

Datacolor AutoLab TF

Tube-Free

Laboratory Dispensers

Installation Services Requirements

1st Oct 2010
Revision 13.0

Document revision update log

Revision 6

Amended dimensions

Amended diagrams with corrected dimensions

Rev 7

Added on space requirement diagrams explanation re space at front or back of unit is required by engineers to remove agitation tray from inside machine during servicing

Rev 8

Changed packed dimensions of all TF and TF-P models

Changed weights of TF and TF-P models

Rev 9

Addition of more info re PC requirements if customer supplies their own

Rev 10

Change the connect type of water supply

Add paste drain information

Rev 11

Separate TF and TF-P models into 2 different documents.

Changed weights of TF models

Add memory requirement for PC

According to new electric cabinet, changed the connection of dispensers and solution makers to PCs specification.

Rev 12

Additional air filter specification information

Additional space requirement for AutoLab TF system

Rev 13

Updated PC Requirements to accommodate new V2.X software

Datacolor AutoLab TF Tube Free Laboratory Dispenser Installation requirements

General environment

The unit environment should be as follow:

- Room temperature should be stable within the limits of 18 to 26 degrees centigrade.
- Humidity should be within the range 40% to 80% RH.
- The unit should be installed in a relatively dust-free area, out of direct line of any air-conditioning airflow.
- System should be installed in a vibration free environment.

Services requirements

Power

Product Name	AutoLab TF-40	AutoLab TF-80	AutoLab TF-88	AutoLab TF-120	AutoLab TF-128	AutoLab TF-160	AutoLab TF-168
Power Wattage	1.4KVA	1.4KVA	1.4KVA	1.6KVA	2.0KVA	2.2KVA	2.2KVA

Power 220 V, +/- 10 %, 50/60 Hz. Single phase, 3 wire (live, earth and neutral). Please refer to above table for power wattage requirements

An AVR (mains voltage regulator), with up to 150% / 10 second overload capability, 0.1 second response time, is supplied with the system, to minimise effects of varying power supply or spikes. However power supplied to the machine should be regulated, and should be supplied as a stable dedicated power line. A separate fuse circuit, with isolator, should be provided.

If the mains power line is prone to interruptions and failures, a UPS should be installed.

Power sockets for the computer and printer are required

Water Supply

Mains Water – 1 to 2 kg/cm² (13-26 psi).

A water filter is supplied with the system, which should be connected in-line with the water inlet to the dispenser. If the water pressure is substantially higher than 2 kg/cm², a water pressure regulator MUST be fitted in line before connecting to the water filter. The water filter is only rated for water pressures as stated above. If the water is supplied at a higher pressure, it may cause the water filter to break.

The mains water inlet should be connected to the inlet of the water filter, which has a 1/2" connector, using a water pipe with inner diameter of 1/2". (1/2" is equivalent to approx 12.5mm).

The outlet of the water filter has a 4*6mm brass connector, which should be connected to the water inlet of the system, which has a 4*6mm brass connector, using a length of pipe of outer diameter 6mm and inner diameter 4mm. This pipe is supplied with the system for this connection.

If the water contains a large amount of algae, dirt etc. a pre-filter should be added in addition to the water filter supplied (5 micron). If water is highly aerated, then a de-aeration unit should be installed.

Drain

Water drain uses a 5*8mm quick-fit connector. Piping of 8mm outer diameter should be used to connect from the various drain outlet points of the water tanks, as show below in appropriate diagram, to the main drain of the laboratory

Air Supply

A clean and dry air supply is required, no lubrication, 4.5-6.0 kg/ cm² (60-80 psi). Connection of air should be made to the 10 * 8 mm "quick-fit" air-inlet connector on the dispenser, as shown in the relevant diagram below, using compressed air piping with a 10mm outer diameter.

It is suggested to install a 1 micron air filter (or finer) before the air goes into the system to elongate the life time of the air cylinder and solenoid valve on the system.

Dimensions and weights

Product Name	AutoLab TF- 40	AutoLab TF- 80	AutoLab TF- 88	AutoLab TF-120	AutoLab TF-128	AutoLab TF-160	AutoLab TF-168
Dimensions Width (mm) unpacked	1824	2350	2397	2876	2923	3402	3449
Dimensions Depth (mm) unpacked	1423	1423	1725	1423	1725	1423	1725
Dimensions Height (mm) unpacked	2007	2007	2007	2007	2007	2007	2007
Weight (kg) unpacked	600	1050	1090	1210	1250	1330	1450
Dimensions Width (mm) packed	2390	3170	3170	3670	3670	4230	4230
Dimensions Depth (mm) packed	2000	2000	2150	2150	2150	2150	2150
Dimensions Height (mm) packed	2260	2260	2260	2260	2260	2260	2260
Weight (kg) packed	900	1470	1510	1670	1710	1840	1960

PC requirements for AutoLab systems

If PCs are to be purchased locally or supplied by the customer, the following is the minimum specification of PC required:

Intel(R) Celeron(R) processor 450 [2.2GHz, 512KB L2, 800MHz FSB]

2GB DDR3-800MHz SDRAM [1 DIMM]

17" colour monitor

40 GB Hard Drive

52X CD-ROM drive

Network card

Windows XP /SP3(must) , 32/64 bits

Windows 7 (32/64 Bits)

English PS/2 Keyboard

Mouse

1 RS232 Com ports required for PC for TF dispenser or SPS solution maker.

If fabric weigh scale is required to connect to TF dispenser PC, then this PC requires 2 RS232 COM ports, instead of 1.

No spare PCI or ISA slots required

PCs should also include network card/connectors and necessary cabling etc, to allow PCs to be networked together

Connection of dispensers and solution makers to PCs.

One PC controls each model of AutoLab TF dispenser.

An RS-232 cable running between the PC and TF dispenser is supplied with each system.

Standard length of cable is shown below:

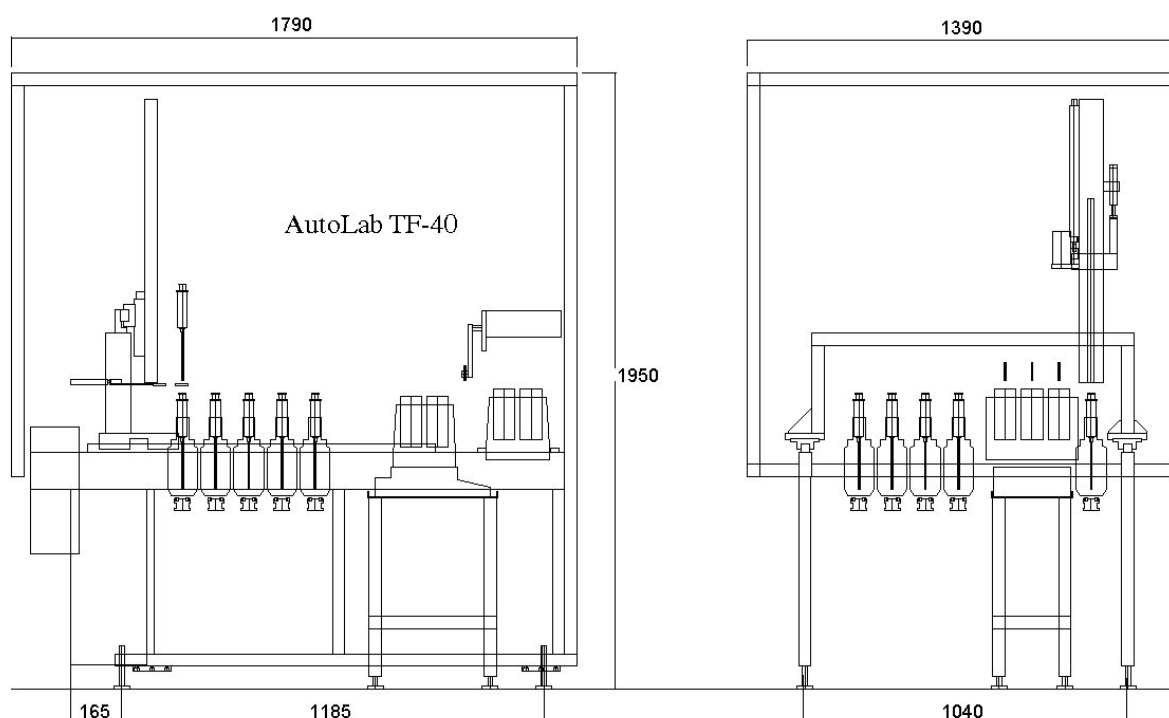
Model	Standard cable length
AutoLab TF all models	15 m

Space requirement for AutoLab TF systems

Please refer to below drawings which indicate the suggested space requirements in the laboratory for each type of AutoLab TF system. There are several important items that you need to pay attention to during the positioning of machine:

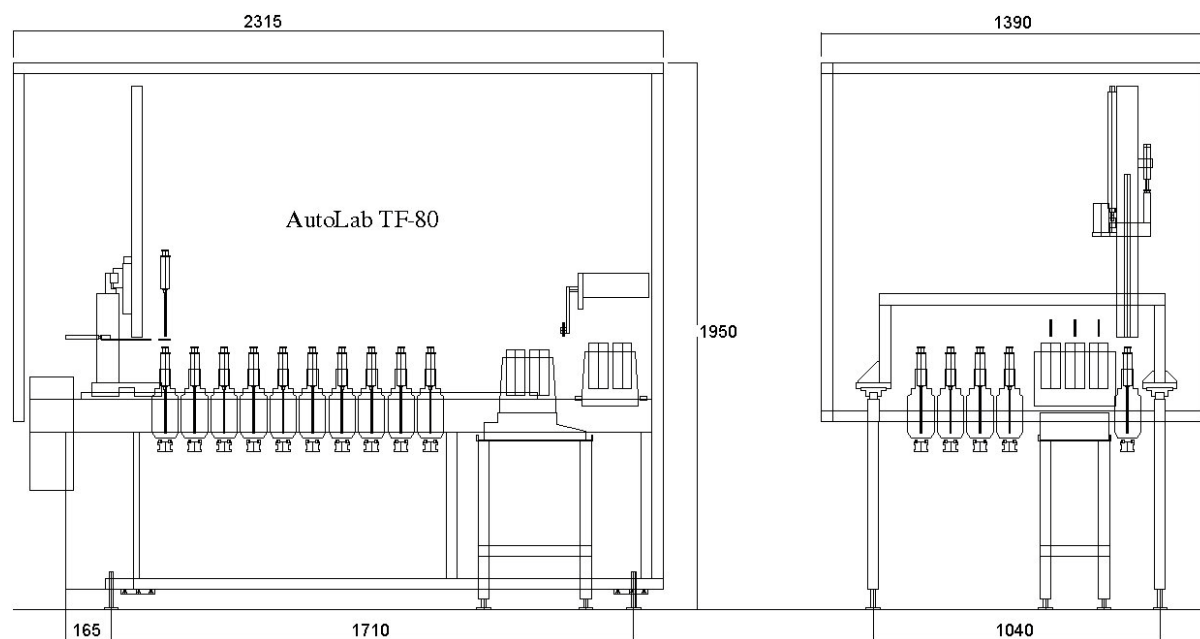
- The location of main power circuit breaker is recommended to be as close to the machine as possible. A 15-metre power cable is supplied with the machine; make sure the mains circuit breaker does not exceed this length.
- You need to keep at least 60cm width all around the machine, for easy access when servicing the machine
- A 15-metre PC-to-Dispenser communication cable is supplied with the machine; make sure the location of computer table does not exceed this range, taking into consideration the communication cable may need to be routed up into the ceiling.
- Do NOT install system near to air conditioning unit outlet, or next to a door, since this may make the scale unstable

- **AutoLab TF-40 system**

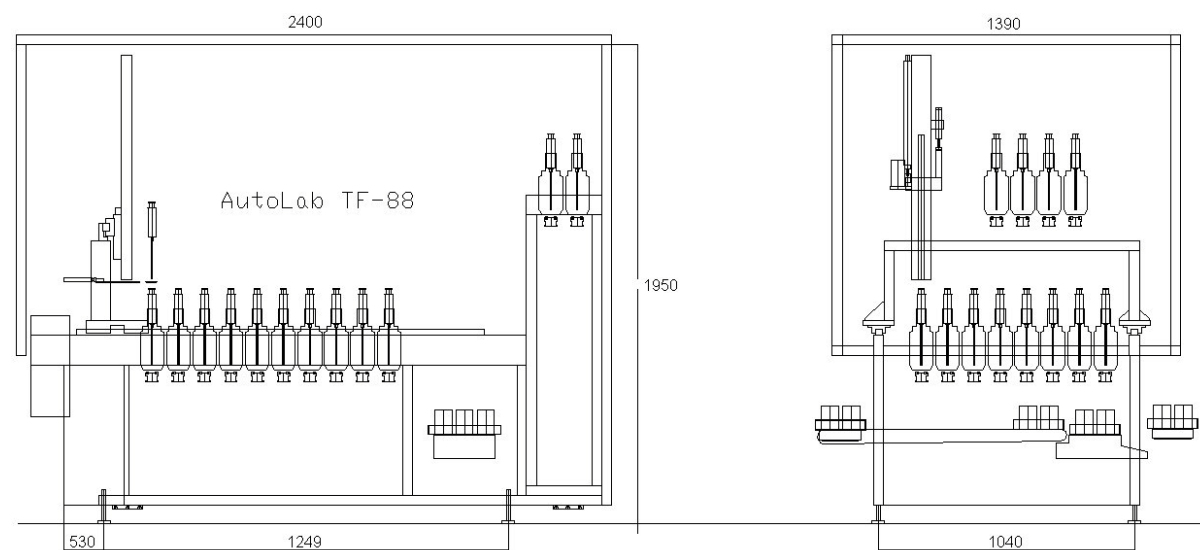


Space Requirements (Cont...)

● AutoLab TF-80 system

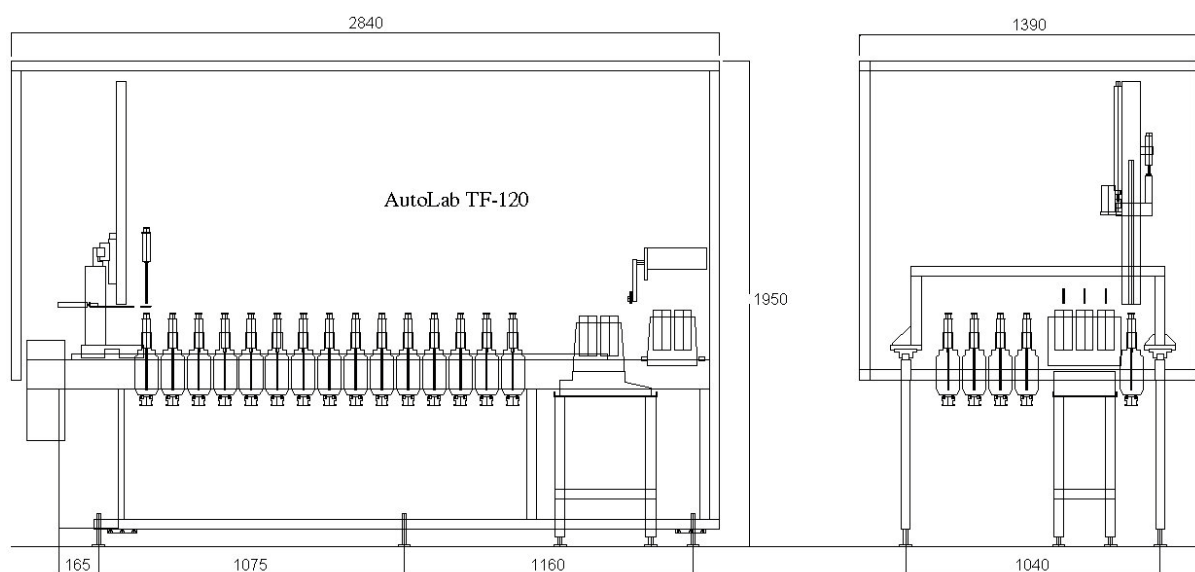


● AutoLab TF-88 system

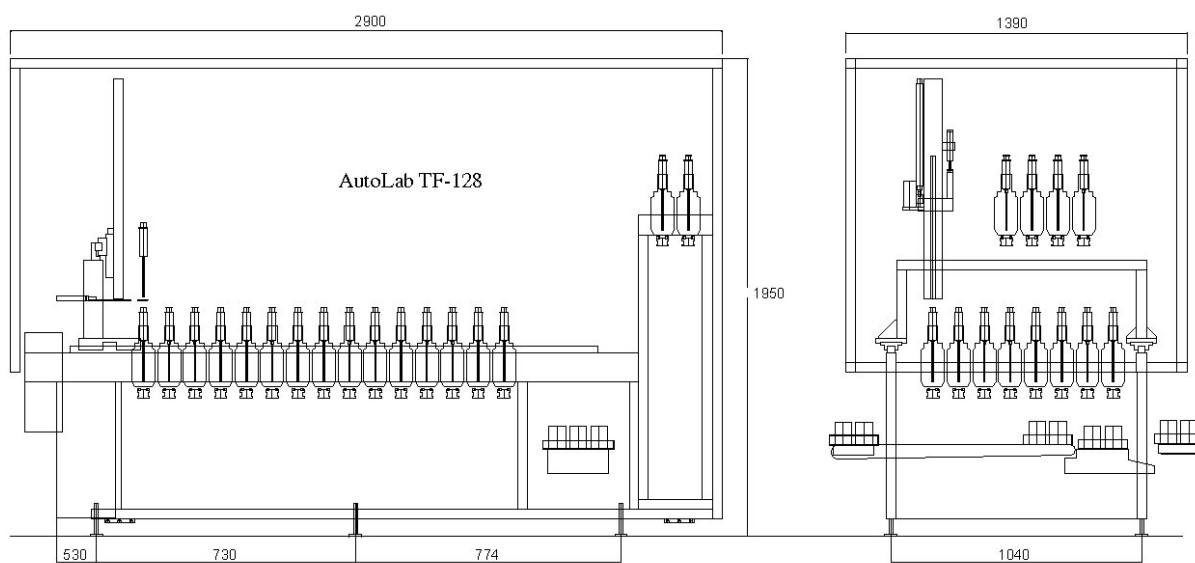


Space Requirements (Cont...)

● AutoLab TF-120 system

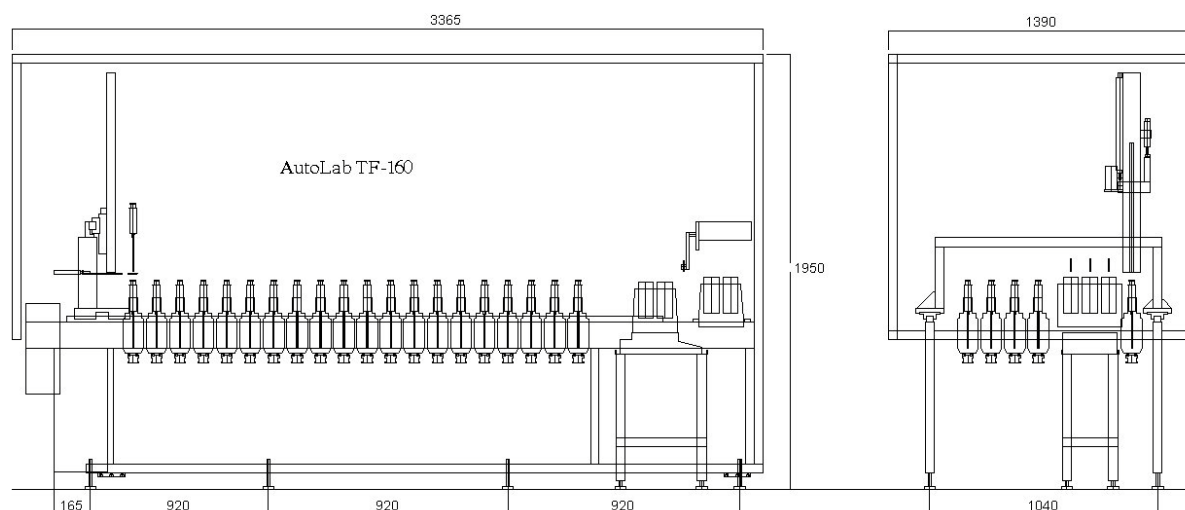


● AutoLab TF-128 system

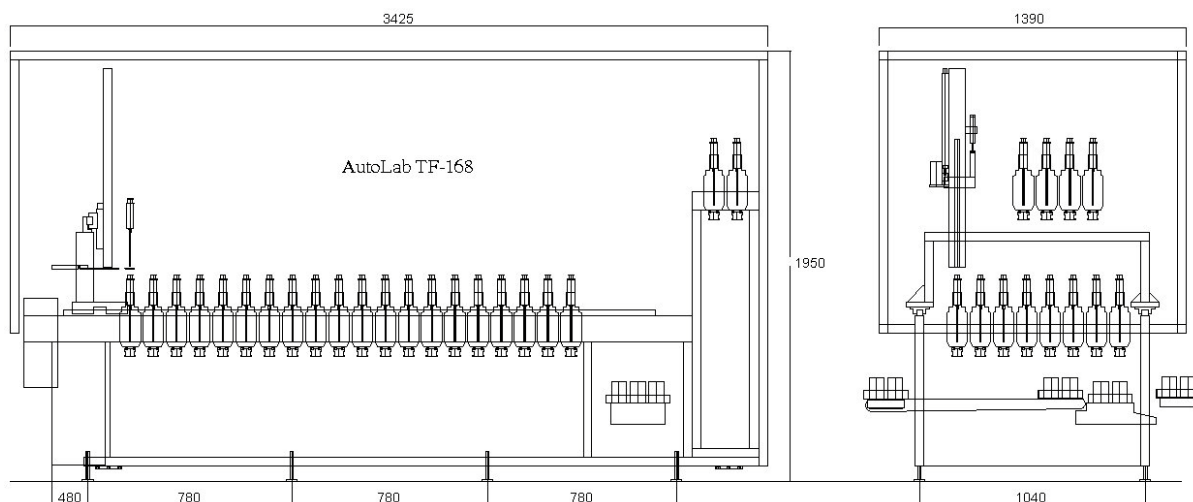


Space Requirements (Cont...)

● AutoLab TF-160 system

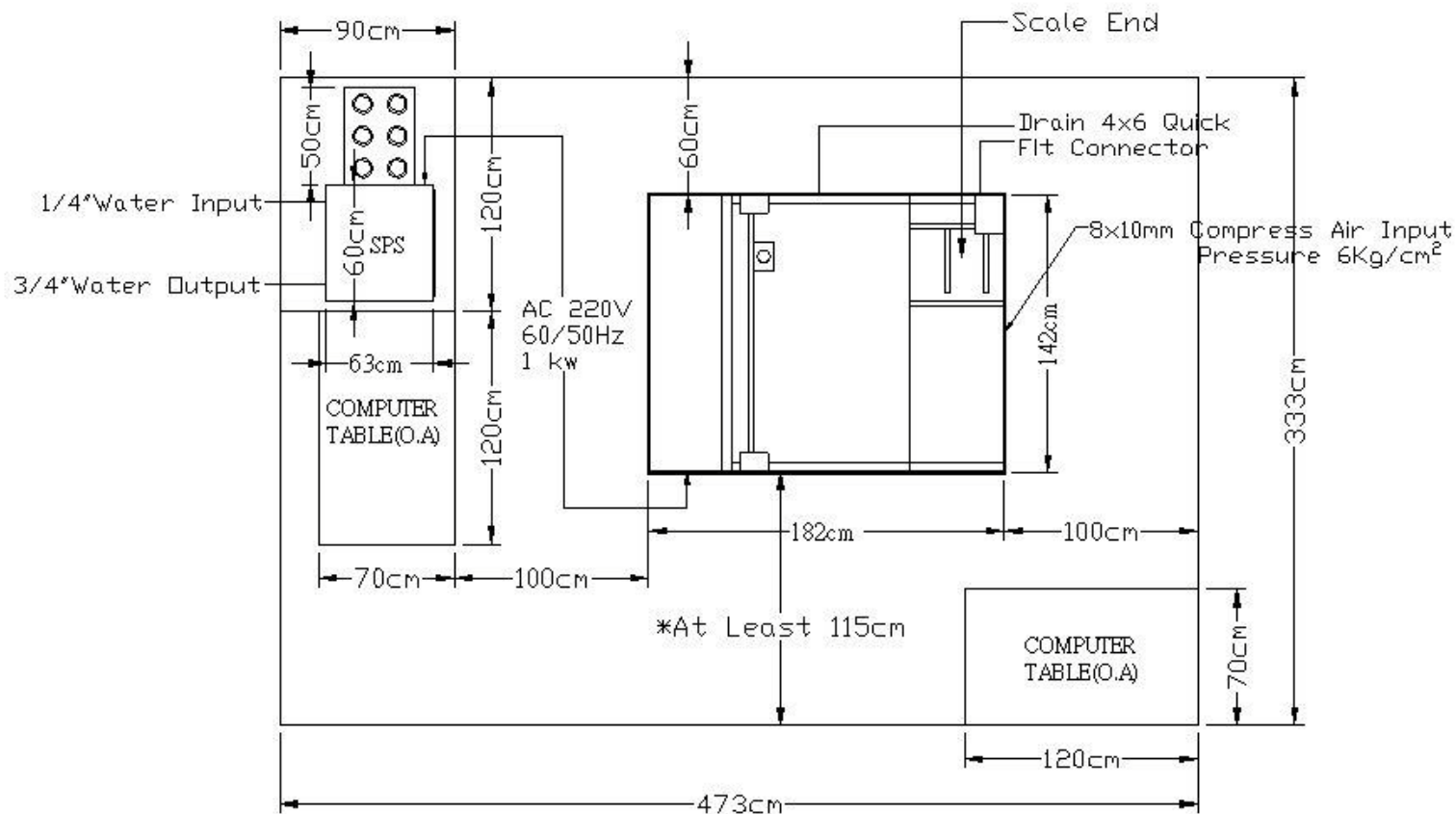


● AutoLab TF-168 system



Area requirement for AutoLab TF systems

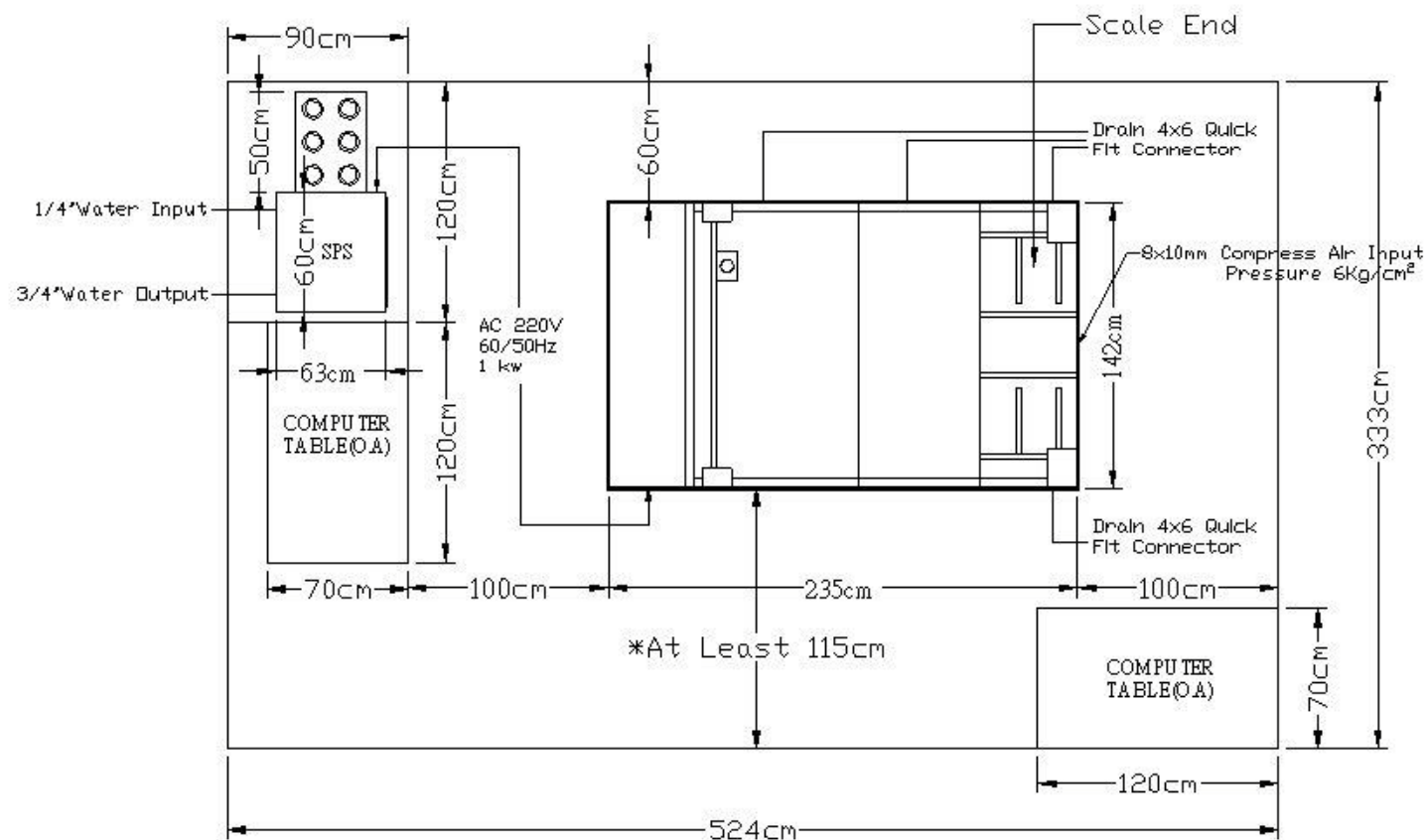
Area requirement for AutoLab TF-40 system



* N.B. Engineers need access to agitation module, which pulls out from the system. This requires at least 115cm space. The agitation module is located on the left hand side of the machine when viewing from the scale end. If the machine is installed reversed direction, then the 115cm space needs to be on the other side of the machine, as per diagram.

		
SIZE A	AutoLab TF-40 AND SPS AREA LAYOUT SAMPLE	REV.
DATE : 2005-01-12	SHEET OF	

Area Requirement for AutoLab TF-80 system

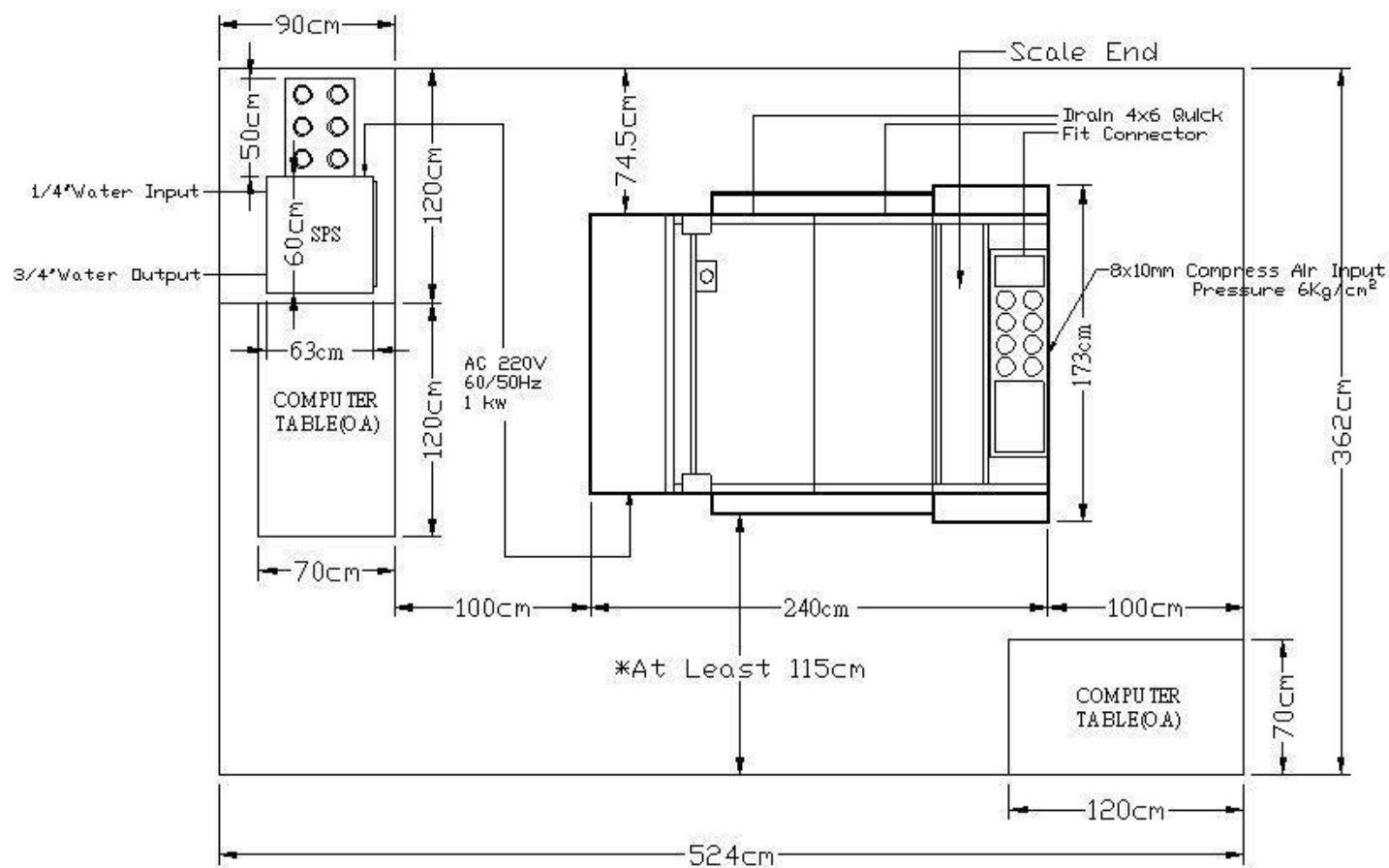



* N.B. Engineers need access to agitation module, which pulls out from the system. This requires at least 115cm space. The agitation module is located on the left hand side of the machine when viewing from the scale end. If the machine is installed reversed direction, then the 115cm space needs to be on the other side of the machine, as per diagram.

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SIZE A	AutoLab TF-80 AND SPS AREA LAYOUT SAMPLE	REV.
DATE : 2005-01-12	SHEET OF	

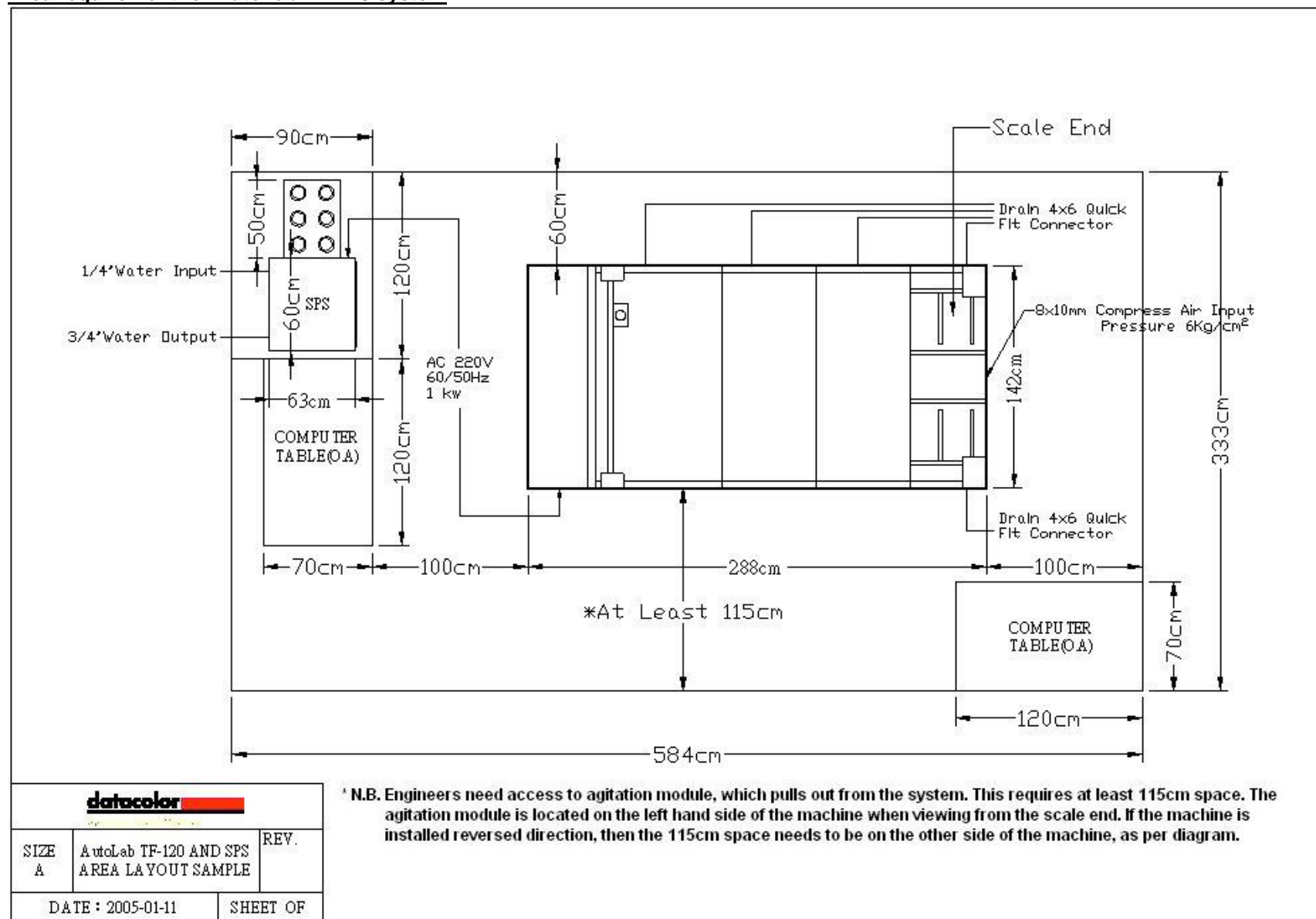
Area requirement for AutoLab TF-88 system



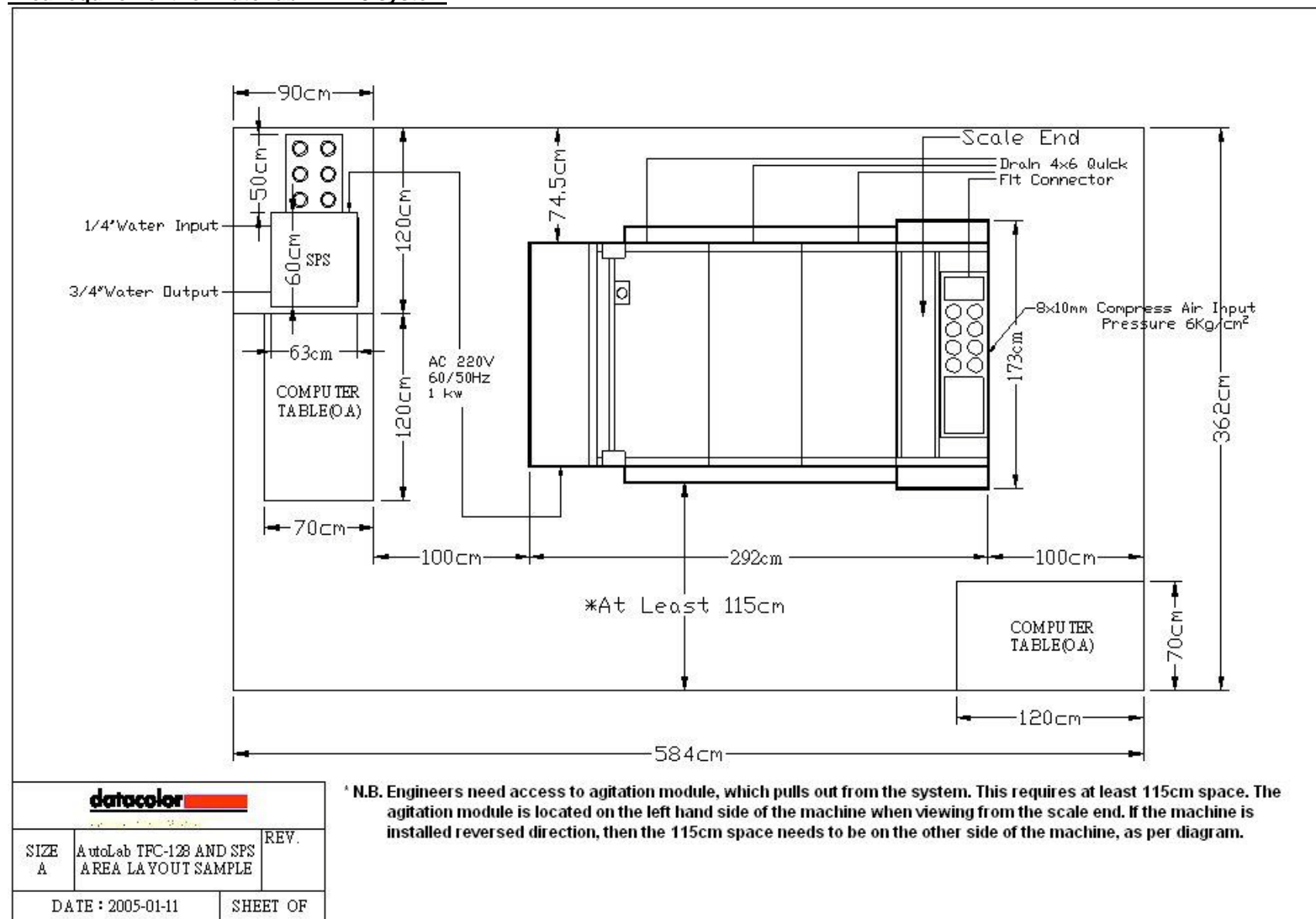
		
SIZE A	AutoLab TFC-88 AND SPS AREA LAYOUT SAMPLE	REV.
DATE : 2005-01-11	SHEET OF	

* N.B. Engineers need access to agitation module, which pulls out from the system. This requires at least 115cm space. The agitation module is located on the left hand side of the machine when viewing from the scale end. If the machine is installed reversed direction, then the 115cm space needs to be on the other side of the machine, as per diagram.

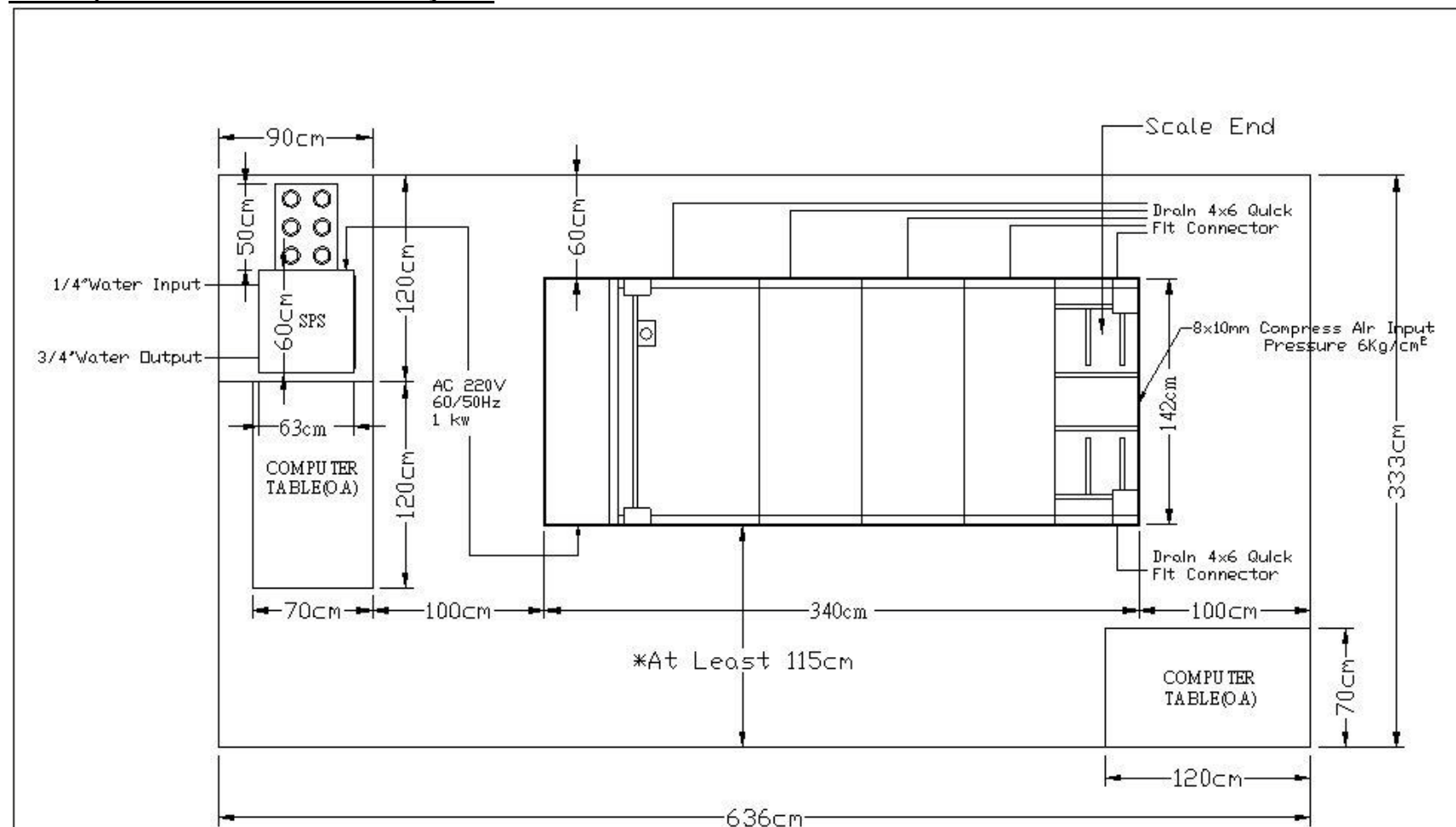
Area requirement for AutoLab TF-120 system



Area requirement for AutoLab TF-128 system



Area requirement for AutoLab TF-160 system



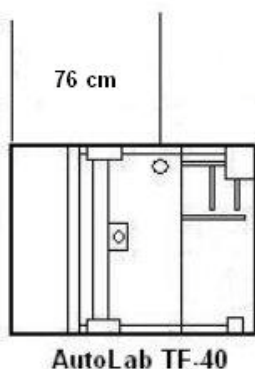
		
SIZE A	AutoLab TF-160 AND SPS AREA LAYOUT SAMPLE	REV.
DATE : 2005-01-11		SHEET OF

* N.B. Engineers need access to agitation module, which pulls out from the system. This requires at least 115cm space. The agitation module is located on the left hand side of the machine when viewing from the scale end. If the machine is installed reversed direction, then the 115cm space needs to be on the other side of the machine, as per diagram.

Water drain position for AutoLab TF systems

This section indicates the water drain position of AutoLab TF systems. Customer is suggested to arrange the drain pipe follow by the diagram. Please notice the drain hole is only use when the dye solution bottle broken and leak liquid will be drain out through the holes.

- Requirement for AutoLab TF-40 system



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FILE NAME:

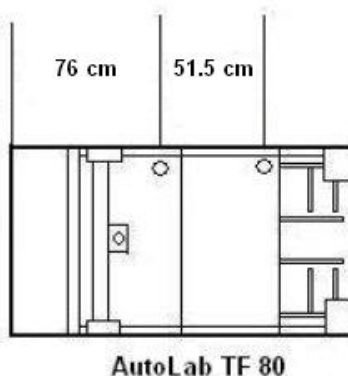
AutoLab TF- 40 Drain layout

DATE:

DRAW BY:

NOTE:

- Requirement for AutoLab TF-80 system



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FILE NAME:

AutoLab TF- 80 Drain layout

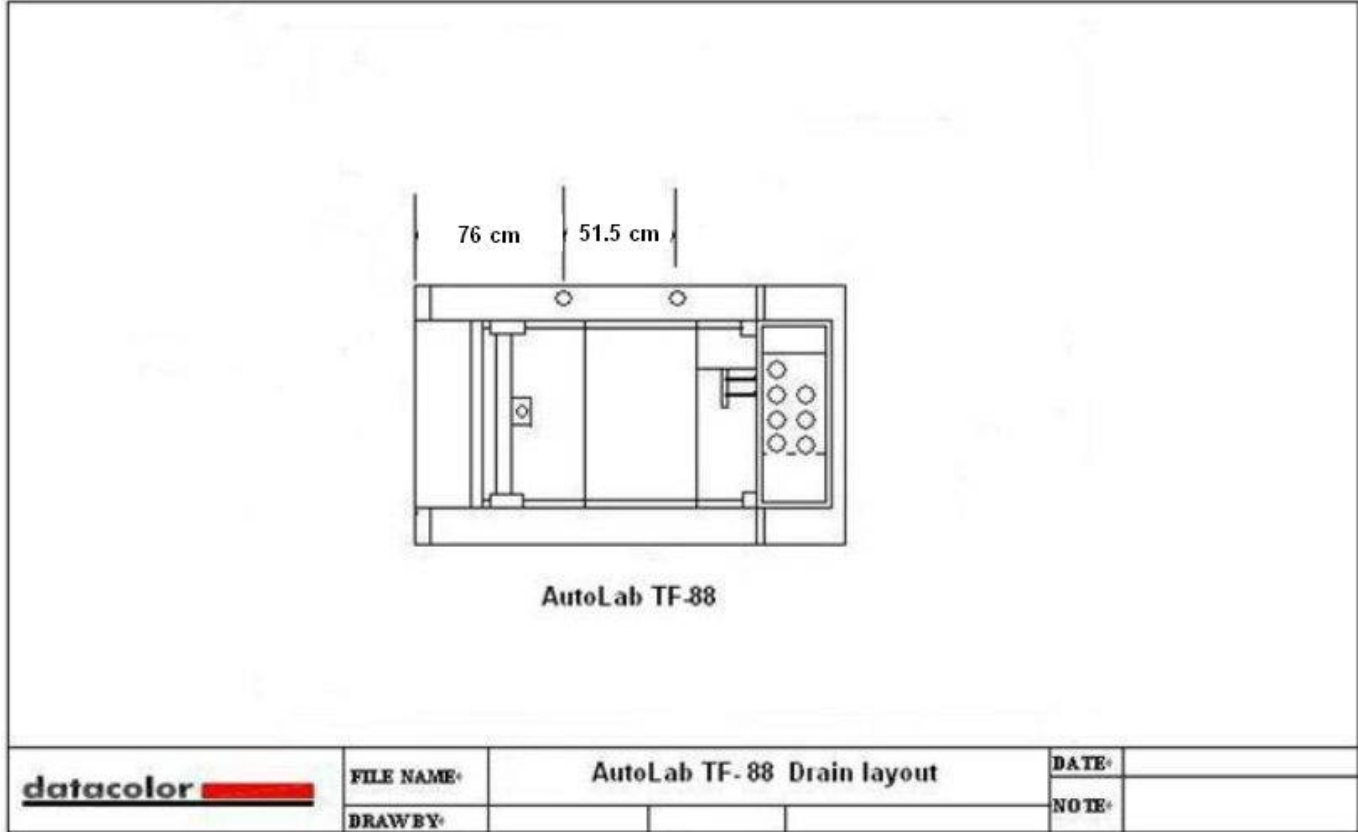
DATE:

DRAW BY:

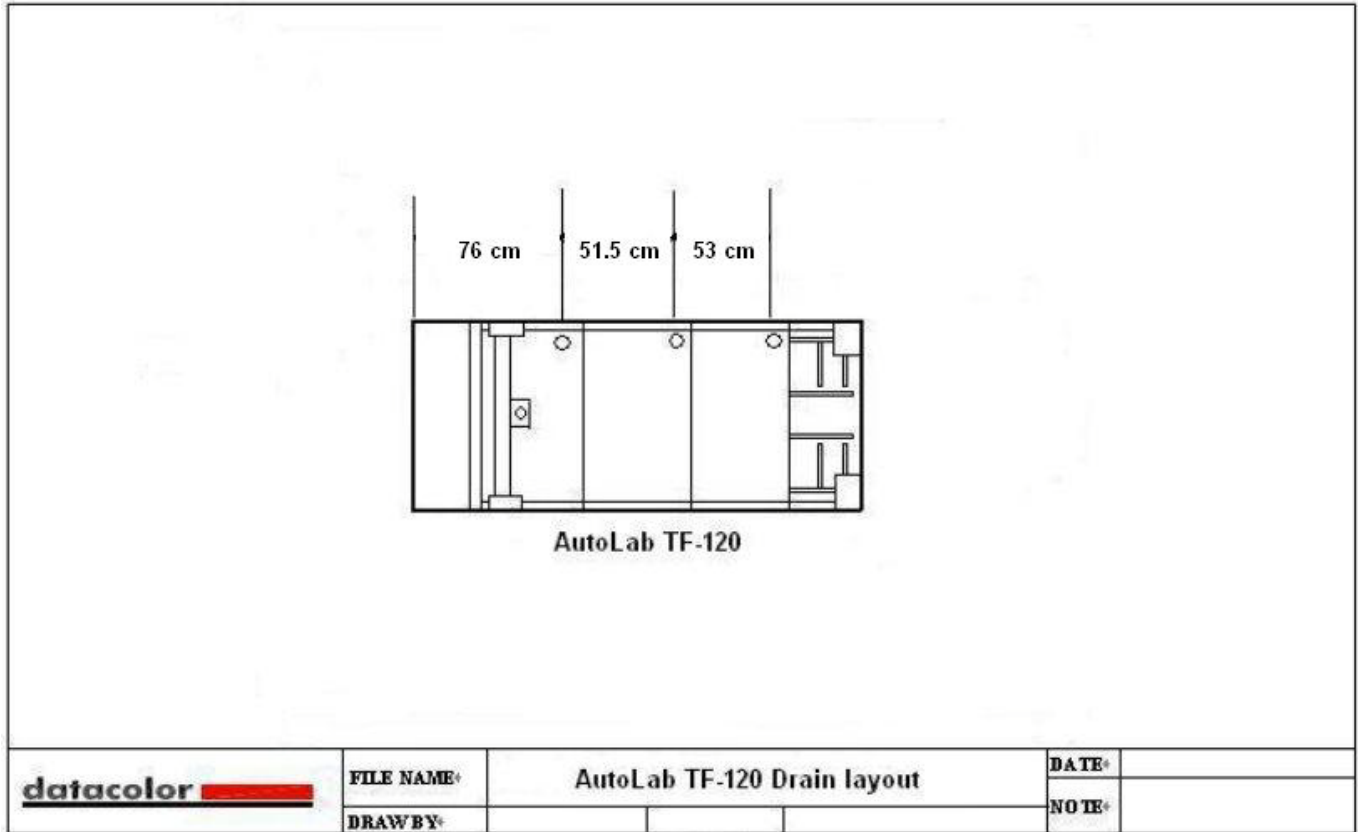
NOTE:

Water drain position for AutoLab TF systems (cont..)

● Requirement for AutoLab TF-88 system

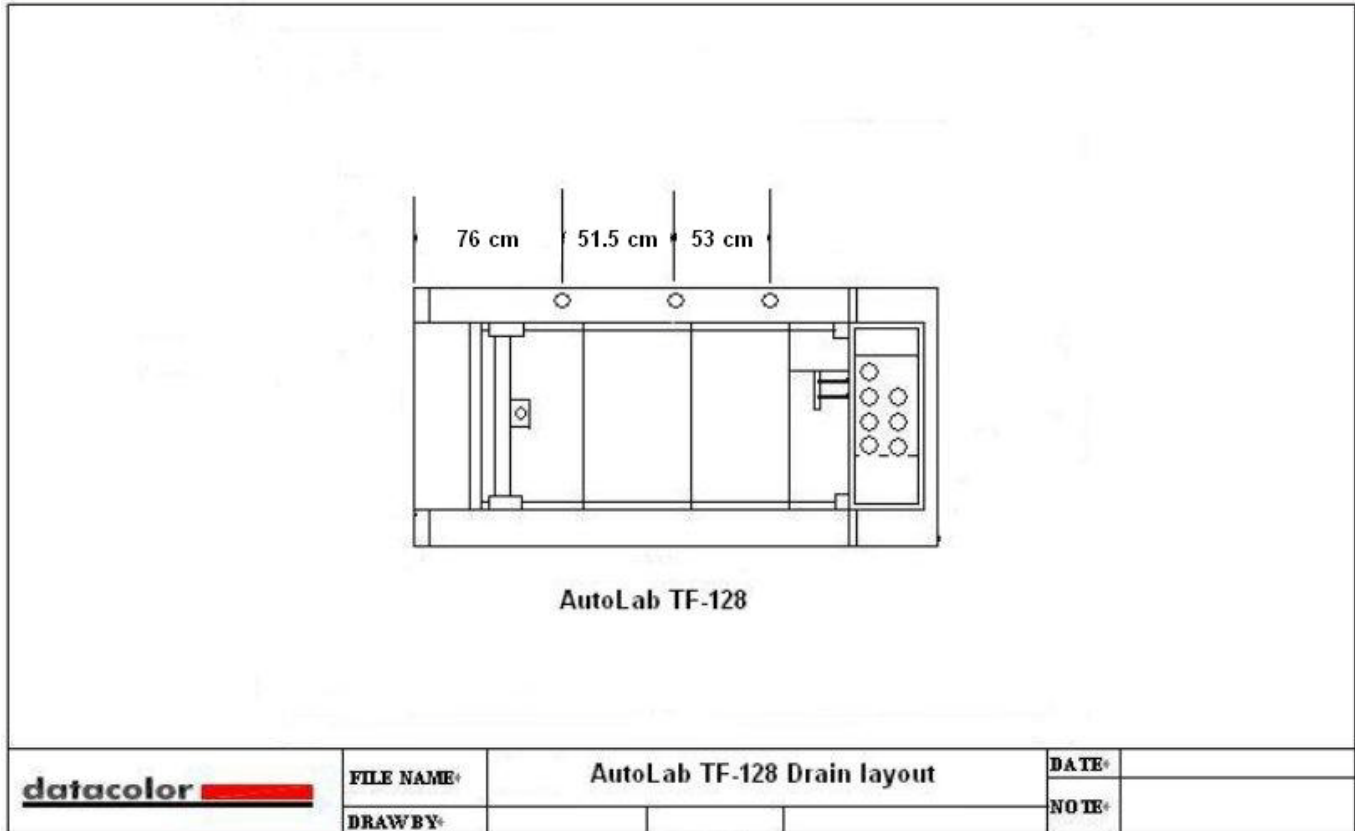


● Requirement for AutoLab TF-120 system

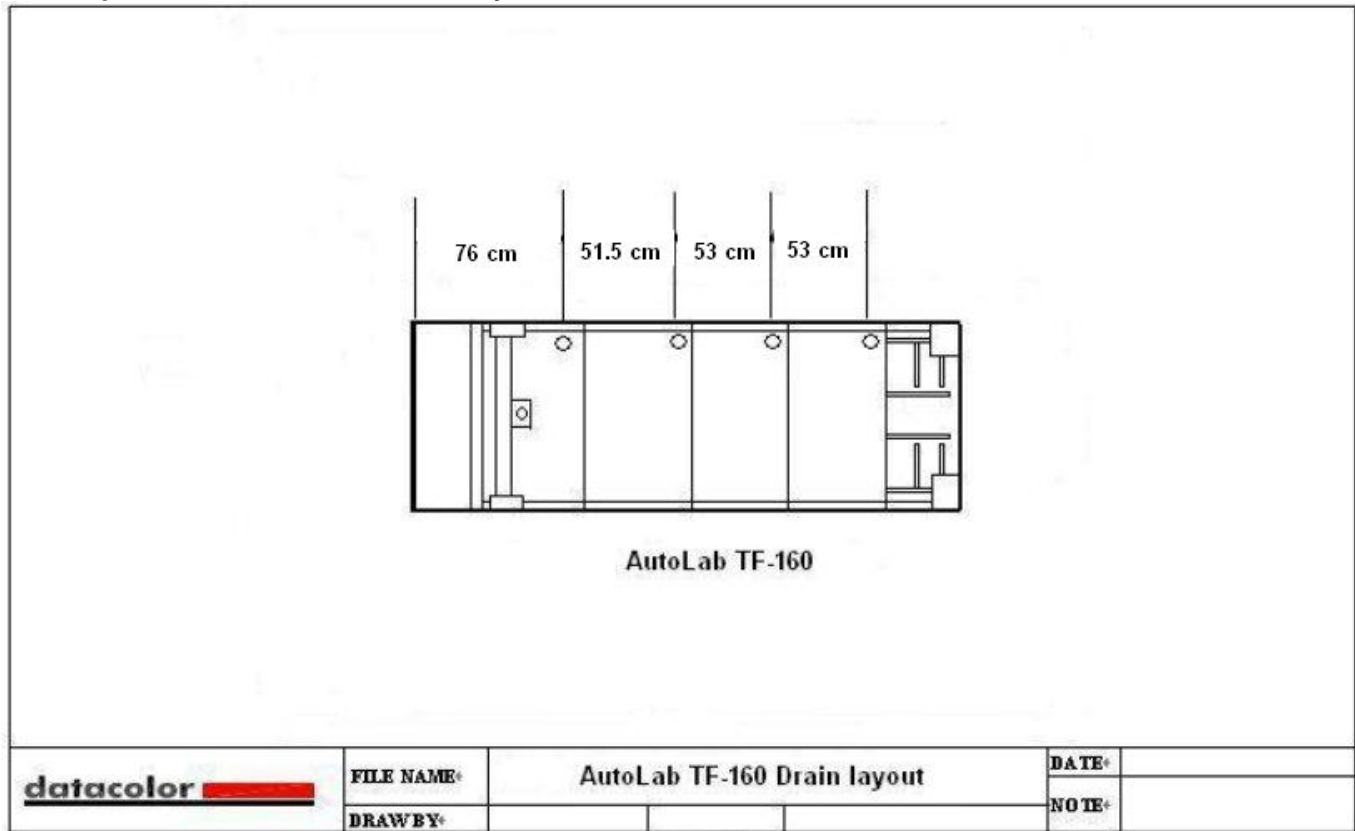


Water drain position for AutoLab TF systems (cont..)

● Requirement for AutoLab TF-128 system

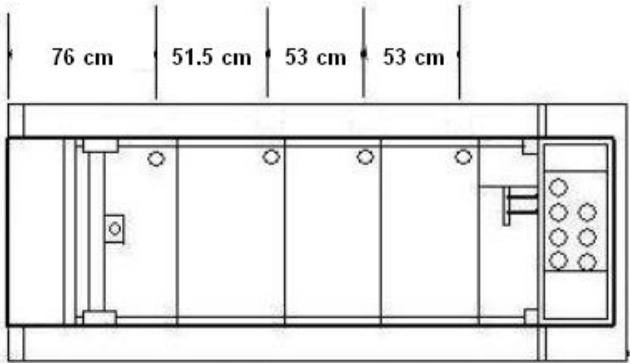


● Requirement for AutoLab TF-160 system




Water drain position for AutoLab TF systems (cont..)

- Requirement for AutoLab a TF-168 system



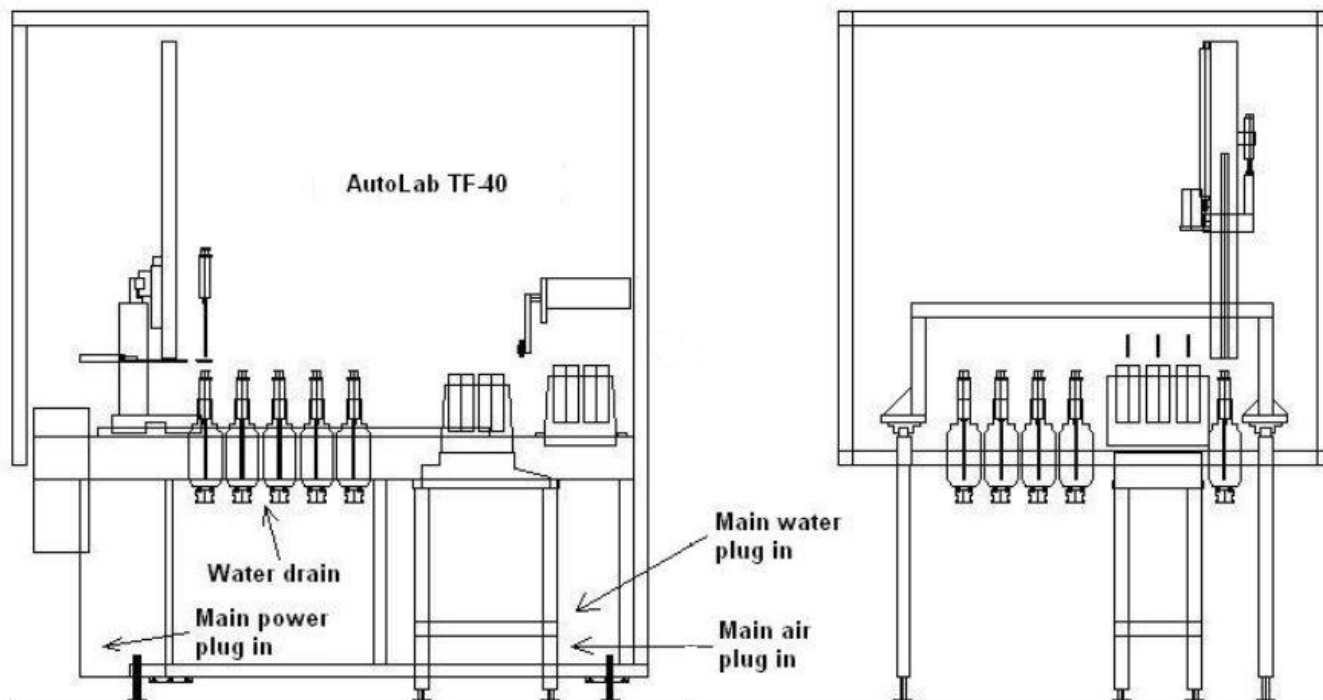
AutoLab TF-168

	FILE NAME*	AutoLab TF-168 Drain layout			DATE*	
	DRAW BY*				NOTE*	

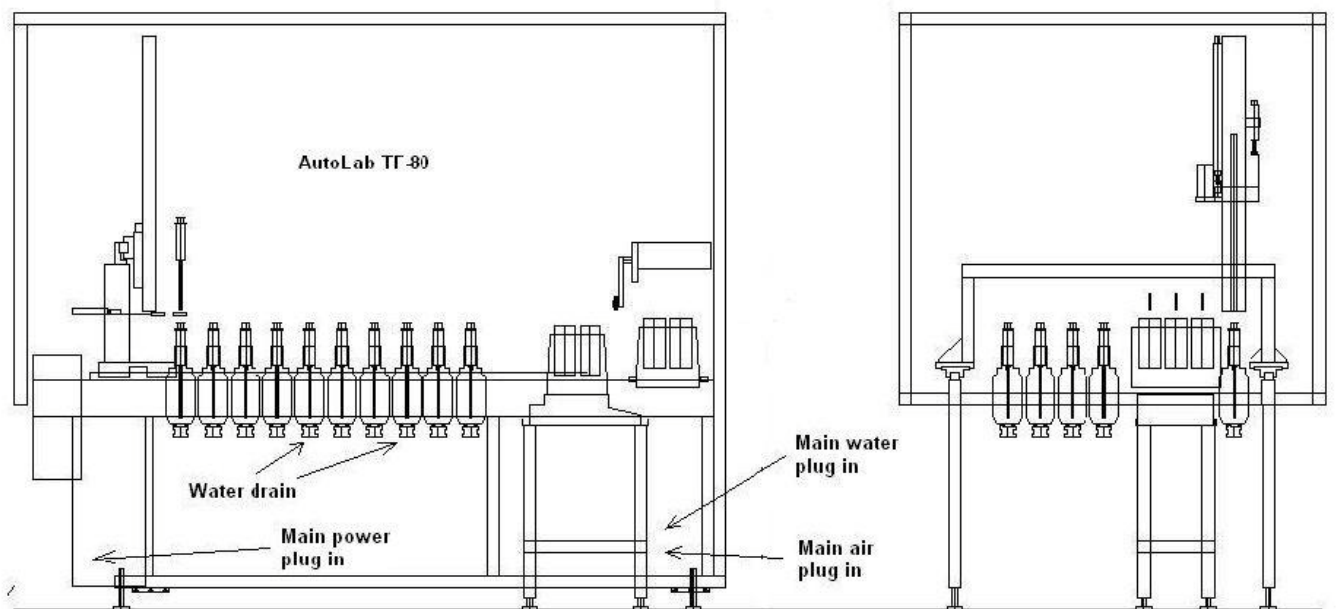
Connection position for AutoLab TF systems

The diagrams include in this section indicates the main connection for AutoLab TF systems. These connections include the main power plug; main water plug; water drain and main air plug.

- **Requirement for AutoLab TF-40 system**

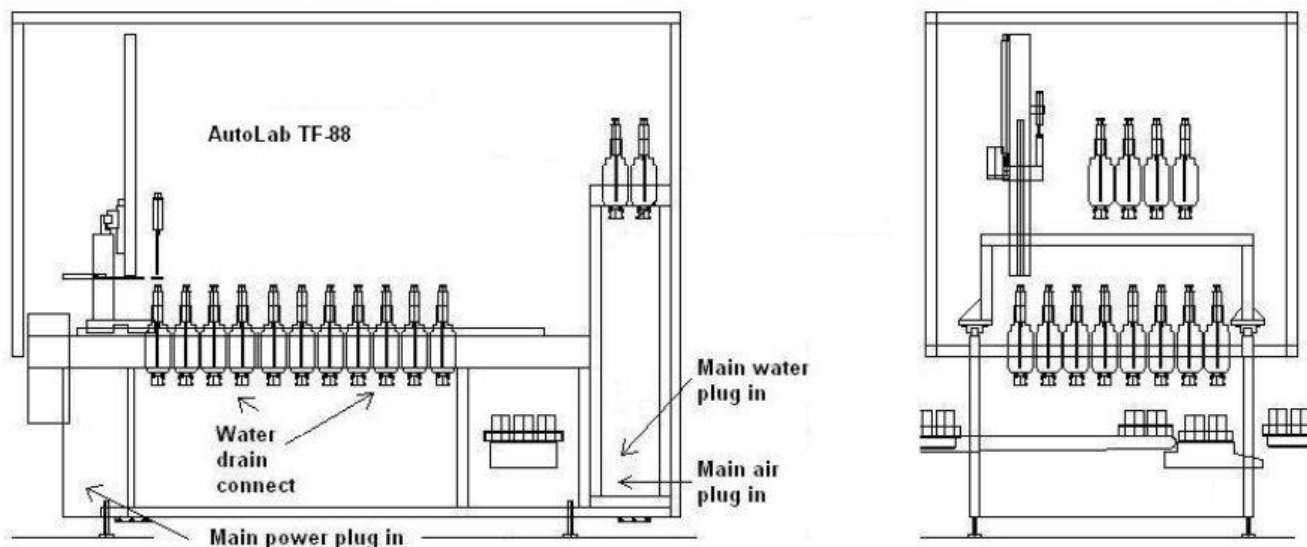


- **Requirement for AutoLab TF-80 system**

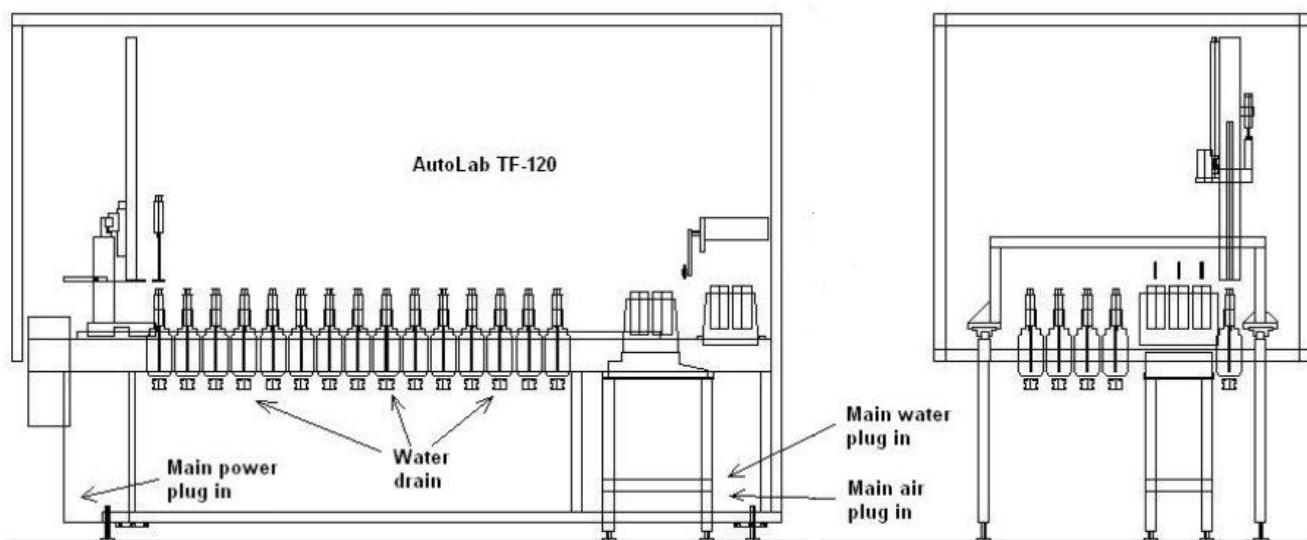


Connection position for AutoLab TF systems (cont...)

- Requirement for a AutoLab TF-88 system

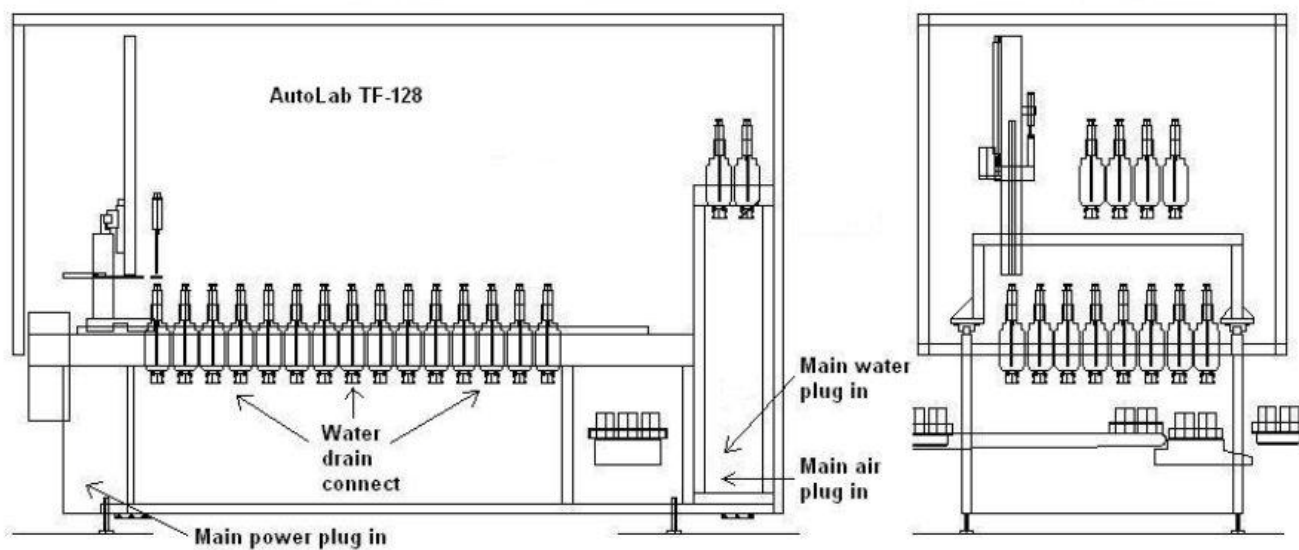


- Requirement for a AutoLab TF-120 system

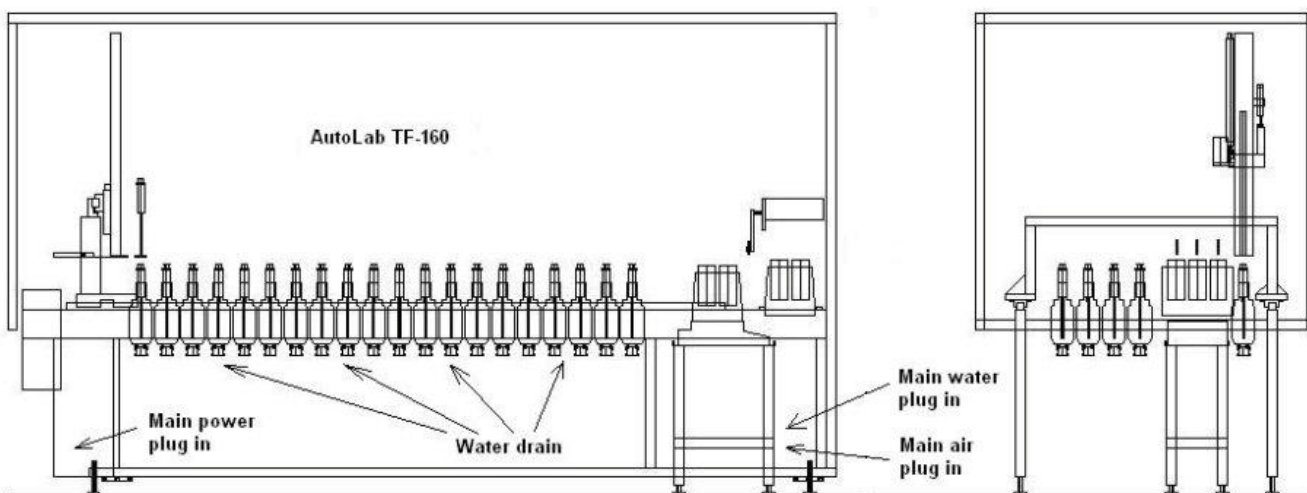


Connection position for AutoLab TF systems (cont...)

- Requirement for a AutoLab TF-128 system



- Requirement for AutoLab a TF-160 system



Connection position for AutoLab TF systems (cont...)

- Requirement for AutoLab a TF-168 system

