

DYNAMIC
SURFACE TECHNOLOGIES

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COST EFFECTIVE - WEAR & CORROSION RESISTANCE- INCREASE TOOL LIFE AND REDUCE COSTS BY 50% OR MORE

DYNA-BLUE® is a low temperature(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 diffused into the steel. The oxide layer produced on the surface, resists corrosion and will assist in die lubricant retention and wear resistance.

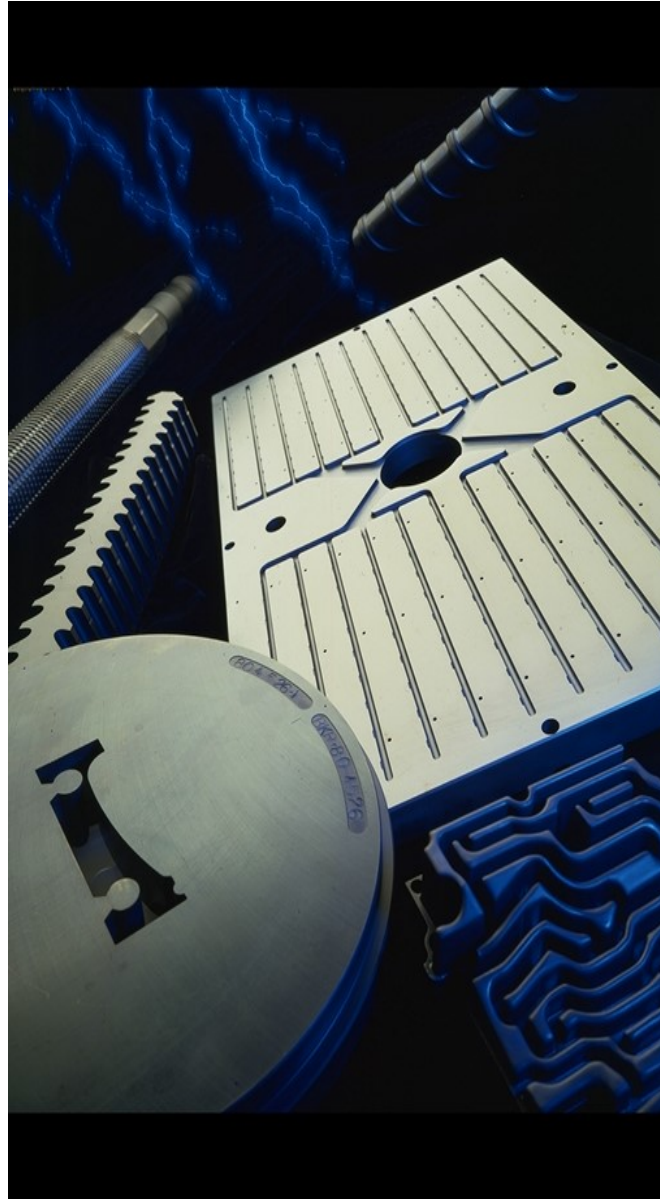
DYNA-BLUE® resists wear, erosion, heat checking and soldering 2 –10 times longer than Ion/gas/salt Nitriding, or PVD/CVD Coatings even in the most aggressive environments such as Die Casting Structural Components with Aluminum Alloys such as Silifont 36™ Aural2™ or Mercalloy™. These grades of Aluminum have proven to significantly reduce tool life due to an acceleration of heat checking, soldering, erosion and breakout of the die surface but DYNA-BLUE has proven to prevent the attack and provide a dramatic improvement in Tool Life.

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 Solvenite

with DYNA-BLUE®



Die Casting

Benefits

- COMPOUND LAYER PREVENTS HEAT CHECKING, SOLDERING & EROSION
- RESISTS ATTACK FROM ALUMINUM, MAGNESIUM, ZINC
- INCREASES RESISTANCE TO THERMAL FATIGUE
- HIGH LEVELS OF RESIDUAL COMPRESSIVE STRESS TO RESIST CRACKING.
- LOW DIMENSIONAL VARIATION .0001”-.0002” GROWTH PER SIDE
- REDUCES ALUMINUM BUILDUP ON DIE- LESS MAINTENANCE
- BETTER RELEASE PROPERTIES
- BETTER WELDABILITY THAN ION/ GAS NITRIDE
- CAPACITY 77” X 120” UP TO 30,000 LBS.
- CLAIMED BY MANY DIECASTERS AS “THE MOST COST EFFECTIVE PROCESS TO INCREASE TOOL LIFE”- THE BENCHMARK”
- EASILY REPAIRABLE- CAN BE PERFORMED ON USED TOOLS
- PARTNERED WITH WILLIE HORTON INC FOR MINORITY CREDITS

Tool Performance

A Manufacturer of Structural Automotive Parts was experiencing very poor tool life due to the aggressive nature of the Aluminum they were using. The dies were typically treated using a Nitride process which yielded 5,000-10,000 pieces before the die was unusable. By refining the DYNA-BLUE process and developing a deeper compound and diffusion zone the new process called DYNA-BLUE 8D has increased tool life by 8 times or more. Shot count is currently at 60,000. The tool is still running with a projection of over 80,000+ shots.



“In God We Trust”