

Automatic Coiling Machine (auto-coiling machine)

0.] Model:

MODEL	Sizes (mm)	Wire Size (mm ²)	Maximum Length / Coil	Line Speed (mpm)
WC-40 (400-499mm)	400x150	2.0- 8	1000	100-500
WC-50 (500-599mm)	500x150	2.5-10	1000	100-500
WC-60 (600-799mm)	600x200	4.0-16	500	50-500
WC-80 (800mm)	800x300	5.0-25	400	50-500

0.] Features:

- 0.0.) Type: Vertical coiling of wire rolls 100-1000M unit length, with automatic wire sending, holding, cutting and roll winding, full computerize control
- 0.0.) Tandem with extrusion lines, finished wire continuous winding into a rigid rolls with a desired length. Suitable for electric building wire, flexible cables, house appliance wire & control cables.
- 0.0.) Machine also available for independent operation, line equipped with motorize pay off stand and accumulator.
- 0.0.) Driven motors: AC motor with inverter for coiling head, servo- motor for traverser
- 0.0.) Operation system: "CCCS" Central Computer Control System.





3.] Detail specifications:

3.1.) Winding head:

3.1.A.) Vertical coiling, automatic closing and open of coiling head by pneumatic pusher

3.1.B.) 3 sets of adapt rings to be fitted for different roll height

3.1.C.) Take-off of wire roll by an auto-pushing arm both side

3.1.D.) Operation sequence:

Starting > Counting > Length counter reach > Speed down > Stop > Wire end press > Wire end cutting > Coiling head draw up > Coil push out > wire end send in > Coiling head push down > Restarting.

3.1.E.) Brake: Pneumatic disc brake

3.2.) Length counter:

3.2.A.) Dual pulley type with one way clutch, pulley made of Aluminum alloy with PU-rubber coating

3.2.B.) Counter: Digital type auto-counter with a pre-alarming and full length auto-stop device.

3.2.C.) Counting unit: 10cm / 1 count

3.2.D.) One way rotating with magnetic brake

3.3.) Wire sending:

3.3.A.) Double stroke type for coiling and wire sending work

3.3.B.) Operated by a two strokes air cylinder

3.3.C.) A air press type wire stopper to be attached

3.4.) Traversing:

3.4.A.) Up and down traversing done by a 400W liner head traverser with servo motor driving system and the traversing speed synchronizes with coiling speed

3.4.B.) Traversing pitch and stroke are adjustable by program of PLC which calculate the corresponding speed automatically for different finishing cable sizes.



3.5.) Wire cutter:

- 3.5.A.) To cut out the wire automatic when the pre-set counter length has been reached after machine complete stop.
- 3.5.B.) Two blades on each side of the cutting base which move forward and back force by two air cylinders and one cylinder for each one of the blades.
- 0.0. .) Cutting knife material: SKD-2 tool steel with grinding
- 0.0. .) Wire guide tube: sending the wire into winding head by air cylinder automatically.

0.0.) Coil pushing:

- 0.0. .) Two coil-holding arms on both sides of the coiling head to hold the coiled-wire.
- 0.0. .) These coil-holding arms are fixed on air cylinders and these arms open(release)/close(clamp) depend on the cylinders move forward / back force.
- 0.0. .) After the coiled-wire being held, these arms moving from the coiler to the operation for packaging.
- 0.0. .) Once the current coiled wire has been moved out, the next wire will immediately be sent in to the coiling head and re-start the machine.

0.0.) Driven motors: AC motor with Vector type Inverter

0.0.) Internal air storage tank

0.0.) "CCCS" operation system:

- 0.0. .) Type: "MMI" + "PLC"
- 0.0. .) Application: Touch screen monitor(MMI) operation and display type
- 0.0. .) Data setting: Key-in the desire pitch on "MMI" screen.
- 0.0. .) Data appear: Wire diameter/roll size/speed/length measuring
- 0.0. .) Single step checkup
- 0.0. .) Production statistics information.