Founded in 1938, Soitaab becomes a major supplier of CNC Cutting Machines and welding equipment for the metal plate industry.

Soitaab quickly becomes a qualified supplier to the aerospace, military, shipyards, municipal, and power generation markets.

1978 – Soitaab introduces the first CNC Cutting Machine.

1983 – Soitaab produces its first laser cutting machine.


2003 – First Band Saw Introduced. The world’s largest Band Saw is produced by Soitaab.


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The Water Jet cutting process offers extremely high precision cutting on the widest range and thicknesses of material.

**DUALINE** offers the **best of both** Plasma and Water Jet technology on one machine.
WHICH IS BETTER WATER JET or PLASMA?

Waterjet

Pros
- Cuts almost any material
- Very accurate Cutting
- Edge quality is exceptional
- Can do common edge cutting
- Cuts extremely thick material
- Secondary operations not required
- No Heat Affected Zone

Cons
- Very Slow cutting speeds
- High Cost per foot of cut
- High Maintenance costs and time

Plasma

Pros
- High cutting speeds on a variety of thicknesses
- Smooth edge quality
- Low operating cost
- Low Maintenance and consumable costs

Cons
- Less precise on small holes
- Can only cut ferrous metals
- Wide Kerf prevents common edge cutting
- Heat Affected Zone

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WATERJET OR PLASMA?

*Why not both?* Get the best of both technologies on a single gantry.

- High speed and low cost with plasma cutting
- High precision and complex shapes with waterjet
- Gold medal service and support

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WATERLINE offers extremely precise cutting on the widest range of materials. It can cut very thin gauge materials as well as thick materials up to 12” depending on the pump pressure.

DUALINE allows the user to select the right process for the cut. Water Jet for precision cutting and fine details and thick materials and plasma cutting for speed and low cost cutting of large contours.

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The best of both Plasma and Water Jet technology on one machine DUALINE offers the speed, and low cost of Plasma and the high precision, versatility and thick material cutting of Water Jet.
Multiple Cutting Heads Maximize Versatility
Both Plasma and Water Jet heads can be equipped with Bevel Cutting
Water Jet Cut Part

Water Jet Specs
Pressure: 60,000psi
Orifice/Tube 0.010” / 0.030”
Speed: 5 in/min
Abrasive Rate: 0.87 lb/min
Pump: Hypertherm Accustream 50 S

Water Jet Cost
Water Jet Process $/hr.: $32.72/hr
Typical Labor Rate: $25/hr
Total Water Jet $/hr $57.72/hr.
Cut Time: 12 min 30 sec

Total Cut Time: 12.5 min.
Total Cut Cost $12.02
The Dualine Advantage

Waterjet-Plasma Combination Part
Material: 0.750 inch Hardox 500

Waterjet Cuts
Waterjet Process $/Hour: $ 32.72/hr.
Typical Labor Rate: $ 25/hr.
Total Waterjet $/Hour: $ 57.72/hr.
Cut Time: 3 min. 30 sec.
Total Waterjet Cost: $ 3.37

Plasma Cuts
Plasma Process $/Hour: $ 11.98/hr.
Typical Labor Rate: $ 25/hr
Total Plasma $/Hour: $ 36.98/hr.
Cut Time: 1 min. 30 sec.
Total Plasma Cost: $0.92

Total Cut Time: 5 min.
Total Part Cost: $4.29
The Dualine Advantage

Water Jet Cut Part
- 12 min. 30 sec
- $12.02 Total Cost

Water Jet – Plasma Combination Cut Part
- 5 min.
- 4.29 Total Cost

Total Savings:
- $7.73/part
- 7.5 min. Cut Time
**Soitaab Dualine Advantage**

Cut entire part with water jet only because of small holes that need to be tapped

- Water Jet only process time
  - 290 minutes (4.83 hours)
- Cost/hr = $27.66 + $25/hr labor
- Total cutting cost is $254.35

- ¾” mild steel
- 112” x 46”
- 100 ea. 0.3” dia. holes
- 25 ea. 2.5” dia. holes
Soitaab Dualine Advantage

Cut exterior and large openings with plasma

- Plasma processing time = 8 minutes!
- Time saved = 2.61 hrs

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Soitaab Dualine Advantage

Waterjet / Plasma Combination Costs

- Plasma = $8.50/hr + $25/hr labor x .13 hrs = $4.47
- Waterjet = $27.66/hr + $25/hr labor x 2.22 hrs = $116.90
- Total cutting cost = $121.37 vs. $254.35

**SAVINGS = $132.98/part**

- 52% Cost reduction per part
  - $254.35 vs $121.37
- 87% More Parts-per-Day
  - Process time 290 min vs 155 min

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Soitaab Dualine Advantage

Water Jet Only Cut Cost

Water Jet Process $/hr.: $27.66/hr
Typical Labor Rate: $25/hr
Total Water Jet $/hr: $52.66/hr.
Cut Time: 9 min 10 sec

Total Cut Time: 9 min. 10 sec
Total Cut Cost: $8.06

52 Parts /8 hr shift (at 100% efficiency)
Soitaab Dualine Advantage
Water Jet – Plasma Combination Cut

**Water Jet Costs**
Water Jet Process $/hr.: $27.66/hr
Typical Labor Rate: $25/hr
Total Water Jet $/hr $52.66/hr.
Cut Time: 3 min 30 sec
Total Water Jet Cost $3.07

**Plasma Cut Costs**
Plasma Process $/hr.: $11.98/hr
Typical Labor Rate: $25/hr
Total Plasma $/hr $36.98/hr.
Cut Time: 1 min 30 sec
Total Plasma Cost $0.92

**Total Cut Time:** 5 min.
**Total Cut Cost** $3.99
**Soitaab Dualine Advantage**

**Water Jet Cut Part**
- 9 min. 10 sec.
- $8.06 Total Cost

**Water Jet – Plasma Combination Cut Part**
- 5 min.
- $3.99 Total Cost

**Total Savings:**
- $4.07/part in cut cost
- 4 min 10 sec in cut Time
Soitaab Dualine Advantage

Total Savings:
- $4.07/part (51% less cost)
  - $8.06 vs $3.99
- 4 min. 10 sec. Cut Time
  (60% time reduction)
  - 9 min. 10 sec. vs 5 min
- 93% increase in productivity
  (100 parts vs 52/shift)

Assuming a Sales price of $11/part (36% margin)
Added sales volume of $528/day for 48 additional parts
200 day work year yields:

$105,600 added revenue above savings $$
Intensifier VS. Direct Drive pump
World Class technology coupled with Gold Medal Service and Support and a customer first philosophy sets Soitaab apart from the competition!

From the simplest cutting table to the most complex one of a kind systems only Soitaab delivers the best solutions, affordably priced, and backed by the best training, service and parts inventory.
Welcome to Soitaab!

Thank You

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