

A1 INSTALLATION DRAWING

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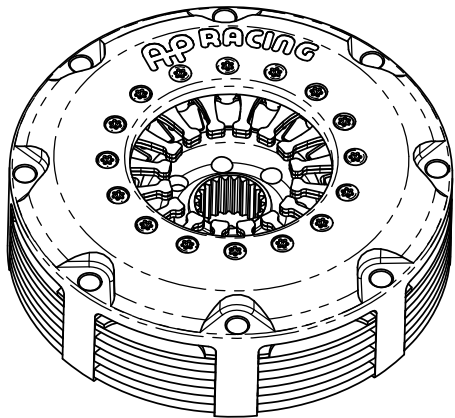
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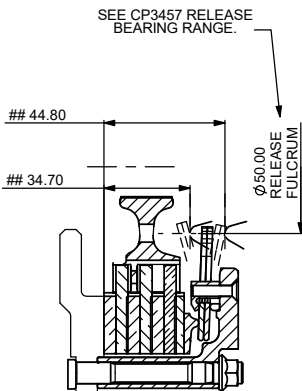
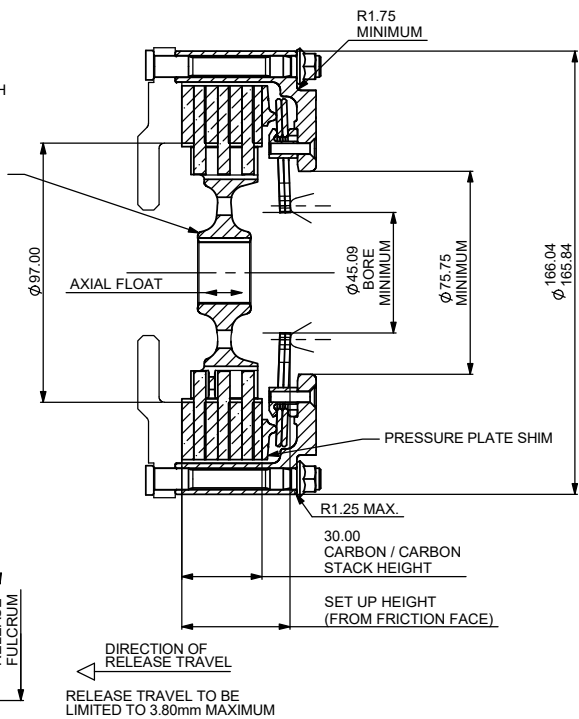
CP7143 Ø140mm (5.5") CARBON / CARBON CLUTCH ASSEMBLY INCLUDING AN OPTIONAL CUSHION FLYWHEEL SYSTEM (CFS)



HUB PART No. SPLINE
 CP5143-102S 1.00" x 23
 CP5143-103S 0.875" x 20
 CP5143-104S 1.16" x 26

HUBS ARE AVAILABLE WITH OTHER SPLINE SIZES. CONTACT AP RACING FOR DETAILS.

FOR HUB ENVELOPE SEE SHEET 2.



BEARING POSITION

TO ENSURE ADEQUATE RELEASE TRAVEL AND CLUTCH LIFE THESE LIMITS HAVE BEEN CALCULATED USING AN ADDITIONAL 20% RELEASE TRAVEL AND 50% MORE WEAR IN THAN SPECIFIED. (CALCULATED FROM THE FRICTION FACE.)

THESE FIGURES COVER THE FULL RANGE OF CLUTCHES IN THE CP7143 FAMILY.

CP7143 CLUTCH FAMILY

MAXIMUM DYNAMIC TORQUE CAPACITY							
	(Nm)	1112	884	806	639	632	473
	(ft.lb)	821	651	594	471	465	348
RELEASE LOAD							
Max. Peak Worn (N)	4500	4500	3750	3750	4500	3750	
At Travel (N)	3000	3000	2500	2500	3000	2500	
WEAR IN (See Note)							
	0.5	0.5	0.5	0.5	1.0	1.0	
Set Up Height New	41.32	40.88	40.72	40.84	40.85	40.37	
	39.96	39.69	39.38	39.50	39.79	39.33	
Set Up Height Worn	43.58	42.62	43.10	43.14	43.40	42.92	
(Set Up Height is calculated from the flywheel friction face.)							
Release Ratio	4.48	3.44	4.48	3.44	2.64	2.64	
Estimated Assembly Mass (Inc. Hub with Steel Main Pressure Plate) = 2.21 Kg							
Estimated Assembly Inertia (Inc. Hub with Steel Main Pressure Plate) = 0.00766 Kgm ²							
Estimated Driven Plate and Hub Inertia = 0.00095 Kgm ²							
PERFORMANCE SUFFIX							
	CM	CE	OM	OE	CH	OH	
For Reference							
Diaphragm Spring Rate	CRV	CRV	ORA	ORA	CRV	ORA	
Clutch Ratio	MHR	EHR	MHR	EHR	HIR	HIR	

MATERIAL SUFFIX	COVER MATERIAL	PRESSURE PLATE MATERIAL	CARBON / CARBON TYPE
01	ALUMINIUM	STEEL	STANDARD DUTY
02	ALUMINIUM	STEEL	HEAVY DUTY

FLYWHEEL TYPE		
	SUFFIX	COMMENTS
STANDARD FLAT FLYWHEEL	FN	FOR INSTALLATION DATA SEE SHEET 2
STANDARD STEPPED FLYWHEEL	SN	FOR INSTALLATION DATA SEE SHEET 2
FLAT FLYWHEEL WITH CFS	FC	FOR INSTALLATION DATA SEE SHEET 2 AND FLYWHEEL DETAILS SEE SHEET 3
STEPPED FLYWHEEL WITH CFS	SC	FOR INSTALLATION DATA SEE SHEET 2 AND FLYWHEEL DETAILS SEE SHEET 3

Sample AP Racing Part No. **CP7143-CE01-SN**

WEAR IN

THIS CLUTCH HAS BEEN DESIGNED FOR THE WEAR IN INDICATED ABOVE, WHICH MUST BE COMPENSATED FOR BY USING PRESSURE PLATE "SHIMS" FROM THE KITS DETAILED BELOW. THE MAXIMUM CARBON STACK WEAR FOR THIS ASSEMBLY IS 6.00mm

	CM & OM	CE & OE	CH & OH
STANDARD KIT 0.50 - 5.50 IN 0.50 STEPS	CP4502-9S (STEEL)	CP5253-3S (STEEL) CP5453-5T (TITANIUM)	CP4973-4S (STEEL)
INTERMEDIATE KIT 0.25 - 5.25 IN 0.50 STEPS	CP4502-10S (STEEL)	CP5253-2S (STEEL) CP5453-4T (TITANIUM)	CP4973-3S (STEEL)

Issue No	Alterations		
	Date & No.	Particulars	Zone
1	08/10/02 C2098	FIRST ISSUE	# JG
2	04/11/02 RAC10891	'04' MATERIAL OPTION REMOVED FROM DRAWING.	# JG
3	04/02/03	SEE SHEET 3	# JG
4	13/03/03	44.80 WAS 47.80	C1 JG
5	29/08/03	SEE SHEET 2	# JG
6	04/08/04 C2504	TITANIUM PRESSUREPLATE KITS ADDED TO CE AND OE ASSEMBLIES. MATERIAL SUFFIX ADDED TO THE STEEL KITS.	# #
7	05/10/04	SHEET 1: R1.25 MAX. ADDED. SHEET 2: 44.50" MIN. WAS 45.00"	D5 JG
8	18/10/04 C2551	SHEET 2: FLYWHEEL HOLE SIZE Ø8.020/8.005 WAS Ø8.15/8.05	# JG
9	10/07/08 C3446	SET UP HEIGHT TOLERANCE ADDED. OE SPEC MAX WORN: 43.14 WAS 42.14	# JG

SCALE 1:1 SHEET 1 OF 3

DRAWN: Jeremy Govan

APPROVED:

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TITLE: Ø140mm TRIPLE PLATE CARBON / CARBON CLUTCH ASSEMBLY

DRG NO. cp7143cd

A1 INSTALLATION DRAWING

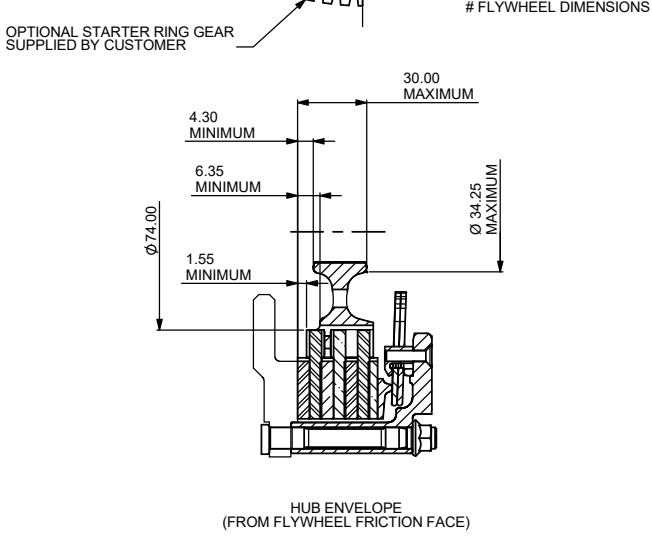
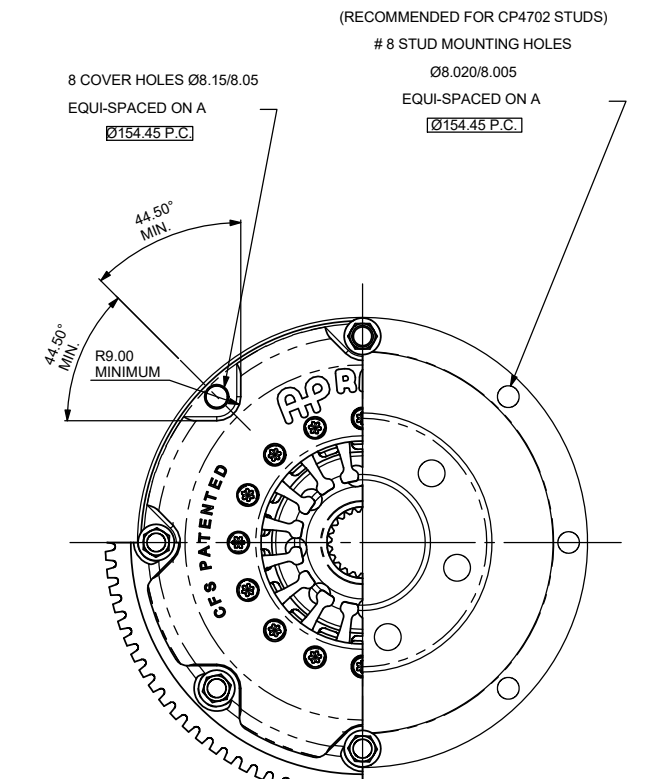
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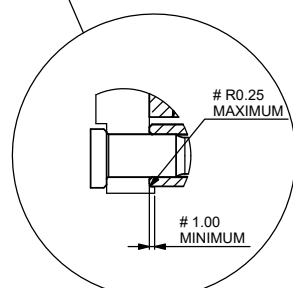
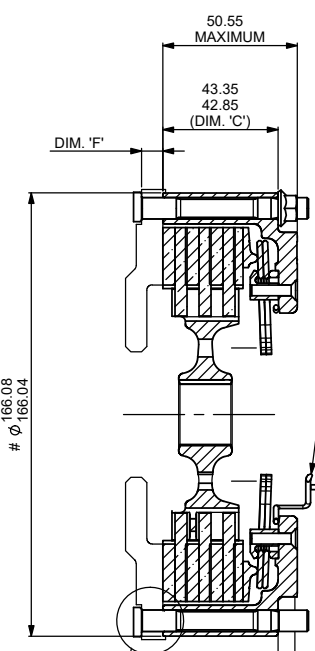
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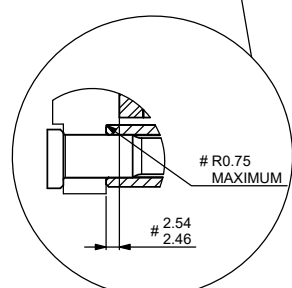
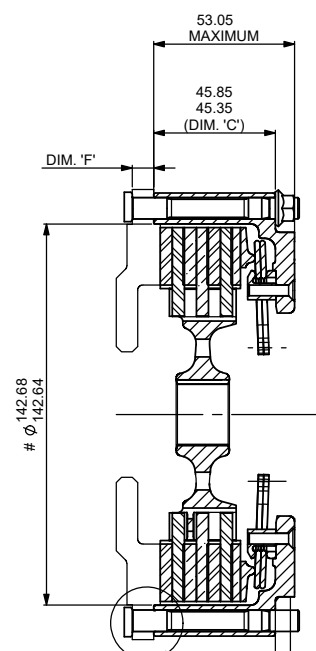
FLYWHEEL DIMENSIONS



FLAT FLYWHEEL - SUFFIX FN AND FC



STEPPED FLYWHEEL SUFFIX SN AND SC



INSTALLATION WIRE FOR USE WHEN INSTALLING THE CLUTCH TO A FLAT FLYWHEEL. TO ENSURE FLYWHEEL SIDE CARBON IS LOCATED ON THE COVER LUGS

THIS WIRE MUST BE REMOVED BEFORE USE

RECOMMENDED CLUTCH MOUNTING :
 (FOR ALL TYPES OF ASSEMBLY)
 M8 x 1.0, CP4702 FAMILY STUD AND K-LOCK NUT.
 TIGHTENING TORQUE : 19Nm (14 ft.lb)

LENGTH OF STUD REQUIRED TO BE CALCULATED THUS :
 STUD LENGTH = DIMENSIONS 'C' + 'F' + ('R' OPTIONAL) + NUT
 THIS CALCULATED LENGTH TO BE ROUNDED UP TO THE NEXT AVAILABLE STANDARD STUD LENGTH.

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3	04/02/03	SEE SHEET 3		#	JG
4	13/03/03	SEE SHEET 1		#	JG
5	29/08/03	50.55 MAX. WAS 41.50 MAX. 53.05 MAX. WAS 44.00 MAX.		8K 13K	JG
6	04/08/04 C2504	SEE SHEET 1		#	JG
7	05/10/04 C2551	SHEET 1: R1.25 MAX. ADDED. SHEET 2 : 44.50° MIN. WAS 45.00°		D5	JG
8	18/10/04 C2551	FLYWHEEL HOLE SIZE Ø8.020/8.005 WAS Ø8.15/8.05		#	JG
9	10/07/08 C3446	SET UP HEIGHT TOLERANCE ADDED. OE SPEC MAX WORN: 43.14 WAS 42.14		#	JG

SCALE 1:1 SHEET 2 OF 3

DRAWN: Jeremy Govan

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TITLE
 Ø140mm TRIPLE PLATE CARBON / CARBON CLUTCH ASSEMBLY

DRG NO. cp7143cd

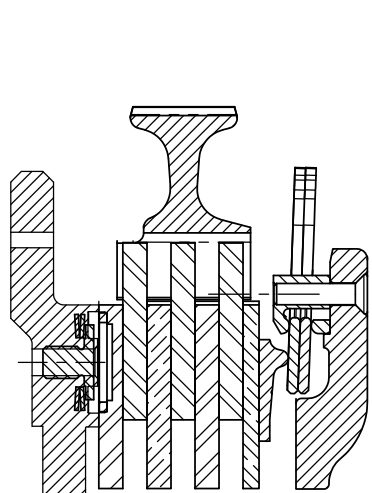
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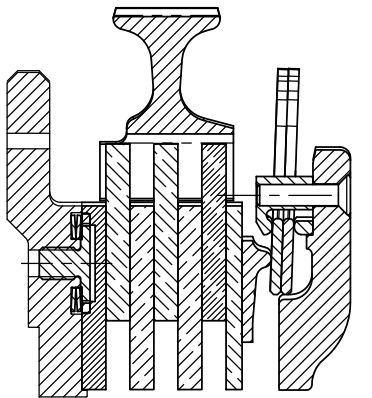
FIRST ANGLE PROJECTION

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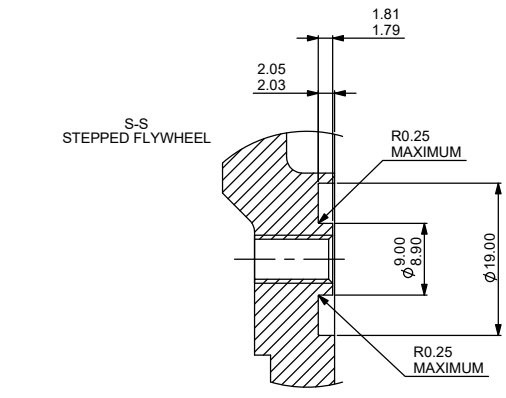
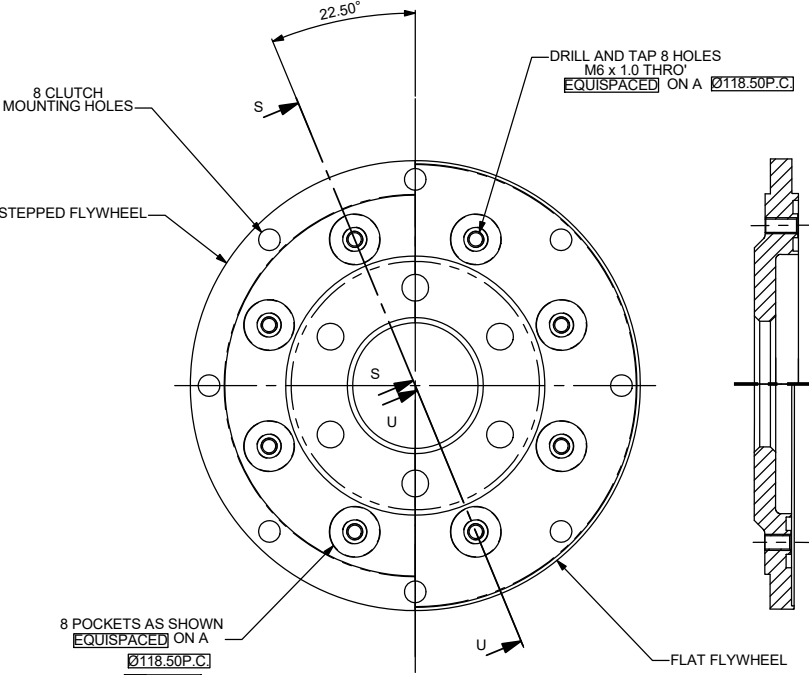
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SECTION SHOWING A STEPPED FLYWHEEL WITH CFS (CUSHION FLYWHEEL SYSTEM) PART NUMBER SUFFIX - SC

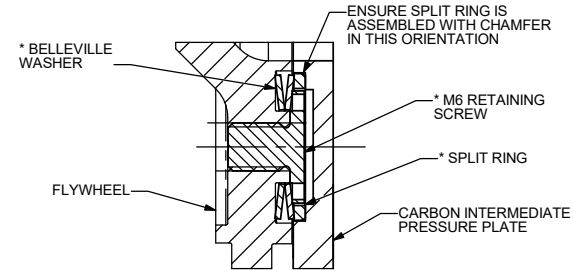


SECTION SHOWING A FLAT FLYWHEEL WITH CFS (CUSHION FLYWHEEL SYSTEM) PART NUMBER SUFFIX - FC



MODIFICATION REQUIRED TO FLAT AND STEPPED FLYWHEELS. (3 : 1)
 DIMENSIONS FOR A STEEL FLYWHEEL ONLY WHEN AN ALUMINIUM FLYWHEEL IS USED SEE DRAWING CP7142-3CD FOR ALTERNATIVE DIMENSIONS AND CFS KIT.

FLYWHEEL MODIFICATIONS REQUIRED TO ENABLE THE USE OF CFS PART NUMBER SUFFIX -SC AND -FC



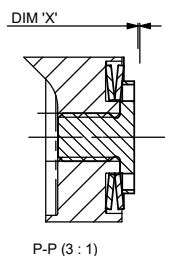
* CUSHION FLYWHEEL COMPONENTS AVAILABLE IN KIT FORM.

PART No. CP6323-4

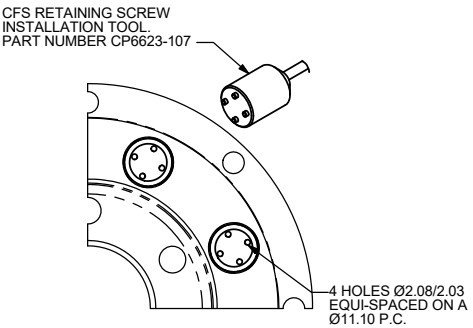
CP6323-4 Cushion Flywheel Kit Installation

- Machine 8 equispaced pockets and M6 x 1.0 tapped holes into the friction surface of the flywheel, to the size and position shown on opposite.
- Place the two Belleville washers supplied into each pocket in the orientation shown below.
- Apply Loctite 620 to threads and tighten the M6 x 1.0 screws onto the Belleville washers to a torque of 4Nm.
- Compress split washers using pliers and fit into recesses in bottom carbon/carbon pressure plate. Ensure split washers are flush with the friction face

CUSHIONING REPLACEMENT CRITERIA



WITH TIME AND USE THE CUSHIONING EFFECT WILL DETERIORATE AND COMPONENTS SHOULD BE SERVICED WITH THE ABOVE KIT WHEN EITHER THE BELLEVILLES BECOME LOOSE OR WHEN DIMENSION 'X' FALLS BELOW 0.2, TAKEN AS THE AVERAGE OF 4 EQUALLY SPACED MEASUREMENTS AROUND THE CIRCUMFERENCE OF THE BELLEVILLE.



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SCALE 1:1	SHEET 3 OF 3
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APPROVED	
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