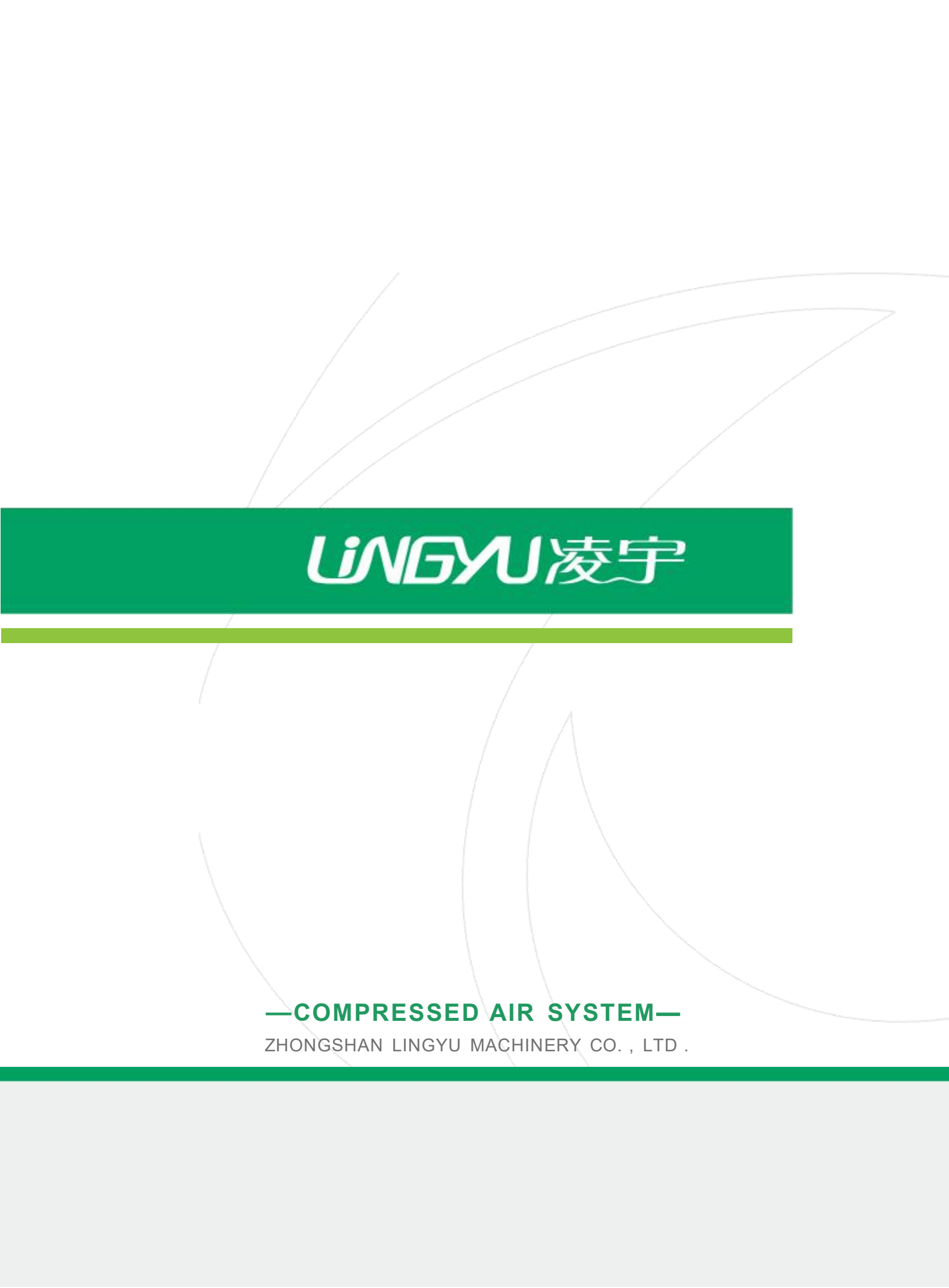




LINGYU 凌宇

—COMPRESSED AIR SYSTEM—

ZHONGSHAN LINGYU MACHINERY CO. , LTD .



Main Product:

- Air cooled/water cooled /energy-saving refrigerated dryer
- Heatless regeneration / heated regeneration / modular adsorption dryer
- Zero loss/ micro air consumption adsorption dryer
- PSA nitrogen generator
- Filter and accessories



Corporate mission:

To provide professional, comprehensive and competitive complete solutions and services for industrial gas separation and purification



Corporate vision:

To be a leading enterprise in the industry and create a world-renowned brand



Corporate development philosophy:

Technology-supported value-driven



Marketing strategy:

To win the market with high-quality products and professional service

Nitrogen Generator

PSA PRESSURE SWING ADSORPTION NITROGEN GENERATOR

■ Operating

conditions Intake air

temperature: $\leq 40^{\circ}\text{C}$

Inlet pressure: $0.5\text{ MPa} \sim 0.8\text{ MPa}$

Nitrogen purity: $95\% \sim 99.999\%$

Nitrogen dew point: $\leq -40^{\circ}\text{C}/\text{tId}$

Ambient temperature: $\leq 40^{\circ}\text{C}$

Switching cycle: $45\text{S} \sim 60\text{S}$

Voltage/frequency: $220\text{V}/50\text{HZ}$

Noise value: $\leq 75\text{dB}$



■ Design Features

Automatic start/stop switching is implemented to achieve fully automated control.

Pneumatic valve switching is controlled automatically by a PLC.

Online real-time monitoring of nitrogen purity and flow rate is provided.

An alarm function for off-spec nitrogen is included; prolonged alarm conditions will trigger automatic shutdown.

An automatic carbon molecular sieve compaction device is incorporated.

A digital touchscreen displays real-time operating parameters, including pressure, purity, and flow rate.

Unequalized pressure balancing technology is adopted, improving nitrogen recovery efficiency and indirectly reducing energy consumption by approximately 5%.

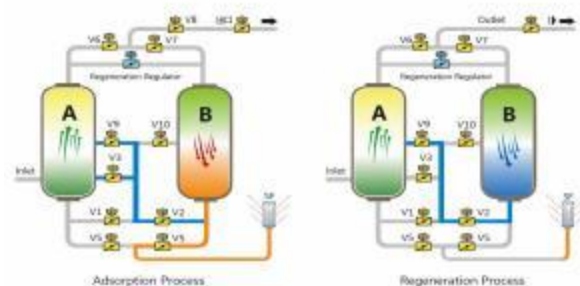


■ Working Principle

A PSA (Pressure Swing Adsorption) nitrogen generator operates by alternately switching between two pressure vessels to adsorb oxygen molecules. The vessels are filled with carbon molecular sieve (CMS), a specialized adsorbent designed specifically for oxygen adsorption.

Compressed air enters one vessel (Tower A), where oxygen is adsorbed by the carbon molecular sieve, allowing nitrogen to pass through the vessel and be collected as product gas. While Tower A is in the adsorption phase, the other vessel (Tower B) undergoes regeneration and desorption. During this process, the oxygen adsorbed on the carbon molecular sieve is released and discharged to the atmosphere using a small portion of nitrogen as purge gas.

When the adsorption tower becomes saturated, the regeneration tower completes its regeneration cycle. The system then switches operation: Tower B enters the adsorption phase while Tower A undergoes regeneration. Based on this operating principle, the two towers are automatically and alternately switched under PLC control to continuously maintain the required nitrogen purity.



■ Technical Parameters/Nitrogen generator – Nitrogen purity: 98%

NITROGEN GENERATOR					
Model	Nitrogen Production	Intel pipe size	Outel pipe size	H*L*W	Effective air consumption
LYZD-A20	20	DN20	DN15	1130*600*1937	0.66
LYZD-A30	30	DN20	DN20	1300*600*2300	1.00
LYZD-A50	50	DN20	DN25	1450*700*2400	1.67
LYZD-A70	70	DN32	DN32	1500*720*2500	2.33
LYZD-A80	80	DN32	DN40	1600*800*2500	2.66
LYZD-A100	100	DN32	DN40	1700*800*2580	3.33
LYZD-A120	120	DN40	DN50	1800*850*2580	4.00
LYZD-A140	140	DN40	DN65	1920*900*2600	4.66
LYZD-A160	160	DN50	DN80	2000*900*2650	5.33
LYZD-A180	180	DN50	DN80	2100*950*2800	6.00
LYZD-A200	200	DN50	DN15	2200*1100*2850	6.67
LYZD-A250	250	DN50	DN20	2400*1250*2850	8.33
LYZD-A300	300	DN65	DN25	2600*1350*3200	10.0
LYZD-A350	350	DN65	DN32	2300*1400*3200	11.67
LYZD-A400	400	DN65	DN40	2500*1600*3400	13.33
LYZD-A450	450	DN65	DN40	2700*1700*3500	15.00
LYZD-A500	500	DN80	DN50	2860*1800*3500	16.67
LYZD-A550	550	DN80	DN65	2950*2000*3600	18.33
LYZD-A600	600	DN80	DN80	3100*2200*3700	20.00

Note: The data listed in this table are based on the adsorption pressure of **0.8 MPa** (gauge pressure) as the raw air, **20℃** ambient temperature, and **80%** relative humidity as the design basis. The data provided in this sample is for reference only.

■ Technical Parameters/Nitrogen generator – Nitrogen purity: 99%

NITROGEN GENERATOR					
Model	Nitrogen Production	Intel pipe size	Outel pipe size	H*L*W	Effective air consumption
LYZD-B15	15	DN15	DN15	1200*500*2200	0.55
LYZD-B25	25	DN20	DN15	1200*550*2200	0.91
LYZD-B35	35	DN20	DN15	1430*700*2096	1.28
LYZD-B45	45	DN20	DN15	1350*600*2500	1.65
LYZD-B50	50	DN25	DN25	1350*600*2500	2.00
LYZD-B60	60	DN25	DN25	1500*600*2430	1.83
LYZD-B70	70	DN32	DN25	1500*690*2570	2.56
LYZD-B90	90	DN32	DN32	1600*700*2650	3.30
LYZD-B110	110	DN40	DN40	1750*750*2750	4.03
LYZD-B120	120	DN40	DN40	1750*765*2650	4.40
LYZD-B140	140	DN40	DN40	1700*850*2750	5.13
LYZD-B160	160	DN40	DN40	1800*1000*2750	5.86
LYZD-B180	180	DN50	DN40	1900*1000*2700	6.60
LYZD-B220	220	DN50	DN40	2000*1100*2700	8.06
LYZD-B260	260	DN50	DN50	2100*1200*2800	9.53
LYZD-B310	310	DN65	DN50	2350*1200*3180	11.36
LYZD-B350	350	DN65	DN50	2400*1300*3100	12.83
LYZD-B400	400	DN65	DN50	2500*1350*2900	14.67
LYZD-B440	440	DN65	DN50	2500*1350*3850	16.13
LYZD-B480	480	DN80	DN80	2550*1400*3800	17.60
LYZD-B530	530	DN80	DN80	2600*1400*3900	19.43

Note: The data listed in this table are based on the adsorption pressure of **0.8 MPa** (gauge pressure) as the raw air, **20℃** ambient temperature, and **80%** relative humidity as the design basis. The data provided in this sample is for reference only.

■ Technical Parameters/Nitrogen generator – Nitrogen purity: 99.5%

NITROGEN GENERATOR					
Model	Nitrogen Production	Intel pipe size	Outel pipe size	H*L*W	Effective air consumption
LYZD-C12	12	DN15	DN15	1300*500*1910	0.60
LYZD-C20	20	DN20	DN15	1250*600*2116	1.00
LYZD-C35	35	DN20	DN15	1400*550*2150	1.75
LYZD-C50	50	DN25	DN25	1500*700*2456	2.50
LYZD-C60	60	DN32	DN25	1600*720*2250	3.00
LYZD-C70	70	DN32	DN25	1680*750*2300	3.50
LYZD-C90	90	DN40	DN40	1750*850*2350	4.50
LYZD-C100	100	DN40	DN40	1800*850*2450	5.00
LYZD-C120	120	DN40	DN40	1900*950*2550	6.00
LYZD-C130	130	DN40	DN40	2000*1000*2550	6.50
LYZD-C150	150	DN50	DN40	2100*1100*2750	7.50
LYZD-C220	220	DN50	DN40	2300*1250*3050	11.00
LYZD-C250	250	DN65	DN50	2350*1350*3150	12.50
LYZD-C290	290	DN65	DN50	2450*1400*3200	14.50
LYZD-C330	330	DN65	DN50	2600*1500*3280	16.50
LYZD-C370	370	DN65	DN50	2700*1500*3280	18.50
LYZD-C400	400	DN80	DN65	2800*1570*3300	20.00
LYZD-C440	440	DN80	DN65	2900*1600*3400	22.00

Note: The data listed in this table are based on the adsorption pressure of **0.8 MPa** (gauge pressure) as the raw air, **20℃** ambient temperature, and **80%** relative humidity as the design basis. The data provided in this sample is for reference only.

■ Technical Parameters/Nitrogen generator – Nitrogen purity: 99.9%

NITROGEN GENERATOR					
Model	Nitrogen Production	Intel pipe size	Outel pipe size	H*L*W	Effective air consumption
LYZD-D10	10	DN15	DN15	1250*580*1911	0.66
LYZD-D15	15	DN20	DN15	1370*570*1910	1.00
LYZD-D20	20	DN20	DN15	1400*620*2089	1.33
LYZD-D25	25	DN20	DN15	1400*570*2189	1.67
LYZD-D30	30	DN25	DN25	1400*570*2415	2.00
LYZD-D35	35	DN25	DN25	1500*700*2260	2 33
LYZD-D40	40	DN32	DN25	1550*700*2561	2.66
LYZD-D50	50	DN32	DN25	1750*780*2528	3.33
LYZD-D60	60	DN40	DN40	1600*710*2700	4.00
LYZD-D70	70	DN40	DN40	1700*750*2700	4.66
LYZD-D80	80	DN40	DN40	1800*800*2750	5.33
LYZD-D90	90	DN40	DN40	1900*850*2800	6.00
LYZD-D120	120	DN50	DN40	2100*1300*3028	8.00
LYZD-D150	150	DN50	DN40	2350*1200*3060	10.00
LYZD-D170	170	DN65	DN40	2250*1300*3260	11 33
LYZD-D200	200	DN65	DN40	2350*1200*3180	13 33
LYZD-D220	220	DN65	DN40	2500*1450*3380	14.67
LYZD-D250	250	DN65	DN50	2600*1620*3400	16.67
LYZD-D270	270	DN65	DN50	2700*1720*3400	18.00
LYZD-D300	300	DN80	DN50	2900*1820*3400	20.00

Note: The data listed in this table are based on the adsorption pressure of **0.8 MPa** (gauge pressure) as the raw air, **20℃** ambient temperature, and **80%** relative humidity as the design basis. The data provided in this sample is for reference only.

■ **Technical Parameters/Nitrogen generator – Nitrogen purity: 99.99%**

NITROGEN GENERATOR					
Model	Nitrogen Production	Intel pipe size	Outel pipe size	H*L*W	Effective air consumption
LYZD-E5	5	DN15	DN15	1260*550*1910	0.43
LYZD-E10	10	DN20	DN15	1250*610*2116	0.86
LYZD-E15	15	DN20	DN15	1320*600*2180	1.30
LYZD-E20	20	DN25	DN25	1400*570*2415	1.73
LYZD-E25	25	DN32	DN25	1550*750*2209	2.16
LYZD-E30	30	DN32	DN25	1675*770*2763	2.60
LYZD-E35	35	DN32	DN25	1650*800*2409	3.03
LYZD-E40	40	DN40	DN25	1800*810*2681	3.46
LYZD-E50	50	DN40	DN25	1800*900*2799	4.33
LYZD-E60	60	DN40	DN40	2050*900*2705	5.20
LYZD-E70	70	DN50	DN40	1600*900*2950	6.06
LYZD-E90	90	DN50	DN40	2300*1000*2745	7.80
LYZD-E120	120	DN50	DN40	2350*1200*3180	10.40
LYZD-E130	130	DN50	DN40	2600*1200*3100	11.26
LYZD-E150	150	DN65	DN40	2300*1250*3080	13.00
LYZD-E170	170	DN65	DN40	2700*1450*3152	13.86
LYZD-E180	180	DN65	DN40	2500*1450*3250	15.60
LYZD-E200	200	DN80	DN40	2700*1450*3232	17.33

Note: The data listed in this table are based on the adsorption pressure of **0.8 MPa** (gauge pressure) as the raw air, **20℃** ambient temperature, and **80%** relative humidity as the design basis. The data provided in this sample is for reference only.

OUR SERVICES

■ **LINGYU Services**



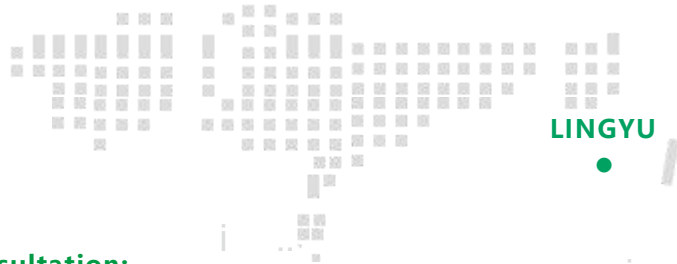
**Professional
efficient**



**Strive to improve
customer satisfaction**



**National coverage
fast response**



■ Service Content

- **Provide free after-sales consultation;**
- Debug, repair, and maintenance of Lingyu equipment during the warranty period;
- Survey the site of other brands outside the warranty period of Lingyu and formulate plans.

■ Complete Accessories

- **Refrigerated air dryer**
Fans, compressors, condensers, evaporators, dry filters, expansion valves, bypass valves, pressure gauges, various drains, etc.
- **Adsorption air Dryers**
Valves, electrical boxes, adsorbents, diffusers, silencers, solenoid valves, check valves, etc.
- **Other accessories**
Various filter elements, differential pressure gauges, etc.



CONTACT US

-  Address: No. 22-1 to 22-3, Jinzhu Road, Heting Town, Heshan City, Jiangmen City, Guangdong Province
-  E-mail: lingyudryer@gmail.com
-  Website: www.lingyuair.com/