

# **XBeach skillbed report**

**summary report**

Revision: 5487

July 10, 2018

## **XBeach skillbed report**

Published and printed by:

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# Chapter 1

## Introduction

The XBeach code and related functionalities develop fast. As a result there is a need from modelers and code developers to develop a tool that gives insight in the effect of code developments on model performance. The XBeach skillbed tries to fulfill this need by running a range of tests including analytical solutions, laboratory tests and practical field cases every week with the latest code. This report contains a summary of the latest changes and tests. For a full description of the performed tests is referred to the status update reports.



## Chapter 2

# Release information

### 2.1 Release notes

We have been working on a lot of cool stuff that still needs to be described in more detail:

- hard structures
- multiple sediment fractions
- bed load and suspended load
- output options
- wave schemes
- non-hydrostatic model
- wave shap parameterization
- drifters
- river outflow
- boundary condition stuff
- ...

### 2.2 Change log





## Chapter 3

# Overview

In the table below the statuses of all tests found in the skillbed are summarized. In case a test is ignored or has failed, the corresponding message is given in the column “Message”. Please note that success or failure of the test runs are given in column “Run status”, while the success or failure of the Matlab analyses are given in column “Matlab status”. The last columns provide an overview of the main characteristics of each test.

Tests can be run multiple times using different settings. Different runs are identified by a run name, which follows after the test name and a dot sign. If a test is run once only, it is common use to name the run *default*.

Table 3.1: Status overview skillbed tests

| Test              | Run       | Status | Matlab | Default settings | Configuration | Waves* | Water levels** | Fractions | Morphology | Hard layers | Groundwater flow |
|-------------------|-----------|--------|--------|------------------|---------------|--------|----------------|-----------|------------|-------------|------------------|
| 1953_storm_surge  | default   | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| 1976_storm_surge  | raai3400  | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| 1976_storm_surge  | raai568   | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| 1976_storm_surge  | raai6050  | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Assateague_Island | profA     | ✓      | ✓      |                  | 1D            | ST     | C              | 1         | ✓          |             |                  |
| Assateague_Island | profB1    | ✓      | ✓      |                  | 1D            | ST     | C              | 1         | ✓          |             |                  |
| Assateague_Island | profB2    | ✓      | ✓      |                  | 1D            | ST     | C              | 1         | ✓          |             |                  |
| Assateague_Island | profC     | ✓      | ✓      |                  | 1D            | ST     | C              | 1         | ✓          |             |                  |
| Bardex            | E10       | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Boers_1C          | default   | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Boers_1C          | nonh      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| CarrierGreenspan  | default   | ✓      | ✓      |                  | 1D            | ST     | C              | 1         |            |             |                  |
| Chesil            | default   | ✓      | ✓      |                  | 1D            | ST     | C              | 1         |            |             |                  |
| Curvi_Island      | default   | ✓      | ✓      |                  | 2D            | WG     | C              | 1         |            |             |                  |
| DUROS             | refere... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS             | transe... | ✗      | ✗      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS             | transe... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS             | transe... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |

Table 3.1: Status overview skillbed tests

| Test                 | Run       | Status | Matlab | Default settings | Configuration | Waves* | Water levels** | Fractions | Morphology | Hard layers | Groundwater flow |
|----------------------|-----------|--------|--------|------------------|---------------|--------|----------------|-----------|------------|-------------|------------------|
| DUROS                | transe... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS                | transe... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS                | transe... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS                | transe... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS                | transe... | ✗      | ✗      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS                | transe... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS                | transe... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS                | transe... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS                | transe... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS                | transe... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS                | transe... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS                | transe... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS                | transe... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS                | transe... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS                | transe... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS                | transe... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS                | transe... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS                | transe... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS                | transe... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DUROS                | transe... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DamBreak             | 1D_dry... | ✓      | ✗      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| DamBreak             | 1D_dry... | ✓      | ✗      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| DamBreak             | 1D_wet... | ✓      | ✗      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| DamBreak             | 1D_wet... | ✓      | ✗      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| DamBreak             | 2D_dry... | ✓      | ✗      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| DamBreak             | 2D_dry... | ✓      | ✗      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| DamBreak             | 2D_wet... | ✓      | ✗      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| DamBreak             | 2D_wet... | ✓      | ✗      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Delilah_199010131000 | default   | ✓      | ✓      |                  | 2D            | WG     | C              | 1         |            |             |                  |
| Deltaflume2006       | DP01      | ✓      | ✓      |                  | 1D            | WG     | C              | 2         | ✓          |             |                  |
| Deltaflume2006       | DP02      | ✓      | ✓      |                  | 1D            | WG     | C              | 2         | ✓          |             |                  |
| Deltaflume2006       | T01       | ✓      | ✓      |                  | 1D            | WG     | C              | 2         | ✓          |             |                  |
| Deltaflume2006       | T01_zebra | ✓      | ✓      |                  | 1D            | WG     | C              | 2         | ✓          |             |                  |
| Deltaflume2006       | T02       | ✓      | ✓      |                  | 1D            | WG     | C              | 2         | ✓          |             |                  |
| Deltaflume2006       | T03       | ✓      | ✓      |                  | 1D            | WG     | C              | 2         | ✓          |             |                  |
| Deltaflume2006       | T04       | ✓      | ✓      |                  | 1D            | WG     | C              | 2         | ✓          |             |                  |
| DeltaflumeH298       | T1        | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          | ✓           |                  |
| DeltaflumeH298       | T2        | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          | ✓           |                  |
| DeltaflumeH298       | T3        | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          | ✓           |                  |
| DeltaflumeLIP11D     | 1B        | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| DeltaflumeLIP11D     | 1C        | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |

Table 3.1: Status overview skillbed tests

| Test                 | Run     | Status | Matlab | Default settings | Configuration | Waves* | Water levels** | Fractions | Morphology | Hard layers | Groundwater flow |
|----------------------|---------|--------|--------|------------------|---------------|--------|----------------|-----------|------------|-------------|------------------|
| DeltaflumeLIP11D     | 2E      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Deltaflume_H4731     | T11     | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          | ✓           |                  |
| Deltaflume_H4731     | T12     | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          | ✓           |                  |
| Deltaflume_H4731     | T14     | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          | ✓           |                  |
| Deltaflume_M1263_III | Test-1  | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Deltaflume_M1263_III | Test-2  | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Deltaflume_M1263_III | Test-3  | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Deltaflume_M1263_III | Test-4  | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Deltaflume_M1263_III | Test-5  | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Deltaflume_M1797     | T01     | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Deltaflume_M1797     | T02     | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Drifters             | default | ✓      | ✓      |                  | 2D            | ?      | C              | 1         |            |             |                  |
| GWK86                | T01     | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| GWK86                | T02     | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| GWK86                | T03     | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| GWK86                | T04     | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| GWK86                | T05     | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| GWK86                | T06     | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| GWK98                | A9      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| GWK98                | B2      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| GWK98                | C2      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| GWK98                | F1      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| GWK98                | H2      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Netcdf               | default | ✓      | ✓      |                  | 1D            | ST     | C              | 1         |            |             |                  |
| Ningaloo_reef        | default | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| River_Outflow        | default | ✓      | ✓      |                  | 2D            | ST     | C              | 1         | ✓          |             |                  |
| Scheldtflume_H4265   | T01     | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Scheldtflume_H4265   | T02     | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Scheldtflume_H4265   | T02a    | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Scheldtflume_H4265   | T03     | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Scheldtflume_H4265   | T11     | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Scheldtflume_H4265   | T12     | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Scheldtflume_H4265   | T13     | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T01     | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T02     | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T03     | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T04     | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T05     | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T06     | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T07     | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T08     | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T09     | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |

Table 3.1: Status overview skillbed tests

| Test                 | Run       | Status | Matlab | Default settings | Configuration | Waves* | Water levels** | Fractions | Morphology | Hard layers | Groundwater flow |
|----------------------|-----------|--------|--------|------------------|---------------|--------|----------------|-----------|------------|-------------|------------------|
| Scheldtflume_M1819_I | T10       | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T11       | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T12       | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T13       | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T14       | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T21       | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T22       | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T23       | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T24       | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T25       | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T26       | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T27       | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T28       | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M1819_I | T29       | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          |             |                  |
| Scheldtflume_M18...  | T01       | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          | ✓           |                  |
| Scheldtflume_M18...  | T02       | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          | ✓           |                  |
| Scheldtflume_M18...  | T03       | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          | ✓           |                  |
| Scheldtflume_M18...  | T04       | ✓      | ✓      |                  | 1D            | WG     | V              | 1         | ✓          | ✓           |                  |
| Slapton              | default   | ✓      | ✓      |                  | 1D            | ST     | C              | 1         |            |             |                  |
| VanNoorloos          | A1        | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| VanNoorloos          | A4        | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| VanNoorloos          | B4        | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation           | r40039... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation           | r40039... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation           | r40039... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation           | r40039... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation           | r40039... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation           | r40057... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation           | r40057... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation           | r40057... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation           | r40057... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation           | r40057... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation           | r40058... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation           | r40058... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation           | r40058... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation           | r40058... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation           | r40058... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation           | r40065... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation           | r40065... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation           | r40065... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation           | r40065... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation           | r40065... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |

Table 3.1: Status overview skillbed tests

| Test              | Run       | Status | Matlab | Default settings | Configuration | Waves* | Water levels** | Fractions | Morphology | Hard layers | Groundwater flow |
|-------------------|-----------|--------|--------|------------------|---------------|--------|----------------|-----------|------------|-------------|------------------|
| Vegetation        | r40085... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation        | r40085... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation        | r40085... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation        | r40085... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation        | r40085... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation        | r40091... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation        | r40091... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation        | r40091... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation        | r40091... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation        | r40091... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation        | r40098... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation        | r40098... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation        | r40098... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation        | r40098... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Vegetation        | r40098... | ✓      | ✓      |                  | 1D            | WG     | C              | 1         |            |             |                  |
| Windflume_M1263_I | AT33      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | AT47      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | AT61      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | AT71      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | AT91      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | AT95      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | BT13      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | BT15      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | BT17      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | BT23      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | BT25      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | BT27      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | BT45      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | BT62      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | BT72      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | BT92      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | BT96      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | CT14      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | CT16      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | CT18      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | CT24      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | CT26      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | CT28      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | CT46      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | CT63      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | CT73      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263_I | CT93      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |

Table 3.1: Status overview skillbed tests

| Test                | Run       | Status | Matlab | Default settings | Configuration | Waves* | Water levels** | Fractions | Morphology | Hard layers | Groundwater flow |
|---------------------|-----------|--------|--------|------------------|---------------|--------|----------------|-----------|------------|-------------|------------------|
| Windflume_M1263.I   | CT97      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263.I   | DT34      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263.I   | DT48      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263.I   | DT64      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263.I   | DT74      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263.I   | DT94      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263.I   | DT98      | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263.II  | 101       | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263.II  | 105       | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263.II  | 111       | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263.II  | 115       | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263.II  | 121       | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263.II  | 122       | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263.II  | 123       | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263.II  | 124       | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263.II  | 125       | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263.II  | 126       | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263.II  | 127       | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Windflume_M1263.II  | 128       | ✓      | ✓      |                  | 1D            | WG     | C              | 1         | ✓          |             |                  |
| Zelt_Case1          | default   | ✓      | ✓      |                  | 2D            | WG     | C              | 1         |            |             |                  |
| Zwin_T01            | default   | ✓      | ✓      |                  | 2D            | ST     | V              | 1         | ✓          |             |                  |
| long_wave_propag... | default   | ✓      | ✓      |                  | 1D            | ST     | C              | 1         |            |             |                  |
| longcrested_refr... | 1bin.a... | ✓      | ✓      |                  | 2D            | WG     | C              | 1         |            |             |                  |
| longcrested_refr... | 1bin.a... | ✓      | ✓      |                  | 2D            | WG     | C              | 1         |            |             |                  |
| longcrested_refr... | 1bin.a... | ✓      | ✓      |                  | 2D            | WG     | C              | 1         |            |             |                  |
| longcrested_refr... | 3bin.a... | ✓      | ✓      |                  | 2D            | WG     | C              | 1         |            |             |                  |
| longcrested_refr... | 3bin.a... | ✓      | ✓      |                  | 2D            | WG     | C              | 1         |            |             |                  |
| longcrested_refr... | 3bin.a... | ✓      | ✓      |                  | 2D            | WG     | C              | 1         |            |             |                  |
| longcrested_refr... | 5bin.a... | ✓      | ✓      |                  | 2D            | WG     | C              | 1         |            |             |                  |
| longcrested_refr... | 5bin.a... | ✓      | ✓      |                  | 2D            | WG     | C              | 1         |            |             |                  |
| longcrested_refr... | 5bin.a... | ✓      | ✓      |                  | 2D            | WG     | C              | 1         |            |             |                  |
| longcrested_refr... | 10deg     | ✓      | ✓      |                  | 1D            | ST     | C              | 1         |            |             |                  |
| longcrested_refr... | 2p5deg    | ✓      | ✓      |                  | 1D            | ST     | C              | 1         |            |             |                  |
| longcrested_refr... | 5deg      | ✓      | ✓      |                  | 1D            | ST     | C              | 1         |            |             |                  |
| longcrested_refr... | snellius  | ✓      | ✓      |                  | 1D            | ST     | C              | 1         |            |             |                  |
| tideonly            | blanke... | ✓      | ✓      |                  | 2D            | ST     | V              | 1         |            |             |                  |
| tideonly            | default   | ✓      | ✓      |                  | 2D            | ST     | V              | 1         |            |             |                  |

\* ST = stationary, WG = wave groups, NH = non-hydrostatic

\*\* C = constant, V = varying