ROHRTEST-4 v. 9.0

Tightness test system

for

Sewers, sewage pipes and pipe connections

acc. to EN 1610, SIA 190 / VSA

Separators, Collectors and Shafts

acc. to EN 1610, EN 858-1, EN 858-2, DIN 1999-100, DIN 4040-100, EN 12566-1, SIA 190 / VSA

Drinking water / waste water pressure pipes acc. to EN 805

MESSEN NORD GmbH
Tightness test systems/ Inspection cameras
Test vehicle equipment / Special software

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TÜVRheinland® CERT ISO 9001

0. Table of contents Side

1. Application of the test system

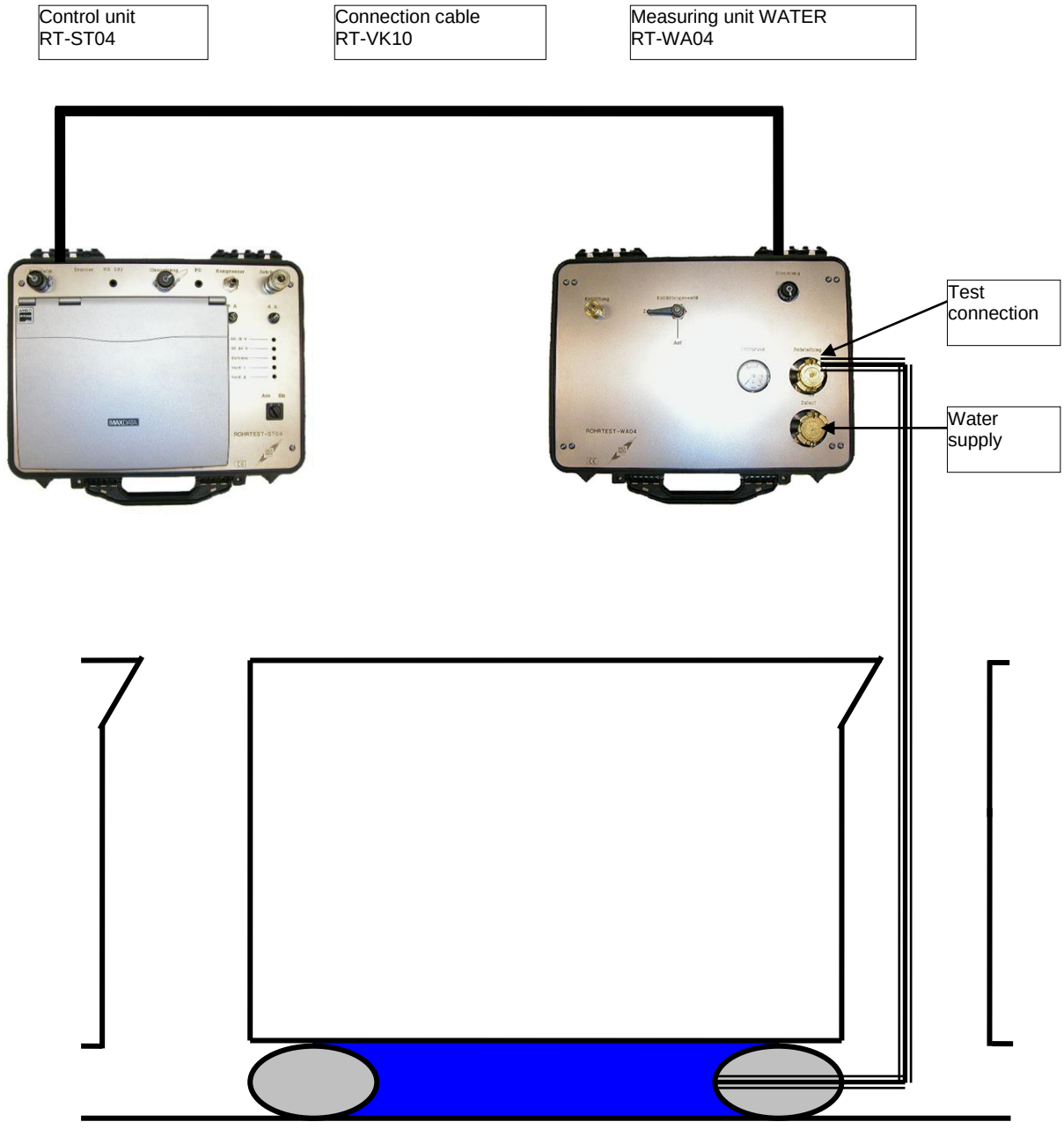
The test system ROHRTEST-4 allows the computer-aided, automated tightness test of sewage pipelines, muffs, shafts and separators after the test standards nationally binding for these installations. In the result of the test, standardized test reports are produced which document the test course and the test result.

You find a complete list of the test-specific system-components under 2. *System-components / delivery capacity:*

System-components	**Test procedures**
Control unit, integrated AIR/VACUUM (RT-ST04) 	This unit is required for all Test procedures, contains measuring-equipment for AIR / VACUUM tests, supplie unit, data-transformers and test controller for all measuring-facilities Tests acc. to EN 1610 (L) i.e.
External measuring equipment AIR (RT-EXTL) 	External Filling and measuring unit for testing high pipe dimensions, application directly at the pipe fastener, makes filling procedure fast and save Tests acc. to EN 1610 (L) i.e.
Measuring-equipment SHAFT (RT-SP04) 	Shaft and separator-tests acc. to EN 1610, ATV/DWA M 143/6, EN 858-1, EN 858-2, DIN 1999-100, DIN 4040-100 i.e.
Measuring-equipment WATER (RT-WA04) 	Allows water loss tests by automatic supplying and measuring the lost water. Unit can keep up a given pressure or a level in connection with external sensors. Tests acc. to EN 1610 (W) i.e.
External water pressure sensor (RT-EXTW) 	Allows in connection with RT-WA04 the water loss test by keep up the water start level. Apllication of the pressure sensor directly at the pipe fastener. Tests acc. to EN 1610 (W) i.e.
External water pressure sensor (nozzle model) (RT-EXTWR) 	Allows in connection with RT-WA04 the water loss test by keep up the water start level. Apllication of the pressure sensor at the drain outlet. Tests acc. to EN 1610 (W) i.e.
Measuring-equipment HIGH PRESSURE (RT-HD04) 	Tests of DIN EN 805 as well as. the former Norm DIN 4279 (water, high pressure)
Air-distribution-unit (RT-LV04) 	Muffs and stand-tests with compressed air after ATV/DWA M 143/6, DIN EN 1610, Control of the tests and blister-pressure for Max. 4 Fasteners as well as a Junction test fastener
Junction test fastener (RT-MU04)   	Manually driven reel with connection-management 100 m to the Junction test fasteners over only one hose-management with interior-lying main lead for measuring-sensor, air-control and observation-camera Optional fade-in of the Test parameter into the video-picture

1.1. Water pressure-test / low-pressure

Configuration A: Water pressure test at the closed system (fastened pipe)

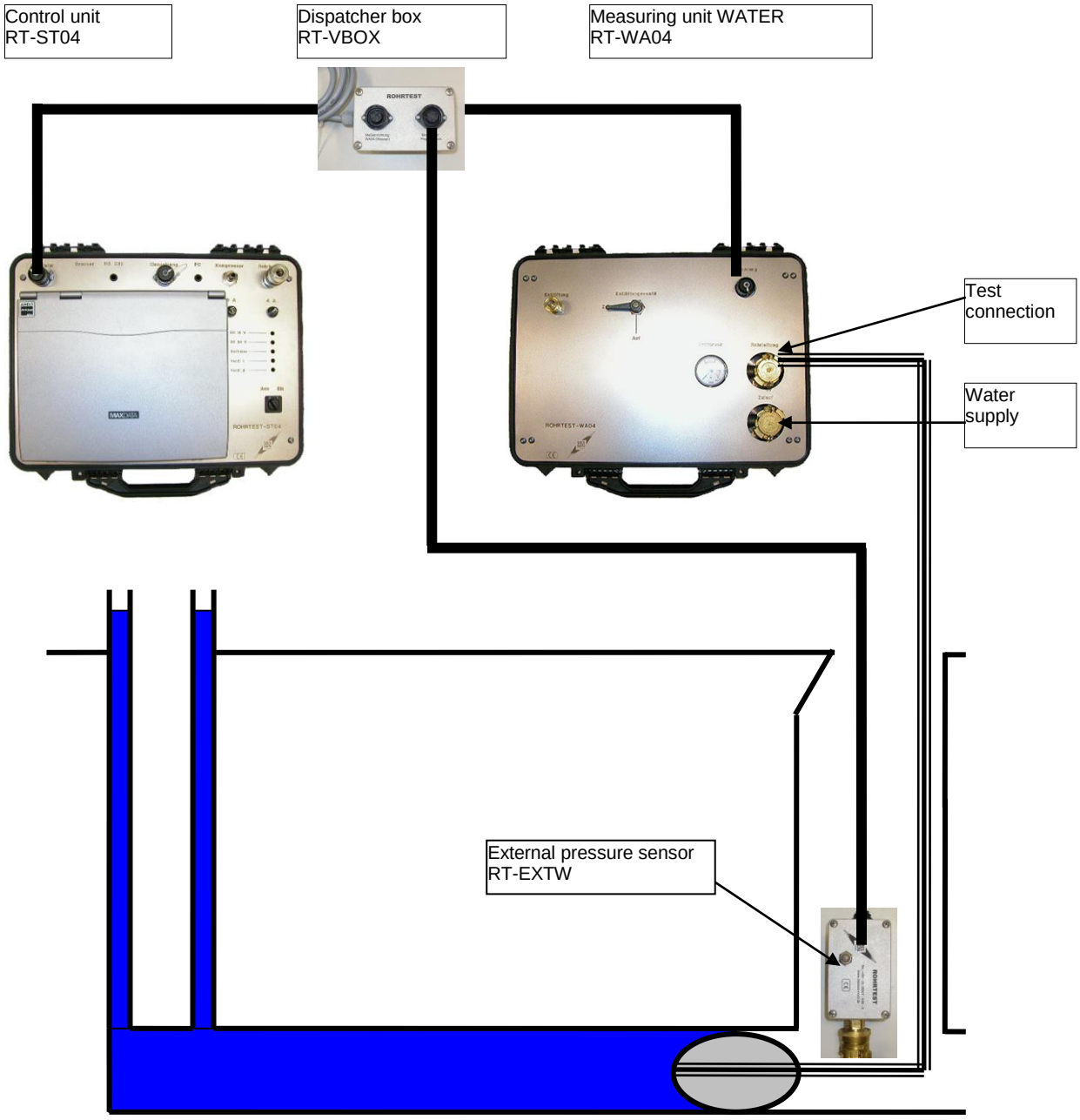


Standards:

EN 1610 „W“
DIN 1986 Teil 30
DWA M 143 Teil 6
SIA 190 / VSA
ÖNORM B2503
Special test procedure „W“

Water pressure-test / low-pressure

Configuration B: Water pressure test at the open system (open water column)



Standards:

EN 1610 „W“
DIN 1986 Teil 30
DWA M 143 Teil 6
SIA 190 / VSA
ÖNORM B2503
Special test procedure „W“

1.2. Water pressure-test / high pressure

Control unit
RT-ST04

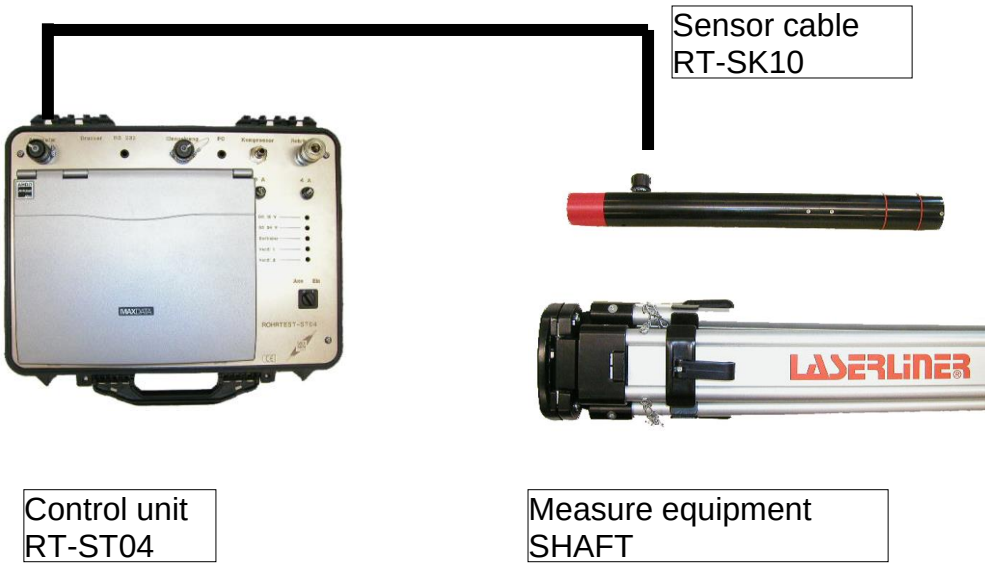
Measure equipment HIGH
PRESSURE RT-HD04

High pressure pump

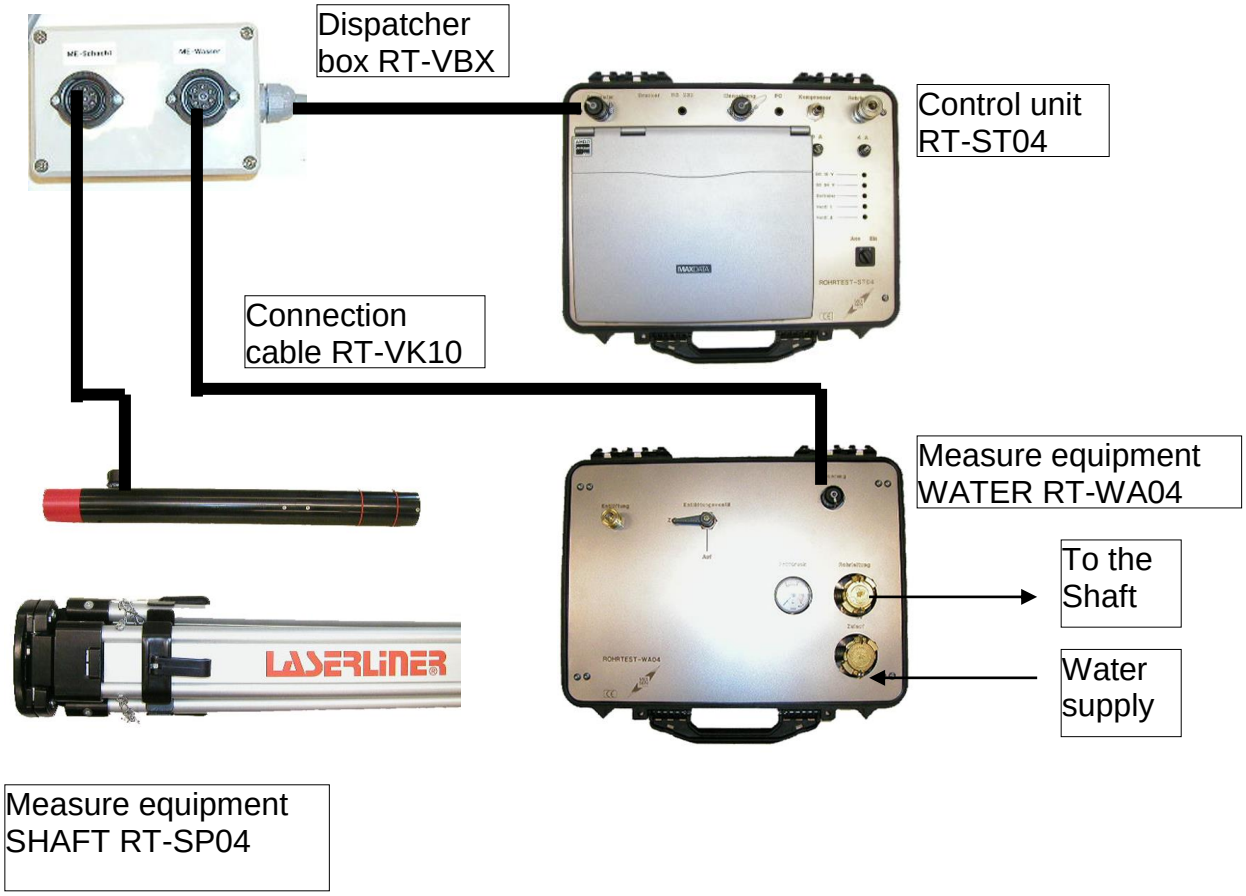
Test standards: EN 805
DIN 4279 (become obsolete)
Special test procedure "H"

1.3. Shaft and separator-test in the free-mirror-procedure

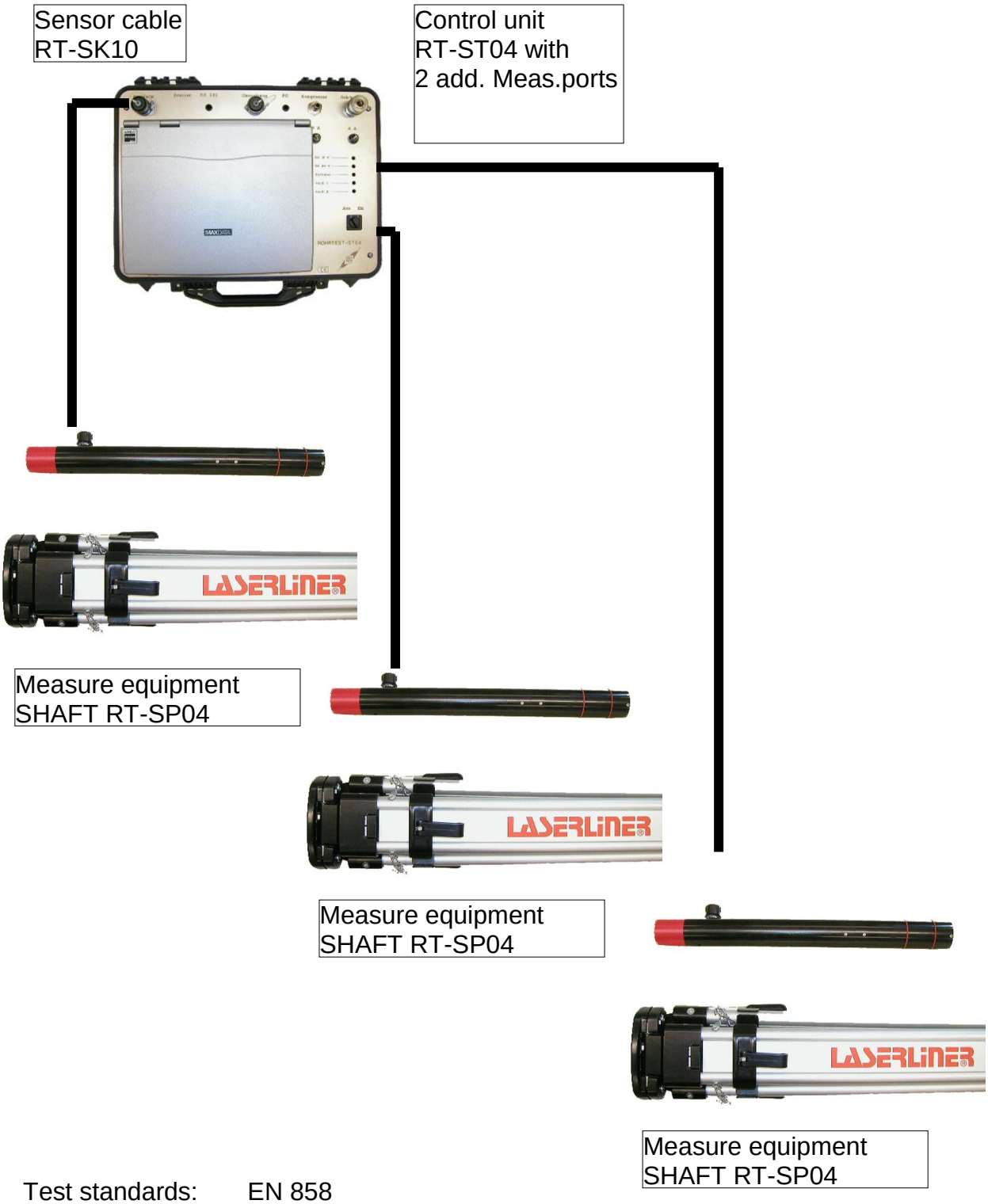
Configuration A: Shaft - / separator-test of automatic water-addition



Configuration B: Separator-test with automatic water-addition

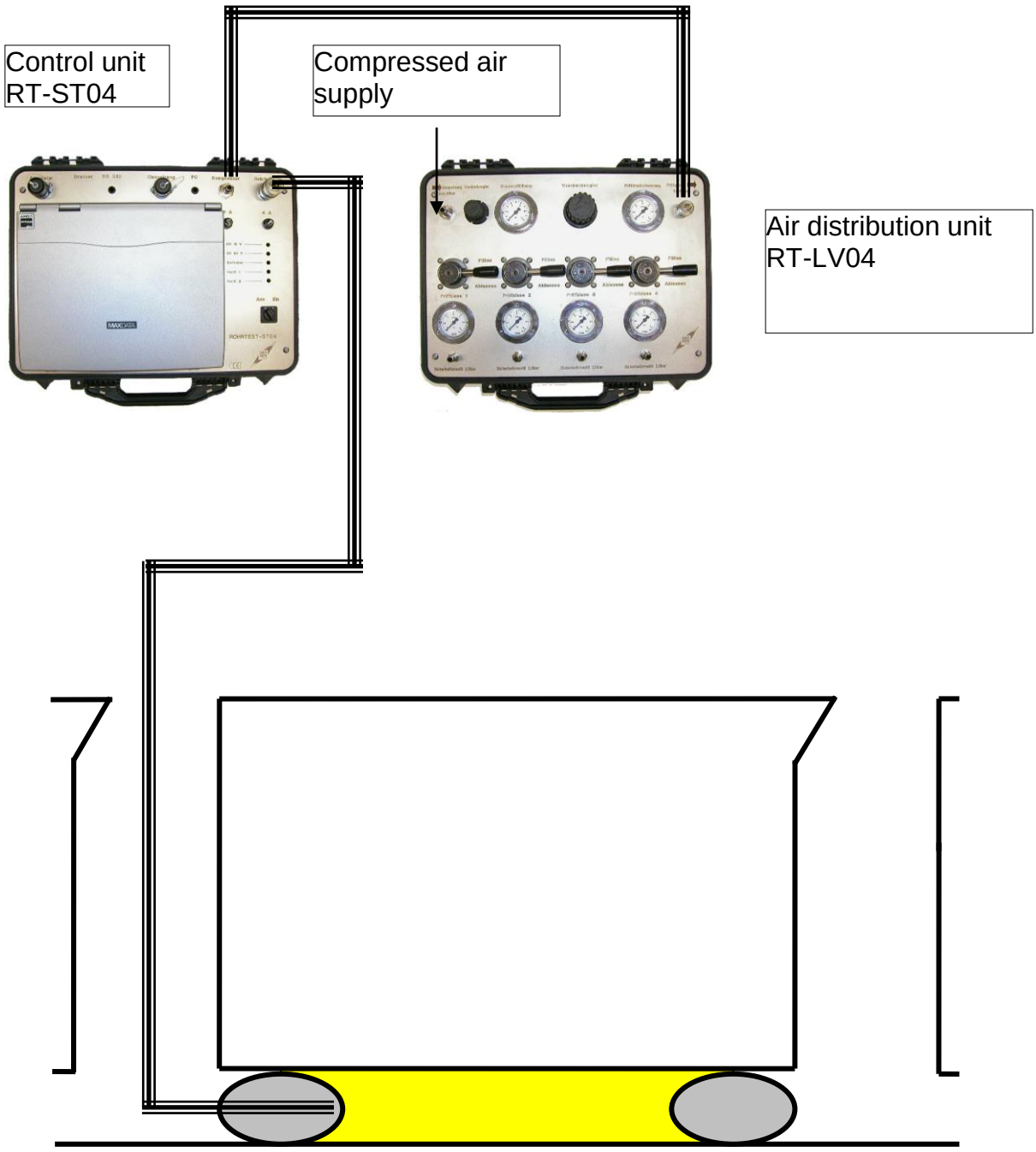


Configuration C: Separator-test with several level-probes



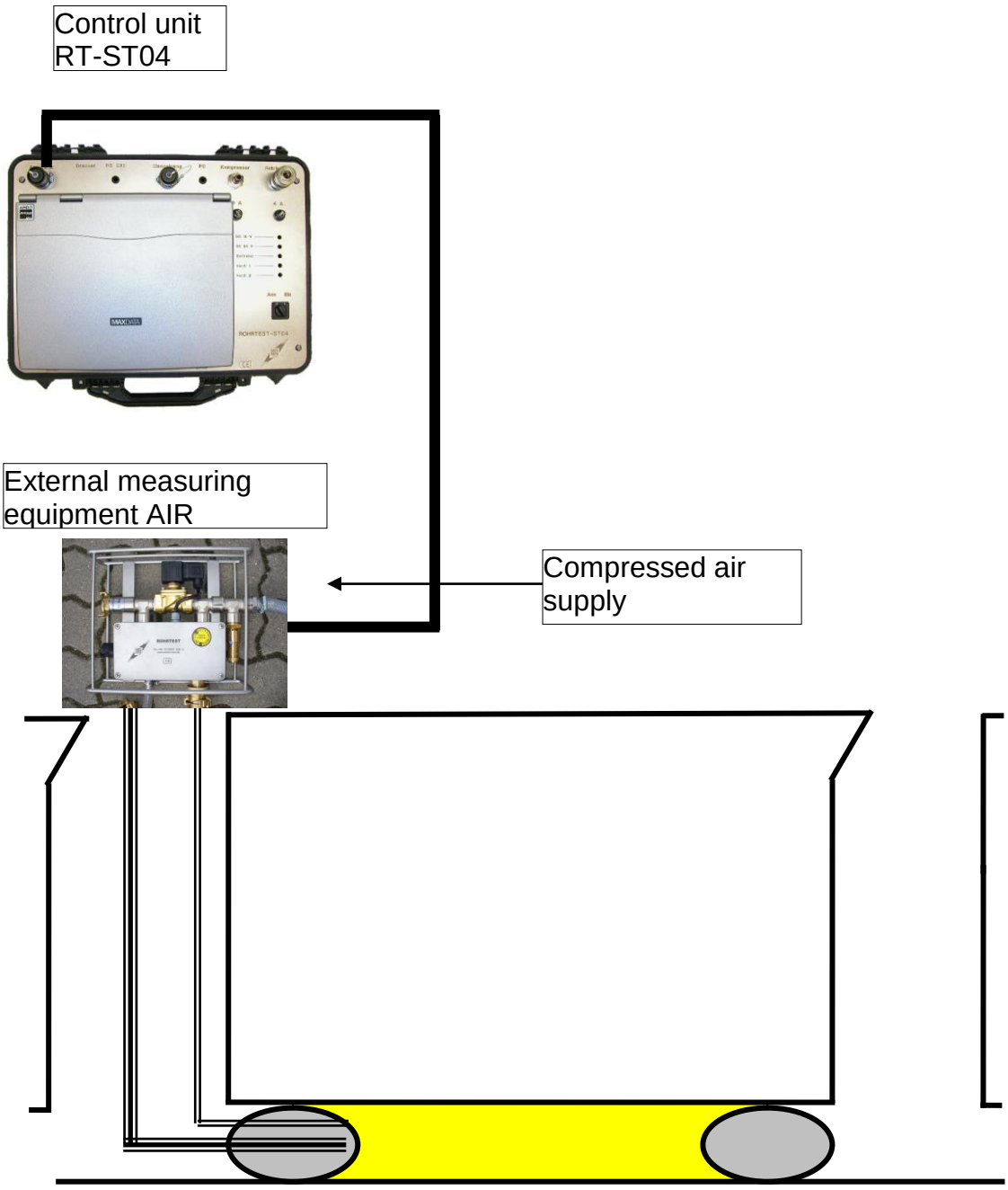
Test standards: EN 858
DIN 1999-100
DIN 4040-100
EN 1610 "W"
Special test procedure „W“

1.4. Pipe test with compressed air / measuring equipment AIR/VAKUUM



Test standards:
EN 1610, Verfahren „L“
DWA M 139
DIN 1986/30, DWA M 143/6
ÖNORM B2503
SIA 190 / VSA
Special test procedure „L“

1.5. Pipe test with compressed air / external measuring equipment AIR



Test standards:
EN 1610, Verfahren „L“
DWA M 139
DIN 1986/30, DWA M 143/6
ÖNORM B2503
SIA 190 / VSA
Special test procedure „L“

1.6. Compressed air tightness test for pipe junctions

Control unit
RT-ST04

Compressed air supply

RT-LV04
Compressed air control unit

Junction test reel
RT-MU04,
house length 100 m,
cable, meter counter and videotextgenerator integrated

Video Data Box
RT-DBOX

Junction test fasteners with integratred camera

Test standards:
ATV/DWA M 139
ATV/DWA M 143-6
EN 1610
ÖNORM B2503
SIA 190 / VSA
Special test procedure „L“

1.7. Water tightness test for pipe junctions

Control unit
RT-ST04

Compressed air supply

RT-LV04
Compressed air control unit

Video Data Box
RT-DBOX

Junction test reel
RT-MU04,
house length 100 m,
cable, meter counter and videotextgenerator integrated

Junction test fasteners with integrated camera

Test standards:
ATV/DWA M 139
ATV/DWA M 143-6
EN 1610
ÖNORM B2503
SIA 190 / VSA
Special test procedure „W“