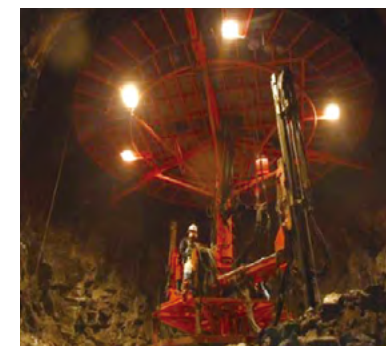




SPARK
INNOVATION

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We have been trying to contribute to improving human society based on our visions which are Sincerity, Honesty and Accuracy.

SINCERITY

HONESTY

ACCURACY

Sincerity is the source of all things.

We always try to be as symbol of sincerity by working actively for our customers.

Honesty is the consistency of speech and action.

Based on responsibility for fulfilling a promise, we build customer loyalty and trust by serving customers with honesty.

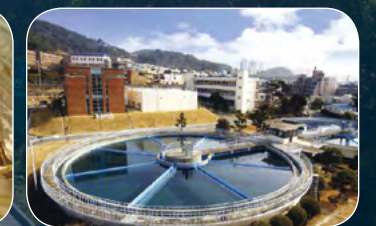
Accuracy is connected directly with success.

Correct engineering and precise construction save time and costs, enhance the value of customer.

SPARK INNOVATION

Founded in 1989, SUNGPOONG Construction Co., Ltd. has the best capability of vertical tunnel construction area, completed many projects which are ventilating shaft, pumped storage power plan and mine shaft, etc. We have also expanded the business of roads, railways, tunnels, bridges, ground making and water supply & sewerages equipment works.

Now, SUNGPOONG is leading new future of construction industry with vision of 21st Century.





SUNGPOONG

“

I'd like to extend my sincere gratitude again for your love and encouragement. I can assure you that SUNGPOONG, from the customer's perspectives as always, will be continuously devoted to improving quality of life while adding the value.

”



Founded in 1989, SUNGPOONG Construction Co., Ltd. has been establishing a firm foothold in the area of vertical tunnel by core technology of tunnel construction with seasoned human resources and outstanding technical skills.

We attribute our growth to continuous interest and support of partners and all efforts of our staff. We appreciate our entire partner companies.

Furthermore, SUNGPOONG is conducting variety of projects, which are SOC projects and earth work.

We have also expanded the business to reinforced concrete work, Boring & grouting work, water supply & sewerages equipment, and pavement work.

From now on, as one of the specialized company in planning, construction and maintenance, we will challenge and overcome obstacles in the rapidly changing construction industry in order to be the best, not only in the domestic market but also in overseas market based on our visions which are **SINCERITY, HONESTY and ACCURACY** at the same time, we do our best to make a successful accomplishment by innovative attitude, best quality and advanced techniques. Also, we guarantee transparent management with **PIONEERING SPIRIT, CREATIVE SPIRIT and TEAM SPIRIT.**

I'd like to extend my sincere gratitude again for your love and encouragement. I can assure you that SUNGPOONG, from the customer's perspectives as always, will be continuously devoted to improving quality of life while adding the value.

Thank you very much.

CEO Kim In-Pil

BUSINESS OVERVIEW

SUNGPOONG Construction Co., Ltd. is growing as a global construction company based on PIONEERING SPIRIT, CREATIVE SPIRIT and TEAM SPIRIT.

We promise to be the best partner sharing visions with customers through innovative attitude, best quality and advanced techniques. Also, we will maximize synergy effect related in business sectors which are roads, railways, tunnels, bridges, ground making, waterworks & sewerage works, overseas construction works based on the best capability of vertical tunnel and business management.

We have been doing our best for safe and reasonable construction service by Know-How for 27 years.

SUNGPOONG guarantees the best value of construction service.

VERTICAL SHAFTS



ROADS



RAILWAYS



TUNNELS



BRIDGES



GROUND MAKING



WATER SUPPLY & SEWERAGE EQUIPMENT



MAJOR PROJECTS

Owner / Main contractor	Project name	Project Period	Project Outline	Related Pictures
Vertical Shaft				
Korea Expressway Corporation/ Kolon E&C Co., Ltd.	Jungang Expressway (Jukryeong Tunnel) Ventilating Tunnel Construction	Feb 1999~Dec 2001	L=225m/Φ7m	Page 16 bottom
Busan Regional Construction and Management Administration/ Samsung C&T Corporation	Sanoe~Sangbuk Section 3 (Nungdong tunnel) Road Widening Work / Vertical Shaft Construction	Jan 2005~Jul 2007	L=218.5m/Φ7m	Page 16 top right side
Korea Expressway Corporation/ Daewoo E&C Co., Ltd.	Donghongcheon-Yangyang Highway Line 60 Section 14 – Vertical Shaft Construction	Dec 2012~Present	Shaft1 : L=212m/Φ11m Shaft2 : L=307m/Φ11m	
Korea Western Power Co., Ltd/ Dongah Construction Industrial Co., Ltd.	Cheongsong Pumped Storage Power Plant Construction	Dec 2002~Sep 2005	Pressure Tunnel : L=280m/Φ8.6m Surge Tank : L=100m/Φ12m	Page 17 bottom, Page 17 right side
Korea South-East Power Co., Ltd./ Daelim Industrial Co., Ltd.	Yecheon Pumped Storage Power Plant Construction	Nov 2007~Nov 2011	Pressure Tunnel : L=423m/Φ8.3m Surge Tank : L=107m/Φ12m	Page 17 top left side Page 24 Bottom
Handuk Iron Mine Co., Ltd.	Shinyemi Mining Office 2nd Vertical Shaft Construction	Jun 2014~Jul 2015	L=677m/Φ6m	Page 18 top
Korea Hydro&Nuclear Power Co., Ltd./ Daewoo E&C Co., Ltd. Samsung C&T Corporation	Excavation and Lining Vertical Shaft in Radioactive Waste Disposal Facility	Mar 2008~Jun 2012	L=207.3m/Φ10m	Page 20
Ulsan Harbour Bridge Co.,Ltd./ Hyundai E&C Co., Ltd.	Ulsan Bridge – Anchorage Work	Apr 2011~Sep 2013	Inclined Tunnel L=77m/Φ13m/ Gradient : 22.65°	Page 21

MAJOR PROJECTS

Owner / Main contractor	Project name	Project Period	Project Outline	Related Pictures
Roads				
S-Y highway Co., Ltd./ Daelim Industrial Co., Ltd.	Sangju~Yeongcheon Highway Section 1/ Earth and Structure Work Section 2	Dec 2013~Present	L=3km (Including 2 Bridges (770m/270m))	Page 25 top and middle
Incheon Comprehensive Construction Headquarter/ POSCO Engineering & Construction Co., Ltd.	Ongam Intersection underground road way construction (Temporary facility & Structure construction)	Nov 2013~Present		
Railways				
Korea Rail Network Authority/ Daelim Industrial Co., Ltd.	Center Line Dodam~Yeongcheon Double Track Railway Section 3 Subbase Foundation Work / Earth and Structure1 Work	Dec 2015~Present	L=5km (Including 2 tunnels (591m/120m))	
Ground making				
Korea Land Corporation/ Shinan	Gimpo Janggi-zone Ground Making Work	Mar 2004~Sep 2007		Page 26
Plants				
Korea Western Power Co., Ltd./ Daewoo Engineering & Construction Co., Ltd.	Pyeongtaek Combined-cycle power plant stage two construction / Earthworks & structure foundation construction	Dec 2012~Present		
Korea Western Power Co., Ltd./ Daewoo Engineering & Construction Co., Ltd.	Pyeongtaek Combined-cycle power plant stage two construction / Sea water pumping structure construction	Mar 2013~Oct 2014		

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VERTICAL SHAFTS

METHOD INTRODUCTION

1. R.B.M (RAISE BORING MACHINE)

This is upward excavating method when working space is enough both upper and lower area of the shaft. Machine-room should be installed at upper area of the shaft and reaming-room should be installed at lower part of the shaft. RBM in the machine-room drills downward with Tri-con Bit(Φ 311mm). After penetrate to the bottom, assemble Reamer Head and then enlarge the hole(Φ 2.4m~3.1m) upward to the top. (Needed access-road to the upper area).

R.B.M construction sequence

1. Foundation work
- ↓
2. RBM main body setting
- ↓
3. Pilot hole excavation
- ↓
4. Pilot hole completion
- ↓
5. Assembling reamer head
- ↓
6. Reaming up
- ↓
7. Reaming hole completion



Pilot Hole Excavation



RBM Main Body



RBM Whole View



Foundation Work



Reaming up

VERTICAL SHAFTS

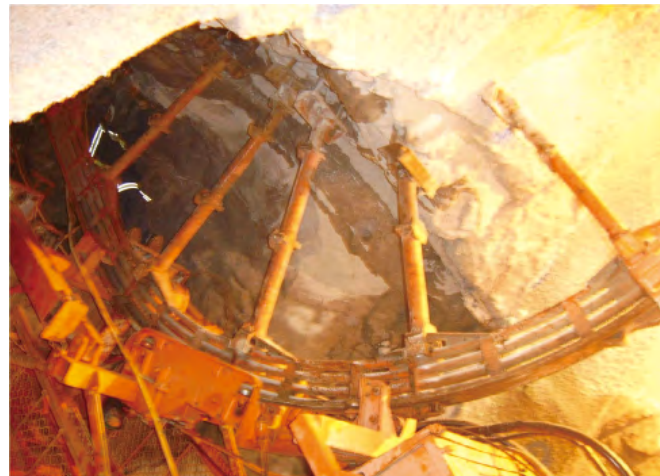
METHOD INTRODUCTION

2. R.C (RAISE CLIMBER)

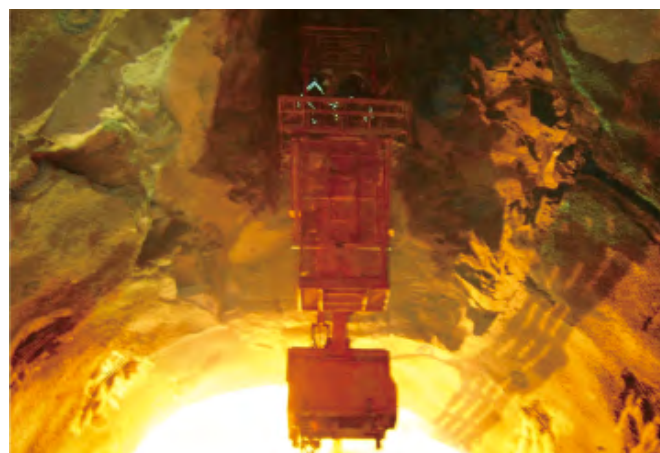
RC method is one of the excavating methods to excavate a vertical tunnel. It needs an enough working space at the bottom (lower area of the shaft). First, install guide-rail with anchor on the wall inside of shaft. Second, install Raise Climber on the rail. Third, workers go upside to the top of the shaft by Raise Climber. Lastly, drill, load, blast by gunpowder, ventilation, scaling process is performed repeatedly in this order. This construction method can drill diverse range of area from 3m² to 30m².



RC Model



RC Guide-Rail

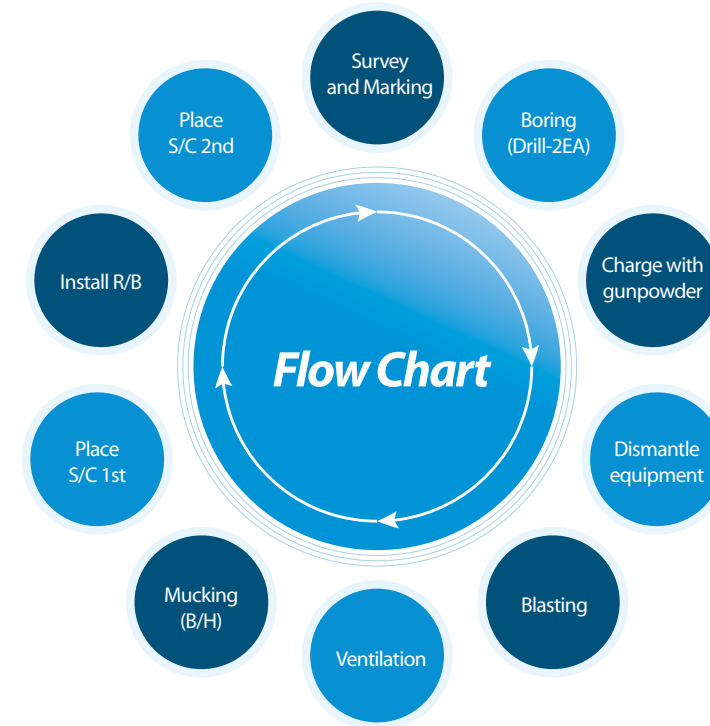


RC Working Platform

METHOD INTRODUCTION

3. Enlargement (Shaft Sinking)

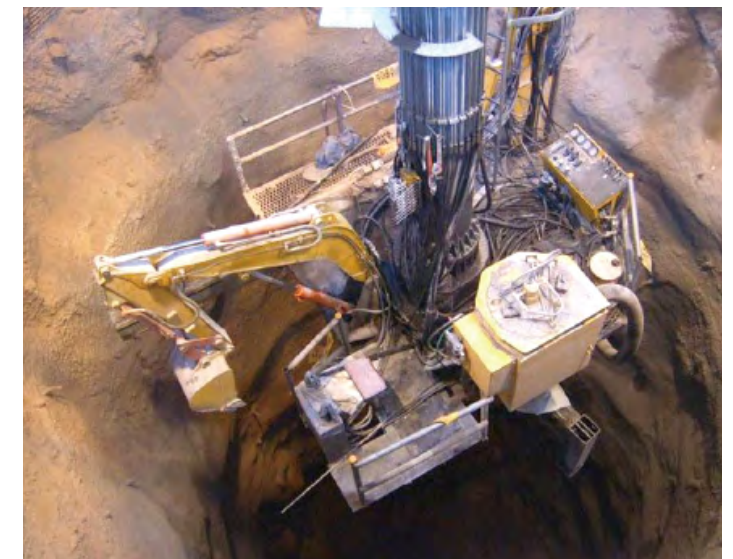
Operate enlargement excavation by NATM after completion of pilot hole by RC or RBM.



Enlargement Excavation Flow Chart



Drill Machine



Bucket Machine

VERTICAL SHAFTS

METHOD INTRODUCTION

4. TOP-DOWN METHOD

This is downward excavating method without excavating a pilot hole when working space is not enough in lower area of the shaft.



Drill & Blast



Muck Disposal



Muck Disposal(Loading)

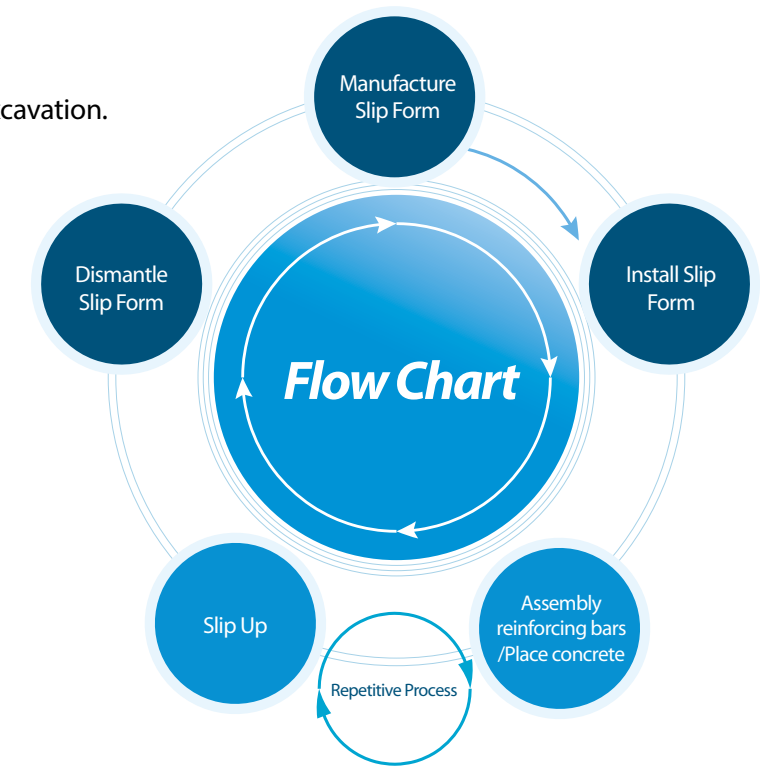
METHOD INTRODUCTION

5. CONCRETE LINING

Operate concrete lining by slip form after enlargement excavation.



Slip Form Model



Concrete Lining Flow Chart



Slip Form

VERTICAL SHAFTS

VERTICAL SHAFTS APPLICATION AREA

APPLICATION AREA

1. VENTILATING SHAFT



Ventilating Shaft Model



Ventilating Shaft at Nungdong Tunnel



Ventilating Shaft at Jukryeong Tunnel

APPLICATION AREA

2. PUMPED STORAGE POWER PLANT



Gantry Crane at Yecheon Pumped Storage Power Plant Construction Site



Surge Tank Structure at at Cheongsong Pumped Storage Power Plant



Orifice at Cheongsong Pumped Storage Power Plant

VERTICAL SHAFTS

VERTICAL SHAFTS APPLICATION AREA

APPLICATION AREA

3. MINE SHAFT



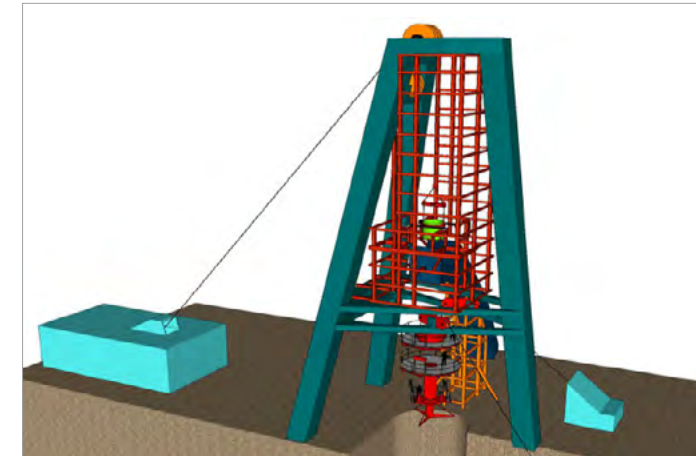
Upper Gantry Crane (Handuk Iron Mine)



Lower Gantry Crane (Handuk Iron Mine)



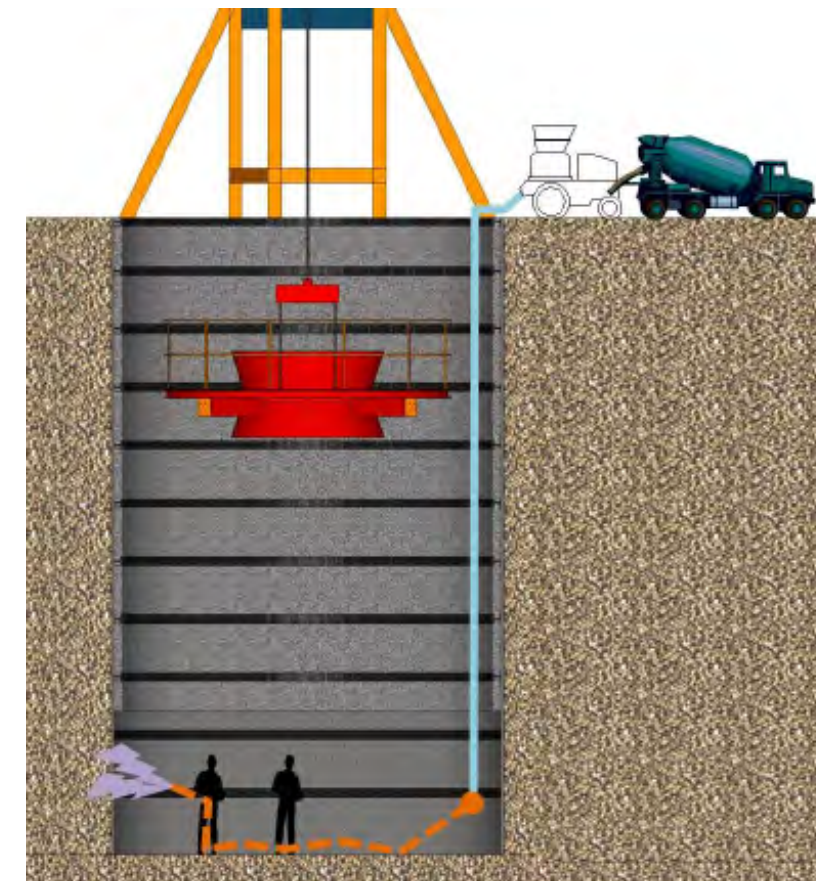
Vertical Shaft Sidewall Reinforcement work (Jangseong Mining Office of Korea Coal Corporation)



Structure and Facilities Model for Construction (Maokhe Mine, Vietnam)



Excavation work Model (Maokhe Mine, Vietnam)



Reinforcement Work Model (Maokhe Mine, Vietnam)

VERTICAL SHAFTS

VERTICAL SHAFTS APPLICATION AREA

APPLICATION AREA

4. RADIOACTIVE WASTE DISPOSAL FACILITY



Gantry Crane



Drill & Blast



Gyeongju Radioactive Waste Disposal Facility

APPLICATION AREA

5. TUNNEL-TYPE ANCHORAGE (Inclined tunnel, Range of slope: 25° ~ 89°)



Excavation



Muck Disposal by Skip Equipment



Tunnel-Type Anchorage Construction Site Whole View(Ulsan Bridge)

ROADS

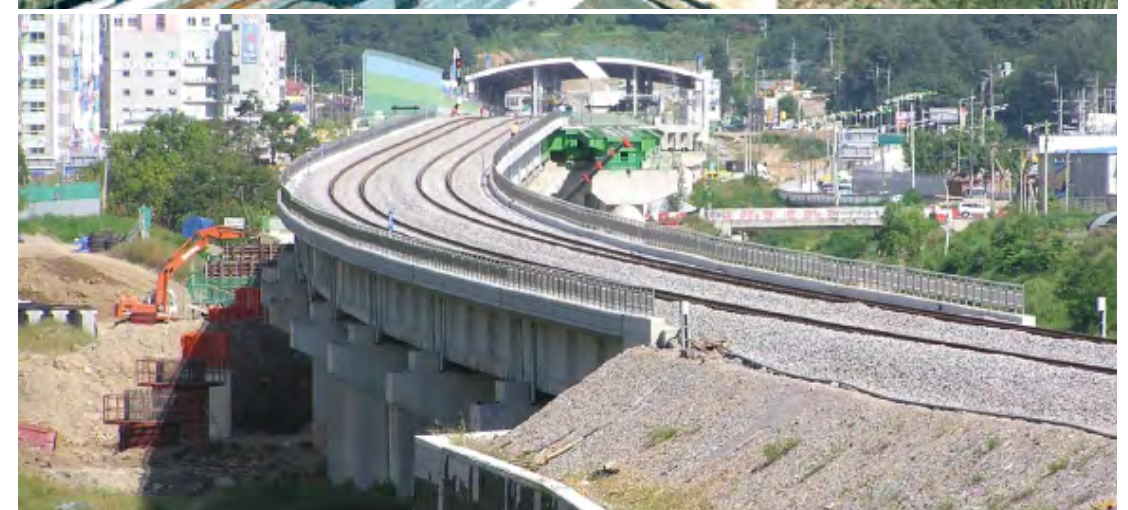


Highways



Seoul Beltway

RAILWAYS

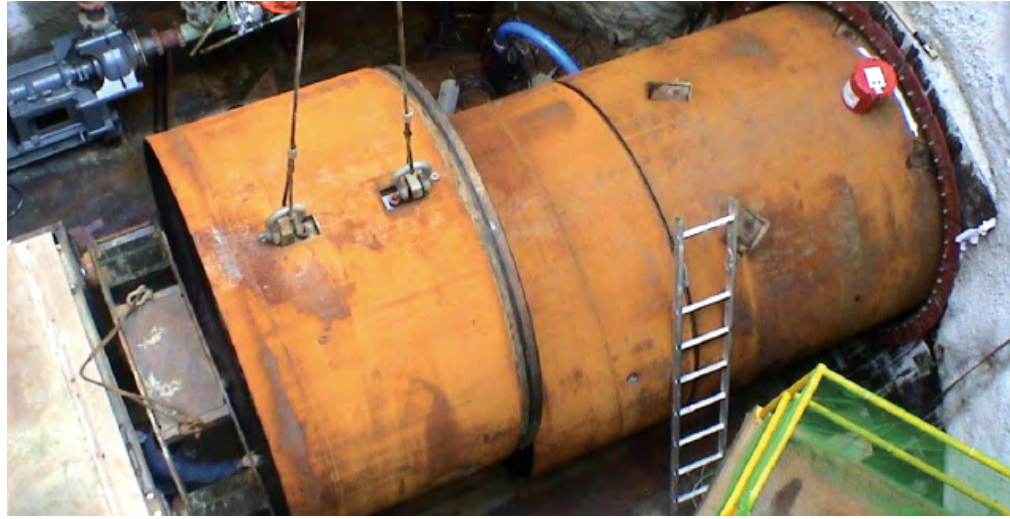


Railways



Railway Station

TUNNELS



Excavation by Semi-Shield



Jukryeong Tunnel



Water-flow tunnel (Pumped Storage Power Plant in Yecheon)

BRIDGES



Bridges

GROUND MAKING



Gimpo Janggi-zone Ground Making work

WATER SUPPLY & SEWERAGE EQUIPMENT



Purification Plant

CERTIFICATES AND PATENTS

We create the future of global construction with technological innovation. The technology is core capacity to accomplish customer's demand under any conditions and circumstances. SUNGPOONG creates new value through technological innovation continuously.



Innobiz Certificate ISO9001 ISO14001 Mainbiz Certificate R&D Center Certificate



the construction method excavating underground plaza the measurement method moving the center point making use of raise climber Slip form device for forming supporting wall in vertical tunnel Slip form device for forming supporting wall at elbow tunnel Slip form device for forming supporting wall in vertical tunnel II



Method for constructing horizontal tunnel and air tube used in the method Tunnel lining Apparatus having a steam heater Wall and Dome form Method for constructing Dome building Excavator for vertical tunnel



Ground sensing unit and device for reinforcing ground with the same Slip form device for forming supporting wall in vertical tunnel Device for injecting shotcrete Bucket Machine for vertical tunnel Carriage for vertical tunnel grouting



Cage for vertical tunnel Slip form for winch and hoist The enlargement Method for Vertical tunnel Shaft Excavation Apparatus Wire type elevator and falling prevention method of the same



2011~

- 2015. 05. License acquisition of metal structure, door & windows works
- 2015. 04. Increase of capital (USD 1,4650,000)
- 2013. 12. License acquisition of scaffolding, demolition works
- 2013. 11. Increase of capital (USD 1,2770,000)
- 2012. 06. License acquisition of plastering, waterproofing & masonry works
- 2011. 04. Established joint-venture in Libya : Shaams Peladi

2000~2010

- 2009. 05. License acquisition of international contractor types of business : earth works, reinforced concrete works, water supply & sewerage equipment works, boring & grouting works, pavement works
- 2008. 10. Certified as a member of IBK Corporate family in recognition of sound banking practices
- 2008. 08. Certified management innovation company by Small & Medium Business Administration
- 2008. 05. Certified INNO-BIZ company by Small & Medium business Administration
- 2008. 03. Chosen as one of the best specialized construction companies by Korea Specialty Contractors Association
- 2007. 12. ISO 14001: 2004 -ICR
- 2007. 12. ISO 9001 : 2008 - ICR
- 2007. 06. R&D Institute in Seoul
- 2007. 01. License acquisition of pavement works (Jecheon 07-16-01)
- 2005. 08. License acquisition of waterworks & sewerage works (05-13-04)
- 2000. 11. Registration for developing and using of groundwater (2000-85)

1989~1999

- 1999. 06. License acquisition of boring & grouting works (Jecheon 99-14-01)
- 1994. 12. License acquisition of reinforced concrete works (94 - 10 - 51)
- 1994. 12. License acquisition of earth works (94 - 02 - 22)
- 1994. 11. Registration for corporation business (Register no. 304-81-05186)
- 1994. 09. Conversion to Corporation-SUNGPOONG Construction Co., Ltd.
- 1989. 03. Established SUNGPOONG Construction

 **SUNGPOONG Construction Co., Ltd.**

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