Serial Broken Filament Detector
BFD–SI
PC Software
Operating Instructions

Contents   Page

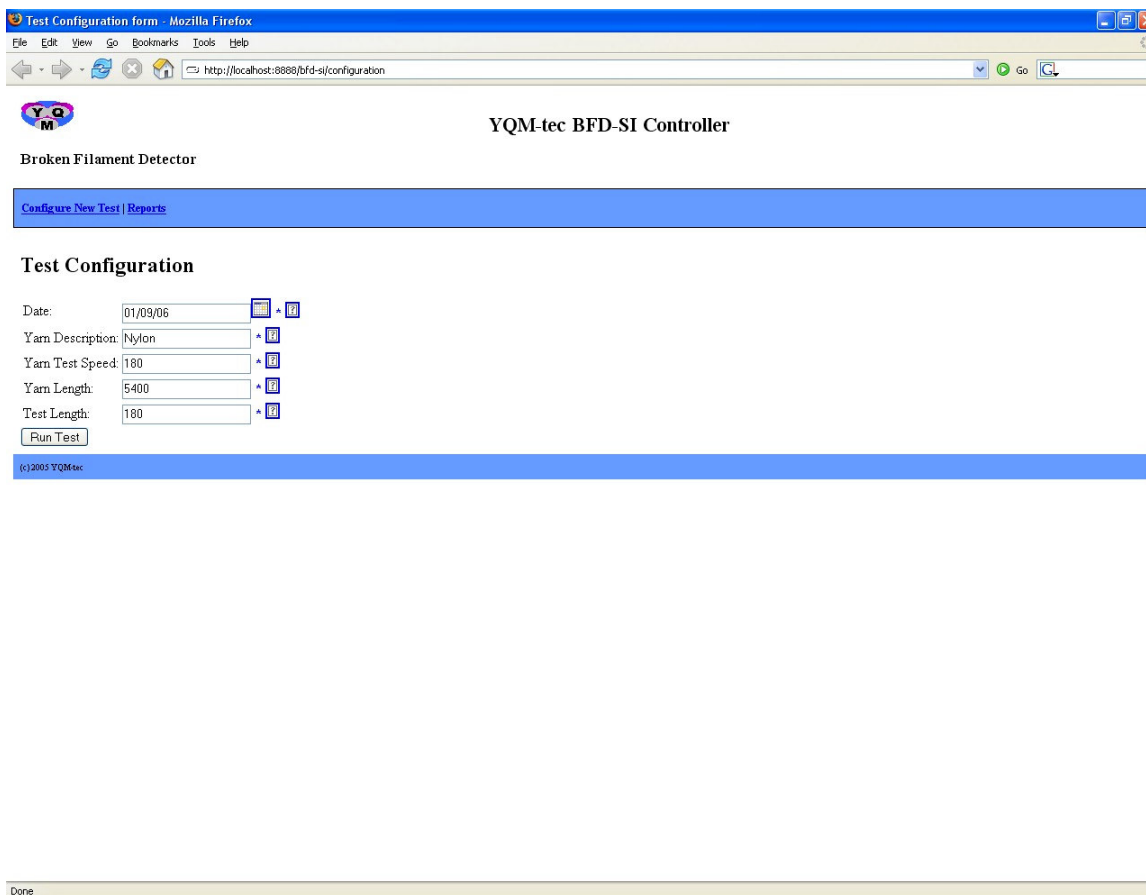# Data Recording Software

Introduction

Installation of the software will place a Shortcut on the Desktop and a Program Group in the Start / Programs called BFD-SI. The program can be launched from either place, double click on the desktop shortcut or navigate to the Program Group and click BFD-SI.

When the program starts it will open a DOS box which should remain open whilst using the Software and should only be closed when finished.
It can however be left open if you prefer and to re-open the program simply launch your web browser and go to the address http://localhost:8888/bfd-si/configuration, which you could also set as a 'Bookmark' in the browser for ease of accessing the program.

After a short delay a web browser will open, this will be the default browser of the PC.
The opening page is the section where the test data is entered.

Test Data Entry

Date:
Yarn Description:
Yarn Test Speed:
Yarn Length:
Test Length:

All fields are required.

Date is self-explanatory
Yarn Description is used for identifying the yarn tested.
Yarn Test Speed is in Metres per Minute and is required for calculating the number of data readings that will be performed during the test.
Yarn Length is in Metres and is the total yarn length you wish to test
Test Length is in Metres and defines the number of data readings taken for the test.

Limitations of Use:

There are limits at which the communication between the PC and the BFD-SI can work successfully. The software has been set to allow a maximum number of data readings per test and if the test data entered takes this above the maximum allowable readings over the test a message will appear where it will provide the minimum test length for the data entered.

The reason there is a limitation is that if there is a large number of filaments being counted and a large number of data readings the BFD-SI will return and Error message to the PC because it has been unable to reply because it is busy counting filaments.

If a test returns a large number of Error Readings please adjust the 'Test Length' to a larger value to reduce the demands on the BFD-SI Controller communication requirements with the PC.

Once the test data has been entered click the 'Run Test' button

Test In Progress

Once the test has been started a new page will appear where the test results will appear.
The BFD-SI is performing the test in real time where as the software is updating the displayed data periodically over the total test.

Information about the test is displayed

Test Number: 40
Total Count: 63
Last Count: 5
Total Errors: 0
Length Tested: 4,000
Remaining Tests: 10

Test Number automatically increases as the number of tests is updated.
Total Count displays the total number of broken filaments detected at that stage of the test
Last Count is the number of broken filaments detected on the last count received from the BFD-SI
Total Errors displays the number of data read errors for the test. An error does not mean that the test is invalid, what it means is that the BFD-SI failed to reply with a broken filament count when requested. This will be because it was busy counting filaments when the request was received and filaments take priority over comms commands. There is no loss of broken filament count and the number will be included in the next count data received. If the errors become a significant number over the total test you will need to increase the test length and re-run the test.
Length Tested is the total length of yarn that has been tested at this stage of the test and will increase automatically as the data is updated
Remaining Tests is the number of data readings left for the test and will decrease automatically as the data is updated.

There is the facility to pause a test by clicking the 'Pause' button. After clicking this button you are give the option to Abort the test of Continue. If it is a yarn break that can be fixed the test can continue, obviously a more severe problem may require the test to be aborted.

The other button on this page is a 'Refresh', which can be used, refresh the page to remove any cached data that is present on the screen. Depending upon how your browser uses cache may result in a graph of the previous test to be displayed, until the data is automatically updated for the first time.

After the test has completed you will be taken to a page where the test can be saved.

Save Test

When the test is finished you are taken to a page where the data can be saved. To save the test data enter a filename for the test and click save; alternatively if the test is not required click abort test.

The last part of the software is the viewing of saved tests. Use the link named 'Reports' to go to the list of saved files. These are ordered by date, where the top file is the most recent one saved according to the test date.

To view a file click the file name and this will display the data and a graph.
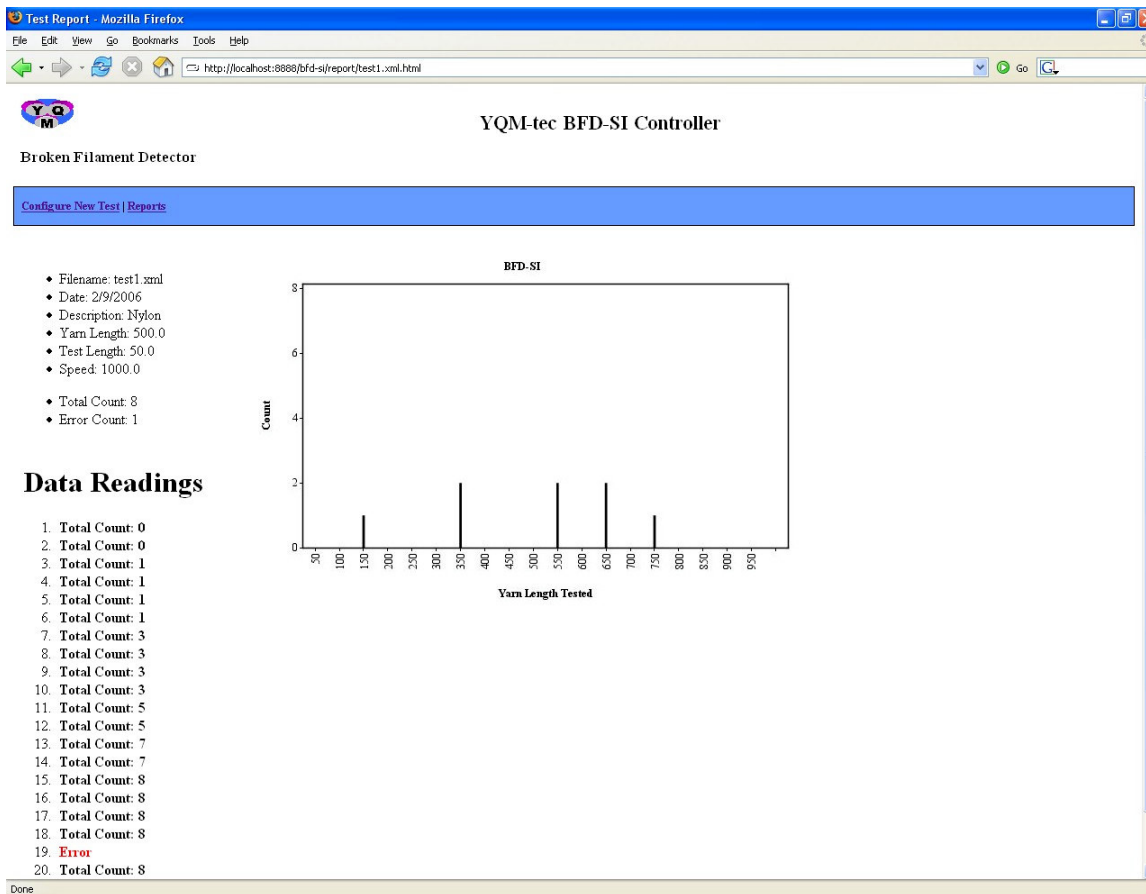
The reports page lists 25 test files per page use the links after the last file in the list to be shown the next 25 files. After selecting a file to view you wish to go back to the first page of the reports list simply click the 'Reports' link at the top but if you want to go back to the last list you viewed then use the browser back button.

Deleting Stored Test Data

All test files are stored in a single location at C:\BFD-SI\webapp\bfd-si\data.
To delete files navigate to this location, select the files no longer required and
delete.

PC Comm Port

The default setting for the BFD-SI Data Recording Software is Comm Port 1.
If you can not use Comm 1 then run the Comm Port Utility from the CD to change
the to Comm Port 2
As most new computers do not have a standard 9 Pin D Type RS232 comms
ports the BFD-SI is supplied with a USB/RS232 Converter, complete with drivers.
The default install COM port for this device is normally COM5; this will need to be
changed in the device manager section of the operating system of the computer.
Instructions on how to change the COM port number are provided with the
converter.

BFD-SI Hardware Test Program

The BFD-SI is supplied with a Test Program to verify the Hardware is working.
This program is an old VB tool and can be installed from the software CD.

This program is a simple way of testing the BFD-SI Unit and that it is functioning.
With this tool the BFD-SI can be tested to verify communication via the PC
Comms Port and also provides a test command to verify the sensor sensitivity.
By clicking the 'Cal Check' button the BFD-SI receives a command to perform a
function that tests the sensor for sensitivity. A pass of the Cal Check will return
'CALOKY' in the received data string; failure will return 'CALBAD'. If the sensor
fails the Cal Check please refer to the BFD-SI manual for details on possible
causes and how to correct.

When the program is installed a Program Group is created called BFD-SI Serial.
To start the program, navigate to the program group and click BFD-SI Serial
within the group.

The default comms port is set to 2 so if you are using comm port 1 you can
change it by clicking on the number 2 in the comm port box.