

# Carton and Appliance Clamps



## Experience the new way to handle your white goods!

The Bolzoni Auramo carton clamps are extensively used for the handling of “white goods”, in both factories and warehouses, such as washing machines, refrigerators, microwave ovens, televisions and for the handling of other types of materials packed in cartons. Thanks to the palletless handling, the carton clamp allows the optimization of warehouse storage space and reduction of the costs for packaging materials.



KS-C Model

### Visibility, productivity, safety with the new Carton Clamp:

## KS-C

The new KS-C model Bolzoni Auramo carton and appliance clamps incorporate new technical features able to guarantee safe and efficient handling together with easy installation and longer lifetime:

- Very rigid frame structure with single piece double “T” profile. Wide visibility window thanks to new chassis design, granting safe and easy handling operations.
- Large surface aluminium pads to reduce the total weight of the clamp and to maximize the residual capacity of the lift truck.
- Special high-friction vulcanized rubber lining increases positive grip allowing safe and damage-free handling.
- Interchangeable left-right pads for more even rubber wear.
- Thin arm profiles and new design elbow supports allow easy knifing between loads.
- Pad supports with robust design and varying height for an optimized distribution of the clamping force.
- New fixing system of the sliding pads to relief stress.
- New self-aligning cylinder fixing to avoid breakage.
- Integral sideshift.
- Flow divider.



**The intelligent solution to damage-free handling of white goods:**

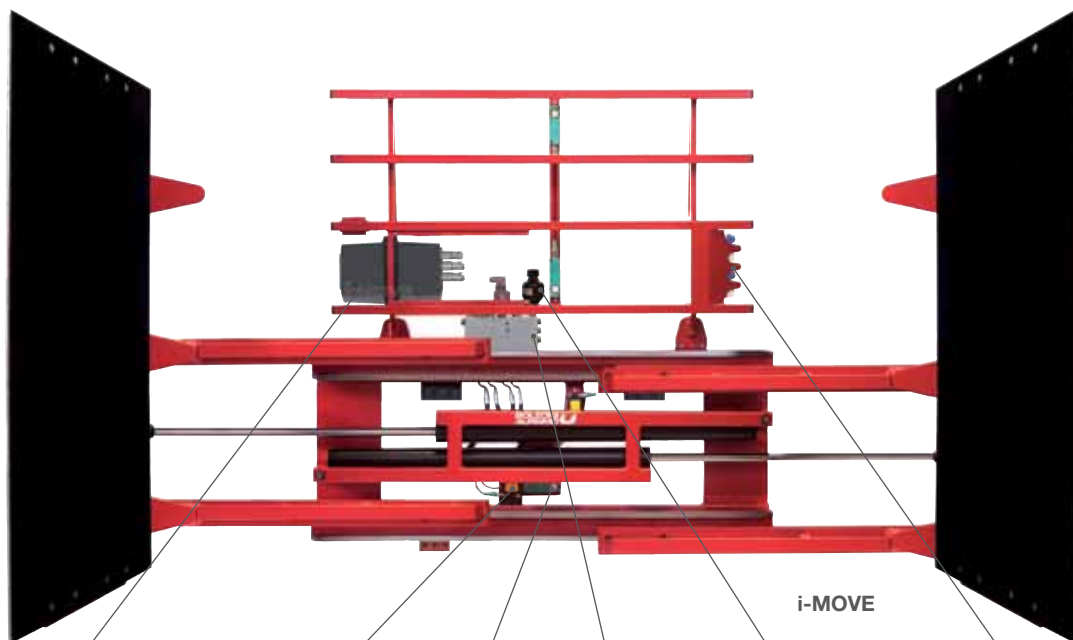
**i-MOVE**

In the white goods industry the handling problems caused by the use of incorrect clamping force create a serious risk of damaging products. Insufficient pressure results in the product being dropped while too much pressure could crush it.

Bolzon Auramo integrates all the technical features of the standard carton clamp with the most advanced technology in hydraulics, electronics and for controlling clamping force. We offer our innovative solution to damage free handling with correct clamping force: the intelligent carton and appliance clamp i-MOVE model.

The system is based on the detection, by means of laser and ultrasonic sensors, of the type and the configuration of the load. Through the elaboration of the resulting values, the control unit commands a proportional valve that defines the correct hydraulic pressure in the clamping cylinders and therefore the clamping force necessary for the specific case. This sequence takes place instantaneously.

Even if operating in the same way as any traditional carton clamp, where the lift truck operator has full control on the arm opening and closing, the i-MOVE intelligent carton clamp selects the correct clamping force as soon as the lift truck driver has approached the load, making his job easier!



**Control Unit**  
Receives signals from sensors and controls the proportional valve to define the correct clamping force.



**Laser sensors**  
Detect type and configuration of the load widthways.



**Ultrasonic sensors**  
Detect type and configuration of the load and the distance from the clamp body.



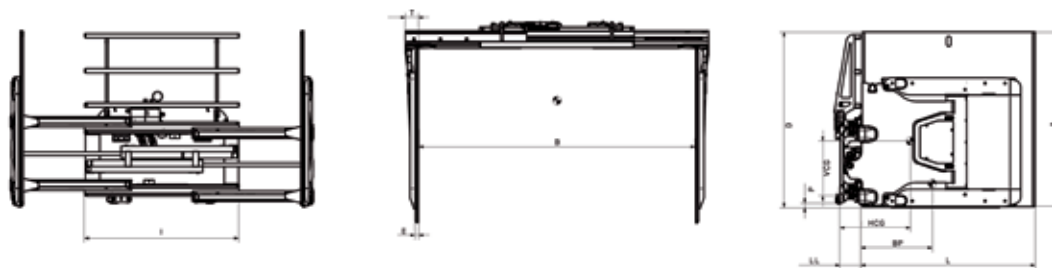
**Proportional valve**  
Commands the hydraulic pressure in the clamping cylinders.



**Accumulator**  
Stabilizes the clamping pressure avoiding unwanted peaks of pressure, potentially dangerous for the load.



**Control light unit**  
Shows the status of the clamp during handling operations. Indicates the distance of the load from the clamp body.



Model	Code	Capacity	Load Centre	Opening Range	Arm Dimensions	Frame Width	Minimum Carriage Width	Weight	Horizontal Centre of Gravity	Vertical Centre of Gravity	Effective Thickness	Ground Clearance	Mounting Class
		Q	BP	B	L x A x E	I	FL	W	HCG	VCG	LL	P	ISO
		kg	mm	mm	mm	mm	mm	Kg	mm	mm	mm	mm	2328
KS 09 C5A	46-152	900	610	460-1520	1220x1220x57	870	690	746	500	390	145	29	2 A
KS 09 C6A	45-151	900	660	450-1430	1320x1220x57	870	690	785	545	388	145	29	2 A
KS 09 C5A	51-174	900	610	510-1740	1220x1220x57	930	690	754	496	386	145	29	2 A
KS 09 C6A	50-173	900	660	500-1730	1320x1220x57	930	690	799	539	386	145	29	2 A
KS 09 C4A	39-162	900	540	390-1620	1070x1220x57	1050	690	700	425	382	145	29	2 A
KS 09 C5A	39-162	900	610	390-1620	1220x1220x57	1050	690	768	487	386	145	29	2 A
KS 09 C6A	38-161	900	660	380-1610	1320x1220x57	1050	690	813	530	387	145	29	2 A
KS 09 C4A	50-184	900	540	500-1840	1070x1220x57	1050	690	705	421	381	145	29	2 A
KS 09 C5A	50-184	900	610	500-1840	1220x1220x57	1050	690	789	475	382	145	29	2 A
KS 09 C6A	49-183	900	660	490-1830	1320x1220x57	1050	690	815	528	384	145	29	2 A
KS 09 C4A	59-195	900	540	590-1950	1070x1220x57	1020	690	699	425	377	145	29	2 A
KS 09 C5A	59-195	900	610	590-1950	1220x1220x57	1020	690	766	488	381	145	29	2 A
KS 09 C6A	58-194	900	660	580-1940	1320x1220x57	1020	690	798	532	381	145	29	2 A
KS 09 C5A	52-228	900	610	520-2280	1220x1220x57	1450	690	833	454	377	145	29	2 A
KS 09 C6A	51-227	900	660	510-2270	1320x1220x57	1450	690	867	496	377	145	29	2 A
KS 12 C5A	37-140	1200	610	370-1400	1220x1220x57	870	690	768	535	380	146	29	2 A
KS 12 C6A	36-139	1200	660	360-1390	1320x1220x57	870	690	808	530	378	146	29	2 A
KS 12 C5A	51-174	1200	610	510-1740	1220x1220x57	930	690	776	545	381	146	29	2 A
KS 12 C6A	50-173	1200	660	500-1730	1320x1220x57	930	690	823	528	375	146	29	2 A
KS 12 C5A	56-199	1200	610	560-1990	1220x1220x57	1080	690	822	525	372	146	29	2 A
KS 12 C6A	55-198	1200	660	550-1980	1320x1220x57	1080	690	836	515	380	146	29	2 A
KS 14 C5A	37-140	1400	610	370-1400	1220x1220x57	870	690	768	535	380	146	29	2 A
KS 14 C6A	36-139	1400	660	360-1390	1320x1220x57	870	690	808	530	378	146	29	2 A
KS 14 C5A	51-174	1400	610	510-1740	1220x1220x57	930	690	776	545	381	146	29	2 A
KS 14 C6A	50-173	1400	660	500-1730	1320x1220x57	930	690	823	528	375	146	29	2 A
KS 14 C6A	55-198	1400	660	550-1980	1320x1220x57	1080	690	836	515	380	146	29	2 A
KS 14 C7A	54-197	1400	690	540-1970	1370x1220x57	1080	690	843	538	382	146	29	2 A
KS 16 C5A	37-140	1600	610	370-1400	1220x1220x57	870	690	768	535	380	146	29	2 A
KS 16 C6A	36-139	1600	660	360-1390	1320x1220x57	870	690	808	530	378	146	29	2 A
KS 16 C5A	51-174	1600	610	510-1740	1220x1220x57	930	690	776	545	381	146	29	2 A
KS 16 C6A	50-173	1600	660	500-1730	1320x1220x57	930	690	823	528	375	146	29	2 A
KS 16 C7A	54-197	1600	690	540-1970	1370x1220x57	1080	690	843	538	382	146	29	2 A
KS 16 C8A	54-197	1600	690	540-1970	1370x1370x57	1080	690	867	539	386	146	29	2 A
KS 16 C7A	55-228	1600	690	550-2280	1370x1220x57	1370	690	892	545	378	146	29	2 A
KS 16 C8A	55-228	1600	690	550-2280	1370x1370x57	1370	690	916	540	383	146	29	2 A

### Notes:

- Two hydraulic functions.
- E= arm thickness, including rubber.
- T= arm thickness at the arm base, including rubber, 100 mm for all models.
- Block valve with 2 pressure relief valve, factory pre-setting.
- Integral sideshift.

### Options:

- Special opening ranges.
- Other arm dimensions.
- Double oscillating arm pad, model KS-DP, for each side
- Quick disconnect lower hook.
- Removable side load stabilizers.
- Separate sideshift.

