Midnight Launcher

The Model-2 SoapStick Launcher, the Midnight Launcher, holds 2 soapsticks. The M-2 is solar-electric operated, and has a simple *Select-and-Go* control system. The M-2 Midnight requires no supply gas and uses solar power and battery for actuation.

It is less expensive than the higher capacity Launchers and is suitable for locations flowing with minimal to high pressure.

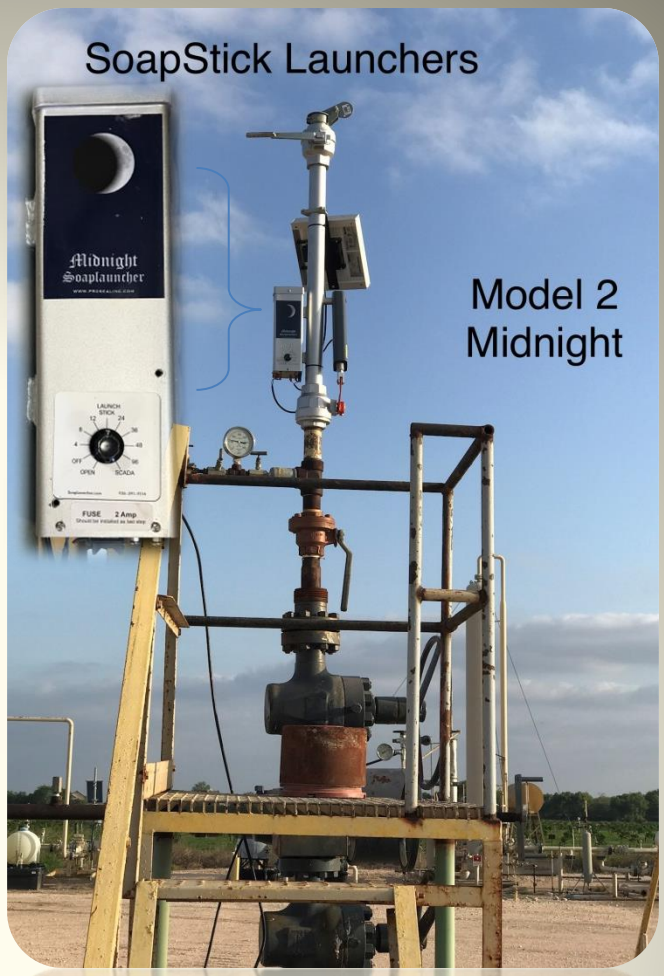
The Midnight Launcher can be loaded with soap sticks ranging from 1" to 1-5/8" in diameter. The combined stick length is 32". The 1-5/8" diameter soap stick delivers 50% more surfactant than the common 1-1/4" stick. The low cost Midnight Launchers is typically loaded during the day and set to drop sticks in the middle of the night.

In use, the operator launches 2 sticks into the wellbore manually and pre-loads the Midnight for deployment later in the night. The *'Select and Go'* control knob has multiple settings to choose from. The 2 most commonly used selections are for stick deployment after 12 hours of delay or after 24 hours of delay. The minimum delay setting is 4 hours (mid-day) and the maximum launch delay is 96 hours (mid-week).

When using the 24 hour delayed drop, the operator will revisit the location every other day. Dial the Midnight Launcher to the 36 hour setting on Friday morning and the wellbore will receive a surfactant charge Saturday night. On Monday, the operator should manually drop soapsticks and reload the Midnight Launcher.

The cost of a Midnight Launcher is about double the cost of a 2-valve manual launcher, but it cuts in half the demands on the operator's time for keeping the well unloaded. SCADA control is standard. The M-2 should be used with an ABV when the flow rate exceeds 250-300 MCFD.

WP is 2000# (3000# and 5000# optional).



Since 1986, Pro-Seal Lift Systems has been the 'innovator' in Artificial Lift technology, having developed the patented disc plunger and the original ball and sleeve plunger in 1998. Pro-Seal patents and products focus on environmental, safety and production challenges.

Program Options for the M-2 Launcher

The Delay Launch options on the **M-2 Midnight Launcher** Dial are:
4, 8, 12, 24, 36, 48 and **96** hours;
The other selections on the Dial are:
OPEN, OFF, SCADA and **LAUNCH STICK**

If the **Dial** is in the **SCADA** position, the M-2 will do nothing until it receives a dry contact signal at the SCADA terminals located at the base of the battery enclosure.

Example 1: Visiting the Well Once, Every Day of the Week
Load the M-2 Monday morning, drop sticks manually, then load another set of soapsticks and set the Dial Processor to the 12 hour delay position. The soapsticks will launch late Monday evening. Repeat each day of the week.

Example 2: Visiting the Well Monday through Friday only
Load the M-2 Monday morning, drop sticks manually, then load another set of soapsticks and set the Dial Processor to the 12 hour delay position. The soapsticks will launch late Monday evening. Repeat each day through Thursday. On Friday morning, load, launch and reload. Thereafter, set the Dial Processor to 36 hours delay. The M-2 will drop the last 2 sticks of the week late Saturday night. The well will not receive surfactants again until the operator returns approximately 36 hours later on Monday morning.

Example 3: Visiting the Well Monday, Wednesday and Friday only
Load the M-2 Monday morning , drop sticks manually, then load another set of soapsticks and set the Dial Processor to the 24 hour delay position. The soapsticks will auto-launch mid-morning Tuesday. Return to the location on Wednesday, load, launch and reload. Set the Dial to 24. The M-2 will drop the surfactant sticks mid-morning Thursday. On Friday morning, load, launch and reload. Thereafter, set the Dial Processor to 36 hours delay. The M-2 will drop the last 2 sticks of the week late Saturday night. The well will not receive surfactants again until the operator returns approximately 36 hours later on Monday morning.

ABV Option for High Flow Rate Locations

Locations that flow in excess of 250-300 MCFD may require the use of a flow-control valve in the flow line if the wing block is 2” (5cm) diameter or less. Otherwise, the soapstick may lodge against the horizontal tee outlet in the tree. Larger tubular have higher permissible rates. The M-2 is pre-wired and includes a programmed delay for connection with an ABV-S in the flow line. Please see the ***Best Practices*** PDF file and the **Actuated Ball Valve** brochure for more information.