

## Rannie® 77T / Gaulin® 77T



The APV® 77T homogenizer is a three-plunger reciprocating pump, fitted with hydraulically actuated homogenising valves.

The APV 77T incorporates a durable slow-speed Power End in a low and compact design, for optimal performance and reliability.

One point of control and direct visibility to all internal and external indicators, combined with easy access to all service areas, saves time and money by simplifying inspection and reducing maintenance to a minimum.

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).

## APV® Rannie and Gaulin 77T Homogenizer

The more modular and flexible design of the APV 77T makes it suitable for a wide range of applications in dairy, food, beverage, industrial and pharmaceutical industries. Homogenizing valves can easily be changed to accommodate different types of product and/or capacities on the same homogenizer.

Liquid End options include the Rannie three-piece valve housing and the Gaulin mono-block design, both available with a choice of valves, plungers and packings according to your requirements.

Design features of Rannie, Gaulin and the new Power End simplify routine maintenance with emphasis on reliability and sturdiness in order to reduce total costs of ownership.

### NEW AND IMPROVED OPERATING BENEFITS

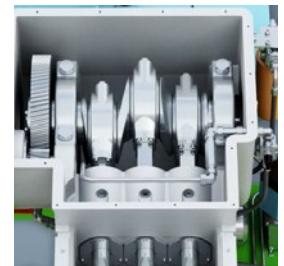
#### Optimal Operator Interface

- All controls placed logically together
- Gauges and other visual indicators are visible from the operating position
- Direct view of key power end check points through a window
- Modular electrical controls



#### High reliability

- Internal gear transmission
- Enhanced oil treatment and cooling system with oil filter as standard
- Low centre of gravity for reduced vibration



#### Maintenance friendly design

- Easy access for servicing, reduced maintenance time
- Low machine height for ergonomic access
- Visual service indicators
- Improved cooling and oil treatment indicators
- Access to electric control box from the outside
- Built-in belt tensioner



#### Balanced low speed crankshaft for reduced noise



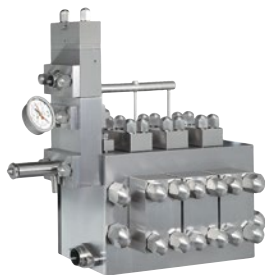
# Features and Options



**Rannie Three-Piece Valve Housing**

**RANNIE MODEL 77T / THREE-PIECE VALVE HOUSING  
POPPET AND BALL VALVES**

TYPE	US UNITS		METRIC UNITS	
	CAPACITY GPH	PRESSURE PSI	CAPACITY LPH	PRESSURE BAR
75.95	3,550	2,175	13,500	150
70.95	3,100	2,500	11,800	170
65.95	2,650	3,000	10,150	210
45.95	1,320	5,800	5,000	400
25.95	265	17,400	1,000	1,200
22.95	210	21,750	800	1,500



**Gaulin Mono-Block Valve Housing**

**GAULIN MODEL 77T / MONO-BLOCK VALVE HOUSING  
POPPET AND BALL VALVES**

TYPE	US UNITS		METRIC UNITS	
	CAPACITY GPH	PRESSURE PSI	CAPACITY LPH	PRESSURE BAR
<b>POPPET TYPE VALVES</b>				
2.0P	3,550	2,000	13,500	140
2.5P	3,100	2,500	11,750	170
3.0P	2,640	3,000	10,000	210
5.8P	1,320	5,800	5,000	400
<b>BALL TYPE VALVES</b>				
2.0B	3,375	2,000	12,750	140
2.5B	2,940	2,500	11,100	170
3.0B	2,640	3,000	10,000	210
5.8B	1,190	5,800	4,500	400

## THE LIQUID END INCLUDES

- Pressure gauges
- Pressure relief valve
- Weld-stub product connections
- 3-A sanitary design in stainless steel or duplex materials
- Ball or poppet pump valves
- Hard metal coated long life plungers
- Hydraulic valve actuator for smooth and stable control
- Single or two stage homogenizing valve, to meet your application requirements

## THE POWER END INCLUDES

- Internal gear and self-adjusting belt tightener
- Oil cooling system with external plate heat exchanger and temperature transmitter
- Oil filter including alarm

## OTHER STANDARD FEATURES

- All equipment wired to stainless steel control cabinet
- Emergency stop
- Stainless steel sanitary cladding
- Inspection window for key operating indicators
- Set of tools
- Set of packings

## STANDARD OPTIONS

- Start/stop buttons
- Alternative product connections e.g. tri-clamp, high-pressure outlet, dual inlet
- Automatic hydraulic actuators and 4-20mA gauges for remote operation
- Potentiometer-controlled electrical valves for hydraulic actuators
- Plunger lubrication control package including flow switch and solenoid valve
- Inlet pressure gauge with low pressure switch
- Outlet pressure gauge or transmitter
- Aseptic cylinder design
- Sanitary pulsation dampener(s): inlet and outlet
- Micro-Gap valve for increased efficiency and reduced energy consumption
- Motor starter cabinet
- Control cabinet with PLC or relay operation
- Low-noise insulated extension for liquid end
- Ceramic plungers
- Choice of materials for cylinder block, pump valves, homogenizing valves, packings, etc.
- Enhanced spare parts kit

## OTHER OPTIONS ON REQUEST

- Various enhanced liquid end block designs for special applications
- Actuated pressure relief valve
- Vibration sensors
- Explosion-proof design
- Electro-polished wetted parts
- UFO – Oil Filtration system
- Documentation packages for material traceability, certification and cGMP support

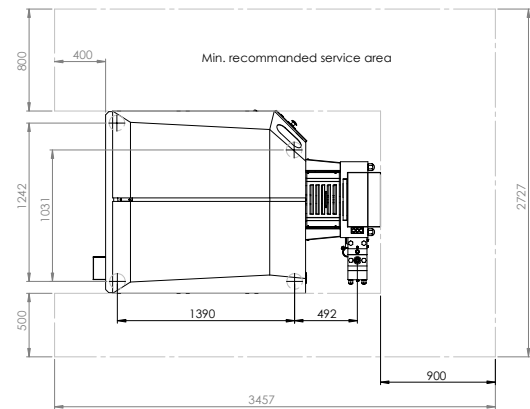
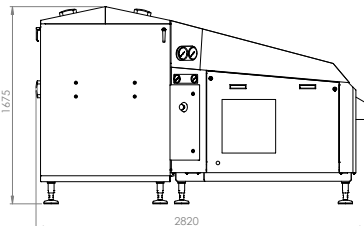
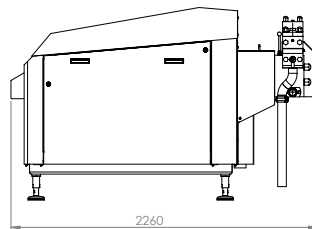
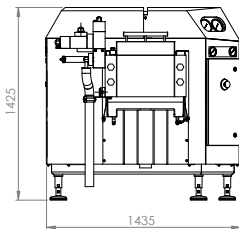
Rannie® 77T

Gaulin® 77T

# SPXFLOW

DIMENSIONS	LENGTH IN / MM	WIDTH IN / MM	HEIGHT IN / MM	WEIGHT (INCL. MOTOR) LBS. / KG
STANDARD MACHINE	89 / 2,260	56.5 / 1,435	56 / 1,425	5,845 / 2,650
PACKED IN CRATE	118 / 3,000	71 / 1,800	71 / 1,800	6,725 / 3,050
STANDARD INCL. LOW NOISE EXTENSION	111 / 2,820	64 / 1,630	66 / 1,680	6,950 / 3,150

CUBIC MEASURE OF STANDARD CRATING: 9.72 M<sup>3</sup>



## TECHNICAL SUMMARY

Gross Weight	3,050 kg
Net Weight	2,650 kg
No. of plungers	3

Lubrication Water Flow rate	150 l/hr
Cooling Water Flow rate	150 l/hr
Power End Oil Volume	50 l

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)

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