

Alpha CNC Group Pty Ltd

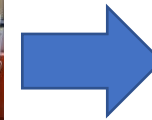
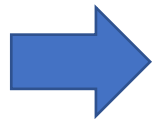
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Bystronic Laser Retrofitting CO2 laser upgrade to fiber laser 3KW-6KW



Tendency



CO2 laser

REPLACED BY

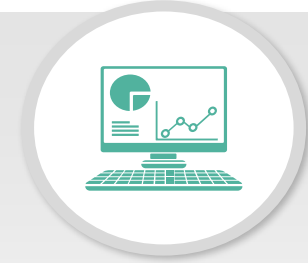
Fiber laser



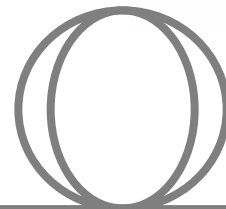
- ✓ **High Efficiency :**
Higher absorption
greater energy density
Faster cutting speed



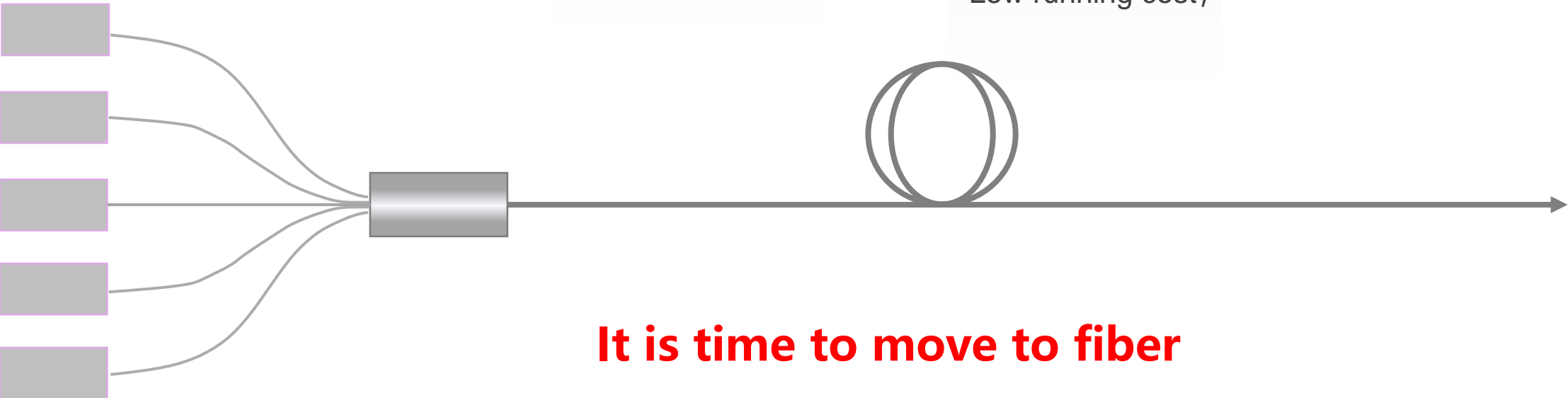
- ✓ **Low cost:**
Cheaper price
Low maintenance cost
Low running cost;



- ✓ **Easy Transmission**
fiber cable replace mirrors
Smaller footprint
Easy installation



It is time to move to fiber



Solutions

New water Chiller



New fiber laser head
Precitec or Raytools



Cable Chain retrofitting



Upgrade to fiber laser



- Same machine frame
- Same servo drive

New Height controller



- Same operation
- Same CNC controller



Benefits of upgrading laser source

- ❑ More efficient in energy conversion than legacy CO₂ lasers
- ❑ Easy maintenance
- ❑ No protection gas
- ❑ Same CNC controller, no need for training
- ❑ Up to 100,000 hours lifespan
- ❑ Turn key solutions, can be finished in 3-10 days
- ❑ Increase machine lifecycle, reliability and performance.
- ❑ Reduce unplanned down time
- ❑ Much faster cutting speed, especially for stainless steel, aluminium, brass, etc.
- ❑ Higher power conversion rate – energy saving

Cutting capacity

Material	Fiber 3000W	Fiber 4000W	Fiber 6000W	Fiber 8000W	Fiber 12000W
Mild steel	18mm	20mm	25mm	30mm	40mm
Stainless steel	10mm	12mm	20mm	30mm	30mm
Aluminium	8mm	10mm	25mm	30mm	30mm
Brass	6mm	8mm	12mm	16mm	16mm

References



ByJin4020-6KW



TruLaser3030-6KW



Byjin3015-3KW



Byjin3015-3KW



BySpeed4020-3KW



BySprint3015-2KW

Solutions:



CO2 laser



Before



Fiber laser



After



Cable chain and hose



Laser cutting head



controller