

## Export Market List Price

# **Vertical Machining Centers**



September 2019

LAGUN MACHINERY, S.L.U. Ctra. Bergara nº 4, P.I. LLadie, pab. 7 01170 LEGUTIANO (Spain)



## 1: Vertical Machining Center, model L850

| Code No.    | Description   | €uros     |
|-------------|---|-----------|
| 9310000L850 | Model L850 with FAGOR 8055i Power CNC sytem with 10,4" LCD Color screen.              | 78.568,00 |
| 9310001L850 | Model L850 with FAGOR 8065M CNC sytem with 15" LCD Color screen.                      | 85.290,00 |
| 9310002L850 | Model L850 with HEIDENHAIN TNC 620 CNC System with 15" TFT Color screen.              | 91.057,00 |
| 9310004L850 | Model L850 with HEIDENHAIN TNC 640 CNC System with 15" TFT Color screen.              | 97.044,00 |
| 9310005L850 | Model L850 with FANUC OI MF CNC system with Manual Guidei with 15" LCD Color screen.  | 79.811,00 |
| 9310006L850 | Model L850 with FANUC 31i B5 CNC system with Manual Guidei with 15" LCD Color screen. | 90.649,00 |
| Code No.    | Description   | €uros     |
| 9310008L850 | Extra charge for different voltage other than 400V/3Ph/50Hz. (standard).              | 1.154,00  |
| 9310009L850 | Extra charge for ISO-40 (DIN 69871) spindle taper.                                    | 481,00    |

## 1.1: Optional Accesories

| Code No.    | Description  | €uros     |
|-------------|--|-----------|
| 9310010L850 | Chain type chip conveyor   | 3.491,00  |
| 9310011L850 | Extra for double arm (DISK type) automatic tool changer of 30 tools capacity.                  | 6.539,00  |
| 9310012L850 | Coolant through the spindle with 20bar pump and 25 microns filter (for belt driven spindles).  | 7.216,00  |
| 9310013L850 | Coolant through the spindle with 40bar pump and 25 microns filter (for belt driven spindles).  | 14.216,00 |
| 9310014L850 | Coolant through the spindle with 20bar pump and 25 microns filter (for direct drive spindles). | 3.862,00  |
| 9310015L850 | Coolant through the spindle with 40bar pump and 25 microns filter (for direct drive spindles). | 10.915,00 |
| 9310016L850 | Automatic Power Off M30.   | 381,00    |
| 9310017L850 | Extra for installing linear scales on the 3 axes X,Y,Z, for FAGOR & FANUC CNC system.          | 8.143,00  |
| 9310018L850 | Extra for installing linear scales on the 3 axes X,Y,Z, for HEIDENHAIN CNC system.             | 10.063,00 |
| 9310019L850 | Oil Skimmer.   | 971,00    |

## 1.2: Main Spindle Options

| Code No.    | Description  | €uros     |
|-------------|--|-----------|
| 9310020L850 | Belt driven spindle at 10.000rpm. with spindle oil cooler.   | 2.341,00  |
| 9310021L850 | Belt driven spindle at 12.000rpm. with spindle oil cooler.   | 3.799,00  |
| 9310038L850 | Extra charge for <b>11/15kW. spindle motor</b> for <b>FAGOR</b> CNC systems (for belt driven spindles).                                    | 1.388,00  |
| 9310039L850 | Extra charge for <b>11/15kW</b> . <b>spindle motor</b> for <b>FANUC</b> CNC systems (for belt driven spindles).                            | 1.255,00  |
| 9310040L850 | Extra charge for <b>11/15kW</b> . <b>spindle motor</b> for <b>HEIDENHAIN</b> systems (for belt driven spindles).                           | 3.234,00  |
| 9310022L850 | Direct Drive Spindle at <b>12.000rpm</b> . with <b>7,5/9kW</b> . spindle Motor, oil cooled spindle and oil/air bearings lubrication system |           |
|             | for FAGOR CNC systems.   | 15.353,00 |
| 9310023L850 | Direct Drive Spindle at 15.000rpm. with 7,5/9kW. spindle Motor, oil cooled spindle and oil/air bearings lubrication system                 |           |
|             | for FAGOR CNC systems.   | 18.227,00 |
| 9310024L850 | Direct Drive Spindle at 12.000rpm. with 7,5/9kW. spindle Motor, oil cooled spindle and oil/air bearings lubrication system                 |           |
|             | for HEIDENHAIN CNC systems.  | 20.180,00 |
| 9310025L850 | Direct Drive Spindle at 15.000rpm. with 7,5/9kW. spindle Motor, oil cooled spindle and oil/air bearings lubrication system                 |           |
|             | for HEIDENHAIN CNC systems.  | 25.412,00 |
| 9310026L850 | Direct Drive Spindle at 12.000rpm. with 7,5/9kW. spindle Motor, oil cooled spindle and oil/air bearings lubrication system                 |           |
|             | for FANUC CNC systems.   | 17.896,00 |
| 9310027L850 | Direct Drive Spindle at 15.000rpm. with 7,5/9kW. spindle Motor, oil cooled spindle and oil/air bearings lubrication system                 |           |
|             | for FANUC CNC systems.   | 29.319,00 |
| 9310534L850 | Direct Drive Spindle at 12.000 rpm. with 7,5/9kW. Spindle Motor, WITH coolant through the spindle at 20bar, oil cooled spindle             |           |
|             | and air-oil bearings lubrication system for FANUC CNC systems.   | 17.896,00 |
| 9310535L850 | Direct Drive Spindle at 15.000 rpm. with 7,5/9kW. Spindle Motor, WITH coolant through the spindle at 20bar, oil cooled spindle             |           |
|             | and air-oil bearings lubrication system for FANUC CNC systems.   | 29.319,00 |

## 1.3: 4th axis Options (FAGOR & FANUC)

| Code No.    | Description   | €uros    |
|-------------|---|----------|
| 9310028L850 | Extra for preinstallation of a 4th axis (only cabling and connector).   | 868,00   |
| 9310029L850 | Extra for pre-installation of a 4th axis (cabling, connector and servo-driver).                               | 2.464,00 |
| 9310030L850 | DETRON GXA-210S Electronic Dividing Head of 160mm. height betweeen points and Ø 210 mm. fitted as a 4th axis. | 9.781,00 |
| 9310031L850 | Manual tailstock of 160 mm. height.   | 862,00   |
| 9310032L850 | 3 Jaw Chuck Ø 175 mm.   | 759,00   |

| Code No.    | Description   | €uros     |
|-------------|---|-----------|
| 9310033L850 | Extra for preinstallation of a 4th axis (only cabling and connector).   | 956,00    |
| 9310034L850 | Extra for pre-installation of a 4th axis (cabling, connector and servo-driver).                               | 4.264,00  |
| 9310035L850 | DETRON GXA-210S Electronic Dividing Head of 160mm. height betweeen points and Ø 210 mm. fitted as a 4th axis. | 12.746,00 |
| 9310036L850 | Manual tailstock of 160 mm. height.   | 862,00    |
| 9310037L850 | 3 Jaw Chuck Ø 175 mm.   | 759,00    |



### 2: Vertical Machining Centers, models L1000 & L1100

| Code No.     | Description  | €uros      |
|--------------|--|------------|
| 9310000L1000 | Model L1000 with FAGOR 8055i Power CNC system with 10,4" LCD Color screen.             | 100.304,00 |
| 9310001L1000 | Model L1000 with FAGOR 8065M CNC system with 15" LCD Color screen.                     | 104.123,00 |
| 9310002L1000 | Model L1000 with HEIDENHAIN TNC 620 CNC system with 15" TFT Color screen.              | 114.687,00 |
| 9310004L1000 | Model L1000 with HEIDENHAIN TNC 640 CNC system with 15" TFT Color screen.              | 118.524,00 |
| 9310005L1000 | Model L1000 with FANUC OI MF CNC system with Manual Guidei with 15" LCD Color screen.  | 96.772,00  |
| 9310006L1000 | Model L1000 with FANUC 31i B5 CNC system with Manual Guidei with 15" LCD Color screen. | 108.744,00 |
| 932000L1100R | Model L1100 with FAGOR 8055i Power CNC system with 10,4" LCD Color screen.             | 110.788,00 |
| 932001L1100R | Model L1100 with FAGOR 8065M CNC system with 15" LCD Color screen.                     | 114.283,00 |
| 932002L1100R | Model L1100 with HEIDENHAIN TNC 620 CNC system with 15" TFT Color screen.              | 128.246,00 |
| 932003L1100R | Model L1100 with HEIDENHAIN TNC 640 CNC system with 15" TFT Color screen.              | 134.938,00 |
| 932004L1100R | Model L1100 with FANUC OI MF CNC system with Manual Guidei with 15" LCD Color screen.  | 107.459,00 |
| 932005L1100R | Model L1100 with FANUC 31i B5 CNC system with Manual Guidei with 15" LCD Color screen. | 119.498,00 |
| Code No.     | Description  | €uros      |
| 9310008L1000 | Extra charge for different voltage than 400V/3Ph/50Hz. (standard).                     | 1.347,00   |
| 9310009L1000 | Extra charge for ISO-40 (DIN 69871) spindle taper.                                     | 481,00     |

#### 2.1: Optional Accesories

| Code No.     | Description   | €uros     |
|--------------|---|-----------|
| 9310010L1000 | Chain type Chip Conveyor.   | 4.004,00  |
| 9310011L1000 | Coolant through the spindle with 20bar coolant pump and 25 micron filter (for belt driven spindles).  | 7.216,00  |
| 9310012L1000 | Coolant through the spindle with 40bar coolant pump and 25 micron filter (for belt driven spindles).  | 14.216,00 |
| 9310013L1000 | Coolant through the spindle with 20bar coolant pump and 25 micron filter (for direct drive spindles). | 4.594,00  |
| 9310014L1000 | Coolant through the spindle with 40bar coolant pump and 25 micron filter (for direct drive spindles). | 11.582,00 |
| 9310015L1000 | Automatic Power Off M30.  | 381,00    |
| 9310016L1000 | Oil Skimmer.  | 971,00    |

## 2.2: Main Spindle Options

| Code No.     | Description   | €uros     |
|--------------|---|-----------|
| 9310017L1000 | Belt driven spindle at 10.000rpm. with spindle oil cooler.  | 962,00    |
| 9310018L1000 | Belt driven spindle at 12.000rpm. with spindle oil cooler.  | 3.174,00  |
| 9310042L1000 | Extra charge for 17/25kW spindle motor (only for belt driven headstock) for FAGOR CNC systems (spindle speeds limited to 6.000rpm). | 3.522,00  |
| 9310019L1000 | Direct Drive Spindle at 12.000rpm. with 11/15,5kW. spindle motor, oil cooled spindle and air-oil bearings lubrication system        |           |
|              | for FAGOR CNC systems.  | 14.171,00 |
| 9310020L1000 | Direct Drive Spindle at 15.000rpm. with 7,5/11kW. spindle motor, oil cooled spindle and air-oil bearings lubrication system         |           |
|              | for FAGOR CNC systems.  | 15.507,00 |
| 9310021L1000 | Direct Drive Spindle at 12.000rpm. with 10/14kW. spindle motor, oil cooled spindle and air-oil bearings lubrication system          |           |
|              | for HEIDENHAIN CNC systems.   | 13.875,00 |
| 9310022L1000 | Direct Drive Spindle at 15.000rpm. with 10/14kW. spindle motor, oil cooled spindle and air-oil bearings lubrication system          |           |
|              | for HEIDENHAIN CNC systems.   | 19.110,00 |
| 9310023L1000 | Direct Drive Spindle at 12.000rpm. with 11/15kW. spindle motor, oil cooled spindle and air-oil bearings lubrication system          |           |
|              | for FANUC CNC systems.  | 15.943,00 |
| 9310024L1000 | Direct Drive Spindle at 15.000rpm. with 11/15kW. spindle motor, oil cooled spindle and air-oil bearings lubrication system          |           |
|              | for FANUC CNC systems.  | 21.592,00 |
| 9310025L1000 | Built-in Spindle at 24.000rpm. with 15/17kW. motor, HSK-50E Spindle Taper and oil cooled spindle.                                   | 33.272,00 |

## 2.3: 4th axis Options (FAGOR & FANUC)

| Code No.     | Description   | €uros     |
|--------------|---|-----------|
| 9310026L1000 | Extra for pre-installation of a 4th axis (only cabling and connector).  | 924,00    |
| 9310027L1000 | Extra for pre-installation of a 4th axis (cabling, connector and servo-driver).                               | 2.464,00  |
| 9310028L1000 | DETRON GXA-210S Electronic Dividing Head of 160mm. height betweeen points and Ø 210 mm. fitted as a 4th axis. | 9.781,00  |
| 9310029L1000 | Manual tailstock of 160 mm. height.   | 862,00    |
| 9310030L1000 | 3 Jaw Chuck Ø 175 mm.   | 759,00    |
| 9310031L1000 | DETRON GXA-255H Electronic Dividing Head of 190 mm. height between points and Ø 255 mm. fitted as a 4th axis. | 13.555,00 |
| 9310032L1000 | Manual tailstock of 190 mm. height.   | 862,00    |
| 9310033L1000 | 3 Jaw Chuck Ø 225 mm.   | 1.047,00  |

| Code No.     | Description   | €uros     |
|--------------|---|-----------|
| 9310034L1000 | Extra for pre-installation of a 4th axis (only cabling and connector).  | 956,00    |
| 9310035L1000 | Extra for pre-installation of a 4th axis (cabling, connector and servo-driver).                               | 4.264,00  |
| 9310036L1000 | DETRON GXA-210S Electronic Dividing Head of 160mm. height betweeen points and Ø 210 mm. fitted as a 4th axis. | 12.746,00 |
| 9310037L1000 | Manual tailstock of 160 mm. height.   | 862,00    |
| 9310038L1000 | 3 Jaw Chuck Ø 175 mm.   | 759,00    |
| 9310039L1000 | DETRON GXA-255H Electronic Dividing Head of 190 mm. height betweeen points and Ø 255 mm.fitted as a 4th axis. | 16.520,00 |
| 9310040L1000 | Manual tailstock of 190 mm. height.   | 862,00    |
| 9310041L1000 | 3 Jaw Chuck Ø 225 mm.   | 1.047,00  |



## 3: Vertical Machining Centers, models L1400 & L1600

| Code No.     | Description  | €uros      |
|--------------|--|------------|
| 9310000L1416 | Model L1400 with FAGOR 8055i Power CNC system with 10,4" LCD Color screen.             | 119.088,00 |
| 9310001L1416 | Model L1400 with FAGOR 8065M CNC system with 15" LCD Color screen.                     | 122.539,00 |
| 9310002L1416 | Model L1400 with HEIDENHAIN TNC 620 CNC system with 15" TFT Color screen.              | 138.157,00 |
| 9310004L1416 | Model L1400 with HEIDENHAIN TNC 640 CNC system with 15" TFT Color screen.              | 143.907,00 |
| 9310005L1416 | Model L1400 with FANUC OI MF CNC system with Manual Guide i with 15" LCD Color screen. | 123.066,00 |
| 9310006L1416 | Model L1400 with FANUC 31i B5 CNC system with Manual Guidei with 15" LCD Color screen. | 132.452,00 |
| 9310008L1416 | Model L1600 with FAGOR 8055i Power CNC system with 10,4" LCD Color screen.             | 122.694,00 |
| 9310009L1416 | Model L1600 with FAGOR 8065M CNC system with 15" LCD Color screen.                     | 126.145,00 |
| 9310010L1416 | Model L1600 with HEIDENHAIN TNC 620 CNC system with 15" TFT Color screen.              | 141.762,00 |
| 9310012L1416 | Model L1600 with HEIDENHAIN TNC 640 CNC system with 15" TFT Color screen.              | 147.512,00 |
| 9310013L1416 | Model L1600 with FANUC OI MF CNC system with Manual Guidei with 15" LCD Color screen.  | 126.671,00 |
| 9310014L1416 | Model L1600 with FANUC 31i B5 CNC system with Manual Guidei with 15" LCD Color screen. | 136.058,00 |
| Code No.     | Description  | €uros      |
| 9310016L1416 | Extra charge for different voltage than 400V/3Ph/50Hz. (standard).                     | 1.539,00   |
| 9310017L1416 | Extra charge for ISO-40 (DIN 69871) spindle taper.                                     | 481,00     |

## 3.1: Optional Accesories

| Code No.     | Description   | €uros     |
|--------------|---|-----------|
| 9310018L1416 | Chain type Chip Conveyor.   | 4.535,00  |
| 9310056L1416 | Extra charge for higher column to reach 825mm. traverse on the Z axis (only for model L1600).                         | 4.140,00  |
| 9310019L1416 | Extra for double arm (CHAIN type) automatic tool changer of 40 tools capacity.  | 8.569,00  |
| 9310606L1214 | Extra for BT-50/ISO-50 (DIN 69871) Spindle Taper & DISK type Tool Changer of 24 tools (speeds limited to 6.000 rpm).  | 11.443,00 |
| 9310020L1416 | Extra for BT-50/ISO-50 (DIN 69871) Spindle Taper & CHAIN type Tool Charger of 32 tools (speeds limited to 6.000 rpm). | 18.111,00 |
| 9310021L1416 | Extra for BT-50/ISO-50 (DIN 69871) Spindle Taper & CHAIN type Tool Changer of 40 tools (speeds limited to 6.000 rpm). | 19.884,00 |
| 9310022L1416 | Coolant through the spindle with 20bar coolant pump and 25 micron filter (for belt driven spindles).                  | 7.216,00  |
| 9310023L1416 | Coolant through the spindle with 40bar coolant pump and 25 micron filter (for belt driven spindles).                  | 14.216,00 |
| 9310024L1416 | Coolant through the spindle with 20bar coolant pump and 25 micron filter (for direct drive spindles).                 | 4.606,00  |
| 9310025L1416 | Coolant through the spindle with 40bar coolant pump and 25 micron filter (for direct drive spindles).                 | 11.660,00 |
| 9310026L1416 | Extra charge for FAGOR linear scales in X-Y-Z for models L1400 or L1600 (FAGOR or FANUC CNC systems).                 | 10.300,00 |
| 9310027L1416 | Extra charge for HEIDENHAIN linear scales in X-Y-Z for models L1400 or L1600 (HEIDENHAIN CNC systems).                | 11.847,00 |
| 9310028L1416 | Automatic Power Off M30.  | 381,00    |
| 9310029L1416 | Oil Skimmer.  | 971,00    |
| 9310030L1416 | Extra for installation of ZF gear box (2 speeds) Maximun 6.000rpm.  | 12.503,00 |

## 3.2: Main Spindle Options

| Code No.     | Description   | €uros     |
|--------------|---|-----------|
| 9310031L1416 | Belt driven spindle at 10.000rpm. with spindle oil cooler.  | 821,00    |
| 9310032L1416 | Belt driven spindle at 12.000rpm. with spindle oil cooler.  | 2.667,00  |
| 9310057L1416 | Extra charge for 17/25kW spindle motor (only for belt driven spindle) for FAGOR CNC systems (spindle speeds limited to 6.000rpm). | 3.522,00  |
| 9310033L1416 | Direct Drive Spindle at 12.000rpm. with 11/15,5kW. spindle motor, oil cooled spindle and air-oil bearings lubrication system      |           |
|              | for <b>FAGOR</b> CNC systems.   | 13.623,00 |
| 9310034L1416 | Direct Drive Spindle at 15.000rpm. with 7,5/11kW. spindle motor, oil cooled spindle and air-oil bearings lubrication system       |           |
|              | for FAGOR CNC systems.  | 15.164,00 |
| 9310035L1416 | Direct Drive Spindle at 12.000rpm. with 10/14kW. spindle motor, oil cooled spindle and air-oil bearings lubrication system        |           |
|              | for HEIDENHAIN CNC systems.   | 13.069,00 |
| 9310036L1416 | Direct Drive Spindle at 15.000rpm. with 10/14kW. spindle motor, oil cooled spindle and air-oil bearings lubrication system        |           |
|              | for HEIDENHAIN CNC systems.   | 16.361,00 |
| 9310037L1416 | Direct Drive Spindle at 12.000rpm. with 11/15kW. spindle motor, oil cooled spindle and air-oil bearings lubrication system        |           |
|              | for FANUC CNC systems.  | 8.214,00  |
| 9310038L1416 | Direct Drive Spindle at 15.000rpm. with 11/15kW. spindle motor, oil cooled spindle and air-oil bearings lubrication system        |           |
|              | for FANUC CNC systems.  | 15.971,00 |
| 9310039L1416 | Built-in Spindle at 24.000rpm. with 15/17kW. motor, HSK-50E Spindle Taper and oil cooled spindle.                                 | 33.272,00 |

## 3.3: 4th axis Options (FAGOR & FANUC)

| Code No.     | Description   | €uros     |
|--------------|---|-----------|
| 9310040L1416 | Extra for pre-installation of a 4th axis (only cabling and connector).                                      | 924,00    |
| 9310041L1416 | Extra for pre-installation of a 4th axis (cabling, connector and servo-driver).                             | 2.464,00  |
| 9310042L1416 | DETRON GXA-255H Electronical Dividing Head of 190mm height between points and Ø 255mm fitted as a 4th axis. | 13.555,00 |
| 9310043L1416 | Manual Tailstock of 190mm height.   | 862,00    |
| 9310044L1416 | 3 Jaw Chuck Ø 225mm.  | 1.047,00  |
| 9310045L1416 | DETRON GXA-320H Electronical Dividing of 210mm height between points and Ø 320mm fitted as a 4th axis.      | 15.315,00 |
| 9310046L1416 | Manual Tailstock of 210mm height.   | 985,00    |
| 9310047L1416 | 3 Jaw Chuck Ø 250mm.  | 1.252,00  |



| Code No.     | Description   | €uros     |
|--------------|---|-----------|
| 9310048L1416 | Extra for pre-installation of a 4th axis (only cabling and connector).                                      | 956,00    |
| 9310049L1416 | Extra for pre-installation of a 4th axis (cabling, connector and servo-driver).                             | 3.981,00  |
| 9310050L1416 | DETRON GXA-255H Electronical Dividing Head of 190mm height between points and Ø 255mm fitted as a 4th axis. | 16.520,00 |
| 9310051L1416 | Manual Tailstock of 190mm height.   | 862,00    |
| 9310052L1416 | 3 Jaw Chuck Ø 225mm.  | 1.047,00  |
| 9310053L1416 | DETRON GXA-320 H Electronical Dividing of 210mm height between points and Ø 320mm fitted as a 4th axis.     | 18.191,00 |
| 9310054L1416 | Manual Tailstock of 210mm height.   | 985,00    |
| 9310055L1416 | 3 Jaw Chuck Ø 250mm.  | 1.252,00  |



## 4: Vertical Machining Center, model L2000

| Code No.     | Description  | €uros      |
|--------------|--|------------|
| 9310000L2000 | Model L2000 with FAGOR 8055i Power CNC system with 10,4" LCD Color screen.             | 201.770,00 |
| 9310001L2000 | Model L2000 with FAGOR 8065M CNC system with 15" LCD Color screen.                     | 204.762,00 |
| 9310002L2000 | Model L2000 with HEIDENHAIN TNC 620 CNC system with 15" TFT Color screen.              | 224.351,00 |
| 9310004L2000 | Model L2000 with HEIDENHAIN TNC 640 CNC system with 15" TFT Color screen.              | 229.777,00 |
| 9310005L2000 | Model L2000 with FANUC OI MF CNC system with Manual Guidei with 15" LCD Color screen.  | 206.401,00 |
| 9310006L2000 | Model L2000 with FANUC 31i B5 CNC system with Manual Guidei with 15" LCD Color screen. | 215.175,00 |
| Code No.     | Description  | €uros      |
| 9310008L2000 | Extra charge for different voltage other than 400V/3Ph/50Hz. (standard).               | 1.924,00   |
| 9310009L2000 | Extra charge for ISO-40 (DIN 69871) spindle taper.                                     | 481,00     |

### 4.1: Optional Accesories

| Code No.     | Description  | €uros     |
|--------------|--|-----------|
| 9310010L2000 | Chain type Chip Conveyor.  | 5.858,00  |
| 9310011L2000 | Extra for double arm (CHAIN type) automatic tool changer of 40 tools capacity (BT-40/ISO-40 DIN 69871).                    | 8.504,00  |
| 9310511L2000 | Extra for BT-50/ISO-50 (DIN 69871) Spindle Taper & DISK type Tool Changer of 24 tools (speeds limited to 6.000 rpm).       | 10.076,00 |
| 9310012L2000 | Extra for BT-50/ISO- (DIN 69871) Spindle Taper & CHAIN type Tool Charger of 32 tools (speeds limited to 6.000rpm).         | 18.111,00 |
| 9310013L2000 | Extra for BT-50/ISO- (DIN 69871) Spindle Taper & CHAIN type Tool Charger of 40 tools (spindle speeds limited to 6.000rpm). | 19.884,00 |
| 9310014L2000 | Coolant through the spindle with 20bar coolant pump and 25 micron filter (for belt driven spindles).                       | 7.216,00  |
| 9310015L2000 | Coolant through the spindle with 40bar coolant pump and 25 micron filter (for belt driven spindles).                       | 14.077,00 |
| 9310016L2000 | Coolant through the spindle with 20bar coolant pump and 25 micron filter (for direct drive spindles).                      | 4.606,00  |
| 9310017L2000 | Coolant through the spindle with 40bar coolant pump and 25 micron filter (for direct drive spindles).                      | 11.660,00 |
| 9310018L2000 | Extra charge for FAGOR linear scales in X-Y-Z for model L2000 (FAGOR or FANUC CNC systems).                                | 10.894,00 |
| 9310019L2000 | Extra charge for HEIDENHAIN linear scales in X-Y-Z for model L2000 (HEIDENHAIN CNC systems).                               | 14.308,00 |
| 9310020L2000 | Automatic Power Off M30  | 381,00    |
| 9310021L2000 | Oil Skimmer  | 971,00    |
| 9310022L2000 | Extra for installation of ZF gear box (2 speeds) Maximun 6.000rpm.   | 12.503,00 |

### 4.2: Main Spindle Options

| Code No.     | Description  | €uros     |
|--------------|--|-----------|
| 9310023L2000 | Belt driven spindle at 10.000rpm. with spindle oil cooler.   | 1.174,00  |
| 9310024L2000 | Belt driven spindle at 12.000rpm. with spindle oil cooler.   | 3.174,00  |
| 9310025L2000 | Direct Drive Spindle at 12.000rpm. with 11/15,5kW. spindle motor, oil cooled spindle and air-oil bearings lubrication system |           |
|              | for FAGOR CNC systems.   | 11.809,00 |
| 9310026L2000 | Direct Drive Spindle at 15.000rpm. with 7,5/11kW. spindle motor, oil cooled spindle and air-oil bearings lubrication system  |           |
|              | for FAGOR CNC systems.   | 13.254,00 |
| 9310027L2000 | Direct Drive Spindle at 12.000rpm. with 10/14kW. spindle motor, oil cooled spindle and air-oil bearings lubrication system   |           |
|              | for HEIDENHAIN CNC systems.  | 7.435,00  |
| 9310028L2000 | Direct Drive Spindle at 15.000rpm. with 10/14kW. spindle motor, oil cooled spindle and air-oil bearings lubrication system   |           |
|              | for HEIDENHAIN CNC systems.  | 11.054,00 |
| 9310029L2000 | Direct Drive Spindle at 12.000rpm. with 11/15kW. spindle motor, oil cooled spindle and air-oil bearings lubrication system   |           |
|              | for FANUC CNC systems.   | 13.556,00 |
| 9310030L2000 | Direct Drive Spindle at 15.000rpm. with 11/15kW. spindle motor, oil cooled spindle and air-oil bearings lubrication system   |           |
|              | for FANUC CNC systems.   | 16.252,00 |
| 9310031L2000 | Built-in Spindle at 24.000rpm. with 15/17kW. motor, HSK-50E Spindle Taper and oil cooled spindle.                            | 31.193,00 |
|              |  |           |

## 4.3: 4th axis Options (FAGOR & FANUC)

| Code No.     | Description  | €uros     |
|--------------|--|-----------|
| 9310032L2000 | Extra charge for pre-installation of a 4th axis (only cabling and connector).                                  | 924,00    |
| 9310033L2000 | Extra for pre-installation of a 4th axis (cabling, connector and servo-driver).                                | 2.464,00  |
| 9310034L2000 | DETRON GXA-255H Electronical Dividing Head of 190mm height between points and Ø 255mm fitted as a 4th axis.    | 13.555,00 |
| 9310035L2000 | Manual Tailstock of 190mm height.  | 862,00    |
| 9310036L2000 | 3 Jaw Chuck Ø 225mm.   | 1.047,00  |
| 9310037L2000 | DETRON GXA-320H Electronic Dividing Head of 210 mm. height betweeen points and Ø 320 mm. fitted as a 4th axis. | 15.315,00 |
| 9310038L2000 | Manual tailstock of 210 mm. height.  | 985,00    |
| 9310039L2000 | 3 Jaw Chuck Ø 250 mm.  | 1.252,00  |

| Code No.     | Description   | €uros     |
|--------------|---|-----------|
| 9310040L2000 | Extra charge for pre-installation of a 4th axis (only cabling and connector).                                 | 956,00    |
| 9310041L2000 | Extra for pre-installation of a 4th axis (cabling, connector and servo-driver).                               | 4.264,00  |
| 9310042L2000 | DETRON GXA-255H Electronical Dividing Head of 190mm height between points and Ø 255mm fitted as a 4th axis.   | 16.520,00 |
| 9310043L2000 | Manual Tailstock of 190mm height.   | 862,00    |
| 9310044L2000 | 3 Jaw Chuck Ø 225mm.  | 1.047,00  |
| 9310045L2000 | DETRON GX-320H Electronic Dividing Head of 210 mm. height betweeen points and Ø 320 mm. fitted as a 4th axis. | 18.191,00 |
| 9310046L2000 | Manual tailstock of 210 mm. height.   | 985,00    |
| 9310047L2000 | 3 Jaw Chuck Ø 250 mm.   | 1.252,00  |



#### 5.1: Electronic Touch Probes for HEIDENHAIN TNC 640

| Code No.       | Description  | €uros     |
|----------------|--|-----------|
| 9310RENISHAW   | RENISHAW Contact tool setting probe, model TS27R (cable transmission).   | 2.801,00  |
| 9310BLUM       | BLUM Contact tool setting probe, model ZX-SPEED (cable transmission).  | 3.391,00  |
| 9310HEIDENHAIN | HEIDENHAIN Contact tool setting probe, model TT-160 (cable transmission).  | 3.027,00  |
| 9311RENISHAW   | RENISHAW Contact tool setting probe, model OTS AA (optical transmission).  | 6.386,00  |
| 9311BLUM       | BLUM Contact tool setting probe, model ZX-SPEED IR (optical transmission).                                       | 6.466,00  |
| 9311HEIDENHAIN | HEIDENHAIN Contact tool setting probe, model TT-460 (optical transmission) with EnDat protocol system.           | 7.187,00  |
| 9312RENISHAW   | RENISHAW Component setting & inspection probe, model OMP60 (optical transmission).                               | 8.765,00  |
| 9312BLUM       | BLUM Component setting & inspection probe, model TC-50 (optical transmission).                                   | 6.470,00  |
| 9312HEIDENHAIN | HEIDENHAIN Component setting & inspection probe, model TS-460 (optical transmission) with EnDat protocol system. | 7.250,00  |
| 9313RENISHAW   | RENISHAW Component setting & inspection probe, model OMP60 and Contact tool setting probe,                       |           |
|                | model OTS AA (optical transmission).   | 10.676,00 |
| 9313BLUM       | BLUM Component setting & inspection probe, model TC-50 and Contact tool setting probe,                           |           |
|                | model ZX-SPEED IR (optical transmission).  | 10.556,00 |
| 9313HEIDENHAIN | HEIDENHAIN Component setting & inspection probe, model TS-460 and Contact tool setting probe,                    |           |
|                | model TT-460 (optical transmission) with EnDat protocol system.  | 11.939,00 |

#### 5.2: Electronic Touch Probes for HEIDENHAIN TNC 620

| Code No.       | Description  | €uros     |
|----------------|--|-----------|
| 9310RENISHAW   | RENISHAW Contact tool setting probe, model TS27R (cable transmission).   | 3.750,00  |
| 9310BLUM       | BLUM Contact tool setting probe, model ZX-SPEED (cable transmission).  | 4.340,00  |
| 9310HEIDENHAIN | HEIDENHAIN Contact tool setting probe, model TT-160 (cable transmission).  | 3.976,00  |
| 9311RENISHAW   | RENISHAW Contact tool setting probe, model OTS AA (optical transmission).  | 7.335,00  |
| 9311BLUM       | BLUM Contact tool setting probe, model ZX-SPEED IR (optical transmission).                                       | 7.416,00  |
| 9311HEIDENHAIN | HEIDENHAIN Contact tool setting probe, model TT-460 (optical transmission) with EnDat protocol system.           | 8.136,00  |
| 9312RENISHAW   | RENISHAW Component setting & inspection probe, model OMP60 (optical transmission).                               | 9.714,00  |
| 9312BLUM       | BLUM Component setting & inspection probe, model TC-50 (optical transmission).                                   | 7.420,00  |
| 9312HEIDENHAIN | HEIDENHAIN Component setting & inspection probe, model TS-460 (optical transmission) with EnDat protocol system. | 8.198,00  |
| 9313RENISHAW   | RENISHAW Component setting & inspection probe, model OMP60 and Contact tool setting probe,                       |           |
|                | model OTS AA (optical transmission).   | 11.625,00 |
| 9313BLUM       | BLUM Component setting & inspection probe, model TC-50 and Contact tool setting probe,                           |           |
|                | model ZX-SPEED IR (optical transmission).  | 11.506,00 |
| 9313HEIDENHAIN | HEIDENHAIN Component setting & inspection probe, model TS-460 and Contact tool setting probe,                    |           |
|                | model TT-460 (optical transmission) with EnDat protocol system.  | 12.888,00 |

| Code No.     | Description  | €uros     |
|--------------|--|-----------|
| 9314RENISHAW | <b>RENISHAW</b> Contact tool setting probe, model TS27R (cable transmission).              | 3.575,00  |
| 9314BLUM     | BLUM Contact tool setting probe, model ZX-SPEED (cable transmission).                      | 3.913,00  |
| 9315RENISHAW | RENISHAW Contact tool setting probe, model OTS AA (optical transmission).                  | 7.160,00  |
| 9315BLUM     | BLUM Contact tool setting probe, model ZX-SPEED IR (optical transmission).                 | 6.989,00  |
| 9316RENISHAW | RENISHAW Component setting & inspection probe, model OMP60 (optical transmission).         | 10.792,00 |
| 9316BLUM     | BLUM Component setting & inspection probe, model TC-50 (optical transmission).             | 6.993,00  |
| 9317RENISHAW | RENISHAW Component setting & inspection probe, model OMP60 and Contact tool setting probe, |           |
|              | model OTS AA (optical transmission).   | 13.641,00 |
| 9317BLUM     | BLUM Component setting & inspection probe, model TC-50 and Contact tool setting probe,     |           |
|              | model ZX-SPEED IR (optical transmission).  | 11.079,00 |