ASHRAE 90.1 Standard

Description

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How purpose-built indoor pool dehumidifiers comply with ASHRAE 90.1 and save up to $442,265 in lifetime energy costs

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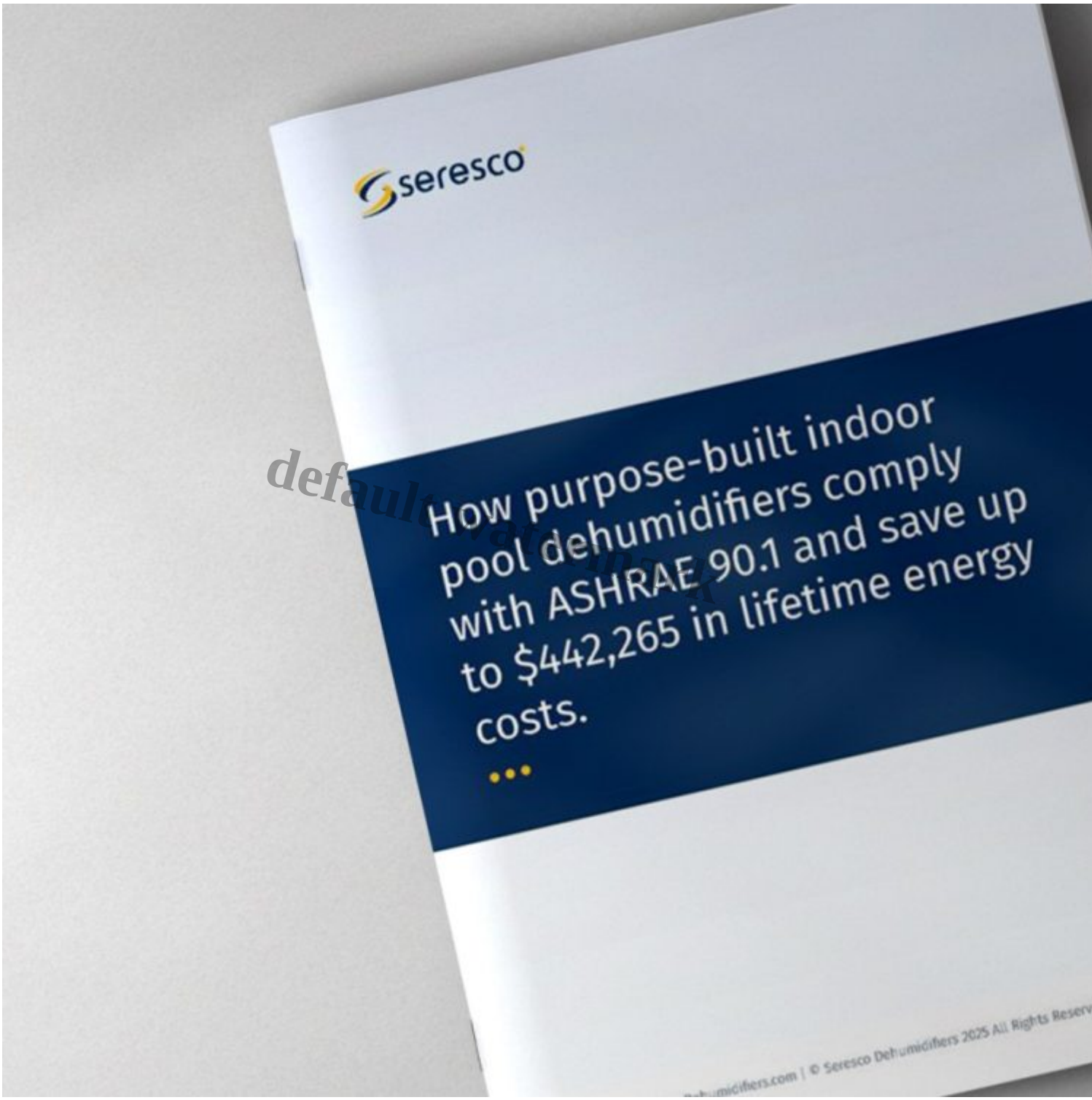

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Section 5 â??Technology compliance with ASHRAE 90.1

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WHY SERESCO

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Summary

Indoor pools are complex and require special attention to detail for a successful outcome.

Selecting purpose-built dehumidifiers is your best first step as they are designed to meet the unique demands of indoor pool environments. They are also designed with energy efficiency in mind, offering savings beyond what typical systems can provide. Due to the high energy demands of indoor pool humidity control, ASHRAE 90.1 mandates systems to maximize heat recovery and minimize auxiliary heat use.

Download the white paper to learn how purpose-built indoor pool dehumidifiers comply with ASHRAE 90.1 and save up to $442,265 in lifetime energy costs.

I- The right product will help in a successful indoor pool and result in the lowest energy cost.

Indoor pools are complex and require special attention to detail for a successful outcome. Selecting purpose-built dehumidifiers is your best first step as they are designed to meet the unique demands of indoor pool environments. They are also designed with energy efficiency in mind, offering savings beyond what typical systems can provide.

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II- Introducing ASHRAE standard 90.1.

The latest revision of ASHRAE Standard 90.1, titled Energy Standard for Buildings Except Low-Rise Residential Buildings (I-P Edition), requires pool water heating and space reheat to come from the compressor waste heat first before using a secondary heat source: ANSI/ASHRAE/IES 90.1-2022. Many municipalities or local jurisdictions adopt ASHRAE Standard 90.1-2022 into codes like IECC (International Energy Conservation Code), IBC (International Building Code), or local state codes.

Complying with the pool dehumidifier section has considerable operating cost savings. The pool water heater as a stand-alone option has a quick ROI, making it a valuable investment regardless of the energy code.

Seresco purpose-built dehumidifiers offers these two options that comply with ASHRAE 90.1:

a. Compressor waste heat recovery.

Dehumidification systems for pools greater than 400 ft² are required to use all of the condenser heat toward providing required pool water heating, space heating, or both before other means are used to meet those heating loads.

ASHRAE provides the calculations below to demonstrate the expected payback.

Pool Type	Hotel	YMCA	Olympic
Pool size (ft²)	450	3600	13,448
Pool water heater type	Natural gas	Natural gas	Natural gas
Fuel cost	$0.8243/therm	$0.8243/therm	$0.8243/therm
Annual cost savings	$969	$6,701	$29,513
Equipment design life	15	15	15
Lifetime energy savings	**$14,535**	**$100,515**	**$442,695**

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