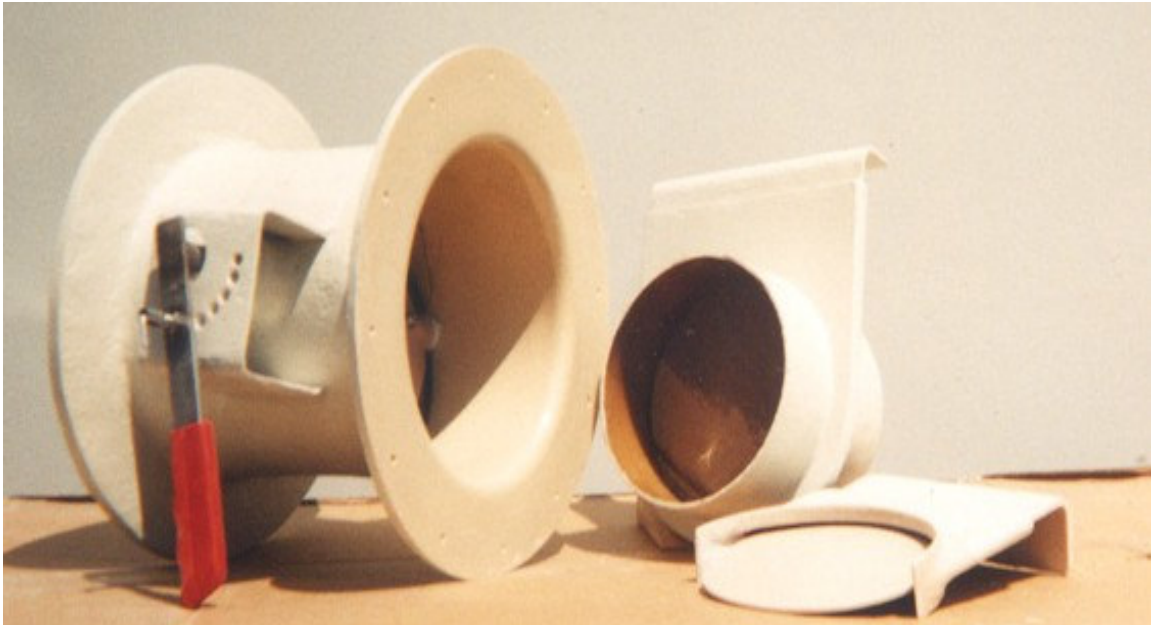


# ***air chem engineered systems LLC***

## **DAMPERS**



**AIR CHEM ENGINEERED SYSTEMS, LLC (aka Air Chem Systems) manufactures an extensive line of air pollution control equipment for the electronic, metal finishing, plating, sewage treatment, and other industries that generate nonflammable corrosive fumes and odors.**

**2841 E. La Palma Avenue  
Anaheim, California 92806 USA  
Phone: 714.238.9099  
Email: [info@airchemsystems.com](mailto:info@airchemsystems.com)  
Web Site: [www.airchemsystems.com](http://www.airchemsystems.com)**

# ***FRP Dampers***

**AIR CHEM ENGINEERED SYSTEMS** provides a line of chemical resistant dampers for air handling systems in corrosive environments. Dampers have two functions, one is to adjust air flow volume. This type is known as volume dampers. The second function is to shut off air flow, these are known as control dampers. Volume dampers do not have seals, control dampers do.

Dampers can be round or rectangular with a single butterfly type blade, slide gate type or rectangular multi-blade linked louver type.

There are several damper operating systems, the most common is the quadrant handle type. There are also chain operated dampers. Chain operated dampers are used when the dampers are not easily accessible. Electric or pneumatic actuated dampers need to be controlled remotely.

All of the hardware is 316 stainless steel for maximum corrosion resistance. The blades and body are manufactured with vinyl ester fire retardant resins. Shafts are pultruded vinyl ester resin and bearings are of Teflon. All seals are of neoprene. All dampers 12" and larger have blade stops. Full circumference blade stops are available upon request. Full blade stops are not available with blade seals.

# Air Chem Engineered Systems LLC

Fiberglass Air Pollution Control & Industrial Equipment

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## Fiberglass Reinforced Plastic (FRP) Dampers

**Air Chem Engineered Systems'** FRP dampers are fabricated with a fire-retardant, vinyl ester resin. All hardware is 316 stainless steel with Teflon bearings.

There are two basic types of dampers:

- Volume dampers which are designed for air flow balancing
- Control dampers with full circumference seal to provide an airtight shut off of air flow.

**Air Chem Engineered Systems** Model Dampers are described below:

Model No. **ACESQD 110:** Volume damper with plain ends. This damper is the most economical type.

Model No. **ACESQD 120:** Same damper as the 110 but with integral duct flanges, shipped undrilled. Optional flange drilling can be provided at an additional cost.

Model No. **ACESQD 130:** Same damper as the 120 but with integral ASTM D4020 pipe flange diameters and ASTM D3982 duct flange thickness. Optional flange thickness and drilling can be provided at an additional cost.

Optional full circumference blade stops available on all the above models.

Model No. **ACESQD 210:** Control damper with full circumference seals with plain ends.

Model No. **ACESQD 220:** Same damper as the 210 but with integral ASTM D3982 flanges (undrilled).

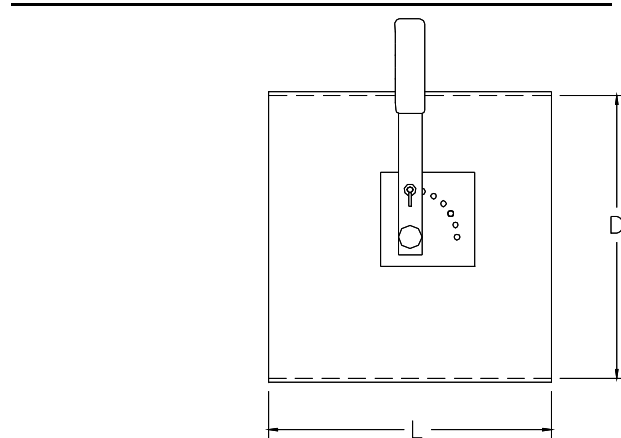
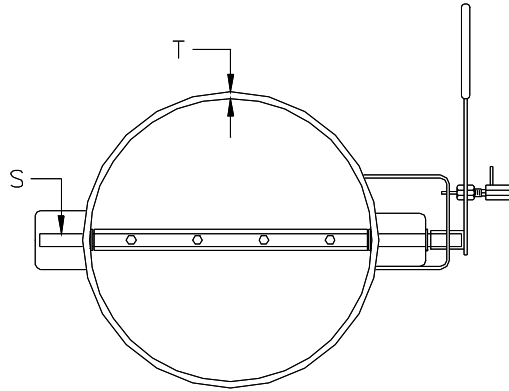
Model No. **ACESQD 230:** Same damper as the 210 but with ASTM D4020 pipe flange outside diameter and ASTM D3982 duct flange thickness.

# Air Chem Engineered Systems LLC

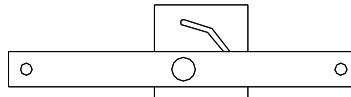
Fiberglass Air Pollution Control & Industrial Equipment

## MODEL ACESQD 110

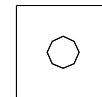
ROUND VOLUME DAMPER FOR AIR FLOW ADJUSTMENT ONLY  
PLAIN END X PLAIN END



**HAND QUADRANT**



**CHAIN QUADRANT**



**ACTUATOR MOUNT**

D	L	T	S
6"	6"	1/8"	3/4"
8"	8"	1/8"	3/4"
10"	10"	1/8"	3/4"
12"	12"	1/8"	3/4"
14"	12"	1/8"	1"
16"	12"	1/8"	1"
18"	12"	1/8"	1"
20"	12"	1/8"	1"
22"	12"	1/8"	1"
24"	12"	3/16"	1"
26"	12"	3/16"	1 1/2"
28"	12"	3/16"	1 1/2"
30"	12"	3/16"	1 1/2"
32"	12"	3/16"	1 1/2"
34"	12"	3/16"	1 1/2"
36"	12"	3/16"	1 1/2"
38"	12"	1/4"	2"
40"	12"	1/4"	2"
42"	12"	1/4"	2"
44"	12"	1/4"	2"
46"	12"	1/4"	2"
48"	12"	1/4"	2"
50"	12"	1/4"	2"
52"	12"	1/4"	2"
54"	12"	1/4"	2"
56"	12"	5/16"	2"
58"	12"	5/16"	2"
60"	12"	5/16"	2"
66"	12"	5/16"	2"
72"	12"	5/16"	2"

**Application:**  
Non-flammable, corrosive fumes

**Axle:**  
Pultruded fiberglass fire retardant vinyl ester resin

**Blade & Frame:**  
Fire retardant vinyl ester resin

**Shaft Seal:** Neoprene

**Hardware:** 316 stainless steel

**Bearing:** Teflon

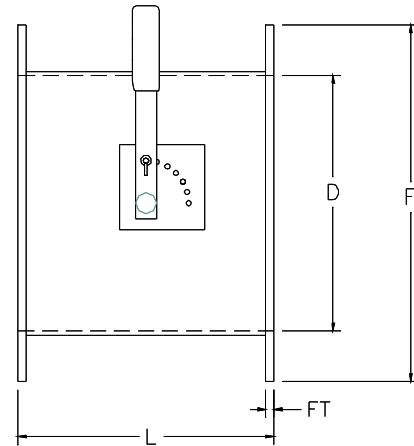
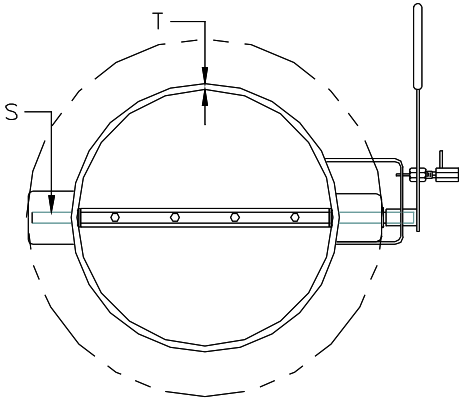
**Maximum Temperature:** 200°F

**Maximum System Pressure:** 15" W.C.

**Blade Stops:**  
All dampers 14" and larger come with blade stops. Optional full blade stops available at additional cost

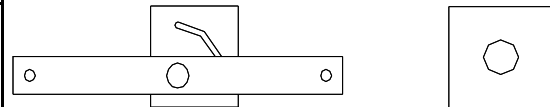
**MODEL ACESQD 120**

ROUND VOLUME DAMPER FOR AIR FLOW ADJUSTMENT ONLY  
 DUCT FLANGE X DUCT FLANGE PER ASTM D3982 (UNDRILLED)



D	L	T	S	F	FT
6"	6"	1/8"	3/4"	10 3/8"	1/4"
8"	8"	1/8"	3/4"	12 3/8"	1/4"
10"	10"	1/8"	3/4"	14 3/8"	3/8"
12"	12"	1/8"	3/4"	16 3/8"	3/8"
14"	12"	1/8"	1"	18 3/8"	3/8"
16"	12"	1/8"	1"	20 3/8"	1/2"
18"	12"	1/8"	1"	22 3/8"	1/2"
20"	12"	1/8"	1"	24 3/8"	1/2"
22"	12"	1/8"	1"	26 3/8"	1/2"
24"	12"	3/16"	1"	28 3/8"	1/2"
26"	12"	3/16"	1 1/2"	30 3/8"	1/2"
28"	12"	3/16"	1 1/2"	32 3/8"	1/2"
30"	12"	3/16"	1 1/2"	34 3/8"	1/2"
32"	12"	3/16"	1 1/2"	36 3/8"	1/2"
34"	12"	3/16"	1 1/2"	38 3/8"	1/2"
36"	12"	3/16"	1 1/2"	40 3/8"	1/2"
38"	12"	1/4"	2"	42 3/8"	5/8"
40"	12"	1/4"	2"	44 3/8"	5/8"
42"	12"	1/4"	2"	46 3/8"	5/8"
44"	12"	1/4"	2"	48 3/8"	5/8"
46"	12"	1/4"	2"	50 3/8"	5/8"
48"	12"	1/4"	2"	54 3/8"	5/8"
50"	12"	1/4"	2"	56 3/8"	5/8"
52"	12"	1/4"	2"	58 3/8"	5/8"
54"	12"	1/4"	2"	60 3/8"	5/8"
56"	12"	5/16"	2"	62 3/8"	5/8"
58"	12"	5/16"	2"	64 3/8"	5/8"
60"	12"	5/16"	2"	66 3/8"	5/8"
66"	12"	5/16"	2"	72 3/8"	3/4"
72"	12"	5/16"	2"	78 3/8"	3/4"

**HAND QUADRANT**



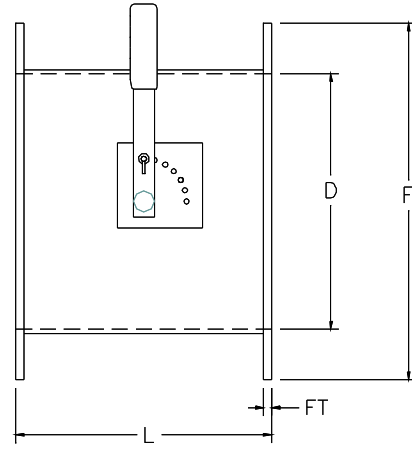
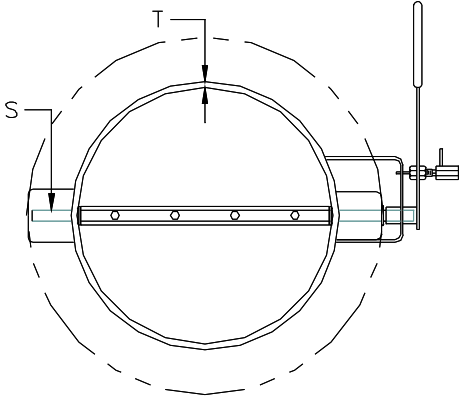
**CHAIN QUADRANT**

**ACTUATOR MOUNT**

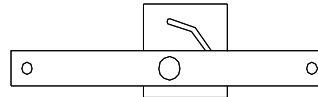
**Application:**  
 Non-flammable, corrosive fumes  
**Axle:**  
 Pultruded fiberglass fire retardant vinyl ester resin  
**Blade & Frame:**  
 Fire retardant vinyl ester resin  
**Shaft Seal:** Neoprene  
**Hardware:** 316 stainless steel  
**Bearing:** Teflon  
**Maximum Temperature:** 200 °F  
**Maximum System Pressure:** 15" W.C.  
**Blade Stops:**  
 All dampers 14" and larger come with blade stops. Optional full blade stops available at additional cost

**MODEL ACESQD 130**

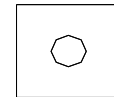
ROUND VOLUME DAMPER FOR AIR FLOW ADJUSTMENT ONLY  
 PIPE FLANGE X PIPE FLANGE PER ASTM D4020 X DUCT FLANGE THICKNESS (UNDRILLED)



**HAND QUADRANT**



**CHAIN QUADRANT**



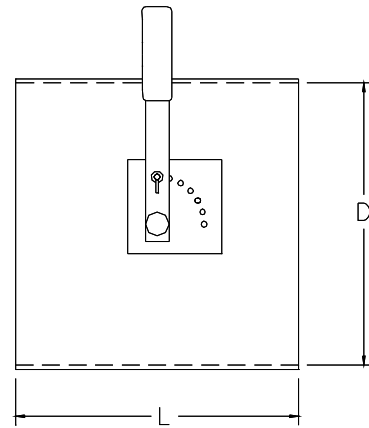
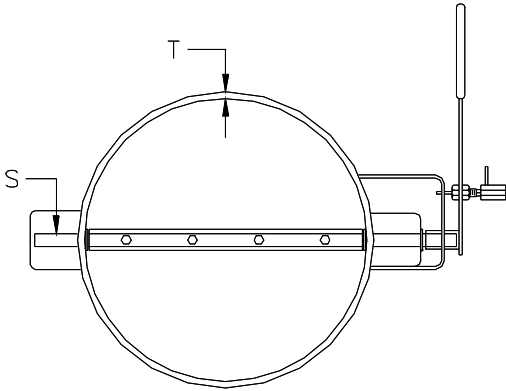
**ACTUATOR MOUNT**

D	L	T	S	F	FT
6"	6"	1/8"	3/4"	11"	1/4"
8"	8"	1/8"	3/4"	13 1/2"	1/4"
10"	10"	1/8"	3/4"	16"	3/8"
12"	12"	1/8"	3/4"	19"	3/8"
14"	12"	1/8"	1"	21"	3/8"
16"	12"	1/8"	1"	23 1/2"	1/2"
18"	12"	1/8"	1"	25"	1/2"
20"	12"	1/8"	1"	27 1/2"	1/2"
22"	12"	1/8"	1"	XX	1/2"
24"	12"	3/16"	1"	32"	1/2"
26"	12"	3/16"	1 1/2"	XX	1/2"
28"	12"	3/16"	1 1/2"	XX	1/2"
30"	12"	3/16"	1 1/2"	38 3/4"	1/2"
32"	12"	3/16"	1 1/2"	XX	1/2"
34"	12"	3/16"	1 1/2"	XX	1/2"
36"	12"	3/16"	1 1/2"	46"	1/2"
38"	12"	1/4"	2"	XX	5/8"
40"	12"	1/4"	2"	XX	5/8"
42"	12"	1/4"	2"	53"	5/8"
44"	12"	1/4"	2"	XX	5/8"
46"	12"	1/4"	2"	XX	5/8"
48"	12"	1/4"	2"	59 1/2"	5/8"
50"	12"	1/4"	2"	56 3/8"	5/8"
52"	12"	1/4"	2"	58 3/8"	5/8"
54"	12"	1/4"	2"	60 3/8"	5/8"
56"	12"	5/16"	2"	62 3/8"	5/8"
58"	12"	5/16"	2"	64 3/8"	5/8"
60"	12"	5/16"	2"	66 3/8"	5/8"
66"	12"	5/16"	2"	72 3/8"	3/4"
72"	12"	5/16"	2"	78 3/8"	3/4"

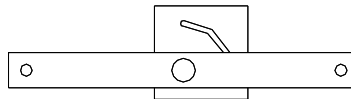
**Application:**  
 Non-flammable, corrosive fumes  
**Axle:**  
 Pultruded fiberglass fire retardant vinyl ester resin  
**Blade & Frame:**  
 Fire retardant vinyl ester resin  
**Shaft Seal:** Neoprene  
**Hardware:** 316 stainless steel  
**Bearing:** Teflon  
**Maximum Temperature:** 200 °F  
**Maximum System Pressure:** 15" W.C.  
**Blade Stops:**  
 All dampers 14" and larger come with blade stops. Optional full blade stops available at additional cost

**MODEL ACESQD 210**

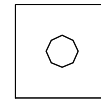
ROUND CONTROL DAMPER WITH SEALS FOR COMPLETE SHUT OFF OF AIR  
 PLAIN END X PLAIN END



**HAND QUADRANT**



**CHAIN QUADRANT**



**ACTUATOR MOUNT**

D	L	T	S
6"	6"	1/8"	3/4"
8"	8"	1/8"	3/4"
10"	10"	1/8"	3/4"
12"	12"	1/8"	3/4"
14"	12"	1/8"	1"
16"	12"	1/8"	1"
18"	12"	1/8"	1"
20"	12"	1/8"	1"
22"	12"	1/8"	1"
24"	12"	3/16"	1"
26"	12"	3/16"	1 1/2"
28"	12"	3/16"	1 1/2"
30"	12"	3/16"	1 1/2"
32"	12"	3/16"	1 1/2"
34"	12"	3/16"	1 1/2"
36"	12"	3/16"	1 1/2"
38"	12"	1/4"	2"
40"	12"	1/4"	2"
42"	12"	1/4"	2"
44"	12"	1/4"	2"
46"	12"	1/4"	2"
48"	12"	1/4"	2"
50"	12"	1/4"	2"
52"	12"	1/4"	2"
54"	12"	1/4"	2"
56"	12"	5/16"	2"
58"	12"	5/16"	2"
60"	12"	5/16"	2"
66"	12"	5/16"	2"
72"	12"	5/16"	2"

**Application:**  
 Non-flammable, corrosive fumes

**Axle:**  
 Pultruded fiberglass fire retardant vinyl ester resin

**Blade & Frame:**  
 Fire retardant vinyl ester resin

**Shaft Seal:** Neoprene

**Hardware:** 316 stainless steel

**Bearing:** Teflon

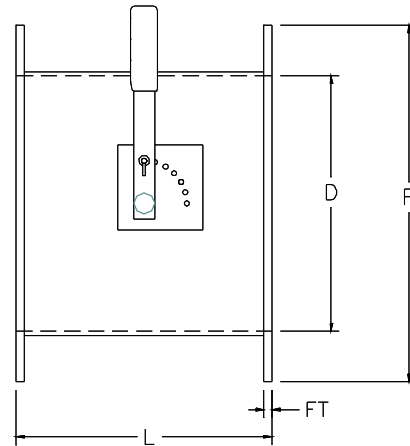
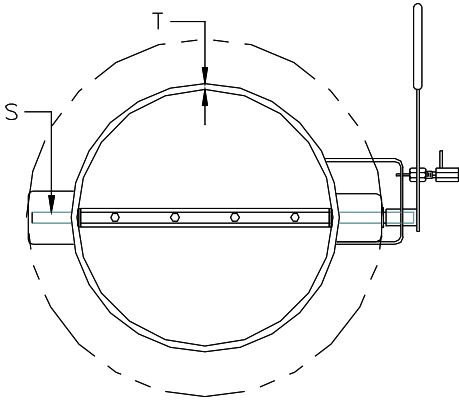
**Maximum Temperature:** 200 °F

**Maximum System Pressure:** 15" W.C.

**Blade Stops:**  
 All dampers 14" and larger come with blade stops. Optional full blade stops available at additional cost

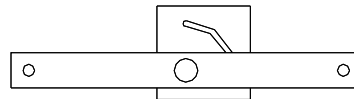
**MODEL ACESQD 220**

ROUND CONTROL DAMPER WITH SEALS FOR COMPLETE SHUT OFF OF AIR  
 DUCT FLANGE X DUCT FLANGE PER ASTM D3982 (UNDRILLED)

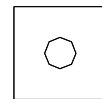


D	L	T	S	F	FT
6"	6"	1/8"	3/4"	10 3/8"	1/4"
8"	8"	1/8"	3/4"	12 3/8"	1/4"
10"	10"	1/8"	3/4"	14 3/8"	3/8"
12"	12"	1/8"	3/4"	16 3/8"	3/8"
14"	12"	1/8"	1"	18 3/8"	3/8"
16"	12"	1/8"	1"	20 3/8"	1/2"
18"	12"	1/8"	1"	22 3/8"	1/2"
20"	12"	1/8"	1"	24 3/8"	1/2"
22"	12"	1/8"	1"	26 3/8"	1/2"
24"	12"	3/16"	1"	28 3/8"	1/2"
26"	12"	3/16"	1 1/2"	30 3/8"	1/2"
28"	12"	3/16"	1 1/2"	32 3/8"	1/2"
30"	12"	3/16"	1 1/2"	34 3/8"	1/2"
32"	12"	3/16"	1 1/2"	36 3/8"	1/2"
34"	12"	3/16"	1 1/2"	38 3/8"	1/2"
36"	12"	3/16"	1 1/2"	40 3/8"	1/2"
38"	12"	1/4"	2"	42 3/8"	5/8"
40"	12"	1/4"	2"	44 3/8"	5/8"
42"	12"	1/4"	2"	46 3/8"	5/8"
44"	12"	1/4"	2"	48 3/8"	5/8"
46"	12"	1/4"	2"	50 3/8"	5/8"
48"	12"	1/4"	2"	54 3/8"	5/8"
50"	12"	1/4"	2"	56 3/8"	5/8"
52"	12"	1/4"	2"	58 3/8"	5/8"
54"	12"	1/4"	2"	60 3/8"	5/8"
56"	12"	5/16"	2"	62 3/8"	5/8"
58"	12"	5/16"	2"	64 3/8"	5/8"
60"	12"	5/16"	2"	66 3/8"	5/8"
66"	12"	5/16"	2"	72 3/8"	3/4"
72"	12"	5/16"	2"	78 3/8"	3/4"

**HAND QUADRANT**



**CHAIN QUADRANT**



**ACTUATOR MOUNT**

**Application:**  
 Non-flammable, corrosive fumes  
**Axle:**  
 Pultruded fiberglass fire retardant vinyl ester resin  
**Blade & Frame:**  
 Fire retardant vinyl ester resin  
**Shaft Seal:** Neoprene  
**Hardware:** 316 stainless steel  
**Bearing:** Teflon  
**Maximum Temperature:** 200 °F  
**Maximum System Pressure:** 15" W.C.  
**Blade Stops:**  
 All dampers 14" and larger come with blade stops. Optional full blade stops available at additional cost

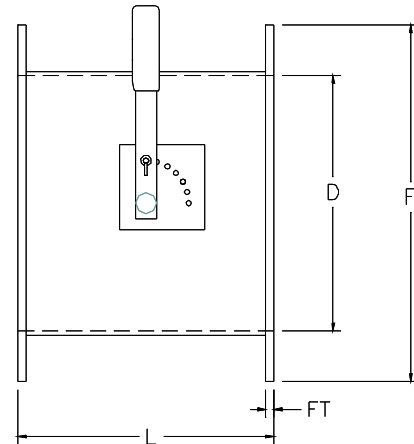
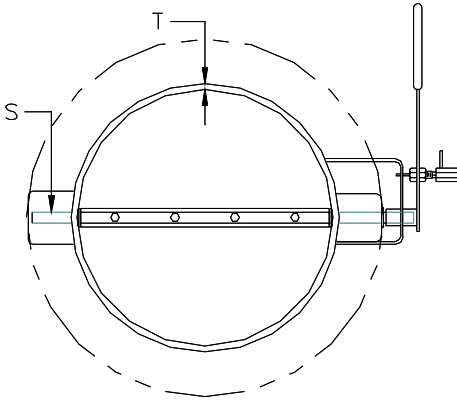


# Air Chem Engineered Systems LLC

Fiberglass Air Pollution Control & Industrial Equipment

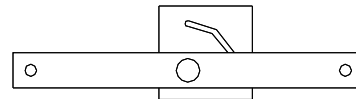
## MODEL ACESQD 230

ROUND CONTROL DAMPERS WITH SEALS FOR COMPLETE SHUT OFF OF AIR  
PIPE FLANGE X PIPE FLANGE PER ASTM D4020 X DUCT FLANGE THICKNESS (UNDRILLED)

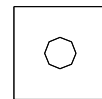


**HAND QUADRANT**

D	L	T	S	F	FT
4"	6"	1/8"	3/4"	9"	1/4"
6"	6"	1/8"	3/4"	11"	1/4"
8"	8"	1/8"	3/4"	13 1/2"	1/4"
10"	10"	1/8"	3/4"	16"	3/8"
12"	12"	1/8"	3/4"	19"	3/8"
14"	12"	1/8"	1"	21"	3/8"
16"	12"	1/8"	1"	23 1/2"	1/2"
18"	12"	1/8"	1"	25"	1/2"
20"	12"	1/8"	1"	27 1/2"	1/2"
22"	12"	1/8"	1"	XX	1/2"
24"	12"	3/16"	1"	32"	1/2"
26"	12"	3/16"	1 1/2"	XX	1/2"
28"	12"	3/16"	1 1/2"	XX	1/2"
30"	12"	3/16"	1 1/2"	38 3/4"	1/2"
32"	12"	3/16"	1 1/2"	XX	1/2"
34"	12"	3/16"	1 1/2"	XX	1/2"
36"	12"	3/16"	1 1/2"	46"	1/2"
38"	12"	1/4"	2"	XX	5/8"
40"	12"	1/4"	2"	XX	5/8"
42"	12"	1/4"	2"	53"	5/8"
44"	12"	1/4"	2"	XX	5/8"
46"	12"	1/4"	2"	XX	5/8"
48"	12"	1/4"	2"	59 1/2"	5/8"
50"	12"	1/4"	2"	XX	5/8"
52"	12"	1/4"	2"	XX	5/8"
54"	12"	1/4"	2"	XX	5/8"
56"	12"	5/16"	2"	XX	5/8"
58"	12"	5/16"	2"	XX	5/8"
60"	12"	5/16"	2"	XX	5/8"
66"	12"	5/16"	2"	XX	3/4"
72"	12"	5/16"	2"	XX	3/4"



**CHAIN QUADRANT**



**ACTUATOR MOUNT**

**Application:**

Non-flammable, corrosive fumes

**Axle:**

Pultruded fiberglass fire retardant vinyl ester resin

**Blade & Frame:**

Fire retardant vinyl ester resin

**Shaft Seal:** Neoprene

**Hardware:** 316 stainless steel

**Bearing:** Teflon

**Maximum Temperature:** 200 °F

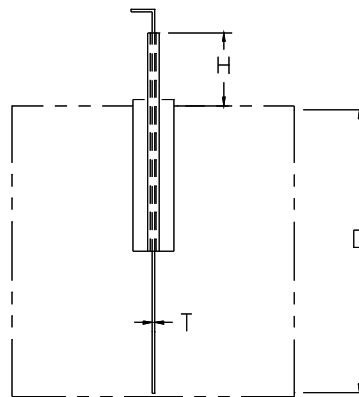
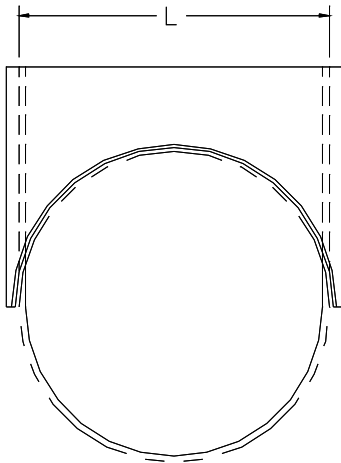
**Maximum System Pressure:** 15" W.C.

**Blade Stops:**

All dampers 14" and larger come with blade stops. Optional full blade stops available at additional cost

**MODEL ACESQD 510**

ROUND SADDLE SLIDE GATED DAMPER FOR AIR FLOW  
 ADJUSTMENT ONLY ~ PLAIN END X PLAIN END

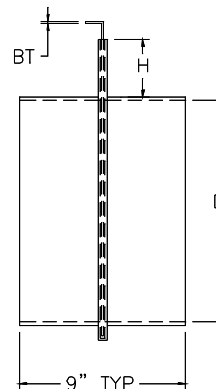
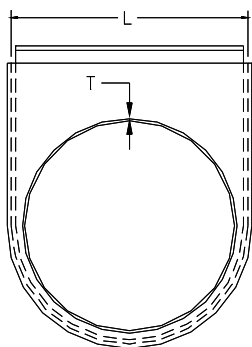


D	L	T	H
6"	6"	1/8"	3/4"
8"	8"	1/8"	3/4"
10"	10"	1/8"	3/4"
12"	12"	1/8"	3/4"
14"	12"	1/8"	1"
16"	12"	1/8"	1"
18"	12"	1/8"	1"
20"	12"	1/8"	1"
22"	12"	1/8"	1"
24"	12"	3/16"	1"
26"	12"	3/16"	1 1/2"
28"	12"	3/16"	1 1/2"
30"	12"	3/16"	1 1/2"
32"	12"	3/16"	1 1/2"
34"	12"	3/16"	1 1/2"
36"	12"	3/16"	1 1/2"

**Application:**  
 Non-flammable, corrosive fumes  
**Blade & Frame:**  
 Fire retardant vinyl ester resin  
**Maximum Temperature:** 200 °F  
**Maximum System Pressure:** 15" W.C.

**MODEL ACESQD 520**

ROUND SLIDE GATE CONTROL DAMPER FOR AIR FLOW ADJUSTMENT OR SHUT OFF  
 PLAIN END X PLAIN END



D	L	T	H	BT	FT
6"	8"	1/8"	2"	1/8"	1/4"
8"	10"	1/8"	2"	1/8"	1/4"
10"	12"	1/8"	2"	1/8"	3/8"
12"	14"	1/8"	2"	1/8"	3/8"
14"	16"	1/8"	3"	1/8"	3/8"
16"	18"	1/8"	3"	1/8"	1/2"
18"	20"	1/8"	3"	1/8"	1/2"
20"	22"	1/8"	3"	3/16"	1/2"
22"	24"	1/8"	3"	3/16"	1/2"
24"	27"	3/16"	3"	3/16"	1/2"
26"	29"	3/16"	3"	3/16"	1/2"
28"	31"	3/16"	3"	3/16"	1/2"
30"	33"	3/16"	3"	1/4"	1/2"
32"	35"	3/16"	3"	1/4"	1/2"
34"	37"	3/16"	3"	1/4"	1/2"
36"	40"	3/16"	4"	1/4"	1/2"
38"	42"	1/4"	4"	1/4"	5/8"
40"	44"	1/4"	4"	1/4"	5/8"
42"	46"	1/4"	4"	1/4"	5/8"
44"	48"	1/4"	4"	1/4"	5/8"
46"	50"	1/4"	4"	1/4"	5/8"
48"	52"	1/4"	4"	5/16"	5/8"
50"	54"	1/4"	4"	5/16"	5/8"
52"	56"	1/4"	4"	5/16"	5/8"
54"	58"	1/4"	4"	3/8"	5/8"
56"	60"	5/16"	5"	3/8"	5/8"
58"	62"	5/16"	5"	3/8"	5/8"
60"	64"	5/16"	5"	3/8"	5/8"
66"	71"	5/16"	6"	7/16"	3/4"
72"	77"	5/16"	6"	1/2"	3/4"

**Application:**  
 Non-flammable, corrosive fumes  
**Blade & Frame:**  
 Fire retardant vinyl ester resin  
**Maximum Temperature:** 200 °F



Hoods

Scrubbers

Duct & Fittings

Air Strippers

Radial Fans

Centrifugal Fans

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Inline Fans

Storage Tanks

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