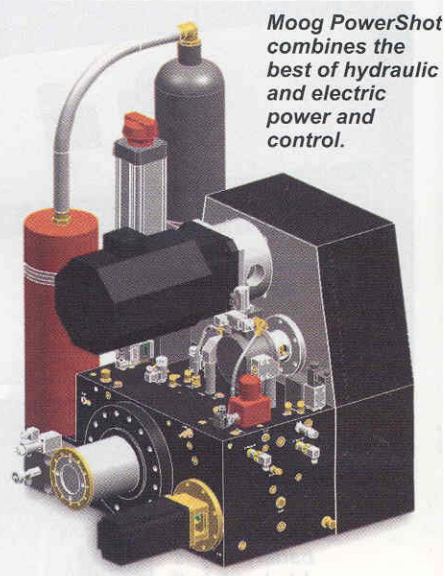
Servo unit gives electric machines hydraulic punch

A SELF-CONTAINED injection system that combines the power of hydraulics with the control of electric servomotors is being offered to electric moulding machine manufacturers by Moog. The PowerShot requires no separate hydraulic power unit and uses only a small amount of oil. A single servo motor controls the entire system, including screw rotation.

Moog says the PowerShot was developed in order to provide machine builders with the benefits of high power, high speed and accuracy found on hydraulic machines and the low energy consumption, clean environment, low maintenance costs and modular flexibility of electric technology.

Injection and decompression (suckback) are accumulator driven and controlled by a Moog servo cartridge which also provides closed loop control of screw position and injection velocity and pressure. An RKP pump is employed for closed loop control of back pressure during recovery and recharges the accumulator for the next cycle.



Moog PowerShot combines the best of hydraulic and electric power and control.

The new Moog servo controller system interfaces with the machine's controller through a fieldbus and can be installed with only a few connections to the machine. Energy efficiency of the system is said to be better than other high force, high speed systems because the main servo motor and RKP pump operate only as required during recovery.

On hydraulic machines, the pump would be turning constantly even when no oil is required by the system. While electric machines do not have this drawback, they typically require one motor for screw rotation and an additional two or three motors for injection, says Moog. These motors are turned on during the injection and holding portions of the cycle but the PowerShot servo motor works only when needed.

At present PowerShot is being promoted to machine manufacturers, but Moog sees no reason why it could not also be retrofitted to machines in service.

www.moog.co.uk

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Twinshot gets OEM endorsement

THE SPIREX Twinshot plasticising concept which enables bi-material injection from a single barrel is now being offered as an option by several injection machine manufacturers.

Van Dorn Demag was the first to offer it last year, and now Toshiba and Negri Bossi are making Twinshot injection units available.

In the Twinshot process different materials are plasticised simultaneously on a two stage screw, and the material from the second zone passes through the screw core to encapsulate the material plasticised in the front zone.

www.spirex.com.

Twinshot can be specified on Van Dorn Demag, Toshiba and Negri Bossi machines.