



螺优  
LUOYOU

Profession Leads quality  
Quality Wins Customers  
Integrity Casts Brand  
Service Creates Value



微信公众号

**Luoyou Compressor (Shanghai) Co., Ltd**

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Innovation · efficiency · energy-saving · LUOYOU'S EXCELLENT QUALITY

**Screw Air Compressor  
Specially for Laser Cutting**



## COMPANY PROFILE

Founded in the late 20th century, LUOYOU Compressor (Shanghai) Co., Ltd. is a large-scale compressor manufacturer specializing in the production of Permanent Magnet Frequency Conversion Screw-type air compressors (Oil-less, Oil-free, Low-pressure, Medium & High-pressure, Atmospheric Pressure) and Refrigerated Dryers.

Backed by the high demand from the laser industry in the domestic market, LUOYOU has made significant investments in designing a series of air compressor systems specifically for the laser cutting industry. Its tank-mounted design saves installation space with its compact size, making it highly sought by users after its launch. The unique technique of oil and water filtration greatly meets the critical requirements of laser cutting. Our company can customize various air pressure systems for laser cutting and has become a leading player in the industry. The company adheres to advanced German design concepts and rigorous manufacturing technology in both domestic and international markets. We have also integrated our own strong research team to develop continuous innovation, professional design, and manufacturing advantages. The production and management processes are in strict compliance with the ISO 9001 international quality system to ensure that each compressor reaches the international first-class level of credibility and quality. This commitment has consistently placed us in a leading position within the industry.



## HONOURS



# PRODUCTS



Skid-mounted All-in-1



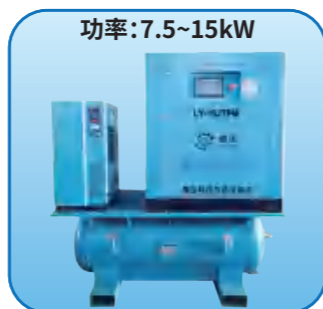
For Nitrogen Production Double-tank Mounted 4-in-1



功率:15~37kW



功率:15~185kW



功率:7.5~15kW

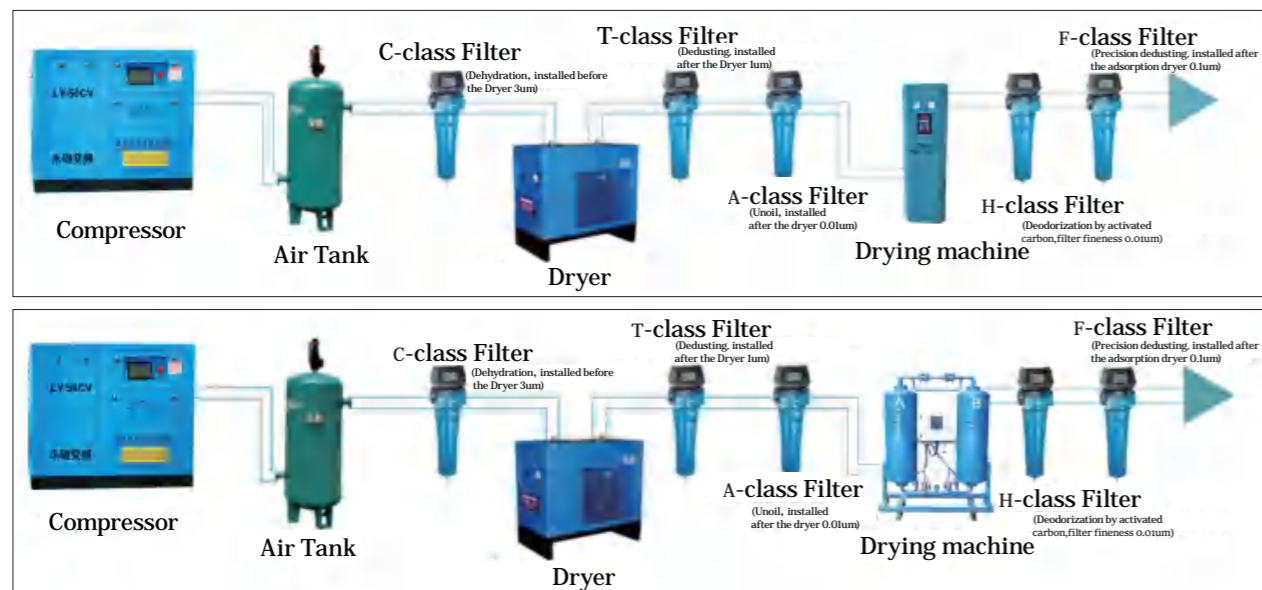


功率:7.5~15kW

Tank-mounted All-in-1 Laser cutting single machine

Tank-mounted All-in-1 Laser cutting single machine

( Split-type Compression System for Laser Cutting )



# SCENARIO



Metal Working



Laser Cutting



Sheet-metal



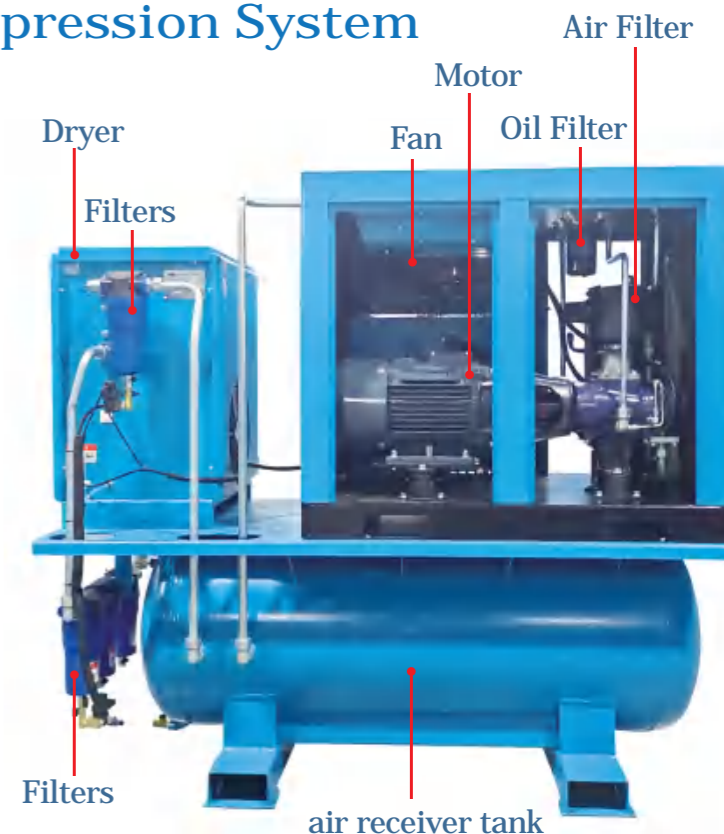
Case Machining

# All-in-1 Laser Cutting Compression System

1. Laser cutting is a new high-tech cutting technology that utilizes laser beams to cut materials. It offers high cutting efficiency and produces flat-end faces, making it widely used in industries such as machinery and hardware. As for the gas source (oxygen, nitrogen, air) used in laser cutting, air has its unique advantages. It is low-cost and can produce better cutting results than oxygen and ammonia for certain materials. This system has been successfully utilized in the laser-cutting industry for years.

2. The biggest advantage of tank-mounted laser cutting with an air compressor is that it occupies a small space, runs smoothly, and provides high air processing purity, which fully meets the requirements of laser cutting.

3. Laser cutting has very high requirements for being oil-free, water-free, and dust-free. Failure to meet these requirements can directly impact the cutting effect, potentially leading to the burning of the protective lens and focusing lens. In more severe cases, the laser cutting head may become unusable. Our company has upgraded and reformed the technology to meet the aforementioned requirements.



# Craftsmanship Quality

**Energy-saving Permanent Magnet Inverter**  
Vector calculation; Frequency conversion technology ensures energy-saving operation at low starting Current.



**Superior Air Filter**  
The filter cartridge removes microscopic, small particles in the air, extends service life.



**Superior Oil Filter**  
Filtered with fine materials, pin-on oil filters protect the stable operation of the machine.



**Precision Filter**  
Precision filters make de-watering and de-oiling effect. Even better, while the electronic drainage valves automatic drain water periodically.



**Permanent Magnet Synchronous Motor**  
PM rare earth synchronous motor; High-performance RuFeB; Permanent magnet can sustain up to 200°C to achieve the goal of energy-saving and power-saving.



## Perfect Construction of Air Compression System

LUOYOU brand is known for its craftsmanship in building laser cutting machines. We specialize in customizing hosts with motor protection grades of IP55 and IP65, ensuring a long service life. It also features a cost-effective IP23-protected motor, which offers greater cost efficiency. We utilize a specialized laser professional refrigerated dryer that can achieve a pressure dew point of 2-10 °C. Extra-large volume air storage tank for a stable buffering effect. The quadruple precision filter offers high filtration accuracy and is easy to clean. The filter element can be replaced, ensuring cleaner and fresher air. An intelligent integrated control system with multiple protection functions effectively prevents overheating, short-circuiting, overload-



## Requirements for air compression system conditions

Criteria for Laser Cutting Compressor:

- 1、Optional working pressure 1.3, 1.6, 1.8,& 2.0Mpa;
- 2、FAD: 0.6 - 20<sup>m³</sup>/min.



## Industrial Dust Removal Equipment

Provide efficient industrial purification solutions

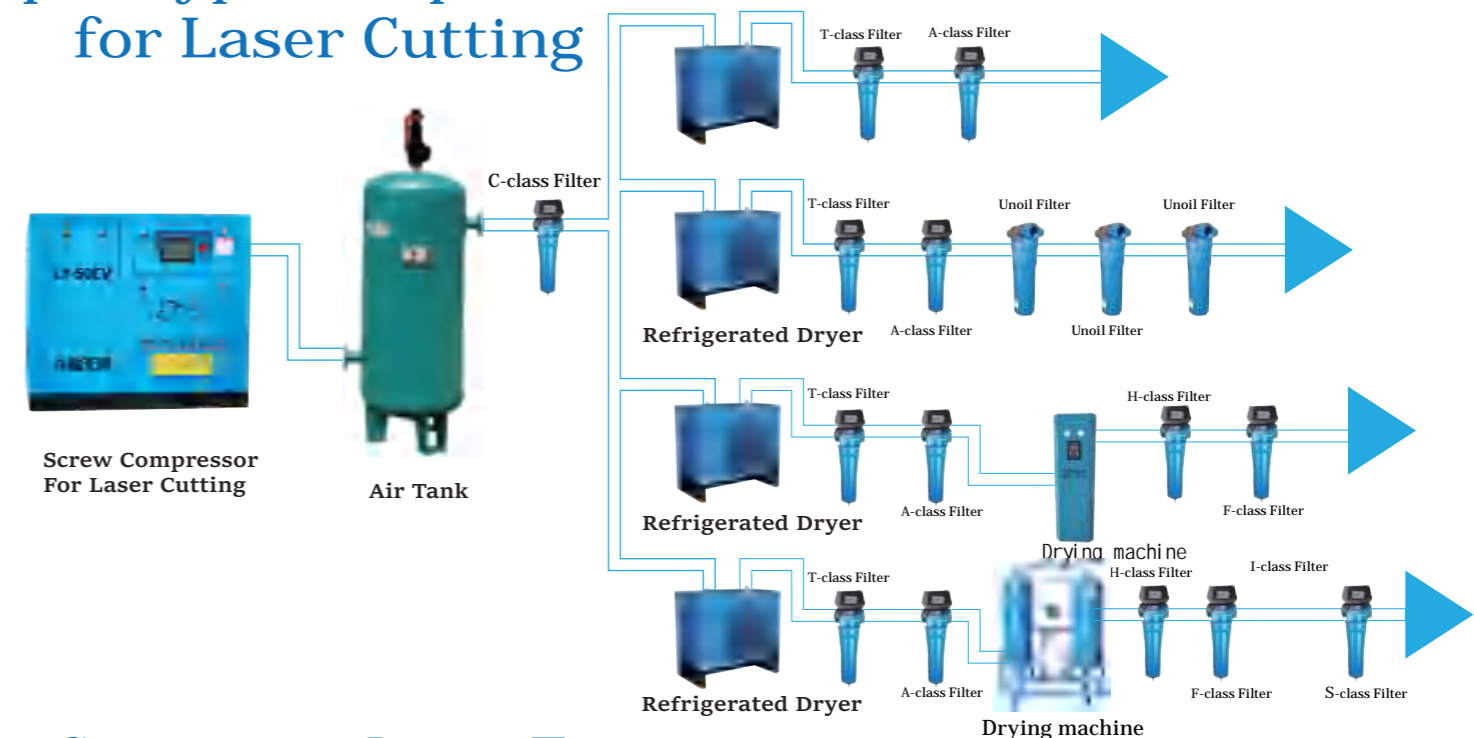


Authentic Manufacturer  
Guaranteed Delivery  
One-step Procurement

## Skid-mounted Compressor for Laser Cutting



## Split-type Compressor for Laser Cutting



## Systematic Laser Energy-saving

The biggest advantage of air cutting is its low cost and convenience, especially for stainless steel plates, aluminum plates, and galvanized plates. Air cutting can achieve comparable results to nitrogen cutting, and in some cases, it can even replace oxygen cutting for cutting steel plates that are 3mm thick. Both in terms of cost and follow-up service fees, as well as the effectiveness of use, air compression systems is ideal for laser cutting, achieving not only a minimum of 50 percent energy savings but also offer a significant reduction in energy consumption.

## Technical Parameters (Pressure 1.6Mpa)

Code:JA - Fixed Speed | JPM - PM VSD | JTA - Fixed Speed All-in-1 | JTPM - PM All-in-1

Model	L*W*H (mm)	Power kW	Weight KG	FAD (m <sup>3</sup> /min) 1.6mpa	Cooling	Noise DB(A)	Outlet Pipe
LY-10JA/JPM	800*780*980	7.5	160	0.6	Air	65±2	G 1/2
LY-15JA/JPM	950*800*1150	11	350	1	Air	62±2	G 3/4
LY-20JA/JPM	950*800*1150	15	350	1.5	Air	62±2	G 3/4
LY-30JA/JPM	1220*820*1050	22	430	2	Air	65±2	G1 1/4
LY-40JA/JPM	1220*820*1050	30	560	3	Air	66±2	G1 1/4
LY-50JA/JPM	1420*1000*1300	37	650	3.5	Air	68±2	G1 1/2
LY-60JA/JPM	1420*1000*1300	45	920	4.3	Air	70±2	G1 1/2
LY-75JA/JPM	1700*1150*1500	55	1500	6.1	Air	73±2	G2
LY-100JA/JPM	1700*1150*1500	75	1800	7.3	Air	75±2	G2
LY-125JA/JPM	1900*1200*1555	90	2200	9.0	Air	75±2	G2
LY-150JA/JPM	2100*1250*1700	110	2900	12.0	Air	75±2	DN65
LY-180JA/JPM	2300*1650*2000	132	3100	15.0	Air	75±2	DN65
LY-10JTA/JTPM	1400*800*1550	7.5	370	0.6	Air	65±2	G 1/2
LY-15JTA/JTPM	1750*850*1750	11	560	1	Air	65±2	G 3/4
LY-20JTA/JTPM	1750*850*1750	15	560	1.5	Air	65±2	G 3/4
LY-30JTA/JTPM	1950*900*1900	22	800	2	Air	66±2	G1 1/4
LY-40JTA/JTPM	1950*900*1900	30	1400	3	Air	66±2	G1 1/4
LY-50JTA/JTPM	2220*970*1900	37	1500	3.5	Air	68±2	G1 1/2
LY-60JTA/JTPM	2220*970*1900	45	1800	4.3	Air	70±2	G1 1/2

## Technical Parameters (Pressure 1.8/2.0Mpa)

Code:JA - Fixed Speed | JPM - PM VSD | JTA - Fixed Speed All-in-1 | JTPM - PM All-in-1

Model	L*W*H (mm)	Power kW	Weight KG	FAD (m <sup>3</sup> /min) 1.8/2.0mpa	Cooling	Noise DB(A)	Outlet Pipe
LY-20JA/JPM	950*800*1150	15	350	1.1/1.0	Air	62±2	G 3/4
LY-30JA/JPM	1220*820*1050	22	430	1.9/1.6	Air	65±2	G1 1/4
LY-40JA/JPM	1220*820*1050	30	560	2.8/2.4	Air	66±2	G1 1/4
LY-50JA/JPM	1420*1000*1300	37	650	3.5/3.1	Air	68±2	G1 1/2
LY-60JA/JPM	1420*1000*1300	45	920	4.3/3.8	Air	70±2	G1 1/2
LY-20JTA/JTPM	1750*850*1750	15	560	1.1/1.0	Air	65±2	G 3/4
LY-30JTA/JTPM	1950*900*1900	22	800	1.9/1.6	Air	66±2	G1 1/4
LY-40JTA/JTPM	1950*900*1900	30	1400	2.8/2.4	Air	66±2	G1 1/4
LY-50JTA/JTPM	2220*970*1900	37	1500	3.5/3.1	Air	68±2	G1 1/2
LY-60JTA/JTPM	2220*970*1900	45	1800	4.3/3.8	Air	70±2	G1 1/2

\*\* All parameters are correct at the print, may vary with future improvement without prior notice.

## Laser Cutting for Nitrogen Production

By precisely controlling clean air and nitrogen, it is possible to achieve perfect cutting of mixed gases with varying purities ranging from 85% to 99%. The cutting efficiency of aluminum and high manganese plates is superior to that of liquid nitrogen, making it particularly suitable for the burr-free cutting process of aluminum and medium-thick steel plates. Simple innovation, a user-friendly system, and an ultra-low investment cost.



Equipped with Adsorption Dryer

The reason why to choose us

### For Sheet-metal Processing Enterprises:

1. High-purity nitrogen cutting.
2. Mixed ultra-clean air cutting mode: This mode is suitable for cutting aluminum plates, steel plates ranging from 5-30mm, and manganese steel plates. By using mixed gas cutting, it is possible to reduce burrs by more than 80%.
3. Purity Mode: Purity is accurately controlled between 85% and 99%. Choose different purity modes or customize them according to different materials.
4. Air cutting mode: Use air cutting when working with conditions or thin plates that do not require burr-free quality.

### 6 Core Technology

**Fast Cutting**

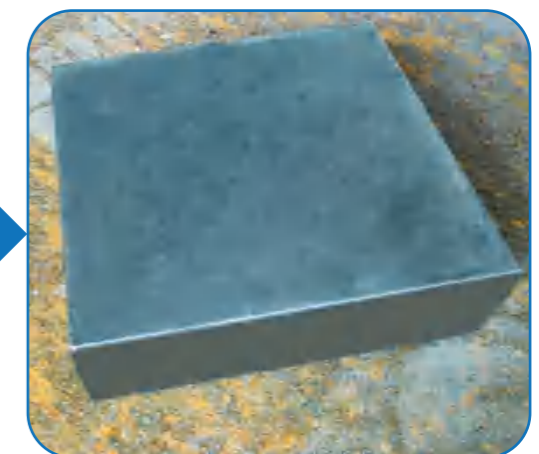
**Efficiency**

**Thick Cut**

**Burr-free**

**Burn-free**

**Smoke-free**



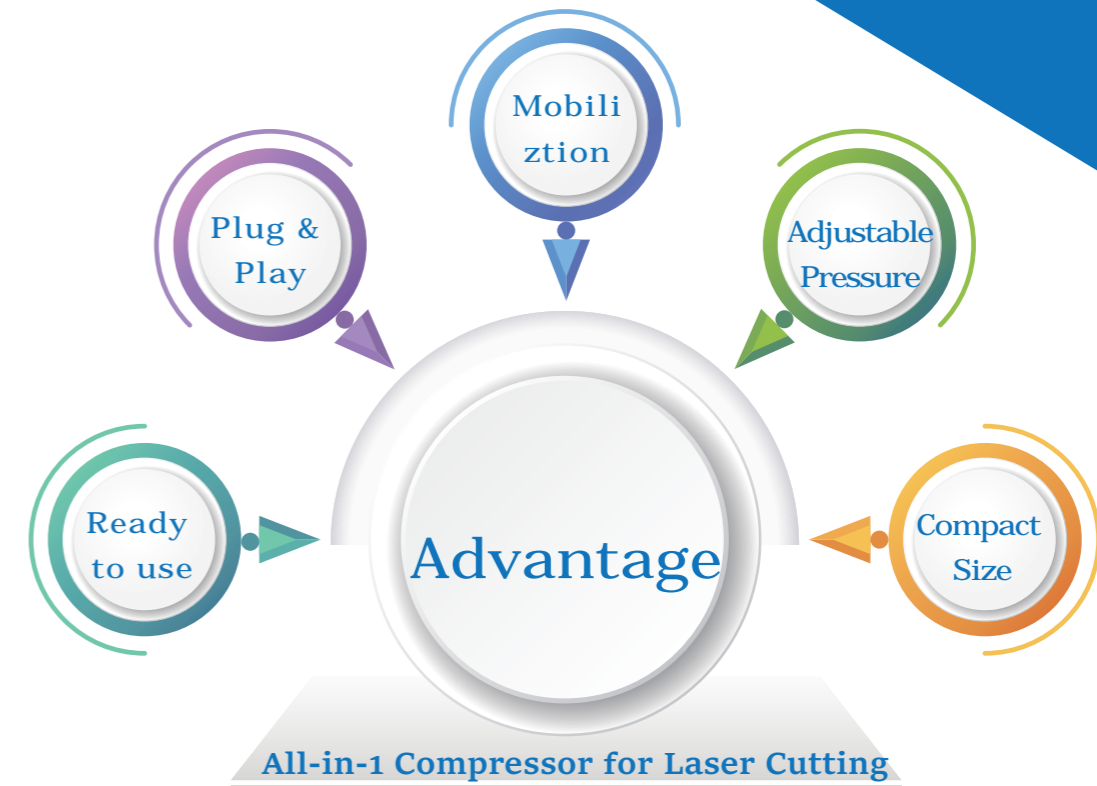
Cut thick, bright, burr free, and smokeless

# Product description

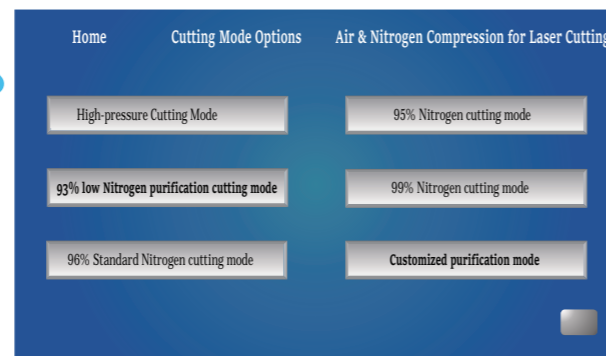
Customers can have a visual understanding of the purchased equipment, using international top electronic products to ensure the stable operation of the equipment to the maximum extent possible. Users can achieve remote monitoring, touch screen display, and meet various choices and requirements for component brands, including customized standards for equipment coating colors.



Air Compression Nitrogen System for Carbon Steel Cutting



Standard air + Nitrogen cutting machine cutting modes



## Ultra Clean Air High-pressure Air Nitrogen PSA All-in-1 Machine (92% -99%) purity

Modal	Pressure (bar)	Nitrogen(m <sup>3</sup> /h)			FAD (m <sup>3</sup> /min)	Power (kW)	System Power (kW)	L*W*H 长*宽*高 (mm)
		99%	96%	95%				
LY-75	14	50	60	75	2.5	22	24	900*650*2100
LY-120	14	80	100	120	4.2	37	40	900*650*2100
LY-150	14	120	135	150	5.2	45	60	900*650*2100
LY-200	14	160	200	240	8.4	75	82	1300*650*2100

Remarks: 1.Our standard machines are equipped with 16bar permanent magnet variable frequency air compressor;  
2.The rated purity is based on 95%;3. Nitrogen pressure ≥ 13.0bar; 4. The inlet air of the super clean air compressor is less than 0.01pp;  
5. The nitrogen outlet has a dust content of<0.01um, and is equipped with two dust removal tight filters as standard

## Comprehensive Service

### Consulting

What we need to do is not only provide customers with top-quality products but also complement those products with exceptional services. Luoyou has a professional team responsible for product development and sales consulting, which includes product engineers, installation engineers, and sales engineers. Consulting work that can fully meet various requirements, understand the various aspects of the air compressor system that need to know.

### Design & Solution

Luoyou's professional team has experience in compressed air system applications in any industry. We provide solutions to the various requirements of new customers in various industries every day. So, no matter what industry you are in, the amount of air you require, or the complexity of your on-site environment, we will provide you with the best-compressed air solution.

### After-sales Service

We comprised of engineering and technical personnel with extensive professional knowledge and experience in resolving a wide range of issues, offering after-sales service at any time and any location. Whether it is within or outside the warranty period, the best and fastest service is guaranteed.

