Introduction

Company Profile

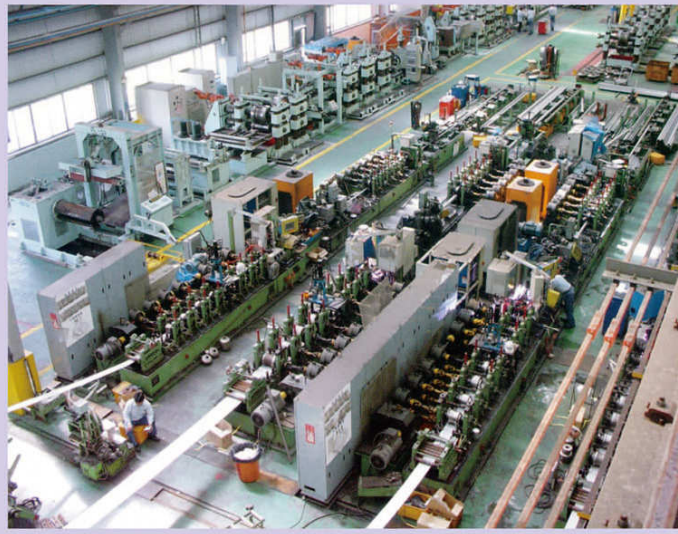
Being a metal welded tube and pipe forming equipment manufacturer, VEGA Engineering Corporation specializes in turn-key project services and welded tube related accessorial equipments. Established in 1998, Vega Engineering Corporation has never stopped researching and absorbing the most updated technology in this welded tube industry. With such in which VEGA is willing to grow with customers in partnership of the tube / pipe supply chain, and with the belief of assisting our friends to create the largest profit margin at the least expenditure, GP "GREEN POINT", our brand, comes into being.

VEGA Philosophy of Management

- Be more professional than customers. Propose them cost effective equipments for quality tube / pipe and create a high efficiency, harmonized environment for our customers.
- Educate our staff to be professionals in team playing. Train everyone to be ready to cater for assistance to our customers and friends at any time.

Research / Quality Control

VEGA Engineering Corporation has got an excellent team of Research & Development which focuses on improvement of technology and machine performance. Our Tube Forming Mills can produce tube / pipe to meet ASTM standard A249, A270, A312 for stainless steel, A135 for carbon steel and API 5L for petrol pipes. Developed Titanium Forming mill for Ti pipe ASTM B338 is being applied nuclear power / desalnation.



Product Line

1. Carbon Steel / Copper Welded Tube Turn-key Project Equipment (HF Welded)
2. Stainless Steel Welded Tube Turn-key Project Equipment (Plasma-TIG or Laser Welded)
3. In-line Bright Annealing Tube Heat Treatment Equipment / Titanium Tube Forming Mill
4. Plasma TIG Welding Equipment
5. In-line / Off-line MF Dull Annealing Tube Heat Treatment Equipment
6. Eddy Current Test Equipment

President *Mr. Joseph F. Chen*

ERW Tube Forming Mill Production Line

Rigid Gear for Heavy Duty Model

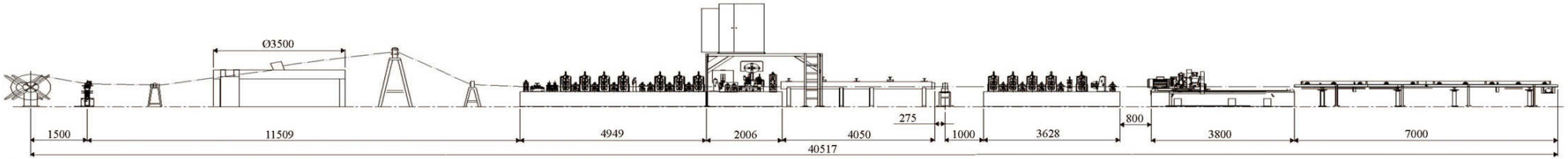
ERW for SUS 409 Tube

Four Rolls SQ. Welding

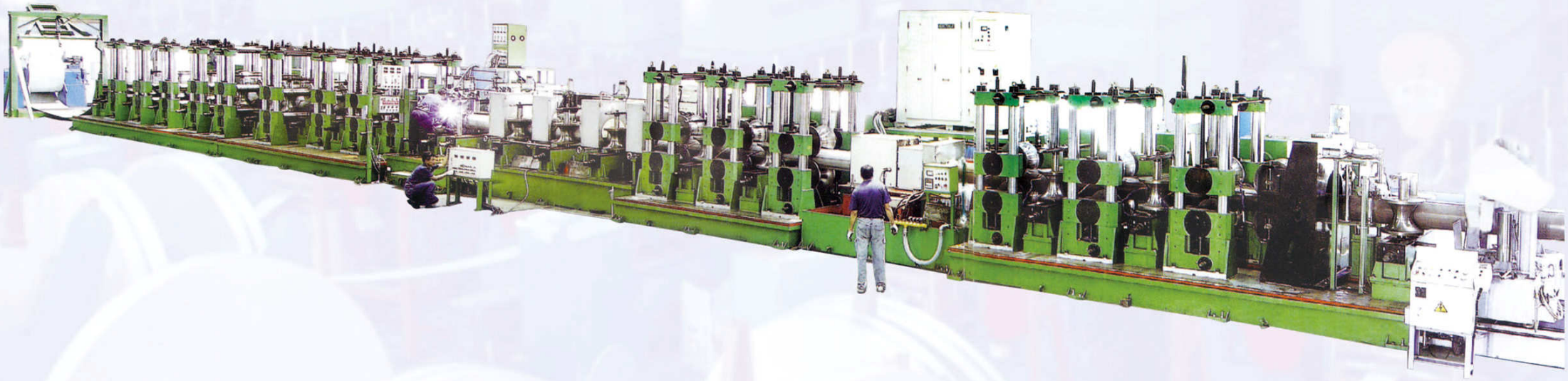
ID Scarfing Tool

Zinc Arc Spary

N.C. Cutter



Stainless Steel Tube Production Line




Work Site

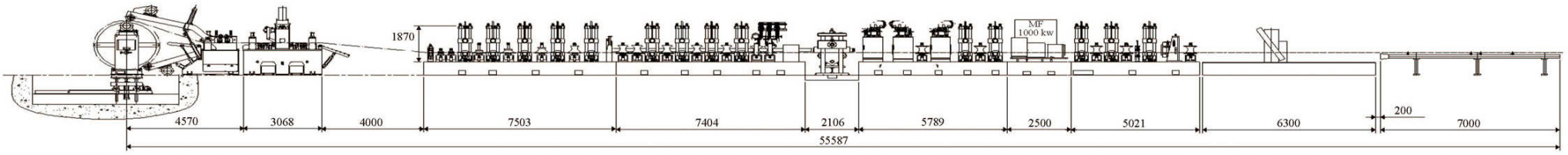

Quality Welding Bead


Tricathode Welder

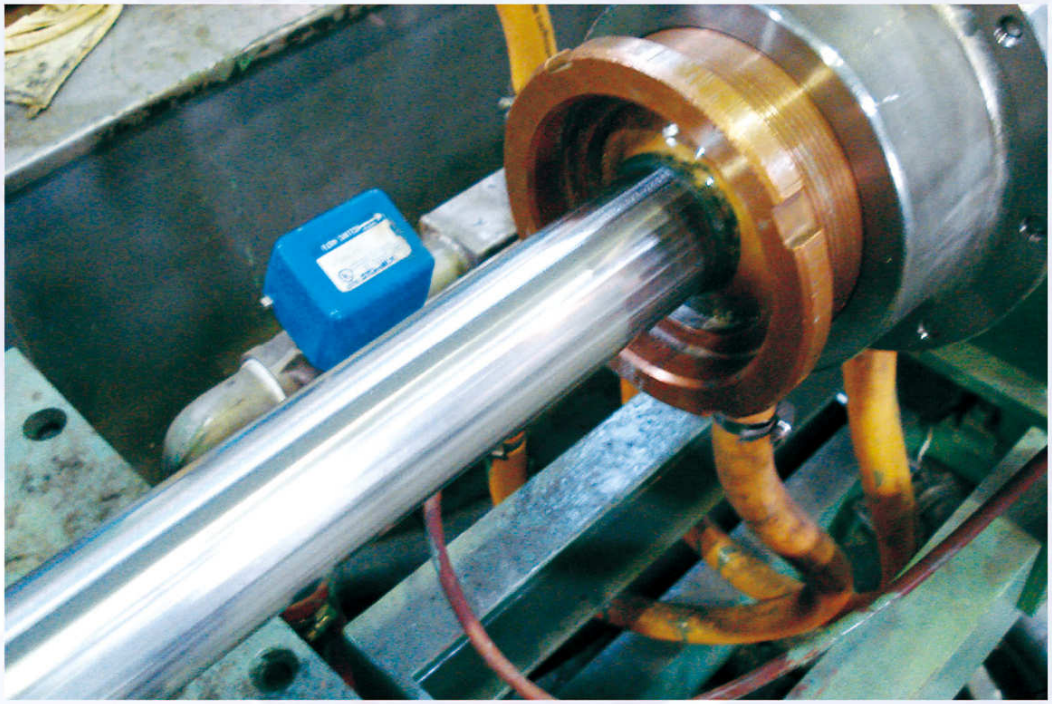

In-line Annealing


In-line Eddy Current Test


Off-line Eddy Current Test



In-line Bright Annealing Tube Production Line

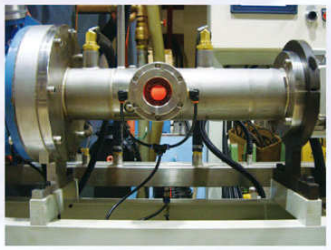


Work Site

Sealed Welding Box

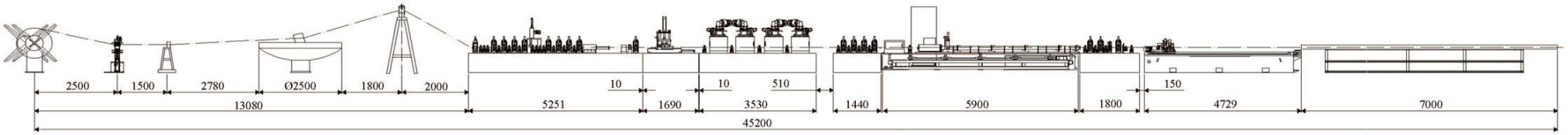
Bead Rolling

Heating Coil
(with Infrared Temp. Detector)



View Window

Interface



Laser Welding Tube Production Line


Laser Welding


Seam Tracking


MF Annealing

Laser Welder


Laser Controller


Welded Tube Extension Test

MATERIAL:

304 Stainless Steel

316 Stainless Steel

409 Stainless Steel

APPLICATION:

SS Tubes for Automotive Exhaust Tube

SS Pipe for Industrial: ASTM A312/A358/A778, ANSI/ASME B36.19M, JIS G3459, CNS 6331

SS Tubes for Mechanical & Structural Purposes: ASTM A554, JISG3446, CNS 5802

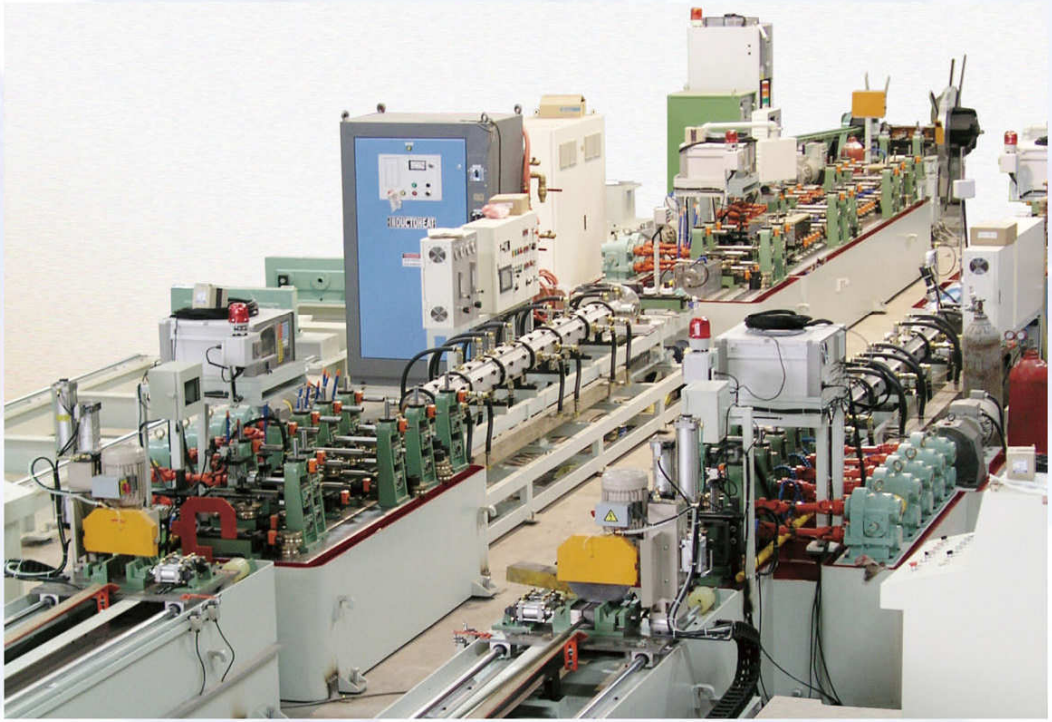
Europe Standard SS Pipe: EN 10217-7

ASTM A-312	8 KW Laser Reference Welding Speed for SUS304					
	Wall Thickness (mm)	Speed (m/min)	Wall Thickness (mm)	Speed (m/min)	Wall Thickness (mm)	Speed (m/min)
1/2"	1.65	15	2.11	13	2.77	11
3/4"	1.65	15	2.11	13	2.87	10
1"	1.65	14	2.77	10	3.38	10
1 1/4"	1.65	13	2.77	10	3.56	9
1 1/2"	1.65	13	2.77	10	3.68	8
2"	1.65	13	2.77	9	3.91	8

ASTM A-312	8 KW Laser Reference Welding Speed for SUS304					
	Wall Thickness (mm)	Speed (m/min)	Wall Thickness (mm)	Speed (m/min)	Wall Thickness (mm)	Speed (m/min)
2 1/2"	2.11	10	3.05	8	5	4
3"	2.11	10	3.05	7	5	4
3 1/2"	2.11	9	3.05	7	5	4
4"	2.11	9	3.05	7	5	4
6"	2.77	7	3.4	6	5	4
8"	2.77	7	3.76	5	5	4

For Reference Only.

Bright Annealing for Titanium Tube



Strip Jointer

Horizontal Accumulator

In-line Bright Annealing Cooling Section

Chip-less Rotary Cut

Germany Made ECT

Ultrasonic Detector

MATERIAL:

TA1, TA2

APPLICATION:

Condenser / Heat Exchanger / Desalinization / Nuclear Power Ti Pipe

ASTM B338 ASME SB338, GB/T3624, GB/T3625

Annealing Equipment for SS Tube

In-line Annealing

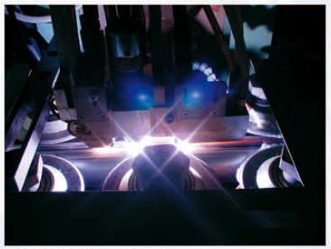
Off-line Annealing

Heating for Off-line Annealing

INDUCTOTHERM

Vega Engineering Corporation uses 100 - 1500 kw MF as power source which is the product of Inductotherm Taiwan for induction annealing purpose. The in-line annealed tubes don't need any extra straightening or roundness work. With proper power of MF for certain diameter range of tubes, one off-line dull annealing line can cover the work of tubes produced by 3 to 4 tube forming mills.

Welding Equipment for SS Tube



TPT Welding Torch

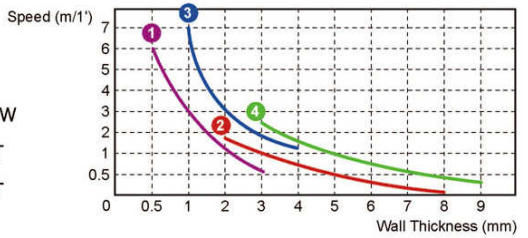
TTT Welding Torch

P+T Welder

GREEN POINT

The water cooled Plasma-TIG Welding System was designed by VEGA Engineering Corporation specially for stainless steel tube welding. This system can be applied with a single torch, twin torches and tri-cathode torches according to different thickness with outstanding speed and quality welding bead. The sealed machine case and power block water cooled design can prevent the system from being polluted by dust and acid in the air and therefore prolongs its life circle remarkably.

1. TIG 500CW
2. Plasma 500 + TIG 500CW
3. Tricathode 500CW - TTT
4. Tricathode 500CW - TPT



Specification

ERW Tube Forming Mill Specification

Model	Driven Shaft	OD Range	Thickness	Max. Speed (m/1')	AC Vector Motor (hp)	HF Welder
LM-30HF	Ø 30 mm	Ø8 ~ 16 mm	0.3 ~ 1.2 t	120	30 + 30	100 kw
LM-40HF	Ø 40 mm	Ø12 ~ 32 mm	0.5 ~ 2.0 t	120	40 + 40	100 kw
LM-50HF	Ø 50 mm	Ø16 ~ 51 mm	0.7 ~ 2.5 t	100	50 + 50	150 kw
LM-60HF	Ø 60 mm	Ø16 ~ 65 mm	0.7 ~ 3.2 t	90	75 + 75	150 kw
LM-70HF	Ø 70 mm	Ø19 ~ 76 mm	0.9 ~ 4 t	90	100 + 100	200 kw
LM-90HF	Ø 90 mm	Ø38 ~ 114 mm	1 ~ 5 t	80	125 + 125	250 kw
LM-90HF-H＊	Ø 90 mm	Ø38 ~ 114 mm	1.5 ~ 7 t	80	125 + 125 + 200	300 kw
LM-110HF	Ø110 mm	Ø90 ~ 168 mm	2 ~ 6 t	50	200 + 200	300 kw
LM-110HF-H	Ø110 mm	Ø90 ~ 168 mm	2 ~ 9 t	50	150 + 150 + 250	400 kw
LM-120HF	Ø120 mm	Ø114 ~ 219 mm	2 ~ 8 t	30	200 + 200	400 kw
LM-130HF	Ø130 mm	Ø114 ~ 273 mm	2.5 ~ 9 t	30	200 + 250	400 kw
LM-130HF-H	Ø130 mm	Ø114 ~ 273 mm	2.5 ~ 12 t	30	200 + 200 + 250	500 kw
LM-150HF	Ø150 mm	Ø139 ~ 325 mm	3 ~ 10 t	20	200 + 250	600 kw

＊H model driven by 3 sets heavey duty gears.

Stainless Steel Tube Forming Mill Specification

Model	Driven Shaft	OD Range	Thickness	Max. Speed (m/1')	AC Vector Motor (hp)	Welder	Annealing Power
LM-30	Ø 30 mm	Ø5 ~ 25 mm	0.3 ~ 1.0 t	9	5 + 5	TIG	100 kw
LM-40	Ø 40 mm	Ø12 ~ 38 mm	0.5 ~ 2.5 t	6	10 + 10	P+T	100 kw
LM-50	Ø 50 mm	Ø16 ~ 51 mm	0.7 ~ 3.5 t	4	20 + 20	P+T / TPT	100 kw
LM-65	Ø 65 mm	Ø19 ~ 76 mm	1 ~ 4.5 t	3.5	30 + 30	TPT	200 kw
LM-80	Ø 80 mm	Ø38 ~ 114 mm	1.2 ~ 6 t	3	40 + 40	TPT	300 kw
LM-100	Ø100 mm	Ø114 ~ 219 mm	1.5 ~ 8 t	2.5	50 + 50	TPT	500 kw
LM-110	Ø110 mm	Ø114 ~ 273 mm	1.5 ~ 9 t	2.5	50 + 50	TPT	600 kw
LM-130	Ø130 mm	Ø139 ~ 325 mm	2.5 ~ 9.5 t	2.5	75 + 75	TPT-W＊	600 kw
LM-150	Ø150 mm	Ø219 ~ 406 mm	3.5 ~ 12 t	2.5	100 + 100	TPT-W	800 kw
LM-180	Ø180 mm	Ø325 ~ 508 mm	4 ~ 13 t	2	100 + 100	TPT-W	1000 kw

＊TPT-W equips with wire feeder and TIG weaver.

SS In-line Bright Annealing Tube Forming Mill Specification

Model	Driven Shaft	OD Range	Thickness	Max. Speed (m/1')	AC Vector Motor (hp)	Welder	Bright Annealing＊	Bead Rolling
LM-40BA	Ø40 mm	Ø12 ~ 38 mm	0.5 ~ 2.5 t	6	10 + 10	P+T	BD40-100 kw	IR104
LM-50BA	Ø50 mm	Ø16 ~ 51 mm	0.7 ~ 3.5 t	4	20 + 20	P+T	BD65-100 kw	IR104
LM-65BA	Ø65 mm	Ø19 ~ 76 mm	1 ~ 4.5 t	3.5	30 + 30	TPT	BD80-200 kw	IR104
LM-80BA	Ø80 mm	Ø38 ~ 114 mm	1.2 ~ 6 t	3	40 + 40	TPT	BD120-300 kw	IR104

＊Bright Annealing MF power source provide by Inductotherm Taiwan.

Titanium Tube Forming Mill Specification

Model	Driven Shaft	OD Range	Thickness	Max. Speed (m/1')	AC Vector Motor (hp)	Welder	Bright Annealing＊
LM-40BA Ti	Ø40 mm	Ø12 ~ 38 mm	2 t	8	10 + 10 + 10	PT / TT	BD40-100 kw
LM-50BA Ti	Ø50 mm	Ø16 ~ 63.5 mm	3 t	8	15 + 15 + 15	PT / TT	BD65-100 kw
LM-65BA Ti	Ø65 mm	Ø19 ~ 76.3 mm	4 t	8	20 + 20 + 20	PT / TT	BD80-200 kw

＊Bright Annealing MF power source provide by Inductotherm Taiwan.

SS Laser Welding Tube Forming Mill Specification

Model	Driven Shaft	OD Range	Thickness	Max. Speed (m/1')	AC Vector Motor (hp)	Laser Welder＊＊	In-line Annealing＊
LM-50Laser	Ø55 mm	Ø16 ~ 51 mm	0.7 ~ 3 t	20	30 + 30	6/8	600 kw
LM-65Laser	Ø65 mm	Ø19 ~ 76 mm	1 ~ 4 t	20	50 + 50	8	900 kw
LM-80Laser	Ø80 mm	Ø38 ~ 114 mm	1.2 ~ 4 t	15	75 + 75	8	1200 kw
LM-90Laser	Ø90 mm	Ø90 ~ 168 mm	1.2 ~ 5 t	10	75 + 75	8	1500 kw

＊Bright Annealing MF power source provide by Inductotherm Taiwan.

＊＊Laser welder provide by Rofin-Sinar Germany.

In-line MF Annealing Equipment*

Model	Input Power	OD Range	Thickness	Working Frequency
LM-100kw	120 KVA, 3Ø460V	Ø16 ~ 51 mm	0.7 ~ 3 t	30 kHz
LM-200kw	240 KVA, 3Ø460V	Ø19 ~ 76 mm	1 ~ 4.5 t	3 kHz
LM-300kw	360 KVA, 3Ø460V	Ø38 ~ 114 mm	1.2 ~ 6 t	3 kHz
LM-500kw	600 KVA, 3Ø460V	Ø114 ~ 219 mm	2.5 ~ 8 t	3 kHz
LM-600kw	720 KVA, 3Ø460V	Ø168 ~ 325 mm	3 ~ 9 t	1 kHz
LM-800kw	960 KVA, 3Ø460V	Ø219 ~ 406 mm	4 ~ 10 t	1 kHz
LM-1000kw	1200 KVA, 3Ø460V	Ø273 ~ 508 mm	5 ~ 13 t	1 kHz

＊Annealing MF power source provide by Inductotherm Taiwan.

Off-line MF Annealing Equipment*

Model	Input Power	OD Range	Thickness	Working Speed
LA-0515	300 kw, 6 kHz	Ø21 ~ 42 mm	2 ~ 4 t	2 ~ 4 m/1'
LA-2040	300 kw, 3 kHz	Ø42 ~ 114 mm	2 ~ 6 t	1 ~ 3 m/1'
LA-3080	500 kw, 1 kHz	Ø89 ~ 219 mm	3 ~ 8 t	1 ~ 3 m/1'

＊Annealing MF power source provide by Inductotherm Taiwan.

Welding Equipment

Model	OD Range	Thickness
GP TIG-500cw	Ø12 ~ 50 mm	0.5 ~ 1.2 t
GP Plasma-500cw	Ø21 ~ 114 mm	2 ~ 9 t
GP Tricathode 500cw-TTT	Ø21 ~ 114 mm	0.8 ~ 3 t
GP Tricathode 500cw-TPT	Ø21 ~ 325 mm	2 ~ 9 t
GP Tricathode 500cw-TPT-W	Ø219 ~ 610 mm	5 ~ 13 t

Eddy Current Tester*

Model	OD Range	Line Arrangment
ET-0506 + EDDYCHEK	1/2" ~ 6"	Off-line

Specification for Reference Only. Customization Proposal Available.

Note

VEGA ENGINEERING CORPORATION
www.vegaet.com.tw

VEGA ENGINEERING CORPORATION

Tube Forming Mill Equipments Design and Manufacture

VEGA ENGINEERING CORPORATION

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