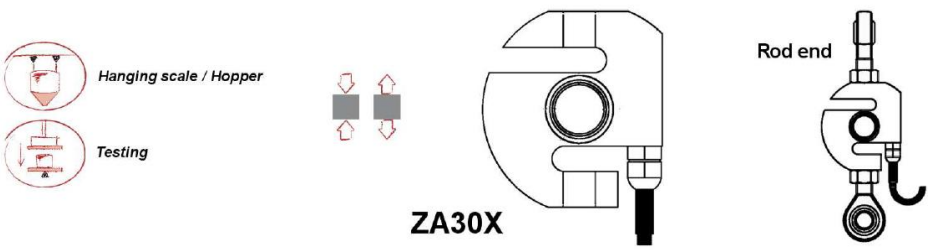
S-type load cells

Principle
The S-type Load cell is most commonly used in tension (but can be used in compression).The S-type Load cell is use bending or shear as a measuring principle. It must be arranged so that the force applied passes perpendicularly through the centre of the load cell. To ensure this happens, most end users fit clevis pins or rodend bearings to the load cell to movement which copes with expansion forces and other miss-alignment.

S-type Load cells are used for vessel weighing, tensile testers, torque restraints and other applications.

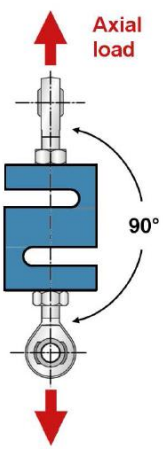
S-type load cells are commonly used in capacities from around 25kg to 5,000kg.

ZA30X S-type load cell
SCAIME offers the all stainless steel ZA30X which is sealed to a very high integrity (IP 68). This makes them extremely suitable for wash-down situations and sanitary environments such as chemical processing plants.



Load introduction
The threaded boreholes at the top and bottom are used for the load introduction. Loads should be introduced as closely as possible in the direction of measurement. Torsion and bending moments causes measurement errors and are likely to damage the load cell. These adverse influences must be avoided by construction elements which are not absorb any load in the direction of measurement.

Bienfait offers knuckle eyes to minimize adverse effects due to load introduction :
The nuts of the knuckle eyes must be fastened at max. load.
Do not introduce the fastening torque through the load cell.



When utilizing tension cells for vessel weighing:
Position the load cells around the tank so that each will support an equal weight.

Make sure that the upper and lower rod end are turned at 90 degrees to each other. This will reduce swaying.

Install a safety rod next to each weigh module

make sure that load cell is hanging vertically

If the suspended tank is subject to horizontal movement, install check rods to limit horizontal movement.

It is of prime importance to apply the force axially to the load cell.

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Weeg- en testtechniek

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