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HyPerforma Single-Use Mixer DS 300

Achieve greater process flexibility

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Increased mobility, smaller footprint

The Thermo Scientific™ HyPerforma™ Single-Use Mixer DS 300 (S.U.M.) is built upon the proven legacy design of our S.U.M. and docking station, but it has been optimized for lower-cost, high-throughput applications. The smaller footprint and lighter weight of the HyPerforma S.U.M. DS 300 provide mobility and flexibility in mixing applications.

Technology

Modular mixing for enhanced process efficiency

The HyPerforma S.U.M. DS 300 is a modular mixing station with features designed for simplicity and performance. The system utilizes a top-mounted mixing motor with an angular drive shaft. This industry-accepted design eliminates vortices, enables efficient mixing, and provides more power.

- **Mobility**–the ergonomically designed mixing station provides enhanced ease of use.
- **Modularity**–choose from multiple drum sizes, mixing shafts, and mixing head heights to configure the modular solution for your bioprocessing applications.
- **Interoperability**–specifically designed to combine mixing across multiple scales in one mixing station by attaching to drums of four different sizes (50 L, 100 L, 200 L, and 300 L).

Applications

Preparation has never been simpler

The HyPerfoma S.U.M. DS 300 can be used in powder-liquid and liquid-liquid mixing applications. By utilizing our proven technology, you can use the same top-mounted mixing design to assure quality and minimize the need for multiple mixers in your process. It can be used for:

- **Hydration**–powdered media and buffers
- **Sterile mixing**–buffer solutions, cell culture media with sera and reagents, or other process fluids
- **Pooling**–sterile liquid fractions

Benefits

Do more with less

Investment capital and space are precious resources—the HyPerforma S.U.M. DS 300 addresses both.

- Reduce capital investment across multiple mixing applications by docking and mixing in multiple plastic drums
- Adapt your process with 50 L, 100 L, 200 L, and 300 L sizes of mixing drums
- Mix efficiently at lower volumes with the 5:1 turndown ratio
- Increase mobility with a smaller footprint and lighter weight
- Direct drive design drastically reduces particulate generation
- Capable of open- and closed-top mixing
- Suitable for both powder-liquid and liquid-liquid applications

Accessories

Create the custom solution that meets your needs

- **Plastic drums—mix and move**
  Use all or a few of the portable plastic drums in the sizes that you need. These multifunctional drums are easily moved to cold rooms and stored until you need them.
- **BioProcess Containers—ship and store**
  Implement industry-proven Thermo Scientific™ BioProcess Containers (BPCs) in the overall process of shipping and storing your liquid-liquid and powder-liquid bioprocess mixing applications. BPC systems come in an open- and closed-top design, and are manufactured using our high-performance single-use film.

Technical support: knowledgeable and comprehensive

Our global field-based technical support team is here to help you every step of the way with local installation and technical support. We can also provide you with additional support documentation upon request.

All systems are supplied with:

- Comprehensive user's guide
- Equipment turnover package
- Validation guide

Find out more about the HyPerforma S.U.M. DS 300

The complete HyPerforma S.U.M. DS 300 mixing platform consists of a portable mixing station, a drum, and a BPC system. To learn more about the entire platform or to request a demo, go to **thermofisher.com/sut**

Specifications and ordering information

HyPerforma S.U.M. DS 300

Specifications	
Electrical power supply requirement (voltage, frequency, phase)	108–240 VAC; 50–60 Hz; single phase
Input amperage	15 amps
Footprint (D x H)	86.4 cm (34.0 in.) x 76.2 cm (30.0 in.)
Height	122.4 cm (48.19 in.) low; 162.4 cm (63.93 in.) high
Weight	180 kg (398 lbs)
Control box	Built to IP65 standards
Lift range	40 cm (15.7 in.)
Flow type	Radial/axial
Mixing rate	30–350 RPM
Impeller to BioProcess Container location	5:1 off center
Impeller (quantity x blade count)	1 x 3
Counterclockwise mixing-flow direction	Down-pumping

Mixing Containers

Specifications	50 L	100 L	200 L	300 L
Turndown ratio	5:1	5:1	5:1	4:1*
Footprint (D x H)	59.7 x 58 cm (23.5 x 23 in.)	59.7 x 75.57 cm (23.5 x 29.75 in.)	59.7 x 113.7 cm (23.5 x 44.75 in.)	61 x 122 cm (24 x 48 in.)
Hardware material	Plastic (LLDPE)			

Impeller sleeve

Specifications	
Impeller material	USP Class VI, HDPE
Impeller sleeve with Quick Connect	C-Flex™ tubing

* 5:1 turndown ratio with adjustable motor head.

HyPerforma S.U.M. DS 300

Cat. No.	Description
SUMDS0300.9000	DS 300 unit; 108–240 VAC, 50 to 60 Hz
SUMDS0300.9001	DS 300 unit; 108–240 VAC, 50 to 60 Hz with drum positioner
SUMDS0300.9002	DS 300 unit; 108–240 VAC, 50 to 60 Hz with adjustable motor head
SUMDS0300.9003	DS 300 unit; 108–240 VAC, 50 to 60 Hz with drum positioner and adjustable motor head

Ordering information

Drums and drum dollies

Cat. No.	Description	Size
SH30959.01	Drum with bottom-drain port	50 L
SH30959.02	Drum with bottom-drain port	100 L
SH30959.03	Drum with bottom-drain port	200 L
SH30959.04	Drum	300 L
SV50102.02	Optional support plate for bottom-drain port	50 L–200 L
SH30958.01	Plastic dolly (single pack)	50 L–200 L
SH30958.02	Plastic dolly (2-pack of SH30958.01)	50 L–200 L
SH30958.03	Stainless steel dolly	300 L

Tank liners

Cat. No.	Description	Size
SH30646.01	Open-top with bottom drain, irradiated, CX 5-14 film	50 L
SH30646.02	Open-top with bottom drain, irradiated, CX 5-14 film	100 L
SH30646.03	Open-top with bottom drain, irradiated, CX 5-14 film	200 L
SH30647.06	Open-top with top drain only, irradiated, CX 5-14 film	300 L
SH30988.01	Open-top with bottom drain, irradiated, Aegis 5-14 film	50 L
SH30988.02	Open-top with bottom drain, irradiated, Aegis 5-14 film	100 L
SH30988.03	Open-top with bottom drain, irradiated, Aegis 5-14 film	200 L
SH30399.01	Open-top with bottom drain, non-irradiated, CX 5-14 film	50 L
SH30399.02	Open-top with bottom drain, non-irradiated, CX 5-14 film	100 L
SH30399.03	Open-top with bottom drain, non-irradiated, CX 5-14 film	200 L

BioProcess Containers

Cat. No.	Description	Size
SH30946.01	Closed-top with bottom drain, irradiated	50 L
SH30946.02	Closed-top with bottom drain, irradiated	100 L
SH30946.03	Closed-top with bottom drain, irradiated	200 L

Impeller sleeves

Cat. No.	Description	Size (volume, length)
SH30749.11	For use with reusable hub and open-top BPC tank liner	50 L, 35.3 cm (13.9 in.)
SH30749.12	For use with reusable hub and open-top BPC tank liner	100 L, 53.1 cm (20.9 in.)
SH30749.13	For use with reusable hub and open-top BPC tank liner	200 L, 77 cm (30.3 in.)
SH30749.08	For use with reusable hub and open-top BPC tank liner	300 L, 94.9 cm (37.8 in.)

Reusable hub

Cat. No.	Description	Size
SV50177.77	For use with impeller sleeve and open-top BPC tank liner	50 L–300 L

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Integrated solutions for bioproduction

Single-Use Mixers (S.U.M.s)
A variety of options up to 5,000 L for both upstream and downstream applications

Liquid- and dry-format media
We offer both custom manufacturing and a full range of chemically defined performance media and supplement products

BioProcess Containers (BPCs)
A variety of configurations up to 2,000 L for liquid harvest, storage, and transportation

Sera
Our sera are the industry standards for consistent quality and reliability

Single-Use Bioreactors (S.U.B.s)
50–2,000 L bioreactors capable of integrating with an existing control system

Buffers and process liquids
Custom and standard buffers and process liquids, including Gibco™ Water For Injection (WFI) quality water

Integrity testing systems
A true point-of-use integrity testing system to confirm the integrity of BPCs before use

Find out more at **thermofisher.com/sum**

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