

# HORIZONTAL CNC MACHINING CENTERS

# VERTICAL CNC MACHINING CENTERS . SPEED, POWER & FLEXIBILITY



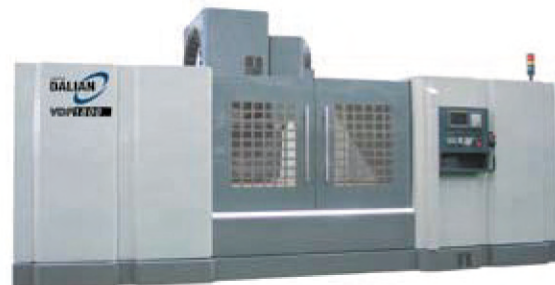
**HDR Series** - The HDR-50 high speed horizontal machining center is designed with two shuttle pallets. It can complete milling, boring, drilling, reaming and tapping operations on four faces in a single set up.



**MDH Series** - The high performance, programmable two speed integrated electric spindle motor means that the MDH is not only capable of high-speed, high-power cutting, but also provides excellent low-speed high-torque cutting.



**VDL Series** - This machine features high reliability, high-precision and high rigidity. Various operations like milling, boring, drilling, reaming and tapping can be finished automatically in one set up.



**VDF Series** - Highly rigid and stable, with 50 taper box way design, and featuring high spindle speeds and fast, reliable tool change to bring more productivity to a full range of milling, boring, drilling and tapping operations.



**MDV Series** - Featuring geared headstock and rigid box way design for rugged, durable performance. Equipped with the latest Fanuc CNC controls and drives combined with certified mehanite construction to meet the most demanding requirements. As with all machines provided by DMTG North America, our MDV machining centers are inspected and certified by Ingersoll Production Systems.



| HDR/MDH Horizontal Machining Centers |           | HDR50              | MDH40          | MDH50              | MDH65              | MDH80              | MDH100             | MDH125             |
|--------------------------------------|-----------|--------------------|----------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| X Axis Travel                        | inch      | 26.77              | 24.8           | 30.7               | 41.34              | 55.11              | 55.11              | 66.93              |
| Y Axis Travel                        | inch      | 26.77              | 24.4           | 29.5               | 35.43              | 43.31              | 43.31              | 55.11              |
| Z Axis Travel                        | inch      | 26.77              | 27.95          | 31.5               | 35.43              | 41.34              | 39.37              | 48.82              |
| Table Surface to Spindle Center      | inch      | 1.97 - 28.74       | 3.15 - 27.56   | 3.15 - 32.68       | 3.15 - 38.58       | 3.15 - 46.46       | 3.15 - 46.46       | 2.76 - 57.87       |
| Table Center to Spindle Nose         | inch      | 5.91 - 32.68       | 5.9 - 33.86    | 5.9 - 37.4         | 7.87 - 43.31       | 7.87 - 49.21       | 7.87 - 49.21       | 14.17 - 63         |
| Table (Pallet) Work Surface Area     | inch      | 19.7 x 19.7        | 15.75 x 15.75  | 19.7 x 19.7        | 24.8 x 24.8        | 31.5 x 31.5        | 39.37 x 39.37      | 49.21 x 49.21      |
| Maximum Uniform Table Load           | lbs       | 1320               | 882            | 1764               | 2860               | 4410               | 4410               | 6610               |
| Number of Tables (Pallets)           | qty.      | 2                  | 2              | 2                  | 2                  | 2                  | 2                  | 2                  |
| Table (Pallet) Change Time           | sec.      | 11                 | 5              | 6                  | 12                 | 12.5               | 12.5               | 35                 |
| Table Index Time (90°)               | sec.      | 1.2                | 1.9            | 1.7                | 1.7                | 4.5                | 4.5                | 5                  |
| Spindle Motor (30 Minute)            | hp        | 34.86              | 14.75          | 29.5               | 29.5               | 40.23              | 40.23              | 40.23              |
| Standard Spindle Speed               | rpm       | 35-10,000          | 100 -10000     | 35 - 8,000         | 35 - 8,000         | 35 - 8,000         | 35 - 8,000         | 35 -12,000         |
| Tool Taper                           | type      | BT 40              | CAT40          | CAT50              | CAT50              | CAT50              | CAT50              | CAT50              |
| Rapid Traverse Rate                  | inch/min  | 1772               | 2362           | 1772               | 1772               | 1417               | 1417               | 1772               |
| Cutting Feed Rate                    | inch/min  | 787                | 1575           | 787                | 787                | 787                | 787                | 394                |
| X Axis Accuracy (JIS)                | inch(+/-) | 0.00015 with scale | 0.00008        | 0.00008            | 0.00012            | 0.00012            | 0.00012            | 0.00014            |
| Y & Z Axis Accuracy (JIS)            | inch(+/-) | 0.00015 with scale | 0.00008        | 0.00008            | 0.0001             | 0.0001             | 0.0001             | 0.00012            |
| X Axis Repeatability (JIS)           | inch(+/-) | 0.00009 with scale | 0.00008        | 0.00008            | 0.0001             | 0.0001             | 0.0001             | 0.0001             |
| Y & Z Axis Repeatability (JIS)       | inch(+/-) | 0.00009 with scale | 0.00008        | 0.00008            | 0.00007            | 0.00007            | 0.00007            | 0.0001             |
| ATC Capacity                         | qty.      | 40 (60,80,120)     | 40 (60,80,120) | 40 (60,80,120,160) | 40 (60,80,120,160) | 40 (60,80,120,160) | 40 (60,80,120,160) | 40 (60,80,120,160) |
| ATC Type                             | type      | Random Address     | Random Address | Random Address     | Random Address     | Random Address     | Random Address     | Random Address     |
| Tool Change Time (Tool to Tool)      | sec.      | 1.3                | 1              | 2                  | 2                  | 2.5                | 2.5                | 2.5                |
| Tool Change Time (Chip to Chip)      | sec.      | 3.8                | 2.8            | 4.2                | 4.2                | 6                  | 6                  | 6.2                |
| Maximum Tool Diameter                | inch      | 3.75               | 3.23           | 4.53               | 4.53               | 4.53               | 4.53               | 4.53               |
| Maximum Tool Length                  | inch      | 15.75              | 13.78          | 19.69              | 19.69              | 19.69              | 19.69              | 19.69              |
| Maximum Tool Weight                  | lbs       | 22                 | 17.64          | 55                 | 55                 | 55                 | 55                 | 55                 |
| Net Weight                           | lbs       | 23100              | 17640          | 30865              | 39600              | 53900              | 54105              | 71650              |
| Control System                       | type      | FANUC 18i          | FANUC 18i      | FANUC 18i          | FANUC 18i          | FANUC 18i          | FANUC 18i          | FANUC 18i          |

| VDL/VDF Series Vertical Machining Center | Mini Mill | VDL 600    | VDL 800    | VDL 1000   | VDL 1300     | VDL 1200     | VDF 1200    | VDF 1500     | VDF 1800   |
|------------------------------------------|-----------|------------|------------|------------|--------------|--------------|-------------|--------------|------------|
| X Axis Travel                            | inch      | 17.7       | 23.6       | 31.5       | 40.16        | 50           | 47.2        | 47.2         | 73.8       |
| Y Axis Travel                            | inch      | 13.8       | 16.5       | 16.5       | 22           | 22           | 23.6        | 23.6         | 31.5       |
| Z Axis Travel                            | inch      | 15         | 20.4       | 20.4       | 23.6         | 23.6         | 26.6        | 26.6         | 30         |
| Spindle Nose to Table                    | inch      | 5.5 - 20.5 | 5.9 - 26.4 | 5.9 - 26.4 | 5.31 - 28.94 | 5.31 - 28.94 | 3.9 to 30.5 | 5.31 - 28.94 | 7.9 - 37.9 |
| Table Length                             | inch      | 28         | 31.5       | 35.4       | 44           | 51           | 48          | 48           | 67         |
| Table Width                              | inch      | 13         | 16.5       | 16.5       | 22           | 22           | 24          | 24           | 32         |
| Maximum Uniform Table Load               | lbs       | 330        | 1100       | 1100       | 1653         | 1653         | 2640        | 2640         | 5500       |
| Tool Taper                               | cat #     | 40         | 40         | 40         | 40           | 40           | 50          | 50           | 50         |
| Standard Spindle Speed                   | rpm       | 10000      | 8000       | 8000       | 8000         | 8000         | 6000        | 6000         | 6000       |
| Spindle Motor (30 Minute)                | hp        | 7.5        | 15         | 15         | 20           | 20           | 20          | 20           | 20         |
| Spindle Motor (Continuous)               | hp        | 5          | 12         | 12         | 15           | 15           | 15          | 15           | 15         |
| Spindle Torque @ RPM (30 minutes)        | ft/lb@rpm | 26 @ 1500  | 103 @ 750  | 103 @ 750  | 140 @ 750    | 140 @ 750    | 140 @ 750   | 140 @ 750    | 140 @ 750  |
| Spindle Torque , (Continuous)            | ft/lb     | 17         | 85         | 85         | 104          | 104          | 104         | 104          | 104        |
| Spindle Drive System                     | type      | Belt       | Belt       | Belt       | Belt         | Belt         | Belt        | Belt         | Belt       |
| Rapid Traverse X/Y Axis                  | inch/min  | 1181       | 1181       | 1181       | 1181         | 1181         | 945         | 788          | 788        |
| Rapid Traverse Z Axis                    | inch/min  | 1181       | 945        | 945        | 945          | 945          | 710         | 710          | 710        |
| Maximum Cutting Feedrate                 | inch/min  | 1181       | 1181       | 1181       | 1181         | 1181         | 945         | 788          | 788        |
| Type of Slide Way X/Y Axis               | type      | Linear     | Linear     | Linear     | Linear       | Linear       | Linear      | Box          | Box        |
| Type of Slide Way Z Axis                 | type      | Linear     | Linear     | Linear     | Box          | Box          | Box         | Box          | Box        |
| Positioning Accuracy (JIS)               | inch(+/-) | 0.0002     | 0.0002     | 0.0002     | 0.0002       | 0.0002       | 0.0003      | 0.0003       | 0.0003     |
| Repeatability (JIS)                      | inch(+/-) | 0.0001     | 0.0001     | 0.0001     | 0.0001       | 0.0001       | 0.0001      | 0.0001       | 0.0001     |
| ATC Type (D:drum, SA:swing arm)          | type      | 12/D       | 16/D,24/SA | 16/D,24/SA | 20/D,24/SA   | 20/D,24/SA   | 24/SA       | 24/SA        | 24/SA      |
| Maximum Tool Diameter                    | inch      | 3.9        | 3.9        | 3.9        | 3.9          | 3.9          | 4.3         | 4.3          | 4.3        |
| Maximum Tool Weight                      | lbs       | 13         | 15         | 15         | 15           | 15           | 33          | 33           | 33         |
| ATC Time (Tool to Tool)                  | sec.      | 6          | 3          | 3          | 3            | 3            | 3.5         | 3.5          | 3.5        |
| ATC Time (Chip to Chip)                  | sec.      | 7.5        | 7          | 7          | 7            | 7            | 7           | 7            | 7          |
| Net Weight                               | lbs       | 4400       | 10120      | 11000      | 15400        | 15400        | 17600       | 18700        | 30800      |
| Control Type                             | type      | Fanuc Oi   | Fanuc Oi   | Fanuc Oi   | Fanuc Oi     | Fanuc Oi     | Fanuc Oi    | Fanuc Oi     | Fanuc Oi   |

| MDV Geared Head Vertical Machining Centers | MDV 55    | MDV 75      |
|--------------------------------------------|-----------|-------------|
| X Axis Travel                              | inch      | 40.16       |
| Y Axis Travel                              | inch      | 21.65       |
| Z Axis Travel                              | inch      | 20.07       |
| Spindle Nose to Table                      | inch      | 5.9 to 26   |
| Table Length                               | inch      | 41.34       |
| Table Width                                | inch      | 22.05       |
| Maximum Uniform Table Load                 | lbs       | 1760        |
| Tool Taper                                 | cat #     | 50          |
| Standard Spindle Speed                     | rpm       | 6000        |
| Spindle Motor (30 Minute)                  | hp        | 15          |
| Spindle Motor (Continuous)                 | hp        | 10          |
| Spindle Torque @ RPM (30 minutes)          | ft/lb@rpm | 249 @ 311   |
| Spindle Torque , (Continuous)              | ft/lb     | 170         |
| Spindle Drive System                       | type      | Geared Head |
| Rapid Traverse X/Y Axis                    | inch/min  | 1181        |
| Rapid Traverse Z Axis                      | inch/min  | 788         |
| Maximum Cutting Feedrate                   | inch/min  | 788         |
| Type of Slide Way X/Y Axis                 | type      | Box         |
| Type of Slide Way Z Axis                   | type      | Box         |
| Positioning Accuracy (JIS)                 | inch(+/-) | 0.00012     |
| Repeatability (JIS)                        | inch(+/-) | 0.00008     |
| ATC Type (D:drum, SA:swing arm)            | type      | 20/SA       |
| Maximum Tool Diameter                      | inch      | 4.3         |
| Maximum Tool Weight                        | lbs       | 44          |
| ATC Time (Tool to Tool)                    | sec.      | 2           |
| ATC Time (Chip to Chip)                    | sec.      | 5.9         |
| Net Weight                                 | lbs       | 16500       |
| Control Type                               | type      | Fanuc 18i   |