BLOOD
line

KW APPARECCHI SCIENTIFICI

Incubators – WRV
Agitators – KWAP

The safest solution for platelet management

the Company

KW is one of the most dynamic and innovative companies, leader in the design and production of controlled temperature devices down to -150°C, which stands out for its high reliability, wide range and customization capabilities. The company has a strong experience in the scientific equipment segment, also with “medical devices” certification, and a large network of sales and after-sales service centers. Thanks to the continuous investments in organization and technologies, KW has achieved a significant improvement in positioning as a leader in the sector.

Industry 4.0

The company adopts the principles of interconnection of resources to offer the highest quality of processes and products. The devices are equipped with monitoring and connection systems that allow remote support and maintenance. The “KW total assistance” service (thanks to our worldwide service network, where present) allows to delegate the management of the machines to ensure maximum safety of storage.

mission

The Company aims at a continuous improvement of products and process performances to offer the best technological solutions to the medical field, technical-scientific research and industry sectors.

W-WR – KWAP

Platelet incubators and agitators

W96RT HPL

KW Apparecchi Scientifici has developed a new line of platelet incubators and agitators that offers solutions with many capacities in free-standing and bench-top models. The devices are certified as Class I Medical Device, in accordance with CEE Directive 2017/745 MDR. The incubators are provided with internal sockets to power the hosted incubators.

structure and system

Internal chamber and shelves in AISI 304 stainless steel with rounded edges. The transparent door allows observation of the platelets without altering the internal T. The door is key-lockable or with electronic key for the maximum safety. All incubators are easy to clean and decontaminate.

External structure and door in prepainted sheet steel or galvanized plastic. Insulation with polyurethane foam and/or mineral wool fiber.

The heating is obtained with special heating elements with low thermal density, for maximum temperature stability. Cooling is achieved by a special KW designed evaporator. All heat exchangers are placed in an area separated from the internal chamber, to create a very uniform temperature control in the working volume. The temperature control flow is driven by a high efficiency helical fan.

Adjustable overtemperature controller in conformity with DIN 12880 with separate sensor (protection class 3.1) and with heating exclusion in case of failure for maximum security.

The refrigeration system. An air condensing unit, very quiet hermetic compressor with expansion by means of a capillary tube. A large surface allows it to operate correctly even at very high ambient temperatures (>+32°C) and/or in environments with little ventilation and poor air exchange. There is a device that collects and evaporates the condensation water. The refrigerants used are non-toxic, non-flammable, non-explosive and above all eco-friendly (ODP=0, GWP<150).

main features

- Vertical solutions with one or two doors and under-the-counter for maximum flexibility
- Capacity from 260 to 1.500 liters
- Excellent insulation with 60mm of PUR foam or mineral wool fiber
- Tempered glass door
- Internal LED light
- Internal/External pass-through hole for additional data logger
- Weekly cycle chart disk recorder (Optional)
- Different kind of platelet agitators, from 24 to 180 bags
- Movement alarm and stroke counter
- Dry contact for remote alarms
- The bigger models have four wheels, two with brakes

WRV 700 HPL

Medical device systems certified under international regulation

UE 2017/745 MDR Class I

for blood and its derivates management

main features

Each unit is characterized by alternate movement and suspended on guides having linear pads. This ensures that the movement is silent and of high reliability. The upper part moves from side to side with a course of 16mm at the maximum frequency of 116 strokes. Each shelf has an "open" surface that allows the ventilation.

PLATELET AGITATOR MOVEMENT ALARM

All agitators should be equipped with a movement alarm, obtained through a special sensor positioned inside the agitator itself. In case of agitation interruption following a failure, an alarm is activated on the incubator for the utmost product safety. The alarm stops when the incubator door is opened and the agitator movement is also stopped for operator safety. When the door is closed again, the movement restarts automatically.

POWER SUPPLY

The agitator, having its own power cord, can be used inside a KW or other brand incubator, as well as in a a thermostated environment at 22°C.

optional

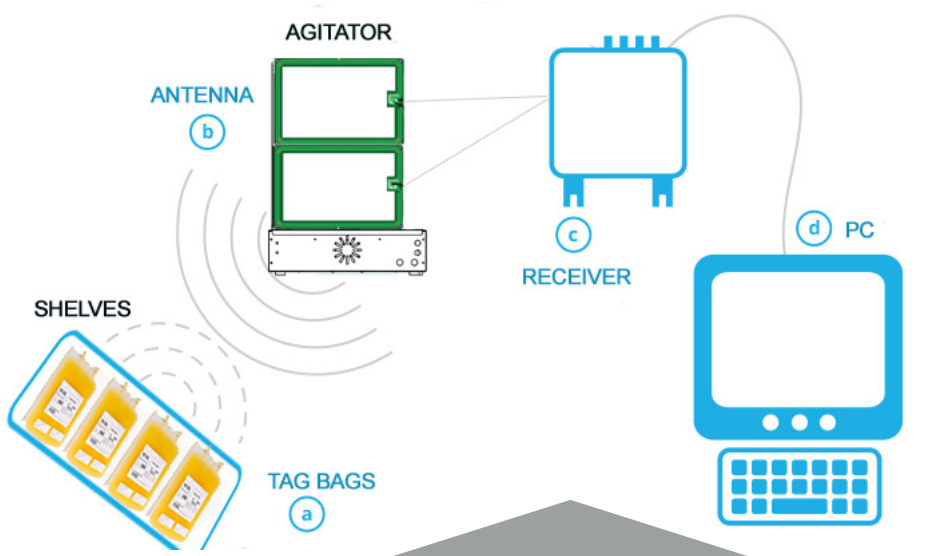
- Pt 100 sensor class A for T monitoring systems
- Personal Key with electronic lock, for controlled access and traceability, also with badge reader
- Weekly cycle chart disk recorder
- Oscillation speed control obtained by external knob
- Stroke counter

RFID
Storage Management

main characteristics

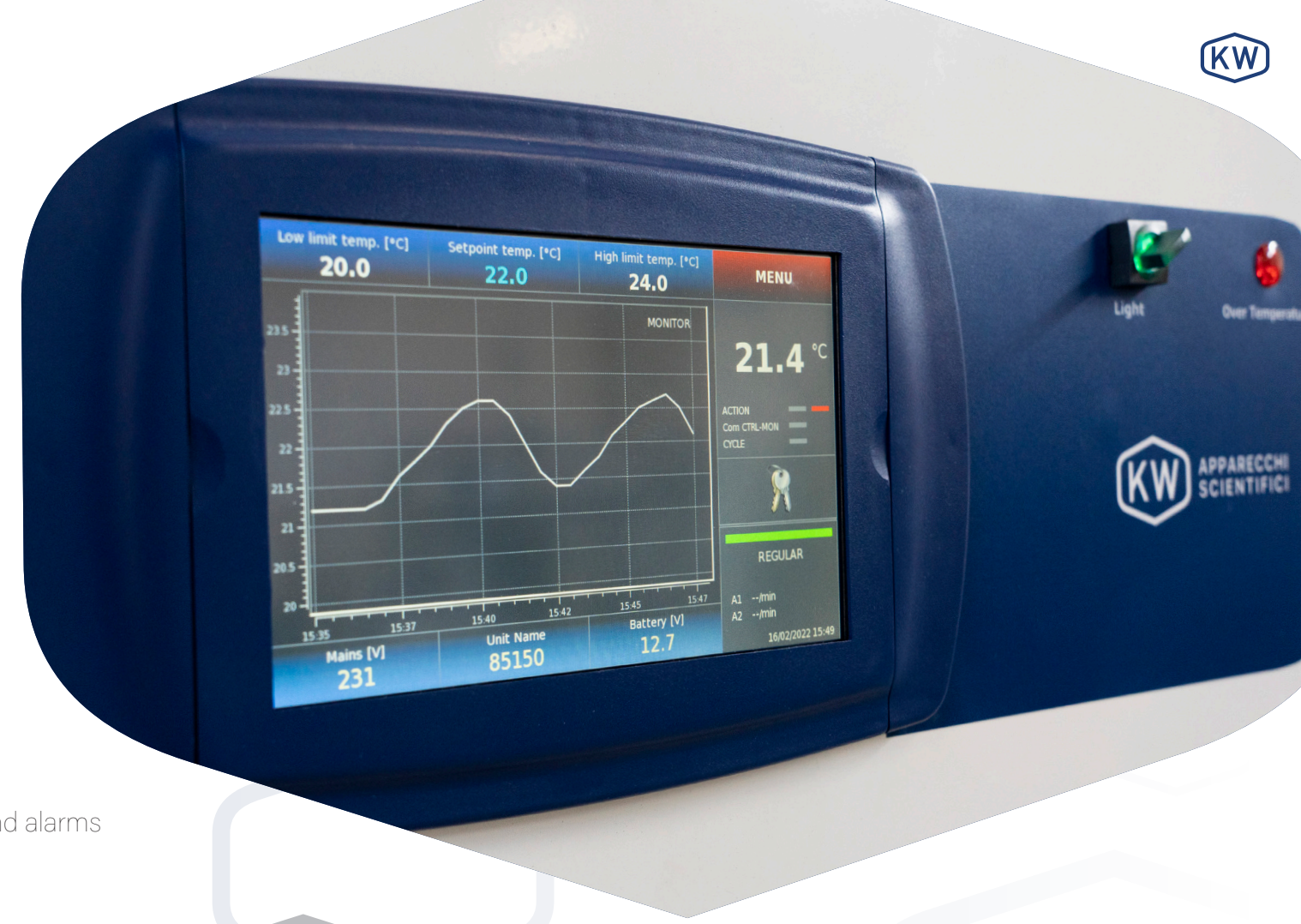
- Shelves in smooth plastic material suitably perforated for air circulation
- AISI 304 stainless steel guides for sliding and anti-tipping of the shelves
- RFID antennas positioned vertically at the rear of the agitator
  (the number changes according to the present shelves)

The RFID solution for reading the bags' tag positioned on the various agitator shelves communicates the data through an XML protocol (open and standard), making them available to higher-level management applications already present in transfusion centers or laboratories. Each single or multiple reading operation carried out by the technology detects, in addition to the identification of the bag, also date and time. This is important to reconstruct the movements that have been carried out on each present bag. The data can be viewed through the software to reconstruct the situation inside the incubator. The used RFID technology, precisely ISO 15693 13.56MHz, is the one already defined by the ISBT standard to be used on blood component bags and is also present in access controls. This also allows the possibility of identifying the operator who opens and closes the incubator, moving the bags in and out.



benefits

- Maximum traceability: possibility of identifying a specific bag among those stored inside the agitator
- Remote reading
- Multiple and simultaneous reading
- Reduction of operating costs related to laboratory staff
- High security in bag management, thanks to extremely accurate inventory management



HPL

- 7" TFT touch screen display
- Data Logger capabilities for temperature and alarms
- Internet connectivity
- Cloud management
- USB port
- LAN port
- SD slot

optionals

- Electric lock for door opening with PIN/badge/fingerprint
- Wi-Fi router
- GSM module

KW APPARECCHI SCIENTIFICI

technical specifications

Incubators – W- WR

		W96 RT	WRV 180	WRV 700	WRV 700X	WRV 1500	WRV 1500X
TECHNICAL CHARACTERISTICS							
CAPACITY		260lt	150lt	700lt	700lt	1500lt	1500lt
TEMPERATURE RANGE		22°C ±2°C	22°C ±2°C	22°C ±2°C	22°C ±2°C	22°C ±2°C	22°C ±2°C
REFRIGERANTS		R1233zd(e)	R1233zd(e)	R1233zd(e)	R1233zd(e)	R1233zd(e)	R1233zd(e)
POWER SUPPLY		230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz
ELECTRICAL POWER	REFRIGERATION	350W	140W	350W	350W	700W	700W
	RESISTANCE	160W	140W	370W	370W	430W	430W
NOISE LEVEL (SOUND PRESSURE LEVEL, 1M)		<45dB(A)	<45dB(A)	<54dB(A)	<54dB(A)	<54dB(A)	<54dB(A)
STRUCTURE							
INTERNAL SURFACE	AISI 304 Stainless Steel	X	X	X	X	X	X
EXTERNAL SURFACE	White Pre-painted Steel Sheet	X	X	X	-	X	-
	AISI 304 Stainless Steel	-	-	-	X	-	X
EXTERNAL SIZES LXPXH MM		690 x 620 x 1100	650 x 640 x 1100	710 x 930 x 2030	710 x 930 x 2030	1420 x 930 x 2030	1420 x 930 x 2030
INTERNAL SIZES LXPXH MM		600 x 470 x 800	520 x 470 x 670	590 x 670 x 1510	590 x 670 x 1510	1200 x 670 x 1510	1200 x 670 x 1510
WEIGHT		70Kg	60Kg	130Kg	130Kg	210Kg	210Kg
INSULATION		Mineral Fiber	PUR	PUR	PUR	PUR	PUR
		40mm	65mm	60mm	60mm	60mm	60mm
VERSION	T = TABLE	T	F	F	F	F	F
	F = FLOOR						
DOORS	DOOR TYPE	Glass	Glass	Glass	Glass	Glass	Glass
	DOORS	1	1	1	1	2	2
	SHELVES	-	-	1	1	1 + 1	1 + 1
CONTROLLERS	HPL	X	X	X	X	X	X

Agitators – KWAP

		KWAP 24	KWAP 48	KWAP 54	KWAP 96	KWAP 108	KWAP 180
TECHNICAL CHARACTERISTICS							
CAPACITY (450 ML BAGS)		24	48	54	96	108	180
POWER SUPPLY		230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz
ELECTRICAL POWER		140W	140W	140W	140W	140W	140W
NOISE LEVEL (SOUND PRESSURE LEVEL, 1M)		< 44dB(A)	< 44dB(A)	< 44dB(A)	< 44dB(A)	< 44dB(A)	< 44dB(A)
STRUCTURE							
INTERNAL SURFACE	AISI 304 Stainless Steel	X	X	X	X	X	X
EXTERNAL SURFACE	AISI 304 Stainless Steel	X	X	X	X	X	X
ESTERNAL SIZES LXPXH MM		490 x 430 x 277	490 x 430 x 400	490 x 430 x 440	490 x 430 x 680	490 x 430 x 740	490 x 490 x 740
WEIGHT		25Kg	30Kg	40Kg	50Kg	60Kg	65Kg
SHELVES	NUMBER	4	8	9	16	18	18
	AISI 304 STAINLESS STEEL	X	X	X	X	X	X
AGITATORS NUMBER INSIDE INCUBATORS	W96 RT	1	1	1	1	-	-
	WRV 180	1	-	-	-	-	-
	WRV 700	MAX 3	MAX 3	MAX 2	MAX 2	MAX 2	MAX 2
	WRV 1500	MAX 6	MAX 6	MAX 4	MAX 4	MAX 4	MAX 4
		63 RPM --> 126 Strokes/min (Frequency 50 Hz)					

Agitators – KWAP (variable speed)

		KWAP 24 V	KWAP 48 V	KWAP 54 V	KWAP 96 V	KWAP 108 V	KWAP 180 V
TECHNICAL CHARACTERISTICS							
CAPACITY (450 ML BAGS)		24	48	54	96	108	180
POWER SUPPLY		230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz
ELECTRICAL POWER		MIN 30W, MAX 70W	MIN 30W, MAX 70W	MIN 30W, MAX 70W	MIN 30W, MAX 70W	MIN 30W, MAX 70W	MIN 30W, MAX 70W
NOISE LEVEL (SOUND PRESSURE LEVEL, 1M)		< 44dB(A)	< 44dB(A)	< 44dB(A)	< 44dB(A)	< 44dB(A)	< 44dB(A)
STRUCTURE							
INTERNAL SURFACE	AISI 304 Stainless Steel	X	X	X	X	X	X
EXTERNAL SURFACE	AISI 304 Stainless Steel	X	X	X	X	X	X
ESTERNAL SIZES LXPXH MM		490 x 430 x 277	490 x 430 x 400	490 x 430 x 440	490 x 430 x 680	490 x 430 x 740	490 x 490 x 740
WEIGHT		25Kg	30Kg	40Kg	50Kg	60Kg	65Kg
SHELVES	NUMBER	4	8	9	16	18	18
	AISI 304 STAINLESS STEEL	X	X	X	X	X	X
AGITATORS NUMBER INSIDE INCUBATORS	W96 RT	1	-	-	-	-	-
	WRV 180	1	1	1	1	1	1
	WRV 700	MAX 2	MAX 2	MAX 2	MAX 2	MAX 2	MAX 2
	WRV 1500	MAX 4	MAX 4	MAX 4	MAX 4	MAX 4	MAX 4
		MIN 32 RPM --> 64 Strokes/min (Frequency 25 Hz) MAX 94 RPM --> 188 Strokes/min (Frequency 75 Hz)					

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Technologies for life sciences

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