

APPLICATION

A complete line of Reliance materials handling accessories are available for use with Reliance Models 400, 500, 400XLS, 500XLS, 470 and 570 glassware washers and Models 475, 575, 1024 and 1034 glassware dryers. When used in conjunction with Reliance washers and dryers, the accessory headers provide an effective and efficient means of cleaning a wide variety of glassware, plasticware and metal goods used in research, production, quality control and hospital laboratories.

DESIGN FEATURES

Accessory headers are available to accommodate a wide variety of glassware including flasks, beakers, bottles, graduated cylinders and pipettes. All accessories can be interchanged to process mixed wash loads. For example, a 50 mL flask, a 500 mL beaker, and a 1 L graduated cylinder can be processed in the same load at the same time when using the correct combination of accessories.

All accessories are constructed of stainless steel for corrosion resistance and easy cleaning. The lightweight design provides easy handling, and the plastic wheels allow for easy rolling of accessory headers into and out of the chamber. Plastic tips on the spindles prevent scratching and/or breakage of glassware.

Attachment of the accessories to manifold connectors, located in the bottom of the wash chamber, dry chamber or shelf system, occurs automatically at the start of each cycle. The balanced spray system of Reliance washers holds glassware in place without the need for hold-down screens, minimizing glassware breakage.

The Selections Checked Below Apply To This Equipment

ACCESSORY KITS

- (FD67-9) KM-2XLS Kit
Qty. ____
- (FD68-0) KM-5XLS Kit
Qty. ____
- (FD68-1) KM-8XLS Kit
Qty. ____

SPINDLE HEADERS

- (FD42-2) M-18 Spindle Header
Qty. ____
- (FD42-3) M-32 Spindle Header
Qty. ____
- (FD41-8) M-34 Spindle Header
Qty. ____
- (FD42-4) M-50 Spindle Header
Qty. ____
- (FD42-5) M-72 Spindle Header
Qty. ____
- (FD41-9) M-85 Spindle Header
Qty. ____
- (FD42-6) M-98 Spindle Header
Qty. ____
- (FD48-200) Glassware Protective Mesh
Qty. ____

BOTTOM ROTARY SPRAY HEADERS

- (FD43-0) Bottom Rotary Spray Header, BRS-470/570
Qty. ____
- (FD61-200) Bottom Rotary Spray Header, BRS-400/500
Qty. ____

ACCESSORIES USED TO PROCESS BEAKERS

- (FD43-5) General Purpose Basket, GBP
Qty. ____
- (FD44s-5) General Purpose Basket Cover, CVGBP
Qty. ____

ACCESSORIES USED TO PROCESS TEST TUBES

- (FD43-1) Test Tube Rack, TTR
Qty. ____
- (FD43-6) Test Tube Basket, B-666 and (FD44-7) Basket Divider, D-666
Qty. ____
- (FD44-6) Test Tube Basket Cover, C-666
Qty. ____

ACCESSORY USED TO PROCESS PETRI DISHES

- (FD43-2) Petri Dish Rack, PDR-55
Qty. ____

ACCESSORIES USED TO PROCESS PIPETTE HEADERS

- (FD42-7) Pipette Header, M-200
Qty. ____
- (FD42-8) Flooded System Pipette Header, PFS
Qty. ____
- (FD61-600) M-90
Qty. ____

RACK STORAGE SYSTEM FOR XLS ACCESSORIES

- (FD07-9) Storage Rack
Qty. ____

TRANSFER CARTS

- (FD41-2) Transfer Cart, TC-570
Qty. ____
- (FD41-3) Transfer Cart, TC-570DS
Qty. ____
- (FD61-100) Transfer Cart, TC-400*
Qty. ____
- (FD61-800) Transfer Cart, TC-400*
Qty. ____
- (FD61-400) Transfer Cart, TC-500*
Qty. ____
- (FD61-700) Universal Transfer Cart*
Qty. ____
- (FD61-900) Transfer Cart, TC-400XLS
Qty. ____
- (FD06-9) Transfer Cart, TC-400XLS
Qty. ____
- (FD07-1) Transfer Cart, TC-500XLS
Qty. ____

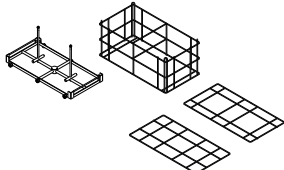
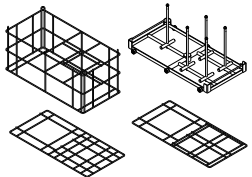
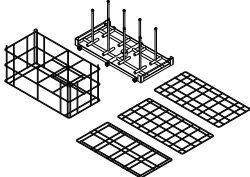
**Not for use with 400XLS-500XLS Models*

Item _____

Location(s) _____

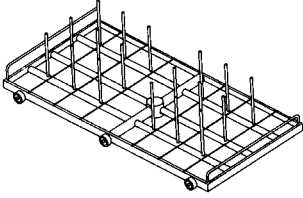
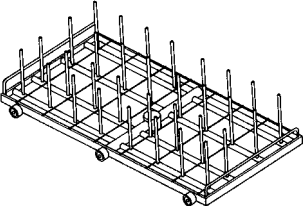
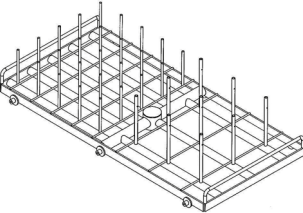
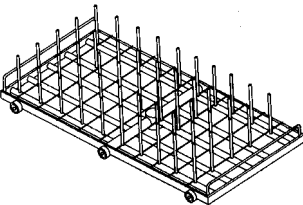
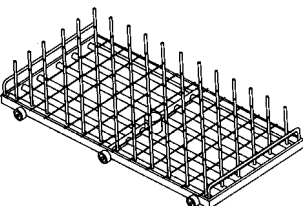
ACCESSORY KITS

A combination of Spindle Headers, Support Baskets and Glassware Supports is recommended for processing large glassware. See individual components for technical specifications.

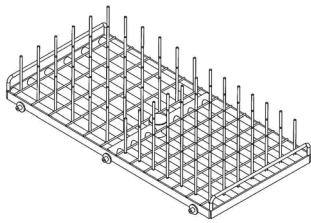
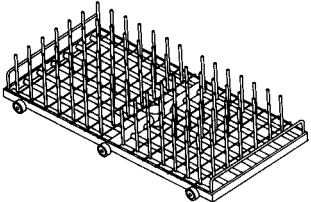
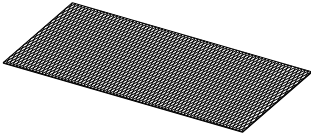
| New KM Kits for Reliance 400-500-400XLS and 500XLS Washers | GLASSWARE | | SPINDLES | | | WEIGHT | APPLICATION |
|---|--|------------------------------|--|---------------------|------------------------|----------------------|---|
| | Max. Diameter per Spindle | Max. Quantity per Load | Diameter | Height | Side Spray Ports | | |
| KM-2XLS Kit (FD67-9)  | 12" (305 mm) | 2 | 3/8" (9 mm), Tip 1/2" (13 mm) | 10 5/8" (270 mm) | 2 | 11.5 lbs (5.2 kg) | Includes support basket and dividers to wash large glassware in 400-500-400XLS-500XLS washers |
| KM-5XLS Kit (FD68-0)  | 1 x 12" (305 mm) and 4 x 5 3/4" (146 mm) | 5 | 3/8" (9 mm), Tip 1/2" (13 mm) | 10 5/8" (270 mm) | 2 | 13.3 lbs (6 kg) | Includes support basket and dividers to wash large and medium size glassware in 400-500-400XLS-500XLS washers |
| KM-8XLS Kit (FD68-1)  | 5 3/4" (146 mm) | 8 | 3/8" (9 mm), Tip 1/2" (13 mm) | 10 5/8" (270 mm) | 2 | 16.8 lbs (7.6 kg) | Includes support basket and dividers to wash medium size glassware in 400-500-400XLS-500XLS washers |

SPINDLE HEADERS

Individual spindles assure thorough cleaning of inside of flasks, graduated cylinders and bottles. Open bottom allows water to drain completely from inside of glassware.

| | GLASSWARE | | SPINDLES | | | WEIGHT | APPLICATION |
|--|---------------------------|------------------------|-----------------|--------------------|------------------|----------------------|--|
| | Max. Diameter per Spindle | Max. Quantity per Load | Diameter | Height | Side Spray Ports | | |
| M-18 Spindle Header (FD42-2)  | 3-3/4" (95 mm) | 18 | 1/4" (6 mm) | 4-3/4" (121 mm) | 1 | 7.0 lbs (3.2 kg) | Refer to Glassware Processing Capacity Chart on page 10. |
| M-32 Spindle Header (FD42-3)  | 3 (76 mm) | 32 | 1/4" (6 mm) | 4-3/4" (121 mm) | 1 | 8.0 lbs (3.6 kg) | Refer to Glassware Processing Capacity Chart on page 10. |
| M-34 Spindle Header (FD41-8)  | 3-3/4" (95 mm) | 9 | 1/4" (6mm) | 4-3/4" (121 mm) | 1 | 8.25 lbs (3.8 kg) | Refer to Glassware Processing Capacity Chart on page 10. |
| | 2-3/8" (60 mm) | 25 | 3/16" (5 mm) | 3-1/2" (89 mm) | None | | Refer to Glassware Processing Capacity Chart on page 10. |
| M-50 Spindle Header (FD42-4)  | 2-3/8" (60 mm) | 50 | 3/16" (5 mm) | 3-1/2" (89 mm) | None | 8.5 lbs (3.9 kg) | Refer to Glassware Processing Capacity Chart on page 10. |
| M-72 Spindle Header (FD42-5)  | 2" (51 mm) | 72 | 3/16" (5 mm) | 3-1/2" (89 mm) | None | 9.5 lbs (4.3 kg) | Refer to Glassware Processing Capacity Chart on page 10. |

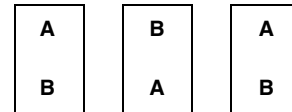
SPINDEL HEADERS (continued)

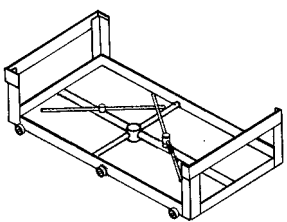
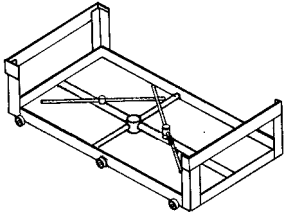
| | GLASSWARE | | SPINDLES | | | WEIGHT | APPLICATION |
|--|---------------------------------------|------------------------|-----------------|-------------------|------------------|-----------------------|---|
| | Max. Diameter per Spindle | Max. Quantity per Load | Diameter | Height | Side Spray Ports | | |
| M-85 Spindle Header (FD41-9)  | 2" (51 mm) | 36 | 3/16" (5 mm) | 3-1/2" (89 mm) | None | 10.25 lbs (4.7 kg) | Refer to Glassware Processing Capacity Chart on page 10. |
| | 1-5/8" (41 mm) | 49 | 3/16" (5 mm) | 3-1/2" (89 mm) | None | | Refer to Glassware Processing Capacity Chart on page 10. |
| M-98 Spindle Header (FD42-6)  | 1-5/8" (41 mm) | 98 | 3/16" (5 mm) | 3-1/2" (89 mm) | None | 11 lbs (5 kg) | Refer to Glassware Processing Capacity Chart on page 10. |
| Glassware Protective Mesh (FD75-300)  | 2 X 12 x 24" (305 x 610 mm) | -- | -- | -- | -- | -- | Used with spindle headers to protect glassware. Two silicone pieces included. |

BOTTOM ROTARY SPRAY HEADERS

Two spray arms mounted at different heights allow for free movement of rotary spray action and provide bottom load coverage. Spray arm/hub has holes in the center to eliminate dead spots.

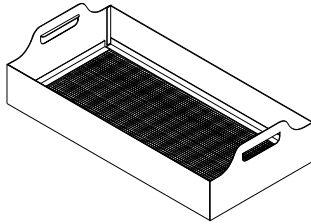
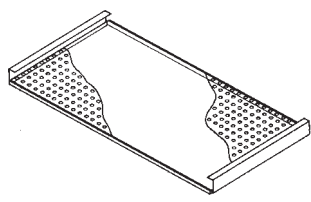
NOTE: To allow for free movement of spray arms when loading more than one Bottom Rotary Spray Header side-by-side in the washer/dryer, loading direction of every-other header must be reversed as shown. A and B designate the rotary spray arms.



| | SPRAY ARMS | | | HEADER SIZE W x L | WEIGHT LBS (KG) | APPLICATION |
|---|------------|-----------------|---------------------|------------------------------------|-----------------------|--|
| | QUANTITY | DIAMETER | LENGTH | | | |
| Bottom Rotary Spray Header, BRS-470/570 (FD43-0)  | 2 | 1/2" (13 mm) | 14-3/4" (375 mm) | 12-3/4 x 24-3/4" (324 x 629 mm) | 11.5 lbs (5.2 kg) | For Models 470 and 570 washers only. Used with General Purpose Basket, Test Tube Rack, and Petri Dish Rack to provide load coverage from the bottom. |
| Bottom Rotary Spray Header, BRS-400/500 (FD61-200)  | 2 | 1/2" (13 mm) | 14-1/4" (362 mm) | 12-3/4 x 24-3/4" (324 x 629 mm) | 11.5 lbs (5.2 kg) | For Models 400/400XLS and 500/500XLS washers only. Used with General Purpose Basket, Tube Rack, and Petri Dish Rack to provide load coverage from the bottom. Reliance 500 washer can accommodate up to 5 BRS simultaneously. |

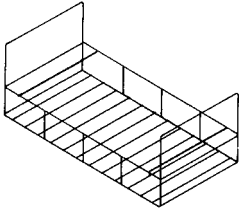
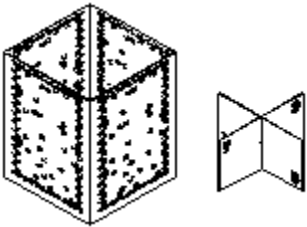
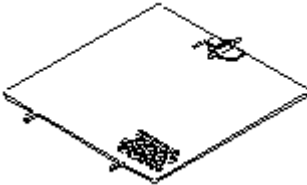
ACCESSORIES USED TO PROCESS BEAKERS

The General Purpose Basket and Cover are used in conjunction with the Bottom Rotary Spray Header to process beakers and hold down lightweight, small miscellaneous plasticware during washing. Open wire frame design of the basket and cover allows maximum water coverage to all parts of the load. The cover has openings sized to keep plasticware in place.

| | OVERALL SIZE W x L | WEIGHT | APPLICATION |
|--|------------------------------------|-------------------|--|
| General Purpose Basket, GPB (FD43-5)  | 12-1/2 x 24-1/2" (318 x 622 mm) | 8 lbs (3.6 kg) | Used with Bottom Rotary Spray Header to wash beakers and miscellaneous hardware. Beakers must be inverted when loaded in basket. |
| General Purpose Basket Cover, CVGPB (FD44-5)  | 12 x 23-1/4" (305 x 591 mm) | 3 lbs (1.4 kg) | Used with Bottom Rotary Spray Header and General Purpose Basket to hold down lightweight plasticware. |

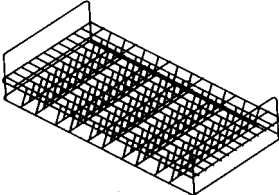
ACCESSORIES USED TO PROCESS TEST TUBES

Test Tube Rack, Basket, Divider and Cover are used in conjunction with the Bottom Rotary Spray Header to process test tubes.

| | OVERALL SIZE (W x L) | WEIGHT | APPLICATION |
|---|--|---|---|
| Test Tube Rack, TTR (FD43-1)  | 12-1/2 x 24-1/2" (318 x 622 mm) | 3.0 lbs (1.4 kg) | Used with Bottom Rotary Spray Header, Basket, Divider, and Cover to wash test tubes from 3/8 to 1-1/2" in diameter and/or beakers. Rack holds six Test Tube Baskets. |
| Test Tube Basket, B-666 (FD43-6) & Basket Divider, D-666 (FD44-7)  | Interior Dimensions: 5-1/2 x 5-1/2" (140 x 140 mm) | B-666 – 1-1/2 lbs (0.7 kg) D-666 – 1/2 lb (0.2 kg) | Basket is used with Bottom Rotary Spray Header, Test Tube Rack, Cover, and Divider to hold test tubes and small miscellaneous glassware (i.e., screw caps, stoppers, etc.) during washing. Basket Divider partitions basket into four parts to support smaller or partial loads. Each basket holds approximately 120 test tubes. Test tubes must be inverted when loaded in basket. |
| Test Tube Basket Cover, C-666 (FD44-6)  | 5-1/2 x 6" (140 x 152 mm) | 1.2 lb (0.2 kg) | Used with Test Tube Basket to hold test tubes in place while inverted in basket. |

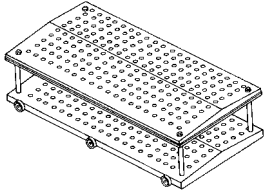
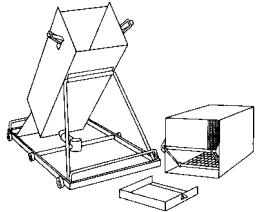
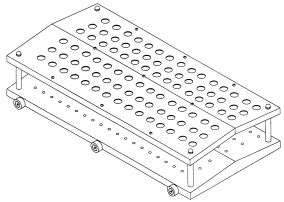
ACCESSORY USED TO PROCESS PETRI DISHES

Petri Dish Rack is used in conjunction with the Bottom Rotary Spray Header to process petri dishes.

| | OVERALL SIZE (W x L) | WEIGHT | APPLICATION |
|--|------------------------------------|-------------------|---|
| Petri Dish Rack, PDR-55 (FD43-2)  | 12-1/2 x 24-1/2" (318 x 622 mm) | 3 lbs (1.4 kg) | Used with Bottom Rotary Spray Header to wash petri dishes. Rack holds up to 55 petri dishes up to 4" (102 mm) in diameter by 5/8" (16 mm) deep. |

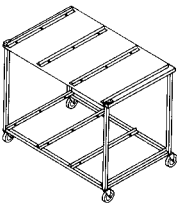
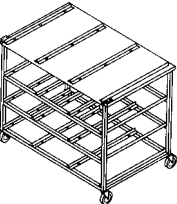
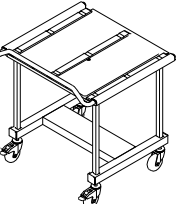
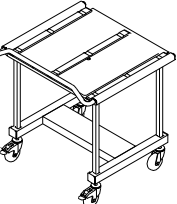
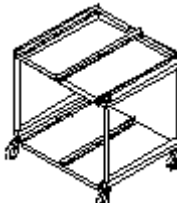
ACCESSORIES USED TO PROCESS PIPETTE HEADERS

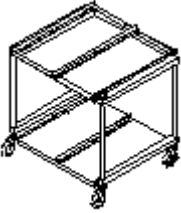
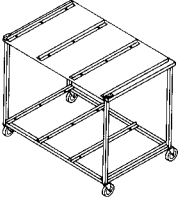
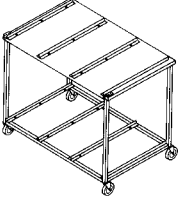
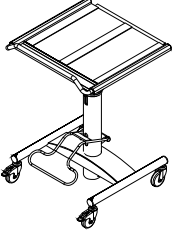
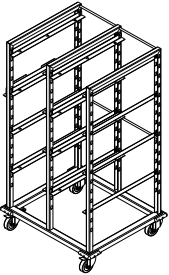
Two configurations are available. The M-90 and M-200 Pipette Headers employ individual water jet ports to process pipettes of any shape, loaded into header with pipette tip up. The Flooded System Pipette Header washes pipettes by flooding water

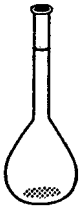

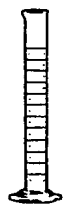

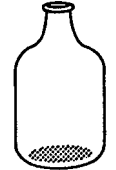
| | PIPETTE SIZE Max. Diameter | SPRAY PORTS Quantity | WEIGHT | APPLICATION |
|---|-------------------------------|-------------------------|-----------------------|---|
| Pipette Header, M-200 (FD42-7)  | 5/8" (16 mm) | 200 | 18.5 lbs (8.4 kg) | Used to individually wash all types of pipettes, from 0.1 to 25 mL, in any quantity up to 200. Not for use with Model 500 washer. Maximum two items can be used in 400XLS and 500XLS washers (using high water level, low pump speed) |
| Flooded System Pipette Header, PFS (FD42-8)  | N/A | None | 25.5 lbs (11.6 kg) | Used to wash straight-sided pipettes of mixed sizes and lengths, up to 17" (432 mm) long. Maximum capacity is 575 one-mL pipettes. Ideal for processing large quantities of small pipettes. A longer wash time is recommended. Maximum one item can be used in 400XLS and 500XLS washers (using high water level, low pump speed) <i>NOTE: When using this header in the Reliance 470, a second flooded system pipette header cannot be used. When using this header in the Reliance 570, a third flooded system pipette header cannot be used. When using this header in the Reliance 400, a second flooded system pipette header and the optional universal shelving cannot be used.</i> |
| Pipette Header, M-90 (FD61-600)  | 5/8" (16 mm) | 90 | 18.5 lbs (8.4 kg) | Used to individually wash all types of pipettes, from 0.1 to 25 mL, in any quantity up to 90. Maximum two items can be used in 400XLS and 500XLS washers (using high water level, low pump speed) |

TRANSFER CARTS

Stainless-steel carts are designed for transporting glassware to and from washers and dryers, as well as loading and unloading accessory headers from them. Carts can also be used to store accessory headers. Carts are available with either a single- or double-shelf capacity and lockable wheels. Loading height of 470/570 carts is 36" (914 mm); loading height of 400/500 cart is 29-3/8" (746 mm). Universal Transfer Cart features an adjustable-height shelf for use with Reliance 470/475/1021 Washers and Dryers.

| | OVERALL SIZE W x H x D | FOR USE WITH | LOAD CAPACITY | WEIGHT | APPLICATION |
|---|--|--|---------------------------|---------------------|---|
| Transfer Cart, TC-570 (FD41-2)  | 42-7/16 x 37-5/16 x 28-5/16" (1078 x 948 x 719 mm) | 570 Washer, 575 Dryer and 1034 Dryer | Six Accessory Headers | 73 lbs (33.1 kg) | For loading accessory headers into and out of washer and dryers. Wheel casters can be raised or lowered up to 1" (25mm). |
| Transfer Cart, TC-570DS (FD41-3)  | 42-7/16 x 37-5/16 x 28-5/16" (1078 x 948 x 719 mm) | 570 Washer, 575 Dryer and 1034 Dryer | 12 Accessory Headers | 78 lbs (35 kg) | For loading accessory headers into and out of washer and dryers. Includes two storage shelves. Wheel casters can be raised or lowered up to 1" (25mm). |
| Transfer Cart, TC-400 (FD61-100)  | 29-7/8 x 33-1/8 x 28-3/4" (759 x 481 x 730 mm) | 400 Washer | Two Accessory Headers | 44 lbs (20 kg) | For loading accessory headers into and out of washer. Shipped disassembled. Wheel casters can be raised or lowered up to 1-1/2" (38mm). |
| Transfer Cart, TC-400XLS (FD61-900)  | 29-7/8 x 33-1/8 x 28-3/4" (759 x 481 x 730 mm) | 400XLS Washer | Two Accessory Headers | 44 lbs (20 kg) | For loading accessory headers into and out of washer. Shipped disassembled. Wheel casters can be raised or lowered up to 1-1/2" (38mm). |
| Transfer Cart, TC-400 (FD61-800)  | 30-1/4 x 30-1/2 x 27-1/4" (768 x 775 x 692 mm) | 400 Washer | Four Accessory Headers | 50 lbs (22.6 kg) | For loading accessory headers into and out of washer. Wheel casters can be raised or lowered up to 1" (25mm). |

| | OVERALL SIZE W x H x D | FOR USE WITH | LOAD CAPACITY | WEIGHT | APPLICATION |
|---|--|---|-------------------------------|---------------------|--|
| Transfer Cart, TC-400XLS (FD06-9)  | 30-1/4 x 30-1/2 x 27-1/4" (768 x 775 x 692 mm) | 400XLS Washer | Four Accessory Headers | 50 lbs (22.6 kg) | For loading accessory headers into and out of washer. Wheel casters can be raised or lowered up to 1" (25mm). |
| Transfer Cart, TC-500 (FD61-400)  | 43-3/4 x 30-1/2 x 27-1/4" (1111 x 775 x 692 mm) | 500 Washer | Six Accessory Headers | 75 lbs (34 kg) | For loading accessory headers into and out of washer. Wheel casters can be raised or lowered up to 1" (25mm). |
| Transfer Cart, TC-500XLS (FD07-1)  | 43-3/4 x 30-1/2 x 27-1/4" (1111 x 775 x 692 mm) | 500XLS Washer | Six Accessory Headers | 75 lbs (34 kg) | For loading accessory headers into and out of washer. Wheel casters can be raised or lowered up to 1" (25mm). |
| Universal Transfer Cart (FD61-700)  | 29-3/4 x 29-1/4" to 37-1/2 x 30-3/4" (756 x 743 mm to 953 x 782 mm) | 400 Washer and 470 Washer, 475 Dryer and 1024 Dryer | Two 12 x 24 Accessories | 145 lbs (65 kg) | Height-adjustable transfer cart for transferring accessories into and out of washer and dryer. |
| Rack Storage System For XLS Accessories (FD07-9)  | 34-1/2 x 59-3/4 x 28-3/4" (876 x 1518 x 730 mm) | 400 XLS 500 XLS Washers | Eight Accessory Headers | 75 lbs (34 kg) | Height-adjustable rack for storing up to 8 accessory headers. For use with Reliance XLS washers only. |

| GLASSWARE PROCESSING CAPACITY | | | | | |
|--|---|--|---|--|---|
| ACCESSORY |  VOLUMETRIC FLASKS (mL) |  ERLENMEYER FLASKS (mL) |  GRADUATED CYLINDERS (mL) |  BEAKERS (mL) |  CARBOYS AND BOTTLES |
| KM-2XLS Spindle Header Kit | 500 to 2000 | 500 to 6000 | 250 to 2000 | — | 4 to 20 L |
| KM-5XLS Spindle Header Kit | 500 to 2000 | 500 to 6000 | 250 to 2000 | — | 500 mL to 20 L |
| KM-8XLS Spindle Header Kit | 500 to 2000 | 500 to 1500 | 250 to 2000 | — | 500 mL to 4 L |
| M-18 Spindle Header | 100 to 250 | 250 to 400 | 50 to 100 | — | 200 to 400 mL |
| M-32 Spindle Header | 100 to 250 | 250 to 400 | 50 to 100 | — | 200 to 400 mL |
| M-34 Spindle Header - 3 x 3 Group | 100 to 250 | 250 to 400 | 50 to 100 | — | 200 to 400 mL |
| - 5 x 5 Group | 5 ^{1,2} to 100 | 50 to 125 | 10 to 25 | 400 to 600 | <100 mL |
| M-50 Spindle Header | 5 ^{1,2} to 100 ² | 10 ^{1,2} to 125 | 10 to 25 | 400 to 600 | <100 mL |
| M-72 Spindle Header | 5 ^{1,2} to 100 ² | 10 ^{1,2} to 125 | 10 to 25 | 400 to 600 | <100 mL |
| M-85 Spindle Header - 6 x 6 Group | 5 ^{1,2} to 100 ² | Not Recommended | 10 to 25 | 400 to 600 | <100 mL |
| - 7 x 7 Group | 5 ^{1,2} to 100 ² | Not Recommended | 10 to 25 | 250 to 400 | <100 mL |
| M-98 Spindle Header | 5 ^{1,2} to 100 ² | 10 ^{1,2} to 50 | 10 to 25 | 250 to 400 | <100 mL |
| General Purpose Basket | <ul style="list-style-type: none"> Miscellaneous Items (Spatula, Glass Stoppers, Magnetic Stir Bars, etc.) Beakers of Various Sizes³ | | | | |

¹Select low speed pump rotation when cleaning small items in Reliance 400XLS and 500XLS Washers.
²Use adjustable high clips for optimal performance when cleaning 5 to 10 mL Volumetric Flasks and 10 to 50 mL Erlenmeyer Flasks.
³Beakers are cleaned efficiently in the General Purpose Basket; however, drying efficiency is limited.

NOTE: Certain types of plastic items may be more difficult to clean and dry. Custom accessories can be designed to clean glassware/plasteware which cannot be processed using a standard STERIS accessory. Contact your STERIS sales representative for more information.

The base language of this document is ENGLISH. Any translations must be made from the base language document.

Life Sciences

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