

References in the Glass and Mineralwool Industry

Company	Process	System	Crude Gas m ³ /h	Operation Temp. °C	Year
Izocam Tarsus (Türkei)	Solids from glass melter	Horizontal Hot Gas Dry Type Electrostatic Precipitator - two field -	46,454	700.0	2020
KNAUF Insulation Johor (Malaysia)	Solids from glass smelting furnace	Horizontal Hot Gas Dry Type Electrostatic Precipitator - three phase -	59,852	270	2020
ROXUL Ranson (USA)	Solids, aerosols, phenol, Blue Haze and odour from forming line, curing oven and hall suction from rock wool production	Quench, Wet Absorber, Vertical Wet Type ESP	775,749	33.5	2020
Saint-Gobain ISOVER Speyer (Germany)	Solids, aerosols, phenol, Blue Haze and odour from forming lines from mineral wool production	Quench, Wet Absorber, Vertical Wet Type ESP	2 x 68,765	40.0	2019
Guardian Goole (United Kingdom)	NOx from float glass smelting furnace	SCR DeNOx Catalyzer with ammonia injection	210,728	230	2019
Flumroc Flums (Switzerland)	Solids, aerosols, phenol and Blue Haze from collecting chamber, curing oven and cooling zone from rock wool production	Quench, Wet Absorber, Vertical Wet Type ESP	356,000	34.9	2018
Guardian Oroshaza Oroshaza (Hungary)	Solids, SOx, HCl, HF, NOx from float glass smelting furnace	Optimisation Hot Gas Dry ESP, Sorption, Cooling and SCR DeNOx Catalyzer with ammonia injection	213,686	350	2016
Guardian Llodio Llodio (Spain)	Solids, SOx, HCl, HF, NOx from float glass smelting furnace	Quench, Dry Sorption, Horizontal Dry Type Electrostatic Precipitator, SCR DeNOx Catalyzer with ammonia injection	289,779	550	2016
Guardian Flachglas Bitterfeld-Wolfen (Germany)	NOx from float glass smelting furnace	SCR DeNOx Catalyzer with ammonia injection	293,421	380	2015
Saint-Gobain ISOVER Bergisch-Gladbach (Germany)	Solids, aerosols, phenol, Blue Haze and odour from forming lines from mineral wool production	Quench, Wet Absorber, Vertical Wet Type ESP	3 x 60,000	40	2015
ROXUL Byhalia/Memphis (USA)	Solids, aerosols, phenol, Blue Haze and odour from forming line, curing oven and hall suction from rock wool production	Quench, Wet Absorber, Vertical Wet Type ESP	662,244	35.2	2014
Tasman Insulation Penrose / Auckland (New Zealand)	Solids, aerosols, phenol, Blue Haze and odour from forming line, curing oven and cooling process from mineral wool production	Quench, Wet Absorber, Vertical Wet Type ESP	64,497	35	2011
Ursa Slovenija Novo Mesto (Slovenija)	Solids, aerosols, phenol, Blue Haze and odour from forming line, curing oven and cooling process from mineral wool production	Quench, Wet Absorber, Vertical Wet Type ESP	240,000	33.4	2010

References in the Glass and Mineralwool Industry

Company	Process	System	Crude Gas m ³ /h	Operation Temp. °C	Year
Agenda Glas Gardelegen (Germany)	Solids, SO _x , HCl and HF and NO _x from glass smelting furnace	Lime Dry Sorption Horizontal 3-step Dry Type Electrostatic Precipitator with SCR DeNO _x System	94,600	480	2010
Beatson Clark Rotherham (Great Britain)	Solids and dust from glass smelting furnace	Horizontal 2-step Dry Type Electrostatic Precipitator	165,000	430	2010
KNAUF INSULATION St. Helens (Great Britain)	Solids, aerosols, phenol, Blue Haze and odour from forming line, curing oven and cooling process from mineral wool production	Quench, Wet Absorber, Vertical Wet Type ESP	233,800	36	2009
KNAUF INSULATION Lannemezan (France)	Solids, aerosols, phenol, Blue Haze and odour from forming line, curing oven and cooling process from mineral wool production	Vertical Wet Type Electrostatic Precipitator -DUAL SYSTEM-	694,080	34	2010
Saint-Gobain Polska Gliwice (Poland)	Aerosols, solids, phenol and Blue Haze from glass smelting process	Vertical Wet Type Electrostatic Precipitator	242,000	38	2007
Saint-Gobain Polska Gliwice (Poland)	Solids and dust from glass smelting furnace	Horizontal 2-step Dry Type Electrostatic Precipitator	30,512	400	2008
OWENS-ILLINOIS Dubi (Czech Republic)	Dust, particle, sulphur oxides and chlorides from 2 gas/air glass smelting furnace	Horizontal 2-field Hot-Gas Dry Type Electrostatic Precipitator with Alkaline Sorption	131,930	454	2007
Saint-Gobain Isover G+H Ploiesti (Rumania)	Dust and particles from Oxy-Fuel glass smelting furnace	Horizontal 2-step Dry Type Electrostatic Precipitator	44,408	450	2006
Gen. Electric Hungary Rt. Vác (Hungary)	Solids from Oxy-Fuel glass smelting furnace	Horizontal 2-step Dry Type Electrostatic Precipitator	41,765	350	2006
URSA Delitzsch (Germany)	Solids, aerosols, phenol, formaldehyde, ammonia, from curing oven and cooling process from glass wool production	Vertical Wet Type Electrostatic Precipitator -DUAL SYSTEM-	132,578	35	2005
URSA Delitzsch (Germany)	Solids, aerosols, phenol, formaldehyde, ammonia, from forming line from glass wool production	Vertical Wet Type Electrostatic Precipitator -DUAL SYSTEM-	328,428	35	2005
URSA Delitzsch (Germany)	Solids from Oxy-Fuel glass smelting furnace	Horizontal 2-step Dry Type Electrostatic Precipitator	41,268	350	2006
KNAUF INSULATION Krupka (Czech Republic)	Solids, aerosols, phenol, odour from forming line, curing oven and cooling process from mineral wool production	Vertical Wet Type Electrostatic Precipitator -DUAL SYSTEM-	470,780	35	2005

References in the Glass and Mineralwool Industry

Company	Process	System	Crude Gas m ³ /h	Operation Temp. °C	Year
KNAUF INSULATION St. Helens (Great Britain)	Solids, aerosols, phenol, odour from forming line, curing oven and cooling process from mineral wool production	Vertical Wet Type Electrostatic Precipitator -DUAL SYSTEM-	414,256	35	2005
Gen. Electric Hungary Rt. Vác (Hungary)	Solids from Oxy-Fuel glass smelting furnace	Horizontal 2-step Dry Type Electrostatic Precipitator	9,000	450	2005
Gen. Electric Hungary Rt. Nagykanizsa (Hungary)	Dust from glass smelting process	Horizontal Dry Type Electrostatic Precipitator	62,800	400	2004
Jahan Crystal Teheran (Iran)	Dust from glass smelting process	Hot-Gas Jet-Puls Oval Bag Filter - horizontal	33,000	220	2003
Saint-Gobain Isover G+H Speyer (Germany)	Phenols, aerosols, fibres from mineral wool manufacturing	Horizontal Wet Type Electrostatic Precipitator	3 x 100,000	40	2002
SEG-Funnel Samsung Glass Co., Ltd Shenzhen (PR China)	NO _x reduction for glass smelting process	Catalytic System with urea respectively ammonia water	2 x 99,297	220	2001
SEG-Funnel Samsung Glass Co., Ltd Shenzhen (PR China)	NO _x reduction for glass smelting process	Catalytic System with urea respectively ammonia water	72,217	220	2001
Hankook Electric Glass Gumi (South Korea)	NO _x reduction for glass smelting process	Catalytic System with urea	110,600	230	2000
Hankook Electric Glass Gumi (South Korea)	NO _x reduction for glass smelting process	Catalytic System with urea	55,300	230	2000
Hankook Electric Glass Gumi (South Korea)	NO _x reduction for glass smelting process	Catalytic System with urea	115,000	250	2000
Samsung-Corning Gumi (South Korea)	NO _x reduction for glass smelting process (K08)	Catalytic System with urea	304,600	250	1999
Samsung-Corning Gumi (South Korea)	NO _x reduction for glass smelting process (K07)	Catalytic System with urea	113,000	250	1999
Samsung-Corning Gumi (South Korea)	NO _x reduction for glass smelting process (K06)	Catalytic System with urea	21,700	220	1999
Grünzweig + Hartmann AG Speyer (Germany)	Aerosols, solids, phenol and Blue Haze from glass smelting process	Vertical Wet Type Electrostatic Precipitator	70,000	40	2000
Samsung-Corning Suwon (South Korea)	NO _x reduction for glass smelting process (K04)	Catalytic System with ammonia and urea	90,300	220	1999
Samsung-Corning Suwon (South Korea)	NO _x reduction for glass smelting process (K03)	Catalytic System with ammonia and urea	73,700	230	1999

References in the Glass and Mineralwool Industry

Company	Process	System	Crude Gas m ³ /h	Operation Temp. °C	Year
Grünzweig + Hartmann AG Lübz (Germany)	Dust from glass smelting process	Horizontal 3-Field Dry-Electrostatic Precipitator	40,000	400	1999
Samsung-Corning Suwon (South Korea)	NO _x reduction for glass smelting process (K02)	Catalytic System with ammonia and urea	130,700	270	1999
Samsung-Corning Suwon (South Korea)	NO _x reduction for glass smelting process (K01)	Catalytic System with ammonia	21,000	270	1997
OWA Odenwald Faserplatten GmbH Amorbach (Germany)	Dust, and chlorides, fluorides from basalt/glass smelting process	Horizontal 2-Field Dry-Electrostatic Precipitator with scrubbing-reactor	74,000	400	1996
Grünzweig + Hartmann AG Ladenburg (Germany)	Aerosols, solids, phenol and Blue Haze from mineral wool production	Horizontal Wet Type Electrostatic Precipitator	162,000	40	1995
Grünzweig + Hartmann AG Ladenburg (Germany)	Flue gases from glass smelting process	Horizontal 2-Field Dry-Electrostatic Precipitator	170,000	400	1993
Grünzweig + Hartmann AG Bergisch-Gladbach (Germany)	Aerosols, solids, phenol and Blue Haze from mineral wool production	Vertical Wet Type Electrostatic Precipitator	60,000	38	1992