



AIR-COOLED  
WATER CHILLER

**WSAT-2** 2.230-2.260-2.280-2.300  
2.360-2.400-2.440-3.450-3.540-  
3.580-3.620-3.660-4.720

## RECEPTION/POSITIONING

INSPECTION UPON RECEIPT  
HANDLING  
FUNCTIONAL CLEARANCES

CONTENTS:  
INSTALLING ANTIVIBRATION MOUNTS  
REMOVING THE PACKING

### INSPECTION UPON RECEIPT

The units are delivered in special protective packing. When it arrives check the unit has not been damaged during transport and that it has been supplied complete with all the parts specified in the order. **If there is any visible damage make a note of it on the transport document, accompanied by the words:**

**“ACCEPTED WITH RESERVATIONS DUE TO OBVIOUS DAMAGE TO PACKING“** since the delivery free ex factory includes cover for damage to be borne by the insurers in compliance with Italian law N° 450 of 22.08.85 “limite di risarcibilità“.

## IMPORTANT

EVERY OPERATION DESCRIBED BELOW MUST BE CARRIED OUT IN COMPLIANCE WITH THE SAFETY REGULATIONS IN FORCE CONCERNING BOTH THE EQUIPMENT USED AND THE OPERATING PROCEDURES ADOPTED.

## ATTENTION

ALWAYS MAKE SURE THAT THE LIFTING CAPACITY OF THE EQUIPMENT USED IS SUITABLE FOR THE WEIGHT OF THE UNIT BEFORE CARRYING OUT ANY HANDLING OPERATIONS

Size	2.230	2.260	2.280	2.300	2.360	2.400	2.440	3.450	3.540	3.580	3.620	3.660	4.720
<b>Acoustic configuration ST</b>													
Shipping weight	4453	4826	5240	5363	6024	6717	7152	7466	8497	9497	9608	9668	12117
Operating weight	4567	5048	5447	5570	6209	6942	7404	7718	8792	9704	9848	9908	12487
<b>Acoustic configuration SC</b>													
Shipping weight	4868	5241	5655	5778	6439	7157	7592	8081	9112	10157	10048	10328	12947
Operating weight	4982	5463	5862	5985	6624	7382	7844	8333	9407	10364	10288	10568	13317
<b>Acoustic configuration LN</b>													
Shipping weight	4868	5241	5655	6008	6747	7157	7592	8322	9940	10120	10250	10280	-
Operating weight	4982	5463	5862	6215	6932	7382	7844	8574	10235	10327	10490	10520	-
<b>Acoustic configuration EN</b>													
Shipping weight	5265	5695	6162	6387	6937	7252	7592	9508	10293	10473	10603	10633	-
Operating weight	5379	5917	6257	6482	7122	7477	7844	9760	10588	10680	10843	10873	-

**Note:** weights are in Kg

## WARNING

FOLLOWING THE ADVICE ON THE OUTSIDE OF THE PACKING WILL ENSURE THE UNIT REMAINS IN PERFECT CONDITION AND OPERATES CORRECTLY, TO THE BENEFIT OF THE END USER. THIS ADVICE IS AS FOLLOWS :

- HANDLE WITH CARE
- KEEP DRY
- UNDER NO CIRCUMSTANCES EVER PLACE OTHER OBJECTS ON TOP OF THE UNIT.
- DO NOT LEAVE THE UNITS WITH HEAT-SHRINKING PROTECTION UNDER THE SUN. AS A MATTER OF FACT, THE PRESSURE OF THE CIRCUITS CAN REACH SUCH A VALUE TO TRIP THE SAFETY VALVES.



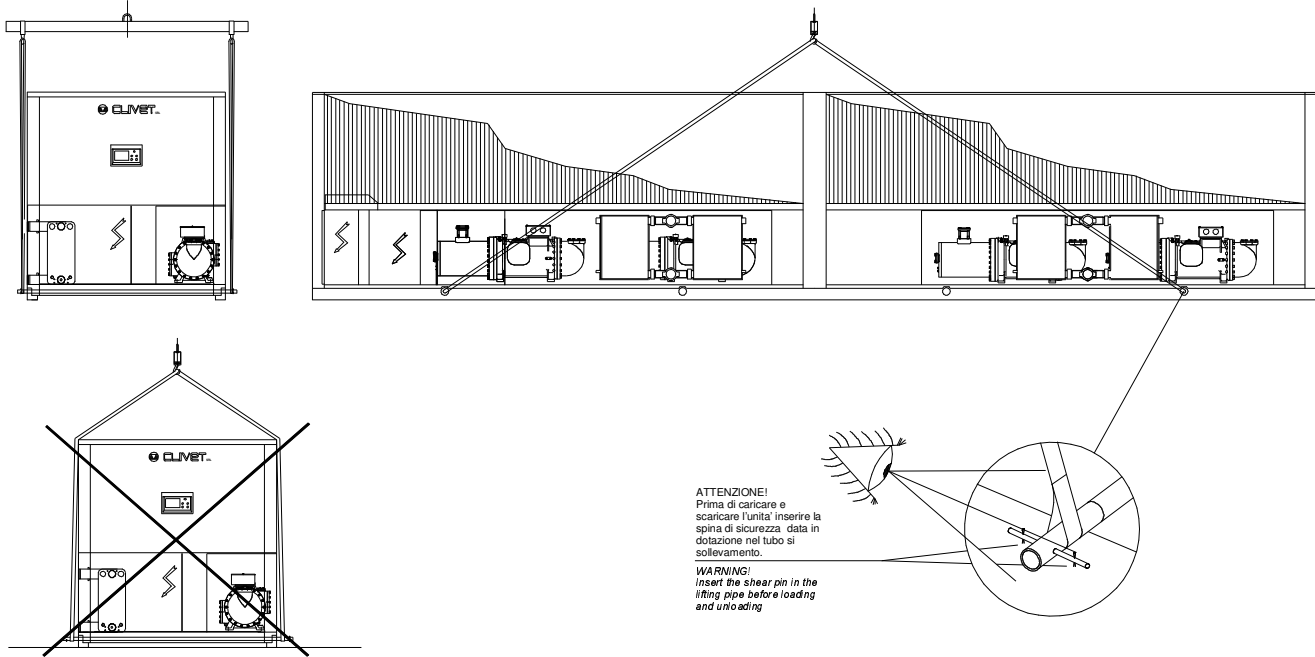
**R1b0GB-3**

## HANDLING

### HOISTING using a CRANE or SIMILAR

- Slide the provided lifting pipes into the holes in the base of the unit.
- Position the ends of the pipes that protrude from the unit so that you can insert the provided shear pins into the proper holes.
- Fit the lifting belts over the pipes between the safety rods and the base of the unit (see drawing).

- Gradually bring the lifting belts under tension, making sure they are positioned correctly. Make sure the unit is always in steady equilibrium.
  - Start hoisting the unit.
  - Once the unit has been positioned, the lifting pipes are to be removed.
- They must be kept in a safe place (choose a place where they cannot damage people or property) in case of a new positioning of the unit.



Lifting holes  $\varnothing$  90mm

## FUNCTIONAL CLEARANCES

Correct positioning of the units is essential for optimum operation. Any obstructions in the air stream, sources of heat (hot air outlets, etc.), poor air ventilation, leaves or other debris choking the heat exchangers, prevailing winds that oppose or assist (excessively) the air flow, etc. can cause malfunctions or shut-downs.

When installing the units always observe the necessary operational and maintenance clearances are reported in the drawing below.

### IMPORTANT

WHILE PLACING THE UNIT, PLEASE MAKE SURE THAT THE FUNCTIONAL CLEARANCES ALLOW THE PERFORMANCE OF THE MAINTENANCE OPERATIONS; IN PARTICULAR FOR THE EXTRACTION OF THE TUBE BUNDLE, THESE CLEARANCES MUST BE INCREASED AS REPORTED IN EVERY SINGLE DIMENSIONAL. THIS IS REQUIRED FOR OPTIMUM UNIT OPERATION **AND PARTICULARLY FOR THE SAFETY OF AUTHORISED.**

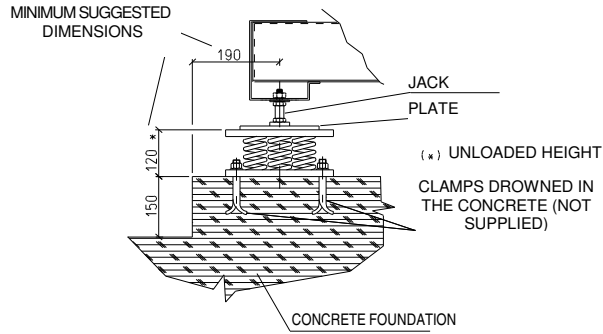
## INSTALLING ANTIVIBRATION MOUNTS

In order to avoid the transmission of vibration from the operating unit to its carrying structure, the use of antivibration materials to put under the supports of the unit is recommended. It is suggested to put a rubber layer between the points of support and the base of the

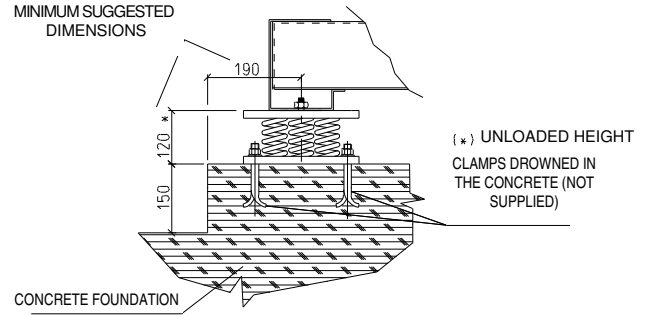
unit, at least. Spring antivibration mounts are supplied on demand and to be positioned by the installer under each point of support of the unit. The tables at pages 5 and 6 show the antivibration type to be used and acquire code of antivibration set.

## SPRING ANTIVIBRATION MOUNTS

installation with jack for unit leveling

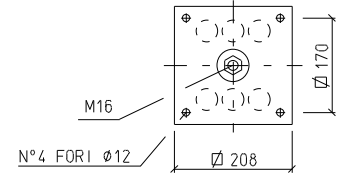


installation direct-to-frame



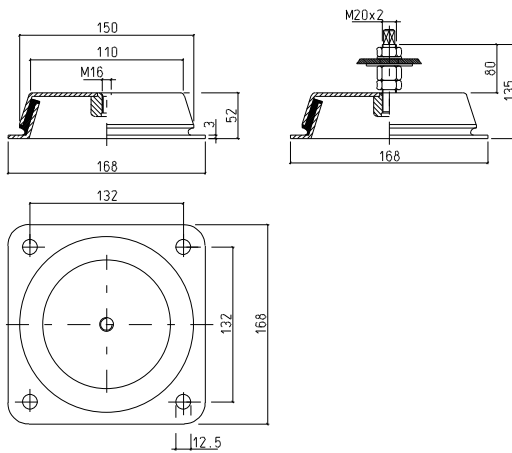
PE spring antivibration				
Size	ST	SC	LN	EN
2.230	PE581030	PE581062	PE581062	PE581062
2.260	PE581086	PE581062	PE581062	PE581062
2.280	PE581062	PE581062	PE581062	PE581213
2.300	PE581062	PE581062	PE581062	PE581213
2.360	PE581062	PE581062	PE581209	PE581213
2.400	PE581213	PE581213	PE581213	PE581213
2.440	PE581213	PE581213	PE581213	PE581213
3.450	PE581108	PE581108	PE581206	PE581217
3.540	PE581206	PE581206	PE581211	PE581216
3.580	PE581214	PE581231	PE581211	PE581211
3.620	PE581215	PE581215	PE581211	PE581211
3.660	PE581211	PE581211	PE581211	PE581211
4.720	PE581208	PE581218	-	-

Plan of spring antivibration mounts

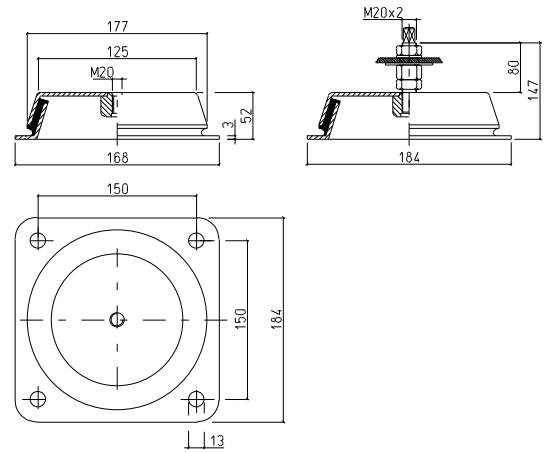


## RUBBER ANTIVIBRATION MOUNTS

C6100028



C6100030-32



PE rubber antivibration				
Grand.	ST	SC	LN	EN
2.230	PE1W5544	PE1W5544	PE1W5544	PE1W6655
2.260	PE1W5555	PE1W6655	PE1W6655	PE1W6655
2.280	PE1W5555	PE1W6655	PE1W6655	PE1B0704
2.300	PE1W6655	PE1W6655	PE1W6655	PE1B0704
2.360	PE1W6655	PE1W6655	PE1B0703	PE1B0709
2.400	PE1B0709	PE1B0709	PE1B0709	PE1B0709
2.440	PE1B0709	PE1B0709	PE1B0709	PE1B0709
3.450	PE1B0701	PE1B0706	PE1B0707	PE1B0711
3.540	PE1B0702	PE1B0707	PE1B0708	PE1B0711
3.580	PE1B0751	PE1B0751	PE1B0716	PE1B0750
3.620	PE1B0716	PE1B0716	PE1B0716	PE1B0750
3.660	PE1B0716	PE1B0716	PE1B0716	PE1B0750
4.720	PE1B0013	PE1B0014	-	-

THE CODE NUMBER OF THE MOUNT IS WRITTEN ON THE MOUNT ITSELF

Example of choice of spring mounts:

If the WSAT-2 2.230 ST is the case, the **PE581030** mount kit is required.

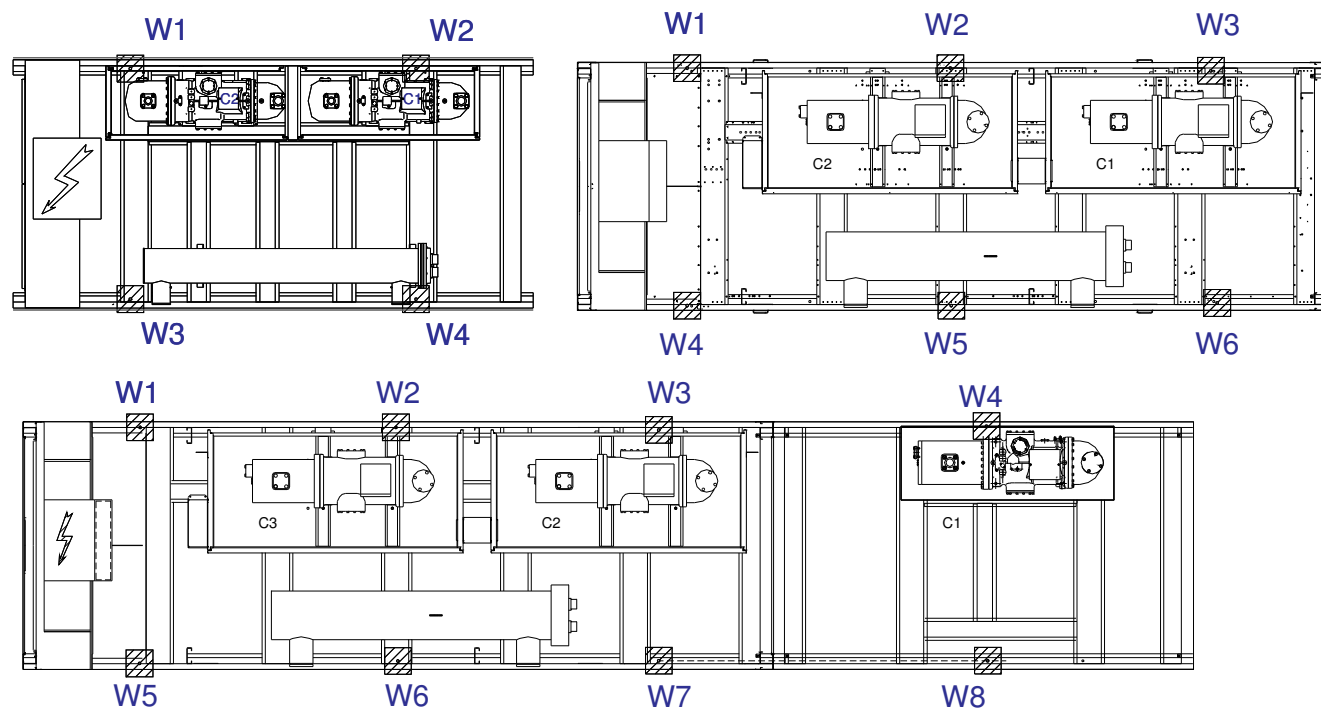
Couple the point of support:

**W1** with the mount code C6100100

**W2** with the mount code C6100100

**W3** with the mount code C6100090

**W4** with the mount code C6100090



## REMOVING THE PACKING

Make sure you don't damage the unit while removing the heat-shrinking PVC packaging.

Dispose of the packing so that it is taken to specialist collection or recycling centres (respect the valid regulations).

The following table shows the correct matching of each individual point of support of the unit and the antivibration mount type

Acoustic configuration ST										
SPRING	Size	PE	W1	W2	W3	W4	W5	W6	W7	W8
	2.230	PE581030	C6100100	C6100100	C6100090	C6100090	-	-	-	-
	2.260	PE581086	C6100100	C6100100	C6100100	C6100100	-	-	-	-
	2.280	PE581062	C6100095	C6100095	C6100100	C6100100	-	-	-	-
	2.300	PE581062	C6100095	C6100095	C6100100	C6100100	-	-	-	-
	2.360	PE581062	C6100095	C6100095	C6100100	C6100100	-	-	-	-
	2.400	PE581213	C6100086	C6100095	C6100090	C6100086	C6100095	C6100090	-	-
	2.440	PE581213	C6100086	C6100095	C6100090	C6100086	C6100095	C6100090	-	-
	3.450	PE581108	C6100095	C6100095	C6100090	C6100100	C6100100	C6100090	-	-
	3.540	PE581206	C6100095	C6100101	C6100100	C6100100	C6100095	C6100090	-	-
	3.580	PE581214	C6100100	C6100095	C6100084	C6100086	C6100095	C6100101	C6100084	C6100090
	3.620	PE581215	C6100086	C6100100	C6100100	C6100100	C6100090	C6100095	C6100095	C6100100
3.660	PE581211	C6100086	C6100095	C6100100	C6100095	C6100090	C6100095	C6100100	C6100095	
4.720	PE581208	C6100095	C6100095	C6100095	C6100095	C6100100	C6100095	C6100100	C6100095	

RUBBER	Size	PE	W1	W2	W3	W4	W5	W6	W7	W8
	2.230	PE1W5544	C6100032	C6100032	C6100028	C6100028	-	-	-	-
	2.260	PE1W5555	C6100032	C6100032	C6100032	C6100032	-	-	-	-
	2.280	PE1W5555	C6100032	C6100032	C6100032	C6100032	-	-	-	-
	2.300	PE1W6655	C6100030	C6100030	C6100032	C6100032	-	-	-	-
	2.360	PE1W6655	C6100030	C6100030	C6100032	C6100032	-	-	-	-
	2.400	PE1B0709	C6100028	C6100030	C6100028	C6100028	C6100030	C6100028	-	-
	2.440	PE1B0709	C6100028	C6100030	C6100028	C6100028	C6100030	C6100028	-	-
	3.450	PE1B0701	C6100032	C6100030	C6100032	C6100032	C6100032	C6100028	-	-
	3.540	PE1B0702	C6100030	C6100030	C6100032	C6100032	C6100030	C6100028	-	-
	3.580	PE1B0751	C6100032	C6100030	C6100026	C6100028	C6100030	C6100030	C6100026	C6100028
	3.620	PE1B0716	C6100028	C6100032	C6100030	C6100032	C6100028	C6100030	C6100030	C6100032
3.660	PE1B0716	C6100028	C6100030	C6100032	C6100032	C6100028	C6100030	C6100032	C6100030	
4.720	PE1B0013	C6100032	C6100032	C6100032	C6100032	C6100030	C6100030	C6100030	C6100030	

Acoustic configuration SC										
SPRING	Size	PE	W1	W2	W3	W4	W5	W6	W7	W8
	2.230	PE581062	C6100095	C6100095	C6100100	C6100100	-	-	-	-
	2.260	PE581062	C6100095	C6100095	C6100100	C6100100	-	-	-	-
	2.280	PE581062	C6100095	C6100095	C6100100	C6100100	-	-	-	-
	2.300	PE581062	C6100095	C6100095	C6100100	C6100100	-	-	-	-
	2.360	PE581062	C6100095	C6100095	C6100100	C6100100	-	-	-	-
	2.400	PE581213	C6100086	C6100095	C6100090	C6100086	C6100095	C6100090	-	-
	2.440	PE581213	C6100086	C6100095	C6100090	C6100086	C6100095	C6100090	-	-
	3.450	PE581108	C6100095	C6100095	C6100090	C6100100	C6100100	C6100090	-	-
	3.540	PE581206	C6100095	C6100101	C6100100	C6100100	C6100095	C6100090	-	-
	3.580	PE581231	C6100095	C6100101	C6100086	C6100100	C6100100	C6100101	C6100084	C6100086
	3.620	PE581215	C6100086	C6100100	C6100100	C6100100	C6100090	C6100095	C6100095	C6100100
3.660	PE581211	C6100086	C6100095	C6100100	C6100095	C6100090	C6100095	C6100100	C6100095	
4.720	PE581218	C6100095	C6100095	C6100095	C6100095	C6100100	C6100095	C6100100	C6100095	

RUBBER	Size	PE	W1	W2	W3	W4	W5	W6	W7	W8
	2.230	PE1W5544	C6100032	C6100032	C6100028	C6100028	-	-	-	-
	2.260	PE1W6655	C6100030	C6100030	C6100032	C6100032	-	-	-	-
	2.280	PE1W6655	C6100030	C6100030	C6100032	C6100032	-	-	-	-
	2.300	PE1W6655	C6100030	C6100030	C6100032	C6100032	-	-	-	-
	2.360	PE1W6655	C6100030	C6100030	C6100032	C6100032	-	-	-	-
	2.400	PE1B0709	C6100028	C6100030	C6100028	C6100028	C6100030	C6100028	-	-
	2.440	PE1B0709	C6100028	C6100030	C6100028	C6100028	C6100030	C6100028	-	-
	3.450	PE1B0706	C6100030	C6100030	C6100032	C6100032	C6100032	C6100028	-	-
	3.540	PE1B0707	C6100030	C6100030	C6100032	C6100032	C6100030	C6100028	-	-
	3.580	PE1B0751	C6100032	C6100030	C6100026	C6100028	C6100030	C6100030	C6100026	C6100028
	3.620	PE1B0716	C6100028	C6100032	C6100030	C6100032	C6100028	C6100030	C6100030	C6100032
3.660	PE1B0716	C6100028	C6100030	C6100032	C6100032	C6100028	C6100030	C6100032	C6100030	
4.720	PE1B0014	C6100032	C6100030	C6100032	C6100030	C6100030	C6100030	C6100030	C6100030	

Acoustic configuration LN										
	Size	PE	W1	W2	W3	W4	W5	W6	W7	W8
SPRING	2.230	PE581062	C6100095	C6100095	C6100100	C6100100	-	-	-	-
	2.260	PE581062	C6100095	C6100095	C6100100	C6100100	-	-	-	-
	2.280	PE581062	C6100095	C6100095	C6100100	C6100100	-	-	-	-
	2.300	PE581062	C6100095	C6100095	C6100100	C6100100	-	-	-	-
	2.360	PE581209	C6100090	C6100095	C6100100	C6100086	C6100095	C6100090	-	-
	2.400	PE581213	C6100086	C6100095	C6100090	C6100086	C6100095	C6100090	-	-
	2.440	PE581213	C6100086	C6100095	C6100090	C6100086	C6100095	C6100090	-	-
	3.450	PE581206	C6100095	C6100101	C6100100	C6100100	C6100095	C6100090	-	-
	3.540	PE581211	C6100086	C6100095	C6100100	C6100095	C6100090	C6100095	C6100100	C6100095
	3.580	PE581211	C6100086	C6100095	C6100100	C6100095	C6100090	C6100095	C6100100	C6100095
	3.620	PE581211	C6100086	C6100095	C6100100	C6100095	C6100090	C6100095	C6100100	C6100095
	3.660	PE581211	C6100086	C6100095	C6100100	C6100095	C6100090	C6100095	C6100100	C6100095
RUBBER	2.230	PE1W5544	C6100032	C6100032	C6100028	C6100028	-	-	-	-
	2.260	PE1W6655	C6100030	C6100030	C6100032	C6100032	-	-	-	-
	2.280	PE1W6655	C6100030	C6100030	C6100032	C6100032	-	-	-	-
	2.300	PE1W6655	C6100030	C6100030	C6100032	C6100032	-	-	-	-
	2.360	PE1B0703	C6100028	C6100030	C6100028	C6100028	C6100032	C6100028	-	-
	2.400	PE1B0709	C6100028	C6100030	C6100028	C6100028	C6100030	C6100028	-	-
	2.440	PE1B0709	C6100028	C6100030	C6100028	C6100028	C6100030	C6100028	-	-
	3.450	PE1B0707	C6100030	C6100030	C6100032	C6100032	C6100030	C6100028	-	-
	3.540	PE1B0708	C6100028	C6100032	C6100032	C6100032	C6100028	C6100030	C6100032	C6100030
	3.580	PE1B0716	C6100028	C6100030	C6100032	C6100032	C6100028	C6100030	C6100032	C6100030
	3.620	PE1B0716	C6100028	C6100030	C6100032	C6100032	C6100028	C6100030	C6100032	C6100030
	3.660	PE1B0716	C6100028	C6100030	C6100032	C6100032	C6100028	C6100030	C6100032	C6100030

Acoustic configuration EN										
	Grand	PE	W1	W2	W3	W4	W5	W6	W7	W8
SPRING	2.230	PE581062	C6100095	C6100095	C6100100	C6100100	-	-	-	-
	2.260	PE581062	C6100095	C6100095	C6100100	C6100100	-	-	-	-
	2.280	PE581213	C6100086	C6100095	C6100090	C6100086	C6100095	C6100090	-	-
	2.300	PE581213	C6100086	C6100095	C6100090	C6100086	C6100095	C6100090	-	-
	2.360	PE581213	C6100086	C6100095	C6100090	C6100086	C6100095	C6100090	-	-
	2.400	PE581213	C6100086	C6100095	C6100090	C6100086	C6100095	C6100090	-	-
	2.440	PE581213	C6100086	C6100095	C6100090	C6100086	C6100095	C6100090	-	-
	3.450	PE581217	C6100086	C6100095	C6100095	C6100100	C6100090	C6100095	C6100101	C6100095
	3.540	PE581216	C6100086	C6100095	C6100101	C6100095	C6100090	C6100101	C6100101	C6100095
	3.580	PE581211	C6100086	C6100095	C6100100	C6100095	C6100090	C6100095	C6100100	C6100095
	3.620	PE581211	C6100086	C6100095	C6100100	C6100095	C6100090	C6100095	C6100100	C6100095
	3.660	PE581211	C6100086	C6100095	C6100100	C6100095	C6100090	C6100095	C6100100	C6100095
RUBBER	2.230	PE1W6655	C6100030	C6100030	C6100032	C6100032	-	-	-	-
	2.260	PE1W6655	C6100030	C6100030	C6100032	C6100032	-	-	-	-
	2.280	PE1B0704	C6100028	C6100032	C6100028	C6100028	C6100032	C6100028	-	-
	2.300	PE1B0704	C6100028	C6100032	C6100028	C6100028	C6100032	C6100028	-	-
	2.360	PE1B0709	C6100028	C6100030	C6100028	C6100028	C6100030	C6100028	-	-
	2.400	PE1B0709	C6100028	C6100030	C6100028	C6100028	C6100030	C6100028	-	-
	2.440	PE1B0709	C6100028	C6100030	C6100028	C6100028	C6100030	C6100028	-	-
	3.450	PE1B0711	C6100028	C6100032	C6100030	C6100032	C6100028	C6100030	C6100030	C6100030
	3.540	PE1B0711	C6100028	C6100032	C6100030	C6100032	C6100028	C6100030	C6100030	C6100030
	3.580	PE1B0750	C6100028	C6100030	C6100032	C6100030	C6100028	C6100030	C6100030	C6100030
	3.620	PE1B0750	C6100028	C6100030	C6100032	C6100030	C6100028	C6100030	C6100030	C6100030
	3.660	PE1B0750	C6100028	C6100030	C6100032	C6100030	C6100028	C6100030	C6100030	C6100030