

BLOOD  
line

**K-Line**



**Medical Grade Low Temperature Freezers -45°C**  
A new standard for LT storage



**APPARECCHI  
SCIENTIFICI**

*Technologies for life sciences*



# the Company

KW is one of the most dynamic and innovative companies, leader in the design and production of controlled temperature devices down to  $-90^{\circ}\text{C}$ , 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.



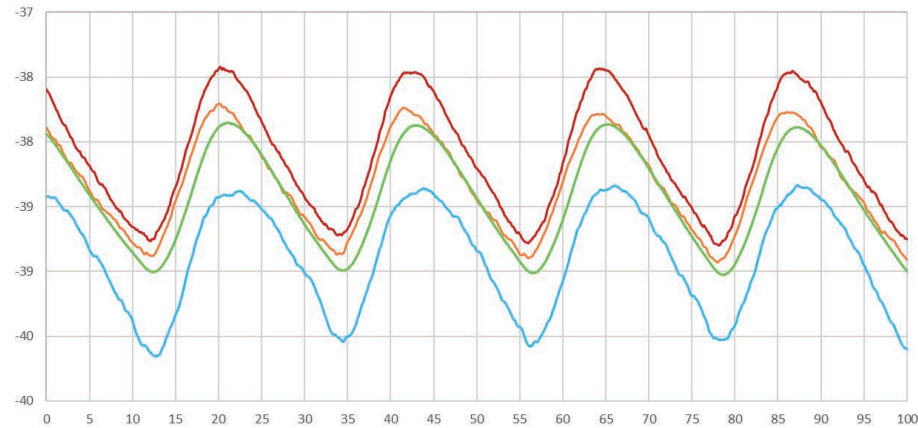
# -45°C

The K Line represents the state-of-the-art of LT freezers down to -50°C with innovative technical solutions and great variability of configurations. Thanks to the deep work of R&D department and the experience gained in 70 years of activity, a complete line of LT freezers is available with maximum grade of performances and reliability with the lower energy consumption and a complete connectivity through the cloud.

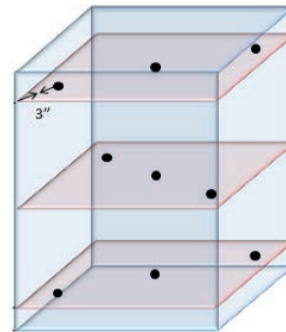
The refrigerating system is equipped with a single compressor circuit, composed of **eco-friendly fluids**, that is very reliable and guarantees a high cooling performance. It comes with a silent hermetic compressor having high cooling capacity, equipped with magneto thermal protections and maximum condensation pressure thermostat. All these features assure total reliability and lack of failures. The condensation surfaces are wide to face severe environmental and working conditions and to reduce energy consumptions.

The expansion of the refrigerant is obtained through capillary tubes. The evaporating surfaces are composed of a serpentine copper tube thermally connected to the entire external surface of the inner case.

The perfect insulation of the cabinet, obtained by PUR foam, grants the best thermal conditions for the stored samples, either in case of frequent openings and large samples loads. The combination of above-mentioned technical solutions guarantees high refrigerant capacity, fast cooling (low pull down and recovery time), and high uniformity of inner temperature.

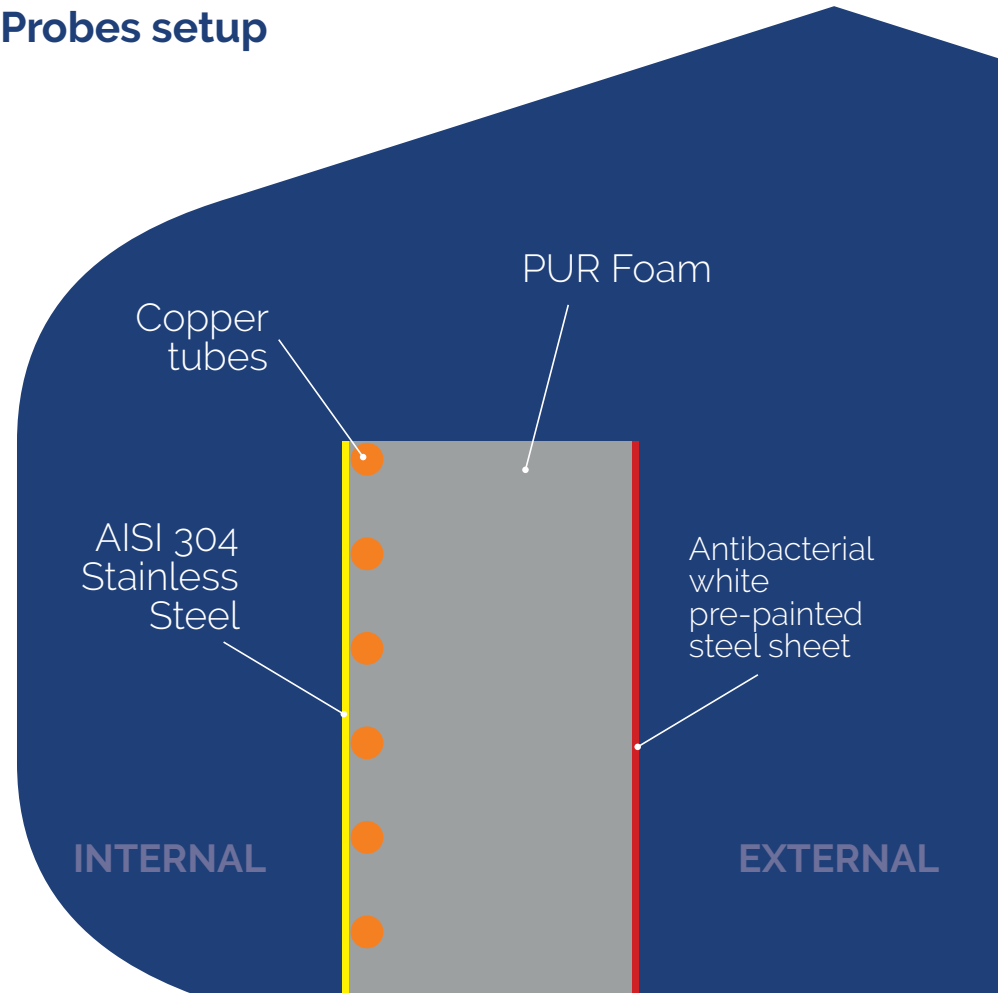


**Inner temperature distribution**



**Probes setup**

**Freezer lateral section**



INTERNAL

EXTERNAL

## main features

- Temperature stability in air within  $\pm 2^{\circ}\text{C}$  with set point of  $-40^{\circ}\text{C}$
- Temperature uniformity in air of  $\pm 5^{\circ}\text{C}$
- Perfect thermal insulation granted by PUR foam
- Use of natural refrigerants with low GWP (Global Warming Potential) to reduce carbon footprint
- Internal chamber in AISI 304 stainless steel for maximum hygiene
- Energy saving thanks to innovative system management, granting one of the lowest power consumptions of the category
- Industry 4.0 compliant with network capabilities
- Possibility of custom-made solutions following specific needs
- Most stringent company and products international certifications
- Extremely fast startup time
- Rapid recovery of the T after prolonged openings or entry of significant thermal loads, also with booster function
- Long time of heating in case of power black-out
- Backup battery for powering the controller and recording the temperature even in the event of a power failure

Medical device systems  
certified under  
international regulation

**93/42 – 2007/47/CE Class IIa**

for blood and its derivatives  
management.

**KW's commitment to contain the carbon footprint is guaranteed by:**

- Use of natural refrigerants with very low GWP (Global Warming Potential) and absence of HFC in polyurethane foams
- Maintenance procedure performed according to the F-Gas directives
- High COP (refrigeration efficiency parameter) of the systems used

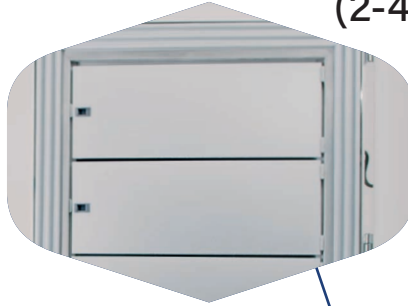


# main features

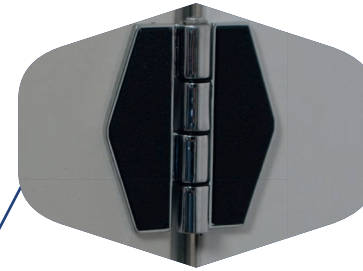
Remote alarm control and LAN port



Inner doors (2-4-5)



Door hinges



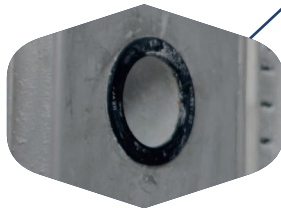
Ergonomic handle



Pressure compensation valve



Internal/External pass-through hole



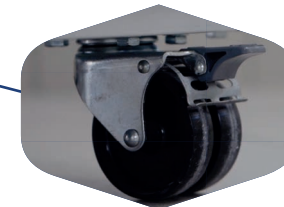
Rounded edges



Triple gaskets



Pivoting wheels



Adjustable shelves



versions

Wide range of models  
to meet the different needs.

## Vertical



## Chest Type



## Under The-Counter



MODEL	CAPACITY	INTERNAL DIM.	EXTERNAL DIM.	SHELVES COMP.	INNER DOORS	BOXES
<b>K4057</b>	122	500x450x540	890x825x1330	1/2	1	72
<b>K4056</b>	261	501x470x1108	890x855x1870	3/4	4	144
<b>K4058</b>	358	702x460x1110	1050x840x1890	3/4	4	240
<b>K4060</b>	506	702x650x1110	1050x1030x1890	3/4	4	320
<b>K4062</b>	606	802x590x1280	1160x970x2050	3/4	4	400
<b>K4064</b>	708	802x690x1280	1160x1070x2050	3/4	4	500
<b>K4066</b>	809	852x730x1300	1200x1110x2050	3/4	4	600

MODEL	CAPACITY	INTERNAL DIM.	EXTERNAL DIM.	COMP.	INNER DOORS	BOXES
<b>K4052</b>	110	550x400x500	900x840x1270	1	1	56
<b>K4052E</b>	174	642x492x550	900x840x1270	1	1	64
<b>K4054</b>	230	1150x400x500	1500x870x1270	2	2	128
<b>K4054E</b>	334	1240x490x550	1500x870x1270	2	2	192
<b>K4055</b>	476	1220x520x750	1935x910x1110	2	2	288
<b>K4055E</b>	705	1860x480x790	2550x874x1120	2	2	468
<b>K405578</b>	801	1780x600x750	2488x982x1100	2	2	576

MODEL	CAPACITY	INTERNAL DIM.	EXTERNAL DIM.	SHELVES COMP.	INNER DOORS	BOXES
<b>KUB4075</b>	86	428x343x588	990x635x780	1/2	1	48



special  
versions

## Double Door

The most suitable solution in case of frequent openings, granting reduced temperature increase due to separated doors.



The KW freezer, in this special version, has an evaporation temperature much lower than  $-50^{\circ}\text{C}$ , a characteristic that allows for significantly reduced running times with the Set Point at  $-40^{\circ}\text{C}$ . Running times are the compressor on times. Having a greater difference between the evaporation and storage temperatures, the times of the refrigeration cycle (on/off) are shorter in the on phase and longer in the off phase, especially in the case of frequent door openings for picking up or loading the preserved material. The recovery time is also shorter than freezers with a minimum set point temperature of  $-40^{\circ}\text{C}$ , with great benefit of energy savings.



MODEL	CAPACITY	INTERNAL DIM.	EXTERNAL DIM.	SHELVES COMP.	INNER DOORS	BOXES
<b>K4058 2D</b>	358	702x460x1300	1060x840x2025	3/4	4	240
<b>K4060 2D</b>	506	702x650x1300	1060x1030x2025	3/4	4	320
<b>K4062 2D</b>	606	802x590x1280	1150x965x2025	3/4	4	320
<b>K4064 2D</b>	708	802x690x1280	1150x1065x2025	3/4	4	400
<b>K4066 2D</b>	809	852x730x1300	1200x1110x2050	3/4	4	480

# $-50^{\circ}\text{C}$

This specific thermodynamic project, combined with an exceptional average insulation of 140mm of PUR foam with very low thermal conductivity (18 mW/mK), allows to guarantee:

- Consumption significantly lower than the average standard for the category, with substantial annual savings in terms of kW/h
- Definitely higher conservation quality since the internal temperature distribution (in air) has lower maximum values than the standard on the market
- Greater reliability of the thermo-mechanical system, working at a much higher Set Point ( $-40^{\circ}\text{C}$ ) than the design one ( $-50^{\circ}\text{C}$ )

# Biological Bank

**Banca Biologica®**

*is an exclusive trademark of KW since 1990*

The -40°C LT freezers can also be available in the Biological Bank version for an extremely safe storage.

## Twin group

Two independent systems that guarantee maximum safety of conservation in the event of a malfunction of one of the two systems.

## Booster mode

Temporary activation of both systems following openings or an increase in the thermal load.

Maintenance activities with no device downtime (when possible).

## Vertical

*Double door available upon request.*

MODEL	CAPACITY	INTERNAL DIM.	EXTERNAL DIM.	SHELVES COMP.	INNER DOORS	BOXES
<b>K4056S</b>	266	501x470x1108	1185x855x1870	3/4	4	144
<b>K4058S</b>	358	702x460x1110	1050x920x1890	3/4	4	240
<b>K4060S</b>	506	702x650x1110	1050x1110x1890	3/4	4	320
<b>K4062S</b>	606	802x590x1280	1160x1050x2050	3/4	4	400
<b>K4064S</b>	708	802x690x1280	1160x1150x2050	3/4	4	500
<b>K4066S</b>	809	852x730x1300	1200x1190x2050	3/4	4	600

## Chest Type

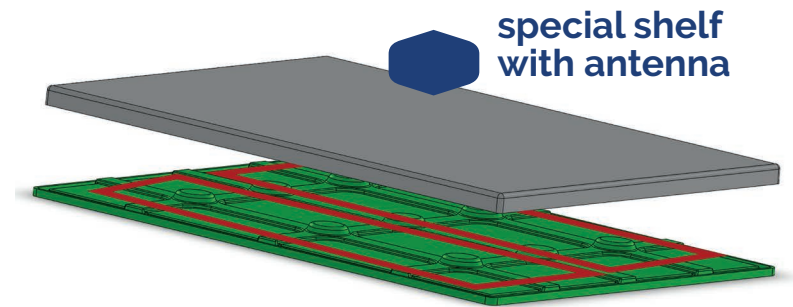
MODEL	CAPACITY	INTERNAL DIM.	EXTERNAL DIM.	COMP.	INNER DOORS	BOXES
<b>K4052S</b>	110	550x400x500	900x840x1270	1	1	56
<b>K4052ES</b>	174	642x492x550	900x840x1270	1	1	64
<b>K4054S</b>	230	1150x400x500	1500x870x1270	2	2	128
<b>K4054ES</b>	334	1240x490x550	1500x870x1270	2	2	192
<b>K4055S</b>	476	1220x520x750	1395x910x1110	2	2	288
<b>K4055ES</b>	705	1860x480x790	2990x874x1120	2	2	468
<b>K405578S</b>	801	1780x600x750	2948x982x1100	2	2	576

# RFID Storage Management

The RFID solution for reading the bags' tag inside the boxes positioned on the various freezer 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 freezer. 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 freezer, moving the bags in and out.

## main characteristics

- Shelves in plastic material with AISI 304 stainless steel guides
- Shelves with type HF readers with low power
- Integrated antennas in each shelf
- Single connection cable for each shelf
- Concentrator placed outside the cabinet for data communication



## benefits

- Maximum traceability: possibility of identifying a specific bag among those stored inside the freezer
- 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

# controllers

A wide range of controllers with different characteristics and functionalities to control the device.



## HPL

- 7" or 9" 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

controllers



## PL ADVANCED

- Data Logger capabilities for temperature and alarms
- Internet connectivity
- Wi-Fi capabilities
- Cloud management
- Dedicated App for monitoring
- Weekly email with temperature graphs
- Alarms with mobile notifications

## optionals

- LAN connection
- Electric lock for door opening with PIN



### Dedicated APP for PL ADVANCED controller

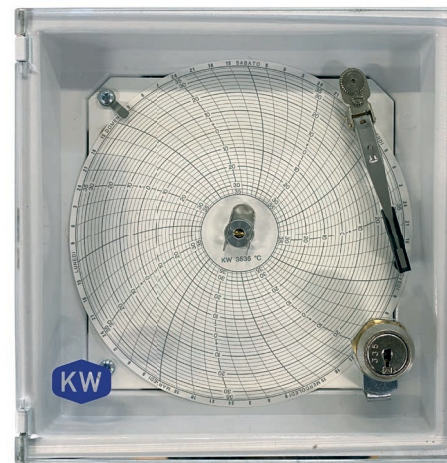
Thanks to the integration capabilities of our controllers, APP (for iOS and Android) and Cloud management is possible to control and assist remotely the complete network of systems. Safety is granted by email/notification alerts in case of any fault of problem.



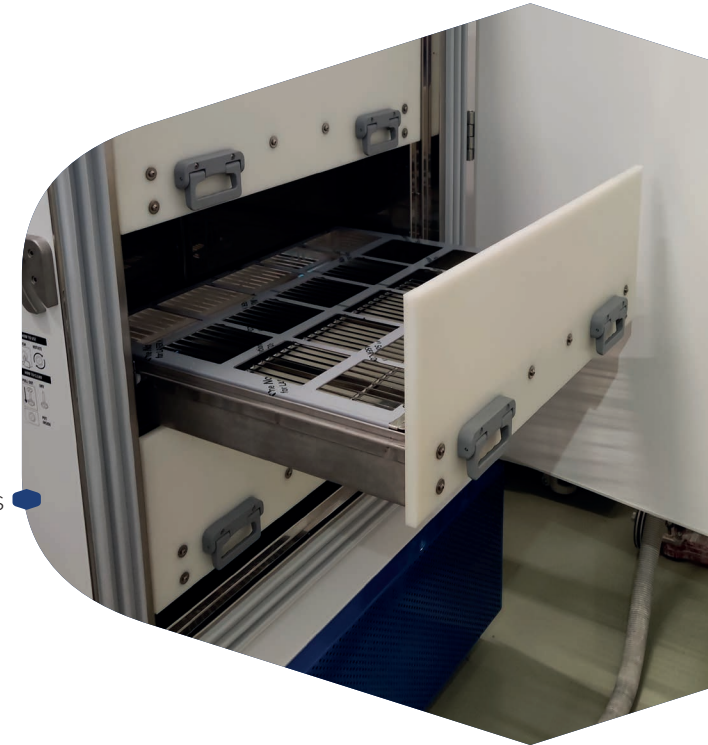
Cloud management of LT equipped with PL ADVANCED controllers

## A dedicated line of accessories to complete the performances of the products.

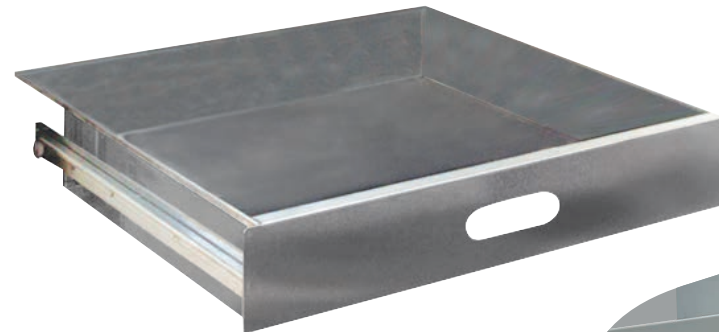
- 230V  $\pm 15\%$  stabilizer to adjust the optimal power supply for the compressors
- Weekly cycle chart disk recorder with internal backup battery
- Additional internal shelves (for vertical freezers)
- Additional counter doors
- Water condensation solution
- CO2 backup system with 24VAC/50Hz power supply in case of mechanical failure of the system
- CO2 backup system with 12VAC/50Hz power supply in case of mechanical or electrical failure of the system
- Additional RT Pt 100 probe for external data logger
- Containers and drawers (with possible custom design) in AISI 304 stainless steel
- Drawers dividers



Weekly cycle chart disk recorder



Customized drawers



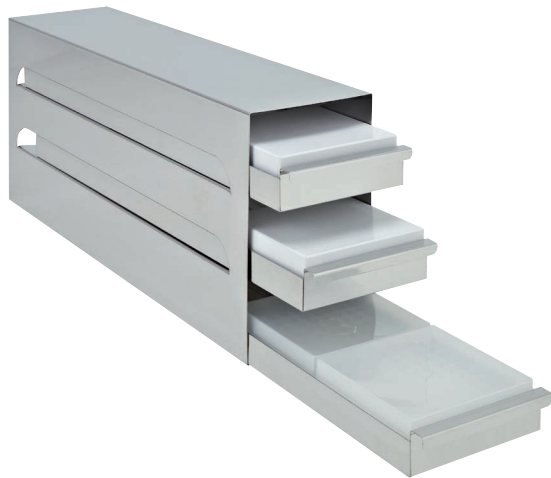
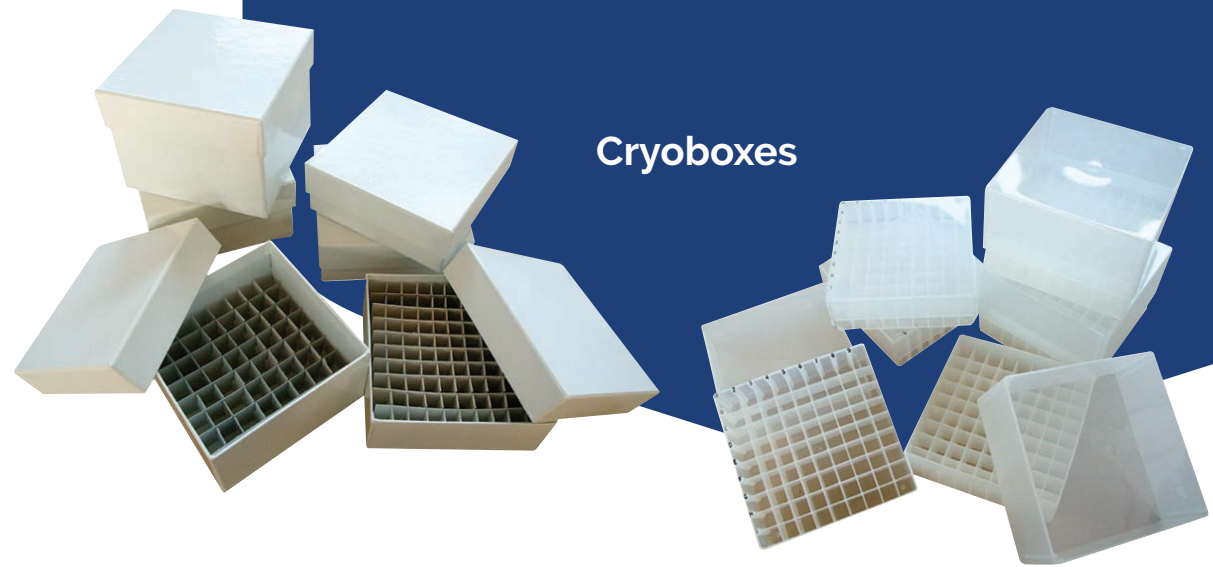
Drawers

CO2 backup system



# rack

Different types of AISI 304 stainless steel racks are available for housing vials boxes. Special racks, based on customer drawings, are also available upon request.



**Frontal extraction rack**



**Lateral extraction rack**



**Column rack**



**technical specifications**



**-45°C**

# Vertical, single door

	<b>K4056</b>	<b>K4057</b>	<b>K4058</b>	<b>K4060</b>	<b>K4062</b>	<b>K4064</b>	<b>K4066</b>	
<b>TECHNICAL CHARACTERISTICS</b>								
CAPACITY	261lt	122lt	358lt	506lt	606lt	708lt	809lt	
TEMPERATURE RANGE	-20°C/-40°C	-20°C/-40°C	-20°C/-40°C	-20°C/-40°C	-20°C/-40°C	-20°C/-40°C	-20°C/-40°C	
REFRIGERANT	R1270	R1270	R1270	R1270	R1270	R1270	R1270	
REFRIGERANT FOR TRANGE -20°C/-50°C	Isceon Dupont M089	Isceon Dupont M089	Isceon Dupont M089	Isceon Dupont M089	Isceon Dupont M089	Isceon Dupont M089	Isceon Dupont M089	
POWER SUPPLY	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	
ELECTRICAL POWER	0,5kW	0,5kW	0,5kW	0,5kW	0,5kW	0,5kW	0,5kW	
NOISE LEVEL (SOUND PRESSURE LEVEL, 1M)	<52dB(A)	<52dB(A)	<52dB(A)	<52dB(A)	<52dB(A)	<52dB(A)	<52dB(A)	
<b>STRUCTURE</b>								
INTERNAL SURFACE	AISI 304 Stainless Steel	X	X	X	X	X	X	X
	AISI 316 Stainless Steel	Optional	Optional	Optional	Optional	Optional	Optional	Optional
EXTERNAL SURFACE	Antibacterial White Pre-painted Steel Sheet	X	X	X	X	X	X	X
	AISI 304 Stainless Steel	Optional	Optional	Optional	Optional	Optional	Optional	Optional
EXTERNAL SIZES LXPXH MM	890 x 855 x 1870	890 x 825 x 1330	1050 x 840 x 1890	1050 x 1030 x 1890	1160 x 970 x 2050	1160 x 1070 x 2050	1200 x 1110 x 2050	
INTERNAL SIZES LXPXH MM	501 x 470 x 1108	500 x 450 x 540	702 x 460 x 1110	702 x 650 x 1110	802 x 590 x 1280	802 x 690 x 1280	852 x 730 x 1300	
WEIGHT	215Kg	155kg	245Kg	275Kg	285Kg	315Kg	425Kg	
INSULATION	HIGH DENSITY PUR FOAM [18MW/MK]	140mm	150mm	140mm	140mm	140mm	140mm	140mm
	V.I.P. [7MW/MK]	-	-	-	-	-	-	-
ULTRA PERFORMANCE VERSION: + 60MM V.I.P.	-	-	-	Optional	Optional	Optional	Optional	
INTERNAL CHARACTERISTICS	DOORS	1	1	1	1	1	1	1
	COMPARTMENTS	4	2	4	4	4	4	4
FRONTAL EXTRACTION RACKS	TOTAL RACKS NUMBER (H = 50MM)	12	6	20	20	20	20	24
	BOXES PER RACK	12	12	12	16	20	25	25
	TOTAL BOXES NUMBER	144	72	240	320	400	500	600
CONTROLLERS	HPL	X	X	X	X	X	X	X
	PL ADV	X	X	X	X	X	X	X

-45°C

# Vertical, double door



		K4058 2D	K4060 2D	K4062 2D	K4064 2D	K4066 2D
<b>TECHNICAL CHARACTERISTICS</b>						
CAPACITY		358lt	506lt	606lt	708lt	809lt
TEMPERATURE RANGE		-20°C/-40°C	-20°C/-40°C	-20°C/-40°C	-20°C/-40°C	-20°C/-40°C
REFRIGERANT		R1270	R1270	R1270	R1270	R1270
REFRIGERANT FOR TRANGE -20°C/-50°C		Isceon Dupont M089	Isceon Dupont M089	Isceon Dupont M089	Isceon Dupont M089	Isceon Dupont M089
POWER SUPPLY		230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz
ELECTRICAL POWER		0,5kW	0,5kW	0,5kW	0,5kW	0,5kW
NOISE LEVEL (SOUND PRESSURE LEVEL, 1M)		<52dB(A)	<52dB(A)	<52dB(A)	<52dB(A)	<52dB(A)
<b>STRUCTURE</b>						
INTERNAL SURFACE	AISI 304 Stainless Steel	X	X	X	X	X
	AISI 316 Stainless Steel	Optional	Optional	Optional	Optional	Optional
EXTERNAL SURFACE	Antibacterial White Pre-painted Steel Sheet	X	X	X	X	X
	AISI 304 Stainless Steel	Optional	Optional	Optional	Optional	Optional
EXTERNAL SIZES LXPXH MM		1060 x 840 x 2025	1060 x 1030 x 2025	1150 x 965 x 2025	1150 x 1065 x 2025	1200 x 1110 x 2050
INTERNAL SIZES LXPXH MM		702 x 460 x 1300	702 x 650 x 1300	802 x 590 x 1280	802 x 690 x 1280	852 x 730 x 1300
WEIGHT		265Kg	295Kg	305Kg	325Kg	425Kg
INSULATION	HIGH DENSITY PUR FOAM [18MW/MK]	140mm	140mm	140mm	140mm	140mm
	V.I.P. [7MW/MK]	-	-	-	-	-
ULTRA PERFORMANCE VERSION: + 60MM V.I.P.		-	-	-	-	-
INTERNAL CHARACTERISTICS	DOORS	2	2	2	2	2
	COMPARTMENTS	4	4	4	4	4
FRONTAL EXTRACTION RACKS	TOTAL RACKS NUMBER (H = 50MM)	20	20	20	20	24
	BOXES PER RACK	12	16	16	20	20
	TOTAL BOXES NUMBER	240	320	320	400	480
CONTROLLERS	HPL	X	X	X	X	X
	PL ADV	X	X	X	X	X



-45°C

# Under the counter

## KUB4075

### TECHNICAL CHARACTERISTICS

CAPACITY	86lt
TEMPERATURE RANGE	-20°C/-40°C
REFRIGERANT	R1270
REFRIGERANT FOR TRANGE -20°C/-50°C	Isceon Dupont M089
POWER SUPPLY	230V/50Hz
ELECTRICAL POWER	0,5kW
NOISE LEVEL (SOUND PRESSURE LEVEL, 1M)	<52dB(A)

### STRUCTURE

INTERNAL SURFACE	AISI 304 Stainless Steel	X
	AISI 316 Stainless Steel	Optional
EXTERNAL SURFACE	Antibacterial White Pre-painted Steel Sheet	X
	AISI 304 Stainless Steel	Optional
EXTERNAL SIZES LXPXH MM		990 x 635 x 780
INTERNAL SIZES LXPXH MM		428 x 343 x 588
WEIGHT		75kg
INSULATION	HIGH DENSITY PUR FOAM [18MW/MK]	150mm
	V.I.P. [7MW/MK]	-
ULTRA PERFORMANCE VERSION: + 60MM V.I.P.		-
INTERNAL CHARACTERISTICS	DOORS	1
	COMPARTMENTS	2
FRONTAL EXTRACTION RACKS	TOTAL RACKS NUMBER (H = 50MM)	6
	BOXES PER RACK	8
	TOTAL BOXES NUMBER	48
CONTROLLERS	HPL	X
	PL ADV	X

-45°C

# Vertical, single door, Biological Bank



		K4056S	K4058S	K4060S	K4062S	K4064S	K4066S
<b>TECHNICAL CHARACTERISTICS</b>							
CAPACITY		266lt	358lt	506lt	606lt	708lt	809lt
TEMPERATURE RANGE		-20°C/-40°C	-20°C/-40°C	-20°C/-40°C	-20°C/-40°C	-20°C/-40°C	-20°C/-40°C
REFRIGERANT		R1270	R1270	R1270	R1270	R1270	R1270
REFRIGERANT FOR TRANGE -20°C/-50°C		Isceon Dupont M089	Isceon Dupont M089	Isceon Dupont M089	Isceon Dupont M089	Isceon Dupont M089	Isceon Dupont M089
POWER SUPPLY		230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz
ELECTRICAL POWER		0,45kW (Booster Mode 0,9kW)	0,5kW (Booster Mode 1kW)	0,5kW (Booster Mode 1kW)	0,5kW (Booster Mode 1kW)	0,5kW (Booster Mode 1kW)	0,5kW (Booster Mode 1kW)
NOISE LEVEL (SOUND PRESSURE LEVEL, 1M)		<52dB(A)	<52dB(A)	<52dB(A)	<52dB(A)	<52dB(A)	<52dB(A)
<b>STRUCTURE</b>							
INTERNAL SURFACE	AISI 304 Stainless Steel	X	X	X	X	X	X
	AISI 316 Stainless Steel	Optional	Optional	Optional	Optional	Optional	Optional
EXTERNAL SURFACE	Antibacterial White Pre-painted Steel Sheet	X	X	X	X	X	X
	AISI 304 Stainless Steel	Optional	Optional	Optional	Optional	Optional	Optional
EXTERNAL SIZES LXPXH MM		1185 x 855 x 1870	1050 x 920 x 1890	1050 x 1030 x 1890	1160 x 970 x 2050	1160 x 1070 x 2050	1200 x 1110 x 2050
INTERNAL SIZES LXPXH MM		501 x 470 x 1108	702 x 460 x 1110	702 x 650 x 1110	802 x 590 x 1280	802 x 690 x 1280	852 x 730 x 1300
WEIGHT		240Kg	270Kg	300Kg	310Kg	340Kg	450Kg
INSULATION	HIGH DENSITY PUR FOAM [18MW/MK]	140mm	140mm	140mm	140mm	140mm	140mm
	V.I.P. [7MW/MK]	-	-	-	-	-	-
ULTRA PERFORMANCE VERSION: + 60MM V.I.P.		-	-	-	-	-	-
INTERNAL CHARACTERISTICS	DOORS	1	1	1	1	1	1
	COMPARTMENTS	4	4	4	4	4	4
FRONTAL EXTRACTION RACKS	TOTAL RACKS NUMBER (H = 50MM)	12	20	20	20	20	24
	BOXES PER RACK	12	12	16	20	25	25
	TOTAL BOXES NUMBER	144	240	320	400	500	600
CONTROLLERS	HPL	X	X	X	X	X	X
	PL ADV	X	X	X	X	X	X



-45°C

# Vertical, double door, Biological Bank



K4058S 2D K4060S 2D K4062S 2D K4064S 2D K4066S 2D

## TECHNICAL CHARACTERISTICS

	K4058S 2D	K4060S 2D	K4062S 2D	K4064S 2D	K4066S 2D
CAPACITY	358lt	506lt	606lt	708lt	809lt
TEMPERATURE RANGE	-20°C/-40°C	-20°C/-40°C	-20°C/-40°C	-20°C/-40°C	-20°C/-40°C
REFRIGERANT	R1270	R1270	R1270	R1270	R1270
REFRIGERANT FOR TRANGE -20°C/-50°C	Isceon Dupont M089	Isceon Dupont M089	Isceon Dupont M089	Isceon Dupont M089	Isceon Dupont M089
POWER SUPPLY	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz
ELECTRICAL POWER	0,5kW (Booster Mode 1kW)	0,5kW (Booster Mode 1kW)	0,5kW (Booster Mode 1kW)	0,5kW (Booster Mode 1kW)	0,5kW (Booster Mode 1kW)
NOISE LEVEL (SOUND PRESSURE LEVEL, 1M)	<52dB(A)	<52dB(A)	<52dB(A)	<52dB(A)	<52dB(A)

## STRUCTURE

INTERNAL SURFACE	AISI 304 Stainless Steel	X	X	X	X	X
	AISI 316 Stainless Steel	Optional	Optional	Optional	Optional	Optional
EXTERNAL SURFACE	Antibacterial White Pre-painted Steel Sheet	X	X	X	X	X
	AISI 304 Stainless Steel	Optional	Optional	Optional	Optional	Optional
EXTERNAL SIZES LXPXH MM		1060 x 920 x 2025	1060 x 1030 x 2025	1150 x 965 x 2025	1150 x 1065 x 2025	1200 x 1110 x 2050
INTERNAL SIZES LXPXH MM		702 x 460 x 1300	702 x 650 x 1300	802 x 590 x 1280	802 x 690 x 1280	852 x 730 x 1300
WEIGHT		290Kg	320Kg	330Kg	350Kg	460Kg
INSULATION	HIGH DENSITY PUR FOAM [18MW/MK]	140mm	140mm	140mm	140mm	140mm
	V.I.P. [7MW/MK]	-	-	-	-	-
ULTRA PERFORMANCE VERSION: + 60MM V.I.P.		-	-	-	-	-
INTERNAL CHARACTERISTICS	DOORS	2	2	2	2	2
	COMPARTMENTS	4	4	4	4	4
FRONTAL EXTRACTION RACKS	TOTAL RACKS NUMBER (H = 50MM)	20	20	20	20	24
	BOXES PER RACK	12	16	16	20	20
	TOTAL BOXES NUMBER	240	320	320	400	480
CONTROLLERS	HPL	X	X	X	X	X
	PL ADV	X	X	X	X	X

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# Chest Type



		<b>K4052</b>	<b>K4052E</b>	<b>K4054</b>	<b>K4054E</b>	<b>K4055</b>	<b>K4055E</b>	<b>K405578</b>
<b>TECHNICAL CHARACTERISTICS</b>								
CAPACITY		110lt	174lt	230lt	334lt	476lt	705lt	801lt
TEMPERATURE RANGE		-20°C/-40°C	-20°C/-40°C	-20°C/-40°C	-20°C/-40°C	-20°C/-40°C	-20°C/-40°C	-20°C/-40°C
REFRIGERANT		R1270	R1270	R1270	R1270	R1270	R1270	R1270
REFRIGERANT FOR TRANGE -20°C/-50°C		Isceon Dupont M089	Isceon Dupont M089	Isceon Dupont M089	Isceon Dupont M089	Isceon Dupont M089	Isceon Dupont M090	Isceon Dupont M090
POWER SUPPLY		230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz
ELECTRICAL POWER		0,5kW	0,5kW	0,5kW	0,5kW	0,5kW	0,5kW	0,5kW
NOISE LEVEL (SOUND PRESSURE LEVEL, 1M)		<52dB(A)	<52dB(A)	<52dB(A)	<52dB(A)	<52dB(A)	<52dB(A)	<52dB(A)
<b>STRUCTURE</b>								
INTERNAL SURFACE	AISI 304 Stainless Steel	X	X	X	X	X	X	X
	AISI 316 Stainless Steel	Optional	Optional	Optional	Optional	Optional	Optional	Optional
EXTERNAL SURFACE	Antibacterial White Pre-painted Steel Sheet	X	X	X	X	X	X	X
	AISI 304 Stainless Steel	Optional	Optional	Optional	Optional	Optional	Optional	Optional
EXTERNAL SIZES LXPXH MM		900 x 840 x 1270	900 x 840 x 1270	1500 x 870 x 1270	1500 x 870 x 1270	1935 x 910 x 1110	2550 x 874 x 1120	2488 x 982 x 1100
INTERNAL SIZES LXPXH MM		550 x 400 x 500	642 x 492 x 550	1150 x 400 x 500	1240 x 490 x 550	1220 x 520 x 750	1860 x 480 x 790	1780 x 600 x 750
WEIGHT		1 05kg	115Kg	245Kg	255Kg	295Kg	375Kg	415Kg
INSULATION	HIGH DENSITY PUR FOAM [18MW/MK]	175mm	140mm	175mm	140mm	140mm	140mm	140mm
	V.I.P. [7MW/MK]	-	-	-	-	-	-	-
ULTRA PERFORMANCE VERSION: + 60MM V.I.P.		-	-	-	-	-	-	-
INTERNAL CHARACTERISTICS	DOORS	1	1	1	1	1	1	1
	COMPARTMENTS	1	1	2	2	2	2	2
FRONTAL EXTRACTION RACKS	TOTAL RACKS NUMBER (H = 50MM)	7	8	16	24	24	39	48
	BOXES PER RACK	8	8	8	8	12	12	12
	TOTAL BOXES NUMBER	56	64	128	192	288	468	576
CONTROLLERS	HPL	X	X	X	X	X	X	X
	PL ADV	X	X	X	X	X	X	X

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# Chest Type, Biological Bank



		K4054S	K4054ES	K4055S	K4055ES	K405578S
<b>TECHNICAL CHARACTERISTICS</b>						
CAPACITY		230lt	334lt	476lt	705lt	801lt
TEMPERATURE RANGE		-20°C/-40°C	-20°C/-40°C	-20°C/-40°C	-20°C/-40°C	-20°C/-40°C
REFRIGERANT		R1270	R1270	R1270	R1270	R1270
REFRIGERANT FOR TRANGE -20°C/-50°C		Isceon Dupont M089	Isceon Dupont M089	Isceon Dupont M089	Isceon Dupont M090	Isceon Dupont M090
POWER SUPPLY		230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz
ELECTRICAL POWER		0,5kW (Booster Mode 1kW)	0,5kW (Booster Mode 1kW)	0,5kW (Booster Mode 1kW)	0,5kW (Booster Mode 1kW)	0,5kW (Booster Mode 1kW)
NOISE LEVEL (SOUND PRESSURE LEVEL, 1M)		<52dB(A)	<52dB(A)	<52dB(A)	<52dB(A)	<52dB(A)
<b>STRUCTURE</b>						
INTERNAL SURFACE	AISI 304 Stainless Steel	X	X	X	X	X
	AISI 316 Stainless Steel	Optional	Optional	Optional	Optional	Optional
EXTERNAL SURFACE	Antibacterial White Pre-painted Steel Sheet	X	X	X	X	X
	AISI 304 Stainless Steel	Optional	Optional	Optional	Optional	Optional
EXTERNAL SIZES LXPXH MM		1500 x 870 x 1270	1500 x 870 x 1270	1935 x 910 x 1110	2550 x 874 x 1120	2488 x 982 x 1100
INTERNAL SIZES LXPXH MM		1150 x 400 x 500	1240 x 490 x 550	1220 x 520 x 750	1860 x 480 x 790	1780 x 600 x 750
WEIGHT		270Kg	280Kg	320Kg	400Kg	440Kg
INSULATION	HIGH DENSITY PUR FOAM [18MW/MK]	175mm	140mm	140mm	140mm	140mm
	V.I.P. [7MW/MK]	-	-	-	-	-
ULTRA PERFORMANCE VERSION: + 60MM V.I.P.		-	-	-	-	-
INTERNAL CHARACTERISTICS	DOORS	1	1	1	1	1
	COMPARTMENTS	2	2	2	2	2
FRONTAL EXTRACTION RACKS	TOTAL RACKS NUMBER (H = 50MM)	16	24	24	39	48
	BOXES PER RACK	8	8	12	12	12
	TOTAL BOXES NUMBER	128	192	288	468	576
CONTROLLERS	HPL	X	X	X	X	X
	PL ADV	X	X	X	X	X

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# Frontal extraction racks



The following tables show the maximum number of racks for each freezer model.  
The indicated racks are for standard 133x133x50mm boxes. For different types of boxes,  
contact your local area manager.

LT	P/N	Model	Compartments	Racks/Compartment	Total Racks	Boxes/Rack	Total Boxes
<b>K4057</b>	8001032A	DRA K57 12/5	2	3	6	12	72
<b>K4056</b>	8001032A	DRA K56 12/5	4	3	12	12	144
<b>K4058</b>	8001032A	DRA K58 12/5	4	5	20	12	240
<b>K4060</b>	8001002A	DRA K60 16/5	4	5	20	16	320
<b>K4062</b>	8001007A	DRA K62 20/5	4	5	20	20	400
<b>K4064</b>	8001001A	DRA K64 25/5	4	5	20	25	500
<b>K4066</b>	8001029A	DRA K66 25/5	4	6	24	25	600
<b>KUB4075</b>	8001033A	DRA KUB75 8/5	2	3	6	8	48
<b>K4058 2D</b>	8001032A	DRA K58 12/5	4	5	20	12	240
<b>K4060 2D</b>	8001002A	DRA K60 16/5	4	5	20	16	320
<b>K4062 2D</b>	8001002A	DRA K60 16/5	4	5	20	16	320
<b>K4064 2D</b>	8001008A	DRA K64-2D 20/5	4	5	20	20	400
<b>K4066 2D</b>	8001030A	DRA K66-2D 20/5	4	6	24	20	480
<b>K4056S</b>	8001032A	DRA K56 12/5	4	3	12	12	144
<b>K4058S</b>	8001032A	DRA K58 12/5	4	5	20	12	240
<b>K4060S</b>	8001002A	DRA K60 16/5	4	5	20	16	320
<b>K4062S</b>	8001007A	DRA K62 20/5	4	5	20	20	400
<b>K4064S</b>	8001001A	DRA K64 25/5	4	5	20	25	500
<b>K4066S</b>	8001029A	DRA K66 25/5	4	6	24	25	600
<b>K4058S 2D</b>	8001032A	DRA K58 12/5	4	5	20	12	240
<b>K4060S 2D</b>	8001002A	DRA K60 16/5	4	5	20	16	320
<b>K4062S 2D</b>	8001002A	DRA K60 16/5	4	5	20	16	320
<b>K4064S 2D</b>	8001008A	DRA K64-2D 20/5	4	5	20	20	400
<b>K4066S 2D</b>	8001030A	DRA K66-2D 20/5	4	6	24	20	480





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# Lateral extraction racks



LT	P/N	Model	Compartments	Racks/Compartment	Total Racks	Boxes/Rack	Total Boxes
<b>K4057</b>	8001012A	RK K57 12/5	2	3	6	12	72
<b>K4056</b>	8001012A	RK K56 12/5	4	3	12	12	144
<b>K4058</b>	8001012A	RK K58 12/5	4	5	20	12	240
<b>K4060</b>	8001015A	RK K60 16/5	4	5	20	16	320
<b>K4062</b>	8001004A	RK K62 20/5	4	5	20	20	400
<b>K4064</b>	8001020A	RK K64 25/5	4	5	20	25	500
<b>K4066</b>	8001020A	RK K64 25/5	4	6	24	25	600
<b>K4058 2D</b>	8001012A	RK K58 12/5	4	5	20	12	240
<b>K4060 2D</b>	8001015A	RK K60 16/5	4	5	20	16	320
<b>K4062 2D</b>	8001015A	RK K60 16/5	4	5	20	16	320
<b>K4064 2D</b>	8001022A	RK K64-2D 20/5	4	5	20	20	400
<b>K4066 2D</b>	8001022A	RK K64-2D 20/5	4	6	24	20	480
<b>K4056S</b>	8001012A	RK K56 12/5	4	3	12	12	144
<b>K4058S</b>	8001012A	RK K58 12/5	4	5	20	12	240
<b>K4060S</b>	8001015A	RK K60 16/5	4	5	20	16	320
<b>K4062S</b>	8001004A	RK K62 20/5	4	5	20	20	400
<b>K4064S</b>	8001020A	RK K64 25/5	4	5	20	25	500
<b>K4066S</b>	8001020A	RK K64 25/5	4	5	20	25	500
<b>K4058S 2D</b>	8001012A	RK K58 12/5	4	5	20	12	240
<b>K4060S 2D</b>	8001015A	RK K60 16/5	4	5	20	16	320
<b>K4062S 2D</b>	8001015A	RK K60 16/5	4	5	20	16	320
<b>K4064S 2D</b>	8001022A	RK K64-2D 20/5	4	5	20	20	400
<b>K4066S 2D</b>	8001022A	RK K64-2D 20/5	4	6	24	20	480

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# Column racks



LT	P/N	Model	Racks	Boxes/Rack	Total Boxes
<b>K4052</b>	8001005A	K52 8/5	7	8	56
<b>K4052E</b>	8001005A	K52 8/5	8	8	64
<b>K4054</b>	8001005A	K54 8/5	16	8	128
<b>K4054E</b>	8001005A	K54 8/5	24	8	192
<b>K4055</b>	8001026A	K55 12/5	24	12	288
<b>K4055E</b>	8001026A	K55 12/5	39	12	468
<b>K405578</b>	8001026A	K5578 12/5	48	12	576
<b>K4054S</b>	8001005A	K54 8/5	16	8	128
<b>K4054ES</b>	8001005A	K54 8/5	24	8	192
<b>K4055S</b>	8001026A	K55 12/5	24	12	288
<b>K4055ES</b>	8001026A	K55 12/5	39	12	468
<b>K405578S</b>	8001026A	K5578 12/5	48	12	576



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