

# NEW

## RB258/US258

Class A, conform to ASTM E288, EN ISO 1042 or USP

Capacity ml	conform to EN ISO1042 ml	ASTM E288 ml	USP ml	Stopper size TS
5	± 0.04	± 0.08	± 0.02	10/19
10	± 0.04	± 0.08	± 0.02	10/19
20	± 0.04	± 0.02*	± 0.03	10/19
25	± 0.04	± 0.03	± 0.03	10/19
50	± 0.06	± 0.05	± 0.05	12/21
100	± 0.10	± 0.08	± 0.08	12/21
200	± 0.15	± 0.10	± 0.10	14/23
250	± 0.15	± 0.12	± 0.12	14/23
500	± 0.25	± 0.20	± 0.15	19/26
1000	± 0.40	± 0.30	± 0.30	24/29
2000	± 0.60	± 0.50	± 0.50	29/32
5000	-	-	± 1.25	34/35

## R263/US263

Class A, conform to ASTM E-1272-02, EN ISO 4788:2005 or USP

Capacity ml	EN ISO 4788:2005 ml	ASTM E-1272-02 ml	USP ml	Stopper size TS
5 : 0.1	± 0.05	± 0.05	± 0.05	10/19
10 : 0.2	± 0.10	± 0.10	± 0.08	10/19
25 : 0.5	± 0.25	± 0.17	± 0.14	14/23
50 : 1.0	± 0.50	± 0.25	± 0.20	19/26
100 : 1.0	± 0.50	± 0.50	± 0.35	24/29
250 : 2.0	± 1.00	± 1.00	± 0.65	29/32
500 : 5.0	± 2.50	± 2.00	± 1.10	34/35
1000 : 10.0	± 5.00	± 3.00	± 2.00	45/40
2000 : 20.0	± 10.0	± 6.00	± 6.00	45/40

## Why use volumetric glassware according to ASTM- or USP- standard?

In the United States and in Arabic Countries, as well as in many Asian Countries there is strong demand for volumetric glassware according to ASTM- or USP- standards. Essentially, the tolerances of measuring devices made to these standards differ to a great extent from the European norm, ISO, and are much tighter.

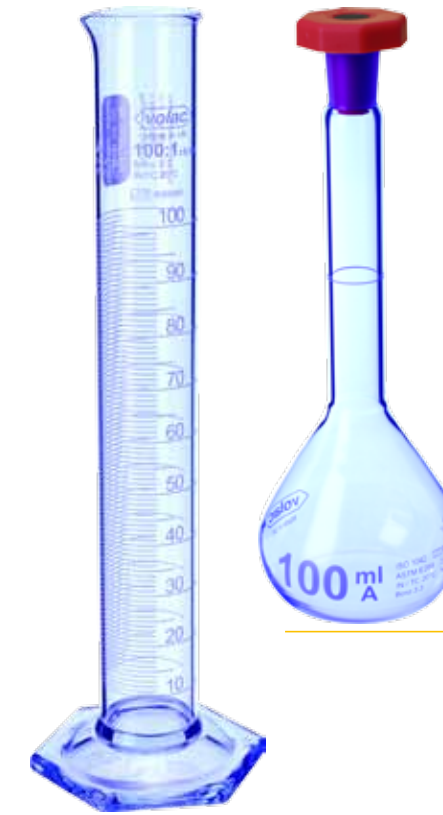
If a company produces goods that have to comply with the American FDA import controls or come within their responsibility, they have to meet certain regulations (GMP). GMP stands for Good Manufacturing Practice. This is a set of regulations, which ensures good quality, good production processes and appropriate production environments in the production of pharmaceutical products and chemical agents, as well as cosmetics, food and animal feed.

Amongst other things the focus lies in a complete and closed traceability of the products. In addition, the traceability and control of the manufacturing process (tracking), plays an important role.

To ensure the tracking of the volumetric glassware which Poulten & Graf produces, for certain products individual serial numbers and quality certificates are provided.

Manufacturers, who do not follow the GMP and cannot ensure complete quality control, face warnings and penalties. At a last resort, producers, who aim to sell their products mainly in territory controlled by the FDA, can lose their permission to sell into the US market.

To ensure maximum reliability, precision and traceability, choose VOLAC volumetric glassware, produced according to ASTM- or USP- standard, with individual serial numbers and certificates.



# NEW!

volac

ASTM

Volumetric Glassware

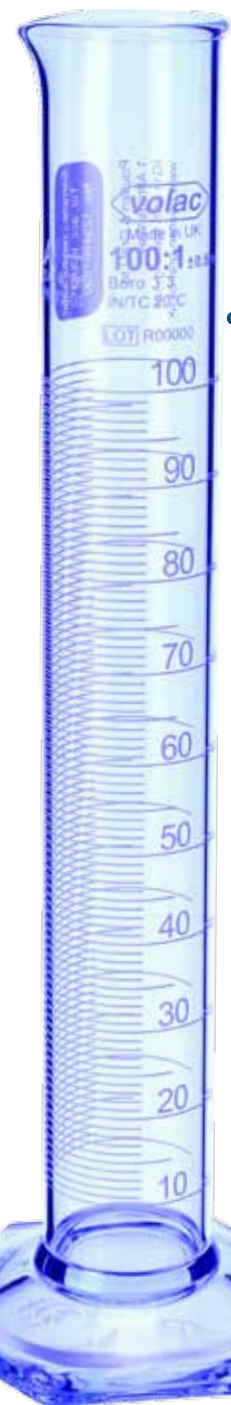
# Poulten & Graf

SUPERIOR LABORATORY PRODUCTS

## Poulten & Graf Ltd

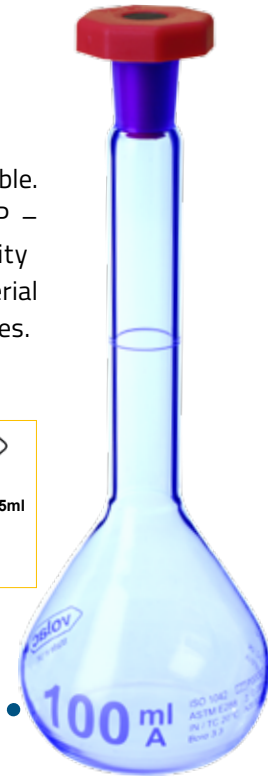
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Fax: +44 (0)20 8594 8419  
www.poulten-graf.co.uk  
VOLAC@poulten-graf.com

**NEW: volac Volumetric Glassware acc. to ASTM and USP**



**Export glassware to the United States, to Arabic and Asian countries without a problem!**

Poulsen & Graf products make it possible. Produced according to ASTM – or USP – standards, they ensure maximum quality by complete traceability, individual serial numbers and individual quality certificates.



Sample - not for sale!  
Tot. acc. to USP  
No. 1234567890

**volac**  
Made in UK

**A** **100:1** ±0.5ml  
ISO 4788 Boro 3.3  
ASTM E1272-02 IN/TC 20°C

LOT R00000

Poulsen & Graf Ltd  
1 Alfreds Way  
IG11 0AS Barking, UK  
www.poulsen-graf.co.uk

Sample - not for sale!  
Tot. acc. to USP  
No. 1234567890

**volac**  
Made in UK

**100 ml A** ±0.08ml  
ISO 1042 P00000  
ASTM E288 ± 0.08ml  
IN / TC 20°C NS 12/21  
Boro 3.3 www.poulsen-graf.co.uk

Poulsen & Graf Ltd  
1 Alfreds Way, IG11 0AS Barking, UK

Batch Certificate of **volac** Graduated Cylinders

Poulsen & Graf Ltd. 1 Alfreds Way, IG11 0AS Barking, UK	
<b>Qualitätszertifikat</b>	
Certificate of Performance	
Certificat de Qualité - Certificate de Qualité	
Lotnummer:	R00000
Artikel-Nr. / Item:	R263F12
Code, Name des Artikel / Code, Name of Article:	VOLAC Measuring Cylinder, 100ml, TS 12
Artikelbeschreibung:	VOLAC Final, 100ml, TS 12
Nennwert:	100 ml
Nennwert (ohne Toleranz - Nominal value):	100 ml
Toleranz in % und ml:	±0,1% ±0,100 ml
Toleranz in % und ml (Tolerance in % and ml):	±0,1% ±0,100 ml
Norm:	ISO 4788 / ASTM 1272
Norm (ISO 4788 / ASTM 1272):	ISO 4788 / ASTM 1272
Prüfungsmethode nach ISO 3881:	Prüfungsmethode nach ISO 3881
Prüfungsmethode (Toleranz in % und ml):	Prüfungsmethode (Tolerance in % and ml):
Mittelwert bei 100% in ml:	100,2
Mittelwert bei 100% in ml:	100,2
Standardabweichung bei 100% in ml:	0,001
Standardabweichung bei 100% in ml:	0,001
Rechtigkeit bei 100% in ml:	0,3
Rechtigkeit bei 100% in ml:	0,3
Präzision bei 100% in ml:	0,001
Präzision bei 100% in ml:	0,001
Anzahlproben bei 100%:	10, 10
Anzahlproben bei 100%:	10, 10
Erweiterungsfaktor bei 95%:	1,96
Erweiterungsfaktor bei 95%:	1,96
Erweiterungsfaktor bei 99,7%:	2,58
Erweiterungsfaktor bei 99,7%:	2,58
Datums der Flow-Validation:	07.07.2014 10:02:54
Datums der Flow-Validation:	07.07.2014 10:02:54
Flow-Path:	Passiert
Flow-Path:	Passiert
Prüfer:	Schick
Prüfer:	Schick
Prüfer - Vollname / Operator:	
Prüfer - Vollname / Operator:	

Batch Certificate of **volac** Volumetric Flasks

Poulsen & Graf Ltd. 1 Alfreds Way, IG11 0AS Barking, UK	
<b>Qualitätszertifikat</b>	
Certificate of Performance	
Certificat de Qualité - Certificate de Qualité	
Lotnummer:	R00000
Artikel-Nr. / Item:	R263F12
Code, Name des Artikel / Code, Name of Article:	VOLAC Final, 100ml, TS 12
Artikelbeschreibung:	VOLAC Final, 100ml, TS 12
Nennwert:	100 ml
Nennwert (ohne Toleranz - Nominal value):	100 ml
Toleranz in % und ml:	±0,1% ±0,100 ml
Toleranz in % und ml (Tolerance in % and ml):	±0,1% ±0,100 ml
Norm:	ISO 1042 / ASTM 288
Norm (ISO 1042 / ASTM 288):	ISO 1042 / ASTM 288
Prüfungsmethode nach ISO 3881:	Prüfungsmethode nach ISO 3881
Prüfungsmethode (Toleranz in % und ml):	Prüfungsmethode (Tolerance in % and ml):
Mittelwert bei 100% in ml:	100,2
Mittelwert bei 100% in ml:	100,2
Standardabweichung bei 100% in ml:	0,001
Standardabweichung bei 100% in ml:	0,001
Rechtigkeit bei 100% in ml:	0,3
Rechtigkeit bei 100% in ml:	0,3
Präzision bei 100% in ml:	0,001
Präzision bei 100% in ml:	0,001
Anzahlproben bei 100%:	10, 10
Anzahlproben bei 100%:	10, 10
Erweiterungsfaktor bei 95%:	1,96
Erweiterungsfaktor bei 95%:	1,96
Erweiterungsfaktor bei 99,7%:	2,58
Erweiterungsfaktor bei 99,7%:	2,58
Datums der Flow-Validation:	07.07.2014 10:02:54
Datums der Flow-Validation:	07.07.2014 10:02:54
Flow-Path:	Passiert
Flow-Path:	Passiert
Prüfer:	Schick
Prüfer:	Schick
Prüfer - Vollname / Operator:	
Prüfer - Vollname / Operator:	

**volac Volumetric Flasks**

**volac** Volumetric Flasks, class A, white graduation, **clear glass**, borosilicate glass, with Polystop®, pack 5 pieces (\*2, \*\*1)

Capacity	TS	ISO and ASTM incl. batch cert. NO single cert.	ISO and ASTM incl. batch cert. with single cert.	acc. to USP with indiv. serial number + single cert.
5 ml	10/19	RB258/A/5	RB258/WAC/A/5	US258WAC/A/5
10 ml	10/19	RB258/B/5	RB258/WAC/B/5	US258WAC/B/5
20 ml	10/19	RB258/D/5	RB258/WAC/D/5	US258WAC/D/5
25 ml	10/19	RB258/E/5	RB258/WAC/E/5	US258WAC/E/5
50 ml	12/21	RB258/F/5	RB258/WAC/F/5	US258WAC/F/5
100 ml	12/21	RB258/G/5	RB258/WAC/G/5	US258WAC/G/5
200 ml	14/23	RB258/H/2*	RB258/WAC/H/2*	US258WAC/H/2*
250 ml	14/23	RB258/I/2*	RB258/WAC/I/2*	US258WAC/I/2*
500 ml	19/26	RB258/J/2*	RB258/WAC/J/2*	US258WAC/J/2*
1000 ml	24/29	RB258/K/2*	RB258/WAC/K/2*	US258WAC/K/2*
2000 ml	29/32	RB258/L/S**	RB258/WAC/L/S**	US258WAC/L/S**
5000 ml	34/35	-	-	US258WAC/M/S**

**volac** Volumetric Flasks, class A, white graduation, **amber glass**, borosilicate glass, with Polystop®, pack 5 pieces (\*2, \*\*1)

Capacity	TS	ISO and ASTM incl. batch cert. NO single cert.	ISO and ASTM incl. batch cert. with single cert.	acc. to USP with indiv. serial number + single cert.
5 ml	10/19	RB258/AM/A/5	RB258/AM/WAC/A/5	US258/AM/WAC/A/5
10 ml	10/19	RB258/AM/B/5	RB258/AM/WAC/B/5	US258/AM/WAC/B/5
20 ml	10/19	RB258/AM/D/5	RB258/AM/WAC/D/5	US258/AM/WAC/D/5
25 ml	10/19	RB258/AM/E/5	RB258/AM/WAC/E/5	US258/AM/WAC/E/5
50 ml	12/21	RB258/AM/F/5	RB258/AM/WAC/F/5	US258/AM/WAC/F/5
100 ml	12/21	RB258/AM/G/5	RB258/AM/WAC/G/5	US258/AM/WAC/G/5
200 ml	14/23	RB258/AM/H/2*	RB258/AM/WAC/H/2*	US258/AM/WAC/H/2*
250 ml	14/23	RB258/AM/I/2*	RB258/AM/WAC/I/2*	US258/AM/WAC/I/2*
500 ml	19/26	RB258/AM/J/2*	RB258/AM/WAC/J/2*	US258/AM/WAC/J/2*
1000 ml	24/29	RB258/AM/K/2*	RB258/AM/WAC/K/2*	US258/AM/WAC/K/2*
2000 ml	29/32	RB258/AM/L/S**	RB258/AM/WAC/L/S**	US258/AM/WAC/L/S**
5000 ml	34/35	-	-	US258/AM/WAC/M/S**

**volac Cylinders**

**volac** Graduated Cylinder, Class A, white graduation, borosilicate glass, hexagonal base, pack 2 pieces (\*1)

Capacity grad.	ISO and ASTM incl. batch cert. NO single cert.	ISO and ASTM incl. batch cert. with single cert.	acc. to USP with indiv. serial number + single cert.
5 ml : 0.1	R263/A/2	R263/WAC/A/2	US263/WAC/A/2
10 ml : 0.2	R263/B/2	R263/WAC/B/2	US263/WAC/B/2
25 ml : 0.5	R263/D/2	R263/WAC/D/2	US263/WAC/D/2
50 ml : 1.0	R263/E/2	R263/WAC/E/2	US263/WAC/E/2
100 ml : 1.0	R263/F/2	R263/WAC/F/2	US263/WAC/F/2
250 ml : 2.0	R263/G/2	R263/WAC/G/2	US263/WAC/G/2
500 ml : 5.0	R263/H/2	R263/WAC/H/2	US263/WAC/H/2
1000 ml : 10.0	R263/I/2	R263/WAC/I/2	US263/WAC/I/2
2000 ml : 20.0	R263/J/S*	R263/WAC/J/S*	US263/WAC/J/S*

**volac** Mixing Cylinder, Class A, white graduation, borosilicate glass, hexagonal base, with PP-stopper, pack 2 pieces (\*1)

Capacity grad.	ISO and ASTM incl. batch cert. NO single cert.	ISO and ASTM incl. batch cert. with single cert.	acc. to USP with indiv. serial number + single cert.
5 ml : 0.1	R264/A/2	R264/WAC/A/2	US264/WAC/A/2
10 ml : 0.2	R264/B/2	R264/WAC/B/2	US264/WAC/B/2
25 ml : 0.5	R264/D/2	R264/WAC/D/2	US264/WAC/D/2
50 ml : 1.0	R264/E/2	R264/WAC/E/2	US264/WAC/E/2
100 ml : 1.0	R264/F/2	R264/WAC/F/2	US264/WAC/F/2
250 ml : 2.0	R264/G/2	R264/WAC/G/2	US264/WAC/G/2
500 ml : 5.0	R264/H/2	R264/WAC/H/2	US264/WAC/H/2
1000 ml : 10.0	R264/I/2	R264/WAC/I/2	US264/WAC/I/2
2000 ml : 20.0	R264/J/S*	R264/WAC/J/S*	US264/WAC/J/S*