

Circular Flexform™ Press type QFL 1.1-800



Features and benefits

High pressure (11,600 psi, 80 MPa) produces complex shapes to close tolerances with little or no manual rework.

Very low tooling cost and greater flexibility in part design.

Fast cycles for higher throughput and productivity.

The press is easy to install.

Ideal for off-loading and back-up to larger press systems.

Quick Cycle Circular Tray Press

QFL presses are compact units with one meter diameter circular trays, designed for faster forming of smaller parts. Cycles average about one minute, with maximum pressure of 800 bar (11,600 psi). These presses are commonly used for off-loading and back-up for larger rectangular tray presses and for rapid forming of smaller parts.

Flexform high pressure technology has been used for decades by such industry leaders as Airbus, Boeing, British Aerospace, Bombardier, Cessna, Lockheed, and many, many others. Users report shorter part lead times, significantly lower tooling costs (one piece instead of three), fast prototyping, and easy tool modification after component design changes. Parts formed by the QFL press can include small to medium sized components, with simple shallow or complex deep-drawn shapes.

The Flexform concept is simple: sheet metal blanks are formed over a single rigid, shape defining tool half by a flexible rubber diaphragm under uniform hydrostatic pressure. Tool halves and blanks are freely placed in circular trays which shuttle in and out of the press frame containing the pressurized diaphragm. The process results in scratch-free parts regardless of the sheet thickness or complexity of the tool, including undercuts. High forming pressure ensures close tolerance parts direct from the press with little or no secondary hand work required.



PRODUCT SPECIFICATION

Circular Flexform Press type QFL 1.1-800

Press

Maximum operating pressure	11,600 psi (80 MPa)
Total press length including tray stations	18.4 ft (5.6 m)
Total press width	11.5 ft (3.5 m)
Total press height above floor	10.8 ft (3.3 m)
Height from floor to tray top	38" (965 mm)
Foundation depth	18.9" (480 mm)
Total weight (on press foundation)	32 ton

The dimensions given above include the hydraulic equipment.

Tray data

Number of tray stations	2
Maximum tray depth	7.0" (178 mm)
Maximum tool height with throw pad	8.7" (220 mm)
Tray depth with filler plates	3.1" (78 mm)
Maximum tray diameter with filler ring	37.4" (950 mm)
Maximum tray diameter	41.0" (1,042 mm)

Transportation data

Gross weight of heaviest item	30 ton
Gross dimensions of heaviest item (LxWxH)	13.1x8.2x6.6 ft (4.0x2.5x2.0 m)

Control system

Programmable controller (PLC)	Siemens
HMI Panel	Siemens
Flat color touch screen size	5.7"
HMI Operative system	Windows CE

Cycle time

Presumptions used when calculating the cycle time:

- Filler plate in the tray.
- 50 % average tray loading.
- Maximum operating pressure.

Cycle time without hold time	60 s
------------------------------	------

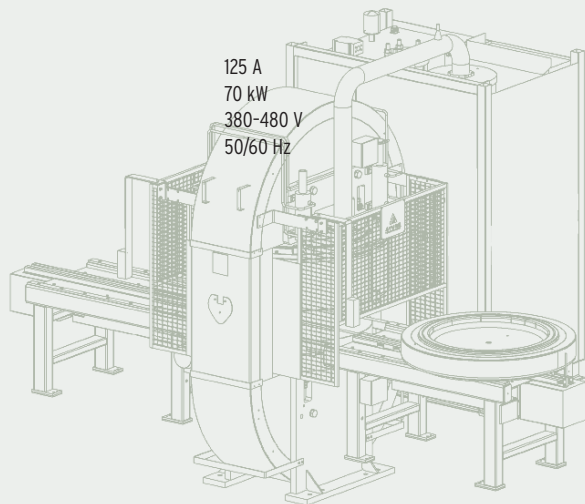
Sound level

The press has a noise level below 85 dB(A) equivalent at the operator's station

Site utilities

Electric power

Incoming current protection	125 A
Installed power	70 kW
Voltage (three-phase + ground)	380-480 V
Frequency	50/60 Hz



Aerospace parts made in an Avure Flexform press at the Cessna Aerospace Company, in Wichita, KA, USA.



Aerospace parts formed in an Avure Flexform press at Embraer in Brazil.



Aerospace parts made in aluminum alloys, stainless steel and titanium.

For more
information
please visit
www.avure.com
Or email:
sales@avure.com

Avure Technologies Inc
Headquarters
22408 66th Avenue South
Kent, WA 98032, U.S.A.
Phone: +1 800 610 1798
Fax: +1 253 981 6229

Avure Technologies Inc
Americas Sales & Service
3721 Corporate Drive
Columbus, OH 43231, U.S.A.
Phone: +1 614 891 2732
Fax: +1 614 891 4568

Avure Technologies AB
Europe/Asia Sales & Service
Quintusvägen 2
SE 721 66 Västerås, Sweden
Phone: +46 21 327000
Fax: +46 21 141817

