



Model 4320/4420

Turbine Fuel Shutoff Valve

**Unique "Vent" Port
Eliminates Necessity for
Separate Bleed Valve!**



Features

- Less than 100 Millisecond Close Time
- Stainless Steel or Cast Steel Body
- 2-Way & 2-Way Vented
- Stainless Steel or Aluminum Internals
- ANSI Class 300 or 600 Flange Connections
- Open/Closed Position Switch Indication (Optional)
- Solenoid Pilot Valve (Optional)

Applications

- Fuel Shutoff Valve for Gas Turbines
- Starting Air/Gas Valve
- Vented Fuel Gas Valve

Model 4320/4420 has been designed specifically for use as a fuel shutoff valve in gas turbine applications. Durable high quality construction, compact size, and quick close time makes the 4320 / 4420 ideal for use with gas turbines in the 10 to 30 MW size range.

Model 4320/4420 is a single acting, spring return, pneumatically actuated valve, and is available in both 2-way and 2-way vented versions:

2-Way Version

When pressure is applied to the pilot port, the valve is opened to allow flow to travel from the IN Port to the OUT Port. When the pilot pressure is released, a spring closes the main ports.

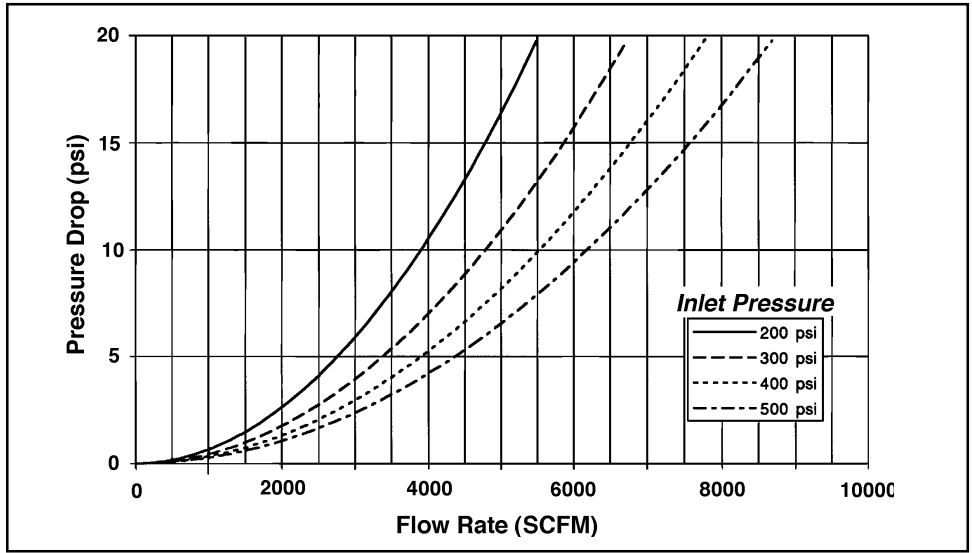
2-Way Vented Version

When pressure is applied to the pilot port, the valve is opened to allow flow to travel from the IN Port to the OUT Port. The VENT Port is closed. When the pilot pressure is released, the IN Port closes while the VENT Port opens to the OUT Port. This venting relieves pressure within the valve and in the down stream piping.

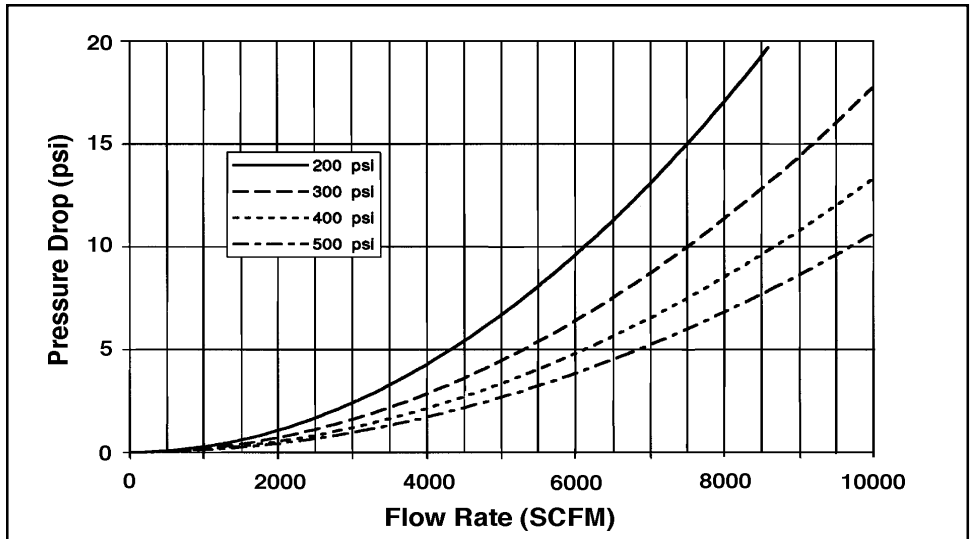
The 2-Way Vented version is ideal for gas turbine applications because, upon shutdown, it relieves and vents pressure on the downstream side. This action eliminates the need for a separate bleed valve, providing a cost savings and simplified piping.

Flow Charts for Natural Gas (SG = 0.65) at 250°F

2" Valve



3" Valve

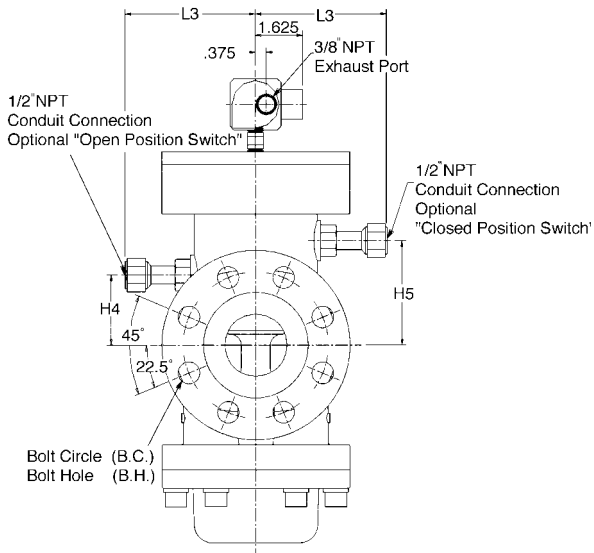


Specifications

- Body Material 316 Stainless Steel or Cast Steel
- Trim Material 316 Stainless Steel or Anodized Aluminum
- Seal Material Viton
- Maximum Pressure:
See Chart on left
- Pilot Pressure to Actuate 60-150 psi
- Connections:
 - 2" Valve ANSI Class 300 or 600 RF Flange
 - 3" Valve ANSI Class 300 or 600 RF Flange
 - Vent Port 3/8" NPT
 - Solenoid/Position Switch Connections 1/2" NPT
- Flow Coefficient Cv:
 - 2" Valve 83
 - 3" Valve 130
- Close Time Less than 100 ms
- Seat Leakage ANSI Class VI
- Position Switch Ratings UL Class 1, Groups A, B, C & D or
 CSA Class 1, Div. 1, Groups A, B, C & D.
- Solenoid Valve Ratings UL & CSA Class 1, Div. 1, Type H Coil

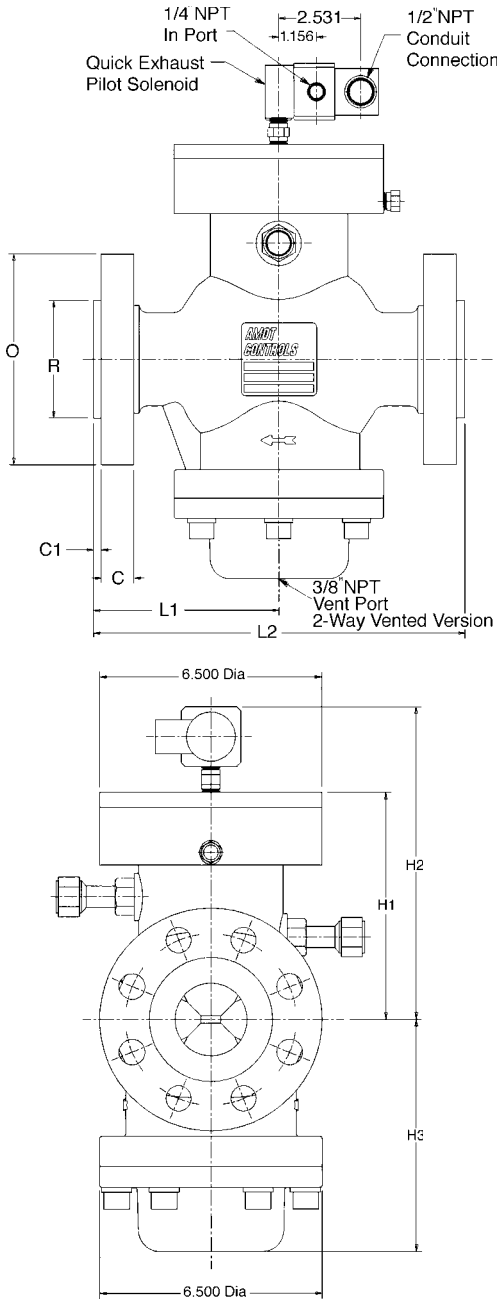
Pressure Rating (PSIG)		
Temperature (F°)	Model 4320E	
	300# Flange	600# Flange
-20° - 100°	740	1000
200°	675	909
300°	655	884
400°	635	854
Temperature (F°)	Model 4420E	
	300# Flange	600# FlangeK
-20° - 100°	740	1000
200°	620	860
300°	560	776
400°	515	714

Dimensions

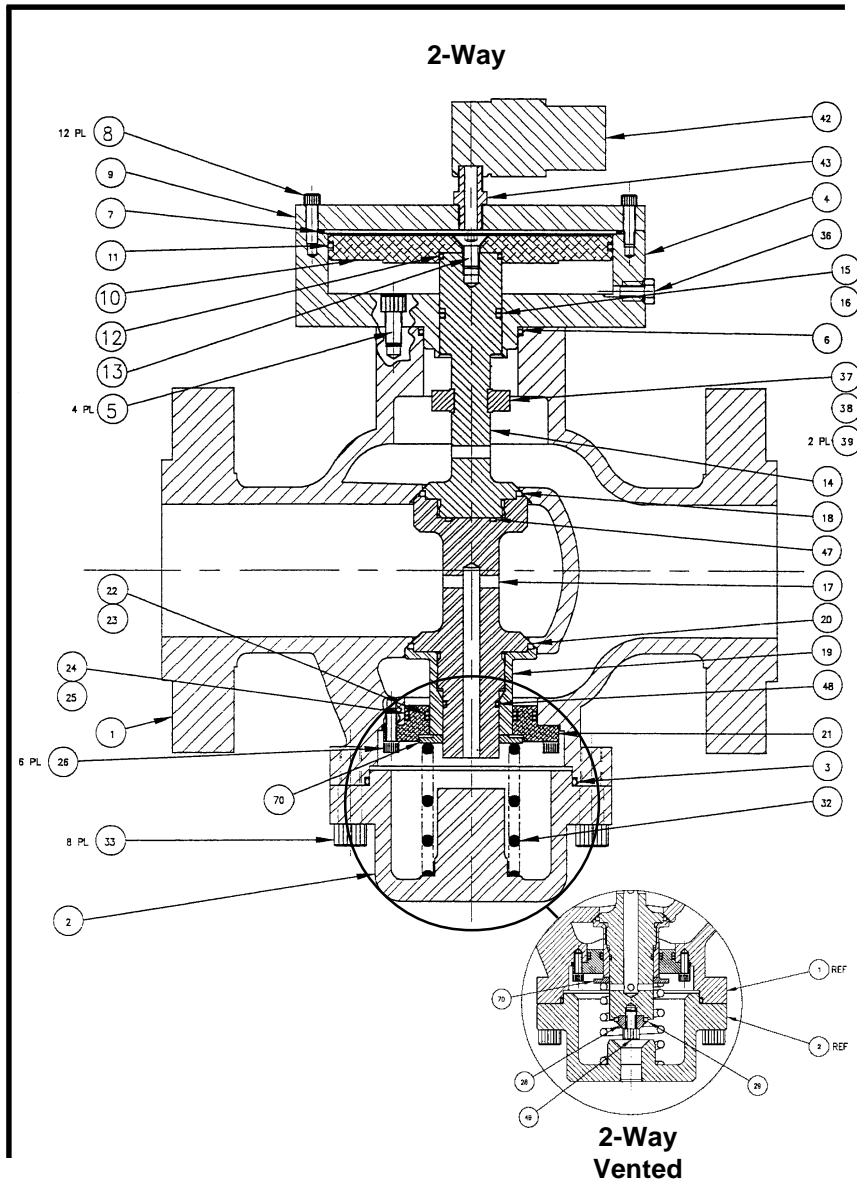


FLANGE CONNECTIONS				
	2" 300 lb.	2" 600 lb.	3" 300 lb.	3" 600 lb.
L1	5.75 (146)	5.75 (146)	7.0 (178)	7.0 (178)
L2	11.5 (292)	11.5 (292)	14.0 (356)	14.0 (356)
L3	4.5 (114)	4.5 (114)	4.5 (114)	4.5 (114)
H1	6.625 (168)	6.625 (168)	7.75 (197)	7.75 (197)
H2	9.125 (232)	9.125 (232)	10.25 (260)	10.25 (260)
H3	6.781 (172)	6.781 (172)	7.25 (184)	7.25 (184)
H4	2.406 (61)	2.406 (61)	3.156 (80)	3.156 (80)
H5	3.562 (90)	3.562 (90)	4.312 (110)	4.312 (110)
O	6.5 (165)	6.5 (165)	8.25 (210)	8.25 (210)
R	3.625 (92)	3.625 (92)	5.0 (127)	5.0 (127)
C	0.818 (21)	1.000 (25)	1.06 (27)	1.250 (32)
C1	0.0625 (1.6)	0.250 (6)	0.0625 (1.6)	0.250 (6)
B.H.	0.75 (19)	0.75 (19)	0.88 (22)	0.88 (22)
B.C.	5.0 (127)	5.0 (127)	6.62 (168)	6.62 (168)

Dimension in inches, mm ()



Cut-Away Diagram

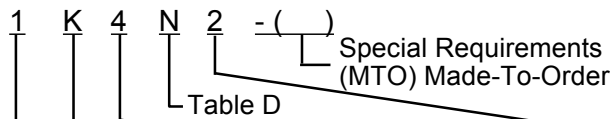


Model Code System

4320E (C.S.)

4420E (S.S.)

Basic
Model
Number



NOTE: Letters or numbers in the MTO space indicate the unit is built to special requirements and some of the other code numbers may not be valid. Check with the factory for full specification on such models.

Table A Valve Size & Type	
Code	Type
1	2", 2-way
2	2" vented, 2-way
3	3", 2-way
4	3" vented, 2-way

Table B Connection Code	
Code	Type
K	600# ANSI R.F.
H	300# ANSI R.F.

Table C Internal Material Code	
Code	Type
2	Aluminum/Viton
4	316 Stainless Steel/ Viton

Table E Pilot Solenoid Options	
Code	Type
0	None
2	3-way S.S. Quick Dump UL & CSA Class 1 Div. 1, Type H Coil

Table D Switch Options			
CSA Class I, Div. 1 Groups A, B, C, D		UL Class I Groups A, B, C, D	
E	Open	H	Open
F	Closed	J	Closed
G	Open/Closed	K	Open/Closed
N	None	N	None

NOTE: Contact factory for further information if your application requires a hydraulic actuator or liquid fuel oils.

How to Order

When ordering, please specify the following:

1. AMOT Model 4420 for Stainless Steel Body or AMOT Model 4320 for Cast Steel Body
2. Valve size: 2" or 3"
3. Valve function: 2-way IN/OUT
2-way Vented (includes VENT port)
4. Flange size: Class 300 or 600 Raised Face
5. Features:
 - a) Stainless Steel or Anodized Aluminum Internals
 - b) Position Indication: None, Open, Closed, Open/Closed
 - c) Optional Solenoid Pilot

This unit may be ordered using the full description as shown or by constructing a Model Number using the Model Code System.

Example: The complete Model Number for a 2-way valve, with 2" Class 600 flanges, stainless steel internals, viton seals, no position indicator and no pilot solenoid is 4420E1K4N0.

Also Available!

Turbine Fuel Shutoff Valve for smaller Gas Turbines (less than 15 MW)



- Less than 100 ms Close Time
- All 316 Stainless Steel Construction
- 2-Way & 2-Way Vented
- Proven Gas Turbine Performance

AMOT USA

8824 Fallbrook Dr
Houston, TX 77064
Tel: +1 281 940-1800
Fax: +1 281 668-8802

AMOT

Western Way
Bury St. Edmunds IP33 3SZ
Suffolk England
Tel: +44 1284 762222
Fax: +44 1284 760256

AMOT SINGAPORE

10 Eunos Road 8 # 12-06
Singapore Post Centre
Singapore 408600
Tel: +65 6293 4320
Fax: +65 6293 3307