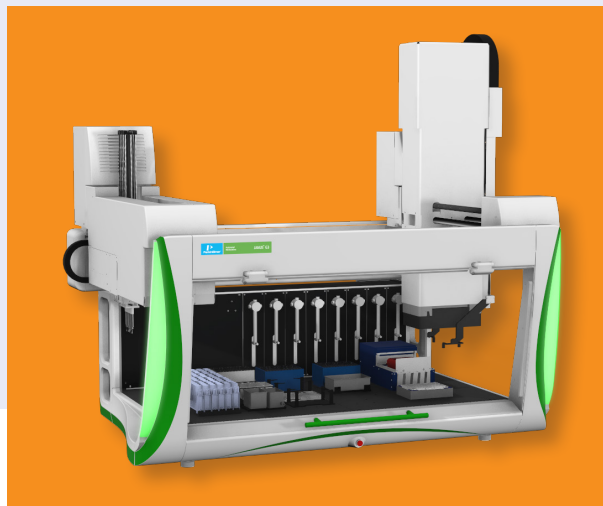


JANUS G3 Automated Workstations

Versatile JANUS G3 Automated Liquid Handling Platforms



Description

JANUS® G3 Automation Workstations deliver real-time and future adaptability in throughput, capacity, and dynamic volume range from 0.5 µl to 5000 µl for consistent and reproducible sample preparation with a choice of pipetting heads, gripper options, and application accessories for complete, walk-away automation. JANUS G3 WinPREP user friendly software with Application Assistant interface provides “drag-and-drop” applications programming without complexity.

The JANUS instrument family includes four workstations, the Mini, Standard, Integrator, and Expanded platforms, providing complete flexibility to best suit your particular application and deck capacity requirements; additionally, NGS and BioTx application specific workstations designed with customer input for optimal automated NGS library preparation and small scale purification, respectively.

Product Features

- The unique JANUS G3 platform design allows you to add up to two (2) pipetting arm(s) and a plate movement arm to enhance your workstation's overall functionality. Standard pipetting volumes range from 0.5 µl to 5000 µl, and with the nanohead pipetting arm option, the low-end volume range is 20 nL. (Available for all models except JANUS G3 NGS Express and BioTx Workstations).
- JANUS G3 platform MDT arm provides interchangeable and automated head functionality for 96- and 384-channel dispense heads in less than 25 seconds using a powerful and fail-safe interlocking mechanism. With 'on the fly' head swapping you can easily dispense into 96-, 384- and 1536-well shallow and deep well microplates, without user intervention. (Available for all models except JANUS G3 NGS Express and BioTx Workstations).
- Optional JANUS G3 enclosure helps to minimize contamination (available for all models except JANUS G3 BioTx Workstation).
- Ability to automate plate movement and access off-deck plates without the need for an additional robotic arm.
- VersaTip® provides a unique sampling tip design to deliver the benefits of both a fixed washable tip and disposable tip adapter.
- Varispan 4- or 8-tip arm provides independent motion and liquid level sensing in Z direction to access test tubes, microplates, deep well plates, and vials. Sampling probes offer variable spacing from 9 mm to 20 mm for 4-tip arm or 9 mm to 40 mm for 8-tip arm.
- Accusense™ our patented independent liquid level sensing technology efficiently monitors your sample volumes, with the ability to detect samples as low as 50 µl in microplates and 100 µl in test tubes. Low or non-ionic polar solutions and organic solvents such as DMSO or methanol are also detectable.
- Active Identification provides automatic recognition of the MDT head type.
- Carry-over elimination via a peristaltic pump for high volume/high throughput sample tip washing for carry-over to less than 1:1,000,000 with appropriate washing or use of disposable tips for improved elimination of carry-over.

Software

- WinPREP® software with JANUS® Application Assistant features an intuitive user interface and simplified protocol set-up to support users of all levels.
- Robust software allows users to easily monitor research protocols, track sample preparation processing and integrate ancillary devices for fully automated application solutions.
- Predefined labware definitions simplify assay set-up and enable labware definitions to remain independent of the position on the instrument.
- Performance file library offers optimized pipetting performance and ability to modify pump speeds, air gaps, waste and blowout volumes, and liquid delays.
- Maintenance and clean-up prompts ensure top performance from your instrument.
- The comprehensive software provides real-time status updates to the user and error recovery to ensure sample preservation and data integrity.
- 21 CFR Part 11 Software Compliant.
- Microsoft Windows® 7 64-bit operating system compatibility.

- We have more than 20 automated library preparation sequencing methods available on the JANUS G3 NGS Express Workstation; enabling you to be running samples in the first week.



Figure 1. WinPREP software screen shot highlighting the intuitive user interface with advanced labware features to provide precise deck set-up and reagent sourcing.

Varispan Arm

- Tip Types: Fixed, Low Volume Fixed, Septa-piercing, and VersaTip.
- Disposable Tips: 20 ul, 50 ul, 200 ul, 1000 ul, and 25 ul and 175 ul filter tips. Various tips are available in liquid sensing (conductive), non-sensing (non-conductive), and sterile formats.
- Syringe options: 250 ul, 500 ul, 1000 ul, 2500 ul, 5000 ul and 10000 ul.

MDT Arm

- Head types: 96-tip I1325, 96-tip I50, 384-tip I30, 384-tip Protein NanoHead, 384-tip NanoHead, I200RC Serial Dilution Tool, I50R Serial Dilution Tool, I50C Serial Dilution Tool, I30RC Serial Dilution Tool, and pin tool options.
- 96-channel I235, I50, I20, and 384-channel I30, I10 tips. Various tips are available in clear, black, filter, and sterile formats.

SPECIFICATIONS

Precision Pipetting

Pipetting Arm	Volume	% CV	Tip/Head	Condition
Varispan	5 ul	< 2%	20 ul disposable tip	Distilled water, 500 ul syringe
	50 ul	< 1%	Fixed tip	Distilled water, 500 ul syringe
MDT	1 ul	< 2%	I20 disposable tip on I50 96-tip Head	
	1 ul	< 5%	I50 disposable tips on I50 96-tip Head	
	5 ul	< 1%	I235 disposable tips on I235 96-tip Head	
	50 ul	< 1%	I235 disposable tips on I235 96-tip Head	

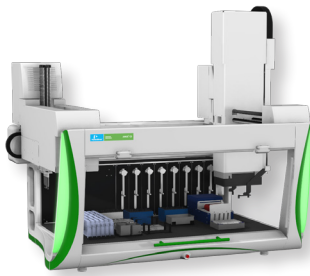


Figure 2. JANUS G3 Standard with 8-tip Varispan and MDT pipetting arms.

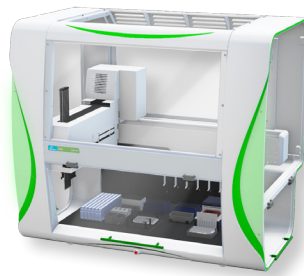


Figure 3. JANUS G3 Standard with 8-tip Varispan with optional enclosure.

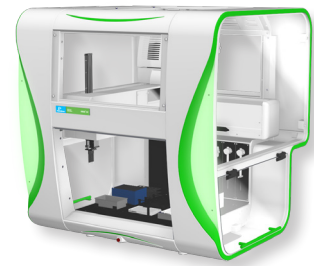


Figure 4. JANUS G3 NGS Express with optional enclosure

Microplate Deck Capacity

JANUS G3 Platform	Mini	Standard	Integrator	Expanded	NGS Express Workstation	BioTx Pro Workstation	BioTx Pro Plus Workstation
Configuration							
Varispan	12	24	24 (32)*	32	12	9	N/A
MDT	9	15	15 (21)*	21	N/A	N/A	N/A
Varispan + MDT	NA	18	18 (24)*	29	N/A	N/A	20

Dimensions

Height x Width x Depth

JANUS G3 Instruments							
Platform	Mini	Standard	Integrator	Expanded	NGS Express Workstation	BioTx Pro Workstation	BioTx Pro Plus Workstation
Configuration							
Varispan 8-tip	34" (864 mm) x 31" (788 mm) x 33" (838 mm)	34" (864 mm) x 47" (1194 mm) x 33" (838 mm)	34" (864 mm) x 62" (1575 mm) x 33" (838 mm)	34" (864 mm) x 62" (1575 mm) x 33" (838 mm)	(Varispan 4-tip) 34" (864 mm) x 31" (788 mm) x 33" (838 mm)	34" (864 mm) x 43" (1093 mm) x 33" (838 mm) (Includes space requirements for plate::shuttle)	N/A
MDT	44" (1118 mm) x 31" (788 mm) x 33" (838 mm)	44" (1118 mm) x 47" (1194 mm) x 33" (838 mm)	44" (1118 mm) x 62" (1575 mm) x 33" (838 mm)	44" (1118 mm) x 62" (1575 mm) x 33" (838 mm)	N/A	N/A	N/A
Varispan 8-tip + Gripper Arm	N/A	43" (1092 mm) x 47" (1194 mm) x 33" (838 mm)	43" (1092 mm) x 62" (1575 mm) x 33" (838 mm)	43" (1092 mm) x 62" (1575 mm) x 33" (838 mm)	N/A	N/A	N/A
Varispan + MDT	N/A	44" (1118 mm) x 47" (1194 mm) x 33" (838 mm)	44" (1118 mm) x 62" (1575 mm) x 33" (838 mm)	44" (1118 mm) x 62" (1575 mm) x 33" (838 mm)	N/A	N/A	44" (1118 mm) x 59" (1499 mm) x 33" (838 mm) (Includes space requirements for plate::shuttle)
JANUS G3 Instruments with Enclosure							
Platform	Mini	Standard	Integrator	Expanded	NGS Express Workstation	BioTx Pro Workstation	BioTx Pro Plus Workstation
Configuration							
Varispan 8-tip Short	38" (965 mm) x 40" (1016 mm) x 35" (890 mm)	38" (965 mm) x 55" (1400 mm) x 35" (890 mm)	38" (965 mm) x 70" (1780 mm) x 35" (890 mm)	38" (965 mm) x 70" (1780 mm) x 35" (890 mm)	(Varispan 4-tip) 38" (965 mm) x 40" (1016 mm) x 35" (890 mm)	N/A	N/A
MDT Tall	46" (1170 mm) x 40" (1016 mm) x 35" (890 mm)	46" (1170 mm) x 55" (1400 mm) x 35" (890 mm)	46" (1170 mm) x 70" (1780 mm) x 35" (890 mm)	46" (1170 mm) x 70" (1780 mm) x 35" (890 mm)	N/A	N/A	N/A
Varispan 8-tip + Gripper Arm Tall	N/A	46" (1170 mm) x 55" (1400 mm) x 35" (890 mm)	46" (1170 mm) x 70" (1780 mm) x 35" (890 mm)	46" (1170 mm) x 70" (1780 mm) x 35" (890 mm)	N/A	N/A	N/A
Varispan + MDT Tall	N/A	46" (1170 mm) x 55" (1400 mm) x 35" (890 mm)	46" (1170 mm) x 70" (1780 mm) x 35" (890 mm)	46" (1170 mm) x 70" (1780 mm) x 35" (890 mm)	N/A	N/A	N/A

Weights (Approximate)

Net Weight/Shipping Weight

JANUS G3 Instruments							
	Mini	Standard	Integrator	Expanded	NGS Express Workstation	BioTx Pro Workstation	BioTx Pro Plus Workstation
Configuration							
Varispan 8-tip	210 lb (95 kg)/ 370 lb (168 kg)	265 lb (120 kg)/ 435 lb (198 kg)	290 lb (132 kg)/ 570 lb (259 kg)	310 lb (141 kg)/ 590 lb (268 kg)	(Varispan 4-tip) 210 lb (95 kg)/ 370 lb (168 kg)	210 lb (95 kg)/ 370 lb (168 kg)	N/A
MDT	215 lb (98 kg)/ 350 lb (159 kg)	255 lb (116 kg)/ 435 lb (198 kg)	275 lb (125 kg)/ 570 lb (259 kg)	295 lb (134 kg)/ 590 lb (268 kg)	N/A	N/A	N/A
Varispan + MDT	N/A	325 lb (148 kg)/ 445 lb (202 kg)	355 lb (161 kg)/ 580 lb (263 kg)	375 lb (170 kg)/ 600 lb (272 kg)	N/A	N/A	325 lb (148 kg)/ 445 lb (202 kg)
JANUS G3 Instruments with Enclosure							
	Mini	Standard	Integrator	Expanded	NGS Express Workstation	BioTx Pro Workstation	BioTx Pro Plus Workstation
Configuration							
Varispan 8-tip Short	275 lb (125 kg)/ 410 lb (186 kg)	310 lb (141 kg)/ 350 lb (159 kg)	N/A	345 lb (157 kg)/ 640 lb (290 kg)	(Varispan 4-tip) 275 lb (125 kg)/ 410 lb (186 kg)	N/A	N/A
MDT Tall	335 lb (152 kg)/ 470 lb (213 kg)	375 lb (171 kg)/ 425 lb (193 kg)	N/A	420 lb (191 kg)/ 715 lb (325 kg)	N/A	N/A	N/A
Varispan + MDT Tall	N/A	445 lb (202 kg)/ 565 lb (256 kg)	N/A	500 lb (227 kg)/ 725 lb (329 kg)	N/A	N/A	N/A

Electrical Requirements

- 100,120 VAC 50/60 Hz, 200, 230 VAC 50Hz, 525 VA
- Certifications CE, CSA

Environmental Requirements

- Operating ambient temperature: 59-95 °F (15-35 °C)
- Operating relative humidity: 60%-80% at 85 °F (30 °C) non-condensing
- Recommended compressed air requirement for MDT arm: 110-145 psi (8-10 bar) at 2.0 cubic feet (56.6 L) per minute