

Reliance® Accessories

For 280PG, 380PG, 480PG, 580 and 680 Series Pharmaceutical Grade Washers



APPLICATION

These accessories are for processing glassware, metal vessels, filling machine parts and many other items used in pharmaceutical manufacturing processes. A complete range of sanitary materials handling accessories are available for use with Reliance 280PG, 380PG, 480PG, 580 and 680 Series Pharmaceutical Grade Washers.

DESIGN FEATURES

The Reliance 280PG Pharmaceutical Grade Washer accommodates two accessories per load, while up to three can be loaded in the 380PG/580 washers. Accessories can be used in any combination, to provide complete flexibility. For example, small and large glassware/metal vessels can be processed in the same load as solid items, such as filling machine parts, when using the correct combination of accessories. The Reliance 480PG Pharmaceutical Grade Washer is capable of processing four accessories per load, allowing for increased capacity. A combination of single, double and triple wide accessories can be used simultaneously, providing cleaning solutions for a wide range of applications. The Reliance 680 Series Pharmaceutical Grade Washers are designed to process larger items and accept one accessory per load. A multi-accessory header is available to process smaller items in the same load as large glassware/vessels.


All accessories in contact with cleaning solutions are electro-polished and/or passivated and constructed of #316L 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 wash chamber. Plastic tips on spindles prevent scratching and/or breakage of glassware. Accessories attach to manifold connectors located in the bottom of the wash chamber automatically at the start of each cycle. The Reliance washer balanced spray system holds glassware in place without the need for hold-down screens, minimizing glassware breakage. All accessories in contact with cleaning solutions can be dismantled for easy cleaning, excluding plastics/elastomers, small cannulated parts like spray arms and spindles, laser cut edges and orbital welding. Design meets cGMP requirements for drainability and sanitary design. Surface finish varies between 20 and 35 µm (0.5 and 0.9 µm).

A documentation package (including welding logs, surface finish report, and heat numbers) is hosted and stored on a dedicated and secured Sharepoint site.

NOTE: Design is based on ASME BPE-2019 standards, according to STERIS's interpretation and when determined practical. Refer to BPE statement for details.

SMART AR LOADING TECHNOLOGY (FOR ALL RELIANCE PG WASHERS)

Smart AR Loading Technology is an iPad®-based application¹ utilizing Augmented Reality (AR) to guide Operators through the placement of load items on Reliance PG Washer's racks. Interactive experiences, accessible through the Smart AR Loading Technology solution and designed per Customer's validated Standard Operating Procedures, eliminate item misplacement and improper loading technique. Smart AR Loading Technology is a completely stand-alone solution, and it is compatible with any Reliance PG automated parts washers.

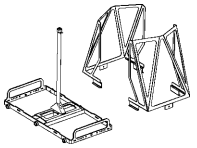
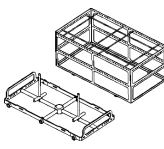
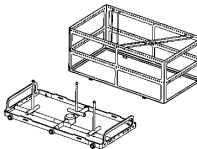
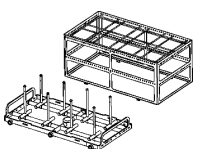
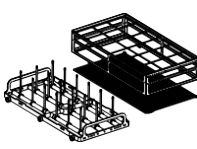
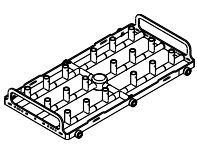
SMART AR LOADING TECHNOLOGY	APPLICATION
 <p>Smart AR Loading Technology (G2240)</p>	Smart AR Loading Technology Software for Reliance Washers is an iPad®-based application utilizing Augmented Reality to guide Operators while they are loading racks. Smart AR Loading Technology is retrofitable to any existing Reliance PG washers out in the field.
<p>Additional AR Experiences (G2241)</p>	Additional AR Experience provides more interactive SOPs to be used with Smart AR Loading Technology. Each AR Experience is developed on a specific SOP.
<p>Additional iPad Pro® (G2242)²</p>	Additional iPad Pro to be used with Smart AR Loading Technology or Smart AR Loading Technology Assistant.



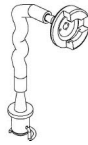



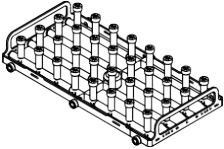
1. iPad® is a trademark of Apple Inc., registered in the U.S. and other countries.

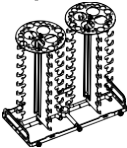
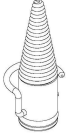
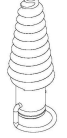
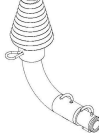
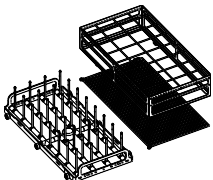

2. iPad Pro® is a trademark of Apple Inc., registered in the U.S. and other countries.

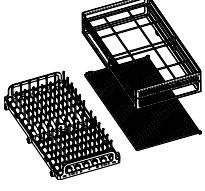
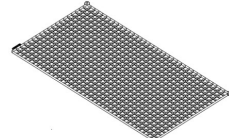
RELIANCE SPINDLE HEADERS (FOR 280PG, 380PG, 480PG, 580 AND 680 SERIES WASHERS)

Individual spindles assure thorough cleaning inside flasks, graduated cylinders and bottles. Open bottom allows water to drain completely from inside of glassware. Overall dimensions (W x L) for all spindle headers: 12-7/8 x 24-1/2" (327 x 621 mm).

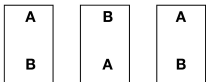
KIT	GLASSWARE		SPINDLES		WEIGHT lb (kg)	TOTAL HEIGHT in (mm)	APPLICATION
	Maximum Diameter per Spindle in (mm)	Maximum Quantity per Load	Diameter in (mm)	Height in (mm)			
KM-1 Kit (FD18-000) 	16 (406)	1	1 (25.4)	20-7/8 (530)	15.3 (7)	22-5/16 (567)	Used to wash large glassware, up to 16" (406 mm) in diameter (or 13" [330 mm] when used side by side in 380PG washer).
KM-2 Kit (FD18-100) 	11 (280)	2	3/8 (9.0)	6-1/2 (165)	12.2 (5.5)	10-7/8 (275)	Used to wash large glassware, up to 11" (280 mm) in diameter.
KM-3 Kit (FD18-200) 	8-1/4 (210)	3	3/8 (9.0)	6-1/2 (165)	12 (5.5)	10-7/8 (275)	Used to wash large glassware, up to 8-1/4" (210 mm).
KM-8 Kit (FD18-300) 	5-3/4 (146)	8	3/8 (9.0)	6-1/2 (165)	15.1 (6.8)	10-7/8 (275)	Used to wash large glassware, up to 5-3/4" (146 mm) in diameter.
KM-18 Kit (FD18-400) 	3-3/4 (95)	18	1/4 (6.0)	4-3/4 (121)	9.7 (4.4)	6 (153)	Refer to Glassware Processing Capacity chart . Support frame with adjustable rods and a silicone mat to protect glassware are included.
M-18 Multi-Connector Header (FD223) 		18					This accessory can be customized by adding six different connectors (see below) in quantities up to 18.

KIT	GLASSWARE		SPINDLES		WEIGHT lb (kg)	TOTAL HEIGHT in (mm)	APPLICATION
	Maximum Diameter per Spindle in (mm)	Maximum Quantity per Load	Diameter in (mm)	Height in (mm)			
	 FD224 Plug 5/8" (16 mm)	 FD225 Nozzle (With Silicone Cap) 5/8" (16 mm)	 FD226 Tri-Clamp Adaptor (With Silicone Hose) 1/2" (13 mm)	 FD227 Tri-Clamp Connector 1 - 1-1/2" (25 - 38 mm)	 FD228 Tri-Clamp Connector 1/2 - 3/4" (13 - 19 mm)	 FD229 Tri-Clamp Connector 2" (51 mm)	
M-32 Multi Hollow Jet Connector Header (FD299) 		32			11 (5)	3-9/16 (91)	Used to wash small cannulated items, up to 5/8" (16 mm) in diameter, such as needles, pipettes, short pipes, hoses, tubing etc. (in quantities up to 32).

KIT	GLASSWARE		SPINDLES		WEIGHT lb (kg)	TOTAL HEIGHT in (mm)	APPLICATION
	Maximum Diameter per Spindle in (mm)	Maximum Quantity per Load	Diameter in (mm)	Height in (mm)			
Universal Tubing Accessory Header (FD233) 					22 (10)	24-15/32 (621.5)	Used to wash up to 4 x 10 feet (3 meters) long flexible tubings with a minimum bending radius of 6" and a maximum inner diameter of 1,5". Approximate size 23-3/4 x 11-7/8 x 24" (W x L x H). Sanitary Construction with minimum 35 micro-inches surface finish. Can fit the following connectors : FD224, FD225, FD227, FD228, FD230, FD231, FD232. Connectors to be ordered separately
 <p>FD230 Nozzle for Hose 1/8 - 1/2" (3.2 - 13 mm)</p>  <p>FD231 Nozzle for Hose 3/8 - 7/8" (9.5 - 22.2 mm)</p>  <p>FD232 Nozzle for Hose 3/4 - 1" (19 - 25 mm)</p>							
KM-32 Kit (FD18-500) 	2-7/8 (73)	32	1/4 (6.0)	4-3/4 (121)	11.5 (5.2)	6 (153)	Refer to Glassware Processing Capacity chart Support frame with adjustable rods and a silicone mat to protect glassware are included.
KM-50 Kit (FD18-600) 	2-1/4 (57)	50	3/16 (5.0)	3-3/8 (86)	11.8 (5.4)	6 (153)	Refer to Glassware Processing Capacity chart Support frame with adjustable rods and a silicone mat to protect glassware are included.

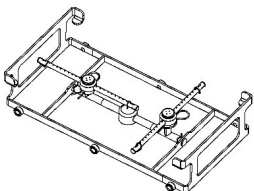
KIT	GLASSWARE		SPINDLES		WEIGHT lb (kg)	TOTAL HEIGHT in (mm)	APPLICATION
	Maximum Diameter per Spindle in (mm)	Maximum Quantity per Load	Diameter in (mm)	Height in (mm)			
KM-84 Kit (FD18-700) 	1-5/8 (41)	84	3/16 (5.0)	3-3/8 (86)	14.2 (6.5)	6 (153)	Refer to Glassware Processing Capacity chart . A cover may be required for very small glassware. Support frame with adjustable rods and a silicone mat to protect glassware are included.
Flexible Hold Down Screens/ Silicone Glassware Protectors (Qty. 2) (FD469) 	-	-	-	-	-	-	12 x 23" (308 x 603 mm) Can be added on top of spindle headers or in GP basket to prevent glassware breakage or damage to load items. Includes 2 silicone pieces.

RELIANCE BOTTOM ROTARY SPRAY HEADER (FOR 280PG, 380PG, 480PG, 580 AND 680 SERIES WASHERS)



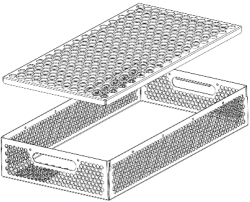
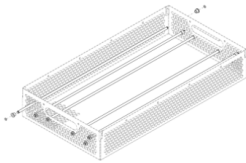
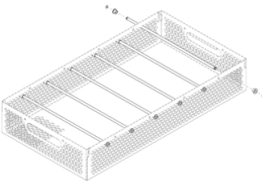
Two spray arms, mounted at different heights, allow for free movement of rotary spray action and provide bottom load coverage. Spray arm/hub has holes in center to eliminate dead spots.

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.

DESCRIPTION	SPRAY ARMS QUANTITY HEADER	SPRAY ARMS DIAMETER inches (mm)	SPRAY ARMS LENGTH inches (mm)	SIZE W X L X H inches (mm)	WEIGHT lb (kg)	APPLICATION
Bottom Rotary Spray Header, BRS (FD18-800) 	2	1/2 (13)	13 (330)	12-7/8 x 25 x 5 (327 x 635 x 127)	10 (4.5)	Used with General Purpose Basket to provide load coverage from the bottom.

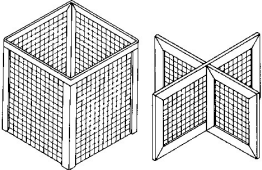
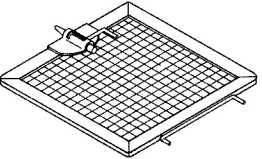
RELIANCE ACCESSORIES FOR MISCELLANEOUS ITEMS

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.

DESCRIPTION	OVERALL SIZE	WEIGHT lb (kg)	APPLICATION AND OVERALL SIZE W x L x H inches (mm)
<p>General Purpose Basket and Cover CVGPB (FD18-900)</p> 	 <p>FD593 Long Rods 23-3/4; 1/4" (603,3; 6,3 mm)</p>  <p>FD594 Short Rods 12-7/8; 1/4" (327; 6,3 mm)</p>	<p>8.4 (3.8)</p>	<p>Used with Bottom Rotary Spray Header to wash beakers and miscellaneous hardware. Beakers must be inverted when loaded in the basket. Can also be used on modular accessories.</p> <p>Cover is used with Bottom Rotary Spray Header and General Purpose Basket to hold down lightweight plasticware.</p> <p>Basket: 12-1/2 x 23-1/4 x 4 (318 x 591 x 102)</p> <p>OD Openings: 3/8 (9.5)</p> <p>Cover: 12 x 22-3/4 x 5/8 (305 x 578 x 12)</p> <p>OD Openings: 3/4 (19)</p> <p>Can fit the following rods to help support items inside the General Purpose Basket: FD593 and FD594 Rods.</p> <p>To be ordered separately.</p>

RELIANCE ACCESSORIES FOR TEST TUBES

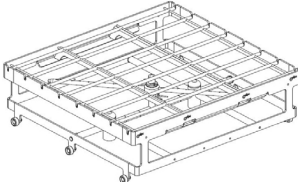
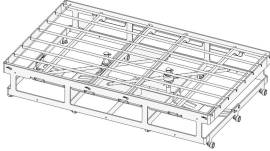
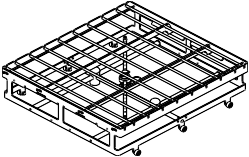
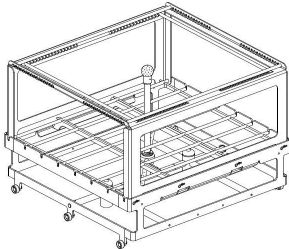
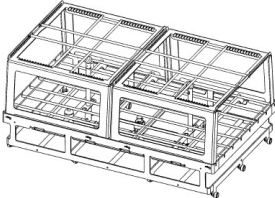
Basket, Divider and Cover are used in conjunction with the Bottom Rotary Spray Header and the General Purpose Basket to process test tubes.

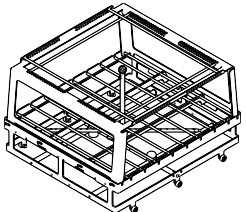
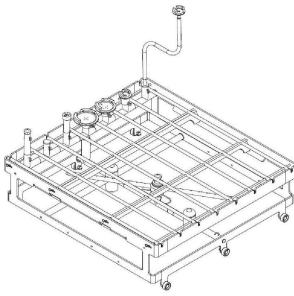
DESCRIPTION	OVERALL SIZE W x L x H inches (mm)	WEIGHT lb (kg)	APPLICATION
<p>Test Tube Basket B-666 and Basket Divider D-666</p>  <p>(FD52-500 and FD52-700)</p>	<p>Interior Dimensions: 5-1/2 x 5-1/2 x 7-3/8 (140 x 140 x 187)</p>	<p>B-666: 1.5 (0.7) D-666: 0.5 (0.2)</p>	<p>The basket is used with Bottom Rotary Spray Header, Cover and Divider to hold test tubes, and small miscellaneous glassware (i.e., screw caps, stoppers, etc.) during washing. The 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 the basket.</p>
<p>Test Tube Basket Cover C-666</p> <p>(FD52-600)</p> 	<p>5-1/2 x 6 x 3/8 (140 x 152 x 10)</p>	<p>0.5 (0.2)</p>	<p>Used with Test Tube Basket to hold test tubes in place while inverted in the basket.</p>

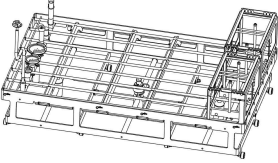
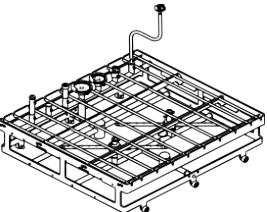
NOTE: Spindle headers, bottom rotary spray headers, general purpose and test tube baskets can be used directly in the 280PG, 380PG, 480PG, 580 washer or in the 680 Series washers in conjunction with the multi-accessory header.

MODULES FOR RELIANCE 280PG, 380PG, 480PG AND 580 MODULAR ACCESSORIES

The modular accessories are designed to be easily configured to accommodate various types of components, parts and glassware. The modular accessories occupy the full size of the wash chamber. All nozzles, connectors and spindles are detachable and can easily be replaced to process different items.

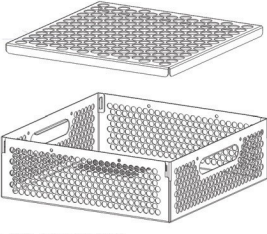
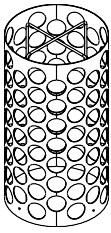

DESCRIPTION	DIMENSIONS AND WEIGHT	APPLICATION
<p>General Purpose Platform 280PG</p>  <p>(FD346)</p>	<p>W x L x H 26 x 24-1/3 x 7-1/2" (660 x 610 x 178 mm)</p> <p>Effective Load Clearance Height: 25" (635 mm)</p> <p>Weight: 32 lb (14.5 kg)</p>	<p>Used to process large items such as drums, bins, containers, funnels, hoppers and other large opening components.</p>
<p>GENERAL PURPOSE Platform 580/380PG</p>  <p>(FD27-100)</p>	<p>W x L x H 39-1/2 x 24 x 7" (1003 x 610 x 178 mm)</p> <p>Effective Load Clearance Height: 25" (635 mm)</p> <p>Weight: 40 lb (18 kg)</p>	<p>Used to process large items such as drums, bins, containers, funnels, hoppers and other large opening components.</p>
<p>General Purpose Platform 480PG</p>  <p>(FD28-1)</p>	<p>W x L x H 26 x 28 x 7" (660 x 711 x 178 mm)</p> <p>Effective Load Clearance Height: 28" (711 mm)</p> <p>Weight: 34 lb (15.5 kg)</p>	<p>Used to process large items such as drums, bins, containers, funnels, hoppers and other components with large openings.</p>
<p>Container Accessory 280PG</p>  <p>(FD347)</p>	<p>W x L x H 26 x 24-1/3 x 17-2/3" (660 x 610 x 432 mm)</p> <p>Effective Load Clearance Height: 25" (635 mm)</p> <p>Weight: 48 lb (21.8 kg)</p>	<p>Used to process large and tall items up to 20-1/2" (521 mm) diameter that require a spray ball to ensure coverage of all internal surfaces.</p> <p>Includes one spray ball and one container support.</p>
<p>Container Accessory 580/380PG</p>  <p>(FD27-200)</p>	<p>W x L x H 39-1/2 x 24 x 17-1/2" (1003 x 610 x 445 mm)</p> <p>Effective Load Clearance Height: 27" (686 mm)</p> <p>Weight: 78 lb (35.4 kg)</p>	<p>Used to process large and tall items up to 17" (432 mm) diameter that require a spray ball to ensure coverage of all internal surfaces. Includes two spray balls and two container supports.</p>

DESCRIPTION	DIMENSIONS AND WEIGHT	APPLICATION
<p>Container Assembly 480PG</p>  <p>(FD28-2)</p>	<p>W x L x H 26 x 28 x 17" (660 x 711 x 432 mm)</p> <p>Effective Load Clearance Height: 28" (711 mm)</p> <p>Weight: 50 lb (23 kg)</p>	<p>Used to process large and tall items up to 22" (559 mm) diameter that require a spray ball to ensure coverage of all internal surfaces.</p> <p>Includes 1 spray ball and 1 container support.</p>
<p>Part Washing Accessory 280PG</p>  <p>(FD348)</p>	<p>W x L x H 26 x 24-1/3 x 7-1/2" (660 x 610 x 178 mm)</p> <p>Effective Load Clearance Height: 25" (635 mm)</p> <p>Weight: 33 lb (15 kg)</p>	<p>Used to clean parts from filling lines (liquid or oral dosage form).</p> <p>Includes:</p> <p>1 manifold with various connections for items such as valves and tubing:</p> <ul style="list-style-type: none"> ▪ 1 spindle 3/4" (19 mm) OD x 4-1/2" (114 mm) ▪ 1 tri-clamp 2" (51 mm) ▪ 1 tri-clamp 1 or 1/2" (25 or 13 mm) ▪ 1 tri-clamp 1/2 or 3/4" (13 or 19 mm) ▪ 1 plug 3/4" (19 mm) ▪ 1 connector for needles and cannulated parts up to 3/8" (9.5 mm) diameter ▪ 1 barb connector 3/4" (6.4 mm) with silicone hose and 1/2 or 3/4" (13 or 19 mm) tri-clamp ▪ Grid Area of 22-1/2 x 24-1/3 (560 x 610 mm) covered by one spray arm; used to clean large components or baskets of small components

DESCRIPTION	DIMENSIONS AND WEIGHT	APPLICATION
<p>Part Washing Accessory 580/380PG</p>  <p>(FD27-300)</p>	<p>W x L x H 39-1/2 x 24 x 14" (1003 x 610 x 356 mm)</p> <p>Effective Load Clearance Height: 25" (635 mm)</p> <p>Weight: 60 lb (27.2 kg)</p>	<p>Used to clean parts from filling lines (liquid or oral dosage form). Includes:</p> <p>2 x manifolds with various connections for items such as valves and tubing:</p> <ul style="list-style-type: none"> ▪ 1 spindle 3/4" (19 mm) OD x 4-1/2" (114 mm) ▪ 1 tri-clamp 2" (51 mm) ▪ 1 tri-clamp 1 or 1-1/2" (25 or 38 mm) ▪ 1 tri-clamp 1/2 or 3/4" (13 or 19 mm) ▪ 1 plug 3/4" (19 mm) ▪ 1 connector for needles and cannulated parts up to 3/8" (9.5 mm) diameter ▪ 1 barb connector 3/4" (6.4 mm) with silicone hose and 1/2 or 3/4" (13 or 19 mm) tri-clamp ▪ 4 spindles 3/8" (9.5 mm) OD x 6-1/4" (159 mm) long, for parts up to 4-7/8" (123 mm) diameter, with 2 adjustable supports. Also included is a 23-1/2 x 28" (596 x 711 mm) grid area, covered by a spray arm, used to clean large components or baskets of small components.
<p>Part Washing Accessory 480PG</p>  <p>(FD28-3)</p>	<p>W x L x H 26 x 28 x 11" (660 x 711 x 279 mm)</p> <p>Effective Load Clearance Height: 28" (711 mm)</p> <p>Weight: 37 lb (17.5 kg)</p>	<p>Used to clean parts from filling lines (liquid or oral dosage form).</p> <p>Includes: 1 manifold with various connections for items, e. g., valves and tubing:</p> <ul style="list-style-type: none"> ▪ 1 spindle 3/4" (19 mm) OD x 4-1/2" (114 mm) ▪ 1 tri-clamp 2" (51 mm) ▪ 1 tri-clamp 1 or 1-1/2" (25 or 38 mm) ▪ 1 tri-clamp 1/2 or 3/4" (13 or 19 mm) ▪ 1 plug 3/4" (19 mm) ▪ 1 connector for needles and cannulated parts up to 3/8" (9.5 mm) diameter ▪ 1 barb connector 3/4" (6.4 mm) with silicone hose and 1/2 or 3/4" (13 or 19 mm) tri-clamp ▪ Grid Area of 27-1/2 x 20" (698 x 508 mm) covered by two spray arms; used to clean large components or baskets of small components.


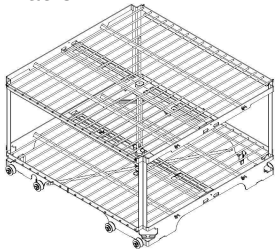
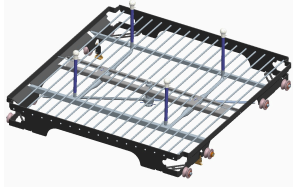
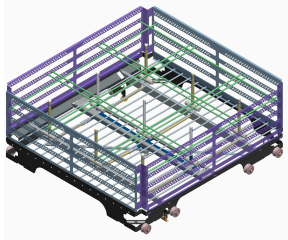
MODULES FOR RELIANCE 280PG, 380PG, 480PG AND 580 MODULAR ACCESSORIES

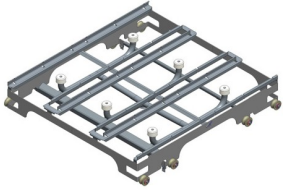
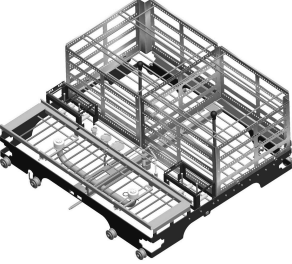
Various modules are available for specific applications and can be used in conjunction with the Reliance 280PG, 380PG, 480PG and 580 modular accessories.

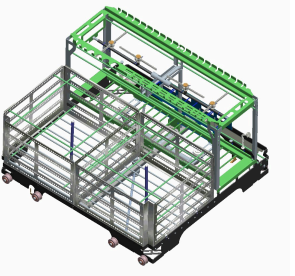
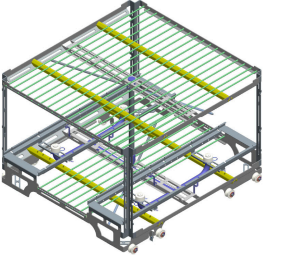
DESCRIPTION	DIMENSIONS AND WEIGHT	APPLICATION
<p>Small Part Basket</p>  <p>(FD27-700)</p>	<p>W x L x H</p> <p>Basket: 12-1/2 x 12-1/2 x 4" (318 x 318 x 102 mm)</p> <p>OD Openings: 3/8" (9.5 mm)</p> <p>Cover: 12 x 12-1/8 x 5/8" (305 x 308 x 16 mm)</p> <p>OD Openings: 3/4" (19 mm)</p> <p>Effective Load Clearance Height: Inches (mm) 25-3/4 (654)</p> <p>Weight: 4.9 lb (2.2 kg)</p>	<p>Used in conjunction with all modular accessories to clean small and lightweight items such as valve gaskets, tri-clamp connections, pipe fittings, caps, covers, etc.</p> <p>Can also be used with 680 Series washer module accessories.</p>
<p>Module for Tubing</p>  <p>(FD54-900)</p>	<p>Dimension:</p> <p>Diameter: 12" (305 mm) Height: 24" (610 mm)</p> <p>Weight: 8 lb (3.6 kg)</p>	<p>Used in conjunction with the modular 280PG/580/380PG part accessories to clean tubing and hoses from 1/8-7/8" (3.2-22.2 mm) inside diameter and up to 1-1/4" (32 mm) external dia. and 50 ft (15 m) long.</p> <p>Maximum diameter of hose end connector is 2-1/4" (57.1 mm).</p> <p>NOTE: Provide information on tubing to engineering for verification.</p>
<p>Proplus Accessory Blank</p>  <p>(FD234)</p>		<p>This is an accessory blank to conduct qualifications of a washer. Install over the water inlet to mimic Proplus accessories and prevent pressure/flow fluctuations.</p> <p>Order 2 of these for 280PG, 3 for 380PG and 4 for 480PG.</p>

ACCESSORIES FOR RELIANCE 680 SERIES WASHERS

The accessories are designed to accommodate various types of components, parts and glassware. The accessories occupy the full length and width of wash chamber. All nozzles, connectors and spindles are detachable and can easily be replaced to process different items.

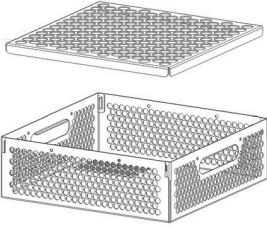
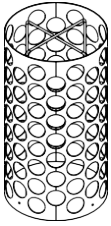
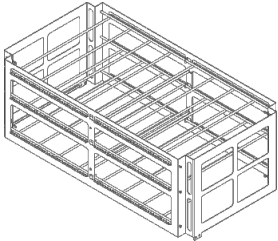

DESCRIPTION	DIMENSIONS AND WEIGHT	APPLICATION
<p>General Purpose Platform</p>  <p>(FD29-000)</p>	<p>W x L x H 49-1/2 x 51-5/8 x 6-7/8" (1257 x 1311 x 174 mm)</p> <p>Effective Load Clearance Height: 35" (889 mm)</p> <p>Weight: 110 lb (50 kg)</p>	<p>Used to process large items such as drums, bins, containers, funnels, hoppers and other large opening components.</p> <p>Provided with a rotary spray arm to ensure complete coverage.</p>
<p>2-Level General Purpose Platform</p>  <p>(FD297)</p>	<p>W x L x H 46-3/4 x 51-9/16 x 27-1/4" (1187 x 1310 x 692 mm)</p> <p>Effective Load Clearance Height:</p> <ul style="list-style-type: none"> ▪ First Level: 18-5/16" (465 mm) ▪ Second Level: 13-1/4" (336 mm) <p>Weight: 214 lb (97 kg)</p>	<p>Used to process large items such as drums, bins, containers, funnels, hoppers and other large opening components.</p> <p>Provided with two rotary spray arms to ensure complete coverage on top and bottom levels.</p>
<p>Container Accessory</p>  <p>(FD29-200)</p>	<p>W x L x H 49-1/2 x 51-5/8 x 19-3/8" (1257 x 1311 x 492 mm)</p> <p>Effective Load Clearance Height: 35" (889 mm)</p> <p>Weight: 110 lb (50 kg)</p>	<p>Used to process four large and tall items up to 24" (610 mm) OD that require a spray ball to ensure coverage of all internal surfaces. Includes four spray balls (height of spray ball from grid = 12-1/8" [308 mm]) and a rotary spray arm to ensure complete coverage.</p> <p>Possibility to wash a 5th container in the middle with an additional special spindle. (with 5th spindle, maximum container diameter is 17- 1/2" [445 mm]).</p>
<p>Carboy Accessory</p>  <p>(FD29-300)</p>	<p>W x L x H 49-1/2 x 51-5/8 x 22-3/8" (1257 x 1311 x 568 mm)</p> <p>Effective Load Clearance Height: 35" (889 mm)</p> <p>Weight: 170 lb (77 kg)</p>	<p>Used to clean glass and plastic carboys and other large items up to 15-7/8" (403 mm) OD. Includes 9 large spindles (11" [279 mm] high) and a support for 9 carboys.</p> <p>4-1/2" (114 mm) long plastic protectors are provided at the bottom of each spindle to protect the neck of the carboys.</p> <p>A rotary spray arm is provided to ensure complete coverage.</p>

DESCRIPTION	DIMENSIONS AND WEIGHT	APPLICATION
<p>Multi Accessory Header for Glassware</p>  <p>(FD29-400)</p>	<p>W x L x H 49-7/16 x 49 x 8-3/4" (1255 x 1245 x 222 mm)</p> <p>Effective Load Clearance Height: 33-1/2" (851 mm)</p> <p>Weight: 100 lb (45.5 kg)</p>	<p>Used in conjunction with six spindle headers to clean various types and sizes laboratory glassware and other small items.</p>
<p>Part Washing Accessory One Level</p>  <p>(FD29-500)</p>	<p>W x L x H 49-7/16 x 51-9/16 x 23" (1255 x 1310 x 585 mm)</p> <p>Effective Load Clearance Height: 35" (889 mm)</p> <p>Weight: 175 lb (79.4 kg)</p>	<p>Used to clean parts from filling lines (liquid or oral dosage form). Included is a rotary spray arm and 2 x spray balls (12" [305 mm] high) and supports for large items up to 25" (635 mm) dia.; and 2 x manifolds with various connectors for items such as valves and tubing:</p> <ul style="list-style-type: none"> ▪ 1 x tri-clamp 2" (51 mm) ▪ 1 x tri-clamp 1 or 1-1/2" (25 or 38 mm) ▪ 1 x tri-clamps 1/2 or 3/4" (13 or 19 mm) ▪ 1 x 3/4" (19 mm) plug ▪ 1 connector for needles and cannulated parts up to 3/8" (9.5 mm) dia. ▪ 1 x barb connector for 1/8-5/8" (3.2-15.9 mm) diameter silicone hose is provided and can be connected to the barb connector. The other end of this 18.1" (460 mm) long hose is fitted with 1/2 or 3/4" (13 or 19 mm) tri-clamp connector. ▪ 4 x spindles 3/8" (9.5 mm) OD x 6-1/4" (159 mm) long for parts up to 4" (102 mm) diameter <p>Also included is a 11 x 46" (280 x 1170 mm) grid area used to clean large components or baskets of small components. Area is easily configured to accept two optional spindle headers.</p>

DESCRIPTION	DIMENSIONS AND WEIGHT	APPLICATION
<p>Part Washing Accessory Two Levels</p>  <p>(FD29-600)</p>	<p>W x L x H 49-7/16 x 51-9/16 x 40" (1255 x 1310 x 1015 mm)</p> <p>Effective Load Clearance Height:</p> <ul style="list-style-type: none"> ▪ 1st Level 35" (889 mm) ▪ 2nd Level: 10-1/4" (260 mm) <p>Weight: 230 lb (104.3 kg)</p>	<p>Used to clean parts from filling lines (liquid or oral dosage form). Included is a rotary spray arm and 2 x large spindles (12-1/4" [311 mm] high) and supports for items up to 25" (635 mm) OD; 2 x manifolds with a total of 10 connectors (various) for items such as valves and tubing:</p> <ul style="list-style-type: none"> ▪ 1 x tri-clamp 2" (51 mm) ▪ 1 x tri-clamp 1 or 1-1/2" (25 or 38 mm) ▪ 1 x tri-clamp 1/2 or 3/4" (13 or 19 mm) ▪ 1 connector for needles and cannulated parts up to 3/8" (9.5 mm) dia. ▪ 1 x barb connector for 1/8 - 5/8" (3.2 - 15.9 mm) diameter silicone hose is provided and can be connected to the barb connector. The other end of this 18.1" (460 mm) long hose is fitted with 1/2 or 3/4" (13 or 19 mm) tri-clamp connector ▪ 1 x 3/4" plug ▪ 4 x spindles 3/8" (9.5 mm) OD x 6-1/4" (159 mm) long for parts up to 4" (102 mm) diameter <p>Adaptor for two optional spindle headers (height clearance for spindle header = 16-1/4" [413 mm]), and a second level shelf with a rotary spray arm on which miscellaneous items or part baskets (up to 2 large baskets or 4 small baskets) can be placed.</p> <p>Second level is provided with holders to wash:</p> <ul style="list-style-type: none"> ▪ 6 x tri-clamp caps 1/2 - 3/4" (13 or 19 mm) ▪ 12 x tri-clamp caps 1 - 1-1/2" (25 - 38 mm) ▪ 4 x tri-clamp caps 2" (51 mm) ▪ 20 x tri-clamp clamps ▪ 12 x tri-clamp gaskets
<p>2-Level General Purpose Platform, 4 Proplus</p>  <p>(FD008)</p>	<p>W x L x H 49-1/8 x 51-11/16 x 35-7/8" (1248 x 1313 x 911 mm)</p> <p>Effective Load Clearance Height:</p> <ul style="list-style-type: none"> ▪ 1st Level from the Grid: 25-19/32" (650 mm) ▪ 1st Level from the Proplus Rail: 21-3/4" (553 mm) ▪ 2nd Level: 6-3/8" (161 mm) <p>Weight: 180 lb (81.6 kg)</p>	<p>Used to process a variety of items with the second Level grid, 4 Proplus positions and 2 large areas on the first level for items such as stopper bowls.</p> <p>Rotary spray arms are underneath both levels to ensure complete coverage.</p>

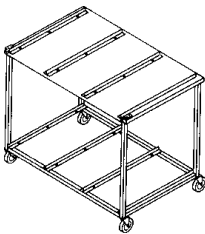
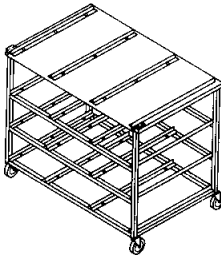
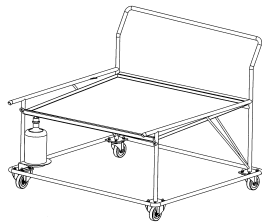
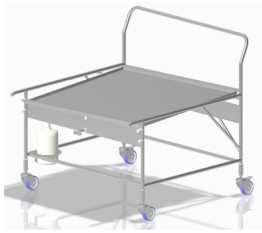
MODULES FOR RELIANCE 680 SERIES MODULAR ACCESSORIES

Various modules are available for specific applications and can be used in conjunction with the Reliance 680 Series modular part washing accessories.


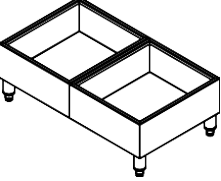
DESCRIPTION	DIMENSIONS AND WEIGHT	APPLICATION
<p>Small Part Basket</p>  <p>(FD27-700)</p>	<p>W x L x H</p> <p>Basket: 12-1/2 x 12-1/2 x 4" (318 x 318 x 102 mm)</p> <p>OD Openings: 3/8" (9.5 mm)</p> <p>Cover: 12 x 12-1/8 x 5/8" (305 x 308 x 16 mm)</p> <p>OD Openings: 3/4" (19 mm)</p> <p>Effective Load Clearance Height:</p> <p>1st Level: 35" (889 mm) 2nd Level: 10-1/4" (260 mm)</p> <p>Weight: 4.9 lb (2.2 kg)</p>	<p>Used in conjunction with all modular accessories to clean small and lightweight items such as valve gaskets, tri-clamp connections, pipe fittings, caps, covers, etc.</p> <p>Can also be used with 680 Series washer module accessories.</p>
<p>Module for Tubing 680</p>  <p>(FD59-100)</p>	<p>Dimension:</p> <p>Diameter: 12" (305 mm) Height: 24" (610 mm)</p> <p>Weight: 8 lb (3.6 kg)</p>	<p>Used in conjunction with the modular 680 part washing accessory to clean tubing and hoses from 1/8-7/8" (3.2 -22.2 mm) inside diameter and up to 1-1/4" (32 mm) external diameter and 50 ft (15 m) long. Maximum diameter of hose end connector is 2-1/4" (57.1 mm) diameter.</p> <p>NOTE: Provide information on tubing to engineering for verification.</p>
<p>Supports for Trays 680</p>  <p>(FD29-100)</p>	<p>W x L x H</p> <p>49 x 25-5/8 x 17-3/4" (1219 x 651 x 451 mm)</p> <p>Effective Load Clearance Height: 35" (889 mm)</p> <p>Weight: 57 lb (25.9 mm)</p>	<p>Includes one support that is used in conjunction with the General Purpose Platform 680 to hold trays using supporting rods (24 rods provided, 3 rods needed per tray).</p> <p>The module can hold up to 8 trays of maximum dimensions</p> <p>23-1/2" W x 35" L x 2-3/4" H (597 x 889 x 70 mm) (or less if height is more than 2-3/4").</p> <p>A maximum of two modules can be installed on General Purpose Platform 680.</p>
<p>680PG Accessory Blank</p>  <p>(FD235)</p>		<p>This is an accessory blank to conduct qualification of a washer. Install over the water inlet to mimic 680PG platform accessories and prevent pressure/flow fluctuations</p> <p>This spray ball can mimic any 680PG accessories.</p>

TRANSFER CARTS

Stainless-Steel carts are designed for transporting glassware to and from washers and dryers, as well as loading and unloading accessory headers. Carts can also be used to store accessory headers. Carts are available with either a single or double shelf capacity, and levels.





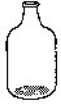
DESCRIPTION	OVERALL SIZE W X D X H in (mm)	FOR USE WITH	LOAD CAPACITY	WEIGHT lb (kg)	APPLICATION
<p>Transfer Cart, TC-570</p>  <p>(FD41-2)</p>	43 x 28-1/4 x 37 (1092 x 718 x 940)	580 Washer	6 Spindle Headers or 2 Modular Accessories	73 (33.1)	<p>Used to load and unload accessory headers from 580 washers.</p> <p>Made of 304 stainless steel with No. 4 finish.</p> <p>Wheel casters can be raised or lowered up to 1" (25 mm).</p>
<p>Transfer Cart, TC-570DS</p>  <p>(FD41-3)</p>	43 x 28-1/4 x 37 (1092 x 718 x 940)	580 Washer	12 Spindle Headers Lower shelves cannot accommodate KM-1, 2, 3 and 8 kits and modular accessories.	78 (35)	<p>Used to load and unload accessory headers from 580 washers. Includes two storage shelves.</p> <p>Made of 304 stainless steel with No. 4 finish.</p> <p>Wheel casters can be raised or lowered up to 1" (25 mm).</p>
<p>Transfer Cart, TC-680</p>  <p>(FD66-9)</p>	52-3/4 x 49 x 41 (1340 x 1245 x 1041)	680 Washer	1 Accessory Header	130 (59)	<p>Used to load and unload accessory headers from 680 washers.</p> <p>Made of 304 stainless steel with No. 4 finish.</p> <p>Wheel casters can be raised or lowered up to 2" (51 mm).</p>
<p>Transfer Cart</p>  <p>(FD259)</p>	49-1/8 x 51-11/16 x 35-7/8 (1248 x 1313 x 911)	680PG Washer	1 Accessory Header	130 (59)	<p>Used to load and unload accessory headers from 680PG and 680PG washers equipped with swing-door configuration.</p> <p>Made of 304 stainless steel with surface finish No. 4.</p> <p>Wheel casters can be raised or lowered up to 2.6" (51 mm).</p>

DESCRIPTION	OVERALL SIZE W X D X H in (mm)	FOR USE WITH	LOAD CAPACITY	WEIGHT lb (kg)	APPLICATION
Rack Storage System (FD07-9)	34-1/2 X 59-3/4 X 28-3/4 (876 X 1518 X 730 mm)	Reliance Accessory Headers with dimensions (W X L) 12-7/8 X 24-1/2" (327 X 621 mm)	Up to 8 Reliance Accessory Headers	75 (34)	Height-adjustable rack for storing up to 8 accessory headers. Made out of 304 stainless steel.
Rack Storage System (FD67-800)	54 x 54 x 61 (1372 x 1372 x 1549)	680 Series Accessorie s	Up to 3 x 680 Series Accessories	174 (79)	Used to store up to 3 x 680 Series accessories. Includes three adjustable height shelves. Made of 304 stainless steel.
Transfer Cart, TC-280PG (FD345)	30-2/3 x 29-3/4 x 32 (762 x 737 x 813)	280PG Washer	4 Spindle Headers or 2 Modular Accessories	95 (43.1)	Used to load and unload accessory headers from 280PG washers. Made of 304 stainless steel with No. 4 finish. Wheel casters can be raised or lowered up to 1" (25 mm).
Transfer Cart, TC-380PG (FD41-700)	43 x 28-1/4 x 33 (1092 x 718 x 838)	380PG Washer	6 Spindle Headers or 2 Modular Accessories	73 (33.1)	Used to load and unload accessory headers from 380PG washers. Made of 304 stainless steel with No. 4 finish. Wheel casters can be raised or lowered up to 1" (25 mm).

DESCRIPTION	OVERALL SIZE W X D X H in (mm)	FOR USE WITH	LOAD CAPACITY	WEIGHT lb (kg)	APPLICATION
<p>Transfer Cart, TC-480PG</p>  <p>(FD11-9)</p>	<p>57 x 32-1/2 x 31-1/2 (1448 x 825 x 800)</p>	<p>480PG Washer</p>	<p>8 Spindle Headers or 4 Modular Accessories</p>	<p>125 (56.7)</p>	<p>Used to load and unload accessory headers from 480PG washers. Made of 304 stainless steel with No. 4 finish. Wheel casters can be raised or lowered up to 1-1/2" (38 mm).</p>
<p>External Detergent Storage Compartment For RELIANCE PG Washers</p>  <p>(FD178)</p>	<p>28-1/4 x 10 x 16-1/8 (717 x 254 x 410)</p>	<p>Reliance PG Washers</p>	<p>2 x 5 gal (19L) or 8 x 1 gal (3.8L) detergent drums</p>	<p>19 (9)</p>	<p>External Detergent Storage Compartment for Reliance PG Washers.</p>

OTHER ACCESSORIES

DESCRIPTION	ITEMS INCLUDED	APPLICATION
Barrier Wall Flange Kit (FD343) Refer to equipment drawing number 10278355.	Stainless-steel top flange to seal opening between washer and wall. Two 2-1/2" (63.5 mm) stainless-steel side flanges.	Used with Reliance 280PG washers. Used to fill the gap between the wall and the washer. Made of 304 stainless steel.
Barrier Wall Flange Kit (FD41-500) Refer to equipment drawing number 920-515-291.	Stainless-steel top flange to seal opening between washer and wall. Two 2-1/2" (63.5 mm) stainless-steel side flanges.	Used with Reliance 380PG washers. Used to fill the gap between the wall and the washer. Made of 304 stainless steel.
Barrier Wall Flange Kit (FD67-200) Refer to equipment drawing number 920-512-996.	Stainless-steel top flange to seal opening between washer and wall. Two 2-1/2" (63.5 mm) stainless-steel side flanges.	Used with Reliance 680PG Series washers. Used to fill the gap between the wall and the washer. Made of 304 stainless steel.
Barrier Wall Flange Kit (FD11-7) Refer to equipment drawing number 100-893-03.	Stainless-steel top flange to seal opening between washer and wall. Two 2-1/2" (63.5 mm) stainless-steel side flanges.	Used with Reliance 480PG Series washers. Used to fill the gap between the wall and the washer. Made of 304 stainless steel.
Kit to Tilt Washer (FD342)	Tilting hooks and screws.	Used with Reliance 280PG washers. Used to tilt the washer on its side to clear doorways.
Kit to Tilt Washer (FD41-400)	Tilting hooks and screws.	Used with Reliance 380PG washers. Used to tilt the washer on its side to clear doorways.
Kit to Tilt Washer (FD16-3)	Tilting hooks and screws.	Used with Reliance 480PG washers. Used to tilt the washer on its side to clear doorways.
S/S Back Panel (FD344)	S/S 304 Panel	Used to enclose the back of a single door Reliance 280PG Washer.
S/S Back Panel (FD41-600)	S/S 304 Panel	Used to enclose the back of a single door Reliance 380PG Washer.
S/S Back Panel (FD11-8)	S/S 304 Panel	Used to enclose the back of a single door Reliance 480PG Washer.
Flexible Hold Down Screens/ Silicone Glassware Protectors (Qty. 2) (FD469)	12 x 23" (308 x 603 mm) silicone mesh.	Can be added on top of spindle headers or in GP basket to prevent glassware breakage or damage to load items. Includes 2 silicone pieces.

GLASSWARE PROCESSING CAPACITY					
ACCESSORIES FOR RELIANCE PHARMACEUTICAL GRADE WASHERS					
	VOLUMETRIC FLASKS	ERLENMEYER FLASKS	GRADUATED CYLINDERS	BEAKERS	CARBOYS AND BOTTLES
KM-1 Spindle Header	Max. 13-3/4" dia. (349 mm)	Max. 13-3/4" dia. (349 mm)	Max. 13-3/4" dia. (349 mm)	–	Max. 13-3/4" dia. (349 mm)
KM-2 Spindle Header	500 to 2000 mL	500 to 6000 mL	500 to 2000 mL	–	4.0 to 20 L
KM-3 Spindle Header	500 to 2000 mL	500 to 4000 mL	250 to 2000 mL	–	–
KM-8 Spindle Header	500 to 2000 mL	500 to 1500 mL	250 to 500 mL	–	500 mL to 4.0 L
KM-18 Spindle Header	50 to 250 mL	250 to 300 mL	25 to 250 mL	–	–
KM-32 Spindle Header	50 to 200 mL	50 to 250 mL	25 to 100 mL	–	–
KM-50 Spindle Header	25 to 100 mL	50 to 125 mL	10 to 50 mL	–	–
KM-84 Spindle Header	5.0 to 25 mL	10 to 25 mL	10 to 25 mL	150 to 600 mL	–
General Purpose Basket	–	–	–	Various Sizes	–

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

For Further Information, contact:



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

CUSTOMER IS RESPONSIBLE FOR COMPLIANCE WITH APPLICABLE LOCAL AND NATIONAL CODES AND REGULATIONS.

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