

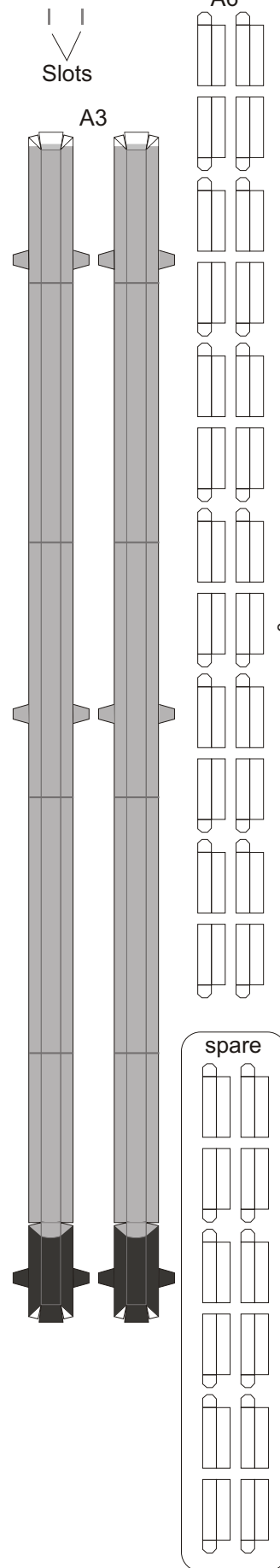
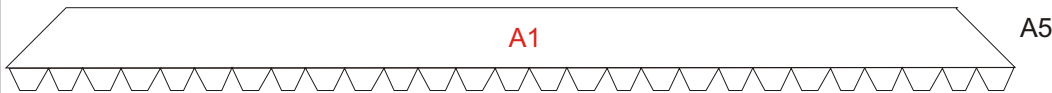
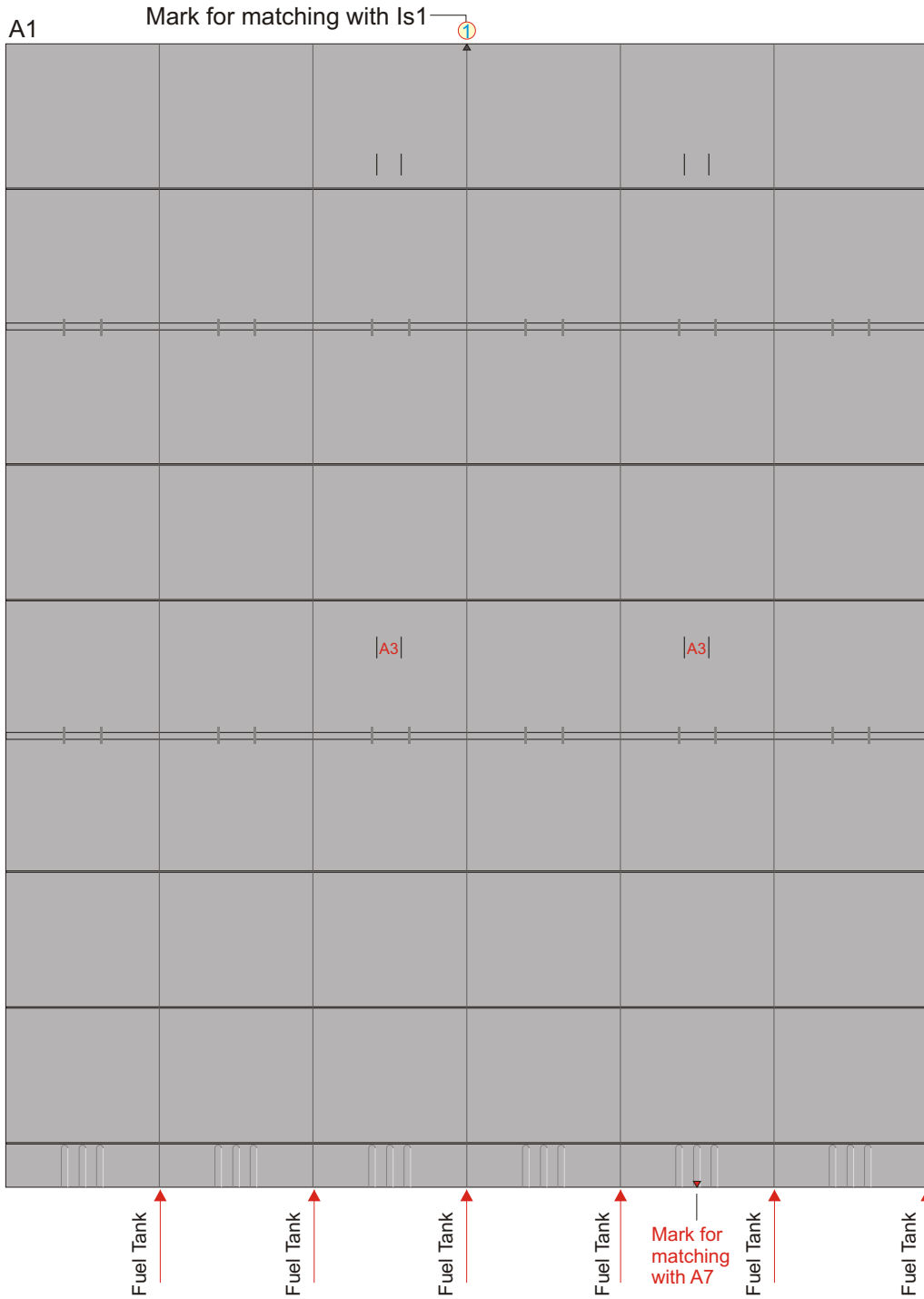
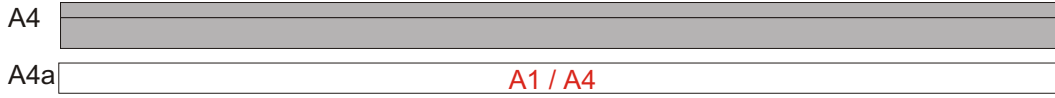
Proton K

1:96 scale

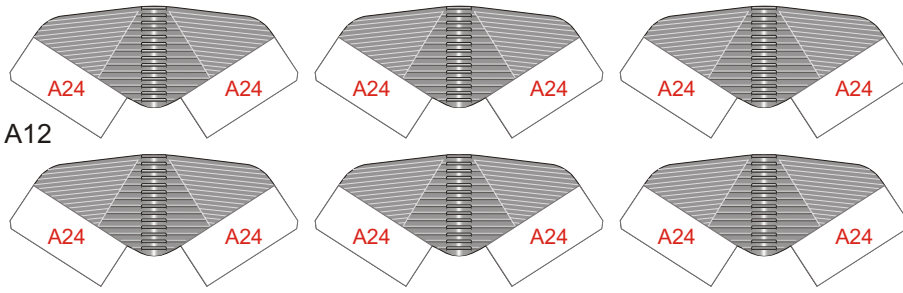
Second edition



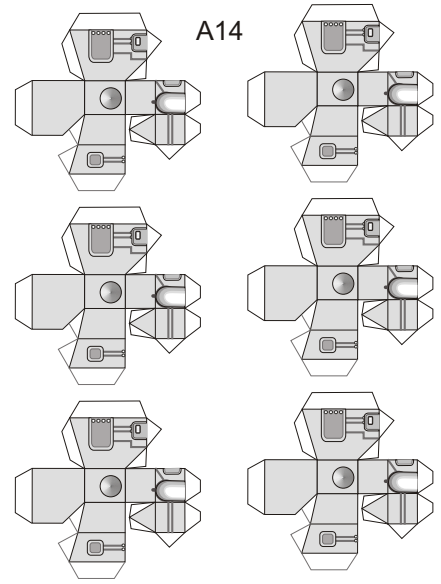
Paper used:
0,15 mm - 130 gr
0,26 mm - 200 gr ("cardstock")
Glue: PVA



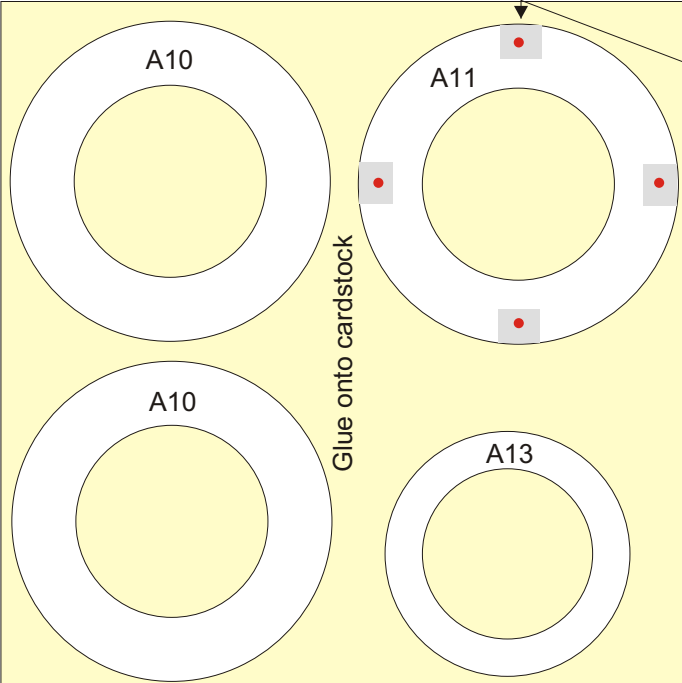
Stage A
Oxidant Tank



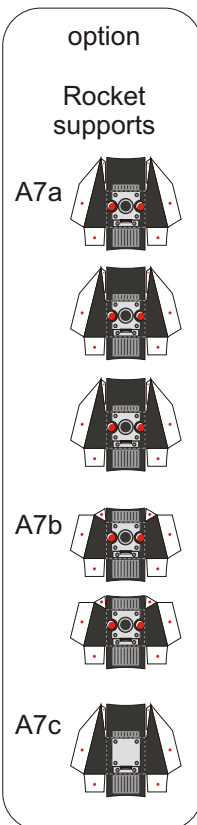
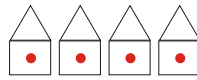
A12



A14



Glue onto cardstock

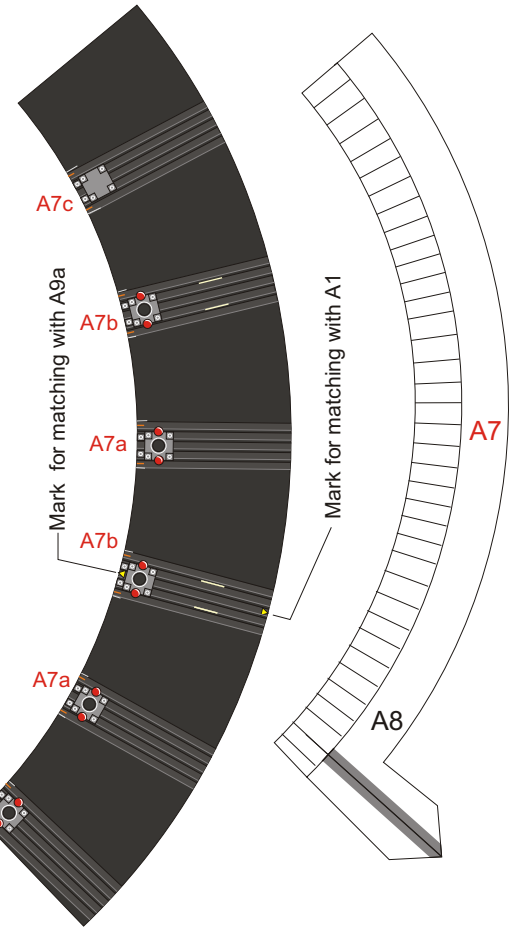


option
Rocket supports

A7a

A7b

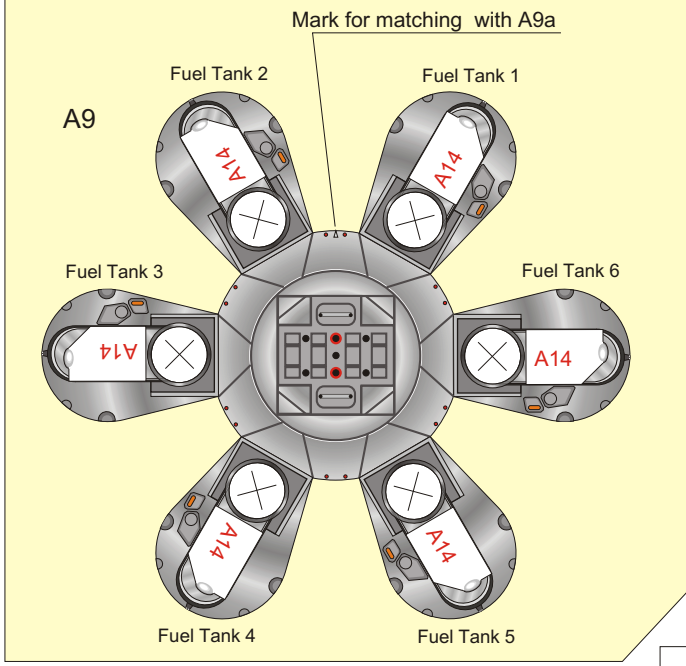
A7c



Mark for matching with A9a

Mark for matching with A1

A7



Mark for matching with A9a

Fuel Tank 2

Fuel Tank 1

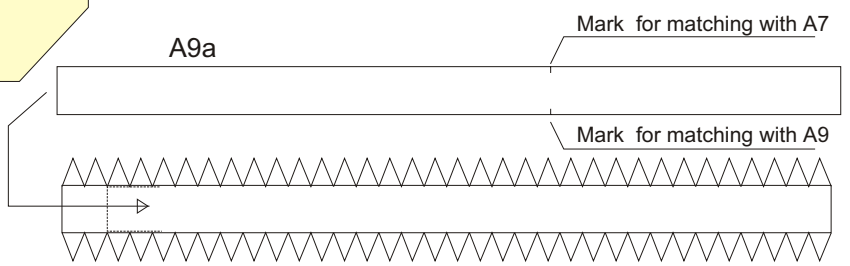
A9

Fuel Tank 3

Fuel Tank 6

Fuel Tank 4

Fuel Tank 5



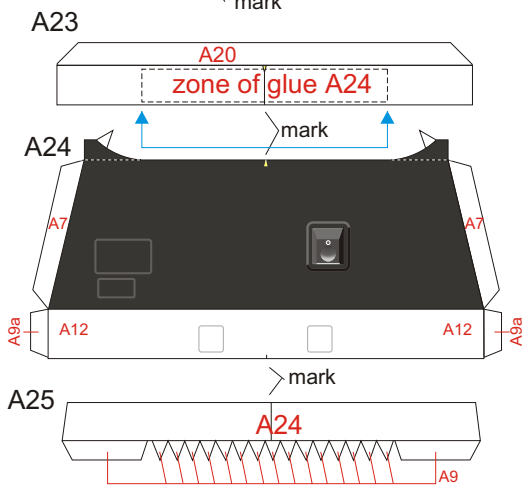
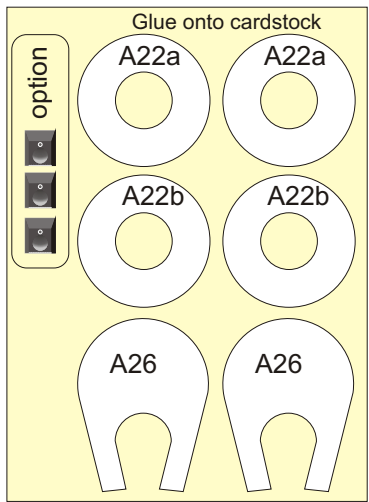
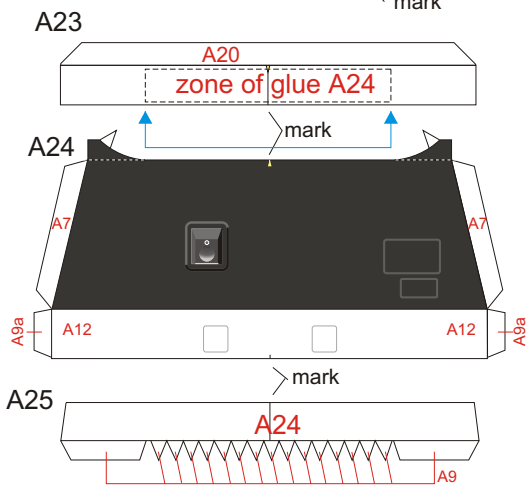
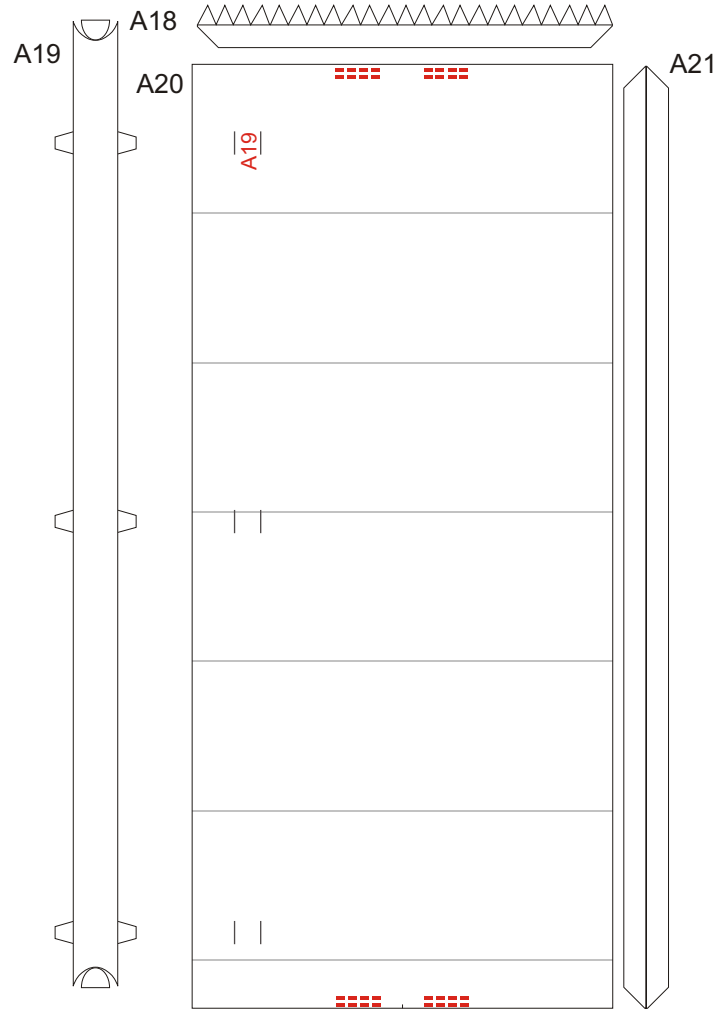
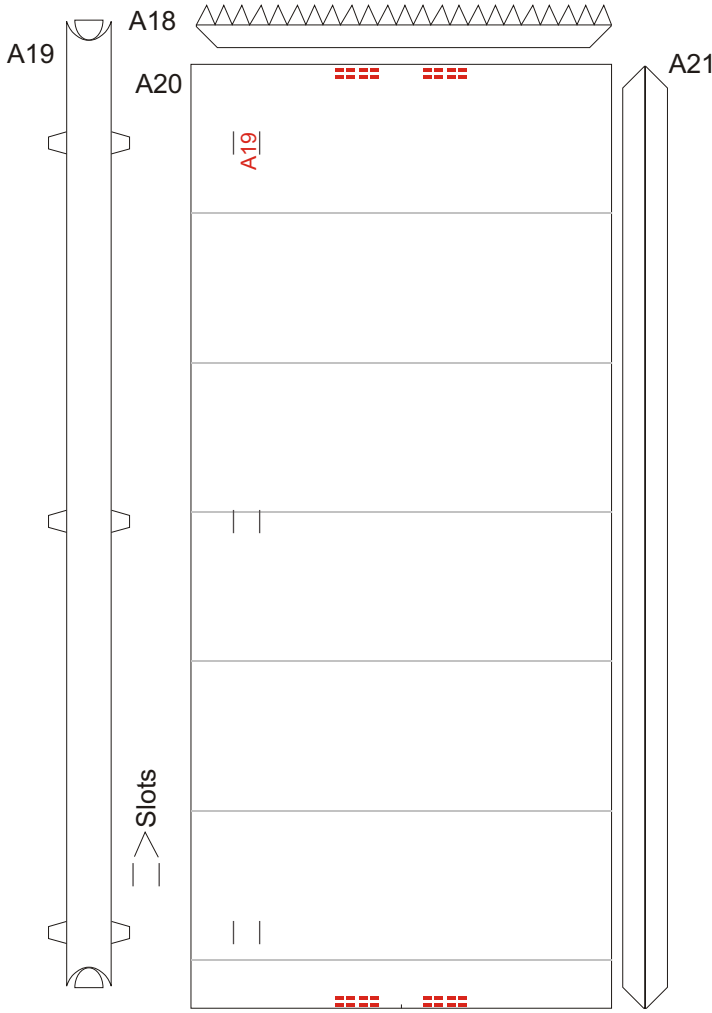
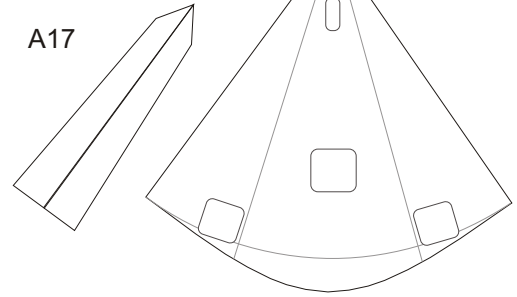
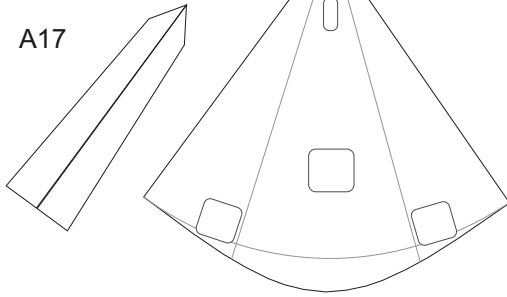
A9a

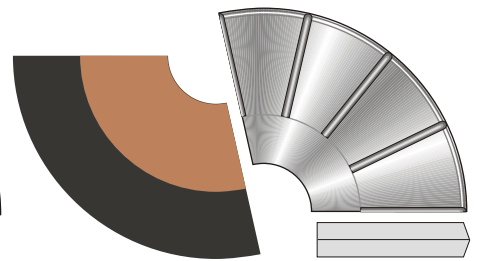
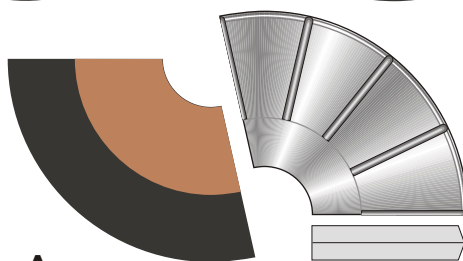
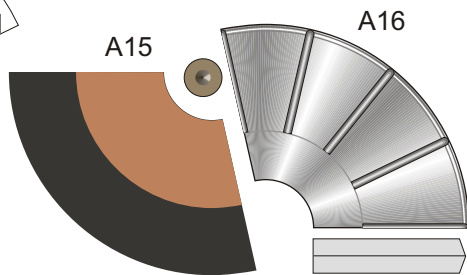
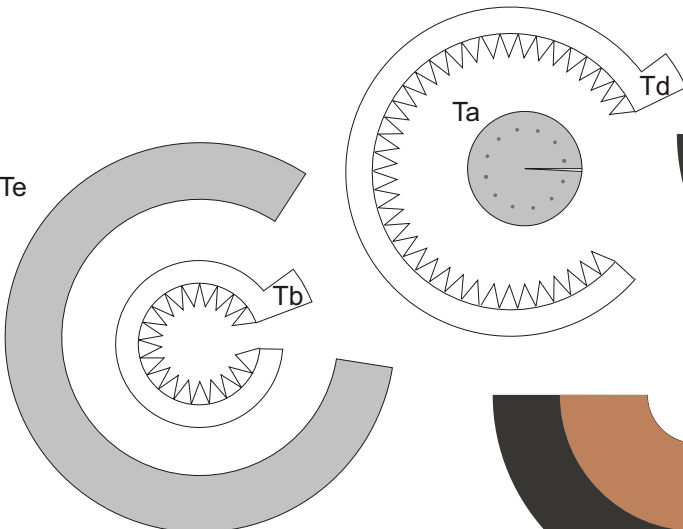
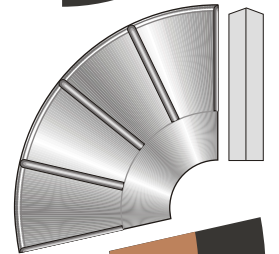
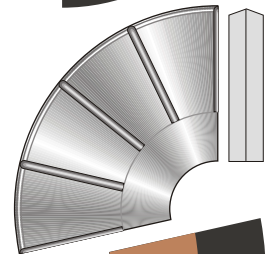
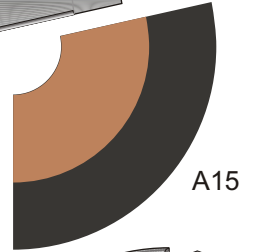
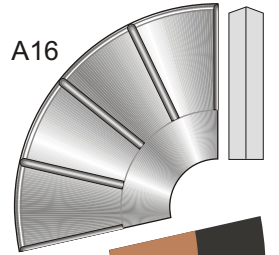
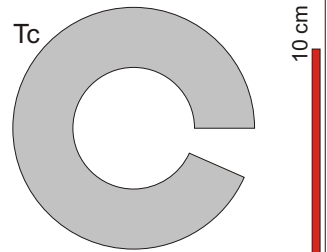
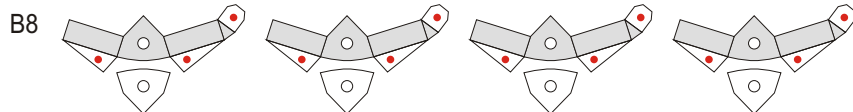
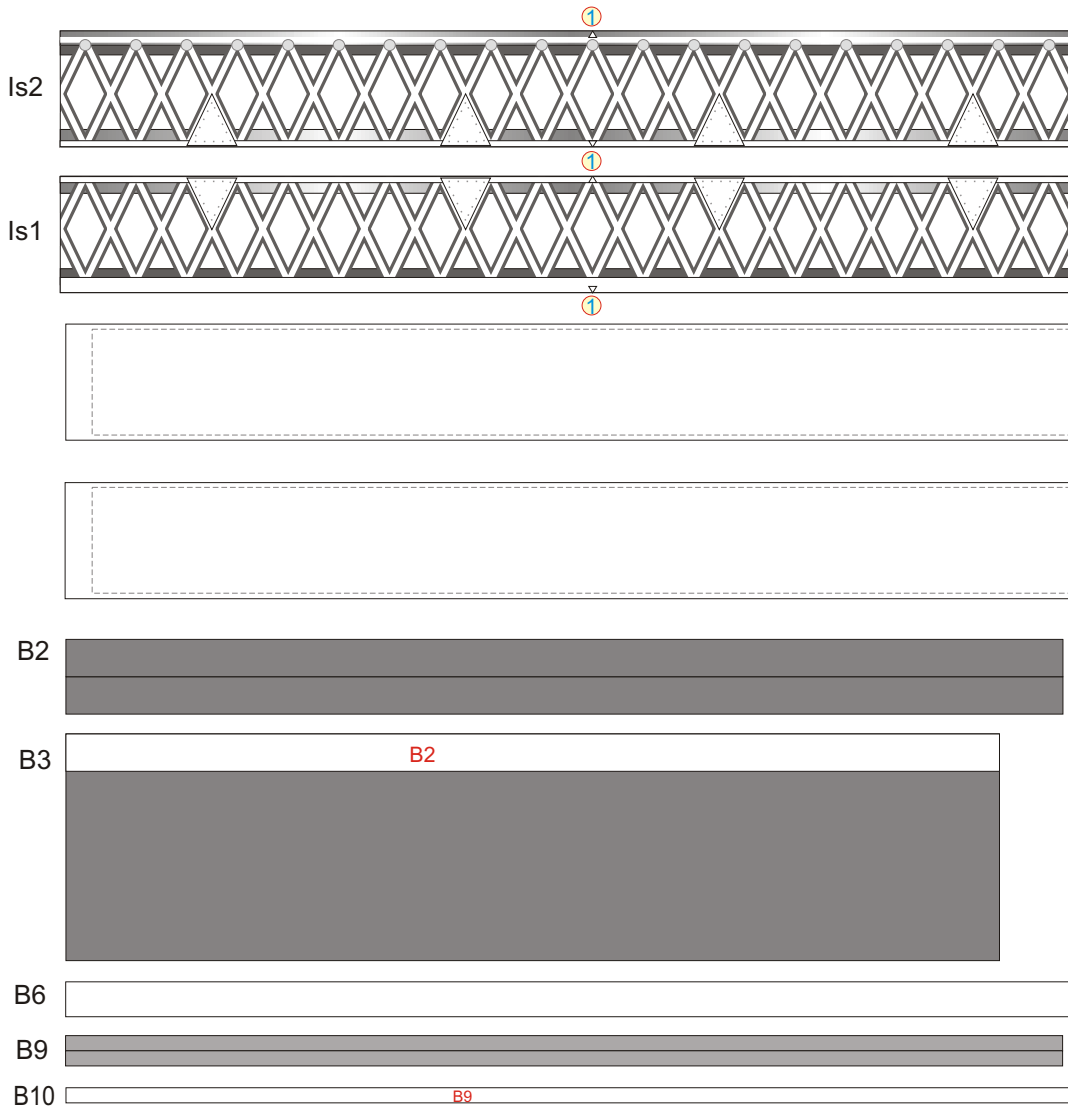
Mark for matching with A7

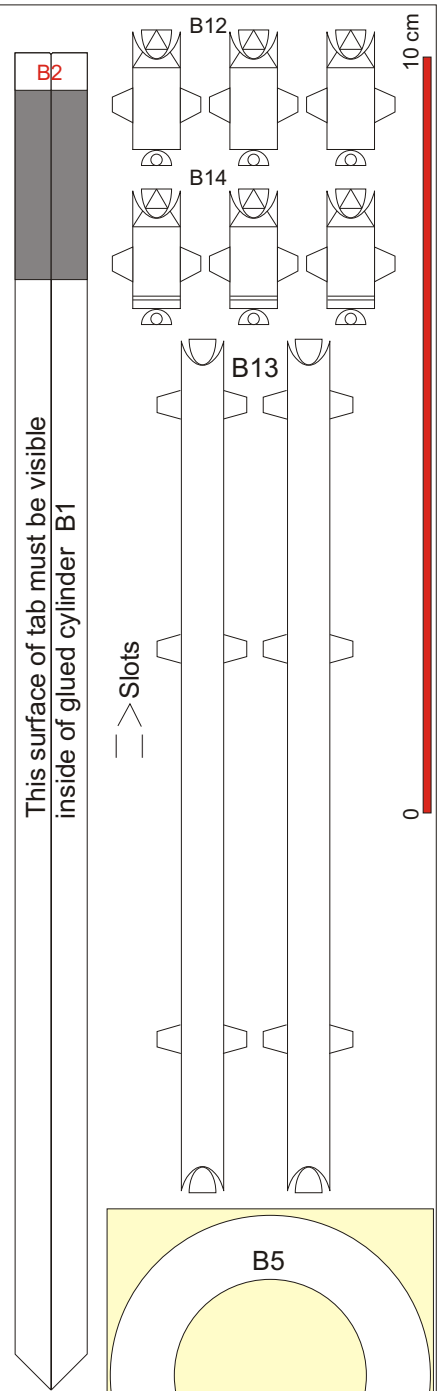
Mark for matching with A9

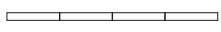
Fuel Tanks 1, 3, 5

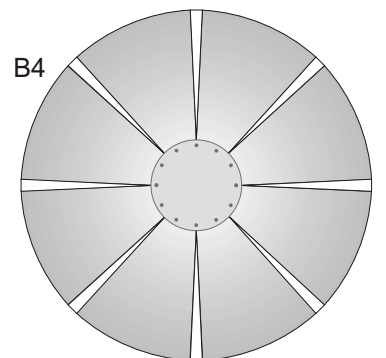
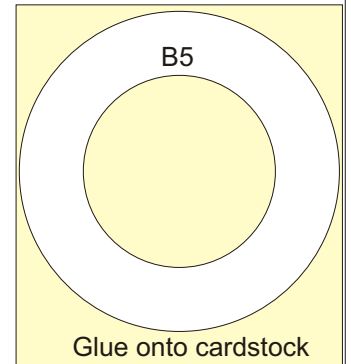
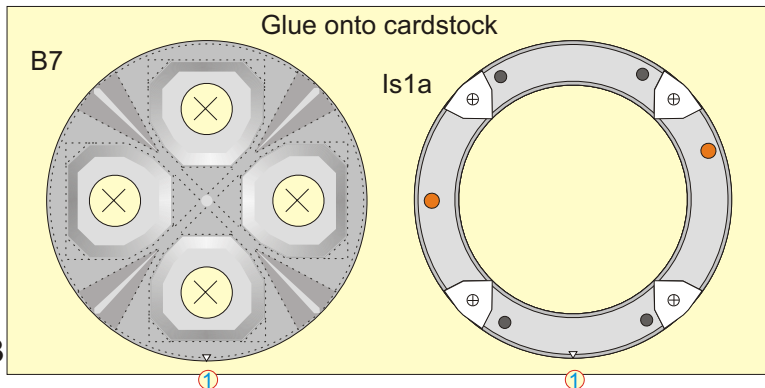
Fuel Tanks 2, 4, 6



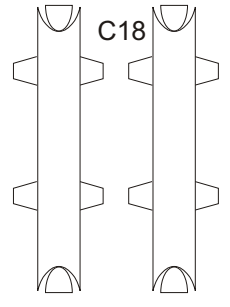
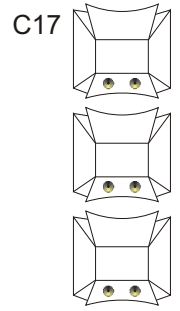
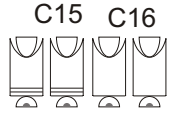
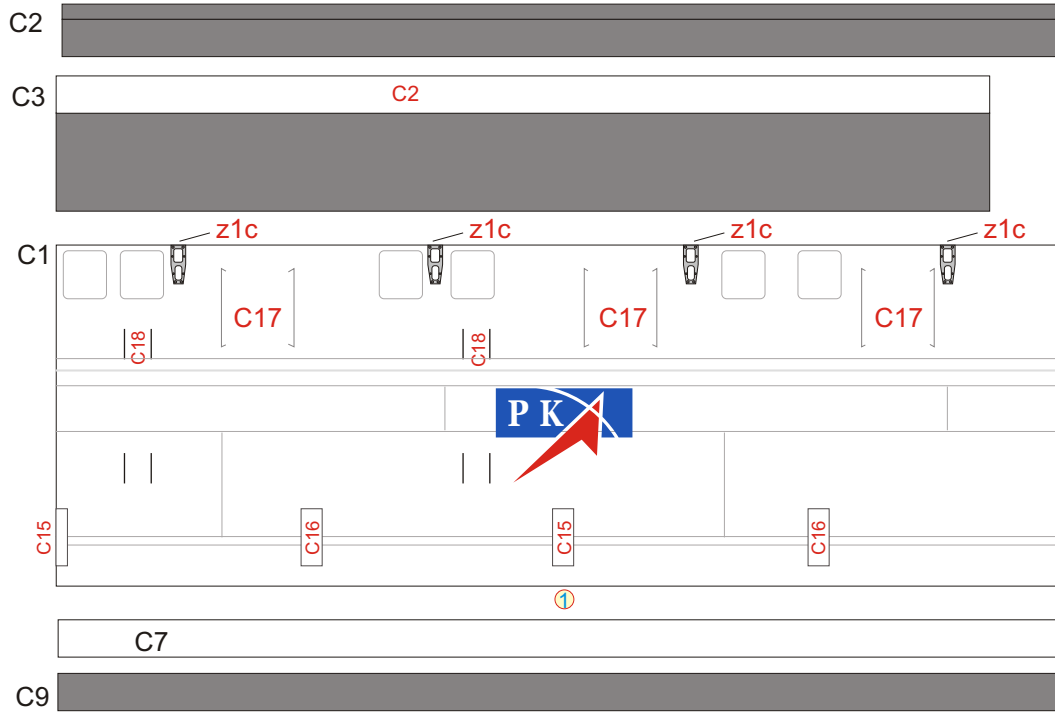




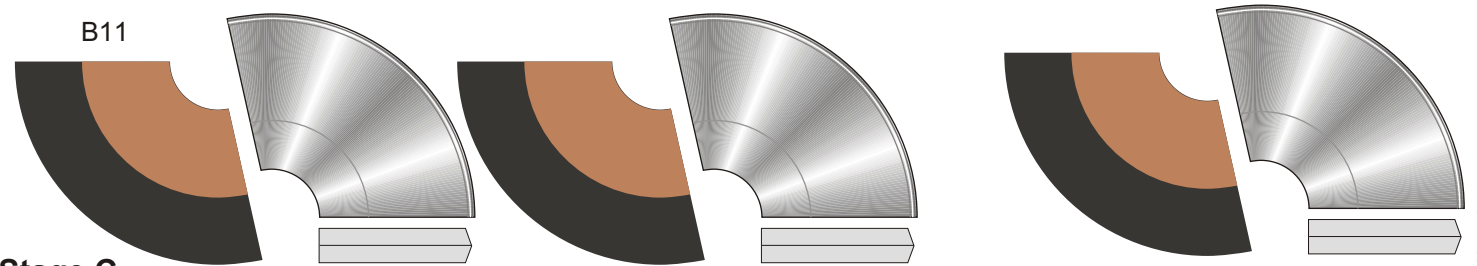
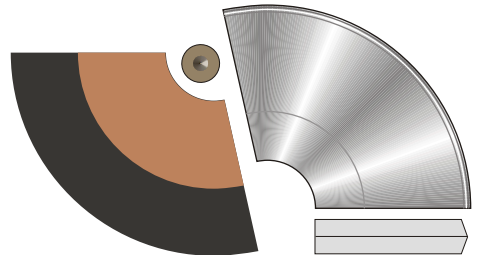
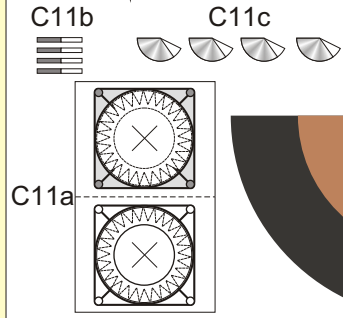
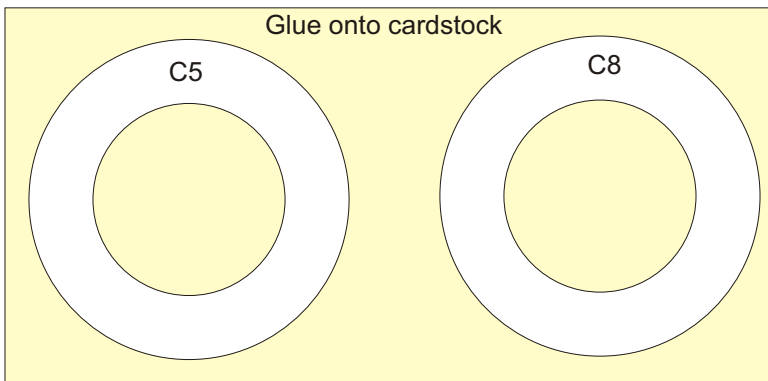
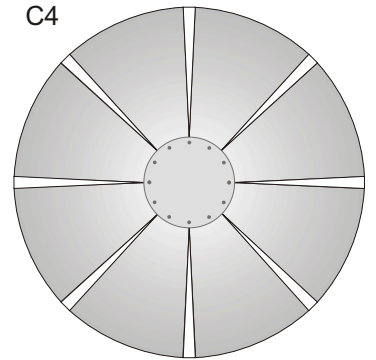
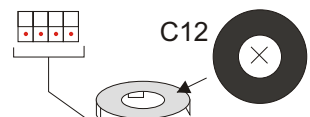
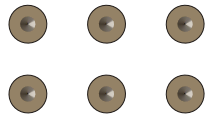
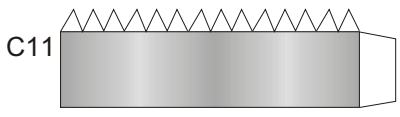
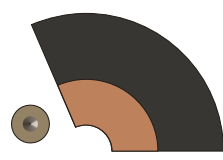
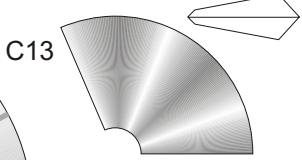
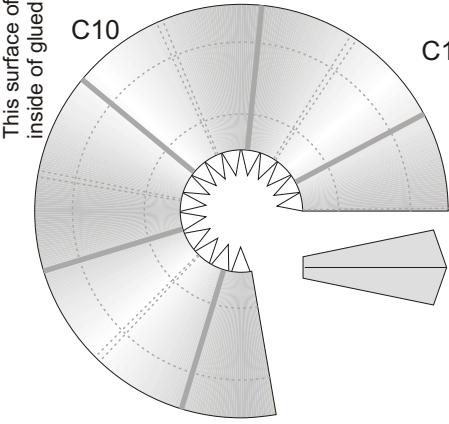
Is1b — rod x4 d~1,5 mm L= 5 mm
 Is1b-1 (x4) — 



This surface of tab must be visible inside of glued cylinder C1

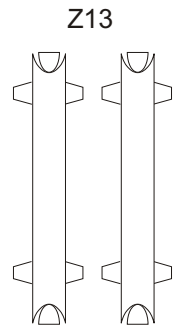
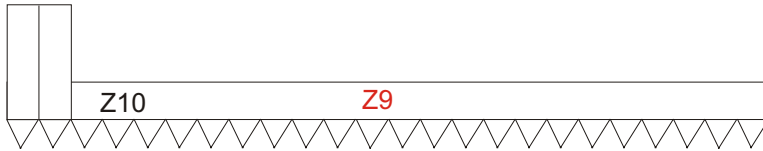
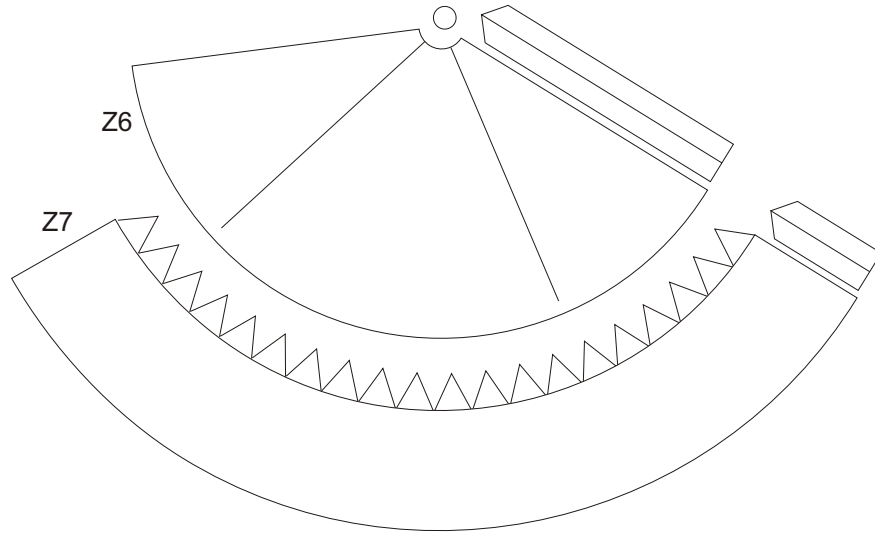


Slots



Stage C

Engines for Stage B

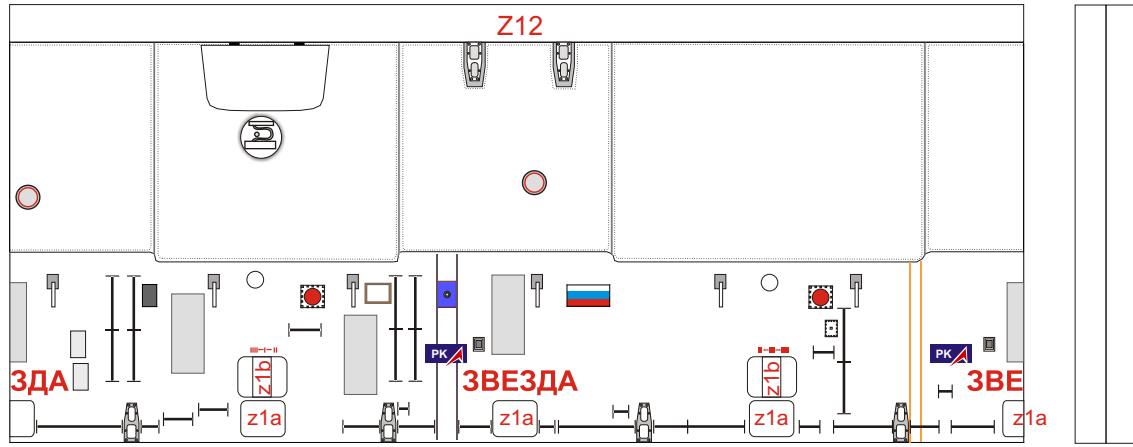


Slots for Z13



for gluing of Fairing

Z1

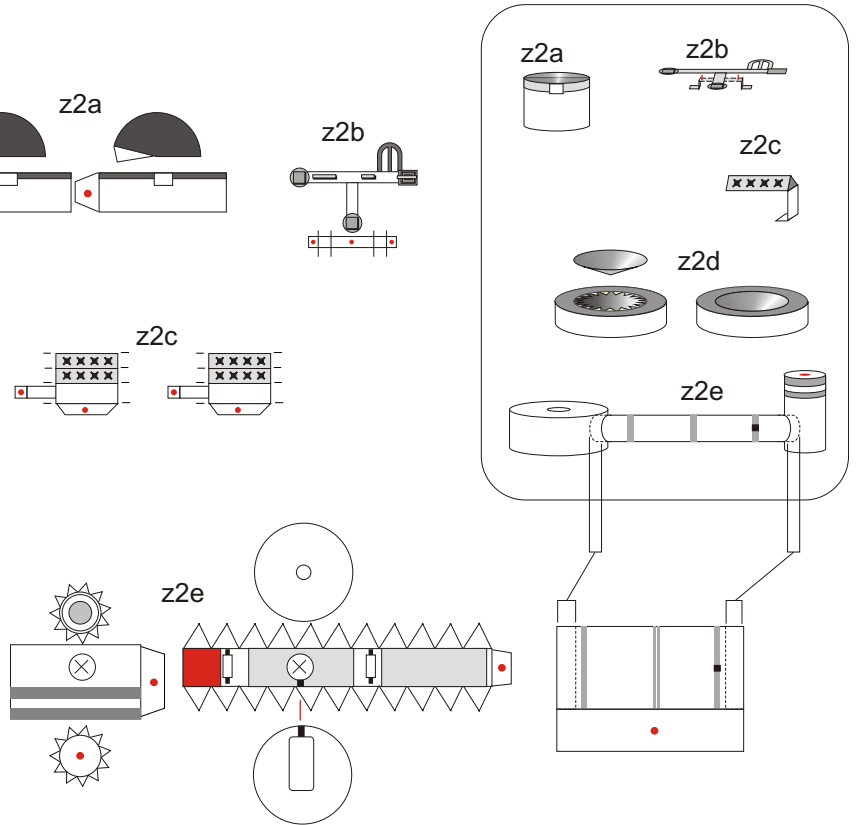
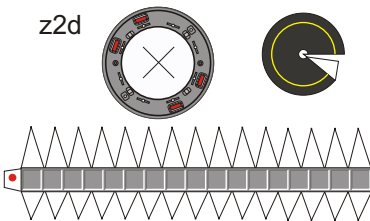
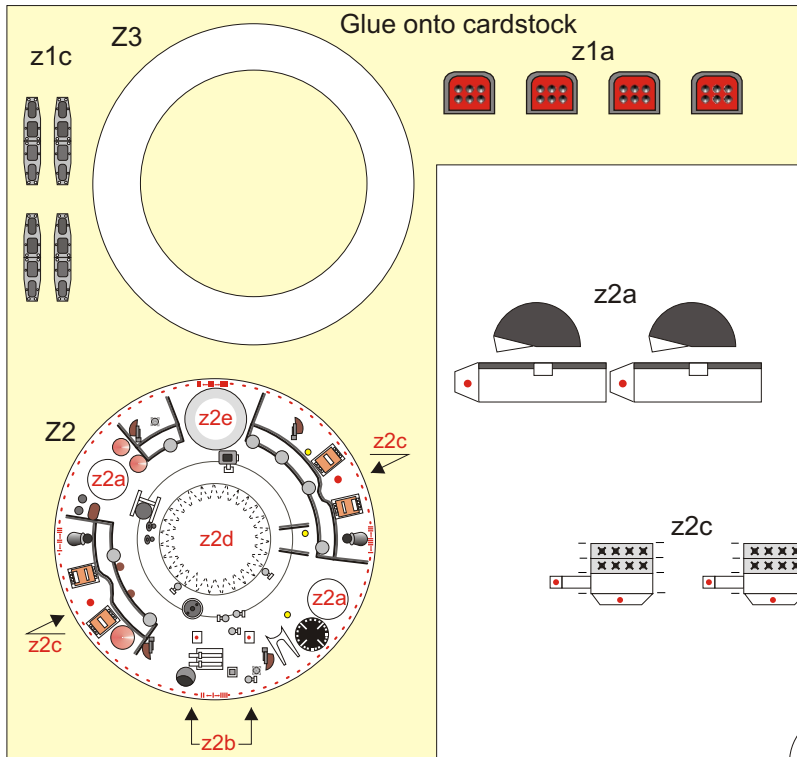


Z4

Z1

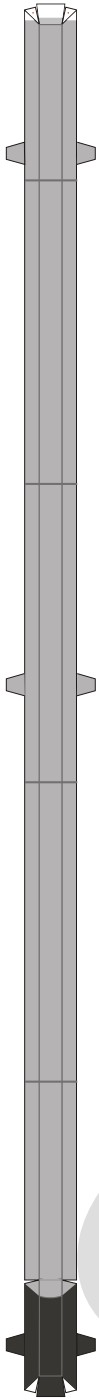
Z5

Z1

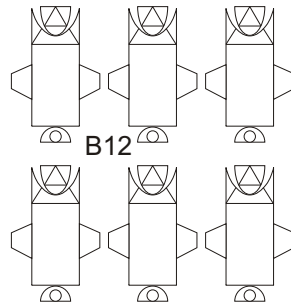
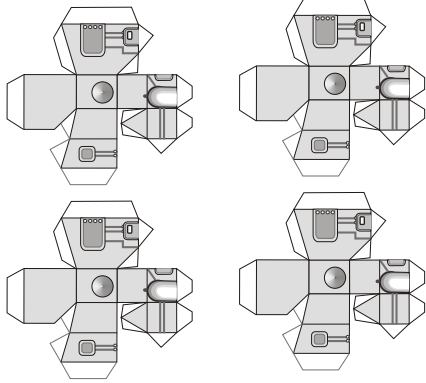


Drawings on this page are pared-down and redesigned parts of Zvezda from <http://www.marscenter.it/eng/veicol.asp?pa=6055>

A3

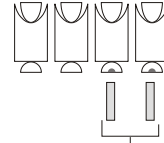


A14

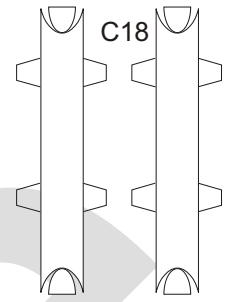


B12

C16 C15

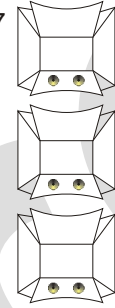


rods 2,5x1 mm (x2)

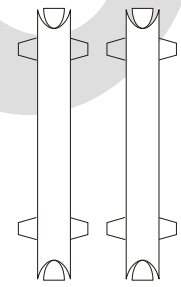


C18

C17



Z13



B14



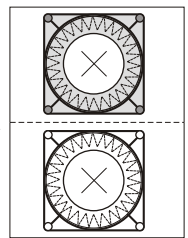
C11b



C11c



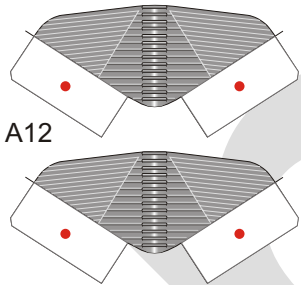
C11a



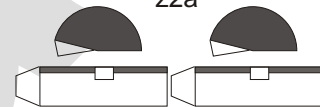
B13



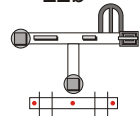
A12



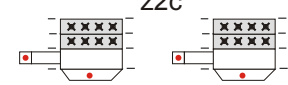
z2a



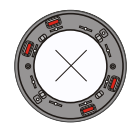
z2b



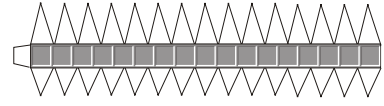
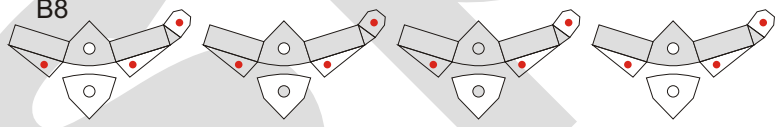
z2c



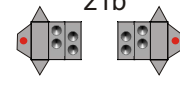
z2d



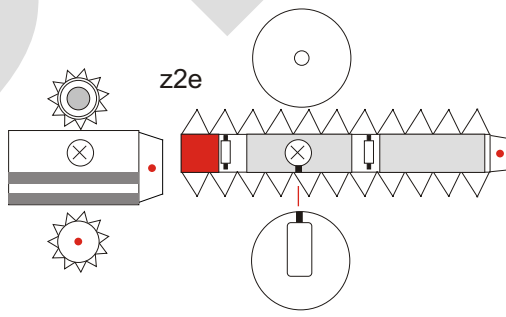
B8



z1b



z2e



Glue onto cardstock

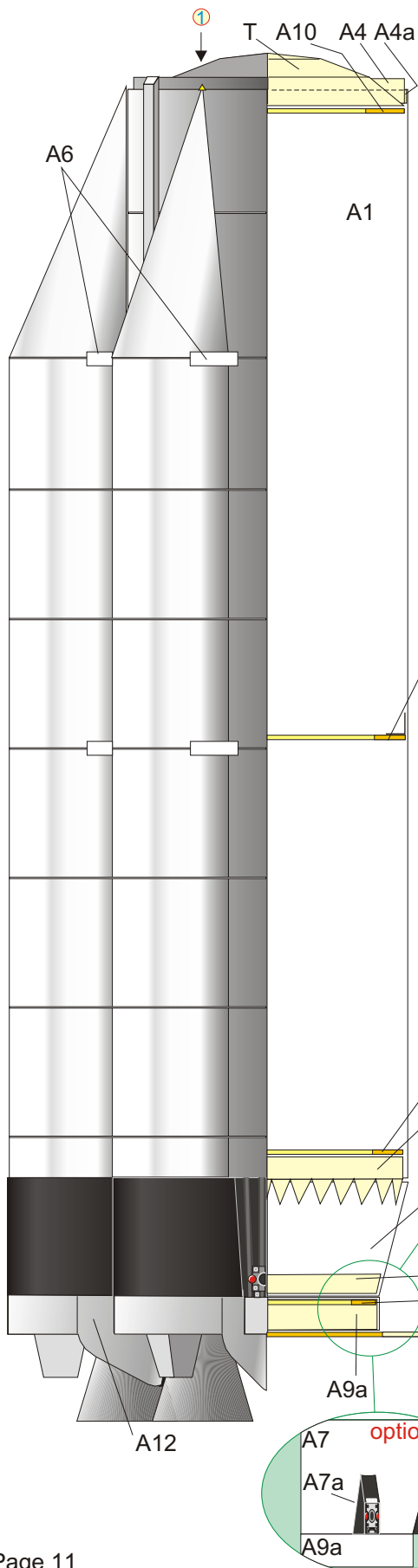
z1c



z1a



Stage B

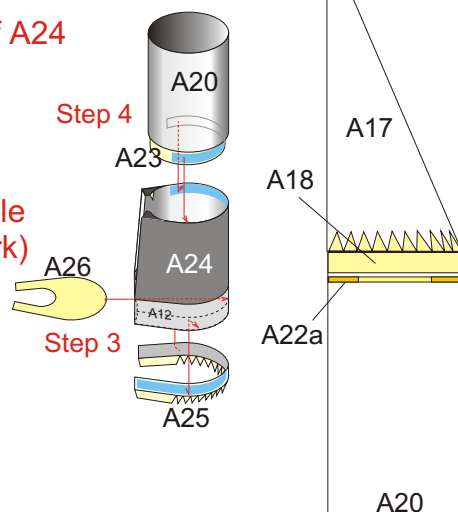
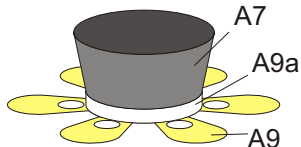


Assembling of stage A

Sequence of Fuel Tanks gluing:

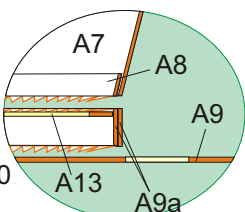
- 1 - glue cylinder A20 and cone A17,
- 2 - glue A18, A22a, A22b, A23,
- 3 - glue A25 and A26 into bottom of A24
- 4 - glue A24 and A20 using A23
- 5 - assembly A17 and A20
- 6 - glue A19 onto A20 (use slots)
- 7 - glue cone A7 (use A8)
- 8 - glue A9a (with A13 under triangle tabs) then glue A7 on A9a (use mark)
- 9 - glue A9a on A9 (use mark)

Result of step 9

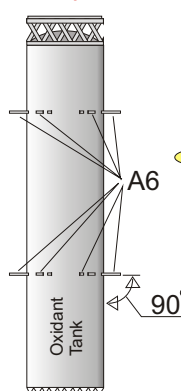


Sequence of Oxidant Tank gluing:

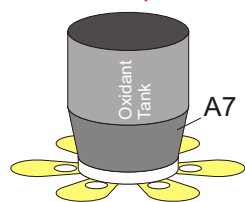
- 1 - glue cylinder A1 and part T
- 2 - glue A4a, A4, A10, T and Is1, Is3, Is3a on top of A1
- 3 - glue A11, A10, A5 on bottom of A1
- 4 - glue supports A6 (use slots)
- 5 - glue Oxidant Tank onto A7
- 6 - glue Fuel Tanks on A9 (see its numbers)
- 7 - glue supports A6 to Fuel Tanks
- 8 - glue A3, parts A12 and parts A7a, A7b (option)
- 9 - glue parts A14 and nozzles A15+A16



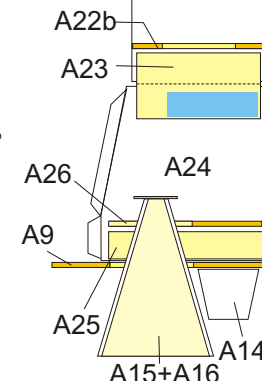
Result of steps 1 - 4



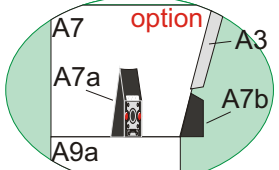
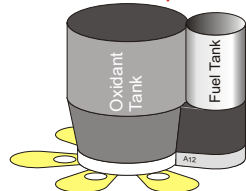
Result of step 5



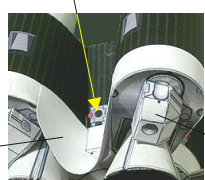
Step 6



Result of step 6



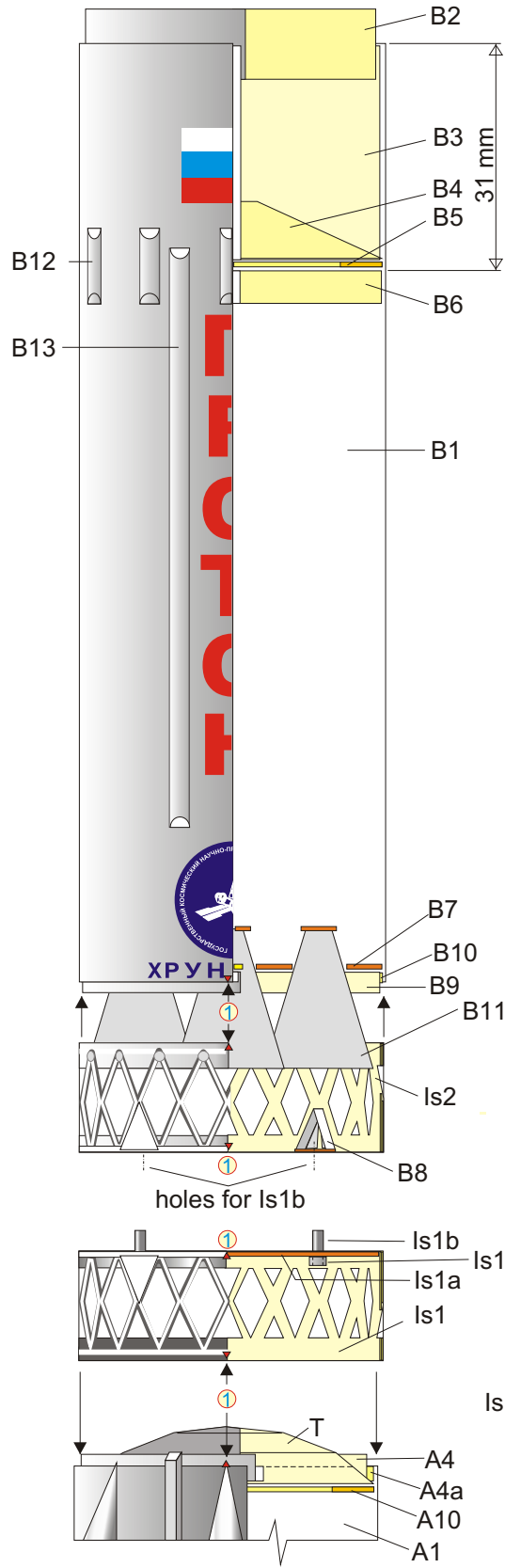
glue A7a here



A12

A14

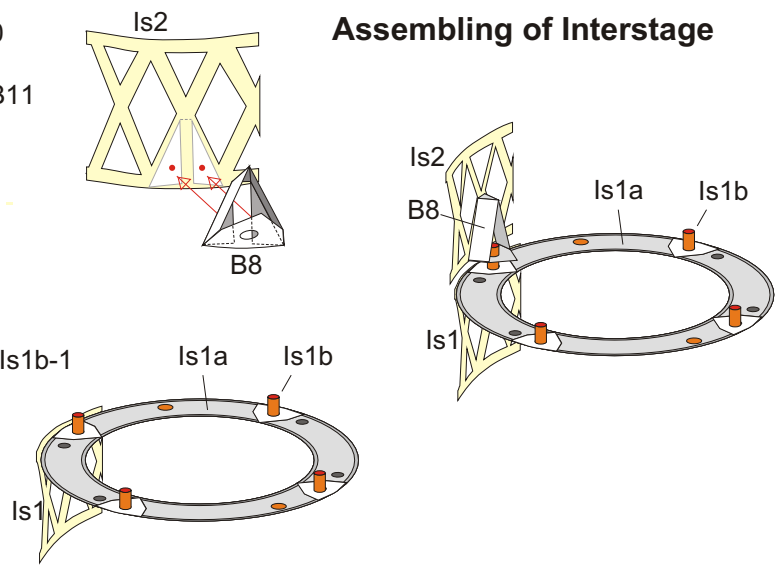
A9

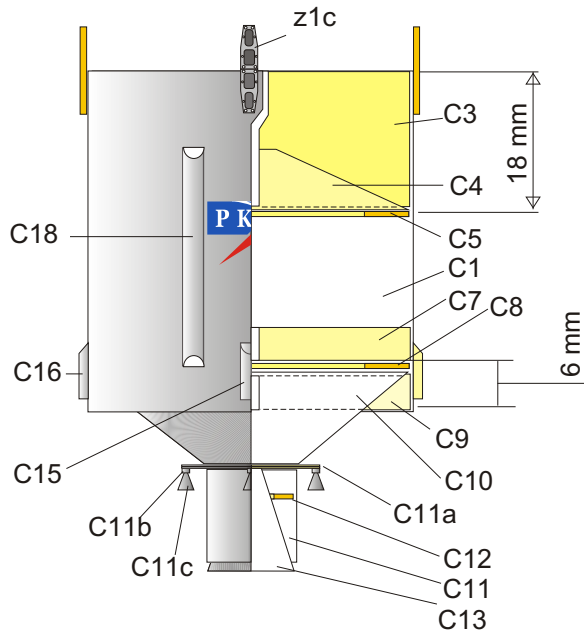


Sequence of gluing:

- 1 - glue cylinder B1,
- 2 - glue B10, B9
- 3 - assembly nozzles B11 and disk B7
- 4 - insert result of step 3 from top to bottom of B1 and glue using B9, B10 as support,
- 5 - glue Is2 + B8
- 6 - glue B6, B5, B4, B3, B2, B12, B13 and B14

Assembling of Interstage





Before gluing:
 mark for part C8 should be drawn
 by fine pencil-point
 on backside of part C1 on distance 5,2 mm
 parallel to bottom edge

Sequence of gluing:

1- glue cylinder C1, then glue C3, C5,
 C4 and C2

assembly engine pod -

2- glue cone C10 and glue C11a on this

3- glue cylinder C11 on C11a

4- glue nozzle C13 into disk C12

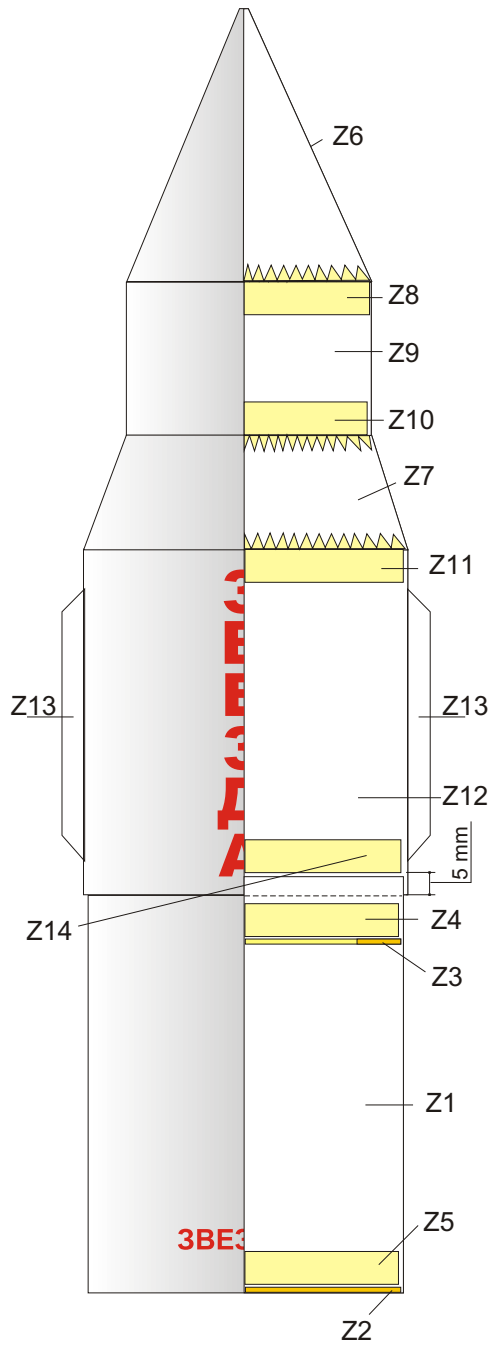
5- insert C12+C13 into C11 (the edge
 of nozzle must be raised above edge
 of C11 on 1 mm)

6- glue C7, C8, engine pod C10 and C9

7- glue C15, C16, C17 and C18 (use slots)

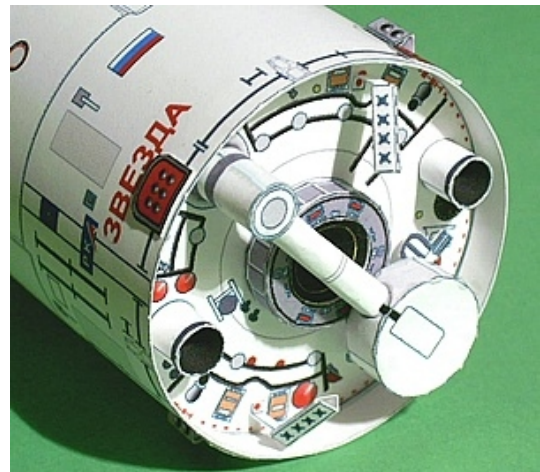
8- glue C11b, C11c

Assembling of Fairing and bottom of module Zvezda



Sequence of gluing:

- 1- glue Fairing
- 2 - glue module Zvezda
- 3 - assembly (glue) module and Fairing



First version of Zvezda bottom assembly. Final version see diagram left.

