



# APV Homogeniser

## Rannie 185Q / Gaulin 185Q



# The latest technology combining operational

The APV 185Q is a high performance homogeniser, capable of functioning at flow rates up to 50,000 litres per hour (13,209 gallons per hour) and pressures of 650 bar (9427.4 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 – 50,000 litres per hour (2,642-13,209 gallons per hour), customers can select exactly the right version for their needs.

The APV 185Q 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.

## 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 SPX'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 185Q 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 185Q is also designed to eliminate the risk of water contamination in the oil.

## Ease of Inspection

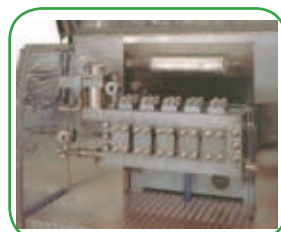
The low noise cabinet has panels and doors for inspection and maintenance. The interior of the APV 185Q is conveniently lit for ease of inspection.



Transmission (Power End)



Oil and hydraulic Units



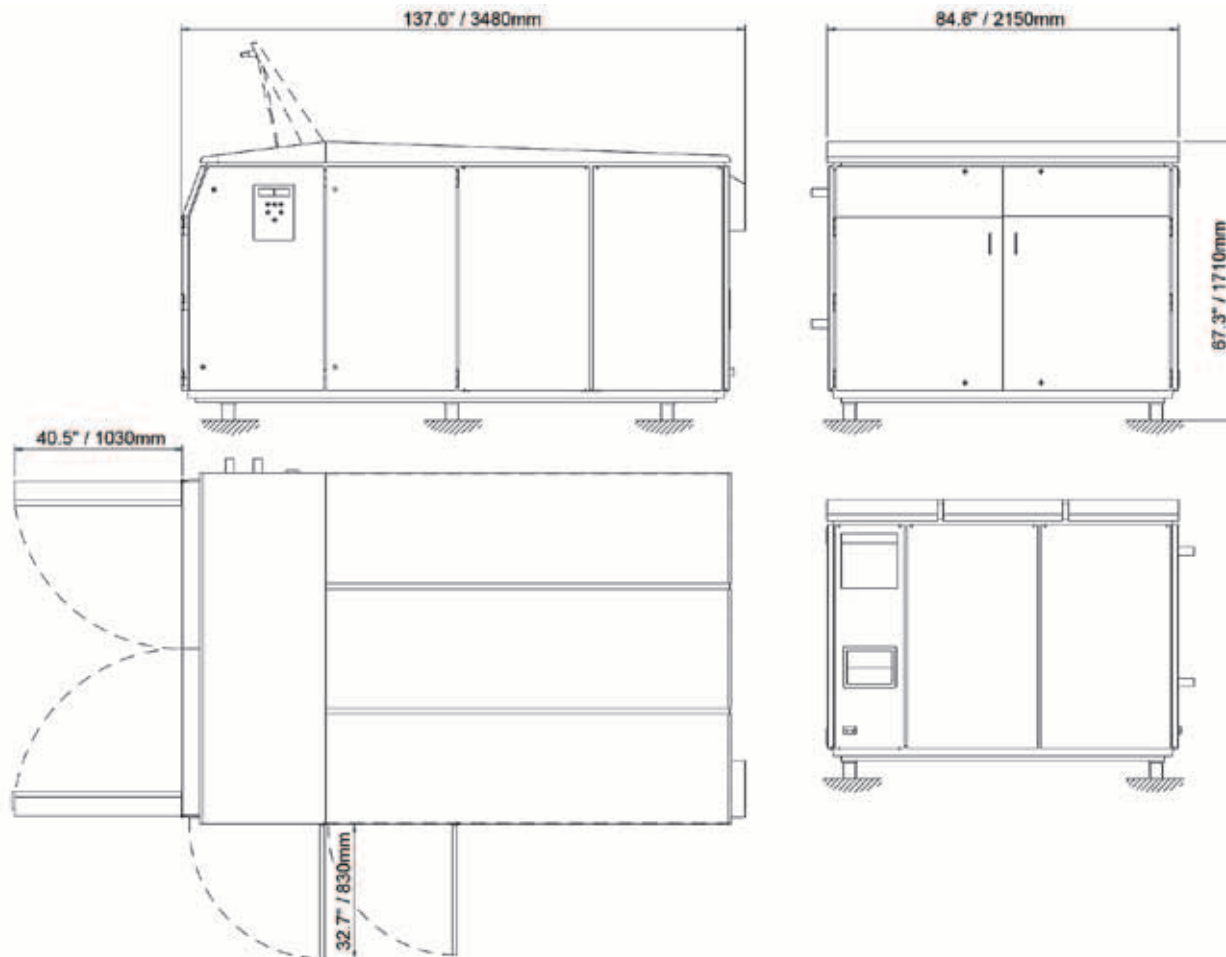
Liquid End (Gaulin)



Access to the homogeniser

# efficiency with exceptional reliability

## APV 185Q: Base Outline Drawing



### 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 m <sup>3</sup>
137/3480	84.6/2150	67.3/1710	384x245x220	151x96.5x86.6	20

Gross Weight in a Crate, including Motor: 18500 lb/8400 kg

## APV 185Q: Homogeniser and Reciprocating Pump

### Basic Machine

The APV 185Q homogeniser, a five-plunger, reciprocating pump, is fitted with a single-stage homogenising valve (optional two-stage) with hydraulic actuation.

The APV 185Q 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.

Liquid End options include a three-piece valve housing (Rannie) and a mono-block design (Gaulin). Design features of both Rannie and Gaulin simplify routine maintenance.

The APV 185Q is available with relief valve.

### 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 185Q 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.

### Gaulin/Mono-Block Design

Type	U.S. Max. Capacity/ Max. Pressure		Metric Max. Capacity/ Max. Pressure	
	GPH	PSI	LPH	BAR
<b>POPPET TYPE VALVES</b>				
185Q-1,5	13200	1500	50000	100
185Q-2,0	10600	2000	40000	140
185Q-2,5	8500	2500	32000	170
185Q-3,0	7400	3000	28000	210
185Q-3,6	5600	3600	21000	250
<b>BALL TYPE VALVES</b>				
185Q-2,0	10000	2000	38000	140
185Q-2,5	8000	2500	30000	170
185Q-3,0	7100	3000	27000	210
185Q-3,6	5300	3600	20000	250

### 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
85.5140	10500	2175	40000	150
75.5140	7900	2900	30000	200
65.5140	6050	3625	23000	250
54.5140	4200	5800	16000	400
45.5140	2640	8700	10000	600
42.5140	2350	9425	9000*	650

\* Ball valves only

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