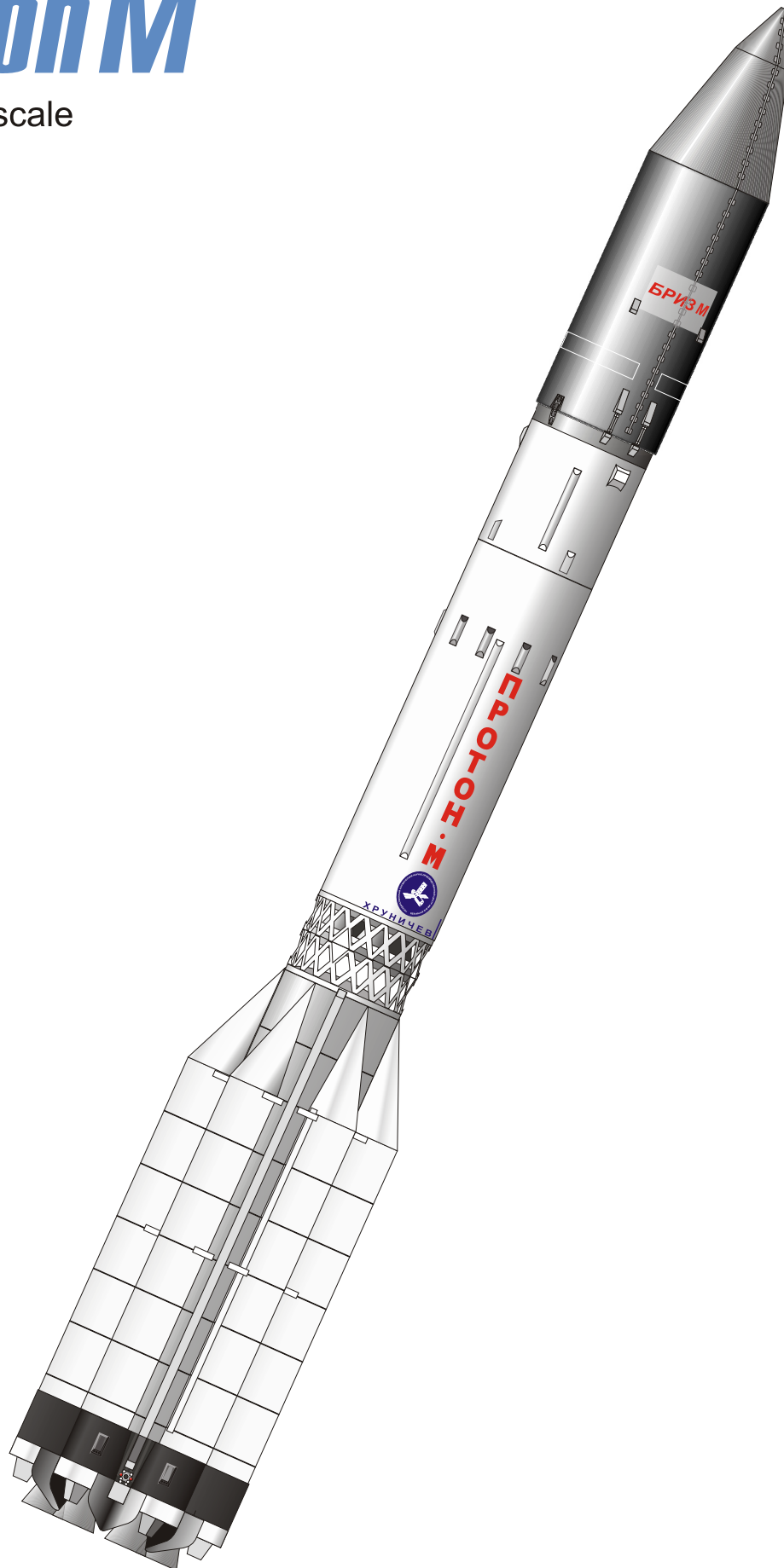


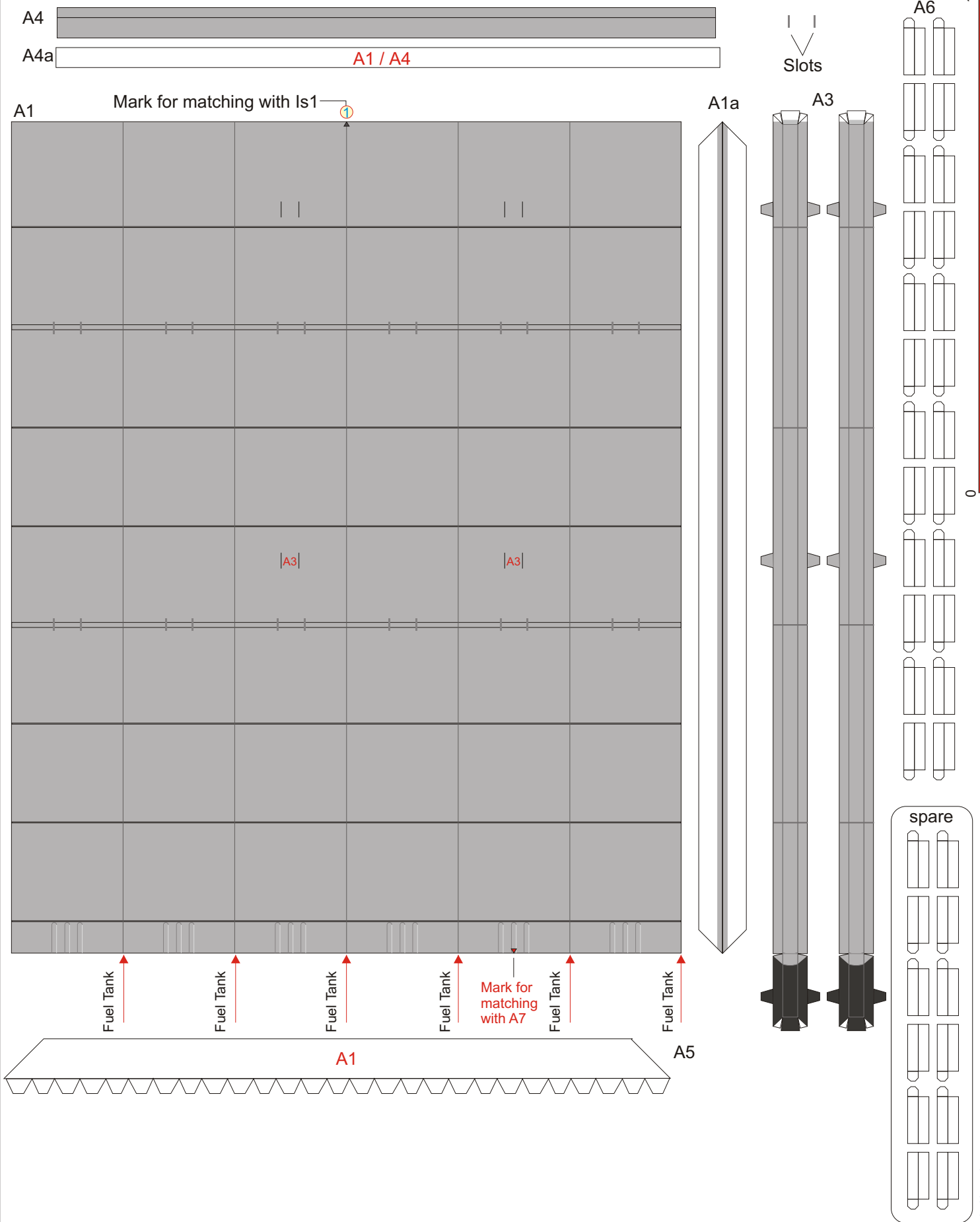
# Proton M

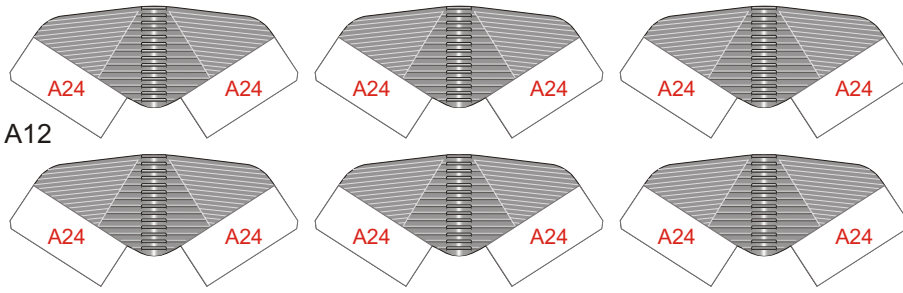
1:96 scale



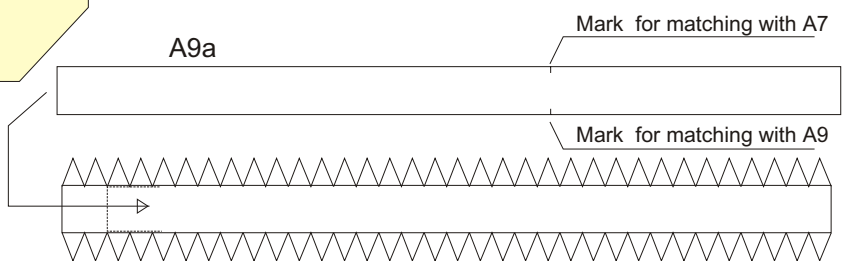
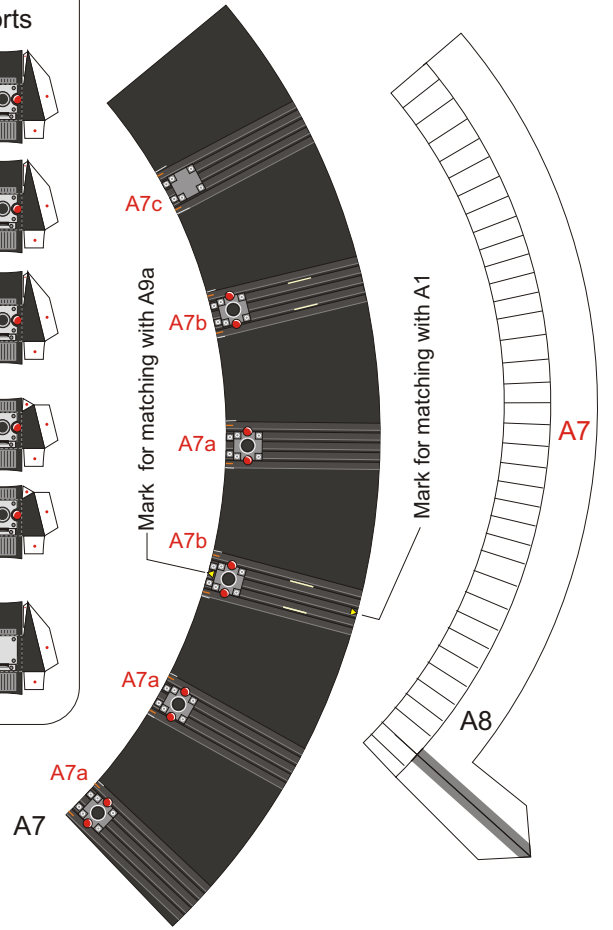
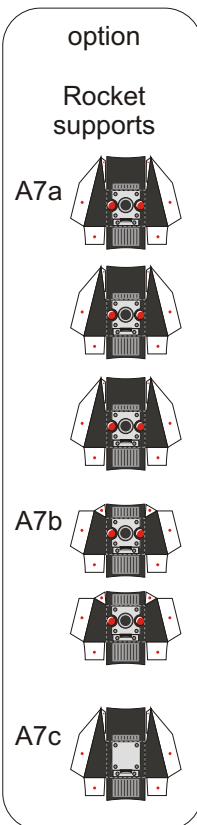
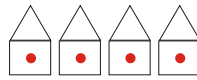
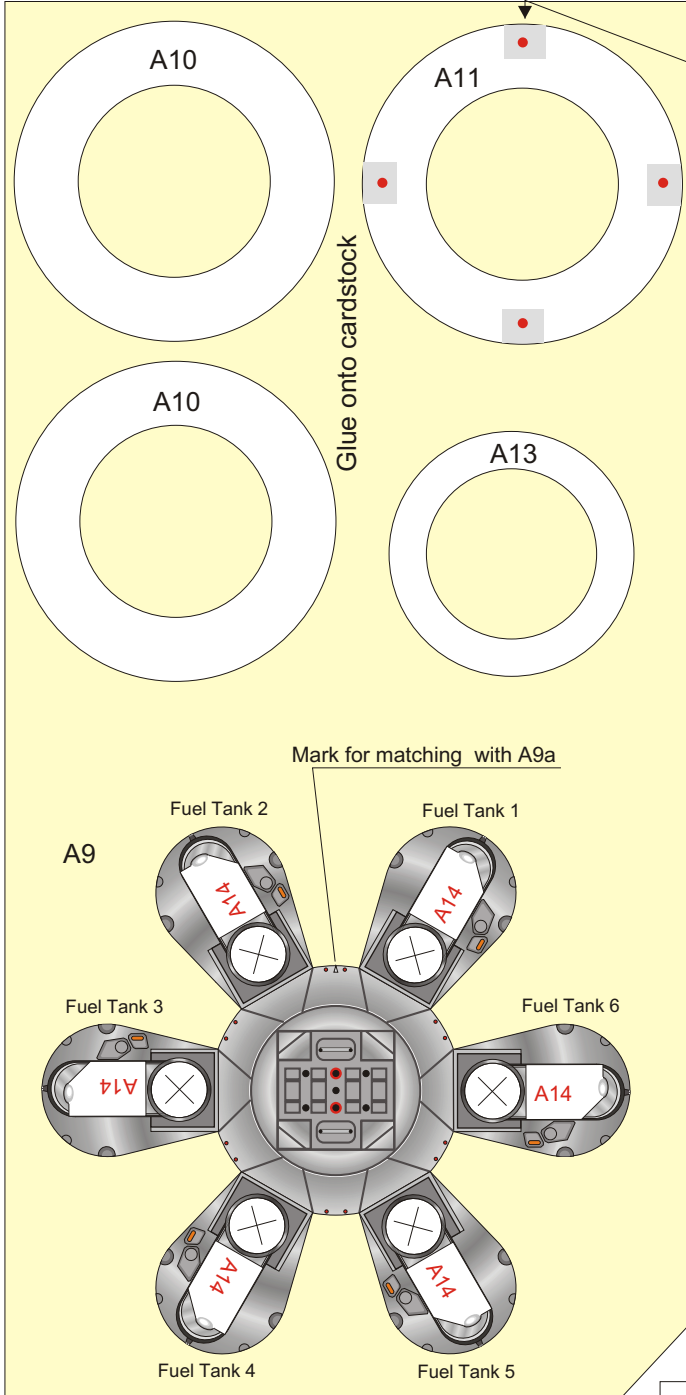
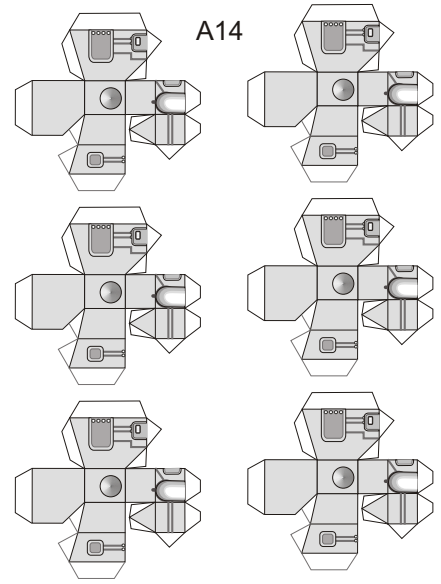
Paper used:  
0,15 mm - 130 gr  
0,26 mm - 200 gr ("cardstock")  
Glue: PVA

**Many thanks to Joe Polchlopek for test-building!**



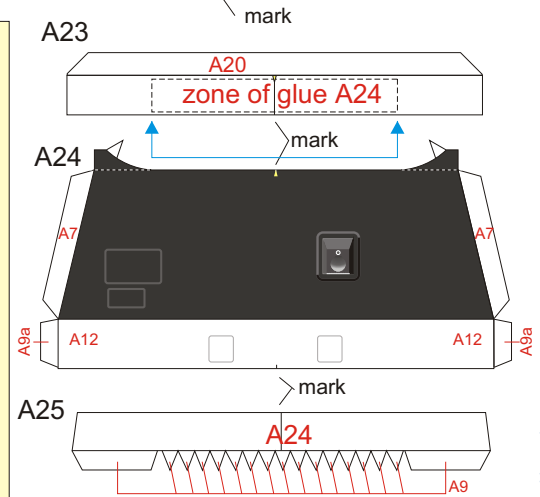
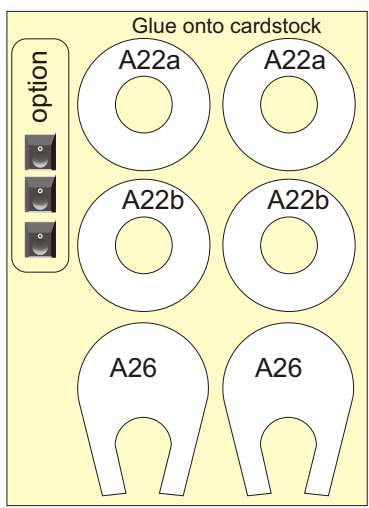
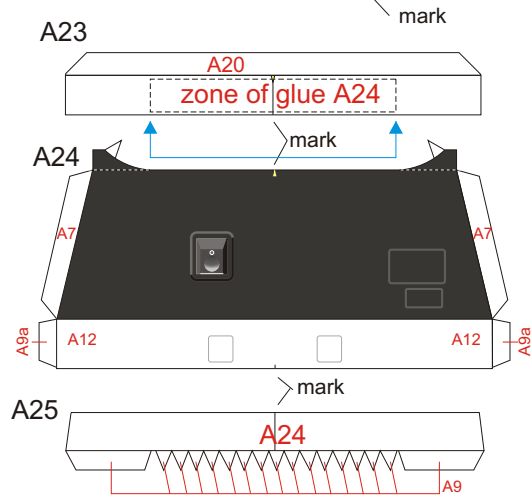
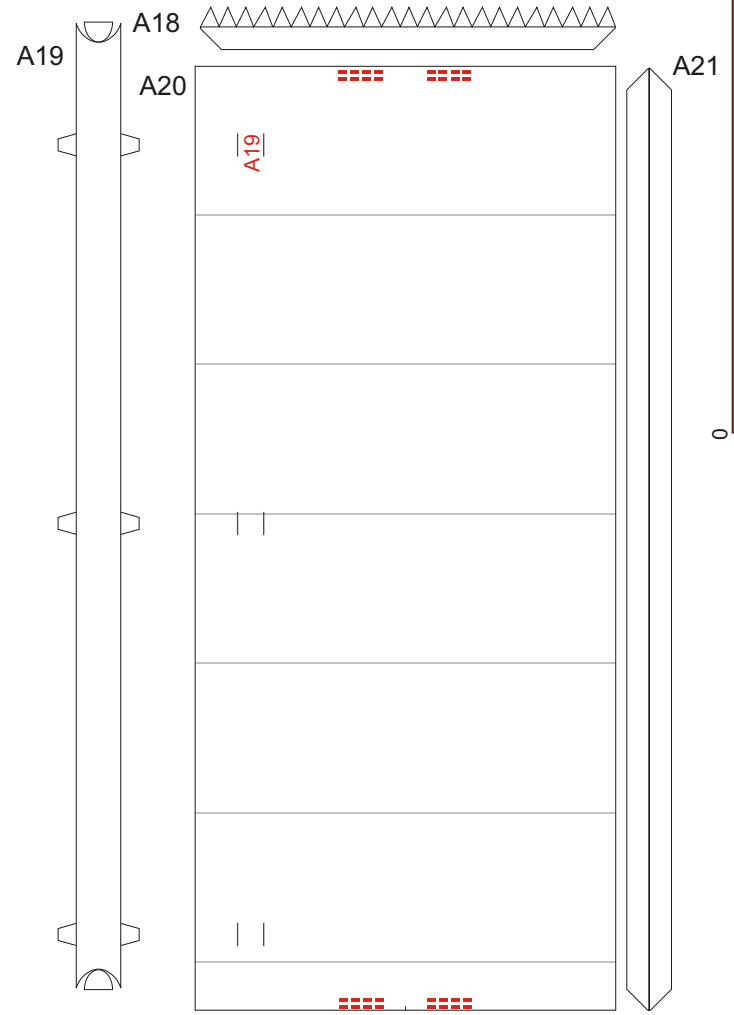
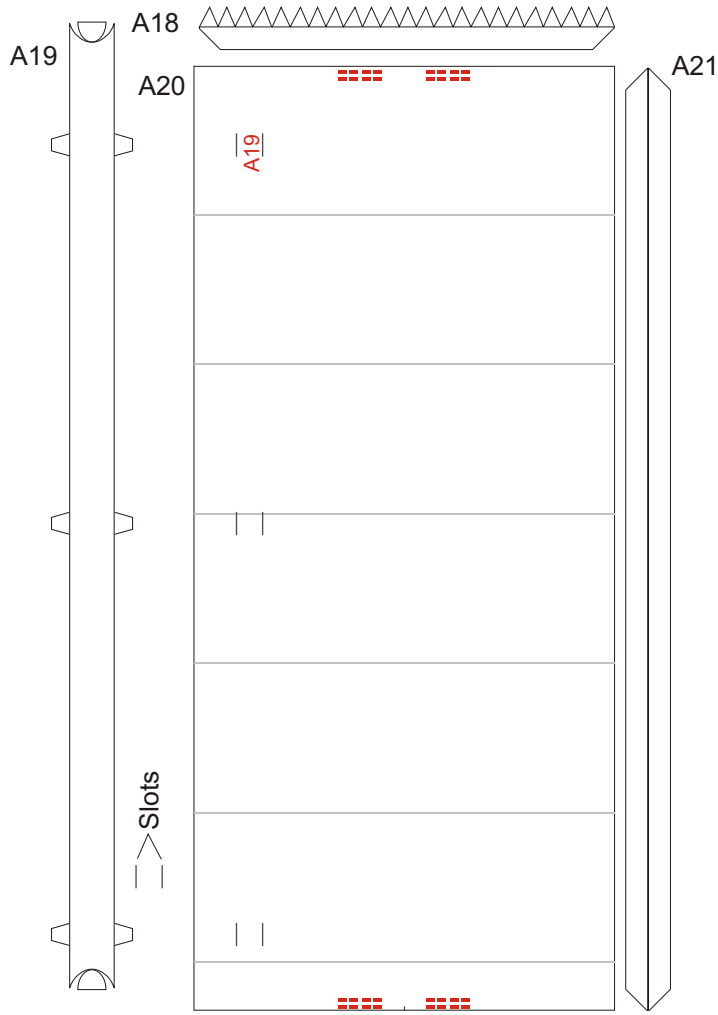
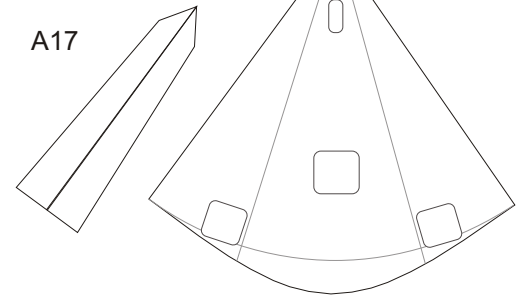
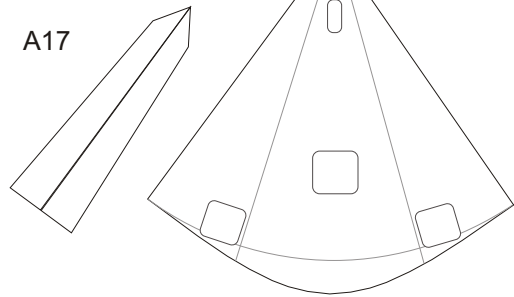


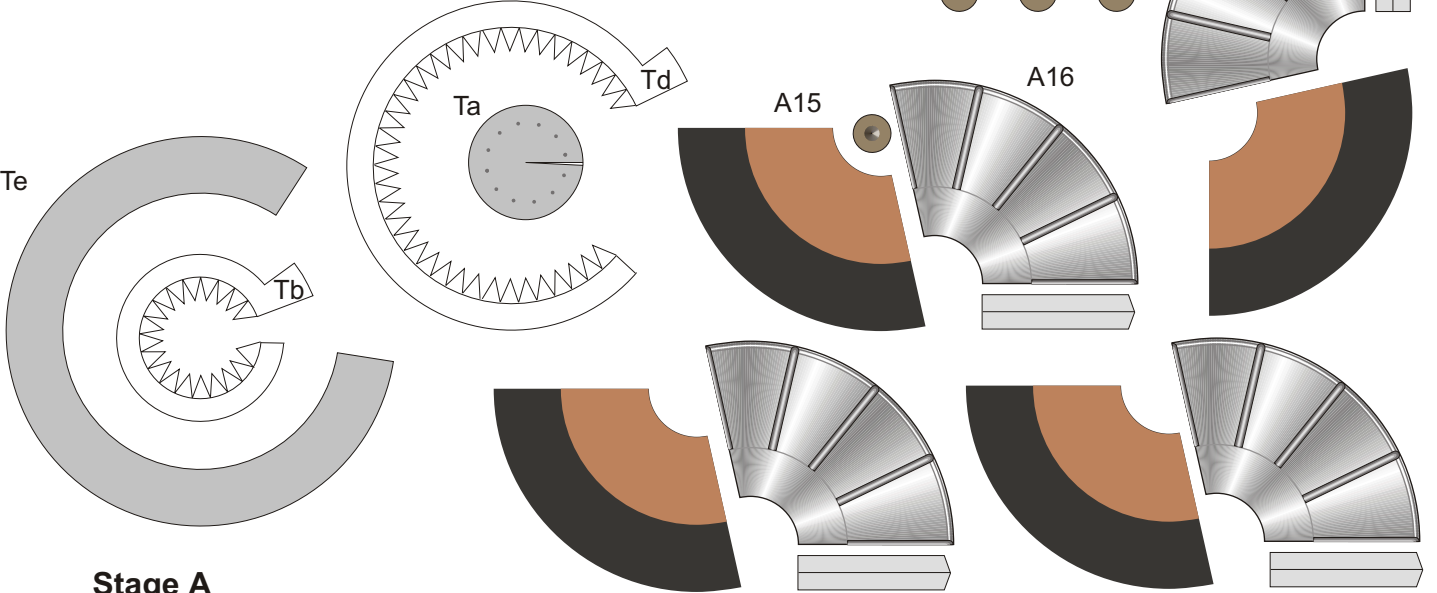
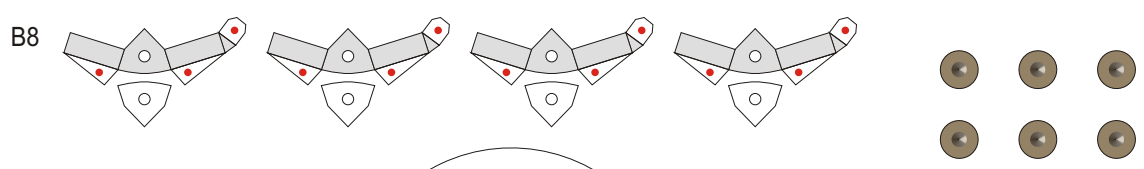
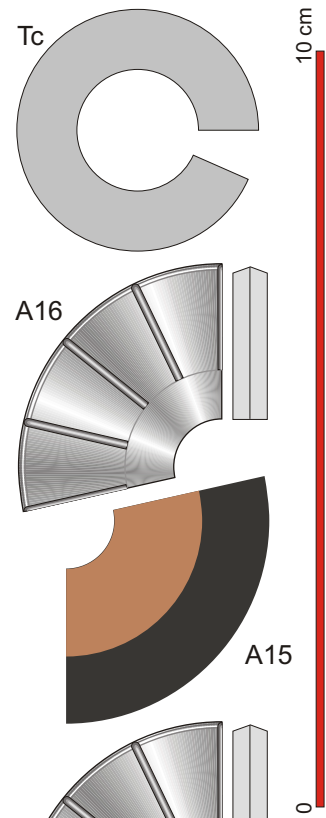
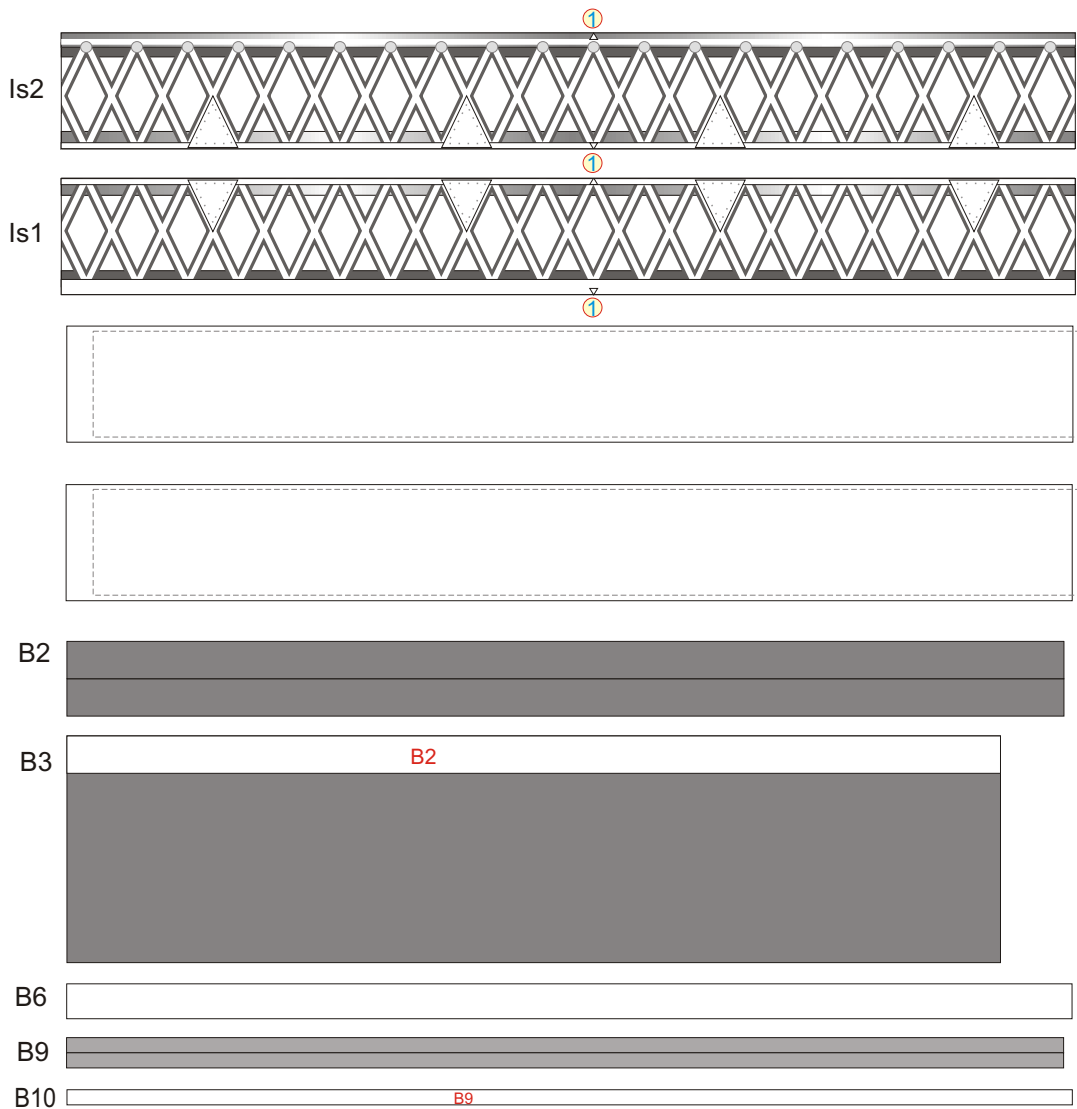
A12



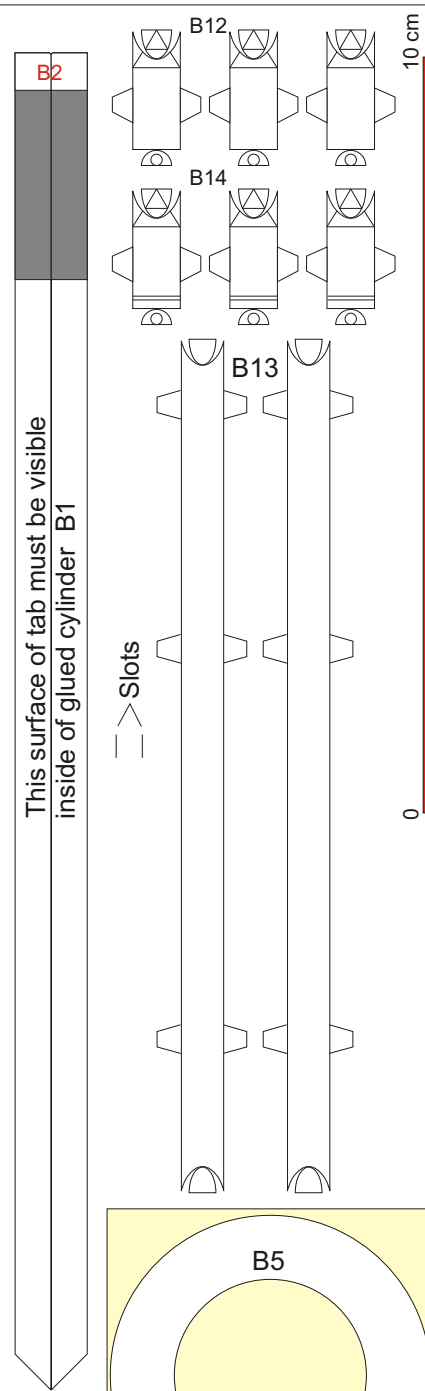
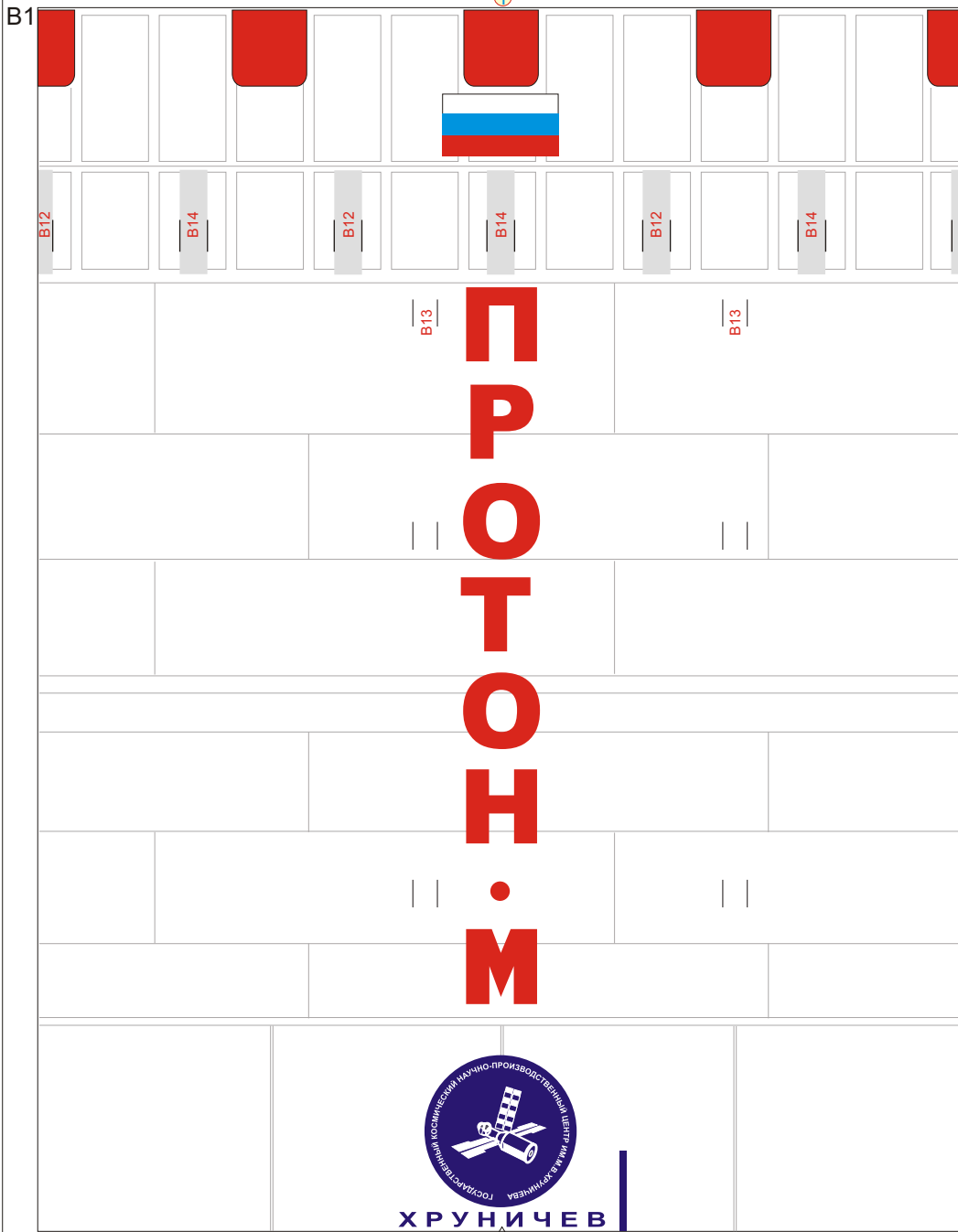
Fuel Tanks 1, 3, 5

Fuel Tanks 2, 4, 6

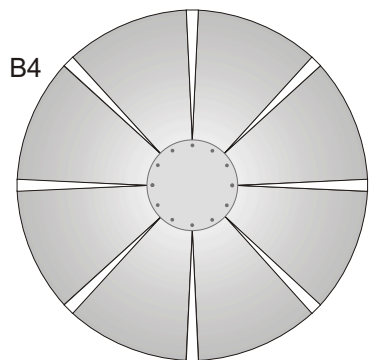
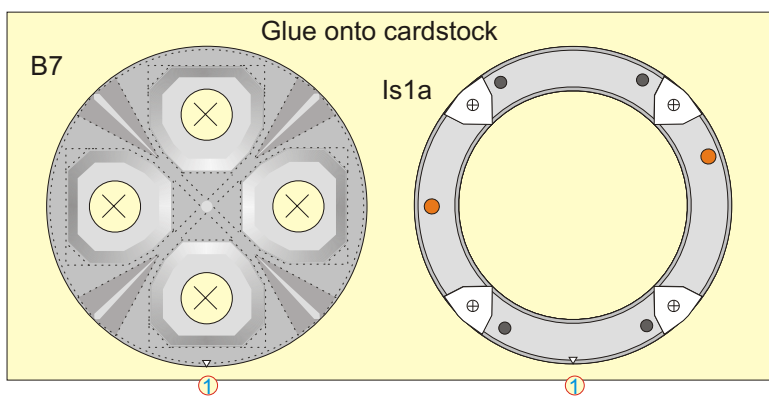




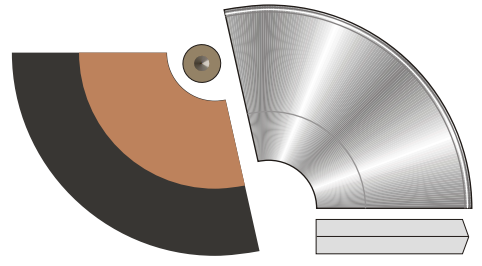
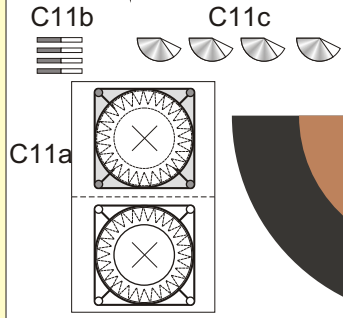
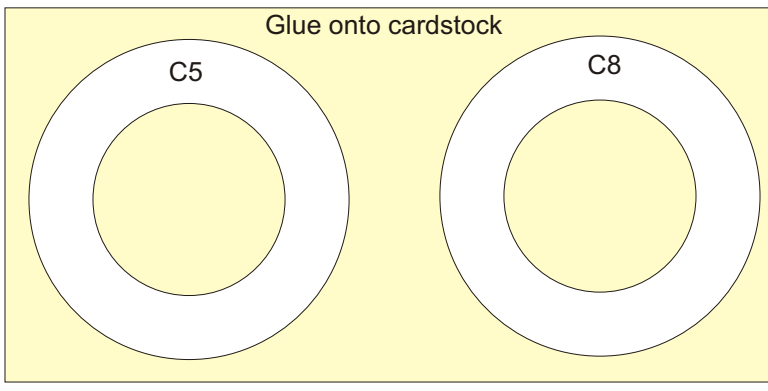
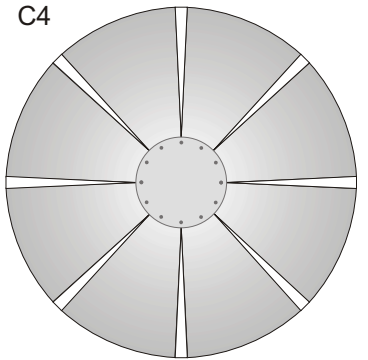
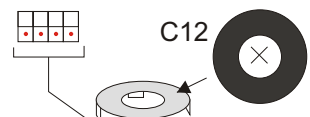
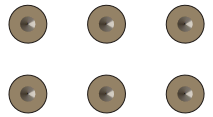
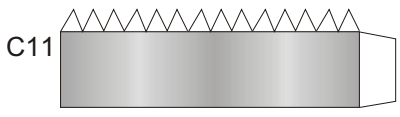
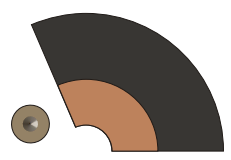
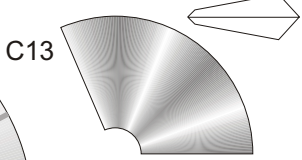
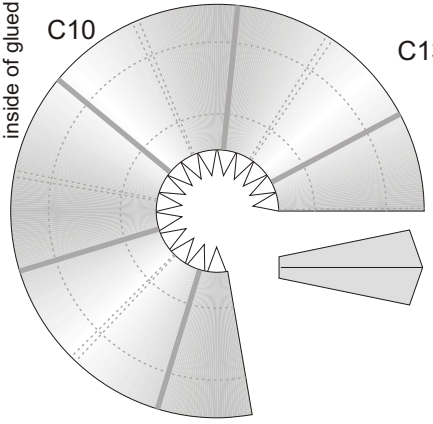
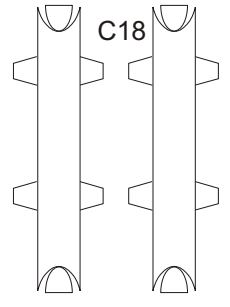
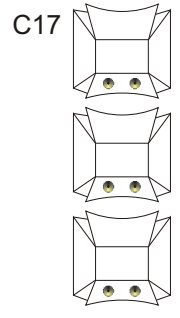
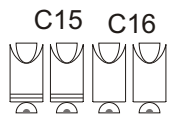
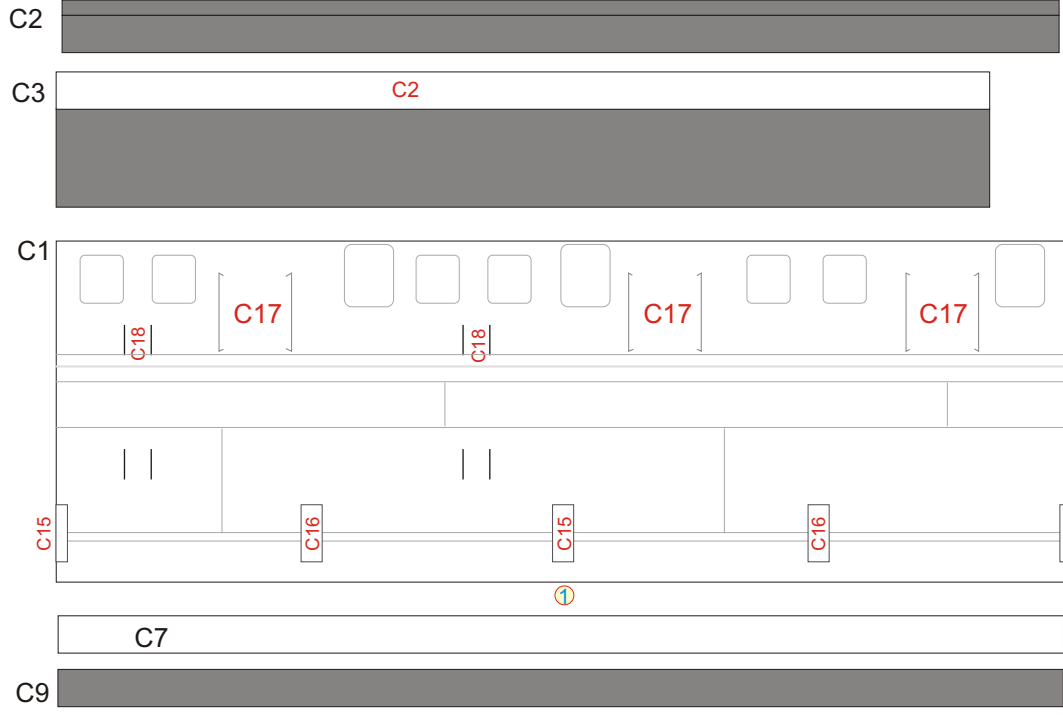
**Stage A**  
**Interstage, top of Oxidant Tank and nozzles**



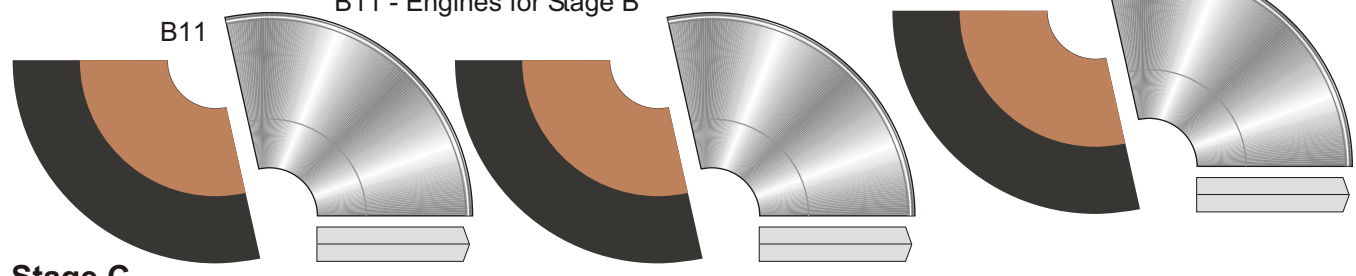
Is1b — rod x4 d~1,5 mm L= 5 mm  
 Is1b-1 (x4) —



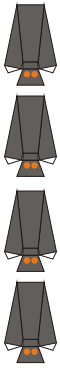
This surface of tab must be visible inside of glued cylinder C1



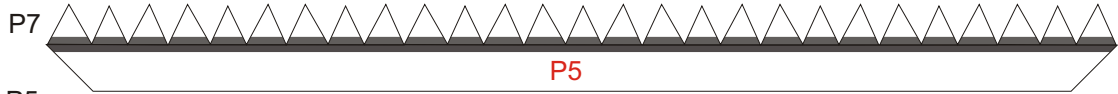
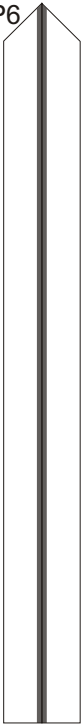
B11 - Engines for Stage B



P12

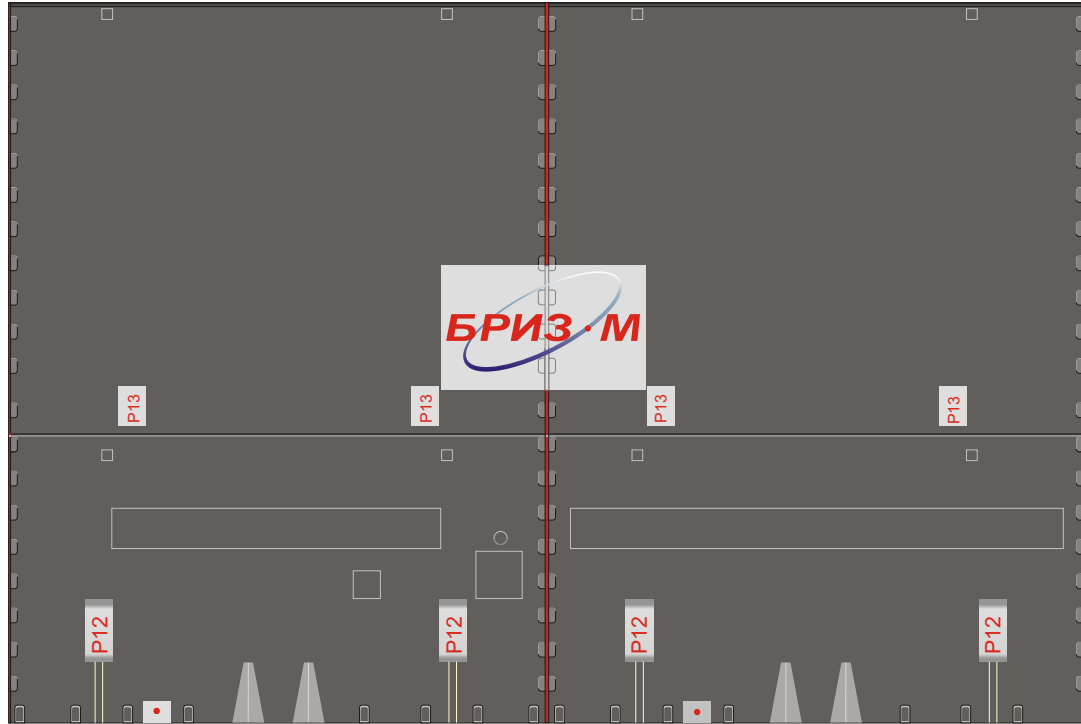


P6

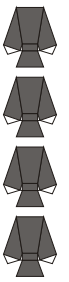


P5

P5

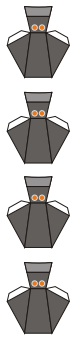


P13

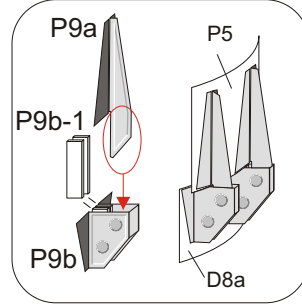
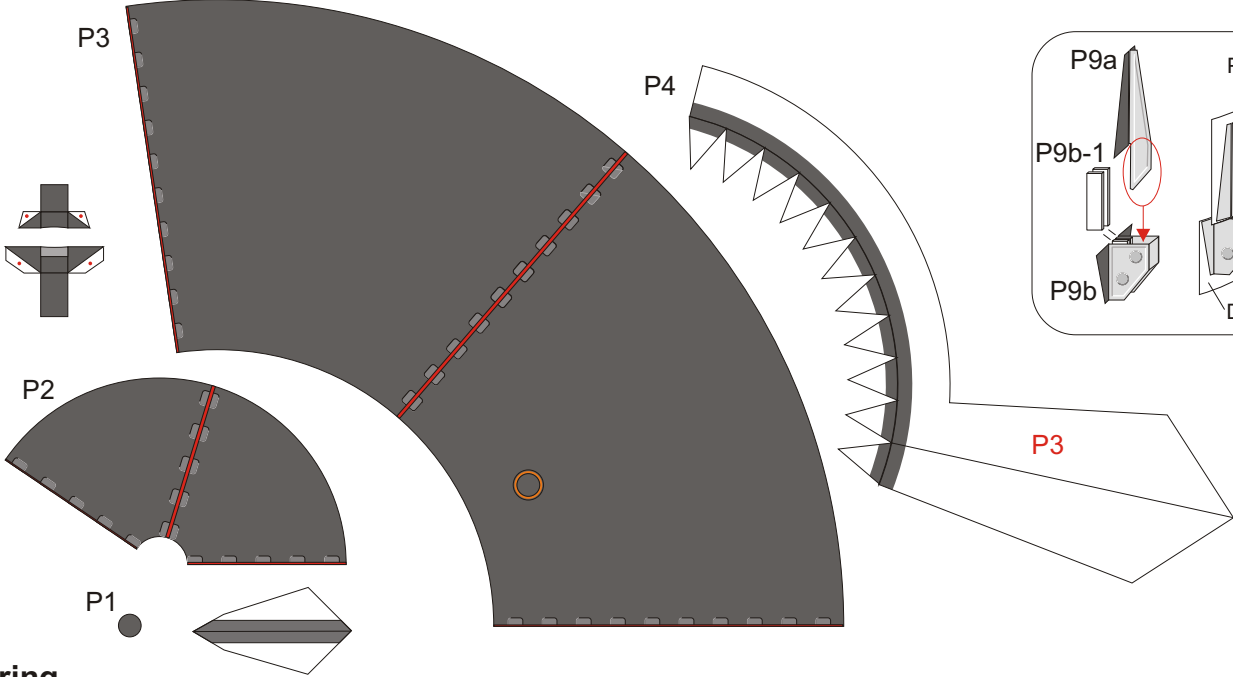
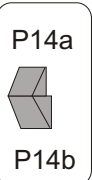
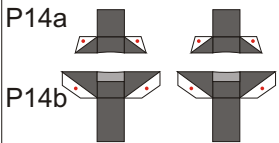
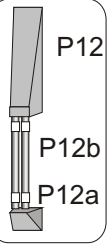
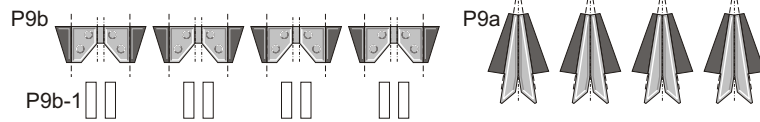
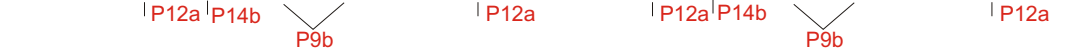
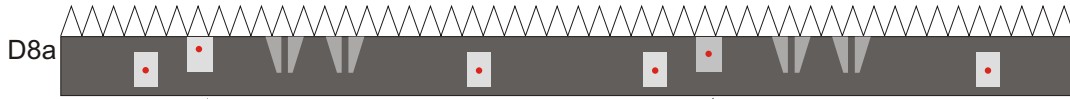
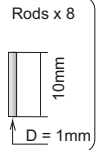


0

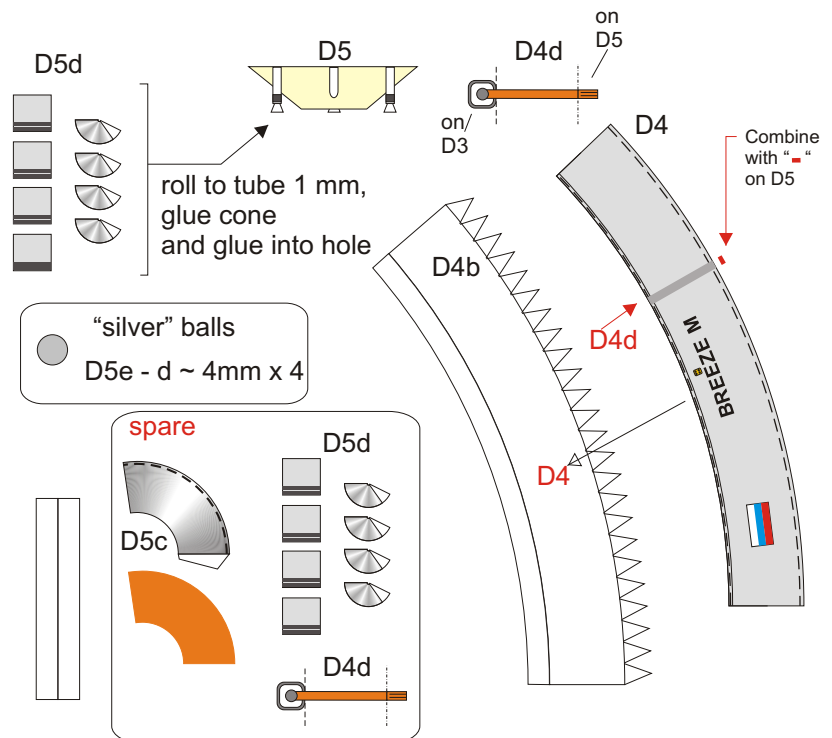
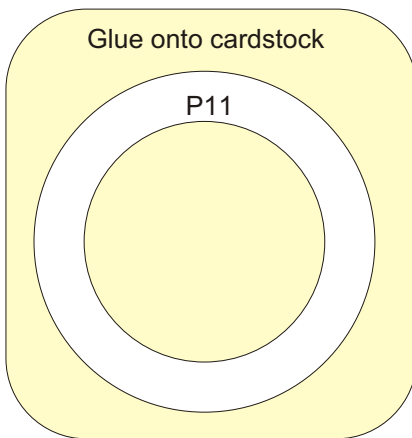
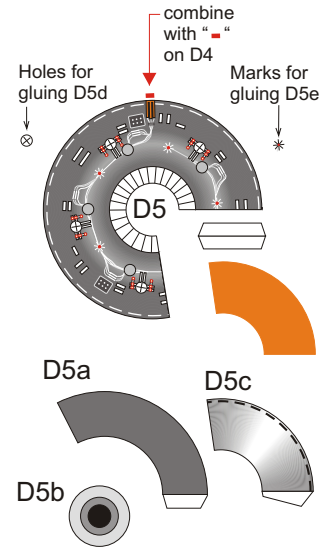
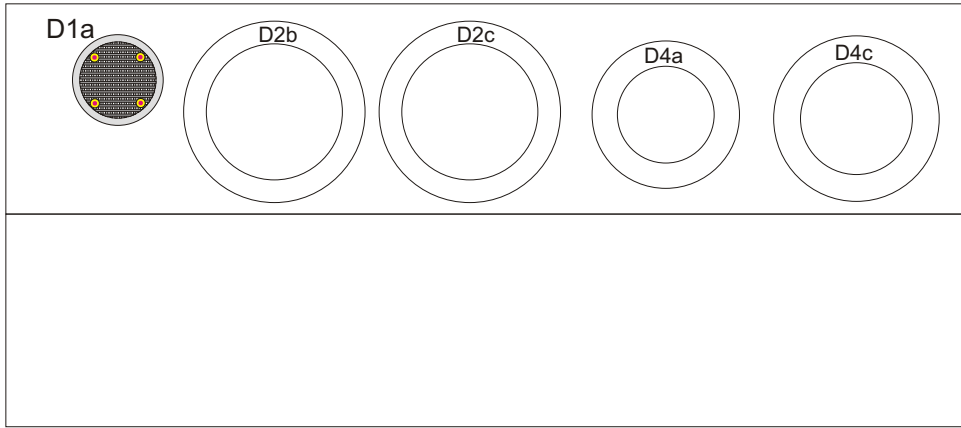
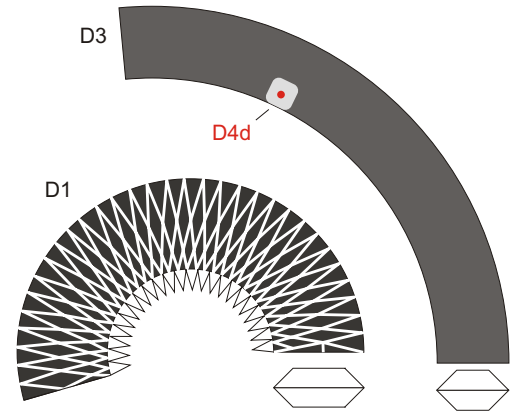
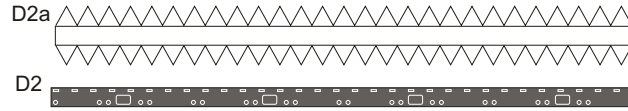
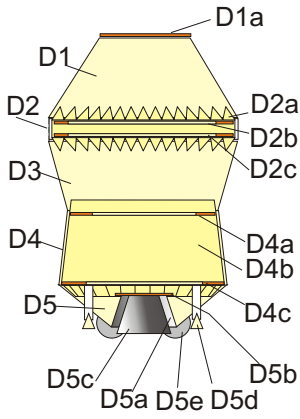
P12a

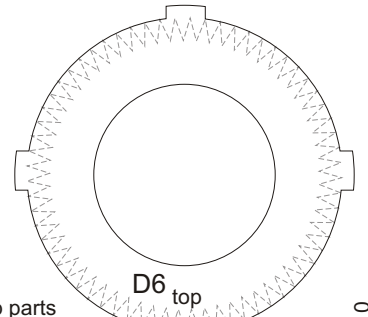
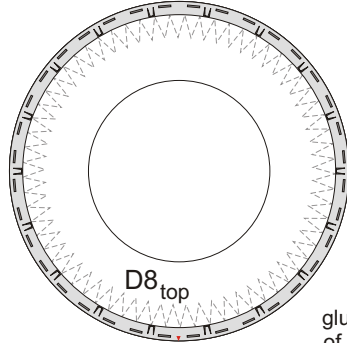
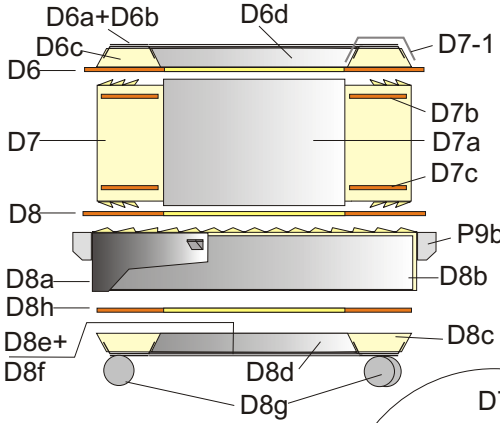
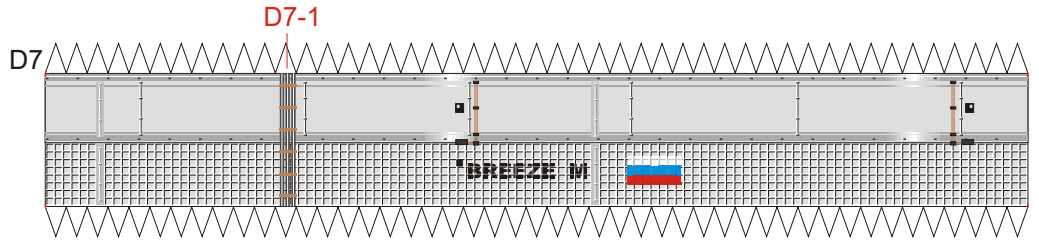
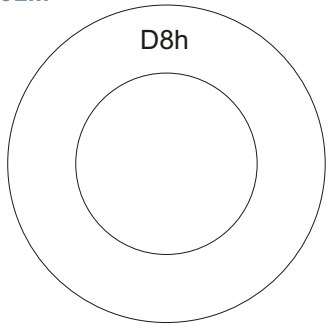


P12b

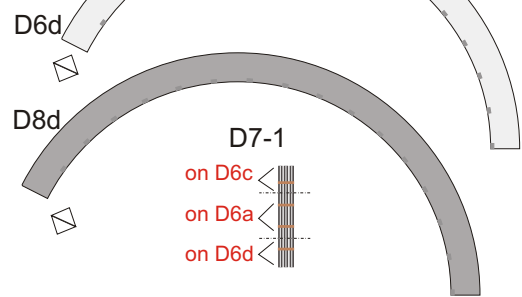
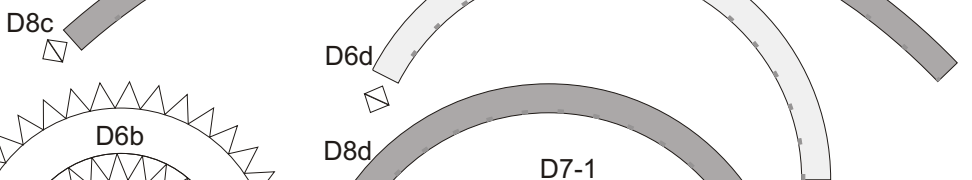
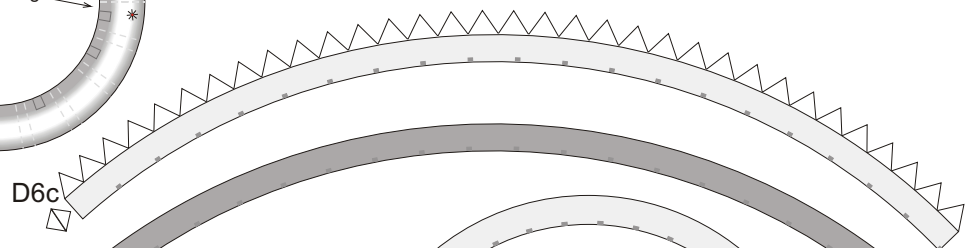
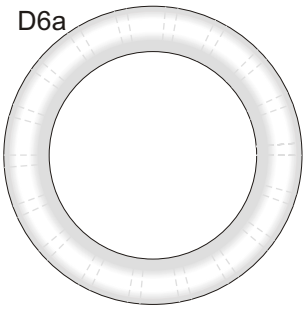
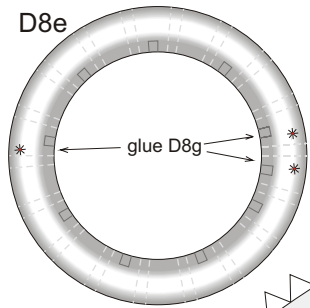
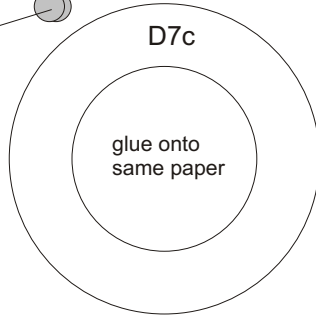
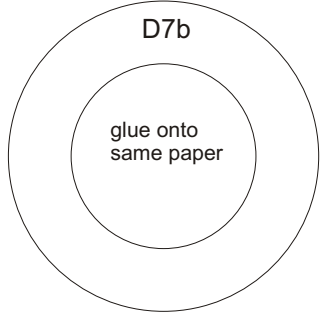
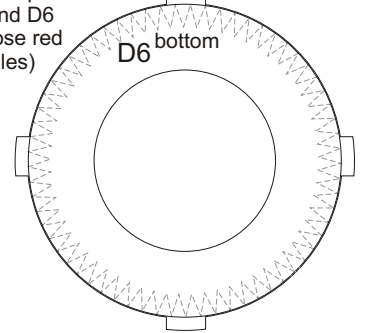
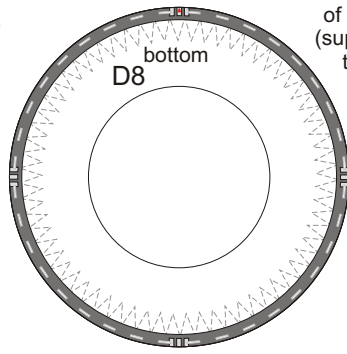






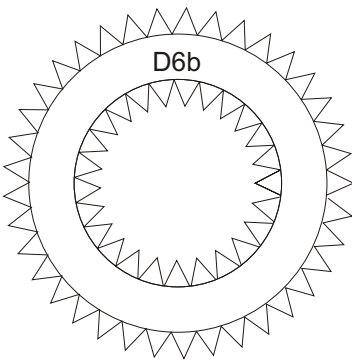
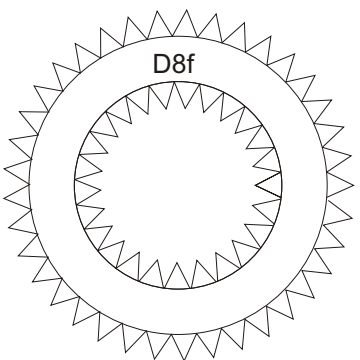


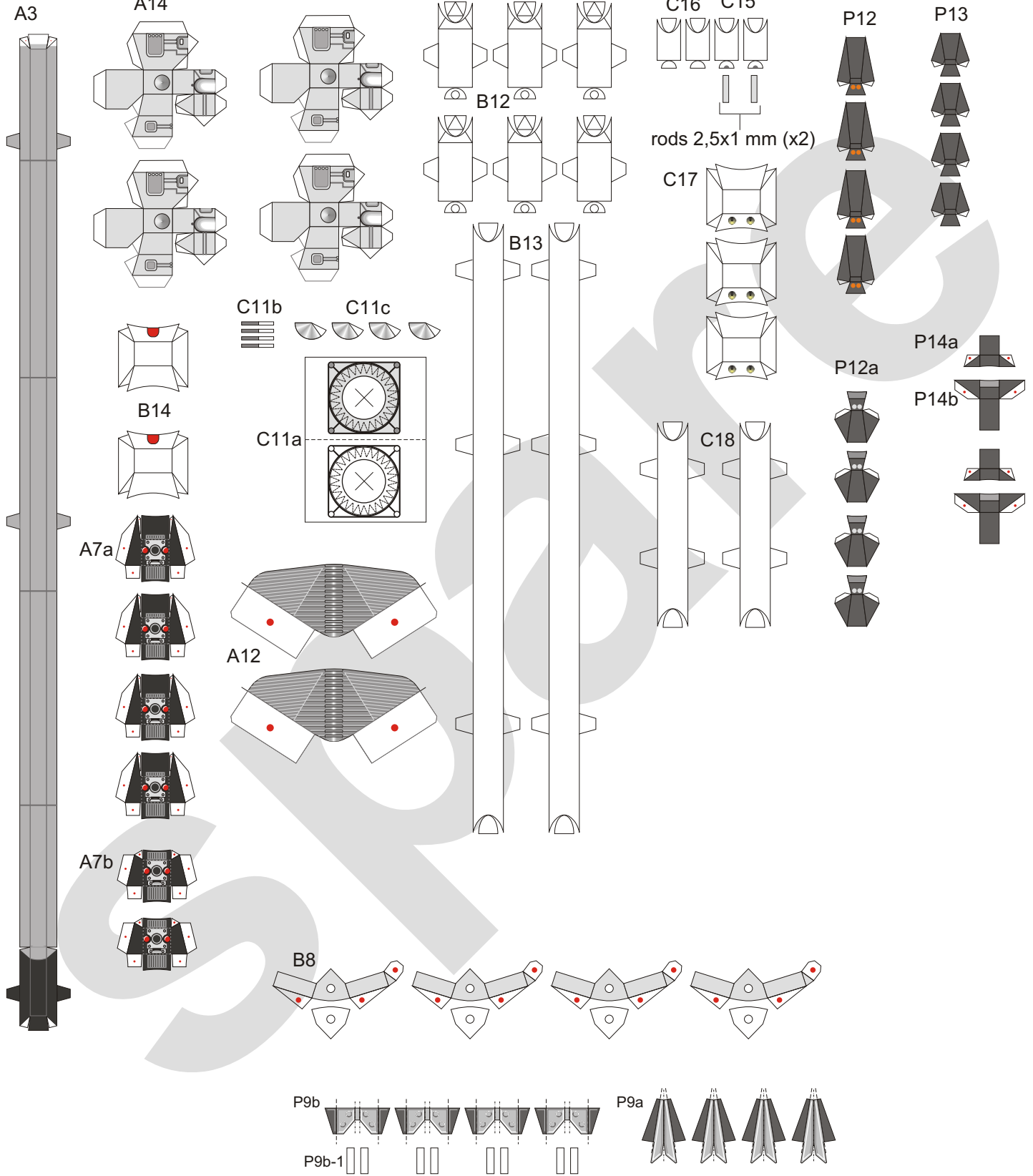
glue top parts of D8 and D6 onto bottom parts of D8 and D6 (superpose red triangles)



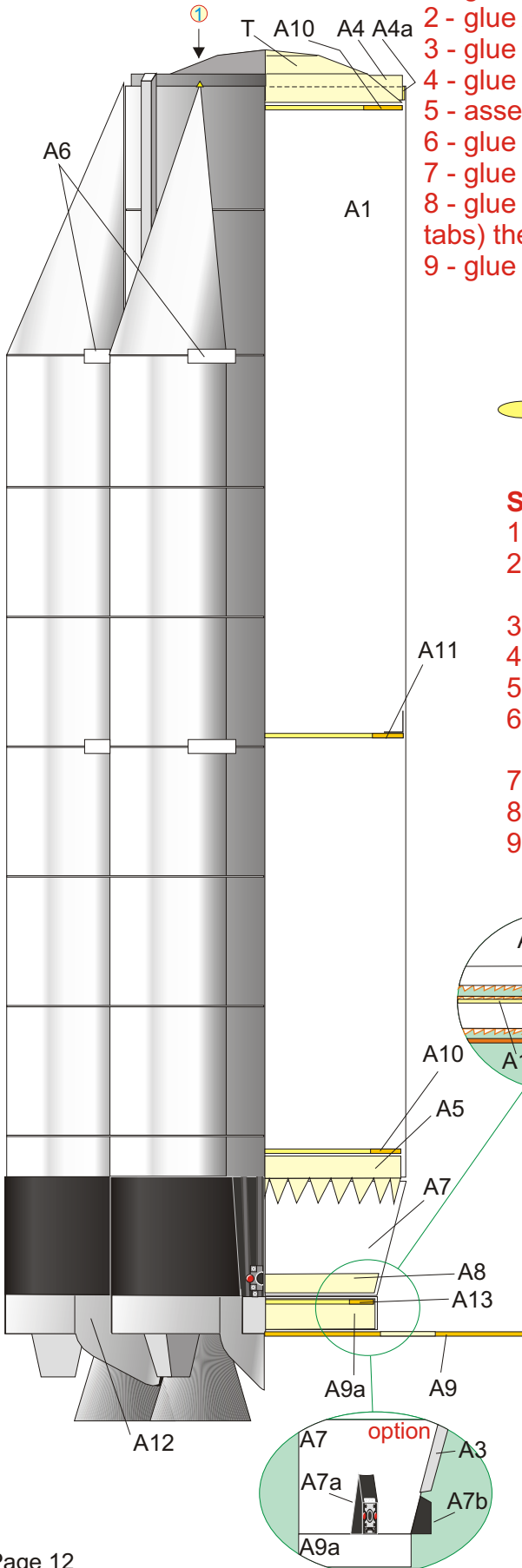
D7-1  
on D6c  
on D6a  
on D6d

"silver" balls  
D8g - d ~ 4mm x 3





Stage B

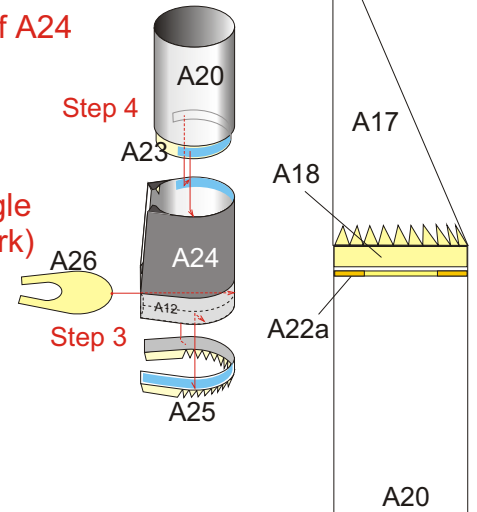
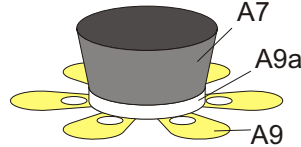


Assembling of stage A

**Sequence of Fuel Tanks gluing:**

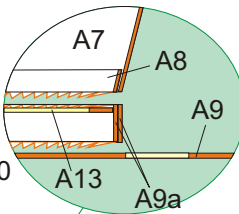
- 1 - glue cylinder A20 and cone A17,
- 2 - glue A18, A22a, A22b, A23,
- 3 - glue A25 and A26 into bottom of A24
- 4 - glue A24 and A20 using A23
- 5 - assembly A17 and A20
- 6 - glue A19 onto A20 (use slots)
- 7 - glue cone A7 (use A8)
- 8 - glue A9a (with A13 under triangle tabs) then glue A7 on A9a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

Result of step 9

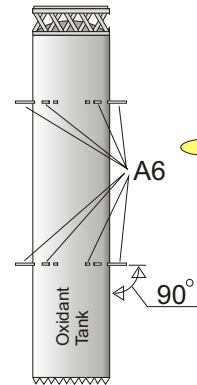


**Sequence of Oxidant Tank gluing:**

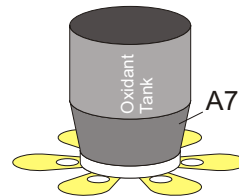
- 1 - glue cylinder A1 and part T
- 2 - glue A4a, A4, A10, T and Is1, Is3, Is3a on top of A1
- 3 - glue A11, A10, A5 on bottom of A1
- 4 - glue supports A6 (use slots)
- 5 - glue Oxidant Tank onto A7
- 6 - glue Fuel Tanks on A9 (see its numbers)
- 7 - glue supports A6 to Fuel Tanks
- 8 - glue A3, parts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



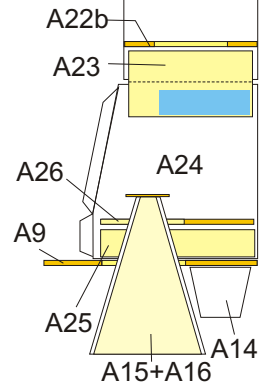
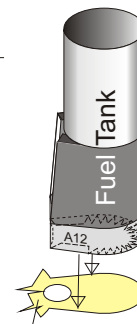
Result of steps 1 - 4



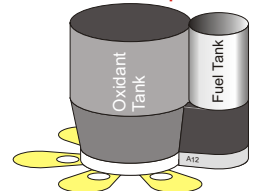
Result of step 5



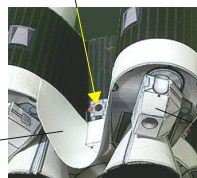
Step 6

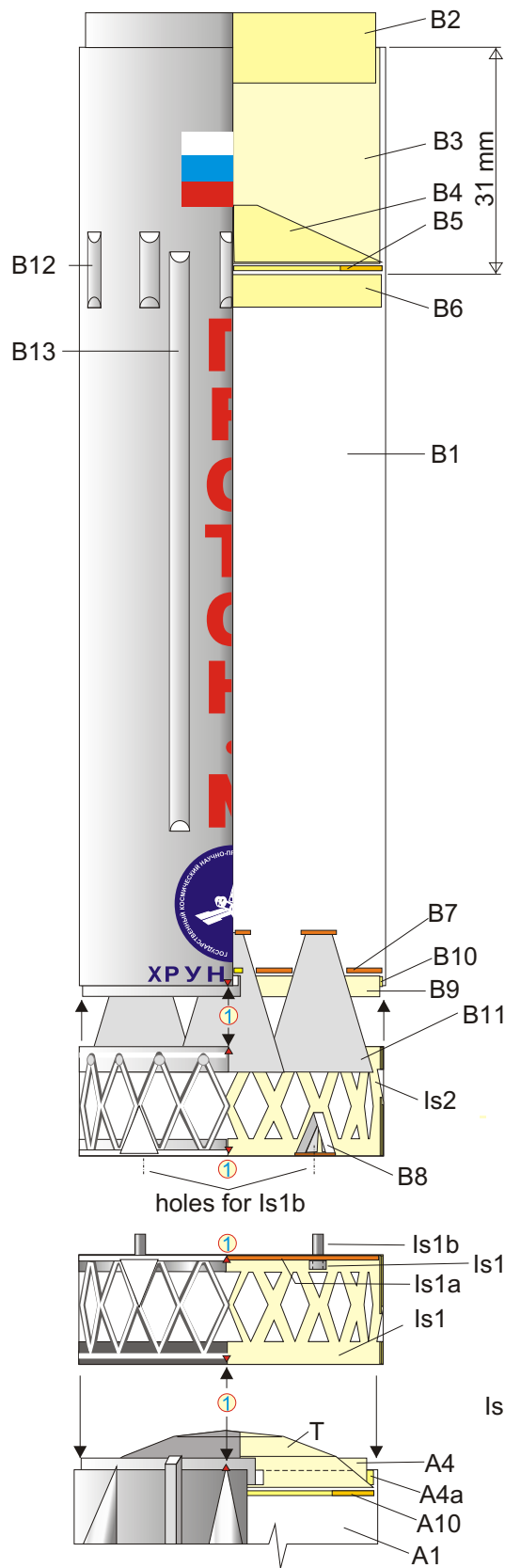


Result of step 6



glue A7a here

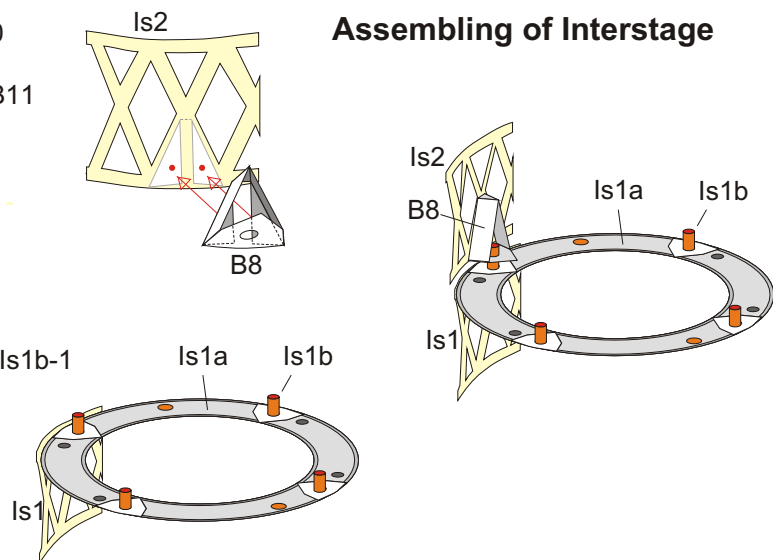


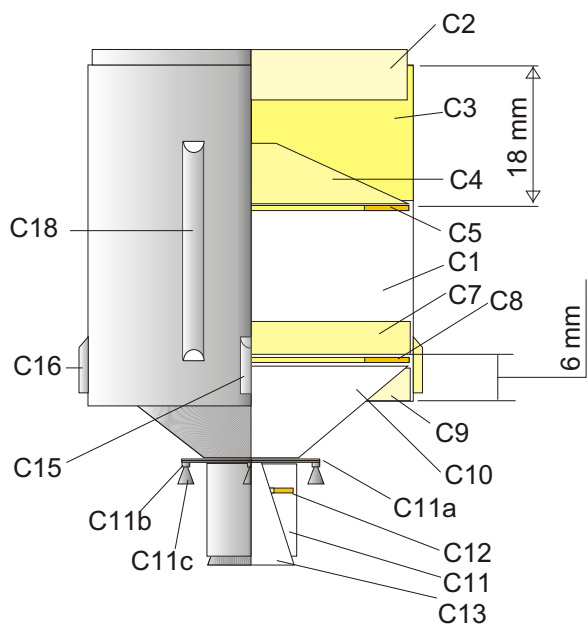


**Sequence of gluing:**

- 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**

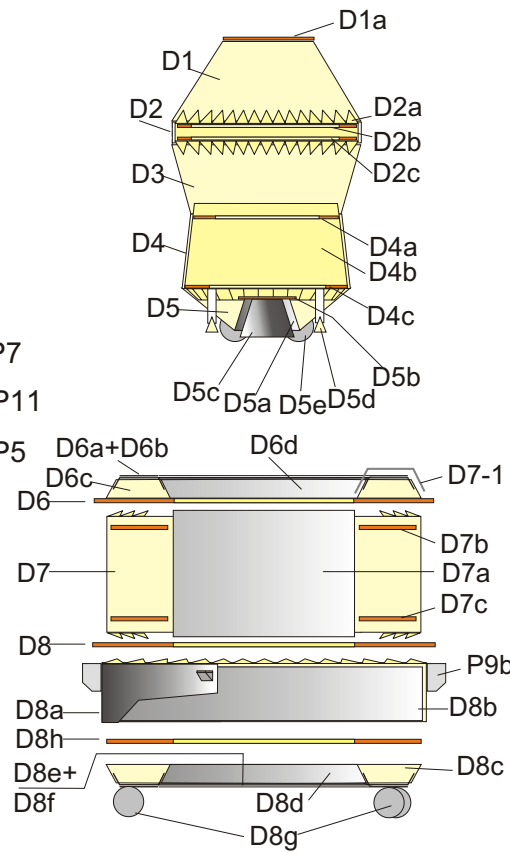
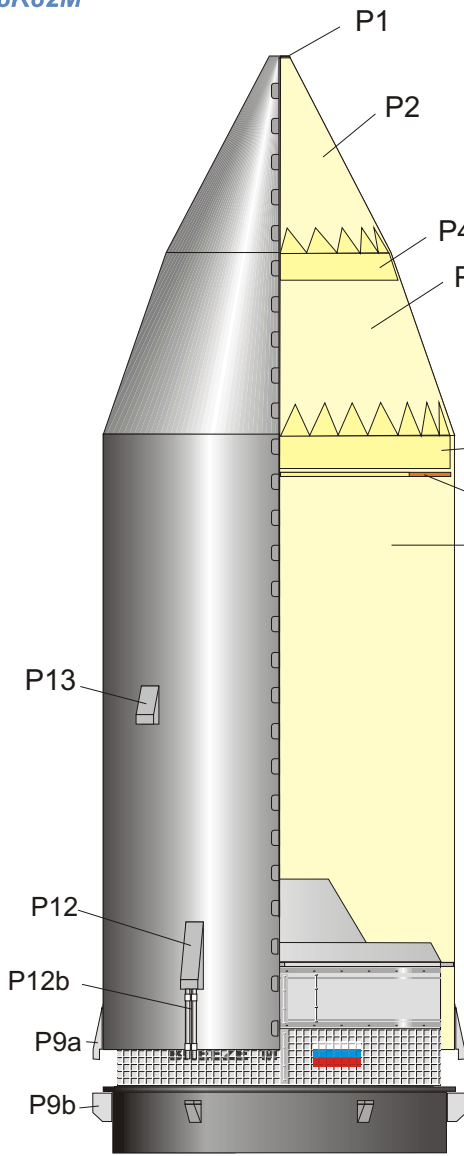




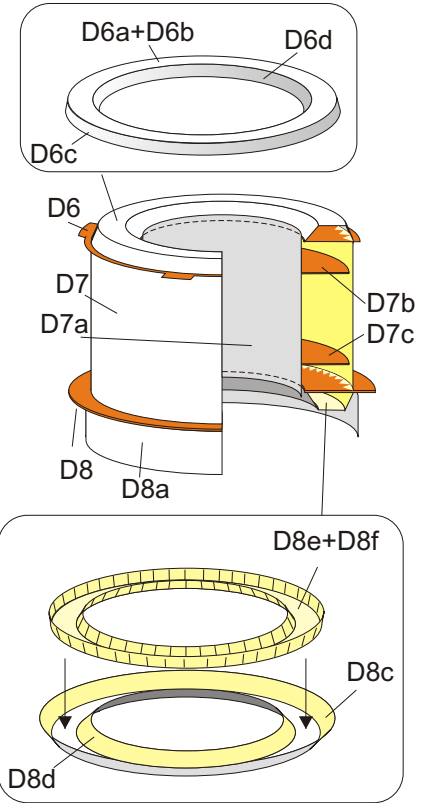
Before gluing:  
 mark for part C8 should be drawn  
 by fine pencil-point  
 on backside of part C1 on distance 5,2 mm  
 parallel to bottom edge

#### 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 stage D - space tug Breeze M**

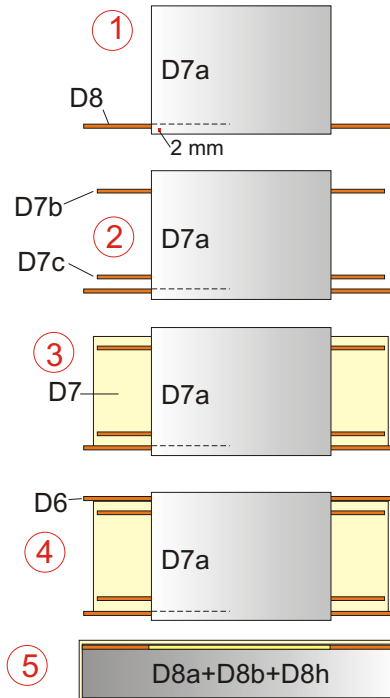


**Glue Fairing:**

- 1- glue cylinder P5 with parts P7, P11
- 2 - glue nose cone (parts P1 - P4)
- 3 - glue P5 and nose cone
- 4 - glue the rest of small parts on its places.

**Glue Breeze M:**

- 4 - glue cylinder D2 by connector D2a, insert parts D2b, D2c
- 5 - glue cone D1 onto D2, glue D1a
- 6 - glue cone D3 onto D2
- 7 - glue cone D3 by D4b, insert D4a and D4c
- 8 - glue cone D5a into cone D5, glue D5b
- 9 - glue D5 and D4
- 10 - glue D4 and D3
- 11 - glue D5a, D5d and D5e.



**Glue additional Fuel Tank (steps 1 - 6)**

