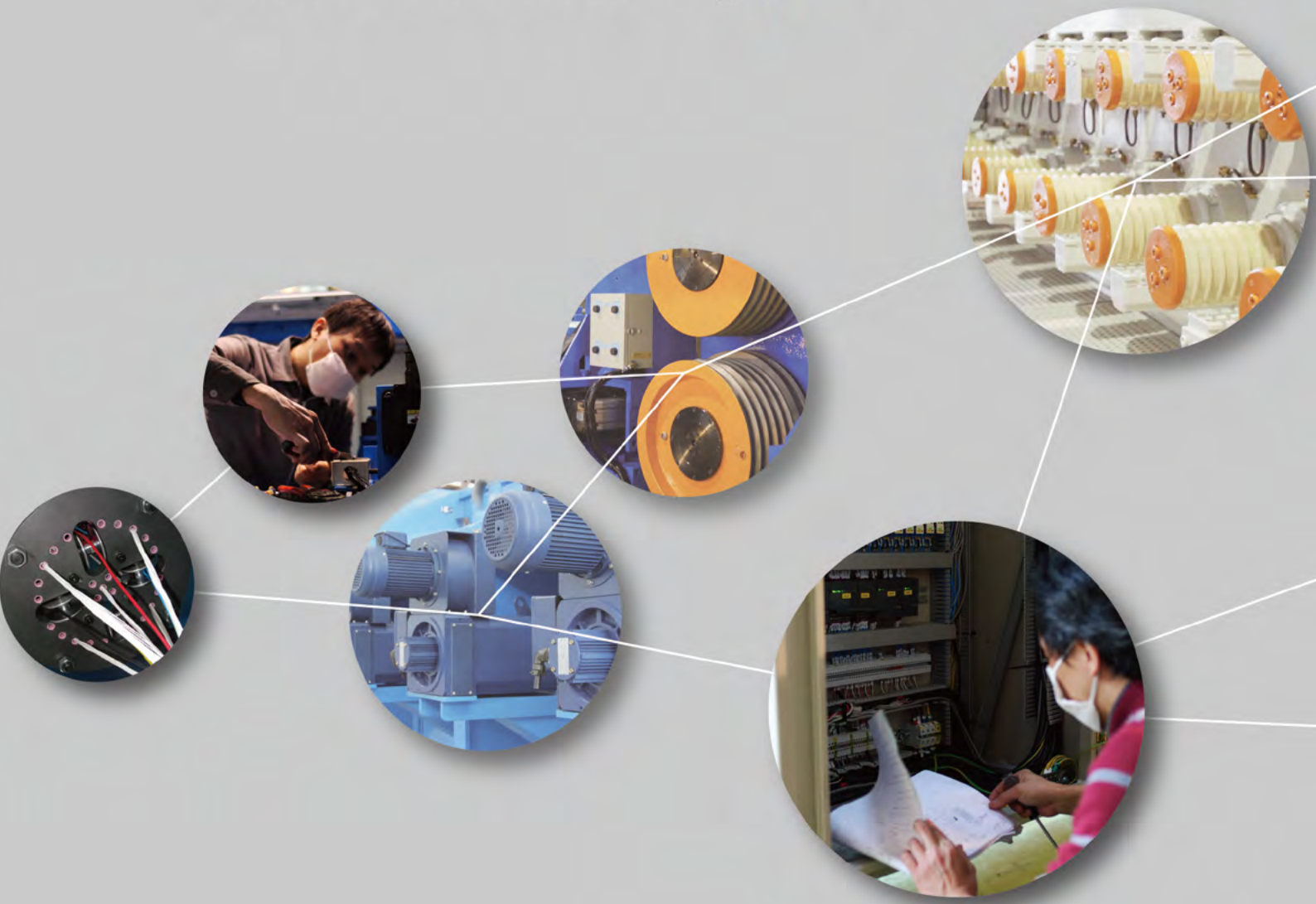




Wire & Cable Machinery

2020 English / 中文



Pioneer Machinery Co.Ltd., founded in 1973, is a professional manufacturing company for electric wire and cable machinery based in Taipei. After 4 decades focus on a strong research and development, Pioneer has become a world wide supplier offering the most advanced technology, and best quality machinery at a very competitive price. Nowadays Pioneer is the largest wire and cable machinery manufacturer in Taiwan.

To adapt to the world wide market, Pioneer started to upgrade and built up as a world class company along the last 10 years. While other world first class machinery suppliers focus their efforts on making the best machines in the world, Pioneer has set up its own goal: **MAKE THE MACHINES BEST FOR CLIENTS.**

- DESIGN machines easy to both operate and maintain.
- MAKE excellent machines at a most competitive price.
- OFFER a complete range of machines to fit customer's needs.
- HOLD strong organization dedicated to innovation.
- CUSTOMIZED information for each customer.
- PROVIDE an instant after service department.

Nowadays, the reputation that give us our more than 400 customers in more than 60 countries around the world, you can rely upon Pioneer to consult, customized, design and supply your wire and cable machinery.



先锋机械股份有限公司1973年成立于台湾,专业生产最先进的线缆制造整厂设备,不但机器款式最新,设计精良,机器的重要元件都是采用世界一流的品种,并配备全自动化和人性化的计算机数字操控系统。

先锋公司拥有40年的PIONEER专业品牌,以创新不断寻求超越,始终与欧美一流产品互相接轨同步发展,更重要是先锋公司的产品物美价廉,和欧美同业产品作性价比占有绝对的优势,PIONEER品牌已成功地被广大线缆制造业界列为最优先的选择之一。

先锋公司于2002年,在中国西部精密机械重镇四川省德阳市投资创建四川先锋科技有限公司,满足中国内地和邻近国家线缆业客户的需求。由于公司业务迅速发展,市场急速扩大,2007年再于中国江苏省昆山市投资设立昆山先锋新技机械有限公司,扩大生产能力,并且在2012年在西班牙成立研发中心,大幅加速新产品的研发,及满足客户对生产设备大步升级的需求。

今天,先锋公司的产品已广销全球五大洲60个国家400多个客户,并和许多国际知名的线缆设备供货商建立了产销伙伴关系,通过这些国际知名的线缆设备供货商委托先锋公司制造和供应他们部分设备,达到了技术交流和扩充国际市场的双赢目标。同时,先锋公司为能满足全球客户需求更多的产品信息和最迅速方便的售后服务,我们在美国、德国、西班牙、印尼、土耳其、伊朗分别设有销售,技术支援,和售后服务据点,当然我们还会持续不断的扩充海外据点,我们始终以客户满意作为我们最大的努力目标,让PIONEER品牌成为广大客户的最佳选择。

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LEGEND

- Manufacturing Plants
- Sales Offices
- Sales Agents
- Lines Installed

LINES INSTALLED

ASIA

- | | |
|----------------|-----------------|
| 1. Bangladesh | 10. Pakistan |
| 2. China | 11. Philippines |
| 3. India | 12. Singapore |
| 4. Indonesia | 13. Sri Lanka |
| 5. Japan | 14. South Korea |
| 6. North Korea | 15. Taiwan |
| 7. Laos | 16. Thailand |
| 8. Malaysia | 17. Vietnam |
| 9. Myanmar | |

MIDDLE EAST

- | | |
|------------------|------------|
| 18. Egypt | 26. Turkey |
| 19. Iran | 27. U.A.E |
| 20. Irak | 28. Yemen |
| 21. Jordan | |
| 22. Lebanon | |
| 23. Qatar | |
| 24. Saudi Arabia | |
| 25. Syria | |

EUROPE

- | | |
|-------------|-------------|
| 29. Austria | 37. Spain |
| 30. Belarus | 38. Sweden |
| 31. France | 39. Turkey |
| 32. Germany | 40. Ukraine |
| 33. Greece | |
| 34. Hungary | |
| 35. Italy | |
| 36. Russia | |

AMERICA

- | | |
|-----------------|-----------------------|
| 41. Argentina | 50. Peru |
| 42. Brazil | 51. Trinidad & Tobago |
| 43. Canada | 52. U.S.A |
| 44. Chile | 53. Venezuela |
| 45. Colombia | |
| 46. Costa Rica | |
| 47. Ecuador | |
| 48. El Salvador | |
| 49. Mexico | |

AFRICA

- | | |
|-----------------|------------------|
| 54. Algeria | 62. South Africa |
| 55. Ghana | 63. Sudan |
| 56. Ivory Coast | 64. Tunisia |
| 57. Kenia | 65. Zambia |
| 58. Mauritius | |
| 59. Morocco | |
| 60. Nigeria | |
| 61. Senegal | |

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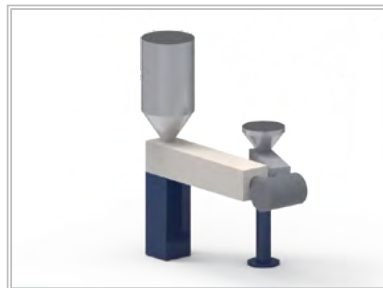
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Standard Configurations for Extruders

挤出机的标准配置



Single Layer / 单层挤出



Double Layer / 双层挤出



Triple Layer / 三层挤出



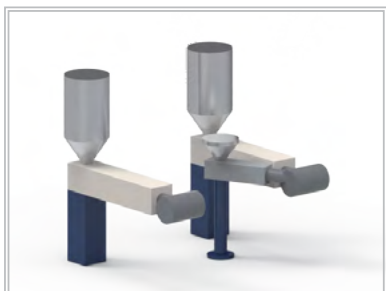
1 Layer + Color Stripping/Skinning
单层挤出+色条/色环



2+1 Layer THHN PVC+Nylon
2层 THHN PVC挤出+1层尼龙挤出



1 Layer + Color Stripping/Skinning
+ Quick Color Change
单层挤出+色条/色环+快速换色系统



Horizontal 1+2 Layers XLPE
水平式1+2层XLPE挤出

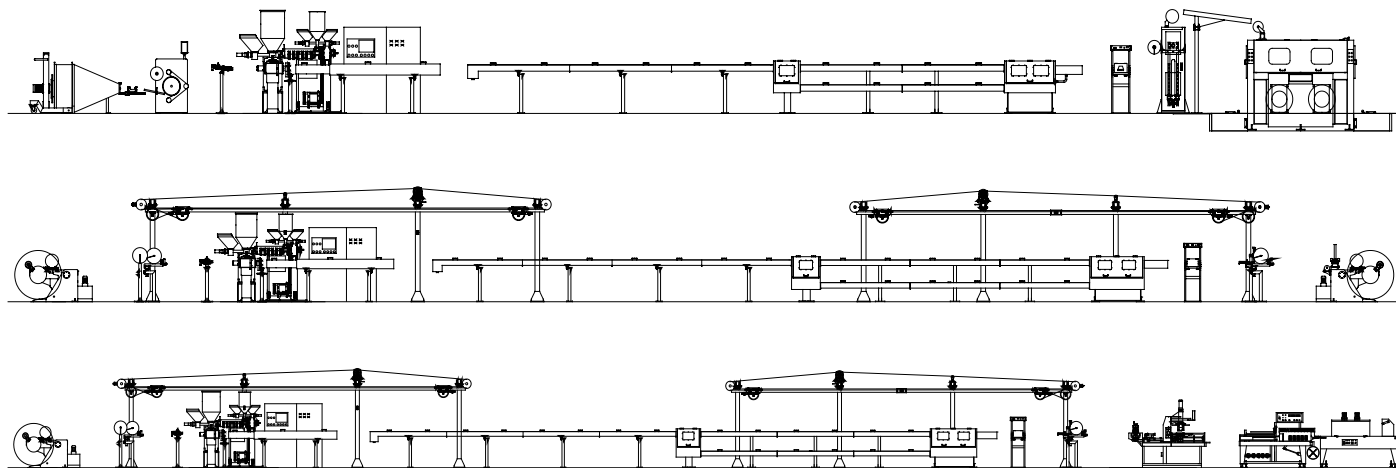


Tandem 2 Layers
2层串联式挤出

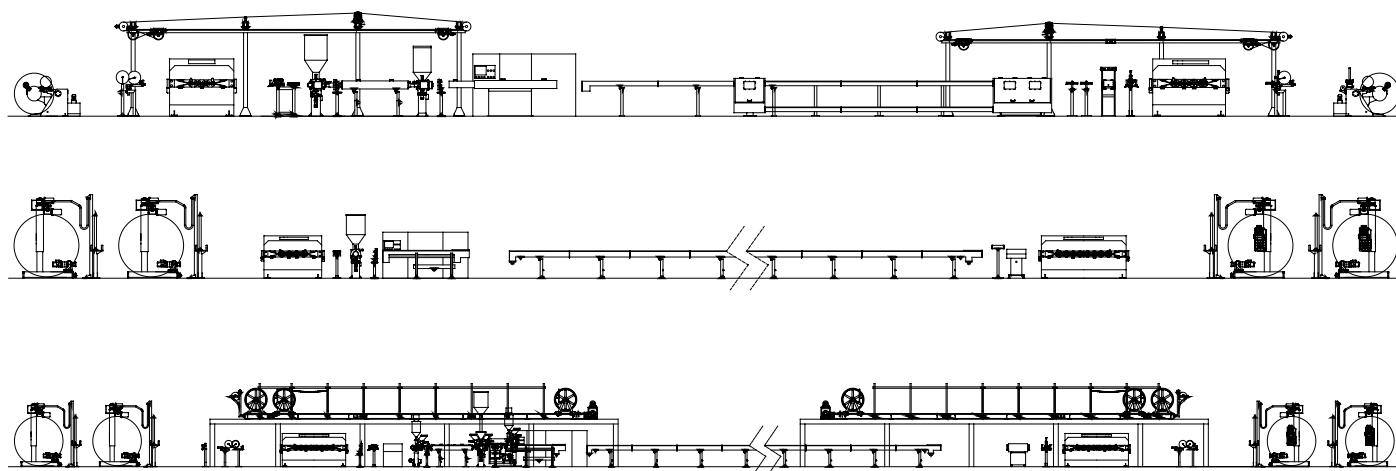
Standard Configurations for Extrusion Lines

挤出生产线的标准配置

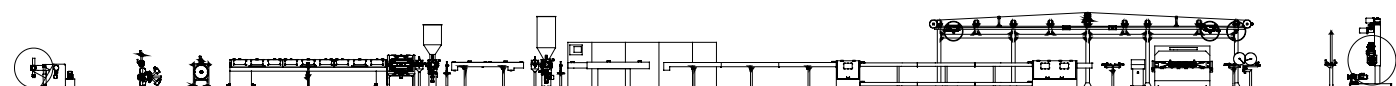
Wire Insulating Lines / 电线绝缘挤出生产线



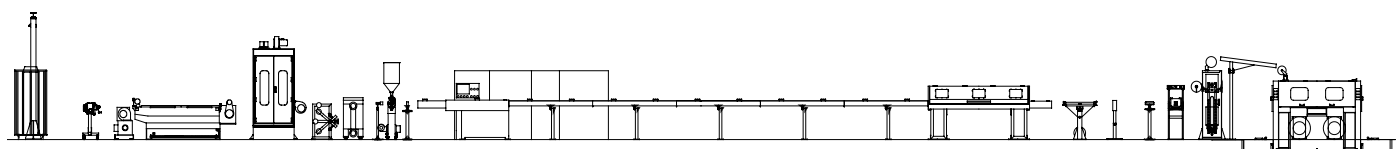
Cable Insulating- Sheathing Lines / 电缆绝缘/护套机生产线



Sheathing Line with SZ Stranding / SZ绞串联绝缘生产线



Tandem Drawing - Insulating Line for telephone cables / 电话线拉丝/绝缘串联生产线



Pioneer Extruder Series / 先锋挤出机系列



EN

- Extruders for electric wire insulation, sheathing, stripping and skinning with single, double or triple extrusion layers available by using different cross heads.
- PVC, LDPE, extrusion materials are shared with one BM type system. Our advanced design of screw gives largest output when using PVC or LDPE material.
- The extruder can work with LSHF, NYLON and TPU as well by using a different screw design.
- Machine also available for TEFLON extrusion by using a special screw, cylinder, cross head, heaters and temperature control system.



PVC / LDPE							
Model	Screw Ø	L/D Ratio	Control Zone	Motor Power	Max.Output	Screw Speed	Screw Torque
EB 50	50	26	3	22	110	150	2.43
EB 60	60	26	3	30	170	150	3.42
EB 75	75	26	4	55	270	140	5.04
EB 90	90	26	5	65	380	120	8.40
EB 100	100	26	5	75	450	120	9.54
EB 120	120	25	6	130	650	90	20.34
EB 150	150	25	6	225	1000	80	24
EB 180	180	24	-	280	1250	70	32
Modelo	[mm]	[-]	[num.]	[kW]	[kg/h]	[rpm]	[kNm]

Remark: Upon request short barrel design extruders and screws to work with silicone.



中文

- 本机专供电线电缆各种塑料绝缘,外被,色条及色皮挤出.可选用不同形式的机头做塑料单层/2层/3层连续挤出
- PVC和LDPE可共用一支BM型双牙螺杆.先进的螺杆设计可以使PVC和LDPE材料有更高的出胶量
- LSHF,NYLON和TPU等需选用不同设计的专用螺杆
- 本挤出机亦备有特殊设计的螺杆/螺缸/机头/电热和温控系统作TEFLON特殊材料挤出



MDPE / HDPE / XLPE				LSHF			
Motor Power	Max. Output	Screw Speed	Screw Torque	Motor Power	Max. Output	Screw Speed	Screw Torque
30	66	100	3.42	30	75	90	3.42
37	90	100	3.87	37	113	90	3.87
60	165	100	5.76	60	138	75	5.76
75	195	80	9.54	75	163	70	9.54
110	270	80	13.75	110	225	70	13.75
150	450	70	23.49	150	375	60	23.49
225	675	60	27.47	225	563	55	27.47
280	855	50	41	280	684	50	41
[kW]	[kg/h]	[rpm]	[kNm]	[kW]	[kg/h]	[rpm]	[kNm]

备注: 可以根据要求设计生产适用于硅树脂的挤出机

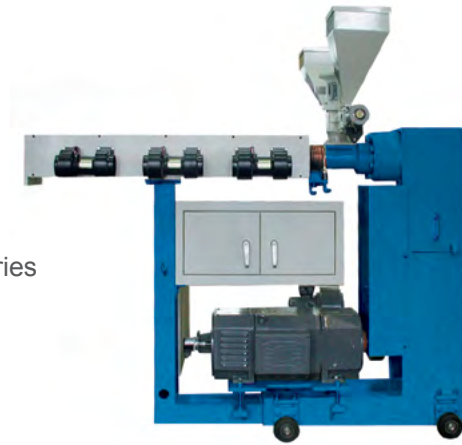
Color Skin / Stripe Co-Extruders

色皮 / 色条挤出机

W-series



H-series



EN

- Horizontal and vertical compact type universal injection joint combined with main extruder's cross head for PVC color stripping or PVC, LDPE, NYLON skin sheathing
- Can also be used as a sub-extruder for multi-layer extrusions.

中文

- 横式和立式挤出机,机身和电控为一体式,多向型注料头和主挤出机机头衔接,供作电线PVC色条或PVC,LDPE,NYLON色皮挤出
- 也可作为多层塑料连续挤出之副挤出机



Co-Extruders for color skin / stripe



V-series

Model	Screw Ø	L/D Ratio	Screw Speed	Max.Output Capacity				M.Power**	Stand Motion Directions		
				PVC	PE	LSHF	Cable Ø		Up/Down	Angle adj.	Fwd/Rev
ES 32V	32	24	120	20	14	-	10	4	Manual	Oscillate	-
ES 40W	40	24	120	50	35	-	20	7.5	Electric	Oscillate	Free
ES 50H	50	26	140	100	60	70*	30	22	-	Oscillate	Free
ES 60H	60	26	140	160	100	120*	45	30	-	Oscillate	Free
ES 75H	75	26	140	250	150	180*	60	37	-	-	Free
Modelo	[mm]	[-]	[rpm]	[kg/h]	[kg/h]	[kg/h]	[mm]	[kW]	[-]	[-]	[-]

Remark*: Real LSHF output may vary depending on compound type/condition

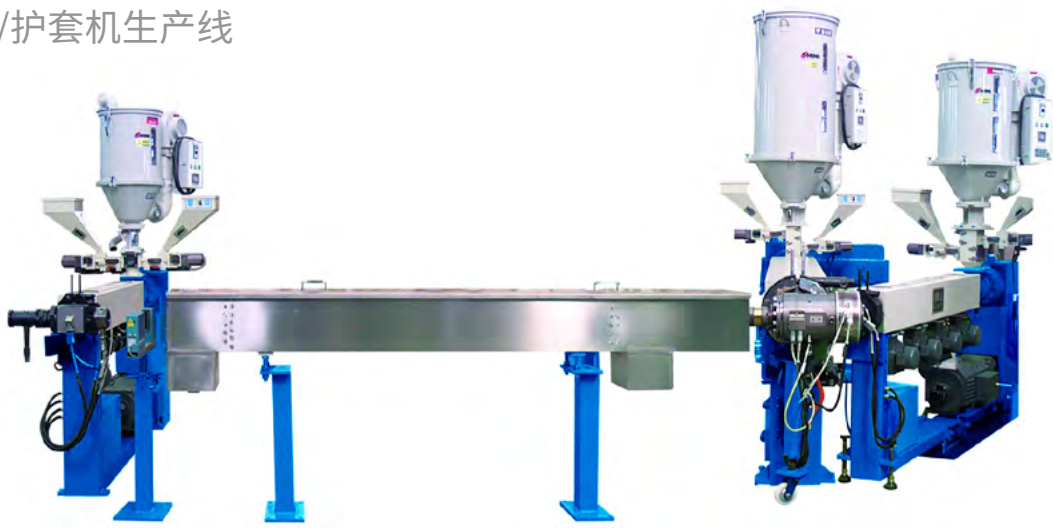
***: The motor powers shown on this table are referred for PVC compound.

备注*: 实际LSHF输出可能会因混合物类型/条件而异

***: 表格中的电机功率只适用于PVC料

Cable Insulation / Sheathing Lines

电缆绝缘/护套机生产线

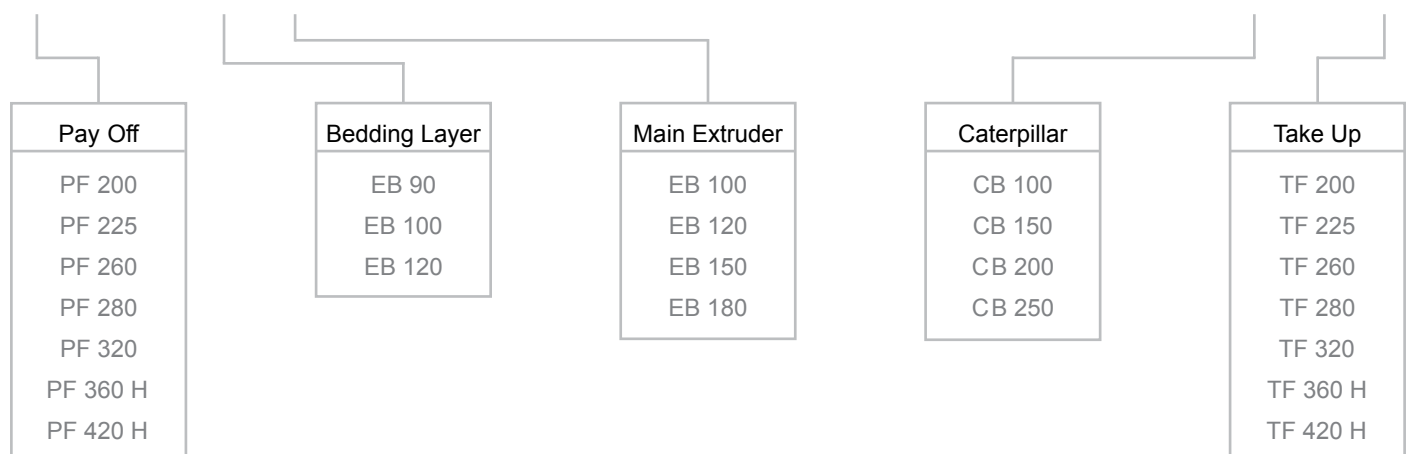
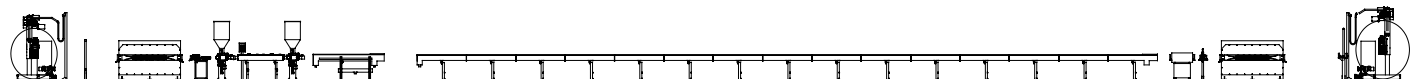


EN

- Power cable, electric cable and telephone cable insulation/sheathing line for several thermoplastic compounds such as PVC, PE, XLPE and LSHF.
- Optionally the line can be equipped with a tandem extruder for bedding & sheathing purposes.
- The line is completed with single or dual floor traversing pay off/take up, single pass cooling trough and haul off caterpillar.
- For larger cable the line can be optionally supplied with an additional inlet haul off caterpillar.
- Optionally the extruder can be equipped with a co-extruder (32-40-50-60 mm) for color skinning.

中文

- 本机用于电力电缆,电线和电话线PVC,PE,XLPE和LSHF绝缘护套挤出
- 选用串联押出的方式做内层和外被一次挤出
- 生产线配置地排式单收单放或者双收双方,单层冷却水槽和履带式牵引机
- 生产大线时还可以在放线架后面增加一台辅助履带牵引机
- 主机可以选配副挤出机 (32-40-50-60 mm) 用于色皮挤出



Model / 型号	EK-100	EK-120	EK-150	EK-180
Cross Section / 横断面 [mm ²]	10 - 240	25 - 630	50 - 800	120 - 1000
Finished Ø / 完成外径Ø [mm ²]	45	80	100	140
Max. Line Speed / 最大横截面 [m/min]	180	150	60	45

Building Wires Insulation Lines

建筑电缆生产线

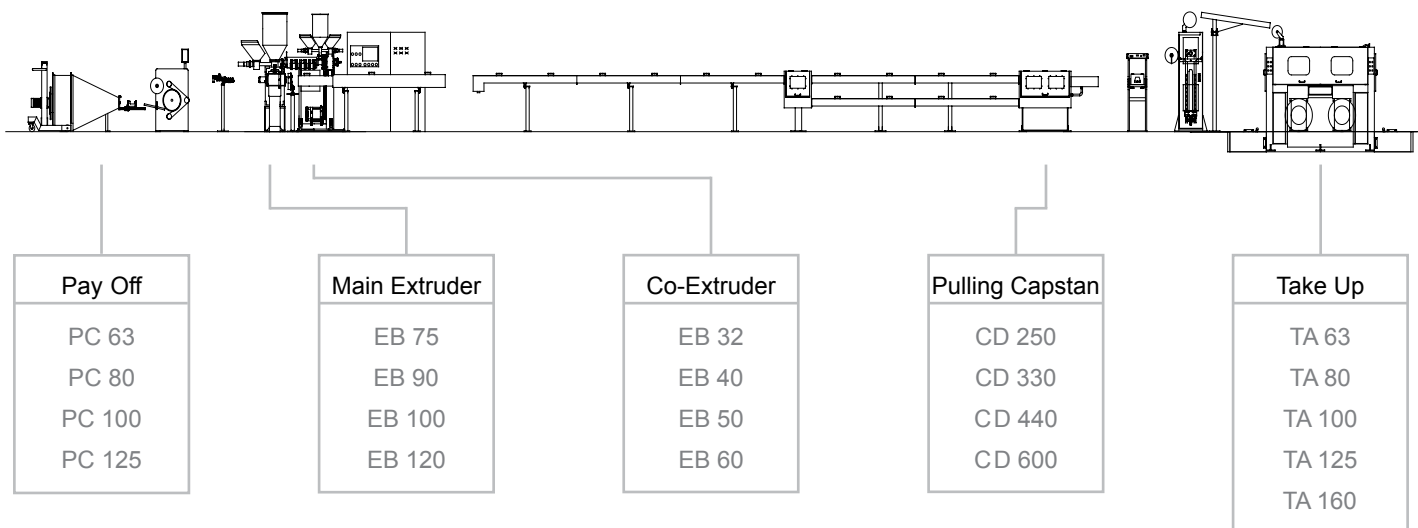


EN

- Building Wires insulation lines suitable for several thermoplastic compounds such as PVC, PE, XLPE and LSHF.
- Optionally the insulation line can be equipped with a co-extruder for color skinning & stripping purposes.
- Our range is completed with THHN insulation lines by including a tandem extruder for PA (Nylon) outer jacketing.

High Speed Building Wires Insulation Line [1.5 mm² - 16 mm²]

高速建筑电缆生产线 [1.5 mm² - 16 mm²]



Remark: This line configuration can be also used for sheathing of 2/3/4 cores of smaller sizes of building wires.

Model / 型号	EH-75	EH-90	EH-100	EH-120
Cross Section / 横断面 [mm ²]	1.5-6	1.5-10	1.5-16	1.5-16
Finished Ø / 完成外径Ø [mm ²]	6	8	10	14
Max. Line Speed / 最大横截面 [m/min]	600	800	900	1200



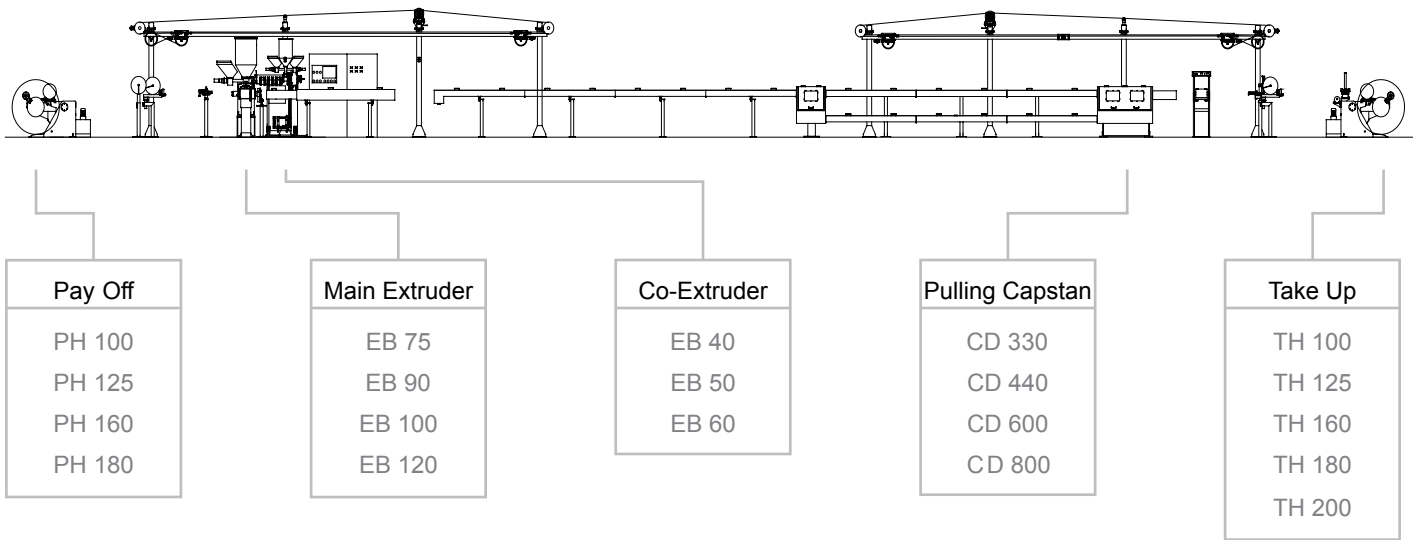
Color Dosing Units Detail

中文

- 本机用于建筑电线PVC,PE,XLPE和LSHF绝缘挤出
- 选配副挤出机用于电缆外被色条和色环挤出
- 生产线可完成THHN绝缘线包括串联挤出机配套,用于PA(尼龙)护套挤出

Low Voltages Cable Insulation Line [16 mm² - 240 mm²]

低压电缆生产线 [16 mm² - 240 mm²]

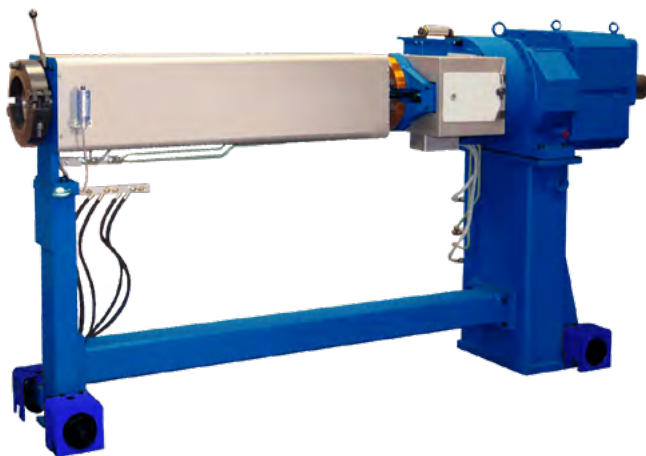


备注: 本生产线也适用于2/3/4芯的小规格的建筑电线的护套挤出

Model / 型号	EW-90	EW-100	EW-120	EW-150
Cross Section / 横断面 [mm ²]	10-50	10-70	16-150	25-240
Finished Ø / 完成外径Ø [mm ²]	15	20	25	30
Max. Line Speed / 最大横截面 [m/min]	100	150	250	350

Silicone Rubber Extrusion Lines

硅橡胶挤出生产线



EN

- Silicone rubber cables offer excellent properties against fire protection demands, can be used on many different applications requesting extreme environments and temperature ranges between -55°C and up to 260°C without losing any one of their physical properties.
- Silicone rubber cables are flame resistance and low smoke.
- Pioneer produces the whole range of extrusion lines for silicone cables equipped with a combination of infrared and hot air tunnel curing ovens that keeps the cable clean allowing to be used on medical equipment.
- Prepared with feeding rolls design
- Short screw length (L/D) ratio (12D) optimized for processing silicone rubbers.
- Water cooling with temperature regulation on barrel zones and screw.
- Self centering water cooling cross-heads with thermo regulation
- Production varies as a function of the different densities available on the market

中文

- 硅橡胶电缆能够提供很好的防火性能,能够用于很多不同的极端环境,温度范围在-55°C 到 260°C
- 在所有的的大气环境下,橡胶电缆都不会失去它的任何物理特性,保持它的柔韧度,撕裂强度,导热性,持久性和高耐压
- 硅橡胶电缆具有耐燃性和低烟性
- 先锋为硅胶电缆生产一系列挤出机配备红外和热空气隧道养护烤箱
- 喂料导轮设计
- 短螺杆的长径比 (L/D=12)优化处理硅橡胶
- 在螺杆和螺筒区域用水冷却调节温度
- 水冷式机头和温控系统
- 生产不同市场上可用的不同密度的材料
- 生产这种类型的隧道使电缆清洁允许医疗设备上使用
- 硅胶生产线能够绝缘单芯导体,无论有无色条,也能够保护线缆用股芯
- 先锋能够提供大量的辅助设备来满足客户的要求

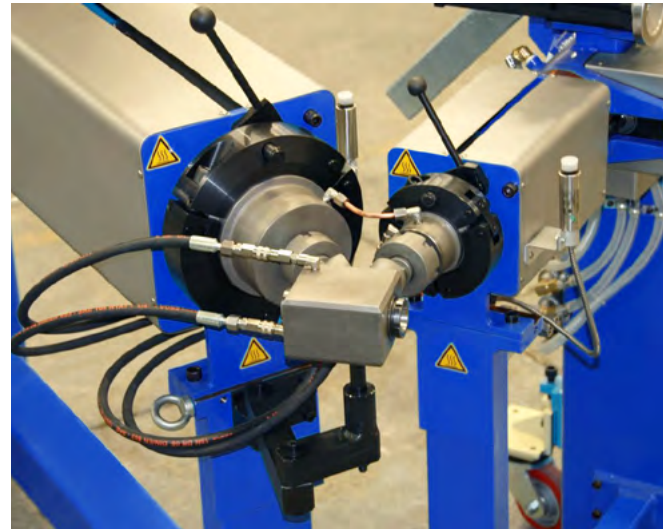
Model	Control Zone	L/D	Output	Screw speed	Motor
EBS 40	2	12	25-40	80	11
EBS 60	2	12	120-160	80	22
EBS 90	2	12	280-350	80	60
EBS 120	2	12	400-650	80	110
EBS 150	3	12	750-1000	80	175
	[Units]	[Ratio]	[rpm]	k [kg/h]	[Kw]

Temperature Range	- 55 °C up to 260 °C
Infrared Tunnel Length	About 4 m lenght
Tunnel's Temperature	400 °C
Hot air Tunnel Lenght	About 12m Multi-passage
Air's Temperature	250 to 300 °C
Water Cooling Trough	Length adjustable

Rubber Extrusion Lines

橡胶挤出生产线

Model	Control zone	L/D	Output	Screw speed	Motor
EBR 40	2	17	68	100	22
EBR 60	2	17	125	90	45
EBR 75	2	17	170	80	65
EBR 90	2	17	255	75	90
EBR 120	3	17	480	60	150
EBR 150	3	17	650	50	175
	[Units]	[Ratio]	k [kg/h]	[rpm]	[Kw]



EN

- Rubber cables offer very good electrical and mechanical properties, with an excellent resistance to abrasion, tear resistance, high temperatures, oil and chemical atmospheres.
- Have a big variety of applications either in low voltage as well as medium voltage.
- All of them are manufactured in Class 5 or Class 6 in order to guarantee a great flexibility.
- Cured on steam atmospheres at pressures about 25 bars and temperatures up to 225°C
- Can be designed to extrude up to three layers in one single operation according the cable design between 0,75 sqmm and 630 sqmm, single core of multicore.
- Equipped with feeding rolls for rubber strips or/and pellets.
- Screw design (L/D) ratio (17D) optimized for processing rubber compounds.
- Water cooling with temperature regulation on barrel zones and screw.
- Self centering water cooling cross-heads with thermo regulation.
- Equipping hydraulic telescopic splice box to connect to the die head.
- Stainless steel seamless pipe about 120 m long (Catenary type).
- Rubber extrusion lines can be offered for insulating single cores conductors with EPR (Ethylene Propylene Rubber), with or without stripe color, or for sheathing cables with stranded cores using CPE (Rubber based with Chlorinated polyethylene) or a flame retardant low smoke compound EVA (Ethylene Vinyl Acetate)

中文

- 橡胶电缆具有良好的电气,机械特性,提供优异的抗磨损,耐高温,抗油,抗大气化学等特点
- 广范围的应用于低压,中压电缆
- 依据Class 5及Class 6的制造标准,确保电缆有良好柔软性
- 于25bar高压,225°C高温蒸气下进行交连制程
- 0.75 sqmm~630 sqmm 单芯,多芯电缆皆可合并三层挤出制程于单一机头
- 进料入口安装进料辊轮,供填入橡胶原料条,亦可接收粒状原料
- 螺旋设计长径比 17 (L/D), 针对橡胶挤出最佳化设计
- 螺缸与螺旋采水冷设计, 由外部模温机精密控温
- 免对眼自动中心水冷机头
- 油压式伸缩防尘箱
- 120m长悬垂不锈钢无缝管
- 橡胶挤出机可以提供作单芯导体EPR单色或带色条绝缘 (Ethylene Propylene Rubber), 或是提供作 CPE (Rubber Based with Chlorinated Polyethylene) 或是低烟阻燃材料 EVA (Ethylene Vinyl Acetate) 外护套挤出

Rod Breakdown Machine for Copper or Aluminum

铜线/铝线大拉机

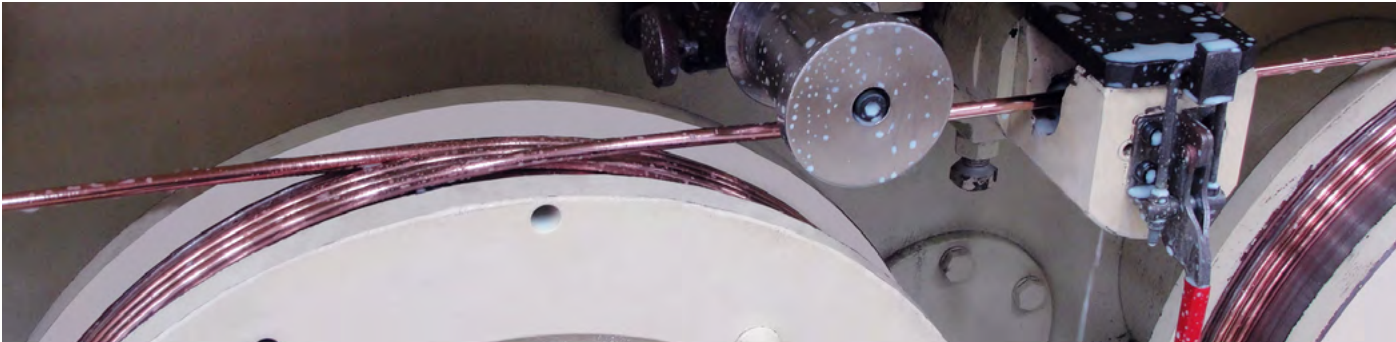


EN

- Rod breakdown machine for copper or aluminum.
- Single step capstans having each one its own drawing die.
- Exchangeable long life tungsten carbide drawing rings.
- Finishing capstan independently driven by AC servo motor, except for model DA-9.
- HMI+PLC control system for drawing speed synchronization and die schedule auto arrangement.
- Optionally supplied with all necessary accessories.

中文

- 铜线/铝线大拉机
- 每个伸线轮前配置一个拉丝眼模。
- 可更换式长寿命表面喷钨钢拉丝鼓轮
- 完成牵引轮由独立AC感应伺服马达驱动, DA-9模拉丝机除外
- HMI+PLC 控制系统控制线速度同步,并自动计算拉线滑差率和自动眼模配列
- 可以提够所有的周边辅机供选购



Model / 型号	DA-9	DA-11	DA-11	DA-13	DA-13
Material / 材质	Cu	Al	Cu	Al	Cu
No. of drafts / 拉伸道次	9	11	11	13	13
Capstans Ø / 牵引轮Ø [mm]	450	450	450	450	450
Inlet wire Ø / 入线径Ø [mm]	8.0	9.5	8.0	9.5	8.0
Finished wire Ø / 完成外径Ø [mm]	2.2-4.7	2.0-5.0	1.8-4.2	1.6-4.6	1.35-4.0
Max. Speed / 最大横截面 [m/min]	1200	1500	1500	1800	1800
Machine area reduction / 机械减面率 [%]	19.5-24	19.5-24	19.5-24	19.5-24	19.5-24
Main motor power / 主马达功率 [kW]	250 DC	250 DC	250 DC	285 DC	285 DC
Capstan motor power / 牵引电机功率 [kW]	-	55	55/75	55	55/75
Production capacity / 生产能力 [kg/h]	2800 (2.6mm wire at 1000 m/min)	1000 (2.6mm wire at 1200 m/min)	3200 (2.6mm wire at 1200 m/min)	1000 (2.6mm wire at 1200 m/min)	3200 (2.6mm wire at 1200 m/min)

Remark: Multimotores available upon customer's request.

备注: 有分电机型拉丝机供客户选择

Medium Copper Wire Drawing Machine

铜线中拉机

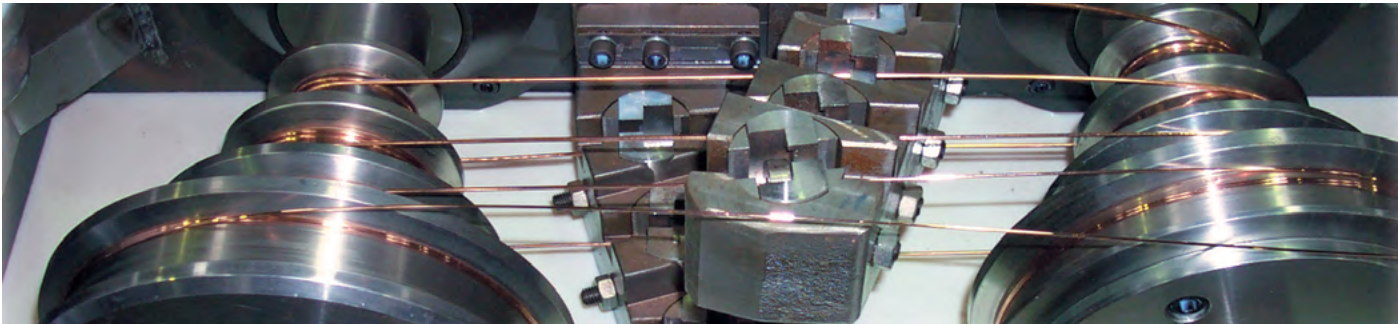


EN

- Medium copper wire drawing machine.
- 4 multi-step capstans having each one its own drawing ring.
- Exchangeable long life tungsten carbide drawing rings.
- HMI+PLC control system for drawing speed synchronization and die schedule auto arrangement.
- Optionally supplied with all necessary accessories such as pointing and stringing device, filters, etc.

中文

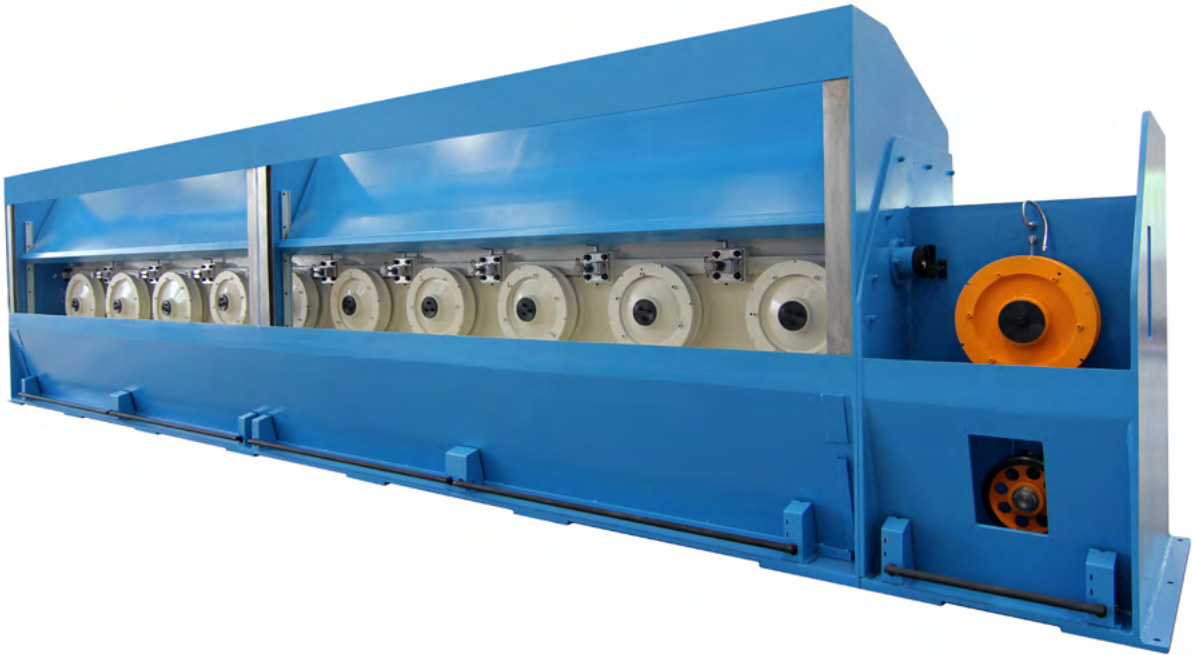
- 铜线中拉机
- 4组多层式伸线轮
- 可更换式长寿命表面喷钨钢拉丝鼓轮
- HMI+PLC 控制系统控制线速度同步,并自动计算拉线滑差率和自动眼模配列
- 可以提供所有的周边辅机供选购,如压头机,过滤装置 等



Model / 型号	DB-9	DB-13	DB-17
Material / 材质	Cu	Cu	Cu
No. of drafts / 拉伸道次	9/(4x2)+1	13/(4x3)+1	17/(4x4)+1
Capstans Ø / 牵引轮Ø [mm]	166+250	110+166+250	73+110+166+250
Inlet wire Ø / 入线径Ø [mm]	2.0 - 3.2	2.0 - 3.2	2.4 - 3.2
Finished wire Ø / 完成外径Ø [mm]	0.8 - 2.0	0.6 - 1.8	0.35 - 1.6
Max. Speed / 最大横截面 [m/min]	1200	1500	1800
Machine area reduction / 机械减面率 [%]	18.5	18.5	18.5
Main motor power / 主马达功率 [kW]	45/55 AC	45/55 AC	45/55 AC
Production capacity / 生产能力 [kg/h]	400 (1 mm wire at 1000 m/min)	500(1 mm wire at 1200 m/min)	500 (1 mm wire at 1200 m/min)

Multimotor Rod Breakdown Machine

独立马达铜 / 铝 / 铝合金线大拉机



EN

- Horizontal slip type multimotor rod breakdown machine to draw copper rods of 8.0 mm diameter or to draw aluminum and aluminum alloy rods of 9.5 mm diameter
- Can draw copper wire down to 1.7 mm, aluminum alloy down to 2.6 mm and aluminum down to 2 mm
- Can be spooled by single take up, double take up with auto bobbin change and / or basket down coiler
- Designed with single step capstans having each one its own drawing die and driven individually by precise AC servo motors
- Freedom of die arrangement, higher efficiency and minimize the waste from very low slip rate
- Equipped with easily exchangeable long life tungsten carbide drawing rings, centralized oil cooling system for all planetary gear-reducers, last drawing die motorized independently
- Provided with PLC+HMI control system for drawing speed synchronization and die schedule auto-arrangement

Model / 型号	DAM - 11
Number of dies & capstans / 眼模和牵引轮数量	11
Capstan diameter / 牵引轮Ø [mm]	560 (capstan 1-3) / 450 (capstan 4-11)
Inlet wire diameter / 入线径Ø [mm]	8.0
Finished wire diameter / 完成外径Ø [mm]	1.7 - 4.5
Line speed / 线速度 [m/s]	34
Production capacity / 生产能力 [kg/h]	1800 kg/h for 1.7 mm wire
Machine area reduction / 机械减面率 [%]	18 - 32.5
Driving motors per capstan/牵引轮马达 [kW]	30 - 45
Finishing capstan motor power / 完成牵引轮电机功率 [kW]	75 kW AC servo



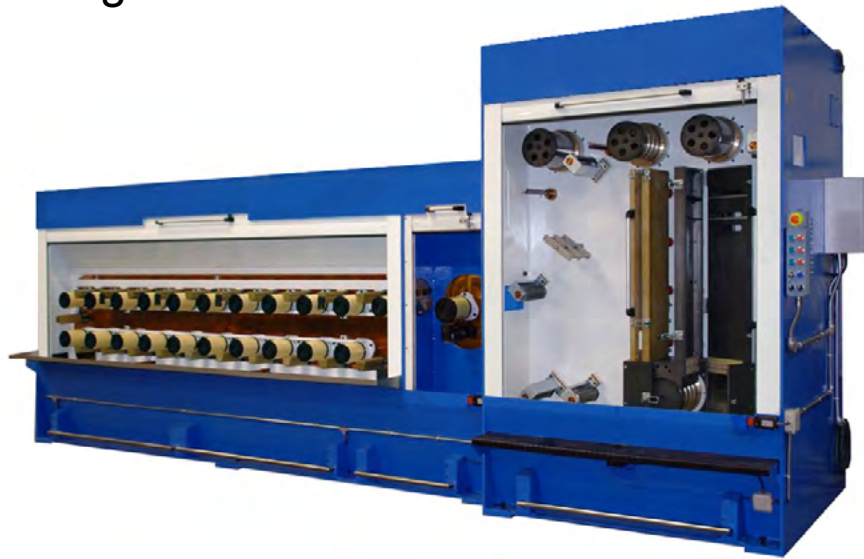
中文

- 独立马达水平湿式大拉机适用于铜、铝、铝合金伸线作业, 可以配合单盘收线机、自动换盘双盘收线机或连续落线架使用
- 本机将各伸线轮以独立马达传动, 自由搭配眼模。制程低滑差、低磨损、高效率
- 碳化钨钢拉丝环寿命长, 易更换
- 轴承, 减速机采中央润滑系统
- 完成引取单马达传动
- 眼模快速更换设计, PLC 自动计算转速, 滑差与扭力输出作为换模参考, 并且精密同步控制各马达, 使滑差保持在极微小状态降低磨损, 提高产品质量与生产效率

DAM - 13	DAM - 15
13	15
560 (capstan 1-3) / 450 (capstan 4-13)	560 (capstan 1-3) / 450 (capstan 4-15)
8	8
1.35 - 4.5	1.0 - 4.5
34	35
1250 kg/h for 1.35 mm wire	760 kg/h for 1.04 mm wire
18 - 32.5	18 - 32.5
30 - 45	30 - 45
75 kW AC servo	75 kW AC servo

Multiwire Drawing Machine

多头拉丝机



EN

- Designed to produce high flexible cables on class 5 or class 6, for battery cables, automotive or building cables, and can be supplied with a wide range of configurations to fit the customer's requirements.
- The transmission system from the main driving motor to the several drawing rings, is made by using timing belts except the last drawing ring which is independently driven with the same motor that drives the annealer
- Drawing rings are mounted in one or two layers (depending on the model) to reduce length of the line.
- Each drawing ring is mounted on a heavy rigid horizontal axis with oil lubricated bearings.
- The drawing rings are multi throats depending on the number of wires (up to 16 wires)
- All of them and are coated with zirconium oxide (ceramic).
- A large range of AC/DC resistance annealers from 1.200 to 6.000 A can be provided according customer's requirement.
- Annealer can be supplied with Nitrogen or steam chamber.
- Annealing rings are mounted on horizontal axis mandrill's and have 200 to 250 mm diameter, each one has small grooves to allocate the wires separately.
- Transmission among the several mandrills is made by flat belts.

中文

- 多头拉丝机用于生产5级或者6级的柔韧性较好的电缆, 适用于电池电缆, 汽车电缆或者是建筑电缆, 根据客户的需求, 提供广泛的配置
- 主马达通过齿形皮带驱动各伸线环除了引取轮, 独立马达驱动引取轮和退火机
- 伸线环根据型号不同可以安装一层或者两层, 目的是为了减少生产线的长度
- 每个伸线环都安装在带有脂润滑轴承的结实的水平轴上
- 伸线环根据生产铜线的条数决定 (最高到16条)
- 伸线环为表面喷氧化锆(陶瓷)
- 根据客户的需求可以提供从1200A到6000A大范围的AC/DC退火机
- 退火机可以用氮气或蒸汽保护
- 200-300mm的退火轮安装在水平轴上, 退火轮沟部有个独立的沟槽将铜线自然分开
- 退火轮由平皮带传动

Model	N° of Wires	N° of Steps	Capstans Ø	Inlet Wires	Tensile Strength	Finished Wire	Line Speed
Units	[-]	[-]	[mm]	[mm]	[N/mm²]	[mm]	[m/s]
DM-8/8-22	8	12-22	100-80	2	300-450	0.2-0.51	28-32
DM-8/8-25	8	13-25	100-80	2.0-1.65	300-450	0.15-0.471	28-32
DM-16/10-22	16	12-22	100-80	2.0-1.65	300-450	16 x (0.15-0.6mm) 7 x (0.65-1..04mm)	12-35 8-18

Catenary Contact Wire Drawing Machine

高速铁路接触线专用大型拉丝机成套设备



EN

- Multimotor drawing machine designed to produce catenary trolley profiles to be used on the electrification of trains, subways and trams.
- Designed with extremely powerful over dimensioned capstans, able to pull hard copper alloys through different shapes of dies.
- The cable shape design will follow the national standards of each country
- All drawing dies are spouted with oil and the emulsion over the capstans.
- Centralized oil cooling system on all gear reducers.
- Provided with PLC+HMI control system for drawing speed synchronization.
- Cross sections that can be produced: 80 / 100 / 107 / 120 / 150 mm² (up to 204 mm² upon request).
- Traversing take up 1250 / 1600 (8 Tons)

中文

- 透过欧洲先进技术转移, 先锋科技提供专为生产高速铁路接触线的独立马达驱动四轴大型拉丝机, 这台拉丝机可以针对不同的合金
- 材质设计动力传输系统, 可生产从轻轨电车, 铁路系统, 捷运系统, 乃至高速铁路系统专用的电力传输接触线
- 为生产这些超高强度的合金, 这台设备运用了超大外径牵引股轮与高效率行星齿轮减速机与大扭力高精度交流伺服马达, 配合客制
- 设计的异型钻石眼模, 可以顺利生产各式接触线合金材质。异型钻石眼模外型依照各国接触线标准而有所不同, 可客制化订制
- 为降低磨耗, 所有眼模皆装置于下侧, 浸入伸线润滑油中, 牵引股轮并且有独立喷洒装置对拉丝环进行润滑与冷却
- 碳化钨钢拉丝环寿命长, 易更换
- 轴承, 减速机采中央润滑系统
- 眼模快速更换设计, PLC自动计算转速, 滑差与扭力输出作为换模参考, 并且精密同步控制各马达, 使滑差保持在极微小状态降低磨耗, 提高产品品质与生产效率
- 可生产截面积: 80 / 100 / 107 / 120 / 150 mm²
- 轴排线收线装置外径 1250 / 1600mm 负载 8 Tons

Model	N° of Capstans	Capstans Ø	Inlet rod max. Ø	Inlet Tensile Strenght	Finished shape	Output cross section	Line speed	Production capacity	Materials to draw	Driving motors per capstan
DAM-4	4	1200 mm	20-25	<= 350 N/mm ²	According country standards	80 to 204 mm ²	Up to 1,5 m/s	4150 kg/h for 107 mm ²	Cu-ETP CuAg 0.1% CuSn 0.2% CuMg 0.2% & 0.4%	65 - 95 kW

Electric Continuous Annealer for Thick Copper Wires

铜线大拉用连续退火机



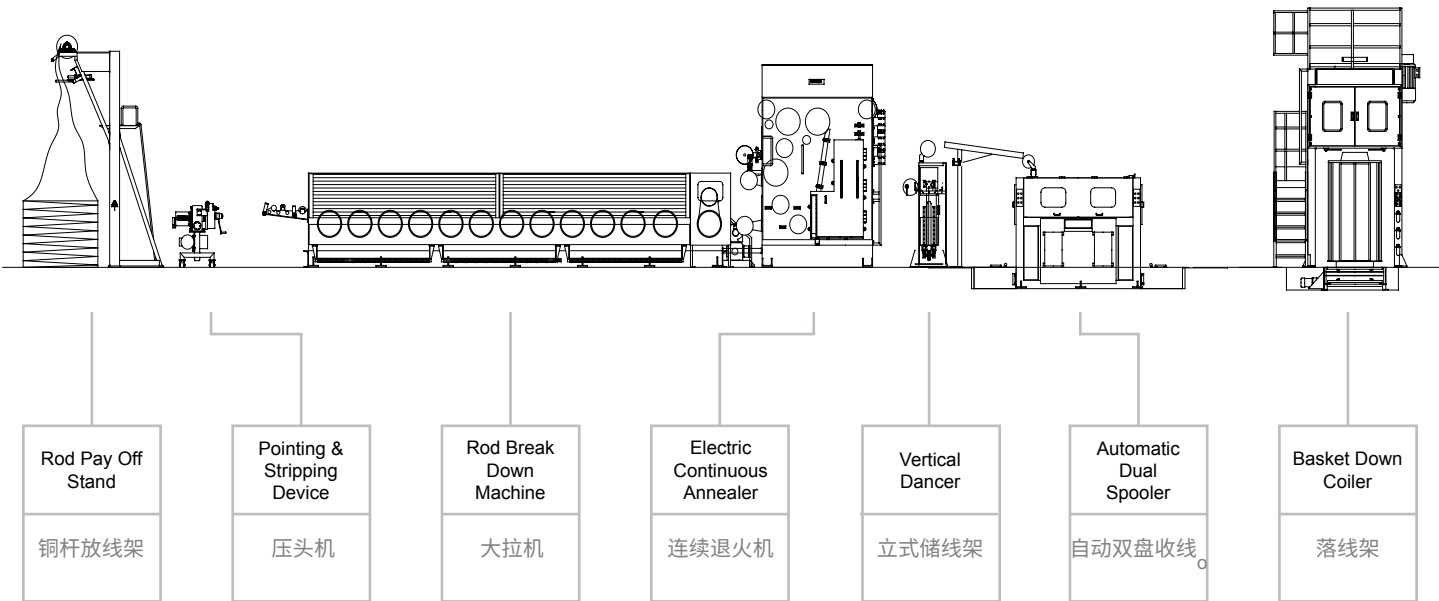
Model / 型号	AC-400	DC-600
Transformer capacity / 变压器容量 [KVA]	400	600
Wire Ø / 电线 Ø [mm]	1.35-3.6	1.35-5.5
Max. Speed / 最高速度 [m/min]	30	30
Wire elongation / 延伸率 [%]	33±1	33±1
Output voltage / 输出电压 [V]	5-60	5-60
Annealing current / 退火电流 [A]:	3850	8000

EN

- Copper continuous annealer process made by applying a high current onto the wire on its path through 4 contact wheels (450 mm diameter each one). These wheels are internally water cooled.
- Includes a high power AC three-phase rectifier to supply DC voltage to heat and anneal the wire according to the line speed.
- HMI+PLC computer control is integrated in order to guarantee a zero hard copper starting and keeps a smooth and constant wire elongation during the whole range of drawing speeds and wire diameters.
- Optionally driven by an independent 37 kW AC servo motor.

中文

- AC三相高电流经导电轮接触铜线直接加热方式,采用4个450mm外径导电轮,导电轮内部通水冷却
- 将大功率三相AC交流电整流成DC直流对导体进行退火,退火电流跟随线速度匹配
- HMI+PLC 电脑程式精密演算控制软化电流,在各种线径和不同线速均能保持铜线极为稳定的延伸率,具有机器启动和停机均保持有效的零硬线控制
- 可以选择单独用37 KW A C感应伺服马达驱动



Medium Copper Wire Online Annealer

铜线中拉用连续退火机



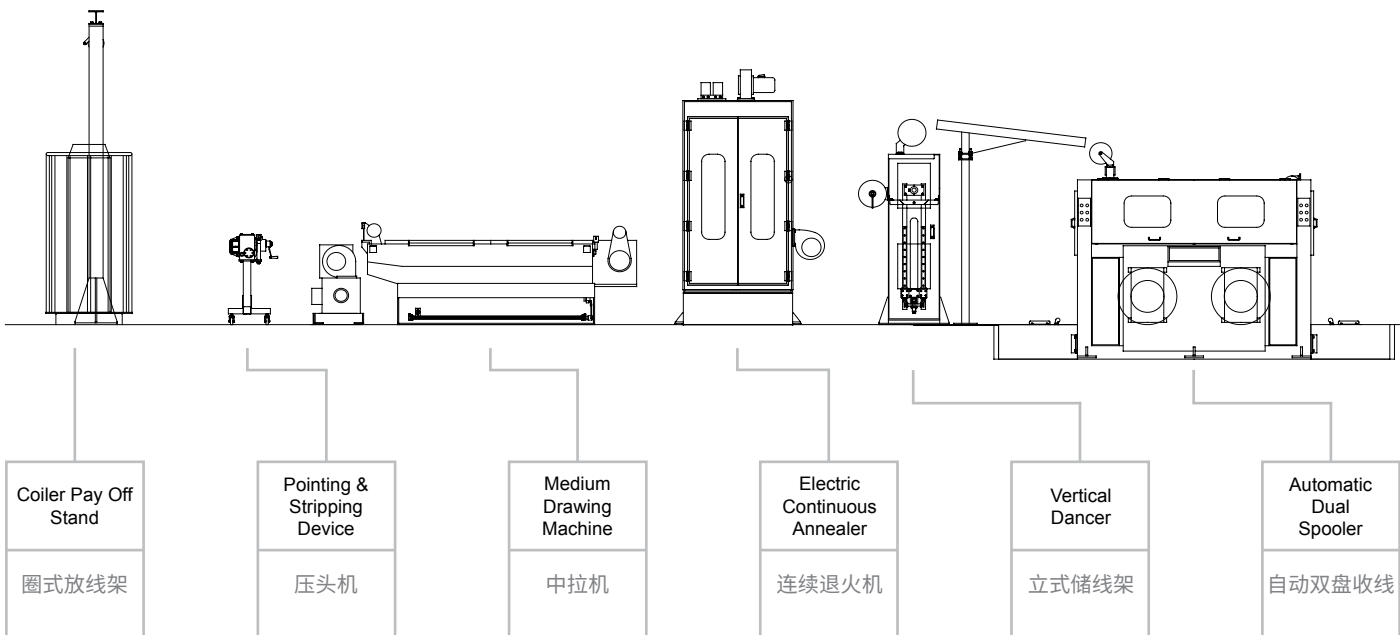
Model / 型号	AC-90	
Transformer capacity / 变压器容量 [KVA]	90 single phase	
Wire Ø / 电线 Ø [mm]	0.35-1.80	
Max. Speed / 最高速度 [m/min]	1800	
Wire elongation / 延伸率 [%]	31±1	
Output voltage / 输出电压 [V]	16-75	
Annealing current / 退火电流 [A]:	Primary:	210
	Secondary:	1200

EN

- Specifically designed for inter-medium copper wires.
- Copper continuous annealer process made by applying a high current onto the wire on its path through 3 contact wheels (250 mm diameter each one). These wheels are internally water cooled.
- Includes a high power AC rectifier to supply DC voltage to heat and anneal the wire according the line speed.
- HMI+PLC computer control is integrated in order to guarantee a zero hard copper starting and keeps a smooth and constant wire elongation during the whole range of drawing speeds and wire diameters.
- Optionally driven by an independent 37 kW AC servo.

中文

- 特殊设计用于铜线中拉机退火
- AC三相高电流经导电轮接触铜线直接加热方式,采用3个250 mm外径导电轮,导电轮内部通水冷却
- 将大功率三相AC交流电整流成DC直流对导体进行退火,退火电流跟随线速度匹配
- HMI+PLC 电脑程式精密演算控制软化电流,在各种线径和不同线速均能保持铜线极为稳定的延伸率,具有机器启动和停机均保持有效的零硬线控制
- 可以选择单独用37 KW AC感应伺服马达驱动



Fine Copper Wire Drawing Machine

铜线小拉机



- EN
- Horizontal slip tandem type drawing machine for single fine copper wire.
 - Includes 4 multi-steps drawing capstan with ceramic coating and designed for a long life wearing.
 - HMI+PLC computer control system is integrated for drawing speed synchronization and auto-arrangement.
 - Includes heat exchanger for the cooling water and steam generator for the annealing chamber.

- 中文
- 水平湿式铜线连续单线拉丝机
 - 本机采用4组多层拉丝鼓轮,陶瓷拉丝鼓轮,拉线寿命更长
 - HMI+PLC 控制系统控制线速度同步
 - 配有热交换器和蒸汽发生器等周边辅机



Model / 型号	DC-24	DC-24C
Material / 材质	Cu	Cu
No. of drafts / 拉伸道次	24 (4x11)	24 (4x11)
Inlet wire Ø / 入线径 Ø [mm]	0.8-1.2	0.8-1.2
Finished wire Ø / 完成外径 Ø [mm]	0.12-0.32	0.12-0.25
Max. Speed / 最大横截面 [m/min]	2500	2000
Annealer capacity / 退火容量 [KVA]	-	12
Take up Ø range / 收线范围 Ø [mm]	250-315-400	250-315-400
Production capacity / 生产能力 [kg/h]	30 for 0.2 mm wire at 1800 m/min)	24 for 0.2 mm wire at 1800 m/min)

Basket Down Coiler for Copper and Aluminum

铜线 / 铝线用落线架



- EN
- Vertical static down coiler machine for copper or aluminum wires.
 - Continuous take up process on wire drawing lines.
 - Equipped with an underground conveyor in order to load/unload the baskets to/from the working position.

- 中文
- 立式落线架适用于铜线和铝线的连续收线
 - 适用于拉丝机的连续收线
 - 落线架下方附三工位式台车,可在生产中不停机更换落线篮



Model / 型号	TB-100	TB-150	TB-200	TB-230	TB-280
Basket dimensions / 篮子尺寸 [mm]	850x450x1200	850x450x1800	1000x600x1800	1200x700x1500	1200x700x1800
Capstan Ø / 牵引轮Ø [mm]	665	665	815	965	965
Wire Ø / 电线 Ø [mm]	1.3-3.0	1.3-3.0	1.3-3.6	1.5-4.0	1.5-4.0
Max. Speed / 最高速度 [m/min]	1800	1800	1800	1500	1500
Motor Power / 电机功率 [kW]	11 AC	11 AC	15 AC	15 AC	18.5 AC
Load capacity / 举升负载 [kg]	1000	1500	2000	2300	2800

SZ Stranding Machine

SZ绞线机



EN

- SZ stranding machine for a tandemized stranding and sheathing process up to 5 insulated cores.
- The SZ machine is assembled on a long table frame support and is composed by 16 motorized lay plates.
- Each single lay plate is individually driven by an independent high dynamic servomotor via a timing belt transmission.
- The servomotors are extremely low inertia type resulting in remarkably short reversal points.
- The SZ machine is equipped with a “built-in” silicone oil applicator, a compact and clean solution which replaces the traditional talc powder applicator.
- The line is completed with an inlet over speed pulling capstan to guarantee a low stranding tension fluctuation and a torsion blocker caterpillar.
- HMI+PLC control system for pre-setting stranding pitch, twist direction and speed synchronization.



中文

- SZ绞线机用于串联绞线, 最多可束绞5条绝缘线。
- SZ机器由16个电动模座所组成。
- 每组模座经由各组独立的高动态伺服电机带动传动装置所驱动
- 伺服电机的惯性运转迅速, 可快速来回运转。
- SZ绞线机可搭配矽油离型剂喷涂机使用。
- 该生产线配有一个高速牵引绞盘, 以确保较低的绞合张力波动和一个扭转阻滞履带。
- HMI + PLC控制系统, 用于预设绞距, 捻向和速度同步。

Model /型号	SZ-16	SZ-20
Number of cores / 芯线数量 [units]	2/3/4/5	
Cores cross section / 芯线横断面 [mm²]	0.75 – 10	
Max. single core diameter / 最大芯线外径 [mm]	6	
Finished cable diameter / 完成外径 [mm]	5.1 – 17	
Laying pitch / 集合节距 [mm]	100 – 350 (±5mm)	
Max number of twist in one direction / 最大同轴绞线数量	16 (± 8)	20 (± 10)
Max. stranding speed / 最大绞线速度 [rpm]	± 1800	
Number of stranding plates / 绞线模座数量	16	20

Double Twist Stranding Machine

双捻束绞机

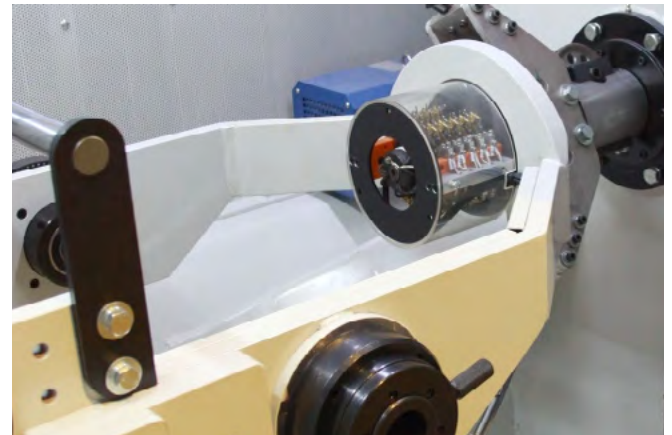
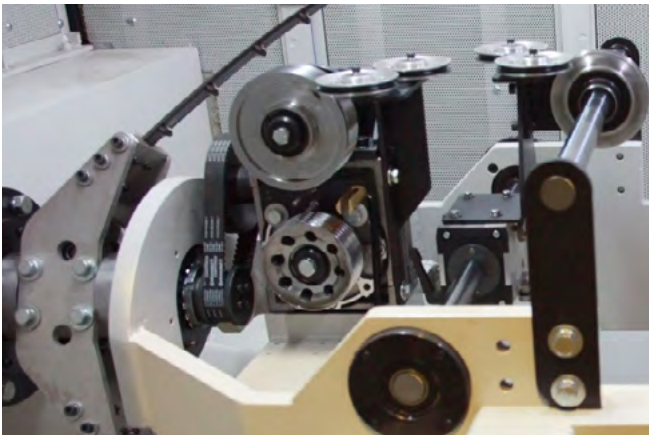


EN

- Double twist stranding/bunching machine which runs on a process with no back twist.
- Suitable for the stranding of 7 copper wires (Class 2) as well as for bunching of multiple fine copper wires (Class 5).
- Additionally this machine can be used for laying up of 2/3/4 cores of small size building wires.
- HMI+PLC control system for pre-setting stranding lay length, twist direction and speed synchronization.

中文

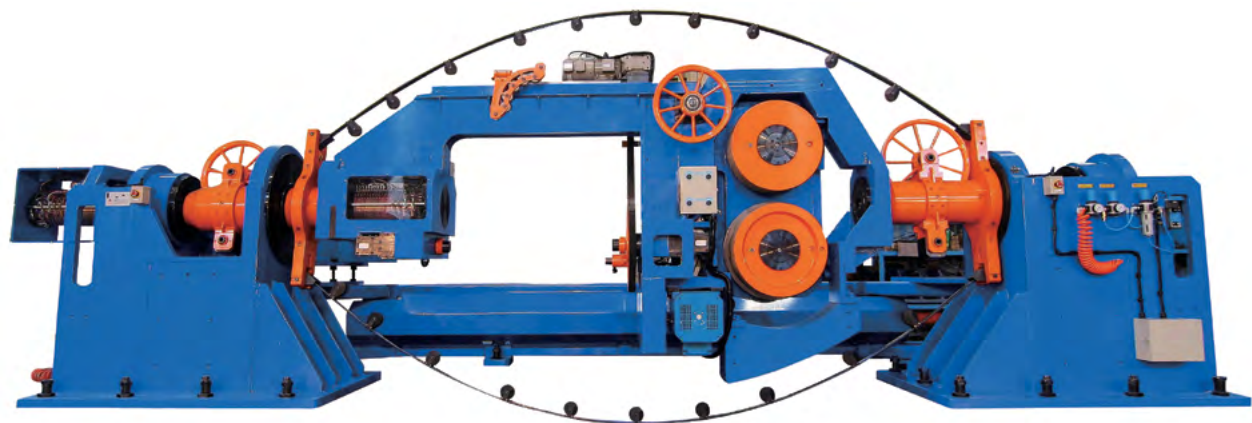
- 双捻式束绞不退扭绞合
- 适用于7股(Class 2)铜线绞合和多股(Class 5)细铜线的高速绞合
- 此机台并适合2/3/4股小截面建筑电缆的绞合
- 整机采用HMI+PLC 控制系统,电脑预设绞线节距,绞向,并实现速度同步控制



Model /型号	SB-50	SB-63	SB-80
Take up Ø / 收线 Ø [mm]	500	630	800
Drum load / 线盘负载 [kg]	250	600	1000
Cross section / 横断面 [mm ²]	0.35 - 1.5	0.5 - 6	0.5 - 10/16
2/3/4 PVC cores (OD mm) / 2/3/4 PVC 芯线外径	-	5 max.	8/10 max.
Rotating speed / 旋转速度 [rpm]	3500	3000	2500 / 2000
Twisting speed / 绞线速度 [tpm]	7000	6000	5000 / 4000
Line speed / 线速度 [m/min]	150 max.	300 max.	300 max.

Double Twist Stranding Machine

双捻束绞机

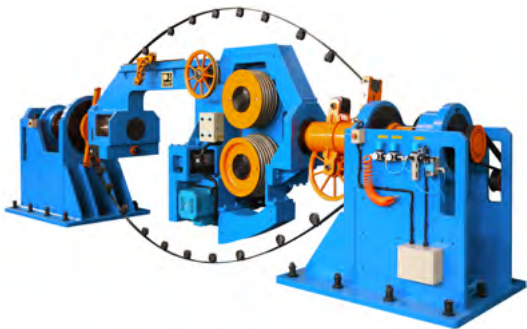


EN

- Double twist stranding machine suitable for stranding and compaction of all 7 wires formations, 19 wires “unilay” as well as laying up of 2/3/4 cores of insulated conductors.
- Carbon fiber bows with exchangeable sliding steel band allowing high rotating speeds with heavy loads.
- Underground hydraulic lifter platform allowing an easy loading/unloading operation.
- HMI+PLC control system for pre-setting stranding pitch, twist direction and speed synchronization.

中文

- 此机台适用于7股铜线,铝线和压缩导体高速绞合,19股软铜线和铝线多层一次绞合,以及2/3/4芯绝缘电缆绞合
- 旋转弓为进口碳纤维材料制作,根据生产需要可以跟换为弹簧钢弓片适应更高的负载
- 机台下方地面以下配置油压升降平台,方便快捷上下线盘
- 整机采用HMI+PLC 控制系统,电脑预设绞线节距,绞向,并实现速度同步控制



Model / 型号	SB-125			SB-160		
Material / 材质	4 PVC	7Cu/Al	19unilay	4 PVC	7Cu/Al	19 unilay
Drum Ø / 线盘Ø	1250	1250	1250	1600	1600	1600
Drum load / 线盘负载 [kg]	4000	4000	4000	8000	8000	8000
Inlet wire Ø / 入线径 Ø [mm]	2.5-10	1.2-3.2	1.2-3.2	2.5-10	1.5-4.0	1.5-4.0
Max.Cross Section / 最大横截面 [mm²]	-	50	70	-	70	150
Finished Cable Ø / 成品电缆Ø [mm]	22	9.5	11	25	9.5	16
Laying Pitch / 成缆节距 [mm]	150-600	40-300	50-500	150-600	50-400	60-600
Speed / 速度 [rpm/tpm]	650/1300	900/1800	700/1400	500/1000	600/1200	500/1000
Line Speed / 线速度 [m/min]	180	180	180	160	160	160
Total power / 总功率 [kW] *AC servo	104.5	116	116	130.5	153.5	153.5

Double Twist Stranding Machine

双捻束绞机



EN

- Heavy duty double twist stranding machine specially designed for the stranding and compacting of 19-37-61 wires in "unilay" as well as for laying up 2/3/4 cores of insulated conductors.
- Equipped with an external pulling capstan for the stranding of 37-61 wires.
- Carbon fiber bows with exchangeable sliding steel band allowing high rotating speeds with heavy loads.
- Underground hydraulic lifter platform allowing an easy loading/unloading operation.
- HMI+PLC control system for pre-setting stranding pitch, twist direction and speed synchronization.

ES

- 双捻束绞机, 适用于单层绞合和压紧19-37-61股电缆以及2/3/4股绝缘电缆线。
- 配有外部牵引绞盘, 用于绞合37-61股电线。
- 旋转弓为进口碳纤维材料制作, 根据生产需要可以跟换为弹簧钢弓片适应更高的负载
- 机台下方地面以下配置液压升降平台, 方便快捷上下线盘
- 整机采用HMI+PLC 控制系统, 电脑预设绞线节距, 绞向, 并实现速度同步控制



Model / 型号	SB-200				CM- 90	CM- 100
Material / 材质	4 PVC	19 unilay	61 unilay	Capstan Ø / Cabrestante Ø [mm]	900	1000
Drum Ø / 线盘Ø	2000	2000	2000			
Drum load / 线盘负载 [kg]	10000	10000	10000	Pulling force / Furza tiro [kg]	3000	4000
Inlet wire Ø / 入线径 Ø [mm]	2.5 - 10	1.4 -3.2	1.4 - 4			
Max.Cross Section / 最大横截面 [mm²]	-	150	400	Speed / Velocidad [rpm]	500	500
Finished Cable Ø / 成品电缆Ø [mm]	35	16	26			
Laying Pitch / 成缆节距 [mm]	150 - 900	150 - 300	150 - 600	Power pulling / Motor tiro [kW]	45	60
Speed / 速度 [rpm/tpm]	350 / 700	350/700	250/500			
Line Speed / 线速度 [m/min]	100	100	100	Power rotation / Motor rotación [kW]	90	90
Total power / 总功率 [kW] *AC servo	150	154	270			

Bow Type Skip Stranding Machine

弓式绞线机

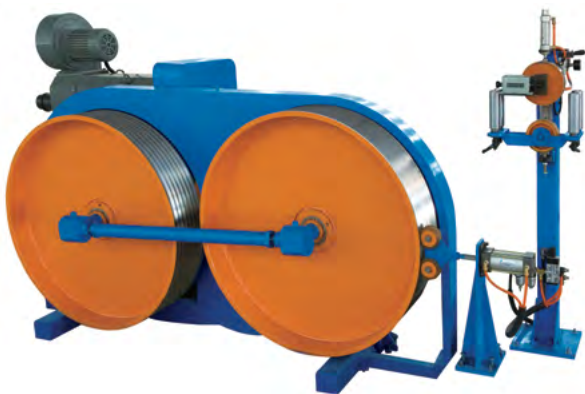


EN

- High speed bow type skip stranding machine working with 100% back twist movement. Designed to work with 7 round and compact copper or aluminum conductors.
- Steel plate rotating bows.
- Wire tension control is done through band type brakes or by hysteresis brakes (Optional).
- Main rotor, pulling capstan and take up unit are driven independently by AC servo motors.
- HMI+PLC control system for pre-setting stranding pitch, twist direction, automatic tension compensation control and speed synchronization with the take up unit.

中文

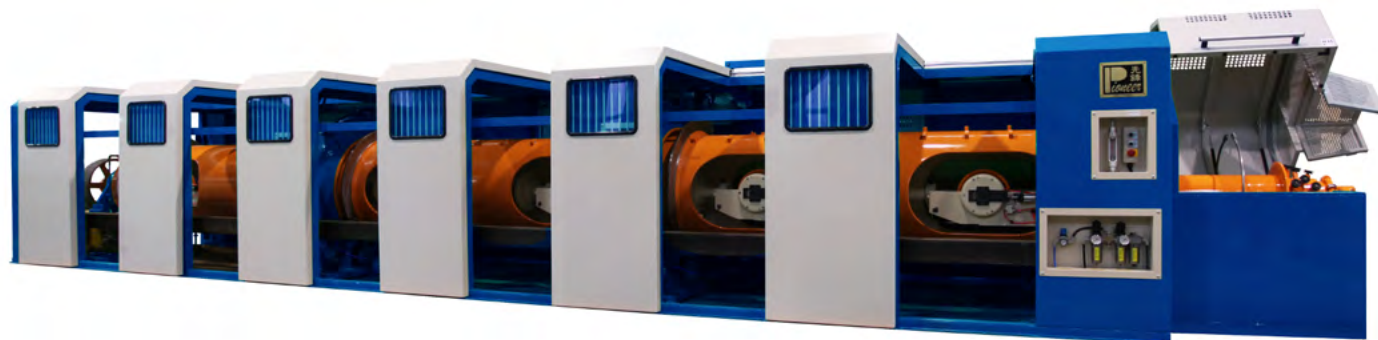
- 高速弓绞机为100%退扭绞合,适用于7股圆形或压缩铜铝导体高速绞合
- 钢板回转弓板
- 放线张力采用张力绳自动张力补偿或者德制磁滞刹车自动张力补偿(选购)
- 主马达,牵引和收线采用独立AC感应伺服马达驱动
- 整机采用HMI+PLC 控制系统,电脑预设绞线节距,绞向,并实现自动张力补偿和牵引收线同步控制



Model / 型号	SW-50	SW-56	SW-63
Pay off Ø / 放线 Ø [mm]	500	560	630
Copper wire Ø / 铜线 Ø [mm]	1.0-2.4	1.2-2.6	1.4-2.8
Aluminum wire Ø / 铝线直径 Ø [mm]	1.2-3.0	1.4-3.5	1.6-4.0
Motor power / 电机功率 [kW]	37	45	45
Rotor speed / 转体速度 [rpm]	1200	1000	1000
Line Speed / 线速度 [m/min]	180	150	150
Capstan Ø / 牵引轮 Ø [mm]	1000	1000	1000
Capstan power / 牵引电机功率 [kW] *AC servo	37	37	37

Tubular Stranding Machine

管式绞线机



EN

- Tubular type stranding machine working with 100% back twist movement. Suitable for 7, 12 or 19 sector shape cables of Cu, Al as well as for steel wires.
- Encircling roller bearings being permanently lubricated by a high pressure oil injection made by a circulating system equipped with an oil pump and oil tank.
- Wire tension control is done through band type brakes or by hysteresis brakes (Optional).
- Main motor, pulling capstan and take up units are independently driven by AC servo motors.
- HMI+PLC control system for pre-setting stranding pitch, twist direction, automatic tension compensation control and speed synchronization with the take up unit.



中文

- 管式绞线机为100%退扭绞合,适用于7/12/19股圆形或压缩铜铝导体或钢线高速绞合
- 转体轴管外环由数个大轴承支撑,适合高转速回转.外置轴承润滑冷却系统对轴承进行强制润滑,放线张力采用张力绳自动张力补偿或者德制磁滞刹车自动张力补偿(选购)
- 主马达,牵引和收线采用独立AC感应伺服马达驱动
- 整机采用HMI+PLC 控制系统,电脑预设绞线节距,绞向,并实现自动张力补偿和牵引收线同步控制



Model / 型号

Pay off Ø / 放线 Ø [mm]

Take up Ø / 收线 Ø [mm]

Copper wire Ø / 铜线 Ø [mm]

Aluminum wire Ø / 铝线直径 Ø [mm]

Motor power / 电机功率 [kW]

Rotor speed / 转体速度 [rpm]

Line Speed / 线速度 [m/min]

Capstan power / 牵引电机功率 [kW] *AC servo

SO-50		SO-56		SO-63	
7B	12B	7B	12B	7B	12B
500	500	560	560	630	630
1250	1250	1600	1600	1800	1800
0.8-3.2	0.8-3.2	1.0-3.6	1.0-3.6	1.2-4.0	1.2-4.0
1.2-4.0	1.2-4.0	1.4-4.5	1.4-4.5	1.6-5.0	1.6-5.0
75	130	75	150	95	150
1200	850	1000	750	900	700
120	120	120	120	120	120
37-45	37-45	37-55	37-55	37-55	37-55

Rigid Stranding Machine with Front Auto Loading

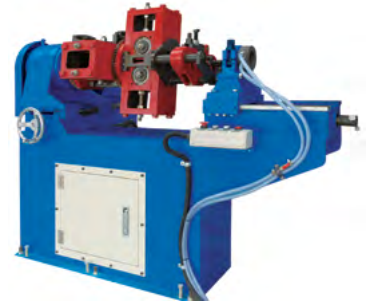
框式绞线机附前方自动上盘



- EN
- Rigid type stranding machine working without back twist movement. Each cage is equipped with a multi-bobbin auto-loading carrier.
 - This machine series is designed to work with round, straight sector or prespiral sector cables of 19/37/61/91 copper and aluminum conductors as well as for armouring insulated cables with galvanized steel wires.
 - Wire tension control is done by pneumatic side brakes by default. For ultra-high speed or precision control application alternative solutions are provided such as Hysteresis brake for high precision tension control or even active servomotor for absolute constant tension control.
 - By default each rotating cage is driven individually by a inductive servo motor. Laying pitch is controlled precisely by synchronizing all inductive servo motor with a fix rate calculated by main computer. Single motor driven type is also available by option order.
 - The machine is provided with HMI+PLC control system for pre-setting stranding pitch, twist direction, automatic tension compensation control and for speed synchronization with the pulling capstan and the take up unit.

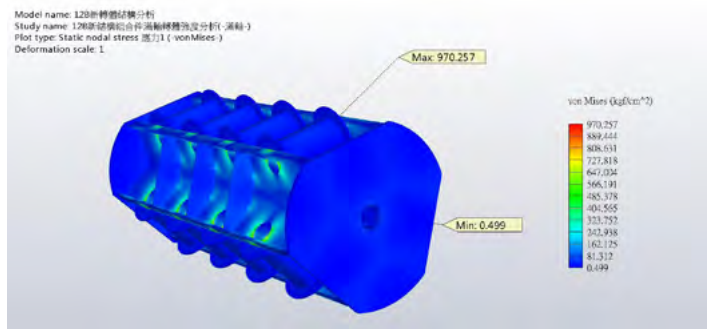


		ST 50				
Model / 型号		6B	12B	18B	24B	30B
Bobbins Ø / 线盘 Ø [mm]		500	500	500	500	500
Inlet Wire Ø / 入线径 Ø [mm]	Cu/ 铜:	1.3-3.5	1.3-3.5	1.3-3.5	1.3-3.5	1.3-3.5
	Al/ 铝:	1.6-4.0	1.6-4.0	1.6-4.0	1.6-4.0	1.6-4.0
Line Speed /线速度 [m/min]		50	50	50	50	50
Rotor Speed / 转体速度 [rpm]	Cu/ 铜:	260-350	205-300	165-230	125-175	100-130
	Al/ 铝:	300-350	250-300	210-230	150-175	110-130
Motor Power, Single type / 电机功率, 单相 [KW]		Depends on cages configuration				
Motor Power, Individual type / 电机功率, 分体式 [KW]		55 AC	55 AC	55 AC	55 AC	55 AC



中文

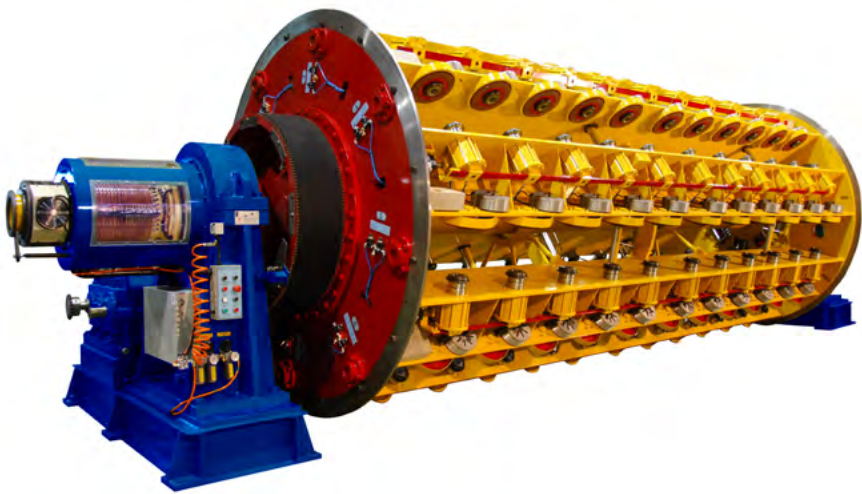
- 框式绞线机为不退扭绞合,转体附前方自动上轴台车
- 适用于19/37/61/91股铜铝线圆形和铜线预扭扇形导体绞合和电缆外被镀锌铁线铠装
- 用于导体绞合式采用气动张力带自动补偿,如果用于控制电缆绞合是则采用德制磁滞刹车提供张力
- 动力的输入采用两种方式,可以由单个DC主马达通过传动轴和齿轮箱驱动转体,也可以由独立的AC感应伺服马达驱动每一段转体
- 整机采用HMI+PLC 控制系统,电脑预设绞线节距,绞向,并实现自动张力补偿和牵引收线同步控制



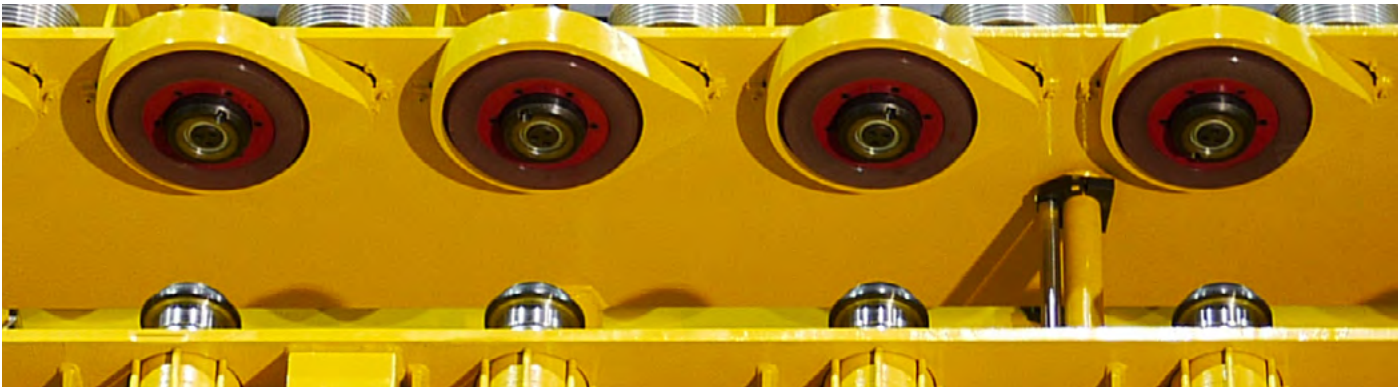
ST 63					ST80				
6B	12B	18B	24B	30B	6B	12B	18B	24B	30B
630	630	630	630	630	800	800	800	800	800
1.4-4.0	1.4-4.0	1.4-4.0	1.4-4.0	1.4-4.0	1.8-5.0	1.8-5.0	1.8-5.0	1.8-5.0	1.8-5.0
1.75-5.0	1.75-5.0	1.75-5.0	1.75-5.0	1.75-5.0	2.0-6.5	2.0-6.5	2.0-6.5	2.0-6.5	2.0-6.5
60	60	60	60	60	70	70	70	70	70
210-300	180-260	140-200	105-150	80-110	175-220	150-180	130-165	105-150	80-110
260-300	220-260	170-200	130-150	90-110	195-220	165-180	140-165	130-150	90-110
Depends on cages configuration					Depends on cages configuration				
75 AC	75 AC	75 AC	75 AC	75 AC	75 AC	75 AC	75 AC	75 AC	75 AC

Rigid Armouring / Screening Machine with Front Auto Loading

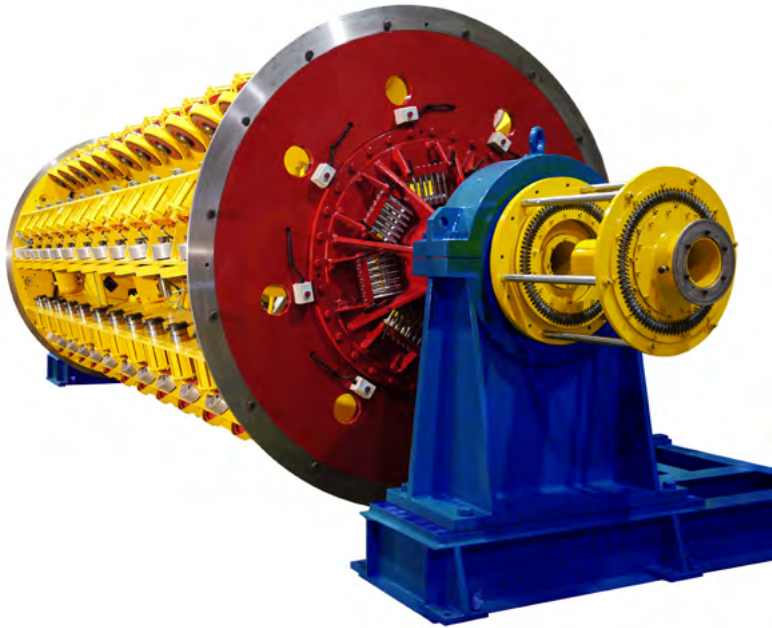
框式铠装 / 屏蔽机附前方自动上盘



- EN
- Rigid type stranding machine working without back twist movement and equipped with a multi-bobbin auto-loading carrier.
 - This machine series is designed for armouring cables with 48/72/84/88/96 galvanized steel wires as well as for screening high voltage power cables with copper wires.
 - Wire tension control done through hysteresis brakes installed on each pay off.
 - The machine is provided with HMI+PLC control system for pre-setting stranding pitch, twist direction, automatic tension compensation control and for speed synchronization with the pulling capstan and the take up unit.

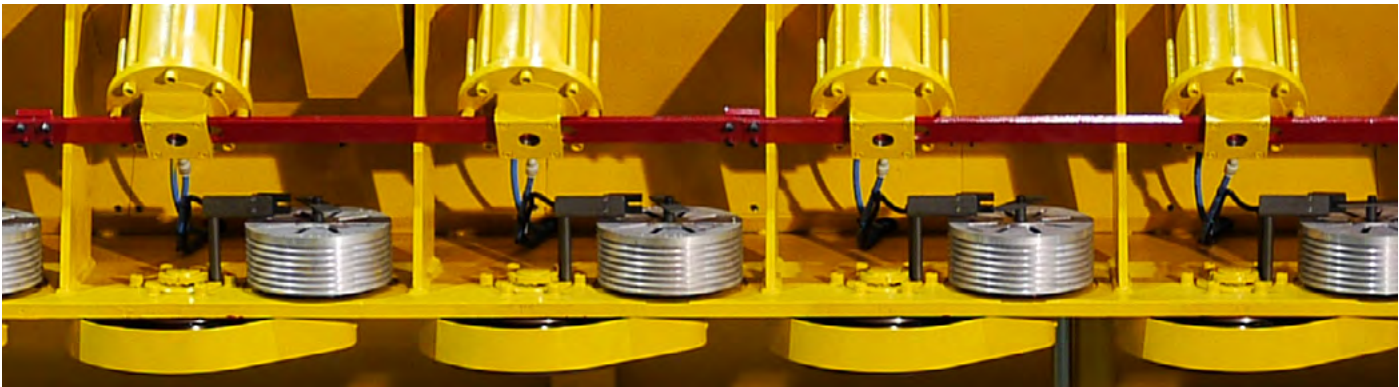


Model / 型号	48 B			72 B		
	ST 400	ST 450	ST 500	ST 400	ST 450	ST 500
Bobbin Ø / 线盘 Ø [mm]	400	450	500	400	450	500
Max. Wire Ø / 最大线径 Ø [mm]	120	120	120	140	140	140
Armouring Wire Ø / 铠装线直径 Ø [mm]	0.7-2.0	0.8-2.3	1.0-2.6	0.7-2.0	0.8-2.3	1.0-2.6
Rotor Speed / 转体速度 [rpm]	120	100	80	100	80	60
Line Speed / 线速度 [m/min]	30-45	30-45	30-45	30-45	30-45	30-45
Motor Power / 电机功率 [KW]	95	110	130	130	150	150



中文

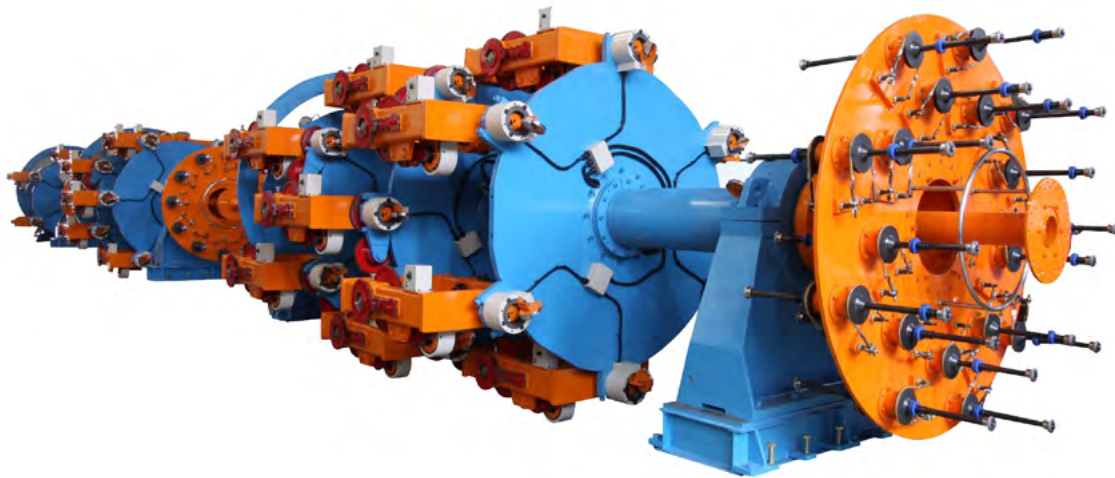
- 框式绞线机为不退扭绞合,转体附前方自动上轴台车
- 适用于48/72/84/88/96条高压电缆镀锌铁线铠装和铜线屏蔽
- 每个线盘由一组德制磁滞刹车提供张力并实现自动张力补偿
- 整机采用HMI+PLC 控制系统,电脑预设绞线节距,绞向,并实现自动张力补偿和牵引收线同步控制



84 B		88 B		96 B
ST 400	ST 450	ST 400	ST 450	ST 400
400	450	400	450	400
160	160	160	160	180
0.7-2.0	0.8-2.3	0.7-2.0	0.8-2.3	0.7-2.0
100	80	100	80	60
30-45	30-45	30-45	30-45	30-45
130	150	130	150	150

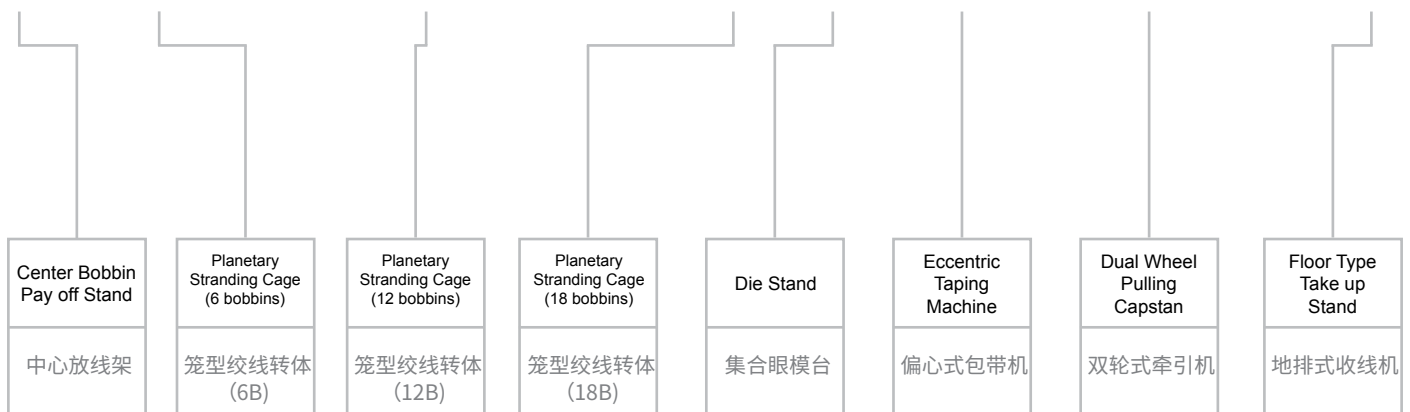
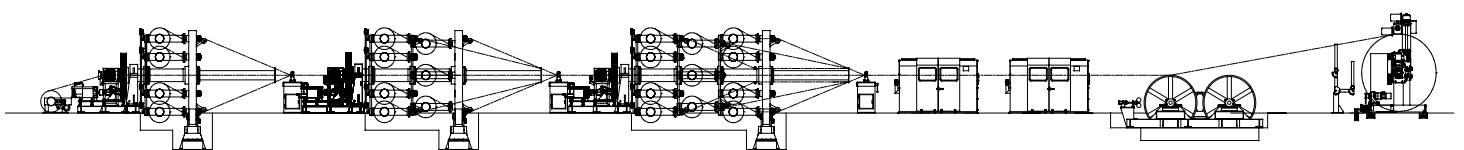
Planetary Type Stranding Machine

笼型绞线机



EN

- Planetary type stranding machine working with 100% back twist movement.
- This machine is designed to give you the best performance for 19/37 PVC control cable and optic fiber cable lay up.
- Wire tension control done through hysteresis brakes installed on each pay off. The set is complete with an automatic electrical compensation control in order to keep the tension constant when going from full bobbin to empty bobbin.
- The transmission of the cages can be done by one single DC motor connected to the cages through a counter shaft or alternatively each cage can be equipped with its own AC servo motor.
- The machine is provided with HMI+PLC control system for pre-setting stranding pitch, twist direction, automatic tension compensation control and for speed synchronization with the pulling capstan and the take up unit.
- Also, the machine can be provided with a yarn filler plate located at the outlet of the machine and designed for a maximum of 24 pieces of filling bobbins.





- 中文
- 笼型绞线机用于100%退扭绞合
 - 此设备最适合19/37股控制电缆的绞合和光缆的集合
 - 每个线盘放线张力采用德制磁滞刹车提供张力控制,每段转体附一组线盘盘底径检测装置自动检测满盘到空盘的位置变化并回馈PLC从而保证张力一致
 - 动力的输入采用两种方式,可以由单个DC主马达通过传动轴和齿轮箱驱动转体,也可以由独立的AC感应伺服马达驱动每一段转体
 - 整机采用HMI+PLC 控制系统,电脑预设绞线节距,绞向,并实现自动张力补偿和牵引收线同步控制
 - 机台的出线位置可以选装麻线盘填充装置,最多可以选装24个填充盘

Model / 型号	SP 50			SP 63		
	6B	12B	18B	6B	12B	18B
Pay off Reel Ø / 放线线盘 Ø [mm]	500	500	500	630	630	630
Bobbin Capacity / 线盘容量 [kg]	200	200	200	350	350	350
Inlet Wire Ø / 入线径Ø [mm]	1.3-4.0	1.3-4.0	1.3-4.0	1.4-5.0	1.4-5.0	1.4-5.0
Finished Cable Ø / 成品电缆Ø [mm]	40	40	40	50	50	50
Rotor Speed / 转体速度 [rpm]	140	100	60	120	80	50
Motor Power (single) / 电机功率, 单相 [kW]	Depends on cage configuration			Depends on cage configuration		
Motor Power (individual) / 电机功率, 分体式 [kW]	37 AC	37 AC	45 AC	45 AC	45 AC	55 AC
Capstan Ø / 牵引轮Ø [mm]	1600	1600	1600	2000	2000	2000
Capstan Power / 牵引电机功率 [kW]	22-45 AC	22-45 AC	22-45 AC	22-45 AC	22-45 AC	22-45 AC

Drum Twister Laying Up / Armouring Line

集合/铠装型盘绞机



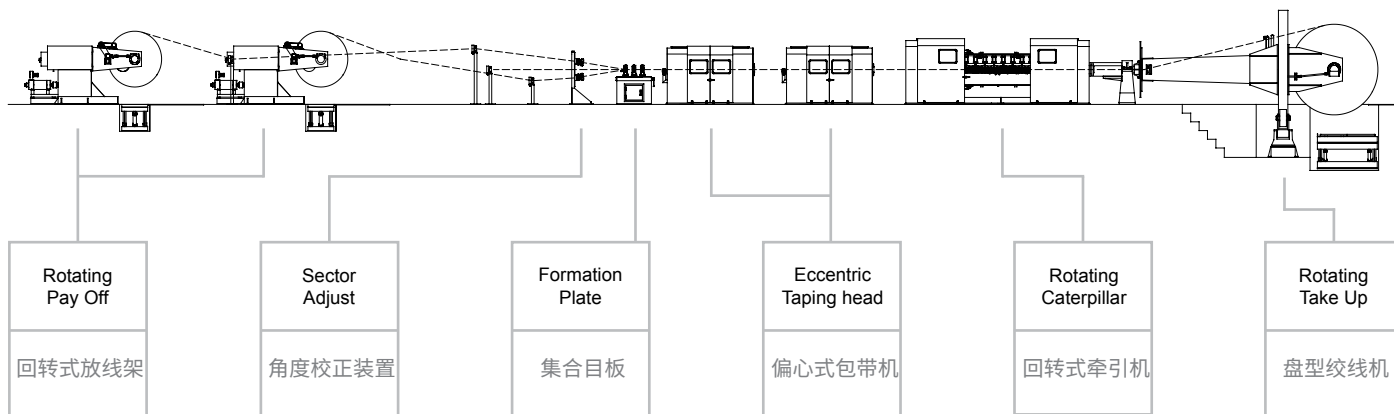
Armouring Device & Die Stand

EN

- Drum twist laying up line for 2/3/4 power cables.
- This line is equipped with rotating pay offs, sector adjust device, eccentric taping heads, rotating caterpillar and rotating take up.
- This line is also available for armouring with galvanized steel wire by adding one main rotating pay off and armouring device. This application requires the armouring steel wires pay off supplied by coils or bobbins.

中文

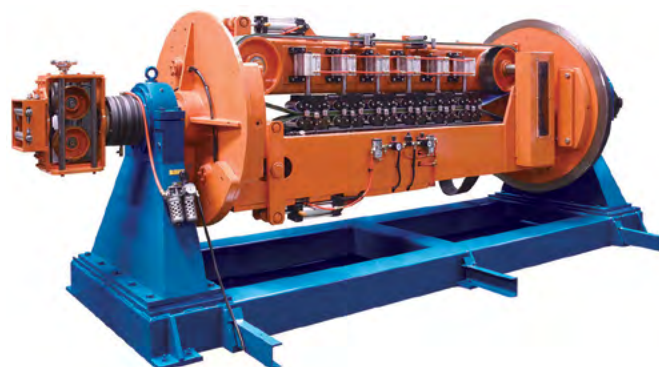
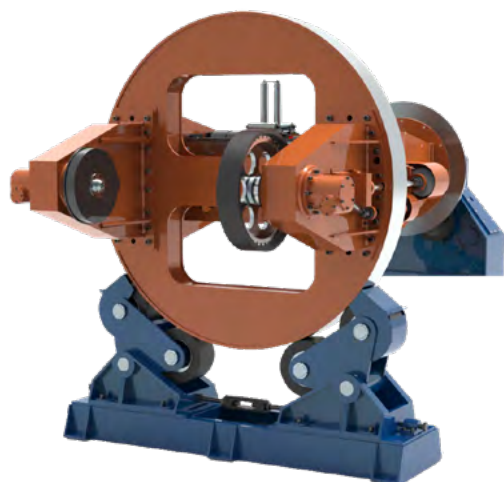
- 轴转式集合机适用于2/3/4股电力电缆集合
- 生产线由旋转放线,扇形线检出装置,偏心式包带机,旋转牵引和旋转收线机组成
- 此生产线也可用于钢丝铠装,只需要增加钢丝放线架和钢丝铠装装置即可实现.钢丝放线架可以是篮式放线也可以是线盘放线架



Model / 型号	KD 160	KD 200	KD 225	KD 260
Pay off Reel Ø / 放线线盘 Ø [mm]	1250	1600	1600	1600
Rotating Caterpillar Tread / 旋转履带压着长度 [mm]	1000	1000	1500	1500
Take up Drum Ø / 收线线盘 Ø [mm]	1600	2000	2250	2600
Armouring Wires / 铠装线 [units]	48	60	72	84
Finished Cable Ø / 成品电缆 Ø [mm]	50	60	80	100
Rotor Speed / 转体速度 [rpm]	140	110	90	70

Drum Twister Laying Up for Telephone Cable

电话线用盘绞机

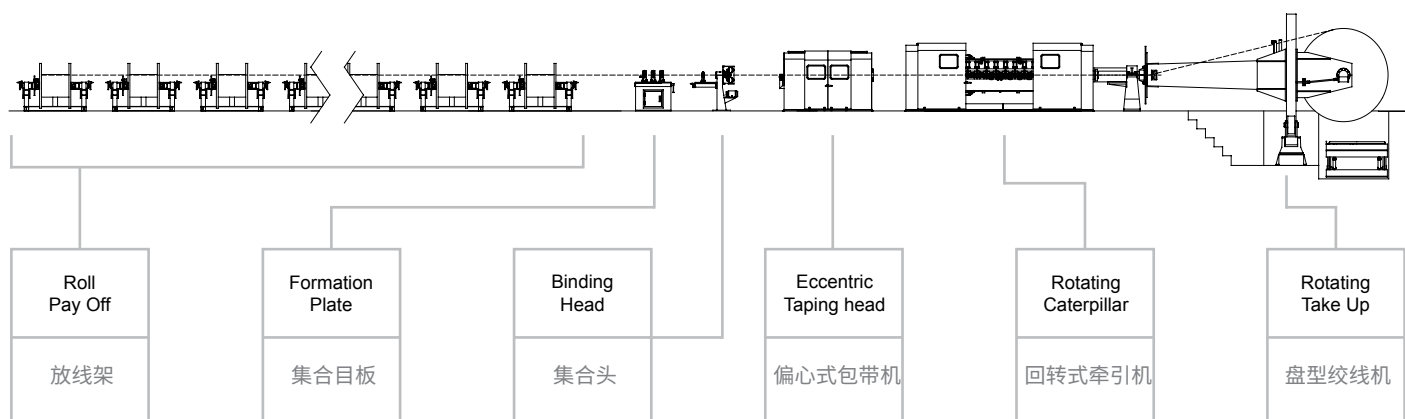


EN

- On telephone cable we have two different configurations: Drum Twist Unitizing Line (UT) and Drum Twist Cabling Line (UD).
- Drum Twist Unitizing Line: for manufacturing 100 pair units and equipped with roll off pay offs, group of oscillating/binding heads, lay plate, eccentric taping head and rotating take up.
- Drum Twist Cabling Line: for laying up telephone cables up to 1600/2000/2400 pairs and equipped with roll off pay offs, a triple formation plate with closing die, eccentric binding head, eccentric taping head, rotating caterpillar and rotating take up.

中文

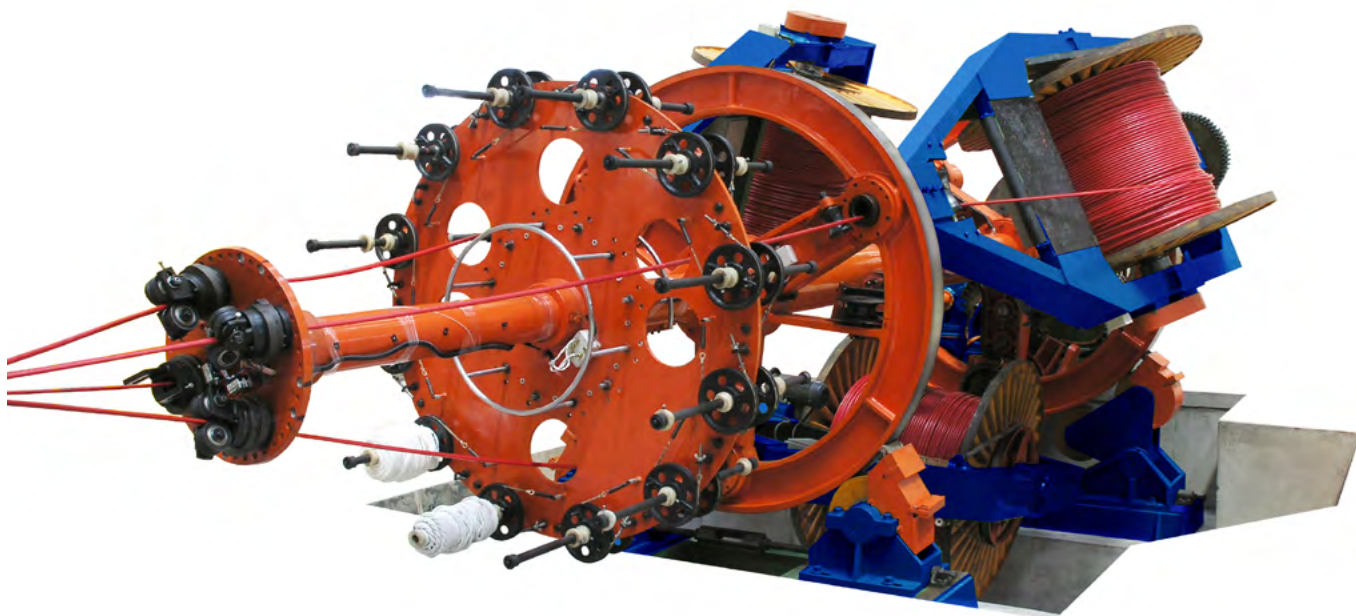
- 电话线盘绞机分为两种不同款式:Drum Twist Unitizing(UT),Drum Twist Cabling Line(UD)
- Drum Twist Unitizing(UT):配备有放线架,sz缠包头,集合头,偏心包带机,回转牵引收线机
- 适用于100对以下电话电缆集合
- Drum Twist Cabling Line(UD):配备有放线架,三层成型集合头,偏心缠包头,偏心包带机,回转牵引机,回转收线机,适用于1600/2000/2400对电话电缆集合



Model / 型号	UT 160	UD 200	UD 225	UD 260
Pay off Reel Ø / 放线线盘 Ø [mm]	500/630	1600	1600	2000
Rotating Caterpillar Tread / 旋转履带压着长度 [mm]	-	1000	1500	1500
Take up Drum Ø / 收线线盘 Ø [mm]	1600	2000	2250	2600
Number of Pairs / 对数	102	600	1000	2400
Finished Cable Ø / 成品电缆Ø [mm]	21	40	50	80
Rotor Speed / 转体速度 [rpm]	150	130	110	90

Laying Up Machine for 3-5 Power Cables

3-5股电力电缆集合机



EN

- Planetary type laying up machine with both back twist and without back twist movement.
- Designed for laying up power conductors with 3-5 round cores and straight or sector shape cores.
- Highly productive lay up process with low energy consumption.
- This machine can be equipped with dual wheel pulling capstan when running medium size cables or with haul off caterpillar when running bigger power cables.
- The machine is provided with HMI+PLC control system for pre-setting laying up pitch and for speed synchronization with the take up unit.
- Optionally yarn filler plate, design for a maximum of 24 pieces of filling bobbins.

Model / 型号	1 + 3 = 4 Bobbins		
	KP 100	KP 125	KP 160
Drum Ø / 线盘Ø [mm]	1000	1250	1600
Cable Section for Round Cores / 圆形电缆截面积 [mm ²]	16-240	25-300	25-300
Cable Section for Sector Cores / 扇形电缆截面积 [mm ²]	16-240	16-240	16-240
Cable Section for Pre-Spiral Cores / 预扭扇形电缆截面积 [mm ²]	16-240	16-400	16-400
Finished Cable Ø / 成品电缆Ø [mm]	60	80	100
Rotor Speed / 转体速度 [rpm]	55	36	24
Line Speed / 线速度 [m/min]	60	60	45
Main motor power / 主马达功率 [kW]	55 AC	55 AC	55 AC



中文

- 笼型集合机为可捻反式或不捻反式绞合
- 适用于电力电缆3-5股圆形,直扇形和预扭扇形电缆绞合
- 机台具有低能耗高产出特性
- 本设备可配置双轮引取用于中等大小电缆也可以配置履带牵引用于大型电力电缆
- 整机采用HMI+PLC 控制系统,电脑预设绞线节距,并实现收线同步控制
- 可选装麻线盘填充装置,最多可以选装24个填充盘

Model / 型号	1 + 4 = 5 Bobbins		
	KP 100	KP 125	KP 160
Drum Ø / 线盘Ø [mm]	1000	1250	1600
Cable Section for Round Cores / 圆形电缆截面积 [mm²]	16-240	25-300	25-300
Cable Section for Sector Cores / 扇形电缆截面积 [mm²]	16-240	16-240	16-240
Cable Section for Pre-Spiral Cores / 预扭扇形电缆截面积 [mm²]	16-240	16-400	16-400
Finished Cable Ø / 成品电缆Ø [mm]	60	80	100
Rotor Speed / 转体速度 [rpm]	55	30	20
Line Speed / 线速度 [m/min]	60	60	45
Main motor power / 主马达功率 [kW]	65 AC	65 AC	65 AC

Bow Type Laying Up Machine / 弓式高速成缆机



EN

- Bow type laying up machine working with back twist movement to lay up from 2 to 6 cores of ABC aerial cables, control cable or power cable.
- This machine can use either dual wheel pulling capstan for medium size cables or haul off caterpillar for larger size power cables.
- Main rotor, pulling capstan (or caterpillar) and take up unit are independently driven by AC servo motors.
- HMI+PLC control system for pre-setting laying up pitch and speed synchronization with the take up unit.
- Tension control done through band brakes manually adjustable.
- Additional tension control system consisting in powder brakes. The set is complete with an automatic electrical compensation control in order to keep the tension constant when going from full bobbin to empty bobbin.
- Optional yarn filler plate, design for a maximum of 24 pieces of filling bobbins.

中文

- 弓形绞线机为100%退扭绞合,适用于2-6股圆形ABC架空电缆,控制电缆和电力电缆
- 这台设备既可以配置双轮牵引用于中等大小电缆也可以配置履带牵引用于大型电力电缆
- 主马达,双轮牵引(履带)和收线马达由各独立的AC感应伺服马达驱动
- 整机采用HMI+PLC 控制系统,电脑预设绞线节距,并实现收线同步控制
- 通过带式张力系统可手动调节放线张力
- 可额外配置电子张力系统,透过检测装置量测线盘存量,可自动控制并保证张力从满盘到空盘始终一致
- 可选装麻线盘填充装置,最多可以选装24个填充盘

Model / 型号		KW-100	KW-125	KW-160
Pay off Ø / 放线 Ø [mm]		1000	1250	1600
Line Speed / 线速度 [m/min]		150	150	150
Conductor Section / 导体截面积 [mm²]	1+3B	8-70	10-95	16-150
	1+4B	10-70	14-95	16-150
	1+5B	14-70	14-95	16-150
Max. Core Ø / 最大股外径 Ø [mm]		12	16	20
Rotor speed / 转体速度 [rpm]		500	400	400
Motor power / 电机功率 [kW]	1+3B	45 AC	55 AC	65 AC
	1+4B	55 AC	65 AC	75 AC
	1+5B	65 AC	75 AC	90 AC

Double Twist Machine for Insulated Wires

话缆芯线对绞机



EN

- Double Twist Machine.
- For formations of 2/3/4 insulated cores.
- Optional bow type pay offs to get 100% back twist work.
- Pay off's tension control device that guarantees a correct and identical core tension.

中文

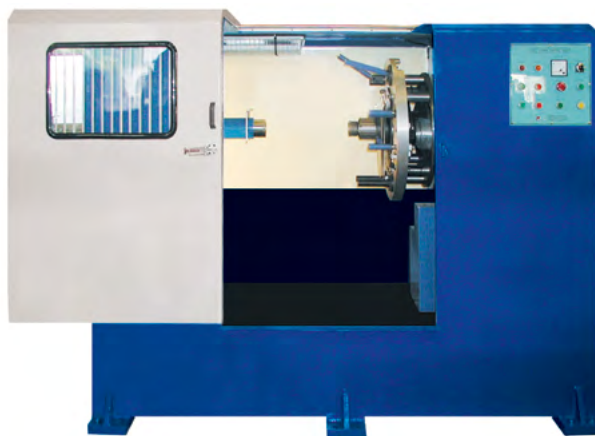
- 话缆芯线对绞机
- 弓式回转放线提供100%退扭给线
- 适用于双(2)或四(4)股通信电缆
- 放线张力控制装置保证相同的和精确的单线张力



Model / 型号	SB-63-T	SB-80-T
Bobbin diameter / 线盘 Ø [mm]	630	800
No. cores / No. cables	2 / 3 / 4	2 / 3 / 4
Max. cable diameter / Diámetro max. Cable [mm]	9	12
Take up twist speed / 收线绞线速度 [tpm]	4000	3500
Line speed / 线速度 [m/min]	250	250

Concentric Taping Machine

同心式包带机

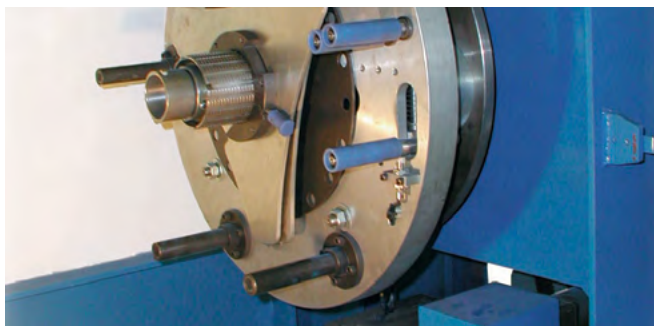


EN

- Concentric taping head machine.
- Suitable for copper and aluminum foils, textile, PE, paper as well as for other "non metal" tapes.
- Tape tension control is done through hysteresis brake.
- Taping head and pulling capstan are driven independently by AC servo motor.
- HMI+PLC control system for pre-setting taping pitch, tape tension compensation and speed synchronization.

中文

- 同心式包带机
- 适用于铜带,铝带,纺织带,PE,纸带以及其它非金属材料
- 带盘张力由德制磁滞刹车提供
- 包带机和牵引机分别由独立的AC感应伺服马达驱动
- HMI+PLC 控制系统实现包带节距预设,带盘张力自动补偿和速度同步



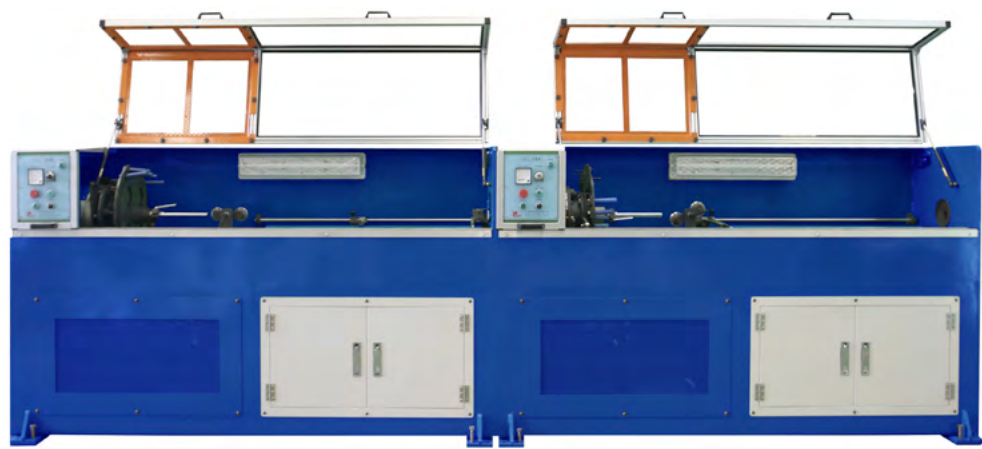
Model / 型号		NC-50	NC-50L	NC-60
Pad size / 带盘尺寸 [mm]	D:	500	500	600
	d:	76	105	105
	W:	20 - 70	20 - 70	20 - 70
Pad load / 带盘重量 [kg]		50	80	80
Cable Ø / 电缆直径 Ø [mm]		30	50	50
Taping speed / 包带转速 [rpm]		1200	1200	850
Pad storage lenght / 带盘存储宽度 [mm]		600	1000	600
Motor power / 电机功率 [kW]		7.5 AC	7.5 AC	7.5 AC

* Max. speed depending on pad weight

* 备注: 最高速度取决于带盘重量

Dual Concentric Mica Tape Machine

双头同心式云母带包带机



EN

- High speed dual concentric mica taping head.
- Designed for mica taping on fire resistant cables.
- Tape tension control is done through hysteresis brake.
- Taping head and pulling capstan are driven independently by AC servo motor.
- HMI+PLC control system for pre-setting taping pitch, tape tension compensation and speed synchronization.

中文

- 高速同心式云母带包带机
- 特别设计供云母防火电缆专用
- 带盘张力由德制磁滞刹车提供
- 包带机和牵引机分别由独立的AC感应伺服马达驱动
- HMI+PLC 控制系统实现包带节距预设,带盘张力自动补偿和速度同步



Model / 型号		NM-40H
Pad size / 带盘尺寸 [mm]	D:	400
	d:	76
	W:	30
Bobbin size / 线盘宽度范围 [mm]	D:	300
	d:	76
	W:	210
Cable Ø / 电缆直径 Ø [mm]		1-10
Taping speed (Pad/Bobbin) / 包带转速 [rpm]		2000/1500
Pad length / 带盘存储宽度 [mm]		1000
Motor power / 电机功率 [kW]		3.7 AC

Eccentric Taping Machine for Cu or Al

偏心式包带机(铜/铝带)



EN

- Eccentric taping head machine with 2 pads per head.
- Designed to work with copper and aluminum foils, textile, PE, paper as well as for other non metal tapes.
- Tape tension control is done through hysteresis brake.
- Taping head and pulling capstan are driven independently by AC servo motor.
- HMI+PLC control system for pre-setting taping pitch, tape tension compensation and speed synchronization.

中文

- 偏心式包带机每头2张带盘
- 适用于铜带,铝带,纺织带,PE,纸带以及其它非金属带
- 带盘张力由德制磁滞刹车提供
- 包带机和牵引机分别由独立的AC感应伺服马达驱动
- HMI+PLC 控制系统实现包带节距预设,带盘张力自动补偿和速度同步



Model / 型号		NE-60	NE-60L	NE-80	NE-80L
Pad size / 带盘尺寸 [mm]	D:	600	600	800	800
	d:	76	76	76	76
	W:	20 - 70	20 - 100	20 - 100	20 - 100
Pad load / 带盘重量 [kg]		80	80	100	100
Cable Ø / 电缆直径 Ø [mm]		70	120	120	180
Motor power / 电机功率 [kW]		7.5 AC	7.5 AC	11 AC	11 AC
Taping speed / 包带转速 [rpm]*		700	700	600	600

* Max. speed depending on pad weight

* 备注: 最高速度取决于带盘重量

Eccentric Taping Machine for Steel Tapes

偏心式包带机(钢带)

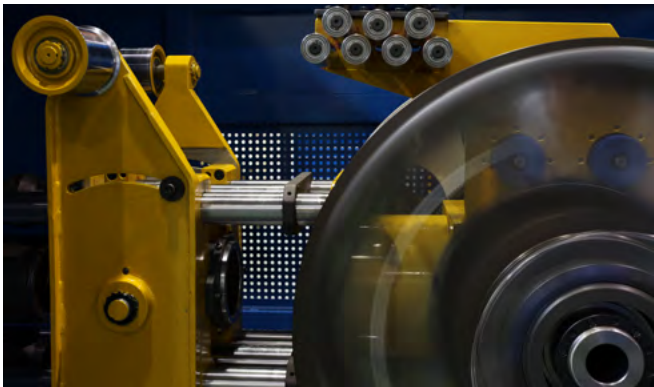


EN

- Eccentric taping head machine with 2 pads per head.
- Specially designed to work with steel tapes.
- Tape tension control is done through hysteresis brake.
- Taping head and pulling capstan are driven independently by AC servo motor.
- HMI+PLC control system for pre-setting taping pitch, tape tension compensation and speed synchronization.

中文

- 偏心式包带机每头2张带盘
- 特别设计专门用于钢带
- 带盘张力由磁滞刹车提供
- 包带机和牵引机分别由独立的AC感应伺服马达驱动
- HMI+PLC控制系统实现包带节距预设,带盘张力自动补偿和速度同步



Model / 型号		NES-60	NES-60L	NES-80	NES-80L
	D:	600	600	800	800
Pad size // 带盘尺寸 [mm]	d:	150	150	200	200
	W:	15 - 80	20 -100	20 - 100	20 - 100
Pad load / 带盘重量 [kg]		100	100	200	200
Cable Ø // 电缆直径 Ø [mm]		80	120	120	180
Motor power / 电机功率 [kW]		15 AC	15 AC	18.5 AC	18.5 AC
Taping speed / 包带转速 [rpm] *		450	450	450	450

* Max. speed depending on pad weight

* 备注: 最高速度取决于带盘重量

Dual Spooler with Bobbins Auto-change

双盘收线机附自动换盘(拉丝生产线用)

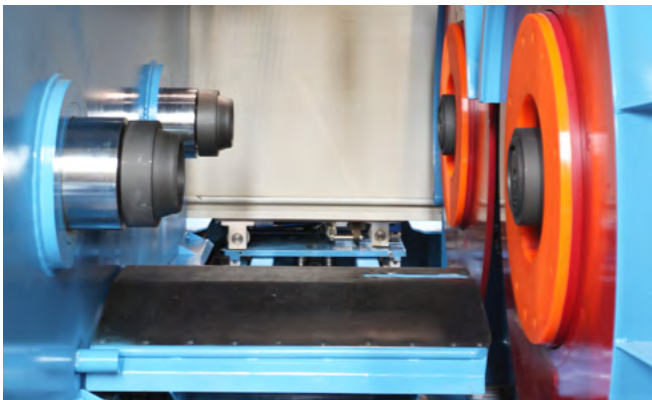


EN

- High speed dual spooler with automatic bobbin change-over.
- Designed for wire drawing lines DA and DB series.
- Non stop production since the change-over is done without stopping the line.
- Fully control operation by the PLC according the information received from the meter counter.
- HMI+PLC control system for speed synchronization with the drawing machine.

中文

- 高速双盘收线机附自动换盘
- 用于拉丝机DA和DB系列生产线
- 不停机实现自动换盘
- 机台PLC根据计尺信号实现全自动操作
- HMI+PLC 控制系统实现同拉丝机生产线同步



Model / 型号	TA-50D	TA-56D	TA-63D	TA-80D
Bobbin Ø / 线盘 Ø [mm]	500	560	630	800
Bobbin width range / 线盘宽度范围 [mm]	300-375	350-425	400-475	500-600
Bobbin load / 线盘负载 [kg]	250	300	500	1000
Wire Ø / 电线 Ø [mm]	1.0-3.2	1.2-3.6	1.5-4.0	1.5-4.5
Max. Speed / 最高速度 [m/min]	2000	1800	1800	1800
Motor power / 电机功率 [kW]	15x2 AC	18.5x2 AC	22x2 AC	37x2 AC

Dual Spooler with Bobbins Auto-change

双盘收线机附自动换盘(挤出生产线用)

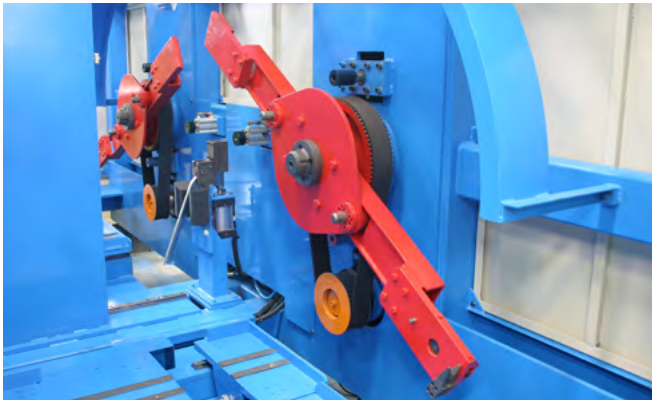


EN

- High speed dual spooler with automatic bobbin change-over.
- Designed for wire extrusion lines EH and EE series.
- Non stop production since the change-over is done without stopping the line.
- Fully control operation by the PLC according the information received from the meter counter.
- HMI+PLC control system for speed synchronization with the extrusion machine.

中文

- 高速双盘收线机附自动换盘
- 用于挤出机EH和EE系列生产线
- 不停机实现自动换盘
- 机台PLC根据计尺信号实现全自动操作
- HMI+PLC 控制系统实现同挤出机生产线同步



Model / 型号	TA-50E	TA-56E	TA-63E	TA-80E	TA-100E	TA-125E	TA-160E
Bobbin Ø / 线盘 Ø [mm]	500	560	630	800	1000	1250	1600
Bobbin width range / 线盘宽度范围 [mm]	300-375	350-425	400-475	500-600	500-750	700-950	1000-1200
Bobbin load / 线盘负载 [kg]	200	250	350	600	1500	2000	3000
Max. Overall Ø / 最大超出量 Ø [mm]	5	6	8	9	9	10	10
Max. Cross Section / 最大横截面 [mm ²]	4	4	6	6	10	16	25
Max. Speed / 最高速度 [m/min]	2000	1800	1200	1000	1000	1000	700
Motor power / 电机功率 [kW]	11x2	15x2	15x2	18.5x2	18.5x2	30x2	30x2

High Speed Single Spooler

高速单盘收线机



EN

- Pintle type high speed single spooler with pneumatic bobbin loading/unloading system.
- Designed for high speed spooling on wire drawing lines or extrusion lines.
- Automatic speed synchronization control by a dancer placed at the inlet of the machine or optionally "built-in" on top of the spooler.

中文

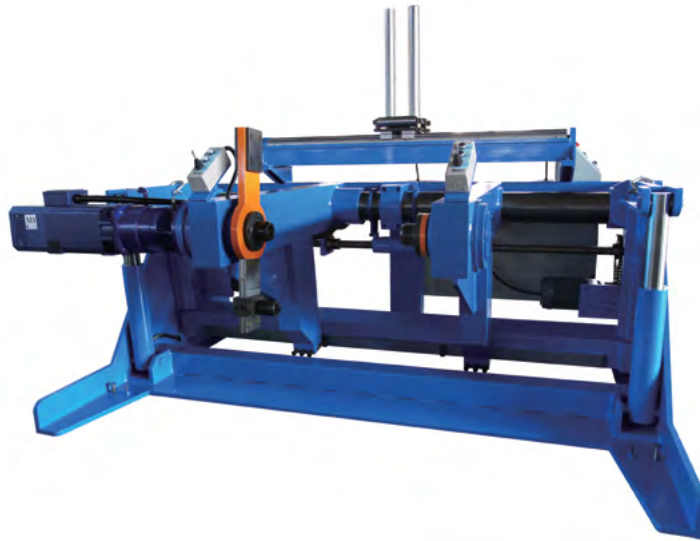
- 无轴式高速单盘收线机,空压顶退轴
- 用于高速拉丝机和挤出机生产线
- 在入线侧配置一个舞蹈器或者在在机台上方安装一台储线装置即可实现速度同步



Model / 型号	TS-40	TS-50	TS-63	TS-80
Bobbin Ø / 线盘 Ø [mm]	300-400	400-500	500-630	630-800
Bobbin load / 线盘负载 [kg]	150	250	500	800
Wire Ø / 电线 Ø [mm]	Cu/Al: 0.4-2.6	0.5-3.2	0.6-4.0	1.2-5.0
	PVC: 1.4-3.0	1.8-4.0	2.5-5.0	3.5-7.0
Max. Speed / 最高速度 [m/min]	Draw: 1800	1800	1800	1200
	Hi-Ex: 1200	1200	1000	1800
	Lo-Ex: 600	600	450	450
Motor power / 电机功率 [kW]	11/5.5/3.7	15/7.5/5.5	22/11/7.5	30/15/11

Cantilever Type Pay Off / Take Up Stand

悬臂式放线 / 收线机



EN

- Bobbin supported in cantilever being the bobbin lifting done through hydraulic cylinders and the pintles closing done through a motor and worm drive.
- High precision cable traversing done through a worm drive with servo motor.
- Designed for processes which require high speed and big bobbin sizes.
- HMI+PLC control system for speed synchronization with the line.

中文

- 旋臂式单盘收放线机,油压升降两侧顶轴悬臂上下盘,无轴式双边电动顶轴
- 伺服电机带动蜗轮减速机和排线机构实现高精度排线
- 适用于高速生产线和大尺寸线盘
- HMI+PLC 控制系统实现和整条生产线的同步



Model / 型号	PH/TH-100	PH/TH-125	PH/TH-160	PH/TH-180	PH/TH-200
Bobbin Ø / 线盘 Ø [mm]	560-1000	630-1250	800-1600	800-1800	1000-2000
Bobbin width range / 线盘宽度范围 [mm]	250-750	400-950	600-1180	750-1320	600-1500
Bobbin load / 线盘负载 [kg]	1500	2500	4000	5000	7000
Wire Ø / 电线 Ø [mm]	3-20	4-25	5-30	6-35	10-40
Max. Speed / 最高速度 [m/min]	Up to 800	Up to 800	Up to 600	Up to 500	Up to 200
Motor power / 电机功率 [kW]	3.7-7.5 AC	3.7-11 AC	3.7-11 AC	3.7-11 AC	3.7-11 AC

Floor Traversing Type Pay Off / Take Up Stand

地排式放线 / 收线机



EN

- The floor traversing allows to keep the cable straight during the haul off process.
- All operations are fully motorized.
- When using dual pay off/take up, the front stand can be moved aside from the machine's center line, allowing to use the rear stand thus getting a continuous run.
- When running bigger cable sizes the machine can be equipped with an arm type speed detector for speed synchronization.
- HMI+PLC control system for pre-setting traversing pitch and for bobbin speed control.

中文

- 轨道移动装置保持电缆直线进出线盘
- 所有操作全部为电动完成
- 用于双放/双收时,前面的机台可以移开中心位置让后面的电缆通过,实现不停机运行
- 当用于大直径线缆时,配置一台摆臂式检出装置实现速度同步
- MMI+PLC 控制系统可预设排线节距和实现收线速度控制



Vertical Motor Detail



Model / 型号	PF/TF-160	PF/TF-200	PF/TF-225	PF/TF-260	PF/TF-280	PF/TF-320
Bobbin Ø / 线盘 Ø [mm]	800-1600	1000-2000	1000-2250	1250-2600	1250-2800	1600-3200
Bobbin width range / 线盘宽度范围 [mm]	600-1180	750-1600	750-1700	750-1900	950-1900	1180-2000
Bobbin load / 线盘负载 [kg]	5000	6000	7500	10000-15000	10000-15000	15000
Wire Ø / 电线 Ø [mm]	5-40	5-60	5-80	6-100	6-120	6-140
Max. Speed / 最高速度 [m/min]	180	180	180	150	150	120
Motor power / 电机功率 [kW]	3.7-11AC	3.7-11AC	3.7-11AC	3.7-11AC	5.5-15AC	5.5-15AC

Floor Traversing Type Pay Off / Take Up Stand

地排式放线 / 收线机

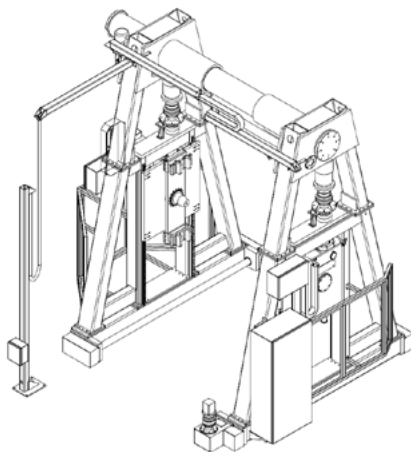


EN

- Specially designed for large and heavy duty cables.
- Keep the cable straight during the haul off process.
- All operations are fully motorized.
- When using dual pay off/take up, the front stand can be moved aside from the machine's center line, allowing to use the rear stand thus getting a continuous run.
- Equipped with a speed detecting dancer for speed synchronization.
- MMI+PLC control system for pre-setting traversing pitch and for drum speed control.

中文

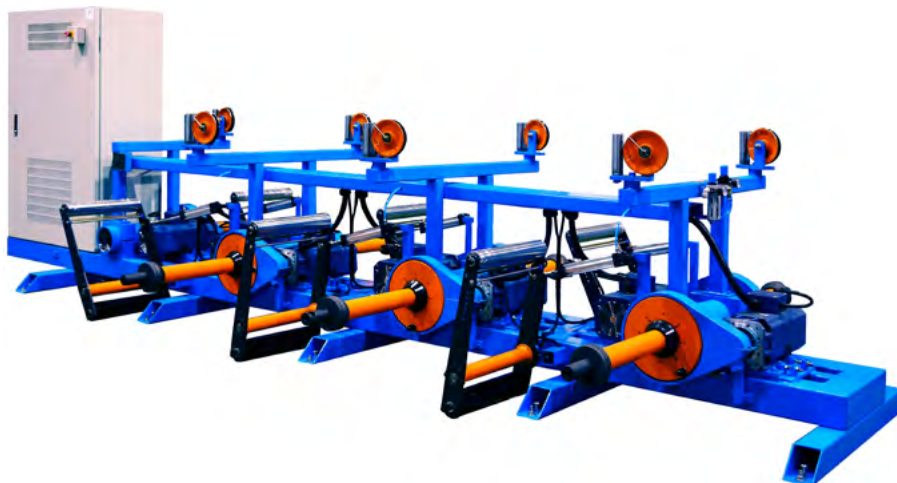
- 适用于大直径线缆和重型线缆
- 保持电缆直线进出线盘
- 所有操作全部为电动完成
- 用于双放/双收时,前面的机台可以移开中心位置让后面的电缆通过,实现不停机运行
- 配置速度检出装置保持和生产线同步
- MMI+PLC 控制系统可预设排线节距和实现收线速度控制



Model / 型号	PFA/TFA-360H	PFA/TFA-400H	PFA/TFA-420H	PFA/TFA-500H
Bobbin Ø / 线盘 Ø [mm]	1800-3600	2000-4000	2000-4200	2500-5000
Bobbin width range / 线盘宽度范围 [mm]	1400-2200	1500-2300	1500-2500	1900-3500
Bobbin load / 线盘负载 [kg]	20000	25000	40000	50000
Wire Ø / 电线 Ø [mm]	130	140	150	170
Max. Speed / 最高速度 [m/min]	60	50	50	40
Motor power / 电机功率 [kW]	5.5-15AC	5.5-15AC	5.5-15AC	5.5-15AC

Dual Shaft Type Motorized Pay Off

双轴式动力放线架

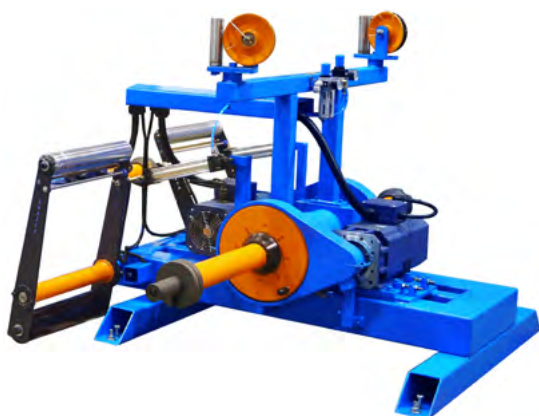


EN

- Shaft hanging type compact specially designed for portable application and suitable for any number of wires (or bundles) in bunching processes.
- This pay off is widely used in bunching / extrusion process and other application required medium speed motorized pay-off with precision tension control.
- Wire tension is controlled through a pneumatic arm roller dancer.
- In general each machine body consists of two pay off units. For stranding / bunching purpose, the machine body will be extended in order to install 4 units pay-off at one side and 3 units at the other side.
- The whole unit is supplied with wire guide rollers in order to allow a smooth wire path.

中文

- 有轴式紧凑型设计,用于束绞机单股或者多股绞线放线
- 本机台可用于束绞机/挤出机和其它需要中速放线的地方,自动精密张力控制
- 气缸摆臂式导轮控制张力
- 放线架左右两侧各布置一头放线,配合绞线机/束绞机绞合7股线芯时,放线的配置为一侧4头,另外一侧3头
- 所有过线的地方都安装导线轮,保证线芯顺利地放出

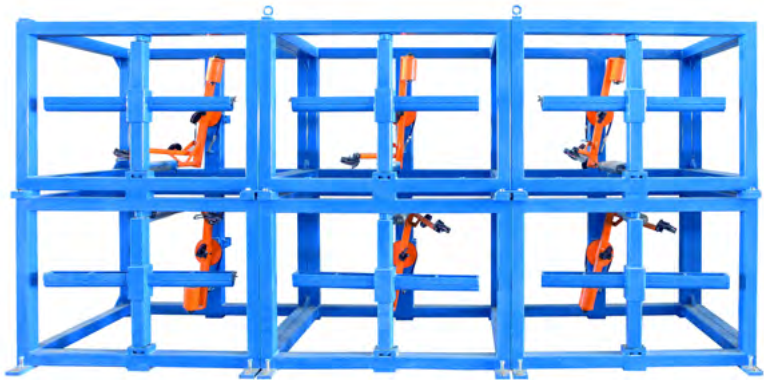


Model / 型号

	PS-63D	PS-80D
Bobbin Ø / 线盘 Ø [mm]	630	800
Bobbin load / 线盘负载 [kg]	700	1100
Conductor Ø / 导体 Ø [mm]	0.6-2.6	1.0-3.0
Wire Bundle Cross Section / 束丝面积 [mm ²]	Up to 10	Up to 10
Line speed / 线速度 [m/min]	200	200
Motor Power / 电机功率 [kW]	2.2 AC each	3.7 AC each

Flyer Type Pay Off

飞子式放线架



EN

- Flyer type pay off stand specially designed for portable applications and suitable for any number of wires (or bundles) in bunching processes.
- This pay off is widely used in bunching process for flexible wires having each pay off a bundle of fine wires.
- Wire tension controlled through band brake.
- In general each machine body consist in a robust structure which allows to place one pay off on top of the other.
- Shaft hanging type loading system being this shaft pivoting 180° allowing to have one bobbin running while the next bobbin is in “stand by” position.
- The cable is unwound by a rotating flyer arm being the whole unit supplied with guiding pulleys or conveying pulleys allowing a smooth wire path.



中文

- 飞子式放线架专门用于束绞机单股或者多股绞线放线
- 机台适用于单根和多股软导体的放线, 后续供束绞机用
- 采用带式张力
- 机台强壮的结构设计, 双层设计节约空间
- 穿轴式结构安装线盘, 线盘支撑架可以180°旋转, 当内侧线盘在放线时, 外侧装载满盘完成换盘的准备, 线盘伸降由手推电动升降机完成
- 线芯经过飞子放线臂送出, 所有过线的地方都安装导线轮, 保证线芯顺利地放出

Model / 型号	PS-63F	PS-80F
Bobbin Ø / 线盘 Ø [mm]	630	800
Bobbin load / 线盘负载 [kg]	700	1100
Conductor Ø / 导体 Ø [mm]	0.8-2.6	1.0-3.2
Wire Bundle Cross Section / 束丝面积 [mm²]	1.5-6.0	2.5-10
Tension Range / 张力范围 [N]	15-90	20-120
Line Speed / 线速度 [m/min]	200	200

Single Type Pay Off / Take Up Stand

单盘放线 / 收线机



EN

- Single pintle type pay off / take up unit.
- Bobbin lift done by a motorized screw system.
- Pneumatic bobbin locking system.
- Designed for high speed extrusion lines and rewinding lines.
- Completed with a “built-in” dancer (speed detector) for speed synchronization of the pay off with the extruder, specially when working with fine wires on high speed extrusion processes.

中文

- 无轴式单边放线/收线装置
- 电动升降装置用于上下线盘
- 空压顶轴锁紧线盘
- 适用于高速挤出生产线和复绕生产线
- 放线架配置一套舞蹈系统(储线装置)可实现和挤出机生产线同步.特别适合用于高速挤出机细芯线的放线



Model / 型号	PP/TP-50	PP/TP-63	PP/TP-80
Bobbin Ø / 线盘 Ø [mm]	400-500	500-630	600-800
Bobbin load / 线盘负载 [kg]	250	550	1000
Conductor Ø / 导体 Ø [mm]	0.4-2.6	0.6-3.6	1.0-4.5
Insulated cross section / 绝缘横截面 [mm ²]	2-6	2-10	2-10
Line speed / 线速度 [m/min]	250-1000	250-1000	250-1000
Motor power / 电机功率 [kW]	Up to 5.5	Up to 7.5	Up to 11

Dual Cone Type High Speed Pay Off Stand

双筒式高速放线架



EN

- Dual cone type wire pay off suitable for high speed extrusion lines.
- Designed for non stop bobbin change-over without stopping the line.
- Portable trolleys with motorized lifter for bobbin loading/unloading.
- Wire is pulled out through a free rotating ring, or motorized ring, placed in front of the bobbin flange.

中文

- 双筒式放线架适用于高速挤出机生产线
- 实现在生产中不停机自动换盘
- 便携式手推台车结构,电动升降装卸线盘
- 芯线可自线盘内自由甩出,可以加装电动送线环实现高速送线,更换送线环便可适用不同线径的线盘



Tension Controller



Model / 型号		PC-63	PC-80	PC-100	PC-125
Bobbin Ø / 线盘 Ø [mm]		500-630	630-800	800-1000	1000-1250
Conductor Ø / 导体 Ø [mm]		0.6-3.0	1.0-3.6	-	-
Insulated cross section / 绝缘横截面 [mm²]		1.0-4.0	1.5-6.0	2.5-10	4.0-16
Pay off speed / 放线速度 [m/min]	Free:	400	300	250	200
	Motorized:	1200	800	600	400
Bobbin load / 线盘负载 [kg]		500	800	1200	2000

Belt Type Haul Off Caterpillar
履带式牵引机

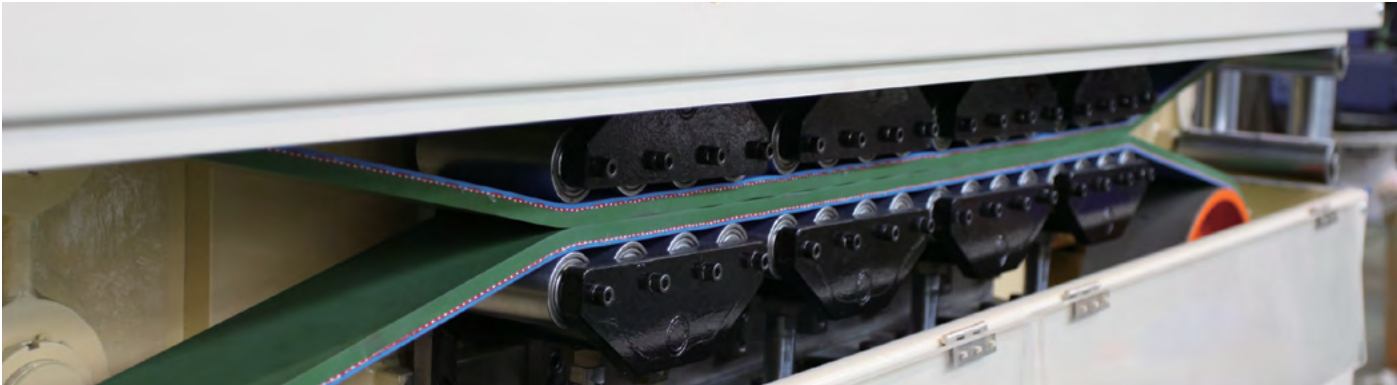


EN

- Haul off caterpillar consisting in 2 flat type belts that press the cable through multiple pneumatic pressing shoes.
- Design for extrusion, taping or laying up lines.
- Optionally (and depending on the maximum cable size) the caterpillar can be equipped with a dual wheel type length counter or belt type length counter, being the counter itself a digital type with 5 digits plus proximity sensor.

中文

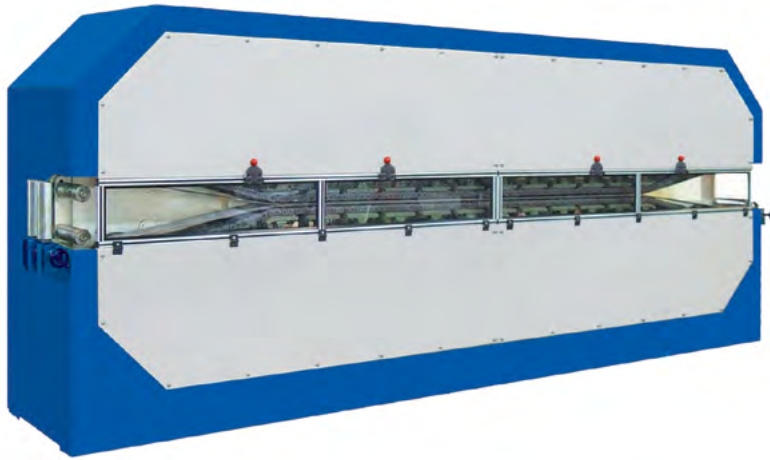
- 履带式牵引机采用上下多组空压缸上下两侧压紧牵引履带
- 适用于挤出机,包带机和成缆机等生产线
- 牵引机 (根据电缆最大外径)可以选择用双轮式记尺机或者皮带式记尺机,记尺采用5位数字显示+近接开关



Model / 型号	CB-75	CB-100	CB-150	CB-200	CB-250
Belt tread / 皮带压着长度 [mm]	750	1000	1500	2000	2500
Pulling force / 拉力 [kg]	900	1250	1900	2600	3200
Catching belt width / 压着皮带宽度 [mm]	100	100	120	160	160
No. Pressing shoes / 压紧轮组数量	3x2	4x2	6x2	8x2	10x2
Cable Ø / 电缆直径 Ø [mm]	5-40	5-60	10-80	15-100	15-130
Max. Line speed / 最高线速度 [m/min]	120-180	100-150	100-150	60-100	40-60
Motor power / 电机功率 [kW]	11-22 AC	15-30 AC	22-2x22 AC	22-2x22 AC	22-2x22 AC

Heavy Duty Haul Off Caterpillar

重负载履带牵引机



EN

- Heavy duty haul off caterpillar specially designed for large cables on armoring processes.
- Chain track linked with round groove rubber blocks up/down clamping type caterpillar with 2 soft leather belts laying on cable touching surface for smooth contact.
- Round grooves increase the contact area and decrease the contact pressure.
- Optionally equipped with a belt type length counter unit. Made in polyurethane, moves following the motion of the inlet coming cable and the measuring wheel sits on top of the belt. The counter itself is a digital type with 5 digits plus proximity sensor.

中文

- 重型履带式牵引机用于大型电缆铠装生产线
- 链条式履带牵引机由上下两条重型链条+圆沟橡胶块串接成牵引履带,履带表面再以两条软质皮面胶带压紧电缆
- 胶块圆沟加大与电缆接触面同时降低电缆接触压力
- 可选择配置皮带式记尺机.PU胶质皮带以气缸压紧通过之电缆,皮带的运动带动上方的计尺轮记尺.记尺采用5位数字显示+近接开关



Model / 型号	CB-300H	CB-600H
Belt tread / 皮带压着长度 [mm]	3000	3000x2
Pulling force / 拉力 [kg]	up to 4500	up to 8000
Catching belt width / 压着皮带宽度 [mm]	140	140
No. Pressing shoes / 压紧轮组数量	12x2	14x2
Cable Ø / 电缆直径 Ø [mm]	25-150	50-300
Max. Line speed / 最高线速度 [m/min]	30/45/60	20/30/40
Motor power / 电机功率 [kW]	2 x 11-15 AC	2 x 2 x 11-15 AC

Auto-Coiling Machine

自动线缆成圈机



EN

- Auto-Coiling Machine.
- MMI+PLC control system to produce 100 to 500 meters of single core coils.
- Work in tandem as a take up unit on a PVC wire extrusion line with continuous coiling or independently by using a driven cantilever pay off stand and wire accumulator.

中文

- 自动线缆成圈机
- MMI+PLC 控制系统用于生产100到500米单卷电缆成圈
- 可以配置在PVC绝缘挤出机生产线后在线成圈,也可以独立配置于悬臂式放线架和储线架之后单独成圈



Model / 型号

WC-36

WC-50

WC-60

WC-80

Coils Dimension / 成圈尺寸 [mm]

D:

360

500

600

800

d:

140

150/200

200/250/300

250/300/350

H:

40/60/80

50/60/80/100

60/80/100/120

100/150/200

Wire Ø / 电线 Ø [mm]

Hard:

0.8-4.0

1.5-8.0

2.5-10

4.0-14

Soft:

0.8-6.0

1.5-12

2.5-15

4.0-20

Max. Speed / 最高速度 [m/min]

100m:

300

250

200

100

200m:

350

300

250

120

300m:

400

350

300

150

400m:

500

450

350

-

Wrapping Machines

自动线缆缠包机



Auto-Wrapping Machine
自动包装机



Heat Shrink Packing Machine
热缩包装机

- EN
- Auto-Wrapping Solutions for cable coils.
 - WN Series auto-wrapping machine for core coils with PP film or PE tape and also designed for auto-label sticking.
 - WP Series auto-sealing & shrinking machine completed with shrinking oven.
 - Simple design for easy operation and maintenance.

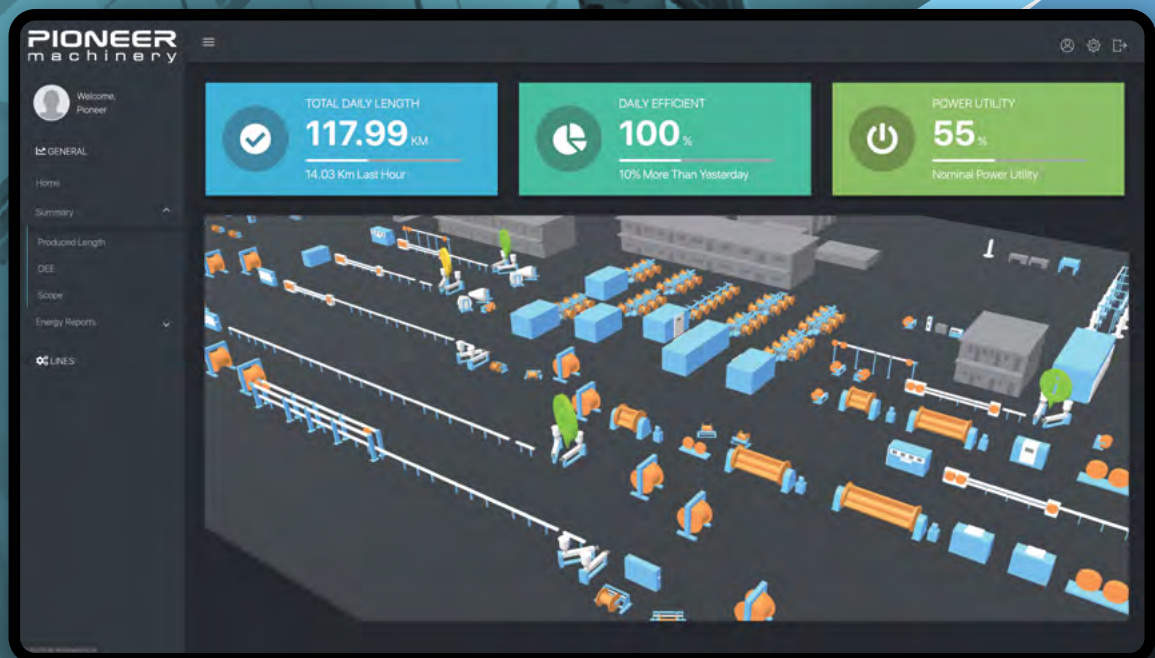
- 中文
- 自动缠包机用于包装成圈后的电缆
 - WN 系列缠包机为自动将电线线圈成品以PP或PE带全自动缠包,同时可自动黏贴标签
 - WP 系列用于电缆线圈成品热缩膜包装
 - 简单的设计便于操作和维护

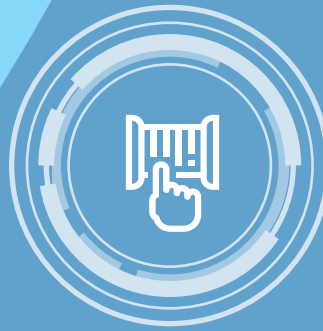
Auto-Wrapping Machine / 自动包装机

Model / 型号	WN-36	WN-45	WN-60	WN-80
Coils Dimension / 成圈尺寸 [mm]	D: 360	450	600	800
	d: 140	150/200	200/300	250/350
Coil Width / 成圈宽度 [mm]	40/80	50/100	60/120	80/150
Coil Weight / 成圈重量 [kg]	25	35	75	150
Film Width & Thickness / 填充宽度&厚度 [mm]	60x0.07	60x0.07	100x1.2	120x1.2
Wrapping Speed / 包膜速度 [rolls/min]	2.5-3.0	2.5-3.0	2.0-2.5	1.0-1.5

Heat Shrink Packing Machine / 热缩包装机

Model / 型号	WP-500	WP-600
Coil Height / 成圈高度 [mm]	40-120	60-180
Outside Ø / 外径Ø [mm]	250-500	150-600
Coil Weight / 成圈重量 [kg]	30	100
Preheat time / 预热时间 [mm]	10	10
Wrapping Speed / 包膜速度 [rolls/min]	1-6	1-8





**Transparent
Production**



**Flexibility &
Scalability**



**Productivity
Improvement**



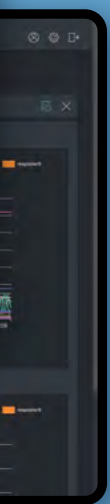
**Statistics &
Analysis**

Transform into a Smart Factory

Pioneer Machinery, with more than 40 years of experience of designing and manufacturing wire & cable machinery, is now in the IoT industry providing customers Smart Factory solutions.

Our IoT function packages are suitable not only for Pioneer's production lines but also for machines from other manufacturers, even for those of more obsolete technology.

We allow you to upgrade machines and to deploy function packages step by step in order to allow a smooth and carefree transition from traditional factory to fully Smart Factory.



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