

# LUDON FORGE

CO., LTD.



PRODUCT & CAPABILITY CATALOGUE · EDITION 2026

## FORGED BALL VALVE BODIES & BLANKS

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One-piece closed-die forgings in carbon and stainless steel for valve manufacturers worldwide.  
We forge, heat treat, blast and machine on our own site.

DN15 – DN100

A105 · LF2 · F304 / F316

2,000,000 BLANKS / YEAR

ISO 9001 CERTIFIED QMS

OEM & CUSTOM FORGING TO CUSTOMER DRAWING

01

## COMPANY AT A GLANCE

A forging plant dedicated to valve components. We supply valve makers rather than compete with them.

Ludon Forge Co., Ltd. makes forged valve components. Our main product is the ball valve body, forged in one piece in carbon and stainless steel, and alongside it we forge other parts to customer drawings.

Our 10,000 m<sup>2</sup> plant runs 8 forging lines and more than 110 CNC machines, and turns out 2 million ball valve blanks a year, about 12,000 tonnes. Die design, forging, heat treatment, machining and materials testing all happen here, so you deal with one supplier from the first drawing to the finished part.

**2,000,000****BALL VALVE BLANKS**

forged per year

**12,000 t****ANNUAL FORGED OUTPUT**

≈ 12 million kg

**10,000 m<sup>2</sup>****OWNED PRODUCTION FLOOR**

single production site

**8****CLOSED-DIE FORGING LINES**

16 presses, 315 – 2,500 t

**110+****CNC MACHINES**

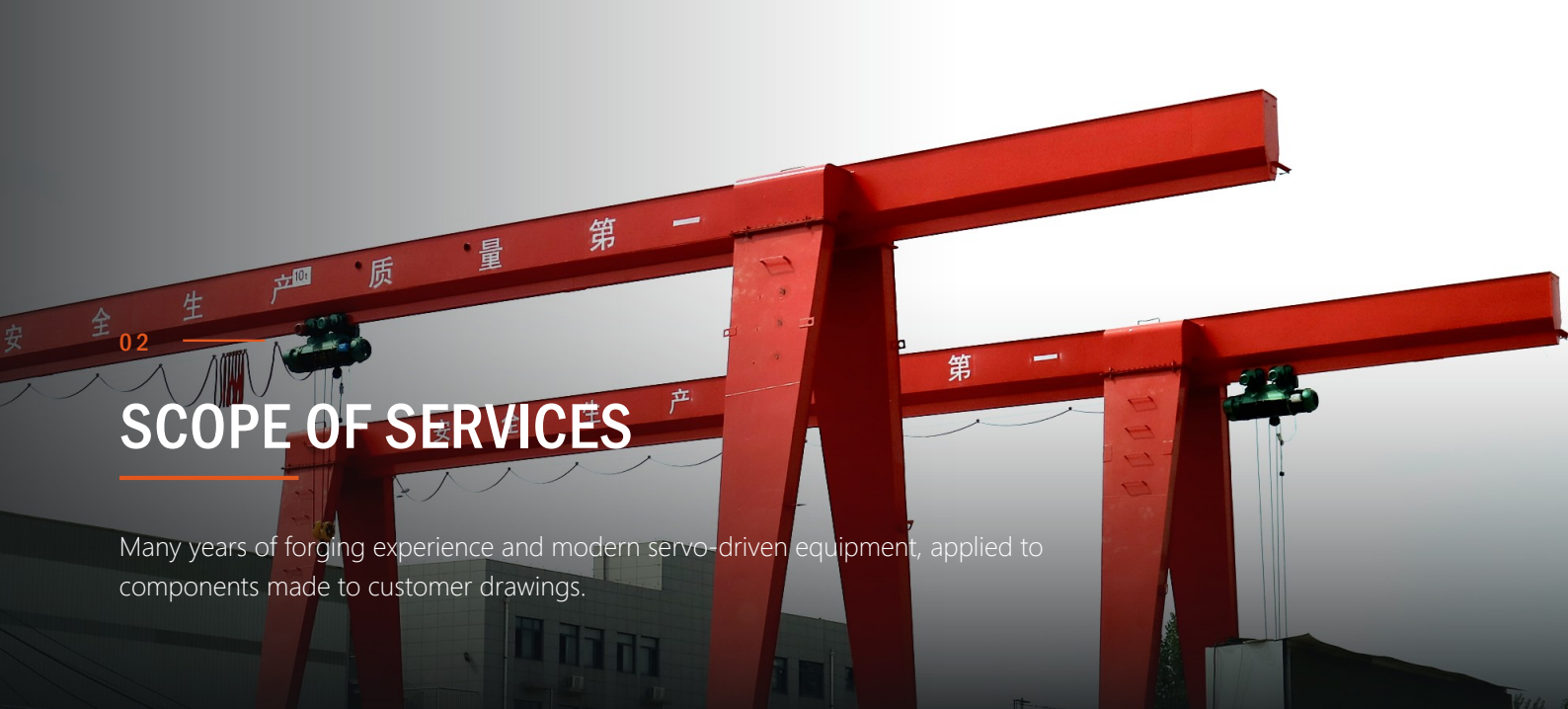
90+ lathes · 22 machining centres

**40 %****OF FORGING POWER**

from our own solar PV

### MACHINING HALL

Separate bays for forging, heat treatment, blasting and machining keep material moving in one direction across the floor.



# SCOPE OF SERVICES

Many years of forging experience and modern servo-driven equipment, applied to components made to customer drawings.

## 01 CLOSED-DIE FORGING

Ball valve bodies and other complex parts are forged in one piece in closed dies, in carbon and stainless steel. The grain follows the shape of the part and the structure stays dense, which is what gives the body its strength and its tightness under pressure.

## 03 HEAT TREATMENT

Normalising, solution annealing, quenching and tempering, all done in our own furnaces for carbon and stainless steel alike. None of it is subcontracted.

## 05 CNC MACHINING

More than 90 CNC lathes and 22 machining centres cover both rough and finish machining, with capacity sized to keep pace with the forging lines.

## 07 QUALITY CONTROL & TRACEABILITY

Raw material, forged blanks and finished parts are all inspected, and every piece stays linked to its heat number and its material record.

## 02 OWN DIE SHOP · 3D CAD/CAM

We design and cut our own dies on CAD/CAM and simulate the forming step before any steel is committed, so the tenth batch comes out like the first.

## 04 SURFACE PREPARATION TO Sa 2½

Shot blasting to ISO 8501-1 Sa 2½ takes off every trace of mill scale and leaves an even, near white surface that is ready for machining, inspection or coating.

## 06 MATERIALS LABORATORY

Our laboratory analyses chemical composition by spectrometry and carries out tensile, impact and hardness testing on Brinell, Vickers and Rockwell scales. Every heat is tested.

## 08 ONE SUPPLIER, FULL SCOPE

You send a drawing and get back either a machine-ready blank or a finished part, on one order, from one supplier, with one set of documents.

## 03

# FROM DRAWING TO DELIVERY

Seven stages take a customer CAD drawing through to a certified forging, ready for machining.

1

**DRAWING & DFM REVIEW**

We review the drawing and the specification, say what would make the part easier to forge, and agree a tooling plan.

2

**DIE DESIGN & TOOLING**

Dies are designed and cut here on 3D CAD/CAM, with the forming step simulated before steel is committed.

3

**CLOSED-DIE FORGING**

Certified billet is heated and forged on 315 to 2,500 t servo presses with programmable forming energy.

4

**HEAT TREATMENT**

Normalising, solution annealing or quench and temper, to suit the grade and the properties called for.

5

**BLASTING TO Sa 2½**

Shot blasting to ISO 8501-1 Sa 2½ removes all mill scale and leaves a clean, near white surface.

6

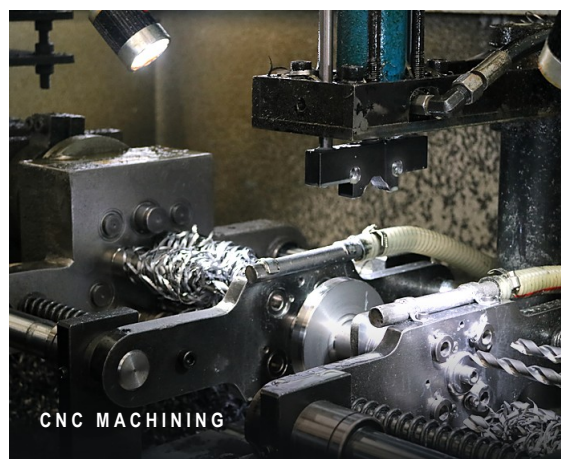
**CNC MACHINING**

Rough or finish turning and milling on 90+ CNC lathes and 22 machining centres, to the stock you specify.

7

**INSPECTION, PACKING & EXPORT**

Dimensions, hardness and material are verified, the EN 10204 3.1 papers are issued, and parts are preserved and packed for export.



## 04

## PRODUCT PROGRAMME

Ball valve bodies from DN15 to DN100, and any other forging you can send us a drawing for.



### MATERIAL & SIZE RANGE

| MATERIAL GRADE      | STANDARD         | SIZE RANGE   | TYPICAL SERVICE / NOTES                  |
|---------------------|------------------|--------------|------------------------------------------|
| Carbon steel A105   | ASTM A105        | DN15 – DN100 | General oil, gas and water service       |
| Stainless steel 304 | ASTM A182 F304   | DN15 – DN100 | Light corrosion, general industrial duty |
| Stainless steel 316 | ASTM A182 F316   | DN15 – DN100 | Corrosive media, including chlorides     |
| Custom grades       | To customer spec | On request   | Forged to your drawing and material spec |

### NOMINAL SIZE COVERAGE · DN AND NPS

|            |            |            |             |             |            |             |            |             |
|------------|------------|------------|-------------|-------------|------------|-------------|------------|-------------|
| DN15<br>½" | DN20<br>¾" | DN25<br>1" | DN32<br>1¼" | DN40<br>1½" | DN50<br>2" | DN65<br>2½" | DN80<br>3" | DN100<br>4" |
|------------|------------|------------|-------------|-------------|------------|-------------|------------|-------------|

### TYPICAL COMPONENTS

- Ball valve bodies, forged in one piece. This is what the plant is built around.
- Bonnets, caps, end connections and connecting flanges.
- Blanks for stems, seats and retainers, and related valve parts.
- Special parts made from scratch, die included, to your drawing.

### SUPPLY CONDITION

- Forged and heat treated blanks, blasted to ISO 8501-1 Sa 2½.
- Rough machined to agreed stock on bore, ends and seat faces.
- Finish machined to your drawing on request.
- Every consignment ships with its EN 10204 3.1 certificate.

05

## CAPACITY & FACILITIES

Built for repeat series work, with the presses and the automation to hold one shape run after run.



### FORGING

- 8 closed-die forging lines
- 16 presses from 315 t to 2,500 t
- Mostly electric screw presses; the remaining hydraulic presses run on servo pumps
- Programmable forming energy throughout
- Automatic loading and unloading between operations

### HEAT TREATMENT & TESTING

- Furnace lines for normalising and solution annealing
- Shot blasting plant to ISO 8501-1 Sa 2½
- Optical emission spectrometer
- Tensile, impact and hardness test equipment

### MACHINING

- 90+ CNC lathes
- 22 CNC machining centres
- Rough and finish turning, drilling and milling
- Machining capacity sized to match forging output

### PLANT & OUTPUT

- 10,000 m² of production floor, owned rather than rented
- A separate bay for each stage of the process
- 2,000,000 ball valve blanks per year
- ≈ 12,000 tonnes of forgings per year

## LOW CARBON MANUFACTURING

SERVO PRESSES · 40 % SOLAR · LOWER FOOTPRINT

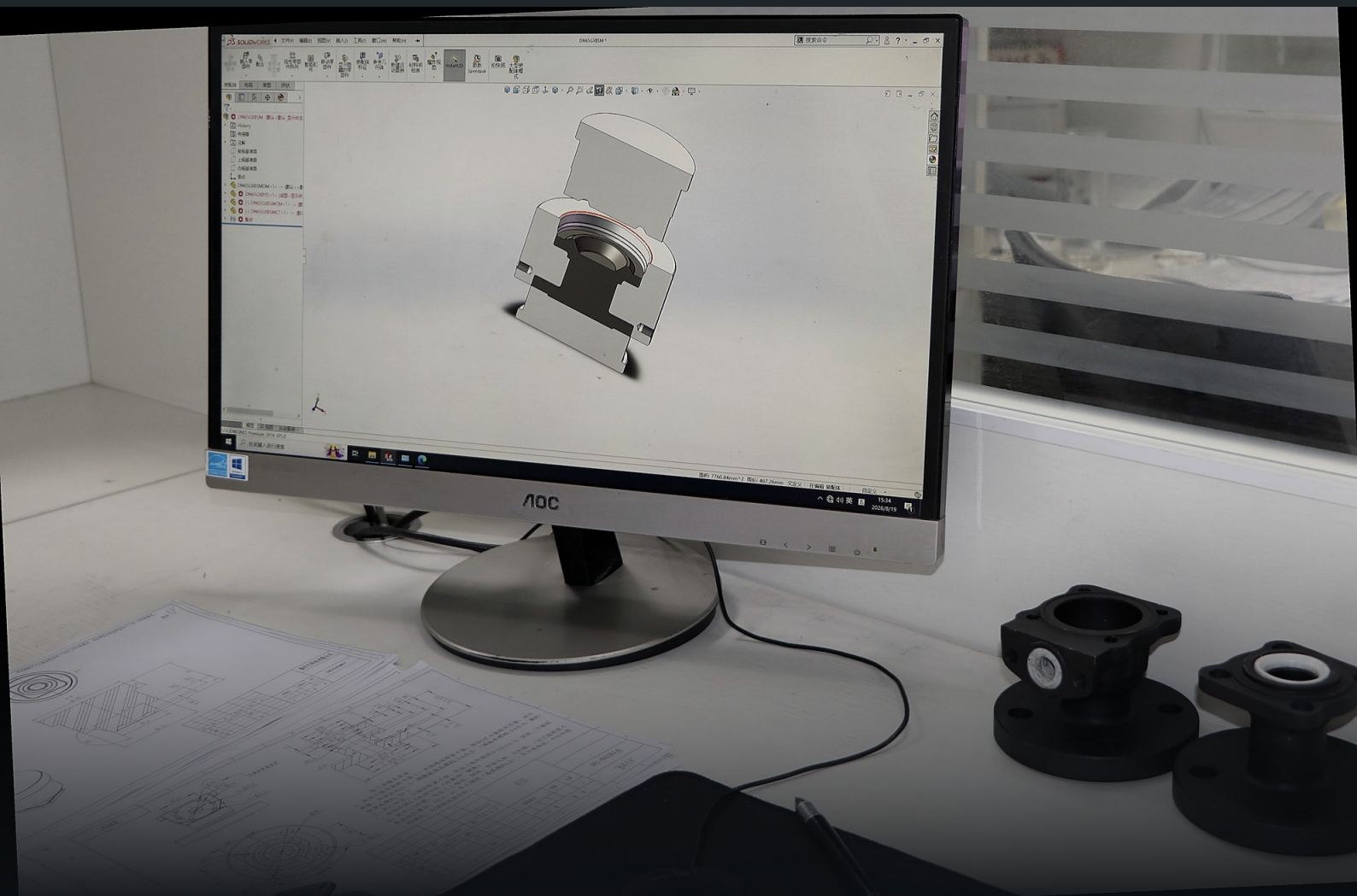
Every press on site is servo driven. The electric screw presses that make up the majority draw power only during the forming stroke and need no large hydraulic oil system, while the hydraulic presses that remain run their pumps on demand. Against a conventional constant pump press this sharply cuts idle energy and oil heating, and it removes most of the waste oil and the leakage that come with it. Our own solar array covers roughly 40 % of the electricity used in forging, which lowers the carbon figure carried by each part.

06

# CERTIFICATION

Our quality management system is certified to ISO 9001:2015 and audited by Bureau Veritas.

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|  <h2 style="margin: 0;">CERTIFICATE</h2>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <p><b>Bureau Veritas Certification Holding SAS - UK Branch certifies that the Management System of</b></p> <p><b>Ludon Forge Co., Ltd.</b></p> <p>No.11, Jingsi Road, Phoenix Industrial Park, Dongchangfu District, Liaocheng, Shandong</p> <p>Unified social credit code: 91371500MA3C9QBR47</p> <p><b>has been audited and found to be in accordance with the requirements of the management system standards detailed below</b></p> <p><b>ISO 9001:2015</b></p> <p><b>Scope of certification:</b></p> <p>Manufacture of Valve Components</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <p><b>External Certificate Number:</b><br/><b>F02326Q00479R002</b></p> <p>Original certification date:<br/>20-09-2026</p> <p>Current cycle start date:<br/>20-09-2026</p> <p>Expiry date:<br/>19-09-2029<br/>(Subject to the continued satisfactory operation of the organisation's Management System)</p> <p>BV Certificate Number:<br/>CN062319</p> <p>Version: 1</p> <p>Issue Date:<br/>20-09-2026</p> <div style="text-align: center;">  </div> <p>Signed on behalf of BVCH SAS UK Branch</p> <div style="text-align: center;">  <p>0008</p> </div> |
| <p><small>Accredited entity: Bureau Veritas Certification Holding SAS - UK Branch 5th Floor, 100 Lower Thames Street, London, EC3 6DL, United Kingdom</small></p> <p><small>Local Office: Bureau Veritas Certification (Beijing) Co., Ltd, Room 02, 9 / F, West Office Building 1, Oriental Economic and Trade City, Oriental Plaza, No.1 East Chang'an Street, Dongcheng District, Beijing, China. 100738</small></p> <p>Further clarifications regarding the scope and validity of this certificate, and the applicability of the management system requirements, please call : +86 10 59683663</p> <p>Certified organisation has to accept and pass regular surveillance audits, then this certificate can be continuously valid. Information of this certificate may be obtained by visiting CNCA website (www.cnca.gov.cn).</p> <div style="display: flex; justify-content: space-between;"> <div>  </div> <div> <p>CER CERTIF ALL TPL 001 Rev 4.5</p> <p>1/1</p> </div> <div> <p>C2.2 Contractual</p> </div> </div> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |



# SEND US YOUR DRAWING.

Send a CAD file or a sample part. You will get our comments on how it forges, a tooling plan and a price for the blank.

## ADDRESS

No. 11, Jingsi Road  
Phoenix Industrial Park  
Liaocheng, Shandong, China

## PHONE

+41 78 218 18 94

## EMAIL

[sales@ludonforge.com](mailto:sales@ludonforge.com)

## WEBSITE

[ludonforge.com](http://ludonforge.com)

**LUDON FORGE**  
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