

## I. Sinter plant

| No. | Location  | Application                                    | Start-up | Gas Vol.<br>(Am <sup>3</sup> /min) | Equipment  |
|-----|---|--|----------|------------------------------------|------------|
| 1   | Inchon Iron & Steel Co., Ltd.<br>Inchon Factory<br>Electric Arc Furnace No. 3     | Electric<br>Arc Furnace                        |          | 6,347                              | Bag filter |
| 2   | POSCO / Pohang Works<br>Sinter Plant No. 1  | Sinter machine<br>process                      | 1985     | 10,500                             | ESP        |
| 3   | POSCO / Pohang Works<br>Sinter Plant No. 2  | Sinter machine<br>process                      | 1986     | 18,000                             | ESP        |
| 4   | POSCO / Pohang Works<br>Steel Manufacturing Converter No. 2                       | Converter<br>nuisance control                  | 1988     | 15,000                             | ESP        |
| 5   | POSCO / Pohang Works<br>Sinter Plant No. 3  | Sinter machine<br>environment                  | 1988     | 14,700                             | ESP        |
| 6   | POSCO / Pohang Works<br>Sinter Plant No. 3  | Sinter machine<br>process                      | 1988     | 17,000<br>x 2                      | ESP        |
| 7   | Samsung Heavy Ind. Co., Ltd.<br>Sammi Special Steel Co., Ltd.<br>Changwon Factory | EAFLF<br>De-dusting System                     | 1989     | 12,000                             | Bag filter |
| 8   | Samsung Heavy Ind. Co., Ltd.<br>Sammi Special Steel Co., Ltd.<br>Changwon Factory | Billet Caster<br>Conveyor<br>De-dusting System | 1989     | 750                                | Bag filter |
| 9   | Samhan Corp.<br>Sammi Special Steel Co., Ltd.<br>Changwon Factory                 | Billet Caster<br>Conveyor<br>De-dusting System | 1990     | 750                                | Bag filter |
| 10  | POSCO / Pohang Works<br>Sinter Plant No. 1<br>(Repair & Modification)             | Sinter machine<br>environment                  | 1993     | 7,200                              | ESP        |
| 11  | POSCO / Pohang Works<br>No. 2 Sinter Plant<br>(SO <sub>3</sub> Injection System)  | Sinter machine<br>process                      | 1992     | 18,000                             | ESP        |
| 12  | POSCO / Pohang Works<br>Sinter Plant No. 1<br>(Repair & Modification)             | Sinter machine<br>process                      | 1993     | 7,000                              | ESP        |
| 13  | POSCO / Pohang Works<br>Sinter Plant No. 2<br>(Extension Work)                    | Sinter machine<br>process                      | 1994     | 6,000                              | ESP        |
| 14  | POSCO / Pohang Works<br>Sinter Plant No. 2<br>(Internal Exchange & Modification)  | Sinter machine<br>environment                  | 1994     | 10,200                             | ESP        |
| 15  | POSCO / Pohang Works<br>Sinter Plant No. 3<br>(Extension Work)                    | Sinter machine<br>process                      | 1995     | 11,400                             | ESP        |

| No. | Location   | Application                                    | Start-up | Gas Vol.<br>(Am <sup>3</sup> /min) | Equipment                     |
|-----|--|--|----------|------------------------------------|-------------------------------|
| 16  | POSCO / Pohang Works<br>Sinter Plant No. 2<br>(Repair & Modification Work)               | Sinter machine<br>process                      | 1997     | 18,000                             | ESP                           |
| 17  | POSCO / Pohang Works<br>Sinter Plant No. 2   | Sinter machine<br>environment                  | 1997     | 10,200                             | ESP                           |
| 18  | POSCOENC / Esfahan Works<br>No. 4 Sinter Plant<br>Iran                                   | Sinter machine<br>process                      | 2004     | 25,000                             | ESP                           |
| 19  | POSCOENC / Esfahan Works<br>No. 4 Sinter Plant<br>Iran                                   | Sinter machine<br>environment                  | 2004     | 12,000                             | ESP                           |
| 20  | POSCOENC / Esfahan Works<br>No. 4 Sinter Plant<br>Plant De-dusting Plant No. 2<br>Iran   | Sinter machine<br>environment                  | 2004     | 19,500                             | ESP                           |
| 21  | POSCO / Gwangyang Works<br>Sinter Plant No. 4<br>(Internal Part Exchange & Modification) | Sinter machine<br>process                      | 2004     | 19,000<br>x 2                      | ESP                           |
| 22  | POSCO / Gwangyang Works<br>Sinter Plant No. 3<br>(Exchange Work #1&2)                    | Sinter machine<br>process                      | 2006     | 12,825<br>x 2                      | ESP                           |
| 23  | POSCO / Pohang Works<br>No. 3 Sinter Plant<br>(Internal Part Exchange & Modification)    | Sinter machine<br>environment                  | 2006     | 14,700                             | ESP                           |
| 24  | POSCO / Gwangyang Works<br>Sinter Plant #1~4<br>(Flue Gas Cleaning System)               | Sinter plant<br>De-NOx<br>De-SOx,<br>De-Dioxin | 2006     | 34,040<br>x 4                      | SCR<br>FGD(Dry)<br>Bag filter |
| 25  | SUMITOMO<br>Kashima Plant<br>Sinter Plant No. 2<br>Japan                                 | Sinter Machine<br>Process                      | 2008     | 33,563                             | ESP                           |
| 26  | POSCO E&C<br>ASIA SPECIAL STEEL<br>Electric ARC Furnace<br>(Bag Filter System)           | EAF Dedusting System                           | 2008     | 15,000                             | ESP                           |
| 27  | POSCO<br>Pohang Steel Works<br>Sinter Plant No. 1  | Sinter Machine<br>Process                      | 2009     | 7,000                              | ESP                           |
| 28  | Hyundai Steel<br>Sinter Plant  | Sinter Machine<br>Process                      | 2009     | 42,000<br>x 2                      | ESP                           |
| 29  | Hyundai Steel<br>Sinter Plant  | Sinter machine<br>environment                  | 2009     | 17,000<br>x 2                      | ESP                           |

| No. | Location  | Application                                    | Start-up | Gas Vol.<br>(Am <sup>3</sup> /min) | Equipment                     |
|-----|---|--|----------|------------------------------------|-------------------------------|
| 30  | POSCO / Pohang Works<br>Pohang Steel Works<br>Sinter Plant No. 4<br>(Repair & Modification) | Sinter Machine<br>Process                      | 2010     | 38,000<br>x 3                      | ESP                           |
| 31  | POSCO / Gwangyang Works<br>Sinter Plant #5<br>(Flue Gas Cleaning System)                    | Sinter plant<br>De-NOx<br>De-SOx,<br>De-Dioxin | 2010     | 44,322<br>x 1                      | SCR<br>FGD(Dry)<br>Bag filter |

## II. Coke plant

| No. | Location   | Application  | Start-up | Gas Vol.<br>(Am <sup>3</sup> /min) | Equipment     |
|-----|--|--------------|----------|------------------------------------|---------------|
| 1   | POSCO / Pohang Works<br>No. 2 Coke Plant<br>No. 1,2,3 and 4 Coal Crusher | Coal         | 1984     | 2,300                              | Fabric Filter |
| 2   | POSCO / Pohang Works<br>No. 2 Coke Plant<br>No. 3 Cutter                 | Coke         | 1984     | 950                                | Fabric Filter |
| 3   | POSCO / Pohang Works<br>No. 3 Bunker                                     | Coke #2      | 1984     | 850                                | Fabric Filter |
| 4   | POSCO / Gwangyang Works<br>No. 2 Coke Plant                              | Charging car | 1987     | 80                                 | Fabric Filter |
| 5   | POSCO / Gwangyang Works<br>No. 2 Coke Plant                              | Transfer car | 1987     | 83                                 | Fabric Filter |
| 6   | POSCO / Pohang Works<br>No. 2 Cokes Plant                                | Coke oven    | 2001     | 5,153<br>x 2                       | Fabric Filter |

### III. Blast furnace process

| No. | Location   | Application   | Start-up     | Gas Vol.<br>(Am <sup>3</sup> /min) | Equipment                      |
|-----|--|---|--------------|------------------------------------|--------------------------------|
| 1   | POSCO / Gwangyang Works<br>No. 1 Blast Furnace Plant   | Fan inlet<br>air filter   | 1986         | 7,800                              | Fabric Filter                  |
| 2   | POSCO / Gwangyang Works<br>No. 1 Blast Furnace Plant   | Cast house<br>nuisance  | 1986         | 11,000                             | Fabric Filter                  |
| 3   | POSCO / Gwangyang Works<br>Blast Furnace Stockhouse No. 1  | Raw Mt'l handling   | 1987         | 15,760                             | ESP                            |
| 4   | POSCO / Gwangyang Works<br>Blast Furnace Stockhouse No. 3<br>nuisance control  | Raw Mt'l handling   | 1989         | 12,000                             | ESP                            |
| 5   | POSCO / Pohang Works<br>New Foundry Pig Iron Blast Furnace   | Air filter<br>for new foundry<br>Pig iron blast furnace fan       | 1989         | 2,500                              | Fabric Filter                  |
| 6   | Korea Shipbuilding & Engineering Corp.<br>POSCO / Gwangyang Works<br>No. 3 Blast Furnace Plant<br>Air Filter for Blast Furnace Fan | Pusher<br>fan inlet<br>air filter                                 | 1987<br>1990 | 333<br>7,800                       | Fabric Filter<br>Fabric Filter |
| 7   | POSCO / Gwangyang Works<br>Blast Furnace No. 4<br>Stockhouse   | Raw Mt'l handling<br>nuisance control                             | 1991         | 12,000                             | ESP                            |
| 8   | POSCO / Gwangyang Works<br>Gwangyang Steel Works<br>No. 1 Thin Slab Casting Plant<br>(Turbulent Contact Adsorption Type)           | Casting machine   | 1996         | 1,050<br>x2                        | Wet Scrubber                   |
| 9   | POSCO / Pohang Works<br>No.1 Blast Furnace   | Bag house for<br>Blast furnace source #1<br>Material bin nuisance | 1997         | 8,000                              | Fabric Filter                  |
| 10  | POSCOENC / Gwangyang Works<br>No. 5 Blast Furnace<br>Source Material Stock House   | Stock house   | 1999         | 12,000                             | ESP                            |
| 11  | POSCOENC / Gwangyang Works<br>No. 1 Blast Furnace<br>Source Material Stock House<br>(Repair & Modification)                        | Raw Mt'l handling<br>nuisance control                             | 2002         | 15,033                             | ESP                            |
| 12  | POSCOENC / Esfahan Works<br>Blast Furnace No. 3<br>Iran  | Raw Mt'l handling<br>Source Material Stock House                  | 2004         | 11,500                             | ESP                            |
| 13  | POSCOENC /Esfahan Works<br>Blast Furnace No. 3<br>Iran   | Furnace process<br>Cast house                                     | 2004         | 18,720                             | ESP                            |

| No. | Location   | Application                           | Start-up | Gas Vol.<br>(Am <sup>3</sup> /min) | Equipment     |
|-----|--|---------------------------------------|----------|------------------------------------|---------------|
| 14  | POSCO / Gwangyang Works<br>Blast Furnace No. 2<br>Source Material Stock House<br>(Repair & Modification) | Raw Mt'l handling<br>nuisance control | 2004     | 15,033                             | ESP           |
| 15  | POSCO / Gwangyang Works<br>No. 2 Blast Furnace Plant   | PCI process #1&2                      | 2005     | 500<br>X 4                         | Fabric Filter |
| 16  | POSCO / Gwangyang Works<br>Blast Furnace No. 4<br>(Internal Part Exchange & Modification)                | Stock house                           | 2009     | 12,000                             | ESP           |

## IV. Steel Making

| No. | Location   | Application                        | Start-up | Gas Vol.<br>(Am <sup>3</sup> /min) | Equipment           |
|-----|--|------------------------------------|----------|------------------------------------|---------------------|
| 1   | POSCO / Pohang Works<br>No. 2 TLC Slag Discharge Plant<br>(Vertical Flow, Hexagonal C.E)     | TLC slag<br>disposal system        | 1986     | 5,000                              | Wet ESP<br>Scrubber |
| 2   | POSCO / Gwangyang Works<br>No. 1 TLC Slag Discharge Plant<br>(Vertical Flow, Hexagonal C.E)  | TLC slag<br>Disposal system        | 1987     | 3,000                              | Wet ESP<br>Scrubber |
| 3   | POSCO / Gwangyang Works<br>No. 3 TLC Slag Discharge Plant<br>(Vertical Flow, Hexagonal C.E.) | TLC slag<br>Disposal system        | 1989     | 3,000                              | Wet ESP<br>Scrubber |
| 4   | POSCO / Gwangyang Works<br>No. 3 TLC Slag Discharge Plant<br>(Vertical Flow, Hexagonal C.E.) | TLC slag<br>disposal system        | 1990     | 3,000                              | Wet ESP<br>Scrubber |
| 5   | POSCO / Pohang Works<br>Steel Manufacture Converter No. 1<br>nuisance control                | Converter                          | 1990     | 10,000<br>x 2                      | ESP                 |
| 6   | POSCO / Gwangyang Works<br>No. 4 TLC Slag Discharge Plant<br>(Vertical Flow, Hexagonal C.E.) | TLC slag<br>Disposal system        | 1991     | 6,000                              | Wet Scrubber        |
| 7   | POSCO / Gwangyang Works<br>No. 4 TLC Slag Discharge Plant<br>(Vertical Flow, Hexagonal C.E.) | TLC slag<br>disposal system        | 1992     | 6,000                              | Wet ESP<br>Scrubber |
| 8   | POSCO / Gwangyang Works<br>Converter No. 1 & 2<br>(Internal Exchange Work)                   | Furnace process                    | 1996     | 3,000                              | ESP                 |
| 9   | POSCO / Pohang Works<br>No. 3 TLC Slag Discharge Plant<br>(Vertical Flow, Hexagonal C.E)     | TLC slag<br>disposal system        | 2001     | 3,000                              | Wet ESP<br>Scrubber |
| 10  | POSCO / Pohang Works<br>No. 4 TLC Slag Discharge Plant<br>(Vertical Flow, Hexagonal C.E)     | TLC Slag<br>Disposal system        | 2001     | 6,000                              | Wet ESP<br>Scrubber |
| 11  | POSCOENC/Esfahan Steel<br>Gas Cleaning Plant<br>(Venturi Scrubbing Type)<br>Iran             | Iron Converter &<br>Utility boiler | 2004     | 10,380                             | Wet ESP<br>Scrubber |
| 12  | POSCO / Gwangyang Works<br>Steel Manufacture No. 2<br>(Environment)                          | Dephosphorization<br>Plant         | 2009     | 10,886                             | ESP                 |

## V. Continuous casting plant

| No. | Location   | Application                              | Start-up | Gas Vol.<br>(Am <sup>3</sup> /min) | Equipment           |
|-----|--|--|----------|------------------------------------|---------------------|
| 1   | POSCO / Gwangyang<br>No. 2 Scarfer   | Scarfer M/C<br>Unit #4                   | 1992     | 2,500                              | Wet ESP<br>Scrubber |
| 2   | POSCO / Gwangyang Works<br>No. 1 Thin Slab Casting & Rolling Plant<br>(No.1 Mini Mill Plant) | Thin Slab Casting &<br>Rolling Machine   | 1995     | 4,141                              | Wet ESP<br>Scrubber |
| 3   | POSCO / Gwangyang Works<br>No. 1 Finishing Mill  | Finishing mill                           | 1998     | 7,100                              | Wet ESP<br>Scrubber |
| 4   | POSCO / Gwangyang Works<br>No. 2 Thin Slab Casting & Rolling Plant<br>(No.2 Mini Mill Plant) | Thin slab casting<br>Rolling plant       | 1999     | 4,141                              | Wet ESP<br>Scrubber |
| 5   | POSCO / Gwangyang Works<br>No. 1 Scarfer   | Scarfer M/C<br>unit #2                   | 2005     | 4,000                              | Wet ESP<br>Scrubber |
| 6   | POSCO / Gwangyang Works<br>No. 2 Scarfer<br>Unit no.4  | Scarfer M/C                              | 2005     | 4,000                              | Wet ESP<br>Scrubber |
| 7   | POSCO / Gwangyang Works<br>No. 2 Scarfer   | Scarfer M/C<br>unit #3                   | 2005     | 2,700                              | Wet ESP<br>Scrubber |
| 8   | POSCO / Gwangyang Works<br>No. 2 Thin Slab Casting & Rolling Plant                           | Finishing mill<br>(No.2 Mini Mill Plant) | 2005     | 4,141                              | Wet ESP<br>Scrubber |
| 9   | POSCO / Gwangyang Works<br>Unit no.2   | Scarfer M/C                              | 2007     | 5,000                              | Wet ESP<br>Scrubber |

## VI. Hot strip mill

| No. | Location   | Application                         | Start-up | Gas Vol.<br>(Am <sup>3</sup> /min) | Equipment           |
|-----|--|-------------------------------------|----------|------------------------------------|---------------------|
| 1   | POSCO / Pohang Works<br>No. 2 Hot Strip Mill   | Hot strip mill                      | 1986     | 4,500                              | Wet ESP<br>Scrubber |
| 2   | POSCO / Pohang Works<br>Pohang Steel Works<br>No. 1 Hot Strip Mill                       | Hot strip mill                      | 1988     | 2,000                              | Wet ESP<br>Scrubber |
| 3   | POSCO / Pohang<br>No. 2 Hot Strip Mill   | Hot Strip Mill                      | 1994     | 5,000                              | Wet ESP<br>Scrubber |
| 4   | POSCO E&C / Gwangyang Works<br>No. 1 Hot Strip Mill                                      | Bag filter for<br>Hot strip mill #1 | 2000     | 430                                | Fabric Filter       |
| 5   | POSCO / Pohang Gwangyang Works<br>No. 2 Hot Strip Mill Plant<br>(Venturi Scrubbing Type) | Fume exhaust system                 | 2000     | 1,600                              | Wet Scrubber        |
| 6   | POSCO / Gwangyang Works<br>Mini Mill(Repair work)  | Hot coil<br>FM process              | 2005     | 3,500                              | Wet ESP<br>Scrubber |

## VII. Cold rolled mill

| No. | Location  | Application                     | Start-up | Gas Vol.<br>(Am <sup>3</sup> /min) | Equipment                 |
|-----|---|---------------------------------|----------|------------------------------------|---------------------------|
| 1   | POSCO / Pohang Works<br>No. 1 STS APL   | Anneling pickling line          | 2000     | 230                                | De-NOx                    |
| 2   | POSCO Machinery & Eng. Co., Ltd.<br>Pohang Steel Works<br>No. 1 Cold Mill R/S Dull Machine            | Cold mill #1                    | 2001     | 250                                | ESP                       |
| 3   | Zhangjiagang Stainless Steel Works<br>No. 2 Stainless Cold Rolled Mill Plant<br>Unit No. 3&4<br>China | Cold rolled mill                | 2003     | 1,833<br>x 2                       | Exhaust Fume<br>Collector |
| 4   | Qingdao Stainless Steel Works<br>No. 1 Stainless Cold Rolled Mill Plant<br>Unit No. 1&2<br>China      | Cold rolled mill                | 2004     | 2,000<br>x 2                       | Exhaust Fume<br>Collector |
| 5   | POSCOENC / Gwangyang Works<br>Continuous Galvanized Line No. 5<br>Cold Rolled Milling Process         | COG process<br>(Vertical)       | 2005     | 127                                | Tar ESP<br>(Wet type)     |
| 6   | POSCO Machinery & Engineering Co., Ltd.<br>Pohang Steel Works<br>No. 2 Plate Mill Plant               | Cold leveler                    | 2005     | 1,200                              | Fabric Filter             |
| 7   | POSCO / Gwangyang Works<br>Cold Mill No.1   | Hydrochloric<br>acid facilities | 2006     | 1,495                              | ESP                       |

## VIII. Others

| No. | Location  | Application  | Start-up | Gas Vol.<br>(Am <sup>3</sup> /min) | Equipment           |
|-----|---|--|----------|------------------------------------|---------------------|
| 1   | POSCO / Pohang Works<br>Source Factory No. 2  | Raw Mt'l handling<br>nuisance control              | 1991     | 7,000                              | ESP                 |
| 2   | POSCO / Gwangyang Works<br>Incinerator No. 2  | Incineration plant                                 | 1995     | 1,328                              | ESP                 |
| 3   | Research Institute of<br>Industrial Science & Technology<br>Pohang Steel Works<br>Plasma Reactor for Sinter Plant | Sinter machine<br>process(Research)                | 1997     | 117                                | ESP                 |
| 4   | POSCO / Gwangyang Works<br>Non-Thermal Plasma Reactor for<br>Incineration Plant                                   | Incineration<br>pilot project                      | 2002     | 1,324                              | ESP                 |
| 5   | POSCO / Pohang Works<br>Stainless Steel Wax Cleaning House  | Wax Cleaning                                       | 1998     | 1,000                              | Fabric Filter       |
| 6   | POSCO / Pohang Works<br>Incinerator   | Incinerator(Rotary kiln)<br>100TPD                 | 1999     | 980                                | Fabric Filter       |
| 7   | POSCO / Pohang Works<br>No. 2 Steel Plate Plasma Cutting Plant  | Cutting machine                                    | 2002     | 500                                | Fabric Filter       |
| 8   | POSCO / Pohang Works<br>No. 1&2 Limestone Calcination S/K Plant   | Shaft Kiln # 1&2<br>Material conveying line        | 2002     | 550                                | Fabric Filter       |
| 9   | POSCO / Pohang Works<br>No. 1&2 Limestone Calcination S/K Plant   | Bag filter for<br>Limestone S/K #1&2               | 2002     | 800                                | Fabric Filter       |
| 10  | POSCO / Pohang Works<br>No. 2 Steel Manufacturing   | Cleaning for crane<br>Upper deck # 1&2             | 2004     | 80<br>x 2                          | Fabric Filter       |
| 11  | POSCO / Gwangyang Works<br>No. 1&2 Lime Calcination Rotary Kiln<br>(Venturi Scrubbing Type)                       | Lime calcination<br>rotary kiln                    | 1999     | 2,083                              | Venturi<br>Scrubber |
| 12  | POSCO / Pohang Works<br>Finex Demonstration Plant<br>(Venturi Scrubbing Type)                                     | Demo plant   | 2003     | 279<br>x2                          | Wet Scrubber        |
| 13  | POSCO / Pohang Works<br>Finex Demonstration Plant<br>(Venturi Scrubbing Type)                                     | Wet De-dusting system<br>(HCl process)             | 2003     | 1,155                              | Wet Scrubber        |
| 14  | POSCO / Pohang Works<br>Finex Demonstration Plant<br>(Venturi Scrubbing Type)                                     | HCl transport De-dusting<br>System (Corex process) | 2003     | 333                                | Wet Scrubber        |
| 15  | POSCO / Pohang Works<br>Limestone Calcination S/K Plant No. 1&2<br>(Venturi Scrubbing Type)                       | Lime calcination shaft kiln                        | 2003     | 900<br>x2                          | Wet Scrubber        |

| No. | Location   | Application  | Start-up | Gas Vol.<br>(Am <sup>3</sup> /min) | Equipment             |
|-----|--|--|----------|------------------------------------|-----------------------|
| 16  | POSCO / Pohang Works<br>Finex Demonstration Plant<br>(Venturi Scrubbing Type)            | Wet air suction system for<br>(Coal briquetting process) | 2003     | 300                                | Wet Scrubber          |
| 17  | POSCO / Pohang Works<br>Finex Demonstration Plant<br>(Venturi Scrubbing Type / Stand-By) | Wet De-dusting system<br>(HCl process)                   | 2004     | 900                                | Wet Scrubber          |
| 18  | POSCO / Pohang Works<br>No. 2 Steel Manufacturing Converter<br>(I.D. Fan Re-Vamping)     | Converter<br>Nuisance control                            | 2004     | 15,000                             | Energy Saving-<br>Fan |

## IX. Non ferrous process

| No. | Location   | Application | Start-up | Gas Vol.<br>(m <sup>3</sup> /min) | Equipment                              |
|-----|--|-------------|----------|-----------------------------------|--|
| 1   | SNNC / Gwangyang Works<br>Fe-Ni Plant                                  | Rotary kiln | 2008     | 7,346                             | SDR<br>(Rotary Atomizer)<br>SCR<br>ESP |
| 2   | SNNC / Gwangyang Works<br>Fe-Ni Plant<br>(Kawasaki Plant systems,Ltd.) | PCI         | 2008     | 1,500                             | Fabric Filter                          |