

SINA SSD group



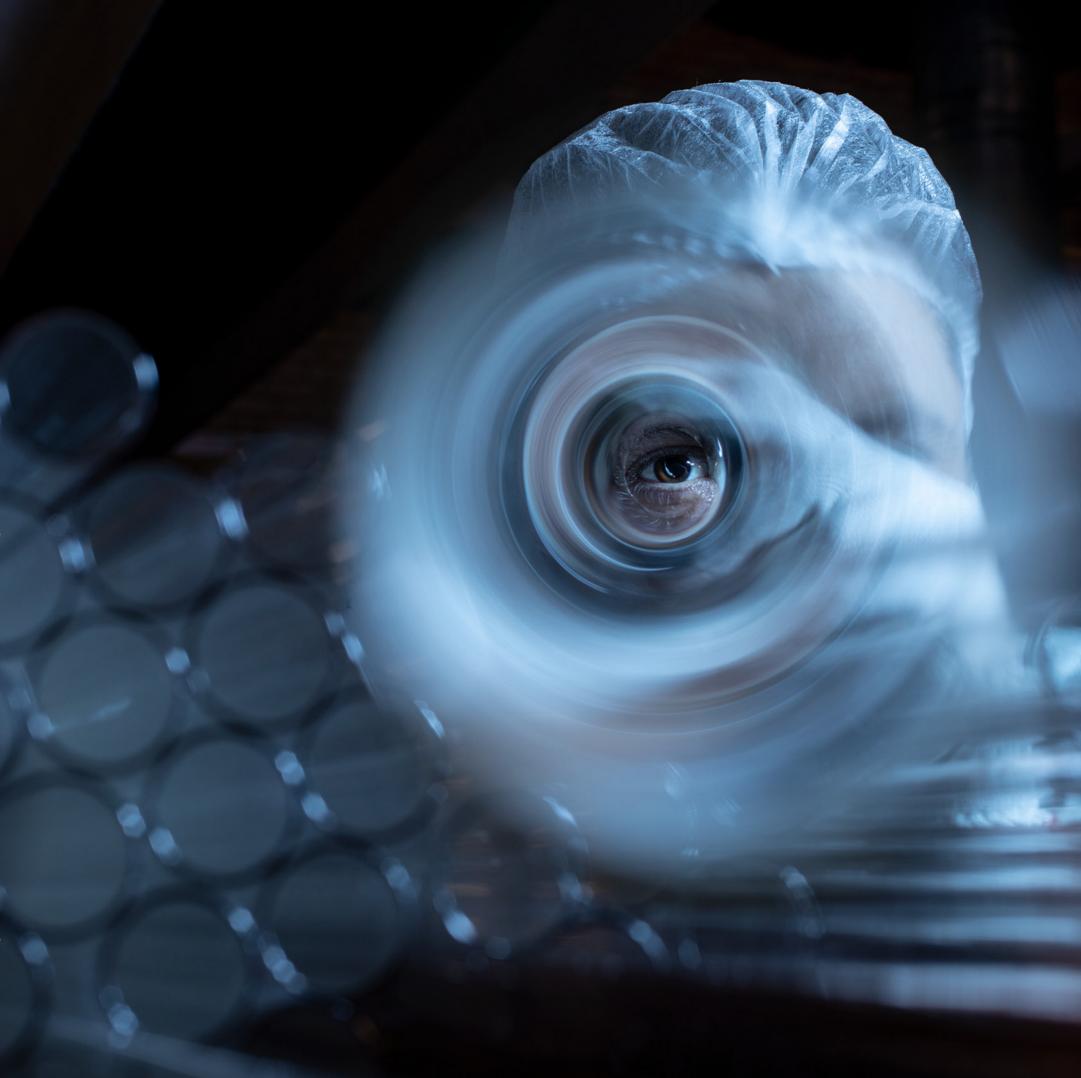
### SINA SHISHEH DARMAN (SSD group)

Have been working for more than 80 years in various fields of glass industry, including industrial glassware and laboratory glassware, SSD group is so proud to present its products in the field of pharmaceutical glass to the pharmaceutical industry. The activity of this group in the field of pharmaceutical glass started with manufacturing pharmaceutical vials. It is known as "Sina Vial" brand in the market. Within a very short time of working in this field, SSD group has succeeded in producing high quality products and offering them to the country's pharmaceutical industry.

SSD group has an operation license from the Ministry of Industry and an establishment license from the Ministry of Health, and the entire production process of this group is produced in accordance with GMP standards, under the supervision of technical and experienced experts.

Besides, the raw material that is used is Borosilicate type I, which has been approved by all global pharmaceutical units and is in accordance with the developed standards in this field. Currently, the production of vials in this company has met some part of the needs of the domestic market and it has also been approved by the experts of domestic pharmaceutical companies.

In near future, the production Glass Cartridge, all the machines of which are designed and manufactured by this company, will be presented to the country's pharmaceutical industry.







#### **Primary quality standards**

The integrated management systems (IMS) is applied according to international standards ISO 9001, and 14001. All Sina Vial products are manufactured based on the international Pharmacopoeia (such as: EP, USP, and JP), and also the DIN ISO requirements for glass primary packaging material.

#### Pharmaceutical quality control

- Production in DGMP environment
- 100% camera inspection of all key dimensional characteristics
- Cosmetic-visual inspection to recognize cracks, scratches, particles, airlines, and bubbles
- Automatic rejection of defective pieces







# Injectable Crimp Neck Vials

#### Sizes

Ranging from 1.8 ml to 30 ml (Additional format upon request)

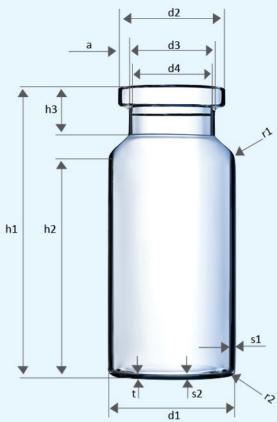
• Material
Borosilicate (Type I) Glass

#### Colors

Clear Amber

• Standards ISO 8362-1

USP



Size designation	Overflow capacity		a	d1		d2	d3	d4	h1		h2	h3	h3		r2	s <b>1</b>		s2	t	Mass
of injection vial	ml		mm	m	m	mm	mm	mm	mm		mm	mm		mm	mm	mm		mm	mm	g
Vidi		Tol			Tol	+0.2	max.	± 0.2		Tol	min.		Tol	æ	*	7	Tol	min.	max.	*
2R	4		1	16	± 0.15	13	10.5	7	35		22	8		2.5	1.5			0.6		4.4
4R	6	± 0.5							45		32									5.7
6R	10			22					40	±0.5	26	8.5	±0.5	3.5		1	±0.04		0.7	7.9
8R	11.5		1.2		±0.2		16.5		45		31				2					8.7
10R	13.5	± 1		24			10.0		45		30	9		4	_					9.5
15R	19					20		12.6	60		45			200				0.7		12.0
20R	26					20		12.0	55		35							0.7		16.2
25R	32.5	± 1.5	1.5	30	±0.25		17.5		65	± 0.7	45	10	±0.75	5.5	2.5	1.2	±0.05		1	18.9
30R	37.5								75		55									21.9

Size designation of injection	Overflow capacity		a mm			d2 mm	d3 mm			h1 mm		h3 mm		r1 mm	r2 s1			55		Mass
vial		Tol		Tol		+0.2	max.	± 0.2		Tol min.			Tol ≈		æ		Tol	min.	max.	. ≈
Insulin	13.5	± 0.5	1	22		13	10.5	7.25	56.5		40	8.30		2.5	1.5					10.5
11R	15.5	±1	1.2	30	±0.2	20	16.5	12.6	52	± 0.5	37	9	± 0.5	4.0	2.0	2.0	± 0.04	0.7	0.7	11.5
12R	16.5		1.2						53.5		39.5			4.5	2.0					
23R	28	± 1.50	1.5				17.5		60	± 0.7	42.3	10	± 0.75	5.5	2.5		± 0.05		1	18.3

These sizes are local consumer standards.

# Non-injectables

## **Screw Neck Vials**

#### Sizes

Ranging from 5 ml to 30 ml (Additional format upon request)

#### Material

Borosilicate (Type I) Glass

#### Colors

Clear Amber



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## **Flip Cap Vials**

#### Sizes

Ranging from 2 ml to 75 ml (Additional format upon request)

#### Material

Borosilicate (Type I) Glass

#### Colors

Clear Amber



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# **Customized products**

### Options for customization:

- Customized sizes from 1.8 ml to 75 ml
- Optimized dimensions and reduced tolerance
- Varied bottom and wall thickness available to meet different needs
- Specific inspections of key dimensional characteristics
- Individual raw materials upon request
- Printing formats per request

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## **Manufacturing Process**

### WE KNOW GLASS

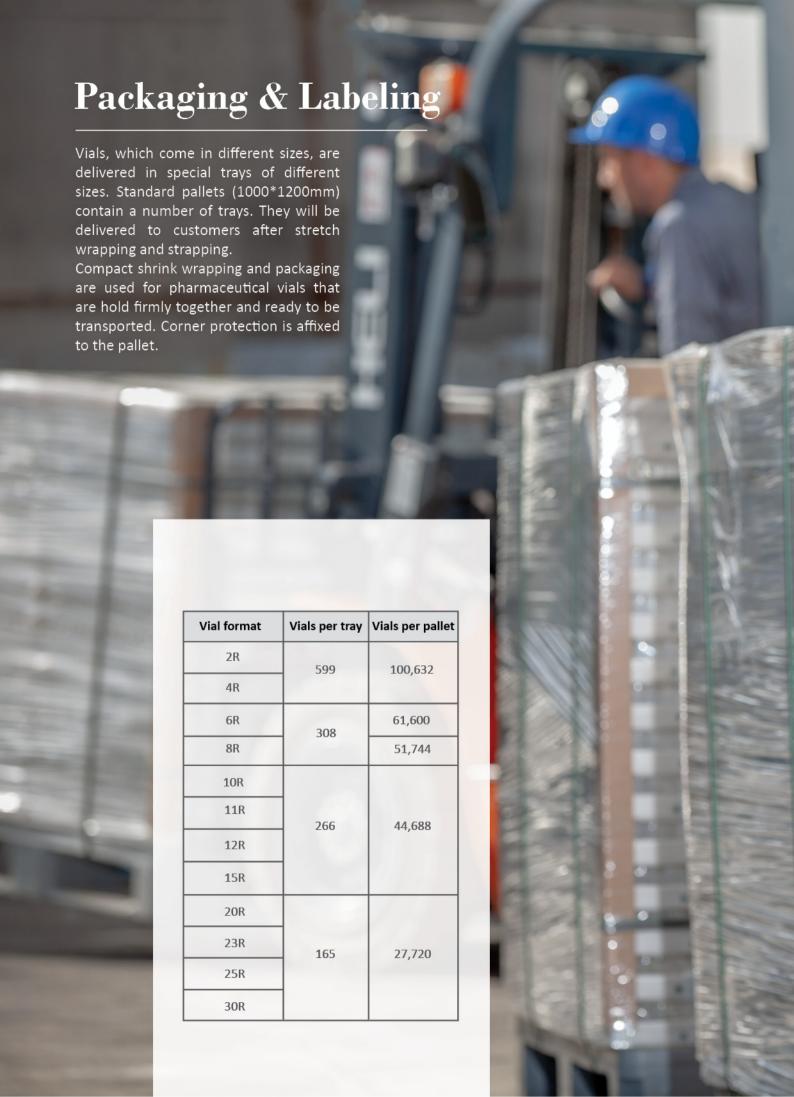
SSD group vials meet a wide range of requirements depending on precision instruments and processes. It can satisfy the needs of the most demanding pharmaceutical company requirements on resistance, cosmetics and dimensions through continuous monitoring of all critical parameters that influence the forming process.

#### The steps of producing glass vials from glass tubes are as below:





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