



Overview and Specifications



Amada's **Z-CUT** system is a complete packaged system designed to provide our laser cutting customers with the following:

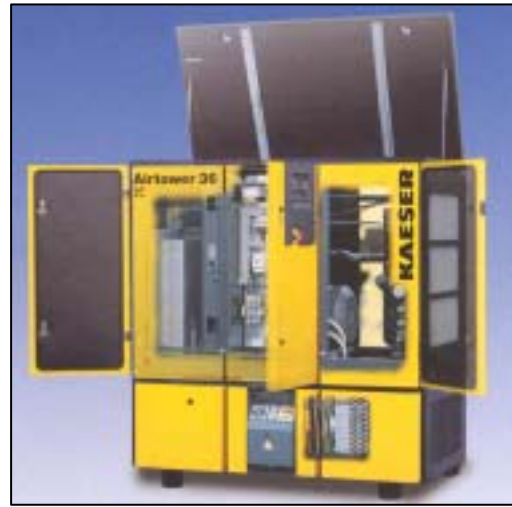
- 95% pure nitrogen for assist gas
- Clean, dry, shop air for assist gas
- Air supply for machine operation
- Air supply for dust collection unit
- Air supply for Orion beam purge unit (where applicable)
- Easy access to replaceable pre-filters
- Two-skid design for easy handling

System Components

- Combination compressor/dryer unit for air supply
- 120 gal. air receiver tank
- Nitrogen generating membrane filter with four pre-filters
- 3 gal. Nitrogen receiver tank
- Hand valve selector for switching from nitrogen to air assist gas
- Automatic electronic drains for condensation
- Quick connect fittings for machine supply, dust collector, and Orion purge unit

Compressor/ Dryer Specifications:

- 40 HP
- 109 cfm
- 230/460 V / 3phase / 60 Hz
- Integral refrigerant dryer
- Single point electrical connection



Material Processing Specifications

Material	Thickness	Speed (ipm)
4000 Watt		
Mild Steel	.048 - .250	400 - 65
Stainless Steel	.036 - .250	460 - 65
Galvanized	.024 - .135	900 - 120
Aluminum	.032 - .190	480 - 40
3000 Watt		
Mild Steel	.048 - .180	300 - 75
Stainless Steel	.036 - .250	420 - 55
Galvanized	.024 - .135	750 - 90
Aluminum	.032 - .125	375 - 150
2000 Watt		
Mild Steel	.048 - .180	270 - 40
Stainless Steel	.036 - .188	340 - 50
Galvanized	.024 - .105	500 - 110
Aluminum	.032 - .125	350 - 70





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Edge Quality

A very high quality edge can be obtained from Amada's **EZ CUT** system.

When cutting stainless steel, the thicker the material the more dull the edge finish becomes yet remains very smooth. On thinner material the edge has a more polished finish with a slight gold tint.

.188 stainless steel



Bottled Nitrogen



.060 stainless steel



With mild steel, the edge becomes a darker gray when compared to cutting with bottled nitrogen.



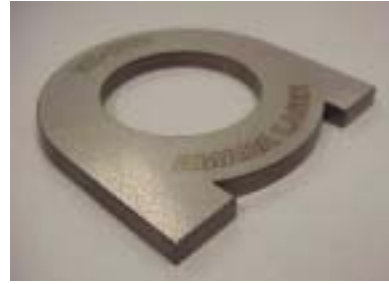
Bottled Nitrogen



With aluminum no visual differences can be seen between bottled nitrogen and **EZ CUT**. With galvanized material the edge becomes less polished and darker the thicker the material.

Cost Comparisons

Shown below are some example cost comparisons between bottled nitrogen and



- Size: 4 x 4 in.
- Material: .25 in. 304 SS
- Cutting Time: 60 sec.
- Cutting Speed: 55 in./min.
- Assist gas cost per 100 parts:
 - Bottled Nitrogen: \$25.00
 - **EZ Cut: \$3.50**



- Size: 5.8 x 5.3 in.
- Material: 11 ga. CRS
- Cutting Time: 29 sec.
- Cutting Speed: 190 in./min.
- Assist gas cost per 100 parts:
 - Bottled Nitrogen: \$12.10
 - **EZ Cut: \$1.70**



- Size: 8.3 x 1.5 in.
- Material: .25 in. HRPO
- Cutting Time: 47 sec.
- Cutting Speed: 65-75 in./min.
- Assist gas cost per 100 parts:
 - Bottled Nitrogen: \$19.60
 - **EZ Cut: \$2.75**

This document describes the results of testing performed by Amada Laser America, Inc. While every effort has been made to generate representative data, customer's results may vary.

