# Synthesis Workstations

Reduce Chemical Development Times
Complete More Successful Projects

Unattended Control
With an instantly familiar touchscreen, scientists trend and control reaction parameters at all times, including changing preprogramed task sequences for 24-hour operation. Running unattended experiments increases productivity meaning more successful experiments per researcher.
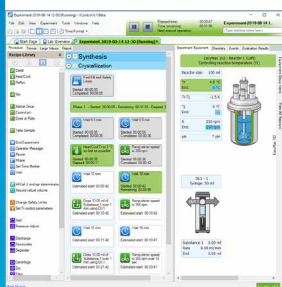
Complete Data Capture
During an experiment EasyMax automatically collects and stores a wealth of data. Every reaction event is captured enabling experiments to be easily compared and repeated. This enables researchers to make data driven decisions that improve process development.

Flexible Temperature & Volume
The EasyMax family covers a wide temperature, volume and pressure range. The smaller volume EasyMax 102 LT is designed for early development work, EasyMax 102 for reaction screening and optimization, while the larger volume EasyMax 402 is ideal for scale-up experiments and crystallization studies.

Seamless Integration
Incorporating real-time, in-situ instruments (EasyViewer™, ReactIR™, Heat Flow Calorimetry) into synthesis workstations allows scientists to gain in-depth process understanding. By analyzing process analytical trends and controlling temperature, mixing, dosing and pH, process events are quickly identified and corrected.

EasyMax™ Advanced
102, 102 LT and 402
Demand for better R&D productivity has resulted in the adoption of robust, easy-to-use synthesis workstations to increase quality, reduce costs and increase speed of development. By replacing traditional round bottom flasks and jacketed lab reactors with EasyMax Advanced, scientists can quickly develop new synthetic routes, eliminate non-viable candidates earlier and improve reaction optimization. Synthesis workstations deliver key information to help researchers' complete more successful investigations.

METTLER TOLEDO

EasyMax™ 102, 102 LT and 402 Advanced
Technical Specifications

	EasyMax 102 LT Advanced	EasyMax 102 Advanced	EasyMax 402 Advanced
Temperature Range	−90 °C to 80 °C (jacket temperature)	−40 °C to 180 °C (jacket temperature)	
Temperature Modes	Jacket control, reaction mixture control, distillation, crystallization		
Thermostat Technology	Solid state (heating: electric, cooling: Peltier)		
Instrument Cooling	Tap water or ethylene glycol at 15 °C (3 L / min) for temperatures to approx. −50 °C; Cryostat with a capacity of 150 W at −20 °C for temperature to approx. −65 °C; Cryostat with a capacity of 390 W at −60 °C for temperature to approx. −80 °C	Tap water or ethylene glycol (3 L / min) for temperatures to approx. −10 °C; Cryostat with a capacity of 720 W at 20 °C for temperature to approx. −10 °C; Cryostat with a capacity of 450 W at −10 °C for temperature to approx. −40 °C	
Cooling Connector	M16 x 1	8 mm hose barb	
Reactors	8, 25, 50 and 100 mL one-piece reactors; 100 mL high workup volume two-piece reactor	8, 10, 25, 50 and 100 mL one-piece reactors; 50 mL, 100 mL and 100 mL high workup volume two-piece reactors; 50 mL and 100 mL pressure reactors	400 mL one-piece reactors; 100 mL and 400 mL two-piece reactors
Covers	Glass, 5 port (one-piece reactor); Glass, 6 port; PTFE, 6 port		Glass, 7 port (one-piece reactor); Glass, 6 port; PTFE, 6 port
Stirrer	Magnetic and overhead stirring		Overhead stirring
Stirring Speed	50 rpm to 1000 rpm		
Stirring Types	Pitch blade (glass, Alloy C-22); Anchor (glass, Alloy C-22); Rushton Turbine (Alloy C-22); Half-moon blade (PTFE)		
Backlight	2 LED (white) per reactor		
Dimensions, WxDxH	430 mm x 360 mm x 280 mm (17" x 14" x 11")	330 mm x 360 mm x 280 mm (13" x 14" x 11")	430 mm x 360 mm x 280 mm (17" x 14" x 11")
Weight	21 kg, including touchscreen	15 kg, including touchscreen	20 kg, including touchscreen
Power Supply	100 V to 240 V AC; 50/60 Hz		
Data Logging	All measured data, every two seconds		
Data Transfer and Evaluation	USB memory stick – Microsoft® Excel®; optional upgrade to use iControl™ and iC Data Center™ software		
Connectivity	CAN bus to connect to METTLER TOLEDO accessories; Ethernet connection		
Touchscreen	135 mm x 195 mm (5.3" x 7.7"), protected by a replaceable cover		
Supported Languages	English, German, French, Spanish, Japanese, Chinese		
pH Measurement	Through connection to METTLER TOLEDO SevenExcellence™ pH meter		

Software Options

iControl™ –
Determine Process Variables
Provides scientists with a comprehensive understanding of the chemical reaction being studied.

iC Data Center™ –
Capture, Prepare, Share
Automatically capture experimental data, prepare it into useful formats and share it from a central location.

Heat Flow Calorimetry –
Process Safety Screening
Obtain thermodynamic information under both isothermal and non-isothermal conditions.

www.mt.com/EasyMaxAdvanced

For more information