

# LIBERATOR

ACAT

Ocean  
machinery inc.

## SPECIFICATIONS

### CUTTING CAPABILITIES

Maximum Profile Size	44" x 28" (1100mm x 700mm)
Maximum Plate Width	48" (1250mm)
Flange Bevels	+/- 45°
Web Bevels	+/- 45° (external only)
Maximum Material Thickness	6" (150mm)
All Cuts Are Programmable	

### TRAVEL SPEED

Traverse Speed	100 - 400 in/min (2.5 - 10m/min)
Cutting Speed	7 - 30 in/min (170mm - 750mm/min)

### TRAVEL DIMENSIONS

"X" Axis (Direction of Flow)	46" (1168mm)
"Y" Axis (Cross Travel)	76" (1930mm)
"Z" Axis (Vertical Travel)	30" (762mm) Propylene, or MAPP
"B" Axis (Bevel Angle)	270°
"C" Axis (Torch Rotation)	270°

### ACCURACY

Repeatability of X, Y & Z	+/- 0.001" (0.025mm)
Cutting With Oxy-fuel	+/- 0.0625" (1.5mm)
Cutting Kerfs Depend On Tip Selection and Heat Adjustments	

### CLAMPING CAPACITY

0" - 48" (0mm - 1250mm)	1100 lb (500kg) force @ 100 psi (7 bars)
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### MATERIAL PASS LINE

Adjustable On Lower Frame	24" - 31" (600mm - 800mm)
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### POWER SUPPLY

220 V, 1-ph, 50/60 Hz	27.5 A, 6kVA
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### OVERALL DIMENSIONS

Length	124" (3150mm)
Width	96" (2440mm)
Height	131.5" (3340mm)

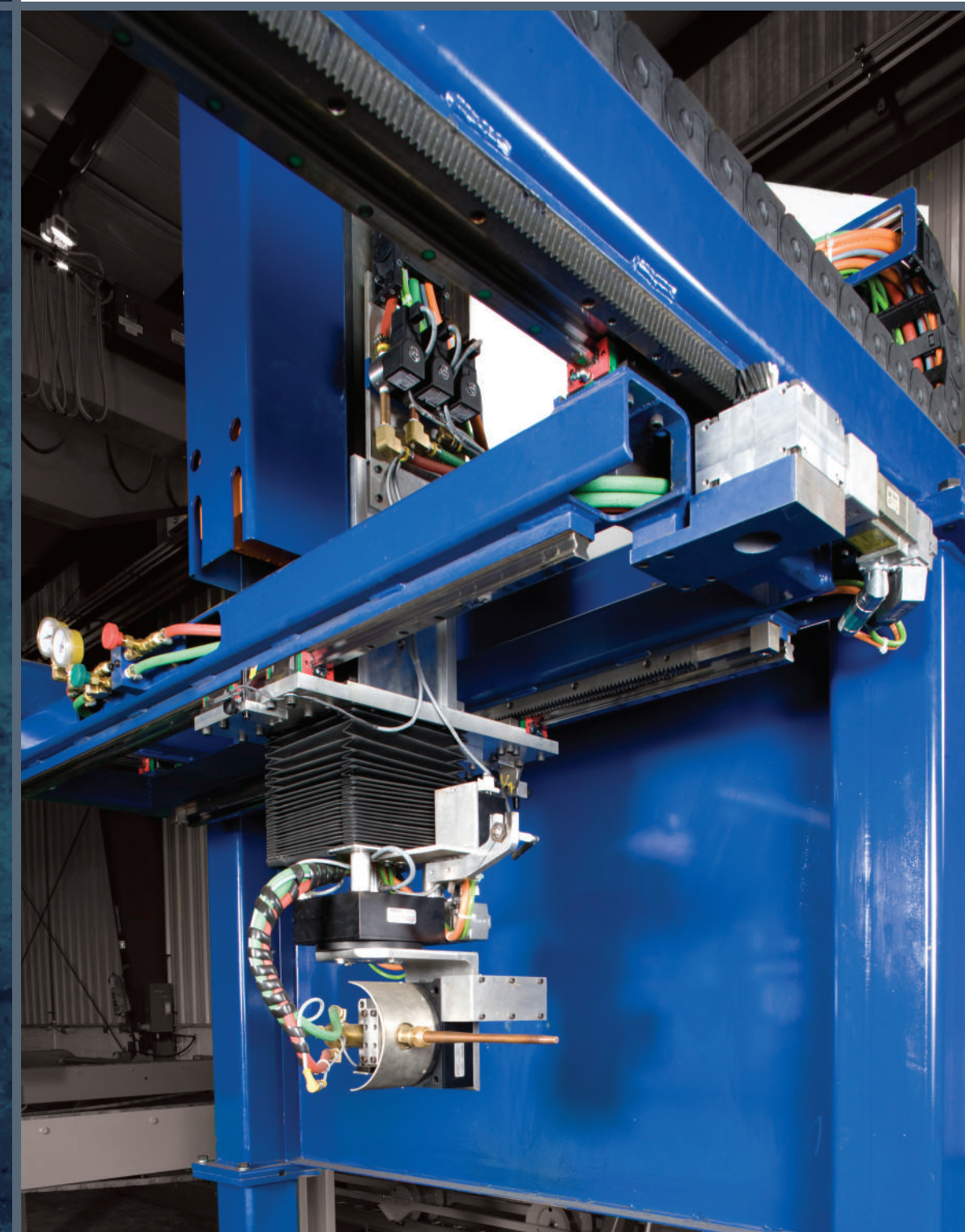
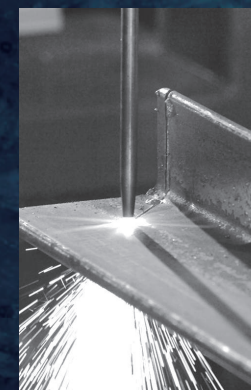
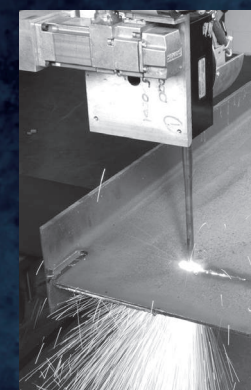
### SHIPPING DIMENSIONS

Length	124" (3150mm)
Width	73" (1850mm)
Height	86" (2180mm)

Lifting Lugs for Overhead Crane or Heavy Forklift with Chains or Slings

### WEIGHT

5200 lb (2360kg)



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In line with OCEAN'S and PEDDINGHAUS'S policy of on-going product improvement, we reserve the right to modify features and specifications at any time.

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LIBERATOR  
CNC 5-AXIS OXYFUEL  
FLAME CUTTING MACHINE  
for cutting and coping of beams and all steel profiles

Built & Serviced by Peddinghaus Corporation, U.S.A.



# THE SOLUTION TO YOUR PROBLEM...

Ocean Machinery and Peddinghaus have collaborated to produce the NEW Ocean Liberator Beam Coper — a single torch CNC beam coping machine that removes the need for manually laying out your copes, and ensures that copes are done efficiently and accurately, direct from your CNC detail drawings.

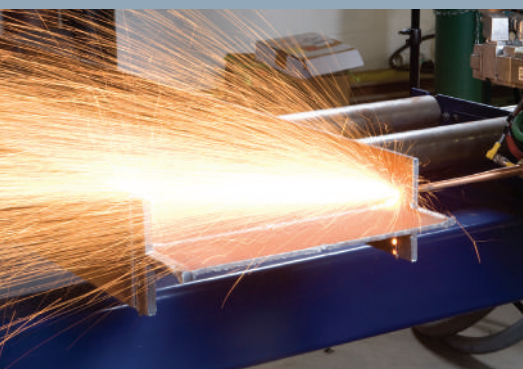
The Liberator performs copes significantly faster than copes done manually. Very little grinding is required once the cope is done, further reducing nonvalue-added labor costs.

The Ocean Liberator beam coping machine has 5 axes of movement and will cut anything a human hand can do with a handheld torch.

## EXCEPTIONAL ACCURACY



The positioning of the torch head is accomplished by highly accurate SIEMENS CNC servo motors and precision controllers, providing a cutting tolerance of 1/16" (1.5mm). This means faster field erection and reduction of back charges.



## 1/3 THE PRICE!

The Ocean LIBERATOR is the most economical beam and profile coping machine in the world, and costs less than one-third the price of comparable coping machines. The fabricator only needs to run his machine 12-15 hours per week and it will pay for itself in less than 12 months.

## TOTAL INDUSTRY ACCEPTANCE

The Ocean Liberator can be found in a range of different industries, including structural and miscellaneous steel fabricators, truck, RV and trailer body builders, industrial, refinery, turbine and heat exchanger manufacturers, railway and highway bridge builders, bleacher and billboard manufacturers, and many more.

## SIMPLE ROBUST CONSTRUCTION

The LIBERATOR comprises a sturdily built welded steel framework that supports the suspended rack and pinion drives. It features a projected laser line for setting the zero reference and a pneumatically actuated set of clamps that hold the profile to the datum line. A fast moving and highly accurate 5-axis single torch head does all the cutting. Five axes allow the torch to articulate into almost any position. If you can draw it, the LIBERATOR can cut it.

## RANGE OF PROFILES

This amazing profile coping line can process a wide variety of steel profiles from the lightest steel sections all the way up to heavy jumbo columns with ease. The LIBERATOR will process:

- Beams of any size up to 44" (1100mm) any weight
- Angles
- Channels
- Square and rectangular tubes
- Flat plates up to 48" wide (1200mm) [up to 6" thick (150mm)]

## SIMPLE OPERATION WITH OUTSTANDING PERFORMANCE

The Ocean LIBERATOR is designed to be a simple machine to use, and all machine functions are not only intuitive, but also very easy to master. The operator can easily adjust the torch tip clearance on-the-fly to accommodate out-of-square conditions in the profiles including camber, twist, warp, sweep or web offset. The cutting speed can be easily adjusted on-the-fly by the operator depending on how the cut is progressing. The operator can adjust for material thickness, grade of material, torch condition and cutting gases used.



■ 5-AXIS ARTICULATING TORCH HEAD



■ SIEMENS CNC SERVO MOTORS

## SIMPLE CNC CONTROL

Operators with no computer experience have been trained to effectively operate this machine in only a few hours. The coping machine can be programmed manually at the machine, or at your desktop computer using the supplied PEDDIMAT Beam Coping Software. It can also import CAD files detailed on all major 3-D framework software programs that export the DSTV file format. The Ocean LIBERATOR can be hardwired to your local network for easy access and importing of your detailing files.

# LIBERATOR

## TYPICAL CUT EXAMPLES



■ STRIPPED FLANGES



■ CUT TO LENGTH / BEAM SPLITTING



■ RAT TAILS / BEVELED FLANGES



■ DOG BONES



■ WEB / FLANGE PENETRATION



■ DOUBLE MITER CUT / SLOTS IN FLANGE

## Installation & Training

The installation of your Ocean LIBERATOR Profile cutter is supervised by factory-trained personnel. Your CNC coping line will be operational and your team trained in days! Our intensive operator-training program ensures a smooth transition to automated CNC beam and profile coping.

## Superb Warranty & Tech Support

Support for the Ocean LIBERATOR is provided directly by Peddinghaus. It is supplied with a 12 months on-site warranty on parts and labor. The LIBERATOR utilizes off-the-shelf freely available parts. Most parts can be delivered overnight maximizing your processing time. You can also order a standard parts kit providing you with the most commonly replaced items, increasing your uptime and improving efficiency.