

qDry Pro - The Professional Integration of Infrared and Hot Air Dryers

Martin Schmid
Voith Paper Inc., Appleton, WI

Sustainability – The Vision for the Future of Paper Production



Raw material

Maximizing the recycling rate



Energy

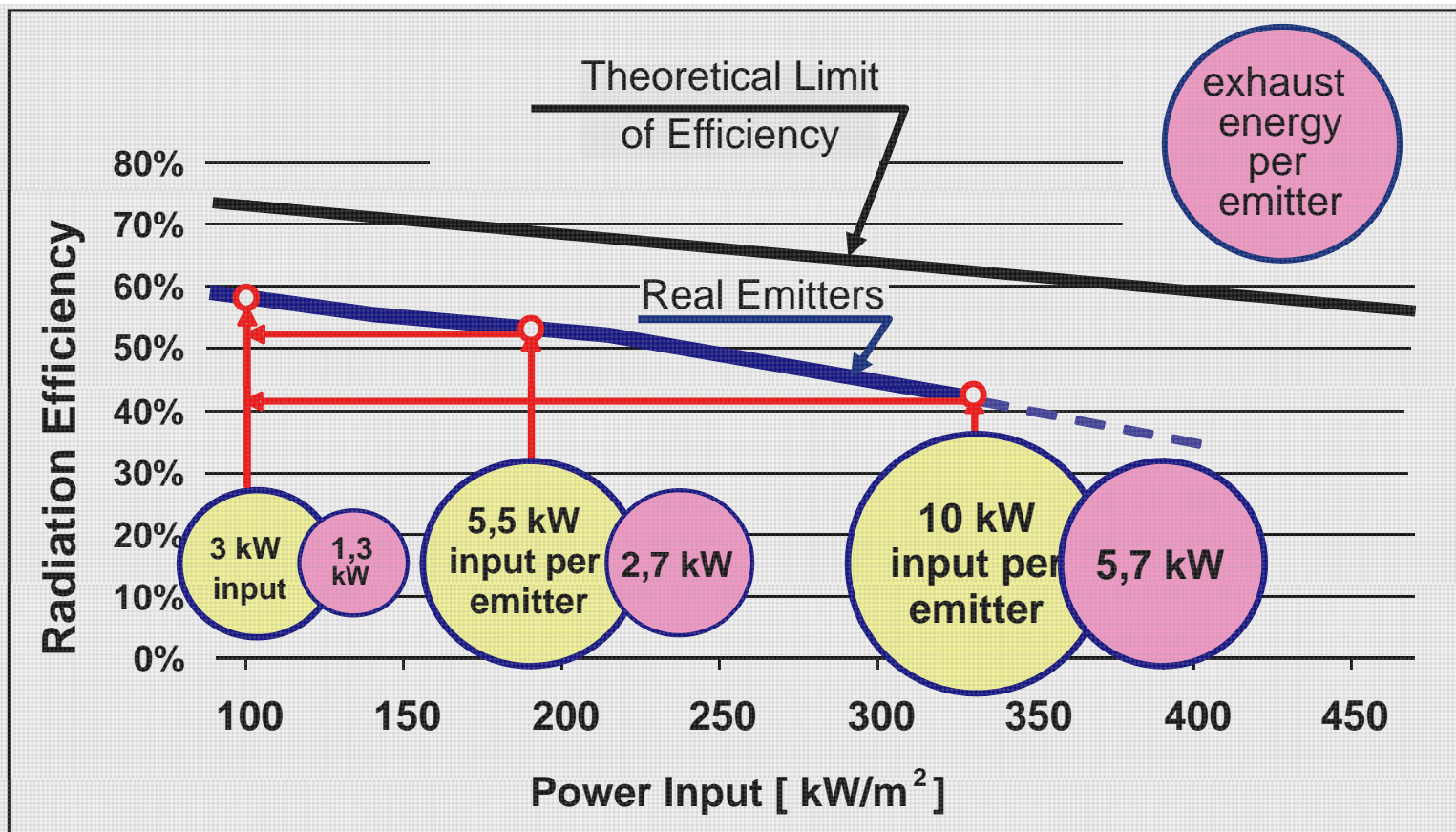
Reducing worldwide primary energy consumption by half



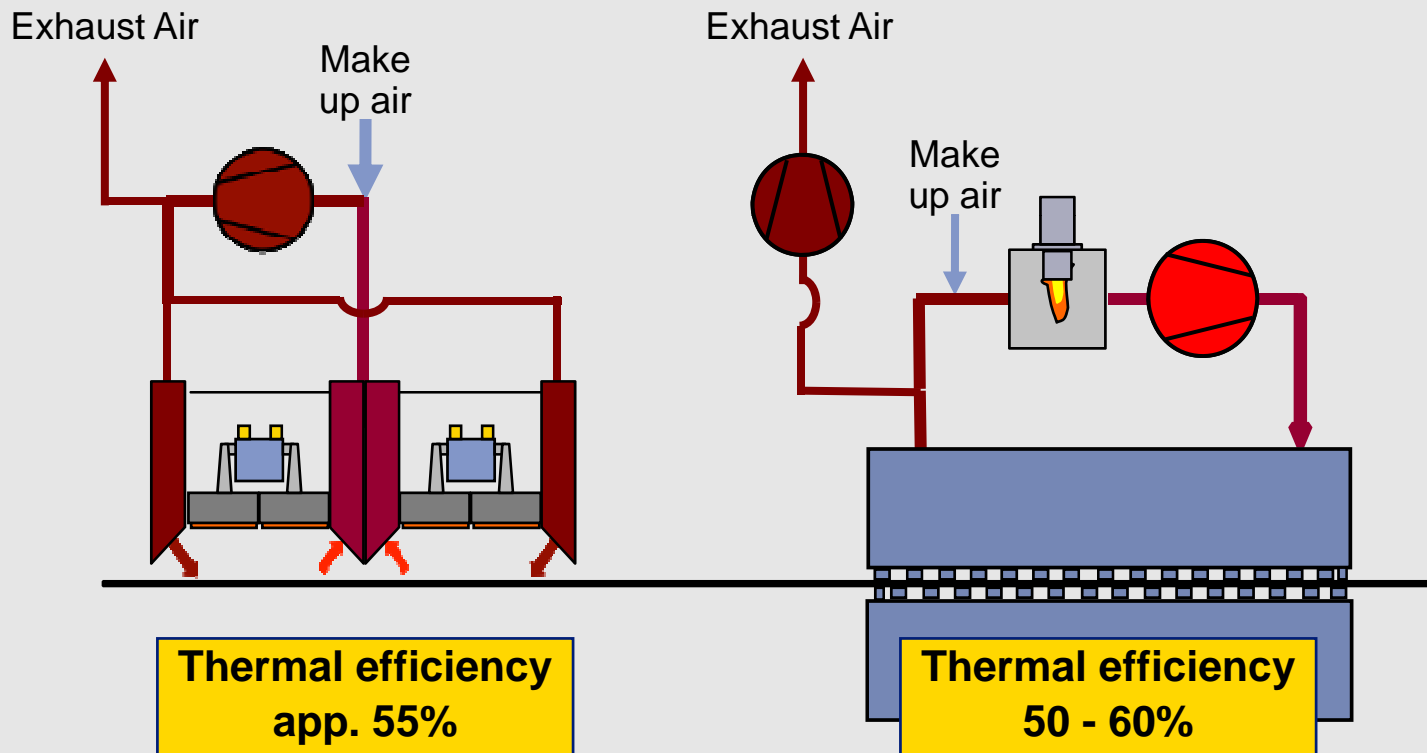
Water

Lowering consumption of fresh water to less than 1 liter per kg

Efficiency of Gas Heated IR - Emitters

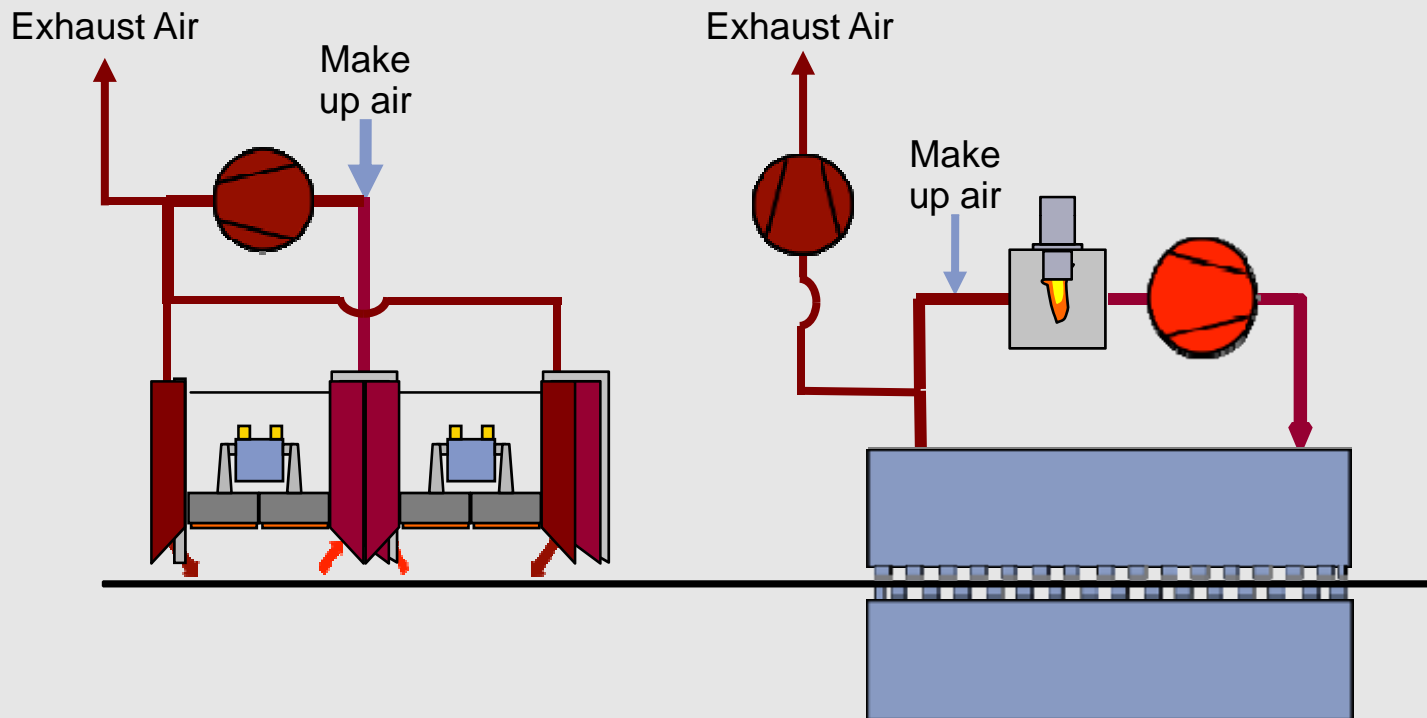


qDry Pro System Concept



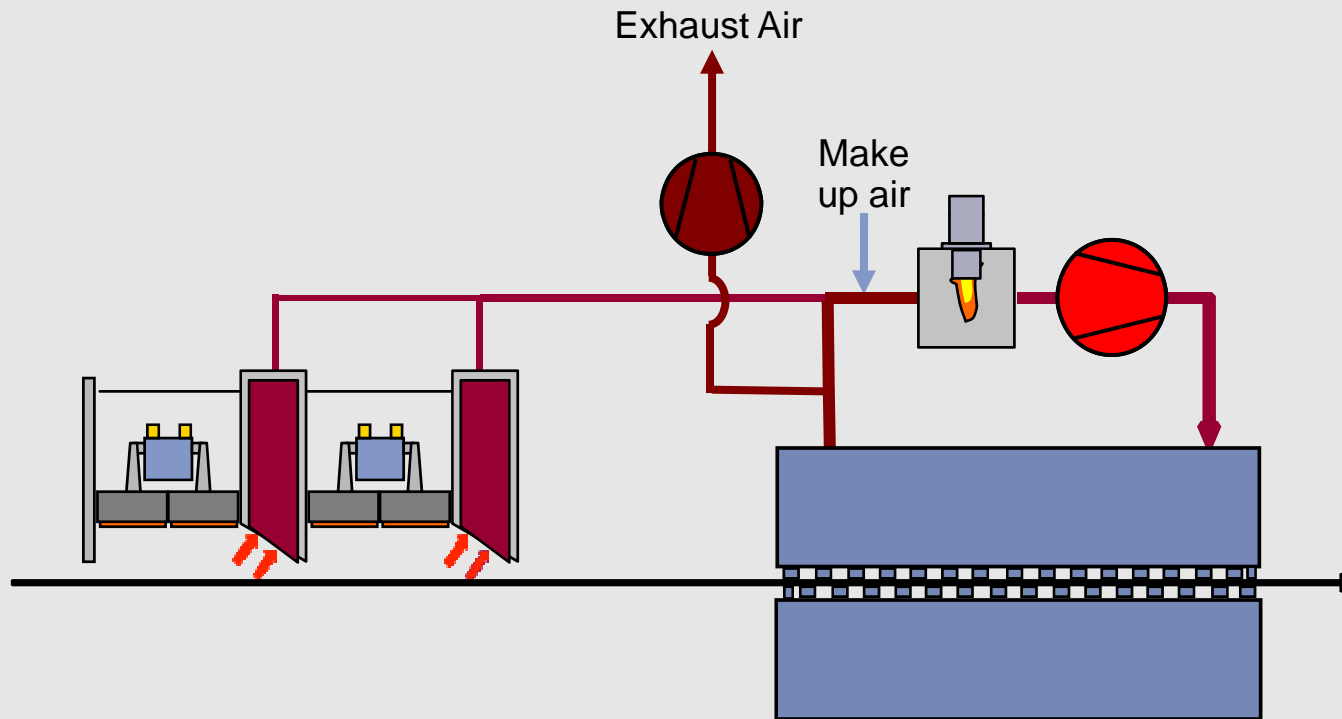
In conventional concepts infrared and hot air systems are operated with separate circulation air systems

qDry Pro System Concept



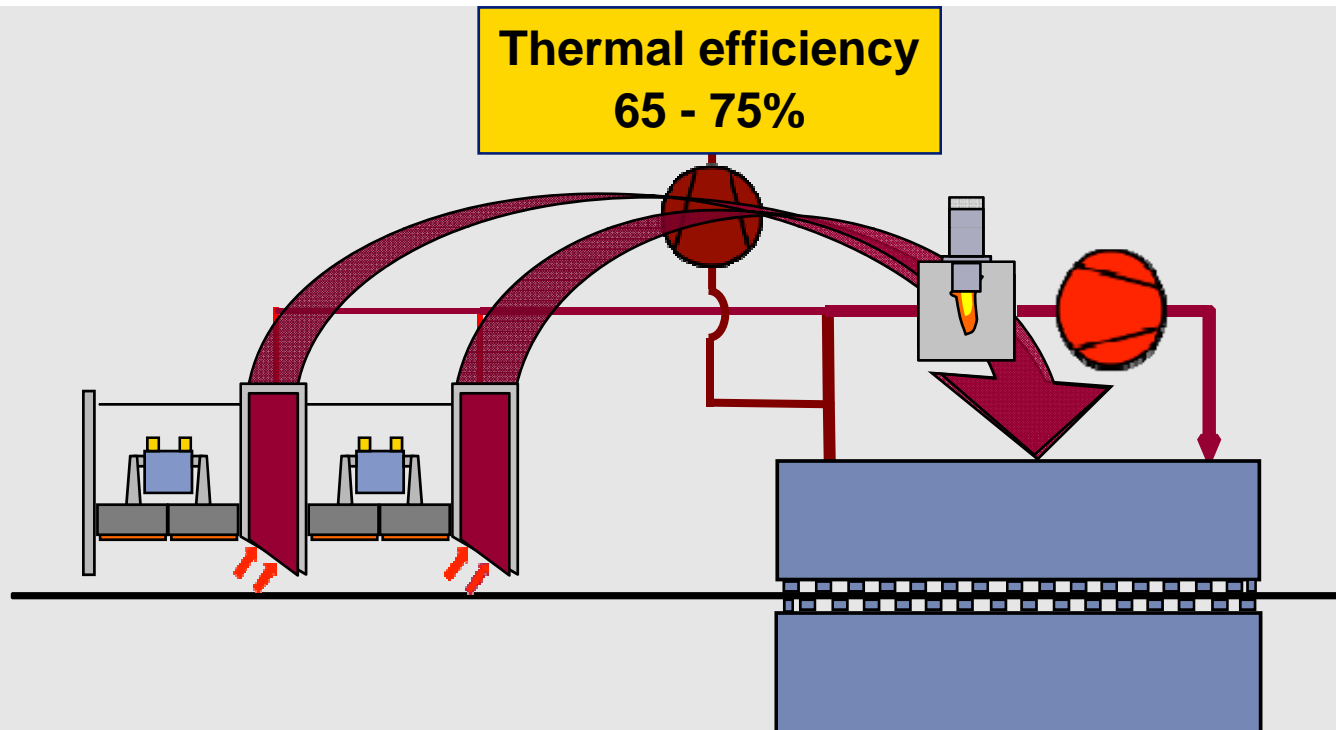
**Wide insulated suction channels replace
the small blowing and suction air channels**

qDry Pro System Concept



**The exhaust gases of the infrared system
replace the make up air of the air dryer**

qDry Pro - The most efficient Combination of Infrared- and Air Drying Systems

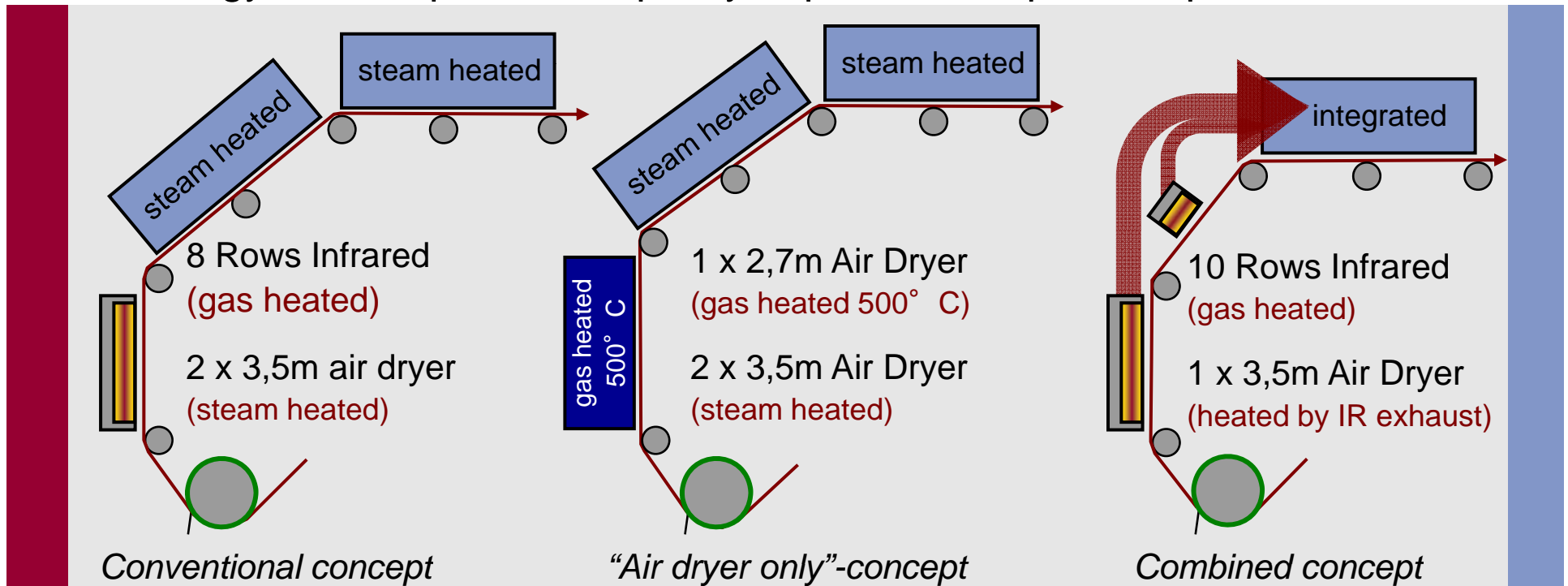


**The burning chamber is not needed during operation
(at optimum setting used for system heat up only)**

qDry Pro

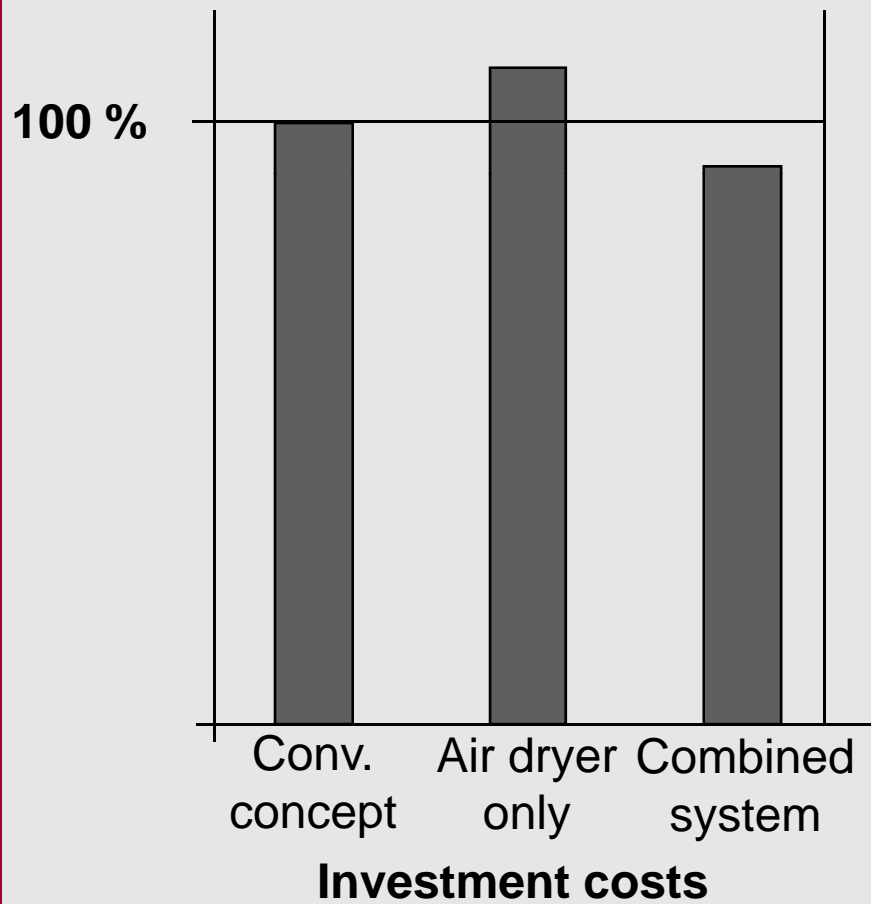
Advantages and Customer Benefits for CE-Projects

Example: Comparison of non contact drying concepts for cWTTL
 > energy consumption < > quality aspects < > space requirements <



Investment and Operating Costs

Example: NC Drying after a Top Coater for cWTTL



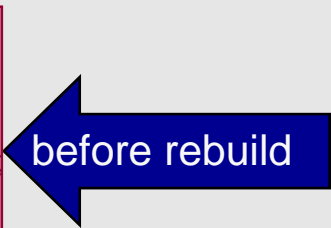
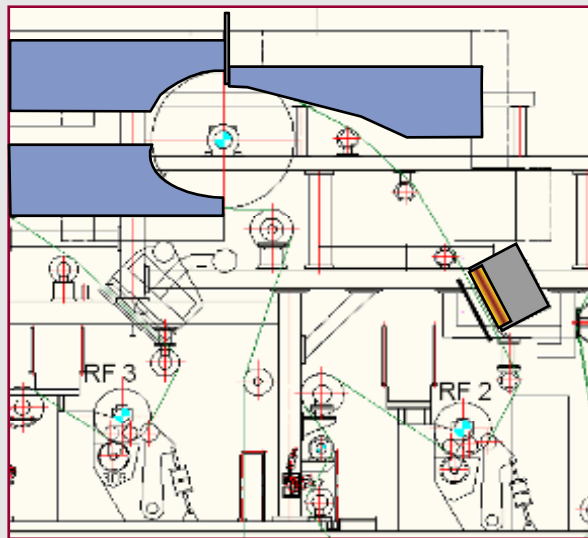
qDry Pro Rebuild Potential

Reference: N.N. / Germany 2010

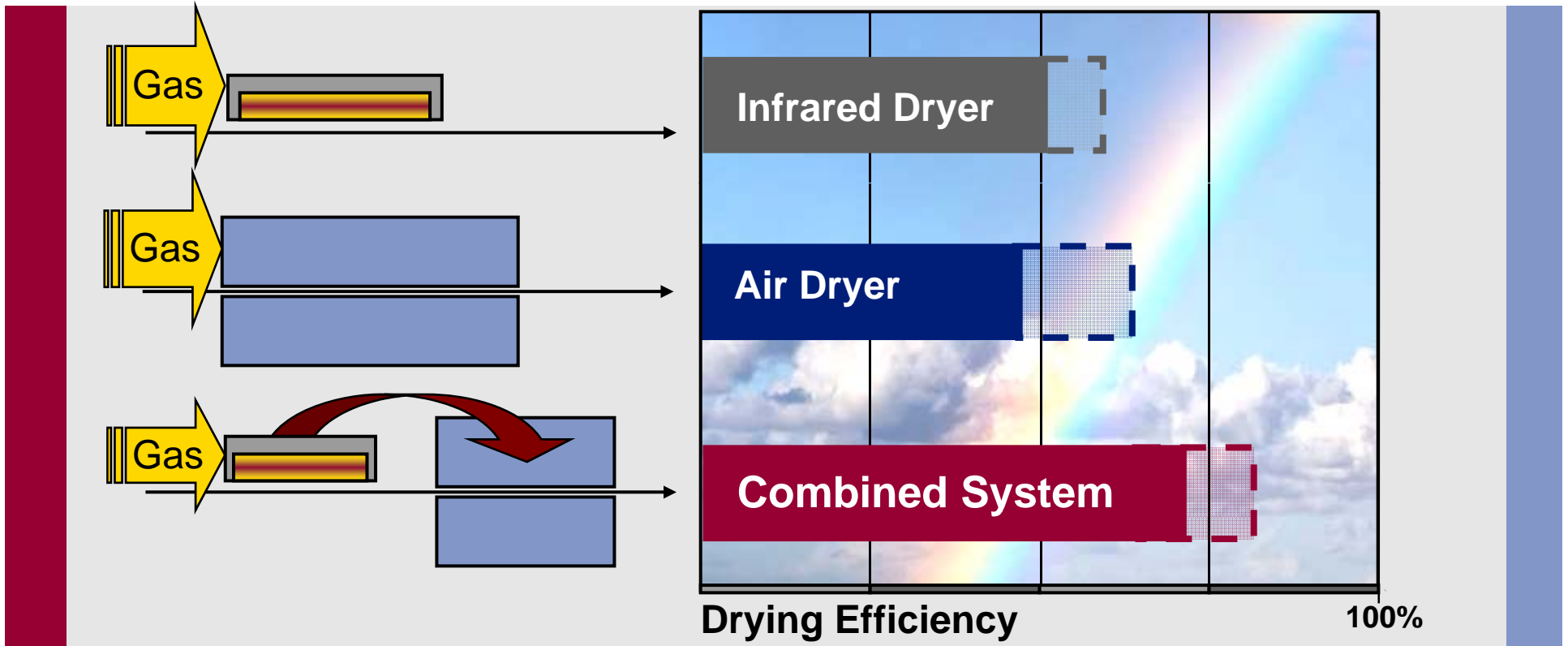
Main project target: Remarkable reduction of energy costs

Total energy input:

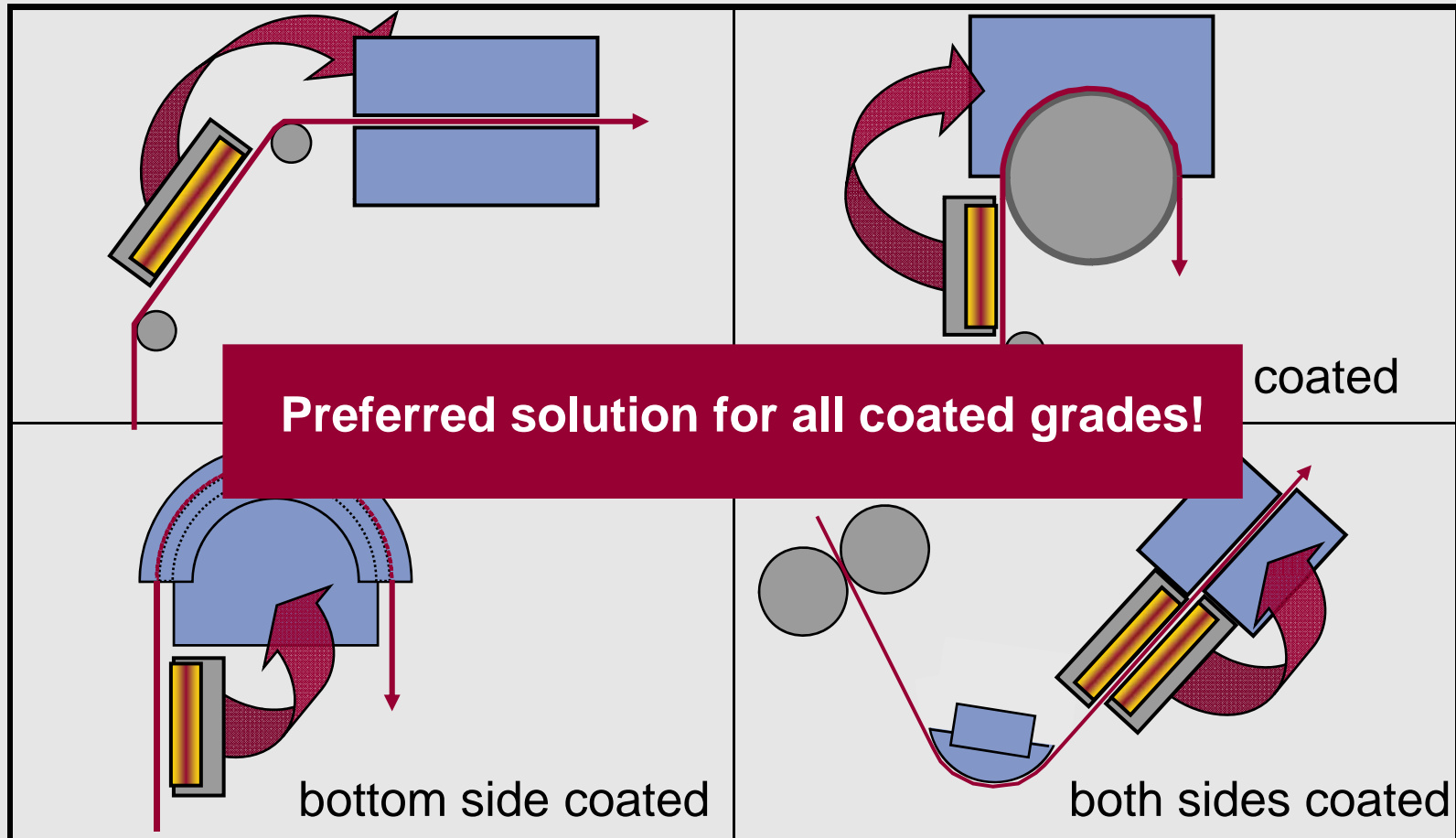
Pay back period < 2.5 years (Germany)



qDry Pro Summary



qDry Pro System Solutions






VOITH

Engineered reliability.