

CASE STUDY #2

Scope:

Normal spring for household appliances

Request:

The requested solution from the customer was to supply a complete in-line coiling system including the COLOMBI patented in-line heating (annealing) system and spring force measuring of their spring.

Spring parameters:

- Outside diameter (D_e) = 13,7 mm
- Wire diameter (d) = 0,73 mm
- Free length (L_0) = 25,4 mm
- Number of coils (N_t) = 5,5
- Coil ratio (w) = 17,6
- Material = Music wire
- Spring force: 3,6 N @ 14,8 mm

Coiling these springs in-line is a better solution than handling them in another way. The springs had a tendency to entangle when collected in bulk and were difficult to separate. With the COLOMBI coiling system, all springs are handled separately and never come in contact with each other. Springs are delivered directly into the product.

Solution:

A pneumatic spring coiler connected to the post manufacturing device (ORBIT) which included the COLOMBI patented in-line heating system and also a spring force measuring option.

Conclusion:

The economical benefits when coiling the springs in-line with the COLOMBI system were substantial, and the payback time, according to the customer, was only three months.

If the volume is high enough, even an ordinary spring will increase the profits when coiling in-line.