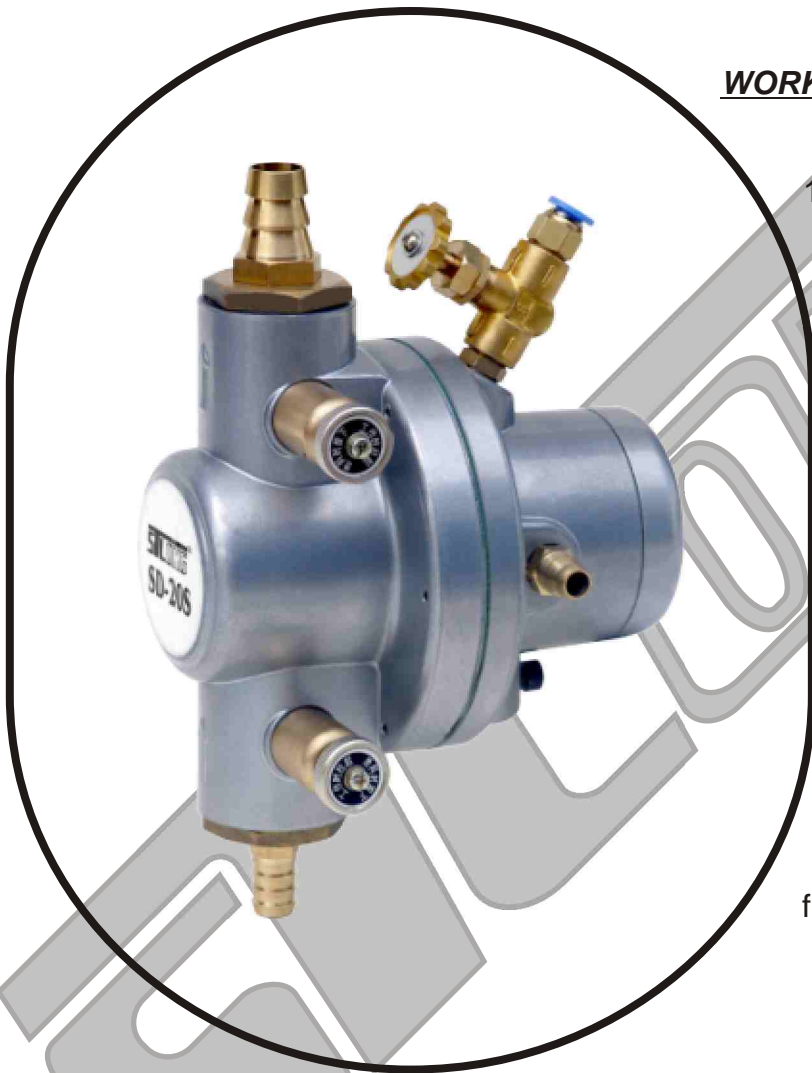


AIR-OPERATED DIAPHRAGM PUMP SD-20S

WORKING CHARACTERISTIC



1. SD-20S Diaphragm Pump is widely used in printing ink and glue circulating system of printing machines in package printing industry, such as water-based printing ink printing machine, intaglio printing machine, flexible printing machine.

2. SD-20S is also suitable used to transfer medium of various viscosity, such as water, oil, serosity, corrosive medium or medium contains micro solid.

3. Due to the power is from compressed air, without any sparkle, interference of static and electro-magnetism. It can directly use in flammable or explosive places.

4. SD-20S is equipped with back-ink buttons, push down the 2 buttons when user finish working, the rest of medium in the pump body and pipeline will flow back into an ink tank. It is save and easier to clean. User must pull up the 2 buttons for next working.

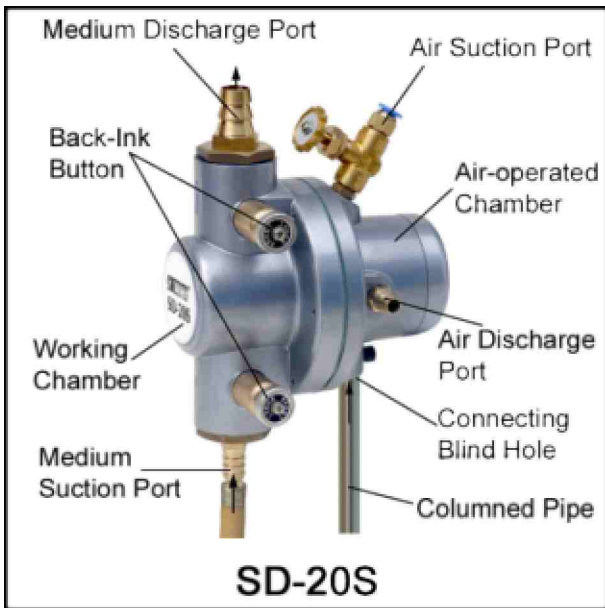


THONG FATT JAYA MACHINERY HARDWARE SDN. BHD.

同發機械五金有限公司 (176024-V)

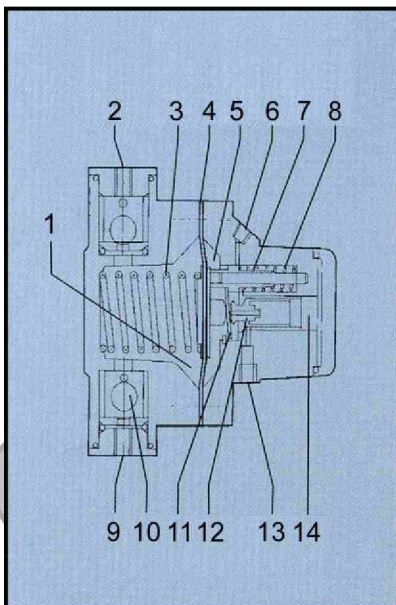
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WORKING THEORY AND STRUCTURE DIAGRAM



SD-20S consists of working chamber and air-operated chamber, and the diaphragms between them. The working theory as below:

1. Compressed air enters into the air-operated chamber (no.5) through the air suction port (no.6).
2. The diaphragms (no.4) move to the left because of the pressure increase.
3. The main spring (no.3) is compressed.
4. The non-return valve (no.10) is open and extrudes the medium from the working chamber (no.1).
5. The air-operated valve core (no.12) move to the left to close the air suction port (no.6).
6. Air discharge through the valve clack (no.11), air-operated sleeve (no.7), air pressure chamber (no.14), finally the air discharge port (no.13).
7. The diaphragms (no.4) move to the right because of the pressure decrease.
8. The air suction port (no.6) is open, and repeat the reciprocating operation continuously to transfer medium.



- | | |
|--------------------------|-------------------------------|
| 1. Working Chamber | 8. Air-operated Sleeve Spring |
| 2. Medium Discharge Port | 9. Medium Suction Port |
| 3. Main Spring | 10. Non-return Valve |
| 4. Diaphragm | 11. Valve Clack |
| 5. Air-operated Chamber | 12. Air-operated Valve Core |
| 6. Air Suction Port | 13. Air Discharge Port |
| 7. Air-operated Sleeve | 14. Air Pressure Chamber |

SPECIFICATION DATA

Model	Inlet & Outlet Diameter (mm)	Working Pressure (Mpa)	Capacity (L/min)	Suction Height (m)	Head (m)
SD-20S	10 12 20	0.2~0.5	4~12	2	4