

NEW STANDARD SERIES KVENNA -SOFT LANDING CYLINDERS

(SLC) is used for minimizing landing loads on subsea modules and structures. The design is based on a continuous damping effect, resulting in a continuous and smooth damper reaction with good control of the reaction force.

A standard Kvenna damper can be easily adjusted for a broad range of module sizes by exchanging the damping element. This results in cost-effective production as there is only a single inexpensive component that can be custom-tailored.





FIELD PROVEN DESIGN

Kvenna has delivered hundreds of bottom flange cylinders covering a wide range of applications, such as small/medium/large manifolds and various structures/modules, using the same field proven design.



ENVIRONMENTALLY FRIENDLY

The K-SLC's are totally green in operation as they use the ambient sea water as damping fluid.

+ DESIGN PARAMETERS

Initial landing speed 0.5 m/s
Final landing speed 0.05 m/s
Stroke length 150 mm
Piston extension at end of stroke 100 mm
Max lateral load component 24.4 %
Design pressure 150 bar
Test Pressure 187.5 bar
Net retardation 1.0 - 2.0 m/s²



IN-HOUSE TESTED

A comprehensive function test has been performed in-house to guarantee the performance of the cylinders.



RETRO FITTING

Retro fitting of SLC possible by changing damper needle.
Competitors would have to change whole arrangement in housing.



NO WELDING REQUIREMENTS

Less NDT and chances for weld defects. Production and assembly can be performed at Kvenna facilities.



SMOOTH DAMPER REACTION

Kvenna design uses a single orifice that is continuously adjusted during the complete damping stroke length. Thus, a smooth damper reaction with good control of the reaction force is achieved.



