

CABLE JOINTS, CABLE TERMINATIONS, CABLE GLANDS, CABLE CLEATS
FEEDER PILLARS, FUSE LINKS, ARC FLASH, CABLE ROLLERS, CUT-OUTS

11KV 33KV CABLE JOINTS & CABLE TERMINATIONS

FURSE EARTHING

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MARECHAL



electric



Self-ejecting systems



Self-ejecting systems' applications

Self-ejecting systems avoid the rupturing of an electric circuit when a mobile apparatus is moved without first disconnecting the electrical supply. The applications are numerous including fire

appliances, fire control vehicles, ambulances, lorries, small ships and boats, mobile heated or refrigerated food containers, toll booths, police vehicles etc.



Rescue Vehicles and ambulances must, by definition, have the ability to respond quickly and safely. Modern vehicles have a large electrical load to cope with the demands of tracker systems, communication systems as well as the more traditional sump heating and battery charging. All of these require a supply to the vehicle when it is parked at base. Self eject systems make the disconnection of this supply safe, quick and automatic – saving precious seconds.



Mobile Heated or Chilled Food Trolleys

The electric supply to a heated or chilled food trolley is a very vulnerable point. All too often an operator moves this trolley with disconnecting the supply. This problem can be overcome by installing a self-ejecting system. In addition, the connectors used can be selected to ensure a high IP rating to allow washing down with a high-pressure hose.



Toll Booths

If a vehicle crashes into a toll booth, the supply cables will inevitably be damaged. This danger here is obvious. Fuel spillage is likely as is the possibility of metal housings becoming live. The Marechal self-ejecting system will break the electric circuit safely and cleanly.



Street Furniture – Passive Safety

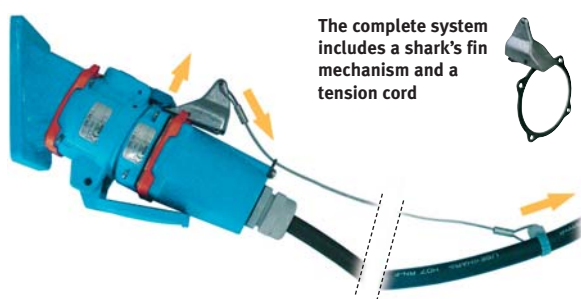
Regulations require, in some circumstances, that street furniture, lighting columns, traffic signals etc be made to break in the event of vehicular impact. Self-ejecting systems can break the electrical supply inside the lighting column, and with a capacity of up to 37 pins, can even be used in complicated traffic signals.

Mechanical or electrical self-ejecting systems?

Mechanical release principles

The socket contains internal springs. The plug is held in the socket against the force of these springs by a latch. To effect mechanical ejection, tension on the power cable is applied via a tension cord to lift the latch thus releasing the connection.

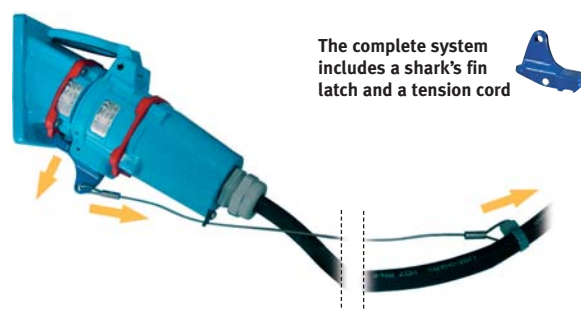
Self-ejecting plugs



Self-ejecting plugs are fitted with their own latch, which sits under the socket latch. The tension cord lifts the latches ejecting the plug.

Self-ejecting plugs are available on the following MARECHAL ELECTRIC decontactor ranges:
Up to 90 A: DSN1, DSN3, DSN6, DS1, DS3, DS6, DS7C3, DN8, DN1, DN3
Multipin versions up to 25 A: DSN24C, DSN37C, DS24C, DS37C and DN9C.
A different system can be used for higher current ratings.

Self-ejecting sockets



The self-ejecting coupler socket relies on its shark's fin latch to lift and release it from the male inlet. This is achieved by a straight pull on the tension cord which is fastened to the socket latch and the power cable.

Self-ejecting sockets are available on the following MARECHAL ELECTRIC decontactor ranges:
Up to 90 A: DSN1, DSN3, DSN6, DS1, DS3, DS6, DS7C3, DN8, DN1, DN3
Multipin versions up to 25 A: DSN24C, DSN37C, DS24C, DS37C and DN9C.

See pages 4 and 5

Electrical release principles

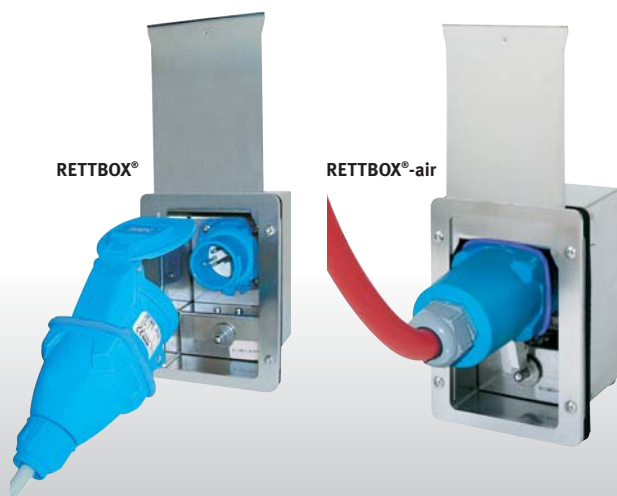
The self-ejection of the coupler socket is actuated electrically via the vehicle's ignition system. The release mechanism is housed in a compact stainless steel enclosure fitted into the vehicle.

On ignition, a solenoid plunger lifts the socket release latch thus ejecting it from the inlet.

The enclosure door drops by gravity to protect the inlet.



With the RETTBOX® installed, emergency service vehicles are powered from their base supply and this supply is disconnected safely and cleanly on engine start. With the RETTBOX®-air, a pneumatic air supply is also incorporated.



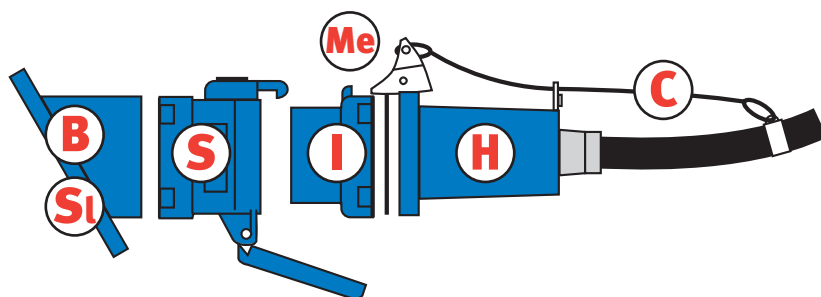
RETTBOX® uses DSN1 (20 A) decontactor.

See pages 6 and 7

Mechanical self-ejecting system



Parts selection for self-ejecting plugs:



Fixed part



S



B



Sl

Mobile part



I



Me



H



C

Device		Socket-outlet	Box	Sleeve	Inlet	Mechanism	Handle	Cord
DSN1	20 A	6114015 352 *	611A053	611A027	6118015 *	611A338	611A463	311A336
DSN3	32 A	6134015 352 *	613A053	613A027	6138015 *	613A338	613A463	311A336
DSN6	63 A	6164015 352 *	616A053	616A027	6168015 *	616A338	616A463	311A336
DS1	30 A	3114015 352 *	311A053	311A027	3118015 *	311A338	311A463	311A336
DS3	50 A	3134015 352 *	313A053	313A027	3138015 *	313A338	313A463	311A336
DS6 Poly	90 A	3164015 352 *	316A053	316A027	3168015 *	316A338	316A463	311A336
DS6 Metal	90 A	3964015 352 *	396A053	396A027	3968015 *	316A338	316A463	311A336
DN1	30 A	1914015 R *	191A053	191A027	1918015 204 *	191A338	191A463	311A336
DSN24C	24 x 5 A **	6104240 352 **	613A053	613A027	6108240	613A338	613A463	311A336
DSN37C	37 x 5 A **	6104370 352 **	616A053	616A027	6108370	616A338	616A463	311A336*
DS24C	24 x 5 A **	3104240 352 **	311A053	311A027	3108240	311A338	311A463	311A336
DS37C	37 x 5 A **	3104240 352 **	313A053	313A027	3108370	313A338	313A463	311A336
DN9C	9 x 25 A **	1914090 R *	191A053	191A027	1918090 204 *	191A338	191A463	311A336

* Part number of a 220 - 250V 1P+N+E inlet (example)

** Examples - please refer to our general catalogue

ZOOM



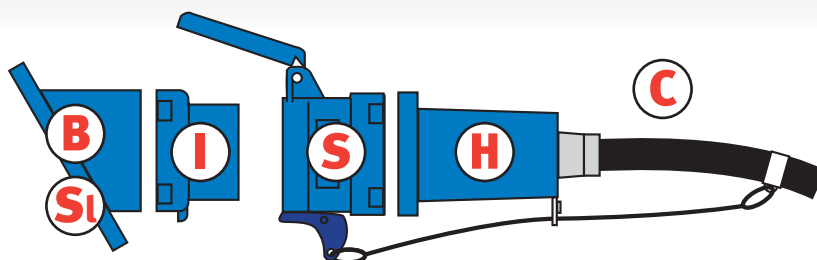
To select your ejector plug, socket, inlet, wall box or angle adaptor.

The product references shown are the most commonly used, others are available. Please refer to the general catalogue or the website www.marechal.com for the complete range.

For current ratings above 90 A

A shark's fin latch is also available for ranges DS2, DS9, DN6, DN9 and DN20C. Please contact us for details.

Parts selection for self-ejecting coupler sockets:



Fixed part



I



B



SI

Mobile part



S



H



C

Device		Inlet	Box	Sleeve	Socket-outlet	Handle	Cord
DSN1	20 A	6118015 *	611A053	611A027	6114015 354 *	611A463	311A336
DSN3	32 A	6138015 *	613A053	613A027	6134015 354 *	613A463	311A336
DSN6	63 A	6168015 *	616A053	616A027	6164015 354 *	616A463	311A336
DS1	30 A	3118015 *	311A053	311A027	3114015 354 *	311A463	311A336
DS3	50 A	3138015 *	313A053	313A027	3134015 354 *	313A463	311A336
DS6 Poly	90 A	3168015 *	316A053	316A027	3164015 354 *	316A463	311A336
DS6 Metal	90 A	3968015 *	396A053	396A027	3964015 354 *	316A463	311A336
DS7C3	7 x 50 A **	3138561	316A053	316A027	3134015 354 **	316A463	311A336
DN8 Metal	30 A	1988015 204 *	198A053	198A027	1984015 365 *	198A463	311A336
DN1	30 A	1918015 204 *	191A053	191A027	1914015 365 *	191A463	311A336
DN3	30 A	1938015 204 *	193A053	193A027	1934015 365 *	193A463	311A336
DSN24C	24 x 5 A **	6108240	613A053	613A027	6104240 354 **	613A463	311A336
DSN37C	37 x 5 A **	6108370	616A053	616A027	6104370 354 **	616A463	311A336
DS24C	24 x 5 A **	3108240	311A053	311A027	3104240 354 **	311A463	311A336
DS37C	37 x 5 A **	3108370	313A053	313A027	3104240 354 **	313A463	311A336
DN9C	9 x 25 A **	1918090 204	191A053	191A027	1914090 365 **	191A463	311A336

* Part number of a 220 - 250V 1P+N+E inlet (example)

** Examples - please refer to our general catalogue

ZOOM



If you wish to fix the inlet directly onto the vehicle without a wall box or inclined sleeve then a socket with a 180 degree opening lid will be needed. This option changes the socket suffix 354 to 136 and 365 to 376. For details please contact us.

For current ratings above 90 A

A shark's fin latch is also available for ranges DS2, DS9, DN6, DN9 and DN20C. Please contact us for details



Electrical system

System RETTBOX®

Common features

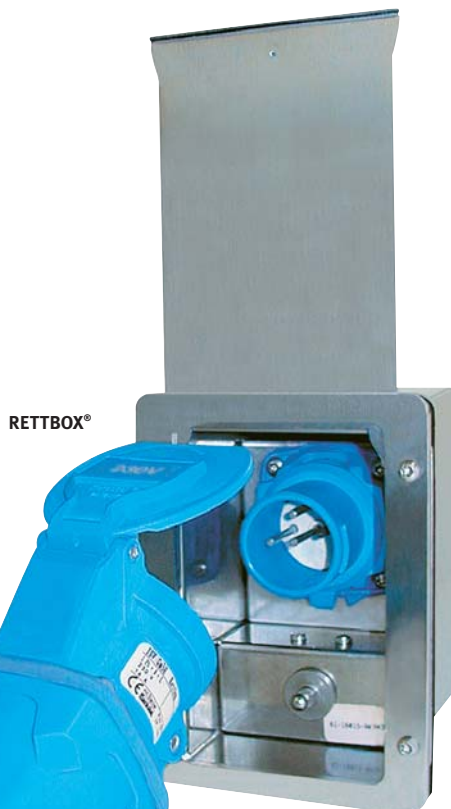
- Steel-stainless enclosure (V4A)
- Self-closing lid (by gravity)
- Environmentally protected to IP44
- Very compact design:
Enclosure: 83 x 127 x 94 mm (L x H x D)
External frame: 107 x 144 mm (L x H)
- Standard cable length supplied for both the socket and inlet is 4 m. Other cable lengths are available.
- Coupler socket lid shuts automatically
- Simple installation due to size and frame
- From 3 to 5 pins as standard with the possibility of additional early break auxiliary contacts.
- Weight of fitted components 1300 g
- Automatic ejection operated by a 12 / 24 V solenoid
- Option: Painted case and sliding door (h = 267 mm). RAL standards (Yellow, Red, Blue or Black)



RETTBOX®-air



RETTBOX®-air: the conductor for compressed air is integral within the electrical cable



RETTBOX®

Additional features for RETTBOX®

- From 3 to 5 pins as standard with the possibility of additional early break auxiliary contacts (32 A version only)
- Voltages available: 415 V, 230 V, 24 VDC or 12 VDC
- Uses DSN1 (20 A) or DSN3 (32 A) decontactor with integral switching device
- Complies with BS EN 60309-1, the Low Voltage Directive and the international rules of Marechal brand interchangeability (BECMA)

Additional features for RETTBOX®-AIR

- Voltages available 230 V, 24 VDC or 12 VDC with compressed air
- Rated at 20 A
- Compressed air up to 13 bars
- Compressed air feed integral within the electric cable
- Electric cable supplied 3 x 2.5 mm²
- Duct for compressed air 6 mm²

Parts selection for **RETTBOX®:**

RETTBOX® part numbers



Rettbox enclosure with DSN1 inlet
Supplied with 4 m cable

Device	Voltage	Polarity	Part #
Rettbox with 12V relay and (male) inlet	230V	1P+N+E	61 16 015Y12
Rettbox with 24V relay and (male) inlet	230V	1P+N+E	61 16 015Y24
Rettbox with 12V relay and (male) inlet	400V	3P+N+E	61 16 017Y12
Rettbox with 24V relay and (male) inlet	400V	3P+N+E	61 16 017Y24
Rettbox with 12V relay and (male) inlet	12V	2P+E DC	61 16 059Y12
Rettbox with 24V relay and (male) inlet	24V	2P+E DC	61 16 089Y24



Ejecting DSN1 coupler socket
supplied with 4 m cable

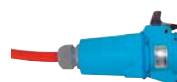
Voltage	Polarity	Part #
230V	1P+N+E	61 13 015Y00
230V	1P+N+E	61 13 015Y00
400V	3P+N+E	61 13 017Y00
400V	3P+N+E	61 13 017Y00
12V	2P+E DC	61 13 059Y00
24V	2P+E DC	61 13 089Y00

RETTBOX®-AIR part numbers



Rettbox (air) enclosure with DSN1 inlet
supplied with 4 m cable and compressed air duct to 13 bars

Device	Voltage	Polarity	Part #
Rettbox-Air with 12V relay and (male) inlet	230V	1P+N+E	61 16 015Z12
Rettbox-Air with 24V relay and (male) inlet	230V	1P+N+E	61 16 015Z24
Rettbox-Air with 12V relay and (male) inlet	12V	2P+E DC	61 16 059Z12
Rettbox-Air with 24V relay and (male) inlet	24V	2P+E DC	61 16 089Z24



Ejecting DSN1 coupler socket
supplied with 4 m cable and
compressed air duct to 13 bars

Voltage	Polarity	Part #
230V	1P+N+E	61 13 015Z00
230V	1P+N+E	61 13 015Z00
12V	2P+E DC	61 13 059Z00
24V	2P+E DC	61 13 089Z00

ZOOM



Enclosure options

The enclosure can be fitted with a control light and is available with 5, 6, 7, 8 or 9 m of cable. Please contact us



Enclosure fitted with
control light (LED)

Ejection socket options

The ejector socket is available with 5, 6, 7, 8 or 9 m of cable. A ceiling bracket is available. Please contact us



Ceiling bracket



MARECHAL



electric

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*For other countries, please contact MARECHAL ELECTRIC S.A.
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