

The Economics and Truth about HVAC Asset Management with Testing and Restoration

VSPMA
June 8, 2026

Pure Air Controls Services (PACS) – Tremco's HVAC/Mechanical offering:



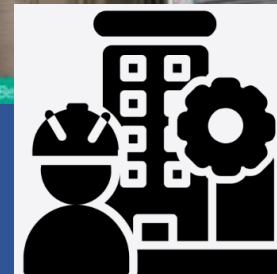
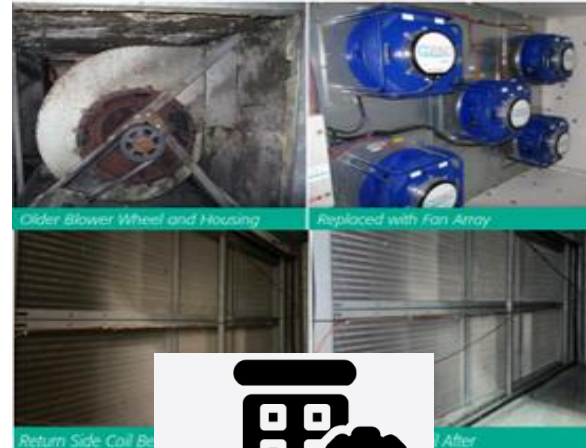
Assessments

- Assess AHUs
- Report conditions
- Provide pricing for restoration



Engineering

- In-house engineering team
- Design AHU restoration solutions.
- Licensed in all 50 states



Construction

- PACS Construction Managers
- Manage AHU restoration solutions
- Self-perform crews and/or in-market subcontractor network.



Maintenance

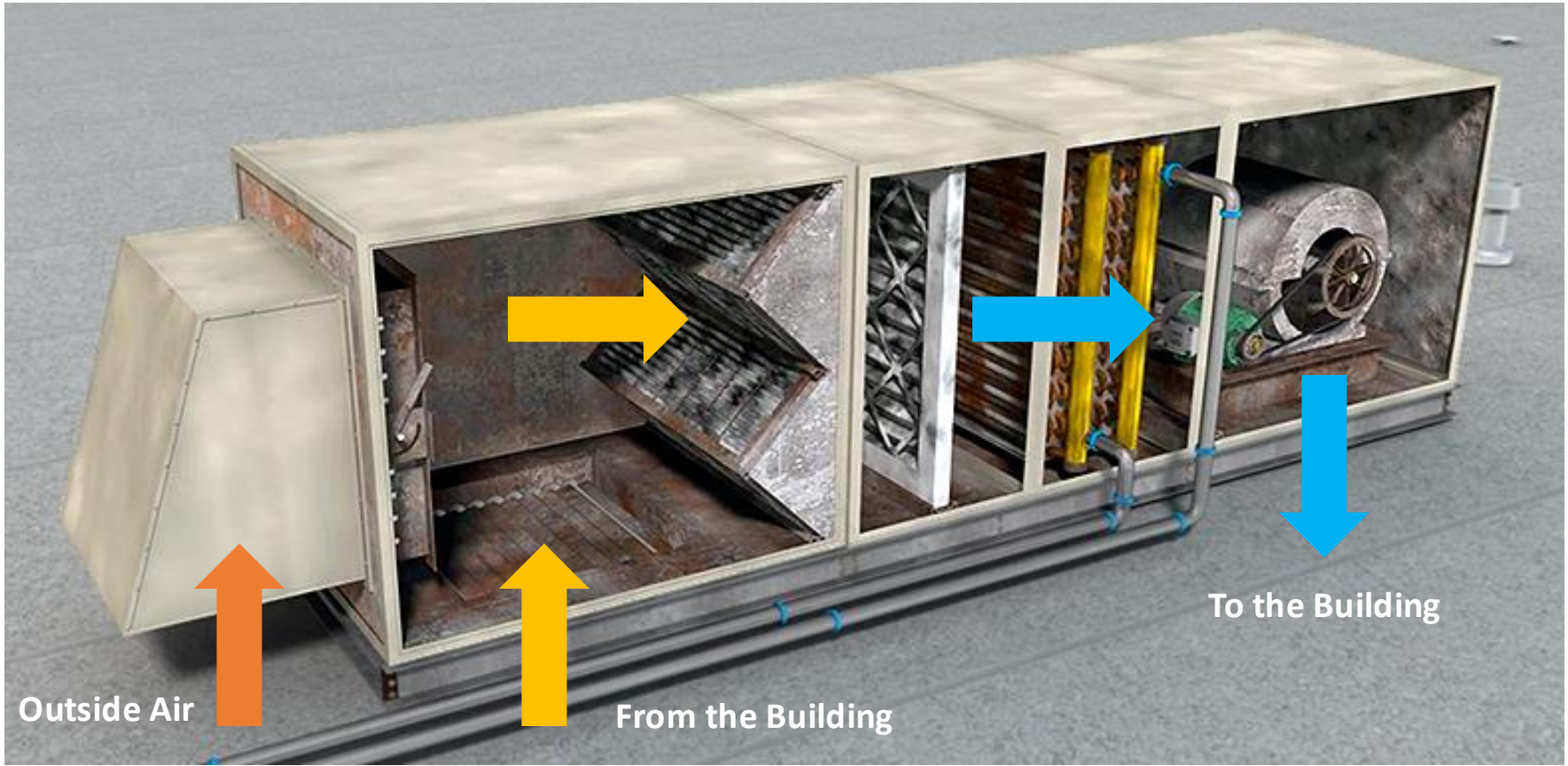
- 5-year warranties
 - Coatings
 - Insulation
 - Fan Array

Overview

Anatomy of a Chilled Water Air Handler Unit (AHU)



Fresh Air and
Return Side



Supply Side

To the Building

Outside Air

From the Building

HVAC Restoration Program Overview



STEP 1



HVAC Assessments

- Visual Conditions of Equipment
- Environmental Sampling & Analysis
- Supply & Return Ductwork Inspection
- Detailed Mechanical Inventory
- Maintenance Prioritization

STEP 2



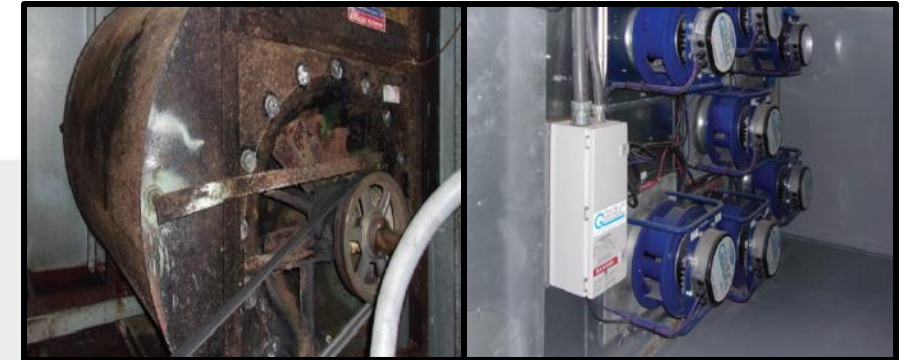
● Good Condition ● Restoration ● Replacement

HVAC Condition Reporting

Red
Amber
Green



STEP 3



HVAC Restoration

Capex Savings = 60% – 80%

Assessments

HVAC Assessments



HVAC Assessments SOW:

Tier 1: Visual Conditions of Equipment

- Local rep assessment
- Gather information to provide restoration budgets
 - Photos/Dimensions/Mechanical Schedule/etc.

Tier 2: Performance & Engineering

- Performance (Static Pressure, CFM, etc.)
- Environmental Sampling
- Red, Amber and Green Conditional Scale
- Reporting
- Restoration Overview Comparison / 5-year plan

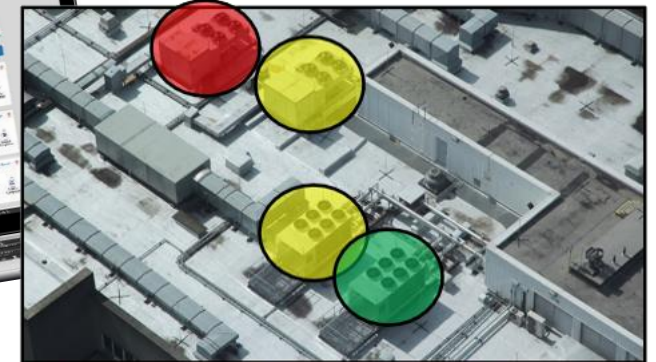
Brand:	Carrier air handler	Model:	39ED3629444		Serial:		Size (L-W-H)	80-58-100 inches	Dx or CW=	CW
Module 1		Model:			Serial:		Size (L-W-H)	Date in Service	1/1/1990	
Module 2		Model:			Serial:		Size (L-W-H)	Life Expectancy year	25	
Module 3		Model:			Serial:		Size (L-W-H)	Remaining Life*	13.19	
Component		Finish / Type		Fouling Level	Hygienic Recommendation		Aging Level	Refurbish/Upgrade		Additional Notes
Return Air Mix Plenum		Mechanical Room		4	Cleaning is highly recommended		5	Upgrade is recommended		Breaches on mechanical room wall need to be repaired
Filters Type/ MERV		2" Pleated	MERV 5 - 8	3	Replacement is recommended		3	Refurbish is recommended		
1st Cooling Coil		Aluminum	Fins	4	Cleaning is highly recommended		4	Refurbish is highly recommended		
1st Drain Pan		Sheetmetal		3	Cleaning is recommended		3	Refurbish is recommended		
Coil Cabinet		Sheetmetal /Closed Cell		3	Cleaning is recommended		2	None		
Blower Cabinet		Sheetmetal /Closed Cell		3	Cleaning is recommended		2	None		Heavy Moldiness
Blower Housing		Coated metal		3	Cleaning is recommended		2	None		
Blower Wheel		Metal		4	Cleaning is highly recommended		4	Upgrade is recommended		
Supply Air Plenum		Sheetmetal/ liner		6	Cleaning is highly recommended		4	Refurbish is highly recommended		Heavy Moldiness
Totals				33			29			
		Overall Score		61.1%			53.7%			



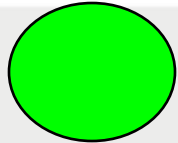
HVAC Condition Reporting



Build HVAC Restoration Program With Prioritization!

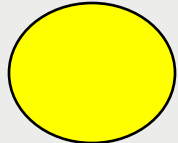


● Good Condition
 ● Restoration
 ● Replacement



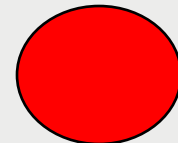
Good Condition – Score of 0-49

- Very little evidence of fouling/aging
- Maintenance + Repair Program



Restoration Condition – Score of 50-84

- Marginal fouling/aging
- Restoration Program



Replacement Condition – Score of 85-100

- Advance fouling/aging
- Replace Program before unit failure

#	AHU/ERU ID	Overall Score	#	AHU/ERU ID	Overall Score
1	AHU 201	28	17	ERU 602	53
2	AHU 1-5	31	18	AHU 3-1	54
3	ERU 601	35	19	AHU 4-4	56
4	AHU 605	37	20	AHU 1-7	58
5	ERU 604	38	21	AHU 2-3	58
6	ERU 603	40	22	AHU 4-3	63
7	AHU 4-1	42	23	AHU 602	67
8	AHU 607	45	24	AHU 2-2	69
9	AHU 601	46	25	ERU 4-2	69
10	AHU 4-2	46	26	AHU 1-1	73
11	AHU 1-3	46	27	AHU 1-2	81
12	AHU 606	47	28	ERU 1	86
13	AHU 2-1	48	29	AHU 3-3	87
14	AHU 1-6	48	30	ERU 2	88
15	AHU 604	50	31	AHU 1-4	92
16	AHU 603	52	32	AHU 3-2	96

Restoration

HVAC Restoration Process



PURE-Stream™

HVAC Hygienic Cleaning

- Disinfects Coils at up to 350° F & 350 psi
- Optimizes Airflow & Static Pressure
- Improves Energy Efficiency

1

ECM Fan Array Retrofit

- Built-in Redundancy
- No More Belts or Grease

5

PURE-Coat

Multicoat Siloxane Coating

- Anti-viral, Anti-microbial & Corrosion Resistant
- 10,000 Hour ASTM B-117 Salt Spray Test Certificate
- Low VOC Application

2

4

PURE-cell

HVAC Insulation System

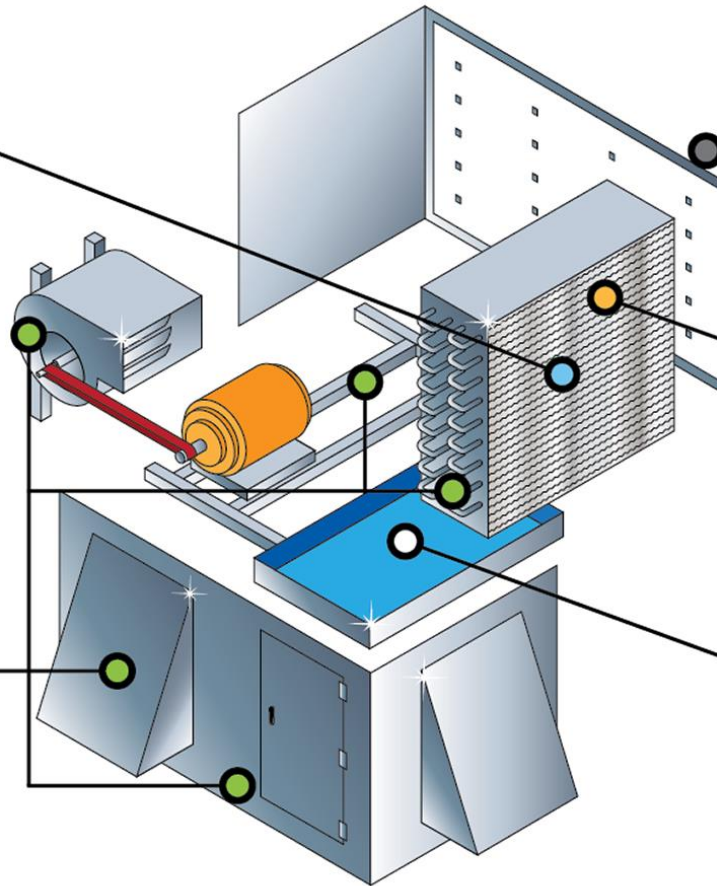
- Zero-Porosity
- Fiberglass Free
- Repels Moisture

3

PURE-Liner^{2.0}

Drain Pan Protection

- Anti-viral, Anti-microbial & Corrosion Resistant
- Exceeds ASTM E84 NFPA 25/50 Standards
- Low VOC Application



HVAC Restoration Process: A Sustainable Solution



[Restoration Video](#)



What is it?

PURE-Steam, high-performance coatings, new insulation, and retrofit options for major CAPEX savings

Process:

- PURE-Steam
- High Performance Coatings: Antiviral, Antimicrobial & Waterproof Coatings (Interior, Drain Pan and Exterior)
- Fiberglass Free Insulation
- Fan Array Retrofit

Savings / Benefits:

- 20%-50% Cost of New
 - Depending on Scope
- Pay with CAPEX, Save OPEX
- 5-year Warranty

PURE-Steam AHU Cleaning Program



What is it?

Thorough, deep sanitization utilizing high temperature and low-pressure steam along with bio-enzyme coil treatments.

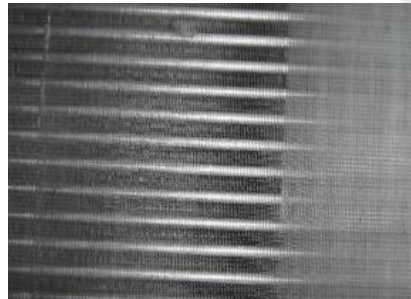


Process:

- Static Pressure Readings
 - Before & After
- Containment & Masking
- HEPA vacuum interior of AHU
- Steam Cleaning: 350-degree F
- Water Extraction & Final Flush

Benefits

- Improves IAQ & Performance
- Increases Energy Efficiency
- Reduces Work Orders
- Extends Equipment Life



HVAC Restoration Coatings



- Prep by sandblasting and/or hand sanding
- 2-part, multi-siloxane coating
 - Polyurethane
- Water-based for interior
- Solvent-based for exterior
- Low odor/VOC
- Tested for:
 - pH/Acid
 - Sea Salt
 - UV
- Designed and certified for use INSIDE the air conveyance system

HVAC Fan Retrofit Benefits



- Simple, Complete Retrofit
- ECM Fans
- Bulkhead/Array Assembly
- Point Power
- No VFDs, Grease or Belts
- Built-In Redundancies

Why Restore units?

A few major benefits of Restoration vs Replacement:

- Cost Savings: 20-50% the cost of a new unit
- 5-year warranty – New equipment (1 year on avg.)
- Difficult Locations – e. g. Tight Mechanical Rooms
- Equipment costs: Cranes, Temporary cooling units, etc.
- Lead times for new equipment
- Flexibility & Less disruption: Project execution is done outside normal hours vs. disruptions (noisy, traffic patterns changed, comfort compromised)
- Sustainability: No freight, no landfill, small carbon footprint



VA Success Stories: HVAC New Life



Riverside Health System – Riverside Regional Medical Center.

2 Roof Top Units

- Scope
 - PURE-Steam
 - PURE-Liner
 - PURE-Coat Exterior
 - PURE-Coat Interior
- Restorations prioritized and spread across fiscal year budgets.
- Mechanical Asset Preservation Plan in motion.

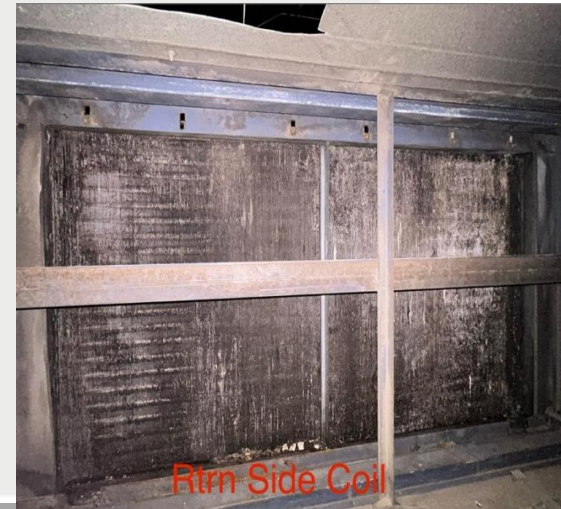


VA Success Stories: HVAC New Life

Sentara CarePlex Hospital – Hampton VA

Interior AHUs

- Scope
 - PURE-Steam
 - PURE-Liner
 - PURE-Coat Interior
- Unit replacement would be costly, disruptive and outside desired completion date.
- Restoration performed over off-hours in 4 shifts per AHU.



VA Success Stories: HVAC New Life

Bon Secours Richmond Community Hospital

2 AHUs

- Scope
 - PURE-Steam
- Emergency cleaning requested by customer.
- Onsite crew completed first AHU in 1 shift rather than scheduled 2 shifts.
- Used 2nd shift to PURE-Steam the next AHU on priority list.
- Post-test readings show marked Delta P decrease in both AHUs.



PURE-Steam AHU Cleaning Program

Case Study – Metro Nashville Public Schools



Data Gathering

- Fan Coil Units –1,200 CFM design
- Pre-clean CFM readings 309 & 403.
- Post-clean CFM readings 826 & 1,229.
- **267% & 305% increased airflow.**



PURE-Steam AHU Cleaning Program

Case Study – Metro Nashville Public Schools



PURE-Steam AHU Cleaning Program

Case Study – Metro Nashville Public Schools



Warranty



- Restored Equipment
- 5 Year Standard Parts/Labor Warranty
- No New Engineering Requirements
- Work With Existing Healthcare Codes
- Phased Approach, Less Logistical Challenges
- High Performance Coatings - Longer Asset Life
- Fan Array (Redundancy for Backup)
- Less Workflow Disruption

- New Equipment
- 1 Year Standard Parts/Labor Warranty
- New Engineering/Design Requirements
- New Healthcare Code Requirements
- More Logistical Challenges/Expenditures
- No Standard High-Performance Coatings
- No Standard Fan Array (Redundancy Setup)
- More Facility Disruption

Next Steps

- Contact a member of the VA Tremco Team to schedule a Tier 1 Inspection and discuss a Mechanical Preservation Asset Plan.

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 - 757-617-7663
- Clare Moloney
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 - 202.774.7118

Brand	Carter air handler	Model	30EDM29444	Serial		Size (L-W-H)	30-58-100 inches	Dr or CRW	CRW
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Q&A