

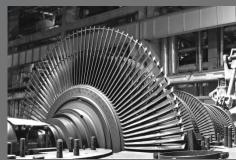
Surface Technologies Division







# **Curtiss-Wright Surface Technologies**











## **Curtiss-Wright Corporation History**





**Chicago Daily Tribune** June 1929

"Formation of the largest aviation company in America...through the amalgamation of the Wright **Aeronautical Corporation and the Curtiss** Aeroplane and Motor Company...was announced today. The merger had been discussed for several years."

#### **E/M Coating Services**

## **Engineered Coatings**

#### **Facilities:**

- 14 North America
  - 5 Thermal Spray
  - 8 Solid Film Lubricants
  - 4 Parylene

#### 5 Europe

- 3 in UK Thermal Spray & Sacrificial Aluminum
- Germany Solid Film Lubricants;
- Ireland Parylene

#### Capabilities:

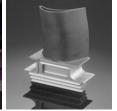
- Thermal Spray Coatings
  - TBC, MCrAIY, Ceramic & Carbides
- Laser Cladding & PTA Weld Repair
- Liquid "Spray & Bake" Coatings (SFL & Sacrificial Aluminum)
- Parylene Conformal Coatings







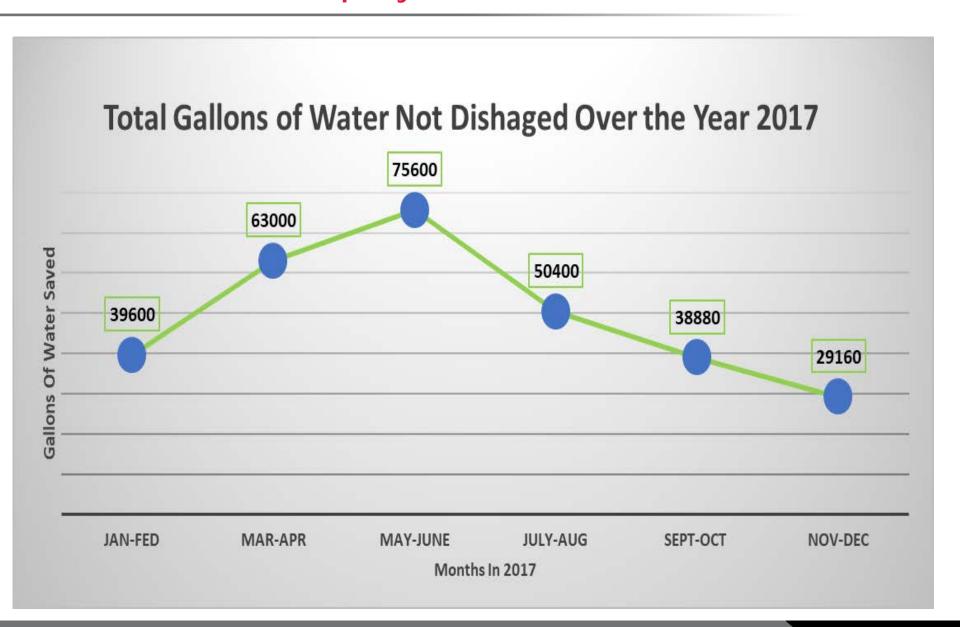


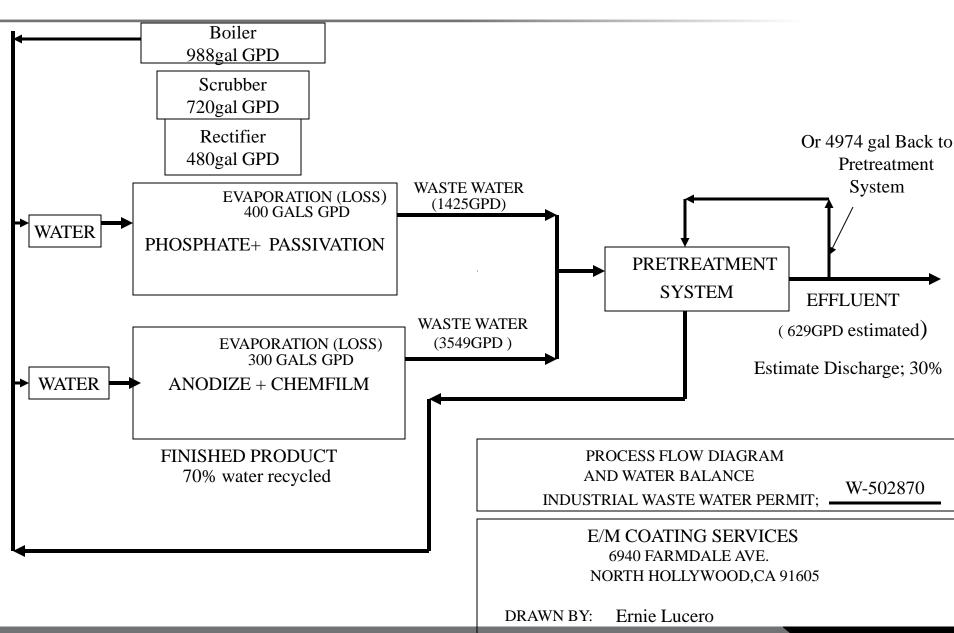


#### California Compliance

Our Surface Technologies division is extremely conscious of their energy consumption and their impact on the environment. Our water treatment system in North Hollywood saves over 500,000 gallons of water per year, as we live in a very dry state and water is a premium, as we all know. And by treating the water before discharge we are not introducing harmful chemicals into the water system. Over the past few years they invested \$12 million in modern dust collection systems with variable speed motors, saving 2 million kilowatt hours annually. Additionally, we are one of the only companies to offer both lead- and chrome-free products qualified for Aerospace applications, and our Chatsworth, CA facility contains a state of the art thermal oxidizer, eliminating 97% of volatile compounds before returning air back into the atmosphere.

## 300k of Water Saved per year......





## Pre-Storage tank and Process Water Tank



E/M Coating Services



## E/M Coatings Services Water Treatment System



**Heavy Metal Separation Tanks** 



## E/M Coatings Services Water Treatment System



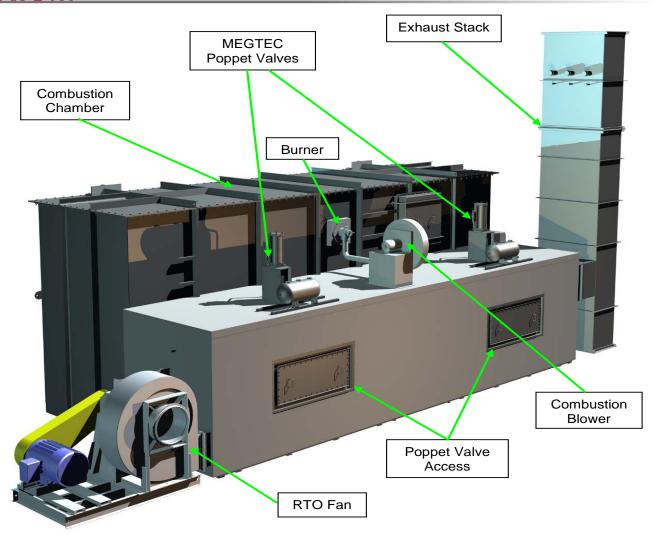
## **RO Polishing Unit**



#### MILLENNIUM™ Thermal Oxidizer



#### **MILLENNIUM™**



- Completely factory assembled and pre-tested
- Pre-wired and pre-piped to shipping extends



## Realized savings going with 2% higher thermal efficiency and natural gas injection

ANNUAL NATURAL GAS COMPARISON						
	Full Flow Hours	Yearly Consumption MMBtu's				
95% Thermal Efficiency	7,200	53,596				
97% Thermal Efficiency	7,200	40,298				
95% vs 97% Thermal Efficiency Savings		<13,298>				

ANNUAL NATURAL GAS COMPARISON WITH NATURAL GAS INJECTION						
	Full Flow Hours	Yearly Consumption MMBtu's				
95% Thermal Efficiency	7,200	33,501				
97% Thermal Efficiency	7,200	25,149				
Total and acting from 050/ T.E. to 070/ T.E. with NCI						
Total gas saving from 95% T.E. to 97% T.E with NGI		<28,447>				

#### 95% Vs 97% Thermal Options

OPERATING COSTS 95 % Thermal Efficiency with and without Natural Gas Injection (NGI)					
Condition	Flow Rate (SCFM)	VOC Load (lbs/hr)	Fuel Required (Gross Btu/hr)	Electrical Consumption (kW)	
95 % T.E. without NGI	40,000	50	7,444,000	113.55 kW	
95 % T.E. with NGI	40,000	50	5,597,000	109.90 kW	

OPERATING COSTS 97 % Thermal Efficiency with and without Natural Gas Injection (NGI)					
Condition	Flow Rate (SCFM)	VOC Load (lbs/hr)	Fuel Required (Gross Btu/hr)	Electrical Consumption (kW)	
97 % T.E. without NGI	40,000	50	4,653,000	155.11	
97 % T.E. with NGI	40,000	50	3,493,000	152.15	

#### **Operating Costs are based on:**

- 17,000 Btu/lb for VOCs
- \$5.00 / mmBtu for Natural Gas
- \$0.09 per kWh for Electricity
- 1,000 gross BTU/Ft<sup>3</sup> for Natural Gas
- The above fuel consumption values include burner efficiencies and radiant heat losses



# **Variable Speed Compressors**

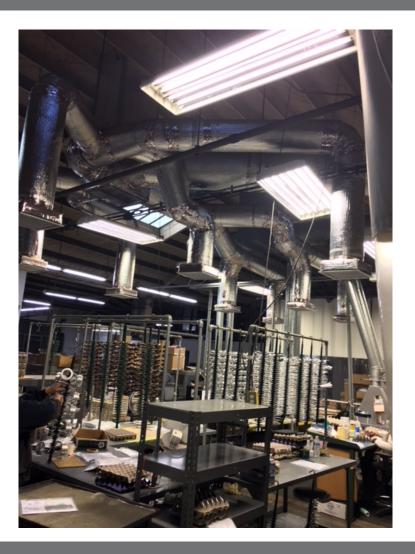


E/M Chatsworth



# LED Lighting project DWP

#### **MASKING AREA**



#### **OFFICE AREA**





#### **Everlube Products A Business Unit of Curtiss-Wright**

 Our goal is to provide world-class product quality, service, delivery, development and technical support for our customers. Everlube Products' coatings are manufactured at our Atlanta, GA facility, which is certified to ISO 9001 and AS 9000 for research and development and the manufacture of our coatings. Our products perform to many major OEM specifications. We stock many of our products for your convenience and will work with you to solve your developmental requirements. Everlube Products is committed to providing excellent customer service and added value to our engineered coating customers. Also develop new coatings per your specifications.

Atlanta Ga

