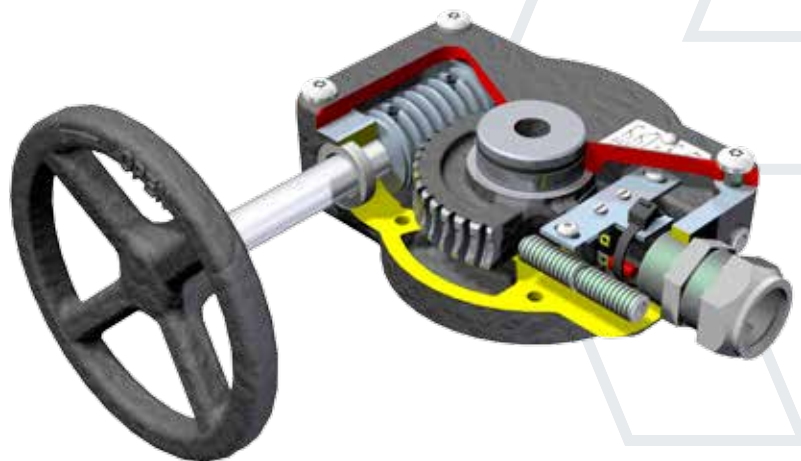


# rotork®

## Gears



### Manual Quarter-turn Gear Operators for Fire Protection Butterfly Valves

The new durable and economic FB series of gearboxes are capable of withstanding in excess of three times the rated input torque and have a lifespan of over 1000 cycles. Also incorporated is an external overload feature in the form of a shear pin fixing the handwheel to the input shaft to prevent damage to the valve if subjected to abuse for UL applications, and for FM application an internal overload feature can be incorporated between the valve stem and the gearbox output (i.e. shear key, shear pin, etc). All FB gearboxes include electrical switches activated when the valve is moved from the open position.

#### Application

The FB series of gearboxes have been designed specifically to be used on fire protection (i.e. sprinkler) systems and have been designed and tested to meet UL1091 and FM1112 Approval requirements.

## FB Series

### Manual Quarter-turn Gear Operators

#### Features

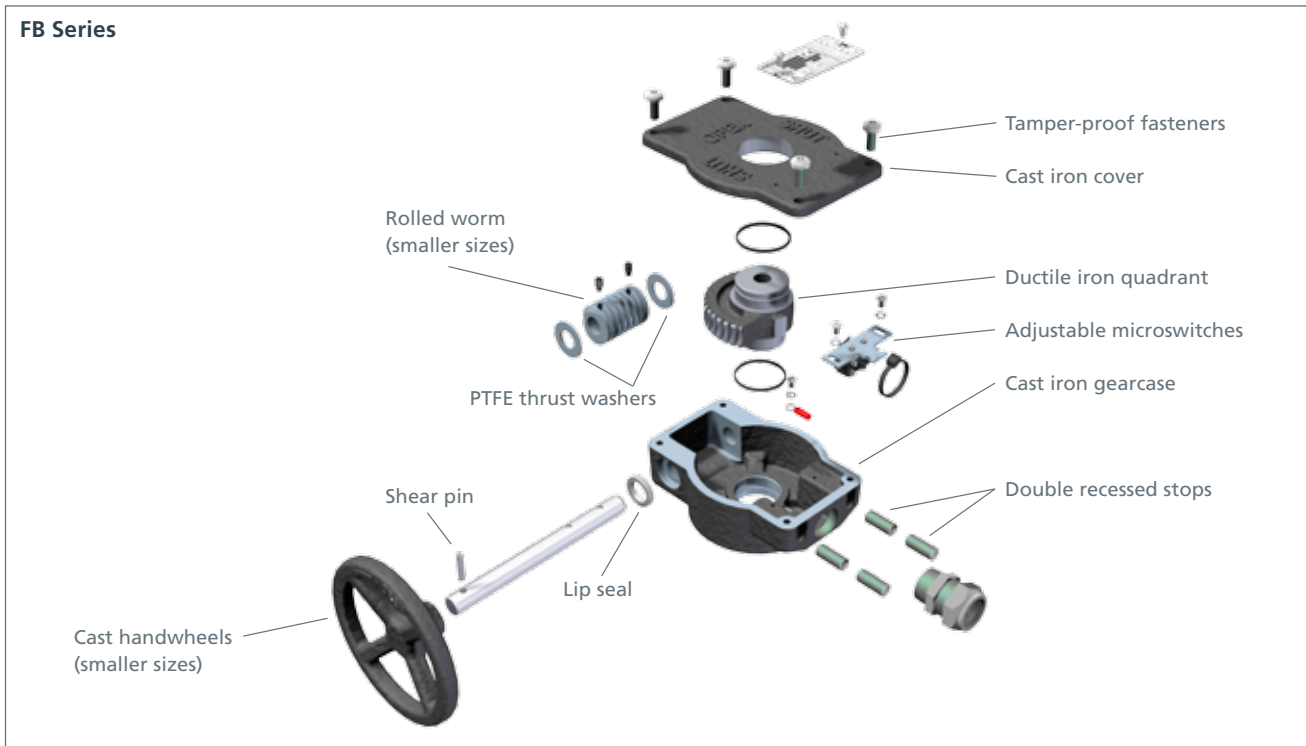
- Cast handwheels (on smaller sizes)
- PTFE thrust washers
- Cast iron housing
- Ductile iron wormwheel
- ½" NPT gland fitting
- Recessed stop screws
- Stroke 0-90° ( $\pm 5^\circ$  adjustable at open and closed)

#### Environmental Specification

- Sealed up to IP67 (with appropriate cable gland)
- Temperature range: -20 to 120 °C (-4 to 250 °F)

#### Options

- Optional valve stem indicators
- Square base, incorporating locating dowels



Type	Ratio:1	Output torque Nm (lbf.in)	M.A.* ±10%	Handwheel size mm (inch)	Weight kg (lbs)	Max. Stem Bore mm (inch)	Max. Stem Square mm (inch)	Max. Stem Flats mm (inch)	Max. Stem Height mm (inch)	ISO base options
FB10	40	80 (708)	9.6	Ø50 (2")	1.25 (2.8)	Ø14.4 (0.57")	14 (0.55")	Ø19.7 (0.77")	39.8 (1.56")	F05,F07
FB20	40	140 (1239)	9.6	Ø100 (4")	2.32 (4.2)	Ø17 (0.67")	16 (0.63")	Ø22.6 (0.89")	42.3 (1.66")	F05, F07, F10
FB30	40	330 (2921)	9.6	Ø200 (8")	4.2 (9.3)	Ø28.0 (1.10")	25.1 (0.98")	Ø35.5 (1.39")	52.3 (2.06")	F07, F10
FB40	40	660 (5841)	9.6	Ø400 (16")	9.9 (21.7)	Ø40.0 (1.57")	34.3 (1.35")	Ø48.5 (1.91")	66.3 (2.61")	F07, F10, F12
FB50	60	1000 (8851)	14.5	Ø400 (16")	12.2 (26.8)	Ø38.0 (1.49")	32.9 (1.29")	Ø46.5 (1.83")	66.3 (2.61")	F10, F12, F14

\* The published M.A. is achieved after a few cycles.

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