

Vacuum Gripper

Introduction

DEGA series vacuum grippers represent a flexible solution for handling products with different shapes, dimensions and compactness. This is due to either the check valve or flow resistance technology. Check valve or flow resistance can fulfil the needs of many industrial sector applications.

DEGA vacuum gripper are available in different length (maximum 1000 mm) and can be equipped with integrated built in Multi-stage vacuum pump or separated vacuum generation unit. (Vacuum pump or Side channel vacuum blower).



Characteristics

- DEGA vacuum grippers with built-in Multi-stage ejectors offer a wide range of selection for suction capacity suitable for handling porous products
- DEGA vacuum gripper with external vacuum generation units perfect for large area application and handling of carton boxes with different dimension.
- Selection of 20, 30 and 40 mm EPDM foam or food grade Silicon foam
- Different pattern and foam diameter: 6, 10, 15 and 20 mm. Also available with suction pads.
- Vacuum detection
- Easy maintenance
- Low energy consumption
- Low weight

Applications

- Industries Application: Wood, metal sheet, plastic, Glass, packaging, food, Electronics, Electrical appliance,
- Specially in Automation lines for handling of products with many holes, high leakage carton box, rough and uneven surface, loose packing,
- Carton boxes palletization systems
- Carton boxes de-palletization systems
- Layer boxes handling

Applications Pictures

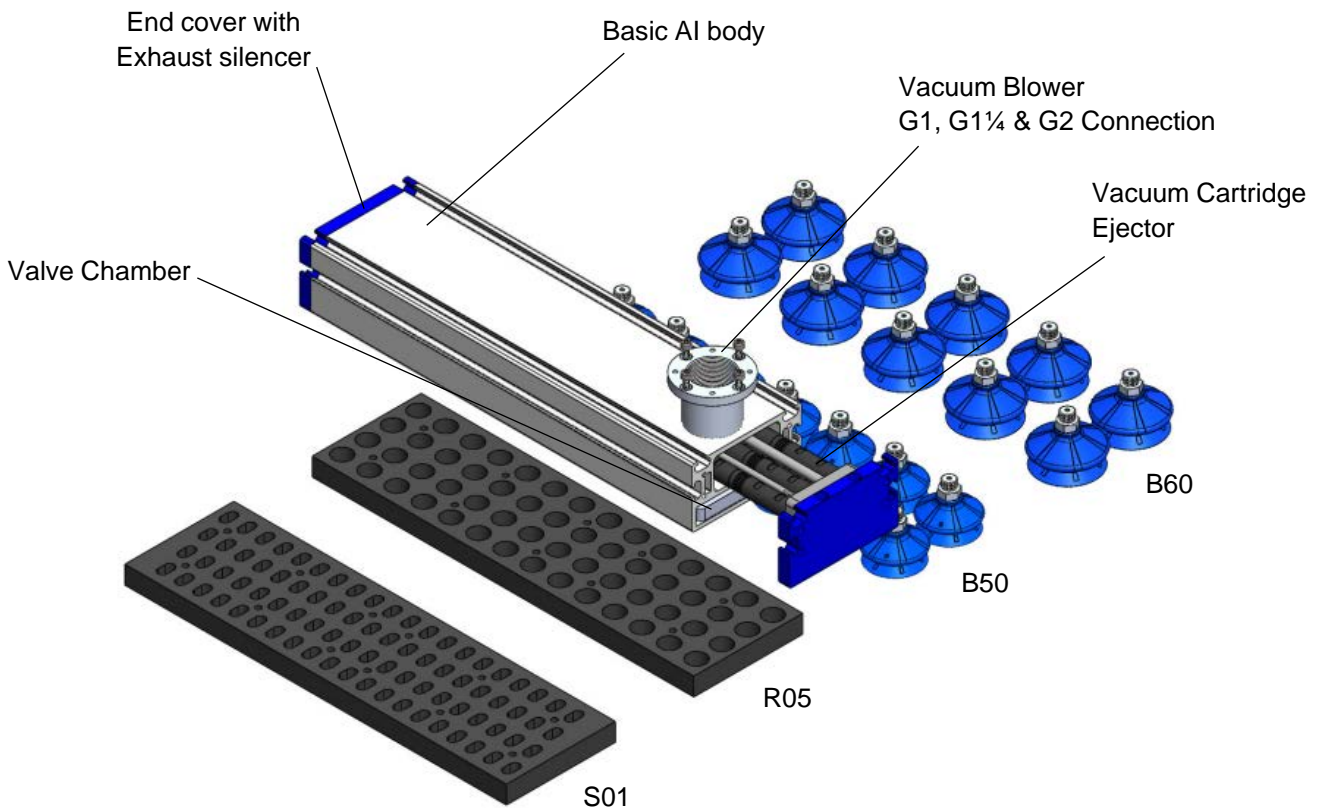


Vacuum Gripper

Ordering Information

Part No : **DEGA400120F20S01VVC2**

Series	Length (mm)	Width (mm)	Foam Thickness/Cup Diameter	Shape	Technology	Pump Size
DEGA	200 300 400 600 800 1000 1200	120	F 20: Foam 20mm F 30: Foam 30mm F 40: Foam 40mm (**) B 50: Suction cup 50mm B 60: Suction cup 60mm (**)Special Request	S01: Oval shape R05: Diameter 20 mm	V: Check valve N: Flow resistance	VC1: 360 L/min VC2: 720 L/min VC3: 1080 L/min VC4: 1440 L/min VC5: 1800 L/min VC6: 2160 L/min VC7: 2520 L/min VC8: 2880 L/min G1: 1" Vacuum Blower G1¼: 1¼" Vacuum Blower G2: 2" Vacuum Blower



Vacuum Gripper

Air Consumption / Suction Capacity data related to numbers of Cartridge ejectors(5 bar)

Type	Air consumption at 5 bar (NI/min)	Suction Capacity (NI/min)
VC1	90	360
VC2	180	720
VC3	270	1080
VC4	360	1440
VC5	450	1800
VC6	540	2160
VC7	630	2520
VC8	720	2880

Theatrical gripping force on flat surface with completely covered module, without safety factor (N)

Gripper with Foam 20/30/40mm thickness, Standard Oval shape S01

Part No	Force at 30% Vacuum (N)	Force at 40% Vacuum (N)	Force at 50% Vacuum (N)	Force at 60% Vacuum (N)	Force at 70% Vacuum (N)
DEGA200120F20S01	189	252	315	378	441
DEGA300120F20S01	283	378	472	567	661
DEGA400120F20S01	378	504	630	756	882
DEGA600120F20S01	567	756	945	1134	1323
DEGA800120F20S01	756	1008	1260	1512	1764
DEGA1000120F20S01	945	1260	1575	1890	2205
DEGA1200120F20S01	1134	1512	1890	2268	2646

Gripper with Foam 20/30/40mm thickness, diameter 20mm Holes R05

Part No	Force at 30% Vacuum (N)	Force at 40% Vacuum (N)	Force at 50% Vacuum (N)	Force at 60% Vacuum (N)	Force at 70% Vacuum (N)
DEGA200120F2R05	218	291	364	437	510
DEGA300120F20R05	336	448	560	672	784
DEGA400120F20R05	437	582	728	874	1020
DEGA600120F20R05	672	896	1120	1344	1568
DEGA800120F20R05	874	1165	1456	1747	2038
DEGA1000120F20R05	1108	1478	1848	2218	2587
DEGA1200120F20R05	1344	1792	2240	2688	3136

Part No	Estimate Weight (Kg)
DEGA200120F2R05	
DEGA300120F20R05	
DEGA400120F20R05	4.2
DEGA600120F20R05	5.8
DEGA800120F20R05	8
DEGA1000120F20R05	
DEGA1200120F20R05	

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Theoretical gripping force on flat surface with completely covered module, without safety factor (N)

Gripper with suction Pads B50

Type	Force at 30% Vacuum (N)	Force at 40% Vacuum (N)	Force at 50% Vacuum (N)	Force at 60% Vacuum (N)	Force at 70% Vacuum (N)
DEGA200120B50	218	291	364	437	510
DEGA300120B50	328	437	547	656	766
DEGA400120B50	437	583	729	875	1021
DEGA600120B50	656	875	1094	1313	1532
DEGA800120B50	875	1167	1458	1750	2042
DEGA1000120B50	1094	1459	1823	2188	2553
DEGA1200120B50	1313	1751	2188	2626	3064

Gripper with suction Pads B60

Type	Force at 30% Vacuum (N)	Force at 40% Vacuum (N)	Force at 50% Vacuum (N)	Force at 60% Vacuum (N)	Force at 70% Vacuum (N)
DEGA200120B60	301	402	503	603	704
DEGA300120B60	452	603	754	905	1056
DEGA400120B60	603	805	1006	1207	1408
DEGA600120B60	905	1207	1509	1810	2112
DEGA800120B60	1207	1609	2011	2414	2816
DEGA1000120B60	1509	2011	2514	3017	3520
DEGA1200120B60	1810	2414	3017	3621	4224

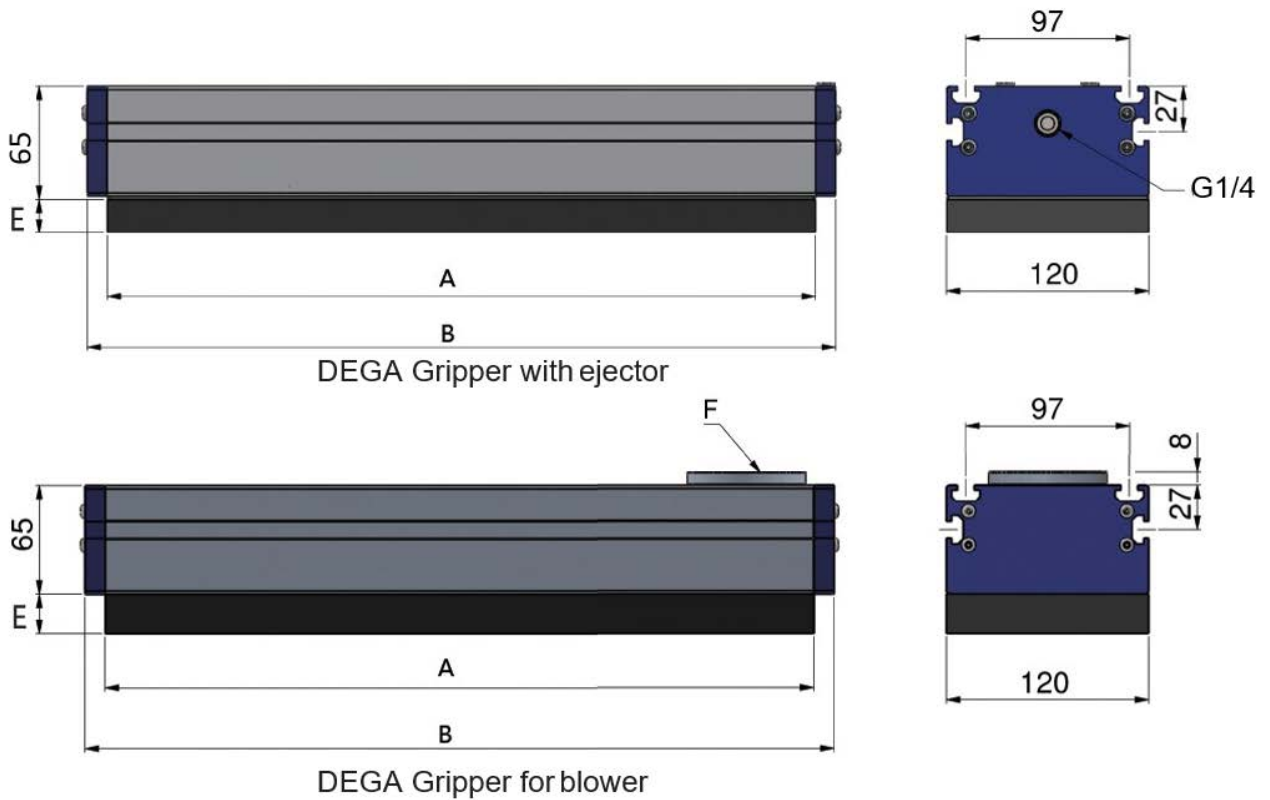
Vacuum Gripper

Design Data

Gripper with Foam 20/30/40mm thickness, Standard Oval shape S01/F05

Type	A	B	E	F
DEGA200120S01/R05	220	244	20/30/40	G1
DEGA300120S01/R05	320	344	20/30/40	G1
DEGA400120S01/R05	420	444	20/30/40	G1-1/4"
DEGA600120S01/R05	620	644	20/30/40	G1-1/4"
DEGA800120S01/R05	820	844	20/30/40	G2"
DEGA1000120S01/R05	1020	1044	20/30/40	G2"
DEGA1200120S01/R05	1220	1244	20/30/40	G2"

Unit dimension in mm



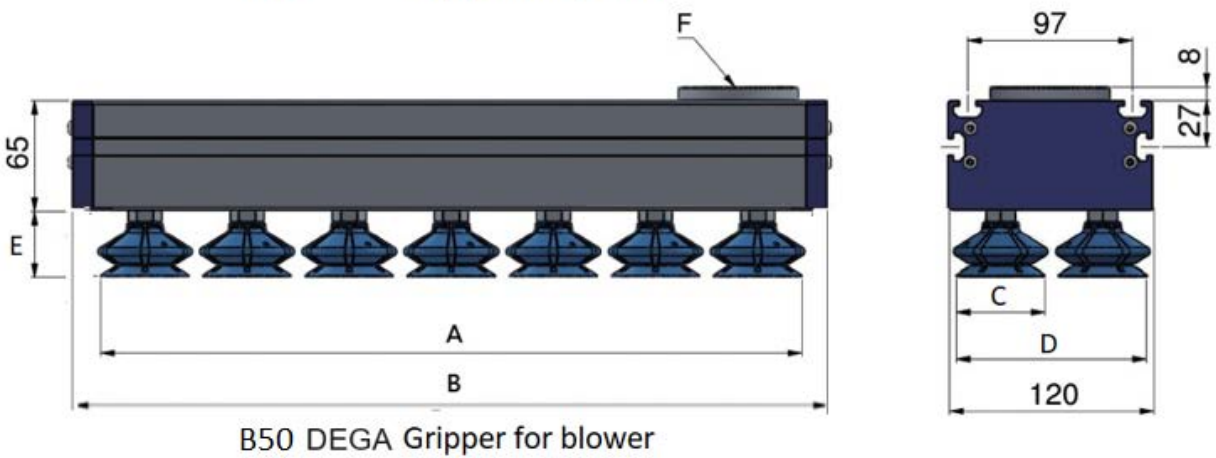
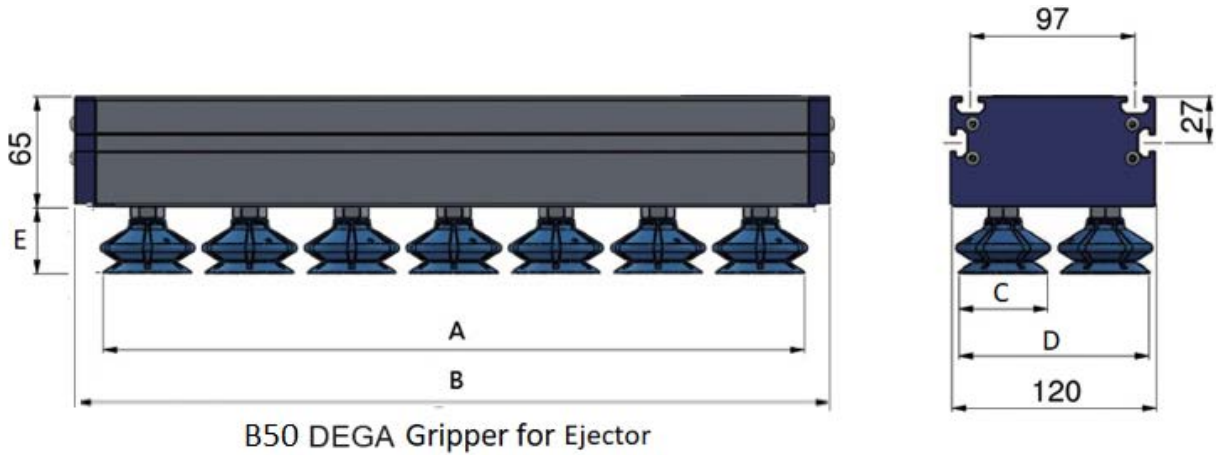
Vacuum Gripper

Design Data

Gripper with B50 Suction Cup

Type	A	B	C	D	E	F
DEGA400120B50	412	424	50	112	39	G1
DEGA600120B50	592	624	50	112	39	G1
DEGA400120B50	412	424	50	112	39	G1-1/4"
DEGA600120B50	592	624	50	112	39	G1-1/4"
DEGA800120B50	832	844	50	112	39	G2"
DEGA1000120B50	1002	1024	50	112	39	G2"
DEGA1200120B50	1192	1224	50	112	39	G2"

Unit dimension in mm



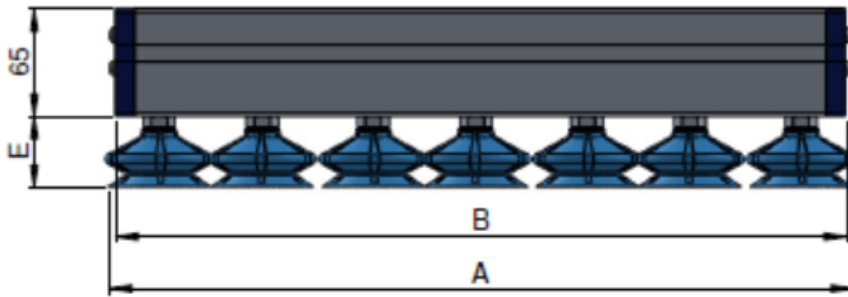
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Design Data

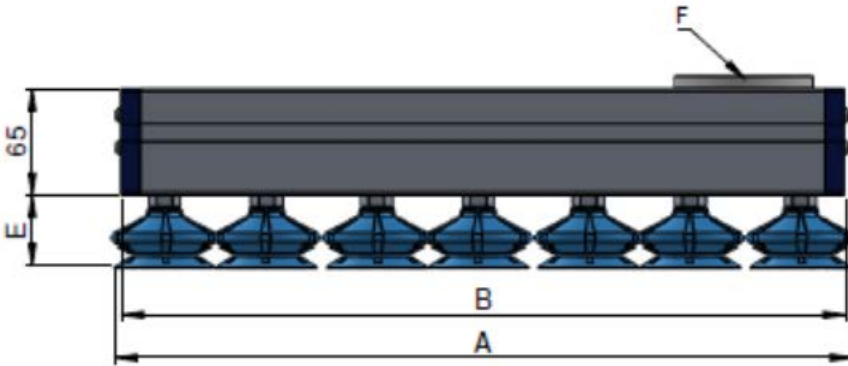
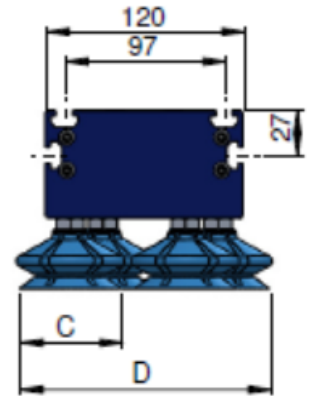
Gripper with B60 Suction Cup

Type	A	B	C	D	E	F
DEGA400120B60	452	444	60	152	43	G1
DEGA600120B60	646	634	60	152	43	G1
DEGA400120B60	452	444	60	152	43	G1-1/4"
DEGA600120B60	646	634	60	152	43	G1-1/4"
DEGA800120B60	842	844	60	152	43	G2"
DEGA1000120B60	1037	1044	60	152	43	G2"
DEGA1200120B60	1232	1234	60	152	43	G2"

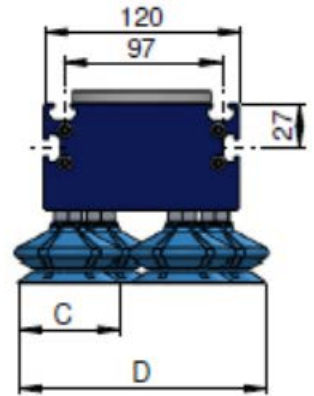
Unit dimension in mm



B60 DEGA Gripper for Ejector



B60 DEGA Gripper for Blower

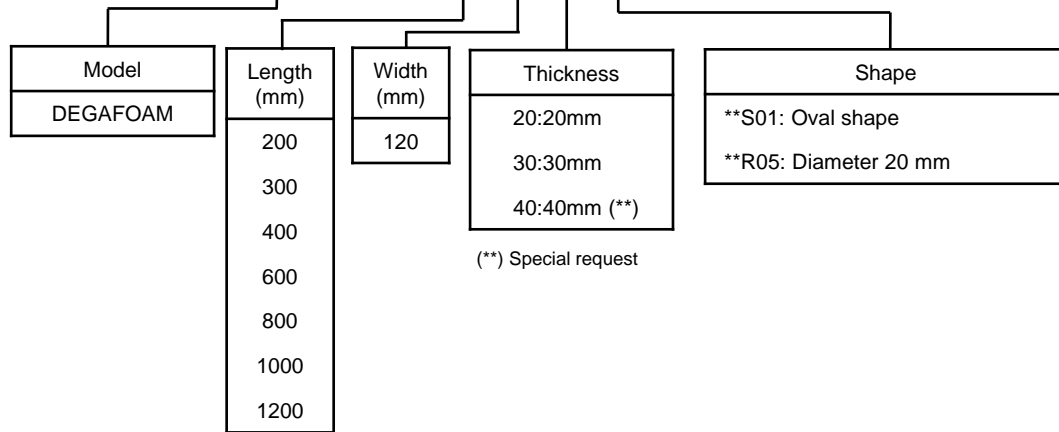


Vacuum Gripper

Spare Part

Foam

DEGAFOAM40012020S01



Suction Cup

Ordering Code

DPB1	50	TPU	G14M
1	2	3	4

1 - Series

2 - Suction area

3 - Material

Code	Version	Code	Diameter in mm	Code	Material
DPB1	1.5 folds	50...60	Ø50 to 60	TPU	Thermoplastic Polyurethane

4 - Fitting Thread Size

Code	Connection
G18M	G18 Male
G18F	G18 Female
G14M	G14 Male
G14F	G14 Female