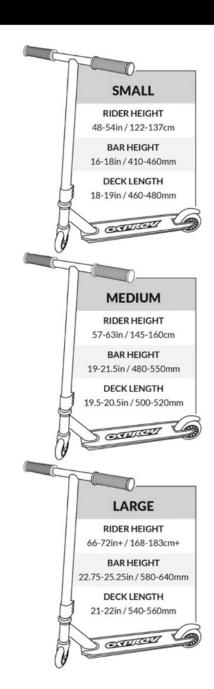


INTRO TO CUSTOM SCOOTER BUILDING



Upgrading to a freestyle pro scooter is a logical step up from a junior or recreational scooter, usually ridden by older kids and teenagers who want to begin riding at the skatepark.

Commonly referred to as a 'stunt' scooter, they are more rigid and technical than kids scooters, and can't be height adjusted or folded down for easy storage. As they are made up of much more durable and technical materials and components, stunt scooters are well-suited for tricks and vert (ramp) riding.

Beginner stunt scooters are often sold as 'completes', and designed with suitable entry-level components to satisfy the youngest riders who aren't yet familiar enough with the sport to shop around for individual parts. Buying a boxed stunt complete is the most cost-effective option for beginner riders, and highly advised for parents who don't want to pay a fortune for their kids first stunt scooter.

At Skater HQ, you will find a good selection of various completes to ride straight out of the box (after basic set-up of the handle bar).

Pre-selected stunt scooters range in different sizes, riding style and quality; by rule of thumb, the larger the scooter, the better the quality and taller the intended rider. Boxed scooters are made from top-range materials, and designed specifically by premium stunt scooter brands to take all the guess-work out of product selection; they come in assorted popular colourways, and are easy to assemble and maintain.

For a quick look at assembling a boxed complete scooter, see the below video link. https://www.youtube.com/watch?v=9z6_zlHq0dk

However, if you want better 'after-market' quality, looking for replacement parts or want to build your own customized stunt scooter from the ground up, a little more research is required.

To ensure a long lifetime of your pro scooter, you need to know about the individual parts and how to maintain the scooter. This guide will help you learn all the basics necessary to scooter building, functionality, compatibility and maintenance.

If there is anything you want to look further into, feel free to continue your own research with the youtube video links provided, or contact our helpful customer service at customerservice@skaterhq.com.au

For a brief example of assembling a custom stunt scooter from scratch, see the below video link. https://www.youtube.com/watch?v=QFb2i0jPHfY

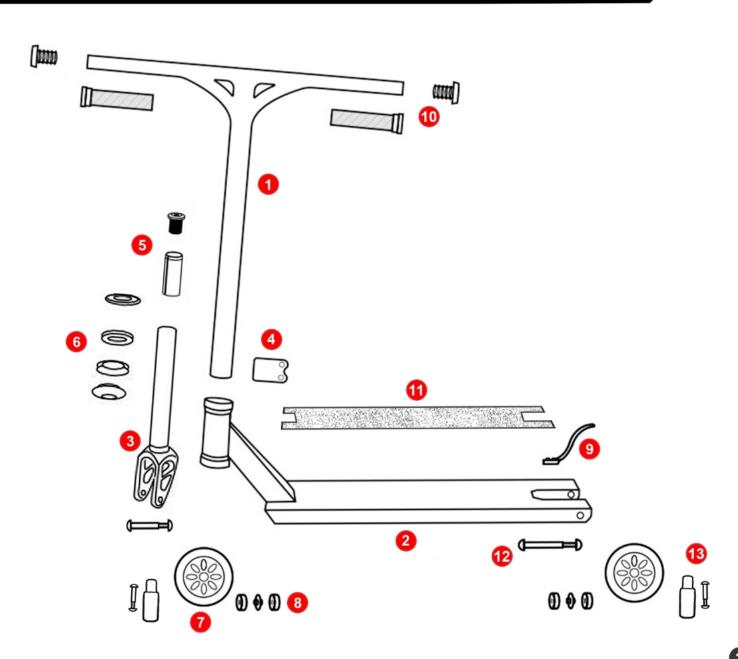


STUNT SCOOTER - EXPLODED DIAGRAM

- 1 Handle Bar (p3 & 4)
- 2 Deck (p9)
- **3** Fork (p6 & 7)
- **₫** Clamp (*p*8)
- **6** Compression System (p5)
- 6 Headset (p8)
- Wheels (p11)
- Bearings & Spacer (p11)
- Brake (p10)
- Handle Grips & Bar Ends (p12)
- Griptape (p12)
- Pront & Rear Axles (p6 & 9)
- Pegs (Optional) (p10)

Part Compatibility Flowchart (p13)

Glossary Index (p14 & 15)





HANDLE BARS - TYPES & TERMINOLOGY



Fits Standard Clamps & Standard Forks



Fits Oversized Clamps & Standard Forks



Fits Oversized Clamps & Forks With HIC Compression When building your custom scooter, you need to consider bar size, diameter, material and compression.

- BAR HEIGHT: Measured vertically. Shorter, smaller bars are often preferred for 'park' tricks, whips and bri flips, which is why pro scooter bars tend to be lower than standard scooters; 'street' riders, however, often prefer higher bars for comfort. Bars should generally sit hip or waist height.
- BAR WIDTH: Measured horizontally. Narrow bars tend to make flips easier, result in less total weight and are easier to transport. Wider and taller bars, however, give you more stability and comfort, making them the best 'street' scooter bars. Bars should generally be same width as your shoulders.

Most scooter bars come in two main diameters; 'standard' and 'oversize'; due to the unique manufacturing process, aluminium bars are a hybrid of both diameters. The diameter of the 'downtube' (bar stem) dictates which kind of clamp and fork your scooter needs.

- STANDARD (STD): internal diameter of 28mm and outer diameter of 31.8mm (or 32mm). Works best with IHC and ICS compression set ups. Fits standard clamps and forks, as well as threaded forks. Can be adapted to oversized clamps with an additional 'shim' (alloy sleeve). (see 'Headsets & Clamps')
- ALUMINIUM (ALU): often have a standard 28mm inner diameter and oversized 35mm external. Great for SCS compression and IHC forks, but requires oversized clamp. Not compatible with HIC compression.
- OVERSIZED (OS): internal diameter of 32mm and external diameter of 35mm. Made for HIC and SCS compression and work with oversized clamps and forks, as well as standard forks. They can also be used for IHC compression clamps.

Scooter bars are available in a variety of different materials, with a range of benefits.

- GENERIC ALLOY: considered as a cheap and common material, but less durable; (mostly STD).
- CHROMO-STEEL: used for strength and durability, but heavier than others; (comes OS & STD).
- ALUMINIUM: preferred for lightweight set-ups, often 'aircraft-grade' in terms of strength; (only ALU).
- TITANIUM BARS: lightweight and durable, the more expensive bars on the market; (mostly OS).



HANDLE BARS - ANATOMY & COMPRESSION



ICS/IHC/HIC Bar Slit



SCS Bar Adapter

- CROSSBAR: Handle bars come in two main 'crossbar' styles: Y and T. In general, bars for park scootering are often in the Y design and made from aluminium, which usually are reinforced with 'gussets' that stabilize the crossbar to the downtube. T-bars are used more popularly for street riding and are typically made from steel. Expensive bars might also feature 'butted' crossbars; technology adopted from BMX setups, that manufacturers use to lessen the thickness of the crossbar and save weight. Aluminium and steel crossbars have differing diameters, and so will need size-specific 'bar ends'. (see 'Handle Grips' for more info)
- BACKSWEEP: (or 'rake') refers to when the crossbar handles are bent back a small amount from the centre joint, similar to bicycle bars. While this can add comfort to your ride, it can take time to get used to for beginners and is usually preferred by BMX riders. 'Backsweep' can range between 2 and 5 degrees, however not all handle bars feature backsweep.
- BAR SLIT: Scooter bars using ICS, IHC or HIC compression need a 'slit' cut into the bottom part of the downtube, so the clamp can be tightened and effectively compress the bar around the fork. Bars being used with SCS compression, though, shouldn't have a slit.

For pre-cut slitted bars to be used for SCS compression, you will need a 'bar adapter' that is inserted and hammered into the end of the downtube, reinforcing the bar diameter against the tightening of the SCS clamp, and overall protecting the bar from snapping on impact when riding. (see 'Headsets & Clamps' for more info)

Depending on the brand, model and intended compression, bars may either come pre-cut with a slit in the downtube, or without a slit so you can decide on your preferred compression system later. (see 'Compression Systems' for more info)

NOTE: Cutting your bars down to size or installing a compression slit should always be done by a scooter expert at your nearest scooter workshop. Bars are expensive components; incorrectly cutting into them can negatively effect the bar material and result in irreparable damage to the scooter, or even serious bodily harm.

For a more detailed look into each type of scooter bar, see the below video link. https://www.youtube.com/watch?v=JT1ZGFXnE0k&t=229s



COMPRESSION SYSTEMS - COMMON TYPES







In a nutshell, the '**compression**' is by far the most confusing aspect of building a custom scooter, however the most crucial, as it stabilizes the bar and fork within the deck headtube, to effectively keep your scooter 'dialled' (tight and solid).

Compression set up honestly depends on your personal preference; however some compression types require more maintenance than others, and aren't always compatible with your bars. The most common compression systems are SCS, HIC and IHC; ICS compression is a less common (and fairly outdated) system that is still sometimes used today.

Inverted Compression System (ICS) is the cheapest (and arguably the trickiest) type; unfortunately, it is not especially durable either. It uses a reverted compression bolt that runs up through the fork 'steer tube', and is screwed into the starnut which is pressed tightly into the 'downtube' of the bar; this method requires frequent adjustments, and runs the high risk of damaging the starnut. The compression system requires removal of the front wheel in order to tighten or adjust the bolt, making it tedious to adjust repeatedly. ICS compression is only compatible with aluminium or standard sized bars with a slit, and requires a special tool to install the starnut in the downtube (depending on the bar brand/model).

Integrated Headset Compression (IHC) provides a lighter option to HIC. This system is usually built into the actual fork, and requires a type-specific 'shim' (an alloy sleeve used to adapt a specific inner or external diameter to be compatible with an otherwise incompatible compression type). Paired with a standard clamp and 'slitted' bar, it provides a lightweight stability option; though with an additional 'IHC Converter', can also be paired with oversized parts. (see 'Fork Compression Types')

Hidden Internal Compression (HIC) is generally the same as IHC, however only suits oversized bars, also with a slit. Like the IHC, this solid compression system gives the reliability of SCS and is relatively easy to maintain on the go; simply loosen the clamp and remove the scooter bars, to tighten.

Standard Compression System (SCS) is the most common or popular type, for it's strength and simplicity. Made primarily for oversized steel or aluminium bars, you can use them with standard steel bars with the addition of a shim. Featuring a taller clamp that is segmented into upper and lower halves for the bar and fork; SCS removes the need for a bar slit, eliminating the risk of the bars snapping above the clamp. It stays tighter, for longer, and is also easy to maintain on the move.

For a more detailed look into assembling each of the above compression types, see the below video link. https://www.youtube.com/watch?v=gtutbYQkWYY



FORKS - ANATOMY & TERMINOLOGY





A scooter fork is a vital component of a scooter compression system, as it essentially stabilizes several key parts used for steering, while the 'compression' locks them together. A fork defines which wheel, headset, bar and what kind of compression system can be used.

The fork consists of a vertical shaft or 'steer tube', that combines with the bar and compression system, the 'crown' joint in the middle, and two fork prongs that hold the front scooter wheel in place with a single axle bolt fed through the ends.

The fork crown holds the 'crown race', the important bottom section of the 'headset' which helps the fork fit snug and spin smoothly in the centre of the deck 'headtube'. Depending on brand and model, most modern forks have an 'integrated' crown race to aid in a simpler, more lasting compression. (see 'Headsets' & 'Deck' for more info)

- OFFSET: A fork will commonly have wheel 'offset', where the wheel will sit slightly infront of the bar; less common forks with 'zero offset' (the wheel is placed directly under the bar) are easier to perform bar spins and nose manuals with, however these can make the scooter steering more rigid and harder to control.
- **THREAD:** Another important fork variation to note is whether it comes '**threaded**' (features external threading on the top of the steer tube) or '**threadless**'.

While outdated threaded systems, which require a specific 'threaded headset', generally require less maintenance due to their fewer exposed moving parts; they also offer the weakest compression and become loose often and quickly. Threadless forks, the more common modern variation, offer more durable compression and customisation options, allowing for more adjustability.

- WHEEL: Just about all forks will fit 100-110mm wheels, which come default on most modern complete scooters, unless the specs say otherwise. If you're looking at running 115-120mm or bigger, you'll need to check that the fork you want will accommodate them. (see 'Wheels' for more info)

Understanding all types of available forks is key in ensuring you purchase the correct setup that fits your preference while maximizing performance, durability, and style. However it doesn't just come down to the style or material; your chosen scooter compression should be the major deciding factor, as the bar, fork and headset all need to match the relevant system. (See next for 'Fork Compression Types')



FORKS - COMPRESSION TYPES





Ultimately, you must consider what type of '**compression**' type suits your riding style and desired wheel size, whether it be a threaded fork or one of the more popular ICS, IHC, HIC & SCS systems.

ICS forks are one of the lightest available, as the compression bolt is fed up through the steer tube and into the ICS starnut lodged firmly within the downtube of the bar instead; ideal for riders who want to have a lightweight setup. A classic compression type, ICS forks work primarily with standard bars and clamps.

IHC forks are known for their slim design and distinctive rigid shim. This 'shim' is designed to fit over the fork and into the surrounding bars, providing extra grip to ensure a secure fit. The compression bolt screws into the top of the fork, which causes a slight expansion of the shim, locking it firmly in place. As well as providing additional support, this ensures all components remain firmly connected while riding.

Due to their smaller size, IHC scooter forks are perfect for those who want a light but strong setup that can provide excellent stability when performing tricks and manoeuvres. They work primarily with 'standard' and aluminium bars, but can fit 'oversized' bars with a specialised 'IHC-to-HIC Converter' shim, that is installed over the top of the fork steer tube to widen the external diameter and keep the IHC fork and oversized bar dialled.

HIC & SCS forks are generally thicker than other types, with the only significant variation being the need for a specific shim for HIC fork. This works the same way as IHC, but only with oversized bars.

On the other hand, SCS forks don't require a shim because the SCS clamp is uniquely designed to hold the fork in place without one. Inserting the fork steer tube into the head tube of the deck and then into the base of the SCS clamp; the compression bolt is then fed through the top cap and fork steer tube which, when tightened, compresses the fork to the head tube of the deck. SCS is the strongest compression system available. (see 'Headsets & Clamps' for more info)

All modern forks should come with compression parts either integrated or included, as well as a standard front wheel axle, eliminating your general need to purchase parts separately. If your fork steertube is too long for your chosen clamp, you may need a 'bar spacer' to give your bar and clamp abit more height.

For a more detailed look into the features each of the above fork types, see the below video link. https://www.youtube.com/watch?v=8-zDRgGfTq8



HEADSETS & CLAMPS - OVERVIEW





Non-Integrated Integrated







- **HEADSET:** a necessary part in all scooters that is mounted around the fork 'steer tube', above and below the 'headtube' of the deck. With the headset and fork mounted correctly, the bar can spin freely.

The headset typically consists of several parts, including a set of headset bearings, bearing cups (for non-integrated decks), dust caps, compression ring (**'c-ring'**), optional washers, top race and **'crown race'**; modern forks already come with a built-in 'integrated' crown race.

Most modern headset kits are designed for 'threadless' forks (less common 'threaded' headsets are designed specifically for the outdated threaded forks). Similarly, most scooter decks today are designed with 'integrated' headtubes, making the integrated headset the popular variation. Non-integrated headsets are still used, however only fit standard 'non-integrated' decks. (see 'Forks' & 'Decks')

For a more detailed look into assembling a scooter headset, see the below video link. https://www.youtube.com/watch?v=vMNGXEcU20w

- CLAMP: the right clamp relates to which compression system your scooter is running, as well as whether your handle bar has a 'standard' or 'oversized' diameter. The height of the clamp you need depends on the length of the fork steer tube and the bar slit; clamps should cover the slit completely to prevent damage to the bar and for the compression to work properly. (see 'Bars')

Clamps are commonly classified as either 'double', 'triple' or 'quad' depending on how many bolts they have; the more bolts a clamp has, the tighter and stronger it is.

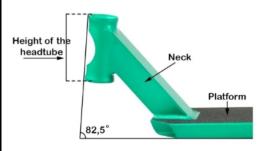
'Standard' clamps have an inner diameter of 31.8mm (or 32mm) and fit standard bars. 'Oversized' scooter clamps have an inner diameter of 35mm and fit oversized bars; however, by using an inner **'shim'** (alloy sleeve), it is possible for some oversized clamps to fit standard bars.

SCS clamps are a little different to those used for ICS/IHC/HIC setups. Integrated with a special inner ridge that separates the chambers of the clamp, these are only compatible with 'non-slitted' bars (unless you have a 'bar adapter'). Coming in either 'triple' or 'quad' sizes, SCS clamps reduce the overall risk of the bar snapping as it eliminates the need of a bar slit. (see 'Compression' & 'Forks')

For a more detailed look into different types of scooter clamps, see the below video link. https://www.youtube.com/watch?v=acG2zvB01mg



DECKS - ANATOMY & TERMINOLOGY









Flat w/ Integrated Boxed Ends



Integrated Rails w/ Open Dropouts

Choosing the right deck typically relies on personal style and riding preference; size, shape and weight are the main deciding factors, rather than compression type.

A scooter deck consists of several main features: the 'headtube' (cylindrical tube that encases the fork 'steer tube' and headset), 'downtube' (or neck), 'extrusion' (or deck platform), brake and rear axle. Deck sizes are measured by length, width, 'footroom' (platform length between neck base and brake), and the 'angle' and height of the headtube. Most modern decks have an 'integrated' headtube, eliminating the need for 'non-integrated' bearing cups. (see 'Headsets & Clamps')

- LENGTH / WIDTH: Pro stunt scooters will usually come with lengths between 19-22 inches and widths of 4-6 inches. Generally speaking, 'street' and experienced riders usually feel more stable on larger decks, whereas 'park' and beginning riders often prefer shorter lightweight decks.
- **HEADTUBE:** The headtube 'angle' determines how far the bar will lean toward the rider; less lean for more room and direct steering, whereas more lean is better for performing tricks. All headtube angles are between 80-85°, with 83° being the most common; headtube length needs to fit the fork and compression system; most headtubes have a length of approximately 4 inches.
- EXTRUSION SHAPE: While shape differs vastly between brands, most stunt decks will either come 'boxed' for a squared, roomier shape, or have open tapered 'dropouts' (deck corners) for less weight. Dropouts at the front ('blunt plate') and rear of the deck will generally be 'open' and hollow; however some deck designs are welded 'closed' for extra durability, or offer nylon 'boxed ends' inserts instead. Decks with dropouts can also run optional stunt 'pegs', depending on your preferred type of riding style. (see 'Deck Accessories' for more info)

Similarly, the shape of the platform underside can also effect your riding style; 'park' decks usually feature integrated 'rails' for added stability while performing grind tricks, whereas 'street' decks are typically flat with wider ends, favoured by riders who practice a different selection of stunts.

- WEIGHT / MATERIAL: commonly made from lightweight '6061' aluminium, and sometimes a sturdier '4130' chromoly steel, decks are designed to vary between strong and light. Some modern designs often feature 'cutouts' to drop deck weight, though this may result in a less durable construction.

For a more detailed look into different types of scooter decks, see the below video link. https://www.youtube.com/watch?v=ISwjTPk5hqs&t=110s



DECK COMPONENTS - OVERVIEW

Flex Fender Brake





Envy 'Boxed End' Inserts



Right-Side Front Peg

Stunt scooter decks come with a range of integral and optional parts; most deck models will come with brakes and rear axles, however depending on your riding style (street or park), you may also choose to add box ends or run stunt pegs.

- BRAKE / FENDER: While junior and adult recreational scooters will come with a 'spring-loaded' brake, modern stunt scooters generally require a 'flex fender' brake (a long metal plate that has been pre-bent to fit around the wheel), inserted into the rear of the deck extrusion and attached (either above or below, depending on the brand/model) with one or more screws.

Most brakes are specifically designed to fit 100mm and 110mm wheels, however others may be compatible with larger wheel sizes, depending on the product specs; specific brake sizes can be swapped out if compatible with your deck and fork, to accommodate for different wheel sizes. Brakes are generally made from nylon or steel, the former being lighter, but not as durable. Experienced 'street' riders may want a 'brakeless' setup, and choose to swap out the brake with a 'fender' (or wheel guard) to protect their shoes, and prevent 'flatspotting' the rear wheel. (see 'Wheels & Bearings')

For a more detailed look into typically installing a flex fender brake, see the below video link. https://www.youtube.com/watch?v=-9pqQIGtLJY&t=9s

- BOXED ENDS: 'Park' decks will usually feature 'open dropouts' to make the extrusion less bulky and leave room for pegs to be installed; however some brands offer plastic/nylon 'boxed end' inserts to strengthen the deck and add some foot room when transitioning between riding styles. This is more cost effective and lighter than using a boxed deck, however not available with all scooter brands/models.
- **PEGS:** Inspired by stunt BMX setups, **'pegs'** are cylindrical alloy extrusions attached to front and rear wheels, that facilitate various rail and grind tricks. Like bars and decks, these are commonly made from either aluminium or chromoly steel, with the former being lighter but less durable.

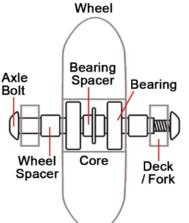
Peg sizes and designs differ largely between brand/models; saying this, pegs aren't always compatible with your fork or deck, so it's best to choose the same brand pegs as these parts. They do, however, often come with the necessary axle bolt needed to swap with the default front/rear bolt. Pegs can be run either double or single on whichever side and end of the scooter you prefer.

For a brief look into installing stunt pegs, see the below video link. https://www.youtube.com/watch?v=hpQNYQu1SV0



WHEELS & BEARINGS - OVERVIEW





These integral components consist of two fundamental parts, the 'core' and 'PU' (polyurethane) or 'tyre'; bonded together with a specialised adhesive. All modern stunt wheel cores are made from heat-treated aluminium, making them much more impact-resistant than nylon cores for recreational scooter wheels.

- **CORE:** Wheel 'core' designs come mostly down to preference, with 'solid' cores being the heaviest yet strongest; 'hollow' and 'honey' cores the most lightweight and somewhat durable designs; and 'spoked' cores maintaining a decent middle-ground of lightness and strength against hard impacts.
- **DIAMETER:** Stunt wheels usually range between 110x24mm and 120x30mm; though not all decks and forks are compatible with larger sizes, unless otherwise stated in their specs. Large wheels are ideal for 'street' riding, as they roll smoother and faster over rough asphalt, whereas smaller wheels are slightly more agile and can benefit 'park' riding, because they weigh less and make it easier to change direction when doing certain tricks. (see 'Forks Anatomy' for more info)
- HARDNESS: or 'durometer' also has an impact on how well the wheels perform; soft wheels run smoothly and have good grip, while a hard wheels are generally faster and more durable. However no wheel is invulnerable to 'flatspotting' or 'dehubbing'; the harder you push your wheels and the more impact they take from tricks, the higher the chance of wheel damage. Wheel PU usually comes between 85A and 88A (the latter being harder). (see 'Deck Accessories' for more info)

For a more detailed look into typically installing wheels onto the deck, see the below video link. https://www.youtube.com/watch?v=pdN6rOHV-ic

- **BEARINGS / SPACERS:** Scooters require two bearings per wheel to rotate on their respective 8mm axles (front axle provided with the fork and rear with the deck), which are usually designed with speed ratings between ABEC 3 and 9. Always be careful not to ride through dirt, mud or water, as this can damage the bearings, leading to them needing tedious cleaning or replacement.

Wheels also require 'bearing' and 'wheel spacers' to fill out the gap between the bearings, and the sides of the deck or fork; these help create clean rotation when the axles are tightened, and avoid ruining the bearings. The wheel spacer width required will depend on which wheel thickness you prefer.

For a brief look into installing scooter bearings effectively, see the below video link. https://www.youtube.com/watch?v=MOD4sjvxFlk



HANDLE GRIPS & GRIPTAPE - OVERVIEW





Flangeless Grip



Hybrid (12mm & 16mm)



Pre-Cut Griptape



Standard Griptape



- HANDLE GRIPS: These replaceable rubber sleeves are found on the outer ends of the scooter 'crossbar', designed to provide comfort and maintain your grip while riding.

Grips are designed with a varying soft or hard durometer; soft grips tend to be much more comfortable than hard grips, however they less durable. Coming in different designs, handle grips are commonly 'ribbed' or feature a brand-specific embossed pattern. Similar to those used in BMX setups, scooter grips are typically slimmer in size and most often 'flangeless' (uncommon wide rubber discs moulded on the inner end of the grips, to keep your hands in place).

- BAR ENDS: sold with grips, 'bar ends' (or plugs) are used to prevent damage to the handlebar and grips upon impact with the ground or other obstacles. Usually made from nylon or plastic, bar ends come in two main sizes; 12mm for aluminium bars and 16mm for steel. Some more expensive bar end models are made from an alloy, and are designed to be compatible with both crossbar sizes. (see 'Handle Bars - Anatomy' for more info)

For a common ways to install handle grips onto the bar, see the below video link. https://www.youtube.com/watch?v=tHk446vAPaM

- **GRIPTAPE:** A self-adhesive sheet of sand-like 'grit', griptape is adhered to the deck platform to have better shoe grip and control of the deck when riding. Designed with either 'fine' or 'rough' coarseness, most scooter griptape is generally the same, and brand selection comes down to personal preference.

Depending on your skill level and riding style, the griptape may have to be changed on a regular basis, either when worn out, heavily torn, or extremely dirty. Water and dirt will shorten the lifespan of griptape prematurely, so best to avoid riding through wet weather, or else have a 'grip eraser' handy.

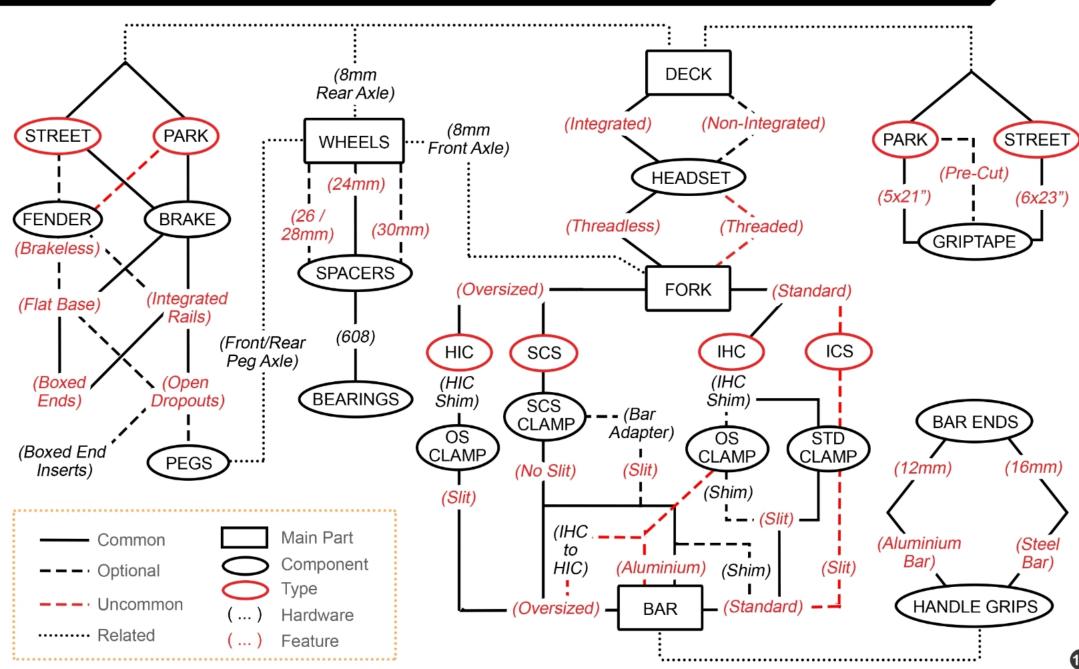
In a massive selection of designs and colours, griptape is usually sold in generic sheets for 'standard' or 'wide' decks, and need to be cut to size manually; although some brands offer a selection of replacement 'pre-cut' griptape designed to fit specific 'pre-built' scooter models. (see 'Decks - Anatomy')

NOTE: Cutting griptape to size should always be done by an adult or scooter expert.

For a brief look into installing scooter griptape effectively, see the below video link. https://www.youtube.com/watch?v=A63Dxz9VFeY



PART COMPATIBILITY - FLOW CHART



Skater C

GLOSSARY INDEX

- **backsweep:** (see p4) also called 'rake', the angle of which crossbar handles are bent back slightly from the centre joint.
- bar adapter: (see p4 & 8) an alloy cylinder that is inserted into the downtube base of a pre-slitted bar for use with an SCS clamp.
- bar ends: (see p4 & 12) also called 'plugs'; nylon or alloy inserts that protect the crossbar ends from impact damage.
- bar spacer: (see p7) a thin alloy ring that sits over the headset and around the fork steertube; used to raise the bar and clamp height for forks that are too long to fit the clamp or compression.
- **blunt plate:** (see p9) front-facing edge of the deck, where the neck meets the deck extrusion; the 'blunt space' is the area between the fork and the blunt plate, occupied by the front wheel.
- **boxed:** (see p9 & 10) squared shape deck, with wide right-angled corners; usually street style.
- brakeless: (see p10) scooter setup that utilises a fender instead of a brake; usually street style.
- **butted**: (see p4) crossbar manufacturing technology with tapered thickness, used to save weight.
- **compression:** (see p4, 5, 7 & 8) the component-specific tightening method used to secure the scooter steering system.
- **converter (IHC-HIC):** (see p5 & 7) specialised alloy shim used to adapt the standard steertube diameter of an IHC fork for use with oversized bars.
- **c-ring:** (see p8) c-shaped ring used in most headsets to help centre the fork steertube into the compression system.

- crossbar: (see p4 & 12) the horizontal section of a set of bars.
- **crown:** (see p6 & 8) the joint area of a fork steertube and wheel prongs, that sits directly underneath the deck headtube.
- **crown race**: (see p6 & 8) specialised ring of a headset that helps centre the fork crown into the base of the headtube; often integrated into modern forks.
- **cutouts**: (see p9) machine-cut or moulded voids in scooter components to help drop overall weight while maintaining strength; often used in the deck platform and downtube.
- **dehubbing:** (see p11) wheel damage that occurs when the polyurethane tyre becomes unstuck from the core, usually caused by numerous hard impacts.
- **dialled:** (see p5) term used for scooter components that are effectively tightened to the point that the scooter doesn't rattle.
- downtube (bar): (see p3-6 & 8) the vertical stem of a set of handle bars.
- downtube (deck): (see p9) also called 'neck'; the angled section of a deck that connects the headtube to the deck extrusion.
- **dropout**: (see p9 & 10) open hollow or welded closed corners of a scooter deck, often tapered in shape; usually park style.
- durometer: (see p11 & 12) term for the hardness scale of nylon, rubber, polyurethane and other plastic scooter parts.
- extrusion: (see p9 & 10) term for the physical platform or base of the scooter deck, that the rider stands on.



GLOSSARY INDEX - continued

- **fender:** (see p10) a short curved component that replaces the flex brake on brakeless deck setups, used to protect the wheel and riders shoes.
- flatspotting: (see p10 & 11) wheel damage that usually occurs when the brake is pressed too hard while riding, causing an uneven flat spot to be shaved out of the polyurethane tyre.
- flangless: (see p12) a modern type of handle grip that is designed without wide inner discs for cosmetic purposes.
- **foot room:** (see p9) the measured section of the deck platform between the brake and neck base, that the rider stands on.
- gussets: (see p4) reinforced constructions used to stabilize the crossbar to the bar downtube; often on Y-shaped bars.
- grit: (see p12) non-slip coarse texture of deck griptape, used to keep the rider's shoes steady while riding.
- headtube: (see p8 & 9) cylindrical section of the deck that houses the fork steertube and headset.
- integrated: (see p6, 8 & 9) term used for a previously separate feature that is in-built into modern design of a component.
- offset: (see p6) common fork design in which the wheel axle is held slightly infront of the centre of the fork steertube.
- oversized (OS): (see p3, 5 & 7) term used for steel and titanium handlebars with a downtube external diameter of 35mm; used mostly with HIC and SCS compression.
- park: (see p3, 9 & 10) term used for smaller and more agile stunt scooter setups, designed primarily for skatepark riding.

- **pegs:** (see p9 & 10) cylindrical alloy attachments used on the front and/or rear wheel for use with certain grind tricks; usually park style.
- rails: (see p9) integrated ridges moulded into the underside of the deck extrusion for use with certain grind tricks; usually park style.
- **shim:** (see p3, 5, 7 & 8) an alloy sleeve used to enlarge the inner and/or external diameter of a bar downtube or fork steertube; used with compression components that are otherwise incompatible with eachother; usually housed within the clamp.
- slit: (see p4, 5 & 8) a vertical incision cut into the centre base of the bar downtube which enables the clamp to compress the bar around the fork steertube; used with ICS, IHC & HIC compression systems.
- standard (STD): (see p3, 5 & 7) term used for steel and generic alloy handlebars with a downtube external diameter of 32mm; used mostly with ICS and IHC compression.
- **steer tube**: (see p5-9) the cylindrical hollow shaft of the fork that gets fed into the deck headtube and combined with the bar downtube; forms the main steering mechanism of the scooter.
- street: (see p3, 9 & 10) term used for larger and more rigid stunt scooter setups, designed primarily for street riding.
- threaded: (see p6 & 8) an outdated feature consisting of an external engraved thread on the fork steertube and inner diameter of compatible headsets; used primarily with recreational scooters, not designed for stunts.