

2025/26



EasyMax and OptiMax
Thermostat Systems
Reactors, Stirrers, and Probes
Accessories and Peripherals
Automated Lab Reactor RX-10
Dosing and pH
Reaction Calorimetry
Software Advanced Control
Data Management



Synthesis Workstations Beyond the Round Bottom Flask

METTLER TOLEDO

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Glossary of Terms Used

ReactIR	= Mid-IR spectroscopy	PP	= Polypropylene
ETFE	= Ethylene tetrafluoroethylene	PPS GF40	= Polyphenylene sulfide, 40% glass
FEP	= Fluorinated ethylene propylene	PTFE C25	= Polytetrafluoroethylene, 25% carbon
FFKM	= Perfluoro-elastomer	PTFE GF25	= Polytetrafluoroethylene, 25% glass
FKM	= Fluoro-elastomer	PU	= Polyurethane
PA	= Polyamide	PVC	= Polyvinylchloride
PBT	= Polybutylene terephthalate	PVDF	= Polyvinylidene fluoride
PE	= Polyethylene	SAN	= Styrene acrylonitrile
PEEK	= Polyetheretherketone	VQM	= Silicone rubber
POM	= Polyoxymethylene		

The Modern Synthesis Lab

A New Workplace for Chemists

Smart synthesis workstations, combined with unattended dosing and automated sampling, provide a simple way to control reaction parameters around-the-clock, allowing the chemist to remain focused on improving chemistry.



Unattended Synthesis for Every Scientist

Programmed to 'supervise' experiment while chemist is absent allowing safe overnight experiments.



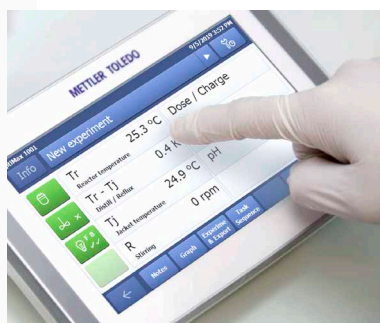
Wide Application Range

The optimization of chemical reactions is enabled by having access to a broad and seamless range of reaction conditions – dosing, sampling, stirring, and temperature control.

A modern synthesis workstation ensures recipe steps, experimental conditions, and analytical data are automatically recorded, making it easy to obtain valuable process knowledge.

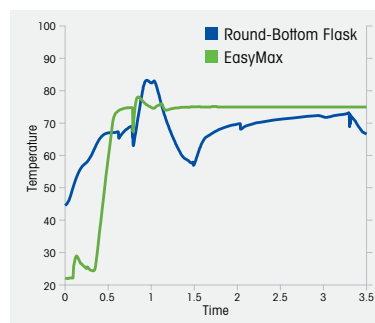


EasySampler



Personal Safety is Assured

Safe handling of hazardous and toxic compounds and solvents needs to be assured with remote control, built-in safety operating limits, and in-situ measurements.



Precise Reaction Control

This ensures results are more reproducible, enables comparison between experiments with less repetition required and allows scale up to have a higher probability of success.



Data Recording and Retrieval

Ensure no data is lost, enhance understanding of the reaction, build institutional knowledge, and share information across organizations.

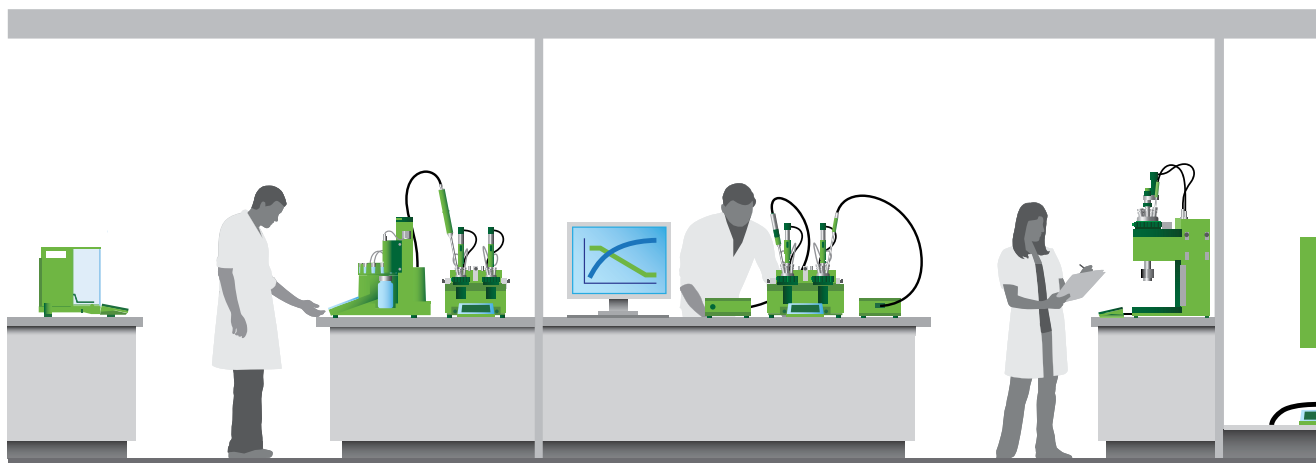


No Information Gaps

Run and sample experiments overnight – gain process understanding which is vital for good end-point decision at larger scale production.

Innovative Solutions

Along the Customer's Value Chain



Invent the Molecule

a. Create

b. Optimize

Develop the Reaction

a. Create

b. Optimize

EasyMax 102 Basic

EasyMax 102 LT Basic

EasyMax 102 LT Advanced

EasyMax 402 Basic

EasyMax 102 Basic

EasyMax 102 LT Basic

EasyMax 102 LT Advanced

EasyMax 102 LT Basic

EasyMax 402 Basic

EasyMax 402 LT Basic

EasyMax 402 LT Advanced

EasyMax 402 LT Basic

EasyMax 402 LT Advanced

EasyMax 402 LT Basic

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EasyMax 402 LT Advanced

EasyMax 402 LT Basic

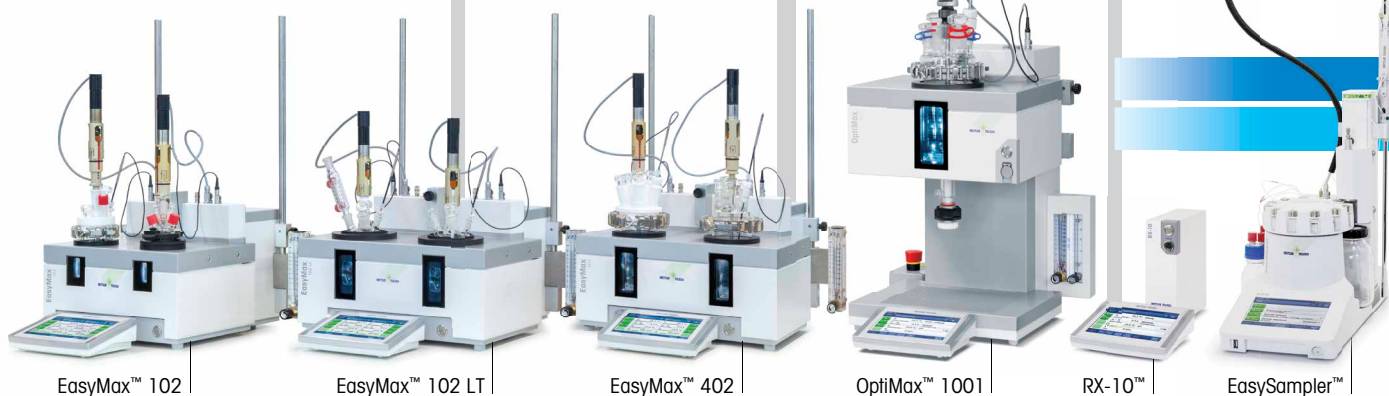
EasyMax 402 LT Advanced

EasyMax 402 LT Basic

EasyMax 402 LT Advanced

EasyMax 402 LT Basic

EasyMax 402 LT Advanced



EasyMax™ 102

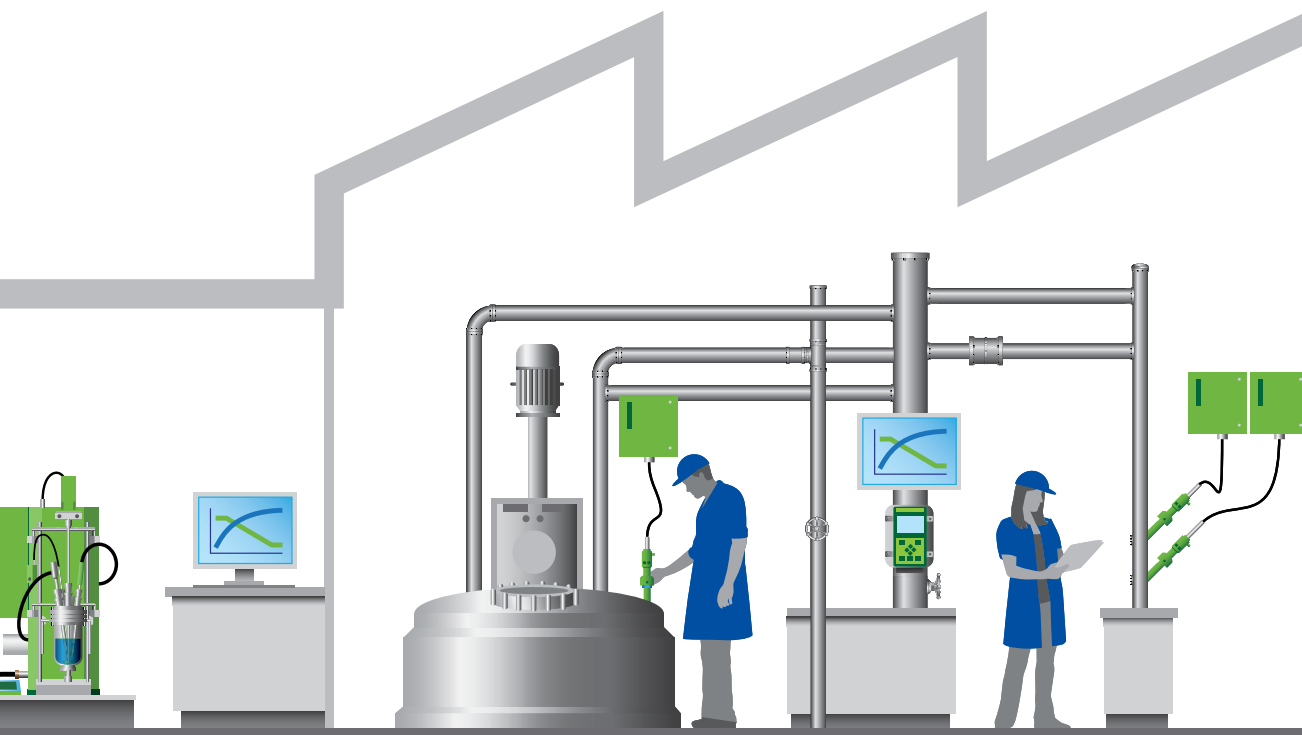
EasyMax™ 102 LT

EasyMax™ 402

OptiMax™ 1001

RX-10™

EasySampler™



Create the Process

a. Characterize

b. Optimize

Manufacture the Material

a. Test

b. Market

Sampler

2 Advanced

LT Advanced

+ EasyMax iControl

+ EasyMax HFCal

2 Advanced

EasyMax 402 Advanced

+ EasyMax iControl

+ EasyMax iControl

+ EasyMax HFCal

OptiMax

OptiMax

+ OptiMax iControl

+ OptiMax iControl

+ OptiMax HFCal

RX-10

RX-10

+ RX-10 iControl

+ RX-10 iControl

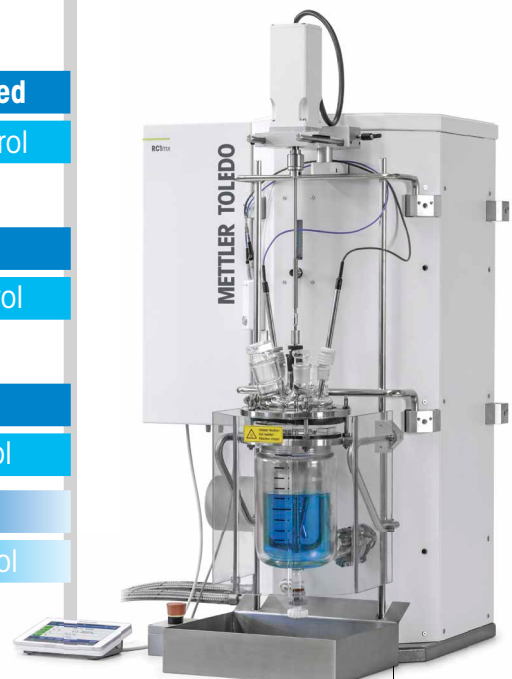
RC1mx

RC1mx

+ RC1mx iControl

+ RC1mx iControl

+ RC1mx HFCal



RC1mx™

EasySampler probes,
210 mm, 330 mm, 450 mm,
not part of this catalog

SP-50 Syringes,
1 mL, 10 mL, 25 mL, 50 mL,
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30303786
Calibration Heater,
Glass, Page 98

30090579
Calibration Heater,
Alloy C-22,
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30050155
Calibration Heater,
Alloy C-22,
Page 98

30083901
EasySampler, not part
of this catalog

51161770
Dosing Unit SP-50,
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30090577
EasyMax HFCal,
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30050151
OptiMax HFCal,
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EasyMax Basic

EasyMax Basic Plus

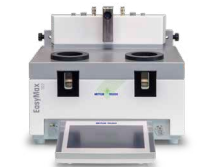
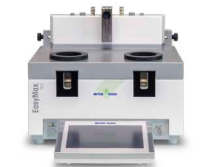
EasyMax Advanced

30548001
EasyMax 102 LT,
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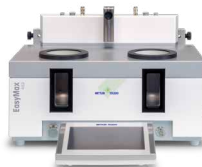
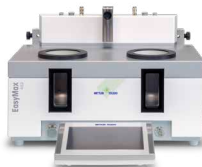
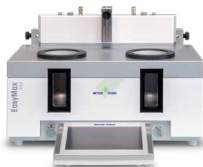
30548000
EasyMax 102 LT,
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EasyMax 102,
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51161711
EasyMax 102,
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30133677
EasyMax 402,
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30084210
EasyMax 402,
Page 12

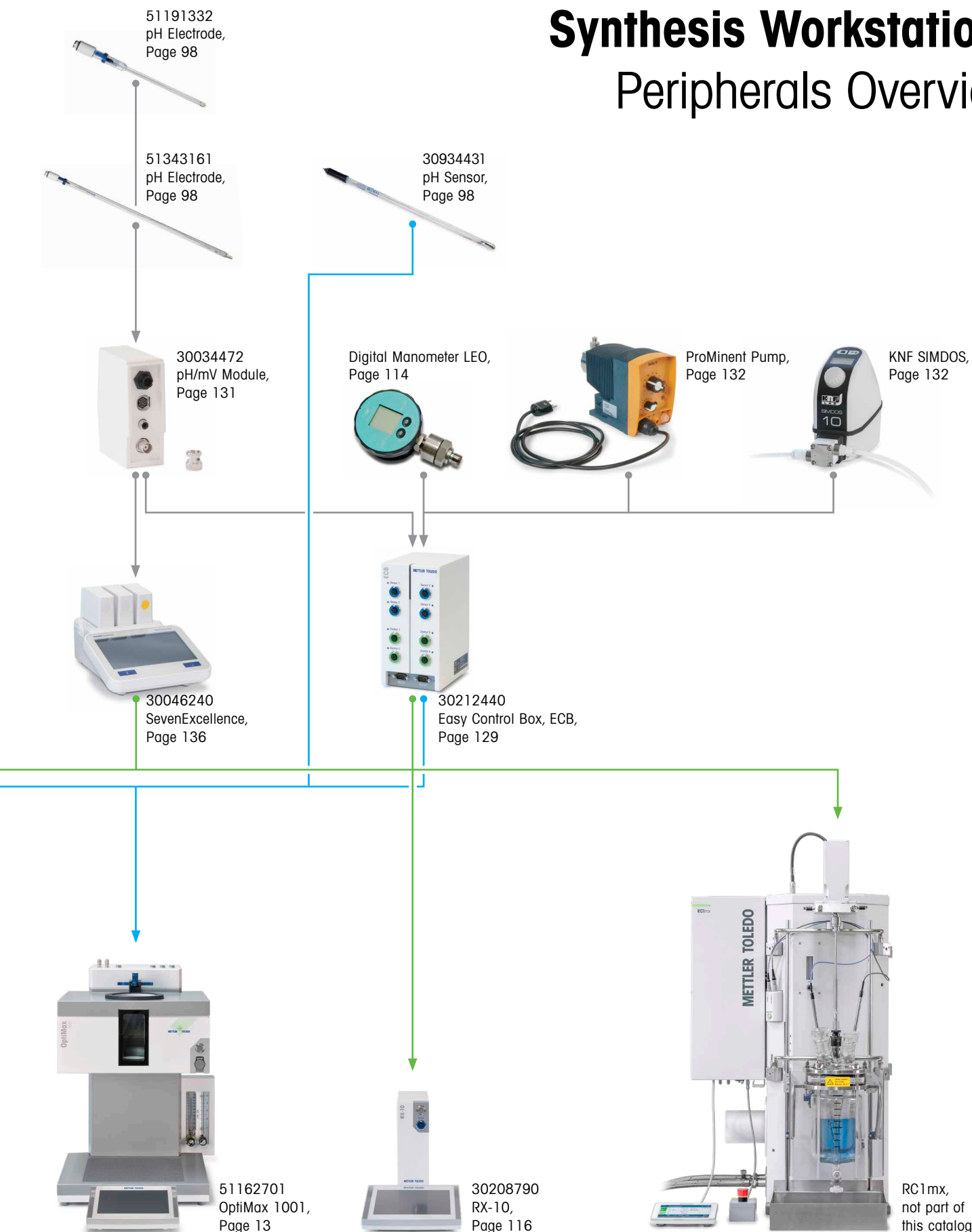
30721088
Basic Plus Upgrade, Page 19

30721089
Advanced Upgrade, Page 19



Synthesis Workstations

Peripherals Overview



EasyMax™ 102 LT Thermostat System



EasyMax 102 LT	
Material	Powder-coated stainless steel with FEP-coated cover plate
Power Voltage	100 – 240 VAC
Backlight	2 LEDs per reactor
Heating/Cooling	Solid state thermostat
Temperature Mode	Jacket control, reaction mixture control, distillation/reflux control
Temperature Range	–90 °C to 80 °C, jacket temperature (Tj)
Stirring Type	Built-in magnetic and overhead stirring
Stirring Speed	50 rpm to 1000 rpm
Size	430 mm x 360 mm x 280 mm (w, d, h), 430 mm x 360 mm x 500 mm (w, d, h with overhead stirrer)
Weight	21 kg, including touchscreen
Quantity	1

30548001 EasyMax 102 LT Basic and 30548000 EasyMax 102 LT Advanced thermostat system consisting of

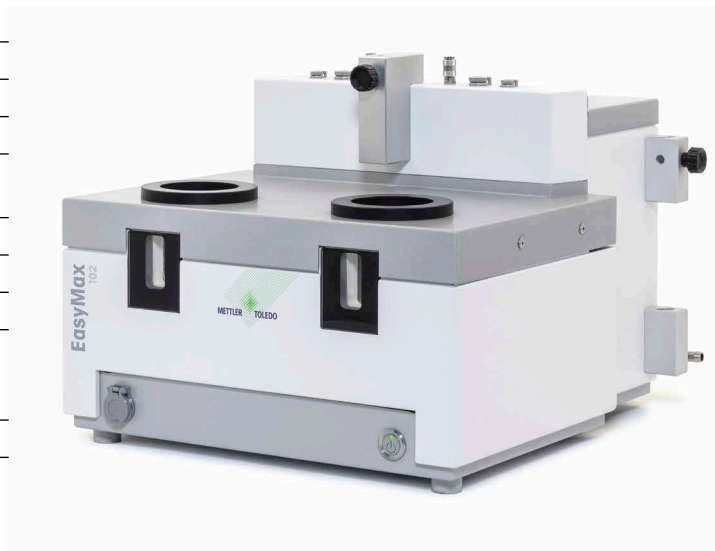
Order number	Product description	Quantity	Page
	EasyMax 102 LT reactor block	1	10
51161883	TFT touchscreen 7", 1 m cable	1	14
30778593	Protective cover for touchscreen	1	14
51191125	PVC hose for reflux condenser, Ø 8/12 mm, length 5 m	1	14
51161187	PVC industrial hose for coolant, 15 bar, Ø 8/14 mm, length 2.5 m	2	14
51192239	PVC industrial hose for purge gas, 18 bar, Ø 4/10 mm, length 2 m	1	15
51161186	PVC hose for purge gas, Ø 4/6 mm, length 2 m	2	15
51191373	Y-piece for purge gas tubing	2	15
51191916	Reducing connector for purge gas tubing	1	15
51161827	Flowmeter set	1	15
51190324	Quick connect coupling for purge gas inlet	4	15
51192126	Hose clamp for PVC tube	8	15
51191914	Knurled screw, M6 x 10 mm	3	16
30565897	Hose connectors, M16 x 1, for coolant	1	16
103298	Antistatic additive for coolant, 250 mL per bottle, 4 bottles in a set	1	16
	Insulation tubing for cooling connectors	1	16

EasyMax 102 LT Upgrade Possibilities

Order Number	Product Description	Quantity	Page
30721088	EasyMax Basic Plus Upgrade	1	19
30721089	EasyMax Advanced Upgrade	1	19

EasyMax™ 102 Thermostat System

	EasyMax 102
Material	Powder-coated stainless steel with FEP-coated cover plate
Power Voltage	100 – 240 VAC
Backlight	2 LEDs per reactor
Heating/Cooling	Solid state thermostat
Temperature Mode	Jacket control, reaction mixture control, distillation/reflux control
Temperature Range	–40 °C to 180 °C, jacket temperature (Tj)
Stirring Type	Built-in magnetic and overhead stirring
Stirring Speed	50 rpm to 1000 rpm
Size	330 mm x 360 mm x 280 mm (w, d, h), 330 mm x 360 mm x 500 mm (w, d, h with overhead stirrer)
Weight	16 kg, including touchscreen
Quantity	1



30133676 EasyMax 102 Basic and 51161711 EasyMax 102 Advanced thermostat system consisting of

Order Number	Product Description	Quantity	Page
	EasyMax 102 reactor block	1	11
51161883	TFT touchscreen 7", 1 m cable	1	14
30778593	Protective cover for touchscreen	1	14
51191125	PVC hose for reflux condenser, Ø 8/12 mm, length 5 m	1	14
51161187	PVC industrial hose for coolant, 15 bar, Ø 8/14 mm, length 2.5 m	2	14
51192239	PVC industrial hose for purge gas, 18 bar, Ø 4/10 mm, length 2 m	1	15
51161186	PVC hose for purge gas, Ø 4/6 mm, length 2 m	2	15
51191373	Y-piece for purge gas tubing	2	15
51191916	Reducing connector for purge gas tubing	1	15
51161827	Flowmeter set	1	15
51190324	Quick connect coupling for purge gas inlet	4	15
51192126	Hose clamp for PVC tube	8	15
51191915	Flow indicator for coolant	1	16
51191914	Knurled screw, M6 x 10 mm	3	16

EasyMax 102 Basic Upgrade Possibilities

Order Number	Product Description	Quantity	Page
30721088	EasyMax Basic Plus Upgrade	1	19
30721089	EasyMax Advanced Upgrade	1	19

EasyMax™ 402 Thermostat System



EasyMax 402	
Material	Powder-coated stainless steel with FEP-coated cover plate
Power Voltage	100 – 240 VAC
Backlight	2 LEDs per reactor
Heating/Cooling	Solid state thermostat
Temperature Mode	Jacket control, reaction mixture control, distillation/reflux control
Temperature Range	–40 °C to 180 °C, jacket temperature (TJ)
Stirring Type	Overhead stirring
Stirring Speed	50 rpm to 1000 rpm
Size	430 mm x 360 mm x 280 mm (w, d, h), 430 mm x 360 mm x 500 mm (w, d, h with overhead stirrer)
Weight	20 kg, including touchscreen
Quantity	1

30133677 EasyMax 402 Basic and 30084210 EasyMax 402 Advanced thermostat system consisting of

Order number	Product description	Quantity	Page
	EasyMax 402 reactor block	1	12
51161883	TFT touchscreen 7", 1 m cable	1	14
30778593	Protective cover for touchscreen	1	14
51191125	PVC hose for reflux condenser, Ø 8/12 mm, length 5 m	1	14
51161187	PVC industrial hose for coolant, 15 bar, Ø 8/14 mm, length 2.5 m	2	14
51192239	PVC industrial hose for purge gas, 18 bar, Ø 4/10 mm, length 2 m	1	15
51161186	PVC hose for purge gas, Ø 4/6 mm, length 2 m	2	15
51191373	Y-piece for purge gas tubing	2	15
51191916	Reducing connector for purge gas tubing	1	15
51161827	Flowmeter set	1	15
51190324	Quick connect coupling for purge gas inlet	4	15
51192126	Hose clamp for PVC tube	8	15
51191915	Flow indicator for coolant	1	15
51191914	Knurled screw, M6 x 10 mm	3	16

EasyMax 402 Basic Upgrade Possibilities

Order Number	Product Description	Quantity	Page
30721088	EasyMax Basic Plus Upgrade	1	19
30721089	EasyMax Advanced Upgrade	1	19

OptiMax™ 1001 Thermostat System

	OptiMax 1001
Material	Powder-coated stainless steel with FEP-coated cover plate
Power Voltage	100 – 240 VAC
Back-/Frontlight	12 LEDs
Heating/Cooling	Solid state thermostat
Temperature Mode	Jacket control, reaction mixture control, distillation/reflux control
Temperature Range	–40 °C to 180 °C, jacket temperature (Tj)
Stirring Type	Overhead stirring
Stirring Speed	30 rpm to 1200 rpm
Size	390 mm x 415 mm x 540 mm (w, d, h), 390 mm x 415 mm x 780 mm (w, d, h with overhead stirrer) Width includes the flowmeter
Weight	35 kg, including touchscreen
Quantity	1



51162701 OptiMax thermostat system set consisting of

Order Number	Product Description	Quantity	Page
	OptiMax 1001 reactor block	1	13
51161883	TFT touchscreen 7", 1 m cable	1	14
30778593	Protective cover for touchscreen	1	14
51191125	PVC hose for reflux condenser, Ø 8/12 mm, length 5 m	1	14
51161187	PVC industrial hose for coolant, 15 bar, Ø 8/14 mm, length 2.5 m	2	14
51192239	PVC industrial hose for purge gas, 18 bar, Ø 4/10 mm, length 2 m	1	15
51161186	PVC hose for purge gas, Ø 4/6 mm, length 2 m	1	15
51191373	Y-piece for purge gas tubing	1	15
51191916	Reducing connector for purge gas tubing	3	15
51190324	Quick connect coupling for purge gas inlet	5	15
51192126	Hose clamp for PVC tube	4	15
51191915	Flow indicator for coolant	1	15
51191914	Knurled screw, M6 x 10 mm	4	16

51162701 OptiMax thermostat system set consisting of (continued)

Order Number	Product Description	Quantity	Page
51162860	Reactor block plug for bottom drain valve opening	1	16
51192209	O-ring for 51162860 plug, Ø 50.39 mm x 3.53 mm	1	16
51161782	Bubble counter	1	17
51161603	Magnetic bubble counter holder	1	17
51162886	Accessories holder set	1	17
51192208	Glass adapter ST19/26-GL14	2	17
51190317	Screw cap GL14, with aperture	2	17
51103947	Sealing ring for screw cap GL14 PTFE/silicone, aperture 6 mm	2	17
30519615	Purge gas regulation valve	1	17
51161099	Lab bar, 600 mm x 14 mm	4	17
	Safeguard button (30260369 Emergency button)	1	17
51162690	Overhead stirrer drive complete	1	89

Thermostat System Parts



51161883	TFT touchscreen 7", 1 m cable
Material	PA, aluminium
Size	195 mm x 135 mm x 60 mm (w, d, h)
Quantity	1



30778593	Protective cover for touchscreen
Material	PET
Quantity	1



51191125	PVC hose for reflux condenser
Material	PVC
Size	Ø 8/12 mm, length 5 m
Quantity	1



51161187	PVC industrial hose for coolant
Material	PVC
Pressure Range	15 bar
Size	Ø 8/14 mm, length 2.5 m
Quantity	1



51192239	PVC industrial hose for purge gas
Material	PVC
Pressure Range	18 bar
Size	Ø 4/10 mm, length 2 m
Quantity	1



51161186	PVC hose for purge gas
Material	PVC
Size	Ø 4/6 mm, length 2 m
Quantity	1



51191373	Y-piece for gas tubing
Material	Acetal resin
Size	For tubes with inner Ø 4 mm
Quantity	2 pcs in a set



51191916	Reducing connector for purge gas tubing
Material	PP
Temperature	Max. 30 °C
Size	For tubes with inner Ø 7 mm to 11 mm; 4 mm to 7 mm
Quantity	1



51161827	Flowmeter set for water and gas, including lab bar holder and water/gas inlet adapter
Material	Stainless steel, acrylic, brass
Temperature	Max. 65 °C
Quantity	1 gas flowmeter, 1 water flowmeter, 1 adapter for gas inlet Ø 4.8 mm 1/8" (for tubes inner Ø 4 mm) and 1 adapter for water inlet Ø 9.6 mm 1/4" (for tubes inner Ø 8/12 mm) in a set

Note: Only available for EasyMax 102 and 402



51190324	Quick connect coupling for purge gas inlet
Material	Stainless steel
Size	For tubes with inner Ø 4 mm
Quantity	1



51192126	Hose clamp for PVC tube
Material	Stainless steel
Size	Ø 10 mm to 17 mm
Quantity	1



51191915	Flow indicator for coolant
Material	SAN
Temperature	Max. 30 °C
Size	For tubes with inner Ø 6 mm to 9 mm
Quantity	1



51191914	Knurled screw, M6 x 10
Size	M6 x 10 mm
Quantity	1



51191235	Identification clips for adhesive labels to label individual sensors, reactors etc.
Size	For cables with Ø 2 mm to 4.5 mm
Quantity	1

Thermostat System Additional Parts for EasyMax 102 LT



30565897	Hose connectors and blind nuts for coolant
Material	Stainless steel
Size	Hose connector to 8 mm tubing, nut M16 x 1
Quantity	2 of each in a set



	Insulation tubing for cooling connectors
Material	Synthetic rubber
Size	Inner Ø 18 mm, insulation thickness 14 mm, length 300 mm
Quantity	2 pcs in a set

Note: Tubings are not sold separately



103298	Antistatic additive for coolant
Volume	250 mL per bottle
Quantity	4 bottles in a set

Thermostat System Additional Parts for OptiMax



51162860	Reactor block plug for bottom drain valve opening
Material	PTFE GF25
Size	Ø 56 mm x 35 mm
Quantity	1

Note: 51192209 O-ring needed



51192209	O-ring for 51162860 plug
Material	FKM
Size	Ø 50.39 mm x 3.53 mm, AS No. 226
Quantity	1



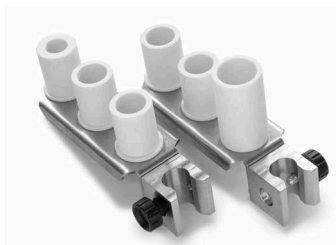
51161603	Magnetic bubble counter holder
Material	PET
Size	30 mm x 33 mm x 68 mm
Quantity	1



51161782	Bubble counter
Material	Borosilicate glass
Size	Ø 30 mm x 150 mm
Quantity	1



51192208	Glass adapter ST19/26-GL14
Material	Glass
Size	Height 50 mm
Quantity	1



51162886	Accessories holder set to be attached to the lab bar of the EasyMax 402 or OptiMax 1001 systems – for stirrer motor, for Ø 6 mm probes (ST14), for Ø 12 mm probes (ST19), for Ø 19 mm probes (ST24)
Material	Stainless steel, PTFE GF25
Aperture Size	Holder 1: 1 x ST14, 2 x ST19 Holder 2: 1 x ST24, 2 x ST19
Quantity	2 pcs in a set



30519615	Purge gas regulation valve
Material	PA 6.6, NBR, brass, stainless steel
Size	Tube outer Ø 6 mm
Quantity	1



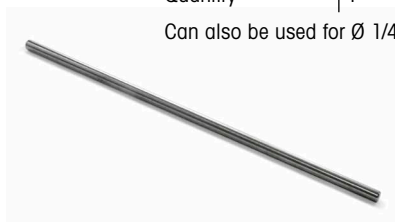
51190317	Screw cap GL14, with aperture
Material	PBT
Temperature	Max. 200 °C
Aperture	Ø 9.5 mm
Quantity	1



51103947	Sealing ring for screw cap GL14 PTFE/silicone for screw cap GL14
Material	Silicone rubber VQM, PTFE-coated
Size	Ø 12 mm, aperture 6 mm
Quantity	1
Can also be used for Ø 1/4" 6.35 mm inserts	



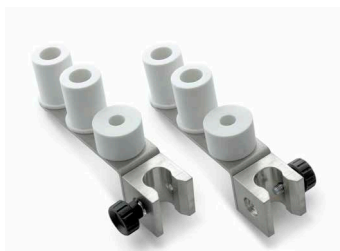
30260369	Emergency button
Size	125 mm x 80 mm x 95 mm (l, w, h) cable length 6.9 m
Quantity	1



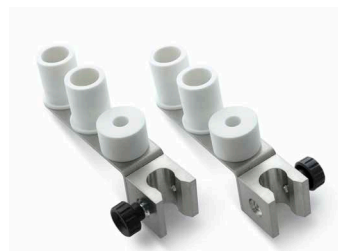
51161099	Lab bar 600 x 14 mm
Material	Stainless steel, 1.4435
Size	Ø 14 mm x 600 mm
Quantity	1

Optional Accessories

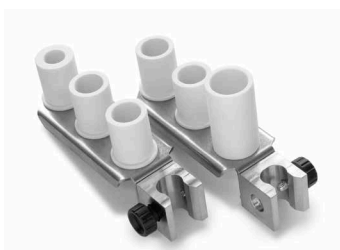
For the Thermostat Systems



51161803	Accessories holder set for two-piece reactor to be attached to the lab bar of the EasyMax 102 system – for stirrer motor, for condenser (ST14), for Tr sensor (ST10)
Material	Stainless steel, PTFE GF25
Aperture Size	2 x ST14, 1 x ST10
Quantity	2 pcs in a set



51161804	Accessories holder set for one-piece reactor to be attached to the lab bar of the EasyMax 102 system – for stirrer motor, for condenser (ST19), for Tr sensor (ST10)
Material	Stainless steel, PTFE GF25
Aperture Size	2 x ST19, 1 x ST10
Quantity	2 pcs in a set



51162886	Accessories holder set to be attached to the lab bar of the EasyMax 402 or OptiMax 1001 systems – for stirrer motor, for Ø 6 mm probes (ST14), for Ø 12 mm probes (ST19), for Ø 19 mm probes (ST24)
Material	Stainless steel, PTFE GF25
Aperture Size	Holder 1: 1 x ST14, 2 x ST19 Holder 2: 1 x ST24, 2 x ST19
Quantity	2 pcs in a set



51161802	Bubble counter set Bubble counter glass (for tubes inner Ø 4 mm), magnetic holder, gas regulation valve Ø 6 mm to 1.8"
Material	PET, borosilicate glass, PA
Quantity	2 of each in a set

Needed items to connect to glass reactor (2 of each):
51191267 Glass adapter ST14/23-GL14, Page 96
51190317 Screw cap GL14, with aperture, Page 96
51103947 Sealing ring for screw cap GL14 PTFE/silicone, Page 96



30015271	Flowmeter for water
Material	Acrylic, brass
Temperature	Max. 65 °C
Size	100 mm, 0.8 L/min to 9 L/min
Quantity	1



30015272	Flowmeter for gas
Material	Acrylic, brass
Temperature	Max. 65 °C
Size	100 mm, 1 L/min to 10 L/min
Quantity	1


103472 | Lab bar 300 x 14 mm

Material	Stainless steel, 1.4301
Size	Ø 14 mm x 300 mm
Quantity	1


51161099 | Lab bar 600 x 14 mm

Material	Stainless steel, 1.4435
Size	Ø 14 mm x 600 mm
Quantity	1


51161778 | Purge set SP-50

Quick connect coupling for purge gas inlet (for tubes inner Ø 4 mm), PVC tube for gas inlet (inner Ø 4 mm, length 2 m), reducing connector for purge gas tubing (for tubes inner Ø 7 mm to 11 mm and 4 mm to 7 mm)

Material	Stainless steel, PVC, PP
Temperature	PP max 30 °C
Quantity	1 of each in a set

Note: Available as a set only


30303580 | TFT touchscreen 7", 3 m cable

Material	PA, aluminium
Size	195 mm x 135 mm x 60 mm (w, d, h)
Quantity	1

51162885 | Touchscreen cable extension, 3 m

Modify existing touchscreen with 1 m cable; to be assembled by a field service engineer

Size	Length 3 m
Quantity	1


30306197 | Cooling connector for EasyMax

Material	Stainless steel, nickel-plated brass
Size	Hose connector to 8 mm tubing, 8 mm Serto connection female (M12 x 1)
Quantity	1

30306198 | Cooling connector for OptiMax

Material	Stainless steel, nickel-plated brass
Size	Hose connector to 8 mm tubing, 10 mm Serto connection female (M14 x 1)
Quantity	1


30526850 | Cooling adapter 8 mm to M16 x 1 for EasyMax

Material	Stainless steel, nickel-plated brass
Size	8 mm Serto connection female to M16 x 1 male
Quantity	2 pcs in a set

30526851 | Cooling adapter 10 mm to M16 x 1 for OptiMax

Material	Stainless steel, nickel-plated brass
Size	10 mm Serto connection female to M16 x 1 male
Quantity	2 pcs in a set

EasyMax 102, 102 LT, and 402 Basic Upgrade Possibilities

30721088 | EasyMax Basic Plus Upgrade License for EasyMax 102, 102 LT and 402

Quantity	1
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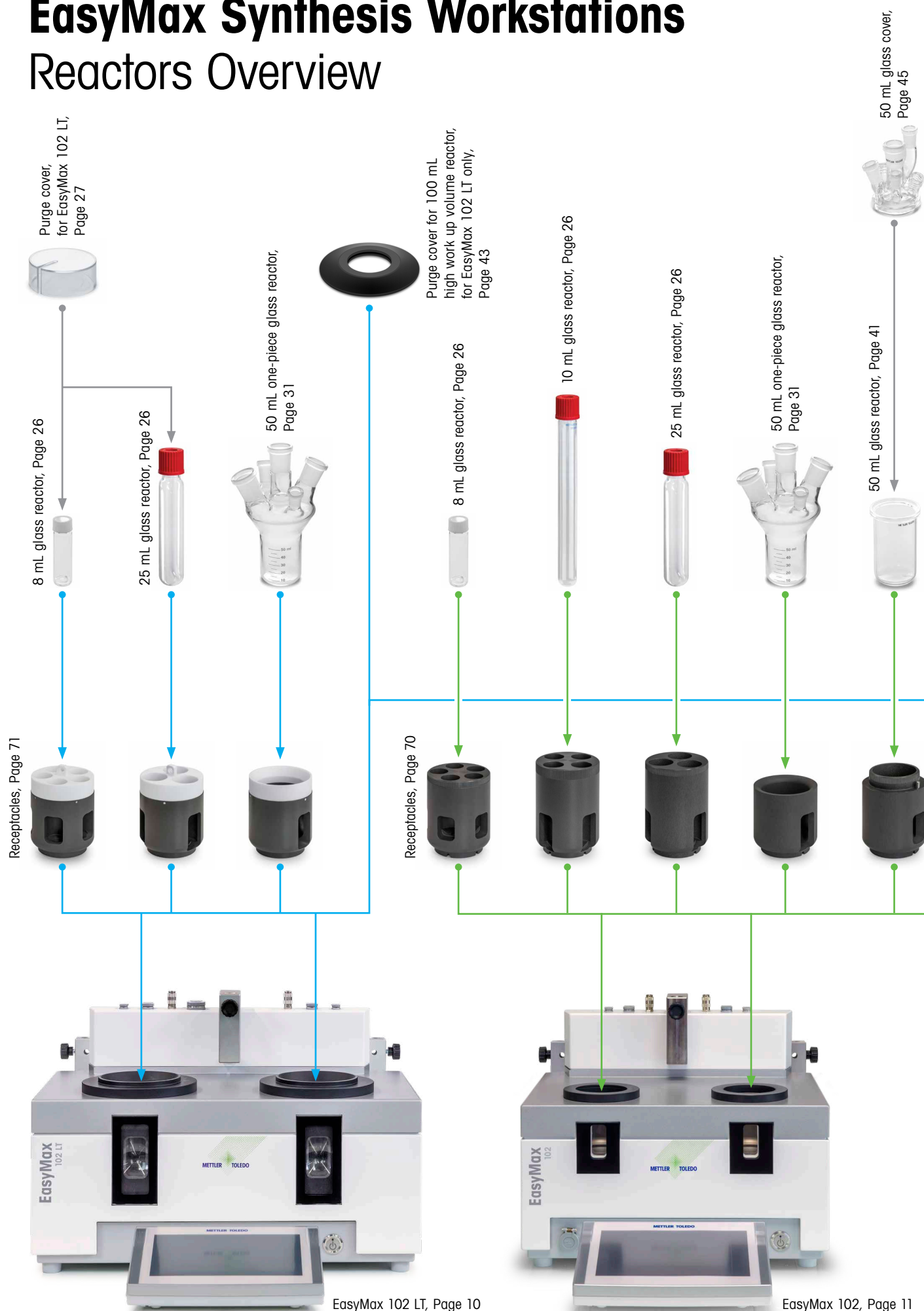
30721089 | EasyMax Advanced Upgrade License for EasyMax 102, 102 LT and 402

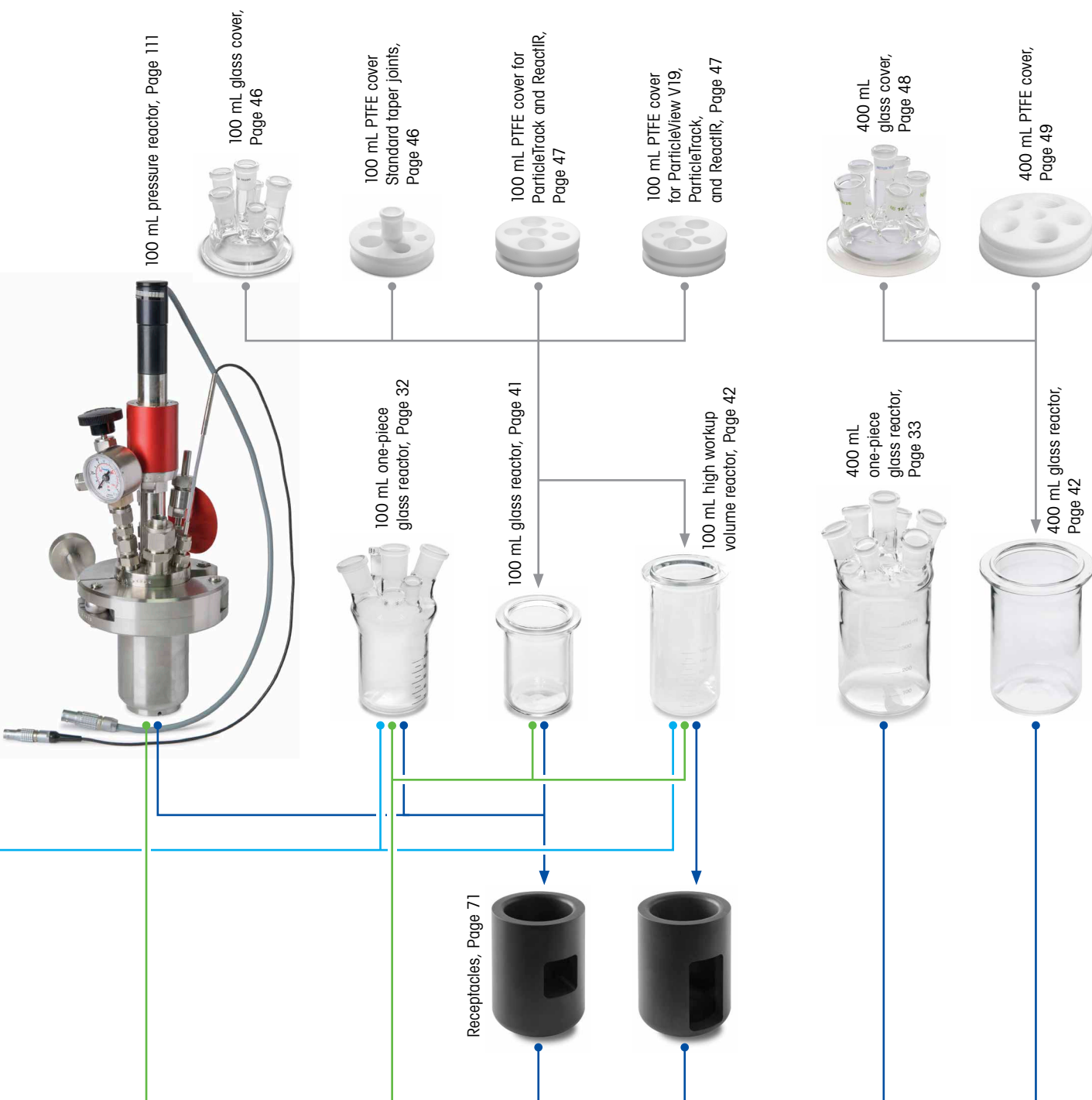
Quantity	1
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Note: Upgrade first to EasyMax Basic Plus before installing this version.

EasyMax Synthesis Workstations

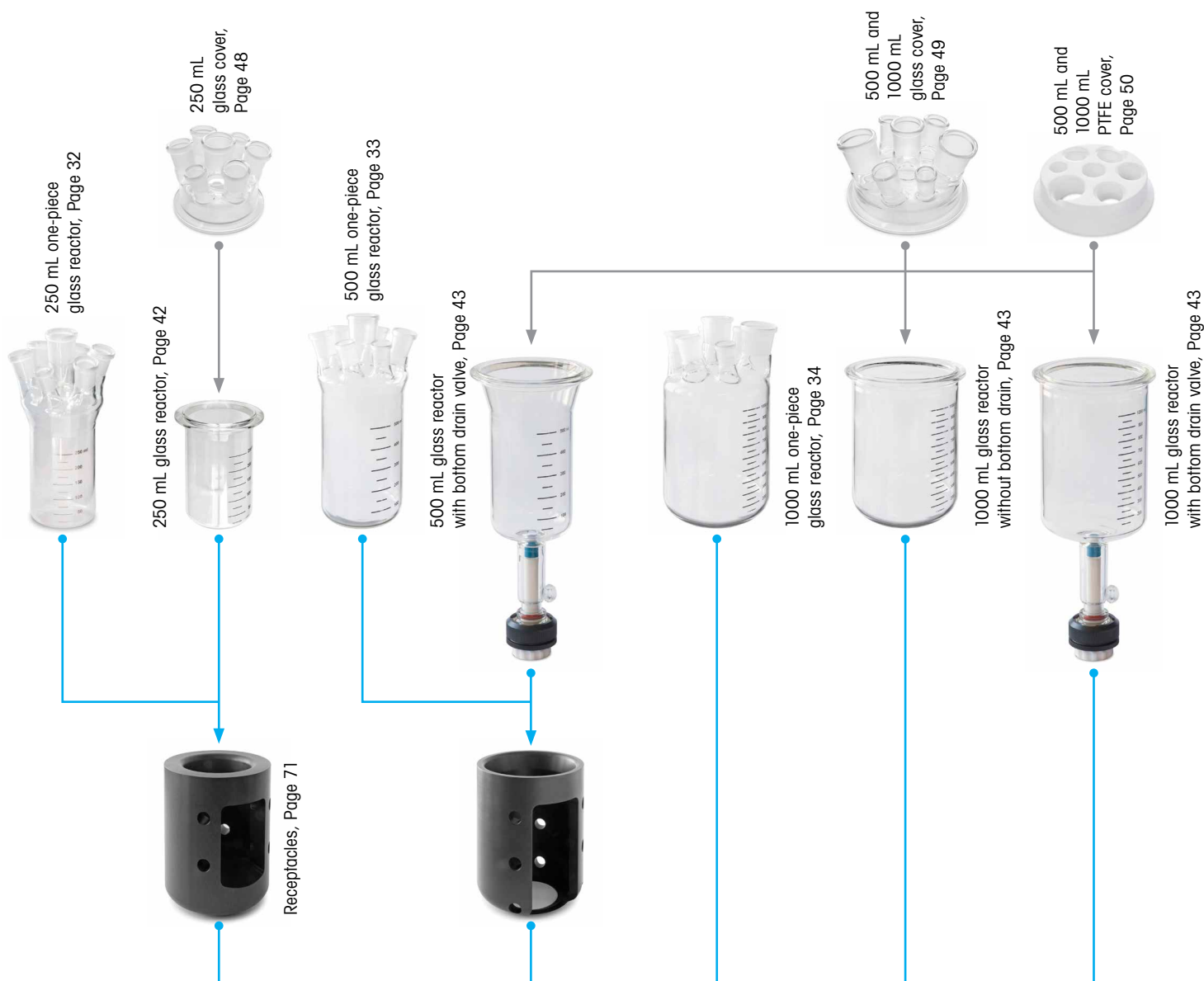
Reactors Overview





- The EasyMax 102 and 102 LT are designed to hold test tubes and reactors from 8 mL to 100 mL while the EasyMax 402 is designed to hold reactors from 100 mL to 400 mL.
- The EasyMax 102 LT has a temperature range of $-90\text{ }^{\circ}\text{C}$ to $80\text{ }^{\circ}\text{C}$, jacket (T_j) and reactor (T_r) temperatures.
- Both EasyMax 102 and 102 LT have either overhead or built-in magnetic stirring possibilities while the EasyMax 402 only has overhead stirring.

Note: Products shown are not to scale.



OptiMax Workstation Reactors Overview



OptiMax 1001, Page 13

OptiMax Starter Kit

The OptiMax starter kit simplifies the part evaluation and ordering process. The starter kit combines all the key items for a 1000 mL two-piece reactor setup in just one part number.

The OptiMax starter kit includes the following key components:

- OptiMax thermostat system including touchscreen
- Stirrer motor and adapter
- Tr temperature probe including adapter
- 1000 mL two-piece glass reactor
- Cover and reactor holders
- Pitched blade stirrer, downward, Alloy C-22
- Bar type baffle, Alloy C-22 including adapter
- Stoppers and "Keck" clamps for all open ports
- Accessories holder

The OptiMax starter kit can be combined individually with additional items in this catalog.



51162830

OptiMax starter kit consists of the following items

Order Number	Product Description	Quantity	Page
51162701	OptiMax thermostat system	1	13
51162831	OptiMax 1000 mL two-piece glass reactor set	1	65
51162720	PTFE adapter for Tr, pH and turbidity probe	1	102
51162839	Tr probe, Alloy C-22	1	97
51162886	Accessories holder set	1	17

Guide

Recommended Working Volume Ranges

For optimal temperature measurement and control as well as consistent stirring of the reaction mixture, we recommend the working volume ranges mentioned below.

Reactor Volume Definitions:

Minimum Working Volume – Minimum volume for consistent stirring and accurate temperature (Tr) sensor measurement and control capabilities for the one-piece and two-piece reactors.

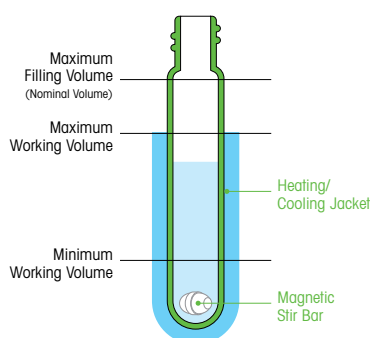
Maximum Working Volume – Maximum amount of reaction mixture in a reactor for consistent temperature measurement and control capabilities (the reactor is fully inserted in the heating/cooling jacket). The reaction mixture does not reach the glass connection or the seal in a two-piece reactor.

Maximum Filling Volume – Maximum amount of reaction mixture which a vessel can hold without stirring before it overflows. The solvent does not reach the glass connection or the seal in a two-piece reactor.

Nominal Volume – Volume that gives the name of the vessel. The nominal volume for reactors is equal to the maximum working volume while the nominal volume of the vials is equal to the maximum filling volume.

Test Conditions for Working Volumes:

Water at 25 °C as reaction mixture stirred at 300 rpm using a magnetic stir bar, a half-moon stirrer blade or a pitched-blade stirrer for test tubes, one-piece or two-piece reactors, respectively. The immersion depth of the temperature (Tr) sensors is at least 10 mm for the one-piece and two-piece reactors (glass temperature sensors were used, see recommended immersion depths on the next page).

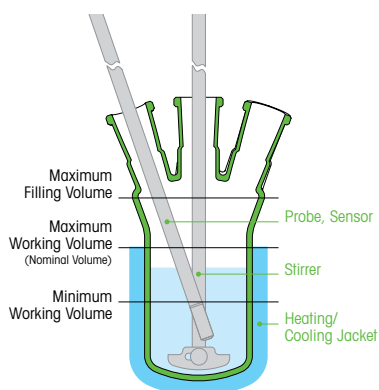


Test Tubes

Test Tube	Minimum Working Volume ¹	Maximum Working Volume	Maximum Filling Volume (Nominal Volume)
30210021 8 mL test tube, Page 26	1 mL	8 mL	8 mL
51161285 10 mL test tube, Page 26	2 mL	5 mL	10 mL
51161853 25 mL test tube, Page 26	2 mL	25 mL	25 mL

¹ With magnetic stir bar

One-Piece Reactors

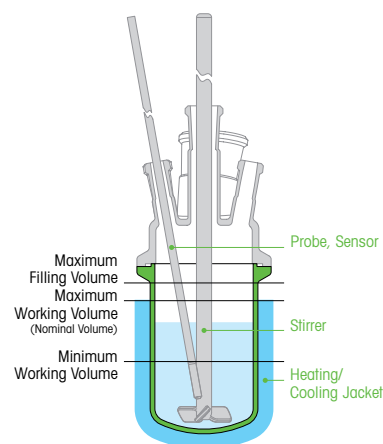


Reactor	Minimum Working Volume ²	Maximum Working Volume (Nominal Volume)	Maximum Filling Volume
51161792 50 mL one-piece glass reactor, Page 31	15 mL	50 mL	100 mL
51161786 100 mL one-piece glass reactor, Page 32	40 mL	100 mL	180 mL
51162734 250 mL one-piece glass reactor, Page 32	80 mL	250 mL	400 mL
30131163 400 mL one-piece glass reactor, Page 33	80 mL	400 mL	425 mL
51162733 500 mL one-piece glass reactor, Page 33	120 mL	500 mL	700 mL
51162732 1000 mL one-piece glass reactor, Page 34	320 mL	1000 mL	1150 mL

² With half-moon stirrer blade

Two-Piece Reactors

Reactor	Minimum Working Volume ³	Maximum Working Volume (Nominal Volume)	Maximum Filling Volume
51161255 50 mL glass reactor, Page 41	15 mL	50 mL	70 mL
51161620 100 mL glass reactor, Page 41	50 mL	100 mL	150 mL
30111634 100 mL high workup volume glass reactor, Page 42	50 mL	100 mL	200 mL
30030945 EM20-100-HC pressure reactor set, Page 111	30 mL	100 mL	120 mL
30030946 EM60-100-HC pressure reactor set, Page 111	30 mL	100 mL	120 mL
51162635 250 mL glass reactor, Page 42	60 mL (80 mL ⁴)	250 mL	370 mL
30072099 400 mL glass reactor, Page 42	80 mL	400 mL	425 mL
51162632 500 mL glass reactor, Page 43	80 mL (140 mL ⁴)	500 mL	830 mL
51162634 1000 mL glass reactor, Page 43	150 mL (320 mL ⁴)	1000 mL	1310 mL

³ With pitch-blade stirrer⁴ With anchor stirrer

Note: Depending on the following parameters, the minimum working volume can be higher or/and the maximum working volume can be lower than indicated:

- Viscosity of the reaction mixture
- Immersion depths of the temperature sensor for accurate measurements
- Type of stirrer blade
- Other sensors, e.g., pH, ParticleTrack/View probes, ReactIR probes, EasyViewer probes, EasySampler probes
- Stirrer speed and resulting vortex

Immersion Depths of Temperature Sensors

For accurate temperature measurements, the temperature (Tr) sensor needs to be immersed adequately. The immersion depth required depends on the type of temperature sensor as well as on the temperature of the reaction mixture. To ensure that the maximum permissible error of temperature measurement is within the specification of the thermostat, we recommend the following immersion depths:

Temperature Sensors EasyMax	Temperature Range Immersion Depth	Temperature Range Immersion Depth
51161730 Pt100 temperature sensor, length 175 mm, Page 97 Wetted parts: Stainless steel, PTFE/FEP-coated	–90 °C to –10 °C 35 mm	–10 ° to 180 °C 30 mm
30111612 Pt100 temperature sensor, length 250 mm, Page 97 Wetted parts: Stainless steel, FEP-coated	–90 °C to –10 °C 35 mm	–10 ° to 180 °C 30 mm
30099798 Pt100 temperature sensor, length 260 mm, Page 97 Wetted part: Glass	–90 °C to –40 °C 15 mm	–40 ° to 180 °C 10 mm
30090590 Pt100 temperature sensor, length 260 mm, Page 97 Wetted part: Alloy C-22	–90 °C to –40 °C 20 mm	–40 ° to 180 °C 15 mm
OptiMax		
51162827 Temperature sensor including chip, length 300 mm, Page 97 Wetted part: Glass		–40 ° to 180 °C 10 mm
51162839 Temperature sensor including chip, length 300 mm, Page 97 Wetted part: Alloy C-22		–40 ° to 180 °C 15 mm

Test Tubes and Caps

8 mL, 10 mL, and 25 mL



8 mL test tube
EasyMax 102 and 102 LT

30210021	Test tube 8 mL with 15-425 thread
Material	Borosilicate glass
Working Volume	8 mL, maximum
Size	Ø 16.2 mm, height 61 mm
Quantity	100 pcs in a set

Needed items:

30210022	Screw cap, solid top with 15-425 thread
30133675	Receptacle 5 x 8 mL test tubes, Page 24
30549361	Receptacle 5 x 8 mL test tubes, low temp Page 25
51191324	Magnetic stir bar, Page 84



10 mL test tube
EasyMax 102

51161285	Test tube 10 mL with GL18 thread
Material	Borosilicate glass
Working Volume	5 mL, maximum
Size	Ø 18 mm, height 180 mm
Quantity	10 pcs in a set

Needed items:

51191400	Screw cap GL18, with aperture, PBT
51191399	Silicone rubber seal (Septa) GL18 for use with screw cap GL18
51161635	Receptacle 4 x 10 mL test tubes, Page 70
51191324	Magnetic stir bar, Page 86



25 mL test tube
EasyMax 102 and 102 LT

51161853	Test tube 25 mL with GL18 thread
Material	Borosilicate glass
Working Volume	25 mL, maximum
Size	Outer Ø 22 mm, height 120 mm
Quantity	1

Needed items:

51191400	Screw cap GL18, with aperture, PBT
51191399	Silicone rubber seal (Septa) GL18 for use with screw cap GL18
51161634	Receptacle 3 x 25 mL test tubes, Page 70
30549362	Receptacle 3 x 25 mL test tubes, low temp Page 71
51192096	Magnetic stir bar, Page 86

Screw cap for 8 mL test tube

30210022	Screw cap for the 8 mL test tube Solid top with 15-425 thread
Material	PP, PTFE/Si
Temperature	Max. 180 °C
Quantity	100 pcs in a set

Screw cap for 10 mL/25 mL test tubes

51191400	Screw cap GL18, with aperture, PBT For the 10 mL/25 mL test tubes
Material	PBT
Temperature	Max. 200 °C
Aperture	Ø 11 mm
Quantity	10 pcs in a set



51191399	Silicone rubber seal (Septa) GL18 For use with screw cap GL18
Material	Silicone rubber VQM
Size	Outer Ø 12 mm, thickness 2 mm
Quantity	20 pcs in a set

Optional Accessories**Working with EasyMax 102 LT**

30579921	Purge gas cover for test tubes For use with 8 mL and 25 mL test tubes
Material	PMMA
Size	Outer Ø 100 mm, height 40 mm
Quantity	1

8 mL Glass Reactor Set

EasyMax 102

**30207789****8 mL glass reactor set**

The 8 mL reactor set provides the possibility to screen multiple reactions from 1 mL to 8 mL scale.

EasyMax 8 mL glass reactor set consisting of

Order Number	Product Description	Quantity	Page
30210021	Test tube with 15-425 thread, 8 mL, 100 pcs in a set	1	26
30210022	Screw cap, solid top with 15-425 thread, 100 pcs in a set	1	27
30133675	Receptacle for 5 x 8 mL test tubes	1	70
51191324	Magnetic stir bar	5	86

Note: Large image may not show all parts in the set.

10 mL Glass Reactor Set

EasyMax 102



51161714

10 mL glass reactor set

The 10 mL reactor set provides the possibility to screen multiple reactions from 2 mL to 5 mL scale.

EasyMax 10 mL glass reactor set consisting of

Order Number	Product Description	Quantity	Page
51161285	Test tube, Ø 18 mm x 180 mm with GL18 thread, 10 pcs in a set	1	26
51191400	Screw cap GL18, with aperture, PBT, 10 pcs in a set	1	27
51191399	Silicone rubber seal (Septa) GL18, 20 pcs in a set	1	27
51161635	Receptacle for 4 x 10 mL test tubes	1	70
51191324	Magnetic stir bar	4	86

Note: Large image may not show all parts in the set.

25 mL Glass Reactor Set

EasyMax 102



51161854 25 mL glass reactor set for screening

The 25 mL reactor provides the possibility to screen multiple reactions from 3 mL to 25 mL.

EasyMax 25 mL glass reactor set for screening consisting of

Order Number	Product Description	Quantity	Page
51161853	Test tube 25 mL GL18, borosilicate glass	6	26
51191400	Screw cap GL18, with aperture, PBT, 10 pcs in a set	1	27
51191399	Silicone rubber seal (Septa) GL18, 20 pcs in a set	1	27
51161634	Receptacle for 3 x 25 mL test tubes	1	70
51192096	Magnetic stir bar, 4.5 mm x 15 mm	3	86

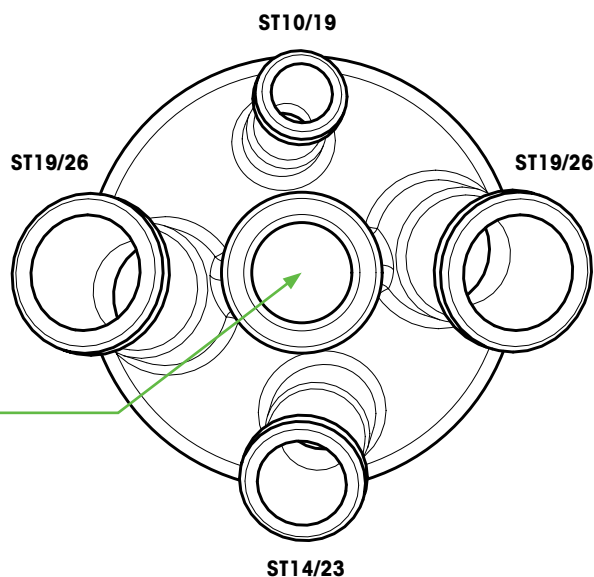
Note: Large image may not show all parts in the set.

One-Piece Glass Reactors

50 mL one-piece glass reactor

EasyMax 102 and 102 LT

ST19/26 Overhead stirrer port



51161792	50 mL one-piece glass reactor, 5-ports 1 x ST10/19, 1 x ST14/23, 2 x ST19/26, center ST19/26
Material	Borosilicate glass
Working Volume	50 mL, maximum
Nominal Volume	100 mL
Size	Inner Ø 43 mm, height 150 mm, wall 2.5 mm
Quantity	1

Needed items:

51161816	Reactor stand for 50 mL one-piece reactor, Page 69
51161815	Receptacle for 50 mL reactor, Page 70
30549363	Receptacle for 50 mL reactor, low temp, Page 71
51161813	Glass stirrer shaft for 50 mL/100 mL one-piece reactor, Page 84
51161814	Half-moon stirrer blade, Page 84

See Pages 75 – 77 for possible reactor/cover/stirrer combinations.

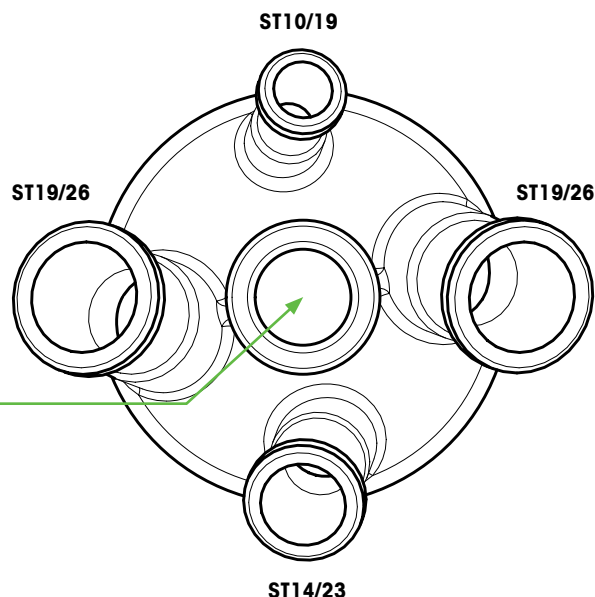
See Pages 75 – 77 for possible reactor/cover/stirrer combinations.

100 mL one-piece glass reactor

EasyMax 102, 102 LT, and 402



51161786	100 mL one-piece glass reactor , 5 ports 1 x ST10/19, 1 x ST14/23, 2 x ST19/26, center ST19/26
Material	Borosilicate glass
Working Volume	100 mL, maximum
Nominal Volume	180 mL
Size	Inner Ø 52 mm, height 150 mm, wall 2.5 mm
Quantity	1



Needed items:

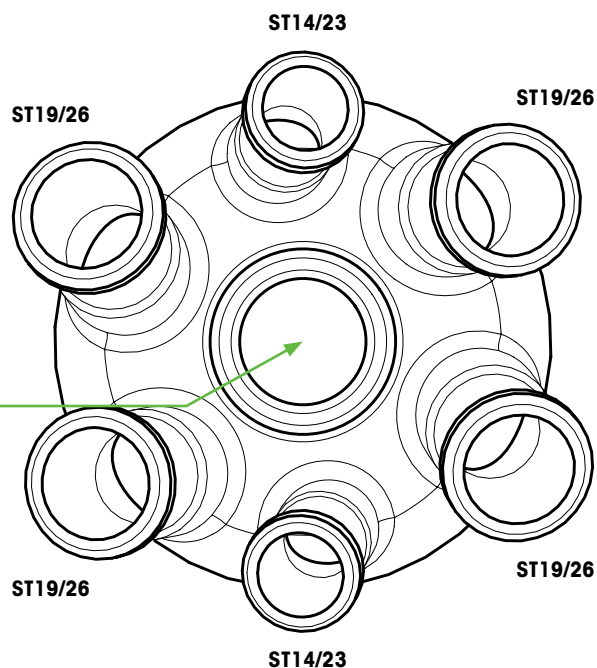
51161676	Reactor stand for 100 mL one-piece reactor, Page 69
30086802	Receptacle for 100 mL reactor, Working with EasyMax 402, Page 71
51161813	Glass stirrer shaft for 50 mL/100 mL one-piece reactor, Page 84
51161749	Half-moon stirrer blade, Page 85

250 mL one-piece glass reactor

OptiMax 1001



51162734	250 mL one-piece glass reactor, 7 ports 2 x ST14/23, 4 x ST19/26, center ST24/29
Material	Borosilicate glass
Working Volume	250 mL, maximum
Nominal Volume	400 mL
Size	Inner Ø 62 mm, height 205 mm, wall 2.5 mm
Quantity	1



Needed items:

51162758	Reactor stand for 250 mL one-piece reactor, Page 69
51162698	Receptacle for 250 mL reactor, Page 71
51162681	Glass stirrer shaft for 250 mL/500 mL/ 1000 mL reactors, Page 84
51162684	Half-moon stirrer blade, Page 85

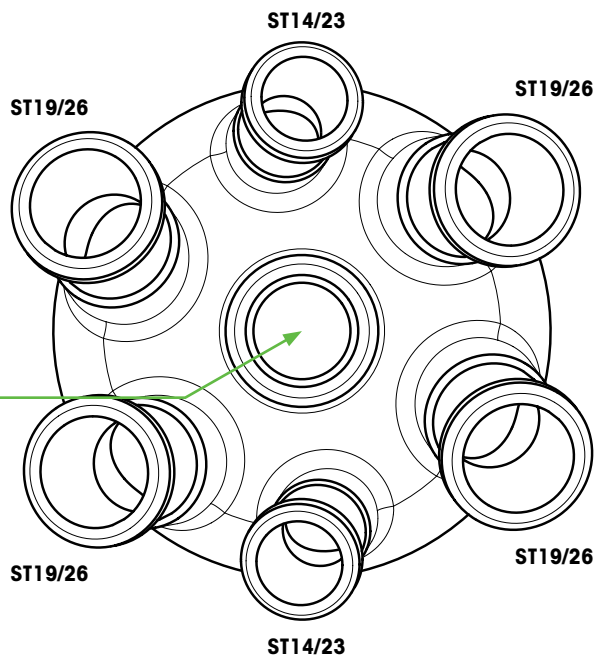
See Pages 75 – 77 for possible reactor/cover/stirrer combinations.

400 mL one-piece glass reactor

EasyMax 402



ST19/26 Overhead stirrer port



Needed items:

30131163	400 mL one-piece glass reactor, 7 ports 2 x ST14/23, 4 x ST19/26, center ST19/26
Material	Borosilicate glass
Working Volume	400 mL, maximum
Nominal Volume	425 mL
Size	Inner Ø 72.6 mm, height 206 mm, wall 2.5 mm
Quantity	1

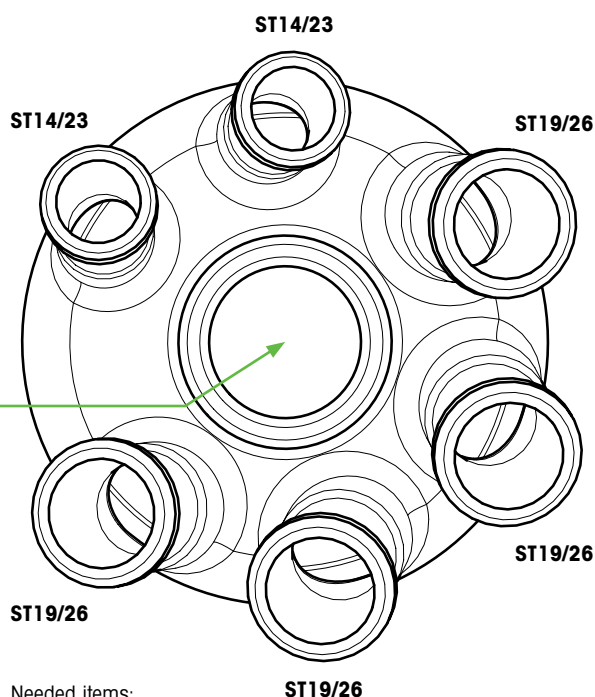
51162759	Reactor stand for 400 mL reactor, Page 69
30111614	Glass stirrer shaft for 400 mL one-piece reactor, Page 84
51161749	Half-moon stirrer blade, Page 85

500 mL one-piece glass reactor

OptiMax 1001



ST24/29 Overhead stirrer port



Needed items:

51162733	500 mL one-piece glass reactor, 7 ports 2 x ST14/23, 4 x ST19/26, center ST24/29
Material	Borosilicate glass
Working Volume	500 mL, maximum
Nominal Volume	700 mL
Size	Inner Ø 77 mm, height 225 mm, wall 2.5 mm
Quantity	1

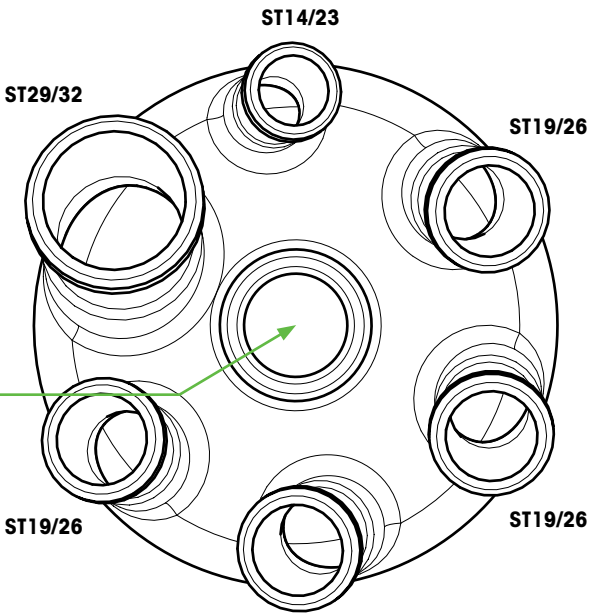
51162759	Reactor stand for 500 mL one-piece reactor, Page 69
51162670	Receptacle for 500 mL reactor, Page 71
51162681	Glass stirrer shaft for 250/500/1000 mL reactors, Page 84
51162683	Half-moon stirrer blade for 500 mL reactor, Page 85

See Pages 75 – 77 for possible reactor/cover/stirrer combinations.

1000 mL one-piece glass reactor
OptiMax 1001



ST24/29 Overhead stirrer port



Needed items:

51162732	1000 mL one-piece glass reactor, 7 ports 1 x ST14/23, 4 x ST19/26, 1 x ST29/32, center ST24/29
Material	Borosilicate glass
Working Volume	1000 mL, maximum
Nominal Volume	1150 mL
Size	Inner Ø 101 mm, height 230 mm, wall 3 mm
Quantity	1

51162760	Reactor stand for 1000 mL one-piece reactor, Page 69
51162681	Glass stirrer shaft for 250/500/1000 mL reactors, Page 84
51162682	Half-moon stirrer blade for 1000 mL reactor, Page 85

50 mL One-Piece Glass Reactor Set

EasyMax 102



51161838 5-port 50 mL one-piece glass reactor set

The one piece reactor meets round bottom flask requirements so that standard lab material and handling can be used. The reactor has a maximum working volume of 50 mL and a nominal volume of 100 mL.

Magnetic and overhead stirring (only with dedicated glass stirrer and blade) are available.

EasyMax 50 mL one-piece glass reactor set consisting of

Order Number	Product Description	Quantity	Page
51161792	50 mL one-piece glass reactor, 5 ports	1	31
51161816	Reactor stand for 50 mL reactor	1	69
51161815	Receptacle for 50 mL one-piece reactor	1	70
51161813	Glass stirrer shaft for 50 mL/100 mL one-piece reactor, Ø 8 mm, length 192 mm	1	84
51161814	Half-moon stirrer blade, 15 mm x 26 mm	1	84
51191159	Magnetic stir bar, 7 mm x 30 mm	1	86
51161822	Non-height adjustable stirrer adapter, ST19/26, including sealing ring	1	88
51161728	Adapter ST10/19 with 1 UNF 1/4-28	1	101
51191514	Ferrule for tubing and sensors of outer Ø 3.2 mm, 4 pcs in a set	1	101
51191515	Nut for UNF 1/4-28, 4 pcs in a set	1	101
71517	Glass stopper ST19/26	3	72
51190878	Glass stopper ST14/23	1	72
51191167	Glass stopper ST10/19	1	72
51191429	"Keck" clamp ST19	3	73
51191505	"Keck" clamp ST14	1	73
51191504	"Keck" clamp ST10	1	73

Note: Large image may not show all parts in the set.

100 mL One-Piece Glass Reactor Set

EasyMax 102 and 102 LT



51161805

5-port 100 mL one-piece glass reactor set

The one-piece reactor is developed to meet round bottom flask requirements so that standard lab material and handling can be used. The reactor has a maximum working volume of 100 mL and a nominal volume of 180 mL.

Magnetic and overhead stirring (only with dedicated glass stirrer and blade) possibilities are available. Only overhead stirring is possible with EasyMax 402.

The ST14 port can be used for inserting e.g. 9.5 mm analytical probes.

EasyMax 100 mL one-piece glass reactor set consisting of

Order Number	Product Description	Quantity	Page
51161786	100 mL one-piece glass reactor, 5 ports	1	32
51161676	Reactor stand for 100 mL reactor	1	69
51161813	Glass stirrer shaft for 50 mL/100 mL one-piece reactor, Ø 8 mm, length 192 mm	1	84
51161749	Half-moon stirrer blade, 15 mm x 40 mm	1	85
51161822	Non-height adjustable stirrer adapter, ST19/26, including sealing ring	1	88
51191939	Magnetic stir bar, 8 mm x 40 mm	1	86
51161728	Adapter ST10/19 with 1 UNF 1/4-28 port	1	101
51191514	Ferrule for tubing and sensors of outer Ø 3.2 mm, 4 pcs in a set	1	101
51191515	Nut for UNF 1/4-28, 4 pcs in a set	1	101
71517	Glass stopper ST19/26	3	72
51190878	Glass stopper ST14/23	1	72
51191167	Glass stopper ST10/19	1	72
51191429	"Keck" clamp ST19	3	73
51191505	"Keck" clamp ST14	1	73
51191504	"Keck" clamp ST10	1	73

Note: Large image may not show all parts in the set.

250 mL One-Piece Glass Reactor Set

OptiMax 1001



51162836

7-port 250 mL one-piece glass reactor set

The different OptiMax reactor sets combine all the available parts for a particular reactor type and volume in just one part number. This simplifies the evaluation and ordering process and makes it error-free.

The 250 mL one-piece glass reactor has a maximum working volume of 250 mL and a nominal volume of 400 mL.

OptiMax 250 mL one-piece glass reactor set consisting of

Order Number	Product Description	Quantity	Page
51162734	250 mL one-piece glass reactor, 7 ports	1	32
51162758	Reactor stand for 250 mL reactor	1	69
51162698	Receptacle for 250 mL reactor	1	71
51162681	Glass stirrer shaft for 250 mL/500 mL/1000 mL one-piece reactor, Ø 10 mm, length 380 mm	1	84
51162684	Half-moon stirrer blade, 19 mm x 43 mm	1	85
71517	Glass stopper ST19/26	4	72
51190878	Glass stopper ST14/23	2	72
51191167	"Keck" clamp ST24	1	73
51191429	"Keck" clamp ST19	4	73
51191505	"Keck" clamp ST14	2	73

Note: Large image may not show all parts in the set.

400 mL One-Piece Glass Reactor Set

EasyMax 402



30138936

7-port 400 mL one-piece glass reactor set

The 400 mL one-piece reactor set has a maximum working volume of 400 mL and nominal volume of 425 mL for work up.

Overhead stirring possibilities are available.

EasyMax 400 mL one-piece glass reactor set consisting of

Order Number	Product Description	Quantity	Page
30131163	400 mL one-piece glass reactor, 7 ports	1	33
51162759	Reactor stand for 400 mL reactor	1	69
30111614	Glass stirrer shaft for 400 mL one-piece reactor, Ø 8 mm, length 242 mm	1	82
51161749	Half-moon stirrer blade, 15 mm x 40 mm	1	83
51161822	Non-height adjustable stirrer adapter, ST19/26, including sealing ring	1	88
30125685	Adapter ST14/23 with 1 UNF 1/4-28 port	1	101
51191514	Ferrule for tubing and sensors of outer Ø 3.2 mm, 4 pcs in a set	1	101
51191515	Nut for UNF 1/4-28, 4 pcs in a set	1	101
71517	Glass stopper ST19/26	5	72
51190878	Glass stopper ST14/23	1	72
51191429	"Keck" clamp ST19	5	73
51191505	"Keck" clamp ST14	2	73

Note: Large image may not show all parts in the set.

500 mL One-Piece Glass Reactor Set

OptiMax 1001



51162835

7-port 500 mL one-piece glass reactor set

The different OptiMax reactor sets combine all the available parts for a particular reactor type and volume in just one part number. This simplifies the evaluation and ordering process and makes it error-free.

The 500 mL one-piece glass reactor has a maximum working volume of 500 mL and a nominal volume of 700 mL.

OptiMax 500 mL one-piece glass reactor set consisting of

Order Number	Product Description	Quantity	Page
51162733	500 mL one-piece glass reactor, 7 ports	1	33
51162759	Reactor stand for 500 mL reactor	1	69
51162670	Receptacle for 500 mL reactor	1	71
51162681	Glass stirrer shaft for 250 mL/500 mL/1000 mL one-piece reactor, Ø 10 mm, length 380 mm	1	84
51162683	Half-moon stirrer blade, 19 mm x 54 mm	1	85
51162638	Bar type baffle for 500 mL reactor, Alloy C-22	1	96
51104154	PTFE adapter for baffle	1	104
71517	Glass stopper ST19/26	4	72
51190878	Glass stopper ST14/23	1	72
51192167	"Keck" clamp ST24	1	73
51191429	"Keck" clamp ST19	4	73
51191505	"Keck" clamp ST14	2	73

Note: Large image may not show all parts in the set.

1000 mL One-Piece Glass Reactor Set

OptiMax 1001



51162834

7-port 1000 mL one-piece glass reactor set

The different OptiMax reactor sets combine all the available parts for a particular reactor type and volume in just one part number. This simplifies the evaluation and ordering process and makes it error-free.

The 1000 mL one-piece glass reactor has a maximum working volume of 1000 mL and a nominal volume of 1150 mL.

OptiMax 1000 mL one-piece glass reactor set consisting of

Order Number	Product Description	Quantity	Page
51162732	1000 mL one-piece glass reactor, 7 ports	1	34
51162760	Reactor stand for 1000 mL reactor	1	69
51162681	Glass stirrer shaft for 250 mL/500 mL/1000 mL one-piece reactor, Ø 10 mm, length 380 mm	1	84
51162682	Half-moon stirrer blade, 19 mm x 71 mm	1	85
51162637	Bar type baffle for 1000 mL reactor, Alloy C-22	1	96
51104154	PTFE adapter for baffle	1	104
71518	Glass stopper ST29/32	1	72
71517	Glass stopper ST19/26	4	72
51190878	Glass stopper ST14/23	1	72
51192168	"Keck" clamp ST29	1	73
51192167	"Keck" clamp ST24	1	73
51191429	"Keck" clamp ST19	4	73
51191505	"Keck" clamp ST14	1	73

Note: Large image may not show all parts in the set.

Two-Piece Glass Reactors



50 mL glass reactor
EasyMax 102

51161255	50 mL glass reactor
Material	Borosilicate glass
Working Volume	50 mL, maximum
Nominal Volume	70 mL
Size	Inner Ø 36 mm, height 74.5 mm, wall 1.5 mm
100 mL.	1

Needed items:

51161716	Receptacle for 50 mL reactor, Page 24
51161288	Reactor stand, Page 71
51160817	Glass cover for 50 mL reactor, 7 ports Page 47



100 mL glass reactor
EasyMax 102 and 402

51161620	100 mL glass reactor
Material	Borosilicate glass
Working Volume	100 mL, maximum
Nominal Volume	150 mL
Size	Inner Ø 52 mm, height 90 mm, wall 2.5 mm
Quantity	1

Needed items:

51161676	Reactor stand for 100 mL reactor, Page 69
30086802	EasyMax 402 receptacle for 100 mL reactor, working with EasyMax 402, Page 71
51161619	Glass cover for 100 mL reactor, 6 ports, Page 46
51161795	PTFE cover for 100 mL reactor, 6 ports With compression fittings and standard tapered joints for 100 mL reactor, Page 46
30090541	PTFE cover for 100 mL reactor, 6 ports For ParticleTrack and ReactIR, for 100 mL reactor, Page 47
30090542	PTFE cover for 100 mL reactor, 6 ports For ParticleView V19, ParticleTrack and ReactIR, for 100 mL reactor, Page 47

See Pages 75 – 77 for possible reactor/cover/stirrer combinations.



100 mL high workup volume glass reactor

EasyMax 102, 102 LT, and 402

30111634	100 mL high workup volume glass reactor
Material	Borosilicate glass
Working Volume	100 mL, maximum
Nominal Volume	200 mL
Size	Inner Ø 52 mm, height 130 mm, wall 2.5 mm
Quantity	1

Needed items:

51161676	Reactor stand for 100 mL reactor , Page 69
30086802	EasyMax 402 receptacle for 100 mL reactor , working with EasyMax 402, Page 71
51161619	Glass cover for 100 mL reactor, 6 ports , Page 46
51161795	PTFE cover for 100 mL reactor, 6 ports With compression fittings and standard tapered joints for 100 mL reactor, Page 46
30090541	PTFE cover for 100 mL reactor, 6 ports For ParticleTrack and ReactIR, for 100 mL reactor, Page 47
30090542	PTFE cover for 100 mL reactor, 6 ports For ParticleView V19, ParticleTrack and ReactIR, for 100 mL reactor, Page 47
30593255	Purge gas cover Working with EasyMax 102 LT, Page 43



250 mL glass reactor

OptiMax 1001

51162635	250 mL glass reactor
Material	Borosilicate glass
Working Volume	250 mL, maximum
Nominal Volume	370 mL
Size	Inner Ø 62 mm, height 127 mm, wall 2.2 mm
Quantity	1

Needed items:

51162758	Reactor stand for 250 mL reactor , Page 69
51162698	Receptacle for 250 mL reactor , Page 71
51162699	Glass cover for 250 mL reactor, 7 ports Page 48



400 mL glass reactor

EasyMax 402

30072099	400 mL glass reactor
Material	Borosilicate glass
Working Volume	400 mL, maximum
Nominal Volume	425 mL
Size	Inner Ø 72.6 mm, height 140 mm, wall 2.2 mm
Quantity	1

Needed items:

51162759	Reactor stand for 400 mL reactor , Page 69
51161072	Glass cover for 400 mL reactor, 6 ports Page 48
30111620	PTFE cover set for 400 mL reactor, 6 ports Page 49

See Pages 75 – 77 for possible reactor/cover/stirrer combinations.

**500 mL glass reactor**

OptiMax 1001

51162632	500 mL glass reactor With bottom drain valve
Material	Borosilicate glass, PTFE, PEEK, PTFE/Silicone rubber
Working Volume	500 mL, maximum
Nominal Volume	830 mL
Size	Inner Ø 77 mm, height 172 mm, wall 2.5 mm
Quantity	1

Needed items:

51162783	Reactor holder for 500 mL reactor , Page 69
51162670	Receptacle for 500 mL reactor , Page 71
51162671	Glass cover for 500 mL/1000 mL reactors, 7 ports , Page 49
30090540	PTFE cover set for 500 mL/1000 mL reactors, 7 ports , Page 50

**1000 mL glass reactors**

OptiMax 1001

51162634	1000 mL glass reactor With bottom drain valve
Material	Borosilicate glass, PTFE, PEEK, PTFE/Silicone rubber
Working Volume	1000 mL, maximum
Nominal Volume	1310 mL
Size	Inner Ø 101 mm, height 172 mm, wall 3 mm
Quantity	1

Needed items:

51162782	Reactor holder for 1000 mL reactor Page 69
51162671	Glass cover for 500 mL/1000 mL reactors, 7 ports , Page 49
30090540	PTFE cover set for 500 mL/1000 mL reactors, 7 ports , Page 50



30230585	1000 mL glass reactor Without bottom drain
Material	Borosilicate glass
Working Volume	1000 mL, maximum
Nominal Volume	1310 mL
Size	Inner Ø 101 mm, height 172 mm, wall 3 mm
Quantity	1

Needed items:

51162760	Reactor stand for 1000 mL reactor Page 69
51162671	Glass cover for 500 mL/1000 mL reactors, 7 ports , Page 49
30090540	PTFE cover set for 500 mL/1000 mL reactors, 7 ports , Page 50

Optional Accessories

Working with EasyMax 102 LT



30593255	Purge gas cover for 100 mL high workup volume glass reactor, 30111634
Material	PTFE C25, Elastomer core Silicone VQM, PTFE FEP-coated
Size	Inner Ø 58.2 mm, outer Ø 132 mm
Quantity	1

OptiMax Reactor

Spare Parts



51162631	Glass vessel for two-piece 500 mL reactor Without parts for bottom drain valve
Material	Borosilicate glass
Working Volume	500 mL, maximum
Nominal Volume	700 mL
Size	Inner Ø 77 mm, height 172 mm, wall 2.5 mm
Quantity	1



51162633	Glass vessel for two-piece 1000 mL reactor Without parts for bottom drain valve
Material	Borosilicate glass
Working Volume	1000 mL, maximum
Nominal Volume	1310 mL
Size	Inner Ø 101 mm, height 172 mm, wall 3 mm
Quantity	1

30413310	Glass vessel for two-piece 1800 mL reactor Without parts for bottom drain valve
Material	Borosilicate glass
Working Volume	1800 mL, maximum
Nominal Volume	1950 mL
Size	Inner Ø 101 mm, height 252 mm, wall 3 mm
Quantity	1



51162730	Bottom drain connect set For bottom drain valve
Material	PEEK, PTFE
Size	Ø 52 mm
Quantity	1



71540	Sealing ring bottom valve
Material	PTFE/Silicone rubber
Size	Inner Ø 13 mm, 5 mm
Quantity	1



51191774	Spindle with tip, bottom drain valve 115 mm, with spring
Material	PTFE
Size	Ø 14 mm x 115 mm
Quantity	1



51190515	Spindle tip, light blue
Material	Lubriflon 904-filled PTFE
Quantity	1

Glass and PTFE Reactor Covers

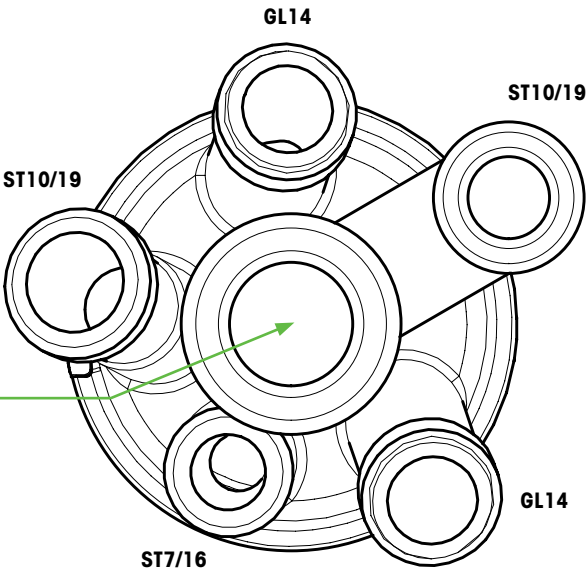
For Two-Piece Glass Reactors

50 mL glass reactor cover EasyMax 102



51160817	Glass cover for 50 mL reactor, 6 ports 1 x ST7/16, 2 x ST10/19, 2 x GL14, center ST14/23
Material	Borosilicate glass
Size	Inner Ø 36 mm
Quantity	1

ST14/23 Overhead stirrer port



Needed items:

51161255	50 mL glass reactor , Page 41
51161288	Reactor stand , Page 69
51161716	Receptacle for 50 mL reactor , Page 70

See Pages 75 – 77 for possible reactor/cover/stirrer combinations.

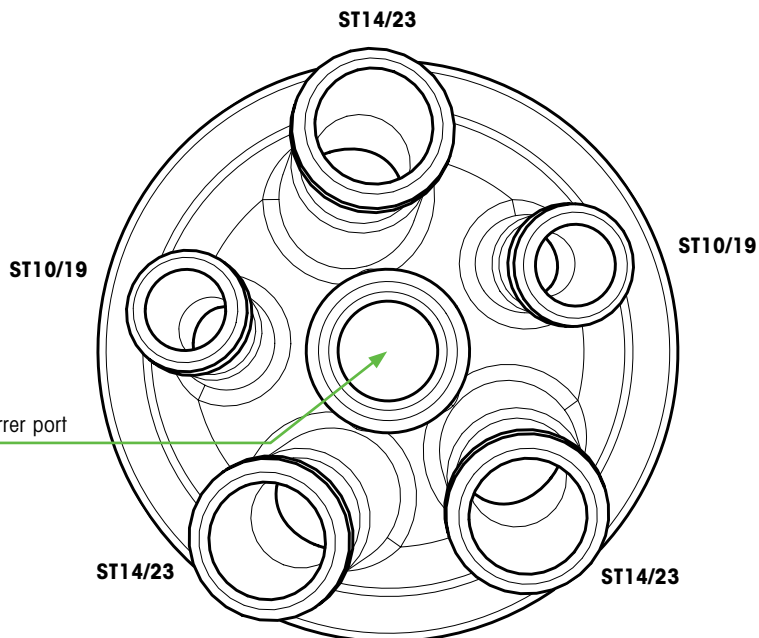
See Pages 75 – 77 for possible reactor/cover/stirrer combinations.

100 mL glass reactor cover

EasyMax 102, 102 LT, and 402



51161619	Glass cover for 100 mL reactor, 6 ports 2 x ST10/19, 3 x ST14/23, center ST14/23
Material	Borosilicate glass
Size	Inner Ø 52 mm
Quantity	1



Needed items:

51161620	100 mL glass reactor , Page 41
30111634	100 mL high workup volume glass reactor , Page 42
51161676	Reactor stand for 100 mL reactor , Page 69
30086802	EasyMax 402 receptacle for 100 mL reactor Page 71

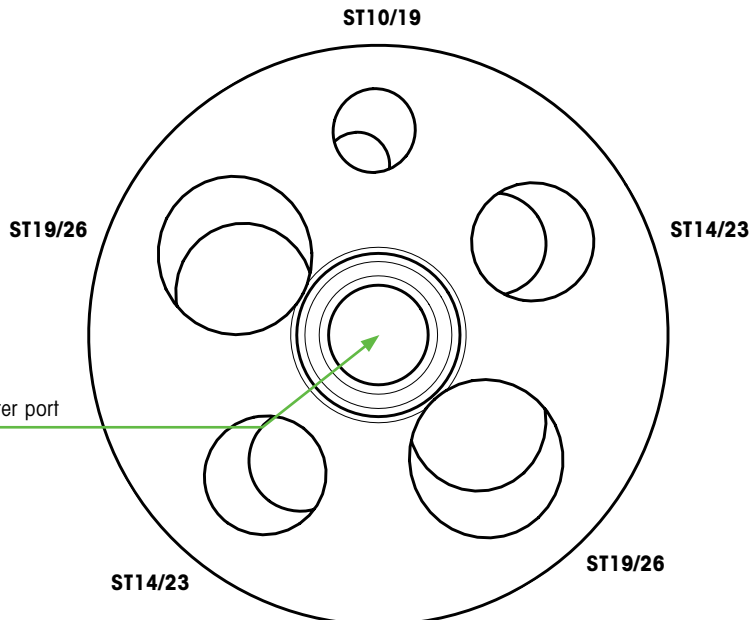
100 mL PTFE reactor cover –

Standard taper joints
EasyMax 102 and 102 LT



51161795	PTFE cover for 100 mL reactor, 6 ports 1 x ST10/19, 2 x ST14/23, 2 x ST19/26, center ST14/23
Material	PTFE GF25
Size	Inner Ø 52 mm
Quantity	1

Note: Works only with the 50 mL stirrer shaft 51161756
See 51161800 PTFE cover set, Page 57

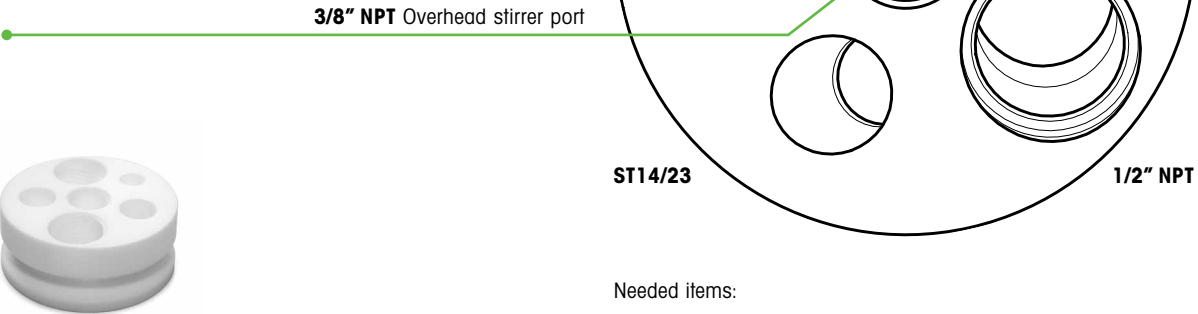


Needed items:

51161620	100 mL glass reactor , Page 41
30111634	100 mL high workup volume glass reactor , Page 42
51161676	Reactor stand for 100 mL reactor , Page 69
30086802	EasyMax 402 receptacle for 100 mL reactor Page 71

See Pages 75 – 77 for possible reactor/cover/stirrer combinations.

100 mL PTFE reactor cover –
ParticleTrack, ReactIR, and EasyViewer
EasyMax 102 and 102 LT



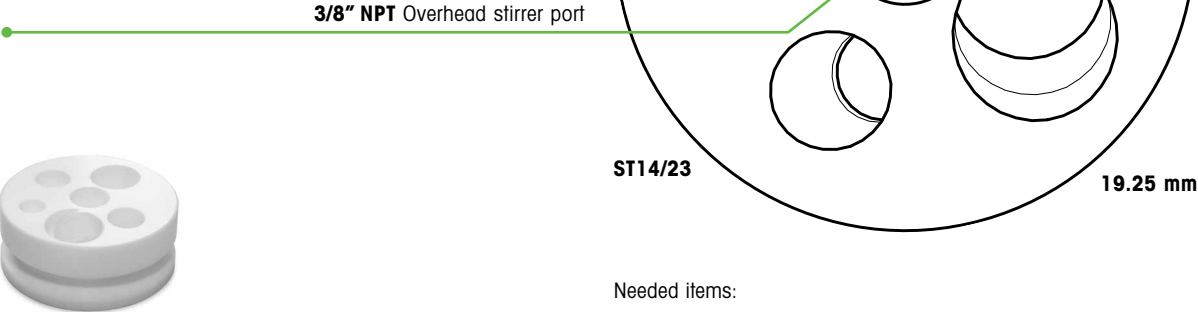
	PTFE cover plate, 6 ports 1 x ST10, 2 x ST14, 2 x 1/2" NPT, center 3/8" NPT
Material	PTFE
Size	Inner Ø 52 mm
Quantity	1

Note: This cover plate is only available as a set including screw-in adapters. See 30090541 PTFE cover set, Page 60

Needed items:

51161620	100 mL glass reactor , Page 41
30111634	100 mL high workup volume glass reactor , Page 42
51161676	Reactor stand for 100 mL reactor , Page 69
30086802	EasyMax 402 receptacle for 100 mL reactor Page 71

100 mL PTFE reactor cover –
ParticleView V19, ParticleTrack, ReactIR,
and EasyViewer
EasyMax 102 and 102 LT



	PTFE cover plate, 6 ports 1 x ST10, 2 x ST14, 1 x 1/2" NPT, 1 x 19.25 mm, center 3/8" NPT
Material	PTFE
Size	Inner Ø 52 mm
Quantity	1

Note: This cover plate is only available as a set including screw-in adapters. See 30090542 PTFE cover set, Page 58

Needed items:

51161620	100 mL glass reactor , Page 41
30111634	100 mL high workup volume glass reactor , Page 42
51161676	Reactor stand for 100 mL reactor , Page 69
30086802	EasyMax 402 receptacle for 100 mL reactor Page 71

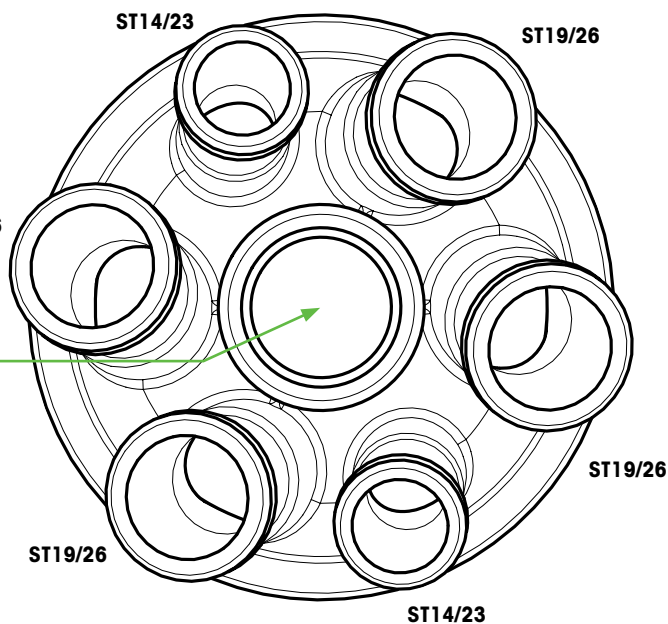
See Pages 75 – 77 for possible reactor/cover/stirrer combinations.

250 mL glass reactor cover

OptiMax 1001



51162699	Glass cover for 250 mL reactor, seven ports 2 x ST14/23, 4 x ST19/26, center ST24/29
Material	Borosilicate glass
Size	Inner Ø 68 mm
Quantity	1



Needed items:

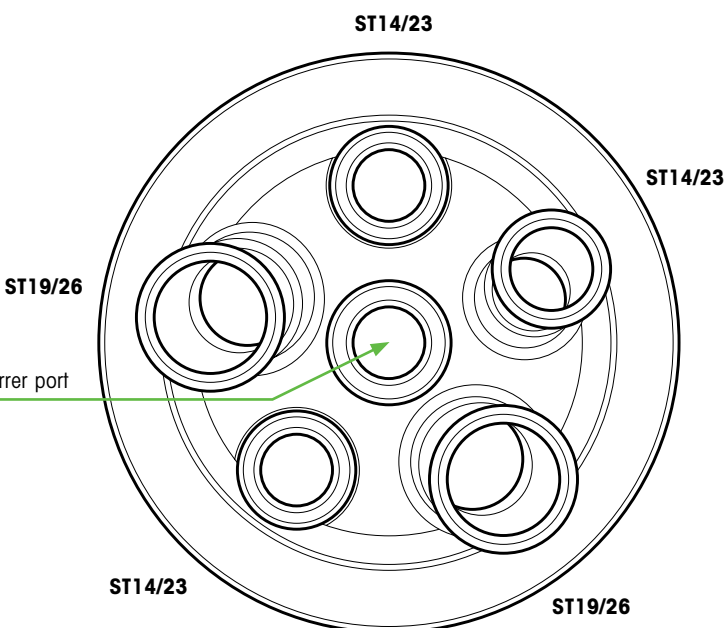
51162635	250 mL glass reactor , Page 42
51162698	Receptacle for 250 mL reactor , Page 71
51162758	Reactor stand for 250 mL reactor , Page 69
51162781	Cover holder for 250 mL reactor cover Page 69

400 mL glass reactor cover

EasyMax 402



51161072	Glass cover for 400 mL reactor, 6 ports 3 x ST14/23, 2 x ST19/26, center ST14/23
Material	Borosilicate glass
Size	Inner Ø 67 mm
Quantity	1



Needed items:

30072099	400 mL glass reactor , Page 42
51162759	Reactor stand for 400 mL reactor , Page 69

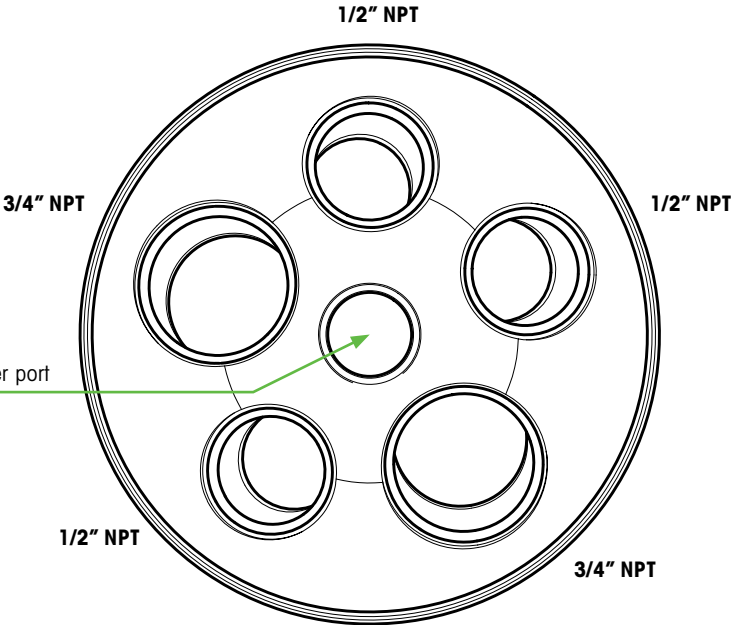
See Pages 75 – 77 for possible reactor/cover/stirrer combinations.

400 mL PTFE reactor cover EasyMax 402



	PTFE cover plate, 6 ports 3 x 1/2" NPT, 2 x 3/4" NPT, center 3/8" NPT
Material	PTFE
Size	Inner Ø 67 mm
Quantity	1

Note: This cover plate is only available as a set including screw-in adapters. See 30111620 PTFE cover set, Page 63



Needed items:

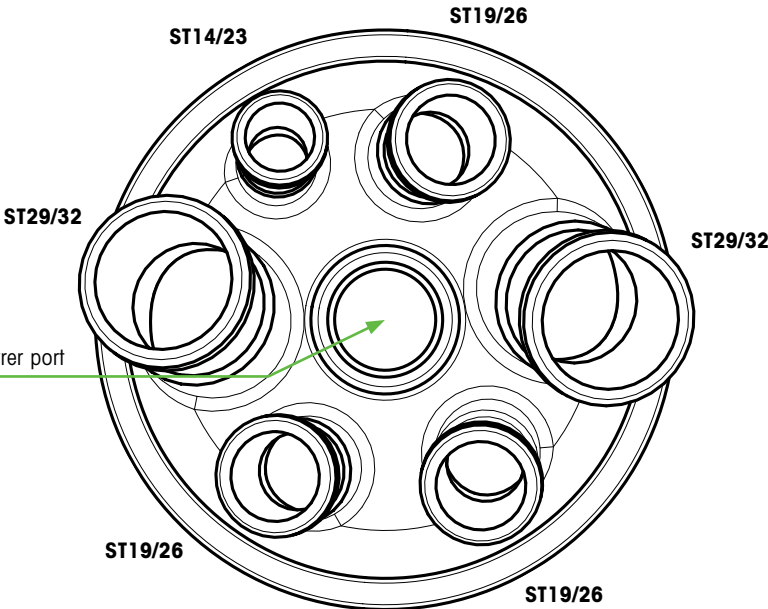
30072099	400 mL glass reactor , Page 42
51162759	Reactor stand for 400 mL reactor , Page 69

500 mL/1000 mL glass reactor cover OptiMax 1001



51162671	Glass cover for 500 mL/1000 mL reactor, 7 ports 1 x ST14/23, 3 x ST19/26, 2 x ST29/32, center ST24/29
Material	Borosilicate glass
Size	Inner Ø 98 mm
Quantity	1

ST24/29 Overhead stirrer port



Needed items:

51162632	500 mL glass reactor , Page 43
51162783	Reactor holder for 500 mL reactor , Page 69
51162670	Receptacle for 500 mL reactor , Page 71
51162634	1000 mL glass reactor , Page 43
51162782	Reactor holder for 1000 mL reactor Page 69
51162780	Cover holder for 500 mL/1000 mL reactor cover , Page 69

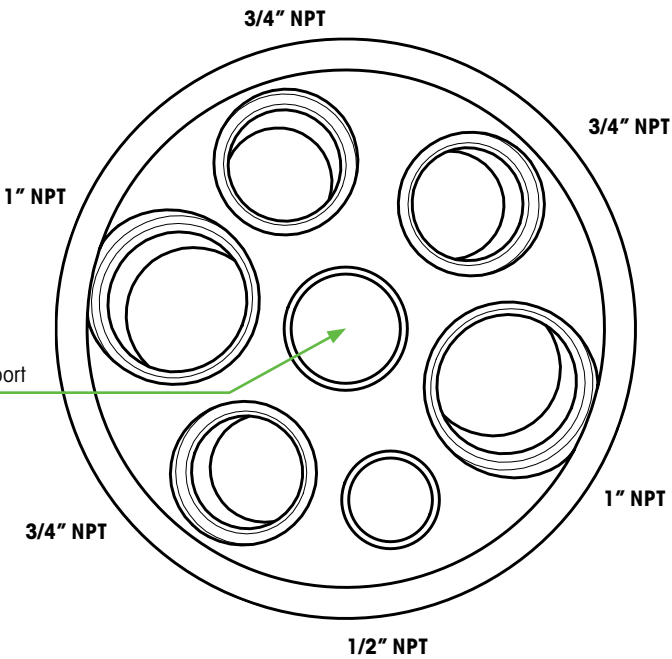
See Pages 75 – 77 for possible reactor/cover/stirrer combinations.

500 mL/1000 mL PTFE reactor cover
OptiMax 1001



	PTFE cover plate, 7 ports 2 x 1" NPT, 4 x 3/4" NPT, 1 x 1/2" NPT
Material	PTFE
Size	Inner Ø 98 mm
Quantity	1

Note: This cover plate is only available as a set including screw-in adapters. See 30090540 PTFE cover set, Page 66



Needed items:

51162632	500 mL glass reactor , Page 43
51162783	Reactor holder for 500 mL reactor , Page 69
51162670	Receptacle for 500 mL reactor , Page 71
51162634	1000 mL glass reactor , Page 43
51162782	Reactor holder for 1000 mL reactor Page 69
51162780	Cover holder for 500 mL/1000 mL reactor cover , Page 69

50 mL Glass Reactor Set

EasyMax 102



51161712

50 mL glass reactor set

The 50 mL reactor set has a maximum working volume of 50 mL and nominal volume of 70 mL for work up. Both magnetic and overhead stirring possibilities are available.

A special sleeve with window provides visibility into the mixture.

EasyMax 50 mL glass reactor set consisting of

Order Number	Product Description	Quantity	Page
51161255	50 mL round-bottom reactor	1	41
51161288	Reactor stand for 50 mL reactor	1	69
51161716	Receptacle for 50 mL reactor	1	70
51160675	Reactor clamp for 50 mL reactor	1	67
51161718	Fixing ring for receptacle	1	67
51191416	O-ring for 50 mL glass reactor, Ø 36.14 mm x 2.62 mm	1	68
51191919	Magnetic stir bar, cross-shaped, 10 mm x 25 mm	1	86

50 mL Glass Cover Set

EasyMax 102



51161713

6-port 50 mL glass cover set

The 50 mL glass cover set with six openings is built for multiple applications including dosing, reflux, pH measurement, ReactIR, or turbidity.

EasyMax 50 mL glass cover set consisting of

Order Number	Product Description	Quantity	Page
51160817	Glass cover for 50 mL reactor, 6 ports	1	45
51190318	Screw cap GL14, without aperture, PBT	2	72
51191170	Silicone rubber seal (Septa) GL14	2	72
51190317	Screw cap GL14, with aperture, PBT	3	100
51103947	Sealing ring for screw cap GL14 PTFE/silicone, aperture 6 mm	3	100
51191267	Glass adapter ST14/23-GL14	1	100
51161037	Adapter for GL14, 6 mm – 6.35 mm sensors, PTFE	2	100
51161558	Adapter GL14-UNF with 1 UNF 1/4-28 port, PTFE GL25	2	100
51161728	Adapter ST10/19 with 1 UNF 1/4-28 port	1	101
51160200	Adapter ST 7/16 with 1 UNF 1/4-28 port	1	101
51191514	Ferrule for tubing outer Ø 3.2 mm, 4 pcs in a set	1	101
51191515	Nut for UNF 1/4-28 threads, 4 pcs in a set	1	101
51190878	Glass stopper ST14/23	1	72
51191167	Glass stopper ST10/19	2	72
51190877	Glass stopper ST7/16	1	72
51191505	“Keck” clamp ST14	1	73
51191504	“Keck” clamp ST10	2	73
51190879	Clamp ST7	1	73

Note: Large image may not show all parts in the set.

100 mL Glass Reactor Set

EasyMax 102



51161708

100 mL glass reactor set

The 100 mL reactor set has a maximum working volume of 100 mL and nominal volume of 150 mL for work up.

Both magnetic and overhead stirring possibilities are available.

EasyMax 100 mL glass reactor set consisting of

Order Number	Product Description	Quantity	Page
51161620	100 mL glass reactor	1	41
51161676	Reactor stand for 100 mL reactor	1	69
51191913	O-ring for 100 mL reactor, Ø 56.82 mm x 2.62 mm	1	67
51161670	Clamp chain for 100 mL reactor	1	67
51191918	Magnetic stir bar, cross-shaped, 15 mm x 38 mm	1	86

100 mL Glass Reactor Set

EasyMax 402



30125690

100 mL glass reactor set

The 100 mL reactor set has a maximum working volume of 100 mL and nominal volume of 150 mL for work up.

Both magnetic and overhead stirring possibilities are available. Only overhead stirring is possible with EasyMax 402.

EasyMax 100 mL glass reactor set consisting of

Order Number	Product Description	Quantity	Page
51161620	100 mL glass reactor	1	41
51161676	Reactor stand for 100 mL reactor	1	69
51191913	O-ring for 100 mL reactor, Ø 56.82 mm x 2.62 mm	1	67
51161670	Clamp chain for 100 mL reactor	1	67
30086802	EasyMax 402 receptacle for 100 mL reactor	1	71

100 mL High Workup Volume Set

EasyMax 402



30111633

100 mL high workup volume glass reactor set

The 100 mL high workup volume reactor set has a maximum working volume of 100 mL and nominal volume of 200 mL for work up.

Both magnetic and overhead stirring possibilities are available. Only overhead stirring is possible with EasyMax 402.

EasyMax 100 mL high workup volume glass reactor set consisting of

Order Number	Product Description	Quantity	Page
30111634	100 mL high workup volume glass reactor	1	42
51161676	Reactor stand for 100 mL reactor	1	69
51191913	O-ring for 100 mL reactor, Ø 56.82 mm x 2.62 mm	1	67
51161670	Clamp chain for 100 mL reactor	1	67
30111635	EasyMax 402 receptacle for 100 mL high workup volume reactor	1	71

100 mL Glass Cover Set

EasyMax 102, 102 LT, and 402



51161709

6-port 100 mL glass cover set

The 100 mL glass cover set with six ports is built for multiple applications without limitations for dosing, reflux, pH measurement, ReactIR, or turbidity.

The set includes all adapters, stoppers and clamps needed for full operation.

EasyMax 100 mL glass cover set consisting of

Order Number	Product Description	Quantity	Page
51161619	Glass cover for 100 mL reactor, 6 ports	1	46
51191428	Hose connection for purge gas tubing with 1 UNF 1/4-28 thread	2	102
51161728	Adapter ST 10/19 with 1 UNF 1/4-28 port	2	101
51191514	Ferrule for tubing and sensors of outer Ø 3.2 mm, 4 pcs in a set	1	101
51191515	Nut for UNF 1/4-28, 4 pcs in a set	1	101
51190878	Glass stopper ST14/23	4	72
51191167	Glass stopper ST10/19	2	72
51191505	"Keck" clamp ST14	4	73
51191504	"Keck" clamp ST10	2	73

Note: Large image may not show all parts in the set.

100 mL PTFE Cover Set

EasyMax 102, 102 LT, and 402



51161800 6-port PTFE cover set with standard tapered joints for 100 mL reactor

This version of a PTFE cover is equipped with a series of standard taper joints in order to accommodate standard ST adapters and lab equipment.

The PTFE cover can be used in combination with the standard O-rings and reactor clamp as used for the glass cover.

EasyMax 100 mL PTFE cover set consisting of

Order Number	Product Description	Quantity	Page
51161795	PTFE cover for 100 mL reactor body (works only with the 50 mL stirrer shaft 51161756), 6 ports	1	46
51161821	Adapter PTFE for ParticleTrack probe, ST19/26-14 mm	1	105
51191857	O-ring for adapter, Ø 13.95 mm x 2.62 mm	1	105
51161817	Adapter PTFE for ReactIR probe, ST14/23-9.5 mm	1	103
51192091	O-ring for adapter, Ø 9.19 mm x 2.62 mm	1	103
51161728	Adapter ST10/19 with 1 UNF 1/4-28 port	2	101
51191514	Ferrule for tubing and sensors of outer Ø 3.2 mm, 4 pcs in a set	1	101
51191515	Nut for UNF 1/4-28, 4 pcs in a set	1	101
71517	Glass stopper ST19/26	2	72
51190878	Glass stopper ST14/23	3	72
51191167	Glass stopper ST10/19	1	72

Note: Large image may not show all parts in the set.

100 mL PTFE Cover Set

EasyMax 102, 102 LT, and 402



30090541

6-port PTFE cover set with compression fittings and standard tapered joints for 100 mL reactor – for ParticleTrack (14 mm), ReactIR and EasyViewer

This cover is designed to be used in combination with METTLER TOLEDOs ParticleTrack, ReactIR and EasyViewer probes up to 14 mm in diameter.

The adapters with compression fittings are perfectly suited to hold the various probes and insert in an ideal and secure position.

The PTFE cover comes as full set with all the required adapters to accommodate typical combinations of probes and inserts.

The cover can be used in combination with the standard O-rings and reactor clamp as used for the glass cover.

EasyMax 100 mL PTFE cover set consisting of

Order Number	Product Description	Quantity	Page
	PTFE cover for 100 mL reactor, 6 ports	1	47
	Standard stirrer adapter, 3/8" NPT ST14/-	1	108
30245647	Compression fitting 1/2" NPT, 14 mm bore	1	105
30245649	Compression fitting 1/2" NPT, 3/8" 9.525 mm bore	1	103
30245648	Compression fitting 1/2" NPT, 1/4" 6.35 mm bore	1	102
30245707	Taper joint adapter 1/2" NPT ST19/-	2	108
51161728	Adapter ST 10/19 with 1 UNF 1/4-28 port	1	101
51191514	Ferrule for tubing and sensors of outer Ø 3.2 mm, 4 pcs in a set	1	101
51191515	Nut for UNF 1/4-28, 4 pcs in a set	1	101
	Sealing plug for Ø 14 mm compression fitting	1	
	Sealing plug for Ø 3/8" compression fitting	1	
	Sealing plug for Ø 1/4" compression fitting	1	

Note: Large image may not show all parts in the set.

100 mL PTFE Cover Set

EasyMax 102, 102 LT, and 402



30090542

6-port PTFE cover set with compression fittings, standard tapered joints and 19 mm bore for 100 mL reactor – for ParticleTrack, ReactIR, ParticleView V19, EasyViewer

This cover is designed to be used in combination with METTLER TOLEDOs ParticleTrack and ReactIR probes up to 14 mm in diameter as well as the ParticleView V19 and EasyViewer 400 probes with 19 mm in diameter.

The adapters with compression fittings are perfectly suited to hold the various probes and insert in an ideal and secure position.

The PTFE cover comes as full set with all the required adapters to accommodate typical combinations of probes and inserts. The cover can be used in combination with the standard O-rings and reactor clamp as used for the glass cover.

EasyMax 100 mL PTFE cover set consisting of

Order Number	Product Description	Quantity	Page
	PTFE cover for 100 mL reactor, 6 ports	1	47
	Standard stirrer adapter, 3/8" NPT ST14/-	1	108
30245647	Compression fitting 1/2" NPT, 14 mm bore	1	105
51161728	Adapter ST 10/19 with 1 UNF 1/4-28 port	1	101
51191514	Ferrule for tubing and sensors of outer Ø 3.2 mm, 4 pcs in a set	1	101
51191515	Nut for UNF 1/4-28, 4 pcs in a set	1	101
	Sealing plug for Ø 14 mm compression fitting	1	
	Number 19 flask stopper for 19.25 mm port	1	
	PTFE sleeves for 19.25 mm port	10	

Note: Large image may not show all parts in the set.

250 mL Two-Piece Glass Reactor Set

OptiMax 1001



51162833

250 mL two-piece glass reactor set

The different OptiMax reactor sets combine all the available parts for a particular reactor type and volume in just one part number. This simplifies the evaluation and ordering process and makes it error-free.

The 250 mL two-piece glass reactor has no bottom drain valve. The reactor has a maximum working volume of 250 mL and a nominal volume of 370 mL.

OptiMax 250 mL two-piece glass reactor set consisting of

Order Number	Product Description	Quantity	Page
51162635	Glass reactor, 250 mL	1	42
51162758	Reactor stand for 250 mL reactor	1	69
51162699	Glass cover for 250 mL reactor, 7 ports	1	48
51162781	Cover holder for 250 mL reactor cover	1	69
51162698	Receptacle for 250 mL reactor	1	71
51162703	Clamp chain for 250 mL reactor	1	67
51192170	O-ring for 250 mL reactor, Ø 72.62 mm x 3.53 mm	1	67
51162417	Stirrer shaft for 250 mL reactor, Alloy C-22	1	81
51162418	Pitched stirrer blade, Alloy C-22, downward, Ø 38 mm	1	82
71517	Glass stopper ST19/26	4	72
51190878	Glass stopper ST14/23	2	72
51192167	"Keck" clamp ST24	1	73
51191429	"Keck" clamp ST19	4	73
51191505	"Keck" clamp ST14	2	73

Note: Large image may not show all parts in the set.

400 mL Glass Reactor Set

EasyMax 402



30111619

400 mL glass reactor set

The 400 mL reactor set has a maximum working volume of 400 mL and nominal volume of 425 mL for work up.

Only overhead stirring is possible with EasyMax 402.

EasyMax 400 mL glass reactor set consisting of

Order Number	Product Description	Quantity	Page
30072099	400 mL glass reactor	1	42
51162759	Reactor stand for 400 mL reactor	1	69
51191335	O-ring for 400 mL reactor, Ø 82.22 mm x 2.62 mm	1	67
30111610	Clamp chain for 400 mL reactor	1	67

400 mL Glass Cover Set

EasyMax 402



3011632

6-port 400 mL glass cover set

The 400 mL glass cover set with 6 ports is built for multiple applications like dosing or pH measurement. The set includes all stoppers and clamps needed for normal operation.

EasyMax 400 mL glass cover set consisting of

Order Number	Product Description	Quantity	Page
51161072	Glass cover for 400 mL reactor, 6 ports	1	48
30125685	Adapter ST14/23 with 1 UNF 1/4-28 port	1	101
51191514	Ferrule for tubing and sensors of outer Ø 3.2 mm, 4 pcs in a set	1	101
51191515	Nut for UNF 1/4-28, 4 pcs in a set	1	101
71517	Glass stopper ST19/26	2	72
51190878	Glass stopper ST14/23	4	72
51191429	"Keck" clamp ST19	2	73
51191505	"Keck" clamp ST14	4	73

Note: Large image may not show all parts in the set.

400 mL PTFE Cover Set

EasyMax 402



30111620

6-port PTFE cover set with standard ST19/38 fittings for 400 mL reactor

This cover is designed for normal use and use with probes up to 14 mm in diameter

The PTFE cover set comes with standard ST19 adapters to accommodate typical combinations of probes and inserts. The cover can be used with the same clamp and O-ring as used with the glass cover.

EasyMax 400 mL PTFE cover set consisting of

Order Number	Product Description	Quantity	Page
	PTFE cover for 400 mL reactor, 6 ports	1	49
	Standard stirrer adapter, 3/8" NPT ST14/-	1	108
30245707	Taper joint adapter 1/2" NPT ST19/-	3	108
30245672	Taper joint adapter 3/4" NPT ST19/-	2	108
30125686	Adapter ST19/26 with 1 UNF 1/4-28 port	1	101
51191514	Ferrule for tubing and sensors of outer Ø 3.2 mm, 4 pcs in a set	1	101
51191515	Nut for UNF 1/4-28, 4 pcs in a set	1	101

Note: Large image may not show all parts in the set.

500 mL Two-Piece Glass Reactor Set

OptiMax 1001



51162832

500 mL two-piece glass reactor set

The different OptiMax reactor sets combine all the available parts for a particular reactor type and volume in just one part number. This simplifies the evaluation and ordering process and makes it error-free.

The 500 mL two-piece glass reactor is equipped with a bottom drain valve and has a maximum working volume of 500 mL and a nominal volume of 830 mL.

Note: Large image may not show all parts in the set.

OptiMax 500 mL two-piece glass reactor set consisting of

Order Number	Product Description	Quantity	Page
51162632	Glass reactor, 500 mL	1	43
51162783	Reactor holder for 500 mL reactor	1	69
51162671	Glass cover, for 500 mL/1000 mL reactor, 7 ports	1	49
51162780	Cover holder for 500 mL/1000 mL reactor cover	1	69
51162670	Receptacle for 500 mL reactor	1	71
51162673	Clamp chain for 500 mL/1000 mL reactor	1	67
51192205	O-ring for 500 mL/1000 mL reactor, Ø 107.5 mm x 3.53 mm	1	67
51162722	Stirrer shaft for 500 mL/1000 mL reactor, Alloy C-22	1	81
103504	Pitched stirrer blade, Alloy C-22, downward, Ø 45 mm	1	82
51162638	Bar type baffle for 500 mL reactor, Alloy C-22	1	96
51104154	PTFE adapter for baffle	1	104
51162685	Drain union, bended	1	96
51192169	Pinch clamp S19, stainless steel	1	73
71518	Glass stopper ST29/32	2	72
71517	Glass stopper ST19/26	3	72
51190878	Glass stopper ST14/23	1	72
51192168	"Keck" clamp ST29	2	73
51192167	"Keck" clamp ST24	1	73
51191429	"Keck" clamp ST19	3	73
51191505	"Keck" clamp ST14	1	73

1000 mL Two-Piece Glass Reactor Set

OptiMax 1001



51162831

1000 mL two-piece glass reactor set

The different OptiMax reactor sets combine all the available parts for a particular reactor type and volume in just one part number. This simplifies the evaluation and ordering process and makes it error-free.

The 1000 mL two-piece glass reactor is equipped with a bottom drain valve and has a maximum working volume of 1000 mL and a nominal volume of 1310 mL.

Note: Large image may not show all parts in the set.

OptiMax 1000 mL two-piece glass reactor set consisting of

Order Number	Product Description	Quantity	Page
51162634	Glass reactor, 1000 mL	1	43
51162782	Reactor holder for 1000 mL reactor	1	69
51162671	Glass cover, for 500 mL/1000 mL reactor, 7 ports	1	49
51162780	Cover holder for 500 mL/1000 mL reactor cover	1	69
51162673	Clamp chain for 500 mL/1000 mL reactor	1	67
51192205	O-ring for 500 mL/1000 mL reactor, Ø 107.5 mm x 3.53 mm	1	67
51162722	Stirrer shaft for 500 mL/1000 mL reactor, Alloy C-22	1	81
103504	Pitched stirrer blade, Alloy C-22, downward, Ø 45 mm	1	82
51162637	Bar type baffle for 1000 mL reactor, Alloy C-22	1	96
51104154	PTFE adapter for baffle	1	104
51162685	Drain union, bended	1	96
51192169	Pinch clamp S19, stainless steel	1	73
71518	Glass stopper ST29/32	2	72
71517	Glass stopper ST19/26	3	72
51190878	Glass stopper ST14/23	1	72
51192168	"Keck" clamp ST29	2	73
51192167	"Keck" clamp ST24	1	73
51191429	"Keck" clamp ST19	3	73
51191505	"Keck" clamp ST14	1	73

500 mL/1000 mL PTFE Cover Set

OptiMax 1001



30090540

7-port 500 mL/1000 mL PTFE cover set

This reactor cover is an extremely robust alternative for the standard glass cover 51162671.

It is the perfect choice if the reactor is equipped with heavy inserts and probes which bears the risk to break the glass version of the cover.

The PTFE cover comes as full set with all the required adapters to accommodate typical combinations of probes and inserts.

The cover can be used in combination with the standard O-rings and reactor clamp as used for the glass cover.

OptiMax PTFE cover set consisting of

Order Number	Product Description	Quantity	Page
	PTFE cover for 500 mL/1000 mL reactors, 7 ports	1	50
	OptiMax standard stirrer adapter, 3/4" NPT ST24/-	1	109
30245706	Taper joint adapter 1/2" NPT ST14/-	1	108
30245672	Taper joint adapter 3/4" NPT ST19/-	3	108
30245709	Taper joint adapter 1" NPT ST29/-	2	109
30245704	Compression fitting 1" NPT, 19 mm bore	1	106
30245705	Compression fitting 1" NPT, 5/8" 15.875 mm bore	1	106
30245682	Compression fitting 3/4" NPT, 14 mm bore	1	105
30245681	Compression fitting 3/4" NPT, 12 mm bore	1	104
30245680	Compression fitting 3/4" NPT, 8 mm bore	1	103
30245700	Compression fitting 3/4" NPT, 3/8" 9.525 mm bore	1	103
30245684	Compression fitting 3/4" NPT, 1/4" 6.35 mm bore	1	102
30245645	Compression fitting 1/2" NPT, 6 mm bore	1	102
30245648	Compression fitting 1/2" NPT, 1/4" 6.35 mm bore	1	102

Note: Large image may not show all parts in the set.

Clamps and Standard O-Rings

For Two-Piece Reactors



51160675 | Reactor clamp for 50 mL reactor
For EasyMax 102

Material	PTFE C25
Quantity	1



51161718 | Fixing ring for receptacle

Material	PTFE C25
Quantity	1



51161670 | Clamp chain for 100 mL reactor
For EasyMax 102 and 402

Material	Stainless steel 1.4404, PPS GF40
Quantity	1

51162703 | Clamp chain for 250 mL reactor
For OptiMax 1001

Material	Stainless steel 1.4404, PPS GF40
Quantity	1

30111610 | Clamp chain for 400 mL reactor
For EasyMax 402

Material	Stainless steel 1.4404, PPS GF40
Quantity	1

51162673 | Clamp chain for 500 mL/1000 mL reactors
For OptiMax 1001

Material	Stainless steel 1.4404, PPS GF40
Quantity	1



51161547 | Set of knurled screws with washers
For 50 mL reactor clamp

Material	Stainless steel
Quantity	8 pcs of each

VQM, PTFE FEP-coated O-rings



51191913 | O-ring for 100 mL reactor, standard
For EasyMax 102 and 402

Material	Elastomer core Silicone VQM, PTFE FEP-coated
Size	Ø 56.82 mm x 2.62 mm; AS No. 140
Quantity	1

51192170 | O-ring for 250 mL reactor, standard
For OptiMax 1001

Material	Elastomer core Silicone VQM, PTFE FEP-coated
Size	Ø 72.62 mm x 3.53 mm; AS No. 232
Quantity	1

51191335 | O-ring for 400 mL reactor, standard
For EasyMax 402

Material	Elastomer core Silicone VQM, PTFE FEP-coated
Size	Ø 82.22 mm x 2.62 mm; AS No. 152
Quantity	1

51192205 | O-ring for 500 mL/1000 mL reactors,
standard
For OptiMax 1001

Material	Elastomer core Silicone VQM, PTFE FEP-coated
Size	Ø 107.5 mm x 3.53 mm; AS No. 244
Quantity	1

Note: See next page for FFKM O-rings

FFKM O-Rings

FFKM O-rings



51191416	O-ring for 50 mL glass reactor, standard For EasyMax 102
Material	FFKM
Size	Ø 36.14 mm x 2.62 mm, AS No. 127
Quantity	1
30213715	O-ring for 100 mL reactor, optional For EasyMax 102 and 402
Material	FFKM
Size	Ø 56.82 mm x 2.62 mm, AS No. K# 140
Quantity	1
51192219	O-ring for 250 mL reactor, optional For OptiMax 1001
Material	FFKM
Size	Ø 72.62 mm x 3.53 mm, AS No. K# 232
Quantity	1
51191738	O-ring for 400 mL reactor, optional For EasyMax 402
Material	FFKM
Size	Ø 82.22 mm x 2.62 mm; AS No. K# 152
Quantity	1
51192218	O-ring for 500 mL/1000 mL reactors, optional For OptiMax 1001
Material	FFKM
Size	Ø 107.5 mm x 3.53 mm, AS No. K# 244
Quantity	1

FFKM O-rings for pressure reactors



51191452	O-ring for 50 mL pressure reactor, standard For EasyMax 102
Material	FFKM
Size	Ø 31.42 mm x 2.62 mm, AS No. 124
Quantity	1
30030952	O-ring for 100 mL pressure reactor, standard For EasyMax 102
Material	FFKM
Size	Ø 50.47 mm x 2.62 mm
Quantity	1

Reactor Stands and Holders



51161288	Reactor stand for 50 mL reactor For EasyMax 102
Material	PE
Size	Inner Ø 39 mm, height 80 mm
Quantity	1

51161816	Reactor stand for 50 mL one-piece reactor For EasyMax 102
Material	PE
Size	Inner Ø 43 mm, height 63 mm
Quantity	1

51161676	Reactor stand for all 100 mL reactors For EasyMax 102 and 402
Material	PE
Size	Inner Ø 57.5 mm, height 96 mm
Quantity	1

51162758	Reactor stand for 250 mL reactor For OptiMax 1001
Material	PE
Size	Inner Ø 67.5 mm, height 105 mm
Quantity	1

51162759	Reactor stand for 400 mL/500 mL one-piece reactors For EasyMax 402 (400 mL) and OptiMax 1001 (500 mL)
Material	PE
Size	Inner Ø 82.5 mm, height 120 mm
Quantity	1

51162760	Reactor stand for 1000 mL one-piece reactor For OptiMax 1001
Material	PE
Size	Inner Ø 107.5 mm, height 120 mm
Quantity	1



51162783	Reactor holder for 500 mL reactor For OptiMax 1001
Material	Stainless steel 1.4404, PE
Size	Inner Ø 90 mm, height 155 mm
Quantity	1



51162782	Reactor holder for 1000 mL reactor For OptiMax 1001
Material	Stainless steel 1.4404, PE
Size	Inner Ø 110 mm, height 155 mm
Quantity	1



51162781	Cover holder for 250 mL reactor cover For OptiMax 1001
Material	Stainless steel 1.4404, PTFE GF25
Quantity	1



51162780	Cover holder for 500 mL/1000 mL reactor cover For OptiMax 1001
Material	Stainless steel 1.4404, PTFE GF25
Quantity	1

Receptacles



EasyMax 102

30133675

Receptacle 5 x 8 mL test tubes
thermostat sleeve for EasyMax 102

Material	Aluminium anodized
Quantity	1



51161635

Receptacle 4 x 10 mL test tubes
thermostat sleeve for EasyMax 102

Material	Aluminium anodized
Quantity	1



51161634

Receptacle 3 x 25 mL test tubes
thermostat sleeve for EasyMax 102

Material	Aluminium anodized
Quantity	1



51161716

Receptacle for 50 mL reactor
thermostat sleeve for EasyMax 102

Material	Aluminium anodized
Quantity	1



51161815

Receptacle for 50 mL one-piece reactor
thermostat sleeve for EasyMax 102

Material	Aluminium anodized
Quantity	1

EasyMax 102 LT



30549361	Receptacle 5 x 8 mL test tubes, low temp thermostat sleeve for EasyMax 102 LT
Material	Aluminium anodized, PTFE GF25
Quantity	1

Note: Use 30565895 tool to easily remove receptacle.



30549362	Receptacle 3 x 25 mL test tubes, low temp thermostat sleeve for EasyMax 102 LT
Material	Aluminium anodized, PTFE GF25
Quantity	1

Note: Use 30565895 tool to easily remove receptacle.



30549363	Receptacle for 50 mL one-piece reactor, low temp thermostat sleeve for EasyMax 102 LT
Material	Aluminium anodized, PTFE GF25
Quantity	1



30565895	Tool to remove receptacles for 30549361 and 30549362 receptacles
Material	Length 162 mm, chrome plated
Quantity	1



EasyMax 402

30086802	Receptacle for 100 mL reactor thermostat sleeve for EasyMax 402
Material	Aluminium anodized
Quantity	1



30111635	Receptacle for 100 mL high workup volume reactor thermostat sleeve for EasyMax 402
Material	Aluminium anodized
Quantity	1



OptiMax 1001

51162698	Receptacle for 250 mL reactor thermostat sleeve for OptiMax 1001
Material	Aluminium anodized
Quantity	1



51162670	Receptacle for 500 mL reactor thermostat sleeve for OptiMax 1001
Material	Aluminium anodized
Quantity	1

Caps, Stoppers, Blanking Nuts, and Clamps For Reactor Covers



51190318	Screw cap GL14, without aperture, PBT With PTFE sealing
Material	PBT
Temperature	Max. 200 °C
Quantity	1



51191170	Silicone rubber seal (Septa) GL14 For screw cap GL14
Material	Silicone rubber VQM
Size	Ø 12 mm, thickness 2 mm
Quantity	1



51190877	Glass stopper ST7/16
Material	Borosilicate glass
Quantity	1

51191167	Glass stopper ST10/19
Material	Borosilicate glass
Quantity	1

51190878	Glass stopper ST14/23
Material	Borosilicate glass
Quantity	1

71517	Glass stopper ST19/26
Material	Glass
Quantity	1

71518	Glass stopper ST29/32
Material	Borosilicate glass
Quantity	1



30245712	Blanking nut for 1" NPT port
Material	PTFE
Port	1" NPT
Quantity	1

30245711	Blanking nut for 3/4" NPT port
Material	PTFE
Port	3/4" NPT
Quantity	1

30245710	Blanking nut for 1/2" NPT port
Material	PTFE
Port	1/2" NPT
Quantity	1



51192169 | **Pinch clamp S19, stainless steel**
Drain union clamp

Material	Stainless steel
Quantity	1



51190879 | **Clamp S17**

Material	Stainless steel
Quantity	1



51191504 | **"Keck" clamp ST10**

Material	POM
Quantity	1

51191505 | **"Keck" clamp ST14**

Material	POM
Quantity	1

51191429 | **"Keck" clamp ST19**

Material	POM
Quantity	1

51192167 | **"Keck" clamp ST24**

Material	POM
Quantity	1

51192168 | **"Keck" clamp ST29**

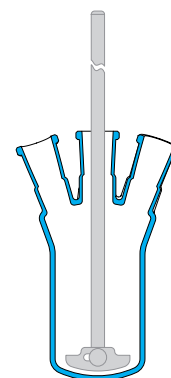
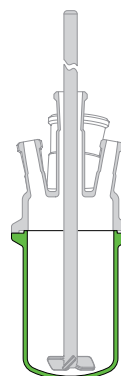
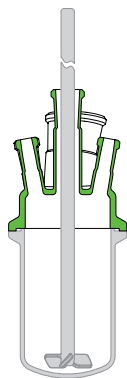
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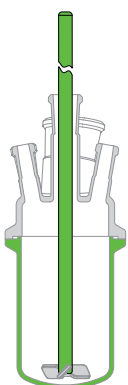
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Guide – How to Combine Reactors, Covers, Stirrers, and Shafts

Reactors have dedicated covers which fit the specific reactor diameter and volume. Select the reactor and cover in the table below to determine the stirrer shaft options. See next pages for explanation of A, B, C, ...

Reactor	Cover										
	No separate cover needed	51160817	51161619	51161795	30090541	30090542	51162699	51161072	30111620	51162671	30090540
51161255 50 mL glass reactor		A									
51161792 50 mL one-piece glass reactor	B										
51161620 100 mL glass reactor			C	A	C	C					
30111634 100 mL high workup volume glass reactor			D	C	D	D					
51161786 100 mL one-piece glass reactor	E										
51162635 250 mL glass reactor							F				
51162734 250 mL one-piece glass reactor	G										
30072099 400 mL glass reactor								H	H		
30131163 400 mL one-piece glass reactor	I										
51162632 500 mL glass reactor										J	J
51162733 500 mL one-piece glass reactor	K										
51162634 1000 mL glass reactor										J	J
51162732 1000 mL one-piece glass reactor	K										





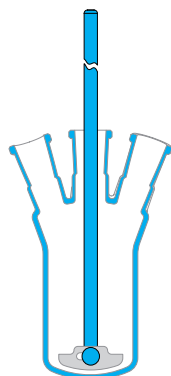
Combination

A

50 mL reactor +
glass cover;
100 mL reactor +
PTFE cover

B

50 mL one-piece
reactor



C

100 mL reactor +
glass/PTFE covers;
100 mL high
workup reactor +
PTFE cover

D

100 mL high
workup volume
reactor + glass/
PTFE covers

E

100 mL one-piece
reactor

F

250 mL reactor +
glass cover

Stirrers and Stirrer Shaft Options

Length

Page

51161756	Stirrer shaft, Alloy C-22	218 mm	80
30130412	Stirrer shaft for magnetic drive, Alloy C-22	94 mm	80
51161813	Stirrer shaft for 50 mL/100 mL one-piece reactors, glass	192 mm	84
30138937	Stirrer shaft for 50 mL/100 mL one-piece reactors, PTFE-coated	192 mm	84
30130413	Stirrer shaft for 50 mL/100 mL one-piece reactors, for magnetic drive, Alloy C-22	118 mm	80
51161725	Pitched-blade stirrer, upward, Ø 30 mm, glass	250 mm	78
51161726	Pitched-blade stirrer, downward, Ø 30 mm, glass	250 mm	78
51161727	Anchor stirrer, Ø 48 mm, glass	261 mm	78
51161723	Stirrer shaft, Alloy C-22	258 mm	80
30130575	Stirrer shaft for magnetic drive, Alloy C-22	129 mm	80
30111637	Pitched-blade stirrer, upward, Ø 38 mm, for 100 mL high workup volume/400 mL EasyMax reactors, glass	298 mm	79
30111638	Pitched-blade stirrer, downward, Ø 38 mm, for 100 mL high workup volume/400 mL EasyMax reactors, glass	298 mm	79
30111611	Stirrer shaft for 100 mL high workup volume/400 mL reactors, Alloy C-22	298 mm	81
30138114	Stirrer shaft for 100 mL high workup volume/400 mL reactors, for magnetic drive, Alloy C-22	184 mm	81
51161813	Stirrer shaft for 50 mL/100 mL one-piece reactors, glass	192 mm	84
30138937	Stirrer shaft for 50 mL/100 mL one-piece reactors, PTFE-coated	192 mm	84
30130413	Stirrer shaft for 50 mL/100 mL one-piece reactors, for magnetic drive, Alloy C-22	118 mm	80
51162424	Pitched-blade stirrer, upward, Ø 38 mm, glass	400 mm	78
51162423	Pitched-blade stirrer, downward, Ø 38 mm, glass	400 mm	78
51162417	Stirrer shaft, Alloy C-22	400 mm	81
30130575	Stirrer shaft for magnetic drive, Alloy C-22 Note: Use 30216881 OptiMax magnetic drive and mount stirrer blade upside down.	129 mm	80

Combination
G

250 mL one-piece reactor

Stirrers and Stirrer Shaft Options
Length
Page
51162681 Stirrer shaft for 250 mL/500 mL/1000 mL one-piece reactors, glass 400 mm 84

Combination
H

400 mL reactor + glass/PTFE covers

Stirrers and Stirrer Shaft Options
Length
Page
30111637 Pitched-blade stirrer, upward, Ø 38 mm, for 100 mL high workup volume//400 mL EasyMax reactors, glass 298 mm 79

30111638 Pitched-blade stirrer, downward, Ø 38 mm, for 100 mL high workup volume//400 mL EasyMax reactors, glass 298 mm 79

30111639 Anchor stirrer, Ø 65 mm, glass 298 mm 79

30111611 Stirrer shaft for 100 mL high workup volume/400 mL reactors, Alloy C-22 298 mm 81

30138114 Stirrer shaft for 100 mL high workup volume//400 mL reactors, for magnetic drive, Alloy C-22 184 mm 81

I

400 mL one-piece reactor

30111614 Stirrer shaft for 400 mL one-piece reactor, glass 242 mm 84

30138938 Stirrer shaft for 400 mL one-piece reactor, PTFE-coated 242 mm 84

30138113 Stirrer shaft for 400 mL one-piece reactor, for magnetic drive, Alloy C-22 175 mm 81

J

500 mL reactor + glass/PTFE covers;
1000 mL reactor + glass/PTFE covers

51162826 Pitched-blade stirrer, upward, Ø 45 mm, glass 400 mm 79

51162825 Pitched-blade stirrer, downward, Ø 45 mm, glass 400 mm 79

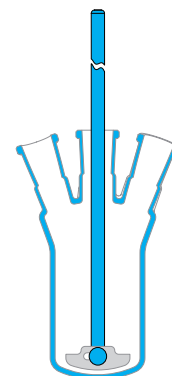
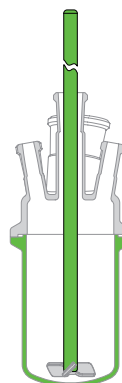
51162722 Stirrer shaft, Alloy C-22 400 mm 81

30138111 Stirrer shaft for magnetic drive, Alloy C-22 189 mm 81

K

500 mL/1000 mL one-piece reactors

51162681 Stirrer shaft for 250 mL/500 mL/1000 mL one-piece reactors, glass 380 mm 84

30138110 Stirrer shaft for 250 mL/500 mL/1000 mL one-piece reactor, for magnetic drive, Alloy C-22 155 mm 81


Glass Stirrers

For Two-Piece Reactors

100 mL glass stirrers



51161725	Pitched-blade stirrer Upward, three impellers, 45°, for 100 mL EasyMax reactor
Material	Borosilicate glass
Size	Outer Ø 30 mm, length 250 mm
Quantity	1



51161726	Pitched-blade stirrer Downward, three impellers, 45°, for 100 mL EasyMax reactor
Material	Borosilicate glass
Size	Outer Ø 30 mm, length 250 mm
Quantity	1



51161727	Anchor stirrer For 100 mL EasyMax reactor
Material	Borosilicate glass
Size	Outer Ø 48 mm, height 55 mm, length 261 mm
Quantity	1

250 mL glass stirrers



51162424	Pitched-blade stirrer Upward, four impellers, 45°, for 250 mL OptiMax reactor
Material	Borosilicate glass
Size	Outer Ø 38 mm, length 400 mm
Quantity	1



51162423	Pitched-blade stirrer Downward, four impellers, 45°, for 250 mL OptiMax reactor
Material	Borosilicate glass
Size	Outer Ø 38 mm, length 400 mm
Quantity	1

400 mL glass stirrers



30111637	Pitched-blade stirrer Upward, three impellers, 45°, for 100 mL high workup volume/400 mL EasyMax reactors
Material	Borosilicate glass
Size	Outer Ø 38 mm, length 298 mm
Quantity	1



30111638	Pitched-blade stirrer Downward, three impellers, 45°, for 100 mL high workup volume/400 mL EasyMax reactors
Material	Borosilicate glass
Size	Outer Ø 38 mm, length 298 mm
Quantity	1



30111639	Anchor stirrer For 400 mL EasyMax reactor
Material	Borosilicate glass
Size	Outer Ø 65 mm, height 75 mm, length 298 mm
Quantity	1

500 mL/1000 mL glass stirrers



51162826	Pitched-blade stirrer Upward, four impellers, 45°, for 500 mL/1000 mL OptiMax reactors
Material	Borosilicate glass
Size	Outer Ø 45 mm, length 400 mm
Quantity	1



51162825	Pitched-blade stirrer Downward, four impellers, 45°, for 500 mL/1000 mL OptiMax reactors
Material	Borosilicate glass
Size	Outer Ø 45 mm, length 400 mm
Quantity	1

Metal Stirrer Shafts

For One-Piece and Two-Piece Reactors

50 mL reactor

EasyMax 102



51161756	Stirrer shaft, length 218 mm Two-piece reactor, 50 mL
Material	Alloy C-22
Size	Outer Ø 8/5 mm, length 218 mm, M3 thread
Quantity	1



30130412	Stirrer shaft for magnetic drive Two-piece reactor, 50 mL
Material	Alloy C-22
Size	Outer Ø 9.5/6 mm, length 94 mm, M3 thread
Quantity	1

Set includes: 30138089 Grub screw M4 x 3



30130413	Stirrer shaft for magnetic drive One-piece reactor, 50 mL/100 mL
Material	Alloy C-22
Size	Outer Ø 9.5/6 mm, length 118 mm
Quantity	1

Set includes: 30138089 Grub screw M4 x 3
30130576 Screw D11-M3 for half-moon blades



100 mL reactors

EasyMax 102 and 402



51161723	Stirrer shaft, length 258 mm Two-piece reactor, 100 mL
Material	Alloy C-22
Size	Ø 8 mm, length 258 mm, M3 thread
Quantity	1

30130575	Stirrer shaft for magnetic drive Two-piece reactor, 100 mL
Material	Alloy C-22
Size	Outer Ø 9.5/6 mm, length 129 mm, M3 thread
Quantity	1

Set includes: 30138089 Grub screw M4 x 3



30130413	Stirrer shaft for magnetic drive One-piece reactor, 50 mL/100 mL
Material	Alloy C-22
Size	Outer Ø 9.5/6 mm, length 118 mm
Quantity	1

Set includes: 30138089 Grub screw M4 x 3
30130576 Screw D11-M3 for half-moon blades

250 mL reactor

OptiMax 1001

51162417

Stirrer shaft, length 400 mm
Two-piece reactor, 250 mL

Material	Alloy C-22
Size	Ø 10/8 mm, length 400 mm, M3 thread
Quantity	1

Note: Use 30216881 OptiMax magnetic drive and mount stirrer blade upside down.

30130575

Stirrer shaft for magnetic drive
Two-piece reactor, 100 mL

Material	Alloy C-22
Size	Outer Ø 9.5/6 mm, length 129 mm, M3 thread
Quantity	1

Set includes: 30138089 Grub screw M4 x 3

100 mL high workup volume/400 mL reactors

EasyMax 402

30111611

Stirrer shaft, length 298 mm
Two-piece reactor,
100 mL high workup volume/400 mL

Material	Alloy C-22
Size	Ø 8 mm, length 298 mm, M3 thread
Quantity	1

30138114

Stirrer shaft for magnetic drive
Two-piece reactor,
100 mL high workup volume/400 mL

Material	Alloy C-22
Size	Outer Ø 9.5/6 mm, length 184 mm, M3 thread
Quantity	1

Set includes: 30138089 Grub screw M4 x 3

30138113

Stirrer shaft for magnetic drive
One-piece reactor, 400 mL

Material	Alloy C-22
Size	Outer Ø 9.5/6 mm, length 175 mm
Quantity	1

Set includes: 30138089 Grub screw M4 x 3
30130576 Screw D11-M3 for half-moon blades

500 mL/1000 mL reactors

OptiMax 1001

51162722

Stirrer shaft, length 400 mm
Two-piece reactor, 500 mL/1000 mL

Material	Alloy C-22
Size	Ø 10 mm, length 400 mm, M8 thread
Quantity	1

30138111

Stirrer shaft for magnetic drive
Two-piece reactor, 500 mL/1000 mL

Material	Alloy C-22
Size	Outer Ø 9.5 mm, length 189 mm, M8 thread
Quantity	1

Set includes: 30138089 Grub screw M4 x 3

30138110

Stirrer shaft for magnetic drive
One-piece reactor, 500 mL/1000 mL

Material	Alloy C-22
Size	Outer Ø 9.5 mm, length 155 mm
Quantity	1

Set includes: 30138089 Grub screw M4 x 3
30238893 Screw D13.5-M5 for half-moon blades

Metal Stirrer Blades

Pitch-blade elements



51161356	Pitched-blade element Upward, four impellers, 45°, for 50 mL/100 mL reactors, M3 thread
Material	Alloy C-22
Size	Outer Ø 25 mm
Quantity	1



51161549	Pitched-blade element Downward, four impellers, 45°, for 50 mL/100 mL reactors, M3 thread
Material	Alloy C-22
Size	Outer Ø 25 mm
Quantity	1



51162442	Pitched-blade element Upward, four impellers, 45°, for 100 mL/250 mL/400 mL reactors, M3 thread
Material	Alloy C-22
Size	Outer Ø 38 mm
Quantity	1



51162418	Pitched-blade element Downward, four impellers, 45°, for 100 mL/250 mL/400 mL reactors, M3 thread
Material	Alloy C-22
Size	Outer Ø 38 mm
Quantity	1



30111616	Pitched-blade element Upward, four impellers, 45°, for 100 mL/250 mL/400 mL reactors, M3 thread
Material	Alloy C-22
Size	Outer Ø 38 mm
Quantity	1



30111615	Pitched-blade element Downward, four impellers, 45°, for 100 mL/250 mL/400 mL reactors, M3 thread
Material	Alloy C-22
Size	Outer Ø 38 mm
Quantity	1



51160025	Pitched-blade element Upward, four impellers, 60°, for 500 mL/1000 mL reactors, M8 thread
Material	Alloy C-22
Size	Outer Ø 45 mm
Quantity	1



103504	Pitched-blade element Downward, four impellers, 60°, for 500 mL/1000 mL reactors, M8 thread
Material	Alloy C-22
Size	Outer Ø 45 mm
Quantity	1

Rushton turbine blade

51161364	Rushton turbine blade for 50 mL/100 mL reactors, M3 thread
Material	Alloy C-22
Size	Outer Ø 25 mm
Quantity	1

Anchor blade

51161724	Anchor blade for 100 mL reactor M3 thread
Material	Alloy C-22
Size	Outer Ø 48 mm, height 55 mm
Quantity	1



51162678	Anchor blade for 250 mL reactor M3 thread
Material	Alloy C-22
Size	Outer Ø 55 mm, height 80 mm
Quantity	1



30111617	Anchor blade for 400 mL reactor M3 thread
Material	Alloy C-22
Size	Outer Ø 65 mm, height 75 mm
Quantity	1



51162677	Anchor blade for 500 mL reactor M8 thread
Material	Alloy C-22
Size	Outer Ø 69 mm, height 100 mm
Quantity	1



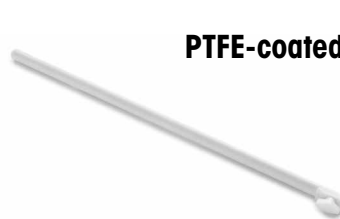
103507	Anchor blade for 1000 mL reactor M8 thread
Material	Alloy C-22
Size	Outer Ø 90 mm, height 100 mm
Quantity	1

Glass and PTFE-Coated Stirrer Shafts For One-Piece Reactors



Glass stirrer shafts

51161813	Glass stirrer shaft One-piece reactors, 50 mL/100 mL
Material	Borosilicate glass
Size	Ø 8 mm, length 192 mm
Quantity	1
30111614	Glass stirrer shaft One-piece reactor, 400 mL
Material	Borosilicate glass
Size	Ø 8 mm, length 242 mm
Quantity	1
51162681	Glass stirrer shaft One-piece reactors, 250 mL/500 mL/1000 mL
Material	Borosilicate glass
Size	Ø 10 mm, length 380 mm
Quantity	1



PTFE-coated stirrer shafts

30138937	PTFE-coated stirrer shaft One-piece reactors, 50 mL/100 mL
Material	PTFE-coated
Size	Ø 8 mm, length 192 mm
Quantity	1
30138938	PTFE-coated stirrer shaft One-piece reactor, 400 mL
Material	PTFE-coated
Size	Ø 8 mm, length 242 mm
Quantity	1

PTFE Stirrer Blades For One-Piece Reactors



51161814	Half-moon stirrer blade One-piece reactor, 50 mL
Material	PTFE
Size	15 mm x 26 mm
Quantity	1

Needed items: 30111614 Glass stirrer shaft
30130413 Stirrer shaft, magnetic drive
(50 mL/100 mL)



30208854	Half-moon stirrer blade for PTFE shaft One-piece reactor, 50 mL
Material	PTFE
Size	15 mm x 26 mm
Quantity	1

Needed items: 30138937 PTFE-coated stirrer shaft



51161749	Half-moon stirrer blade One-piece reactor, 100 mL/400 mL
Material	PTFE
Size	15 mm x 40 mm
Quantity	1

Needed items: 30111614 Glass stirrer shaft
30130413 Stirrer shaft, magnetic drive (50 mL/100 mL)
30138113 Stirrer shaft, magnetic drive (400 mL)



30208853	Half-moon stirrer blade for PTFE shaft one-piece reactor, 100 mL/400 mL
Material	PTFE
Size	15 mm x 40 mm
Quantity	1

Needed items: 30138937 PTFE-coated stirrer shaft (100 mL)
30138938 PTFE-coated stirrer shaft (400 mL)



51162684	Half-moon stirrer blade One-piece reactor, 250 mL
Material	PTFE
Size	19 mm x 43 mm
Quantity	1

Needed items: 51162681 Glass stirrer shaft



51162683	Half-moon stirrer blade one-piece reactor, 500 mL
Material	PTFE
Size	19 mm x 54 mm
Quantity	1

Needed items: 51162681 Glass stirrer shaft
30138110 Stirrer shaft, magnetic drive



51162682	Half-moon stirrer blade One-piece reactor, 1000 mL
Material	PTFE
Size	19 mm x 71 mm
Quantity	1

Needed items: 51162681 Glass stirrer shaft
30138110 Stirrer shaft, magnetic drive

Magnetic Stir Bars

PTFE-Coated



51191324	Magnetic stir bar, 6 mm x 10 mm
Material	PTFE-coated
Size	Ø 7 mm, length 10 mm
Quantity	1

51192096	Magnetic stir bar, 4.5 mm x 15 mm
Material	PTFE-coated
Size	Ø 4.5 mm, length 15 mm
Quantity	1

51191159	Magnetic stir bar, 7 mm x 30 mm
Material	PTFE-coated
Size	Ø 7 mm, length 30 mm
Quantity	1

51190791	Magnetic stir bar, 13 mm x 30 mm
Material	PTFE-coated
Size	Ø 13 mm, length 30 mm
Quantity	1

51191939	Magnetic stir bar, 8 mm x 40 mm
Material	PTFE-coated
Size	Ø 8 mm, length 40 mm
Quantity	1

Note: The magnetic stir bars do not work with EasyMax 402 and OptiMax 1001



51191919	Magnetic stir bar, cross-shaped 10 mm x 25 mm
Material	PTFE-coated
Size	Ø 25 mm, height 10 mm
Quantity	1

51191918	Magnetic stir bar, cross-shaped 15 mm x 38 mm
Material	PTFE-coated
Size	Ø 38 mm x 15 mm
Quantity	1

Note: The magnetic stir bars do not work with EasyMax 402 and OptiMax 1001

Overhead Stirrer Set and Parts

EasyMax 102, 102 LT, and 402



51161700	EasyMax overhead stirrer set
Material	Aluminium anodized (flange), stainless steel (upper coupling), PEEK stirrer adapter
Speed	50 rpm to 1000 rpm
Quantity	1
Set includes:	51161719 EasyMax stirrer motor with coupling 30899585 Height adjustable stirrer adapter 51191375 Sealing ring for stirrer adapter 51161652 Clamping nut 51161651 Chuck 51191376 Washer for stirrer adapter



51161719	EasyMax stirrer motor with coupling
Material	Aluminium anodized (flange), stainless steel (upper coupling)
Speed	50 rpm to 1000 rpm
Quantity	1

For the one-piece reactors a non-height adjustable stirrer adapter is required. See next page.



30899585	Height adjustable stirrer adapter
	ST19/26, including 51191375 sealing ring
Material	PEEK
Quantity	1



51191375	Sealing ring for stirrer adapter
Material	PTFE/FKM
Size	Ø 16 mm, thickness 5 mm, aperture 8 mm
Quantity	1



51161652	Clamping nut
Material	Aluminium anodized
Quantity	1



51161651	Chuck, PTFE C25
	For stirrer shafts with outer Ø 8 mm
Material	PTFE C25
Quantity	1



51191376	Washer for stirrer adapter
Material	PA
Size	Ø 16 mm, aperture 8 mm, thickness 2 mm
Quantity	1

Overhead Stirrer Spare Parts

EasyMax 102 and 402



51161830	EasyMax stirrer motor without coupling
Material	Stainless steel
Speed	50 rpm to 1000 rpm
Quantity	1



51161655	Motor flange
Material	Aluminium alloy 6026
Quantity	1

Note: Three (3) screws (76692 screw, M2 x 10 mm, 10 pcs in a set) are needed to connect to the 51161830 stirrer motor



71652	O-ring for stirrer adapter
Material	FKM
Size	21.89 mm x 2.62 mm, AS no. 118
Quantity	1



51161360	Set of upper stirrer coupling Comprising upper coupling and two (2) threaded pins
Material	Stainless steel, 1.4301
Quantity	1

Note: Available on special request only

Non-Height Adjustable Stirrer Adapters

For One-Piece EasyMax Reactors



51161822	Non-height adjustable stirrer adapter ST19/26, including 51191375 sealing ring
Material	PEEK adapter, PTFE/FKM sealing ring
Quantity	1

Note: 51161822 adapter and 51161835 adapter are available only as sets with 51191375 sealing ring



51191375	Sealing ring for stirrer adapter
Material	PTFE/FKM
Size	Ø 16 mm, thickness 5 mm, aperture 8 mm
Quantity	1

Certain solvents like Methylene-chloride, DMSO and THF may cause swelling in PEEK. We recommend to use the optional 51161835 PTFE stirrer adapter as an alternative to avoid breakage of the glass port.



51161835	Non-height adjustable PTFE stirrer adapter With metal brace, ST19/26, including 51191375 sealing ring
Material	Aluminium anodized with PTFE adapter, PTFE/FKM sealing ring
Quantity	1

Spare Parts for OptiMax Stirrer



51162690	OptiMax overhead stirrer drive complete
Material	Aluminium anodized, PTFE
Speed	30 rpm to 1200 rpm
Quantity	1

Set includes: 51162841 Overhead stirrer motor standard
30451755 Stirrer adapter, ST24



51162841	Overhead stirrer motor standard
Material	Aluminium anodized, PTFE
Speed	30 rpm to 1200 rpm
Quantity	1



30451755	Stirrer adapter, ST24
Material	PTFE carbon
Size	Inner Ø 10 mm
Quantity	1

Set includes: 30477337 Stirrer adapter, top
Sealing ring
Stirrer adapter, bottom
51162820 Loosening nut



30477337	Stirrer adapter, top
Material	PTFE carbon
Size	Inner Ø 10 mm
Quantity	1



103547	Sealing ring for 30451755 adapter
Material	PTFE cord
Size	Inner Ø 10 mm
Quantity	5 pcs in a set



51162820	Loosening nut for 30451755 stirrer adapter
Material	PEEK
Size	Inner Ø M26
Quantity	1



51162763	Security ring to hold stirrer shaft
Material	PEEK
Speed	Inner Ø 10 mm
Quantity	1

Overhead Stirrer Magnetic Drive Sets

EasyMax and OptiMax

**50 mL reactors**

30213866 Magnetic drive set for two-piece reactor
For 50 mL, EasyMax

Material of Wetted Parts	Alloy C-22, FFKM, PTFE C25
Size	Stirrer shaft length 94 mm, pitch-blade element, downward, outer Ø 25 mm
Speed	50 rpm to 1000 rpm
Quantity	1

Set includes: 51161830 EasyMax stirrer motor
30130412 Stirrer shaft for magnetic drive
51161549 Pitched-blade element, downward

**100 mL reactors**

30113925 Magnetic drive set for two-piece reactor
For 100 mL, EasyMax

Material of Wetted Parts	Alloy C-22, FFKM, PTFE C25
Size	Stirrer shaft length 129 mm, pitch-blade element, downward, outer Ø 25 mm
Speed	50 rpm to 1000 rpm
Quantity	1

Set includes: 51161830 EasyMax stirrer motor
30130575 Stirrer shaft for magnetic drive
51161549 Pitched-blade element, downward

**50 mL/100 mL reactors**

30113924 Magnetic drive set for one-piece reactors
For 50 mL/100 mL, EasyMax

Material of Wetted Parts	Alloy C-22, FFKM, PTFE, PTFE C25, PTFE GF25 (adapter)
Size	Stirrer shaft length 118 mm, half-moon stirrer blade 15 mm x 26 mm, half-moon stirrer blade 15 mm x 40 mm, adapter ST19/ST14
Speed	50 rpm to 1000 rpm
Quantity	1

Set includes: 51161830 EasyMax stirrer motor
30130413 Stirrer shaft for magnetic drive
51161814 Half-moon stirrer blade
51161749 Half-moon stirrer blade
51161509 Reducing adapter ST19/26 to ST14/23



**100 mL high workup
volume/400 mL reactors**

30130319 **Magnetic drive set for two-piece reactor**
For 100 mL high workup volume/400 mL, EasyMax

Material of Wetted Parts Alloy C-22, FFKM, PTFE C25

Size Stirrer shaft length 184 mm, pitch-blade element, downward, outer Ø 38 mm

Speed 50 rpm to 1000 rpm

Quantity 1

Set includes: 51161830 EasyMax stirrer motor
30138114 Stirrer shaft for magnetic drive
30111615 Pitched-blade element, downward



400 mL reactors

30125692 **Magnetic drive set for one-piece reactor**
For 400 mL, EasyMax

Material of Wetted Parts Alloy C-22, FFKM, PTFE, PTFE C25, PTFE GF25 (adapter)

Size Stirrer shaft length 175 mm, half-moon stirrer blade 15 mm x 40 mm, adapter ST19/ST14

Speed 50 rpm to 1000 rpm

Quantity 1

Set includes: 51161830 EasyMax stirrer motor
30138113 Stirrer shaft for magnetic drive
51161749 Half-moon stirrer blade
51161509 Reducing adapter ST19/26 to ST14/23



500 mL/1000 mL reactors

30111285 **Magnetic drive set for two-piece reactor**
For 500 mL/1000 mL, OptiMax

Material of Wetted Parts Alloy C-22, FFKM, PTFE C25

Size Stirrer shaft length 189 mm pitch-blade element, downward, outer Ø 45 mm

Speed 30 rpm to 1200 rpm

Quantity 1

Set includes: 51162841 OptiMax stirrer motor
30138111 Stirrer shaft for magnetic drive
103504 Pitched-blade element, downward



30113923 **Magnetic drive set for one-piece reactor**
For 500 mL/1000 mL, OptiMax

Material of Wetted Parts Alloy C-22, FFKM, PTFE, PTFE C25

Size Stirrer shaft length 155 mm, half-moon stirrer blade 19 mm x 71 mm

Speed 30 rpm to 1200 rpm

Quantity 1

Set includes: 51162841 OptiMax stirrer motor
30138110 Stirrer shaft for magnetic drive
51162682 Half-moon stirrer blade

Magnetic Drive Upgrade Sets

EasyMax and OptiMax



30092602 **EasyMax magnetic drive upgrade set**
Magnetic coupling 20 Ncm ST14

Material of Wetted Parts	Alloy C-22, FFKM, PTFE C25
Speed	50 rpm to 1000 rpm
Quantity	1

Note: To upgrade an existing stirrer motor set-up. Stirrer motor (51161830) is not included. Stirrer shafts must be purchased separately.



30216881 **OptiMax magnetic drive upgrade set**
Magnetic coupling 50 Ncm ST24

Material of Wetted Parts	Alloy C-22, FFKM, PTFE C25
Speed	30 rpm to 1200 rpm
Quantity	1

Note: To upgrade an existing stirrer motor set-up. Stirrer motor (51162841) is not included. Stirrer shafts must be purchased separately.

Magnetic Drive Spare Parts

EasyMax and OptiMax



30130411 Driven shaft for the magnetic drive
EasyMax

Material	Alloy C-22
Size	Ø 6 mm x 125 mm
Quantity	1



30238894 Driven shaft for the magnetic drive
OptiMax

Material	Alloy C-22
Size	Ø 6 mm x 100 mm
Quantity	1



30238892 Closure screw
OptiMax

Material	Alloy C-22
Size	Inner Ø 6.4 mm x 14 mm
Quantity	1



30138112 Inner magnet 20 Ncm without
30138089 grub screw
EasyMax

Material	Alloy C-22
Size	Ø 11.6 mm x 33.5 mm
Quantity	1



30092479 O-ring for ST14 part, lower
EasyMax

Material	FFKM
Size	Ø 9.25 mm x 1.78 mm
Quantity	1

30092600 O-ring for ST14 part, upper
EasyMax

Material	FFKM
Size	Ø 10.82 mm x 1.78 mm
Quantity	1

51191214 O-ring (inside housing)
EasyMax

Material	FFKM
Size	Ø 23.4 mm x 3.53 mm
Quantity	1

30238897 O-ring
OptiMax

Material	FFKM
Size	Ø 17.13 mm x 2.62 mm
Quantity	1



30138107 Outer magnet 20 Ncm without
30238895 set screw M5 x 6
EasyMax

Material	Stainless steel
Size	Ø 28 mm x 40.5 mm
Quantity	1



30238898	Inner magnet 50 Ncm without 30138089 grub screw OptiMax
Material	Alloy C-22
Size	Ø 11.6 mm x 52 mm
Quantity	1



30238896	Outer magnet 50 Ncm without 30238895 set screw M5 x 6 OptiMax
Material	Stainless steel
Size	Ø 28 mm x 60.5 mm
Quantity	1



30130576	Screw D11-M3 for half-moon blades EasyMax
Material	Alloy C-22
Size	Ø 11 mm x M3 thread
Quantity	1



30138089	Grub screw M4 x 3 EasyMax and OptiMax
Material	Alloy C-22
Size	M4 x 3 mm
Quantity	1



30238893	Screw D13.5-M5 for half-moon blades OptiMax
Material	Alloy C-22
Size	Ø 13.5 mm x M5 thread
Quantity	1



30238895	Set screw M5 x 6 EasyMax and OptiMax
Material	Stainless steel
Size	M5 x 6 mm
Quantity	1



51191388	Space disk for driven shaft EasyMax and OptiMax
Material	PTFE C25
Size	Ø 11 mm x 1.2 mm
Quantity	2 pcs in a set



51191343	Friction bearing for driven shaft EasyMax and OptiMax
Material	PTFE C25
Size	Ø 12 mm x 6 mm
Quantity	4 pcs in a set

Preventive Maintenance Kit For EasyMax Magnetic Drive



30851715 Maintenance kit for EasyMax magnetic drive	
Set Items	Space disk, Ø 11 mm x 1.2 mm, PTFE C25 Slide bearing, Ø 12 mm x 6mm, PTFE Spacer sleeve, Ø 9.5/Ø 6.5 x 3 mm Sleeve, Ø 11.5 x 7.2 mm, Alloy C-22 Grub screw, M4 x 3 mm, Alloy C-22 O-ring, Ø 23.39 x 3.53 mm, FFKM O-ring, Ø 9.25 x 1.78 mm, FFKM O-ring, Ø 10.82 x 1.78 mm, FFKM
Quantity	1 set

Optional Bearing for Driven Shaft For EasyMax and OptiMax Magnetic Drives



51191344 Ball bearing for driven shaft	
Material	Stainless steel
Size	Ø 12 mm x 3 mm
Quantity	4 pcs in a set



51191390 Spacer sleeve for driven shaft	
Material	Alloy C-22
Size	Ø 8 mm x 3 mm
Quantity	4 pcs in a set

These items replace the standard 51191343 friction bearing for driven shaft.

Bar Type Baffles and Drain Union

OptiMax 500 mL and 1000 mL Reactors



51162638	Bar type baffle for 500 mL reactor
Material	Alloy C-22
Size	Ø 10 mm, width 15 mm, length 237 mm
Quantity	1

Adapter needed: 51104154 PTFE adapter ST19/26, eccentric



51162637	Bar type baffle for 1000 mL reactor
Material	Alloy C-22
Size	Ø 10 mm, width 15 mm, length 249 mm
Quantity	1

Adapter needed: 51104154 PTFE adapter ST19/26, eccentric



51162685	Drain union, bended
Material	Borosilicate glass
Size	Inner Ø 9 mm, spherical joint S19
Quantity	1

Clamp needed: 51192169 Pinch clamp S19, stainless steel

Sensors, Electrodes, and Calibration Heaters



51161730	Pt100 temperature sensor, EasyMax
Material	Wetted parts: stainless steel, PTFE/FEP-coated
Temperature	Max. 200 °C
Size	Sensor Ø 3.2 mm, length 175 mm
Quantity	1



30111612	Pt100 temperature sensor, EasyMax
Material	Wetted parts: stainless steel, FEP-coated
Temperature	Max. 200 °C
Size	Sensor Ø 3.2 mm, length 250 mm
Quantity	1

Find the minimum immersion depth of sensors for accurate temperature measurement on Page 27



30099798	Pt100 temperature sensor, EasyMax
Material	Wetted part: Glass
Size	Sensor Ø 6 mm, length 260 mm
Quantity	1



30090590	Pt100 temperature sensor, EasyMax
Material	Wetted part: Alloy C-22
Size	Sensor Ø 6.35 mm, length 260 mm
Quantity	1



51162827	Temperature sensor including chip, OptiMax
Material	Wetted part: Glass
Size	Sensor Ø 6 mm, length 300 mm
Quantity	1



51162839	Temperature sensor including chip, OptiMax
Material	Wetted part: Alloy C-22
Size	Sensor Ø 1/4" 6.35 mm, length 300 mm
Quantity	1



30090579	EasyMax calibration heater
Material	Wetted part: Alloy C-22
Size	Sensor Ø 6.35 mm, length 260 mm
Quantity	1



30050155	OptiMax calibration heater
Material	Wetted part: Alloy C-22
Size	Sensor Ø 8 mm, length 300 mm
Quantity	1



30303786	OptiMax calibration heater
Material	Wetted part: Glass
Size	Sensor Ø 8 mm, length 300 mm
Quantity	1



51191332	InLab 1022 pH electrode for 50 mL two-piece reactor
Temperature	0 °C to 80 °C
Size	Sensor Ø 6 mm, length 140 mm, electrode head S7
Quantity	1

Note: 30281915, 30281916 or 30281917 BNC cables are needed to connect pH electrode to SevenExcellence pH Meter



51343161	InLab Semi-Micro-L pH electrode for 50 mL, 100 mL and 400 mL reactors
Temperature	0 °C to 100 °C
Size	Sensor Ø 6 mm, length 230 mm, electrode head S7
Quantity	1

Note: 30281915, 30281916 or 30281917 BNC cables are needed to connect pH electrode to SevenExcellence pH Meter



30934431	pH sensor OptiMax, including chip without cable
Material	Lead-free glass (shaft), high alkaline glass (membrane)
Size	Sensor Ø 12 mm, length 325 mm
Quantity	1

Note: 51162888 cable needed to connect to pH sensor



30281915	BNC cable, 1.2 m to connect pH electrode with S7 head to SevenExcellence pH Meter
Size	Length 1.2 m
Quantity	1

30281916	BNC cable, 3.0 m
Size	Length 3.0 m
Quantity	1

30281917	BNC cable, 5.0 m
Size	Length 5.0 m
Quantity	1



51162888	Cable for pH sensor
Size	Length 1 m
Quantity	1

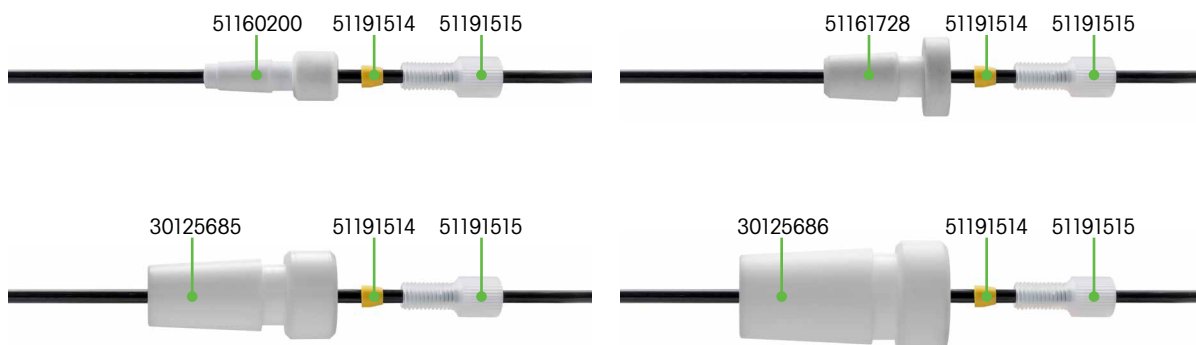
Adapters, Sealing Rings, and Screw Caps Setup Examples



Note: PTFE-coated layer of all O-rings facing the glass

Adapters, Ferrules, and Nuts Setup Examples

Use the ferrules and nuts to hold tubings (Ø 1.6 mm and 3.2 mm) and sensors (Ø 3.2 mm) in place. For Ø 1.6 mm tubing, use ferrule 51191202 and nut 51191203. For Ø 3.2 mm tubing, use ferrule 51191515 and nut 51191515.



Adapters, Sealing Rings, Ferrules, and Nuts



51191267	Glass adapter ST14/23-GL14
Material	Borosilicate glass
Size	Height 54 mm
Quantity	1



51192208	Glass adapter ST19/26-GL14
Material	Borosilicate glass
Size	Height 50 mm
Quantity	1



51190317	Screw cap GL14, with aperture
Material	PBT
Temperature	Max. 200 °C
Aperture	Ø 9.5 mm
Quantity	1



51161102	Silicone rubber sealing ring with vulcanized-on PTFE washers For GL14 caps and sensors with outer Ø 8 mm
Material	Silicone rubber VQM, PTFE-coated
Size	Ø 12 mm x 5 mm, aperture 8 mm
Quantity	1



51161037	Adapter for GL14, 6 mm – 6.35 mm sensors
Material	PTFE
Size	Inner Ø 6.4 mm, outer Ø 12 mm,
Quantity	1

Sealing ring needed 51161102



51103947	Sealing ring for screw cap GL14 PTFE/silicone For screw cap GL14
Material	Silicone rubber VQM, PTFE-coated
Size	Ø 12 mm, aperture 6 mm
Quantity	1

Can also be used for Ø 1/4" 6.35 mm inserts



51161558	Adapter GL14-UNF with 1 UNF 1/4-28 port For screw cap GL14
Material	PTFE GF25
Size	Inner Ø 3.4 mm, outer Ø 9 mm
Quantity	1

Inner Ø 3.2 mm – Temperature sensors, dosing tubings

51160200	Adapter ST7/16 with 1 UNF 1/4-28 port
Material	PTFE GF25
Port size	ST7/16
Size	Inner Ø 3.2 mm, UNF 1/4"
Quantity	1



51161728	Adapter ST10/19 with 1 UNF 1/4-28 port
Material	PTFE GF25
Port size	ST10/19
Size	Inner Ø 3.2 mm, UNF 1/4"
Quantity	1



30125685	Adapter ST14/23 with 1 UNF 1/4-28 port
Material	PTFE
Port size	ST14/23
Size	Inner Ø 3.2 mm, UNF 1/4"
Quantity	1



30125686	Adapter ST19/26 with 1 UNF 1/4-28 port
Material	PTFE
Port size	ST19/26
Size	Inner Ø 3.2 mm, UNF 1/4"
Quantity	1

Ferrules and nuts – Tubings and sensors

51191202	Ferrule for tubing of outer Ø 1.6 mm
Material	ETFE
Size	Inner Ø max. 1.6 mm
Quantity	4 pcs in a set



51191203	Nut for UNF 1/4-28 threads
Material	ETFE
Size	Inner Ø max. 1.6 mm
Quantity	4 pcs in a set



51191514	Ferrule for tubing and sensors of outer Ø 3.2 mm
Material	ETFE
Size	Inner Ø max. 3.2 mm
Quantity	4 pcs in a set



51191515	Nut for UNF 1/4-28 threads
Material	ETFE
Size	Inner Ø max. 3.2 mm
Quantity	4 pcs in a set

Inner Ø 4 mm – Purge gas tubing



51191428	Hose connection for purge gas tubing with UNF 1/4-28 thread
Material	PP
Size	For tube inner Ø 4 mm
Quantity	1

Inner Ø 6 mm – 1/4" 6.35 mm – ReactIR probe, sensors, EasyMax calibration heater



51162720	PTFE adapter ST14/23, eccentric Including 51162716 sealing ring
Material	PTFE GF25
Port size	ST14/23
Size	Inner Ø 6 mm
Quantity	1

Note: Can also be used for Ø 1/4" 6.35 mm inserts



51162716	Sealing ring for 51162720 and 51162713 PTFE adapters
Material	PTFE
Size	Inner Ø 6 mm
Quantity	1

Note: Can also be used for Ø 1/4" 6.35 mm inserts



51162713	PTFE adapter ST19/26, eccentric Including 51162716 sealing ring
Material	PTFE GF25
Port size	ST19/26
Size	Inner Ø 6 mm
Quantity	1

Note: Can also be used for Ø 1/4" 6.35 mm inserts



30245645	Compression fitting 1/2" NPT, 6 mm bore
Material	PTFE, PEEK
Port size	1/2" NPT
Size	Inner Ø 6 mm
Quantity	1



30245648	Compression fitting 1/2" NPT, 1/4" bore
Material	PTFE, PEEK
Port size	1/2" NPT
Size	Inner Ø 1/4" 6.35 mm
Quantity	1



30245684	Compression fitting 3/4" NPT, 1/4" bore
Material	PTFE, PEEK
Port size	3/4" NPT
Size	Inner Ø 1/4" 6.35 mm
Quantity	1

Inner Ø 8 mm – OptiMax calibration heater

30064131	PTFE adapter ST19/26, eccentric For calibration heater, including 30064134 sealing ring
Material	PTFE GF25
Port size	ST19/26
Size	Inner Ø 8 mm
Quantity	1



30064134	Sealing ring for 30064131 PTFE adapter
Material	PTFE
Size	Inner Ø 8 mm
Quantity	1



30245680	Compression fitting 3/4" NPT, 8 mm bore
Material	PTFE, PEEK
Port size	3/4" NPT
Size	Inner Ø 8 mm
Quantity	1

Inner Ø 3/8" 9.525 mm – ReactIR, ReactRaman, ParticleTrack, EasyViewer, EasySampler probes

51161817	PTFE adapter for ReactIR probe, ST14/23-9.5 mm, without 51192091 O-ring
Material	PTFE
Port size	ST14/23
Size	Ø 3/8" 9.525 mm
Quantity	1



51192091	O-ring for 51161817 ReactIR probe adapter
Material	FFKM
Size	Ø 9.19 mm x 2.62 mm, AS no. 110
Quantity	1



30245649	Compression fitting 1/2" NPT, 3/8" bore
Material	PTFE, PEEK
Port size	1/2" NPT
Size	Inner Ø 3/8" 9.525 mm
Quantity	1



30245700	Compression fitting 3/4" NPT, 3/8" bore
Material	PTFE, PEEK
Port size	3/4" NPT
Size	Inner Ø 3/8" 9.525 mm
Quantity	1



14104089	PTFE adapter 14/20, 3/8" bore
Material	PTFE
Port size	ST14/20
Size	Inner Ø 3/8" 9.525 mm
Quantity	1



14104090	PTFE adapter 19/22, 3/8" bore
Material	PTFE
Port size	ST19/22
Size	Inner Ø 3/8" 9.525 mm
Quantity	1



14202569	PTFE adapter 24/40, 3/8" bore
Material	PTFE
Port size	ST24/40
Size	Inner Ø 3/8" 9.525 mm
Quantity	1



14104091	PTFE adapter 29/26, 3/8" bore
Material	PTFE
Port size	ST29/26
Size	Inner Ø 3/8" 9.525 mm
Quantity	1

Inner Ø 10 mm – Baffle



51104154	PTFE adapter ST19/26, eccentric For baffle, including sealing ring
Material	PTFE GF25
Port size	ST19/26
Size	Inner Ø 10 mm
Quantity	1



103547	Sealing ring for 51104154 PTFE adapter
Material	PTFE cord
Size	Inner Ø 10 mm
Quantity	5 pcs in a set

Inner Ø 12 mm – pH probe, turbidity probe



51162717	PTFE adapter ST19/26, eccentric For pH and turbidity probe, including sealing ring
Material	PTFE GF25
Port size	ST19/26
Size	Inner Ø 12 mm
Quantity	1



51162765	Sealing ring for 51162717 PTFE adapter
Material	PTFE
Size	Inner Ø 12 mm
Quantity	1



30245646	Compression fitting 1/2" NPT, 12 mm bore
Material	PTFE, PEEK
Port size	1/2" NPT
Size	Inner Ø 12 mm
Quantity	1

30245702

30245702	Compression fitting 1" NPT, 12 mm bore
Material	PTFE, PEEK
Port size	1" NPT
Size	Inner Ø 12 mm
Quantity	1

30245681	Compression fitting 3/4" NPT, 12 mm bore
Material	PTFE, PEEK
Port size	3/4" NPT
Size	Inner Ø 12 mm
Quantity	1

Inner Ø 1/2" 12.7 mm – ReactRaman probe



30476003	PTFE adapter 19/26, 1/2" 12.7 mm bore
Material	PTFE
Port size	ST19/26
Size	Inner Ø 1/2" 12.7 mm
Quantity	1

30476004	PTFE adapter 24/40, 1/2" 12.7 mm bore
Port size	ST24/40
Size	Inner Ø 1/2" 12.7 mm
Quantity	1

30476005	PTFE adapter 29/32, 1/2" 12.7 mm bore
Port size	ST29/32
Size	Inner Ø 1/2" 12.7 mm
Quantity	1



30476006	Compression fitting 1/2" NPT, 1/2" 12.7 mm bore
Material	PTFE, PEEK
Port size	1/2" NPT
Size	Inner Ø 1/2" 12.7 mm
Quantity	1

30476007	Compression fitting 3/4" NPT, 1/2" 12.7 mm bore
Material	PTFE, PEEK
Port size	3/4" NPT
Size	Inner Ø 1/2" 12.7 mm
Quantity	1

Inner Ø 14 mm – ParticleTrack G400 probe



51161821	PTFE adapter ST19/26-14 mm For ParticleTrack probe, without 51191857 O-ring
Material	PTFE
Port size	ST19/26
Size	Ø 14 mm
Quantity	1



51191857	O-ring for 51161821 PTFE adapter
Material	FFKM
Size	Ø 13.95 mm x 2.62 mm, AS no. 113
Quantity	1



51162880	PTFE adapter ST19/26 For G400, including sealing ring
Material	PTFE GF25
Port size	ST19/26
Size	Inner Ø 14 mm
Quantity	1



51162879	Sealing ring for 51162880 PTFE adapter
Material	PTFE
Size	Inner Ø 14 mm
Quantity	1



30245647	Compression fitting 1/2" NPT, 14 mm bore
Material	PTFE, PEEK
Port size	1/2" NPT
Size	Inner Ø 14 mm
Quantity	1

30245682	Compression fitting 3/4" NPT, 14 mm bore
Material	PTFE, PEEK
Port size	3/4" NPT
Size	Inner Ø 14 mm
Quantity	1

30245703	Compression fitting 1" NPT, 14 mm bore
Material	PTFE, PEEK
Port size	1" NPT
Size	Inner Ø 14 mm
Quantity	1

Inner Ø 5/8" 15.875 mm – ReactIR probe



30245701	Compression fitting 3/4" NPT, 5/8" bore
Material	PTFE, PEEK
Port size	3/4" NPT
Size	Inner Ø 5/8" 15.875 mm
Quantity	1

30245705	Compression fitting 1" NPT, 5/8" bore
Material	PTFE, PEEK
Port size	1" NPT
Size	Inner Ø 5/8" 15.875 mm
Quantity	1

Inner Ø 19 mm – pH, turbidity, ParticleView V19, EasyViewer probes



30131166	PTFE adapter ST24/29, eccentric For ParticleView probe, including O-ring
Material	PTFE GF25
Port size	ST24/29
Size	Inner Ø 19 mm
Quantity	1



51191859	O-ring for 30131166 PTFE adapter
Material	FFKM
Size	Ø 18.72 mm x 2.62 mm, AS no. 110
Quantity	1



51160970	PTFE adapter ST29/32, eccentric For ParticleView probe, including sealing ring
Material	PTFE GF25
Port size	ST29/32
Size	Inner Ø 19 mm
Quantity	1



51160973	Sealing ring for 51160970 PTFE adapter
Material	PTFE cord
Size	Inner Ø 19 mm
Quantity	5 pcs in a set



30245683	Compression fitting 3/4" NPT, 19 mm bore
Material	PTFE
Port size	3/4" NPT
Size	Inner Ø 19 mm
Quantity	1



30208795	PTFE adapter set 19 mm for ParticleView Including 30131166 PTFE adapter with 51191859 O-ring and 30215733 customized ST24/29 fitting x 3/4" NPT
Material	PTFE, PTFE GF25
Port sizes	3/4" NPT, ST24/29
Size	Inner Ø 19 mm
Quantity	1 of each in a set

30245704	Compression fitting 1" NPT, 19 mm bore
Material	PTFE
Port size	1" NPT
Size	Inner Ø 19 mm
Quantity	1



51191859	O-ring for 30131166 PTFE adapter
Material	FFKM
Size	Ø 18.72 mm x 2.62 mm, AS no. 110
Quantity	1

PTFE Lid Adapter Set

For EasyMax 102 and 402 PTFE Covers



30138934

Adapter set for PTFE covers

The adapter set contains adapters that can be used with the EasyMax PTFE covers (30111620, 30090542) for various applications like ReactIR, ParticleTrack, EasyViewer, pH, dosing and temperature measurement.

Adapter set consisting of

Order Number	Product Description	Quantity	Page
30245645	Compression fitting 1/2" NPT, 6 mm bore	1	102
30245648	Compression fitting 1/2" NPT, 1/4" 6.35 mm bore	1	102
30245649	Compression fitting 1/2" NPT, 3/8" 9.525 mm bore	1	102
30245647	Compression fitting 1/2" NPT, 14 mm bore	1	105
	Sealing plug for Ø 6 mm compression fitting	1	
	Sealing plug for Ø 1/4" compression fitting	1	
	Sealing plug for Ø 3/8" compression fitting	1	
	Sealing plug for Ø 14 mm compression fitting	1	

Standard Taper Joint Adapters

For PTFE Covers and Reducing Adapters

3/8" NPT port



	Joint adapter for stirrer, EasyMax ST14/35 with 3/8" NPT, part of PTFE cover set
Material	PTFE
Size	Inner Ø ST14/35, height 62 mm
Quantity	1

1/2" NPT port



30245706	Taper joint adapter 1/2" NPT ST14/-
Material	PTFE
Size	Inner Ø ST14/-, height 45 mm
Quantity	1



30245707	Taper joint adapter 1/2" NPT ST19/-
Material	PTFE
Size	Inner Ø ST19/-, height 50 mm
Quantity	1



30245708	Taper joint adapter 1/2" NPT ST29/-
Material	PTFE
Size	Inner Ø ST29/-, height 68 mm
Quantity	1

3/4" NPT port



30245672	Taper joint adapter 3/4" NPT ST19/-
Material	PTFE
Size	Inner Ø ST19/-, height 55 mm
Quantity	1



	Joint adapter for stirrer, OptiMax ST24/32 x 3/4" NPT, part of PTFE cover set
Material	PTFE
Size	Inner Ø ST24/32, height 61 mm
Quantity	1



30215733	Taper joint adapter 3/4" NPT ST24/-
Material	PTFE
Size	Inner Ø ST24/-, height 55 mm
Quantity	1



30245674	Taper joint adapter 3/4" NPT ST29/-
Material	PTFE
Size	Inner Ø ST29/-, height 68 mm
Quantity	1

1" NPT port



30245709	Taper joint adapter 1" NPT ST29/-
Material	PTFE
Size	Inner Ø ST29/-, height 60 mm
Quantity	1

Reducing Adapters

Glass and PTFE Reactor Covers



51160825	Reducing adapter ST10/19 to ST7/16
Material	PTFE GF25
Port size	ST10/19
Size	Inner Ø ST7/16
Quantity	1



51160827	Reducing adapter ST14/23 to ST10/19
Material	PTFE GF25
Port size	ST14/23
Size	Inner Ø ST10/19
Quantity	1



51161509	Reducing adapter ST19/26 to ST14/23
Material	PTFE GF25
Port size	ST19/26
Size	Inner Ø ST14/23
Quantity	1

Reflux Condensers and Dropping Funnel



51160813	Reflux condenser, ST10/19, GL14 With GL14 connectors for coolant and septum
Material	Borosilicate glass
Size	Outer Ø 20 mm, height 101 mm
Quantity	1



51161029	Reflux condenser, ST14/23, GL14 With 2 GL14 connectors for coolant
Material	Borosilicate glass
Size	Outer Ø 24 mm, height 140 mm
Quantity	1



51162530	Reflux condenser, ST19/26, GL14
Material	Borosilicate glass
Size	Outer Ø 50 mm, height 250 mm
Quantity	1



51192166	Reflux condenser, ST19/26, GL14
Material	Borosilicate glass
Size	Outer Ø 40 mm, height 250 mm
Quantity	1



51191952	50 mL dropping funnel, ST14/23 With PTFE stopcock and pressure equalizing tube
Material	Glass, PTFE
Size	Ø 35 mm, length 250 mm
Quantity	1



51190317	Screw cap GL14, with aperture
Material	PBT
Temperature	Max. 200 °C
Aperture	Ø 9.5 mm
Quantity	1



51190319	Plastic hose, straight With silicone rubber seal, for screw cap GL14
Material	PP, VQM
Size	For tube inner Ø 6 mm to 9 mm
Quantity	1

100 mL Pressure Reactor Sets

EM20-100-HC and EM60-100-HC



30030945

EM20-100-HC pressure reactor set

The pressure reactor is for applications which need pressures from 0 bar to 20 bar abs.

30030946

EM60-100-HC pressure reactor set

The pressure reactor is for applications which need pressures from 0 bar to 60 bar abs.

Both reactors have a minimum working volume of 30 mL, maximum working volume of 100 mL and a nominal working volume of 150 mL. Temperature range is $-20\text{ }^{\circ}\text{C}$ to $200\text{ }^{\circ}\text{C}$. All parts in contact with the reaction mixture are made of Alloy C-22 resp. C-276 (rupture disc, IR-port) and allow working with aggressive media. Swagelok® parts, venting valve and pressure gauge are made of stainless steel. These parts can easily be replaced if required.

EasyMax 100 mL pressure reactor sets consisting of

Order Number	EM20-100-HC pressure reactor set	EM60-100-HC pressure reactor set	Quantity	Page
	Pressure reactor complete		1	111
51161830	EasyMax stirrer motor without coupling		1	112
51161875	Tr sensor for pressure reactor		1	112
30030952	O-ring for 100 mL reactor, \varnothing 50.47 mm x 2.62 mm		1	112
30030950	Gassing stirrer, \varnothing 30 mm, Alloy C-22		1	112
30030947	Rupture disc, 25 bar, Alloy C-276		1	112
30219090	Analog pressure gauge, 40 bar		1	112
30030948		Rupture disc, 65 bar, Alloy C-276	1	112
30219091		Analog pressure gauge, 100 bar	1	112

Note: Large image may not show all parts in the set.



51161830	EasyMax stirrer motor without coupling
Material	Stainless steel
Speed	50 rpm to 1000 rpm
Quantity	1



51161875	Tr sensor for pressure reactor
Material	Stainless steel – no direct contact with the reaction media
Size	Outer Ø 2.2 mm
Quantity	1



30030952	O-ring for 100 mL reactor
Material	FFKM
Size	Ø 50.47 mm x 2.62 mm
Quantity	1



30030950	Gassing stirrer with 4 grooves at gas entrainment impeller
Material	Alloy C-22
Size	Ø 30 mm
Quantity	1



30219090	Analog pressure gauge, 40 bar
Material	Stainless steel
Pressure Range	0 bar to 40 bar
Quantity	1

30219091	Analog pressure gauge, 100 bar
Material	Stainless steel
Pressure Range	0 bar to 100 bar
Quantity	1



30030947	Rupture disc, 25 bar standard for the EM20-100-HC reactor
Material	Alloy C-276
Pressure Range	0 bar to 25 bar abs. ± 10%
Quantity	1

30030948	Rupture disc, 65 bar standard for the EM60-100-HC reactor
Material	Alloy C-276
Pressure Range	0 bar to 65 bar abs. ± 10%
Quantity	1

Note: All the external connectors and fittings are Swagelok® compatible.

100 mL Pressure Reactor

Optional Accessories



14474703	HP reactor fiber probe adapter kit for 1/4" 6.35 mm fiber probe, includes extension tube 14474701 and adapter 14474406
Material	Alloy C-22
Pressure Range	0 bar to 60 bar abs. \pm 10%
Quantity	1

14474704	HP reactor fiber probe adapter kit for 3/8" 9.525 mm fiber probe, includes extension tube 14474701 and adapter 14474404
Material	Alloy C-22
Pressure Range	0 bar to 60 bar abs. \pm 10%
Quantity	1



14474700	HP reactor port extension tube allows connection of a 1/4" or 3/8" high pressure adapter
Material	Stainless steel
Pressure Range	0 bar to 60 bar abs. \pm 10%
Quantity	1

14474701	HP reactor port extension tube allows connection of a 1/4" or 3/8" high pressure adapter
Material	Alloy C-22
Pressure Range	0 bar to 60 bar abs. \pm 10%
Quantity	1



30132810	Baffle for the 100 mL pressure reactor
Material	Alloy C-22
Size	Outer \varnothing 45 mm, height 70 mm
Quantity	1



14474406	HP reactor fiber probe adapter for 1/4" 6.35 mm fiber probe
Material	Alloy C-22
Pressure Range	0 bar to 60 bar abs. \pm 10%
Quantity	1

14474404	HP reactor fiber probe adapter for 3/8" 9.525 mm fiber probe
Material	Alloy C-22
Pressure Range	0 bar to 60 bar abs. \pm 10%
Quantity	1



30030950	Gassing stirrer with 4 grooves at gas entrainment impeller
Material	Alloy C-22
Size	\varnothing 30 mm
Quantity	1



30030951	Pitched-blade stirrer downwards, four impellers
Material	Alloy C-22
Size	\varnothing 30 mm
Quantity	1



51192161	Rupture disc, 15 bar
Material	Alloy C-276
Pressure Range	0 bar to 15 bar abs. \pm 10%
Quantity	1

30030949	Rupture disc, 110 bar
Material	Alloy C-276
Pressure Range	0 bar to 110 bar abs. \pm 10%
Quantity	1



30219090	Analog pressure gauge, 40 bar
Material	Stainless steel
Pressure Range	0 bar to 40 bar
Quantity	1

30219091	Analog pressure gauge, 100 bar
Material	Stainless steel
Pressure Range	0 bar to 100 bar
Quantity	1



51191349	Digital pressure gauge LE03, 300 bar
Material	Alloy C-276
Pressure Range	0 bar to 300 bar abs. \pm 10%
Resolution	100 mbar
Quantity	1

Note: To connect the digital manometer to the pressure reactor, the Swagelok® spare parts set 51191707 is required.



30215735	Dip tube for Tr sensor
Material	Alloy C-22
Size	Inner Ø 4 mm, height 130 mm
Quantity	1



30138105	Dip tube for gas, open tip
Material	Alloy C-22
Size	Outer Ø 6 mm, inner Ø 2 mm, height 75 mm
Quantity	1



30838235	Digital pressure gauge LE03 AT 30 bar set
Material	Alloy C-276
Pressure Range	0 bar to 30 bar rel. or abs. \pm 10%
Resolution	10 mbar
Quantity	1

Note: To connect the digital manometer to the pressure reactor, the Swagelok® adapters are included in the set.

30838236	Digital pressure gauge LE03 AT 100 bar set
Material	Alloy C-276
Pressure Range	0 bar to 100 bar abs. \pm 10%
Resolution	100 mbar
Quantity	1

Note: To connect the digital manometer to the pressure reactor, the Swagelok® adapters are included in the set.

Note: All the external connectors and fittings are Swagelok® compatible.



51161310	Analog cable to connect digital manometer to the UCB
Position	"In" inputs of the Universal Control Box, UCB
Size	Length 3 m
Quantity	1

51161586	Analog cable to connect digital manometer to the UCB
Position	"C In" inputs of the Universal Control Box, UCB
Size	Length 3 m
Quantity	1



30254779	SmartConnect LE03/EV-120 cable for pressure measurement, see Page 111 for suitable manometers
Size	Length 2 m
Quantity	1



30113921	Driven shaft for the pressure magnetic drive EasyMax
Material	Alloy C-22
Size	Ø 8 mm x 125.5 mm
Quantity	1

51161410

Toolbox

Toolbox for the EasyMax pressure reactors. It contains a 12 mm hexagonal socket wrench and replacement parts.

Toolbox consisting of



Order Number	Product Description	Quantity
	Toolbox, including a 12 mm hexagonal socket wrench	1
51191343	Friction bearing, PTFE C25, set of 4 pcs	1
51191344	Ball bearing, stainless steel, set of 4 pcs	1
51191347	Replacement cone 1/8" for needle valve, Alloy C-22, set of 2 pcs	1
51191388	Thrust disk, PTFE C25, set of 2 pcs	1
51191389	Grub screw M4 x 4 for stirrer, Alloy C-22, set of 2 pcs	1
51191390	Spacer sleeve for driven shaft, Alloy C-22, Ø 8/6 mm x 3 mm, set of 4 pcs	1
30030952	O-ring, FFKM, Ø 50.47 mm x 2.62 mm	1
	Front ferrule 2 mm, Swagelok®, stainless steel, set of 4 pcs	1
	Rear ferrule 2 mm, Swagelok®, stainless steel, set of 4 pcs	1

Note: Image may not show all parts in the set.

RX-10™

Reactor Control and Capture



30208790 RX-10 with 1 m touchscreen cable

Touchscreen-based control unit to automate and monitor jacketed lab reactors. Third-party thermostats, stirrers and sensors can be connected via plug-and-play interfaces.

30217050 RX-10 with 3 m touchscreen cable

30208790 RX-10 unit with 1 m touchscreen cable consisting of

Order Number	30208790 RX-10 Unit	Quantity	Page
30303438	RX-10 main unit	1	117
51161883	Touchscreen 7", 1 m cable	1	117
30281496	Lab bar holder	1	117
30090591	Power supply	1	117
30281497	Thermostat/stirrer RS232 cable set, 7 cables	1	117
	RX-10 Quick Start Guide	1	

30217050 RX-10 unit with 3 m touchscreen cable consisting of

Order Number	Product Description	Quantity	Page
30303438	RX-10 main unit	1	117
30303580	Touchscreen 7", 3 m cable	1	117
30281496	Lab bar holder	1	117
30090591	Power supply	1	117
30281497	Thermostat/stirrer RS232 cable set, 7 cables	1	117
	RX-10 Quick Start Guide	1	

Note: Large image may not show all parts in the sets.



30303438	RX-10 main unit
Size	70 mm x 152 mm x 215 mm (w, d, h)
Weight	2.88 kg, including touchscreen
Quantity	1



51161883	TFT touchscreen 7", 1 m cable
Material	PA, aluminium
Size	195 mm x 135 mm x 60 mm (w, d, h)
Quantity	1



30281496	Lab bar holder
Material	Aluminium, stainless steel
Size	134.75 mm x 35.5 mm x 30 mm (l, w, h)
Quantity	1



30090591	Power supply for CAN bus devices Required if additional CAN devices are connected
Quantity	1



30281497	Thermostat/stirrer RS232 cable set Dedicated and color coded
Size	Length 2.9 m each
Quantity	7 pcs per set

Optional Accessories For RX-10



30260369	Emergency button
Size	125 mm x 80 mm x 95 mm (l, w, h) cable length 6.9 m
Quantity	1

30267163	SmartConnect Pt100 cable with loose ends For Pt100 sensors, Page 134
Quantity	1

30267165	SmartConnect sensor cable with loose ends For Pt100 and other sensors, Page 134
Quantity	1

30254779	SmartConnect LE03/EV-120 cable For pressure measurement, Page 134
Quantity	1

Dosing Unit SP-50 Set



51161770

Dosing unit SP-50 set

This unit allows the dosing of one reagent in two reactors completely independent and in parallel via touchscreen or PC software.

Only available in the set.

Dosing unit SP-50 set consisting of

Order Number	Product Description	Quantity	Page
	Dosing Unit SP-50, only available in the set	1	119
51191988	CAN cable, 100 cm	1	119
51191306	PTFE dosing tube Ø 3.2 mm	3	119
51191304	PTFE dosing tube Ø 1.6 mm	2	119
51191514	Ferrule for tubing and sensors of outer Ø 3.2 mm, 4 pcs in a set	1	119
51191515	Nut for UNF 1/4-28 threads, outer Ø max. 3.2 mm , 4 pcs in a set	1	119
51191202	Ferrule for tubing and sensors of outer Ø 1.6 mm, 4 pcs in a set	1	119
51191203	Nut for UNF 1/4-28 threads, outer Ø max. 1.6 mm, 4 pcs in a set	1	119
51191204	Plug for UNF 1/4-28 threads, 4 pcs in a set	1	119
51191267	Glass adapter ST14/23-GL14	2	120
51192208	Glass adapter ST19/26-GL14	1	120
51190318	Screw cap GL14, without aperture, PBT	3	120
51191170	Silicone rubber seal (Septa) GL14	10	120
51190317	Screw cap GL14, with aperture	3	120
51103947	Sealing ring for screw cap GL14 PTFE/silicone, aperture 6 mm	6	120
51191591	Bottle GL45 250 mL with cap	1	120
51191972	Distributor cap GL45 2 x GL14	1	120
51161558	Adapter GL14-UNF with 1 UNF 1/4-28 port	3	120

Note: Large image may not show all parts in the set. Syringe to be ordered separately – Page 121.



	Dosing unit SP-50
Size	100 mm x 150 mm x 296 mm (w, d, h)
Quantity	1

Note: Only available in the set



	CAN cable, 100 cm
Size	Length 100 cm
Quantity	1



	PTFE dosing tube Ø 3.2 mm
Material	PTFE
Size	Ø 3.2 mm, length 2.5 m
Quantity	1



	PTFE dosing tube Ø 1.6 mm
Material	PTFE
Size	Ø 1.6 mm, length 2.5 m
Quantity	1



	Ferrule for tubing and sensors of outer Ø 3.2 mm
Material	ETFE
Size	Inner Ø max. 3.2 mm
Quantity	4 pcs in a set



	Nut for UNF 1/4-28 threads
Material	ETFE
Size	Inner Ø max. 3.2 mm
Quantity	4 pcs in a set



	Ferrule for tubing and sensors of outer Ø 1.6 mm
Material	ETFE
Size	Inner Ø max. 1.6 mm
Quantity	4 pcs in a set



	Nut for UNF 1/4-28 threads
Material	ETFE
Size	Inner Ø max. 1.6 mm
Quantity	4 pcs in a set



	Plug for UNF 1/4-28 threads
Material	ETFE
Size	Outer Ø max. 1.6 mm
Quantity	4 pcs in a set



51191267	Glass adapter ST14/23-GL14
Material	Borosilicate glass
Size	Height 54 mm
Quantity	1



51192208	Glass adapter ST19/26-GL14
Material	Borosilicate glass
Size	Height 50 mm
Quantity	1



51190318	Screw cap GL14, without aperture, PBT With PTFE sealing
Material	PBT
Temperature	Max. 200 °C
Quantity	1



51191170	Silicone rubber seal (Septa) GL14 For screw cap GL14
Material	Silicone rubber VQM
Size	Ø 12 mm, thickness 2 mm
Quantity	1



51190317	Screw cap GL14, with aperture
Material	PBT
Temperature	Max. 200 °C
Aperture	Ø 9.5 mm
Quantity	1



51103947	Sealing ring for screw cap GL14 PTFE/silicone For screw cap GL14
Material	Silicone rubber VQM, PTFE-coated
Size	Ø 12 mm, aperture 6 mm
Quantity	1

Can also be used for Ø 1/4" 6.35 mm inserts



51191591	Bottle GL45 250 mL with cap
Material	Glass, PP
Quantity	1



51191972	Distributor cap GL45 2 x GL14
Material	PP
Quantity	1



51161558	Adapter GL14-UNF with 1 UNF 1/4-28 port For screw cap GL14
Material	PTFE GF25
Size	Inner Ø 3.4 mm, 20 mm
Quantity	1

Dosing Unit SP-50 Syringes

1 mL, 10 mL, 25 mL, and 50 mL



51191793	Syringe 1 mL
Material	Glass, PTFE, metal
Volume	1 mL
Quantity	1



51191792	Syringe 10 mL
Material	Glass, PTFE, metal
Volume	10 mL
Quantity	1



51191794	Syringe 25 mL
Material	Glass, PTFE, metal
Volume	25 mL
Quantity	1



51191987	Syringe 50 mL
Material	Glass, PTFE, metal
Volume	50 mL
Quantity	1

Optional Accessories



30090591	Power supply for CAN bus devices required if additional CAN devices are connected
Quantity	1



30264936	CAN cable, 3 m
Size	Length 300 cm
Quantity	1

3-Way Dosing Adapter Set



51161834
3-way dosing adapter set
This adapter set allows the connection of three dosing channels to the reactor.

3-way dosing adapter set consisting of

Order Number	Product Description	Quantity	Page
51162615	3-way glass adapter ST14/23-GL14	1	123
51161558	Adapter GL14-UNF with 1 UNF 1/4-28 port	2	123
51190317	Screw cap GL14, with aperture	3	123
51103947	Sealing ring for screw cap GL14 PTFE/silicone, aperture 6 mm	3	123
51190318	Screw cap GL14, without aperture, PBT	2	123
51191514	Ferrule for tubing and sensors of outer Ø 3.2 mm, 4 pcs in a set	1	123
51191515	Nut for UNF 1/4-28 threads, outer Ø max. 3.2 mm , 4 pcs in a set	1	123
51191202	Ferrule for tubing and sensors of outer Ø 1.6 mm, 4 pcs in a set	1	123
51191203	Nut for UNF 1/4-28 threads, outer Ø max. 1.6 mm, 4 pcs in a set	1	123

Note: Large image may not show all parts in the set.



51162615	3-way glass adapter, ST14/23-GL14
Material	Borosilicate glass
Size	Height 80 mm
Quantity	1



51161558	Adapter GL14-UNF with 1 UNF 1/4-28 port for screw cap GL14
Material	PTFE GF25
Size	Inner Ø 3.4 mm, 20 mm
Quantity	1



51190317	Screw cap GL14, with aperture
Material	PBT
Temperature	Max. 200 °C
Aperture	Ø 9.5 mm
Quantity	1



51103947	Sealing ring for screw cap GL14 PTFE/silicone For screw cap GL14
Material	Silicone rubber VQM, PTFE-coated
Size	Ø 12 mm, aperture 6 mm
Quantity	1

Can also be used for Ø 1/4" 6.35 mm inserts



51190318	Screw cap GL14, without aperture, PBT with PTFE sealing
Material	PBT
Temperature	Max. 200 °C
Quantity	1



51191514	Ferrule for tubing and sensors of outer Ø 3.2 mm
Material	ETFE
Size	Inner Ø max. 3.2 mm
Quantity	4 pcs in a set



51191515	Nut for UNF 1/4-28 threads
Material	ETFE
Size	Inner Ø max. 3.2 mm
Quantity	4 pcs in a set



51191202	Ferrule for tubing and sensors of outer Ø 1.6 mm
Material	ETFE
Size	Inner Ø max. 1.6 mm
Quantity	4 pcs in a set



51191203	Nut for UNF 1/4-28 threads
Material	ETFE
Size	Inner Ø max. 1.6 mm
Quantity	4 pcs in a set

ST14 Adapter Set for Probes



51161852 ST14 adapter set for probes, Ø 1.6 mm to 8 mm

This adapter allows the connection of 1/4" ReactIR probes, 6 mm pH probes, 1.6 mm and 3.2 mm tubes to the reactor.

ST14 adapter set for probes consisting of

Order Number	Product Description	Quantity	Page
51191267	Glass adapter ST14/23-GL14	1	125
51190317	Screw cap GL14, with aperture	1	125
51161558	Adapter GL14-UNF with 1 UNF 1/4-28 port	1	125
51103947	Sealing ring for screw cap GL14 PTFE/silicone, aperture 6 mm	1	125
51161037	Adapter for GL14, 6 mm – 6.35 mm sensors	1	125
51161102	Silicone rubber sealing, outer Ø 12 mm, aperture 8 mm	1	125
51191514	Ferrule for tubing and sensors of outer Ø 3.2 mm, 4 pcs in a set	1	125
51191515	Nut for UNF 1/4-28 threads, outer Ø max. 3.2 mm , 4 pcs in a set	1	125
51191202	Ferrule for tubing and sensors of outer Ø 1.6 mm, 4 pcs in a set	1	125
51191203	Nut for UNF 1/4-28 threads, outer Ø max. 1.6 mm, 4 pcs in a set	1	125



51191267	Glass adapter ST14/23-GL14
Material	Borosilicate glass
Size	Height 54 mm
Quantity	1



51161558	Adapter GL14-UNF with 1 UNF 1/4-28 port for screw cap GL14
Material	PTFE GF25
Size	Inner Ø 3.4 mm, 20 mm
Quantity	1



51190317	Screw cap GL14, with aperture
Material	PBT
Temperature	Max. 200 °C
Aperture	Ø 9.5 mm
Quantity	1



51103947	Sealing ring for screw cap GL14 PTFE/silicone For screw cap GL14
Material	Silicone rubber VQM, PTFE-coated
Size	Ø 12 mm, aperture 6 mm
Quantity	1

Can also be used for Ø 1/4" 6.35 mm inserts



51161037	Adapter for GL14, 6 mm – 6.35 mm sensors
Material	PTFE
Size	Inner Ø 6.4 mm, outer Ø 12 mm,
Quantity	1

Sealing ring needed 51161102



51161102	Silicone rubber sealing ring with vulcanized-on PTFE washers For GL14 caps and sensors with outer Ø 8 mm
Material	Silicone rubber VQM, PTFE-coated
Size	Ø 12 mm x 5 mm, aperture 8 mm
Quantity	1



51191514	Ferrule for tubing and sensors of outer Ø 3.2 mm
Material	ETFE
Size	Inner Ø max. 3.2 mm
Quantity	4 pcs in a set



51191515	Nut for UNF 1/4-28 threads
Material	ETFE
Size	Inner Ø max. 3.2 mm
Quantity	4 pcs in a set



51191202	Ferrule for tubing and sensors of outer Ø 1.6 mm
Material	ETFE
Size	Inner Ø max. 1.6 mm
Quantity	4 pcs in a set



51191203	Nut for UNF 1/4-28 threads
Material	ETFE
Size	Inner Ø max. 1.6 mm
Quantity	4 pcs in a set

Universal Dosing Starter Set



30345210

Universal Dosing Starter Set, UDSS

The Universal Dosing Starter Set allows you to dose substances easily and well targeted to the reactor of an EasyMax, OptiMax or RX-10 controlled lab system.

It is, hereby, important to note that this Universal Dosing Starter Set is only to be used for 'non-pressure' linked applications.

Universal Dosing Starter Set consisting of

Order Number	Product Description	Quantity	Page
51191591	Bottle GL45 250 mL with cap	1	127
51191971	Bottle GL45 1000 mL with cap	1	127
51191972	Distributor cap GL 45 2 X GL14	1	127
51191267	Glass adapter ST14/23-GL14	1	127
51192208	Glass adapter ST19/26-GL14	1	127
51190318	Screw cap GL14, without aperture, PBT	3	127
51190317	Screw cap GL14, with aperture	3	127
51103947	Sealing ring for screw cap GL14 PTFE/silicone, aperture 6 mm	2	127
51161558	Adapter GL14-UNF with 1 UNF 1/4-28 port	2	127
51161037	Adapter GL14, 6 mm - 6.35 mm sensors	2	127
51160200	Adapter ST7/16 with 1 UNF 1/4-28 port	1	128
51191593	Adapter UNF 1/4-28 port, 1.5 mm	2	128
51161590	Adapter ProMinent pump UNF 1/4-28 port	2	128
51191514	Ferrule for tubing and sensors (4 pcs in a set)	1	128
51191515	Nut for UNF 1/4-28 threads (4 pcs in a set)	1	128
51191306	PTFE dosing tube, 3.2mm, 2.5 m	2	128
	PFA tubing 3.2 mm, 4 m	1	128

Note: Large image may not show all parts in the set.


51191591 | **Bottle GL45 250 mL with cap**

Material	Glass, PP
Quantity	1


51191971 | **Bottle GL45 1000 mL with cap**

Material	Glass
Quantity	1


51191972 | **Distributor cap GL45 2 x GL14**

Material	PP
Quantity	1


51191267 | **Glass adapter ST14/23-GL14**

Material	Borosilicate glass
Size	Height 54 mm
Quantity	1


51192208 | **Glass adapter ST19/26-GL14**

Material	Borosilicate glass
Size	Height 50 mm
Quantity	1


51190318 | **Screw cap GL14, without aperture, PBT with PTFE sealing**

Material	PBT
Temperature	Max. 200 °C
Quantity	1


51190317 | **Screw cap GL14, with aperture**

Material	PBT
Temperature	Max. 200 °C
Aperture	Ø 9.5 mm
Quantity	1


51103947 | **Sealing ring for screw cap GL14 PTFE/silicone**
For screw cap GL14

Material	Silicone rubber VQM, PTFE-coated
Size	Ø 12 mm, aperture 6 mm
Quantity	1

Can also be used for Ø 1/4" 6.35 mm inserts


51161558 | **Adapter GL14-UNF with 1 UNF 1/4-28 port**
For screw cap GL14

Material	PTFE GF25
Size	Inner Ø 3.4 mm, 20 mm
Quantity	1


51161037 | **Adapter for GL14, 6 mm – 6.35 mm sensors**

Material	PTFE
Size	Inner Ø 6.4 mm, outer Ø 12 mm,
Quantity	1



51160200	Adapter ST7/16 with 1 UNF 1/4-28 port
Material	PTFE GF25
Port size	ST7/16
Size	Inner Ø 3.2 mm, UNF 1/4"
Quantity	1



51191593	Adapter UNF 1/4-28 port, 1.5 mm
Material	PEEK
Size	Inner Ø 3.4 mm
Quantity	1



51161590	Adapter ProMinent pump UNF 1/4-28 port
Material	PTFE GF25
Size	Inner Ø max.3.2 mm
Quantity	1



51191514	Ferrule for tubing and sensors of outer Ø 3.2 mm
Material	ETFE
Size	Inner Ø max. 3.2 mm
Quantity	4 pcs in a set



51191515	Nut for UNF 1/4-28 threads
Material	ETFE
Size	Inner Ø max. 3.2 mm
Quantity	4 pcs in a set



51191306	PTFE dosing tube Ø 3.2 mm
Material	PTFE
Size	Ø 3.2 mm, length 2.5 m
Quantity	1



	PFA tubing Ø 3.2 mm, 4 m
Material	PFA
Size	Ø 3.2 mm, length 4 m
Quantity	1

ECB™ – Easy Control Box

Sensors and Controlled Dosing



30212440

ECB

Adds capabilities for additional sensors (pH, pressure, turbidity, massflow, etc.) and controlled dosing to EasyMax, OptiMax, and RX-10. Usage either through local touchscreen or iControl PC software.

ECB set consisting of

Order Number	Product Description	Quantity	Page
	ECB main unit	1	130
51191988	CAN cable, 100 cm	1	130
30281496	Lab bar holder	1	130



	ECB main unit
Required main reactor device to operate the ECB	EasyMax, OptiMax or RX-10 through local touchscreen or iControl PC software
Size	210 mm x 152 mm x 297 mm (w, d, h)
Weight	3.4 kg
Quantity	1



51191988	CAN cable, 100 cm
Size	Length 100 cm
Quantity	1



30281496	Lab bar holder
Material	Aluminium, stainless steel
Size	134.75 mm x 35.5 mm x 30 mm (l, w, h)
Quantity	1

Optional Accessories



30090591	Power supply for CAN bus devices
	Required if additional CAN devices are connected
Quantity	1



30264936	CAN cable, 3 m
Size	Length 3 m
Quantity	1

pH Measurement

EasyMax 102 and 402



30034472 | **SevenExcellence pH/mV module**
For analog sensors only (no ISM)

Quantity	1
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51161852 | **ST14 adapter set for Ø 1.6 mm to 8 mm**
To suit pH electrodes into reactor covers

Material	Glass, PBT, PTFE, silicone rubber
Quantity	1 of each in a set

Note: See Page 102 for details.



51191332 | **InLab 1022 pH electrode**
for 50 mL two-piece reactor

Temperature	0 °C to 80 °C
Size	Sensor Ø 6 mm, length 140 mm, electrode head S7
Quantity	1

Note: 30281915, 30281916 or 30281917 BNC cables are needed to connect pH electrode to SevenExcellence pH Meter



30281915 | **BNC cable, 1.2 m**
†To connect pH electrode with S7 head to SevenExcellence pH Meter

Size	Length 1.2 m
Quantity	1

30281916 | **BNC cable, 3.0 m**

Size	Length 3.0 m
Quantity	1

30281917 | **BNC cable, 5.0 m**

Size	Length 5.0 m
Quantity	1



51343161 | **InLab Semi-Micro-L pH electrode**
For 50 mL, 100 mL and 400 mL reactors

Temperature	0 °C to 100 °C
Size	Sensor Ø 6 mm, length 230 mm, electrode head S7
Quantity	1

Note: 30281915, 30281916 or 30281917 BNC cables are needed to connect pH electrode to SevenExcellence pH Meter

Controlled Dosing With the Easy Control Box (ECB)



30335504	KNF SIMDOS 02 FT.18 RC-X 30 µL/min to 20 mL/min, max pressure 6 bar
Material	Pump head: PTFE, Diaphragm: PTFE covered Valves: FFKM Kalrez, Filter: PEEK
Quantity	1

30335503	KNF SIMDOS 10 FT.18 RC-X 1 mL/min to 100 mL/min, max pressure 6 bar
Material	Pump head: PTFE, Diaphragm: PTFE covered Valves: FFKM Kalrez, Filter: PEEK
Quantity	1



30254805	SmartConnect KNF SIMDOS control cable
Size	Length 2 m
Quantity	1



51190994	ProMinent pump BT4b 1601 TTT Capacity at 16 bar, max. backpressure: rate 1.1 L/h; suction/discharge valves: PTFE with carbon
Material	Seals: PTFE, diaphragm: PTFE valve balls: ceramic
Quantity	1

51191739	ProMinent pump BT4b 1601 SST Capacity at 16 bar, max. backpressure: rate 1.1 L/h; suction/discharge valves: stainless steel 1.4404
Material	Seals: PTFE, diaphragm: PTFE valve balls: ceramic
Quantity	1



30254804	SmartConnect ProMinent control cable
Size	Length 2 m
Quantity	1



30254806	SmartConnect Watson-Marlow control cable To control Watson-Marlow 120U peristaltic pumps with 4 mA – 20 mA signal
Size	Length 2 m
Quantity	1



30254800	SmartConnect KDS/Harvard TTL cable (15-pin) To trigger start/stop of dosing on KDS/Harvard syringe pump with 15-pin TTL interface
Size	Length 2 m
Quantity	1



30406051	SmartConnect Harvard TTL cable (9-pin) To trigger start/stop of dosing on Harvard syringe pump with 9-pin TTL interface
Size	Length 2 m
Quantity	1



30254801	SmartConnect KDS TTL cable (legacy, 9-pin) To trigger start/stop of dosing on KDS syringe pump with 9-pin TTL interface
Size	Length 2 m
Quantity	1



30267164	SmartConnect control cable with loose ends To control any pump supporting one of the following signals: current (4 mA – 20 mA), voltage (0 V – 10 V), frequency (0 Hz – 3 Hz), PWM (24V)
Size	Length 2 m
Quantity	1



51190589	RS-232 connection cable (null modem cable) To connect the ECB with METTLER TOLEDO balances with support for the MT-SICS protocol
Size	Length 1.8 m
Quantity	1



30576241	USB to RS-232 converter cable for XPR/MR/MX balances To connect the ECB with METTLER TOLEDO XPR/MR/MX balances
Size	Length 1.8 m
Quantity	1

Measurements

With Additional Sensors

Temperature, Turbidity, Massflow, Pressure, ...

All SmartConnect™ sensor cables are compatible with the SmartConnect sensor port at the RX-10 and ECB.



30267163	SmartConnect Pt100 cable with loose ends For Pt100 sensors
Size	Length 2 m
Quantity	1



30267165	SmartConnect sensor cable with loose ends For Pt100 sensors and any sensor with voltage (0 V – 10 V) or current (0 mA – 20 mA) output
Size	Length 2 m
Quantity	1



30254779	SmartConnect LE03/EV-120 cable For pressure measurement, see Page 111 for suitable manometers
Size	Length 2 m
Quantity	1

SevenExcellence™ for EasyMax or RX-10

pH/mV Measurement Equipment



SevenExcellence pH/mV meter system for EasyMax or RX-10

pH measurement without any additional control box. Just connect the SevenExcellence to the EasyMax/RX-10 instrument. EasyMax/RX-10 will log pH data and show them online on the touchscreen.

SevenExcellence pH measurement recommended items

Order Number	Product Description	Quantity	Page
30046240	SevenExcellence S400-Basic including one pH/mV module	1	136
30034472	SevenExcellence pH/mV module	1	136
51191332	InLab 1022 pH electrode for EasyMax 50/100 mL reactors (Ø 6 mm, length 140 mm)	1	136
51343161	InLab Semi-Micro-L electrode for EasyMax 400 mL reactor (Ø 6 mm, length 230 mm)	1	136
51191926	USB A-B cable (connection cable to EasyMax/RX-10)	1	136
30281915	BNC to S7 connector cable, 1.2 m	1	136
30281916	BNC to S7 connector cable, 3.0 m	1	136
30281917	BNC to S7 connector cable, 5.0 m	1	136
51161852	ST14 adapter set for probes, Ø 1.6 mm to 8 mm	1	136

Note: Large image may not show all parts of the SevenExcellence S400-Basic instrument.



30046240	SevenExcellence S400-Basic With one pH/mV expansion module
Size	235 mm x 188 mm x 75 mm (w, d, h)
Quantity	1



30034472	SevenExcellence pH/mV module For analog sensors only (no ISM)
Quantity	1



51191332	InLab 1022 pH electrode for 50 mL two-piece reactor
Temperature	0 °C to 80 °C
Size	Sensor Ø 6 mm, length 140 mm, electrode head S7
Quantity	1

Note: 30281915, 30281916 or 30281917 BNC cables are needed to connect pH electrode to SevenExcellence pH Meter



51343161	InLab Semi-Micro-L pH electrode For 50 mL, 100 mL and 400 mL reactors
Temperature	0 °C to 100 °C
Size	Sensor Ø 6 mm, length 230 mm, electrode head S7
Quantity	1

Note: 30281915, 30281916 or 30281917 BNC cables are needed to connect pH electrode to SevenExcellence pH Meter



51191926	USB A-B cable For data transfer from SevenExcellence to EasyMax/RX-10
Size	Length 3 m
Quantity	1



30281915	BNC cable, 1.2 m To connect pH electrode with S7 head to SevenExcellence pH Meter
Size	Length 1.2 m
Quantity	1



51161852	ST14 adapter set for Ø 1.6 mm to 8 mm To suit pH electrodes into reactor covers
Material	Glass, PBT, PTFE, silicone rubber
Quantity	1 of each in a set

Note: See Page 102 for details

30281916 BNC cable, 3.0 m

Size	Length 3.0 m
Quantity	1

30281917 BNC cable, 5.0 m

Size	Length 5.0 m
Quantity	1

EasyMax HFCal Kit

Calorimetry



To perform calorimetric studies, the 30090576 Upgrade Kit, the 30720937 Software Option as well as 30721094 iControl software are required.

30090576

Upgrade Kit EasyMax HFCal

A calorimetry Upgrade Kit for EasyMax contains all necessary parts to convert the workstation into a fully functional calorimeter (needs software).

30720937

Software EasyMax HFCal Option for iControl

Software option enabling calorimetric experiments and heat flow evaluations in iControl.

iControl software is not included.

Upgrade Kit EasyMax HFCal consisting of

Order Number	Product Description	Quantity	Page
30090577	Module EasyMax HFCal	1	139
30099798	Temperature sensor, glass, 260 mm	2	139
30090579	Calibration heater, Alloy C-22, 260 mm	2	139
51162720	Adapter ST14, PTFE, with sealing ring	4	139
51191988	CAN cable, 100 cm	1	139
	HFCal Quick Start Guide	1	

Software EasyMax HFCal Option iControl

Order Number	Product Description	Quantity	Page
30720937	Software EasyMax HFCal Option iControl	1	

Note: Large image may not show all parts in the set.

OptiMax HFCal Kit

Calorimetry



To perform calorimetric studies, the 30050150 Upgrade Kit, the 30720936 Software Option as well as 30721094 iControl software are required.

30050150

Upgrade Kit OptiMax HFCal

A calorimetry Upgrade Kit for OptiMax. It is plug-and-play and contains all necessary parts to convert the workstation into a fully functional calorimeter (needs software).

30720936

Software OptiMax HFCal Option for iControl

Software option enabling calorimetric experiments and heat flow evaluations in iControl.

iControl software is not included.

Upgrade Kit OptiMax HFCal consisting of

Order Number	Product Description	Quantity	Page
30050151	OptiMax HFCal box	1	139
30050155	Calibration heater, 300 mm	1	139
30064131	Adapter ST19, PTFE, with sealing ring	1	139
51191988	CAN cable, 100 cm	1	139
	HFCal Quick Start Guide	1	

Software OptiMax HFCal Option iControl

Order Number	Product Description	Quantity	Page
30720936	Software OptiMax HFCal Option iControl	1	

Note: Large image may not show all parts in the set.



30090577	Module EasyMax HFCal Can be attached on the left or right side of the EasyMax
Size	120 mm x 40 mm x 170 mm (w, d, h)
Quantity	1



30050151	OptiMax HFCal box Can be attached on the left or right side of the OptiMax
Size	120 mm x 40 mm x 170 mm (w, d, h)
Quantity	1



51191988	CAN cable, 100 cm
Size	Length 100 cm
Quantity	1

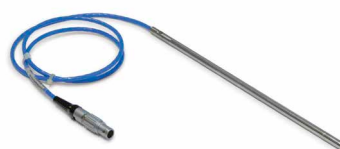


30099798	Pt100 temperature sensor, EasyMax
Material	Wetted part: Glass
Size	Sensor Ø 6 mm, length 260 mm
Quantity	1

Note: Find out more about the immersion depth on Page 27



30090579	EasyMax calibration heater
Material	Wetted part: Alloy C-22
Size	Sensor Ø 6.35 mm, length 260 mm
Quantity	1



30050155	OptiMax calibration heater
Material	Wetted part: Alloy C-22
Size	Sensor Ø 8 mm, length 300 mm
Quantity	1



51162720	PTFE adapter ST14/23, eccentric Including 51162716 sealing ring
Material	PTFE GF25
Port size	ST14/23
Size	Inner Ø 6 mm
Quantity	1

Note: Can also be used for Ø 1/4" 6.35 mm inserts



30064131	PTFE adapter ST19/26, eccentric For calibration heater, including 30064134 sealing ring
Material	PTFE GF25
Port size	ST19/26
Size	Inner Ø 8 mm
Quantity	1



51162716	Sealing ring for 51162720 PTFE adapters
Material	PTFE
Size	Inner Ø 6 mm
Quantity	1

Note: Can also be used for Ø 1/4" 6.35 mm inserts



30064134	Sealing ring for 30064131 PTFE adapter
Material	PTFE
Size	Inner Ø 8 mm
Quantity	1

iControl™ Software

For EasyMax, OptiMax, RX-10, and RC1mx

iControl enhances the user experience running advanced procedures including complex reactions, automated sampling, calorimetric investigations or the determination of the reaction kinetics or critical process parameters.

iControl software enable to seamlessly integrate the synthesis workstations EasyMax, OptiMax, RX-10, and RC1mx with Real-Time Analytical tools such as EasyViewer, ReactIR or ReactRaman. iControl enables scientists to:

- Display, process, and analyze experimental data
- Import, overlay, and compare data from different experiments
- Copy and paste trends between iControl and other iC products
- Customize reports with experiment specific text and images.



► WATCH

iControl Software for EasyMax, OptiMax, RX-10, and RC1mx

Order Number	License type	Description
30721094	Software iControl Single Instrument	Software license for experiment preparation, control and data evaluation for one instrument
30721096	Software iControl Multiple Instrument Option	Software option to connect up to four (4) synthesis workstations to an existing iControl installation
30721119	Software iControl Office	Software license for experiment preparation and experiment evaluation
30721090	Software iC Safety Option for iControl	Software license for EasyMax, OptiMax or RC1mx. iC Safety automates the calculation of thermal safety parameters

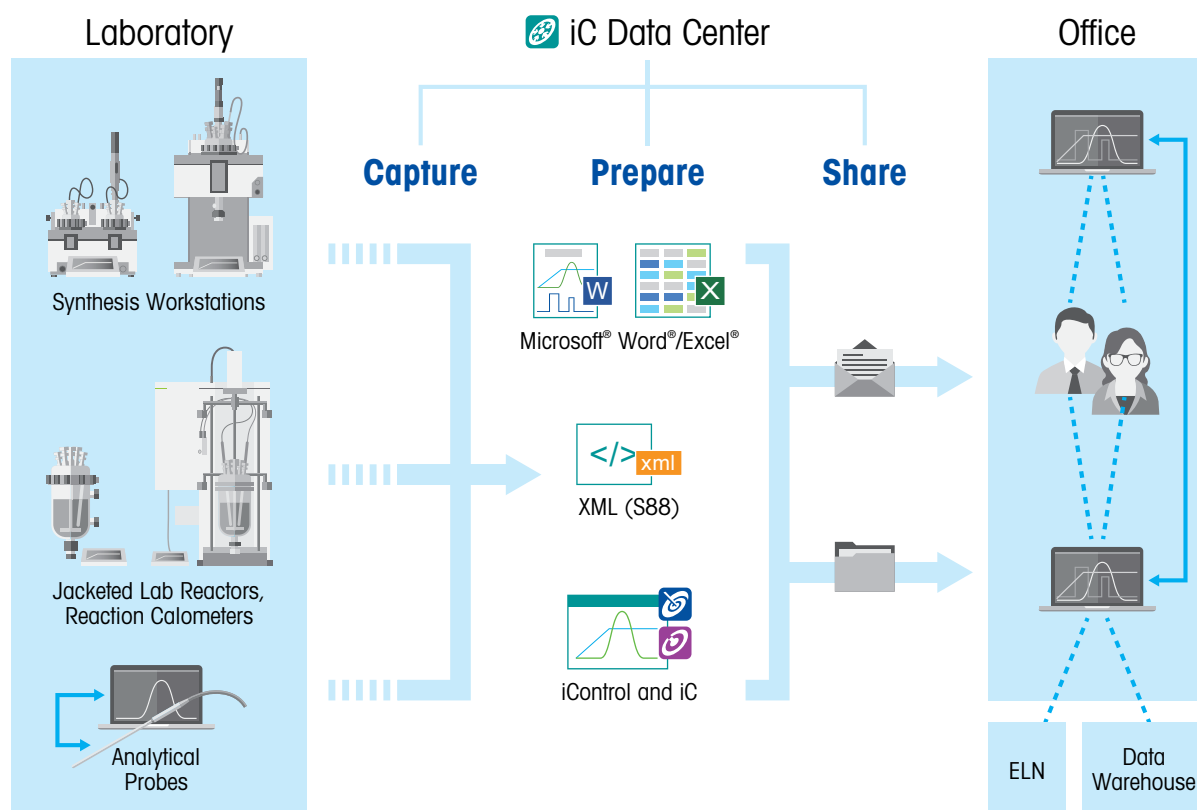
iC Data Center™

Capture, Prepare, Share

An estimated **85%** of lab data is lost because it is not transferred from lab instruments or is not recorded at all.

iC Data Center ensures all experiment data is automatically captured, prepared into useful formats, and shared on a central file store. It allows scientists to focus on the science while taking care of:

- Collecting experiment data automatically of all AutoChem instruments
- Preparing standardized reports and distribute these centrally
- Emailing users with links to the files after the experiment completion



iC Data Center is a powerful tool that improves productivity for the researcher while facilitating knowledge management for the organization. For further details please contact your local METTLER TOLEDO organization.



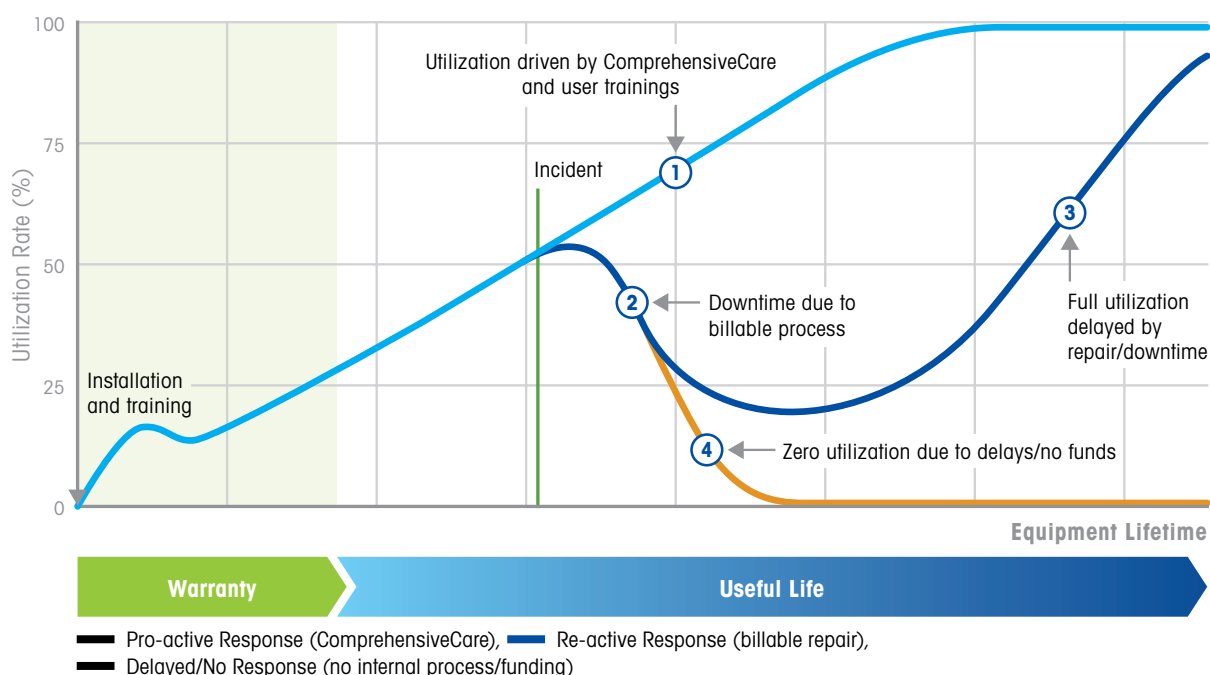
► WATCH

Post-Warranty Maintenance

Ensuring Performance and Repeatability

Implementing a maintenance plan before the warranty period ends, is the most effective way to commit to your team's success.

Impact of Downtime on Utilization



View these videos for the best way to learn about the proper care of your instruments.



Six Components of a Long-Term Instrument Maintenance Strategy (2:08)



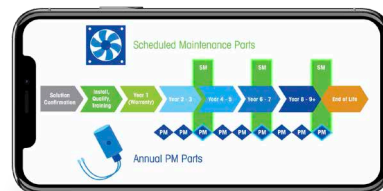
► WATCH



Selecting a Maintenance & Support Plan (2:37)



► WATCH



Understanding Scheduled Maintenance (3:11)



► WATCH

Preventive Maintenance Service Includes:

One on-site Preventive Maintenance and Calibration Validation service of a METTLER TOLEDO automated reactor system.

- **Travel and Labor for Preventive Maintenance**
- **Verification of Installation Qualification (IQ)**
To ensure performance and stability is unaffected by environmental challenges
- **Performance of Operational Qualifications (OQ)**
To ensure accurate and reproducible data collection
- **Support of Performance Qualification (PQ) Against METTLER TOLEDO Factory Specifications**
To show objective evidence and records to satisfy Quality requirements of documented compliance to internal and external standards
- **Performance of Annual Maintenance Qualifications (MQ)**
To mitigate risk of unexpected part failure over the life of the instrument

Activities Performed During Preventive Maintenance Service:

- **Verification of Cooling and Purge**
- **Verification of Stirrer and Replacement of Sealing Ring (EasyMax)/Stirrer Internals (OptiMax)**
- **Calibration of Tr and Tj Sensors**
- **Specification Test (Heat/Cool, Speed and Stability)**
- **Electronic Asset Management and Maintenance Documentation (MPAC – Maintenance Qualification Package)**

EasyMax & OptiMax Lifecycle Maintenance Checklist	Annual	Scheduled
Temperature Calibration, Heat/Cool, Stability and Speed Verification To ensure temperature accuracy, repeatability, and response time	<input type="checkbox"/>	–
Replace Sealing Ring (EasyMax)/Stirrer Internals (OptiMax) To prevent solvent loss	<input type="checkbox"/>	–
Replace Touchscreen Cover To preserve LCD surface	<input type="checkbox"/>	–
Replace Battery To ensure diagnostic logging	–	<input type="checkbox"/> (2 years)
Replace Cooling Fan To maintain operating conditions	–	<input type="checkbox"/> (5 years)
Replace Thermostat Blocks To ensure heating/cooling, speed, and stability	–	<input type="checkbox"/> (6 years)

☐ Replaced at annual Preventive Maintenance (PM)

☐ Replaced based on age/utilization (Scheduled Maintenance, SM); no additional labor charge when done during PM

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