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FIXED-TURNING COMPARISON CHART

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ALL THE POWER OF NEWEN'S KNOW-HOW
COMBINED WITH NUMERICAL CONTROL...



CONTOUR-BB™
CONTOUR-BB-CS™

CONTOUR™
CONTOUR-CS™

EPOC™
EPOC-CS™

EPOC-XL™

NC6-RCC™

NC6-RR™

RCC : Search of the Center of the Valve Guide within +/-2mm of its Theoretical Position and Angle

SQUIRT REAMER CONFIGURATION
Retractable Reamer with High-Pressure Coolant Through-The-Center

| GENERAL CHARACTERISTICS | CONTOUR-BB™ CONTOUR-BB-CS™ | CONTOUR™ CONTOUR-CS™ | EPOC™ EPOC-CS™ | EPOC-XL™ | NC6-RCC™ | NC6-RR™ |
|--|---|---|--|--|---|---|
| Electrical Requirements | 220-240V / 20 Amps / 1 Phase / 50/60 Hz | 220-240V / 20 Amps / 1 Phase / 50/60 Hz | 220-240V / 20 Amps / 1 Phase / 50/60 Hz | 220-240V / 20 Amps / 1 Phase / 50/60 Hz | 220-240V / 20 Amps / 3 Phase / 50/60 Hz | 220-240V / 20 Amps / 3 Phase / 50/60 Hz |
| Pneumatic Requirements | 6 Bars (90 PSI) / 24 cfm | 6 Bars (90 PSI) / 24 cfm | 6 Bars (90 PSI) / 24 cfm | 6 Bars (90 PSI) / 24 cfm | 6 Bars (90 PSI) / 24 cfm | 6 Bars (90 PSI) / 24 cfm |
| Hydraulic Unit | 200 Bars (2,900 PSI) | 200 Bars (2,900 PSI) | 200 Bars (2,900 PSI) | 200 Bars (2,900 PSI) | 200 Bars (2,900 PSI) with Accumulator | 200 Bars (2,900 PSI) with Accumulator |
| Spindle Motor | 1.5 KW Asynchronous AC | 1.5 KW Asynchronous AC | 5 HP AC Servo | 5 HP AC Servo | 5 HP AC Servo | 5 HP AC Servo |
| Spindle Rotation Speed | 120-3,000 RPM | 120-3,000 RPM | 5-4,500 RPM | 5-4,500 RPM | 5-4,500 RPM | 5-8,000 RPM |
| Cutting Strategies | 2 | 2 | 5 | 5 | 5 | 5 |
| Bi-Directional Cutting | No | No | Yes | Yes | Yes | Yes |
| Targeted Spindle Speed | No | No | Yes | Yes | Yes | Yes |
| Machine Shell with Computer Controlled Automatic Doors | No | No | No | No | Yes | Yes |
| Coolant w/Fixed Collection System, Y-Axis Mount & Command Override | No: CONTOUR-BB™, Yes: CONTOUR-BB-CS™ | No: CONTOUR™, Yes: CONTOUR-CS™ | No: EPOC™, Yes: EPOC-CS™ | No | Yes | Yes |
| Number of CNC Axes | 2 | 2 | 4 | 4 | 6 to 10 (with C1 to C4 Option) | 7 to 11 (with C1 to C4 Option) |
| Numerical Controls | NEWEN® | NEWEN® | NEWEN® | NEWEN® | NEWEN® | NEWEN® |
| Software | NEWEN® | NEWEN® | NEWEN® | NEWEN® | NEWEN® | NEWEN® |
| Z-Axis, Machine Head Travel Mechanism | Linear Ways with Pneumatic Lock | Linear Ways with Pneumatic Lock | Pantograph™ System w/Hydraulic Lock | Pantograph™ System w/Hydraulic Lock | Linear Ways with Pneumatic Lock | Linear Ways with Pneumatic Lock |
| Transmission Clutch System | No | No | Yes | Yes | Yes | Yes |
| Machining Spindle Tilt (Rotation) | 6 Degrees | 6 Degrees | 6 Degrees | 6 Degrees | 6 Degrees | N/A |
| X-Axis, Auto Centering Capacity | 12mm (0.47") | 12mm (0.47") | 12mm (0.47") | 12mm (0.47") | 12mm (0.47") | N/A |
| Y-Axis, Auto Centering Capacity | 12mm (0.47") | 12mm (0.47") | 12mm (0.47") | 12mm (0.47") | 12mm (0.47") | N/A |
| Y'-Axis, Machine Parallels* | Linear Ways X2, Mechanical Lock/Unlock* | Linear Ways X3, Pneumatic Lock/Unlocking | Linear Ways X3, Pneumatic Lock/Unlocking | Linear Ways x2, Pneumatic Lock/Unlocking | Mechanical, Hydraulic Unlocking | Mechanical, Hydraulic Unlocking |
| Warranty Against Manufacturing Defects (As Per General Conditions of Sales) | 1 Year | 1 Year | 1 Year | 1 Year | 1 Year | 1 Year |
| Training | Inquire with your Local Distributor | Inquire with your Local Distributor | Inquire with your Local Distributor | Inquire with your Local Distributor | Inquire with your Local Distributor | Inquire with your Local Distributor |
| CAPACITY | | | | | | |
| X-Axis, Machine Head Travel (Max Dist from Guide to Guide without Moving Cyl Head) | 760mm (29.92") | 1240mm (48.82") | 1320mm (51.97") | 1320mm (51.97") | 1260mm (49.61") | 1260mm (49.61") |
| Y-Axis, Machine Head Travel | 60mm (2.36") | 70mm (2.75") | 80mm (3.15") | 80mm (3.15") | 120mm (4.72") | 120mm (4.72") |
| Z-Axis, Machine Head Travel | 250mm (9.84") | 250mm (9.84") | 327mm (12.87") | 327mm (12.87") | 320mm (12.60") | 320mm (12.60") |
| Y'-Axis, Machine Parallels Travel | 100mm (3.94") 69mm (2.72") | 163mm (6.41") 120mm (4.72") | 148mm (5.83") | 340mm (13.39") | 136mm (5.35") | 136mm (5.35") |
| Z'-Axis, Spindle Sheath Travel | 80mm (3.15") | 75mm (2.95") | 95mm (3.74") | 95mm (3.74") | 95mm (3.74") | 60mm (2.36") |
| X-Axis, Carriage Travel | 11mm (0.433") | 11mm (0.433") | 16.45mm (0.648") | 19mm (0.748") | 16mm (0.630") | 16mm (0.630") |
| Maximum Profile Length (profile ID to profile OD) | 22mm (0.866") | 22mm (0.866") | 32.90mm (1.295") | 38mm (1.496") | 32mm (1.260") | 32mm (1.260") |
| Maximum Profile Length (Z Axis) | 75mm (2.96") | 75mm (2.96") | 90mm (3.54") | 90mm (3.54") | 90mm (3.54") | 90mm (3.54") |
| Valve Seat Machining Capacity (Bases on Available Tip Holders) | 13.50mm-80.00+mm (0.532-3.15+) | 13.50mm-80.00+mm (0.532-3.15+) | 13.50mm-110.00+mm (0.532-4.33+) | 13.5mm-200+mm (0.532-7.874+) | 14mm-100mm (0.551-3.937") | 23mm-100mm (0.906-3.937") |
| Valve Guide Reaming Capacity | Max Dia 12mm (.472"), Length 65mm (2.56") | Max Dia 12mm (.472"), Length 65mm (2.56") | Max Dia 16mm, Length 90mm (3.54") + w/Option | Max Dia 16mm, Length 90mm (3.54") + w/Option | 90mm (3.54") | 90mm (3.54") |
| Combination Valve Guide Reaming/Valve Seat Machining** | Yes | Yes | Yes | Yes | Yes | Yes |
| PC SPECIFICATIONS | | | | | | |
| Display Size (Touch Screen) | 12" | 12" | 15" | 15" | 15" | 15" |
| Network Card | Yes | Yes | Yes | Yes | Yes | Yes |
| Floppy Drive | No | No | Yes | Yes | Yes | Yes |
| CD Drive | No | No | Yes | Yes | Yes | Yes |
| USB port | Yes | Yes | Yes | Yes | Yes | Yes |
| Operating System | Windows® XP Pro | Windows® XP Pro | Windows® XP Pro | Windows® XP Pro | Windows® XP Pro | Windows® XP Pro |
| PROGRAMS | | | | | | |
| Contour™ (Optimized Single Point Valve Seat Machining) | Yes | Yes | Yes | Yes | Yes | Yes |
| Guide (Optimized Valve Guide Reaming) | Yes | Yes | Yes | Yes | Yes | Yes |
| CYLINDER HEAD CAPACITY | | | | | | |
| Maximum Height (Based on 210mm Overall Length Pilot) *** | 315mm (12.40") | 315mm (12.40") | 380mm (14.96") | 400mm/810mm (15.75"/31.89") | 350mm (13.78") | 400mm (15.75") |
| Maximum Length | Unlimited 1020mm (40.16") | Unlimited 1650mm (64.96") | Unlimited 1890mm (74.41") | Unlimited | Unlimited | Unlimited |
| Maximum Width | Approx 450mm (17.72") | Approx 450mm (17.72") | Approx 500mm (19.69") | Unlimited | Approx 500mm (19.69") | Approx 500mm (19.69") |
| MACHINE DIMENSIONS | | | | | | |
| Maximum Machine Height | 2205mm (86.81") | 2205mm (86.81") | 2205mm (86.81") | 2310mm (90.94") | 2320mm (91.34") | 2440mm (96.06") |
| Maximum Machine Width | 1460mm (57.48") | 2346mm (92.36") | 1923mm (75.71") | 2339mm (92.09") | 4370mm (172.05") | 4370mm (172.05") |
| Maximum Machine Depth | 1327mm (52.24") | 1460mm (57.48") | 1421mm (55.94") | 1508mm (59.37") | 2145mm (84.45") | 2230mm (87.80") |
| Footprint (Width x Depth) | 1460mmx1327mm (57.48"x52.24") | 1642mmx1460mm (64.65"x57.48") | 1923mmx1421mm (75.71" x 55.94") | 2339mm x 1509mm (92.09" x 59.37") | 4370mm x 2145mm (172.05" x 84.45") | 4370mm x 2230mm (172.05" x 87.80") |
| Net Weight | 750Kg (1653Lbs) | 1000Kg (2205Lbs) | 1200Kg (2645Lbs) | 1450Kg (3190Lbs) | 1750 Kg (3858 Lbs) | 2960 Kg (6526 Lbs) |
| PACKING DIMENSIONS | | | | | | |
| Height | 2100mm (82.68") | 2100mm (82.68") | 2145mm (84.85") | 2240mm (88.19") | 2520mm (99.21") | 2520mm (99.21") |
| Width | 1230mm (48.43") | 1575mm (62") | 1948mm (76.69") | 1950mm (76.77") | 4100mm (161.42") | 4100mm (161.42") |
| Depth | 1130mm (44.49") | 1220mm (48.03") | 1264mm (49.76") | 1440mm (56.69") | 1760mm (69.29") | 1760mm (69.29") |
| Gross Weight | 900 Kg (1984 Lbs) | 1075Kg (2370Lbs) | 1410Kg (3108Lbs) | 1660Kg (3652Lbs) | 2880Kg (6349 Lbs) | 3260Kg (7187 Lbs) |

* All CS FIXED-TURNING® machine models feature an independent & automatic locking system, with a pneumatic unlock command.
 ** All FIXED-TURNING® machines are capable of valve guide reaming. Coolant is a MUST for optimal results.
 *** All FIXED-TURNING® machines may be ordered with an upper bench modification (option), adding 100mm (3.94") of capacity below the spindle.

FIXED-TURNING® (valve seat machining by interpolation of axes) and Numerically Controlled Machining

