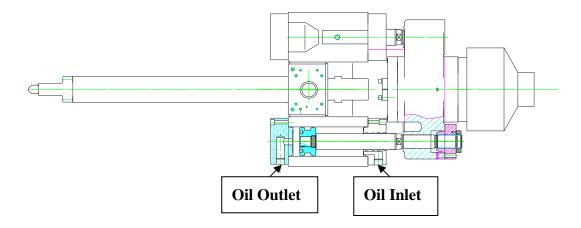


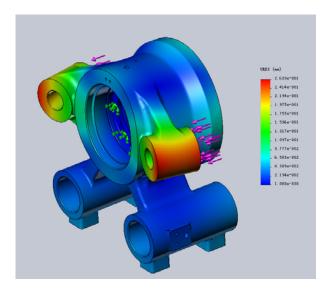
# **Brief Introduction of Lanson GT2 Series Injection Molding Machine**

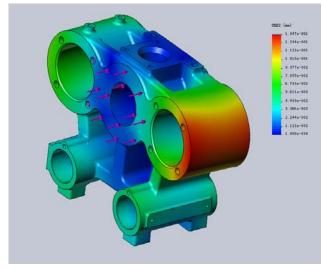
# **General Structure of Twin-Cylinder in the Market:**



The above drawing shows the structure of twin-cylinder injection unit. Volume ratio between feeding oil & returning oil for this structure is 1:1.2, namely, when there is 100L oil feeds into the cylinder there will be 120L out. The larger the return oil volume, the bigger the return oil resistance. Injection force will be counteracted by the resistance.

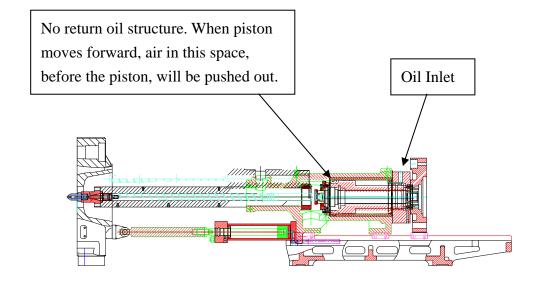
Besides, there is big distortion on the twin-injection cylinder platens. Pictures below (magnified by 100 times) show the deformation status of twin-cylinder's front and rear platens. Both platens are bending under stress.







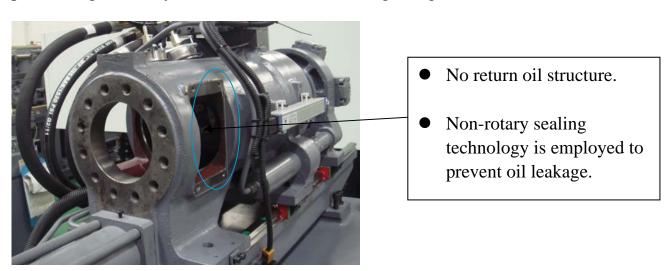
# **Lanson Self-Innovated Single Injection Cylinder Structure:**



Volume ratio between feeding oil and returning oil of our structure is only 1:0.25. That is to say when 100L oil feeds into the cylinder, only 25L returned.

Return oil's resistance, which is affected by oil temperature, size of valves, length of pipes, can reach 10kg/cm<sup>2</sup> generally. If shooting speed increases, resistance will increase. However, the data and figure above fully illustrate that return oil's resistance of our structure is greatly reduced, which is only 2kg/cm<sup>2</sup>.

What's more, there is no distortion problem for single cylinder structure since plasticizing motor, cylinder and screw are working along the same axis.





# **Characteristics of Lanson Injection Unit:**

Patent No.: ZL 200820204463. X Patent No.: ZL 201120286592. X

- 1. Single injection cylinder. No synchronized requirements as twin-cylinder, the big inertia is eliminated and injection accuracy is improved by 98.75%.
- 2. No return oil structure lower returning oil resistance.
- 3. Non-rotary piston. Screw is driven by shaft embedded in piston, which can help to prolong service life of sealing elements and reduce possibility of oil leakage.
- 4. Rigid connection between the action of plastic injection and the control valve, effectively reducing liquid fluctuation and improving accuracy.
- 5. Low friction linear guide railway enhances rigidity of the whole shooting desk.
- 6. Casting injection base, more rigid and durable
- 7. Reasonable shooting stroke
- 8. Enhanced cooling effect of plasticizing barrel



Compact connection between injection cylinder and control valve

No return oil structure. The two small cylinders beside suck the large cylinder back.

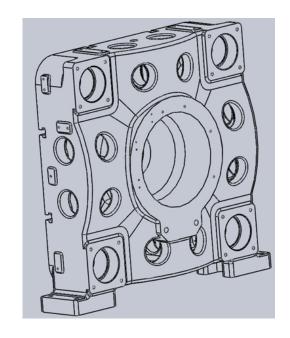
Low friction linear guide railway & rigid casting injection base



# **Characteristics of Lanson Clamping Unit:**

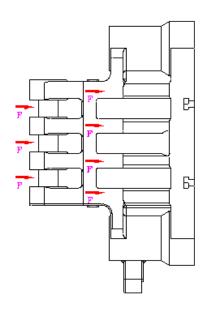
# Optimally Designed Fixed Platen (Patent No. : ZL201220211584.3)

Fixed platen employs patented design "Arched Molding Board" of our company. Stress will disperse when the fixed platen is under stress. Service life of molding board is extended as a result of no stress concentration. Distortion is strictly controlled through finite element analysis.



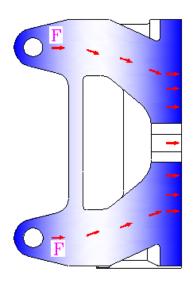
### • Optimally Designed Moving Platen (Patent No. : ZL201220211586.2)

Through increase hinge ears, shearing surface between pins and hinges is maximized. Stress received by moving board is dispersed more equally.



Maximize shearing surface to make stress disperse uniformly.

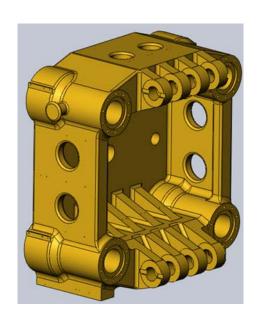




Clamping force from hinges transferred uniformly to the platen central surface then efficiently to the mold-couple so as to better guarantee product quality.

Optimally Designed TailPlaten (Patent No. : ZL201220211583.9)

Employ box type structure to maximize the size, strictly control platen distortion





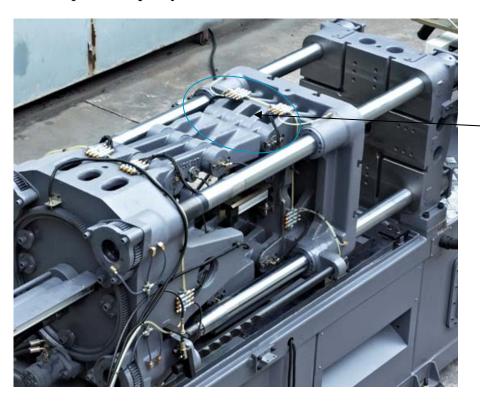
• Employ accurate gear mold adjusting device. Mold adjusting action is smooth and fast. It can also save adjusting time after mould changing with automatic adjusting function.

Accurate and timesaving gear mold adjusting device



# Hinge

In order to increase the service life of hinge pin and steel jacket, we increase the number of hinges, hinge pins and steel jacket's shearing surface. Through widened hinge ears of moving platen, the stress received by molding board is dispersed equally and avoid stress concentration.



The number of hinge ear is increased to four so as to enlarge shearing surface of pins and steal jackets. Stress is dispersed much more uniformly and service life is extended.



Lanson insists on innovation and improvement since its establishment in 2006. During the past nine years, we have invented and developed 3 types of clamping units (GM, GT & GT2). GT2 version is the latest innovation which has received positive feedback from our customers.

Here is a comparing data indicating the parallel tolerance between fixed platen and moving platen of China's standard and of Lanson's.

Parallel tolerance between fixed & moving platen	Zero mold closing force (without mold)	Max mold closing force (with mold)
National standard (mm)	0.3200	0.1600
LS260GT (mm)	0.2202	0.0990
GT2-LS260 (mm)	0.1700	0.0880

The data above is a strong support for our self-innovated clamping unit structure which is superb and top design in China.





# **About production**

We are strict to our production. Take the frame setting for example, the machine frame must be fixed parallelly before general assembling so as to guarantee the overall level benchmark is the same in factory and in clients' workshop.







Level bars are used to check and ensure the horizontal level of the frame.

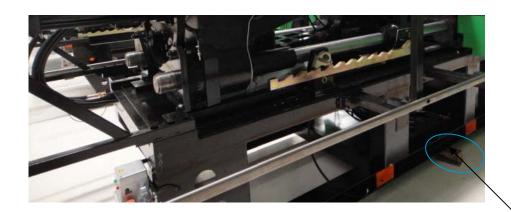






Level pads are fixed and adjusted to make sure the machine frame is not inclined before general assembling. The used pads will be removed and a new set will be provided and ship with the machine.



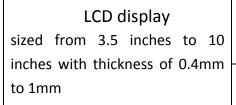




Comparison:
Two well-known
brands in China,
they use wooden
poles to hold the
frame for general
assembling, which
is not able to
ensure the balance
of the whole
machine exactly.



# **Product Showcase:**

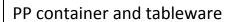




7 inches



4 inches







In mold label container **Electronic connectors** 





PMMA cosmetic container



PET preforms





11 12 13 14 15 16 17 Disposable syringe Ipad cover with thickness of 0.45mm



# Mobile phone cover SMD PC handle