ESSGE-PLAST AB

PRODUCT DATA SHEET

ESSGE NCS

NON-CONTACT INSULATION SPACER SYSTEM

LT · -30…100 °C HT · -30…160 °C

ESSGE NCS is a modular non-contact insulation spacer system designed for hot, cold and acoustic insulation systems where controlled stand-off distance, drainage capability and reduced surface contact are required.



1 · PRODUCT OVERVIEW

PROPERTY	DESCRIPTION
Product type	Non-contact insulation spacer system
Product family	Ring / Band / Pin
Application areas	Hot / cold / acoustic insulation
Operating environment	Offshore / onshore / industrial
Installation type	Pipe / tank / vessel
Configurations	LT / HT

2 · OPERATING TEMPERATURE

PROPERTY	LT	HT
Continuous	–30 °C to +100 °C	–30 °C to +160 °C
Short-term exposure	+140 °C	+219 °C
Spacer material	Polymer	AISI 316L + polymer

3 · MECHANICAL PERFORMANCE

PROPERTY	LT	HT
Ring failure load	3.2 kN	3.0 kN
Pin failure load	1.0 kN	2.0 kN
Recommended spacer distance	CC 330 mm	CC 330 mm
Recommended quantity	3 pcs/m	3 pcs/m

4 · MATERIAL CONFIGURATION

COMPONENT	LT	HT
Spacer material	Polymer	Polymer
Band material	Polymer	AISI 316L
Non-conductive design	Yes	Yes
Corrosion resistant	Yes	Yes

5 · FIRE & MATERIAL CLASSIFICATION

STANDARD	CLASSIFICATION	STATUS
UL94	94-5VA / 94V-0	VERIFIED
IEC 60695	F1	VERIFIED
Smoke density	F1	VERIFIED
Passive fire protection	Not classified	–

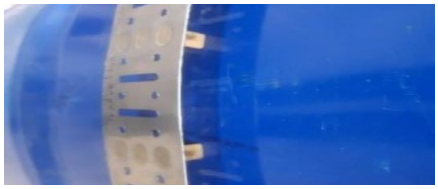
6 · ACOUSTIC PERFORMANCE

STANDARD	CLASSIFICATION	STATUS
SS-ISO 15665:2004	Acoustic insulation testing	VERIFIED
Class A	≥10 dB	VERIFIED
Class B	≥20 dB	VERIFIED*
Class C	≥30 dB	VERIFIED*

* Selected configurations, 300–650 mm OD. Tested by RISE.



RING HT (beige) and LT (black)



BAND AISI 316L band with polymer feet



PIN LT (black) and HT (beige)

7 · RING DIMENSIONS – same for HT and LT

RING SIZE	PIPE OD	AIR GAP	WIDTH	INSULATION ID
18–25	18–25 mm (0.71–0.98″)	15 mm (0.59″)	48 mm (1.89″)	48–55 mm (1.89–2.17″)
28–38	28–38 mm (1.10–1.50″)	16 mm (0.63″)	48 mm (1.89″)	60–70 mm (2.36–2.76″)
42–57	42–57 mm (1.65–2.24″)	16 mm (0.63″)	48 mm (1.89″)	74–89 mm (2.91–3.50″)
60–80	60–80 mm (2.36–3.15″)	18 mm (0.71″)	48 mm (1.89″)	96–116 mm (3.78–4.57″)
83–114	83–114 mm (3.27–4.49″)	18 mm (0.71″)	48 mm (1.89″)	119–150 mm (4.69–5.91″)
121–163	121–163 mm (4.76–6.42″)	18 mm (0.71″)	48 mm (1.89″)	157–199 mm (6.18–7.83″)
169–222	169–222 mm (6.65–8.74″)	18 mm (0.71″)	48 mm (1.89″)	205–258 mm (8.07–10.16″)
230–318	230–318 mm (9.06–12.52″)	16 mm (0.63″)	48 mm (1.89″)	262–350 mm (10.31–13.78″)

Insulation ID = Pipe OD + (Air gap × 2). Spacer sizing is based on pipe outer diameter (OD), not nominal pipe size (DN/NPS).

8 · BAND DIMENSIONS

PROPERTY	VALUE
Pipe OD	>318 mm
Air gap	15 mm
Width	46 mm
CC distance	64 mm

9 · PIN DIMENSIONS

PROPERTY	VALUE
Height	48 mm
Width	30 mm
Air gap	12.5 mm

10 · SYSTEM FUNCTION

SYSTEM FUNCTION	ESSGE NCS
Reduced wet-time	YES
Improved drainage	YES
Reduced coating stress	YES
Reduced metal contact	YES
Stable insulation geometry	YES

11 · NORSOK ALIGNMENT

NORSOK CLASS	RELEVANCE
Class 1 – Heat conservation	APPLICABLE
Class 2 – Cold insulation	APPLICABLE
Class 5 – Fire protection	NOT CLASSIFIED
Class 6–8 – Acoustic	SUPPORTED
Class 9 – Condensation control	HIGHLY RELEVANT

12 · STANDARDS & COMPATIBILITY

STANDARD / SYSTEM	STATUS
NORSOK M-004	APPLICABLE
NORSOK M-501	COMPATIBLE
ISO 9001	APPLIED
ISO 12241	REFERENCED
SS-ISO 15665	VERIFIED

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The information contained in this document is provided for general technical guidance only and is subject to change without notice. Final system design, insulation configuration and suitability for specific operating conditions remain the responsibility of the customer and/or installation contractor. For full specifications see ESSGE NCS – Technical Data Sheet & Standards Alignment (ESSGE-NCS-TDS-001).