

**DYNAMIC**  
SURFACE TECHNOLOGIES

7784 Ronda drive  
Canton, MI 48187  
Telephone 734-459-8022

## SETTING GLOBAL STANDARDS FOR MOST COST EFFECTIVE WEAR RESISTANCE

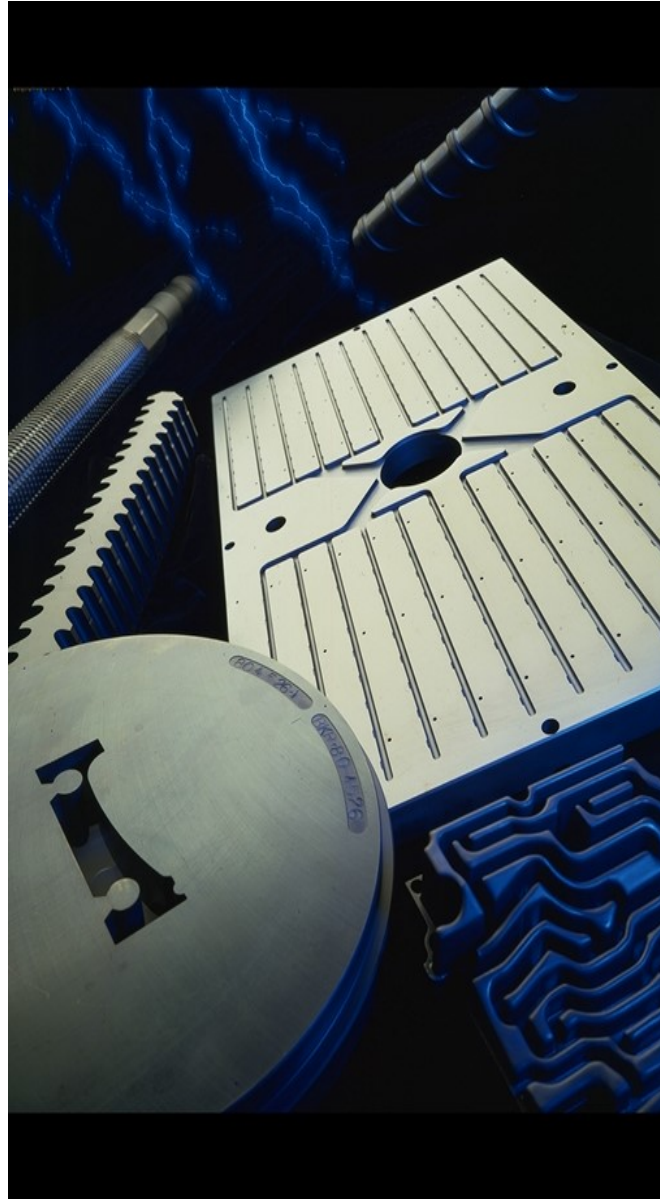
**DYNA-BLUE®** is a low temperature (typically 950 – 1050 °F) combination process incorporating fluidized bed Ferritic Nitrocarburizing and a controlled oxidation process. A compound layer with Vickers hardness up to 1880 (75+ Rockwell “C”) supported by a diffusion zone is produced in the base material. The oxide layer produced on the surface, resists corrosion and will assist in die lubricant retention and wear resistance.

**DYNA-BLUE®** resists erosion and abrasion 2 –10 times longer than Ion/gas Nitriding, Chrome or Nickel Plating in most environments where heat, molten metals, glass filled plastics and wear effect the tool life. The process provides the ultimate protection from wear, corrosion, erosion, soldering and fatigue. 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. **NIROWEAR®** (a combination of **DYNA-BLUE®** with a corrosion resistant dip) has demonstrated up to 200 hours of salt spray resistance.

**Call us today to  
dramatically reduce downtime,  
maintenance, and increase part quality and tool  
performance with**

**DYNA-BLUE®**

**Increase your “return on investment”  
by increasing Tool Life up to 10 times  
longer than gas/ion nitride or chrome  
with **DYNA-BLUE®****



“In God We Trust”

## Benefits

- RESISTS HEAT CHECKING, SOLDERING & WASHOUT (DIE CASTING DIES)
- RESISTS ATTACK FROM HARSH CHEMICALS, ALUMINUM, MAGNESIUM, ZINC, SALT WATER
- INCREASES RESISTANCE TO THERMAL FATIGUE
- HIGH LEVELS OF RESIDUAL COMPRESSIVE STRESS TO AVOID CRACKING
- CO-EFFICIENT OF FRICTION AS LOW AS .1
- LOW DIMENSIONAL VARIATION .0001”-.0002” GROWTH PER SIDE
- ANTI-GALLING & ANTI- STICKING PROPERTIES
- MAINTAINS EXCELLENT MICROFINISHES
- BETTER WELDABILITY THAN ION/ GAS NITRIDE
- ENHANCE PARTING LINE DURABILITY (PLASTIC INJECTION MOLDS)
- NEW FURNACE: 77” X 100” UP TO 15 TONS
- CLAIMED BY MANY DIECASTERS AS “MOST COST EFFECTIVE PROCESS”. “THE BENCHMARK”
- ISO 9001:2008  Precisely Right.
- TIER 1 SUPPLIER TO THE AUTOMOTIVE, DEFENSE AND TOOLING INDUSTRIES
- MEETS MILITARY SPECS AMS 2757 B AND 2750D
- PARTNERED WITH WILLIE HORTON INC FOR MINORITY CREDITS

### Incoming Material Requirements

**Materials:** All ferrous steels are suitable for **DYNA-BLUE®**. Typical steels such as P-20, H-13, A-2, D-2, S-7, M-2, M-4, 4150, even 1010 steel. Also stainless steels, cast irons, and HSLA 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.

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

**\*\*Gloss levels and surface finish requirements should be specified as well as previous tool history, such as welding, etc. Non- Water Soluble Oils must be noted on incoming paperwork and accompanied by an MSDS. High gloss levels and Class A surface finish may require DYNA-BRITE and post polishing operation.**