



Technical Document

No. TD-002

Technical Regulations for KF2

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Drafted By	National Technical Commissioner	Approved by CEO on 30 April 2015 Scheduled Review Date 31 December 2015
Version	V2- 30 04 15	
Implementation Date	Immediate	

This document is to be read in conjunction with Chapter 20 in the Class Rules section of the 2015 Karting Australia Manual

1.1 Eligible engines

- a) As per Chapter 20 in Class Rules section of the 2015 Karting Australia Manual

1.2 Modifications

- a) All modifications of the homologated engines are authorised. However, modifications changing the initial aspect, the dimensions, the drawings or the photographs of the original parts represented on the KF2 Homologation Form are forbidden, except if they are authorised by an article of these Regulations or for safety reasons decided by the CIK-FIA or KA.
- b) The cylinder head may be modified so long as the cylinder head maintains the minimum volume of the Combustion chamber is 11 cc, measured in accordance with KA cc measuring method. No material may be added to the cylinder.
- c) The upper cylinder plane may be repaired / modified to a maximum tolerance of -0.2mm of the dimension on the homologation form
- d) It is allowed to replace the spark plug thread by a heli-coil
- e) Exhaust Port Timing Durations

	<i>OPENING ANGLES</i>	
<i>Of the inlet (main transfer ports)</i>	<i>128°</i>	<i>±2°</i>
<i>Of the inlet (secondary transfer ports, for 5 transfer ducts engine)</i>	<i>125°</i>	<i>±2°</i>
<i>Of the exhaust</i>	<i>192°</i>	<i>±2°</i>
<i>Of the boosters</i>	<i>179°</i>	<i>±2°</i>

Measured at the level of the liner in accordance with the method described in Article 2.25.3.2 of the CIK-FIA Technical Regulations

1.3 Maximum Theoretical Bore Size

- a) IAME 11/M/15-KF2 – 54.28mm
- b) TM 22/M/21-KF2 – 54.08mm
- c) IAME 11/M/21 – 54.08mm
- d) Vortex 4/M/21-KF2 – 54.289mm

1.4 Power-valve

- a) The mechanical functioning of the power-valve is free
- b) All of the components shown on the exploded drawing included in the relevant homologation document are used and that no other components are added.
- c) It is allowed to use an adjusting knob of the power-valve, modified only with the aim of being able to accept the fixation of a power valve shift measurement sensor



1.5 Spark Plug

- a) Spark plug make is free.
- b) The body of the spark plug (electrodes not included) tightened on the cylinder head, must not extend beyond the upper part of the dome of the combustion chamber.
- c) Spark plug must comply with the images in Appendix 1.

1.6 Ignition

- a) CIK-FIA homologated ignition system must be used with the maximum rpm as listed below:
 - 1) IAME (11/M/21-KF2) – 15,000 rpm
 - 2) Vortex (4/M/21-KF2) – 15,000 rpm
 - 3) TM (22/M/21-KF2) – 15,000 rpm
 - 4) IAME KF Reedjet – 16,000 rpm
 - i. Supplied by KA and Remo Racing as per the Homologation documents:
 - 20/M/18-KF2
 - 13/M/15
 - 5) IAME KF Reedjet – 15,000 rpm
 - ii. In accordance with the Homologation documents:
 - 20/M/18-KF2
 - Cylinder, head and power-valve complying with 11/M/21-KF2
 - b) The engine ECU program / software cannot be altered or modified.
 - c) On decision of the Stewards or Technical Official, they shall be authorised to interchange any part or all of the Entrants' ignition systems for the system supplied as original equipment at their discretion for the purpose of checking conformity.

1.7 Exhaust

- a) Must be the homologated exhaust for the engine being used.
- b) Cannot be altered or modified except by way of the homologated spacers, a maximum of 2 only may be used

1.8 Reed block

- a) CIK-FIA homologated reed block assembly must be used

1.9 Carburettor

- a) The must be either a
 - i. 24mm IBEA L6
 - ii. 30mm Tillotson KF1
 - iii. 24mm IBEA L9
- b) Must comprise of two set screws
- c) Must remain strictly original and comply with the relevant homologation document

1.10 Air Box (Inlet Silencer)

- a) Style, type is at the discretion of the competitor, must comply with CIK-FIA Homologations or the diagram in Appendix 2

1.11 Clutch

- a) Must comply with CIK technical drawings No.15, 15b & 16 (as seen in Appendix 3)
- b) Minimum weight (complete clutch with starter ring and engine sprocket) according to the relevant engine Homologation Document



- c) The engine clutch must be triggered at 3,000 rpm maximum and make the kart with the Driver on board move forward; it must be in direct drive (and 100% engaged) at 5,000 rpm maximum under all circumstances.

1.12 Radiator:

- a) Style, type and size is at the discretion of the competitor.

1.13 Tyres

- a) Dry
 - i. A Maximum of Two (2) sets of dry tyres to be used from the commencement of timed qualifying through to conclusion of the Final with open management
 - ii. Any replacement dry Tyre, required for any reason other than a manufacturing defect, must come from the Two (2) allocated sets for the event
- b) Wet
 - i. A Maximum of Two (2) sets of wet tyres to be used from the commencement of timed qualifying through to conclusion of the Final with open management
 - ii. Any replacement wet Tyre, required for any reason other than a manufacturing defect, must come from the Two (2) allocated sets for the event

1.14 Wheels

The use of wheels complying with the CIK-FIA technical drawing No. 4 (as seen in Appendix 4) is compulsory:

- a) Diameter of coupling for tyres: for 5 inch rims: 126.2 mm with a tolerance of +/-1.2 for the circumference with the hump and a tolerance of -1 for the diameter of rims with screws.
- b) Width of the tyre housing: 10 mm minimum.
- c) External diameter for 5 inch rims: 136.2 mm minimum.
- d) Radius to facilitate the balance of the tyre in its housing: 8 mm.
- e) Maximum pressure for assembly: 4 Bar.
- f) Tyre burst resistance test with fluid at an 8 Bar pressure.
- g) This rim must be manufactured in accordance with the appended technical drawing No. 8. The diameter of the rim must be 5" maximum.
- h) The front and rear wheels must have some form of bead retention with 3 pegs/ screws minimum in the outside rim.

1.15 Chassis

- a) CIK-FIA homologated or KA homologated.

1.16 Bodywork

- a) Bodywork must comply with Technical Rules Chapter 1 Rule 8 Section g) of the KA Manual.

1.17 Brakes:

- a) Front brakes are optional and must be hand operated and independent of the rear brake.
- b) Brakes must comply with Technical Rules Chapter 1 Rule 6 of the KA manual.

1.18 Rear Impact Protection

- a) The plastic rear bumper is mandatory and must comply with CIK-FIA regulations



1.19 Minimum Weight:

- a) Total Minimum weight including the driver:
 - 162kg - IAME (20/M/18-KF2 - 13/M/15)
 - 166kg - IAME (11/M/21-KF2)
 - 166kg - Vortex (4/M/21-KF2)
 - 166kg - TM (22/M/21-KF2)
 - 166kg - IAME (20/M/18-KF2 - 11/M/21)

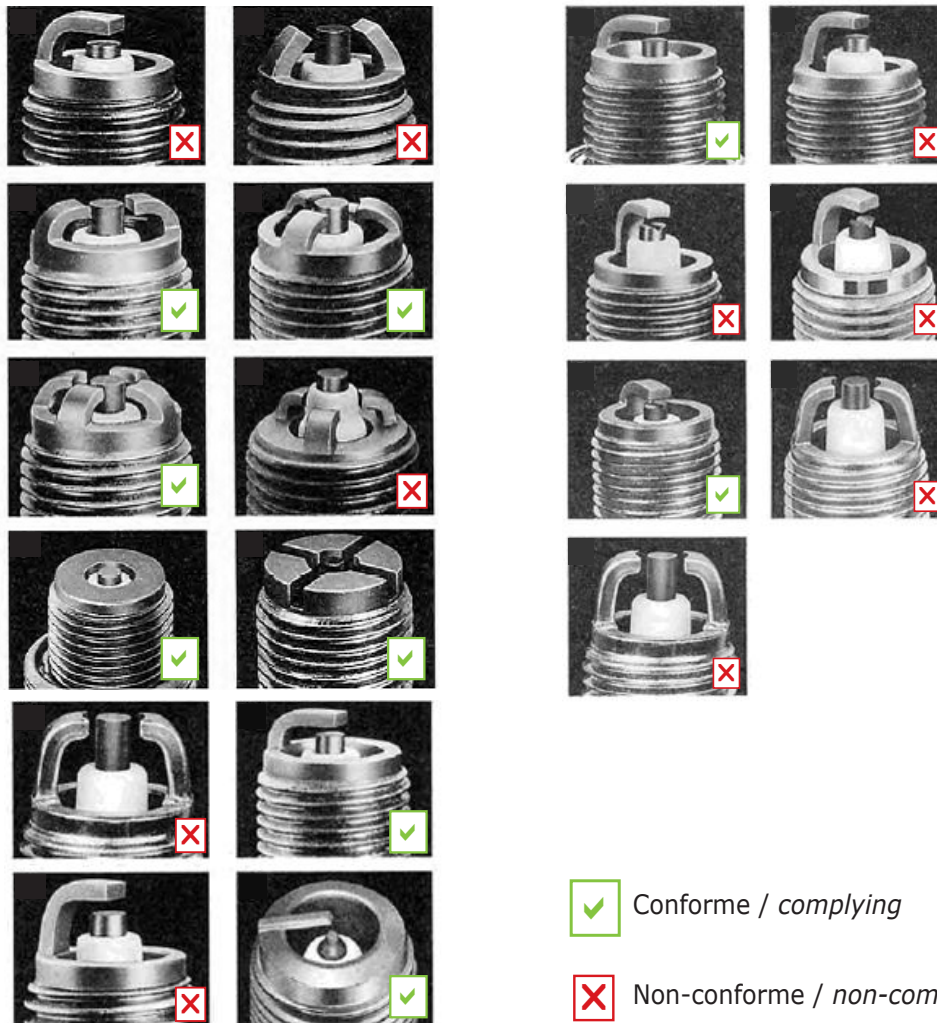
APPENDIX 1 – Spark Plug

Bougies conformes et non-conformes

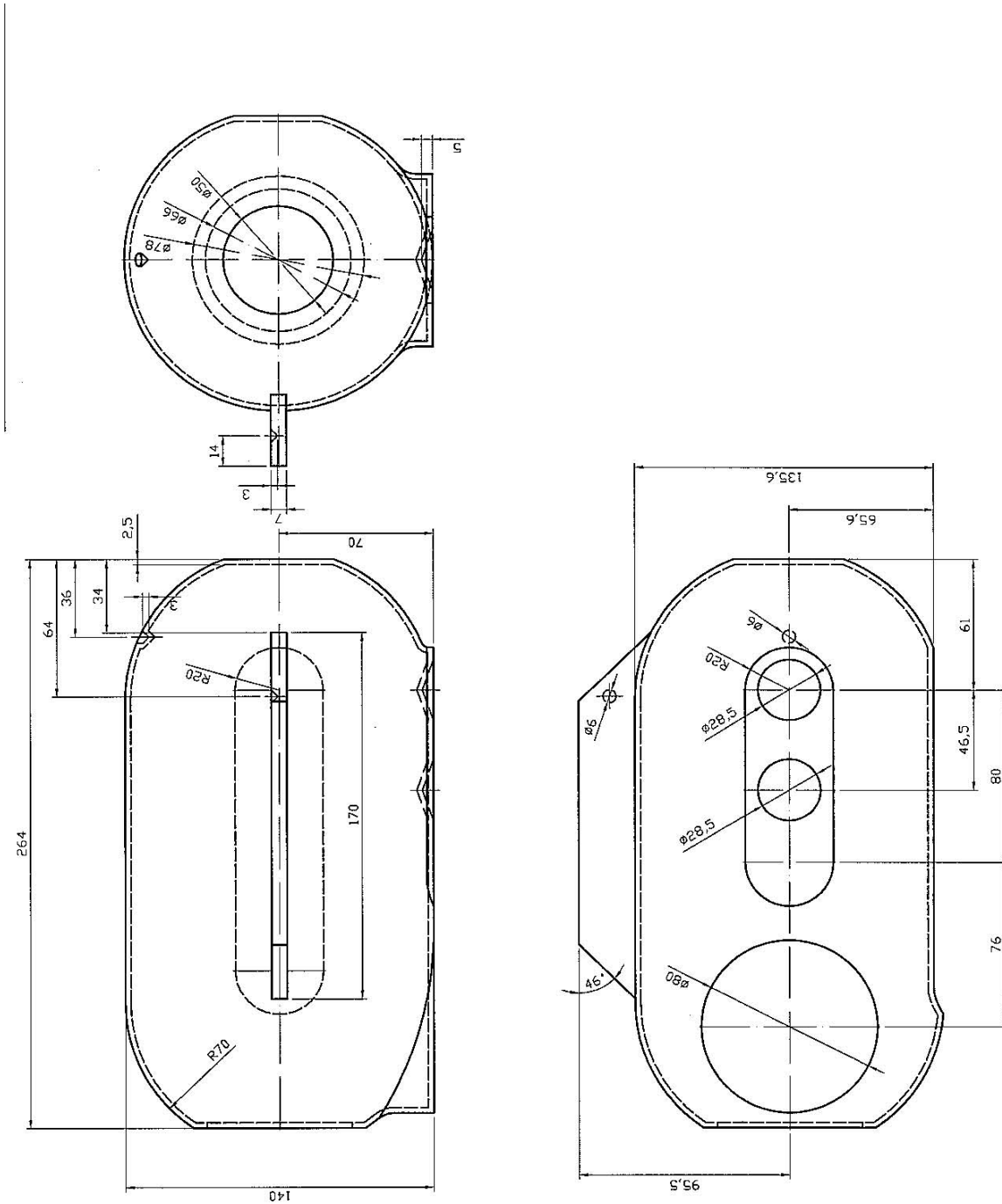
Liste d'exemples non exhaustive

Spark plugs complying and non-complying

Non-exhaustive list of examples



APPENDIX 2 – Alternate Inlet Silencer



APPENDIX 3 – Clutch

DESSINS TECHNIQUES
TECHNICAL DRAWINGS

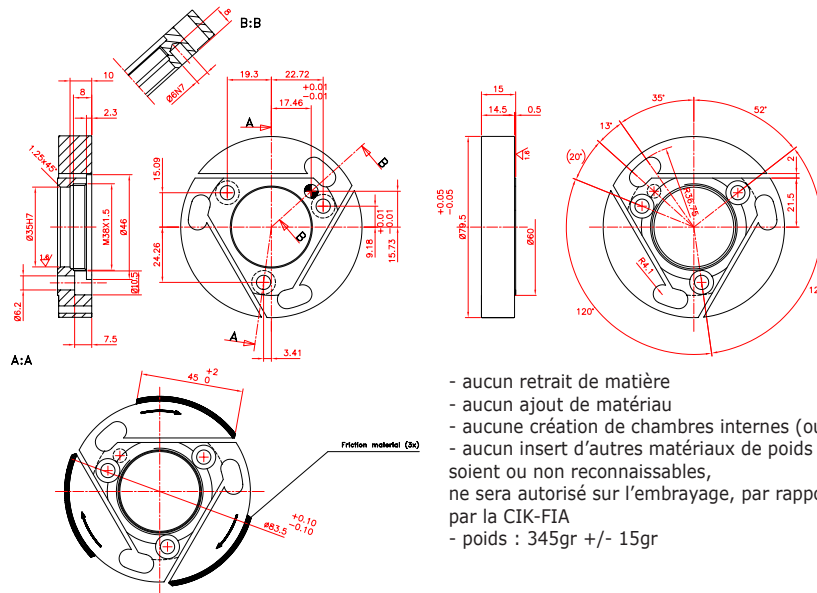
DESSIN TECHNIQUE N° 15

Embrayage pour moteurs KF

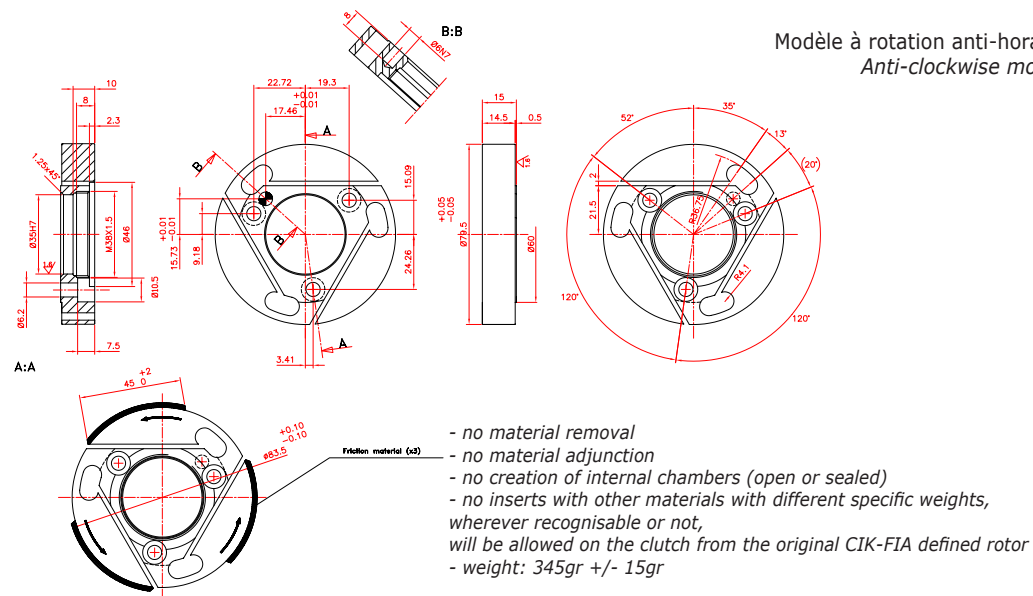
TECHNICAL DRAWING No. 15

Clutch for KF engines

Modèle à rotation horaire
Clockwise model



Modèle à rotation anti-horaire
Anti-clockwise model



DESSINS TECHNIQUES
TECHNICAL DRAWINGS

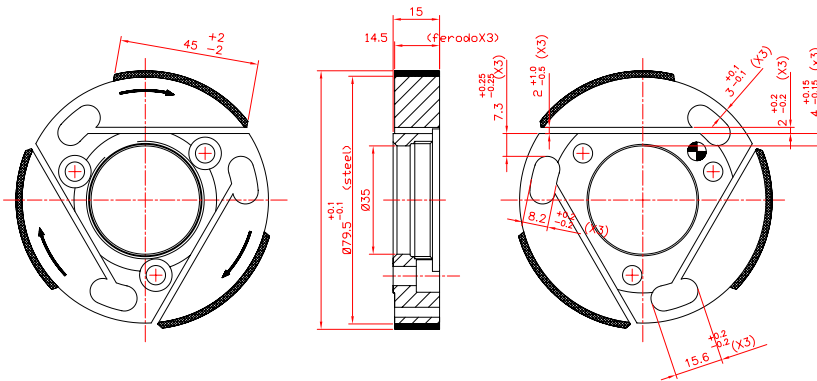
DESSIN TECHNIQUE N° 15bis

Embrayage pour moteurs KF

TECHNICAL DRAWING No. 15b

Clutch for KF engines

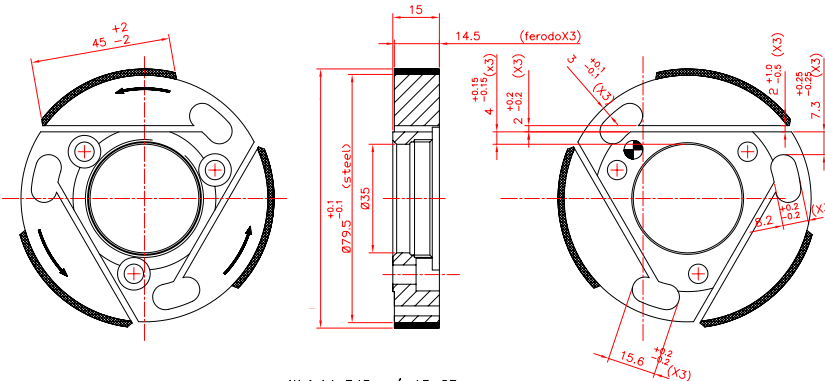
Modèle à rotation horaire
Clockwise model



Weight 345 +/-15 GR

Note : A utiliser seulement à des fins de contrôle technique et non dans le cadre de la fabrication.
Only for scrutineering and not for manufacturing.

Modèle à rotation anti-horaire
Anti-clockwise model



Weight 345 +/-15 GR

Note : A utiliser seulement à des fins de contrôle technique et non dans le cadre de la fabrication.
Only for scrutineering and not for manufacturing.

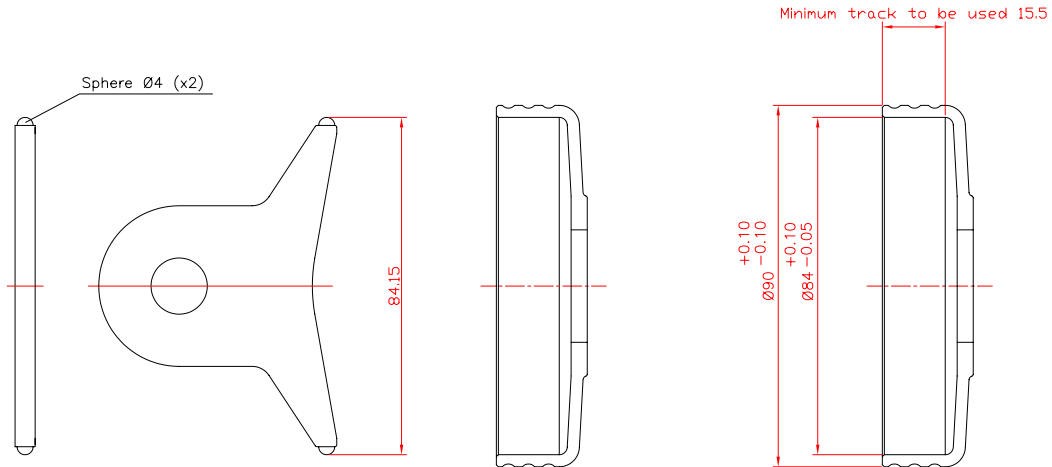
DESSINS TECHNIQUES
TECHNICAL DRAWINGS

DESSIN TECHNIQUE N° 16

Jauge de contrôle de la cloche d'embrayage (moteurs KF)

TECHNICAL DRAWING No. 16

Drum control gauge (KF engines)



Toute la surface du matériau de friction du rotor de l'embrayage doit toujours travailler à l'intérieur de la surface de la piste de 15,5 mm de la cloche (12,5 mm en Super KF avec l'embrayage selon dessin technique n°17).

The complete friction material surface of the clutch rotor must always work into the drum track surface of 15.5 mm (12.5 mm in Super KF with the clutch according to technical drawing No. 17).

APPENDIX 4 - Wheels

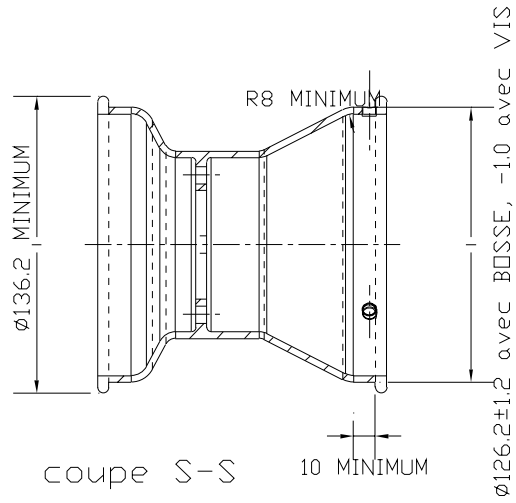
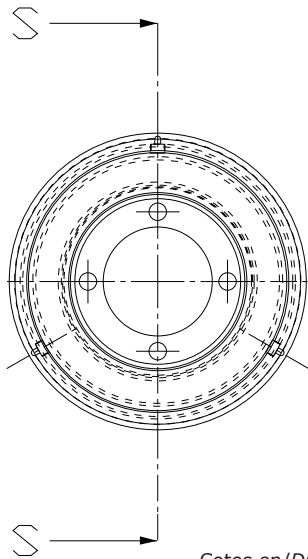
DESSINS TECHNIQUES
TECHNICAL DRAWINGS

DESSIN TECHNIQUE N°4

TECHNICAL DRAWING No. 4

Jante 5"

5" Rim



Cotes en/Dimensions in mm

