PATENT CLAIMS

1. A wave winding device for manufacturing wave windings, having a winding unit with a winding blade device which is rotatable about a winding axis in a winding direction and on which a winding wire is to be wound, and having at least one wire feed device that supplies the winding wire to the winding unit in a feed direction in order to wind the winding blade device, and having a transport device, which rotates together with the winding device, that is designed for transporting the winding wire, which is wound onto the winding blade device to form a wave winding, in a transport direction parallel to the winding axis, wherein the transport device has a conveyor system that moves the wave winding through the transport device in the transport direction, wherein the conveyor system is supported in the transport device so as to be rotatable about a rotational axis in the winding direction, coaxially with respect to the winding axis.

2. The wave winding device according to Claim 1,
wherein
the wave winding device has a control unit that synchronizes the rotation of the winding blade device and of the conveyor system in such a way that both rotate about the same rotational axis, essentially at the same speed in the winding direction.

3. The wave winding device according to one of the preceding claims,
wherein
the wave winding device has at least one retaining means that is designed for holding a section of the winding wire while another section of the winding wire is moved relative thereto.

4, The wave winding device according to Claim 3,

wherein
at least one gripping or clamping element situated on the winding unit or on the transport device is provided as the retaining means.

5. The wave winding device according to Claim 4,
wherein
the gripping or clamping element is supported on the winding unit so as to be displaceable in the transport direction.

6. The wave winding device according to one of Claims 4 or 5,
wherein
the gripping or clamping element has clamping jaws with which the winding wire may be fixed between the clamping jaws and the winding blade device.

7. The wave winding device according to one of Claims 3 to 6,
wherein
the retaining means is designed for simultaneously holding a plurality of winding wires supplied in parallel to one another.

8. The wave winding device according to one of Claims 3 to 7,
wherein
the retaining means has at least one separation groove for accommodating only one winding wire.

9. The wave winding device according to one of the preceding claims,
wherein
the wave winding device has a pressing unit that is situated adjacent to the winding blade device and is designed for compressing the winding heads of the wave winding.