



# SPACE

## INTER STAGE LINEAR SHAPE CHARGE ASSEMBLY

Pyroalliance designs and manufactures specific Inter-Stage Linear Shape Charge Assemblies (ISLSCA). These products, machined from a linear profile with an initiation port at each end, are combined to build a complete Inter-Stage Separation System.

Incorporating a new generation of copper cutting cords into those ISLSCA, Pyroalliance offers lead free solutions, compliant with the latest market needs.

Those products are designed and manufactured under Pyroalliance design authority.

# Inter Stage Linear Shaped Charge Assembly (ISLSCA)

## Operation mode

An ISLSCA is terminated on each side with a relay. In order to achieve a proper separation, each segment mounted onto the cylindrical stage has to be aligned and connected to the next one. Thus, a continuous charge is available to perform a complete separation within a millisecond.

The inter-stage separation operates in a detonation mode.

Upon order reception from any detonating initiation source (detonator, transfer line, slapper), the integrated cutting cord generates a hydrodynamic jet of metal that severs metal or composite structures.

## Benefits

- Very high reliability level
- Fast execution
- Easy integration (precise mechanical interfaces and mounts)
- No preventive maintenance needed
- Lead free
- REACH compliant

## Application

- Inter stage separation



Pyroalliance's Inter Stage Linear Shaped Charge Assembly will fly on Vega-C - ESA

## Key figures\*

Estimated Cutting performances:	1 to 6 aluminium alloy
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Main dimensions Ø:	0.5 to 5 m
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Detonation velocity:	> 7700 m/s
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Linear charge (RDX):	2-10 g/m
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Operating temperature: (typical values)	Down to -80°C Up to + 100°C
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\*Product under development and qualification

**For more information please contact us.**  
**Visit our website: [www.pyroalliance.com](http://www.pyroalliance.com)**

## Product Classification

- Number UN: UN0288
- Storage class: 1.1D
- Not restricted by ITAR regulation

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## Produced by the Communication Department of Pyroalliance

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