

TECHNICAL SPECIFICATION

ATF AUTOMATIC (LARGE FORMAT) INLINE THERMOFORMING MACHINE

Ridat AFT series of machines are large format, high capacity inline thermo formers with pre-heat using twin pitch double ovens and guillotine for sheet separation.

Forming capacities

		3035ATF	4848ATF	4872ATF
Forming size Max:	in	30 x 35	48 x 48	48 x 72
	mm	760 x 890	1220 x 1220	1220 x 1830
Depth of draw Max:	in	4	4	4
	mm	100	100	100

Machine Construction: The machine frame is constructed from substantial fully welded mild steel sections designed to provide a solid and rigid chassis to avoid the need of special foundations or installation pits. Front access via easy open doors for tool changing and maintenance. The machine is fully guarded and conforms to current European safety legislation.

Material Feed Powered dance roller mechanism is fitted as standard, to permit smooth material haul-off.

Bulk material roll holder and un-winder is optionally available.

Material Transport: This is carried out by heavy duty spiky chain on adjustable chain drive for reliable track alignment. Width adjustment is achieved via a pair of lead screws interconnected by compensating chain to ensure parallel movement – adjustable from any of the four corners. Aluminium reflectors for chain track are fitted for heat protection.

Indexing employs a servo drive motor controlled by micro-processor to ensure accuracy.

In-feed: Adjustable in-feed guides for accurate alignment of material to chain transport.

Heaters: It's of welded construction – double pitch pre-heat station
Ceramic infrared heating elements are used and zonal control employs thermocouple set points monitored by micro-processor.

Heater frame is screened by aluminium reflectors.

Clamp frame:	Pneumatically operated clamp frame adjustable by moveable side and bar insertion.																
Forming Section:	<p>Heavy duty aluminium plate, moving up and down on substantial guide bars and powered by cylinder. In the case of 4872 a servo drive motor is used.</p> <p>Easy access for mould change – slide on facility.</p>																
Material Cooling:	<p>With high velocity turbo cooling fans are used for rapid cooling of material.</p> <p>Water cooled platen for cooling the mould is optional extra.</p>																
Vacuum System:	<p>Integral to the frame is a large 10 CFM Vacuum surge tank.</p> <p>High efficiency vacuum pump is fitted and sited under heater-box.</p>																
Sheet separation	<p>Double acting guillotine powered by electric motor. It is mounted on a rack mechanism and its positioning can be adjusted without opening the guards.</p> <p>In the case of model 4872ATF model, the separation is carried out by slitting blade that travel across the machine along a track and powered by a pneumatic cylinder.</p>																
Process Controller	<p>Mitsubishi micro-processor (PLC) is used to control all functions of the machine.</p> <p>All functions can be manually operated for SETTING. For running mode, switch over to AUTOMATIC.</p> <p>PLC is readily adjustable for individual applications.</p>																
Guarding and Safety:	The whole system conforms to Machinery Directive 06/42/EC, Low Voltage Directive 06/95/EEC and Electromagnetic Compatibility Directive 04/108/EC, to harmonized standards. The machine will be CE marked in accordance with current European legislation and a Certificate of Conformity will be provided as part of the standard documentation.																
Proprietary components included:	<table border="0"> <tr> <td>Pneumatic Cylinders</td> <td>SMC/Festo</td> </tr> <tr> <td>Pneumatic Valves</td> <td>SMC/Festo</td> </tr> <tr> <td>Heating Elements</td> <td>Ceramics</td> </tr> <tr> <td>Vacuum Pump</td> <td>Becker</td> </tr> <tr> <td>Microprocessor</td> <td>Mitsubishi</td> </tr> <tr> <td>HMI Operator panel</td> <td>Mitsubishi</td> </tr> <tr> <td>Servo drive motor</td> <td>Mitsubishi</td> </tr> <tr> <td>Control switch-gear</td> <td>Moeller/Siemens</td> </tr> </table>	Pneumatic Cylinders	SMC/Festo	Pneumatic Valves	SMC/Festo	Heating Elements	Ceramics	Vacuum Pump	Becker	Microprocessor	Mitsubishi	HMI Operator panel	Mitsubishi	Servo drive motor	Mitsubishi	Control switch-gear	Moeller/Siemens
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Brief Technical Specifications*

Model		3035ATF	4848ATF	4872ATF
Forming area (max)	in	30 x 35	48 x 48	48 x 72
	mm	760 x 890	1220 x 1220	1220 x 1830
Depth of forming	in	4	4	4
	mm	100	100	100
Air Usage/Cycle	litres	136	200	160
Electric Loading	amp	80	135	154
Heater consumption	kW	38	73	92
No of Fans		4	6	8
Vacuum Pump	kW	1.2	1.5	1.5
Floor Area	cm	66 x 270	120 x 330	130 x 450
Height	cm	200	200	200
Weight	kgs	2500	4500	6800

*The above figures should be taken as typical example only; complete specifications will be supplied on request

Standard power supplies are 415V 50Hz 3 phase (with E & N). Clean water free air at 5.4 atm (80psi).