THERMALLY INSULATED CONTROL DAMPERS

BEST IN CLASS

- AMCA Certified Industry Leading Leakage Class 1 and 1A*
- Complies with the International Energy Conservation Code

***BEST IN CLASS**

Leakage Class 1A: 3 cfm/ft² @ 1" wg. at 60" wide

Leakage Class 1: 12.6 cfm/ft² @ 10" wg. at 60" wide

POTTORFF®

www.pottorff.com

THERMAL DAMPER CONSTRUCTION

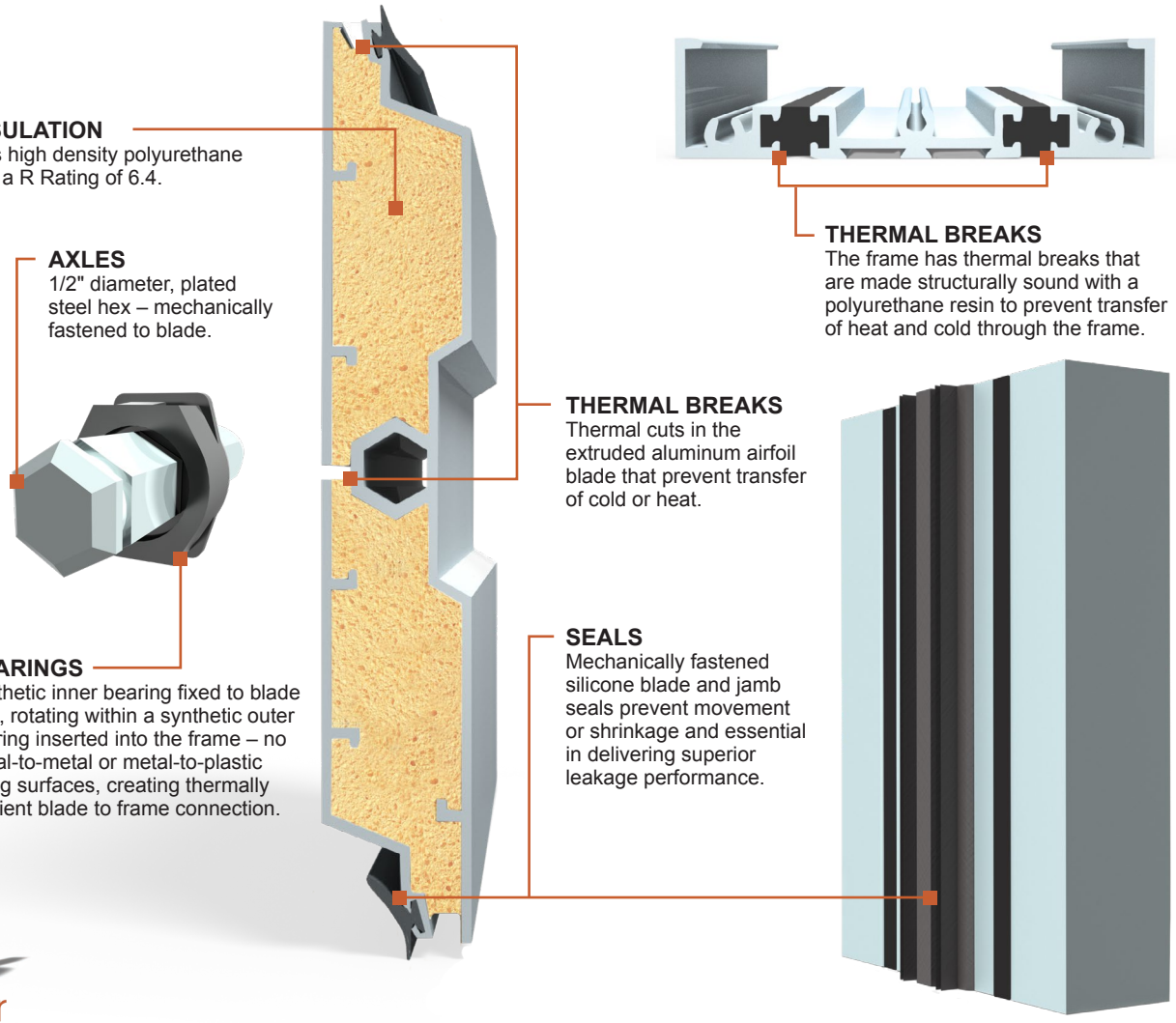
Pottorff's TICD-51BF, TICD-52BF, TICD-51BFX and TICD-52BFX control dampers employ thermally insulated and broken aluminum airfoil blades and a thermally broken aluminum channel frame to eliminate the transfer of cold or heat penetration and reduce condensation. For those occasions where it is not necessary to have maximum thermal protection, the TICD-51 and TICD-52 control dampers with thermally insulated and broken aluminum airfoil blades and a standard aluminum channel frame can be used.

BLADE

High density, polyurethane injected, heavy gauge airfoil, thermally broken to ensure there is no thermal path, eliminates thermal transfer.

FRAME

Rugged channel with polyurethane resin pockets with thermal cuts to prevent transfer of cold or heat.



INSULATION
This high density polyurethane has a R Rating of 6.4.

AXLES
1/2" diameter, plated steel hex – mechanically fastened to blade.

BEARINGS
Synthetic inner bearing fixed to blade axle, rotating within a synthetic outer bearing inserted into the frame – no metal-to-metal or metal-to-plastic riding surfaces, creating thermally efficient blade to frame connection.

THERMAL BREAKS
Thermal cuts in the extruded aluminum airfoil blade that prevent transfer of cold or heat.

SEALS
Mechanically fastened silicone blade and jamb seals prevent movement or shrinkage and essential in delivering superior leakage performance.

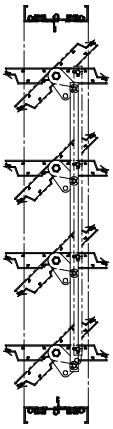
THERMAL BREAKS
The frame has thermal breaks that are made structurally sound with a polyurethane resin to prevent transfer of heat and cold through the frame.

5 year warranty all products

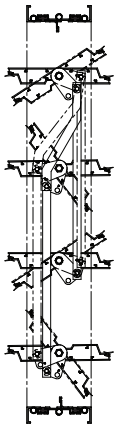
THERMALLY INSULATED CONTROL DAMPERS

All models of the TICD dampers provide extreme low leakage air control in medium to high pressure and velocity applications. All of these dampers comply with the IECC (International Energy Conservation Code) with a maximum leakage rating of 3 cfm/ft² at 1 in. wg. All models can be used in systems having a maximum velocity of 4000 fpm and a maximum pressure of 11.8 in. wg.

TICD-51
TICD-52
TICD-51BF
TICD-52BF
TICD-51BFX
TICD-52BFX



TICD-51 SERIES PARALLEL



TICD-52 SERIES OPPOSED

AMCA CERTIFIED AIR LEAKAGE

MAXIMUM DAMPER WIDTH	*LEAKAGE CLASS			
	@ 1in. wg.	@ 4in. wg.	@ 8in. wg.	@ 10in. wg.
60"	1A	1	1	1

* **Leakage Class Definitions:**

Leakage Class 1A:	3 cfm/ft² @ 1 in. wg (0.015 m³/s/ m² @ 0.25 kPa)	**BEST IN CLASS**
Leakage Class 1:	4 cfm/ft² @ 1 in. wg (0.020 m³/s/ m² @ 0.25 kPa)	
	8 cfm/ft² @ 4 in. wg (0.41 m³/s/ m² @ 1.0 kPa)	
	11 cfm/ft² @ 8 in. wg (0.056 m³/s/ m² @ 2.0 kPa)	
	12.6 cfm/ft² @ 10 in. wg (0.064 m³/s/ m² @ 2.5 kPa)	**BEST IN CLASS**

Certified Ratings:
Pottorff certifies that the models TICD-51 and TICD-52 shown herein are licensed to bear the AMCA seal. The ratings shown are based on test and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings seal applies to Air Performance and Air Leakage.

Certified Ratings:
Pottorff certifies that the models TICD-51BF, TICD-52BF, TICD-51BFX and TICD-52BFX shown herein are licensed to bear the AMCA seal. The ratings shown are based on test and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings seal applies to Air Performance, Air Leakage and Energy Efficiency Ratings.

PRESSURE LOSS VS. VELOCITY (AMCA CRP TEST SIZES)

	PRESSURE LOSS (in. wg.)	
AMCA FIG	@1000 FPM	@4000 FPM
5.2 DUCTED INLET	0.06 to 0.10	0.95 to 1.7
5.3 DUCTED INLET AND OUTLET	0.02 to 0.04	0.40 to 0.63
5.5 PLENUM MOUNT	0.15 to 0.19	2.5 to 3.3

AMCA CRP TEST SIZES 12"×12", 24"×12", 36"×36", 12"×48" and 48"×12"

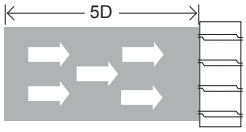


FIG 5.2

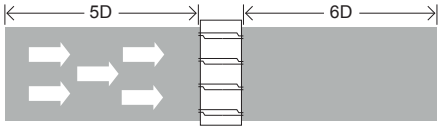


FIG 5.3

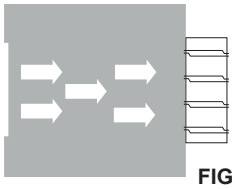


FIG 5.5

DUCTED INLET

AMCA Figure 5.2 Illustrates a ducted damper exhausting air into an open area.This configuration has a lower pressure drop than Figure 5.5 because entrance losses are minimized by a straight duct run upstream of the damper.

DUCTED INLET AND OUTLET

AMCA Figure 5.3 Illustrates a fully ducted damper. This configuration represents the lowest pressure drop of the three test configurations because entrance and exit losses are minimized by straight duct runs upstream and downstream of the damper.

PLENUM MOUNT

AMCA Figure 5.5 Illustrates a plenum mounted damper. This configuration has the highest pressure drop because of extremely high entrance and exit losses due to the sudden changes of area in the system.

Pottorff's answer to the problem of extreme temperatures… Our industry leading thermally insulated control dampers.

WE MANUFACTURE SOLUTIONS.

5 year warranty all products

THERMALLY INSULATED CONTROL DAMPER SELECTION GUIDE

MODEL	FRAME	BLADES	TEMP.	AMCA CERT. EFFICIENCY RATIO
TICD-51	STANDARD	THERMALLY INSULATED, BROKEN, PARALLEL	-45°F to 212°F	NA
TICD-52	STANDARD	THERMALLY INSULATED, BROKEN, OPPOSED	-45°F to 212°F	NA
TICD-51-BF	THERMALLY BROKEN	THERMALLY INSULATED, BROKEN, PARALLEL	-70°F to 212°F	477%
TICD-52-BF	THERMALLY BROKEN	THERMALLY INSULATED, BROKEN, OPPOSED	-70°F to 212°F	425%
TICD-51-BFX	THERMALLY BROKEN	THERMALLY INSULATED, BROKEN, PARALLEL	-100°F to 212°F	477%
TICD-52-BFX	THERMALLY BROKEN	THERMALLY INSULATED, BROKEN, OPPOSED	-100°F to 212°F	425%

X = EXTREME TEMPERATURE

CROSS REFERENCE CHART

POTTORFF		GREENHECK		RUSKIN				TAMCO	
TICD-51	P			TED-50	P	TED50XT	P	9000	P
TICD-52	O	ICD-44	O	TED-50	O	TED50XT	O	9000	O
TICD-51-BF	P			CDTI-50	P			9000BF	P
TICD-52-BF	O	ICD-45	O	CDTI-50	O			9000BF	O
TICD-51-BFX	P							9000ECT	P
TICD-52-BFX	O							9000ECT	O

O = OPPOSED BLADE • P = PARALLEL BLADE

POTTORFF®

www.pottorff.com