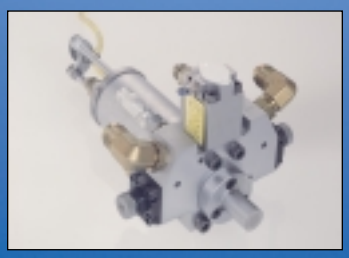
HPV Series

Showing the Way in Polyurethane Processing Equipment

Turnkey Production Lines



High Performance Mix Heads

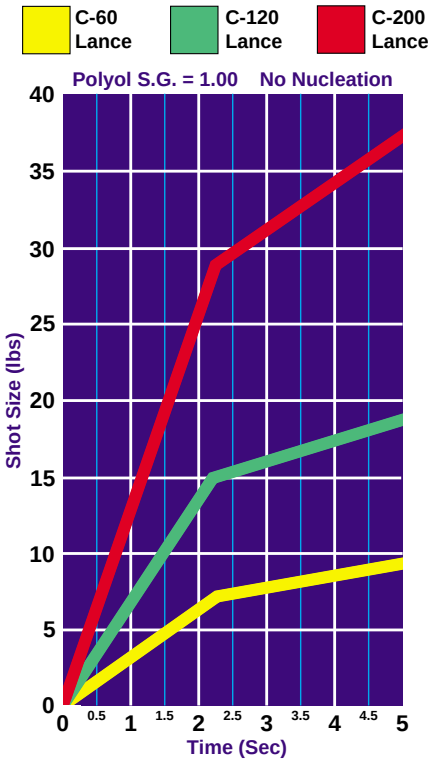
Bulk Storage Systems

Design Series
Cylinder Dispensing Systems

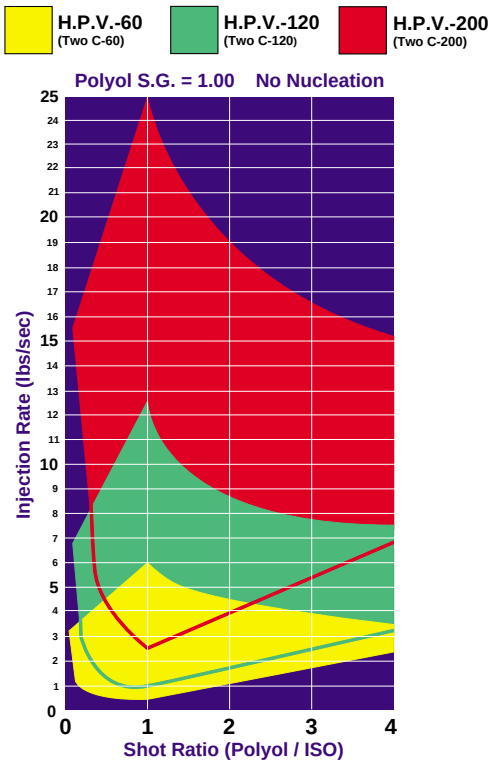
GUSMER ™
ADMIRAL

HPV Series

Single Cylinder Performance



Typical Machine Capability



Standard Features

- Electric fixed speed agitator on polyol tank
- Mag-Drive conditioning pump on Iso
- Lobe type conditioning pump on polyol
- Multiple pour times
- Manual air bleed
- Pressure line heat exchanger on Iso conditioning skid
- Jacketed tank on polyol skid for temperature conditioning
- Material filter on Iso
- Automatic recirculation between shots
- 5 micron hydraulic oil filters
- Dedicated hydraulic power unit to run metering cylinders
- One mixing head (HT Style)
- Separate hydraulic unit dedicated to mixing head (same as HPP Design Series)
- CRT for data entry

Optional Features

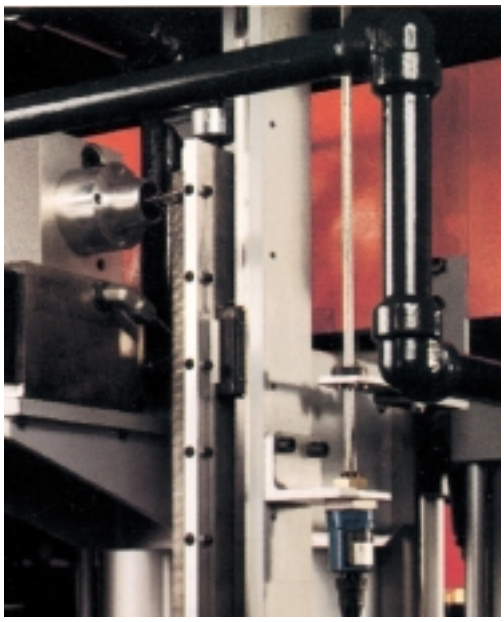
- Automatic air bleed (not available without conditioning loop)
- Heat exchanger on polyol conditioning skid
- Jacketed tanks for temperature conditioning without conditioning skid
- Multiple mixing heads (4 mixing heads maximum)
- L-type mixing heads for open pours
- Agitators:
  a. air operated (ISO only)
  b. electric fixed speed
  c. electric variable speed
- Auto-fill:
  a. drum
  b. bulk
- Nucleation: (in combination with electric variable speed agitator)
  a. manual nucleation control
  b. expansion cylinder measurement device
  c. automatic nucleation control with expansion cylinder measurement device
- Volumetric feed pump on polyol conditioning skid
- Multiple shots per stroke
- Remote pour box
- Clamp interface:
  a. hydraulic head safety
  b. pour interface
- Process monitor with SQC & printer
- Alternate tank sizes; 20 & 120 gallon
- Pour boom
- Heating & cooling unit
- Metering unit to share clamp hydraulics
- Stand alone calibration head

Technical Dimensions & Specifications

Machine	Dry weight Tank/Cond.	Dry Weight Metering	Hydraulic Weight	Power Req. @480 Volts	Air Req. @80 psi	H/C Recommended
HPV 60	2400	1500	See Below	110 KVA	4 Scfm	4.5 Ton 12 kw
HPV 120	2400	2300		183 KVA	4 Scfm	4.5 Ton 12 kw
HPV 200	2400	3700		343 KVA	4 Scfm	4.5 Ton 18 kw

Hydraulic Unit	Hydraulic Dry Weight	A-Length	B-Width	C-Height	Reservoir Capacity
HPV 60	2500	54”	36”	72”	200 Gal.
HPV 120	4900	96”	40”	72”	400 Gal.
HPV 200	9600	130”	48”	72”	800 Gal.

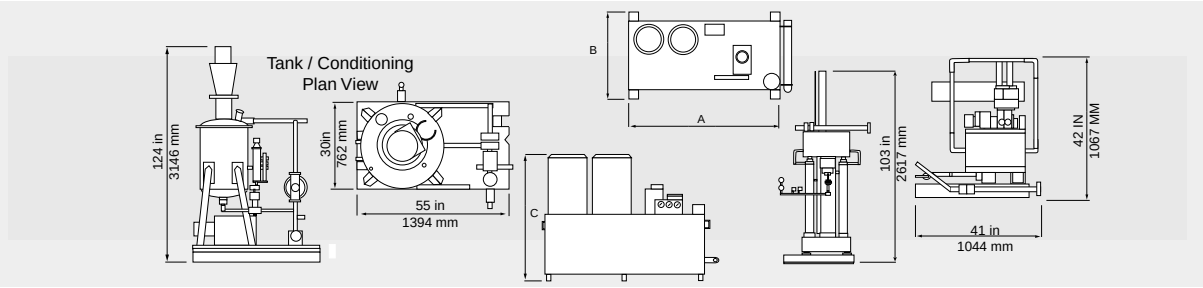
The "Design Series" features pre-engineered skid mounted modules that can be mixed and matched for throughputs ranging from 0.8 lbs/sec to 26 lbs/sec. The tank module, conditioning module, metering module, and mixing head can be placed to meet customer plant dimensions or assembled as a compact unit (shown in this brochure).

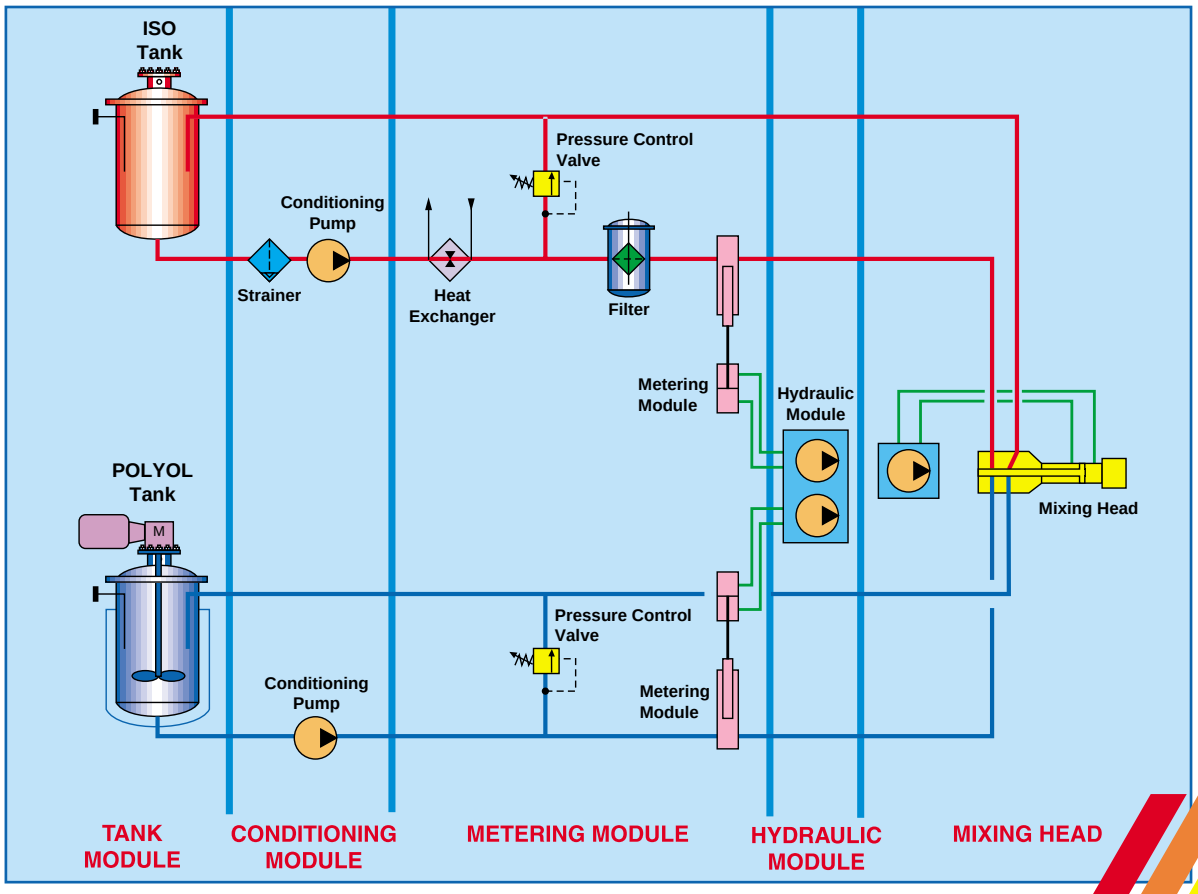


Three different cylinder systems have been developed to meet a wide range of throughput requirements. Two of the cylinder systems are then combined to allow processing polyol and isocyanate as dictated by ratio and throughput needs.

Each of the systems is equipped with Gusmer-Admiral's PLC controlled hydraulics, featuring a mechanical feedback system (shown in photo) to assure accurate throughput and ratio control.

Since the cylinder systems are separate modules, the concept allows easy design or retrofit to accommodate a three component system required for processing ground and recycled polyurethane.





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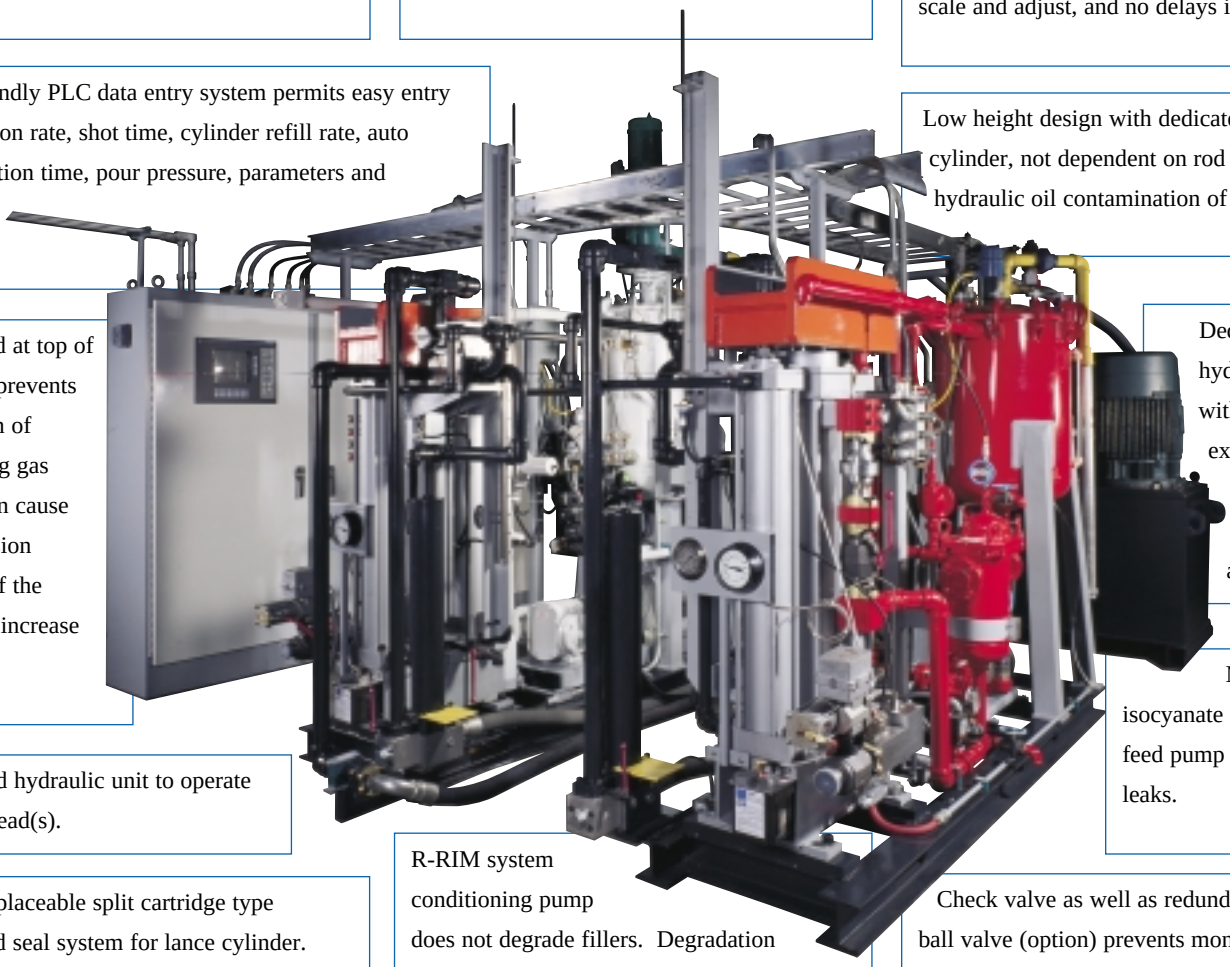
System is completely tested at Gusmer-Admiral before shipment. Use of prewired plug-in electrical connectors eliminates the need to make wire terminations in the field. This feature shortens in-plant installation and start-up.

Gusmer-Admiral's quality design utilizes hard piping throughout, chemical protected pressure gages, line sizing geared to handle fillers, quality components and compliance with ANSI/NFPA 70 and 79 electrical codes.

Gusmer-Admiral's unique velocity control system utilizes a mechanical feedback device to insure precise metering. The system features no control loops to tune, no instruments to calibrate, no drift problems, no analog signals to scale and adjust, and no delays in response.

User friendly PLC data entry system permits easy entry of injection rate, shot time, cylinder refill rate, auto recirculation time, pour pressure, parameters and chemical ratio.



Low height design with dedicated material cylinder, not dependent on rod seal to prevent hydraulic oil contamination of monomers.

Gas bleed at top of cylinder prevents collection of nucleating gas which can cause compression portion of the stroke to increase in length.

Dedicated hydraulic module with heat exchanger for monomer cylinder actuation.

Dedicated hydraulic unit to operate mixing head(s).

Mag-Drive isocyanate conditioning/ feed pump eliminates ISO leaks.

Easily replaceable split cartridge type lubricated seal system for lance cylinder. Cartridge can be replaced without removing the metering cylinder.

R-RIM system conditioning pump does not degrade fillers. Degradation causes excessive part shrinkage and physical property deterioration in R-RIM parts.

Check valve as well as redundant actuated ball valve (option) prevents monomer leakage back into cylinder fill lines during high pressure shot.

Strategically placed valves allow easy draining of system.

Seal flush system helps maintain long lance cylinder seal life.

Five (5) micron hydraulic filters insure long trouble free hydraulic system life.

A subsidiary of
The Gusmer Machinery Group, Inc.

GUSMER ADMIRAL ™

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Part #: #SLGAHPV 10/00