

# G 7825 Laboratory Glassware Washer

Compact Design, High Throughput









## G 7825:

# Advancing the Science of Clean

#### Miele G 7825 Overview

The Miele G 7825 Glassware Washing System is designed to provide high-throughput glassware cleaning in areas where space is at a premium. This unit is ideal for cleaning both large volumes of small items, and difficult to clean large items. The flexible Miele basket system allows for up to three levels of injection cleaning or five levels of standard non-injection cleaning.

This high tech system has been proven in hundreds of laboratories worldwide. It features the user-friendly Profitronic system for easy programming, a fully modular basket system for wash load flexibility, and an automatic basket recognition system to help eliminate user error.

To ease loading and unloading, the basket system features interchangeable modular units and a matched cart. The cart docks conveniently under the drop-down door to reduce working floor space.

## G 7825 Key Features

- Optional HEPA-filtered forced-air drying
- Profitronic controller
  - 11 standard wash programs
  - 45 additional custom program spaces
  - Freely programmable
- Standard liquid dispensing
  - 1 on-board 10L liquid detergent dispenser
  - 1 on-board 10L liquid neutralizer dispenser
  - Two optional off-board 10L dispensers
- Modular basket system
  - 1-3 levels of injection cleaning
  - 1-5 levels of standard cleaning
- Adjustable main wash and DI rinse
- Adjustable from ambient to 95° C
  185 combined gpm high-flow circulation
  - Separate drain & circulation pumps
- Standard RS-232 port
- Compact footprint
  - Cart docks beneath drop-down door
- Optional automatic basket recognition
- Standard stainless steel exterior
- Optional dual-door model, G 7826

## Superior Cleaning Results

Miele washers employ a delicate balance of four factors to ensure exemplary cleaning results. Through a careful balance of wash time, water temperatures, water circulation, and specific detergents, Miele systems provide reliable wash results.

Advanced wash programs, precise sensors, and leading componentry; Miele truly is advancing the science of clean.

#### Optional HFPA-Filtered Forced-Air Drying

Miele's optional HEPA drying system provides a faster, more complete drying result than traditional convection drying. Drying times and temperatures (ambient to 115° C) are fully adjustable to meet the demands of whatever is being dried.

When combined with injection baskets, forced-air drying blows air both around the chamber and into each individual



piece of glassware for complete drying, even in difficult narrow-neck items.

## Optional Pass-Through Mode

Miele's optional dual-door model, the G 7826, is designed for critical applications where a pass-through washer is needed. Miele also offers a stainless steel trim kit for flush, in-wall installations.

## Choice of Machine Base Selection

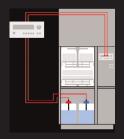
Miele offers both a stationary and a mobile base, both manufactured by Miele of high-grade stainless steel.



## **Automated Liquid Dispensing**

The G 7825 is equipped with on-board, color-coded liquid detergent and neutralizer dispensers for increased safety and simplicity.

Reliable, automatic dispensing provides high levels of accuracy and eliminates potential user error in the dosing process. Plus, the included reservoir means less



refilling, freeing valuable staff time.

#### Stainless Steel Construction

Miele wash chamber longevity is the result of stainless steel, German engineering, and renowned craftsmanship.

The chambers are built to withstand the rigors present in a demanding workplace. Side walls, ceiling, floor, and door are



constructed of high-grade 316 stainless steel for extra corrosion resistance.

## Modular Design

The Miele G 7825 features an optional drying unit and steam condenser which requires the addition of the Miele MAV kit, an integrated stainless steel housing which conveniently installs on top of the machine.



# Leading Machine Features, Superior Cleaning Results

## Validation-Friendly Design

Featuring the Profitronic controller, standard RS 232 connection, multiple sensors, fault indicators, and a validation test port, the G 7825 is ideal for facilities requiring machine validation.

The G 7825 features a triple filtration

system in the bottom wash chamber

sump, ensuring only clean, particle-free

water is circulated. Additional filters

protecting the incoming water lines

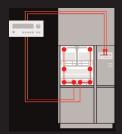
stop external particles from entering the

The multiple sump filters help prevent

debris from the wash load from

recirculating, while filters upstream of

the circulation pumps protect and



water path.

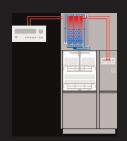
Miele also offers complete validation services, including extensive IQ/O documentation and set pricing to simplify costing concerns and purchase orders.

## 25 is ideal for from venting into the

The steam condenser eliminates the need for external machine venting while eliminating potentially hazardous steam from venting into the lab during operation.

Using cold water, this system condenses water vapors and flushes them down the drain. This ensures minimal radiant heat and a more pleasant work environment.

Installation is also greatly simplified.



## High Values Busines

or electronics.

At near twice the circulation power of other manufacturers, the G 7825 features a low pressure, 185 gallon/minute combined circulation rate. This provides a high turnover rate of water, while remaining gentle enough not to damage or break delicate glassware, metal components,

The G 7825 features separate pumps for circulation and drainage, simplifying installation and reducing cross-contamination concerns.

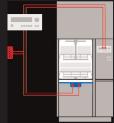
The pumps feature speed sensors and a gentle start for maximum pump longevity.

For ensured cleaning performance, the G 7825 also features separate circulation pumps for the upper and lower spray arms and the injectors.

#### Adiustable High Wash Temperatures

Hotter water provides better cleaning and rinsing. The G 7825 can heat wash water and DI water up to 95° C, providing thorough cleaning results in a short amount of time. Separate wash and DI rinse temperatures are user-configurable.

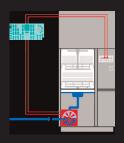
The G 7825 features dual sensors to ensure consistent wash temperatures and high cleaning levels, allowing a greater degree of cleaning accuracy.



## Flow Meters & Heated DI Rinse Cycles

Complete elimination of residue is best accomplished by one or more heated DI rinse cycles. The G 7825 features a DI water connection and the ability to heat the DI water up to 95° C. Optional in the G 7825 is a 21L tank for pre-heating DI water prior to the final rinse, ensuring high throughput and proper temperatures.

Miele combines this with flow meters on all incoming water lines. This feature allows extremely precise filling, and varying of fill volume by program step. The ability to vary fill

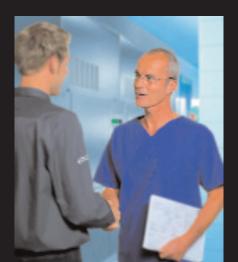


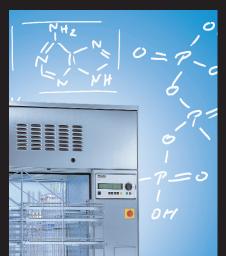
volumes helps to save water by allowing the use of less water in certain wash or rinse steps.

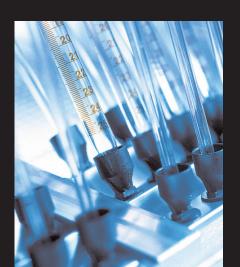
## **Advanced Heating Options**

extend pump life.

To customize installation for your facility, the G 7825 can be heated by either electric only or a combination of steam and electric. This greatly reduces electrical demand, resulting in an energy cost savings.







# Profitronic Controller: The Ultimate in Cleaning Flexibility

## **Superior Control**

The Miele Profitronic control system offers unprecedented levels of programmability in a powerful, user-friendly interface.

Through the expertise of the Miele Application Laboratory, the G 7825 is equipped with an array of standard cleaning programs to deftly handle a large variety of laboratory cleaning challenges.

Beyond that, the Profitronic features a generous amount of storage for additional customized cleaning programs. Thanks to tremendous flexibility, operators are presented with easy design and programming of custom wash protocols, including full control of time, temperature, detergent and neutralizer dosing, water fill volume, and drying.

Should your cleaning application require special attention, our application specialists will work with you to guarantee the best programming for your specific, unique needs.

#### Validation-Ready Design

The Profitronic system's built-in relays allow the unit to interface seamlessly with many external components helping the washer integrate into large facilities. Some examples include visual or audible signal systems, external detergent dispensers, or HVAC system switches.

The controller also features advanced selfdiagnostics, stopping the wash program at the first occurrence of an error code. The controller then displays the fault message in plain English, ensuring valid wash results and a fast service response.

The 4-line, full-text navigation display with selection of six languages makes direct programming simple, and an optical interface allows programming and archiving on a PC or laptop. Using the optional internal printer module, or an external printer via the on-board RS-232 port, the Profitronic system can accurately document select program parameters, including date, machine number, program, detergent, pump status, and temperatures.

## Simplified Operation

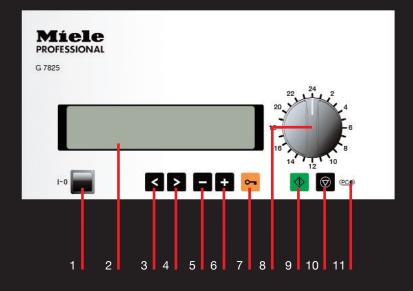
The Profitronic controller features clearly displayed operator prompts on a bright, four-line, full-text LCD navigation display with a choice of multiple languages including English and Spanish. Programs can be easily selected via the rotary selector dial.

A four-level security system allows strict control over machine access. The following levels can be selected:

- Limited program access
- Full program access
- Full program access plus programming
- Automatic Basket Recognition System

This level is the ultimate safeguard, allowing only the program specified on the magnetic basket-coding strip to be run.

Although highly advanced, the Profitronic is not difficult to master. These superior features simply enable you to maximize efficiency in your wash area. Another way Miele is advancing the science of clean.



- On/Off button
- LCD display
- 3 4 Switch between selections
- 5 6 Increase or decrease numeric value
  - 7 Electronic door lock

- 8 Rotary selector dial
- 9 Program selector button
- 10 Cancel selection button
- 11 Optical PC interface

## Miele Professional:

# Service and Customization at Your Fingertips

## The Exclusive Application Laborator

Drawing on a library of knowledge constructed over 100 years through cleaning innovation and expertise, Miele provides world-class application assistance and consultation.

A key component of this is the exclusive Miele Application Laboratory, housed in Princeton, NJ, with a sister lab in Gütersloh, Germany.

Through these active working labs, Miele constantly surveys the horizon for unique cleaning challenges. This ensures you a truly



competent and uniquely tailored cleaning system. Miele will also guide you, through testing, to the proper basket system. Whether cleaning narrow-necked Erlenmeyer flasks containing solvents on an injection insert, orthopedic knee implants covered in titanium dust in the proper wash rack, or loose stainless steel gears coated in cutting oils in a fine mesh basket, you are ensured consistent results.

#### Wide Array of Baskets & Detergents

Through the largest collection of washer baskets and detergents in the industry, you are ensured a specific, automated washing solution to your unique cleaning requirements.

And, should your needs change, rest assured in knowing that Miele baskets and inserts are highly interchangeable, meaning that your new cleaning procedure, including detergents and wash baskets, is only a phone call away

#### Comprehensive Validation Services

Miele is proud to offer renowned validation documentation and services for Miele Professional laboratory glassware washers.

Miele validation services include extensive Mieledeveloped IQ/OQ documentation, fully trained validation technicians, and



convenient set pricing to eliminate cost concerns associated with hourly billing by independent consultants.

#### Miele Professional Technical Service

Place your trust in Miele, and you are incorporating an industry-leading cleaning system into your facility. A network of dedicated and highly specialized Miele Professional Technical Service personnel guarantees that on-site assistance is close at hand.



To ensure a robust operating life, Miele produces spare parts for at least 15 years from the discontinuation of series production

for every model. Coupled with industryleading engineering, you have a rock-solid, reliable cleaning solution.

Miele sets the standard in terms of knowledge, application support, and training. Beyond comprehensive machine service, Miele Professional Technical Service also excels in installation and application-related issues, supplying you with the flexibility needed to deftly handle evolving goals and application issues.







# Laboratory Glassware Washer Technical Data

Machine	G 7825/G 7826
Control Unit	
	Profitoral a control a vistam with programmable week antions, available automatic backet responition (AMM)
Profitronic:	Profitronic control system with programmable wash options, available automatic basket recognition (AWK), RS 232 for connection to printer or PC, and multiple selectable languages on an easy-to-read LCD screen
Standard:	11 standard wash programs with utility programs
Custom:	45 available spaces for custom wash programs to be created and stored
Temperatures	
Wash:	Freely adjustable up to 95° C
Final Rinse:	Freely adjustable up to 95° C
Cleaning Mechanism	
Rotary:	Dual spray arms located at the top and bottom of chamber, third spray arm on upper basket Upper, lower, and dual injection baskets available
Direct Injection:	Optional; HEPA-filtered forced-air drying system w/ freely adjustable time and temp. settings w/ cool-down step
Drying	Temp adj.: 140-239° F (60-115° C), 1° C increments; time adj.: 1-240 min., 1 minute increments
Water Softener	Optional; Built-in softener with easily programmed water hardness control
Steam Condenser	Optional; no external venting required
Detergent & Neutralizer Dispensing	
Detergent:	1 peristaltic dosing connection for 10L container, stored on-board
Neutralizer:	1 peristaltic dosing connection for 10L container, stored on-board
	2 additional peristaltic dosing connections for 10L containers optional
Main Circulation Pump	
Circulation:	185 gal/min (700 l/min) total; Spray arm pump 79 gal/min (300 l/min), Injection pump 106 gal/min (400 l/min)
	Pump includes sensor to protect against overheating
Cabinet and Chamber Construction	
Exterior:	Brush finish type 304 stainless steel top, front, sides and bottom
Interior:	Type 316 stainless steel chamber sides, back and top
	Type 316 stainless steel chamber floor and door
Plumbing Connections	
Tap (2 connections):	a) Hot water for wash cycles: One 1/2" ID pressure hose, 5' 7" long with 3/4" hose thread
	Input pressure: 30 - 147 PSI, min. flow rate of 3.9 gal/min (15 l/min)
	Max incoming water temperature: 158° F (70° C)
	b) Cold water for wash cycles: One 1/2" ID pressure hose, 5' 7" long w/ 3/4" hose thread
	Input pressure: 30 - 147 PSI, min. flow rate of 3.9 gal/min (15 l/min)
	Max incoming water temperature: 158° F (70° C)
DI (2 connection):	c,d) DI water for rinse cycles: Two 1/2" ID pressure hoses, 5' 7" long with 3/4" hose thread
	Input pressure: 30 - 147 PSI, min. flow rate of 3.9 gal/min (15 l/min)
Max incoming water temperature: 158° F (70° C)  Drain Connections	
Connection:	Two 1" OD, one 3/8" OD flexible drain hoses, 4' 11" long; max drain height = 3'. Max drain length = 13'
Connection:	If steam condenser installed, optional 1/2" ID drain line provided; 3" min. floor drain or standpipe required
Flow Rate:	Maximum amount of water a drain needs to accept would be both numbers at the same time: 6.9 gal/min
Tiow Flate.	5.3 gal/min (20 l/min) for chamber fill
	1.6 gal/min (6 l/min) for steam condenser fill
Electrical Requirements	Electric Only: 3 AC 208 V, 60 Hz, 3 x 30 Amps
	Steam/Electric: 3 AC 208 V, 60 Hz, 3 x 30 Amps
	No Drying Option: 3 AC 208 V, 60 Hz, 3 x 20 Amps
Steam Drying Option	A more efficient solution than heating with electric alone
	36 - 145 PSI required; two 1/2" threaded connections provided for steam connection and condensate/return
	Requires compressed air option (see below)
Compressed Air (req w/ Steam)	85 - 175 PSI required
Noise Level	< 70 dBA
Dimensions	
Exterior:	77.8" H x 35.3" W x 29.3" D (94.7" H with MAV enclosure)
Interior (Chamber):	26.9" H x 21.3" W x 24.3" D

Miele Professional 9 Independence Way Princeton, NJ 08540 USA & 800.991.9380

₫ 609.419.4241

⁴ labwasher.com

Miele Limited 161 Four Valley Drive Vaughan, ON L4K 4V8 Canada & 800.643.5381 ₼ 905.532.2290 ⁴ miele.ca

Miele S.A. de C.V. Av. Santa Fe 170, German Centre: 0-4-2 Col. Lomas de Santa Fe C.p. 01210. Mexico, D.F. & (+5255) - 8503 9870 al 73 畳 (+5255) - 8503 9874

₼ miele-professional.com.mx

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