

Innovative Group
of Company



MARKIAA AIR COOLER

Think Blue Go Green & Save Humanity



INTRODUCTION

Since 2003, MARKIAA is a key player and one of the most competent solution providers in HVAC, Electrical and Mechanical spheres of Engineering which has capacity to deliver both in volume and quality at a time. We have a broad range of clients in Govt., Semi Govt., and Private sectors. Growing business bonds with emerging multinationals in the country are also an indicator of dynamic leadership and growth of MARKIAA. At MARKIAA our major goal is to convert customer's problems into satisfied solution through a fully committed and industrious work force, cutting edge technologies, vast experience & skills and strict quality control through best practices at industry levels.

“ Convert the challenger into opportunities”

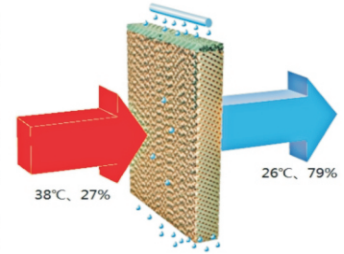
We are continuously pursuing our primary goal of customer satisfaction through;

- Prompt response to client's needs
- Feasible project planning to create a "win win" situation for both client and ourselves.
- Quality control assurance throughout project and afterwards.
- Turnkey engineering solution to enhance project affordability



What is Evaporative Cooling...?

Nature's most efficient means of cooling is through the evaporation of water. Evaporative cooling works in the principle of heat absorption by moisture evaporation. The process happens whenever dry air passes over water. Some of the water will be absorbed by the air. This happens because the temperature and the vapor pressure of the water and the air attempt to equalize. Liquid water and the air attempt to equalize. Liquid water molecules become gas in the dry air, a process that uses energy to change its physical state. Heat moves from the higher temperature of the air to the lower temperature of the water resulting in cooler air. The evaporative cooler draws exterior air into special pads soaked with water, there the air is cooled by evaporative, and then circulated.



Why choose Evaporative Cooler ?

Evaporative Cooler is so great.

- Upto 50% Cheaper to buy and install than other cooling systems.
- Upto 90% Cheaper to operate than air conditioning.
- Good for your health. Gentle on nose, eyes and skin.
- Minimizes recirculating of airborne germs.
- Kind to allergy and asthma sufferers.
- Good for indoor plants.
- Designed to suit hot, dry climate.
- Circulates fresh clean air.



Applications



MARKIAA-MA-18 VS AIR CONDITIONER

Specification	Markiaa Air	Air Conditioner
Fixed Cost		
Surface Area (Sqft)	1500	1500
Expected Cooling Temperature	22 ~ 30	18 ~ 26
Required Cooling Capacity (Tons)		10
Average Project Cost	250,000	750,000
Operational Cost		
Electricity Consumption Kwh	1.1	15.0
Average Cost Electric Per Unit (Wapda) PKR		15
Per Hour Cost	17	225
10 Hours Cost	165	2,250
1 Month Cost	4,950	67,500
1 Season Cost (4Months)	19,800	270,000
Savings (percentage)	93%	0%
Savings		
Fixed Cost Savings		500,000
Operational Cost Saving / Season		250,200
Operational Cost Saving for 3 Years		750,600

ANTIVIRUS MACHINE



Model	MA-Akx005-Ly13A Air Purifier
Structure	Portable
Usage	Hospital, Home, Industry
Air Flow	500m ³ /h
Type	High Voltage Electric Field, High Frequency Electr
Certification	CE, ISO, RoHS, ETL
Application Area	21-30m ²

PORTABLE AIR COOLER



Model	MA-AZL045-LY13A
Power(kw)	0.05/0.04/0.03
Usage	Hospital, Home, Industry
Air Flow	4500m ³ /h
Fan Type	Axial
Fan Speed	1 Phase, 3 Speed
Pressure(PA)	45
Dimension(L*W*H)(mm)	550*330*990
Net Weight	17
Controller	LCD + Remote

AXIAL EVAPORATIVE AIR COOLER



Model	MA-18TC/DC/SC	MA-18TC1/DC1/SC1	MA-30TC/DC/SC
Air Discharge	Top/down/side	Top/down/side	Top/down/side
Power	0.75Kw	1.1Kw	1.1Kw
Air flow(m ³ /h)	12000	15000	20000
Fan type	Centrifugal	Centrifugal	Centrifugal
Voltage	3 phase 220V	1 Phase 220V	3 Phase 380V/415V
Frequency	50/60Hz	50/60Hz	50/60Hz
Control System	Frequency inverter system	Single speed controller	Single speed controller
Size(M)	1.08*1.08*1.118m	1.08*1.08*1.18m	1.3*1.3*1.18m
Air Pressure	235Pa	250Pa	300Pa
Cooling area	80-100m ²	100-120m ²	150-180m ²
Noise	<70DB	<70DB	<70DB
Water Tank	30L	30L	40L
Water Consumption	10-15L/h	10-15L/h	10-15L/h
Weight	70Kg	70Kg	120Kg
Air outlet size	670*670mm	670*670mm	800*800mm



Specification

Model / Specs	AZL25-ZX32C	AZL25-ZX30C	AZL30-ZX32C	AZL30-ZX30C
Model / Specs	AZL25-ZS32C	AZL25-ZS30C	AZL30-ZS32C	AZL30-ZS30C
Model / Specs	AZL25-ZC32C	AZL25-ZC30C	AZL30-ZC32C	AZL30-ZC30C
Airflow(m ³ /h)	25000/16000	25000	30000/20000	30000
Fan Type	Axial	Axial	Axial	Axial
Fan Speed	3-phase, 2-Speed	Multi-speed, Inverter	3-Phase, 2-Speed	Multi-Speed, Inverter
Pressure(Pa)	300/136	306	320/136	320
Vent Size (L*W) (mm)	765*765	765*765	765*765	765*765
Noise(dBA)	<78	<78	<80	<80
Pad Size (L*W*H)	970*881*100	970*881*100	970*881*100	970*881*100
Net Weight(±kg)	120(Down)147(Up)156(Side)	120(Down)147(Up)156(Side)	125(Down)152(Up)161(Side)	125(Down)152(Up)161(Side)
Operation Weight(kg)	175(Down)202(Up)211(Side)	175(Down)202(Up)211(Side)	180(Down)207(Up)216(Side)	180(Down)207(Up)216(Side)
Controller	LED Control	LCS Control	LED Control	LCD Control
Pre-dust Filter	Optional	Optional	Optional	Optional
Pre-Cooling	Optional	Optional	Optional	Optional
Group-Control	Optional	Optional	Optional	Optional
Tem&hum Control	Optional	Optional	Optional	Optional
QTY / Full (40HQ)	9	9	9	9
QTY / SKD (40HQ)	45(Down)/39(Up)/42(Side)	45(Down)/39(Up)/42(Side)	45(Down)/39(Up)/42(Side)	45(Down)/39(Up)/42(Side)

AXIAL EVAPORATIVE AIR COOLER

18000-30000m³/h axial air cooler



MA-18TA-B



MA-18DA-B



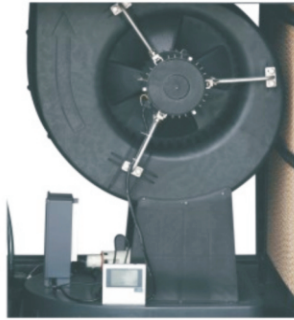
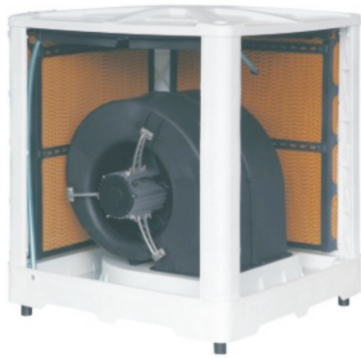
MA-22DA-B



MA-30TA-B

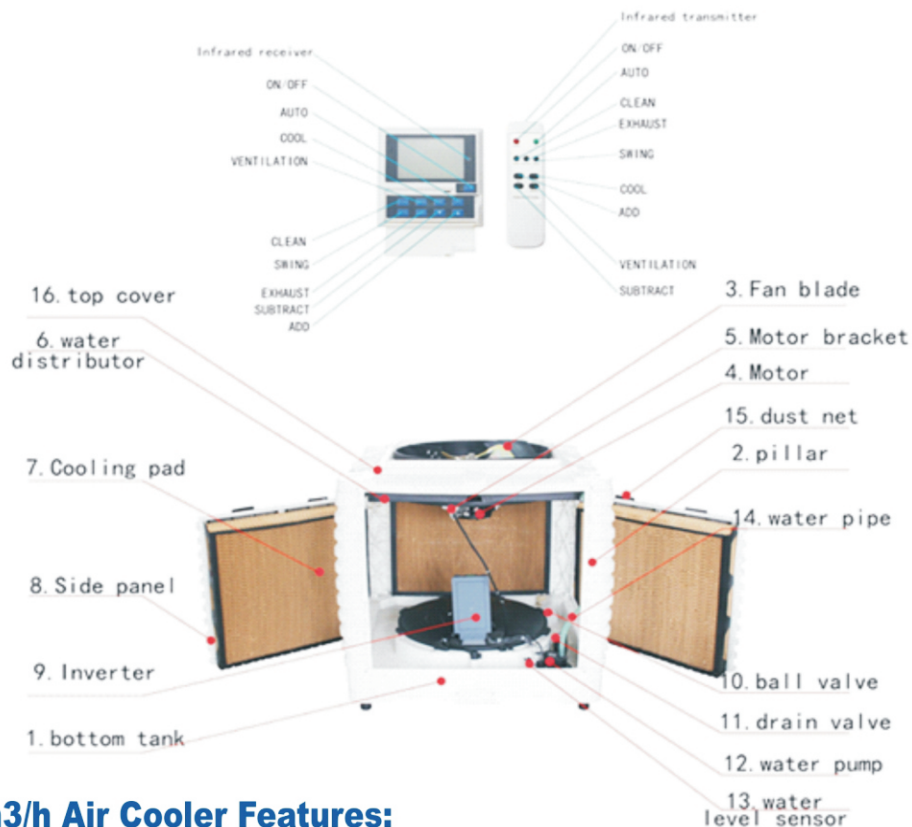
Model	MA-18TA/DA/SA	MA-22TA/DA/SA	MA-30TA/DA
Power	1.1Kw/1.5Kw	1.5Kw	3Kw
Air flow(m ³ /h)	18000-20000	22000	30000
Fan type	Axial	Axial	Axial
Voltage	1Phase 220V/3phase 220V/380V/415V	1phase 220V/3phase220V/380V/415V	3phase380v/415v
Frequency	50/60Hz	50/60Hz	50/60Hz
Control System	Single speed/adjustable speed	Single speed/adjustable speed	single speed/adjustable speed
Size(M)	1.08*1.08*0.98m	1.08*1.08*1.18m	1.3*1.3*1.18m
Cooling area	80-100m ²	120-150m ²	150-180m ²
Noise	<70DB	<70DB	<79DB
Weight	60Kg	70Kg	100Kg
Air outlet size	670*670mm	670*670mm	800*800mm

CENTRIFUGAL EVAPORATIVE AIR COOLER



Model	MA-18TC/DC/SC	MA-18TC1/DC1/SC1	MA-30TC/DC/SC
Air Discharge	Top/down/side	Top/down/side	Top/down/side
Power	0.75Kw	1.1Kw	1.1Kw
Air flow(m ³ /h)	12000	15000	20000
Fan type	Centrifugal	Centrifugal	Centrifugal
Voltage	3 phase 220V	1 Phase 220V	3 Phase 380V/415V
Frequency	50/60Hz	50/60Hz	50/60Hz
Control System	Frequency inverter system	Single speed controller	Single speed controller
Size(M)	1.08*1.08*1.118m	1.08*1.08*1.18m	1.3*1.3*1.18m
Air Pressure	235Pa	250Pa	300Pa
Cooling area	80-100m ²	100-120m ²	150-180m ²
Noise	<70DB	<70DB	<70DB
Water Tank	30L	30L	40L
Water Consumption	10-15L/h	10-15L/h	10-15L/h
Weight	70Kg	70Kg	120Kg
Air outlet size	670*670mm	670*670mm	800*800mm

EVAPORATIVE AIR COOLER PARTS DETAIL



MAC-18000m³/h Air Cooler Features:

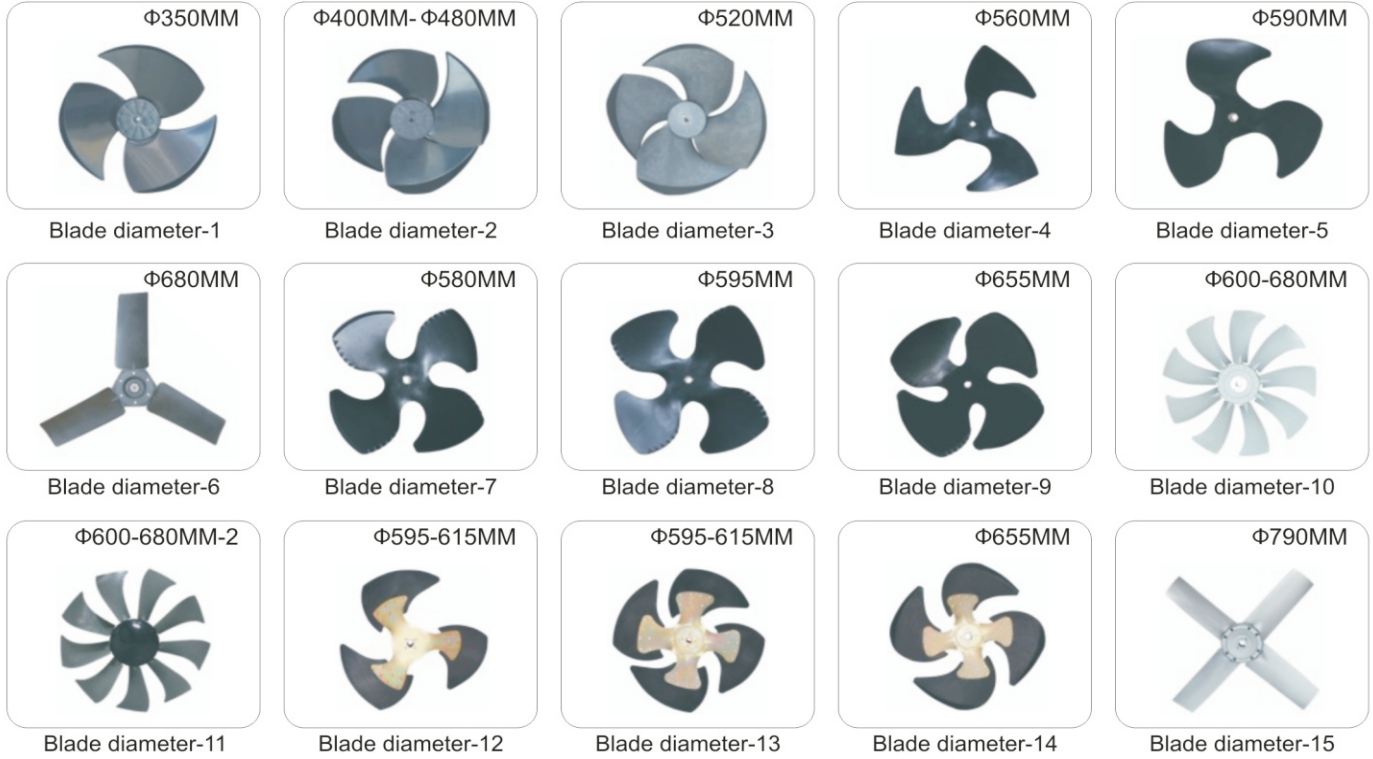
1. Streamline design, durable and beautiful appearance
2. Case/Shell Material: PP, UV-proof ,anti-corrosion, anti-aging. Perfect used for outdoor.
3. With integrate and special triangle water distribution structure, making the water distribute evenly
4. Keep door and window open, healthy way to keep air fresh
5. with 3 or 4 pcs cooling pads, higher cooling efficiency
6. With a outside dust screen which can be easily removed and cleaned
7. Multi-functional: Can be used as humidifier, air purifier, air filter, ventilator, fan.
8. Using intelligent LCD controller, which is easy to operate and understand
9. Using specially designed axial fan, with large airflow, low noise, energy-saving and large application.
10. Using Aluminum housing motor, 100% copper winding, good heat dissipation, high protection grade, water proof and moisture proof.
11. Among the main features available on air coolers for sale in the hot and dry areas are adjustable fan speed which enables you to have full control temperature in the room, a water level indicator to prevent the tank running dry, a timer to enable you to set the cooler to run for a specified time and automatic louvers which move from side to side.

Industrial Evaporative Cooler Application Scope:

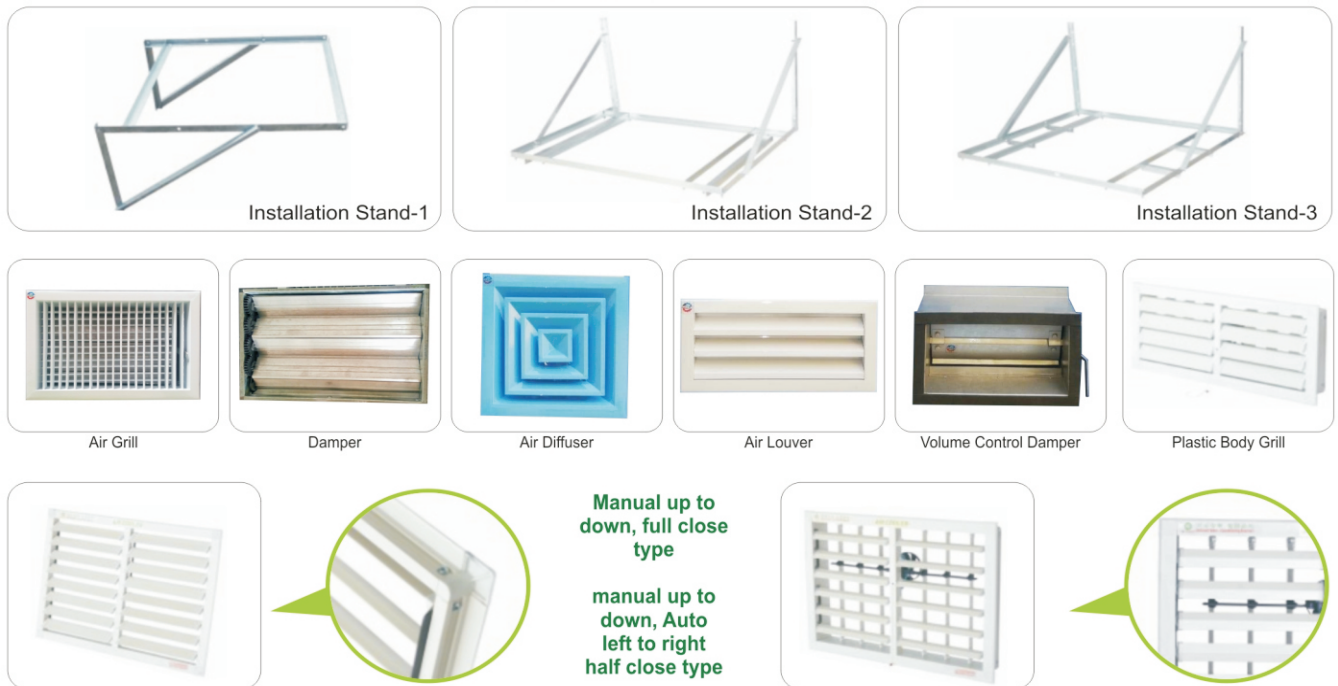
1. Manufacturing industry such as textile, machinery, ceramics, fine chemical industry, metallurgy, glass, hardware, leather, etc
2. Making processing industry such as electroplating, electron, shoemaking, printing and dyeing, plastic, clothing, printing, packaging, food, etc.
3. Hospital, waiting room, school, reception room, superstore, laundry;
4. Public place such as kitchen, food market, large entertainment center, underground parking place, station, etc;
5. planting and breeding places such as greenhouse, flowers and plants, poultry, animal husbandry, etc.
6. Refitting and installation of existing air-condition and wind giving machine equipment.
7. For the places needed high moisture such as textile and farm, may adopt part of interior installation;
8. For some places which require lower moisture and more cleanness, please think whether it is suitable.

EVAPORATIVE AIR COOLER PARTS

DIFFERENT SHAFT SIZE AVAILABLE



CUSTOMIZED FOR DIFFERENT SIZE



EVAPORATIVE AIR COOLER PARTS



Dust Filter



Fan Housing



Motor



Manual Drain Valve



Auto Drain Valve-1



Auto Drain-2



Water Pump-1



Water Pump-2



Water Pump-3



Ball Valve



Motor Bracket-1



Motor Bracket-2



Motor Bracket-3



Motor Bracket-4



Turbine Stand



Controller-1



Controller-2



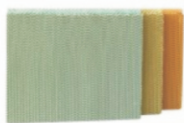
Controller-3



Controller-4



Controller-5



Cooling Pad



Plastic PVC Cooling Pad



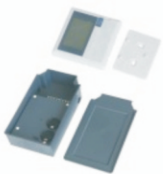
Overlapping-1



Overlapping-2



Overlapping-3



Frequency Inverter-1



Frequency Inverter-2



Frequency Inverter-3

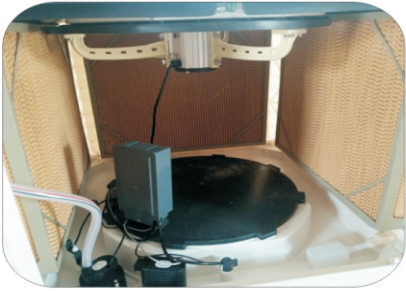


Frequency Inverter-4



Controller-6

Our Work





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Labels for air devices shown:

- EXHAUST & FRESH AIR LOUVER
- SUPPLY RETURN EXHAUST & FRESH AIR GRILL
- SUPPLY RETURN & EXHAUST AIR & WIP STOPPER
- SUPPLY AIR STAINLESS STEEL DRUM DIFFUSER
- EXHAUST & FRESH AIR STAINLESS STEEL LOUVER
- ACCESS DOOR WITH FILTER STAINLESS STEEL
- SUPPLY AIR BALL DIFFUSER
- EXHAUST & AIR SEAL RINGS
- SUPPLY RETURN EXHAUST & FRESH AIR GRILL
- SUPPLY RETURN & EXHAUST AIR & WIP STOPPER
- SUPPLY RETURN & EXHAUST AIR 3-WAY STOPPER
- SUPPLY RETURN & EXHAUST AIR 3-WAY STOPPER

AXIAL EVAPORATIVE AIR COOLER



Slimline control panel & remote control unit



- Fully functional integrated touch pad
- Slimline design to suit most interiors
- Unit temperature output display
- variable fan speed control
- 7 day/24 hour programmable timer
- Blue backlight
- Multiple unit control feature – up to 99 systems
- optional Humidity Control
- optional remote Control



Colours



Features

- ✓ Streamline design, durable and elegant appearance.
- ✓ Integrated water structure for even distribution.
- ✓ Concealed water pipe design to prevent water entering the cooler.
- ✓ High strength polymer external casing.
- ✓ Intelligent LCD control panel and optional remote control.
- ✓ Specially-designed axial fan with large airflow, low noise & energy-saving design.
- ✓ High quality aluminium motor housing.
- ✓ Innovative pads design for maximum evaporation and cooling efficiency.

Specifications		AZL13ZX10D	AZL16ZX10D	AZL16ZX10E	AZL18ZX10E
Motor		500W	750W	900W	1100W
Dimensions	Height	883mm		950mm	
	Width	1030mm		1150mm	
Weight	Nett	49kg		80kg	
	operational	67kg		110kg	
outlet Size		550x550mm		650x650mm	
pad Size		630x734x100mm		620x830x100mm	
intelligent Clean		✓	✓	✓	✓
pre-cooling		✓	✓	✓	✓
timer		✓	✓	✓	✓
pump only Safety Control		✓	✓	✓	✓
LCD Control panel		✓	✓	✓	✓
Optional remote Control		✓	✓	✓	✓
3 Year Domestic Warranty		✓	✓	✓	✓

Other Series Of Duct Line

Auto Duct Line III



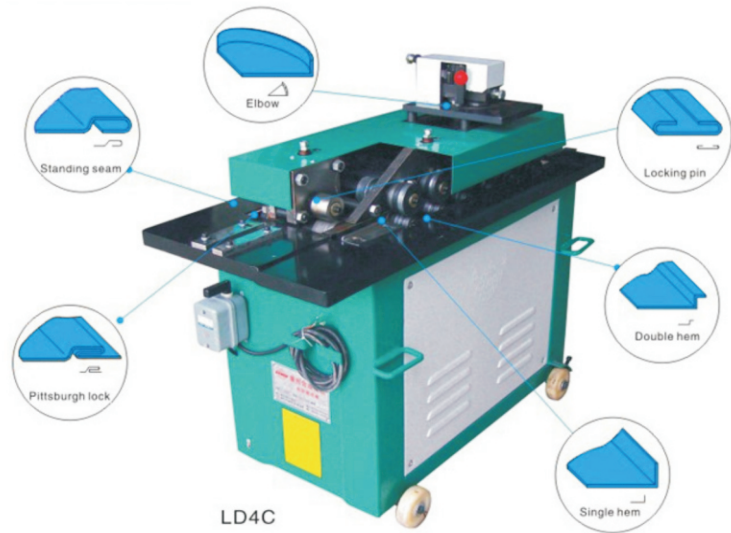
Model	Thickness(mm)	Width(mm)	Working speed(m/min)	Coiler capacity(kg)	Weight(kg)	Dimension(mm)
HCH-III	0.6-1.2	1300	16	6000*2	3500	2450*2160*1300
		1550		6000*2	4000	2450*2160*1300

Grooving Machine



Lock Former Machine

Model	Capacity (mm)	Motor (kw)	Weight (kg)	Size (L.W.H)
LA2C	0.3 ~ 1.0	1.1	162	780*500*920
LA3C	0.3 ~ 1.0	1.1	160	780*500*920
LA4C	0.3 ~ 1.0	1.5	190	930*550*960
LD2C	0.5 ~ 1.2	1.5	245	1070*550*950
LD3C	0.5 ~ 1.2	1.5	248	1100*550*950
LD4C	0.5 ~ 1.2	1.5	264	1120*550*950
LB2C	0.8 ~ 1.5	2.2	316	1220*550*940
LB3C	0.8 ~ 1.5	2.2	310	1220*550*980
LS3	0.8 ~ 1.2	2.2	345	1400*600*850
LE2	1.5 ~ 2.0	2.2	489	1350*700*920
LBB2C	SS 1.0	2.2	316	1220*550*940
LEB2C	SS 1.2	2.2	489	1350*700*920
LHB	0.7 ~ 1.0	2.2	340	1420*600*850



TDF Flange Machine

Model	Thickness (mm)	A (mm)	Motor (kw)	Weight (kg)	Size (L.W.H)
LTA-12A	0.6 ~ 1.2	34	3.0	760	2400*800*900
LTA-15A	1.0 ~ 1.5	35	3.0	810	2600*800*900
LTA-2/2A	0.8 ~ 1.2	34	3.0/3.0	2070	2400*230*1100
LTA-2/12	0.6 ~ 1.2	34	3.0/3.0	2070	2400*2300*1100

Roller Plate Bender



Bender Machine



MARKIAA



ATER

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