LIMWORKS
LIQUID INJECTION MOLDING

Advanced manufacturing equipment for molding silicone rubber

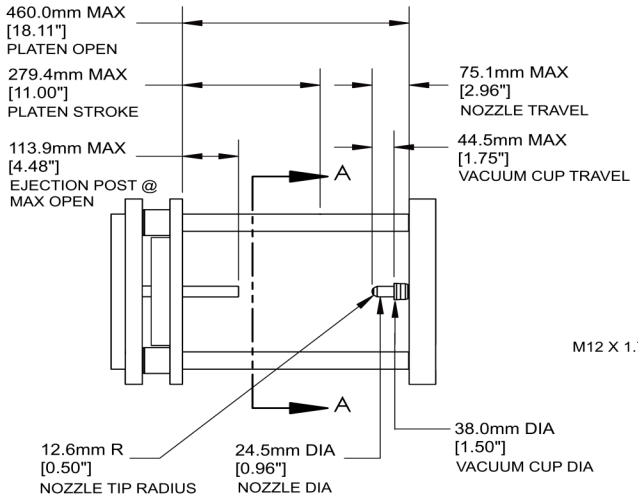
ProChanger H1

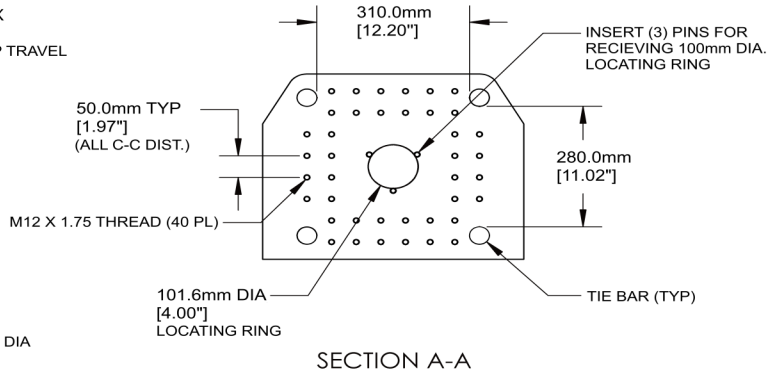
* Instant material change * Precision servo driven injection * Integrated mold vacuum, chiller and air ejection

Horizontal injection molding machine:

- Machine Dimensions:
  L = 2220 mm [87 3/8”] W = 844 mm [33 3/16”] H = 1578 mm [62 1/8”]
- Platen air/hydraulic clamp force:160 KN [18 tons] available @ 92 psi
- Injection module plunger sizes and shot volumes:
  6.2 mm [0.24”] Diameter, 4 cc [0.14oz] max*
  10.0 mm [0.39”] Diameter, 11 cc [0.37oz] max*
  17.0 mm [0.67”] Diameter, 30 cc [1.01oz] max*
  28.0 mm [1.10”] Diameter, 80 cc [2.70oz] max*
- Servo injection force (plunger) 4.4 KN [1000 LBS] min **
- Servo ejection force (platen) 4.4 KN [1000 LBS] min **
- Mold heating power per platen - 3000 watts, 250VAC NEMA 6-20 receptacle
- Thermocouple feedback - type K miniature flat pin receptacle
- Power required - Single phase 200~255 VAC @ 47/63 Hz and 40 amp min
- Compressed air required - 80 psi and 10 CFM min recommended
- Vacuum source required to operate direct path vacuum system

530mm x 430mm Platen Size — Mold Clearance and Travel Overview





ProChanger H1 - Benefits:

- **Multipurpose machine from shop to lab.** Ideal for 24/7 and single shift production, engineering labs & tool shops.
- **Reduce short run production cost.** LIMWORKS proprietary *Injection Module*™ system allows multiple SKU’s and colors to be molded back-to-back in a single shift using premixed material cartridges and interchangeable injection modules.
- **Mold up to an 80cc Shot in a small space.** Micro-sized up to larger 80cc silicone parts produced in a small footprint.
- **Accelerate product development.** Use low volume tool tests to validate high volume tool design and ejection.
- **Precise and repeatable shot size.** Superior control with LIMWORKS exclusive tapered seat rotary directional valve and a servo driven plunger injection system.
- **Improve cavity fill without tool venting.** LIMWORKS proprietary *Injection Path Vacuum*™ extracts air at the nozzle seat and thru the injected material path just prior to nozzle-seat contact. Tool vents and related costs are often not needed.
- **Increase production rate with air eject.** Integrated air ejection offers both automated part ejection and assists manual part ejection.
- **Eliminate machine down time with offline, chemical free cleaning.** *Injection module*™ can be cleaned by bake curing the LSR inside then removing the solidified LSR from the module off line and without harmful chemicals.

*Theoretical volume based on maximum plunger stroke and diameter. ** Servo min force for ref only, may be higher or lower based on time and speed
Specifications above revised 8/2021 and subject to change. Contact WWW.LIMWORKS.COM for additional information.

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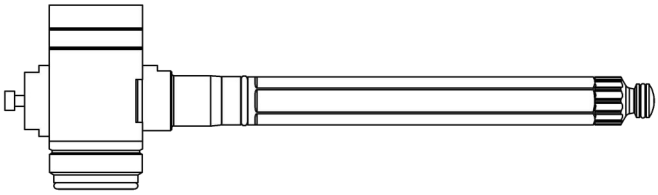
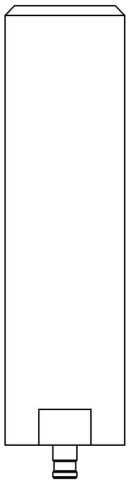
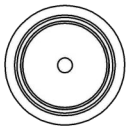
1 Injection Module = 1 Injection Head + 1 Cylinder Assembly (shown below)



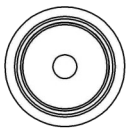
← **PCH1-4000 Injection Head (Side View)**



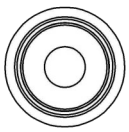
← **PCH1-41XX Cylinder Assembly (Side View)**



← **4 cc Max Shot Volume (6.2mm Bore)**
PCH1-4100 Cylinder Assembly



← **11 cc Max Shot Volume (10mm Bore)**
PCH1-4101 Cylinder Assembly



← **30 cc Max Shot Volume (17mm Bore)**
PCH1-4103 Cylinder Assembly

← **80 cc Max Shot Volume (28mm Bore)**
PCH1-4106 Cylinder Assembly

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