



PILOT 4T R2R SKID

HOMOGENIZER



SPX FLOW's APV® Pilot 4T homogenizer is now available mounted on a versatile skid, with a range of benefits.

Mobile. Integrated. Ready to Run

Unlock the full potential of your process development with our pilot scale homogenizer mounted on a fully -assembled, mobile skid. Designed for ultimate flexibility and performance, this compact system integrates a feeding pump, recirculation tank, and heat exchanger, delivering a complete and ready to run solution for R&D laboratories, pilot plants and small scale production environments.

Seamless Integration. Zero Hassle

Each skid is factory assembled, pre-piped, prewired and tested, ensuring a smooth, plug and play startup. No hidden installation costs, no lengthy commissioning. Just connect utilities and begin your process.

Optimized Feeding and Product Stability

The integrated feeding pump guarantees a continuous, stable flow to the homogenizer. By maintaining consistent inlet conditions, it enhances product uniformity and ensures reproducible homogenization results—every single run.

Versatile Recirculation with Temperature Control for Maximum Product Results

The onboard recirculation tank enables single-pass or multi-pass configurations, offering unparalleled flexibility for product refinement. Perfectly suited for emulsions, dispersions, and particle size reduction studies, it allows researchers to adjust parameters on the fly and achieve exact performance targets.

With the built-in tubular heat exchanger, temperature becomes a controlled variable rather than an obstacle. Cool temperature sensitive formulations, preheat product or replicate industrial thermal profiles with confidence. This capability ensures product integrity and enhances your ability to generate reliable, scalable data.

Designed for Repeatability and Process Insight

The system's integrated sensors (pressure, temperature) give operators full visibility into critical parameters. Combined with the homogenizer's mechanical precision, the skid delivers highly consistent, traceable, and scalable process conditions—ideal for formulation development and scale up studies.

Your All In One Solution for Pilot Homogenization

Whether for dairy, food, pharmaceuticals, cosmetics, or specialty chemicals, this mobile homogenization skid brings reliability, flexibility, and efficiency to every development stage. It is the perfect balance of engineering performance and user friendly design — ideal for formulation development and scale up studies.

Get ready to accelerate your innovation pipeline

Standard Features

- APV 4T Homogenizer, 1 or 2 stage
- Feed Pump progressive cavity type with Automatic feed pressure control
- Inbuilt Danfoss Frequency converter for feed pump
- Manual Operation
- Product Tank for recirculation – 15L (hopper)
- APV Tubular Heat Exchanger
- Mounted on skid with wheels
- Inbuilt CIP piping with APV butterfly valves
- Homogenizer feed pressure gauge/transmitter (4-20 mA) mounted on removable pulsation dampener
- 2 x Temperature gauge/transmitter (4-20 mA)

Standard Options

- Automatic Operation with PLC (Siemens or Allen Bradley)
- Additional temperature transmitter on homogenizer outlet
- Alternative Product Tank Capacities
 - 10L or 20L Hopper
 - 30L, 40L or 50L tank – on wheels separate from skid
- Jacketed tank
- Set of spares
- Various other homogenizer options are available

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PILOT 4T R2R SKID CAPACITIES

TYPE	METRIC UNITS CAPACITY RANGE PRESSURE		US UNITS CAPACITY RANGE PRESSURE	
	l/h	bar	gal/hr	psi
4T 12.38	20 - 100	1,000	5.2 - 26.5	14,500
4T 13.38	20 - 135	600	5.2 - 35.7	8,700
4T 18.38	50 - 300	400	13.2 - 79.3	5,800

TECHNICAL SUMMARY

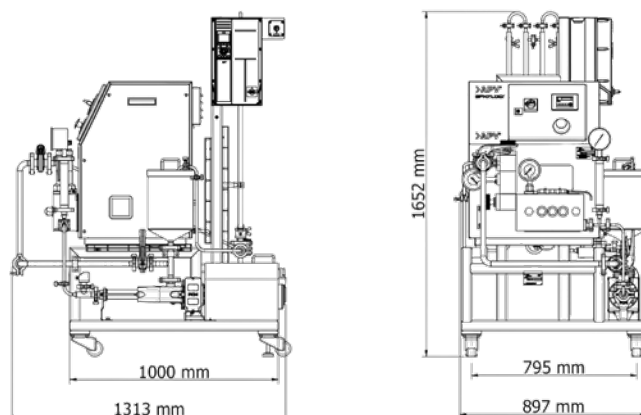
Gross Weight	650 kg 2,460 lb
Net Weight	415 kg 1,570 lb
No. of Plungers	3
Connections	20 mm 3/4" Tri-clamp or 12 mm 1/2" Tri-clamp
Lubrication Water Flow Rate	80 (30*) l/h 21 (8*) gal/hr
Cooling Water Flow Rate	N/A
Power	Homogeniser: 4 kW 5.4 HP Pump: 0.37 kW 0.5 HP

* with Serial Lubrication Option

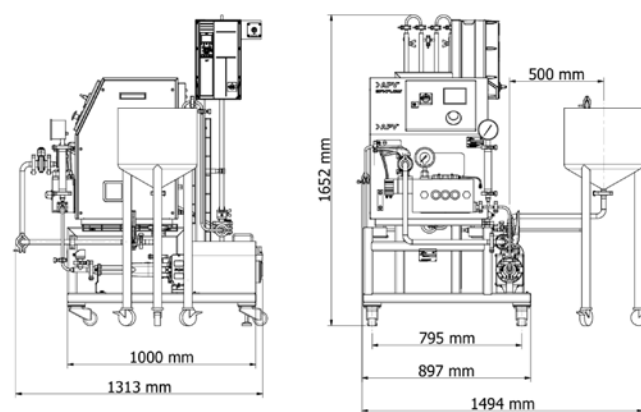
DIMENSIONS (L x W x H)

Standard Skid with Hopper	1,313 x 897 x 1,652 mm 52 x 35 x 65"
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SKID WITH HOPPER



SKID WITH SEPARATE TANK



Note: All images are for indication only – some options may not be supplied as standard.

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For more information, visit www.spxflow.com/apv.

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APV_Pilot-4T-R2r-Skid-Homogenizer_DST_US

Version: 02/2026