

# CAPSULE SINKERS

## THE SINKER

Floating tablets rarely dissolve at a reproducible rate. Using a sinker in Apparatus 2 fixes the tablet to a certain point and aids reproducibility. Sinkers can also be useful where tablets may stick to the sides of the vessel.

**USP 711 States:** "A small, loose piece of non-reactive material such as not more than a few turns of wire helix may be attached to dosage units that would otherwise float. Other validated sinker devices may be used."

Once a sinker design is selected for a particular application, the dimensions and drawings should be recorded to ensure uniformity in the procedure.

## KEY CONSIDERATIONS

Inevitably, home-made sinkers tend not to be reproducible and so commercially available sinkers are quite popular. The choice of sinker will depend on the tablet or capsule.

### General Guidelines:

- **Sinker Size** — The sinker should have minimal surface contact with the tablet as this can affect the dissolution rate. Sinkers are available in different sizes to accommodate most capsule/tablet dimensions. See the sinker and capsule guides on pages 18 – 19.
- **Sinker Weight** — Should be heavy enough to ensure that the tablet sinks to the bottom of the vessel and doesn't move for the duration of the test.
- **PTFE Coated Sinkers** — Can be used where there may be a reaction between steel and the tablet. They also work well with magnetic retrievers.
- **Uncoated** — 316 stainless steel sinkers are more durable than coated sinkers.
- **Basket Sinkers** — Ideal for coin shaped tablets but care should be taken that the outer coating of the tablet does not clog the mesh.
- **Wire Spirals** — Should be as wide as practically possible to avoid clogging which would affect the dissolution rate.

**OEM Key**  
**A** AGILENT  
**S** SOTAX

## PRONGED SINKERS

Part No.	Description	OEM Ref
CAPWHT-VK	3 Pronged Capsule Sinker, Plastic	12-3050 <b>A</b>
MAGWHT-VK	3 Pronged Capsule Sinker with Magnetic Legs, Plastic	12-3056 <b>A</b>
CAPWHT-SV	3 Pronged Capsule Sinker, 316 SS	QLA



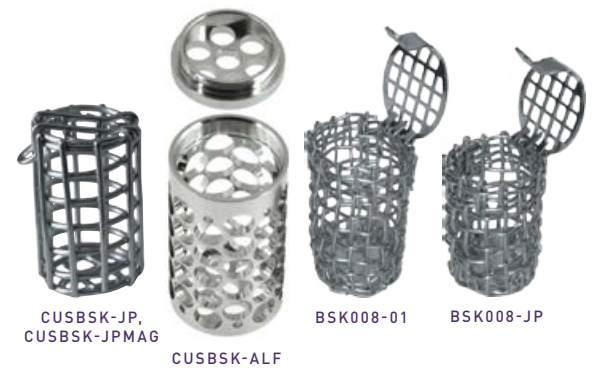
CAPWHT-VK, MAGWHT-VK



CAPWHT-SV

## BASKET SINKERS

Part No.	Description	OEM Ref
CUSBSK-JP	Japanese Pharmacopeia Basket Sinker, 316 SS (same dimensions as shown in USP)	12-3070 <b>A</b>
CUSBSK-JPMAG	Magnetic Japanese Basket Sinker, 316 SS (same dimensions as shown in USP)	QLA
CUSBSK-ALF	Alfuzosin Hydrochloride Cylinder Sinker, 316 SS	QLA
BSK008-01	8 Mesh Basket Sinker, 316 SS, 1.06" (26.9mm) L x .62" (15.7mm) W capacity	QLA
BSK008-JP	8 Mesh Basket Sinker, 316 SS, .90" (22.9mm) L x .51" (12.9mm) W capacity	QLA
SNK008-VK	8 Mesh Sinker Basket with Lid, 316 SS	12-3062 <b>A</b>
SNK010-VK	10 Mesh Sinker Basket with Lid, 316 SS	12-3060 <b>A</b>
SNK020-VK	20 Mesh Sinker Basket with Lid, 316 SS	12-3063 <b>A</b>
SNK040-VK	40 Mesh Sinker Basket with Lid, 316 SS	12-3064 <b>A</b>
SNK080-VK	80 Mesh Sinker Basket with Lid, 316 SS	QLA



CUSBSK-JP, CUSBSK-JPMAG

CUSBSK-ALF

BSK008-01

BSK008-JP



SNK008-VK

SNK010-VK

SNK040-VK

**A QLA PERFECTED PRODUCT!** QLA manufactures Japanese Sinker Baskets in strict conformance to USP and also offers a magnetic version for automatic retrieval systems. QLA's Japanese Sinker Baskets are made with extreme precision and offer coil spacing and vertical wire placement unmatched in accuracy by any other dissolution accessories manufacturer.

## SPIRAL SINKERS

Part No.	Description	OEM Ref
CAPWHT-2S	Spiral Capsule Sinkers, 316 SS, .84" (21.3mm) L x .37" (9.4mm) W capacity, 8.5 coils	QLA
CAPWHT-02	Spiral Capsule Sinkers, PTFE Coated Music Wire, .84" (21.3mm) L x .37" (9.4mm) W capacity, 8.5 coils	QLA
CAPWHT-4S	Spiral Capsule Sinkers, 316 SS, .84" (21.3mm) L x .385" (9.8mm) W capacity, 5 coils	QLA
CAPWHT-04	Spiral Capsule Sinkers, PTFE Coated Music Wire, .84" (21.3mm) L x .385" (9.8mm) W capacity, 5 coils	QLA
CAPWHT-LG	Spiral Capsule Sinkers, PTFE Coated Music Wire, 1.10" (27.9mm) L x .41" (10.4mm) W capacity, 6.5 coils	QLA
CAPWHT-XL	Spiral Capsule Sinkers, PTFE Coated Music Wire, 1.15" (29.2mm) L x .465" (11.8mm) W capacity, 5.5 coils	QLA
CAPWHT-XLS	Spiral Capsule Sinkers, 316 SS, 1.15" (29.2mm) L x .465" (11.8mm) W capacity, 5.5 coils	QLA
CAPWHT-XLSS	Spiral Capsule Sinkers, 316 SS, .885" (22.5mm) L x .465" (11.8mm) W capacity, 3 coils	QLA
CAPWHT-XS	Spiral Capsule Sinkers, 316 SS, .885" (22.5mm) L x .575" (14.6mm) W capacity, 8.5 coils	QLA
CAPWST-15	Spring Style Capsule Sinkers, 316 SS, .61" (15.5mm) L x .19" (5mm) W capacity	8280 <span style="color: red;">S</span>
CAPWST-18	Spring Style Capsule Sinkers, 316 SS, .71" (18mm) L x .24" (6mm) W capacity	7346 <span style="color: red;">S</span>
CAPWST-19	Spring Style Capsule Sinkers, 316 SS, .76" (19.3mm) L x .28" (7mm) W capacity	8283 <span style="color: red;">S</span>
CAPWST-23	Spring Style Capsule Sinkers, 316 SS, .91" (23mm) L x .31" (8mm) W capacity	6881 <span style="color: red;">S</span>
CAPWST-31	Spring Style Capsule Sinkers, 316 SS, 1.22" (31mm) L x .43" (11mm) W capacity	7349 <span style="color: red;">S</span>
CAPWHT-TR	Time Release Capsule Sinkers, 316 SS	QLA
CAPWHT-PC	Breath Film Sinkers, 316 SS	QLA



CAPWHT-2S



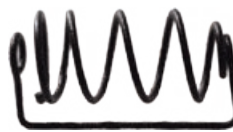
CAPWHT-02



CAPWHT-4S



CAPWHT-04



CAPWHT-LG



CAPWHT-XL



CAPWHT-XLS



CAPWHT-XLSS



CAPWHT-XS



CAPWST-31



CAPWHT-TR



CAPWHT-PC



CAPWST-15



CAPWST-18



CAPWST-19

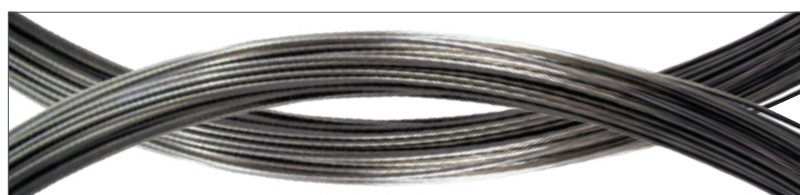


CAPWST-23

## TYPE 316 STAINLESS STEEL WIRE

This wire is ideal for winding your own capsule sinkers, especially if you have non-standard size capsules.

Part No.	Description	OEM Ref
WIRESK-VK	316 SS Sinkers Wire, .032" (.81mm) dia., 50' (15m) Roll	12-3000 <span style="color: red;">A</span>



## O-RING SINKERS

O-ring sinkers feature an expandable rubber ring. This lets the capsule swell while still maintaining adequate sinking.

Part No.	Description	OEM Ref
CAPWHT-S99	O-Ring Sinkers, 316 SS	8399 <span style="color: red;">S</span>



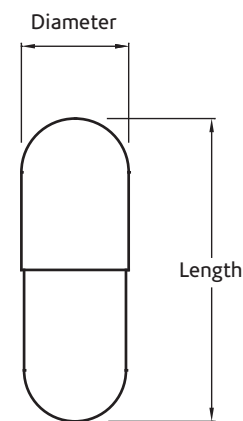
CAPWHT-S99

## SINKER TYPE

	PART NUMBER	STYLE	MATERIAL	COATING	INSIDE DIAMETER	
					(inches)	(mm)
BASKET	CUSBSK-JP	Basket, JP	316 SS	-	0.470	11.9
	BSK008-01	Basket, 8 Mesh	316 SS	-	0.620	15.7
	BSK008-JP	Basket, 8 Mesh	316 SS	-	0.510	12.9
	SNK008-VK	Basket, 8 Mesh	316 SS	-	0.795	20.2
	SNK010-VK	Basket, 10 Mesh	316 SS	-	0.795	20.2
	SNK020-VK	Basket, 20 Mesh	316 SS	-	0.795	20.2
	SNK040-VK	Basket, 40 Mesh	316 SS	-	0.795	20.2
	SNK080-VK	Basket, 80 Mesh	316 SS	-	0.795	20.2
PRONGED	CAPWHT-VK	3 Prong	Nylon / PP	-	0.375	9.5
	MAGWHT-VK	3 Prong	Nylon / PP	-	0.375	9.5
	CAPWHT-SV	3 Prong	316 SS	-	0.275	7.0
O-RING	CAPWHT-S99	O-Ring	316 SS	-	0.230	5.8
SPIRAL	CAPWHT-TR	Butterfly	316 SS	-	0.211	5.4
	CAPWHT-PC	Strip Film	316 SS	-	0.425	10.8
	CAPWST-15	Helix	316 SS	-	0.197	5.0
	CAPWHT-04	Helix	Music Wire	PTFE	0.385	9.8
	CAPWHT-4S	Helix	316 SS	-	0.385	9.8
	CAPWHT-LG	Helix	Music Wire	PTFE	0.410	10.4
	CAPWHT-XL	Helix	Music Wire	PTFE	0.465	11.8
	CAPWHT-XLS	Helix	316 SS	-	0.465	11.8
	CAPWHT-XLSS	Helix	316 SS	-	0.465	11.8
	CAPWST-18	Helix	316 SS	-	0.236	6.0
	CAPWST-19	Helix	316 SS	-	0.276	7.0
	CAPWHT-2S	Helix	316 SS	-	0.370	9.4
	CAPWHT-02	Helix	Music Wire	PTFE	0.370	9.4
	CAPWHT-XS	Helix	316 SS	-	0.575	14.6
	CAPWST-23	Helix	316 SS	-	0.315	8.0
	CAPWST-31	Helix	316 SS	-	0.433	11.0
WIRE	WIRESK-VK	Sinker Wire 50'	316 SS	-	-	-

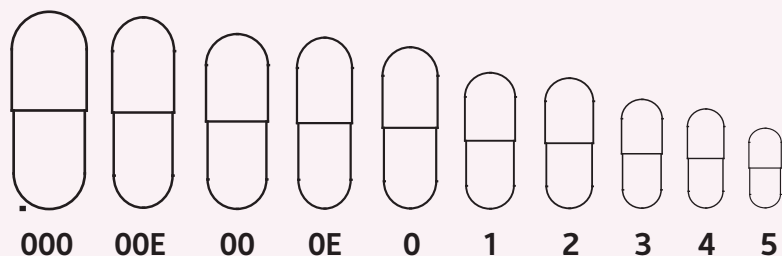
## CAPSULES

CAPSULE SIZE	LENGTH		DIAMETER	
	(inches)	(mm)	(inches)	(mm)
000	1.029	26.1	0.390	9.91
00E	1.012	25.7	0.336	8.53
00	0.917	23.3	0.336	8.53
0E	0.909	23.1	0.301	7.65
0	0.854	21.7	0.301	7.65
1	0.765	19.4	0.272	6.91
2	0.709	18.0	0.250	6.35
3	0.626	15.9	0.229	5.83
4	0.563	14.3	0.209	5.32
5	0.437	11.1	0.193	4.91



INSIDE LENGTH		WIRE DIAMETER		MAX CAPSULE SIZE	NO. OF COILS
(inches)	(mm)	(inches)	(mm)		
1.000	25.4	0.040	1.00	00	-
1.060	26.9	0.028	0.71	000	-
0.900	22.9	0.028	0.71	1	-
0.500	12.7	0.028	0.71	00	-
0.500	12.7	0.025	0.64	00	-
0.500	12.7	0.016	0.41	00	-
0.500	12.7	0.010	0.25	00	-
0.500	12.7	0.007	0.18	00	-
1.000	25.4	-	-	1 (min=3)	-
1.000	25.4	-	-	1 (min=3)	-
1.000	25.4	-	-	1 (min=3)	-
0.900	22.9	-	-	0	-
0.375	9.5	0.030	0.76	-	-
0.425	10.8	0.037	0.94	-	-
0.610	15.5	0.016	0.41	5	6
0.840	21.3	0.043	1.09	0	5
0.840	21.3	0.047	1.19	0	5
1.100	27.9	0.043	1.09	000	6.5
1.150	29.2	0.043	1.09	000	5.5
1.150	29.2	0.043	1.09	000	5.5
0.885	22.5	0.043	1.09	Special	3
0.709	18	0.016	0.41	3	8
0.760	19.3	0.016	0.41	2	8
0.840	21.3	0.043	1.09	0	8.5
0.840	21.3	0.047	1.19	0	8.5
0.885	22.5	0.047	1.19	Special	8.5
0.905	23	0.016	0.41	0	9
1.220	31	0.031	0.78	000	11
-	-	0.032	0.81	-	-

**CAPSULES** Shown at Actual Size



**Custom Design and Fabrication**

QLA provides design and fabrication services including custom sinkers, to any specification.

We can advise you on any project that comes up.

Please speak with your QLA Sales Rep about your requirements.