

MOOG		
GLOSSARY OF TERMS		
MOOG TECHNOLOGY		
2001	2002	2003

In 2001, Moog began providing a glossary of selected terms relevant to our technology and markets.

This year we're providing several new terms in the same in-depth fashion as well as abbreviated definitions from the prior years.

2001 - 2002 TERMS:

Aftermarket:

Spares, repairs, and overhaul of original equipment hardware.

Primary flight controls:

Flight-critical controls including ailerons, elevators, and rudders.

Secondary flight controls:

Supplemental controls that refine an aircraft's performance including trim tabs, wingflaps, spoilers, speed brakes, and slats.

Thrust vector control:

Steering launch vehicles and satellites by directing the thrust of their rocket engines and booster nozzles. Also used in high performance fighter aircraft.

Electrohydrostatic actuation (EHA):

New technology eliminating hydraulic connections and providing electrical power directly to the actuators.

Swashplate assembly:

Provides adjustability of the angle of any of the rotor blades simultaneously, allowing the craft to gain or lose altitude, or control attitude.

Six degrees of freedom:

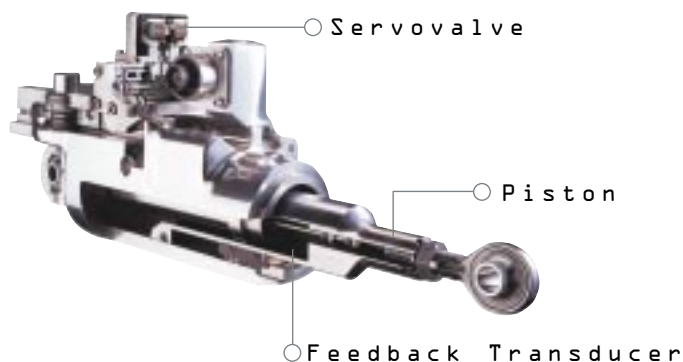
Defines six motions: vertical, lateral, longitudinal, pitch, roll, and yaw.

Digital interface valve:

An Industrial servovalve with an embedded digital micro-processor enabling users to define dynamic performance.

Electrohydraulic Servocontrol Actuation:

An electrohydraulic servocontrol system consists of six elements indicated in the diagram below: control electronics which may be a computer, microprocessor or guidance system and which create a command input signal; a servoamplifier which provides a low power electrical actuating signal which is the difference between the command input signal and the feedback signal generated by the feedback transducer; a servovalve which responds to this low power electrical signal and controls the high power flow of hydraulic fluid to an actuation element such as a piston and cylinder which positions the device being controlled; and a power supply, generally an electric motor and pump, which provides the flow of hydraulic fluid under high pressure. The feedback transducer measures the output of the system and converts this measurement into a proportional signal which is sent to the servoamplifier. The concepts are similar in electromechanical systems wherein an electric drive and ballscrew are used instead of a servovalve and actuator.



This cutaway of an actuator shows the piston which moves inside the cylinder in response to the pressure and flow control of the servovalve. The piston extends and retracts, providing the motion or force commanded by the computer.

