



PWD
FULL AUTOMATIC POWDER CHEMICAL
AUTOMATION SYSTEM

The single address for all automation
needs of the textile industry.

Control Your Factory.

ELIAR FULL AUTOMATIC
CHEMICAL KITCHEN



ELIAR **RD96**

You can watch our **RD96** promotional
video by scanning the QR code
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ELIAR DYEHOUSE
SUPERVISORY SOFTWARE

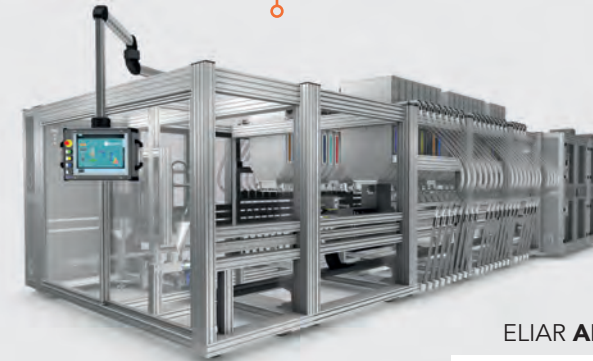


ELIAR **TELESKOP**

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ELIAR FULL AUTOMATIC DYESTUFF KITCHEN



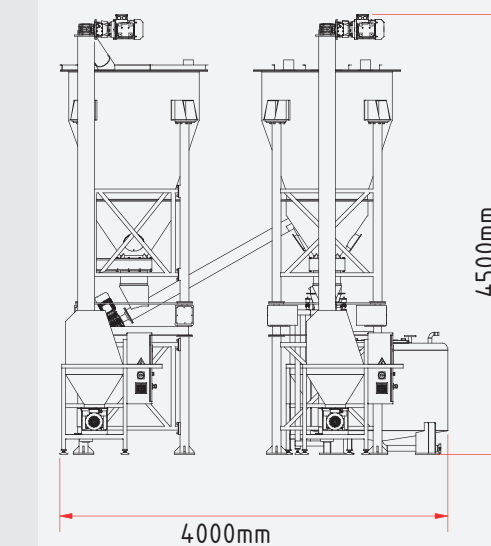
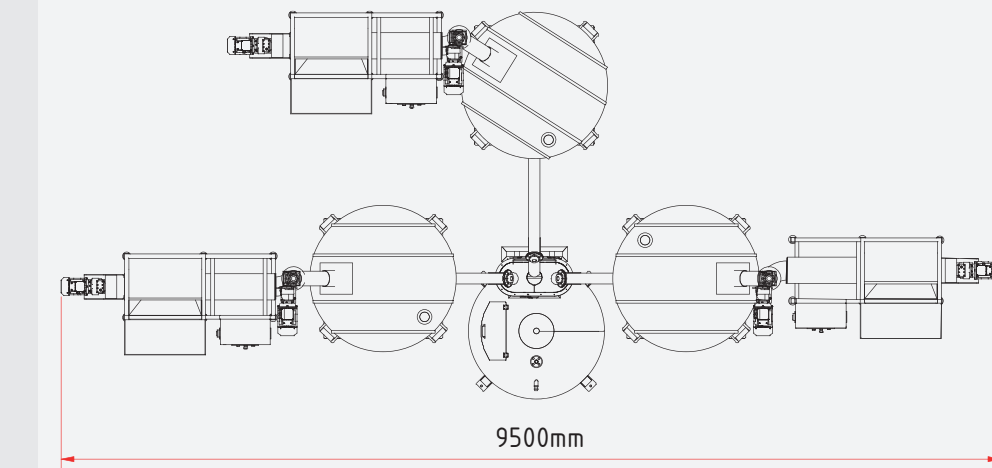
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ELIAR **RDD**

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Technical Specifications

Silo Options	: 1 m ³ - 2 m ³ - 3 m ³
Weighing Speed	: 250 grams / second
Dissolving Time	: 10 - 25 minutes
Dissolving Tank Volume	: 500 liters or 1.000 liters
Transfer Speed	: 300 liters / minute
Transfer Tipi	: Single Line Transfer



THE FASTEST SOLUTION FOR POWDER CHEMICALS YOU USE IN YOUR FACTORY

Considering the high consumption amounts of powder chemicals used in fabric, yarn dyeing and continuous dyeing (Cold Pad Batch, Pad Steam, Pad Thermosol, Slash and Rope Dyeing) processes, the importance of weighing precision, the long time required for their preparation, the intensive labor requirement and the occupational health of manual operations, we can conclude that fully automated weighing, dissolving and transfer of these chemicals are very critical as also there are certain risks for work safety and security in manual operations. As a result of work accidents, wrong calculations and under or over weighing, which are frequently encountered in manual processes and may occur due to the nature of those chemicals, your final product quality and repeatability will decrease, and your production costs will increase exponentially. To avoid all these problems, Eliar offers PWD, the fastest and safest powder chemical automation system for your factory.

THE BEST SOLUTION FOR ALL YOUR POWDER CHEMICAL NEEDS

Regardless of the size of your factory, the raw material you will process and the dyeing method you apply, PWD is the optimal solution for any fabric and yarn dyeing factory. Thanks to the stock silos, filling units, feeding and dissolving systems customized according to the structure and consumption of the chemicals you use, PWD simultaneously weighs all the powder chemicals in your recipe, dissolves them in one go and transfers them in a single line or multi-line according to the needs of your factory. In this way, it is guaranteed that your recipes are prepared with high speed and high precision.

FLEXIBLE SOLUTIONS FOR YOUR FACTORY

PWD has stock silos and dissolving units that can be projected in different volumes and quantities according to your needs. As a standard, 3 different water inlets with different properties (hot, cold and soft water), automatic washing, mixing with an inverter controlled mixer, filtering before transfer and embedded dissolving scenarios prepared according to the chemicals used are offered. In addition, special functions such as heating, cooling, circulation and flame prevention can be added to the dissolving unit, taking into account the structure and consumption amounts of the powder chemicals that you will include in the automation with PWD.

FULLY AUTOMATIC AND INTEGRATED RECIPE PREPARATION

PWD also allows the processing of liquid chemicals and dyestuffs together with the powder chemicals included in the system. Manually weighed liquid chemicals and dyestuffs can be added to the PWD reactor manually, as well as fully automatic and integrated with the ELIAR liquid chemical and powder dyestuff kitchen built in your factory. PWD's dissolving reactor has customized inlets for automatic dosing from the ELIAR liquid chemical and powder dyestuff kitchen. In this way, your final recipe is prepared in an untouched way, fully automatically and without any errors.

FULL AUTOMATIC SILO FILLING SYSTEM

Powder chemical filling into PWD silos is provided by customized intermediate loading tanks and flexible screw feeders for each silo. Thanks to the 250 liters intermediate loading tanks, the same operator can fill the silo of all powder chemicals with minimum effort. Thanks to specially designed screw feeders with enclosed construction, silo filling is carried out in the fastest, safest and most efficient way without the risk of dusting and petrification.

- INTERMEDIATE LOADING TANKS WITH 250 LITERS VOLUME
- FILLING WITH FLEXIBLE SCREW FEEDERS

REVOLUTIONARY WEIGHING PRINCIPLE

Thanks to 4 sensitive load cells integrated with each silo and integrated with the dosing units, PWD continuously measures the weight of the powder chemical in the entire silo and its content. As soon as the powder chemical weighing request comes according to the dyeing recipe, PWD records the instantaneous weight of all silos and activates all dosing units at the same time according to the recipe. While the powder chemicals are transferred to the dissolving unit, the total weight of the silo is reduced as much as the amount transferred. Here, PWD measures this decrease in silo weight and ensures that the amount of powder chemical specified in the recipe is transferred to the dissolving unit. Since there is no need for any weighing process in the dissolving unit, water intake and mixing can be performed simultaneously with the weighing unit, thus providing significant time savings.

- SIMULTANEOUS WEIGHING AND DISSOLVING
- PRECISE AND FAST WEIGHING

CUSTOMIZED SOLUTIONS FOR SPECIAL CHEMICALS

PWD is equipped with customized functions for chemicals which degrade, lose their properties or pose a risk in terms of occupational health and safety, in contact with air, water or each other. Thanks to the learning software infrastructure, powder chemicals that should not come together are processed separately, and after each dissolving and transfer process, the entire unit and transfer line are automatically cleaned for the next process. Optionally, a nitrogen feeding unit can be integrated into the system to prevent contact of subject chemicals with air. In powder chemicals, which need to be contacted with water in a controlled manner, dosing is done precisely and nitrogen gas bedding technique can be applied to the dissolving unit if necessary.

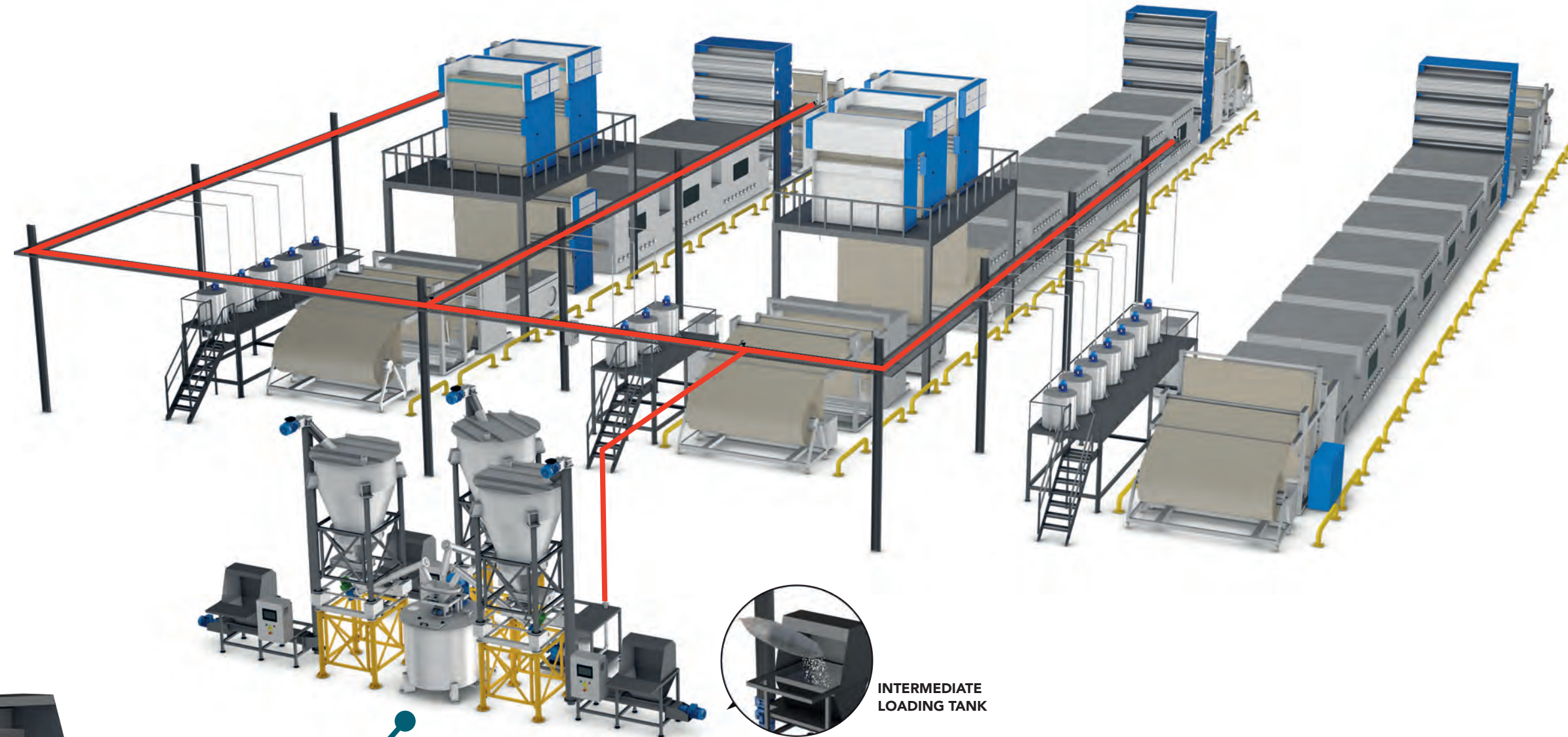
- CONFIGURABLE REACTORS
- DISSOLVING UNITS IN DIFFERENT VOLUMES AND QUANTITIES

PERFECT PROJECTS WITH EXPERT ESTABLISHMENT IN THE TEXTILE INDUSTRY

Aligned with its vision for the future, with the awareness that the only way to progress is the triangle of qualified knowledge, qualified workforce and optimum cost, Eliar, thanks to its wide engineer staff specialized in their fields and the R&D center that directs technology, shares its deep application experience with you from the projects it has carried out in different parts of the world. During the selection and projecting of the most suitable powder mineral automation system, Eliar also cooperates you in every aspects of your automation project and with its technical team specialized in textile automation systems, takes the responsibility of all design, project and engineering works, installation stages and commissioning processes from the production of your project until the delivery stage and always offers you turn-key automation projects.



FLEXIBLE SCREW FEEDER



INTERMEDIATE LOADING TANK

PWD simultaneously weighs all the powder chemicals in your recipe, dissolves them altogether and transfers them in a single line or multi-line according to the needs of your factory. In this way, it is guaranteed that your recipes are prepared with high speed and high precision.

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