

## For Immediate Release:

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### MULTI-PURPOSE FURNACE INSTALLED IN IPSEN SHOWROOM

(Cherry Valley, IL) Ipsen, Inc. announces the installation of an Ipsen Turbo<sup>2</sup>Treater into its Cherry Valley, Illinois facility to demonstrate process performance to our customers.

The furnace has a 24" wide by 24" high by 36" long work chamber, and features convection assisted heating, 12-Bar nitrogen quenching, and a 2,400°F maximum operating temperature.

The Vacu-Prof 4.0 computer control system is capable of automatically developing heat treating recipes based upon user defined part material composition, wall thickness, geometry, and surface area to attain specified metallurgical requirements.

Ipsen welcomes the opportunity to demonstrate the suitability of any one of the processes described below for a broad range of new applications. An initial test can be performed at no cost. More in depth process development is available at a nominal cost.

- **AvaC®**– This is Ipsen’s patented low pressure acetylene carburizing process that imparts a hard wear resistant case between 0.010 to 0.300". This process is even capable of exceptional case depth uniformity throughout dense loads and in blind holes. In contrast to gas carburizing, the process prevents the formation of intergranular oxidation (IGO).
- **AvaC-N** – This is a carbonitriding process using acetylene and ammonia. Like carburizing, the resulting part has a hard, wear-resistant case. However, unlike AvaC carburizing, the resulting nitrogen and carbon case depth is between 0.003 and 0.030". Since nitrogen increases the hardenability of steel, this process produces parts with increased hardness within the indicated case depth. Since carbonitriding is performed at slightly lower temperatures than carburizing, it also reduces distortion from quenching.
- **SolNit®** – This is a thermo-chemical heat treating process for case-hardening stainless steels. If treated with typical nitriding or carburizing processes, stainless steels lose most of their corrosion resistance due to the formation of chromium nitrides or carbides. The Ipsen patented case hardening process is very different from the conventional nitriding process. It imparts a nitrogen rich case measuring up to 0.100" on parts which improves the corrosion, wear, and cavitation resistance of parts made from either austenitic or martensitic stainless steels. Martensitic stainless parts also experience an increase in fatigue and hot strengths.

These processes are ideally suited for improving the performance of bearings, implants, gears, and fuel injection nozzles used in aerospace, medical, automotive, or chemical applications.

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