

# Twin Power

## Pneumatic stepping rotary actuators for choke valves



Twin Power® actuator is designed for offshore and onshore installations on choke valves.

Twin Power actuator use a reciprocating or stepping air motor to actuate a pawl mechanism which in turn rotates the drive hub in a series of steps in the designated direction. Type 214 has two reciprocating motors. Thrust must be taken within the choke valve. Twin Power actuators can also be used to control gate valves, globe valves, penstocks, large ball, butterfly and plug valves combined with a gear box.

# Explosive atmosphere CE &

The Twin Power® actuator, mechanically is ATEX approved. This allows use in Hazardous Areas according to Category 2, Group II.

# Technical data

(actuator only)

- Type 114: Single motor version
- Type 214: Twin motor version.
- Output torques:
   Type 114: 20-400 Nm.
   Type 214: 40-800 Nm.
- Steps per turn: 27 (may be varied).
- Speed of operation: Single step operation with solenoid valve pulse time of 1.5 sec on 1.5 sec off (May be varied. Subject to motor(s) used).
- Working pressure:4-8 bar, 0,4-0,8 MPa, 60-120 psi
- Operating media: Air (Option: Inert gas).
- Weights:
  Type 114: 25-40 kg.
  Type 214: 33-50 kg.
  (Subject to motor size and ancillary eqpuipment).
- Material: Cast iron body.
   Pipework stainless steel.
- Temperature range:
   -30 °C to +80 °C
   -22 °F to +176 °F
- Drive bushes:
   Can be machined to suit the valve or supplied blank if required.





#### Position feedback

Explosion-proof Switch box type RC1990. EExdIICT6 IP66 ATEX approved

Containing 1 x 4-20 mA intrinsically safe transmitter. Up to 4 x M20 cable entries. Mounted to the side of the actuator.

Options: 2 x SPDT V3 limit switches or 2 x proximity sensors.

### **Options**

- Fixed or dismountable manual override hand wheel.
   Declutchable version available.
- Protective coating to suit customer's requirements. Two part epoxy coating as standard.
- Solenoid valves and other controls to suit control requirements and customer's specifications.
- Valve position indicator available.



Type 214 Actuators mounted on 4" and 6" choke valves. (Photo by kind permission of Kent Introl Ltd).



#### Visual indicator

Twin Power can be fitted with a stainless steel mechanical visual indicator calibrated 0/100 % in 5 or 10 % increments. Options for dual scales.

The picture shows Explosion-proof Switch box type RC1990.



# Control signals

Pulsed input signals via solenoid valves or pilot valves.

The solenoid valves can be selected to suit customer's requirements, i.e. Explosion-proof or Intrinsically safe installations.

An integral throttle can be used to vary the operating speed of the motor.



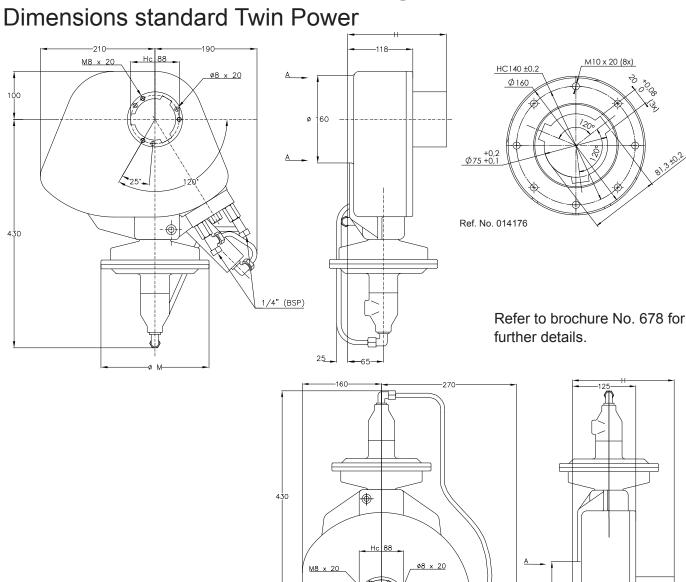
#### Mechanism

Stepping drive mechanism for open or close in single steps at 27 steps per turn.

The picture shows gear box with gear to drive the switch box.







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We reserve the right to make changes without notice.

1/4"(BSP)

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