

RIGID TWEEZERS

Tweezers are inert and non-contaminating.

SHARP END

Ref No.	Length (mm)
027.101	100
.151	150
.201	200

SQUARE END

Ref No.	Length (mm)
027.100	100
.150	150
.200	200

FINE TWEEZERS**SHARP END**

Ref No.	Length (mm)
027.0101	100
.0151	150
.0201	200

SQUARE END

Ref No.	Length (mm)
027.0100	100
.0150	150
.0200	200

SPATULAS

Spatulas are 5mm thick.

Ref No.	L (mm)		W (mm)
043.120	120	x	12
.150	150	x	18
.180	180	x	20
.210	210	x	25
.240	240	x	30

FUNNELS

Funnels are chemically inert with super smooth non-stick internal finish.

Ref No.	Ø (mm)	Ø Stem (mm)	Ht (mm)
039.030	30	8	50
.050	50	10	85
.070	70	12	110
.100	100	14	170
.150	150	16	220

SCOOP

Scoops are chemically inert and non-contaminating. Overall Length 140mm.

Ref No.	Scoop D (mm)	W (mm)	L (mm)
041.001	20	30	80

BOTTLE POURER

Bottle Pourer permits direct pouring of all liquids from reagent bottles in a safe and consistent manner.

Totally inert with PTFE encapsulated viton neck seal.

To fit GL30, 32, 38 and 45 screw neck bottles.

Ref No.	Fits Neck
028.030	GL30
.032	GL32
.038	GL38
.045	GL45

**TISSUE GRINDERS/HOMOGENISERS**

Tissue grinders are used for the controlled reduction of particle size and homogenisation of a variety of substances, especially biological material. Size reduction/homogenisation is brought about by the shearing forces generated by the movement of a rotating plunger in a precision bore tube. Determining factors include clearance between plunger head and tube, speed of rotation and viscosity of medium.

The plunger head is pure PTFE and the plunger shaft stainless steel, Ø6.5mm. The tube is precision borosilicate glass and the clearance between the plunger head and tube 0.15-0.25mm. Other clearances are readily available. Volumes stated are working volumes with the plunger in place.

GLASS VESSEL

Ref No.	ml	Bore (mm)	Ht (mm)
011.102	2	8	120
.105	5	12	135
.110	10	15	150
.115	15	19	155
.130	30	25	175
.150	50	32	195

PLUNGER - PLAIN

Ref No.	ml	Ht (mm)
011.202	2	230
.205	5	235
.210	10	270
.215	15	270
.230	30	270
.250	50	270

PLUNGER - SERRATED TIP

Ref No.	ml	Ht (mm)
011.302	2	230
.305	5	235
.310	10	270
.315	15	270
.330	30	270
.350	50	270



The worlds largest range of stirrer bars -



- Isostatic encapsulation to eliminate cracks and porosity
- FDA and USP Class VI approved PTFE
- Alnico V and Rare Earth magnet cores
- Polished finish to reduce pick-up and cross contamination

Magnetic stirring is a widely used and long established method for stirring and mixing in liquid media. The process is not only simple and inexpensive, but extremely diverse in the range of application.

Examples include: synthetic procedures, drug delivery, chemical analysis, flow control, emulsification, milling and grinding and solid phase extraction.

Magnetic stirring can be used in open and closed systems, over a range of positive and negative pressure, over a broad temperature range and with virtually any chemical reagent. The use of bearings, glands, seals and complex drive mechanisms common to other mixing systems are not required.

Magnetic stirring - Key Points

Material:

PTFE is the material of choice for encapsulation because of its almost total chemical resistance and its wide range of working temperature -200°C to $+280^{\circ}\text{C}$.

Shape:

It is difficult to quantify the most effective shape for a particular stirring application, some shapes are self-evident, for example, an oval or egg shape for round bottom containers or a flat and triangular shape where a scraping action is required, large containers generally require large stirring bars. For very viscous liquids a vaned stirrer at slow speed is required, while for stirring in shallow dishes a long thin stirrer also at slow speed is effective. Often, however, selection is a matter of choice or trial with various shapes.

Particle Formation and Abrasion:

PTFE is a relatively soft material and the rubbing action against the surface of the container may generate small particles. In an application where the generation of such particles must be avoided, the stirring system must be evaluated before actual use. Generation of particles is reduced by careful selection of the shape of stirrer, ensuring the contact surfaces are smooth and even, not using an over powerful stirring bar or use suspended stirring.

Coupling Effects:

De-coupling in the form of spin-out, tumbling or migration is generally due to weakness in the strength of the magnetic circuit, a mismatch in the sizes of drive magnet and stirrer bar or a stirring speed too high.

Rare Earth Magnets:

Rare Earth Magnets may behave in an erratic manner due to increased strength and may migrate to one of the poles of the drive magnet or tumble with great ease and must, therefore, be selected with great care. Due to the strength of Rare Earth Magnets, there may be an increase in abrasion between the container and stirrer, which may cause increased particle generation.

Sterilisation:

PTFE stirring bars can be sterilised by chemical or thermal means, but not by gamma radiation.

Traceability & Change Control:

Full traceability and change control agreements available on request.