F SERIES™

Product Specification Document

rev 01

Document history :

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01-03-2026	prerelease document

Notice

1 Introduction

The F Series flatbed cutting tables can cut rigid materials as well as roll stock.
The cutting table base unit comes equipped with a drag knife tool module and an optical camera recognition system for accurate contour cutting of printed flexible or rigid substrate materials. A laser pointer is also included for manual origin registration.
A variety of tools, modules and knives are also available, depending on different applications.

2 Different Models

The F Series flatbed cutting tables are available in different sizes and different configurations. Depending on the region, certain sizes and or configurations may not be available. Also branding may be different. In this section we refer to the basic model names F1612, F1625, F1832, F3220 and F3232. Where known, it is marked if a specification is configuration depended.

3 Feature List

3.1 Hardware

3.1.1 Basic

- Vacuum pack (pumps(s), sound absorber, selector and switching valve).
- Pneumatic board.
- Conveyor system with media clamps and clamp bar
- Safety System
- Fixed module with camera and LED pointer.
- Multi tool holder carriage for up to three tools.
- Roll support
- Drag knife module.
- ADC on left and right edge
- Ethernet connectivity

3.1.2 Options

- Basket (F1612 + F1625)

3.1.3 Modules

- Drag knife module
- Core+ Tangential module
- Fast+ Tangential module
- Routing module (part of routing system) HF and standard type
- Rotary module

3.1.4 Tools

- Kiss Cutting Tool
- Cut Out Tools:
  - Heavy Duty Cut Out Tool
  - Double Edge Cut Out Tool
  - Single Edge Cut Out Tool
  - Rigid Material Cut Out Tool
  - High Precision Cut Out Tool
- Corrugated Tool
- V-Cut Tools (0°, 15°, 22.5°, 30° and 45°)
- Bevel Cut tool (45°)
- Perforating Tool
- Creasing Wheels (∅25 8pt, 4pt and 2pt; ∅15 2pt, 1pt and ∅50 R1.5pt)
- Power Electronic Oscillating Tool (PEOT)
- Pneumatic Oscillating Tool (POT)
- Pneumatic Oscillating Tool - Long (POT-L)
- Universal pen holder tool (for pens ∅8 – ∅11).

3.2 Software

- **GoProduce (Standard Delivered)**
  - Finishing software cut and print and cut jobs
  - Material Database
  - Trial version available
  - Windows 10 and Windows 11 (no home version)
  - Barcode support for automatically retrieving correct cut data
- For hand scanner included
  - Action sets to automate the workflow
  - Sorting facilities to shorten the output time
  - Camera recognition with all kinds of compensations
  - Camera recognition of several registration mark shapes
  - Interactive milling functions
  - Embossing and engraving possibilities
  - Material Database
- Vector clean up

- **ProPack (Optional License)**
  - PostNET Barcode automation
  - TWIN Workflow
  - Foreign file support:
  - ZCC
  - ICut
  - CF2
  - PLT (HP/GL)

4 Technical Specifications

4.1 Machine dimensions

	F1612		F1625		F1832	
	mm	**inch**	**mm**	**inch**	**mm**	**inch**
Height	1077	42.4	1077	42.4		
Width	2482	97.7	2482	97.7		
Depth	2139	84.2	3439	135.4		
	kg	**pounds**	**kg**	**pounds**	**kg**	**pounds**
Weight						

	F3220		F3232	
	mm	**inch**	**mm**	**inch**
Height				
Width				
Depth				
	kg	**pounds**	**kg**	**pounds**
Weight				

Table 4-1 F Series dimensions

4.2 Shipping dimensions

	F1612									
	Width		Depth		Height		Weight		Weight (tare)	
	mm	**inch**	**mm**	**inch**	**mm**	**inch**	**kg**	**lbs**	**kg**	**lbs**
Box										

	F1625									
	Width		Depth		Height		Weight		Weight (tare)	
	mm	**inch**	**mm**	**inch**	**mm**	**inch**	**kg**	**lbs**	**kg**	**lbs**
Box										

	F1832									
	Width		Depth		Height		Weight		Weight (tare)	
	mm	**inch**	**mm**	**inch**	**mm**	**inch**	**kg**	**lbs**	**kg**	**lbs**
Box										
Box										
Box										
Box										
Box										
Total										

	F3220									
	Width		Depth		Height		Weight		Weight (tare)	
	mm	**inch**	**mm**	**inch**	**mm**	**inch**	**kg**	**lbs**	**kg**	**lbs**
Box										
Box										
Box										
Box										
Total										

	F3232									
	Width		Depth		Height		Weight		Weight (tare)	
	mm	**inch**	**m**	**inch**	**m**	**inch**	**kg**	**lbs**	**kg**	**lbs**
Box										
Box										
Box										
Box										
Box										
Total										

Table 4-2 F series shipping dimensions

4.3 Media handling

	F1612	F1625	F1832
Media Width	Up to 1650 mm Up to 65”	Up to 1650 mm Up to 65”	
Working Area (1)	1600 x 1200 mm 63” x 47.2”	1600 x 2500 mm 63” x 98.4”	
Max. working length Single Panel(1)	1200 mm – 47.2”	2500 mm – 98.4”	
Multi Panel(2)	50000 mm – 164 ft		
Media Weight	maximum 300 kg - 661 lbs maximum 100kg/m2 - 20.5 lbs/ft²		
Media Weight using Conveyor	maximum 60 kg – 132 lbs maximum 30 kg/m2 – 6.1 lbs/ft²		
Roll Specifications with Roll Support & Flanges	Diameter: maximum 17 cm – 6.7” Weight: maximum 25 kg – 55.1 lbs Inner Core Diameter: 7,5 cm – 3”		
Maximum Roll Weight with Roll Support	50 kg – 110.2 lbs		
Vacuum	1.3 kW (50Hz) 1,5 kW (60Hz) 1,75 kW (60 Hz – Single Phase)	2 x 1,3 kW (50Hz) 2 x 1.5 kW (60Hz)	
Vacuum Zones	4 zones (4 Columns)	8 zones (2 rows x 4 columns)	
Repeatability	Within ± 0.05 mm – 0.002” on plots		
Accuracy	0.05 % of move or 0.05 mm – 0.002”, whichever is greater		
Clearance (3)	50 mm - 1.9”		

(1) Maximum working area can be smaller, depending on the mounted tools

(2) Connecting panels can have a shift of up 1 mm (0.004 in)

(3) Distance between vacuum table and Y-beam. Not considering the thickness of a cutting matt or conveyor belt

	F3220	F3232
Media Width		
Working Area(1)		
Max. working length Single Panel(1)		
Multi Panel(2)	50000 mm – 164 ft	
Media Weight	maximum 300 kg - 661 lbs maximum 100kg/m2 - 20.5 lbs/ft²	
Media Weight using Conveyor	maximum 60 kg – 132 lbs maximum 30 kg/m2 – 6.1 lbs/ft²	
Roll Specifications with Roll Support & Flanges	Diameter: maximum 17 cm – 6.7” Weight: maximum 25 kg – 55.1 lbs Inner Core Diameter: 7,5 cm – 3”	
Maximum Roll Weight with Roll Support	50 kg – 110.2 lbs per side or 100 kg – 220.5 lbs if roll is equally carried by both sides	
Vacuum		
Vacuum Zones		
Repeatability		
Accuracy		
Clearance (3)		

(1) Maximum working area can be smaller, depending on the mounted tools

(2) Connecting panels can have a shift of up 1 mm (0.004 in)

(3) Distance between vacuum table and Y-beam. Not considering the thickness of a cutting matt or conveyor belt

Table 4-3 F Series media specifications

Specifications for the optional Heavy-Duty Roll Support

	Partnumber	Maximum weight
F1612	500-9416	200 kg – 440 lbs
F1625	500-9416	200 kg – 440 lbs
F1832	500-9412	200 kg – 440 lbs
F3220	500-9410	200 kg – 440 lbs
F3232	500-9410	200 kg – 440 lbs

Specifications for the optional Sheet feed 75 (EU only)

There is a separate specification document for the Sheet Feed 75 (MI9304)

4.4 Performance

	F series
Speed	Up to 1000 mm/s (40 ips)
Acceleration	Up to 1 G
Repeatability	Within ± 0.05 mm – 0.002” on plots
Accuracy	0.05 % of move or 0.05 mm – 0.002”, whichever is greater
Mechanical resolution	0.005 mm – 0.0002”
Maximum Allowed Forces	Vertical: 120 Newton (27 Pounds) Horizontal: 200 Newton (45 Pounds)

Table 4-4 F Series performances

4.5 Modules

4.5.1 Camera Module

The camera module has a Class II laser pointer in it to help with setting origin and size. Do not stare directly into it.

Type	Ethernet camera with active cooling
Control	Manual Heigh Adjust
Media Thickness Sensor	Present

4.5.2 Drag Module

Type	Coil	
Control	Electronic pressure control	
Maximum Pressure	600gr.	
Maximum tool-lift (1)	7 mm	0.16”
Maximum Module lift (manual adjustment)	20 mm	0.8”

(1) Electronic controlled.

4.5.3 Core+ Tangential Module

Type	Spindle-motor	
Control	Electronic height control	
Maximum allowed vertical force	20 Kg	44.1 lbs
Maximum tool Up/Down speed	200 mm/s	7.87 inches/s
Maximum tool Up/Down Accel	0,8 g	
Maximum tool-lift (1)	50mm	1.97”

4.5.4 Fast+ Tangential Module

Type	Spindle-motor	
Control	Electronic height control	
Maximum allowed vertical force	10 Kg	22 lbs
Maximum tool Up/Down speed	400 mm/s	15.8 inches/s
Maximum tool Up/Down Accel	2 g	
Maximum tool-lift (1)	50mm	1.97”

4.5.5 Rotary knife module

Type	Spindle-motor
Control	Electronic height control
Maximum allowed vertical force	12kg – 26.5 lbs
Nominal Torque (1)	210 Nm

4.5.6 Standard Router Module

Type	Spindle-motor	
Control	Electronic height control	
Maximum allowed vertical force	12kg – 26.5 lbs	
Maximum allowed horizontal force	20kg – 44.1 lbs	
Maximum tool Up/Down speed	200 mm/s	7.87 inches/s
Maximum tool Up/Down Acceleration	0,8 g	
Maximum tool-lift (1)	70mm	2.7”
Maximum clearance	32mm	1.25”
Maximum bit diameter	11mm	7/16

4.5.7 3.7kW HF Router Module

Type	Spindle-motor	
Control	Electronic height control	
Maximum allowed vertical force	20kg – 26.5 lbs	
Maximum tool Up/Down speed	200 mm/s	7.87 inches/s
Maximum tool Up/Down Acceleration	0,8 g	
Maximum tool-lift (1)	70mm	2.7”
Maximum clearance	32mm	1.25”
Maximum bit diameter	11mm	7/16
Brush	Motorized Up/Down with Spindle motor	
Cooling	Water Cooling clamp present	
Oil-Mister	Optional	
Max Spindle RPM	60.000	
Max Power Spindle	3700 W	
Max Torque Spindle	59 Ncm	
Chuck clamping range	6 mm	
Tool Change	Pneumatic Direct 5.5 – 6 bar	

(1) Electronic controlled.

4.6 Noise level

4.6.1 F1612

Measurement (operator position) 1 pump active	
Measurement at 1 m from active pump	
When pump is blowing	
When POT is cutting	

4.6.2 F1625

Measurement (operator position) 1 pump active	
Measurement at 1 m from active pump	
When pump is blowing	
When POT is cutting	

4.6.3 F1832

Measurement (operator position) 1 pump active	
Measurement at 1 m from active pump	
When pump is blowing	
When POT is cutting	

4.6.4 F3220

Measurement (operator position) 1 pump active	
Measurement at 1 m from active pump	
When pump is blowing	
When POT is cutting	

4.6.5 F3232

Measurement (operator position) 1 pump active	
Measurement at 1 m from active pump	
When pump is blowing	
When POT is cutting	

During operating or servicing the machine the operator should use appropriate protective equipment, which includes: Ear protection if the continuous sound level pressure is above 80dB.

4.7 Interface

Communication		Ethernet
Ethernet	I/O Port connector	RJ 45 (female plug)
	Mating connector	RJ 45 (male plug)

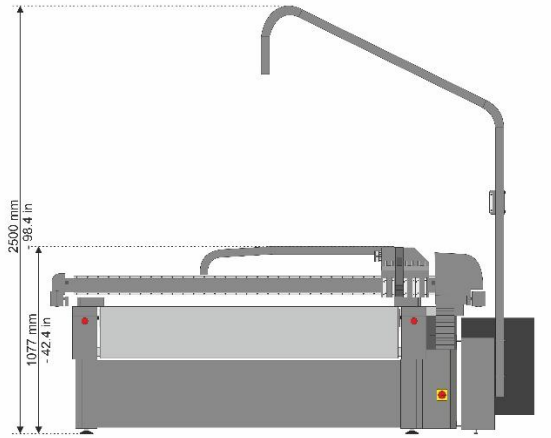
Table 4-5 F Series INTERFACE SPECIFICATIONS

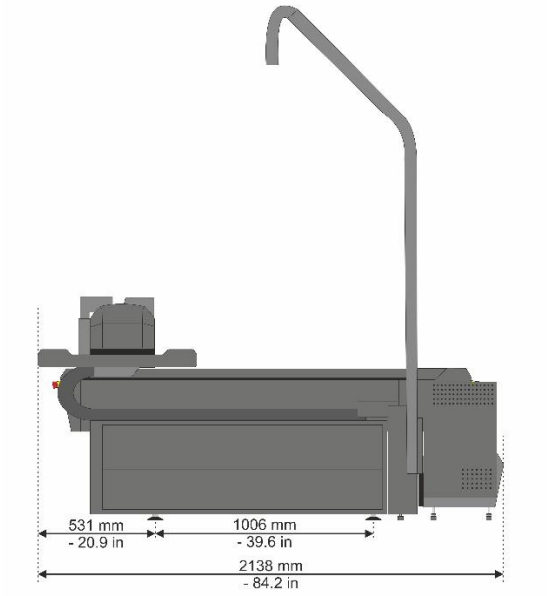
4.8 Environmental

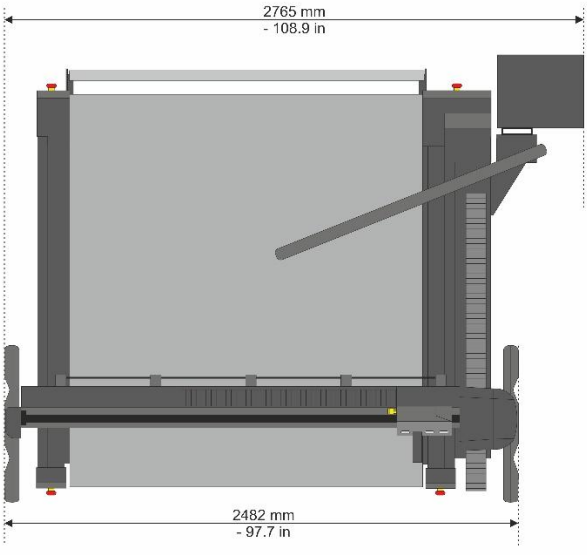
Operating Temperature	15 to 35 °C	59 to 95 °F
Storage temperature	-30 to 70 °C	-22 to 158°F
Vacuum pump	If installed separately: ambient temperature maximum 40 °C or 104 °F	
Relative humidity	35 - 75 %, non-condensing	

Table 4-6 F Series environmental specifications

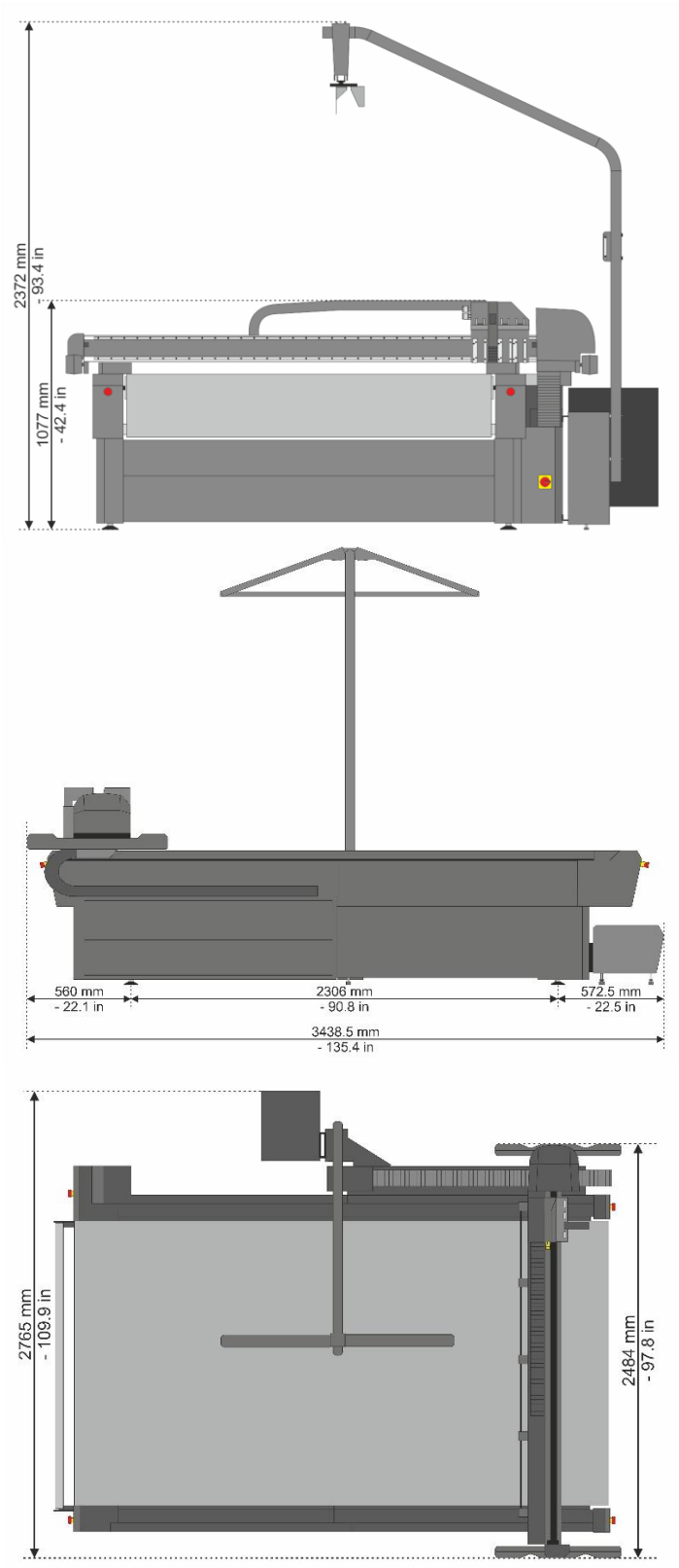
4.8.1 Typical setup F1612







4.8.2 Typical setup F1625



4.8.3 Typical setup F1832

4.8.4 Typical setup F3220

4.8.5 Typical setup F3232

4.8.6 Pump assy dimensions

4.9 Electrical

4.9.1 Electrical configurations for F Series

	Standard config	Optional Config	Current	Available in
F1612-51	**3x 208V + N ,60 Hz**	**3x 208V ,50-60 Hz**	30A	Region 2
F1612-52	**3x400V + N , 50Hz**	**3 x 230V, 50Hz**	20A	Region 1
F1612-53	**1x240V + N, 60 Hz**	-	30A	US/CAN only
F1625-51	**3x 208V + N ,60 Hz**	**3x 230V, 60 Hz**	30A	Region 2
F1625-52	**3x400V + N , 50Hz**	**3 x 230V, 50Hz**	30A	Region 1

(1) Vacuum cleaner for routing is not connected to machine, but connected with an additional socket

Region 1: Abu Dhabi, Afghanistan, Albania, Algeria, Andorra, Angola, Argentina, Armenia, Australia, Austria, Azerbaijan, Azores, Bahrain, Balearic Islands, Bangladesh, Belarus, Belgium, Benin, Bhutan, Bolivia, Bosnia & Herzegovina, Botswana, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canary Islands, Cape Verde, Central African Republic, Chad, Channel Islands, Chile, People's Republic of China, Christmas Island, Cocos (Keeling) Islands, Comoros, Democratic Republic of the Congo, Côte d'Ivoire, Croatia, Curaçao, Cyprus, Czech Republic, Denmark, Djibouti, Dominica, Dubai, East Timor, Egypt, England, Eritrea, Estonia, Eswatini, Ethiopia, Faroe Islands, Finland, France, French Guiana, Gabon, Gambia, Georgia, Germany, Ghana, Gibraltar, Great Britain, Greece, Greenland, Grenada, Guadeloupe, Guinea, Guinea-Bissau, Hong Kong, Hungary, Iceland, India, Indonesia, Iran, Iraq, Northern Ireland, Republic of Ireland, Isle of Man, Israel, Italy, Jamaica, Jordan, Kazakhstan, Kosovo, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Libya, Liechtenstein, Lithuania, Luxembourg, Macau, Macedonia, North, Madagascar, Madeira, Malawi, Malaysia, Maldives, Mali, Malta, Martinique, Mauritania, Mauritius, Moldova, Monaco, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Nepal, Netherlands, New Caledonia, New Zealand, Niger, Niue, Norfolk Island, North Korea, North Macedonia, Northern Ireland, Norway, Oman, Pakistan, Palestine, Paraguay, Poland, Portugal, Réunion, Romania, Russia, Rwanda, Saint Lucia, Saint Vincent and the Grenadines, Samoa, San Marino, São Tomé and Príncipe, Scotland, Senegal, Serbia, Sierra Leone, Singapore, Slovakia, Slovenia, Somalia, South Africa, South Sudan, Spain, Sri Lanka, Sudan, Swaziland (officially Eswatini), Sweden, Switzerland, Syria, Tajikistan, Thailand, Togo, Tokelau, Tunisia, Turkey, Turkmenistan, Tuvalu, Ukraine, United Arab Emirates (UAE), United Kingdom (UK), Uruguay, Uzbekistan, Vanuatu, Vatican City, Vietnam, Wales, Wallis and Futuna, Western Sahara, Yemen, Zambia, Zimbabwe

Region 2: American Samoa, Anguilla, Aruba, Bahamas, Bermuda, Brazil, Canada, Cayman Islands, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Honduras, Liberia, Mexico, Nicaragua, Palau, Panama, Peru, Sint Eustatius, Sint Maarten, Suriname, Taiwan, Trinidad & Tobago, Turks and Caicos Islands, United States of America (USA)

Note: Japan is split into 2 regions. Japan East where three phase is 208V - 50 Hz and Japan West where three phase is 208V – 60 Hz. So please check local power supply.

4.9.2 Vacuum cleaner router option

F1612 – F1625

Type	3x400V + N , 50Hz	3 x 230V, 50Hz	3x 208V + N ,60 Hz	3x 208V ,50-60 Hz
Metabo	OK	OK	Cannot be used	Cannot be used
3Flow	OK	OK	Cannot be used	Cannot be used
Hercules	OK main breaker 20A (1)	Extra socket (2)	Cannot be used	Cannot be used
Delfin DM3EL	Cannot be used	Cannot be used	Max 2250W (4) with: Extra socket (2) Relay 30A (3)	Max 2250W (4) with: Extra socket (2) Relay 30A (3)
3rd party	Max. 3000W Main breaker 20A (1) Relay 30A (3)	Max. 2400W or Max. 3000W with: Extra socket (2) Main breaker 20A (1) Relay 30A (3)	Max 1500W (4) or Max 2250W (4) with: Extra socket (2) Relay 30A (3)	Max 1500W(4) or Max 2250W (4) with: Extra socket (2) Relay 30A (3)

(1) Models build before September 2017 may contain a main circuit breaker of 15A. If this is the case, then it has to be replaced with one of 20A (MF9017)
(2) Extra socket means that a secondary wall socket (single phase) needs to be provided for the vacuum cleaner.
(3) Router option boards build before September 2017 may have a relay for the vacuum cleaner of 12A. In this case, the relay needs to be changed by a relay 30A (kit 500-9346).
(4) Specifications given for a 110V vacuum cleaner.

4.9.3 Recommendations for extra power supply devices

Ups recommendations

table	Max load	UPS
F1612	5 kW (*)	7.5 kW
F1625	6-8 kW (*)	9 – 12 kW

(*) depending on used vacuum cleaner. For the F1612 a standard vacuum cleaner of 1400W is assumed.

3 Phase converter

Due to the load (vacuum pumps) it is recommended to use a rotary 3 phase converter instead of a static one. However, the best way is to contact the local dealer of 3 phase converters and ask them what they recommended. Just use the table above to tell them the maximum load and tell them it is a mixed load where about 30 percent is used by vacuum pumps.

5 F Series: Certifications.

Conforms to ANSI/UL Standard 62368-1 and CAN/CSA Standard C22.2 No 62368-1.

FCC Class A

CE Marking
Applicable Directives:

Directive 2006/42/EC of the European Parliament and of the Council on machinery (MD)

Directive 2014/35/EU of the European Parliament and of the Council
on electrical equipment designed for use within certain voltage limits (LVD)

Directive 2014/30/EU of the European Parliament and of the Council
on electromagnetic compatibility (EMC)

Directive 2011/65/EU of the European Parliament and of the Council
on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS2)

Harmonized Standards to which Conformity is declared:
EN ISO 12100:2010,
EN 60204-1:2006+A1:2009+AC:2010,
EN 62368-1:2014+AC:2015
EN 55032:2012+AC:2013,
EN 55035:2017,
EN 61000-3-2:2014,
EN 61000-3-3:2013,
EN 50581:2012.

Conforms to Directive 2012/19/EU of the European Parliament and of the Council on Waste Electrical and Electronic Equipment (WEEE)

Conforms to Directive 2006/66/EC of the European Parliament and of the Council on Batteries and Accumulators and Waste Batteries and Accumulators

Contains no substances, in a concentration above 0.1 % weight by weight, included on the candidate list according to article 59 (1, 10) of Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)

For the conformity assessment of the above directives all published amendments were taken into account.