

Multiwire Drawing Machine

Pioneer has got an extensive range of machines for drawing copper and aluminium wires, with all type of single wire drawings, mono-motor or multi-motor, as well as a new range of multi-wire drawing machines.

This multi-wire drawing line has been specially designed for the simultaneous wire drawing of wires up to 16 copper wires having two layers each one with 22 drawing drafts of 8 wires each. This machine is ideal for the production of flexible cable (Class 5 or Class 6) for battery cables, automotive cables as well as for building wires. The line is provided with PLC+HMI control system for drawing speed synchronization and die schedule auto-arrangement.

On mono-motors multi-wire machines our drawing capstans transmission system is made by using timing belts, no gears at all. Therefore any oil lubrication is required with a result of zero maintenance. This makes our machines very simple and safe, as despite the fact that belts life is bigger than 8 years, and all of them can be purchased on the market easily and fast. This gives a great advantage against gear motion transmissions, as down time and cost of any gear-break is very high.

On multi-motored multi-wire machines, we have independent AC motors driving each capstan. This transmission gives a great flexibility on the design of the die schedule, allowing to maximize the production speed with each wire size.



DM-8/8-22



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Model	N° of Wires	N° of Steps	Capstans Ø	Inlet Wires	Tensile Strength	Finished Wire	Line Speed
Units	[-]	[-]	[mm]	[mm]	[N/mm ²]	[mm]	[m/s]
DM-8/8-22	8	12-22	100-80	2	300-450	0.2-0.51	Up to 32
DM-8/8-25	8	13-25	100-80	2.0-1.65	300-450	0.15-0.471	Up to 32
DM-16/10-22	16 / 7	8-22	100-80	Max. 2.2	300-450	0.15-0.61 (7x1,05)	Up to 32



Annealer for
DM-8/8-22

The line is completed with an online continuous annealer allowing to anneal up to 16 copper wires on the range from 0.20 mm to 0,6 mm or 7 wires covering the class 2 production up to 1,05 mm. The copper continuous annealing process is made by applying a current to the wires on its path along the annealer. The machine is also provided with PLC+HMI computer control system which guarantees a zero hard copper starting and keeps a smooth and constant wire elongation for all ranges of drawing speed and wire diameters.

Pioneer also supply ancillary equipment to complete the drawing line like coil pay offs or Flyer pay offs and Single or Double dynamic spoolers for 630 mm or 800 mm bobbins.

We can set a single spooler to collect all 16 wires from the multiwires drawing machine, or we can also set two single spooler for collect 8 wires each and offering a better choice for flexible wire number distribution.