

DURAN® GLS 80 STIRRED REACTOR

The perfect support for your mixing processes

Properties:

- Drive using standard magnetic stirrers
- Variable stirrer shaft, can be used for 1 000 ml and 2 000 ml DURAN® GLS 80 laboratory glass bottles
- Stirrer element exchangeable (Stirrer impeller type available as accessory)
- Can be used up to 500 rpm
- Completely autoclaveable
- Temperature resistant up to 140 °C
- Compatible with the proven DURAN® connection systems; Hoses with bores from 1.6 mm to 12.0 mm can be fitted
- Significantly improved through mixing compared to standard magnetic stirring bar
- Materials used PP/PTFE/PEEK/stainless steel
- Parts in contact with media conform fully to FDA requirements
- Supply includes bottle (optional)
- 4 ports: 2 x GL 18, 2 x GL 14



Application:

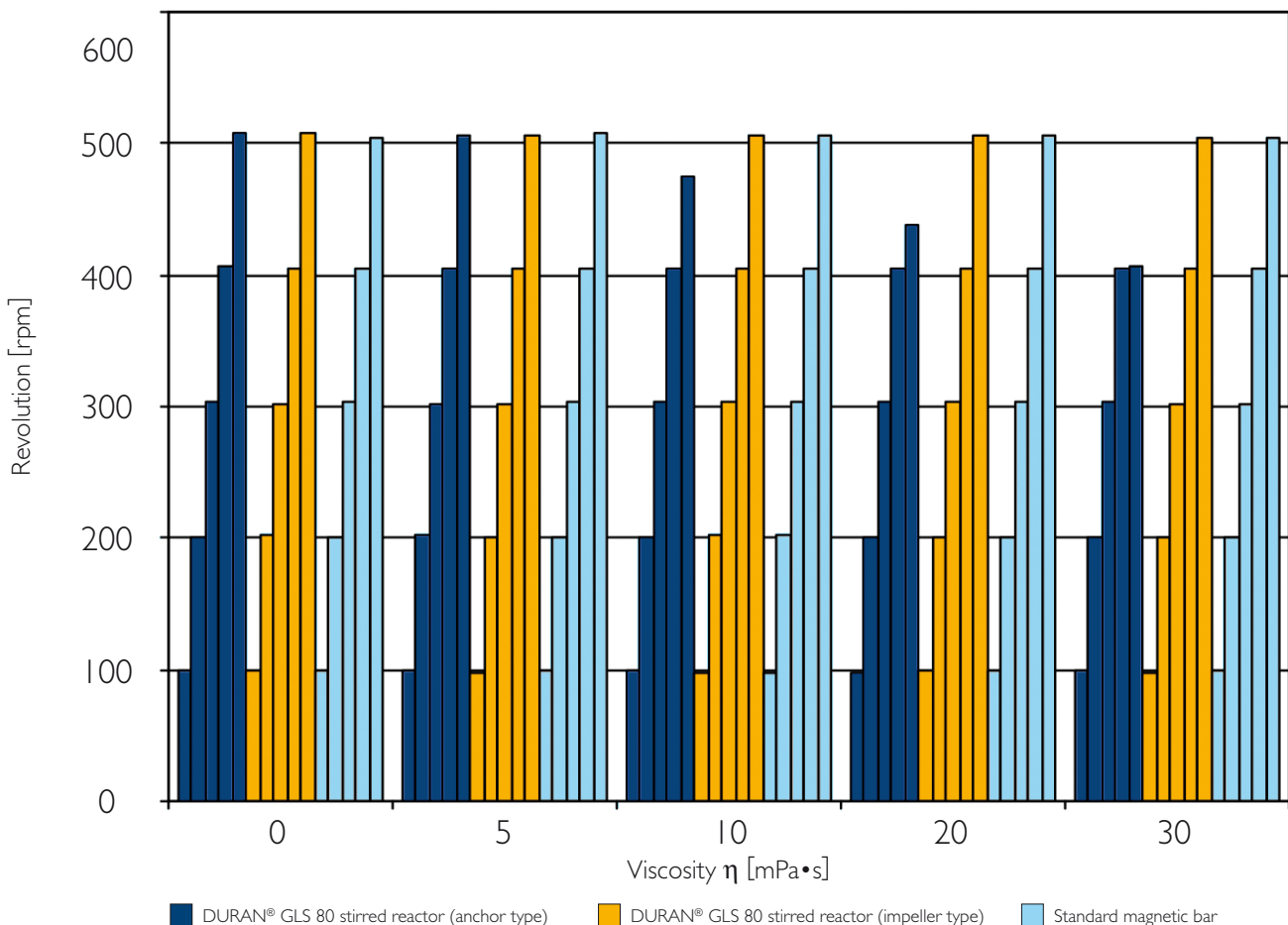
The above mentioned properties make the DURAN® stirred reactor ideal for the widest possible range of mixing processes in laboratories, e. g. mixing liquids or dissolving solids. The connections available permit you to introduce other media into the bottle or remove media during mixing. The whole assembly is autoclaveable, so that it can be used in biological applications, for simple fermentation processes, for example. With the aid of components from the DURAN® connection system you can connect extra media bottles or fit a sterile pressure release.

Further accessories for the connection of hoses can be found in our brochures "DURAN® GLS 80 glass bottles with wide neck" and "DURAN® GL 45 laboratory glass bottles and accessories".

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Operation at varying viscosities

The GLS 80 stirred reactor was tested at different rpm and with varying viscosities to check whether the target rpm could be reached. The results shown below indicate that the anchor type paddle is not suitable for a rotary speed of 400 rpm or more in combination with a viscosity higher than 10 mPa•s. Under these operating conditions, the impeller type stirrer should be used. It has an increased surface and can be used without any restrictions or disadvantages compared to the standard magnetic stirring bar.



The results of the GLS 80 stirred reactor with anchor and impeller type stirrers were compared to the results of a standard magnetic bar (10 x 60, PTFE coated). Test conditions: PVP/water solution in different concentrations was used as experimental liquid to achieve a viscosity of 10, 20 and 30 mPa•s. For 0 mPa•s pure water was used. The temperature was 30 °C and the distance between glass bottom to stirrer was 1 cm (exception: magnetic stirrer bar, applied directly to the bottom).

Cat. No.	Description	Thread GLS	Anchor stirrer Ø mm	impeller stirrer Ø mm	Pack/Quantity
12 003 79		80	62		1
	Stirred reactor cap, stirrer anchor type, magnetic, complete with shaft, connection and screw cap				
12 003 80		80	62		1
	Stirred reactor anchor type, magnetic, complete with DURAN® GLS 80 bottle 1 000 ml, GL 14 screw cap (PP, blue), 2 x GL 14 screw cap (PBT red), 2 x GL 18 screw cap (PBT red)				
12 003 81		80	62		1
	Stirred reactor anchor type, magnetic, complete with DURAN® GLS 80 bottle 2 000 ml, GL 14 screw cap (PP, blue), 2 x GL 14 screw cap (PBT red), 2 x GL 18 screw cap (PBT red)				
Accessories for GLS 80 stirred reactor					
12 003 82				62	1
	Stirrer impeller type, magnetic, for GLS 80 stirred reactor				
12 003 83			62		1
	Stirrer anchor type, magnetic, for GLS 80 stirred reactor				
12 003 85		80			1
	Spare screw cap, 4 ports, for GLS 80 stirred reactor, PP, blue/grey				
12 003 86					1
	Spare shaft for GLS 80 stirred reactor, stainless steel, including PEEK connection				

You can obtain these products from your specialist laboratory ware dealer.