

Flexform™ Type QFC 1.8x3.6-1000 Fluid Cell Press



Features and benefits

High pressure (100 MPa, 14,500 psi) produces complex shapes to close tolerances with little or no manual rework.

Very low tooling cost and greater flexibility in part design.

1.8x3.6 meter forming trays accept multiple sheet metal parts and tools, offering a flexible off-load or stand-alone system.

Low cost sheet metal forming for automotive suppliers

Flexform high pressure technology has been used for decades by such industry leaders as BMW, DaimlerChrysler, Ford, Saab and Volvo. 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. Formed parts can include small shallow components, large panels, and complex deep-drawn shapes.

The QFC 1.8x3.6-1000 press brings this same parts forming efficiency to the hundreds of major contract suppliers of automotive components. Its size, affordable cost, and excellent productivity present a golden opportunity to suppliers that aim to be more globally competitive and profitable.

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 rectangular 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 and with the possibility of part trimming in the same tool and press cycle.



PRODUCT SPECIFICATION

QUINTUS® Type QFC 1.8x3.6-1000

Maximum operating pressure	100 MPa (14,500 psi)
Total press length, including tray stations	20 m (65.6 ft)
Total press length, including diaphragm exchange area	26 m (85.3 ft)
Total press width	3.6 m (11.8 ft)
Total press height above floor level	4.5 m (14.8 ft)
Foundation depth	1.1 m (43.3 in)
Total weight (on press foundation)	325 ton

(The above dimensions include the hydraulic equipment)

Tray data

Number of tray stations	2
Maximum tray depth	400 mm (15.8 in)
Tray depth with filler plate	240 mm (9.5 in)
Usable tray area with filler plate	1,800x3,600 mm (70.9x141.7 in)
Usable tray area at full depth	1,800x3,600 mm (70.9x141.7 in)

Transportation data

Gross weight of heaviest item	200 ton
Gross dimensions of heaviest item (LxWxH)	6.5x4.0x4.0 m (21.5x13.2x13.2 ft)

Control system

Programmable controller (PLC)	Siemens or Allen-Bradley
HMI panel	Siemens or Allen-Bradley
Flat color touch screen size	10.4 in

Cycle time

Cycle time to full pressure when tool filling up to 75 mm from the top of the tray	120 s
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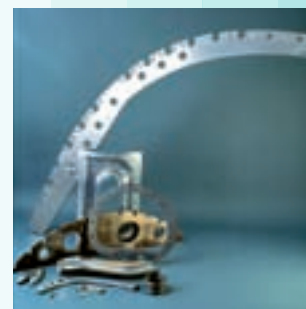
Sound level

Noise level at operator's station	<85 dB (A) equivalent
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Site utilities

Electric power

Incoming current protection	750 A
Installed power	280 kW
Voltage (three-phase + ground)	380-480 V
Frequency	50/60 Hz



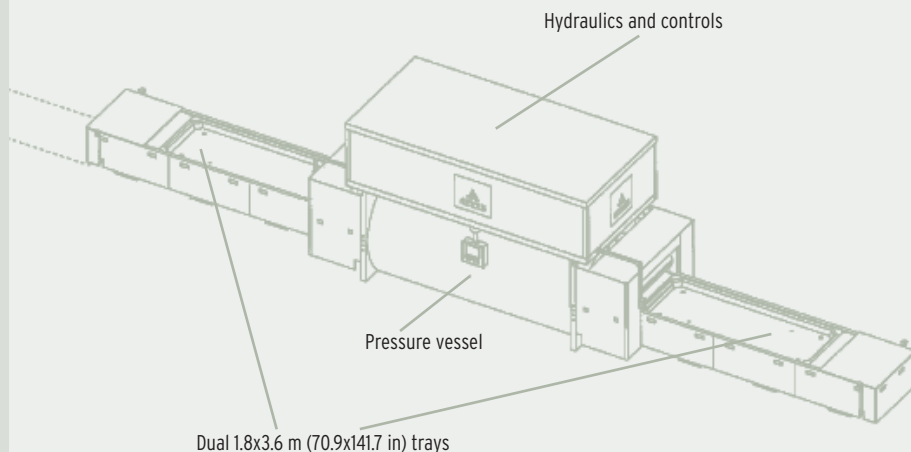
Aerospace parts made in aluminium alloys, stainless steel and titanium



Automotive prototypes and parts produced in low volumes for niche vehicles



Flexformed parts for prototyping and small series production



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