

CNC Vertical Machining Center Inspection Guide

2010 - 2011

Introduction and Table of Contents

This edition of CNC Vertical Machining Inspection and Market Guide includes information on manufacturers, industry and market trends, and current asking prices on CNC Vertical Machining Centers.

This inspection guide also includes tips for inspecting and valuing CNC Vertical Machining Centers.

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Industry Trends:

U.S. Suppliers are recapturing market share because of their strong reputation and high quality. Beginning in the 1990s, U.S. Companies have encountered strong competition from Asia and Europe. In the past five years, Chinese suppliers have expanded their share of the market and Taiwan and South Korea have also established a relatively strong presence.

* Machine Tools, Dec. 2010 Machine Tools Market, U.S. Commercial Service.

The results of the quarterly Manufacturers Alliance/MAPI Survey on the Business Outlook March 2011 suggest a continued growth trend for manufacturing, with an index reading of 72, this sixth month it has been above the 50 mark, indicating expansion.

“The rate of growth may start slowing later this year.” Donald A. Norman, MAPI economist the survey’s coordinator.

The results of the March survey show the indexes to be strikingly robust and relatively stable. They paint a clear and consistent picture of continued growth in manufacturing sector activity.

*A2Z Metalworker, Vol. 17, No. 3 May/June Issue 2011

“60% of the Haas machines sold in 2010 went to international markets, noted Murray. Haas sales in Russia increased more than 120% and sales in India grew by a remarkable 107%. In China, Haas sales expanded by 68% and sales in Latin America increased by 65%. “It was a good year, continued Murray. We saw growth in all regions, especially internationally. We’ll continue investing in our growing international markets to ensure that all Haas customers receive the high quality products and world-class service they deserve.”

*A2Z Metalworker, Vol. 17, No. 3 May/June Issue 2011

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Asset #	Year	Manufacturer	Model	Serial Number	Control Type	ATC	Attachments

Important Measurements:

Size of the ATC (Number of Tools the Automatic Tool Changer can hold)

Number of Axes

Horsepower of the Spindle (HP)

Spindle Speed (RPM)

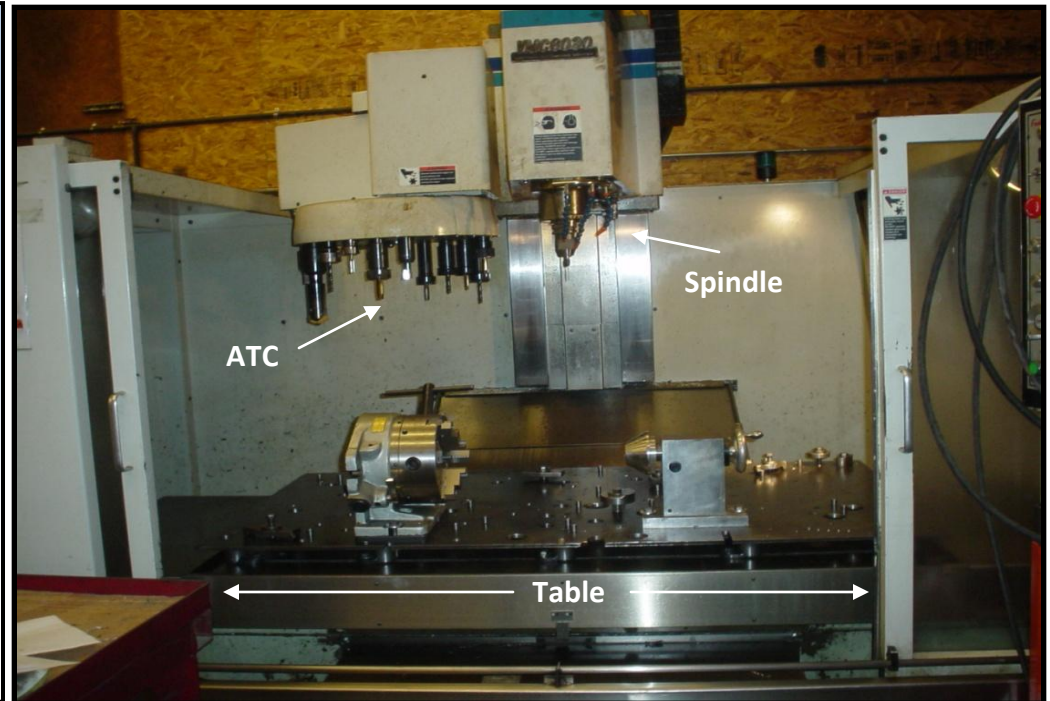
Length and Width of the Table

Capacity in Pounds of the Table

Travel Distance in the X, Y & Z Directions

Possible Attachment Options:

- Rotary Table
- Pallet Changer (Extra Pallets)
- Chip Conveyor
- Coolant System
- Tooling



Market and Industry Information

Leading Manufacturers:

Haas – HQ in Oxnard, California Haas Automation, Inc. reports in its 4th Quarter 2010 revenue was up 118% over 1Q 2010 and the company more than doubled production in 2010 to meet growing demand for its products. “We closed out 2010 with our best quarter since 2008 said Haas GM Bob Murray, both for orders and revenue. We saw a steady increase in demand last year with each month better than the previous month. December was our best month since June 2008, with orders up 150% and revenue up 96% year over year. We see that trend continuing in 2011.”

*A2Z Metalworker, Vol. 17, No. 3 May/June Issue 2011

Fadal – HQ in Chatsworth, California. Now part of MAG.

Mori Seiki - 2010 Sales Revenue was \$713 Million. They have approximately 5% market share. Headquarters is in Japan. Manufacturing is spread among the Iga Campus in Iga City, Nara Campus in Yamato-Koriyama City and the Chiba Campus in Funabashi City. Founded in 1948, Mori Seiki has delivered 180,000 machines worldwide. U.S. HQ in Hoffman Estates, IL. www.dmgmoriseikiusa.com

Makino – World HQ is in Tokyo, Japan. Makino has five Regional Tech Centers in the U.S., including Mason, Ohio, Auburn Hills, Michigan, Fountain Valley, California, Waukesha, Wisconsin and Elgin, Illinois.

Daewoo/Doosan Infracore – World HQ in Changwon, South Korea. Each year the Changwon manufacturing facility ships more than 8,000 CNC machines around the world. North American HQ in Pinebrook, NJ with Technical Centers in NJ, Elk Grove Village, IL, Orange, CA and Houston, TX.

Mazak – Mazak maintains 8 Technology Centers across North America. Mazak has announced increased production levels at its facility in Florence, KY. Fueled by the economic recovery, the company has experienced a steady increase in demand over the year. Mazak projects monthly output of its Florence plant to reach 130 machine tools/month by the close of Q2 2011.

*A2Z Metalworker, Vol. 17, No. 3 May/June Issue 2011

Okuma – World HQ in Nagoya, Japan. North American HQ in Charlotte, North Carolina.

Leading Manufacturers (Continued):

Matsuura - Founded in 1935, HQ in Fukui City, Japan. Methods Machine Tools out of Sudbury, MA is the primary distributor in the U.S.

Yang - Founded in 1943, HQ in Taiwan.

DMG (Deckel Maho Gildemeister) Signed an agreement with Mori Seiki in 2009 to collaborate in production, purchasing, machine development, sales and service and finance.

Valuation Trends in CNC Vertical Machining Centers:

Values increase with the number of axes on the machines, with 4th and 5th axis machines demanding the highest values.

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Valuation Information

Sample of Current Used Equipment Asking Prices:

Equipment	Asking Prices
2003 Haas VF-3	\$44,500
1995 Haas VF-3	\$32,000 - \$35,200
1997 Haas VF-4	\$28,500 - \$34,000
1998 Haas VF-5	\$29,500
1996 Fadal VMC-10	\$10,500
1997 Fadal VMC-15XT	\$16,500
1991 Fadal VMC-40	\$11,950
1988 Fadal VMC-4020	\$28,000
1988 Fadal VMC-4020HT	\$22,500
1990 Fadal VMC-4020	\$24,500
2004 Fadal VMC-6030	\$60,000 - \$64,000
1996 Fadal VMC-6030HT	\$44,500
Mori Seiki MV-35/40	\$24,500
1997 Mori Seiki Frontier II	\$75,000
1999 Makino Max 65	\$38,280
2003 Makino V56	\$85,000
1998 Daewoo ACE V50	\$24,950
1994 Daewoo ACE V35	\$19,000
Daewoo DMV-500	\$30,000
Daewoo MYNX-500	\$39,500

* Prices from MachineTools.com as of 6/1/11

Valuation Information

Sample of Current Used Equipment Asking Prices:

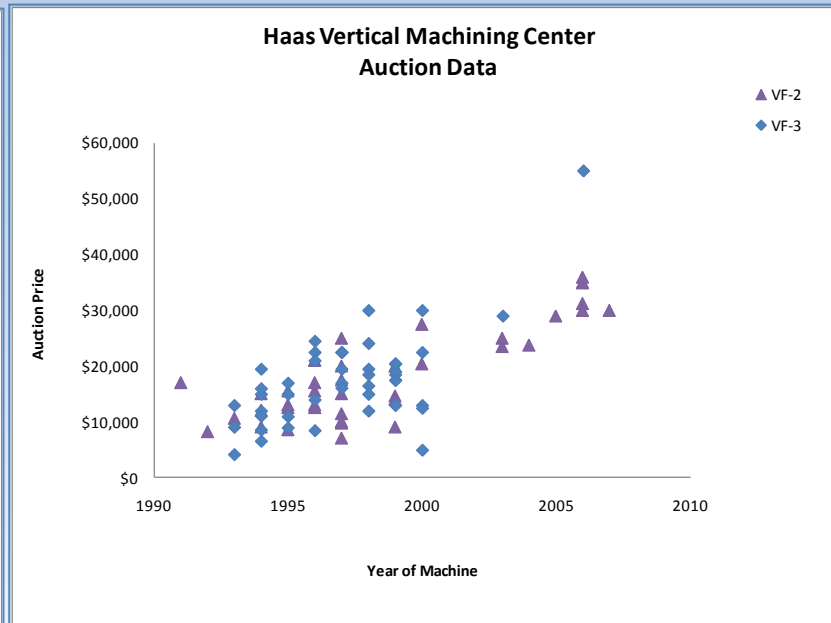
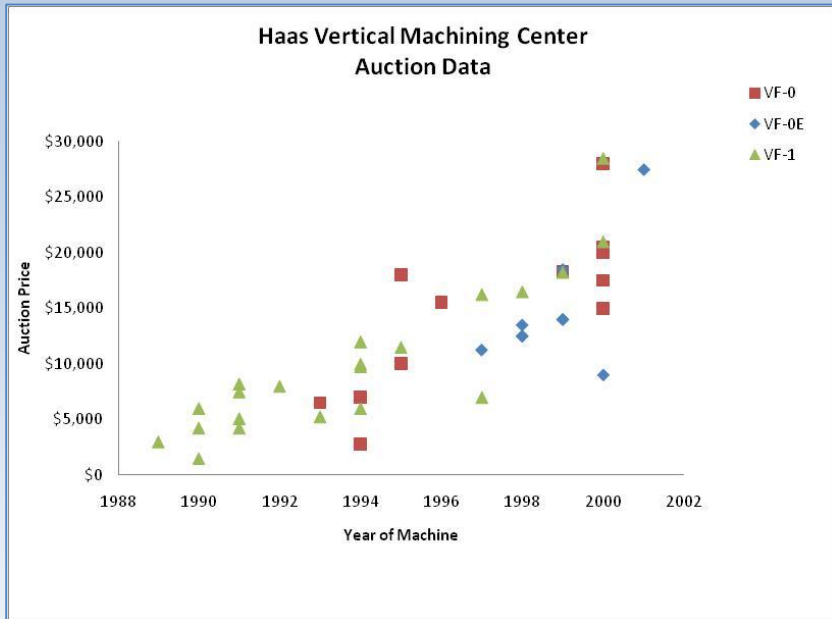
Equipment	Asking Prices
1991 Mazak VTC-41	\$15,500
1995 Mazak VTC-41	\$16,500
1996 Mazak VTC-16B	\$24,950
1989 Mazak VQC-15/40	\$9,950
1999 Mazak VTC-30C	\$55,750
1991 Mazak AJV-18N	\$14,500
1995 Mazak AJV-25/404	\$26,500
1986 Mazak VQC-30/50A	\$24,500
1990 Okuma MC-4VAE	\$24,500
1997 Okuma MX-45VAE	\$48,000

* Prices from MachineTools.com as of 6/1/11

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Valuation Information

Analysis of Auction Data:



VF-1

Average Auction Price in 2008-2010

Machine	Average Auction Price in 2008-2010			09 - '10%
Year	2008	2009	2010	Change
1990		\$1,500	\$4,417	194%
1991		\$4,250	\$6,300	48%
1994	\$9,767	\$6,000	\$11,000	83%
2000		\$21,000	\$28,500	36%

* Prices from datarefonline.com as of 6/1/11