

# INFUSION PUMPS

# APRIL - 2008



**MEDICAL EQUIPMENTS**

**INFUSION PUMPS**

Quality System Standard applied: **ISO 9001-2000**

Product Standard applied: **ISO 13485**

**CE 93/42** marked Product.

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**INFUSION PUMPS**

**PACKING**



**COMPANY**

The COMPANY is a manufacturer who is specially engaged in researching, designing and manufacturing medical devices. The company is honoured 'New and Hi-tech Enterprise'. The company was established in Nov. 1971, began with researching and manufacturing Laboratory Equipment, and started the researching and manufacturing syringe pump in 1987. In china, we are the first manufacture who owns property rights in the syringe pump field, as well as the TOP 1 manufacturer producing syringe pump in China. Our goal is becoming the top-level manufacturer all over the world

At present, our products include **syringe pump, feeding pump, execute pump** and **rodent ventilator**. Syringe pump has different models, WZ-50C2, WZS-50F2 and WZ-50S have passed ISO9001:2000, ISO13485:2003, while WZ-50C6, WZ-50C6T, WZS-50F6 and WZ-50C66T have passed ISO9001:2000, 93/42/EEC, EN ISO13485:2003 (CE criteria). CY-300 feeding pump has passed ISO9001:2000. DEP-50 execute pump that was researched and manufactured under the commitment of Supreme People's Court. DH-150 rodent ventilator specially manufactured for medicine colleges.

R& D Centre is the municipal new and high technology centre. Established in 1970s, the centre is one of the earliest medical device research organs. At the centre, the products were once rewarded the two 2nd prices and four 3rd prices of Provincial Scientific Research Advance (and Scientific technology); the 1st price, the 2nd price and 6 patents devices of Scientific Research Advance conferred by Department of Health of the City and Provincial Education Commission. Syringe pump and its technology are ranked as the plan of 'Ten-year Hundred Project 'the second time. Two-track syringe pump is honoured National Key New Product (important priority)

## **Our mission**

Sincerely serve for the clinics. We concentrate on R&D and innovation activities for medical pumps. We lead the developing trend in the industry of medical pumps.

We are staying at forefront of the industry. High-level technical expert, the best service and the advanced information system always ensure us to satisfy the requirement of the clinics

## **Our Quality Guideline**

Solidarity and innovation; provide safe and satisfying products to users.

We consider solidarity as foundation stone for our development. We consider innovation as sole for our development. We implement the following standards in an all round way: ISO13485:2003 - Medical Device Directive93/42/EEC - GB/T19001-2000 and YY/T0287-2003.

Focusing on customers, we keep the quality management system effective to ensure our products to fulfil the requirements of customers on the basis of law and provisions.

## **Our Values**

For the fulfilment of our mission, it is vital for us to have outstanding employees featuring responsibility, aspiration, creation and energy, who, again, should identify with values as follows:

Honesty and integrity; Responsible for the work, society and families; Get along frankly with others; respect and get ready to help others; Face the challenges Bravely and persistently;

Self-disciplined, apt to think, stick to self-improvement and self-perfection; As to the clients, partners or other employers, such aspects as our promises, outcomes and qualities are worthy to be trusted

## **Quality system**

For the sake of being brought in line with international practice on management, we, according to ISO standards, established the quality management system in 1999, and meanwhile, we passed the CMDC making in December of the same year.

The product passed the marking of version changing for ISO9001 (2000 version ) quality management system. WZ6 syringe pump passed the CE marking issued by TUV Rheinland Germany in May, 2005

## **Market**

Application verification of the partial A class hospitals: Beijing Children's Attached Hospital of Capital Medicine University. (Or Beijing Children's Hospital for short) Chinese Academy Of Medical Sciences & Peking Union Medical College, Cardiovascular Institute & Fuwai Hospital PLA General Hospital (or call 301 hospital). The First Affiliated Hospital, Zhongshan ( Sun Yat-sen) University Affiliated Zhongshan (Sun Yat-sen) Hospital of Shanghai Medical University West China Medical School, West China Hospital, Sichuan University



# MICROINFUSION PUMP

## WZ6 SERIES

# MICROINFUSION PUMP

DESIGNED CLOSELY TO CLINIC, HIGH QUALITY, HIGH SECURITY, HIGH DEPENDABILITY  
WZ SERIES SYRINGE PUMPS

## WZ6 SERIES

# WZ-50C66T

DESIGNED CLOSELY TO CLINIC, HIGH QUALITY,  
HIGH SECURITY, HIGH DEPENDABILITY WZ6  
SERIES SYRINGE PUMP

WZ6 Series Syringe Pump Special Used In Anesthesia  
Room And ICU

The



### Main Interface

Large size LCD can show you comprehensive data, such as time, flow rate, drug name, syringe brand, syringe size, pressure ect.



### Interface of drug delivered chart

It's convenient to enquire about the chart of delivered drug during last week.



### Interface of enquiry record

It's convenient to enquire the last 31 days information of every infusion, such as delivery time, total drug volume, total solution volume, drug name.



### Drug library interface

Complicated drug library that indicate drug type, drug name and recommended dose rate. You are only demand to input 2 to 3 data, the pump will calculate the flow rate automatically accord to nearly 20 kinds of calculate formula.

**First** chinese manufacturer who adopt IEC standard and have **CE** certificate



It's easy to set bolus. Once the bolus is set, the pump will show you the bolus solution volume.



OCCLUSION pressure has 3 levels, High(H), Middle(M) and Low(L). The dynamic pressure figure can show you the pressure of the time. And the audio and video alarm for OCCLUSION pressure is safe for the operator and the patient.



Striking RED light plus the exact text for alarm, make you easy to know the reason of alarm.



It's more easy to set the data via cruise.



The pump brings you more safety: it can't be started if the syringe is dislocated or disengaged.

# WZ6 SERIES MICROINFUSION PUMP

DESIGNED  
CLOSELY TO CLINIC  
HIGH QUALITY HIGH SECURITY  
HIGH DEPENDABILITY WZ SERIES  
SYRINGE PUMP

Parameter	
Flow rate	0.01ml/h-1200ml/h (50ml syringe) 0.01ml/h-600.0ml/h (30ml syringe) 0.01ml/h-399.9ml/h (20ml syringe) 0.01ml/h-300.0ml/h (10ml syringe) (0.01ml/h increments, 0.1ml/h increments when rate is over 100ml/h and 1ml/h increments when rate is over 1000ml/h)
Purge	1200ml/h (50ml syringe) 600.0ml/h (30ml syringe) 399.9ml/h (20ml syringe) 300.0ml/h (10ml syringe)
Occlusion Pressure	L: 300±100mmHg(40.7±13.3KPa) M: 500±100mmHg(66.7±13.3KPa) H: 800±200mmHg(106.7±26.7KPa)
Precision	≤ ±2% (machine precision ≤ ±1%)
Total Volume	0.01ml-9999ml
Bolus	0.1ml-60.0ml
Alarm	Near Empty, Empty, Bolus volume finish, syringe dislocated, syringe disengaged, pressure sensor error, malfunction, remind start alarm, OCCLUSION, VTBI finish, internal battery near empty, internal battery empty, AC power failure
Power	AC220V±22V, 50Hz±1Hz DC12V, The internal battery can work for about 4 hours after charge 16 hours with power off. Note: the internal battery capacity can be modified according the customer demand
Operating condition	Temperature: +5 to +40℃ Relative Humidity: 20% to 90%
Transport and storage condition	Temperature: -40 to +55℃ Relative Humidity: ≤ 95%
Classification	Class I Type CF IP×4, protected against splashing liquid
External dimension	307(L)×135(D)× 128(H)mm
N.W.	2.2kg
Syringe	Syringe size: 10ml, 20ml, 30ml and 50ml Syringe brand: 13 kinds of specified syringe brands are suitable

OTHER FUNCTIONS	
Body Weight Mode	Fast-injection control
Occlusion pressure selected	Lock the purge key when infusing
Dynamic pressure indicate	Audio and video alarm
Anti bolus	Lock the flow rate when infusing
Syringe brands selected	AC and DC indicate
Automatically recognize syringe size	RS232 computer port
Syringe brand indicate	Remind alarm
Bolus Volume	Text indicate for alarm
Total volume indicate	Time set
KVO rate	500 log



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# MICROINFUSION PUMP

ISO CERTIFICATE | WZ6 SERIES MICROINFUSION PUMP

## WZ6 SERIES



# MICROINFUSION PUMP

DESIGNED CLOSELY TO CLINIC, HIGH QUALITY, HIGH SECURITY, HIGH DEPENDABILITY

WZ SERIES SYRINGE PUMPS

## WZ6 SERIES



# WZ-50C6T

DESIGNED CLOSELY TO CLINIC, HIGH QUALITY,  
HIGH SECURITY, HIGH DEPENDABILITY WZ  
SERIES SYRINGE PUMP

WZ6 Series Syringe Pump Special Used In Anesthesia  
Room And ICU



**BODY WEIGHT MODE**

### RANGE OF BODY WEIGHT MODE

<b>Dose rate</b>	0.01-99.99 $\mu$ g/kg/min (0.01 $\mu$ g/kg/min increments) 0.01-99.99mg/kg/h (0.01mg/kg/h increments)
<b>Body weight</b>	0.1-300kg (0.1kg increments)
<b>Drug volume</b>	0.1-999.9mg (0.1mg increments)
<b>Solution volume</b>	0.1-999.9ml (0.1ml increments)



## Features

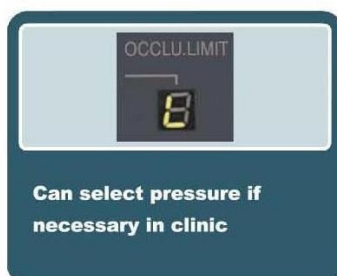
We have replaced the older generations of our WZ series syringe pumps by the new ones for 6 times since 1986. The pumps have passed ISO9001 certificate. The newest WZ6 series syringe pumps are developed according to IEC60601-2-24, more safety and more advanced features are available.

WZ series syringe pumps have won several international and domestic tenders, such as United National Children's Fund, Ministry of Public Health of China, China and The United Kingdom Women and Children Project. The pumps even have been exported to more than 22 countries.

WZ-50C6T model can set flow rate directly, or set body weight/dose rate/drug volume/solution volume and then the pump can calculate the flow rate itself. Widely range of flow rate(0.1 ml/h-1200ml/h), this make the pump specially suitable for ICU and Anesthesia units.

## Application

- Continuous micro-infusion in the ICU and CCU
- Maintenance therapy micro-infusion and blood transfusion in premature infants and neonates
- Injection of hormones
- Continuous injection of anesthetics
- Injection of oxytocics
- Injection of anticoagulants during dialysis and extracorporeal blood circulation
- For anti cancer drugs



# WZ6 SERIES

## MICROINFUSION PUMP

DESIGNED  
CLOSELY TO CLINIC  
HIGH QUALITY HIGH SECURITY  
HIGH DEPENDABILITY WZ SERIES  
SYRINGE PUMP

Parameter	
<b>Flow rate</b>	0.01ml/h-1200ml/h (50ml syringe) 0.01ml/h-600.0ml/h (30ml syringe) 0.01ml/h-399.9ml/h (20ml syringe) 0.01ml/h-300.0ml/h (10ml syringe) (0.01ml/h increments, 0.1ml/h increments when rate is over 100ml/h and 1ml/h increments when rate is over 1000ml/h)
<b>Purge</b>	1200ml/h (50ml syringe) 600.0ml/h (30ml syringe) 399.9ml/h (20ml syringe) 300.0ml/h (10ml syringe)
<b>Occlusion Pressure</b>	L: 300±100mmHg(40.7±13.3KPa) M: 500±100mmHg(66.7±13.3KPa) H: 800±200mmHg(106.7±26.7KPa)
<b>Precision</b>	≤ ±2% (machine precision ≤ ±1%)
<b>Total Volume</b>	0.01ml-9999ml
<b>Bolus</b>	0.1ml-60.0ml
<b>Alarm</b>	Near Empty, Empty, Bolus volume finish, syringe dislocated, syringe disengaged, pressure sensor error, malfunction, remind start alarm, OCCLUSION, VTBI finish, internal battery near empty, internal battery empty, AC power failure
<b>Power</b>	AC220V±22V, 50Hz±1Hz DC12V, The internal battery can work for about 4 hours after charge 16 hours with power off. Note: the internal battery capacity can be modified according the customer demand
<b>Operating condition</b>	Temperature: +5 to +40℃ Relative Humidity: 20% to 90%
<b>Transport and storage condition</b>	Temperature: -40 to +55℃ Relative Humidity: ≤ 95%
<b>Classification</b>	Class I Type CF IP×4, protected against splashing liquid
<b>External dimension</b>	307(L)×135(D)× 128(H)mm
<b>N.W.</b>	2.2kg
<b>Syringe</b>	Syringe size: 10ml, 20ml, 30ml and 50ml Syringe brand: 13 kinds of specified syringe brands are suitable

OTHER FUNCTIONS	
Body Weight Mode	Fast-injection control
Occlusion pressure selected	Lock the purge key when infusing
Dynamic pressure indicate	Audio and video alarm
Anti bolus	Lock the flow rate when infusing
Syringe brands selected	AC and DC indicate
Automatically recognize syringe size	RS232 computer port
Syringe brand indicate	Remind alarm
Bolus Volume	Text indicate for alarm
Total volume indicate	Time set
KVO rate	500 log



# MICROINFUSION PUMP

## WZL-506

- ISO9001 certificate
- ISO13485 certificate

# MICROINFUSION PUMP

## WZL-506

DESIGNED CLOSELY TO CLINIC, HIGH QUALITY,  
HIGH SECURITY, HIGH DEPENDABILITY WZ6  
SERIES SYRINGE PUMPS



For research  
and development,  
we are always  
on the road.



We have replaced the older generations of our WZ series syringe pumps by the new ones for 6 times since 1986. The newest WZ6 series syringe pumps are developed according to IEC60601-2-24, more safety and more advanced features are available.

WZ series syringe pumps have won several international and domestic tenders, such as United National Children's Fund, Ministry of Public Health of China, China and The United Kingdom Women and Children Project. The pumps even have been exported to more than 32 countries.

The first company developed micro-infusion pump according to IEC standard and passed CE certificate in China.

## WZL-506



RS 232 port

RS 232 port. One port for six channels. Much more convenient .

Compatible with 13 different brands of 10ml, 20ml, 30ml, 50ml syringes



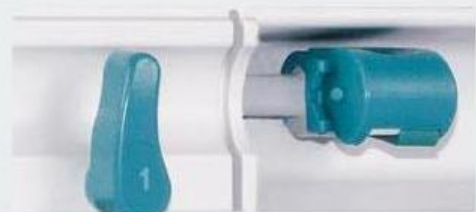
The pump can be fixed on the I.V. pole steadily.

## Application

- Continuous micro-infusion in the ICU and CCU
- Maintenance therapy micro-infusion and blood transfusion in premature infants and neonates
- Injection of hormones
- Continuous injection of anesthetics
- Injection of oxytocics
- Injection of anticoagulants during dialysis and extracorporeal blood circulation
- For anti cancer drugs



Can select occlusion pressure if necessary



The pump will generate audio and video alarms when syringe is dislocated or disengaged

# WZL-506

## MICROINFUSION PUMP

DESIGNED  
CLOSELY TO CLINIC  
HIGH QUALITY HIGH SECURITY  
HIGH DEPENDABILITY WZ6 SERIES  
SYRINGE PUMPS

### Parameter

<b>Flow rate</b>	0.1ml/h-1200ml/h 0.1ml/h-600.0ml/h 0.1ml/h-399.9ml/h 0.1ml/h-300.0ml/h 0.1ml/h increments when rate is below 1000ml/h and 1ml/h increments when over 1000ml/h )	(50ml syringe) (30ml syringe) (20ml syringe) (10ml syringe)
<b>Purge</b>	1200ml/h 600.0ml/h 399.9ml/h 300.0ml/h	( 50ml syringe) (30ml syringe) (20ml syringe) (10ml syringe)
<b>Occlusion Pressure</b>	L: 300mmHg±100mmHg(40.7±13.3KPa) C: 500mmHg±100mmHg(66.7±13.3KPa) H:800mmHg±200mmHg(106.7±26.7KPa)	
<b>Precision</b>	≤ ±2% (machine precision ≤ ±1% )	
<b>Total Volume Indication</b>	0.1ml-9999ml	
<b>preset limited volume</b>	0.1ml-9999ml	
<b>Alarm</b>	Near Empty, Empty, Syringe dislocated, Syringe disengaged, Pressure sensor error, Malfunction, Remind start alarm, OCCLUSION, Internal battery near empty, Internal battery empty, AC power failure, Preset limited volume is finished.	
<b>Power</b>	100-240VAC, 50/60HZ; Internal battery: DC12V The internal battery can work for more than 3 hours at the rate of 5ml/h after be charged 16 hours when power off.	
<b>Operating condition</b>	Temperature: +5℃ to +40℃ Relative Humidity: 20% to 90%	
<b>Transport and storage condition</b>	Temperature: -40℃ to +55℃ Relative Humidity: ≤ 95%	
<b>Classification</b>	Class I Type CF IP×4, protected against splashing liquid	
<b>External dimension</b>	323mm(W)×541mm(H)× 243.5mm(D)	
<b>N.W.</b>	9.0kg	
<b>Syringe</b>	Syringe size: 10ml, 20ml, 30ml and 50ml Syringe brand: 13 kinds of specified syringe brands are suitable	

### OTHER FUNCTIONS

Six channels work strictly separately	Fast-injection control
Occlusion pressure selected	Lock the purge key when infusing
If any channel is free, it can be power off by pressing STOP key for 2 seconds	Audio and video alarm
Anti bolus	Lock the flow rate when infusing
Automatically recognize syringe size	AC and DC indicate
Preset limited volume	RS232 computer port
Total volume indicate	Warn of wrong operation
KVO rate	500 log



# MICROINFUSION PUMP WZS-50F6



# WZS-50F6

## MICROINFUSION PUMP

DESIGNED CLOSELY TO CLINIC  
HIGH QUALITY HIGH SECURITY HIGH  
DEPENDABILITY WZ SERIES SYRINGE  
PUMP

### PERFORMANCE PARAMETER

<b>Flow rate</b>	0.1ml/h-1200ml/h(0.1ml/h increments, 1ml/h increments when rate is over 1000ml/h) 0.1ml/h-600ml/h (0.1ml/h increments) 0.1ml/h-399.9ml/h (0.1ml/h increments) 0.1ml/h-300ml/h (0.1ml/h increments)	50ml syringe 30ml syringe 20ml syringe 10ml syringe
<b>Bolus rate</b>	1200ml/h ( 50ml syringe) 600ml/h (30ml syringe) 399ml/h (20ml syringe) 300ml/h (10ml syringe)	
<b>Occlusion pressure</b>	40N, 60N( ± 10N)	
<b>Volumetric accuracy</b>	≤2% (drive accuracy ≤1%)	
<b>Total volume indication</b>	0.1-9999ml	
<b>Preset limited volume</b>	0.1-9999ml	
<b>Alarm</b>	Near empty, Empty, Syringe dislocated, Syringe plunger disengaged, Malfunction, Forget to operate after power on, OCCLUSION, Low battery, Battery volume exhausted, AC power failure, Preset limited volume is finished	
<b>Power</b>	AC220V, 50Hz, DC12V, Rechargeable battery, Can work 4 hours after fully charged	
<b>Operating condition</b>	Temperature: +5 to 40 °C Relative humidity: 20 to 90%	
<b>Transport and storage condition</b>	Temperature: -40 to 55 °C Relative humidity: ≤95%	
<b>External dimensions</b>	410(L) × 250(W) × 260(H) mm	
<b>Net Weight</b>	3.3kg (include internal battery and I.V Clamp)	
<b>Syringe</b>	Syringe size: 10ml/20ml/30ml/50ml Syringe type: 13 kinds of disposable syringe brands can be used	

### OTHER FUNCTIONS

OCCLUSION pressure selected	Fast-injection control
Anti bolus	Lock the fast key when infusing
Syringe brands selected	Lock the flow rate keys when infusing
Automatically recognize syringe size	AC and DC indicate
Preset limited volume	RS232 port
Total volume indicate	Warn of wrong operation
KVO	500 log

**PACKING**

Product		G.W(kg)	N.W (kg)	Dimensions (cm)
Single channel syringe pump (WZ-50C6,WZ-50C6T, WZ-50C66T)	1 unit	3.0	2.1	36*21*19.5
	2 units	7.0	4.2	37.5*23*43
	4 units	13.5	8.4	48*35.5*44
Two channel syringe pump (WZS-50F6)	1 unit	4.5	3.2	41*24.5*26
	2 units	9.8	6.4	43*26.5*55.5
Six channel syringe pump (WZL-506)	1 unit	10.7		39*30*64
Feeding pump (CY-300)	1 unit	2.0	1.6	26.5*22*29.5
	2 units	5.0	3.2	28.5*23.5*62.5
Feeding bag set CY-A Bag	50pcs/carton	5.5		58*33*30
Feeding spike set CY-B Impact	100pcs/carton	5.5		58*33*30