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Advanced Plotting Devices Competitive Analysis

The following is a report on the new APD (Advanced Plotting Devices) Cutters. I've attached web links, user manual, photos and a short mpeg of the APD cutting a sign. APD has four models all with same basic chassis including 24", 30", 40" & 48". Price and options vary per size. Marketing strategy comes from a "committee" including Nate Thomas, East Sales Manager, located in Detroit, MI. If you find out more information - let me know and I'll circulate new information as it becomes available.

Product Introduction: The Extreme Series



Description: High-end, affordable, cutting plotter made in the USA.

Location: 7372 Walnut Ave. #G, Buena Park, CA 90620

Current Models:

Model	Size	Price
PD-2400	24"	\$2,495
PD-3000	30"	\$????
PD-4000	40"	\$????
PD-4800	48"	\$????

Website: <http://www.apdevices.com/>

User Manual:



Acrobat Document

Strengths: The APD 24 inch cutter will have a dealer cost of \$1300 and a retail price of \$2,495. With a selling price around \$2,000, dealers will have an opportunity to net \$700 per sale.

- Servo Motors drive system
- Belt driven head carriage
- 40 inches per sec. cutting velocity – (straight line speed only)
- Uses Roland blades
- Offers a Pounce kit
- Made in the USA

Weaknesses: Our Pro Series Cutters dominate the performance of the extreme series. The 24 inch PD 2400 cutter may grab some market share from our CX-24, but this late comer to the market must deliver extremely good durability to be a player.

- Slow processor – Processing speed will significantly reduce the final instruction set to the drive motors.
- Supports Serial only and comes with a 25 to 25 pin cable! – Most computers sold these days come with a 9 pin serial connector.
- Very noisy operation (see cutting sign mpeg)
- Grit roller was coated with a gritty substance instead of machined. This technology may cause paper feed errors at high speed.

Performance Tests:

	PD-2400	CX-24	CX-500
Square Test	1:01 sec.	1:23 sec.	41 sec.
Circle Test	:42 sec.	1:05 sec.	25 sec.
Coca-Cola	2:30 sec.	2:27 sec.	1:28 sec.
Vector Art	4:04 sec.	3:38 sec.	2:28 sec.

- Highlighted area’s represent faster times than APD Cutter

While on the surface it looks like this advertised 40 IPS machine will compete with the Pro Series, it’s really not qualified. The Circle and Square test were 15 x15 inches with 14 inline vectors. The Coca-Cola test placed four logo’s evenly spaced at 7 x 20 inches. Lastly the Vector art file was 15 x 20 inches which truly represented an actual sign. Straight vectors showed us the PD-2400 had speed, but significantly slowed with the complexity of the sign. By visually watching the PD-2400 and looking at the circle test, it does support the arc curve command. However, by deducing the numbers we can assume processor speed is the real chink in the armor. All tests were performed with the prescribed Anagraph driver that supports HPGL with a resolution of 1000 steps per inch.

APD Cutting Sign:

Summary: Too often when promoting technology we get so wrapped up in one type of specification that it is to lose loose focus on total performance. Our vector look-ahead technology combined with our processor speed is enough to handily out perform this newcomer to the market. Advertising 40 inches per second is accurate for straight vectors, but does not mimic the real world. Looking at the total throughput performance tests we can deduce that cutting practical signage, even our desktop series out performs the APD. Include our brand name, number of service centers/dealers, and reputation should be more than enough to hold off this new brand of cutter. For specific questions or comments on this product, please feel free to contact Jim Day, Product Manager, Print and Cutting Devices @Ext 1271 or jjmd@rolanddga.com.