

Polylab



Polylab is a machine which is the ideal link between laboratory and bulk production. Its extreme versatility enables it to be used not only as a sample machine but also as a machine for small lot production. A fundamental characteristic is that it is able to dye small quantities in different colours optimising different liquor ratios. Up to six different colours can be dyed in the same machine at the same moment using times and programmes which can be completely different in an asynchronous mode.

In effect **Polylab** is made up of a series of small independent units coupled together in a way, that it is possible to combine one or more vessel in a totally autonomous way.

This great autonomy of usage is due to the particular construction that simplifies every single operative process in such a remarkable way.

■ **Small vessels with adjustable liquor ratios**

Every single kier represents a complete hydraulic autonomous circuit, it can be chosen in the version with air pressurization or fully flooded with external recirculation. The liquor ratio can be adjusted freely in a way to make the machine as identical as possible in its operative parameters, so that it can simulate the result of the larger production machines.

■ **A completely innovative pump**

In a small machine, compressing dead volumes represented by the piping system, pumps and valves, is of fundamental importance to obtain operative conditions which are as similar as much as possible to large production machines. Because of this, the pump which is mounted on every

Polylab vessel, minimizes the content of the bath even maintaining the ability to turn around the direction of the circulation of the bath.



It offers also the possibility of changing the specific flowrate per kilo of material produced, in order to simulate from all points of view the performance of its bigger brothers in production.

■ **A new generation controller**

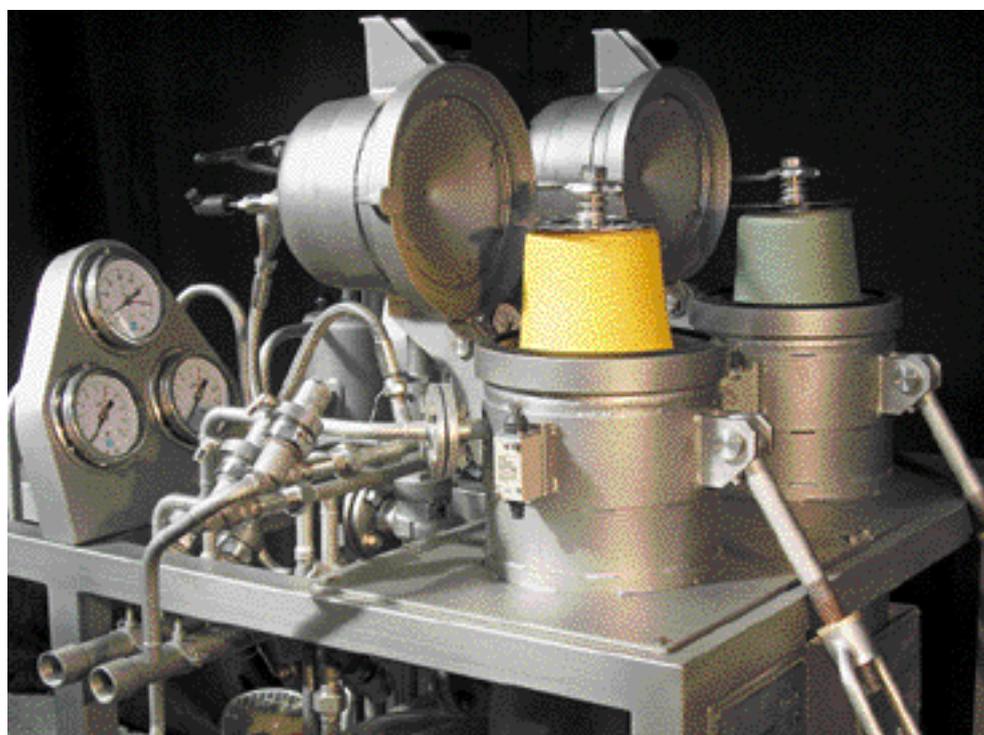
Every small vessel is in itself a complete dyeing machine in every way; all the normal operations of industrial dyeing

can be reproduced faithfully. The control is not like the traditional single programmer of a dye machine, but in effect it is like a large dye-house: a Pc supervisor whose software is similar to a normal supervisor of a dye-house, that has the responsibility of controlling the small independent units the machine is made up of, in a totally asynchronous way. The operator has at his disposal a large supervision system, with graphic visualization, historical file management and simplified programming procedures.

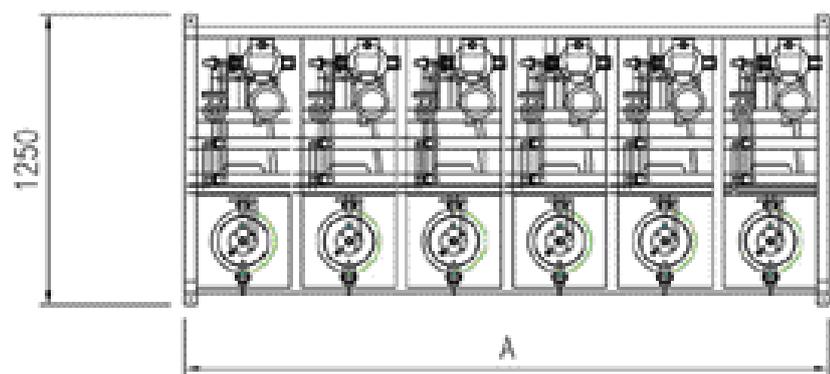
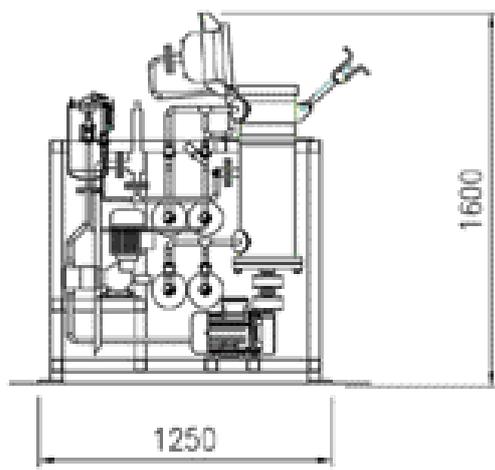
■ **A coupling system without compromise**

All the kiers of **Polylab** can be put together freely, generating in this way machines of variable capacity, depending on the needs of the customer. The process of coupling is totally automatic and is managed through a high level software. Even in this case the design of the machine minimizes the dead volume making the unit utilizable with the normal recipes of a production machine

Polylab, a small dye-house in your laboratory.



Features	Benefits	Advantages
✓ Modular independent structure	✓ From 1 to 6 independent kiers	✓ Production flexibility at maximum
✓ Innovative pump design	✓ New Pozzi pump incorporates transfer pump and circulation pump	✓ Less maintenance and production cost
✓ Loading flexibility	✓ Can load from 1 to 5 bobbins on each kier	✓ Can be used as lab or small production equipment
✓ Tunable bath ratio	✓ L/R can be set on the programmer	✓ Perfect reproducibility on the big production machines
✓ Color flexibility	✓ Each kier can be used to dye a different color and recipe	✓ Great flexibility on small lots
✓ Dedicated software controller	✓ Incorporates all the diagnostic, monitoring and control functions. Easy to use, Windows native software.	✓ The same software can handle up to 6 different dyeing processes at the same time
✓ Can be fully flooded or air pressurized	✓ Can simulate all the possible dyeing realities	✓ Perfect reproducibility on the big production machines, independently of the type
✓ Extremely simple mechanical design	✓ Easy access to the mechanical parts for maintenance, no need for a pit.	✓ High productivity in a limited space
✓ Serialized circulation between kiers	✓ Guarantee on the uniform passage of the bath on all the bobbins when working coupled.	✓ Perfect reproducibility on bobbin to bobbin when working coupled



Polylab 1	A= 500
Polylab 2	A= 950
Polylab 3	A= 1400
Polylab 4	A= 1850
Polylab 5	A= 2300
Polylab 6	A= 2750



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