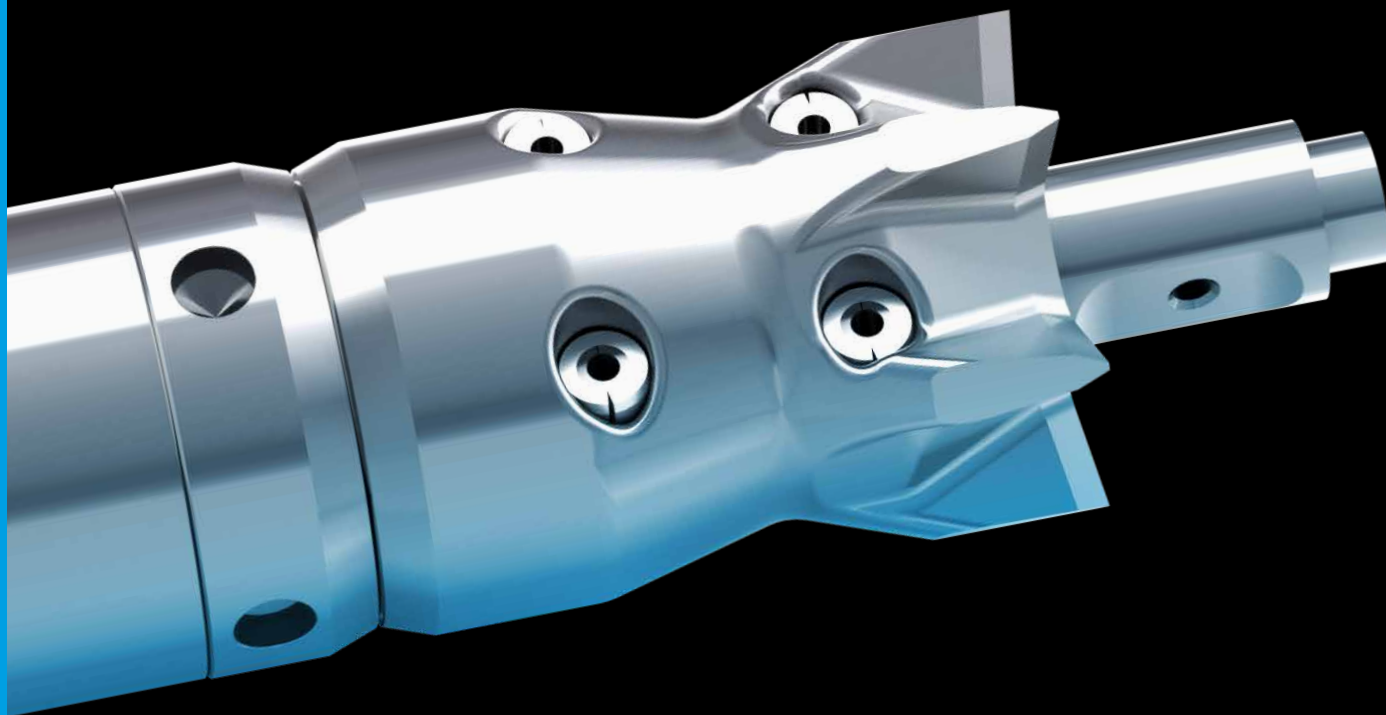


# TRACTO

## GRUNDOMAT ACCESSORIES

Further Information  
on GRUNDOMAT

[TRACTO.COM/GRUNDOMAT](http://TRACTO.COM/GRUNDOMAT)



**ADVANCED TRENCHLESS TECHNOLOGY**

GRUNDOMAT  
ACCESSORIES



# CONTENTS

## GRUNDOMAT ACCESSORIES AT A GLANCE

OVERVIEW GRUNDOMAT	<b>04 - 05</b>
ALIGNMENT GRUNDOMAT	<b>06 - 07</b>
ACCESSORIES MACHINE OPERATION	<b>08 - 13</b>
ACCESSORIES IMMEDIATE PIPE INSTALLATION	<b>15 - 19</b>
ACCESSORIES SUBSEQUENT PIPE PULLING	<b>21 - 27</b>
ADDITIONAL ACCESSORIES & SPECIAL APPLICATIONS	<b>28 - 31</b>

## OVERVIEW

# GRUNDOMAT SELECTING THE RIGHT MACHINE

The following machine properties can be selected in relation to the application to be carried out:

- Machine diameter
- Machine length
- Head design
- Machine end part
  - Immediate pipe installation
  - Subsequent pipe pulling
- Control of the machine

This ensures the right machine is selected for the intended application.



## GRUNDOMAT

TYPE	45	55	65	75	85	95	110	130	145	180	
∅ (mm)	45	55	65	75	85	95	110	130	145	180	
Length (mm)	979	1.108	1.328	1.465	1.550	1.732	1.751	1.740	2.010	2.212	
Weight (kg)	9	14,4	25	34	46	65	96	117	168	260	
Air consumption (m <sup>3</sup> /min)	0,35	0,4	0,7	1,0	0,95	1,5	1,6	2,6	3,4	4,5	
Impact rate (min <sup>-1</sup> )	Thrust control	530	470	450	385	370	325	320	320	-	-
	Servo control	-	-	460	400	370	325	320	320	310	260
Max. pipe ∅ (mm)	32	45	50	63	75	85	90	110	125	160	

Subject to change.

## GRUNDOMAT SHORT VERSION

TYPE	S45	S65	S75	S95	S110	S130
∅ (mm)	45	65	75	95	110	130
Length (mm)	894	1.097	1.295	1.532	1.548	1.604
Weight (kg)	8	18	28	56	86	107
Air consumption (m <sup>3</sup> /min)	0,35	0,65	0,8	1,3	1,4	2,4
Impact rate (min <sup>-1</sup> )	Thrust control	580	570	490	370	370
	Servo control	-	640	460	370	370
Max. pipe ∅ (mm)	32	50	63	85	90	110

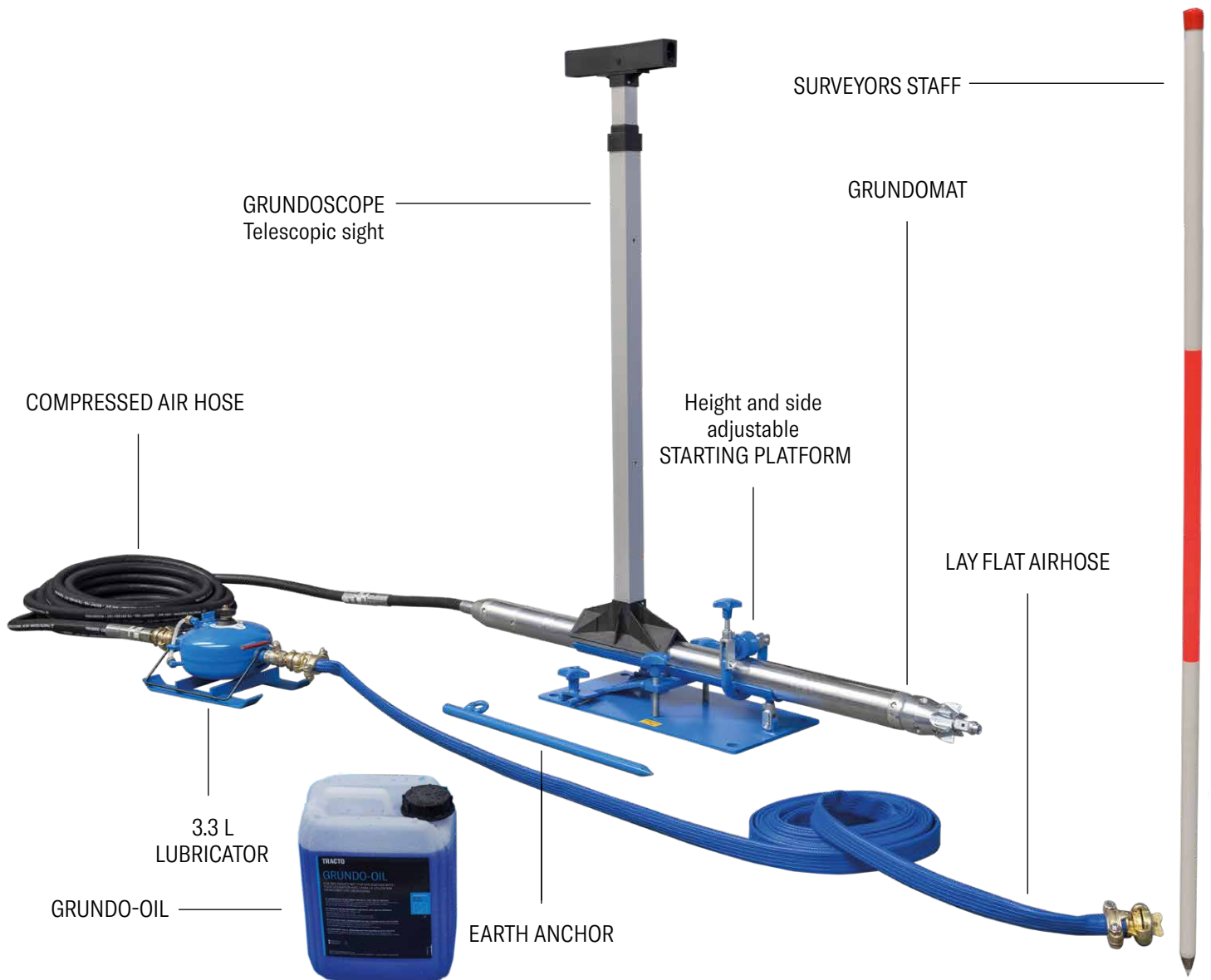
Subject to change.

## OVERVIEW

# GRUNDOMAT ALL ANGLES COVERED




To move the GRUNDOMAT from the start pit to the finish pit, a certain selection of accessories is essential.

The accessories shown here are necessary for safe operation and accurate alignment of the GRUNDOMAT.



# ALIGNMENT GRUNDOMAT

GRUNDOSCOPE TELESCOPIC SIGHT, SURVEYORS STAFF & EARTH ANCHOR

	G-E 0751000	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>GRUNDOSCOPE</b> 0,9 - 1,5 m, including surveyors staff</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
	45	55	65	75	85	95	110	130	145	180	TC	Servo		
G-E 0751002	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>GRUNDOSCOPE</b> 1,5 m - 2 m, including surveyors staff</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo	
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	220100002	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>SURVEYORS STAFF</b> 2 m</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
	45	55	65	75	85	95	110	130	145	180	TC	Servo		
G-E 0450030	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>1 EARTH ANCHOR FOR STARTING PLATFORM 45</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo	
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	GRU 2000030	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>EARTH ANCHOR FOR STARTING PLATFORM 55 - 180</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
	45	55	65	75	85	95	110	130	145	180	TC	Servo		

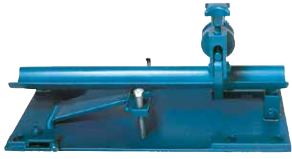
TC = Thrust control | Servo = Servo control

MACHINE-Ø	NUMBER OF EARTH ANCHORS
GRUNDOMAT 45	4
GRUNDOMAT 55	4
GRUNDOMAT 65	4
GRUNDOMAT 75	4
GRUNDOMAT 85	6

MACHINE-Ø	NUMBER OF EARTH ANCHORS
GRUNDOMAT 95	6
GRUNDOMAT 110	6
GRUNDOMAT 130	8
GRUNDOMAT 145	10
GRUNDOMAT 180	10

# ALIGNMENT GRUNDOMAT











## STARTING PLATFORM (WITHOUT EARTH ANCHORS)



G-E 0450014	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>STARTING PLATFORM 45</b> Rubber roller</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
G-S 0550014	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>STARTING PLATFORM 55</b> Rubber roller</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
GRU 0650013	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>STARTING PLATFORM 65</b> Metal roller</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
GRU 0650014	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>STARTING PLATFORM 65</b> Rubber roller</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
GRU 0750013	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>STARTING PLATFORM 75</b> Metal roller</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
GRU 0750014	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>STARTING PLATFORM 75</b> rubber roller</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
G-Z 0850013	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>STARTING PLATFORM 85</b> Metal roller</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
GRU 0950013	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>STARTING PLATFORM 95</b> Metal roller</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
G-E 1100013	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>STARTING PLATFORM 110</b> Metal roller</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
GRU 1300013	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>STARTING PLATFORM 130</b> Metal roller</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
G-E 1450013	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>STARTING PLATFORM 145</b> Metal roller</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
GRU 1800013	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>STARTING PLATFORM 180</b> Metal roller</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		

# ACCESSORIES MACHINE OPERATION

## LUBRICATOR, CONTROL UNIT, ADAPTER FOR CONTROL UNIT & GRUNDO-OIL






	G-E 0452291	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>LUBRICATOR 1,0 LITRE</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	GRU 2002291	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>LUBRICATOR 3,3 LITRE</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	G 130R12300	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>CONTROL UNIT DN 32</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	G 180R12300	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>CONTROL UNIT DN 40</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	G 075R12202	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>ADAPTER DN 32 / DN 22</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	G 095R12202	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>ADAPTER DN 32 / DN 28</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	GRU 200 2308	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>GRUNDO-OIL</b> 1 litre bottle</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	GRU 200 2311	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>GRUNDO-OIL</b> 5 litre canister</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	GRU 200 2317	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>GRUNDO-OIL</b> 25 litre canister</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	GRU 200 2319	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>GRUNDO-OIL</b> 200 litre barrel</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	GRU 200 2313	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>GRUNDO-OIL</b> 200 litre (8 x 25 litre-canister)</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			

TC = Thrust control | Servo = Servo control






# ACCESSORIES MACHINE OPERATION

## UNITHERM

	UT 1302510	<table border="1" data-bbox="686 302 1308 347"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>UNITHERM</b> Air heating unit</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	GRU 2002520	<table border="1" data-bbox="686 459 1308 504"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>COMPRESSOR HOSE DN 25</b> 2 m with mody couplings</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	G-V 1302247	<table border="1" data-bbox="686 616 1308 660"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>BYPASS DN 32</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	G-V 1802247	<table border="1" data-bbox="686 772 1308 817"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>BYPASS DN 40</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	UT 1303070	<table border="1" data-bbox="686 918 1308 963"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>GAS-CONNECTION DEVICE</b> for UNITHERM</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			


TC = Thrust control | Servo = Servo control

## AIR HOSE

	GRU 2004110	<table border="1" data-bbox="686 1220 1308 1265"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>LAY FLAT AIR HOSE</b> 10 m</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	GRU 2004120	<table border="1" data-bbox="686 1366 1308 1411"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>LAY FLAT AIR HOSE</b> 20 m</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	6257219	<table border="1" data-bbox="686 1523 1308 1568"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>STURDY AIR HOSE HOSE</b> 20 m</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			

TC = Thrust control | Servo = Servo control

## PRESSURE REDUCER

	YY 194516	<table border="1" data-bbox="686 1848 1308 1892"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>PRESSURE REDUCER</b> with mody coupling</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			

TC = Thrust control | Servo = Servo control

## IMPORTANT

When using a compressor with an operating pressure > 7 bar, the use of a pressure reducer is mandatory.

## ACCESSORIES MACHINE OPERATION

The correct choice of the compressed air hose depends on the GRUNDOMAT to be used and its application. It is important to ensure that the hoses are always sealed with the provided locking couplings / dust caps when not in use, to prevent the ingress of dirt particles.

### COMPRESSED AIR HOSE FOR THRUST CONTROL

The compressed air hose, consisting of an extension hose and adapter, supplies the GRUNDOMAT with compressed air and is connected to lubricator and machine.



G-E 0452250

45	55	65	75	85	95	110	130	145	180	TC	Servo
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#### COMPRESSED AIR HOSE DN12

15 m, with adapter to Mody coupling

G-E 0752250

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

#### COMPRESSED AIR HOSE DN 19

15 m, with adapter to Mody coupling

G-E 1302250

45	55	65	75	85	95	110	130	145	180	TC	Servo
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#### COMPRESSED AIR HOSE DN 25

15 m, with adapter to Mody coupling

G-E 1302253

45	55	65	75	85	95	110	130	145	180	TC	Servo
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#### COMPRESSED AIR HOSE DN 25

15 m, with adapter to Mody coupling

GSE 1302255

45	55	65	75	85	95	110	130	145	180	TC	Servo
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#### COMPRESSED AIR HOSE DN 31

23 m, with adapter to Mody coupling

TC = Thrust control | Servo = Servo control

# ACCESSORIES MACHINE OPERATION

## EXTENSION HOSE



G-E 0452225

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**EXTENSION HOSE DN 12**  
15 m (threaded coupling)

G-E 0452255

45	55	65	75	85	95	110	130	145	180	TC	Servo
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**EXTENSION HOSE DN 12**  
15 m

G-E 0752255

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**EXTENSION HOSE DN 19**  
15 m

G-E 1302258

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**EXTENSION HOSE DN 25**  
15 m

G-E 1452251

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**EXTENSION HOSE DN 31**  
23 m

TC = Thrust control | Servo = Servo control

## ADAPTER



G-E 0452230

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**ADAPTER**  
for Mody coupling

G-E 0452550

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**ADAPTER**  
from quick to Mody coupling

G-E 0952550

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**ADAPTER**  
from quick to Mody coupling

GSE 1302550

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**ADAPTER**  
from quick to Mody coupling

TC = Thrust control | Servo = Servo control

# ACCESSORIES MACHINE OPERATION

## COMPRESSED AIR HOSE FOR SERVO CONTROL & ADAPTER



G 075R12250

45	55	65	75	85	95	110	130	145	180	TC	Servo
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**COMPRESSED AIR HOSE, SERVO, DN 22**

20 m

G 095R12250

45	55	65	75	85	95	110	130	145	180	TC	Servo
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**COMPRESSED AIR HOSE, SERVO, DN 28**

20 m

G-V 1302257

45	55	65	75	85	95	110	130	145	180	TC	Servo
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**COMPRESSED AIR HOSE, SERVO, DN 31**

20 m

G-V 1802257

45	55	65	75	85	95	110	130	145	180	TC	Servo
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**COMPRESSED AIR HOSE, SERVO, DN 40**

20 m



G 075R12201

45	55	65	75	85	95	110	130	145	180	TC	Servo
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**EXTENSION ADAPTER DN 22**

G 095R12201












45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**EXTENSION ADAPTER DN 28**

TC = Thrust control | Servo = Servo control

# ACCESSORIES MACHINE OPERATION

## LOCKING COUPLING, MALE DUST CAP, FEMALE DUST CAP & MALE DUST CAP

	1613004	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>LOCKING COUPLING</b> for Mody coupling</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	G-E 0452390	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>MALE DUST CAP DN 12</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	G-E 0902390	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>MALE DUST CAP DN 25</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	GRU 2006641	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>MALE DUST CAP DN 31</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	YY 730302	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>FEMALE DUST CAP DN 22</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	YY 750302	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>FEMALE DUST CAP DN 28</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	YY 060987	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>FEMALE DUST CAP DN 31</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	YY 150936	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>FEMALE DUST CAP DN 40</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	YY 730308	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>MALE DUST CAP DN 22</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	YY 750308	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>MALE DUST CAP DN 28</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	YY 060988	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>MALE DUST CAP DN 31</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	YY 150935	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>MALE DUST CAP DN 40</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			



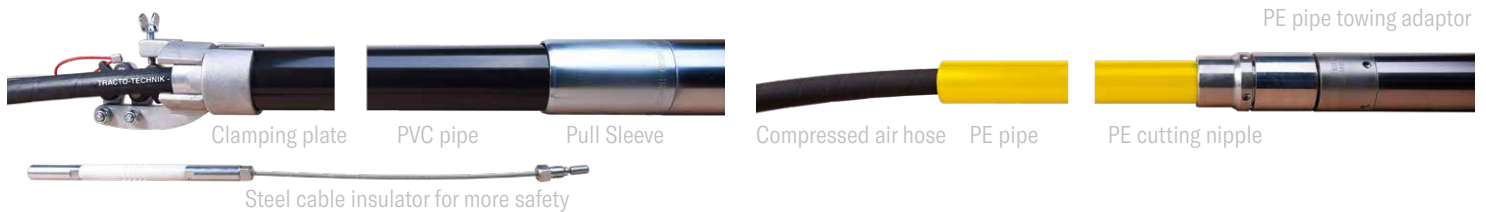
# IMMEDIATE INSTALLATION

If the soil is not cohesive and the borehole collapses, immediate pipe installation is required. This means that the pipe to be installed is connected directly to the GRUNDOMAT and is pulled in as the machine advances through the ground.

### BY AVOIDING A COLLAPSING BORE CHANNEL, IMMEDIATE PIPE INSTALLTION HAS THE FOLLOWING ADVANTAGES:

- Prevention of machine failure due to a lack of air circulation in the machine
- The immediately pulled in pipe protects connection hose and compressed air hose from damage
- The connected pipe enables feedback from machine (e.g. in the case of "floating" due to lack of sleeve friction)

### The following machine equipment and accessories are required for immediate pipe installation:





Equipped with pull sleeve and use of clamping frog, steel cable and insulation adapter

Equipped with PE pipe towing adaptor and use of PE cutting nipple

Note: The machine end part can be converted by TRACTO. This allows the GRUNDOMAT to be adapted to the respective geology and application.

# ACCESSORIES IMMEDIATE PIPE INSTALLATION

## PULL SLEEVE & INSULATION ADAPTER



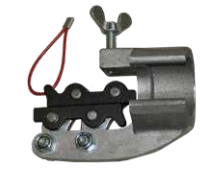


	G-E 0650300	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>PULL SLEEVE WITH INSULATION ADAPTER (GRU 65)</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
	45	55	65	75	85	95	110	130	145	180	TC	Servo		
	G-Z 0750300	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>PULL SLEEVE WITH INSULATION ADAPTER (GRU 75)</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
	45	55	65	75	85	95	110	130	145	180	TC	Servo		
	G-Z 0850300	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>PULL SLEEVE WITH INSULATION ADAPTER (GRU 85)</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
	45	55	65	75	85	95	110	130	145	180	TC	Servo		
	G-E 0950300	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>PULL SLEEVE WITH INSULATION ADAPTER (GRU 95)</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
	45	55	65	75	85	95	110	130	145	180	TC	Servo		
G-E 1100300	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>PULL SLEEVE WITH INSULATION ADAPTER (GRU 110)</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo	
45	55	65	75	85	95	110	130	145	180	TC	Servo			
G-E 1300300	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>PULL SLEEVE WITH INSULATION ADAPTER (GRU 130)</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo	
45	55	65	75	85	95	110	130	145	180	TC	Servo			
G-E 1450300	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>PULL SLEEVE WITH INSULATION ADAPTER (GRU 145)</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo	
45	55	65	75	85	95	110	130	145	180	TC	Servo			
G-E 1800300	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>PULL SLEEVE WITH INSULATION ADAPTER (GRU 180)</b></p>	45	55	65	75	85	95	110	130	145	180	TC	Servo	
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	GRU 0750315	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>INSULATION ADAPTER</b> for wire cable Ø 4 mm</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
	45	55	65	75	85	95	110	130	145	180	TC	Servo		
GRU 2000315	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>INSULATION ADAPTER</b> for wire cable Ø 10 mm</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo	
45	55	65	75	85	95	110	130	145	180	TC	Servo			

TC = Thrust control | Servo = Servo control



# ACCESSORIES IMMEDIATE PIPE INSTALLATION

## STEEL CABLE, EXTENSION STEEL CABLE, CABLE CLAMP & CLAMPING PLATE

	GRU 0750320	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>STEEL CABLE</b> 15 m
	GRU 2000320	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>STEEL CABLE</b> 25 m
	GRU 0750330	45 55 65 75 85 95 100 130 145 180 TC Servo	<b>EXTENSION STEEL CABLE</b> Ø 4 mm, 15 m
	GRU 2000330	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>EXTENSION STEEL CABLE</b> Ø 10 mm, 25 m
	GRU 0750340	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>CABLE CLAMP</b> for ducts OD 50 mm
	GRU 0950340	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>CABLE CLAMP</b> for ducts OD 95 mm
	GRU 0750360	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>63 MM PIPE ADAPTOR</b> for OD 50 cable clamp
	GRU 1300365	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>CABLE CLAMP</b> for ducts OD 85 - 125 mm
	GRU 1300366	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>CABLE CLAMP</b> for ducts OD 140 - 160 mm

TC = Thrust control | Servo = Servo control

# ACCESSORIES IMMEDIATE PIPE INSTALLATION

## PE TOWING ADAPTOR



G-E 0451085

45	55	65	75	85	95	110	130	145	180	TC	Servo
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**PE TOWING ADAPTOR**  
45 mm

G-S 0551085

45	55	65	75	85	95	110	130	145	180	TC	Servo
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**PE TOWING ADAPTOR**  
55 mm

G-E 0651076

45	55	65	75	85	95	110	130	145	180	TC	Servo
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**PE TOWING ADAPTOR**  
65 mm

G-Z 0751076

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**PE TOWING ADAPTOR**  
75 mm

G-Z 0851076

45	55	65	75	85	95	110	130	145	180	TC	Servo
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**PE TOWING ADAPTOR**  
85 mm

TC = Thrust control | Servo = Servo control

NOTE: When using a PE pipe towing adaptor for machine sizes 45 and 55, an Ermeto screw connection is required on the connection hose.

# ACCESSORIES IMMEDIATE PIPE INSTALLATION

## REAR CUTTING NIPPLE & C-SPANNER

	G-E 0451088	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>REAR CUTTING NIPPLE</b> for 33 mm PE
	G-S 0551089	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>REAR CUTTING NIPPLE</b> for 42 mm PE
	G-S 0551090	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>REAR CUTTING NIPPLE</b> for 32 mm PE
	G-E 0651075	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>REAR CUTTING NIPPLE</b> for 50 mm PE
	G-Z 0751081	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>REAR CUTTING NIPPLE</b> for 50 mm and 63 mm PE
	G-Z 0851074	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>REAR CUTTING NIPPLE</b> for 63 mm PE
		G-E 0453540	45 55 65 75 85 95 110 130 145 180 TC Servo
G-S 0553540		45 55 65 75 85 95 110 130 145 180 TC Servo	<b>C-SPANNER</b> for GRUNDOMAT 55, 1 set = 2 pieces
GRU 0653540		45 55 65 75 85 95 110 130 145 180 TC Servo	<b>C-SPANNER</b> for GRUNDOMAT 65, 1 set = 2 pieces
GRU 0753540		45 55 65 75 85 95 110 130 145 180 TC Servo	<b>C-SPANNER</b> for GRUNDOMAT 75, 1 set = 2 pieces
G-Z 0853540		45 55 65 75 85 95 110 130 145 180 TC Servo	<b>C-SPANNER</b> for GRUNDOMAT 85, 1 set = 2 pieces

TC = Thrust control | Servo = Servo control



# SUBSEQUENT PIPE PULLING

If the soil is cohesive and the borehole is left in place, the pipe can be pulled in at a later stage.

This means that the pipe to be installed is inserted at a later stage after the borehole has been made.

**The following machine configuration is recommended for subsequent pipe pulling:**



Equipped with Casing End for working in reverse gear

**The following accessories are recommended for subsequent pipe pulling:**



PE pipe

PE cutting nipple

Coupling compressed air hose

Cutting nipple for subsequent pulling-in of PE long pipes using a compressed air hose



Pulling hooks, shackles and pipe pullers for subsequently pulling in PE long pipes in reverse mode

Note: The rear end of the machine can be converted by TRACTO. This allows a GRUNDOMAT soil displacement hammer to be adapted to the respective geology and application.

# ACCESSORIES SUBSEQUENT PIPE PULLING

CASING END



G-E 0456450

45	55	65	75	85	95	110	130	145	180	TC	Servo
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**CASING END 45**

G-S 0556450

45	55	65	75	85	95	110	130	145	180	TC	Servo
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**CASING END 55**

G-E 0656450

45	55	65	75	85	95	110	130	145	180	TC	Servo
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**CASING END 65**

G-Z 0756450

45	55	65	75	85	95	110	130	145	180	TC	Servo
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**CASING END 75**

G-Z 0856450

45	55	65	75	85	95	110	130	145	180	TC	Servo
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**CASING END 85**

G-E 0956450

45	55	65	75	85	95	110	130	145	180	TC	Servo
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**CASING END 95**

G-E 1106450

45	55	65	75	85	95	110	130	145	180	TC	Servo
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**CASING END 110**

G-E 1306450

45	55	65	75	85	95	110	130	145	180	TC	Servo
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**CASING END 130**

G-E 1456450

45	55	65	75	85	95	110	130	145	180	TC	Servo
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**CASING END 145**

G-E 1806450





45	55	65	75	85	95	110	130	145	180	TC	Servo
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**CASING END 180**

TC = Thrust control | Servo = Servo control



# ACCESSORIES SUBSEQUENT PIPE PULLING

## CUTTING NIPPLE & REDUCING NIPPLE

	GRU 0750700	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>CUTTING NIPPLE</b> for PE pipe D 1/2" - 1" inside (with 1/2"-AG)
	GRU 0750721	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>CUTTING NIPPLE</b> for PE pipe D 1" - 1 1/4" inside (with 3/4"-AG)
	GRU 0750680	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>CUTTING NIPPLE</b> for PE pipe D 1 1/4" - 1 1/2" inside (with 3/4"-AG)
	GRU 0750735	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>CUTTING NIPPLE</b> for PE pipe D 1 1/2" - 2" inside (with 3/4"-AG)
	GRU 0750730	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>CUTTING NIPPLE</b> for PE pipe D 2 1/2" inside (with 3/4"-AG)
	1641013	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>REDUCING NIPPLE</b> from 3/4" to 1/2"

TC = Thrust control | Servo = Servo control

## QUICK FEMALE COUPLING & QUICK MALE COUPLING

	G-E 0452635	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>QUICK FEMALE COUPLING</b> DN 13 with 1/2" inner thread
	G-E 0452815	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>QUICK MALE COUPLING</b> DN 13 with 1/2" inner thread
	G-E 0952620	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>QUICK FEMALE COUPLING</b> DN 19 - DN 25 with 3/4" inner thread
	G-E 0952800	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>QUICK MALE COUPLING</b> DN 19 - DN 25 with 3/4" inner thread

TC = Thrust control | Servo = Servo control

# ACCESSORIES SUBSEQUENT PIPE PULLING

## PULLING HOOK & SHACKLE



GRU 0550580

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**PULLING HOOK**  
complete with pins

GRU 0650580

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**PULLING HOOK**  
complete with pins

GRU 0750580

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**PULLING HOOK**  
complete with pins

G-Z 0850580

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**PULLING HOOK**  
complete with pins

GRU 0950580

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**PULLING HOOK**  
complete with pins

G-E 1100580

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**PULLING HOOK**  
complete with pins

GRU 1300580

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**PULLING HOOK**  
complete with pins

G-E 1450580

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**PULLING HOOK**  
complete with pins

GRU 1800580

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**PULLING HOOK**  
complete with pins



1515004001

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**SHACKLE 0,4 T**

1515006001

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**SHACKLE 0,6 T**

1515010003

45	55	65	75	85	95	110	130	145	180	TC	Servo
----	----	----	----	----	----	-----	-----	-----	-----	----	-------

**SHACKLE 1,0 T**



# ACCESSORIES SUBSEQUENT PIPE PULLING

## PIPE PULLER



GMO 2380R	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>PIPE PULLER</b> for pipe 25 mm</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
GMO 2390R	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>PIPE PULLER</b> for pipe 32 mm</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
GMO 2400R	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>PIPE PULLER</b> for pipe 40 mm</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
GMO 2410R	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>PIPE PULLER</b> for pipe 50 mm</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
GMO 2420R	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>PIPE PULLER</b> for pipe 63 mm</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
GMO 2430R	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>PIPE PULLER</b> for pipe 75 mm</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		

TC = Thrust control | Servo = Servo control

# ACCESSORIES SUBSEQUENT PIPE PULLING

## CABLE SOCK



1535040001	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>CABLE SOCK</b> Ø 4 - 6 mm</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
1535060001	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>CABLE SOCK</b> Ø 6 - 9 mm</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
1535090001	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>CABLE SOCK</b> Ø 9 - 12 mm</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
1535120001	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>CABLE SOCK</b> Ø 12 - 15 mm</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
1535150002	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>CABLE SOCK</b> Ø 15 - 19 mm</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
1535150001	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>CABLE SOCK</b> Ø 15 - 20 mm</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
1535200003	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>CABLE SOCK</b> Ø 20 - 30 mm</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
1535300003	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>CABLE SOCK</b> Ø 30 - 40 mm</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
1535400001	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>CABLE SOCK</b> Ø 40 - 50 mm</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		
1535500002	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>CABLE SOCK</b> Ø 50 - 60 mm</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo		

TC = Thrust control | Servo = Servo control




# ADDITIONAL ACCESSORIES & SPECIAL APPLICATIONS

The following pages show various special applications of the GRUNDOMAT soil displacement hammer and other additional accessories.

## DRIVING OUT OLD STEEL PIPES Use of punch head adaptor






### PUNCH HEAD ADAPTOR

	G-N 0653050	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>PUNCH HEAD ADAPTOR</b> for driving out steel pipes 1 1/4", 1 1/2" and 2"
	G-N 0753050	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>PUNCH HEAD ADAPTOR</b> for driving out steel pipes 1 1/4", 1 1/2" and 2"
	G-Z 0853050	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>PUNCH HEAD ADAPTOR</b> for driving out steel pipes 1 1/4", 1 1/2" and 2"
	G-N 0953050	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>PUNCH HEAD ADAPTOR</b> for driving out steel pipes 1 1/4", 1 1/2" and 2"
	G-E 1103050	45 55 65 75 85 95 110 130 145 180 TC Servo	<b>PUNCH HEAD ADAPTOR</b> for driving out steel pipes 1 1/4", 1 1/2" and 2"

TC = Thrust control | Servo = Servo control

## ADDITIONAL ACCESSORIES | SPECIAL APPLICATIONS


LOCATION – SONDE HOUSING CLAMP, SONDE & RECEIVER SYSTEM

	GRU 2007122	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table>	45	55	65	75	85	95	110	130	145	180	TC	Servo	<p><b>SONDE HOUSING CLAMP</b> for DN 22 air hose, without sonde</p>
45	55	65	75	85	95	110	130	145	180	TC	Servo				
	GRU 2007125	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table>	45	55	65	75	85	95	110	130	145	180	TC	Servo	<p><b>SONDE HOUSING CLAMP</b> for DN 25 air hose, without sonde</p>
45	55	65	75	85	95	110	130	145	180	TC	Servo				
	GRU 2007123	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table>	45	55	65	75	85	95	110	130	145	180	TC	Servo	<p><b>SONDE HOUSING CLAMP</b> for DN 32 air hose, without sonde</p>
45	55	65	75	85	95	110	130	145	180	TC	Servo				
	GRU 2007140	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table>	45	55	65	75	85	95	110	130	145	180	TC	Servo	<p><b>SONDE HOUSING CLAMP</b> for DN 40 air hose, without sonde</p>
45	55	65	75	85	95	110	130	145	180	TC	Servo				
	G-P 0757306	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table>	45	55	65	75	85	95	110	130	145	180	TC	Servo	<p><b>MINI SONDE</b></p>
45	55	65	75	85	95	110	130	145	180	TC	Servo				
	6309006	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table>	45	55	65	75	85	95	110	130	145	180	TC	Servo	<p><b>SINGLE HAND RECEIVER</b> VLOC 3 CAM</p>
45	55	65	75	85	95	110	130	145	180	TC	Servo				

TC = Thrust control | Servo = Servo control

## ADDITIONAL ACCESSORIES | SPECIAL APPLICATIONS


### METROTECH UTILITY AVOIDANCE TOOL

	6309007	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>UTILITY AVOIDANCE TOOL</b> V SCAN Typ M with metal locate mode</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
	45	55	65	75	85	95	110	130	145	180	TC	Servo		
6309008	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>UTILITY AVOIDANCE TOOL</b> V SCAN</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo	
45	55	65	75	85	95	110	130	145	180	TC	Servo			

TC = Thrust control | Servo = Servo control

### MUD PUMP

The mud pump is used to remove water from the pits in the event of water ingress. This allows proper work to be carried out in the pit. As the mud pumps are powered by compressed air from a compressor, no additional drive unit is required on site.

	GRU 2001032	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>GRUNDEX MUD- AND WATER PUMP</b> without connection hose</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
	45	55	65	75	85	95	110	130	145	180	TC	Servo		
GRU 2001033	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>GRUNDEX-HOSE</b> 3 m with C-hose coupling</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo	
45	55	65	75	85	95	110	130	145	180	TC	Servo			
	GRU 2001036	<table border="1"> <tr> <td>45</td><td>55</td><td>65</td><td>75</td><td>85</td><td>95</td><td>110</td><td>130</td><td>145</td><td>180</td><td>TC</td><td>Servo</td> </tr> </table> <p><b>GRUNDEX-HOSE</b> 5 m with C-hose coupling</p>	45	55	65	75	85	95	110	130	145	180	TC	Servo
45	55	65	75	85	95	110	130	145	180	TC	Servo			

TC = Thrust control | Servo = Servo control

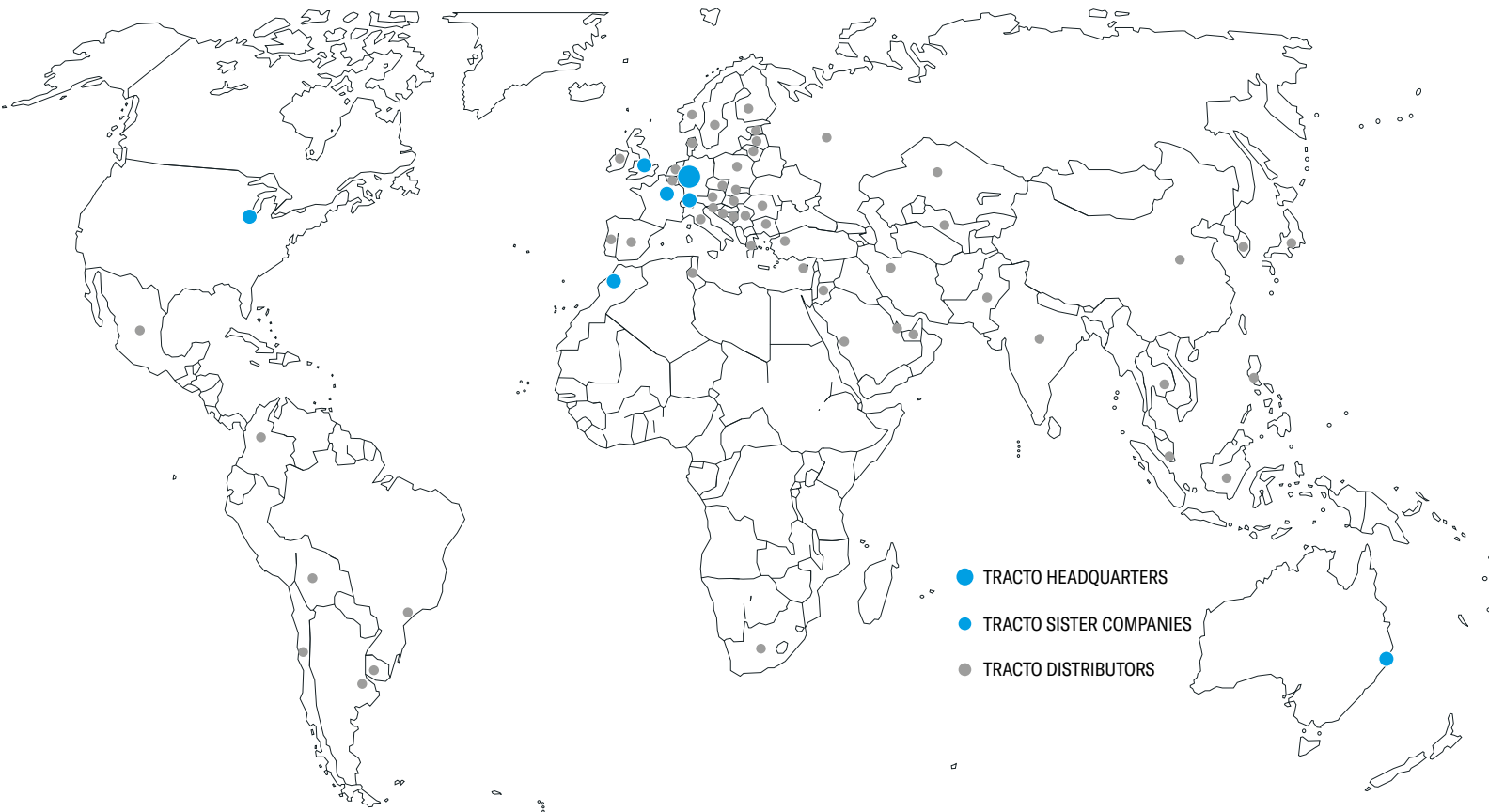


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