

## Rannie 275Q



The APV brand 275Q is a high performance homogeniser, capable of functioning at flow rates up to 55,000 L/h (14,500 gal/h) and pressures of (400 bar (5,800 psi). It provides the ideal solution for your homogenisation applications.

The APV brand 275Q is equipped with an innovative oil treatment unit. Extensive monitoring and controlling equipment ensures ideal oil conditions and long life of the Power End parts.

The extremely efficient Micro-Gap valve is available for milk and other dairy applications. The Micro-Gap is capable of operating at reduced pressure while increasing homogenisation efficiency.

SPX FLOW, Inc. (NYSE:FLOW) is a leading manufacturer of innovative flow technologies, many of which help define the industry standard in the market segments they serve. From its headquarters in Charlotte, North Carolina, it operates a sales and support network, centers of manufacturing excellence, and advanced engineering facilities, throughout the world. Its cutting-edge flow components and process equipment portfolio includes a wide range of pumps, valves, heat exchangers, mixers, homogenizers, separators, filters, UHT, and drying technology that meet many application needs. Its expert engineering capability also makes it a premium supplier of customized solutions and complete, turn-key packages to meet the most exacting of installation demands.

Incorporating many leading brands, SPX FLOW has a long history of serving the food and beverage, power and energy, and industrial market sectors. Its designs and engineered solutions help customers drive efficiency and productivity, increase quality and reliability, and meet the latest regulatory demands. In-depth understanding of applications and processes, state-of-the-art Innovation Centers, and advanced pilot/testing technology further assist in optimizing processes and reducing timescales to reliably meet production targets.

To learn more about SPX FLOW capabilities, its latest technology innovations and complete service offerings, please visit [www.spxflow.com](http://www.spxflow.com).

# The Latest Technology Combining Operational Efficiency With Exceptional Reliability

## **COST EFFICIENT AND RELIABLE**

The new homogeniser demonstrates exceptional operational efficiency. Its latest technology design combines low energy and water consumption with reliable operation. With flow rates ranging from 10,000 – 55,000 L/h (2,642-14,500 gal/h), customers can select exactly the right version for their needs.

## **INNOVATIVE SERVICE CONCEPT**

Special attention has also been given to ease of maintenance and performance monitoring to ensure that the homogeniser runs at optimum efficiency at all times. In the event that homogenisation pressure, feed pressure, cooling water flow, oil pressure, oil level or oil temperature move from prescribed parameters, electric signals can be passed to the control room to alert the operator.

This sophisticated set of diagnostics, which provides unique operational advantages, is APV's latest step in the development of the "intelligent" homogeniser. Additionally, they allow key operating parameters to be collected and saved into a database for review in order to determine optimum performance.

In addition visual indicators are placed on the machine itself. The Power End is prepared for installation of sensors for monitoring of roller bearings and gear wheel conditions.

## **ENVIRONMENTALLY FRIENDLY**

The APV brand 275Q is equipped with a low noise cabinet as standard. Other environmentally friendly features include a cooling system, which minimizes the use of water by engaging automatically only when the oil temperature moves outside the critical range of 40-50°C (104-122°F). The APV brand 275Q is also designed to eliminate the risk of water contamination in the oil.

## **EASE OF INSPECTION**

The low noise cabinet has panels and doors for inspection and maintenance. The interior of the APV brand 275Q is conveniently lit for ease of inspection.

## **BASIC MACHINE**

The APV brand 275Q homogeniser, a five-plunger, reciprocating pump, is fitted with a single-stage homogenising valve (optional two-stage) with hydraulic actuation.

The APV brand 275Q incorporates a durable slow-speed Power End that reduces vibration and noise. Easy access to the hydraulic actuation system, oil treatment unit and other auxiliary systems simplifies maintenance saving time and money.

**THE LIQUID END INCLUDES:**

- Inlet pressure gauge with low pressure switch
- Pressure gauge incl. 4-20 mA output for total product pressure (1st stage prepared for automatic control)
- Flow switch and solenoid valve for plunger lubrication
- Weld-stub product connections

**THE POWER END CONTROL FEATURES INCLUDE:**

- Oil filter alarm switch
- Oil condition monitoring and control equipment
- External cooler

**THE HVA UNIT INCLUDES:**

- Quick unloading valve
- Electrical proportional valve(s)
- Pressure gauges for total hydraulic pressure and individual actuator pressure(s)
- Oil temperature sensor (4-20 mA)

**THE INSTRUMENTATION INCLUDES:**

- Emergency stop
- Potentiometers for manual pressure control
- Display for total product pressure

All equipment wired to a terminal box. The APV brand 275Q is built into a low noise stainless steel cabinet.

**STANDARD OPTIONS**

- Two-stage hydraulic valve actuation (HVA)
- Aseptic cylinder design
- High-pressure outlet connections
- Micro-Gap homogenising valve
- Motor starter
- Controllers for automatic pressure control
- Control cabinet, stainless steel
- Choice of materials for cylinder block, plungers, homogenizing valves, packings, pump valves, valve seats, and seals.
- Pulsation dampener(s): inlet and outlet
- Flow meter for lubrication oil, monitoring slide bearings condition
- Pressure transducer for lubrication oil pressure (4-20 mA output)
- External cooling fan/main motor

**SPECIAL OPTIONS**

We will be happy to discuss any other requirements you may have.



**Transmission (Power End)**



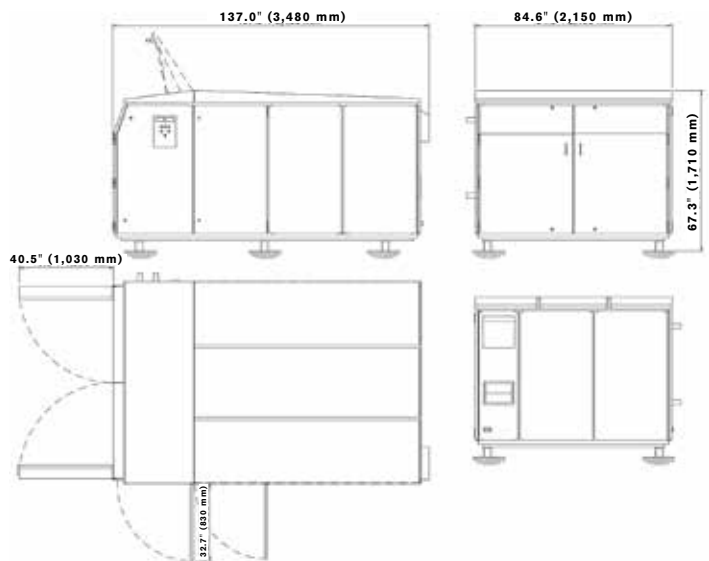
**Control Panel**



**Oil and Hydraulic Units**



**Power Inlet**





### RANNIE/THREE-PIECE VALVE HOUSING POPPET/BALL TYPE VALVES

TYPE	MAX. CAPACITY /MAX. PRESSURE	
	L/H (GAL/H)	BAR (PSI)
90.5140	45,000 (11,800)	170 (2,500)
85.5140	40,000 (10,500)	200 (3,000)
75.5140	30,000 (7,900)	250 (3,600)
70.5140	27,000 (7,100)	300 (4,300)
60.5140	20,000 (5,280)	400 (5,800)
50.5140	12,500 (3,300)	600 (8,700)

### DIMENSIONS

LENGTH MM (IN)	WIDTH MM (IN)	HEIGHT MM (IN)	DIMENSIONS PACKED IN A CRATE LXWXH CM (IN)	CUBIC MEASURE M <sup>3</sup>
3,480 (137)	2,150 (84.6)	1,710 (67.3)	384X245X220 (151X96.5X86.6)	20

**Note: Gross Weight in a Crate, including Motor: 20,944 lb (9,500 kg)**

Based in Charlotte, North Carolina, SPX FLOW, Inc. (NYSE: FLOW) is a multi-industry manufacturing leader. For more information, please visit [www.spxflow.com](http://www.spxflow.com)

#### SPX FLOW

Oestmarken 7

DK-2860 Soeborg, Denmark

Phone: +45 70 278 222

Fax: +45 70 278 223

E: [answers.us@spxflow.com](mailto:answers.us@spxflow.com)

SPX FLOW, Inc. reserves the right to incorporate our latest design and material changes without notice or obligation.

Design features, materials of construction and dimensional data, as described in this bulletin, are provided for your information only and should not be relied upon unless confirmed in writing. Please contact your local sales representative for product availability in your region. For more information visit [www.spxflow.com](http://www.spxflow.com).

The green "s" and "x" are trademarks of SPX FLOW, Inc.

ISSUED 10/2018 3162-05-11-2012-GB

COPYRIGHT © 2018 SPX FLOW, Inc.