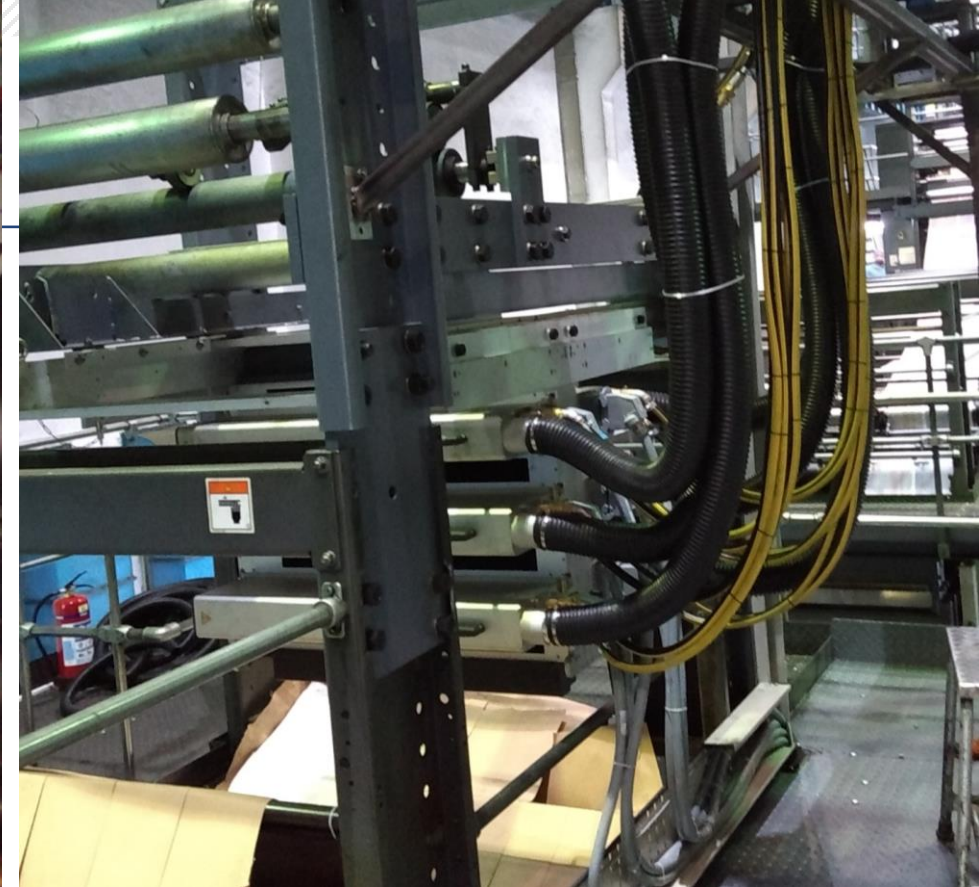


LEDitCure in ColdSet





LED in commercial and newspaper printing. New?
No, not really.....just with Lamps

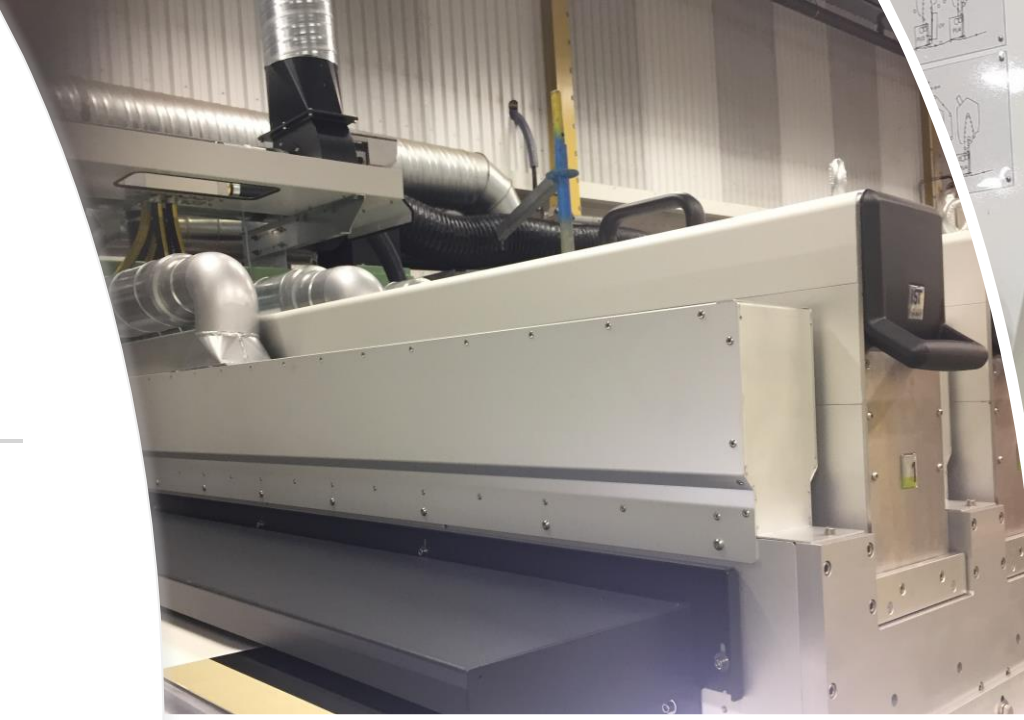
WHY LED in Web Printing?

- Immediate curing of inks & varnishes
- 100% system (inks/coatings etc.) without solvents
- No ink build-up due to deposit in subsequent processes
- Significant improvement in print quality
- Extended substrate variants (coated, films etc.)
- No heat impact on the paper



Curing by Light in Web Presses

- Very successful in the production of packaging for many years
- Production Speeds up to 800 m/min





High Gloss Coating in Web Offset

-
- Installations for finishing commercials and magazine covers with High Gloss Coatings have been widespread since around 1990

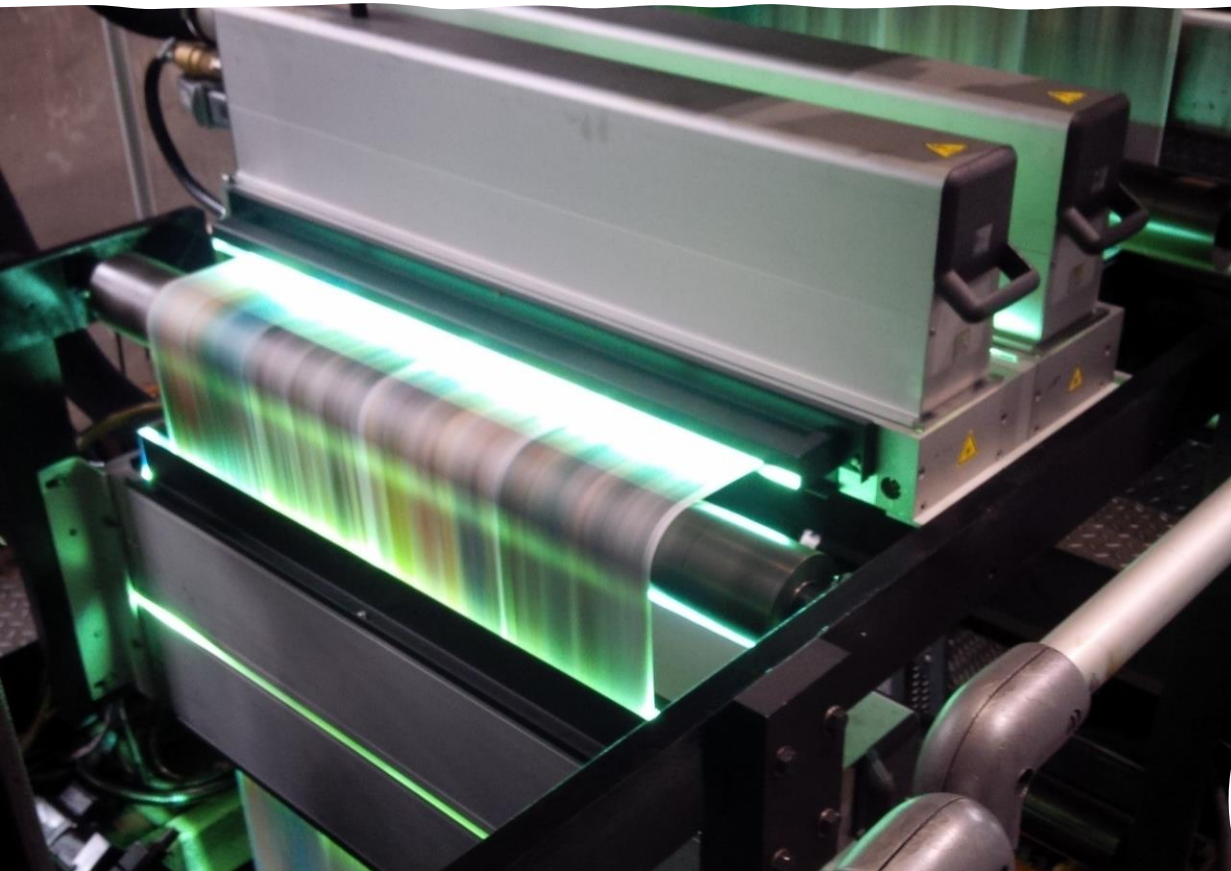
1995: Zehnder printing
in Switzerland on a
Solna

Motivation:
Improvement of the
print product &
environmental aspects





2005: India & Turkey



- In India and Turkey, around 40 presses were equipped with UV to produce high-quality advertising imprints on cold-set presses (Even the cover page of the Times of India, Hindustan Times, Hurriyet, Sabah, etc.).
- In Turkey in parallel operation to the HeatSet with the specification of identical print quality for regional smaller runs



Changeover from Heatset

- Customer Rung Silp Printing (Bangkok, Thailand)
- IST UV-System with 3lamp units for each side of the web
- Press: Mitsubishi AY1
 - Cut-off 1.250 mm
 - 912 mm Web Width
 - Max. 30.000 rev/h (~10,5 m/s)
- Replacement for Heat Set



Switch from HeatSet to LED UV



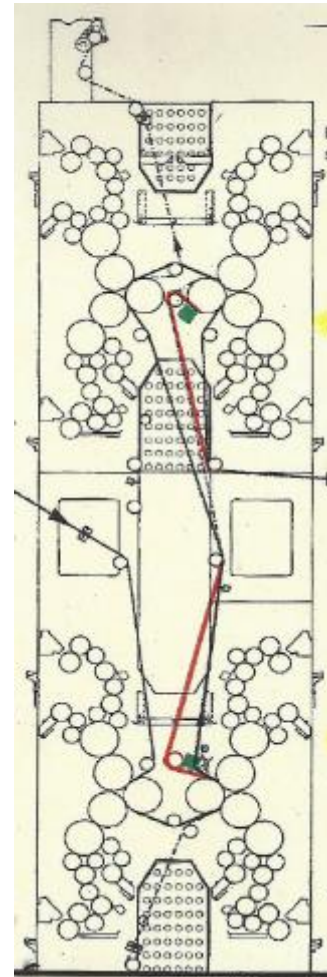
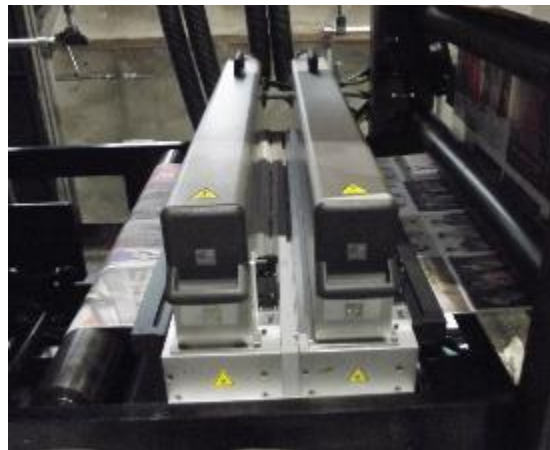
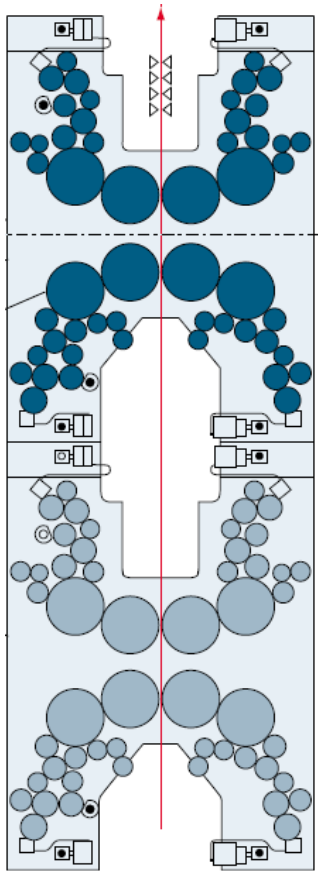
- Energy requirements (also for cooling)
- Space requirement in the pressroom
- No need for silicone application
- Wide range of media types (glossy/mat coated, textured papers, etc.)
- Absolute flatness of printed products
- Highest rub resistance
- No fossil energy (no gas)

Set-up (horizontal)



Installation

- Standard UV on 8c Tower



- LED UV in Satellite





Summary: LED UV

- Several trial installations with LED UV have been successfully carried out
- First practical installations are realized
- The compact design allows installation in tight spaces
- The first fast running press went into operation in Q1 of this year in Switzerland.
- After an intensive test phase of about 2 years, the customer decided to invest in LED technology for two printing towers.

LED is no “Rocket-Science”