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# Ventilation and Energy Efficiency in Welding Shops A Practical Guide

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# Ventilation and Energy Efficiency in Welding Shops

A Practical Guide



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# Acronyms and Abbreviations

Abbreviation	Term
ACGIH	American Conference of Governmental Industrial Hygienists
AWS	American Welding Society
BEI	Biological Exposure Index
CAV	Constant Air Volume
CIBSE	The Chartered Institution of Building Services Engineers
DER	Deep Energy Retrofit
DOE	U.S. Department of Energy
DOP	Dispersed Oil Particulate
FCAW	Flux-Cored Arc Welding
FRP	Fiber-Reinforced Polymer
GMAW	Gas Metal Arc Welding
GTAW	Gas Tungsten Arc Welding
HVAC	Heating, Ventilating, and Air-Conditioning
IESNA	Illuminating Engineering Society of North America
IMP	Insulated Metal Panel
LCC	Life Cycle Cost
MAK	Maximale Arbeitsplatz-Konzentration (Maximum Workplace Concentration)
MIG	Gas Metal Arc Welding
MSDS	Material Safety Data Sheets
MTHW	Medium Temperature Hot Water
MWF	Metal Working Fluids
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limits
PIE	Professional Investigative Engineers
SAW	Submerged Arc Welding
SMACNA	Sheet Metal and Air Conditioning Contractors' National Association, Inc.
SMAW	Shielded Metal Arc Welding



TEMF	Tactical Equipment Maintenance Facilities
TLV	Threshold Limit Values
UL	Underwriters Laboratories
USACE	U.S. Army Corps of Engineers
VAV	Variable Air Volume
VFD	Variable Frequency Drive
VGAI	VGAI
WBGT	Wet Bulb Globe Temperature

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