Steel Rolls and Precision Machine Parts for Steel Mills
Project Experience

LPR Global
344 Bloor Street W, Suite 607, Toronto, ON Canada M5S 3A7
www.lprglobal.com | www.uskoreahotlink.com
Tel.: +1 416-423-5590
E-Mail: info@lprglobal.com
<table>
<thead>
<tr>
<th>Contents</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>List of Steel Rolls and Precision Machined Parts Supplied</td>
<td>Pg. 3</td>
</tr>
<tr>
<td>• Cold Rolling Mill Rolls</td>
<td></td>
</tr>
<tr>
<td>• Hot Rolling Mill Rolls</td>
<td></td>
</tr>
<tr>
<td>• Thick Plate Line</td>
<td></td>
</tr>
<tr>
<td>• Continuous Casting Line</td>
<td></td>
</tr>
<tr>
<td>• Precision Machined Parts, Roll Assemblies</td>
<td></td>
</tr>
<tr>
<td>Major Clients – Steel Mills and Project Overview</td>
<td>Pg. 4</td>
</tr>
<tr>
<td>Steel Rolls Project Experiences</td>
<td>Pg. 6</td>
</tr>
</tbody>
</table>
Steel Rolls Supplied

Cold Rolling Mills
- Conductor Roll
- Sink Roll
- Bridle Rolls and Units
- Steering Roll
- Table Roll
- Guide Roll
- Tension Roll
- Tension Meter Roll
- Wringer Roll
- Looper Roll
- Top Roll
- Cooling Roll
- Feed Roll
- Hearth Roll

Hot Rolling Mills
- Table Roll
- Unit Roll
- Pinch Rolls and Units
- Counter Shaft

Thick Plate Line
- Leveller Roll
- Back-up Roll
- Hollow Table Roll
- Solid Table Roll

Continuous Casting Line
- Segment Roll
- Bender Roll
- Guide Roll
- Hold Down Roll
- Hot Rolling Unit Roll
- Hot Leveler Cassette Assembly
- Turn Table Roll
- Hot Leveler Roll
- Tension Levelling Roll
- Deflector Rolls

Precision Machined Parts
- Bearing Sub-Assembly
- Hot Leveler Cassette Assembly
- Roller Table
- Recoiler & Uncoiler
- Bridle Roll Assembly
- Steering Roll Assembly
- Deflector Roll Assembly
- DS Pinch Roll Assembly
- SS Pinch Roll Assembly
- Feed Roll Assembly
- Hollow Roll Assembly
- Conveyor Roll Assembly
- Miter Gear Assembly
- DSTS Exit Pinch Roll
- DSTS Entry Pinch Roll Assembly
- Skin Pass Mill Bridle
- 4 Roll Type Bridle
- Chain Conveyor
- Coil Skid Car
- Coil Car
- Cooling Bed & Cooling Bed Rolls
- Shear
- Casing
- Gear
- Vertical steering unit
- Roller table casing
- Coupling Sub-Assembly

Clients:
Steel Manufacturing Equipment

Major Rolls Supplied to POSCO

Gwangyang Works
- No.1 PL/TCM Roll
- No.1 Cold Rolling Mill PL-TCM Full Line
- No.2 Cold Rolling Mill TCM Full Line for PCM
- Hot Strip Mill TWB 600 Ton Blanking Line
- Hot Strip Mill Roller Table
- VST STS SPL Bridle & Steering Unit
- TWB 600ton Blanking Line Entry & Exit Equipment

Pohang Works
- Hot Rolling Mill Coil Car, Coil Box
- Hot Rolling Mill FM Facility Renovation and Modernization
- No.2 Hot Strip Counter Shaft

Posco Vietnam
- CSVC Special Bridle Roll (Over HS 65 Hardness)
- STS APF Roll Unit

Major Rolls Supplied to Hyundai Steel

Pohang Works
- Cast Iron Work Rolls Contract (6,000tons per year)
- H-beam Line Table Roll Assembly
- H-Beam Leveler Roll Assembly

Dangjin Works
- Post Bender Roll Assembly
- Feed Roll Assembly
- Pinch Roll Assembly
- Leveler roll Assembly

Major Rolls Supplied to Dongkuk Steel | Union Steel

- Plate Mill Shop Table Roller (Hollow Type)
- PM-TCM Complete Line
- Solid Roller for Thick Plate Roller Table
- Plate Mill Pinch Roll Assembly (DS, SS, DSTS Entry & Exit)

Major Rolls Supplied to JFE Steel Corporation

Chiba Work
- Coiling Bed Equipment Entry & Exit
- Roller Table
- Hearth Roll Assembly
- Back Up Roll Assembly Segment Roll Assembly

Shinco Work
- Pinch Roll Assembly at Shinco Works
- Leveler Roll Assembly at Chiba Works

# Clients: Rolls for Rolling Mills

## Rolls for Cold Rolling Mill

<table>
<thead>
<tr>
<th>Product</th>
<th>Specifications</th>
<th>Quantity</th>
<th>Client</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridle Steering Deflector</td>
<td>Ø800 x 1900</td>
<td>350 Ton</td>
<td>POSCO VST</td>
</tr>
<tr>
<td>Back Up Roll</td>
<td>Ø800 x 1900</td>
<td>20</td>
<td>NSSMC</td>
</tr>
<tr>
<td>Bridle Steering Deflector</td>
<td>Ø1200 x 2100</td>
<td>400 Ton</td>
<td>POSCO TST</td>
</tr>
<tr>
<td>Bridle Steering Deflector</td>
<td>Ø1200 x 2100</td>
<td>650 Ton</td>
<td>POSCO Mexico</td>
</tr>
<tr>
<td>Bridle Roller</td>
<td>Ø1200 x 2100</td>
<td>20</td>
<td>POSCO TST</td>
</tr>
<tr>
<td>Bridle Roller</td>
<td>Ø1200 x 2000</td>
<td>16</td>
<td>POSCO Mahasatara</td>
</tr>
<tr>
<td>Sink Roller</td>
<td>Ø800 x 2100</td>
<td>4</td>
<td>POSCO Gwangyang</td>
</tr>
<tr>
<td>Hearth Roll</td>
<td>Ø1600 x 2250</td>
<td>25</td>
<td>HYSOC Suncheon</td>
</tr>
<tr>
<td>Deflector Pinch Roll</td>
<td>Ø800 x 1950</td>
<td>5</td>
<td>JFE Steel</td>
</tr>
<tr>
<td>Bridle Roller</td>
<td>Ø1000 x 2100</td>
<td>8</td>
<td>JSW Steel (Jindal)</td>
</tr>
</tbody>
</table>

## Rolls for Thick Plate Hot Rolling Mill

<table>
<thead>
<tr>
<th>Product</th>
<th>Specifications</th>
<th>Quantity</th>
<th>Client</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table Roll</td>
<td>Ø400 x 5817</td>
<td>17</td>
<td>HYUNDAI Steel</td>
</tr>
<tr>
<td>Back Up Roll</td>
<td>Ø280 x 972</td>
<td>54</td>
<td>JFE Steel</td>
</tr>
<tr>
<td>Unit Roll</td>
<td>Ø400 x 2850</td>
<td>21</td>
<td>HYUNDAI Steel</td>
</tr>
<tr>
<td>Leveler Roll</td>
<td>Ø285 x 5730</td>
<td>5</td>
<td>HYUNDAI Steel</td>
</tr>
<tr>
<td>Feeder Roll</td>
<td>Ø400 x 5817</td>
<td>15</td>
<td>HYUNDAI Steel</td>
</tr>
<tr>
<td>Table Roll</td>
<td>Ø450 x 6225</td>
<td>10</td>
<td>NSSMC</td>
</tr>
<tr>
<td>Leveler Roll</td>
<td>Ø275 x 6120</td>
<td>11</td>
<td>JFE Steel</td>
</tr>
<tr>
<td>Turn Table Roll</td>
<td>Ø565 x 8447</td>
<td>7 (100 Ton)</td>
<td>HYUNDAI Steel</td>
</tr>
<tr>
<td>Lubricating Roll</td>
<td>Ø500 x 6710</td>
<td>11 (100 Ton)</td>
<td>JFE Steel</td>
</tr>
</tbody>
</table>

Project Experience

- Vietnam STS APL Bridle Roll and Steering Unit

  Bridle Roll Unit
  4 Roll Type Bridle Unit

  Vertical Steering Unit
  Pinch Roll Unit

Roller Table Assembly Project For NS-TEX Engineering to End User NSSMC March 2017.

30 Ton Slab Carriage Project For Harada Industries to End User NSSMC April 2017.
CGL Rolls For Taechang to End User POSCO 7CGL
July 2016.

Manufacturing and Installation Project Experience

- Levelling Roll Sub Assembly Project For Yamato Special Steel to JFE Steel July 2015.

- Strand Pinch Roll Project For Yamato Special Steel to End User JFE Steel May 2015.
SPR Unit Roll Face on Laser For POSCO Plantech for installation at POSCO Pohang factory. / March 2015.

Roller Table Assembly For NS-TEX ENG to end user NSSMC November 2014.
Roller Table Assembly For NS-TEX ENG to end user NSSMC March 2014.

Continuous Packing Line For NS-TEX ENG to End User NSSMC October 2014.
Manufacturing and Installation Project Experience

- Breast Roll Assembly For Hyundai Steel. August 2014.

- Hot Leveller Cassette Assembly For Hyundai Steel installed in Dangjin Factory. December 2014.

Manufacturing and Installation Project Experience

- No. 1 Plate Mill Pre Leveller For Hyundai Steel. September 2013.

- No. 2 Plate Mill Pre Leveller For Hyundai Steel. December 2013.

Manufacturing and Installation Project Experience

- Coil Car & Hold Down Device for Hyundai Heavy Industries to Allehgeny HSM April 2013.

- Hollow and Solid Table Roll for Hyundai Heavy Industries to Allehgeny HSM May 2013.

Bridle and Steering Roll Unit (650 Ton) for POSCO E&C installed in Mexico. October 2012.

Manufacturing and Installation Project Experience

- Bridle and Steering Roll Unit (400 Ton) for POSCO E&C installed in Turkey (POSCO TST). April 2012.


Manufacturing and Installation Project Experience


- Hollow Table Roll for Posco Works- Kwangyang Factory. March 2010.

- Solid Table Roll for Posco Works- Kwangyang Factory. September. 2009.

Clients: Rolls for Paper and Chemical

Daeyang Paper
- Press (Top and Bottom) Roll Grinding
- Calendar Roll Grinding
- Paper Roll, Wire Roll, Canvas Roll Grinding
- Drive Rod Assembly

Hankuk Paper
- Spool Roll, Felt Roll, Paper Roll Spindle Repair
- Inner Gate Roll Grinding, H-Cr Plating
- Wire Roll, Paper Roll, Guide Roll, etc.

Yuhan Kimberly
- Embossing Roll Grinding
- Anvil Roll, Drive Roll, Single Drum Grinding

Hansol Paper
- Calendar Roll, Backing Roll Grinding

Hanchang Paper
- Press Roll, etc.

LG Chem
- Hearth Roll for Film Grinding & Plating
- Mold Tie-Bar Plating
- Calendar Roll for HI-PET Line Grinding

Hanwha L&C
- Calendar Roll

Samyang Corporation
- Calendar Roll

Seotong Chemical
- PET Corona Roll Assembly Manufacturing and Grinding
- P.R.S. Roll Assembly Manufacturing
- Elongation Roll Manufacturing
- Heating Roll Assembly Manufacturing, Grinding, and Plating

Other
- Elongation Roll Manufacturing for Kawasaki
- Rolls for Heat Treatment for Hyosung
