperature
Electrical power consumption	max. 3.6 kW
Rated current	16 A
Electrical fuse protection at the owner	16 A
Degree of protection	Control unit: IP 54 Shrink head: IP 20
Shrink temperature	150 °C - 300 °C (302 °F - 572 °F)
Pneumatic connection	6 - 8 bar (90 - 115 psi)
Pneumatic work pressure	5 bar (72 psi)
Compressed air consumption	150 - 180 ltr/min (5.3 - 6.4 cfm)
Heating air shrink chamber adjustable	0.5 - 1.0 bar (7.3 - 14.5 psi)
Ambient temperature	10 °C - 45 °C (50 °F - 113 °F)
Sound pressure level	арр. 67 dB(A)
Dimensions and weight	
Shrinking machine	w 350 x h 770 x d 510 mm w 13.8 x h 30.3 x d 20 in 18 kg (39.7 lbs)
Control unit	w 600 x h 470 x d 340 mm w 23.6 x h 18.5 x d 13.4 in 19 kg (41.9 lbs)

DERAY®-WORKMAN TP ADE DSG-CANUSA PRODUCTS







Consistent heat distribution because of shrink chamber

Outer diameter detection unit

DESCRIPTION

The DERAY®-WorkMan TP ADE is a bench-top hot air shrink appliance with an automatic outer diameter detector for cables. This universal appliance can be used for both pre-assembly and wire harness series production purposes. It is designed for processing of heat shrinking products to seal end splices / stubs and for insulation and mechanical protection.

FEATURES AND BENEFITS

- Universal bench-top shrink applicance based on hot air
- Simple and easy handling via touch panel
- Shrink chambers available in various sizes
- Quick-change system for shrink chambers
- Relationship with customer's CPU system through RS232 on request
- Relationship with customer's CPU system through TCP/IP and OPC UA on request
- Automatic outside diameter detection of wires and allocation of shrink
- Process optimization by using barcode scanners possible
- Day cycle and total cycle counter
- Temperature control through Siemens CPU
- Adjustable parameters: shrink time, shrink temperature, cooling time
- CE and RoHs conformance



Ø 30-45 mm

SHRINK CHAMBERS AVAILABLE

OUTER DIAMETER DETECTION AND AUTOMATIC ALLOCATION OF SHRINK **PARAMETERS**

APPLICATIONS:

End splices

APPLICATION SAMPLE:



OPERATION

The teached-in end splice is set into the outer diameter recognition device and the ADE system is closed. The software automatically determines the correct shrinkage parameters. The mobile shrinkage unit moves into the shrinking position and the shrinking process (shrinking and cooling) begins. At the end of the process, the shrinkage unit will move back to the home position, the shrinking tube cap will cool, the ADE unit opens and releases the finished end splice. The cooling helps to ensure that the inserted cables are soon ready for further processing and quickly hardens the emerging adhesive.

ORDER INFORMATION

DERAY®-WorkMan TP ADE

PRODUCTS / SIZES

• DERAY®-SpliceMelt Cap: Sizes 1 to 4, length max. 70 mm

For other products and sizes contact DSG-Canusa Application Engineering.

SCOPE OF DELIVERY

- Shrinking machine
- Control unit
- Emergency stop button
- External process stop button
- Two-hand safety start button
- Operating manual (ENG, DE, ES)

- **ACCESSORIES** Barcode scanner
- Shrink chambers: Width: 24 - 36 - 48 - 60 mm (0.94 - 1.42 - 1.89 -2.36 inch); Internal diameter: 30 and

45 mm (1.18 and 1.77 inch)

TECHNICAL DATA

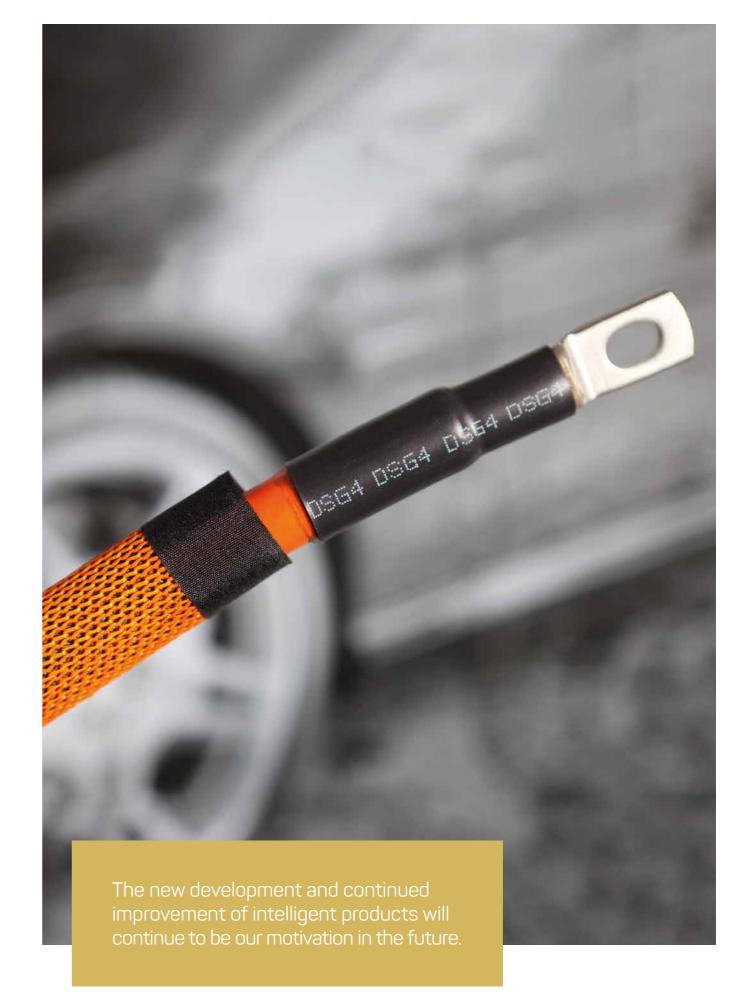
TECHNICAL DATA	
PROPERTY	
Electrical connection	1/N/PE AC 230 V 50-60 Hz
Electrical current consumption	app. 1.1 kW/h at 275 °C shrink temperature
Electrical power consumption	max. 3.6 kW
Rated current	16 A
Electrical fuse protection at the owner	16 A
Degree of protection	Control unit: IP 54 Shrink head: IP 20
Shrink temperature	150 °C - 275 °C (302 °F - 527 °F)
Pneumatic connection	6 - 10 bar (87 – 145 psi)
Pneumatic work pressure	5 bar (72 psi)
Compressed air consumption	150 - 180 ltr/min (5.3 - 6.4 cfm)
Heating air shrink chamber adjustable	0.5 - 1.0 bar (7.3 - 14.5 psi)
Ambient temperature	10 °C - 45 °C (50 °F - 113 °F)
Sound pressure level	арр. 67 dB(A)
Dimensions and weight	
Shrinking machine	w 350 x h 770 x d 510 mm w 13.8 x h 30.3 x d 20 in 18 kg (39.7 lbs)
Control unit	w 600 x h 470 x d 340 mm w 23.6 x h 18.5 x 13.4 in



Foresight initiative

Our growing portfolio of heat shrink products includes thin-, mediumand heavy wall tubing made of polyolefin, fluorpolymer and elastomer with or without adhesive. With these reliable materials and tried and tested products we develop successful solutions to seal, mark and protect wire harnesses, pipes and tubes.

Our mission is to lead the industry in manufacturing superior heat shrink products and application equipment while creating an incident-free workplace with no harm to people or to the environment. Our approach is driven by our long-term commitment to the research and development of industry-leading materials, products and application equipment.



We advise that customers should separately evaluate the suitability of our products for their particular application. Our responsibilities are only those listed in our Standard Terms and Conditions of Sale for these products. Please ask for the latest version of this catalog. Subject to modification without prior notice.

DSG-Canusa Locations

Asia-Pacific

Suzhou DSG-Canusa Polymer Technologies CO.,LTD. 428 Xinglong Street, Suzhou Industrial Park Suzhou, Jiangsu Province, China

Phone: +86 512 82280099 Fax: +86 512 82280022

Mail: asiapacific@dsgcanusa.com

Canada

DSG-Canusa 25 Bethridge Road Toronto, Ontario M9W 1M7

Phone: +1 (416) 743-7111 Fax: +1 (416) 743-7752 Mail: sales@dsacanusa.com

Germany

DSG-Canusa GmbH Boschstraße 17 53359 Rheinbach Germanu

Phone: +49 (0) 22 26 90 47-0 Fax: +49 (0) 22 26 90 47-499 Mail: info-de@dsgcanusa.com

United States

DSG-Canusa 173 Commerce Boulevard Loveland, Ohio 45140

Phone: +1 513 683-7800 Fax: +1 513 683-7809 Mail: sales@dsgcanusa.com

