

TEAM BLMK1



# A350 XWB

XTRA WIDE BODY

## FAL FUSELAGE JOIN UP PROCESS

REF: V53ME0811475

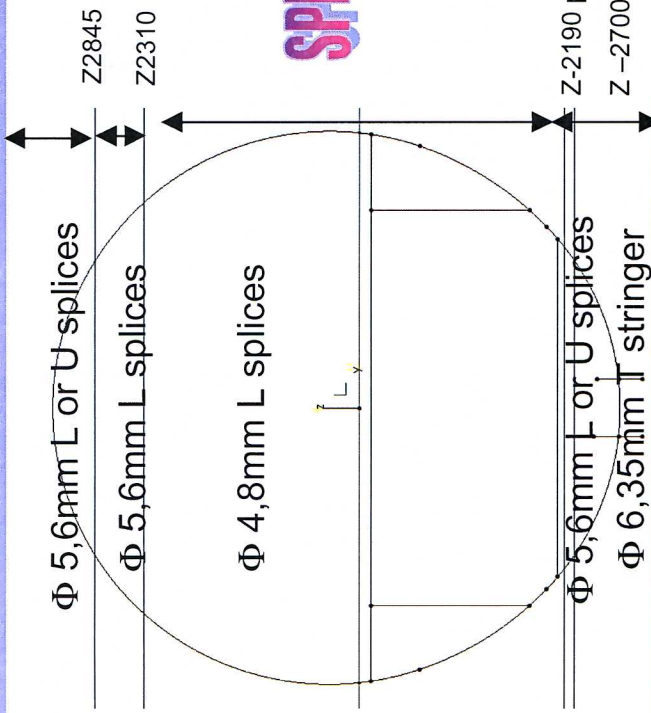
VERSION : ISSUE 1

	<i>Department</i>	<i>name</i>	<i>Date</i>	<i>signature</i>
<b>Presented by</b>	BLLBK11	D.BELLIERES	19/06/2008	
<b>Approved by</b>	BLLBK11	J.WASIER	10/09/2008	

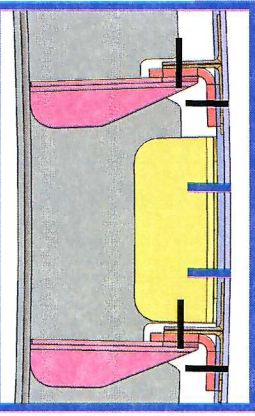
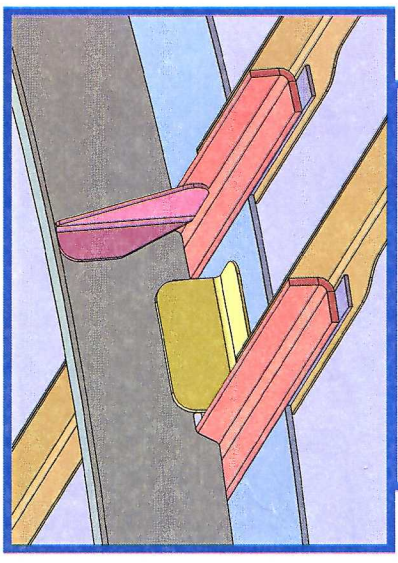
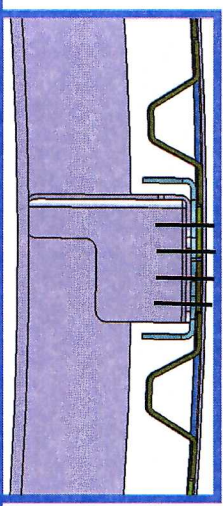
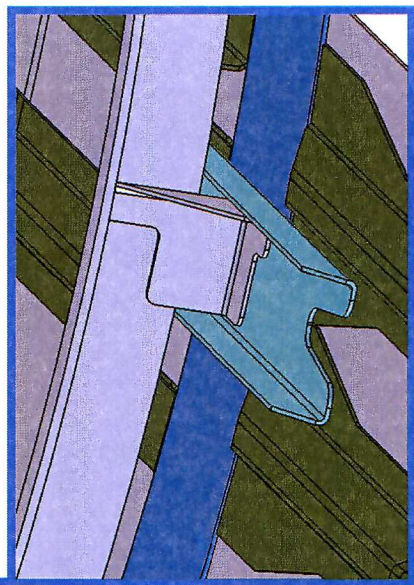
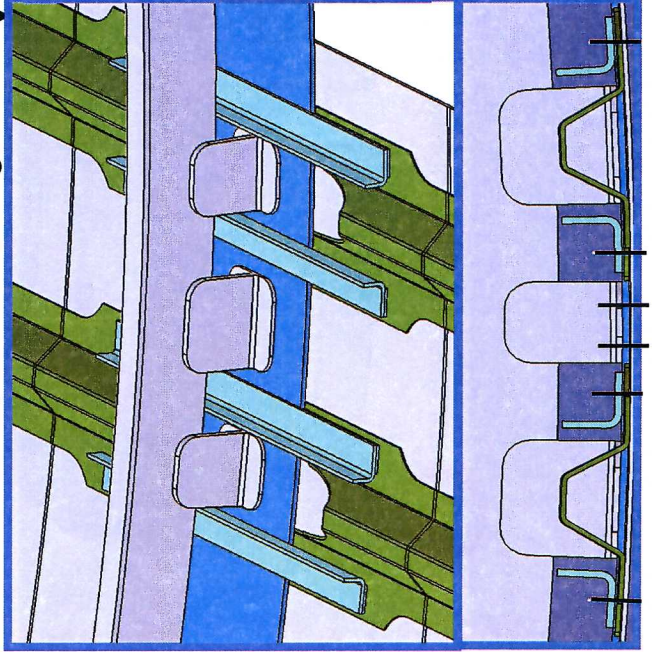
# APPENDIX

1. DESIGN CONCEPTS
2. SECTION MOVEMENT
3. OVERLAPPING AREAS
4. DRILLING SEQUENCES

# DESIGN CONCEPTS



**SPLICE CONFIGURATION TO BE VALIDATED BY VERSION**



# SECTION MOVEMENT

**2.1** LIFTING TO OPERATIONAL STATION ALTITUDE



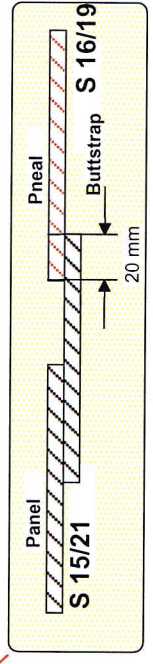
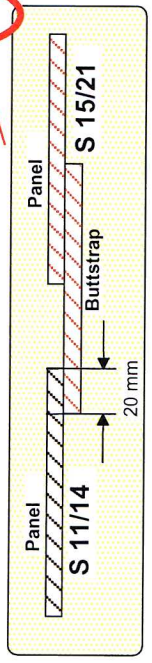
**2.2** 200mm APPROACH AND HELPFULL TOOL INSTALLATION



**2.3** REFERENCE SETTING AND ADDITIONAL SETTING IF NECESSARY



**2.4** 20mm ENGAGEMENT AND HELPFULL TOOL REMOVAL



**2.5** FINAL ENGAGEMENT



**2.6** GAPS MEASUREMENT



**2.7** NEW SETTING IF NECESSARY

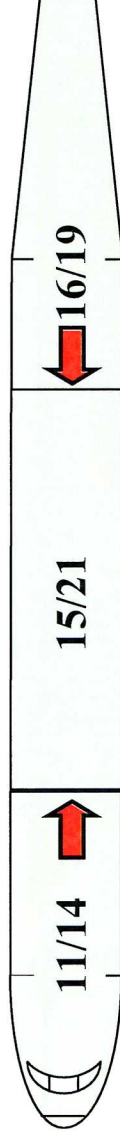
200mm X REMOVAL



SETTING



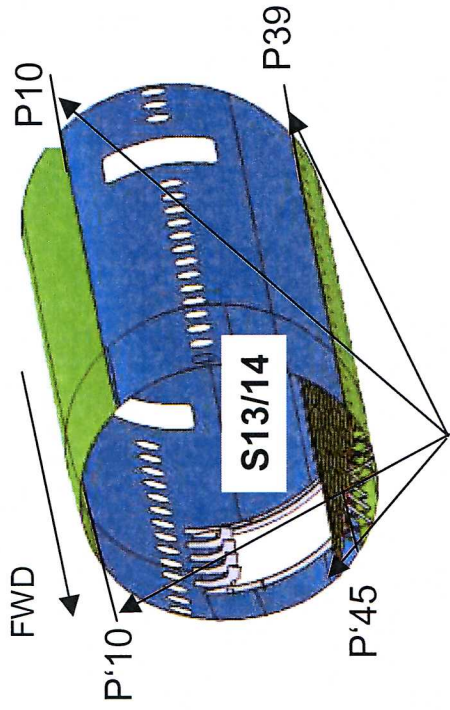
FINAL ENGAGEMENT



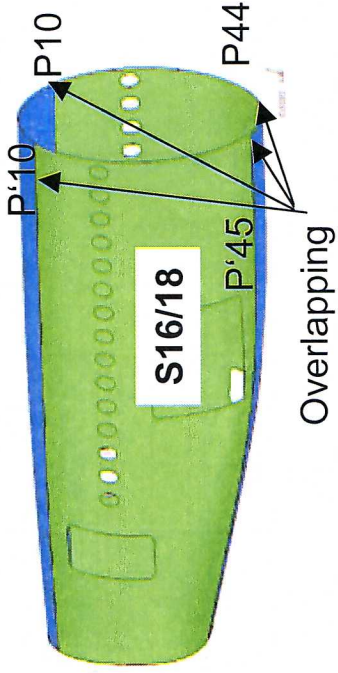
**2.8** NEW GAPS MEASUREMENT / DRILLING GO



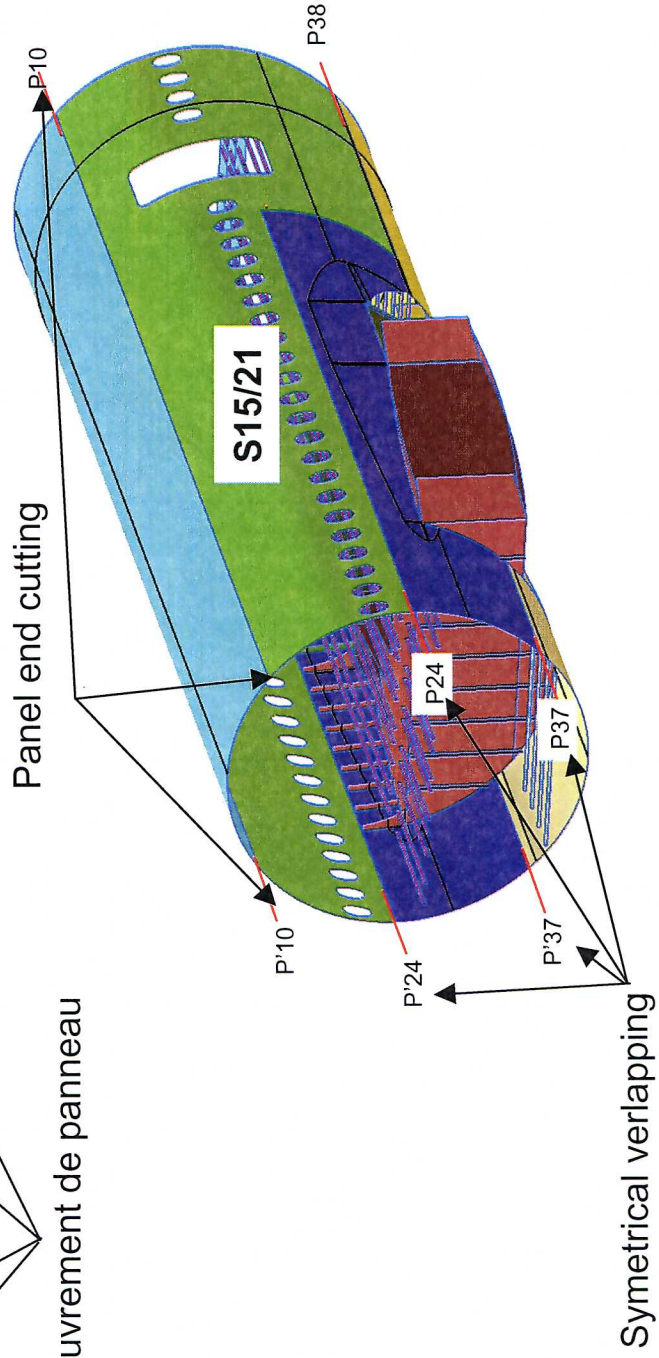
# OVERLAPPING AREAS



Recouvrement de panneau



Overlapping



Panel end cutting

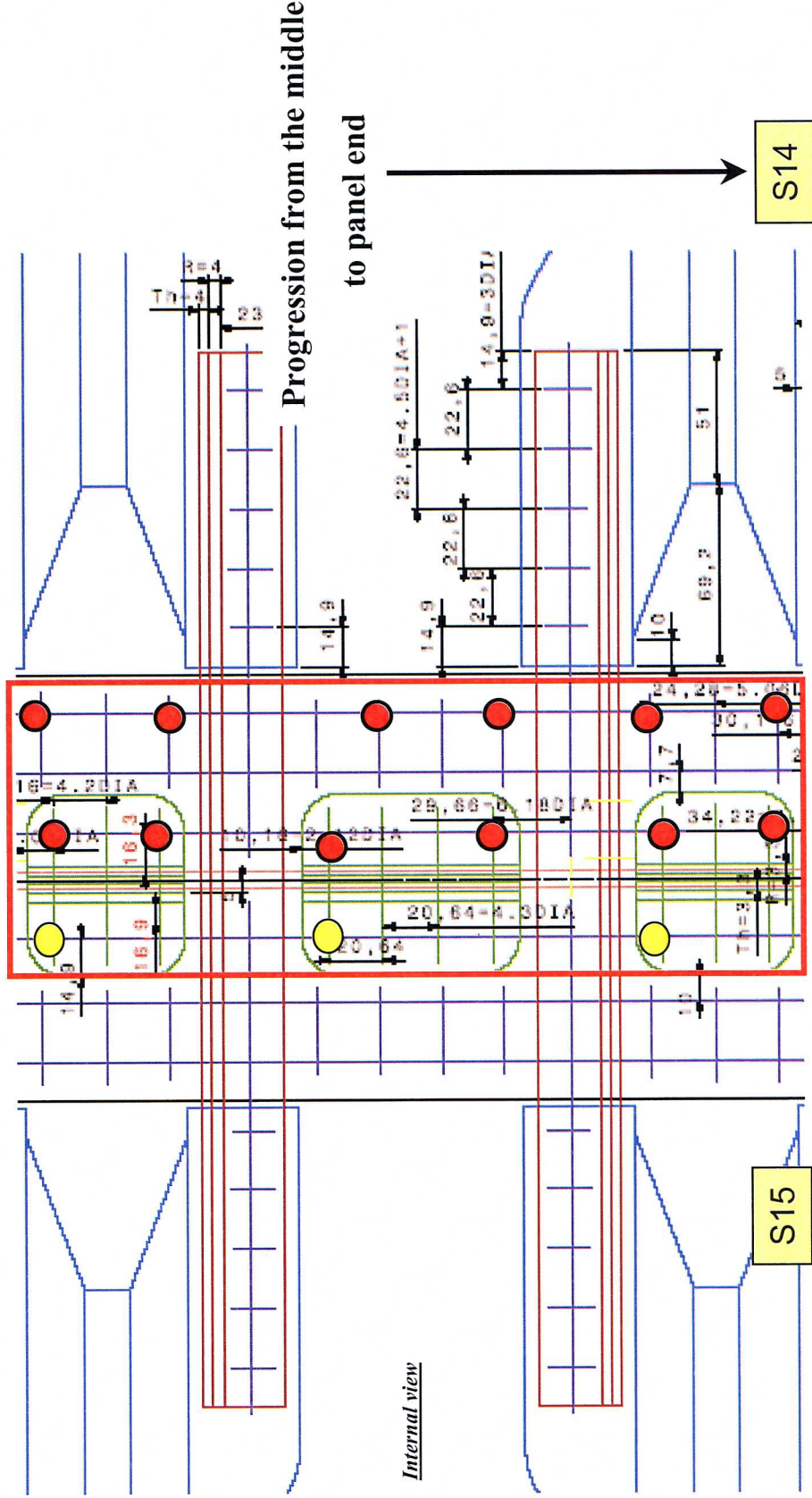
Symetrical verlapping

phase 1  
step 1

# Splices

Orbital template installation  
Drilling and pining (assembly rules\*)

- 3.2 drilling
- pining





**phase 1**  
**step 2**

Template positioning

Drilling and pining (panel only)

Template removal

● pining

● Ø 3,3 drilling

# U SPLICES

*Internal view*

**TARGET**

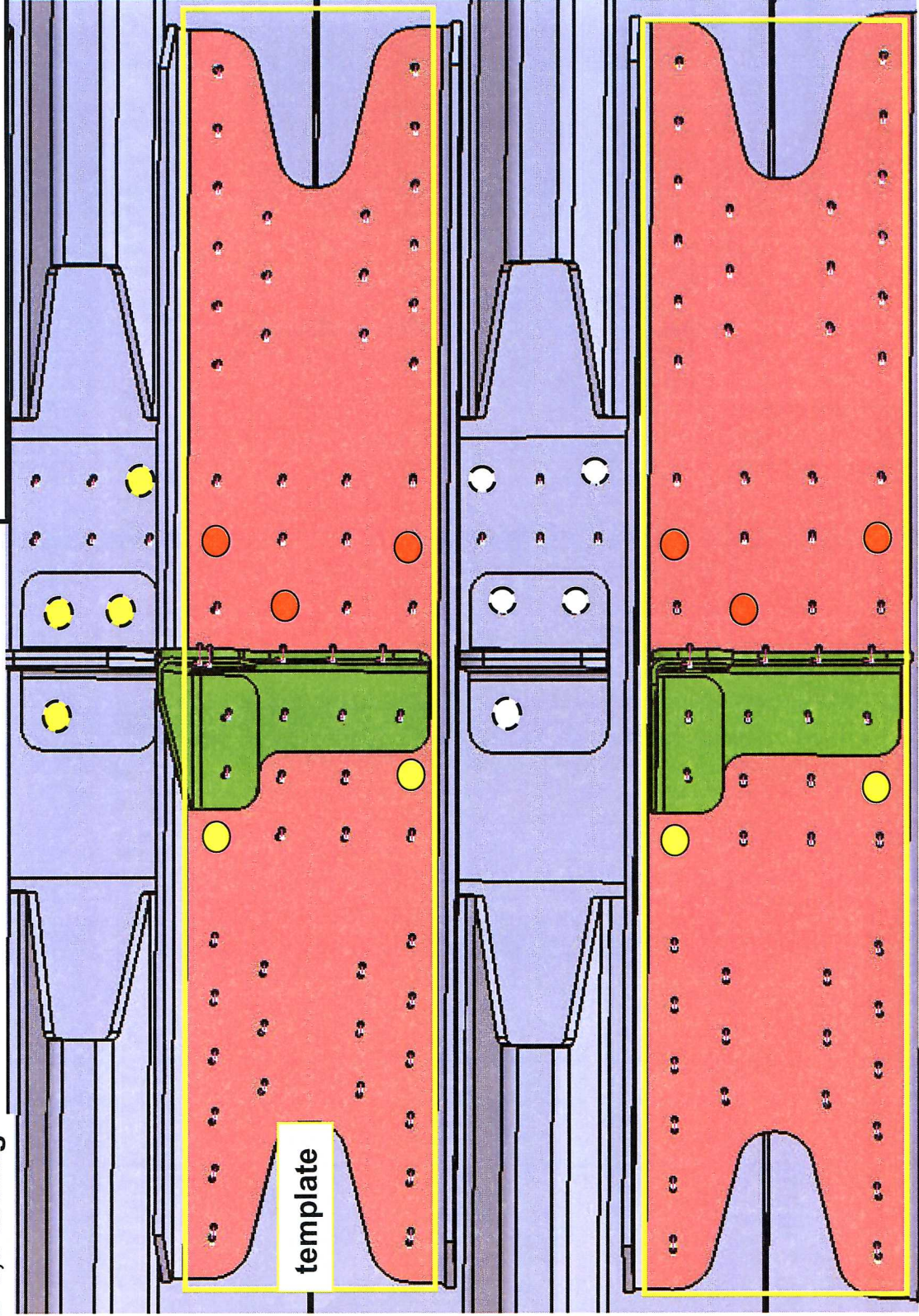
**→ SAME TEMPLATE FOR BUTTSTRAP AND SPLICES ←**

# phase 1 step 3

U splice installation and template pining  
Drilling

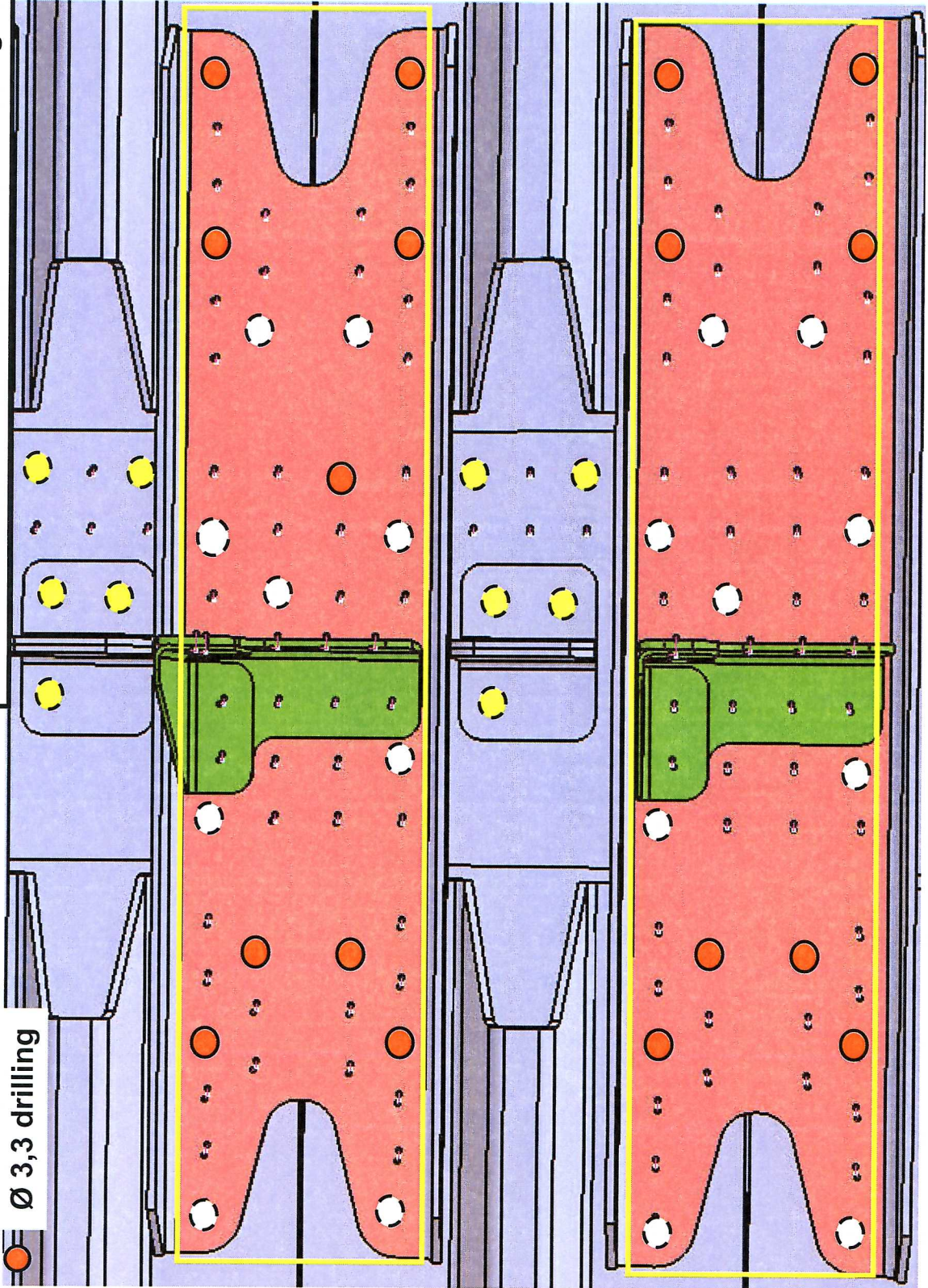
● pining

● Ø 3,3 drilling



# phase 1 step 4

« FAL Hole to hole » drilling

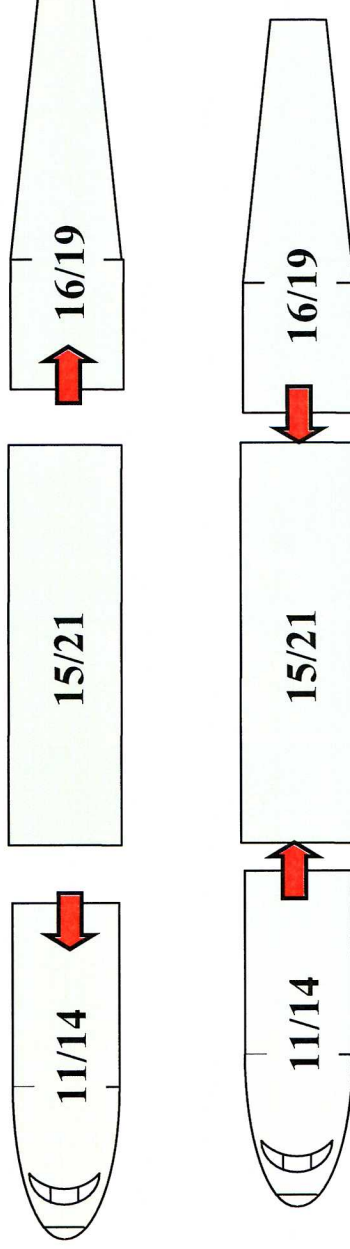


Ø 3,3 drilling



## phase 2

Pining and section removal, cleaning, deburring, sealing  
and new section engagement



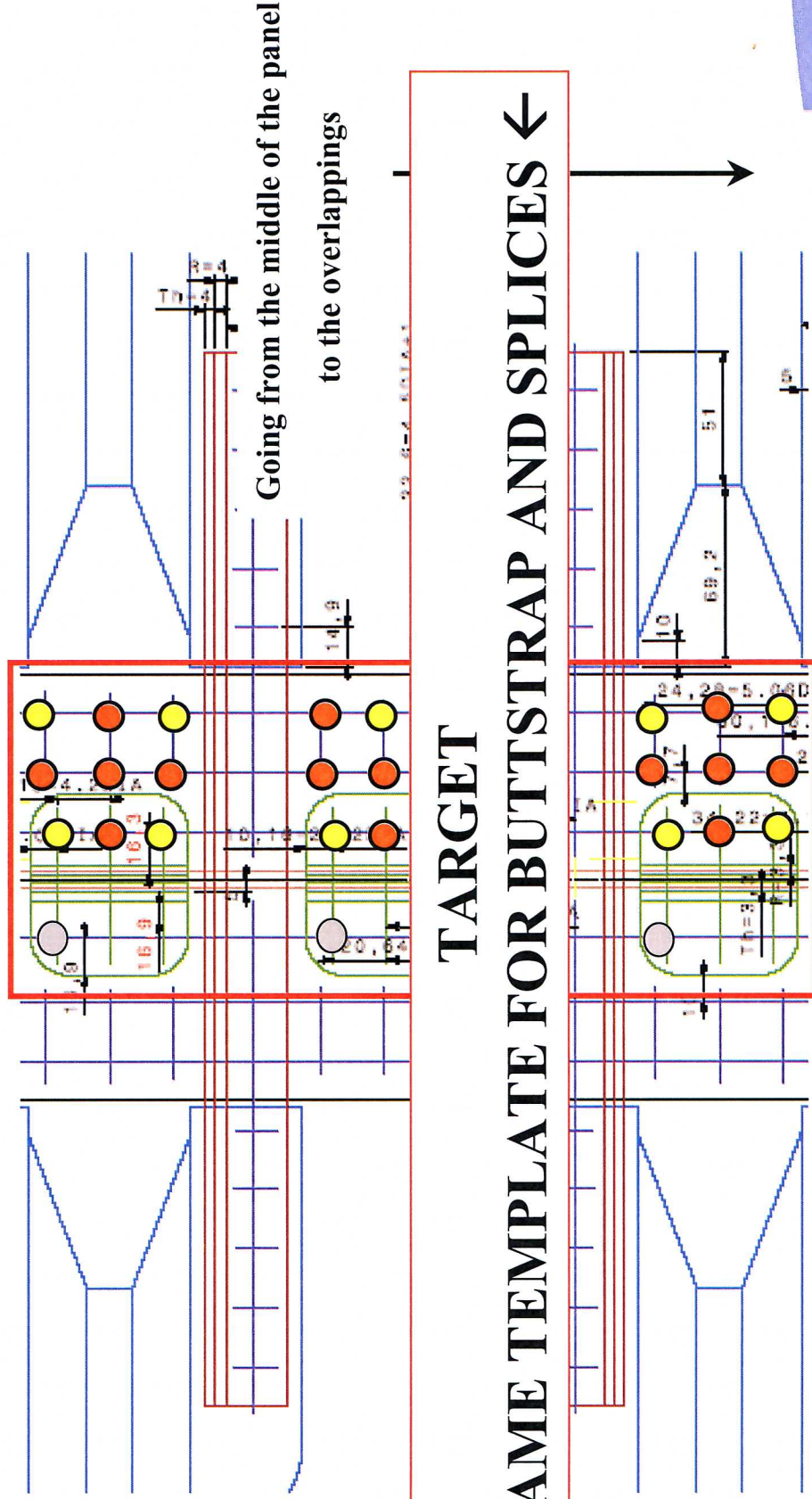
- reaming
- pining

# Splices

## phase 3

### step 1

Templates pining  
 (rules for panel shape rolling)  
 Missing holes reaming  
 Fastener installation



# phase 3

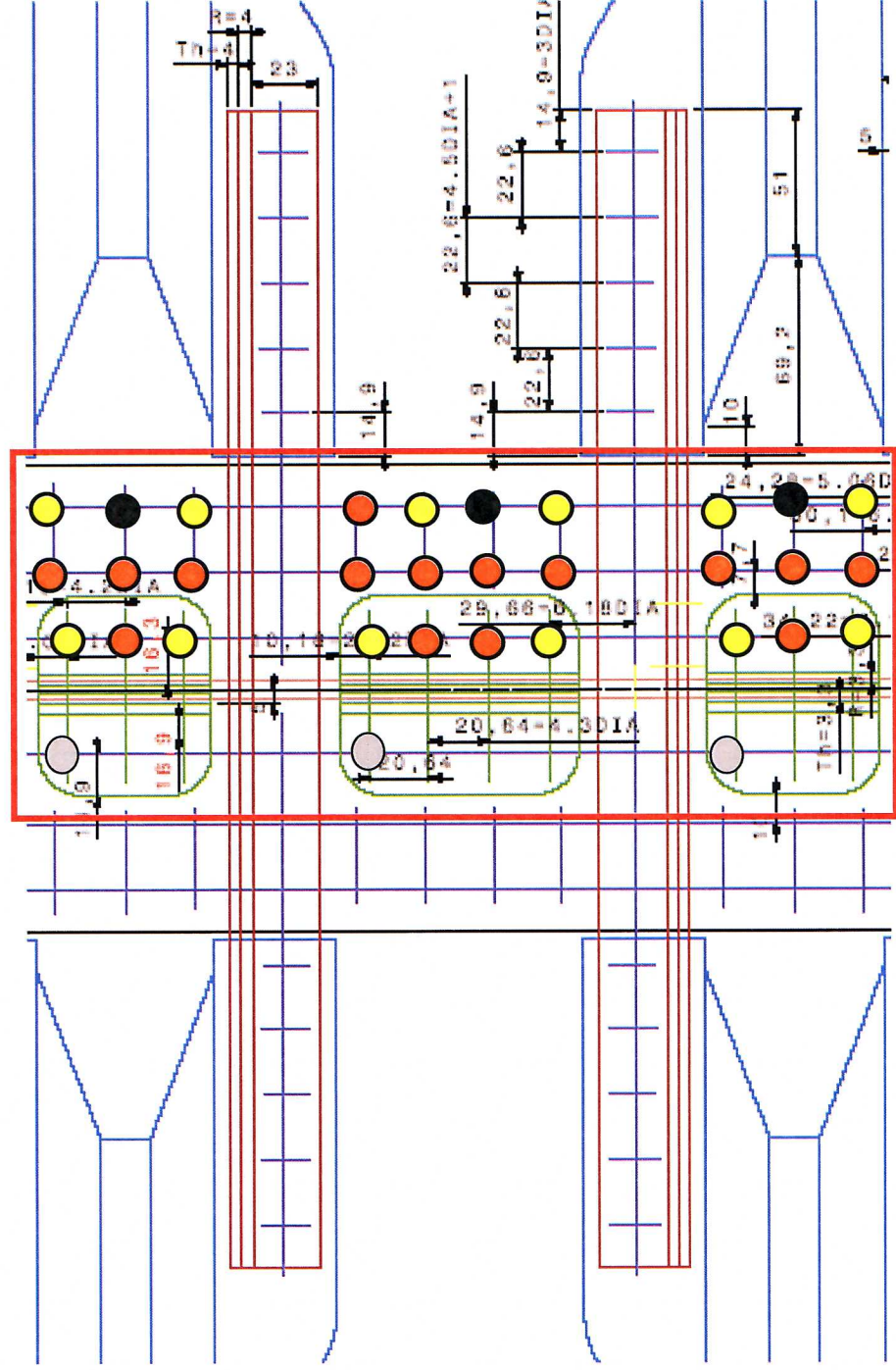
## step 2

Pining of the nearest holes of the pins to final dia

Fastener installation

Dia 3.3 Pining removal

- Pining removal
- Pining to final dia

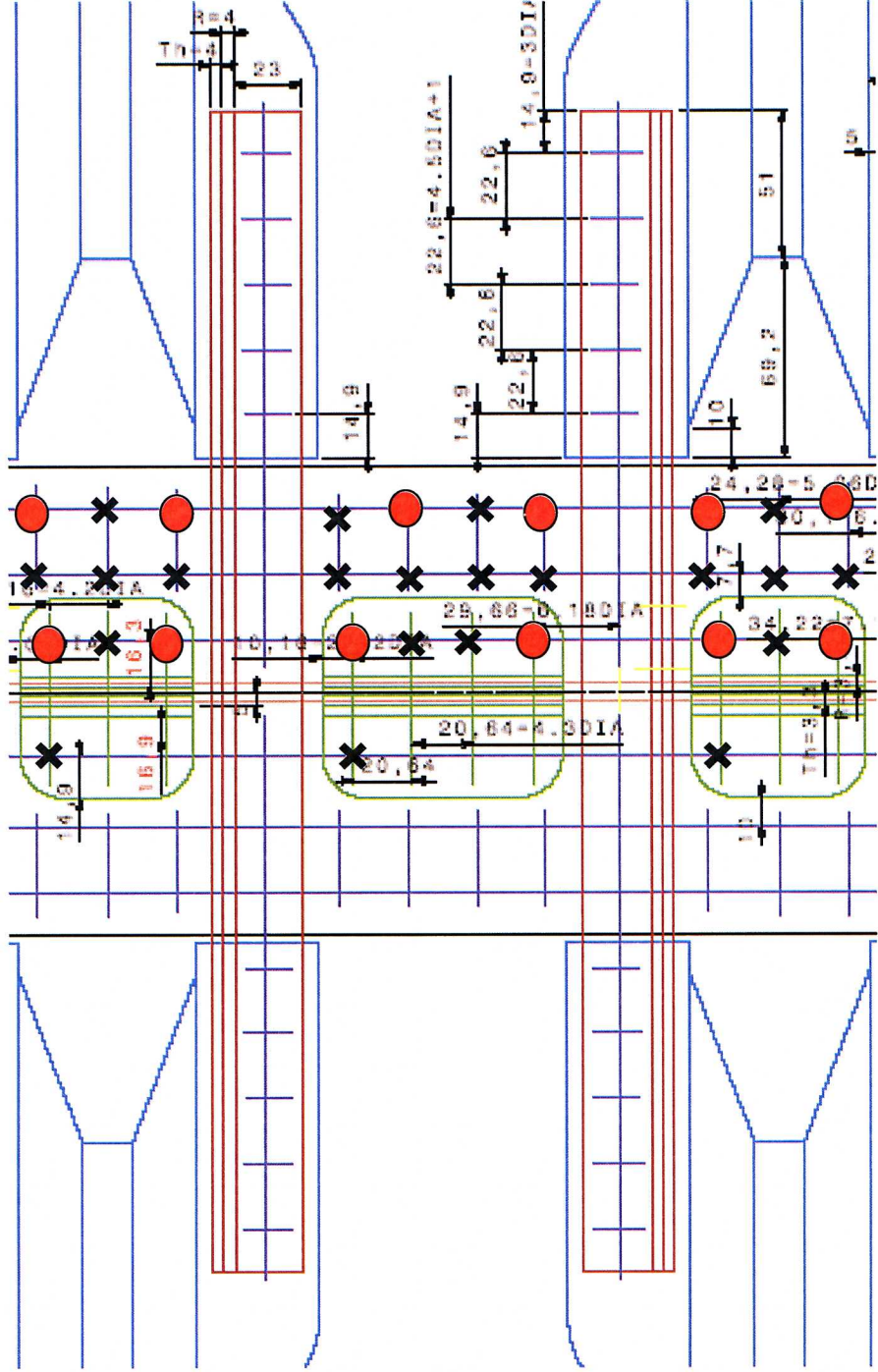


# phase 3

## step 3

Missing holes reaming  
 Templates removal  
 Missing fasteners installation

- Reaming



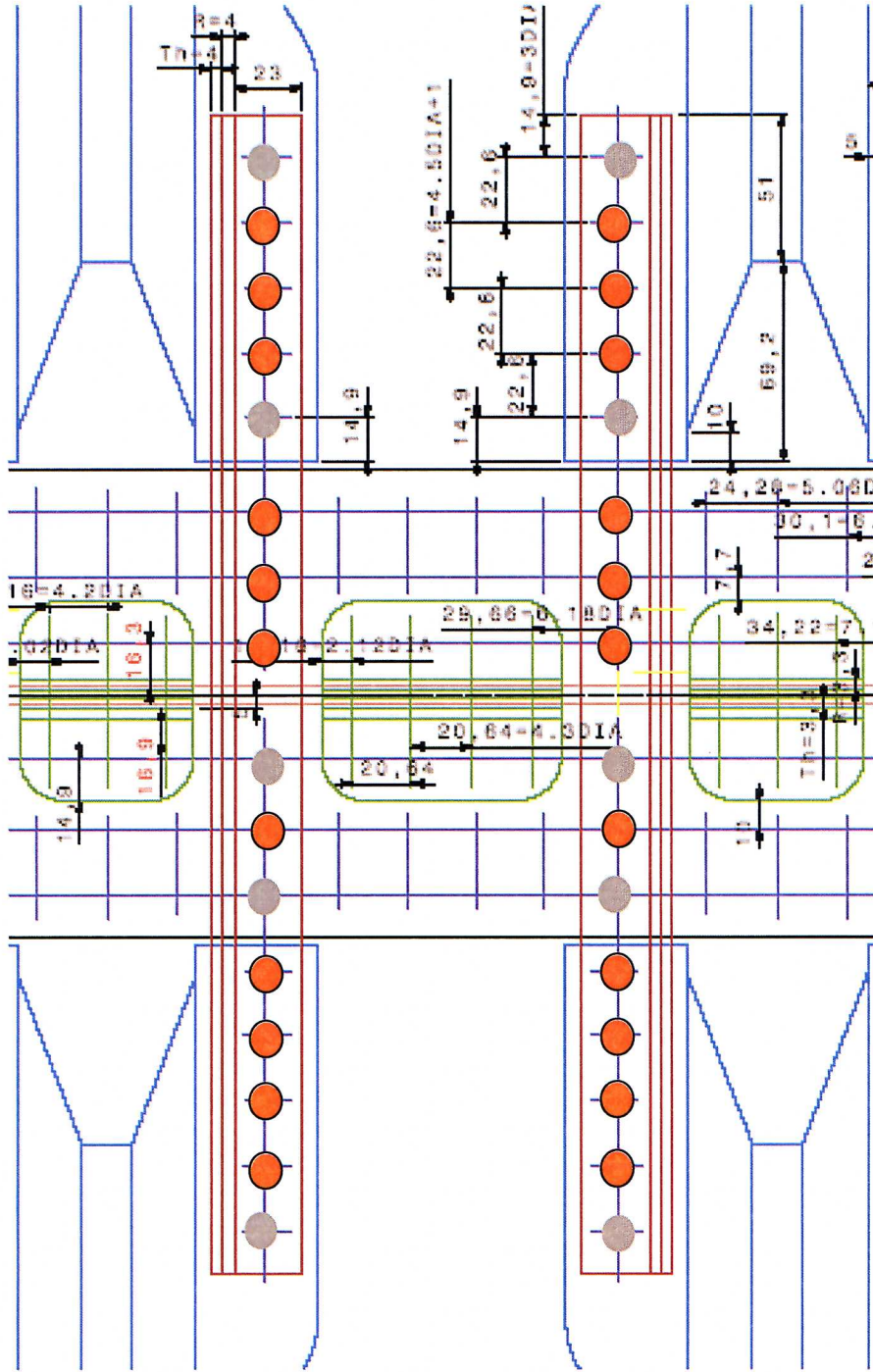




# phase 4 step 2

Splice drilling by outside with templates

● Dia 3.3 Drilling



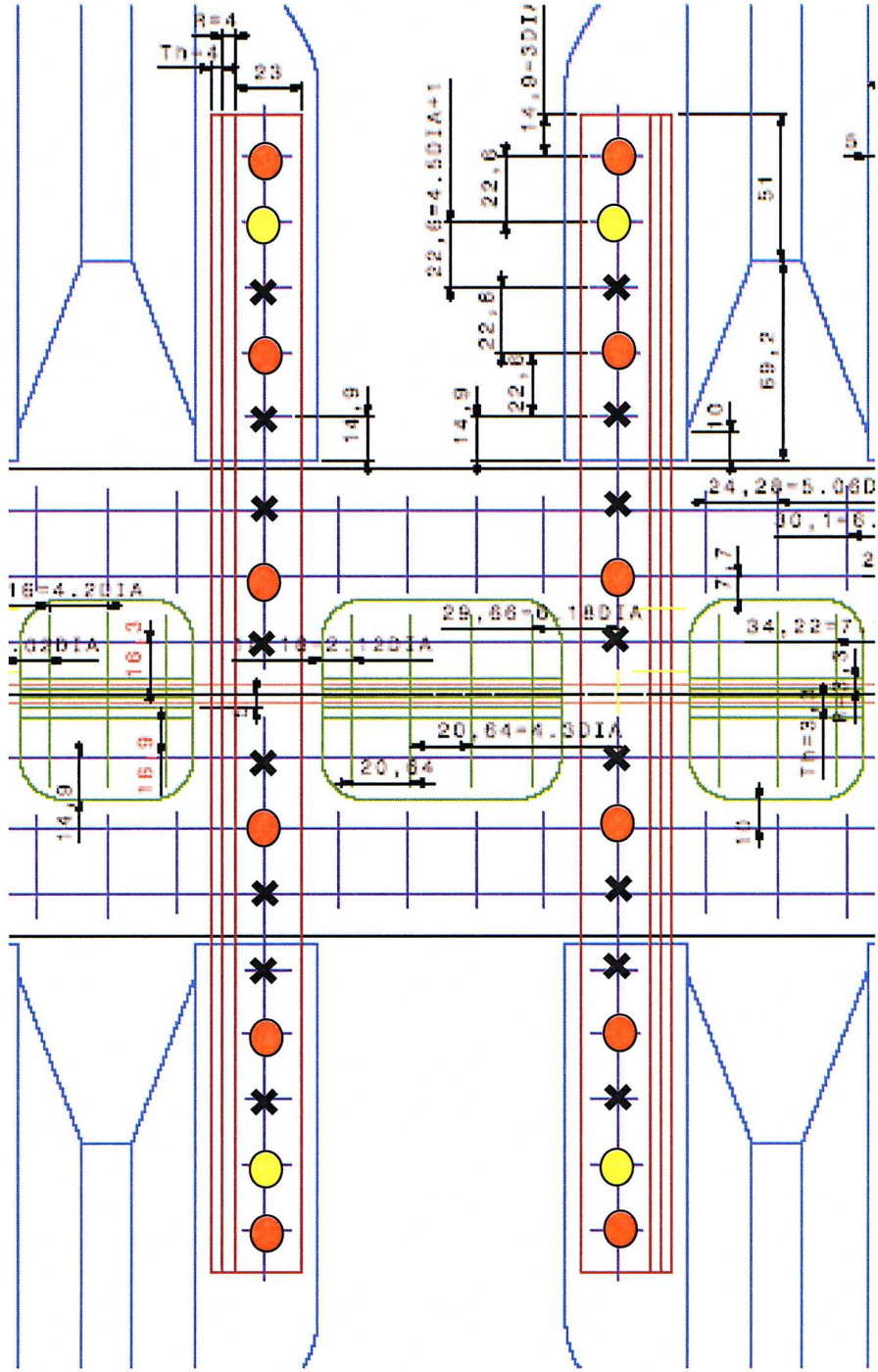


# phase 4 step 4

Pining removal  
Missing fastener installation

 Pining

 Fastener installation



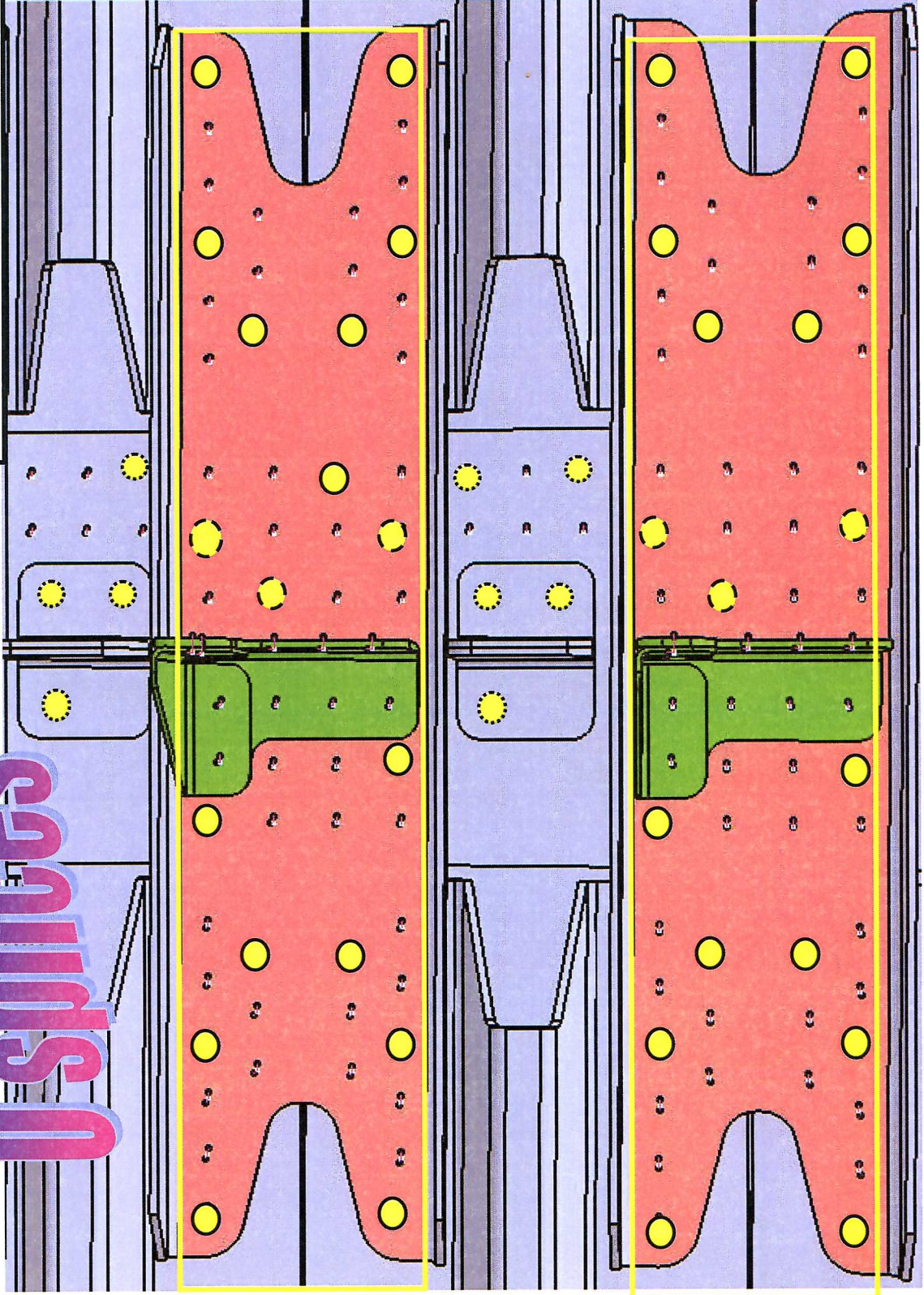
# phase 3

## step 1

Splice and template pining

● Pining

# U splices

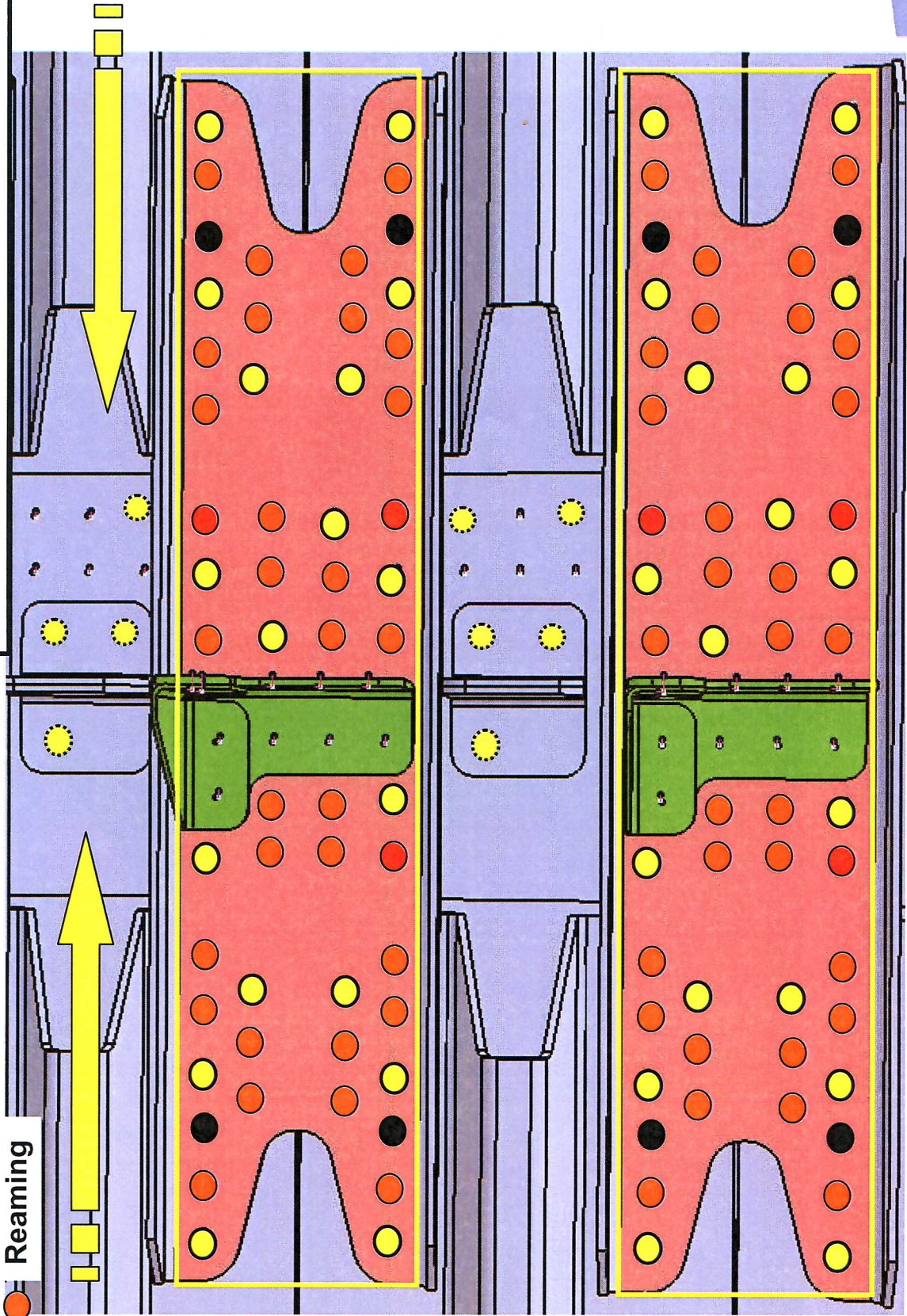


# phase 3

## step 2

Reaming except holes indicated on template

- Pining at final dia
- Pining
- Reaming

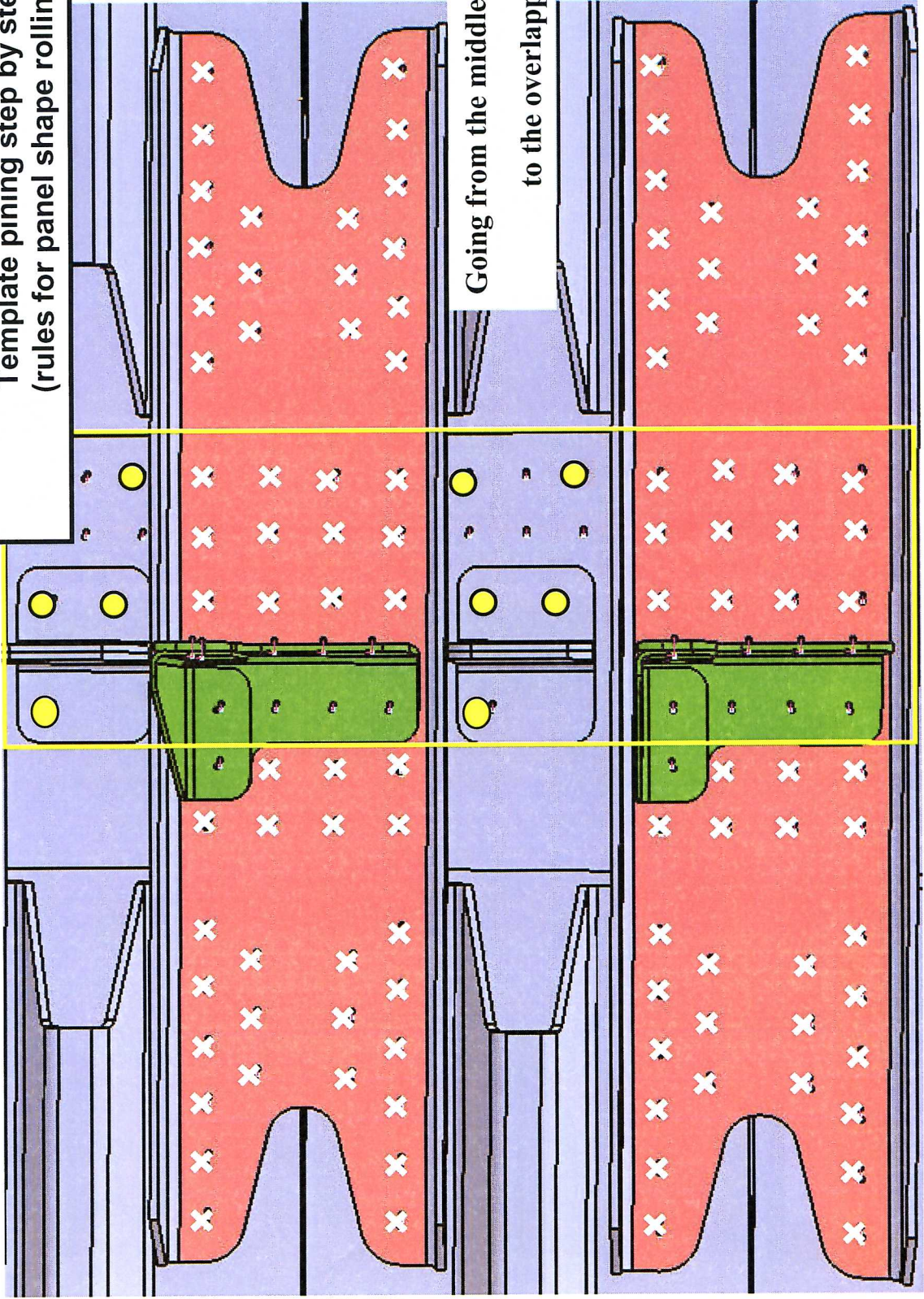


# phase 4

## step 1

Template pining  
Template pining step by step  
(rules for panel shape rolling)

● Pining



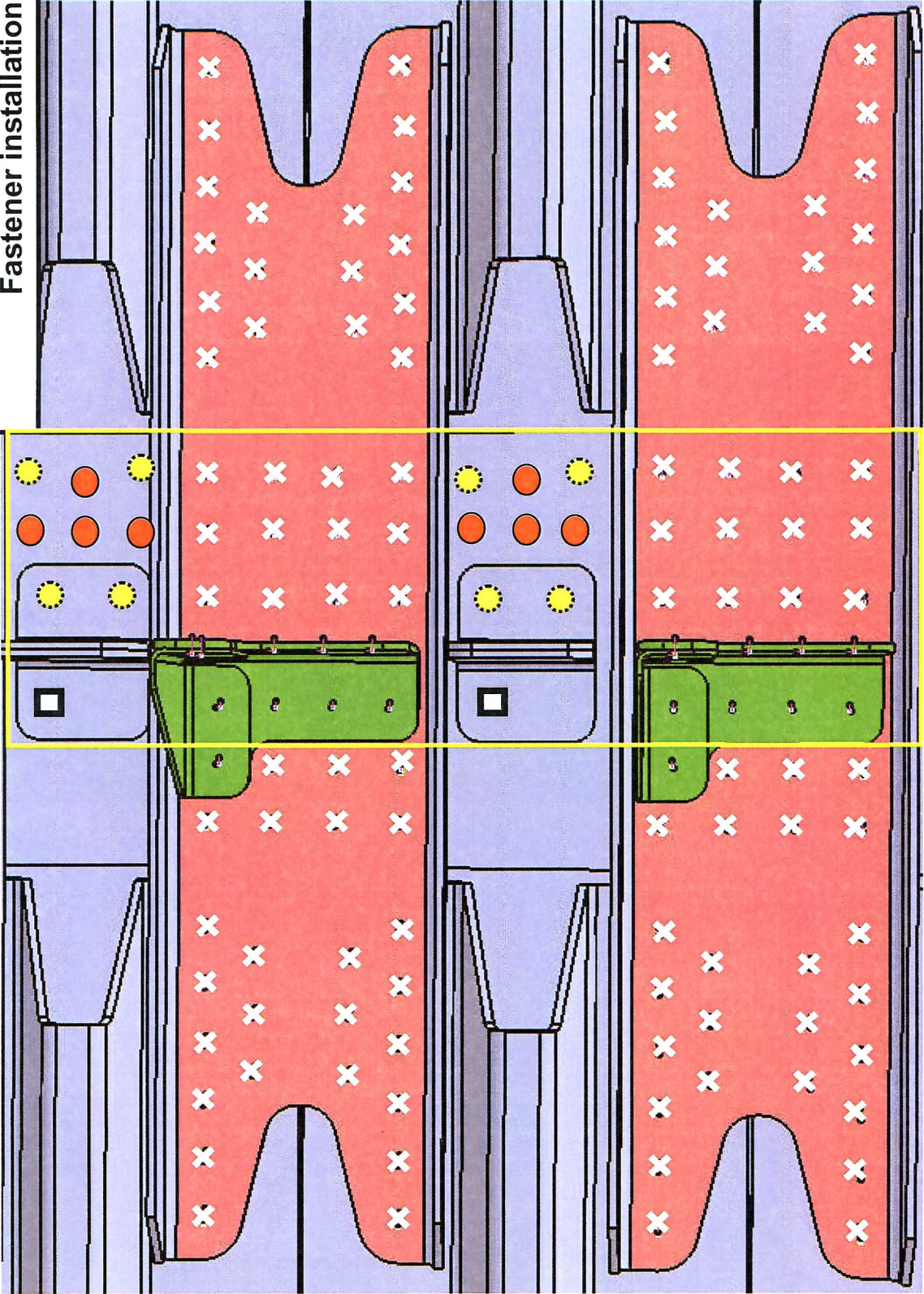
Going from the middle of the panel  
to the overlappings



# phase 4 step 2

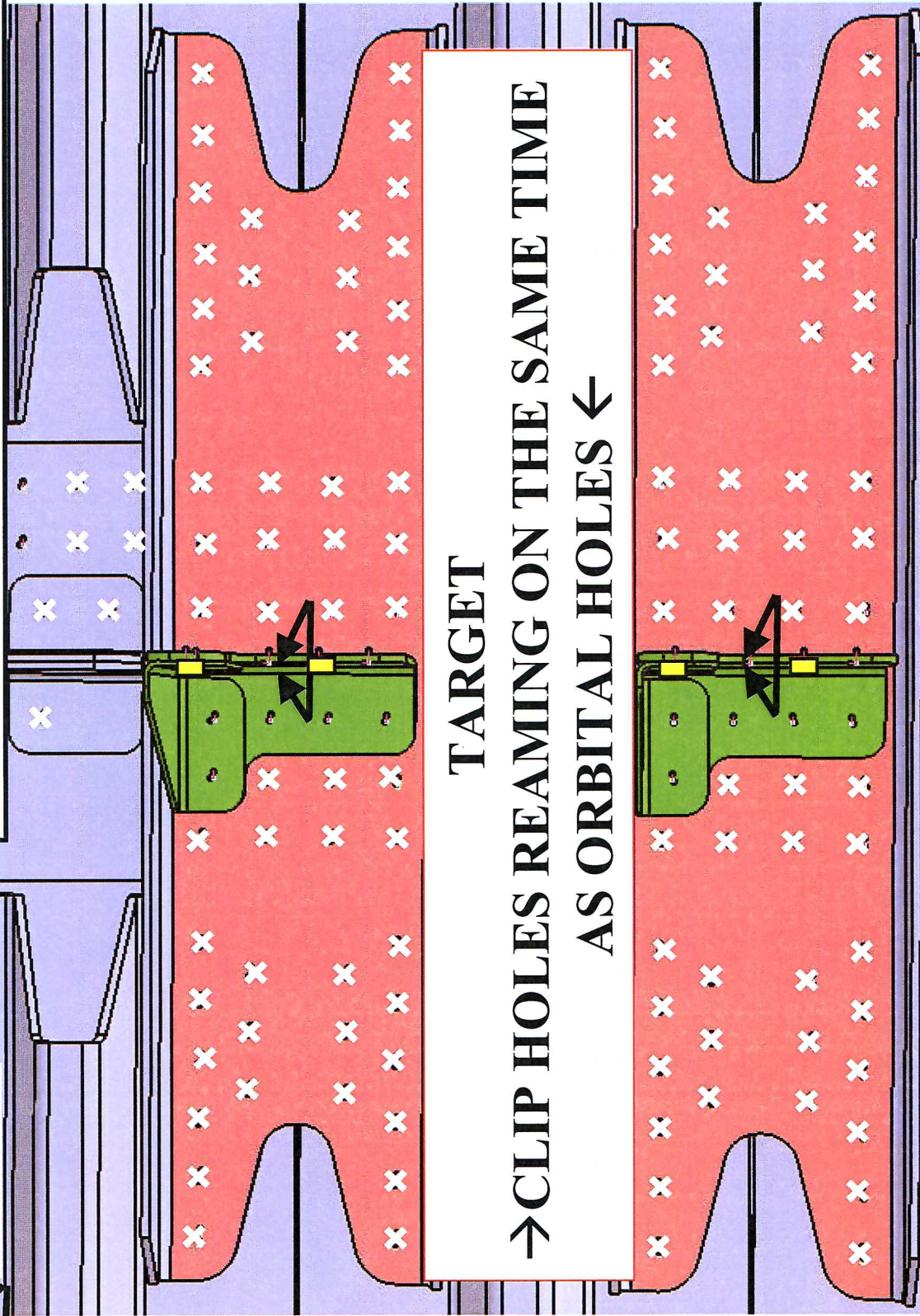
Reaming and countersinking  
Fastener installation

● Reaming



# phase 5 step 1

Clip installation in contact with frame with long clamping tools  
Drilling from clip to frame and pining



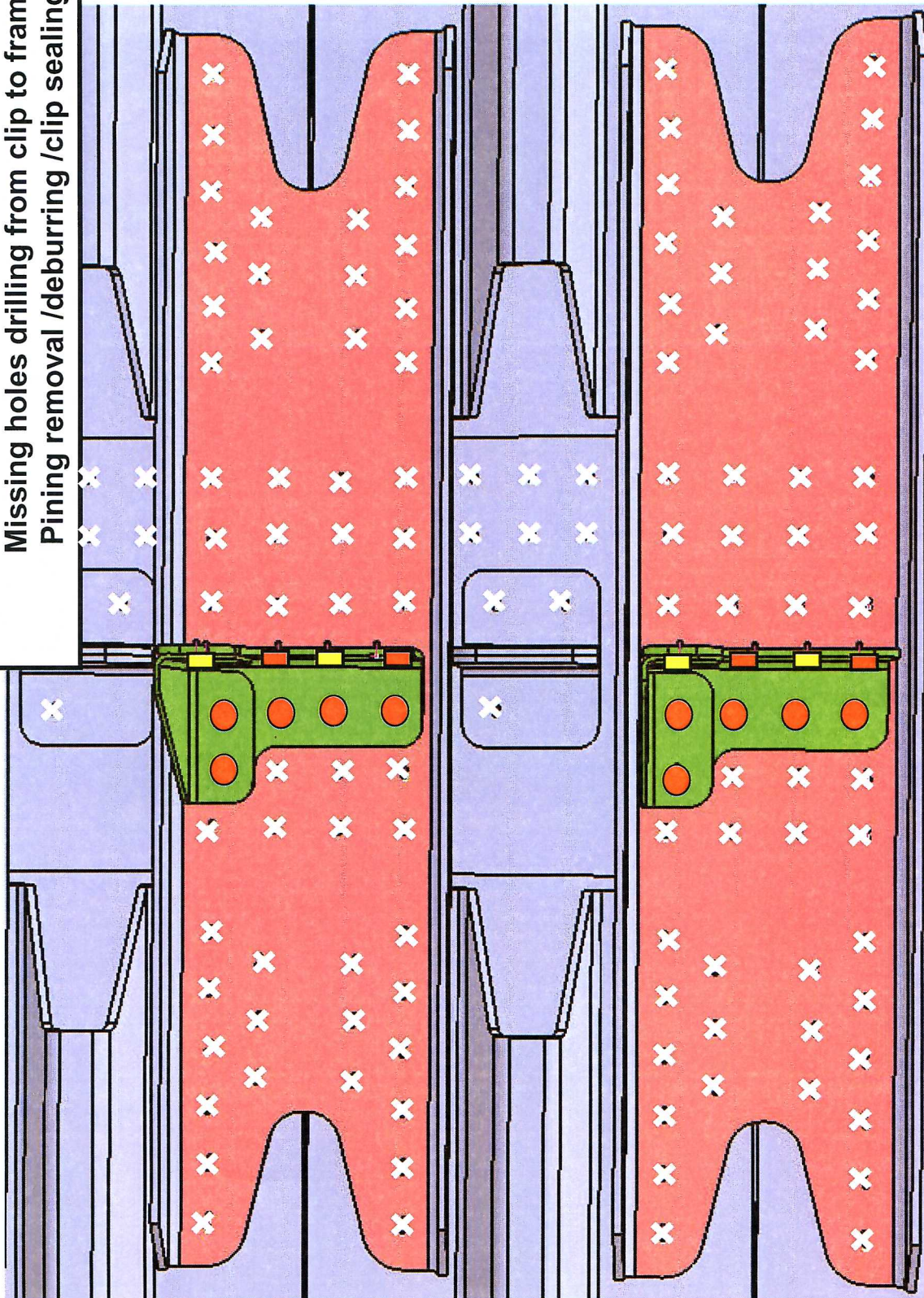
**TARGET**  
**→ CLIP HOLES REAMING ON THE SAME TIME**  
**AS ORBITAL HOLES ←**



# phase 5 step 2

● Drilling

Clamping tool removal  
Missing holes drilling from clip to frame  
Pining removal /deburring /clip sealing



# phase 5 step 3

Clips pining

Missing holes reaming  
Fastener installation

● Pining

● Reaming and fastener installation

