



When combined with Limitorque's unexcelled electric actuators (such as the MX, L120, & SMB), the PT provides the user with a dependable, efficient and economical solution for quarter-turn applications.

Limitorque PT Series Worm Gear Operators

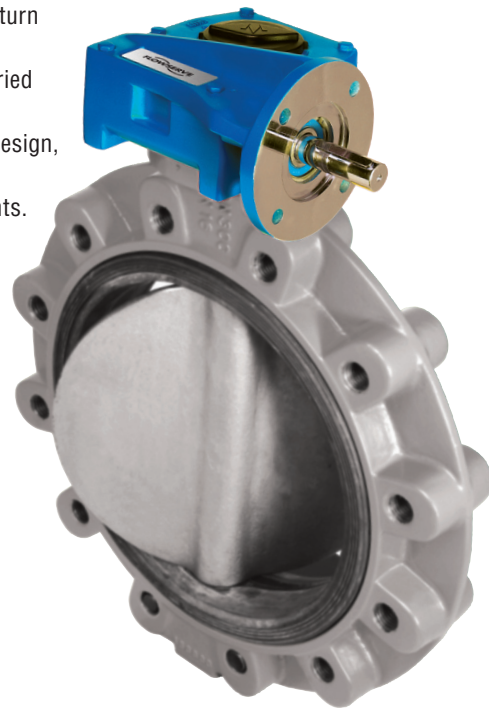
Specifically designed for motorized operation

The PT series of quarter-turn operators, coupled to multi-turn actuators, provide a second stage gear reduction to meet required torques and operating times. Applications for buried service, IP68 submersibility, or remote drive can also be accommodated. With cast iron construction and rugged design, the Limitorque PT range has been engineered to meet the arduous requirements demanded of industrial environments.

Through corrosion resistant treatment of bore metal surfaces and proper sealing, PT operators are sealed for submersibility to IP67 as standard. All models use high-performance roller bearings which, combined with a finish-machined worm shaft and worm gear, maximize the available mechanical advantage and overall unit efficiency.

Features & Benefits

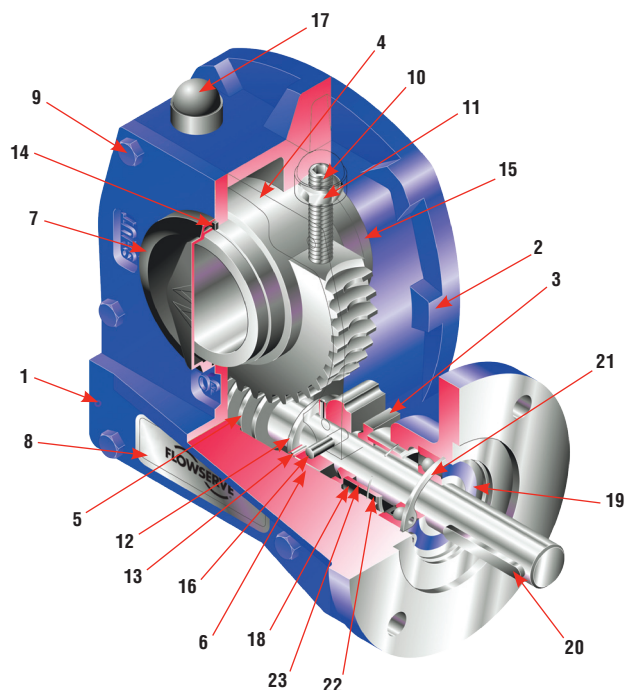
- Submersibility to IP67 (standard construction)
- Maintenance free
- Input flanges to ISO5210 & DIN3210 with keyed input shaft
- Available for buried service and submersibility to IP68
- Optional output drive bushes
- Self locking
- High mechanical advantage
- Cast iron enclosure
- $90^{\circ} \pm 5^{\circ}$ (adjustable) travel
- Up to 1800 N m/1400 ft-lb output torque
- 50% grease fill for life
- Capability to withstand an overload of twice the maximum torque rating
- Worm gears available in bronze or ductile iron
- -20°C to $+80^{\circ}\text{C}$ (-4°F to $+176^{\circ}\text{F}$) temperature range for continuous operation
- Low temperature applications to -50°C (-58°F) are available
- Unrivalled versatility for direct fixing to valves





Typical Parts List

Item	Component	Item	Component
1	Cover/input flange	13	Thrust bearings
2	Gearcase	14	Indicator O-ring
3	Wormshaft oil seal	15	Quadrant O-ring
4	Quadrant	16	Dowels
5	Wormshaft	17	Locknut protection cap
6	Wormshaft bearings	18	Protection sleeve
7	Indicator cap	19	Bearing
8	Nameplate	20	Key
9	Cover screws	21	Circlip
10	Stop screws	22	Sealing ring
11	Locknuts	23	Protection sleeve retainer
12	Bearing thrust washers		



Actuator Selection Data

Operator/SGA	Ratio	Efficiencies	Output Torque Rating	
		Start & Run	ft-lb	N m
PTA/C-12	42	0.27	880	1,193
PTA/C-14	60	0.27	1,600	2,170
PTA-18	65	0.30	1,800	2,441
PTA-30	68	0.30	3,000	4,068
PTC-32	65	0.29	3,200	4,339
PTC-32/S3.5	228	0.26	3,200	4,339
PTA-40	88	0.30	4,000	5,425
PTA-65	60	0.35	8,000	10,848
PTA-65/S3.1	186	0.34	8,000	10,848
PTA-65/S6.3	378	0.34	8,000	10,848
PTC-65	60	0.30	8,000	10,848
PTC-65/S3.1	186	0.28	8,000	10,848
PTC-65/S6.3	378	0.28	8,000	10,848
PTA-120	60	0.30	12,000	16,270
PTA/C-120/S3.1	186	0.26	12,000	16,270

Operator/SGA	Ratio	Efficiencies	Output Torque Rating	
		Start & Run	ft-lb	N m
PTA/C-120/S6.3	378	0.26	12,000	16,270
PTA/C-120/S10.8	648	0.26	12,000	16,270
PTA-150	60	0.30	15,000	20,338
PTA/C-150/S3.1	186	0.26	15,000	20,338
PTA/C-150/S6.3	378	0.26	15,000	20,338
PTA/C-150/S10.8	648	0.26	15,000	20,338
PTA-250	64	0.36	36,000	48,816
PTA/C-250/S6	384	0.33	36,000	48,816
PTA/C-250/S18	1,152	0.31	36,000	48,816
PTA/C-500/S2.15	116	0.35	61,000	82,716
PTA/C-500/S4.25	229	0.35	61,000	82,716
PTA/C-500/S10.62	573	0.34	61,000	82,716
PTA/C-500/S20.9	1,124	0.34	61,000	82,716
PTA/C-1000/S6	348	0.35	135,000	183,060
PTA/C-1000/S24	1,392	0.34	135,000	183,060

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United States

Flowserve Corp.
Flow Control
Limitorque Actuation Systems
5114 Woodall Road
Lynchburg, VA 24506 USA
Telephone: 434 528 4400
Fax: 434 845 9736