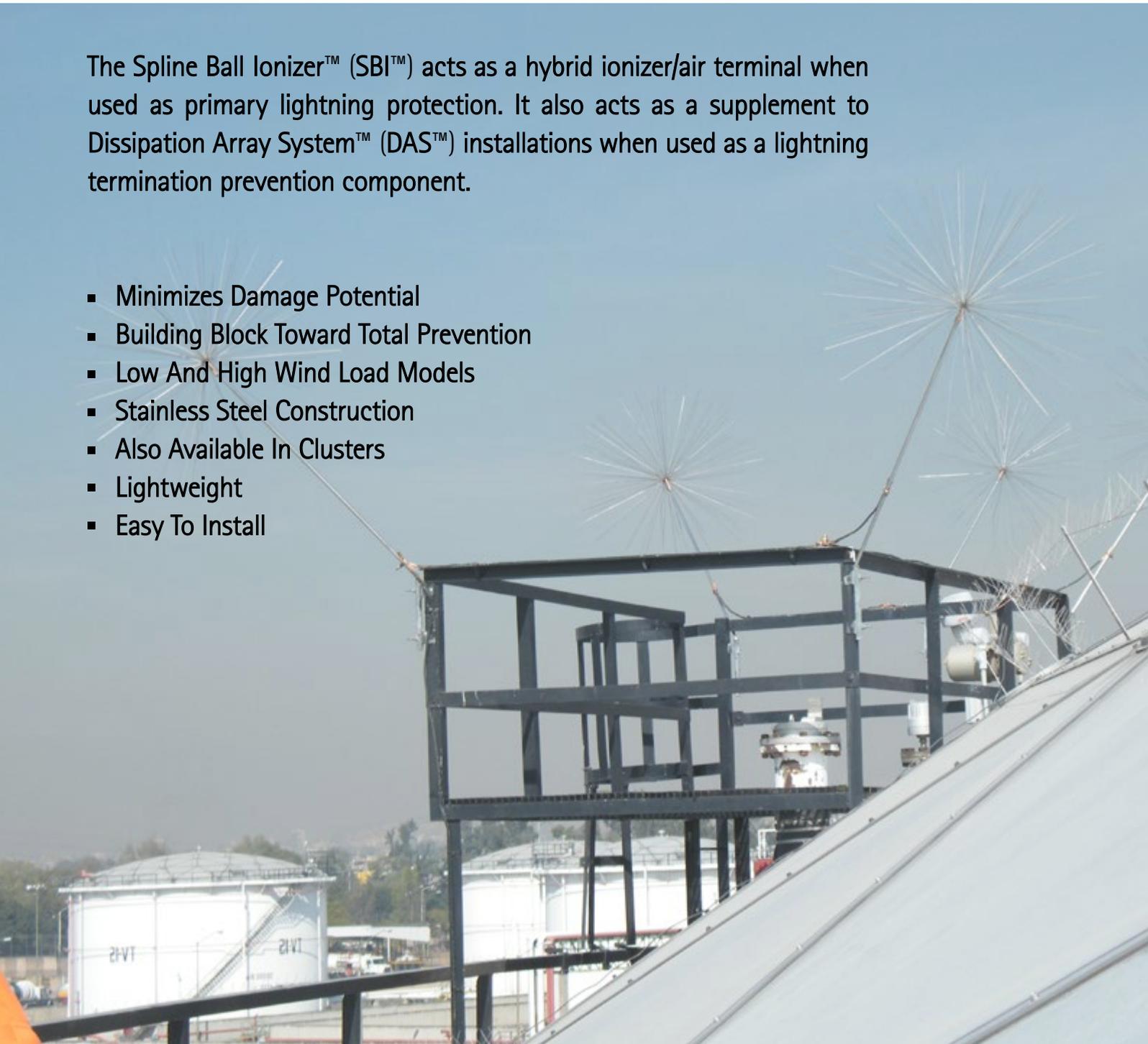


SPLINE BALL IONIZER™ (SBI™)

A Cost Optimized Lightning Protection Module Based On Point Discharge Technology

The Spline Ball Ionizer™ (SBI™) acts as a hybrid ionizer/air terminal when used as primary lightning protection. It also acts as a supplement to Dissipation Array System™ (DAS™) installations when used as a lightning termination prevention component.

- Minimizes Damage Potential
- Building Block Toward Total Prevention
- Low And High Wind Load Models
- Stainless Steel Construction
- Also Available In Clusters
- Lightweight
- Easy To Install



Spline Ball Ionizer™ (SBI™)



The Spline Ball Ionizer™ is based on over 25 years of research & development and utilizes technology to reduce the risk of direct lightning strikes at the protected site.

SBI™ is a building block toward complete lightning protection when used for basic risk reduction, or when used with DAS™ as part of an integrated solution.

Spline Ball Cluster (SBC)

The SBC concept provides a modular approach toward building DAS™ capability where engineering constraints limit or prevent achieving the desired results. These constraints may include wind load, interference with antennas, physical clearances or greater ionization in a smaller area. In some configurations, the SBC concept provides some form of DAS™ ionization capabilities at less cost.

SBI™ Protection Concepts

The Spline Ball Ionizer™ is a hybrid lightning protection concept engineered to provide multiple layers of protection for critical applications.

In its primary mode, the SBI™ lowers the risk of direct strikes by utilizing a phenomenon known as charge transfer, where a well-grounded point exchanges ions between the air and earth. This ionizing capability helps keep the local electric field below lightning potential, making the protected site less likely to experience direct strikes.

Under intense storm conditions, the SBI™ functions as a highly effective air terminal, safely collecting any strikes it cannot prevent. In contrast to wire brush devices that are often left ineffective after a single strike, the SBI™ continues to reduce the risk of subsequent strikes.

The SBI™ unique design and geometry also enable it to collect an incoming strike from virtually any direction, creating a larger area of protection than standard air terminals.

Improving SBI™ Performance With The Chem-Rod™

When installing an SBI™, it is recommended that the customer installs at least one Chem-Rod™, a low DC surge impedance and low resistance grounding electrode. It will improve the performance of the SBI™ in both the charge collection function and in the stroke diversion function.

 **Hitachi Critical Facilities Protection**

Hitachi Critical Facilities Protection Pte. Ltd.

31 Loyang Crescent Singapore 509013

T: (+65) 62141830 | F: (+65) 62141831 | W: www.hitachi-cfp.com

E: enquiry@hitachi-cfp.com