
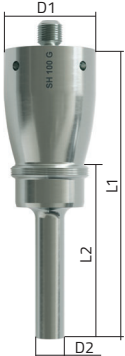




Standard / booster / flow-through horns

The standard / booster / flow-through horns transfer the oscillations from the ultrasonic converter to the probe with different increases in amplitude. Depending on application and compatibility, different probes can be mounted onto the standard / booster / flow-through horns for very diverse applications. Flow-through vessels such as DG 4 G, or sleeve adapters (NA 29 G/NA 45 G) for corresponding vessels can be screwed onto all horns with external thread.




All horns are tuned to the corresponding operating frequency. The lengths given may deviate slightly due to material tolerances in the titanium alloy.

To fasten a probe or a titanium flat tip:

Description	SH 70 G	SH 100 G	SH 200 G	SH 400 G
Code No.	486	3731	3732	3734
Figure				
Length L1 [mm]	122	126	118	109
Length L2 [mm]	76	75	70	63
Diameter D1 [mm]	40	40	40	50
Diameter D2 [mm]	13	13	13	25
Torque [Nm]	70	70	70	70
Compatible with UW...	2070/3100	100	200	400
Material	TiAl6V4 (3.7165)			
Accessories kit	2 sickle spanners HS 40/42 long (in individual shipment)			2 sickle spanners HS 45/50 long (in individual shipment)



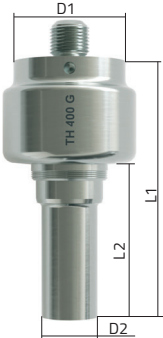
Standard / booster / flow-through horns

To fasten a probe or a titanium flat tip:

Description	SH 213 G	SH 219 G	SH 225 G
Code No.	527	3647	3634
Figure			
Length L1 [mm]	131	122	115
Length L2 [mm]	79	70	62
Diameter D1 [mm]	40	40	40
Diameter D2 [mm]	13	19	25
Torque [Nm]	70	70	70
Compatible with UW...	2200/3200	2200/3200	2200/3200
Material	TiAl6V4 (3.7165)		
Accessories kit	2 sickle spanners HS 40/42 long (in individual shipment)		

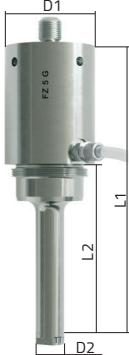
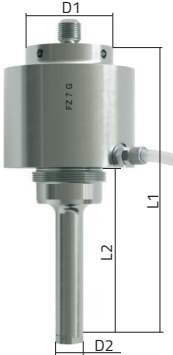
Standard / booster / flow-through horns

No connection option for probe/titanium flat tip:

Description	TH 100 G	TH 200 G	TH 400 G
Code No.	3968	3969	3970
Figure			
Length L1 [mm]	130	121	114
Length L2 [mm]	78	79	68
Diameter D1 [mm]	40	40	50
Diameter D2 [mm]	13	13	25
Torque [Nm]	70	70	70
Compatible with UW...	100	200	400
Material	TiAl6V4 (3.7165)		
Accessories kit	2 sickle spanners HS 40/42 long (in individual shipment)		2 sickle spanners HS 45/50 long (in individual shipment)

Standard / booster / flow-through horns

To connect a titanium flat tip for flow-through applications:

Description	FZ 5 G	FZ 7 G
Code No.	490	452
Figure		
Length L1 [mm]	122	130
Length L2 [mm]	75	75
Diameter D1 [mm]	40	40
Diameter D2 [mm]	13	13
Torque [Nm]	70	70
Compatible with UW...	2070/3100/100	2200/3200/200
Material	TiAl6V4 (3.7165)	
Accessories kit	2 sickle spanners HS 40/42 long (in individual shipment), 1 spanner SW 10, 1 titanium flat tip TT 13 FZ, 1 hose screw connection with cap nut and sealing ring, 1 silicone hose	

Standard / booster / flow-through horns

Mounting

When mounting each standard / booster / flow-through horn to the corresponding ultrasonic converter the correct sickle spanner should be used. Detailed instructions on correct mounting can be found in the accompanying SONOPULS instructions for use.

Notes

- In order to attain optimal operation and a long life span, the mating surfaces of the ultrasonic converter and standard / booster / flow-through horns must be clean and free of damage. The one-piece standard / booster horns are used e.g. for sample processing in particle size analysis, or for sonication of ceramic suspensions. Here, probes are not mountable.
- When operating the flow-through horns FZ 5 G or FZ 7 G, the amplitude display on the ultrasound generator can dramatically recede in the case of increasing acoustic liquid damping. This has no effect on the output of the flow-through horns, however. The titanium flat tip with hole (TT 13 FZ) included in the delivery can be replaced with a separately-available flat tip without hole (TT 13), if it is not necessary to feed a medium through the hole.