



GERMAN TECHNOLOGY  
designed & developed in Germany



 **SENSODYE®**

**SENSODYE®**

HT Long Tube Dyeing & Bleaching Machines



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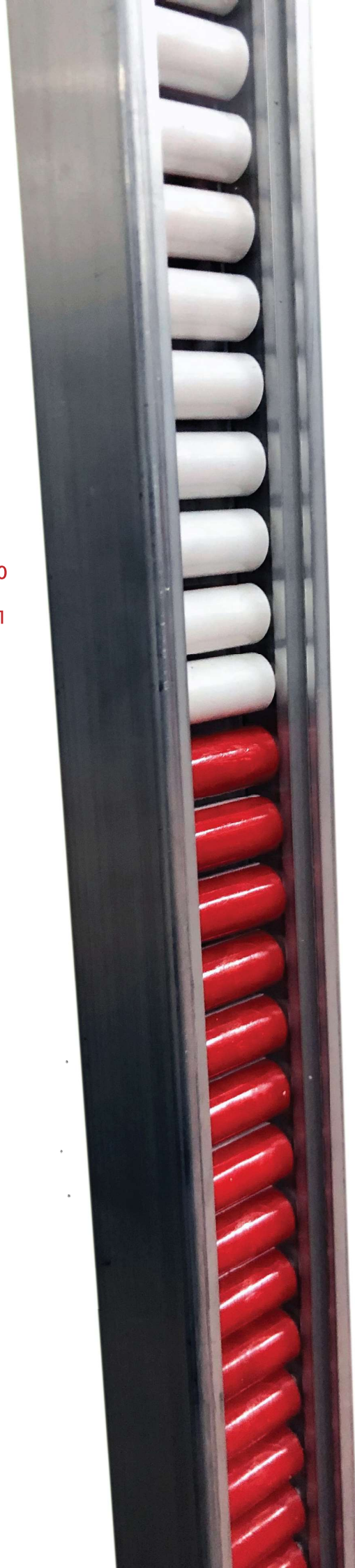
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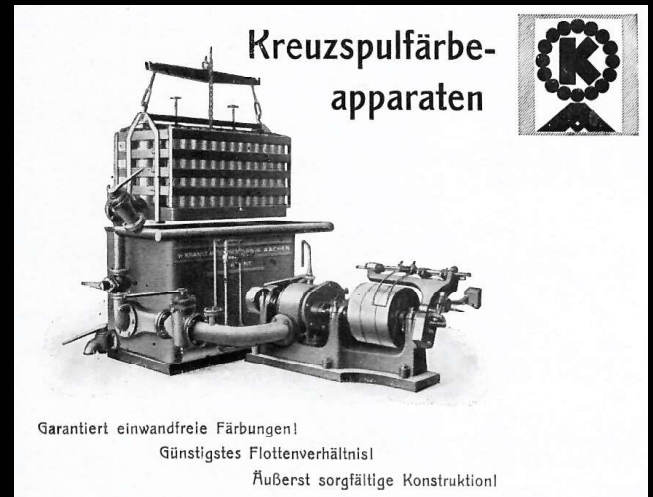




Hermann Krantz - founder of the company

KRANTZ .. this name stands for over 135 years of industrial history.

In the westernmost city in Germany, Aachen, close to the borders with the Netherlands and Belgium, engineer Hermann Krantz founded the company in 1882. After initially focusing on ventilation and heating systems, textile machines quickly became another strong pillar of the company. As early as the 1920s, the company was not only supplying German textile companies but was already active worldwide. Since then, the name Krantz has been synonymous with high-performance and high-quality machines in the field of finishing and discontinuous dyeing.



dyeing machine for crosswound bobbins, 1931

In 1992 the Krantz family decided to sell the company to the Deutsche Babcock Group. As part of the subsequent realignment of the company, the production of the dyeing machines was outsourced to an independent subsidiary in Turkey. Here, of course, great importance was attached to ensuring that the old quality standards were fully guaranteed. Today the company is part of the ProTeknik group and is continuing the more than 100-year success story of the original German company.



### HT long tube dyeing machine SENSODYE®

KRANTZ goes green ... Strong words for a strong and successful performance!

In these times, the world of textile dyeing and finishing faces enormous environmental challenges. Tremendous increases in the cost of electricity, water and effluent treatment and also entitled pressure to conserve resources, force the textile dye houses for a rethink of efficiencies and the production steps.

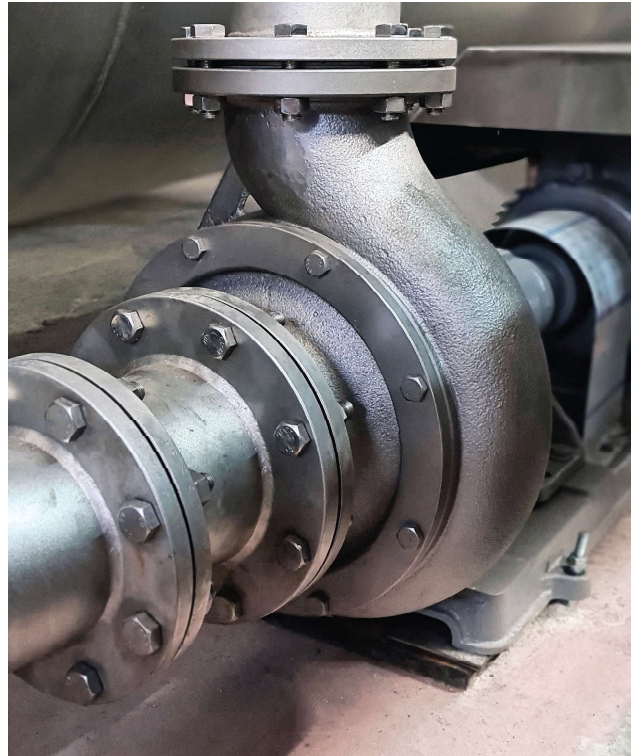
The new SENSODYE® with its increased productivity and enhanced reliability, offers complete new perspectives and possibilities for all progressive textile dyeing and finishing mills worldwide.

The machine is the excellent result of a team of highly qualified engineers with the experience of more than 4 decades in dyeing technology and is suitable for:

- dyeing
- bleaching
- washing

KRANTZ dyeing machines are in operation in more than 75 countries. The KRANTZ SENSODYE can be supplied for capacities up to 1.000 kg, a max. operating temperature of 140°C and a liquor ratio starting at 1:6 depending on process and type of fabric. Sample machines are available as well.

KRANTZ goes green...go with us and get be inspired...

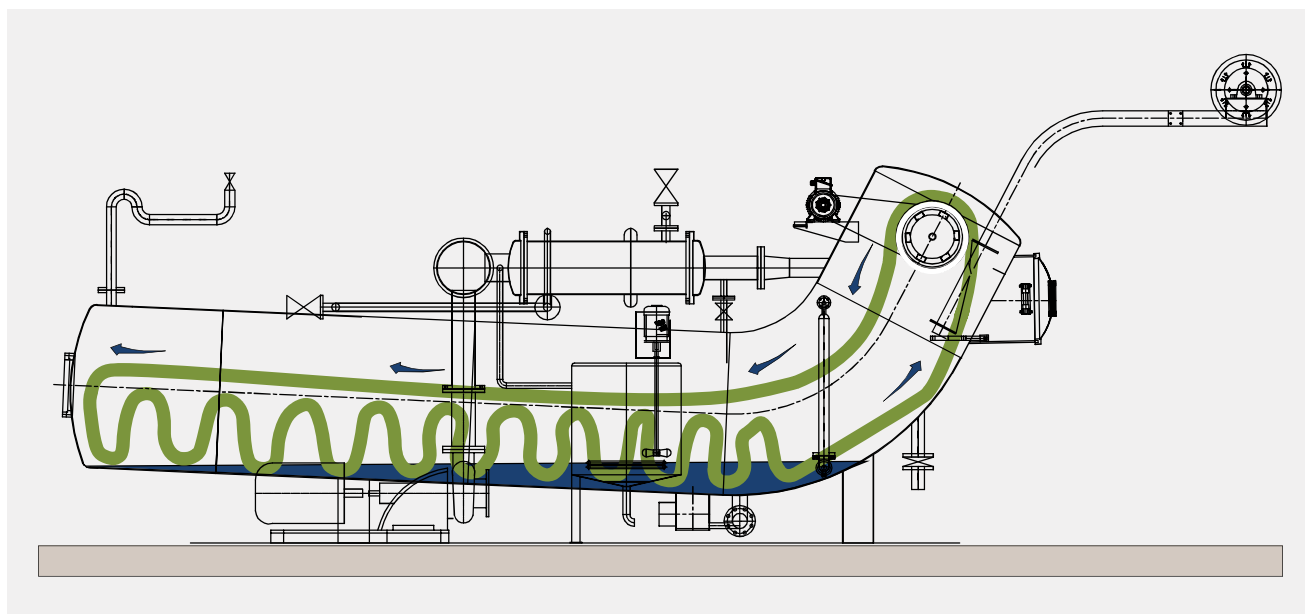


lifting reel of the long tube dyeing machine





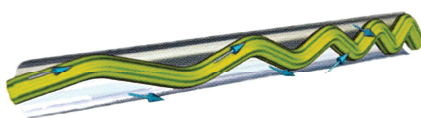
## Working principle SENSODYE®



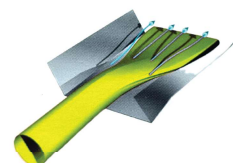
*Kranz* SENSODYE-HT® fabric flow scheme



usual transport by water



push & squeeze effect in warp



extension & spray effect in weft

*Kranz* SENSODYE-HT® fabric flow during dye process



### Technical details

- all parts, which are in contact with liquor are manufactured from 1.4401, 1.4404 & 1.4408 ss.
- capacity per tube 100 or 250kg, either in single rope or double rope system
- sample dyeing machine available with a capacity of 25, 50 and 75kg
- analog dosing allows the addition of dye liquors and auxiliaries from the preparation tank following programmable curves for time and mode.
- the machine is designed for a max. operating pressure of 140°C and a max. operating pressure of 5bar.
- available as single tube machine, or as machines with two or four tube combined
- all machine functions are controlled with a modern touchscreen controller.
- strong in-house made centrifugal pump
- lowest energy, water & steam consumption °

*Karoly* SENSODYE® technical details





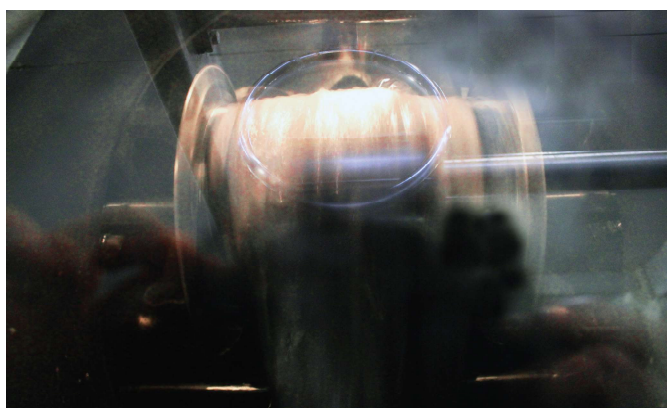
## MACHINE SIZES

machine model	S-100-1 S-100-2	S-250-1 S-250-2	S-500-2 S-500-4	S-1.000-4 S-1.000-8	S-25-1	S-50-1	S-75-1
no. of tubes/chambers	1/2	1/2	2/4	4/8	1/1	1/1	1/1
max. capacity [kg]	70-100	175-250	350-500	700-1.000	18-25	35-50	110-165
liquor ratio	1:6-8						
max. temperature [°C]	140						
speed [rpm]	jetflow	0-450					
	overflow	0-250					
motor power [kW]	15	19.5	37.5	69.5/88	8.5	10.5	10.5

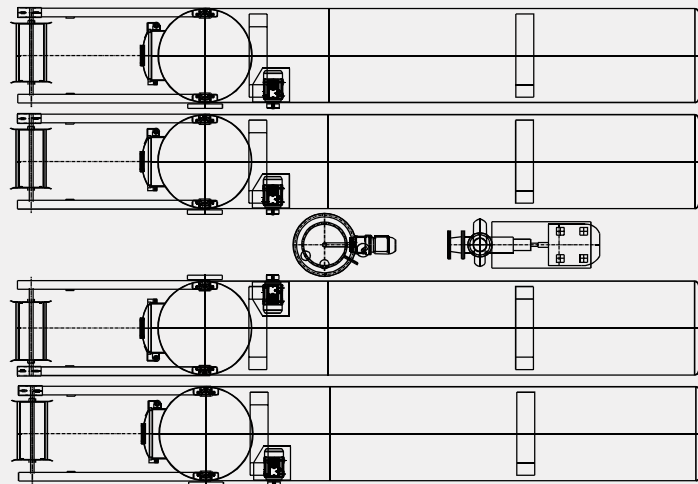
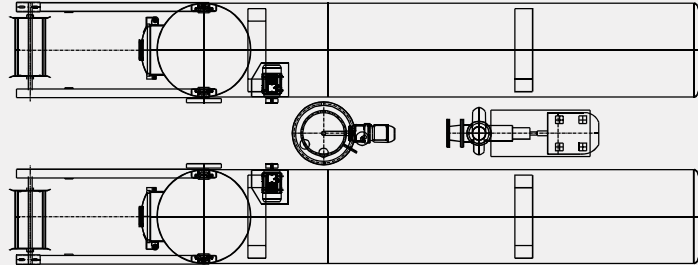
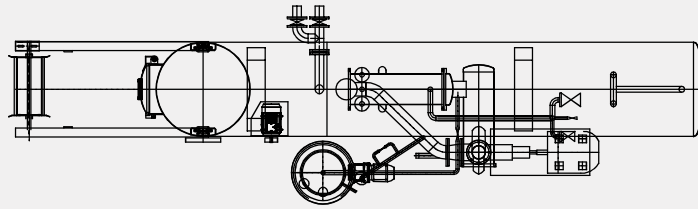
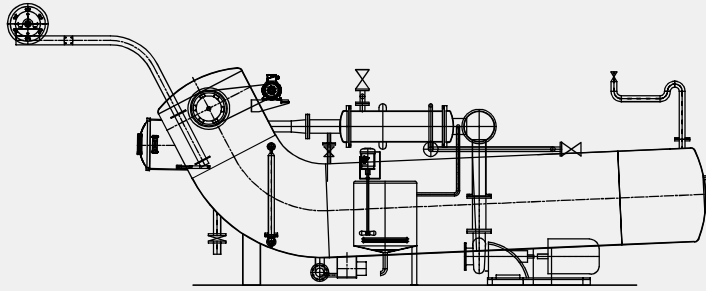
*Krantz* SENSODYE® technical data

The new machine was developed to give the user a universal tool to handle particularly crease- or surface-sensitive articles goods in a process-reliable and resource-saving manner. It reliably can handle a wide range of very light to very heavy fabrics and the scope of application ranges from unfixed Polyester to wool qualities. The machine design guarantees optimal running characteristics and due to the high circulation speeds high loading capacities can be achieved even with light fabrics.

The strong in-house build frequency controlled centrifugal pump ensures that a liquor flow, optimally adapted to the respective article, is guaranteed.



lifting reel of the long tube dyeing machine during process











### Preparation tank

The preparation tanks are used for the preparation of the treatment liquor bath including dyestuffs and chemicals or salt.

The tank is indirect steam heated by means of heating coils located at the ground of the tank (heating gradient is 5°C/min)

The tank is also fitted with a mixer and a level control system and cleaning automatically takes place after the dye process is finished.

The pump for the preparation tank is a reserve centrifugal-type pump.



dye bath while splash protection cover of the tank is open



double rope cloth flow

### Hot water tank

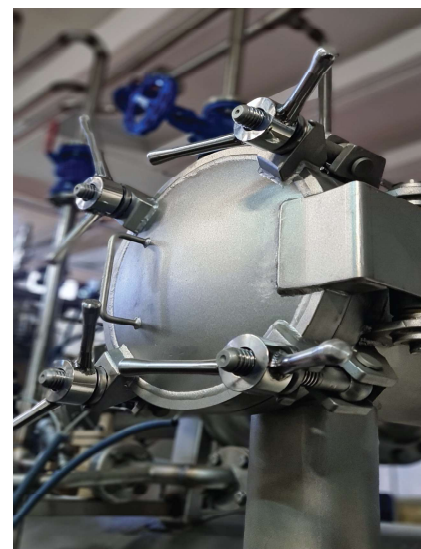
As an option our customers have the choice to take a separate hot water tank, same capacity as the dye vessel, which will reduce the process times by 1-1.5 hours.

### Options

A wide range of options is available upon request like PH control system, additional fresh water or drain valves among others.



one-tube machine



kier door



### Electrical control panel

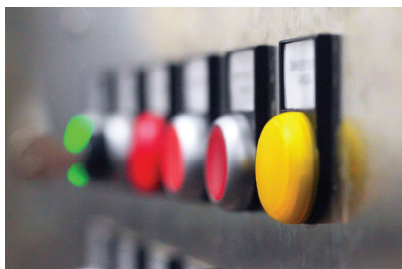
the whole switch board & electric cabinet is made from stainless steel.

All relevant motors, such as motor for the reel, for the circulation pump or for frequency-controlled A/C motors and the corresponding inverters are all made by high-end manufacturers from Europe.

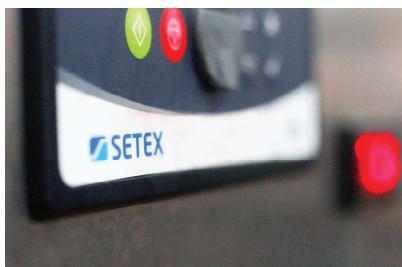
Krantz just uses high-end controllers from top manufacturers such as the Secom series from Setex or Sedomat series from Sedo-Treepoint.

With these controllers, even very sophisticated automation tasks can be realized without problems. Integrating an automatic dye kitchen becomes a standard task.

Complex machines can easily and directly be operated by using the integrated touch-screen.



additional control buttons



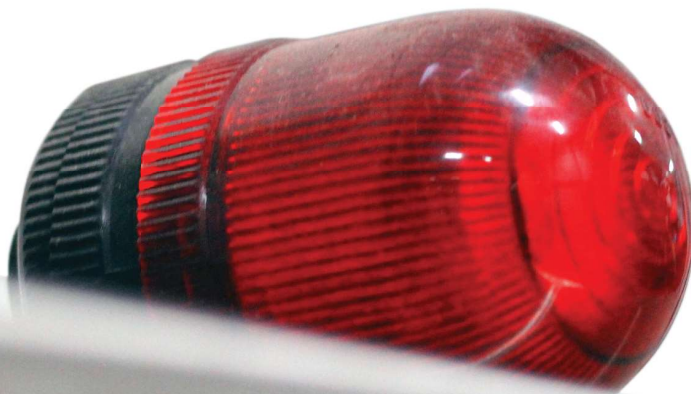
controller SECOM series



controller SEDOMAT series



inverter





GERMAN TECHNOLOGY  
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