



DYNAMIC
SURFACE TECHNOLOGIES

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COST EFFECTIVE - WEAR & CORROSION RESISTANCE-REDUCE COMPONENT MANUFACTURING COSTS AND INCREASE QUALITY & PERFORMANCE

DYNA-BLUE® is a low temperature (950 – 1060°F) combination process incorporating fluidized bed Ferritic Nitrocarburizing and a controlled oxidation process. A compound layer with Vickers hardness up to 1880 (75+ Rockwell “C”) supported by a nitrogen rich diffusion zone is produced in the base material. The oxide layer produced on the surface, resists corrosion and will assist in lubricant retention and wear resistance.

DYNA-BLUE® resists wear and abrasion 2 –10 times longer than Ion/gas Nitriding, Chrome or Nickel Plating in most environments. The compound layer prevents corrosive & abrasive materials from attacking the base material. When test coupons were subjected to a salt and humidity chamber and tested per ASTM B-117, **DYNA-BLUE®** performed better than stainless steel for corrosion resistance.

NITROWEAR® M (a combination of **DYNA-BLUE®** with a corrosion resistant dip) has demonstrated over 200 hours of salt spray resistance.

Call us today to dramatically reduce downtime, maintenance, increase gear quality and tool performance with **DYNA-BLUE®**

“Lower your scrap rate and get better part quality with a low temperature

DYNA-BLUE® process!!!”



Benefits for Automotive & Machine Components

- PRODUCES HARD WEAR RESISTANT COMPOUND LAYER .0001”-.002” WITH NO BRITTLINESS
- LOW TEMPERATURE PREVENTS DISTORTION- REDUCES SCRAP
- CORROSION RESISTANCE-RESISTS ATTACK FROM HARSH CHEMICALS
- DECREASES MECHANICAL & THERMAL FATIGUE
- RESISTS WEAR, ABRASION, PITTING, UP TO 10 TIMES LONGER THAN ION/GAST NITRIDING/ CHROME PLATING
- REDUCED FRICTION/ INCREASED LUBRICITY
- DIMENSIONALLY STABLE –TYPICAL GROWTH .0001”-.0002”/SIDE
- ANTI-GALLING & ANTI- STICKING PROPERTIES
- INCREASES COMPONENT LIFE
- CAPACITY 42” X 134” UP TO 10 TONS
- ISO 9001:2008 (TUV RHEINLAND REGISTRARS)
- TIER 1 SUPPLIER TO THE AUTOMOTIVE, DEFENSE AND TOOLING INDUSTRIES
- MEETS MILITARY SPECS AMS 2757 B AND 2750D
- MEETS GM, FORD & DAIMLER CHRYSLER SPECIFICATIONS

Incoming Material Requirements

Materials: All ferrous steels are suitable for **DYNA-BLUE®**

Typical steels used: P-20, H-13,A-2,D-2, S-7, M-2, M-4, 4150,6150, even 1010 steel. Also stainless steels, cast irons, low, medium and micro alloyed steels are suitable for **DYNA-BLUE®** .

Pre-heat Treatments: To insure dimensional stability, it is recommended that the die or component be tempered or stress relieved at 975 ° F or higher. Talk to a DMT Account Manager about your application requirements.

Surface Condition: Parts or components submitted for **DYNA-BLUE®** should be finished machined and ready to be put into service. Parts should be free of aluminum, rust, burrs, grinding burns, glue, paint, plating, non-water soluble oils, etc.

Previous history such as welding, hardening, etc. should be noted on incoming paperwork Non-Water Soluble Oils must be noted on incoming paperwork and accompanied by an MSDS.

“In God We Still Trust”