

Ultra Valve Basis Weight Dilution Profile Control



Benefits

- CD Weight Profile control brings improvements by reduced variations on:
 - Basis weight (dry, and Cond.)
 - Moisture caliper and coat profiles
 - It provide
 - Improved fiber orientation
 - Faster grade changes
 - More uniform paper and reel building
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Digital Engineering developed the first Basis weight profile control system 1985 and is still Investing in the technology to ensure to stay in the frontline.

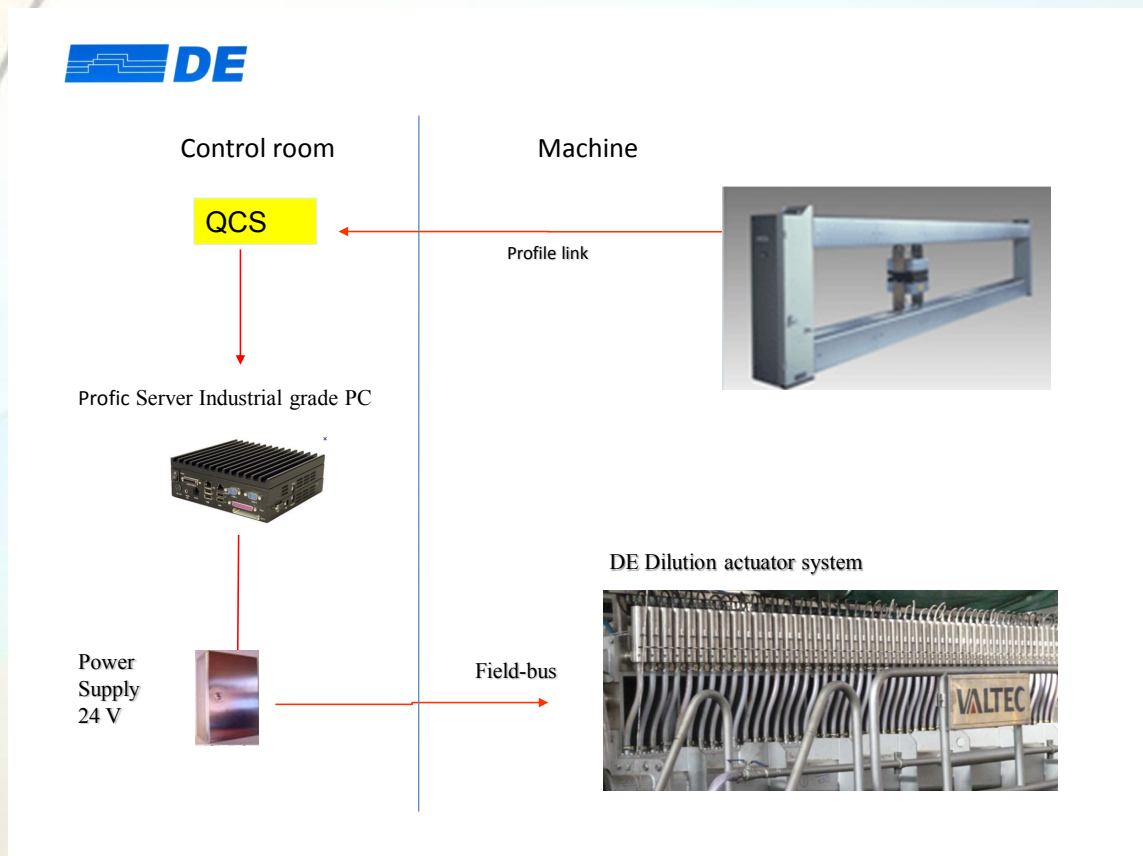
The DE actuator system is made selfsufficient and easy to adapt to any QCS system.

It is built for easy installation and maintenance

It can also be used as remote manual control.

Up to date have Digital Engineering delivered slice and dilution actuators systems for automatic control woldwide for more than 20 years.

System Layout



DE Advantages

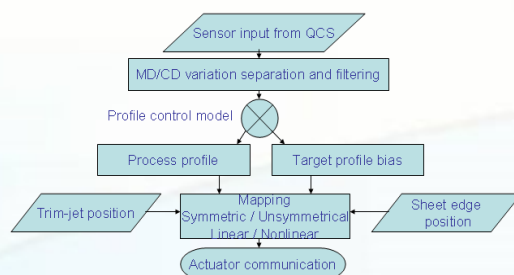
- Valve actuators are designed for highest precision and torque
- Easy to install and maintain
- Controlled by state of the art electronic interfaces for safety and durability
- Tailored cable harness with plugin connectors provide safe, easy and fast installation
- All signals digitalized at source, that means no noise sensitive external analog or I/O cables necessary.

Only two pair of wires serves the whole system.

Profic CD control software with all advanced features for machine and process adaption.

Made with open architecture for full customer service access aimed for independence, and ability to avoid expensive service contracts.

CD Weight Control Schematic



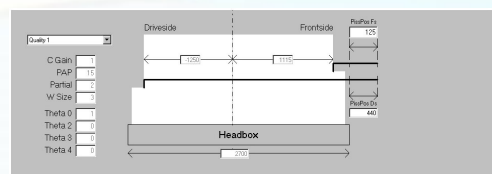
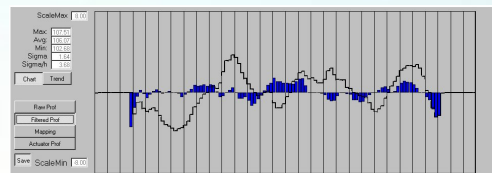
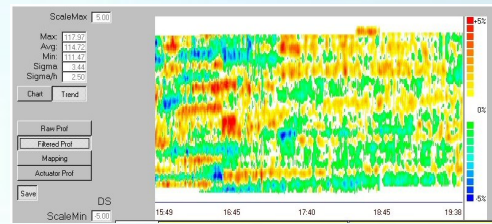
Advanced interactive suport functions:

Historic graphic trends

Built in troubbleshooting tools

Communication status logging.

Control tuning suport tools.



Remote service

Internet access to the system from remote foreign country (Sweden).

Easy access to remote line.

Quick service in an emergency

Full support from technical center

Results

Profic systems has been running since 1990 providing 2-sigma improvements more than 60% avg.



Ultra Valve Va 20

Specification:

Control range 0-90 deg.=0-100%

Torque Nominal 20 Nm

($0.48 \times 100 = 48 \text{ Nm}$)

Valve torque load = 2 Nm

Control resolution:

(full, half or quarter steps alt.)

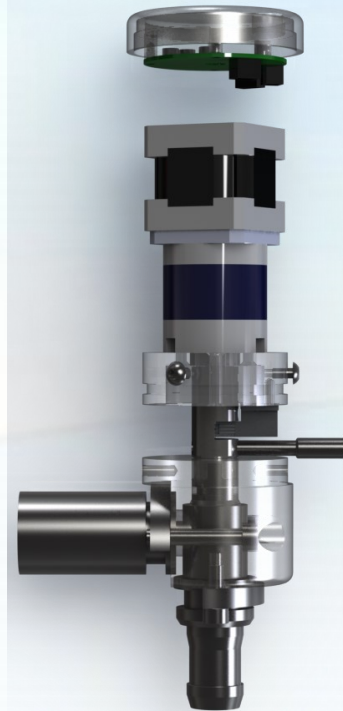
400 step / sec give full range

move in less than 10 sec.

200 step / rev.x 100

= 5000steps/ 90Deg

1 (full) step = 0.018 %

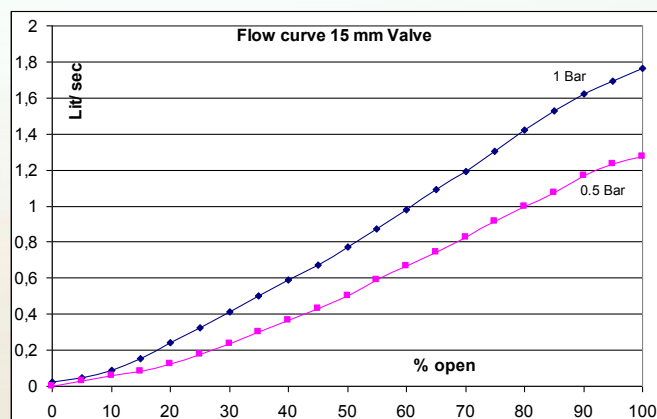


Position feedback:

State of the art Hall sensor device

Distinct ratiometric measurement

interpreted by a 16 Bit resolution A / D converter that define the signal range in > 65 000 units



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