



INDUSTRIAL TESTIMONIALS

We don't expect you to believe us but how about these Independent users of the COLDfire process

"As per our previous discussion, I have monitored the results that were obtained with the COLDfire treated punches. The results were fantastic. As you know, the granulation I have been compressing is hard on tooling because of its corrosive and abrasive properties. Prior to your COLDfire treatment, I had tried untreated S-5 steel punches, stainless steel punches and S - 5 diamond coated punches. None of the previously mentioned punches lasted for more than 6, 000, 000 tablets and, in some cases the punches did not even last for one shift. I am pleased to tell you the S - 5 steel punches you treated have lasted over 80, 000, 000 tablets."

Randolph Viditz – Ward
Area Supervisor
Pharmaceutical Manufacturing
CIBA - GEIGY

"Last June I spoke with a fellow engineer about a problem I was experiencing with our dies. The rotary dies we had would be sent out to be re sharpened, be returned and run for only one (1) to three (3) million cuts. He mentioned COLDfire thermal cycling processing and your company to me as a possible solution to our short runs. He had some good success in some other similar applications. I took our worst case die, had it treated, and then sharpened. We then put it into testing and we increased the die's life four (4) times. This die was an old die – only averaging one million cuts; the maximum cuts off it were 1.5 million. The process was very successful in our case and will be used on all rotary dies – new and old. It will also be tried in other, similar applications throughout the Plant."

Richard Meyer,
Manufacturing Engineer
Kao Infosystems Company.

"The situation with COLDfire treated granulation knives is quite different. Now we can run a set of knives for three to four months and sharpening only requires the removal of .040" of steel. Not only do we get four times more service from the treated knives between regrinds but in addition the material lost from the knife during grinding is reduced by a factor of two. Regrind knives are cut to one fourth and the expense of replacement knives is cut to one eighth of what we experienced with untreated knives. COLDfire treatment has proved to be an excellent investment!"

John Stewart, Plant Engineer
New England Plastics Corporation.

"When I last spoke to Sid Field he was having such good luck with broaches (I think he said he raised production from 20 pcs. Per grind to an average of 90 pcs. Per grind and that he is planning to have you treat his large broaches"

Lou Butck, Cmfge, Fabrication I.E.,
Industrial Eng. Dept.
Raytheon Company

"When we decided to COLDfire treat all of our inventory of Amada punches and dies, we purposely withheld on ¼"x3" rectangular punch. By doing this we could stage a comparison test between those tools which were treated and tools that were untreated. By COLDfire treating our punches and dies, we are realizing a 357% increase in tool life. Annual costs for tool grinding and replacement tooling should be reduced by 72% compared to non – treated tooling. We recommend that all punches and dies purchased in the future be COLDfire treated before being placed into service"

Chuck Heshion
BAIRD

TECHNOLOGY FOCUS

Industrial Testimonials continued...

"As you know, we recently had the subject broach COLDFire treated. Before treatment, we were broaching approximately 300 parts between regrinds. After treatment we broached 1, 1000 parts, reground the broach, and produced 2, 200 more parts before further grinding was required. Based on this test, I strongly recommend that we send all our broaches for treatment and investigate other areas where this treatment could be beneficial."

Doug Roberts
Saco Defense Systems Division

"General Electric reported that it takes them three to five drills to drill one hole and they have tried various combinations of tool materials coatings, geometrics, speeds, feeds, etc. Your process in conjunction with Draper Laboratories has shown unparalleled success. The improvement represents fifty-four ¼" deep holes per drill compared to an average of four drills per hole, a tool life increase of 216 to 1."

J.V. Dias
Hamilton Standard

"A test was recently conducted comparing carbide, high speed steel and COLDFire treated high speed steel and mills for roughing titanium rotors. The present carbide tooling lasted on end mill per part. The high speed steel end mill also lasted one tool per part. The COLDFire treated high speed steel end mill lasted one end mill per three parts. COLDFire treated high speed"

Ron Mador
Hamilton Standard

"following our testing of the COLDFire process on our guillotine blades we have now run through three sharpenings and have consistently returned a 40% increase in cuts between sharpening. Added to that the blades will also run to three times the life of any previous blades"

R. Wilton
RB Print Imaging

"We recently experienced another successful test of COLDFire Tooling. The machine operation involved the spade drilling of malleable cast iron. The spade drill was made from nitrided M2 M10 high speed steel. The hole dimensions are 3 ½" in diameter by 8" deep. Present tool life is one hole per drill before re-sharpening. Tool life with the COLDFire drill is seven holes per drill before re sharpening. We are looking forward to doing more COLDFire testing on milling and drilling for next year's projects."

Ron Mador
Hamilton Standard

"Our COLDFire treated chopper blades have consistently returned average results of 2.6 times any of our previous experience. The best raising the life of the blades from our pre COLDFire blades of 127 km of cutting length to 478 km of cutting. The slitter blades have similarly performed up from our previous best of 23 km to 72 km as well as highlighting a previously unknown set up problem that has allowed us to modify our practices for greater efficiency."

D. Randall
Principal Engineer
Project Services
BHP Steel

**No matter what we do
- everything wears
out sooner or later....**



.... But later is better!