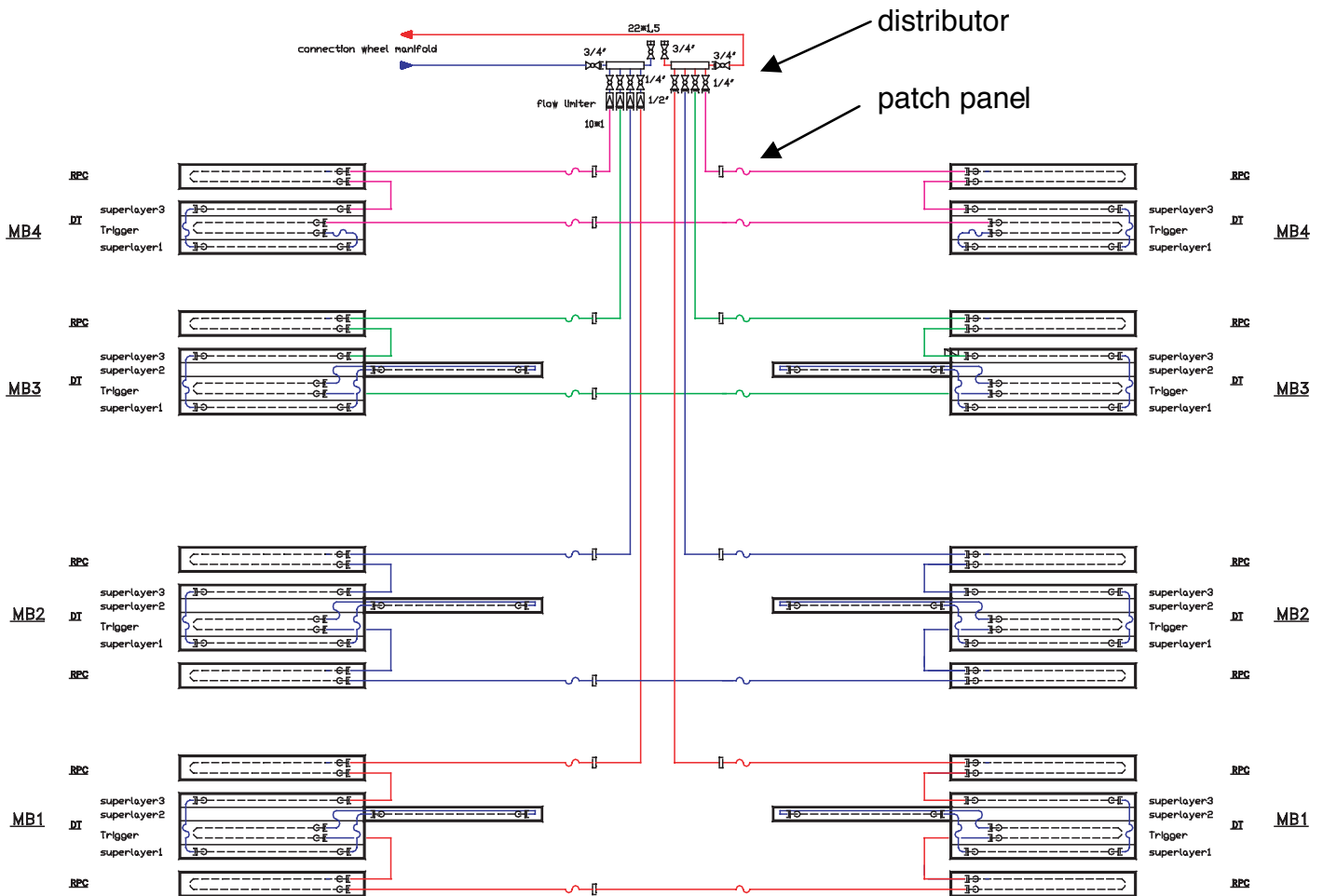




CMS BARREL MUON DT CHAMBERS

Cooling Components on DT, RPC Downstream from Patch Panel

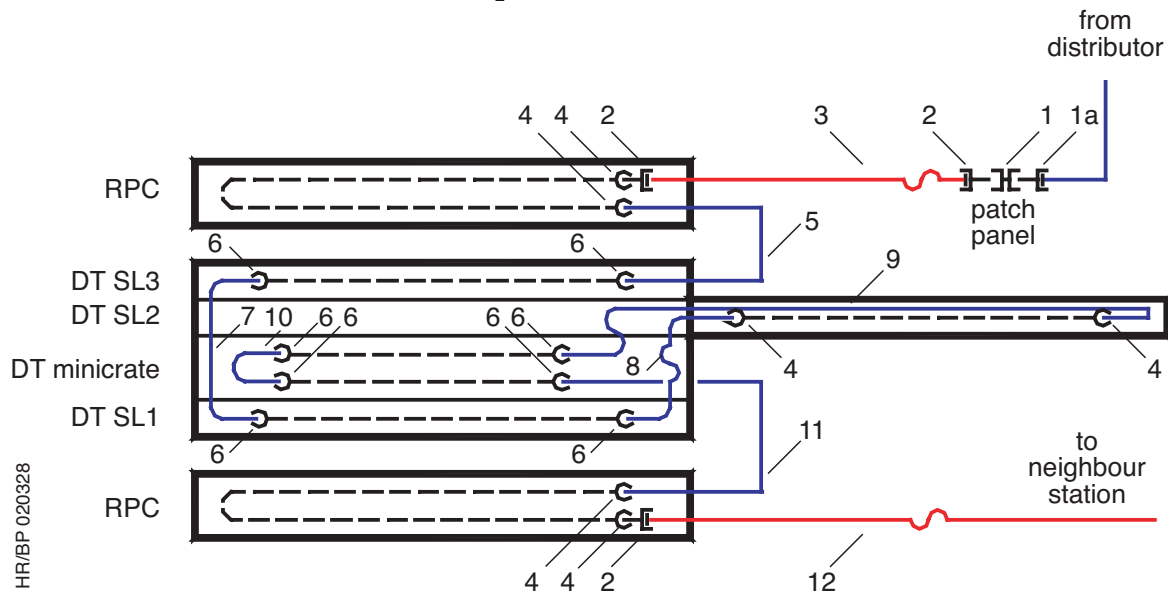
Hans Reithler
020404



ILK Dresden \bar{n} calculations for the muon cooling system
 Andreas Zschoppe, Andreas Kleeberg
 01.02.2002

Structure:

- 6 distributors in parallel per wheel
- 1 distributor per 2 sectors; feeds 4 parallel subcircuits
- Flow limiters ensure comparable flow in every subcircuit
- Can purge/fill each subcircuit independently, at any time
- Each subcircuit cools 2 muon stations, in series
- **Here:** look at components on the patch panels and downstream, i.e. downstream the fixed piping installation.



Here: MB1, MB2; MB3 has only 1 RPC; MB4 only 1 RPC and 2 SLs.

Piping external to chambers: Stainless steel SS 8 mm / 10 mm arriving at patch panel;
on chambers SS 6 mm / 8 mm. Hose (red) has 6.4 mm / 12.7 mm diameter and
min. bending radius of 63.5 mm.

Schematic of cooling components on one DT + RPC station.

List of cooling components on patch panel and downstream,
for one cooling subcircuit, i.e. for two DT + RPC stations.

Pos.	Qty	MB1 MB2	Qty	MB3	Qty	MB4	Object	Charge
01	2	2	2	2			Schott-union 6mm/8mm	DT+RPC
01a	2	2	2	2			adapter 10 mm to 8 mm	DT+RPC
02	6	6	6	6			tube adapter	DT+RPC
03	2	2	2	2			push-on hose 1.5 m	DT+RPC
04	8	4	4	4			RPC fitting for 8mm Swagelok	RPC
05	2	2	2	2			tube SS 6mm/8mm 0.4 m	DT+RPC
06	20	20	16				elbow fitting 90 deg 1/8"/8mm	DT
07	2	2	2	2			tube SS 6mm/8mm 0.5 m	DT
08	2	2	2	2			tube SS 6mm/8mm 0.7 m	DT
09	2	2	0				tube SS 6mm/8mm 3 m	DT
10	2	2	2	2			tube SS 6mm/8mm 0.3 m	DT
11	2	-	-				tube SS 6mm/8mm 0.4 m	DT+RPC
12	1	1	1				push-on hose 1.5 m	DT+RPC

HR/BP 020328/020409

Note:

No quick connector at patch panel; assumed that
purging and filling are done while connected.