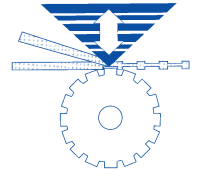


Ultrasonic Radial Actuator



General Description

The Branson Radial Actuator is a compact, rigid 20 kHz unit designed for high-speed continuous welding of thermoplastic films and fabrics. Materials can be processed at rates up to 1000 feet per minute. Used with a basic ultrasonic power supply (either a 900BCA or a 2000bdc), the Radial Actuator combines the horn, bearings, timing belt, pulley, base plate, and RF slip ring assembly into a compact unit allowing easy integration into assembly lines or other assembly equipment. The unit can also be ordered with an optional motor mounted on the base plate for driving the actuator's pulley.

Applications for the Radial Actuator include continuous ultrasonic bondings where high speed is needed and puckering or drag effects from stationary horns is problematic. Also, weld patterns can be engraved on the horn's surface allowing ultrasonic bonding along locations not possible with stationary horns.

Materials suitable for processing with the Radial Actuator include 100% synthetics such as nylon, polyester, polypropylene, polyethylene, modified acrylics, some vinyls, urethane, and synthetic blends with up to 40% non-synthetic fiber content (dependent upon the application). Some blends with up to 50% non-synthetic fiber content have been processed. In addition, films and coated papers may be processed.

Key Features

- **Adjustable run-out control** - A four-jaw chuck located behind the horn allows total run-out of the horn to be adjustable to less than 0.001." This feature is important for gapping and sensitive applications.

- **True radial ultrasonic vibration** - Ultrasonic vibrations are normal to the surface of the horn.
- **High speed capability** - Because the horn can roll tangentially with the material, drag and puckering effects are eliminated, so higher speeds are obtainable compared to traditional stationary horns.
- **Versatility of placement** - The horn's working surface is the highest point on the actuator; therefore, the Radial Actuator can be suspended over the material inside area without interference.
- **Custom horns** - Custom horns can be ordered with welding sealing patterns on their surface. This is an advantage when the anvil can't have a sealing pattern on it.
- **Optional drive motor** - An optional pulley drive motor can be installed on the base plate (if ordered).
- **Compact package** - 28" x 8" x 8" overall dimensions includes mounting base plate, horn, booster, RF converter with slip ring, bearings, and timing belt pulley.

Warranty

The Branson Radial Actuator carries a one-year warranty on all parts and workmanship. This warranty applies to equipment purchased in the United States. For warranty information on units purchased outside the U.S., contact your local representative.

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Electrical Specifications

Power requirements:

Satisfied by the power supply.

Note: For complete power supply information, refer to Branson data sheets 900-22 and 2000b/bdc.

Mechanical Specifications

Pneumatic requirement:

Clean (5 micron), dry air at 100 psig (690 kPa)
(40 psi required for converter cooling)

Maximum force applied

to horn: 120 lbs. (534 N)

Output amplitude: 45 microns

Dimensions:

Height: 8" (203 mm)

Width: 28" (711 mm)

Depth: 8" (203 mm)

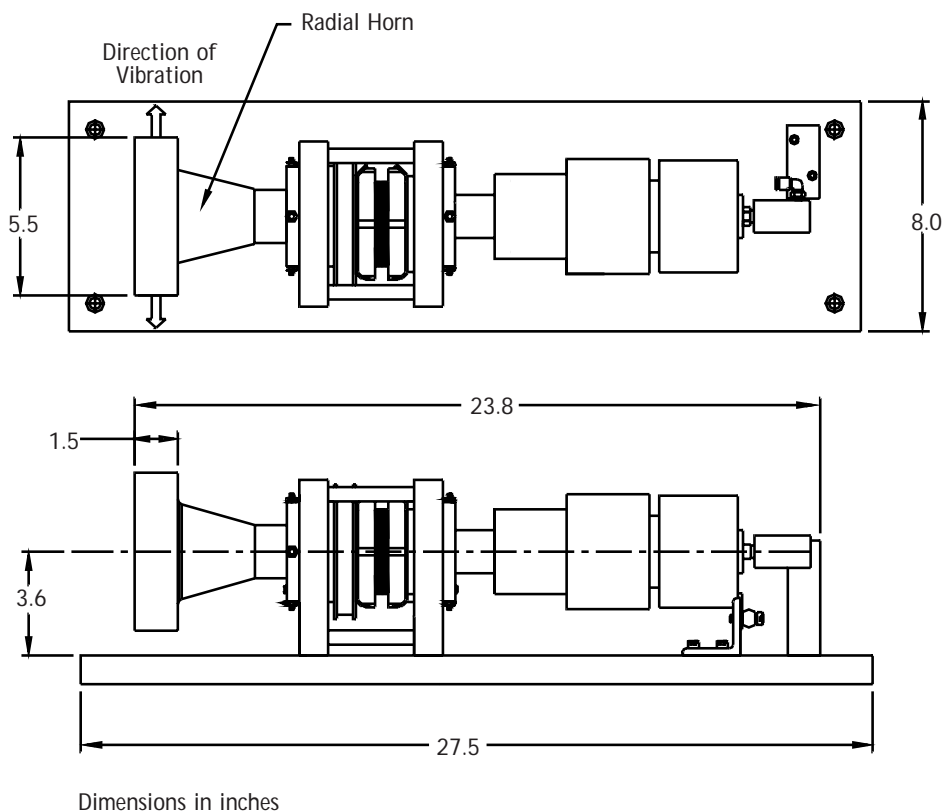
Ordering Information

Note: All sales shall be subject to the Supplier's terms and conditions of sale as described in Branson's quotations and sales contracts.

	Branson EDP No.
Radial Actuator	225-120-029
Standard radial horn	108-009-572
Branson 2000b power supply	*
Model 930BCA Advanced Power Supply, 200-245V, 20 kHz, 3000 Watts**	101-132-282
Optional fractional hp dc motor - Contact Branson, Danbury to order	

**Ordering information dependent on power level. See data sheet 2000 b/bdc for complete power supply ordering information.*

***See data sheet 900-22 for complete power supply ordering information.*



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