FONG‘S EUROPE GMBH (FEU) for VDMA WEBINAR 09.09.2020

BAT wastewater management through airflow technology and reel-less hydraulic machines designed in Germany®.

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Production site in Schwäbisch Hall - Germany



Company's History

1919 Founded in Chemnitz

1955 New foundation in Schwäbisch Hall as limited partnership after World War II

1960 Pressure vessels of stainless steel

1964 Beginning of controller manufacturing

1968 Development and manufacturing of first fully flooded jet dyeing machine THENJET

1975 Development and manufacturing of various novel dyeing machines e. g. THENFLOW, THEN-Economyflow

1985 First aerodynamic dyeing machine (patented)
- THEN-AIRFLOW AF

1991 Further developments
- Dye Kitchen Manager AMC-CKM

1995 Chemical Dispensing System

2003 Merger with companies Scholl AG, Switzerland

Company's History

2004 THEN Maschinen GmbH becomes a member of Fong's Industries Group

2006 Introduction of THEN-AIRFLOW SYNERGY®

2010 THEN Maschinen GmbH renamed as FONGS Europe GmbH and merger of Goller into FEU
Brands: FONG'S, GOLLER, THEN & XORELLA

2011 CHTC bought major shares of Fong's

2015 GOLLER ECONOMICA
THEN SUPRATEC LTM
XORELLA TREND

2018 Introduction of THEN SMARTFLOW TSF

2019 100 years THEN
CHTC Fong's International became member of the SINOMACH group

SINOMACH

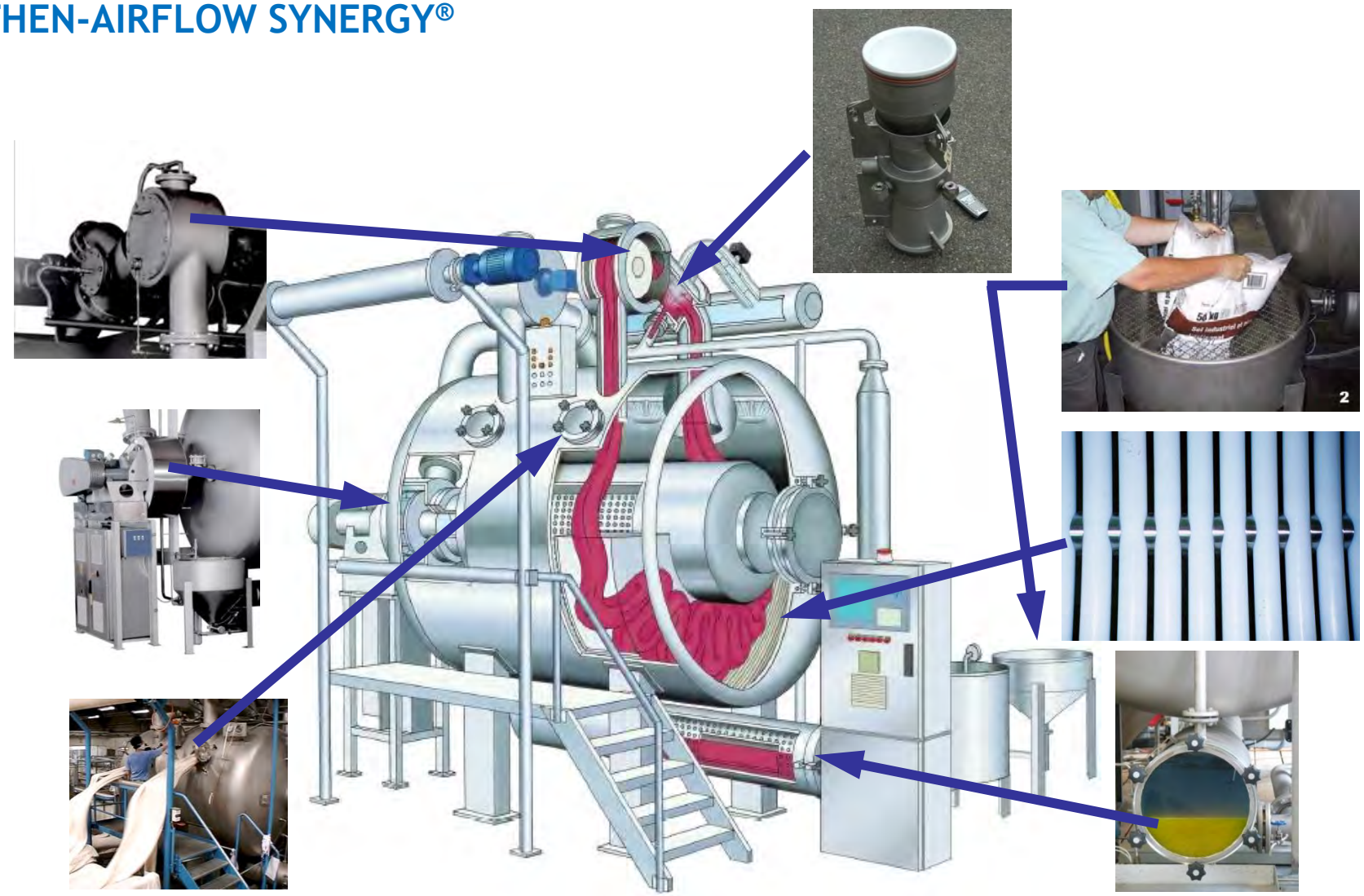
FONG'S® | GOLLER | THEN since 1919 | XORELLA

Ways to reduce water and effluent in textile processes

- First of all reduce to the minimum needed (e.g. automatic dosing systems)
- Use yarn with less or no fibre or low fluff tendency
- High quality auxiliaries and dyes with high amount of active ingredients and high fixation rate
- Salt with low amount of impurities (reactive dyeing)
- Use machines with low liquor ratio like:

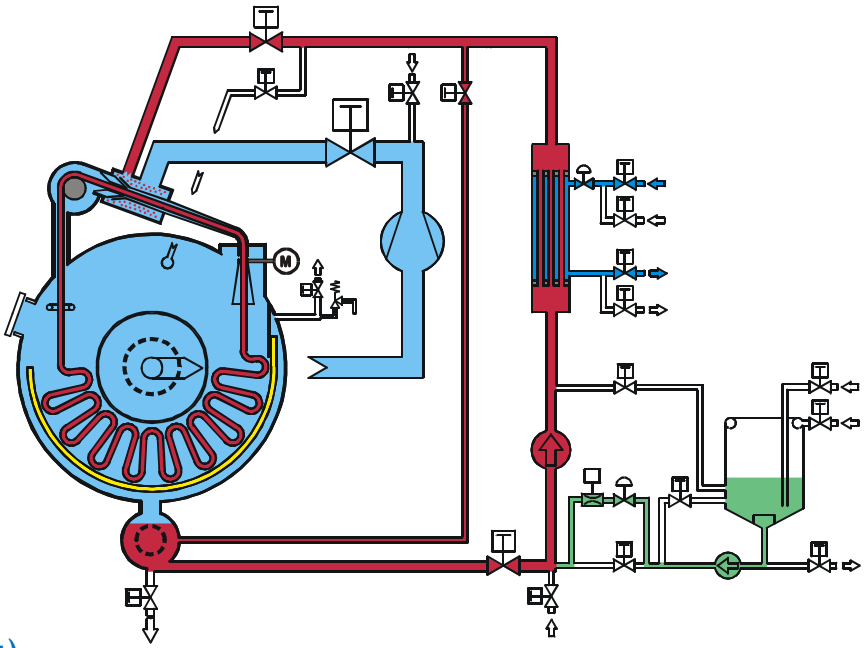
  - THEN SYNERGY
  - THEN SUPRATEC LTM
  - THEN SMARTFLOW (TSF)

THEN-AIRFLOW SYNERGY®



Airflow - standard wash-off procedure for reactive dyes

First rinse direct hot e.g. 80°C or 95°C with hot drain available
For 10 to 5 min depending
on the salt amount
If available controlled with
conductivity sensor



Change to rinsing at the same
temperature and parallel
dose acetic acid over 5 to 10 min
depending on the colour depth
if available controlled with
IIR-sensor (online dye bath colour measurement)

during this step it's additionaly possible to rinse with gradient
so called 3in1 function (rinse, dose, cooling)
(conductivity sensor, IIR sensor are optional functions – not standard)

Airflow - less salt due to lower LR (liquor ratio)

Example: Salt		
	Conventional Jet	SYN 500
Fabric	400 kg	400 kg
Liquor Ratio	7 : 1	4 : 1
Total Liquor	2800 ltr.	1600 ltr
Salt addition Medium Shade	50 g/l	40 g/l
Salt addition total	140 kg	64 kg
Salt saving / Effluent discharge	100%	**54/46%**

THEN SUPRATEC LTM





WET mode

DRY mode



THEN SMARTFLOW TSF





Optimized plaiting with
circular plaiter



Smart fabric loading
system without loading rope



Time-saving
Bath Preparation Unit
with various functions



Satellite tank with
dosing function for liquids

THEN SMARTFLOW TSF

YAZBEK

Parameter		Air Flow	SMARTFLOW
cycle time in hours	CO white	2,26	2,45
	CO reactive black	4,28	4,46
	PES / CO black	7,73	7,21
water consumtion in l/kg	CO white	13,3	18,2
	CO reactive black	44,3	33,7
	PES / CO black	40,0	36,4
heating gradient °C/min		5	3
liquor ratio		down to 1:4	down to 1:4

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One-stop
SUSTAINABLE Solutions

Thanks for stop over
and your kind attention!
Questions will be answered in the Q&A session.