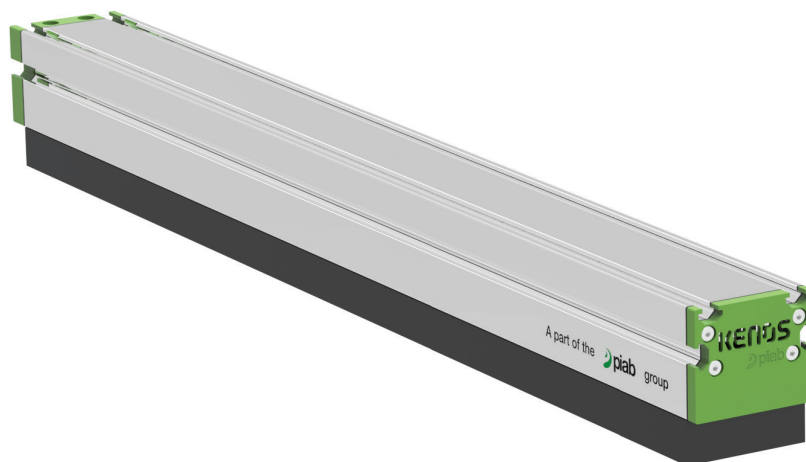


KVG 60 family



KVG series represents a flexible solution for the handling manipulation of several products with different shapes, dimensions and compactness due to the double technology available. Check valves or flow reducers can fulfill the needs of many industrial sector applications. The KVG gripping system can be equipped with integrated vacuum generation or suitable for separated vacuum generation (Pump or Side channel blower). The integrated vacuum generator is a modular multi-stage COAX® ejector of easy maintenance. The multi-stage COAX® ejector used offers the possibility to be simply increased even after the installation if necessary. The mat of the KVG gripping system is made of a technical foam (FDA mat approved available), with different pitch holes and thickness or pads.

LIFTING FORCES

Theoretic gripping force on rigid and stable surface with completely covered module, without safety factor (N).

Type	Foam step	Force, N, at a vacuum of				
		30%	40%	50%	60%	70%
KVG200	1-2 (fine or medium)	94	126	157	188	220
KVG300	1-2 (fine or medium)	141	188	236	283	330
KVG400	1-2 (fine or medium)	188	251	314	377	440
KVG500	1-2 (fine or medium)	236	314	393	471	550
KVG600	1-2 (fine or medium)	283	377	471	565	660
KVG700	1-2 (fine or medium)	330	440	550	660	770
KVG800	1-2 (fine or medium)	377	503	628	754	880
KVG900	1-2 (fine or medium)	424	565	707	848	990
KVG1000	1-2 (fine or medium)	471	628	785	942	1100
KVG1100	1-2 (fine or medium)	518	691	864	1037	1210
KVG1200	1-2 (fine or medium)	565	754	942	1131	1319
KVG1300	1-2 (fine or medium)	613	817	1021	1225	1429
KVG1400	1-2 (fine or medium)	660	880	1100	1319	1539
KVG1600	1-2 (fine or medium)	754	1005	1257	1508	1759
KVG1800	1-2 (fine or medium)	848	1131	1414	1696	1979

Type	Foam step	Force, N, at a vacuum of				
		30%	40%	50%	60%	70%
KVG2000	1–2 (fine or medium)	942	1257	1571	1885	2199
KVG200	3 (medium oval)	132	177	221	265	309
KVG300	3 (medium oval)	199	265	331	397	463
KVG400	3 (medium oval)	265	353	441	530	618
KVG500	3 (medium oval)	331	441	552	662	772
KVG600	3 (medium oval)	397	530	662	794	927
KVG700	3 (medium oval)	463	618	772	927	1081
KVG800	3 (medium oval)	530	706	883	1059	1236
KVG900	3 (medium oval)	596	794	993	1192	1390
KVG1000	3 (medium oval)	662	883	1103	1324	1545
KVG1100	3 (medium oval)	728	971	1214	1457	1699
KVG1200	3 (medium oval)	794	1059	1324	1589	1854
KVG1300	3 (medium oval)	861	1148	1434	1721	2008
KVG1400	3 (medium oval)	927	1236	1545	1854	2163
KVG1600	3 (medium oval)	1059	1412	1765	2119	2472
KVG1800	3 (medium oval)	1192	1589	1986	2383	2781
KVG2000	3 (medium oval)	1324	1765	2207	2648	3090
KVG200	6 (extra fine)	75	101	126	151	176
KVG300	6 (extra fine)	113	151	189	226	264
KVG400	6 (extra fine)	151	201	251	302	352
KVG500	6 (extra fine)	189	251	314	377	440
KVG600	6 (extra fine)	226	302	377	452	528
KVG700	6 (extra fine)	264	352	440	528	616
KVG800	6 (extra fine)	302	402	503	603	704
KVG900	6 (extra fine)	339	452	566	679	792

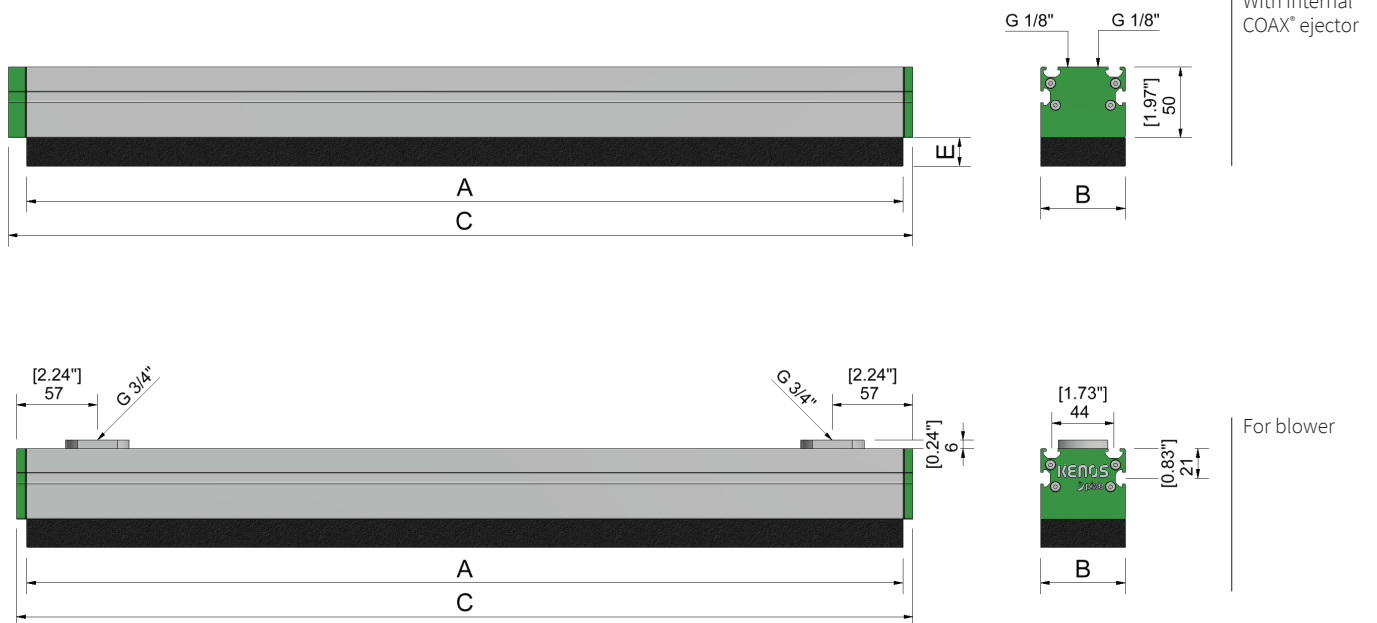
Type	Foam step	Force, N, at a vacuum of				
		30%	40%	50%	60%	70%
KVG1000	6 (extra fine)	377	503	628	754	880
KVG1100	6 (extra fine)	415	553	691	829	968
KVG1200	6 (extra fine)	452	603	754	905	1056
KVG1300	6 (extra fine)	490	654	817	980	1144
KVG1400	6 (extra fine)	528	704	880	1056	1232
KVG1600	6 (extra fine)	603	804	1005	1206	1408
KVG1800	6 (extra fine)	679	905	1131	1357	1584
KVG2000	6 (extra fine)	754	1005	1257	1508	1759

VACUUM FLOW

Air consumption/vacuum flow data related to number of COAX® ejectors.

COAX® Cartridge	Feed pressure MPa	Air consumption NI/s	Vacuum flow (NI/s) at different vacuum levels (-kPa)										Max vacuum -kPa
			0	10	20	30	40	50	60	70	80	90	
MIDI Si32-3 ×1	0.6	1.75	6	3.5	2.6	1.7	0.9	0.6	0.5	0.35	—	—	75
MIDI Si32-3 ×2	0.6	3.5	12	7	5.2	3.4	1.8	1.2	1	0.7	—	—	75
MIDI Si32-3 ×4	0.6	7	24	14	10.4	6.8	3.6	2.4	2	1.4	—	—	75

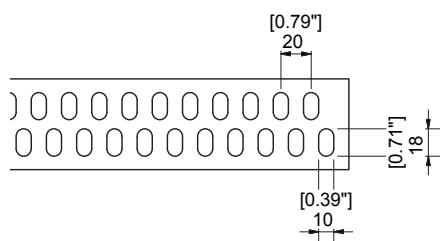
DIMENSIONS FOR KVG 60 WITH FOAM



Length (mm)	A (mm)	C COAX® ejector (mm)	C Blower (mm)	E (mm)	Weight (kg)			
					COAX® ejector CV	COAX® ejector FR	blower CV	blower FR
KVG200	220	240	234	10/20	1.1	0.9	0.9	0.7
KVG300	320	340	334	10/20	1.4	1.2	1.1	1.0
KVG400	420	440	434	10/20	1.7	1.4	1.6	1.2
KVG500	520	540	534	10/20	2.1	1.7	1.9	1.5
KVG600	620	640	634	10/20	2.4	1.9	2.2	1.7
KVG700	720	740	734	10/20	2.7	2.2	2.6	2.0
KVG800	820	840	834	10/20	3.1	2.4	2.9	2.2
KVG900	920	940	934	10/20	3.4	2.7	3.2	2.5
KVG1000	1020	1040	1034	10/20	3,8	3.0	3.6	2.8
KVG1100	1120	1140	1134	10/20	4.1	3.2	3.9	3.0
KVG1200	1220	1240	1234	10/20	4.4	3.5	4.2	3.3
KVG1300	1320	1340	1334	10/20	4.8	3.7	4.6	3.5
KVG1400	1420	1440	1434	10/20	5.1	4.0	4.9	3.8
KVG1600	1620	1640	1634	10/20	5.8	4.5	5.6	4.3
KVG1800	1820	1840	1834	10/20	6.4	5.0	6.2	4.8
KVG2000	2020	2040	2034	10/20	7.1	5.5	6.9	5.3

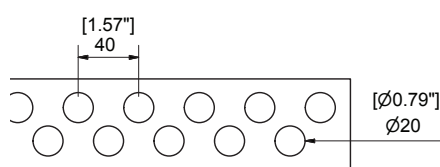
ATTENTION: for foam step 6 (extra fine), dimensions A, B and C are 10 mm shorter.

KVG 60 FOAM DESCRIPTIONS



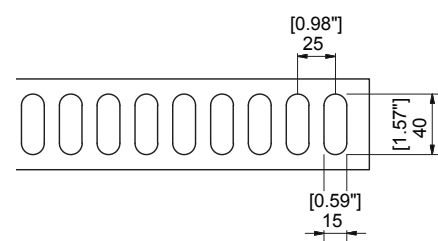
Fine (step 1)

Suitable for narrow parts like strips of wood, metal, plastic.



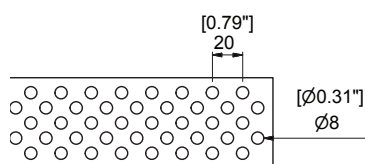
Medium (step 2)

Suitable for general purpose, typical application for panels.



Medium oval (step 3)

Suitable for general purpose, typical application for heavier panels.



Extra fine (step 6)

Suitable for small pieces larger than 25 mm like very narrow strips of wood.

KVG 60 – CUSTOMER CODE



Code	Model
KVG	KVG

Code	Length
200	200 mm
300	300 mm
400	400 mm
500	500 mm
600	600 mm
700	700 mm
800	800 mm
900	900 mm
1000	1000 mm
1100	1100 mm
1200	1200 mm
1300	1300 mm
1400	1400 mm
1600	1600 mm
1800	1800 mm
2000	2000 mm

Code	Width
60	60 mm

Code	Type
N	Foam
Code	Thickness
2	Foam 20 mm
1	Foam 10 mm
Code	Filter
0	Without filter
1	With filter
Code	Step
1	Fine step
2	Medium step
3	Medium oval step
6	Extra fine step

Code	Technology
CVL	Check Valves Low flow
CVM	Check Valves Medium flow
CVH	Check Valves High flow
CV19	piSAVE® Sense 02/60
FR5	Flow Reduction 0,5 mm
FR6	Flow Reduction 0,6 mm
FR8	Flow Reduction 0,8 mm

Code	Vacuum generator
S1	×1 cartridge Si32-3
S2	×2 cartridge Si32-3
S4	×4 cartridge Si32-3
BL	Blower connection

