# Tools

# Lifting & Tightening

The line Tools & Accessories contains a set of tools that will enhance and/or simplify the handling of Metenova's products.





ZG2, ZGP, ZF100, ZFM100, Lifting Tool



ZG3 – ZG7 Lifting Tool



Lifting Tool





ZG8 - ZG10 Lifting Tool



**Tightening Tool** 



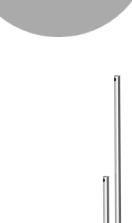
ZF160, ZFM160 Lifting Tool

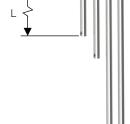


**HS Stator Tightening Tool** 



Extension Socket Kit







### **General Information**

DS-022 Tools LT Rev 4

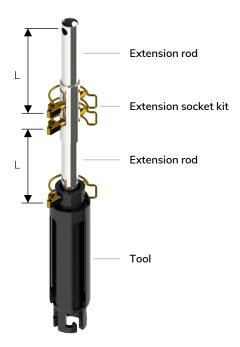
Material	Rods	Stainless Steel ASME TP 316L acc. to SA-479 & EN 1.4404 acc. to EN 10272
	Rod pins	Stainless Steel ASME 304 acc. to SA-479 & EN 1.4301 acc. to EN 10272
	Tool heads	Polyamide 30% glass fiber reinforced, Polyoxymethylene (POM) and/or Black Anodized Aluminum.
Packing and Marking		Items are individually packed and for traceability purposes marked with item & id no.
Quality Assurance		Metenovas Quality Assurance System ensures the quality and traceability at all stages of the process.

Note: When using tools with extensions, great care must be taken so that neither vessel nor product are damaged. This is done at your own risk, in case of uncertainty, tank entry is recommended.



#### Modular tool system

Possible to build together several extensions to reach down into deep vessel. Can even be used when the space above the vessel is limited since assembly and disassembly can be done when the tool system is lowered or taken out of the vessel.



# **Tools**

Part #	Extension	Compatible with
ZG00016-05232	Extension socket kit	A kit for assembling more than one extension rod
ZG00016-00782 Extension rod L=150 mm		Extension rods can be used for all tightening tools and
ZG00016-04513 Extension rod L=300 mm		
ZG00016-04775	Extension rod L=800 mm	lifting tools for ZG, ZGP, ZF and ZFM.
ZG00016-00726	Extension rod L=1400 mm	
	<b>Tightening tool</b> (For tightening torque specifications for each size, please refer to the User Manual)	
ZG00016-00866	ZG Tightening Tool, Male Post 18 mm, L=150 mm	ZG1 • ZG2 • ZG2P • HP2 • HS2
ZG00016-05382	ZG Tightening Tool, Male Post 32 mm, L=150 mm	ZG3 • ZG5 • ZG6 • ZG7 • ZG5P • ZG7P • HP5 • HS5
ZG00016-05381	ZG Tightening Tool, Male Post 40 mm, L=150 mm	ZG8 • ZG9 • ZG10 • HP8 • HS8
ZG53016-04377	ZG8 Tightening Tool with guide, Male Post 40 mm, L=150 mm	ZG8
ZG14016-04787	ZG9 Tightening Tool with guide, Male Post 40 mm, L=150 mm	ZG9
ZG24016-04788	ZG10 Tightening Tool with guide, Male Post 40 mm, L=150 mm	ZG10
ZG00016-06806	ZG11 Tightening Tool with guide, Male Post 48 mm, L=150 mm	ZGX11
	Stator Tightening tool (For tightening torque specifications for each size, please refer to the User Manual)	
HS51016-03805	HS2 Stator Tightening Tool, L=0 mm	HS2
HS52016-03627	HS5 Stator Tightening Tool, L=0 mm	HS5
HS53016-03920	HS8 Stator Tightening Tool, L=0 mm	HS8



# **Tools**

Part #	Lifting tool	Compatible with
ZG00016-00872	ZG Lifting Tool, Mix Head 18 mm, L=150 mm	ZG2
ZG00016-00779	ZG Lifting Tool, Mix Head 32 mm, L=150 mm	ZG3 • ZG5 • ZG6 • ZG7
ZG53016-04376	ZG8 Lifting tool, Mix Head, L=150 mm	ZG8
ZG14016-04785	ZG9 Lifting tool, Mix Head, L=150 mm	ZG9
ZG24016-04786	ZG10 Lifting tool, Mix Head, L=150 mm	ZG10
ZG51P016-04790	ZG2P Lifting Tool, Mix Head, L=150 mm	ZG2P
ZG52P016-05188	ZG5P Lifting Tool, Mix Head, L=150 mm	ZG5P
ZG23P016-04777	ZG7P Lifting Tool, Mix Head, L=150 mm	ZG7P
ZF12016-05174	ZF100 Lifting Tool, Mix Head, L=150 mm	ZF100
ZF16016-05175	ZF160 Lifting Tool, Mix Head, L=150 mm	ZF160
ZFM12016-06661	ZFM100 Lifting Tool, Mix Head, L=150 mm	ZFM100
ZFM12016-06664	ZFM160 Lifting Tool, Mix Head, L=150 mm	ZFM160
HP51016-05224	HP2 Lifting Tool, Mix Head, L=600 mm	HP2
HP52016-03620	HP5 Lifting Tool, Mix Head, L=800 mm	HP5
HS51016-05223	HS2 Lifting Tool, Rotor, L=600 mm	HS2
HS52016-04036	HS5 Lifting Tool, Rotor, L=800 mm	HS5

Note: The lifting tool ZGX11 is unavailable.

Due to the heavy weight and the mounting distance, tank entry is required for the installation.



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