

Heavy Duty Air Intake Shut-off Valve

Model 7002

Overview

Hydraulic fracturing technology requires the use of heavy-duty, high-horsepower diesel engines. Hydrocarbon release in an area where a diesel engine is operating can lead to diesel engine runaway which can be a highly dangerous situation. Once an engine begins to run on the external fuel source, turning off the ignition will have no effect. The engine will continue to run and overspeed leading to mechanical failure or explosion. The AMOT 7002 Series air intake shut-off valve was designed for the wear and tear of the frac industry. The valve will effectively shut down a runaway diesel engine by closing off the engine intake air.



Features and Benefits

- Rated for continuous working temperature from -40°C to +280°C
- IP67 rated solenoid/actuator is enclosed for reliable performance
- Designed for high-vibration environments
- Anodized aluminum and stainless steel construction resists corrosion
- Designed for post-turbo temperatures
- Male/female marmon flange connections (can be coupled directly to Cummins QSK50 engine intakes)
- Position switch integrated into actuator housing
- Switch is not exposed to charge air temperature/debris

Applications

Cummins QSK50 (Tier 2 and 4) high horsepower engines used in the following applications:

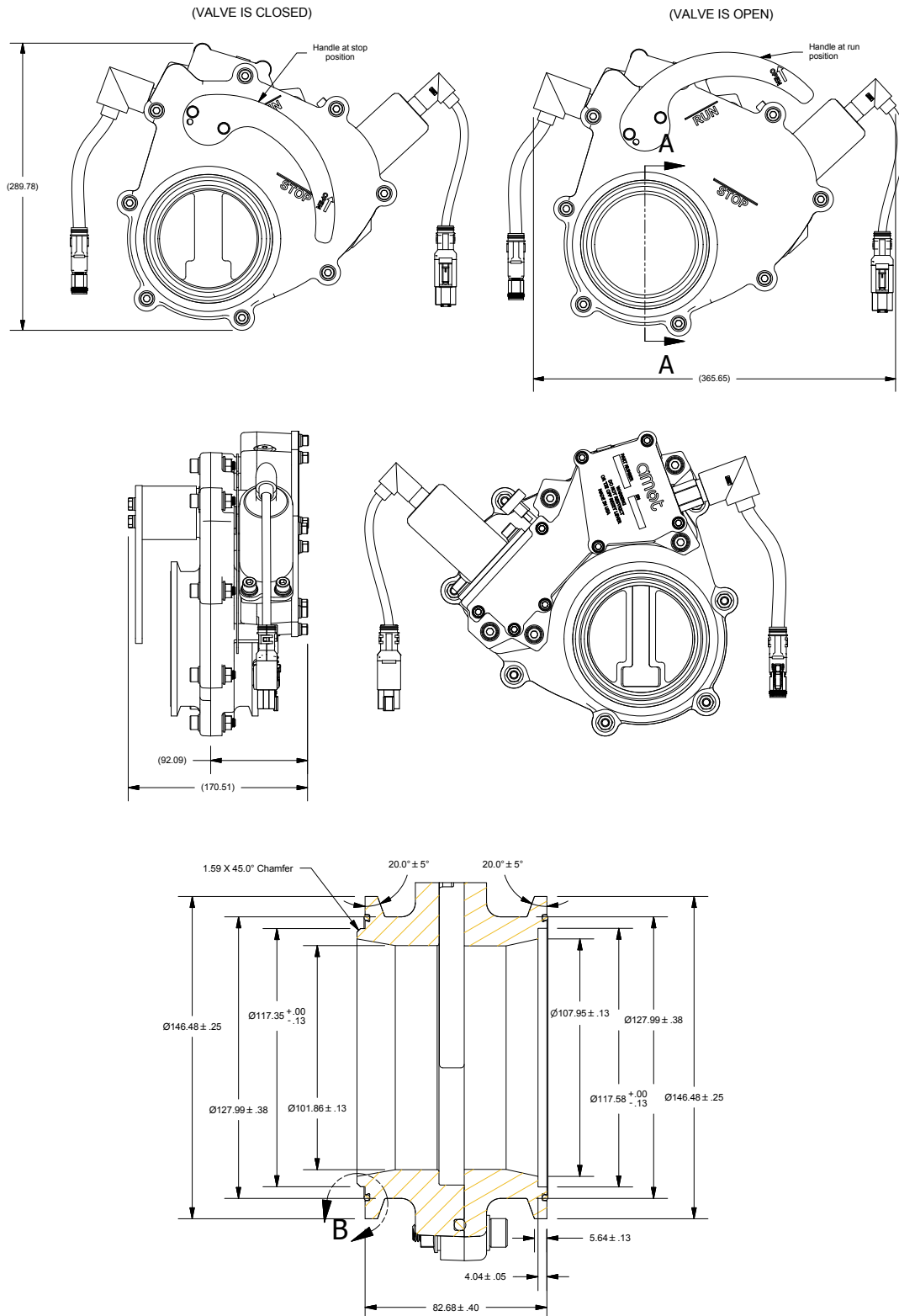
- Hydraulic fracturing units
- Electric power generators
- Offshore production engines
- Drilling industry
- Marine engines
- Power generation (gen sets)
- Mining equipment
- Locomotives



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Dimensions



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Specifications

Standard materials	Valve body & actuator housing	Hard anodized aluminum
	Gate	Brass
	Seals	Viton/Silicone
Maximum intake air temperature	-40°C to 280°C	-40°F to 535°F
Valve Size	4" valve size	102 mm
Net weight	10 kg (21 lbs)	
Max Charge Air Pressure	5 bar	72 psi
Solenoid	Voltage	19.2 - 28.8 Volts DC
	Max current draw	38.9 A @ 28.8 VDC & -40°C
	Inductance	3.5mH +40°C
	Duty Cycle @ 125°C	1.3%, Max 1.0s ON Min 75s OFF
Switch	5 Amp resistive load max >0.25W	

Service Kits & Accessories

Part Number	Description
RKS-7001-09	Manual activation handle kit
RKS-7002-03	24V Solenoid kit, Weatherpack
RKS-7002-01	Valve open-switch open switch kit, Deutsch
RKS-7002-04	Valve open-switch closed switch kit, Deutsch
RKS-7002-05	Pneumatic cylinder kit
22092L	Flange o-ring
1641-019	Timer relay, 24 VDC

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How to order

Use the tables below to select the unique specification of your Model 7002 Intake Air Shut-off Valve:

Example: **7002** **A** **BB** **C** - **DDD**

A	Valve Size	BB	Valve Operator	C	Switch Options	DDD	Connection Options
4	4 inch, standard	72	Electric Solenoid, 24VDC	A	Valve Open = Switch Closed	RZX	Deutsch Solenoid Connector (DT04-4P), Deutsch Switch Connector with integral 33 kΩ Shunt (DT06-2S)
		25	Pneumatic Cyl.	B	Valve Open = Switch Open	RZO	Deutsch Solenoid Connector (DT04-4P), PIN Style Plug in 15-4 Layout Switch Connector (38999)
						HAC	Weatherpack Solenoid Connector (12015792), Deutsch Switch Connector (DT06-2S)
						HAQ	Pneumatic cylinder, Deutsch switch connector

Note: AMOT does not qualify the valve for specific applications. Consult the engine and valve specifications.

Switch, Solenoid and Reset Service Kits are available for your valve. Contact Customer Service for the specific part number.

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