



# Valve Actuation

## Knife Gate Valves & Butterfly Valves

### Valve actuation options for Townley Knife Gate Valves and Butterfly Valves

Townley valves can be actuated with a variety of mechanisms, including manual, electric, pneumatic and hydraulic. Before making choices, be sure to review the following mechanical, physical and hydraulic considerations.

**Valve service:** Slurry, corrosive, etc.

**Motion frequency:** Hourly, daily, monthly, etc.

**Motion speed:** Time to open

**Motion required:** Rotary or linear

**Torque:** To move blade or disk in service

**Position control:** Open/closed or variable

**Default position:** Open/closed

**Service available:** Air, hydraulic, electric

**Remote capability:** Wireless, actuation

**Environment:** Corrosive, mist, temperature

**Physical limitations:** Vertical, side-side

**Manual override:** Hand wheel, lever, switch

**Safety:** Mechanical lockout

**Accessories:** Limit switches, positioners

**Preferences:** Supplier experience

**Spares:** Common wear parts and delivery



### Typical Valve Applications

For isolation, diversion or throttling in a variety of circuits, Townley valves and actuation options are an excellent choice for flow management of abrasive slurry.

- Power plant "bottom-ash"
- Phosphate matrix and tailings
- Metal mining
- Limestone slurry
- Sand and silica
- Coal prep
- Hydrotransport of oil sands



**Townley Tough!**

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### Manual

#### **Hand wheel**

Basic actuation for most knife gate valves.  
Larger knife gate and butterfly valves use gear actuation or rack & pinion

#### **Lever**

Typical for most butterfly valves

#### **Lock-out**

Feature on lever plate of Butterfly valve  
Blade pin lock for gate valve

### Powered

#### **Compressed air**

Air cylinders for linear movement (Knifegate)  
bevel for butterfly valves

#### **Hydraulic**

Excellent if extra torque is required  
Bevel action for butterfly

#### **Electric**

Usually coupled with lead screw or bevel gear drive

### Limit switches

Pre-select max open and close with remote shutoff

### Positioners

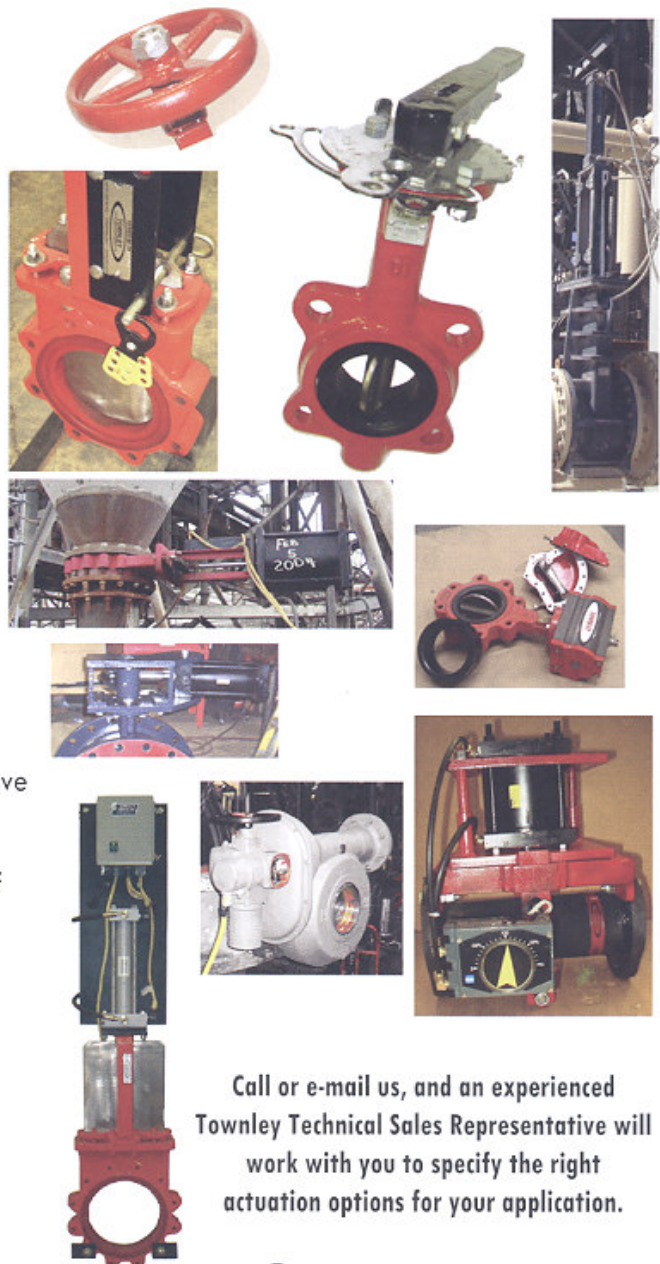
Control and observe position of valve opening

### Remote actuation and monitoring

Wired or wireless, great for locations with limited access

### Self-contained actuation

Electric-hydraulic is excellent for remote locations where services are non-existing or unreliable



Call or e-mail us, and an experienced Townley Technical Sales Representative will work with you to specify the right actuation options for your application.

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