

# Trellising and Soft Fruit Solutions

Vineyard, Orchard and Soft Fruit Support



**Product Guide** 



## Who We Are

#### An introduction to Gripple<sup>®</sup>...

Whether they're used to tension trellis wires in vineyards and orchards, to join or repair a fence in a field or along a motorway, or to hang services in a new or renovated building, Gripple make the finest wire joiners and tensioners on the market today; we're the original and still the best.

We say this not with arrogance, but with the confidence of over **350 million** Gripples in use in more than 100 countries worldwide today.

The key to our success is finding effective solutions - we make a difficult, timely and cumbersome job **fast and easy**. We always focus on the user's needs, and by engraining this principle of solving problems into every person throughout the company, Gripple now not only provides a vast range of high quality, problem solving products, but a total back-up service that exceeds customer expectations.

### **How We Work**

#### What it means to us to manufacture in Sheffield, England

Throughout the 19th century, Sheffield became famous for its steel making, pioneering innovations such as stainless steel. During the 20th century, world competition saw the steel industry in a state of decline, but with grit and determination, the city and its people are shining again in the 21st century.

Gripple is proud to be a part of this city, and we're honoured to say our products are "Made in Sheffield".

### **Awards**

1990 - Concours Lepine Gold Medal (France)

1990 - Grand Prix du President de la République (France)

1991 - The Prince of Wales Award for Innovation

1995 - Export Times - Corporate Exporter of the Year

2000 - Queen's Award for Enterprise - Innovation

**2001 -** National Language for Export – Regional Winner (Trade Partners UK)

2002 - British Chambers of Commerce - Export Excellence Award

2003 - IMechE - Best Product Innovation

2003 - Management Today Awards for Manufacturing - Best Innovation for R&D

2003 - Management Today Awards for Manufacturing - Best Small Plant

2004 - National Community Mark Standard

2004 - IMechE - Best Factory Award - Overall Winner

2004 - IMechE - Best Small / Medium Enterprise

2006 - The Manufacturer - Manufacturer of the Year Award

2007 - EEF - Annual Environmental Award

2007 - British Chambers of Commerce - Achievement in International Business

2008 - Queen's Award for Enterprise - International Business

2009 - IMechE - Best Small / Medium Enterprise

2009 - BFA - Best Engineering Plant Award

2009 - BFA - Best Small Company Award

2009 - BFA - Innovation Award

2010 - Queen's Award for Sustainable Development







"Solving problems and developing new products is what makes us tick. From a single-product, one-country start, to a product range of over 1,000 lines into 100 countries, the ability to design products that people need is our winning formula"

#### **Contents**

The Gripple Range, pages 4 - 5

Vineyard Trellising, pages 6 - 7

Post Solutions, pages 8 - 9

Vineyard Anchoring, pages 10 - 11

**Orchard Trellising and Anchoring,** pages 12 - 13

Soft Fruit Support and Protection, pages 14 - 15

Greenhouse, pages 16 - 18

Accessories, page 19



# The Gripple



The fundamental principle of a Gripple device is simple; there are two channels, each working independently and each with its own locking mechanism. The 'lock' is created by the roller, which is free to move in one direction and then grips the wire firmly as it moves back. This concept means that tension can always be applied to a wire.

To install a Gripple unit there are two key ways:



#### In-line

Where two separate wires are joined together. This is typically used for installing or repairing trellis wires.



#### Loop

Where one length of wire is wrapped around a post or anchor point to act as an end termination.

#### **Advantages**

- 5 times faster to install, saving you money (see calculations on page 6)
- Optimises the life of the wire as no knotting or bending is needed
- Speedy and economic maintenance and repairs
- Easy and fast to re-tension year-after-year
- Hand-held tensioning tool for ease of use
- · A Gripple to suit most wires

#### Recommendations\*

Туре	Wire Range - mm	Maximum Working Load - Kg	Vineyard Trellis**	Orchard Trellis	Soft Fruit	Greenhouse (Crop wires)
GP Small	1.40 - 2.20	300	✓			
GP Medium	2.20 - 3.25	400	✓			
GP Large	3.20 - 4.20	600		✓	✓	✓
GP No.1 (single channel)	1.80 - 3.00	400	✓		✓	✓
GP No.2 (single channel)	3.00 - 4.20	600			✓	✓
Jumbo	2.50 - 3.15	600		✓	✓	✓

<sup>\*</sup> These are based on a 'typical' installation. Longer rows, heavy crops or exposed areas may require a different product. Seek advice first.

\*\*For table grape trellis, please refer to Orchard Trellis data.

"Using Gripple products couldn't be simpler, and will effectively reduce your work time"

# What Do I Need?

#### For trellis wires

There is a range of Gripple products to use on trellis wires, from 1.40 mm to 4.20 mm. The Gripple Plus Medium is the most versatile, widely used product, performing perfectly on 2.50 mm high tensile wire.

#### For anchoring

In addition to the core range of Gripple products, we also provide Gripple Plus Anchoring Kits (GPAKs), which are designed specifically for anchoring the trellis structure. These kits come complete with a Gripple device and a length of flexible wire rope with a pre-ferruled loop already installed, making it fast and easy to secure to end posts.

For higher loads, the larger varieties of GPAK come complete with a Gripple Lockable. After tension has been applied, the unit's locking mechanism is secured with two bolts to prevent any further movement. We recommend these for exposed areas where wind is severe, for longer row lengths with heavy crop yields, or in protection applications where dynamics come into play.

The table below will help you choose the right product for the job.\*

Туре	Wire Rope	Maximum Working Load - Kg	Lockable	Vineyard Anchoring**	Orchard Anchoring	Protection	Soft Fruit Anchoring
GPAK 3	3.0 mm x 4.5 m	400		✓			✓
GPAK 4	4.0 mm x 5.0 m	600		✓			✓
GPAK 4L	4.0 mm x 6.0 m	750	✓		<b>✓</b>		✓
GPAK 5L	5.0 mm x 6.0 m	1,000	✓		<b>✓</b>		
GPAK 6L	6.0 mm x 6.0 m	1,750	<b>√</b>		<b>√</b>	<b>√</b>	
GPAK 8L	8.0 mm x 6.0 m	3,000	<b>√</b>		<b>√</b>	<b>√</b>	

<sup>\*</sup> These are based on a 'typical' installation. Longer rows, heavy crops or exposed areas may require a different product. Seek advice first.

<sup>\*\*</sup> For table grape anchoring, refer to orchard anchoring data.

"...a firm foundation for both wine and table grape growing"

# Vineyards

#### An introduction

In today's competitive marketplace, vineyards welcome all the help they can get to produce a quality grape. Although the elements are beyond our control, a solid trellis structure will provide a great defence against the forces of nature, and by investing in high quality materials you can ensure a firm foundation for the growth of your wine or table grapes.

By using our fast and efficient products, installation labour is minimised and annual maintenance is negligible. Compared to traditional methods, our way of installing trellis wires takes a third of the time - the wire can be tensioned and the anchor installed around 8 times quicker. Overall, using quality materials not only extends the life of the vineyard, but also saves you time and money year after year.

The following calculations show the potential saving with Gripple on one hectare over 20 years.

1 hectare over 20 years	Traditional method	With Gripple		
Installation	337 min	112 min		
Anchoring	720 min	90 min		
Tensioning	675 min	75 min		
Total 1st year	1732 min (29 hours)	277 min (5 hours)		
Re-tension - every year	675 min x 19 = 214 hours	75 min x 19 = 24 hours		
Over 20 years 243 hours = 30 days		29 hours = 3.5 days		
214 hours = 27 days coving at 906 labour par day = 2 1506 / hostore				



# **Vineyard Trellis**

#### **Product application**

The ideal way to install the Gripple is in a loop format around the end post. Installing with a loop is up to 50% stronger than the 'in-line' method, so where possible we always recommend looping the trellis wire around the post.

An in-line join is ideal when trellis wires are broken or damaged and need to be repaired. For these situations, use two Gripple units, splice a piece of wire into the trellis line, then tension as normal.

The most commonly used size of Gripple for vineyard trellising (with average length rows) is a Gripple Plus Medium. If rows are particularly long, the terrain is exposed or crops are intense, we would recommend the Gripple Jumbo.

#### How to tension

Once a join is made, either as an in-line join or in a loop, the wire can then be tensioned using the Gripple Torq Tensioning Tool.

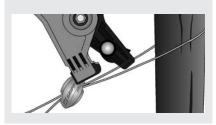
Our specially designed tool is fitted with an in-built gauge to measure the tension you wish to apply, and delivers consistent results every time. Simply set the gauge to your desired tension, place the Gripple into the mouth of the tool and the wire into the cam, then action the handles. When the handle displaces with an audible 'click', you'll know your selected tension has been achieved.

#### Tips

Leave a large, long loop around the end post so that when wires are tensioned year-after-year, there is always enough room to tension on the tail wire.



If the Gripple gets too near the post, tension can be applied by placing the tool inside the loop and tensioning the Gripple from here. This will in turn move the Gripple away from the post.













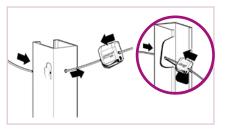
# GP No.1 (for Metal Posts)

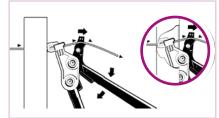
#### **Application**

The Gripple Plus No.1 is designed for use on trellises that use metal end posts. Engineered with one channel rather than the usual two, the GP No.1 acts as an end stop against the back of the post. Fitted with the same non-corrosive ceramic roller as the Gripple Plus Medium, and with a wire range of 1.80-3.00 mm and a load rating of 400 kg, the GP No.1 can be used in most vineyards with metal end posts.

Designed with a handy safety channel, the tail wire can be looped back into the unit, providing a safe, neat finish. If the post is orientated open-side-out, there is also a handy adaptor that can be fitted to the standard Torq Tensioning Tool to make tensioning easier.

#### Installation





#### **Tips**

If the post in installed 'open-side-out', this handy adaptor is fitted to the tool to make tensioning easier.





"No clamps, no tools, and best of all, one kit fits all sizes"

# **Concrete Post Kit**

#### **Application**

The Gripple Concrete Post kit is a simple, fast way to secure your trellis wires to a concrete end post. There is no twisting, no knotting, no ugly metal clamps, no tools and - best of all - one kit fits all post sizes.

During installation, the ingenious 'collar' holds the wire in position, and prevents it from sliding down the post. Overall installation and tensioning time is just 30 seconds, making it the fastest method on the market today.

#### **Advantages**

- Install and tension in just 30 seconds
- Easy-to-handle / quick-fit kit
- Fits ALL sizes of concrete posts
- Durable, long-life materials (heavy galvanised wire rope / UV resistant)
- Used with the standard Gripple Torq Tensioning Tool

#### Installation









"...presenting an easy-to-use, fast-to-install anchor kit"

# **GPAK** for Vineyards

#### **Application**

Based on the proven principle of joining and tensioning wire, the Gripple Plus Anchor Kit (GPAK) extends on this foundation, presenting an easy-to-handle, easy-to-use anchoring solution that's fast to install. The different sized kits all come complete with a pre-cut length of flexible wire rope and a Gripple unit to join and tension.

Extremely versatile, each GPAK 3 also gives you the option of either using a pre-ferruled loop to fit around a wooden post, or a purposely designed end-stop to thread through metal posts.

Every GPAK comes with enough wire rope to install a 'double-leg' format. We highly recommend this format as it supports the post at two points, providing the optimum strength for your trellis structure.

#### **Advantages**

- Install in less than one minute
- Suitable for wooden or metal posts
- · High load capacity choose from a range
- Heavy galvanised wire rope for ultimate protection
- Double-leg format for maximum trellis support
- Re-tension easily yearafter-vear
- Lockable kits available for heavy-duty applications







Туре	Wire Rope	Maximum Working Load - Kg	Vineyard Anchoring
GPAK 3	3.0 mm x 4.5 m	400	✓
GPAK 4	4.0 mm x 5.0 m	600	✓



# Gripple / Fenox Anchoring Kits

#### **Application**

Gripple have teamed up with Fenox, another unique European-made product, to provide a complete anchor system for tough terrain. The sleek, bullet-like shape of the Fenox anchor means it can be easily driven into the earth. Once beneath the surface, its claw-like tendrils are activated, providing the ultimate grip. Aside from rocky ground, the Fenox anchor has also proven itself in chalk and heavy clay.

Combine a Fenox anchor with a GPAK and you have the ultimate anchor. Installation time is at least 8 times faster than traditional methods, and the resulting performance is second to none.

Gripple offer the GPAK / Fenox system as a complete ready-to-use kit which puts an end to the once wearisome chore of anchoring.



Build on the speed of the Fenox ground anchor installation by using the GPAK to anchor the trellis structure. The complete system is 8 times faster to install than traditional anchoring.











Туре	Application
Fenox 600 mm Anchor with Standard Bracket	Vineyard
Fenox 600 mm Anchor with Large Bracket (the larger bracket allows the anchor to be driven slightly deeper into the ground)	Vineyards where deeper anchoring is required
Fenox 1000 mm Anchor	Orchard

Also available are tool sets for both sizes that contain bespoke tools for driving the anchors into the ground.



# **Orchard Trellising**

#### **Product application**

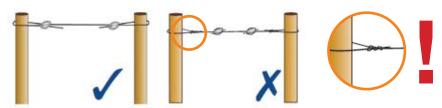
The Gripple Jumbo is expressly designed for orchard trellising. Fitted with larger ceramic rollers than the Gripple Plus Medium and with its heavy duty housing, the Gripple Jumbo can hold up to 50% more load. This 600kg rating ensures it can support heavy crops and accommodate longer row lengths, making it the ideal product for orchard trellis systems.

Туре	Application		
Cuinnla lumba	2.50 - 3.15 mm mild steel / high tensile steel		
Gripple Jumbo	2.40 - 3.15 mm stainless steel wire		

#### **Advantages**

- Engineered for use on heavy duty trellis applications
- Ideal for use on high tensile, larger diameter trellis wires
- High load support up to 600 kg
- High corrosion resistance not only against weather conditions but sprays and fertilisers too

#### **Tips**



- 1. Always install the Gripple Jumbo in a loop format rather than in-line. This makes the system considerably stronger.
- 2. Always leave a 1 metre loop to allow enough wire for tensioning and re-tensioning.



3. If the rows are very long (over 150metres) – we recommend that you create 'two installations' on the one row eg. start at one end and install a Gripple Jumbo in a loop and run out to the middle post and do the same; Then repeat the same installation running from the middle post to the other end post (see diagram)

"...with its heavy-duty housing, the Gripple Jumbo can hold up to 50% more load than a Gripple Plus Medium"



Heavier fruit requires a more robust structure. When crops are dense, rows are long, and trellis systems are tall, it can leave your entire structure vulnerable to the elements.

The GPAK Lockable shares the benefits of the regular GPAK, in that it's fast and easy to install, but it also has a secondary locking mechanism that secures it tightly onto the wire rope. This ensures the structure stays firmly in place as the crop grows and the elements are in force.

The GPAK Lockable kits are available in a range of sizes to suit the trellis length, height and form. Below is a recommendation guide to explain what to use and where.





The GPAK Lockable can also be used in conjunction with the Fenox Anchor (see page 11). Marry the sizes to suit for either a light-duty or heavy duty structure.

	Approximate Row length			
Crop per tree	100m	200m	300m	
Low (< 30kg per tree)	GPAK 4L	GPAK 5L	GPAK 6L	
Medium (30 - 60kg per tree)	GPAK 4L	GPAK 5L	GPAK 6L	
High (> 60kg pre tree)	GPAK 5L	GPAK 6L	GPAK 6L	

<sup>\*</sup> These are based on a 'typical' installation. Seek advice first.

"Gripple not only have solutions that are ideal for poly-tunnel structures, but also for the new, inventive ways of growing inside them"

# Soft Fruit Support and Protection

With varying weather conditions, poly-tunnels are becoming more and more of a necessity amongst soft fruit growers worldwide. Gripple not only have solutions that are ideal for the poly-tunnels structures, but for the new, inventive ways of growing inside them too.

#### 'Table-Top' lines - GP2 / Jumbo

The new 'table-top' system is fast becoming a favoured way of growing. The structure is composed of horizontal wires stretched between vertical supports to act as a platform for the crops. As the plants are raised from the ground, they are not only protected from diseases, but the system makes for more efficient picking and removes the need to plough the ground.

Table-tops tend to be installed using 3.15 mm high tensile wire with metal intermediate and end posts. For the support wires, two Gripple products are ideal – the **GP No.2** sits flush against the back of the end post and acts as an end stop, and the Gripple Jumbo will enable you to join two wires together or be used as an alternative way of terminating at the end post. Both can be tensioned with the Torq Tensioning Tool.



#### **Anchoring**

The table-top structure itself and the protective poly-tunnel that houses it both need to be anchored. Gripple Plus Anchor Kits (GPAKs) and the Fenox anchor system are ideal for this.

GPAKs are made up of a length of wire rope with a pre-ferruled loop and a Gripple device for tensioning. To install, simply wrap around the top of the end post and then secure to the anchor point – it's that easy and takes less than a minute.

For anchoring a table-top structure, we recommend the GPAK4. It's available in standard sizes or special lengths on request. Combine a GPAK with a Fenox anchor and it makes for an unbeatable solution. The streamlined shape of the Fenox anchor makes it easy to drive into the ground, where its 'claw-like' tendrils are opened up, providing you with maximum grip.



# **Protection**

Protective coverage - whether it be poly-tunnels, shade cloth or protective netting - can often be battered by strong wind, hail or rain.

These lightweight materials often act as a sail and in turn cause stress on the structure. Therefore, the framework needs to be robust and secure, yet at the same time allow controlled movement. Like in the Table Top system, the GPAK and Fenox partnership is an ideal system to use here, but there is also the option to use the GPAK Lockable, which is the preferred product for dynamic environments.

Ideal for anchoring poly-tunnels, bird netting, hail netting, shade cloth and any other materials where movement is involved, the GPAK Lockable comprises of a Gripple Lockable unit and a length of wire rope. The Gripple Lockable is fundamentally the same as a standard Gripple unit, but has an additional secondary locking mechanism.

The GPAK Lockable is also ideal for heavy duty anchoring, as kits up to 8mm in diameter are available.

Туре	Wire Rope	Maximum Working Load - Kg	Protection Anchoring	Soft Fruit Anchoring
GPAK 3	3.00 mm	400		✓
GPAK 4	4.00 mm	600		✓
GPAK 4L	4.75 mm	750		✓
GPAK 5L	5.00 mm	1,000	✓	
GPAK 6L	6.00 mm	1,750	✓	
GPAK 8L	8.00 mm	3,000	✓	





# Greenhouse

We have a revolutionary range of products to service the greenhouse industry. These inventive methods are the result of extensive experience in the Industrial and Agricultural markets, and from this we have created a range of bespoke hanging, supporting and shading solutions for greenhouses.

#### **Advantages**

- Ease-of-use easy to install and easy to handle
- Apply tension by hand no tools are needed due to the essential sag requirement
- Versatile heavy duty units, suitable for high tensile crop wires from 2.00 - 3.15 mm
- Strong working loads of 600 kg
- Flexible option to loop around fixtures with the Jumbo or through holes with the GP No.2
- Durable anti-corrosion mechanism and parts

#### Crop wire termination

The Gripple Jumbo and GP No.2 are ideal for terminating horizontal crop wires used for growing tomatoes, cucumbers and peppers. Not only can our products be used to install crop wires, but also to support them at regular intervals along the row. This is where Gripple's knowledge of suspension systems is invaluable.

Туре	Range	Maximum Working Load - KG	Application
GP No.1	1.80 - 3.00 mm	400 kg	Wire termination (single channel)
GP No.2	3.00 - 4.20 mm	600 kg	Wire termination (single channel)
Gripple Jumbo	2.50 - 3.15 mm	600 kg	Looping or joining wire



**Installation GP No.2** 

#### **Installation Jumbo**











# "One Gripple product can be used instead of many, and fitted in a fraction of the time"

#### Crop wire support

As well as providing products suited to terminating crop wires (such as the Gripple Jumbo or GP No.2), the Gripple TPAK and the Gripple Snap Hook can be installed to actively support the crop wires themselves. Antiquated, pre-bent steel hooks have been used for this purpose in the past, but our solutions offer you a brand new alternative.

The TPAK gives you fast and easy adjustment, allowing crop wires to be moved up or down at any point during installation, and even during plant growth. This fine-tuning allows growers to position their crop wires perfectly. Furthermore, the Snap Hook is effectively a direct replacement for old-fashioned steel hooks, offering minimal installation time and strong basic support.

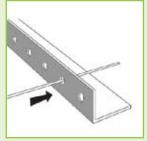
Both products include heavily galvanised wire-rope, are extremely lightweight, and are designed to promote maximum light intake for your plants. For new greenhouse builds, both the TPAK and the Snap Hook solutions can be made to order in specific lengths as required.

#### Shade systems

The GP No.1 and GP No.2 are ideal for shade systems. These products are designed with a single channel that butts up against the fixture to act as a termination, yet still allows for tensioning. Using a Gripple unit to terminate and tension the runner wires for shade cloth or thermal screen systems has advantages over other methods.

- It ensures complete coverage, maximising the efficiency of the material
- It can be used in tight spaces where other methods or products simply cannot be used

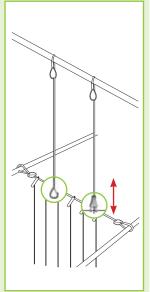
#### Installation













# "... no tools are needed, there are no fiddly parts and, most of all, it's installed in seconds"

# Greenhouse

In addition to crop wires and shade systems, there is an array of other greenhouse equipment that requires hanging, fixing, adjusting or anchoring. Often, numerous clips, clamps, bolts or grips are used, which are not only timely and fiddly to install, but messy and ugly too.

A single Gripple product can do the job of numerous old-fashioned alternatives, and can be fitted in a fraction of the time. Below, you'll find a couple of really useful examples. We pride ourselves on being able to find bespoke solutions to your problems - we're always here to help, so get in touch.



#### **Gripple Universal Clamp**

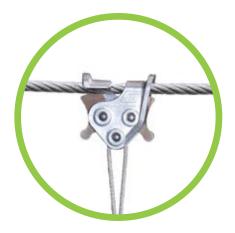
Pipework is abundant in greenhouses – for heating, cooling, irrigation, and other services. Many are different diameters and require specific fixings to secure them... until now.

The fully adjustable Gripple Universal Clamp fits a variety of pipe types and sizes; all can be hung with this one product. The internal dual fitting means it can be attached to either M8 or M10 thread. No tools are needed, there are no fiddly parts and, most of all, it can be installed in seconds.

#### Gripple C-Clip

The Gripple C-Clip is designed to be affixed to catenary wires, creating a vertical suspension point. It simply twists onto the cable, and the powerful cams instantly lock in place, whether the catenary is horizontal or angled.

The Gripple C-Clip comes complete with a Gripple Hanger attached, for instant suspension. When used with the Gripple Catenary Kit, the whole catenary system allows hanging points to be created where normally there would be no other option or solution.



To find out more about these products, visit our website, www.gripple.com or call us direct to discuss your needs.



## Accessories



#### **Gripple Torq Tensioning Tool and replacement cam set**

The Gripple Torq Tensioning Tool will tension most Gripple products that accommodate up to 6 mm diameter wire. The integral gauge measures the tension as you work, optimising the life of the wire by achieving your ideal tension. It's easy-to-use, lightweight and compact. Over the years, parts will naturally wear, but replacement cam sets are available to ensure that your tool lasts a lifetime.



#### **Twister**

The Gripple Twister is a great way to secure tail wires, creating an aesthetic, hazard-free finish for your trellis. It encases the wire so that no sharps points are protruding, but can easily be removed should you need to re-tension the wire in the future. Manufactured from UV resistant material, the Gripple Twister fits 1.00 - 3.00 mm wire.



#### **Adjustment Key**

Many Gripple devices have an adjustment feature, allowing them to be repositioned on the wire before tension is applied. Gripple Plus Small, Medium and Large all have this feature. To use, insert the key into the small hole adjacent to main channel, releasing the roller and allowing the Gripple to be moved freely along the wire.



#### **Wire Cutters**

The Gripple wire cutters use Japanese technology to deliver optimum performance, even on high tensile steel wire. Suitable for cutting high tensile wire up to 3.50 mm, mild steel wire up to 4.00 mm and wire rope up to 4.00 mm diameter. This makes them especially ideal for GPAK's 3 and 4.



#### **Work Belts**

The Gripple work belt is the perfect accessory for carrying your vineyard tools. Great for storing Gripple products, staples, hammers etc – the work belt is made from durable, heavy weave polyester and comes with a quick-clip buckle.



# www.gripple.com

info@gripple.com

#### **Gripple Ltd**

The Old West Gun Works Savile Street East Sheffield S4 7UQ UK

Tel: +44 (0)114 275 2255 Fax: +44 (0)114 275 1155

#### **Gripple Latin America**

Carretera Pte 67 Fraccionamiento Ajijc, Int. 7 Ajijic Centro Chapala Jalisco 45920 Mexico

**T** | +52 376 766 0015 **E** | mxinfo@gripple.com

#### **Gripple Inc**

1611 Emily Lane Aurora IL 60502 USA

**T** | +1 866 474 7753 **F** | +1 800 654 0689 **E** | usinfo@gripple.com

#### Gripple Central Europe

Petrova 124 b 10000 Zagreb Croatia

**T** | + 385 (0) 91 505 9283 **E** | hrinfo@gripple.com

#### © 2010 Gripple