Sprinkler Fire Pump - Course 2025

This course is split into three modules which are spread out from June 2025 to the first week in September 2025

We firmly believe that learning should be an enjoyable and engaging experience. Our courses are built on practical, real-world experience and are designed to make a strong visual impact. It is important to us that each delegate leaves the course with both a thorough understanding and full practical ability in the subject matter.

Fire pump sizing and the fundamental principles of pumping remain poorly understood across much of the industry. Sprinkler installers are often well-versed in calculating fixed fire protection requirements but may lack the knowledge to properly specify and order pumps. Conversely, pump suppliers may understand how to size a pump, but not how to calculate the requirements of a sprinkler system. This disconnect creates a significant gap between correct system design and the associated pump and water supply requirements.

The objective of this course is to bridge that gap and to establish a meaningful ASIB-issued **Pump Certificate of Competency** specific to this field. To this end, the course will conclude with a voluntary examination, enabling ASIB to evaluate each individual's level of understanding in fire pump applications.

The course content includes practical exercises from both an individual and group (networking) perspective. These activities are designed to reinforce learning through shared knowledge and real-world application. Delegates are kept to manageable group sizes, allowing for personal attention and meaningful interaction. Networking is encouraged through small team exercises where participants collaboratively solve problems using both course content and their own industry experience.

The course is focused specifically on potable water as the fluid medium and excludes any fluids with higher density or kinematic viscosity.

Lectures follow a chronological journey through the evolution of sprinkler systems—exploring key phases in both the South African and global context over the past two hundred years or more. Course material includes the application of historical standards and transitions into the most current rules and best practices in the industry today.

- **The modules run concurrently whereby it is not possible to miss modules or to select individual modules unless the level of understanding of the individual is regarded as competent.**
- **The cost of the course includes all learning materials such as Rule Books, stationery and a Sharp EL 5250 Programmable Calculator.**

The following pages detail each module's content, its duration as well as the expected outcome.

Please Note: This course will be presented in a classroom environment.

Venue
3rd Floor - ASIB Courses and Examination Centre
Sami.G Office Square
80 Greenvale Road
Bedfordview

MODULE 1	
TOPIC COVERED	**OUTCOME**
Ninth Edition Systems	*Provides an understanding of how to interpret the requirement for the sizing of pumps in accordance with this set of Rules*
Pipe size tables	*Provides an understanding of how to interpret the pipe size table and the sizing of pumps in accordance with these*
Basic estimation of a sprinkler systems flow and pressure requirement	*Creates a basic understanding of how the calculation of a sprinkler system is carried out and useful estimation tricks and tips*
Water supply curves	*Provides the candidate the ability to empirically calculate an water supply or pump curve or extrapolate a curve*
Resistance or system curves	*Gives the candidate the ability to calculate and understand what a resistance curve is in relation to a sprinkler system*
Calculator Programming	*Candidates will learn how to program their calculators to perform the calculations covered in this module.*
Duration	Three days
Daily Starting Time	08:30 - 09:00
Daily Finish	16:00 - 16:30
Dates	Tuesday, Wednesday and Thursday 24, 25 and 26 June 2025
Cost	**R 8,450.00 Excluding Vat** **R 9,717.50 Including Vat**

MODULE 2	
TOPIC COVERED	**OUTCOME**
Overview of pumps	*Provides an introduction into pumps and enables the candidate to calculate pumps running in parallel and in series and the effect this has on sprinkler systems* *Provides useful definitions of common terms* *Provides the ability to determine the differences between types of pumps and creates an understanding of how to read a composite characteristic pump curve*
Gravity and velocity	*Creates an awareness of gravity and the effect this has on velocity in relation to a water supplies and sprinkler systems*
Centrifugal fire pumps	*Provides an understanding of a pump impeller and how to calculate peripheral velocities* *Provides an understanding and application of the pump affinity laws* *Provides an understanding of a pumps power requirements*
Calculation of junction points	*Enables the candidate to quickly calculate a reasonably accurate intercept point of a water supply against a system demand point*
Calculator Programming	*Candidates will learn how to program their calculators to perform the calculations covered in this module.*
Duration	Three days
Daily Starting Time	08:30 - 09:00
Daily Finish	16:00 - 16:30
Dates	Tuesday, Wednesday and Thursday 22, 23 and 24 July 2025
Cost	**R 8,450.00 Excluding Vat** **R 9,717.50 Including Vat**

MODULE 3	
TOPIC COVERED	**OUTCOME**
Orifice plate calculation	*Provides the candidate with the ability to calculate and size an orifice plate within a sprinkler system or proving test pipe and where to apply them*
Pump suction tanks	*Creates an awareness of the requirements for a suction tank feeding a sprinkler system*
Calculation of effective suction tank capacity	*Provides a candidate with the ability to calculate freeboard, dead water and the limitations associated with these*
Suction line and NPSH	*Provides an understanding of the requirements for a pump suction line and NPSH requirements Creates an awareness of cavitation*
General	*Provides the required knowledge in respect of the general requirements relating to a pumped water supply feeding a sprinkler system*
Calculator Programming	*Candidates will learn how to program their calculators to perform the calculations covered in this module.*
Duration	Three days
Daily Starting Time	08:30 - 09:00
Daily Finish	16:00 - 16:30
Dates	Tuesday, Wednesday and Thursday 2, 3 and 4 September 2025
Cost	**R 8,450.00 Excluding Vat** **R 9,717.50 Including Vat**