

# SENNING

Advanced Packaging Technology



**Hankyline TCA 300:**  
The High-Efficiency Production Line  
from the Roll to the Finished Package



**Barry-Wehmiller**

Tissue Converting Alliance



Paper Converting Machine Company

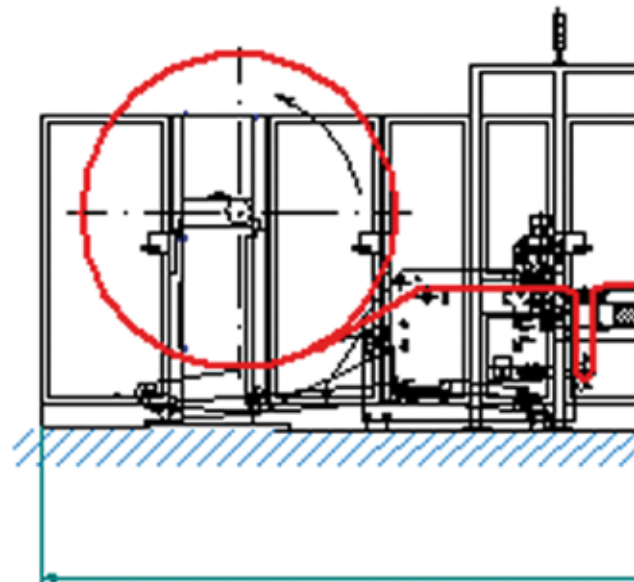
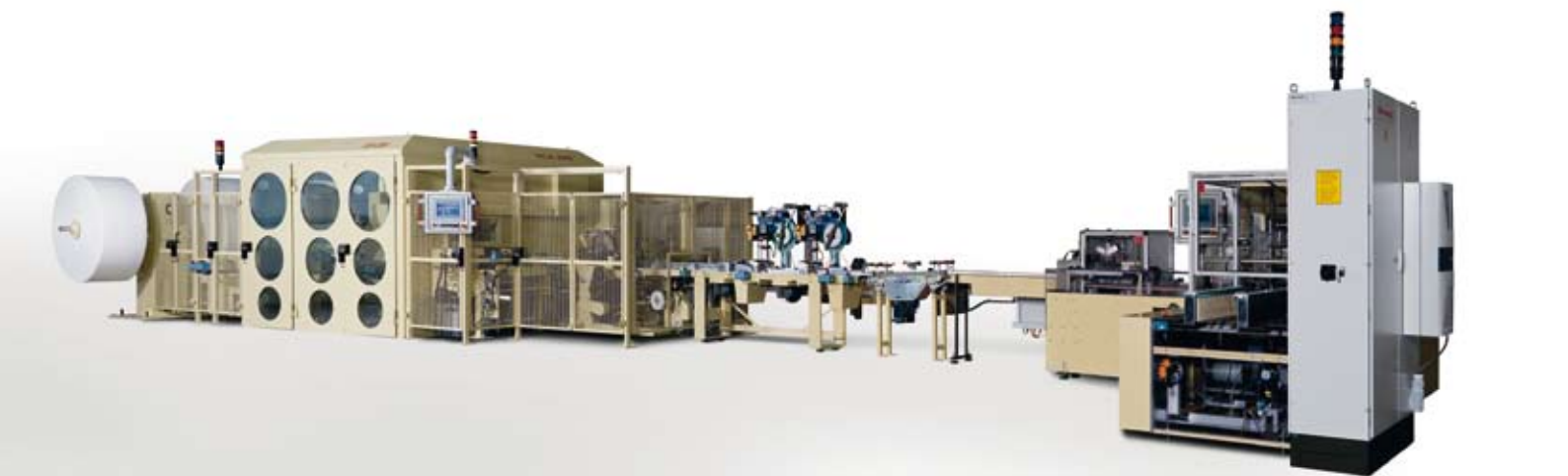


## All Production Stages from a Single Source: Unity Results in Perfection and Efficiency

In the Hankyline TCA 300, SENNING has integrated manufacturing of tissue handkerchiefs from the tissue roll to finished packaging into a single production line: folding machine, unit packaging machine, labeller and finally, bundle packaging machine are comprised in a single consistent and completely automated system. Each production section component is optimised for the other, resulting in a perfectly integrated and systematic whole.

The handkerchief production system can be easily operated by a single operator via a Siemens S7 control system. A production speed of 3000 handkerchiefs per minute is guaranteed, whether for compact or standard formats, or for 2-, 3-, or 4-ply tissues.

The TCA 300 is distinguished by its outstanding production efficiency and reliable, virtually maintenance-free function. It is a result of a cooperation with the Paper Converting Machine Company. The tissue manufacturing industry now has in SENNING a competent manufacturing partner for the entire production line, spanning machine installation through to service.



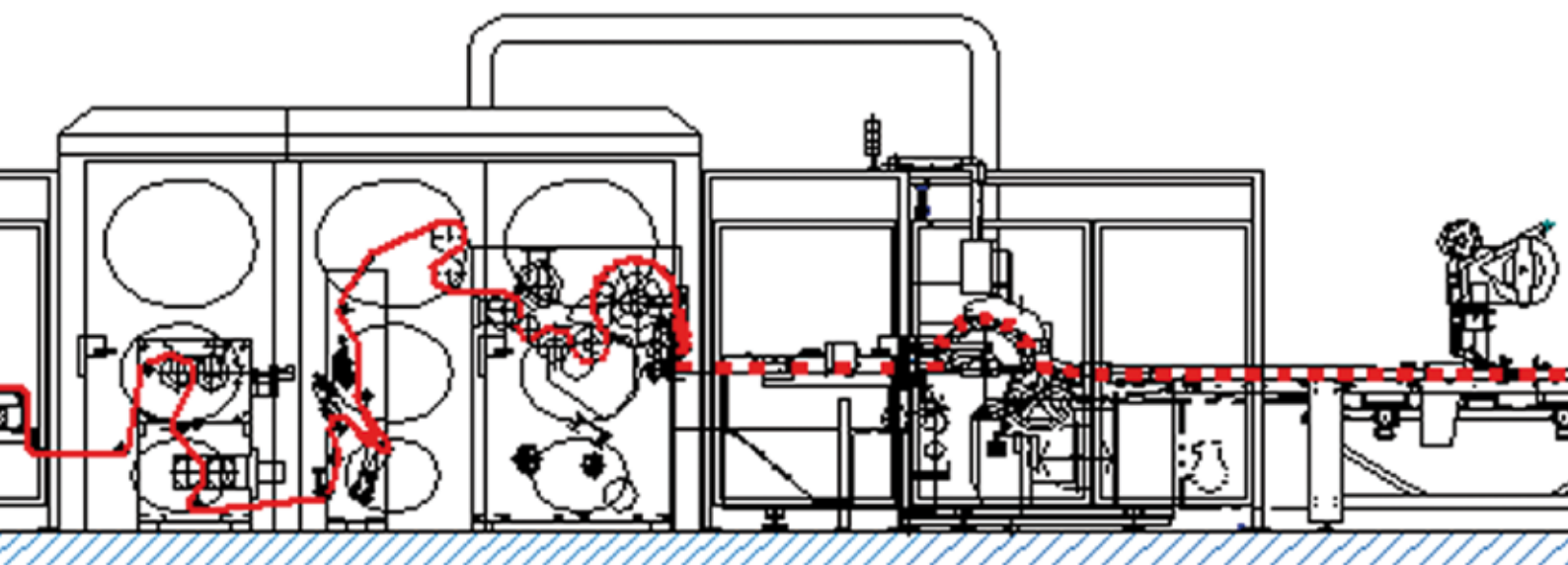


## Folding + Packaging: Smooth Operations

Folding, cutting, stacking and unit packaging all take place at a compact production station: from the separately pivot unwind stand with reserve rolls for quicker roll changes, to the clean heat-sealing of individual units. The entire process features high precision and a smooth, crinkle-free operation process:



- Rolls up to 1800 mm in diameter are processed
- In roll changes, seamless web transition through hydraulic loaded splicing rolls
- Precise adaptation of web tension to the specific materials
- Automatic tension control on unwind and smoothing calender
- Hydraulic loaded smoothing calender
- Precise setting of material thickness
- Selectable embossing patterns: classic matched steel- or pin to flat-embossing rolls
- Precision register adjustment
- Speed variable draw rolls at the longitudinal folding module and before the cross-cutter
- Settings for either Z- or N-fold
- High precision vacuum folding cylinder
- Simplest package stock quantity changing from 5 to 15 counts
- Automatic rejection of poor quality hanky batches
- Seamless transfer to unit packaging
- Precision unit packaging through proven cell wheel technology
- Automatic ejection of defective products
- Simple process monitoring by a shared touchscreen





## Labels: Small but Sweet

The labelling station precisely applies the label to the pack.  
Benefits of this aggregate's functionality:

- Simplicity of operation, an integrated system, but nevertheless flexible
- Automatic, alternating operation of labelling heads, a further increase in overall efficiency

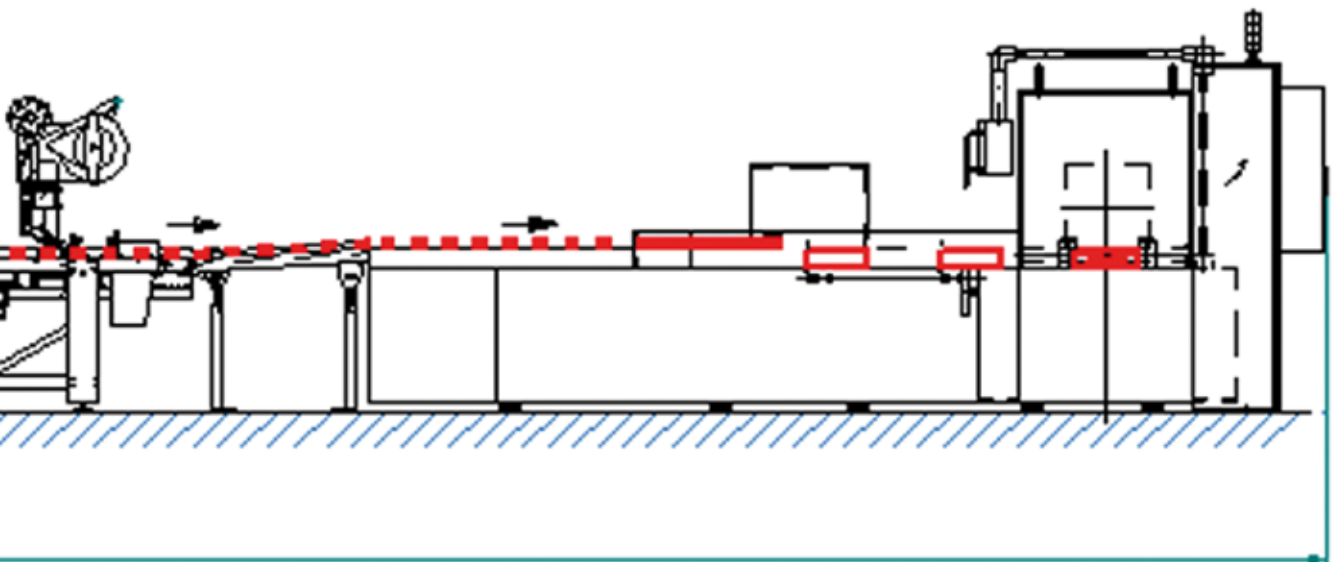


## According to Your Specifications: Bundles Ranging from 6 to 48 Packages

The bundle packaging station is yet another integral part of the Hankyline's concept of maximum production flexibility. The grouping station assembles the individual packages into an orderly bundle according to your requirements in 2, 3 or 4 layers!



- Proven bundle packaging technology
- Precise placing of film cut
- Clean heat-sealing
- Simplicity in process monitoring via touchscreen





## Automated High: Performance Production

The TCA 300 consists of a folding machine, and a bundle packing machine. It sets standards in productivity and cost-effectiveness:

- A turnkey solution: components form an integrated system
- Guaranteed production speed of 3000 handkerchiefs per minute
- Designed for three-shift operation
- Fewer moving parts = less wear and tear
- Greater production safety
- Optimal speed calibration thanks to single drives
- Uniform and reliable hydraulic pressures
- Automatic lubrication system
- State-of-the-art electronics and safety technologies
- Minimized maintenance costs
- High efficiency and high ROI
- CE

Over 50 years of experience in the tissue industry and renowned Senning quality Made in Germany represents reliability throughout the entire production line. At long last, these qualities are now available as a turnkey solution which includes installation, training, replacement parts, and service.



# Hankyline TCA 300: Performance Through Technology

## TCA 300 Technical Specifications

### Guaranteed performance

Handkerchiefs / min. number	3000
	or
Piles / min. number	300

### Roll dimensions

Max. roll diameter	1800 mm
Max. roll width	440 mm
Inner core diameter	70 or 76 mm

### Product dimensions

Sheet length	200-220 mm
Sheet width	200-220 mm

### Fold types

Z-fold (standard) or N-fold (compact)

### Product count

5 - 15 handkerchiefs

### Package sizes

6 - 48 packages

### Vacuum pump

Water ring or dry running battery

### Average energy consumption for the series

90 kVA

### Air consumption for the series

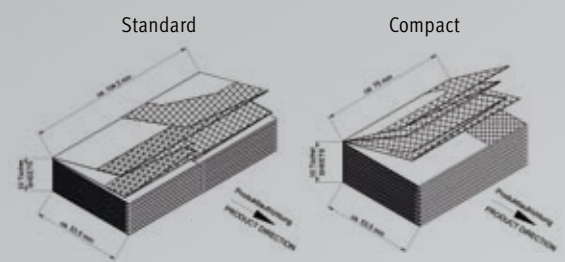
550 l/h

### General data

Materials Two- or multi-ply tissue  
Polypropylene and polyethylene film

### Options:

Printing unit  
Lotion unit  
Reel-lifting device  
Water tank circulation for Vacuum pump  
Waste container for tissue suction extraction system



See the Hankyline in action:  
Request our movie or arrange to visit us.

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Christian Senning  
Verpackungsmaschinen GmbH & Co. KG  
Kalmsweg 10  
D-28239 Bremen

Phone: +49421.69462-0  
Fax: +49421.640965  
E-Mail: [info@senning.de](mailto:info@senning.de)  
[www.senning.de](http://www.senning.de)