

## **Product application – Industry**

Italy – 24050 ORIO AL SERIO (BG) Via Portico, 17 - Tel.: ++39 / 035 / 531298; fax: ++39 / 035 / 531763 - E-mail: mm@mminternational.net - website: www.mminternational.net

## **KEROSENE FILLING RIG**



The equipment is used to fill thermic probes with kerosene. The system is made up of an injection unit, a cooling system, a vacuum pump, a pressure pump and a kerosene tank.

PLANT DESIGN			APPLICATION
	Kerosene Tank		$1^{st}$ stage – Vacuum The probe is connected to the fast connection nozzle (Q). When the vacuum pump starts (V) valve (A) opens and creates a $-0,2$ bar depression inside the probe to prevent air bubbles from forming during filling operations.
		в	2 <sup>nd</sup> stage - Filling
	Fridge	dge PAV - A media kerosene / press. 6 bar	Kerosene at room temperature contained in a tank is controlled by pomp ( <b>P</b> ) and sent to the filling unit. Valve ( <b>A</b> ) closes and valve ( <b>B</b> ) opens to let kerosene into the probe. When it is full, the tightness of the probe is tested up to 6 bar pressure.
	Traps	Temperature room Cicle: 1300 per year Soft Seal: Viton	3 <sup>rd</sup> stage – Exhaust of the injection unit
	Holding Tank Kerosene	PAV - B media vacuum / press0,2bar media kerosene vapour / press. 6 bar Temperature room Cicle: 600 per year Soft Seal: Viton PAV - C media kerosene / press0,2bar Temperature - 30C° Cicle: 350 per year	When filling is over, the probe is disconnected from the injection unit, valve ( <b>B</b> ) closes, valve ( <b>A</b> ) reopens and the vacuum pump ( <b>V</b> ) starts, creating a depression inside the circuit. Kerosene left inside the unit is sucked up and sent into a heat exchanger to be cooled up to $-30^{\circ}$ and brought back to a liquid state. Valve ( <b>C</b> ) installed at the bottom of the heat exchanger opens at the end of the day and kerosene exhausts into a collecting tank. Kerosene is
L		Soft Seal: Viton	then carried back into the main tank.



## SOLUTION

## TYPE BSG205CXW00 - SXS cod. 75883730490

S/S normally closed bi-directional PAV Body Actuator Ø45 – Connection ½" BSP Flow direction over / under seat Pilot pressure min 6,2 / 5 bar - max 10 bar Working pressure 0-16 bar Seal material VITON