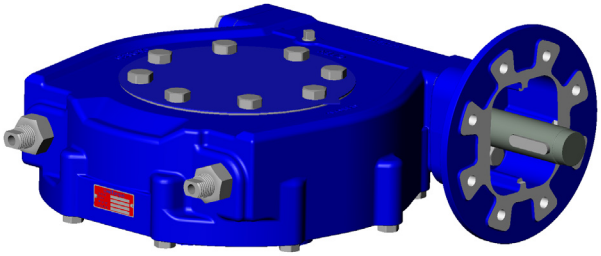


When combined with Limitorque's unexcelled electric actuators (such as the MX, L120 and SMB), the PT provides the user with a dependable, efficient and economical solution for quarter-turn applications.

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 valve torques and operating times. Applications for weatherproof, buried service, or IP68 submersibility can also be accommodated. With cast iron construction and rugged design, the Limitorque PT range has been engineered to meet the arduous requirements demanded by industrial environments.



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

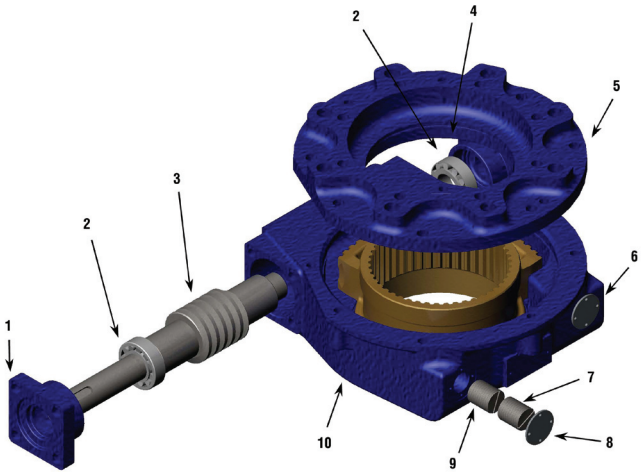
Features & Benefits

- Meets AWWA requirements submersibility to IP67 (standard construction)
- Maintenance-free
- Input flanges to ISO5210 and DIN3210 with keyed input shaft
- Available for buried service and submersibility to IP68
- Optional output drive bushings
- Self-locking gearing
- High mechanical advantage
- Cast iron enclosure
- 90°±5° (adjustable) travel
- Up to 183,000 Nm/135,000 ft-lbs 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°C (-4°F to 176°F) temperature range for continuous operation (options to -50°C)
- Unrivaled versatility for direct fixing to valves
- Available for 360° operation (PTD)

FLOWSERVE

Typical Parts List

Item	Component
1	Open Endcap
2	Tapered Roller Bearing
3	One-Piece Rolled Worm/Shaft
4	Closed Endcap
5	Piloted Cast Iron Base
6	Enclosed Screw
7	Jam Stops
8	Stop Plate (Gasketed)
9	Stop Screw
10	One-Piece Cast Iron Housing



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-14/2	60	0.27	1,600	2,170
PTA/C-14/2/3.5	210	0.24	1,600	2,170
PTA/C-14/1	60	0.27	1,600	2,170
PTA/C-14/1/3.5	210	0.24	1,600	2,170
PTA/C-30/2	68	0.30	3,000	4,068
PTA/C-30/2/3.5	238	0.27	3,000	4,068
PTA/C-30/1	68	0.30	3,000	4,068
PTA/C-30/1/305	238	0.27	3,000	4,068
PTA/C-40/2	88	0.30	4,000	5,424
PTA/C-40/2/3.5	308	0.27	4,000	5,424
PTA/C-40/1	88	0.30	4,000	5,424
PTA/C-40/1/3.5	308	0.27	4,000	5,424
PTA/C-50/2	183	0.31	5,310	7,200
PTA/C-50/1	183	0.31	5,310	7,200
PTA-60	60	0.32	8,800	11,930
PTA-60/3.1	184	0.30	8,800	11,930
PTA-60/6.6	393	0.30	8,800	11,930
PTC-65	60	0.30	8,000	10,848
PTC-65/3.1	186	0.28	8,000	10,848
PTC-65/6.3	378	0.28	8,000	10,848
PTC-75/2	309.1	0.29	13,051	13,051
PTC-75/1	309.1	0.29	13,051	13,051
PTA-120	60	0.28	12,000	16,270
PTA-120/3.1	186	0.26	12,000	16,270
PTA-120/6.3	378	0.26	12,000	16,270

Operator/SGA	Ratio	Efficiencies	Output Torque Rating	
		Start & Run	ft-lb	N m
PTA-120/10.8	648	0.26	12,000	16,270
PTC-120	60	0.24	12,000	16,270
PTC-120/3.1	186	0.22	12,000	16,270
PTC-120/6.3	378	0.22	12,000	16,270
PTC-120/10.8	648	0.22	12,000	16,270
PTA-150	60	0.28	15,000	20,338
PTA-150/3.1	186	0.26	15,000	20,338
PTA-150/6.3	378	0.26	15,000	20,338
PTA-150/10.8	648	0.26	15,000	20,338
PTC-150	60	0.24	15,000	20,338
PTC-150/3.1	186	0.22	15,000	20,338
PTC-150/6.3	378	0.22	15,000	20,338
PTC-150/10.8	648	0.22	15,000	20,338
PTA/C-250	64	0.36	36,000	48,816
PTA/C-250/6	384	0.33	36,000	48,816
PTA/C-250/18	1,152	0.31	36,000	48,816
PTD-250	64	0.36	36,000	48,816
PTD-250/6	384	0.33	36,000	48,816
PTD-250/18	1,152	0.31	36,000	48,816
PTA/C-500/2.15	137	0.35	61,000	82,768
PTA/C-500/4.25	272	0.35	61,000	82,768
PTA/C-500/10.6	678	0.34	61,000	82,768
PTA/C-500/20.9	1,344	0.34	61,000	82,768
PTA/C-1000/6	348	0.34	135,000	183,060
PTA/C-1000/24	1,392	0.34	135,000	183,060

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FCD LMENPS2002-01 08/08 Printed in USA.

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