



**LIGHT-INDUSTRIAL**

**Market**

# Light-Industrial Machine Categories

- **Entry Level Light-Industrial**

(Stepper Drives/pulley-belts/Flat bar-V-Rails/spur gear/AL-ext)

**(\$27k - \$50k)**

TorchMate 4000 Series, ArcLight CNC-Elite

Machitech SilverCut/MaverickCNC-MV, Lone Star Trooper

- **Production Light-Industrial**

(Stepper/Hybrid Servo/Gearboxes/linear bearing rails/V-Rails)  
(helical/spur rack)

**(\$50k - \$70k)**

AKS Plasmatic, Koike ShopPro, Machitech SilverCut-Pro/MaverickCNC MV-Pro

Piranha C-Series, TorchMate X, Swift-Cut Pro, Lone Star Ranger

- **Entry-level HyDef w/ PowerMax**

(EtherCat Servos, gearboxes, Linear bearing rails)

**(\$79k - \$90k)**

AKS Tru-Kut , Messer -Metalmaster 2.0, Park Ind -Kano HD 510

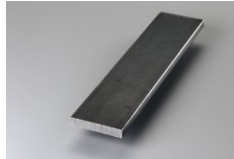
# Light-Industrial - N-America Market Share

OEM	Model	Annual Machine Sales
1. TorchMate (Lincoln-Electric) – Reno, NV	All X/Y machines	2000-2500 ?
2. Koike - Arcade, NY	Shop Pro	75-100 ?
3. Machitech/Maverick CNC - Quebec, CA	SilverCut/MV-Series	75-125 ?
4. ArcLight Dynamics - Bend, OR	Arc Max Elite/Unlimited	over 100 ?
5. Swift-Cut - UK, (Plymouth, MA, USA (office))	Swift-Cut Pro	???(East USA)
6. Lone Star - Mineola, Tx	Trooper / Ranger	???

# Light-Industrial - “False / Mis-Leading Specs”

## 1. “Precision Linear Rails/Ways”

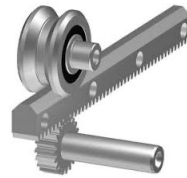
- ..... Does not mean Linear Bearing Rails
- ..... Does not mean fully machined table/gantry ways



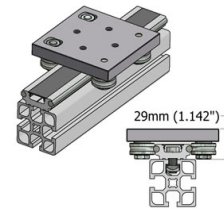
**Dual Flatbar  
(w/ cam bearings)**



**V-Rails  
(machined ways)**



**Gudel Rail/Rack  
(machined ways)**



**Dual Round Steel Ways  
(T-Slot AL)**



**Linear Bearing Rails  
(machined ways or AL-ext)**

TorchMate X (table)

SilverCut/MV

Messer 2.0 (table)

Messer 2.0 (gantry)  
Hornet LT (all axis)

Plasmatic (all axis)  
Koike ShopPro (all axis)  
Torchmate X (gantry)  
Swift-Cut Pro (all axis)  
Piranha C-Series (all axis)  
SilverCut/MV Pro (gantry)  
ArcLight Elite (all axis)  
Lone Star Trooper

# Light-Industrial - “False / Mis-Leading Specs”

## 2. “Powerful Precision Drive system” ???



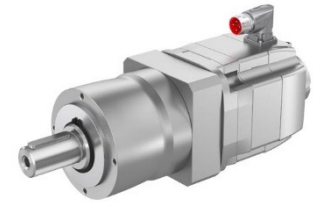
Stepper Drives  
(w/ Drive Belts)



Stepper Drives  
(w/ gearbox)



Hybrid Servos  
(stepper w/ encoder + gearbox)



Servo Drives  
(w/ gearbox)

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SilverCut/MV-Series  
ArcLight Elite  
Lone Star Trooper

Plasmatic  
Koike ShopPro  
Hornet LT  
TorchMate X  
Lone Star Trooper

SilverCut Pro/MV-Pro  
Swift-Cut Pro

Piranha C-Series  
Lone Star Ranger  
**Metalmaster 2.0**  
**Kano HD 510**  
**Tru-Kut**

# Light-Industrial - “False / Mis-Leading Specs”

## 3. “Precision Rack&Pinion



**Spur Gear/Rack/Pinion (straight tooth)**



**Helical Rack/Pinion**

SilverCut/MV/Pro  
Lone Star Trooper  
Hornet LT  
TorchMate X  
Lone Star Trooper  
Piranha C-Series  
ArcLight Elite  
Swift-Cut Pro  
Metalmaster 2.0

Plasmatic  
Koike Shop Pro  
Kano HD 510

# Light-Industrial - “False / Mis-Leading Specs”

## 3. “Precision (Accuracy) and Repeatability Tolerances”

OEM’s claiming positional and repeatability tolerances without specifying a dimension space (ie. 3ft x 3ft or 5ft x 5ft area) is nothing more than “BS” .... They are just matching another OEM’s specifications listed in brochures and websites ...”Pissing match”

### Expected positional tolerances:

- Stepper drives w/ pulley-timing belt reduction/ straight-tooth spur gear/rack 0.010” – 0.015”
  - Stepper drives with gearbox and straight-tooth spur gear/rack 0.007” – 0.010”
  - Hybrid-Stepper w/ gearbox and straight-tooth spur gear/rack 0.007” – 0.010”
  - Stepper/Hybrid drives w/ gearbox and helical rack/pinion 0.004” – 0.007”
  - Servo drives w/ gearbox and helical rack/pinion 0.003” – 0.005”
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- **NOTE:** Above range of specifications varies based on whether a machine (table and gantry) are fully machined, pinion/rack engagement type (direct, spring, air cylinder),





# Company Summary

LINCOLN  
ELECTRIC

Cutting  
Systems

TORCHMATE

- Koike is an Internationally recognized Japanese Company established in 1918
- Established Koike Aronson by acquiring AIRCO / BOC's Aronson Division USA
- Koike Aronson USA division headquarters located in Arcade, NY
- Koike manufactures X/Y plasma-oxyfuel-waterjet-laser machines, as well as welding apparatus (turn tables, straight-line bugs, torches, consumables, etc)
- Over 150 -175 machines per year  
(more than half are Light-Industrial models)
- #3 Hypertherm OEM in North America

# Marketing Strategy (Path to Market)



- Koike has many models for all budgets and production environments
- NOT sure about how many Regional sales reps Koike has
- NOT sure how many regional factory trained Koike technicians, and how many independent service contractors Koike has
- Gas Distributors across US
  - Airgas (Air Liquide) – USA nationally (Airgas Tier 1 supplier, along with Machitech)
  - IWDC members (independent gas distributors)
- Machine Dealers
  - Advance Cutting Systems - Pelham, AL
  - Norman Machine Tool - Baltimore, MD
  - Red-D-Arc – Muscle Shoals, AL
  - All Fabrication Machinery - Calgary, AB, Canada
- Markets targeting
  - Small to Medium sized fabrication shops, repair shops, HVAC, small repair shops, sign making/metal art
  - Have seen Koike machines in a couple of large cutting centers, large fab/job shops
  - VERY competitive with pricing, will NOT lose a sale to pricing!
- Features and processes
  - Many table options: zoned-downdraft, water, Klean Sweep (self-clean, copy of Sideros)
  - 3 Heavy Duty Bridge-Rail models, 5 Unitized models, 1 Entry-level Bridge-Rail model
  - 2 5-axis bevel heads / drill stations / 3 marking tools
  - Pipe attachment for certain model cutting systems
- **Koike has lost considerable market share as their path to market shifted away from Gas Distributors**  
**(due to gas company takeovers/mergers over the last 10-15 years, especially : BOC -> Linde -> Linde/Praxair)**
- **Koike has had to reinvent themselves by redesigning machine models that better competed in all industries and budgets**
- **Personally, I think their machines are lacking in precision, ergonomics, and overall engineering creativity (design criteria: steel tubing???)**
- **Koike rep told me a few years ago that their design criteria is based on Sales Price targets, NOT quality and precision !!!**
- **Koike has a “Just Good Enough” mentality and engineering has not evolved beyond steel box tubing designs**

# Light-Industrial Solution

## ShopPro



## Shop Pro

- Many sizes, unitized table (Un-zoned downdraft or water pan)
- Steel gantry box beam with machined ways and two 30mm linear bearing rails
- Steel tube constructed table with machined ways and 25mm linear bearing rails
- Helical rack and pinion in all axis with direct pinion engagement
- FlashCut CNC controller with 21" Panel PC
- FlashCut Nema 34 Stepper drives (open loop) with planetary helical gearboxes
- Standard: PowerMax 45-125 plasma, THC with breakaway sensor
- Optional: laser pointer, oxyfuel (NO gas console), air scribe, pipe attachment
- **Competitively Priced air plasma machine (will not lose deal to pricing)**
- **Starting at approx: \$28,000 (4 x 4, w/ Pmx45)**



**PLASMATIC**

- Advantages:
  - Heavy duty table construction (steel plate and tubing)
  - Capacity: 2" thick
  - Much better precision and reliability and durability
  - Table linear bearing rails and rack are protected
- Disadvantages:
  - Available waterjet size configurations: 8'w x 4'L or 10'w x 5'L
  - Pipe attachment



# Company Summary



- 18 year old French Canadian OEM Company
- Headquarters in Quebec, Canada
- USA office in St. Louis, Mo.
- Machitech Automation is made up of 6 Brands
  - Machitech Automation - X/Y tables for all budgets/production levels, pipe and tube machines,  
- self-cleaning tables, water or downdraft tables, drilling and tapping machines, material handling
  - MaverickCNC - Light-Industrial X/Y machines for US market, mostly sold on Website
  - TotalCut - Re-Branded (models/colors) of all Machitech X/Y models and CNC Routers, sold by Air Liquide and direct
  - EBF - Older Brand of X/Y tables and CNC Routers (purchased by Machitech), sold by Messer Gases in Canada and direct
  - Alpha Lazer - Private labelled laser machines for North America (OEM – Durma (Turkey)), providing sales, installation and service
  - BeamCut - Robotic structural processing machine to compete against Lincoln-Electric Python, HGG, PeddingHaus, etc
- One of the fastest growing manufacturers of thermal cutting machines in North America
- Over 250 machines per year (more than half are Light-Industrial models)
- OEM manufacturer of plasma, oxy-fuel, laser (Durma), waterjet, beveling, drilling, pipe and tube, routers, robotics,  
and marking machines
- #2 Hypertherm OEM in North America

# Marketing Strategy (Path to Market)



- Have approximately 5 Machitech USA Regional Sales Reps ( St. Louis (2), Ohio, New Hampshire, Seattle) and 6 Canadian sales reps
- Have 25 factory trained technicians (Quebec), 3 USA technicians (St. Louis), and over 20 Airgas technicians trained by Machitech, plus a few independent service contractors
- Many Gas Distributors across US, Canada, and Mexico
  - Airgas (Air Liquide) – USA nationally (Airgas Tier 1 supplier, along with Koike)
  - Air Liquide – USA and Canada and Mexico
  - Linde/Praxair – Canada and Mexico
- Machine Dealers
  - Sterling Machinery - El Monte, CA
  - Empire Machinery - Winnipeg, MB, Canada
  - Metal Nation Machinery - Lethbridge, AB, Canada
  - Elite Metal Tools - Zeeland, MI
  - Penn Tool Co. - Maplewood, NJ
  - Sterling Fabrication Technology – Dallas, TX)
- Markets targeting
  - Steel Service Centers (RusselMetals), Heavy Equipment OEM's (Brandt)
  - Small to Medium to Heavy Fabrication shops, repair shops, HVAC, small repair shops, sign making/metal art
  - VERY competitive with pricing, will NOT lose a sale do to pricing!
- Features and processes
  - Many table options: zoned-downdraft, water, Cut-N-Clean (self-clean, copy of Slagger), shuttle tables
  - 2 Heavy Duty Bridge-Rail models, 3 Unitized models, 1 Entry-level Bridge-Rail model
  - 5-axis bevel head / drill stations w/ tool changers / 4 marking tools
  - Standalone Pipe and Tube cutting systems
- **Machitech has a reputation for delivering non-conformance machines that require on-site troubleshooting after installation (MACHINES ARE NOT FULLY TESTED AT FACTORY BEFORE DELIVERY !!!)**
- **Machitech likes to copy other OEM's ideas and make it their own, using lighter materials, lower quality mechanical components**
- **Machitech has a “ Just Good Enough” mentality BUT with a decent paint job, and MANY MACHINE OPTIONS + PROCESSES**
- **“Jack of All Trades”**

## Light-Industrial Solution



### SilverCut / MaverickCNC MV-Series

- 5' x 5' or 5' x 10' or 6' x 12' unitized table (Un-zoned downdraft or water pan)
- Aluminum gantry box tube with 2 V-rails on front face, acting as linear ways across the bridge
- Table rails – V-Rails mount on machined flatbar
- Straight tooth diametrical pitch(20 pitch x ½"size) rack and pinion in all axis with direct pinion engagement
- Rollout slag drawers for easy cleaning
- FlashCut Pro CNC controller
- FlashCut Stepper drives (open loop) with sprocket/timing belt gear reduction (**NO gearbox**)
- Standard: PowerMax 45-125 plasma, THC with breakaway sensor
- Optional: laser pointer, oxyfuel (NO gas console), air scribe
- **Competitive Priced air plasma machine (will not lose deal to pricing)**
- **Starting at approx: \$45,000 (5x10 w/ Pmx85)**



**aks**  
CUTTING SYSTEMS

**PLASMATIC**

- Advantages:
  - Heavy duty table construction
  - Much better precision and reliability and durability
  - Linear bearing rails in all axis
  - Agma 12 hardened Helical rack in all axis
  - Precision planetary gearboxes in all axis
- Disadvantages:
  - Machitech un-zoned downdraft table has rollout drawers for cleaning and small part access
  - Machitech has many (feet-on-the-ground) with gas distributors, machine dealers, sales reps, etc.

**LINCOLN**  
**ELECTRIC**

**Cutting  
Systems**

**TORCHMATE**



**\*\* More OEM's Summaries coming \*\***