

New Product Assessment Automatic Playing Card Shuffler

The proposed Automatic Playing Card Shuffler is a fully automated card shuffler with revolutionary new features that can mimic casino dealer shuffling combinations. The client claims that in addition to mimicking the same shuffling combinations as a professional card dealer, the proposed product provides additional features, such as automatic and complete randomization of the playing cards, and quiet and transparent operation of the shuffling action. With the innovative design of this card shuffler, at-home card players can achieve a total shuffle of the cards with a random order of the cards faster than shuffling by hand.

The following report includes a review of competition, a preliminary patent search, a sample of market feedback, and an investigation into trends that may affect the market for the Automatic Playing Card Shuffler.

Competition

From a competitive standpoint, we found several semi-automatic shuffling machines on the market. The most closely related competition seems to be the Proshuffle from Ten Stix Inc. More broadly related competition includes shuffling machines targeting the casino industry from Shuffle Master Inc. and VendingData Corporation. Also, there are several companies that sell partially automatic card shufflers at retailers, including Excalibur Electronics. Shuffle Master is the market leader for direct-to-casino shufflers, while Excalibur Electronics claims to be the market leader in semi-automatic consumer shufflers.

The most closely related product appears to be the Proshuffle, manufactured by **Ten Stix Inc.** (Lakewood, CO; 303-885-2046, www.tenstix.com). As noted by the client, the Proshuffle is capable of shuffling one to six decks of cards at a time. A description from the company's web site states that Proshuffle is an automatic one to six deck professional card shuffler and the only patented casino-quality shuffler available to businesses and consumers at an affordable price. "Perfect for poker and any multi-deck games, Proshuffle is lightweight and can run on batteries or can be plugged into AC." This product sells for \$XXX and is available by contacting the company directly.



According to a representative from the company, the Proshuffle is the only shuffler in the \$XXX-\$XXX range that provides casino style shuffling, and sales for their products have been increasing in general. U.S. patent # 5,718,427 is assigned to Ten Stix Inc. relevant to this product.

Also noted by the client, **Shuffle Master Inc.** (Las Vegas, NV; 702-897-7150, www.shufflemaster.com/index.asp) makes a number of automatic shufflers that are targeted towards the casino industry. These shufflers are fully automatic and are able to shuffle multiple decks simultaneously. Shuffle Master does offer one product to consumers, the Deck Mate poker shuffler. The company's website provides the following description, "The Deck Mate's unique batch shuffling



capability delivers a fair, random shuffle every time and increases the speed and accuracy of each game, making it the perfect fit for your tables. Its flawless operation and quiet, speedy shuffling is also a great enhancement to other single-deck, hand-pitched games like Ultimate Texas Hold'em." The Deck Mate is the only Shuffle Master product available to the consumer market. The product sells for \$XX,XXX and is only available by contacting the company directly. U.S. patents # 6,068,258; 6,139,014; 6,325,373; 6,651,981; 6,651,982; and 6,655,684 are assigned to Shuffle Master Inc. relevant to this product.



VendingData Corporation (Las Vegas, NV; 702-733-7195, www.vendingdata.com) manufactures the PokerOne shuffler. "The cycle time with the PokerOne shuffler is less than ten seconds. The PokerOne shuffler uses VendingData Corporation's patented Random Ejection technology to ensure a true, mathematically random shuffle. This technology restacks the cards in a truly unpredictable manner, completely negating advantages achieved by expert players. Each shuffle in the PokerOne shuffler is unique." The random ejection method shoots any card of the deck into a tray, which provides the deck with an arbitrary arrangement of cards. Pricing for this product was unavailable, but contact and ordering information were available on the website. Target customers for the PokerOne shuffler were listed as mostly casinos. U.S. patent #6,959,925 is assigned to Vendingdata Corporation relevant to this product.

The client acknowledges the presence of semi-automatic shuffling devices currently occupying the low-cost price segment of the market. There are numerous companies making these types of low-end shufflers, including **Excalibur Electronics** (Miami, FL; 305-477-8080, www.excaliburelectronics.net). Excalibur provides a product called the Pro Shuffler, which sells for \$XX.XX. According to a company representative, Excalibur has the market-leading semi-automatic card shuffler, which is marketed using the "World Series of Poker" name. This product does not provide for an entirely random shuffle, but merely replaces what one person could do by shuffling.



Preliminary Patent Search

In addition to the patent search done by the client and as part of our competitive assessment, we also conducted a preliminary patent search for automated card shufflers. We found the following relevant patents.

Mentioned previously, **U.S. Patent Application #2006/0066048** (Application Date: March 30, 2006; by Shuffle Masters of Las Vegas, NV) is for a "Magnetic Jam Detection in a Card Shuffler." The patent abstract states:

"A shuffling device for playing cards and method of shuffling cards is provided where a first group of cards is moved within the device to form a randomized second group of cards. The device comprises moving parts that assist in the movement of cards within the shuffling device; a processor in informational connection with the shuffling device; a sensor which detects at least one of speed, distance and force of at least one moving part and provides a signal to the processor regarding detection of at least one of speed, distance

and force; and the processor containing a program that interprets the signal to detect significant variations in at least one of speed, distance and force of the moving part.”

U.S. Patent # 5,275,411 (issued: January 4, 1994; assigned to Shuffle Masters of Las Vegas, NV) is for a “Pai Gow Poker Machine.” The patent abstract states:

“An automatic card-shuffling machine including a dealing module and a display module. The machine has a microprocessor and a deck- receiving shuffling station into which a deck of cards is deposited initially. A carriage mechanism separates the deck into two deck portions, rotates the two portions to a relative angular relationship with a corner of each in close proximity, riffles the portions, and combines them into a single shuffled deck. A shuffled deck delivery system delivers the shuffled deck to the dealing module, which moves a predetermined number of cards, one at a time, into a hand holding shoe. The display module displays game information to players. The machine is particularly well-suited for playing pai gow poker.”

Also mentioned previously, **U.S. Patent # 6,719,288** (issued: January 18, 2002; assigned to VendingData Corporation of Las Vegas, NV) is for a “Remote Controlled Multiple Mode and Multi-Game Card Shuffling Device.” The patent abstract states:

“The present invention features a card shuffling machine having a controller that can be operated remote from the shuffling machine. A remote control unit is provided for remotely communicating operator-selected commands to the shuffling machine. The shuffling machine is capable of shuffling and dealing various games and between different modes of operation, including batch mode and continuous mode. The remote control unit includes a housing, a controller disposed therein, a display in electrical communication with the controller, and at least one user- operated key in electrical communication with the controller for electrically communicating a shuffle command to said shuffling machine allowing the dealer to select between various modes of operation, including batch mode, continuous mode, and between various games to be played.”

The full text and illustrations of all the patents cited are included in the Patent Search section of the attachments.

Market Need and Relevant Trends

We spoke with a few industry representatives about market need for products of this type and also investigated trends that may affect the demand for the Automatic Playing Card Shuffler. Trends include sales of playing cards in the United States, the size of the potential card playing market, and sales trends of current models of card shufflers.

The Playing Card Shuffler Market

The card shuffler market is largely made up of professional shufflers sold directly to casinos. Shuffle Master, the market leader, had sales of \$XX.X million in 2005, while VendingData Corp. had sales of \$X.X million. A representative from Ten Stix Inc. indicated that market share between the three companies manufacturing casino shufflers was Shuffle Master with XX percent, VendingData Corp. with X percent, and Ten Stix Inc. with only X percent. Those figures provide us with an estimated total market of about \$XX.X million for casino shufflers.

Consumer sales for 2005 were estimated (by a Ten Stix Inc. representative) to be XX,XXX of Proshuffle units, yielding sales of \$X.X million in one year (Lakewood, CO; 303-885-2046, www.tenstix.com). Sales of Excalibur Electronics semi-automatic card shuffler are estimated at XXX,XX units, yielding sales of about \$X.X million in one year (Miami, FL; 305-477-8080, www.excaliburelectronics.net). Market share information from Excalibur Electronics was unavailable, but the representative did state that their product was the market leader. Using the sales data from Ten Stix and Excalibur Electronics, a minimum estimated market for consumer shufflers would be about \$X.X million. The two companies reported having increasing sales, but according to the representative from Excalibur Electronics, sales are not increasing as rapidly as the sales of poker chips and poker sets.

Relevant Trends

Playing Card Sales and the Card Playing Market

According to a sales representative from the United States Playing Card Company (Cincinnati, OH), the largest manufacturer of playing cards in the U.S, the company sold over XXX billion decks of cards last year with sales over \$XXX million. Sales have been growing rapidly over the past few years because of the increase in popularity of poker and are still growing. Approximately XX percent of homes in the United States own a deck of cards, and the average household plays cards once a week.

One of the most popular card games right now is Poker, specifically Texas Hold 'Em. According to the President of National Poker Association (Denver, CO; 615-300-7367; www.mynpa.org), there are about XX million poker players in the United States, with some estimates ranging from XX million to XX million, who play on a regular basis. About XX percent of these players play via the internet, while XX percent play in casinos and XX percent host at home games; therefore, the estimated number of poker players playing home games is between XX million to XX million.

Poker play in casinos is also gaining in popularity according to a survey done by the American Gaming Association.

"Nearly one in five American adults (XX percent) played poker during the last 12 months, more than XX percent increase over the number who indicated they played during the pervious year. While younger adults continued to play poker more than any other age group – with more than one-quarter reporting they played in the past year – every age

group saw a significant increase in the number who played poker in 2004. Poker is a highly social activity, according to responses to an open-ended survey question. Rather than the chance to win money, more than half of respondents (XX percent) said the reason they play poker is to spend time with friends and family" (American Gaming Association Survey of Casino Entertainment; 2005).

Further indications that poker is a growing industry were published in the PokerPages.com Industry Index, a recently launched website feature that is designed to help the industry track the popularity of poker worldwide. "PokerPages.com Industry Index data is based on over \$X billion in live tournament buy-ins and over \$X million tournament entries since 2000, more than any other source in the world. PokerPages.com's key buy-in index measures changes in total poker tournament buy-in dollars. By following the index, the public gains insight to changes in the size of the poker market, helping answer the question: Is poker growing?" (PokerPages.com Industry Index; March 22, 2006). The current index is showing a growth rate of XX percent.

Along with the increasing popularity of casino poker, a growing number of teenagers are taking up the game of poker. "A recent survey says XX percent of male high school students gamble with cards at least once a week. That is more than double the percentage from X years earlier. Some young people also report in the survey that they owed money from gambling" (The Forum; October 29, 2005). Teenagers also say, "Weekly games are as much about watching a football game and hanging out as they are about wining at cards" (The Forum; October 29, 2005).

With the increasing fascination with poker, other card games, such as bridge, are losing popularity. "According to the American Contract Bridge League, XX million Americans over the age of XX know how to play bridge. These people are well educated (XX percent have a college degree), affluent (the average income is \$XX,XXX per year), primarily white (XX percent) and older (the average age is XX). Of these XX million adult bridge players, only Xmillion play the game at least once a week. This is a huge decrease from the 1940s when XX percent of American households had at least one active bridge player" (The New York Times; November 27, 2005).

Conclusion

From a competitive standpoint, we found one company selling a similar poker shuffling machine in the client's target market.

Market trends appear to be favorable given the large number of card players in the United States, with XX percent of homes owning at least one deck of cards. Along with that the popularity of card playing is rising to unprecedented heights as poker has increased to encompass around XX million Americans. This number has also been growing steadily, as the number of people who play poker increased from XX percent in 2004 to XX percent 2005.

The Automatic Playing Card Shuffler appears to offer advantages relative to existing products. There is a product currently occupying the targeted market niche, but the product does not offer the same benefits as the client's and other competing products are either cheaply priced or targeted towards a very high-end niche market. Further investigation into user and distributor reactions is recommended.

Research Notes

Contacts

The following companies or organizations were cited in the report:

<u>Company</u>	<u>Location</u>	<u>Phone Number</u>	<u>Web Site</u> (http://www.)
Shuffle Master	Las Vegas, NV	702-897-715	shufflemaster.com
Excalibur Electronics	Miami, FL	305-477-8080	excaliburelectronics.net
Ten Stix Inc.	Lakewood, CO	303-885-2046	tenstix.com
National Poker Assn.	Denver, CO	615-300-7367	mynpa.org
The United States Playing Card Co.	Cincinnati, OH	513-396-5700	usplayingcard.com

The following companies or organizations were contacted but did not provide information for this report:

<u>Company</u>	<u>Location</u>	<u>Phone Number</u>	<u>Web Site</u> (http://www.)
VendingData Corp.	Las Vega, NV	702-733-7195	vendingdata.com
Patch Products	Beloit, WI	608-362-6896	patchproducts.com