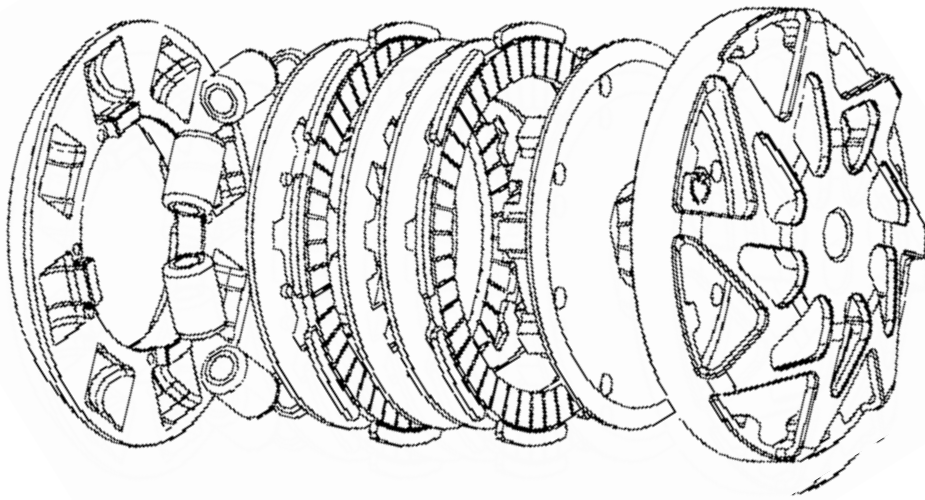




STC 技術服務手冊

Technical Service Manual



受訓日期 Date of training:

姓名 Name:

Table of Contents

1. Operating principle.....	1
2. STC Product composition content.....	2
3. Overall structure (single piece) & material.....	3
4. Specification for the corresponding gap level for each assembly.....	5
5. Consumables criteria and value.....	7
6. Disassembly and Assembly.....	9
7. Transmission adjustment and theory.....	13
8. Installation Instructions.....	16
9. STC Trouble Shooting.....	18
10. STC Warranty Information.....	21



1. Operating principle:

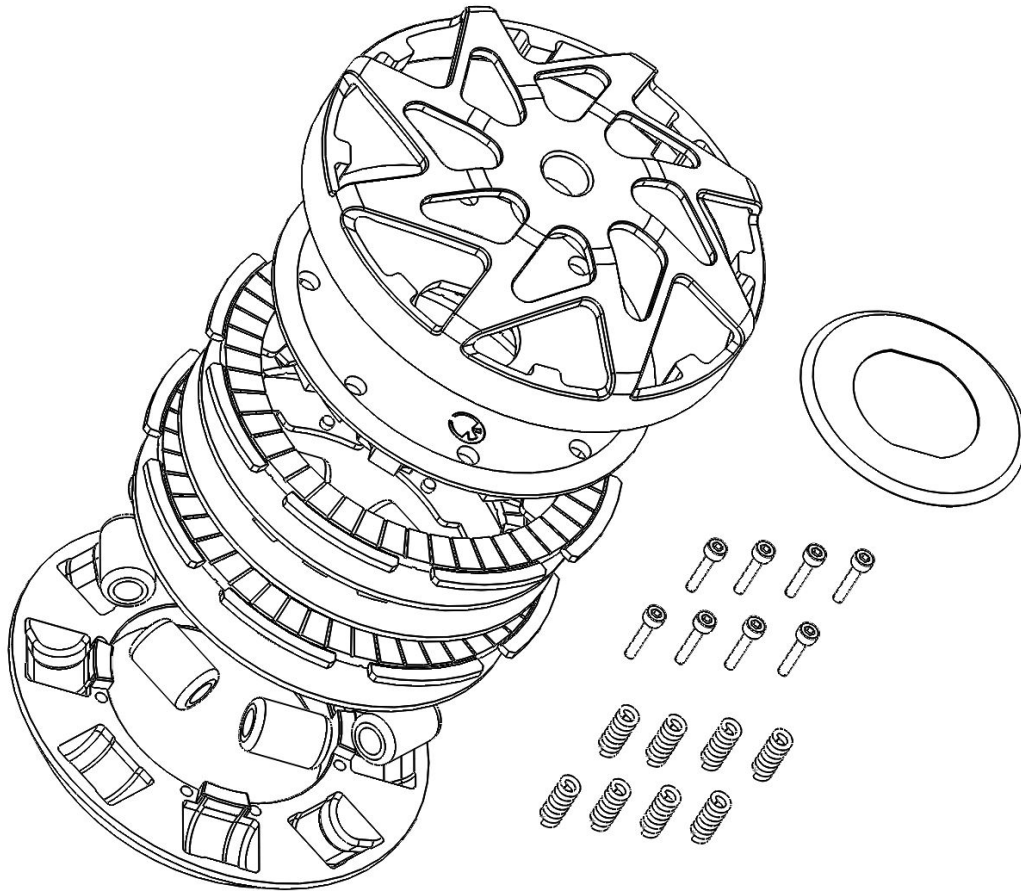
The STC is a centrifugal clutch that replaces the traditional weight bearing, and provides positive clutch force by the speed of the engine.

$$F(\text{Friction}) = \mu(\text{coefficient of friction}) * N(\text{Positive force})$$

The higher the clutch speed, the greater holding force it has on the clutch. Therefore, it can be adjusted to the vehicle speed output by adjusting the spring compression. STC uses double clutch plates to greatly increase the friction area (2.5 times more than the conventional ones), providing higher transmission efficiency, the outer cover is only responsible for the transmission and is not subjected to any friction and pressure, which can make the STC have a longer life span. Also there is no risk of the outer cover exploding like that of traditional ones. Our products provides safety with better performance, the STC friction structure uses the same structure as that of a vehicle clutch and engages in a full-planar manner. Therefore, the STC can be said to be a CVT clutch that never shakes.

NOTE:

2. STC Product composition content



1.Outer cover*1

2. Inner sprocket *1

3. Inner sprocket *1

4. Weight roller *8

5. Clutch plate *3

6. Spring plate *2

7. Pressure plate *1

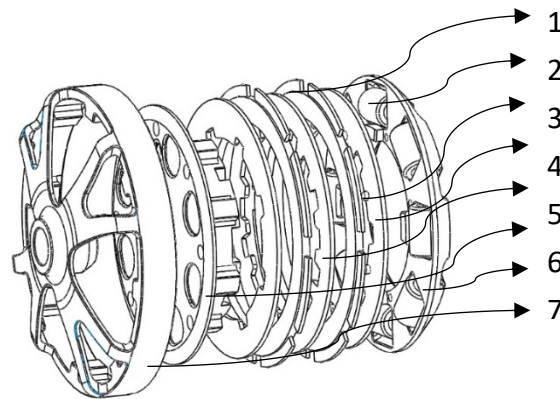
8.Compressed springs*8

9.Spring washer*1

10.Screws*8

NOTE:

3. Overall structure(single piece)& material description



1. Clutch Plate :

The contact with the surface can be achieved without any wear and tear up to 1xxxx kilometers (original vehicle). (The clutch plate is made of compound rubber).

2. Weight roller :

The weight ball replaces the traditional hoof block and provides a positive clutch force that can be adjusted accordingly to different vehicles. (The material of the weight ball is brass surface plating process)

3. Compressed Spring :

It is used to create resist generated by the rotating centrifugal force of the weight ball and achieve the automatic engagement speed setting. (Compressed springs made of white iron with heat treatment up to 300 °C)

4. Spring Plate :

It is used to adjust the compression spring and friction clutch plate to channel the power of the transmission to the clutch plate. (The material of the spring plate is iron)

5. Pressure Plate :

This is installed in-between the upper and lower of the two clutch plates to achieve power of the transmission to the clutch plate. (The material of the spring plate material is steel)



6. Inner Sprocket :

It synchronizes the rotation of the spring plate and press plate by locking the opening and closing of the disk. (Material is made by CNC and heated treated aluminum T6 6061)

7. Weight Roller Plate :

Through precise calculation of the slope angle, the weight of the bearings provides a positive force by rotating the centrifugal. (Material is made by CNC and heated treated aluminum T6 6061)

8. Clutch Outer :

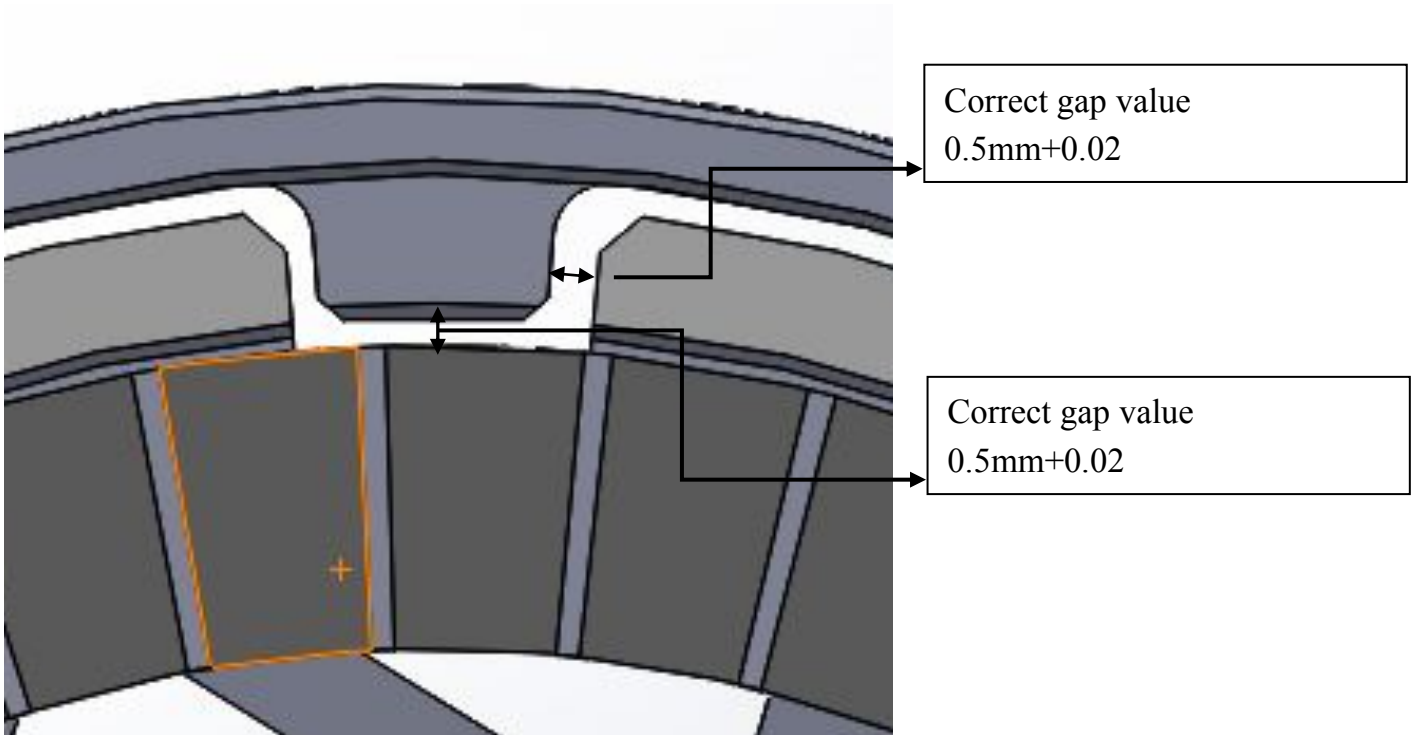
The outer clutch is locked on to the shaft of the rear deceleration pinion, and is snapped into the eight card slots on the clutch plate. The engine power is transmitted through the clutch to the rear deceleration tooth and the rear wheel. (Material is made with forged steel CNC cutting)

NOTE:

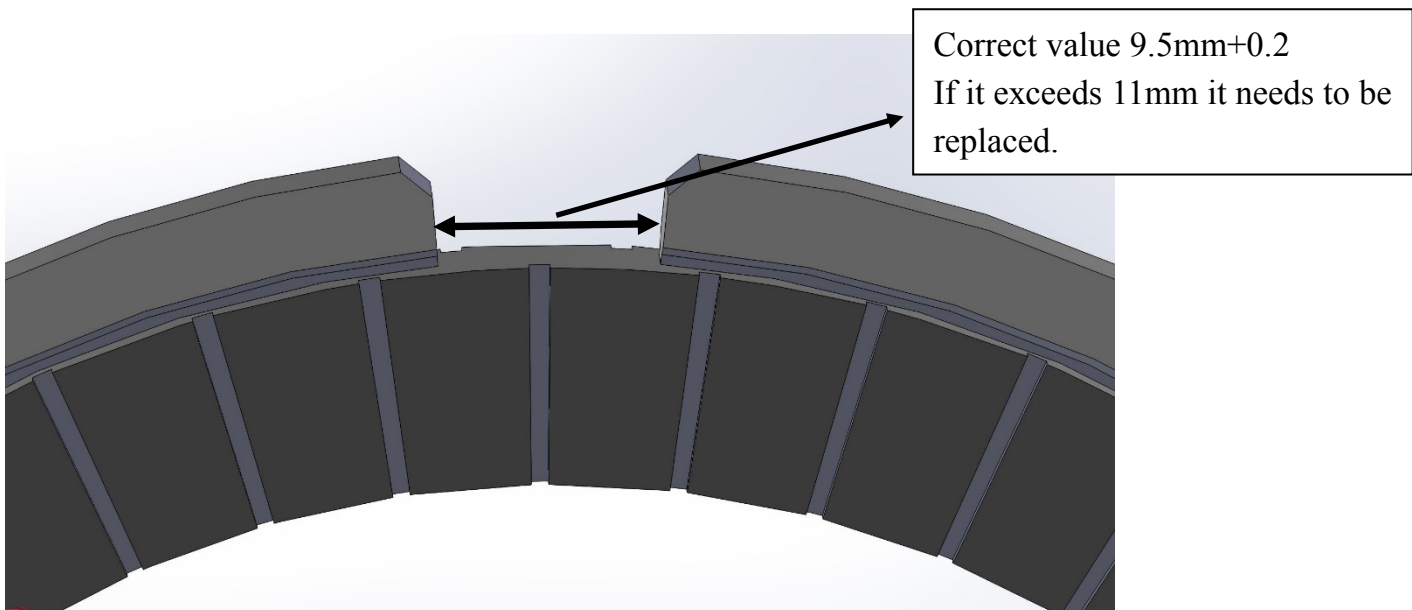
4. Specification for the corresponding gap level for each assembly

Pay attention to the safety clearance of the clutch as follows :

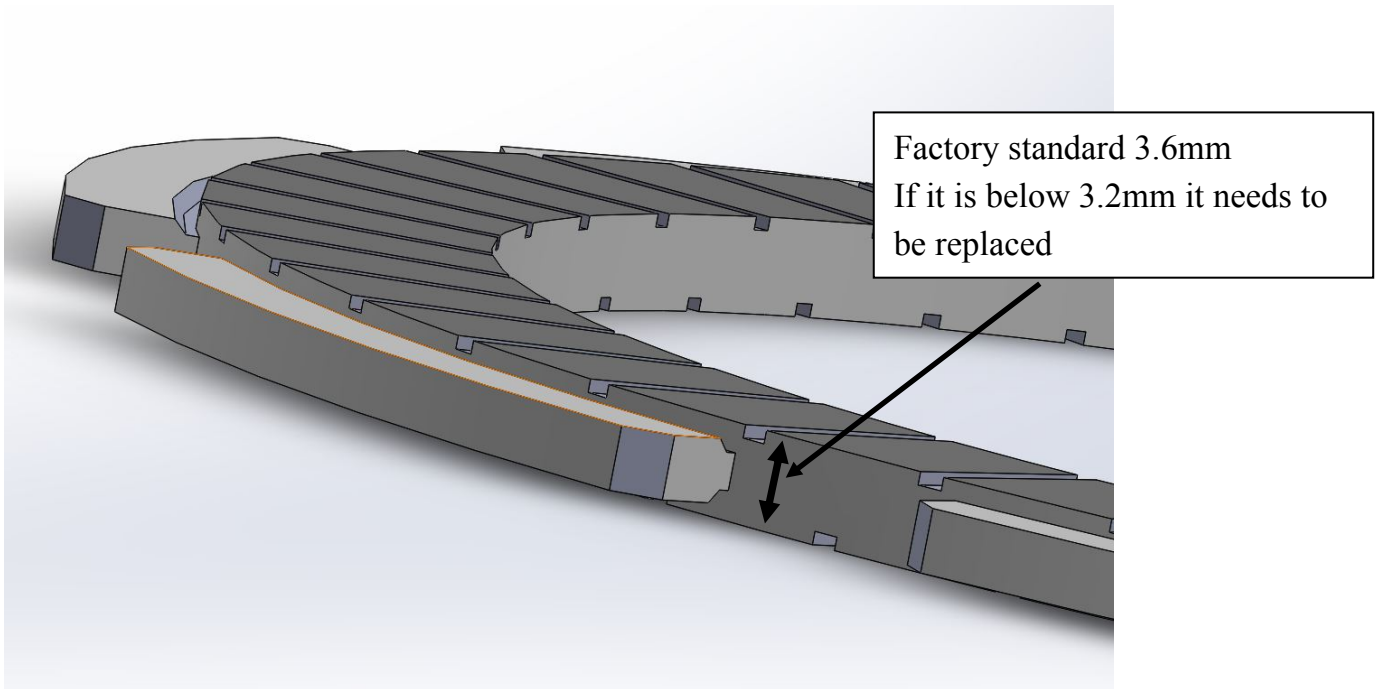
1. The gap between the clutch plate and the cover (The clearance on all three sides is 0.5 mm)



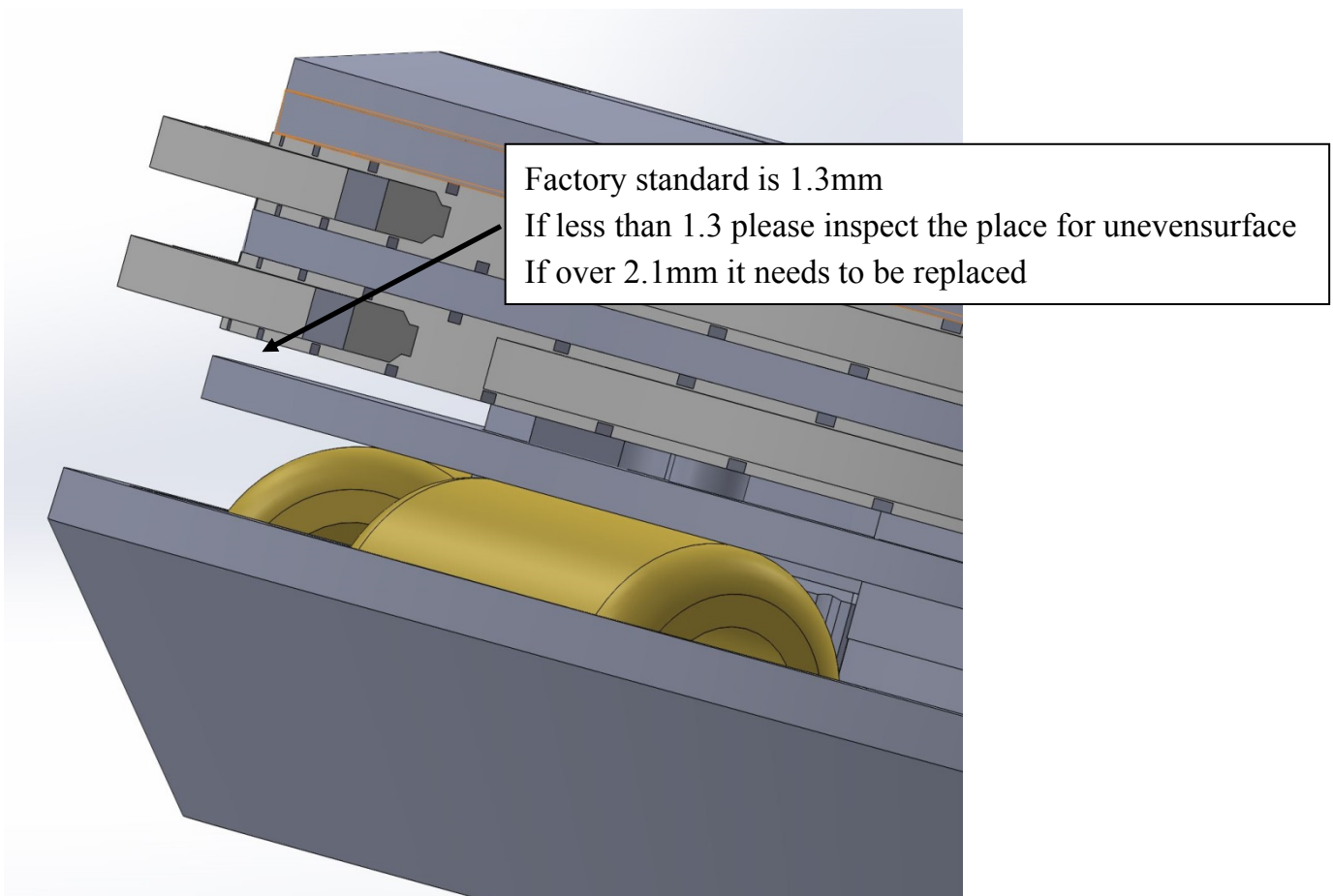
2. Safety distance for the clutch plate



3. Safety thickness of the clutch plate



4. The free clearance after clutch assembly



5. Consumables criteria and values

STC clutch consumables :

1. Clutch plate

Mini Scooter :

Ø108.5 Factory thickness: 3.0mm safety valve: 2.7mm

Tooth slot width. Factory thickness: 7.2mm safety valve: 8.0mm

Scooter/Vespa :

Ø125.5 Factory thickness: 3.6mm safety valve: 3.2mm

Tooth slot width. Factory thickness: 9.5mm safety valve: 11.0mm

Maxi scooter :

Ø146.5 Factory thickness: 4.5mm safety valve: 4.0mm

Tooth slot width. Factory thickness: 9.8mm safety valve: 11.0mm

2. Spring plate

Surface exceeding +/-0.2mm

Mini Scooter : Ø101.5 Factory thickness: 1.5mm

Scooter/Vespa : Ø115.5 Factory thickness: 2.0mm

Maxi scooter :

Ø131.5 (Upper) Factory thickness: 2.0mm

Ø131.5 (Lower) Factory thickness: 2.65mm

3. Pressure Plate

Surface exceeding +/-0.2mm

Mini Scooter : Ø101.5 Factory thickness: 1.5mm

Scooter/Vespa : Ø115.5 Factory thickness: 2.0mm

Maxi scooter : Ø131.5 Factory thickness: 2.0mm



4. Compressed Spring

Mini Scooter : Ø108.5 Factory length: 16mm Safety value: 11mm

Scooter/Vespa : Ø125.5 Factory length: 16mm Safety value: 14mm

Maxi scooter : Ø146.5 Factory length: 18mm Safety value: 16mm

5. M3 Screws

Locking torque 1.65 N.m

Mini Scooter : M3 12mm

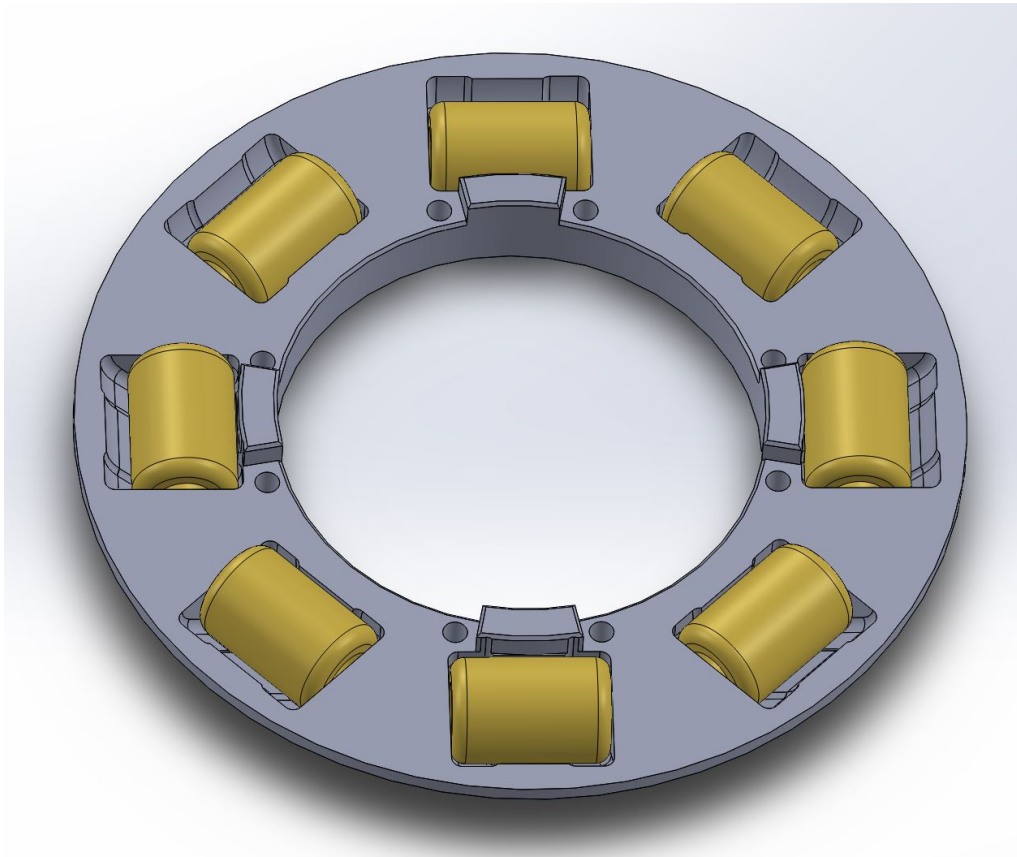
Scooter/Vespa : M3 16mm

Maxi scooter : M3 18mm

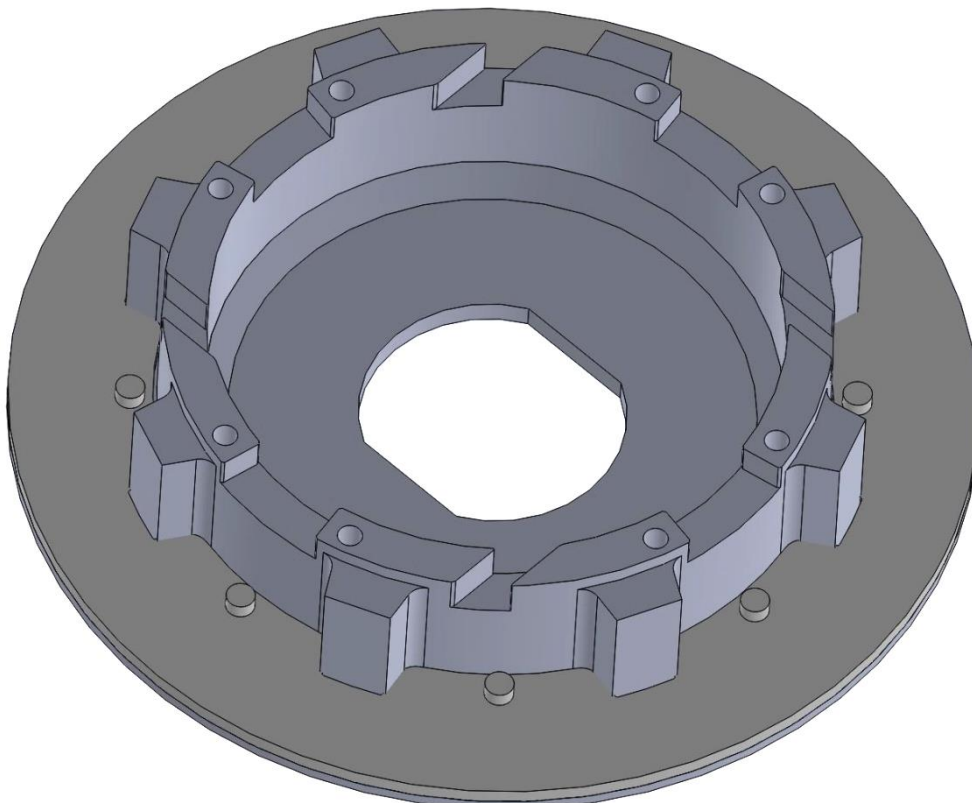
NOTE:

6. Disassembly and Assembly

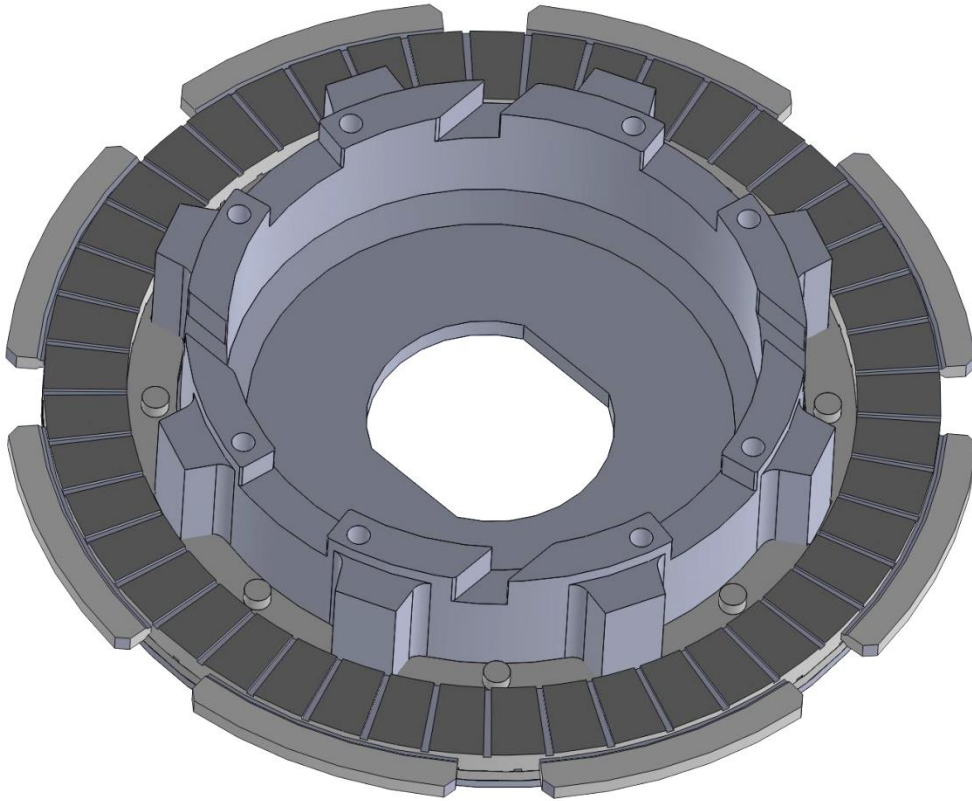
1. Put the weight roller into the weigh roller plate



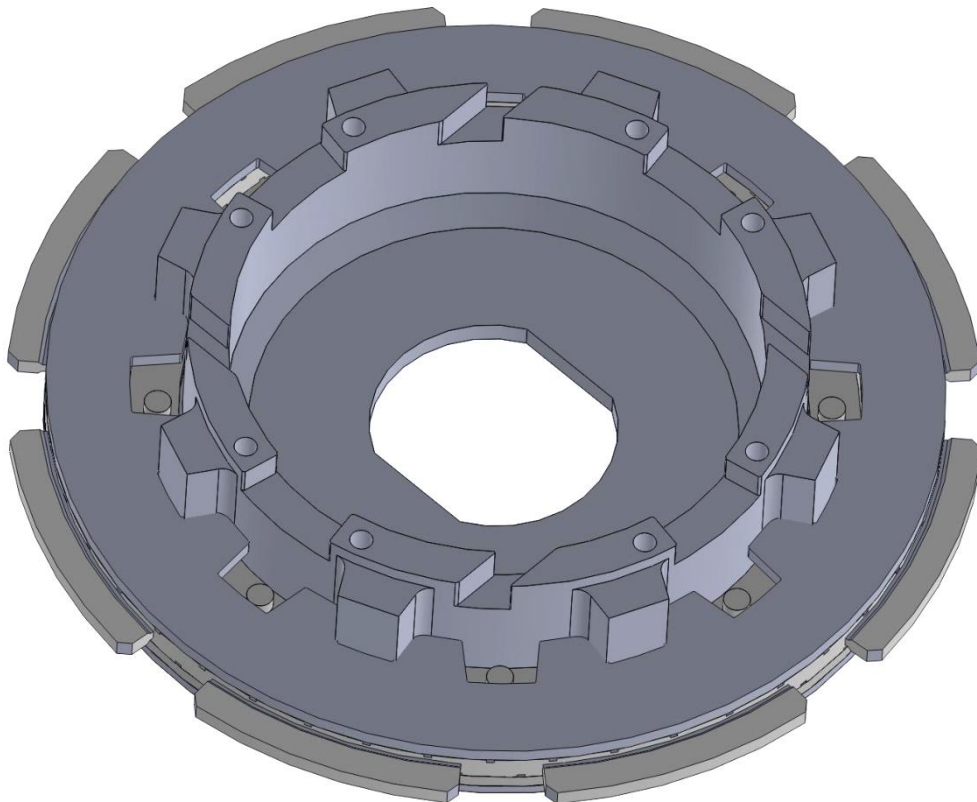
2. Place the spring plate into the inner Inner sprocket and place the compression spring facing in the upward position.



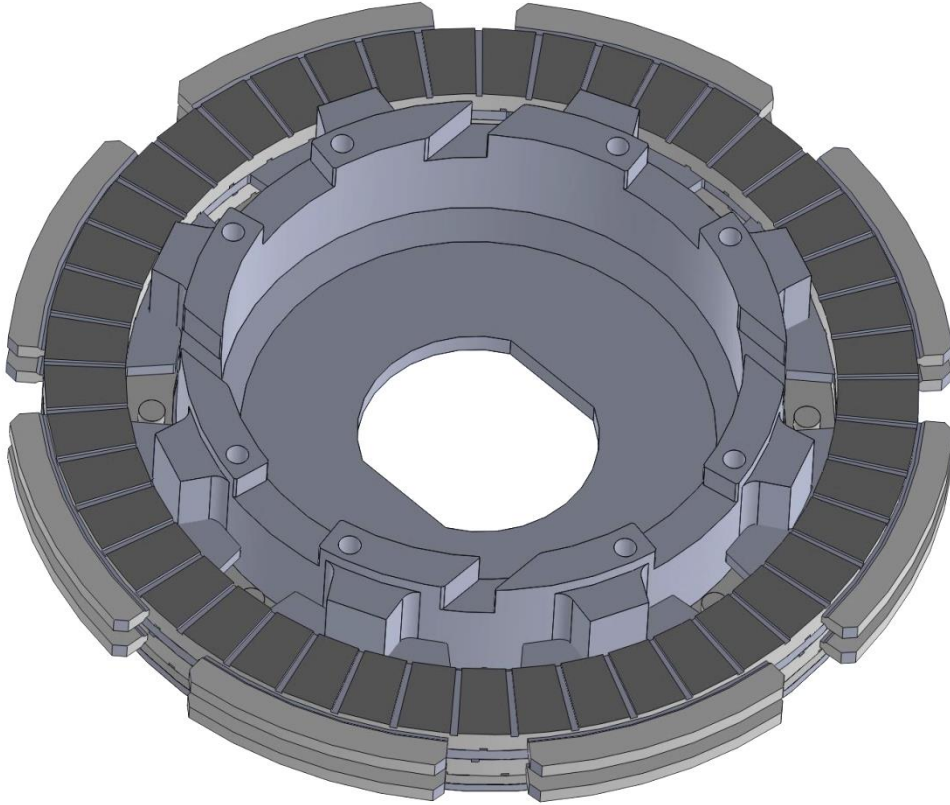
3. Place the clutch plate on to the spring plate in an orderly fashion



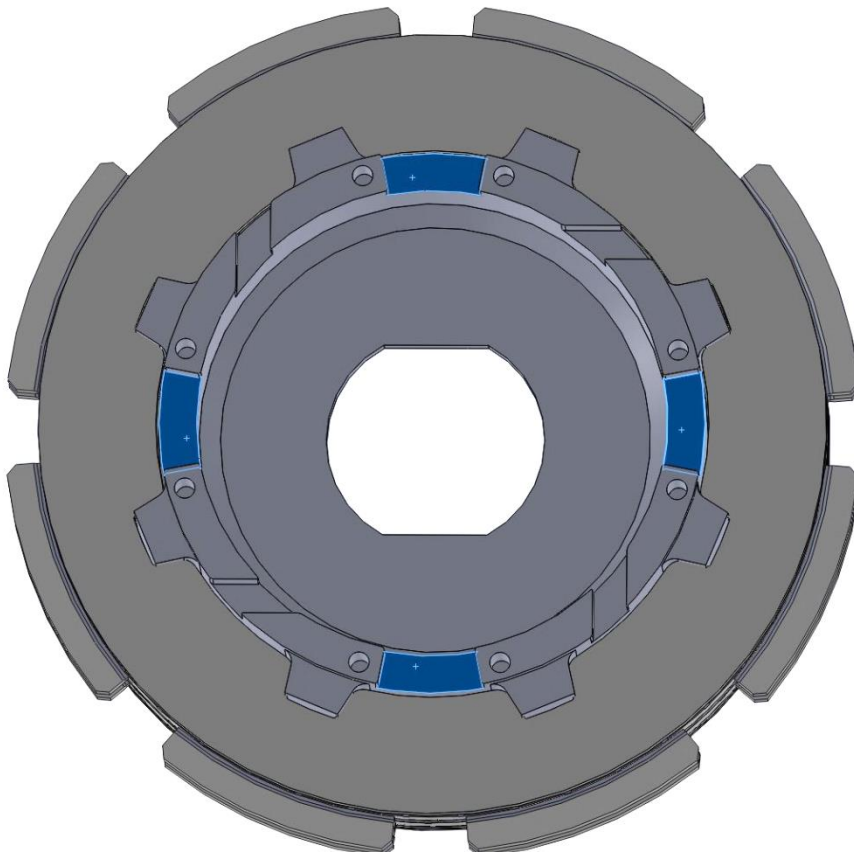
4. Place the pressure plate on the clutch plate



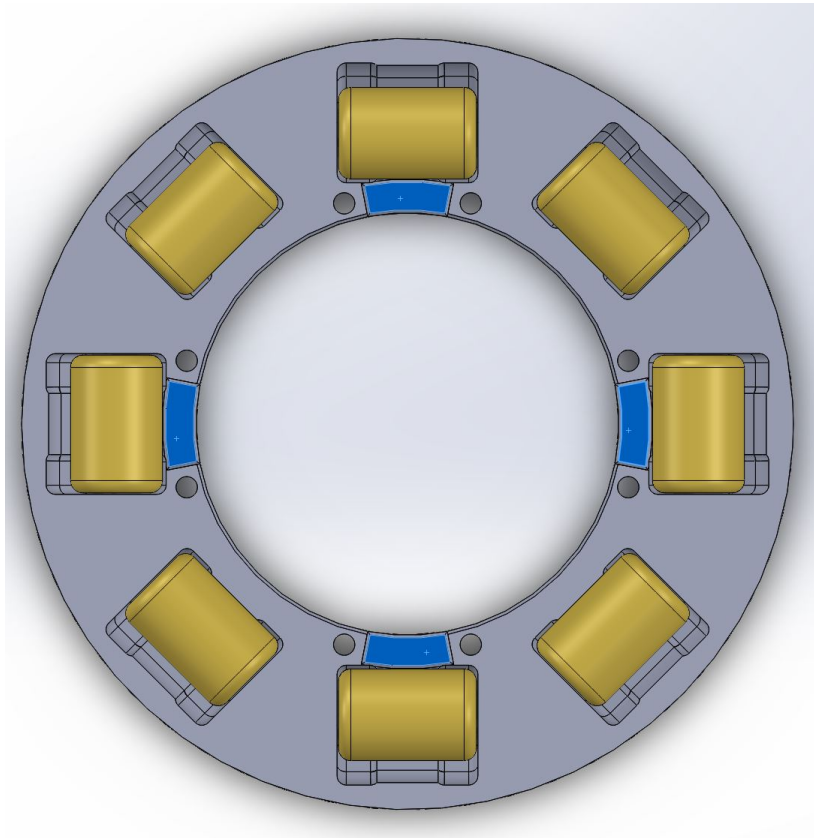
5. Place the clutch plate onto the pressure plate and then place the compression spring onto the positioning column.



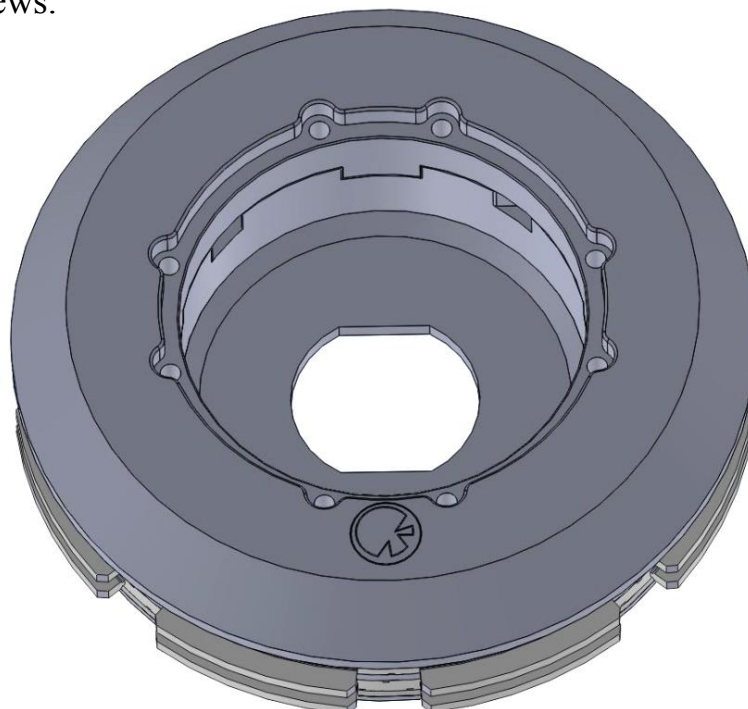
6. Place the spring plate against the compression spring and then place the compression spring onto the positioning column.



7. Place the inner gear plate and the fixing plate on the weight roller holder and align it with each other. Then lift the inner set teeth and reversely place it on the weight roller holder.



8. After the placement is completed, please align it with the fixed jaw and press it to make sure it is alignment. Then you can go ahead and tighten the two screws. After tightening the screws, pick up the clutch and carefully inspect it thoroughly. Now check to see if the springs are installed correctly and then lock all of the eight screws.



7. Transmission adjustment and theory

The overall weight of the STC is much lighter than the conventional clutch; the transmission efficiency of the STC is also increased. So there is a difference in the clutch configuration. Reveno has conducted many tests over a long period of time and have the following recommendations to provide you with the best configuration.

We recommend lowering each weight rollers by 1 to 2 grams (each) on the front weight roller disk. It should be adjusting according to the weight of the rider.

Suggested Values :

If the rider weight is less than 80 kg, we recommend reducing each weight roller by 1 gram. If the rider is 80 kg or more, we recommend reducing each weigh roller by 1.5 grams. (The above recommendations are values gathered from the factory plate and large spring setting.)

Adjustment and Theory :

The so-called CVT is a seamless transmission system. Although seamless transmission has no stages, but the timing and curve of the transmission are important keys elements of the output from the engine to the wheel!!

All the components in the transmission box needs to be viewed from the perspective of the system as a whole. The front weight roller plate is considered to be the key element to the gear shifting mechanism of the vehicle, and the rear opening and closing disk is the key element to the timing of gear changing! !

1. Weight roller plate adjustment :

According to data from 小老婆 motorcycle website, the SMAX 155 for example has a maximum horsepower of 14.75HP/7500rpm and the highest torque is 1.4kg-m/6000rpm.

From the published data, the maximum torque is at 6000 RPM (the torque represents the acceleration of the vehicle.) Therefore, the starting speed needs to be changed to get the maximum torque, which is 6000 RPM. So regardless of the angle of use and the brand of weight roller, the weight rollers will need to be re-

adjusted to start the acceleration and then shifting to the speed domain when the initial torque point is met.

2. Pulley large spring adjustment :

After adjusting the front weight rollers to the ideal weight, then take it to the road to determine which direction to adjust the large spring.

How to determine if the large spring is too soft or too hard :

A. Too Soft :

When at riding speed you let go of the throttle and then accelerate. If you feel the accelerating is weak then it means that the large spring is too soft.

Reason: Due to large spring not reversing the gear in a timely manner, it does not return the belt to the previous gear when accelerating again, resulting in poor acceleration.

Example: When a vehicle is on the highway and the speed is maintained at 100 km/h. When the back vehicle wants to overtake the vehicle in front, the back vehicle would put the gear into OD but if the gear did not kick down into lower gear then there would be no acceleration when at full throttle.

B. Too hard :

When the vehicle is at high speeds and in the maximum horsepower speed range but speed does not continue to increase. This would mean that the large spring is too hard.

Reason: Due to the feedback force of the large spring resulting in the belt not being able to open the inner ring of the pulley. This means that the front of the belt cannot be opened to the outermost of the ring. So the speed is limited and cannot reach the full range of speed.



3. Belt gear control :

For example, when the engine is idling the RPM is at 1000, the rear pulley disc RPM is from 250 to 300. The CVT clutch will generate centrifugal force through the rotation and convert it into positive force to provide friction (Friction = coefficient friction * positive force). From the example above, if the belt speed is lower than 250-300 RPM when the belt gear is in the outer ring of the pulley disk position when idling, the clutch engagement will become higher.

4. Clutch engagement with RPM control :

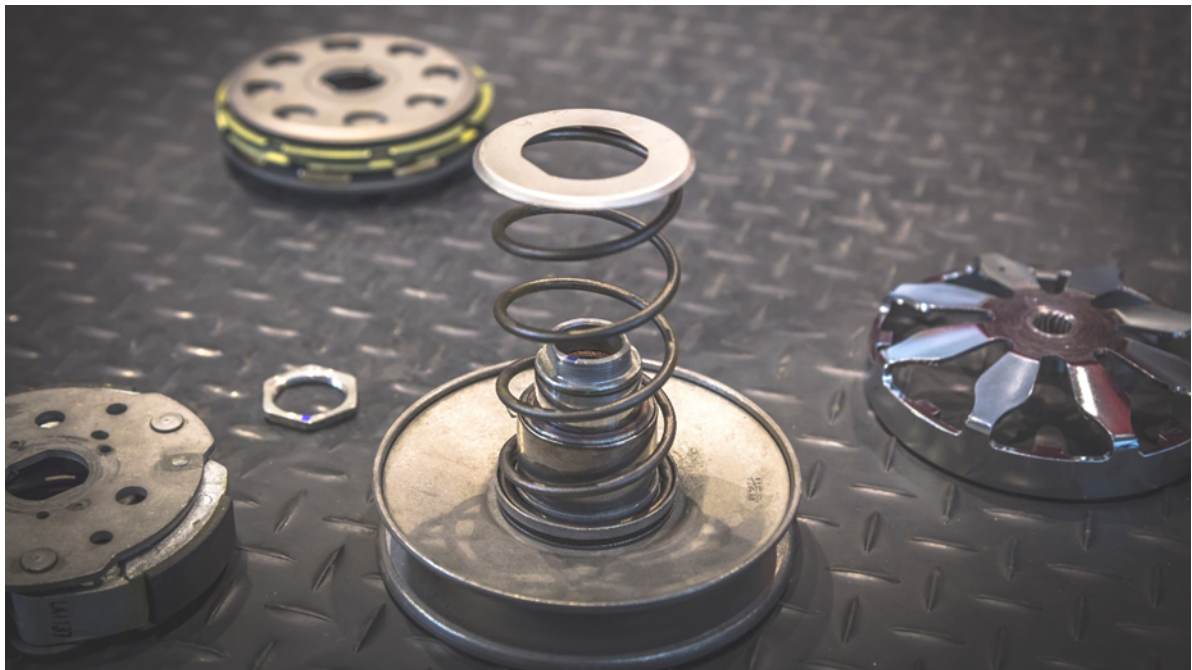
Regular 125cc scooters that use factory clutch will engage RPM speeds that fall around 3800 (durable configuration), the traditional after-market custom clutch modification will increase the engagement speed of the clutch. The purpose is to increase the engagement speed to produce the maximum torque and horsepower of the vehicle. Even at a lower speed, it can provide abundant torque and horsepower output when needed. Therefore, the clutch engagement speed does not need to be too high because in city riding will be constant stopping and accelerating which might cause the friction of clutch to over load (dynamic friction to static friction time is too long, resulting in the clutch temperature to rise causing the performance to decline).

NOTE:

8. Installation Instructions

1. After disassembling the traditional clutch from your vehicle, place the large spring washer above the large spring, then press the STC to open and lock it in place by tightening the disk bolt. Now the belt can now be placed on the disk surface and mounted onto the vehicle.

(Because the traditional clutch is a steel body, the friction of the large spring is relatively low and non-destructive. The STC is an aluminum alloy body so it can easily be damaged due to the friction of a large spring. It needs to be protected by placing the body in a protective gasket)

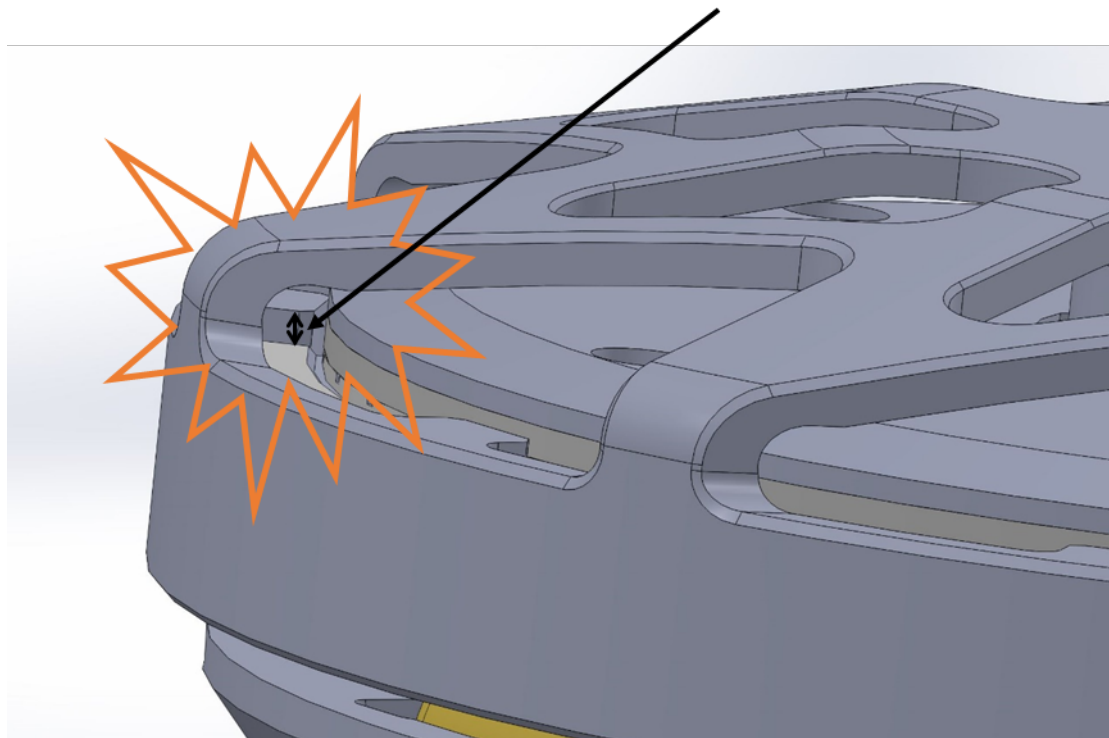


2. First set the belt in the correct position of the opening and closing of the plate, and then align the two front and rear snap-fit gaps of the clutch plate. The inner edge of the outer edge of the cover is aligned with the clutch notch and placed on the clutch body. Place the whole set on the vehicle. After the tooth is mounted on the pusher and fixed into position, install and lock the central gear nut.



Precautions:

The modifications will increase the opening and closing of the plate corresponds with the STC's outer cover. So the outer edge and inner edge needs to be tuned to be at least 1mm from the clutch plate.



9. STC Trouble shooting

Clutch unsmooth release

1. Possible rust on the spring plate :

Evenly rub/grind off the rust until the surface is smooth and then apply oil. This should solve the problem.

2. Clean rust off the weight roller :

Cleaning the rust off the weight roller will solve this problem.

3. Clutch plate and Clutch Outer gap :

The heat will cause the clutch plate to expand and will become uneven on the surface. It will cause it to have friction and problem with detaching from the outer. Grind it until smooth; re-align it with the clutch plate to the proper angle to solve the problem.

4. Moist Clutch (Weather) condition :

If the vehicle is at a standstill, starting it on a cold early morning (vehicles that are driven by fuel supply will have sounds, it is normal for rear wheel to rotate when speeds increase) or if when water floods above the transmission case. When engine is restarted, there will be adhering of the surface of the clutch plate causing it to be unable to detach and separate to allow the vehicle to stand still.

Instructions :

First of all, lift the vehicle off the ground so that the back wheel is suspended and attend to start it. If it starts successfully then the rotation of the rear wheel should be normal. Hold the brake while accelerating; this will create temperature and rotation. After a few cycles, the water in the chamber will be solved.

5. Flooded Transmission Box :

Vehicles that go through deep water areas, some water will enter the transmission box, causing the friction of the transmission

to drop.

Instructions :

If water has entered the chamber, hold on to the brake while accelerating to increase the RPM. This will force the water out and not enter the muffler. Following the instructions above will help you restore friction.

6. Gear box being in water for a long period of time :

This can easily cause rust on the internal metal pressure plate, metal will swell after rust, resulting in insufficient clearance, and clutch will be stuck together and cannot separated. When washing or cleaning the vehicle, it is not recommended to directly flush water into the transmission box.

Instructions :

Please use the above-mentioned 4th and 5th methods immediately. If the condition still cannot be improved, it must be removed for detailed cleaning. You must purchase a consumable replacement kit if the consumables can no longer be used.

High temperature clutch plate condition :

1. Regular daily riding is constantly go and stop (Throttle is jerked back and forth)
2. Mountain roads (slow speeds with heavy loads for an extend period of time.
3. Long period of riding straight. (fixed speed for long periods) .

Dissolve and smoke occurs: The inside surface of the clutch skin is phenol resin, which is industrial grade adhesive. This material is organic and will produce smoke when it exceeds the load temperature.

Instructions :

1. The Reveno clutch is lighter than other clutches on the market. Therefore, in the initial configuration, the left and right transmission output parts must be balanced to a certain degree

using weight rollers and springs.

2. When in the riding state, you feel it is soft and weak when applying gas and speed is not accelerating as usual. This is a sign of overheating. Allow rapid air intake to the transmission box by slowly increasing the speed of the vehicle to lower the temperature. (safety is of the utmost importance)
3. We should minimize the bad habit of applying full throttle going up steep slopes and roads. Do not apply full throttle at once, because it will cause a large frictional force and will inevitably generate heat when it recovers to static friction. Repeating use of bad habits will slowly build up the temperature and cause overheating.

Precautions :

When the clutch encounters high temperature, the glue in the clutch plate will melt and leak out. Before changing the consumable replacement, please thoroughly clean the residual of the three major parts of the clutch body (so as not to affect the operation) then reassemble it. We recommended to using any major brand of cleaning detergent.

10. Warranty Information

What is covered by this warranty?

1. The warranty is limited in duration to 6 months or 10000 km from the date of purchase and install. Regular expendables such as clutch disks, weight rollers, clutch springs, spring plate and pressure plate are not covered by warranty.
2. If the Product is found to have a defect, the Product will be, in the Manufacture's sole judgement, either repaired or replaced by a new or rebuilt Product. In no event shall Reveno be liable for damages caused by the user's fault.
3. Reveno reserves all the rights to alter, modify, and change the design to the Product, and holds no obligation to alter, modify and change any previous manufactured Product.

Returns and Exchange policy:

The following contents are not within the scope of new product warranty

1. damages caused by human errors.
2. Warranty sticker is altered, removed, or displaced.
3. Flood, fire, earthquake or other natural disaster and human error.
4. Any corrosion that caused by placing in moisture environment or liquid damage
5. The return sheet should notify with name of the dealer, serial number, purchase date, and reason(shall be judged by the Manufacturer)

The appearance of the Product shall stay intact (no scratches and damages), along with complete accessories and gifts, otherwise there will be fees charges according to actual scenario.

Warranty Period

Reveno provides 6 months or 10000 km product warranty. However, to ensure the buyer's rights, please register the serial number of the product at the homepage of Reveno to complete the activation of warranty.

Exclusion from warranty coverage

The following contents are not covered by the warranty, the company can use discretionary fees or inadmissible.

1. Warranty sticker is altered, damaged, or removed.
2. Damages caused by fire, flood, earthquake or other natural disaster, and other cause beyond Reveno's reasonable control.
3. Any damage caused by the unauthorized adjustment, repair or service of the equipment by anyone other than personnel of Reveno or its authorized repair agents.
4. Any damage occurring, at any time, during shipment of equipment unless provided elsewhere.
5. Any damages and malfunction when warranty period expired
6. Any corrosion that caused by placing at moisture environment or liquid damage.
7. Any damages caused by human errors(e.g. serious breakage or scratches).
8. Any damages caused by accidents, human errors, unauthorized adjustment or repair, natural disasters are not covered by warranty, but can be paid to repair or replac with by either a new or rebuilt product.

This Limited Warranty does not apply to: any damage to the Product caused in whole or in part by abuse, accident, fire, chemical corrosion, use for other than its intended purposes, unlawful use, use in a model for which it was not designed, faulty installation, installation contrary to the Manufacturer's published instructions, or failure to maintain the Product in accordance with the Manufacturer's published instructions; - claims of comfort, noise, vibration or harsh riding characteristics.

目錄

1. 作動原理說明.....	1
2. STC 產品組成內容物.....	2
3. 整體結構(單件)及材料說明.....	3
4. 各組合件相對應之間隙水準說明.....	5
5. 耗材判定標準及數值說明.....	7
6. 拆裝及組立說明.....	9
7. 搭配傳動調整及原理說明.....	13
8. 安裝於車輛上順序說明.....	17
9. STC 異常排除.....	19
10. STC 保固規範.....	22



1. 作動原理說明:

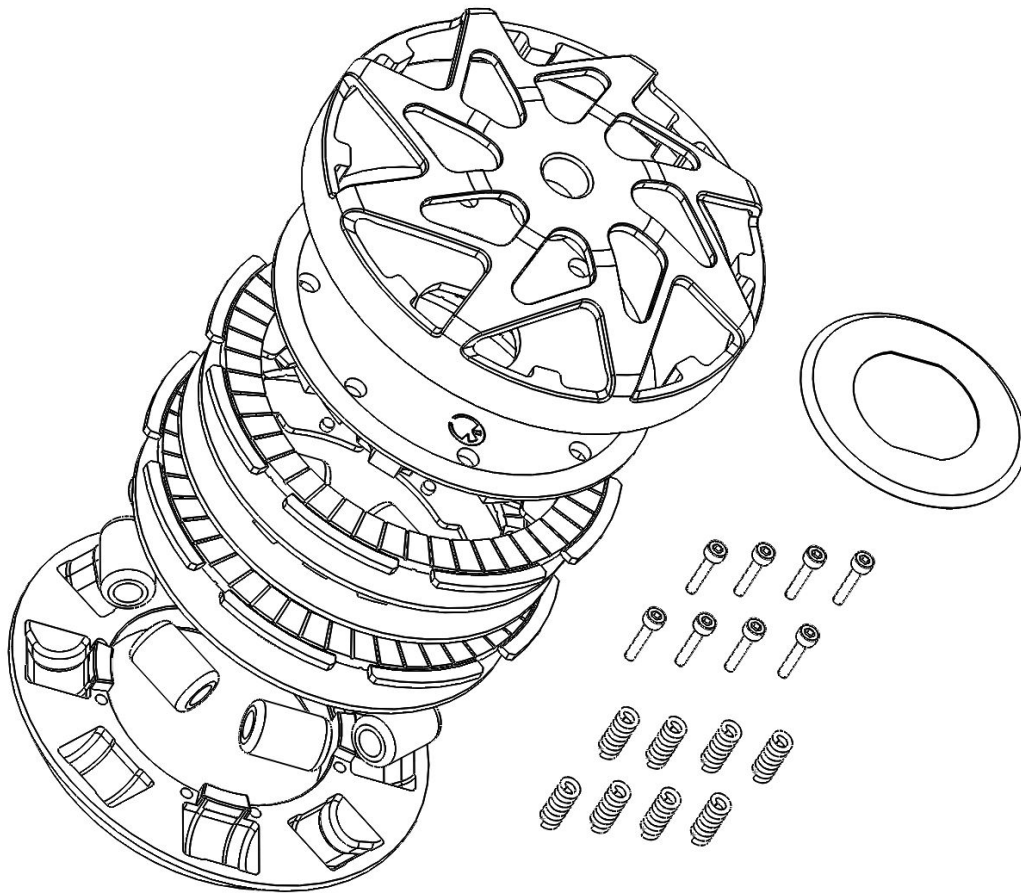
STC 為以配重珠取代蹄塊之離心式離合器，藉由引擎轉速提供離合器正向力。

$$F(\text{摩擦力}) = \mu(\text{摩擦係數}) * N(\text{正向力})$$

因此轉速越高離合器夾持力越大，所以可針對車輛輸出設定進行調整，且接合轉速可利用壓簧進行調整，STC 採用雙離合器片大大增加摩擦面積(相較傳統大 2.5 倍)，提供更好的傳輸效率，外蓋部件僅負責傳輸帶動並無受到任何摩擦及壓力，能讓 STC 有更佳的使用壽命，更不會有傳統外蓋(碗公)有炸掉的危險因素存在，安全性更佳提升，STC 摩擦結構使用與檔車離合器相同結構方式，以全平面的方式進行接合，所以 STC 可以說是永不抖動的 CVT 離合器。

NOTE:

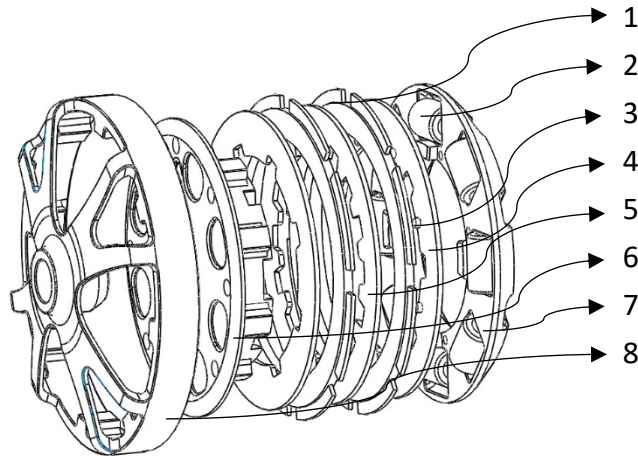
2. STC 產品組成內容物



- | | | | |
|-----------|----------|----------|----------|
| 1.傳遞外蓋*1 | 2.內座齒盤*1 | 3.珠座承盤*1 | 4.配重珠*8 |
| 5.離合器片*3 | 6.彈簧壓板*2 | 7.壓板*1 | 8.壓縮彈簧*8 |
| 9.大彈簧墊片*1 | 10.螺絲*8 | | |

NOTE:

3. 整體結構(單件)及材料說明



1. 離合器片：

以面的接觸方式達到接合無斷差，耐久性可達 1xxxx 公里(原廠車輛)。(離合器片材質為複合式橡膠)

2. 配重珠：

配重珠取代傳統蹄塊，提供離合器正向力，可針對車輛輸出設定進行調整。(配重珠材質為黃銅表面電鍍加工)

3. 壓縮彈簧：

用於抵制配重珠因旋轉離心力產生之正向力，達成自動接合轉速設定。(壓縮彈簧材質為白鐵熱處理達 300°C)

4. 彈簧壓版：

用於固定壓縮彈簧及磨擦離合器片，達成動力傳輸至離合器片上。(彈簧壓板材質為鐵件)

5. 壓板：

安裝介於上下兩片離合器片中央，達成動力傳輸至離合器片上。(彈簧壓板材質為鋼材)

6. 內座齒盤：

與開閉盤鎖固，即同步旋轉帶動彈簧壓版及壓板。
(採用熱處理 T6 6061 鋁合金 CNC 切削製成)

7. 珠座承盤：

放置配重珠，並經由精密計算斜率角度，配重珠經旋轉離心力提供正向力。(採用熱處理 T6 6061 鋁合金 CNC 切削製成)

8. 傳遞外蓋：

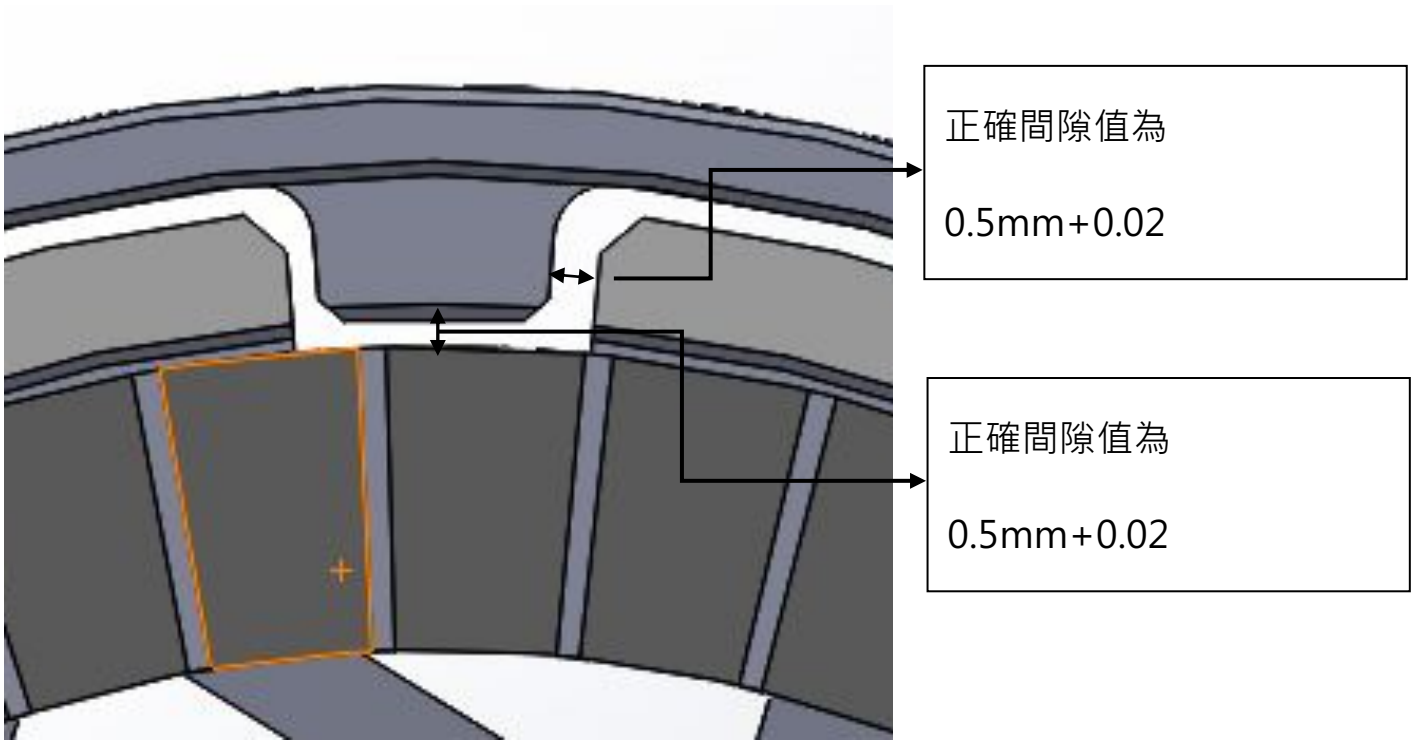
鎖固於後減速齒軸芯上，並卡接於離合器片上的 8 個卡接槽，達成引擎動力經離合器傳輸至後減速齒及後輪上。
(採用鍛造鋼材 CNC 切削製成)

NOTE:

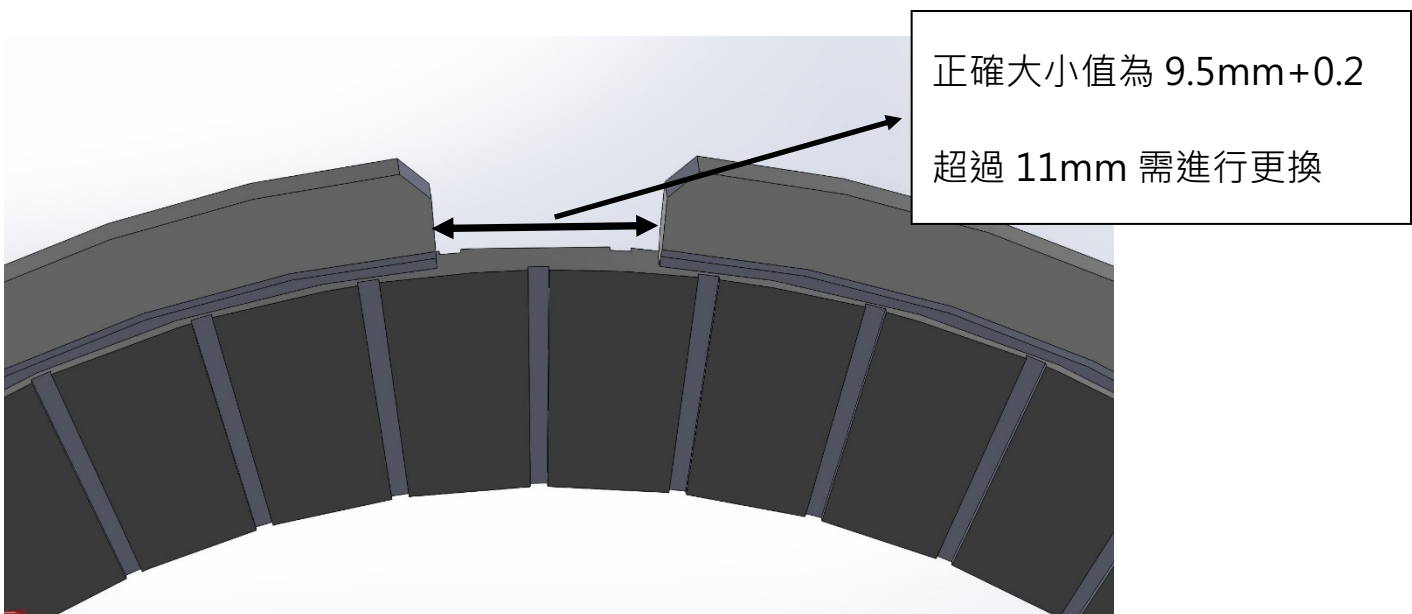
4. 各組零件相對應之間隙水準說明

離合器須注意的**安全間隙**如下：

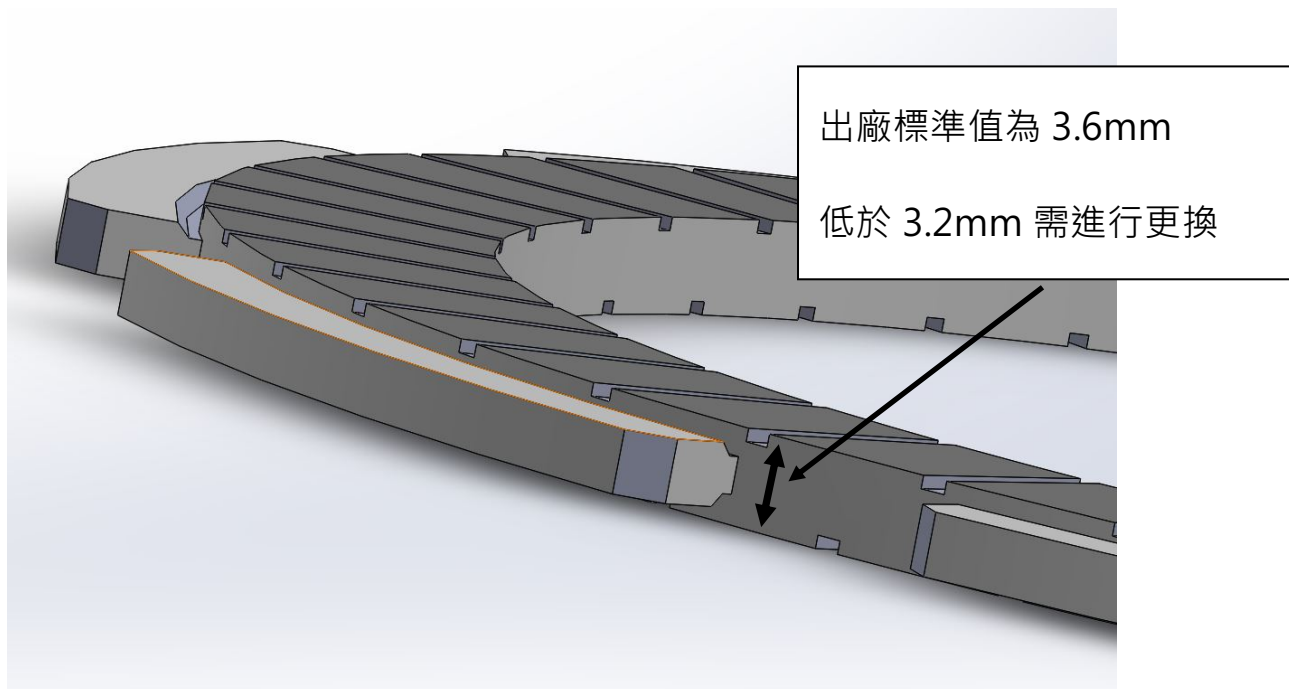
1. 離合器片與外蓋之間隙(接觸 3 面皆為 0.5mm 為正確間隙)



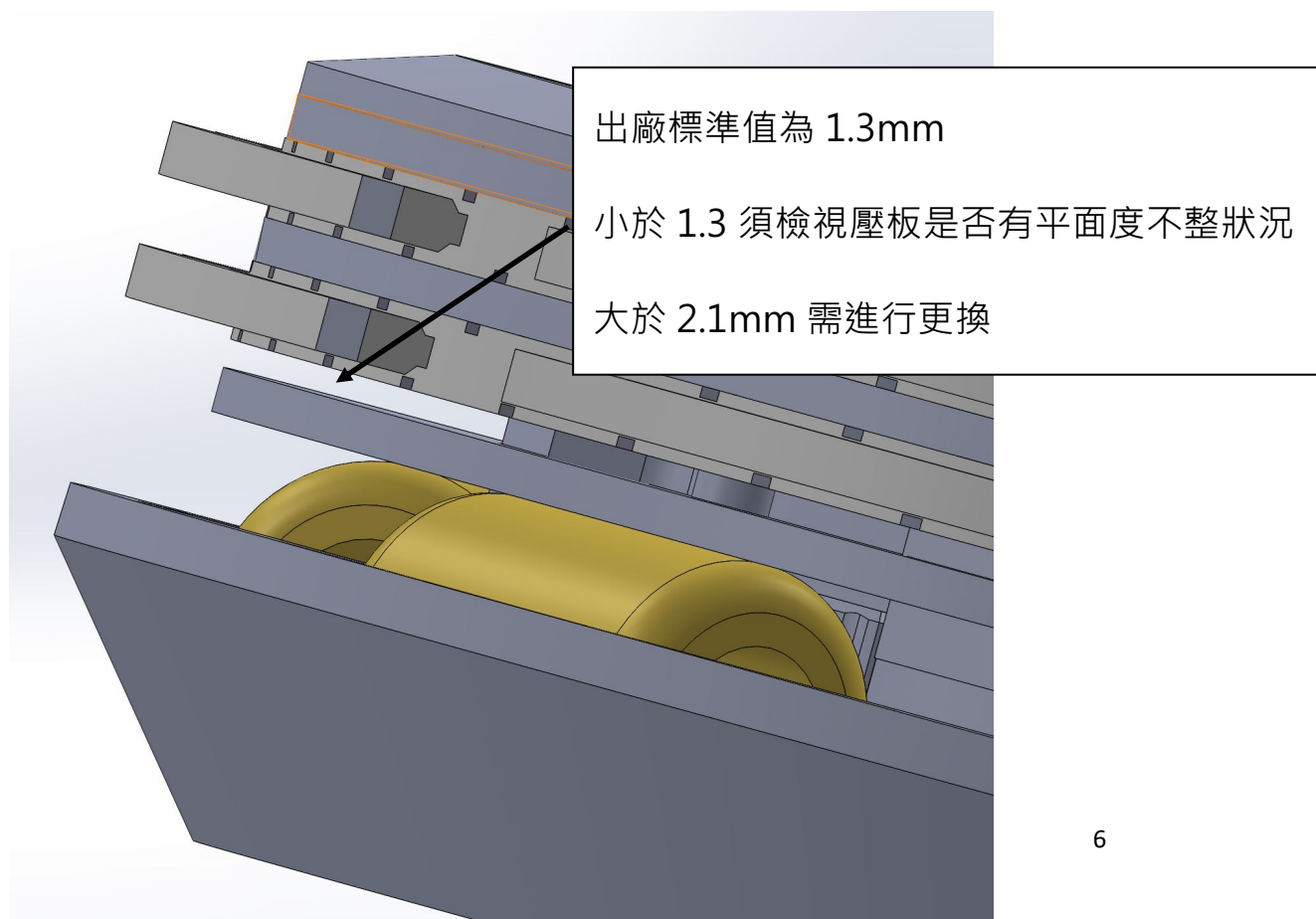
2. 離合器片齒型寬距安全值



3. 離合器片厚度安全值



4. 離合器組裝完成自由間隙



5. 耗材判定標準及數值說明

STC 離合器耗材部分為：

6. 離合器片

小型：Ø108.5 原廠厚度:3.0mm 安全值:2.7mm

齒槽寬度 原廠寬度:7.2mm 安全值:8.0mm

中型：Ø125.5 原廠厚度:3.6mm 安全值:3.2mm

齒槽寬度 原廠寬度:9.5mm 安全值:11.0mm

大型：Ø146.5 原廠厚度:4.5mm 安全值:4.0mm

齒槽寬度 原廠寬度:9.8mm 安全值:11.0mm

7. 彈簧壓板

平面度超過 ± 0.2 mm

小型：Ø101.5 原廠厚度:1.5mm

中型：Ø115.5 原廠厚度:2.0mm

大型：Ø131.5 (上)原廠厚度:2.0mm (下)原廠厚度:2.65mm

8. 壓板

平面度超過 ± 0.2 mm

小型：Ø101.5 原廠厚度:1.5mm

中型：Ø115.5 原廠厚度:2.0mm

大型：Ø131.5 原廠厚度:2.0mm

9. 壓縮彈簧

小型：Ø108.5 原廠自由長:16mm 安全值:11mm

中型：Ø125.5 原廠自由長:16mm 安全值:14mm

大型：Ø146.5 原廠自由長:18mm 安全值:16mm

10. M3 螺絲

鎖固扭力值 1.65 N.m

小型：M3 12mm

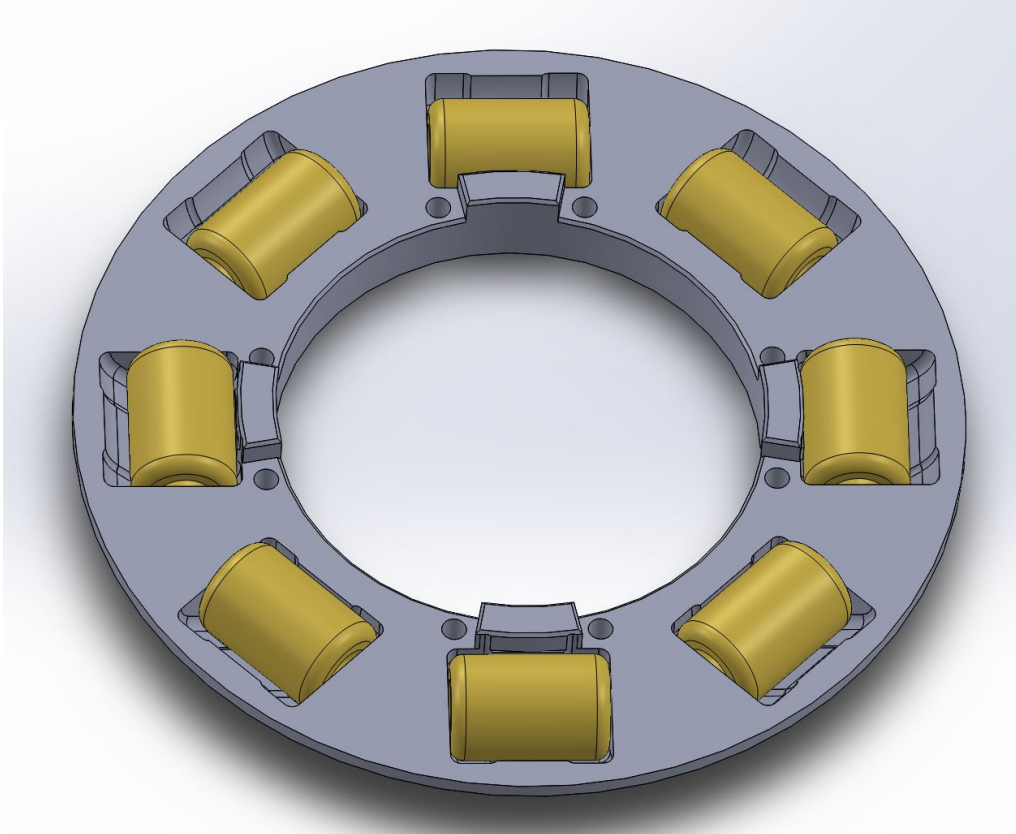
中型：M3 16mm

大型：M3 18mm

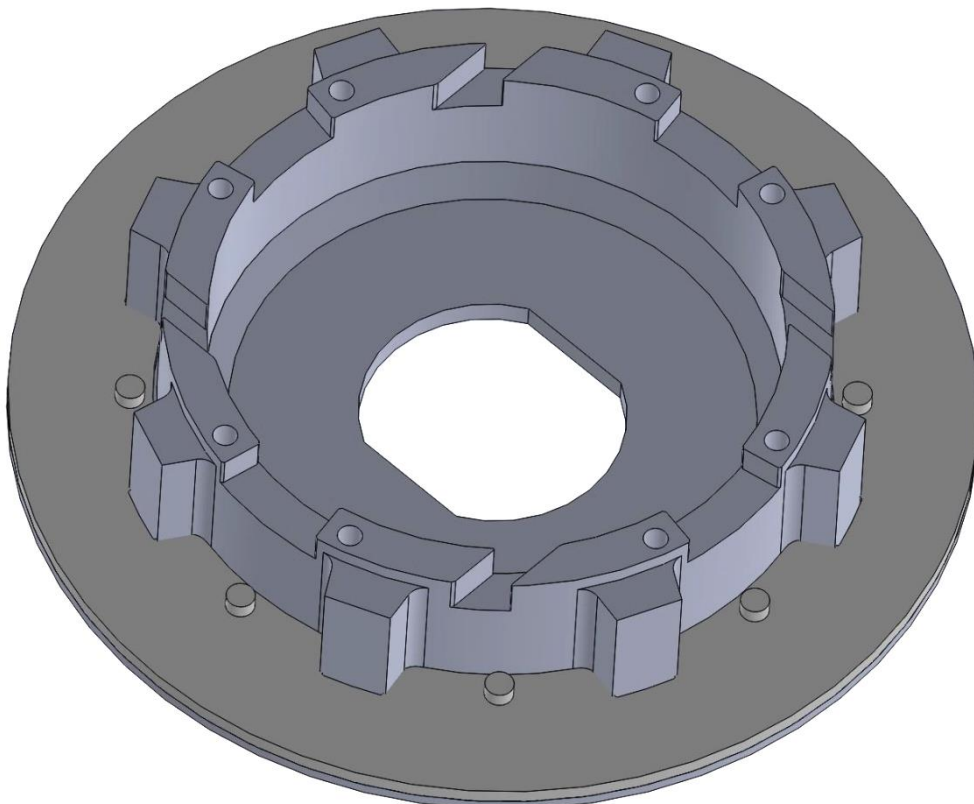
NOTE:

6. 拆裝及組立說明

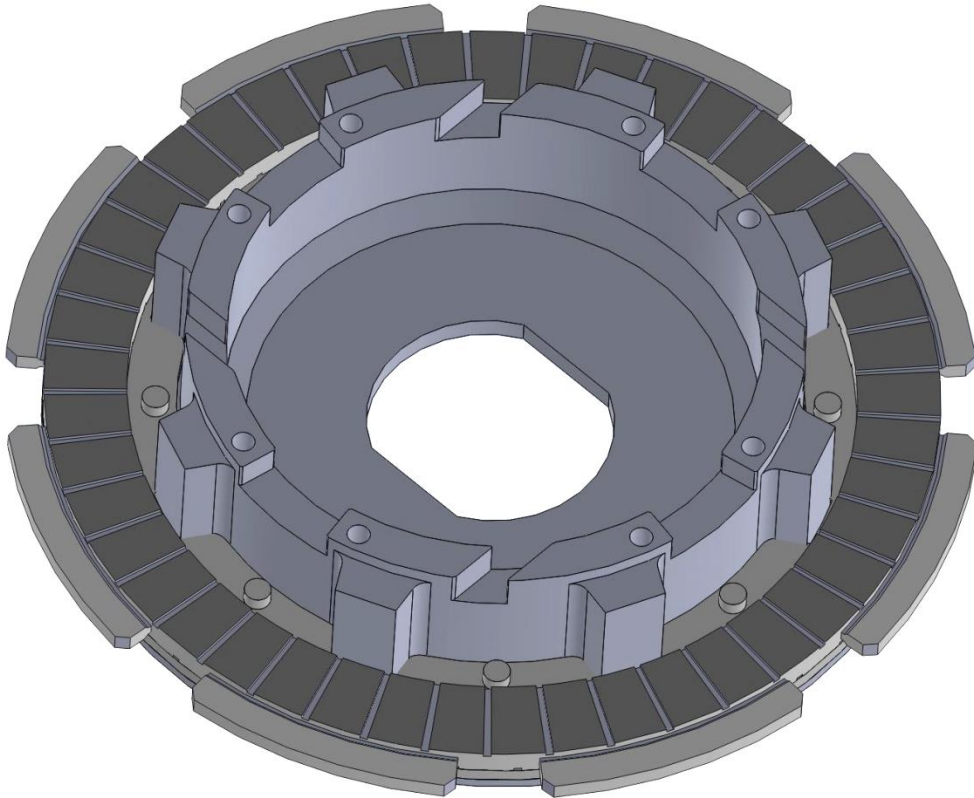
1. 將配重珠放入珠做承盤



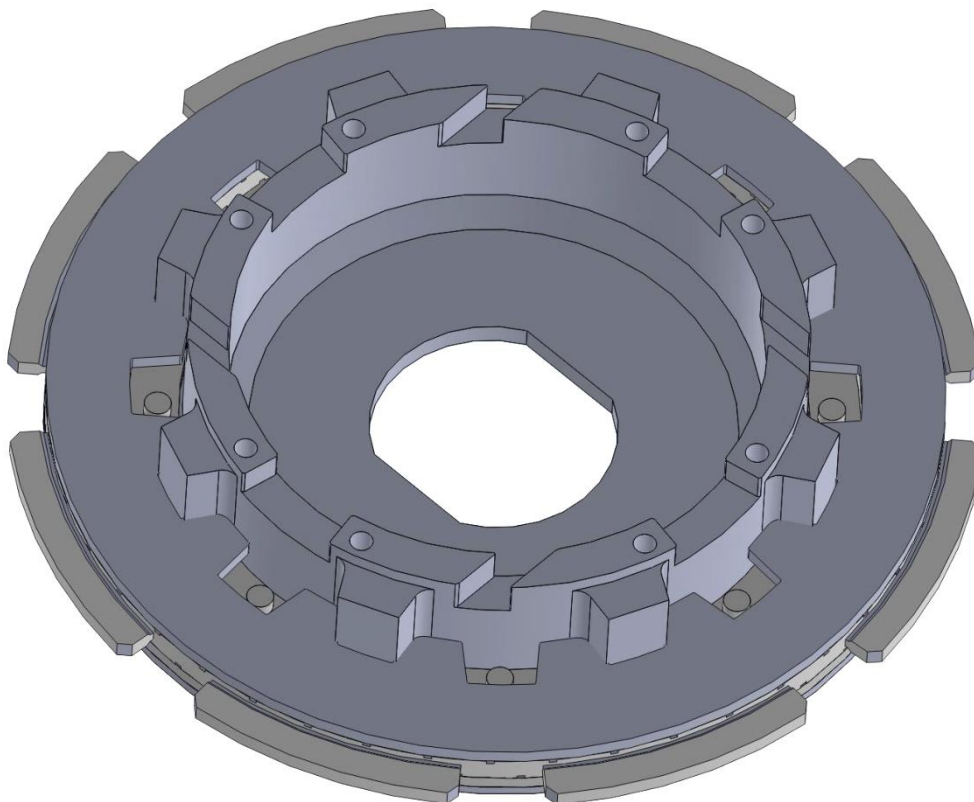
2. 將彈簧壓板置放於內座齒盤,並將壓縮彈簧定位柱朝上



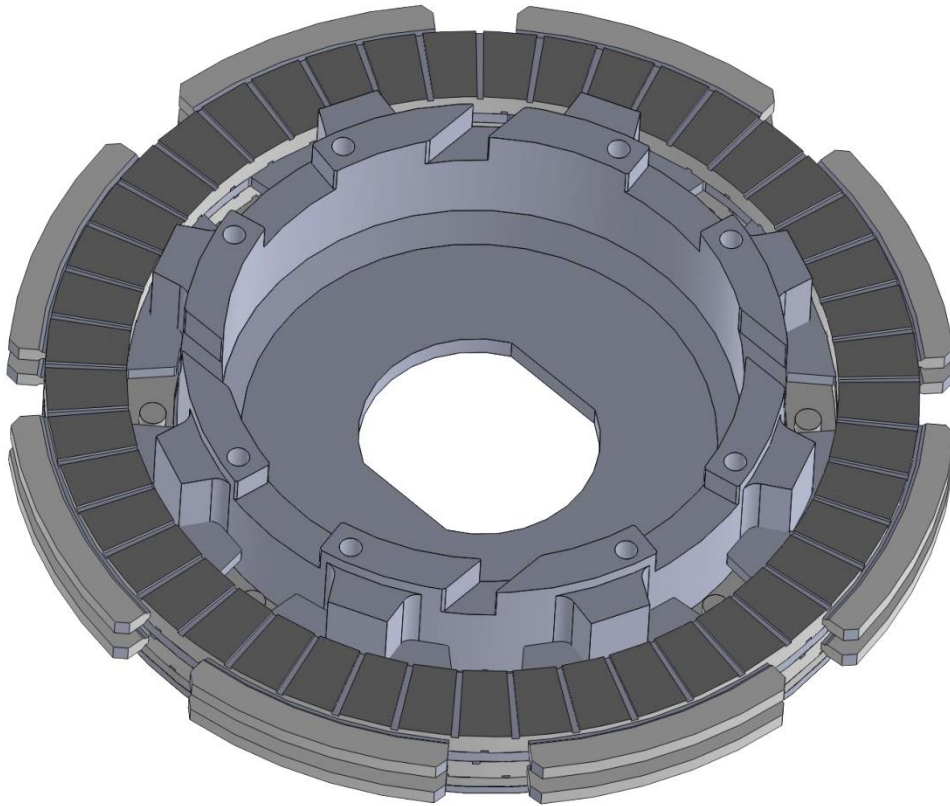
3. 將離合器片依序放入於彈簧壓板上



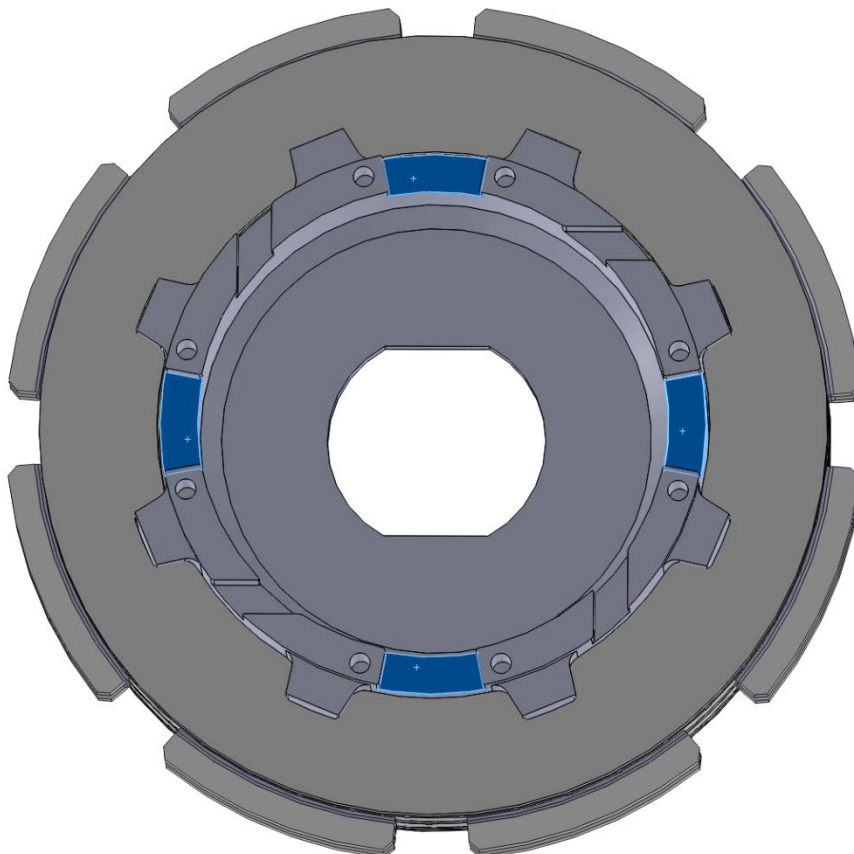
4. 將壓板放置於離合器片上



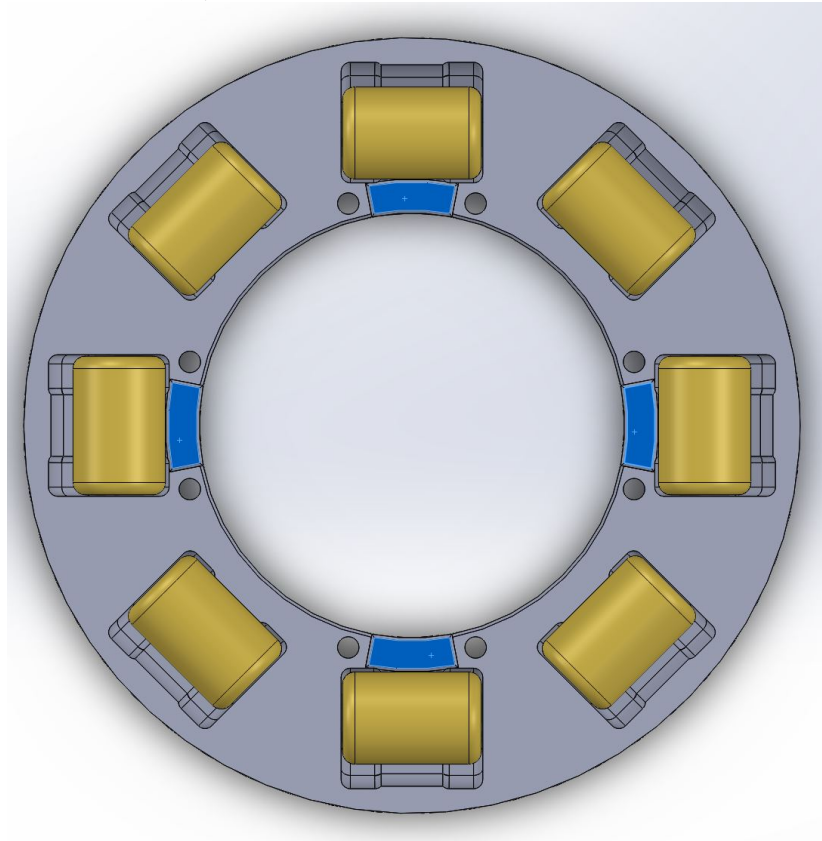
5. 再將離合器片放置於壓板上並將壓縮彈簧置放於定位柱上



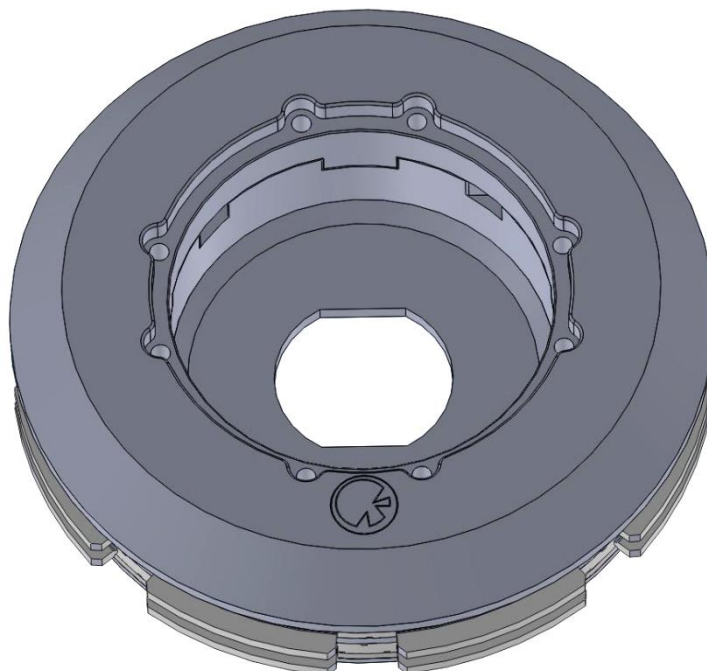
6. 將彈簧壓板反置於壓縮彈簧上並將壓縮彈簧置放於定位柱上



7. 將內座齒盤與珠座承盤上固定樺互相對正擺放並將內座齒盤整組提起並反置於珠座承盤上



8. 放置完成請對準固定樺並試壓確認對齊完成就可先鎖入螺絲對角 2 支,僅需先鎖幾牙就好並拿起離合器上下顛倒檢查彈簧是否安裝正確後方可鎖固全部螺絲共 8 支



7. 搭配傳動調整及原理說明

因 STC 整體重量相較傳統離合器來的更輕，STC 的接合傳輸效率也提升了，導致與傳統離合器的傳動配置已有差異，Reveno 經過長期的測試及配置，有以下建議提供您有好的傳動配置。

前普利盤的珠重建議調整全盤單珠重往下降 1~2 克，依照騎乘人員重量進行調整。

建議值：

騎乘時人員總重在 80 公斤以下建議全盤單珠重調降 1 克，
騎乘時人員總重在 80 公斤以上建議全盤單珠重調降 1.5 克。(以上皆為對應原廠普力盤及大彈簧設定下建議值)

備註：

因 STC 將車輛輪下負載完全回饋置引擎端，故需將前普利盤換檔時機稍做調整以利車輛引擎輸出能有較好的變速曲線。

調整方向及原理說明：

所謂 CVT 即為無段變速系統，無段變速雖為無段但變速時機及曲線卻是掌握引擎輸出至輪下的重要關鍵!!

傳動箱裡的所有零組件皆需以整個系統來看，前方普利盤視為於檔車一樣的換檔機構負責車輛進檔變速時機的關鍵，後方的開閉盤為負責退檔時機的關鍵!!

1. 普利盤調整方向：

先依循車輛的引擎動力曲線作為參考值，依 SMAX 155 為例(官方動力數據最大馬力為 14.75HP/7500rpm，最高扭力為 1.4kg-m/6000rpm)數據截至小老婆機車網。

就公告數據來說最大扭力落在 6000RPM，扭力代表了車輛的加速度所以起步的轉速需從最大扭力的轉數域開始變速，也就是 6000RPM，所以不管使用任何角度及品牌的普利盤都將普利珠的珠重調整至起步符合最大扭力點的轉速域開始加速及變速。

2. 開閉盤大彈簧調整方向：

當前盤普利珠的珠重都調整至符合理想轉速域的珠重後至路面上試乘來判定大彈簧的調整方向。

如何判定大彈簧過軟及過硬：

A. 大彈簧過軟：

當騎乘時回油門再加速感受到軟弱無力即是大彈簧過軟。

原因：因大彈簧沒有適時扮演退檔角色，大彈簧沒在回油時將皮帶退回前一個檔位，導致無加速度。

舉例：當車輛行駛於高速公路時時速維持 100 公里，當遇

前方車輛需進行超車動作時，(手排車)如不退檔位將轉速拉高(自排車)切入 OD 檔，放掉油門再踩油門車輛是不會有加速度的。

B. 大彈簧過硬：

當車輛在最大馬力轉速域高速行駛時，轉速持續上升速度卻無法再繼續提升，這時就是大彈簧過硬。

原因：因大彈簧反饋的力量過大，導致皮帶於開閉盤中無法下至最內圈，即前方皮帶無法開至最外圈，所以變速受限無法發揮完全變速域。

3. 皮帶檔位控制：

當引擎怠速時舉例轉速為 1000RPM 時，後方的開閉盤轉速會介於 250~300RPM 各車輛變速比不同，CVT 離合器皆是藉由轉速產生離心力並轉換成正向力提供摩擦力(摩擦力=摩擦係數*正向力)，依上例反之怠速時當皮帶檔位於開閉盤位置更外圈時，開閉盤轉速會再比 250~300RPM 更低，所以離合器接合轉速會越高及越晚。

4. 離合器接合轉速控制：

一般 125C.C.原廠離合器接合轉速約莫落在 3800RPM(顧及耐用配置)，市售傳統改裝離合器皆將離合器接合轉速提高，



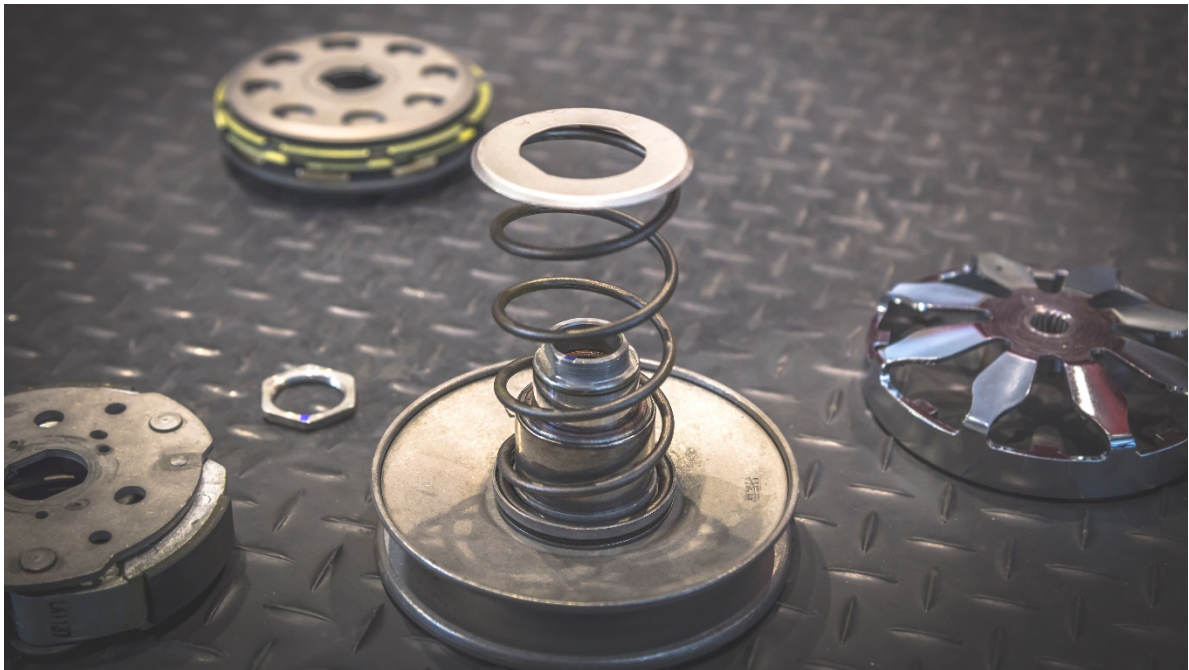
目的是將接合轉速提高至接近最大扭力及馬力轉速域，使其原廠車輛起步力量加強，反之有提升引擎動力改裝之車輛，扭力及馬力皆已提升，在較低的轉速就能提供豐沛的扭力及馬力輸出，故其離合器接合轉速無需過高，造成市區走停加速頓挫感嚴重及離合器負載過大(動摩擦至靜摩擦時間過長，導致離合器溫度持續上升而效能下降)。

NOTE:

8. 安裝於車輛上順序說明

1. 將其您愛車上的傳統離合器拆下後，將大彈簧墊片放置於大彈簧上方，並將墊片橫切口對其開閉盤橫切口，將 STC 下壓置開閉盤螺牙頸，並鎖上開閉盤螺母，即可將皮帶套至開閉盤盤面上並安裝上車。

(因傳統離合器為鋼製本體，對於大彈簧的摩擦較無損傷,STC 為鋁合金材質本體對於大彈簧摩擦較易損傷為保護本體須放置保護墊片)

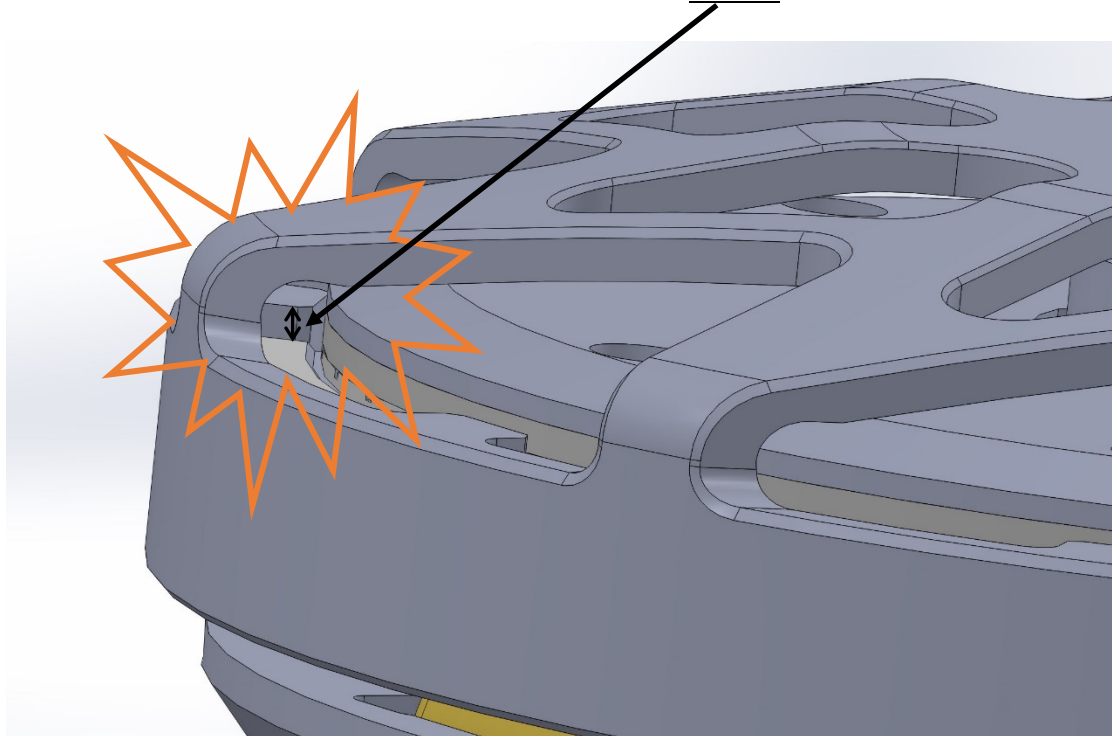


2. 請先將皮帶裝置於開閉盤上正確位置，再將離合器片前後兩片卡接缺口對齊，外蓋內緣凸齒部分對齊離合器片卡接缺口放置於離合器本體上，整組放至於車輛後從動齒上並安裝推壓置固定位置，將中央齒輪芯螺母鎖上即安裝完成。.



注意事項：

鑒於目前大多數有改裝加大行程開閉盤對應 STC 須將外蓋加高，
外蓋內緣齒的上緣需凸出於離合器片至少 1mm。



9. STC 異常排除

離合器切放不順

1. 下彈簧壓板生鏽產生問題：

離合器切放不順，均勻推磨生鏽面至平滑後，局部上油即可排解。

2. 配重珠生鏽清潔：

滾動順暢不佳，擦拭乾淨即可排除。

3. 離合器片與碗公間隙公差排除：

離合器片熱膨脹後會因為間隙公差不均，產生與外蓋撐住切離不順問題，銼刀修磨使用後離合器片階梯角至正直角即可排解。

4. 離合器遇潮濕(天氣)狀態：

如車輛靜止中，一大早冷車發動(冷車發動因供油會較濃轉速較高後輪會被帶動是正常的)或水面淹過車輛傳動箱，再度發動時會有離合器片因毛細現象產生附著，離合器無法分離讓車輛靜止。

排除方式：先將車子架立中柱及後輪離地後，嘗試進行發動，如發動成功後輪會有轉動情形皆為正常，使用後煞車並同時

輕微重複加補油門，使其產生溫度及轉動，加速水分散失，循環數次後就能排除問題。

5. 傳動箱進水：

車輛行進間過深水區，因些許水進入傳動箱，導致磨擦咬合力下降。

排除方式：過深水時可利用後煞車同時加補油門，讓轉速提高，可讓傳動高速運轉達水分不易靠近及排氣管不易進水，高速運轉下也能讓水份加速散失回復摩擦力。

6. 車輛傳動箱泡水後久放：

容易導致內部金屬壓板生鏽，生鏽後金屬體積會膨脹，導致間隙不足，離合器無法分離讓車輛靜止。上述同理可證，清洗愛車後，建議不要直接對傳動箱沖水。

排除方式：建議能即時使用上述第 4、5 點排除方式處理，如狀況仍無法改善就必須拆下進行細部清潔，如判定耗材已無法使用必須購買耗材替換包更換。

離合器片高溫狀態：

1. 一般道路走停走停行駛（油門多是急催急放）。
2. 山道行駛（重負載情況下及長時間慢速行駛）。

3. 長直線行駛 (長時間的定速慢速行駛)。

發生溶解冒煙：離合器皮內的接著酚樹脂，目前是工業用接著劑均為有機物，超過負荷溫度產生軟化冒煙。

排除方式：

1. Reveno 離合器本身較輕於一般市面的離合器，所以在於起初配置的時候，要利用珠重&彈簧等等將左右傳動輸出件達到一定程度的平衡，才能在運作同時表現出「真實效益」
2. 於騎乘狀態時，感覺到油門軟腳無力，在應當給的速度卻給不出來，這是一種熱衰現象的徵兆，必須慢加速至高速，急速行駛增加近風量降低傳動箱溫度 (此行為須以安全為考量為最大原則)
3. 盡量減少我們陡坡及山路行駛的補油門習慣，不能一次油門全開，因為當傳動一次要受到如此大接合力的動摩擦、在恢復到靜摩擦，必定會產生熱，在多次的反覆動靜磨擦中，熱量將持續堆積導至高溫。

注意事項：

離合器遇高溫後離合器片材質中的膠合物會融出，所以在更新耗材替換包前，請先將離合器本體三大部件的殘餘膠質清潔乾淨 (以免影響作動) 再進行組裝，建議可使用白博士及化清劑進行清潔。

10. STC 保固規範

保固範圍:

1. 本公司產品皆提供從購買安裝日起半年內或 1 萬公里之保證，以先到者為準，其不包含正常損耗品如：離合器片、配重珠、壓縮彈簧、彈簧壓版、壓版...等不列入保固。
2. 產品在客戶正常使用情形下發生故障，經鑑定為產品本身之問題，在保固期限內，由本公司負維修之責任。
3. 公司對於任何產品的設計，皆保留有任意更改的權力，而無義務修改之前製造的任何產品。

新品不良退換貨規定:

以下內容均不在新品退換貨保固範圍之內

1. 人為狀況造成商品損壞(如：嚴重刮傷破裂等)。
2. 保固貼紙被更改或被撕掉、有人為拆封狀態。
3. 天災、水災、火災、地震等不可抗力之災害及人為處理上之疏忽。
4. 放置於潮溼位置或進水、泡水導致內部相關零組件鏽蝕。
5. 新品退換貨單上需註明店家、貨號、購買日期、確認不良原因

(需確認實際不良原因避免誤判)。

商品外觀必須完整無損壞(例:刮傷、脫漆等)，連同配件贈品，不可缺件，若有以上情形，將依實際狀況酌收處理費用。

產品保固期間認定

為確保客戶的權益，安裝完成後依據上網登錄產品序號當日起算，提供半年內或 1 萬公里之保證，以先到者為準。

保固除外責任規定

以下內容均不在保固範圍之內，本公司得酌收費用或不予受理

1. 產品易碎標籤不清楚、被更改或被撕掉者。
2. 天災、水災、火災、地震等不可抗力之災害及人為處理上之疏忽。
3. 對零組件等加以不當修理及改造或不當調整。
4. 購買後因運送移動、掉落所產生之故障或損害。
5. 保固期過後之故障與損壞的發生。
6. 放置於潮溼位置或進水、泡水導致內部相關零組件鏽蝕。
7. 人為狀況造成商品損壞(如：嚴重刮傷破裂等)。

8. 外觀刮傷、掉漆，或因天災、人為因素造成損壞，皆不在保固範圍內。
9. 因意外、人為破壞、不當安裝、自行變更零組件、天然災害所造成之損壞,屬於人為因素損壞不予換新，但可以酌收維修費用或更換堪用品。