



**Valves for
the Power Sector**



Larsen & Toubro is India's leading technology, engineering, construction and manufacturing company, with an international presence. A strong customer-focused approach and the constant quest for world-class quality have enabled L&T to achieve remarkable success in its major lines of business across seven decades.

L&T operates in:

- Engineering & Construction
- Heavy Engineering
- Machinery & Industrial Products
- Electrical & Electronics
- IT & Technology Services
- Railways
- Financial Services

L&T believes that progress must be achieved in harmony with the environment and is committed to community welfare and environmental protection.



L&T offers end-to-end solutions for the power sector. In-house capabilities in design, manufacture, project management and construction are supplemented by technology and design know-how from global power majors. Domain knowledge in every facet of the power industry qualifies L&T to offer state-of-the-art valves to power plants.

**L&T in
Power**

L&T Valves is a leading provider of flow-control solutions to the power sector. For five decades, we have been delivering value to the major players in the thermal and nuclear power sectors. A world-class product portfolio, unmatched marketing and support network and advanced project management capabilities characterize our offerings.



Our dedicated team of industry specialists ensures that design, manufacture, customer service and after-market support merge seamlessly to provide world-class solutions.

The product range covers a wide gamut of power plant applications - gate, globe & check valves in ASME classes up to 4500, high performance butterfly valves, large-size butterfly valves for water lines, metal-seated and soft-seated ball valves....

The project management team makes sure that the valves reach you on time and as per your project schedule and requirements.

Leveraging the global network, we also offer asset management support for the entire product life cycle including:

- Testing & commissioning support
- On-site training
- After-sales support
- Preventive maintenance & annual maintenance contracts

L&T Valves is equipped to provide complete flow-control solutions for all kinds of power plants - super-critical or sub-critical, conventional or combined cycle, coal or gas-fired, captive or cogen, thermal or nuclear.

L&T Valves

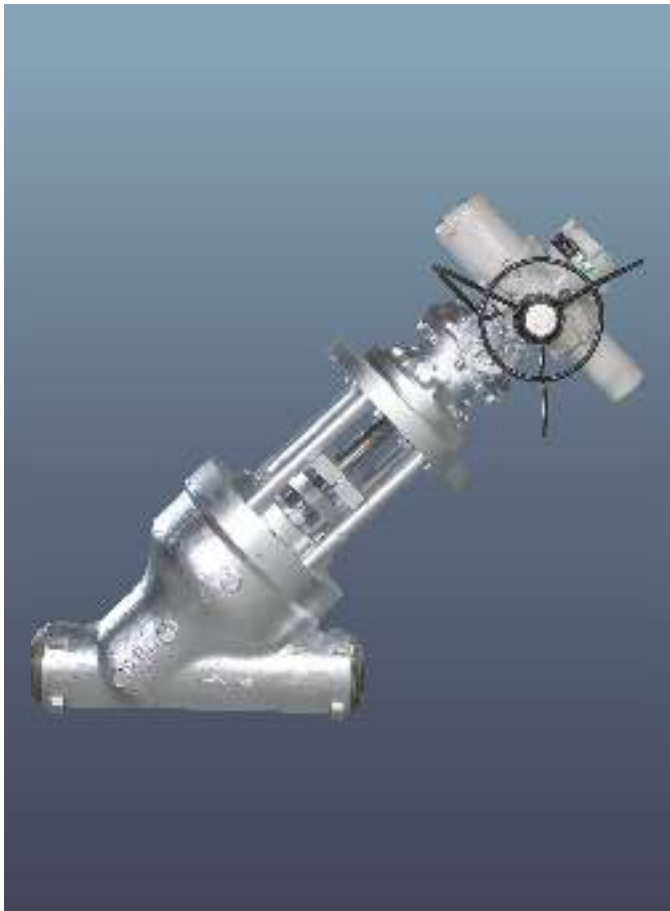




L&T Valves - High-pressure Range



6" #4100 A105 Gate Valve



- Pressure-seal bonnet
- Parallel-slide disc
- Pillar yoke
- Fully hard-faced seatings
- Available in carbon steel, stainless steels and alloy steels including C12A/F91

Gate, Globe & Check Valves

Valve Type	End Connection	ASME Class	2	3	4	6	8	10	12	14	16	18	20	22	24	26	28	30	36	38	42		
Gate Valves	Buttweld ends [Class 150 to 600] - Bolted Bonnet, Class 900 to 4500 - Pressure-seal Bonnet]	150	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
		300	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		600	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		900	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		1500	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		2500	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		3100	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		3500	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		4100	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Globe Valves	Buttweld ends [Class 150 to 600] - Bolted Bonnet, Class 900 to 4500 - Pressure-seal Bonnet]	150	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
		300	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		600	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		900	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		1500	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		2500	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		3100	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		3500	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		4100	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Check Valves	Buttweld ends [Class 150 to 600] - Bolted Bonnet, Class 900 to 4500 - Pressure-seal Bonnet]	150	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
		300	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		600	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		900	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		1500	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		2500	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		3100	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		3500	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		4100	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Globe & Check Valves available in sizes ½" to 2" in classes 4500, 2500 & 1500
 ½" to 2" Gate, Globe & Check Valves are available in class 800
 Valves in other sizes & pressure classes available on demand

Comprehensive Solutions for the Power Sector

In addition to our core offering of gate, globe and check valves - in sizes up to 42" and pressure classes up to 4500 – L&T Valves offers a wide variety of valves.

The gate, globe and check valves range complies with ASME B16.34, and is designed specifically to address the requirements of the power sector.

All valves in pressure classes above 600 are of pressure-seal construction, in line with global power industry practices, and the entire range is offered with butt-weld ends.

High Performance Butterfly Valves - Triple-offset, Metal-seated

— Size up to 72", ASME Class 150 to 900

Butterfly Valves - Flanged

— Size: up to 120", PN 10 & PN 6

Butterfly Valves - Wafer-type & Double-flanged

— Size: up to 36", PN 16 & PN 10

Process Ball Valves

— Size: ¼" to 8", ASME Classes 150 to 600



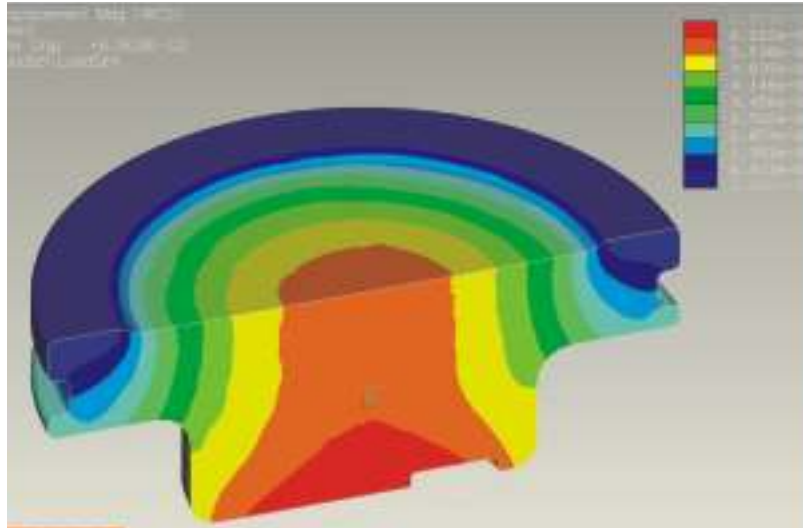
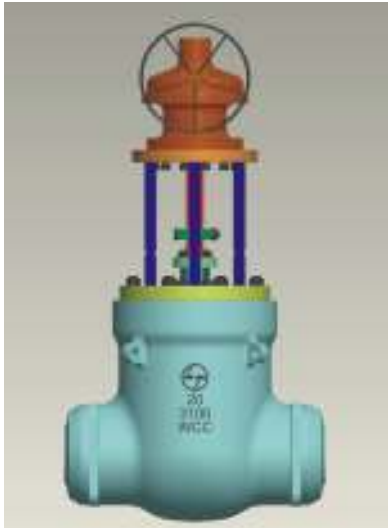
Package Solutions

Based on customer requirements, L&T Valves can supply the complete valves package for your projects, utilising its strengths in procurement and project management. This translates into savings in cost and time for the customers.

L&T is supplying complete solution for HP valves requirements of UMPP Mundra Project. Their innovative packaging concept of offering their own as well as other reputed international manufacturers' products facilitated the economics of scale, spares and service. This, in conjunction with trust in L&T values, amplified our confidence and facilitated the accomplishment of a successful partnership.

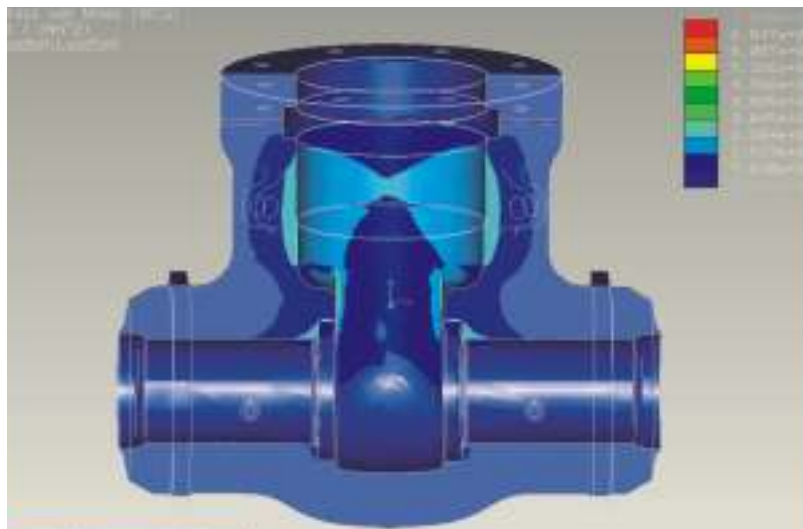
Ashish Khanna
Head - Project Trust
Tata Power

Design



L&T Valves are designed in a 3D environment on the latest design and simulation software. Finite Element Analysis (FEA) and Computational Flow Dynamics (CFD) are employed to fine-tune product performance and enhance reliability.

All prototypes are tested - both in-house and at advanced flow-control research establishments - to ensure that the valves deliver optimum performance in service.



In-house Qualification Test Facilities

- High temperature gas test
- Endurance & cycle tests
- Pipe-end load test
- Vacuum test
- Fugitive emission test

L&T believes in enhancing customer value, and has the capability to design and manufacture the high-pressure range in intermediate pressure classes such as 3100, 3500, 4100, etc. This ensures that the customers can procure a valve that meets their exact requirements - at a much lower cost.



Quality Assurance



L&T is committed to total customer satisfaction and our products meet customer expectations as well as all relevant codes and standards.

The quality management system of the plant has been certified to comply with ISO 9001:2008. The gate, globe and check valves manufactured at the plant are offered with CE marking as per PED 97/23/EC.

The quality of the raw materials is ensured by a stringent vendor qualification system. NDT methods are extensively employed to qualify samples and pilot lots, and surveillance audits are carried out to ensure compliance.

100% of the valves manufactured at L&T Coimbatore are pressure-tested. The acceptance criteria adopted by the plant is more stringent than the requirements specified in international standards.





Manufacturing

L&T Valves manufacturing facility in Coimbatore primarily addresses the requirements of the power sector. The unit is part of L&T's 300-acre high-tech manufacturing hub in Coimbatore.

The 13,500 sq.m. plant is equipped for precision manufacture of large valves. The facilities include:

- 5-axis machining centres
- CNC VTLs with table dia up to 4m
- CNC rotary surface grinding machines
- SMAW, MIG, plasma arc welding machines, table dia 60"
- EOT Cranes of capacity 40 tons





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