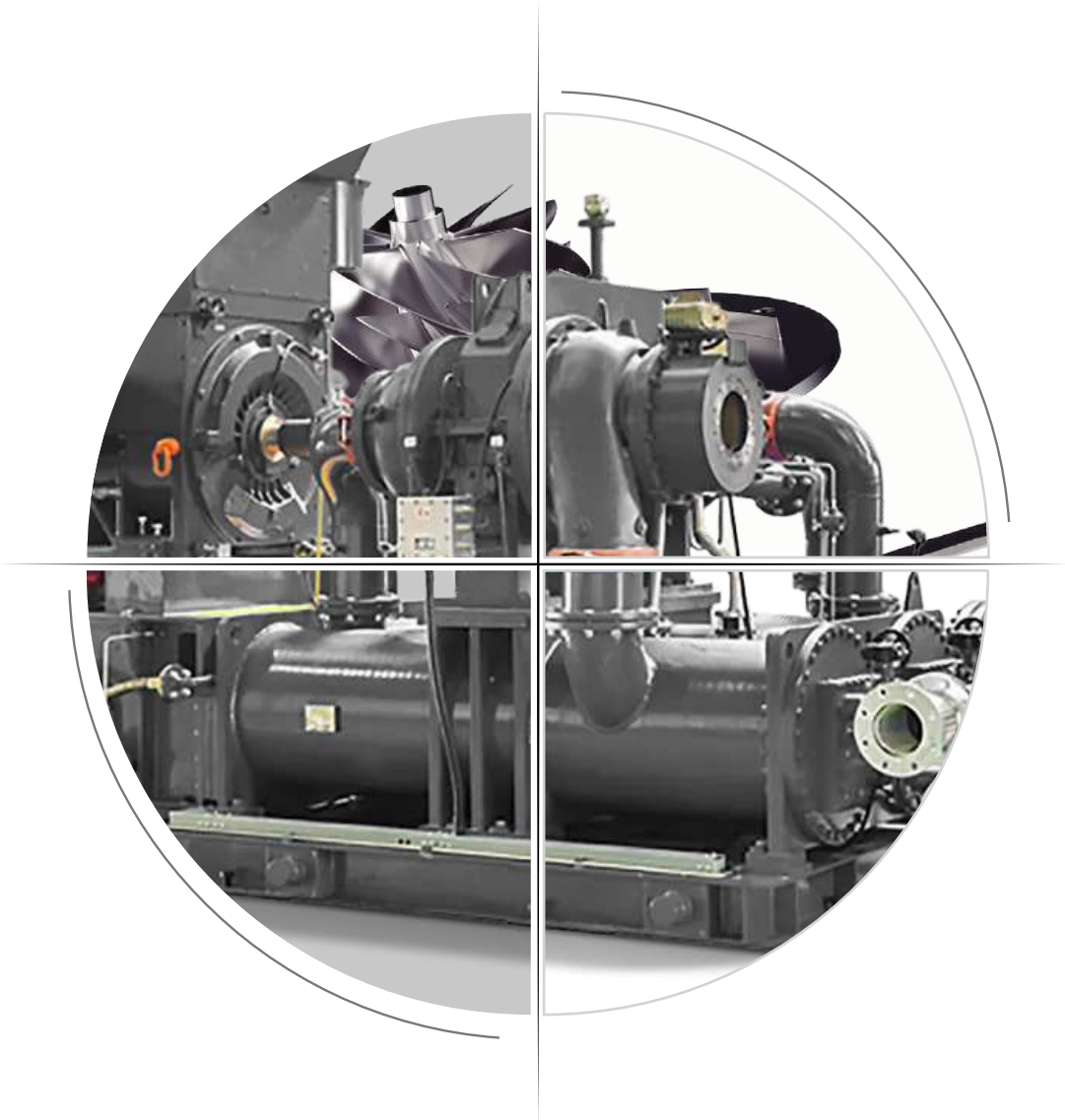
ARNIKA COMPANY

Crafting Tailored Air & Gas Solutions



OIL-FREE CENTRIFUGAL COMPRESSORS

TRY-SERIES CATALOG

V 1.0

TRYCOMP® Heavy Duty

Crafting Tailored Air & Gas Solutions

TRYCOMP® TRY-Series Centrifugal Compressors

At TRYCOMP®, we offer a diverse range of centrifugal compressors, designed and manufactured in strict compliance with ISO 9001 and ISO 14001 standards. This dedication ensures the highest levels of reliability and operational efficiency in our products.

Through strategic partnerships with leading global component designers and manufacturers, TRYCOMP® harnesses world-class design capabilities across specialized fields like aerodynamics and rotor dynamics. This collaborative approach guarantees top-tier design quality, integrating expertise from renowned entities across the globe.

Additionally, TRYCOMP® operates a state-of-the-art manufacturing and assembly industrial base in Turkey, complemented by advanced pneumatic and comprehensive machine testing centers. This setup ensures careful control over the entire process, from product inception to final delivery.

Our primary focus remains on providing customers with compressor products that offer enhanced safety, reliability, and energy efficiency. At TRYCOMP®, we are dedicated to meeting your needs with products that deliver superior performance and peace of mind.

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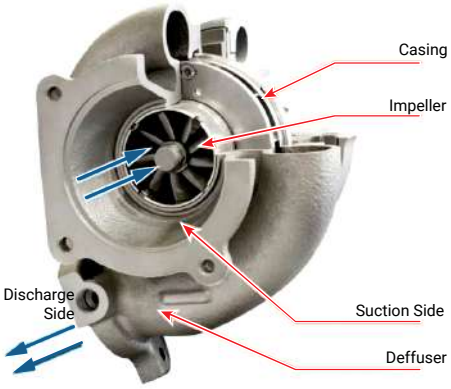
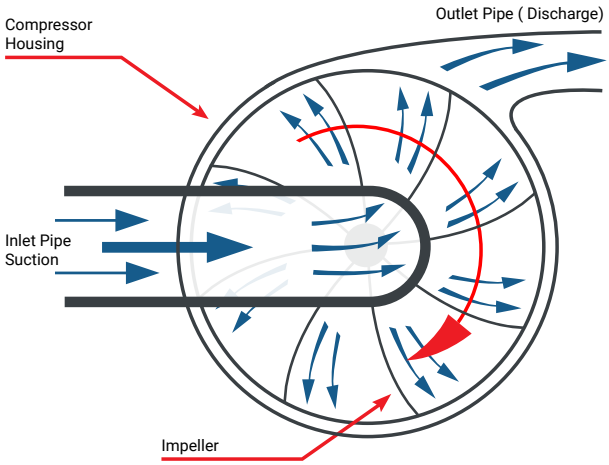
What are Centrifugal Compressors?

Centrifugal compressors are dynamic machines used to compress gases by converting the kinetic energy of an impeller into potential energy in the form of increased pressure. This compression process occurs through the centrifugal force generated by the high-speed rotation of the impeller.





Advantages of Centrifugal Compressors

Centrifugal compressors are used in sectors which steady and continuous flow of oil-free compressed air is essential and offer several advantages that make them favorable for various applications:

High Efficiency

Centrifugal compressors are known for their efficiency in converting kinetic energy into pressure. They operate with minimal energy losses, contributing to lower operational costs.

Low Maintenance

They typically have fewer wearing parts compared to other compressor types, leading to reduced maintenance requirements and downtime.

Advantages of Centrifugal Compressors

Centrifugal compressors are preferred in applications where high efficiency, reliability, and adaptability to varying conditions are essential. The following advantages make them suitable for use across a broad spectrum of industries, from oil and gas to manufacturing, HVAC systems, and beyond.

Oil-Free Operation

Centrifugal compressors operate without oil in the compression chamber, making them ideal for applications requiring oil-free air, like in pharmaceuticals or food processing.

Wide Operating Range

They can accommodate varying flow rates and pressures, allowing flexibility in different operating conditions without significant performance loss.

Durability and Reliability

Centrifugal compressors are known for their robust construction, reliability, and ability to withstand demanding conditions, ensuring consistent performance over time.

Scalability

They can be easily scaled or adapted to suit different capacity requirements or operational changes, providing versatility in various industries.

Lower Vibration and Noise Levels

They tend to produce less vibration and noise compared to some other compressor types, making them suitable for applications where noise reduction is crucial.

Compact Design

Centrifugal compressors can often be compact and lighter than other compressor types, making them suitable for applications where space is limited.

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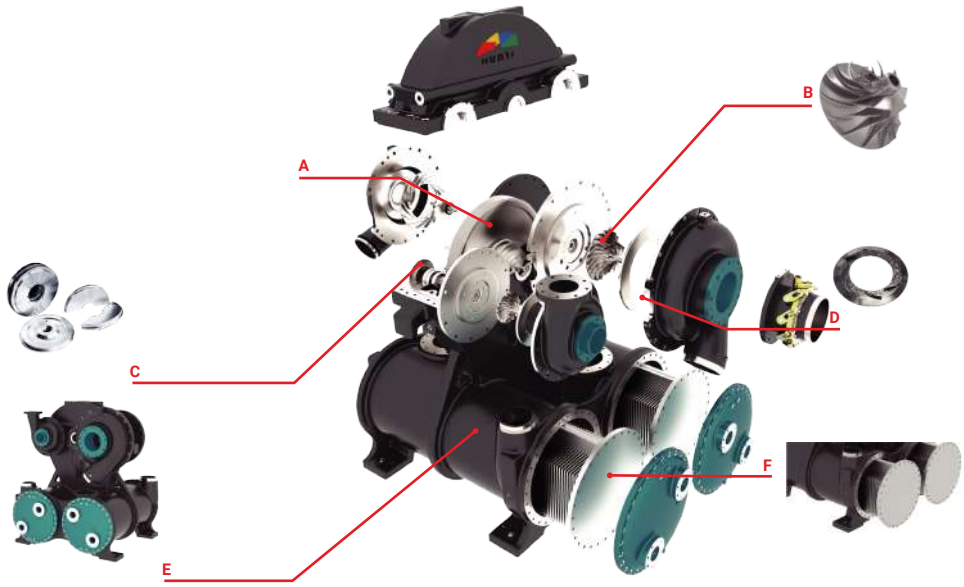
Why Choose Our TRY-Series Centrifugal Compressors?

In collaboration with our globally renowned component manufacturing partners, TRYCOMP® centrifugal compressors boast an exceptional structural design, delivering a consistent, stable, oil-free, and high-quality compressed gas while requiring minimal maintenance. Their high efficiency caters effectively to diverse processes and gas systems across various industries.



A. Premium Gear System with Extended Service Life

Our gear system undergoes meticulous processes, from initial blank creation to precision machining, heat treatment, and precise grinding. These steps are executed with the highest standards of technology, ensuring exceptional gear quality that meets the stringent American aviation standards. Our gear accuracy is rated up to AGMA13, guaranteeing efficient and reliable gear meshing and transmission. Moreover, our gears offer outstanding interchangeability, further enhancing their performance and usability.

B. The high-performance impeller

The impeller is crafted from titanium alloy or stainless steel, ensuring both lightweight construction and reliability. Our R&D team, equipped with robust design capabilities and a comprehensive impeller database, guarantees superior pneumatic design.

C. Highly reliable Air Seals and Oil Seals

To meet specific operational demands, we employ labyrinth-type air seals, oil seals, or carbon ring -type air seals. These selections aim to minimize gas loss while ensuring that compressed air remains completely oil-free, meeting the ISO Class O standard under any working conditions.

D. Optimized Diffuser Design

Our diffuser incorporates CFD (Computational Fluid Dynamics) pneumatic design, ensuring optimal aerodynamic efficiency within the compressor unit. It takes into account the specific operating conditions of our customers and is crafted using high-reliability materials for overall milling.

E. Highly stable Main Structure with the Integrated Casting Gearbox

The gearbox can be cast and processed integrally with every stage's cooler. In comparison to the split type, these compressors offer advantages such as a stable and reliable main structure with fewer machining surfaces. Stage volutes and coolers exhibit higher assembly precision, resulting in reduced deformation, minimal noise, and vibration.

F. Advanced Cooler Design

Our cooler design features a modular large-capacity tubular structure with a special anti-corrosion design in the shell. The shell's fin design significantly enhances heat exchange efficiency. We offer a range of materials such as copper, stainless steel, and others, tailored to meet our clients' specific demands.

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Multi-shaft Multi-stage Compressor

MODEL	Pressure Bar(G)	Flow Range	Rated Power
		m³/min	kW
TRY6000	1.8-13	55-100	220-800
TRY12000	1.8-13	100-200	315-1250
TRY15000	1.8-30	150-250	450-2240
TRY25000	1.8-30	220-370	630-3550
TRY30000	1.8-30	310-450	800-4500
TRY45000	1.8-16	450-700	1250-5000
TRY60000	1.8-16	600-1000	1700-7400
TRY100000	1.8-16	1000-1600	2600-12000
TRY150000	1.8-16	1600-2500	4200-17500
TRY200000	1.8-16	2500-3300	6200-23500

Supercharger

Flow Range	Inlet Pressure	Outlet Pressure	Rated Power
Nm³/h	MPa(G)	MPa(G)	kW
10000-200000	0.3-1.0	1.6-8.5	≤30000

Process Gas Compressor

Structural Style	Compression Stage Number	Max. Outlet Pressure	Max Power of Single Unit
Multi-shaft gear	1~9	10Mpa（A）	20000KW
Single-shaft	1~7	16Mpa（A）	30000KW

TRYCOMP Heavy Duty

Crafting Tailored Air & Gas Solutions

Your vision is our commitment.

Reach out to us today, to explore the great possibilities.

A brand by ARNIKA COMPANY

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