

# OIL - INJECTED COMPRESSED AIR SOLUTION

FOR MARIAN EPURE



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## 1. COMPANY PROFILE



DENAIR Group is a listed enterprise and is considered as one of the leading manufacturer of air and gas compressor products in Shanghai, China. DENAIR has 23 branches and subsidiaries with over 500 employees. Our goal is to provide exceptional customer service coupled with quality products and energy saving solutions.

DENAIR's primary businesses focus in following key areas:

- Oil-injected rotary screw compressors (Belt driven and Direct driven. Fixed speed and Variable speed. High, Normal and Low pressure)
- **Portable air compressors** (Diesel-powered and **Electric motor powered**)
- Oil free air compressors (Dry type, Scroll type and Water-lubricated type)
- Centrifugal compressors
- Process gas compressors
- Vacuum pumps
- Heat pumps

At DENAIR, we earn our customers' trust and satisfaction by manufacturing the superior quality compressed air and gas products for all industries. All of our products are designed for reliable performance, easy maintenance, and maximum energy efficiency. DENAIR has been exporting to more than 150 countries across the globe. We have the largest international sales and service team in China compressor industry. Our well-trained and motivated staff who can speak English, Spanish, French, Russian, Arabic and Korean offers expert advice and assistance for all challenges.

DENAIR continuously innovates product development and management to meet customers' demand. The powerful enterprise culture and continuous innovation make DENAIR improved rapidly to reach the business principle "Energy Saving First, Mutual Value Shared". DENAIR's vision is to be a world-renowned high-end energy-saving machinery brand, with sustainable development, constantly improving its own value and sharing it with our customers and staff, committed to continuously satisfy the needs of global companies by providing a full range of industrial gas and air compression solutions.

## 2. TECHNICAL SOLUTION

### 2.1 PORTABLE ELECTRIC COMPRESSED AIR SOLUTION INTRODUCTION



DENAIR portable compressed air solution was engineered to focus on meeting the essential requirements for Sandblasting and coating: **safe, clean, dry, cool** and **energy-saving** compressed air, helps your company achieve high working efficiency. The solution consists of below product:

- Portable electric air compressor, DADY-55, compresses air to the ideal capacity 10.5 m<sup>3</sup>/min at working pressure 8bar, generates clean and safe compressed air energy-efficiently.

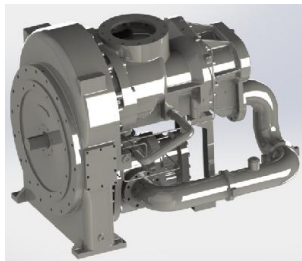
## 2.2 PORTABLE ELECTRIC AIR COMPRESSORS



- ✓ Superior Performance
- ✓ Stable System
- ✓ Smart Controller
- ✓ Simple Operation

### 2.2.1 Features and benefits

#### ○ State-of-the-art two-stage Screw Element



- DENAIR air end adopts a new generation of  $\alpha$ -type asymmetrical 5-6 tooth profile, higher volumetric efficiency
- The latest butterfly port design optimizes the injection point and lowers overall energy consumption
- Adopt advanced Holpoyd processing machine tool, and its dynamic balance can reach G2.5 standard, lower noise
- Long service life with SKF bearing

#### ○ Cutting-edge Energy-saving Technology

- Lower unload pressure to reduce energy waste
- The motor meets the IE3 standard of IEC60034-30, with higher efficiency
- More reasonable pipeline layout, lower system pressure drop and more energy saving
- Innovative variable frequency drive is available to deliver energy savings of up to 35%

#### ○ Outstanding Performance Solution



- High-temperature cooler with an extra 20% margin to ensure a long-term stable operation of the air compressor under 46°C working conditions
- The patented oil-gas separation system makes the compressed air cleaner, and less oil content <3PPM
- Clamping coupling with advantages of high transmission efficiency, strong correction ability and easy maintenance

#### ○ Advanced Noise and Vibration Control

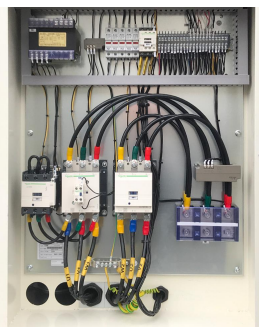
- Labyrinth-type sheet metal structure to effectively reduce low-frequency noise in the

200-500Hz band

- Adopts composite environment-friendly sound-absorbing cotton, with heat resistance and flame retardant, large surface area, which can effectively reduce high-frequency noise in the 1000-2000Hz band
- Specific shock pad for air compressor industry with the advantages of larger vertical deformation and lateral rigidity, which can effectively reduce the vibration generated by the motor and the body during operation, and ensure that the vibration of the air compressor is within 7.1mm/s

**○ Reliable Intelligent Control and Protection**

- **Schneider** electrical elements, simple and clear wiring, easy for maintenance



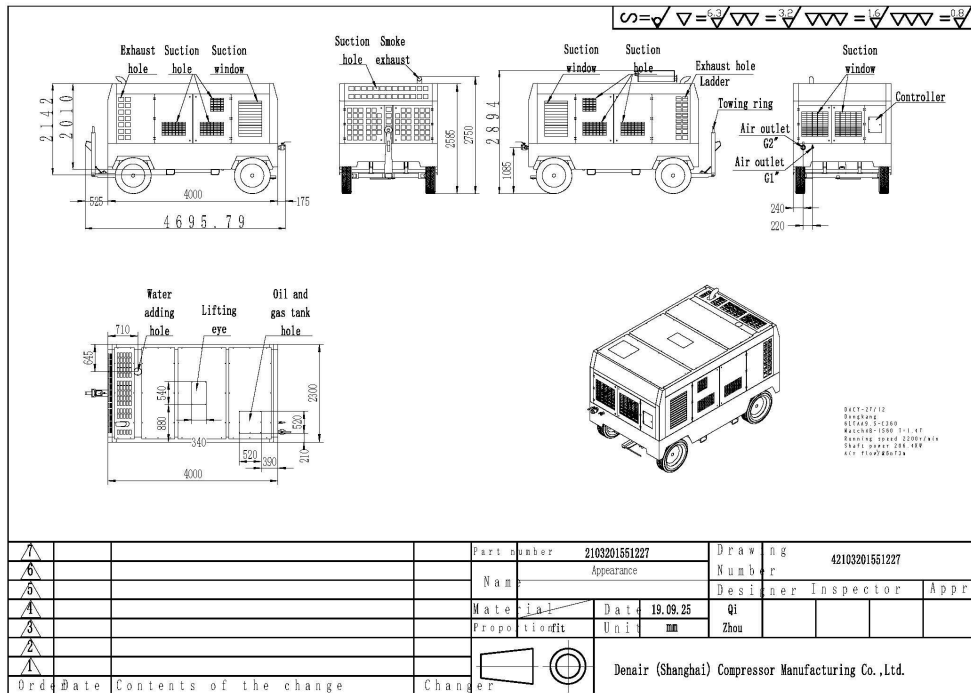
- **CMC** intelligent digital controller offers powerful navigation tools and intuitive data displayed in English, Spanish, Russian and French, etc.
- Support remote protocol: Airbus485, Modbus RTU, Profibus DP, ECO remote intelligent access function, CE, UL, CSA, EAC qualified
- Multi-function I/O ports are reserved and available to set protection functions based on customer needs.

**2.2.2 Technical specifications**

Type	DADY-55
State of compression	normal
Medium	air
Atmospheric pressure	0.1033 Mpa
Ambient temperature	≤45 °C
Relative humidity	≤80 %
Free Air Delivery	10.5 m <sup>3</sup> /min (370cfm)
Max. working pressure	8 bar
Discharge temperature	≤Ambient temperature+30~55°C

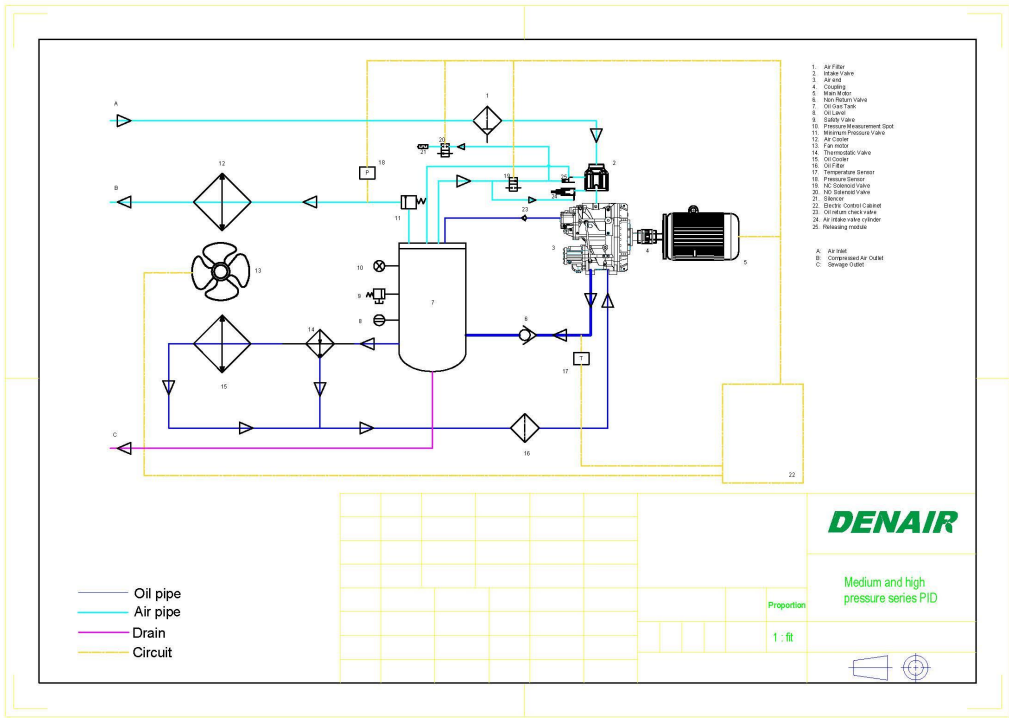
Cooling method	air cooled
Transmission method	direct driven
Starting method	Star Delta
Sound level	≤85 dB(A)
Motor power	55kW
Voltage	380V/3Ph/50Hz
Motor speed	2970 rpm
Lubricant volume	35 Liters
Dimensions (L*W*H)	(Length includes tow bar) 3420x1560x1555 mm
Weight	1200 kg

**2.2.3 Dimensional drawing**

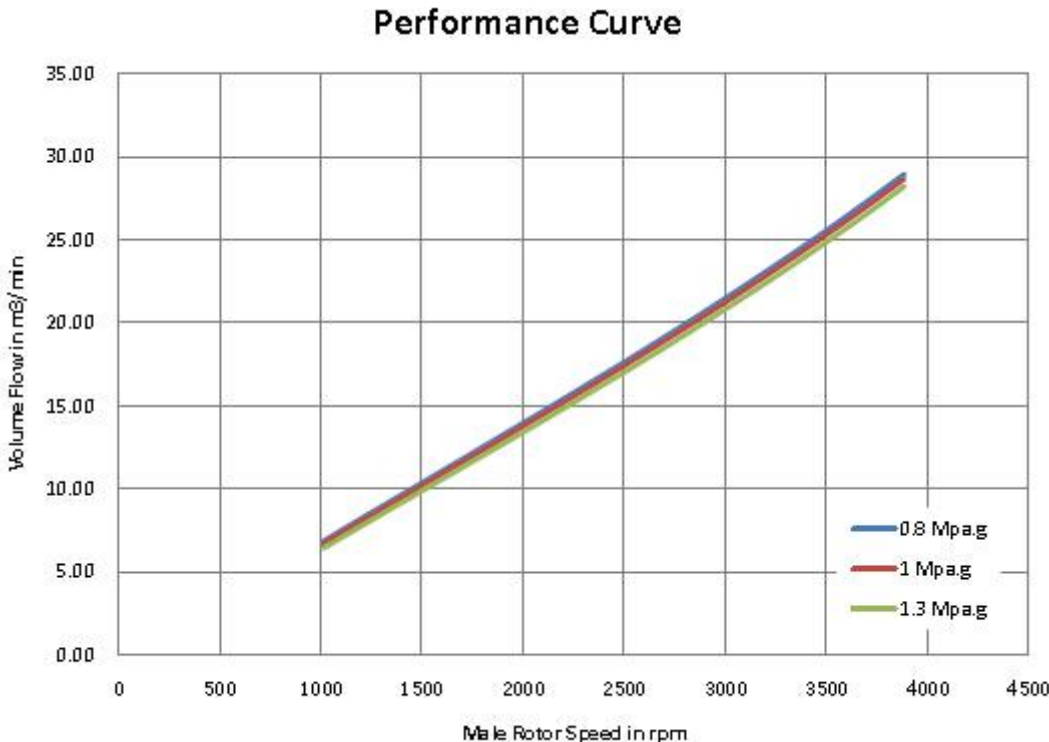


(FOR REFERENCE ONLY)

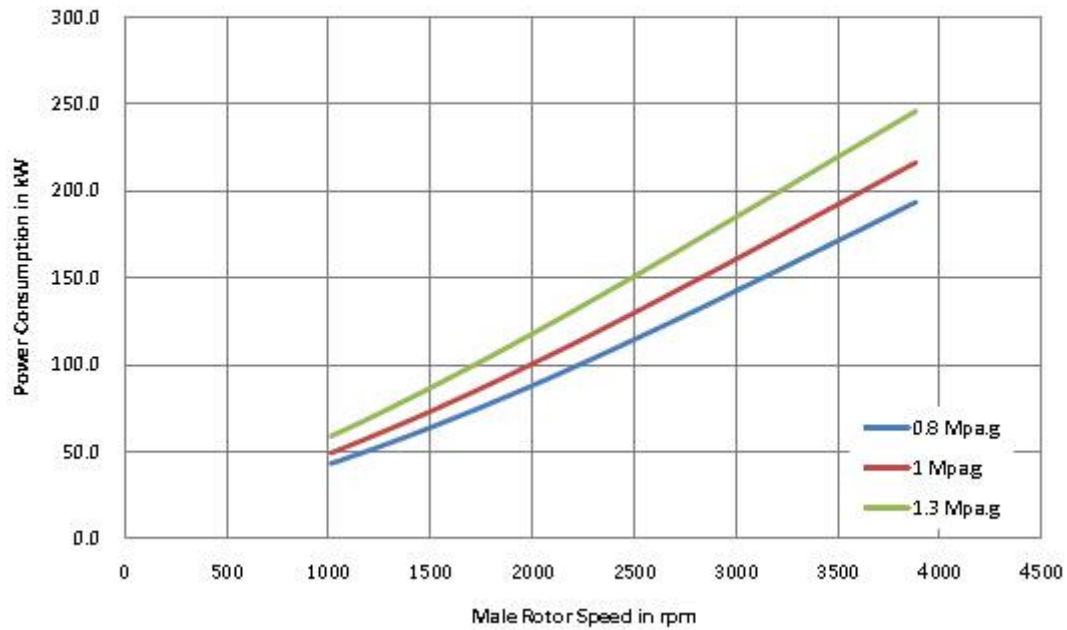
**2.2.4 Piping & instruments diagram**



**2.2.5 Performance curve for compression element**



### Performance Curve



## 2.2.6 Documentation and options

### Available documentation

- Catalog
- Operation Manual
- Parts List
- Electrical Diagram
- Layout
- Test Report

### Available Certificates

- CE Certificate
- Certificates of Conformity with ISO 45001 : 2018, ISO 14001 : 2015, ISO 9001 : 2015

### Additional options






- Remote Monitor
- Containerized Solution
- Tailoring Design
- OEM
- Compressed air vessel with ASME U Certificate

**2.4 PREVENTIVE MAINTENANCE KITS**

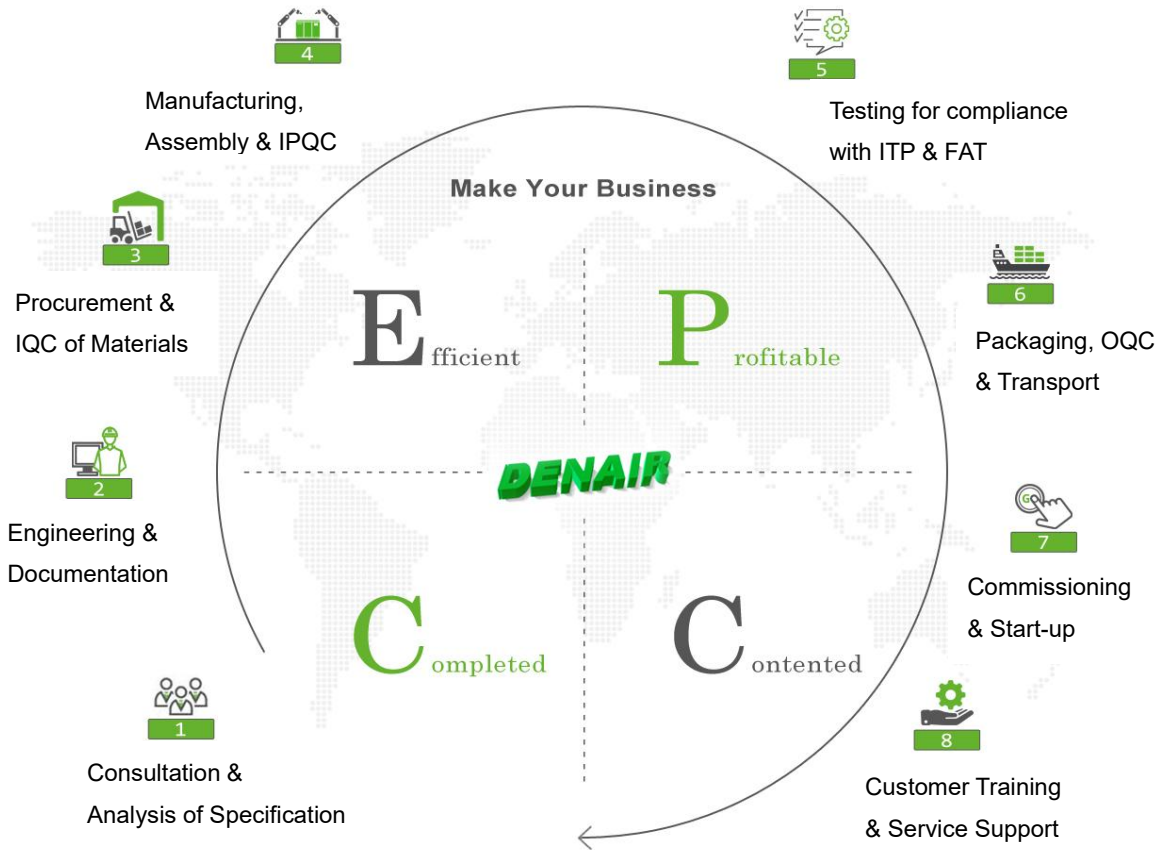
Parts	Year	500hrs	3000hrs	6000hrs	Maintenance Frequency
Air filter element	1 <sup>st</sup> Year	●	●	●	Every 3000hrs
Oil filter	1 <sup>st</sup> Year	●	●	●	Every 3000hrs
Oil gas separator	1 <sup>st</sup> Year		●	●	Every 3000hrs

## 3. PROJECT MANAGEMENT PROCEDURES

### 3.1 Project management team

 <b>Alice Wang</b> Sales Engineer Europe Dept. Mobile: +86 15026957336 WhatsApp: +86 15026957336 Email: Alice.wang@denair.net	 <b>Denise Yan</b> Sales Manager Europe Dept. Mobile: +86 15901929590 WhatsApp: +86 15901929590 Email: denise.yan@denair.net	 <b>Justin Gu</b> Manager Technical Support Dept. Mobile: +86 18321704124 WhatsApp: +86 18321704124 Email: justin.gu@denair.net
 <b>Mark Gao</b> Quality Manager Quality Control Center Mobile: +86 13917536624 WhatsApp: +86 13917536624 Email: mark@denair.net	 <b>Harris Fan</b> Service Engineer Service Dept. Mobile: +86 13917165446 WhatsApp: +86 13917165446 Email: harris@denair.net	

**3.2 Project management work flow**



**3.3 Project schedule plan**

JOB / Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Analysis of Specification	█												
Engineering & Documentation	█												
Procurement & IQC of Materials	█	█											
Assembly & IPQC			█	█	█	█	█						
Testing & OQC							█						
Packaging & Transport							█	█	█	█			
Commissioning & Start-up											█		
Service Support											24hrs		

### **3.4 International After Sales Service Policy**

By choosing DENAIR, you have selected a well-crafted, highly engineered product from a company with nearly 20 years of experience in the industry.

To demonstrate our confidence, every piece of DENAIR equipment is backed by a full warranty. For warranty specifics, availability and details, please refer the WARRANTY CERTIFICATE.

All DENAIR products are thoroughly checked and tested prior to packing and shipping, therefore it is the responsibility of the receiving party to inspect all goods upon arrival for evidence of damage and/or hidden damage due to mishandling by the inbound freight carrier.

#### **Closeness to the Customer**

We find it essential to be close to our customers and to be able to provide support quickly. Thus, we are working on building Authorized Service Centers in every country to provide professional and efficient local service for our customers from day to day.

#### **Installation and Commissioning**

All DENAIR units are fully packaged, ready for operation. Just one power and one air piping connection, and you've got clean, dry air. Your DENAIR contact(s) will work closely with you, providing necessary information and help, from start to finish, ensuring your equipment is installed and commissioned safely and successfully.

#### **On-site Services**

On-site services can be provided by DENAIR technicians or local Authorized Service Center. All service jobs are completed with a detailed service report which is given to the customer. You can contact with DENAIR company to request a service offer.

#### **Spare Parts**

DENAIR and the local distributors aim to stock all relevant spare parts necessary for maintenance of our customers' equipment. We continuously update our stock and are able to deliver original spares for all kinds of products. Wear parts and the most commonly used spare parts are all available from our central stocks in Shanghai and all distributors' depots. However, we recommend that you stock some spare parts at your end for all equipment. An adequate stock of spare parts is also essential in order to minimize annoying system shutdowns and subsequent production losses. We can provide you with lists of adequate parts for your stock and undertake the task of advising original spare parts to meet with the system's exact specifications.

#### **Making a claim and Complaints procedure**

If you discover a problem with your equipment, the action you should take depends on

different situations below:

- Problem during the first 1.5 years

In the first two years of the Warranty Certificate policy, DENAIR company is responsible for putting right any defects covered by the policy, you should contact DENAIR company or your contractor in the first instance.

- Problem in years 1.5 to more

During years 1.5 to more, we provide you with all necessary support and service with basic cost of putting right the damage and fixing the problem. You should also contact DENAIR company or your contractor in the first instance.

- Complaints procedure

Our commitment is to provide a claims handling service that is effective, professional, courteous and prompt to provide the best possible service to all DENAIR clients.

If you are not satisfied with the way we have handled your claim, we have a full complaints procedure. The procedure has three stages. We hope to resolve most complaints at stage 1.

### **Stage 1**

You make a complaint to us. It will be dealt with by the section responsible for the service you are complaining about.

We will acknowledge your complaint in writing, by email or by phone within 2 working days. We aim to resolve your complaint within 3 working days.

### **Stage 2**

We have investigated your complaint but you are not satisfied. Please let us know within 7 working days of receiving our stage 1 response letter.

At this stage, your complaint will be dealt with by our Customer Services Team or the director of the department responsible for the service you are complaining about.

We will acknowledge your dissatisfaction within 2 working days. We aim to resolve your complaint within 5 working days.

### **Stage 3**

We have further investigated your complaint but you are not satisfied. Please let us know within 10 working days of receiving our stage 2 response letter.

At this stage your complaint will be dealt with by the Chief Executive. We will acknowledge your dissatisfaction within 1 working day.

We aim to resolve your complaint within 10 working days. If you are not satisfied with the Chief Executive's response, you may then refer your complaint to the Top Management of DENAIR. We will give you all the contact details you need in our final response.

**3.5 Warranty Certificate**

**DENAIR**

**WARRANTY CERTIFICATE**

The company warrants that the equipment manufactured by it and delivered here under will be free of defects in material and workmanship for a period of eighteen month for the whole machine from the date of shipment from the factory except consumables. The purchaser shall be obligated to promptly report any failure to conform to this warranty, in writing to the company in said period, whereupon the company shall, at its option, correct such nonconformity, by suitable repair to such equipment or, furnish a replacement part, provided the purchaser has stored, installed, maintained and operated such equipment in accordance with good industry practices and has complied with specific recommendations of the company. Accessories or equipment furnished by the company, but manufactured by others, shall carry whatever warranty the manufacturers have conveyed to the company and which can be passed on to the purchaser. The company shall not be liable for any repairs, replacements, or adjustments to the equipment or any costs of labor performed by the purchaser or others without company's prior written approval.

The effects of corrosion, erosion and normal wear and tear are specifically excluded. Performance warranties are limited to those specifically started within the company's proposal. Unless responsibility for meeting such performance warranties are limited to specified tests, the company's obligation shall be to correct in the manner and for the period of time provided above. The purchaser shall not operate equipment which is considered to be defective, without first notifying the company in writing of its intention to do so. Any such use of equipment will be at purchaser's sole risk and liability.

Note that this is DENAIR Company standard warranty. Any warranty in force at the time of purchase of the equipment or negotiated as part of the purchase order may take precedence over this warranty.

*Gloria*  
Authorized Signature  
Denair Energy Saving Technology (Shanghai) PLC.



## 4. SUCCESSFUL PROJECTS AND CUSTOMERS



**We developed innovative solutions tailored  
to these customers' success**

