

Testing facilities

RACO Electric Actuators in seat testing facilities

RACO Electric Actuators are used in a multitude of testing facilities to test the behaviour and specific properties of materials under widely differing conditions. The components are subjected to different load conditions so that weak points and quality deficiencies in a product can be detected in the earliest stages of product development and testing. The established reference values are then used in subsequent production for substantial improvement of process safety.

Depending on the given assignment, the electric actuator is used to perform linear motions that are controlled in their speed, position and force. For instance a three-phase asynchronous motor for speed-controlled advance, in conjunction with a RACO positioning motor for position-controlled linear motions, or a synchronous servomotor for force control, can be used to realize the right drive solution.

The RACO modular system makes it possible to assemble the perfect drive, also with an integrated loading measuring device, to match any assignment in order to fulfil the required demands. Both high-dynamic movements or extremely slow creep speeds of $v < 0.005$ mm/s with excellent variability within a wide control range can be realized through the use of appropriate spindle systems and transmission gears.

Car seats and the head supports are tested for impact and deformation within the framework of the afore-described application example. The RACO type T6V5 electric actuator with an intelligent positioning motor generates defined, position-controlled loads on seat back-rests. The RACO type K6V4 electric actuator with synchronous servomotor and loading measuring device additionally applies a slowly increasing load on the head support. The resulting deformation is synchronously measured.



RACO electric actuators are ideal to fulfil the stringent demands expected of test stands with integrated measured-value acquisition and evaluation on account of precise controllability within a wide adjustment range. This makes the purely electro-mechanically controlled direct drive far superior to media-controlled systems and a more profitable and efficient alternative also with regard to the amount of installation and maintenance work.

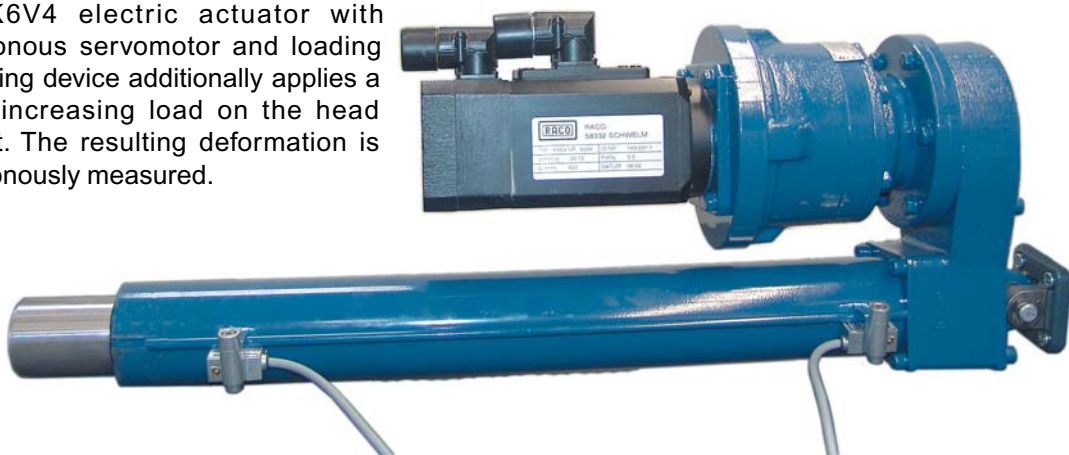
Technical data of the electric cylinder:

Type: RACO COMPACT Typ T6V5

Thrust:	F = 5 kN
Stroke:	h = 400 mm
Speed:	v = 1 - 24 mm/s adjustable
Drive:	RACO's positioning drive

Type: RACO COMPACT Typ K6V4

Thrust:	F = 3 kN
Stroke:	h = 400 mm
Speed:	v = 0,1 - 12 mm/s adjustable
Drive:	Servomotor and Servoamplifier



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