

1. GENERAL REMARKS

1.1 Customer data

Customer:	Giacomini S.p.A.
Address:	28017 S. Maurizio D'Opaglio NO

1.2 Identification of equipment and/or subsystem under test (EUT)

EUT nr	Acceptance code	Manufacturer and model	Receiving date	Description
1	AC016815/1	Giacomini S.p.A. R580CY062	22/07/2015	Collector brass (no valves) 16x2,2 – 2 outputs
2	AC016815/2	Giacomini S.p.A. R580CY063	22/07/2015	Collector brass (no valves) 16x2,2 – 3 outputs
3	AC016815/3	Giacomini S.p.A. R580CY064	22/07/2015	Collector brass (no valves) 16x2,2 – 4 outputs
4	AC016815/4	Giacomini S.p.A. R585CY062	22/07/2015	Collector brass (with valves) 16x2,2 – 2 outputs
5	AC016815/5	Giacomini S.p.A. R585CY063	22/07/2015	Collector brass (with valves) 16x2,2 – 3 outputs
6	AC016815/6	Giacomini S.p.A. R585CY064	22/07/2015	Collector brass (with valves) 16x2,2 – 4 outputs
7	AC016815/7	Giacomini S.p.A. R580CY022	22/07/2015	Collector brass (no valves) 20x2,8 – 2 outputs
8	AC016815/8	Giacomini S.p.A. R580CY023	22/07/2015	Collector brass (no valves) 20x2,8 – 3 outputs
9	AC016815/9	Giacomini S.p.A. R580CY023	22/07/2015	Collector brass (no valves) 20x2,8 – 4 outputs
10	AC016815/10-19	Giacomini S.p.A. R179EY056	22/07/2015	Adapter 1/2"x(16x2,2)
11	AC016815/37-52	Giacomini S.p.A. R179AY001	22/07/2015	Adapter 18x(16x2,2)
12	AC016815/53-68	Giacomini S.p.A. R179AY012	22/07/2015	Adapter 18x(20x2,8)
13	AC016815/20-25	Giacomini S.p.A. R179MX038	22/07/2015	Adapter 16x(20x2,8)
14	AC016815/26-27	Giacomini S.p.A. R560RY008	22/07/2015	Brass connection 18x18
15	AC016815/28-29	Giacomini S.p.A. R561RY008	22/07/2015	Brass connection elbow 18x18
16	AC016815/30-31	Giacomini S.p.A. R564RY008	22/07/2015	Brass connection "T" 18x18x18
17	AC016815/17	Giacomini S.p.A. R573DY003	22/07/2015	Plastic - Brass connection 1/2"x18

6.1.2 List and description of tests

Test	Applicable Standard	Paragraph of this Test Report	Test result		
			ζ	Δ_p [bar]	
Test Pressure [1bar]					
EUT9 Collector brass (no valves) 20x2,8 - 4 outputs + EUT12 Adapter 18x20x2,8 + EUT13 Adapter 20x2,8	+ EUT14 Brass connection 18x18	UNI EN 1267: 2012	6.2.1.1	13,91	0,51
	+ EUT15 Brass connection elbow 18x18	UNI EN 1267: 2012	6.2.1.2	17,96	0,58
	+EUT16 (OUT3) Brass connection "T" 18x18x18	UNI EN 1267: 2012	6.2.1.3	13,99	0,51
	+EUT16(OUT2) Brass connection "T" 18x18x18	UNI EN 1267: 2012	6.2.1.4	17,40	0,54
	+EUT17 Plastic - Brass connection 1/2"x18	UNI EN 1267: 2012	6.2.1.5	19,31	0,57
	+EUT18(OUT3) Plastic - Brass connection 2 inputs 1/2"x18	UNI EN 1267: 2012	6.2.1.6	21,55	0,57
	+EUT18(OUT2) Plastic - Brass connection 2 inputs 1/2"x18	UNI EN 1267: 2012	6.2.1.7	24,18	0,65
	+EUT19 Brass connection elbow whit plate 1/2FX18	UNI EN 1267: 2012	6.2.1.8	22,00	0,60
EUT8 Collector brass (no valves) 20x2,8 - 3 outputs EUT12 Adapter 18x20x2,8 + EUT13 Adapter 20x2,8	-	UNI EN 1267: 2012	6.2.1.9	10,94	0,38
EUT7 Collector brass (no valves) 20x2,8 - 2 outputs EUT12 Adapter 18x20x2,8 + EUT13 Adapter 20x2,8	-	UNI EN 1267: 2012	6.2.1.10	11,38	0,37
EUT3 Collector brass (no valves) 16x2,2 - 4 outputs + EUT10 Adapter 1/2"x16x2,2+ EUT11 Adapter 18x16x2,2	+ EUT14 Brass connection 18x18	UNI EN 1267: 2012	6.2.1.11	68,72	0,86
	+ EUT15 Brass connection elbow 18x18	UNI EN 1267: 2012	6.2.1.12	76,32	0,91
	+EUT16 (OUT3) Brass connection "T" 18x18x18	UNI EN 1267: 2012	6.2.1.13	77,06	0,90
	+EUT16(OUT2) Brass connection "T" 18x18x18	UNI EN 1267: 2012	6.2.1.14	68,19	0,87
	+EUT17 Plastic - Brass connection 1/2"x18	UNI EN 1267: 2012	6.2.1.15	76,86	0,88
	+EUT18(OUT3) Plastic - Brass connection 2 inputs 1/2"x18	UNI EN 1267: 2012	6.2.1.16	73,45	0,88
	+EUT18(OUT2) Plastic - Brass connection 2 inputs 1/2"x18	UNI EN 1267: 2012	6.2.1.17	80,86	0,92
	+EUT19 Brass connection elbow whit plate 1/2FX18	UNI EN 1267: 2012	6.2.1.18	81,58	0,91
EUT2 Collector brass (no valves) 16x2,2 - 3 outputs + EUT10 Adapter 1/2"x16x2,2+	-	UNI EN 1267: 2012	6.2.1.19	44,96	0,67

EUT11 Adapter 18x16x2,2					
EUT1 Collector brass (no valves) 16x2,2 - 2 outputs + EUT10 Adapter 1/2"x16x2,2+ EUT11 Adapter 18x16x2,2	-	UNI EN 1267: 2012	6.2.1.20	45,36	0,67
EUT6 Collector brass (with valves) 16x2,2 - 4 outputs + EUT10 Adapter 1/2"x16x2,2+ EUT11 Adapter 18x16x2,2	+ EUT14 Brass connection 18x18	UNI EN 1267: 2012	6.2.1.21	298,17	0,98
	+ EUT15 Brass connection elbow 18x18	UNI EN 1267: 2012	6.2.1.22	304,65	0,99
	+EUT16 (OUT3) Brass connection "T" 18x18x18	UNI EN 1267: 2012	6.2.1.23	304,38	0,98
	+EUT16(OUT2) Brass connection "T" 18x18x18	UNI EN 1267: 2012	6.2.1.24	295,63	0,88
	+EUT17 Plastic - Brass connection 1/2"x18	UNI EN 1267: 2012	6.2.1.25	305,41	0,94
	+EUT18(OUT3) Plastic - Brass connection 2 inputs 1/2"x18	UNI EN 1267: 2012	6.2.1.26	309,97	0,97
	+EUT18(OUT2) Plastic - Brass connection 2 inputs 1/2"x18	UNI EN 1267: 2012	6.2.1.27	298,55	0,97
	+EUT19 Brass connection elbow whit plate 1/2FX18	UNI EN 1267: 2012	6.2.1.28	306,23	0,96
EUT5 Collector brass (with valves) 16x2,2 - 3 outputs + EUT10 Adapter 1/2"x16x2,2+ EUT11 Adapter 18x16x2,2	-	UNI EN 1267: 2012	6.2.1.29	141,68	0,88
EUT4 Collector brass (with valves) 16x2,2 - 2 outputs + EUT10 Adapter 1/2"x16x2,2+ EUT11 Adapter 18x16x2,2	-	UNI EN 1267: 2012	6.2.1.30	149,91	0,92
Test Pressure [2bar]					
EUT9 Collector brass (no valves) 20x2,8 - 4 outputs + EUT12 Adapter 18x20x2,8 + EUT13 Adapter 20x2,8	+ EUT14 Brass connection 18x18	UNI EN 1267: 2012	6.2.1.31	14,85	0,90
	+ EUT15 Brass connection elbow 18x18	UNI EN 1267: 2012	6.2.1.32	17,86	1,02
	+EUT16 (OUT3) Brass connection "T" 18x18x18	UNI EN 1267: 2012	6.2.1.33	15,03	0,92
	+EUT16(OUT2) Brass connection "T" 18x18x18	UNI EN 1267: 2012	6.2.1.34	17,31	0,97
	+EUT17 Plastic - Brass connection 1/2"x18	UNI EN 1267: 2012	6.2.1.35	19,54	1,04
	+EUT18(OUT3) Plastic - Brass connection 2 inputs 1/2"x18	UNI EN 1267: 2012	6.2.1.36	22,20	1,05
	+EUT18(OUT2) Plastic - Brass connection 2 inputs 1/2"x18	UNI EN 1267: 2012	6.2.1.37	25,02	1,04
	+EUT19 Brass connection elbow whit plate 1/2FX18	UNI EN 1267: 2012	6.2.1.38	20,58	1,06
EUT8 Collector brass (no valves) 20x2,8 - 3 outputs + EUT12 Adapter 18x20x2,8 +	-	UNI EN 1267: 2012	6.2.1.39	10,82	0,67

EUT13 Adapter 20x2,8					
EUT7 Collector brass (no valves) 20x2,8 – 2 outputs + EUT12 Adapter 18x20x2,8 + EUT13 Adapter 20x2,8	-	UNI EN 1267: 2012	6.2.1.40	11,37	0,69

6.1.3 Measurement uncertainty

The measurement uncertainties stated in this document are expressed as expanded uncertainty obtained by multiplying the standard uncertainty by the coverage factor $K = 2$ corresponds to a confidence level of about 95%.

6.2 Test procedure

The pressure loss shall be measured with a differential sensor. The sensor of methods known further to calibration or by reference to other standards, providing measurements whose systematic does not exceed the maximum permissible values, shall be used.

The accuracy of measurement shall be

- Upstream pressure, differential pressure and flow rate $\pm 2\%$ of the read value;
- Temperature measurement $\pm 1^\circ\text{C}$
- Test fluid shall be water with a temperature between 5°C and 40°C .

A basic flow test facility is shown in Figure 9

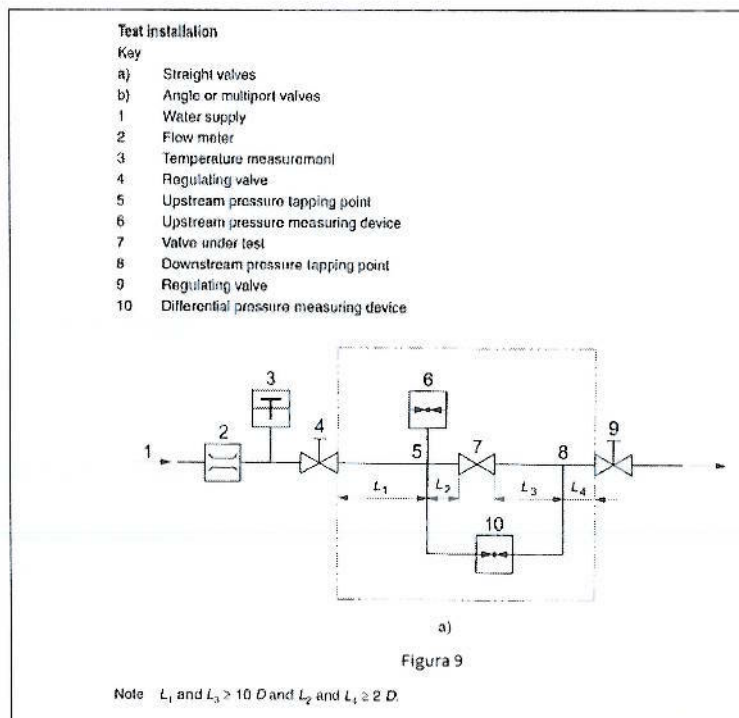


Figure 9 – Test installation