

# Rannie 275Q



The APV 275Q is a high performance homogeniser, capable of functioning at flow rates up to 55,000 litres per hour (14,500 gallons per hour) and pressures of 400 bar (5800 PSI). It provides the ideal solution for your homogenisation applications.

#### **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 litres per hour (2,642-14,500 gallons per hour), customers can select exactly the right version for their needs..

The APV 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.

## The latest technology combining operational efficiency with exceptional reliability

### **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 275Q is equipped with a low noise cabinet as standard. Other environmentally friendly features include a cooling system, which minimises 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 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 275Q is conveniently lit for ease of inspection.

### **BASIC MACHINE**

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

The APV 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 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, homogenising 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)



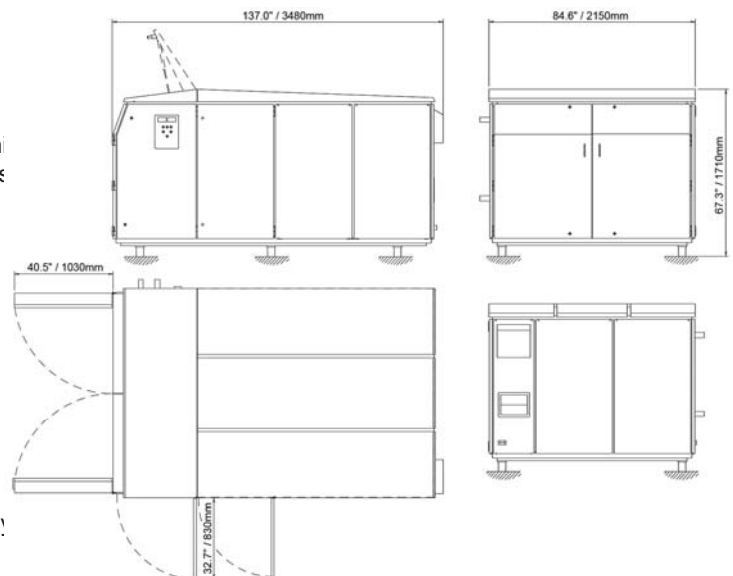
CONTROL PANEL



OIL AND HYDRAULIC UNITS



POWER INLET





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

TYPE	U.S. MAX. CAPACITY /MAX. PRESSURE		METRIC MAX. CAPACITY /MAX. PRESSURE	
	GPH	PSI	LPH	BAR
90.5140	11800	2500	45000	170
85.5140	10500	3000	40000	200
75.5140	7900	3600	30000	250
70.5140	7100	4300	27000	300
60.5140	5280	5800	20000	400
50.5140	3300	8700	12500	600

**DIMENSIONS**

LENGTH (IN./MM)	WIDTH (IN./MM)	HEIGHT (IN./MM)	DIMENSIONS PACKED IN A CRATE LXWXH (CM)	DIMENSIONS PACKED IN A CRATE LXWXH (IN.)	CUBIC MEASURE M3
137/3480	8 4.6/2150	67.3/1710	384X245X220	151X96.5X86.6	20

GROSS WEIGHT IN A CRATE, INCLUDING MOTOR: 20944 LB/9500 KG

