

# A1 INSTALLATION DRAWING

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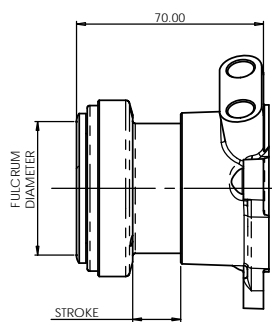


AP Racing  
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Coventry  
CV3 4LB

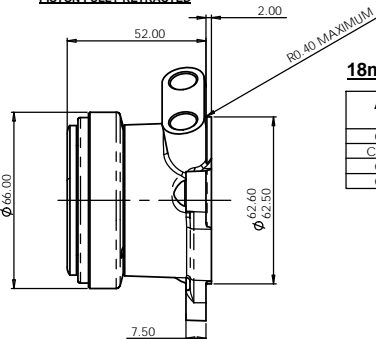
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**PISTON AT FULL STROKE**



**PISTON FULLY RETRACTED**

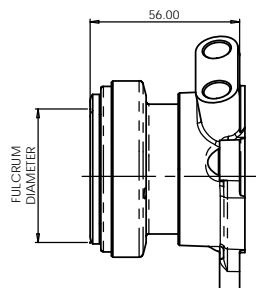


## 18mm STROKE - INNER ROTATING RACE (HIGH SPEED)

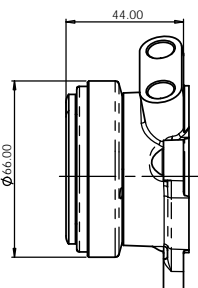
ASSEMBLY NUMBER	FULCRUM DIAMETER	FULL STROKE	REPLACEMENT BEARING SUB. ASSY.
CP6859-38	38.0 (1.496")	18.0 (0.709")	CP3457-16
CP6859-45-IN	45.0 (1.772")	18.0 (0.709")	CP3457-26
CP6859-50	50.0 (1.969")	18.0 (0.709")	CP3457-11
CP6859-54	54.0 (2.126")	18.0 (0.709")	CP3457-6

THIS SLAVE CYLINDER FEATURES :  
THE BEARING IS HOUSED IN THE PISTON VIA THE OUTER RACE  
THE INNER RACE ROTATES, SUITABLE FOR HIGH SPEED APPLICATIONS.

**PISTON AT FULL STROKE**

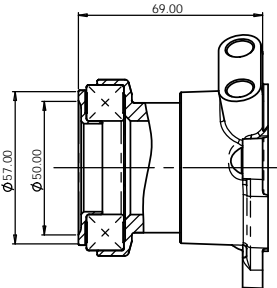


**PISTON FULLY RETRACTED**

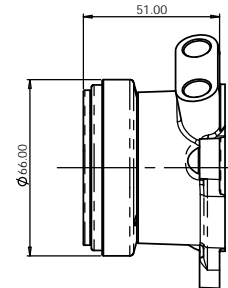


THIS SLAVE CYLINDER FEATURES :  
A SHORTENED STROKE SO AS TO REDUCE THE OVERALL LENGTH.  
THE BEARING IS HOUSED IN THE PISTON VIA THE OUTER RACE  
THE INNER RACE ROTATES, SUITABLE FOR HIGH SPEED APPLICATIONS.  
ALL OTHER MOUNTING DIMENSIONS REMAIN THE SAME.

**PISTON AT FULL STROKE**



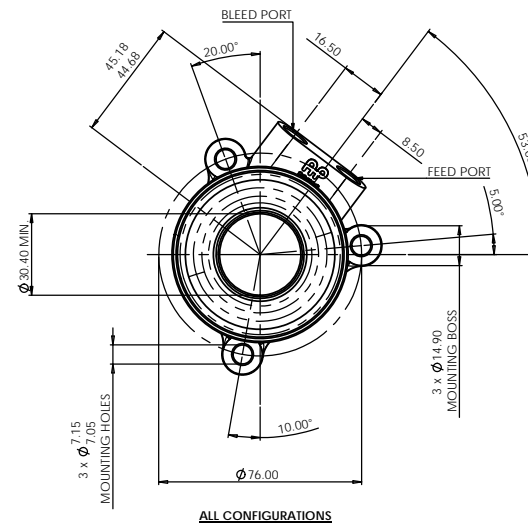
**PISTON FULLY RETRACTED**



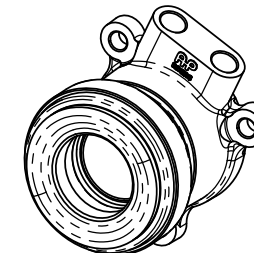
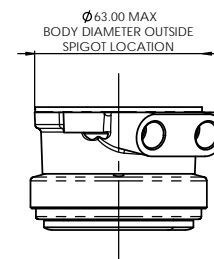
## 18mm STROKE - INNER ROTATING RACE (HIGH SPEED) FLAT FULCRUM

ASSEMBLY NUMBER	FULCRUM DIAMETER	FULL STROKE	REPLACEMENT BEARING SUB. ASSY.
CP6859-14	N/A	18.0 (0.709")	CP3457-22

THIS SLAVE CYLINDER FEATURES :  
THE BEARING IS HOUSED IN THE PISTON VIA THE OUTER RACE  
THE INNER RACE ROTATES, SUITABLE FOR HIGH SPEED APPLICATIONS.



ALL CONFIGURATIONS



### DESCRIPTION

THE CP6859 SERIES CONCENTRIC SLAVE CYLINDER IS A LIGHTWEIGHT, HYDRAULICALLY SELF-CONTAINED UNIT WITH HIGH TEMPERATURE SEALS. ALL SEALING SURFACES ARE PROTECTED BY A HARD WEARING / LOW FRICTION COATING WHICH HELPS PROLONG SEAL LIFE.

ENSURE THAT THE UNIT IS INSTALLED AT THE SPECIFIED ANGLE, WITH THE BLEED PORT UPPERMOST. ALL FITTINGS INTENDED TO SEAT AT THE BOTTOM OF THE HYDRAULIC PORTS MUST HAVE AN INCLUDED ANGLE OF 90°

BODY MATERIAL: ALUMINIUM ALLOY (FORGED)

PISTON MATERIAL: ALUMINIUM ALLOY

EFFECTIVE AREA: 920 mm<sup>2</sup> (1.426 sq. ft.)  
MAXIMUM STROKE: REFER TO TABLE  
MAXIMUM PRESSURE: 8.6 N/mm<sup>2</sup> (1250 psi)

CALCULATED WEIGHTS  
CP6859-XX 381 g  
CP6859-12XX 257 g  
CP6859-12XX-IN 346 g

HYDRAULIC PORTS M10x1.0x11.5 MIN. FULL THREAD  
HYDRAULIC FLUID APR550 OR 600 BRAKE FLUID

REPLACEMENT SEAL KIT - CP3759-3

HYDRAULIC FITTING KIT (STEEL ADAPTOR 7/16" - 4") - CP3759-6  
HYDRAULIC FITTING KIT (STEEL ADAPTOR 3/8" - 3") - CP3759-5  
FITTINGS TO BE TIGHTENED TO 28 Nm (21 ft.lb)

**NOTE:**  
WHEN LARGE DIAMETER SPLINES ARE USED PLEASE CHECK CLEARANCE OF THE SPLINE IN THE SLAVE CYLINDER BODY.

LARGER SPLINES ALSO HAVE AN INCREASED DRIVEN PLATE HUB BOSS. PLEASE CHECK THE CLEARANCE OF THE DRIVEN PLATE AT MAXIMUM SLAVE TRAVEL. SEE THE CLUTCH ASSEMBLY INSTALLATION DRAWING FOR DETAILS.

MINERAL OIL VERSIONS OF ALL THE ASSEMBLIES ON THIS DRAWING ARE AVAILABLE FOR FURTHER INFORMATION PLEASE CONTACT AP RACING. SEE CP8084-1CD FOR MINERAL OIL COMPATIBLE ASSEMBLIES

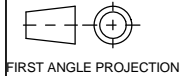
**FOR OUTER ROTATING RACE SLAVE CYLINDERS SEE SHEET 2**

ISSUE No.	Alterations			Zone	Initials
	Date & No.	Particulars			
1	04/01/12 C3988	FIRST ISSUE		#	JO
2	20/09/12 C3988	MINERAL OIL INSTALLATION DRAWING REFERENCE ADDED		A12	JO
3	05/04/13 C4477	CP6859-1245-IN ADDED		#	JG
4	13/05/13	Ø30.40 MIN ADDED		J9	JG
5	27/01/14 C4652	SAAB REFERENCE REMOVED		B12	JG
6	01/05/14 C4708	FITTINGS TO BE TIGHTENED TO 28 Nm (21 lbf) NOTE ADDED		#	JG
7	22/07/14 C4753	FLAT FULCRUM OPTION ADDED.		#	JG
8	04/03/15 C4867	Ø63.00 NOTE AND VIEW ADDED.		#	JG
9	23/03/16	CP6859-45 REMOVED FROM THE DRAWING.		#	JG
10	12/02/18 C5231	DRAWING SPLIT ONTO 2 SHEETS FOR INNER ROTATING AND OUTER ROTATING SLAVES CP6859-45 ADDED ONTO SHEET2		#	GS
11	19/03/18 C5231.02	SHEET1- FEED & BLEED NOTES ADDED SHEET2- CP6859-45 STROKE CORRECTED. 18mm WAS 12mm		L12 K13 E3	GS H
12	18/06/18 RAC22280	R0.40 MAX. WAS R0.25 MAX.		L5	JCD
13	14/80/18	BLEED AND FEED PORTS CORRECTED		L12	DSM

SCALE 1:1	SHEET 1 OF 2
DRAWN	Jeremy Govan
APPROVED	
DERIVED FROM	CP3859-1CD
TITLE	
CONCENTRIC SLAVE CYLINDER INSTALLATION DRAWING	
DRG NO.	CP6859-1CD

# A2 INSTALLATION DRAWING

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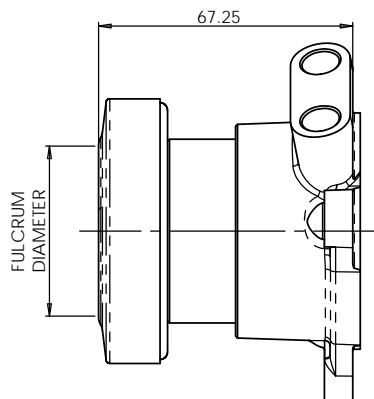
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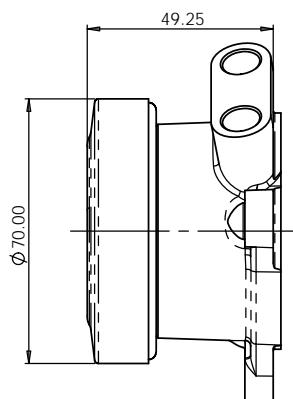
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Web site: <http://www.ap racing.com>

**PISTON AT FULL STROKE**



**PISTON FULLY RETRACTED**



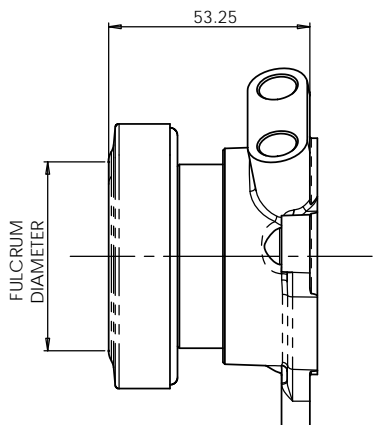
## 18mm STROKE - OUTER ROTATING RACE

ASSEMBLY NUMBER	FULCRUM DIAMETER	FULL STROKE	REPLACEMENT BEARING SUB. ASSY.
CP6859-45	45.0 (1.772")	18.0 (0.709")	CP3457-19

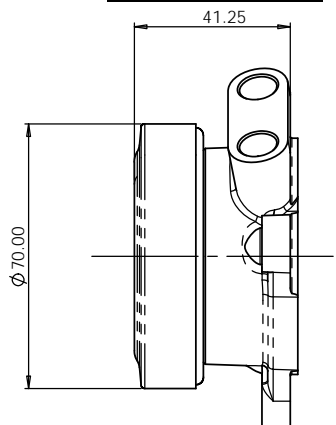
THIS SLAVE CYLINDER FEATURES:  
THE BEARING HOUSED ON THE PISTON VIA THE INNER RACE WITH THE OUTER RACE ROTATING.

ALL OTHER MOUNTING DIMENSIONS REMAIN THE SAME.

**PISTON AT FULL STROKE**



**PISTON FULLY RETRACTED**

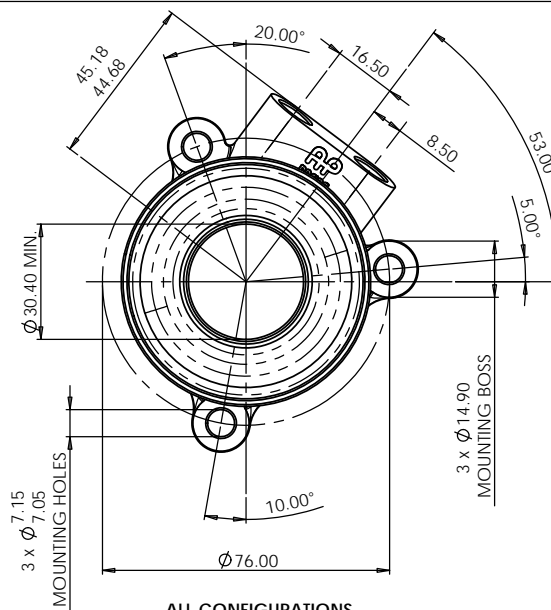


## 12mm STROKE - OUTER ROTATING RACE

ASSEMBLY NUMBER	FULCRUM DIAMETER	FULL STROKE	REPLACEMENT BEARING SUB. ASSY.
CP6859-1245	45.0 (1.772")	12.0 (0.472")	CP3457-19
CP6859-1250	50.0 (1.969")	12.0 (0.472")	CP3457-9
CP6859-1254	54.0 (2.126")	12.0 (0.472")	CP3457-10

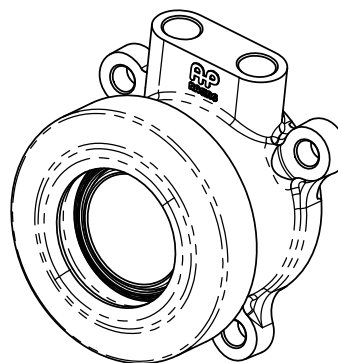
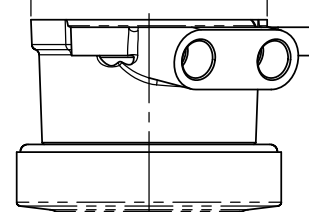
THIS SLAVE CYLINDER FEATURES:  
A SHORTENED STROKE SO AS TO REDUCE THE OVERALL LENGTH.  
THE BEARING HOUSED ON THE PISTON VIA THE INNER RACE WITH THE OUTER RACE ROTATING.

ALL OTHER MOUNTING DIMENSIONS REMAIN THE SAME.



**ALL CONFIGURATIONS**

Ø63.00 MAX  
BODY DIAMETER OUTSIDE  
SPIGOT LOCATION



**FOR INNER ROTATING RACE SLAVE CYLINDERS SEE SHEET 1**

Issue No.	Date & No.	Alterations Particulars	Zone	Initials
-	-	SEE SHEET 1 FOR ISSUE INFORMATION.	-	-

SCALE 1:1	SHEET 2 OF 2
DRAWN	Jeremy Govan
APPROVED	
DERIVED FROM	
TITLE	
CONCENTRIC SLAVE CYLINDER	
INSTALLATION DRAWING	
DRG NO.	CP6859-1CD