



The AddisonMckee DataBend 20ESRD is a 20mm high performance draw bending machine designed for the production of small diameter metallic tubular components. All AddisonMckee machines are built using exacting quality standards and enforced by our own Total Quality Assurance programme.

- Touch Screen Control for ease and speed of operation
- Full Colour Graphics
- Graphical Representation of the Component Shape
- XYZ to YBC Conversion
- Tooling Data Storage Facility
- Sequence Teach Facility
- Production Monitoring Facility
- Piece Counter (Electronic)
- Floppy Disc Drive Backup Unit

The DataBend 20ESRD as generally described is supplied complete with the following equipment:

- DataBend CNC unit.
- Left and right hand bending on same component
- Foot pedal cycle start.
- Clockwise / anti-clockwise bending rotation
- Two day operator training at our works.
- Operator manual and circuit diagrams.
- 2 x Ladar safety scanner
- Transparent Tunnel Guard
- Recapture software
- Sequential software
- Safe load procedure (foot)
- CE mark

Capacity

| | | | |
|--|--------|----------|-----|
| Tube outside diameter | Ali | 20 mm | MAX |
| Tube wall thickness | Ali | 1.5 mm | MAX |
| Tube outside diameter | Steel | 16 mm | MAX |
| Tube wall thickness | Steel | 1.25 mm | MAX |
| Centerline radius | | 75 mm | MAX |
| " " " | | 10 mm | MIN |
| Bend arm rotation (Left and Right) | C axis | 180 deg | MAX |
| Length of tube into the collet (without mandrel retraction) | Y axis | 1100 mm | MAX |
| Length of tube into the collet (with mandrel retraction) | Y axis | 1000 mm | MAX |
| Length of tube over the mandrel rod through the collet (<i>hitch feed</i>) | Option | 1800 mm | MAX |
| Length of tube into the collet before last bend - <i>subject to tooling limitations.</i> | | 50 mm | MIN |
| Tube working height | | 1175 mm | |
| Tube height from tooling platform | Lower | 12.5 mm | |
| Upper Stacks programmable | | 62.5 mm | |
| Mandrel retraction stroke | Option | 50 mm | |
| Follower slide stroke | | 200 mm | |
| Clamp slide stroke - <i>direct acting only</i> | | N/A mm | |
| Reaction slide stroke | Long | 119.5 mm | |
| " " " | Short | 4.5 mm | |
| Vertical shift pitch programmable to maximum | | 100 mm | MAX |
| " " " | Unload | 100 mm | |
| Horizontal shift | X axis | ± 90 mm | |
| Difference between tooling radii | | 50 mm | MAX |
| Unload offset | | 10 mm | |
| Y axis push force | | 2.7 kN | |

Axis specification

| AXIS | SPEED 100% | UNITS | RESOLUTION | UNITS | REPEATABILITY | UNITS |
|------------|---------------|--------|------------|----------|---------------|---------|
| Y - feed | 120 | M/min. | .001 | mm/count | 0.05 | mm |
| B - rotate | 150 | r.p.m. | .0005 | °/count | 0.05 | degrees |
| C - bend | 61 | r.p.m. | .0004 | °/count | 0.05 | degrees |
| X - radius | 25 | M/min. | .0003 | mm/count | 0.05 | mm |
| Z-stack | 12 | M/min | .0001 | mm/count | 0.05 | mm |

Dimensions

| | |
|---|----------------|
| Overall length to the rear from tool post | 2210 mm |
| Bend arm radius (<i>clamp out</i>) | 560 mm |
| Length forwards from tool post | 100 mm |
| Length of reaction arm - <i>at MAX. center line radius from Y axis center</i> | 525 mm |
| Overall width | 1200 mm |
| Overall height | 1460 mm |
| Machine weight | 1100 Kg (Est.) |

Optional Extras

To complement the machine, a wide variety of optional extras are available. Some of these may be essential for your production needs, such as items to suit climatic conditions, or desirable for specific processes, such as automation systems.

Machine capacity figures are based on using material to the specification of BS3602:part 1:1987 having a mean tensile strength of 450 N/mm² bent at a radius of 2 times the outside diameter.

This document has been compiled in good faith. (Errors and omissions excepted).

This information applies to machines manufactured after serial number - 9338

The information in this document is not binding in detail.

In pursuit of excellence AddisonMcKee retain the right to amend designs from time to time without prior notice.