

# Mono delivers water to one of the driest deserts on the globe

## Background

The Atacama desert in Northern Chile is said to be one of the driest places on earth. Sparsely populated running from the Pacific Ocean to the Andes Mountains, the average width is less than 100 miles but extends some 600 miles south from the Peruvian border.

The landscape is so desolate it is sometimes described as "lunar like". Surprisingly there are small isolated oasis towns such as Pica that have existed since pre-Hispanic days partly due to the abundance of spring water.

In 2008, Mr Raul Sapiain, a faculty Professor of Mechanical Engineering & Renewable Energy from the University of Tarapaca in Northern Chile approached Mono with what initially appeared to be a dubious application. Extracting water from a remote 105 mm bore in the middle of the driest dessert on earth in order to irrigate lemon, orange, mandarin and mango trees planted some 5 km away.

## Pump Installation

Using Mono's user friendly global computer aided simulation program to work out what solar pump would be right for this application in such an unlikely setting. A system that could withstand temperatures of 40+ degrees Celsius during the day and below zero temperatures during the night would have to be specified and more importantly built to last! After all, the pump required would be installed in the same environment NASA tests its prototypes for future lunar rovers.

In early August 2008 a Mono 2000 Series Sun-Sub Solar Drivepack System that runs on only 385 Watt of power was successfully installed to deliver flows on average of 14,000 litres per day.

This great achievement has opened up new opportunities for Mono Solar product especially in areas of the globe where new technology is creating new industries and supporting local remote communities.

Pica is a good example of what Mono represents today, an organisation that offers innovative global pumping solutions no matter how remote or challenging the application may be.

For more information - please contact Mono Pumps at [global.solar@nov.com](mailto:global.solar@nov.com) or visit [www.monopumps.com](http://www.monopumps.com).



The town of Pica, Atacama dessert.



Mono Solar Sun-Sub System installed.



Fruit tree plantations irrigated by a Mono Solar Sun-Sub System.

**Mono**<sup>®</sup> **NOV**

One Company, Unlimited Solutions