...we never imagined all the possibilities that ASPN offers

Active Screen Plasma Nitriding (ASPN) Furnaces from Plasma Metal.

Easy and Efficient: the way Plasma Nitriding should be.

- Very low running cost
- Different size parts and different steel grades in same batch
- Controlled structure
- High versatility
- Special processes:
  - dedicated process for punches, moulds and dies
  - pulsed Plasma Oxynitriding
  - nitriding of stainless steel
- Different sizes available
ASPN technology
In ASPN the plasma is put on a screen around the parts to be treated. The screen heats the parts through radiation, all the inconveniences of traditional plasma nitriding are resolved: no hollow cathodes, no local overheating and no arcing. The screen produces all necessary active and neutral particles to evenly nitride steels, stainless steels, and cast iron.

Lowest running cost Technology for Nitriding
- Very low gas consumption
- Low energy consumption due to efficient heating
- Short cycle times
- Very low spare parts consumption

Additional advantages
- Better nitriding quality
- High reliability and reproducibility
- Controlled structure
- Special processes
- Nitriding before coating
- Oxynitriding
- Nitriding of Stainless Steel

Typical Applications
- Components: crankshafts, camshafts, gears, pistons, valves, cylinders, valve springs, shafts, spindle, sliding rails, pump cylinders
- All types of hot forging dies
- All types of extrusion dies
- Sheet metal forming punches and dies
- Rolling dies
- Aluminium diecasting moulds
- Plastic extruder screws, moulds for injection moulding
- Tool holders and taps

System Description
- All functions are PLC controlled with PC and touch screen
- Typical chamber size (usable volume):
  - 800 x 1000 mm
  - 1000 x 1000 mm
  - 1000 x 1200 mm
  - 1000 x 2500 mm
  - 1200 x 1200 mm
  - 1200 x 1500 mm
  - 1500 x 1500 mm.

Machines are available in different sizes and with options for high volume production. We manufacture customized solutions. PD2i has service and spare parts centers in Europe, Asia and Americas.