

# ADVANCED WET ELECTROSTATIC PRECIPITATORS

## REFERENCE LIST

Client	Location	Application Units	WESP Wet Basis	Gas Vol. °C	Temp Built	Year
National Iranian Lead & Zinc Co. Iran	Zanjan Iran	Lead Smelter	1	23,800 Nm <sup>3</sup> /h	40	1985
Enami	Las Ventanas Chile	Copper Converter Sulphuric Acid Plant	3 + 3	97,600 Nm <sup>3</sup> /h	40	1989
Stauffer Chemical Company	Dominquez USA	Sulphuric Acid Regeneration Plant	1 + 1	72,000 Nm <sup>3</sup> /h	40	1989
Outokumpu Mining	Harjavalta Finland	Copper/Nickel Smelter/ Sulphuric Acid Plant	1	61,000 Nm <sup>3</sup> /h	40	1989
Kemira Oy	Pori Finland	Titanium Dioxide Plant Tail Gas Scrubber	1	45,000 Nm <sup>3</sup> /h	75	1989
Kronos Titan	Fredrikstad Norway	Titanium Dioxide Plant Tail Gas Scrubber	1	27,500 Nm <sup>3</sup> /h	75	1989
Sulzer	Zilina Slovakia	Sodium Sulphite Decomposition Plant	1	12,000 Nm <sup>3</sup> /h	40	1990
Rhône Poulenc	Rieme/Gent Belgium	Sulphuric Acid Regeneration Plant	1 + 1	56,200 Nm <sup>3</sup> /h	40	1990
Outokumpu Mining	Harjavalta Finland	Copper/Nickel Smelter/ Sulphuric Acid Plant	1	64,000 Nm <sup>3</sup> /h	40	1990
Grillo-Werke	Duisburg Germany	Spent Acid Decomposition Plant	1	35,000 Nm <sup>3</sup> /h	40	1991
Kronos Titan	Nordenham Germany	Titanium Dioxide Plant Tail Gas Scrubber	1	39,800 Nm <sup>3</sup> /h	75	1992

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John Brown	Kamenogorsk Kazakhstan	Lead and Zinc Smelter	4 + 4	100,000 Nm <sup>3</sup> /h	40	1993
Bayer	Uerdingen Germany	Sulphate Decomposition Plant	1	61,000 Nm <sup>3</sup> /h	35	1994
Doe Run	Herculaneum USA	Lead Smelter	1	61,200 Nm <sup>3</sup> /h	32	1996
Kronos Titan	Fredrikstad Norway	Titanium Dioxide Plant Tail Gas Scrubber	1	27,500 Nm <sup>3</sup> /h	75	1996
Degussa Röhm	Darmstadt/Worms Germany	Sulphuric Acid Regeneration Plant	1	15,300 Nm <sup>3</sup> /h	40	1997
Newmont/Minproc	Minahasa Indonesia	Gold Refinery	1	42,258 Nm <sup>3</sup> /h	40	1997
MGC-Zwilag	Würenlingen Switzerland	Nuclear Waste Incineration Plant	1	2,800 Nm <sup>3</sup> /h	35	1998
Formosa Plastics	Mai Liao Taiwan	Sulphuric Acid Regeneration Plant	2	70,000 Nm <sup>3</sup> /h	30	1998
Palabora Mining Company	Phalaborwa South Africa	Copper Converter Sulphuric Acid Plant	6	195,350 Nm <sup>3</sup> /h	40	1998
ENAMI Paipote	Paipote Chile	Copper Converter Sulphuric Acid Plant	1	61,000 Nm <sup>3</sup> /h	45	2000
Degussa Röhm	Darmstadt/Worms Germany	Sulphuric Acid Regeneration Plant	1	45,000 Nm <sup>3</sup> /h	35	2000

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Berzelius	Stolberg Germany	Lead Smelter	2	42,700 Nm <sup>3</sup> /h	60	2000
Degussa Röhm	Darmstadt/Worms Germany	Sulphuric Acid Regeneration Plant	1	45,000 Nm <sup>3</sup> /h	35	2001
Anglo Platinum	Rustenburg South Africa	Platinum off-gases	3	68,000 Nm <sup>3</sup> /h	70 – 75	2001
Anglo Platinum	Rustenburg South Africa	Platinum off-gases	3	83,000 Nm <sup>3</sup> /h	65 - 70	2001
Anglo Platinum	Rustenburg South Africa	Platinum off-gases	2	44,000 Nm <sup>3</sup> /h	30 – 35	2001
Anglo Platinum	Rustenburg South Africa	Platinum off-gases	2	65,000 Nm <sup>3</sup> /h	20 – 25	2001
Formosa Plastics	Mai Liao Taiwan	Sulphuric Acid Regeneration Plant	2	70,000 Nm <sup>3</sup> /h	30	2004
Sachtleben Chemie	Duisburg Germany	Pyrite roasting gases with additives from fluidized bed	1	37,600 Nm <sup>3</sup> /h	40	2007
Karat-ZM	Sorsk Russia	Lead smelter off-gases	2	23,000 Nm <sup>3</sup> /h	50	2008
Yara Suomi	Siilinjärvi Finland	Pyrite roasting gases	2	80,000 Nm <sup>3</sup> /h	40	2010
Sachtleben Chemie	Duisburg Germany	Pyrite roasting gases with additives from fluidized bed	1	37,600 Nm <sup>3</sup> /h	40	2011
Lonza	Visp Switzerland	Industrial waste incineration	1	42,000 Nm <sup>3</sup> /h	70	2011

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Boliden Kokkola	Kokkola Finland	Zinc roaster	2	126,000 Nm <sup>3</sup> /h	40	2011
Boliden Harjavalta	Harjavalta Finland	Nickel roaster, copper converter	1	55,500 Nm <sup>3</sup> /h	40	2012
Huntsman	Duisburg Germany	Pyrite roasting gases with additives from fluidized bed	1	42,200 Nm <sup>3</sup> /h	80	2014
Grillo-Werke	Duisburg Germany	Spent Acid Decomposition Plant	1	35,000 Nm <sup>3</sup> /h	40	2015
Huntsman	Pori Finland	Titanium Dioxide Calcination Tail Gas Scrubber	1	25,000 Nm <sup>3</sup> /h	90	2015
Evonik	Worms Germany	Sulphuric Acid Regeneration Plant	1	45,000 Nm <sup>3</sup> /h	35	2016
Nyrstar	Balen Belgium	Zinc Smelter Sulphuric Acid Plant (Engineering)	2	90,000 Nm <sup>3</sup> /h	40	2017
Borealis	Linz Austria	NPK Fertilizer Plant Tail Gas Scrubber (Engineering)	1	330,000 Nm <sup>3</sup> /h	55	2017
Venator (Huntsman)	Pori Finland	Titanium Dioxide Calcination Tail Gas Scrubber	7	170,000 Nm <sup>3</sup> /h	82	2018
Cristal France	Thann France	Titanium Dioxide Calcination Tail Gas Scrubber	1	24,000 Nm <sup>3</sup> /h	70	2019
Venator (Huntsman)	Duisburg Germany	Tail Gas Cleaning	1	92,000 Nm <sup>3</sup> /h	80	2019

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Grillo-Werke	Duisburg Germany	Spent Acid Decomposition Plant (Pilot Unit)	1	5,000 Nm3/h	40	ongoing