

Product Reference

Hurricane B7-41/1000 Compact T3 APP

Portable Compressor



*Real model can differ from the picture

Standard Scope of Supply

The Atlas Copco **Hurricane B7-41 Compact** is a single-stage, oil-lubricated, piston type air/nitrogen compressor, powered by a Caterpillar C7.1 diesel engine.

Compact and light, it gives you as much power as larger and heavier units on the market. It provides you with a high pressure, gain penetration rate for your drilling applications. Applications include mineral exploration and blast hole drilling, water well and geothermal drilling, oil & gas exploration drilling, nitrogen generation, pipeline services and well services.

Constructed from genuine high-quality parts, B7-41 booster offers user-friendliness, easy serviceability, and economical operation to ensure best-in-class cost of ownership.

Available model

B7-41/1000 Compact

Open skid

Features

- Full function digital instrument panel monitoring all pressures, temperatures and controls with full protection shutdown and fault indicators
- Automatic load/unload system
- On board fuel tank
- Booster bypass valve
- Engine speed adjustment
- Two-way concentric valves
- Water-cooled booster block
- Low pressure switch at booster inlet
- Dual inlet suction manifold
- Discharge temperature sensor at each valve
- Pre-cooler (a+15°F / 8°C) & suction scrubber tank
- After-cooler (a+50°F / 28°C)
- Open skid with single point lifting and fork lift slots
- 24-volt DC starting and operating system
- Suction and discharge safety relief valves

Benefits

- Best fit with Atlas Copco feed-air compressors
- Worldwide service support
- Economical in transport and installation
- Longer valve life & optimal performance in high ambient conditions
- Optimal performance in humid ambient conditions
- Optimal performance in low ambient conditions
- Economical operation – lower fuel consumption
- Adjustable capacity to match the feed-air compressors
- Maintains minimum compression ratio – avoids formation of condensate
- Easy to operate
- Optimum safety for your equipment
- High reliability



Main data

Model		B7-41/1000 Compact T3	
Compression stages		1	
Max suction pressure	psi / bar	350 / 24	
Max discharge pressure	psi / bar	1000 / 69	
Max compression ratio		2.78:1	
Capacity at max suction pressure	cfm / m ³ /min	2150 / 61	
Suction connection		3" NPT or ANSI Class 300	
Discharge connection		2" NPT or ANSI Class 600	
Max operating ambient temperature	°F / °C	125 / 50	
Min operating ambient temperature	°F / °C	14 / -10	
Weight (Ready-to-operate)			
Open skid	Lbs / kg	8,201 / 3,720	
Protection frame	Lbs / kg	1,940 / 3,880	
Overall dimensions L * W * H			
Open skid	in / cm	108 x 73 x 78 / 275 x 185 x 198.5	
Protection frame	in / cm	108 x 73 x 78 / 275 x 185 x 198.5	
Engine		Caterpillar C7.1 T3	
Number of cylinders		6	
Output at rated speed	bhp / kW	275 / 205	
Engine speed (nominal)	rpm	1800	
Engine speed (unloaded)	rpm	1200	

Capacity Chart

Single Stage Mode

- Maximum Capacity: 2150 scfm - 61 m³/min
- Suction pressure: 350 psig - 24 bar
- Maximum discharge: 1000 psig - 69 bar
- Maximum total compression ratio 2.78:1

Capacity chart in cfm					
Suction Pressure in psi	Discharge Pressure in psi	Engine RPM			
		1800 rpm	1600 rpm	1400 rpm	1200 rpm
350	1000	2150	1900	1650	1470
325	930	2000	1760	1540	1370
300	861	1850	1630	1430	1270
275	791	1700	1500	1320	1170
250	722	1550	1380	1200	1070
225	652	1410	1250	1090	970
210	611	1300	1160	1020	900

Capacity chart in m ³ /min					
Suction Pressure in bar	Discharge Pressure in bar	Engine RPM			
		1800 rpm	1600 rpm	1400 rpm	1200 rpm
24	69	61	54	47	42
22.5	64	56	50	44	39
21	59	52	47	41	36
19	54.5	48	43	38	33
17	50	44	39	34	30
15.5	45	40	36	31	27
14.5	42	37	33	29	25

NOTE: Areas highlighted in **GREEN** are optimized for concentric valve performance and valve life.
Areas highlighted in **YELLOW** may experience some losses in valve efficiency and valve life.

Dimensions

For dimensions, please check the dimension drawing 9822126598.

Principle Data

Atlas Copco Hurricane boosters are second-to-none. They are smaller, lighter and still pack as much power as the larger and heavier comparable-units of our competitors. Over 40 years of experience has taught us to maximize every component. The booster provides you with a faster pressure build-up, a better penetration rate, cooler bit temperatures and longer bit life.

Options

Option List:

- Inlet shutdown valve
- Spark arrestor
- Racor fuel filter
- External fuel connection with Quick couplings
- Lights for night operation
- Auto scrubber drain (1st stage only)
- Coolant heater diesel or electric driven

Protection / enclosure options

- Protection frame

Accessories

- High pressure filtration as stand alone kit
- Connection manifold

Service

- Service packs 250 hrs, 500 hrs
- PAROIL E, PAROIL Extra, PARCOOL EG
- Valve repair kit
- Piston repair kit

Safety Devices

The booster will give a warning and/or shut down in following conditions:

- High discharge air temperature (1 sensor per cylinder)
- High liquid level in scrubber tank
- Low engine oil pressure
- High engine coolant temperature
- High engine speed (if inlet shutdown option is available)
- High pressure ratio
- Low suction pressure

Safety devices installed

- Emergency stop
- Non-return valve
- Safety valves at suction inter-stage and discharge
- Dual pole battery switch

Bodywork

The booster framework, lifting structure and all platework has C3M finishing for excellent corrosion protection.

Manufacturing & Environmental Standards

The Hurricane boosters are manufactured following stringent ISO 9001 regulations, and by a fully implemented Environmental Management System fulfilling ISO 14001 requirements. Attention has been given to ensure minimum negative impact to the environment.

Certification

Our boosters can be ordered with below certifications

- ASME
- AS1210

Supplied Documentation

The unit is delivered with:

- Operating and instruction manual
- Spare parts manual
- Engine manual
- Test certificate

Maintenance and repair

Genuine parts

- The booster is delivered as standard with genuine consumables, with radiator coolant PARCOOL and with mineral PAROIL E for both engine and booster block. For extreme conditions the synthetic PAROIL Extra is the recommended oil.

Service

- Detailed maintenance schedules are available for each booster model. Standard service includes all consumables, and make preventative maintenance as easy as it can get.
- Valve repair and piston repair kits can be ordered for corrective maintenance.
- Recommended spare parts proposals help customers to identify which main components they should place in stock to maximize the uptime of their equipment.

Warranty Coverage

- 12 months from date of start-up or 18 months from date of shipment, whichever comes first.
- Warranty is limited to a maximum 2000 running hours and only valid when using Atlas Copco genuine parts.
- For details, we refer to the "Atlas Copco warranty policy" document.