

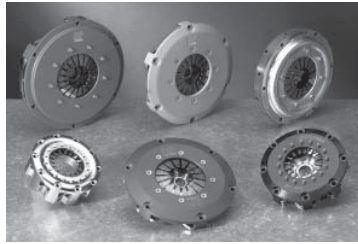
METALLIC RACE CLUTCH - General Information

INTRODUCTION.

For many years AP Racing has been the world leader in the design and manufacture of competition clutch systems. This section combines all sizes of Sintered and Cerametallic Race Clutches.

The clutches in this section are designated Sintered or

Cerametallic, sometimes called "Paddle" clutches, this refers to the type of driven plate that is used in the clutch. Both types of driven plate are available with a comprehensive range of spline sizes to suit a wide range of popular applications. A list of standard spline sizes can be found on page 133. Other splines can also be accommodated, please refer to AP Racing for details. This section also provides guidance & general information on clutch selection, types of driven plate and friction materials, plus basic technical information and installation details for each clutch.



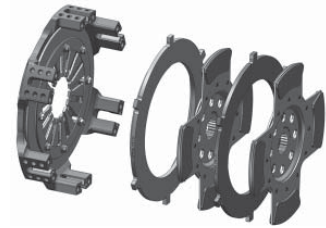
RACE CLUTCH RANGE DETAILS.

The table below provides quick reference information on the range of Race Clutches available from AP Racing. If your clutch requirements fall outside these examples, please contact AP Racing Technical Section who will be pleased to discuss your specific application.

Clutch Series No.	Clutch Description.						Press/Plate Ratio.
	Clutch Ø (mm)	No. of Driven Plates	Clutch Actuation Type.	Sintered / Cerametallic.	Drive Type.	No. Of Fixing Bolts.	
CP6073	115	3	Push	Sintered	Lug	10	EHR
CP6074	115	4	Push	Sintered	Lug	10	EHR
CP6001	140	1	Push	Sintered	Lug	8	HiR
CP6002	140	2	Push	Sintered	Lug	8	HiR
CP6003	140	3	Push	Sintered	Lug	8	HiR
CP6092	140	2	Push	Bonded	Lug	8	HiR
CP6013	140	3	Push	Sintered	Lug	8	HiR
CP6014	140	4	Push	Sintered	Lug	8	HiR
CP8773	140 (I Drive)	3	Push	Sintered	Lug	12	EHR or HiR
CP8804	140 (I Drive)	4	Pull	Sintered	Lug	12	HiR
CP2116	184	1	Push	Sintered	A Ring	6	HiR
CP7371	184	1	Push	Sintered	Lug	6	EHR
CP7381	184	1	Push	Cerametallic	Lug	6	EHR
CP2125	184	2	Push	Sintered	A Ring	6	HiR
CP2606	184	2	Push	Cerametallic	A Ring	6	HiR
CP7372	184	2	Push	Sintered	Lug	6	EHR
CP7382	184	2	Push	Cerametallic	Lug	6	HiR
CP7392	184	2	Push	Cerametallic	Lug	6	HiR
CP7972	184	2	Push	Cerametallic	Lug	6	HiR
CP2817	184	3	Push	Sintered	A Ring	12	HiR
CP7373	184	3	Push	Sintered	Lug	6	EHR
CP8022	184 (I Drive)	2	Push	Sintered	Lug	6	EHR
CP3745	200	1	Push	Cerametallic	Lug	6	HiR
CP3871	200	1	Push	Cerametallic	Lug	6	HiR
CP4560	200	1	Push	Cerametallic	Lug	6	HiR
CP5241	215	1	Push	Cerametallic	Lug	6	LoR
CP5242	215	2	Push	Cerametallic	Lug	6	LoR

'I' Drive Clutch System

AP Racing has developed a new design of clutch. Whilst conventional clutch designs typically feature external 'jaws' around the outer edges of the steel intermediate and main pressure plates, which can distort trapping the legs of the aluminium cover and cause the clutch to drag.



The 'I' Drive design features drive tenons, which locate into internal jaws in the lightweight aluminium clutch cover, eradicating the onset of clutch drag.

The 'I' Drive design has been proven via a program of extensive dyno tests which assessed durability in challenging conditions. During the test the 'I' Drive clutch maintained optimum performance under arduous operating conditions for significantly longer than the conventional clutch design. Our research shows the new clutch design to be five times more durable when subjected to the same test parameters.

With up to 10% less mass than conventional clutches, and with 15% less rotational momentum, 'I' Drive design also features an innovative 'wear plate', to combat wear on the drive legs of the lightweight aluminium clutch cover, where they interact with the steel plates. This problem, common to all sintered clutches with aluminium covers, is reduced by the use of thick wear 'pads' held captive on the drive faces of each of the aluminium cover drive-legs, which provide robust wear surfaces.

'I' Drive is already in competitive use, with Ø184mm (7¼") units running in WRC and Ø140mm (5½") units running in endurance and touring car applications. This is part of a programme of continuous improvement for the 'I' Drive design with the aim of introducing different variations throughout 2018.

SINTERED OR CERAMETALLIC ?

This information will aid the selection process in deciding whether a Sintered or Cerametallic Clutch assembly should be used.

■ **SINTERED:** - Primary used in race applications. / - Compact installation. / - Low inertia. / - Lightweight.

■ **CERAMETALLIC:** - Primarily used in rally / off road applications. / - Resistant to high energy input (i.e. long slip) / - Smoother engagement. / - Less prone to judder.

Note: Whilst it is recommended that Sintered Clutches are suitable for Race applications and Cerametallic Clutches for Rally or Off Road applications, both types are often used successfully in other areas.

■ **DIAMETER:** - There are five diameters to choose from: - Ø115mm (4½"), Ø140mm (5½"), Ø184mm (7¼"), Ø200mm and Ø215mm (8½"). A larger diameter increases torque capacity & reduces wear but increases inertia.

■ **MOMENT OF INERTIA:** - Rotating mass around the axis of clutch. Lower moment of inertia will result in faster engine response and gear changes.

■ **CLUTCH CONFIGURATION:** - There are two basic designs for both the Sintered and Cerametallic clutches, the traditional A-Ring type with an adaptor ring and separate cover or a cover with integral legs (Lug type).

The lug drive design allows friction dust to escape and reduces heat build up particularly when used with cerametallic drive plates. Sintered clutches are available in 1, 2, 3 and 4 plate versions, Cerametallics are available in both 1 and 2 plate versions. The dynamic torque capacity of each clutch depends upon the type of friction material, the number of driven plates, which diaphragm spring is fitted and the pressure plate ratio. A choice of springs is available, suitable for engine torques ranging from 148Nm (109lbs/ft) to 1272Nm (938lbs/ft) and for breakaway torque up to 1610Nm (1187lbs/ft).

■ COVERS

- **LUG TYPE:** - The Lug Drive Sintered Clutch range utilises a one piece Aluminium Alloy cover and lug design which has a low moment of inertia and runs cooler. All Ø115mm, Ø140mm and Ø200mm clutch covers are machined from billet. Ø184mm Clutch covers are machined from a high quality aluminium alloy casting.

- **'A' RING TYPE:** - The 'A' Ring Clutch type is only available in Ø184mm diameter. Push types are available with either a steel or aluminium alloy cover (functionally there is no difference between the steel and aluminium alloy cover) however, the aluminium alloy cover assembly gives a weight saving of approximately 300g over the steel version and has lower inertia.

■ **NUMBER OF DRIVEN PLATES:** - The number of plates required for an application will depend on engine torque, clutch diameter and clamp load. Generally a smaller diameter clutch will require more plates than a larger diameter unit. A Comprehensive range of splines is available to suit most transmission input shafts. Details on page 133. If the spline required is not in this table please contact AP Racing Technical Section.

METALLIC RACE CLUTCH - General Information

CLUTCH FUNCTIONALITY / TERMINOLOGY

- ▣ **CLAMP LOAD:-** Force applied by the diaphragm spring, on driven plates via main and intermediate pressure plates. Clamp load will vary depending on the diaphragm spring and pressure plate ratio used.
- ▣ **RELEASE LOAD:-** Force required on the diaphragm spring fingers to disengage the clutch.
- ▣ **PRESSURE PLATES:-** The main pressure plate provides the fulcrum point at which clamp load is transmitted, through its own friction face into the clutch. The pressure plates positioned between drive plates are known as intermediate pressure plates.
- ▣ **PUSH TYPE:-** The conventional and most popular type of diaphragm spring clutch where the release bearing is pushed against the diaphragm spring fingers (i.e. towards the flywheel) to release the clutch.
- ▣ **PULL TYPE:-** This type of clutch has the release bearing fulcrum inside the clutch and requires the diaphragm spring fingers to be pulled (i.e. away from the flywheel) in order to release the clutch. Although generally more complex in terms of release mechanism, pull types are more efficient in terms of clamp and release loads.
- ▣ **DIAPHRAGM SPRING:-** Belleville (or disc) spring with a series of integral release fingers on the inside diameter.

TECHNICAL SPECIFICATIONS

- **TORQUE CAPACITY:-** The torque capacity of the clutch is dependent upon the clutch diameter, the number and type of driven plates used, the load rating of the diaphragm spring and the pressure plate ratio (normally predetermined by AP Racing during the design process). The table below gives the recommended maximum engine torque capacity for all the available combinations of these factors for both conventional push type clutches and pull type clutches. The number of driven plates used in the clutch will to a large extent be determined by the torque capacity the clutch will be required to accommodate, but operational requirements must be taken into consideration. Increasing the number of driven plates decreases the wear rate and hence the interval before the driven plates will require replacing, but will also increase the overall height, weight and the moment of inertia of the clutch package.

Clutch Type.		Diaphragm Spring Load Rating Nm (lbft)						
		GLD (Gold).	SLV (Silver).	CRV (Double Grey).	ORA (Orange).	GRN (Green).	GRY (Grey).	
CONVENTIONAL	SINTERED	Ø115mm 3 Plate	878 (647)	664 (490)	499 (368)			
		Ø115mm 4 Plate	1014 (747)	882 (651)	676 (498)	588 (434)		
	PUSH	CERAMETALLIC	Ø140mm Single Plate			210 (155)	157 (116)	
			Ø140mm 2 Plate			420 (310)	314 (232)	
		Ø140mm 3 Plate			630 (465)	471 (348)		
		Ø140mm 4 Plate			840 (620)	628 (464)		
		Ø184mm Single Plate A-Ring			424 (313)	266 (196)	164 (121)	
		Ø184mm Single Plate			424 (313)	266 (196)	164 (121)	
		Ø184mm 2 Plate A-Ring			848 (625)	532 (392)	327 (241)	
		Ø184mm 2 Plate			848 (625)	532 (392)	327 (241)	
		Ø184mm 3 Plate A-Ring			978 (721)	631 (465)	394 (291)	
		Ø184mm 3 Plate			1272 (938)	798 (588)	491 (362)	
	PULL	SINTERED	Ø140mm 2 Plate			398 (294)	298 (220)	
			Ø184mm Single Plate			413 (305)	259 (191)	160 (118)
Ø184mm 2 Plate A-Ring					636 (469)	421 (310)	263 (194)	
Ø184mm 2 Plate					636 (469)	421 (310)	263 (194)	
Ø200mm Single Plate					343 (253)		301 (222)	
Ø215mm Single Plate					580 (427)		425 (314)	
			842 (621)			564 (416)		

MAINTENANCE

Regular inspection and maintenance is essential to maintain optimum clutch performance. Excessive heat generation (often witnessed by discolouration of steel pressure plates) due to prolonged or repeated slip can result in loss of diaphragm spring load as well as driven plate damage. In such cases the clutch should be replaced or reconditioned. Pressure plate working faces should be checked for flatness using a straight edge and feeler gauge. 'Out of flat' pressure plates or driven plates can result in difficulties releasing the clutch and consequently drag. Pressure plates should be replaced when worn, or more than 0.10mm (0.004") out of flat. Replace driven plates if there are signs of damage or when thickness has been reduced to the figures given in the technical information for each individual clutch.

PART NUMBERS

A new part numbering system has been introduced on some of the clutch series in this catalogue. The table below provides a brief explanation of the make up of the numbers.

Clutch series No.

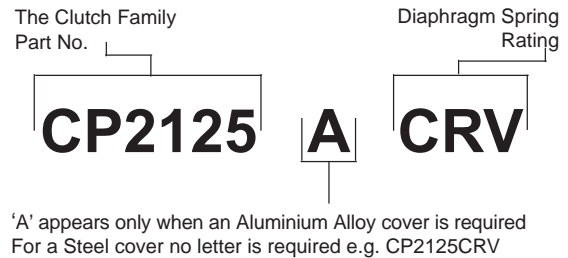
CP7372 - O E 90 - SF

Diaphragm Spring.	Ratio.	Driven Plate Type.	Flywheel Type.
D = (gold).	E = EHR (Extra High Ratio).	80 = Cerametallic Style Assemblies 7.11mm Thick.	SF = Stepped Flywheel.
S = (Silver).			
C = CRV (Double grey).			
O = ORA (Orange).	H = HiR (High Ratio).	90 = Sintered Style Assemblies 2.63mm Thick.	FF = Flat Flywheel.
N = GRN (Green).			
G = GRY (Grey).			

ORDERING

When ordering an AP Racing Clutch please quote the correct part number for the assembly required wherever possible. The driven plate(s) must be ordered separately under their own part number. The types of driven plate design suitable for that particular race clutch assembly are detailed on pages 104 to 130. However not all popular spline variations are listed in these sections, please refer to page 133, where a more comprehensive list of driven plate spline sizes can be found. If the spline size you require does not appear in this list please contact AP Racing for information.

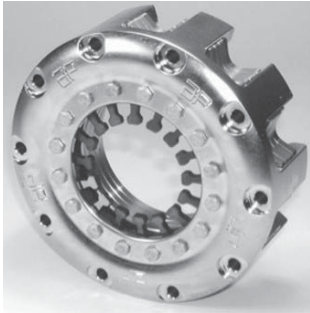
Examples & Explanation of Part Numbers:-



METALLIC RACE CLUTCH - Ø115mm - CP6073

CP6073.

Ø115mm, 3 Plate, Sintered.



APPLICATIONS.

- ▣ Indycar Series.
- ▣ IRL.

FEATURES.

- ▣ 3 Plate.
- ▣ Push type.
- ▣ Stepped flywheel fixing. - inner diameter location, with optional external spigot location.
- ▣ One piece cover and lugs. - machined from billet. Provides rigidity and strength and cooler running, allows dust and debris to escape.
- ▣ Heavy duty. - suitable for very high rpm engines.
- ▣ Lightweight and durable.
- ▣ Low wear rate.
- ▣ Individually tested. - match machined, balanced and clutch load and function.
- ▣ CP4703 mounting studs available.
- ▣ Interchangeable with CP8153 Carbon/Carbon Clutch

PART NUMBERS.

- CP6073-CE90-SF.
- CP6073-DS90-SF.
- CP6073-SE90-SF.

TECHNICAL SPECIFICATIONS

Torque Capacity.	CP6073-DS90-SF	878Nm (647lbf)	
	CP6073-SE90-SF	664Nm (490lbf)	
	CP6073-CE90-SF	499Nm (368lbf)	
Release Loads.	Max peak worn.	At travel.	
	CP6073-DS90-SF	550daN	400daN
	CP6073-SE90-SF	470daN	340daN
	CP6073-CE90-SF	367daN	268daN
Set-up Height. (New)			
CP6073-DS90-SF	33.52mm / 32.38mm		
CP6073-SE90-SF	33.69mm / 32.11mm		
CP6073-CE90-SF	31.87mm / 30.63mm		
Set-up Height. (Worn)			
CP6073-DS90-SF	36.08mm		
CP6073-SE90-SF	35.93mm		
CP6073-CE90-SF	34.50mm		
Clutch "Wear In".		0.50mm	
Weight. (including driven plates)		2.62Kg	
Complete Assy Inertia.		0.0055Kg ^{m2}	
Driven Plate & Hub Inertia.		0.0001Kg ^{m2}	
Release Bearing.		CP3457-11	



DRIVEN PLATES.

Thickness.	New = 2.63mm	Worn = 2.38mm
D/Plate Types.	Part Number.	Spline Details.
Back to Back.	CP5004-6FM4 x 3	7/8" x 20
	CP5004-8FM4 x 3	1.16" x 26
Nested (Longer spline length)	CP6074-18 FM4 x 2 (offset hub).	1.16" x 26
	CP6074-19 FM4 x 1 (Flywheel side hub).	

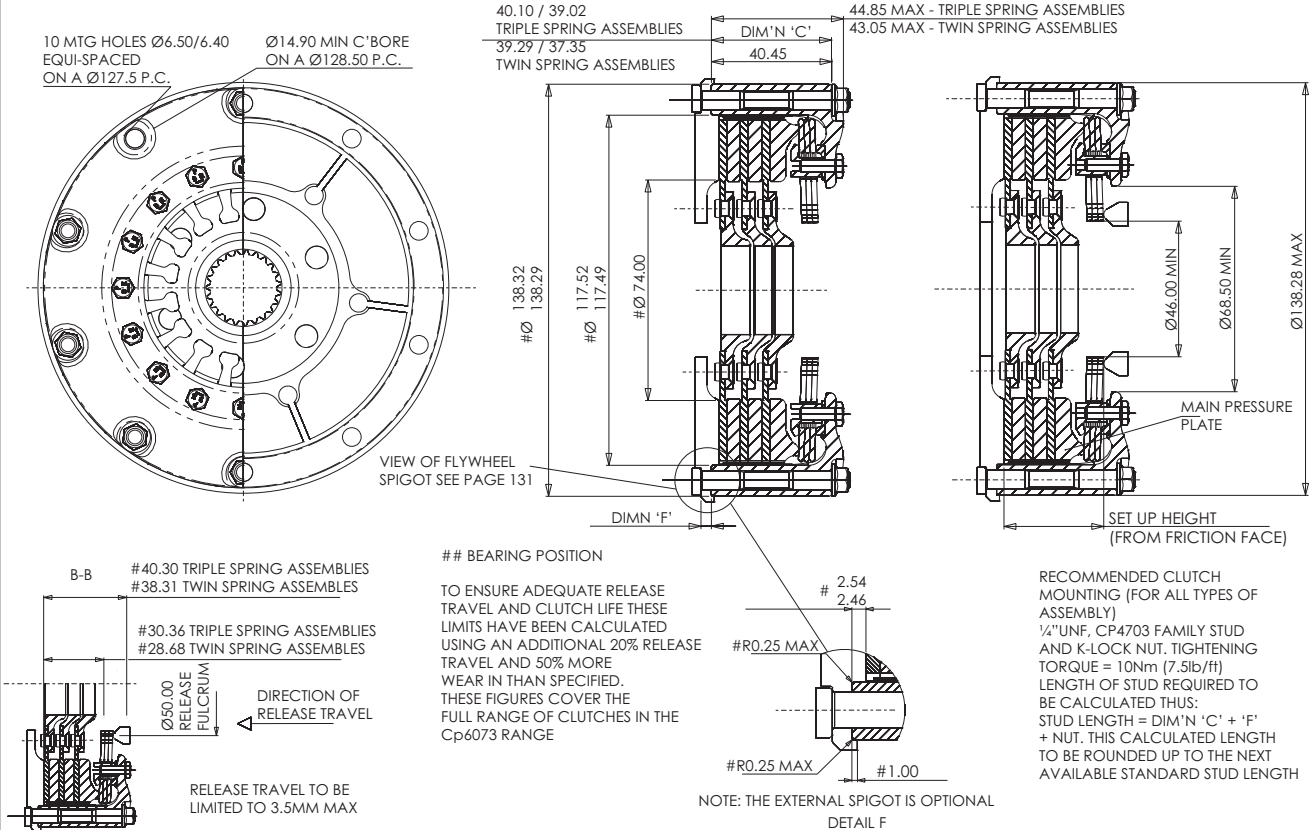
Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

Wear Clips.	CP5303-102
Main Pressure Plate.	CP6074-125
Intermediate Pressure Plates.	CP6074-124

INSTALLATION DRAWING



Note: Drawing for guidance only. Download latest issue installation drawing from www.apracing.com

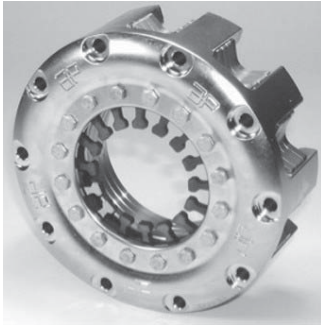


Visit www.apracing.com for full & up to date product range

METALLIC RACE CLUTCH - Ø115mm - CP6074

CP6074.

Ø115mm, 4 Plate, Sintered.



APPLICATIONS.

- ▣ Indycar Series.
- ▣ IRL.

FEATURES.

- ▣ 4 Plate.
- ▣ Push Type.
- ▣ Stepped flywheel fixing. - inner diameter location, with optional external spigot location.
- ▣ One piece cover and lugs. - machined from billet. Provides rigidity and strength and cooler running, allows dust and debris to escape.
- ▣ Heavy Duty. - suitable for very high rpm engines.
- ▣ Lightweight and durable.
- ▣ Low wear rate.
- ▣ Individually tested. - match machined, balanced and clutch load and function.
- ▣ CP4703 mounting studs available.

PART NUMBERS.

- CP6074-CE90-SF.
- CP6074-DE90-SF.
- CP6074-SE90-SF.

TECHNICAL SPECIFICATIONS

Torque Capacity.	CP6074-DE90-SF	1014Nm (747lbft)	
	CP6074-SE90-SF	882Nm (651lbft)	
	CP6074-CE90-SF	676Nm (498lbft)	
Release Loads.	Max peak worn.	At travel.	
	CP6074-DE90-SF	550daN	400daN
	CP6074-SE90-SF	470daN	340daN
CP6074-CE90-SF	367daN	268daN	
Set-up Height. (New)			
CP6074-DE90-SF	40.94mm / 39.56mm		
CP6074-SE90-SF	40.64mm / 39.25mm		
CP6074-CE90-SF	39.13mm / 37.78mm		
Set-up Height. (Worn)			
CP6074-DE90-SF	43.54mm		
CP6074-SE90-SF	43.25mm		
CP6074-CE90-SF	41.72mm		
Clutch "Wear In".		0.50mm	
Weight. (including driven plates)		2.75Kg	
Complete Assy Inertia.		0.0065Kgm ²	
Driven Plate & Hub Inertia.		0.00013Kgm ²	
Release Bearing.		CP3457-11	

DRIVEN PLATES.

Thickness.	New = 2.63mm	Worn = 2.44mm
D/Plate Types.	Part Number.	Spline Details.
Back to Back.	CP5004-6FM4 x 4	7/8" x 20
	CP5004-8FM4 x 4	1.16" x 26
Nested (Longer spline length)	CP6074-18 FM4 x 3 (offset hub).	1.16" x 26
	CP6074-19 FM4 x 1 (Flywheel side hub).	

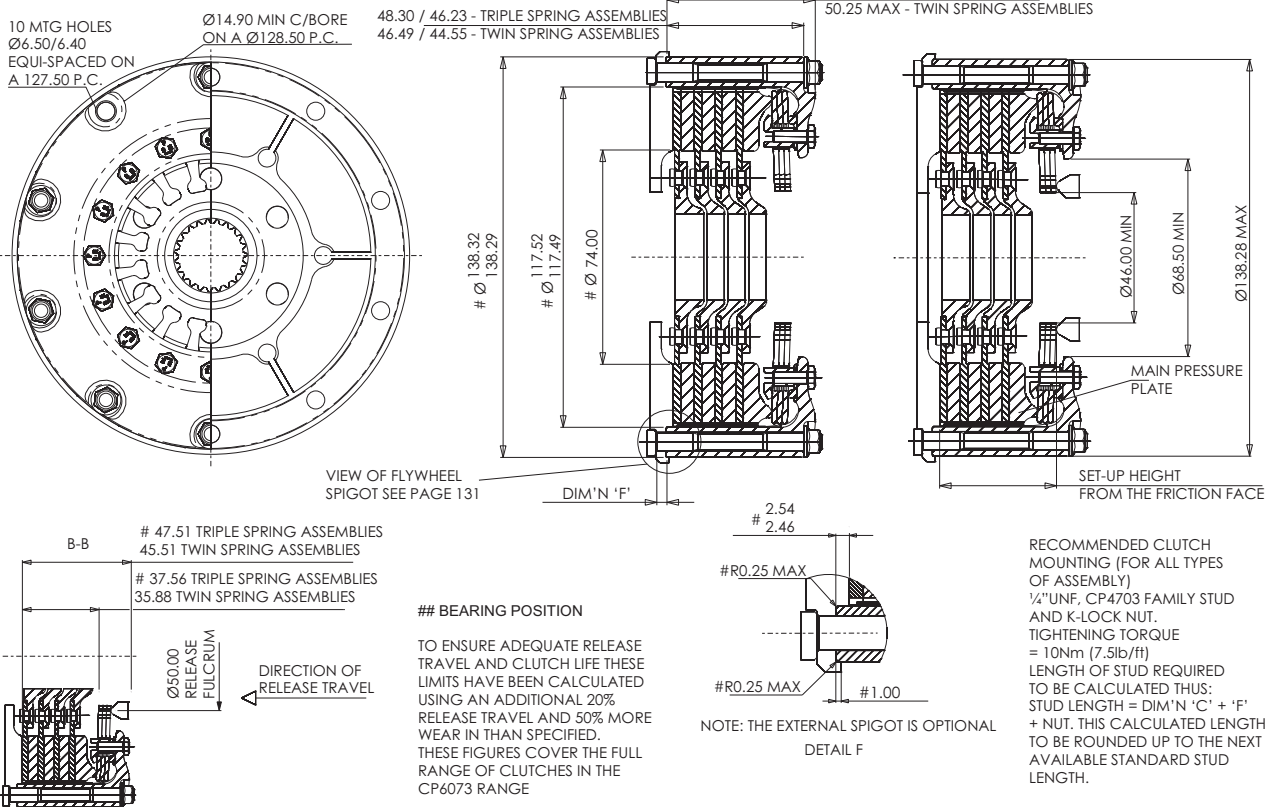
Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

Wear Clips.	CP5304-104
Main Pressure Plate.	CP6074-125
Intermediate Pressure Plates.	CP6074-124

INSTALLATION DRAWING



Note: Drawing for guidance only. Download latest issue installation drawing from www.apracing.com

METALLIC RACE CLUTCH - Ø140mm - CP6001

CP6001.

Ø140mm, Single Plate, Sintered.



APPLICATIONS.

- ▣ General Use.

FEATURES.

- ▣ Single plate.
- ▣ Stepped or flat flywheel fixing. - stepped is inner diameter location, with optional external spigot location.
- ▣ One piece cover and lugs. - machined from billet. Provides rigidity and strength and cooler running, allows dust and debris to escape.
- ▣ Black hard anodised.
- ▣ Stainless steel wear clips.
- ▣ Low wear rate.
- ▣ Individually tested. - match machined, balanced and clutch load and function.
- ▣ CP4702 mounting studs available.

PART NUMBERS.

- ▣ For Stepped Flywheels.
 - CP6001-CH90-SF.
 - CP6001-OH90-SF.
- ▣ For Flat Flywheels.
 - CP6001-CH90-FF.

TECHNICAL SPECIFICATIONS

Torque Capacity.	CP6001-CH90-SF	210Nm (155lbf)	
	CP6001-OH90-SF	157Nm (116lbf)	
Release Loads.		Max peak worn.	At travel.
	CP6001-CH90-SF	450daN	300daN
	CP6001-OH90-SF	375daN	250daN
Set-up Height. (New)	CP6001-CH90-SF	21.63mm	
	CP6001-OH90-SF	21.37mm	
Set-up Height. (Worn)	CP6001-CH90-SF	24.35mm	
	CP6001-OH90-SF	24.13mm	
Clutch "Wear In".		0.75mm	
Weight. (including driven plates)		1.8Kg	
Complete Assy Inertia.		0.00615Kg ^{m2}	
Driven Plate & Hub Inertia.		0.00065Kg ^{m2}	
Release Bearings.	Outer race rotates	CP3457-1 or -9	
	Inner race rotates	CP3457-11	



DRIVEN PLATES.

Thickness.	New = 2.63mm	Worn = 1.84mm
D/Plate Types.	Part Number.	Spline Details.
Back to Back. Extended nose length.	CP3407-36FM3 x 1	1.00" x 23
	CP3407-26FM3 x 1	7/8" x 20
	CP3407-8FM3 x 1	29.0mm x 10
	CP3407-40FM3 x 1	1.16" x 26

Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

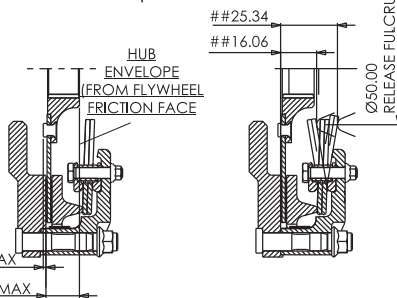
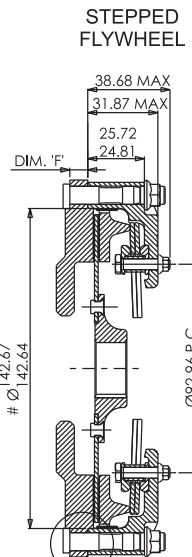
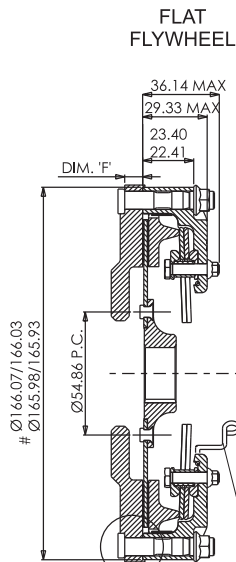
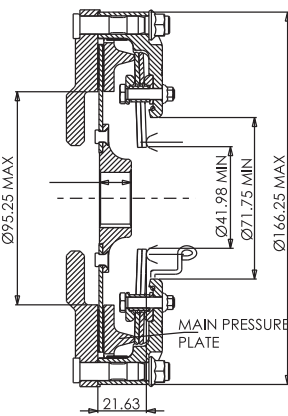
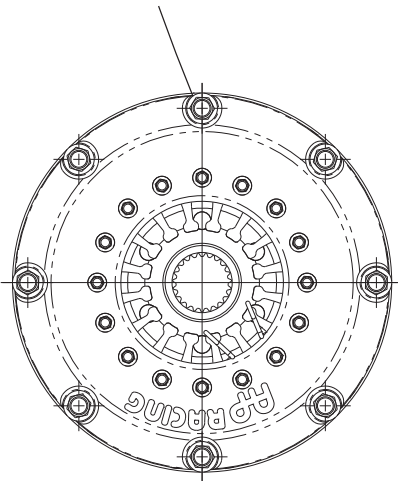
SPARE PARTS.

Wear Clips.	CP6001-102
Main Pressure Plate.	CP4124-103

INSTALLATION DRAWING

8 MOUNTING HOLES Ø8.15/8.05 TO SUIT M8 X 1.0 MOUNTING STUDS EQUISPACED ON A Ø154.45 P.C. MIN C'BORE Ø17.20

RECOMMENDED CLUTCH MOUNTING (FOR ALL TYPES OF ASSEMBLY M8X1.0 CP4702 STUD FAMILY AND K-LOCK NUT TIGHTENING TORQUE 19Nm (14 lb/ft) LENGTH OF STUD REQUIRED TO BE CALCULATED THUS STUD LENGTH = 'C' + 'F' + ('R' OPTIONAL) + NUT.



DIRECTION OF RELEASE TRAVEL
RELEASE TRAVEL TO BE LIMITED TO 3.80mm MAX

BEARING POSITION TO ENDURE ADEQUATE RELEASE TRAVEL AND CLUTCH LIFE THESE LIMITS HAVE BEEN CALCULATED USING AN ADDITIONAL 20% RELEASE TRAVEL AND 50% MORE WEAR IN THAN SPECIFIED. THESE FIGURES COVER THE FULL RANGE OF CLUTCHES IN THE CP6001 FAMILY.

INSTALLATION WIRE FOR USE WHEN INSTALLING A FLAT FLYWHEEL VERSION THIS WIRE MUST BE REMOVED BEFORE USE

Note: Drawing for guidance only. Download latest issue installation drawing from www.apracing.com

METALLIC RACE CLUTCH - Ø140mm - CP6002

CP6002.

Ø140mm, 2 Plate, Sintered.



APPLICATIONS.

- ▣ General Use.

FEATURES.

- ▣ 2 Plate.
- ▣ Push type.
- ▣ Stepped or flat flywheel fixing. - stepped is inner diameter location, with optional external spigot location.
- ▣ One piece cover and lugs. - machined from billet. Provides rigidity and strength and cooler running, allows dust and debris to escape.
- ▣ Black hard anodised.
- ▣ Stainless steel wear clips.
- ▣ Low wear rate.
- ▣ Individually tested. - match machined, balanced and clutch load and function.
- ▣ CP4702 mounting studs available.

PART NUMBERS.

- ▣ For Stepped Flywheels.
 - CP6002-CH90-SF.
 - CP6002-OH90-SF.
 - CP6002-BH90-SF.
- ▣ For Flat Flywheels.
 - CP6002-CH90-FF.

TECHNICAL SPECIFICATIONS

Torque Capacity.	CP6002-CH90-SF	420Nm (310lbf)	
	CP6002-OH90-SF	314Nm (232lbf)	
	CP6002-BH90-SF	218Nm (161lbf)	
Release Loads.	Max peak worn.	At travel.	
	CP6002-CH90-SF	450daN	300daN
	CP6002-OH90-SF	375daN	250daN
CP6002-BH90-SF	210daN	140daN	
Set-up Height. (New)			
CP6002-CH90-SF	28.83mm		
CP6002-OH90-SF	28.57mm		
CP6002-BH90-SF	26.80mm		
Set-up Height. (Worn)			
CP6002-CH90-SF	31.58mm		
CP6002-OH90-SF	31.32mm		
CP6002-BH90-SF	29.56mm		
Clutch "Wear In".		0.75mm	
Weight. (including driven plates)		2.50Kg	
Complete Assy Inertia.		0.0086Kgm ²	
Driven Plate & Hub Inertia.		0.00013Kgm ²	
Release Bearings.	Outer race rotates	CP3457-1 or -9	
	Inner race rotates	CP3457-11	

DRIVEN PLATES.

Thickness.	New = 2.63mm	Worn = 2.21mm
D/Plate Types.	Part Number.	Spline Details.
Back to Back.	CP3414-18FM3 x 2	7/8" x 20
	CP3414-10FM3 x 2	1.00" x 23
Back to Back (Extended nose length)	CP3407-26FM3 x 2	7/8" x 20
	CP3407-36FM3 x 2	1.00" x 23

Other splines available see page 133.

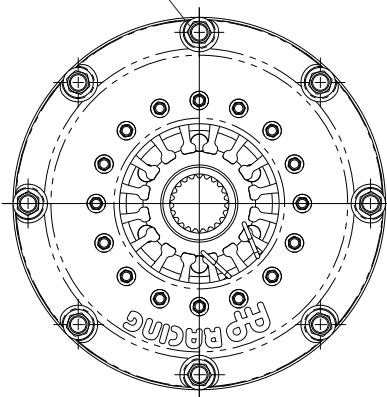
Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

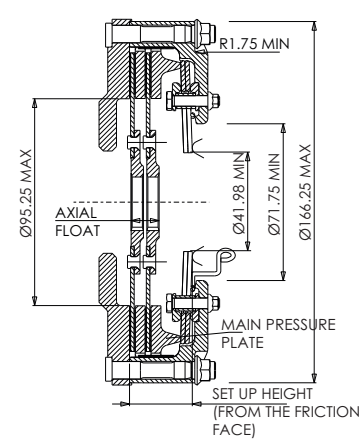
Wear Clips.	CP6002-102
Main Pressure Plate.	CP4124-103
Intermediate Pressure Plates.	CP4124-102

INSTALLATION DRAWING

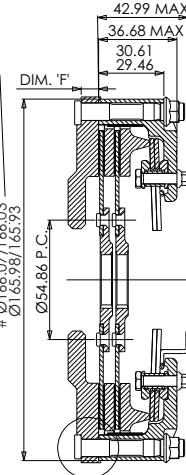
8 MOUNTING HOLES
Ø8.15/8.05 TO SUIT M8 x 1.0
MOUNTING STUDS EQUIPPED ON A
Ø154.45 P.C. MIN C/BORE Ø17.20



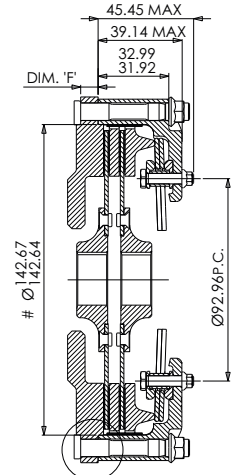
THE CLUTCH SPIGOT HAS BEEN DESIGNED TO BE THIS DIAMETER WHEN BOLTED TO THE FLYWHEEL BEFORE FITTING (WITH THE INSTALLATION WIRE IN PLACE) THIS DIAMETER MAY BE SLIGHTLY REDUCED



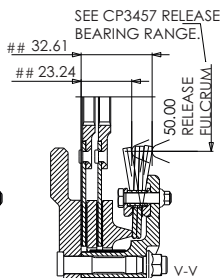
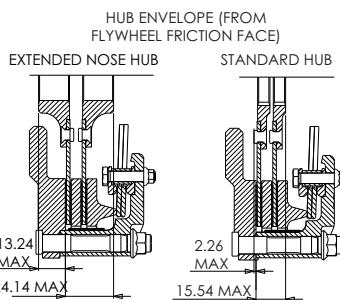
FLAT FLYWHEEL



STEPPED FLYWHEEL

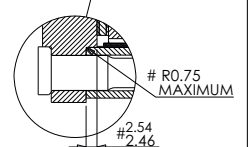
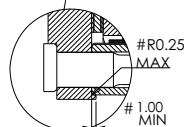


NOTE: EACH HUB VERSION CAN BE USED WITH EITHER FLAT OR STEPPED FLYWHEEL CLUTCHES



RECOMMENDED CLUTCH MOUNTING (FOR ALL TYPES OF ASSEMBLY M8X1.0 CP4702 STUD FAMILY AND K-LOCK NUT TIGHTENING TORQUE 19Nm (14 lb/ft) LENGTH OF STUD REQUIRED TO BE CALCULATED THUS STUD LENGTH = 'C' + 'F' + ('R' OPTIONAL) + NUT.

INSTALLATION WIRE FOR USE WHEN INSTALLING A FLAT FLYWHEEL VERSION. TO ENSURE FLYWHEEL SIDE CARBON IS LOCATED ON THE COVER LUGS THIS WIRE MUST BE REMOVED BEFORE USE



Note: Drawing for guidance only. Download latest issue installation drawing from www.apracing.com

METALLIC RACE CLUTCH - Ø140mm - CP6003

CP6003.

Ø140mm, 3 Plate, Sintered.



APPLICATIONS.

- ▣ General Use.

FEATURES.

- ▣ 3 Plate.
- ▣ Push type.
- ▣ Stepped or flat flywheel fixing. - stepped is inner diameter location, with optional external spigot location.
- ▣ One piece cover and lugs. - machined from billet. Provides rigidity and strength and cooler running, allows dust and debris to escape.
- ▣ Black hard anodised.
- ▣ Stainless steel wear clips.
- ▣ Low wear rate.
- ▣ Individually tested. - match machined, balanced and clutch load and function.
- ▣ CP4702 mounting studs available.

PART NUMBERS.

- ▣ For Stepped Flywheels.
 - CP6003-CH90-SF.
 - CP6003-OH90-SF.
- ▣ For Flat Flywheels.
 - CP6003-CH90-FF.

TECHNICAL SPECIFICATIONS

Torque Capacity.	CP6003-CH90-SF	630Nm (465lbf)
	CP6003-OH90-SF	471Nm (348lbf)
Release Loads.	Max peak worn.	At travel.
	CP6003-CH90-SF	450daN
CP6003-OH90-SF	375daN	250daN
Set-up Height. (New)	CP6003-CH90-SF	36.04mm
	CP6003-OH90-SF	35.78mm
Set-up Height. (Worn)	CP6003-CH90-SF	38.85mm
	CP6003-OH90-SF	38.59mm
Clutch "Wear In".		0.75mm
Weight. (including driven plates)		3.3Kg
Complete Assy Inertia.		0.0102Kgm ²
Driven Plate & Hub Inertia.		0.00196Kgm ²
Release Bearings.	Outer race rotates	CP3457-1 or -9
	Inner race rotates	CP3457-11

DRIVEN PLATES.

Thickness.	New = 2.63mm	Worn = 2.34mm
D/Plate Types.	Part Number.	Spline Details.
	CP3414-10FM3 x 3	1.00" x 23
	CP3414-18FM3 x 3	7/8" x 20
	CP3414-19FM3 x 3	1.16" x 26
CP3414-37FM3 x 3	1.25" x 10	

Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

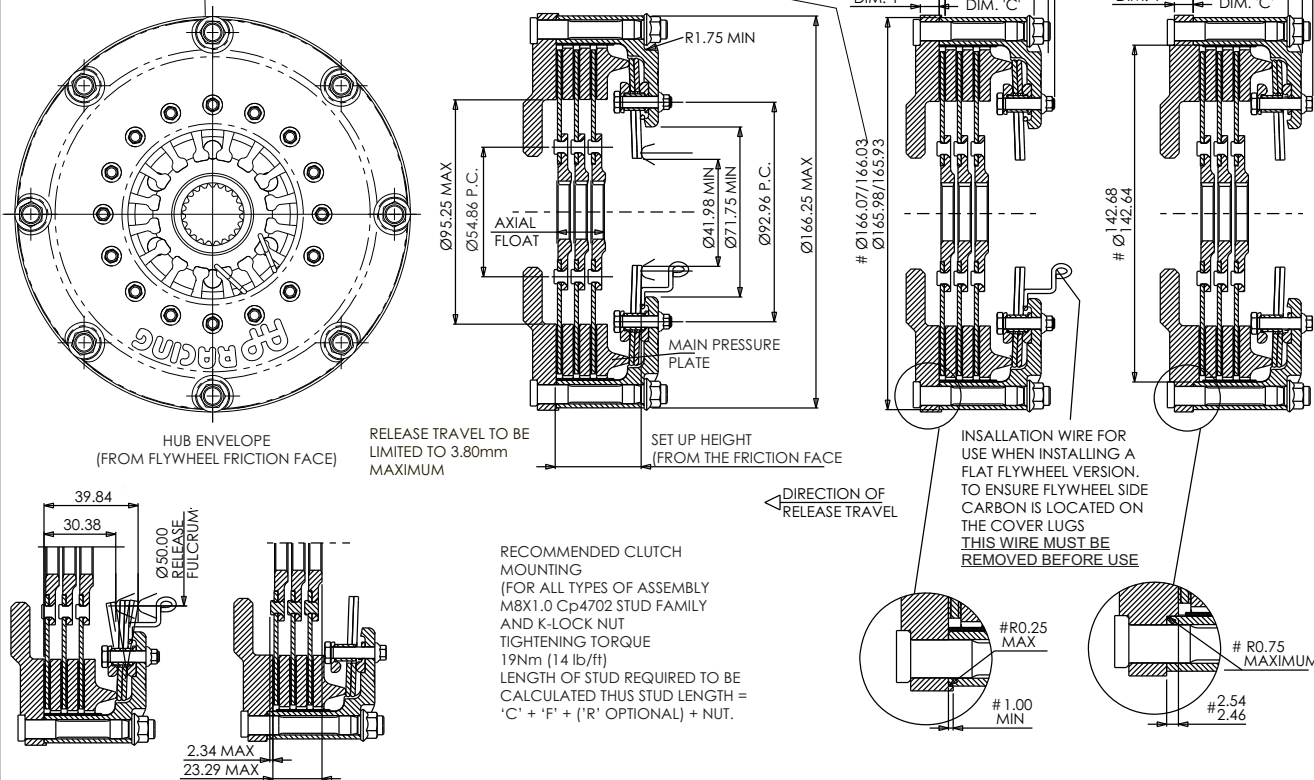
SPARE PARTS.

Wear Clips.	CP4073-123
Main Pressure Plate.	CP4124-103
Intermediate Pressure Plates.	CP4124-102

INSTALLATION DRAWING

8 MOUNTING HOLES Ø8.15/8.05 TO SUIT M8 x 1.0 MOUNTING STUDS EQUISPACED ON A Ø154.45 P.C. MIN C/BORE Ø17.20

THE CLUTCH SPIGOT HAS BEEN DESIGNED TO BE THIS DIAMETER WHEN BOLTED TO THE FLYWHEEL. BEFORE FITTING (WITH THE INSTALLATION WIRE IN PLACE) THIS DIAMETER MAY BE SLIGHTLY REDUCED



Note: Drawing for guidance only. Download latest issue installation drawing from www.apracing.com



Visit www.apracing.com for full & up to date product range

CP6013.

Ø140mm, 3 Plate, Sintered.



APPLICATIONS.

- Endurance.

FEATURES.

- 3 Plate.
- Push type.
- Stepped flywheel fixing. - inner diameter location, with optional external spigot location.
- Heavy duty. - large area facings.
- One piece cover and lugs. - machined from billet. Provides rigidity and strength and cooler running, allows dust and debris to escape.
- Black hard anodised.
- Stainless steel wear clips.
- Low wear rate.
- Individually tested. - match machined, balanced and clutch load and function.
- CP4702 mounting studs available.
- Supercedes CP4123 & CP4073 clutch families.

Note - 'I' Drive option available as a direct replacement for CP6013 under CP8333 part number family.

PART NUMBERS.

- 3 Plate Clutch Stepped flywheel.
 - CP6013-CH90-SF.
 - CP6013-OH90-SF.

TECHNICAL SPECIFICATIONS

Torque Capacity.	CP6013-CH90-SF	603Nm (444lbf)
	CP6013-OH90-SF	450Nm (322lbf)
Release Loads.	Max peak worn.	At travel.
	CP6013-CH90-SF	540daN
CP6013-OH90-SF	400daN	250daN
Set-up Height. (New)	CP6013-CH90-SF	39.37 / 37.70mm
	CP6013-OH90-SF	39.11 / 37.44mm
Set-up Height. (Worn)	CP6013-CH90-SF	42.01mm
	CP6013-OH90-SF	41.75mm
Clutch "Wear In" - CP6013-CH		1.00mm
Clutch "Wear In" - CP6013-OH		0.75mm
Weight. (including driven plates)	Back to Back	3.63Kg
	Gear Driven	3.78Kg
Complete Assy Inertia.	Back to Back	0.01264Kgm ²
	Gear Driven	0.01287Kgm ²
Driven Plate & Hub Inertia.	Back to Back	0.0020Kgm ²
	Gear Driven	0.0022Kgm ²
Release Bearings.	Outer race rotates	CP3457-1
	Inner race rotates	CP3457-11

DRIVEN PLATES.

Thickness - For 1mm 'Wear In'	New = 2.63mm	Worn = 2.29mm
D/Plate Types.	Part Number.	Spline Details.
Back to Back. (Large area)	CP3683-3FM3 x 3	1.00" x 23
	CP3683-4FM3 x 3	7/8" x 20
Back to Back. (Longer spline length)	CP6014-9 FM3 x 2 (offset hub).	1.16" x 26
	CP6014-10 FM3 x 1 (Flywheel side hub).	
Gear Driven.	CP4073-4FM3 x 1 (hub)	1.00" x 23
	CP4074-6FM3 x 2 Slider plates.	

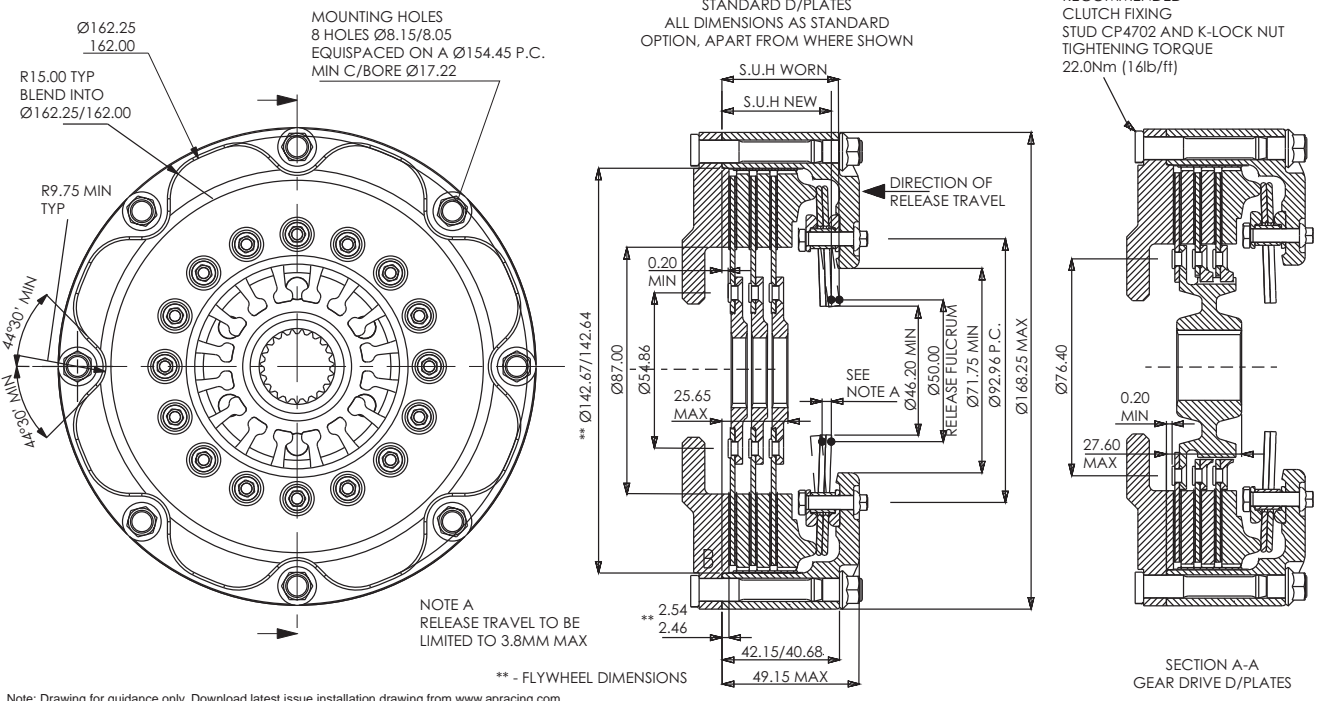
Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

Wear Clips.	CP4073-123
Main Pressure Plate.	CP4074-104
Intermediate Pressure Plates.	CP4074-103

INSTALLATION DRAWING



METALLIC RACE CLUTCH - Ø140mm - CP6014

CP6014.

Ø140mm, 4 Plate, Sintered.



APPLICATIONS.

- Endurance.

FEATURES.

- 4 Plate.
- Push type.
- Stepped flywheel fixing.
 - inner diameter location, with optional external spigot location.
- Heavy duty.
 - large area facings.
- One piece cover and lugs.
 - machined from billet. Provides rigidity and strength and cooler running, allows dust and debris to escape.
- Black hard anodised.
- Stainless steel wear clips.
- Low wear rate.
- Individually tested.
 - match machined, balanced and clutch load and function.
- CP4702 mounting studs available.
- Supersedes CP4124 & CP4074 clutch families.

PART NUMBERS.

- 3 Plate Clutch Stepped flywheel.
 - CP6014-CH90-SF.
 - CP6014-OH90-SF.

TECHNICAL SPECIFICATIONS

Torque Capacity.	CP6014-CH90-SF	804Nm (592lbf)
	CP6014-OH90-SF	600Nm (442lbf)
Release Loads.	Max peak worn.	At travel.
	CP6014-CH90-SF	540daN
CP6014-OH90-SF	400daN	250daN
Set-up Height. (New)	CP6014-CH90-SF	46.64 / 44.84mm
	CP6014-OH90-SF	46.38 / 44.58mm
Set-up Height. (Worn)	CP6014-CH90-SF	49.28mm
	CP6014-OH90-SF	49.02mm
Clutch "Wear In" - CP6014-CH		1.00mm
Clutch "Wear In" - CP6014-OH		0.75mm
Weight. (including driven plates)	Back to Back	4.4Kg
	Gear Driven	4.7Kg
Complete Assy Inertia.	Back to Back	0.015112Kgm ²
	Gear Driven	0.015745Kgm ²
Driven Plate & Hub Inertia.	Back to Back	0.002615Kgm ²
	Gear Driven	0.002930Kgm ²
Release Bearings.	Outer race rotates	CP3457-1 or -9
	Inner race rotates	CP3457-11



DRIVEN PLATES.

Thickness - For 1mm 'Wear In'	New = 2.63mm	Worn = 2.38mm
D/Plate Types.	Part Number.	Spline Details.
	Back to Back. (Large area)	CP3683-3FM3 x 4 CP3683-4FM3 x 4
Back to Back. (Longer spline length)	CP6014-9 FM3 x 3 (offset hub).	1.16" x 26
	CP6014-10 FM3 x 1 (Flywheel side hub).	
Gear Driven.	CP4074-2FM3 x 1 (hub)	1.00" x 23
	CP4074-6FM3 x 3 Slider plates.	

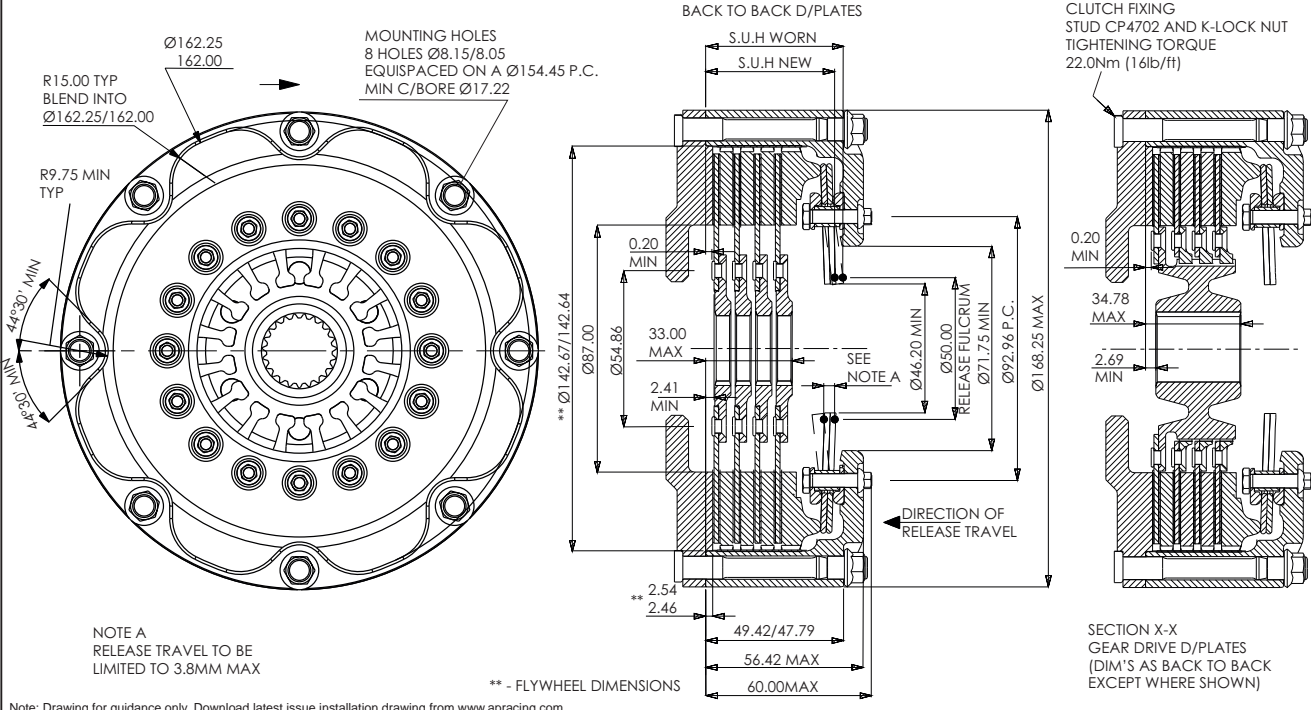
Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

Wear Clips.	CP4074-129
Main Pressure Plate.	CP4074-104
Intermediate Pressure Plates.	CP4074-103

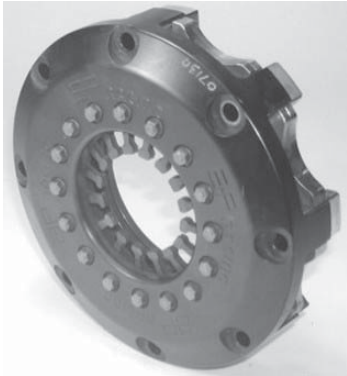
INSTALLATION DRAWING



METALLIC RACE CLUTCH - Ø140mm - CP6092

CP6092.

Ø140mm, 2 Plate, Cerametallic Paddle.



APPLICATIONS.

- ▣ Rally.

FEATURES.

- ▣ 2 Plate.
- ▣ Push type.
- ▣ Flat flywheel fixing.
 - outer diameter location.
- ▣ One piece cover and lugs.
 - machined from billet. Provides rigidity and strength and cooler running, allows dust and debris to escape.
- ▣ Heavy duty.
 - 3 paddle sintered driven plates, 6.25mm thick.
- ▣ Black hard anodised.
- ▣ Stainless steel wear clips.
- ▣ Low wear rate.
- ▣ Individually tested.
 - match machined, balanced and clutch load and function.
- ▣ CP4702 mounting studs available.
- ▣ Replaces CP5682 series.
- ▣ Note: Step flywheel fixing option available under Part Number, CP6092-CH83-SF.

PART NUMBERS.

- CP6092ACRV.
- CP6092AORA.

TECHNICAL SPECIFICATIONS

Torque Capacity.	CP6092ACRV	398Nm (294lbf)
	CP6092AORA	298Nm (220lbf)
Release Loads.	Max peak worn.	At travel.
	CP6092ACRV	450daN
CP6092AORA	375daN	250daN
Set-up Height. (New)		
CP6092ACRV	39.37mm / 37.91mm	
CP6092AORA	39.11mm / 37.65mm	
Set-up Height. (Worn)		
CP6092ACRV	42.01mm	
CP6092AORA	41.75mm	
Clutch "Wear In".		1.00mm
Weight. (including driven plates)		3.3Kg
Complete Assy Inertia.		0.01155Kgm ²
Driven Plate & Hub Inertia.		0.00180Kgm ²
Release Bearings.	Outer race rotates	CP3457-1 or -9
	Inner race rotates	CP3457-11

DRIVEN PLATES.

Thickness.	New = 6.25mm	Worn = 5.71mm
D/Plate Types.	Part Number.	Spline Details.
Back to Back.	CP4581-4 x 2	1.00" x 23
	CP4581-5 x 2	7/8" x 20
	CP4581-3 x 2	1.16" x 26
	CP4581-6 x 2	29.0mm x 10

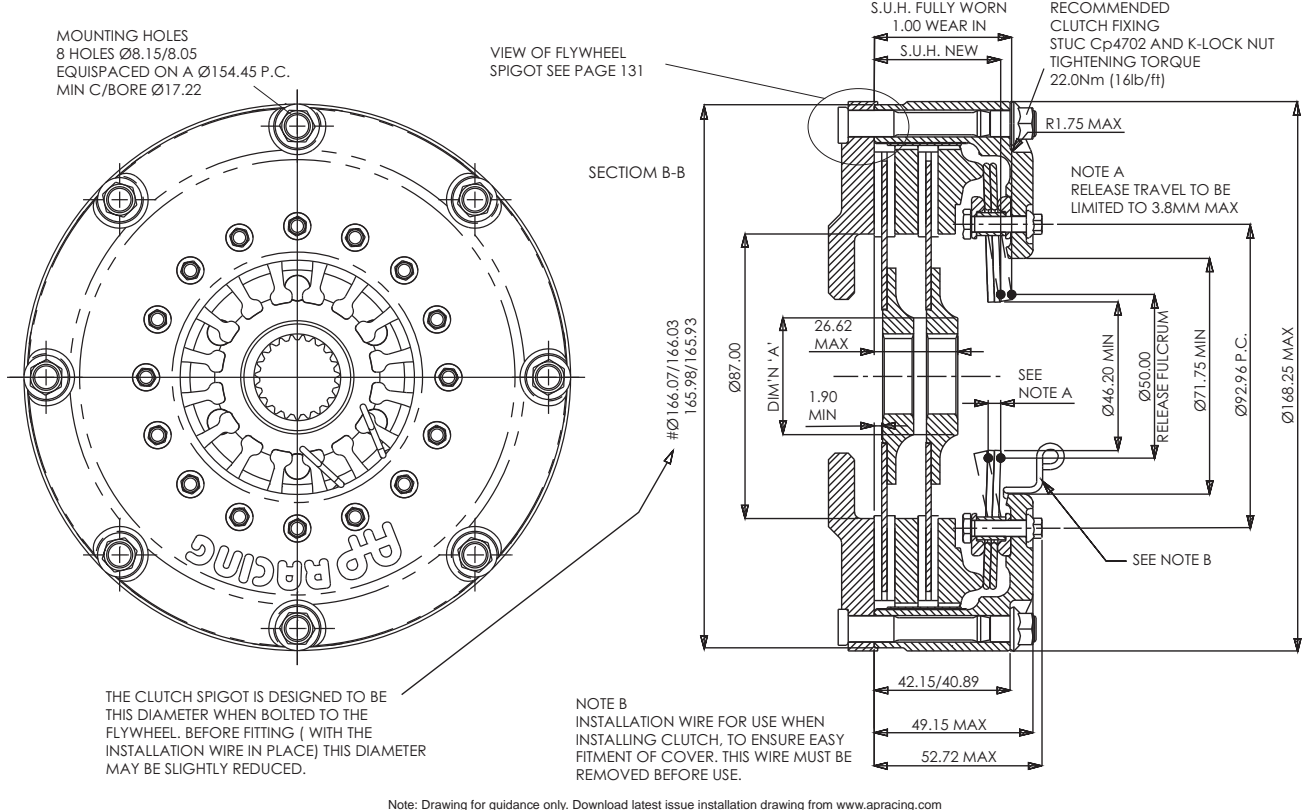
Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

Wear Clips.	CP4073-123
Main Pressure Plate.	CP4074-104
Intermediate Pressure Plates.	CP6092-102

INSTALLATION DRAWING



METALLIC RACE CLUTCH - Ø140mm 'I' Drive - CP8773

CP8773.

Ø140mm, 'I' Drive, 12 Bolt, Push Type.

APPLICATIONS.

▣ **Endurance**

FEATURES.

▣ **Asymmetric designed cover.**

- offers 10% reduction in weight and increased stiffness compared to the more conventional cover designs.

▣ **Benefits from a drive system, featuring drive tenons, which locate into internal jaws of the lugs.**

- five times more durable than conventional clutch design when subjected to the same test parameters.
 - eradicates distorting of pressure plates trapping on lugs.

▣ **Push type.**

▣ **Stepped flywheel fixing.**

- Inner diameter location.

▣ **12 bolt, one piece forged cover and lugs.**

- machined from Aluminium alloy. Allows dust and debris to escape.

▣ **Black hard anodised.**

▣ **Innovative wear plate design fitted.**

- combats wear on the drive lugs.

▣ **Very low wear rate.**

▣ **Individually tested**

▣ **Match machined, balanced and clutch load recorded**

- Mounting studs available, CP4703.



TECHNICAL SPECIFICATIONS

Torque Capacity.	870Nm (641lbf)	
Release Loads.		
Max peak worn.	450daN	
At travel.	360daN	
Set-up Height. (New)	35.93 / 32.37mm	
Set-up Height. (Worn)	39.50mm	
Clutch "Wear In".	0.75mm	
Release Ratio	4.58	
Estimated Weight. (including driven plates)	3.05Kg	
Estimated Assembly Inertia.	0.009877Kgm ²	
Estimated Driven Plate & Hub Inertia.	0.0020Kgm ²	
High Speed Release Bearings.	Inner race rotates	CP3457-16

DRIVEN PLATES.

Thickness.	New = 2.63mm	Worn = 2.21mm
D/Plate Types.	Part Number.	Spline Details.
Sintered Back to Back.	CP3683-3FM3 x 3	1.00" x 23
	CP3683-4FM3 x 3	7/8" x 20
	CP3683-12FM3 x 3	1.16" x 26
	CP3683-13FM3 x 3	29.0mm x 10
	CP3683-5FM3 x 3	1.125" x 10

Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

Wear Plates x 12.	CP8493-109
Main Pressure Plate.	CP8773-102
Intermediate Pressure Plates.	CP8773-103

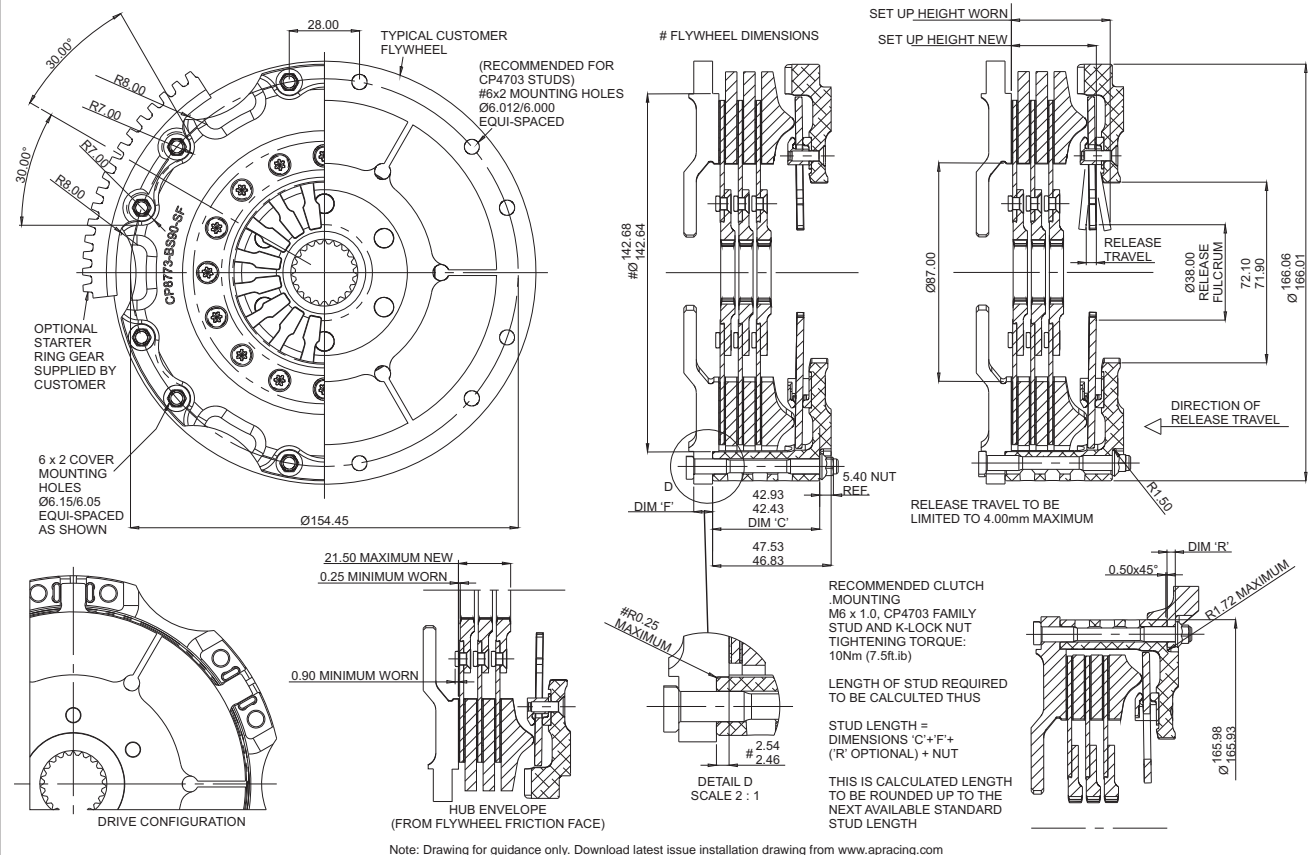
Note: Alternative 'I' Drive Clutch.

Non preferred 6 bolt 'I' Drive clutch available CP8333 family. Interchangeable with CP6013 standard lug type clutch.

PART NUMBERS.

- CP8773-BS90-SF

INSTALLATION DRAWING



METALLIC RACE CLUTCH - Ø140mm 'I' Drive - CP8804

CP8804.

Ø140mm, 'I' Drive, 12 Bolt, Pull Type.

APPLICATIONS.

▣ **Endurance**

FEATURES.

▣ **4 Plate.**

▣ **Asymmetric designed cover.**

- offers 10% reduction in weight and increased stiffness compared to the more conventional cover designs.

▣ **Benefits from a drive system, featuring drive tenons, which locate into internal jaws of the lugs.**

- five times more durable than conventional clutch design when subjected to the same test parameters.

- eradicates distorting of pressure plates trapping on lugs.

▣ **Pull type configuration.**

- Increased efficiency in terms of clamp and release loads.

▣ **Flat flywheel fixing.**

- outer diameter location.

▣ **12 bolt, one piece cover and lugs.**

- machined from Steel. Allows dust and debris to escape.

▣ **Black hard anodised.**

▣ **Innovative wear plate design fitted.**

- combats wear on the drive lugs.

▣ **Very low wear rate.**

▣ **Individually tested**

▣ **Match machined, balanced and clutch load recorded**

- Mounting studs available, CP4703.

▣ **3 Plate assembly available under part number family CP8803.**

PART NUMBERS.

- CP8804-OH90-FF



TECHNICAL SPECIFICATIONS

Torque Capacity.	1410Nm (1039lbf)
Release Loads.	
Max peak worn.	570daN
At travel.	400daN
Set-up Height. (New)	39.19 / 35.95mm
Set-up Height. (Worn)	29.33mm
Clutch "Wear In".	1.50mm
Release Ratio	4.41
Estimated Weight. (including driven plates)	4.00Kg
Estimated Assembly Inertia.	0.0013353Kg ^{m2}
Estimated Driven Plate & Hub Inertia.	0.0024175Kg ^{m2}
Optional Slave Cylinder.	CP6245-7

DRIVEN PLATES.

Thickness.	New = 2.63mm	Worn = 2.26mm
D/Plate Types.	Part Number.	Spline Details.
Sintered Back to Back.	CP3683-3FM3 x 4	1.00" x 23
	CP3683-4FM3 x 4	7/8" x 20
	CP3683-12FM3 x 4	1.16" x 26
	CP3683-13FM3 x 4	29.0mm x 10
	CP3683-5FM3 x 4	1.125" x 10

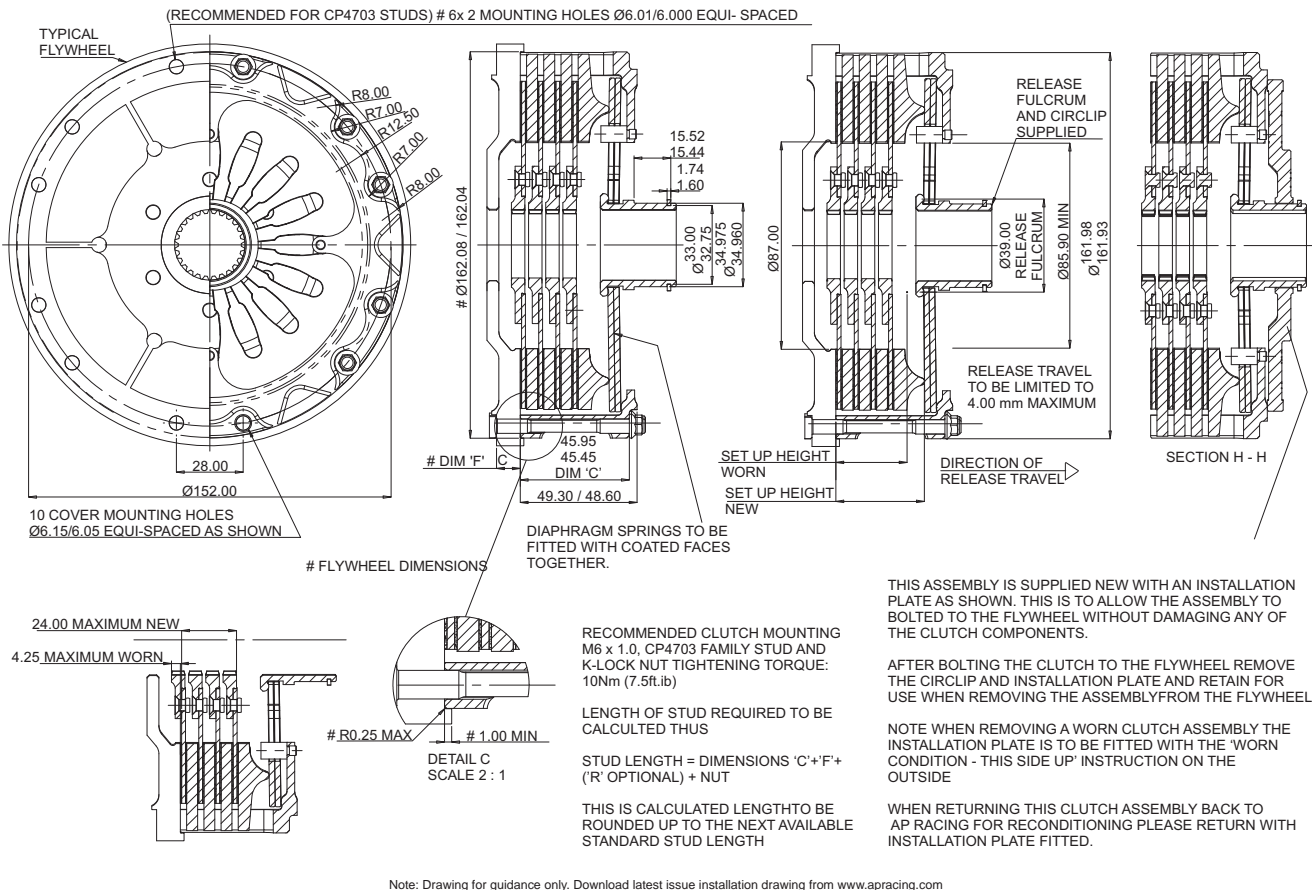
Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

Main Pressure Plate.	CP8803-102
Intermediate Pressure Plates.	CP8773-103

INSTALLATION DRAWING



METALLIC RACE CLUTCH - Ø184mm - CP2116

CP2116.

Ø184mm, Single Plate, A-Ring Sintered.

APPLICATIONS.

- ▣ Rally.

FEATURES.

- ▣ Single Plate.
- ▣ Push type.
- ▣ Adaptor ring clutch.
- ▣ Stepped flywheel fixing.
- inner diameter location.
- ▣ 6 bolt cover.
- Steel or Aluminium alloy options.
- ▣ For high torque applications use CP4429 sintered plate.
- ▣ for other applications use CP2012 sintered plate.
- ▣ Normal duty.
- ▣ Durable.
- ▣ Low wear rate.
- ▣ Individually tested.
- match machined, balanced and clutch load and function.
- ▣ Suitable for engine speeds of 14000 rpm.
- ▣ CP4702 mounting studs available.

PART NUMBERS.

- ▣ Aluminium alloy cover.
- CP2116ACRV.
- CP2116AORA.
- CP2116AGR.N.
- ▣ Steel cover.
- CP2116CRV.
- CP2116ORA.
- CP2116GRN.



TECHNICAL SPECIFICATIONS

Torque Capacity.	CP2116ACRV	424Nm (313lbf)	
	CP2116AORA	266Nm (196lbf)	
	CP2116AGR.N	164Nm (121lbf)	
Release Loads.	Max peak new.	Max peak worn.	
	CP2116ACRV	350daN	440daN
	CP2116AORA	240daN	330daN
	CP2116AGR.N	160daN	220daN
Set-up Height. (New)	CP2116ACRV	23.21 / 20.82mm	
	CP2116AORA	23.46 / 21.06mm	
	CP2116AGR.N	22.63 / 20.25mm	
Set-up Height. (Worn)	CP2116ACRV	25.72mm	
	CP2116AORA	25.97mm	
	CP2116AGR.N	25.15mm	
Clutch "Wear In".		1.00mm	
Weight. (including driven plates)	Aluminium cover	2.77Kg	
	Steel cover	3.07Kg	
Complete Assy Inertia.	Aluminium cover	0.016Kg ^{m2}	
	Steel cover	0.018Kg ^{m2}	
Driven Plate & Hub Inertia.		0.0018Kg ^{m2}	
Release Bearings.	Outer race rotates	CP3457-2 or -10	
	Inner race rotates	CP3457-6	

DRIVEN PLATES.

Thickness.	New = 2.63mm	Worn = 1.88mm
D/Plate Types.	Part Number.	Spline Details.
Sintered.	CP2012-165FM3 x 1	1.00" x 23
	CP2012-166FM3 x 1	7/8" x 20
Sintered Paddle	CP4429-4FM3 x 1	1.00" x 23
	CP4429-3FM3 x 1	7/8" x 20

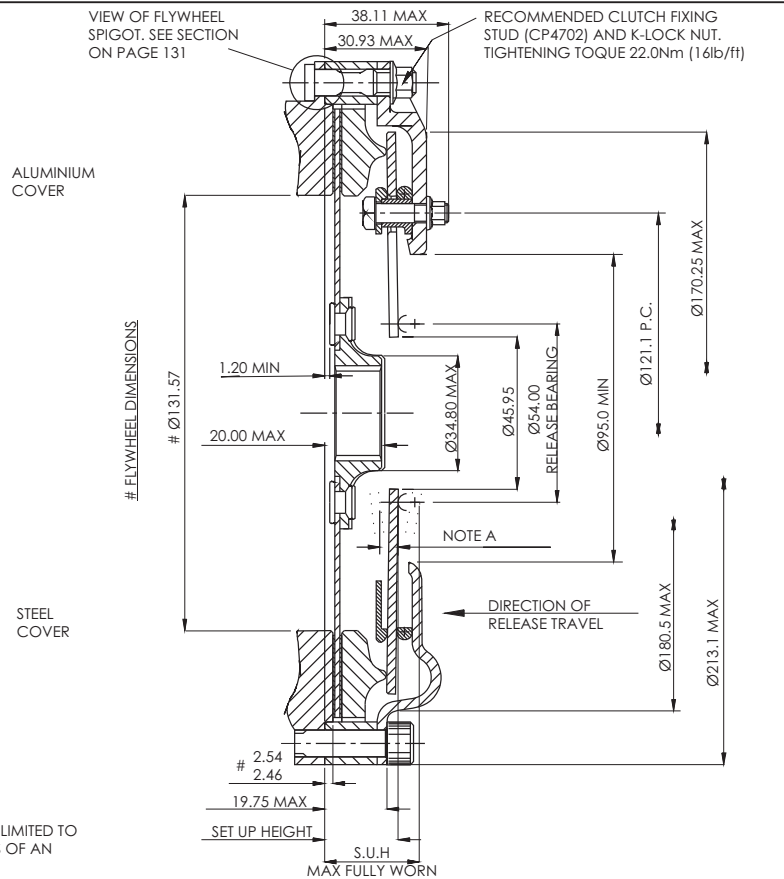
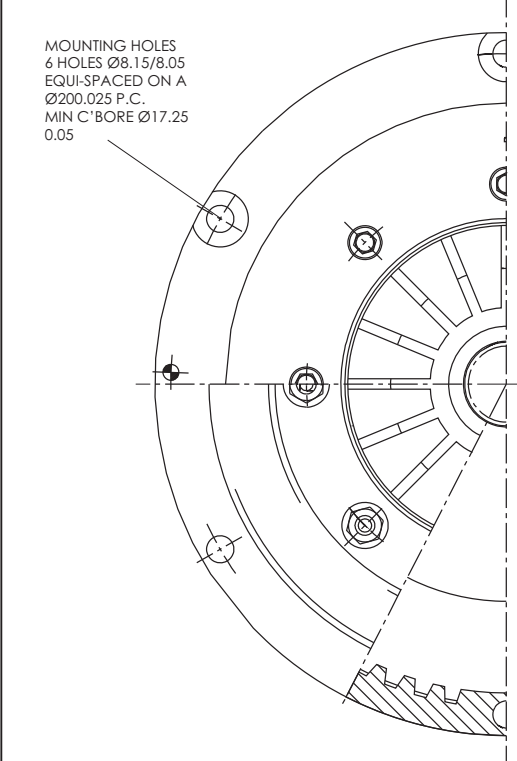
Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

A-Ring Assembly.	CP2011-62
Main Pressure Plate.	CP2616-103

INSTALLATION DRAWING



NOTE A
RELEASE TRAVEL TO BE LIMITED TO 5.5mm MAX BY MEANS OF AN EXTERNAL STOP

Note: Drawing for guidance only. Download latest issue installation drawing from www.apracing.com

METALLIC RACE CLUTCH - Ø184mm - CP7371

CP7371.

Ø184mm, Single Plate, Sintered.



APPLICATIONS.

- ▣ Race.

FEATURES.

- ▣ Single Plate.
- ▣ Push type.
- ▣ Stepped flywheel fixing.
 - inner diameter location.
- ▣ One piece cover and lugs.
 - machined from Aluminium alloy.
- ▣ For high torque applications use CP4429 sintered plate.
 - ▣ for other applications use CP2012 sintered plate.
- ▣ Black hard anodised cover.
- ▣ Stainless steel wear clips.
- ▣ Low wear rate.
- ▣ Individually tested.
 - match machined, balanced and clutch load and function.
- ▣ Suitable for engine speeds of 10000 rpm.
- ▣ CP4702 mounting studs available.

PART NUMBERS.

- CP7371-CE90-SF.
- CP7371-OE90-SF.
- CP7371-NE90-SF.

TECHNICAL SPECIFICATIONS

Torque Capacity.	CP7371-CE90-SF	424Nm (313lbf)	
	CP7371-OE90-SF	266Nm (196lbf)	
	CP7371-NE90-SF	164Nm (121lbf)	
Release Loads.	Max peak new.	Max peak worn.	
	CP7371-CE90-SF	350daN	440daN
	CP7371-OE90-SF	240daN	330daN
	CP7371-NE90-SF	160daN	220daN
Set-up Height. (New)			
CP7371-CE90-SF	21.30mm / 19.05mm		
CP7371-OE90-SF	22.10mm / 19.81mm		
CP7371-NE90-SF	21.28mm / 19.01mm		
Set-up Height. (Worn)			
CP7371-CE90-SF	24.52mm		
CP7371-OE90-SF	25.31mm		
CP7371-NE90-SF	24.50mm		
Clutch "Wear In".		0.75mm	
Weight. (excluding driven plates)		2.16Kg	
Assembly Inertia. (excl. driven plates)		0.0135Kg ^m	
CP2012 Type - Driven Plate & Hub Inertia.		0.0018Kg ^m	
Release Bearings.	Outer race rotates	CP3457-2 or -10	
	Inner race rotates	CP3457-6	

DRIVEN PLATES.

Thickness.	New = 2.63mm	Worn = 1.88mm
D/Plate Types.	Part Number.	Spline Details.
Sintered.	CP2012-165FM3 x 1	1.00" x 23
	CP2012-166FM3 x 1	7/8" x 20
Sintered Paddle.	CP4429-4FM3 x 1	1.00" x 23
	CP4429-3FM3 x 1	7/8" x 20

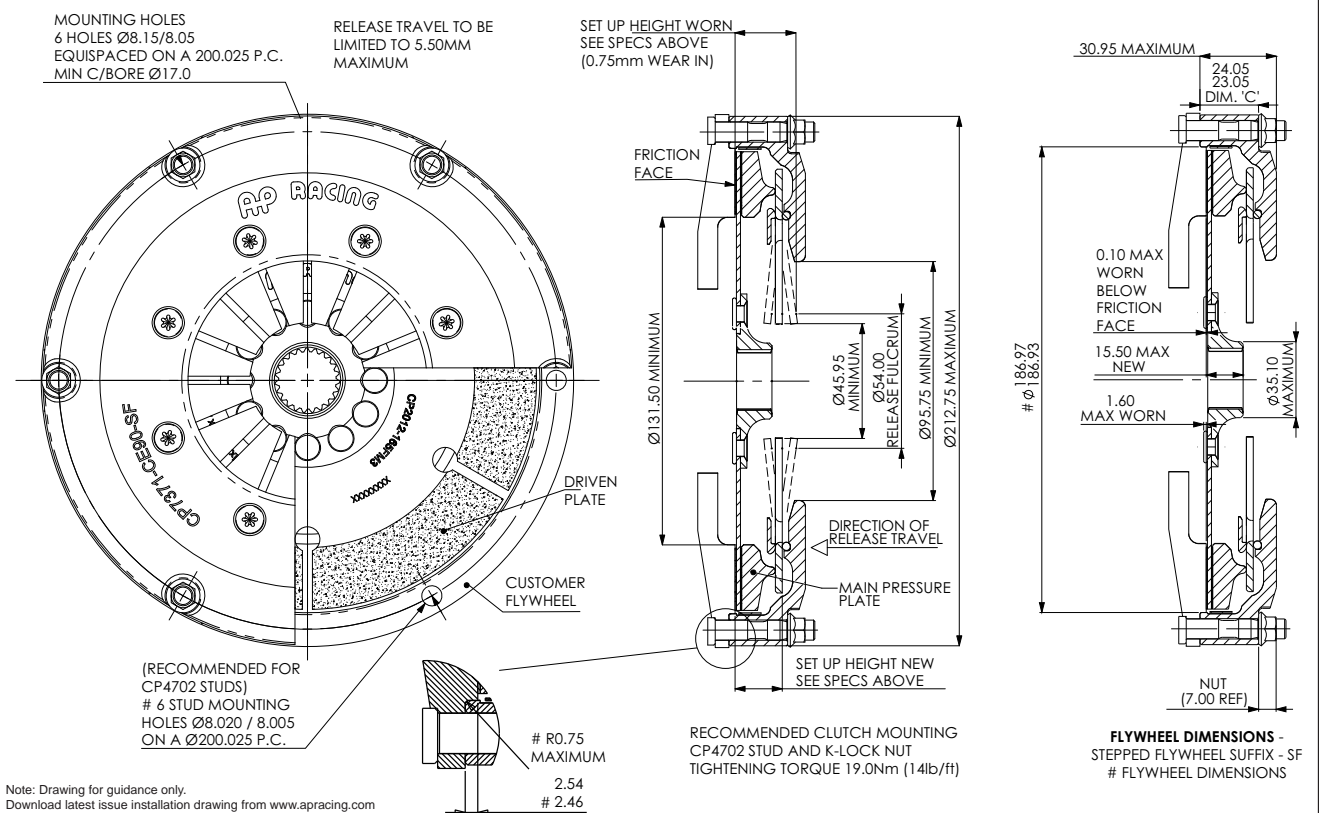
Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

Wear Clips.	CP3911-102
Main Pressure Plate.	CP3021-101

INSTALLATION DRAWING



METALLIC RACE CLUTCH - Ø184mm - CP7381

CP7381.

Ø184mm, Single Plate, Cerametallic Paddle or Organic.



APPLICATIONS.

- ▣ Race.
- ▣ Hillclimb.

FEATURES.

- ▣ Single Plate.
- ▣ Push type.
- ▣ Stepped flywheel fixing.
 - inner diameter location.
- ▣ One piece cover and lugs.
 - machined from Aluminium alloy.
- ▣ Black hard anodised cover.
- ▣ Stainless steel wear clips.
- ▣ Low wear rate.
- ▣ Individually tested.
 - match machined, balanced and clutch load and function.
- ▣ Suitable for engine speeds of 10000 rpm.
- ▣ CP4702 mounting studs available.
- ▣ Organic Driven Plate option available CP5386 Family.

PART NUMBERS.

- CP7381-CE80-SF.
- CP7381-OE80-SF.
- CP7381-NE80-SF.

TECHNICAL SPECIFICATIONS

Torque Capacity.	CP7381-CE80-SF	413Nm (305lbf)	
	CP7381-OE80-SF	259Nm (191lbf)	
	CP7381-NE80-SF	160Nm (118lbf)	
Release Loads.	Max peak new.	Max peak worn.	
	CP7381-CE80-SF	350daN	440daN
	CP7381-OE80-SF	240daN	330daN
CP7381-NE80-SF	160daN	220daN	
Set-up Height. (New)	CP7381-CE80-SF	26.92 / 24.64mm	
	CP7381-OE80-SF	27.71 / 25.40mm	
	CP7381-NE80-SF	26.89 / 24.60mm	
Set-up Height. (Worn)	CP7381-CE80-SF	30.65mm	
	CP7381-OE80-SF	30.92mm	
	CP7381-NE80-SF	30.11mm	
Clutch "Wear In".		0.75mm	
Weight. (Excluding driven plates)		2.24Kg	
Assembly Inertia. (Excluding driven plates)		0.014Kg ^{m2}	
CP8300 Type - Driven Plate & Hub Inertia.		0.0016Kg ^{m2}	
Release Bearing.	Outer race rotates	CP3457-2 or -10	
	Inner race rotates	CP3457-6	

DRIVEN PLATES.

Thickness.	New = 7.08mm	Worn = 6.29mm
D/Plate Types.	Part Number.	Spline Details.
3 Paddle.	CP8300-A036H x 1	1.00" x 23
4 Paddle.	CP8400-A026H x 1	7/8" x 20
6 Paddle.	CP8600A036 x 1	1.00" x 23
Organic Faced	CP5386-10 x 1	1.00" x 23

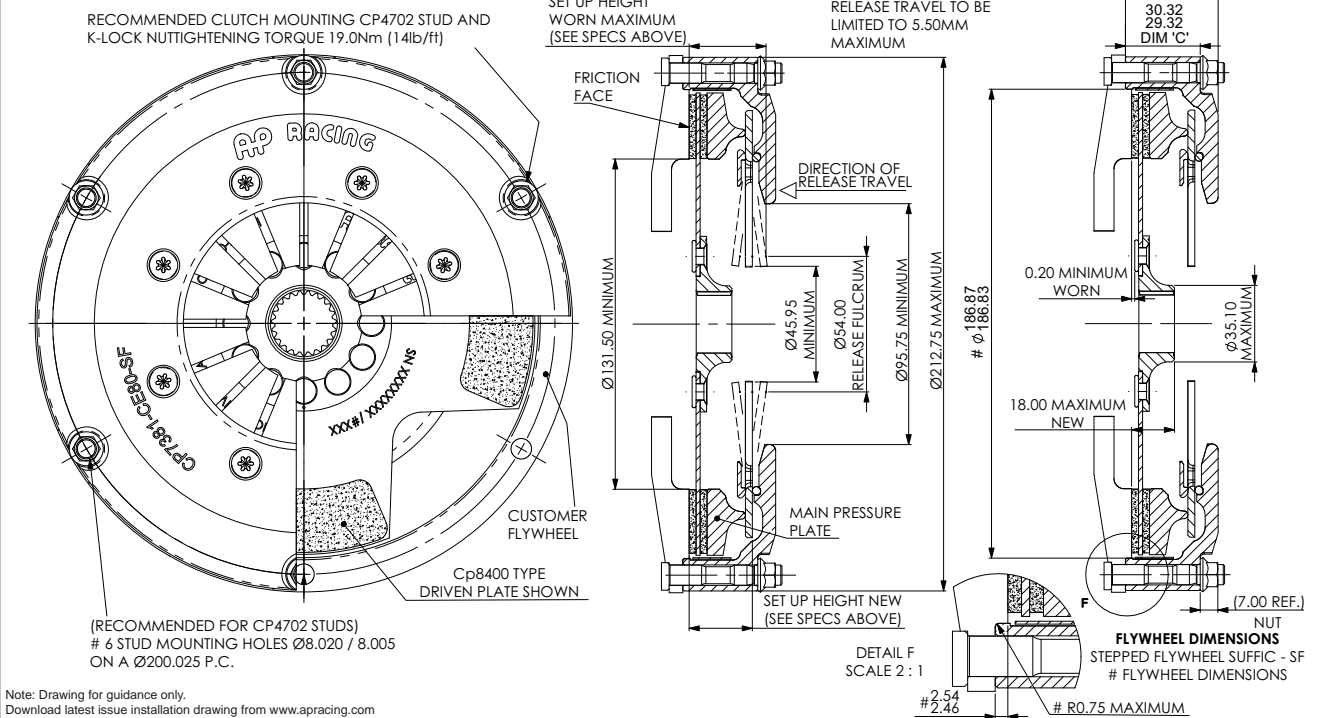
Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

Main Pressure Plate.	CP3108-103
Wear Clips.	CP4111-102

INSTALLATION DRAWING



METALLIC RACE CLUTCH - Ø184mm - CP2125

CP2125.

Ø184mm, 2 Plate, A-Ring Sintered.



APPLICATIONS.

- ▣ Race.
- ▣ Rally.

FEATURES.

- ▣ 2 Plate.
- ▣ Push type.
- ▣ Adaptor ring clutch.
- ▣ Stepped flywheel fixing.
 - inner diameter location.
- ▣ 6 bolt cover.
- Steel or Aluminium alloy options
- ▣ Normal duty.
- ▣ Durable.
- ▣ Low wear rate.
- ▣ Individually tested.
- match machined, balanced and clutch load and function.
- ▣ Suitable for engine speeds of 14000 rpm.
- ▣ CP4702 mounting studs available.

PART NUMBERS.

- ▣ Aluminium alloy cover.
 - CP2125ACRV.
 - CP2125AORA.
 - CP2125AGRN.
- ▣ Steel cover.
 - CP2125CRV.
 - CP2125GRN.
 - CP2125ORA.

TECHNICAL SPECIFICATIONS

Torque Capacity.	CP2125ACRV	848Nm (625lbf)	
	CP2125AORA	532Nm (392lbf)	
	CP2125AGRN	327Nm (241lbf)	
Release Loads.	Max peak new.	Max peak worn.	
	CP2125ACRV	350daN	440daN
	CP2125AORA	240daN	330daN
	CP2125AGRN	160daN	220daN
Set-up Height.	(New)	(Worn)	
	CP2125ACRV	30.59 / 27.97mm	33.10mm
	CP2125AORA	30.92 / 28.01mm	33.44mm
	CP2125AGRN	29.97 / 27.07mm	32.48mm
Clutch "Wear In".		0.75mm	
Weight. (including driven plates)	Aluminium Cover	Steel Cover	
	Back to Back	3.85Kg	4.15Kg
	Nested	3.92Kg	4.22Kg
	Gear driven	4.40Kg	4.70Kg
Complete Assy Inertia.	Aluminium Cover	Steel Cover	
	B to B & Nested	0.023Kgm ²	0.025Kgm ²
	Gear driven	0.024Kgm ²	0.026Kgm ²
	Driven Plate & Hub Inertia.	Back to Back	0.0037Kgm ²
Nested		0.0038Kgm ²	
Gear driven		0.0040Kgm ²	
Release Bearings.	Outer race rotates	CP3457-2 or -10	
	Inner race rotates	CP3457-6	

DRIVEN PLATES.

Thickness.	New = 2.63mm	Worn = 2.25mm	
D/Plate Types.	Part Number.	Spine Details.	
	Back to Back.	CP2012-165FM3 x 2	1.00" x 23
	Nested. (Offset)	CP2567-7FM3 x 1	7/8" x 20
	Nested. (Flywheel)	CP2567-8FM3 x 1	
	Gear Driven.	CP3822-10FM3 x 1	1.00" x 23
CP2822-31FM3 x 1 slider plate			

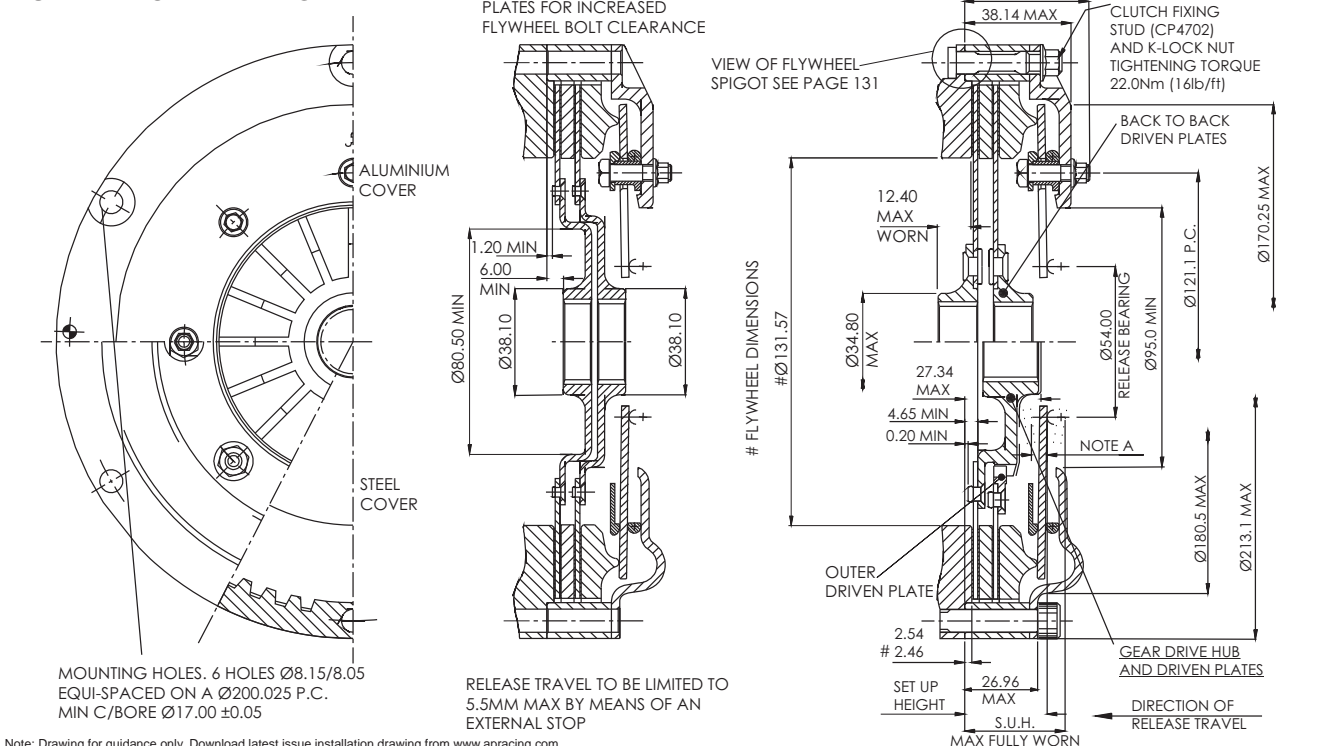
Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

A-Ring Assembly.	CP2012-162
Main Pressure Plate.	CP2616-103
Intermediate Pressure Plate	CP2613-103

INSTALLATION DRAWING



METALLIC RACE CLUTCH - Ø184mm - CP2606

CP2606.

Ø184mm, 2 Plate, A-Ring Cerametallic Paddle or Organic.



APPLICATIONS.

- ▣ Race.
- ▣ Rally.

FEATURES.

- ▣ 2 Plate.
- ▣ Push type.
- ▣ Adaptor ring clutch.
- ▣ Stepped flywheel fixing.
 - inner diameter location.
- ▣ 6 bolt cover.
- Steel or Aluminium alloy options.
- ▣ Normal duty.
- ▣ Durable.
- ▣ Low wear rate.
- ▣ Individually tested.
 - match machined, balanced and clutch load and function.
- ▣ Suitable for engine speeds of 14000 rpm.
- ▣ CP4702 mounting studs available.
- ▣ Organic Driven Plate option available CP5386 Family.

PART NUMBERS.

- ▣ Aluminium alloy cover.
 - CP2606ACRV.
 - CP2606AORA.
 - CP2606AGRN.
- ▣ Steel cover.
 - CP2606CRV.
 - CP2606GRN.
 - CP2606ORA.

TECHNICAL SPECIFICATIONS

Torque Capacity.	CP2606ACRV	636Nm (469lbf)	
	CP2606AORA	421Nm (310lbf)	
	CP2606AGRN	263Nm (194lbf)	
Release Loads.	Max peak new.	Max peak worn.	
	CP2606ACRV	350daN	440daN
	CP2606AORA	240daN	330daN
CP2606AGRN	160daN	220daN	
Set-up Height.	(New)	(Worn)	
	CP2606ACRV	39.57 / 36.81mm	42.09mm
	CP2606AORA	39.80 / 37.02mm	42.32mm
	CP2606AGRN	39.00 / 36.23mm	41.52mm
Clutch "Wear In".		0.75mm	
Weight. (including driven plates)	Aluminium Cover	Steel Cover	
	3 Paddle	4.036Kg	4.286Kg
	4 Paddle	4.246Kg	4.496Kg
	6 Paddle	4.588Kg	4.836Kg
Complete Assy Inertia.	Aluminium Cover	Steel Cover	
	3 Paddle	0.0246Kgm ²	0.0260Kgm ²
	4 Paddle	0.0257Kgm ²	0.0271Kgm ²
	6 Paddle	0.0279Kgm ²	0.0293Kgm ²
Driven Plate & Hub Inertia.	3 Paddle	0.00364Kgm ²	
	4 Paddle	0.00474Kgm ²	
	6 Paddle	0.00694Kgm ²	
Release Bearings.	Outer race rotates	CP3457-2 or -10	
	Inner race rotates	CP3457-6	

DRIVEN PLATES.

Thickness.	New = 7.08mm	Worn = 6.68mm
D/Plate Types.	Part Number.	Spline Details.
3 Paddle	CP8300-A036H x 2	1.00" x 23
4 Paddle	CP8400-A036H x 2	1.00" x 23
6 Paddle	CP8600-A036 x 2	1.00" x 23
Organic Faced	CP5386-10 x 2	1.00" x 23

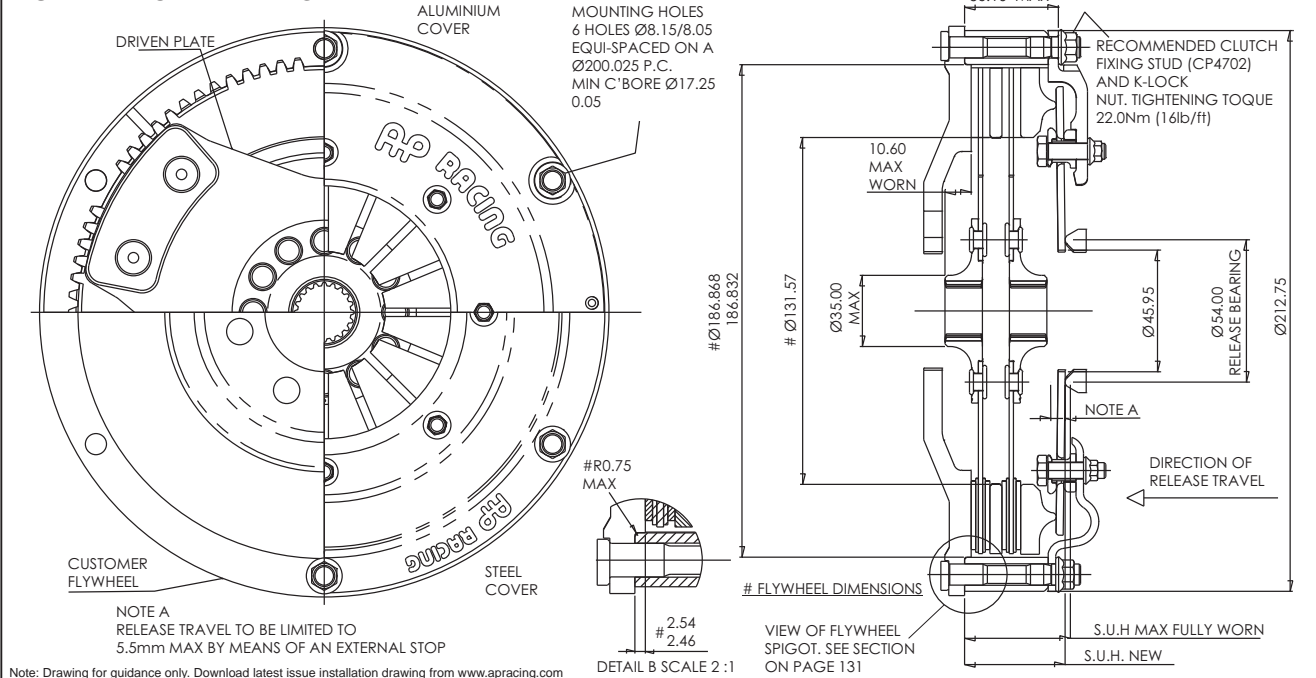
Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

A-Ring Assembly.	CP2606-125
Main Pressure Plate.	CP2616-103
Intermediate Pressure Plate	CP2613-103

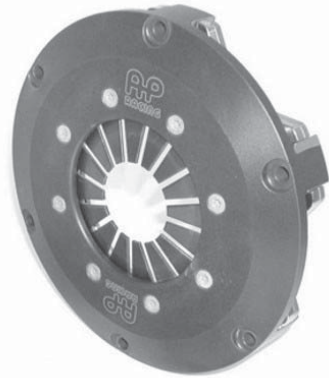
INSTALLATION DRAWING



METALLIC RACE CLUTCH - Ø184mm - CP7372

CP7372.

Ø184mm, 2 Plate, Sintered.



APPLICATIONS.

- ▣ Race.

FEATURES.

- ▣ 2 Plate.
- ▣ Push type.
- ▣ Stepped flywheel fixing.
 - inner diameter location.
- ▣ One piece cover and lugs.
 - machined from Aluminium alloy.
- ▣ Black hard anodised cover.
- ▣ Stainless steel wear clips.
- ▣ Low wear rate.
- ▣ Individually tested.
 - match machined, balanced and clutch load and function.
- ▣ Suitable for engine speeds of 10000 rpm.
- ▣ CP4702 mounting studs available.

PART NUMBERS.

- CP7372-CE90-SF.
- CP7372-OE90-SF.
- CP7372-NE90-SF.

TECHNICAL SPECIFICATIONS

Torque Capacity.	CP7372-CE90-SF	848Nm (625lbft)	
	CP7372-OE90-SF	532Nm (392lbft)	
	CP7372-NE90-SF	327Nm (241lbft)	
Release Loads.	Max peak new.	Max peak worn.	
	CP7372-CE90-SF	350daN	440daN
	CP7372-OE90-SF	240daN	330daN
	CP7372-NE90-SF	160daN	220daN
Set-up Height.	(New)	(Worn)	
	CP7372-CE90-SF	28.76 / 26.00mm	31.97mm
	CP7372-OE90-SF	29.55 / 26.77mm	32.76mm
	CP7372-NE90-SF	28.73 / 25.97mm	31.95mm
Clutch "Wear In".		0.75mm	
Weight. (Excluding driven plates)		2.75Kg	
Assembly Inertia. (Excluding driven plates).		0.0177Kg ^{m2}	
CP2012 Type - Driven Plate & Hub Inertia.		0.0024Kg ^{m2}	
Release Bearings.	Outer race rotates	CP3457-2 or -10	
	Inner race rotates	CP3457-6	

DRIVEN PLATES.

Thickness.	New = 2.63mm	Worn = 2.22mm
D/Plate Types.	Part Number.	Spline Details.
Back to Back.	CP2012-165FM3 x 2	1.00" x 23
Nested. (Offset)	CP2567-7FM3 x 1	7/8" x 20
Nested. (Flywheel)	CP2567-8FM3 x 1	
Gear Driven.	CP3822-10FM3 x 1	1.00" x 23
	CP2822-31FM3 x 1 slider plate	

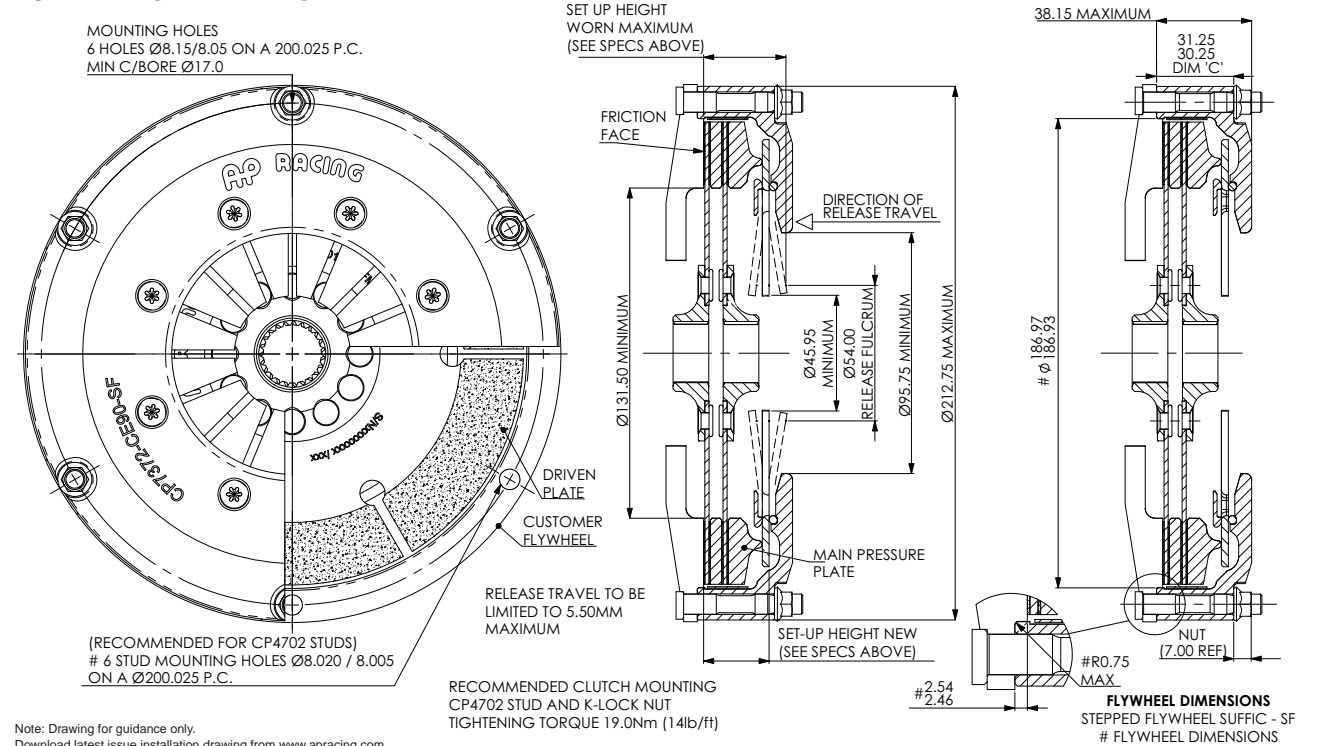
Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

Wear Clips.	CP3912-102
Main Pressure Plate.	CP3021-101
Intermediate Pressure Plate	CP3592-106

INSTALLATION DRAWING



METALLIC RACE CLUTCH - Ø184mm - CP7382

CP7382.

Ø184mm, 2 Plate, Cerametallic Paddle or Organic.

APPLICATIONS.

- ▣ Race.
- ▣ Hillclimb.
- ▣ Alternative CP8642 suitable Ford BDA engine.

FEATURES.

- ▣ 2 Plate.
- ▣ Push type.
- ▣ Stepped flywheel fixing.
 - inner diameter location.
- ▣ One piece cover and lugs.
 - machined from Aluminium alloy.
- ▣ Black hard anodised cover.
- ▣ Stainless steel wear clips.
- ▣ Low wear rate.
- ▣ Individually tested.
 - match machined, balanced and clutch load and function.
- ▣ Suitable for engine speeds of 10000 rpm.
- ▣ CP4702 mounting studs available.
- ▣ Organic Driven Plate option available CP5386 Family.

Note: Alternative Heavy Duty 'I' Drive Clutch CP8642.

Non preferred Heavy duty 6 bolt 'I' Drive clutch available CP8642 family. Suitable for Ford BDA engine applications.

PART NUMBERS.

- CP7382-CH80-SF.
- CP7382-OH80-SF.
- CP7382-NH80-SF.



TECHNICAL SPECIFICATIONS

Torque Capacity.	CP7382-CH80-SF	636Nm (469lbft)	
	CP7382-OH80-SF	421Nm (310lbft)	
	CP7382-NH80-SF	263Nm (194lbft)	
Release Loads.	Max peak new.	Max peak worn.	
	CP7382-CH80-SF	350daN	440daN
	CP7382-OH80-SF	240daN	330daN
CP7382-NH80-SF	160daN	220daN	
Set-up Height. (New)	CP7382-CH80-SF	37.01 / 34.64mm	
	CP7382-OH80-SF	37.66 / 35.29mm	
	CP7382-NH80-SF	36.92 / 34.55mm	
Set-up Height. (Worn)	CP7382-CH80-SF	39.68mm	
	CP7382-OH80-SF	40.34mm	
	CP7382-NH80-SF	39.59mm	
Clutch "Wear In".		0.75mm	
Weight. (Excluding driven plates)		2.80Kg	
Assembly Inertia. (Excluding driven plates).		0.0182Kgm ²	
CP8300 Type - Driven Plate & Hub Inertia.		0.0032Kgm ²	
Release Bearings.	Outer race rotates	CP3457-2 or -10	
	Inner race rotates	CP3457-6	

DRIVEN PLATES.

Thickness.	New = 7.08mm	Worn = 6.67mm
D/Plate Types.	Part Number.	Spline Details.
3 Paddle.	CP8300-A036H x 2	1.00" x 23
4 Paddle.	CP8400-A026H x 2	7/8" x 20
6 Paddle.	CP8600-A036 x 2	1.00" x 23
Organic Faced	CP5386-10 x 2	1.00" x 23

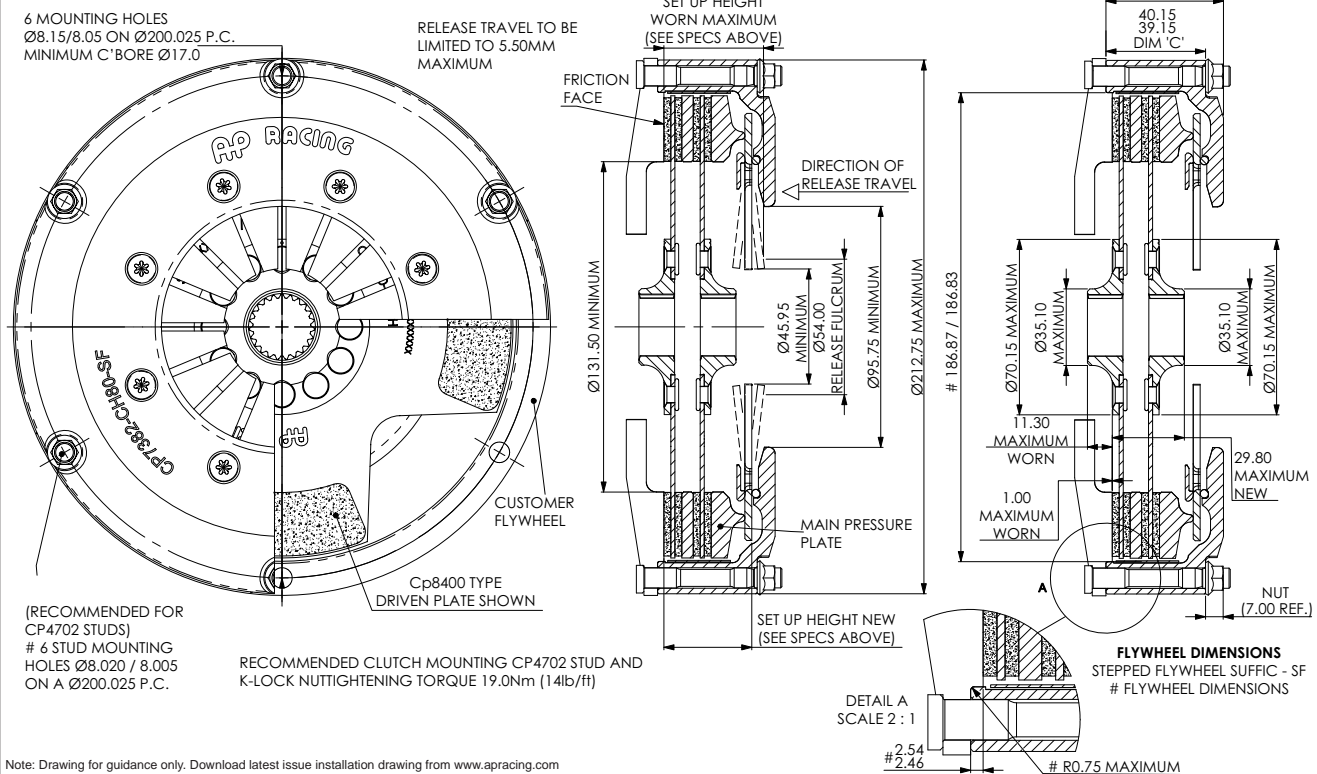
Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

Wear Clips.	CP4112-102
Main Pressure Plate.	CP3021-102
Intermediate Pressure Plate	CP3592-106

INSTALLATION DRAWING

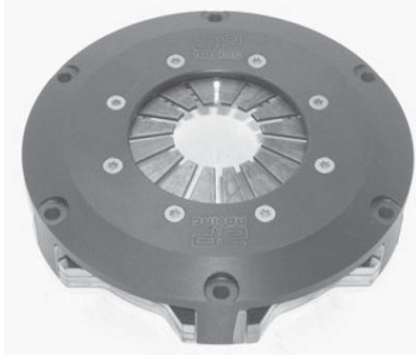


Note: Drawing for guidance only. Download latest issue installation drawing from www.apracing.com

METALLIC RACE CLUTCH - Ø184mm - CP7392

CP7392.

Ø184mm, 2 Plate, Cerametallic Paddle for Large Bore Flywheels.



APPLICATIONS.

- ▣ Race.
- ▣ Hillclimb.

FEATURES.

- ▣ 2 Plate.
- ▣ Push type.
- ▣ Extra pressure plate.
- for small internal diameter flywheels.
- ▣ Stepped flywheel fixing.
- inner diameter location.
- ▣ One piece cover and lugs.
- machined from Aluminium alloy.
- ▣ Black hard anodised cover.
- ▣ Stainless steel wear clips.
- ▣ Low maintenance.
- ▣ Individually tested.
- match machined, balanced and clutch load and function.
- ▣ Suitable for engine speeds of 10000 rpm.
- ▣ CP4702 mounting studs available.

PART NUMBERS.

- CP7392-CH80-SF.
- CP7392-OH80-SF.
- CP7392-NH80-SF.

TECHNICAL SPECIFICATIONS

Torque Capacity.	CP7392-CH80-SF	644Nm (475lbf)	
	CP7392-OH80-SF	426Nm (314lbf)	
	CP7392-NH80-SF	266Nm (196lbf)	
Release Loads.	Max peak new.	Max peak worn.	
	CP7392-CH80-SF	350daN	440daN
	CP7392-OH80-SF	240daN	330daN
CP7392-NH80-SF	160daN	220daN	
Set-up Height. (New)	CP7392-CH80-SF	41.65 / 39.11mm	
	CP7392-OH80-SF	42.30 / 39.76mm	
	CP7392-NH80-SF	41.56 / 39.02mm	
Set-up Height. (Worn)	CP7392-CH80-SF	44.32mm	
	CP7392-OH80-SF	44.98mm	
	CP7392-NH80-SF	44.23mm	
Clutch "Wear In".		0.75mm	
Weight. (Excluding driven plates)		3.37Kg	
Assembly Inertia. (Excluding driven plates).		0.0222Kgm ²	
CP8300 Type - Driven Plate & Hub Inertia.		0.0032Kgm ²	
Release Bearings.	Outer race rotates	CP3457-2 or -10	
	Inner race rotates	CP3457-6	

DRIVEN PLATES.

Thickness.	New = 7.08mm	Worn = 6.67mm
D/Plate Types.	Part Number.	Spline Details.
3 Paddle.	CP8300-A036H x 2	1.00" x 23
4 Paddle.	CP8400-A026H x 2	7/8" x 20
6 Paddle.	CP8600-A036 x 2	1.00" x 23

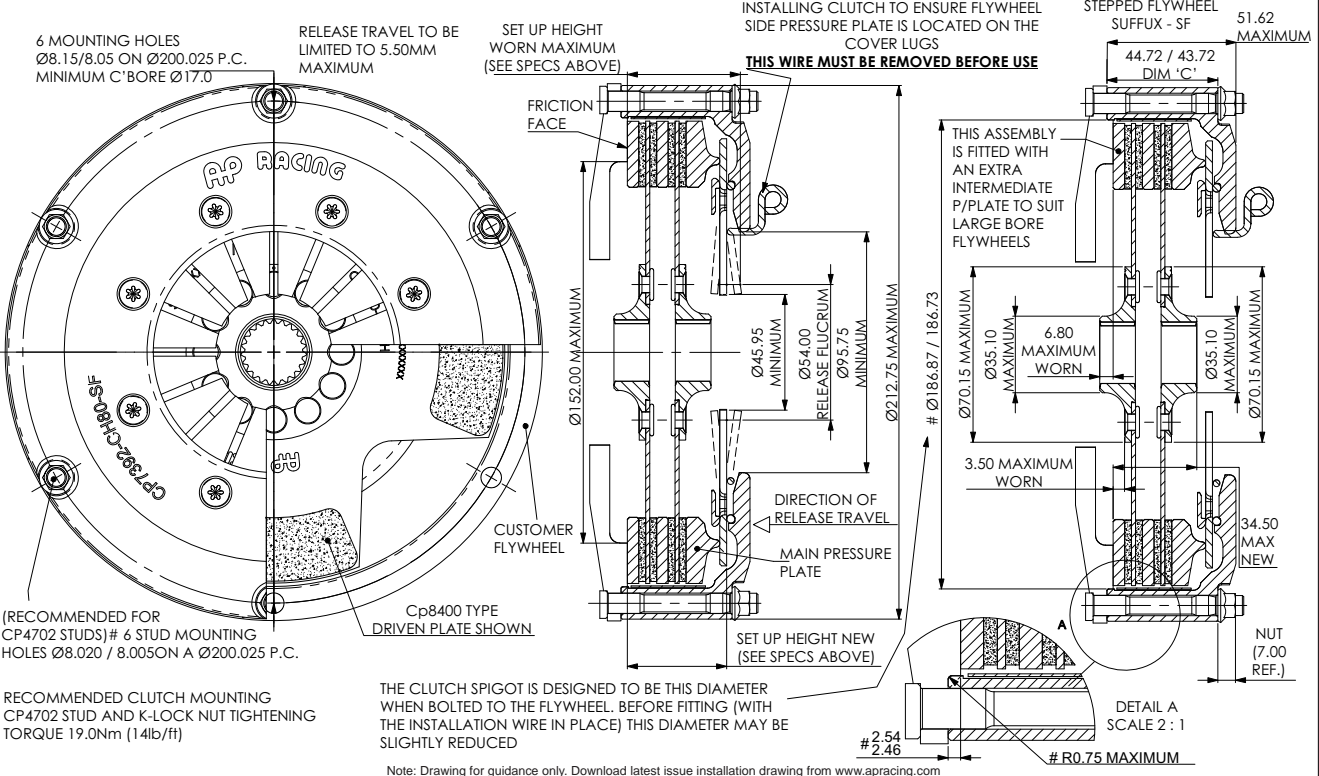
Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

Wear Clips.	CP4242-102
Main Pressure Plate.	CP3021-102
Intermediate Pressure Plate	CP3592-106

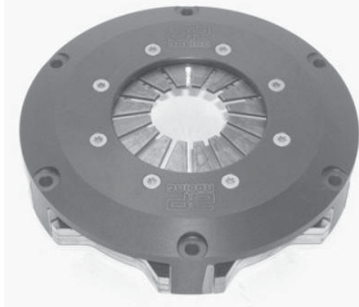
INSTALLATION DRAWING



METALLIC RACE CLUTCH - Ø184mm - CP7972

CP7972.

Ø184mm, 2 Plate, Cerametallic Paddle.
Low Height.



APPLICATIONS.

▣ S2000, with naturally aspirated engine.

FEATURES.

- ▣ 2 Plate.
- ▣ Push type.
- ▣ Low height
 - Uses 6mm driven plates.
- ▣ Flat flywheel fixing.
 - outer diameter location.
- ▣ One piece cover and lugs. - machined from Aluminium alloy.
- ▣ Black hard anodised cover.
- ▣ Stainless steel wear clips.
- ▣ Low maintenance.
- ▣ Individually tested.
 - match machined, balanced and clutch load and function.
- ▣ 12 Bolt version available for S2000+ for Turbo charged engine. Part Number CP8372 family.
- ▣ CP4702 mounting studs available.

PART NUMBERS.

- ▣ Flat Flywheels.
 - CP7972-CH81-FF.
 - CP7972-OH81-FF.
 - CP7972-NH81-FF.
- ▣ Stepped Flywheel option also available.

TECHNICAL SPECIFICATIONS.

Torque Capacity.	CP7972-CH81-FF	636Nm (469lbf)	
	CP7972-OH81-FF	421Nm (310lbf)	
	CP7972-NH81-FF	263Nm (194lbf)	
Release Loads.	Max peak new.	Max peak worn.	
	CP7972-CH81-FF	350daN	440daN
	CP7972-OH81-FF	240daN	330daN
CP7972-NH81-FF	160daN	220daN	
Set-up Height. (New)	CP7972-CH81-FF	33.49 / 30.95mm	
	CP7972-OH81-FF	34.12 / 31.57mm	
	CP7972-NH81-FF	33.29 / 30.93mm	
Set-up Height. (Worn)	CP7972-CH81-FF	36.05mm	
	CP7972-OH81-FF	36.72mm	
	CP7972-NH81-FF	35.84mm	
Clutch "Wear In".		0.75mm	
Weight. (including driven plates)	4 Paddle	3.55Kg	
Complete Assy Inertia.	4 Paddle	0.02009Kgm ²	
Driven Plate & Hub Inertia.	4 Paddle	0.003567Kgm ²	
Release Bearings.	Outer race rotates	CP3457-2 or -10	
	Inner race rotates	CP3457-6	

DRIVEN PLATES.

Thickness.	New = 6.00mm	Worn = 5.63mm
D/Plate Types.	Part Number.	Spline Details.
4 Paddle.	CP8401-A036H x 2	1.00" x 23
Back to back	CP8401-A029H x 2	7/8" x 20
4 Paddle Nested	CP7972-A036H x 2	1.00" x 23
6 Paddle.	CP8601-A036H x 2	1.00" x 23
Back to back		

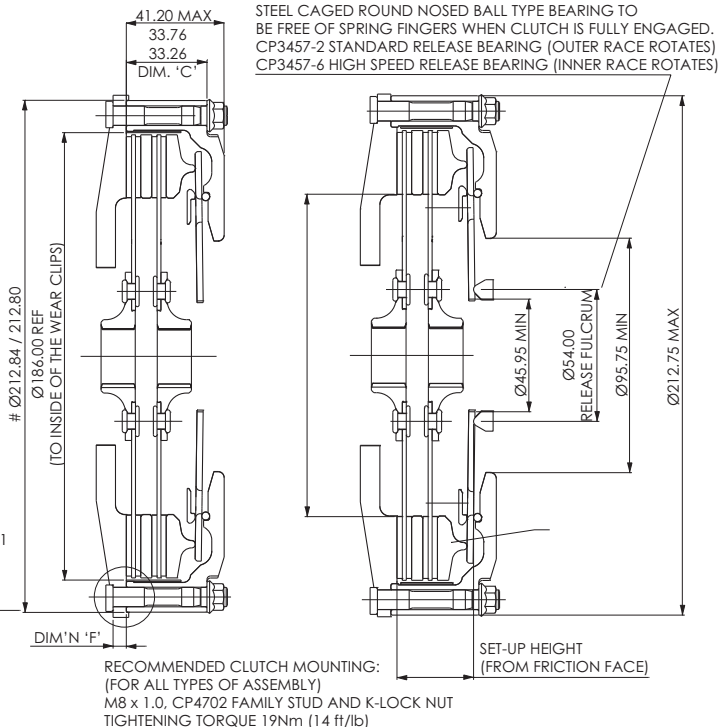
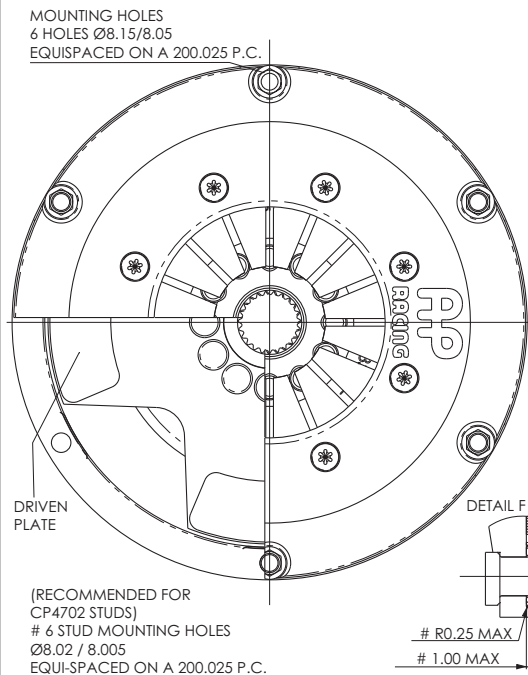
Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

Wear Clips.	CP7972-104
Main Pressure Plate.	CP7972-105
Intermediate Pressure Plate	CP3592-106

INSTALLATION DRAWING



Note: Drawing for guidance only. Download latest issue installation drawing from www.apracing.com

METALLIC RACE CLUTCH - Ø184mm 'I' Drive - CP8022

CP8022.

Ø184mm, 'I' Drive, 2 Plate, Paddle.

APPLICATIONS.

- ▣ WRC.
- ▣ Touring Car.
- ▣ Alternative CP8642 suitable Ford BDA engine.

FEATURES

- ▣ **Asymmetric designed cover.**
 - offers 10% reduction in weight and increased stiffness compared to the more conventional cover designs.
- ▣ **Benefits from a new drive system, featuring drive tenons, which locate into internal jaws of the lugs.**
 - five times more durable than conventional clutch design when subjected to the same test parameters.
 - eradicates distorting of pressure plates trapping on lugs.
- ▣ **Push Type.**
- ▣ **Stepped flywheel fixing.**
 - Inner diameter location.
- ▣ **12 bolt, one piece forged cover and lugs.**
 - machined from Aluminium alloy. Allows dust and debris to escape.
- ▣ **New innovative wear plate design fitted.**
 - combats wear on the drive lugs.
- ▣ **Very low wear rate.**
- ▣ **Individually tested.**
- ▣ **Match machined, balanced and clutch load recorded**
 - Mounting studs available, CP4703.



Note: Alternative Heavy Duty 'I' Drive Clutch.

Non preferred Heavy duty 6 bolt 'I' Drive clutch available CP8642 family suitable for Ford BDA engine applications. Interchangeable with CP7382 standard lug type clutch.

PART NUMBERS.

- CP8022-CH81-SF.
- CP8022-TH81-SF.

TECHNICAL SPECIFICATIONS.

Torque Capacity.	CP8022-CH81-SF	636Nm (469lbf)
	CP8022-TH81-SF	636Nm (469lbf)
Release Loads.	Max peak new.	Max peak worn.
	CP8022-CH81-SF	350daN
CP8022-TH81-SF	400daN	510daN
Set-up Height. (New)	CP8022-CH81-SF	33.22 / 31.88mm
	CP8022-TH81-SF	32.38 / 29.74mm
Set-up Height. (Worn)	CP8022-CH81-SF	35.81mm
	CP8022-TH81-SF	36.65mm
Clutch "Wear In".	CH = 0.75mm	TH = 1.25mm
Weight. (including driven plates)	4 Paddle	3.31Kg
Complete Assy Inertia.	4 Paddle	0.01802Kgm ²
Driven Plate & Hub Inertia.	4 Paddle	0.003567Kgm ²
Release Bearings.	Outer race rotates	CP3457-2 or -10
	Inner race rotates	CP3457-6

DRIVEN PLATES.

Thickness.	New = 6.00mm	Worn = 5.63mm
D/Plate Types.	Part Number.	Spline Details.
	Bonded 3 Paddle, Back to back	CP8301-A036H x 2 CP8301-A029H x 2
Bonded 4 Paddle, Back to back	CP8401-A036H x 2 CP8401-A029H x 2	1.00" x 23 7/8" x 20
	Bonded 6 Paddle, Back to back	CP8601-A036H x 2
4 Paddle Nested	CP7972-A036H x 2	1.00" x 23
Alternative Nested, 4 Paddle	CP8172-10FM4 Flywheel side CP8172-11FM4 Cover side	1.00" x 23

Other splines available see page 133.

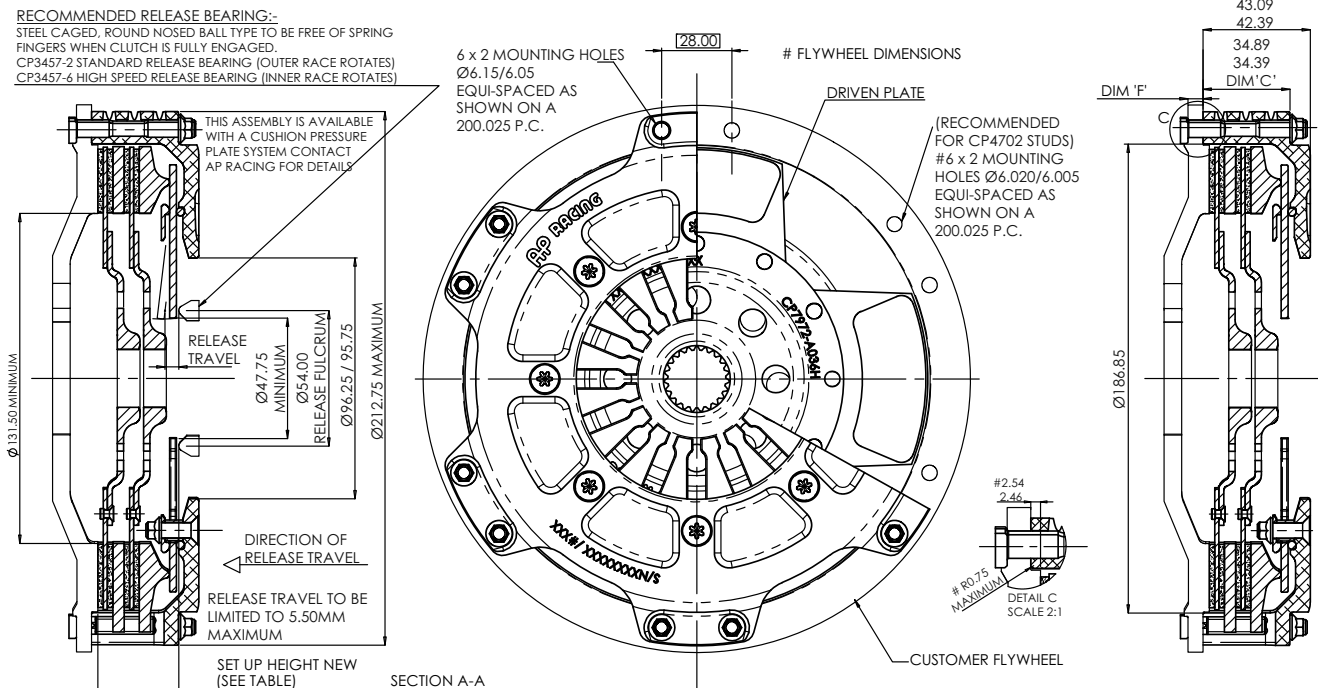
Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

Main Pressure Plate.	CP8022-105
Intermediate Pressure Plate	CP8022-102

INSTALLATION DRAWING

RECOMMENDED RELEASE BEARING:-
STEEL CAGED, ROUND NOSED BALL TYPE TO BE FREE OF SPRING FINGERS WHEN CLUTCH IS FULLY ENGAGED.
CP3457-2 STANDARD RELEASE BEARING (OUTER RACE ROTATES)
CP3457-6 HIGH SPEED RELEASE BEARING (INNER RACE ROTATES)



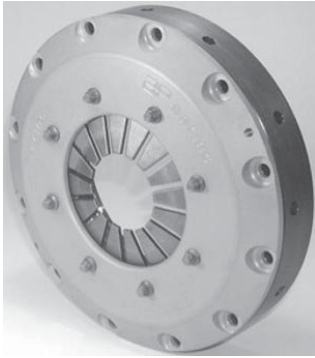
Note: Drawing for guidance only. Download latest issue installation drawing from www.apracing.com



METALLIC RACE CLUTCH - Ø184mm - CP2817

CP2817.

Ø184mm, 3 Plate, A-Ring Sintered.



APPLICATIONS.

- ▣ Hillclimb
- ▣ Race.
- ▣ Saloons.

FEATURES.

- ▣ 3 Plate.
- ▣ Push type.
- ▣ Adaptor ring clutch.
 - ring machined from Aluminium alloy.
- ▣ Stepped flywheel fixing.
 - inner diameter location.
- ▣ 12 bolt Aluminium alloy cover.
- ▣ Hard anodised.
- ▣ Low wear rate.
- ▣ Individually tested.
 - match machined, balanced and clutch load and function.
- ▣ Suitable for engine speeds of 14000 rpm.
- ▣ CP4702 mounting studs available.
- ▣ 6 Bolt cover version also available: Part number CP2572 Family.

PART NUMBERS.

- CP2817ACRV.
- CP2817AORA.
- CP2817AGRN.

TECHNICAL SPECIFICATIONS

Torque Capacity.	CP2817ACRV	978Nm (721lbf)	
	CP2817AORA	631Nm (465lbf)	
	CP2817AGRN	394Nm (291lbf)	
Release Loads.	Max peak new.	Max peak worn.	
	CP2817ACRV	350daN	440daN
	CP2817AORA	240daN	330daN
CP2817AGRN	160daN	220daN	
Set-up Height.	(New)	(Worn)	
	CP2817ACRV	39.52 / 36.45mm	42.04mm
	CP2817AORA	39.78 / 36.68mm	42.30mm
CP2817AGRN	38.95 / 35.87mm	41.46mm	
Clutch "Wear In".		0.75mm	
Weight. (including driven plates)	Back to Back.	5.23Kg	
	Gear Driven.	5.50Kg	
Complete Assy Inertia.	Back to Back.	0.030Kgm ²	
	Gear Driven.	0.032Kgm ²	
Driven Plate & Hub Inertia		0.0060Kgm ²	
Release Bearings.	Outer race rotates	CP3457-2 or -10	
	Inner race rotates	CP3457-6	

DRIVEN PLATES.

Thickness.	New = 2.63mm	Worn = 2.38mm
D/Plate Types.	Part Number.	Spline Details.
Back to Back.	CP2012-166FM3 x 2 (outer plate)	7/8" x 20
	CP2012-179FM3 x 1 (centre plate)	
Gear Driven.	CP2822-23FM3 x 1	1.00" x 23
	CP2822-31FM3 x 2 slider plate	

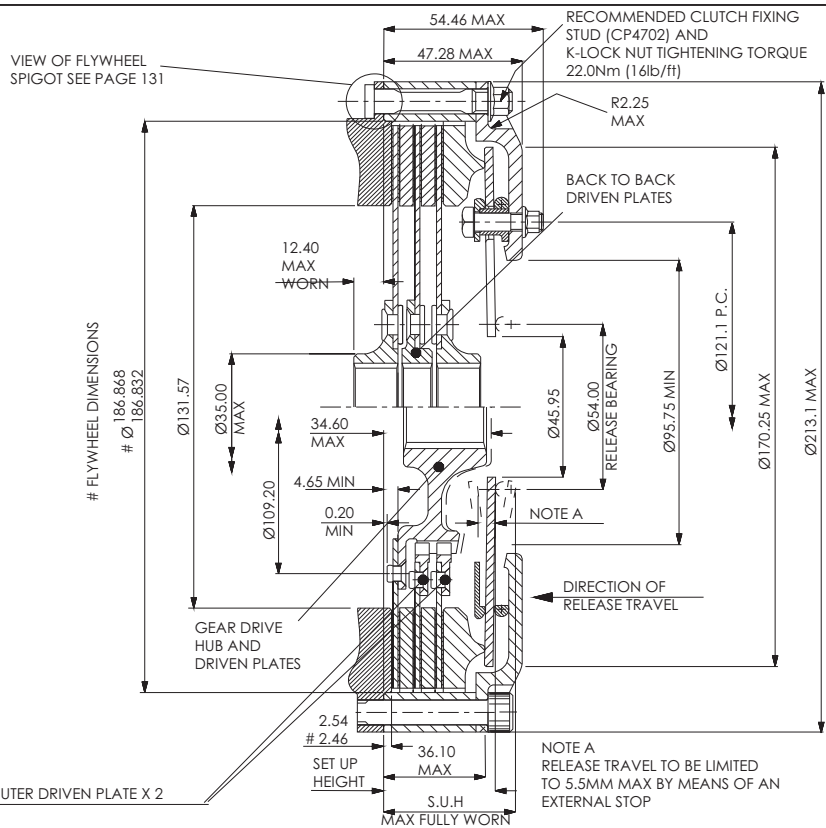
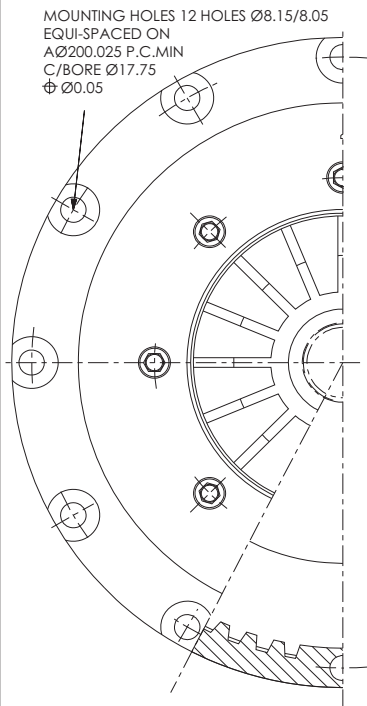
Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

A-Ring Assembly.	CP2616-8
Main Pressure Plate.	CP2613-106
Intermediate Pressure Plate	CP2613-103

INSTALLATION DRAWING



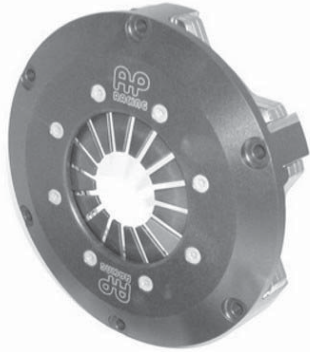
Note: Drawing for guidance only. Download latest issue installation drawing from www.apracing.com

METALLIC RACE CLUTCH - Ø184mm - CP7373



CP7373.

Ø184mm, 3 Plate, Sintered.



APPLICATIONS.

- High Powered Engines.

FEATURES.

- 3 Plate.
- Push type.
- Stepped flywheel fixing.
 - inner diameter location.
- One piece cover and lugs.
 - machined from Aluminium alloy.
- Black hard anodised cover.
- Stainless steel wear clips.
- Low wear rate.
- Individually tested.
 - match machined, balanced and clutch load and function.
- Suitable for engine speeds of 10000 rpm.
- CP4702 mounting studs available.

PART NUMBERS.

- CP7373-CE90-SF.
- CP7373-OE90-SF.
- CP7373-NE90-SF.

TECHNICAL SPECIFICATIONS

Torque Capacity.	CP7373-CE90-SF	1272Nm (938lbft)	
	CP7373-OE90-SF	798Nm (588lbft)	
	CP7373-NE90-SF	491Nm (362lbft)	
Release Loads.	Max peak new.	Max peak worn.	
	CP7373-CE90-SF	350daN	440daN
	CP7373-OE90-SF	240daN	330daN
CP7373-NE90-SF	160daN	220daN	
Set-up Height.	(New)	(Worn)	
	CP7373-CE90-SF	36.18 / 32.94mm	39.39mm
	CP7373-OE90-SF	36.97 / 33.70mm	40.19mm
CP7373-NE90-SF	36.16 / 32.90mm	39.37mm	
Clutch "Wear In".		0.75mm	
Weight. (Excluding driven plates)		3.34Kg	
Assembly Inertia. (Excluding driven plates).		0.0218Kgm ²	
CP2012 Type - Driven Plate & Hub Inertia.		0.0054Kgm ²	
Release Bearings.	Outer race rotates	CP3457-2 or -10	
	Inner race rotates	CP3457-6	

DRIVEN PLATES.

Thickness.	New = 2.63mm	Worn = 2.22mm
D/Plate Types.	Part Number.	Spline Details.
Back to Back.	CP2012-166FM3 x 2 (outer plate)	7/8" x 20
	CP2012-179FM3 x 1 (centre plate)	
Gear Driven.	CP2822-23FM3 x 1	1.00" x 23
	CP2822-31FM3 x 2 slider plate	

Other splines available see page 133.

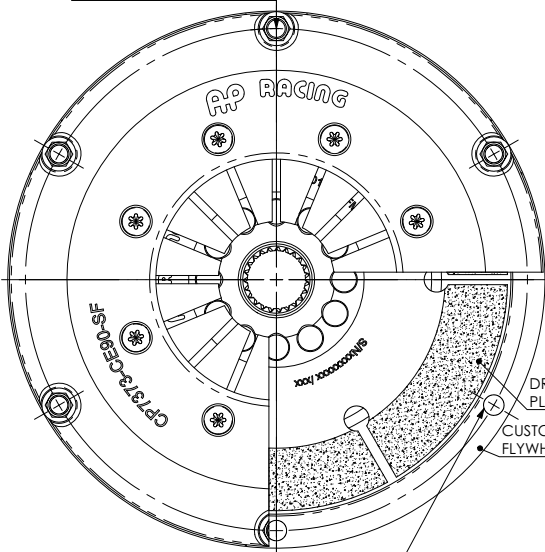
Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

Wear Clips.	CP3913-103
Main Pressure Plate.	CP3021-101
Intermediate Pressure Plate	CP3592-106

INSTALLATION DRAWING

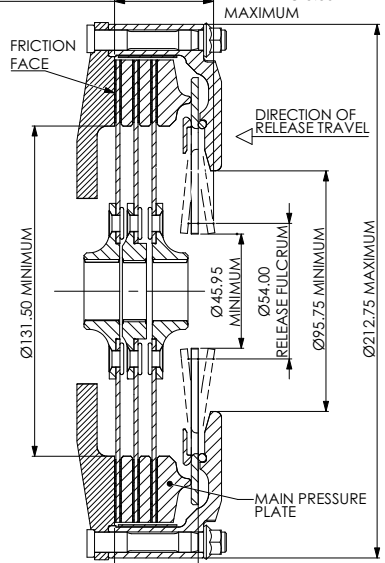
MOUNTING HOLES
6 HOLES Ø8.15/8.05 ON A 200.025 P.C.
MIN C/BORE Ø17.0



(RECOMMENDED FOR CP4702 STUDS)
6 STUD MOUNTING HOLES Ø8.020 / 8.005
ON A Ø200.025 P.C.

RECOMMENDED CLUTCH MOUNTING
CP4702 STUD AND K-LOCK NUT
TIGHTENING TORQUE 19.0Nm (14lb/ft)

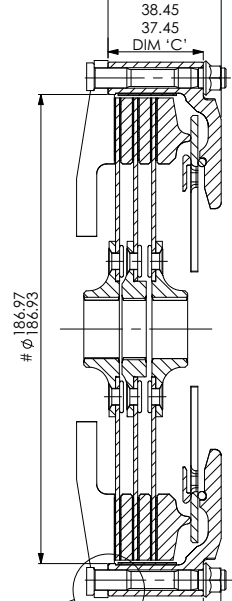
SET-UP HEIGHT
WORN MAXIMUM
(SEE SPECS ABOVE)



SET UP HEIGHT NEW
(SEE SPECS ABOVE)

DETAIL C
SCALE 2 : 1
2.54
2.46
R0.75 MAX

45.35 MAXIMUM



FLYWHEEL DIMENSIONS
STEPPED FLYWHEEL SUFFIC - SF
FLYWHEEL DIMENSIONS

Note: Drawing for guidance only.
Download latest issue installation drawing from
www.apracing.com



METALLIC RACE CLUTCH - Ø200mm - CP3745

CP3745.

Ø200mm, Single Plate, Cerametallic.



APPLICATIONS.

- ▣ Rally.
- ▣ Off Road.

FEATURES.

- ▣ Single Plate.
- ▣ Push type.
- ▣ Flat flywheel fixing.
 - outer diameter location.
- ▣ One piece cover and lugs.
 - machined from billet.
 - provides rigidity and strength and cooler running.
 - allows dust and debris to escape.
- ▣ Durable.
- ▣ Low wear rate.
- ▣ Individually tested.
 - match machined, balanced and clutch load and function.
- ▣ CP4702 mounting studs available.
- ▣ Interchangeable with CP7212 Carbon Clutch.

PART NUMBERS.

- CP3745ACRV.
- CP3745AGRY.

TECHNICAL SPECIFICATIONS

Torque Capacity.	CP3745ACRV	343Nm (253lbf)
	CP3745AGRY	301Nm (222lbf)
Release Loads.	Max peak worn.	
CP3745ACRV	347daN	
CP3745AGRY	289daN	
Set-up Height. (New)	CP3745ACRV	28.23 / 26.95mm
	CP3745AGRY	28.36 / 27.07mm
Set-up Height. (Worn)	CP3745ACRV	30.71mm
	CP3745AGRY	30.85mm
Clutch "Wear In".	0.75mm	

Weight. (including driven plates)		
Rigid Centre.	4 Paddle	3.90Kg
	6 Paddle	4.28Kg
Sprung Centre.	4 Paddle	4.04Kg
	6 Paddle	4.53Kg

Complete Assy Inertia.		
Rigid Centre.	4 Paddle	0.0253Kgm ²
	6 Paddle	0.0262Kgm ²
Sprung Centre.	4 Paddle	0.0264Kgm ²
	6 Paddle	0.0320Kgm ²

Driven Plate & Hub Inertia.		
Rigid Centre.	4 Paddle	0.00330Kgm ²
	6 Paddle	0.00421Kgm ²
Sprung Centre.	4 Paddle	0.00441Kgm ²
	6 Paddle	0.00995Kgm ²

Release Bearings.	Outer race rotates	CP3457-2 or -10
	Inner race rotates	CP3457-6

DRIVEN PLATES.

Thickness.	New = 7.08mm	Worn = 6.29mm
D/Plate Types.	Part Number.	Spline Details.
4 Paddle Rigid.	CP5214-12 x 1	1.00" x 23
4 Paddle Sprung.	CP4814-15 x 1	7/8" x 20
6 Paddle Rigid.	CP5216-15 x 1	1.00" x 23
6 Paddle Sprung.	CP4816-13 x 1	7/8" x 20

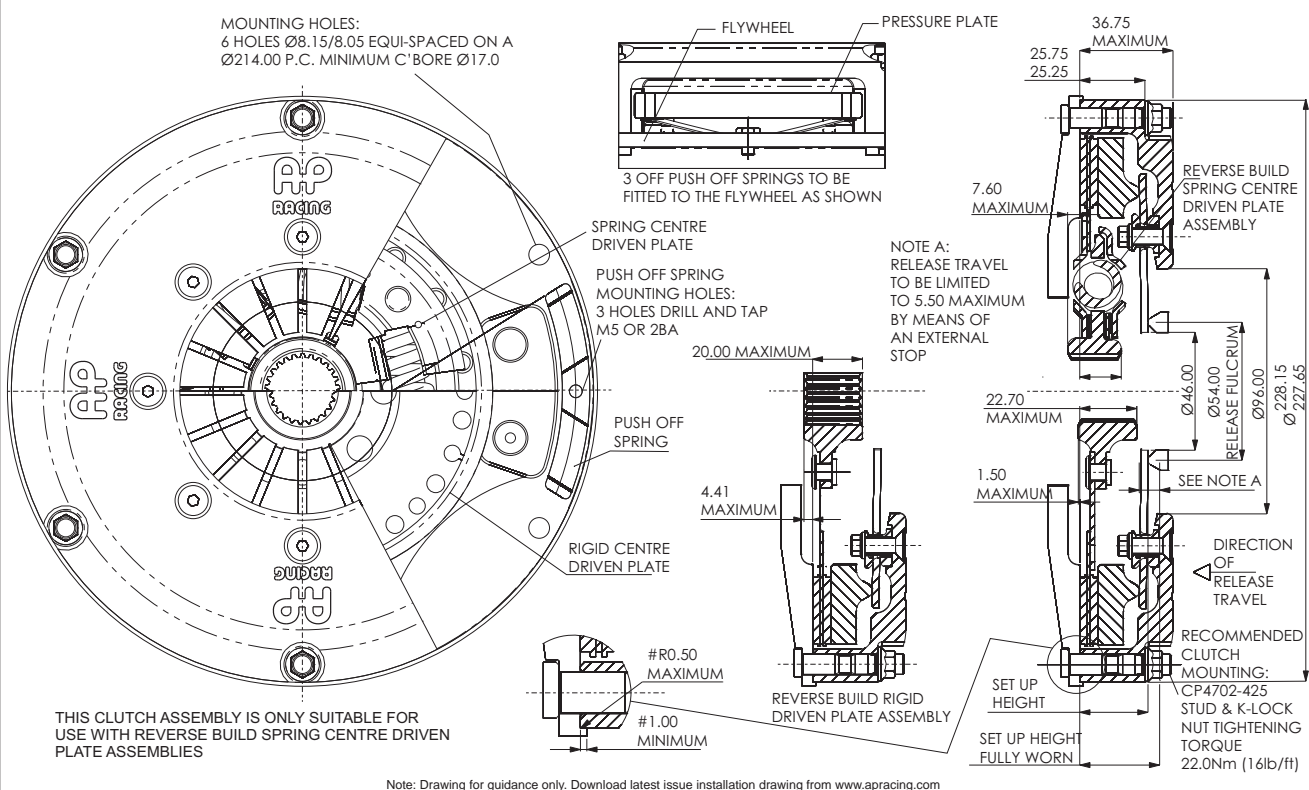
Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

Main Pressure Plate.	CP4560-101
Push-off Springs x 3.	CP3871-103

INSTALLATION DRAWING



Note: Drawing for guidance only. Download latest issue installation drawing from www.apracing.com

METALLIC RACE CLUTCH - Ø200mm - CP3871

CP3871.

Ø200mm, Single Plate, Cerametallic.



APPLICATIONS.

- ▣ Rally.
- ▣ Off Road.

FEATURES.

- ▣ Single Plate.
- ▣ Push type.
- ▣ Stepped flywheel fixing.
 - inner diameter location.
- ▣ High torque capacity.
 - clutch load and function.
- ▣ One piece cover and lugs.
 - machined from billet.
 - provides rigidity and strength and cooler running.
 - allows dust and debris to escape.
- ▣ Low wear rate.
- ▣ Individually tested.
 - match machined, balanced and clutch load and function.
- ▣ CP4702 mounting studs available.

PART NUMBERS.

- CP3871ACRV.
- CP3871AGRY.

TECHNICAL SPECIFICATIONS

Torque Capacity.	CP3871ACRV	525Nm (387lbf)
	CP3871AGRY	420Nm (310lbf)
Release Loads.	Max peak worn.	
CP3871ACRV	420daN	
CP3871AGRY	350daN	
Set-up Height. (New)	CP3871ACRV	38.63 / 36.22mm
	CP3871AGRY	38.41 / 36.00mm
Set-up Height. (Worn)	CP3871ACRV	42.32mm
	CP3871AGRY	42.10mm
Clutch "Wear In".	0.75mm	
Weight. (including driven plates)		
Rigid Centre.	4 Paddle	3.86Kg
	6 Paddle	4.28Kg
Sprung Centre.	4 Paddle	4.00Kg
	6 Paddle	4.49Kg
Complete Assy Inertia.		
Rigid Centre.	4 Paddle	0.0248Kg ^m
	6 Paddle	0.0259Kg ^m
Sprung Centre.	4 Paddle	0.0257Kg ^m
	6 Paddle	0.0315Kg ^m
Driven Plate & Hub Inertia.		
Rigid Centre.	4 Paddle	0.00330Kg ^m
	6 Paddle	0.00421Kg ^m
Sprung Centre.	4 Paddle	0.00441Kg ^m
	6 Paddle	0.00995Kg ^m
Release Bearings.	Outer race rotates	CP3457-2 or -10
	Inner race rotates	CP3457-6

DRIVEN PLATES.

Thickness.	New = 7.08mm	Worn = 6.29mm
D/Plate Types.	Part Number.	Spline Details.
4 Paddle Rigid.	CP5214-12 x 1	1.00" x 23
4 Paddle Sprung.	CP4814-15 x 1	7/8" x 20
6 Paddle Rigid.	CP5216-15 x 1	1.00" x 23
6 Paddle Sprung.	CP4816-13 x 1	7/8" x 20

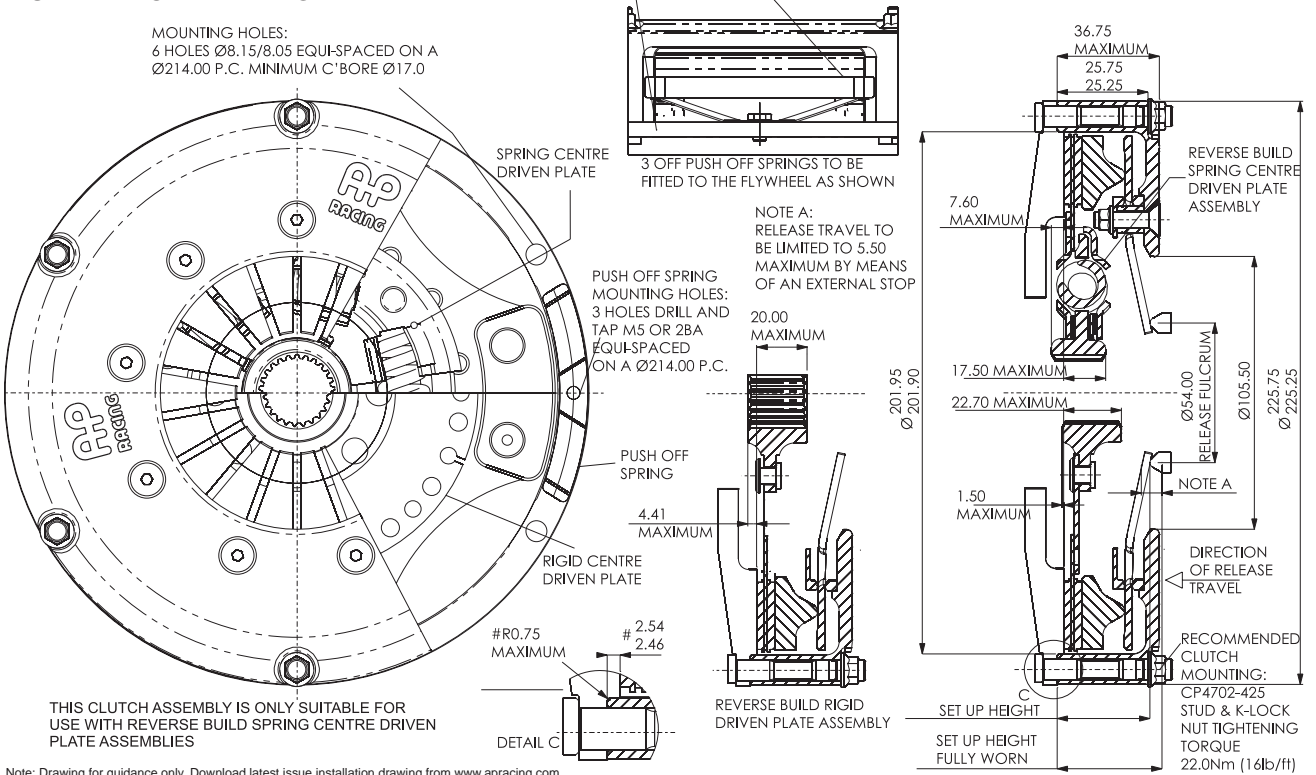
Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

Main Pressure Plate.	CP3871-111
Push-off Springs x 3.	CP3871-103

INSTALLATION DRAWING



METALLIC RACE CLUTCH - Ø200mm - CP4560

CP4560.

Ø200mm, Single Plate, Cerametallic.



APPLICATIONS.

- ▣ Rally.
- ▣ Off Road.

FEATURES.

- ▣ Single Plate.
- ▣ Push type.
- ▣ Stepped flywheel fixing.
 - inner diameter location.
- ▣ One piece cover and lugs.
 - machined from billet.
 - Provides rigidity and strength and cooler running.
 - allows dust and debris to escape.
- ▣ Steel main pressure plate.
 - for applications where clutch speeds exceeds 8000rpm.
- ▣ Durable.
- ▣ Low wear rate.
- ▣ Individually tested.
 - match machined, balanced and clutch load and function.
- ▣ CP4702 mounting studs available.

PART NUMBERS.

- CP4560ACRV.
- CP4560AGRY.

TECHNICAL SPECIFICATIONS

Torque	CP4560ACRV	343Nm (253lbf)
Capacity.	CP4560AGRY	301Nm (222lbf)
Release Loads.	Max peak worn.	
CP4560ACRV	347daN	
CP4560AGRY	289daN	
Set-up Height. (New)	CP4560ACRV	31.11 / 29.16mm
	CP4560AGRY	31.44 / 29.49mm
Set-up Height. (Worn)	CP4560ACRV	33.60mm
	CP4560AGRY	33.93mm
Clutch "Wear In".	0.75mm	
Weight. (including driven plates)		
Rigid Centre.	4 Paddle	3.86Kg
	6 Paddle	4.28Kg
Sprung Centre.	4 Paddle	4.00Kg
	6 Paddle	4.49Kg
Complete Assy Inertia.		
Rigid Centre.	4 Paddle	0.0248Kgm ²
	6 Paddle	0.0259Kgm ²
Sprung Centre.	4 Paddle	0.0257Kgm ²
	6 Paddle	0.0315Kgm ²
Driven Plate & Hub Inertia.		
Rigid Centre.	4 Paddle	0.00330Kgm ²
	6 Paddle	0.00421Kgm ²
Sprung Centre.	4 Paddle	0.00441Kgm ²
	6 Paddle	0.00995Kgm ²
Release Bearing.	Outer race rotates	CP3457-2 or -10
	Inner race rotates	CP3457-6

DRIVEN PLATES.

Thickness.	New = 7.08mm	Worn = 6.29mm
D/Plate Types.	Part Number.	Spline Details.
4 Paddle Rigid.	CP5214-12 x 1	1.00" x 23
4 Paddle Sprung.	CP4814-15 x 1	7/8" x 20
6 Paddle Rigid.	CP5216-15 x 1	1.00" x 23
6 Paddle Sprung.	CP4816-13 x 1	7/8" x 20

Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

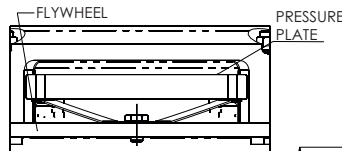
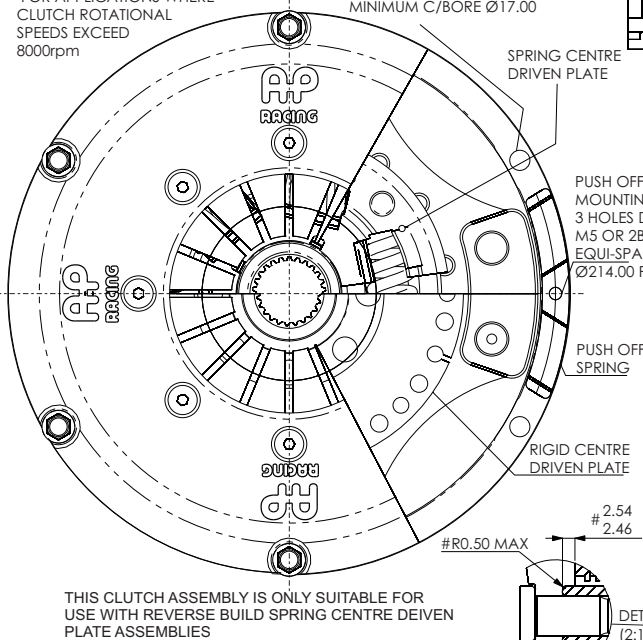
SPARE PARTS.

Cover	CP4560ACRV	CP4560-1CRV
Assemblies.	CP4560AGRY	CP4560-1GRY
Main Pressure Plate.	CP4560-101	
Push-off Springs x 3.	CP3871-103	

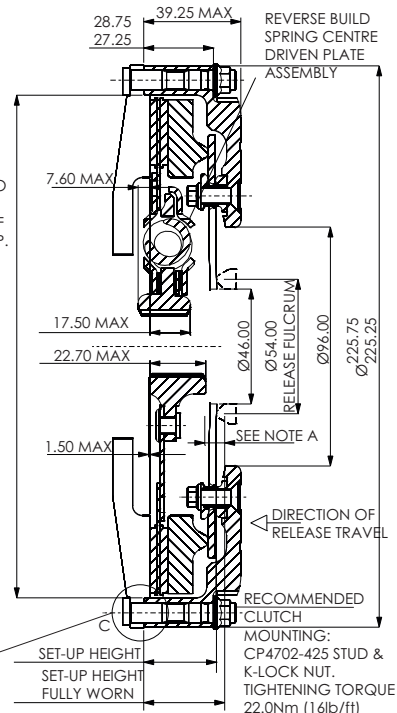
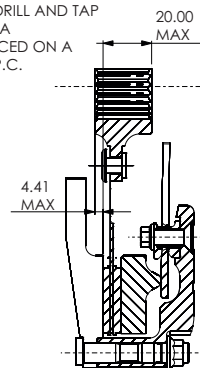
INSTALLATION DRAWING

NOTE:
THIS CLUTCH ASSEMBLY
INCORPORATES A STEEL
MAIN PRESSURE PLATE
FOR APPLICATIONS WHERE
CLUTCH ROTATIONAL
SPEEDS EXCEED
8000rpm

MOUNTING HOLES:
6 HOLES Ø8.15/8.05 EQUI-SPACED
ON A Ø214.00 P.C.
MINIMUM C/BORE Ø17.00



NOTE A
RELEASE TRAVEL TO
BE LIMITED TO 5.50
MAX BY MEANS OF
AN EXTERNAL STOP.



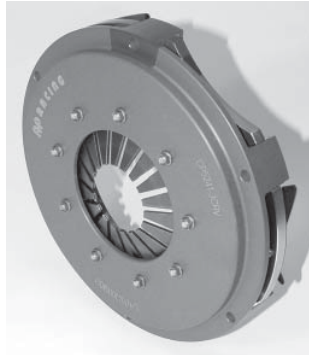
Note: Drawing for guidance only. Download latest issue installation drawing from www.apracing.com



METALLIC RACE CLUTCH - Ø215mm - CP5241

CP5241.

Ø215mm, Single Plate, Cerametallic Paddle.



APPLICATIONS.

- ▣ Race.
- ▣ Rally.

FEATURES.

- ▣ Single Plate.
- ▣ Push type.
- ▣ Stepped flywheel fixing.
 - inner diameter location.
- ▣ One piece cover and lugs.
 - machined from billet.
 - Provides rigidity and strength and cooler running.
 - allows dust and debris to escape.
- ▣ Low maintenance.
- ▣ Low wear rate.
- ▣ Individually tested.
 - match machined, balanced and clutch load and function.
- ▣ CP4702 mounting studs available.
- ▣ Supersedes CP2861 Clutch series.

PART NUMBERS.

- CP5241-3CRV.
- CP5241-3GRY.

TECHNICAL SPECIFICATIONS

Torque Capacity.	CP5241-3CRV	580Nm (427lbf)
	CP5241-3GRY	425Nm (314lbf)
Release Loads.	Max peak worn.	
	CP5241-3CRV	420daN
CP5241-3GRY	300daN	
Set-up Height. (New)	CP5241-3CRV	40.09 / 38.23mm
	CP5241-3GRY	39.35 / 37.39mm
Set-up Height. (Worn)	CP5241-3CRV	43.86mm
	CP5241-3GRY	43.12mm
Clutch "Wear In".		0.75mm
Weight. (including driven plates)	4 Paddle Sprung	5.20Kg
	4 Paddle Rigid	4.80Kg
	6 Paddle Rigid	5.10Kg
Release Bearings.	Outer race rotates	CP3457-2 or -10
	Inner race rotates	CP3457-6

DRIVEN PLATES.

Thickness.	New = 8.89mm	Worn = 8.10mm
D/Plate Types.	Part Number.	Spline Details.
4 Paddle Rigid.	CP5344-10 x 1	29mm x 10
	CP5344-30 x 1	1.00" x 22
4 Paddle Sprung.	CP5354-17 x 1	1.00" x 23
	CP5354-34 x 1	7/8" x 20
6 Paddle Rigid.	CP5346-12 x 1	1.00" x 23
	CP5346-2 x 1	29mm x 21

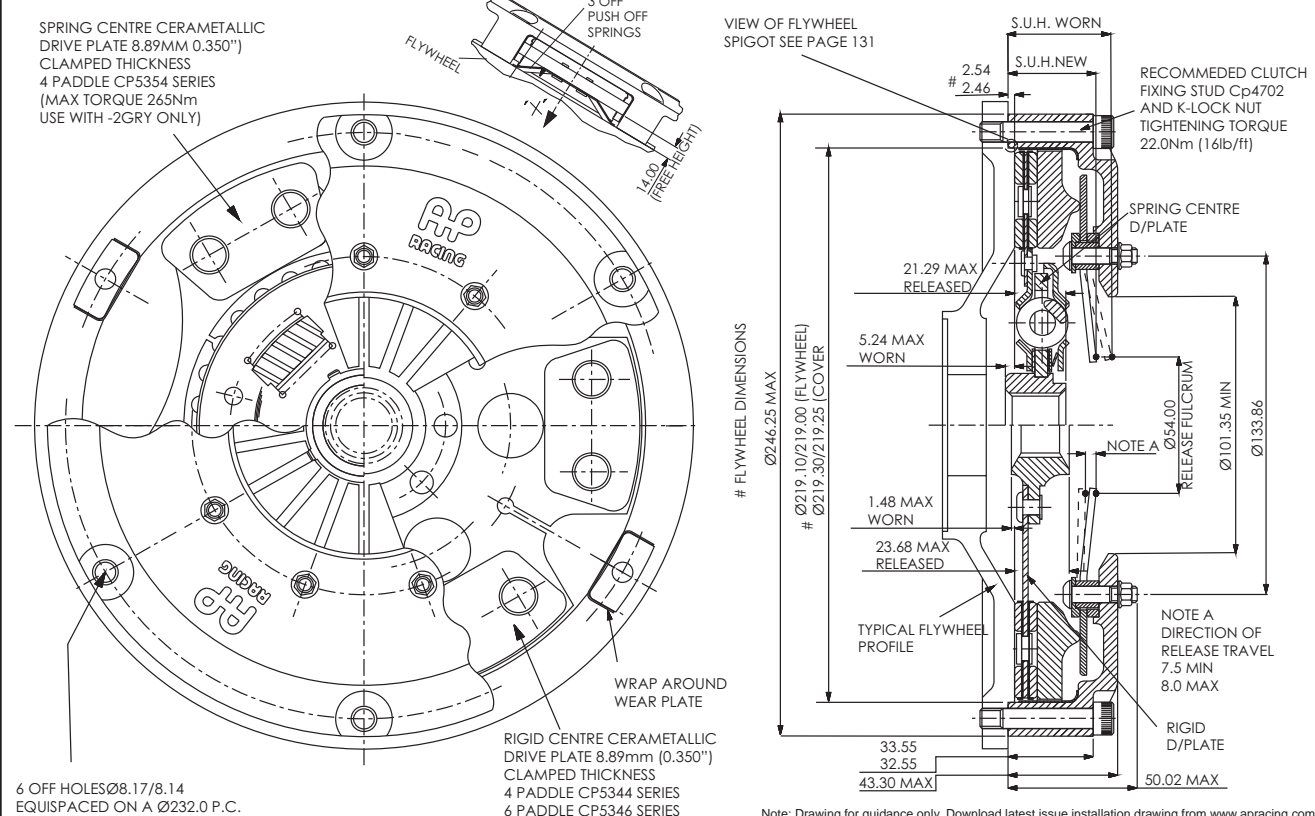
Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

Wear Clips.	CP5241-104
Main Pressure Plate.	CP5241-5
Push-off Springs x 3.	CP2603-126

INSTALLATION DRAWING



METALLIC RACE CLUTCH - Ø215mm - CP5242

CP5242.

Ø215mm, 2 Plate, Cerametallic Paddle.



APPLICATIONS.

- ▣ Race.
- ▣ Rally.

FEATURES.

- ▣ 2 Plate.
- ▣ Push type.
- ▣ Stepped flywheel fixing.
 - inner diameter location.
- ▣ One piece cover and lugs.
 - machined from billet.
 - provides rigidity and strength and cooler running.
 - allows dust and debris to escape.
- ▣ Heavy duty.
- ▣ Low maintenance
- ▣ Individually tested.
 - match machined, balanced and clutch load and function.

PART NUMBERS.

- CP5242-2CRV.

TECHNICAL SPECIFICATIONS

Torque Capacity.	842Nm (621lbf)	
Release Loads.	Max peak worn.	
	420daN	
Set-up Height. (New)	53.84 / 51.91mm	
Set-up Height. (Worn)	57.65mm	
Clutch "Wear In".	1.00mm	
Weight. (including driven plates)	7.74Kg	
Complete Assembly Inertia	4 Paddle	0.063358Kgm ²
Driven Plate & Hub Inertia	4 Paddle	0.005833Kgm ²
Release Bearings.	Outer race rotates	CP3457-2
	Inner race rotates	CP3457-6

DRIVEN PLATES.

Thickness.	New = 7.08mm	Worn = 6.58mm
D/Plate Types.	Part Number.	Spline Details.
4 Paddle Rigid.	CP6180-1 x 2	1.06" x 10
	CP6180-2 x 2	1.00" x 23
	CP6180-3 x 2	1.00" x 24
	CP6180-4 x 2	1.16" x 26
	CP6180-5 x 2	1.12" x 10

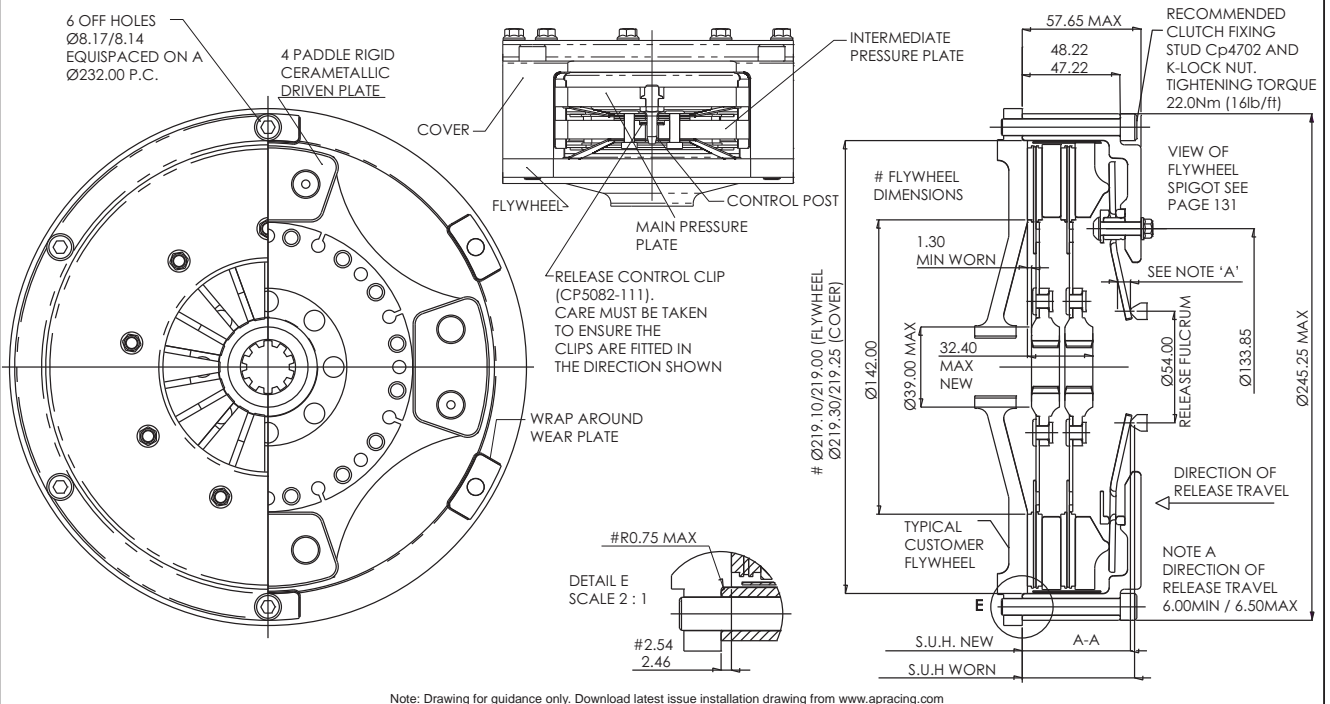
Other splines available see page 133.

Note: Clutch supplied less driven plates. Order Separately.

SPARE PARTS.

Wear Clips.	CP4462-104
Main Pressure Plate.	CP5242-10
Intermediate Pressure Plate.	CP5242-11

INSTALLATION DRAWING



Note: Drawing for guidance only. Download latest issue installation drawing from www.apracing.com

METALLIC RACE CLUTCH - Mounting Information

MOUNTING.

The drawings below provide detailed information for all flywheel spigots / mounting for every size of race clutch in the publication. AP Racing recommend that all their race clutches are mounted to the flywheel by using either CP4703 / CP4702 studs. Mounting hole, P.C.D. and tightening torque details are given for all drawings below.

MOUNTING HOLES.
10 HOLES Ø6.50/6.40 EQUI-SPACED
ON A Ø127.50 P.C. / Ø0.05

Recommended Stud & Nut Tightening
Torque = 10Nm (7.5lb/ft)

Ø115mm Stepped Flywheel

MOUNTING HOLES. 6 / 12 HOLES
Ø8.020/8.005 EQUI-SPACED
ON A Ø200.025 P.C.

Recommended Stud & Nut Tightening
Torque = 22Nm (16lb/ft)

Ø184mm Stepped Flywheel

MOUNTING HOLES. 6 HOLES
Ø8.020/8.005 EQUI-SPACED
ON A Ø214.00 P.C.

Recommended Stud & Nut Tightening
Torque = 22Nm (16lb/ft)

Ø200mm Flat Flywheel

MOUNTING HOLES. 8 HOLES
Ø8.020/8.005 EQUI-SPACED
ON A Ø154.45 P.C.

Recommended Stud & Nut Tightening
Torque = 22Nm (16lb/ft)

Ø140mm Stepped Flywheel

MOUNTING HOLES. 6 HOLES
Ø8.020/8.005 EQUI-SPACED
ON A Ø200.025 P.C.

Recommended Stud & Nut Tightening
Torque = 22Nm (16lb/ft)

Ø184mm Flat Flywheel

MOUNTING HOLES.
6 OFF HOLES
EQUI-SPACED
ON A Ø232.00
P.C. Ø0.05

Recommended Stud & Nut Tightening
Torque = 10Nm (7.5lb/ft)

**Ø215mm Stepped Flywheel
with Stud Fixing**

MOUNTING HOLES. 8 HOLES
Ø8.020/8.005 EQUI-SPACED
ON A Ø154.45 P.C.

Recommended Stud & Nut Tightening
Torque = 22Nm (16lb/ft)

Ø140mm Flat Flywheel

MOUNTING HOLES. 6 HOLES
Ø8.020/8.005 EQUI-SPACED
ON A Ø214.00 P.C.

Recommended Stud & Nut Tightening
Torque = 22Nm (16lb/ft)

Ø200mm Stepped Flywheel

6 / 8 MOUNTING HOLES. EQUI-SPACED
ON A P.C.D AS FOR STUDS THREAD
M8 OR 5/16UNF
NB C'BORED THR'DTIGHTENING
TORQUE 22.0Nm (16lb/ft)

**ALTERNATIVE FIXING USING BOLT
FOR 140MM - 215MM
STEPPED FLYWHEEL**

FIXING / MOUNTING STUDS.

The recommended method of mounting the clutch to the flywheel is with a mounting stud and K-Lock nut.
Recommended tightening torque 22Nm (16lb/ft) for M8 & 5/16" UNF.
AP Racing offer a range of studs for mounting clutches to flywheels (see page 137). These high quality steel mounting studs are available in either M6, M8, 1/4" & 5/16" UNF to suit clutches of Ø115mm and above.
All studs have rolled threads for improved fatigue resistance. The stud design incorporates offset head flats for location, necked down shanks and precision ground location diameters.
All kits come complete with relevant K-lock nuts. See above for flywheel mounting details.

FLYWHEELS.

A purpose machined flywheel is required. The friction face should be a good quality close grained cast iron or steel (0.35 / 0.45 % carbon, hardness 200Hb minimum), with a surface finish of 75µm RA (30 CLA) maximum. Run out when assembled to the crankshaft must not exceed 0.08mm (0.003") maximum at 76mm (3.0") radius. Fixing holes and location spigot to be machined as shown above.
N.B. Cast Iron flywheels should not be used above 10000rpm.

METALLIC RACE CLUTCH - Driven Plates

DRIVEN PLATE RANGE.

The table below provides a quick reference on the range of driven plates relevant to there clutch assemblies.

Clutch Series No.	Available Driven Plate Types.									
	Sintered.				Bonded / Cerametallic / Paddle.					
	Back To Back	Back to Back Extended hub nose	Nested Types	Gear Driven	3 Paddle	4 Paddle	6 Paddle	6 Paddle Sprung	6 Paddle Rigid	6 Paddle Sprung
CP2116	CP4429 CP2012									
CP2125	CP2012		CP2567	CP3822						
CP2606					CP8300	CP8400	CP8600			
CP2817				CP2822						
CP3745								CP5216	CP4814	CP4816
CP3871								CP5216	CP4814	CP4816
CP4560								CP5216	CP4814	CP4816
CP5241								CP5346	CP5354	
CP5242						CP6180				
CP6001		CP3407								
CP6002	CP3414	CP3407		CP4122						
CP6003	CP3414			CP4123						
CP6013	CP3683	CP6014		CP4074						
CP6014	CP3683	CP6014		CP4074						
CP6073	CP5004		CP6074	CP6174						
CP6074	CP5004		CP6074	CP6174						
CP6092					CP4581					
CP7371	CP4429 CP2012									
CP7372	CP2012		CP2567	CP3822						
CP7373	CP2012			CP2822						
CP7381					CP8300	CP8400	CP8600			
CP7382					CP8300	CP8400	CP8600			
CP7392					CP8300	CP8400	CP8600			
CP7972			CP7972		CP8401	CP8601				
CP8022			CP7972 CP8172		CP8031	CP8401	CP8601			
CP8773	CP3683									
CP8804	CP3683									

DRIVEN PLATE MATERIAL TYPES.

■ SINTERED:- A thin layer of metallic friction material which is sintered directly onto a steel disc. Normally for circuit use only.



■ CERAMETALLIC PADDLE:- Cerametallic buttons riveted to a steel disc giving improved heat dissipation. Used mainly for Rally applications where more clutch slip is required in order to modulate the drive.



■ BONDED PADDLE:- Direct sintered material offering increased friction surface area.



DRIVEN PLATE DESIGNS.



■ SINTERED SOLID BACK TO BACK:- Available in sizes Ø115, Ø140 and Ø184mm. - Ø140mm has a large area plate available **CP3683**.

■ BACK TO BACK EXTENDED HUB NOSE:- Available in sizes Ø140mm Single or twin plate clutches. Extended nose to increase spline engagement to reduce wear.



■ GEAR DRIVEN:- Designed to provide increased flywheel / crankshaft fixing bolt clearance and maximum spline length. Available in Ø140 and Ø184mm in either 2,3 or 4 plate versions. Recommended where a high level of engine vibration or input shaft runout can be expected.

■ (NESTED) TYPE:- Allows for extra flywheel / crankshaft fixing bolt clearance. Available on Ø115mm & Ø184mm clutches only.



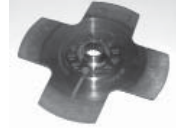
CP2567 P/
Plate Side



CP2567 F/
wheel Side

■ RIGID SINTERED PADDLE

- 4 Paddle Sintered CP4429 available for CP2116 and CP7371 single plate clutches.



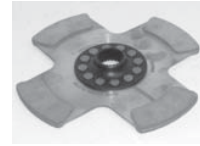
■ RIGID PADDLE OR CERAMETALLIC PLATES:-



- **CP4581**,
Ø140mm. 3 paddle.
6.25mm Thick.



- **CP8300**,
Ø184mm. 3 Paddle.
7.08mm Thick.



- **CP8400, CP8401**
Ø184mm. 4 Paddle.
7.08mm/6.00mm Thick.



- **CP8600, or CP8601**
Ø184mm. 6 Paddle.
7.08mm/6.0mm Thick.



- **CP5214**,
Ø200mm. 4 paddle.
7.08mm Thick.



- **CP5216**,
Ø200mm.6 paddle.
7.08mm Thick.



- **CP5344 / CP6180**,
Ø215mm. 4 paddle.
8.89mm Thick.



- **CP5346**,
Ø215mm. 6 paddle.
8.89mm Thick.

■ SPRING CENTRE CERAMETALLIC:-

These plates are available in 4 or 6 paddle configurations but use a sprung centre hub with damper springs to reduce the torsional vibrations in the drive-line. For Ø200mm and 215mm clutches.



CP4814 / CP5354
7.08mm Thick.



CP4816
7.08mm Thick.

BONDED CERAMETALLIC DRIVEN PLATE PART NUMBERING EXPLANATION.

The table below explains the new part numbering system for the new range of Driven Plates. See table overleaf for driven plates.

CP8300 - A 036 H

Family Part Number.	Hub Profile.	Spline Details.	Hub Treatment.
CP8300 3 Paddle, 7.11mm Thick.	A = Standard	001 0.87" x 10	H = Hardened.
CP8301 3 Paddle, 6.00mm Thick.		026 0.87" x 20	
CP8400 4 Paddle, 7.11mm Thick.		036 1.00" x 23	
CP8401 4 Paddle, 6.0mm Thick.		040 1.16" x 26	
CP8600 6 Paddle, 7.11mm Thick.		004 1.125" x 10	
CP8601 6 Paddle, 6.0mm Thick.		036 1.00" x 23	

DRIVEN PLATE THICKNESS & WEAR IN.

The total allowable driven plate wear will vary according to the "wear in" and the number of driven plates for each particular clutch. e.g for a 3 plate clutch with 0.75mm "wear in" each plate can wear 0.75mm / 3 = 0.25mm from new. The minimum worn driven plate thickness given in this catalogue assume even wear across all plates. However it is permissible to run individual plates below this thickness provided the total wear does not exceed the "wear in" figure.

METALLIC RACE CLUTCH - Driven Plate Chart

DRIVEN PLATE CHART.

The table below provides information on the most popular of splines available for the race clutch driven plates detailed in this section. AP Racing offer many more driven plates with different thicknesses, so should you require a driven plate or a different spline not given below please contact AP Racing Technical Section for assistance.

No. of Teeth.	10	10	10	10	10	10	17	18	20	21	21	21	21	22	23	24	24	26	26	Gear drive sliders		
Spline Shaft O.D (in mm) unless stated.	.875"	1"	1.062"	1.125"	1.25"	29	20	21.1	.875"	18.3	.92"	24	29	1"	1"	.8"	1"	22	1.16"			
S I N T E R E D D R I V E N P L A T E S	1 1 5	CP5004, back to back.			-10 FM3	-7 FM3			-6 FM4						-5 FM4	-16 FM4		-8 FM4				
		CP6074, Nested.													-22 FM4	-23 FM4		-18 FM4	-19 FM4			
		-37 FM3	-57 FM3		-4 FM3	-8 FM3			-53 FM3	-26 FM3			-63 FM3	-61 FM3		-36 FM3	-51 FM3		-40 FM3			
		CP3407, Ext hub.																				
		CP3414, back to back.			-30 FM3		-20 FM3	-37 FM3	-25 FM3	-43 FM3	-36 FM3	-18 FM3		-45 FM3	-21 FM3	-27 FM3	-40 FM3		-32 FM3	-50 FM3		
		CP4122, Gear driven.					-7 FM3	-6 FM3	-12 FM3	-4 FM3						-2 FM3		-3 FM3	-5 FM3			
		CP4123 gear driven.					-7 FM3		-9 FM3	-4 FM3				-10 FM3		-2 FM3		-3 FM3	-6 FM3		CP4124 9FM3	
		CP3683 - Large area back to back.					-5 FM3		-13 FM3	-4 FM3				-6 FM3		-3 FM3			-12 FM3			
		CP6014, Ext hub.																	-9 FM3	-10 FM3		
		CP4073, Gear driven.					-10 FM3		-7 FM3		-6 FM3					-4 FM3		-5 FM3	-3 FM3			
		CP4074, Gear driven.					-14 FM3		-12 FM3		-10 FM3					-2 FM3		-9 FM3	-11 FM3		CP4074 6FM3	
		-208 FM3	-164 FM3	-198 FM3	-117 FM3	-174 FM3	-199 FM3	-184 FM3	-205 FM3	-166 FM3	-204 FM3	-188 FM3	-161 FM3	-191 FM3	-192 FM3	-165 FM3	-167 FM3	-154 FM3	-216 FM3	-171 FM3		
		CP2012, Outer type.					-181 FM3	-169 FM3	-172 FM3	-244 FM3	-179 FM3			-240 FM3	-220 FM3	-178 FM3		-210 FM3	-173 FM3			
		CP2567, Nested F/Wheel side.			-35 FM3		-15 FM3		-29 FM3		-7 FM3	-L		-33 FM3		-41 FM3	-23 FM3	-37 FM3		-11 FM3		
	CP2567, Nested P/Plate side.			-36 FM3		-16 FM3		-30 FM3		-8 FM3	-L		-34 FM3		-42 FM3	-24 FM3	-38 FM3		-12 FM3			
	CP2822, 3 Plate, gear driven.				-39 FM3	-3 FM3	-27 FM3	-29 FM3		-20 FM3			-36 FM3		-23 FM3		-32 FM3	-6 FM3		CP2822 31 FM3		
	CP3822, 2 Plate, gear driven.					-17 FM3		-15 FM3		-11 FM3					-10 FM3	-13 FM3		-14 FM3				
B O N D E D D / P L A T E S	1 4 0	CP4581, 3 Paddle.							-6		-9				-4				-3			
		CP4429, 4 Paddle, 2.6mm thick.					-6 FM4		-5 FM4		-11 FM4		-3 FM4		-12 FM4		-10 FM4	-4 FM4		-8 FM4	-9 FM4	-14 FM4
		-A 001	-A 002	-A 003	-A 004	-A 008	-A 017	-A 019	-A 026	-A 028	-A 029	-A 030	-A 033	-A 034	-A 036H	-A 037	-A 038H	-A 043	-A 040			
		-A 001	-A 002		-A 004	-A 008	-A 017	-A 019	-A 026			-A 030		-A 034	-A 036H	-A 037	-A 038H		-A 040			
		CP8401, 4 Paddle, 6.0mm thick.														-A 036H						
		CP8600, 6 Paddle, 7.1mm thick.					-A 004		-A 008		-A 019		-A 026			-A 036H		-A 038H	-A 043	-A 040		
		CP8601, 6 Paddle, 6.0mm thick.														-A 036H						
		CP7972, Nested 6 Paddle, 6.0mm thick.														-A 036H						
		CP8172, Alt, Nested 6 Paddle, 6.0mm thick. F = Flywheel / C = Cover														F-10 FM4						
	C E R A M E T A L L I C D R I V E N P L A T E S	1 8 4	CP4946, 6 Paddle rigid.					-17	-12		-2	-6					-7				-9	
		CP5214, 4 Paddle rigid, 7.1mm								-18	-14			-35	-16		-12	-15	-13			
		CP5214, 4 Paddle rigid, 7.6mm									-21				-20		-27					
		CP5214, 4 Paddle rigid, 8.9mm											-25									
		CP5216, 6 Paddle rigid, 7.1mm					-22									-11	-15		-13	-26	-23	
		CP5216, 6 Paddle rigid, 7.6mm															-25					
		CP5216, 6 Paddle rigid, 8.9mm									-20						-19				-21	
		CP4814, 4 Paddle sprung, 7.1mm								-11	-14	-15					-21		-13	-12		
		CP4814, 4 Paddle sprung, 7.6mm									-24						-26		-23		-25	
		CP4814, 4 Paddle sprung, 8.9mm																	-31			
		CP4816, 6 Paddle sprung 7.1mm							-11								-12		-23	-26	-17	
		CP4816, 6 Paddle sprung, 8.9mm														-21	-20					
		CP6180, 4 Paddle rigid					-1	-5							-7	-2		-3		-4		
		CP5344, 4 Paddle rigid, 7.1mm					-33	-14			-26				-37	-4	-5		-8	-32		
	CP5344, 4 Paddle rigid, 8.9mm							-10							-30							
	CP5354, 4 Paddle, sprung, 7.1mm					-3		-52	-14	-15					-10	-38		-40	-45			
	CP5354, 4 Paddle, sprung, 8.9mm							-25	-18							-17		-44				
	CP5346, 6 Paddle rigid, 8.9mm							-19		-11	-21	-6			-4	-2	-8	-12	-14	-15		

