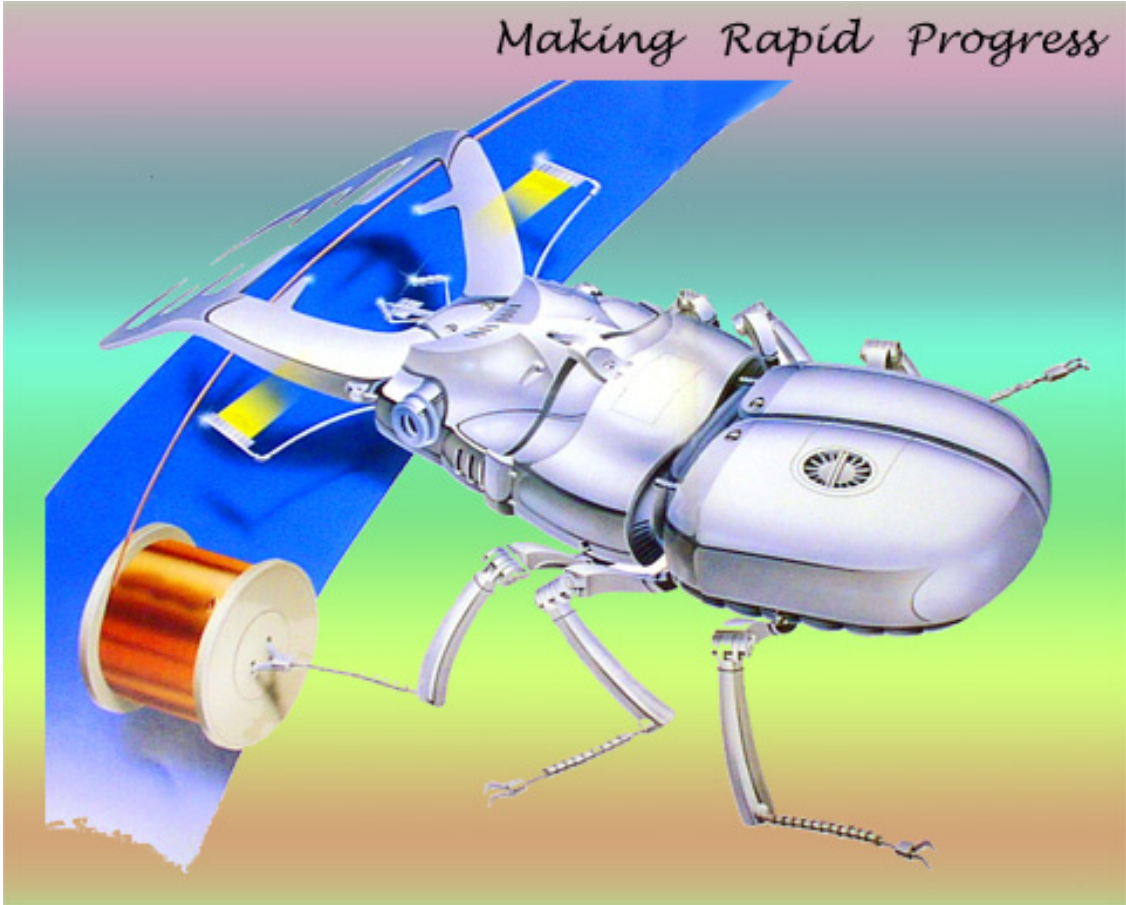


Machines for Magnet Wire



Model of Machine

HE4000

Horizontal high speed enamelling machine with heat exchange system

KUHARA SEISAKUSHO CO., LTD.



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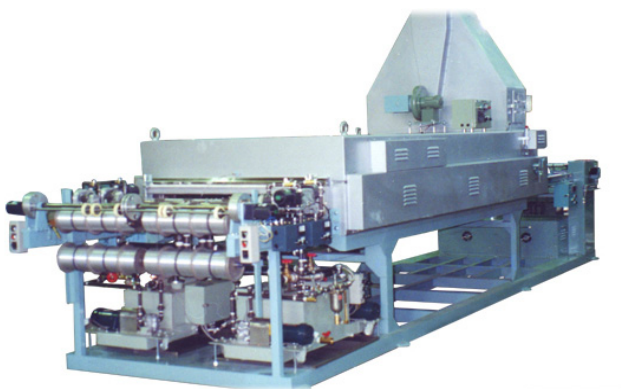
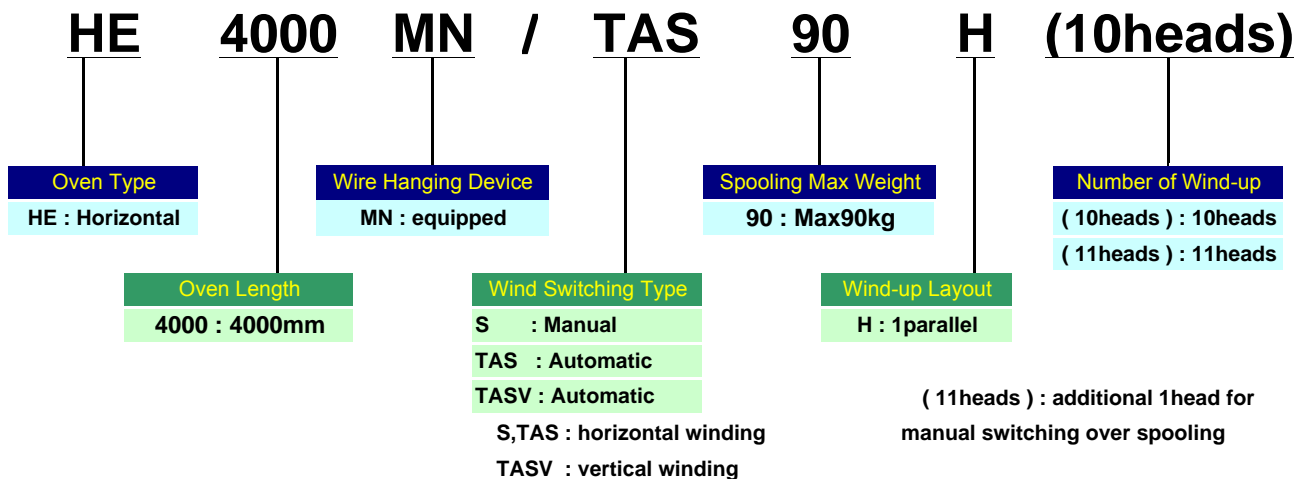
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HE4000

Horizontal high speed enamelling machine with heat exchange system

Model



COATING OVEN



WIND-UP UNIT

Description

This HE4000 is the latest horizontal machine for producing various kind of wires. HE4000 has a energy saving system which can maintain high temperature oven inside, due to utilizing exhaust heat. For instance "Infrared Heater Type" or "Horizontal Automatic Switching-over wind-up system" also can be used depending on your need.

Specification

MODEL	TAS	S	TASV	S
HE4000MN/**90H**	(10 heads)	(11 heads)	(10 heads)	(11 heads)
Wire Diameter Range	0.20 - 0.60 mmφ		0.30 - 0.80 mmφ	
Speed Range	(Max) 150 m/min		(Max) 100 m/min	
Number of Chamber in 1 Oven	1 chamber			
Max. Number of Line(per 1 Chamber)	10 lines			
Max. Coating Time(per 1 Line)	13 times			
Wire Passes	130 passes			
Method of Enamel Wiping	die wiping			
Wire Line in Oven	7 mm(between wire lines), 1150 mm(height from the floor)			
Running Power	33 - 42 kw(estimate)	27 - 35 kw(estimate)	35 - 45 kw(estimate)	29 - 37 kw(estimate)
Electric Capacity	92 kw(estimate)	77 kw(estimate)	99 kw(estimate)	81 kw(estimate)

Technical Data

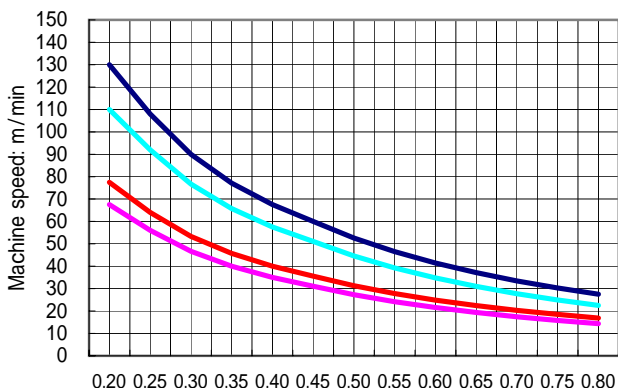
Type of Heater	PU	PEI
Standard Heater		
Infrared Heater		

Please make sure the example of the color of bars.

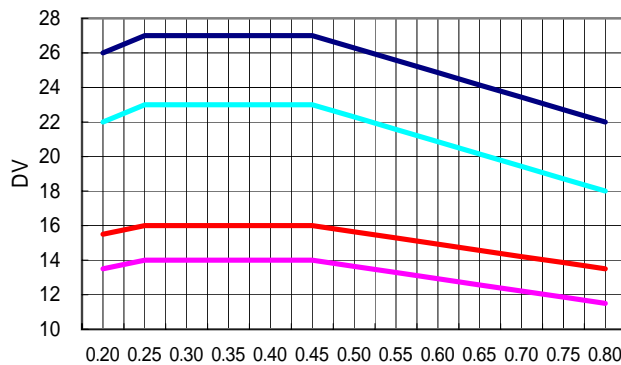
Please be sure to confirm the graphs below. "PU" means "PU(class F)".

- * These data are based on "class#1 of JIS(Japan Industrial Standard) qualification".
- * Depend on suitable production materials and conditions.
- * Production for over coating wire will decline about 10% than production for single coating wire.
- * Finished product applicable to JIS(Japan Industrial Standard) qualification.

Guaranteed Production Speed



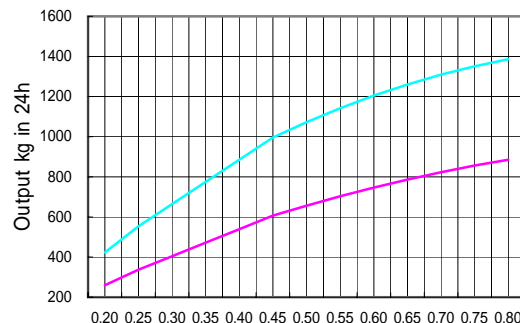
Diameter: mm



Diameter: mm

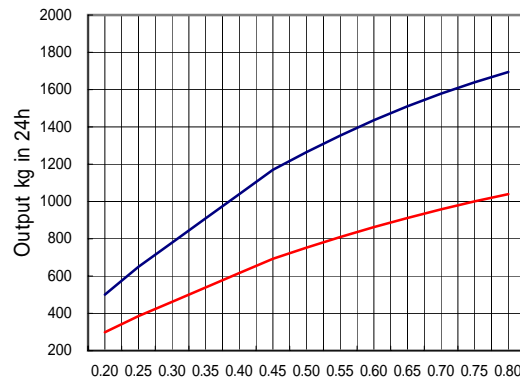
Output kg in 24 hours

Diameter: mmφ	Standard Heater			
	1 head		10 heads	
	PU	PEI	PU	PEI
0.20	42	26	424	260
0.25	55	34	554	337
0.30	66	40	664	404
0.35	77	47	775	472
0.40	89	54	886	539
0.45	100	61	996	607
0.50	107	66	1073	657
0.55	114	70	1142	704
0.60	120	75	1205	747
0.65	126	79	1260	787
0.70	131	82	1309	823
0.75	135	86	1351	856
0.80	139	89	1386	886



Diameter: mm

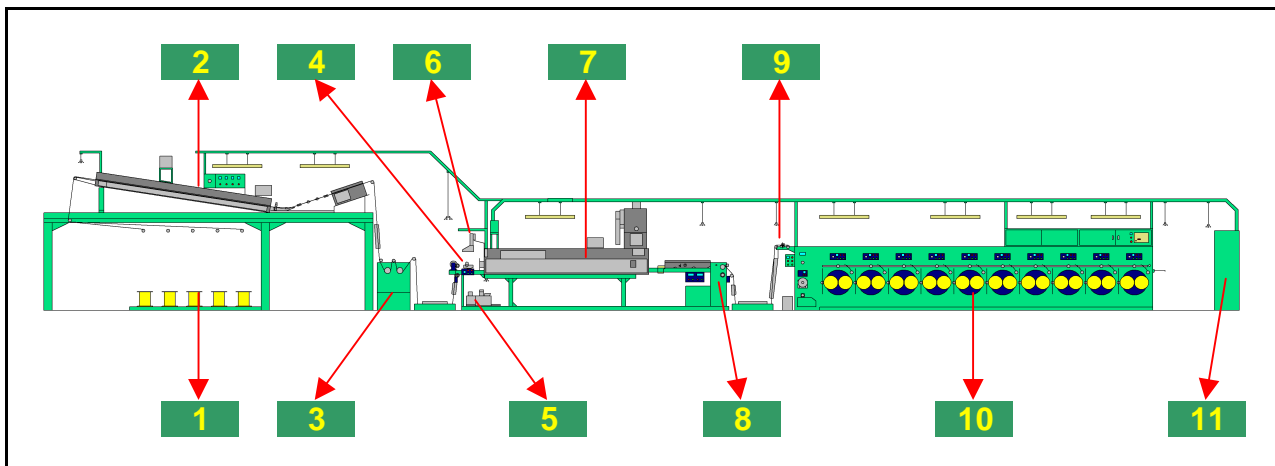
Diameter: mmφ	Infrared Heater			
	1 head		10 heads	
	PU	PEI	PU	PEI
0.20	50	30	501	298
0.25	65	39	650	385
0.30	78	46	780	462
0.35	91	54	910	539
0.40	104	62	1040	616
0.45	117	69	1170	693
0.50	127	75	1265	753
0.55	135	81	1354	810
0.60	144	86	1436	862
0.65	151	91	1511	912
0.70	158	96	1579	958
0.75	164	100	1640	1001
0.80	169	104	1694	1040



Diameter: mm

Unauthorized duplication is prohibited.

Components of Machine



1 Supply Device

Installed under operation deck of annealing oven. Wire line guide & spooling attachment(vertical type for 10 heads) × 1 unit equipped. Curl flyer: 20 units attached.

recommendation model	standard model

2 Annealing Oven

0.20-0.60mmφ

4300mm(L) x 750mm(W) x 350mm(T), 10 pipes x 1 chamber, Heated water bath type. Air wiping system & Hot air Re-circulation type dryer & Steam generator equipped.

recommendation model	standard model

0.30-0.80mmφ

5000mm(L) x 750mm(W) x 400mm(T), 10 pipes x 1 chamber, Heated water bath type. Air wiping system & Hot air Re-circulation type dryer & Steam generator equipped.

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3 Draw-out Machine

1-speed type with 150mmφ double roll device

recommendation model	standard model

4 Applicator

1 bath 1-speed type with 60mmφ coating roll device. Die wiping attachment. Level detector system and enamel heater for applicator bath equipped.

recommendation model	standard model

5 Varnish Circulation Tank

20 liters with indirect heating and circulation system

20 liters with automatic viscosity control system

recommendation model	standard model

6 Partial Exhaust Device

1 motor type

recommendation model	standard model

HE4000

7 Coating Oven

HE4000: 4000mm(L) x 1400mm(W) x 650mm(T) x 1 chamber, Heat Exchange System, MN wire hanging device and Exhaust fan x 1 equipped.

Standard heater

Infrared heater

recommendation model	standard model

8 Take-up Machine

0.20-0.60mmφ

1-speed type with 120mmφ taper capstan roll device (water cooling type), Wire adhesion detector equipped.

0.30-0.80mmφ

1-speed type with 150mmφ taper capstan roll device (water cooling type), Wire adhesion detector equipped.

recommendation model	standard model

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9 Oil Coating Device

40mmφ coating roll device, Thermo control unit and circulating pump equipped.

recommendation model	standard model

10 Wind-up Machine

0.20-0.60mmφ

S90H(11heads): 1-speed & 1-traverse type with manual switching over (horizontal).

Bare wire alarm equipped.

TAS90H(10heads): 1-speed & 1-traverse type with automatic switching over (horizontal).

Wire break down detector(auto stop system) equipped. Bare wire alarm equipped.

0.30-0.80mmφ

S90H(11heads): 1-speed & 1-traverse type with manual switching over (horizontal).

Bare wire alarm equipped.

TASV90(10heads): 1-speed & 1-traverse type with automatic switching over (vertical).

Wire break down detector(auto stop system) equipped. Bare wire alarm equipped.

recommendation model	standard model

11 Control Panel

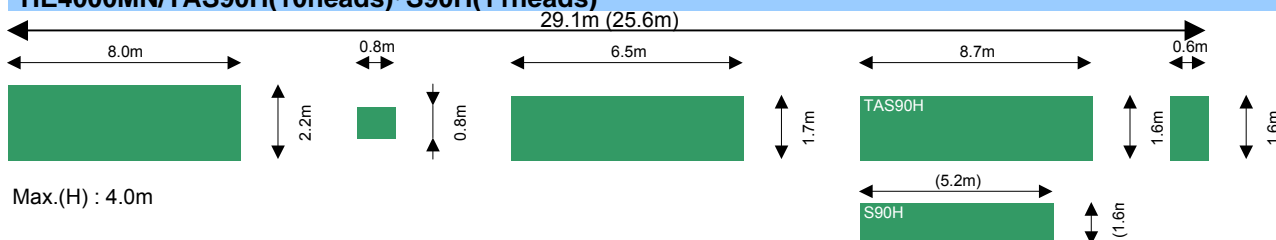
Cubicle type: 1600mm(W) x 2000mm(H) x 600mm(D), Temperature average controller system by 3 measuring points (left/center/right) at oven in-let, middle and out-let. "PID" thermo control. 12 measuring points thermo recorder equipped. Watt-hour meter equipped.

recommendation model	standard model

* With regard to **5**, **7**, **10**, every items can be utilized.

Layout

HE4000MN/TAS90H(10heads)• S90H(11heads)



HE4000MN/TASV90(10heads)• S90H(11heads)

