

DYNAMIC
SURFACE TECHNOLOGIES

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COST EFFECTIVE - WEAR, CORROSION, & FATIGUE RESISTANCE

Reduce Drilling costs by 50% or more

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

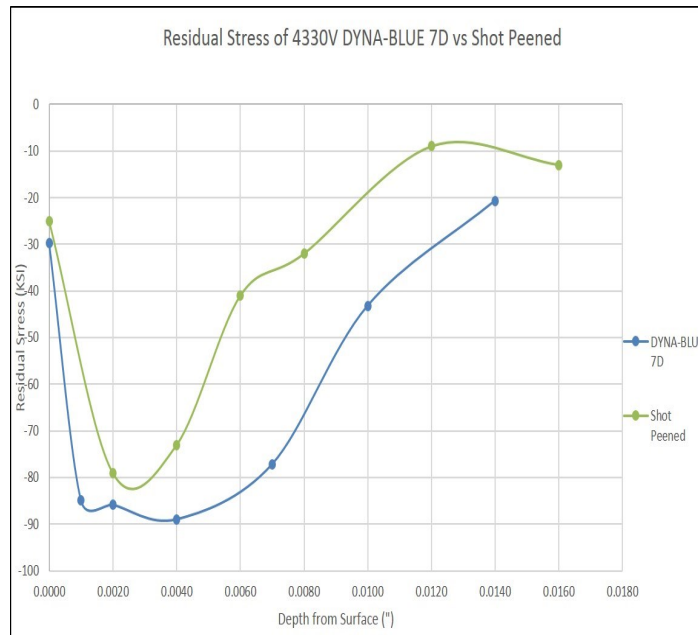
DYNA-BLUE® resists erosion and abrasion 2–10 times longer than Ion/gas Nitriding, Chrome/Nickel plating, or Shot Peening. The process also increases Compressive Residual Stress to increase Fatigue Resistance and reduce cracking.

Call us today to dramatically reduce downtime, maintenance, and increase Pump Life and Performance with

DYNA-BLUE®

Increase your “return on investment”
by increasing Pump Life up to 10
times longer with

DYNA-BLUE®



“In God We Still Trust”

Oil & Gas Exploration Equipment

Benefits

- RESISTS WEAR (75+ HRC SURFACE) 2-10 TIMES LONGER THAN QPQ, GAS/ION-NITRIDING
- RESISTS WEAR, EROSION, & ABRASION DUE TO HARD 75+HRC SURFACE.
- PROCESS IS DIFFUSED INTO THE STEEL SO THERE IS NO FLAKING, PEELING, CHIPPING
- INCREASED COMPRESSIVE RESIDUAL STRESS TO RESIST CRACKING
- DECREASES MECHANICAL & THERMAL FATIGUE
- PROCESS DOES NOT SOFTEN EVEN AT ELEVATED TEMPERATURES
- INCREASED LUBRICITY-LOWER CO-EFFICIENT OF FRICTION
- CORROSION RESISTANCE-2-3 TIMES BETTER COMPARED TO STAINLESS STEEL-RESISTS ATTACK FROM HYDROCHLORIC ACID, SALT WATER & CORRO-SIVE ENVIRONMENTS.
- MAINTAINS EXCELLENT MICROFINISHES
- PENETRATES HOLES, BORES, POCKETS UNIFORMLY WHICH NITRIDE FURNACES CANNOT AS THEY ARE “LINE OF SIGHT”
- CAPACITY 77” X 120” UP TO 30,000 LBS.
- FAST TURNAROUND
- ISO 9001:2008 TUV RHEINLAND

Pump Performance

A Field Performance Study was done on a High Pressure Fluid End. The Fluid Ends were typically treated using a Nitride process which typically yielded an average of 300 pump hours before Fluid End failure due to fatigue cracks and wear. A Fluid End was treated with the DYNA-BLUE process and lasted over 1,800 hours with little wear or fatigue. The operator mentioned that the DYNA-BLUE® treated Fluid End ran much quieter and with less vibration than the standard ones.