

# PRO SERIES

## METAL TREATMENTS



Extended maintenance cycles up to 2 - 8X longer



Surface appearance, conductivity, and function remain unaltered



Less than 10 nanometers thin



Repellent to many contaminants



Over 110,000 treated assets deployed globally



Environmentally friendly,  
Non-ozone depleting



Temperature resistant up to 305°F



Nonflammable formula



UNTREATED  
VORTEX METER  
AFTER 30 DAYS

\*Sensing assembly removed  
from vortex meter housing

e9 TREATED  
VORTEX METER  
AFTER 60 DAYS

## PROTECT METAL SURFACES FROM BUILDUP



## REPELLENCY & PROTECTION FOR PRECISION INSTRUMENTATION

- STAINLESS STEEL
- INCONEL
- HASTELLOY
- TITANIUM
- ALUMINUM
- NEW! PRODUCT FOR CARBON STEEL**
- CORIOLIS METERS
- TUNING FORKS
- TURBINE METERS
- FLOW METERS
- BALL VALVES
- MEASUREMENT SENSORS

\*Metal types and surface applications are not limited to those listed

## INNOVATIVE SURFACE REPELLENCY & PROTECTION

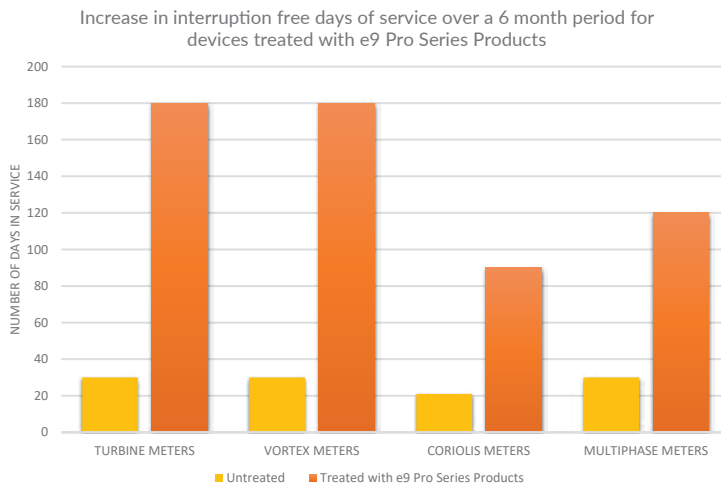
e9 Treatments offers a history of success treating metals to repel organic and inorganic materials in harsh environments. Surfaces treated with e9 Pro Series Metal Treatments are oleophobic and hydrophobic (repel oils and water), abrasion and chemically resistant, and easy to clean.

## PRODUCT OFFERINGS - COMPARISON CHART

	PRO	PRO PERFORMANCE	PRO PREMIUM
Longevity	~2X longer protection than untreated part	3-6X longer protection than untreated part	6-8X longer protection than untreated part
Temperature	100C	125C continuous 150C intermittent	125C continuous 150C intermittent
Corrosion Deterrence	60-90 days	~180 days	200+ days (not applicable to carbon steel surfaces)
Abrasion Resistance	Mild and/or intermittent abrasion environment	Medium to high flow applications with minimal particulates	Mild and/or intermittent abrasion environment
Carbon Steel Treatment	N/A	N/A	Repellency on carbon steel surface for 60 - 90 days in non-polar environments

## HOW e9 PRO SERIES WORKS

Metals naturally have high surface energy, which causes them to attract buildup and deposition of material. These deposits bond to the surface of the metal and become very hard to remove. e9 Pro Series Treatments use nanotechnology to modify the surface characteristics of the metal and lower its surface energy. The lower surface energy of the metal deters bonding of any deposits that may settle on the metal surface, making it easier to clean.



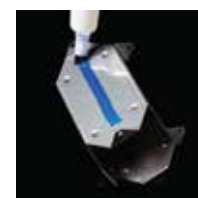
## SURFACE FREE ENERGY

Surface	Untreated Dynes/cm	e9 Treated Dynes/cm
Teflon*	18	N/A
Aluminum	30-50	16
Copper	30-50	15
Glass	65-100	16
Stainless Steel	40-60	13.5
Zinc	30-50	15

\*Teflon is a known non-stick surface and is used as a reference

## TREATMENT TESTING

The Dyne pen test is an industry standard for testing the ability of materials to bond to a treated surface. To demonstrate the effectiveness of an e9 Pro Series treated surface, use a Dyne pen to mark the surface. On a properly treated surface, the liquid from the Dyne pen will bead up within seconds and start to disappear. See photos below.



UNTREATED



TREATED

LET US TREAT YOUR EQUIPMENT!  
CALL US TO SCHEDULE TODAY  
210.742.1051

The information and recommendations relating to the application and end-use of these products are given in good faith based on current knowledge and experience with the products applied under normal conditions. In practice, differences in materials, substrates and actual site conditions are such that no warranty in respect to the merchantability or fitness of these products for a particular purpose, nor any liability arising out of any legal relationship whatsoever can be inferred from this information.

e9 Treatments, Inc. products are afforded patent protection in the oil & gas industry under patents: 9476754, 9688926, 10059892, 10150924, 10934497, 10844299, 10822559