

SQFLEX SYSTEM SIZING

Sizing an SQFlex system is easy using either the hardcopy version or the WinCAPS CD-ROM. The two sizing systems are designed in much the same user-friendly way.

Before starting to size the system you need to determine 3 things:

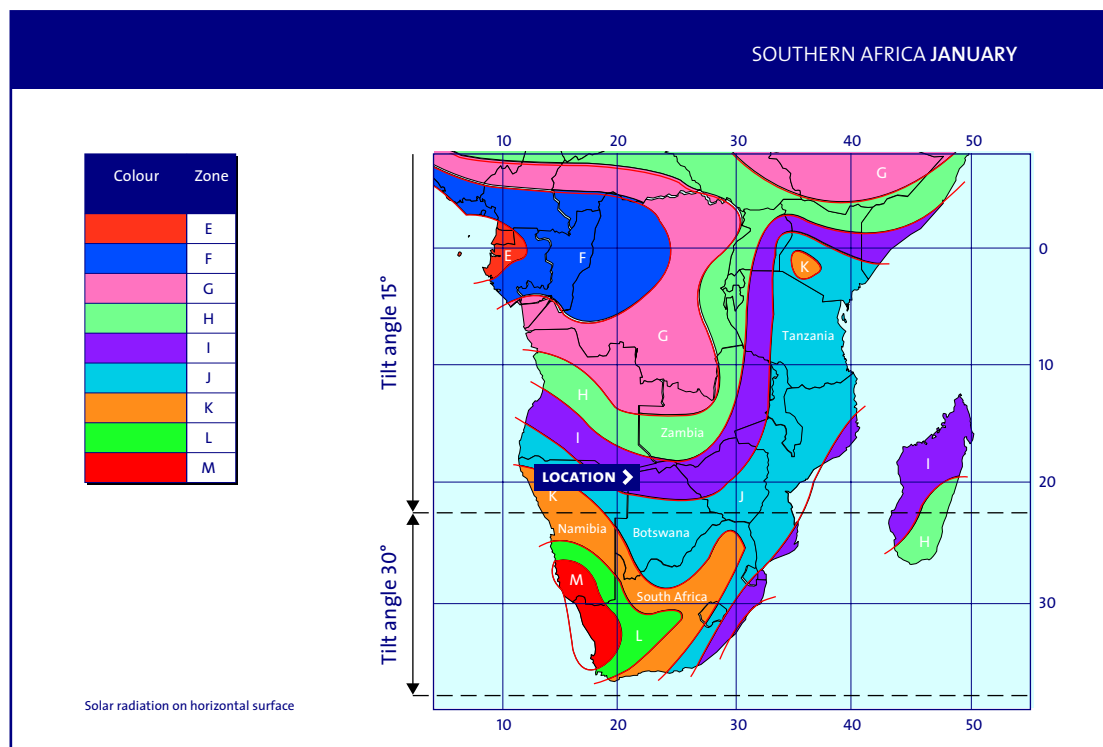
- location
- total head
- required water quantity per day

Now you are ready to select the most suitable system.

The following example shows how the hardcopy version was used to select the correct SQFlex system for a person in North-East Namibia.

The map shows how particular locations belong to various zones, and this is marked by different colours to make it easier to read. From the map, it is possible to ascertain two important details: the zone and solar panel tilt angle.

Our location is situated in Zone I, and the solar panel tilt angle is 15°.



Now, it is possible to choose the relevant sizing chart according to the given zone and colour. Here's where the total head and water requirements are used to select the correct pump and number of solar panels.

Southern Africa
SQFlex - Performance m³/day

Zone	Colour	Total Head (m)	Total Head (m)										No. of Solar panels (Wp)	Power (Wp)	
			0	20	40	60	80	100	120	140	160	180			200
Zone 1	Green	7	2.5	2	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.0	8	172
		10	2.5	2	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.0	8	172
		15	2.5	2	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.0	8	172
		20	2.5	2	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.0	8	172
Zone 2	Yellow	7	2.5	2	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.0	8	172
		10	2.5	2	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.0	8	172
		15	2.5	2	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.0	8	172
		20	2.5	2	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.0	8	172

With a required total head of 40 m, and a daily water requirement of 7 m³, the correct pump is an SQFlex 2.5-2. Furthermore, the number of solar panels necessary to power this SQFlex system is 8, corresponding to 344 Wp.

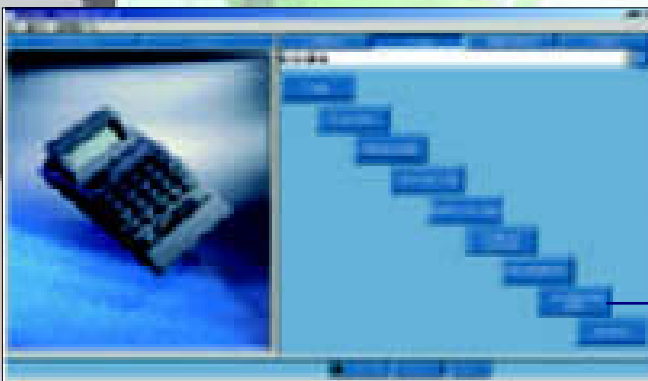
As shown, sizing an SQFlex system for installation is very easy. By referring to two very easy-to-read documents, selecting the suitable system dimensions takes a matter of minutes using the hardcopy version.

SQLFLEX SYSTEM SIZING – WINCAPS

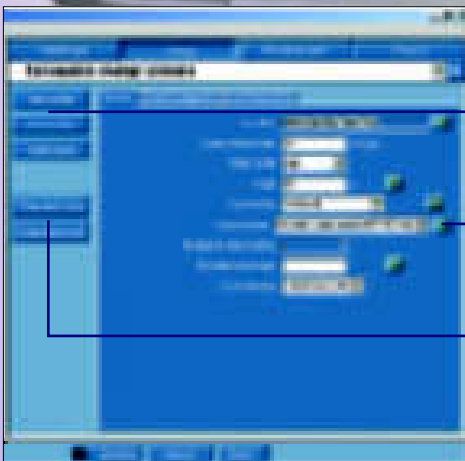
Grundfos' Windows based Computer Aided Product Selection CD-ROM (WinCAPS) is a resource used to dimension systems and for general information on our products. It includes an extensive catalogue of all Grundfos pumps and systems as well as detailed product data.

The SQFlex System sizing tool is a new addition to WinCAPS. The sizing tool is quick and easy to use and includes a full overview of all SQFlex systems.

This is the opening page of WinCAPS. To use the SQFlex System sizing tool, simply follow the steps below.



← **CLICK ON THE RENEWABLE ENERGY SYSTEMS BUTTON HERE**

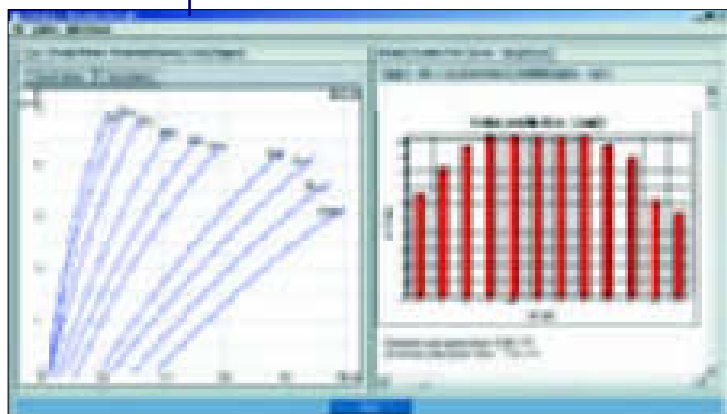
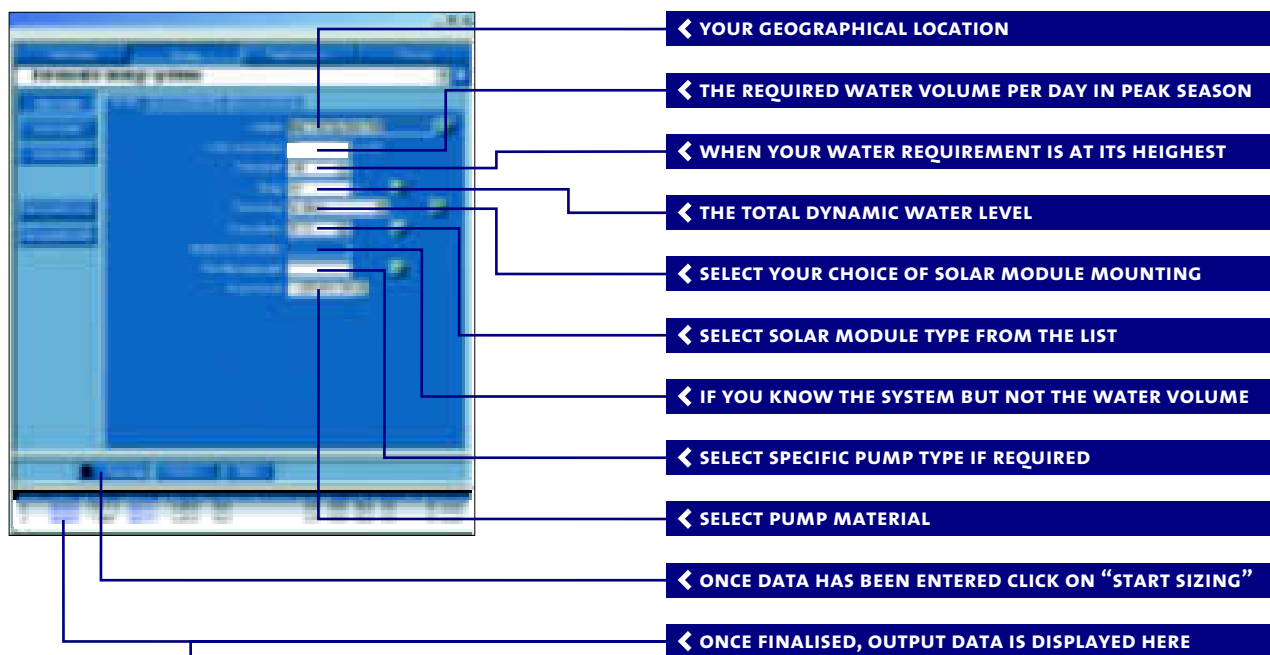


← **NOW YOU WILL SEE THAT YOU CAN CHOOSE EITHER A SOLAR, WIND OR COMBI SYSTEM**

← **YOU CAN ACCESS SCREENS THAT ALLOW YOU TO ENTER MORE DETAILED INFORMATION ABOUT HEAD, CABLE LOSS, TILT ANGLE OF SOLAR PANELS, ETC.**

← **YOU CAN PRINT SIZING TABLES FOR EITHER SOLAR OR WIND SYSTEMS BY CLICKING ON ONE OF THE SIZING TABLE BUTTONS**

Having selected the relevant system (in this case SQFlex Solar), the program is almost ready to calculate the exact configuration. First you must enter your relevant data into the following parameters:



Welcome to the Grundfos WinCAPS sizing tool – an easy way to the precise SQFlex system. Order your WinCAPS CD-ROM from your local Grundfos office, or go to www.grundfos.com