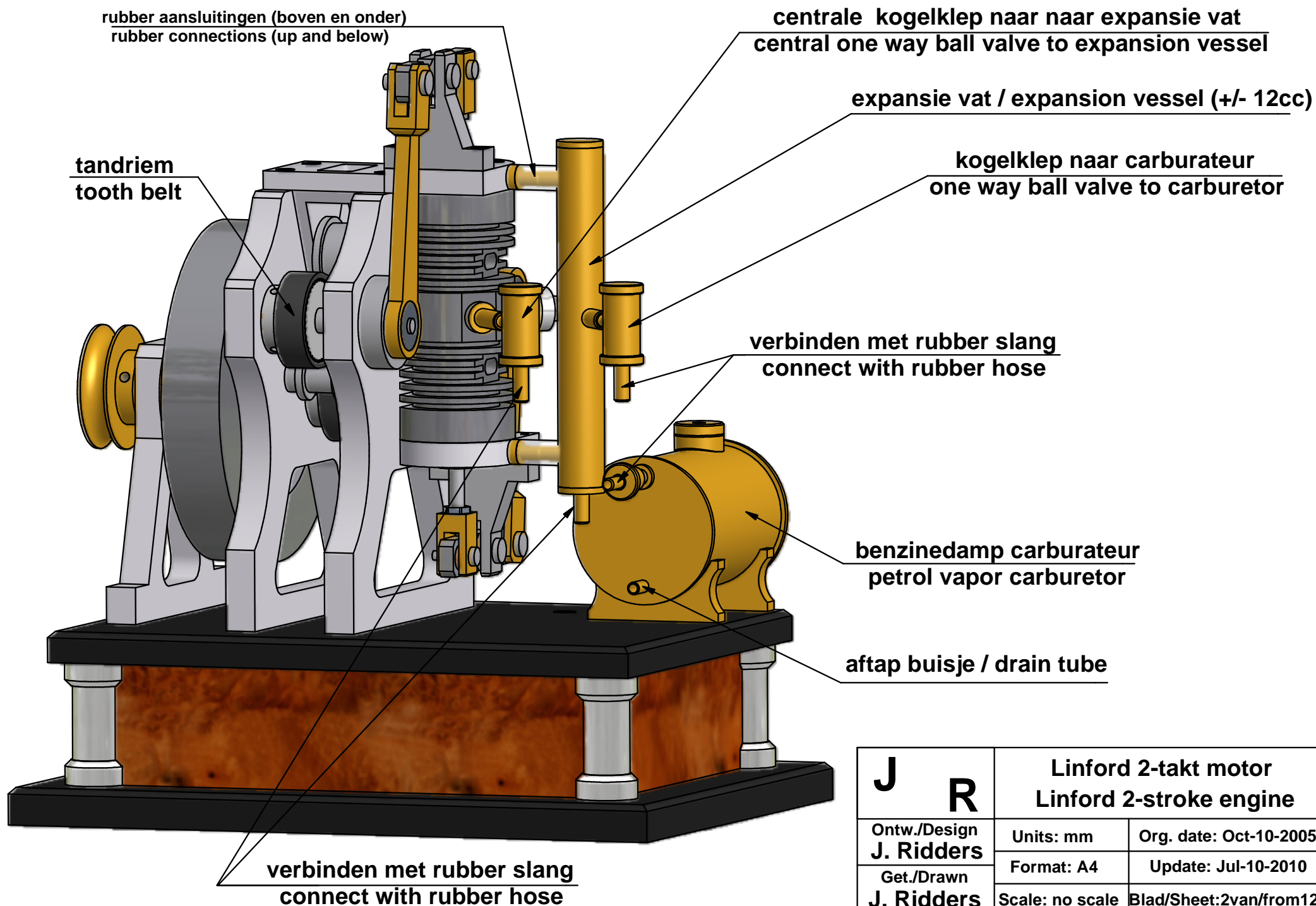
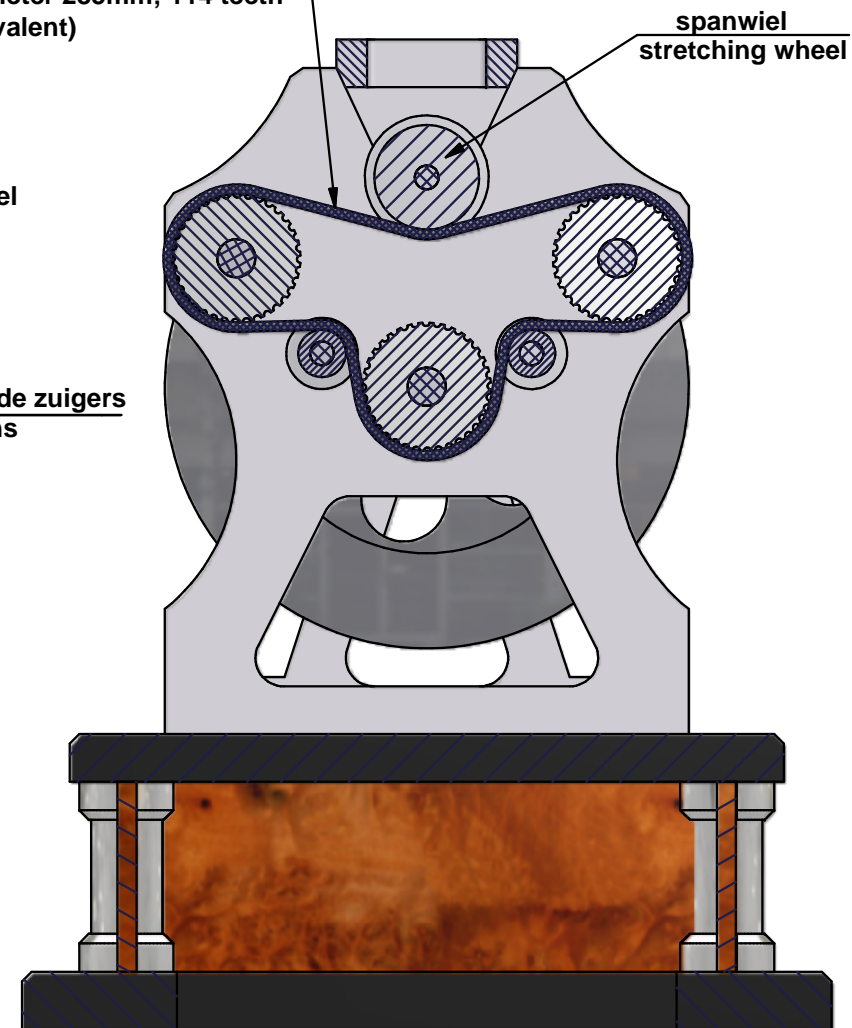
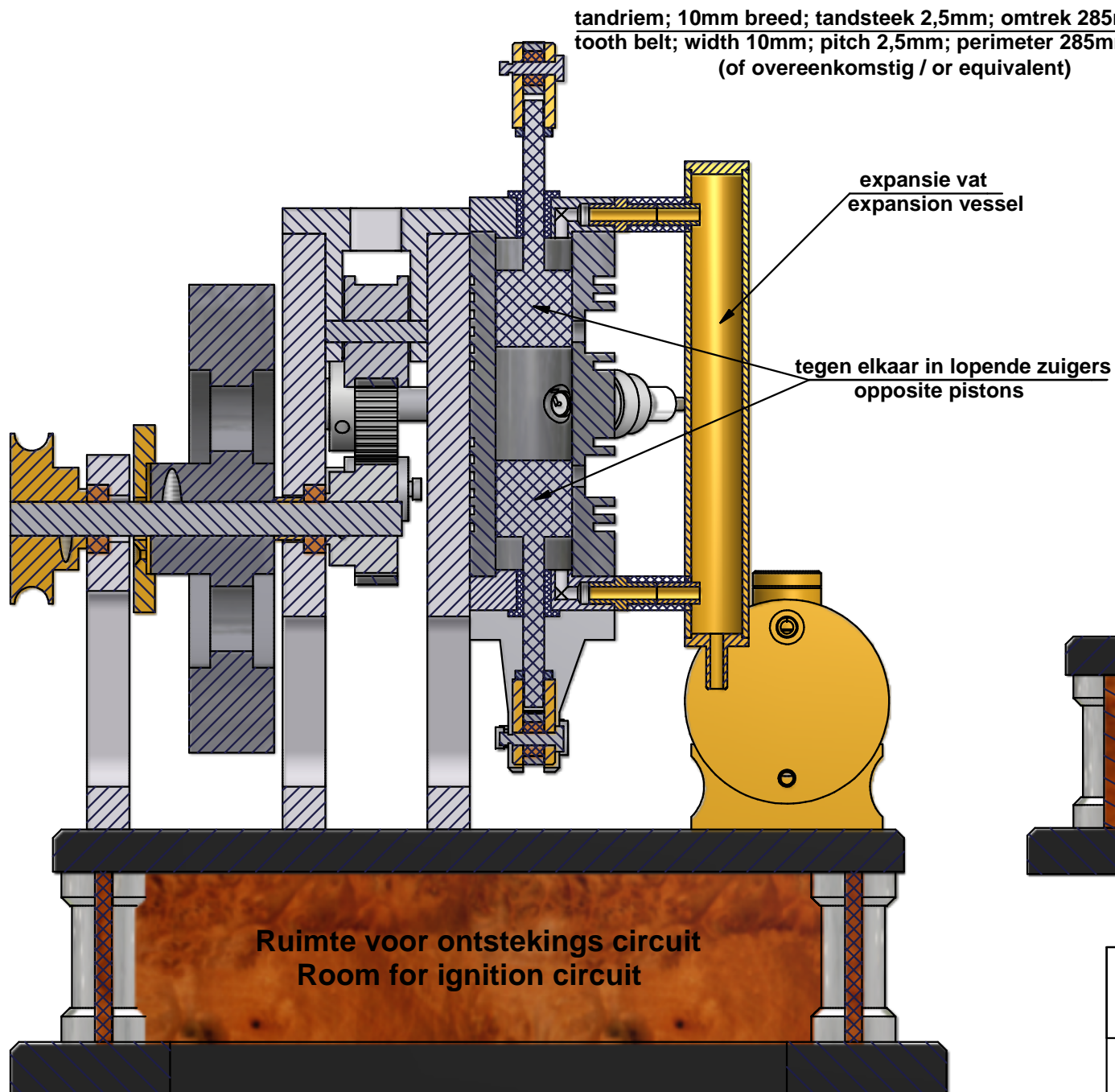


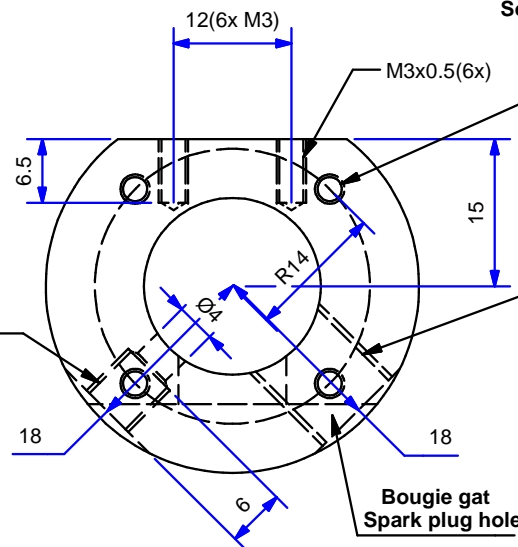
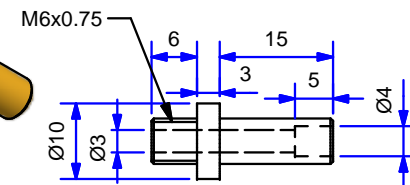
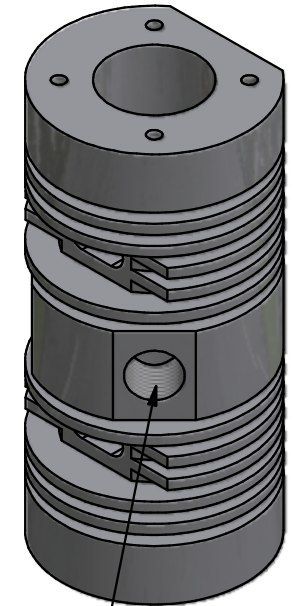
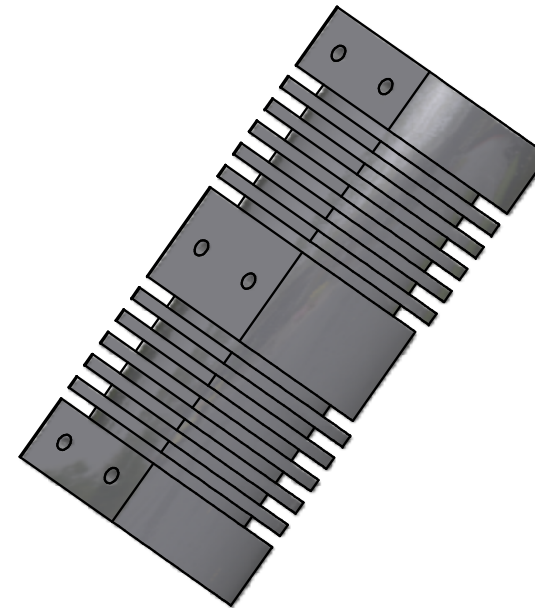
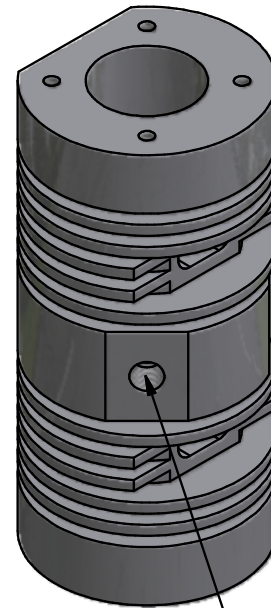
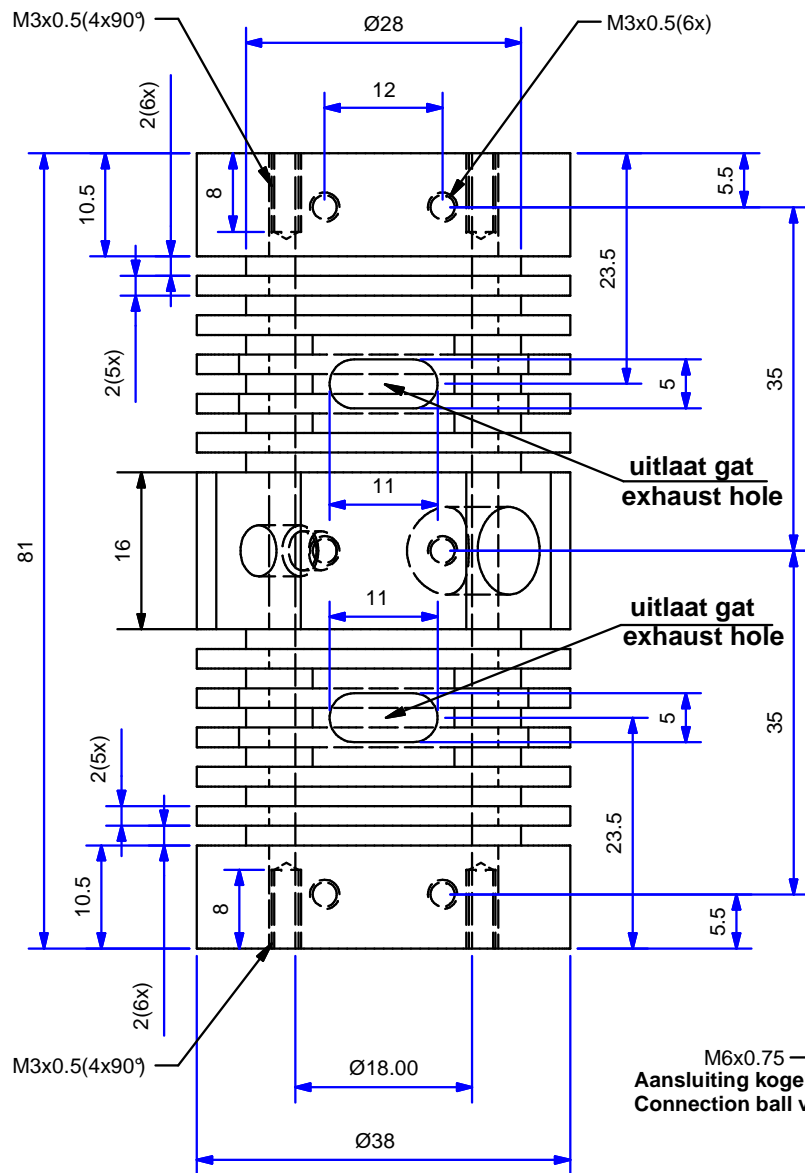
<b>J</b>	<b>Linford 2-takt motor</b>	
	<b>Linford 2-stroke engine</b>	
<b>R</b>	Ontw./Design <b>J. Ridders</b>	Units: mm      Org. date: Oct-10-2005
	Get./Drawn <b>J. Ridders</b>	Format: A4      Update: Jul-10-2010
Beschrijving / Description in:		Blad/Sheet: 1 van / from 12 <a href="http://ridders.nu">http://ridders.nu</a>



J	R	Linford 2-takt motor Linford 2-stroke engine	
		Units: mm	Org. date: Oct-10-2005
Ontw./Design <b>J. Ridders</b>		Format: A4	Update: Jul-10-2010
Get./Drawn <b>J. Ridders</b>		Scale: no scale	Blad/Sheet: 2 van / from 12
Beschrijving / Description in: <a href="http://ridders.nu">http://ridders.nu</a>			

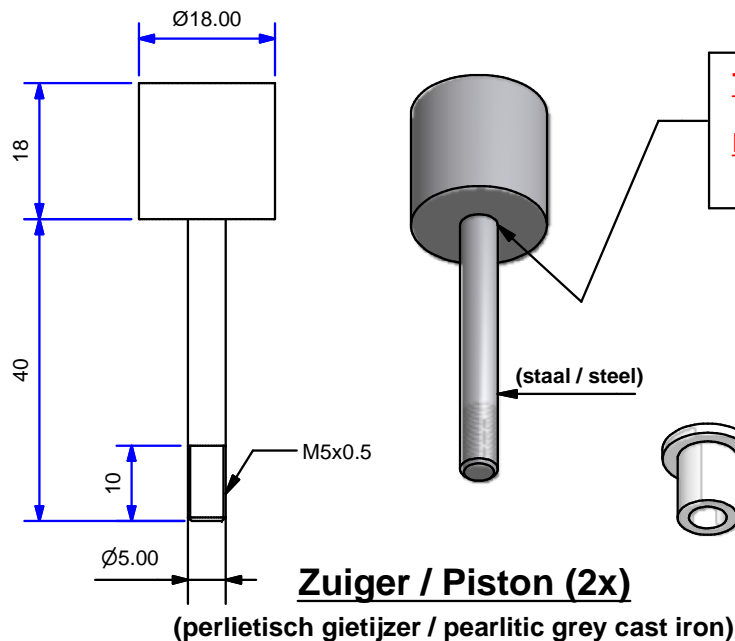


<b>J</b>	<b>Linford 2-takt motor</b>	
	<b>Linford 2-stroke engine</b>	
<b>R</b>	Ontw./Design <b>J. Ridders</b>	Units: mm Org. date: Oct-10-2005
	Get./Drawn <b>J. Ridders</b>	Format: A4 Update: Jul-10-2010
Beschrijving / Description in:		Blad/Sheet:3van/from12 <a href="http://ridders.nu">http://ridders.nu</a>

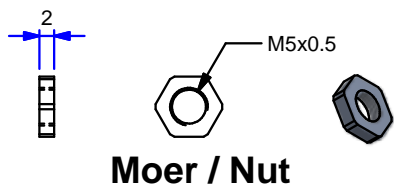
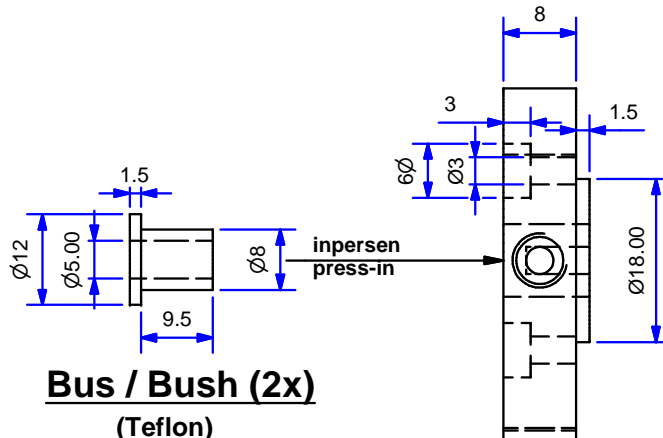


<b>J</b>	<b>Linford 2-takt motor</b>		
<b>R</b>	<b>Linford 2-stroke engine</b>		
<b>Ontw./Design</b> <b>J. Ridders</b>	<b>Units: mm</b>	<b>Org. date: Oct-10-2005</b>	
	<b>Format: A4</b>	<b>Update: Jul-10-2010</b>	
	<b>Scale: no scale</b>	<b>Blad/Sheet: 4 van / from 12</b>	
<b>Get./Drawn</b> <b>J. Ridders</b>			
<b>Beschrijving / Description in:    <a href="http://ridders.nu">http://ridders.nu</a></b>			



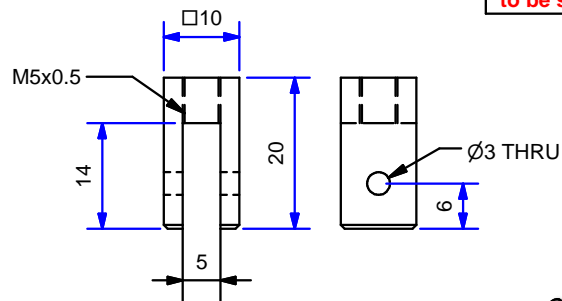


**Tip:** standaard 5mm asje in de wat overmaatse zuiger zilver solderen.  
daarna de zuigerdiameter en lengte op maat draaien met as in de spantang van de draaibank.  
**Hint:** hard solder a standard 5mm axis in the somewhat over sized piston.  
then turn the piston to the right diameter and length with the axis in the collet chuck.

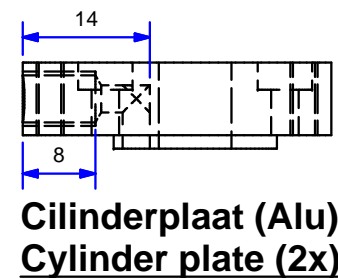
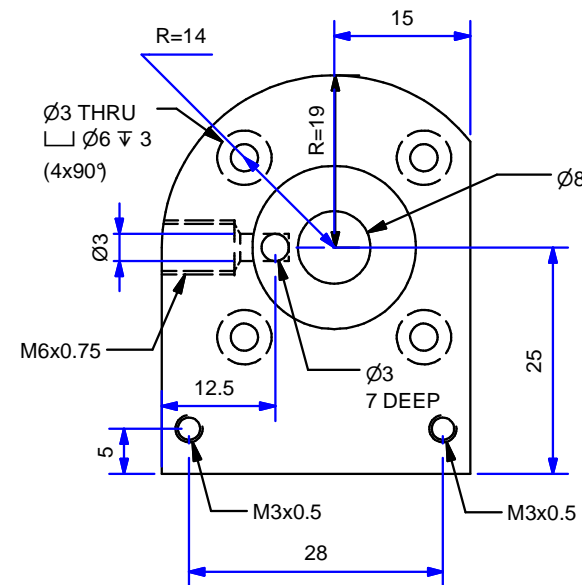
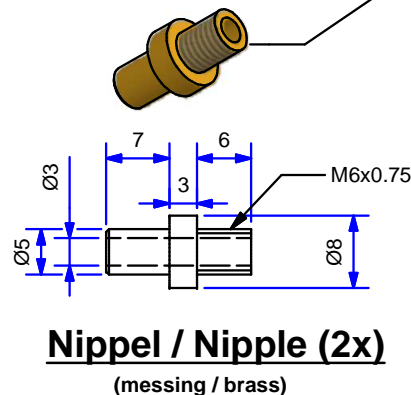
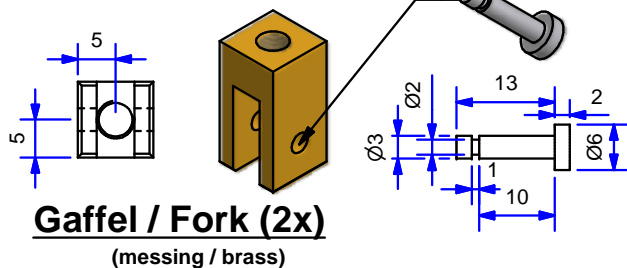


Het gat voor de Teflon bus, de 18mm pasrand en het vlak van de cilinderplaat in een en dezelfde opspanning maken om de hartlijnen van de cilinder en de zuigerstang precies op elkaar te krijgen.

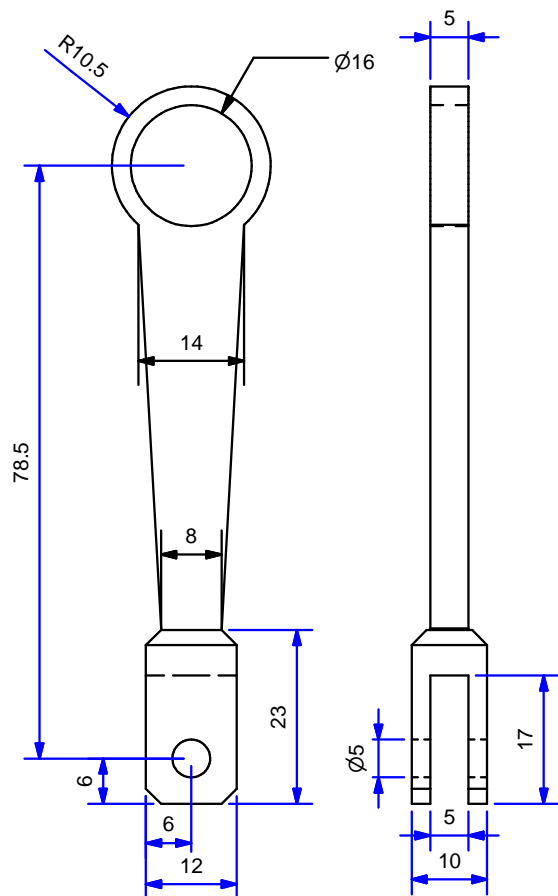
Make the hole for the Teflon bush, the 18mm lead-in edge and the surface of the cylinder head in the same machine fixation to be sure the hartlines of cylinder and piston are exactly in line.



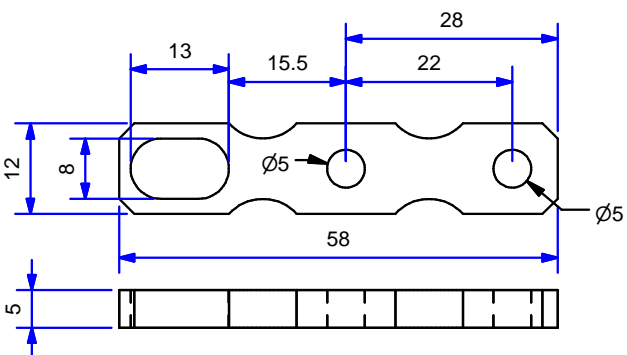
**Pen / Pivot (2x)**  
(staal / steel)



J	R	Linford 2-takt motor Linford 2-stroke engine	
		Ontw./Design <b>J. Ridders</b>	Units: mm Org. date: Oct-10-2005
		Get./Drawn <b>J. Ridders</b>	Format: A4 Update: Jul-10-2010
		Scale: no scale	Blad/Sheet: 5 van / from 12
Beschrijving / Description in:		<a href="http://ridders.nu">http://ridders.nu</a>	

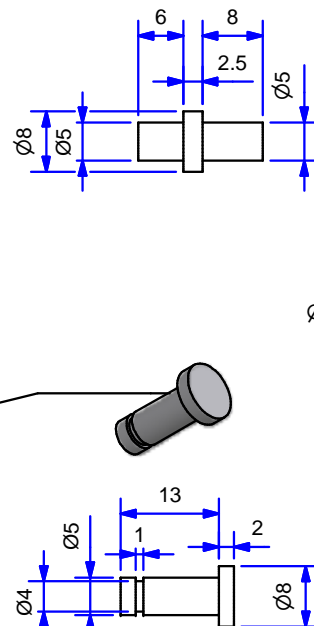
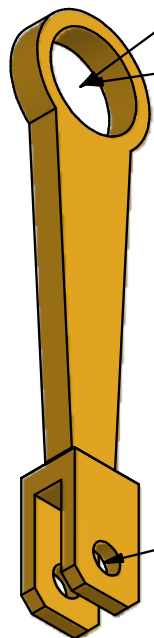


**Drijfstang / Driving rod (2x)**  
(messing / brass)

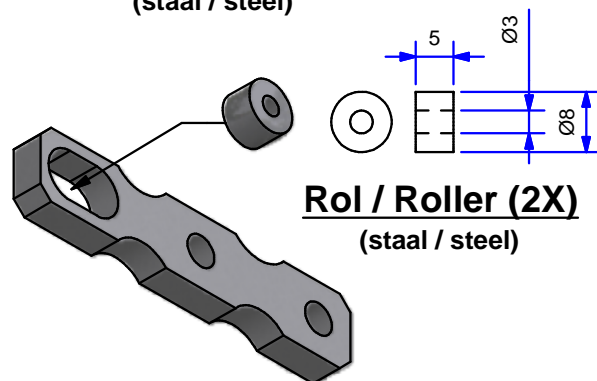


**Tuimelaar / Tumbler**  
(staal / steel)

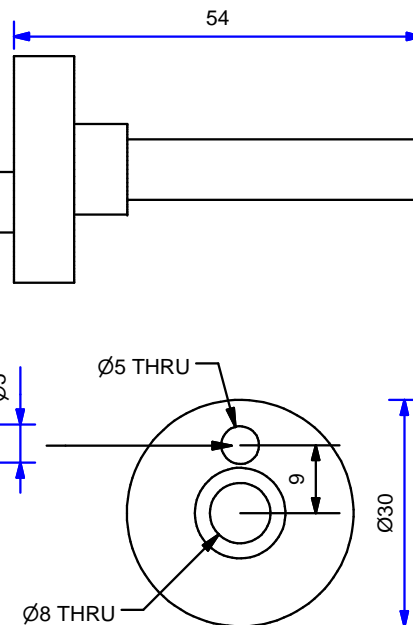
**Kogellager / Ball bearing (2x)**  
(Ø16x8 / 5)



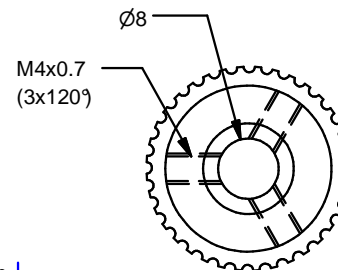
**Asje / Pivot (2x)**  
(staal / steel)



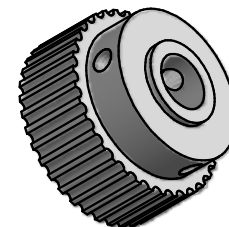
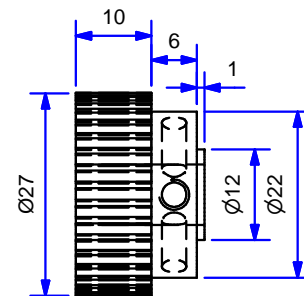
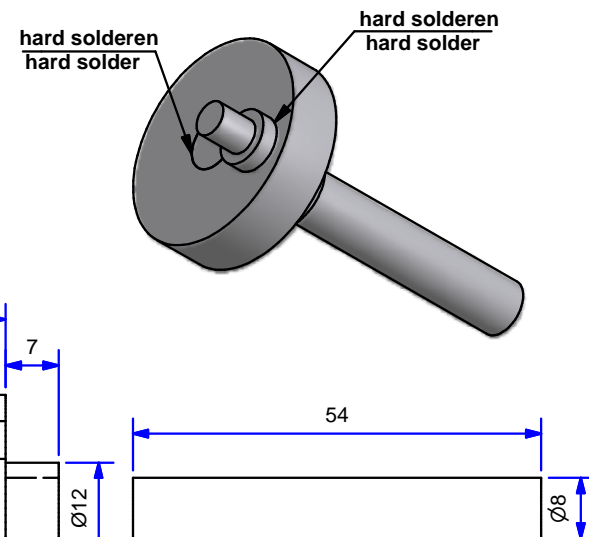
**Rol / Roller (2X)**  
(staal / steel)



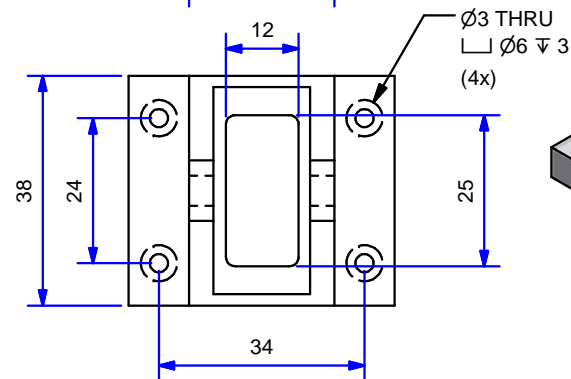
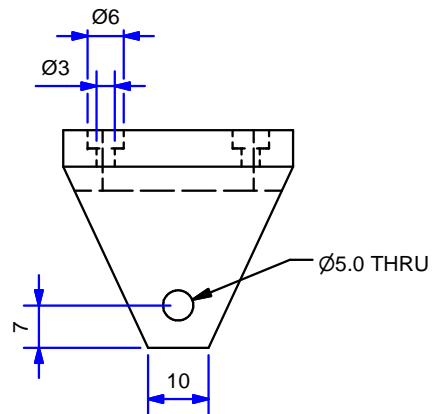
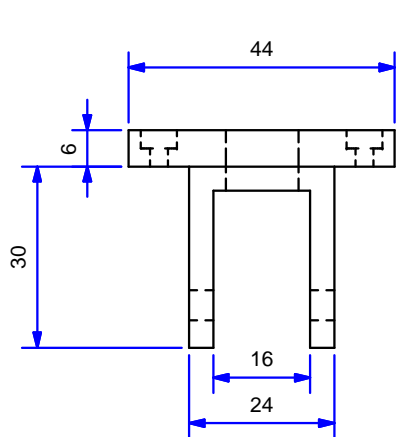
**Krukas / Crank shaft (2x)**  
(staal / steel)



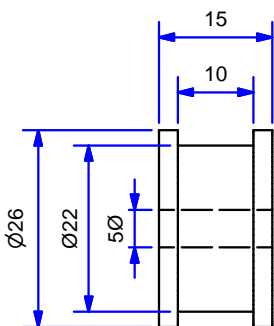
**Tandwiel / Cog wheel (ALU 3x)**  
(ca 35 tanden; steek 2,5mm / ca 35 teeth; pitch 2,5mm)  
(of passend bij alternatieve riem  
or appropriate for alternative tooth belt)



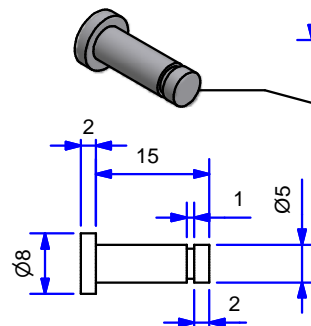
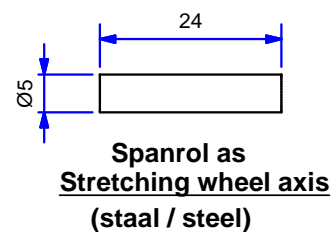
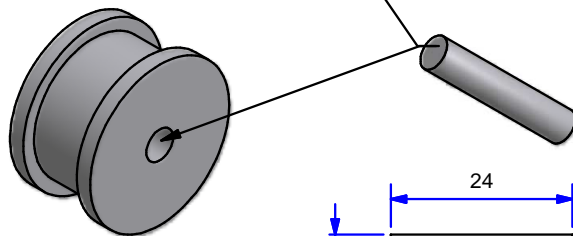
<b>J R</b>		<b>Linford 2-takt motor</b> <b>Linford 2-stroke engine</b>	
<b>Ontw./Design</b> <b>J. Ridders</b>	<b>Units: mm</b>	<b>Org. date: Oct-10-2005</b>	
	<b>Format: A4</b>	<b>Update: Jul-10-2010</b>	
	<b>Scale: no scale</b>	<b>Blad/Sheet: 6 van / from 12</b>	
<b>Get./Drawn</b> <b>J. Ridders</b>		<b>Beschrijving / Description in:    <a href="http://ridders.nu">http://ridders.nu</a></b>	



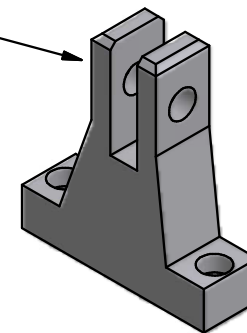
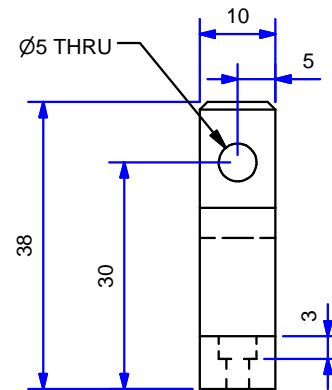
**Houder voor spanrol**  
**Stretching wheel holder (Alu)**



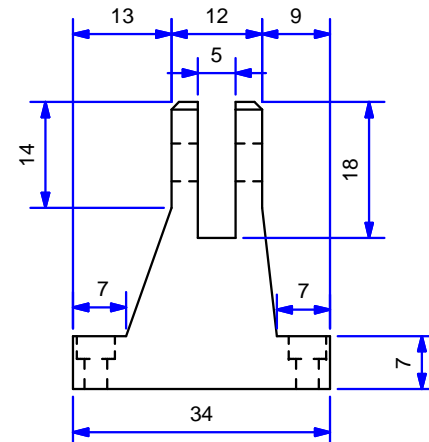
**Spanrol / Stretching wheel (Alu)**



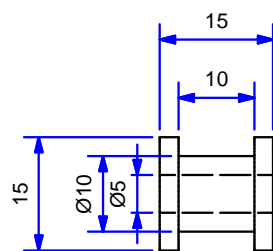
**Tuimelaar as**  
**Tumbler axis**  
(staal / steel 2x)



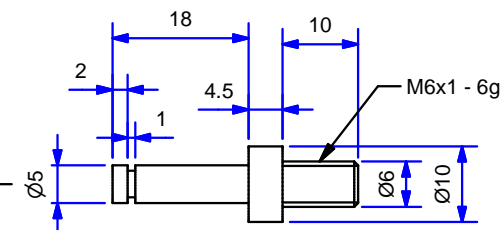
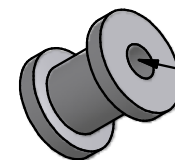
**Tuimelaar steun / Tumbler support (Alu 2x)**



Ø3 THRU  
Ø5 ± 3  
(2x)

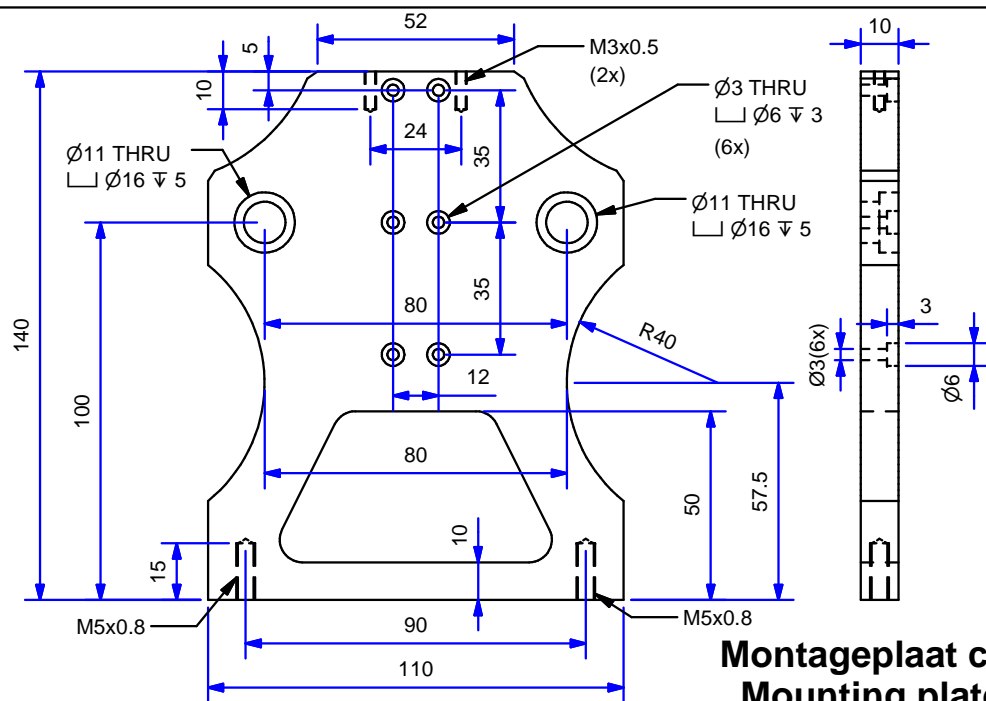


**Tandriem rol / Tooth belt roller**  
(staal / steel 2x)



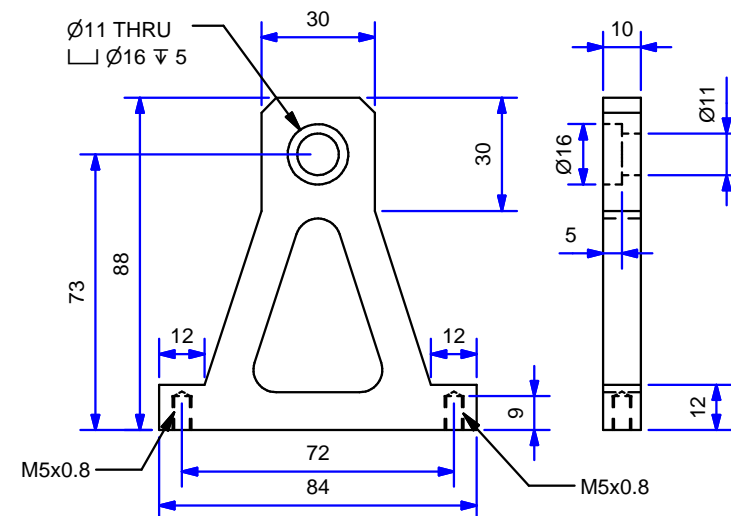
**As / Axis**  
(staal / steel 2x)

<b>J R</b>		<b>Linford 2-takt motor</b> <b>Linford 2-stroke engine</b>	
<b>Ontw./Design</b> <b>J. Ridders</b>	<b>Units: mm</b>	<b>Org. date: Oct-10-2005</b>	
	<b>Format: A4</b>	<b>Update: Jul-10-2010</b>	
	<b>Scale: no scale</b>	<b>Blad/Sheet: 7 van / from 12</b>	
<b>Get./Drawn</b> <b>J. Ridders</b>			
<b>Beschrijving / Description in:    <a href="http://ridders.nu">http://ridders.nu</a></b>			

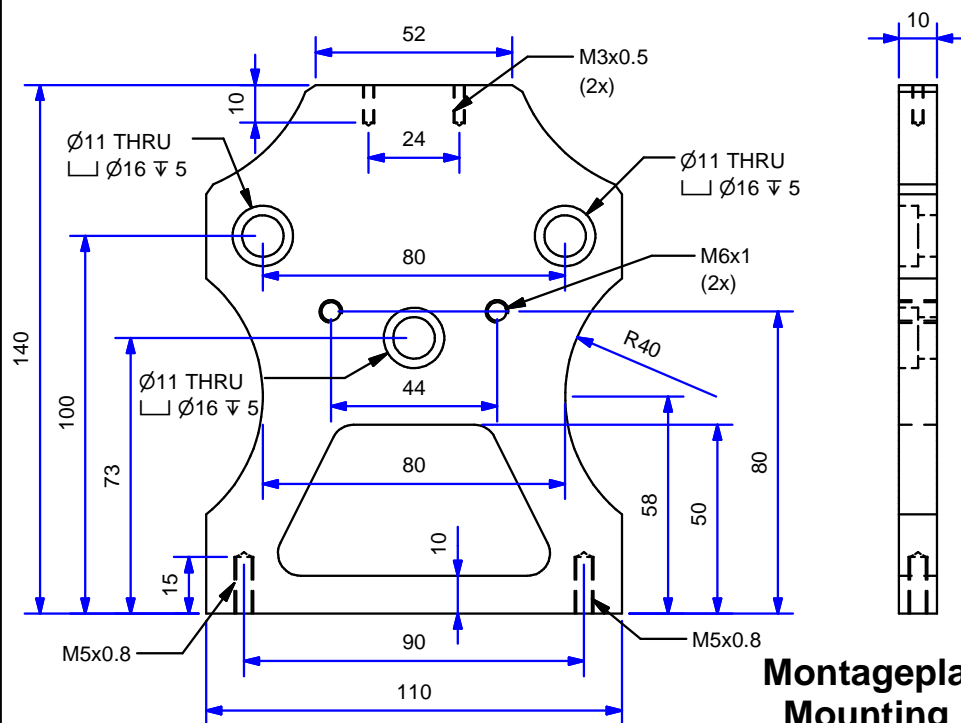


**Montageplaat cilinderzijde (Alu)**  
**Mounting plate cylinder side**

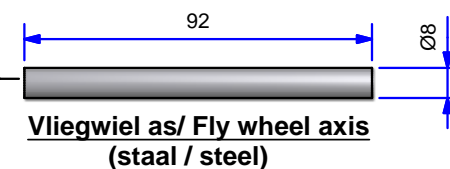
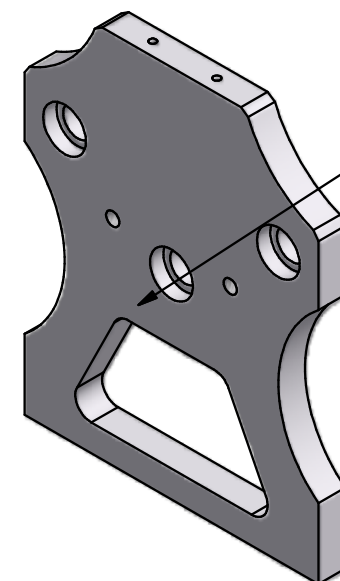
**Kogellagers (totaal 6) / Ball bearings (6 total)**  
 ( Ø16x8 / 5 )



**Kogellagersteun / Ball bearing support (Alu)**



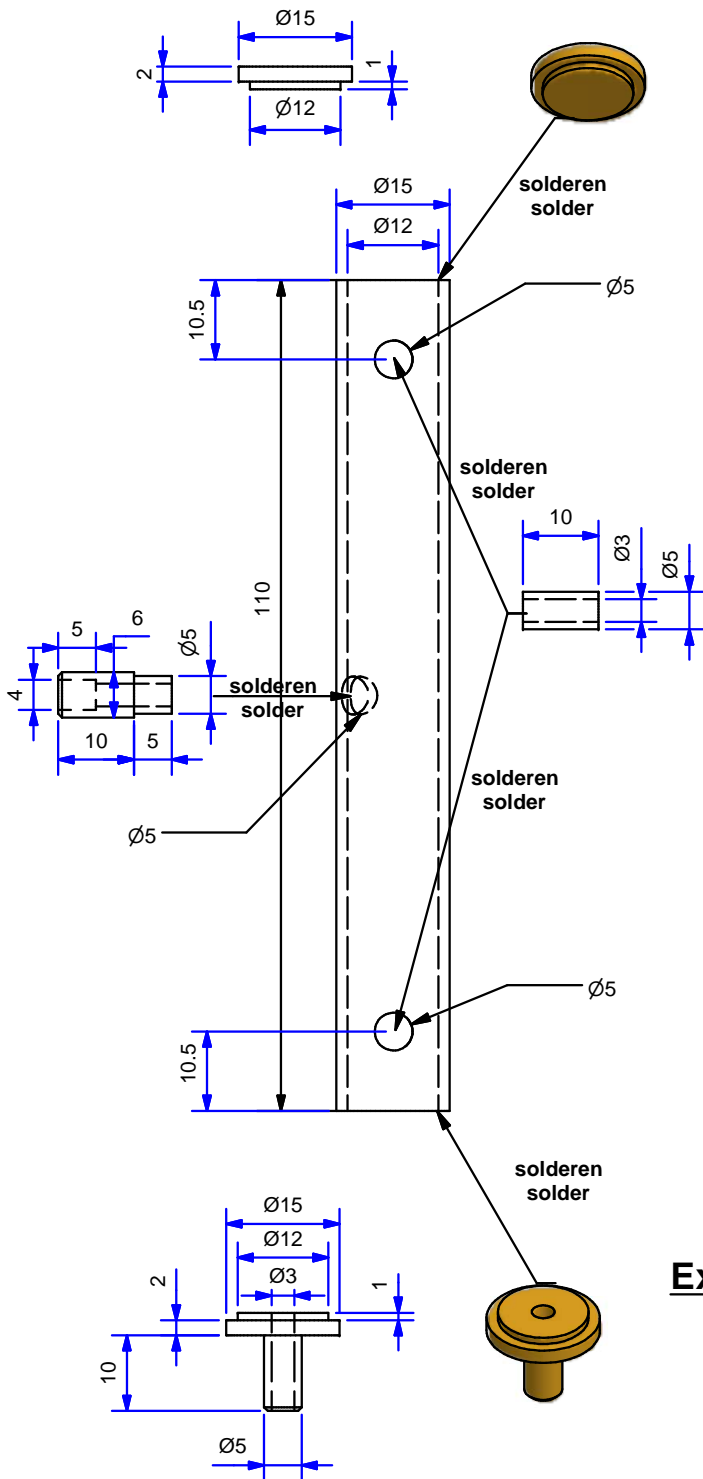
**Montageplaat vliegwielzijde (Alu)**  
**Mounting plate fly wheel side**



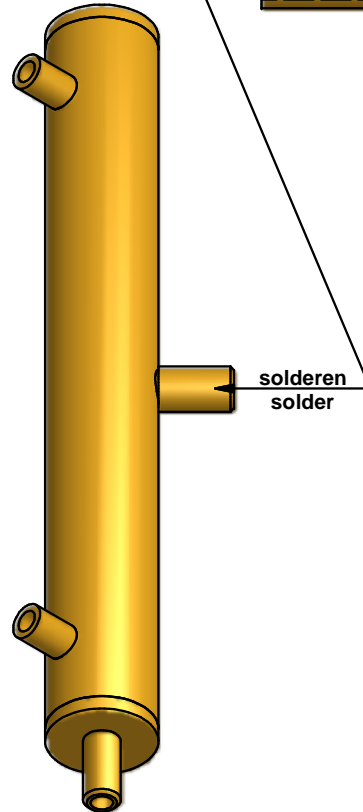
**Vliegwiel as/ Fly wheel axis**  
 (staal / steel)

<b>J R</b>		<b>Linford 2-takt motor</b> <b>Linford 2-stroke engine</b>	
<b>Ontw./Design</b> <b>J. Ridders</b>	<b>Units: mm</b>	<b>Org. date: Oct-10-2005</b>	
	<b>Format: A4</b>	<b>Update: Jul-10-2010</b>	
	<b>Get./Drawn</b> <b>J. Ridders</b>	<b>Scale: no scale</b>	<b>Blad/Sheet:8van/from12</b>
<b>Beschrijving / Description in:</b> <b><a href="http://ridders.nu">http://ridders.nu</a></b>			





**Expansie vat**  
**Expansion vessel**  
(messing / brass)

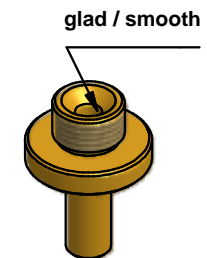
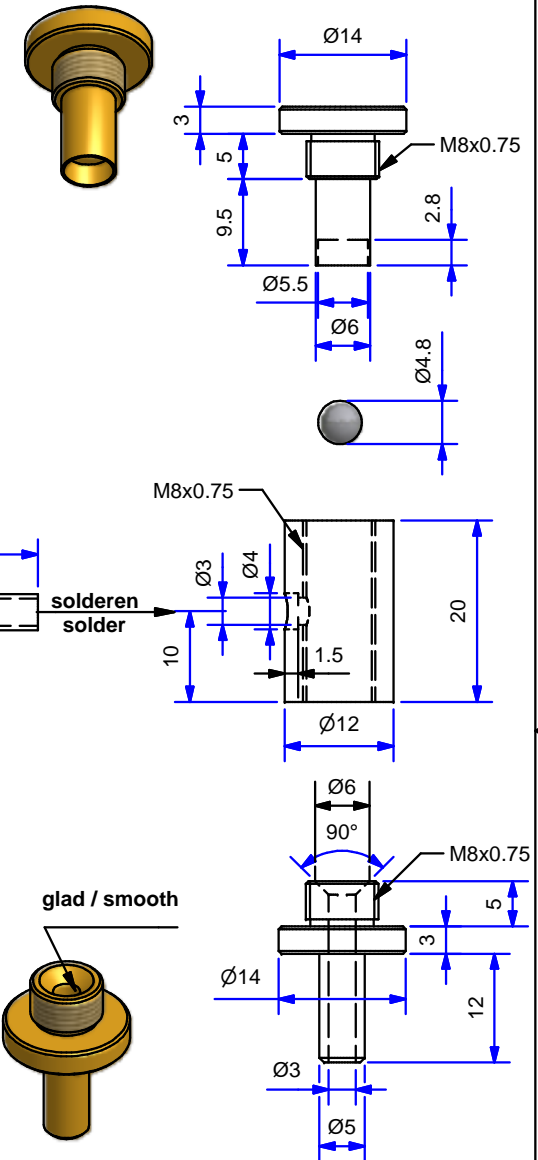
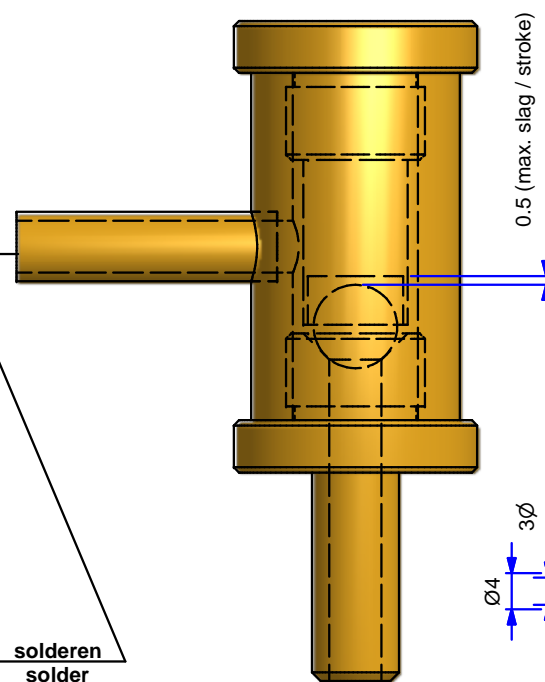


## Kogelklep / Ball valve (2x)

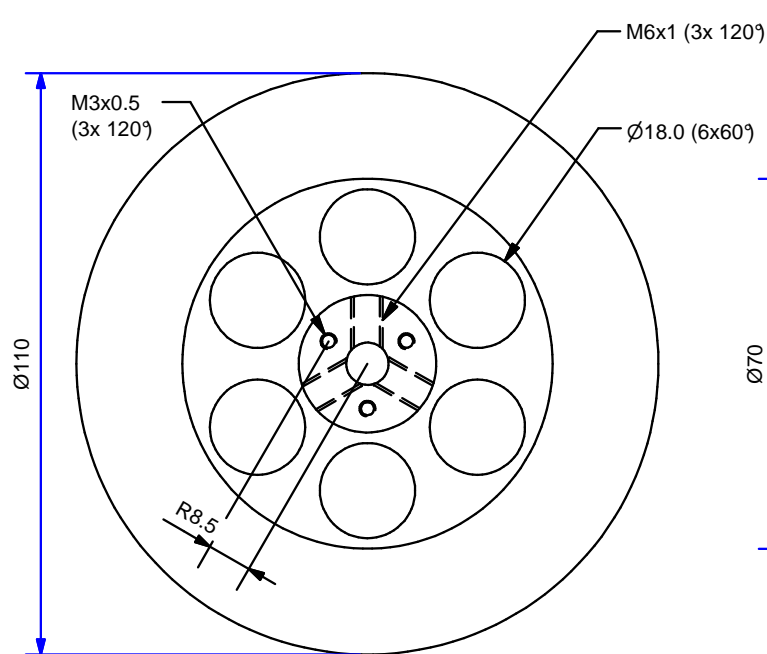
(messing / brass)

**Tweede kogelklep**  
**naar cilinder (zie blad 4)**

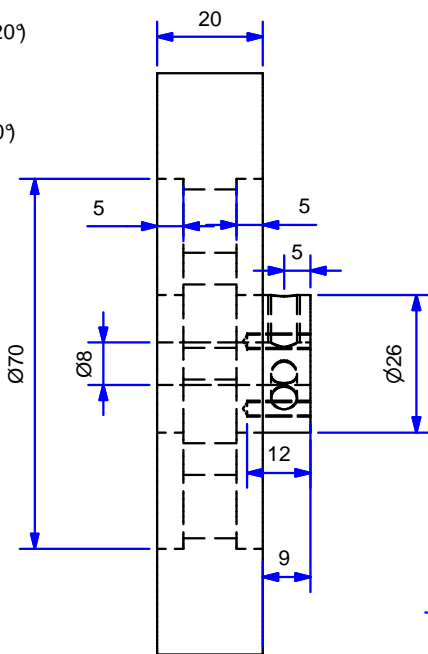
**Second ball valve**  
**to cylinder (see sheet4)**



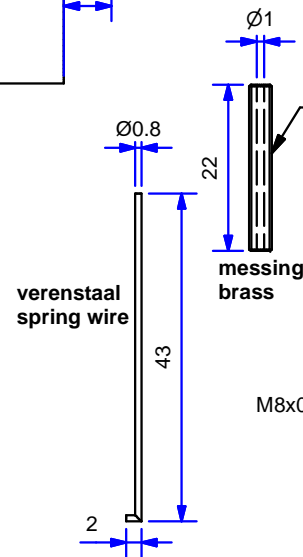
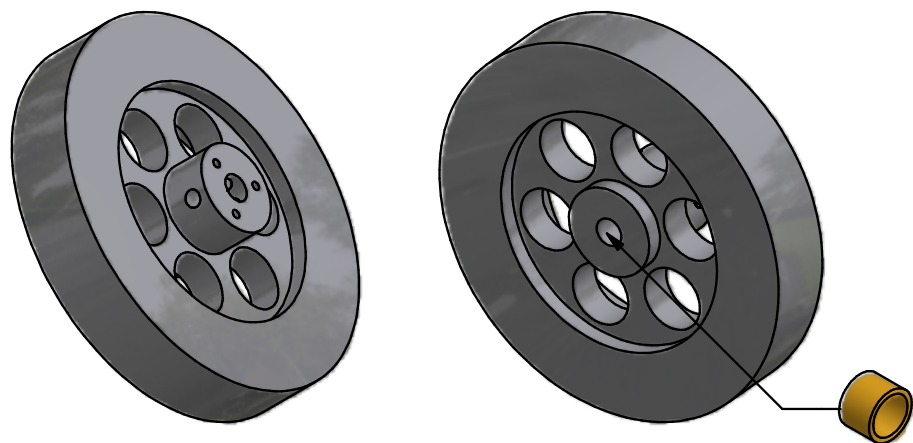
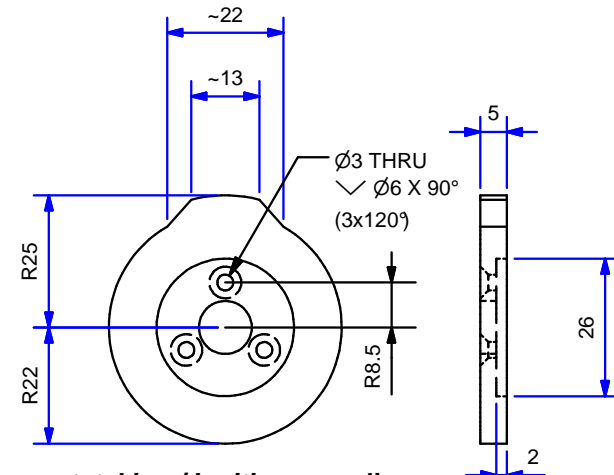
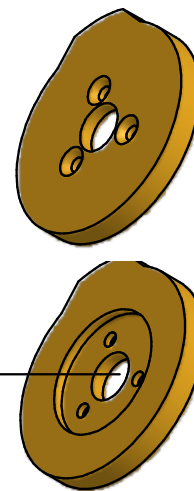
J	R	Linford 2-takt motor Linford 2-stroke engine	
		Units: mm	Org. date: Oct-10-2005
Ontw./Design <b>J. Ridders</b>	Get./Drawn <b>J. Ridders</b>	Format: A4	Update: Jul-10-2010
		Scale: no scale	Blad/Sheet: 9 van / from 12
Beschrijving / Description in:		<a href="http://ridders.nu">http://ridders.nu</a>	



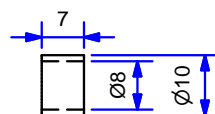
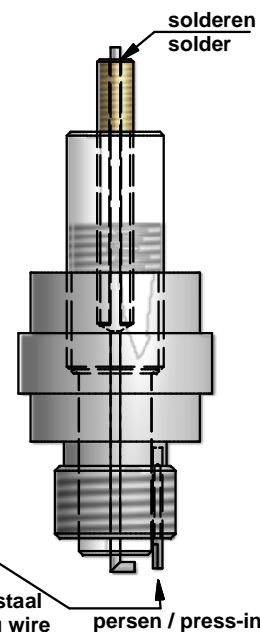
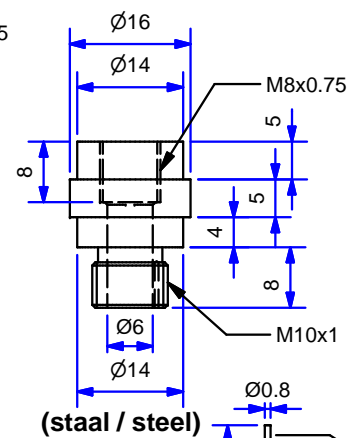
**Vliegwiël / Fly wheel**  
(staal / steel)



**Nokschijf voor ontsteking / Ignition cam disc**  
(messing / brass)

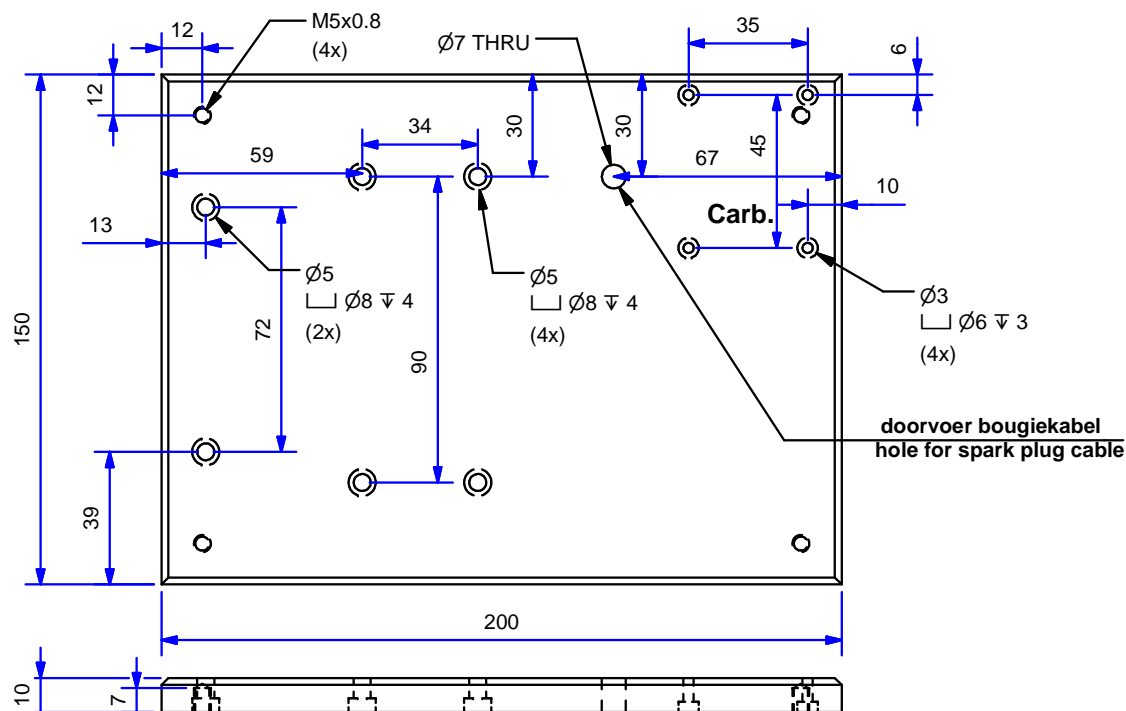


**Bougie / Spark plug**

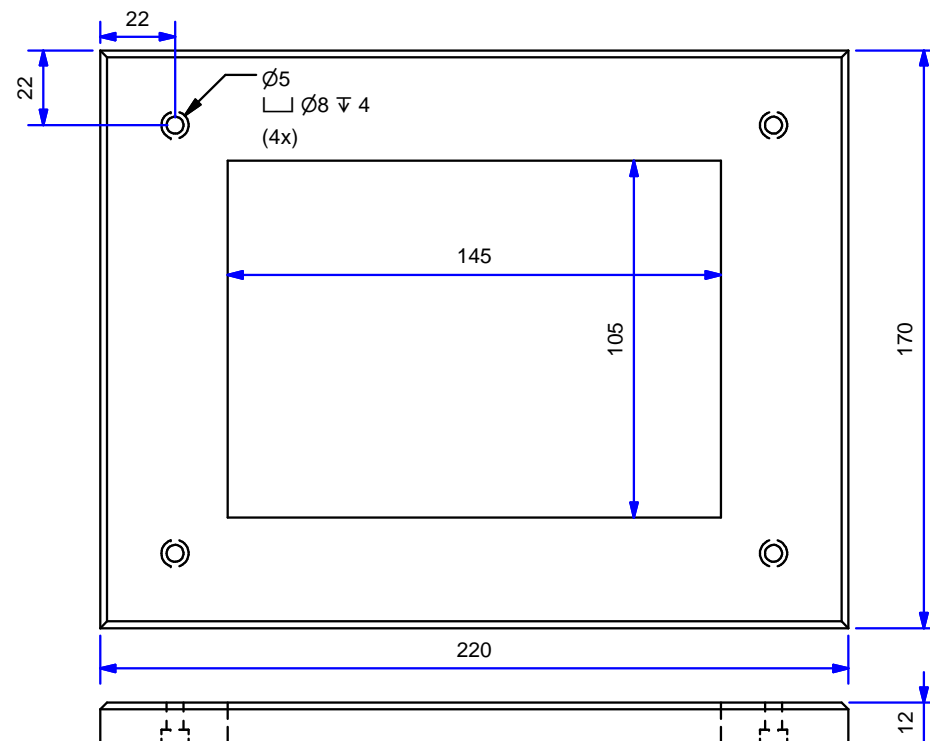


**Afstand bus / Spacer**  
(messing / brass)

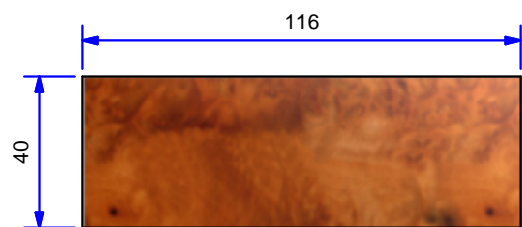
<b>J</b>	<b>Linford 2-takt motor</b>		
<b>R</b>	<b>Linford 2-stroke engine</b>		
<b>Ontw./Design</b> <b>J. Ridders</b>	<b>Units: mm</b>	<b>Org. date: Oct-10-2005</b>	
	<b>Format: A4</b>	<b>Update: Jul-10-2010</b>	
<b>Get./Drawn</b> <b>J. Ridders</b>	<b>Scale: no scale</b>	<b>Blad/Sheet:10van/from12</b>	
	<b>Beschrijving / Description in:    <a href="http://ridders.nu">http://ridders.nu</a></b>		



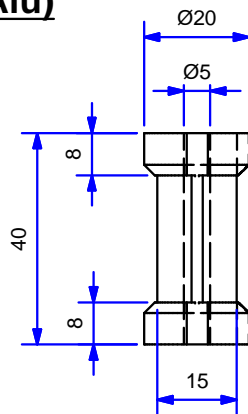
**Montageplaat / Mounting plate (Alu)**



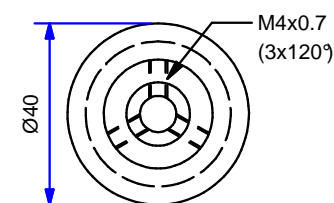
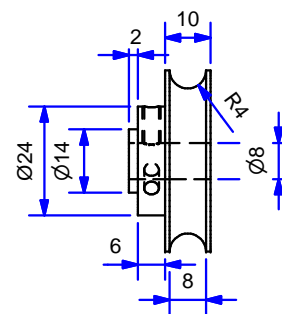
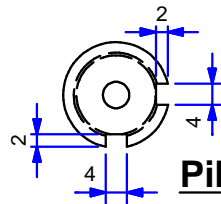
**Bodemplaat / Bottom plate (Alu)**



**Houten wand / Wooden wall (2x)**



**Pilaar / Pillar (Alu 4x)**



**Poelie / Pulley  
(messing / brass)**



**Houten wand / Wooden wall (2x)**

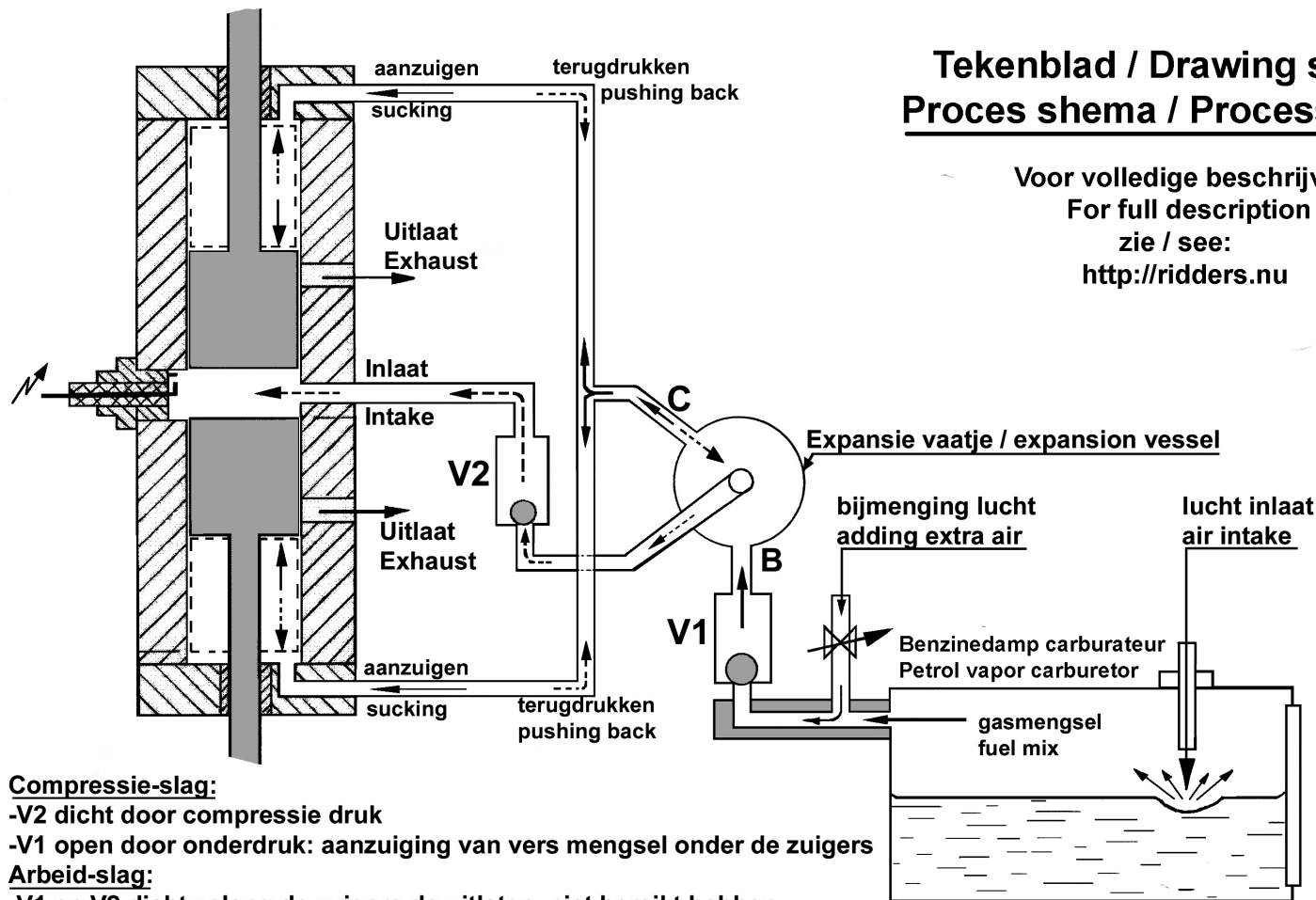


<b>J R</b>	<b>Linford 2-takt motor Linford 2-stroke engine</b>	
	Ontw./Design <b>J. Ridders</b>	Units: mm      Org. date: Oct-10-2005
	Get./Drawn <b>J. Ridders</b>	Format: A4      Update: Jul-10-2010
	Scale: no scale	Blad/Sheet: 11 van / from 12
Beschrijving / Description in: <a href="http://ridders.nu">http://ridders.nu</a>		

# Linford 2-takt / Linford 2-stroke opposed piston

## Tekenblad / Drawing sheet 12 Proces shema / Process schedule

Voor volledige beschrijving  
For full description  
zie / see:  
<http://ridders.nu>



### Compressie-slag:

- V2 dicht door compressie druk
- V1 open door onderdruk: aanzuiging van vers mengsel onder de zuigers

### Arbeid-slag:

- V1 en V2 dicht zolang de zuigers de uitlaten niet bereiken hebben
- Het verse mengsel wordt samengedrukt onder de zuigers en in het expansie vaatje

### De zuigers bereiken de uitlaten:

- De explosiedruk valt weg: V2 opent zich waardoor het samengedrukte verse mengsel in de cilinder wordt gespoten

### Compression stroke:

- V2 closed due to the compression pressure
- V1 open due to under pressure: fresh fuel mix is sucked-in the cilinder below the pistons

### Power stroke:

- V1 and V2 closed as long as the pistons have not reached the exhaust ports in the cilinder
- The fresh fuel mix is compressed below the pistons and in the expansion vessel

### The pistons reach the exhaust ports:

- The explosion pressure disappears: V2 opens and as a result the fresh fuel mix is injected in the cilinder