

## Performance Data

The company Thies is referred to hereinafter as **Seller** and the customer as **Buyer** regardless of their legal form.

### Scope of Delivery

The scope of delivery includes all parts and components, e.g. steam, water, pressure lines according to Seller's standard product design or according to a layout approved by Buyer. All supply and disposal units beyond the scope of delivery, as well as all foundations and other masonry work shall be provided by Buyer.

### Standards and Safety Regulations

Unless stated otherwise in the order confirmation, Seller manufactures machines, assemblies and components in accordance with the legal and regulatory requirements that are applicable in Germany, e.g. according to the national implementing laws and ordinance of Directive 2014/68/EU (Pressure Equipment Directive), Directive 2006/42/EC (Machine Directive) and Directive 2014/30/EU (EMC Directive).

Should additional country-specific regulations and standards apply at the setup site, which must be considered in the design of machines, assemblies or components, Seller must be informed of them in writing before the order is placed.

Machines that are delivered partly assembled will be regarded as ready for use only upon complete assembly. If the delivered machines are set up ready for use by Buyer itself within the area of application of the Machine Directive, Seller shall issue a declaration of conformity for them and apply a CE-mark on the machine. If incomplete machines are delivered, Seller shall issue an "Installation declaration for incomplete machines" in accordance with the Machine Directive.

If Seller's scope of delivery is to be combined with further machines that are provided by Buyer (hereinafter "Complete System"), Buyer shall be obligated to check whether safety equipment beyond Seller's scope of delivery is required, in order to comply with regulations and provisions for the Complete System. It is the Buyer's responsibility to provide such safety equipment for the commissioning or to order it on time in addition from Seller if necessary. Seller furthermore points out the requirement within the area of application of the Machine Directive of a general operating instruction taking an overall risk assessment into account in that case, as well as the requirement that the machines provided by Buyer must comply with the regulations of the Machine Directive. Buyer is responsible for the observation and implementation of these requirements.

Should Seller undertake in writing to issue a declaration of conformity (according to the Machine Directive) for a Complete System that exceeds its scope of delivery, it shall make this commitment exclusively subject to the condition that Buyer issues and hands over to Seller a declaration of conformity for all machines provided by it within due time beforehand and that it appends a CE-mark on these machines, or issues and hands over an installation declaration on time to Seller for all provided incomplete machines. In case Buyer fails to do so, Seller shall not issue a declaration of conformity for the Complete System and exclusively take the machines that it has itself delivered into operation, and reject any responsibility if Buyer itself takes the provided machines into operation contrary to the regulations of the Machine Directive.

### Assembly and Commissioning

Seller shall provide specialized personnel, e.g. assemblers, technicians or engineers for the assembly and commissioning of the scope of delivery as well as for the training of Buyer's personnel. For these services, Seller shall charge the costs incurred for travel to and from the site at the currently valid rates according to the attached list. Buyer shall provide assisting personnel for Seller's specialized personnel on request.

Seller's specialized personnel shall be responsible for the fault-free complete installation of the scope of delivery.

If assembly and commissioning is conducted by Buyer in its own responsibility, Seller shall not accept any warranty and/or extend any guarantee for any resulting claims of defects or subsequent deliveries.

If requested, Seller's specialized personnel can assist in the commissioning. For commissioning, Buyer shall provide sufficient quantities of test material. Seller shall not be liable for any deficient results in terms of textile engineering during the commissioning of the scope of delivery and its calibration phase.

Seller shall make standard recipes available for testing purposes. In addition, Seller can provide an application technician for advice on the usual conditions in the case of problems with textiles or dye.

### Acceptance of Pressure Devices

The pressure devices to be delivered by Seller that require an acceptance shall be accepted by a certified testing center. Documents on the completed acceptance shall be provided to Buyer. The costs for this purpose are included in the scope of delivery.

Any expenses beyond that for the testing prior to commissioning by a licensed inspection institute and CE-certification of the Complete System pursuant to the Machine Directive are not included in the scope of service.

Seller's plants are laid out by standard for the Standard performance values (THIES) specified on the performance datasheet.

### Additional Rule on Acceptance of Pressure Devices in Deliveries to Non-EU Countries

To be able to take requirements deviating from the aforementioned standards and safety regulations into account, Seller shall make all necessary drawings and data relating to the pressure devices that require acceptance available to the competent entities for presentation and preliminary approval.

If significant design changes result in the process, Seller reserves charging the costs arising for this to Buyer.

### Delivery in Accordance with the Contract

Within its responsibility for delivery in accordance with the contract, Seller warrants the fault-free functioning of the scope of delivery, in particular the even imbuing or bleaching. It is required that first-class raw materials, dyes, chemicals that meet the European standard and water in the defined water quality will be used.

Check the equipment regularly for signs of corrosion!

A risk of corrosion is caused by the use of

- chloride ions ( $\text{Cl}^-$ ), e.g. common salt ( $\text{NaCl}$ ) or other products containing chloride;
- chlorine dioxide ions ( $\text{ClO}_2^-$ ), e.g. sodium chlorite ( $\text{NaClO}_2$ ).

Chloride ions ( $\text{Cl}^-$ ) in the cooling and process water can likewise lead to corrosion.

### Use of these products is at your own risk.

The treatment bath becomes increasingly aggressive

- with rising chloride concentration,
- with rising temperature,
- with decreasing pH value,
- with the length of treatment time

Regarding the evident corrosion problems, we expressly point out that exclusively Glauber salt (sodium sulfate,  $\text{Na}_2\text{SO}_4$ ) may be used and not cooking salt (sodium chloride,  $\text{NaCl}$ ).

Seller's General Terms of Sale and Delivery apply in respect of the fault-free workmanship of the machines. The obligation for the delivery in accordance with the contract and according to the attached General Terms of Sale and Delivery is based on the condition that the scope of delivery can be assembled and taken into operation by Seller's specialized personnel without great delays upon arrival at the setup site. In the case the scope of delivery is stored, Buyer shall be responsible for any damages caused by improper storage.

### Information on Material Carrier Systems

The prerequisite for a successful, reproducible yarn dyeing or drying is that even densities and weights as well as dimensions of the textile material are processed.

In case there are material carriers (external carriers), even distribution of the air and treatment liquid must be ensured. Any greater loss of pressure that impairs the even treatment of coils must be prevented.

Furthermore, the textile material must be sealed off within the carrier system according to the shape of its layout, so that the air and liquid circulate exclusively through the material to be treated.

The use of plastic sleeves requires elastic closures, the effect of which is not cancelled out by the pump pressure/differential pressure. Winding coils that are dyed or dried must have a high-quality, even winding density of max.  $\pm 3\%$ . It is avoided this way that leaks are caused by the lowering of the coil columns during the dyeing/drying processes.

If strongly shrinking yarns are used, it is recommended to use radially elastic dyeing tubes to prevent an uneven compression of the yarn layers.

If strongly expanding yarns are used (e.g. acrylic), Seller recommends using star or top plates to limit the yarn expansion. An optimal coiling can reduce the yarn expansion. The yarn expansion in radial or axial direction must not exceed 2.5%, as quality will be lost otherwise.

### Notes on Pressurized Driers

Within the scope of its obligation for the delivery in accordance with the contract, Seller warrants the fault-free functioning of the assembly and an even drying result. However, this requires correct maintenance, correct preparation of the items to be dried and suitable material carriers. The bleaching/dyeing tubes must withstand the temperatures and pressures used in the drier without suffering deformations and they must also permit the correct sealing from each other as well as from the material carriers.

Deviations in the coil winding and in the coil diameter must not exceed or fall below max. 2.5%. The maximum winding diameter of a coil must not exceed 250 mm.

For an even residual moisture distribution in the dried coils, we recommend a levelling phase of at least three hours during which time the material carrier rests in normal ambient temperature after the completed drying process.

Our information on drying times and consumption data refers to rinsed lots that are not scrooped. Uneven winding forms, dyeing auxiliaries, scrooping agents, paraffins and naphthol dyes can have a negative effect on the performance of the drier. To avoid dye migrations, use suitable dyes and auxiliaries with fastness properties that are suitable for use in the drier.

### Setup Information for Control Units

The power switch cabinet must be positioned near the machine. Power lines with a length of up to 10 m are included in our delivery.

The climatic conditions listed in the attached operating datasheet must be given for the electrical equipment.

### Software

The software provided to Buyer as part of the delivery and its documentation must be treated as confidential. The embodiment of the software and its documentation will remain the sole property of Seller. Seller grants simple use rights to Buyer. Buyer is not authorized to reproduce the software and/or its documentation or make it accessible or disseminate it to third parties.

In individual cases and according to Seller's sole discretion, an exception can be approved with Seller's written agreement.

**Operation and Safety**

The scope of delivery includes the operating manual, the receipt of which Buyer's responsible employees shall confirm to Seller's specialized personnel on assembly and/or commissioning.

The operating manual contains important information on

- safety,
- product description,
- transport and assembly,
- operation,
- maintenance.

To ensure the use of the scope of delivery for its intended purpose, it is Buyer's responsibility that it is operated by personnel who have familiarized with the content of the operating manual. Lack of knowledge or failure to adhere to the safety rules and operating instructions contained in the manuals can entail serious personal injury and/or property damages. Seller will not accept any liability in such cases.

For high-temperature machines that are pressurized, pressurized air outlet lines must be installed at the site according to the locally valid noise and emission protection regulations. All inlets and outlet lines including pipework conducting steam and hot water must be insulated. The insulation must be produced on site by Buyer.

**Third Party Products**

Products of other manufacturers, which are operated or integrated together with the machines or plants of Seller do not fall within Seller's liability. Buyer is responsible for all personal injuries and property damages that are caused by the operation and/or malfunction of such products and/or control units.

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