



# Life Science

Quick Connect Couplings for Medical-  
and Bio-Technology

aerospace  
climate control  
electromechanical  
filtration  
**fluid & gas handling**  
hydraulics  
pneumatics  
process control  
sealing & shielding



ENGINEERING YOUR SUCCESS.

# We develop reliable solutions!

Quick connect coupling systems from Parker – a reliable component in the field of medical technology and biotechnology

With over 60 years of experience in the development and sale of high-quality quick connect coupling systems, the Quick Coupling Division Europe of Parker Hannifin – the world’s leading manufacturer in motion and control technologies – now offers one of the most extensive product ranges of innovative connection solutions. Whether for complete or sub-systems in devices and plants, we always have a tried and tested solution.

Our range of services includes system components for the field of medical technology and biotechnology: for bio-medical equipment, in artificial respiration and anaesthesia, in dialysis, in the area of patient monitoring and medical imaging, in maintenance and preparation of medical devices, as well as in fluid management, gas production and temperature regulation.

From standard product to bespoke systems, our team is available to provide you with competent advice at any time. We are happy to provide detailed advice – please ask us.

# Directives and Regulations

Quick connect coupling systems from Parker QCDE comply with many directives and regulations in the field of life science

Parker QCDE complies with directives and regulations listed below. If you have any further questions, please do not hesitate to contact our technicians at any time.





The Parker QCDE product range offers compliance with numerous European standards associated in particular with the directives and regulations referred to above. The official texts of these directives are available on the site: <http://eur-lex.europa.eu>

## Maximum Precision and Reliability

The product advantages at a glance:

### Materials

The POM, PVDF and PSU medical grade resins and the metals used to build our couplings are cytotoxically harmless and guarantee low wear, the greatest breaking strength, and excellent antifriction properties. Additionally these materials have high creep resistance and dimensional stability, which enhance the system reliability. They can be sterilized by EtO, autoclaving or gamma.



### Seals

A coupling can only be as good as its sealing components. This is why we rely on EPDM (ethylene propylene rubber) and silicone compliant with USP class VI as standard for our sealing materials. For challenging requirements, our experts will, of course, offer completely individual advice and develop an optimum solution.

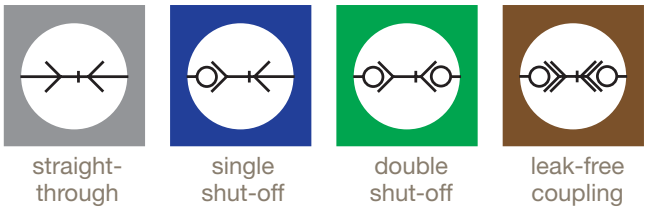
EPDM or silicone seals as standard

Other materials available



### Valves

Depending on the application area, Parker QCDE coupling systems are available with straight-through, single or double shut-off, and in clean break design. To ensure fault free operation all valve seals are the same as the main seal choice. Furthermore, the valve springs are produced exclusively in AISI 316 L and Peek (Thermoplastics).



### Key Coded

This key coded coupling system completely eliminates the possibility of confusing different media. The shape and color of the couplings and the plugs are differentiated, which eliminates accidental cross coupling errors. Additionally, our key coded couplings are also available with individual laser marking or adhesive labels.





# Your Reliable Partner

We develop complex quick connect coupling systems for medical technology and biotechnology.

The comprehensive range of critical components from Parker QCDE combined with our ability to develop and produce complex, integrated systems for almost any application makes us a strong partner for manufacturers of medical and biotechnical devices.

From the concept and launch of products to production that is sustainable in the long term, we offer intelligent solutions in

the area of breathing air supply, prevention and recovery as well as in the area of surgical and diagnostic medical technology. A brief insight into our range of services is provided below.

## Breathing Air Supply

### Respiration

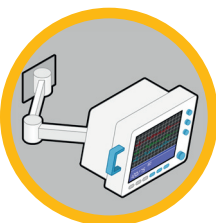


Artificial respiration saves or makes life easier. Quick and reliable establishment of a connection with our quick connect coupling systems is therefore an important requirement for breathing air supply.

- Quick and reliable changing of the connection between central and mobile gas supply for emergency and transport respiration devices.
- Non-interchangeable connection for stationary respiration and breathing support.

## Prevention & Recovery

### Patient Monitoring



Modern patient monitoring systems make a major contribution to comprehensive patient care. They are a central requirement for the provision of data whenever and wherever required by hospital staff. Blood pressure cuffs are one typical application in which the compressed air connection is attached (connected) to the cuff (NIBP).

- Quick connect couplings are vital for transporting medical gases, liquids (biofluids) and compressed air.
- Quick connect couplings create quick and reliable connections.
- Coded couplings guarantee connection that cannot be interchanged.

### Dialysis



Worldwide, around a million people are dependent on regular dialysis treatment. For this application area, Parker QCDE has developed durable, safe quick connect couplings, which are easy to use and co-ordinated exactly to the respective media.

- Quick connect couplings for supplying the water circuits and the concentrate line of dialysis machines.

## Surgical and Diagnostics

### Medical Imaging (CT and MRI)



The significance of medical imaging (X-ray, CT, MRI) is constantly increasing; in many cases, it forms the basis for early detection of illnesses and for the targeted control of therapies.

- Quick connect coupling systems for connections for efficient cooling in imaging systems.
- Coupling systems are used mainly in MRI and CT devices.
- Our products are used both in primary and in secondary cooling.

### Reprocessing of Medical Devices



Medical devices contaminated with pathogens harbour a considerable risk factor and can cause infections in people. The manufacture of a coupling that is reliable in processing therefore forms part of proper cleaning.

- Connection couplings as the interface between reprocessors and medical devices.
- Couplings and adapters adjusted individually to the application.
- High resistance to a wide range of cleaning agents.

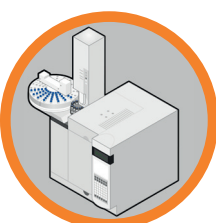
### Filtration



Laboratories and hospitals are dependent on providing water that is free of micro-organisms directly to the point of withdrawal. Our coupling systems help with the quick and reliable connection and replacement of the filters used here.

- Replacement of filters using directly integrated plug connections.
- Coupling systems for liquids and gases.

### Laboratory Diagnostics

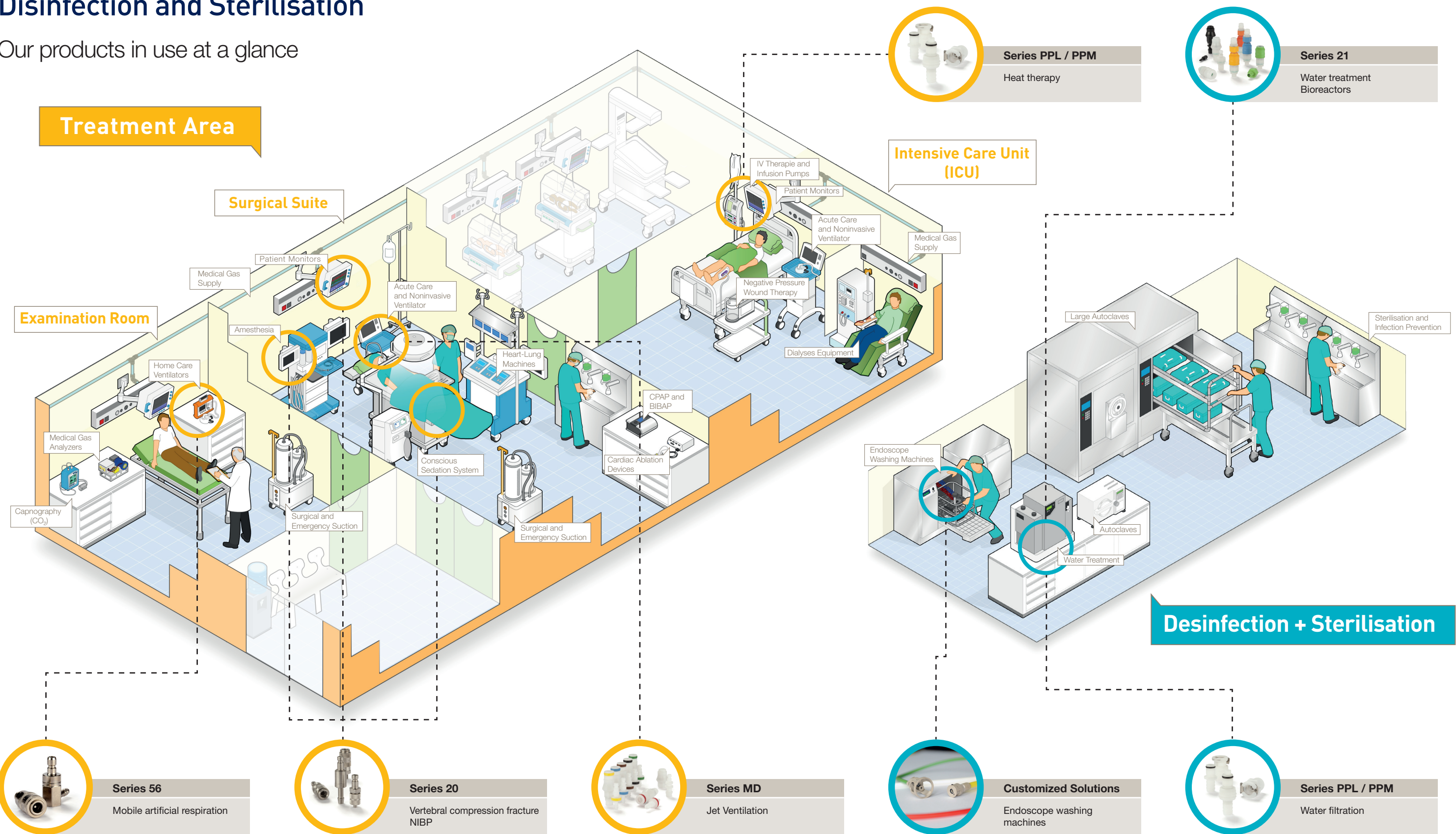


Laboratory diagnostics make a major contribution to correct diagnosis and to therapy monitoring. Here, our coupling systems connect important supply lines for a wide range of liquids, gases and vacuum.

- Special quick connect coupling systems allow sample-taking and the connection of test devices.
- Non-interchangeable connection of various lines and media.
- Withdrawal coupling for gases.

# Product Solutions in the Area of Treatment, Disinfection and Sterilisation

Our products in use at a glance

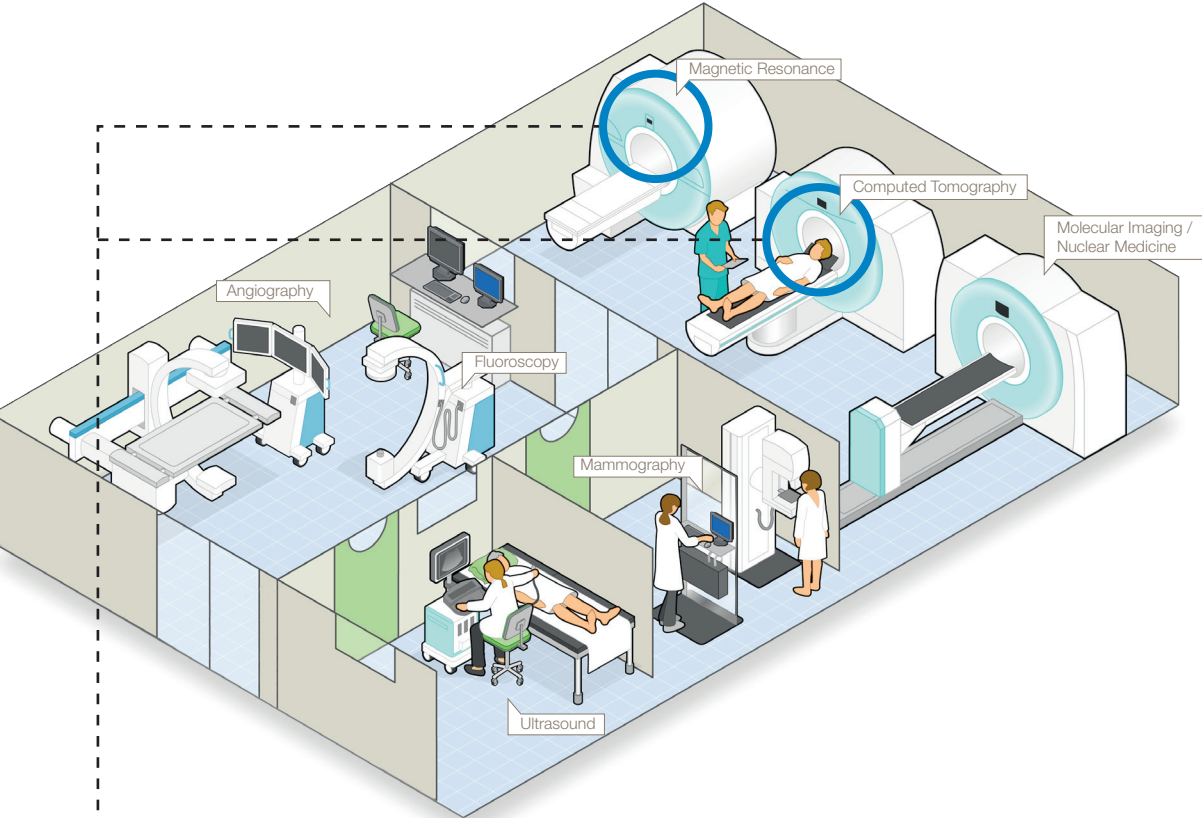




# Product Solutions in the Area of Clinical Diagnostics and Laboratory

Our products in use at a glance

## Clinical Diagnostics



**Series 200**

Magnetic resonance therapy  
Computer tomography



**Series 21**

Water treatment  
Bioreactors



**Series 21**

Bioreactors



**Series 48**

Laboratory field



**Series 303**

Fluid sampling + analysis



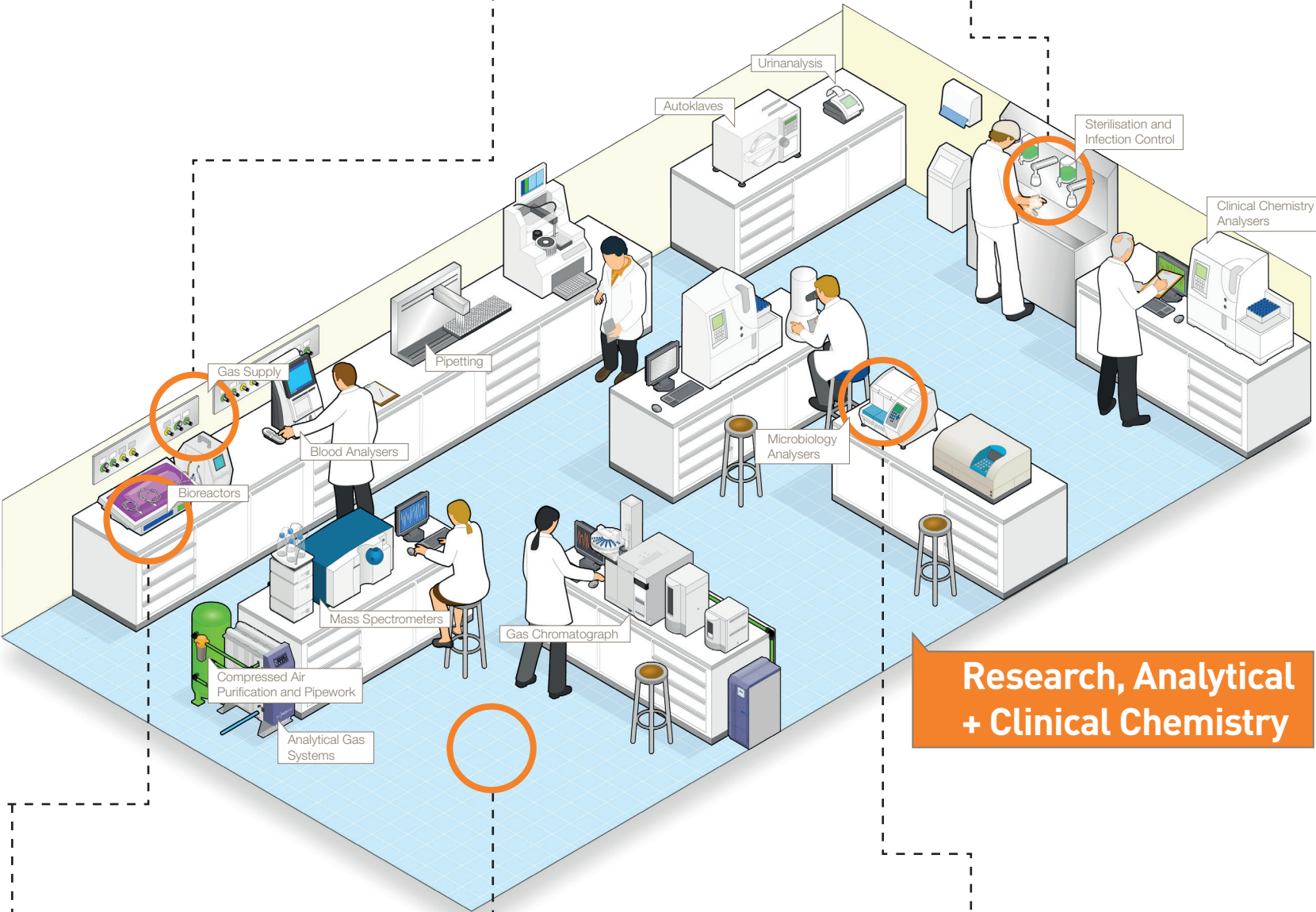
**Series 25 coded**

Gas supply



**Series PPL**

























Water filtration



## Research, Analytical + Clinical Chemistry

# Perfect Product Solutions

Find the ideal product for your application

												
	21 Thermo	48 Thermo	MD coded	PPM	PPL	PPA	20	21	56	164 + 303	200KL	25 coded
Respiratory & Anaesthesia												
Sleep Apnoe			x		x	x						
Anaesthesia devices							x	x				
Ventilators									x			
Oxygen Supply									x			
Surgical & Diagnostics												
Medical Imaging CT/MRi											x	x
Endoscope Reprocessing		x		x	x	x						
Preventive & Recovery												
Therapeutic Compression Therapie	x	x	x	x	x	x						
Pre/Post Operative Temperature Control	x	x	x	x	x	x						
Dialysis	x	x										
Laboratory diagnostics												
Sampling	x	x	x	x	x	x				x		
Gas Supply								x			x	x
Patient Monitoring												
Non Invasive Blood Pressure				x	x	x	x	x				
Valves <sup>1)</sup>												
Working Pressure	10 bar (POM) 8 bar (PVDF + metal spring)	0-10 bar (POM) 0-8 bar (PVDF + metal spring) 1-8 bar (PVDF + PEEK spring)	0-10 bar	0-8 bar	0-8 bar	0-8 bar	35 bar	35 bar	35 bar	35 bar	15 bar	35 bar
Nominal Diameter	5	7	5	3	6	6	2,7	5	4	3	4/6/9/12	7,8
Technical Description	<ul style="list-style-type: none"><li>all parts made of plastic (beside metal spring)</li><li>color coding (sleeve)</li></ul>	<ul style="list-style-type: none"><li>all parts made of plastic (beside metal spring)</li><li>full plastic version with PEEK spring</li></ul>	<ul style="list-style-type: none"><li>also with color and mechanical coding (color ring)</li></ul>	<ul style="list-style-type: none"><li>Push-Button</li></ul>	<ul style="list-style-type: none"><li>Push-Button</li></ul>	<ul style="list-style-type: none"><li>Push-Button</li></ul>	<ul style="list-style-type: none"><li>very compact design</li><li>profile due to ISO 80369-5</li></ul>	<ul style="list-style-type: none"><li>very compact design</li><li>world's most popular profile</li></ul>	<ul style="list-style-type: none"><li>single-hand operation</li><li>compact design</li></ul>	<ul style="list-style-type: none"><li>single-hand operation</li><li>compact design</li><li>164: special material for pharma applications</li></ul>	<ul style="list-style-type: none"><li>single-hand operation</li><li>leak-free coupling system</li><li>ergonomic sleeve</li></ul>	<ul style="list-style-type: none"><li>Coding (color and mechanical)</li><li>UltraFlo-Valve (optimized flow rate, low pressure drop)</li></ul>
Material (Coupling Body)	POM (black) PVDF (white)	POM PVDF	POM (USP Class VI)	POM (USP Class VI)	POM (USP Class VI) AISI 303 / AISI 316 L	POM (USP Class VI)	Brass AISI 303 AISI 316 L	Brass AISI 303 AISI 316 L	Brass	Series 164: AISI 316L Series 303: AISI 316L	Brass AISI 316 L	Brass AISI 303
Seals (other seal variants on request)	FKM, EPDM, FFKM	FKM, EPDM, FFKM	EPDM (USP Klasse VI)	FDA Buna-N (NBR)	FDA Buna-N (NBR)	FDA Buna-N (NBR)	NBR, FKM, EPDM	NBR, FKM, EPDM	NBR, FKM, FFKM	EPDM, FKM, FFKM	NBR, EPDM, FKM, FFKM	NBR, FKM, EPDM, FFKM
Working Temperature	POM: -20°C up to +80°C PVDF: -20°C up to +120°C	POM: -20°C up to +80°C PVDF: -20°C up to +120°C	POM: -20°C up to +80°C PVDF: -20°C up to +120°C	-20°C up to +80°C (NBR)	-20°C up to +80°C (NBR)	-20°C up to +80°C (NBR)	-20°C up to +100°C (NBR)	-20°C up to +100°C (NBR)	-20°C up to +100°C (NBR)	-40°C up to +150°C (EPDM)	-15°C up to +200°C (FKM)	-20°C up to +100°C (NBR)

<sup>1)</sup>Valve types:  straight-through (KF)  single shut-off (KA)  double shut-off (KB)  leak-free (KL)

