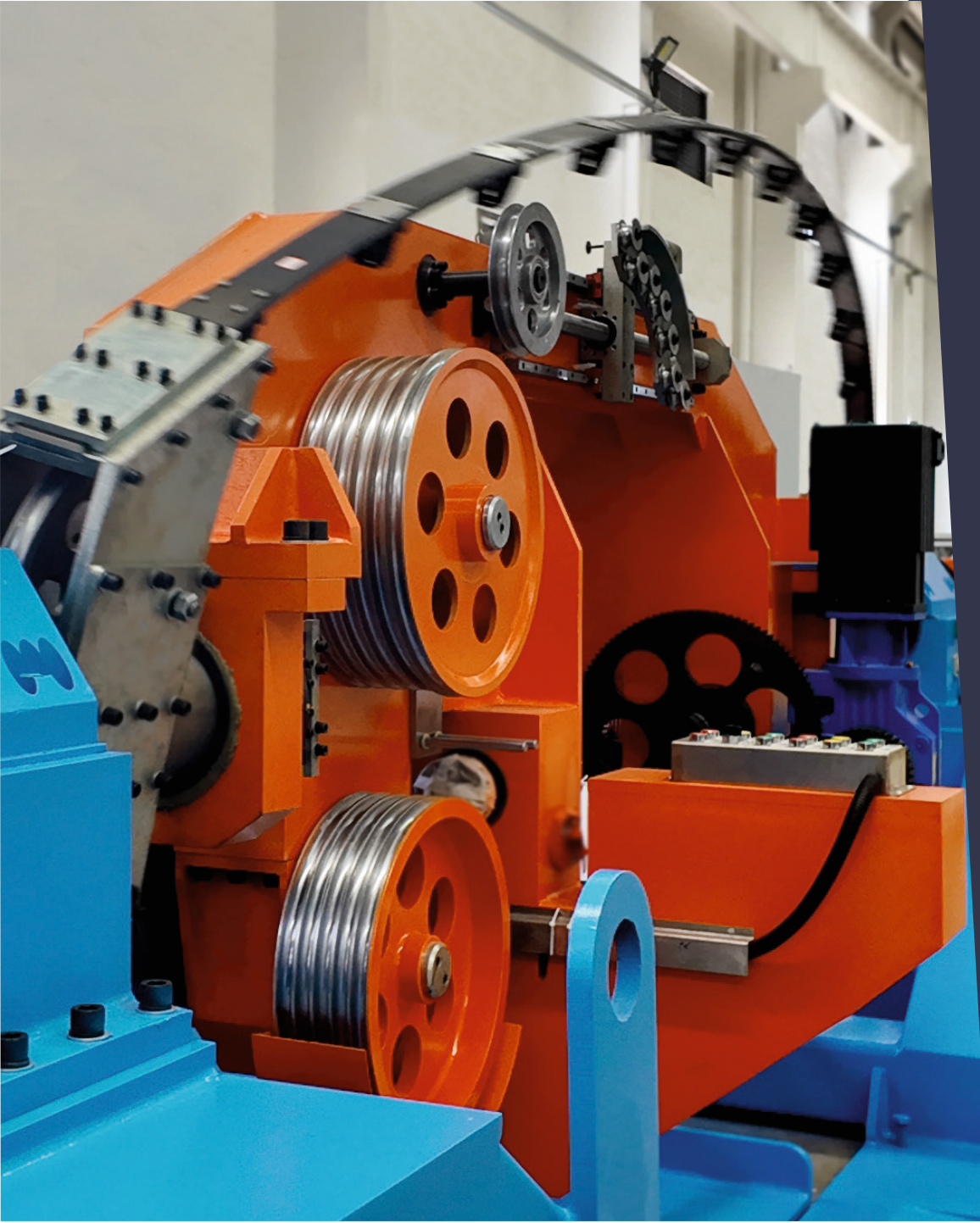




HABSANS

CABLE EQUIPMENT



www.habsans.com

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COMPANY



Habsans company - manufacture and supply of cable equipment, components and spare parts for the cable industry.

Habsans team is an international organization, with qualified employees from different countries, whose work consists of an integrated approach:
export department will select the optimal equipment solution according to the requirements and organize full support
service department will provide technical support and service
supply department will select spare parts and organize door-to-door deliveries



Habsans production is located in Jiangsu province where cable factories are concentrated.

Manufacturing of equipment, assembly of control cabinets in accordance with European standards. Professional, targeted approach to a particular segment of cable equipment makes our machines one of the best in the Chinese market, which is reflected in cooperation with the largest cable manufacturers in China and other countries in Asia, Europe and America.

Application of modern technologies and equipment, cooperation with reliable suppliers of raw materials and component parts, testing, ensures the quality of the supplied products.





SERVICE

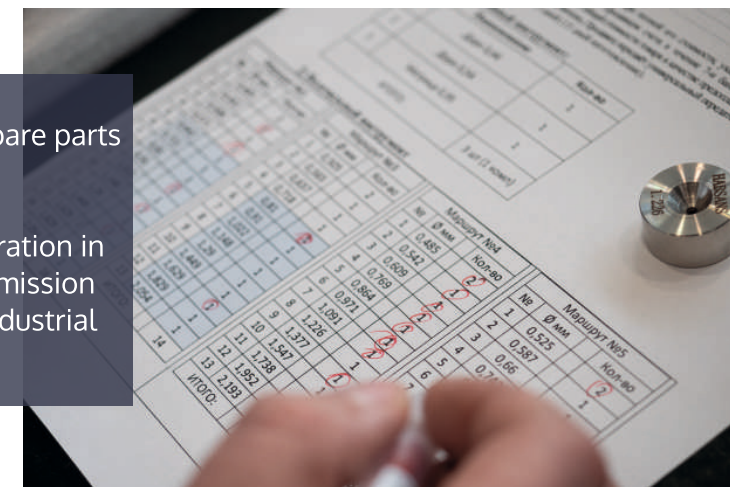
Project development, equipment selection, node by node staffing, placement on the general plan, with experienced Habsans specialists. Strictly customer-oriented!

A team of Habsans engineers is located in Russia and are ready to provide technical consultation, installation of equipment, commissioning, adjustment and maintenance of lines, to organize training of personnel on the peculiarities of operation and maintenance of equipment.



Specialists will solve the problem of any complexity on search and manufacture of spare parts in the shortest time and fully take over the organization of delivery to your door.

Delivery of spare parts in any quantity with the most convenient conditions of cooperation in terms from 3 to 30 days: drawing tools, extrusion tools, screw pairs, couplings, transmission belts, bands, rollers and ceramic eyes, welding machines, as well as a full range of industrial electronics from world brands Siemens, Delta, Schneider, Innovance, ABB.





HABSANS

COILING LINE

This section presents a modern automatic line designed to combine the coiling, fixing and packaging of cable products.

Options for fixing coils with PVC film and PP tape, shrink wrapping, automatic labeling of coils.

Coiling and packaging is the final process in cable manufacturing.

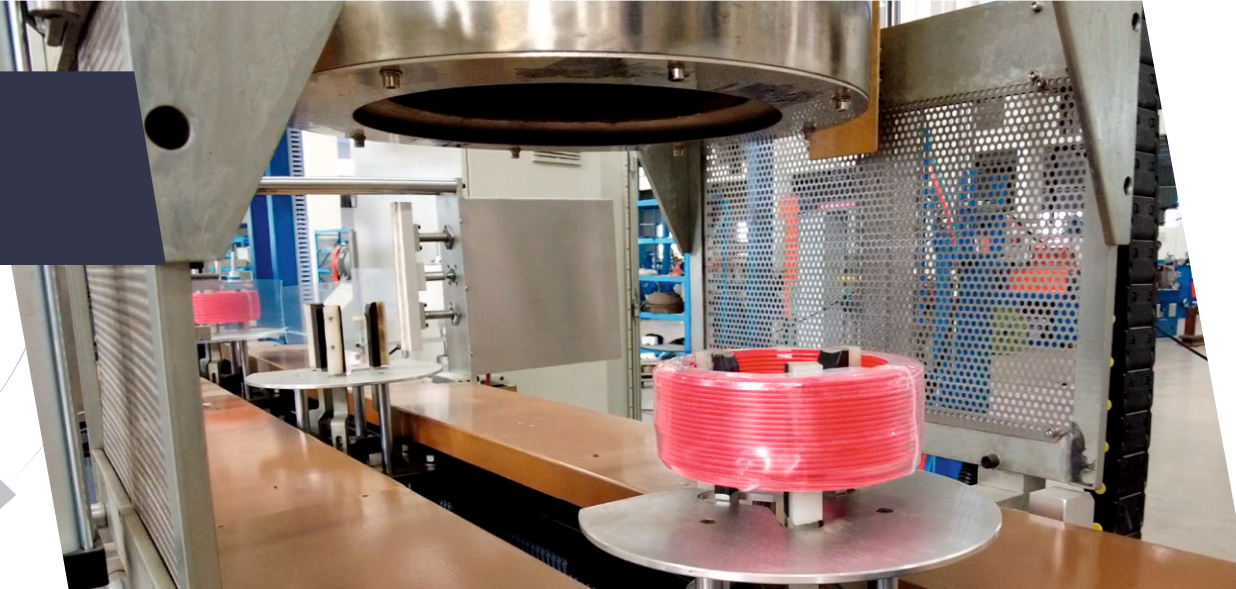
Automation and integration of the three processes into a line increases the efficiency of production and increases the volume of output.

The average linear coiling speed is from 80 to 300m/min.

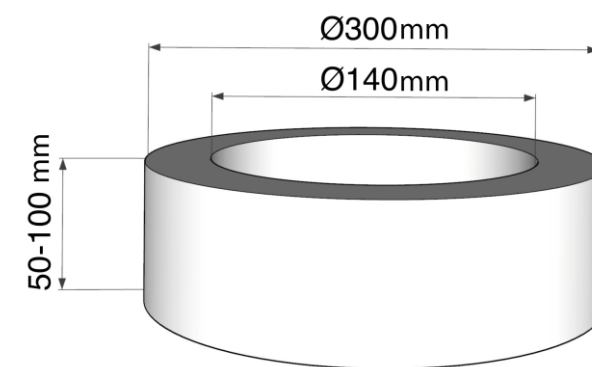
COILING AND PACKAGING LINE



AUTOMATIC LINE HS-CBSP300

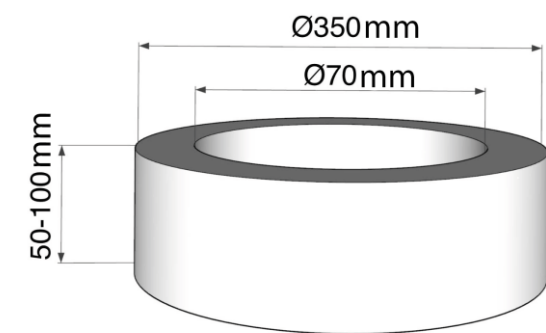
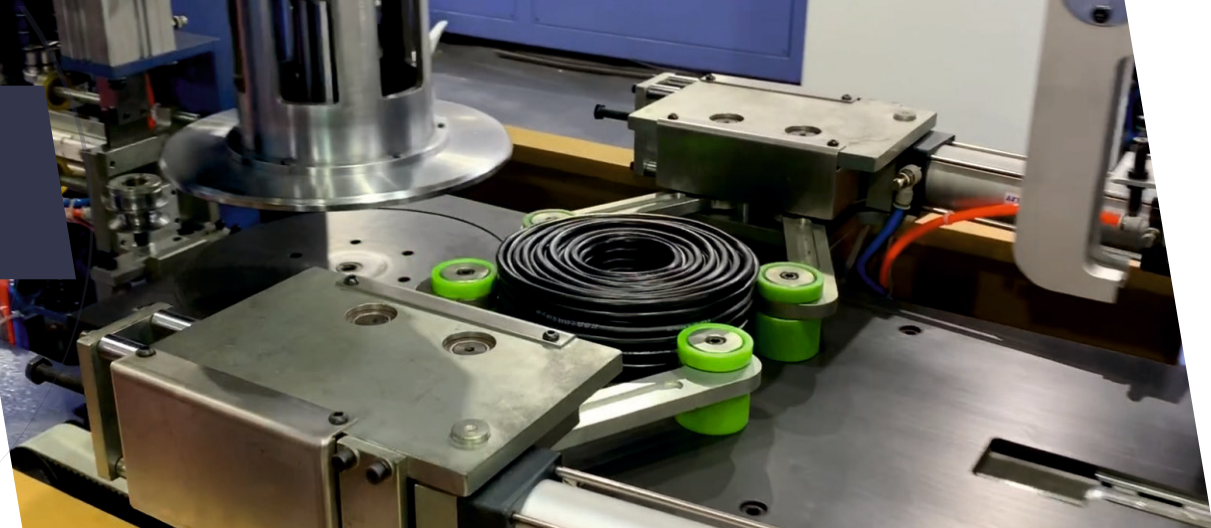


The line allows winding wires 0,5-7 mm into coils with tape fixation through the center in 2-4 points, packing with PVC film around the perimeter with a hole in the center of the coil and automatic labeling.



Name	Parameters
Cable diameter, (mm)	Ø0.5 - 7
Maximum line speed, (m/min)	300
Number of coil locks	2-4 sides
Packaging	Shrink film
Label	Automatic, self-sticking
Power supply	AC 380V, three-phase, 50 Hz
The line nominal power, (kW)	45
Active pay-off machine, (mm)	Ø630-1250

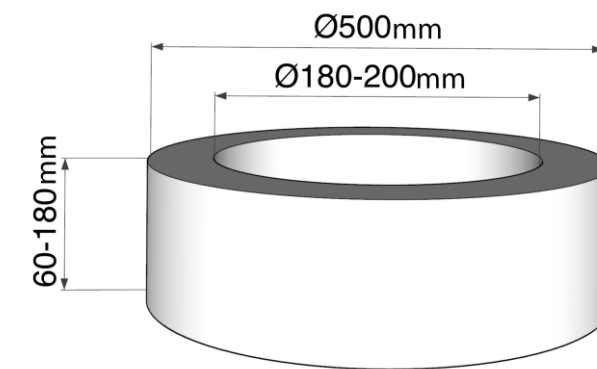
AUTOMATIC LINE HS-CBSP 350



The line allows winding wires of 5-15 mm into coils with fixing diametrically with tape or PVC film around the perimeter of the coil.
Automatic shrink wrapping in PVC film and automatic labeling.

Name	Parameters
Cable diameter, (mm)	Ø5 - 15
Maximum line speed, (m/min)	180
Coil fixation	PP tape diametrically
	PVC film around the perimeter
Packaging	Shrink film
Label	Automatic, self-sticking
Power supply	AC 380V, three-phase, 50 Hz
The line nominal power, (kW)	45

AUTOMATIC LINE HS-CBSP 500



The line allows winding wires 5-20 mm into coils with tape fixation through the center in 2-3 points or PVC film around the perimeter of the coil.
Automatic shrink wrapping in PVC film and automatic labeling.

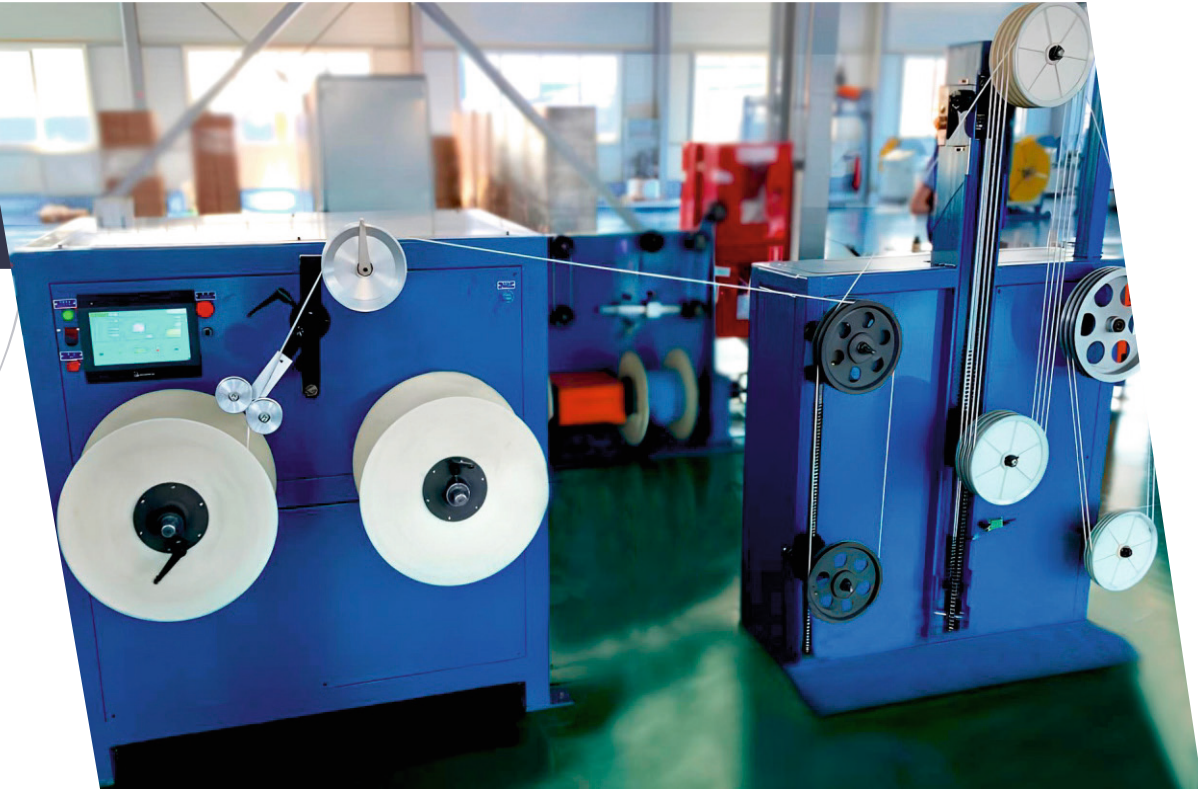
Name	Parameters
Cable diameter, (mm)	Ø5 - 20
Maximum line speed, (m/min)	180
Coil fixation	PP tape 2 - 3 sides
	PVC film around the perimeter
Packaging	Shrink film
Label	Automatic, self-sticking
Power supply	AC 380V, three-phase, 50 Hz
The line nominal power, (kW)	45
Active pay-off machine, (mm)	Ø1000-1600

8-TYPE AUTOMATIC COILING LINE FOR LAN CABLES



8-TYPE COILING LINE

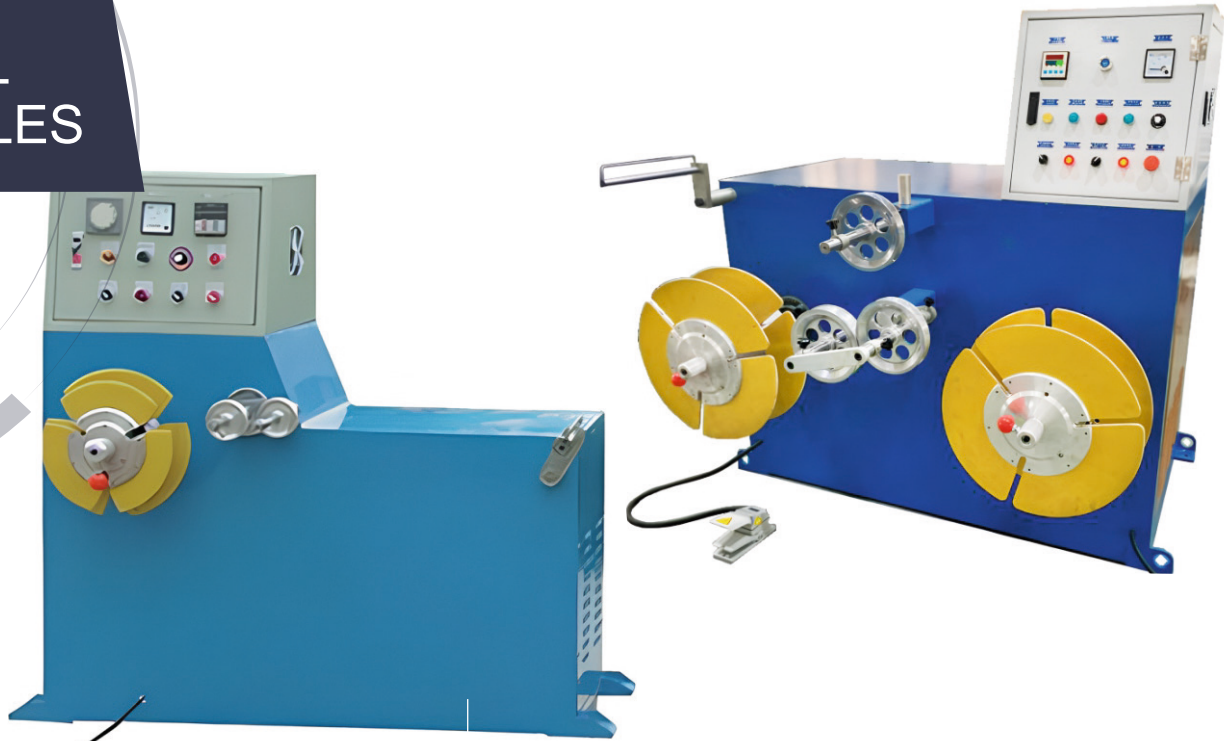
Name	Parameters
Cable diameter, (mm)	Ø 4-12
Maximum line speed, (m/min)	300
The line nominal power, (kW)	6
Storage capacity, (m)	50
Take-up coil diameter, (mm)	Ø 220
Center height, (mm)	1000



ACTIVE PAY-OFF MACHINE

	Parameters
Coil diameter, (mm)	Ø 800-1250
Cable diameter, (mm)	Ø 4-12
Max. cable weight, (kg)	1200
Pay-off speed, (m/min)	300
Coil fixation type	Screw type shaft
Power, (kW)	7.5
Lifting and descending	1.1 (kW) gear-motor
Direction	Clockwise and counterclockwise

COILING LINE FOR SMALL AND MEDIUM-SIZED CABLES



Model	HS - 630	HS - 800	HS - 1000	HS - 1250
Coil diameter, (mm)	Ø500 - 630	Ø800 - 1000	Ø1000 - 1250	Ø1250 - 2500
Max. speed, (m/min)	300	300	150	150
Tension	automatic			
Number of motor rotation, (rpm)	0 - 500	0 - 360	0 - 200	0 - 200
Inner coil diameter, (mm)	120	120	200	250 - 350
Outer coil diameter, (mm)	310	400	650	800
Coil height, (mm)	30 - 100	30 - 100	60 - 150	100 - 250
Power, (kW)	2.2	3.7	3.7	5.5
Cable cross-section, (mm)	0.5 - 6	1 - 25	10 - 70	50 - 250



HABSANS

EXTRUSION LINE

The section presents extrusion lines for applying insulation/sheathing to twisted pair cables (TPC), which are used with various types of materials such as PVC, PE, XLPE, LSZH, as well as Teflon and silicone.

The extrusion process is used for coating wires and cables with polymer-based insulation/sheathing.

For applying striped or multilayer coatings, two or more extruders working in tandem are used.



EXTRUSION LINE

PVC / PE / LSZH



TECHNICAL SPECIFICATIONS

Model		HS35-40	HS45-50	HS65	HS70	HS80	HS90	HS100	HS120	HS150	HS200
Screw diameter, (mm)		35-40	45-50	65	70	80	90	100	120	150	200
Diameter of the workpiece, (mm)		0.4-3	0.8-6	1.8-15	2-20	2-30	8-40	5-50	8-80	10-120	20-170
Extruder power, (kW)	Standard	2.2-11	11-15	30	30-37	53-75	75-90	110	110-132	160-200	200
	Increase productivity	11-15	18.5-22	37	45	90	110	132	160	250	315
Extrusion productivity, (kg/h)	Standard	50	100	170	170	230	280	280-320	400-450	500-580	900-1000
	Increase productivity	60-70	110-120	190-200	290-300	330-350	430-450	530-550	780-800	1100-1200	1600-1800
Linear speed, (m/min)	Standard	200 - 500						100 - 200			
	High-speed	600 - 1000						200 - 350			



HABSANS

WIRE STRANDING MACHINE

The section presents extrusion lines for applying insulation/sheathing to twisted pair cables (TPC), which are used with various types of materials such as PVC, PE, XLPE, LSZH, as well as Teflon and silicone.

The extrusion process is used for coating wires and cables with polymer-based insulation/sheathing.

For applying striped or multilayer coatings, two or more extruders working in tandem are used.

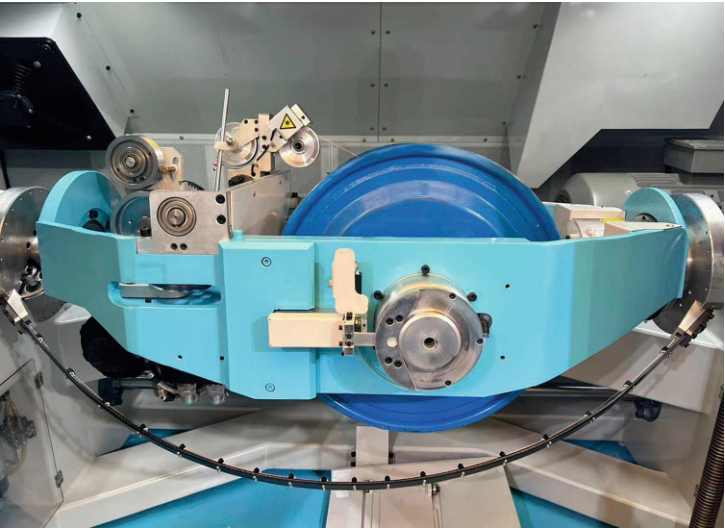


STRANDING MACHINE

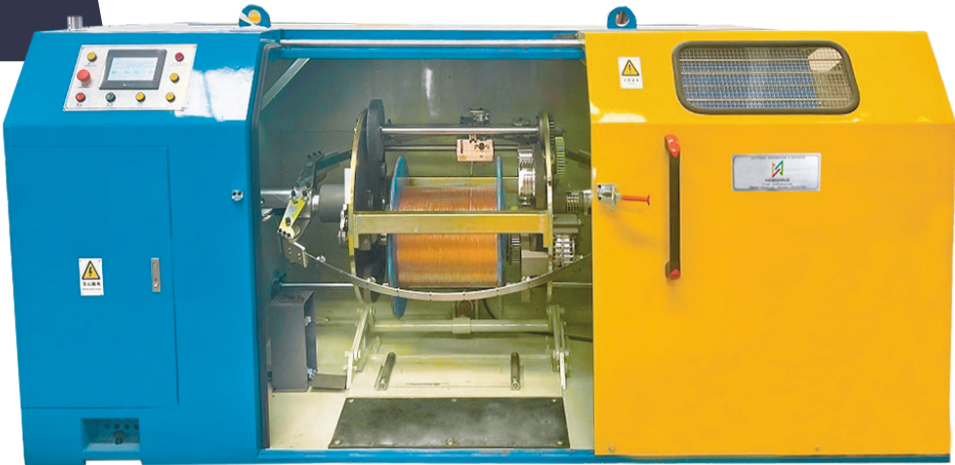
HIGH-SPEED DOUBLE STRANDING MACHINE 630G

TECHNICAL SPECIFICATIONS

Model	630G
Take-up coil, (mm)	Ø630
Insulated core/stranded wire, (mm)	≤1.04
Stranding diameter, (mm)	≤3.7
Wire stranding, (mm)	Ø 0.12 - 0.52
Max. wire cross-section, (mm²)	0.4 - 6
Max. line speed, (m/min)	250
Max. rotary speed	2500
Winding pitch, (mm)	10 - 130
Pitch changing	Stepless, via touch panel
Power, (kW)	1.5 servomotor
Traction wheel, (kW)	1.5 servomotor



DOUBLE STRANDING MACHINE
630C / 630CE / 630P / 630PE



TECHNICAL SPECIFICATIONS

Model	630C	630CE	630P	630PE
Take-up coil, (mm)	Ø630			
Insulated core/stranded wire, (mm)	≤2.5	≤3.7	≤2.05	≤2.05
Stranding diameter, (mm)	≤8			
Wire stranding, (mm)	Ø 0.12 - 0.52		Ø 0.1 - 0.45	
Max. wire cross-section, (mm²)	0.33 - 6		0.4 - 6	
Power, (kW)	7.5		15	
Max. rotary speed	1800		2300	
Winding pitch, (mm)	11 - 100			
Pitch changing	Manual-stepped	Stepless, via touch panel	Manual-stepped	Stepless, via touch panel
Power of traction part, (kW)	-	1.8 servomotor	-	1.8 servomotor
Take-up coil tension, (kg)	5			

DOUBLE STRANDING MACHINE
500 / 630 / 800 / 1000



TECHNICAL SPECIFICATIONS

Model	500	630	800	1000
Power, (kW)	5.5	7.5	15	18.5
Coil size, (mm)	Ø 500	Ø 630	Ø 800	Ø 1000
Maximum rotation speed, (rpm)	2000	1600	1200	1000
Operating rotation speed, (rpm)	1700 - 1800	1200 - 1300	1000	850
Max. stranding freq. (str./min)	4000	3200	2400	2000
Operating stranding freq. (str./min)	3400 - 3700	2400 - 2600	2000	1700

HIGH-SPEED STRANDING MACHINE
200 / 300H / 400 / 500



TECHNICAL SPECIFICATIONS

Model	200	300H	400	500
Coil size, (mm)	Ø 200 x 150	Ø 315 x 200	Ø 400 x 300	Ø 600 x 330
Max. wire cross-section, (mm²)	0.0034 ~ 0.035	1.0	1.2	1.5
Stranding length, (mm)	0.94 ~ 4.08	1.15 ~ 11.24	2.86 ~ 44	2.86 ~ 51
Stranding direction	S-left, Z-right	S-left, Z-right	S-left, Z-right	S-left, Z-right
Rotation speed, (rpm)	Adjustable 0-4500	Adjustable 0-3000	Adjustable 0-3500	Adjustable 0-3000
Motor, (kW)	AC 3.7	AC 2.2	AC 5.5	AC 5.5
Control type	PLC	PLC	PLC	PLC
Dimensions, (mm)	2150*880*1290	2260*1040*960	2260*1040*960	2775*1100*1660
Weight, (kg)	850	1150	1700	3000

SIGNLE STRANDING MACHINE
630 / 800 / 1000 / 1250



TECHNICAL SPECIFICATIONS

Model	Ø 630	Ø 800	Ø 1000	Ø 1250
Pay-off, (mm)	Ø 400 - 500	Ø 400 - 630		
Take-up, (mm)	Ø 630	Ø 800	Ø 1000	Ø 1250
Core diameter, (mm)	Ø 0.3 - Ø 3.0	Ø 0.3 - Ø 3.0	Ø 1.0 - Ø 5.0	Ø 1.0 - Ø 5.0
Max. diameter of the final product	Ø 12	Ø 18	Ø 22	Ø 25
Stranding length, (mm)	20 - 200	30 - 300	30 - 350	30 - 350
Max. rotary speed	800	680	540	420
Spreader device length	2 - 12	3 - 20	3 - 25	3 - 30
Tension relief	Pneumatic tensionpath (easy to customize)			
Type of tension and spreading	The taking-up process in accordance with the coil rotation, the spreading in accordance with the coil reciprocating movement			
Stranding direction	S or Z			
Wrapper	Intermediate packaging or directly packaging			
Type of the pay-off equipment	It's used the pay-off machine			



HABSANS

BUNCHER TYPE STRANDING MACHINE 1250 / 1600

Inovance servomotors are used, from leading manufacturer in China.

The system of automatic circulation and cooling of oil in the bearing units, which has possitive effect on bearing life.

Synchronization between external and internal cabinet is realized through wireless communication (Wi-Fi)

The arcs of the machine are made of carbon fiber.

Touch screen 15", camera surveillance system inside the hopper.

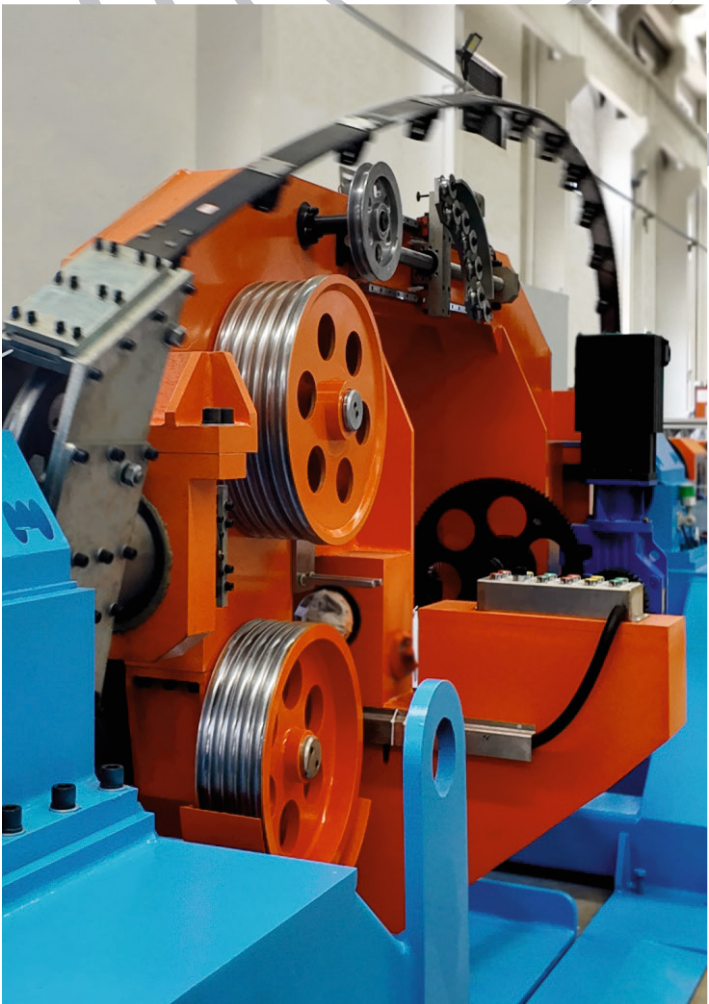
Duplicate screen for displaying the main indicators.

A tensioning rack with magnetic or pneumatic coupling is used to create a stable tension on all cores.

An air blower is installed in front of the gauge to remote dust from the workpieces to reduce breakage.



BUNCHER TYPE STRANDING MACHINE HS-1250



TECHNICAL SPECIFICATIONS

Model	HS - 1250	HS - 1600
Wire diameter Al Cu, (mm)	0.8 - 3.6	1.5- 4.8
Cross-section after stranding Cu, (mm ²)	Cu Al 3.5 - 70	Cu 16 - 150 Al 16 - 240
Max. cable twist diameter, (mm)	10	25
Max. constriction %	85 - 90	
Max. line speed, (m/min)	70 - 200	
Arc rotation frequency, (rpm)	800	600
Winding pitch, (mm)	40 - 350	50 - 600
Main motor power, (kW)	42	60
Traction part, servomotor, (kW)	32	45
Take-up part, servomotor, (kW)	11	
Layout, (kW)	1.5	
Traction wheel, (mm)	500	750
Bearing cooling	Oil circulation	



TUBULAR STRANDING MACHINE

Machine for stranding steel, copper or aluminum uninsulated cores, as well as for booking cable and twisting of steel cables.

The advantage of the machine is high operating speeds, which has a positive effect on the line speed and total production capacity of the line.

TECHNICAL SPECIFICATIONS

Model	G200/1+6	G300/1+6	G400/1+6	G500/1+6	G630/1+6	G800/1+6	G560/1+12	G630/1+12
Central pay-off machine, (mm)	Ø 200	Ø 300	Ø 400	Ø 500	Ø 630	Ø 800	Ø 800	Ø 1250
Coil inside the console, (mm)	Ø 200	Ø 300	Ø 400	Ø 500	Ø 630	Ø 800	Ø 560	Ø 630
Dia. of the workpiece, (mm)	Ø 0.3-0.55	Ø 0.5-1.5	Ø 0.7-2.5	Ø 1.2-4.0	Ø 1.3-5.0	Ø 1.8-5.0	Ø 1.3-3.6	Ø 1.5-5.0
Diameter of multiwire conductor, (mm)	Ø 1.60	Ø 4.5	Ø 7.5	Ø 12	Ø 15	Ø 15	Ø 15	Ø 25
Rate operating speed, (rpm)	1500	1200	700	650	600	420	580	360
Power of the main motor, (kW)	15	18.5	22	45	45	75	110	110
Power of capstan motor, (kW)	0.75	1.5	3	15	22	30	37	45
Diameter of capstan wheel	Ø 160	Ø 300	Ø 500	Ø 1000	Ø 1000	Ø 1000	Ø 1000	Ø 1600
Take-up machine	Ø 500-630	Ø 500-630	Ø 560-800	Ø 500-1000	Ø 800-1600	Ø 1000-2000	Ø 800-1600	Ø 1000-2000
Support rotating mechanism	Integrated bearing	Integrated bearing	Integrated bearing	Integrated bearing	Integrated bearing	Integrated bearing	Integrated bearing	Integrated bearing
Tension of the pay-off machine	Mechanical; pivoted rod	Hysteresis coupling	Hysteresis coupling	Mechanical; magnetic powder	Mechanical; magnetic powder	Magnetic powder	Magnetic powder	Mechanical; magnetic powder



BOW STRANDING MACHINE

It is used for the production of cables of various designs, including cables with flat, round and square cross sections.

An important feature is the high productivity. It can work for long periods of time without interruption, which allows the production of cables in large volumes.

TECHNICAL SPECIFICATIONS

Coil size	Max. rotational speed of the coil, (rpm)				The wire size (mm)			
	3V	4V	5V	6V	Aluminum	Copper	Steel	PVC/ XLPE
630	1200	1200	1000	1000	1.8 - 5.0	1.5 - 4.5	1.3 - 3.5	/
800	900	900	800	800				16
1000	400	400	350	350				16
1250	400	400	350	350				16
1600	300	300	270	270				16

RIGID FRAME STRANDING MACHINE

The line for stranding round and sector cores of power cables is a variant of cage twisting machines, which do not have a recoil device, as the workpiece on the coils is installed directly in the twisting stands, which greatly simplifies the technology.



TECHNICAL SPECIFICATIONS

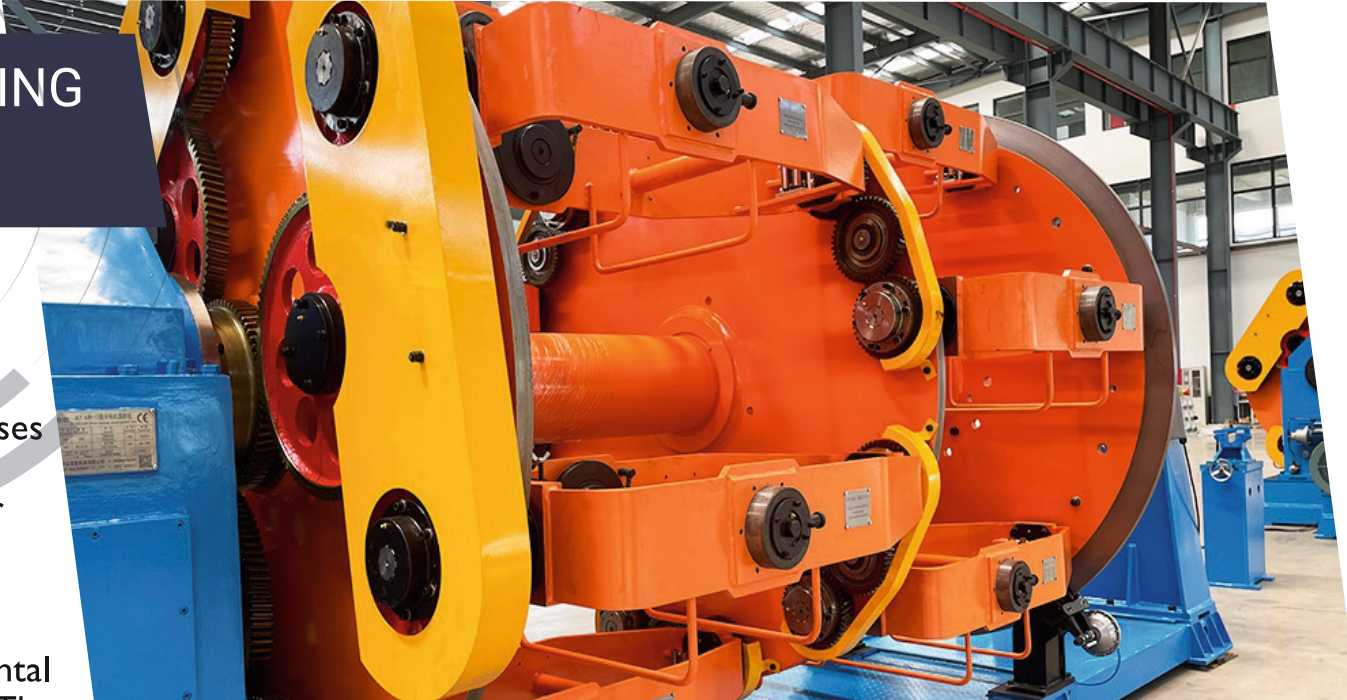
Name	Parameters
Diameter of a single stranded workpiece	Aluminum 1.8-5.0
	Copper 1.5-4.5
Max. multi-core compacted cross section, (mm²)	Aluminum 1400
	Copper 1000
Maximum rotation speed of the cage, (cage — rpm)	6V-200 rpm
	12V-180 rpm
	18V-160 rpm
	24V-135 rpm
	30V-110 rpm

Name	Parameters
Stranding length	38-1040
The type of the central pay-off machine	PND500-630
Tension of the pay-off machine	PND500-630
Type of take-up machine	PND1600-3150
Linear draft speed, (m/min)	6-45
Diameter of capstan wheel, (mm)	Ø1600-2500
Height of line center, (mm)	Ø1100
Total output, (kW)	185-300
Overall machine length, (m)	60 m for 91V

PLANETARY TYPE STRANDING MACHINE

Wire and cable stranding equipment that uses a core unscrewing mechanism with a gear movement around a central stationary gear wheel.

The stranding mechanism ensures that the axes of the recoil spools are always horizontal and that each strand is not axially twisted. The cores are twisted evenly and do not tend to loop.

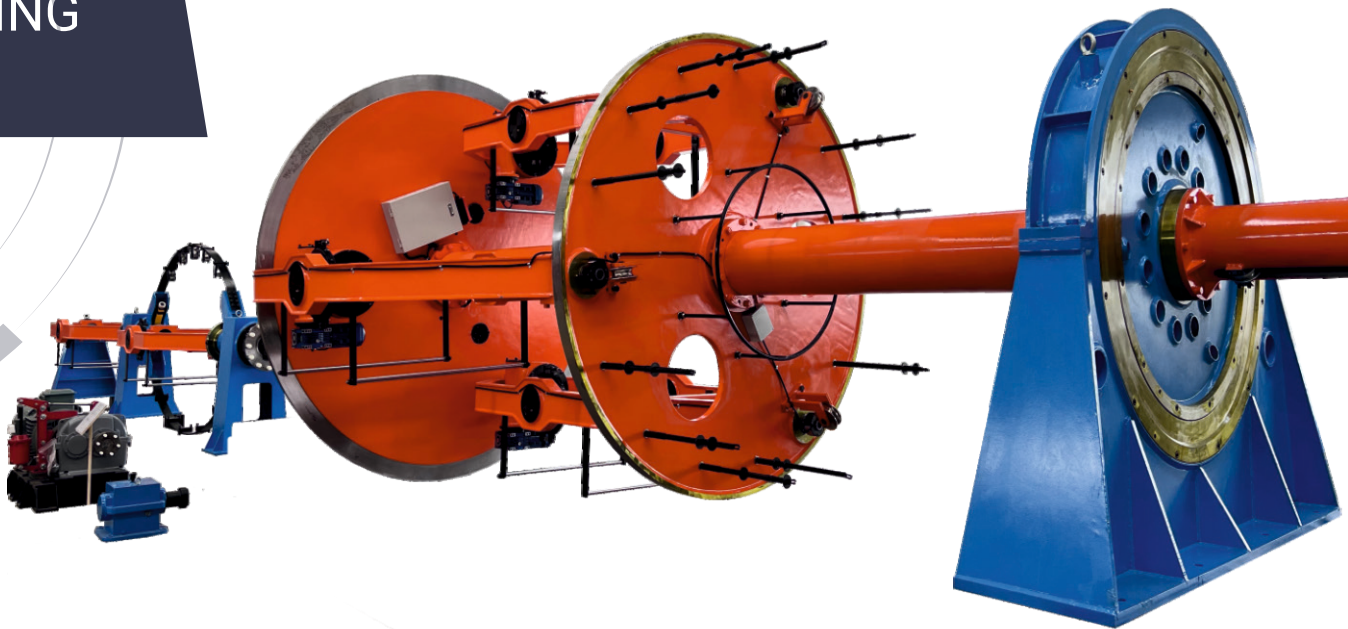


TECHNICAL SPECIFICATIONS

Name	Parameters
Max. outer diameter of the single-core cable	5.0
Max. outer diameter of the multicore cable	50
Stranding length (mm) V (coil)	6V 63-1089
	12V 71-1221
	18V 81-1403
	24V 95-1612
Tension of the pay-off machine and the cage	PND500-630

Name	Parameters
Cage rotating speed, (rpm)	6V 37-90
	12V 33-80
	18V 29-70
	24V 25-60
Linear draft speed	5.7-40.3
Diameter of capstan wheel, (mm)	Ø2000
Height of line center, (mm)	Ø1100

LANTERN-TYPE STRANDING MACHINE



For stranding large cross-section cables and wires.

Can contain several torsion lanterns with coils, the number can be adapted to the process requirements.

TECHNICAL SPECIFICATIONS

Name	Parameters
Diameter of the workpiece, (mm)	Ø7-30
Diameter after stranding, (mm)	Ø75
Carriage rotation velocity, (rpm)	45
Stranding length	Stepless regulation
Taping head rotation velocity, (rpm)	500
Taping head pitch	Stepless regulation

Name	Parameters
Steel-plating pitch	Smooth regulation
Linear speed, (rpm)	350
Pay-off coil, (mm)	Ø1250
Suitable take-up coil, (mm)	Ø1250-2500
Power of the main motor, (kW(AC))	45
Height of center, (mm)	1000

DRUM-TWISTER STRANDING MACHINE



For stranding insulated and bare stranded stranded conductors. It is used for the production of high,medium,low voltage, round and sectional power cables of large cross-sections and lengths. The peculiarity is that the recoil devices rotate the recoil drums around the axis of the line to unscrew/screw the recoil cores.

Model	2000	2200	2500	3200	3600	4000	4200
The conductive area diameter of the single-core wire	30	40	40	60	60	65	65
Conductor cross section, (mm²)	1500	2000	2000	2500	2500	2800	2800
Max. diameter of stranded cores, (mm)	60	80	100	130	130	140	140
Max. synchronous rotation speed, (rpm)	60	60	50	35	35	25	25
Max. linear speed, (m/min)	60	60	50	50	50	50	50
Max. broaching force, (kN)	30	30	50	80	80	80	80
The type of the central pay-off machine' drum	PN2000	PN2200	PN2500	PN3200	PN3600	PN4000	PN4200
The type of the side pay-off machine' drum	PN1600	PN1600	PN1600	PN2000	PN2000	PN2200	PN2200
Type of take-up machine' drum	Pn2000	PN2200	PN2500	PN3200	PN3600	PN4000	PN4200
Height of line center, (mm)	1000	1000	1000	1000	1000	1100	1100
Outer width of the drum, (mm)	1500	1700	1900	2300	2300	2400	2400
Load capacity, (kg)	8000	10000	12000	15000	25000	30000	32000
Max. rotating speed, (rpm)	60	60	50	35	35	25	25



HABSANS

WIRE DRAWING MACHINE

The section presents drawing lines for the production of copper or aluminum wire of various diameters in the range from Ø4,5 mm to Ø0,1 mm.

In the gradation of drawing machines by the range of product diameter:

- Fine wire drawing machines - Ø0,9-0,1 mm
- Middle wire drawing machines - Ø1,25 -0,2 mm
- Coarse wire drawing machines - Ø4,5-1,25 mm

And also presents a drawing machine of the multiwire type. Multiwire is a high-performance drawing machine for drawing copper or aluminum workpiece with up to 16 simultaneously drawn workpieces at a speed of 30 m/s. The diameter of workpiece inlet depending on the model: 4*Ø1,85 / 8*Ø3,0 / 7*Ø2,6 / 14*Ø1,8 / 8*Ø2,6 / 16* Ø2,6. Custom design of the machines is possible, according to customer's requirements.

DRAWING MACHINE



FINE WIRE DRAWING MACHINE FOR COPPER OR ALUMINUM FDM-DT 14-17

Designed for processing of copper and aluminum by pulling rods through fibers in order to obtain billets of thinner diameter.

Variation of design - single-strand machine with an annealing attachment.

TECHNICAL SPECIFICATIONS

Model	FDM-DT17/A	FDM-DT17/B	FDM-DT16	FDM-DT14
Number of impressions	1			
The workpiece at the input, (mm)	Ø2.6	Ø2.0	Ø1.6	Ø1.6
The wire at the output, (mm)	Ø0.35~Ø1.0	Ø0.25~Ø0.8	Ø0.20~Ø0.65	Ø0.25~Ø0.7
Amount of dies	17	17	16	14
Linear speed, (m/min)	1800	1800	1500	1200
Annealing roll diameter	Ø200	Ø200	Ø200	Ø200
Annealing voltage (W)	60			
Inert annealing medium	Steam or nitrogen			
Capstan working face	Tungsten carbide or zirconium oxide			
Transmission line	Belt transmission			
Coli size, (mm)	300 mm is standard, it can be replaced to fit the required size of a client			
Functions	Dual take-up machine			



FINE WIRE DRAWING MACHINE FOR
COPPER OR ALUMINUM FDM-DT 17.2-24.2B

Fine drawing machines are designed for processing of copper and aluminum by pulling wire rod through wire rods in order to obtain billets of thinner diameter.

A variation of the design is a double-strand machine with an annealing attachment.



TECHNICAL SPECIFICATIONS

Model		FDM-DT17.2	FDM-DT22.2	FDM-DT24.2A	FDM-DT24.2B
Number of impressions		2			
The workpiece at the input, (mm)	1 impression	1*Ø 2.0	1*Ø 1.5	1*Ø 1.38	1 * Ø 1.0
	2 impressions	2*Ø 1.6	2*Ø 1.2	2*Ø 1.0	2 * Ø 0.8
The wire at the output, (mm)	1 impression	1*Ø 0.3~Ø 1.0	1*Ø 0.12~Ø 0.50	1*Ø 0.12~Ø 0.4	1*Ø 0.07~Ø 0.25
	2 impressions	2*Ø 0.3~Ø 0.7	2*Ø 0.12~Ø -0.40	2*Ø 0.12~Ø 0.35	2*Ø 0.07~Ø 0.16
Amount of dies		17	22	24	24
Linear speed, (m/min)		1500	1800	1800	1800
Annealing roll diameter		Ø 200	Ø 160	Ø 160	Ø 140
Annealing voltage (W)		0-60			
Inert annealing medium		Steam or nitrogen			
Capstan working face		Tungsten carbide or zirconium oxide			
Coli size, (mm)		It can be replaced to fit the required size of a client			
Number of taking-up coils		1-2			

FINE WIRE DRAWING MACHINE FOR
COPPER OR ALUMINUM FDM-DT 22-24B

Designed for processing of copper and aluminum by pulling rods through fibers in order to obtain billets of thinner diameter.

Variation of design - single-strand machine with an annealing attachment.



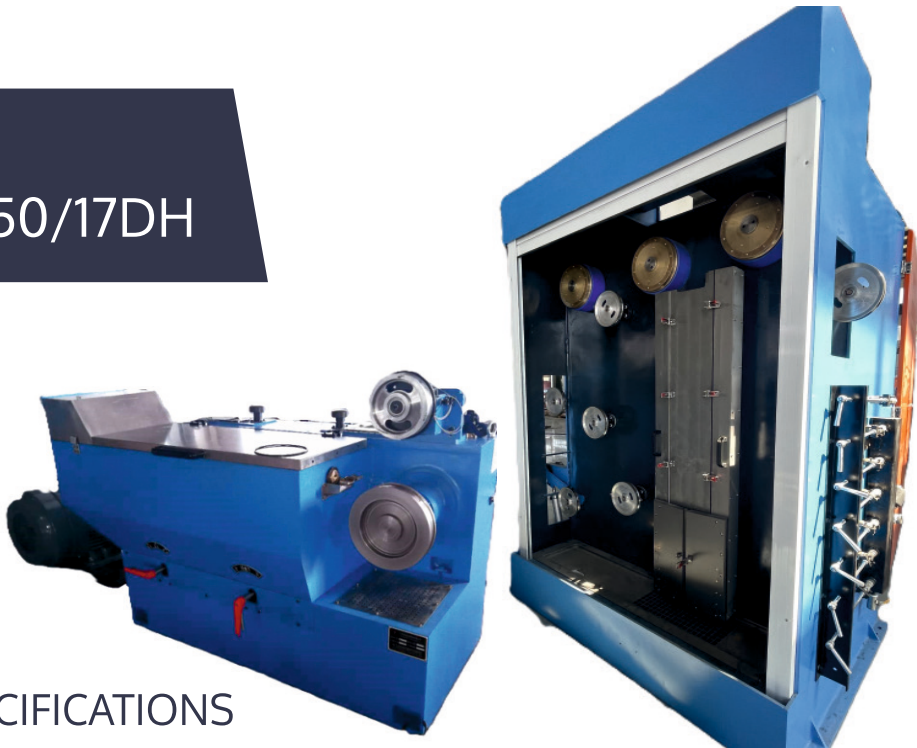
TECHNICAL SPECIFICATIONS

Model	FDM-DT24	FDM-DT22	FDM-DT24.B
Number of impressions	1		
The workpiece at the input, (mm)	Ø 1.20	Ø 1.38	Ø 0.8
The wire at the output, (mm)	Ø 0.10 ~ Ø0.35	Ø 0.12 ~ Ø0.45	Ø 0.07 ~ Ø0.20
Amount of dies	24	22	24
Linear speed, (m/min)	1800	1800	1800
Annealing roll diameter	Ø 160	Ø 160	Ø 140
Annealing voltage (W)	0-60		
Inert annealing medium	Steam or nitrogen		
Capstan working face	Tungsten carbide or zirconium oxide		
Coli size, (mm)	It can be replaced to fit the required size of a client		

MEDIUM WIRE DRAWING MACHINE
IDM-280/9DH, IDM-280/13DH, IDM-250/17DH

Designed for processing copper and aluminum by pulling wire rod through wire rods to produce a thinner diameter billet.

Each machine is a custom machine and can be retrofitted and customized to meet customer needs.



TECHNICAL SPECIFICATIONS

Model	IDM-280/9DH	IDM-280/13DH	IDM-250/17DH
The workpiece at the input, (mm)	Ø 2.5 - 3.5		
The wire at the output, (mm)	Ø 1.0 - 2.8	Ø 0.68 - 2.80	Ø 0.4 - 1.6
Amount of dies	9	13	17
Capstan	Sheave made of carbon fiber (or zirconium, optional)		
Power of the main motor, (kW)	55		
Power of take-up machines, (kW)	7.5-15		
Capstan diameter	Ø 280	Ø 280	Ø 250
Transmission mode	High-precision ground gear transmission		
The lubrication method during wire draft	Full immersion		
Tension adjustment method	Pneumatic		
Type of take-up machine	Shaftless		
Dimensions of the take-up coil, (mm)	Ø500 (Ø of hole is 127), Ø 630 (Ø of hole is 127), or according to customer's requirement		
Type of spreader device	Gear motor		
Brake type	Pneumatic brake disk		

COARSE WIRE DRAWING MACHINE
FOR COPPER OR ALUMINUM RBD400

Variation - single-strand machine with an annealing attachment with a double receiving unit.
After the drawing stage, the wire is automatically annealed in a steam environment and taken onto spools Ø 500 - 630 mm.
Horizontal type drawing mill with a row arrangement of 13 dies with a common motor.



TECHNICAL SPECIFICATIONS

Model		RBD400-13	RBD400-11	RBD400-8	RBD400-7
Number of impressions		1			
Capstan		Ø 400	Ø 400	Ø 400	Ø 400
Amount of dies		13	11	8	7
The workpiece at the input, (mm)	Copper	Ø 8			
	Aluminum	Ø 9.5			
The wire at the output, (mm)	Copper	Ø 1.2 ~ Ø 4.0	Ø 1.7 ~ Ø 4.0	Ø 2.6 ~ Ø 4.0	Ø 2.6 ~ Ø 4.0
	Aluminum	Ø 1.7 ~ Ø 4.0	Ø 2.0 ~ Ø 4.0	Ø 3.0 ~ Ø 4.0	
Linear speed (max.), (m/s)		20	20	12	15
Capstan mounting		Horizontal, in-line			
Type of take-up machine		Double, single, coiler			
Additional equipment		R35.1 Horizontal continuous annealing			
		Continuous annealing machine of the line			
Type		R 35.1			
Annealed wire diameter		Ø 1.2 ~ Ø 4.0			
Annealing voltage (W)		0 ~ 55			
Annealing current (A)		0 ~ 4000			
Annealing maximum speed (m/s)		20			

COARSE WIRE DRAWING MACHINE FOR COPPER OR ALUMINUM RBD450

Single-impression machine with an annealing attachment with a double take-up unit.
The drawing mill is of horizontal type, with a precise row arrangement of 13 fibers. The transmission of the mill is based on a common gearbox and is driven by one common motor.

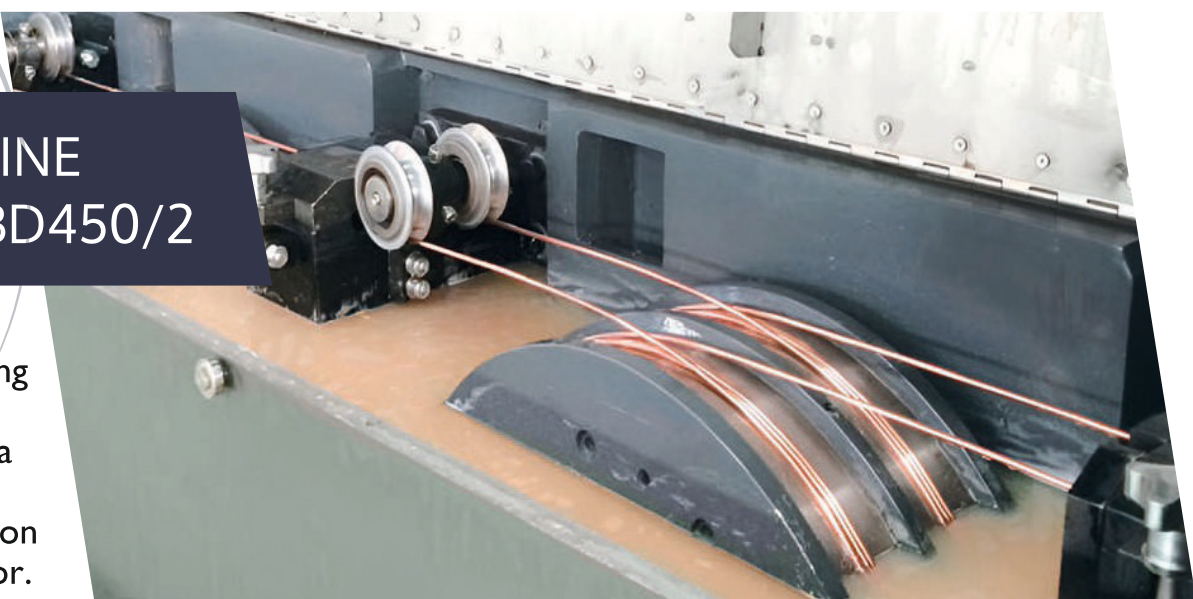


TECHNICAL SPECIFICATIONS

Model		RBD450-13	RBD450-11	RBD450-9
Number of impressions		1		
Capstan		Ø 450	Ø 450	Ø 450
Amount of dies		13	11	9
The workpiece at the input, (mm)	Copper	Ø 8		
	Aluminum	Ø 9.5		
The workpiece at the output, (mm)	Copper	Ø 1.2 ~ Ø 4.5	Ø 1.5 ~ Ø 4.5	Ø 2.0 ~ Ø 4.5
	Aluminum	Ø 1.7 ~ Ø 5.0	Ø 2.0 ~ Ø 5.0	Ø 2.8 ~ Ø 5.0
Linear speed (max.), (m/s)		30	30	25
Capstan mounting		Horizontal, in-line		
Type of take-up machine		Double, single, coiler		
Additional equipment		R45.1 Horizontal continuous annealing		
Continuous annealing machine of the line				
Type		R 45.1		
Annealed wire diameter		Ø 1.2 ~ Ø 4.5		
Annealing voltage (W)		0 ~ 55		
Annealing current (A)		6000 - 7500		
Annealing maximum speed (m/s)		25		

COARSE WIRE DRAWING MACHINE FOR COPPER OR ALUMINUM RBD450/2

Double-impression machine with an annealing attachment with a double take-up unit.
The drawing mill is of horizontal type, with a precise row arrangement of 13 fibers. The transmission of the mill is based on a common gearbox and is driven by one common motor.



TECHNICAL SPECIFICATIONS

Model		RBD450/2-13	RBD450/2-11	RBD450/2-9
Number of impressions		2		
Capstan		Ø 450	Ø 450	Ø 450
Amount of dies		13	11	9
The workpiece at the input, (mm)	Copper	Ø 8		
	Aluminum	Ø 9.5		
The workpiece at the output, (mm)	Copper	Ø 1.2 ~ Ø 4.5	Ø 1.5 ~ Ø 4.5	Ø 2.0 ~ Ø 4.5
	Aluminum	Ø 1.7 ~ Ø 5.0	Ø 2.0 ~ Ø 5.0	Ø 2.8 ~ Ø 5.0
Linear speed (max.), (m/s)		30	30	25
Capstan mounting		Horizontal, in-line		
Type of take-up machine		Double, single, coiler		
Additional equipment		R45 Horizontal continuous annealing		
Continuous annealing machine of the line				
Type		R 45		
Annealed wire diameter		Ø 1.2 ~ Ø 4.5		
Annealing voltage (W)		0 ~ 55		
Annealing current (A)		8000		
Annealing maximum speed (m/s)		25		

COARSE WIRE DRAWING MACHINE FOR COPPER OR ALUMINUM (WITH INDIVIDUAL DRIVE)

Variation of the design is a two-strand machine with an annealing attachment with a double receiving unit.

The special feature of the line is the individual drive for each cablestan.

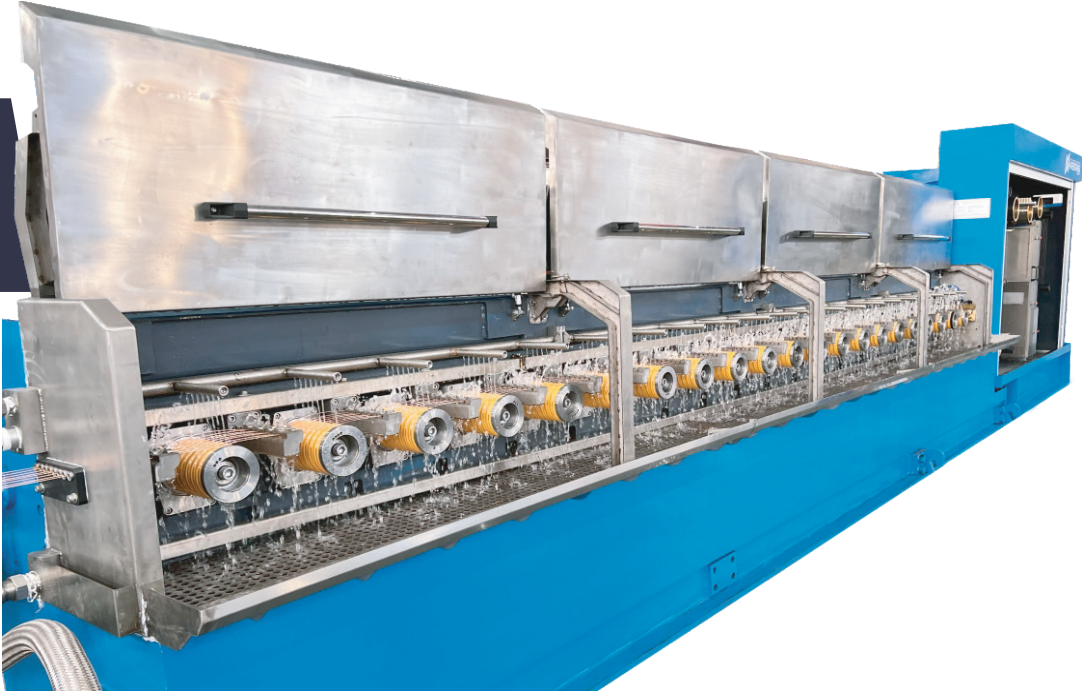


TECHNICAL SPECIFICATIONS

Model		LFD450-15	LFD450-13
Number of impressions		1 - 2	
Capstan		Ø 450	Ø 450
Drive		Individual drive for each capstan	
Amount of dies		15	13
The workpiece at the input, (mm)	Copper	Ø 8	
	Aluminum	Ø 9.5	
The workpiece at the output, (mm)	Copper	Ø 1 ~ Ø 4.5	Ø 1.15 ~ Ø 4.5
	Aluminum	Ø 1 ~ Ø 5.0	Ø 1.15 ~ Ø 5.0
Linear speed (max.), (m/s)		28	
Type of take-up machine		Double, single, coiler	
Additional equipment		Emulsion filtration and cooling system	
Continuous annealing machine of the line			
Type		Three-stage variable resistance annealing	
Annealed wire diameter		Ø 1 ~ Ø 4.5	Ø 1.15 ~ Ø 4.5
Annealing voltage (W)		0 ~ 55	
Annealing current (A)		6000 - 7500	
Annealing maximum speed (m/s)		25	

MULTI-WIRE DRAWING MACHINE

High performance copper or aluminum billet drawing machine, has up to 16 simultaneously wired billets at a speed of 30 m/s.



TECHNICAL SPECIFICATIONS

Model	MWD18/120.4	MWD18/120.8	MWD18/100.14	MWD22/100.8	MWD22/100.16
Number of impressions	4	8	14	8	16
Amount of dies	18	18	18	22	24
The workpiece at the input, (mm)	4 * Ø 1.85	8 * Ø 3.0	7 * Ø 2.6	8 * Ø 2.6	16 * Ø 2.6
			14 * Ø 1.8		
The workpiece at the output, (mm)	Ø 0.25 ~ Ø 0.70	Ø 0.35 ~ Ø 1.05	Ø 0.35 ~ Ø 0.65	Ø 0.20 ~ Ø 0.70	Ø 0.16 ~ Ø 0.40
			Ø 0.40 ~ Ø 0.05*7		
Diameter of capstan	Ø 120	Ø 120	Ø 120	Ø 120	Ø 120
Linear speed (max.), (m/s)	25	30	30	30	30
Capstan	Ceramics		Zirconium Oxide		
Transmission mode	Belt transmission		Cogged pinion		
Annealing voltage (W)	0 - 60				
Annealing current (A)	0 - 600	0 - 3500	0 - 4500	0 - 3500	0 - 3000

CONFORM LINES

This section presents equipment for continuous extrusion using the Conform method. This type of equipment is designed for the production of shaped profiles, rods, trapezoidal rods, tubes, bars, flat wire, optical cable sheathing and other long products from aluminum and copper.



CONFORM LINES

CONFORM LINES



Model	Dia. of the extrusion wheel		Speed range, (rpm)		Power of main motor, (kW)		Diameter of the workpiece, (mm)		Product cross section, (mm²)		Maximum width (diameter), (mm)		Average productivity,(kg/h)	
	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al
Yj300	Ø 300	Ø 300	0 - 13	0 - 22.5	90	90	Ø 8; Ø 12.5	Ø 9.5; Ø 12	5-200	5-150	Tire 50; Bar Ø25 mm	Tire 50; Tube Ø25 mm	500	180
YJ350	Ø 350	Ø 350	0 - 12.5	0 - 22	160	160	Ø 12.5; Ø 16	Ø 9.5; Ø 12; Ø 15	20-1000	10-600	Tire 100; Bar Ø36 mm	Tire 100; Tube Ø36 mm	850	300
Yj400	Ø 400	Ø 400	0 - 12	0 - 20	250	250	Ø 16; Ø 20	Ø 15; Ø 20	100-2400	100-1500	Tire 170; Bar Ø80 mm	Tire 120	1300	450
YJ400S	Ø 400	Ø 400	0 - 12	0 - 16	250	250	Ø 20	2 * Ø 15	100-3000	100-2400	Tire 210; Bar Ø90 mm	Tire 200	1200	600
YJ550	Ø 550		1 - 8.5		450		Ø 20 Ø 25		300-5000		Tire 300		2000	
YJ700	Ø 700		1 - 8.5		450		Ø 32		600-9000		Tire 425		3000	



HABSANS

CATERPILLAR
HAUL-OFF MACHINE

The section includes caterpillar haul-off machines, to ensure smooth moving, without deformation of wire or cable.

The possibility of adjusting the speed and traction force allows the machine to be adapted to different parameters.



CATERPILLAR
HAUL-OFF MACHINE



TECHNICAL SPECIFICATIONS

Model	HS-200	HS-500	HS-800	HS-1250	HS-1600	HS-2000	HS-2500	HS-3200	HS-4000	HS-5000
Force values, (kg)	200	500	800	1250	1600	2000	2500	3200	4000	5000
Linear speed, (m/min)	200	150	120	100	80	80	60	60	40	40
Caterpillar length, (mm)	390	850	1150	1600	1900	2300	2500	2800	3500	4000
Caterpillar width, (mm)	60	80	80	120	120	120	140	140	160	180
Power, (kW) AC	2.2	5.5	5.5	7.5	11	11	15	15	18	18
Cylinders quantity	1	3	4	5	6	7	8	9	10	11
Meter counter	Integrated									
Center height, (mm)	1000									
Dia. of cable, (mm)	<15	<30	<40	<60	<80	<100	<120	<150	<180	<200



HABSANS

PAY-OFF & TAKE-UP MACHINES

In this section, presents pay-off and take-up machines, designed to work with cable on coils.

The pay-off machines are used to uncoil uninsulated or insulated mono-core workpiece, and stranded cores.

The take-up machines are used to coil cable onto coils, ensuring tension maintenance and the ability to work at high speed.

PAY-OFF & TAKE-UP MACHINES

PORTAL TYPE PAY-OFF/TAKE-UP MACHINE



The device combines the advantages of loading from oth sides and efficient using of production area.
The construction is on rails and moves automatically from side to side to ensure even distribution of the product on coil.



TECHNICAL SPECIFICATIONS

Model	HS 1000 - 1600	HS 1000 - 1800	HS 1000 - 2000	HS 1600 - 2500	HS 1600 - 3200
Coil weight with cable, (kg)	5000	8000	10000	12000	18000
Max. speed, (m/min)	150	100	100	80	80
Coil loading and unloading, (kW)	0.75				
Fixation type	Column clamping on both sides				
Machine height, (mm)	1800 - 4000				
Passive pay-off machine tension type	Pneumatic and magnetic tension clutch				

TECHNICAL SPECIFICATIONS OF TAKE-UP MACHINE

Take-up power, (kW)	5.5	11	11	15	18
Layout, (kW)	1.5	1.5	1.5	3.75	5.5
Max. convergence pitch, (mm)	100 - 120				
Gearbox	Lower crosshead / upper crosshead				

COLUMN TYPE PAY-OFF/TAKE-UP MACHINE

The coil fixation is secured by two movable columns.

The take-up machine is using a layout on smooth shaft with servomotor.



TECHNICAL SPECIFICATIONS

Model	HS 630 - 1250	HS 800 - 1400	HS 1000 - 1600	HS 1000 - 2000	HS 1600 - 2500
Coil weight with cable, (kg)	2500	3000	4000	5000	10000
Max. speed, (m/min)	120	120	120	120	120
Coil loading and unloading, (kW)	2 x 0.75	2 x 0.75	2 x 1.1	2 x 1.5	2 x 1.5
Passive pay-off machine tension type	Pneumatic and magnetic tension clutch / mechanical block				

TECHNICAL SPECIFICATIONS OF TAKE-UP MACHINE

Take-up power, (kW)	5.5	5.5	7.5	11	15
Layout, (kW)	1.5	1.5	1.5	3.75	5.5
Max. convergence pitch, (mm)	100 - 120				
Gearbox	worm-type				

CANTILEVER TYPE PAY-OFF/TAKE-UP MACHINE

Used as part of extrusion lines, taping and armored tape wrapping lines, cable rewinding and spooling lines.



TECHNICAL SPECIFICATIONS

Model	HS 500-630	HS 800-1000	HS 1000-1250	HS 1250-1600
Pay-off coil diameter, (min)	Ø500 - 630	Ø800 - 1000	Ø1000 - 1250	Ø1250 - 1600
Speed, (m/min)	300 - 700	250 - 700	250 - 700	100 - 350
Coil weight with cable, (kg)	650	1500	1800	3500
Power, (kW)	5.5 - 7.5	7.5 - 11	11 - 15	15 - 18.5
Coil loading and unloading, (kW)	2*0.5 electromechanic	2*0.75 electromechanic	hydraulics (station included)	
Passive pay-off machine tension type	Pneumatic and magnetic tension clutch			
Layout (take-up machine)	On smooth shaft, on the device	Ball screw		

DUAL CANTILEVER TYPE PAY-OFF/TAKE-UP MACHINE



Used as part of extrusion lines, taping and armored tape wrapping lines, cable rewinding and spooling lines.

TECHNICAL SPECIFICATIONS

Model	HS 500-630	HS 800-1000	HS 1000-1250	HS 1250-1600
Pay-off coil diameter, (min)	Ø500 - 630	Ø800 - 1000	Ø1000 - 1250	Ø1250 - 1600
Speed, (m/min)	300 - 700	250 - 700	250 - 700	100 - 350
Coil weight with cable, (kg)	650	1500	1800	3500
Power, (kW)	5.5 - 7.5	7.5 - 11	11 - 15	15 - 18.5
Coil loading and unloading, (kW)	2*0.5 electromechanic	2*0.75 electromechanic	hydraulics (station included)	
Passive pay-off machine tension type	Pneumatic and magnetic tension clutch			
Layout (take-up machine)	On smooth shaft, on the device	Ball screw		

DUAL ACTIVE QUILL TYPE PAY-OFF MACHINE



Used to recoil (unwind) the cable from the reels.
The workpiece recoil system maintains a constant tension through the compensator and motor, automatically synchronizes with production line and stops in case of breakage.

TECHNICAL SPECIFICATIONS

Model	HS - 500	HS - 630	HS - 800	HS - 1000	HS - 1250
Coil weight with cable, (kg)	550	650	650	650	650
Max. speed, (m/min)	up to 500		up to 350		up to 300
Workpiece diameter, (mm)	0.2 - 5	0.2 - 5	0.5 - 10	0.5 - 15	0.25 - 20
Coil loading and unloading, (kW)	0.5	0.5	0.5	0.75	0.75
Motor power, (kW)	4	5.5	5.5	7.5 - 11	
Synchronization	Control via compensator, PID controller				
Cable break function	Cable end sensors on the compensator				
Clip type	Quill (rod-screw) or pneumatic				
Tension type	Constant tension via pendulum (pneumatic) compensator				

SINGLE/DUAL TAKE-UP MACHINE

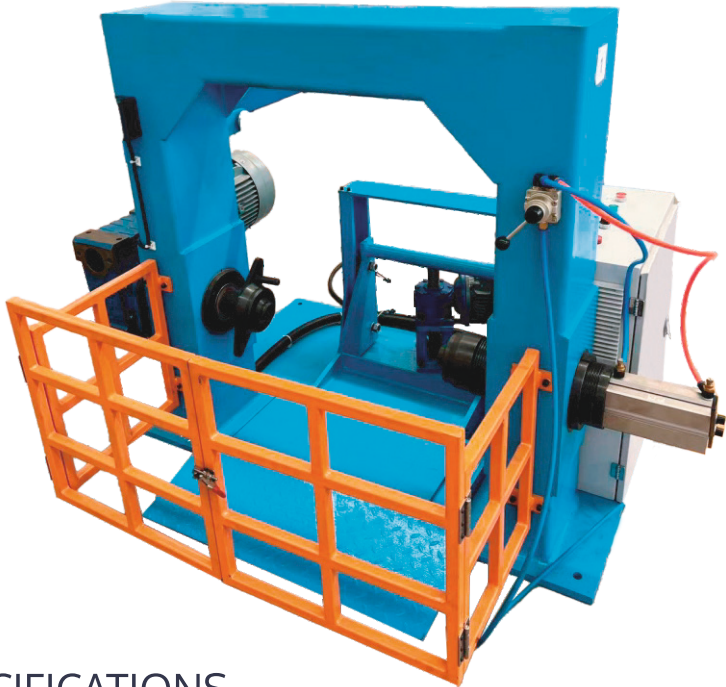


The machine with a traversing unit is suitable for using in high-speed lines, for winding cables on reels.
It does not require deeping in the foundation.

TECHNICAL SPECIFICATIONS

Model	HS - 630	HS - 1000	HS - 1250	HS - 1600
Coil diameter, (mm)	Ø500 - 630	Ø800 - 1000	Ø1000 - 1250	Ø1250 - 1600
Max. take-up speed, (m/min)	500	400	350	230
Max. coil weight, (kg)	650	1500	1800	3500
Coil loading and unloading, (kW)	0.5	0.75	1.1	1.5
Power, (kW)	5.5	7.5	11	15
Layout	smooth	worm-type/smooth	worm-type	worm-type
Clip type	Manual boom-screw or pneumatic (according to customer requirements)			
Override	Manual (only for dual machine)			

HIGH-SPEED ACTIVE PORTAL TYPE PAY-OFF/TAKE-UP MACHINE

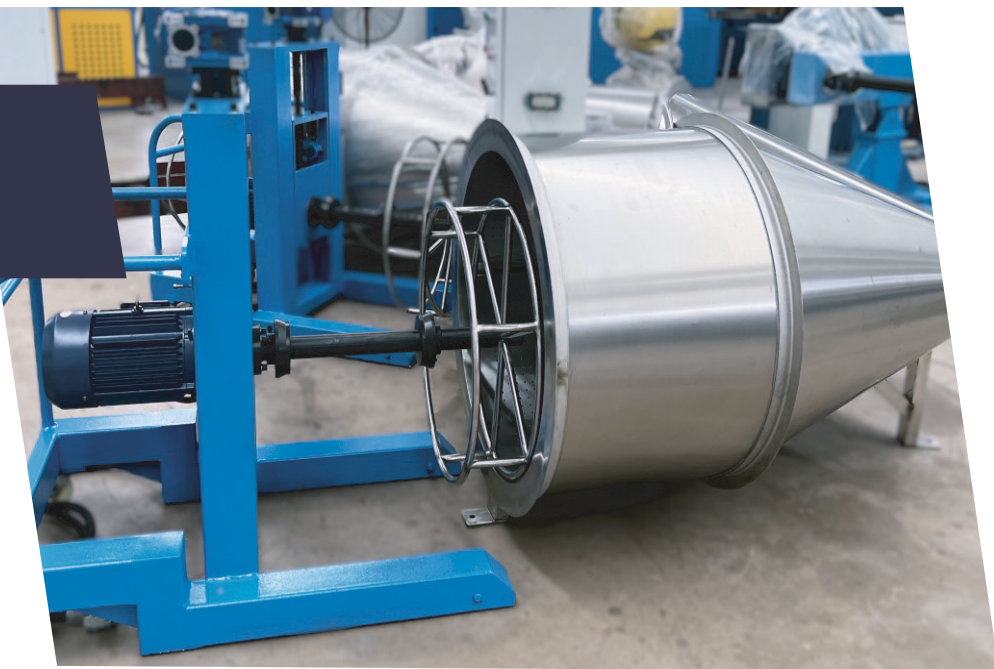
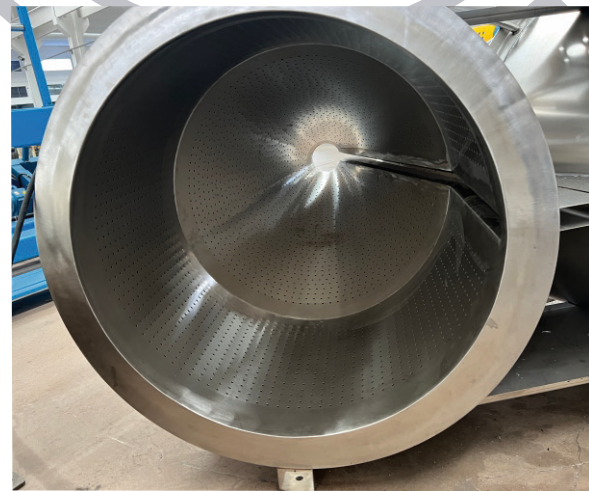


The workpiece recoil system maintains constant tension through the compensator and motor, automatically synchronizes with the production line, and stops in case of breakage.

TECHNICAL SPECIFICATIONS

Model	HS - 630	HS - 800	HS - 1000	HS - 1250
Coil weight with cable, (kg)	800	1000	1200	1200
Speed, (m/min)	500 - 1000			
Coil loading and unloading, (kW)	0.75			
Power, (kW)	7.5	7.5	11	11
Brake	Pneumatic, disc			
Cable break function	Cable end sensors on the compensator			
Synchronization	Control via compensator, PID controller			
Clip type	Quill (rod-screw) or pneumatic			
Passive pay-off tension type	Pneumatic and magnetic tension clutch			
Layout (take-up machine)	On a main smooth			

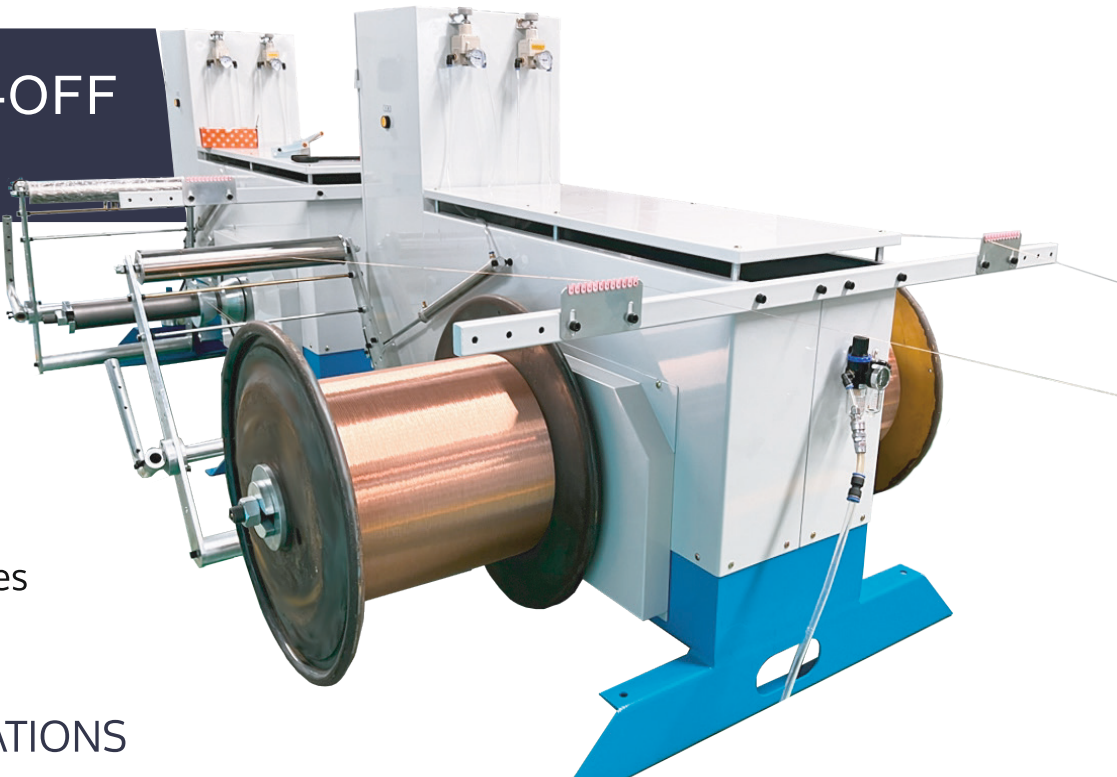
DUAL FLYER TYPE PAY-OFF MACHINE



Workpiece recoil as uninsulated and insulated monocoil and stranded coil.
The device is used as part of high-speed extrusion lines.
The features of the device include two-layer construction with effective sound insulation, which allows to reduce the noise by 50%.

Model	HS - 500	HS - 630	HS - 800	HS - 1000	HS - 1250
Pay-off coil, (mm)	Ø500	Ø630	Ø800	Ø1000	Ø1250
Max. speed, (m/min)	1200	1200	400 - 800		
Coil weight with cable, (kg)	550	650	800	1000	2000
Core diameter, Ø (mm)	0.4 - 4	0.6 - 5	1.6 - 6	3 - 10	
Tension type	Stand with rollers (magnetic clutch)				
Transfer system	Automatic transfer system from empty to full spool				

DUAL ACTIVE SHAFT TYPE PAY-OFF MACHINE



Using for recoil uninsulated and insulated cores from coils.

TECHNICAL SPECIFICATIONS

Модель	HS - 630	HS - 800
Workpiece diameter, (mm)	0.4 - 1.4	
Max. pay-off speed, (m/min)	Up to 250	
Quantity of pay-off shafts	2 - 4 shafts (double - quadruple)	
Fixation type	On the shaft, manual loading	
Coil width, (mm)	475	600
Fixation inlet, (mm)	125 - 127	
Coil weight with cable, (kg)	650	1200
Motor power, (kW)	1.8 - 2.2	2.2 - 4

ACTIVE PAY-OFF MACHINE (FOR LEA)

The device with compensator is suitable for the recoil of uninsulated cores (lea) at high speed.



TECHNICAL SPECIFICATIONS

Model	HS - 630	HS - 800
Workpiece diameter to pay-off, (mm)	0.4 - 1.4	0.6 - 5
Fixation inlet, (mm)	127	
Coil pay-off speed, (m/min)	250	
Dia. of bypass cylinder, (mm)	25	
Dia. of guide roller, (mm)	76	
Dia. of guide wheel, (mm)	80	
Frequency converter, (kW)	3	5.5
Inverter motor, (kW)	3	5.5
Fixation type	Pneumatic cylinder	
Lifting mechanism	Platform, driven by 2 pneumatic cylinders	

NOTES

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