

Improvements for next parts

PIMS production meeting 26-27 February 2013

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Reception of PIMS elements 20.12.2012 transport box



- boxes very well made !
- styrofoam protection good
- bubble wrap ok but could protect more by using larger pieces

Reception of PIMS elements 20.12.2012 plastic bags filled with nitrogen



- needs to be improved
=> very important for rings and end discs as they are not foreseen to be cleaned at CERN



Reception of PIMS elements 20.12.2012 plastic bags filled with nitrogen



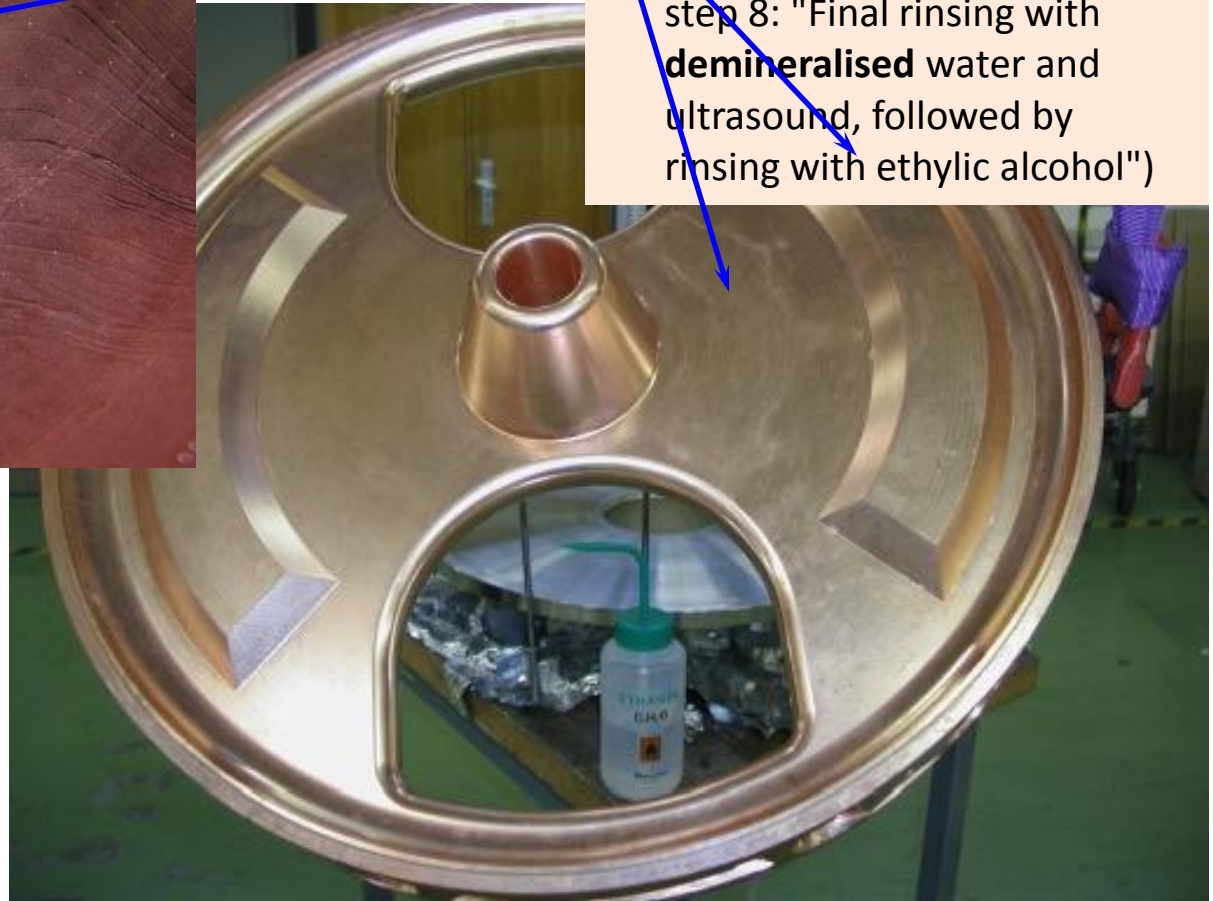
- examples of packed structures:
plastic bag filled with nitrogen and heat sealed



Reception of PIMS elements 20.12.2012 cleaning



- please use **demineralised water** for rinsing (cleaning procedure EDMS 1141661, step 8: "Final rinsing with **demineralised** water and ultrasound, followed by rinsing with ethylic alcohol")

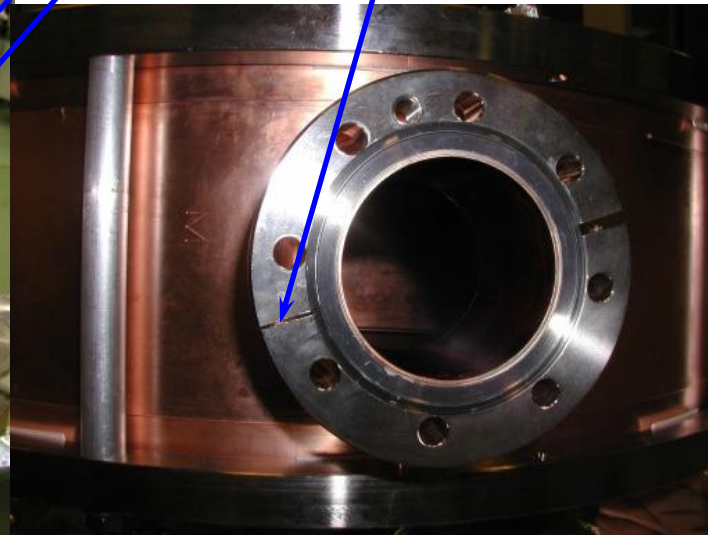


Reception of PIMS elements 20.12.2012

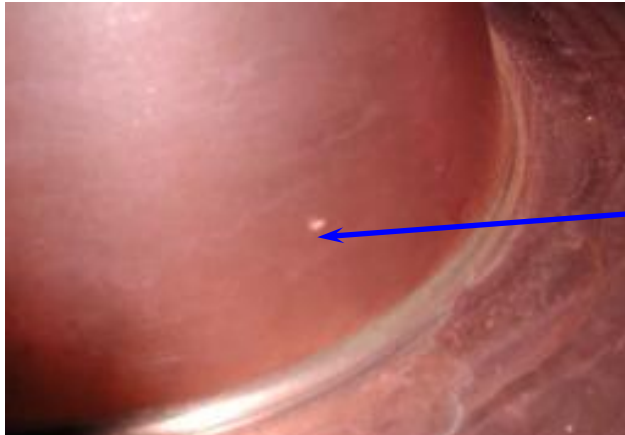
ring M_13-14



- good work !!!
- CF flanges very well packed!
- slotted rotatable UHV flanges (SPLACPMB0057, SPLACPMB0058) already included => excellent !
- welding looks good



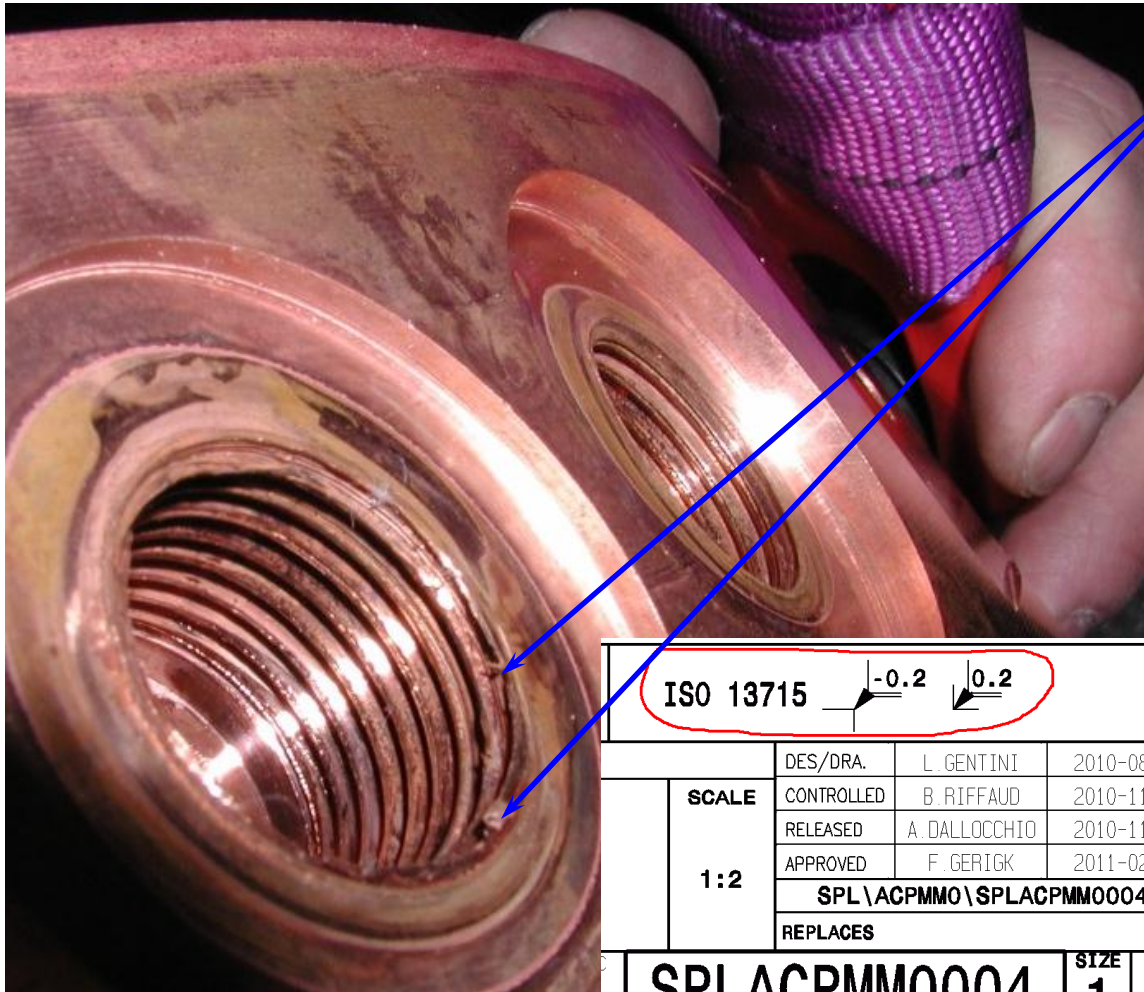
Reception of PIMS elements 20.12.2012 disc M_6-7 (CPL ?)



- plenty of **defects**, only a few are shown here
- please **handle parts carefully**, particularly in **CPL**
- please include a **visual inspection report** as specified in the Quality Assurance report for each part



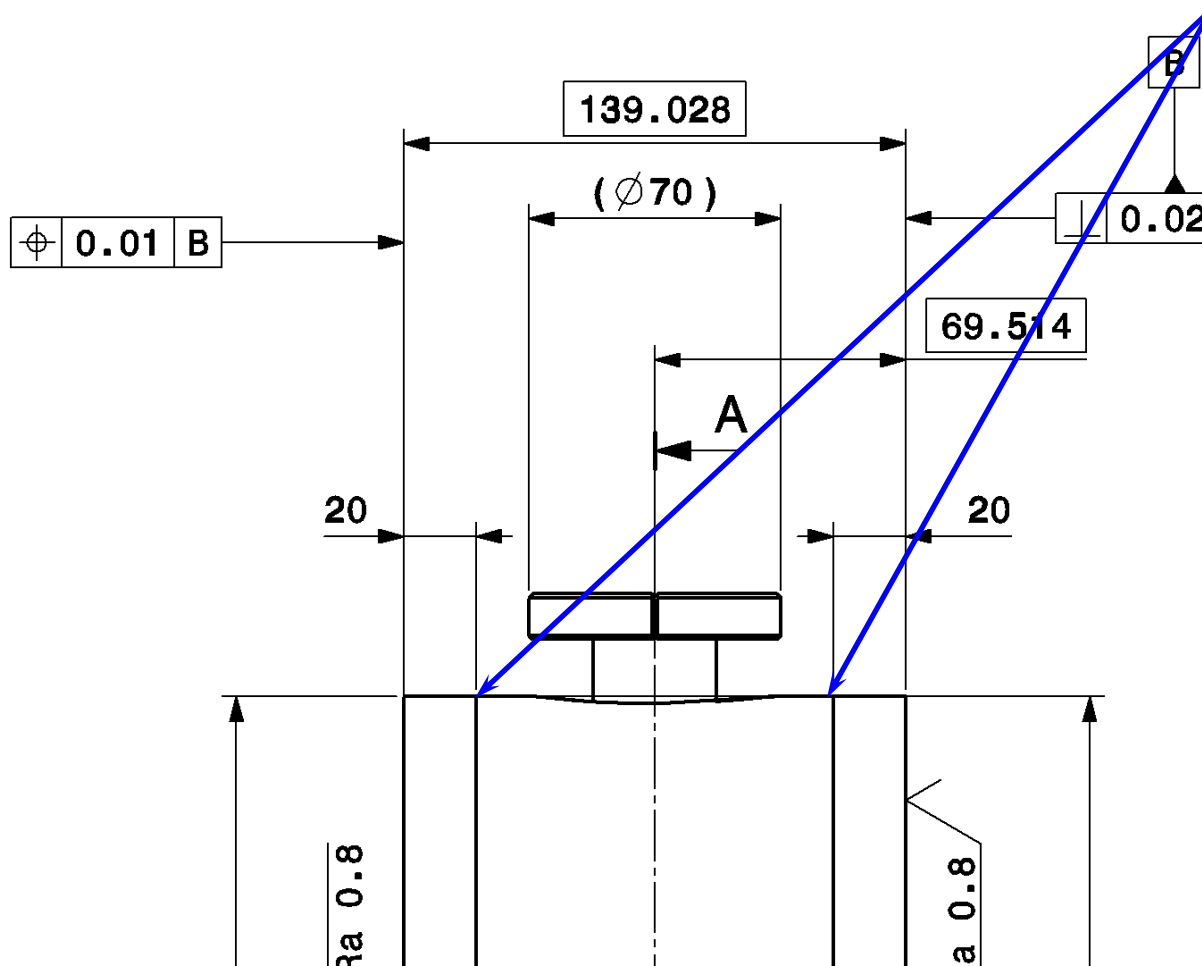
Reception of PIMS elements 20.12.2012 disc M_6-7



- **joints** for the vacuum test and for the cooling connection **will be destroyed**
- **all 16 threads** have this problem
- **important to chamfer** particularly **this edge** with $R \leq 0.2$, indicated on the drawings as well as stressed in the technical specifications

ISO 13715				-0.2		0.2	
		DES/DRA.	L. GENTINI	2010-08-13			
SCALE		CONTROLLED	B. RIFFAUD	2010-11-03			
		RELEASED	A. DALLOCCIO	2010-11-03			
		APPROVED	F. GERIGK	2011-02-21			
		SPL \AGPMMO \SPLACPMM0004					
1:2		REPLACES					
SPLACPMM0004				SIZE	IND.		
				1			

Assembly of PIMS elements burrs



- a sharp edged ring (burr) has been seen here. Please take care to **chamfer** here as well with $R \leq 0.2$ as specified => problematic for our alignment tool for welding

Improvements for next parts

Points shown:

- please use more **bubble wrap** for better protection
- please use **heat sealed plastic bags filled with nitrogen**
procedure: place PIMS element, evacuate as much air as possible out of the bag, fill bag with nitrogen (from the bottom), evacuate gas (air/nitrogen mixture; from the bottom) again, fill bag with nitrogen (from the bottom) again and finally heat seal bag
- please **follow closely** the **cleaning** procedure (EDMS 1141661)
- please **handle parts with care, particularly in CPL**. So much effort is made in reaching the required tolerances...
- please **chamfer all edges** as specified ($R \leq 0.2$), **particularly for cooling channels** (re-machining of disc M_6-7) and **alignment surface** (outside) of rings

Improvements for next parts

Further points:

- please create a **visual inspection report** for every element, for example in a separate document (simple PowerPoint, etc.)
- **radial scratches** seen on faces of ring G_13-14 where joints for vacuum check are placed => will be problematic to test similar pieces (ring G_13-14 is used for machining tests, no vacuum test needed).