

# Manpower Requirements

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CMS week,  
CERN June 21<sup>th</sup> 2005

# ISR Activities up to September

- Alignment: 20 Chambers (4MB3, 5MB2, 4MB4, 7MB1) +4MB4?
- HV Connectors: 10 Chambers (2MB3, 1MB2, 7MB1)
- Dressing: 20 Chambers + 4MB4?
- Certification: 20 Chambers + 4MB4?
- 43 Chambers (ready for MC): 8 in YB+1, 19 in YB0, 16 in YB-
- 51 Chambers (ready for RPCs): 16 in YB+1, 19 in YB0, 16 in YB-
- 37 Chambers for installation: 7 in YB+2, 22 in YB+1, 8 in YB0+
- HV PP retrofitting:

## Technical staff:

S. Di Vincenzo (CERN-CMM), J.M. Ahijado-Munoz (CIEMAT)

H. Wang (up to July 15th), J. Zhang, ... (IHEP)

V. Cafaro/V. Giordano (INFN-Bologna) (not available in August)

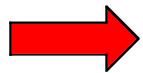


At least 1 additional technician needed in August !!

# SX5 Activities up to September

## YB+2:

- Replace 90 HV PP: 1 week for 2 persons
- Additional holes for MB4 LV patch connectors: 3 days one person?
- Install HV PP and LV PC for MB4s: 2 days one person?
- Mount radial trays and flexrails: 1 to 2 week for 2 persons depending if pieces are already pre-cut
- Adjust chambers z-position: 1 week for 2 persons
- Adjust cabling, check envelope, install carters: 2 weeks for 2 persons
- Connect to final gas system: 1 week for 2 persons
- Leak test cooling system with water overpressure (20bars):



15 man weeks

# SX5 Activities up to September

## YB+2:

- All activities require access to the wheel with a scissor lift and will interfere with the commissioning.
- All activities should be completed before the cabling operation
- This work requires people with different specializations:
  - mechanics for 9 man weeks
  - detector cabling for 4 man weeks
  - gas for 2man weeks
- Scheduling is difficult because:
  - some components are still missing ( radial cable trays, support plates.....)
  - Vacations are here
  - Conflicts with ongoing work at ISR and Installation


# SX5 Activities up to September

## YB+1:

- 1) Install HV PP and LV PC: 1 week for 2 persons
- 2) Connect HV, LV cables: 1 week for 1 person
- 3) Connect chambers to cooling manifold: 1 week for 1 person
- 4) Leak test the cooling circuit with gas overpressure: 1 week for 2 persons
- 5) Connect to temporary gas system: 1 week for 2 persons
- 6) Additional holes for MB4 LV patch connectors: 3 days one person?
- 7) Mount radial trays and flexrails: 1 week for 2 persons
- 8) Adjust chambers z-position: 1 week for 2 persons

# SX5 Activities up to September

## YB+1:

- 9) Adjust cabling, check envelope, install carters: 2 weeks for 2 persons
  - 10) Connect to final gas system: 1 week for 2 persons  
 18 man weeks
- Priority given to points 1) to 6) (8 man weeks) that should be completed before YB+1 commissioning can start

## Cabling:

- Connect final cables to minicrate, HV PP and LV PC
- Check cabling from tower (functionality test)