

DYNAMIC
SURFACE TECHNOLOGIES

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

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

DYNA-BLUE® on Cutting Tools is a low temperature (950– 1050 °F) combination process incorporating fluidized bed Ferritic Nitrocarburizing and a controlled oxidation process. Surface hardness up to 1880 Vickers (75+ Rockwell “C”) is diffused into the steel, it is not a coating like TiN that can flake off. The oxide layer produced on the surface, resists corrosion and will assist in die lubricant retention and wear resistance.

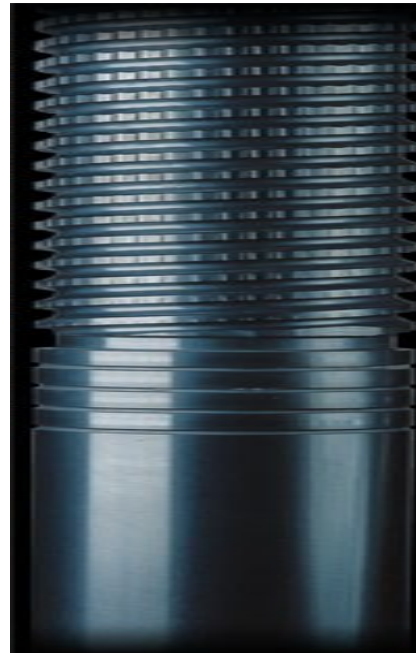
DYNA-BLUE® resists wear, erosion, softening and buildup 2 –10 times longer than PVD/CVD Coatings even in the most aggressive environments. Increased lubricity and chip flow also insure better quality broached parts!!! There is no need to re-DYNA-BLUE® after face sharpening as DYNA-BLUE® is still on the leading edge. PVD coatings usually require re-coating after each sharpening which increases tool cost.

DYNA-BLUE has proven to prevent wear 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 TiN Coating with **DYNA-BLUE®**



“In God We Trust”

Cutting Tool

Benefits of DYNA-BLUE vs TiN or TiAlN Coatings

- INCREASES TOOL LIFE UP TO 10 TIMES COMPARED TO TITANIUM NITRIDE
- 75+ HRC SURFACE =INCREASED WEAR RESISTANCE - MAINTAIN SHARP CUTTING EDGES
- INCREASED DEPTH OF HARDNESS: DYNA-BLUE® IS .001”-.002” DEEP VS TIN COATING IS .0001”-.0002” THICK WHICH LEADS TO BETTER TOOL LIFE
- DYNA-BLUE® HAS UNIFORM GROWTH OF <.00005” WITH NO BUILDUP ON CUTTING EDGES . TIN COATING CAN CAUSE BROACH TO CUT OVERSIZE DUE AND DULL EDGES TO BUILDUP ON EDGES .
- DYNA-BLUE® HAS A METALLURGICAL BOND AS IT IS DIFFUSED INTO THE STEEL VS TIN COATING WHICH DOES NOT. TIN COATING CAN PEEL OR FLAKE OFF.
- DOES NOT REQUIRE RE-DYNA-BLUE® AFTER FACE SHARPENING AS DYNA-BLUE® IS STILL ON LEADING EDGE. PVD COATINGS USUALLY REQUIRE RE-COATING AFTER EACH SHARPENING WHICH INCREASE TOOL COST.
- INCREASED LUBRICITY FOR LOWER CO-EFFICIENT OF FRICTION= BETTER CHIP FLOW
- RETENTION OF CUTTING FLUIDS
- DYNA-BLUE® IS MUCH LOWER COST THAN TIN OR TIALN AND MUCH MORE COST EFFECTIVE. COST PER PIECE BROACHED IS LOWER WITH DYNA-BLUE
- CAPACITY 77” X 120” UP TO 30,000 LBS.

Tool Performance

A customer broaching Ductile Cast Iron Pump Parts was experiencing collapsing in the thin walls after only 20 pieces, even though the broach was still the original correct size. They needed a process to give them better lubricity as well as wear resistance against the cast iron. The broach company that made the tool was consulted and they recommended DYNA-BLUE®. The process was successful as tool life was increased to over 1,200 pieces before the tool needed resharping. They noted that unlike TiN coating, re-coating after resharping was not necessary with DYNA-BLUE as the leading edge still had DYNA-BLUE diffused into it. The increased wear resistance lasted as many as 4 or 5 re-sharpenings with no loss of wear resistance. Without having to requote there were additional cost savings. The customer was happy as the scrap rate was greatly reduced and the cost per part was greatly reduced.