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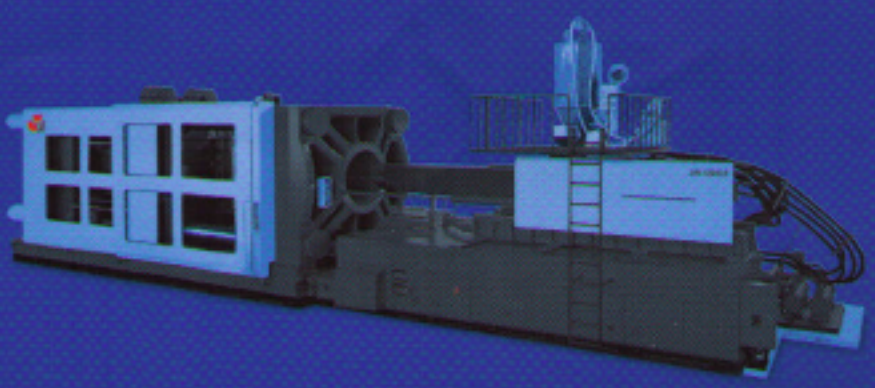
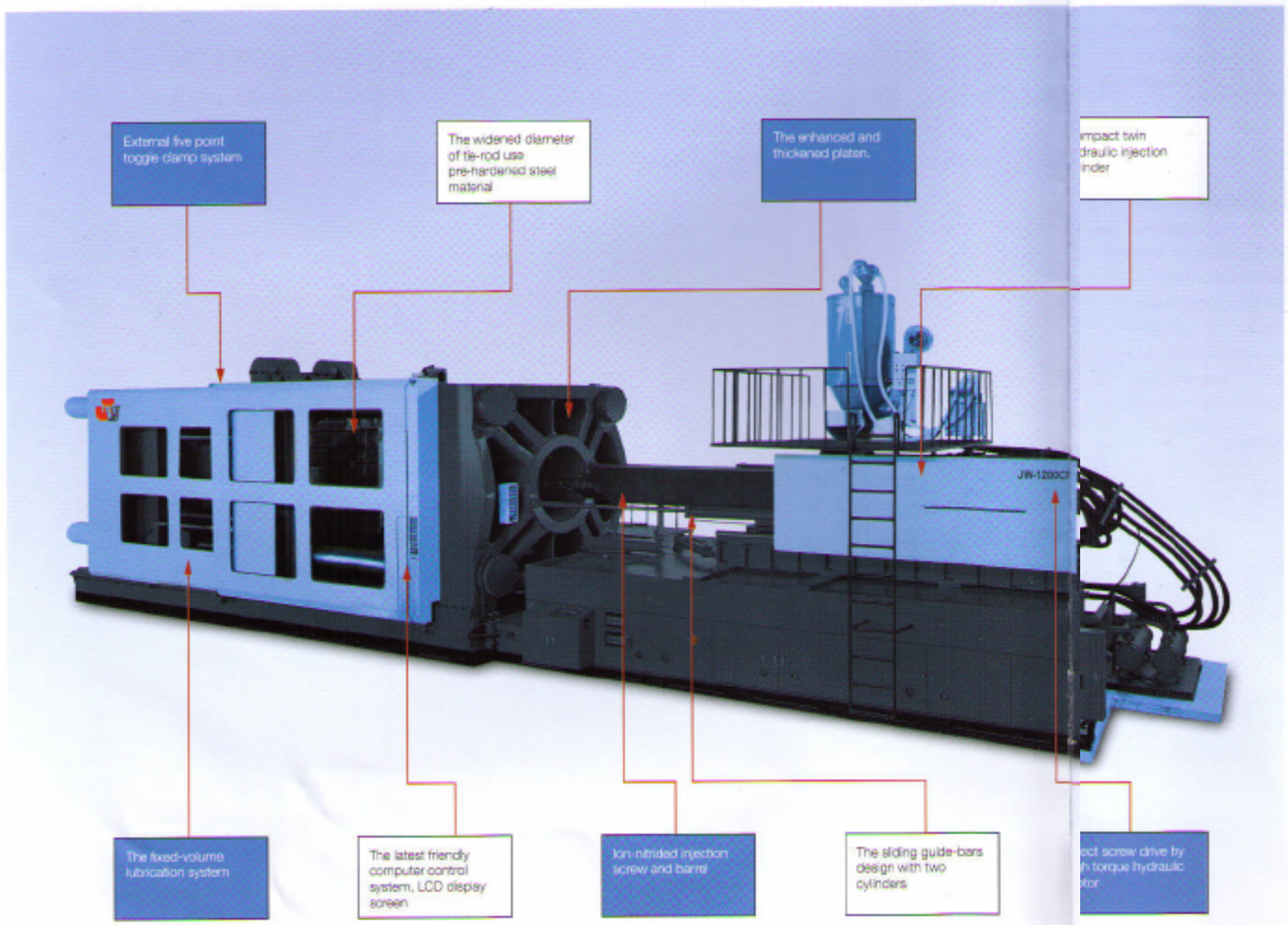
JONWAI

CF series

Center Force large tonnage injection molding machine





JONWAI

CF series

For 600 tons to 6000 tons clamping force

• Compact clamping unit

Jon Wai's CF series with large inner tie-rod distance and thickened platen can minimize the toggle pressure, lower deformation, and increase the structure rigidity and reliability.

• Versatile range of injection unit

The injection unit is of the direct in-line screw-driven type with a choice of different injection screws of high plasticizing capacity to best suit various production requirements.

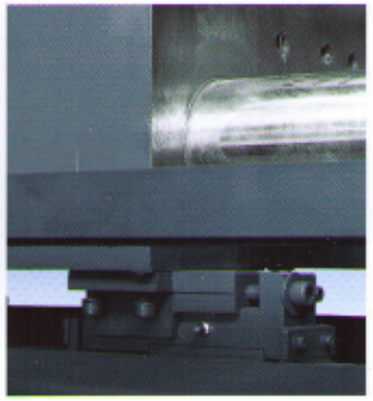
The CF-series fit a center force and external acting five points double toggle clamping to give long efficiency and reliable movement. The design of this series is simple and easy-to-operate.

The CF Series offers demonstrable quality of energy efficiency, high productivity and cost effectiveness modular from end to end, CF Series machines provide a wide range of application.

JW
CF-SERIES

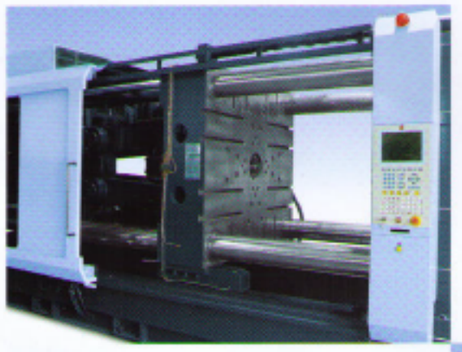
Clamping unit

The clamping unit:
Unique design for flexible manufacturing



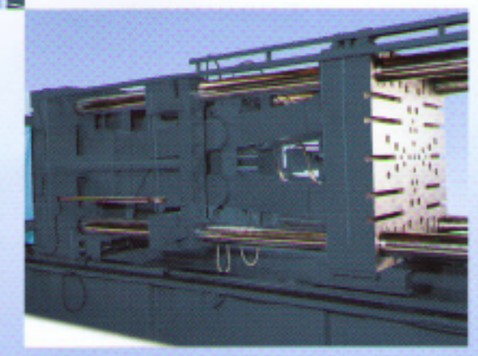
Feature of Clamping units

- Generous dimensions between tie bars to accommodate very large mold or the molds with core cylinders and sliders
- The toggle moves the platen very quick and quiet.
- The finite-element-analysis of the platen rigidity warrants a stiff frame as well as minimum platen deflection.
- External acting five points double toggle clamping to give long efficiency and reliability.
- The robust platen supports based on precision linear guiding provide best platen parallelism to the clamping unit.



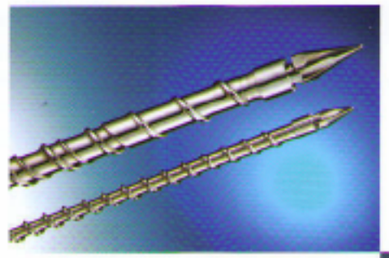
Benefit

- High platen parallelism and no tilting or offset.
- No risk of contamination for the products.
- More space saving.
- Well designed safety housing.
- Ample space in the ejector area.
- Easy mold change.



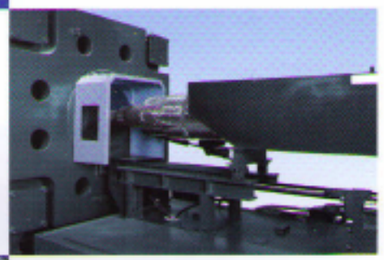
Injection Unit

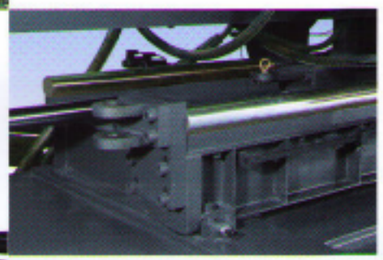
The injection unit:
High efficiency and high performance

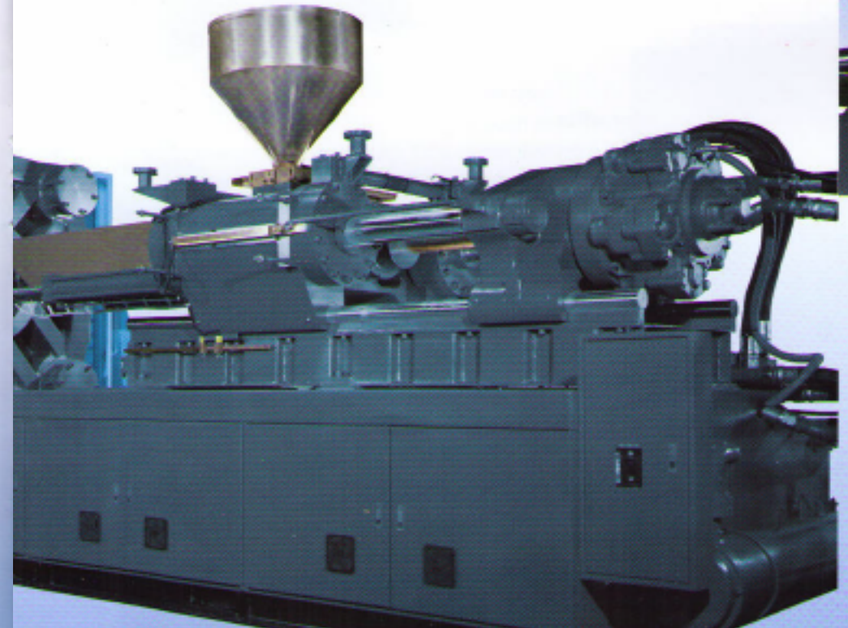


Feature of injection unit

- Ion-nitrided injection screw and barrel for the ultimate in wear resistance.
- Injection unit movement is done by two hydraulic cylinders linked to the front platen, this ensured the absolute alignment of nozzle.
- High injection pressure assure a further improvement in quality and stable precision molding.
- The direct screw drive with high torque ensures constant speed improving the plasticizing capacity.
- Injection unit swivel device.
- Multi-stage of propotional injection speed and pressure.
- Screw stroke position monitored by an optical encoder.







Benefit

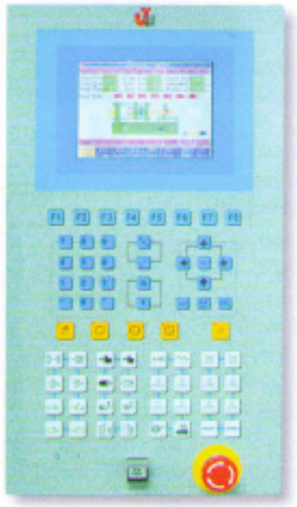
- Plasticizing tailored to the application
- Low-maintenance, user-friendly design
- High-efficiency drive.
- Matching the screw to the material
- Quick-change system for the barrel.

JW
CF-SERIES

Microprocessor Controller

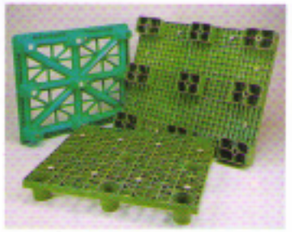
Features of Microprocessor Controller

The microprocessor controller greatly eases the task of setting molding conditions because the setting panel is consolidated into the control panel. The condition setting uses a beautifully sharp which features a multifunction page format that meets widely diversified needs. In addition to displaying actual values in graph form and various quality control function, the panels further enhance ease of operation through simple data input and window-like display of malfunction messages.



Feature of Microprocessor Control

- Mold clamping 4 zones each pressure speed control
- Injection 6 zones pressure speed control
- Hold pressure 4 zones pressure speed control
- Charge 3 zones pressure speed control
- 14 sections for machine action parameter span control
- 2 groups core pressure, speed & time, or 1 group unscrew, 1 group core action
- 3 types ejection action
- 1 zone oil temperature control, 7 zone barrel or mold temperature
- Auto lubrication control



Benefits

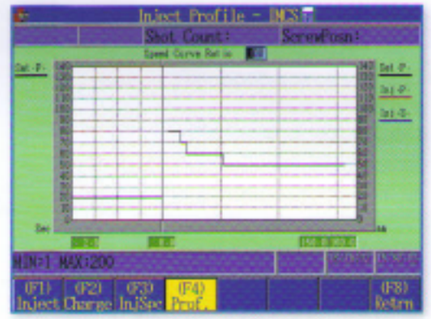
- Get a perfect view
- Future- proof operator panel
- Fully informed for total production transparency
- Display, stored, logged-comprehensive quality assurance
- Hierarchical access rights
- Multiple languages interchange

Injection Control Screen

Injection control consists of screw starting from shot size all the way through the holding pressure stage. Measurements of position, pressures are displayed on the screen. Velocity is derived from the position signal and is also displayed. Set points for pressure along with timer settings control the different stages of the injection cycle.

Injection speed and pressure waveform

Screen display of the speed and pressure for each shot is standard function. The injection process is shown live, which is useful is optimizing the injection condition setting. The added print function and interant connection function (optional)can easily give access to engineers to analyze and record.



Quality Control Screen

Monitor screen automatically record and provide the data of last 10 shots, such as total cycle time, injection time and charging time, etc. These statistical evaluation take place in " Process Parameter " or " Quality Control Chart . All data can be printed out via the RS-232 interface.

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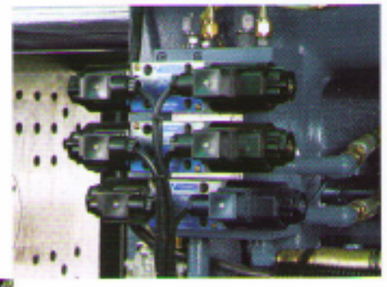
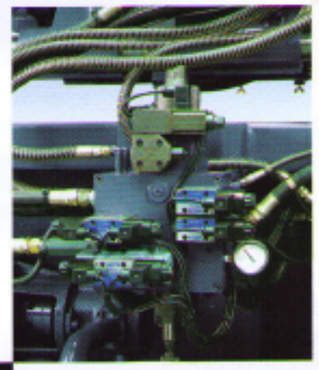
Hydraulic

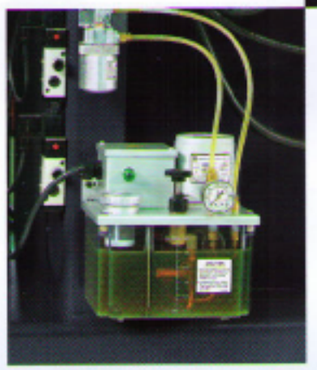
The hydraulic unit:
High – precision, economical and quiet

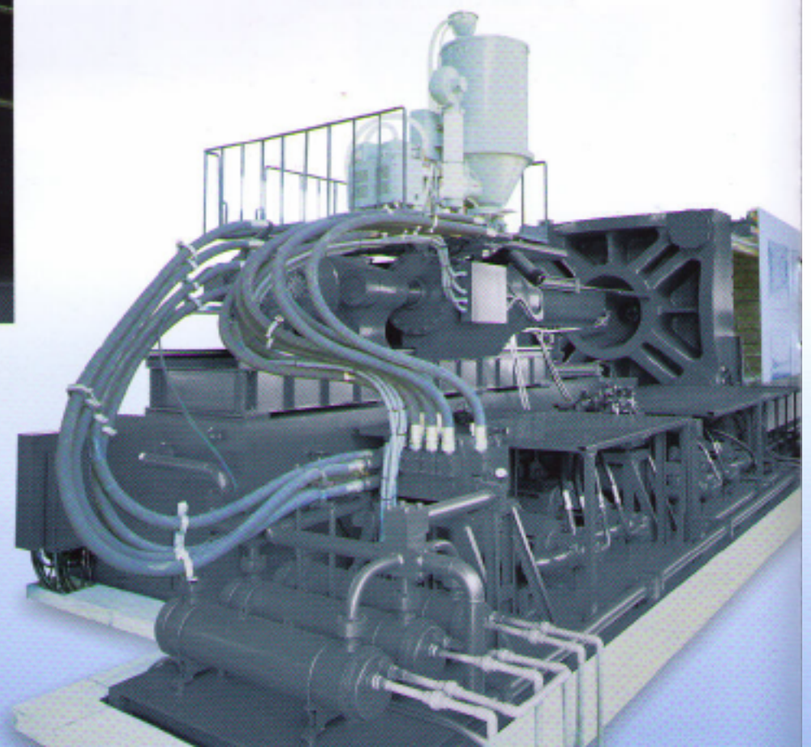


Features of hydraulics

- Differential circuit added into clamping and injection action.
- High sensitive low pressure protection circuit design.
- High efficiency cooler stabilize the oil temperature.
- High efficiency energy-saving.
- High precision injection available.
- Hydraulic safety device with control system and mechanic parts.
- Multi-set control of back pressure proportion.
- Special dsigns of double-circuit and of compound action in circuit design for selection in variable products.







Standard and Optional Specification

CLAMPING UNIT	
Digital setting for mold close/open	■
4-stage mold close and 4 stage open pressure / speed and position control	■
High sensitive low pressure for mold protection device	■
Auto mold height adjustment device	■
Low pressure/speed for mold height adjustment	■
Potential meter for ejector	■
2 pressure/speed for ejector forward	■
Delay time setting for ejector return device	■
Air ejector for stationary/movable platen	■
Photocell sensor for product drop	■
Auto lubrication for toggle	■
2 sets of hydraulic core puller	■
T-slot for mold clamp	■
Heating insulator for mold platen	□
INJECTION	
Open nozzle	■
Standard screw	■
Injection unit swivel device	■
6-stage pressure/speed and 6 position 1 time for injection	■
4-stage pressure/speed and 4 time for holding	■
3-stage pressure/speed and position for charge	■
Safety door for injection unit	■

Screw cold start protect	■
Screw decompression selector (before/after charge)	■
Material purge guard in auto	■
Injection cushion error monitoring	■
Potential meter for injection	■
Hydraulic control shut off nozzle	□
High mixer barrier screw	□
Special screw for specific type resin	□
HYDRAULIC SYSTEM	
Fixed-displacement pumps	■
Brake circuit for mold close/open	■
Hydraulic oil filter for suction (inside of tank)	■
Proportional direction control for injection	□
Proportional direction control for mold close/open	□
ACC for injection speed booster	□
Variable-displacement pumps	□
ELECTRIC CONTROL SYSTEM	
APC-6000 controller	■
LCD display	■
Parameter memory 200 sets	■
Alarm device	■
Setting error monitoring	■
MOOG Microset controller	□

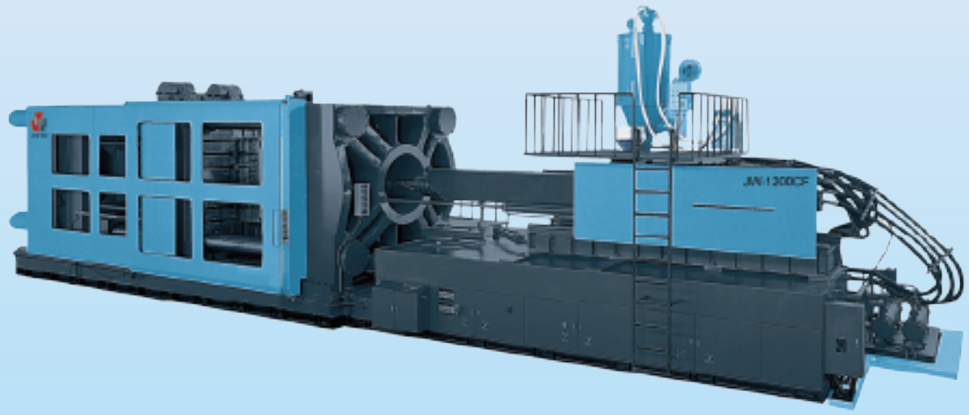
OTHER EQUIPMENT	
Copper type water distributor for mold cooling	■
Accessories power source socket	■
Stainless hopper	■
Acrylic tube water distributor for mold cooling	□
Independent mold temperature controller	□
Hopper dryer	□
Auto loader for plastic material	□

■ Standard equipment
□ Optional equipment

CF

MODELS		JW-660CF			JW-750CF			JW-1000CF			JW-1200CF			JW-1450CF			JW-1850CF		
SCREW DIMETER	mm	85	95	105	95	100	105	100	110	120	110	120	130	120	130	140	130	140	150
SHOT SIZE	gr	2307	###	###	3007	3331	3673	3331	4031	4798	4367	5198	6101	6597	7743	8980	8799	####	####
INJECTION PRESSURE	kg/cm2	2133	###	###	1786	1612	1462	1951	1613	1355	1861	1564	1332	1788	1524	1314	1762	1520	1324
CLAMPING FORCE	ton	660			750			1000			1200			1450			1850		
CLAMP STROKE	mm	860			1000			1200			1300			1500			1700		
MOLD HEIGHT	mm	400~1000			400~1050			500~1200			500~1300			500~1400			600~1600		
DISTANCE BETWEEN TIE-RODS	mm	880×880			960×960			1100×1000			1200×1100			1350×1200			1600×1350		
MOTOR RATED	HP	80			100			120			135			160			200		
MACHINE DIMENSIONS	M	11x2.47x2.36			11.62×2.57×2.41			13×2.76×2.55			13.4×2.8×2.6			15.3×3.06×2.7			16.88×3.72×3.4		

MODELS		JW-2200CF			JW-3000CF			JW-4000CF			JW-5000CF			JW-6000CF		
SCREW DIMETER	mm	150	160	170	150	160	170	190	210	230	240	250	260	240	250	260
SHOT SIZE	gr	13585	15455	17455	13585	15455	17455	33083	40414	48479	51988	56410	61013	51988	56410	61013
INJECTION PRESSURE	kg/cm2	1672	1469	1302	1672	1469	1302	1904	1559	1300	1681	1550	1433	1681	1550	1433
CLAMPING FORCE	ton	2200			3000			4000			5000			6000		
CLAMP STROKE	mm	1800			2200			2200			2200			2200		
MOLD HEIGHT	mm	700~1700			700-2000			700-2000			900-2000			900-2000		
DISTANCE BETWEEN TIE-RODS	mm	1800×1600			1900×1800			2100×1900			2500×2000			2500×2000		
MOTOR RATED	HP	225			225			450			450			450		
MACHINE DIMENSIONS	M	18.42×3.73×3.4			20.23×4.06×3.9			21.5×4.4×4.1			23.3×4.6×4.3			24.5×5.1×4.7		



JONWAI

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