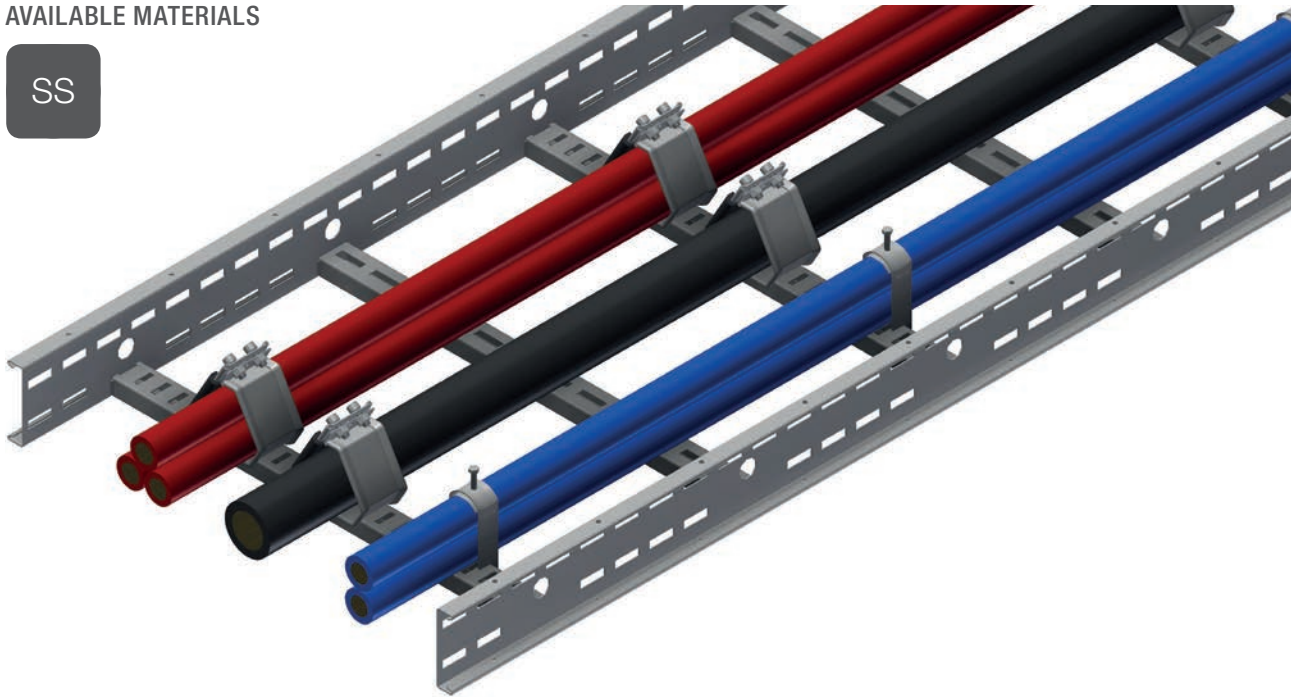


# Cable Cleats and Ties: SmartCleat®

SmartCleat® is our range of patented short circuit approved cable cleats which are extremely compact and simple to install on any pre-slotted rung design. The SmartCleat® has been comprehensively tested at Sintef Energy Research Centre in Trondheim, Norway and at IPH Berlin, Germany to IEC 61914, and is DNV certified to meet the major standards of strength, flexibility and protection. The SmartCleat® has been tested together with our OE standard cable ladder at a peak loading of 184 kA. Our SmartCleat® trefoils are made of stainless steel AISI 316 L with no sharp edges. The cables are held tightly by the smooth surfaces of the cleat ensuring they are not damaged during installation or by a short circuit event.

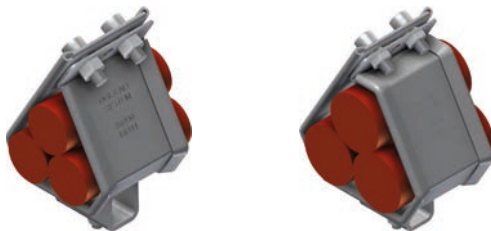
## AVAILABLE MATERIALS

SS



## SMARTCLEAT® TREFOIL AND SINGLE from 25 to 99 mm cable

### SmartCleat® Trefoil



SmartCleat® trefoil  $\varnothing < 38$  mm/  
SmartCleat® single  $\varnothing < 56$  mm

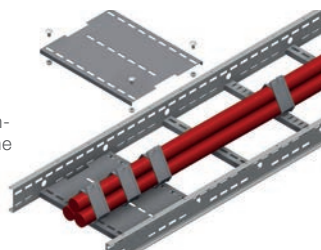
SmartCleat® trefoil  $\varnothing > 38$  mm/  
SmartCleat® single  $\varnothing > 56$  mm

### SmartCleat® Single



## SMART SECURE PLATE

Secure plates are highly recommended for fitting at the ends of trefoil cable runs. They provide additional support to reduce arching, deformation and stretch of the cables caused by short circuits.



## CABLE TIES



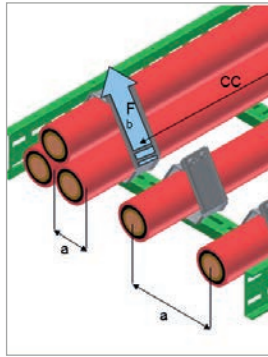
# Contents

## Cable Cleats and Ties

### Installation Calculator

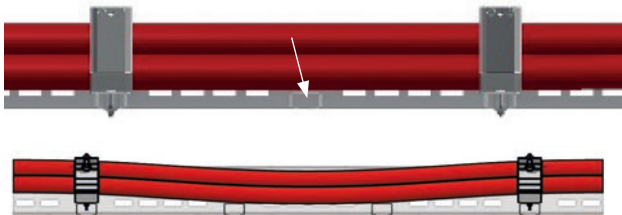
Oglaend System has developed a cleat spacing calculation program to recommend safe installation. Based on the short current peak value for the system and the cable diameter, the program recommends the cleat spacing. When giving the length of the cable run the required number of cleats is also offered.

Download our free calculator to design for the optimal number of cable cleats for your installation.



### Design securing good support

The design secures the cables close to the rungs to ensure the rungs between cleats support the cable and do not create tension in the cable.

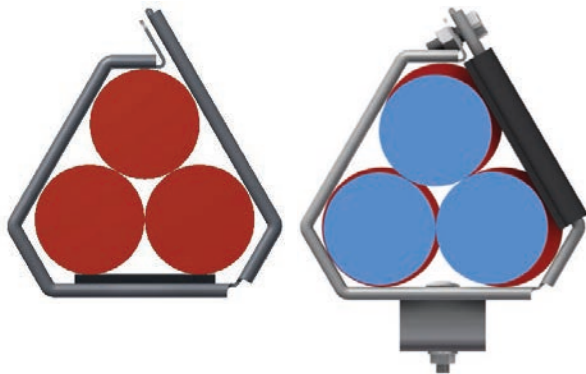


Sagging can increase tension on the cable.

### Optional Pads and Inserts

Our SmartClea<sup>®</sup> trefoils are made of stainless steel AISI 316 L with no sharp edges. The cables are held tightly by the smooth surfaces of the cleat ensuring they are not damaged during installation or by a short circuit event.

Additional sleeves are available to increase the tightening pressure for installations where the cable tolerances vary, for vertical runs, and enabling standard sized SmartClea<sup>®</sup> to be used where irregular sizes may occasionally be used



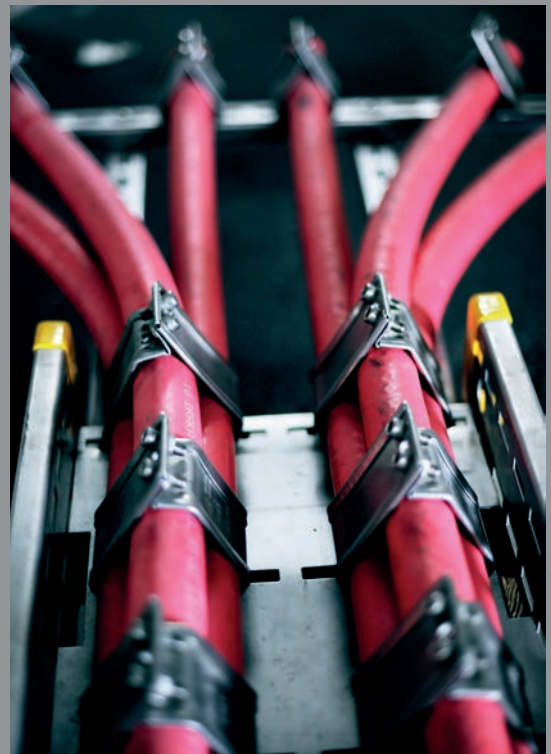
### SmartClea<sup>®</sup>

188 Short circuit safe Cable Cleats

192 Smart Cleat Accessories

### Cable Ties

193 Cable Ties



### Intellectual Property Rights

Please note that several of the products presented in this catalogue are protected by our intellectual property rights in the form of patents, registered designs and trademarks, and that we have made the strategic decision to police and enforce these rights in all relevant jurisdictions.

## CERTIFICATES



SmartClea<sup>®</sup> Single and Trefoil are type approved by DNV according to IEC 61914.



## Short circuit safe Cable Cleats

### Smart Cleat Trefoil Ø25-38 mm

Short Circuit rated Cable Cleat for Trefoil installation.

Type Description	SS	SS (kg)
Trefoil 3x25	1303425	-
Trefoil 3x26	1303426	-
Trefoil 3x27	1303427	-
Trefoil 3x28	1303428	0.3
Trefoil 3x29	1303429	-
Trefoil 3x30	1303430	-
Trefoil 3x31	1303431	-
Trefoil 3x32	1303432	-
Trefoil 3x33	1303433	0.4
Trefoil 3x34	1303434	0.4
Trefoil 3x35	1303435	-
Trefoil 3x36	1303436	-
Trefoil 3x37	1303437	0.5
Trefoil 3x38	1303438	0.5

1 M6x40 Screw(s) included.



### Smart Cleat Trefoil Ø39-60 mm

Short Circuit rated Cable Cleat for Trefoil installation.

Type Description	SS	SS (kg)
Trefoil 3x39	1303439	0.5
Trefoil 3x40	1303440	0.5
Trefoil 3x41	1303441	0.4
Trefoil 3x42	1303442	0.4
Trefoil 3x43	1303443	0.5
Trefoil 3x44	1303444	-
Trefoil 3x45	1303445	0.5
Trefoil 3x46	1303446	0.5
Trefoil 3x47	1303447	-
Trefoil 3x48	1303448	0.5
Trefoil 3x49	1303449	0.5
Trefoil 3x50	1303450	0.5
Trefoil 3x51	1303451	0.5
Trefoil 3x52	1303452	-
Trefoil 3x53	1303453	0.6
Trefoil 3x54	1303454	0.4
Trefoil 3x55	1303455	-
Trefoil 3x56	1303456	0.6
Trefoil 3x57	1303457	-
Trefoil 3x58	1303458	0.6
Trefoil 3x59	1303459	-
Trefoil 3x60	1303460	-

1 M6x40 Screw(s) included.



## Smart Cleat Trefoil Ø61-99 mm

Short Circuit rated Cable Cleat for Trefoil installation.

Type Description	SS	SS (kg)
Trefoil 3x61	1303461	0.6
Trefoil 3x62	1303462	-
Trefoil 3x63	1303463	-
Trefoil 3x64	1303464	0.6
Trefoil 3x65	1303465	-
Trefoil 3x66	1303466	-
Trefoil 3x67	1303467	-
Trefoil 3x68	1303468	-
Trefoil 3x69	1303469	-
Trefoil 3x71	1303471	0.6
Trefoil 3x72	1303472	-
Trefoil 3x73	1303473	-
Trefoil 3x74	1303474	-
Trefoil 3x75	1303475	0.7
Trefoil 3x76	1303476	-
Trefoil 3x77	1303477	-
Trefoil 3x78	1303478	-
Trefoil 3x79	1303479	-
Trefoil 3x80	1303480	0.8
Trefoil 3x81	1303481	0.8
Trefoil 3x82	1303482	0.8
Trefoil 3x83	1303483	0.8
Trefoil 3x84	1303484	-
Trefoil 3x85	1303485	-
Trefoil 3x86	1303486	-
Trefoil 3x87	1303487	0.7
Trefoil 3x88	1303488	0.7
Trefoil 3x89	1303489	-
Trefoil 3x90	1303490	0.8
Trefoil 3x92	1303492	-
Trefoil 3x95	1303495	-
Trefoil 3x96	1303496	-
Trefoil 3x97	1303497	0.8
Trefoil 3x98	1303498	0.8
Trefoil 3x99	1303499	-

1 M6x40 Screw(s) included.



## Smart Cleat Single Ø25-38 mm

Short Circuit rated Cable Cleat for single cable installation.

Type Description	SS	SS (kg)
Single 1x25	89825	-
Single 1x27	89827	-
Single 1x28	89828	-
Single 1x29	89829	-
Single 1x30	89830	-
Single 1x31	89831	0.4
Single 1x32	89832	0.4
Single 1x33	89833	0.4
Single 1x34	89834	0.4
Single 1x35	89835	0.4
Single 1x36	89836	0.4
Single 1x37	89837	0.4
Single 1x38	89838	0.4

1 M6x40 Screw(s) included.



## Smart Cleat Single Ø39-60 mm

Short Circuit rated Cable Cleat for single cable installation.

Type Description	SS	SS (kg)
Single 1x39	89839	0.4
Single 1x40	89840	0.4
Single 1x41	89841	0.4
Single 1x42	89842	0.4
Single 1x43	89843	0.4
Single 1x44	89844	0.4
Single 1x45	89845	0.4
Single 1x46	89846	0.4
Single 1x47	89847	0.4
Single 1x48	89848	0.4
Single 1x49	89849	0.4
Single 1x50	89850	0.4
Single 1x51	89851	0.4
Single 1x52	89852	0.4
Single 1x53	89853	0.4
Single 1x54	89854	0.4
Single 1x55	89855	0.4
Single 1x56	89856	0.4
Single 1x57	89857	0.4
Single 1x58	89858	0.4
Single 1x59	89859	0.4
Single 1x60	89860	0.4

1 M6x40 Screw(s) included.



## Smart Cleat Single Ø61-79 mm

Short Circuit rated Cable Cleat for single cable installation.

Type Description	SS	SS (kg)
Single 1x61	89861	-
Single 1x62	89862	-
Single 1x63	89863	0.5
Single 1x64	89864	-
Single 1x65	89865	-
Single 1x66	89866	-
Single 1x67	89867	-
Single 1x68	89868	-
Single 1x69	89869	0.6
Single 1x70	89870	-
Single 1x71	89871	-
Single 1x72	89872	-
Single 1x73	89873	-
Single 1x74	89874	-
Single 1x75	89875	-
Single 1x76	89876	-
Single 1x77	89877	-
Single 1x78	89878	-
Single 1x79	89879	-

1 M6x40 Screw(s) included.



## Smart Cleat Single Ø80-99 mm

Short Circuit rated Cable Cleat for single cable installation.

Type Description	SS	SS (kg)
Single 1x80	89880	0.7
Single 1x81	89881	-
Single 1x82	89882	0.7
Single 1x83	89883	0.7
Single 1x84	89884	-
Single 1x85	89885	-
Single 1x87	89887	0.6
Single 1x88	89888	0.6
Single 1x90	89890	0.6
Single 1x91	89891	-
Single 1x92	89892	-
Single 1x93	89893	-
Single 1x94	89894	-
Single 1x95	89895	-
Single 1x96	89896	-
Single 1x97	89897	-
Single 1x98	89898	-
Single 1x99	89899	-

2 M6x40 Screw(s) included.



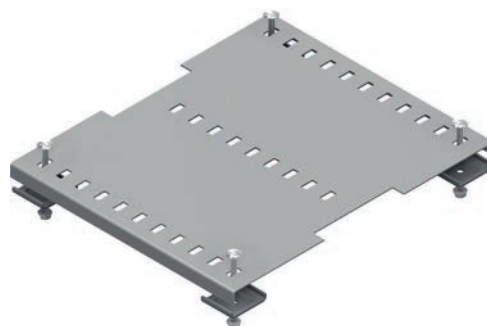
# Smart Cleat Accessories

## Smart Securing Plate

Secure plates are highly recommended for fitting at the ends of trefoil cable runs. They provide additional support to reduce arching, deformation and stretch of the cables caused by short circuits.

Type Description	SS	SS (kg)
A-OE-EX-Smarcl-150 SS	1306920	0.7
A-OE-EX-Smarcl-300 SS	1306921	1.3
A-OE-EX-Smarcl-450 SS	1306922	1.9
A-OE-EX-Smarcl-600 SS	1306923	2.6
A-OE-EX-Smarcl-750 SS	1306924	3.3
A-OE-EX-Smarcl-900 SS	1306925	3.9

4 M6x40 Screw(s) included.



## Spacer Mat

Packer in EPDM Rubber to tighten installation where cable tolerances vary. Available in two thicknesses.

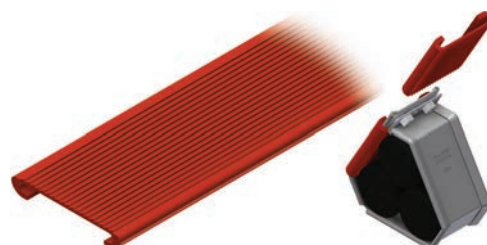
Type Description	EPDM	EPDM (kg)
RS-40x59x2	84074	0.006
RS-40x59x4	84038	0.01



## Spacer Pad for Smart Cleat

Adapter pad for Smart Cleat Pad to tighten the fit when cable tolerances vary and for extra grip in vertical installation. In 1.2 m length for cutting to suit.

Type Description	Plastic	Plastic (kg)
AD 3mm 1200	1301545	0.4
AD 6mm 1200	1301546	0.6
AD 9mm 1200	1301547	0.9



# Cable Ties

## Cable Ties Coated

Corrosion resistant Cable Ties also providing excellent resistance against chemicals and salt-spray. Type STFC also provides additional insulation between the ties and the bundle materials.

Type Description	SS	SS (kg)
STFC 200 316	1302702	-
STFC 360 316	1302703	-
STFC 200 HD-316	1302709	-
STFC 360 HD-316	1302710	0.01
STFC 520 HD-316	1302711	-
STFC 680 HD-316	1302712	-
STFC 840 HD-316	1302713	-



## Cable Ties Uncoated

Corrosion resistant Cable Ties also providing excellent resistance against chemicals and salt-spray. The design of the Cable Ties prevent cable damage.

Type Description	SS	SS (kg)
SST 200 316	1302700	-
SST 360 316	1302701	-
SST 200 HD-316	1302704	-
SST 360 HD-316	1302705	-
SST 520 HD-316	1302706	-
SST 680 HD-316	1302707	-
SST 840 HD-316	1302708	-

