INTEGRATE
EXPAND
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Accessories & Options Guide
JANUS Automated Workstations

PerkinElmer
For the Better

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INTRODUCTION

From compound management and sample preparation to downstream applications for drug discovery, immunoassay automation, molecular biology techniques and clinical research, PerkinElmer provides innovative solutions for your automated liquid handling needs. With several standard platforms to choose from, getting started is easy as 1, 2, 3.

Whether you are looking to integrate additional devices, increase your throughput or have changing application requirements, we've got what you need. We offer a wide array of options, accessories and maintenance kits to ensure that your JANUS® Automated Workstation always performs at its best. Speak with your local account team to learn about the products best suited for your specific requirements.

JANUS PIPETTING OPTIONS

Pipetting Options for Varispan

4-Tip Pipetting Kits

7001523	83.7 mm Fixed Tip Option ■ Teflon® coated tips, qty 4
7002356	VersaTip PLUS RoboRack Kit, JANUS **Includes:** ■ Four (4) VersaTip PLUS adapters ■ Four (4) tip stripper collars ■ Hanging tip rack holder for 1000 μl disposable tips ■ Disposable tip starter package ■ Five (5) biohazard bags
7002349	Low Volume DT Option **Includes:** ■ Four (4) 250 μl syringes and application software diskette ■ Requires 7002356
7002350	Low Volume Fixed Tip Option **Includes:** ■ Four (4) low volume pipette tips, 250 μl syringes, reduced diameter tubing fittings and application software diskette

4-Tip Syringe Kits*

7002338	250 μl syringe assembly, 4-tip
7002340	500 μl syringe assembly, 4-tip
7002339	1 ml syringe assembly, 4-tip
7002345	2.5 ml syringe assembly, 4-tip
7002354	5.0 ml syringe assembly, 4-tip

10 ml Syringe   500 μL Syringe   250 μL Syringe

1 ml Syringe   2.5 ml Syringe   5 ml Syringe

8-Tip Pipetting Kits	
7002065	83.7 mm Fixed Tip HD Option ■ Teflon® coated tips, qty 8
7002357	VersaTip HD PLUS RoboRack Option, JANUS **Includes:** ■ Eight (8) VersaTip PLUS adapters ■ Eight (8) tip stripper collars ■ Hanging tip rack holder for 1000 µl disposable tips ■ Disposable tip starter package ■ Five (5) biohazard bags
7002348	Low Volume DT Option **Includes:** ■ Eight (8) 250 µl syringes and application software diskette ■ Requires 7002357
7002347	Low Volume Fixed Tip HD Option **Includes:** ■ Eight (8) low volume HD pipette tips, 250 µl syringes, reduced diameter tubing, fittings and application software diskette

8-Tip Syringe Kits*	
7002342	250 µl syringe assembly, 8-tip
7002344	500 µl syringe assembly, 8-tip
7002343	1 ml syringe assembly, 8-tip
7002346	2.5 ml syringe assembly, 8-tip
7002355	5.0 ml syringe assembly, 8-tip

* 10 ml syringe kits are available for both 4-tip and 8-tip Varispan systems

Six Way Valve Option

The six way valve consists of a six-port external valve integrated with WinPREP® software which allows you to dispense up to six different system fluids. The kit includes the valve, necessary tubing and connectors, Teflon® adapter, integration software, and operator's manual. This kit can be used on the 4-tip and 8-tip Varispan® arm JANUS units.

7006644	Six Way Valve Option, JANUS

Pipetting Options for MDT

MDT Dispense Heads

70243540	P235/96 MDT Disposable Tip Head (96-tip)
70243541	P50/96 MDT Disposable Tip Head (96-tip)
70243570	P30/384 MDT Disposable Tip Head (384-tip)
7406746	MDT NanoHead (384-tip)
7406748	MDT Protein NanoHead (384-tip)

MDT Serial Dilution Tools

Serial Dilution Tools are a suite of interchangeable dispense head tools that allows the JANUS Modular Dispense Technology™ (MDT) head to pick up a single row or a single column of disposable tips from a standard full box of disposable tips for aspirate and dispense operations. Subsequent to the tip attachment, the tool has the ability to discard the single row or column of tips and continue to acquire single rows or columns of tips from the disposable tip box until the box is exhausted.

All serial dilution tools require a specific docking station and tip box support as defined below.

7400304	MDT I200RC Serial Dilution Tool ■ Allows for single left column or top row pickup of disposable tips ■ Compatible with the MDT P235 disposable tip
7400305	MDT I50R Serial Dilution Tool ■ Allows for single top row pickup of disposable tips ■ Compatible with the MDT P50 and P20 disposable tip

7400306	MDT I50C Serial Dilution Tool
	■ Allows for single left column pickup of disposable tips
	■ Compatible with the MDT P50 and P20 disposable tip
7400307	MDT I30RC Serial Dilution Tool
	■ Allows for single left column or top row pickup of disposable tips
	■ Compatible with the MDT P30 and P10 disposable tip
7400308	Tip Box Support, Serial Dilution Tool
	■ Required for loading tips with the Serial Dilution Tools
	■ Compatible with all MDT disposable tips
7400309	Docking Station, Serial Dilution Tool
	■ Required for loading and unloading the Serial Dilution Tools
	■ Compatible with all Serial Dilution Tools

4-tip pipetting tips

8-tip pipetting tips

DISPOSABLE TIPS

Varispan Arm Disposable Tips

Each case of Varispan disposable tips are sold in quantities of 960 tips which are packaged as 10 RoboRacks™, with 96 tips per RoboRack. The only exception are the 1000 µl disposable tips – these tips are racked in hanging tip racks and require the hanging tip rack (7607537). Unless otherwise noted, all PerkinElmer disposable tips are made from medical grade 100% virgin polypropylene. RoboRacks are compatible with the PlateStak® and JANUS gripper options.

6000677	20 µl, Clear, Non-Conductive Tips ■ Volume range 1 µl to 11 µl
6000679	20 µl, Conductive Tips ■ Volume range 1 µl to 11 µl
6000675	20 µl, MALDI Spotting Tips, Clear, Non-Conductive ■ Volume range 1 µl to 11 µl
6001263	50 µl, Clear, Non-Conductive Tips ■ Volume range 0.5 µl to 50 µl
6001264	50 µl, Conductive Tips ■ Volume range 0.5 µl to 50 µl
6000681	200 µl, Clear, Non-Conductive Tips ■ Volume range 10 µl to 200 µl

P50 MDT Non-sterile Tips as shown per case (Item # 6900072)

P50 MDT Non-sterile Tips as shown per RoboRack (Item # 6900072)

Individual view of P50 MDT Non-Sterile Tips (Item # 6900072)

1000 μl Conductive Tips (Item# 6000655) as shown in a hanging tip rack and without

6000683	200 μl, Conductive Tips ■ Volume range 10 μl to 200 μl
6001250	200 μl, Conductive Tips, Sterile ■ Volume range 10 μl to 200 μl
6001253	1000 μl, Clear, Non-Conductive Tips ■ Volume Range 100 μl to 1000 μl
6000655	1000 μl, Conductive Tips ■ Volume range 100 μl to 1000 μl
6001251	1000 μl, Conductive Tips, Sterile ■ Volume range 100 μl to 1000 μl
6001260	1000 μl, Conductive Tips, qty 4,800 ■ Volume range 100 μl to 1000 μl
6000691	25 μl, Conductive, Sterile Filter Tips ■ Volume range 1 μl to 25 μl
6000689	25 μl, Clear, Non-Conductive, Sterile Filter Tips ■ Volume range 1 μl to 25 μl
6000687	175 μl, Conductive, Sterile Filter Tips ■ Volume range 10 μl to 175 μl
6000685	175 μl, Clear, Non-Conductive, Sterile Filter Tips ■ Volume range 10 μl to 175 μl
6001256	900 μl Filter Tip, Conductive ■ Volume range 100 μl to 900 μl
6001262	900 μl Filter Tip, Clear ■ Volume range 100 μl to 900 μl
7000277	RoboRack Starter Kit **Includes:** ■ Three (3) RoboRacks of 20 μL and 200 μL conductive tips and software ■ Diskette that includes the labware definitions and performance files ■ RoboRacks are compatible with the Plate-Adapter Support Tile ■ RoboRacks are compatible with the PlateStak and Gripper

P235 MDT Non-sterile Tips
(Item # 6900044)

P235 MDT Wide Bore, Non-sterile Tips
(Item # 6900067)

7600030	25 µl/175 µl Filter Tip Option Assembly
	Includes
	■ Two (2) 25 µL Conductive RoboRack tips
	■ Two (2) 25 µl Clear RoboRack tips
	■ Two (2) 175 µl Conductive RoboRack tips
	■ Two (2) 175 µl Clear RoboRack tips
	■ Software including labware definitions and performance files
	■ Instruction guide

MDT Arm Disposable Tips

Each case of 96- and 384-channel disposable tips are sold in quantities of 50 RoboRacks per case. The following disposable tips require the use of the Auto Tip Load (PN 70227630) to properly load tips on the MDT dispense head. Unless otherwise noted, all PerkinElmer disposable tips are made from medical grade 100% virgin polypropylene. RoboRacks are compatible with the PlateStak and JANUS gripper options.

For use with 96 channel

The following are compatible with the **P235 MDT Dispense Head**:

69000044	P235 MDT Non-Sterile Tips
	■ Volume range 5 µl to 235 µl
69000045	P235 MDT Sterile Tips
	■ Volume range 5 µl to 235 µl
69000048	P235 MDT Non-Sterile Tips, Black
	■ Volume range 5 µl to 235 µl
69000067	P235 MDT Wide Bore, Non-Sterile, Clear
	■ Volume range 5 µl to 235 µl
69000068	P235 MDT Wide Bore, Sterile, Clear
	■ Volume range 5 µl to 235 µl
69000030	P235 MDT Filter Tips, Clear
	■ Volume range 5 µl to 190 µl
69000031	P235 MDT Filter Tips, Clear, Sterile
	■ Volume range 5 µl to 190 µl

The following are compatible with the **P50 MDT Dispense Head:**

69000042	P50 MDT Non-Sterile Tips ▪ Volume range 0.5 µl to 50 µl
69000043	P50 MDT Sterile Tips ▪ Volume range 0.5 µl to 50 µl
69000072	P50 MDT Non-Sterile, Black ▪ Volume range 0.5 µl to 50 µl
69000059	P50 MDT Filter Tips, Clear ▪ Volume range 0.5 µl to 40 µl
69000060	P50 MDT Filter Tips, Clear, Sterile ▪ Volume range 0.5 µl to 40 µl
69000032	P20 MDT Non-Sterile, Clear ▪ Volume range 0.5 µl to 20 µl
69000033	P20 MDT Sterile Tips, Clear ▪ Volume range 0.5 µl to 20 µl

For use with 384 channel

The following are compatible with the **P30 MDT Dispense Head:**

6900027	P30 MDT Non-Sterile, Clear ▪ Volume range 0.5 µl to 30 µl
6900028	P30 MDT Sterile Clear ▪ Volume range 0.5 µl to 30 µl
69000055	P30 MDT Filter, Non-Sterile, Clear ▪ Volume range 0.5 to 30 µl
69000056	P30 MDT Filter, Sterile, Clear ▪ Volume range 0.5 µl to 30 µl
69000065	P30 MDT Non-Sterile, 96/rack, 384 Box ▪ Volume range 0.5 µl to 30 µl

69000066	P30 MDT Sterile, 96/rack, 384 Box
	▪ Volume range 0.5 µl to 30 µl
69000034	P10 MDT Non-Sterile, Clear
	▪ Volume range 0.5 µl to 10 µl
69000057	P10 MDT Filter Tips, Clear
	▪ Volume range 0.5 µl to 10 µl
69000058	P10 MDT Filter Tips, Clear, Sterile
	▪ Volume range 0.5 µl to 10 µl

Sample Packs

Each sample shelf pack consists of 10 RoboRacks

70225890	P235 MDT Non-Sterile, Clear, Disposable Tip Shelf Pack
	▪ Volume range 5 µl to 235 µl
70225860	P50 MDT Non-Sterile, Clear, Disposable Tip Shelf Pack
	▪ Volume range 0.5 µl to 50 µl
70225880	P30 Non-Sterile, Clear Disposable Tip Shelf Pack
	▪ Volume range 0.5 µl to 30 µl

20 µl Clear, Non-conductive Tip
(Item # 6000677)

20 µl Non-conductive Tip
(Item # 6000679)

LABWARE AND RACKS

Plate Adapter Support Tile
(Item# 7601836)

Elevated Plate Support Tile
(Item#7606157)

Varispan Arm Support Tiles	
7601836	Plate Adapter Support Tile
7601657	Short Elevated Support Tile
7601658	Tall Elevated Support Tile
7005048	Six Plate Support Tile

Modular Dispense Technology (MDT) Arm Support Tiles	
7401025	MDT Short Plate Support Tile
7401026	MDT Medium Plate Support Tile
7401027	MDT Tall Plate Support Tile
7607701	MDT Extra Tall Plate Support Tile

Tube and Vial Racks	
7601644	Small Vial Adapter, 6 position
7601645	Large Vial Adapter, 4 position
7601648	12 mm Tube Rack, Vial-192 Position
7601649	16 mm Tube Rack, Vial-96 Position
7601650	17 mm Tube Rack, Vial-96 Position
5084120	12 mm Stainless Steel Tube Rack, Vial-192 Position
5088409	13 mm Stainless Steel Tube Rack, Vial-192 Position
5084128	16 mm Stainless Steel Tube Rack, Vial-96 Position
5079847	1.5 ml Stainless Microfuge Rack, 24 position
7601651	1.5 ml Microfuge Adapter, 24 position
7601662	0.5 ml Microfuge Adapter, 24 position

MDT Loading Stations	
70243680	MDT Arm Docking Station
70227630	MDT Arm Auto Tip Load

Vial Adapters

Rack

Rack

Disposable Tip Support Racks	
7607537	Hanging Tip Rack Holder, 1 ml disposable tips

Tip Washing Stations	
70227791	MDT Tipwash, 115 V
70227792	MDT Tipwash, 220 V
7000079	MDT Tipwash, 96 channel washbowl, 115 V
7000085	MDT Tipwash, 96 channel washbowl, 220 V
7400062	96 channel washbowl
7009583	MDT NanoHead Ultrasonic Wash Station, 115 V
7009584	MDT NanoHead Ultrasonic Wash Station, 220 V
70235091	96 Pin Tool Wash, 115 V
70235092	96 Pin Tool Wash, 220 V
70233481	384 Pin Tool Wash, 115 V
70233482	384 Pin Tool Wash, 220 V
7607547*	Tip chute/Washbowl Rack, 8-tip
7601647*	Tip chute/Washbowl Rack, 4-tip

* For Varispan Only

Waste Disposal	
7005308	Waste Chute
7607542	Tip chute/Trough rack, 8-tip

Rack

Rack

Tip Chute (Item# 7607542)

REAGENT RACKS AND CONTAINERS

Reagent Reservoir Base
(Item# 7024400)

Glass Bottles

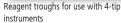| Reagent Racks	
7024401	Reagent Reservoir Base, Polypropylene Bottles ■ Trough compatible with both Varispan and MDT arms ■ Requires a bottle assembly (7024403, 7024404)
7024400	Reagent Reservoir Base, Glass Bottles ■ Trough compatible with both Varispan and MDT arms ■ Requires a bottle assembly (70205170, 70205160, 70205150)
70205170	Glass Bottle and Valve Assembly, 250 ml
70205160	Glass Bottle and Valve Assembly, 480 ml
70205150	Glass Bottle and Valve Assembly, 960 ml
7024403	Polypropylene Bottle and Valve Assembly, 480 ml
7024404	Polypropylene Bottle and Valve Assembly, 960 ml
70234791	MDT Auto Replenish Assembly, 115 V Provides for automatic refill of reagent in the reagent cartridge
70234792	MDT Auto Replenish Assembly, 220 V Provides for automatic refill of reagent in the reagent cartridge
70233790	Varispan Arm Reagent Reservoir ■ Trough compatible with Varispan arm only ■ Requires a bottle assembly (70205170, 70205160, 70205150)
5079598	Varispan 4 position, 60 ml Trough Holder ■ Holds 4 x 60 ml troughs

The following are compatible with the **4-tip pipetting arm only:**

7601646	Double Reagent Trough Holder, 4-tip

The following are compatible with the **8-tip pipetting arm only:**

5078889	8-tip pipetting arm reagent trough tile ■ Holds 2 x 150 ml troughs, 1 x small double trough and 1x 150 ml trough or 2 x small double trough

Reagent troughs for use with 4-tip instruments

Reagent troughs for use with 8-tip instruments

Varispan Arm Containers

Reagent Troughs
*The following are compatible with the **4-tip pipetting arm**

6000577	Reagent Troughs (33 ml) qty 25
6000578	Reagent Troughs (33 ml) qty 50
6000581	Reagent Troughs (60 ml) qty 25
6000582	Reagent Troughs (60 ml) qty 50
6000583	Reagent Troughs (150 ml) qty 25
6000584	Reagent Troughs (150 ml) qty 50
6000585	Reagent Trough Starter Package

*The following are compatible with the **8-tip pipetting arm**

6000661	Reagent Troughs (double 25 ml), qty 25
6000662	Reagent Troughs (double 25 ml), qty 50
6000663	Reagent Troughs (150 ml), qty 25
6000664	Reagent Troughs (150 ml), qty 50
6008103	Reagent Troughs (60 ml), qty 25
6008104	Reagent Troughs (60 ml), qty 50
6000665	Reagent Trough Starter Package

Replacement Reagent Bottles

For Varispan Arm Reagent Reservoir (PN 70233790) and MDT Arm Bottle Replenish
(PN's 70234310, 70234320, 70233780)

70205170	Glass Bottle and Valve Assembly, 250 ml
70205160	Glass Bottle and Valve Assembly, 480 ml
70205150	Glass Bottle and Valve Assembly, 960 ml

TEMPERATURE CONTROL OPTIONS

Heating Only Options	
7002363	Heater with Controller, Single Tile, 110 V ■ Provides microplate temperature control for one (1) SBS standard microplate ■ Temperature range ambient to 70 °C ■ Temperature is manually adjusted on the heater controller unit ■ Includes one Heater Plate Adapter Support Tile and one temperature control unit ■ These tiles are not compatible with the Gripper ■ Can be controlled through WinPREP via the Quad AC Relay Box (7005006)
7002364	Heater with Controller, Single Tile, 220 V ■ Provides microplate temperature control for one (1) SBS standard microplate ■ Temperature range ambient to 70 °C ■ Temperature is manually adjusted on the heater controller unit ■ Includes one Heater Plate Adapter Support Tile and one temperature control unit ■ These tiles are not compatible with the Gripper ■ Can be controlled through WinPREP via the Quad AC Relay Box (7005006)

Auto Heater Controller Option
(Item# 7002367)

Heat Blocks

Heat Blocks

7002365	**Heater with Controller, 4 tiles, 110 V** ■ Provides microplate temperature control for four (4) SBS standard microplates ■ Temperature range ambient to 70 °C ■ Temperature is manually adjusted on the heater controller unit ■ Includes four (4) Heater Plate Adapter Support Tiles and one temperature controller unit capable of controlling all four tiles at one temperature ■ These tiles are not compatible with the Gripper ■ Can be controlled through WinPREP via the Quad AC Relay Box (7005006)
7002366	**Heater with Controller, 4 tiles, 220 V** ■ Provides microplate temperature control for four (4) SBS standard microplates ■ Temperature range ambient to 70 °C ■ Temperature is manually adjusted on the heater controller unit ■ Includes four (4) Heater Plate Adapter Support Tiles and one temperature controller unit capable of controlling all four tiles at one temperature ■ These tiles are not compatible with the Gripper ■ Can be controlled through WinPREP via the Quad AC Relay Box (7005006)
7002367	**Auto Heater Controller Option, 70 °C, 110 V** ■ Provides microplate temperature control for four (4) SBS standard microplates ■ Temperature range ambient to 70 °C ■ Temperature is adjusted through software control ■ Includes four (4) Heater Plate Adapter Support Tiles and one temperature controller unit capable of controlling all four tiles at one temperature ■ Controlled via RS232 communication
7002368	**Auto Heater Controller Option, 70 °C, 220 V** ■ Provides microplate temperature control for four (4) SBS standard microplates ■ Temperature range ambient to 70 °C ■ Temperature is adjusted through software control ■ Includes four (4) Heater Plate Adapter Support Tiles and one temperature controller unit capable of controlling all four tiles at one temperature ■ Controlled via RS232 communication

7005003	HT Quad Heater Option, 70 °C, 110 V
	▪ Provides microplate temperature control for four (4) SBS standard microplates
	▪ Temperature range ambient to 70 °C for two tiles and ambient to 105 °C for the other two tiles
	▪ Temperature is adjusted through software control
	▪ Includes four (4) Heater Plate Adapter Support Tiles and one temperature controller unit capable of controlling all four tiles at one temperature
	▪ Controlled via RS232 communication
7005004	HT Quad Heater Option, 70 °C, 220 V
	▪ Provides microplate temperature control for four (4) SBS standard microplates
	▪ Temperature range ambient to 70 °C for two tiles and ambient to 105 °C for the other two tiles
	▪ Temperature is adjusted through software control
	▪ Includes four (4) Heater Plate Adapter Support Tiles and one temperature controller unit capable of controlling all four tiles at one temperature
	▪ Controlled via RS232 communication

Heat Transfer Blocks

Used in conjunction with the tiles of the heaters listed under *Heating Only Temperature Control Options* (above) to provide uniform and reliable temperature across a variety of round bottom, PCR, and deepwell 96-well microplates.

5080165	U-bottom Heat Transfer Block, 96 well
5083083	V-bottom Heat Transfer Block, 96 well
5083082	1.2 ml Deepwell Heat Transfer Block, 96 well
5080163	PCR Heat Transfer Block, 96 well
5088440	10 mm vial/tube Heat Transfer Block, 24 well
5088444	10 mm vial Heat Transfer Block, 48 well
5085506	Slicprep Heater Block

Cooling Options

70234331	MDT Reagent Chiller, 115 V
	▪ Single position chiller reservoir with recirculating chiller
70234332	MDT Arm Reagent Chiller, 220 V
	▪ Single position chiller reservoir with recirculating chiller

Heating & Cooling

Thermal Block Options

7400353	Single Position Thermal Block Kit
	▪ Provides single position temperature control using a circulator
	▪ Compatible with 96-, 384-, and 1536-well SBS standard microplates, 96 PCR plates, 384 PCR plates, tubes, and reagent troughs
	▪ Temperature range 4 °C – 90 °C (based on circulator)
	▪ Temperature controlled through software control
	▪ Requires 7400356/7400357 Circulator
7400354	Four Position Thermal Block Kit
	▪ Provides up to four positions for temperature control using a circulator
	▪ Compatible with 96-, 384-, and 1536-well SBS standard microplates, 96 PCR plates, 384 PCR plates, tubes, and reagent troughs
	▪ Temperature range 4 °C – 90 °C (based on circulator)
	▪ Temperature controlled through software control
	▪ Requires 7400356/7400357 Circulator
7400355	Eight Position Thermal Block Kit
	▪ Provides up to four positions for temperature control using a circulator. Compatible with 96-, 384-, and 1536-well SBS standard microplates, 96 PCR plates, 384 PCR plates, tubes, and reagent troughs
	▪ Temperature range 4 °C – 90 °C (based on circulator)
	▪ Temperature controlled through software control
	▪ Requires 7400356/7400357 Circulator

Thermal Block Adapter Tiles

The following are used in conjunction with the thermal block options to provide uniform and reliable temperature across microplates or tubes. Additional thermal blocks and custom adapter inserts are also available through Integration Solutions.

5085823	96 round bottom insert, thermal block
5085824	96 PCR insert, thermal block
5085826	1.5 ml conical tube insert, 24 pos, thermal block
5085827	60 ml x 4 reagent trough insert, thermal block ■ Compatible with the 60 ml reagent troughs (6008103, 6008104)

Thermal Block Circulator (Required)

The circulator kit provides the circulator and all of the necessary tubing for complete operation of the thermal block option.

7400356	Circulator and Install Kit, 110 V
7400357	Circulator and Install Kit, 220 V*

*This kit includes the circulator and tubing required for operation of the thermal block option.

Thermal Block Manifolds

The manifold options allow for connection of more than one thermal block to a single circulator. All thermal block positions would be maintained at the same temperature. NOTE: the thermal block temperature control option cannot exceed twelve (12) positions when operated by a single circulator.

7600114	2-way manifold, thermal block
7600115	3-way manifold, thermal block

Reagent Trough Insert for use with
Thermal Block Options (Item# 5085827)

Peltier Heating & Cooling

Proper configuration of the Peltier-based temperature control options requires selection of the Peltier device AND at least one adapter tile that is specific to the plate or tube that will be used with the selected device. Operation of the Peltier device requires the INHECO MTC Controller for JANUS option.

This controller is capable of controlling up to six Peltier devices.

Peltier Device (Requires the INHECO MTC Controller for JANUS (7005304) for operation)	
7005301	INHECO Single Tile Peltier Device ■ Provides single position Peltier-based temperature control ■ Compatible with 96, 384, and 1536 well SBS standard microplates, 96 PCR plates, 384 PCR plates, and 1.5 ml tubes ■ Temperature range 4 °C – 70 °C ■ Temperature controlled through software control ■ Controlled via the INHECO MTC Controller. This controller utilizes a USB port ■ *Requires a separate adapter tile specific to the plate type or tube; and is not included in this option (must be ordered separately)*
7005302	INHECO Thermoshake Device ■ Provides Peltier-based temperature control and microplate shaking capability ■ Compatible with 96, 384, and 1536 well SBS standard microplates, 96 PCR plates, 384 PCR plates, and 1.5 ml tubes ■ Shaking speed 100 – 2000 rpm; amplitude 2 mm ■ Temperature range 4 °C – 70 °C ■ Speed and temperature are adjusted through software control ■ Self-centering zero position ■ Controlled via the INHECO MTC Controller. This controller utilizes a USB port ■ Flat bottom microplate adapter is provided with the Thermoshake ■ *Requires a separate adapter tile if using PCR plates or 1.5 ml tubes (must be ordered separately)*

MTC Controller

One MTC controller can control up to six (6) separate Peltier devices; it requires a USB port for com-munication with the JANUS.

7005304	INHECO MTC Controller

Heating & Cooling – Adapter Tiles (Peltier)

The following are used in conjunction with the Heating and Cooling Temperature Control Options to provide uniform and reliable temperature across microplates or tubes. Please refer to the specific option's descriptions for details.

*For use with options 7005301:

5084695	Flat bottom microplate adapter tile
5084693	96-well PCR microplate adapter tile
5084694	384-well PCR microplate adapter tile
5084696	1.5 ml tube adapter tile, 24 positions

*For use with options 7005302:

7005007	96-well PCR microplate, Thermoshake
7005008	384-well PCR microplate, Thermoshake
7005011	1.5 ml tube, Thermoshake, 24 positions

INHECO MP Incubators

The MP incubators offer self-contained temperature control for single microplates. These options are automation friendly via USB interface and can be used as a single device or stacked (daisy chained) for multiple plates. MP incubators are accessible with the JANUS Gripper arm and can be physically located on the JANUS instrument deck or as an ancillary device off-deck.

Proper configuration of the MP Incubator option requires selection of an incubator AND a locating tile.

MP Incubator with exposed microplates
(Item# 7005286)

MP Incubator (Item# 7005286)

Incubator	
7005286	MP Incubator ■ Provides self-contained temperature control for SBS standard microplates ■ Temperature range ambient to 80 °C ■ Includes incubator, WinPREP software communication, and User Manual
7005287	MP Incubator Shaker ■ Provides self-contained temperature control and shaking capabilities for SBS standard microplates ■ Temperature range ambient to 80 °C ■ Shaking speed 400 – 1800 rpm; amplitude up to 3 mm ■ Includes incubator, WinPREP software communication, and User Manual

Locating Tiles	
7005297	On-deck Locating Tile, MP Incubator ■ Provides the ability to locate the MP Incubator on the JANUS instrument deck ■ Up to two (2) MP Incubators can be stacked with the use of this tile when being accessed by the Gripper arm ■ Only one (1) MP Incubator can be used with this tile when being accessed by the Varispan arm, MDT arm, or MDT gripper option ■ The MDT arm must be configured with an I235 head and P235 disposable tips in order to access the MP Incubator for pipetting purposes ■ Only one (1) MP Incubator can be used when the device is located on a front on-deck position. Both the Gripper arm and Varispan arm will be able to access the incubator when placed in this position
7005298	Off-deck Locating Tile, MP Incubator ■ Provides the ability to locate the MP Incubator on the JANUS instrument deck ■ Up to three (3) MP Incubators can be stacked with the use of this tile when being accessed by the Gripper arm ■ The Varispan arm must use 1 ml, 200 µl, or 25 µl disposable tips in order to access all three positions of stacked incubators ■ The MDT arm and MDT gripper option cannot access the MP Incubators when used with this tile

SHAKING OPTIONS

Teleshake 70

Thermoshake

Shaking Options – Single Position	
70234110	Variomag Monoshake Plate Shaker ■ Provides microplate shaking capability ■ For use with 96- and 384-well SBS standard microplates ■ Speed 100 – 2000 rpm; amplitude 2 mm ■ Speed is manually adjusted on the unit ■ Self-centering zero position
7002463	Variomag Teleshake Plate Shaker, 2 mm, 110 V ■ Provides microplate shaking capability ■ Suggested use with 96- and 384-well SBS standard microplates ■ Speed 100 – 2000 rpm; amplitude 2 mm ■ Speed adjusted through software control ■ Self-centering zero position ■ Controlled via RS232 communication
7002464	Variomag Teleshake Plate Shaker, 2 mm, 220 V ■ Provides microplate shaking capability ■ Suggested use with 96- and 384-well SBS standard microplates ■ Speed 100 – 2000 rpm; amplitude 2 mm ■ Speed adjusted through software control ■ Self-centering zero position ■ Controlled via RS232 communication
7002465	Variomag Teleshake Plate Shaker, 3 mm, 110 V ■ Provides microplate shaking capability ■ Suggested use with 96-, 384-, and 1536-well SBS standard microplates ■ Speed 100 – 2000 rpm; amplitude 3 mm ■ Speed adjusted through software control ■ Self-centering zero position ■ Controlled via RS232 communication

Thermoshake Adapters

7002466	Variomag Teleshake Plate Shaker, 3 mm, 220 V
	■ Provides microplate shaking capability
	■ Suggested use with 96, 384, and 1536 well SBS standard microplates
	■ Speed 100 – 2000 rpm; amplitude 3 mm
	■ Speed adjusted through software control
	■ Self-centering zero position
	■ Controlled via RS232 communication

Shaking Options – Multiple Position	
7601922	DPC Shaker, JANUS
	The DPC Shaker module kits allows integration of the DPC Shaker to the right of the *JANUS Integrator platform only*
7005047	IKA Shaker, JANUS
	■ Accommodates up to 4 microplate positions
	■ Can be located on the JANUS instrument deck, adjacent to the right-side of the JANUS instrument, or on the angle bracket option
	■ Speed 80 – 800 rpm; amplitude 4 mm
	■ Speed adjusted through software control
	■ Self-centering zero position

Thermoshake Adapter Tiles

The following are used in conjunction with the Heating and Cooling Temperature Control Options to provide uniform and reliable temperature across microplates or tubes. Please refer to the specific option's descriptions for details.

*For use with INHECO Thermoshake Device option 7005302:

7005007	96 well PCR microplate, Thermoshake
7005008	384 well PCR microplate, Thermoshake
7005011	1.5 ml tubes, Thermoshake, 24 positions

AUTOMATED
EXTRACTION OPTIONS

Vacuum Filtration Options for Solid Phase Extraction (SPE)	
7002361	Varispan/PVM Gripper Arm Varispan and MDT pipetting arms can be used for volume transfers in this application. The integrated gripper arm or JANUS Gripper Integration Platform must be used for full walk away capabilities including assembly/disassembly of the manifold. *Optional MDT gripper is not compatible with the PVM manifold*. **Includes:** ■ PVM Vacuum Manifold plus spacers ■ PVM Base Tile (Right) ■ PVM Rest tile ■ Blot Tray ■ VCB100 Vacuum Control Box capable of two independent vacuum settings ■ SPE software template ■ Requires a vacuum supply – either house vacuum or the Gast Vacuum Pump ■ *Requires an AC Controller for automated control of the vacuum pump*
7002468	MDT/MDT Gripper Option MDT and Varispan pipetting arms can be used for volume transfers in this application. The MDT gripper option must be used for full walk away capabilities including assembly/disassembly of the manifold. The integrated Gripper arm and JANUS Gripper Integration Platform are not compatible with the MDT manifold. **Includes:** ■ MDT Vacuum Manifold plus spacer ■ MDT Manifold Collar Rest tile ■ VCB100 Vacuum Control Box capable of two independent vacuum settings ■ SPE software template ■ Requires a vacuum supply – either house vacuum or the Gast Vacuum Pump ■ *Requires an AC Controller for automated control of the vacuum pump*

7005072	PVM Gridded Vacuum Filtration
	Provides full walk away capability for extraction applications using the Millipore Multiscreen plate. Varispan and MDT pipetting arms can be used for volume transfers in this application. The integrated gripper arm or JANUS Gripper Integration Platform must be used for full walk away capabilities including assembly/disassembly of the manifold.
	Optional MDT gripper is not compatible with the PVM manifold.
	Includes:
	■ PVM Vacuum Manifold plus spacers
	■ PVM Base Tile (Right)
	■ Blot Tray
	■ Unispacer
	■ VCB100 Vacuum Control Box capable of two independent vacuum settings
	■ SPE software template
	■ Requires a vacuum supply – either house vacuum or the Gast Vacuum Pump
	■ *Requires an AC Controller for automated control of the vacuum pump*

Electronic Device Control	
7401489	ACB100 Electronics Box, 110 V
7401487	ACB100 Electronics Box, 220 V
7400188	AC Controller without extended IO, 110 V ■ 6 AC outlets available ■ 10 amps maximum
7400191	AC Controller without extended IO, 220 V ■ 6 AC outlets available ■ 6.3 amps maximum
7400186	AC Controller with extended IO, 110 V ■ For use with JANUS MDT arm; requires 6 AC outlets ■ Requires the AC Controller without extended IO option ■ 6 AC outlets available ■ 10 amps maximum

7400190	AC Controller with extended IO, 220 V
	■ To be used when a JANUS system configured with MDT arm only requires more than 6 AC outlets
	■ Requires the AC Controller without extended IO option
	■ 6 AC outlets available
	■ 6.3 amps maximum

Toroid Magnet Options

7002416	96-well Magnet Option
	■ A toroid design deep well plate magnet designed for use with magnetic particle-based applications
	■ Occupies one standard tile position in either landscape or portrait mode
	■ Compatible with the following microplates:
	• Whatman 96-well U-bottom polypropylene square well deep well plate (7701-5200)
	• Innovative Microplate 96-well V-bottom deep well plate (S30026)
	• Nunc 96-well U-bottom deep well plate (278606)
	• Nunc 96-well U-bottom V96 polypropylene 0.45 ml microplate
	• Greiner 96-well polystyrene U-bottom microplate (650101)
	• Greiner 96-well polystyrene V-bottom microplate (651101)
	• Axygen 96-well polypropylene V-bottom microplate (P96-450V)
	• Axygen 96-well polypropylene U-bottom microplate (P96-450U)
	• Most PCR plates

Optional items

2004082	GAST Vacuum Pump, 115 V
2004083	GAST Vacuum Pump, 220 V

PVM Vacuum Manifold
(Item# 7601808)

PVM Vacuum Manifold, Gridded
(Item# 7601843)

PVM Vacuum Manifold, Micro/Filter
(Item# 7601844)

PVM Manifold

7601808	PVM Vacuum Manifold
	■ Compatible with filter plates such as 3M Empore, Ansys SPEC,
	   Waters Oasis, IST ISOLUTE Array Plate, Varian Bond Elute Matrix,
	   Varian Microlute, Varian VersaPlate and Qiagen QIAprep 96

7601843	PVM Gridded Vacuum Manifold ■ Compatible with Millipore Multiscreen plates

7601844	PVM Micro/Filter Vacuum Manifold
	■ Compatible with 96-well and 384-well filter plates with short drip
	   directors such as Ambion RNAqueous-96, RNAture Ribocap,
	   Bio-Rad Aurum, Waters Oasis and Whatman Polyfiltronics UNIFILTER

7009564	PVM Top Flat Gasket Kit, 5 Pack
7009574	PVM Base Round Gasket Kit, 5 Pack
7002106	PVM Gridded Top Flat Gasket Kit
7002105	PVM Gridded Base Flat Gasket Kit
5079396	PVM Left Base Tile
5079397	PVM Right Base Tile
5079520	PVM Rest Tile
7601809	Blot Tray
7607576	PVM Gauge Option

MDT Manifold

70234620	MDT Vacuum Manifold Assembly ■ Compatible with filter plates such as Qiagen, Promega or 3M Empore, and Millipore
70238500	MDT Base Gasket Kit
70238490	MDT Collar Gasket Kit, Standard
70238480	MDT Collar Gasket Kit, Qiagen

1D Handheld Barcode Scanner
(Item# 7600084)

SAMPLE TRACKING ACCESSORIES

Barcode Assembly

To configure a barcode system for the JANUS, you must specify the barcode assembly, barcode scanner and the barcode cassette kit. *The test tube barcode assembly is compatible with JANUS Expanded units only.

7406777	JANUS Barcode Assembly
	■ The barcode assembly includes the mechanical assembly and provides a deck area for 12 sliding cassettes

Barcode Scanner

Choose the appropriate barcode scanner. Barcode scanners can read the following barcode symbology: Code 39, Codabar, Interleaved 2 of 5, UPC/EAN, Code 128.

7005083	Low Density Barcode Scanner Kit
	■ Scanner will read 0.0075" (0.191 mm) narrow bar width and larger barcode labels
7005084	Ultra High Density Barcode Scanner Kit
	■ Scanner will read 0.003" (0.118 mm) to 0.010" (0.254 mm) narrow bar width barcode labels
	■ Ultra high density barcode labels may contain up to 34 characters in a 1.25" label, depending on the barcode symbology
7600084	1D Handheld Barcode Scanner

10-16 mm Barcode Cassette

Microfuge Barcode Cassette

Sample Tube Barcode Options

Choose the appropriate barcode cassette kit. Each kit includes twelve (12) cassettes.

7607651	10-16 mm Barcode Cassette Kit
7607652	17 mm Barcode Cassette Kit
7607653	Microfuge Barcode Cassette Kit
Individual Cassettes Available:	
7601671	10-16 mm MPII Barcode Cassette ■ Each cassette contains sixteen (16) tube positions
7601673	17 mm MPII Barcode Cassette ■ Each cassette contains fifteen (15) tube positions
7607650	Microfuge Barcode Cassette ■ Each cassette contains sixteen (16) tube positions

Microplate ID Option

7002362	JANUS Plate ID Option **Compatible with:** ■ integrated gripper arm ■ Gripper Integration Platform ■ MDT gripper option A Microscan MS-710 (1-D reader) is located on a support tile to allow for flexible placement of the barcode scanner. The gripper moves barcoded shallow and deepwell plates over to the scanner, either at the beginning of a test or on demand. Scanned barcodes can be compared to a worklist. All barcode information is tracked in the MicroSoft® Access® Database. Barcode scanner can read: Code 39, Codabar, Interleaved 2 of 5, UPC/EAN, and Code 128.

EXPANSION MODULES & INSTRUMENT TABLES

Expansion Modules	
7006671	Deck Extension Module, Varispan/Gripper **Includes:** ■ Eight (8) plate adapter support tiles *This expansion module should NOT be used with JANUS platforms AJI8M01 (JANUS Integrator Platform, 8-tip and MDT) and AJL8M01 (JANUS Expanded Platform, 8-tip and MDT)*

This expansion module is compatible ONLY with the JANUS Integrator platform and is mounted to the right side of the instrument. This option provides a grid deck plate for an additional eight (8) tile capacity.

7002482	Deck Extension Module, Varispan/MDT **Includes:** ■ Four (4) medium plate adapter support tiles

This expansion module is compatible ONLY with the JANUS Integrator platform and is mounted to the right side of the instrument. This option provides a grid deck plate for an additional six (6) tile capacity.

Angle Bracket	

The angle bracket is compatible ONLY with the JANUS Integrator platform and is mounted to the right side of the instrument. This option provides a grid deck plate with up to eight (8) deck tile locations positioned below the standard deck of the JANUS instrument.

7600061	Angle Bracket, Varispan Grid Plate

Instrument Tables

The following tables can be used separately or joined together in a locked configuration. The 32" tables provide the necessary hardware for locking the tables together.

5085685	80" x 30" table, fixed height
7005276	32" x 30" table, fixed height
7005277	32" x 30" table, adjustable height
1640039	Integration Table Mounting Hardware ■ Required when joining two tables together (supplied with the 32" tables listed above)
70232880	Instrument Cart ■ Provides a cart with wheels and storage for additional equipment ■ Cart can be used with any JANUS platform ■ Dimensions: 65" L x 30" W x 33" H

Integration Base

A modular base that mounts to the JANUS instrument to position external instruments in the Gripper arm extended travel. Dependent on workspace requirements, the integration base can be configured as a single module (16.5 x 16.5 in), two (2) module (33 x 16.5 in), or four (4) module (33 x 33 in) integration base.

	Each base includes: ■ Three (3) registration screws ■ Two (2) brackets for instrument mounting ■ Trim pieces
7607644	Single Module Integration Base
7607649	Dual Module Integration Base
7607645	Quad Module Integration Base

MAINTENANCE KITS & OPTIONS

For 4-Tip Varispan Arm

Maintenance Kits

Each maintenance kit includes two (2) syringes, two (2) valves, four (4) reagent O-rings, four (4) reagent seals, one (1) tubing replacement kit, and one (1) tube of syringe pump lubrication fluid.

7006622	250 μl syringe maintenance kit, 4-tip
7006623	500 μl syringe maintenance kit, 4-tip
7006624	1 ml syringe maintenance kit, 4-tip
7006625	2.5 ml syringe maintenance kit, 4-tip
7006626	5.0 ml syringe maintenance kit, 4-tip

Replacement Tips

5078116	83.7 mm Fixed Tip, replacement tip, qty 1
5079076	VersaTip PLUS, replacement tip, qty 1
5079766	Low Volume Fixed Tip, replacement tip, qty 1
5075300	MultiPROBE I Fixed Tip, qty 1

For 8-Tip Varispan Arm

Maintenance Kits

Each maintenance kit includes: four (4) syringes, four (4) valves, eight (8) reagent seal O-rings, eight (8) reagent seals, one (1) tubing replacement kit, and one (1) tube of syringe pump lubrication fluid.

7006627	250 μl syringe maintenance kit, 8-tip
7006628	500 μl syringe maintenance kit, 8-tip
7006629	1 ml syringe maintenance kit, 8-tip
7006630	2.5 ml syringe maintenance kit, 8-tip
7006631	5.0 ml syringe maintenance kit, 8-tip

Replacement Tips

5084148	83.7 mm Fixed Tip HD, replacement tip, qty 1
5084114	VersaTip HD PLUS, replacement tip, qty 1
5084149	Low Volume Fixed Tip HD, replacement tip, qty 1
5084158	MultiPROBE I Fixed Tip, qty 1

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