



Peltier-cooled incubator IPPeco  
with SingleDISPLAY  
Peltier-cooled incubator IPPecoplus  
with TwinDISPLAY  
with Advanced Peltier Technology  
AtmoCONTROL software

Model sizes:  
IPP: 30 / 55  
IPPeco: 110 / 260 / 410 / 750 / 1060  
0 °C to +70 °C

Model sizes:  
IPPeco: 1400 / 2200  
+15 °C to +60 °C

**PELTIER-COOLED INCUBATOR IPPeco** Heating and cooling seamlessly with one system thanks to Peltier technology. In this respect, cooled incubators IPPeco not only contribute to climate protection, but it also achieves an additional decrease in operating costs of up 90 % compared to compressor technology. This perfect development from the environmentally friendly and energy-saving heating/cooling technology by Memmert convinces by outstanding control precision and extremely small fluctuations.



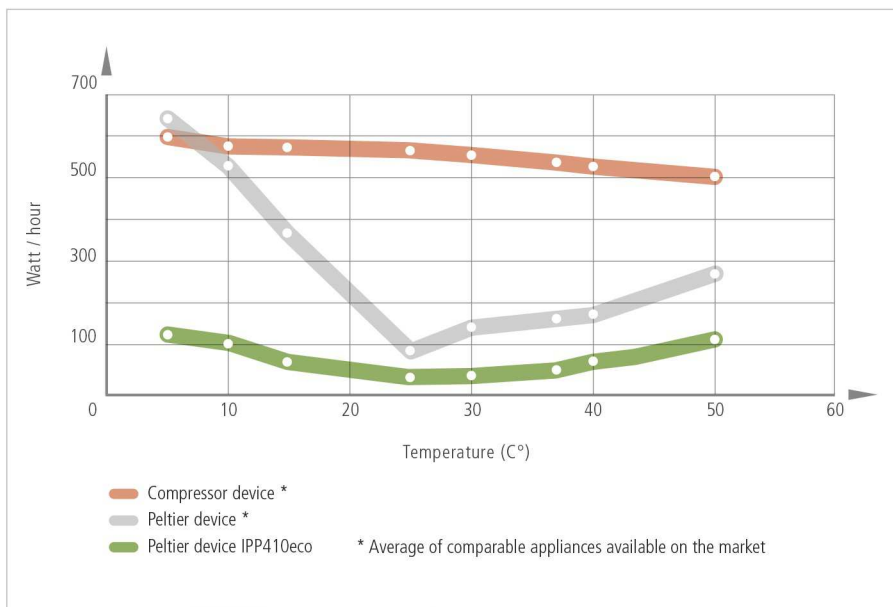
## Smooth running

The fact that no compressor is required saves space and brings peace and quiet to the laboratory. As Peltier-cooled incubators IPPeco are almost vibration-free, they can also be applied in entomology. If defined humidity is also required, an alternative would be the constant climate chamber HPPeco, which is also equipped with the Advanced Peltier technology.

## No condensation in the interior chamber

Due to the closed Peltier cooling system, no outside air is exchanged. Physically derived, unavoidable formation of condensation during the cooling process does not take place in the interior chamber but on the outside heat sink. In addition, the in the Peltier elements integrated fans ensure a rapid transport of energy as well as an absolutely homogenous distribution of temperature.

Despite the significantly reduced energy consumption, the IPPeco's performance is impressive. Heating up, cooling down and recovering after opening the door occur fine-tuned and yet at top speed.



## PELTIER-COOLED INCUBATORS IPPeco

according to DIN 12880:2007-05, EN 61010-1 (IEC 61010-1), EN 61010-2-010

Standard units are safety-approved and bear the test marks:



**Interior:** Stainless steel, material 1.4301 (ASTM 304), deep-drawn

**Housing:** Textured stainless steel, rear zinc-plated steel, intuitively operated SingleDISPLAY or TwinDISPLAY (TFT colour display) with touchscreen

**Double doors:** Outside stainless steel, fully insulated, inside glass (size 1400/2200 stainless steel doors with glass sector, fully heated inner glass panes integrated in the full-sight glass door with 2-point locking – compression door lock). Sizes 750, 1060 and 1400 two leaves, size 2200 three leaves

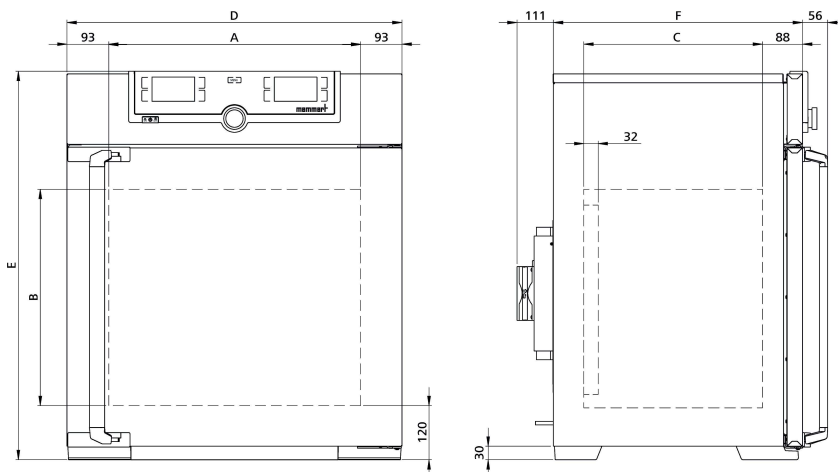
**Connection:** Mains cable with plug (German type)

**Installation:** 4 feet; sizes 410, 750 and 1060 mounted on lockable castors, 1400 and 2200 mounted on height-adjustable and lockable castors

**Interfaces:**



USB: only for TwinDISPLAY



Model sizes/Description			30	55	110	260	410	750	1060	1400	2200	
Stainless steel interior	Volume	approx. l	32	53	108	256	384	749	1060	1360	2140	
	Width	(A) mm	400		560	640		1040		1250	1972	
	Height	(B) mm	320	400	480	800	1200		1450			
	Depth (less 10 mm (sizes 30 and 55), less 32 mm (sizes 110 to 2200) for fan – Peltier)	(C) mm	250	330	400	500		600	850	750		
	Max. number of grids/shelves	number	3	4	5	9	14			28	42	
	Max. loading per grid/shelf	kg				20			30	20	30	
	Max. loading of chamber	kg	60	80	150	200				250	330	
	Max. loading per slide-in drip tray	kg	1,5		3	4		8		-		
	Max. loading per bottom drip tray	kg	1,5		3	4		8		-		
Textured stainless steel exterior	Width	(D) mm	585		745	824		1224		1435	2157	
	Height (sizes 410, 750, 1060 with castors)	(E) mm	704	784	864	1183	1720			1913		
	Depth (without door handle, depth of handle +56 mm)	(F) mm	434	514	555	655		755	1005	905		
Standard equipment	Stainless steel grids, electropolished	number	1		2						4	6
	Standard works calibration certificate (measuring point chamber center)	°C	+10 and +37								+25 and +40	
Temperature	Working temperature range without light	°C	0 (at least 20 below ambient temperature) to +70							+15 (at least 10 below ambient temperature) to +60		
	Working temperature range with light	°C	-		+10 to +40				-			
	Setting temperature range	°C	0 to +70							+15 to +60		
	Setting accuracy	°C	0.1									
Further data	Electrical load at 230 V, 50/60 Hz	approx. W	140	275	320	600		1200			1800	
	Electrical load at 115 V, 50/60 Hz	approx. W	140	275	320	600		1200			-	
	Peltier elements in the rear	number	1			2		4			6	
Packing data	Net weight	approx. kg	40	52	78	114	157	230	255	450	493	
	Gross weight (packed in carton)	approx. kg	56	71	103	165	210	301	419	639	730	
	Width	approx. mm	660	730	830	930		1330	1370	1560	2300	
	Height	approx. mm	890	950	1050	1380	1930	1910	1970	2200		
	Depth	approx. mm	650	670	800	930		1050	1300	1190		
Order No. Peltier-Cooled Incubators			IPP30	IPP55	IPP110eco	IPP260eco	IPP410eco	IPP750eco	IPP1060eco	IPP1400eco	IPP2200eco	
IPP = Peltier-Cooled Incubators												
plus = Model with TwinDISPLAY												
(IPP1400eco/ IPP1400ecoplus and IPP2200eco/ IPP2200ecoplus available from Q2 2021)			IPP30plus	IPP55plus	IPP110ecoplus	IPP260ecoplus	IPP410ecoplus	IPP750ecoplus	IPP1060ecoplus	IPP1400ecoplus	IPP2200ecoplus	

Options	30	55	110	260	410	750	1060	1400	2200
Chamber modification for the application of reinforced perforated stainless steel shelves or stainless steel grids (bearing rails mounted in the working chamber) - includes replacement of standard grids by reinforced grids (standard with 1060)			-			K1		-	
Light module cold white 6,500 K: light strips arranged on the side walls of the interior, 10 strips for model 110, 14 for model 260/410/750, programme-controlled dimming from 0 to 100 % (in 1 % steps), ramp programming in combination with temperature (only with TwinDISPLAY; not in combination with F6, F7, D8)	-			T7				-	
Light module cold white 6,500 K + warm white 2,700 K: LED light strips - 10 strips for model 110, 14 for model 260/410/750 - (6 resp. 8 alternating cold white light strips and 4 resp. 6 warm white light strips) on the side walls of the interior, programme-controlled dimming from 0 to 100 % (in 1 % steps), ramp programming in combination with temperature (only with TwinDISPLAY; not in combination with F6, F7, D8)	-			T8				-	
Light module warm white 2,700 K: light strips arranged on the side walls of the interior, 10 strips for model 110, 14 for model 260/410/750, programme-controlled dimming from 0 to 100 % (in 1 % steps), ramp programming in combination with temperature (only with TwinDISPLAY; not in combination with F6, F7, D8)	-			T9				-	
Interior socket, ampacity 230 V/2.2 A, can be switched off with the On/Off switch, cannot be switched individually, moisture tight IP68				R3				-	
Entry port, 23 mm clear diameter, left centre/centre for introducing connections at the left centre/top side, can be closed by flap, right centre/centre standard positions (F0 and F2 not right centre/top for model size 260 with light module; F0 - F3 not for model size 110 with light module)				F0 F1 F2 F3				- - - -	
Entry port, 23 mm clear diameter, left can be closed by flap (please right state location) rear				F4 F5 F6				-	
Entry port, 38 mm clear diameter, can be closed by flap, in special positions in the back wall (please state location; not in combination with T7, T8, T9)				F7				-	
Entry port (silicone), 40 mm clear diameter, moisture tight, can be closed by silicone stopper, standard position rear (not in combination with T7, T8, T9)					D8				
4 - 20 mA current loop interface (-10 to +80 °C = 4 - 20 mA) Temperature controller, actual value					V3				
Works calibration certificate for 3 temperatures: +5, +37, +60 °C				D00129				-	
Works calibration certificate for one (freely selectable) temperature value according to customer specification					D00109				
Door with lock and key (safety lock) One lock Two locks (one each door) Three locks (one each door)				B6 - -				B62 - B63	
Door hinged on the left			B8					-	
Potential-free contact for combination error message (e.g. supply failure, sensor fault, fuse)					H6				
Process-dependent programmable door lock (only for units with TwinDISPLAY) One Two (one each door) Three (one each door)				D4 - -				D42 - D43	
Door-open-recognition (only for units with TwinDISPLAY) One Two (one each door) Three (one each door)				V5 - -				V52 - V53	
MobileALERT, notification by SMS in case of any error or alarm of the device (requires option H6)					C3				
Castor frame (2-part), height 140 mm			R9					-	

Accessories	30	55	110	260	410	750	1060	1400	2200
Stainless steel grid, electropolished	E28884	E20164	E20165	E28891		E20182	B41251	B38955	
Reinforced stainless steel grid, electropolished, max. loading 60 kg; size 750 with guide bars and fixing screws (requires option K1). Please consider max. loading of chamber		-	E29767	E29766		B32190	B32550	-	
Perforated stainless steel shelf	B29727	B03916	B00325	B29725		B00328		-	
Reinforced stainless steel shelf, max. loading 60 kg; with guide bars and fixing screws (requires option K1). Please consider max. loading of chamber			-			B32191	B32549	-	
Stainless steel slide-in drip tray, 15 mm rim (may affect the temperature distribution, not in connection with option K1)	E02070	E02072	E02073	E29726		E02075	B32599	-	
Stainless steel slide-in drip tray, 15 mm rim, with guide bars and fixing screws (may affect the temperature distribution, only in connection with option K1)			-			B32763		-	
Stainless steel bottom drip tray, 15 mm rim (may affect the temperature distribution, not in connection with option K1)	B04356	B04358	B04359	B29722		B04362	B29769	-	
Stainless steel bottom drip tray, 15 mm rim (may affect the temperature distribution, only in connection with option K1)			-			B34055		-	

Accessories	30	55	110	260	410	750	1060	1400	2200
Guarantee extension by 1 year	GA1Q5			GA2Q5			GA4Q5		
USB-Ethernet adapter					E06192				
Ethernet connection cable 5 m for computer interface					E06189				
USB User-ID stick (with User-ID licence): Oven-linked authorisation licence (User-ID-programme) on Memory-stick, prevents undesired manipulation by unauthorised third parties. When reordering please specify serial number (only for units with TwinDISPLAY)					B33170				
USB stick with documentation software AtmoCONTROL and operation manual for products with SingleDISPLAY (the standard equipment of appliances with TwinDISPLAY includes one USB stick with AtmoCONTROL). When reordering please specify serial number					B33172				
Set of height adjustable feet (4 pcs)	B29768				-				
Stacking set (4 pcs) for stacking of appliances of same size	B29744			-					
Flush-fit unit (stainless steel frame covering gap between oven and wall opening), with air slots	B29728	B29730	B29734	B29738	B42116	B29742		-	
Flush-fit unit (stainless steel frame covering gap between oven and wall opening), without air slots	B29729	B29731	B29735	B29739	B42117	B29743		-	
Subframe, adjustable in height (size 30 and 55: height 600 mm, size 110 and 260: height 500 mm)	B29745	B29747	B29749	B29751	-				
Subframe, on castors (size 30 and 55: height 660 mm, size 110: height 560 mm)	B29746	B29748	B29750	-					
Subframe, adjustable in height, height 130 mm, for example for units with fresh air filter	B33657	B33659	B33661	B33664	-				
Software conforming to FDA AtmoCONTROL. Meets the requirements for the use of electronically stored data sets and electronic signatures as laid down in Regulation 21 CFR Part 11 of the US Food and Drug Administration (FDA). Base licence for the control of one unit (only for units with TwinDISPLAY). Respective IQ/OQ documents available in German and English language (without surcharge)					FDAQ1				
Integration of one additional unit (up to max. 31 units) into an already existent FDA-software licence (only for units with TwinDISPLAY)					FDAQ2				
External measuring instrument with sensors for daylight and UV-light. Product information on demand (models IPPecoplus/ IPPplus)					B04713		-		
External measuring instrument with additional measuring head for temperature and humidity measurement. Product information on demand (models IPPecoplus/ IPPplus)					B04714				
DAkKS calibration for one free-selectable temperature value according to method C (DKD-R 5-7)					E39696				
DAkKS calibration for further temperature values according to method C (DKD-R 5-7)					E39697				
IQ document with device-specific works test data, OQ/PQ check list as support for validation by customer					D00124				
IQ/OQ document with device-specific works test data for one free-selectable temperature value, incl. temperature distribution survey at Memmert for 9 measuring points (size 30), 27 measuring points (sizes 55 - 1060, 2200) and 26 measuring points (size 1400) according to DIN 12880:2007-05. PQ check list as support for validation by customer. 305 € for further temperature values	D00125	D00127							
On-site IQ/OQ for a freely selectable temperature value, including temperature distribution survey for 9 measuring points (size 30), 27 measuring points (sizes 55 - 1060, 2200) and 26 measuring points (size 1400) to DIN 12880: 2007-05 (excluding travel costs, not subject to discount, GER, AT, FR only)					DLQ100				
Extension of DLQ100 by an additional freely selectable temperature value (not subject to discount)					DLQ100A				
Individual on-site Performance Qualification (PQ)					DLQ200				
Maintenance IPP/ IPPeco - carrying out and documentation according to Memmert maintenance plan (excluding travel costs, not subject to discount, GER, AT, FR only)					S00317				
Maintenance contract IPP/ IPPeco - carrying out and documentation according to Memmert maintenance plan, minimum duration 3 years (excluding travel costs, not subject to discount, GER, AT, FR only)					S00317J				
Calibration of one freely selectable temperature value (excluding travel costs, not subject to discount, GER, AT, FR only)					S00205				
Calibration of an additional temperature value (not subject to discount)					S00215				



## MODEL VARIANTS

SingleDISPLAY ControlCOCKPIT with one TFT display	TwinDISPLAY ControlCOCKPIT with two TFT displays
<b>AVAILABLE APPLIANCES</b> UN / UF / IN / IF / IPPeco / IPP / UNm / UFm / INm / IFm / SN / SF / IFbw	<b>AVAILABLE APPLIANCES</b> HPPeco / ICHeco / ICH / HCP / UNplus / UFplus / UF TS / UNpa / VO / INplus / IFplus / ICO / IPPecoplus / IPPplus / ICPeco / ICP / UNmplus / UFmplus / INmplus / IFmplus / SNplus / SFplus / ICOfmed
One high-resolution TFT colour display with touch-sensitive buttons for selection of functions	Two high-resolution TFT colour displays with touch-sensitive buttons for selection of functions
Available parameters on the ControlCOCKPIT: Temperature (Celsius or Fahrenheit), fan speed, exhaust air flap position, programme time	Available parameters on the Control COCKPIT: All parameters of the SingleDISPLAY and device-specific parameters like relative humidity, illumination and CO <sub>2</sub>
One temperature sensor Pt100 DIN class A in a 4-wire circuit	Two Pt100 sensors DIN class A in a 4-wire circuit for mutual monitoring, taking over functions in case of an error
	HeatBALANCE function for application specific adjustment of heat output distribution (balance) between the upper and lower heating groups in an adjustment range between -50 % and +50 % (not valid for models 30, HPP110eco, IPP110ecoplus, ICPeco, ICP, ICHeco, ICH)
AtmoCONTROL software <sup>1)</sup> for reading out, managing and organising the data logger via Ethernet interface (temporary trial version can be downloaded). USB stick with AtmoCONTROL software available as accessory (on demand)	AtmoCONTROL software <sup>1)</sup> on a USB stick for programming, managing and transferring programmes via Ethernet interface or USB port
	ControlCOCKPIT with USB port for uploading programmes, reading out protocol logs, activating the User-ID function
	Displaying of already logged protocol data on the ControlCOCKPIT (max 10,000 values correspond to approx. 1 week)
Ethernet interface on the rear of the appliance for reading out the protocol log and for online logging	Ethernet interface on the rear of the appliance for reading out the protocol log and for uploading programmes and for online logging
Double overtemperature protection: Electronic temperature monitoring with freely adjustable monitoring temperature, for models U, I, S with option A6 TWW/TWB (protection class 3.1 or 2), mechanical temperature limiter TB acc. to DIN 12880	Multiple overtemperature protection: Electronic temperature monitoring TWW/TWB (protection class 3.1 or 2 resp. 3.3 for units with active cooling) and mechanical temperature limiter TB (protection class 1) acc. to DIN 12880, AutoSAFETY automatically adjusts to the set value within a freely adjustable tolerance range. Setting individual MIN / MAX values for over/undertemperature and also for all other parameters such as relative humidity, CO <sub>2</sub>
PID microprocessor control with integrated auto-diagnostic system	
Structured stainless steel housing, scratch-resistant, robust and durable; rear of zinc-plated steel	
High-temperature connectors on the rear of the appliance for single-phase power connection according to country specific systems and IEC standards	
Internal data logger with a storage capacity of at least 10 years	
German, English, French, Spanish, Polish, Czech, Hungarian language settings available on the ControlCOCKPIT	
Digital backwards counter with target time setting, adjustable from 1 minute to 99 days	
The SetpointWAIT function guarantees that the process time does not start until the set temperature is reached at all measuring points – optional for temperature values recorded by the freely positionable Pt100 sensors inside the chamber	
Adjustment of three calibration values for temperature and additional appliance specific parameters directly at the ControlCOCKPIT	

<sup>1)</sup> As a manufacturer, Memmert GmbH + Co. KG clearly labels its devices, which are medical devices in the sense of the European legislation. The AtmoCONTROL software is not a medical device. All Memmert medical devices can be used for their purpose without the software AtmoCONTROL. AtmoCONTROL is only intended for reading the data logging in conjunction with Memmert GmbH + Co. KG medical devices.

## SOFTWARE AtmoCONTROL

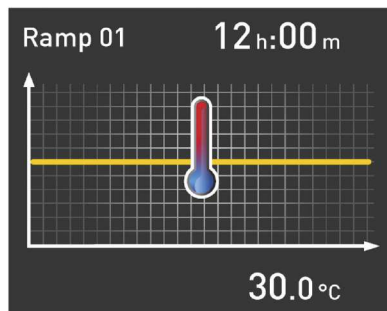
### AtmoCONTROL

The innovative control and logging software

Parameters such as temperature and humidity as well as the process time can be set directly at the ControlCOCKPIT. Ramp programming is done via the control and logging software AtmoCONTROL.

### Drag, drop & go!

Numerical and graphic programming of complex processes is a thing of the past. Today, programming is done via AtmoCONTROL by means of the mouse or touchpad on your notebook. Even the most complex ramp programmes are created within minutes. Simply drag & drop the graphical symbols for the desired parameters to the input field and change the values according to your wishes with a mouse click.

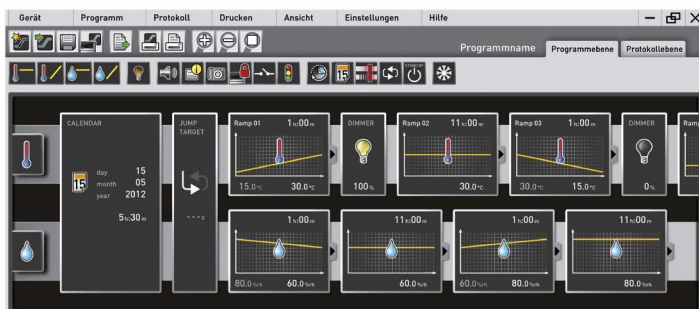


### Programme functions for appliances with SingleDISPLAY and TwinDISPLAY

- Reading out, managing and organising the data logger
- Saving the log memory in various formats
- Online monitoring of up to 32 connected appliances
- Optical alarms when the alarm limits individually set at the ControlCOCKPIT are exceeded
- Automatic alarm to one or several e-mail addresses

### Additional functions for appliances with TwinDISPLAY

- Intuitive programming and archiving of ramps and programme sequences
- Synchronous visualisation of the created programme sequence during programming
- Application-specific repeat functions (loops) can be inserted within a temperature control programme in any place
- Simple creation of repeating weekly programmes
- Programming, managing and transferring programmes via Ethernet interface or USB port



## Device Modifications - Proven and Good

### The perfect extension for your Memmert appliance

Our mission at Memmert is to provide you with the best possible solution for your individual application. With the increasing complexity of customer processes, a custom-fit modification of our appliances has many advantages for your application. Through modifications, process and set-up times can be significantly reduced or errors in the application can be completely ruled out by monitoring devices. Even small measures, such as individually adapted accessories, have a noticeable influence on the ergonomics and user-friendliness in the operation of the appliance.

You as a customer have the best ideas - and often already have a specific idea of how our products can be better used in your working environment.

Tell us about your thoughts and let us create an individual solution together with you! Please contact us and call us at +49 9122-925-0 or send us an email to [sonderbau@memmert.com](mailto:sonderbau@memmert.com).

The Memmert customisation department team is looking forward to hearing from you!

## Versatile modifications for our standard appliances



### Mechanics

- Customised interior fittings
- Individual entry ports in all sizes and shapes
- Telescopic slide pull-outs for ergonomic loading



### Electronics

- Extended parameter monitoring e.g. by means of additional measuring sensors
- Optical and acoustic process monitoring e.g. by means of a traffic light system



### Software

- Additional interfaces for data evaluation
- Individual temperature, humidity and CO<sub>2</sub> parameters



### Accessories

- Tailor-made subframe and stacking options
- Modified grids and shelves
- Individual air filters



## CUSTOMER SPECIFIC SOLUTIONS

### Customised solutions for your requirements

#### Our expertise as a development partner in plant and project business

The Memmert customisation department has been active in the project business for over 20 years now and has proven itself in countless projects as a strong and reliable partner. The experts in customisation benefit from two aspects: Access to the complete capacities of an ultra-modern and specialised production line, as well as the entire technical know-how of the Memmert company in designing climate and temperature control appliances. Combined with the experience of our project managers, the Memmert customisation department is also able to find a solution for the most complex requirements.

#### Special sizes

Does your product not fit into a standard unit? We build appliances to measure! Whether you need more volume in the interior or there is not enough space for installation at the installation location, we have the expertise to design your appliance individually. Ask us!

#### Process and plant integration

Integrate our technology seamlessly into your plant or your work organisation. We will find the right solution together for your process integration:

- Preparation for integration into your plant
- Integration of your processes into our appliances
- Inclusion of customer-specific installations
- Interface for semi-automatic assembly

#### Project business

Are you a project developer with ideas for innovative products and looking for a strategic cooperation? Take advantage of our know-how and manufacturing capacities for your project. Our customisation department will be pleased to hear from you!

