

安全 可靠 创新

*Safety Reliability Innovation*



Top level supplier of nano-micron technology

Noozle Fluid Technology (Shanghai) Co ., Ltd

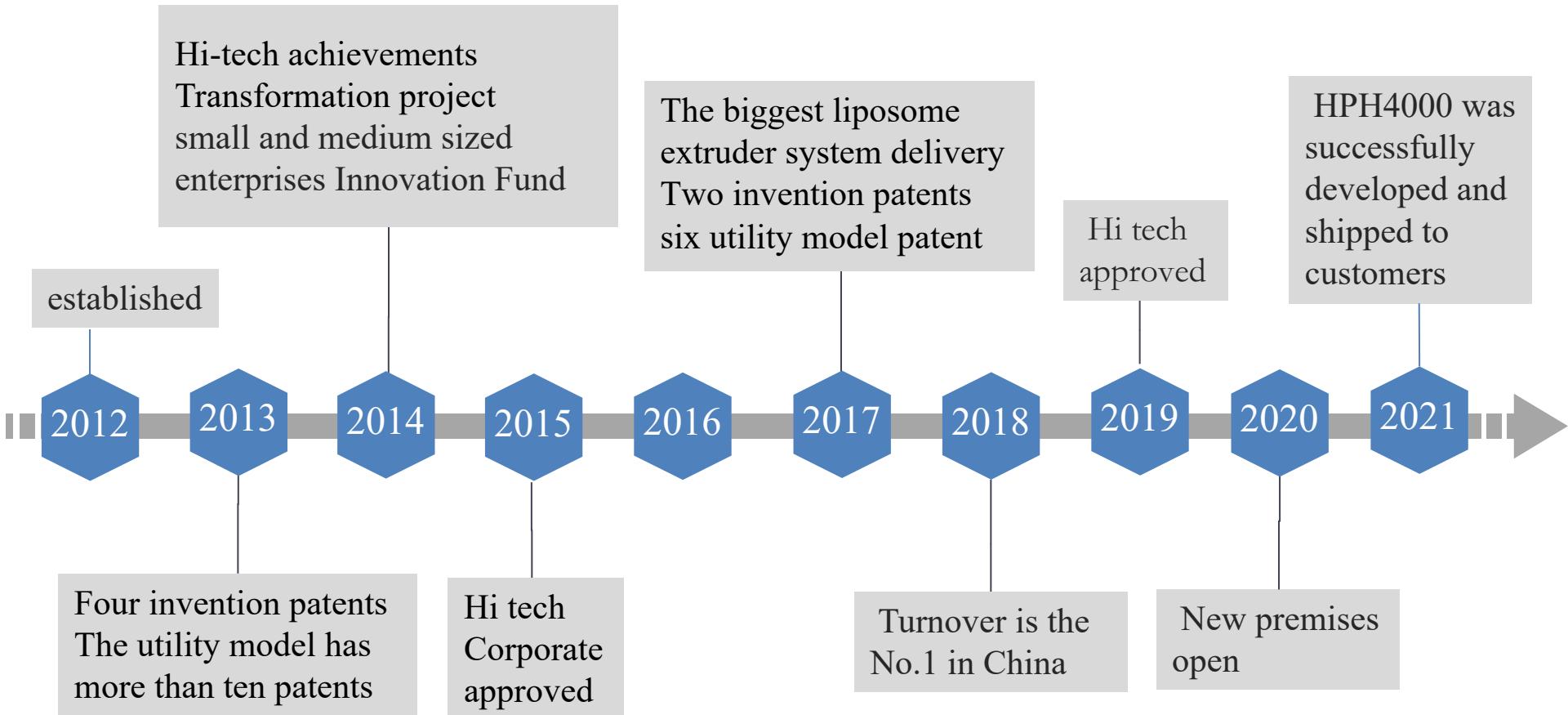


## Introduction

- 2000m<sup>2</sup> office area, conference room,
- 210m<sup>2</sup> Preparation Engineering Center, to provide samples from the lab type to pilot scale production, and provide a microscope, particle size analyzer, dissolution and other analytical instruments.
- GMP standard purification workshop with 40m<sup>2</sup>, use for pilot scale preparation.
- 2000 m<sup>2</sup> workshop,
- ISO9001:2015 approved TUV, CE certificated TUV.



## Milestone



## HORNOR



Noozle company innovation activities, get a variety of reward and recognition :

- Hi Tech enterprise
- 10 + patents.
- High pressure homogenizer, API fine powder Jet mill were

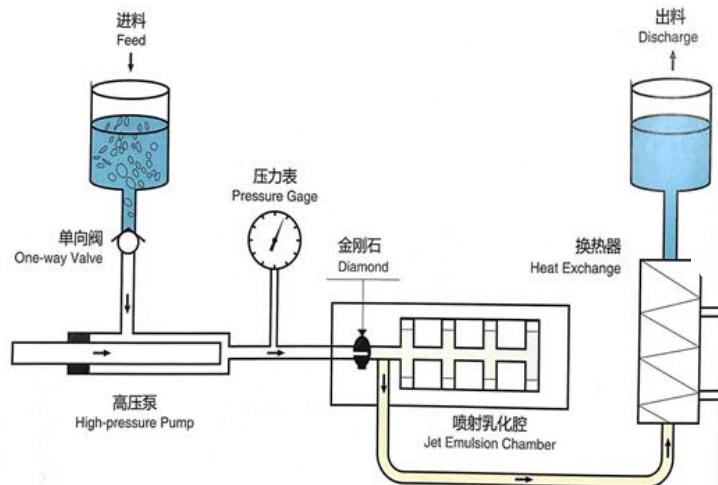
Identified as the Shanghai high technology transformation project

## Product range:

- I. High pressure homogenizer (HPH)
- II. API fine powder Jet mill
- III. Nano Membrane liposome extruder
- IV. Nano targeting drug emulsion preparation system
- V. Isolating system

## I. High pressure homogenizer (HPH)

### Working principle



## Product range



**Nano-E -3L/Hr.**



**Mini -12L/Hr.**



**HPH2000 -220L/Hr**



**HPH4000 -450L/Hr**

## 2000 –commercial type Homogenizer specifications

Model No.	HP(power)	Max pressure	Max capacity	note
NZ-2000-35	20	35000psi	75L/H	
NZ-2000-30	20	30000psi	180L/H	
NZ-2000-25	20	25000psi	220L/H	
NZ-4000-30	37	30000psi	450L/H	

- Note: these are 4 type of machine, not one machine in 4 pressure.

The China's First 100% Independent Intellectual Property Copyrights,  
match FDA Rules , Aseptic Commercial Type Homogenizer for Nano  
Particle Dispersing and Preparation



Project for **Tofflon 东富龙**

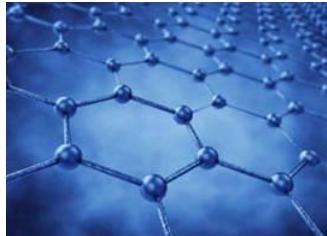


## Application

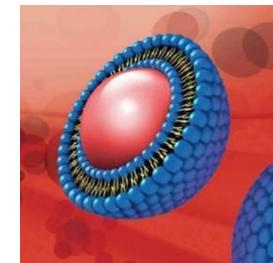
Nano drugs (liposomes, fat emulsion, nano suspension)



New energy products  
(graphene battery conductive paste, solar paste)



Personal care products  
(lipid nanoparticles)

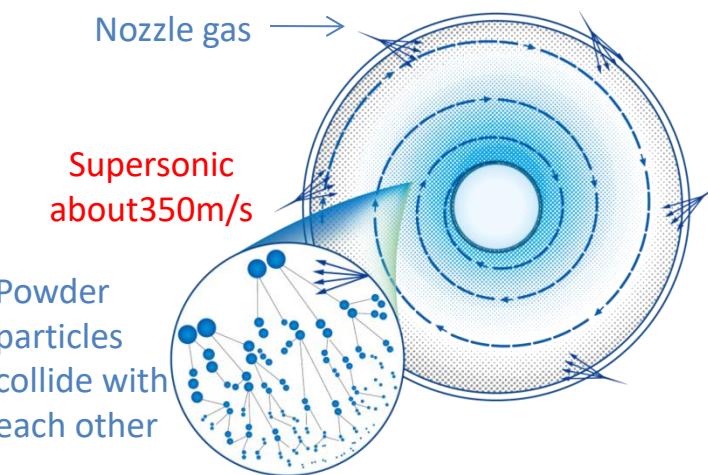
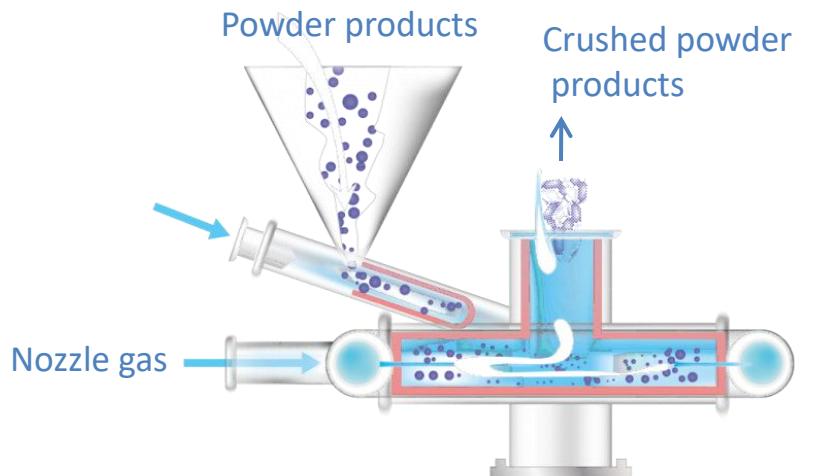


Cell disruption



## II. API ultra fine powder jet mill

### Working principle



## Range



**Micron Jet Mill Lab**

- 5-50 g/hr
- working pressure: 0~12bar
- gas con: 0.10Nm<sup>3</sup>/Min@7bar
- gas con: 0.21Nm<sup>3</sup>/Min@12bar



**Micron Jet Mill Pilot**

- 5-500 g/hr
- Working pressure: 0~12bar
- Gas : 0.4Nm<sup>3</sup>/Min@7bar
- Gas : 0.8Nm<sup>3</sup>/Min@12bar



**Micron Jet Mill 4**

- 0.5 - 5Kg/hr
- Working pressure: 0~12bar
- Gas: 0.76Nm<sup>3</sup>/Min@7bar

## Range



### Micron Jet Mill 6

- 0.5-20 Kg/hr
- working pressure: 0~12bar
- Gas Consumption: 2.1 Nm<sup>3</sup>/Min@7bar

### Micron Jet Mill 8

- 1- 30Kg/hr
- working pressure: 0~12bar
- Gas consumption: 4.56Nm<sup>3</sup>/Min@7bar

	Micron Jet Mill 12	Micron Jet Mill 16	Micron Jet Mill 20	Micron Jet Mill 24
处理量 Batch	10-50kg/h	30-80kg/h	50-125kg/h	80-200kg/h



## Jetmill-6 with SIP



## Jetmill-6 with isolator



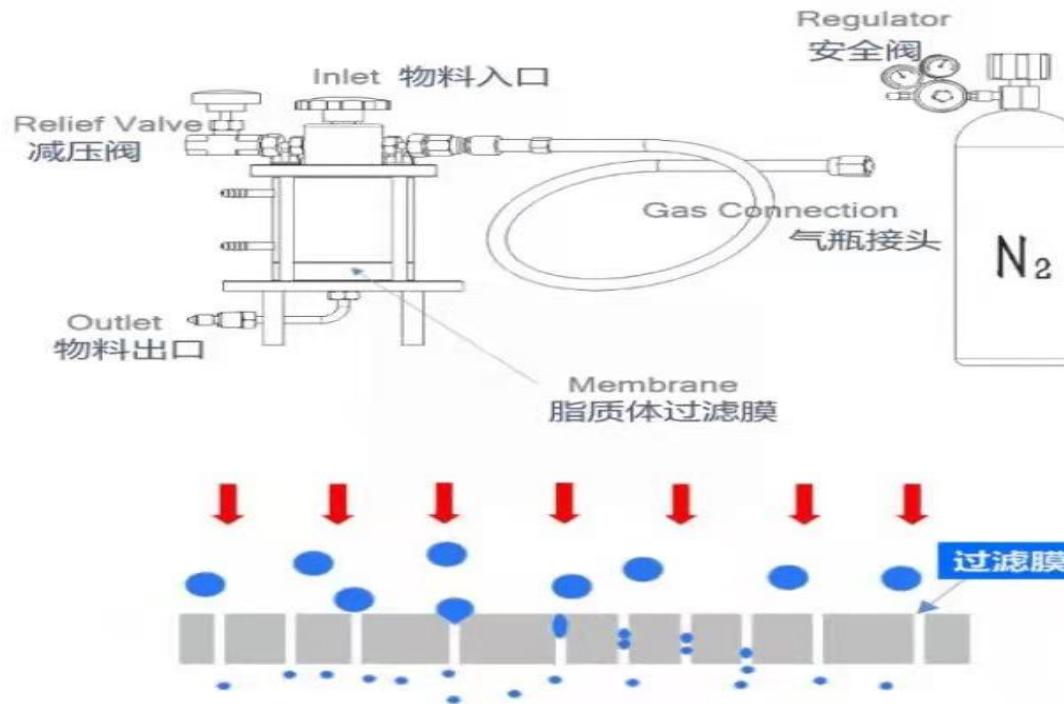
## Low temperature jetmill



# Jetmill-16



### III. Nano Membrane liposome extruder



Filter membrane pore size:  
50nm, 80nm, 100nm, 200nm  
Membrane size: 90mm, 142mm, 293mm

## Liposome extruder machine-01



10ml extruder



800ml extruder



3L 142mm extruding  
unit



5L recycling extruding unit

## Liposome extruder machine-02



30L/ 60L extruding system

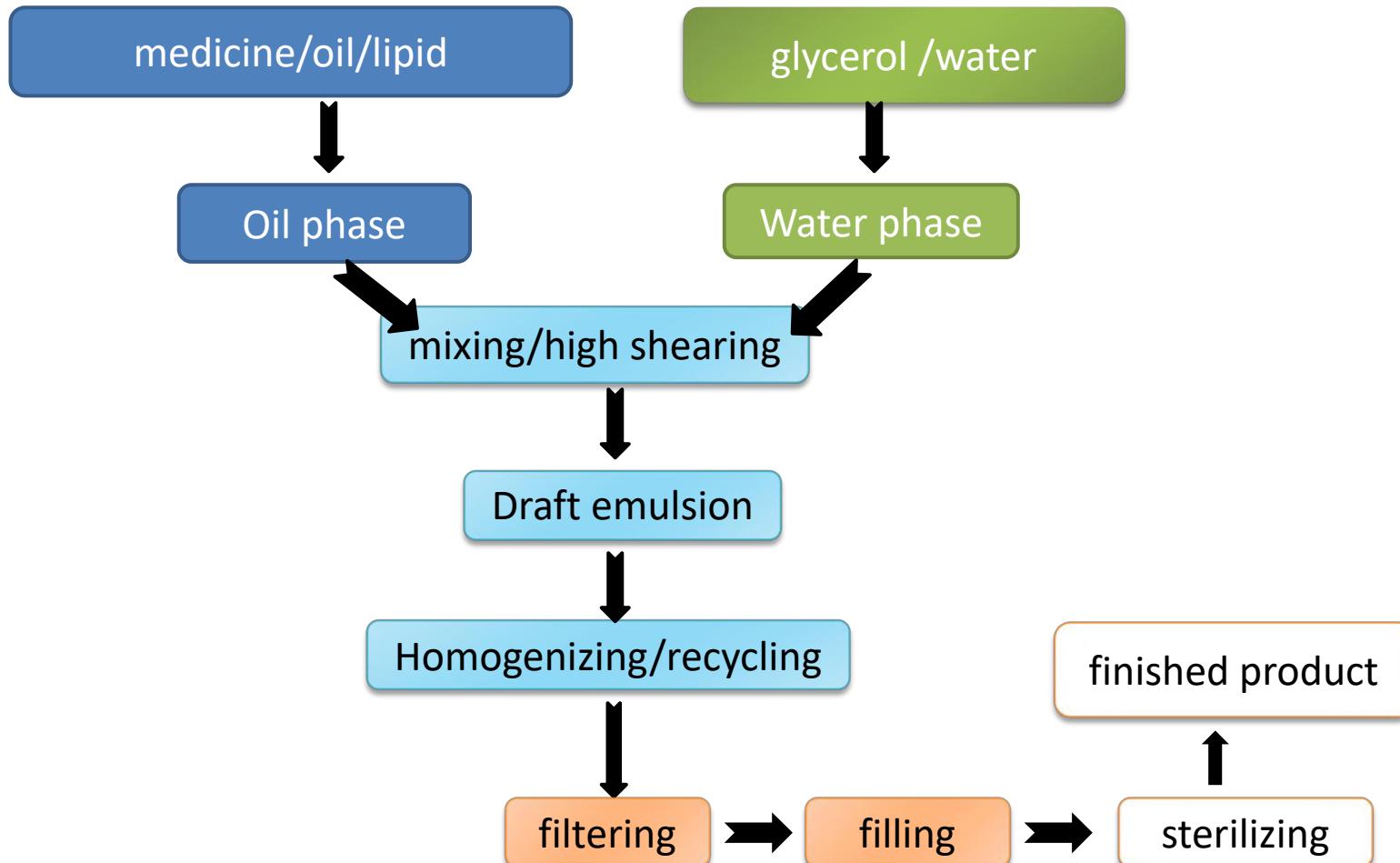
## Liposome extruder machine-specification

Model 型号	E-25	E-47	E-90	E-142 *	E-293 *
Max. Batch Volume	10 mL	100 mL	800 mL	30L**	80L**
Min. Batch Volume	1 mL	20 mL	100 mL	3L	10L
Max. Pressure	800psi	800psi	800psi	800~8000psi	800~8000psi
Max. Temperature	80	80	80	80	80
Filter Membrane size	25	47	90	142	293
Weight (kg)	3	13	19	/	/

\* Production of customized models

\*\* The batch size varies according to the number of extrusion chamber

## IV. Nano targeting drug emulsion preparation system flowchart



## Nano targeting drug emulsion preparation system



## Nano targeting drug emulsion preparation system

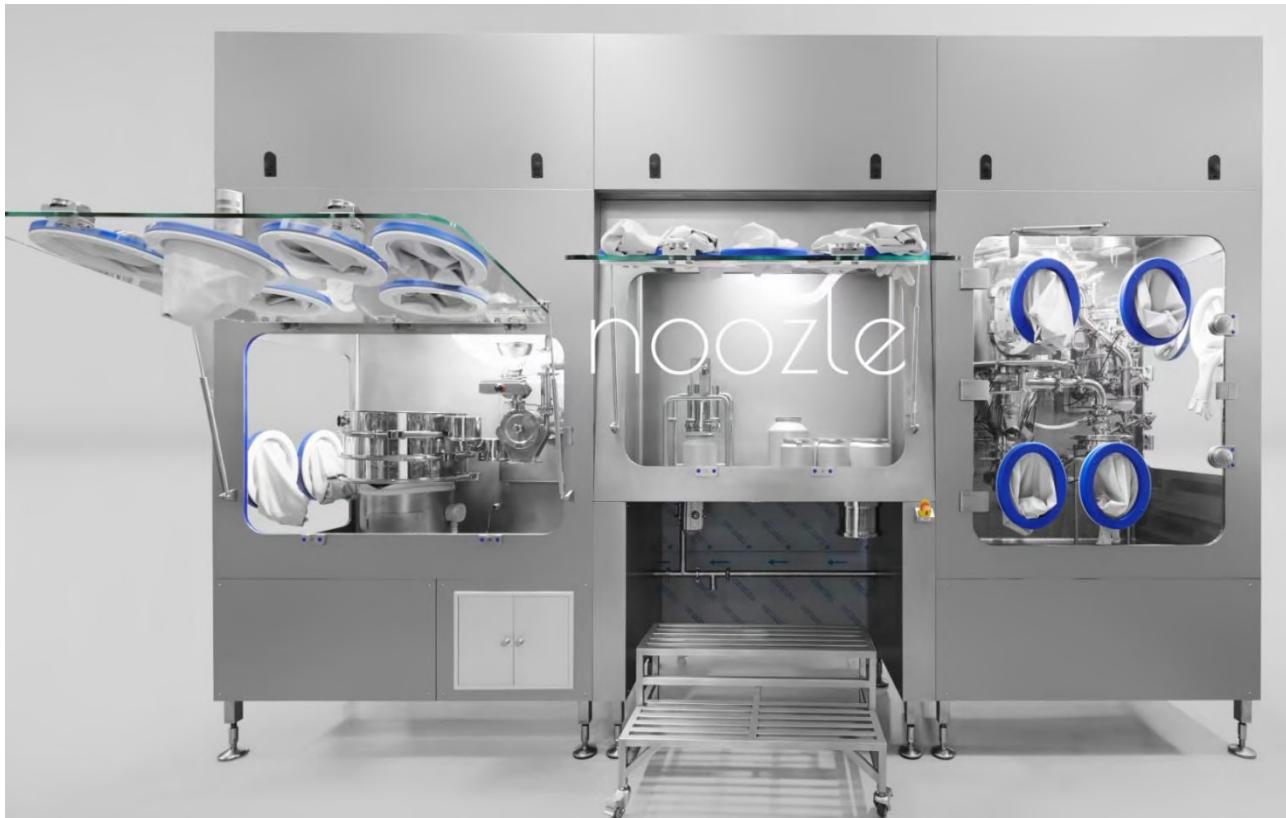


## IV. Isolating system

jetmill4



## jetmill6



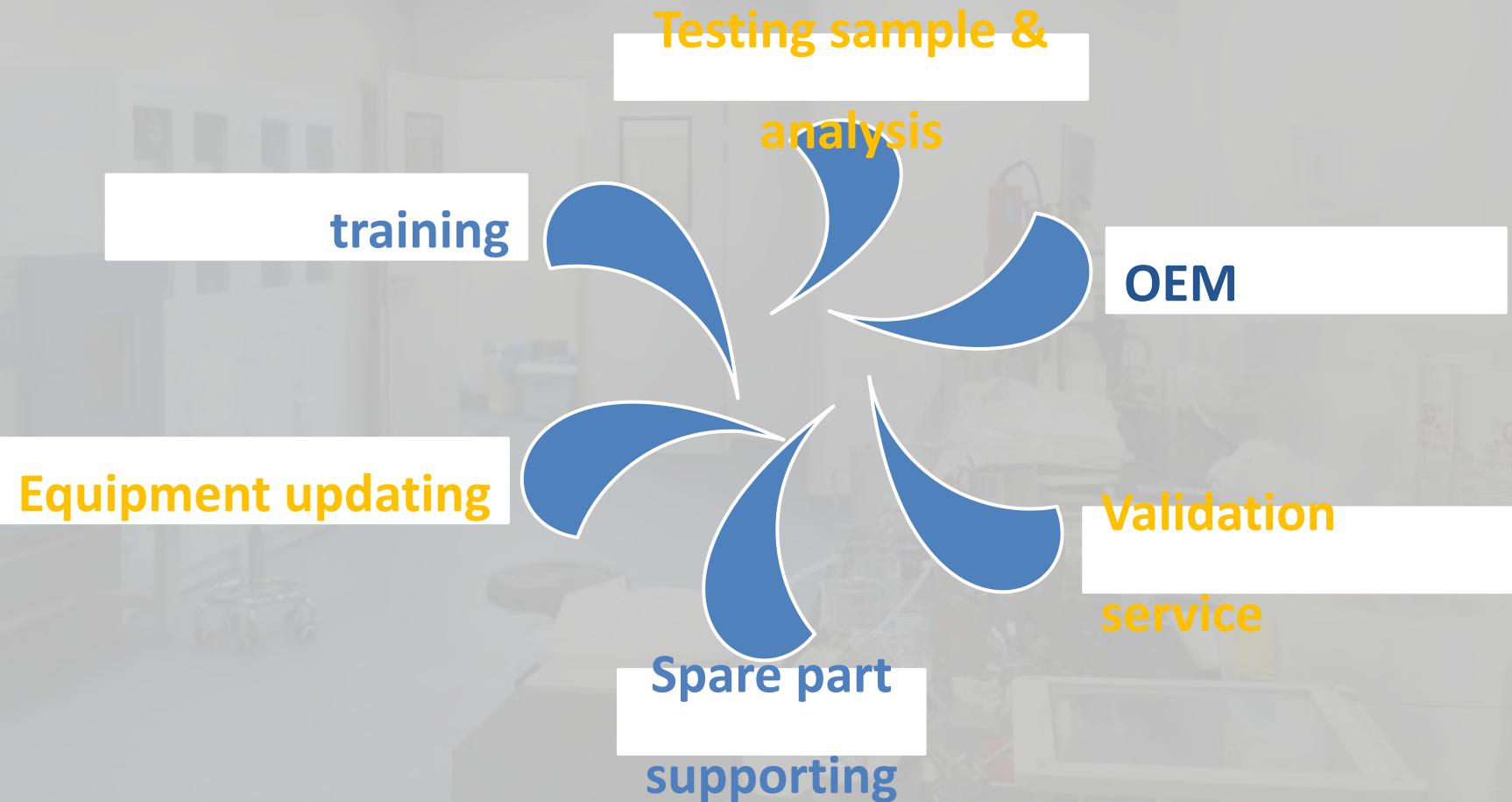
## Reference list



**Tofflon**



## Our service



# Thanks for watching



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Our factory is near Shanghai airport.  
30-40minutes by driving.