120R

2HP ROCKING PISTON COMPRESSOR & SYSTEMS

gast
move with purpose

140+
APPLICATIONS

40+
MARKETS & SEGMENTS SERVED

1921
FOUNDING YEAR

300+
EMPLOYEES WORLDWIDE

200k
PRODUCTS SHIPPED IN 2023

Gast has driven industrial progress for over a century, embedding our innovative solutions in systems and equipment vital to everyday life.

From our origins in 1921 in Bridgman, Michigan, as manufacturers of rotary vane technologies used in insecticide sprayers, Gast has grown and evolved through generations of family leadership and pivotal moments.

In 1998, Gast joined IDEX, shifting from a private company to a public one after 77 years.

Since then, we've established ourselves as leaders in pneumatic solutions such as air motors, vacuum pumps, compressors, and systems catering to sectors from medical and industrial to transportation and food and beverage.

PROUDLY DESIGNED & MANUFACTURED IN
BENTON HARBOR
MICHIGAN USA
WITH FOREIGN & DOMESTIC PARTS

The acquisition of Jun-Air in 2006 marked another milestone. It further enhanced our offerings with pneumatic systems for critical instrument air applications, cementing our role as innovators in the global market.

Today, with robust international operations in Europe and Asia, Gast's impact continues to expand. At the heart of our identity is a commitment to innovation, service, and an integrated role in powering the world.

OUR COMMITMENT

QUALITY

Our products stand at the forefront of advanced performance and durability, earning the trust of users in critical applications. Designed to be both rugged and serviceable, they are engineered to maximize uptime, ensuring continued operation when it matters most.

Moreover, our commitment to versatility shines through in our flexible mounting and porting options, along with a broad selection of voltages and frequencies. This makes our offerings the most adaptable and comprehensive solutions in the pneumatic industry.

SINGLE-SOURCE PARTNER

We are your one-stop shop, boasting a comprehensive range of pumps and compressed air systems tailored for various applications. Our fully enclosed cabinet systems are the epitome of customer-focused solutions, offering a sleek and clean design and easy plug-and-play operation. Additionally, their quieter performance is thoughtfully crafted for environments where the comfort of customers and employees is paramount.

INTEGRATION ASSISTANCE AND CRITICAL CUSTOMER SUPPORT

Gast provides custom solutions that fit a customer's system and meets their requirements as well as a dedicated technical support team to support any question or issue.

LABORATORY AND TESTING PARTNERSHIP

Customers can share drawings or visit our lab in person, where we help optimize performance, conduct lab tests, or submit data for regulatory certification. This saves time and labor and makes customers' products more efficient.

ROCKING PISTON TECHNOLOGY

ENGINEERED FROM THE GROUND UP

With an innovative design, low sound and vibration, rocking piston compressors feature industry leading life and reliability. All Gast compressors feature oil-less operation requiring minimal maintenance while ensuring air purity.

SMALLER FOOTPRINT & VERSATILITY

Their compact design enables them to fit into tighter spaces, and their versatility makes them ideal for a wide range of applications, such as airbrushes, dental tools, and environmental monitoring equipment.

QUIET OPERATION

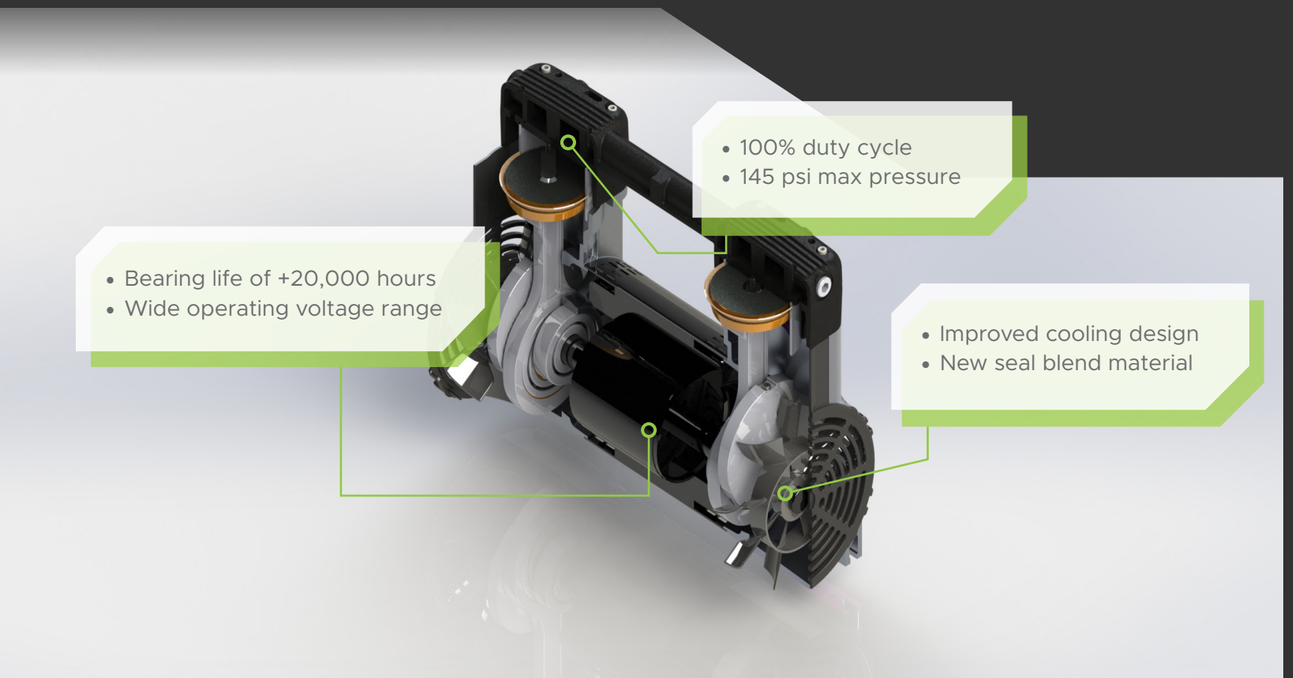
Rocking piston compressors are designed to operate quietly, making them suitable for environments where noise control is essential, such as medical facilities, laboratories, and residential areas.

CONTINUOUS DUTY

They are capable of continuous operation, making them reliable for applications that demand uninterrupted performance. They're also energy efficient, providing optimal performance while consuming less power and contributing to long-term cost savings.

REDUNDANCY CAPABILITIES

Multiple units can be connected in parallel for redundancy. This setup ensures that if one compressor fails, others can take over, maintaining system reliability and uptime.



LAB & REGULATORY

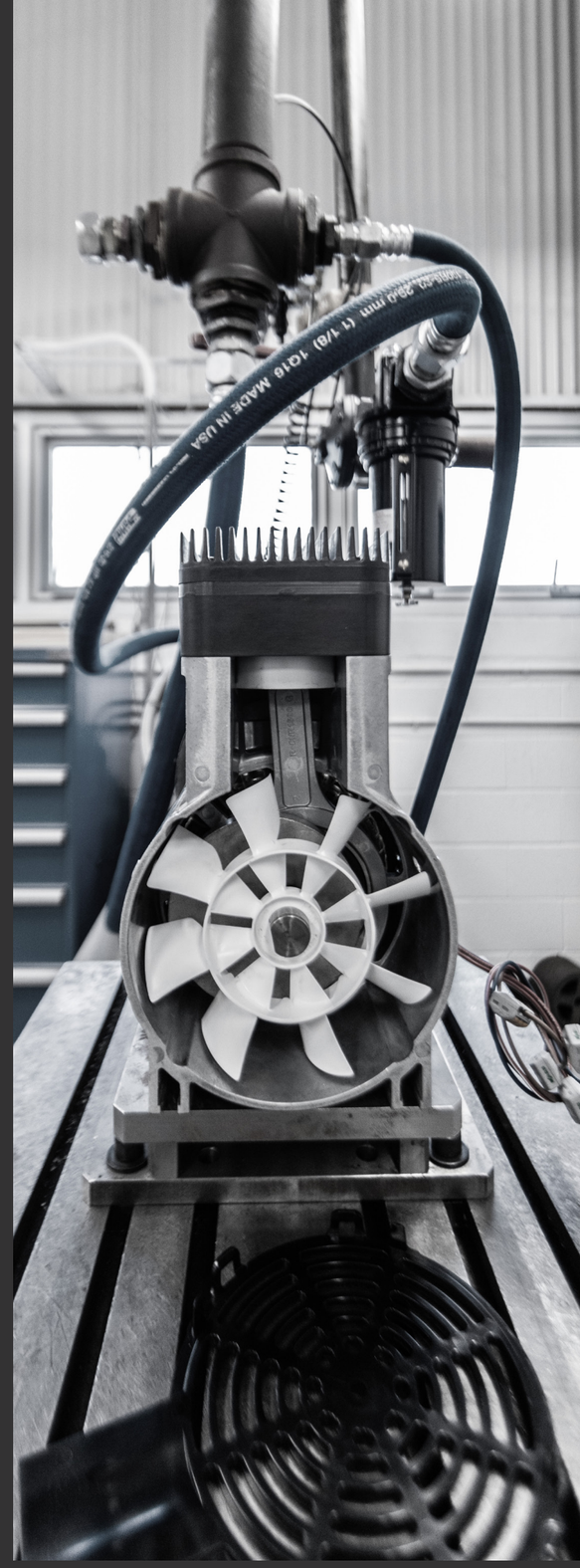
INDUSTRY LEADER IN SOUND & VIBRATION MEASUREMENT

At Gast, our commitment to precision and reliability fuels our approach. Utilizing cutting-edge real-time data acquisition technology, we systematically assess a range of critical parameters in complex compressor systems, including temperature, gas purity, and duty cycle. This rigorous monitoring occurs in controlled lab environments and through practical customer applications, highlighting our dedication to excellence.

Our laboratory isn't merely a workspace—it's the core of our industry-leading product development, focused on customer needs. Here, our electrically driven pumps undergo extensive testing for efficiency, adhering to international standards like UL, CSA, cURus, ATEX, CE, and cULus. We meticulously validate our products, evaluating everything from sound levels as low as 40 dBA and detailed power metrics to vibration analysis. This thoroughness underscores our commitment to delivering reliable and efficient products.

Our expansive testing capabilities include airflow rates up to 1500 cfm, pressures up to 200 psi, and electrical specifications up to 480V. We perform bespoke endurance and environmental tests (across a wide range of temperatures from -30˚F to 185˚F and humidity levels from 0-100%) alongside locked rotor, hydrostatic tests, and torque measurements up to 30 HP. This comprehensive approach ensures the highest levels of resilience and reliability in our products.

Gast is unwavering in our promise of precision and reliability. Through our detailed testing and analysis, we continue to lead the way with innovative products designed for superior performance and efficiency.



ROCKING PISTON TECHNOLOGY

120R 2HP ROCKING PISTON COMPRESSOR & SYSTEMS

The new 2-horsepower Gast 120R rocking piston compressor is a rugged, reliable workhorse and the most powerful oil-free rocking piston compressor on the market. The 120R is designed to meet your system's pneumatic requirements in a smaller footprint, delivering a long life of outstanding performance, and lowering your total cost of ownership.

UL 1450 LISTED

POWERFUL PNEUMATICS
The 120R is the most powerful twin cylinder rocking piston compressor on the market. Gast has also optimized connecting rod geometry for longer cup life and improved reed valve material and port geometry to reduce valve stress for extreme reliability.

EASIER SERVICEABILITY
Gast's simple and elegant rocking piston design makes quick work of required service to keep you up and running.

FORMED WITH FLEXIBILITY
Versatile footprint for easy mounting. Can be mounted horizontally or vertically.

CLEAN, QUIET, AND EFFICIENT
The 120R family is entirely oil-free and offers configurations to optimize for various application needs. Both standard and high-effeminacy models are available with and without Sound Shield.

HIGH PRESSURE DESIGN
Designed to provide both high flow and high pressure, the 120R is available with multiple stroke options, allowing you to operate at pressures up to 145 psi and flows up to 12 cfm.

MEETS UL 1450 AND UL 60601-1 REGULATORY STANDARDS
- Inspected and tested to meet the strictest safety requirements for medical equipment.

UL RECOGNIZED COMPRESSOR
- Evaluated to UL 1450 "Standard for Motor-Operated Air Compressors, Vacuum Pumps, and Painting Equip."
- Approved for use to 145 psi (10 bar) pressure

CE APPROVED
- Machinery Directive
- Electromagnetic Compatibility (EMC) Directive
- Restriction of Hazardous Substances (RoHS2) Directive

UL LISTED SYSTEMS
- Evaluated to UL 60601-1 Standard for "Medical Electrical Equipment."

120R PUMP CONFIGURATIONS

Compressor Family		120R					
Configuration		120R689				120R665	
Model Feature	UNITS	P101- N800X	PSP101-N800NX	P101M-N800X	P102M-N800X	P101-N800NX	PSP101-N800NX
			With Sound Shield	Metric Measurement	Cabinet Retrofit		With Sound Shield
Max Continuous Pressure	PSI	145	135	145	145	145	135
	BAR	10	9.3	10	10	10	9.3
Rated Voltage, 50 Hz	V	(Single-phase)					
Rated Voltage, 60 Hz	V	(Single-phase)					
Open Flow, 50 Hz	CFM	10	9	10	10	7.8	7.3
	LPM	283	255	283	283	221	207
Open Flow, 60 Hz	CFM	12	10	12	12	9.2	8.5
	LPM	340	283	340	340	260	241
Sound	dB(A)	79	74	79	79	76	71
Dimensions (WxHxD)	IN.	6.7 x 12.7 x 15.4	6.7 x 12.6 x 15.4	9.4 x 12.7 x 15.4	6.7 x 12.7 x 15.4	6.7 x 12.7 x 15.4	6.7 x 12.6 x 15.4
	CM	17 x 32.3 x 39.1	17 x 32 x 39.1	23.9 x 32.3 x 39.1	17 x 32.3 x 39.1	17 x 32.3 x 39.1	17 x 32 x 39.1
Weight	LBS.	59	65	59	59	59	65
	KG.	26.8	29.5	26.8	26.8	26.8	29.5
Operating Temperature	˚F	41 to 104					
	˚C	5 to 40					

SOUND SHIELD

Sound Shield is a unique technology designed to significantly lower the noise levels of the Gast 120R pump and systems. This innovation reduces perceived loudness without impacting performance, resulting in a quieter, more comfortable working environment that boosts user productivity.

PUMP AND AIR COMPRESSOR NOISE REDUCTION

Sound Shield delivers up to 17% reduction in perceived loudness at maximum pressure compared to a standard Gast pump.

MINIMAL EFFECT ON COMPRESSOR OR PUMP PERFORMANCE AND LIFE

A Gast compressor or pump upgraded with Sound Shield technology maintains 95% of the airflow of a standard model. Pressure (up to 130 psi), vacuum, and running temperature are not affected, and product life is maintained.

REDUCE HASSLE AND COMPLEXITY

Sound Shield is a simple, integrated solution from a single supplier. It eliminates the need to source, purchase, and install additional sound reduction components such as foam insulation, mufflers, covers, or cabinets.

SIMPLE INSTALLATION

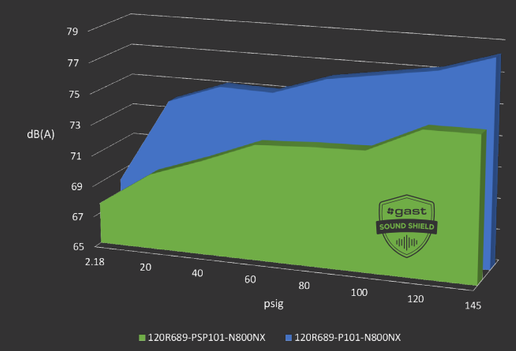
Sound Shield technology was designed to be retrofitted in the field or at our facility. All parts are kitted—down to the screws—and installation takes as little as four steps using common tools.

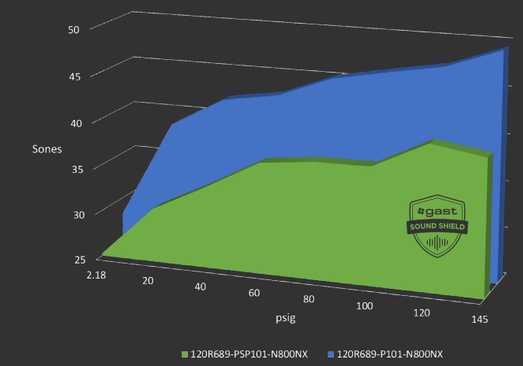
GAST RETROFIT KIT SSP-120R6-01 INCLUDES:

Head, Valve Plate, Sound Shield Inserts, O-Rings & Fasteners.

120R689 COMPARISON

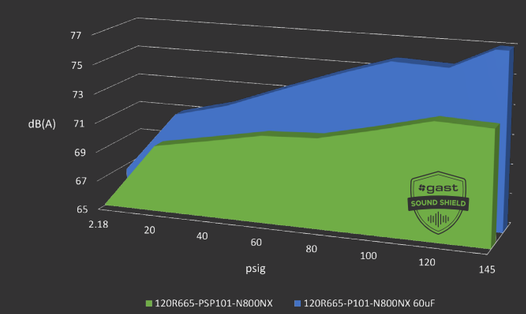
WITH AND WITHOUT SOUND SHIELD (DBA VS. SONES)

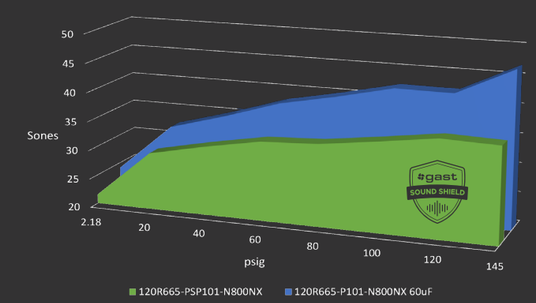




120R665 COMPARISON

WITH AND WITHOUT SOUND SHIELD (DBA VS. SONES)





120R JUN-AIR SYSTEMS

PORTABLE, ON-DEMAND, CLEAN AIR, READY TO GO.

Jun-Air Clean air systems provide reliable, clean, oil free, and quiet air for dental, laboratory, and medical environments.

PORTABLE & LONG LIFE

Compact, lightweight, and easy to move with casters to be able to fit into any space. Long-life, 2-year warranty.

ON-DEMAND

Multiple tanks sizes for compressed air storage based on your requirements.

- 100% duty cycle receiver with internal coating
- Pressure regulator included

CLEAN-AIR

Ensuring optimal air quality, this system boasts multiple standout features.

- 100% oil-free
- Built-in 2-column absorption dryer providing dew points down to -40˚C
- 1 m air filtration (class 2 for dust)

120R JUN-AIR PLUG-AND-PLAY SYSTEMS

Compressor Family		120R				2x120R		
Configuration	UNITS	40B	40BQ3	40M	40MQ3	40M	40MQ6	90BQ3
Model Feature		Open Tank System	Open Tank System	Metal Cabinet Housing	Metal Cabinet Housing	Metal Cabinet Housing	Metal Cabinet Housing	Open Tank System
Max Continuous Pressure	PSI	145						
	BAR	10						
Rated Voltage, 50 Hz	V	220-230						
Rated Voltage, 60 Hz	V	230-240						
Open Flow, 50 Hz	CFM	10	8	8.5	8	13	12	12
	LPM	283	227	241	227	368	340	340
Open Flow, 60 Hz	CFM	8.5	7	7.5	7	12	10	10.5
	LPM	241	198	212	198	340	283	297
Sound	dB(A)	79	79	69	69	70	69	80
Dimensions (WxHxD)	IN.	18.1 x 27.5 x 22	22.3 x 27.5 x 27.5	25 x 33.7 x 26.6	25 x 33.7 x 26.6	29.9 x 33.8 x 26.6	29.9 x 33.8 x 26.6	22.3 x 35.3 x 40.4
	CM	46 x 69.8 x 55.8	56.6 x 69.8 x 69.8	63.5 x 85.6 x 67.5	63.5 x 85.6 x 67.5	75.9 x 85.8 x 67.5	75.9 x 85.8 x 67.5	56.6 x 89.6 x 102.6
Weight	LBS.	120	145	245	256	335	373	270
	KG.	54.4	65.7	111.1	116.1	152	169.2	122.5
Operating Temperature	˚F	41 to 104						
	˚C	5 to 40						

JUN-AIR PLUG AND PLAY SOLUTIONS

120R-40B
Single Standard System

120R-40BQ3
Single Dryer System

2X120R-90BQ6
Dual Dryer System

120R-40M
Single Standard System

2X120R-90MQ6
Dual Dryer System

MODULAR 120R

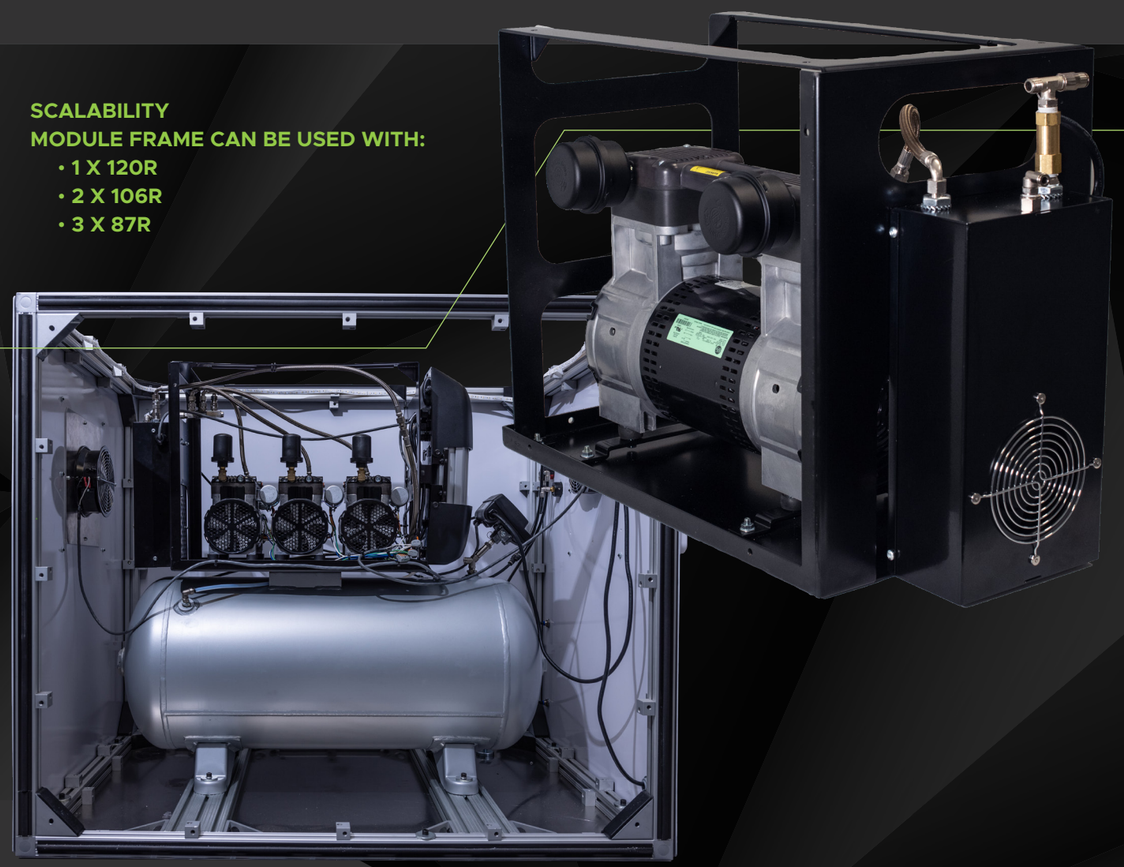
SCALABILITY, BY DESIGN.

Customize your performance needs by connecting up to SIX compressor modules together to fit the dynamic needs of your specific application in one modular system.

The 120R module can be pneumatically connected together allowing you to compete with larger horsepower systems while offering redundancy for added reliability.

- **Modular Design**: Bolt-together and removable modules for easy serviceability and man-portability.
- **Flexible Power Range**: Configurable from 2HP to 12HP and beyond to fit your airflow requirements.
- **Sequential Starting**: Designed to start in sequence, minimizing start current.
- **Redundancy**: Ensures continuous operation and reliability.
- **Adaptable**: Easily connects to any size air receiver to provide the desired duty cycle.

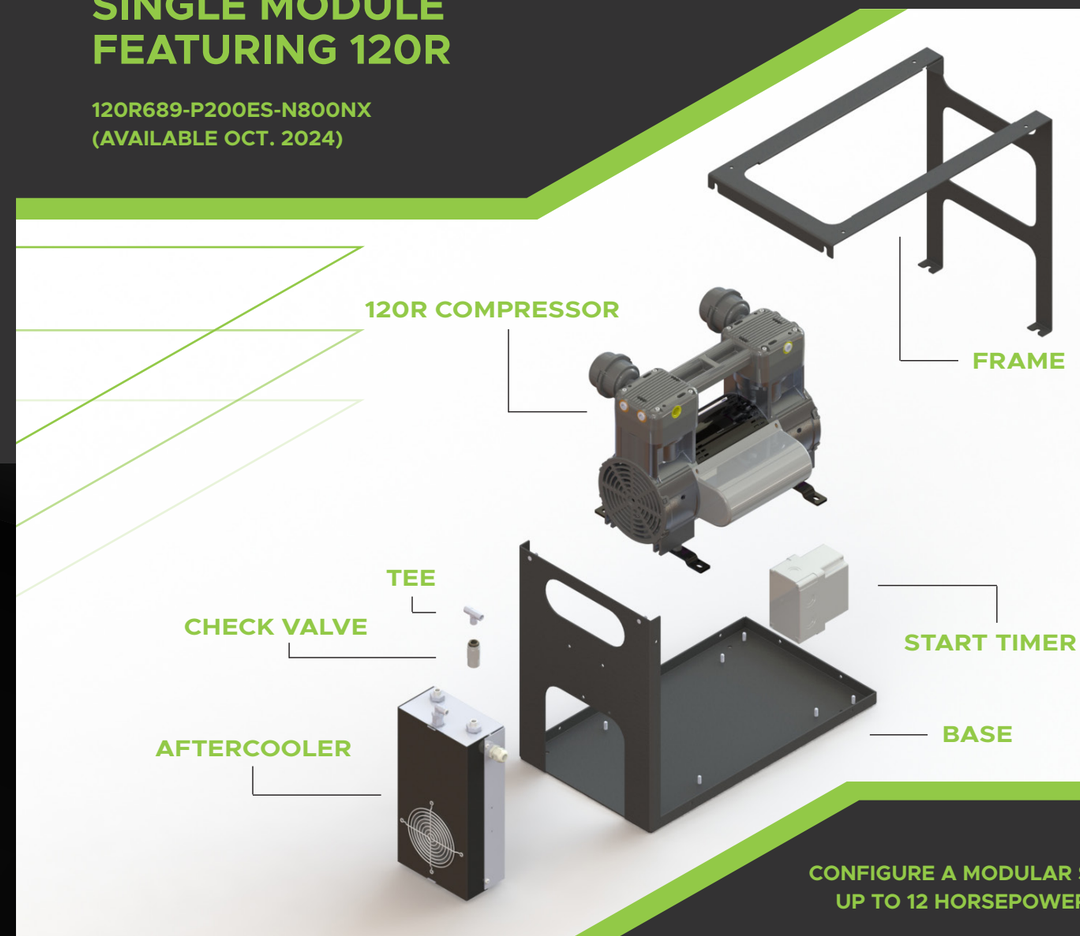
SCALABILITY
MODULE FRAME CAN BE USED WITH:
- **1 X 120R**
- **2 X 106R**
- **3 X 87R**



MEET HIGHER PRESSURE REQUIREMENTS, IN LESS SPACE.

SINGLE MODULE FEATURING 120R

120R689-P200ES-N800NX
(AVAILABLE OCT. 2024)



CONFIGURE A MODULAR SYSTEM WITH UP TO 12 HORSEPOWER AND 64 CFM

120R Modular Sub-System	UNITS	1	2	3	4	5	6
Power	HP	2	4	6	8	10	12
	KW	1.5	3	4.5	6	7.5	9
Flow @ 0 PSI	CFM	11	21	32	43	53	64
	LPM	312	595	906	1218	1500	1812
Flow @ 125 PSI	CFM	5.5	11	17	22	28	33
	LPM	156	312	481	623	793	935
MAX OPERATING CURRENT	AMPS	10	20	30	40	50	60

APPLICATIONS

OIL & GAS

Gast products, known for their rugged design and simple maintenance requirements, are trusted in the oil and gas industry to deliver years of trouble-free service. These products are engineered to withstand the harshest environments, offering multiple mounting options and surface protection finishes. They are widely utilized for critical applications, including methane abatement, powering gas compression engine pre-lube systems, and facilitating pipeline construction with line-up clamps and mandrels.

Additionally, Gast products are essential in operating reels and valve actuator drive motors, performing pipe cutting and beveling tasks, and supporting hoists and chromatography processes. This versatility and reliability underscore their value in demanding industrial settings.

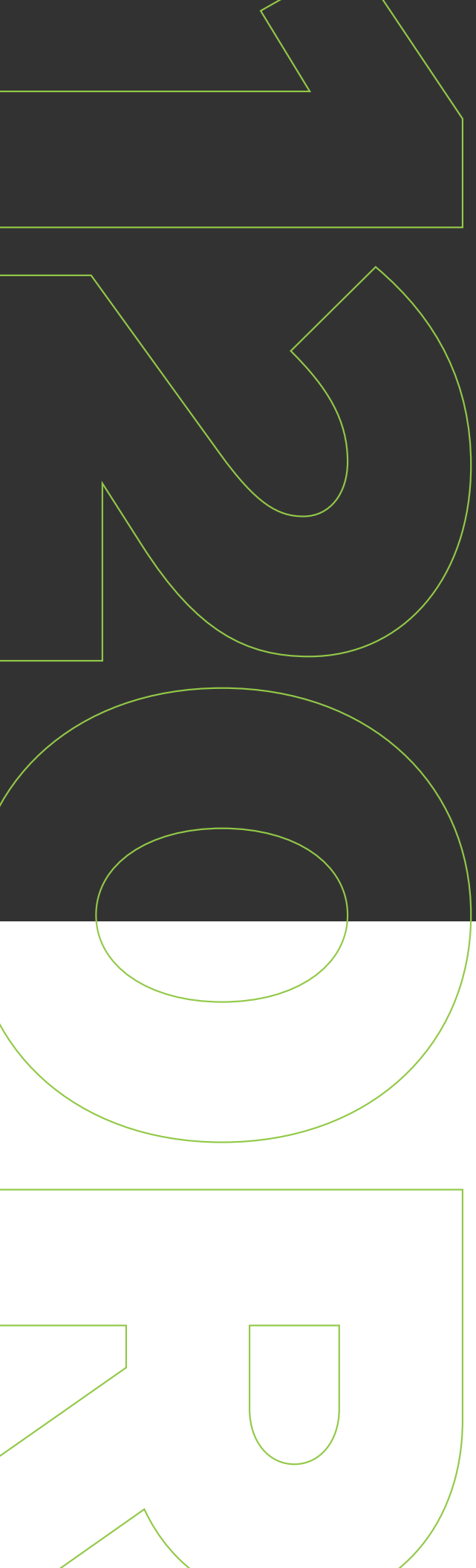
MEDICAL, DENTAL & LABORATORY

Gast is dedicated to meeting the needs of patients by providing proven, reliable, quiet, and high-quality products for demanding medical, dental, and laboratory applications. These products' dependable, lasting, and low-maintenance features make them the preferred choice for system integration. They are extensively used in various equipment across medical and dental sectors, including medical operating room equipment, medical point-of-care (POC) equipment, and the operation of dental hand tools.

Similarly, in laboratory settings, Gast products are essential in lab equipment, lab gas and bench air systems, dental vacuum ovens and mixers, medical dermabrasion devices, and lab automation technology. This broad utility highlights their critical role in supporting complex health care and laboratory operations.

FOOD & BEVERAGE

Gast products, a mainstay in the food and beverage processing industry, are synonymous with unwavering quality, even in the most challenging environments. Their reliability is evident in their diverse applications, from nitrogen generation to beverage dispensing, and includes crucial roles in food processing, packaging, milking equipment operations, and the dispensing of ice cream and yogurt. Their versatility is further showcased in their use for producing misting and humidification equipment, meeting the diverse needs of the industry.



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