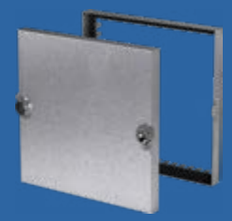
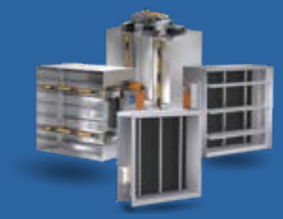
Damper Selection Guide



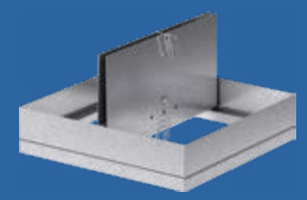
Doors - Access & Pressure Relief



Air Measuring Dampers

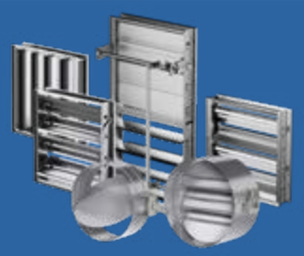
Backdraft Dampers

Balancing Dampers

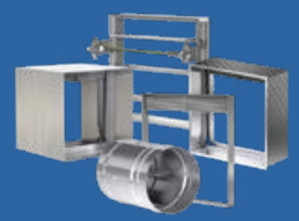


Ceiling Radiation Dampers

Combination Fire Smoke Dampers



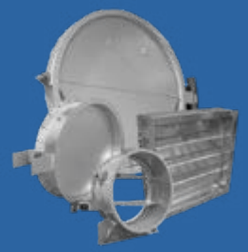
Control Dampers



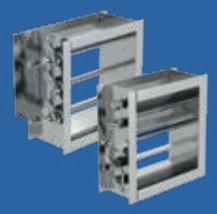
Fire Dampers

Smoke Dampers

Relief Dampers

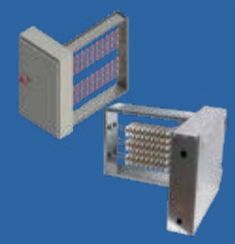


Heavy-Duty/Industrial Dampers



Specialty Application HD Dampers

Bubble-Tight Dampers



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March 2025

Model	Door Type	Pressure Relief	Leakage Class	Door Maximum Size	Velocity (FPM)	Pressure (in. wg)	AMCA Listing	Submittal	Installation Instructions	CSI Specs	DWG Drawings
Access Doors											
CAD	Cam	-	-	24 x 24	-	4½	-		-		
HAD	Hinged	-	-	24 x 24	-	4½	-		-		
RAD	Round	-	-	16 x 12	-	20	-		-		
Relief Doors											
PRAD	-	Positive	-	24 x 24	-	2-16	-				
VRAD	-	Negative	-	24 x 24	-	2-16	-				

Model	Blade Type	Blade Material	Leakage Class @ 1 in. wg	Damper Maximum Size*	Velocity Range (FPM)	Pressure (in. wg)	AMCA Listing	Submittal	Installation Instructions	CSI Specs	DWG Drawings
Air Measuring Station											
AMS	-	-	-	60 x 72	300 - 3000	-	-				
Air Measuring - Pressure Differential											
AMD-23	3V	Galvanized Steel	1A	144 x 148	300 - 2000	4	Air Performance/ Air Leakage				
AMD-33	Airfoil	Galvanized Steel	1A	120 x 148	300 - 3000	4	Air Performance/ Air Leakage				
AMD-42	Airfoil	Aluminum	1A	120 x 148	300 - 3000	4	-				
AMD-42V	Airfoil - Vertical	Aluminum	1A	74 x 48	300 - 3000	4	-				

*Maximum size can be single or multiple sections.

DWG files will open with AutoCAD or DWG Viewer.

Model	Frame Material	Blade Material	Velocity (FPM)	Pressure (in. wg)	Counter Balance	Airflow Direction			Mounting Position	AMCA Listing	Submittal	Installation Instructions	CSI Specs	DWG Drawings
						Vertical Up	Vertical Down	Horizontal						
Commercial Backdraft														
BD-100	Galv. Steel	Aluminum	1500	2		✓			Horizontal	Air Performance/ Air Leakage		-		
BD-300	Galv. Steel	Aluminum	1500	2				✓	Vertical	Air Performance/ Air Leakage		-		
EM-1x Series	Aluminum	Aluminum	3500	10	✓	✓			Horizontal	Air Performance/ Air Leakage				
EM-3x Series	Aluminum	Aluminum	3500	10	✓			✓	Vertical	Air Performance/ Air Leakage				
EM-4x Series	Aluminum	Aluminum	3500	10	✓		✓		Horizontal					
EMV-11	Aluminum	Aluminum	3500	10	✓	✓			Horizontal				-	-
GM-3x Series	Galv. Steel	Aluminum	3500	10	✓			✓	Vertical				-	
WD-1xx Series	Galv. Steel	Aluminum	2500	1		✓			Horizontal			-		
WD-2xx Series	Galv. Steel	Aluminum	2500	1		✓	✓	✓	Horizontal, Vertical			-		
WD-3xx Series	Galv. Steel	Aluminum	2500	2				✓	Vertical			-		
WD-340	Galv. Steel	Aluminum	2500	2				✓	Vertical			-		
WD-400, 420, 430	Galv. Steel	Aluminum	2500	2				✓	Vertical			-		
WD-410	Galv. Steel	Aluminum	2500	2			✓		Horizontal			-		

*Maximum size can be single or multiple sections.

DWG files will open with AutoCAD or DWG Viewer.

Model	Frame Material	Blade Material	Velocity (FPM)	Pressure (in. wg)	Counter Balance	Airflow Direction					Mounting Position	Submittal	Installation Instructions	CSI Specs	DWG Drawings
						Vertical Up	Vertical Down	Horizontal	Angular Up	Angular Down					
True Round Commercial Backdraft															
WDR-53	Galv. Steel	Aluminum	2000	3		✓	✓	✓			Horizontal, Vertical		-		
SSWDR-53	304SS	304SS	2000	3		✓	✓	✓			Horizontal, Vertical		-		
Heavy-Duty/Industrial Backdraft															
HB-110	Galv. Steel	Aluminum	3900	5	✓	✓	✓	✓	✓	✓	Horizontal, Vertical				
HB-120	Galv. Steel	Galv. Steel	5150	8.5	✓	✓	✓	✓	✓	✓	Horizontal, Vertical				
HB-230	Galv. Steel	Galv. Steel	5150	13.5	✓	✓	✓	✓	✓	✓	Horizontal, Vertical				
HB-240	Galv. Steel	Aluminum	5150	13.5	✓	✓	✓	✓	✓	✓	Horizontal, Vertical				
HB-330	Galv. Steel	Galv. Steel	6400	20	✓	✓	✓	✓	✓	✓	Horizontal, Vertical				
True Round Heavy-Duty/Industrial Backdraft															
HBR-050	Painted Steel	Painted Steel	3000	6	✓	✓	✓	✓			Horizontal, Vertical				
HBR-150	Painted Steel	Painted Steel	4000	6	✓	✓	✓	✓			Horizontal, Vertical				

*Maximum size can be single or multiple sections.

DWG files will open with AutoCAD or DWG Viewer.

Model	Blade Type	Damper Maximum Size	Velocity (FPM)	Pressure (in. wg)	Operator	Submittal	Installation Instructions	CSI Specs	DWG Drawings
Automatic Balancing Dampers									
ABD	Thermoplastic Round	8	425 cfm	2	-				
ABD-RB	Thermoplastic Round	8	425 cfm	2	-				
ABD-T	Thermoplastic Round	8	425 cfm	2	-				
ABD-FD	Thermoplastic Round/Curtain	6	275 cfm	2	-			-	
ABD-Z1	Thermoplastic Round/Galv. Steel	6	275 cfm	2	Actuator				
ABD-Z2	Thermoplastic Round/Galv. Steel	6	275 cfm	2	Actuator				
Manual Balancing Dampers									
MBD-10	Single Blade	36 x 12	2000	2	Manual Quadrant or Cable Operated				
MBD-15	3V	96 x 96	2000	4	Manual Quadrant or Cable Operated				
MBDR-50	True Round	24	2000	1	Manual Quadrant or Cable Operated		-		
Remote Balancing Dampers									
RBD-10	Single Blade	36 x 12	2000	1	Remote Control with 9 Volt Actuator				
RBD-15	Multi-Blade	4 sq. ft.	2000	4	Remote Control with 9 Volt Actuator				
RBDR-50	True Round	24	2000	1	Remote Control with 9 Volt Actuator				
Bowtie Damper									
BTDR-50	True Round	15	1600	1	Cable Operated			-	

*Maximum size can be single or multiple sections.

DWG files will open with AutoCAD or DWG Viewer.

Model	Blade Type	Fire Resistance Rating*	Leakage Class	Damper Maximum Size (Inches)			Submittal	Installation Instructions	CSI Specs	DWG Drawings
				Roof/Floor Assembly	Wood Truss Assembly	Wood Joist Assembly				
Ceiling Radiation Dampers										
CRD-1	Butterfly	3 Hour	-	24 x 24	-	-				
CRD-1WJ	Butterfly	1 Hour (UL Wood Joist)	-	-	-	16 x 12				
CRD-1WT	Butterfly	1 Hour (UL Wood Truss)	-	-	21 x 18	-				
CRD-2	Round Butterfly	3 Hour	-	24	-	-				
CRD-2WT	Butterfly	1 Hour (UL Wood Truss)	-	-	12 x 12	-				
CRD-60	Curtain	3 Hour	-	24 x 24	-	-				
CRD-60X	Curtain w/Insulation skirt	3 Hour	-	24 x 24	-	-				
Ceiling Radiation Dampers Leakage Rated										
CRD-501	True Round	3 Hour	I	12	-	-				

* Fire rated floor/ceiling assemblies.

DWG files will open with AutoCAD or DWG Viewer.

Model	Blade Type	Fire Resistance Rating	Leakage Class	Damper Maximum Size*		Velocity (FPM)	Pressure (in. wg)	AMCA Listing	Submittal	Installation Instructions	CSI Specs	Drawings	
				Horizontal	Vertical							DWG	Revit
Corridor Fire Smoke													
CFSD-211	3V	1 hour corridor	I	24 x 24	24 x 24	2000	6	Air Performance					-
Traditional Combination Fire Smoke													
FSD-211	3V	1½ hour	I	144 x 96	128 x 100	2000	6	Air Performance					
FSD-212	3V	1½ hour	II	144 x 96	128 x 100	2000	6	Air Performance					
FSD-213	3V	1½ hour	III	144 x 96	128 x 100	2000	6	Air Performance					
FSD-311	Airfoil	1½ hour	I	144 x 96	128 x 100	4000	8	Air Performance					
FSD-312	Airfoil	1½ hour	II	144 x 96	128 x 100	4000	8	Air Performance					
FSD-331	Airfoil	3 hour	I	120 x 96	120 x 96	4000	8	Air Performance					
SEFSD-211	3V	1½ hour	I	48 x 30	88 x 72	2000	6	Air Performance					
Modulating Fire Smoke													
FSD-211M	3V	1½ hour	I	72 x 72	72 x 72	2000	4	Air Performance					
FSD-311M	Airfoil	1½ hour	I	72 x 72	72 x 72	2000	4	Air Performance					
Vertical Blade Fire Smoke													
FSD-311V	Airfoil	1½ hour	I	-	100 x 32	4000	4	-					
Out of Wall Fire Smoke													
GFSD-211	3V	1½ hour	I	48 x 48	48 x 48	2000	4	-					
OFSD-211	3V	1½ hour	I	36 x 36	36 x 36	2000	6	Air Performance					
OfSD-212	3V	1½ hour	II	36 x 36	36 x 36	2000	6	Air Performance					
OFSD-311	Airfoil	1½ hour	I	32 x 30	32 x 30	4000	4	Air Performance					
True Round Fire Smoke													
FSDR-511	True Round	1½ hour	I	24	24	4000	4	-					
SSFSDR-511	True Round	1½ hour	I	24	24	4000	4	-					

*Maximum size can be single or multiple sections.

DWG files will open with AutoCAD or DWG Viewer.

Model	Blade Type	Damper Maximum Size	Velocity (FPM)	Pressure (in. wg)	Leakage Class @ 1 in. wg	AMCA Listing	Submittal	Installation Instructions	CSI Specs	Drawings	
										DWG	Revit
Commercial Control											
VCD-20	3V	Unlimited	3000	5	-	Air Performance					
VCD-23	3V	Unlimited	3000	5	1A	Air Performance Air Leakage					
VCD-33	Airfoil	Unlimited	4000	8	1A	Air Performance Air Leakage					
VCD-34	Insulated Airfoil	Unlimited	4000	8	1A	Air Performance Air Leakage					
VCD-40	Airfoil	Unlimited	6000	6	1A	Air Performance					
VCD-42	Extruded Airfoil	Unlimited	6000	6	1A	-					
VCD-43	Extruded Airfoil	Unlimited	6000	8	1A	Air Performance Air Leakage					
SEVCD-23	3V	Unlimited	3000	5	1A	Air Performance Air Leakage					
SEVCD-33	Airfoil	Unlimited	4000	8	1A	Air Performance Air Leakage					
Face & Bypass Control											
FBV-23	3V	96 x 74	3000	5	1A	-					-
Vertical Blade Control											
VCD-23V	3V	148 x 96	3000	5	1A	-					
VCD-33V	Airfoil	148 x 120	4000	8	1A	-					
VCD-34V	Insulated Airfoil	148 x 120	4000	8	1A	-					
VCD-43V	Extruded Airfoil	156 x 120	6000	8	1A	-					

Control Dampers continued on next page....

*Maximum size can be single or multiple sections.

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Model	Blade Type	Damper Maximum Size	Velocity (FPM)	Pressure (in. wg)	Leakage Class @ 1 in. wg	AMCA Listing	Submittal	Installation Instructions	CSI Specs	Drawings	
										DWG	Revit
Insulated Thermally Broken Control											
ICD-44	Extruded Aluminum Thermally Broken Blade	180 x 156	4000	8	1A	Air Performance/ Air Leakage/ Efficiency					-
ICD-45	Extruded Aluminum Thermally Broken Blade and Frame	180 x 156	4000	8	1A	Air Performance/ Air Leakage/ Efficiency					-
True Round Control											
VCDR-50	True Round	24	3000	4	-	-					-
VCDR-53	True Round	24	3000	4	1	-					-
True Round Multiblade Control Dampers											
VCDRM-53	Single Thickness	48	2500	5	1	-					-

*Maximum size can be single or multiple sections.

DWG files will open with AutoCAD or DWG Viewer.

Model	Blade Type	Damper Maximum Size	Velocity (FPM)	Pressure (in. wg)	Maximum Temperature	Submittal	Installation Instructions	CSI Specs	Drawings	
									DWG	Revit
Heavy-Duty Industrial Control Dampers										
HCD-120	3V	96 x 96	3000	8.5	400°F					
HCD-130	Airfoil	120 x 96	4000	8.5	400°F					
HCD-130-LE	Airfoil	57 x 57	4000	8.5	400°F					-
HCD-135	Insulated Airfoil	120 x 96	4000	8.5	250°F					-
HCD-220	3V	96 x 96	4000	15	600°F					-
HCD-221	Flat Dual Skin w/ Perimeter Seal	96 x 60	4000	10	400°F					-
HCD-230	Airfoil	120 x 96	5000	15	600°F					-
HCD-230-LE	Airfoil	78 x 75⅞	5000	15	600°F					-
HCD-240	Extruded Airfoil	120 x 96	5000	15	250°F					-
HCD-330	Airfoil	120 x 96	5000	25	600°F					-
HCD-430	Airfoil	120 x 96	6000	35	600°F					-
HCD-530	Airfoil	120 x 96	6000	45	600°F					-
Heavy-Duty/Industrial Round Control Dampers										
HCDR-050	True Round	24	3000	6	250°F					-
HCDR-150	True Round	48	4000	6	400°F					-
HCDR-152	Two-Blade	48	4000	6	400°F					-
HCDR-250	True Round	72	5150	13.5	600°F					-
HCDR-350	True Round	72	6400	20	1000°F					-
HCDR-351	True Round	48	6500	20	400°F					-
HCDR-450	True Round	60	7000	30	400°F					-

*Maximum size can be single or multiple sections.

DWG files will open with AutoCAD or DWG Viewer.

Model	Blade Type	Fire Resistance Rating	Closure Rating	Damper Maximum Size*		Velocity (FPM)	Pressure (in. wg)	Submittal	Installation Instructions	CSI Specs	DWG Drawings
				Horizontal	Vertical						
Multiblade Fire											
DFD-210	3V	1½ hour	Dynamic	128 x 96	128 x 100	4000	10				
DFDAF-310	Airfoil	1½ hour	Dynamic	144 x 96	128 x 100	4000	8				
DFDAF-330	Airfoil	3 hour	Dynamic	144 x 96	120 x 96	4000	8				
SEDFD-210	3V	1½ hour	Dynamic	48 x 30	48 x 30	4000	10				
Out of Wall Fire											
ODFD-150	Curtain	1½ hour	Dynamic	36 x 36	36 x 36	4000	4				
OFD-150	Curtain	1½ hour	Static	36 x 36	36 x 36	-	-				
True Round Fire											
DFDR-510	True Round	1½ hour	Dynamic	24	24	2000	4				
SSDFDR-510	True Round	1½ hour	Dynamic	24	24	2000	4				
Traditional Curtain Fire											
DFD-110	Curtain	1½ hour	Dynamic	48 x 36	72 x 48 or 60 x 60	4000	4				
DFD-150	Curtain	1½ hour	Dynamic	48 x 36	72 x 48 or 60 x 60	4000	4				
DFD-310	Curtain	3 hour	Dynamic	48 x 36	48 x 48	4000	4				
DFD-350	Curtain	3 hour	Dynamic	48 x 36	48 x 48	4000	4				

Fire Dampers cont...

*Maximum size can be single or multiple sections.

DWG files will open with AutoCAD or DWG Viewer.

Model	Blade Type	Fire Resistance Rating	Closure Rating	Damper Maximum Size*		Velocity (FPM)	Pressure (in. wg)	Submittal	Installation Instructions	CSI Specs	DWG Drawings
				Horizontal	Vertical						
Traditional Curtain Fire continued...											
FD-110	Curtain	1½ hour	Static	96 x 48	96 x 48	-	-				
FD-150	Curtain	1½ hour	Static	96 x 48 or 120 x 40	96 x 48 or 120 x 40 or 74 x 74	-	-				
FD-310	Curtain	3 hour	Static	-	48 x 48	-	-				
FD-350	Curtain	3 hour	Static	80 x 40	48 x 48	-	-				
SSDFD-150	Curtain	1½ hour	Dynamic	-	30 x 30	2000	4				
SSDFD-350	Curtain	3 hour	Dynamic	-	30 x 30	2000	4				
SSFD-150	Curtain	1½ hour	Static	48 x 48	96 x 48 or 120 x 40	-	-				
SSFD-350	Curtain	3 hour	Static	-	48 x 48	-	-				
Curtain Fire - Integral Sleeve											
DFD-150X12	Curtain	1½ hour	Dynamic	30 x 30	36 x 36	4000	4				
DFD-150X16	Curtain	1½ hour	Dynamic	30 x 30	36 x 36	4000	4				
FD-150X12	Curtain	1½ hour	Static	48 x 48	48 x 48	-	-				
FD-150X16	Curtain	1½ hour	Static	48 x 48	48 x 48	-	-				

*Maximum size can be single or multiple sections.

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Model	Blade Type	Leakage Class	Damper Maximum Size*		Velocity (FPM)	Pressure (in. wg)	AMCA Listing	Submittal	Installation Instructions	CSI Specs	Drawings	
			Horizontal	Vertical							DWG	Revit
Traditional Smoke												
SMD-201	3V	I	144 x 100 or 288 x 50	144 x 100 or 288 x 50	2000	6	Air Performance					
SMD-201M	3V	I	72 x 72	72 x 72	2000	4	Air Performance					
SMD-202	3V	II	144 x 100 or 288 x 50	144 x 100 or 288 x 50	2000	6	Air Performance					
SMD-301	Airfoil	I	128 x 100 or 256 x 50	128 x 100 or 256 x 50	4000	8	Air Performance					
SMD-301M	Airfoil	I	72 x 72	72 x 72	2000	4	Air Performance					
SMD-302	Airfoil	II	128 x 100 or 256 x 50	128 x 100 or 256 x 50	4000	8	Air Performance					
SMD-401	Extruded Airfoil	I	192 x 100	192 x 100	3000	6	-					
SMD-401EF	Extruded Airfoil	I	192 x 120	192 x 120	3000	6	Air Performance					
SMD-401M	Extruded Airfoil	I	72 x 72	72 x 72	2000	4	-					
SESMD-201	3V	I	48 x 30	88 x 72	2000	6	Air Performance					
Vertical Blade Smoke												
SMD-301V	Airfoil	I	-	100 x 32	4000	4	-					
True Round Smoke												
SMDR-501	True Round	I	24	24	3000	4	-					-
SSSMDR-501	True Round	I	24	24	3000	4	-					-

*Maximum size can be single or multiple sections.

DWG files will open with AutoCAD or DWG Viewer.

Model	Frame Material	Blade Material	Counter Balance	Velocity (FPM)	Back Pressure (in. wg)	Airflow Direction			Mounting Position	Submittal	Installation Instructions	CSI Specs	DWG Drawings
						Vertical Up	Vertical Down	Horizontal					
Barometric Relief													
BR-1x Series	Galv. Steel	Aluminum	✓	2000	2	✓			Horizontal				
BR-3x Series	Galv. Steel	Aluminum	✓	2000	2			✓	Vertical				
BR-4x Series	Galv. Steel	Aluminum	✓	2000	2		✓		Horizontal				
SEBR-1x Series	316SS	316SS	✓	2000	2	✓			Horizontal				
SEBR-3x Series	316SS	316SS	✓	2000	2			✓	Vertical				
SEBR-4x Series	316SS	316SS	✓	2000	2		✓		Horizontal				
Heavy-Duty/Industrial Pressure Relief													
HPR-120	Galv. Steel	Galv. Steel	✓	5150	8.5	✓	✓	✓	Horizontal, Vertical				
HPR-230	Galv. Steel	Galv. Steel	✓	5150	13.5	✓	✓	✓	Horizontal, Vertical				
HPR-330	Galv. Steel	Galv. Steel	✓	6400	20	✓	✓	✓	Horizontal, Vertical				

*Maximum size can be single or multiple sections.

DWG files will open with AutoCAD or DWG Viewer.

Model	Blade Type	Damper Maximum Size	Velocity (FPM)	Pressure (in. wg)	Maximum Temperature	Submittal	Installation Instructions	CSI Specs	Drawings	
									DWG	Revit
Heavy-Duty Industrial Control Dampers										
HCD-120	3V	96 x 96	3000	8.5	400°F					
HCD-130	Airfoil	120 x 96	4000	8.5	400°F					
HCD-130-LE	Airfoil	57 x 57	4000	8.5	400°F					-
HCD-135	Insulated Airfoil	120 x 96	4000	8.5	250°F					-
HCD-220	3V	96 x 96	4000	15	600°F					-
HCD-221	Flat Dual Skin w/ Perimeter Seal	96 x 60	4000	10	400°F					-
HCD-230	Airfoil	120 x 96	5000	15	600°F					-
HCD-230-LE	Airfoil	78 x 75⅞	5000	15	600°F					-
HCD-240	Extruded Airfoil	120 x 96	5000	15	250°F					-
HCD-330	Airfoil	120 x 96	5000	25	600°F					-
HCD-430	Airfoil	120 x 96	6000	35	600°F					-
HCD-530	Airfoil	120 x 96	6000	45	600°F					-
Heavy-Duty/Industrial Round Control Dampers										
HCDR-050	True Round	24	3000	6	250°F					-
HCDR-150	True Round	48	4000	6	400°F					-
HCDR-152	Two-Blade	48	4000	6	400°F					-
HCDR-250	True Round	72	5150	13.5	600°F					-
HCDR-350	True Round	72	6400	20	1000°F					-
HCDR-351	True Round	48	6500	20	400°F					-
HCDR-450	True Round	60	7000	30	400°F					-

Heavy-Duty Dampers continued on next page...

*Maximum size can be single or multiple sections.

DWG files will open with AutoCAD or DWG Viewer.

Model	Frame Material	Blade Material	Counter Balance	Velocity (FPM)	Back Pressure (in. wg)	Airflow Direction			Mounting Position	Submittal	Installation Instructions	CSI Specs	DWG Drawings
						Vertical Up	Vertical Down	Horizontal					
Heavy-Duty/Industrial Pressure Relief													
HPR-120	Galv. Steel	Galv. Steel	✓	5150	8.5	✓	✓	✓	Horizontal, Vertical				
HPR-230	Galv. Steel	Galv. Steel	✓	5150	13.5	✓	✓	✓	Horizontal, Vertical				
HPR-330	Galv. Steel	Galv. Steel	✓	6400	20	✓	✓	✓	Horizontal, Vertical				

Model	Frame Material	Blade Material	Velocity (FPM)	Pressure (in. wg)	Airflow Direction					Mounting Position	Submittal	Installation Instructions	CSI Specs	DWG Drawings
					Vertical Up	Vertical Down	Horizontal	Angular Up	Angular Down					
Heavy-Duty/Industrial Backdraft														
HB-110	Galv. Steel	Aluminum	3900	5	✓	✓	✓	✓	✓	Horizontal, Vertical				
HB-120	Galv. Steel	Galv. Steel	5150	8.5	✓	✓	✓	✓	✓	Horizontal, Vertical				
HB-230	Galv. Steel	Galv. Steel	5150	13.5	✓	✓	✓	✓	✓	Horizontal, Vertical				
HB-240	Galv. Steel	Aluminum	5150	13.5	✓	✓	✓	✓	✓	Horizontal, Vertical				
HB-330	Galv. Steel	Galv. Steel	6400	20	✓	✓	✓	✓	✓	Horizontal, Vertical				
True Round Heavy-Duty/Industrial Backdraft														
HBR-050	Galv. Steel	Galv. Steel	3000	6	✓	✓	✓			Horizontal, Vertical				
HBR-150	Painted Steel	Painted Steel	4000	6	✓	✓	✓			Horizontal, Vertical				

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Model	Damper Maximum Size	Velocity (FPM)	Pressure (in. wg)	Maximum Temperature	Submittal	Installation Instructions	CSI Specs	DWG Drawings
Blast Damper								
HBS-330	77 x 96	4000	160 (5.77 psi)	250°F				
HBS-430	36 x 48	4000	415 (15 psi)	250°F				
Tornado Damper								
HTOD-330	48 x 60	4000	83 (3 psi)	250°F				

Model	Blade Type	Velocity (FPM)	Pressure (in. wg)	Maximum Temperature	Submittal	Installation Instructions	CSI Specs	Drawings	
								DWG	Revit
True Round Bubble-Tight Damper									
HBTR-151	True Round	3900	10	250°F					
HBTR-451	True Round	6500	30	250°F					-
HBTR-551	True Round	6500	40	250°F					-
Rectangular Bubble-Tight Damper									
HBT-221	Rectangular	4000	10	250°F					-
HBT-321	Rectangular	4000	20	250°F					-

Model	Type	Heater Max Size	Max Capacity	Airflow Direction	Submittal	Installation Instructions	CSI Specs	Drawings	
								DWG	Revit
Duct Heaters									
IDHB	Basic	36 x 36 or 35 x 34	39.9 kW	Horizontal, Vertical Up				-	
IDHE	Universal	120 x 144	478.8 kW	Universal					
IDHE-O	Universal - Outdoor	120 x 58	478.8 kW	Universal				-	

*Maximum size can be single or multiple sections.

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