


**TOOL LIST**

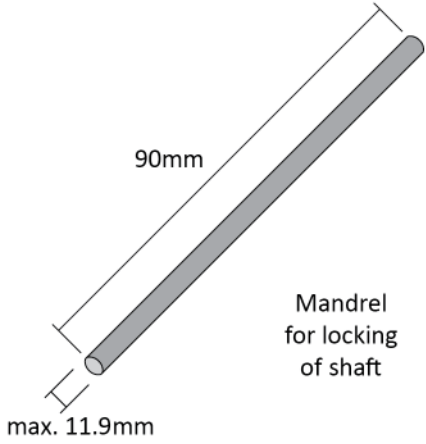
**Tools**


Below are all of the Tools that are available from **Processtec** for use on the **ViscoTwin** pumps:


**Maintenance Level 1 Tools**


With one exception (spindle bolt position 2180), Maintenance Level 1 only requires standard tools available in the public market. Required tools are listed in the tables below.


<b>SPINDLE BOLT SOCKET WITH HEX (VT70)</b>				<b>T-38</b>
eData-ID	RELATED POSITIONS	MAINTENANCE LEVEL	MATERIAL	
12567	1011-125	1	Alumium	
<p><b>NOTES:</b> <i>To loosen and tighten Spindle Bolts</i></p>				

<b>LOCKING ROD TO BLOCK DRIVE SHAFT (VT70)</b>				<b>--</b>
eData-ID	RELATED POSITIONS	MAINTENANCE LEVEL	MATERIAL	
18793	1000 / Drive Shaft	1	AISI: 304	
<p><b>NOTES:</b> <i>Identical rod for all ViscoTwin G7 types.</i></p>				


TORQUE WRENCH (SMALL)				--
eData-ID	RELATED POSITIONS	MAINTENANCE LEVEL	MATERIAL	
	2259	1		
	1303-BC (DAMS)	1		
	2258, 2186	2		
	1008	3		
<p><b>NOTES:</b> Min. Torque: &lt;= 3.68 lb-ft   5 Nm* Max. Torque: &gt;= min. torque of 'Torque Wrench (LARGE)' Compatible with all sockets (hexagon or Allen key) as specified by related positions.</p>				


TORQUE WRENCH (LARGE)				--
eData-ID	RELATED POSITIONS	MAINTENANCE LEVEL	MATERIAL	
	2180, 1016, 1041	1		
	2205, 2279, 2177	2		
	2177	2		
<p><b>NOTES:</b> Min. Torque: &lt;= maximum torque of 'Torque Wrench (SMALL)' Max. Torque: &gt;= 110.6 lb-ft (150 Nm) Compatible with all sockets (hexagon or Allen key) as specified by related positions.</p>				

TORQUE SCREW DRIVER				--
eData-ID	RELATED POSITIONS	MAINTENANCE LEVEL	MATERIAL	
	1303-BC	1		
	ANGA 6, 11, 14, 15	1		
	2186	2		
	2259	1		
<p><b>NOTES:</b> Min. Torque: &lt;= 3.68 lb-ft (5 Nm*) Max. Torque: &gt;= 8.85 lb-ft (12 Nm) Compatible to Allen key solution 1 or solution 2 as defined below (see For Dual Acting Mechanical Seals only below).</p>				


HEXAGON NUT SOCKETS				13mm, 24mm & 27mm
eData-ID	RELATED POSITIONS	MAINTENANCE LEVEL	MATERIAL	
	2259	1		
	1016, 1041	1		
	2180	1		
<p><b>NOTES:</b> Compatible with torque wrench drive.</p>				


<b>ALLEN KEY TO TIGHTEN HEXAGON SOCKET SCREWS</b>				--
eData-ID	RELATED POSITIONS	MAINTENANCE LEVEL	MATERIAL	
	1303-BC ANGA-6, 11, 14, 15	1		
<p><b>NOTES:</b></p> <p>1. Best Practice Solution - Allen key bit (2.5mm) compatible to torque screw driver.</p> <p>2. Good Practice Solution - Allen key socket (2.5mm) compatible to torque screw driver.</p> <p>3. Minimum Solution - Allen key (2.5mm)</p>				

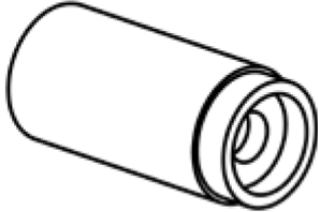
<b>TORQUE SCREW DRIVER</b>				--
eData-ID	RELATED POSITIONS	MAINTENANCE LEVEL	MATERIAL	
	1303-BF/BC	1		
	2261-BF/BC	1		
<p><b>NOTES:</b></p> <p>Used to remove O-rings gently from grooves. Applicable to all <b>ViscoTwin</b> G7 types.</p>				
<p><b>3rd party solution:</b></p> <p><b>Brand:</b> Craftsman <b>Name:</b> 4PC Hook and Pick Set <b>Item #:</b> 00904981000P <b>Model:</b> 4981</p>				

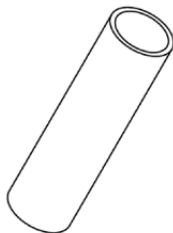
METRIC FEELER GAUGE				13mm, 24mm & 27mm
eData-ID	RELATED POSITIONS	MAINTENANCE LEVEL	MATERIAL	
	2200, 2201	1		
<p><b>NOTES:</b> Used to measure clearance between spindles.</p>				
<p><b>3rd party solution:</b>  <b>Brand:</b> Eastern Industries  <b>Type:</b> MFG-25-T-76 GC SERIES</p>				


**Maintenance Level 2 Tools**

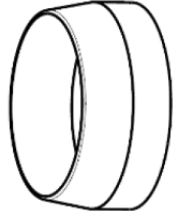
<b>HEXAGON NUT SOCKETS</b>				<b>18mm</b>
RELATED POSITIONS	MAINTENANCE LEVEL	eData-ID	MATERIAL	
2177	2			
<p><b>NOTES:</b> Bolts M12 Socket Size: 18mm</p> <p>Compatible with torque wrench drive.</p>				

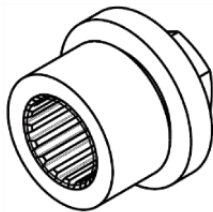
<b>ALLEN KEY SOCKETS</b>				<b>--</b>
RELATED POSITIONS	MAINTENANCE LEVEL	eData-ID	MATERIAL	
2186	2			
2258	2			
1008	3			
<p><b>NOTES:</b> Hexagon socket screw M5, Allen Key size: 4mm Hexagon socket screw M8, Allen Key size: 6mm</p>				

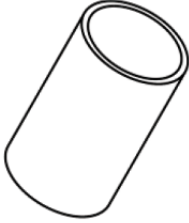
<b>INSTALL. PIN (BEARING CROWN SHAFT RING GASKET)</b>				<b>T 3</b>
RELATED POSITIONS	MAINTENANCE LEVEL	eData-ID	MATERIAL	
1011-773	2	12557	AISI: 304 EN: 1.4301	
<p><b>NOTES:</b></p>				

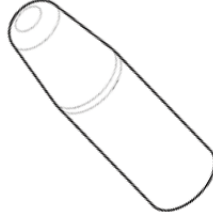
INSTALL. PIPE (BEARING HOUSING SHAFT RING GASKET)				T 28
RELATED POSITIONS	MAINTENANCE LEVEL	eData-ID	MATERIAL	
1011-421	2	12563	Aluminum	
<b>NOTES:</b>				

SPUR GEAR WHEEL PULLER				T 18
RELATED POSITIONS	MAINTENANCE LEVEL	eData-ID	MATERIAL	
1009-756	2	12575	AISI: 304 EN: 1.4301	
<b>NOTES:</b>				

SHAFT RING GASKET ASSEMBLY SLEEVE				T 26
RELATED POSITIONS	MAINTENANCE LEVEL	eData-ID	MATERIAL	
1011-083	2	12570	AISI: 304 EN: 1.4301	
<b>NOTES:</b> Located on the Bearing Housing.				

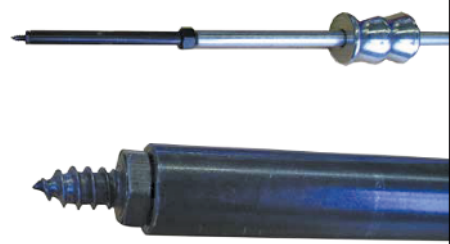
SHAFT ADJUSTMENT (FOR KEEPING SHAFT ON GEARING)				T 41
RELATED POSITIONS	MAINTENANCE LEVEL	eData-ID	MATERIAL	
1011-424	2	12581	AISI: 304 EN: 1.4301	
<b>NOTES:</b>				

SLIDING SLEEVE FOR INNER RACE RETAINING RING				T 43
RELATED POSITIONS	MAINTENANCE LEVEL	eData-ID	MATERIAL	
1011-446	2	12585	AISI: 304 EN: 1.4301	
<b>NOTES:</b> For use on the Needle Roller Bearing.				

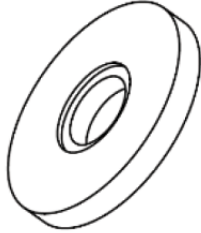
MOUNTING SLEEVE FOR ROTARY SHAFT SEAL				T 48
RELATED POSITIONS	MAINTENANCE LEVEL	eData-ID	MATERIAL	
1011-784	2	12588	AISI: 304 EN: 1.4301	
<b>NOTES:</b>				

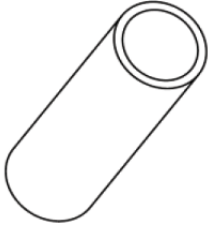
MOUNTING DEVICE FOR MOUNTING SEALING RING				T 77
RELATED POSITIONS	MAINTENANCE LEVEL	eData-ID	MATERIAL	<p>No Picture Available</p>
SK01-741	2	18777	AISI: 304 EN: 1.4301	
<b>NOTES:</b> For use on Pos. 1010.				




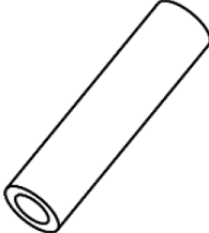
SEALING RING EXTRACTOR				T 38
RELATED POSITIONS	MAINTENANCE LEVEL	eData-ID	MATERIAL	
1111	2			
<p><b>NOTES:</b> Used for the removal of shaft sealing rings (Pos. 1111).</p> <p>3rd party solution:  <b>Manufacturer or Brand:</b> Kukko  <b>Name:</b> Seal pulling set (gasket) in case  <b>Part #:</b> K-222-1/7</p>				

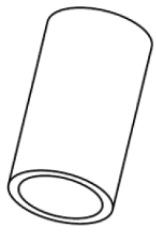
**Maintenance Level 3 Tools**

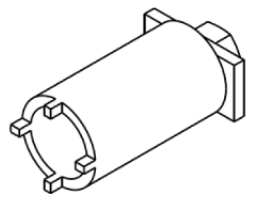
<b>PRESSURE PLATE FOR NEEDLE ROLLER BEARING</b>				<b>T 20</b>
RELATED POSITIONS	MAINTENANCE LEVEL	eData-ID	MATERIAL	
1011-399	3	12545	AISI: 304 EN: 1.4301	
<b>NOTES:</b> Inner Race.				


<b>INSTALLATION PIPE FOR NEEDLE ROLLER BEARING</b>				<b>T 32</b>
RELATED POSITIONS	MAINTENANCE LEVEL	eData-ID	MATERIAL	
1011-418	3	12560	AISI: 304 EN: 1.4301	
<b>NOTES:</b> Outer Ring.				

<b>RECEPTACLE PLATE INSTALLATION SHAFT</b>				<b>T 34</b>
RELATED POSITIONS	MAINTENANCE LEVEL	eData-ID	MATERIAL	
1011-403	3	12548	AISI: 304 EN: 1.4301	
<b>NOTES:</b> Ball Bearing.				

<b>INSTALLATION PIPE FOR BALL BEARING</b>				<b>T 22</b>
RELATED POSITIONS	MAINTENANCE LEVEL	eData-ID	MATERIAL	
1011-408	3	12551	AISI: 304 EN: 1.4301	
<b>NOTES:</b> Inner Race.				

INSTALLATION PIPE FOR BALL BEARING (OUTER RING)				T 24
RELATED POSITIONS	MAINTENANCE LEVEL	eData-ID	MATERIAL	
1011-411	3	12554	AISI: 304 EN: 1.4301	
<b>NOTES:</b>				

SOCKET SPANNER FOR GROOVE NUT				T 30
RELATED POSITIONS	MAINTENANCE LEVEL	eData-ID	MATERIAL	
1011-739	3	12578	AISI: 304 EN: 1.4301	
<b>NOTES:</b>				

INSTALLATION PIPE FOR INNER RACE RETAINING RING				T 45
RELATED POSITIONS	MAINTENANCE LEVEL	eData-ID	MATERIAL	
1011-445	3	18778	AISI: 304 EN: 1.4301	
<b>NOTES:</b> Needle Roller Bearing.				