

# Abstract for IV Bags and Bottles

*Ensymm abstract for infusion and parenteral Bags and Bottles*

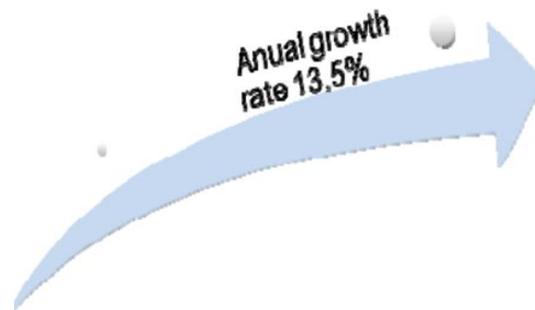


# INTRODUCTION

Due to the wide range of infusion applications, a growing world population and the tremendous bag and bottle demand of developing and emerging countries, the IV solution market is forecasted to grow with 13.5 % annually. Facing such a significant market increase an investment in this area has a high potential to become profitable. Especially price efficient low capacity production lines which are suitable for the local supply and local standards denote a high demand.

Setting up an IV production line is therefore an attractive investment for private investors as well for governmental and non-governmental organizations, which

are interested in serving the local market by their own. As one of the most important and basic medical items, IV Solutions have a high demand worldwide.



In general IV solution is set for the care of nurture, before and after surgical operation, improvement of circulation of blood and care for burnings etc.

## IV Bag and Bottle Background

IV solutions are either administered alone or as vehicle of delivering into the human body drugs and medications which are mixed for a wide variety of therapies (e.g. antibiotics, anesthetics, anti-inflammatory or chemotherapy for cancer treatment, etc.) Approximately 95% of IV solutions are packaged in aseptically-filled, terminally sterilized, pyrogen-free medical grade plastic bags from 100ml to 1000ml in volume. Also bottles can be used as containers for IV solution. Glass bottles are still used for special purposes, such as an administration of nitroglycerine or certain lipids that can bleed into the rigid plastic or flexible bags.

# IV BAG AND BOTTLE BACKGROUND

All solutions are administered with aid of the so called “giving sets” consisting of various length and diameter of tubular plastic with the sharp plastic spike on one end and a stainless steel needle on the other, and various nipples and valves in the middle. Some solutions in most cases are injected through the gravity drip system.



Nowadays, IV solution administration processes require aid of specifically designed electrical pumps and electronically controlled timers. Those sets and devices are produced separately by the companies which are using special equipment and measuring devices.

## High Sensibility

As we are talking about one of the most sensitive products within the medical sector the production, storage and the application have to be executed under sterile conditions.

## IV Bags and Bottles

Our product range comprises of large and small volume parenterals, irrigation solutions, solution formul-

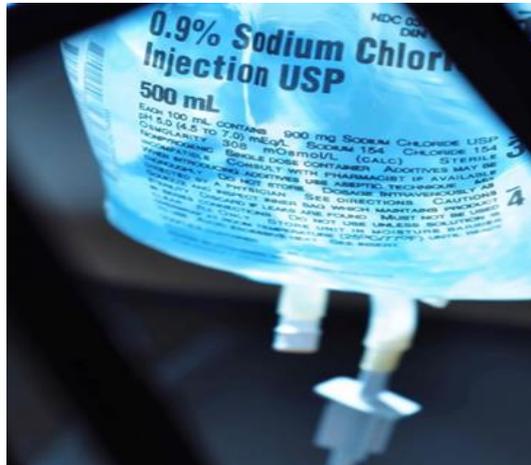
ations, diluents and injectables in varied sterile dosages. Within our product portfolio ensymm offers different types of IV solutions (see list below) either in bottles or bags as per client preferences.

According to the required standard ensymm can procure IV bags/bottles from different sources. You can choose between IV products manufactured either in India, Iran or Europe. The bags/bottles in our program are CE certified and manufactured under WHO/European GMP conditions.

- Dextrose 5%
- DNS
- Normal Saline
- Ringer lactate
- Dextrose 10%
- Electrolyte M

# HIGH SENSIBILITY

Especially, IV Solutions require extremely high purity due to the fact that it is directly injected into the human organism.



If you are interested in our products, please feel free to ask for our price list including all certificates.

ensymm is a German based premier project consulting company for Life Sciences, serving biotech companies, pharmaceutical industry and food ingredient companies. We provide clients with a variety of business and technology consulting services as well as with specialized teams in various areas of our competence.



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