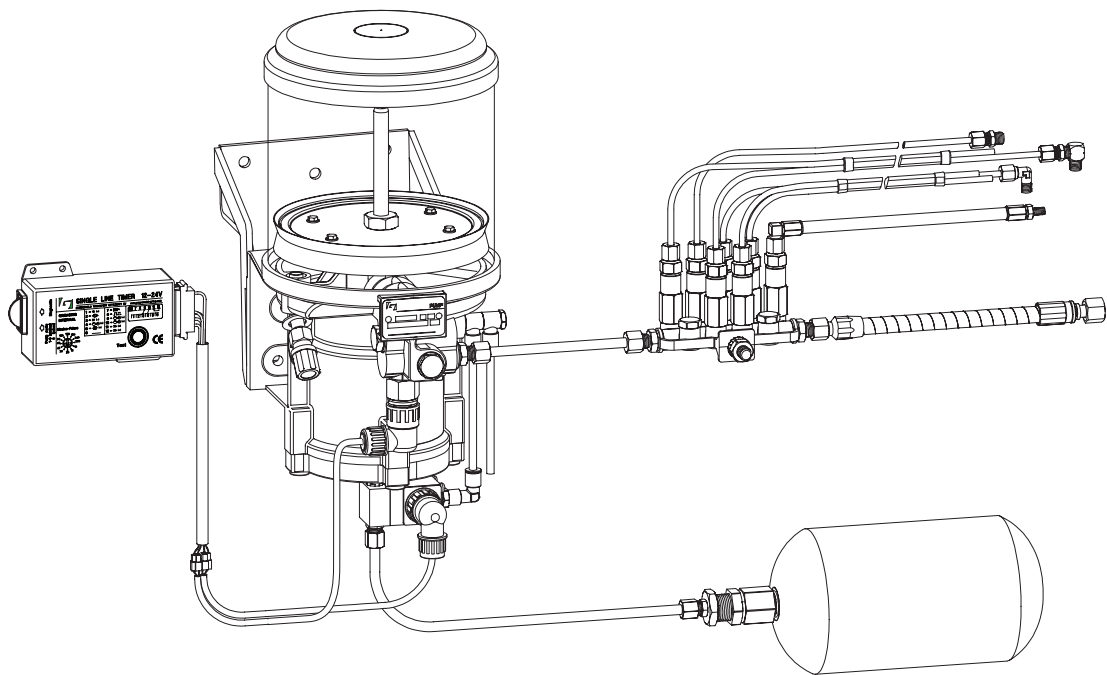


# Parts Manual



## Automatic SingleLine Greasing System

D000144R09



All rights reserved. No part of this manual may be copied and/or published by means of printing, photocopying, microfilm or by any other means without prior written permission from Groeneveld. This applies also to the drawings and diagrams appended.

Groeneveld reserves the right to change parts at any time, without prior or direct notice to the customer. The contents of this manual may also be changed without prior notice.

This manual applies to the standard version of the product. Groeneveld cannot accept liability for any damage arising from the use of specifications other than that supplied.

You are requested to contact Groeneveld technical service for information concerning adjustment, maintenance work or repairs that is not described in this manual.

Whilst this manual has been prepared with the greatest possible care Groeneveld cannot accept responsibility for any errors of the consequences of such errors.

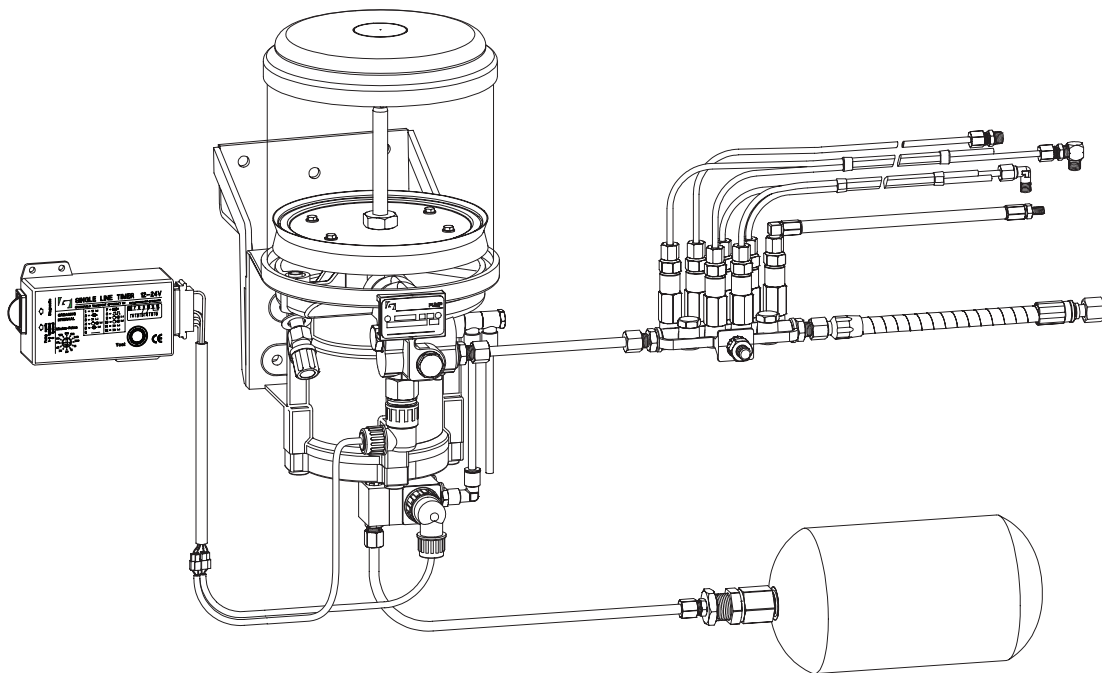
# TABLE OF CONTENTS

<b>1. PUMPS .....</b>	<b>5</b>
1.1 Pneumatic grease pumps 30cc .....	7
1.2 Optional parts .....	7
1.3 Pneumatic grease pumps 42cc .....	9
1.4 Optional parts .....	9
1.5 Pump kits .....	9
1.6 Pneumatic grease pumps 60cc .....	11
1.7 Optional parts .....	11
1.8 Pump kits .....	11
1.9 Pneumatic pump conversion kit 42cc to 60cc .....	13
1.10 Pneumatic oil pumps 42cc .....	15
1.11 Optional parts .....	15
1.12 Electric piston grease pumps .....	17
1.13 Electric piston oil pumps .....	19
1.14 Electric gear grease pumps .....	21
1.15 Electric gear grease pumps with timer .....	23
1.16 Electric gear grease bellows pumps with timer .....	25
<b>2. CABLE HARNESS .....</b>	<b>27</b>
2.1 Cable Harness for pneumatic pumps .....	29
2.2 Cable Harness for electrical piston and gear pumps .....	29
2.3 Cable Harness for gear pump with internal timer .....	29
<b>3. CONTROL UNITS .....</b>	<b>31</b>
3.1 Electronic timer .....	32
3.2 Connection kit for 3-led support Alarm/Pulse/Low level .....	33
3.3 Display unit .....	34
3.4 Pulse brake counter .....	35
3.5 Multi mode trailer timer .....	36
<b>4. AIR CONNECTION PARTS .....</b>	<b>37</b>
4.1 System with electronic timer .....	39
4.2 System with air/electronic pulse brake counter .....	41
<b>5. DISTRIBUTION BLOCKS .....</b>	<b>43</b>
5.1 Transport distribution blocks .....	44
5.2 Industrial distribution blocks .....	45
5.3 Welding plates for industrial distribution blocks .....	46
5.4 Shut-off plugs .....	46
5.5 Metering units for ø5mm tubes .....	47
5.6 Metering units for ø6mm tubes .....	48
<b>6. DIAGNOSTIC TOOLS .....</b>	<b>49</b>
6.1 UniGINA diagnosis kit .....	51
6.2 Diagnosis kit SingleLine timer .....	53
<b>7. INDEX .....</b>	<b>54</b>

Release date: May 2020



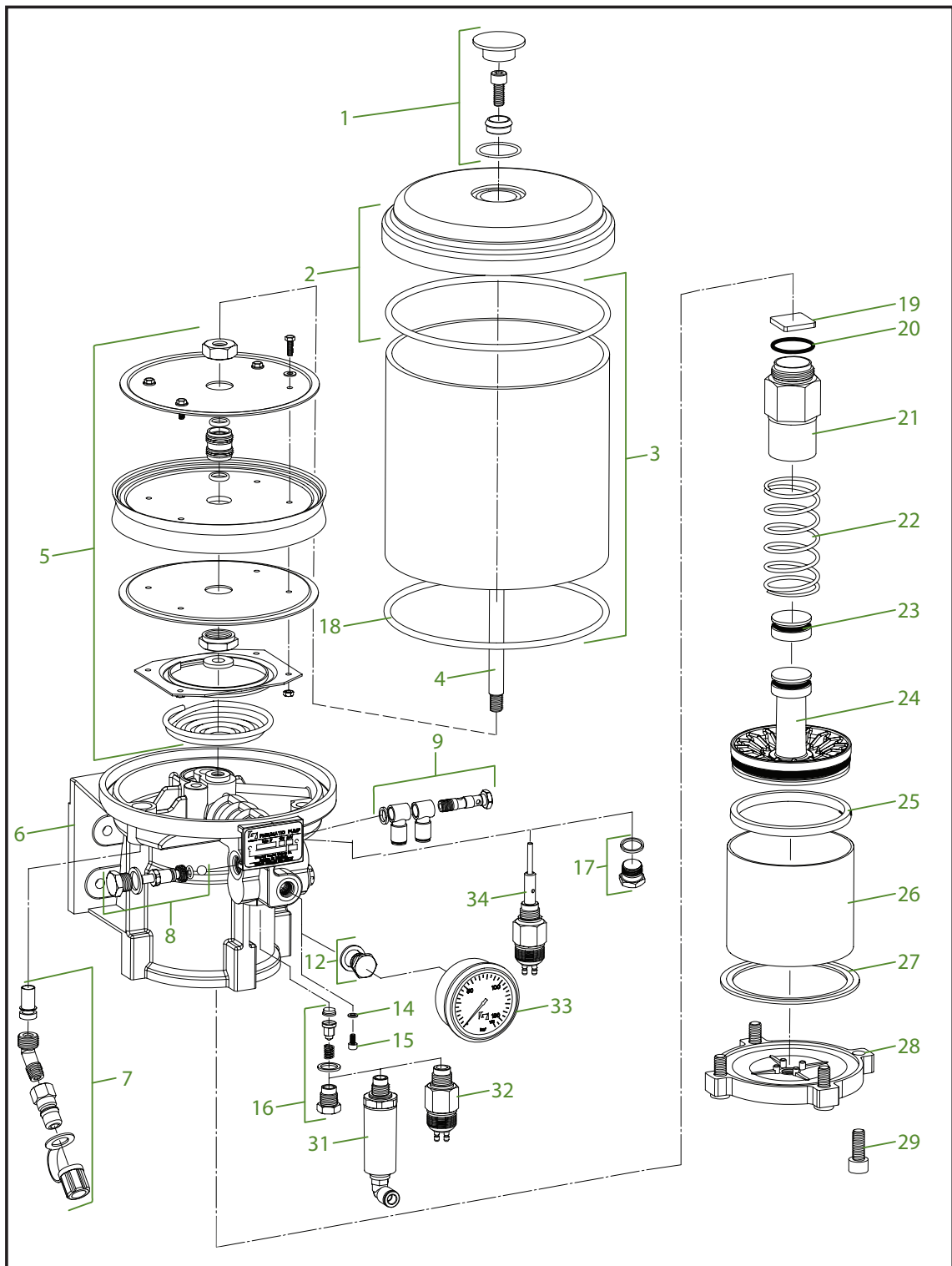
# 1. PUMPS



Release date: May 2020



# Automatic SingleLine Greasing System



Release date: May 2020

### 1.1 Pneumatic grease pumps 30cc

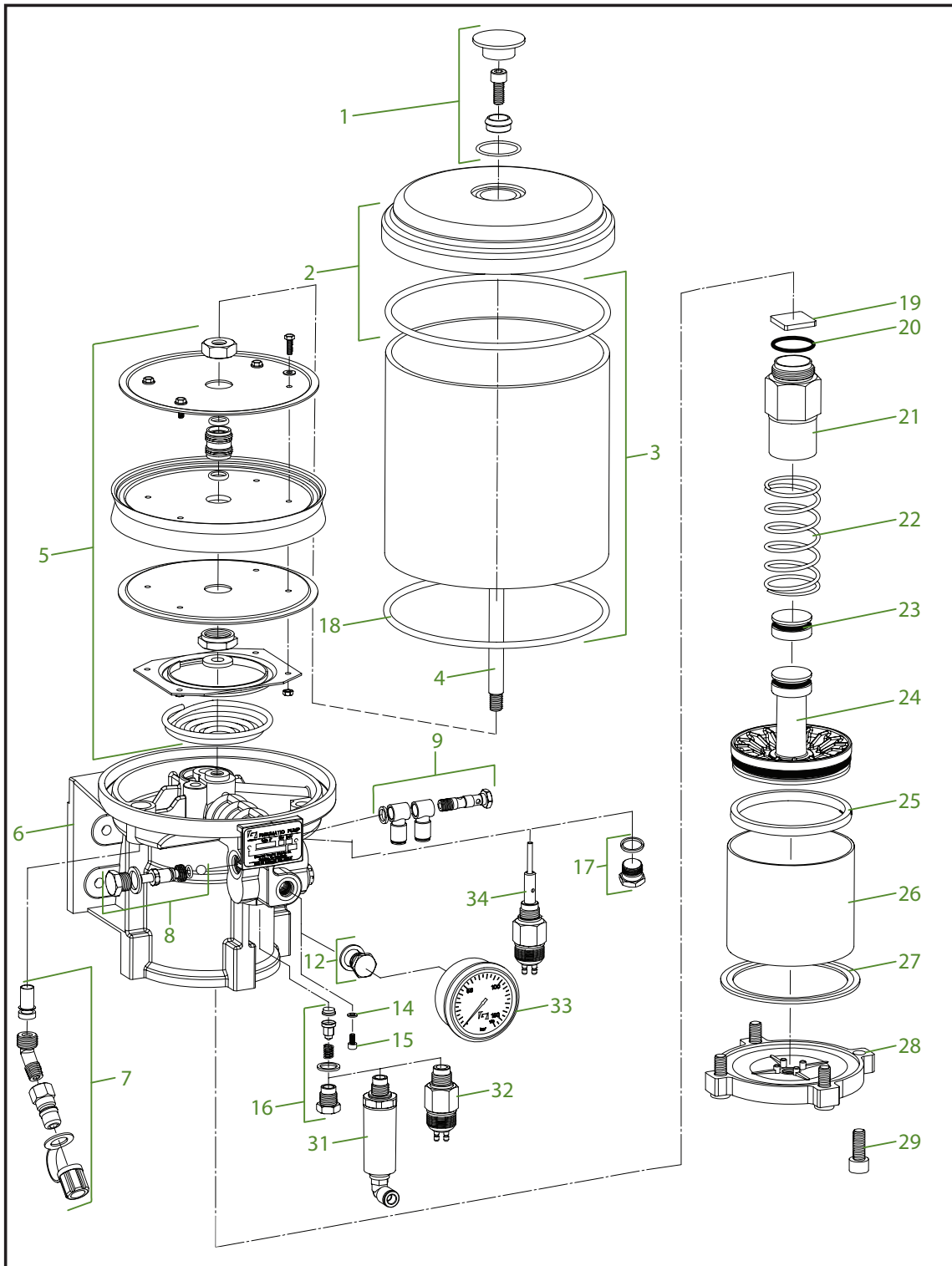
<i>P/n new</i>	<i>P/n old</i>	<i>Capacity reservoir</i>	<i>Grease delivery</i>	<i>Ratio</i>	<i>Maximum pressure</i>	<i>Grease prefilled</i>
F600768	-	3 litres	30 cc / stroke	9 : 1	100 bar	No

<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>	<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>
1	F103643	59701	Reservoir bolt kit	18	F110151	30601	O-ring
2	F605724	-	Cover + O-ring	19	F110895	30701	Non return valve
3	F601028	-	Reservoir 3 l + O-rings	20	F100531	32501	O-ring
4	F600769	-	Guide pin 3 l	21	F000099	32401	Piston housing 30cc
5	F115378	40501	Follower plate 3 l	22	F000266	35701	Piston spring
6	F103183	34501	Pump body	23	F104655	32301	O-ring + retaining ring
7	F605775	-	Filter kit	24	F102725	37401	Piston 30cc
8	F110028	34901	Non return valve kit	25	F102719	40901	Piston seal
9	F103823	19701	Banjo connector kit	26	F113297	40601	Cylinder liner
12	F103649	63901	Plug including ring	27	F103121	41001	Gasket
14	F000714	40201	Sealing ring	28	F103064	41101	Bottom cover
15	F000713	40101	Allen screw M4x48	29	F102608	121025	Allen screw M10x25
16	F102975	34801	Check valve kit				
17	F103646	59901	Plug including ring				

### 1.2 Optional parts

<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>	<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>
31	F113059	26401	Warning device	33	F104544	16901	Manometer 0-150bar
32	F114697	68501	Pressure switch 40bar	34	F112409	90901	Low level switch kit

# Automatic SingleLine Greasing System



Release date: May 2020



### 1.3 Pneumatic grease pumps 42cc

P/n new	P/n old	Capacity reservoir	Grease delivery	Ratio	Maximum pressure	Grease prefilled
F103160	36201	4 litres	42 cc / stroke	9 : 1	100 bar	No
F116479	36201.01	4 litres	42cc / stroke	9 : 1	100 bar	Yes
F111140	68801	6 litres	42 cc / stroke	9 : 1	100 bar	No
F116487	68801.01	6 litres	42 cc / stroke	9 : 1	100 bar	Yes
F103544	35501	8 litres	42 cc / stroke	9 : 1	100 bar	No

Pos	P/n new	P/n old	Description	Pos	P/n new	P/n old	Description
1	F103643	59701	Reservoir bolt kit	15	F000713	40101	Allen screw M4x48
2	F605724	-	Cover + O-ring	16	F102975	34801	Check valve kit
3	F604267	-	Reservoir 4 l + O-rings	17	F103646	59901	Plug including ring
	F605776	-	Reservoir 6 l + O-rings	18	F110151	30601	O-ring
	F172535	-	Reservoir 8 l + O-rings	19	F110895	30701	Non return valve
4	F103045	39901	Guide pin 4 l	20	F100531	32501	O-ring
	F111409	69301	Guide pin 6 l	21	F000263	35801	Piston housing 42cc
	F103545	41501	Guide pin 8 l	22	F000266	35701	Piston spring 42cc
5	F115378	40501	Follower plate 4 l	23	F104654	35901	O-ring + retaining ring
	F112031	85301	Follower plate 6/8 l	24	F102724	40701	Piston 42cc
6	F103183	34501	Pump body	25	F102719	40901	Piston seal
7	F605775	-	Filter kit	26	F113297	40601	Cylinder liner 42cc
8	F110028	34901	Non return valve kit	27	F103121	41001	Gasket
9	F103823	19701	Banjo connector kit	28	F103064	41101	Bottom cover
12	F103649	63901	Plug including ring	29	F102608	121025	Allen screw M10x25
14	F000714	40201	Sealing ring				

### 1.4 Optional parts

Pos	P/n new	P/n old	Description	Pos	P/n new	P/n old	Description
31	F113059	26401	Warning device	33	F104544	16901	Manometer 0-150bar
32	F114697	68501	Pressure switch 40bar	34	F112409	90901	Low level switch 4L
					F119085		Low level switch 6/8L

### 1.5 Pump kits

Pos	P/n new	P/n old	Description
	F116478	45001.01	Pump kit 42cc-pneumatic brake counter-4 litres reservoir
	F209918	-	Pump kit 42cc-pneumatic brake counter-8 litres-8cm bracket-prefilled
	F205420	-	Pump kit 42cc-electrical brake counter-24 Vdc-4 litres reservoir
	F116477	49801.02	Pump kit 42cc-24Vdc-4 litres-cable-8cm bracket-prefilled
	F116480	69101.01	Pump kit 42cc-24Vdc-4 litres-cable-no grease
	F116481	69101.02	Pump kit 42cc-24Vdc-4 litres-cable-prefilled
	F116483	75401.02	Pump kit 42cc-12Vdc-4 litres-cable-prefilled
	F116486	75301.02	Pump kit 42cc-12Vdc-4 litres-cable-8cm bracket-prefilled

Release date: May 2020



### 1.6 Pneumatic grease pumps 60cc

<i>P/n new</i>	<i>P/n old</i>	<i>Capacity reservoir</i>	<i>Grease delivery</i>	<i>Ratio</i>	<i>Maximum pressure</i>	<i>Grease prefilled</i>
F103336	37101	4 litres	60 cc / stroke	9 : 1	100 bar	No
F116488	37101.01	4 litres	60cc / stroke	9: 1	100 bar	Yes
F114016	43001	8 litres	60 cc / stroke	9 : 1	100 bar	No

<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>	<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>
1	F103643	59701	Reservoir bolt kit	17	F103646	59901	Plug including ring
2	F605724	-	Cover + O-ring	18	F110151	30601	O-ring
3	F604267	-	Reservoir 4 l + O-rings	19	F110895	30701	Non return valve
	F172535	-	Reservoir 8 l + O-rings	20	F100531	32501	O-ring
4	F103045	39901	Guide pin 4 l	21	F103247	20522	Piston housing 60cc
	F103545	41501	Guide pin 8 l	22	F103250	48701	Piston spring 60cc
5	F115378	40501	Follower plate 4 l	23	F104654	35901	O-ring + retaining ring
	F112031	85301	Follower plate 8 l	24	F111490	97501	Piston 60cc
6	F103183	34501	Pump body	25	F102719	40901	Piston seal
7	F605775	34001	Filter kit	26	F103246	69701	Cylinder liner 60cc
8	F110028	34901	Non return valve kit	27	F103121	41001	Gasket
9	F103823	19701	Banjo connector kit	28	F103064	41101	Bottom cover
12	F103649	63901	Plug including ring	29	F101041	22122	Allen screw M10x70
14	F000714	40201	Sealing ring	30	F103249	22522	Extension tube 60cc
15	F000713	40101	Allen screw M4x48				
16	F102975	34801	Check valve kit				

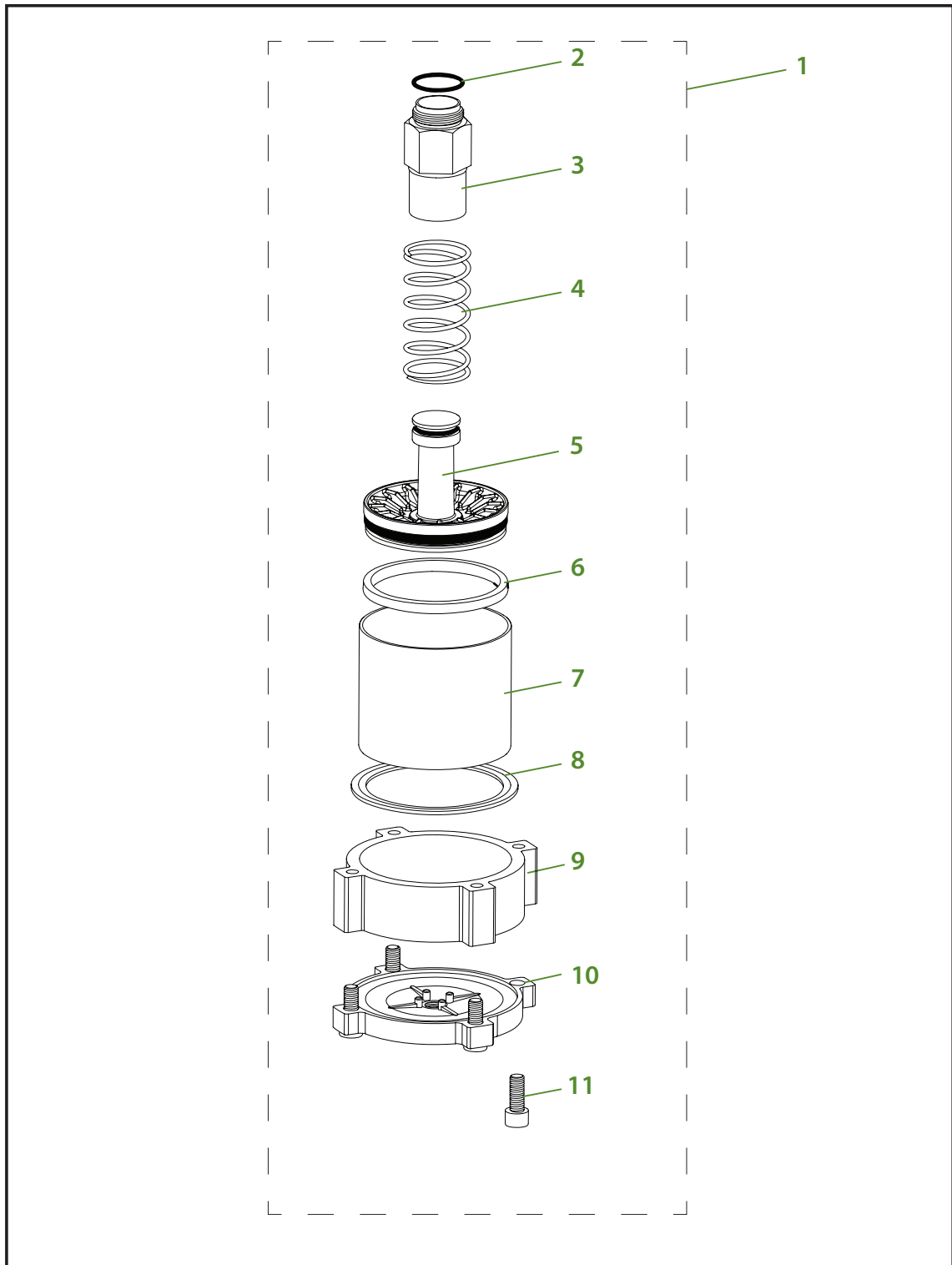
### 1.7 Optional parts

<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>	<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>
31	F113059	26401	Warning device	33	F104544	16901	Manometer 0-150bar
32	F114697	68501	Pressure switch 40bar	34	F112409	90901	Low level switch kit
					F119085		Low level switch 6/8L

### 1.8 Pump kits

<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>
	F119880	-	Pump kit 60cc-24Vdc-4 litres-cable-8cm bracket-prefilled
	F130715	-	Pump kit 60cc-pneumatic brake timer-1/4 DOT-prefilled

Release date: May 2020



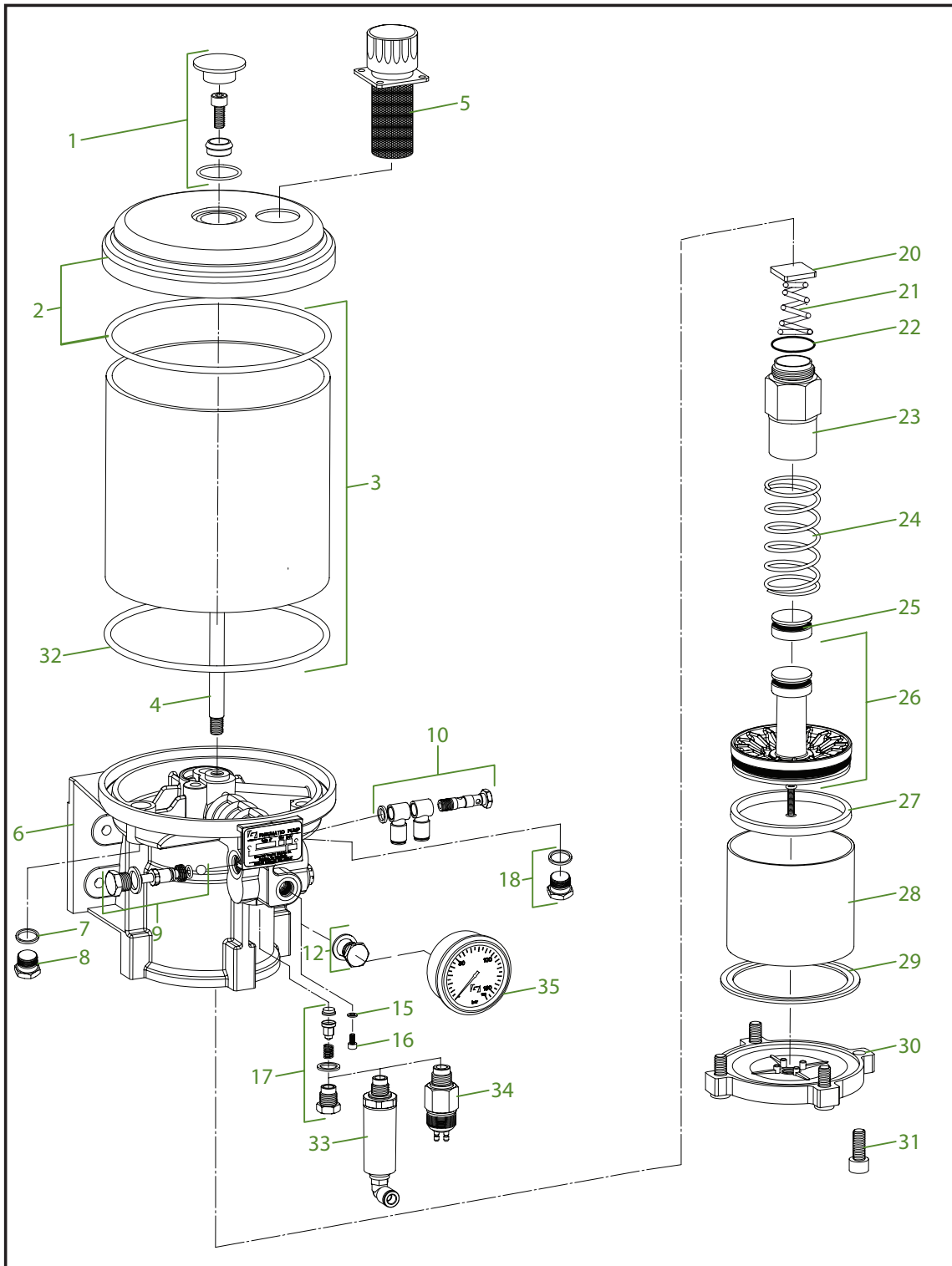
Release date: May 2020

**1.9 Pneumatic pump conversion kit 42cc to 60cc**

<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>	<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>
1	F111526	69801	Extension kit	7	F103246	69701	Cylinder liner 60cc
2	F100531	32501	O-ring	8	F103121	41001	Gasket
3	F103247	20522	Piston housing 60cc	9	F103249	22522	Extension tube 60cc
4	F103250	48701	Piston spring 60cc	10	F103064	41101	Bottom cover
5	F111490	97501	Piston 60cc	11	F101041	22122	Allen screw M10x70
6	F102719	40901	Piston seal				

Release date: May 2020

# Automatic SingleLine Greasing System



Release date: May 2020

### 1.10 Pneumatic oil pumps 42cc

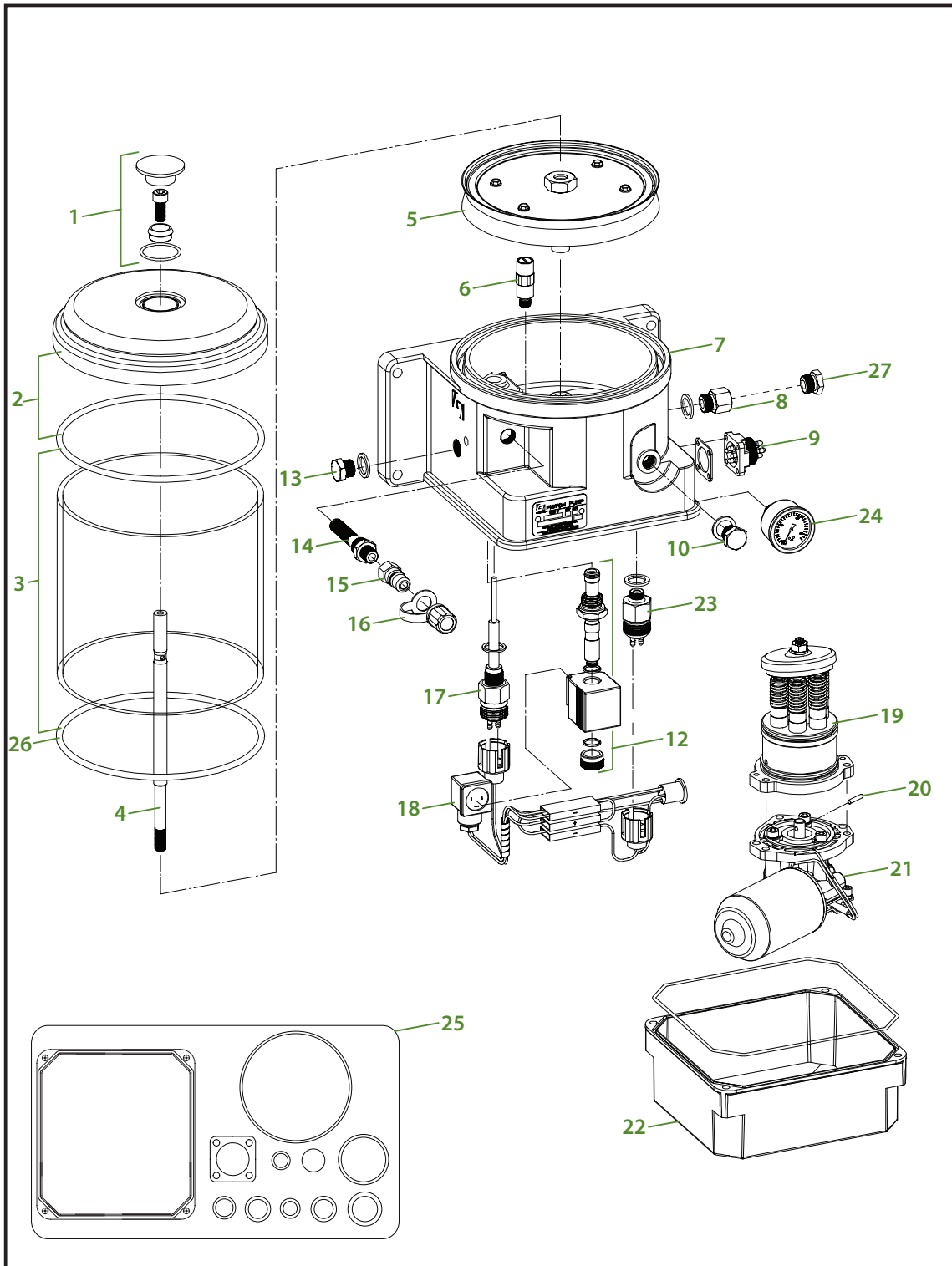
<i>P/n new</i>	<i>P/n old</i>	<i>Capacity reservoir</i>	<i>Grease delivery</i>	<i>Ratio</i>	<i>Maximum pressure</i>
F116318	00511	4 litres	42 cc / stroke	9 : 1	100 bar
F116319	06511	8 litres	42 cc / stroke	9 : 1	100 bar

<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>	<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>
1	F103643	59701	Reservoir bolt kit	17	F102975	34801	Check valve kit
2	F605777	-	Cover + O-ring	18	F103646	59901	Plug including ring
3	F604267	-	Reservoir 4 l + O-rings	20	F116326	-	Non return valve
	F172535	-	Reservoir 8 l + O-rings	21	F116320	-	Conical spring
4	F116323	-	Guide pin 4 l	22	F100531	32501	O-ring
	F116330	-	Guide pin 8 l	23	F000263	35801	Piston housing 42cc
5	F114708	07202	Oil filler cap	24	F000266	35701	Piston spring 42cc
6	F103183	34501	Pump body	25	F104654	35901	O-ring + retaining ring
7	F100049	-	Sealing ring	26	F102724	40701	Piston 42cc
8	F116327	-	Plug	27	F102719	40901	Piston seal
9	F110028	34901	Non return valve kit	28	F113297	40601	Cylinder liner 42cc
10	F103823	19701	Banjo connector kit	29	F103121	41001	Gasket
12	F103649	63901	Plug including ring	30	F103064	41101	Bottom cover
15	F000714	40201	Sealing ring	31	F102608	121025	Allen screw M10x25
16	F000713	40101	Allen screw M4x48	32	F110151	30601	O-ring

### 1.11 Optional parts

<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>	<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>
33	F113059	26401	Warning device	35	F104544	16901	Manometer 0-150bar
34	F114697	68501	Pressure switch 40bar				

# Automatic SingleLine Greasing System



Release date: May 2020

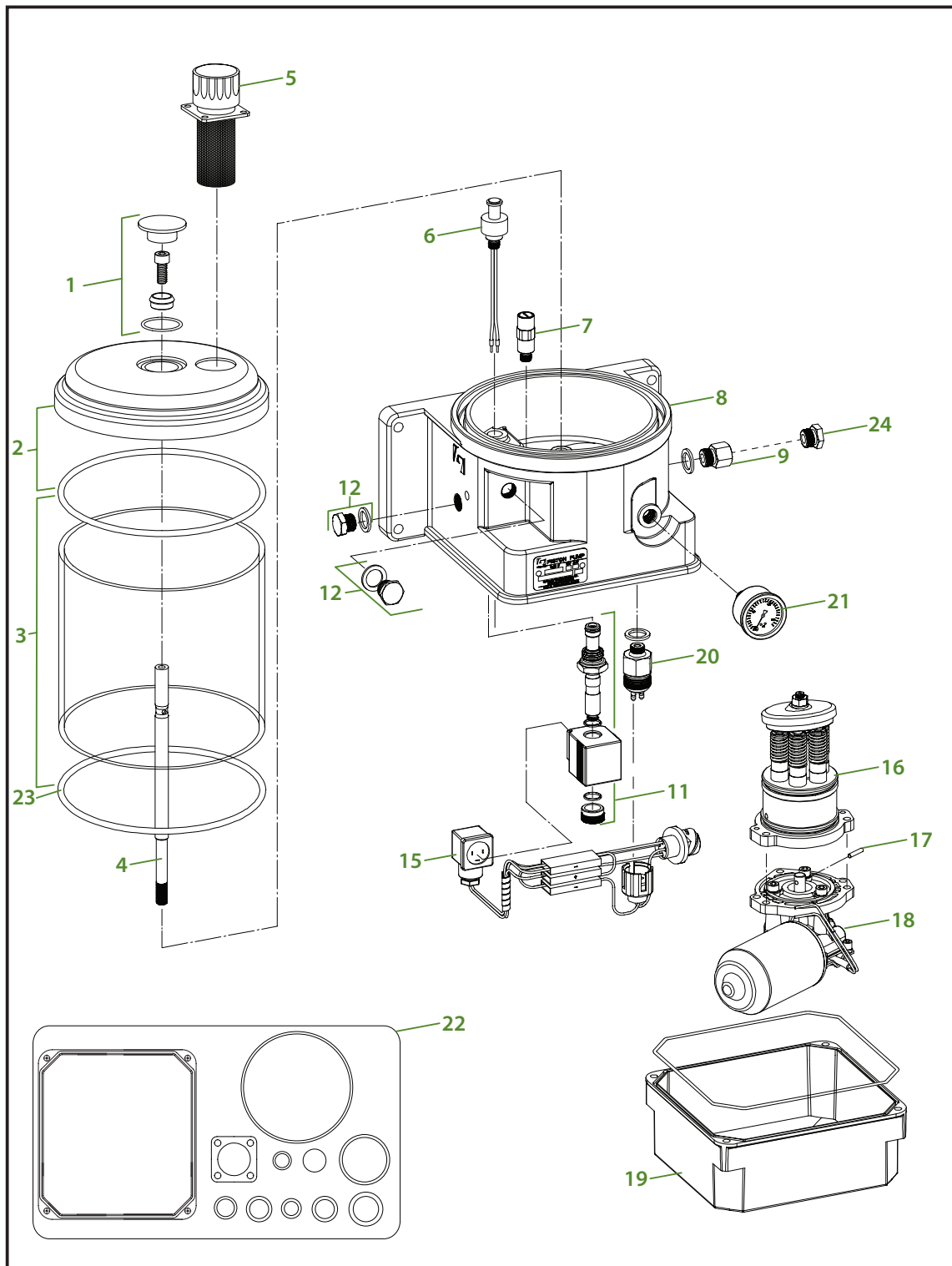


### 1.12 Electric piston grease pumps

<i>P/n new</i>	<i>P/n old</i>	<i>Supply voltage</i>	<i>Capacity reservoir</i>	<i>Grease delivery</i>	<i>Maximum pressure</i>
F111561	31522	12 Vdc	4 litres	25 cc / minute	100 bar
F110712	21422	12 Vdc	4 litres	50 cc / minute	100 bar
F110082	16022	12 Vdc	8 litres	50 cc / minute	100 bar
F110084	16222	24 Vdc	4 litres	25 cc / minute	100 bar
F110083	16122	24 Vdc	8 litres	25 cc / minute	100 bar

<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>	<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>
1	F103643	59701	Reservoir bolt kit	15	F100056	02001	Quick connector
2	F605724	-	Cover + O-ring	16	F100258	03501	Dust cap
3	F604267	-	Reservoir 4 l + O-rings	17	F112019	84101	Low level switch
	F172535	-	Reservoir 8 l + O-rings	18	F112024	85601	Cable harness 4-core
4	F110111	85401	Guide pin 4 l	19	F112023	85801	Piston pump unit
	F110080	85501	Guide pin 8 l	20	F110064	84701	Security pin
5	F112030	85201	Follower plate 4 l	21	F112028	84901	Motor 12V/14rpm/25cc
	F112031	85301	Follower plate 8 l		F112026	84801	Motor 12V/28rpm/50cc
6	F112017	84201	Relief valve 100bar		F112027	85001	Motor 24V/14rpm/25cc
7	F118888	-	Pump body	22	F114871	86001	Bottom cover
8	F104803	64901	Adapter M16-1/4"	23	F114698	59822	Pressure switch 70bar
9	F104794	64801	Connector 4-core M24	24	F103155	54101	Manometer 0-150bar
10	F103649	63901	Plug + O-ring G1/4"	25	F111717	86201	Gasket kit
12	F120388	-	Valve kit 12Vdc		F172627	-	Repair kit pump ass.
	F120387	-	Valve kit 24Vdc	26	F110151	30601	O-ring
13	F103646	59901	Plug + O-ring M16x1.5	27	F604813	-	Nylon plug 1/4"
14	F112018	85101	Grease strainer kit				

Release date: May 2020



Release date: May 2020

### 1.13 Electric piston oil pumps

<i>P/n new</i>	<i>P/n old</i>	<i>Supply voltage</i>	<i>Capacity reservoir</i>	<i>Grease delivery</i>	<i>Maximum pressure</i>
F114705	61522	24 Vdc	4 litres	50 cc / minute	100 bar
F172672	-	24 Vdc	8 litres	50 cc / minute	100 bar

<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>	<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>
1	F103643	59701	Reservoir bolt kit	12	F103646	59901	Plug + O-ring M16x1.5
2	F605777	-	Cover + O-ring	15	F114712	-	Cable harness 8-core
3	F604267	-	Reservoir 4 l + O-rings	16	F112023	85801	Piston pump unit
	F172535	-	Reservoir 8 l + O-rings	17	F110064	84701	Security pin
4	F114707	-	Guide pin 4 l	18	F110106	86601	Motor 24V/28rpm
	F118699	-	Guide pin 8 l	19	F114871	86001	Bottom cover
5	F114708	07202	Oil filler cap	20	F114698	59822	Pressure switch 70bar
6	F114715	-	Level sensor	21	F103155	54101	Manometer 0-150bar
7	F112017	84201	Relief valve 100bar	22	F111717	86201	Gasket kit
8	F118888	-	Pump body	23	F110151	30601	O-ring
9	F104803	64901	Adapter M16-1/4"	24	F604513	-	Nylon plug 1/4"
11	F120387	-	Valve kit 24Vdc				



### 1.14 Electric gear grease pumps

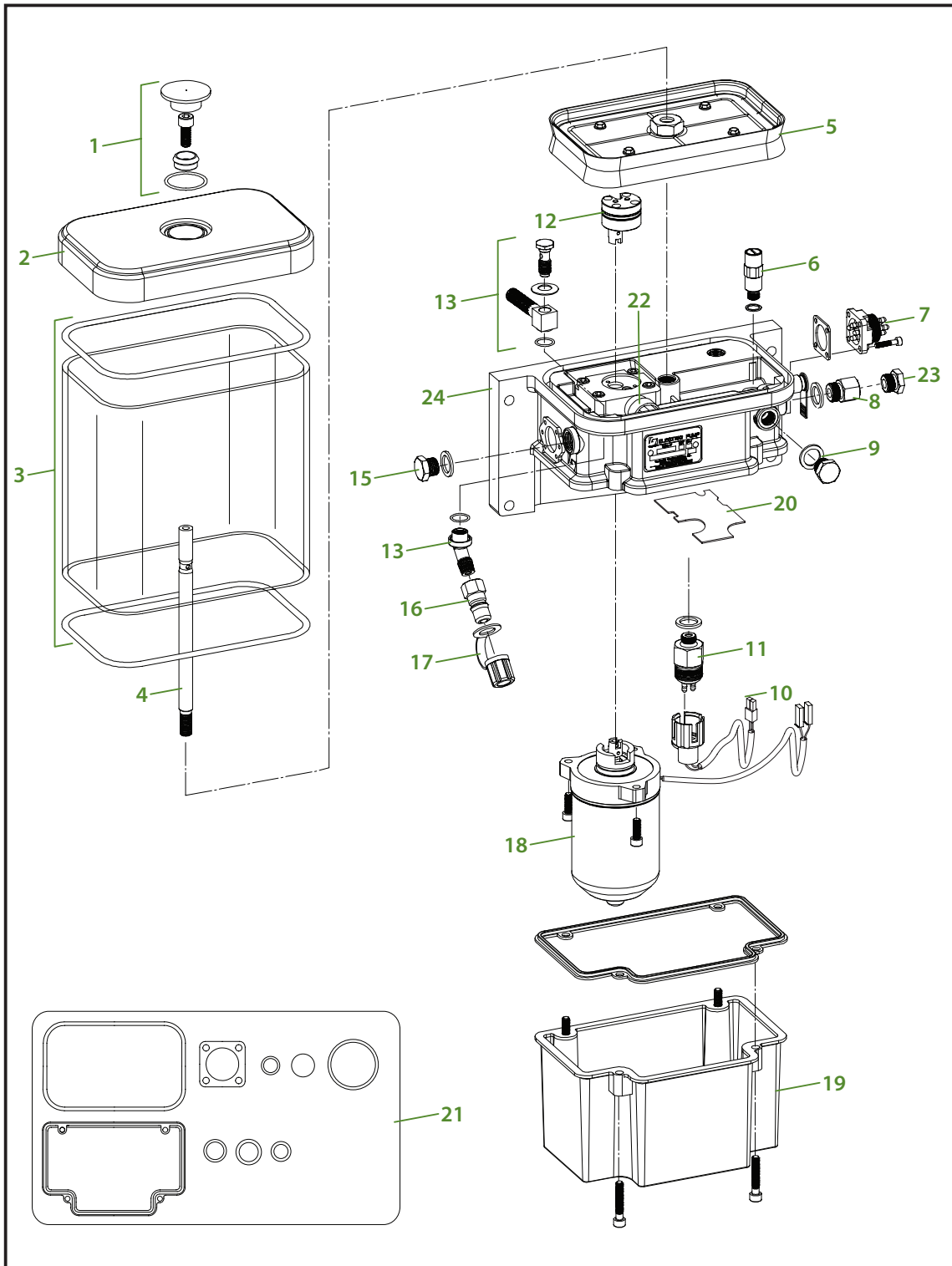
<i>P/n new</i>	<i>P/n old</i>	<i>Supply voltage</i>	<i>Capacity reservoir</i>	<i>Grease delivery</i>	<i>Maximum pressure</i>
F103384	53001	12 Vdc	2.9 litres	120cc / minute	55 bar
F117676 <sup>1)</sup>	53101	12 Vdc	2.9 litres	120cc / minute	55 bar
F103041	50101	24 Vdc	2.1 litres	120cc / minute	55 bar
F103382	52201	24 Vdc	2.9 litres	120cc / minute	55 bar
F103398 <sup>1)</sup>	52301	24 Vdc	2.9 litres	120cc / minute	55 bar

<sup>1)</sup> Pump with low level switch and 4-core M24 connector.

<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>	<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>
1	F103643	59701	Reservoir bolt kit	11	F104059	65901	Pressure switch 30bar
2	F104467	64201	Cover + O-ring	12	F113884	92301	Gear pump unit
3	F604869	-	Reservoir 1.7 litre	13	F103642	59801	Grease strainer kit
	F104007	64101	Reservoir 2.1 litre	15	F103646	59901	Plug + O-ring M16x1.5
	F104466	64001	Reservoir 2.9 litre	16	F100056	02001	Quick connector
4	F115889	-	Guide pin 1.7 litre	17	F100258	03501	Dust cap
	F103296	58001	Guide pin 2.1 litre	18	F116437	15311	Motor 12Vdc / 3-pins
	F103372	57901	Guide pin 2.9 litre		F117677	-	Motor 12Vdc / 4-pins
5	F115379	57601	Follower plate		F104055	02911	Motor 24Vdc / 3-pins
6	F104005	64401	Relief valve 50 bar		F110837	-	Motor 24Vdc / 4-pins
7	F104793	64701	Connector 3-core M24	19	F104003	64301	Bottom cover
	F104794	64801	Connector 4-core M24	20	F104811	66101	Gasket kit
8	F104802 <sup>1)</sup>	65801	Adapter M16-ø8mm	21	F114948	94001	Non return valve
	F104803	64901	Adapter M16-1/4"	22	F604513	-	Nylon plug 1/4"
9	F103649	63901	Plug + O-ring G1/4"	23	F102997	-	Pump body
10	F104810	66001	Low level switch				

<sup>1)</sup> for F103041

# Automatic SingleLine Greasing System



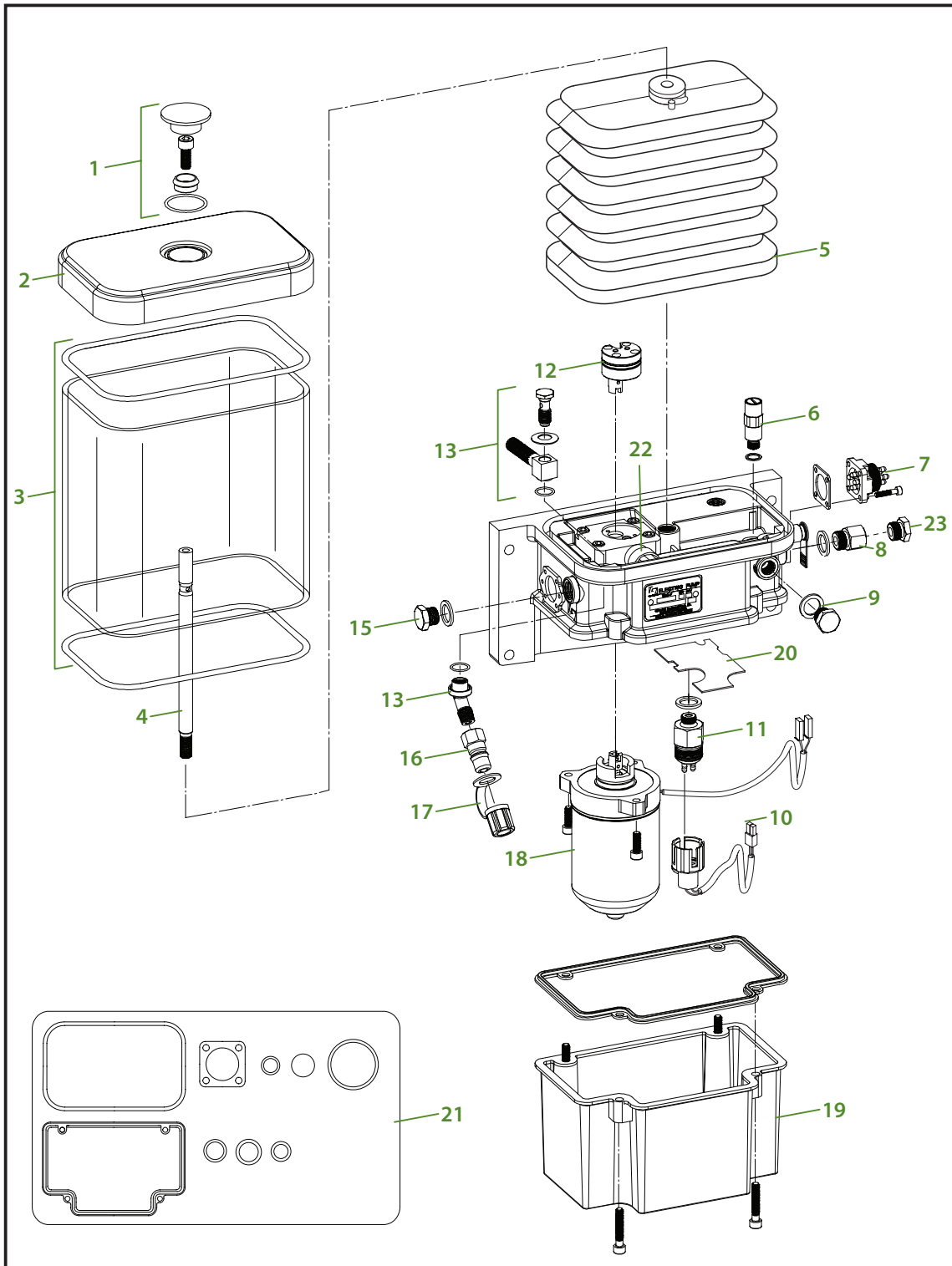
Release date: May 2020

**1.15 Electric gear grease pumps with timer**

<i>P/n new</i>	<i>P/n old</i>	<i>Supply voltage</i>	<i>Capacity reservoir</i>	<i>Grease delivery</i>	<i>Maximum pressure</i>
F130840	-	24 Vdc	2.9 litres	120cc / minute	55 bar

<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>	<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>
1	F103643	59701	Reservoir bolt kit	13	F103642	59801	Grease strainer kit
2	F104467	64201	Cover + O-ring	15	F103646	59901	Plug + O-ring M16x1.5
3	F104466	64001	Reservoir 2.9 liter	16	F100056	02001	Quick connector
4	F103372	57901	Guide pin 2.9 l	17	F100258	03501	Dust cap
5	F115379	57601	Follower plate	18	F129878	-	Motor 24Vdc
6	F104005	64401	Relief valve 50 bar	19	F104003	64301	Bottom cover
7	F110815	47501	Connector 4-core	20	F116842	06311	Timer 24 Vdc
8	F104802	65801	Adapter M16-ø8mm	21	F104811	66101	Gasket kit
9	F103649	63901	Plug + O-ring G1/4"	22	F114948	94001	Non return valve
10	F114748	-	Cable pressure switch	23	F604513	-	Nylon plug 1/4"
11	F104059	65901	Pressure switch 30bar	24	F130839	-	Pump body I.T
12	F113884	92301	Gear pump unit				

# Automatic SingleLine Greasing System



Release date: May 2020



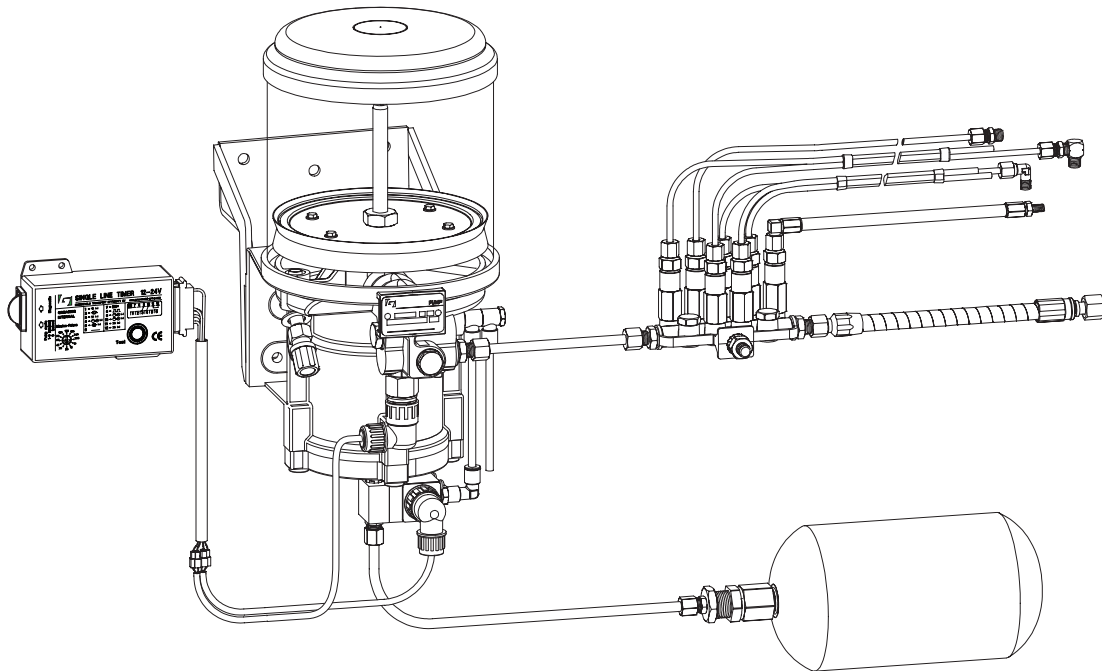
**1.16 Electric gear grease bellows pumps with timer**

<i>P/n new</i>	<i>P/n old</i>	<i>Supply voltage</i>	<i>Capacity reservoir</i>	<i>Grease delivery</i>	<i>Maximum pressure</i>
F177824	-	24 Vdc	2.1 litres	80cc / minute	55 bar

<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>	<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>
1	F103643	59701	Reservoir bolt kit	12	F113884	92301	Gear pump unit
2	F104467	64201	Cover + O-ring	13	F103642	59801	Grease strainer kit
3	F104007	64101	Reservoir kit 2.1 l	15	F103646	59901	Plug + O-ring M16x1.5
4	F121028	-	Guide pin 2.1 l	16	F100056	02001	Quick connector
5	F116843	16411	Reservoir bellows	17	F100258	03501	Dust cap
6	F104005	64401	Relief valve 50 bar	18	F129878	-	Motor 24Vdc
7	F110815	47501	Connector 4-core	19	F104003	64301	Bottom cover
8	F104802	65801	Adapter M16-ø8mm	20	F116842	06311	Timer 24 Vdc
9	F103649	63901	Plug + O-ring G1/4"	21	F104811	66101	Gasket kit
10	F114748	-	Cable pressure switch	22	F114948	94001	Non return valve
11	F104059	65901	Pressure switch 30bar	23	F604513	-	Nylon plug 1/4"



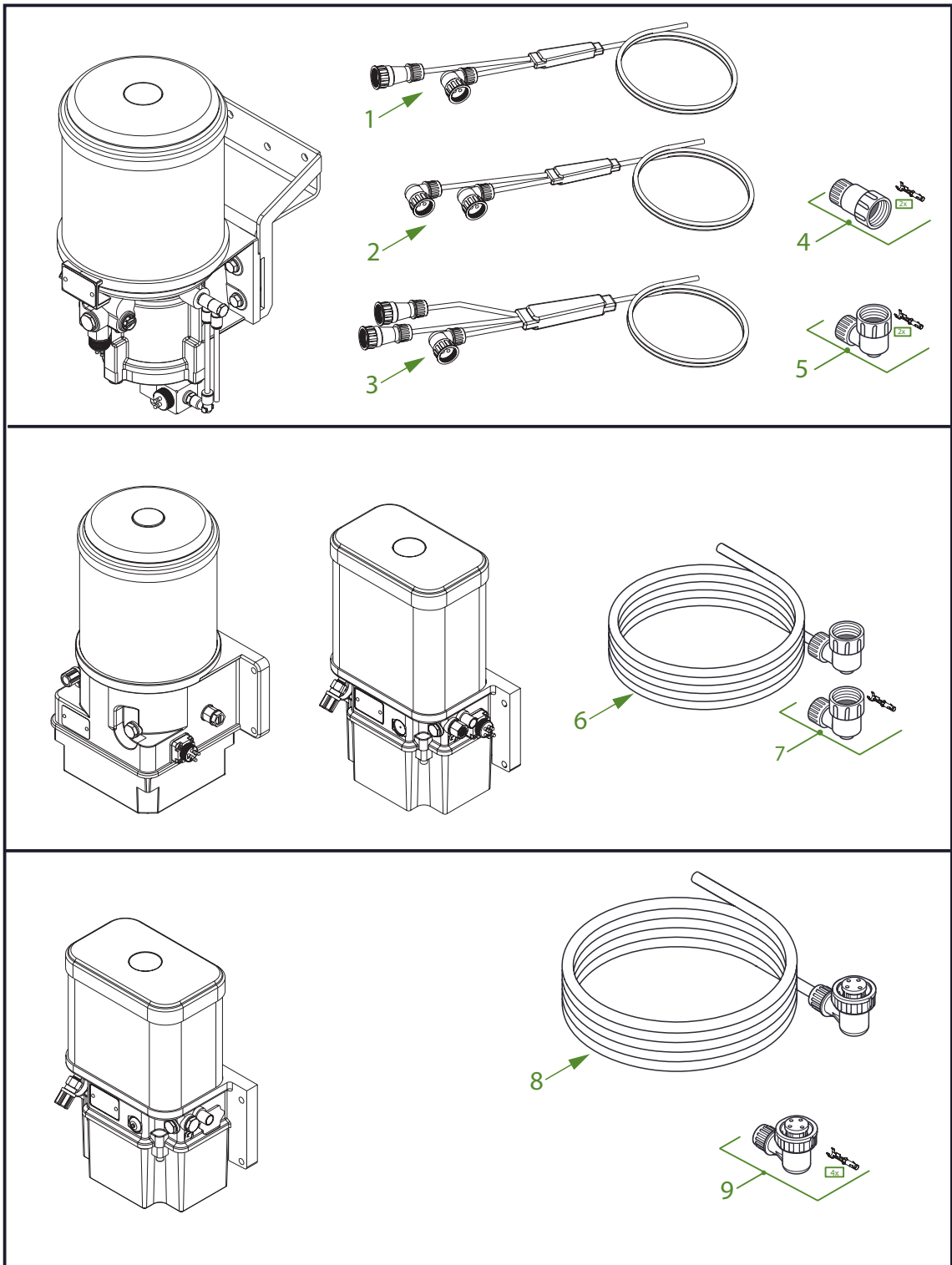
## 2. CABLE HARNESS



Release date: May 2020



# Automatic SingleLine Greasing System



Release date: May 2020

## 2.1 Cable Harness for pneumatic pumps

<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>
1	F110143	69001	Cable harness pressure switch / solenoid 10 meter
2	F112040	69601	Cable harness pressure switch / solenoid 10 meter / ADR
3	F601986	-	Cable harness pressure switch / solenoid / low level switch 15 meter
4	F122259	-	Connector kit 2-core straight
5	F101156	19008	Connector kit 2-core elbow
	F113119	19108	Connector kit 2-core elbow NW10 ADR

## 2.2 Cable Harness for electrical piston and gear pumps

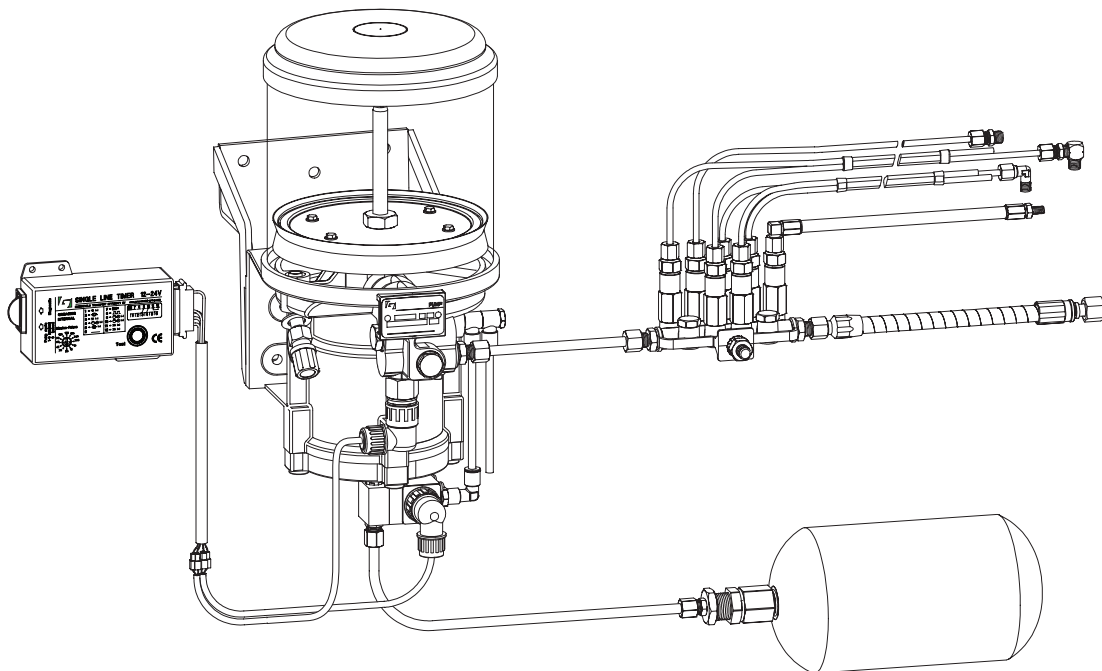
<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>
6	F105097	53601	Cable harness 3-core / M24 / 7.5 m
	F105182	58301	Cable harness 4-core / M24 / 7.5 m (for pump with low level)
	F617086	-	Cable harness 4-core / M24 / 15 m (for pump with low level)
	F170901	00217	Cable harness 7-core / 20 m / ADR (for piston oil pump )
7	F113610	19708	Connector kit 3-core elbow
	F114256	19808	Connector kit 4-core elbow
	F110890	73601	Connector kit 7-core elbow ADR

## 2.3 Cable Harness for gear pump with internal timer

<i>Pos</i>	<i>P/n new</i>	<i>P/n old</i>	<i>Description</i>
8	F177826	-	Cable harness 4-core / 15 m Bayonet mount
9	F117786	-	Connector kit 4-core elbow Bayonet mount



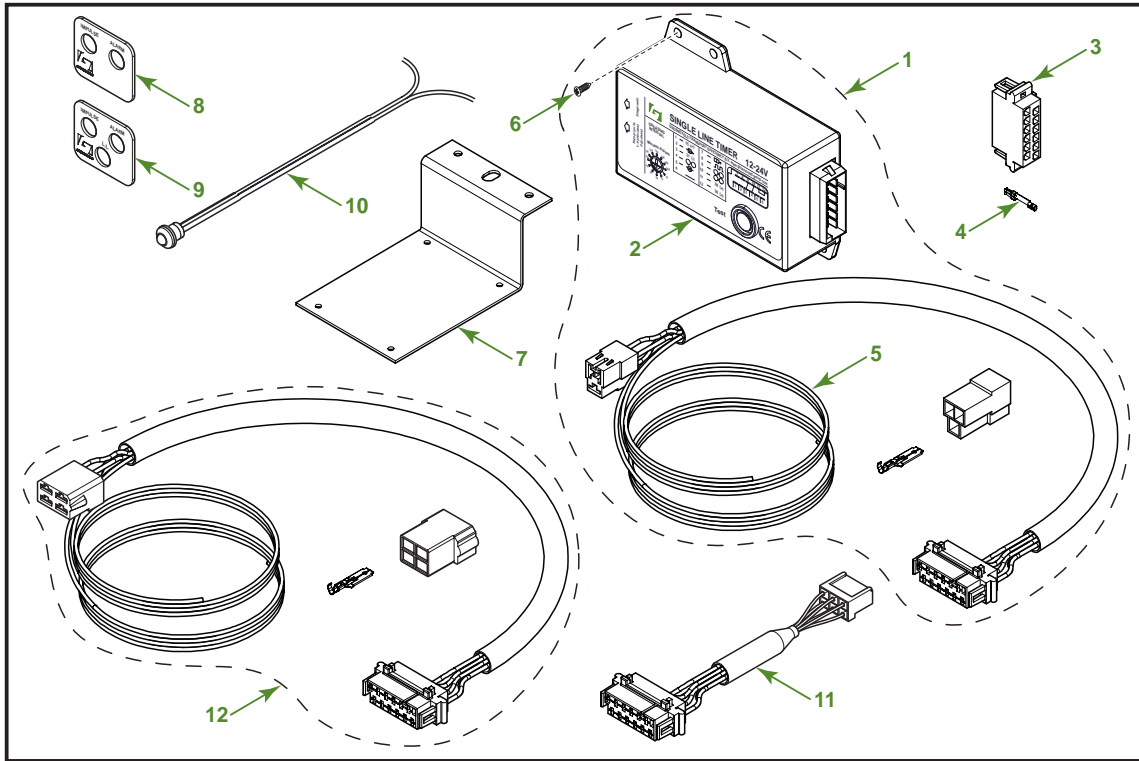
### 3. CONTROL UNITS



Release date: May 2020



### 3.1 Electronic timer

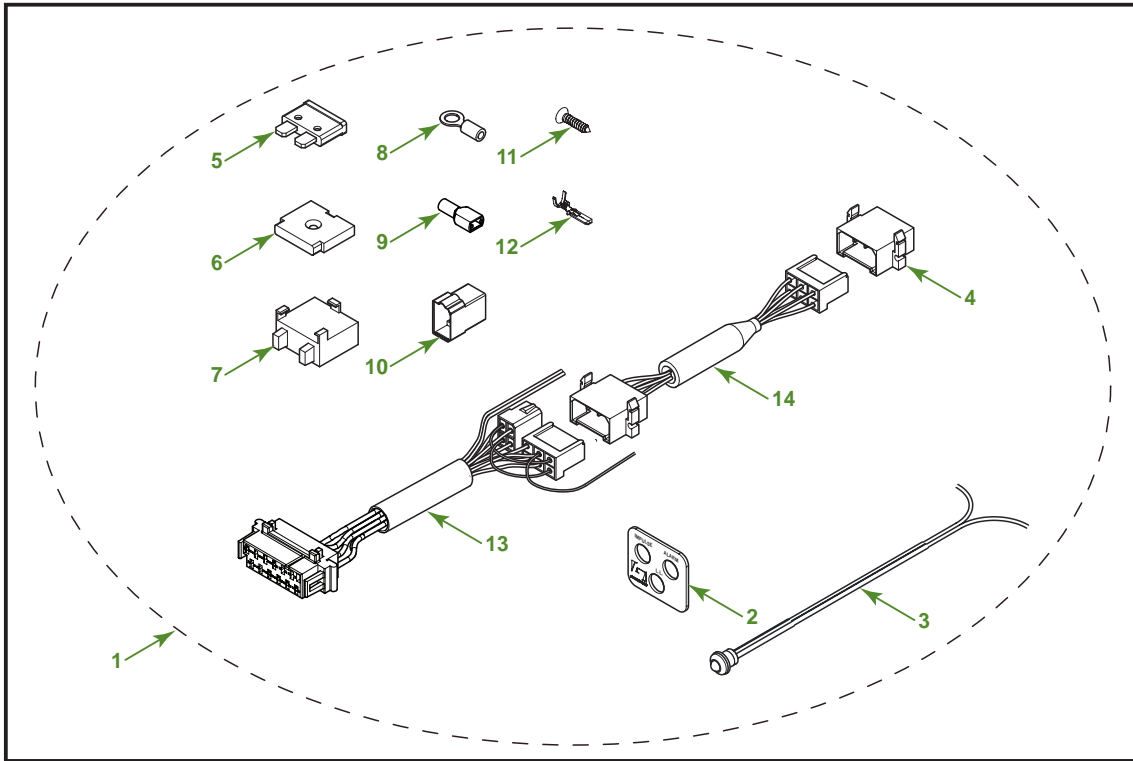


Pos	P/n new	P/n old	Description
1	F214375	-	General SingleLine timer kit
2	F125639	-	Timer 12-24Vdc / cycle time 1-9 min. / interval range 10 - 300 min.
3	F104581	07701	Connector 12-core
4	F104579	07801	Junior contact 0.5 - 1.5mm <sup>2</sup>
5	F111299	68901	Cable harness 1.4 m
	F207682	-	Cable harness 3.0 m
6	F100354	023595	Tapping screw 3.5 x 9.5mm
7	F102040	08401	Bracket
8	F110285	97202	Text plate LED Impulse / Alarm
9	F121142	-	Text plate LED Impulse / Alarm / low level
10	F105890	21103	LED red
	F105891	24009	LED yellow
	F194350		LED green
11	F118103	23701	Adaption cable for M.A.N
12	F635426		Cable harness kit including low level connection 1.5m

Release date: May 2020



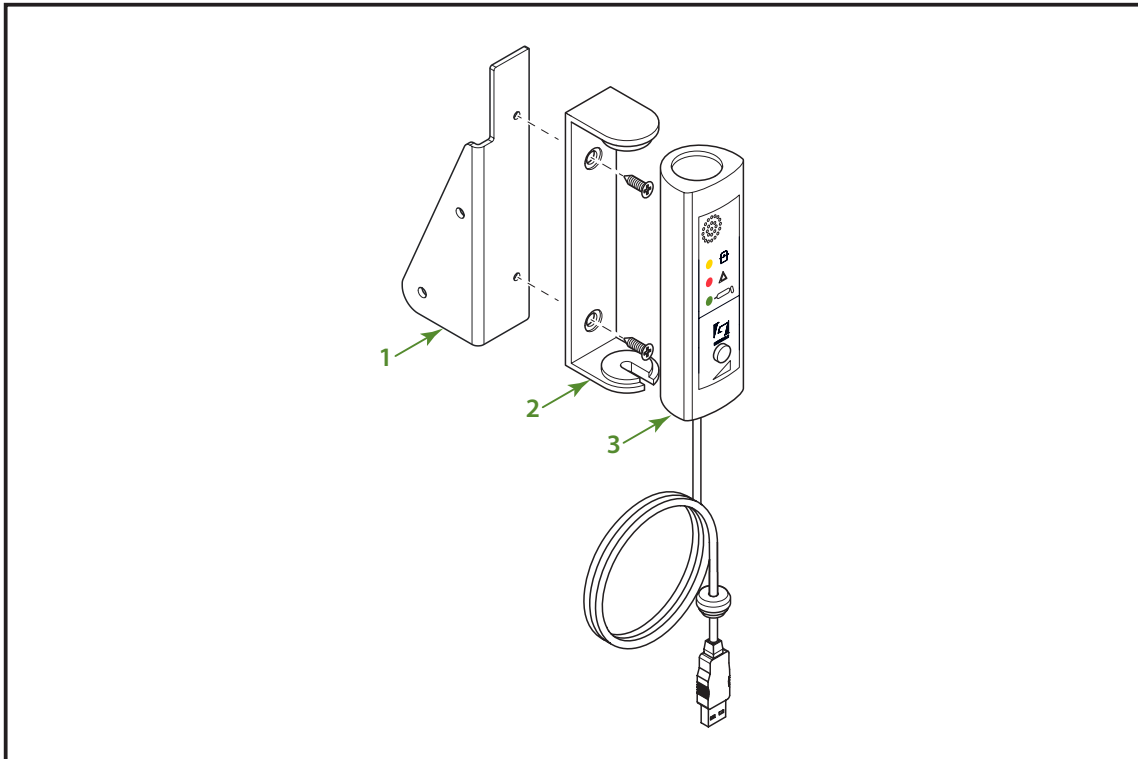
### 3.2 Connection kit for 3-led support Alarm/Pulse/Low level



Pos	P/n new	P/n old	Description
1	F603904	-	SingleLine timer connection kit for 3 Led's
2	F121142	-	Text plate LED Impulse / Alarm / low level
3	F105890	21103	LED red
	F105891	24009	LED yellow
	F194350	-	LED green
4	F127574	-	Connector housing 6P
5	F113444	15608	Blade fuse 5 Amp standard
	F113445	19508	Blade fuse 10 Amp standard
	F177962	17208	Blade fuse 20 Amp standard
6	F117316	17508	Support fuse holder
7	F117315	17408	Fuse holder single (standard fuse)
8	F104594	03303	Contact tingues (red PVC insulation)
	F104596	800003	Contact tingues (yellow PVC insulation)
9	F111476	03203	S - Receptable - wire range 1 - 2.5mm <sup>2</sup> (Blue)
10	F112759	67506	Connector housing 4P (female)
11	F117317	17608	Allen screw for F117316
12	F117748	68706	Tab contact - wire range 1.5mm <sup>2</sup>
13	F603905		Cable harness 1.5m
14	F601873		Extension cable 1m

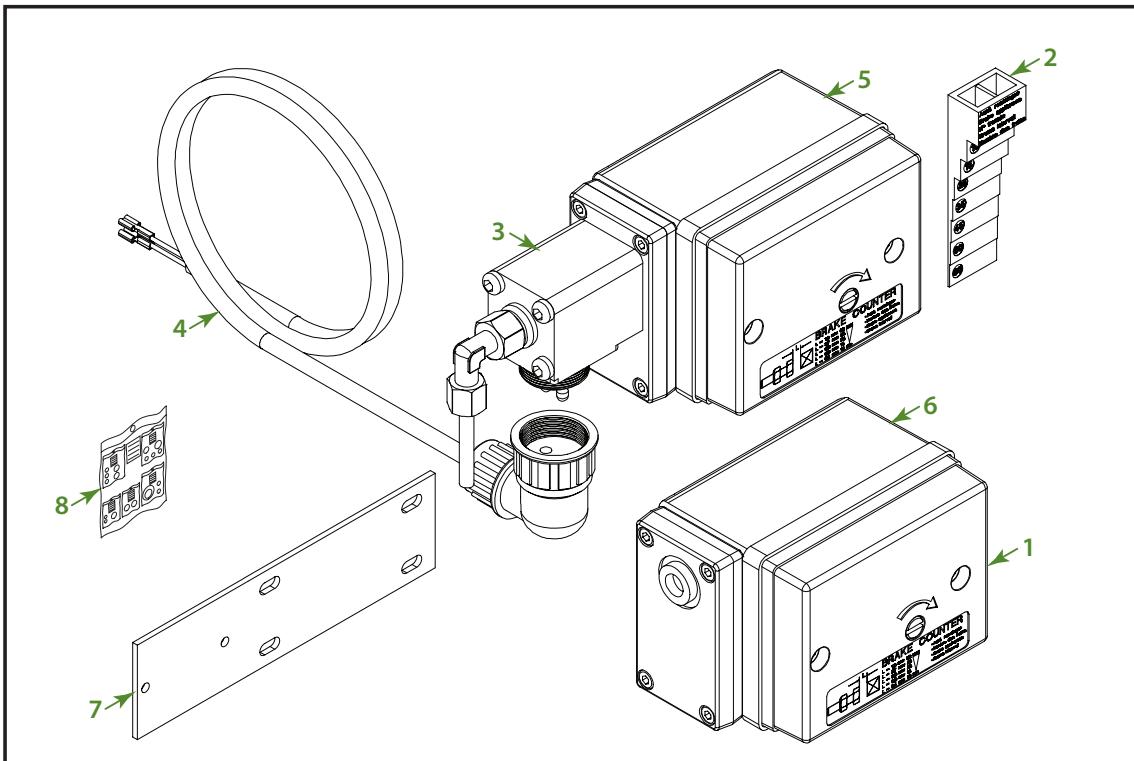
Release date: May 2020

### 3.3 Display unit



Pos	P/n new	P/n old	Description
1	F170372		Display bracket 90°
2	F119437		Display bracket
3	F606192		SingleLine display kit, including bracket and screws

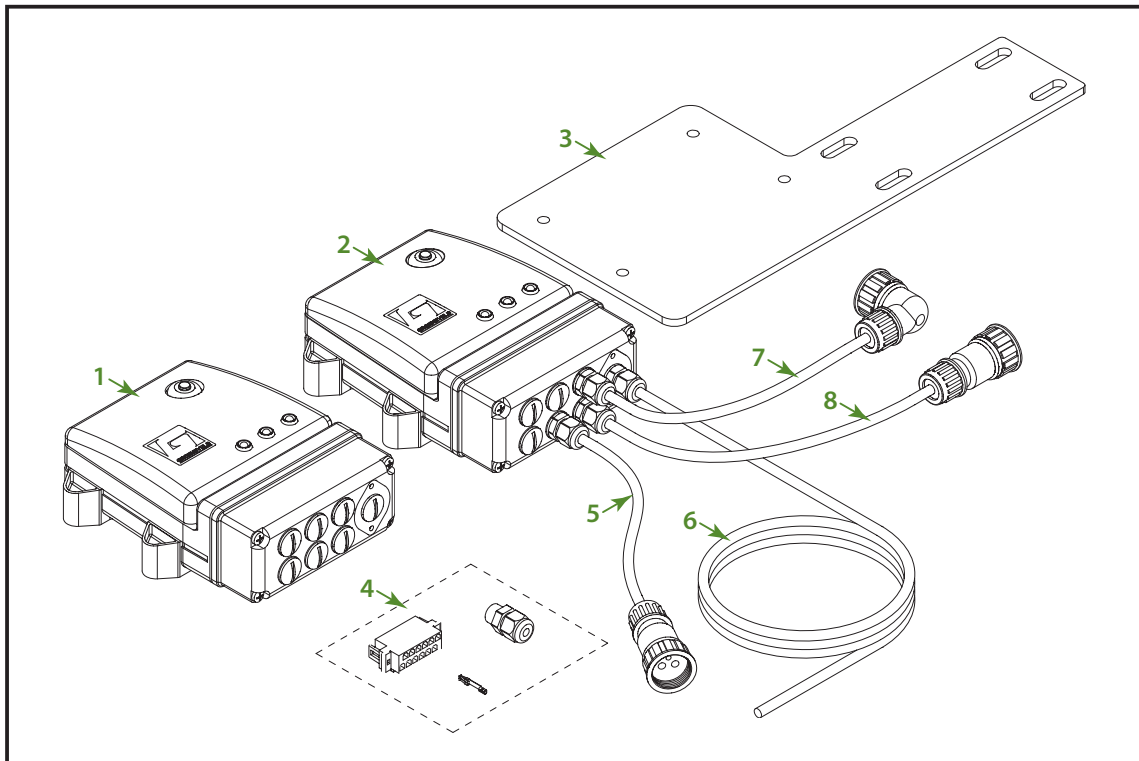
### 3.4 Pulse brake counter



Pos	P/n new	P/n old	Description
1	F111768	45601	Pulse brake counter cover kit
2	F100088	08201	Pulse brake counter adjusting gauge
3	F103346	08101	Pulse brake counter solenoid 24 Vdc
4	F107895	04812	Cable harness 2-core / M24 / 8 meter
	F107894	04912	Cable harness 2-core / M24 / 15 meter
5	F100186	00301	Electric pulse brake counter 24 Vdc
6	F100187	07401	Pneumatic pulse brake counter
7	F102173	06108	Bracket, L=340mm
8	F113849	01801	Pulse brake counter sealing repair kit
	F176402	-	Pulse brake counter cam replacement kit
	F115541	11611	Pulse brake counter piston repair kit

Release date: May 2020

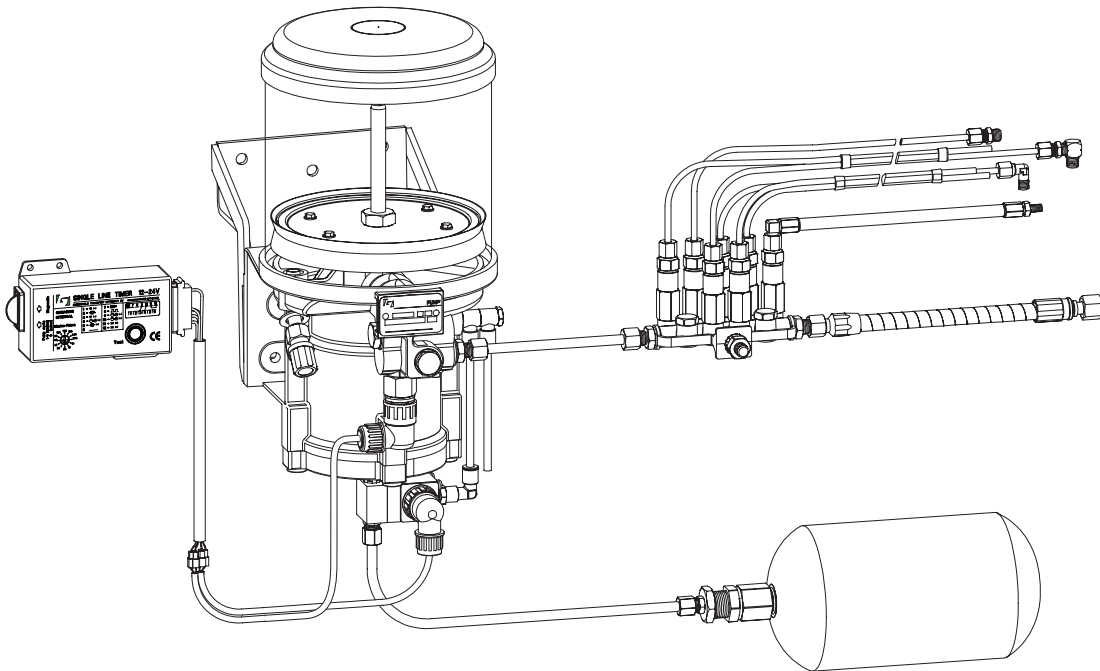
### 3.5 Multi mode trailer timer



Pos	P/n new	P/n old	Description
1	F120496	-	Multi mode trailer timer
2	F122299	-	Multi mode trailer timer including cables
3	F195731	-	Bracket
4	F121810	-	Connection kit
5	F127447	-	Cable low level switch 0.6 meter
6	F122186	-	Cable power supply 15 meter
7	F122188	-	Cable solenoid 0.3 meter
8	F122187	-	Cable pressure switch 0.5 meter

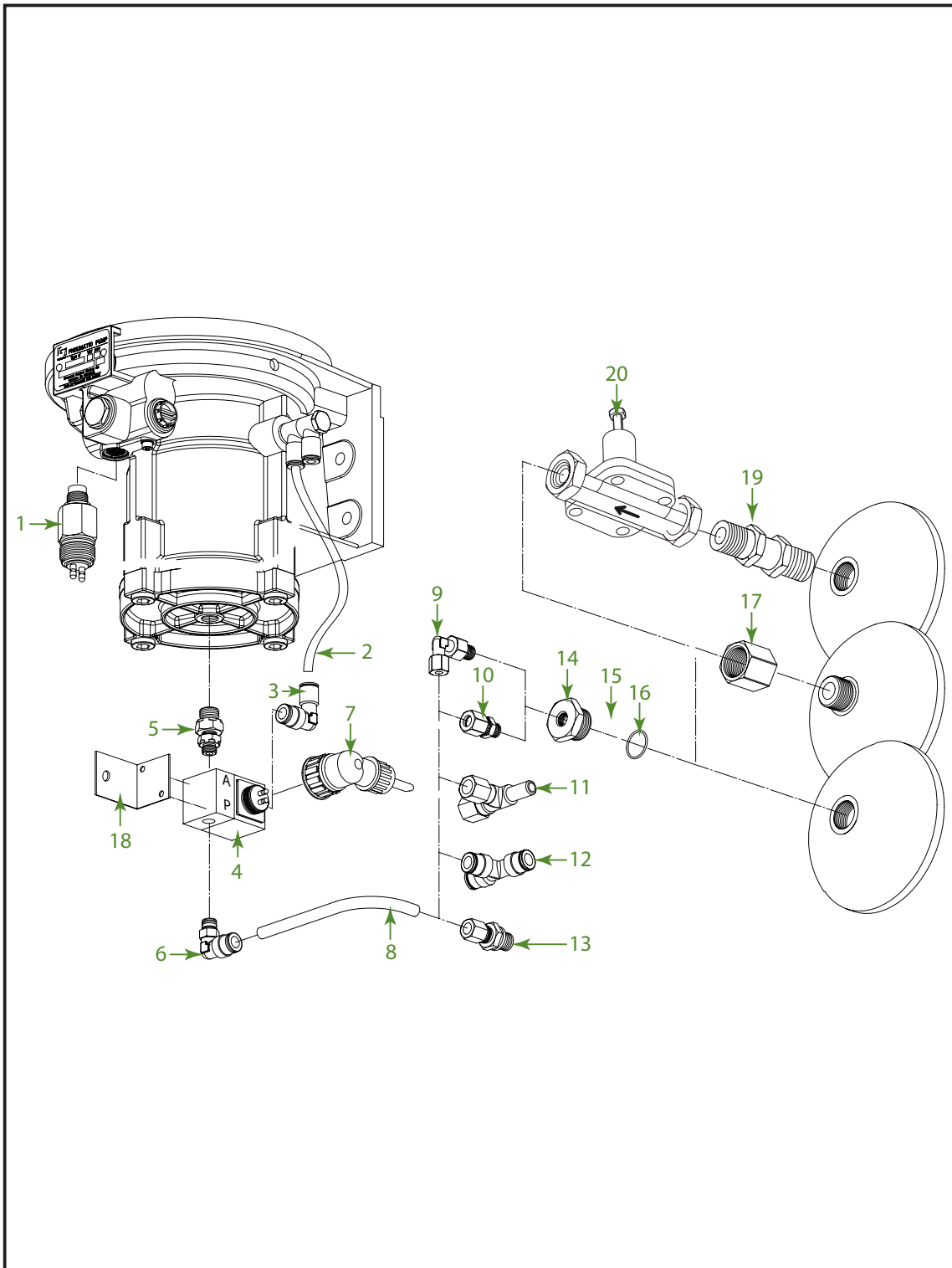
Release date: May 2020

# 4. AIR CONNECTION PARTS



Release date: May 2020

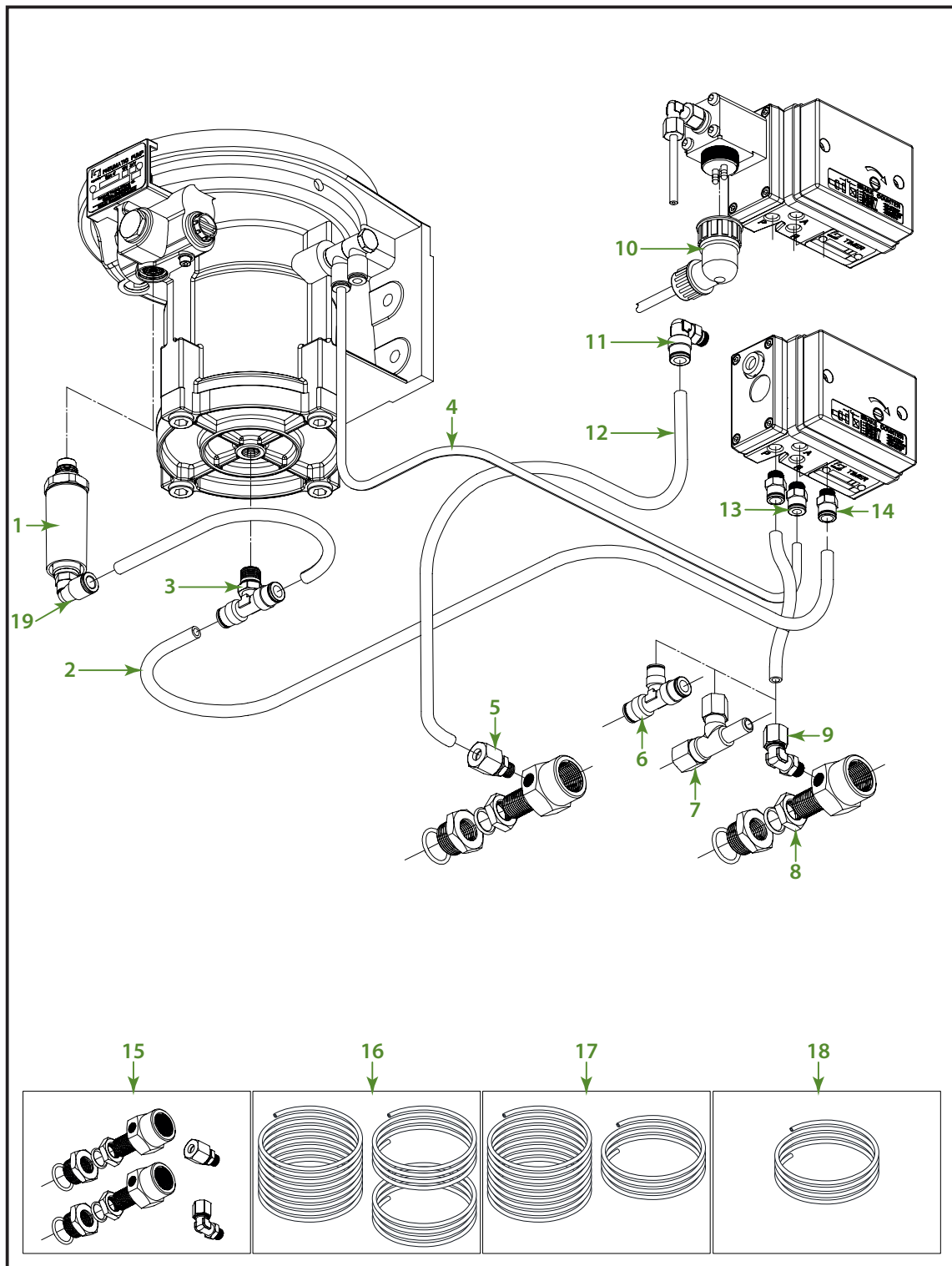




Release date: May 2020

#### 4.1 System with electronic timer

Pos	P/n new	P/n old	Description
1	F114697	68501	Pressure switch 40 bar
2	F120820	19301	Air PA tube ø6mm x 1mm per meter
3	F102826	19101	Female stud elbow ø6mm - G1/8" (push-in)
4	F102816	18408	Solenoid 12 Vdc
	F102815	18308	Solenoid 24 Vdc
5	F114472	12801	Hex adapter G1/4" - G1/8"
6	F110141	49101	Male stud elbow ø5/16 - G1/8" (push-in)
7	F110143	69001	Cable harness pressure switch / solenoid 10 meter
	F112040	69601	Cable harness pressure switch / solenoid 10 meter / ADR
	F601986	-	Cable harness pressure switch / solenoid / low level switch 15 meter
8	F104597	-	Air PA tube red ø5/16 x 5mm per 4 meter
	F115950	-	Air PA tube red ø5/16 x 5mm per 6 meter
9	F000042	11301	Male stud elbow ø5/16 - G1/8"
10	F000598	11401	Male stud coupling ø5/16 - R1/8"
11	F104545	10208	Adjustable L-coupling P8 - ø8mm - ø8mm
	F104531	11708	Adjustable L-coupling p10 - ø8mm - ø10mm
12	F172036	07804	T-coupling ø8mm (push-in)
13	F104522	-	Male stud coupling ø8mm - M12x1.5
	F104802	65801	Male stud coupling ø8mm - M16x1.5
14	F000224	06408	Reducing adapter M22x1.5 - G1/8"
15	F101082	06608	O-ring ø22mm (copper)
16	F101047	06708	O-ring ø22mm (rubber)
17	F104503	07608	Socket adapter M22x1.5
18	F111480	13703	Bracket solenoid
19	F104566	06308	Adapter M22x1,5 - M22x1.5
20	F104525	10108	Charging valve 6.5 Bar



Release date: May 2020

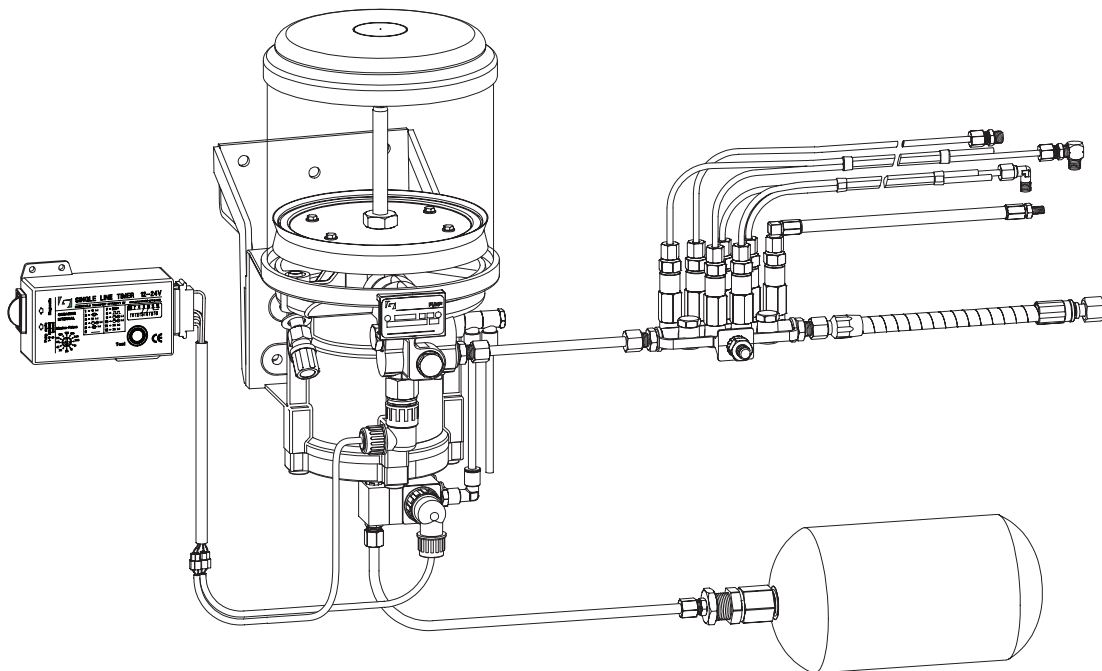


## 4.2 System with air/electronic pulse brake counter

Pos	P/n new	P/n old	Description
1	F113059	26401	Pressure warning device
2	F104597	-	Air PA tube red $\varnothing 5/16$ x 5mm per 4 meter
	F115950	-	Air PA tube red $\varnothing 5/16$ x 5mm per 6 meter
3	F110136	66901	T-male stud coupling $\varnothing 8$ mm - G1/4" - $\varnothing 8$ mm (push-in)
4	F120820	19301	Air PA tube $\varnothing 6$ mm x 1mm per meter
5	F110435	22901	Male stud coupling $\varnothing 8$ mm - G1/8" with restriction
6	F172036	07804	T-coupling $\varnothing 8$ mm (push-in)
7	F104532	09608	Adjustable L-coupling p10 - $\varnothing 8$ mm - $\varnothing 10$ mm
8	F113879	10412	Air connection kit M16 - M22
9	F000042	11301	Male stud elbow $\varnothing 5/16$ - G1/8"
10	F107894	04912	Cable harness 2-core / 15m
11	F110141	49101	Male stud elbow $\varnothing 5/16$ - G1/8" (push-in)
12	F175265	-	Air PA tube yellow $\varnothing 5/16$ x 5mm per 6 meter
13	F100233	19401	Male stud coupling $\varnothing 6$ mm - G1/8" (push-in)
14	F110133	66801	Male stud coupling $\varnothing 8$ mm - G1/8" (push-in)
15	F213428	-	Air connection kit M22 (1 x F000042 & 1 x F110435 & 2 x F113879)
	F653528	-	Air connection kit M16
16	F213430	-	Trailer kit air & main line tubes (15 meter 5/16" black, 6 meter 5/16" Red & 6 meter 5/16" Yellow)
17	F213431	-	Truck kit air & main line tubes (15 meter 5/16" black & 6 meter 5/16" Red)
	F214376	-	Truck kit air & main line tubes (6 meter 5/16" black & 4 meter 5/16" Red)
18	F116141	-	Main line (6 meter)
	F115990	-	Main line (15 meter)
19	F104968	66701	Elbow coupling 1/4" x 8mm push-in



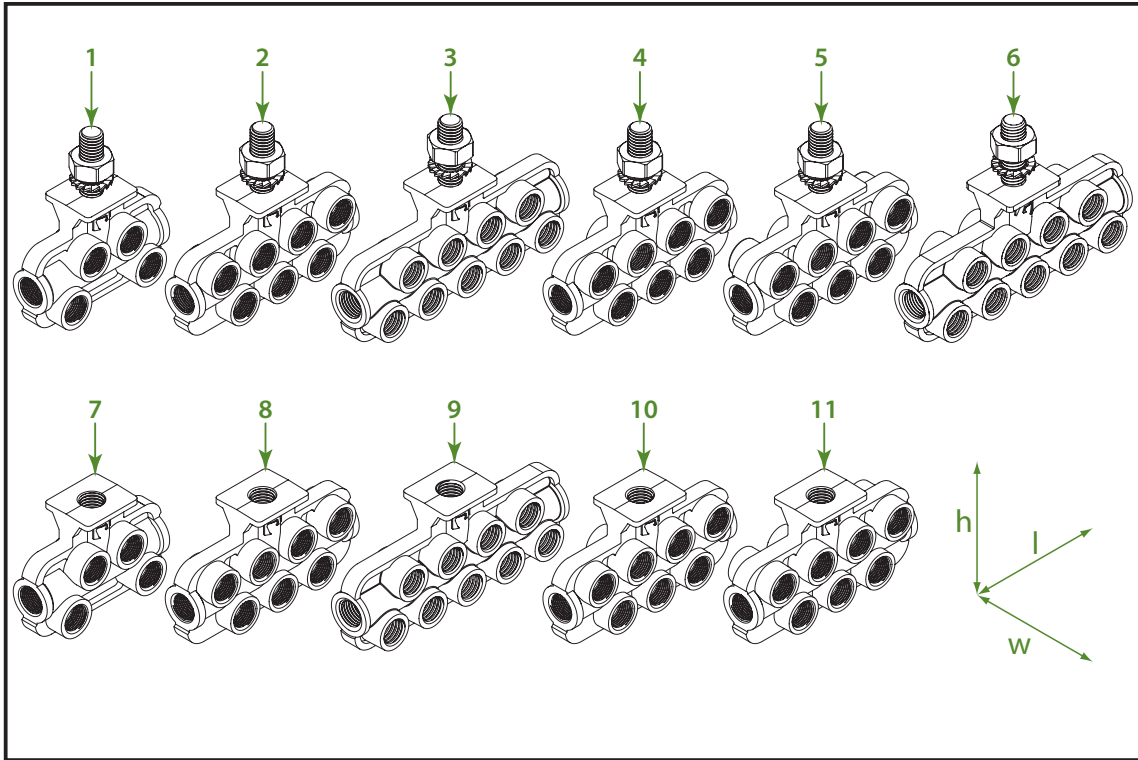
# 5. DISTRIBUTION BLOCKS



Release date: May 2020



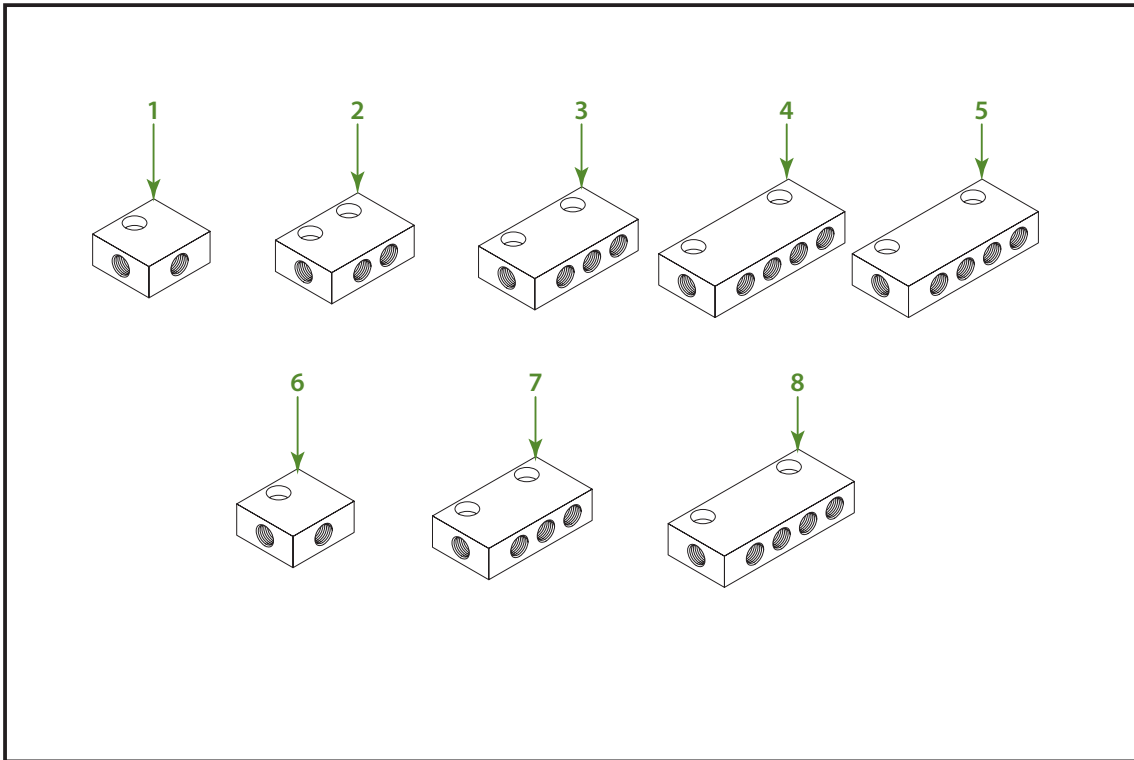
5.1 Transport distribution blocks



Pos.	P/n new	P/n old	Description	Size (lxwxh)	Material
1	F110010	06801	4-port block inclusive stud	74x25x85	brass
2	F110011	06901	7-port block inclusive stud	96x25x85	brass
3	F110012	07101	9-port block inclusive stud	118x25x85	brass
4	F110013	07201	12-port block inclusive stud	96x25x85	brass
5	F111751	77001	14-port block inclusive stud	96x25x85	brass
6	F121663	-	18-port block inclusive stud	118x25x85	brass
7	F104408	46001	4-port block exclusive stud	74x25x53	brass
8	F104409	46101	7-port block exclusive stud	96x25x53	brass
9	F104410	46201	9-port block exclusive stud	118x25x85	brass
10	F104411	46301	12-port block exclusive stud	96x25x85	brass
11	F112296	00811	14-port block exclusive stud	96x25x85	brass

Release date: May 2020

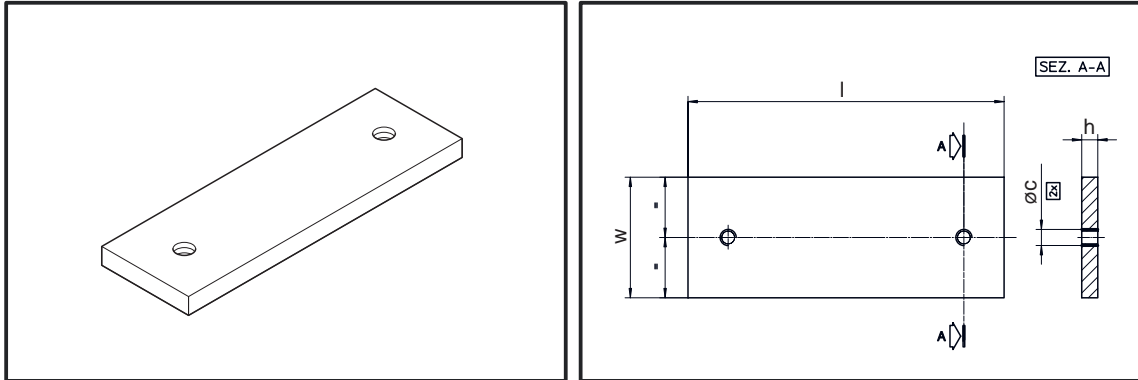
## 5.2 Industrial distribution blocks



Pos.	P/n new	P/n old	Description	Size (lxwxh)	Material
1	F110601	19622	1-port block	33x39.5x20	brass
2	F110602	18622	2-port block	55x39.5x20	brass
3	F110604	18822	3+1-port block	75x39.5x20	brass
4	F110606	19722	4-port block	99x39.5x20	brass
5	F110605	19822	4+2-port block	99x39.5x20	brass
6	F000186	10502	1-port block	33x39.5x20	inox
7	F000184	10702	3-port block	75x39.5x20	inox
8	F104094	19402	4+2-port block	99x39.5x20	inox

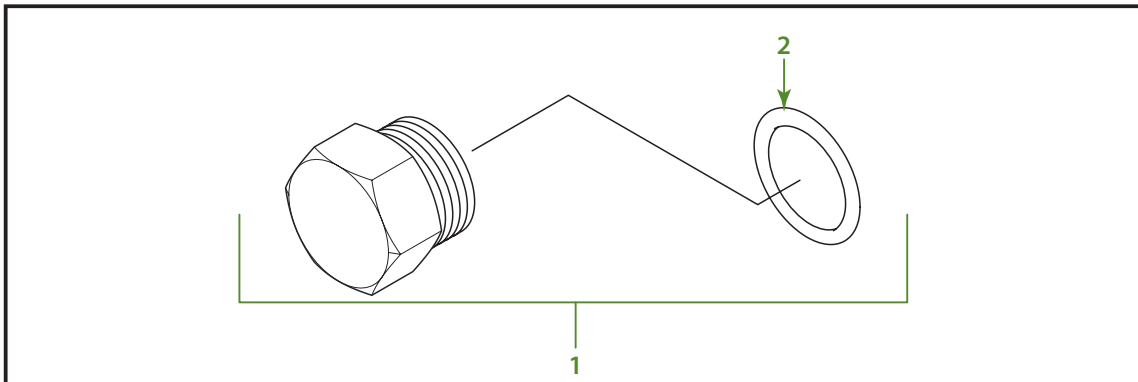
Release date: May 2020

### 5.3 Welding plates for industrial distribution blocks



P/n new	P/n old	Description	l	w	h	øc	Material
F110251	10902	1-port block	34	40	6	M6x1	steel
F109256	11002	2 / 2+2-port block	56	40	6	M6x1	steel
F110250	11102	3 / 3+1-port block	80	40	6	M6x1	steel
F110248	11202	4 / 4+2-port block	101	40	6	M6x1	steel

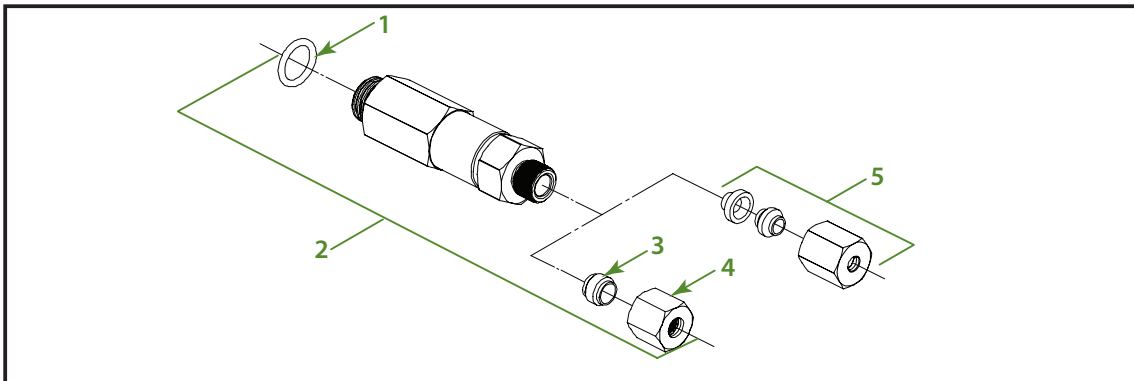
### 5.4 Shut-off plugs



Pos	P/n new	P/n old	Description	Material
1	F102775	00901	Shut-off plug 1/2" - 24UNS Inc. O-ring	brass
	F101542	11302	Shut-off plug 1/2" - 24UNS Inc. O-ring	inox
2	F100495	12401	O-ring 9.25x1.78	rubber

Release date: May 2020

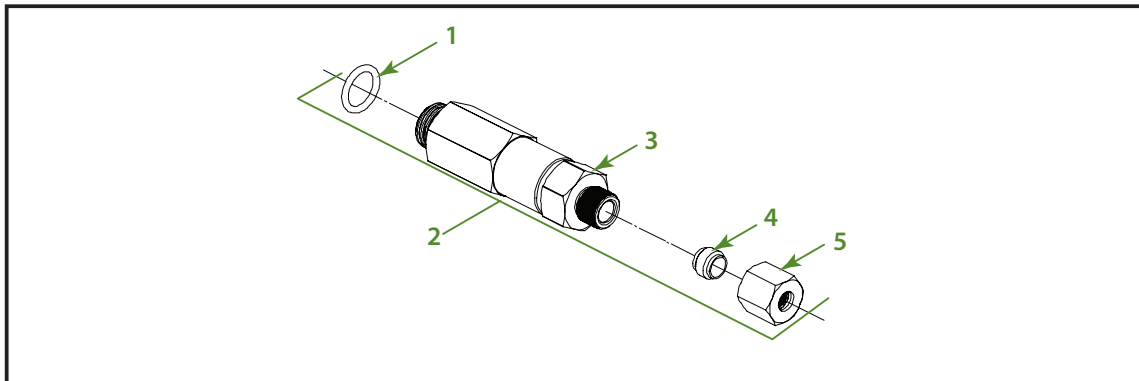
### 5.5 Metering units for ø5mm tubes



Pos	P/n new	P/n old	Description	Material
1	F100495	12401	O-ring 9.25x1.78	rubber
2	F100484	03001	Metering unit no.0 - 0.025cc/ø5mm	brass
	F101490	11502	Metering unit no.0 - 0.025cc/ø5mm	inox
	F100485	01001	Metering unit no.1 - 0.050cc/ø5mm	brass
	F101491	11602	Metering unit no.1 - 0.050cc/ø5mm	inox
	F100486	01101	Metering unit no.2 - 0.100cc/ø5mm	brass
	F101492	11702	Metering unit no.2 - 0.100cc/ø5mm	inox
	F100487	01201	Metering unit no.3 - 0.150cc/ø5mm	brass
	F101493	11802	Metering unit no.3 - 0.150cc/ø5mm	inox
	F100488	01301	Metering unit no.4 - 0.200cc/ø5mm	brass
	F101494	11902	Metering unit no.4 - 0.200cc/ø5mm	inox
	F100490	01501	Metering unit no.6 - 0.300cc/ø5mm	brass
	F100492	01701	Metering unit no.8 - 0.400cc/ø5mm	brass
	F101495	12102	Metering unit no.8 - 0.400cc/ø5mm	inox
	F103186	09601	Metering unit no.8.5 - 0.700cc/ø5mm	brass
	F000242	12402	Metering unit no.9 - 1.000cc/ø5mm	brass
	F101289	10002	Metering unit no.9 - 1.000cc/ø5mm	inox
3	F000585	10801	Cutting ring ø5mm	brass
	F101374	41802	Cutting ring ø5mm	inox
4	F000584	10701	Nut ø5mm	brass
	F101373	41702	Nut ø5mm	inox
5	F104080	23601	Reduction kit ø5mm-ø1/8"	brass
	F104920	42701	Reduction kit ø500 - ø4mm	brass

Release date: May 2020

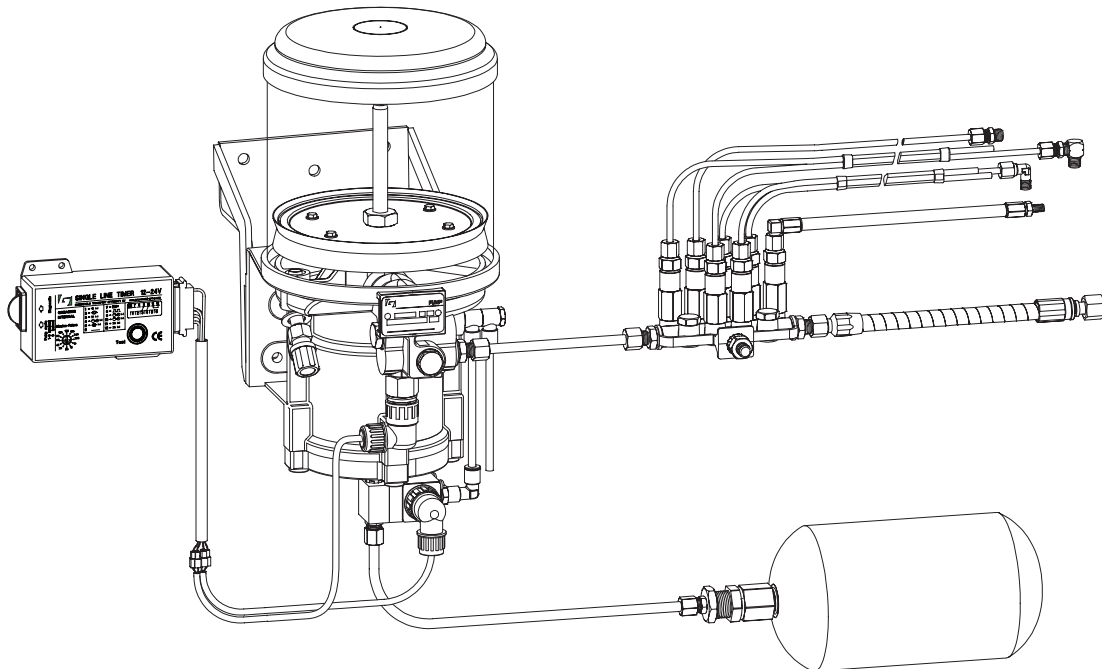
**5.6 Metering units for ø6mm tubes**



Pos	P/n new	P/n old	Description	Material
1	F100495	12401	O-ring 2037 9.25x1.78	rubber
	F114868	63122	Metering unit no.1 - 0.050cc/ø6mm	brass
	F116292	63222	Metering unit no.2 - 0.100cc/ø6mm	brass
	F116293	63322	Metering unit no.3 - 0.150cc/ø6mm	brass
	F116294	63422	Metering unit no.4 - 0.200cc/ø6mm	brass
	F116295	63622	Metering unit no.6 - 0.300cc/ø6mm	brass
	F116297	63822	Metering unit no.8 - 0.400cc/ø6mm	brass
	F116298	63922	Metering unit no.9 - 1.000cc/ø6mm	brass
3	F113391	14302	Metering unit head ø6mm	brass
4	F000658	09808	Cutting ring ø6mm	brass
5	F101063	08908	Nut ø6mm	brass



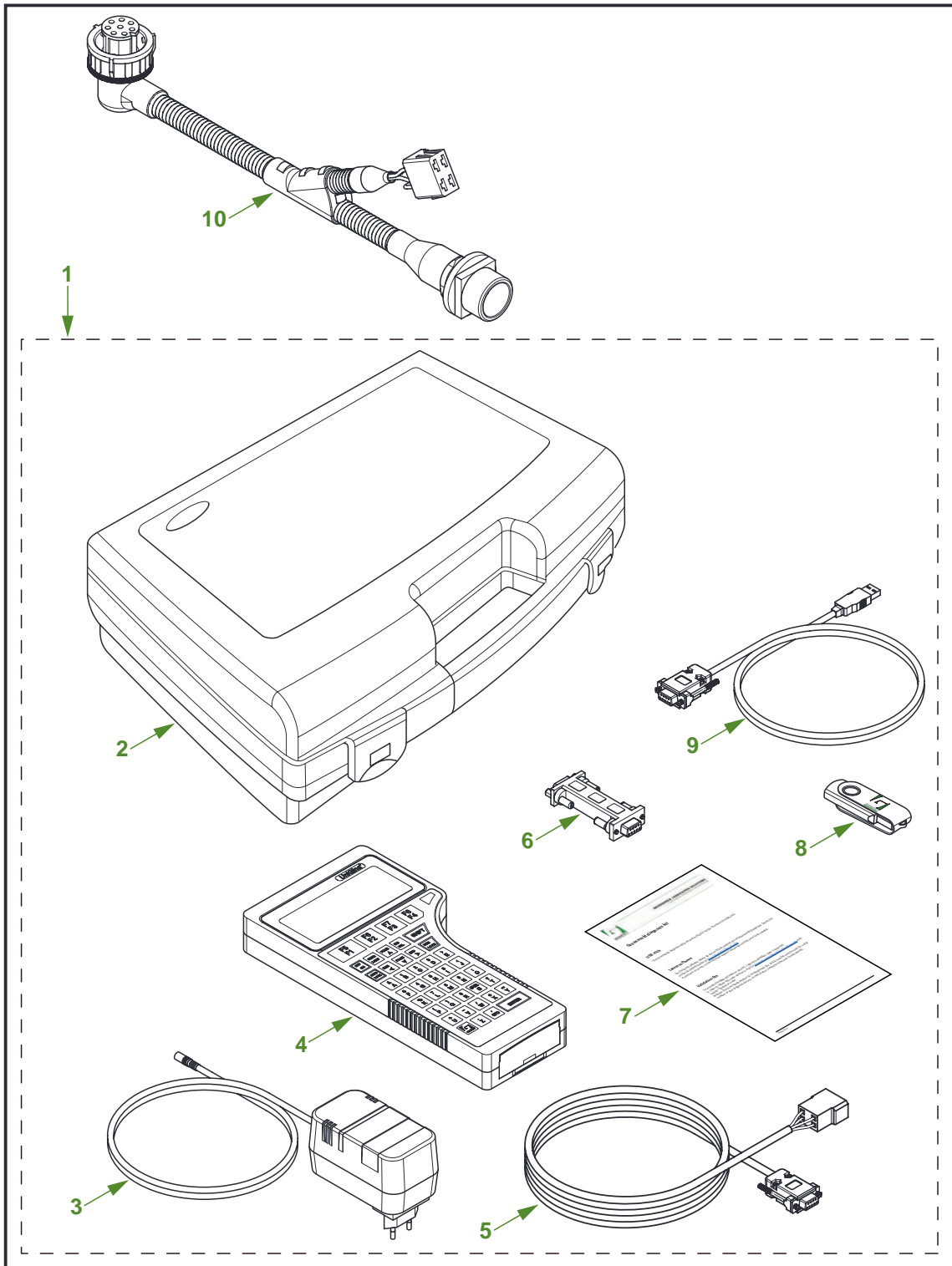
# 6. DIAGNOSTIC TOOLS



Release date: May 2020



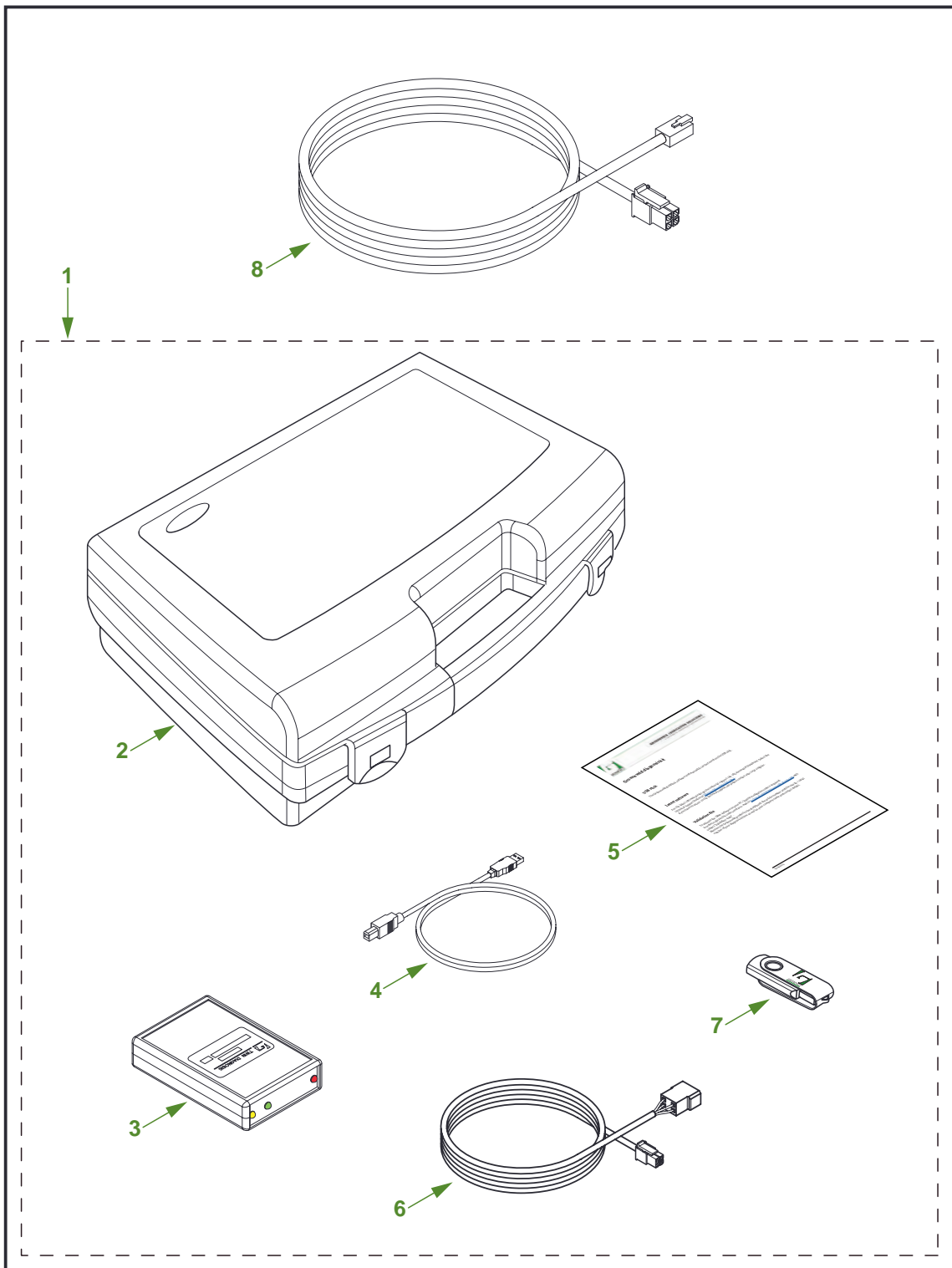
# Automatic SingleLine Greasing System



Release date: May 2020

## 6.1 UniGINA diagnosis kit

<i>Pos</i>	<i>Part nr.</i>	<i>Description</i>
1	F121604	UniGINA kit
2	F121605	Diagnosis case
3	F120537/1	Power supply UniGINA
4	F178644	UniGINA
5	F121401	Data cable UniGINA
6	F205694	Converter RS232
7	F603607	Diagnosis kit instruction
8	F603602	USB UniGINA
-	F207765	Validation code Gearpump / Multi Mode Trailer Timer
9	F127437	PC-UniGINA cable
10	F173755	Y-cable internal timer



Release date: May 2020

**6.2 Diagnosis kit SingleLine timer**

<i>Pos</i>	<i>Part nr.</i>	<i>Description</i>
1	F212144	PC-GINA kit
2	F121605	Diagnosis case
3	F124299	Diagnosis interface
4	F124309	USB cable
5	F603607	Diagnosis kit instruction
6	F124311	Data cable PC-GINA
7	F606032	USB PC-GINA
-	F601891	PC-GINA Singleline license
8	F129757	Data cable SingleLine timer 6 meter

# 7. INDEX

F000042.....	39, 41	F102997.....	21
F000099.....	7	F103041.....	21
F000184.....	45	F103045.....	9, 11
F000186.....	45	F103064.....	7, 9, 11, 13, 15
F000224.....	39	F103121.....	7, 9, 11, 13, 15
F000242.....	47	F103155.....	17, 19
F000263.....	9, 15	F103160.....	9
F000266.....	7, 9, 15	F103183.....	7, 9, 11, 15
F000584.....	47	F103186.....	47
F000585.....	47	F103246.....	11, 13
F000598.....	39	F103247.....	11, 13
F000658.....	48	F103249.....	11, 13
F000713.....	7, 9, 11, 15	F103250.....	11, 13
F000714.....	7, 9, 11, 15	F103296.....	21
F100049.....	15	F103336.....	11
F100056.....	17, 21, 23, 25	F103346.....	35
F100088.....	35	F103372.....	21, 23
F100186.....	35	F103382.....	21
F100187.....	35	F103384.....	21
F100233.....	41	F103398.....	21
F100258.....	17, 21, 23, 25	F103544.....	9
F100354.....	32	F103545.....	9, 11
F100484.....	47	F103642.....	21, 23, 25
F100485.....	47	F103643... 7, 9, 11, 15, 17, 19, 21, 23, 25	
F100486.....	47	F103646... 7, 9, 11, 15, 17, 19, 21, 23, 25	
F100487.....	47	F103649..... 7, 9, 11, 15, 17, 21, 23, 25	
F100488.....	47	F103823..... 7, 9, 11, 15	
F100490.....	47	F104003..... 21, 23, 25	
F100492.....	47	F104005..... 21, 23, 25	
F100495.....	46, 47, 48	F104007..... 21, 25	
F100531.....	7, 9, 11, 13, 15	F104055..... 21	
F101041.....	11, 13	F104059..... 21, 23, 25	
F101047.....	39	F104080..... 47	
F101063.....	48	F104094..... 45	
F101082.....	39	F104408..... 44	
F101156.....	29	F104409..... 44	
F101289.....	47	F104410..... 44	
F101373.....	47	F104411..... 44	
F101374.....	47	F104466..... 21, 23	
F101490.....	47	F104467..... 21, 23, 25	
F101491.....	47	F104503..... 39	
F101492.....	47	F104522..... 39	
F101493.....	47	F104525..... 39	
F101494.....	47	F104531..... 39	
F101495.....	47	F104532..... 41	
F101542.....	46	F104544..... 7, 9, 11, 15	
F102040.....	32	F104545..... 39	
F102173.....	35	F104566..... 39	
F102608.....	7, 9, 15	F104579..... 32	
F102719.....	7, 9, 11, 13, 15	F104581..... 32	
F102724.....	9, 15	F104594..... 33	
F102725.....	7	F104596..... 33	
F102775.....	46	F104597..... 39, 41	
F102815.....	39	F104654..... 9, 11, 15	
F102816.....	39	F104655..... 7	
F102826.....	39	F104793..... 21	
F102975.....	7, 9, 11, 15	F104794..... 17, 21	

Release date: May 2020

F104802.....	21, 23, 25, 39	F112019.....	17
F104803.....	17, 19, 21	F112023.....	17, 19
F104810.....	21	F112024.....	17
F104811.....	21, 23, 25	F112026.....	17
F104920.....	47	F112027.....	17
F104968.....	41	F112028.....	17
F105097.....	29	F112030.....	17
F105182.....	29	F112031.....	9, 11, 17
F105890.....	32, 33	F112040.....	29, 39
F105891.....	32, 33	F112296.....	44
F107894.....	35, 41	F112409.....	7, 9, 11
F107895.....	35	F112759.....	33
F109256.....	46	F113059.....	7, 9, 11, 15, 41
F110010.....	44	F113119.....	29
F110011.....	44	F113297.....	7, 9, 15
F110012.....	44	F113391.....	48
F110013.....	44	F113444.....	33
F110028.....	7, 9, 11, 15	F113445.....	33
F110064.....	17, 19	F113610.....	29
F110080.....	17	F113849.....	35
F110082.....	17	F113879.....	41
F110083.....	17	F113884.....	21, 23, 25
F110084.....	17	F114016.....	11
F110106.....	19	F114256.....	29
F110111.....	17	F114472.....	39
F110133.....	41	F114697.....	7, 9, 11, 15, 39
F110136.....	41	F114698.....	17, 19
F110141.....	39, 41	F114705.....	19
F110143.....	29, 39	F114707.....	19
F110151.....	7, 9, 11, 15, 17, 19	F114708.....	15, 19
F110248.....	46	F114712.....	19
F110250.....	46	F114715.....	19
F110251.....	46	F114748.....	23, 25
F110285.....	32	F114868.....	48
F110435.....	41	F114871.....	17, 19
F110601.....	45	F114948.....	21, 23, 25
F110602.....	45	F115378.....	7, 9, 11
F110604.....	45	F115379.....	21, 23
F110605.....	45	F115541.....	35
F110606.....	45	F115889.....	21
F110712.....	17	F115950.....	39, 41
F110815.....	23, 25	F115990.....	41
F110837.....	21	F116141.....	41
F110890.....	29	F116292.....	48
F110895.....	7, 9, 11	F116293.....	48
F111140.....	9	F116294.....	48
F111299.....	32	F116295.....	48
F111409.....	9	F116297.....	48
F111476.....	33	F116298.....	48
F111480.....	39	F116318.....	15
F111490.....	11, 13	F116319.....	15
F111526.....	13	F116320.....	15
F111561.....	17	F116323.....	15
F111717.....	17, 19	F116326.....	15
F111751.....	44	F116327.....	15
F111768.....	35	F116330.....	15
F112017.....	17, 19	F116437.....	21
F112018.....	17	F116477.....	9

## Automatic SingleLine Greasing System

---

F116478 .....	9	F172672 .....	19
F116479 .....	9	F173755 .....	51
F116480 .....	9	F175265 .....	41
F116481 .....	9	F176402 .....	35
F116483 .....	9	F177824 .....	25
F116486 .....	9	F177826 .....	29
F116487 .....	9	F177962 .....	33
F116488 .....	11	F178644 .....	51
F116842 .....	23, 25	F194350 .....	32, 33
F116843 .....	25	F195731 .....	36
F117315 .....	33	F205420 .....	9
F117316 .....	33	F205694 .....	51
F117317 .....	33	F207682 .....	32
F117676 .....	21	F207765 .....	51
F117677 .....	21	F209918 .....	9
F117748 .....	33	F212144 .....	53
F117786 .....	29	F213428 .....	41
F118103 .....	32	F213430 .....	41
F118699 .....	19	F213431 .....	41
F118888 .....	17, 19	F214375 .....	32
F119085 .....	9, 11	F214376 .....	41
F119437 .....	34	F600768 .....	7
F119880 .....	11	F600769 .....	7
F120387 .....	17, 19	F601028 .....	7
F120388 .....	17	F601873 .....	33
F120496 .....	36	F601891 .....	53
F120537/1 .....	51	F601986 .....	29, 39
F120820 .....	39, 41	F603602 .....	51
F121028 .....	25	F603607 .....	51, 53
F121142 .....	32, 33	F603904 .....	33
F121401 .....	51	F603905 .....	33
F121604 .....	51	F604267 .....	9, 11, 15, 17, 19
F121605 .....	51, 53	F604513 .....	19, 21, 23, 25
F121663 .....	44	F604813 .....	17
F121810 .....	36	F604869 .....	21
F122186 .....	36	F605724 .....	7, 9, 11, 17
F122187 .....	36	F605775 .....	7, 9, 11
F122188 .....	36	F605776 .....	9
F122259 .....	29	F605777 .....	15, 19
F122279 .....	7, 9, 11, 15	F606032 .....	53
F122299 .....	36	F606192 .....	34
F124299 .....	53	F617086 .....	29
F124309 .....	53	F635426 .....	32
F124311 .....	53	F653528 .....	41
F125639 .....	32		
F127437 .....	51		
F127447 .....	36		
F127574 .....	33		
F129757 .....	53		
F129878 .....	23, 25		
F130715 .....	11		
F130839 .....	23		
F130840 .....	23		
F170372 .....	34		
F170901 .....	29		
F172036 .....	39, 41		
F172535 .....	9, 11, 15, 17, 19		
F172627 .....	17		

Release date: May 2020





