INSTALLATION INSTRUCTION

Application of ELLE® Onshore hybrid Installation

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Table of Content

1. General Information

1.1 Change Description

The table below describes changes compared to the previous revision of the document.

Section	Description
Section 1.4 Section 1.4 Section 1.4 Section 1.4 Section 2.2 Section 2.2 Section 3.3 Section 3.4	Version 2.0 Remove: *3M™ Wind Tape Adhesion Promoter W9910-1* Adding: *Sika® Aktivator-205 UK & CENTAUR 960-SDS* Adding: *Sika® Aktivator-205 & AC-D002 Centaur 960* Adding: *SDS ELLE Onshore EN 2025.05.26 V0* Consumerables table: Remove: *3M™ Wind Tape Adhesion Promoter W9910-1* Adding: Consumable tabel: Centaur 960 Step 1. Add: *LE-I058_Application_of_ELLE_Onshore Factory* Step 2. Replace text ref. with: *LE-I038-Application of ELLE Onshore Up-tower*.
All	New document. (Version 1.0)

1.2 Safety

Wear PPE as defined in the table below.

	**For all tasks** Wear foot protection.
	**For all tasks** Wear eye protection.
	**For all tasks** Wear protective gloves.
	**For all tasks** Wear protective clothing (long-sleeved work clothing).
	**For tasks where sufficient venting is not possible** Wear respiratory protection. ■ Recommended filter type: A2, P2.

1.3 Icons and Notes

The table below defines the meaning of icons that appear in this document.

Icon	Definition
	**Caution** or **Warning** Details about risk of personal injury.
	**Note** Details about risk of property damage.

	Reference to additional documentation.
	Details about time constraints.

1.4 Required Documentation

The table below lists other required documentation.

Safety Data Sheet	■ CENTAUR 960-SDS ■ IPA Sprit 95% (minimum) Polytech ■ SDS ELLE Onshore EN 2025.05.26 V0 ■ Sika® Aktivator-205 UK
Technical Data Sheet	■ AC-D002 Centaur 960 ■ LE-D043 ELLE Onshore Technical Data Sheet ■ Sika® Aktivator-205
Installation manual	■ LE-I007-Standard_Application_of_ELLE

1.5 Abbreviations

The table below defines the abbreviations used in this document.

Abbreviation	Full Form
IPA	Isopropanol Alcohol
PPE	Personal Protective Equipment
WTG	Wind Turbine Generator

2. Preparation

2.1 Environmental Conditions

The table below defines the temperature and humidity requirements during installation.

Refer to Technical Data Sheets for storage and transportation requirements.

Property	Value	Unit
Surface temperature	10 … 35 50 … 95	°C °F
Relative humidity	0 … 100	%

2.2 Tools and Consumables

The table below defines the required tools and consumables.

Tools	
Item	**Type**
Application gun	-
Application roller	Special Polytech tool
Application Scraper	Plastic spatula with felt
Measuring tape	-
Permanent marker	Carbon-free
Roller	-
Safety knife	-
Sander	-
Scissor	-
Spray bottle	-
Consumables	
Item	**Type**
Adhesive	Centaur 960
Application solution	Mixture of 95% (minimum) isopropanol and demineralized water. Mixing ratio: 75% water / 25% isopropanol.
Cleaning agent	Isopropanol 95% (minimum) Alternative: Soap (neutral)
Cloths	Lint-free
Masking tape	-
Sanding disc	Grit 220 to 240
Sandpaper	Grit 220 to 240
Surface activator	Sika® Aktivator-205

3. Installation

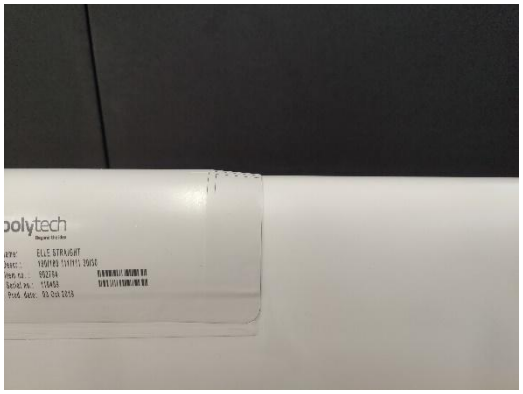
3.1 ELLE® installation

Step 1

Install ELLE® according to: *LE-I007-Standard_Application_of_ELLE*

Step 2

Avoid making chamfer sealing at the root end of the last installed *ELLE®*.



Step 3

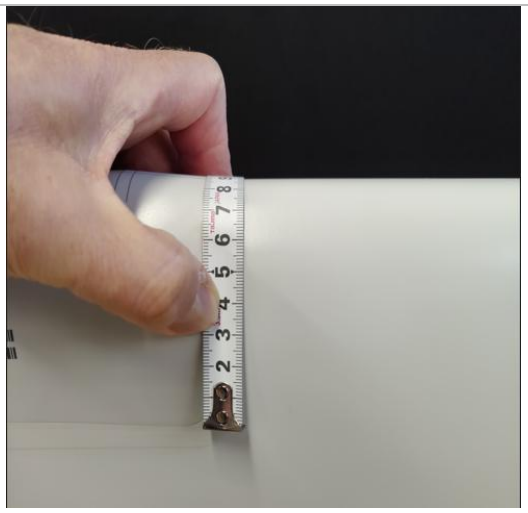
If chamfer sealing has been made it must be removed prior to *ELLE® Onshore* installation.

End

3.2 ELLE® Onshore preparation

Step 1

Determine the width of the last installed *ELLE®*, either by reading it on the print or by measuring it.

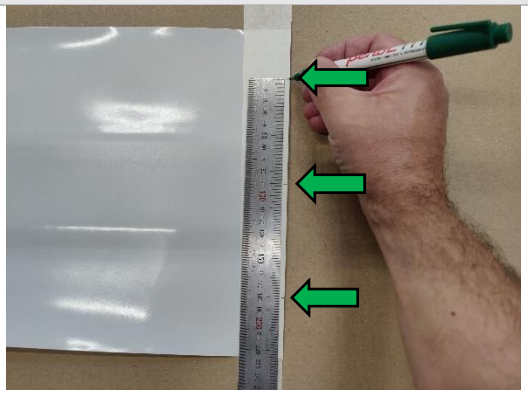


Step 2

Apply a piece of masking tape across the end of the *ELLE® Onshore* and make a clean 90° cut through the tape.

Step 3

Mark the centre of the *ELLE® Onshore and the desired width (determined in section 3.2 step1) on the masking tape.*



Step 4

Put a piece of masking tape across *the ELLE® Onshore* centred at 250 mm. from the end.

Step 5

Make a straight clean cut between the width mark and the 250 mm. marks on both sides of the *ELLE® Onshore*.

Step 6

Draw a 10 mm. radius on the tape in each corner and cut along them.

Step 7

Remove the masking tape 250 mm. from the end but leave the masking tape with the centre mark at the end.

End

3.3 Surface preparation

Step 1

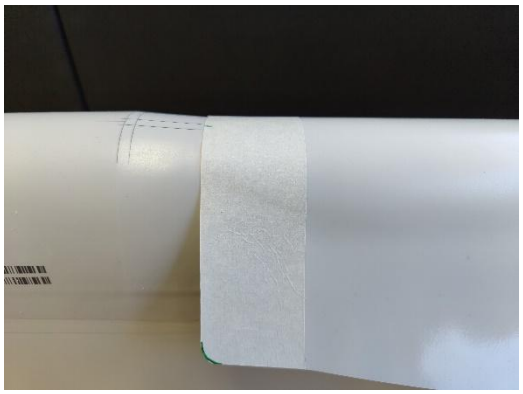
Prepare the surface for installation according to:
LE-I038 _Application_of_ELLE_Onshore Up-tower or *LE-I058_Application_of_ELLE_Onshore Factory.*

Note
Make sure to mark up the transition area from 10 mm. wider than the pre-cut *ELLE® Onshore*.

3.4 ELLE® Onshore installation

Step 1

Spray a mixture of 75% demineralized water and 25% isopropanol (Application solution) onto the blade surface. Peel back 5 cm. of the center liner and place the *ELLE® Onshore* so that the alignment marks on the *ELLE®* and the centre mark on the tape at the *ELLE® Onshore* are aligned, leaving a gap of no more than 2 mm. between them.



Step 2

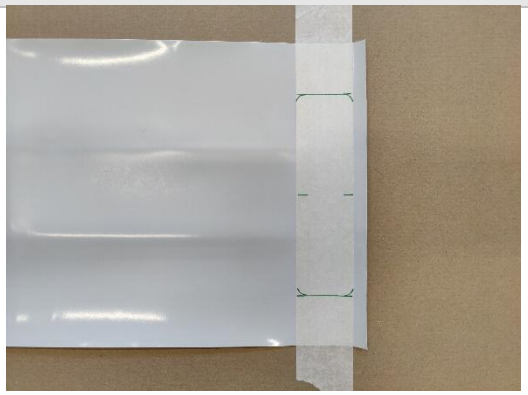
Remove the masking tape at the end of the *ELLE® Onshore* and finalise the installation according to: *LE-I038-Application of ELLE Onshore Up-tower or LE-I058 Application of ELLE Onshore Factory*.

End

3.5 Preparation of the overlapping piece

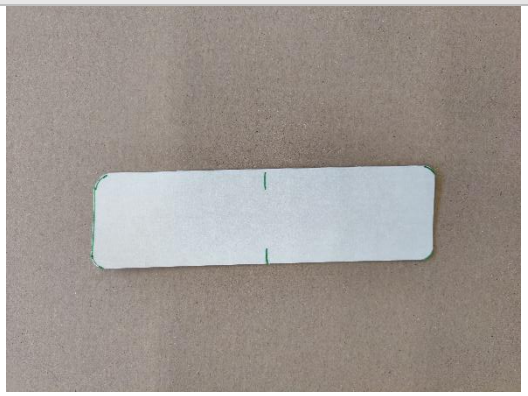
Step 1

Apply a piece of 50 mm masking tape straight across the *ELLE® Onshore* material.
Mark the desired width, determined in Section 3.2. *ELLE® Onshore* preparation, on the masking tape centred on the overlapping piece and draw a 10 mm radius in each corner.



Step 2

Cut along the edges of the masking tape and remove the masking tape.

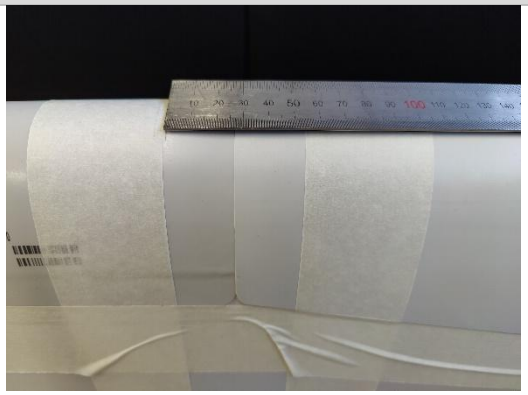


End

3.6 Overlap of connection.

Step 1

Apply a piece of masking tape across the *ELLE®* and across *ELLE® Onshore* 27 mm. +3/-0 mm. from the connection and mask lengthwise along the edge of *ELLE®* and *ELLE® Onshore* on both sides.



Step 2

Wipe the overlap area with *Sika® Aktivator-205* using a clean damp cloth.

Step 3

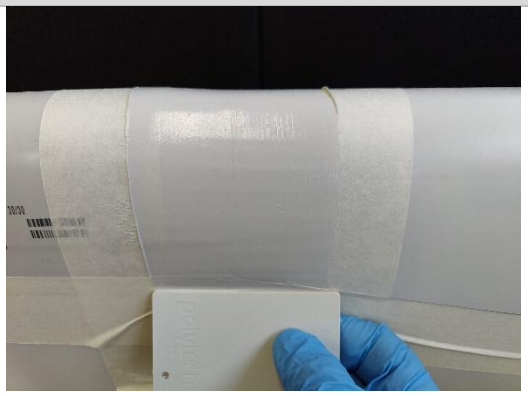
Wait between 10 and 120 minutes for the *Sika® Aktivator-205* to evaporate.

Step 4

Apply a line of *Centaur 960* into the gap between *ELLE®* and *ELLE® Onshore*.

Step 5

Smoothen out the *Centaur 960* to a thin layer at the overlapping area.

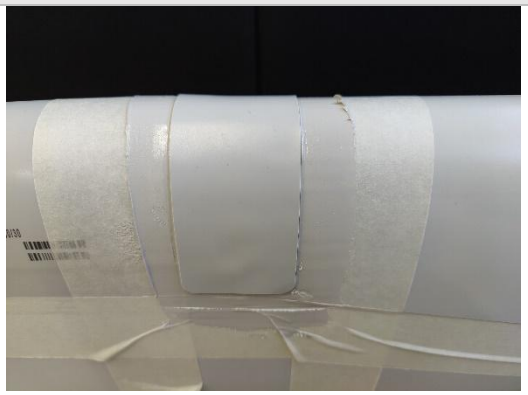


Step 6

Remove all the liner from the overlapping piece.

Step 7

Apply the overlapping piece centred in the overlapping area.

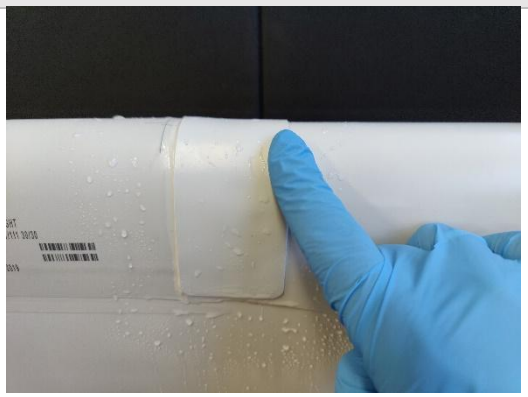


Step 8

Use application roller to remove any air entrapments.

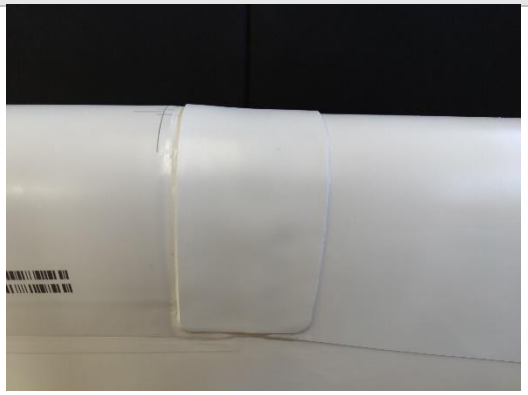
Step 9

Remove the masking tape and spray some application solution onto the overlap and smoothen the excess *Centaur 960* sealer with your finger.



Step 10

Wipe off any *Centaur 960* sealer on the overlapping piece if needed.



End

3.7 Curing time

Before starting

The rotor can be released, and the WTG set to idle mode immediately after application of the replacement ELLE®. The sealed overlap patch must cure in accordance with the table below before the WTG can be put into operation.

Relative Humidity [%]	Temperature [°C]	Temperature [°F]	Minimum curing time [hours]
> 30	5 … 10	41 to 50	12
> 30	10 … 15	50 to 59	9
> 30	15 … 20	59 to 68	7
> 30	20 … 25	68 to 77	5
> 30	25 … 30	77 to 86	4
> 30	30 … 35	86 to 95	3
> 30	35 … 40	95 to 104	2

End

4. Technical Support

E-mail

support@polytech.com
Answers will be sent within one working day.

Phone

+45 88 444 500
Available 8:00-17:00 CET.

Please include the following information in your support request:

- Product name.
- Product type.
- Serial number.
- Description of the problem, including detailed, high-resolution pictures.