

V Series®

Product Specification Document

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1 Introduction

The **V Series** flatbed cutting tables are capable of cutting rigid materials as well as soft.

The cutting table base unit comes equipped with 1 (Invicta) or 2 tool modules (Optima, Integra and Omnia), a standard cutting tool and a vacuum pump or multiple depending on models. An optical camera recognition system for accurate contour cutting of printed flexible or rigid substrate materials is available upon request.

A variety of tools, and knives are also available, depending on products and different applications.

2 Different Models

The **V Series** flatbed cutting tables are available in different sizes and 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 Invicta, Optima, Integra and Omnia. Where known, it is marked if a specification is configuration depended.

3 Feature List

3.1 Hardware

3.1.1 Basic

- Machine's stand
- Vacuum pack (pumps(s), selector and switching valve).
- Pneumatic clamps
- Different slip sheets.
- Multi tool holder carriage for up to one/two tools. (depending on model)
- Tangential knife module.
- Touch probe (Integra)

3.1.1 Options

- Fixed module with camera.
- Roll support
- Air compressor
- PC + Monitor desk
- Vacuum cleaner (Integra)
- Voltage Transformer

3.1.3 Modules

- Tangential module (1 or 2 depending on models) - **MTH**

3.1.4 Tools

- Kiss Cutting Tool - **KCT**
- Standard Cut Out Tool - **MTT**
- V-Cut Tool - **VB**
- Standard Creasing Wheels - **UCT**
(Ø32 2pt, 4pt and 6pt; Ø32 Perforating 2-1, 3-1 and 1 and Ø16 2pt, 3pt and 4pt)

- Multi-Wall Creasing Wheels - **MCT**
(Ø60 V-Shape, 2mm/6pt, 2mm/4pt and 2mm/8.5pt;)
- Pneumatic Oscillating Tool – **PPO**
- High-speed Pneumatic Oscillating Tool - **HPO**
- Universal pen holder tool (for pens Ø15-8.5 – Ø8.5-11 – Ø11-5.8mm) - **MDT**
- Spindle (1Kw) – **RT**
- Plot Drawing Tool - **PDT**

3.1.5 i-heads Modules

- Versa-Tool - **VTH**
 - 90° Tan Cut Out - **IEH**
 - 40° Cutting head - **IHG**
 - 45° Cutting head - **IHB**
 - Embossing/Debossing - **IHP**
 - 90° Tan cut out + Half Cut - **IHW**
 - Standard Creasing Wheel (Ø32 2pt, 4pt and 6pt; Ø32 Perforating 2-1, 3-1 and 1 and Ø16 2pt, 3pt and 4pt) - **IHBr**

3.2 Software

- **V-Studio (standard delivered)**
 - Windows 7, 8, 10 and 11
 - Ethernet Connection (USB is mainly used for firmware updating)
 - Material Database
 - Cropmarks detection and print compensation
 - Intuitive Cutting Interface
 - Machine Calibration and I/O interface

- **GoProduce (Standard Delivered)**
 - Finishing software cut and print and cut jobs
 - Material Database
 - Trial version available
 - Windows 8 or Windows 10 & 11 (no home version)
 - Barcode support for automatically retrieving correct cut data
 - For handscanner included
 - For POSTNET barcode – optional, Trial available
 - 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
 - Vectors clean up

4 Invicta Technical Specifications

4.1 Machine Dimensions

	V0806		V0812		V1015		V1612	
	mm	inch	mm	inch	mm	inch	mm	inch
Height	1250	49.2	1250	49.2	1250	49.2	1268	50
Width	1450	57	1920	75.5	2080	81.9	2110	83
Depth	1390	54.7	1390	54.7	1590	62.6	1920	75.6
	kg	pounds	kg	pounds	kg	pounds	kg	pounds
Weight	172	379.1	228	502.65	265	584.2	359	791.5
Pump W.	30	66.1	30	66.1	30	66.1	30	66.1

4.2 Shipping dimensions

V0806										
Width		Depth		Height		Weight		Weight (tare)		
mm	inch	mm	inch	mm	inch	kg	lbs	kg	lbs	
Box	1650	65	1380	54.3	145	57	300	661	80	176
Total							300	661	80	176

	V0812								Weight (tare)	
	Width		Depth		Height		Weight			
	mm	inch	mm	inch	mm	inch	kg	lbs		
Box	1500	84.6	2150	59	750	29.5	210	463	40	88.1
Box (Pump)	540	21.3	400	15.8	470	18.5	50	110.2	5	11
Box (Stand)	1100	43.3	900	35.5	520	20.5	80	176.4	10	22
Box (Cabinet)							37	81.6	5	11
Total							377	831.2	60	132.1

	V1015									
	Width		Depth		Height		Weight		Weight (tare)	
	mm	inch	mm	inch	mm	inch	kg	lbs	kg	lbs
Box	2350	92.5	1650	65	750	29.5	240	529.1	50	110
Box (Pump)	540	21.3	400	15.8	470	18.5	50	110.2	5	11
Box (Stand)	1100	43.3	900	35.5	520	20.5	80	176.4	10	22
Box (Cabinet)							37	81.6	5	11
Total							407	897.3	70	154

		V1612							Weight (tare)		
		Width		Depth		Height		Weight			
		mm	inch	mm	inch	mm	inch	kg			lbs
Box		2242	88.3	1930	76	740	29.1	320	705.5	119	262.4
Box (Stand)		1990	78.4	920	36.2	570	22.4	129	284.3	32	70.5
Box (Pump)		540	21.3	400	15.8	470	18.5	33	72.8	3	6.6
Box (Cabinet)								37	81.6	5	11
							519	1144.2	159	509.5	

4.3 Media handling

	V0806	V0812	V1015	V1612
Max Media Width	Up to 812 mm – 32"	Up to 1219 mm – 48"	Up to 1524 mm – 60"	Up to 1550 mm – 61"
Max Roll Width	Up to 812 mm – 32"	Up to 812 mm – 32"	Up to 1016 mm – 40"	Up to 1550 mm – 61"
Working Area ⁽¹⁾	812 x 610 mm 32" x 24"	812 x 1219 mm 32" x 48"	1016 x 1524 mm 40" x 60"	1550 x 1220 61" x 48"
Max. working length Single Panel	Working Area	Working Area	Working Area	Working Area
Multi Panel	NA			
Media Weight	NA			
Media Weight using Conveyor	NA			
Roll Specifications with Roll Support & Flanges	NA			
Maximum Roll Weight with Roll Support	NA			
Vacuum	SV 200/2 230V (50Hz) 1.5Kw – 8.9A 230 (60Hz) 1.8 Kw – 11 A	SV 200/2 230V (50Hz) 1.5Kw – 8.9A 230 (60Hz) 1.8 Kw – 11 A	SV 200/2 230V (50Hz) 1.5Kw – 8.9A 230 (60Hz) 1.8 Kw – 11 A	SV 200/2 230V (50Hz) 1.5Kw – 8.9A 230 (60Hz) 1.8 Kw – 11 A
Vacuum Zones	1 Zones	4 zones (2 rows x 2 columns)	4 zones (2 rows x 2 columns)	4 zones (2 rows x 2 columns)
Repeatability	Within ± 0.1 mm – 0.0039" on plots			
Accuracy	0.1 % of move or 0.1 mm – 0.0039", whichever is greater			
Beam Clearance ¹	25 mm – 0.9"			
Clamps Clearance	5 mm – 0.196"			

¹ Distance between vacuum table and Y-beam. Not taking into account the thickness of a cutting matt or conveyor belt

4.4 Performance

	V0806/V0812/V1015	V1612
Positioning Speed	Up to 500 mm/s (19.6 "/sec)	Up to 1083 mm/s (42.6 "/sec)
Speed	Up to 370 mm/s (14.6 "/sec)	Up to 910 mm/s (26.3 "/sec)
Acceleration	Up to 0.5 m/sec ²	Up to 2 m/sec ²
Repeatability	Within ± 0.1 mm – 0.0039" on plots	Within ± 0.1 mm – 0.0039" on plots
Accuracy	0.1 % of move or 0.1 mm – 0.0039", whichever is greater	0.1 % of move or 0.1 mm – 0.0039", whichever is greater
Mechanical resolution	NA	NA
Maximum Allowed Forces	Vertical: Information not available at the time of publication. Horizontal: Information not available at the time of publication.	Vertical: Information not available at the time of publication. Horizontal: Information not available at the time of publication.

4.5 Modules

4.5.1 Camera Module

The camera module mounts a prime camera with manual focus in a fixed position.

4.5.2 Tangential Module

Type	Open loop Stepper-motor	
Control	Manual height control (pneumatic)	
Quantity	1	
Maximum allowed vertical force	12 kgf – 27 lbf (at 6 BAR)	
Maximum allowed horizontal force	Information not available at the time of publication.	
Maximum tool-lift ²	25 mm	0.95"

4.5.3 Fixed Tool

An optional fixed pen tool holder could be mounted as an accessory.

² Pneumatic controlled.

4.6 Noise level

V0806/V0812/V1015/V1612

Measurement (operator position) 1 pump active:	82 dBA
Measurement at 1 mt from active pump:	80 dBA
When pump is blowing:	70 dBA
When POT is cutting:	83 dBA

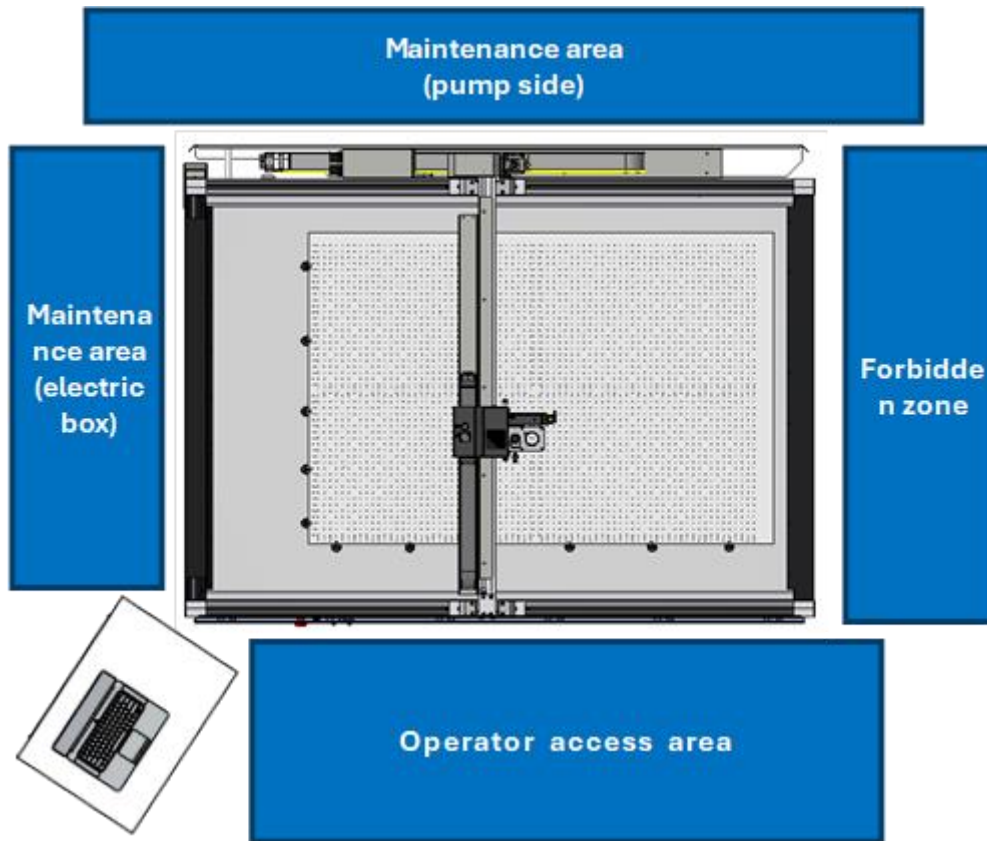
4.7 Interface

Communication	Ethernet or USB (Not recommended)
Machine USB	USB type B
Camera USB	USB type Micro
Motion Controller Update	USB Type B

4.8 Environmental

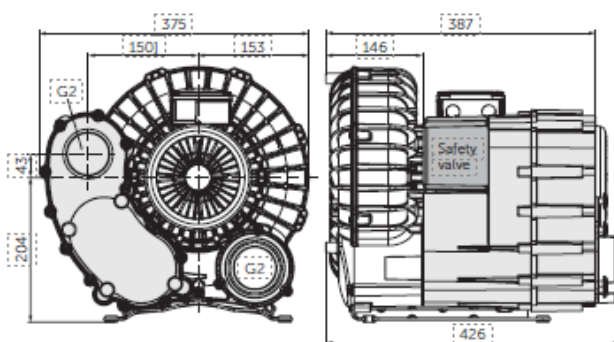
Operating Temperature	15 to 35 °C	59 to 95 °F
Storage temperature	-30 to 70 °C	-22 to 158°F
Vacuum pump	If installed separately: ambient temperature maximum 40 °C or 104 °F	
Relative humidity	35 - 75 %, non-condensing	

4.8.1 Typical Invicta setup



4.8.2 Pump Assy dimensions

SV 200/2 Side Channel Vacuum Pump (Cod.003097)



Dimensions are displayed in mm

Weight of the pump assembly is

28.5 kg (62.8 lbs)

Suction air rate		Vacuum relative		Installed Motor Power		Emission sound pressure level ³		Weight with motor
m ³ /h		Mbar		kW		dB(A)		
50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	Kg
90	110	-330	-350	1.5	1.8	63.7 (-230 mbar)	68.4 (-245 mbar)	28.5

³ According to DIN EN ISO 11203, accuracy class of measurement: class 2, extended measurement uncertainty: 3 dB 1m distance, at medium load, both connection sides piped

4.9 Electrical

4.9.1 Electrical configurations for Invicta V Series

Model	JAP/US/EU	Current
V0806	2X 208/230 V – 50/60HZ -2.2/2.5 KVA	9.6/12A
V0812	2X 208/230 V – 50/60HZ -2.2/2.5 KVA	9.6/12A
V1015	2X 208/230 V – 50/60HZ -2.2/2.5 KVA	9.6/12A
V1216	2X 208/230 V – 50/60HZ -2.2/2.5 KVA	9.6/12A

5 Optima Technical Specifications

5.1 Machine Dimensions

	V1208		V1225		V1612		V1630	
	mm	inch	mm	inch	mm	inch	mm	inch
Height	1260	49.6	1260	49.6	2230	87.8	1260	49.6
Width	2000	78.7	2340	73.3	1830	72	2340	92.1
Depth	1520	59.8	3690	123.2	1200	47.2	3690	145.3
	kg	pounds	kg	pounds	kg	pounds	kg	pounds
Weight	440	970	770	1521	550	1212	770	1522

5.2 Shipping Dimensions

V1208									
		Width		Depth		Height		Weight	
		mm	inch	mm	inch	mm	inch	kg	lbs
Box		2200	86.6	1800	70.9	1680	66.2	600	1322.8
Total								600	1322.8

Weight (tare)	
kg	lbs
100	220
100	220

V1225									
		Width		Depth		Height		Weight	
		mm	inch	mm	inch	mm	inch	kg	lbs
Box		3360	132.3	210	82.7	1680	60	920	2028.3
Total								920	2028.3

Weight (tare)	
kg	lbs
260	573
260	573

V1612									
		Width		Depth		Height		Weight	
		mm	inch	mm	inch	mm	inch	kg	lbs
Box									
Total									

Weight (tare)	
kg	lbs

		V1630								Weight (tare)	
		Width		Depth		Height		Weight			
		mm	inch	mm	inch	mm	inch	kg	lbs		
Box		4050	159.5	2390	94.1	1680	60				
Total											

5.3 Media handling

	V1208	V1225	V1612	V1630
Max Media Width	Up to 1230 mm – 48.4"	Up to 2450 mm – 48.4"	Up to 1600 mm – 63"	Up to 3050 mm – 120"
Max Roll Width	Up to 1230 mm – 48.4"	Up to 1230 mm – 96.4"	Up to 1600 mm – 63"	Up to 1600 mm – 63"
Working Area	1230 x 850 mm 48.4" x 33.5"	1230 X 2450 mm 48.4" x 96.4"	1600 X 1230 mm 63" x 48.4"	1600 X 3050 mm 63" x 120"
Max. working length Single Panel	Working Area	Working Area	Working Area	Working Area
Multi Panel	NA			
Media Weight	maximum XX kg - XX lbs maximum XX kg/m2 - XX lbs/ft ²			
Media Weight using Conveyor	NA			
Roll Specifications with Roll Support & Flanges	NA			
Maximum Roll Weight with Roll Support	NA			
Vacuum	SV 200/2 230V (50Hz) 1.5Kw – 8.9A 230 (60Hz) 1.8 Kw – 11 A	SV 200/2 (2 Pcs) 230V (50Hz) 1.5Kw – 8.9A 230 (60Hz) 1.8 Kw – 11 A	SV 200/2 230V (50Hz) 1.5Kw – 8.9A 230 (60Hz) 1.8 Kw – 11 A	SV 200/2 (3 Pcs) 230V (50Hz) 1.5Kw – 8.9A 230 (60Hz) 1.8 Kw – 11 A
Vacuum Zones	2 zones (2 rows x 1 columns)	4 zones (4 rows x 1 columns)	2 zones (2 rows x 1 columns)	4 zones (4 rows x 1 columns)
Repeatability	Within ± 0.1 mm – 0.0039" on plots			
Accuracy	0.1 % of move or 0.1 mm – 0.0039", whichever is greater			
Beam Clearance 4	25 mm – 0.9"			
Clamps Clearence	5 mm – 0.196"			

⁴ Distance between vacuum table and Y-beam. Not taking into account the thickness of a cutting matt or conveyor belt

5.4 Performance

	Optima
Max Positioning Speed	Up to 840 mm/s (33"/sec)
Max cutting Speed	Up to 583 mm/s (23"/sec)
Acceleration	1.0 m/s
Repeatability	Within ± 0.1 mm – 0.0039" on plots
Accuracy	0.1 % of move or 0.1 mm – 0.0039", whichever is greater
Mechanical resolution	NA
Maximum Allowed Forces	Vertical: Information not available at the time of publication. Horizontal: Information not available at the time of publication.

5.5 Modules

5.5.1 Camera Module

The camera module mounts a prime camera with manual focus in a fixed position.

5.5.2 Tangential Module

Type	Open loop Stepper-motor	
Control	Manual height control (pneumatic)	
Quantity	2	
Maximum allowed vertical force	12 kgf – 27 lbf (at 6 BAR)	
Maximum allowed horizontal force	Information not available at the time of publication.	
Maximum tool-lift ⁵	25 mm	0.95"

5.5.3 Fixed Tool

An optional fixed pen tool holder could be mounted as an accessory.

⁵) Pneumatic controlled.

5.6 Noise level

	V1216	V1208/ V1225/ V1612/V1630/
Measurement (operator position) 1 pump active:	71 dBA	75 dBA
Measurement at 1 mt from active pump:	69 dBA	75 dBA
When pump is blowing:	69 dBA	72 dBA
When POT is cutting (Vacuum OFF):	83 dBA	83 dBA

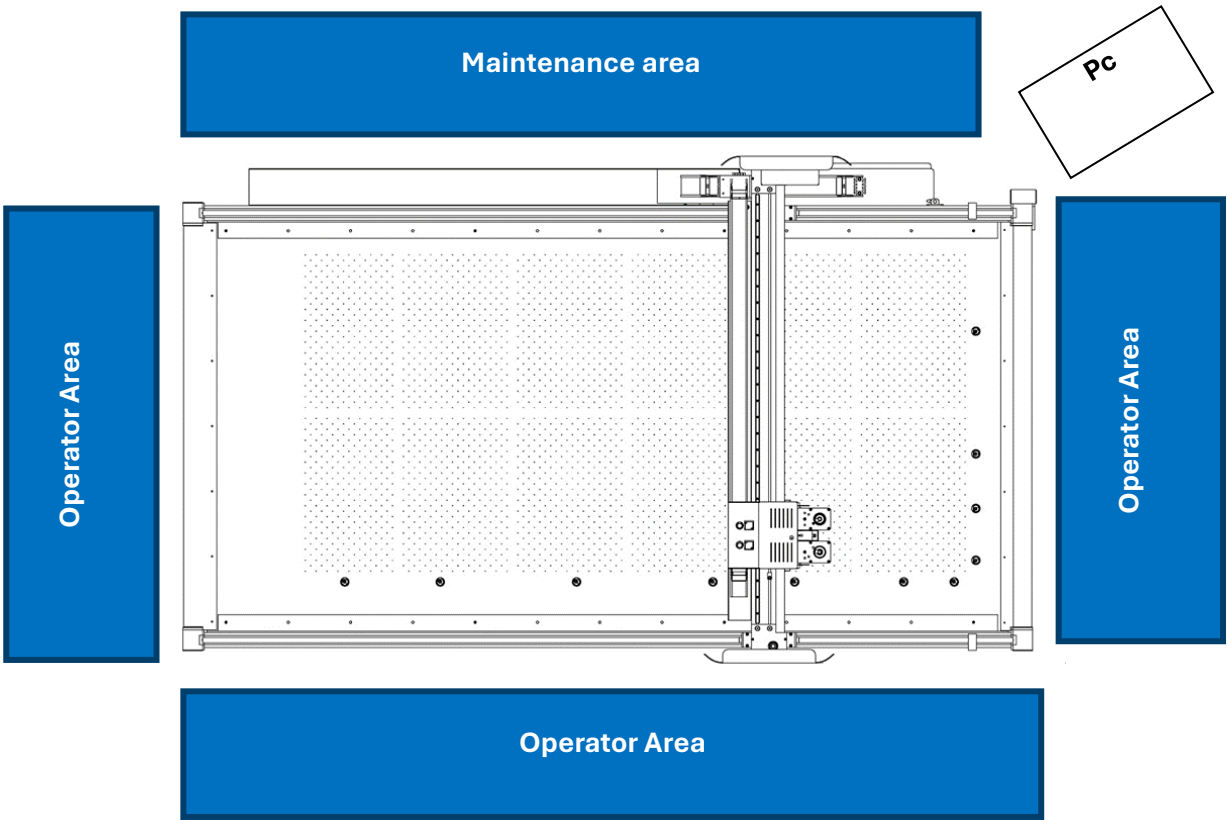
5.7 Interface

Communication	Ethernet or USB (Not recommended)
Machine USB	USB type B
Camera USB	USB
Motion Controller Update	USB type B

5.8 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	

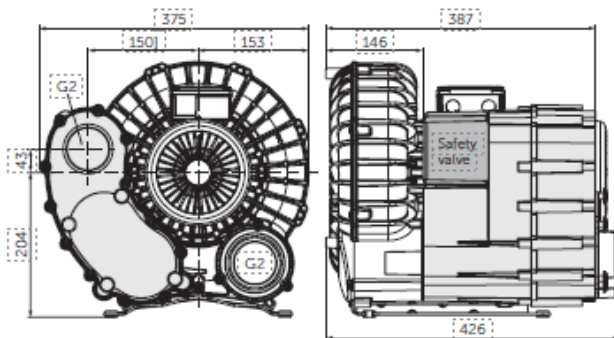
5.8.1 Typical setup



5.8.2 Pump assy dimensions

V1208/V1225/V1612/V1630

SV 200/2 Side Channel Vacuum Pump (Cod.003097)



Dimensions are displayed in mm

Weight of the pump assembly is

28.5 kg (62.8 lbs)

Suction air rate		Vacuum relative		Installed Motor Power		Emission sound pressure level ⁶		Weight with motor
m ³ /h		Mbar		kW		dB(A)		Kg
50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	
90	110	-330	-350	1.5	1.8	63.7 (-230 mbar)	68.4 (-245 mbar)	28.5

5.9 Electrical

5.9.1 Electrical configurations for Optima

Model	JAP/US/EU	Current
V1208	2X 208/230 V – 50/60HZ -2.1/2.4 KVA	11.5/14A
V1225	2X 208/230 V – 50/60HZ -2.2/2.5 KVA 2 ND PUMP 208/230 – 50/60HZ – 1.5/1.8 KVA	11.5/14A 8.9/11A
V1612	2X 208/230 V – 50/60HZ -2.2/2.5 KVA	11.5/14A
V1630 208>400V	3X 400 V – 50/60HZ -5.4/6.3 KVA Transformer 6KVA	13.5/16A 25A

⁶ According to DIN EN ISO 11203, accuracy class of measurement: class 2, extended measurement uncertainty: 3 dB 1m distance, at medium load, both connection sides piped

6 Integra - Technical Specifications

6.1 Machine Dimensions

	V1225		V1612		V1620		V1630	
	mm	inch	mm	inch	mm	inch	mm	inch
Height⁷	1360	53.5	1285	50.60	1285	50.6	1360	53.5
Width	2080	81.9	2225	87.6	2225	87.6	2480	97.6
Depth	3140	123.6	2045	80.50	2845	112	3700	145.7
	kg	pounds	kg	pounds	kg	pounds	kg	pounds
Weight	795	1752.7	540	1190	796	1754.9	1030	2270

6.2 Shipping Dimensions

V1225										
Width		Depth		Height		Weight		Weight (tare)		
mm	inch	mm	inch	mm	inch	kg	lbs	kg	lbs	
Box	3360	132.3	2100	82.7	1680	60	950	2094.4	150	330
Box	740	29.2	750	29.5	1200	47.3	40	88.2	5	11
Total							990	2182.6	155	341

V1612										
Width		Depth		Height		Weight		Weight (tare)		
	mm	inch	mm	inch	mm	inch	kg	lbs	kg	lbs
Box	2500	98.5	2120	83.5	1680	66.2	750	1653.5	100	220.5
Box	740	29.2	750	29.5	1200	47.3	40	88.2	5	11
Total							790	1741.7	105	231.5

⁷ Height does not include chip extraction pipe.

V1620										
	Width		Depth		Height		Weight		Weight (tare)	
	mm	inch	mm	inch	mm	inch	kg	lbs	kg	lbs
Box	2800	110.2	2300	90.6	1750	68.9	991	2184,8	195	429.9
Box	740	29.2	750	29.5	1200	47.3	40	88.2	5	11
Total							1031	2237	200	440.8

V1630										
	Width		Depth		Height		Weight		Weight (tare)	
	mm	inch	mm	inch	mm	inch	kg	lbs	kg	lbs
Box	3950	155.5	2300	90.6	1750	68.9	1250	2755.8	230	507
Box	740	29.2	750	29.5	1200	47.3	40	88.2	5	11
Total							1290	2843.4	235	518

6.3 Media handling

	V1225	V1612	V1620	V1630
Max Media Width	Up to 2500 mm – 98.5"	Up to 1600 mm – 63"	Up to 2030 mm – 80"	Up to 3030 mm – 119.2"
Max roll Width	Up to 1230 mm – 48.4"	Up to 1600 mm – 63"	Up to 1600 mm – 63"	Up to 1600 mm – 63"
Working Area	1230x2500 mm 48.4" x 98.5"	1620x1230 mm 63.7" x 48.4"	1600x2030 mm 63" x 80"	1600x3030 mm 63" x 119.2"
Max. working length Single Panel	Working Area	Working Area	Working Area	Working Area
Multi Panel	NA			
Media Weight	maximum XX kg - XXX lbs maximum XX kg/m ² - XXX lbs/ft ²			
Media Weight using Conveyor	NA			
Roll Specifications with Roll Support & Flanges	NA			
Maximum Roll Weight with Roll Support	NA			
Vacuum	SV 400/2 (2Pcs) 230/400 (50Hz) 3.0 KW – 10.9/6.3A 230/400 (60Hz) 3.6 KW – 11.5/6.6A	SV 400/2 230/400 (50Hz) 3.0 KW – 10.9/6.3A 230/400 (60Hz) 3.6 KW – 11.5/6.6A	SV 400/2 (2Pcs) 230/400 (50Hz) 3.0 KW – 10.9/6.3A 230/400 (60Hz) 3.6 KW – 11.5/6.6A	SV 400/2 (2Pcs) 230/400 (50Hz) 3.0 KW – 10.9/6.3A 230/400 (60Hz) 3.6 KW – 11.5/6.6A
Vacuum Zones	4 zones (4 rows x 1 columns)	2 Zones (2 rows x 1 columns)	4 zones (4 rows x 1 columns)	4 zones (4 rows x 1 columns)
Repeatability	Within ± 0.1 mm – 0.0039" on plots			
Accuracy	0.1 % of move or 0.1 mm – 0.0039", whichever is greater			
Beam Clearance ⁸	25 mm – 0.9"			
Clamp Clearence	5 mm – 0.196"			

⁸ Distance between vacuum table and Y-beam. Not taking into account the thickness of a cutting matt or conveyor belt

6.4 Performance

	Integra
Max Positioning Speed	Up to 1166 mm/s (46"/sec)
Max cutting Speed	Up to 1000 mm/s (39.3"/sec)
Acceleration	2.0 m/s ²
Repeatability	Within ± 0.1 mm – 0.0039" on plots
Accuracy	0.1 % of move or 0.1 mm – 0.0039", whichever is greater
Mechanical resolution	NA
Maximum Allowed Forces	Vertical: Information not available at the time of publication. Horizontal: Information not available at the time of publication.

6.5 Modules

6.5.1 Camera Module

The camera module mounts a prime camera with manual focus in a fixed position.

6.5.2 Tangential & Router Module

Type	Closed loop Stepper-motor	
Control	Electronic height control	
Quantity	2	
Maximum allowed vertical force	12 kgf – 27 lbf (at 6 BAR)	
Maximum allowed horizontal force	XX kgf – XX lbf Information not available at the time of publication.	
Maximum tool-lift ⁹	25 mm + 25mm	1.97"
Maximum clearance	25 mm	0.95"
Maximum bit diameter	8 mm	0.315"

6.5.3 Fixed Tool

An optional fixed pen tool holder could be mounted as an accessory.

⁹ Pneumatic and Motorized controlled.

6.6 Noise level

	V1216/V1612	V1225/V1620/V1630
Measurement (operator position) 1 pump active:	75 dBA	N/A
Measurement at 1 mt from active pump:	75 dBA	N/A
When pump is blowing:	72 dBA	N/A
When POT is cutting (vacuum OFF):	83 dBA	N/A

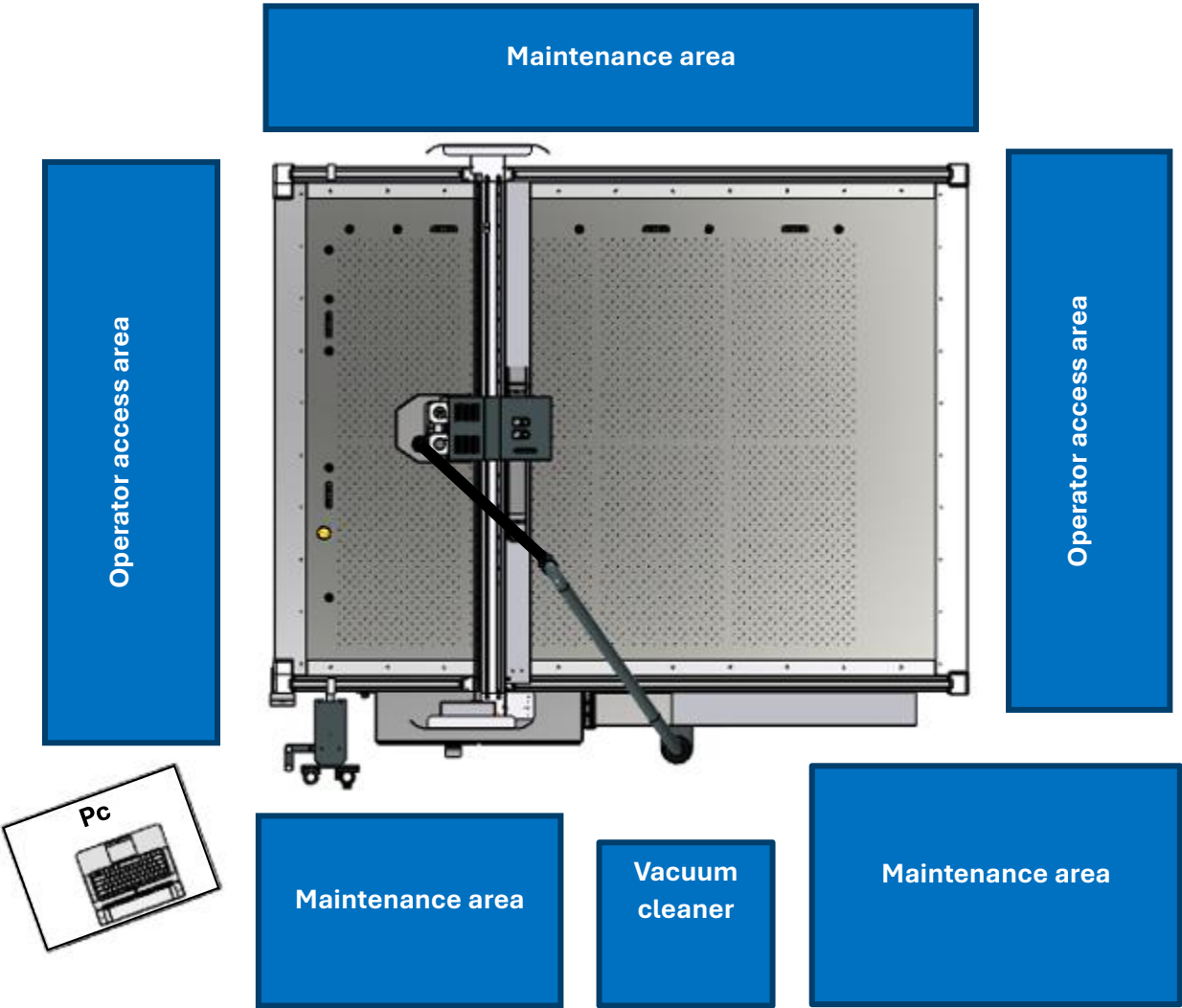
6.7 Interface

Communication	Ethernet or USB (Not recommended)
Machine USB	USB type B
Camera USB	USB Type Micro
Motion Controller Update	USB type B
Inverter	USB Type Mini

6.8 Environmental

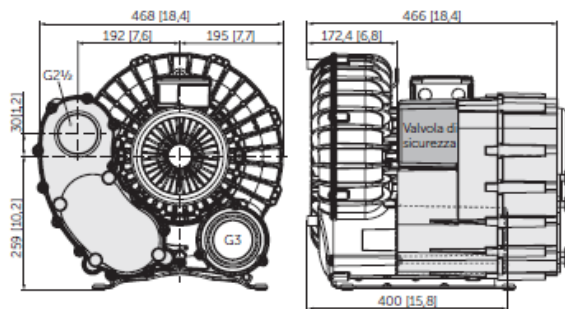
Operating Temperature	15 to 35° C	59 to 95° F
Storage temperature	-30 to 70° C	-22 to 158° F
Vacuum pump	If installed separately: ambient temperature maximum 40° C or 104° F	
Relative humidity	35 - 75 %, non-condensing	

6.8.1 Typical Setup



6.8.2 Pump assy dimensions

SV 400/2 Side Channel Vacuum Pump (Cod.002793)



Dimensions are displayed in mm

Weight of the pump assembly is 76 kg

(167.5 lbs). Within the machine weight.

Suction air rate		Vacuum relative		Installed Motor Power		Emission sound pressure level ¹⁰		Weight with motor
m ³ /h		Mbar		kW		dB(A)		
50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	Kg
195	235	-440	-3400	3.0	3.6	71.1 (-260 mbar)	73.0 (-260 mbar)	76

6.9 Electrical

6.9.1 Electrical configurations for Integra V Series

Model	JAP/US/EU	Current
V1225	3X 400 V – 50/60HZ -4.8/5.4 KVA	12/13.5A
V1612	3X 400 V – 50/60HZ -7.8/9 KVA	19.5/22 A
V1620	3X 400 V – 50/60HZ -7.8/9 KVA	19.5/22 A
208>400V	6KVA	25A
V1630	3X 400 V – 50/60HZ -7.8/9 KVA	19.5/22 A
208>400V	10KVA	48A

6.9.2 Vacuum cleaner router option

Type	Nb. of motors	Volt	Frequency	Weight (Kg)	Total tank capacity (lt)	Lpa sonorous 3mt (dB(A))
Valiani	3	220/240	50/60 Hz	29.8	76	68

¹⁰ According to DIN EN ISO 11203, accuracy class of measurement: class 2, extended measurement uncertainty: 3 dB 1m distance, at medium load, both connection sides piped

7 Omnia - Technical specification

7.1 Machine dimensions

	V0780		V0710		V0710 EVO	
	mm	inch	mm	inch	mm	inch
Height	1320	52	1320	52	1325	52
Width	1790	70	1790	70	1790	70.47
W + Pc Desk	2190	86.2	2190	86.2	2715	106.9
Depth	3860	152	4370	172	4370	172
	kg	pounds	kg	pounds	kg	pounds
Weight	890	1962	964	2125	1030	2270.7
SafetyMats Crate Weight	52	114.6	52	114.6	52	114.6

7.2 Shipping Dimensions

		V0780									
		Width		Depth		Height		Weight			
		mm	inch	mm	inch	mm	inch	kg			lbs
Box		2100	82.6	2500	98.4	1670	66.7	730	1609.3	100	220.5
Box		2100	82.6	1800	70.8	1670	66.7	550	1212	100	220.5
Total								1280	2821.3	200	441

V0710										
	Width		Depth		Height		Weight		Weight (tare)	
	mm	inch	mm	inch	mm	inch	kg	lbs	kg	lbs
Box	2100	82.6	2500	98.4	1670	66.7	790	1742	100	220.5
Box	2100	82.6	1800	70.8	1670	66.7	550	1212	100	220.5
Total							1340	2954	200	441

V0710 EVO											
		Width		Depth		Height		Weight		Weight (tare)	
		mm	inch	mm	inch	mm	inch	kg	lbs	kg	lbs
Box		2100	82.6	2500	98.4	1670	66.7	870	1918	100	220.5
Box		2100	82.6	1800	70.8	1670	66.7	550	1212	100	200.5
Total								1420	3130	200	441

7.3 Media handling

	V0780	V0710	V0710 EVO
Max Media Width	Up to 750 mm – 29.5"	Up to 750 mm – 29.5"	Up to 750 mm – 29.5"
Working Area	750 x 800 mm 29.5" x 31.5"	750 x 1050 mm 29.5" x 41.3"	750 x 1050 mm 29.5" x 41.3"
Max. working length Single Panel	Working Area	Working Area	Working Area
Multi Panel	NA		
Media Weight	maximum 300 kg - 661 lbs maximum 100kg/m ² - 20.5 lbs/ft ²		
Media Weight using Conveyor	maximum 60 kg – 132 lbs maximum 30 kg/m ² – 6.1 lbs/ft ²		
Roll Specifications with Roll Support & Flanges	NA		
Maximum Roll Weight with Roll Support	NA		
Vacuum	SV 200/2 230/400 (50Hz) 1.5 KW – 6.6/3.8 A 230/400 (60Hz) 1.8 KW – 6.5/3.8 A	SV 300/2 230/400 (50Hz) 2.2 KW – 7.7/4.45 A 230/400 (60Hz) 2.65 KW – 8.3/4.6 A	SV 300/2 230/400 (50Hz) 2.2 KW – 7.7/4.45 A 230/400 (60Hz) 2.65 KW – 8.3/4.6 A
Vacuum Zones	3 zones (Progressive)	3 zones (Progressive)	3 zones (Progressive)
Repeatability	Within ± 0.1 mm – 0.0039" on plots		
Accuracy	0.1 % of move or 0.1 mm – 0.0039", whichever is greater		
Clearance	15 mm – 0.59"		

7.4 Performance

	Omnia	
	V0708/V0710	V0710 EVO
Max Positioning Speed	Up to 1333 mm/s (52.4"/sec)	Up to 1500 mm/s (59.05"/sec)
Max Cutting Speed	Up to 1167 mm/s (45.9"/sec)	Up to 1167 mm/s (45.9"/sec)
Acceleration	4.0 m/s ²	9.0 m/s ²
Repeatability	Within ± 0.1 mm – 0.0039" on plots	Within ± 0.05 mm – 0.002" on plots
Accuracy	0.1 % of move or 0.1 mm – 0.0039", whichever is greater	0.05 % of move or 0.05 mm – 0.002", whichever is greater
Mechanical resolution	NA	
Maximum Allowed Forces	Vertical: Information not available at the time of publication. Horizontal: Information not available at the time of publication.	

7.5 Modules

7.5.1 Camera Module

The camera module mounts a prime camera with manual focus in a fixed position.

7.5.2 Tangential Module

Type	Brushless-motor	
Control	Manual height control (pneumatic)	
Quantity	2	
Maximum allowed vertical force	12 Kgf – 27 lbf (at 6 BAR)	
Maximum allowed horizontal force	Information not available at the time of publication.	
Maximum tool-lift ¹¹	15 mm	0.591"

7.5.3 Fixed Tool

An optional fixed pen tool holder could be mounted as an accessory.

¹¹ Pneumatic controlled.

7.6 Noise level

	SV 200/2	SV 300/2
Measurement (operator position) 1 pump active:	82 dBA	86 dBA
Measurement at 1 mt from active pump:	80 dBA	84 dBA
When pump is blowing:	70 dBA	87 dBA
When POT is cutting (vacuum OFF):	83 dBA	83 dBA

7.7 Interface

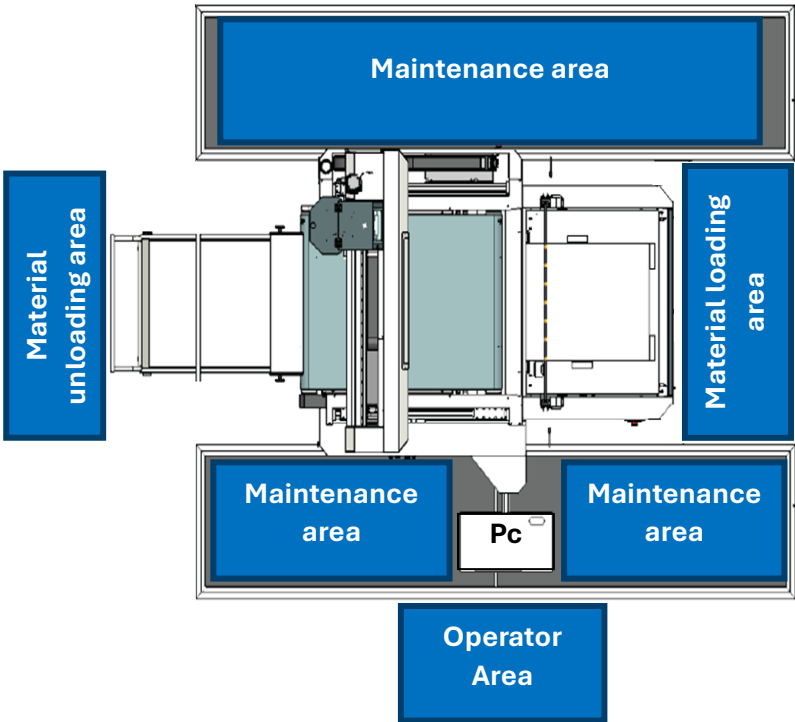
Communication	Ethernet or USB (Not recommended)
Machine USB	USB type B
Camera USB	USB
Motion Controller Update	USB type B

7.8 Environmental

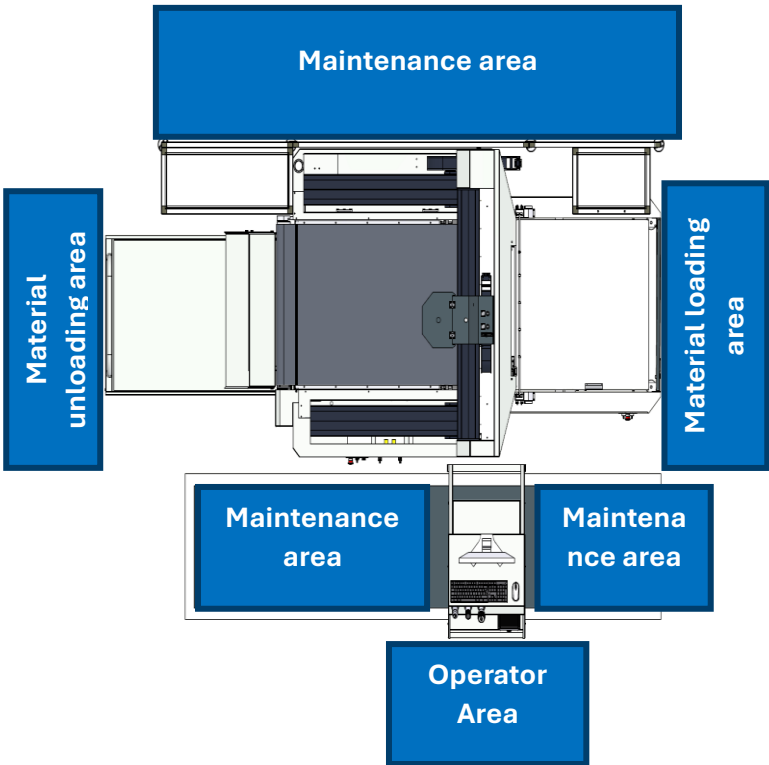
Operating Temperature	15 to 35 °C	59 to 95 °F
Storage temperature	-30 to 70 °C	-22 to 158°F
Vacuum pump	If installed separately: ambient temperature maximum 40 °C or 104 °F	
Relative humidity	35 - 75 %, non-condensing	

7.8.1 Typical setup

V0708/V0710 Omnia



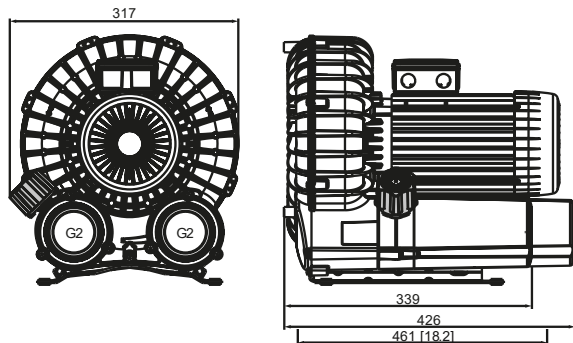
V0710 Omnia EVO



7.8.2 Pump assy dimensions

V0708

SV 200/2 Side Channel Vacuum Pump (Cod.002523)



Dimensions are displayed in mm

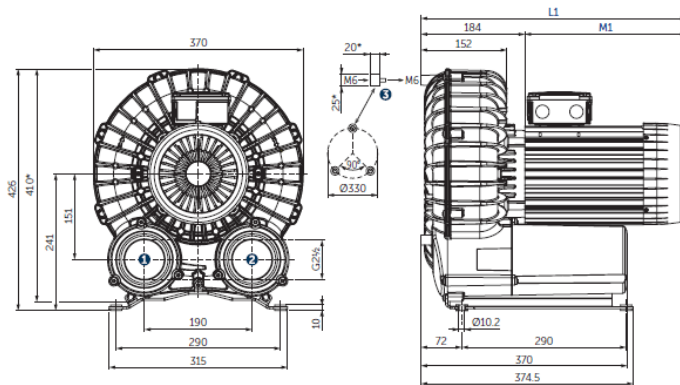
Weight of the pump assembly is

28.5 kg (62.8 lbs)

Suction air rate		Vacuum relative		Installed Motor Power		Emission sound pressure level ¹²		Weight with motor
m ³ /h		Mbar		kW		dB(A)		Kg
50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	
90	110	-330	-350	1.5	1.8	63.7 (-230 mbar)	68.4 (-245 mbar)	28.5

V0710/V0710 EVO

SV 300/2 Side Channel Vacuum Pump (003142)



Dimensions are displayed in mm

Weight of the pump assembly is

45 kg (99.2 lbs)

Suction air rate		Vacuum relative		Installed Motor Power		Emission sound pressure level ¹³		Weight with motor
m ³ /h		Mbar		kW		dB(A)		Kg
50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	
160	190	-405	-410	3.0	3.6	69.6 (-275 mbar)	69.5 (-275 mbar)	45

¹² According to DIN EN ISO 11203, accuracy class of measurement: class 2, extended measurement uncertainty: 3 dB 1m distance, at medium load, both connection sides piped

¹³ According to DIN EN ISO 11203, accuracy class of measurement: class 2, extended measurement uncertainty: 3 dB 1m distance, at medium load, both connection sides piped

7.9 Electrical

7.9.1 Electrical configurations for Omnia V Series

Model	JAP/US/EU	Current
V0708 208>400V	3X 400 V – 50/60HZ -4.9/5.2 KVA 6KVA - 25A	12.3/13 A 25 A
V0710 208>400V	3X 400 V – 50/60HZ -5.6/6.1 KVA 6KVA - 25A	14/15.3 A 25 A
V0710 EVO 208>400V	3X 400 V – 50/60HZ -8.4/8.85 KVA 10KVA	21/22 A 48A

8 Recommendations for extra power supply devices

8.1 3 Phase Transformer

Code	Model	Type	Voltage	Current
	V1216 Integra	UL	3x 208/240V – 50/60Hz - 6KVA	25A
002780	V1620/V1225/V1630 Integra		3x 208/240V – 50/60Hz - 10KVA	48A
002780-UL	V1620/V1225/V1630 Integra V0708/V0710/V0710 Omnia EVO	UL	3x 208/240V – 50/60Hz - 10KVA	48A

9 V 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:

- UNI EN 614-1:2009
- UNI EN 691-1:2012
- BS EN 894-2:1997+A1:2008
- UNI EN 1837:2021
- UNI EN ISO 4414:2012
- UNI 4598:1986
- EN 60204-1
- CEI EN 62061
- UNI ISO 8525:2009
- EN ISO 12100:2010
- EN ISO 12100-2:2005
- EN 12464-1:2021
- UNI EN 12464-2:2014
- UNI EN ISO 13849-1:2016
- UNI EN ISO 13850:2015
- UNI EN ISO 13854:2020
- UNI EN ISO 13857:2020
- UNI EN 13861:2011
- UNI EN ISO 14118:2018
- UNI EN ISO 14119:2013
- UNI EN ISO 14120:2015
- UNI ISO/TR 14121-2:2013

- EN ISO 16090-1:2018
- UNI EN ISO 20607:2019

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.