

DESCRIPTION OF THE COMPARATIVE TABLES OF TESTS **DESCRIZIONE TABELLE COMPARATIVE PROVE**

Giussani test benches are designed to check and test components of sanitary taps and hydraulic devices in general, according to the procedures imposed by the main international Standards.

Depending on the type of test and the device to be tested, the Aq2TB software guides the user in the choice of all the significant parameters characterizing the test itself.

The attached tables contains a summary description of the main tests with:

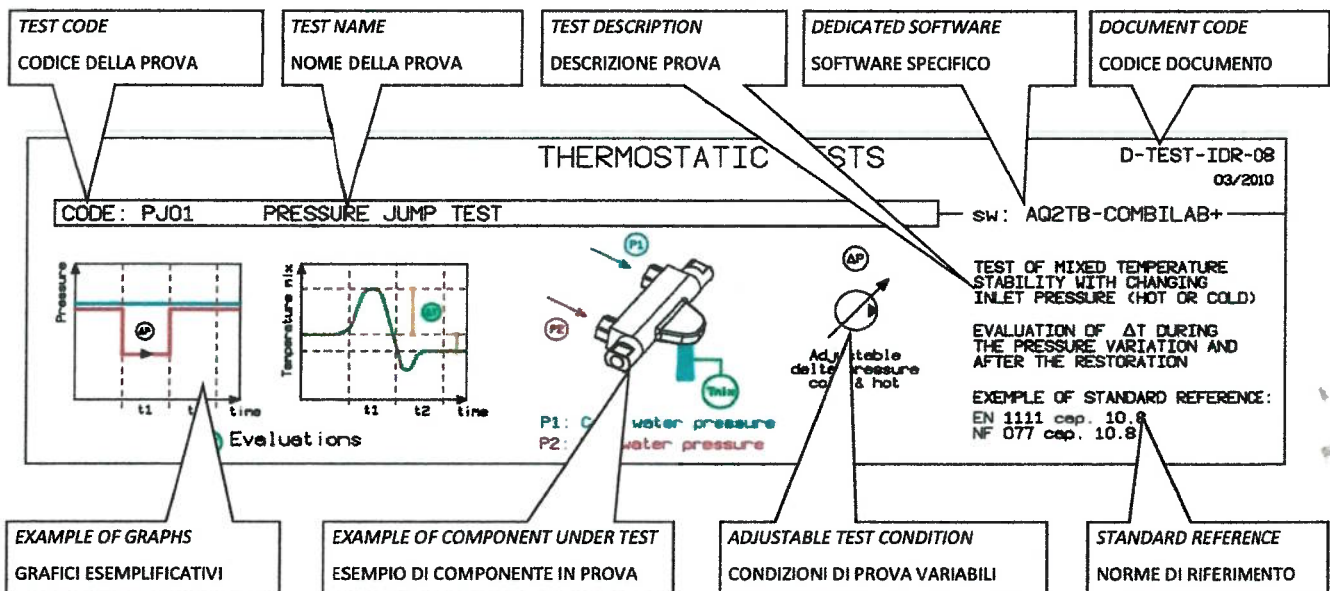
- *The graphical representation of the physical quantities measured.*
- *The example drawing of the installation of the device under test.*
- *The base operative range and the maximum achievable performance for each test bench.*
- *The main reference Standards.*

I banchi prova Giussani sono realizzati per testare e collaudare componenti di **rubinetteria idrosanitaria** e componenti idraulici in genere, secondo le procedure imposte dalle principali Norme di settore.

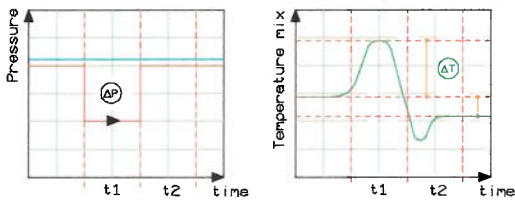
In funzione del tipo di prova e del componente da testare, il software Aq2TB guida l'utente nella scelta di tutti i parametri significativi che caratterizzano la prova stessa.

- Le tabelle allegate contengono una descrizione sintetica delle principali prove con:
- La rappresentazione grafica delle grandezze misurate.
- Lo schizzo esemplificativo dell'installazione del componente.
- I campi operativi delle versioni base e le prestazioni massime raggiungibili.
- Le principali Norme di riferimento.

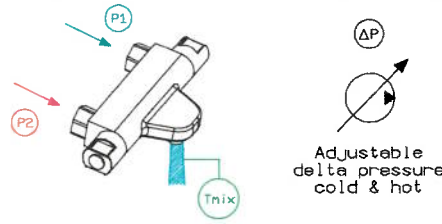
EXPLANATION OF TESTS **SPIEGAZIONE PROVE**



CODE: PJ01 PRESSURE JUMP TEST



ΔT Evaluations



P1: Cold water pressure
P2: Hot water pressure

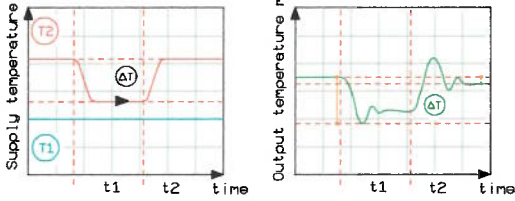
sw: AQ2TB-COMBILAB+
sw: AQ2TB-FLOW-STEP

TEST OF MIXED TEMPERATURE STABILITY WITH CHANGING INLET PRESSURE (HOT OR COLD)

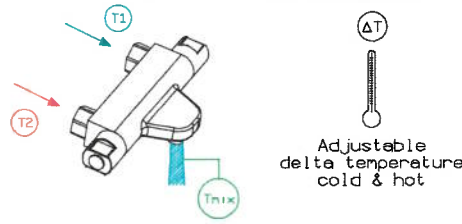
EVALUATION OF T_{mix} DURING THE PRESSURE VARIATION AND AFTER THE RESTORATION

EXAMPLE OF STANDARD REFERENCE:
EN 1111:2017 chap. 13.5.4
NF 077 doc.4 rev.19 chap. 2.6.7.3.4

CODE: TJ01 TEMPERATURE JUMP TEST



ΔT Evaluations



T1: Cold water temperature
T2: Hot water temperature

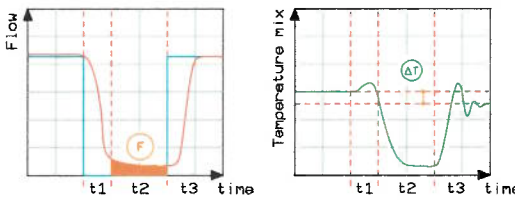
sw: AQ2TB-COMBILAB+

TEST OF MIXED TEMPERATURE STABILITY WITH CHANGING INLET TEMPERATURE (HOT OR COLD)

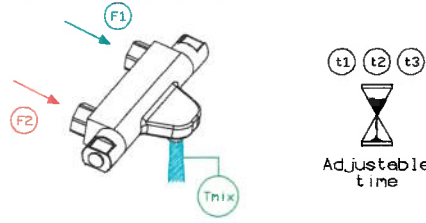
EVALUATION OF T_{mix} DURING THE PRESSURE VARIATION AND AFTER THE RESTORATION

EXAMPLE OF STANDARD REFERENCE:
EN 1111:2017 chap. 13.5.5
NF 077 doc.4 rev.19 chap. 2.6.7.3.5

CODE: ST01 SAFETY TEST



ΔT Evaluations



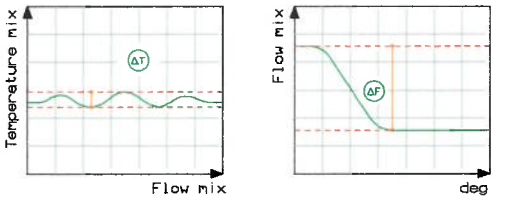
F1: Cold water flow
F2: Hot water flow

sw: AQ2TB-M-LAB-NF
sw: AQ2TB-M-LAB-EN
sw: AQ2TB-M-LAB-DO8
sw: AQ2TB-M-LAB-CSA

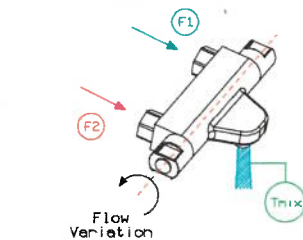
TEST OF SAFETY WITH COLD WATER FAILURE AND RESTORATION WITH EVALUATION OF HOT WATER COLLECTED DURING t2 AND T_{mix} AFTER COLD WATER RESTORATION

EXAMPLE OF STANDARD REFERENCE:
EN 1111:2017 chap. 13.5.3
NF 077 doc.4 rev.19 chap. 2.6.7.1.4
NHS DO8:2017 chap. 7.9
ASSE/CSA 1016-2017 chap. 4.7

CODE: FV01 FLOW RATE VARIATION TEST



ΔT Evaluations



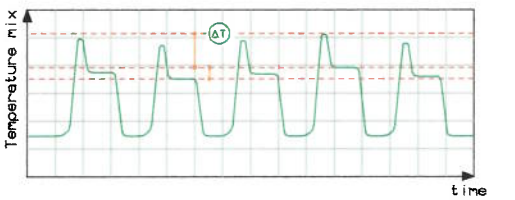
Flow Variation

sw: AQ2TB-DT/DQ
sw: AQ2TB-SLFM
sw: AQ2TB-COMBILAB+
sw: AQ2TB-COMBI-RM

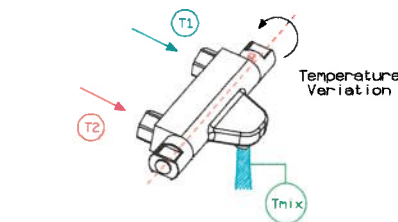
TEST OF MIXED TEMPERATURE STABILITY WITH FLOW RATE VARIATION

EXAMPLE OF STANDARD REFERENCE
EN 1111:2017 chap. 13.5.2
NF 077 doc.4 rev.19 chap. 2.6.7.5.5

CODE: TV01 TEMPERATURE VARIATION TEST



ΔT Evaluations



Temperature Variation

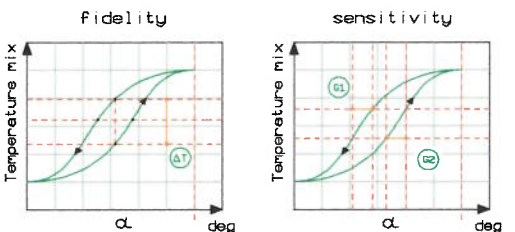
sw: AQ2TB-COMBILAB+
sw: AQ2TB-COMBI-RM

TEST OF TEMPERATURE OVERRIDE STOP WITH EVALUATION OF TEMPERATURE TRANSIENT AND FINAL TEMPERATURE

EXAMPLE OF STANDARD REFERENCE
EN 1111:2017 chap. 13.5.6
NF 077 doc.4 rev.19 chap. 2.6.7.1.3
NF 077 doc.4 rev.19 chap. 2.6.7.3.2

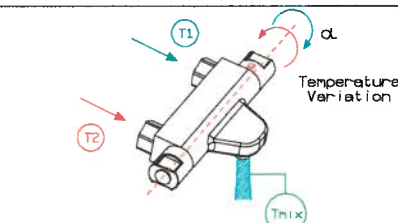
T1: Cold water temperature
T2: Hot water temperature

CODE: SF02 SENSITIVITY & FIDELITY TEST



ΔT Evaluations

G1 G2 Evaluations



Temperature Variation

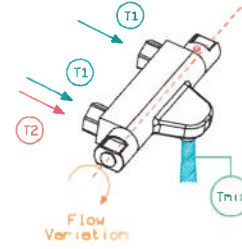
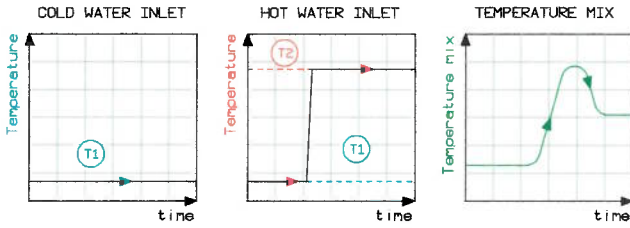
sw: AQ2TB-F+S-DRIVE

TEST OF MIXED TEMPERATURE HISTERESYS AND SENSITIVITY BY MOVING THE TEMPERATURE SETTING DEVICE FROM COLD TO HOT POSITION AND RETURNING TO INITIAL POSITION

EXAMPLE OF STANDARD REFERENCE
EN 1111:2017 chap. 13.3 - 13.4

T1: Cold water temperature
T2: Hot water temperature

CODE: INDR01 INITIAL DRAWING OFF TEST sw: AQ2TB-COMBI-RM

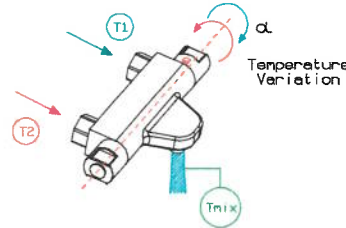
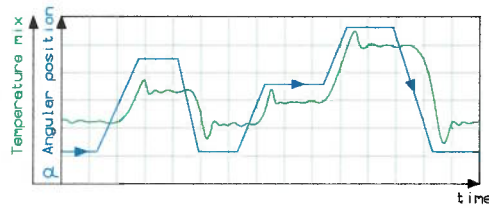


VALUATION OF TEMPERATURE PEAK AFTER THE FIRST DRAWING OFF

EXAMPLE OF STANDARD REFERENCE
 NF 077 doc.4 rev.19 chap. 2.6.7.3.6
 NF 077 doc.4 rev.19 chap. 2.6.7.6.6

T1: Cold water temperature
 T2: Hot water temperature

CODE: ASTD01 AUTOMATIC SETTING OF TEMPERATURE DEVICE sw: AQ2TB-ASTD

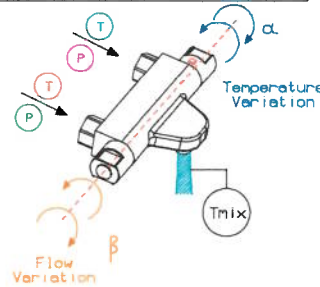
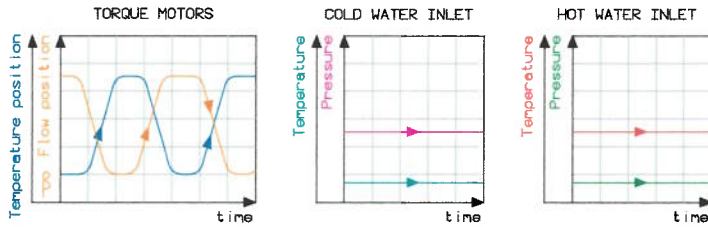


AUTOMATIC TEST FOR CHECKING PEAK TEMPERATURE EVALUATION OBSERVED FOR THE SETTING VARIATION OF THE MIXING DEVICE

EXAMPLE OF STANDARD REFERENCE
 EN 1111:2017 chap. 13.5.1

T1: Cold water temperature
 T2: Hot water temperature

CODE: ETM01-A THERMOSTATIC MIXER ENDURANCE TEST sw: AQ2TB-LTOC-CSA

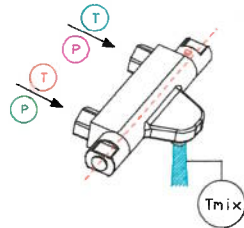
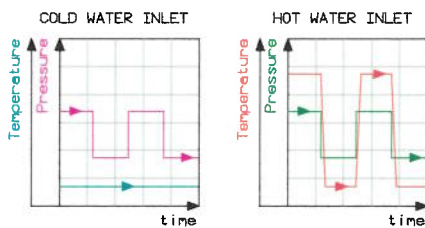


CONTROL AND ACQUISITION OF:

- ANGULAR SPEED
- TORQUE
- MIXED WATER TEMPERATURE
- SUPPLY WATER TEMPERATURE
- SUPPLY WATER TEMPERATURE

EXAMPLE OF STANDARD REFERENCE
 ASSE/ASME/CSA 1016:17 chap. 4.5.2

CODE: ETM01-B THERMOSTATIC MIXER ENDURANCE TEST sw: AQ2TB-LTIE-CSA

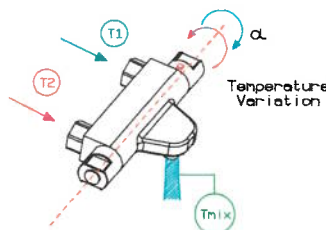
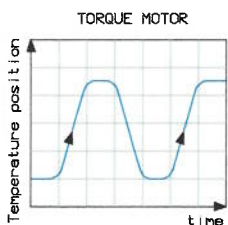


CONTROL AND ACQUISITION OF:

- ANGULAR SPEED
- TORQUE
- MIXED WATER TEMPERATURE
- SUPPLY WATER PRESSURE
- SUPPLY WATER TEMPERATURE

EXAMPLE OF STANDARD REFERENCE
 ASSE/ASME/CSA 1016:17 chap. 4.5.3

CODE: ETM02 THERMOSTATIC MIXER ENDURANCE TEST sw: AQ2TB-1LM-DRIVE

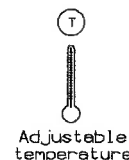
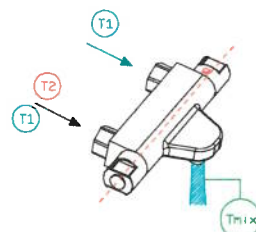
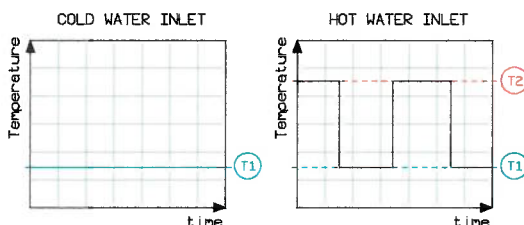


CONTROL AND ACQUISITION OF:

- ANGULAR SPEED
- TORQUE
- MIXED WATER TEMPERATURE

EXAMPLE OF STANDARD REFERENCE
 EN1111:2017 chap. 16.8.2
 NF 077 doc.4 rev.18 chap. 12.5

CODE: ETV01 TEMPERATURE LIMITING DEVICE ENDURANCE TEST sw: AQ2TB-1LM-H&C



CONTROL AND ACQUISITION OF:

- SUPPLY TEMPERATURES
- MIXED WATER TEMPERATURE
- CYCLE PARAMETERS

EXAMPLE OF STANDARD REFERENCE
 EN 1111:2017 chap. 16.8.3
 EN 15092 chap. 7.10

T1: Cold water temperature
 T2: Hot water temperature