

# Coal Mining

**Allbest Creative Development Ltd. (ALLBEST)**

# Technology Portfolio for Coalmining Industry

- **Surface mining**
- **Underground mining**
- **Coal preparation**
- **General Layout, Transportation and Architecture for Coalmine**
- **Environmental Protection for Coalmine**
- **Engineering Prospecting and Control of Geological Disaster**
- **Civil-purposed Explosive Technology**
- **Coal-burning Power Plant and Transmission**
- **Coal Handling by Railway**
- **Terminals and Coal Handling System**
- **Coal Machinery and Equipment**

# Surface Mining

**We provide the total technical solution for surface mining, including:**

- Engineering of the surface coalmine project;
- Overall layout of mine region;
- Surface mining and technology;
- Surface flood control and water drainage;
- Groundwater control;
- Slope stability and treatment;
- Production management system;
- Software development for mining CAD
- Equipment supply
- Others

We also undertake the design of non-coal surface mines for metallurgical, chemical and construction material industries.

**The multi-types of comprehensive mining technologies have been applied, such as BWE - belt conveyor, shovel – truck, shovel – railroad, dragline and semi-continuous mining technology of shovel – mobile crushers**

**Have finished over 50 surface mine projects, including 15 extra-large scale surface coalmine with capacity over 5.0 Mt/a.**

**Provided our services for overseas coalmine projects in Myanmar, Pakistan, Turkey, Indonesia, Mongolia, Canada, Brazil, India and so on.**

BWE continuous mining



Surface coalmine, Heidaigou, Zhunger, Inner Mongolia



Shovel-truck mining



Surface coalmine No. 1, Yimin, Inner Mongolia



Transfer station of surface production system

Spreader system



Yuanbaoshan surface coalmine, Inner Mongolia



Digging and transport equipment in Pingshuo Anjialing Surface Coal mine



2000t/h Semi-fixed Crushing Station of Huolinhe Surface Coal Mine



2500t/h Semi-mobile Crushing Station of Haidaigou Surface Coal Mine



Belt Conveyor Distributing Station of Surface Production System of Yuanbaoshan Surface Coal Mine

# Underground Mining

## Technical solution for underground coalmining:

- General planning of mine region and underground mining construction;
- Engineering
- Development and utilization of coal seam gas;
- Mining under building, rail road and water body;
- Prediction of ground subsidence;
- Supporting of soft rock;
- Safety technology of underground mining;
- Assessment of coal mine geology;
- Development of computer software;
- Supply of machinery;
- Others

Provided services for over 100 underground coalmining projects both in China and abroad.

- The first vertical shaft mine over 1,000 M deep for Taiji Mine, Beipiao;
- The first extra-large scale expanded mine (8 Mt/a) as per high production and high efficiency model;
- Building Santaizi Mine NO. 1 (1.5 Mt/a) of Tiefa with a record holder for the shortest time of 40 months for shaft construction in the country.



Main incline shaft, Bailongshan coalmine





First coalmine designed in China, Jixi Xiaohengshan mine, Heilongjiang



Tiefa Xiaonan Mine, Liaoning



Tiefa Daxing Mine, Liaoning



Hongyang Mine No.3



Tiefa Santaizi Mine No. 1, Liaoning

# Coal Preparation

## Technical solutions for coal preparation plant:

- Covering coal preparation plant, coal blending plant, coal storage yard, coal briquette plant, etc.;
- Project engineering;
- Development and research of desulfuration, sulfur fixing methods of coal, chemical products for the mine;
- Supply of equipment;
- Software and consulting;
- Others

**Provided services for over 180 coal preparation projects with capacity more than 500 million tones.**

**Rich experience in power-station coal preparation plant, and the analysis of coal quality and applying the corresponding technical process;**

In the large scale power-station coal preparation plant of Heigaigou surface coal mine in Zhunger(12 Mt/a), the quick loading station with capacity of 5000 t per hour which is of the first class in the world, large scale jig, large scale equi-thickness sieve, heavy crusher, large scale bucket elevator are applied. The flexible technical process of separate storage/screening, separate/mixed preparation is employed for good quality coal and fault coal to meet the different requirements.

In Pingshuo Antaibao Coal Preparation Plant (15 Mt/a) designed in cooperation with a US company, the technical process of shallow tank heavy media for lump coal and heavy media cyclone for fine coal is employed, and its coal blending for preparation solved the problem of high sulfur content in individual coal seam. It has set a precedent to control sulfur by combined efforts of surface coal mine and coal preparation plant.



Qixing coal preparation plant, Shuangyashan, Heilongjiang



Hongyang mine No.3 coal preparation plant, Liaoning



Shangwan coal preparation plant, Inner Mongolia (10 Mt/a)



Taocun coal preparation plant, Sanxi (5Mt/a)



Sunjiagou coal preparation plant (10 Mt/a)



Lanbao coal preparation plant, Sanxi (2 Mt/a)



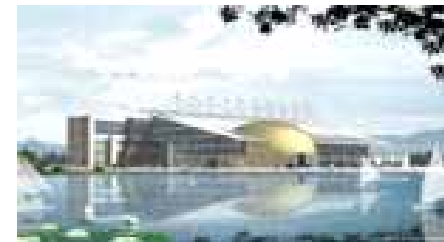
Baidong coal preparation plant, Sanxi (1.8 Mt/a)



Zhonglujiahua coal preparation plant, Sanxi (1.0 Mt/a)



# General Layout, Transportation and Architecture for Coalmine



# Environmental Protection for Coalmine



Mine district water treatment plant, Zhunger



Xuejiawan water treatment plant, Zhunger



# Engineering Prospecting and Control of Geological Disaster

Engineering prospecting includes engineering survey, geotechnical engineering and hydro-geological engineering;

Geotechnical engineering covers geotechnical prospecting, design, test and monitoring, control and treatment and supervision of construction;

The control and treatment of geological disaster includes prospecting, design, construction, risk assessment and supervision of construction



Consolidation projects by cable-bolting, surface mine in Xiaolongtan

## Civil-purposed Explosive Technology

Provide the technical solution of civil-purposed explosive plants, such as power explosive, emulsified explosive, water-gel explosive, expanded ammonium nitrate explosive and detonator, etc, for over 100 projects



Detonator production section, Auorikai Explosive Products Co, Weihai, Shandong



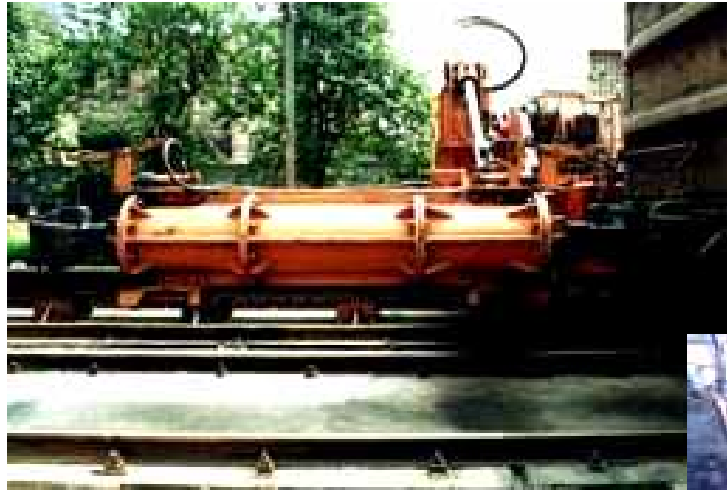
Emulsified explosive production line, Fendou Chemical Plant, Heilongjiang

# Coal-burning Power Plant and Transmission



# Coal Handling by Railway

## Wagon Tipper System





3-5 t bottom and side unloading mine car and unloading station with 600 mm gauge



Electrified railway station of surface coalmine

# Terminals and Coal Handling System



Coal and ore berths, Xinsha terminal, Guangzhou



Raw materials stockyard, Phase III, Bao steel



新沙港鸟瞰  
A bird's-eye view of Xinsha Terminal

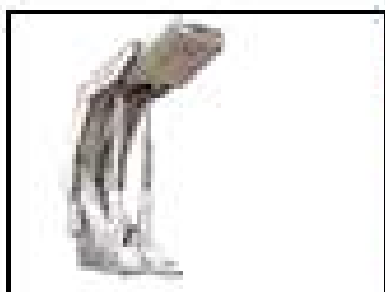




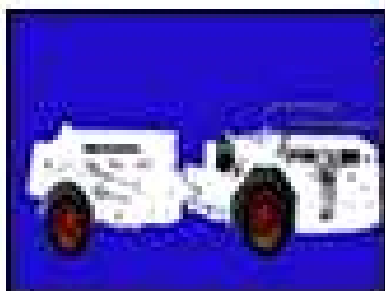
# **COAL MACHINERY & EQUIPMENT**



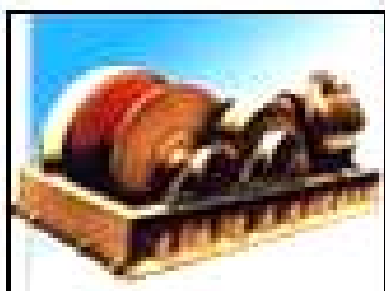
**采煤机** 滚筒采煤机 刨煤机 连续采煤机（成套设备）、露天采煤机 截煤机



**支护设备** 液压支架 单体支柱 摩擦支柱、顶梁 乳化液泵站、喷雾泵站 预应力锚具 液压支架阀 液压支架喷雾阀



**井下辅助运输、车辆设备** 辅助运输设备 电机车 人车 矿车、材料车



**矿井绞车** 提升机 调度绞车 回柱绞车 液压绞车 慢速绞车 其他绞车



**输送机** 刮板输送机 带式输送机 转载机 其他输送机 破碎机 带式输送机转弯装置 带式输送机压带装置



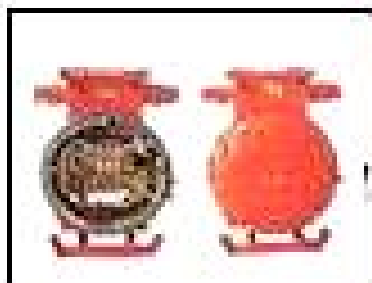
**井巷掘进设备** 掘进机 液压钻车 装岩机、抓岩机 凿岩机、防爆空压机 锚杆、锚索钻机及张拉机具 喷射机、输送泵



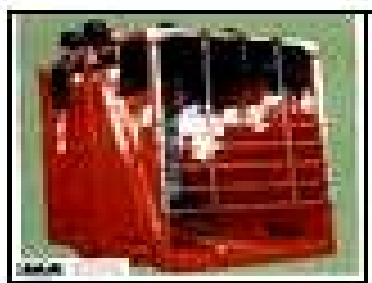
**安全及检测仪器** 安全监控系统及仪器仪表 安全专用装备及救护器材、其他安全设备 煤矿瓦斯巡检系统 自救器 煤矿安全培训实验设备 井下防灭火氦气设备



**通风机除尘设备** 主扇风机 局部风机导风筒 除尘器 除尘风机



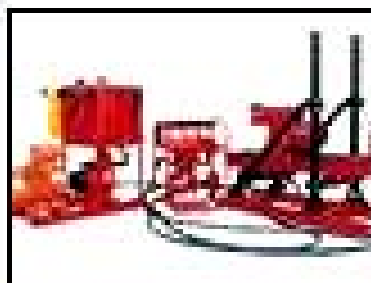
**矿用电器、电控** 防爆电动机 防爆开关、防爆电器 矿灯、照明及充电装置 控制、通讯、信号设备 其他电器 发爆器



**煤矿专用设备** 罐笼 箕斗 井架、天轮 翻车器 安全门 吊桶 摇台 推土机 其它 水仓清挖系统



**矿井检测设备及维修设备** 矿井检测设备及维修设备



**钻机、钻具** 钻机、钻架、钻杆 煤电钻、岩石电钻

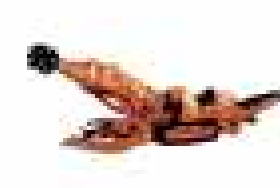
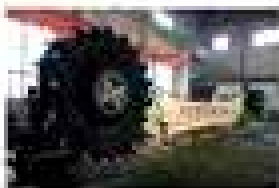
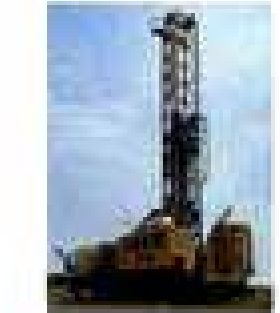
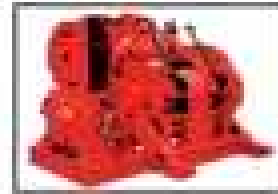
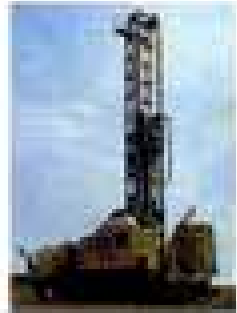


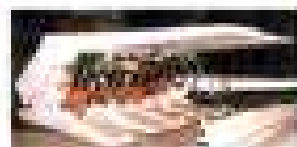
**煤矿专用设备部件** 耦合器 减速器 液压阀 油泵、油马达、油缸 蓄电池、电源装置 矿用电缆 输送带、托辊、滚筒 其

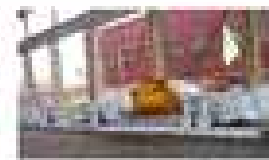
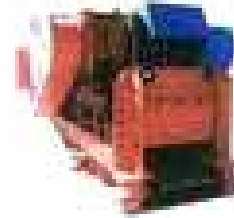
他专用部件



**其他专用零部件** 其他专用零部件







# Service

- **Advanced and reliable technology & engineering**
- **Procurement, manufacture, and delivery of the goods**
- **Project management**
- **Construction, installation, and commissioning**
- **Technical service**
- **Training program**
- **Service after completion of the project**
- **Financing assistance and export credit**
- **Other services and functions upon request**



# **CREATE THE FUTURE**



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