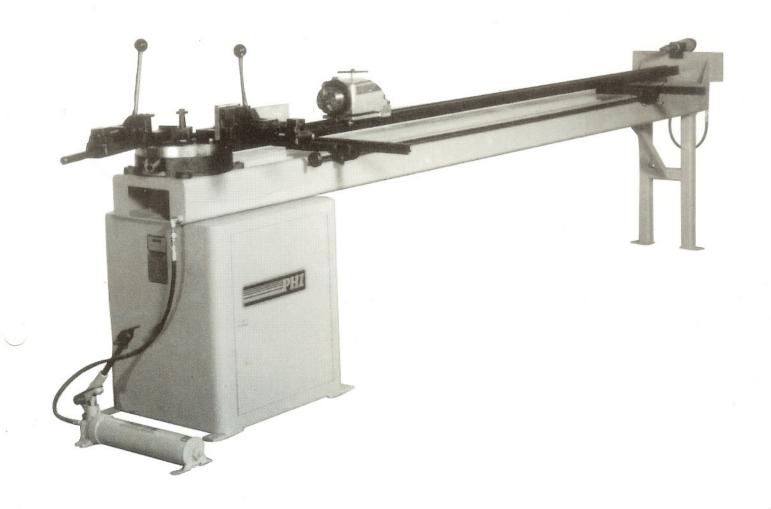
## PHI 420 PRECISION BENDING MACHINE



## Designed and engineered especially for the needs of aircraft maintenance crews.

Our Model 420 is a totally flexible and precise manually-operated "draw" or "rotary die" type machine. It has a special gear-operated bend arm that will increase leverage 4 to 1 when bending heavier tubes. The bender head is bolted to a base plate which is

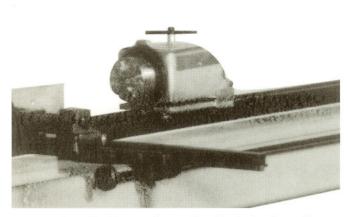
mounted on a tooling storage cabinet. The Model 420 is reversible and may be set up for either right or left hand bending. Since it requires no outside power source, your maintenance team can now make precise and accurate bends anywhere in the field.

## 420 PRECISION BENDING MACHINE SPECIFICATIONS

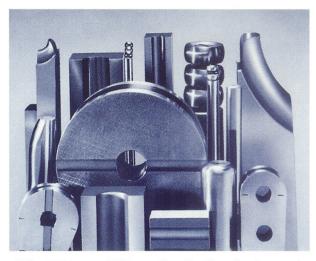
Capacity - Tube	1-1/2" " (37.5 mm) OD X .065 wall thickness X 2D minimum CLR
- Pipe	1" (25 mm) OD X schedule 80 X 2D minimum CLR
Material - Tube	35,000 psi (930 M Pa) yield, 35% elongation
- Pipe	ASTM A-587 or equivalent
Direction of Bend	Reversible (clockwise or counter-clockwise)
Center Line Radius (CLR)	Maximum 8" (200 mm) standard, 12" (300 mm) optional
Maximum Bend Arm Movement	195°
Maximum Over-Mandrel Tube Length	10 feet (3.3 m)
Machine Floor Space	12 feet (3.6 m) long X 40" (100 cm) wide S 40" (100 cm) high
Shipping Weight	900 lb (409 kg) approximately

## SPECIAL FEATURES

- Self-contained needs no outside power source.
- Hydraulic foot operated mandrel extractor.
- Precision bends equipped for wiper die and ball mandrel capabilities.
- Plane of bend carriage with adjustable chuck.
- 1" diameter tool post. All necessary wrenches and two manuals are included with the machine.



Carriage. Place of bend carriage features adjustable chuck with smooth, easy operation. The chuck holds the tube or pipe firmly in place. A 360° plane-of-bend dial permits accurate plane-of-bend setting.



*Tooling.* PHI is now a full-line supplier of bender tooling for not only PHI benders, but also for any other bender you might have. Let us give you a quotation.



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