

K8 Colony Picking System



kbiosystems K8 Series of automated colony picking systems offer the ideal medium throughput automation laboratories require for a reliable, consistent identification and extraction system for sample recovery.



K8

kbiosystems K8 Series colony pickers range in size and throughput ability, offering the user the ability to step up from hand picking to first stage automation or alternatively the jump from existing automation to high speed high throughput production style systems.

Offering complete versatility, the K8 Series will work with a wide range of plates for both source and destination, such as Micro Plates. 96,384 shallow and deep well formats, Petri Dishes from 4 to 15cms, Omni style Trays, Multi Well Growth plates, to Bio Assay trays.

K8 basic platform offers entry level into higher throughput colony picking, by using an open platform deck the source and destination plates are arranged directly onto the operational bed, with sterilization and operational locations all arranged on bed area.

Increase in operational capacity is offered with the options to fit one or two destination plate automation lanes, these allow the processing of up to 220 standard destination plates, and up to 60 deep well blocks. Second stage automation allows the automatic handling of 8 source tray locations this complete system allows the processing of up to 84480 picked colonies.



K8 XT



K8 XL

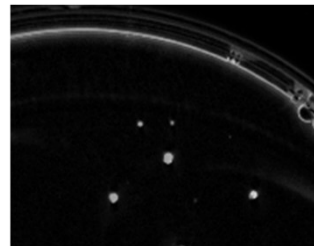
kbiosystems K8 Series of automated colony picking systems offer the ideal medium throughput automation laboratories require for a reliable, consistent identification and extraction system for sample recovery.

Imaging is carried out via a CCD USB3 camera system allowing the software algorithms to detect monochromatic scale for standard picking.

By fitting our fluorescent excitation light source and emission camera filters multiple dye ranges can be visualised.



Visual



Fluorescent



Picking accuracy allows us to reach in excess of 98.5%.

Use of different pin types allow transfer volumes to be defined. All pins are manufactured in 316 Stainless steel for ease of cleaning and repetitive use.

Platform cleanliness:

All systems are supplied with Ultraviolet germicidal irradiation (UVGI) is a disinfection method that uses short-wavelength ultraviolet (UV-C) light to kill or inactivate microorganisms by destroying nucleic acids and disrupting their DNA, leaving them unable to perform vital cellular functions.

HEPA filtration, our standard H11 grade filter offers > 95% filtration against MPPS particles, (higher filtration levels available on request).

K8 Key Features:

- Kbiosystems latest in our modular series colony picker platform
- Software operations:
 - Colony identification
 - Visual
 - Fluorescent
 - Halo
 - Colour (Blue / White)
 - Process operation:
 - Colony picking
 - Isolation extraction of single growth points from a growth plate
 - Determination of size, proximity to adjacent growths, shape of growth
 - Blue white differentiation
 - Fluorescent expression isolation
 - Bacterial interaction with growth media (Halo)
 - Multiple assay type growth recognition.
 - Duplicate inoculation
 - Offers the ability to make original inoculation plus second plate validation inoculation dips to destination plates

K8 Key Features:

- Kbiosystems latest in our modular series colony picker platform
- Software operations:
 - Process operation:
 - Re Arraying
 - By use of barcode identification pre-grown original inoculate isolated growth plates in 96 or 384 format can then be used as mother plates for the separate isolation of specific wells of interest to form a final process consolidated master plate (s)
 - Replication
 - Use of either 96 or 384 reusable stamping tools the master mother plate can be directly replicated in to a definable number daughter copy plates, this can also be used for expansion or consolidation from 384 and 96 plates.
 - Direct copy arraying
 - Use of either 96 or 385 stamping tools the mother plates can be arrayed onto membranes or direct media contact growth trays in a defined format array.
 - Timed UV sterilisation
 - Internal germicidal UV lighting can be used for cabinet sterilisation
 - Specialised process software available on request

K8 Key Features:

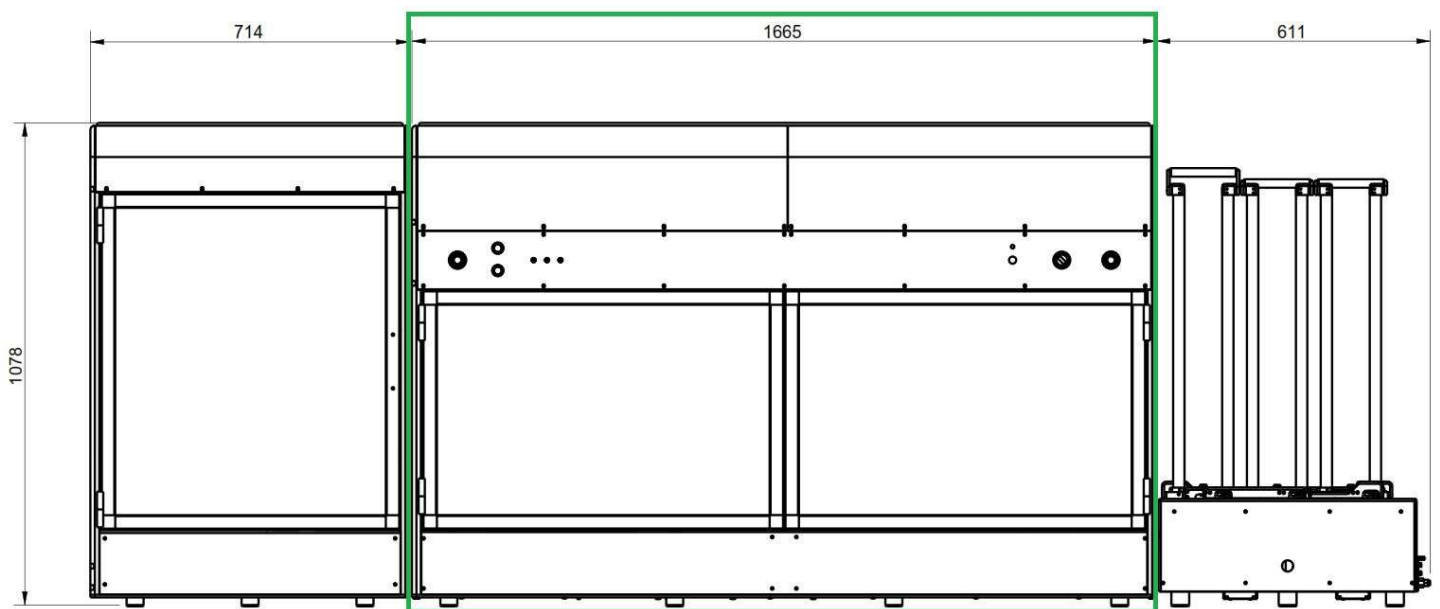
- Closed loop control to drive system ensuring positional accuracy and improved operation
- Picking speeds of 2800 colonies per hour including wash cycle using 96 pin picking head
- Optional source and destination capacity
- New USB3 camera giving dynamic analysis feedback during imaging for improved selection
- Barcode data collection as standard
- Germicidal UV standard
- Option to fit HEPA filter
- New twin destination hive lanes giving greater throughput or duplication inoculation
- Integration ready software to allow system control via third party schedulers
- System operational bench available
- Simple set up
- Quieter drive system

K8 Dimensions:

System layout options:

The system is available in 3 configurations:

- a. Picker only (Green Section Only)

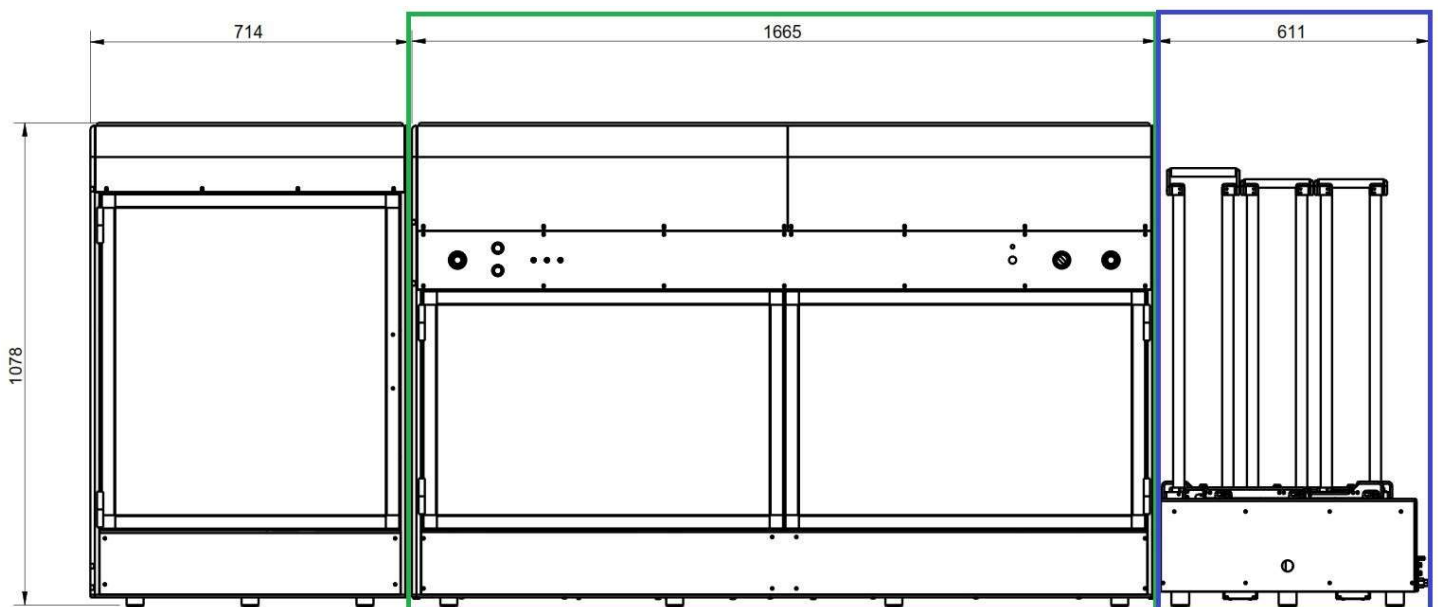


K8 XT Dimensions:

System layout options:

The system is available in 3 configurations:

- b. Picker with automated destination plates, single or Dual lane (Green and Blue Section Only)

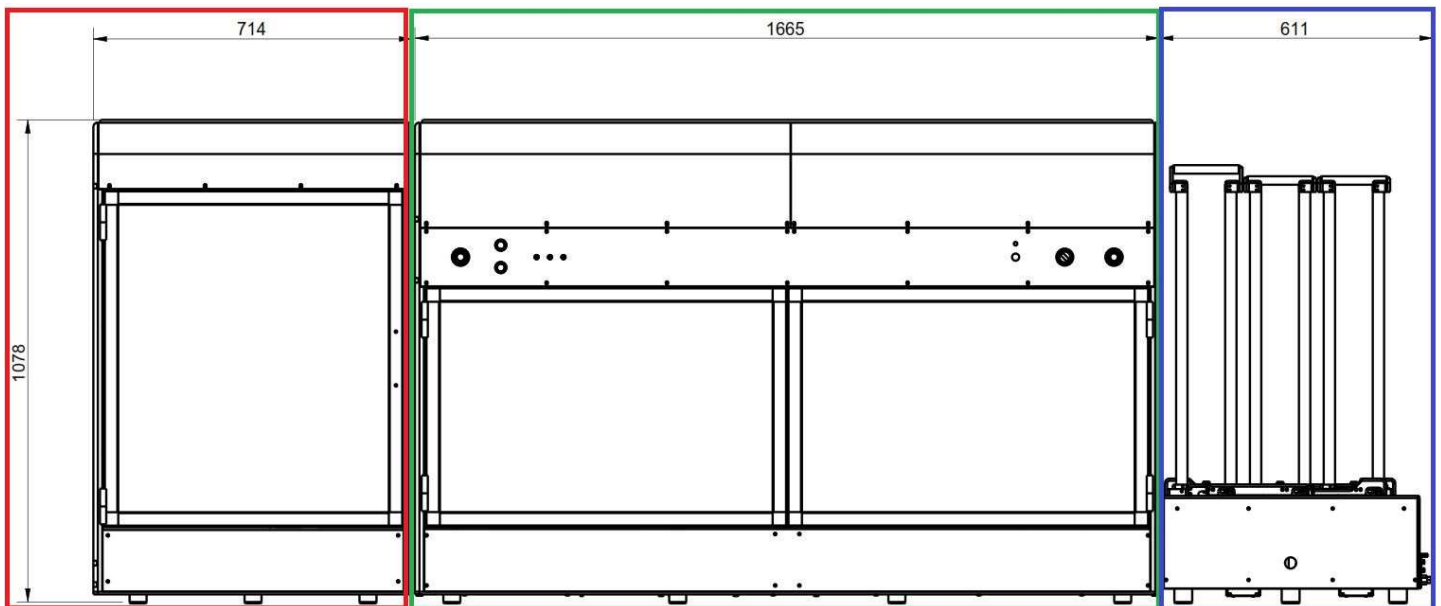


K8 XL Dimensions:

System layout options:

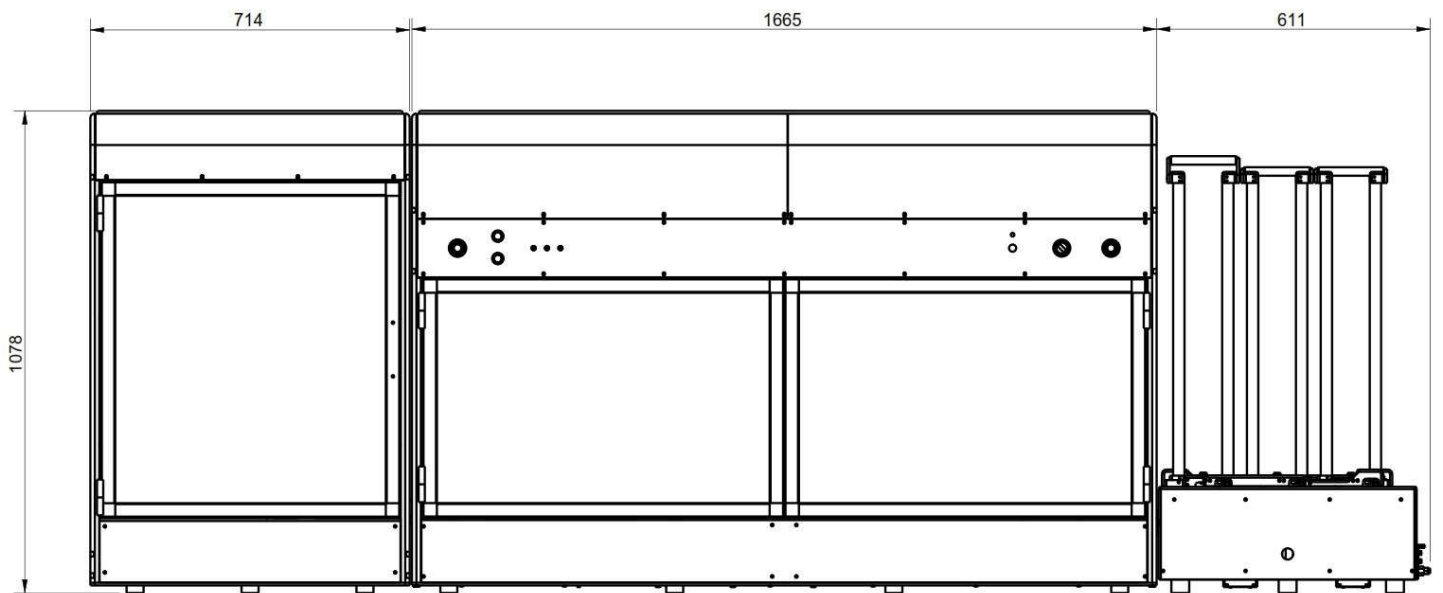
The system is available in 3 configurations:

- c. Picker with automated Source trays and destination plates single or Dual lane (Red, Green and Blue Section Only)



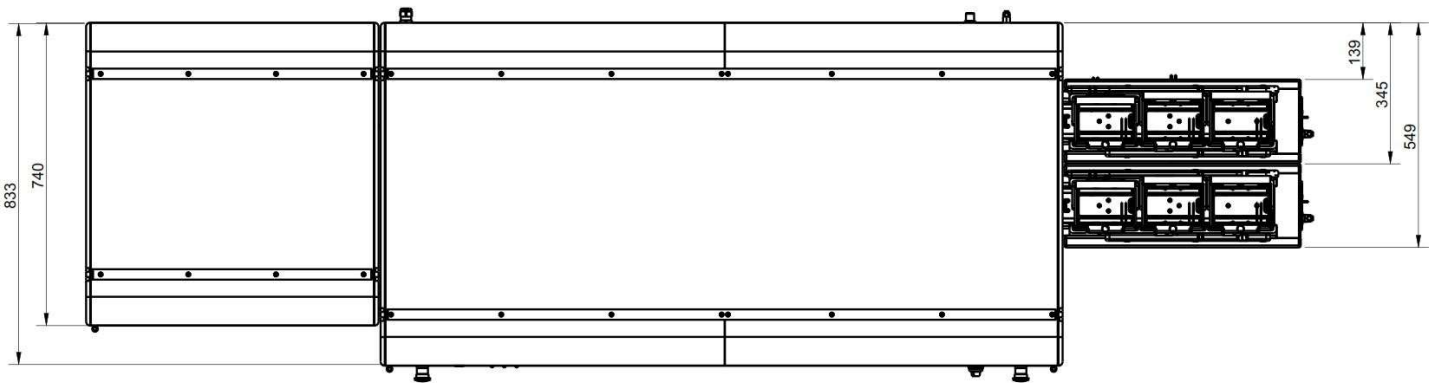
K8 Dimensions:

FRONT VIEW:



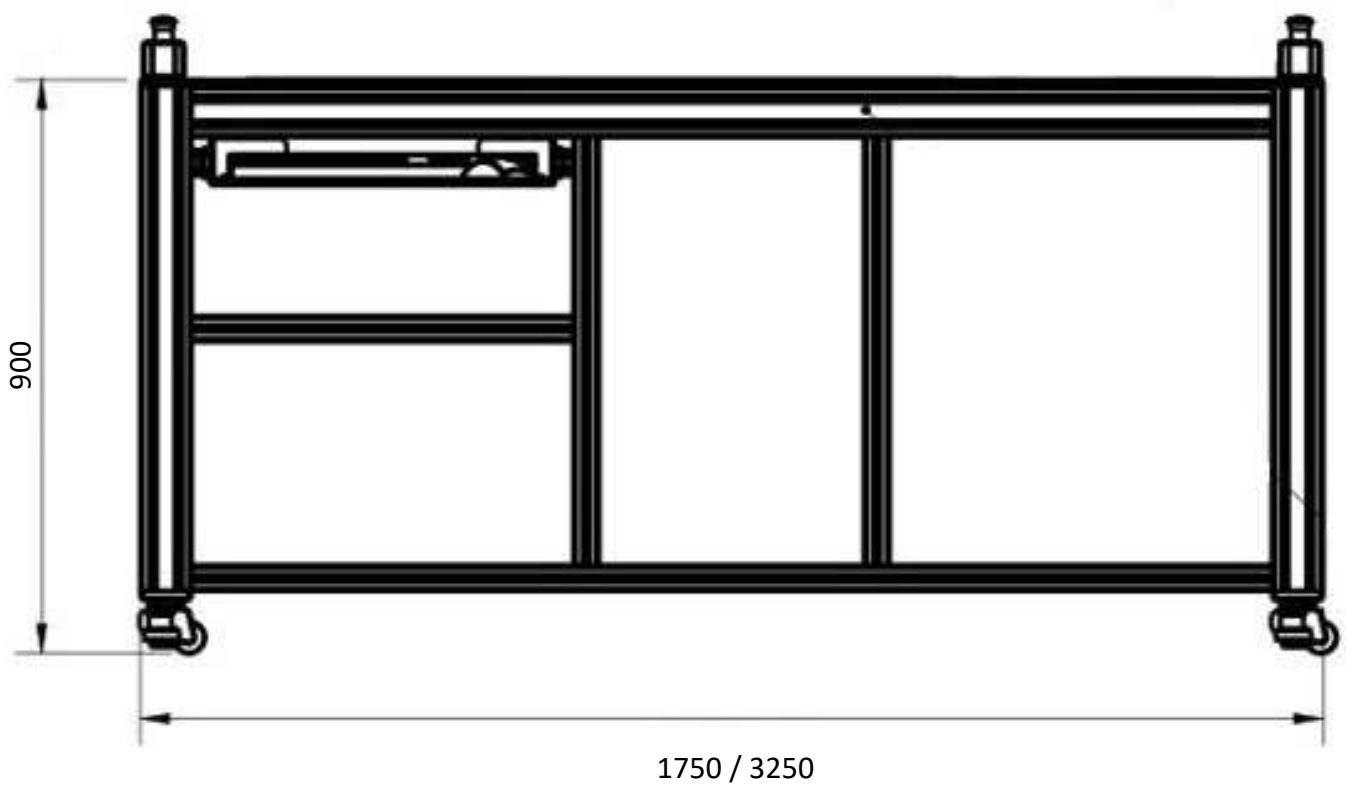
K8 Dimensions:

PLAN VIEW:



K8 Dimensions:

OPTIONAL SUPPORT TABLE:



kbiosystems K8 system components

250-10048 / XT / XL

K8 Main Colony Picking Operation platform.

Includes:

- Standard picking software application
- 2 x imaging light table picking tables
 - Position 1 can be automated via Tray Hive
 - Position 2 to be manual loaded control pick
- 2 x 96 pin picking head
- 2 x wash bathes and brushes
- 1 x Ultra Sonic Wash bath
- 1 x UV Germicidal sterilisation lamp
- 1 x Hepa Filter
- 1 x barcode reader (source and destination reading)
- 4 x light table adaptors of choice

250-10024-102 (option)

Destination Twin Plate Hive (max. two lanes)

Includes:

- 2 x hotel Stacks non lid plate version
- 1 x lid hotel conversion kit
- 2 x plate hotel stabilisation weights

250-10024-104 (option)

Destination Triple Plate Hive (max. two lanes)

Includes:

- 3 x hotel Stacks non lid plate version
- 2 x lid hotel conversion kit
- 3 x plate hotel stabilisation weights

250-10030-007 (option)

Tray Hive (Eight source tray locations)

Includes:

- 8 x light table adaptor main type plate tray
- 8 x tray insert to suit second source plastic ware

Colony Picker Source Labware:

Common use Labware	K8 (Deck only)	Tray Hive (system dependant)	
		Min	Max
22 x 22cm Bioassay Tray	2	6	24
15 x 15cm mini Bioassay tray	2	6	24
15cm Petri dish	2	6	24
10cm Petri dish	8	24	96
8cm Petri dish	8	24	96
SBS Omni tray	8	24	96
SBS 6 well Growth Plate	8	24	96
SBS 12 well Growth Plate	8	24	96
SBS 24 well Growth Plate	8	24	96
SBS 48 well Growth Plate	8	24	96

Colony Picker Destination Labware:

Common use Labware	K8 (Deck only)	Plate Hive (system dependant)	
		Twin	Triple
SBS 96 well Plate	15	45	90
SBS 96 Deepwell Plate	15	15	30
SBS 384 well Plate	15	45	90
SBS 384 well Plate Low profile	15	70	140
SBS 384 Midwell Plate	15	24	48
SBS 24 Deepwell Plate	15	15	30
SBS Omni tray	15	45	90

These details are based on current common use items, and not limited to. All systems are supplied with our plastic ware creation software that allows you to define specific consumables providing they are supported correctly physically within the light table boundaries and all positions are taught correctly through the relevant maintenance software.