

Bromma all-electric STS spreader: Questions and Answers



Questions	Answers
What is the difference in particular for the operator when operating the electric VS the hydraulic spreader?	The key difference for the operator (crane driver) is the behavior of the flipper arms. The all-electric spreader is equipped with flipper arms with very strong "holding torque" while the press torque is lower than for a hydraulically driven flipper arm. Holding / press torque STS45E G2 Plus : 7000 / 850 Nm STS45 (standard) : 4500 / 2250 Nm STS45 (SB18) : 6500 / 2600 Nm
Will it only be available in 4-flipper - or also in 6-flipper configuration?	6 Flipper configuration is not yet available. At the moment, only 4 flippers configurations are available.
Can you please say something about the holding torque and gather torque?	The holding torque on the flipper is 7000 Nm. The press torque, or gathering torque, for the electrical flipper is 850 Nm.
Is the torque from the electric actuator towards the flipper the same as on a hydraulic one?	The holding torque is higher than our hydraulic flippers. The Bromma standard hydraulic flipper has a holding torque of 4500 Nm. There is an option, SB18, with 6500 Nm holding torque. The press torque for the hydraulic standard flipper is 2250 Nm. There is an option, SB18, with 2600 Nm press torque.
Do you have Electric Spreaders for Mobile Harbor Cranes?	At the moment there is no all-electric Mobile Harbour Crane spreader available, however, we are considering developing that option in the future.
Does full electric spreader means no oil at all, all motions are electrically driven?	Yes, hydraulic oil is completely eliminated and all movements on the spreader are driven by electric motors.
What is the total spreader weight?	The spreader weight (without optional equipment) is 12,6 metric tons.
How is it made sure that the impact energy will not damage the drive components?	Drive components have been thoroughly evaluated and laboratory tested when needed in order to withstand the harsh operational environment a spreader is exposed to.

In case of power failure to the spreader, how to unlock the spreader from a container?	The twistlock motors have an output shaft on the top that can be used to force the twistlock gearbox and twist locks to turn. This has to be done on the spreader.										
Are you ready to use FlexiFlippers on this new concept of all-electric spreader ?	There is nothing in the spreader design that hinders the use of FlexiFlippers. The FlexiFlipper has, however, not been included in the design, verification and CE certification process.										
What is the design life of the fully electric spreader?	The STS45E G2 Plus is designed according to EN13001, U7, Q3, HC2, HD1, which is the same classification as the Bromma STS45 hydraulic spreader.										
Any comparison for maintenance cost?	This information is not available yet.										
Can it be possible to upgrade G1 electric spreaders with G2 ?	It may be technically possible but in practice, it will be unreasonably expensive										
Does this come with IFM controller or SCS controller?	The STS45E G2 Plus comes equipped with SCU which is based on an IFM controller										
Will this new model spreader facilitate the possibility to read the container numbers via OCR technology?	The spreader can be equipped with Hawkeye OCR which can read the container number on the top of the container as part of the lifting cycle.										
During the trial in Long Beach did the spreaders result in any difference in productivity compared with the previous units?	LBCT states that Bromma all-electric spreaders perform the same as hydraulic spreaders or even better. The new spreaders have faster separation and a single telescoping speed. Additionally, it can benefit operations with M-cycles.										
How does the new generation STS45E differ from the previous electrical project ?	The new generation is a completely re-designed product starting from the steel structure to the components.										
Which spare parts are compatible between the new type of spreader and the STS45?	Very few parts are compatible. The only parts which are compatible are the twistlock pins.										
How many electric motors are used on the new spreader?	There are 17 motors: <table border="1" data-bbox="742 1344 1428 1612"> <tr> <td>Telescopic</td> <td>2 x 3.7 kW</td> </tr> <tr> <td>Twin Telescopic</td> <td>1 x 1.5 kW</td> </tr> <tr> <td>Twinlift up/ Down</td> <td>4 x 0.2 kW</td> </tr> <tr> <td>Twistlock</td> <td>6 x 0.4 kW</td> </tr> <tr> <td>Flipper</td> <td>4 x 0.9 kW</td> </tr> </table>	Telescopic	2 x 3.7 kW	Twin Telescopic	1 x 1.5 kW	Twinlift up/ Down	4 x 0.2 kW	Twistlock	6 x 0.4 kW	Flipper	4 x 0.9 kW
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What is the Mean time between failure?	MTBF is a theoretical and calculated value originally applied to microchip-based electronic products. Bromma has not conducted any theoretical calculations on the spreader but the expectations are that the "Time between failures" is equally long (good) as on the hydraulic STS45.										
Will be the diameter of main energy cable from crane to spreader different?	The STS45E G2 Plus has a maximum power consumption of 11kW. The crane's power supply installation must be designed to cater for the maximum power consumption and inrush current from direct starting of induction motors. (inrush current from flipper motors: 4 x 1.1kW, 50Hz)										

What is the main key advantage of Bromma electric spreaders against the competitors?	Bromma prefers to avoid public comparisons with competitor products and refer our customers to written specifications and available customer testimonials. We do however believe that our product(s) have a comparable or better track record compared to other similar products on the market.
YSX45E in yard crane was used since 2008 in our company, why you didn't apply it to STS45?	Bromma had a 1st generation STS spreader on the market in 2008, which never gained wide acceptance amongst the customer base. The new generation is completely redesigned and has taken the experiences gained from the 1st generation spreader into consideration.
Where are the fully electric spreaders manufactured?	The STS45E G2 Plus is manufactured in Bromma's manufacturing plant in Malaysia.
Will the spreader recognize the tonnage limit	The spreader can be equipped with optional twistlock-based load sensors, which will measure the load and weight as well as the eccentricity of the container.
Is the new electrical spreader interchangeable with old design one? Is there an electrical differences for the main cable socket between spreader and head block?	The STS45E G2 Plus is redesigned compared to the previous version, meaning that some technical solutions have been totally designed from scratch and some reused and some refined.
Is there a datasheet available now? Or will it go online soon?	The datasheet is available. Contact your local Bromma representative for a discussion and to get a copy of the Product Information Sheet which includes most of the detailed specifications of the spreader.