

## REFERENCE LIST

SEMICONDUCTOR  
SOLAR  
PHARMA  
POWER GENERATION  
FOOD & BEVERAGE  
**PULP AND PAPER**  
CHEMICAL  
OIL AND GAS  
MINING  
AEROSPACE AND TRANSPORT



An **aquarion** Group Company

# Process & Wastewater Treatment In the Pulp and Paper Industry



Client	Plant Type	Capacity
Mondi Syktivkar/Germany	<b>Feasibility Study for WWTP upgrade</b>	12,000 m <sup>3</sup> /h
UPM Plattling/Germany	<b>Tertiary Paper Wastewater Treatment</b>  Extension of wastewater treatment with tertiary ozonation and biofiltration BIOFIT® F	510 m <sup>3</sup> /h
UPM Nordland Papier/Germany	<b>Retrofitting two MBBR for pretreating wastewater from the paper industry</b>  Aeration with AEROFIT V and BIOFIT® C1 carrier	750 m <sup>3</sup> /h
SCA Sovetsk/Russia	<b>Treatment of wastewater from the paper industry</b>  Extension of raw water treatment with filtration Extension of wastewater treatment with FLOCOMAT®, moving bed reactor BIOFIT® H, aeration AEROFIT V, and biofiltration BIOFIT® F	180 m <sup>3</sup> /d
Vinakraft Vietnam	<b>Treatment of wastewater from the paper industry</b>  Decalcification DECAFIT with AEROFIT V aerator and FLOCOPAC® thickener	250 m <sup>3</sup> /h
Mondi Swiecie/Poland	<b>Treatment of wastewater from the paper industry</b>  Wastewater treatment plant refurbishment with AEROFIT V aerator	2,900 m <sup>3</sup> /h
PF Wattens Wattens/Austria	<b>Treatment of wastewater from the paper industry</b>  Single-stage biofiltration (BIOFIT® F)	350 m <sup>3</sup> /h
Mondi Syktyvkar/Russia	<b>Condensate polishing plant</b>  Cartridge filter, mixed bed exchanger, regeneration station, condensate storage tank	3 x 400 m <sup>3</sup> /h
Julius Schulte Trebsen/Germany	<b>Treatment of wastewater from the paper industry</b>  Wastewater treatment plant refurbishment with AEROFIT V aerator	120 m <sup>3</sup> /h
TAZV Eisenhüttenstadt Eisenhüttenstadt/Germany	<b>Treatment of wastewater from the paper industry</b>  Decalcification DECAFIT with AEROFIT V aerator and FLOCOPAC® thickener	960 m <sup>3</sup> /h
PM Gmund Gmund/Germany	<b>Treatment of wastewater from the paper industry</b>  Membrane bioreactor MBR	33 m <sup>3</sup> /h
PM Königstein Königstein/Germany	<b>Treatment of wastewater from the paper industry</b>  Membrane bioreactor MBR	70 m <sup>3</sup> /h
RKTK Rubesnoye/Ukraine	<b>Treatment of wastewater from the paper industry</b>  Refurbishment aeration – moving bed anaerobic	500 m <sup>3</sup> /h
IPEK KAGIT Turkey	<b>Treatment of wastewater from the paper industry</b>  New wastewater treatment plant with BIOFIT® F biofiltration and thickening for filter backwash wastewater	200 m <sup>3</sup> /h

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SCA Mainz-Kostheim Mainz-Kostheim/Germany	<b>Treatment of wastewater from the paper industry</b>  New wastewater treatment plant with ANAFIT® AC anaerobic reactor with cogeneration unit, DECAFIT delimiting, nitrification, and denitrification	220 m³/h
PMT Egypt	<b>Treatment of wastewater from the paper industry</b>  New wastewater treatment plant with FLOCOMAT® T	60 m³/h
Bellesbumprom, Shklov/Belarus	<b>Treatment of raw and wastewater from the paper industry</b>  New raw water treatment plant with FLOCOPAC® L New wastewater treatment plant with FLOCOMAT® T, aerobic moving bed reactor, aeration AEROFIT V, aeration BIOFIT® F biofiltration, and tertiary treatment	270 m³/h
SCA Tula/Russia	<b>Treatment of raw and wastewater from tissue production</b>  New raw water treatment plant with filtration New wastewater treatment plant with aerobic moving bed reactor, aeration and AEROFIT V biofiltration	30,000 t/year
Phuong Nam Vietnam	<b>Treatment of raw and wastewater from the pulp industry</b>  New raw water treatment plant with filtration New wastewater treatment plant with anaerobic ANAFIT® AC high-performance stage and AEROFIT V aeration.	100,000 t/year
Sappi Stockstadt GmbH (form. M-real) Stockstadt/Germany	<b>Treatment of wastewater from the pulp industry</b>  Extension of plant capacity with BIOFIT® H biological high-performance stage upstream pure oxygen activated sludge plant	160,000 t/year
Feinpappenwerk Gebr. Schuster Hebertshausen/Germany	<b>Treatment of wastewater resulting from carton production</b>  Already existing trickling filter substituted by aerated BIOFIT® H high-performance stage upstream of an activated sludge plant	70 m³/h
Perlen Papier AG Perlen/Switzerland	<b>Treatment of wastewater resulting from the paper industry</b>  Extension of the existing activated sludge plant by a BIOFIT® H aerated high-performance stage	660 m³/h
Stora Enso Maxau GmbH & Co. KG Karlsruhe/Germany	<b>Treatment of wastewater resulting from the paper industry</b>  Optimisation of wastewater treatment plant by pre-sedimentation with turbine circulation and extension by BIOFIT® H biological high-performance stage and partial stream cooling	850 m³/h
Paperfabrik Haindl Werk Walsum Walsum/Germany	<b>Treatment of wastewater resulting from the paper industry</b>  Refurbishment of bio-filtration, 5 filter systems à 22 m², BIOFIT® F	1,000 m³/h

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Buchmann Karton Annweiler/Germany	<b>Treatment of wastewater from carton production</b>  Fluidised bed reactor (two-stage), connecting piping, civil works, additional post-clarification basin (second stage of extension)	500 m <sup>3</sup> /h
Papierfabrik Palm Aalen/Germany  for  Fab in Eltmann	<b>Boiler feed water treatment</b>  Filter for manganese removal, desalination	14 m <sup>3</sup> /h
Felix Schoeller Weissenborn/Germany	<b>Demineralisation</b>  Cation, anion, and mixed bed exchangers  <b>Condensate polishing</b>  Cation and mixed bed exchangers	2 x 15 m <sup>3</sup> /h  1 x 40 m <sup>3</sup> /h
Musi Pulp Mill Sumatra/Indonesia	<b>Treatment of raw and wastewater from the pulp industry</b> Kraft pulp (bleached)  New raw water treatment plant with FLOCOPLUS® and filtration New wastewater treatment plant with primary sedimentation, activated sludge process, and sludge thickening	500,000 t/year
Ahlstrom-Jagenberg GmbH Neuss/Germany	<b>Treatment of wastewater from the paper industry</b>  Single-stage biofiltration (BIOFIT® F)	300 m <sup>3</sup> /h
Carl Machen Brunnenthal/Germany	<b>Treatment of wastewater from carton production</b>  Extension of the existing activated sludge treatment by anaerobic fluidised bed	700 m <sup>3</sup> /d
SCA Laakirchen AG Laakirchen/Germany	<b>Treatment of wastewater from the paper industry</b>  Biofiltration with 8 BIOFIT® filters	10,300 m <sup>3</sup> /h
Ahlstrom-Kämmerer GmbH Osnabrück/Germany	<b>Treatment of wastewater from the paper industry</b>  Single-stage biofiltration (BIOFIT® F)	600 m <sup>3</sup> /h
Papierfabrik Königstein Königstein/Germany	<b>Treatment of wastewater from the paper industry</b>  Two-stage biofiltration (BIOFIT® F)	125 m <sup>3</sup> /h
Buchmann GmbH Kartonfabrik Annweiler/Germany	<b>Treatment of wastewater from carton production</b>  Biofiltration (BIOFIT® F) downstream of existing activation	420 m <sup>3</sup> /h
Schoeller & Hoesch Gernsbach/Germany	<b>Treatment of wastewater from the paper industry</b>  Single-stage biofiltration (BIOFIT® F)	1,500 m <sup>3</sup> /h
MD Papier GmbH Dachau/Germany	<b>Treatment of surface water to produce process water</b>  Cooling tower for wastewater cooling Two-stage biofiltration (BIOFIT® F) with flotation for filter backwash wastewater	900 m <sup>3</sup> /h 690 m <sup>3</sup> /h

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PWA Stockstadt Stockstadt/Germany	<b>Treatment of wastewater from the paper industry</b>	
	Chemico-physical wastewater treatment (FLOCOPAC® L)	280 m <sup>3</sup> /h
	Two-stage biofiltration (BIOFIT® F)	800 m <sup>3</sup> /h
Papierfabrik Scheufelen GmbH Lenningen/Germany	<b>Demineralisation</b>	
	Cation exchanger, CO <sub>2</sub> trickling degasifier, anion exchanger	2 x 25 m <sup>3</sup> /h
	<b>Condensate polishing</b>	100 m <sup>3</sup> /h
Drewsen Spezialpapiere GmbH & Co. KG Lachendorf/Germany	<b>Treatment of wastewater from the paper industry</b>	
	Two-stage biofiltration (BIOFIT® F)	280 m <sup>3</sup> /h
Sari Paper and Board Mill Mazandaran/Iran	<b>Treatment of wastewater from carton production</b>	
	Aerobic biological wastewater treatment	850 m <sup>3</sup> /h
Enso Gutzeit Oy/ Sachsenpapier AG	<b>Treatment of wastewater from the paper industry</b>	
	FLOCOPAC® L and filtration (FILTRO G)	800 m <sup>3</sup> /h
PWA Stockstadt Stockstadt am Main/Germany	<b>Treatment of wastewater from the pulp industry</b>	
	Bleached paper pulp (magnesium hydrogen sulphite process)	160,000 t/year
	Pure oxygen activated sludge plant	
Feinpappenwerk Gebr. Schuster Herbertshausen/Germany	<b>Treatment of wastewater from carton production</b>	
	Biological wastewater treatment (trickling filters activator-NKL)	70 m <sup>3</sup> /h
Zanders Feinpapiere AG Bergisch Gladbach/Germany	<b>Treatment of wastewater from the paper industry</b>	
	Biological treatment	1,080 m <sup>3</sup> /h
	Biological wastewater treatment (VKL-activator-NKL)	960 m <sup>3</sup> /h
Peter Temming AG Glückstadt/Germany	<b>Treatment of wastewater from the paper industry</b>	
	Biological treatment (linters wastewater)	750 m <sup>3</sup> /h
	Flotation	600 m <sup>3</sup> /h
	FLOCOPAC® L honeycomb clarifier for further clarification	1,300 m <sup>3</sup> /h
	Biological treatment (activator, flotation, BIOFIT® F)	200 m <sup>3</sup> /h
Holtzmann E & Cie. GmbH Fab Maxau Karlsruhe/Germany	<b>Demineralisation</b>	
	Multimedia filter, cation exchanger, CO <sub>2</sub> trickling degasifier, compound anion exchanger, mixed bed exchanger	2 x 34 m <sup>3</sup> /h
Papierfabrik Haindl Werk Walsum/Germany	<b>Treatment of wastewater from the paper industry</b>	
	Sedimentation	1,000 m <sup>3</sup> /h
	Biological filtration BIOFIT® F	800 m <sup>3</sup> /h

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Papierfabrik Mochenwangen Mochenwangen/Germany	<b>Treatment of wastewater from the paper industry</b>  Chemico-physical treatment with sludge dewatering Turbo-circulator/band filter press, trickling filter FLOCOPAC® L and BIOFIT® F	250 – 450 m <sup>3</sup> /h  300 m <sup>3</sup> /h
Munskj Dekor GmbH Aalen-Unterkochen/Germany	<b>Treatment of wastewater from the paper industry</b>  Biological filtration with BIOFIT® F	700 m <sup>3</sup> /h
Schoeller + Hoesch GmbH Gernsbach/Germany	<b>Demineralisation</b>  Servo® CLEANFLOW	3 x 250 m <sup>3</sup> /h
Julius Glatz GmbH Neidenfels/Germany	<b>Treatment of wastewater from the paper industry</b>  Biological filtration with BIOFIT® F	1,000 m <sup>3</sup> /h
MD Papier GmbH Plattling/Germany	<b>Treatment of wastewater from the paper industry</b>  Extension of a plant installed in 1981 (installation of a second line of identical design)	2 x 270 m <sup>3</sup> /h
Leykam Mürtzaler Papier- und Zellstoff AG Gratkorn-Gratwein/Austria	<b>Treatment of wastewater from the paper industry</b>  Sedimentation, biological treatment with pure oxygen 30t/d BSB <sub>5</sub>	3,000 m <sup>3</sup> /h
Leykam Mürtzaler Papier und Zellstoff AG Gratkorn-Gratwein /Austria	<b>Treatment of wastewater from the pulp industry</b>  Bleached paper pulp (magnesium hydrogen sulphite process)  Pure oxygen activated sludge plant	210,000 t/year
Homburger Papierfabrik W. Geldmacher GmbH Nürnberg/Germany	<b>Treatment of wastewater from the paper industry</b>  FLOCOMAT® T, sludge press	80 m <sup>3</sup> /h
Hannover Papier Alfeld/Germany	<b>Treatment of wastewater from the pulp industry</b>  Anaerobic contact sludge treatment	1,600 m <sup>3</sup> /d
Delligser Papierfabrik PVA GmbH und Co. Delligsen/Germany	<b>Treatment of wastewater from the paper industry</b>  Biological treatment with trickling filters and biofilters	105 m <sup>3</sup> /h
MD Papier GmbH Plattling/Germany	<b>Treatment of wastewater from the paper industry</b>  Sedimentation (turbo-circulator), biological treatment (AEROFIT D)	270 m <sup>3</sup> /h
Niederrheinische Papier- und Kartonfabrik GmbH Neuss/Germany	<b>Treatment of wastewater from the paper industry</b>  Sedimentation (FLOCOMAT® T), sludge dewatering (PressDeg)	400 m <sup>3</sup> /h
PWA Werk Miesbach Miesbach/Germany	<b>Treatment of wastewater from the paper industry</b>  Biological treatment DP 230	360 m <sup>3</sup> /h
Gissler und Pass AG Jülich/Germany	<b>Treatment of wastewater from the paper industry</b>  Closed water circulation with trickling filters, FLOCOMAT® T	60 / 90 m <sup>3</sup> /h

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Papierfabrik Miltenberg Miltenberg/Germany	<b>Treatment of wastewater from the paper industry</b> Sedimentation	120 m <sup>3</sup> /h
Papierfabrik Jass Fulda/Germany	<b>Treatment of wastewater from the paper industry</b> Sedimentation	200 m <sup>3</sup> /h
Papierfabrik Grünewald Kirchhunden/Germany	<b>Treatment of wastewater from the paper industry</b> Sedimentation	200 m <sup>3</sup> /h
Feldmühle AG Hagen/Germany	<b>Treatment of wastewater from the paper industry</b> Sedimentation Biological treatment	1,000 m <sup>3</sup> /h
Norddeutsche Papierwerke GmbH Düsseldorf- Reisholz/Germany	<b>Condensate polishing</b>	100 m <sup>3</sup> /h
Papier und Zellstoffabrik Teisnach/Germany	<b>Condensate polishing</b>	40 m <sup>3</sup> /h

H+E ranks among the world's leading suppliers in the fields of: water & wastewater treatment, and energy efficiency. Based on its global presence, the **H+E GROUP** has completed projects in over 50 countries.



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