

# Medfusion® Syringe Pumps & Accessories

When Accuracy Matters



**INFUSION MANAGEMENT**

# Medfusion® Syringe Pump



## 1 1 to 50/60ml Syringes

Simple 1\* – 50/60ml syringes.

\*dependant upon pump configuration

## 2 Intuitive Screen Messages

The intuitive screen messages enable ease of programming from simple to more complex infusion regimes.

## 3 User Friendly Keypad

The hardware interface is user friendly with clear, easy to understand icons and a numeric keypad for simplicity.

An optional locking key pad is available for additional security.

## 4 Intelligent Pressure Monitoring

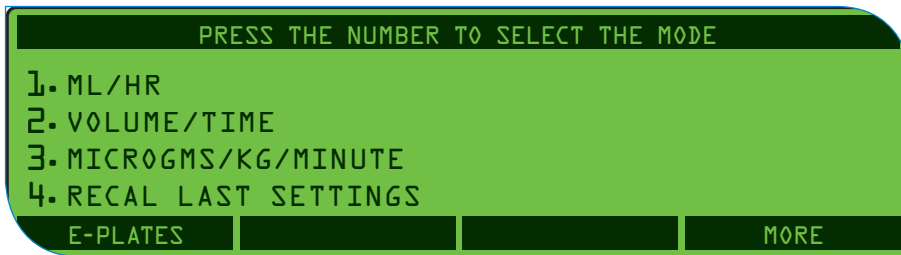
Rapid occlusion detection technology with FlowSentry™, including rapid alarm response time and reduced false alarms.

An enhanced graphic display of pressure trend allows earlier opportunities for clinical intervention, and the post-occlusion bolus reduction feature decreases post-occlusion bolus to less than 0.3ml, without the use of dedicated disposable sets.

**The Medfusion® Syringe Pump is an intuitive pump designed to enhance safety while maintaining simplicity. Clinicians benefit from streamlined implementation and improved work flow.**

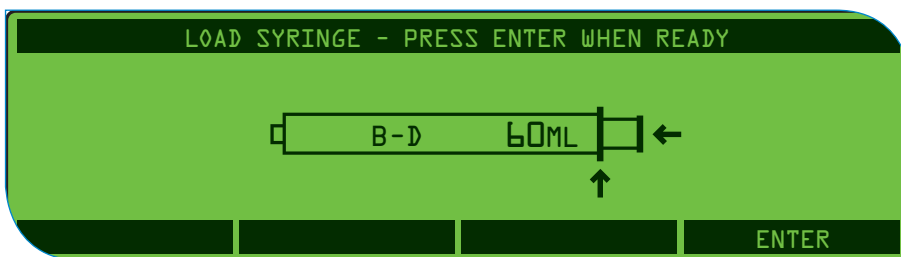
### SPECIFICATION - MEDFUSION® SYRINGE PUMP

<b>Dimensions (WxHxD)</b>	27cm width x 13cm height x 14cm depth 10.5in. x 5.1in. x 5.5in.
<b>Weight (pump only)</b>	1.7 kg / 3.8 lbs
<b>Accuracy</b>	Nominal +/-2% excluding syringe variations
<b>Flow Rate Range</b>	Dependent upon syringe size 0.01ml/hr to 1130ml/hr
<b>Delivery Modes</b>	ml/hr, Body Weight, Mass, Volume Over Time, Customer Dilution, Intermittent
<b>Delivery Options</b>	13 options include Loading Dose, Bolus Dose, Standby, Volume Limit, KVO Rate
<b>Power Sources</b>	100 to 240V AC, 50/60Hz, 30 VA, Internal Rechargeable Battery, Optional External DC Input Safety Class II-Type CF
<b>Internal Battery Capacity</b>	At 25°C – 10 hours at 5.0 ml/hr with 60 ml syringe for daily (from fully charged battery)
<b>User-Defined Delivery Libraries</b>	Four libraries with 16 profiles per library One library is 'E-Plate' for optional rapid setup
<b>MRI Settings*</b>	May be used in MRI rooms outside the 150 Gauss line with shielded magnets of field strength of 1.5 Tesla or less



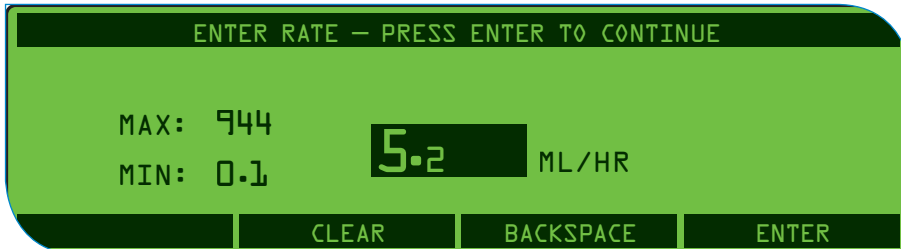
**Choose the Delivery Mode**

Simple menu driven selection interface makes for reliable data entry.



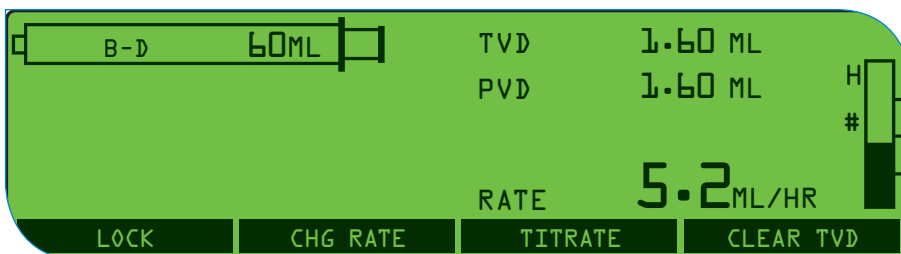
**Load the Syringe**

Select from a library of pre-set Syringe types or use the Custom Configuration menu.



**Enter Infusion Rate**

Simple entry using the numeric keypad with easy amendment of incorrect entries.



**Clear, Logical Feedback**

The infusion screen provides an at-a-glance display of current status for simple and reliable monitoring.

MRI

**MRI Settings\***

The Medfusion® 3500 Syringe pumps have been determined to be acceptable for use in MRI rooms mounted outside the 150 Gauss line with shielded magnets of field strength of 1.5 Tesla or less.

**Simple to use**

Designed with ease-of-use in mind. The Medfusion® Syringe Pump provides a clear indication of all menu entries and current status of infusion.

The Medfusion™ hardware interface is user friendly with clear, easy to understand icons and a numeric keypad for simple, reliable operation.

A full range of infusion options are available within the pass code protected configuration menu.

For additional security the keypad can be locked to prevent accidental input.

Flexibility in use is increased by the use of the Rotating Pole Clamp, which allows the pump to be pole mounted either vertically or horizontally. As an alternative the pump can be placed on a suitable hard, stable surface.

**Portable and Versatile**

The small and lightweight design incorporating sturdy carrying handle, enables the pump to be used in all clinical environments including, Critical Care Settings, ITU, PICU, NICU, General Wards, A&E, Operating Theatres and Transport.

**Communications Enabled**

The Medfusion® Syringe Pump imports and exports data to assist in patient data management. A communication accessory will allow the pump to communicate in a number of modes including RS232.

	Product Code
Medfusion® Syringe Pump	<b>3500E</b>
PharmGuard® Software	<b>22-3075-50</b>
Rotating Pole Clamp	<b>3000RPC</b>
Lockbox	<b>22-1000-51</b>

\*See operations manual for specific criteria

## PharmGuard® Medication Safety Software



**PharmGuard® Medication Safety Software is the application for the Medfusion® Syringe Pump. It provides comprehensive management and analysis capabilities and its purpose is to improve patient safety by reducing user error.**

### **Through the PharmGuard® Medication Safety Software Toolbox it is possible to:**

- Securely create and deploy custom configurations.
- Collect data for analysis of Drug Programme usage and variations from the Drug Programme custom infusion parameters.
- Collect history data for analysis of a single pump's operational, infusion, and alarm history.
- View data in a printer-friendly format using Standard Reports, installed with the PharmGuard® Safety Toolbox. Custom Reports can be created with compatible software.

All library entries can be configured with upper and lower limits for the parameters that will be entered when setting up an infusion – dose, delivery rate, bolus and loading dose. When dose limits have been set, the user of the library template will be alerted if a value is entered that exceeds the programmed limits.

Libraries can also be generated by 'cloning' pumps – transferring libraries from one pump to another using serial communications (infrared or RS232). The library also allows blank fields, which promote more accurate patient-specific data entry.

With the v3.06 software a maximum of 4 drug categories per profile, containing 16 drug entries per category, resulting in a maximum of 64 available libraries.



**Full Reporting Facility**

The PharmGuard® Medication Safety Software enables full reporting, including:

- Version 3 configuration
- Drug library reports
- History reports
- Alarm history reports

	<b>Product Code</b>
Medfusion® Syringe Pump	<b>3500E</b>
PharmGuard® Software	<b>22-3075-50</b>

SPECIFICATION - PharmGuard® MEDICATION SAFETY SOFTWARE	
<b>PharmGuard® Medication Safety Software</b>	<b>PharmGuard® Medication Safety Software v3.06</b>
Optional override near empty	YES
Optional override empty	YES
Automatic bolus rate reduction	YES
Large font for drug name, dose and rate	YES
Ability to have blank fields for numeric data	YES
Ability to use tall man lettering	YES
Optional hospital security pass code	YES
Available delivery modes	17
Rapid occlusion reduction – FlowSentry™	YES
Number of available libraries	64
Available profiles (area specific custom configurations)	1
Number of drug categories per profile	4
Number of drug entries per categories	16
Number of drug ID characters displayed during infusion	15

# Infusion Accessories



Commencing an infusion requires not only the correct infusion device, training, drug protocol and patient management, but also the appropriate accessories.

Smiths Medical can offer a range of infusion accessories to suit individual medication regimes including extension sets, connectors, TPN infusion systems and filters.

**The range includes:**

- Line clamps with an option of an integral Anti-Syphon Valve.
- Available with a fluid path of PVC or PE medical grade plastics.
- Wastage and consequent drug expenditure reduced by low volume sets that incorporate narrow bore tubing.
- Sets with Integral Roberts Clamp giving the confidence of a safer and convenient method of flow control.
- Lipid resistant microbore infusion lines.
- 0.2 micron and 1.2 micron Bacterial Filters including Positive Charged range.
- Comprehensive range of 'T' and 'Y' Connectors.

**Key:**

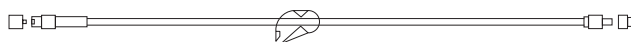
- ASV – Anti-Syphon Valve
- PVC – Polyvinylchloride
- PE – Polyethylene
- R Clamp – Roberts Clamp
- CV – Check Valve

## Extension Sets

### Flo-Safer™ Syringe Extension Sets



Product Code	Description	Priming	Qty
0128-0122	PVC 150 cm with R clamp	1.5ml	50



Product Code	Description	Priming	Qty
0128-0251	PVC 50cm with ASV and R clamp	0.5ml	50
0128-0253	PVC 150cm with ASV and R clamp	1.5ml	50
0128-0254	PVC 200cm with ASV and R clamp	2.0ml	50



Product Code	Description	Priming	Qty
0128-0255	PE lined 50cm with ASV and R clamp	0.5ml	50
0128-0258	PE lined 200cm with ASV and R clamp	2.0ml	50



Product Code	Description	Qty
0128-0260	PE lined 150cm narrow bore (0.5mm) with ASV and R clamp	50

### Light Resistant



Product Code	Description	Qty
MX595LD	Tubing opaque, low volume, 150cm	50

## Extension Sets

### Polyurethane Extension with Ultra™ Luers- Microprime

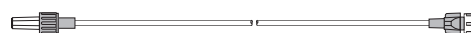
Approx priming volume 0.20ml/meter. Lipid resistant orange Luer.



Product Code	Description	Qty
MX590-LR	Ultra microbore extension line (15cm)	50
MX595-LR	Ultra microbore extension line (150cm)	50
MX1777	Microprime extension tubing	25
MX1789-LR	Microprime tubing w/ inject port-ultra	50

### Polyurethane Extension Tubing with Ultra™ Luers - Low volume

Approx priming volume 1.20ml/meter. Lipid resistant orange Luer.



Product Code	Description	Qty
MX448-HL20	Ultra extension line - low volume (20cm)	50
MX448-HL90	Ultra extension line - low volume (90cm)	50
MX448-HL200	Ultra extension line - low volume (200cm)	50

### PVC Extension Tubing

Approx. priming volume 0.20ml/meter. Lines have male and female clear vinyl connections.



Product Code	Description	Qty
MX610	Microbore extension line (8cm)	50
MX590	Microbore extension line (15cm)	50
MX591	Microbore extension line (30cm)	50
MX592	Microbore extension line (60cm)	50
MX593	Microbore extension line (90cm)	50
MX594	Microbore extension line (120cm)	50
MX595	Microbore extension line (150cm)	50
MX597	Microbore extension line (210cm)	50

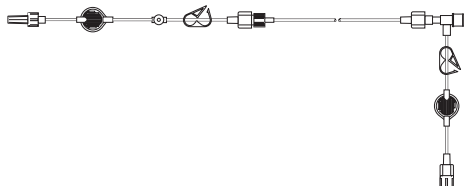
### Standard Bore



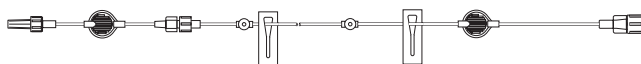
Product Code	Description	Qty
MX448-YL	Inj. site-luer lock w/clamp Y with 6 in ext	50
MX451-Y	Ext. set with injection site	50

## Filters

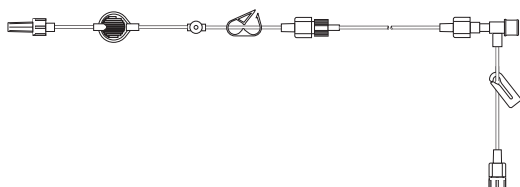
### Filters with Extension Sets



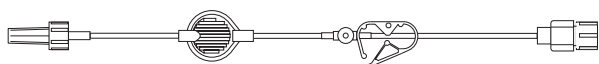
Product Code	Description	Qty
MX1796	Standardset 1M.0.2, 1,2U filter	50



Product Code	Description	Qty
MX1796LVLR	Set 0,2U, 1,2Y filt. I.V. port LV ultra	50



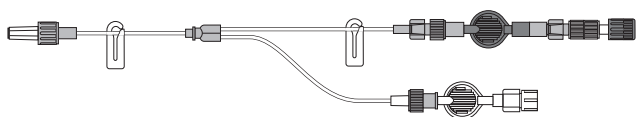
Product Code	Description	Qty
MX1797	Standardset 2W. 1.2 filter	50



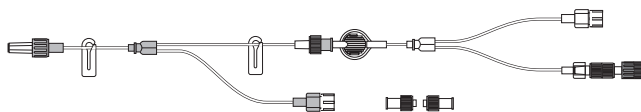
Product Code	Description	Qty
MX1798LR	Ext. set w/inj. port, 1,2U filter	50

### TPN Systems

Standard TPN infusion systems and priming sets



Product Code	Description	Qty
MX1590-02	TPN infusion system, 0.2 & 1.2 micron filters	25



Product Code	Description	Qty
MX1590-04	Lipid resistant set, 0.2 micron filter	25

## Filters

### Stand Alone Filters



Product Code	Description	Priming	Qty
MX1480	0.2 micron bacterial filter	0.2cc	50



Product Code	Description	Priming	Qty
MX1481	0.2 micron bacterial filter	0.7cc	50



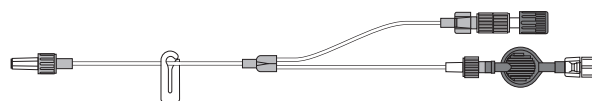
Product Code	Description	Priming	Qty
MX1482	1.2 micron bacterial filter	0.7cc (lipid solution)	50



Product Code	Description	Priming	Qty
MX1483	1.2 micron bacterial filter	0.2cc (lipid solution)	50



Product Code	Description	Priming	Qty
MX1484	0.2 micron pos. charged neonatal	0.2cc	50

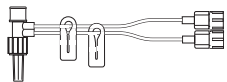


Product Code	Description	Priming	Qty
MX1484-01	Endotoxin retaining filter system	0.2cc	50

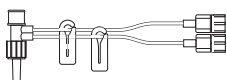


## T & Y Connectors

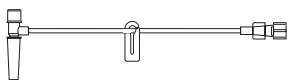
### T Connectors



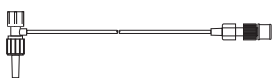
Product Code	Description	Qty
MBF-27-DTL	Double T-connector	25



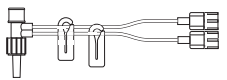
Product Code	Description	Qty
MX453-H2L	Double T-connector	50



Product Code	Description	Qty
MX453P1	T-connector	50

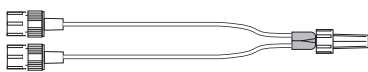


Product Code	Description	Qty
MX453-SL	T-connector with locknut	50

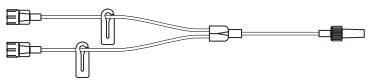


Product Code	Description	Qty
MX614	Double T-connector with male locknut	50

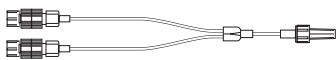
### Y Connectors



Product Code	Description	Qty
MX611-RV	Y-connector with check valve	50

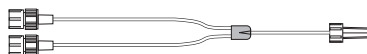


Product Code	Description	Qty
MX612	Double Y-connector with extension	50

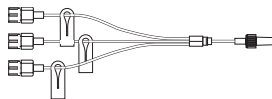


Product Code	Description	Qty
MX612-HRV	Double Y-connector, LV, CV, ultra	50

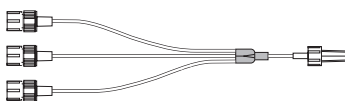
## Y Connectors



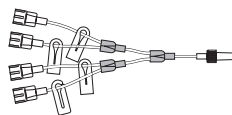
Product Code	Description	Qty
MX612-LRRV	Double Y-connector, W, CV, ultra	50



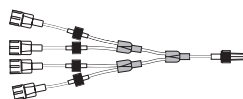
Product Code	Description	Qty
MX613	Triple Y-connectors	50



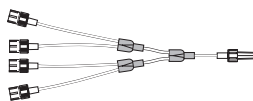
Product Code	Description	Qty
MX613-HRV	Triple Y-connectors, LV, CV, ultra	50



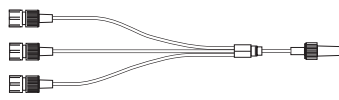
Product Code	Description	Qty
MX616	Microprime quadruple Y-connector	50



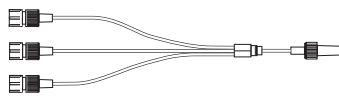
Product Code	Description	Qty
MX616HRV	Quad Y-connector with check valves, LV, ultra	50



Product Code	Description	Qty
MX616-LRRV	Quad Y-connector with check valves	50



Product Code	Description	Qty
MX618	Triple Y-connector with check valves	50



Product Code	Description	Qty
MX618-LR	Microprime Y-connector ultra	50

## Needle Free Valves

### Check Valve



Product Code	Description	Qty
MX745-01	Mini valve duckbill	50

### Nu Site



Product Code	Description	Qty
MX743P1	Nu-Site two way valve with cap	100

### Smartsite® Adaptor

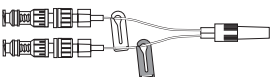


Product Code	Description	Qty
SM500P1	Smartsite® Adaptor	100

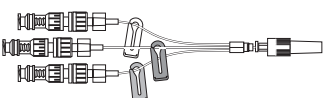
### Smartsite® Y Sites



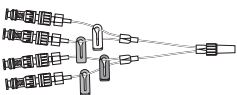
Product Code	Description	Qty
MX1556	Single Connector with Back Check Valves and SmartSite® Needle Free Connectors.	25



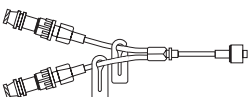
Product Code	Description	Qty
MX1557	Double Connector with Back Check Valves and SmartSite® Needle Free Connectors.	25



Product Code	Description	Qty
MX1558	Triple Connector with Back Check Valves and SmartSite® Needle Free Connectors.	25



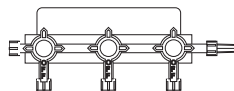
Product Code	Description	Qty
MX1559	Quad Connector with Back Check Valves and SmartSite® Needle Free Connectors.	25



Product Code	Description	Qty
SM5003P1	SmartSite® bifurcated small bore extension set with 2 Luer lock needle-free valve port and male Luer lock	100

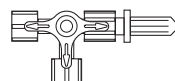
## Manifolds & Stopcocks

### Manifolds



Product Code	Description	Qty
MX434-3LM	Manifold	20

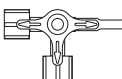
### Stopcocks



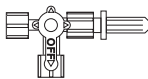
Product Code	Description	Qty
081-101BE	Stopcock, 4 way, 360°, blue, polycarbonate, w/end caps	100
081-101GE	Stopcock, 4 way, green,	100
081-101GEE	Stopcock, 4 way, green, w/end caps	100
081-101NE	Stopcock, 4 way, w/end caps, white (sterile)	100
081-101RE	Stopcock, 4 way, 360°, red, polycarbonate, w/end caps	100



Product Code	Description	Qty
081-102BE	Stopcock, 1 way, blue, polycarbonate, w/end caps	100
081-102GE	Stopcock, 1 way, green, polycarbonate	100
081-102GEE	Stopcock, 1 way, yellow, polycarbonate, wend caps	100
081-102NE	Stopcock, 1 way, white, polycarbonate	100
081-102RE	Stopcock, 1 way, red, polycarbonate, w/end caps	100



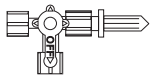
Product Code	Description	Qty
081-111NE	Stopcock, 4 way, white	100



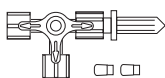
Product Code	Description	Qty
081-180BE	Stopcock, 3 way, 180°, blue, polycarbonate, w/end caps	100
081-180NE	Stopcock, 3 way, white	100
081-180RE	Stopcock, 3 way, 180°, red, polycarbonate, w/end caps	100

## Stopcocks

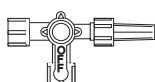
### Stopcocks (cont.)



Product Code	Description	Qty
089-101E	Stopcock, 4 way, max-flo	50



Product Code	Description	Qty
0888-360BE	Stopcock, 4 way, colour coded	100



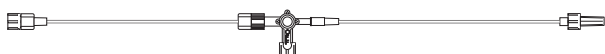
Product Code	Description	Qty
MX234-1L	Stopcock, ultra	50



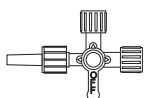
Product Code	Description	Qty
MX502-10	Stopcock, w/extension	25



Product Code	Description	Qty
MX506-1L	Stopcock, 1 way, 2 port 'on' locknut	50



Product Code	Description	Qty
MX509002	Stopcock, single line	25



Product Code	Description	Qty
MX534-1LCC	Stopcock, 4 way, 3 port 'off' handle locknut 360°	50



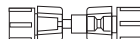
Product Code	Description	Qty
MX534-70B	Stopcock w/extension	25

## Adaptors & Plugs

### Adaptors



Product Code	Description	Qty
MX493P1	Male - male Luer lock adaptor	100



Product Code	Description	Qty
MX494P1	Female - female Luer lock adaptor	100



Product Code	Description	Qty
MX492P1	Injection site, male Luer lock 7/8"	100

### Plugs



Product Code	Description	Qty
MX491BP1	Plug	100



Product Code	Description	Qty
MX491P1	Luer lock plug, male/female	100



Product Code	Description	Qty
MX491-R	Luer lock plug, male/female	100

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