Ingersoll Rand

OIL-FREE

ES Series
Air Compressors

55-110 kW
4.3-19.9 m^3/min

Your Trusted Partner in Compressed Air

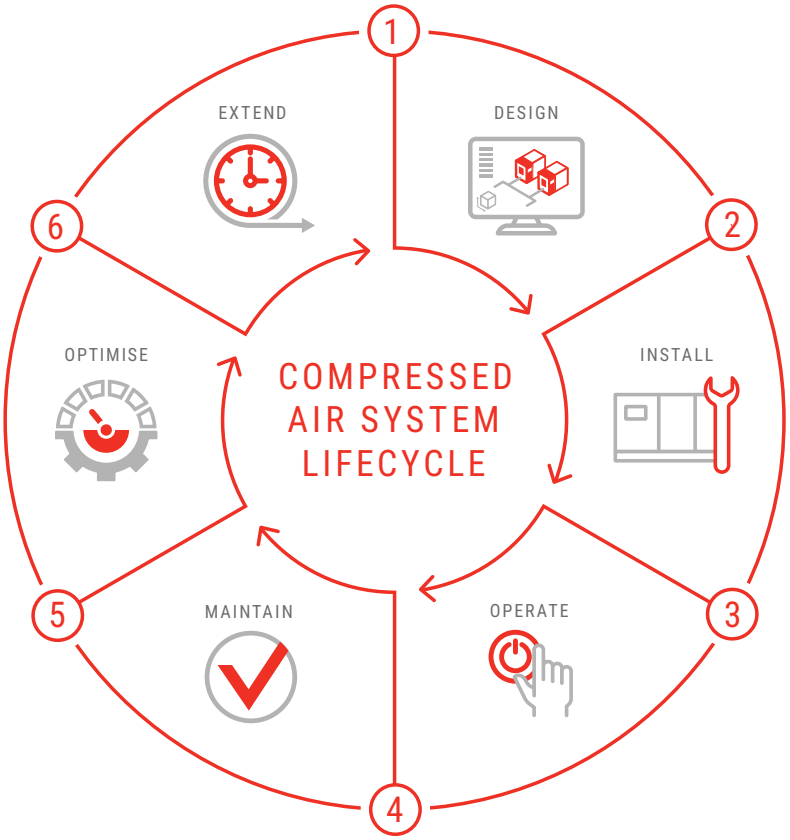
Staying ahead of your competition with advanced compressed air systems and services that boost productivity, lower operating expenses, and extend equipment life is critical to your success.

Regardless of industry or application, you can count on Ingersoll Rand® as a trusted partner for oil-free compressed air technologies and services. By focusing on you and your business, we provide collaborative solutions that make you successful, offering a total system approach to maximise efficiency and performance.

More than Compressors, We Take a Systems Approach

Delivering reliable compressed air to your facility goes well beyond the compressor itself. Optimised total cost of ownership (TCO) through a systems approach that employs the best air compression technologies to deliver reliability for life – from design to decommissioning.

Your business will benefit from Ingersoll Rand's partnership through our extensive experience and global expertise to ensure reliability, lower maintenance costs, ease of serviceability and system optimisation.



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Why Choose the Revolutionary Oil-Free ES Series?

You need a reliable, cost-effective solution that complies with the most stringent air quality standards, features industry-leading energy efficiency and is backed by a global network of experts. That's what you get with our oil-free rotary screw air compressors.

For Efficiency and Air Flow

Advanced airend and dual drive component design provide world-class specific power and improved air flow, resulting in reduced energy use.

For Reliability

Every component in our oil-free compressor system supports maximum reliability for increased productivity, longer equipment life, lower operating costs and higher profitability.

For Easy Installation

Our oil-free compressors have a compact, best-in-class footprint, low noise levels for point-of-use installation, plus, simplified power upgrades for changing demands.

For Lower Cost of Ownership

Intuitive microprocessor controls, easy serviceability and long-life consumables significantly reduce operating, maintenance and service costs over the lifetime of your compressed air system.

Class 0
ISO 8573
Oil-Free Air

ISO 8573-1 Air Quality Classes	
Quality Class	Oil & Oil Vapour mg/m^3
0	< 0.01
1	0.01
2	0.1
3	1
4	5

Class 0 is the most stringent air class defined by ISO 8573, part 1. Our oil-free compressors are certified Class 0 for no oil content by TUV to ensure your air quality exceeds specifications.

Oil-Free Variable Speed Compressors Designed for Your Application






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ES Series – For World-Class Efficiency and Performance

100% oil and silicone-free air for mission-critical applications

The ES series compressors deliver a 100% oil and silicone-free solution, meeting the rigorous standards of ISO 8573-1 Class Zero (2010). This makes them ideal for applications that demand the highest oil-free air quality.

Best-in-Class Flow and Efficiency

The ES series stands out with German-engineered and manufactured airends and a special coating to ensure sustained efficiency. It achieves around 12% energy savings and optimises performance across all demands with its innovative, gearbox-free, high-efficiency motors.

PM Motors exceeding IE5 and IES2 efficiency standards

Achieve unparalleled energy savings and performance with our motors, which surpass the highest efficiency standards of IE5 and IES2, specifically designed and engineered for groundbreaking sustainability and optimal operational excellence. The dual drive design, based on two independent motors, controls the speed of each airend individually to ensure that regardless of load, the compressor operates with optimal performance.

Optional Heat Recovery solutions for enhanced sustainability

Unlock energy efficiency and sustainability-related savings with our heat recovery solution, which effortlessly achieves 90°C water outlet temperatures, recycles heat, and minimises operating costs. The turnkey heat recovery solution eliminates complex engineering and the need for additional components.

Many energy and cost-efficient options for achieving lowest pressure dew points

The range of compatible dryers for attaining the lowest pressure dew points (PDPs) includes technologies such as HOC Dryers, rotating drum dryers and the unique Subfreezing Dryer from Ingersoll Rand.

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Exceptional Reliability – Optimised Airend Design

- Superior, long lasting rotor coating with excellent properties in terms of corrosion resistance, adhesion, and temperature resistance. The coating is free of PFAS.
- Our patented closed-loop internal cooling water circuit provides superior heat transfer, high compression efficiency, reduced oil consumption, and protection against thermal stress and dirt ingress.
- Enjoy streamlined operation and maintenance with our fully integrated lubrication circuit. It is easy to access, has minimal external piping, operates independently, and is remarkably efficient, requiring just 8.5 litres of lubricant for the complete system.
- Advanced Powered Breather technology for reliable venting of the lubricant circuit, keeps the compressor environment clean and prevents lubricant loss.

Powered by ECOPLANT

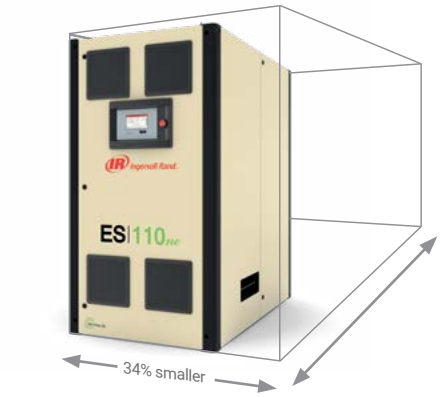
HELIX™

Real-Time Data Visibility & Insights

The ES series features the Helix™ Connected Platform, which provides total transparency into your compressor's performance, maximising uptime, quality and energy efficiency. Additionally, you can elevate your air system performance with the Systems Performance Manager, Powered by Ecoplant. This advanced controls platform utilises dynamic controls logic that integrates with your compressed air system, further increasing and enhancing energy efficiency and minimising downtime.

Maximised Flexibility with Effortless Usability

Discover unmatched space efficiency with the ES series

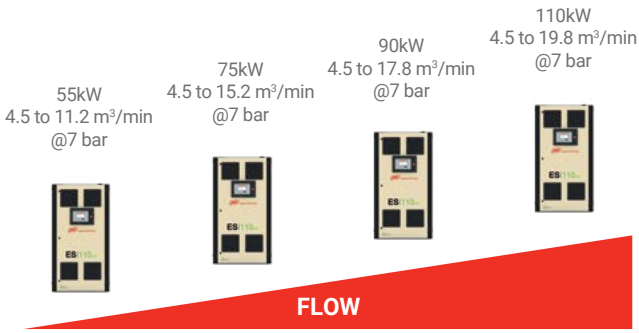


The ES Series features a best-in-class footprint 34% smaller than previous models and up to 50% more space-efficient than other compressor brands.

Lowest noise levels

The ES series sets a new standard for quiet operation at just 69 dB(A), outperforming any similar oil-free compressor on the market. This delivers a significant customer advantage by allowing operation directly at the point of use.

Simplified power upgrades for changing demands



Future-proof your business with the ES series compressor. You can easily and instantly adjust nominal power between 55 and 110 kW and the corresponding air delivery to meet growing demands. This flexibility saves costs on new units with zero downtime for delivery, installation, or commissioning.

Xe Pro 180n controller

Stay connected with the Xe-Pro 180n through its easy-to-use touchscreen display or via remote access through a web browser or smartphone. Real-time monitoring, diagnostics, trending and analysis keep you in complete control.

Effortless maintenance via the CARE Services Program

You will receive proactive maintenance and support by partnering with Ingersoll Rand and investing in one of our CARE Services Programs. This helps avoid unplanned and unbudgeted downtime and prevents production interruptions.

CARE SERVICES PROGRAM

Package CARE™

Planned CARE™

Parts CARE™

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Unique Cooling – Integrated Heat Recovery

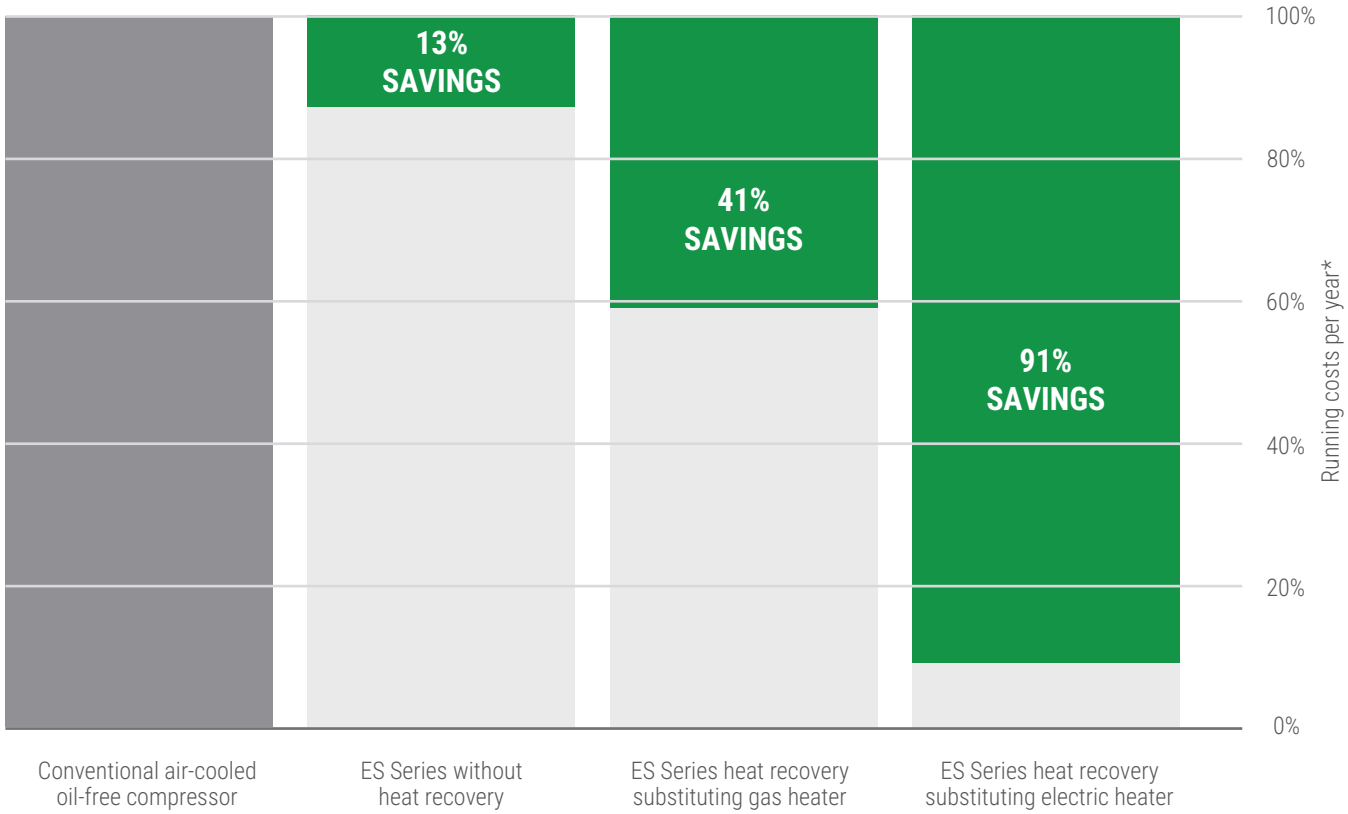
The air-cooled ES Series features an innovative and patented closed-package cooling system that captures and recovers up to 98% of the heat generated during the compression process. This recovered energy can be used for process water heating, achieving usable water temperatures of up to 85°C. Notably, the ES Series is one of only a handful of air-cooled, oil-free air compressors that can utilise heat recovery for process water heating.

Additionally, these compressors offer a "hybrid cooling mode" operation. Depending on the most economical cooling method available at the time – which may change seasonally – they can operate in either air-cooled or water-cooled mode or even in a combination of both.

The ES Series processes cooling air within the compressor package, and a heat exchanger cools this internal air before recirculating it back. This design prevents dust and particulates from entering the compressor's interior and at the same time allows to capture even the radiation heat of internal components like motors, inverters, coolers etc. and makes this heat available for heat recovery.

With nearly 100% of the energy used recoverable, heat recovery can lead to up to 91% savings on operational costs. Even without heat recovery, savings compared to industry standards can reach up to 13% with the ES Series air compressors.

Annual Running Cost Comparison



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Desiccant Dryers

Desiccant dryers offer very low dew points and prevent potential freeze-up. Depending on whether you require lower initial capital costs, or lower energy use, choose from heat-of-compression (HOC), heatless or heated blower desiccant models.

Desiccant Dryer Features

- Delivers reliable -40°C PDP in most operating conditions
- High-strength desiccant and durable valves
- Low pressure drop design saves energy
- Advanced microprocessor control is easy to use and maximises uptime

Subfreezing Dryers

The SF is the only regenerative refrigerated dryer that combines the subfreezing pressure dew point (PDP) of a desiccant dryer, with the low operating and energy costs of a refrigerated dryer.

Subfreezing Dryer Features

- ISO Class 3 high-quality air with a -20°C (-4°F) PDP
- Low temperature operation, ideal for subfreezing temperatures
- Patented heat exchanger design reduces operating costs
- No costly consumables, lowering maintenance costs

Refrigerated Dryers

Our cost-effective refrigerated dryers provide clean, dry air for most industrial applications. Choose efficient cycling dryers to maximise energy savings or non-cycling dryers for a lower initial cost.

Refrigerated Dryer Features

- Dew points as low as 3°C (38°F), meeting Class 4 requirements
- Intuitive microprocessor control for easy operation
- Corrosion-free heat exchanger design for reliable operation
- Compact design for easy serviceability

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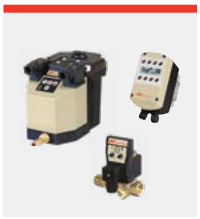
A compressed air system is a significant investment. You expect consistently reliable, clean, dry air at the lowest possible operating cost. Choose our genuine parts and accessories along with our installation solutions to ensure that your compressor is running efficiently and productively.

F-Series In-Line Filters

Our advanced compressed air filters reduce contamination in your air stream to help protect finished goods, critical processes and valuable equipment.



Heavy-Duty No-Loss Drains

No-loss drains are the most reliable, durable and energy-efficient way to remove condensate from air compressors and system components.

Power Management

Lower your cost with our power management solutions, including disconnects, line reactors, fuses and transformers.

Nitrogen Generation

Ingersoll Rand's nitrogen generators allow you to tailor your nitrogen's purity to your exact requirements and ensure maximum efficiency.

Filters

Ingersoll Rand provides the highest-quality OEM filters for preventative maintenance that eliminate the risk of using will-fit parts.

OEM Replacement Parts

We have the genuine OEM parts you need with inventories maintained in strategic locations around the world.

Installation Solutions

We offer a complete range of products and services in compressed air system installation, integration and commissioning. Regardless of the size and scope of the job, Ingersoll Rand has the capability to manage your project from start to finish.

Project Management

Fully integrated services managed by experts that ensure efficient operation

SimplAir® Piping Systems

Durable aluminium piping and "quick-connect" fittings enable easy installation

Air System Accessories

Everything you need to deliver clean, dry air from the compressor to point of use

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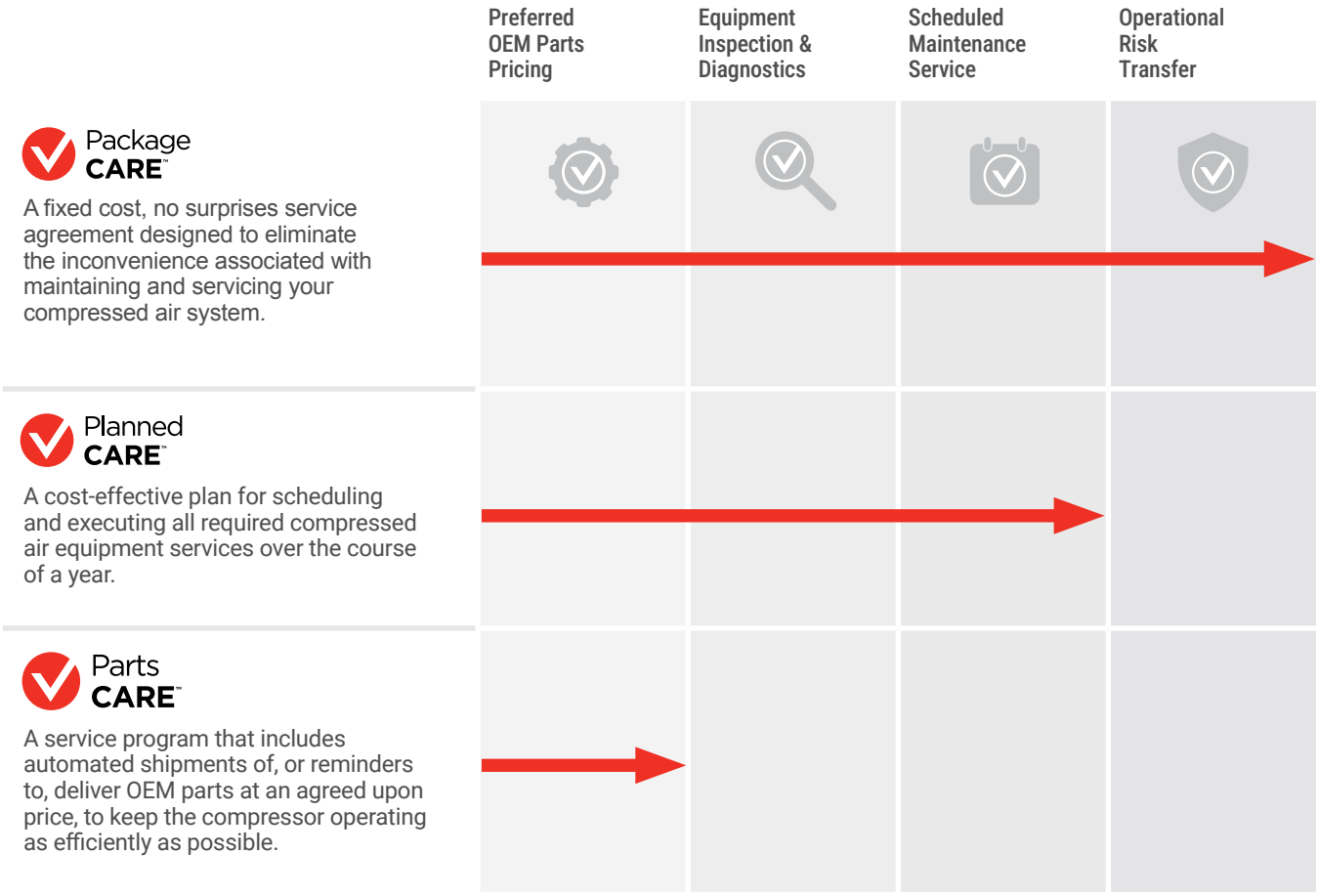
Ensure reliability for the life of your compressed air equipment with our comprehensive maintenance programs. At Ingersoll Rand, we have one goal—to earn the right to be your trusted partner.

CARE SERVICES PROGRAM

Maintenance Program Advantages

Compressed air is critical to your operation. A proper maintenance strategy is crucial to avoiding unplanned, unbudgeted downtime and production interruptions. By choosing an Ingersoll Rand compressor maintenance agreement, you are investing in your future with a trusted partner.

Depending on your oil-free rotary screw compressor system we can customise a service program that best fits your needs. Our suite of CARE compressor maintenance programs range from total risk transfer of your equipment to Ingersoll Rand to more basic program for parts and services only, providing flexible solutions for the life of your compressed air system.



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Productivity is reduced by air loss caused by ongoing inefficiencies as well as emergencies in your facility. Use our on-board IIoT platform to meet long-term sustainability goals.

24/7 Remote Monitoring with Helix™ Connected Platform

Developed to give you essential visibility into day-to-day operational intelligence that maximises your uptime and peace of mind, the Helix™ Connected platform offers real-time data monitoring for your compressed air system.

Advanced sensor technology inside the compressor sends data on a regular basis to our cloud-based platform. This data gives you a clear view into the functionality and health of your compressor, and is easily accessible around-the-clock from your PC, tablet or smartphone. With a range of connectivity service offerings available, monitoring can be tailored to meet your specific operational needs.

- Deep insights for preventive maintenance, efficient repair work, and detailed analysis of equipment performance over time
- Diagnostic reporting that help maintenance teams keep your compressor operating at peak performance and reduce downtime
- Continuous real-time operating data available anytime, anywhere
- Maintenance notifications that help ensure reliability and extend equipment life

Dynamic Control Platform

Powered by ECOPLANT

System Performance Manager powered by Ecoplant is a dynamic control platform powered by Ecoplant that integrates with your compressed air system to increase energy efficiency and reduce factory downtime. Cut your energy costs with complete cloud-based system monitoring, enhanced by dynamic controls logic and compatible with all OEM compressed air technologies and brands.

ES Series - 55-110 kW						
Model	Nominal Power (kW)	Operating Pressure (bar)	Capacity (FAD) @ 7 bar (m^3/min)	Noise Level [1] at 100% Load (dB(A))	Dimensions L x W x H (mm)	Weight (kg)
ES55ne-W10	55	5-10	4.5 - 11.2	64	1831 x 1081 x 1998	1750
ES75ne-W10	75	5-10	4.5 - 15.2	67	1831 x 1081 x 1998	1750
ES90ne-W10	90	5-10	4.5 - 17.8	68	1831 x 1081 x 1998	1750
ES110ne-W10	110	5-10	4.5 - 19.8	69	1831 x 1081 x 1998	1750

[1] Measured in free field conditions in accordance with the ISO 2151 test code, tolerance ± 3dB(A)

About Ingersoll Rand Inc.

Ingersoll Rand Inc. (NYSE:IR), driven by an entrepreneurial spirit and ownership mindset, is dedicated to helping make life better for our employees, customers and communities. Customers lean on us for our technology-driven excellence in mission-critical flow creation and industrial solutions across 40+ respected brands where our products and services excel in the most complex and harsh conditions. Our employees develop customers for life through their daily commitment to expertise, productivity and efficiency. For more information, visit www.IRCO.com.

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We are committed to using environmentally conscious print practices.

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