

GC-450

Integrally Geared Centrifugal Compressor



LONE STAR
TURBO

MODEL GC-450

Standard Specifications

Gas	Air, CO ₂ , Biogas, Steam, H ₂ S, Fuel Gas, N ₂ , LNG, Custom
Flow Range	100% to 65% of Rated Flow*
Pressure Range	40 to 360 PSI / 3 to 25 bar, model specific
Maximum Case Pressure	500 PSIG / 35 bar
Stages	1 to 4 Stage Compression
Drive Type	Direct Coupled
Power Driver Options	Electric Motor, Steam Turbine, Combustion Engine
Gearbox	Helical Gear Set
Cooling Lubricant	Shell and Tube - Water Cooled
Cooling Intercooling	Shell and Tube - Water Cooled
Lubrication Options	Pressurized Oil
Bearings	Pinion - Tilt Pad Journal, Drive Journal
Enclosure	Optional
Sound Level	Job Specific
Sound Level with Enclosure	Job Specific
Filtration Rating (std)	99% at 2 micron, or as required
Seals Air	Labyrinth Type

Standard Materials of Construction

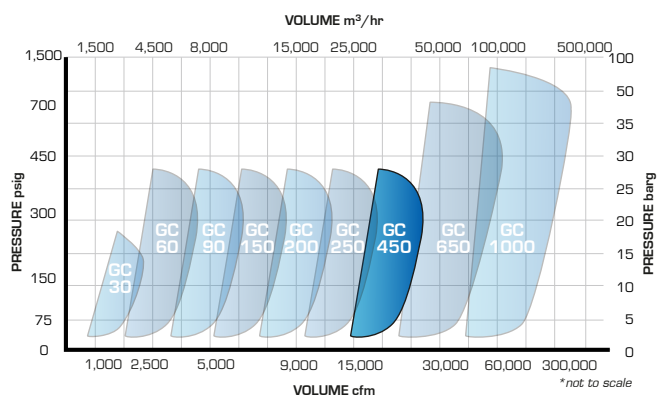
Casing	Grey Iron FC25, GG25, Ductile, ASTM A536, A48 or Equal
Bearings	SCM440, ANSI 5140 Steel, Babbited, 40CR Alloy Casing
Impeller	17-4PH SS, Titanium, Inconel
Inlet Guide Vanes	Stainless Steel 304
Discharge Diffuser Vanes	Aluminum Alloy or Stainless Steel 304
Gears	AISI 4140, Cr-Mo Alloy, Ni-Cr-Mo Alloy to AGMA 13
Shaft	AISI 4140, Steel 10CrNiMo
Seals Air	Aluminum Alloy
Lubricant Cooler	Copper (C1220T), Cu + Ni(C7060T), Stainless Steel ST304
Intercooler, Aftercooler	Ductile Housing with Copper (C1220T) Coils, Stainless Steel ST304
Blower Base Skid	(Optional) ASTM A36, SS440 Structural Steel
Isolation Pads	St. SIS 1312 inertial dampening with rubber hardness 60
Finish	2 Part Epoxy Lone Star Blue RAL5005
Enclosure	Aluminum, Galvanized Steel, Stainless

Optional Testing & Certifications

API	API 617, API 672, API 614
Electrical	UL 508A, CE, CSA
Hazardous Location	ATEX, Class1 - Division 1- Division 2, Zone 0-2
Balancing	ISO 1940- G2.5, ~4W/N API
Noise Level	OSHA 1910.95, ISO 2151:2005
Performance	ASME PTC-10, ISO 5389
Hydro Testing	1.5 Time MAWP
Overspeed Testing	Optional
Positive Material ID	XRF, OES, Material Certification
NACE Compliance	Optional
Special Coatings	Optional

Service

Air, Gas, Pressure, Vacuum



Control Options

Control Methods	Variable Inlet Guide Vane, speed control, blow off, or combination
Local Controller	sLOC™ Standard - Custom for Allen Bradley, Modicon, Siemens or Other
HMI	sLOC™ Standard or Custom HMI
Remote Monitoring	sLINK™ or Custom
Control Set Points	Pressure, Flow, Power, Custom Input



* Information is approximate and can change without notice
* Air Performance Based on 1 Atm, 68F/20C, 36% RH and 3550 rpm