

GREAT RESULTS BEGIN WITH GOOD PREPARATION

Titan MPS™ Microwave Sample Preparation System



PerkinElmer offers the Titan MPS microwave sample preparation systems, consumables and accessories for your lab needs.

Microwave digestion provides the high-temperature, high-pressure digestion needed to deliver quick, complete sample digestion of the most difficult samples and allow for total elemental analysis. Using ultra-clean sealed digestion vessels, the Titan MPS avoids loss of volatile analytes and prevents sample contamination from the working environment. With its high performance, microwave digestion is ideal for nearly any sample including those from the challenging mining/geologic, metallurgical, environmental, petrochemical and pharmaceutical industries.

The Titan MPS microwave sample preparation system delivers the instrument-ready solutions you need for high throughput and reliable results. Using our Direct Pressure Control™ (DPC) and Direct Temperature Control™ (DTC) sensing technologies, the Titan MPS system accurately monitors digestion reactions and the sample temperature in each digestion vessel to provide outstanding reaction control and deliver consistent digestion results.

With the Titan MPS microwave sample preparation system, we're delivering on the promise of a simple, safe, cost-effective microwave – one that provides the quick return on investment that labs are looking for in these times of constrained budgets. And it's backed by PerkinElmer, the one-stop, go-to resource for all things atomic spectroscopy. With a team of support individuals who understand, in a deep-seated way, the science behind the goals your lab is trying to achieve.

The Titan MPS microwave sample preparation system. Yes, it's a microwave. But we think it's a whole lot more.

Features:

- A top-loading system that allows the easy loading and removal of vessels
- The DTC and DPC optical temperature and pressure reaction monitoring technologies and a cylindrical oven chamber ensure the most reproducible results
- Vessels are reusable and guaranteed for one year, for considerable savings on consumables
- Integrated gas collection system efficiently vents the oven chamber to keep it free of gas or acidic vapors.
- Color touch-screen controller simplifies programming, data storage, and reaction control.
- The PFA-coated stainless steel body and lid, safety interlocks and unique vessels deliver the highest level of operator safety and unprecedented corrosion resistance

Titan MPS Systems



Before you prepare your first sample, you'll notice the difference: The Titan MPS is a top-loading microwave sample preparation system protected by hardware interlocks to ensure safety during operation. And it's simple to load and unload samples, which keeps everyone more productive – and saves your lab time and money

| Description | Part No. |
|---|----------|
| Titan MPS 16 Position, (230V 50/60Hz) | N3130100 |
| <i>Includes: 16 position turntable, gas containment manifold, 16 standard pressure 75 mL digestion vessels, 15 vessel caps without pressure sensor, 1 vessel cap with pressure sensor, a lip seal forming tool, exhaust hose, consumables for approximately 500 runs, and power cord (US)</i> | |
| <i>Weight 53 kg</i> | |
| <i>Dimensions (WxDxH) 21 in. x 25 in. x 17 in.</i> | |



| Description | Part No. |
|--|----------|
| Titan MPS 8 Position, (230V 50/60Hz) | N3130110 |
| <i>Includes: 8 position turntable, gas containment manifold, 8 high pressure 100 mL digestion vessels, 8 TFM sample vessel inserts, 8 ceramic pressure jackets, 7 Vessel Caps without pressure sensor, 1 vessel cap with pressure sensor, a vessel opening station, a lip seal forming tool, exhaust hose, consumables for approximately 500 runs, and power cord (US)</i> | |
| <i>Weight 53 kg</i> | |
| <i>Dimensions (WxDxH) 21 in. x 25 in. x 17 in.</i> | |

System Accessories



| Description | Part No. |
|---|----------|
| External Exhaust System 230V 50/60 Hz | N3131009 |
| Optional accessory for exhausting Titan MPS oven cavity in laboratories that do not have exhaust systems. | |
| <i>Includes one 1.5 m exhaust tube. ID = 76 mm, Od = 82 mm. Includes; power cord (US)</i> | |



| Description | Part No. |
|---|----------|
| Exhaust Tube 1.5 m (one included with Titan) | N3134015 |
| Exhaust Tube 3 m (optional if longer is required) | N3134064 |



| Description | Part No. |
|--|----------|
| Titan MPS Bench | N0777900 |
| The Titan MPS bench is a heavy-duty Chemsurf laminated rolling cart. The top working surface is constructed with durable Chemsurf material, a chemically-resistant laminate specifically designed for applications in laboratories with routine exposure to chemicals. A full lower shelf with durable Chemsurf laminate provides storage space for digestion vessels and other Titan MPS spares and accessories. Locking 4" diameter casters provide stability and easy movement. | |
| <i>Dimensions: 32"D x 30"W x 29"H</i> | |

Turntables



Description

| Description | Part No. |
|--|----------|
| 16 position turntable with Standard 75 mL (40 Bar) Digestion Vessels, with DPC (complete) | N3131010 |
| 16 position turntable with Standard 75 mL (40 Bar) Digestion Vessels, without DPC (complete) | N3131005 |
| 16 position turntable for Standard 75 mL (40 Bar) Digestion Vessels (turntable only) | N3131006 |



Description

| Description | Part No. |
|--|----------|
| 8 position turntable with High Pressure 100 mL (100 Bar) Digestion Vessels, with DPC (complete) | N3131011 |
| 8 position turntable with High Pressure 100 mL (100 Bar) Digestion Vessels, without DPC (complete) | N3131007 |
| 8 position turntable for High Pressure 100 mL (100 Bar) Digestion Vessels (turntable only) | N3131008 |

Vessels and Spares



Description

| Description | Quantity | Part No. |
|--|----------|----------|
| Standard 75 mL (40 Bar) Digestion Vessel with DPC (Complete) | 1 | N3132010 |
| Consists of: Pressure seal, Vessel cap with DPC, Rupture disc and Vessel base | | |
| Standard 75 mL (40 Bar) Digestion Vessel without DPC | 1 | N3132009 |
| Consists of: Pressure seal, Vessel cap, Rupture disc and Vessel base | | |
| Standard 75 mL (40 Bar) Digestion Vessel TFM Base (base only) | 1 | N3132011 |
| TFM Cap for Standard 75 mL (40 Bar) Digestion vessels without pressure sensor | 1 | N3132012 |
| TFM DPC Cap for Standard 75 mL (40 Bar) Digestion vessels with pressure sensor | 1 | N3132013 |

Description

| Description | Quantity | Part No. |
|--|----------|----------|
| High Pressure 100 mL (100 Bar) Digestion Vessel without DPC (complete) | 1 | N3133012 |
| Consists of: Pressure seal, Vessel cap, Rupture disc, TFM Vessel insert, Ceramic pressure jacket and Vessel base | | |
| High Pressure 100 mL (100 Bar) Digestion Vessel with DPC (complete) | 1 | N3133013 |
| Consists of: Pressure seal, Closure cap with DPC, Rupture disc, TFM Vessel insert, Ceramic pressure jacket and Vessel base | | |
| High Pressure 100 mL (100 Bar) Digestion Vessel Base (base only) | 1 | N3133014 |
| TFM Cap for High Pressure 100 mL (100 Bar) Digestion Vessels without pressure sensor | 1 | N3133015 |
| TFM DPC for high pressure 100 mL (100 Bar) Digestion Vessels with pressure sensor | 1 | N3133016 |

Consumable Run Kits



Description

2500 Run Kit for Standard 75 mL (40 Bar) Digestion Vessels
 Consumables for approximately 2500 digestions with Standard 75 mL (40 Bar) Digestion Vessels
Includes: 10 Pressure Seals (N3132002), 4 Rupture Cap Discs (N3132001), and 5 Lip Seal Rings of the Gas Containment Manifold (N3134000)

Part No.

N3132000



Description

2500 Run Kit for High Pressure 100 mL (100 Bar) Digestion Vessels
 Consumables for approximately 2500 digestions with High Pressure 100 mL (100 Bar) Digestion Vessels
Includes 10 Pressure Seals (N3133023), 7 Rupture Cap Discs (N3133022), 50 PEEK Ring Nuts (N3133011), and 5 Lip Seal Rings of the Gas Containment Manifold (N3134000)

Part No.

N3133024

Spares and Replacement Parts



Description

Rupture Disc for Standard 75 mL (40 Bar) Digestion Vessels
 Made of aluminum, set of 25 pcs

Part No.

N3132001

Rupture Disc for High Pressure 100 mL (100 Bar) Digestion Vessels
 Made of titanium, set of 10 pcs

N3133022

Pressure Seal for Standard 75 mL (40 Bar) Digestion Vessels
 Made of TFM, set of 10 pcs

N3132002

Pressure Seal for High Pressure 100 mL (100 Bar) Digestion Vessels
 Made of TFM, set of 5 pcs

N3133023



DPC Glass Prism for Standard 75 mL (40 Bar) Digestion Vessel

N3132004

DPC Glass Prism for High Pressure 100 mL (100 Bar) Digestion Vessel

N3133005

DPC Glass-Ring for Standard 75 mL (40 Bar) Digestion Vessel

N3132003

DPC Glass-Ring for High Pressure 100 mL (100 Bar) Digestion Vessel

N3133003

DPC Polarization foil for Digestion Vessel caps with pressure control for Standard 75 mL (40 Bar) and High Pressure 100 mL (100 Bar) Digestion Vessel, set of 24 pcs

N3132005

DPC TFM Cap Insert for Standard 75 mL (40 Bar) Digestion Vessel

N3132006

DPC TFM Cap Insert for High Pressure 100 mL (100 Bar) Digestion Vessel

N3133006

DPC Clamp Screw for Glass Prism for Standard 75 mL (40 Bar) Digestion Vessel

N3132007

DPC Clamp Screw for Glass Prism for High Pressure 100 mL (100 Bar) Digestion Vessel

N3133007

DPC Viton O-Ring (25 x 3 mm) for Digestion Vessel caps with pressure control for Standard 75 mL (40 Bar) Digestion Vessel, qty 1. Two are required per vessel cap

N3132008

DPC O-Ring for Digestion Vessel Caps with pressure control for High Pressure 100 mL (100 Bar) Digestion Vessel, qty 1. Two are required per vessel cap

N3133008

Description

TFM Sample Vessel Insert for High Pressure 100 mL (100 Bar) Digestion Vessel

Part No.

N3133009



Description

Ceramic Pressure Jacket for High Pressure 100 mL (100 Bar) Digestion Vessel

Part No.

N3133010



Description

PEEK Ring Nut for High Pressure 100 mL (100 Bar) Digestion Vessel closure cap. (Left handed threads)

Part No.

N3133011

PEEK Ring Nut Removal Tool

N3133021

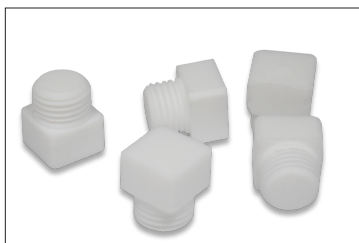
Description

Turntable Base Ring

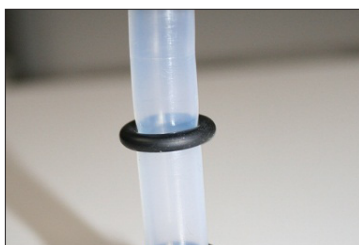
Part No.

N3134013

Gas Containment Manifold Spares



| Description | Part No. |
|--|----------|
| End Cap Plug for Gas Containment Manifold | N3134004 |
| Sealing plug for 8 and 16 position Gas Containment Manifold to seal the gas collection system at unused vessel positions | |
| Clamping Screw (PTFE) for the top seal of the 8 and 16 position Gas Containment Manifold | N3134002 |

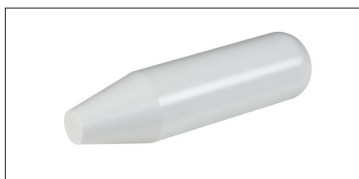


| Description | Part No. |
|--|----------|
| Lip Seal Ring of the Gas Containment Manifold | N3134000 |
| PTFE Sealing Ring for use with 8 and 16 position Gas Containment Manifolds | |
| Seals the top PFA gas tube to the Gas Containment Manifold | |
| Tube for connection of vessel to Gas Containment Manifold (PTFE) | N3134005 |
| PTFE connecting tube for connection to digestion vessels with 8 and 16 position Gas Containment Manifold | |
| Connector for Gas Containment Manifold to Digestion Vessel | N3134007 |
| PTFE connector for use with 8 and 16 position Gas Containment Manifold | |
| Gas Containment Manifold PFA Vent Line 1M (O-Ring in picture not included) | N3134014 |
| Gas Containment Manifold Vent Line replacement O-Ring (Qty. 2) | N3134072 |

Accessories



| Description | Part No. |
|---|----------|
| High Pressure 100 mL (100 Bar) Digestion Vessel opening station | N3133017 |



| Description | Part No. |
|--|----------|
| Single lip seal forming tool for Standard 75 mL (40 Bar) Digestion Vessel pressure seals | N3132015 |
| Eight position lip seal forming tool for Standard 75 mL (40 Bar) Digestion Vessel pressure seals | N3132014 |
| Forms up to 8 seals simultaneously | |



| Description | Part No. |
|---|----------|
| Eight position lip seal forming tool for High Pressure 100 mL (100 Bar) Digestion Vessel pressure seals | N3133018 |
| Forms up to 8 seals simultaneously | |



| Description | Part No. |
|---|----------|
| Single lip seal forming tool for High Pressure 100 mL (100 Bar) Digestion Vessel pressure seals | N3133019 |
| Forms 1 seal | |

Accessories Continued



| Description | Part No. |
|--|----------|
| PTFE 2 mL sample weighing cup for use in Standard 75 mL (40 Bar) or High Pressure 100 mL (100 Bar) Digestion Vessel, qty. 1 | N3134009 |
| PTFE 2 mL sample weighing cup for use in Standard 75 mL (40 Bar) or High Pressure 100 mL (100 Bar) Digestion Vessel, qty. 16 | N3134010 |



| Description | Part No. |
|--|----------|
| Vessel cap disassembly tools for Standard 75 mL (40 Bar) Digestion Vessel | N3134011 |
| Vessel cap disassembly tools for High Pressure 100 mL (100 Bar) Digestion Vessel | N3134012 |

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