AlphaDynamic PUMPS

We Make The Difference

Sinus Sodial® Pump
ALSS /ALSS-D

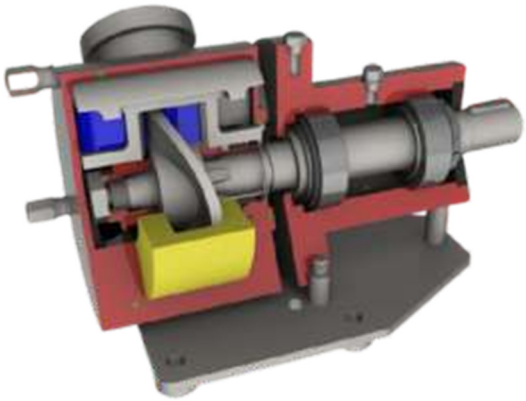


The Operating Principle

The ALSS /ALSS-D series of ALPHADYNAMIC Pumps SA is a positive displacement pump based on the SINUS principle.

Our SINUS ALPHADYNAMIC® pumps are used for a flow rate of up to 90.000 l/h. The core of the pump is a sine wave, which is mounted as a disc (rotor) on a drive shaft. It gently and evenly transports the product to be conveyed through four equally divided chambers without any risk of reducing the product quality. This ensures virtually pulsation-free conveying.

A scraper separates the suction and discharge sides of the pump, allowing pressure equalization and thus preventing backflow. Due to the constantly open suction side, the viscosity of the products is irrelevant. This supports the production of high viscous products, such as silicones or frozen orange juice concentrate, as well as low viscous products, such as water-like products. In addition, the pump avoids potential foaming and liquid separation.







Industries and Applications

ALPHADYNAMIC SINUS SODIAL® pumps excel in meeting the diverse requirements of industries such as beverage, meat, sweet delicacies, dairy-based products, cosmetics, and general food production. Thanks to their gentle conveying process, they ensure careful handling of valuable products, preserving their quality and integrity. Whether you are producing juices, concentrates, soft drinks, syrups, alcoholic beverages, dairy products, or delicacies, ALPHADYNAMIC SINUS SODIAL pumps guarantee consistent, high-quality results.

A major advantage of these pumps is their ability to efficiently transport **highly viscous liquids** containing **solid particles**, ensuring smooth and reliable operation even in the most demanding applications.

- **Gentle conveyance:** The ALPHADYNAMIC SINUS SODIAL® pumps operates with a gentle conveying principle that treats the medium gently and ensures high product quality. The sinusoidal movement of the pump prevents the product from being crushed or foamed, leading to better consistency and quality.
- **High suction capacity:** The ALPHADYNAMIC SINUS SODIAL® pump is characterized by its high suction capacity. The sinusoidal movement of the conveying medium creates a strong vacuum that allows for efficient suction of liquids or other media.
- **Low shear forces:** The ALPHADYNAMIC SINUS SODIAL® pump generates almost no shear forces, meaning that sensitive components are not damaged. This allows the conveyed medium to retain its natural properties.
- **High conveying performance:** The ALPHADYNAMIC SINUS SODIAL® pump can achieve high conveying performance, enabling large quantities to be conveyed quickly and efficiently.
- **Easy cleaning:** The ALPHADYNAMIC SINUS SODIAL® pump is easy to clean as it can be cleaned using CIP, SIP or manual methods.
- **Reliability:** The ALPHADYNAMIC SINUS SODIAL® pump is robust and durable, resulting in low maintenance effort. This saves time and costs for maintenance.
- **Energy efficiency:** The ALPHADYNAMIC SINUS SODIAL® pumps are highly efficient as they operate with low shear forces and almost pulse-free, consuming up to 50% less power than comparable pump types.
- **Large product chambers:** The ALPHADYNAMIC SINUS SODIAL® pumps are capable of conveying large particulates without damage.









Sinus AlphaDynamic® Pump ALSS /ALSS-D 20

Technical data

- Displacement volume: 0,11 l/rev
- Speed range: 0 - 1.000 rpm
- Pump pressure: max. 15 bar
- Temperature: max. 180°C

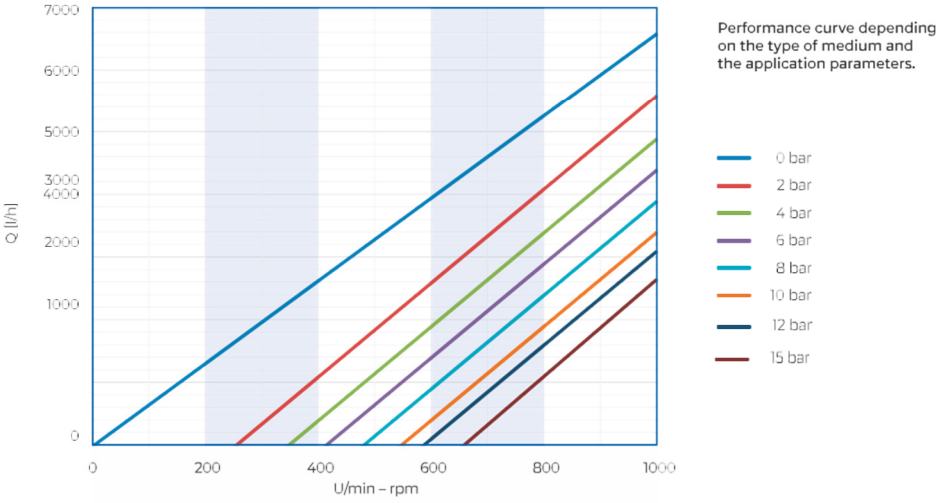
- Capacity: max. 4.000 l/h
- Particle Size: max. 20 mm
- Suction Power: - 0,85 bar
- Viscosity: up to 9.000.000 cps

Nozzles available

- German Milk Fitting DIN 11851
- Tri-Clamp, RJT, SMS, Flange
- According to customer requirements

Certification

- Food and Drug Administration (FDA)
- EG 1935-2004
- ATEX Execution up to T4



Performance curve depending on the type of medium and the application parameters.

Sinus AlphaDynamic® Pump ALSS /ALSS-D 25

Technical data

- Displacement volume: 0,45 l/rev
- Speed range: 0 - 600 rpm
- Pump pressure: max. 15 bar
- Temperature: max. 180°C

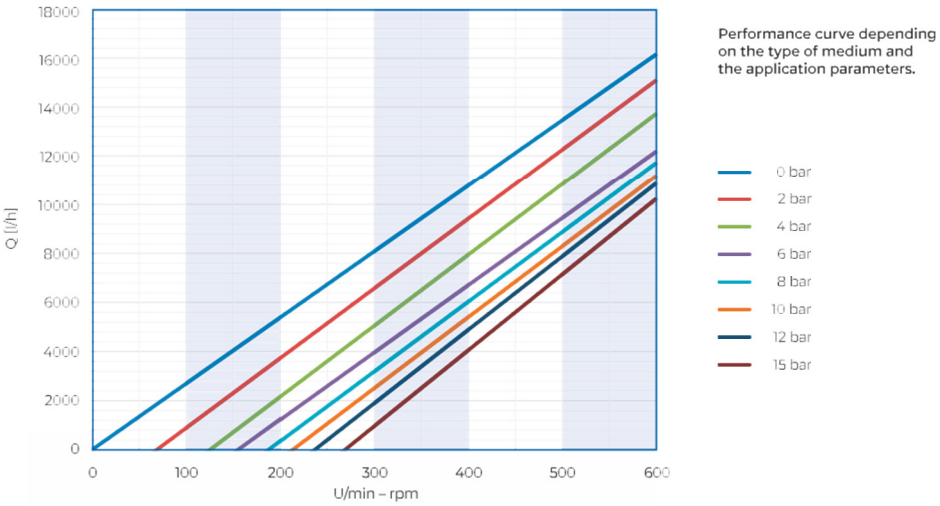
- Capacity: max. 18.000 l/h
- Particle Size: max. 30 mm
- Suction Power: - 0,85 bar
- Viscosity: up to 9.000.000 cps

Nozzles available

- German Milk Fitting DIN 11851
- Tri-Clamp, RJT, SMS, Flange
- According to customer requirements

Certification

- Food and Drug Administration (FDA)
- EG 1935-2004
- ATEX Execution up to T4



Performance curve depending on the type of medium and the application parameters.

Sinus AlphaDynamic® Pump ALSS / ALSS-D 40

Technical data

- Displacement volume: 1,15 l/rev
- Speed range: 0 - 600 rpm
- Pump pressure: max. 15 bar
- Temperature: max. 180°C

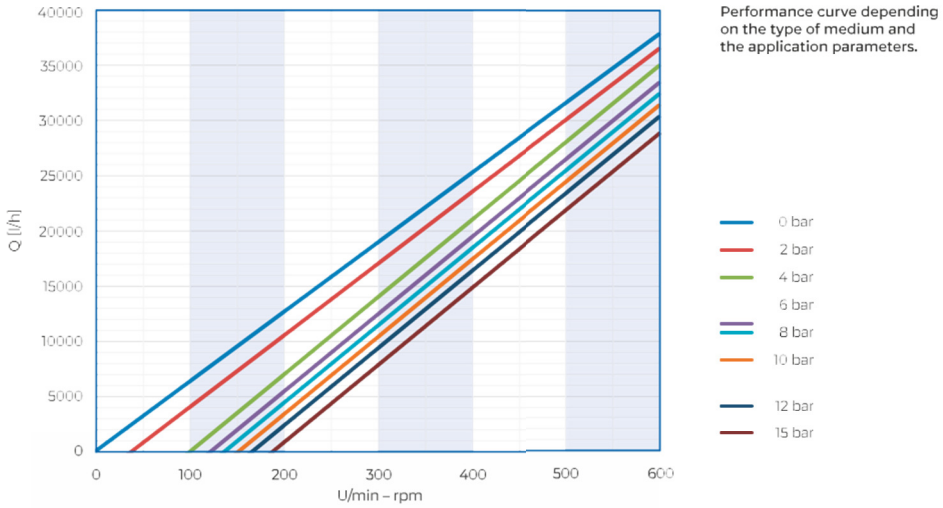
- Capacity: max. 40.000 l/h
- Particle Size: max. 45 mm
- Suction Power: - 0,85 bar
- Viscosity: up to 9.000.000 cps

Nozzles available

- German Milk Fitting DIN 11851
- Tri-Clamp, RJT, SMS, Flange
- According to customer requirements

Certification

- Food and Drug Administration (FDA)
- EG 1935-2004
- ATEX Execution up to T4



Performance curve depending on the type of medium and the application parameters.

Sinus AlphaDynamic® Pump ALSS /ALSS -D 50

Technical data

- Displacement volume: 1,90 l/rev
- Speed range: 0 - 600 rpm
- Pump pressure: max. 15 bar
- Temperature: max. 180°C

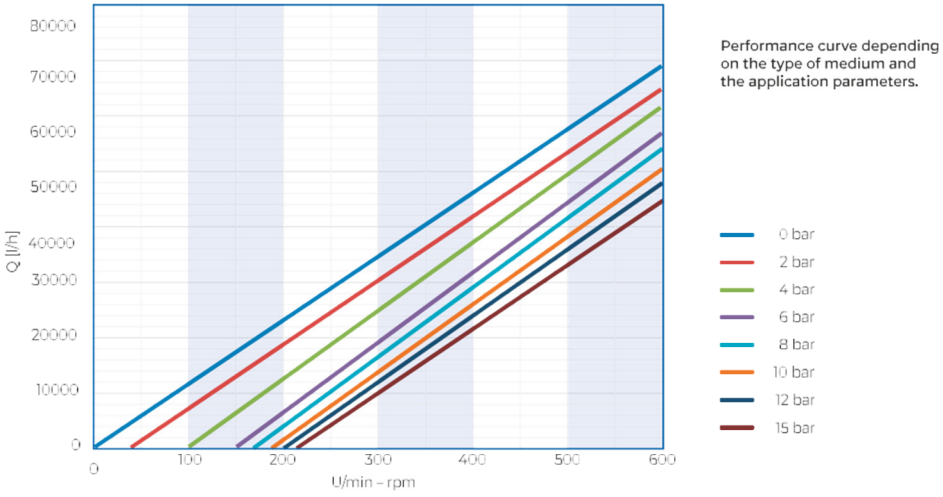
- Capacity: max. 68.400 l/h
- Particle Size: max. 50 mm
- Suction Power: - 0,85 bar
- Viscosity: up to 9.000.000 cps

Nozzles available

- German Milk Fitting DIN 11851
- Tri-Clamp, RJT, SMS, Flange
- According to customer requirements

Certification

- Food and Drug Administration (FDA)
- EG 1935-2004
- ATEX Execution up to T4



Performance curve depending on the type of medium and the application parameters.

Sinus AlphaDynamic® Pump ALSS 60

Technical data

- Displacement volume: 2,50 l/rev
- Speed range: 0 - 550 rpm
- Pump pressure: max. 15 bar
- Temperature: max. 180°C

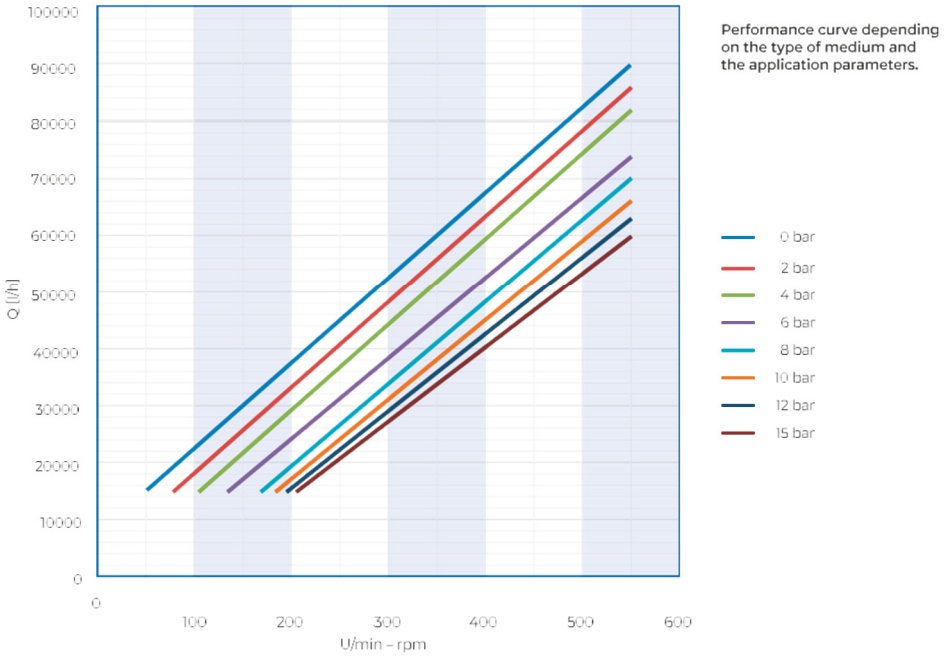
- Capacity: max. 90.000 l/h
- Particle Size: max. 60 mm
- Suction Power: - 0,85 bar
- Viscosity: up to 9.000.000 cps

Nozzles available

- German Milk Fitting DIN 11851
- Tri-Clamp, RJT, SMS, Flange
- According to customer requirements

Certification

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- EG 1935-2004
- ATEX Execution up to T4



Performance curve depending on the type of medium and the application parameters.

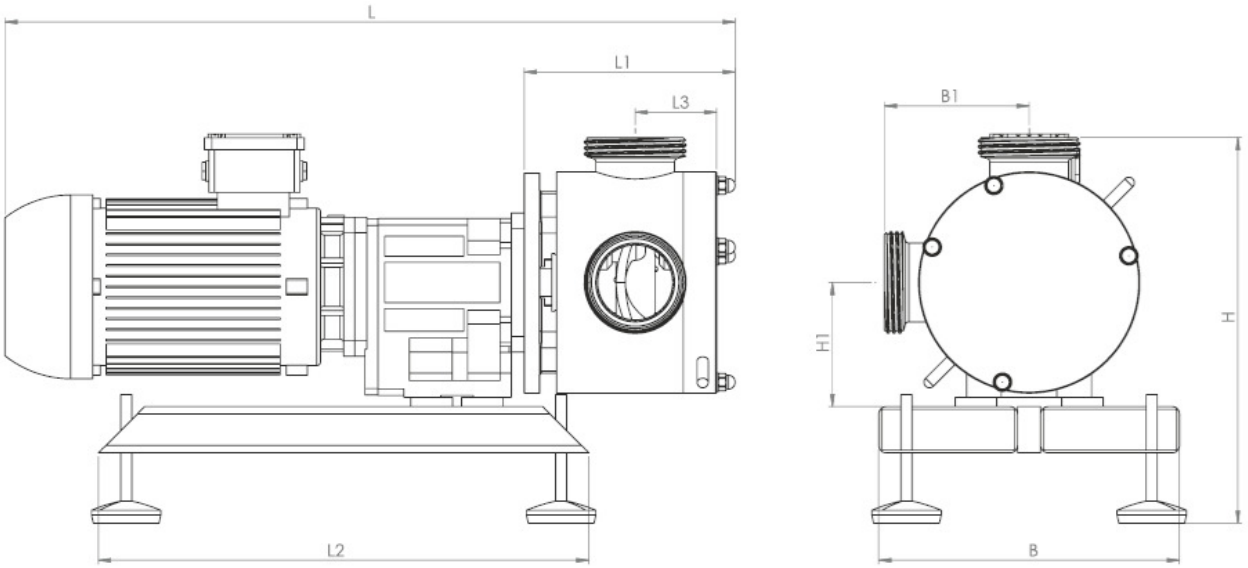
Exploded View ALSS-D



Exploded View ALSS

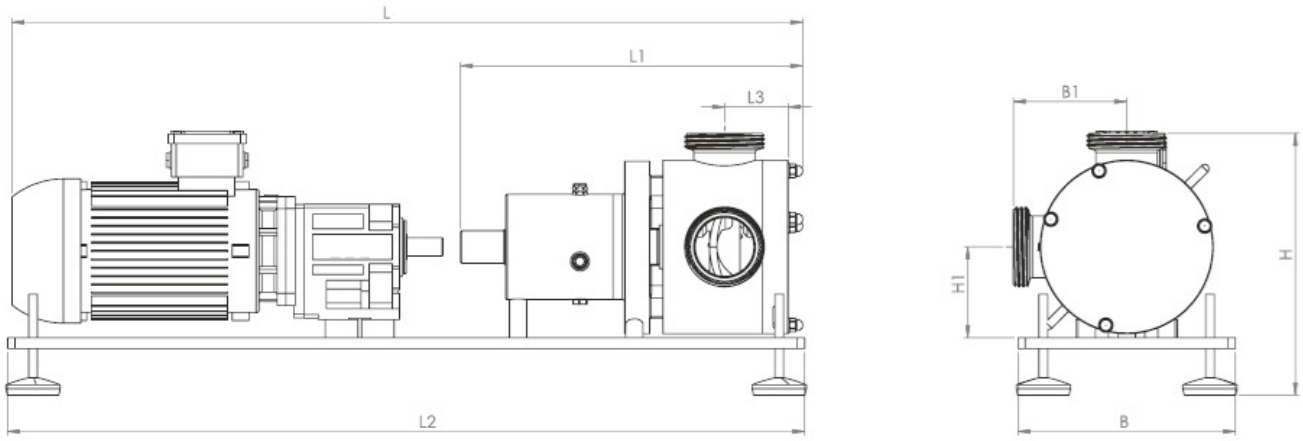


Dimensions ALSS-D



Model	L / mm	L1 / mm	L2 / mm	L3 / mm	B / mm	B1 / mm	H / mm	H1 / mm
ALSS-D 20	578	174,5	500	65	250	101	270	100
ALSS-D 25	789	228	530	88	320	156	416	134
ALSS-D 40	936	295	530	111.5	345	191	478	161

Dimensions ALSS

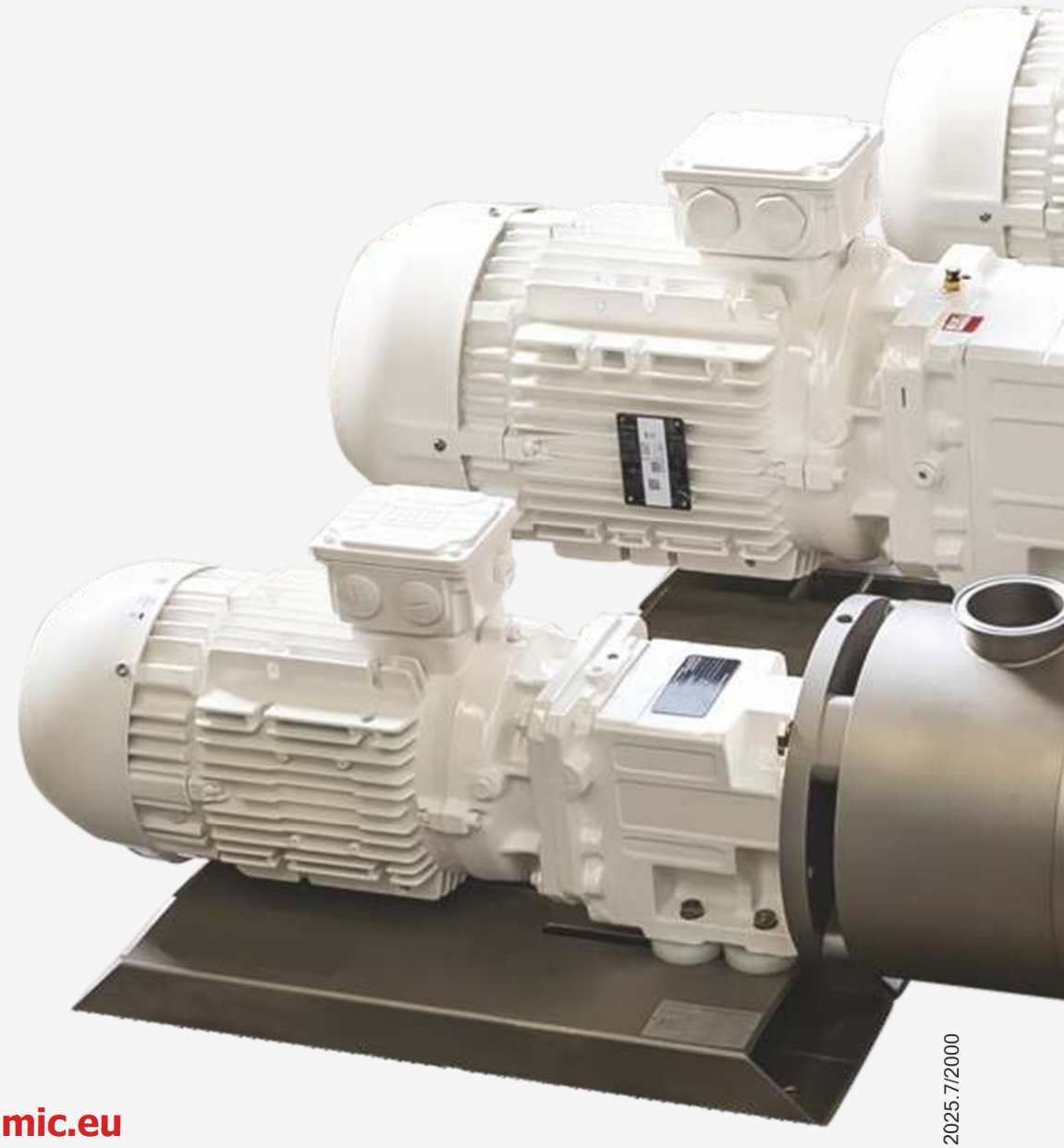


Model	L / mm	L1 / mm	L2 / mm	L3 / mm	B / mm	B1 / mm	H / mm	H1 / mm
ALSS 50	1445	656	1300	129	400	201	460	179.5
ALSS 60	1545	655	1300	180	400	218	532	235

AlphaDynamic PUMPS

We Make The Difference

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2025.7/2000