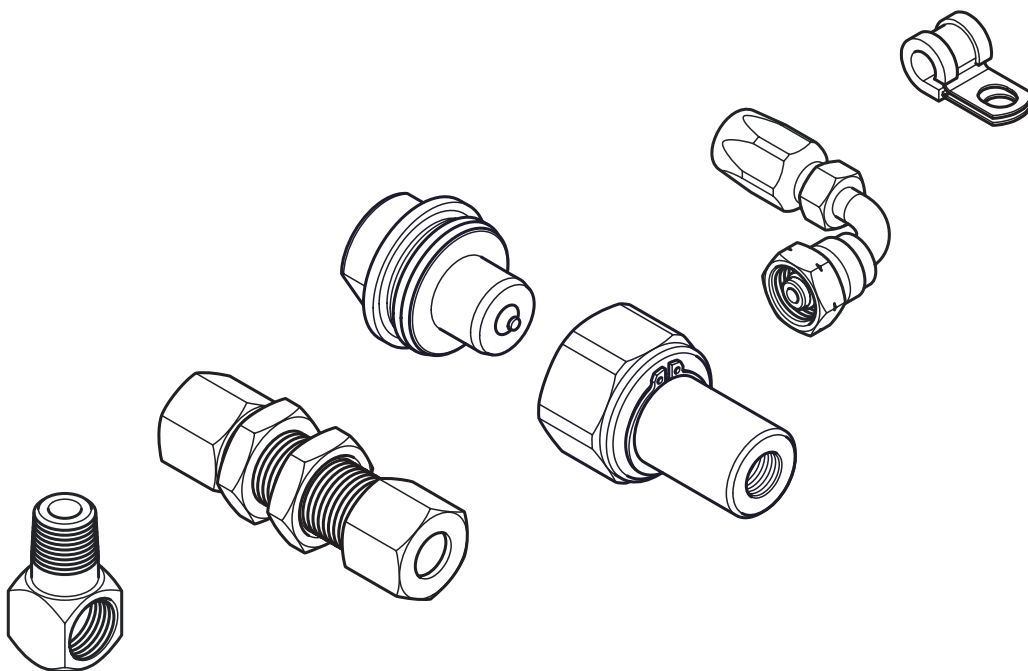


# General Parts Manual



## Automatic Greasing Systems

F213861R19

 **GROENEVELD-BEKA**  
LUBRICATION SYSTEMS BY TIMKEN



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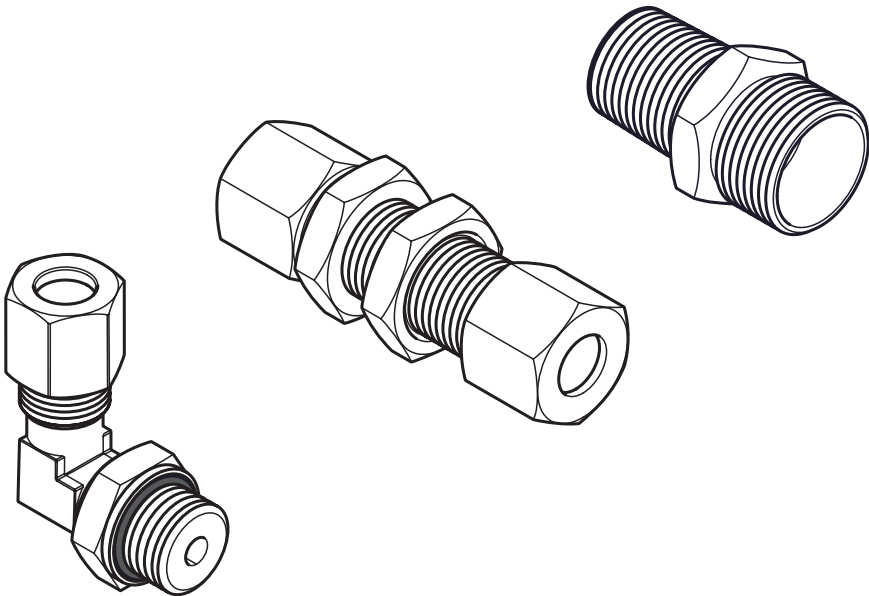
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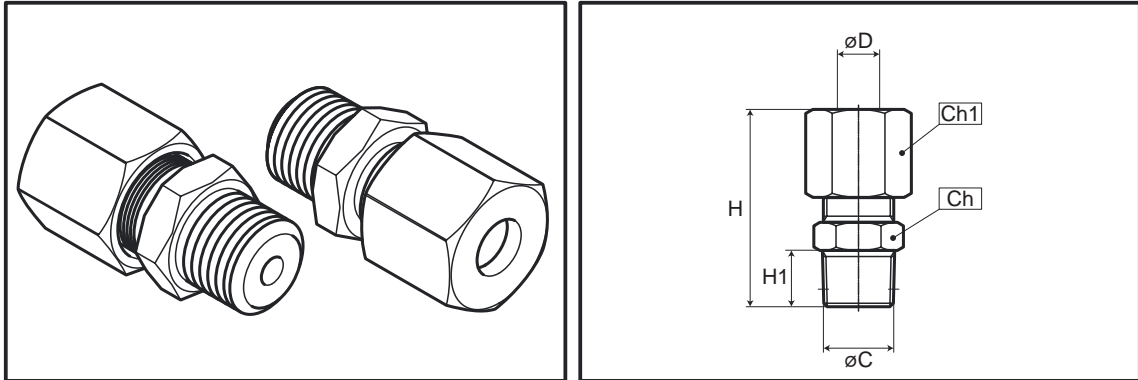


# 1. FITTINGS



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1.1 Male stud couplings

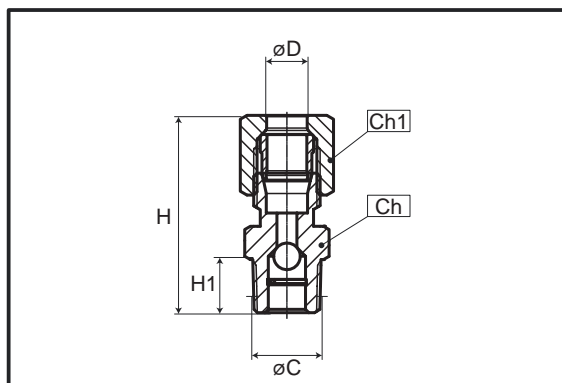
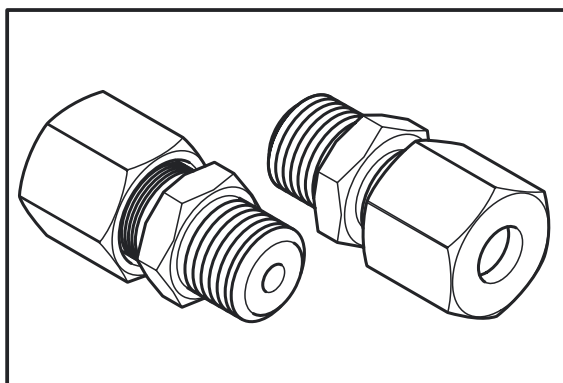


$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
1/8"	1/4"	F604057	40302						steel/brass
1/8"	5/16"	F604268	40402	3/8"	5/16"				steel/brass
3/16"	M6x1	F103440	21201	10	12	25	5.5	-	steel
3/16"	M6x1	F102455	65701	12	12	25	7	-	steel
3/16"	M7x1	F000601	10101	11	12	25	6.5	-	brass
3/16"	M8x1	F000436	21901	11	12	27.5	9	-	brass
3/16"	M8x1	F103224	23501	11	12	50	30	-	brass
3/16"	M8x1	F101379	41402	11	12	27.5	9	-	inox
3/16"	M8x1.25	F000399	18801	11	12	27.5	8	-	brass
3/16"	M8x1.25	F100559	16601	11	12	35	15	-	brass
3/16"	R1/8"	F000604	10401	11	12	25	7.5	-	brass
3/16"	R1/8"	F101378	41302	11	12	25	7.5	-	inox
3/16"	R1/8"	F177176	10501	11	Push-in	19	6		brass
3/16"	1/8"NPT	F104096	42101	11	12	25	7.5	-	brass
3/16"	1/8"NPT	F605603		15	12	22	7.5		brass
3/16"	M10x1	F000221	13801	11	12	27.5	7.7	-	brass
3/16"	M10x1.5	F122663	-	11	12	27.5	7.7	-	brass
6mm	M6x1	F114497	15017	11	12	25.5	5.5	-	brass
6mm	M6x1	F113775	13517	11	12	27	7	-	steel
6mm	M6x1	F110518	43202	11	12	28	8	-	steel
6mm	M8x1	F113777	13617	11	13	29	9	-	brass
6mm	M8x1	F110610	43302	11	12	28	8	-	steel
6mm	M8x1	F170898	-	11	12	28	8	-	inox
6mm	M8x1.25	F173177		11	12	29.5	9.5		steel
6mm	R1/8"	F113779	07908	11	13	28	8	-	brass
6mm	R1/8"	F104513	43402	11	12	28	8	-	steel
6mm	R1/8"	F213317	(L)	12	14	32	10	-	steel
6mm	R1/8"	F114523	14817	10	13	28	10		inox
6mm	G1/8"	F122063	98702	11	12	26	8	-	inox
6mm	1/8"NPTF	F112162	98101	13	13	25	8	-	brass
6mm	1/8"NPT	F605584		15	12	23	8		brass
6mm	1/8"NPT	F119573	-	13	13	28	8	-	inox

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$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
6mm	1/8"NPT	F605669		15	12	23	8		inox
6mm	1/8"NPTF	F604324	-	11	12	28	8	-	steel
6mm	1/8"NPT	F605577		15	12	23	8		steel
6mm	M10x1	F113773	13417	11	13	28	8	-	brass
6mm	M10x1	F604951	F114874	11	12	28	8	-	steel Zi/Ni
6mm	M10x1	F122359	57802	14	14	28	8	-	inox
6mm	R1/4"	F116543	08108	14	13	30	10	-	brass
6mm	R1/4"	F117962	53022	17	17	38	12	-	steel
6mm	G1/4"	F127215	56102	19	14	38	12	-	inox
5/16"	R1/8"	F000598	11401	13	14	28	7.5	-	brass
8mm	G1/8"	F117864	57302	14	17	35	10	-	inox
8mm	1/8"NPT	F173050	-	17	17	35	10	-	steel
8mm	M12x1.5	F104522	09708	19	17	35	10	-	steel
8mm	R1/4"	F110294	45502	17	17	35	10	-	steel
8mm	R1/4"	F120696	56302	17	17	35	10	-	inox
8mm	R3/8"	F128273	47002	19	17	35	10	-	steel
10mm	R1/4"	F110240	47202	17	19	38	12	-	steel
10mm	G1/4"	F122360	58002	19	19	38	12	-	inox
10mm	R1/4"	F692852	-	19	17	40	12	-	inox
10mm	R3/8"	F123586	47302	19	22	46	14	-	steel
12mm	G1/4"	F117729	49202	19	22	41	9	-	steel
12mm	G1/4"	F128334	60002	19	22	41	9	-	inox
12mm	3/8"NPT	F122363	50002	19	22	43	15	-	steel
15mm	G1/2"	F122296	24608	27	27	46	14	-	steel
22mm	R1/2"	F127533	-	32	36	50	14	-	steel

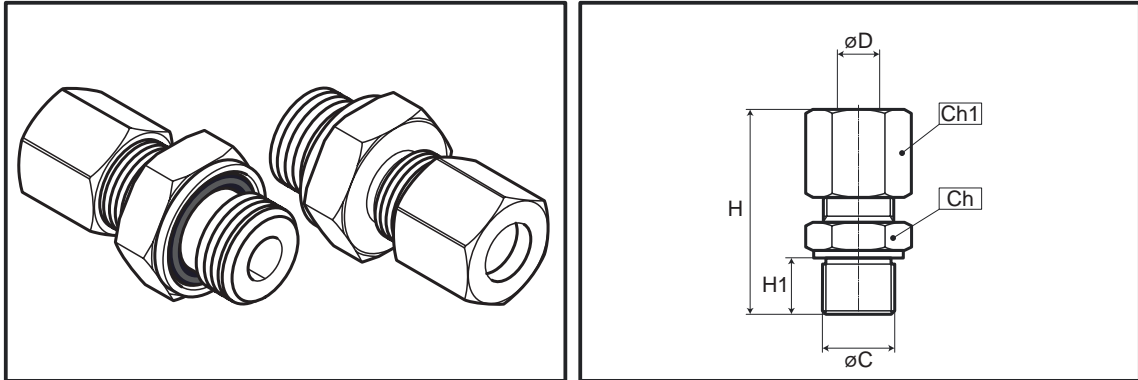
1.2 Male stud couplings non-return



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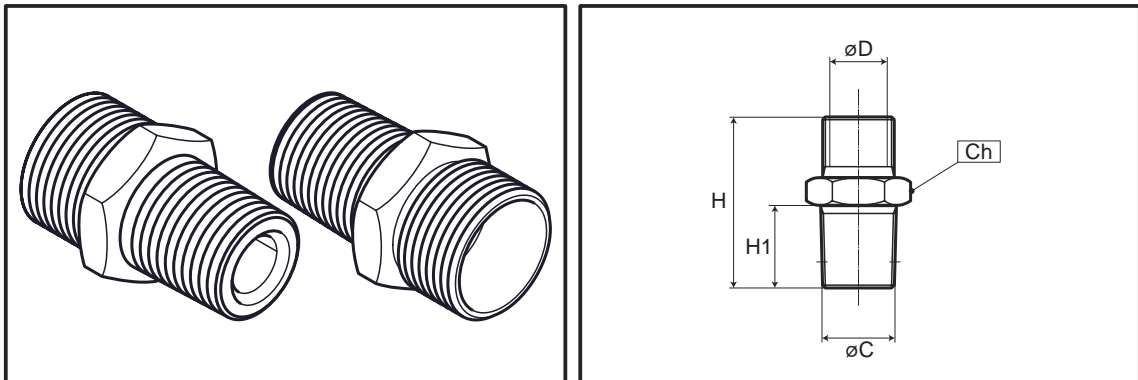
$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
6mm	R1/8"	F129925	-	11	12	-	-	-	steel

### 1.3 Male stud couplings with O-ring



$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
6mm	M10X1	F600817	-	14	12	-	-	-	steel
6mm	G1/4"	F179760		19	14				steel
5/16"	G1/4"	F104441	43901	17	14	36	8	-	brass
10mm	G1/4"	F600760	-	19	19	-	-	-	steel

### 1.4 Body male stud couplings

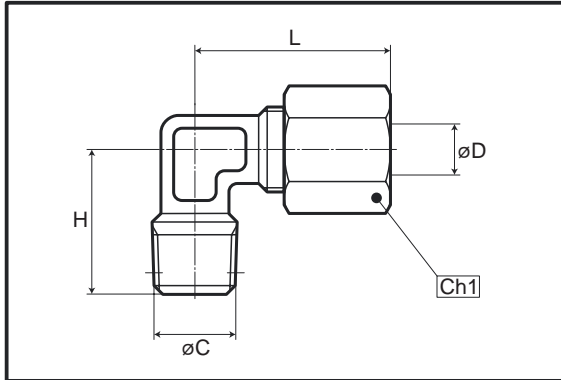
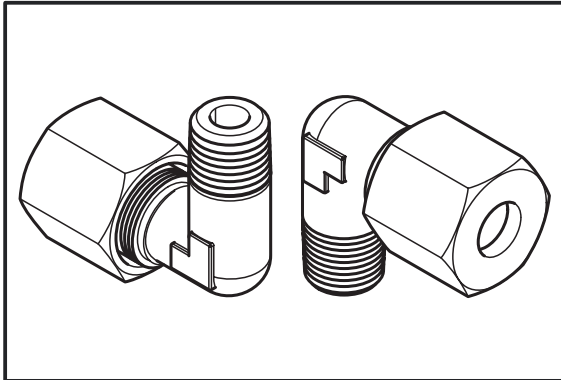


$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
6mm	1/8"NPT	F606781	-	11	-	22	10	-	steel
8mm	R1/4"	F115487	72022	17	-	28	12	-	steel
8mm	R1/4"	F170899	-	17	-	30	14	-	inox
7/16"	R1/8"	F174702	-	14		31	10	-	steel
10mm	R1/8"	F130978	-	17	-	32	15	-	steel
10mm	1/8"NPT	F118881	-	17	-	32	15	-	steel
10mm	1/8"NPT	F177695	-	17	-	32	15	-	inox
10mm	1/8"NPT	F173414	-	17	-	77	60	-	steel
10mm	1/8"NPT	F177696	-	17	-	77	60	-	inox
10mm	R1/4"	F170854	72122	17	-	30	12	-	steel
10mm	R1/4"	F692848	-	17	-	30	12	-	inox
12mm	G1/4"	F170785	-	19	-	31	12	-	steel
12mm	R1/4"	F125432	-	19	-	29	13	-	steel

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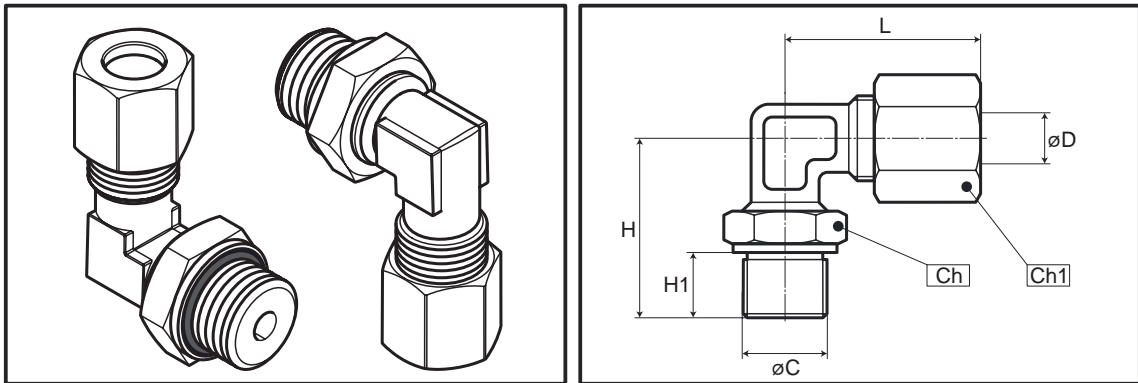
1.5 Male stud elbows 90°



øD	øC	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
3/16"	M8x1	F101370	12101	-	12	18	-	22	brass
3/16"	M8x1	F104170	58401	-	12	17.5	-	25	steel
3/16"	M8x1.25	F101411	18701	-	12	18	-	22	brass
3/16"	R1/8"	F101410	10201	-	12	18	-	22	brass
3/16"	1/8"NPT	F104146	42201	-	12	18	-	22	brass
3/16"	M10x1	F101363	13701	-	12	18	-	22	brass
3/16"	M10x1.5	F122665	-	-	12	18	-	22	brass
6mm	M6x1	F114875	43602	-	12	17	-	24	steel
6mm	M8x1	F113771	13317	-	13	17	-	23	brass
6mm	M8x1	F114876	43702	-	12	18	-	24	steel
6mm	M8x1.25	F173178			12	17		23	steel
6mm	R1/8"	F101065	08008	-	13	17	-	23	brass
6mm	R1/8"	F111941	43802	-	12	18	-	24	steel
6mm	R1/8"	F171364	-	-	12	17	-	23	inox
6mm	1/8"NPT	F112164	98201	-	13	18	-	24	brass
6mm	1/8"NPT	F119575	-	-	12	18	-	23	inox
6mm	1/8"NPT	F606358	-	-	12	17		23	steel
6mm	M10x1	F113769	13217	-	13	17	-	23	brass
6mm	M10x1	F604952	F114877	-	12	18	-	24	steel Zi/Ni
6mm	R1/4"	F177175	08208	-	13	21.5	-	22	brass
6mm	R1/4"	F122807	56202	-	14	21.5	-	22	inox
8mm	R1/4"	F104567	45602	-	17	25	-	33	steel
8mm	R1/4"	F170442	56402	-	17	25	-	33	inox
8mm	3/8"NPT	F127911	47102	-	17	28	-	33	steel
10mm	R1/4"	F110244	47402	-	19	25	-	33	steel
10mm	R1/4"	F120724	58202	-	19	25	-	33	inox
10mm	3/8"NPT	F122906	47502	-	22	28	-	37	steel
12mm	R1/4"	F121960	49302	-	22	28	-	33	steel

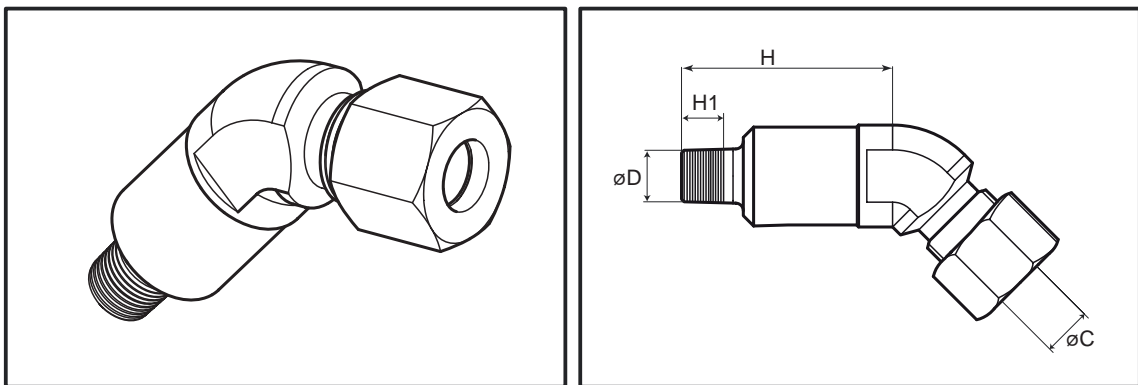
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**1.6 Adjustable elbows with O-ring 90°**



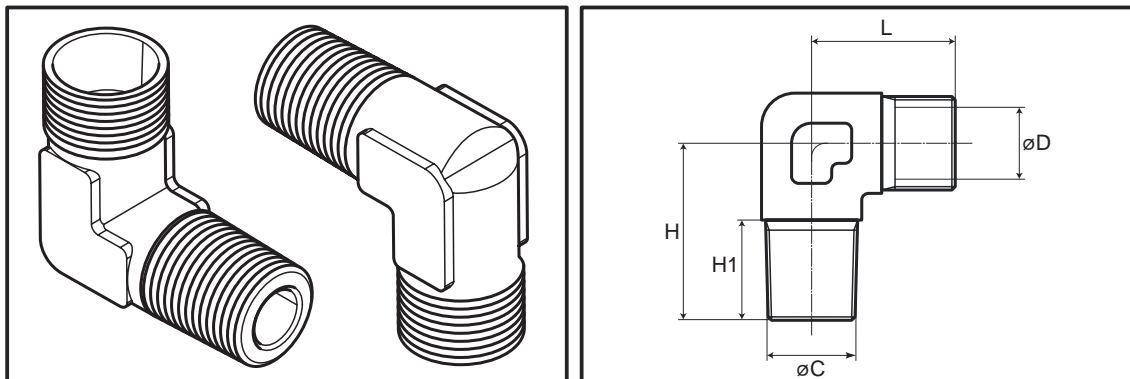
$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
5/16"	G1/4"	F104440	43801	17	14	25	8	30	brass

**1.7 Male stud elbow 130°**



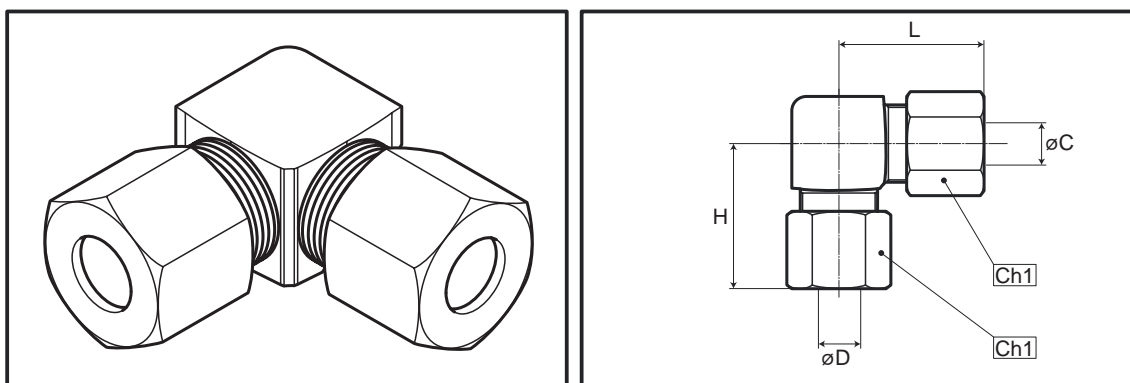
$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	$\varnothing B$	$\varnothing F$	<i>H</i>	<i>H1</i>	<i>Material</i>
1/8" NPT	10mm	F175814	-			41	10	steel
R1/8"	6mm	F179030				29	8	steel

1.8 Body male stud elbows 90°



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
8mm	R1/4"	F115464	72222	-	-	28	12	17	steel
8mm	R1/4"	F170873	-	-	-	30	14	17	inox
10mm	R1/4"	F104988	72322	-	-	30	12	17	steel
10mm	R1/4"	F120686	-	-	-	30	12	17	inox

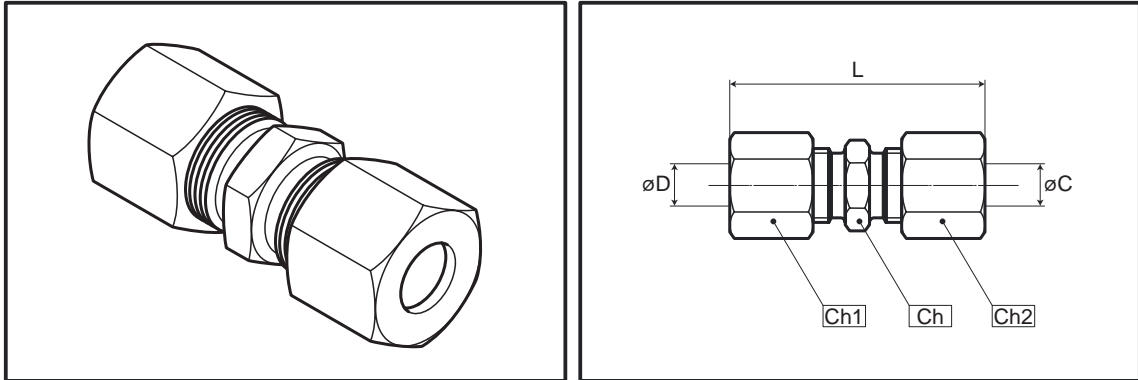
1.9 Equal connecting elbow couplings 90°



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
8mm	8mm	F104548	45802	-	17	29	-	29	steel
10mm	10mm	F173797	47702	-	19	30	-	30	steel
10mm	10mm	F122065	55802	-	19	30	-	30	inox
12mm	12mm	F126790	92002	-	22	32	-	32	steel

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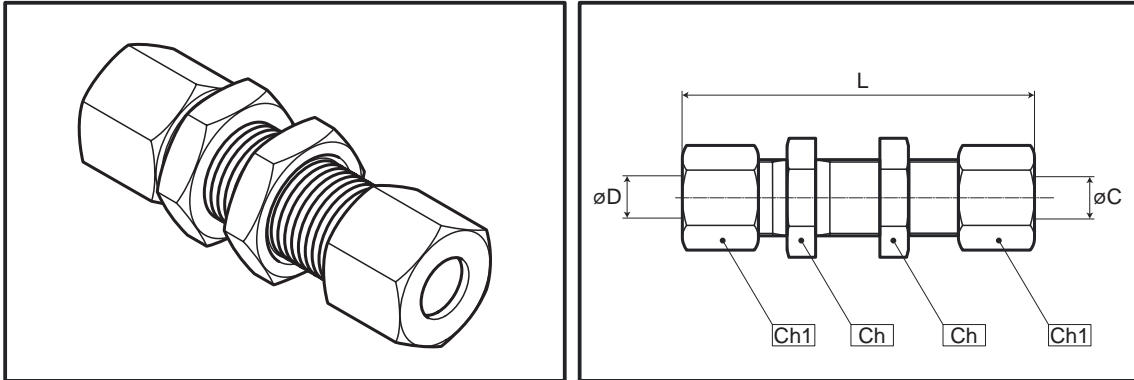
**1.10 Straight connecting couplings**



$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	Ch2	H	L	Material
3/16"	3/16"	F000222	10601	11	12	12	-	33	brass
3/16"	3/16"	F695278		11	12	12	-	33	Inox
1/8"	1/8"	F122969	40802	8	10	10		28	brass
6mm	6mm	F113781	08308	12	13	13	-	35.5	brass
6mm	6mm	F120757	29901	12	14	14	-	39	steel
6mm	6mm	F122064	55522	12	14	14	-	39	inox
5/16"	5/16"	F000223	11501	13	14	14	-	40	brass
8mm	8mm	F104564	45702	14	17	17	-	40	steel
8mm	8mm	F122913	56502	14	17	17	-	42	inox
10mm	10mm	F110239	47602	17	19	19	-	42	steel
10mm	10mm	F120721	58402	17	19	19	-	42	inox
10mm	12mm	F600761	-	19	19	22	-	-	steel
12mm	12mm	F117730	49402	19	22	22	-	43	Steel
12mm	12mm	F605514	60202	19	22	22		51	inox
12mm	12mm	F203925) <sup>1</sup>	-	-	22	22		37	steel
15mm	12mm	F204146	-	24	27	22	-	46	steel
15mm	15mm	F104669	24208	24	27	27	-	46	steel

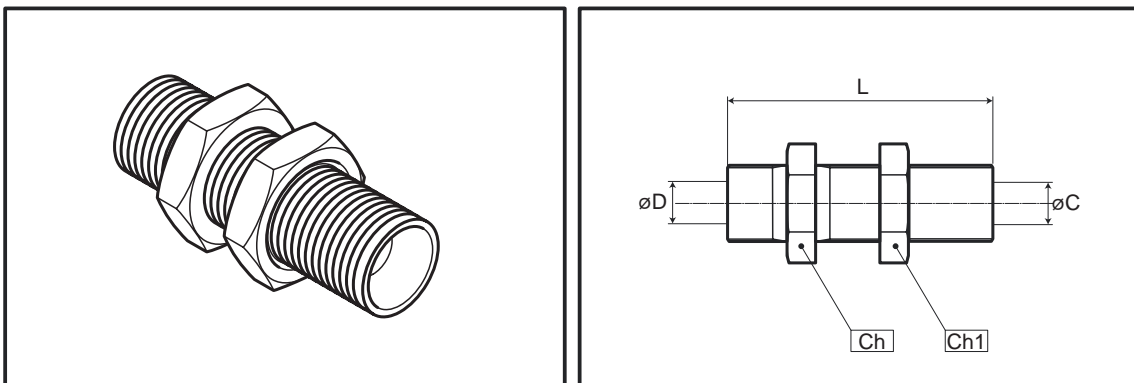
)<sup>1</sup> with O-rings

### 1.11 Straight screw bulkhead couplings



$\phi D$	$\phi C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
6mm	6mm	F617689	-	-	-	-	-	64	steel
8mm	8mm	F116404	46202	17	17	-	-	65	steel
8mm	8mm	F122911	57002	17	17	-	-	65	inox
10mm	10mm	F170861	48102	22	19	-	-	74	steel
10mm	10mm	F122339	58902	22	19	-	-	74	inox
12mm	12mm	F122897	49902	24	22	-	-	75	steel
15mm	15mm	F127928	25308	30	27	-	-	76	steel

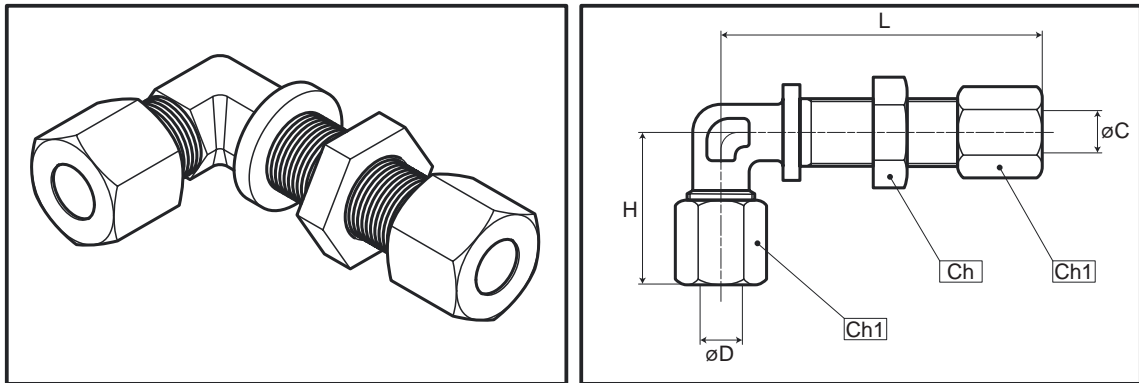
### 1.12 Body straight screw bulkhead couplings



$\phi D$	$\phi C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
10mm	10mm	F601493	-	22	22	-	-	52	steel
12mm	12mm	F601492	-	24	24	-	-	53	steel

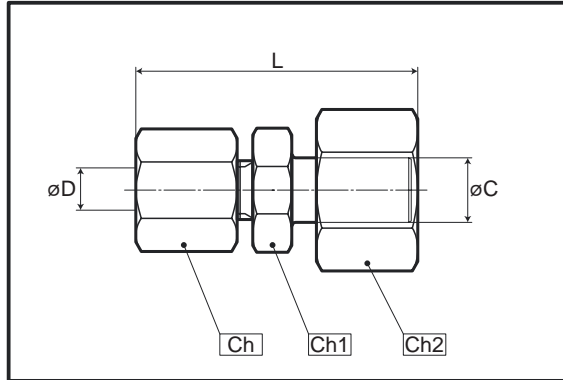
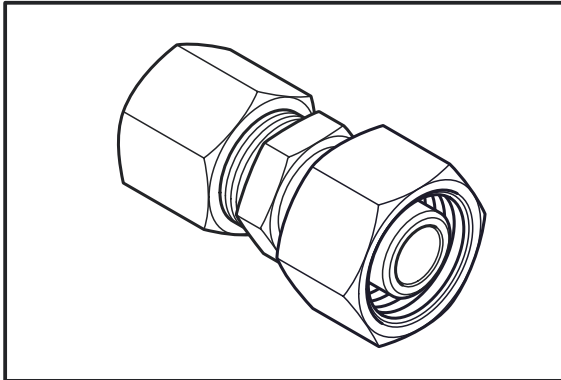
Release date: December 2021

### 1.13 Elbow screw bulkhead couplings



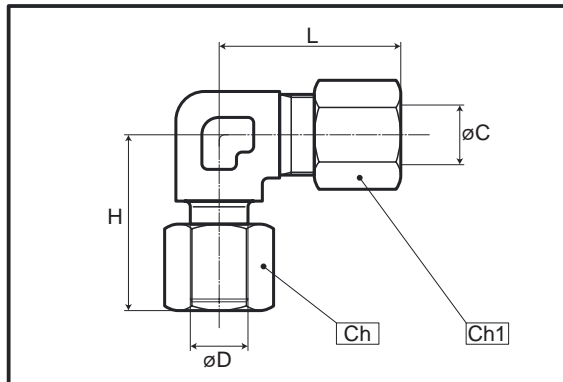
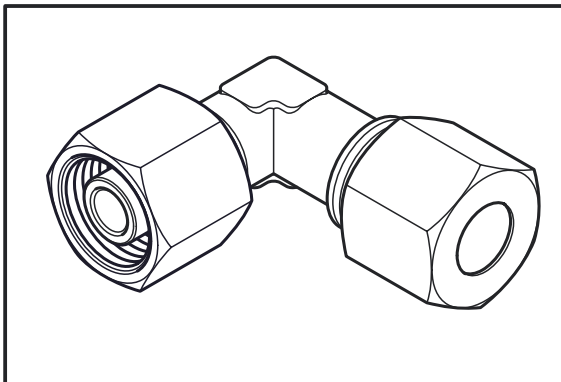
$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
6mm	6mm	F116863	22301	17	14	27	-	56	steel
6mm	6mm	F120659	24012	17	14	27	-	56	inox
8mm	8mm	F122341	46102	19	17	29	-	59	steel
10mm	10mm	F110305	48002	22	19	30	-	61	steel

### 1.14 Reducing couplings



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	Ch	Ch1	Ch2	H	L	Material
6mm	8mm	F122966	12816	14	12	17	-	30	steel
6mm	10mm	F121484	12716	14	12	19	-	30	steel
8mm	10mm	F122333	48202	17	17	19	-	45	steel
10mm	12mm	F121959	50402	19	17	22	-	47	steel
8mm	15mm	F127926	21009	17	17	27	-	47	steel
10mm	15mm	F122342	21109	19	17	27	-	47	steel
12mm	15mm	F122337	21209	22	19	27	-	-	steel
12mm	22mm	F122955	46702	22	24	36	-	50	steel

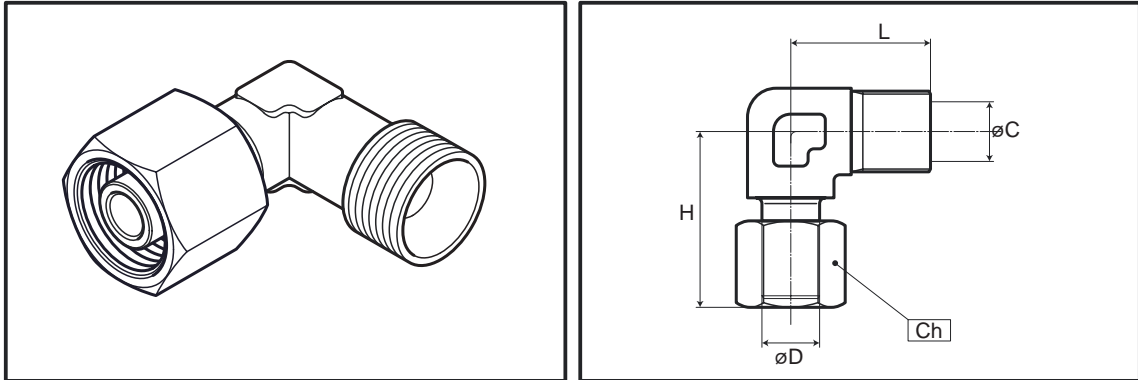
### 1.15 Adjustable elbow couplings 90°



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	Ch	Ch1	H	H1	L	Material
6mm	6mm	F117949	09416	14	14	27	-	30	steel
8mm	8mm	F114023	80701	17	17	25	-	31	steel
8mm	8mm	F120698	47022	17	17	25	-	31	inox
10mm	10mm	F113448	80801	19	19	32	-	32	steel
10mm	10mm	F122066	47122	19	19	32	-	32	inox
12mm	12mm	F118904	49502	22	22	30	-	35	steel
15mm	15mm	F104690	25208	27	27	35	-	40	steel

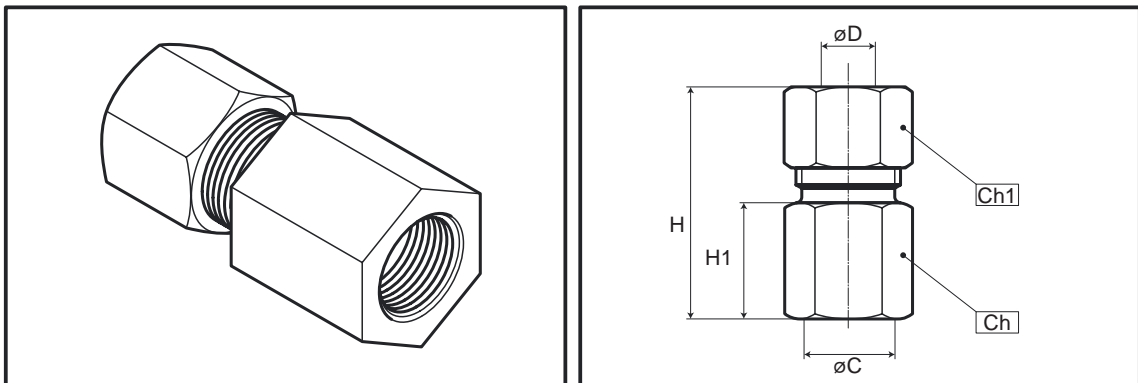
Release date: December 2021

**1.16 Adjustable body elbow couplings 90°**



$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
8mm	8mm	F117298	-	17	-	25	-	20	steel
8mm	8mm	F732256	-	17	-	25	-	20	inox
10mm	10mm	F120522	-	19	-	32	-	22.5	steel
12mm	12mm	F601490	-	22	-	30	-	35	steel

**1.17 Female stud couplings**

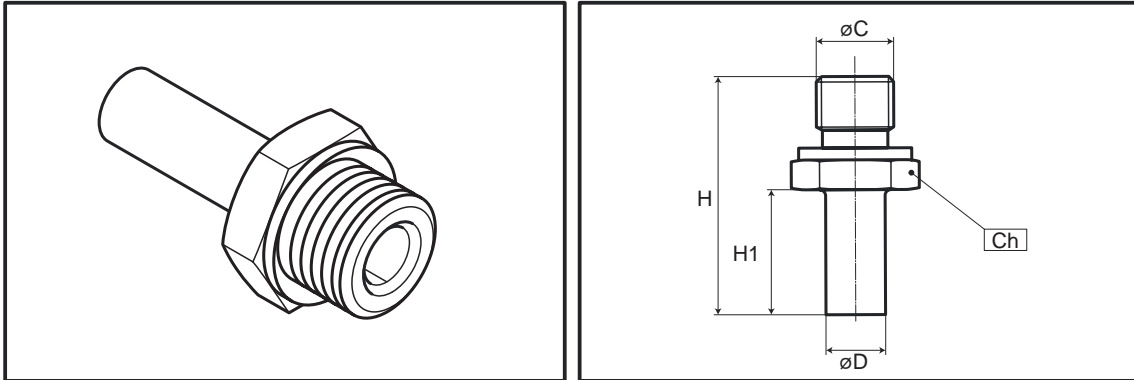


$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
6mm	M10x1	F116775	28912	14	14	37	16	-	steel
6mm	M10x1	F170872	-	14	14	37	16	-	inox
8mm	G1/4"	F122338	46602	19	17	40	21	-	steel
10mm	G1/4"	F116544	48502	19	19	40	21	-	steel
10mm	G1/4"	F600716	-	19	19	40	21	-	inox
12mm	G1/4"	F200116	-	19	22	42	21	-	steel

Release date: December 2021



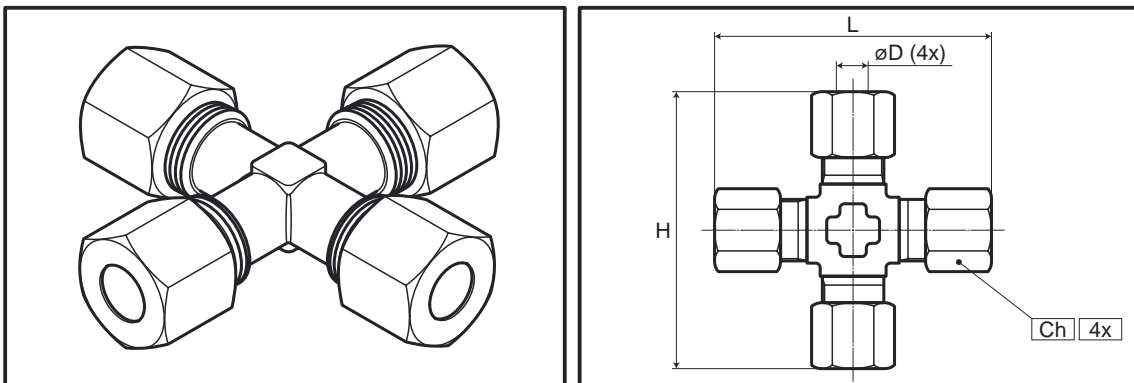
### 1.18 Stud standpipe couplings



$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
6mm	R1/8"	F170774	-	13	-	45	30	-	steel
6mm	G1/4"	F114743 <sup>2)</sup>	11616	17	-	38	20	-	steel
8mm	G1/4"	F213564	-	19	-	41.5	22.5	-	steel
10mm	G1/4"	F115048	50401	19	-	40	21	-	steel
12mm	G1/4"	F203924	-	19	-	40	21	-	steel

<sup>2)</sup> G1/4" is female

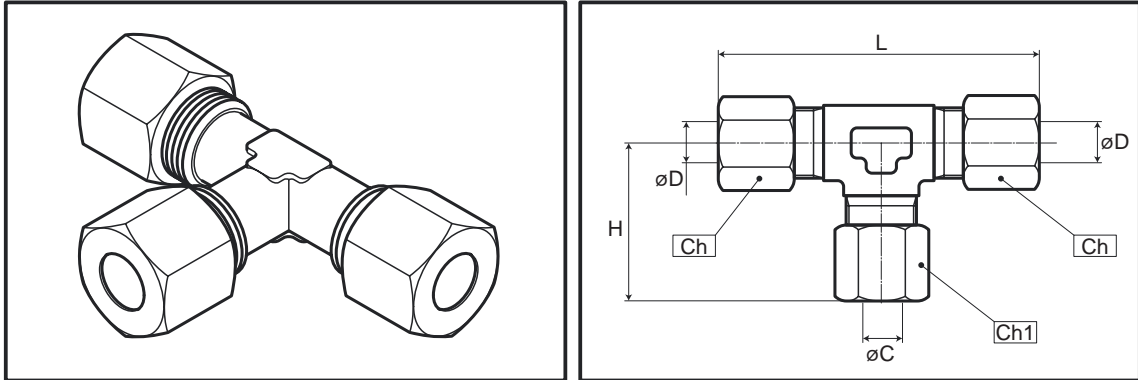
### 1.19 Equal cross couplings



$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
3/16"	-	F122980	42002	12	-	45	-	45	brass
5/16"	-	F119465	11701	14	-	-	-	-	brass
8mm	-	F127228	46002	17	-	60	-	60	steel
10mm	-	F122637	47902	19	-	65	-	65	steel

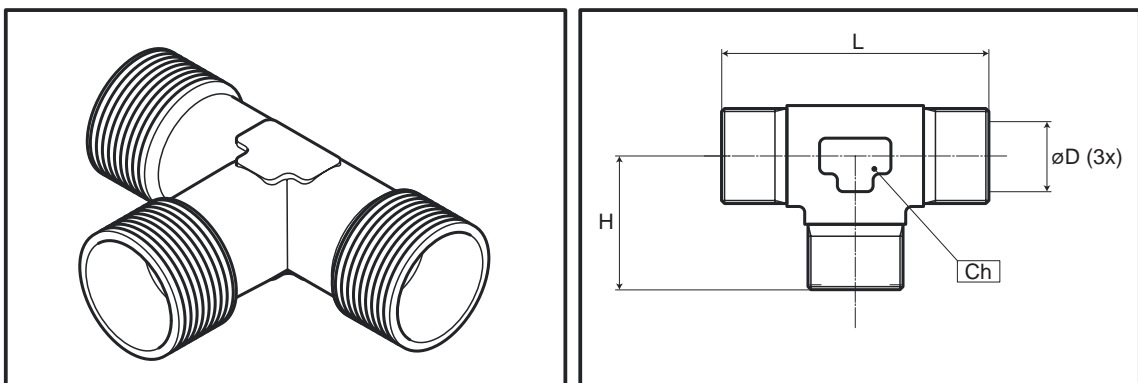
Release date: December 2021

### 1.20 T-couplings



$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
3/16"	3/16"	F177174	14101	12	-	21	-	42	brass
6mm	6mm	F115433	07408	13	-	22	-	44	steel
6mm	6mm	F122358	56002	14	-	22	-	44	inox
5/16"	5/16"	F101412	11801	14	-	28	-	58	brass
8mm	8mm	F104551	45902	17	-	32	-	68	steel
8mm	8mm	F122914	56702	17	-	32	-	68	inox
10mm	10mm	F110241	47802	19	-	32	-	68	steel
10mm	10mm	F122808	58602	19	-	32	-	68	inox
12mm	12mm	F122361	49602	22	-	35	-	68	steel
12mm	12mm	F128335	60402	22	-	35	-	68	inox
12mm	8mm	F122910	14712	22	17	-	-	-	steel
15mm	12mm	F203887	-	27	22	36	-	72	steel
15mm	15mm	F122336	30608	27	-	36	-	72	steel

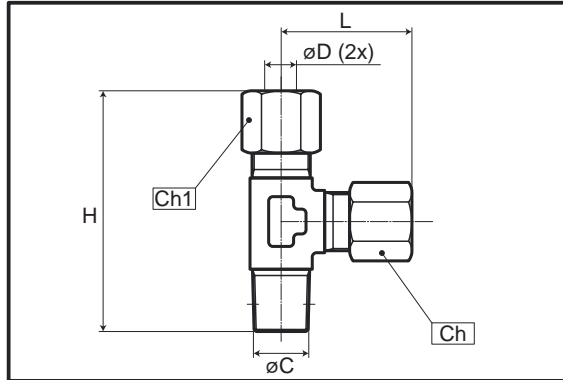
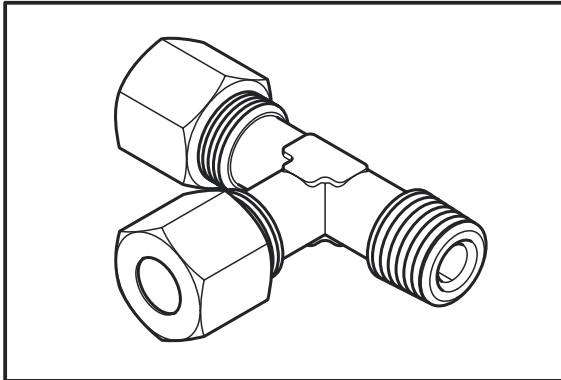
### 1.21 Body T-equal couplings



$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
10mm	-	F601488	-	14	-	48	-	22	steel

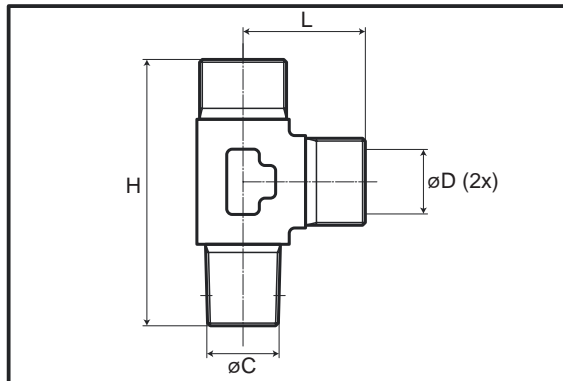
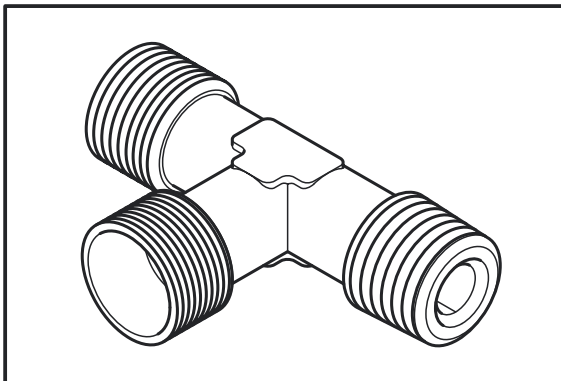
Release date: December 2021

### 1.22 L-male stud couplings



$\phi D$	$\phi C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
6mm	R1/4"	F124064	-	12	17	-	-	-	steel
8mm	R1/4"	F112831	44002	17	17	57	-	30	steel
10mm	R1/4"	F110242	44102	19	19	60	-	32	steel
10mm	R1/4"	F122916	46822	19	19	60	-	32	inox

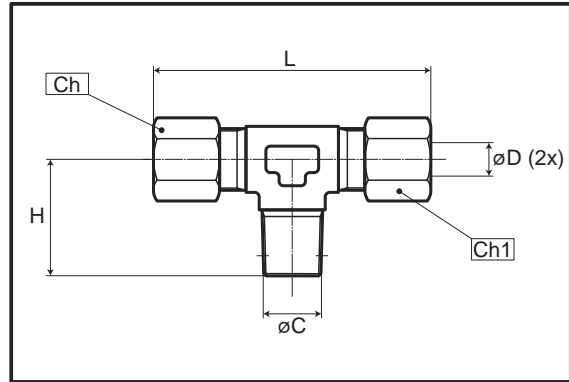
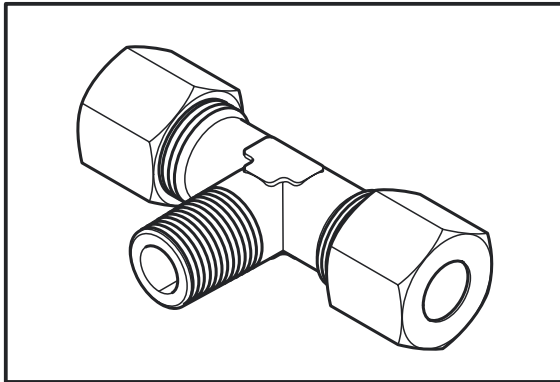
### 1.23 Body L-male stud couplings



$\phi D$	$\phi C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
8mm	R1/4"	F116595	72422	-	-	47	-	20	steel
10mm	R1/4"	F116679	72522	-	-	50	-	22	steel

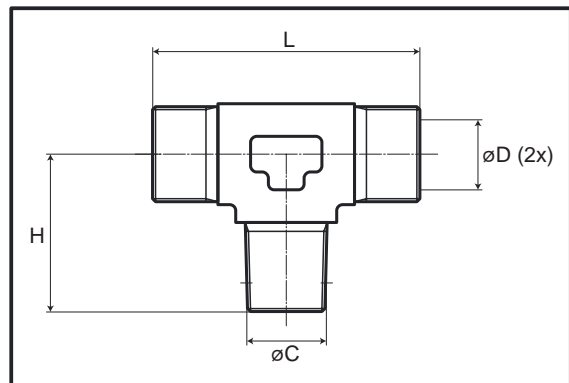
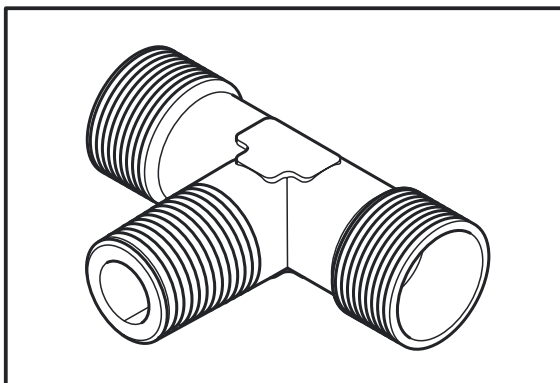
Release date: December 2021

### 1.24 T-male stud couplings



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
8mm	R1/4"	F110245	50702	17	17	28	-	68	steel
8mm	R1/4"	F118036	46722	17	17	28	-	68	inox
10mm	R1/4"	F110243	50802	19	19	28	-	70	steel
10mm	R1/4"	F200904	59202	19	19	28	-	70	inox
12mm	R1/4"	F122894	14612	22	22	28	-	70	steel

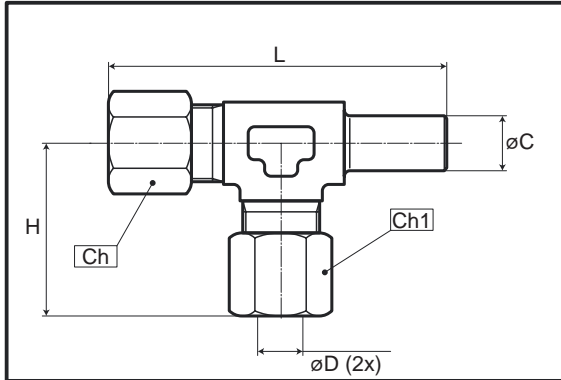
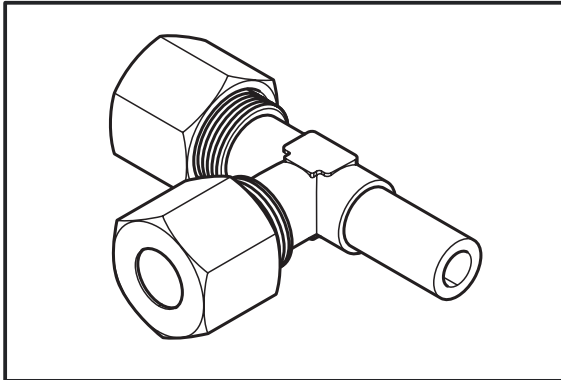
### 1.25 Body T-male stud couplings



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
8mm	R1/4"	F117215	72622	-	-	27	-	47	steel
10mm	R1/4"	F116701	72722	-	-	27	-	48	steel

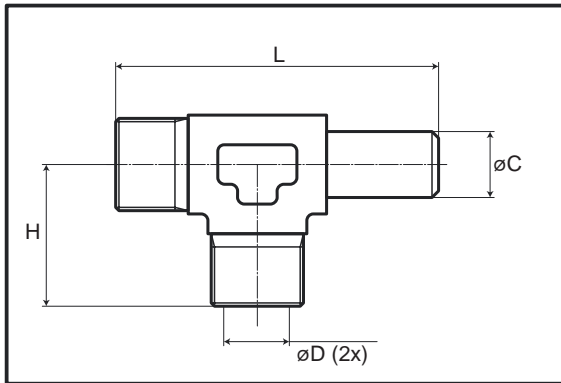
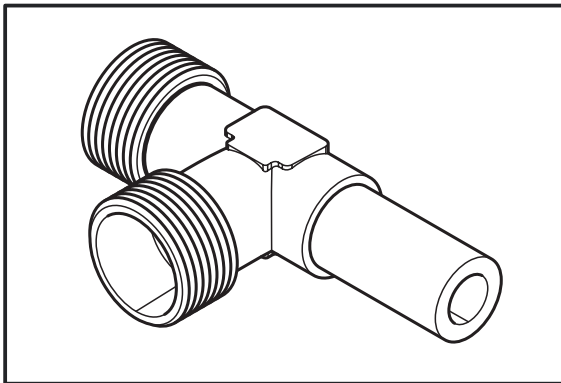
Release date: December 2021

1.26 Adjustable L-couplings



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
6mm	6mm	F120891	11516	14	14	30	-	56	steel
8mm	8mm	F115434	46402	17	17	30	-	57	steel
8mm	8mm	F122826	47322	17	17	30	-	57	inox
10mm	10mm	F112832	48302	19	19	32	-	60	steel
10mm	10mm	F123454	59102	19	19	32	-	60	inox
12mm	12mm	F122343	48402	22	22	35	-	65	steel
15mm	15mm	F127906	11322	27	27	30	-	72	steel

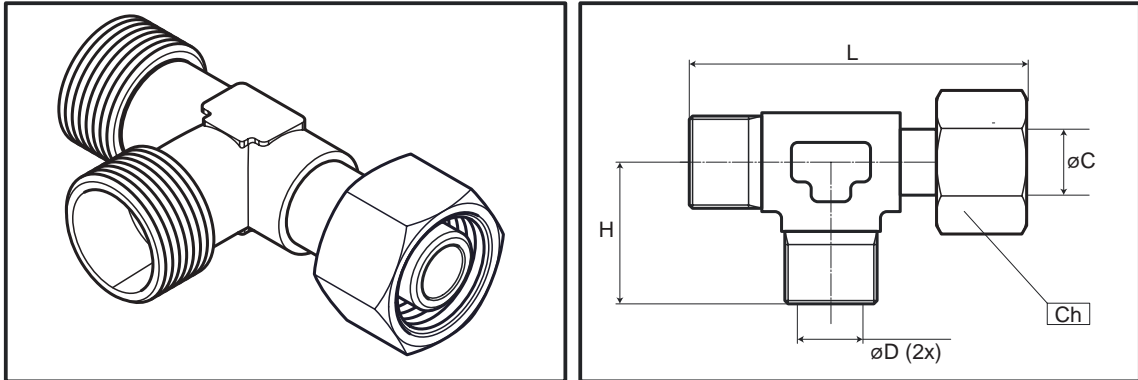
1.27 Body adjustable L-couplings



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
8mm	8mm	F119003	74022	-	-	20	-	47	steel

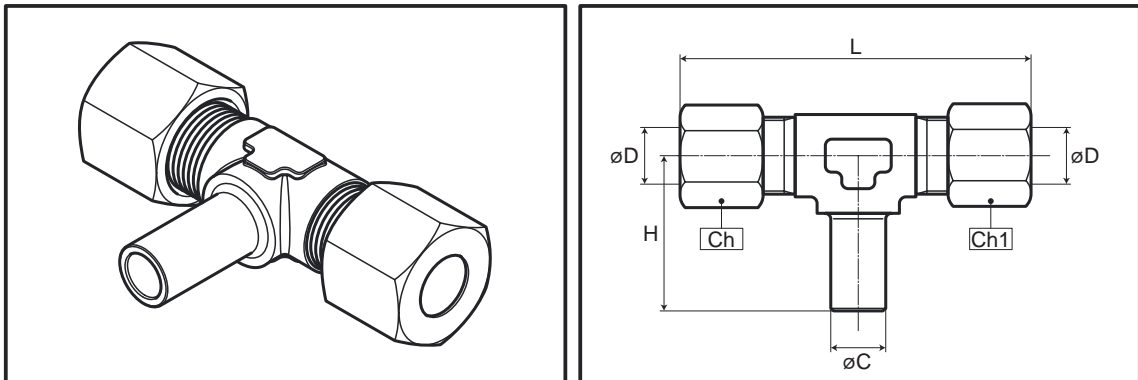
Release date: December 2021

### 1.28 Body adjustable L-couplings with nut



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
10mm	10mm	F121101	-	19	-	-	-	-	steel
12mm	12mm	F601491	-	22	-	-	-	-	steel

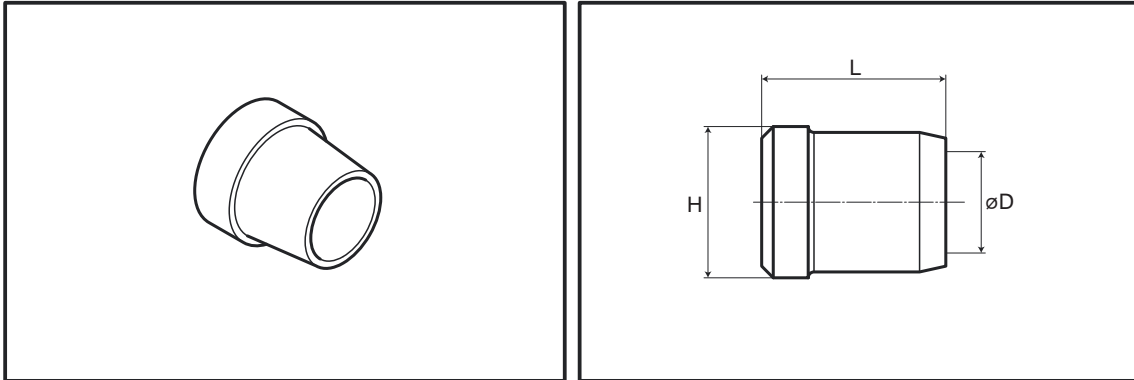
### 1.29 Adjustable T-couplings



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
8mm	8mm	F122125	46302	17	17	28	-	68	steel
10mm	10mm	F170150	80901	19	19	28	-	70	steel
10mm	10mm	F122335	59002	19	19	28	-	70	inox
12mm	10mm	F172951	-	22	22	28	-	70	steel
12mm	12mm	F117777	16622	22	22	30	-	70	steel

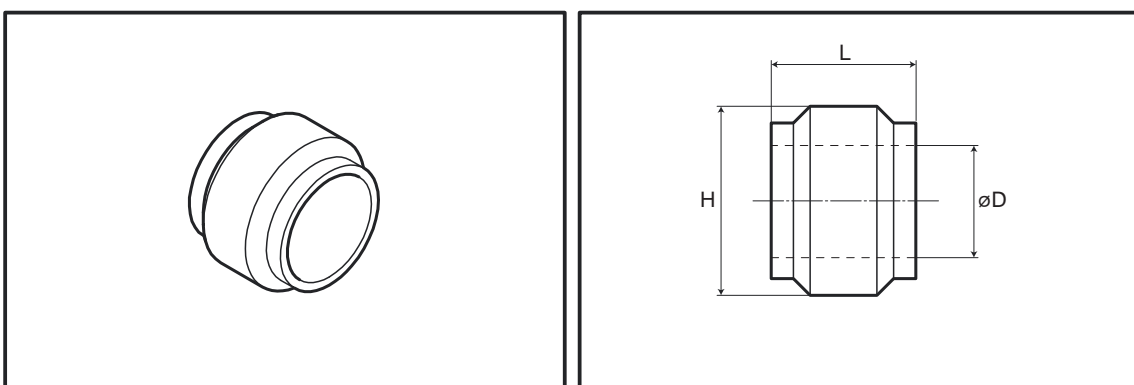
Release date: December 2021

1.30 Cutting rings (single sided)



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
6mm	-	F114891	17102	-	-	8	-	7	steel
6mm	-	F127074	42902	-	-	8	-	7	inox
6mm	-	F113676	04816	-	-	10	-	9.5	steel
8mm	-	F112160	46902	-	-	11	-	9.5	steel
8mm	-	F122297	57702	-	-	11	-	9.5	inox
10mm	-	F618143	-	-	-	13	-	10	brass
10mm	-	F112161	48902	-	-	13	-	10	steel
10mm	-	F122068	59702	-	-	13	-	10	inox
12mm	-	F122959	50602	-	-	15	-	10	steel
12mm	-	F127535	61402	-	-	15	-	10	inox
15mm	-	F104695	31408	-	-	18	-	10	steel
15mm	-	F122915	59902	-	-	18	-	10	inox

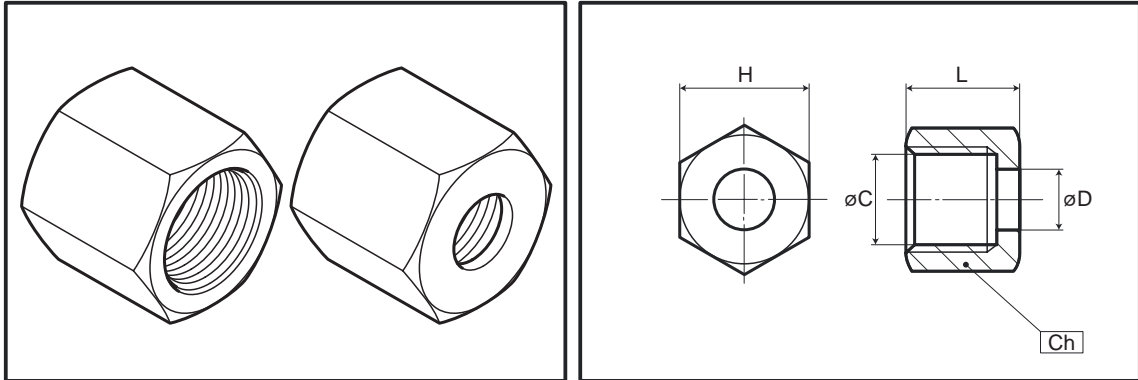
1.31 Cutting rings (double sided)



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
3/16"	-	F000585	10801	-	-	8.5	-	6	brass
3/16"	-	F101374	41802	-	-	8.5	-	6	inox
6mm	-	F000658	09808	-	-	8.5	-	6.5	brass
6mm	-	F112544	14617	-	-	8.5	-	6.5	inox
6mm	-	F114441	10416	-	-	8.5	-	6.5	steel
5/16"	-	F000580	11901	-	-	10.5	-	7	brass

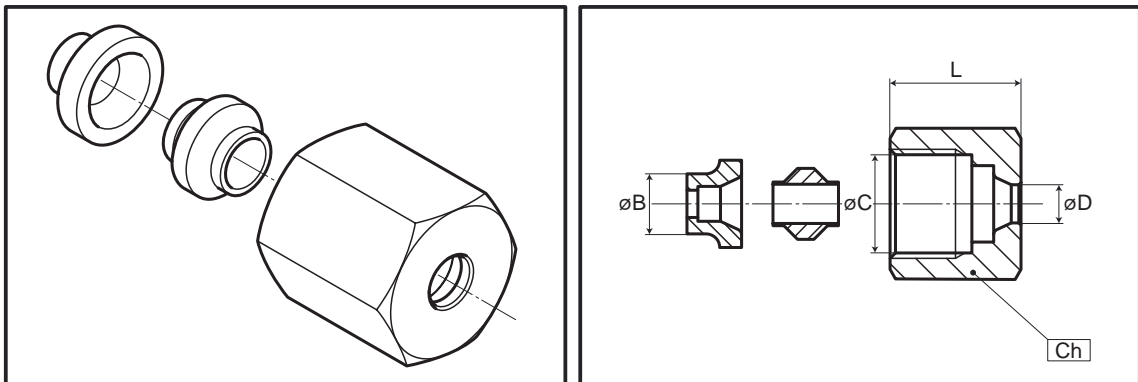
Release date: December 2021

### 1.32 Hexagonal nuts



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
3/16"	M10x1	F000584	10701	12	-	12	-	11	brass
3/16"	M10x1	F101373	41702	12	-	12	-	11	inox
6mm	M10x1	F101063	08908	13	-	13	-	12.5	brass
6mm	M10x1	F114892	17002	12	-	12	-	12	steel
6mm	M10x1	F112543	14717	12	-	12	-	12	inox
6mm	M12x1.5	F113675	04716	14	-	14	-	14.5	steel
6mm	M12x1.5	F127229	14917	14	-	14	-	14.5	inox
5/16"	M12x1	F000579	16101	14	-	14	-	13	brass
8mm	M14x1.5	F112157	46802	17	-	17	-	15	steel
8mm	M14x1.5	F122332	57602	17	-	17	-	15	inox
10mm	M16x1.5	F115316	48802	19	-	19	-	16	steel
10mm	M16x1.5	F122067	59602	19	-	19	-	16	inox
12mm	M18x1.5	F122960	50502	22	-	22	-	15.5	steel
12mm	M18x1.5	F127534	61302	22	-	22	-	15.5	inox
15mm	M22x1.5	F127904	24408	27	-	27	-	17	steel

### 1.33 Reducing kits

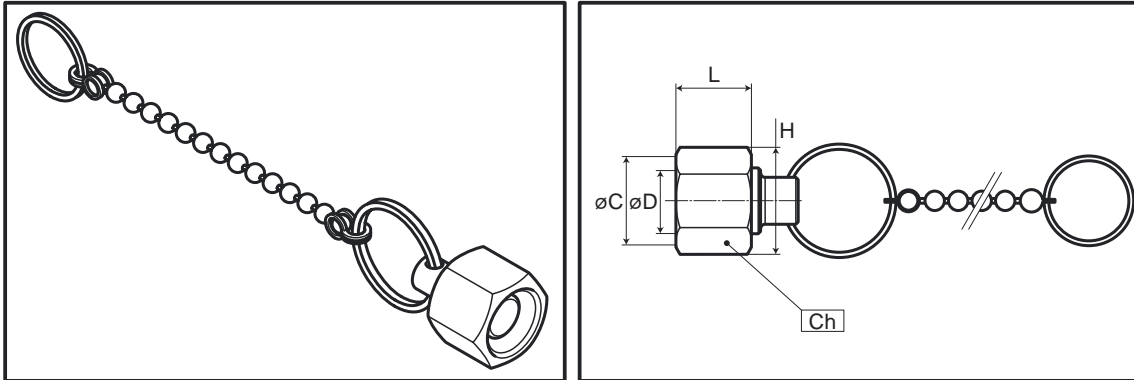


$\varnothing D$	$\varnothing C$	$\varnothing B$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>L</i>	<i>Material</i>
1/8"	M10x1	3/16"	F104080	23601	12	11	brass
1/8"	M10x1	6mm	F112656	89901	12	11	brass
4mm	M10x1	3/16"	F104920	42701	12	13.5	brass
8mm	M16x1.5	10mm	F104515	09308	19	16.5	brass

Release date: December 2021

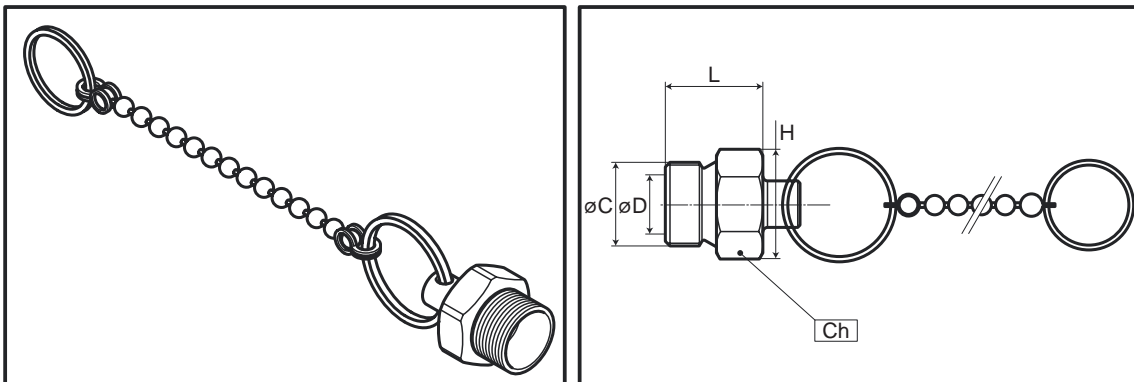


1.34 Plugs female with chain



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
10mm	M16x1.5	F113621	50701	19	-	19	-	16	steel
12mm	M18x1.5	F207768	-	22	-	22	-	15.5	steel

1.35 Plugs male with chain



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
10mm	M16x1.5	F113622	50601	19	-	19	-	21	steel
12mm	M18x1.5	F207767	-	21	-	21	-	21	steel

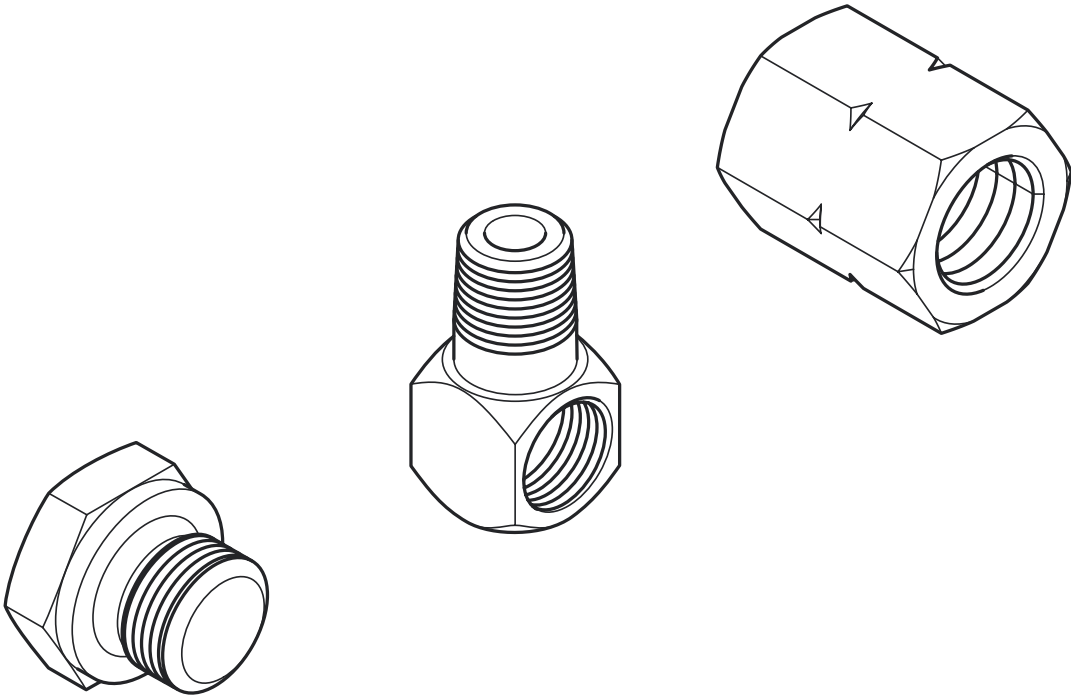
Release date: December 2021

**1.36 Plugs female**



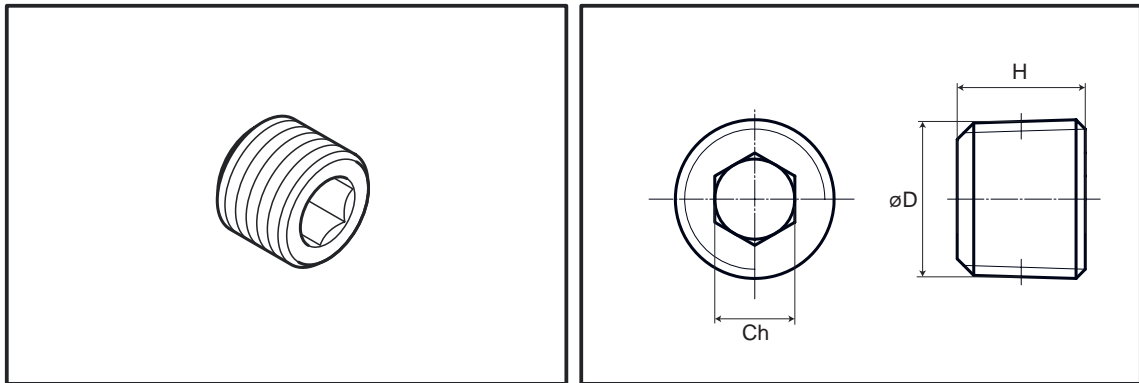
$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
10mm	M16x1.5	F204487	-	19	-	19	-	16	steel

# 2. ADAPTERS & PLUGS



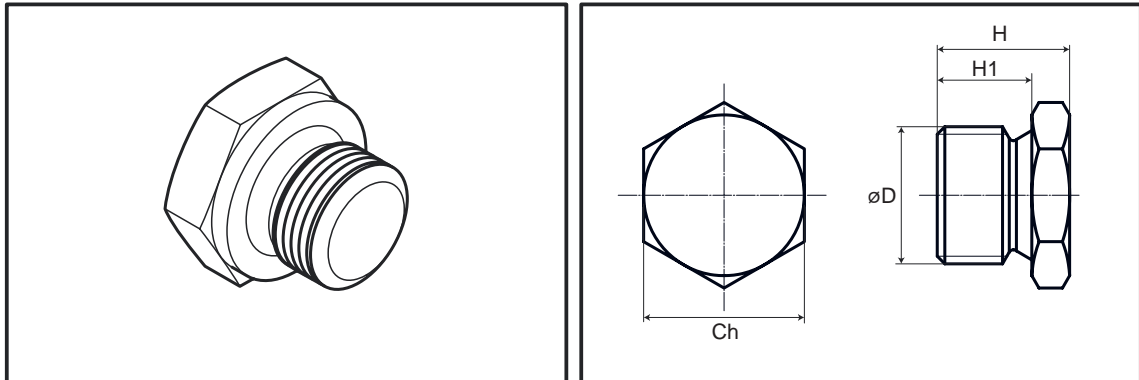
Release date: December 2021

## 2.1 Allen plugs



$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
R1/8"	-	F117858	16301	5	-	8	-	-	brass
1/8"NPT	-	F111788	50301	5	-	8	-	-	brass
1/8"NPT	-	F206807	-	5	-	8	-	-	inox
R1/4"	-	F129278	18512	6	-	10	-	-	brass
M10x1	-	F170063	16011	5	-	8	-	-	steel

## 2.2 Hexagonal plugs

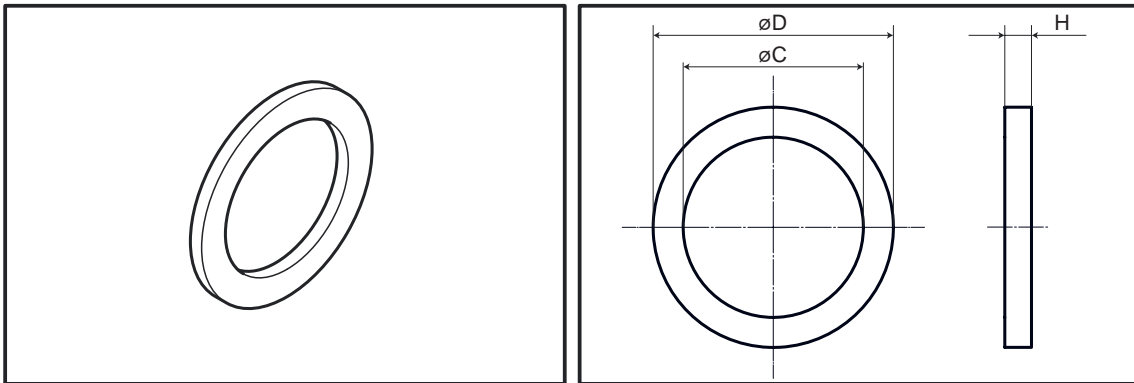


$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
G1/8"	-	F001081	12601	14	-	12.5	7	-	brass
G1/4"	-	F000686	32901	17	-	14	10	-	brass
G1/4"	-	F104837*	44201	17	-	17	-	-	brass
G1/4"	-	F123136*	-	17	-	17	10	-	inox

\*Plug is with O-ring

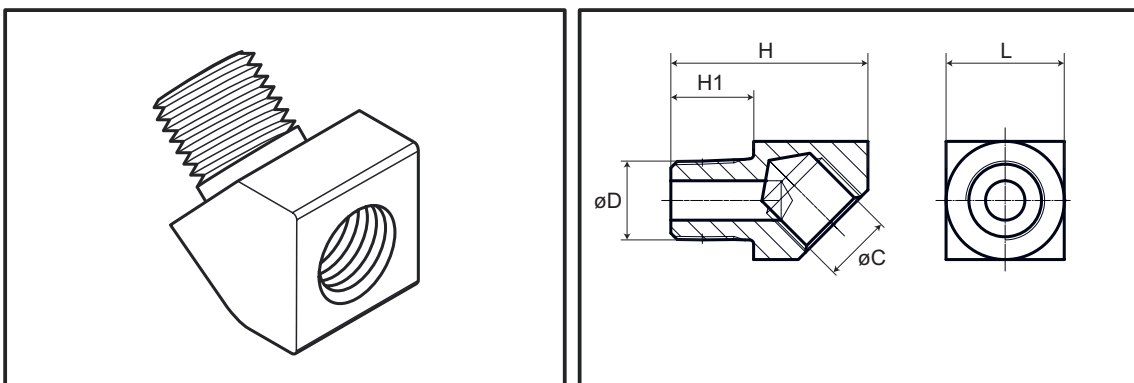
Release date: December 2021

### 2.3 Rings for hexagonal plugs



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
13mm	10mm	F001085	57622	-	-	1mm	-	-	brass
18mm	13.5mm	F104436	83901	-	-	2mm	-	-	brass

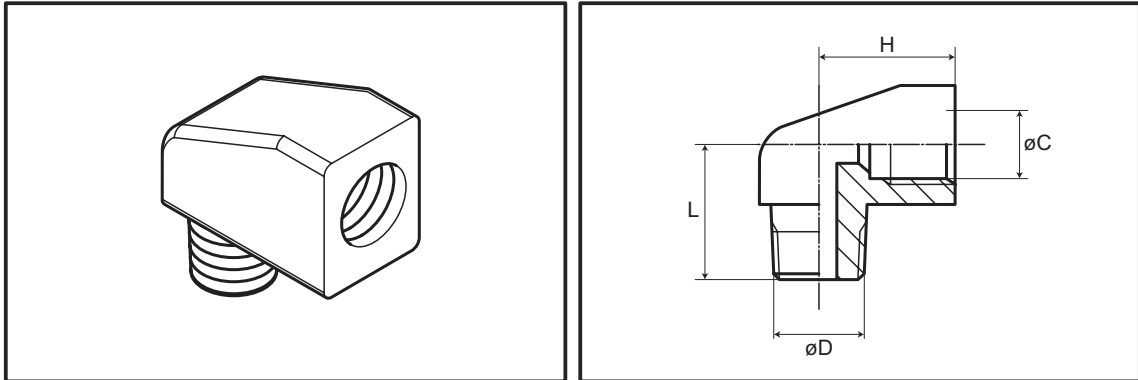
### 2.4 Stud elbow adapters 45°



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
M8x1	M8x1	F214783	-	-	-	25	10.5	15	brass
1/8"NPT	1/8"NPT	F104521	13901	-	-	25	10.5	15	brass
R1/8"	G1/8"	F113925	55622	-	-	25	10.5	15	inox
1/4"NPT	1/4"NPT	F173672	32701	-	-	46	16	19	steel

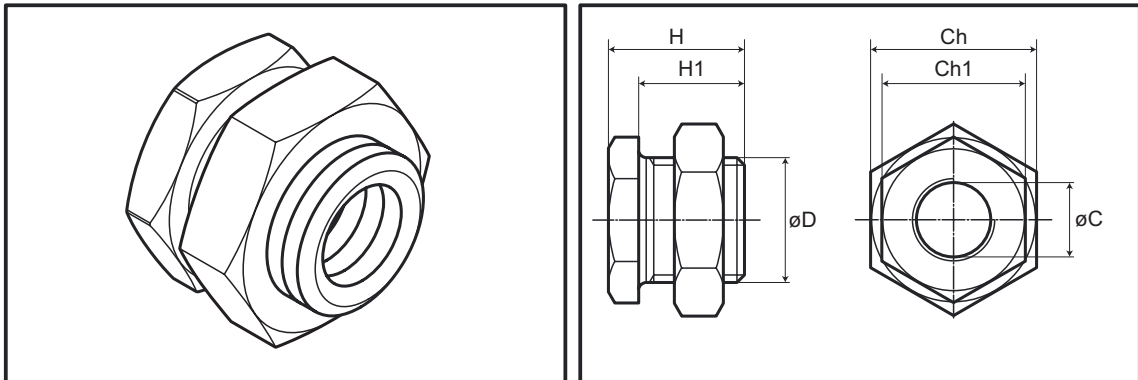
Release date: December 2021

**2.5 Stud elbow adapter 90° compact**



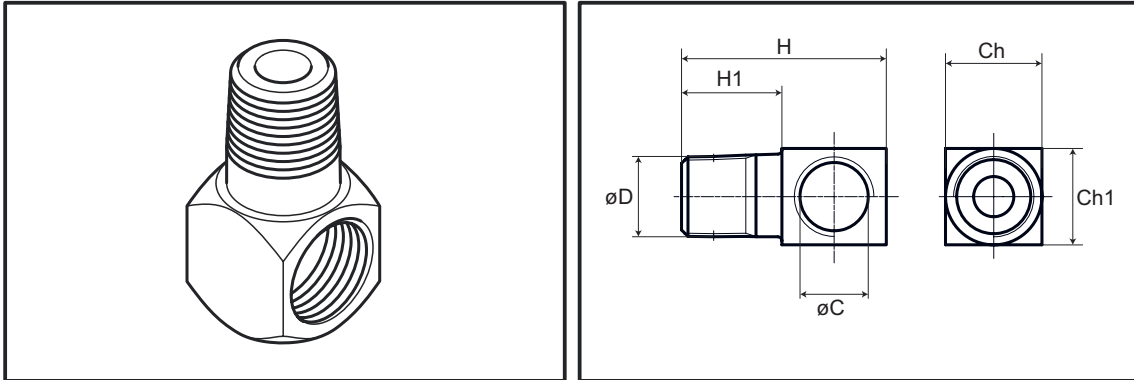
$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
R1/8	M8x1	F601154	-	-	-	13.6	-	13.5	brass
M10x1	M8x1	F605734	-	-	-	13.6	-	13.5	brass

**2.6 Bulkhead adapters**



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
M16"	G1/8"	F110517	20902	22	19	18	14	-	brass
G1/4"	G1/4"	F000681	31901	17	17	19	14.5		brass

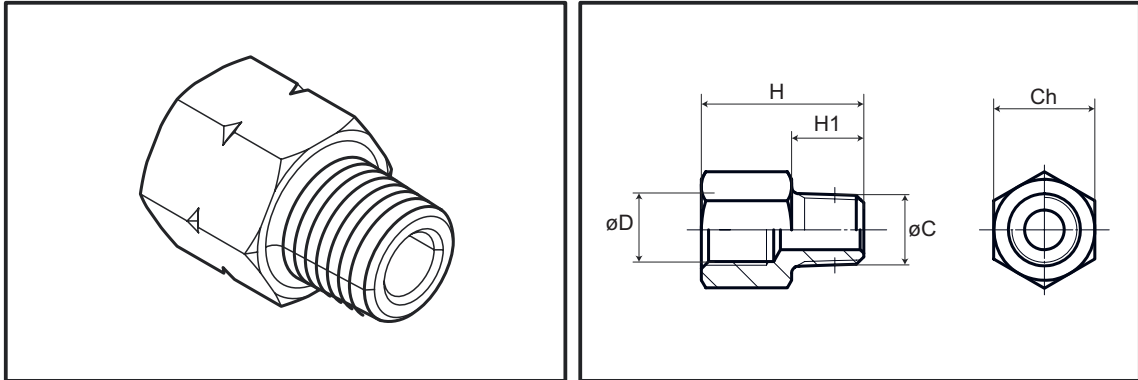
2.7 Stud elbow adapters 90°



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
M6x1	M8x1	F102457	21301	13	13	22	8	-	steel
M6x1	M8x1	F170875	-	12	12	21	8	-	inox
M6x1	G1/8"	F192944	-	12	12	21	8	-	steel
1/4-28UNF	G1/8"	F000543	02101	12	12	21	8	-	steel
1/4-28UNF	G1/8"	F101517	44502	12	12	21	8	-	inox
1/4-28UNF	G1/8"	F100726	08501	12	12	33	20	-	steel
M8x1	M8x1	F103516	41201	12	12	20.5	7.7	-	brass
M8x1	M8x1	F000400	14801	12	12	25.5	12.5	-	brass
M8x1	M8x1	F101518	41502	12	12	25.5	12.5	-	inox
M8x1	M8x1	F114928	05511	12	12	44	30	-	steel
M8x1	M8x1	F112171	98301	12	12	50.5	37.5	-	steel
M8x1.25	M8x1.25	F207090	-	12	12	25.5	12.5	-	brass
M8x1.25	M8x1.25	F113264	93001	12	12	29	16	-	brass
R1/8"	G1/8"	F115199	06211	12	12	22	9	-	steel
R1/8"	G1/8"	F000542	15001	12	12	25.5	12.5	-	steel
R1/8"	G1/8"	F101543	63302	12	12	25.5	12.5	-	inox
1/8"NPT	1/8"NPT	F111785	97901	12	12	26.5	12.5	-	steel
1/8"NPT	1/8"NPT	F119572	-	12	12	26.5	12.5	-	inox
1/8"NPT	1/8"NPT	F111786	93301	12	12	34	20	-	steel
M10x1	M8x1	F605482	-	12	12	16	5	-	steel
M10x1	M10x1	F101721	14701	12	12	22	9	-	steel
M10x1	M10x1	F116384	15111	12	12	25.5	12.5	-	steel
R1/4"	G1/4"	F112103	82701	16	16	30	14	-	steel

Release date: December 2021

2.8 Straight adapters



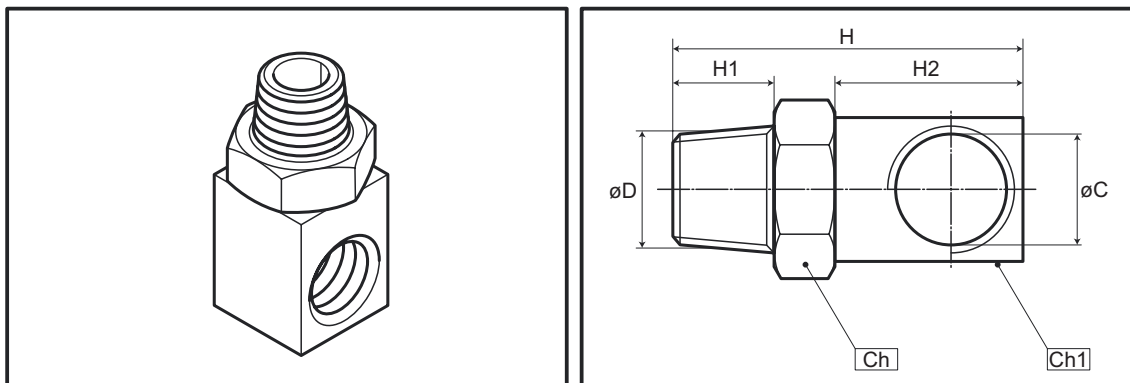
øC	øD	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
1/4-28UNF	G1/8"	F104570	15201	14	-	24	8	-	brass
M8x1	M8x1	F103423	15601	11	-	18	9	-	steel
M8x1.25	M8x1.25	F604483	-	11	-	18	8	-	steel
M8x1	G1/8"	F103422	15501	14	-	22.5	9	-	brass
M8x1.25	M8x1	F127430	-	11	-	50	8	-	steel
R1/8"	G1/8"	F000541	08508	14	-	22.5	10	-	brass
R1/8"	G1/8"	F101375	44402	14	-	22.5	10	-	inox
R1/8"	G1/8"	F124546	-	14	-	35	10	-	brass
R1/8"	G1/8"	F105827	12922	14	-	42	28	-	steel
R1/8"	G1/8"	F100725	11608	14	-	80	10	-	brass
R1/8"	G1/8"	F170988	-	14	-	80	10	-	inox
G1/8"	G1/8"	F202097	-	14	-	90	10	-	steel
G1/8"	G1/4"	F126738	02901	17	-	21	5	-	brass
G1/8"	G1/4"	F117731	63202	19	-	31	8	-	steel
1/8"	1/8"NPT	F104510	40502	7/16"	-	-	15	-	brass
1/8"NPT	1/8"NPT	F111784	98001	14	-	22.5	10	-	brass
1/8"NPT	1/8"NPT	F119570	-	14	-	22.5	10	-	inox
1/8"NPT	1/8"NPT	F206113	-	14	-	30	10	-	brass
1/8"NPT	1/8"NPT	F112143	33301	14	-	42	28	-	steel
1/8"NPT	1/8"NPT	F119571	-	14	-	42	28	-	inox
1/8"NPT	1/8"NPT	F603481	-	14	-	65	51	-	steel
1/8"NPT	1/8"NPT	F111781	97701	14	-	70	56	-	steel
1/8"NPT	1/8"NPT	F119569	-	14	-	70	56	-	inox
1/8"NPT	G1/4"	F114949	61801	19	-	60	46	-	steel
1/8"NPT	G1/4"	F115799	23812	19	-	60	46	-	inox
1/8"NPT	G1/4"	F174533	-	17	-	74	60	-	steel
M10x1	M10x1	F170064	16111	14	-	22.5	10	-	steel
M10x1	M10x1	F212794	-	14	-	28.5	16	-	steel
M10x1	M10x1	F702652	-	14	-	59	45	-	steel
M10x1.5	M10x1.5	F123127	-	14	-	22.5	10	-	steel
R1/4"	G1/4"	F209276	-	17	-	26	14	-	steel
G3/8"	G1/4"	F119629	10508	22	-	36	12	-	steel

Release date: December 2021



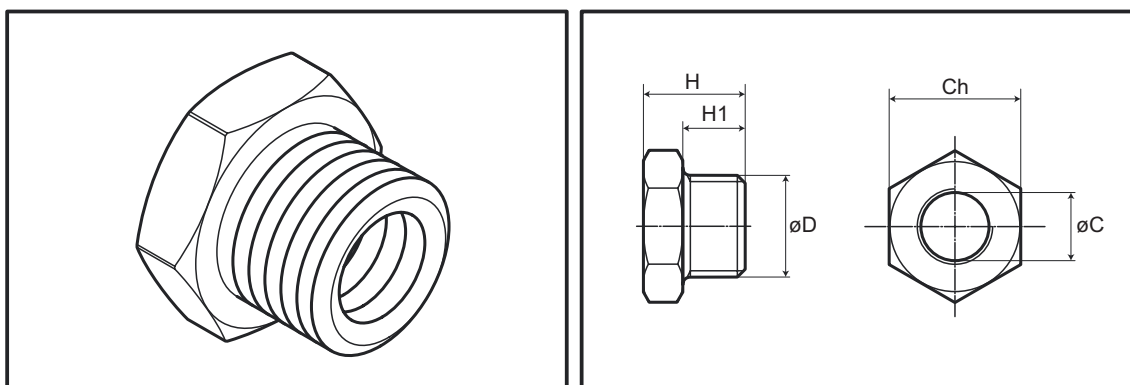
$\varnothing C$	$\varnothing D$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
M12x1	M18x1.5	F123096	-	24	-	38	12.5	-	steel
M14x1.5	G1/4"	F104962	67401	19	-	28	9	-	steel

### 2.9 Elbow swivels



$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	H2	Material
M8x1	M8x1	F102453	21401	14	13	31.5	7	19	brass
M8x1.25	M8x1.25	F207091	-	14	13	32.5	8	19	brass
R1/8"	G1/8"	F100476	14901	14	13	32	7.5	19	brass
1/8"NPT	G1/8"	F110339	63502	14	13	43	10	15	steel
1/8"NPT	1/8"NPT	F178555	-	14	13	43	10	15	steel
M10x1	M10x1	F211170	-	14	13	32	7.5	19	brass

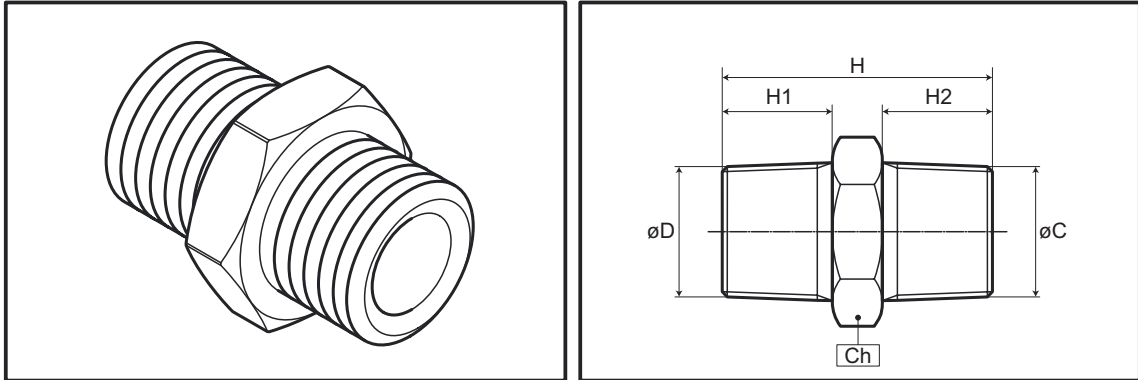
### 2.10 Reducing adapters



$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
M12x1.75	M8x1	F109730	39708	17	-	13	8	-	brass
G1/4"	G1/8"	F000527	08608	17	-	13	8	-	brass
G1/2"	G1/4"	F119473	10308	27	-	24	14	-	steel

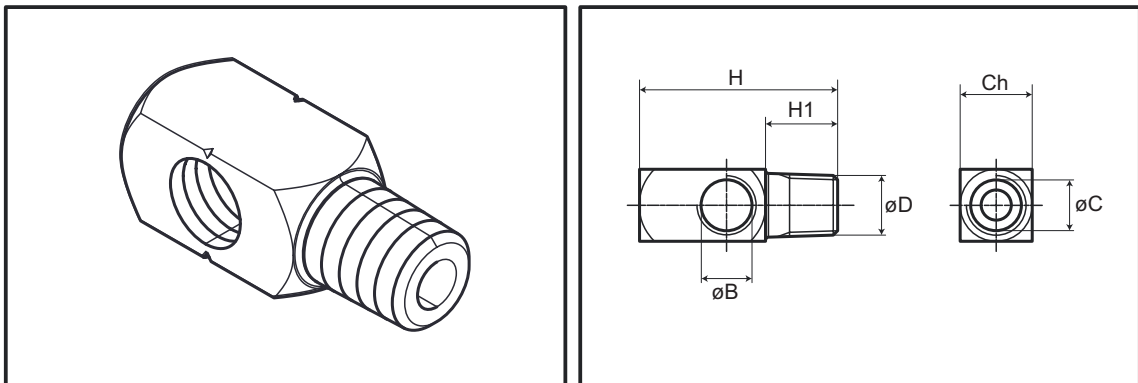
Release date: December 2021

### 2.11 Hex adapters



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>H2</i>	<i>Material</i>
R1/8"	R1/8"	F104557	15101	11	-	23	9	9	brass
R1/4"	R1/4"	F104546	62502	14	-	27	11	11	brass

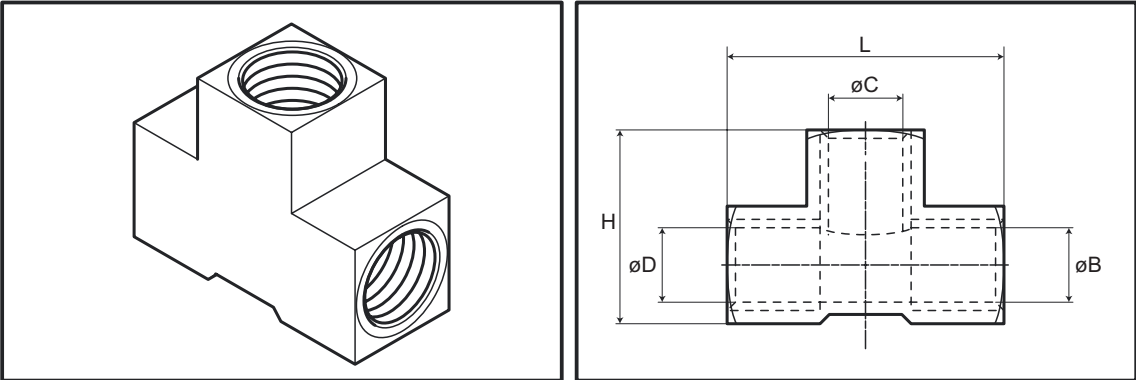
### 2.12 L-adapters



$\varnothing D$	$\varnothing C$	$\varnothing B$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>H</i>	<i>H1</i>	<i>Material</i>
M8x1	M8x1	M8x1	F104523	20601	12	33	12	brass
R1/8"	G1/8"	G1/8"	F000323	20501	12	33	12	brass
1/8"NPT	1/8"NPT	1/8"NPT	F125370	-	12	33	12	brass
1/8"NPT	1/8"NPT	G1/8"	F125313	-	12	33	12	brass
1/8"NPT	G1/8"	G1/8"	F124338	-	12	33	12	brass
M10x1	M10x1	M10x1	F103243	23901	12	33	12	brass

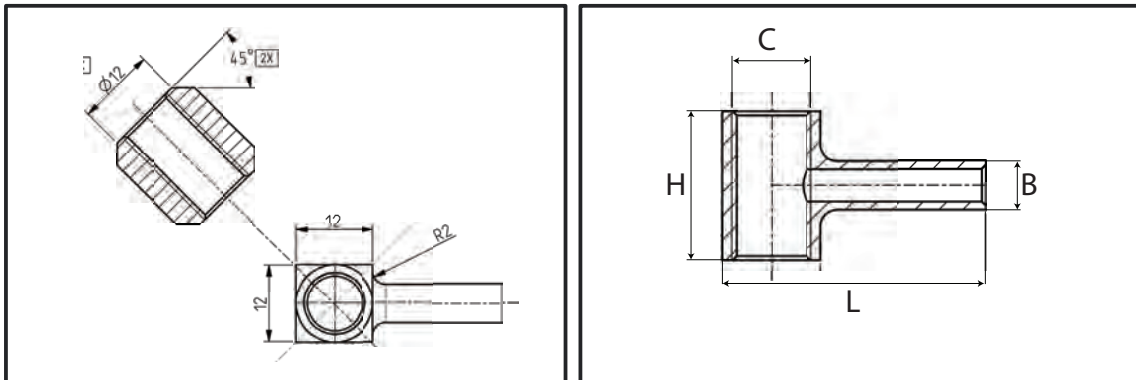
Release date: December 2021

2.13 T-adapters



$\phi D$	$\phi C$	$\phi B$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>H</i>	<i>L</i>	<i>Material</i>
1/8"NPT	1/8"NPT	1/8"NPT	F104538	08708	-	21	28	brass
1/4"NPT	1/4"NPT	1/4"NPT	F104537	08808	-	28	40	brass

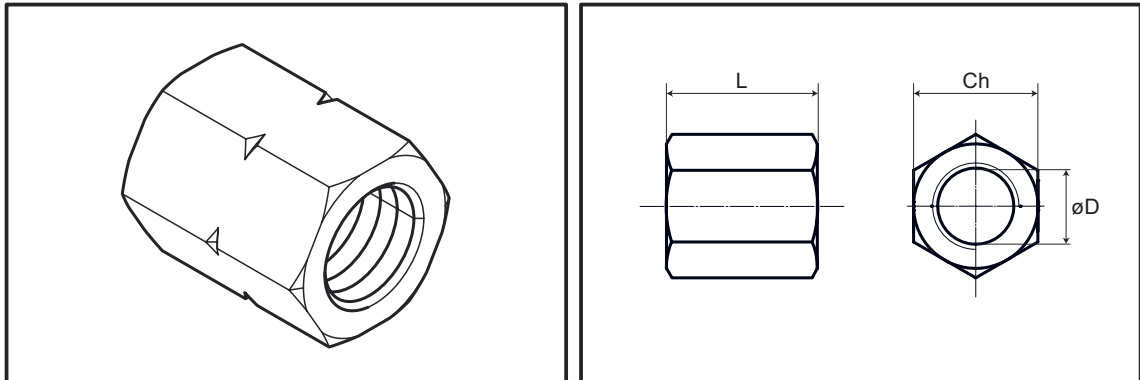
2.14 Stud T-adapters



$\phi C$	$\phi B$	<i>p/n new</i>	<i>Ch</i>	<i>H</i>	<i>L</i>	<i>Material</i>
1/8"G	6	F655946	-	18	32	steel

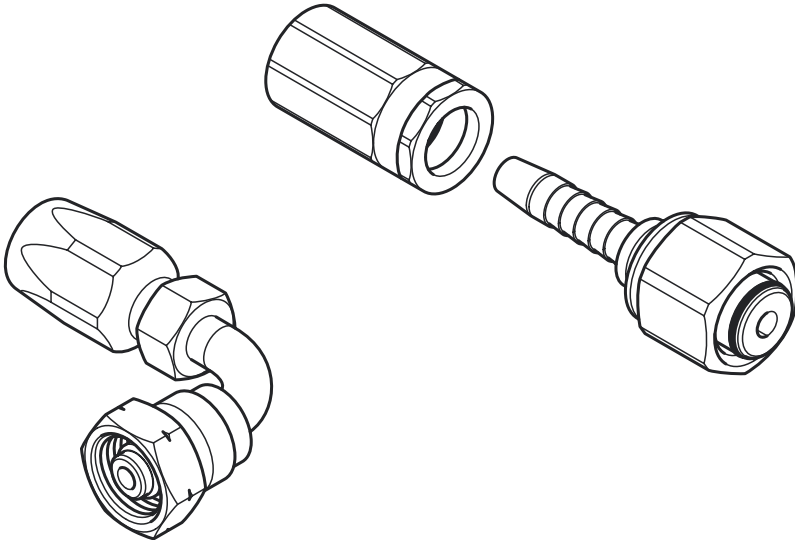
Release date: December 2021

**2.15 Socket adapters**



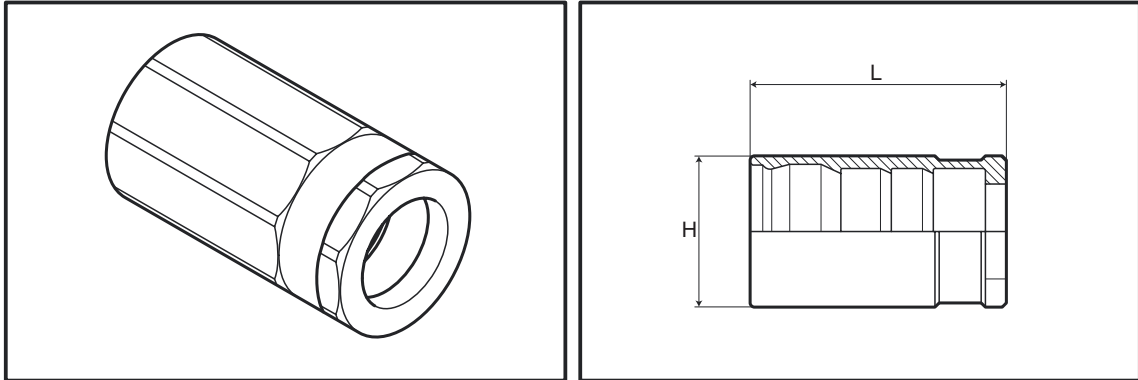
$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
G1/8"	-	F111493	19201	14	-	-	-	17	brass
M10x1	-	F113761	10812	14	-	-	-	17	brass
G1/4"	-	F118905	65202	19	-	-	-	25.5	steel

### 3. HOSE END FITTINGS



Release date: December 2021

### 3.1 Crimp sockets



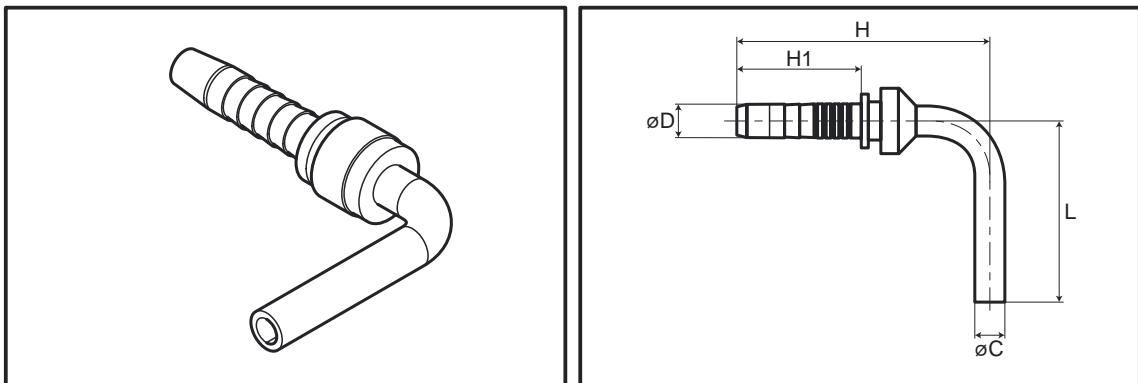
HPH	p/n new	p/n old	H	L	Crimping diameter	Material
5/32"	F115311	11916	∅13	20	∅11.1mm 0/-0.2	steel
1/4"	F759284		∅19	26.3	∅15.5mm 0/-0.1	steel
1/4"	F113717	12217	∅17	27.5	∅15.0mm 0/-0.2	inox
1/4" Thermoplastic <sup>1)</sup>	F128332	-	∅17	30	∅14.1mm 0/-0.2	steel
1/4" Thermoplastic <sup>1)</sup>	F128331	-	∅18	28.2	∅15.0mm 0/-0.2	inox
3/8"	F692943	-	∅26	29.7	∅21.4mm 0/-0.2	steel
3/8"	F178069	80822	∅24.6	31	∅20.6mm 0/-0.2	inox
3/8" Thermoplastic <sup>2)</sup>	F605808	-	∅22	32	∅18.2mm 0/-0.2	steel
3/8" Thermoplastic <sup>2)</sup>	F707103		∅21	31	Not available	inox
1/2"	F692945		∅30	34	∅25.4mm 0/-0.2	steel
1/2" Thermoplastic <sup>3)</sup>	F707104		∅25.5	34	Not available	inox

<sup>1)</sup> Only for 1/4 Thermoplastic F128330.

<sup>2)</sup> Only for 3/8 Thermoplastic F605801.

<sup>3)</sup> Only for 1/2 Thermoplastic .F741129

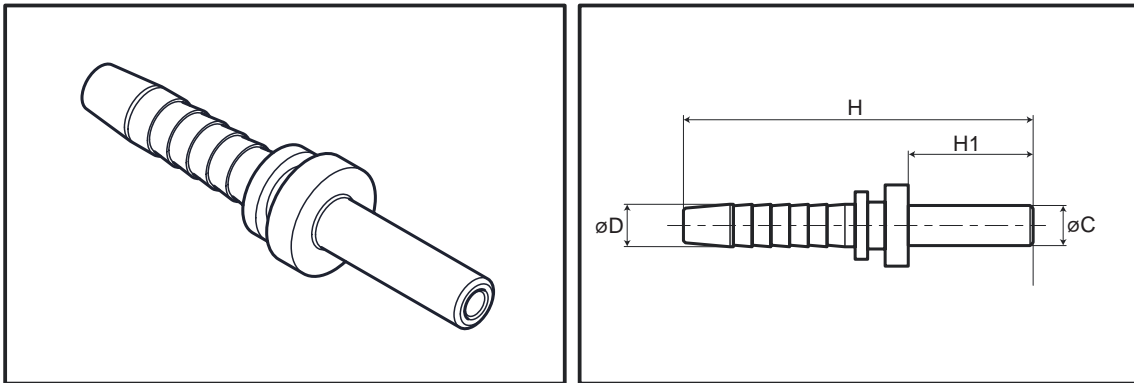
### 3.2 Hose end fittings elbow



∅D	∅C	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
5/32"	6mm	F178067	11816	-	-	41	16.5	31	steel
1/4"	6mm	F116607	83022	-	-	50	24.7	36	steel
1/4"	6mm	F170871	-	-	-	52	27.5	45	inox

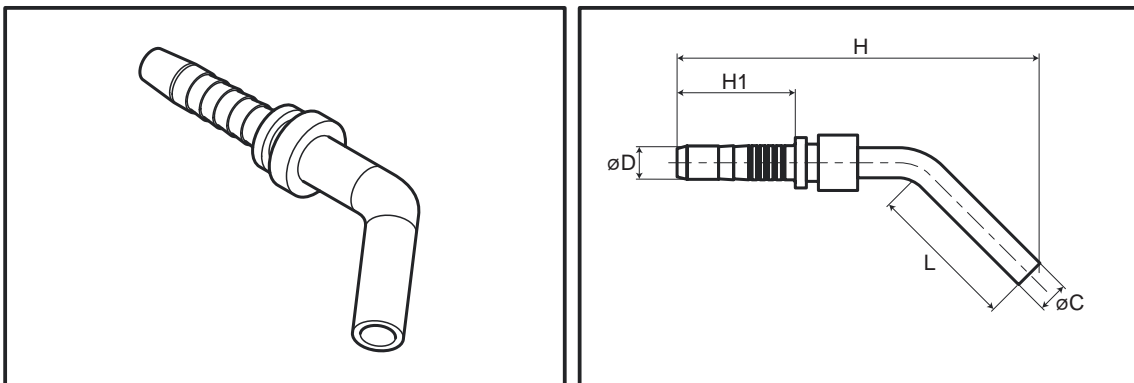
Release date: December 2021

### 3.3 Hose end fittings straight



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
5/32"	6mm	F115309	11716	-	-	44.5	21	-	steel
5/32"	5mm	F124259	-	-	-	41	21	-	steel
1/4"	5mm	F121895	05117	-	-	56	22.2	-	steel
1/4"	5mm	F113710	10617	-	-	56	20	-	inox
1/4"	6mm	F113940	05217	-	-	53.1	20	-	steel
1/4"	6mm	F113711	10717	-	-	57.5	25	-	inox
1/4"	12mm	F113714	11017	-	-	59	24	-	inox
3/8"	10mm	F120679	81022	-	-	59.6	23	-	inox

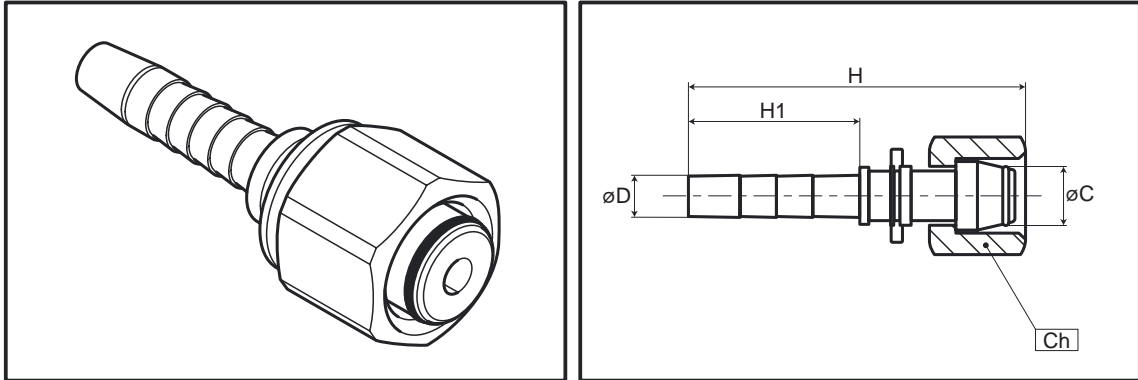
### 3.4 Hose end fittings 45°



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
1/4"	6mm	F126348	-	-	-	70	23.5	30	steel

Release date: December 2021

### 3.5 Hose end fittings straight with nut

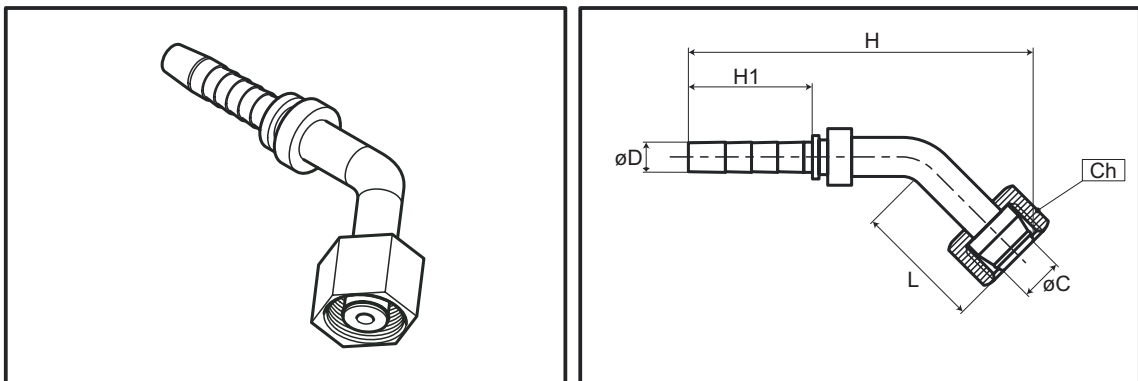


$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
1/4"	8mm	F115457	05417	17	-	52.5	27.5	-	steel
1/4"	8mm	F170987	-	17	-	52	28	-	inox
1/4"	10mm	F115458	05517	19	-	50.2	24.8	-	steel
1/4"	10mm	F120912	-	19	-	50	29	-	inox
1/4"	12mm	F123918	-	22	-	53.6	27.5	-	steel
3/8"	10mm	F170784	-	19	-	55.1	29	-	steel
3/8"	10mm	F605802 <sup>1)</sup>	-	19	-	-	-	-	steel
3/8"	12mm	F170782	-	22	-	56.5	29	-	steel
3/8"	12mm	F605803 <sup>1)</sup>	-	22	-	-	-	-	steel
3/8"	10mm	F741132 <sup>1)</sup>	-	19	-	54.8	28.3	-	inox
3/8"	12mm	F741133 <sup>1)</sup>	-	22	-	57.8	32.5	-	inox
1/2"	12mm	F200113	-	22	-	62	31	-	steel
1/2"	15mm	F204067	-	27	-	60.5	29.5	-	steel
1/2"	12mm	F741130 <sup>2)</sup>	-	22	-	62	31	-	inox
1/2"	15mm	F741131 <sup>2)</sup>	-	27	-	59.7	31.5	-	inox

<sup>1)</sup> Only for 3/8 Thermoplastic F605801.

<sup>2)</sup> Only for 1/2 Thermoplastic F741129

### 3.6 Hose end fittings 45° with nut

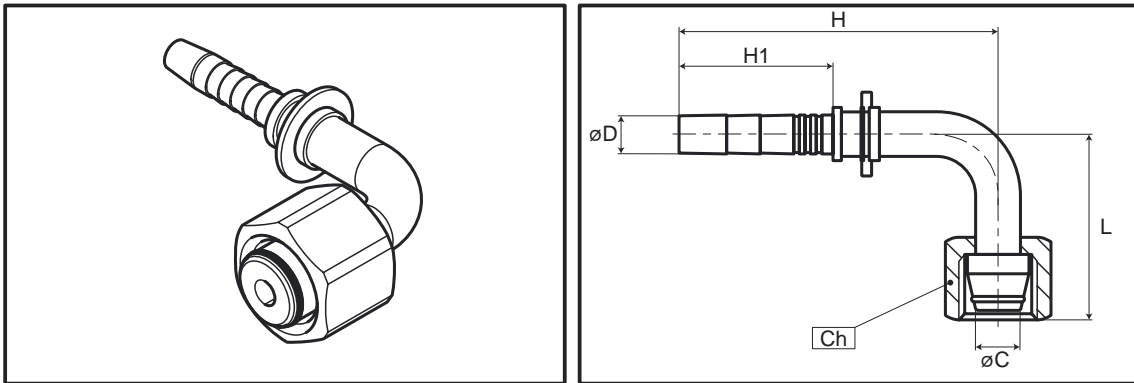


$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
1/4"	8mm	F115459	73922	17	-	77	27.5	25	steel
1/4"	10mm	F117227	-	19	-	77	27.5	25	steel

Release date: December 2021



### 3.7 Hose end fittings elbow with nut

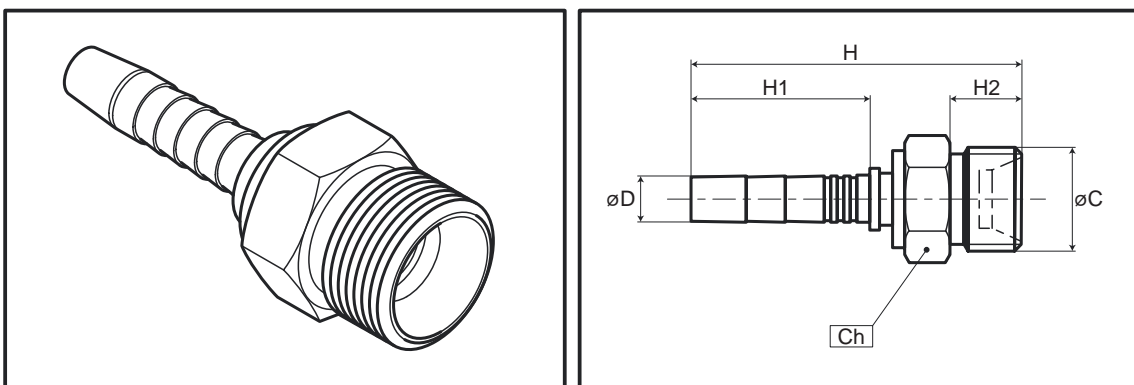


$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
1/4"	8mm	F112145	55302	17	-	57	27.5	31.5	steel
1/4"	10mm	F112440	55402	19	-	57	27.5	34	steel
1/4"	10mm	F170143	-	19	-	53	27.5	33.5	inox
3/8"	10mm	F170859 <sup>2)</sup>	64802	19	-	64.5	29	43	steel
3/8"	10mm	F120680	80922	19	-	68	29.5	46	inox
3/8"	12mm	F170783	-	22	-	68	30	35	steel
3/8"	12mm	F605805 <sup>1)</sup>	-	22	-	-	-	40	steel
3/8"	10mm	F741134 <sup>1)</sup>	-	19	-	62	30	30	inox
3/8"	12mm	F741135 <sup>1)</sup>	-	22	-	62	30	40	inox

<sup>1)</sup> Only for 3/8 Thermoplastic F605801.

<sup>2)</sup> Also for 3/8 Thermoplastic F605801

### 3.8 Hose end fittings male thread metric

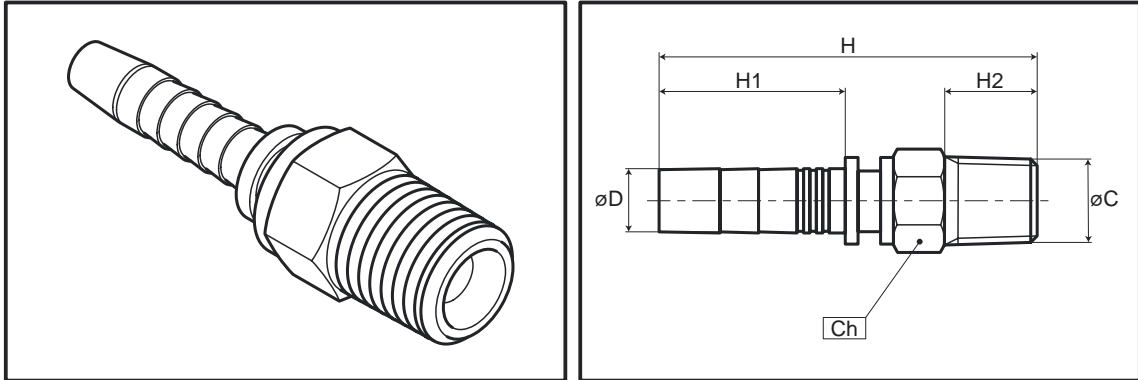


$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	H2	Material
1/4"	M12x1.5	F604663 <sup>1)</sup>	-	14	-	46	24.5	10	steel
1/4"	M14x1.5	F177647	-	14	-	49	27.5	10	steel
1/4"	M16x1.5	F177648	-	17	-	51	27.5	11	steel
3/8"	M18x1.5	F204965	-	19	-	53.6	29	11	steel

<sup>1)</sup> Complete with nut and cutting ring.

Release date: December 2021

### 3.9 Hose end fittings male thread BSP

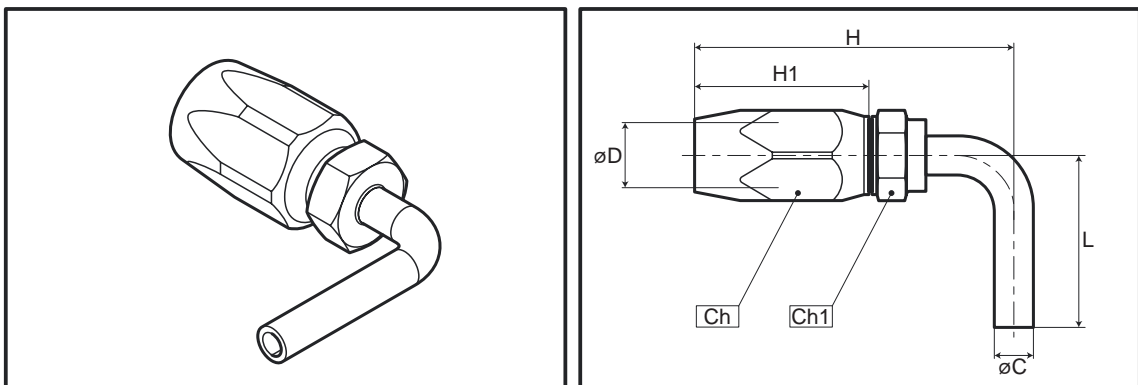


øD	øC	p/n new	p/n old	Ch	Ch1	H	H1	H2	Material
5/32"	1/8"NPT	F606210 <sup>1)</sup>	-			41.5	17	7	steel
1/4"	1/8"NPT	F115913	05617	12	-	51.6	27.5	10	steel
1/4"	1/8"NPT	F113715	11117	14	-	51	27.5	9.5	inox
1/4"	R1/8"	F195613 <sup>1)</sup>	-	14	-	51.6	27.5	7	steel
1/4"	1/8"NPT	F122648 <sup>1)</sup>	-	14	-	51.6	27.5	7	steel
1/4"	1/4"NPT	F112146	55002	14	-	56.5	27.5	14.5	steel
1/4"	1/4"NPT	F113716	11217	14	-	56	27.5	14.2	inox
1/4"	R1/4"	F117610	-	14	-	52.5	27.5	12	steel
3/8"	1/4"NPT	F116668	32722	14	-	59.1	29	14.5	steel
3/8"	1/4"NPT	F605806 <sup>2)</sup>	-	15	-	53.5	26.5	14.5	steel

<sup>1)</sup> Adjustable swivel version.

<sup>2)</sup> Only for 3/8" Thermoplastic F605801

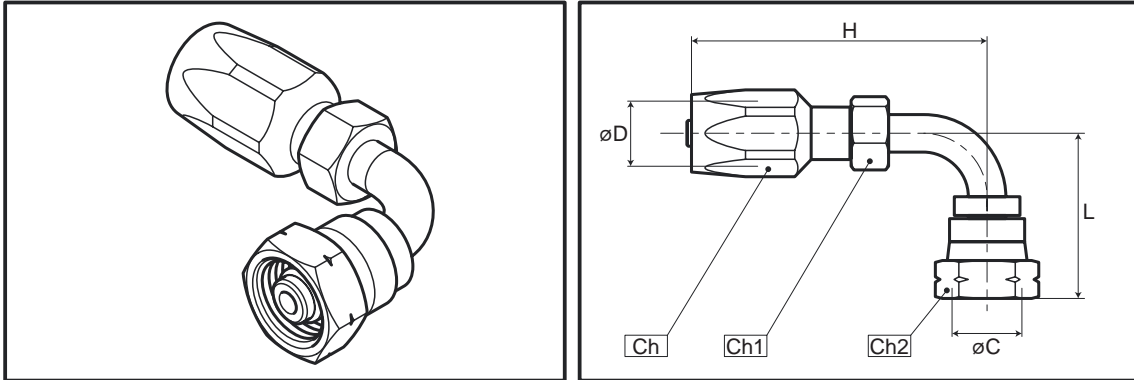
### 3.10 Re-usable hose end fittings elbow



øD	øC	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
5/32"	6mm	F115310	09516	14	12	49	28	37	steel
5/32"	6mm	F604597	-	14	12	49	28	37	Inox
1/4"	6mm	F212070	-	17	14	55	34	33	steel

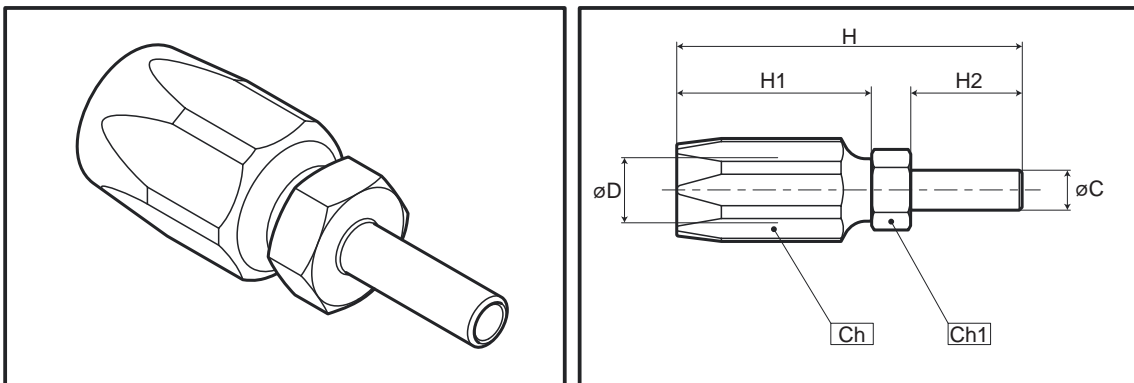
Release date: December 2021

3.12 Re-usable hose end fittings elbow with nut



$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	Ch2	H	L	Material
1/4"	8mm	F121894	06317	17	14	19	64	34	steel
1/4"	10mm	F178066	06517	17	14	22	56	40	steel

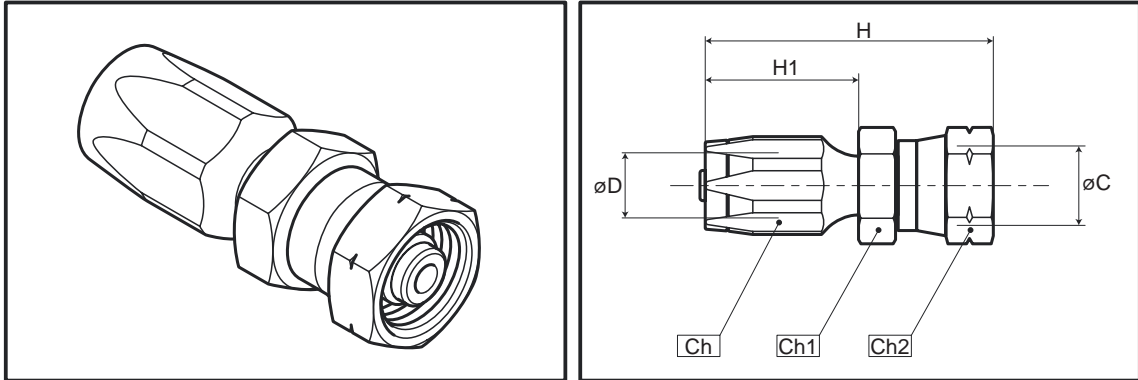
3.11 Re-usable hose end fittings straight



$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	H2	Material
5/32"	5mm	F177970	06216	14	10	59	28	25	steel
5/32"	6mm	F113973	05816	14	10	60	28	25	steel
5/32"	6mm	F604596	-	14	10	60	28	25	Inox
5/32"	8mm	F178072	06316	14	10	56	28	22	steel
1/4"	5mm	F178065	05717	17	14	62	34	20	steel
1/4"	5mm	F113703	11317	17	14	62	34	20	inox
1/4"	6mm	F177968	05817	17	12	62	34	21	steel
1/4"	6mm	F113704	11417	17	14	62	34	21	inox
1/4"	8mm	F177969	05917	17	12	63	34	22	steel
1/4"	8mm	F113705	11517	17	14	63	34	22	inox
1/4"	10mm	F177973	06017	17	12	63	34	22	steel
1/4"	10mm	F113706	11617	17	14	63	34	22	inox
1/4"	12mm	F121896	06117	17	14	65	34	24	steel
1/4"	12mm	F113707	11717	17	14	65	34	25	inox

Release date: December 2021

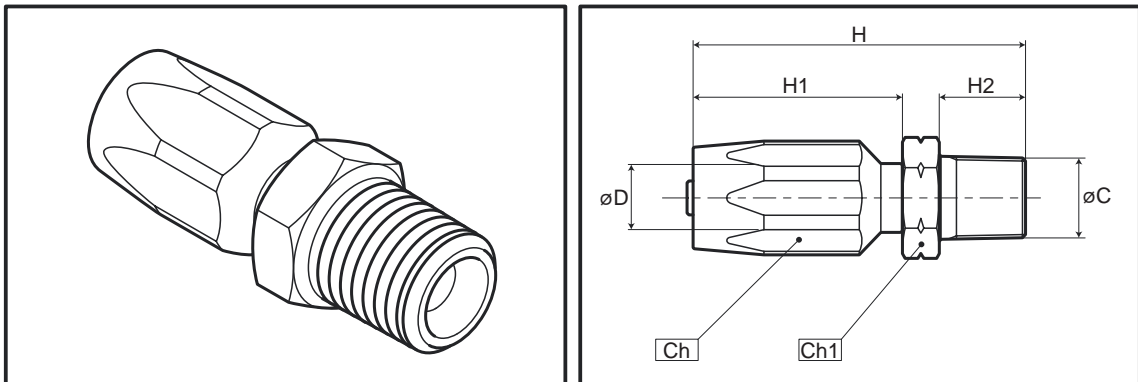
### 3.13 Re-usable hose end fittings straight with nut



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>Ch2</i>	<i>H</i>	<i>H1</i>	<i>Material</i>
1/4"	8mm	F178064	06217	17	19	19	52	29	steel
1/4"	10mm	F177972	06417	17	19	19	53	29	steel
3/8"	10mm	F210382	-	22	17	19	66	40	steel
3/8"	10mm	F605807 <sup>1)</sup>	-	-	22	22	65	-	steel

<sup>1)</sup> Only for 3/8 thermoplastic F605801.

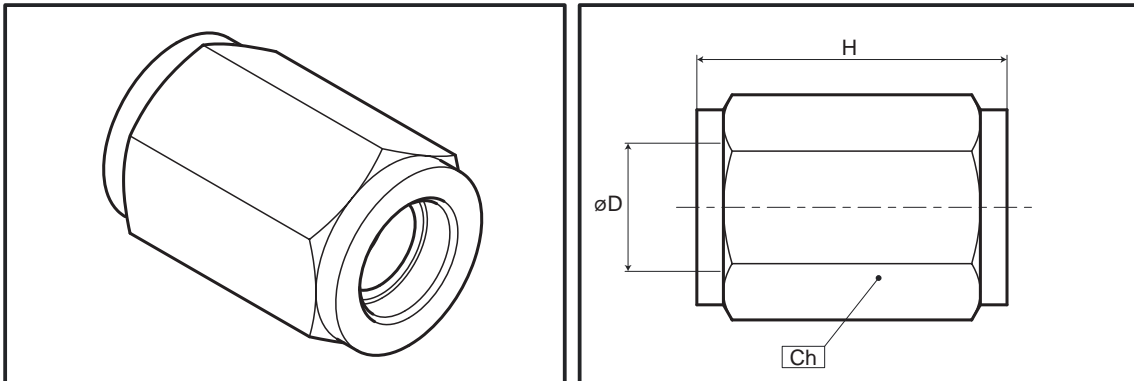
### 3.14 Re-usable hose end fittings male thread BSP



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>H2</i>	<i>Material</i>
1/4"	1/8"NPT	F122888	06617	17	14	46	30	9.5	steel
1/4"	1/8"NPT	F113708	11817	17	14	46	30	9.5	inox
1/4"	1/4"NPT	F122940	06717	17	17	54	34	13	steel
1/4"	1/4"NPT	F113709	11917	17	17	54	34	13	inox

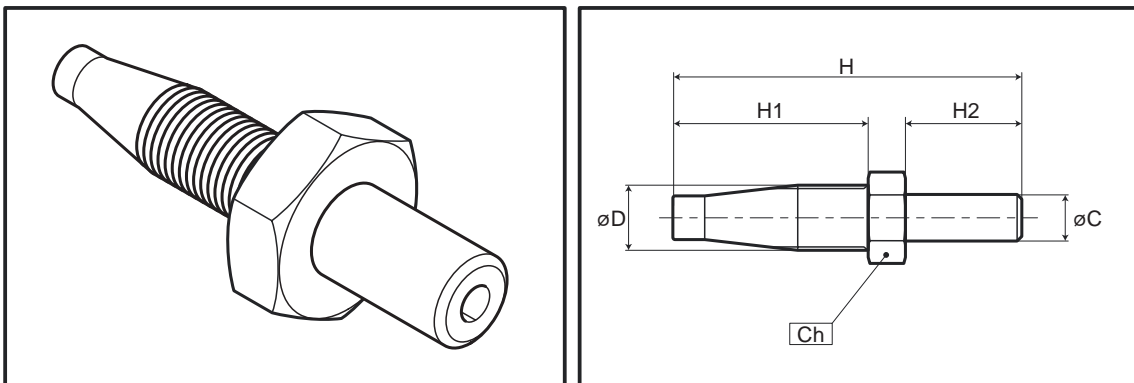
Release date: December 2021

3.15 Re-usable socket for canvas hose



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>H2</i>	<i>Material</i>
3/16		F104999	44901	11		17.5			steel

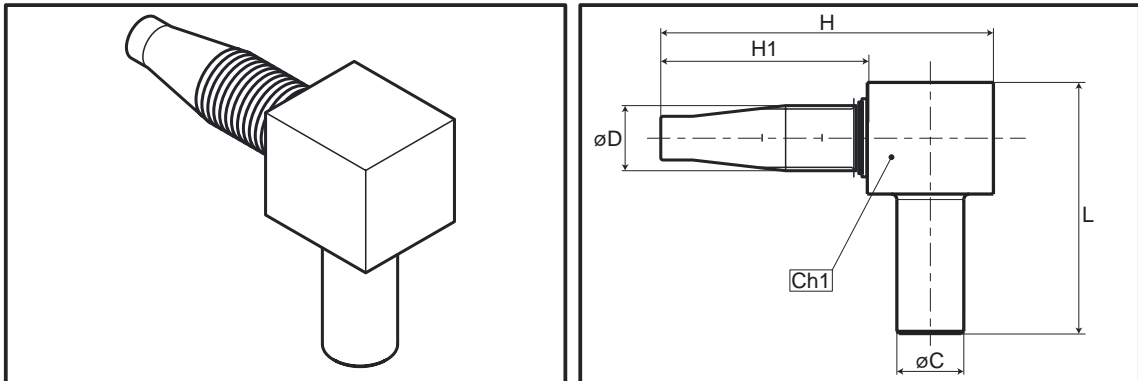
3.16 Re-usable hose end fittings straight for canvas hose



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>H2</i>	<i>Material</i>
3/16	5mm	F110001	44701	11		32	16.5	11	steel
3/16	6mm	F116880	16711	11		32	16.5	11	steel

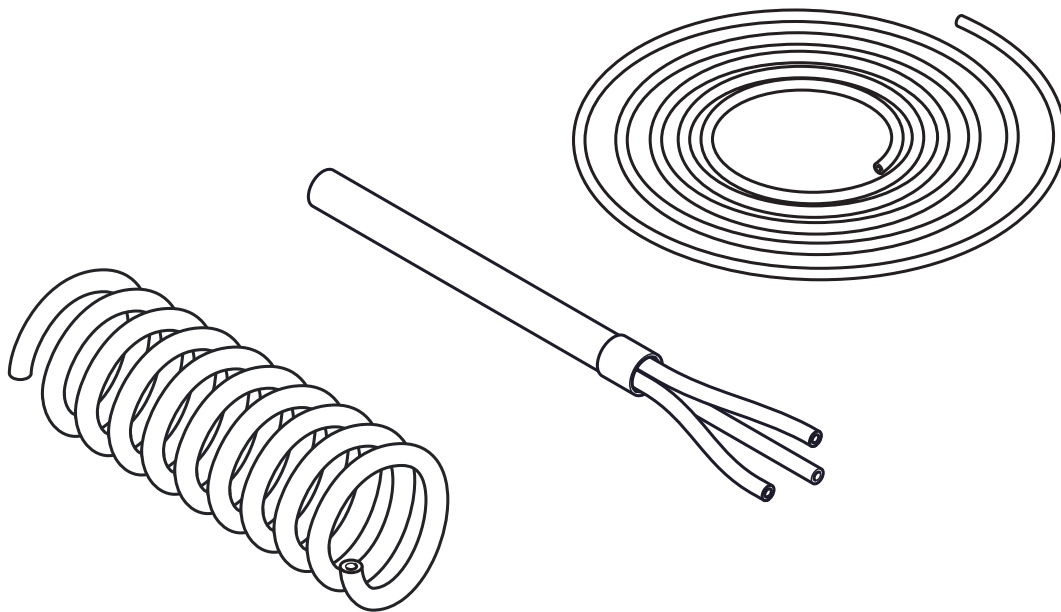
Release date: December 2021

**3.17 Re-usable hose end fittings elbow for canvas hose**



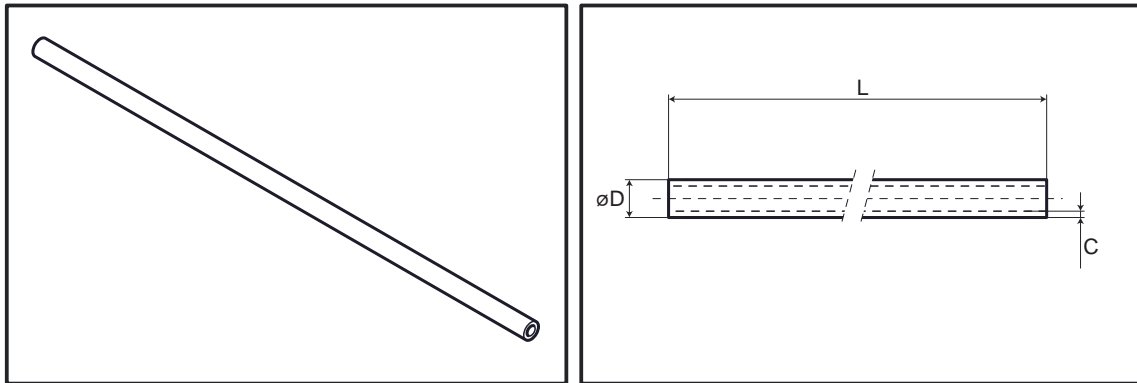
$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
3/16	5mm	F110002	44801	10		21.5	16	20	steel
3/16	6mm	F116881	16811	10		21.5	16	20	steel

## 4. HOSES, PIPES & TUBES



Release date: December 2021

4.1 PA tubes single (1/1)



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>L</i>	<i>Material</i>
3/16"	1.2mm	F118246 <sup>1)</sup>	02201	per 1 meter <sup>3)</sup>	PA 12 H/W
3/16"	1.2mm	F103434 <sup>1)</sup>	02211	3 meter	PA 12 H/W
3/16"	1.2mm	F116105 <sup>1)</sup>	02207	5 meter	PA 12 H/W
3/16"	1.2mm	F120726 <sup>1)</sup>	-	7 meter	PA 12 H/W
6mm	1.5mm	F110661 <sup>1)</sup>	77301	per 1 meter <sup>3)</sup>	PA 12 H/W
6mm	1.5mm	F112624 <sup>1)</sup>	72201	per 3 meter	PA 12 H/W
6mm	1.5mm	F112623 <sup>1)</sup>	72217	5 meter	PA 12 H/W
6mm	1.5mm	F606767		10 meter	PA 12 H/W
6mm	1.5mm	F606574		15 meter	PA 12 H/W
6mm	1.5mm	F117856		20 meter	PA 12 H/W
6mm	1.5mm	F120373	30102	per 1 meter	PA 12 H
5/16" (black)	1.59mm	F116141	-	6 meter	PA 12 H
5/16" (black)	1.59mm	F115951	-	12 meter	PA 12 H
5/16" (black)	1.59mm	F115990	-	15 meter	PA 12 H
5/16" (red)	1.5mm	F104597 <sup>2)</sup>	-	4 meter	PA 12 W
5/16" (red)	1.5mm	F115950 <sup>2)</sup>	-	6 meter	PA 12 W
5/16" (yellow)	1.5mm	F114821 <sup>2)</sup>	-	4 meter	PA 12 W
5/16" (yellow)	1.5mm	F175265 <sup>2)</sup>	-	6 meter	PA 12 W

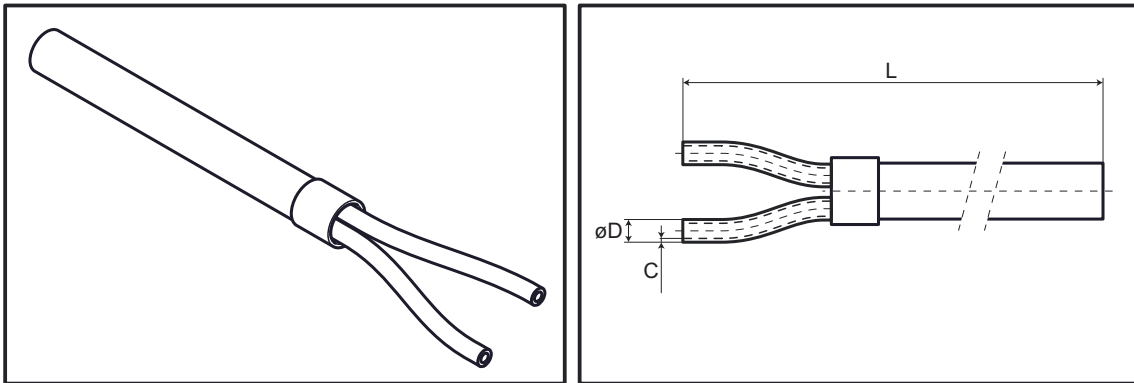
<sup>1)</sup> Pre-filled with grease.

<sup>2)</sup> Air tubes, these tubes can NOT been used as grease tubes!

<sup>3)</sup> These tubes are available in rolls of 25 metres.



4.2 PA tubes double (2/1)

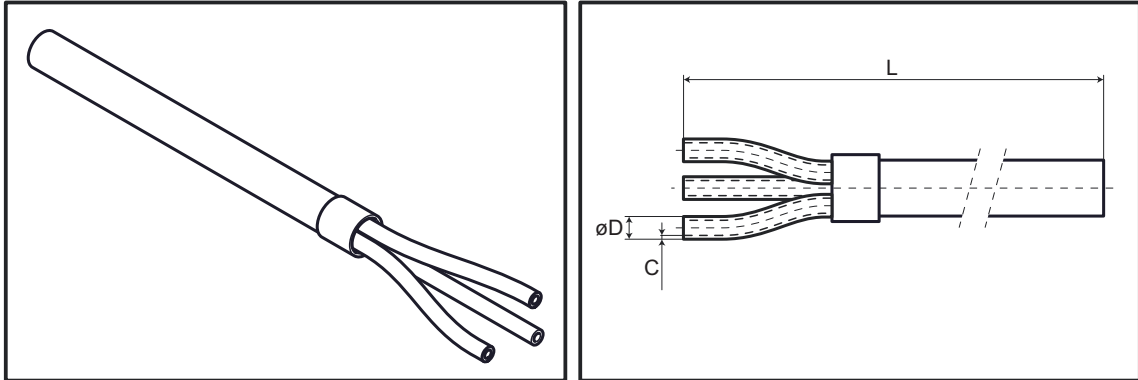


$\varnothing D$	C	p/n new	p/n old	L	Material
3/16"	1.2mm	F118247 <sup>1)</sup>	02301	per 1 meter <sup>2)</sup>	PA 12 H/W
3/16"	1.2mm	F103432 <sup>1)</sup>	02311	3 meter	PA 12 H/W
3/16"	1.2mm	F112980 <sup>1)</sup>	02307	5 meter	PA 12 H/W
3/16"	1.2mm	F603786 <sup>1)</sup>	-	7 meter	PA 12 H/W
6mm	1.5mm	F110662 <sup>1)</sup>	77401	per 1 meter <sup>2)</sup>	PA 12 H/W
6mm	1.5mm	F112584 <sup>1)</sup>	72301	3 meter	PA 12 H/W
6mm	1.5mm	F115806 <sup>1)</sup>	72317	5 meter	PA 12 H/W
6mm	1.5mm	F121298 <sup>1)</sup>	-	7 meter	PA 12 H/W
6mm	1.5mm	F128764 <sup>1)</sup>	-	10 meter	PA 12 H/W
6mm	1.5mm	F124272 <sup>1)</sup>	-	15 meter	PA 12 H/W
6mm	1.5mm	F126589 <sup>1)</sup>	-	20 meter	PA 12 H/W

<sup>1)</sup> Pre-filled with grease.

<sup>2)</sup> These tubes are available in rolls of 25 metres.

### 4.3 PA tubes triple (3/1)

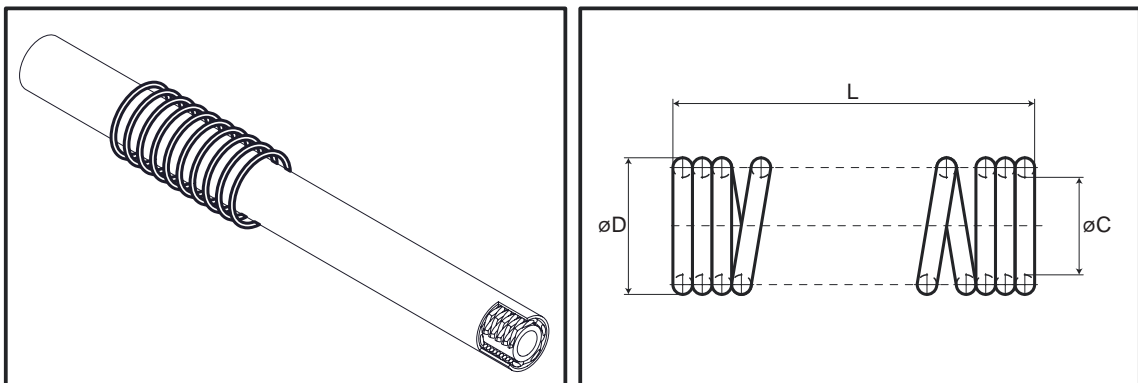


$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>L</i>	<i>Material</i>
3/16"	1.2mm	F118248 <sup>1)</sup>	02401	per 1 meter <sup>2)</sup>	PA 12 H/W
3/16"	1.2mm	F103430 <sup>1)</sup>	02411	3 meter	PA 12 H/W
3/16"	1.2mm	F114298 <sup>1)</sup>	02407	5 meter	PA 12 H/W
6mm	1.5mm	F110663 <sup>1)</sup>	77501	per 1 meter <sup>2)</sup>	PA 12 H/W
6mm	1.5mm	F112587 <sup>1)</sup>	72401	3 meter	PA 12 H/W
6mm	1.5mm	F174093 <sup>1)</sup>	72417	5 meter	PA 12 H/W
6mm	1.5mm	F605576 <sup>1)</sup>	-	20 meter	PA 12 H/W

<sup>1)</sup> Pre-filled with grease.

<sup>2)</sup> These tubes are available in rolls of 25 metres.

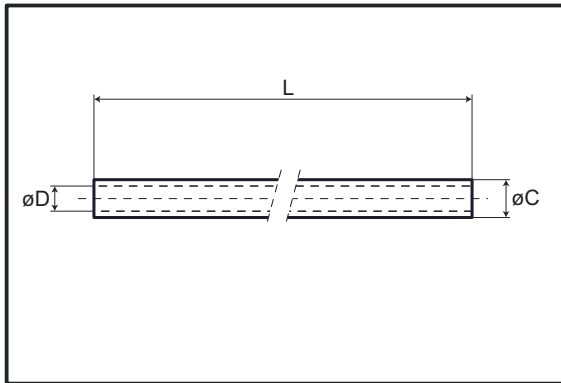
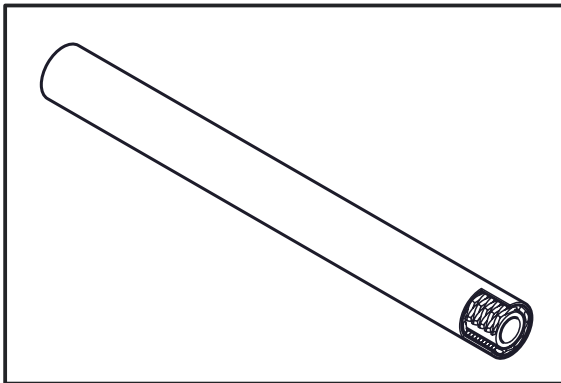
### 4.4 Protection spirals



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>L</i>	<i>Material</i>
11mm	9mm	F128851	-	60 cm	inox
23mm	19mm	F173798	36902	per 1 meter	steel
23mm	19mm	F175878	-	2.35 meter	steel

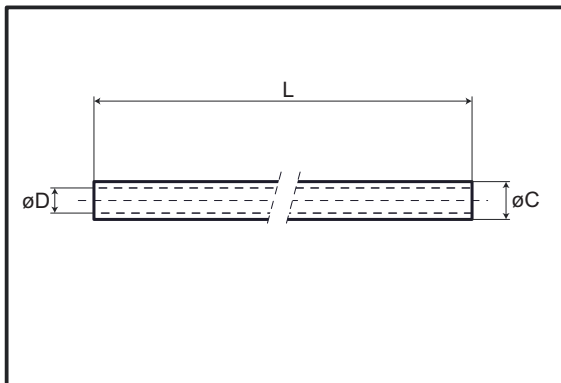
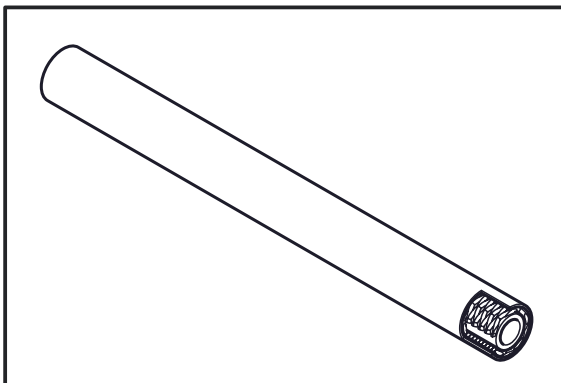
Release date: December 2021

#### 4.5 Canvas hose



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>L</i>	<i>Max. working pressure</i>	<i>Material</i>
3/16"	9.5mm	F104613	30502	per 1 meter	34.5 bar	synthetic rubber

#### 4.6 High pressure hoses 5/32"



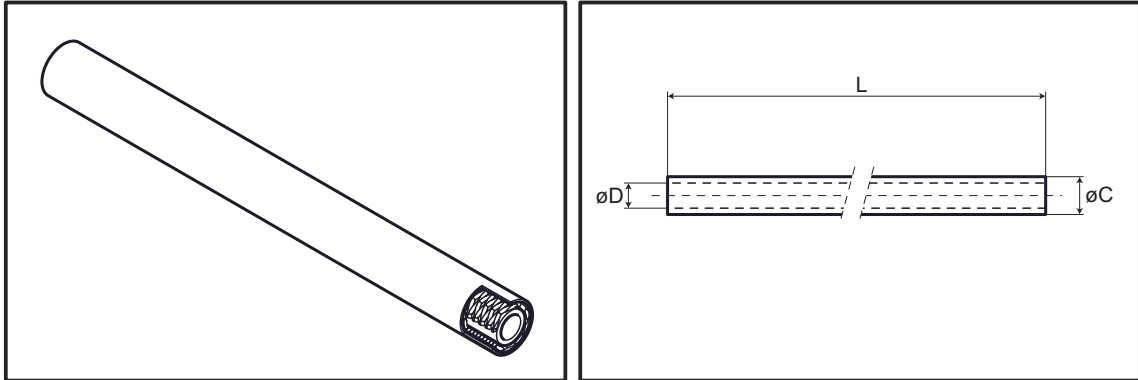
$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>L</i>	<i>Max. working pressure</i>	<i>Material</i>
5/32"	8.6mm	F123414 <sup>1)</sup>	-	per 1 meter <sup>2)</sup>	350 bar	thermoplastic
5/32"	8.6mm	F123357	-	10 meter	350 bar	thermoplastic
5/32"	8.6mm	F125612	-	15 meter	350 bar	thermoplastic
5/32"	8.6mm	F127368 <sup>1)</sup>	-	20 meter	350 bar	thermoplastic

<sup>1)</sup> Pre-filled with grease.

<sup>2)</sup> These tubes are available in rolls of 25 metres.

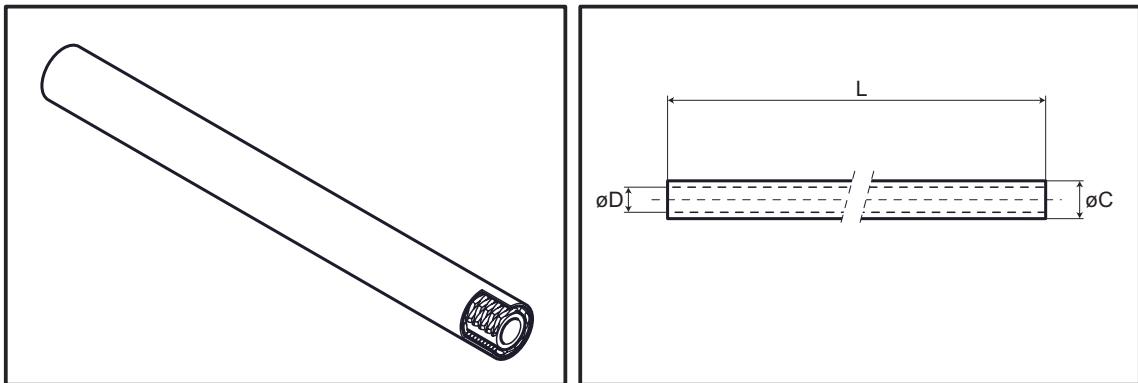
Release date: December 2021

#### 4.7 High pressure hoses 1/4"



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>L</i>	<i>Max. working pressure</i>	<i>Material</i>
1/4"	11.9mm	F128330	-	per 1 meter	300 bar	thermoplastic
1/4"	12.2mm	F113422	00817	per 1 meter	225 bar	synthetic rubber
1/4"	12.2mm	F126126	-	5 meter	225 bar	synthetic rubber
1/4"	12.2mm	F200189	-	10 meter	225 bar	synthetic rubber
1/4"	12.2mm	F112552	-	15 meter	225 bar	synthetic rubber
1/4"	12.2mm	F122548	-	20 meter	225 bar	synthetic rubber
1/4"	12.2mm	F123331	-	25 meter	225 bar	synthetic rubber

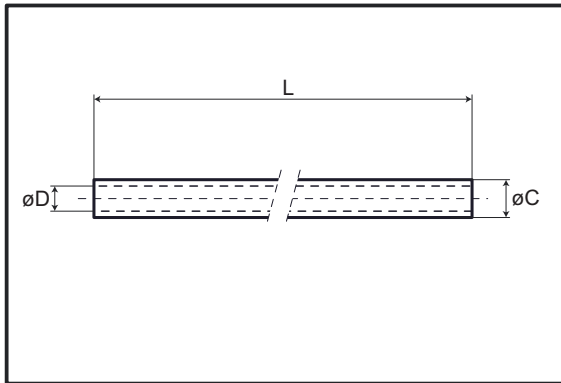
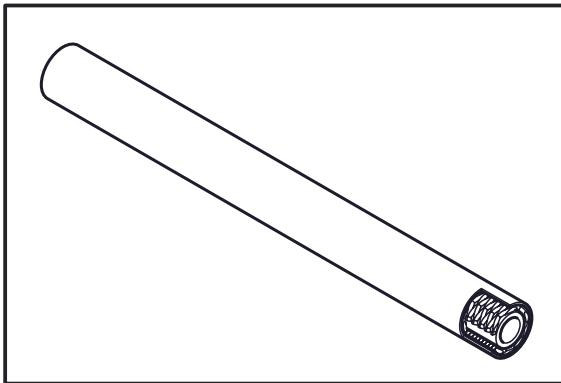
#### 4.8 High pressure hoses 3/8"



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>L</i>	<i>Max. working pressure</i>	<i>Material</i>
3/8"	17.1mm	F121011	35702	per 1 meter	180 bar	synthetic rubber
3/8"	17.1mm	F123720	-	10 meter	180 bar	synthetic rubber
3/8"	17.1mm	F126590	-	15 meter	180 bar	synthetic rubber
3/8"	17.1mm	F127537	-	20 meter	180 bar	synthetic rubber
3/8"	17.1mm	F122500	-	25 meter	180 bar	synthetic rubber
3/8"	17.1mm	F127251	-	30 meter	180 bar	synthetic rubber
3/8"	16.0mm	F605801	-	per 1 meter	225 bar	thermoplastic

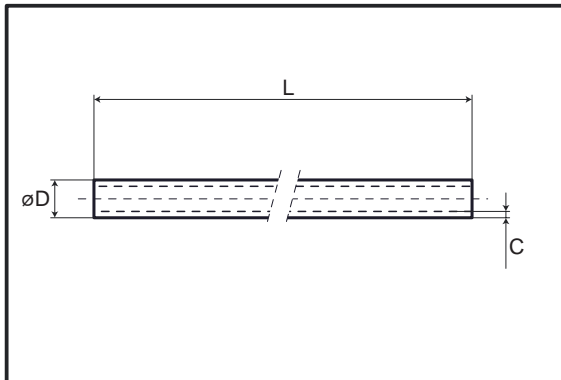
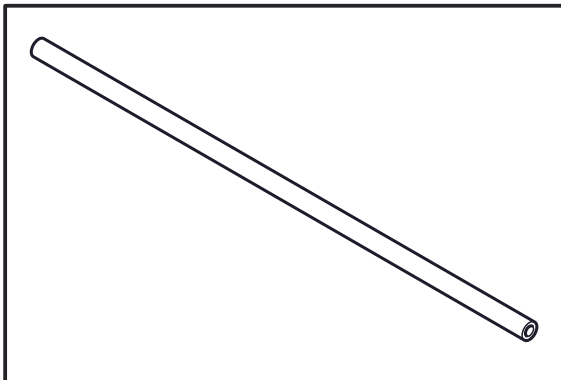
Release date: December 2021

4.9 High pressure hoses 1/2"



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>L</i>	<i>Max. working pressure</i>	<i>Material</i>
1/2'	21.8mm	F117821	14812	per 1 meter	275 bar	synthetic rubber
1/2"	19.2mm	F741129		per 1 meter	190	Thermoplastic

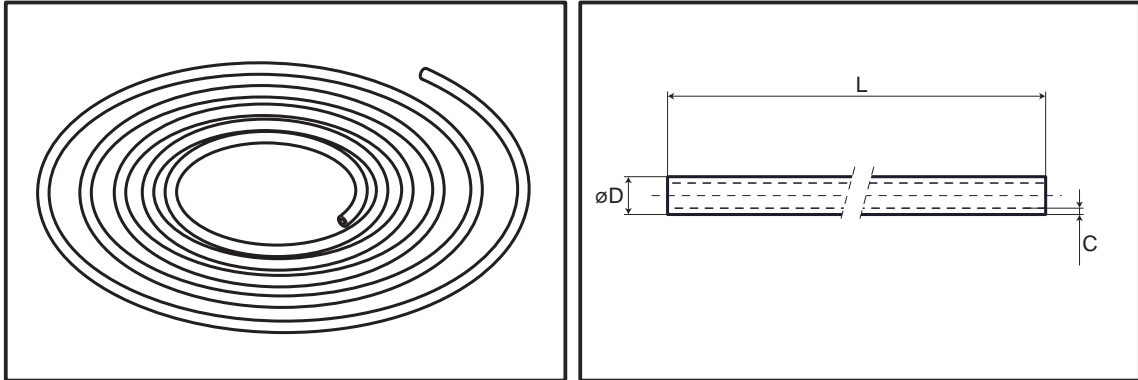
4.10 Pipes



$\varnothing D$	<i>C</i>	<i>p/n new</i>	<i>p/n old</i>	<i>L</i>	<i>Material</i>
3/16"	0.89mm	F123416	32802	per 2 meter	inox
1/8	0.49mm	F104627	33002	Per 2 meter	inox
6mm	1mm	F120758	31902	per 2 meter	steel
6mm	2mm	F606538	-	per 2 meter	steel
6mm	1mm	F115312	33102	per 2 meter	inox
8mm	1mm	F118184	32002	per 2 meter	steel
8mm	1mm	F125327	33302	per 2 meter	inox
10mm	1mm	F178283	32102	per 2 meter	steel
10mm	1mm	F127380	33402	per 2 meter	inox
12mm	1mm	F173348	32202	per 2 meter	steel
12mm	1mm	F605513	33502	Per 2 meter	Inox
15mm	1.5mm	F123228	32302	per 2 meter	steel

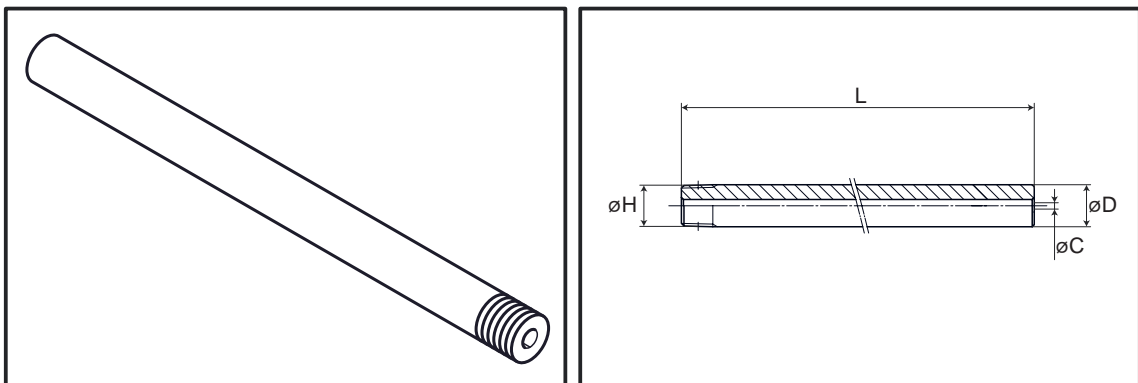
Release date: December 2021

**4.11 Cunifer tubes**



$\varnothing D$	$C$	<i>p/n new</i>	<i>p/n old</i>	$L$	<i>Material</i>
3/16"	0.7mm	F104623	31502	per 7.5 meter	copper-nickel
6mm	0.71mm	F113447	34322	per 7.5 meter	copper-nickel
5/16"	0.7mm	F104624	31602	per 7.5 meter	copper-nickel

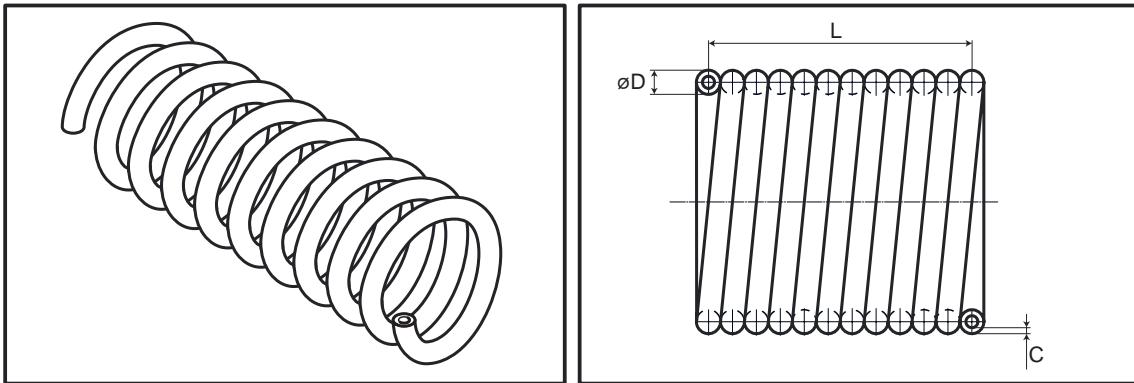
**4.12 Thick-walled pipes**



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	$\varnothing H$	$L$	<i>Material</i>
10mm	3mm	F601642	-	R1/8"	300mm	steel
10mm	3mm	F106745	24522	R1/8"	650mm	steel
10mm	3mm	F106743	24622	R1/8"	800mm	steel
10mm	3mm	F108293	10312	R1/8"	1750mm	steel
10mm	3mm	F109356	25422	R1/8"	1900mm	steel
10mm	3mm	F108883	65222	R1/8"	2400mm	steel

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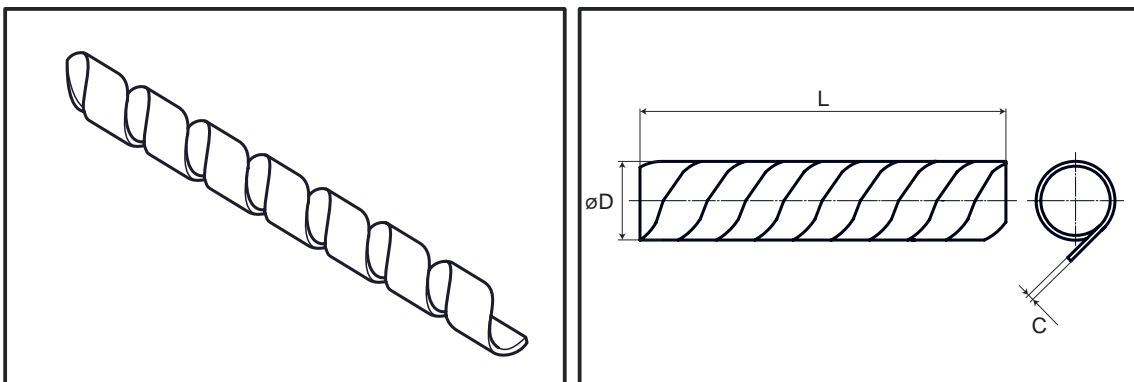
### 4.13 Spiral tubes



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>L</i>	<i>Material</i>
3/16"	1.2mm	F104633	02501	per 1 meter	PA 12 H/W
5/16"	1.59mm	F177552	02801	per 1 meter	PA 12 H

<sup>1)</sup> 4 spirals turns equal 1m Est. .

### 4.14 Spiral protective wrap

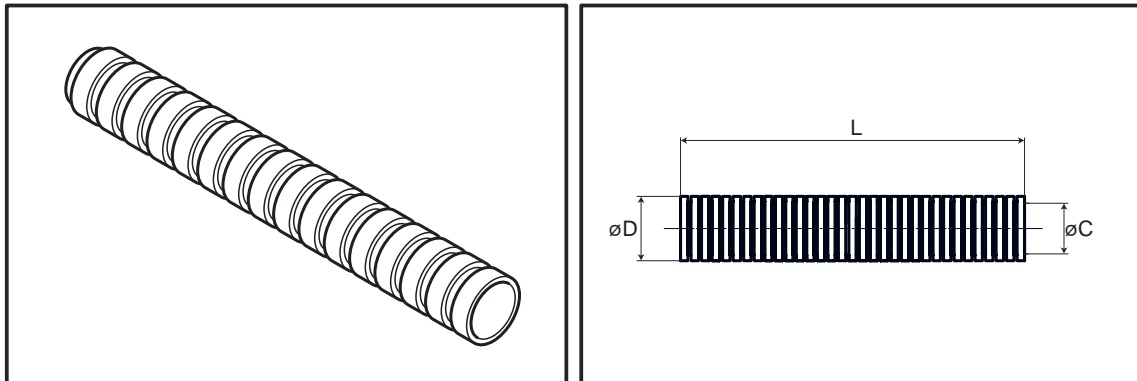


$\varnothing D$	<i>C</i>	<i>Capacity</i>	<i>p/n new</i>	<i>p/n old</i>	<i>L</i>	<i>Material</i>
6mm	1mm	5-20mm	F104550	01908	per 1 meter <sup>1)</sup>	Polyethylene
12mm	1.5mm	10-40mm	F117540	02008	per 1 meter <sup>1)</sup>	Polyethylene
22mm	1.5mm	25-100mm	F117437	-	per 1 meter <sup>1)</sup>	Polyethylene

<sup>1)</sup> These spiral protective wraps are available in rolls of 25 metres.

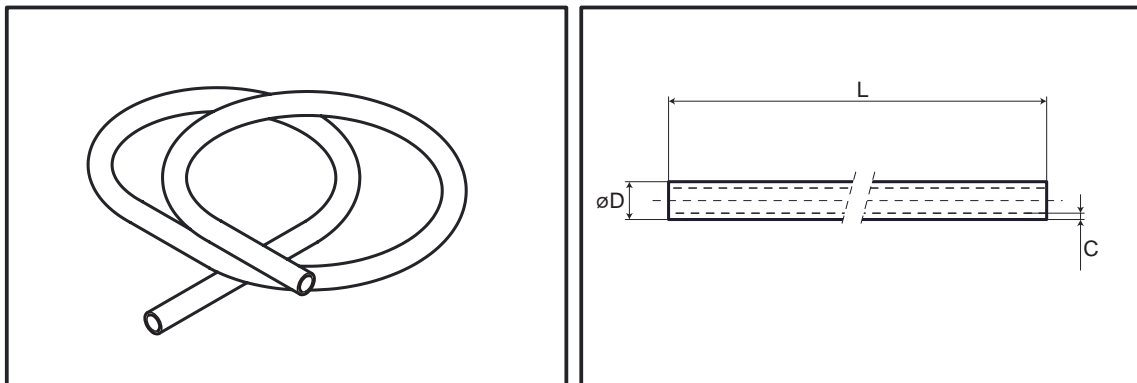
Release date: December 2021

#### 4.15 Corrugated tubes



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>L</i>	<i>Material</i>
12mm	8.5mm	F113069	17012	per 1 meter	PA 6
13.5mm	10mm	F112685	14008	per 1 meter	PA 6
15.8mm	12mm	F114745	-	per 1 meter	PA 6
19mm	14mm	F115078	02212	per 1 meter	PA 6
21mm	17mm	F115079	02312	per 1 meter	PA 6
25.5mm	22mm	F115080	11912	per 1 meter	PA 6
31.2mm	25.8mm	F116441	-	per 1 meter	PA 6
34.5mm	29mm	F116825	-	per 1 meter	PA 6
42.4mm	36mm	F116442	-	per 1 meter	PA 6

#### 4.16 Protection sleeves

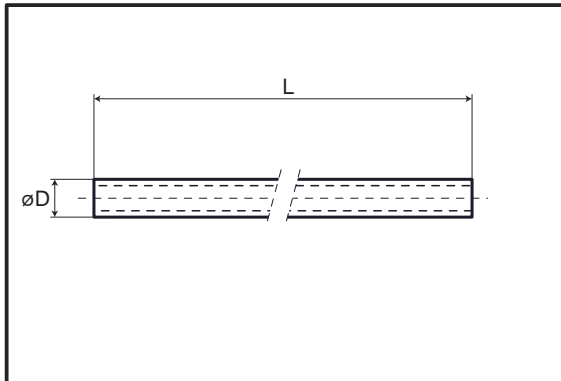
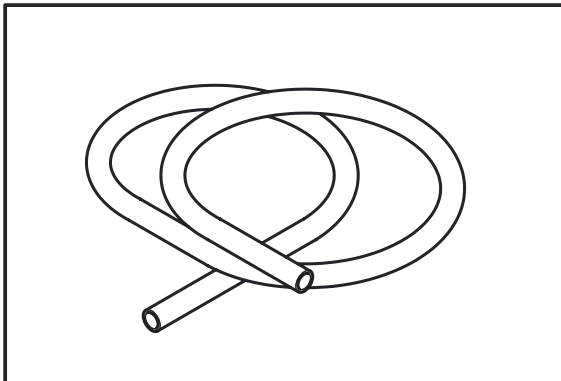


$\varnothing D$	<i>C</i>	<i>p/n new</i>	<i>p/n old</i>	<i>L</i>	<i>Material</i>
7mm	0.5mm	F113446	36608	per 1 meter	pvc
6mm	0.5mm	F115759	23422	per 1 meter	pvc

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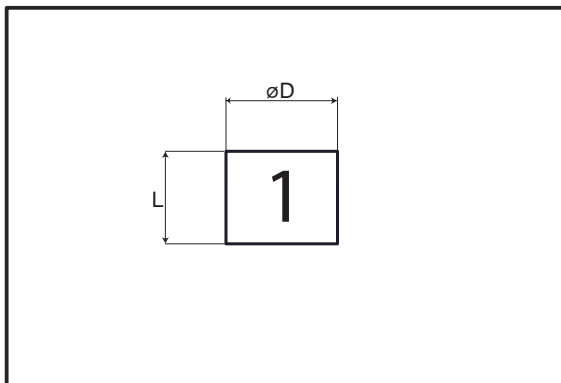
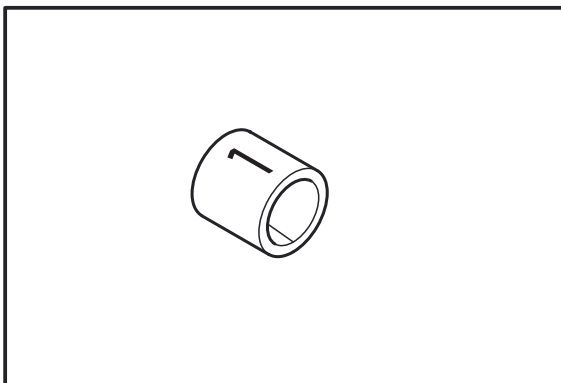


#### 4.18 High temperature sheath



<i>p/n new</i>	<i>p/n old</i>	<i>Description</i>	<i>øD</i>	<i>L</i>
F121664	-	High temperature sheath	6.4mm	per 1 meter
F124948	39808	High temperature sheath	12.7mm	per 1 meter

#### 4.17 Tube markers

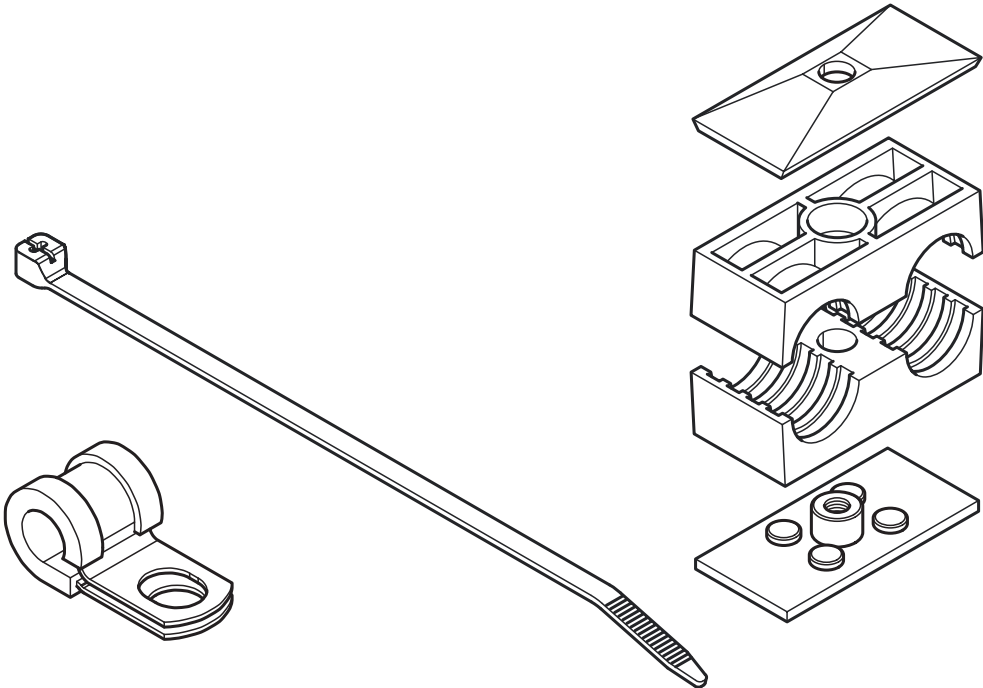


<i>p/n new</i>	<i>p/n old</i>	<i>Description</i>	<i>øD</i>	<i>L</i>
F104066	03012	Tube marker No. 1	ø4.5	5mm
F104067	03112	Tube marker No. 2	ø4.5	5mm
F104068	03212	Tube marker No. 3	ø4.5	5mm
F104069	03312	Tube marker No. 4	ø4.5	5mm
F104070	03412	Tube marker No. 5	ø4.5	5mm
F104071	03512	Tube marker No. 6	ø4.5	5mm
F104072	03612	Tube marker No. 7	ø4.5	5mm
F104073	03712	Tube marker No. 8	ø4.5	5mm
F111317	03812	Tube marker No. 9	ø4.5	5mm
F111316	03912	Tube marker No. 0	ø4.5	5mm

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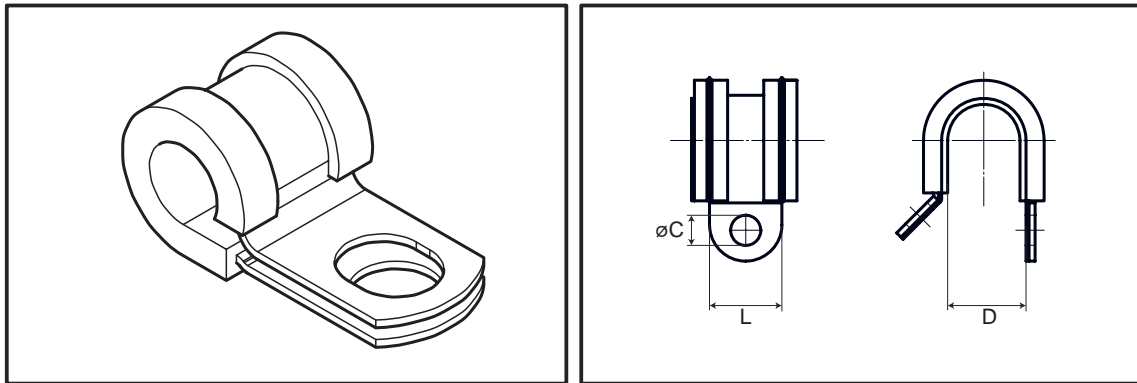


# 5. FASTENERS



Release date: December 2021

### 5.1 Clamps lined

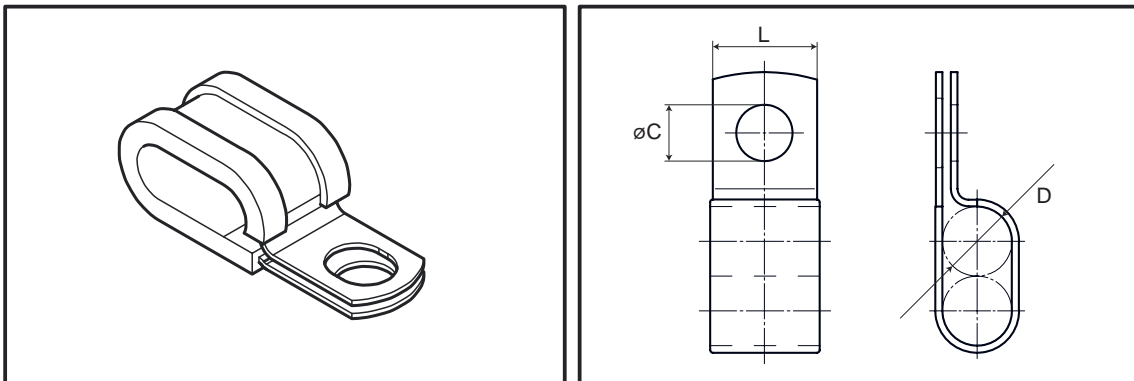


$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>L</i>	<i>Material</i>
4mm	5mm	F104575	00908	12	steel
6mm	5mm	F104573	01008	12	steel
6mm	5mm	F122062	81102	12	inox
8mm	5mm	F104637	01108	12	steel
8mm	5mm	F120657	81202	12	inox
10mm	5mm	F104571	01208	12	steel
10mm	5mm	F122796	81302	12	inox
12mm	5mm	F104574	01308	12	steel
12mm	5mm	F200126	38222	12	inox
13mm	5mm	F171184	-	12	inox
14mm	5mm	F113425	00112	12	steel
16mm	5mm	F118878	00212	12	steel
20mm	5mm	F104572	01408	12	steel
6mm	6mm	F207612	-	12	steel
8mm	6mm	F111400	17833	12	steel
8mm	6mm	F642793	-	12	inox
10mm	6mm	F117114	14208	12	steel
13mm	6mm	F206150	-	12	steel
13mm	6mm	F121183	-	12	inox
18mm	6mm	F104576	00808	15	steel
22mm	6mm	F113438	22909	15	steel
25mm	6mm	F127882	14308	15	steel
8mm	8mm	F113439	34908	19	steel
16mm	8mm	F113440	08512	19	steel
18mm	8mm	F117153	23009	15	steel
20mm	8mm	F176235	-	20	steel
20mm	8mm	F202094	-	20	inox
25mm	8mm	F118463	-	20	inox
28mm	8mm	F115077	18112	19	steel
35mm	8mm	F109737	03508	19	steel
6mm	10mm	F170756	-	16	steel
8mm	10mm	F170579	39908	16	steel

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$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>L</i>	<i>Material</i>
8mm	10mm	F202038	-	16	inox
9.5mm	10mm	F191591	-	19.05	steel
12mm	10mm	F171197	-	20	steel
12.7mm	10mm	F191592	-	19.05	steel
14mm	10mm	F116460	39008	16	steel
14mm	10mm	F171185	-	16	inox
19mm	10mm	F193825	-	19.05	steel
25mm	10mm	F685342	-	19.05	inox
25.4mm	10mm	F191584	-	19.05	steel
27mm	10mm	F191585	-	19.05	steel
28mm	10mm	F171192	-	25	steel
12.7mm	12mm	F211204	-	19.05	steel

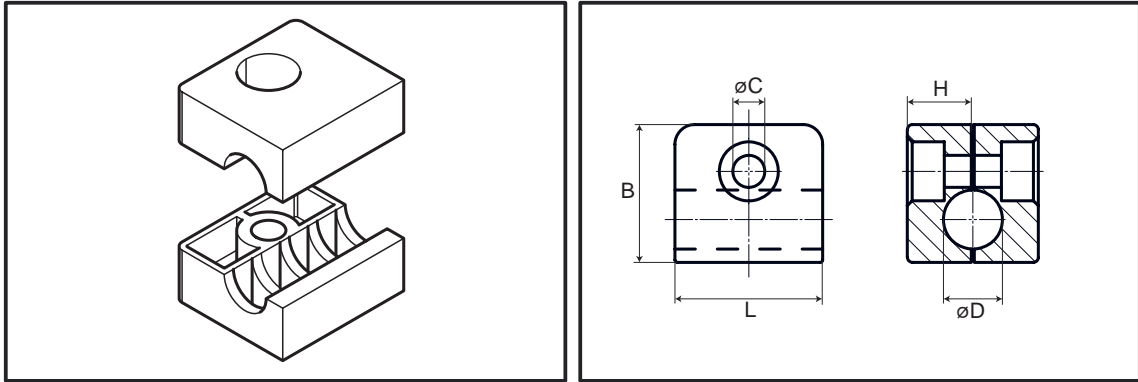
## 5.2 Clamps lined double



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>L</i>	<i>Material</i>
12mm	8mm	F128173			inox
12.7mm	10mm	F205295	-	19.05	steel
12.7	10mm	F682625	-	19.05	inox
18mm	10mm	F125824	-	20	inox
22.2mm	8mm	F203984	-	15	inox

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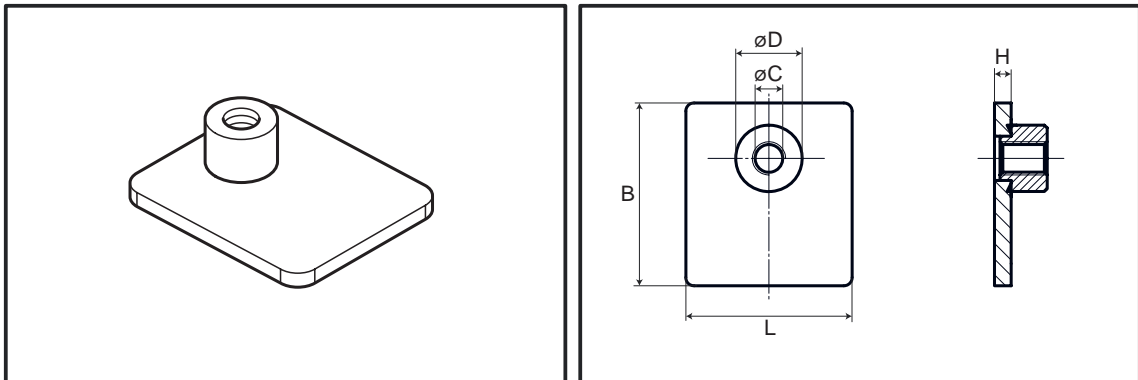
### 5.3 Single tube clamps, one bolt



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>B</i>	<i>H</i>	<i>L</i>	<i>Material</i>
6mm	6.5mm	F179120 <sup>1)</sup>	-	28	13	30	nylon 6
8mm	6.5mm	F179121 <sup>1)</sup>	-	28	13	30	nylon 6
10mm	6.5mm	F179122 <sup>1)</sup>	-	28	13	30	nylon 6
12mm	6.5mm	F179123 <sup>1)</sup>	-	28	13	30	nylon 6

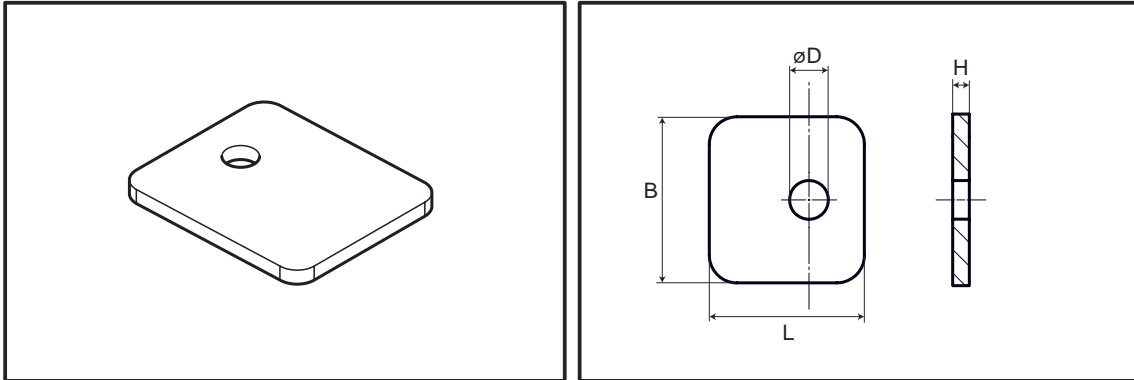
<sup>1)</sup> Consists out of two parts.

### 5.4 Welding plates, single tube clamps one bolt



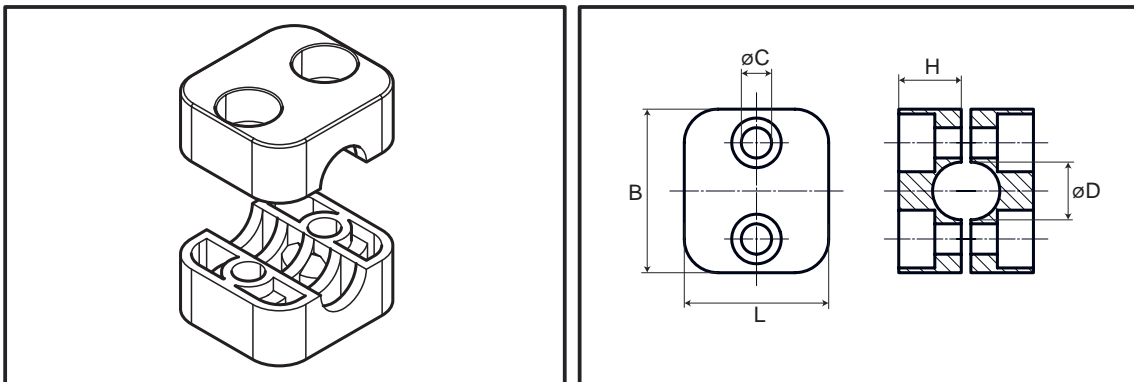
$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>B</i>	<i>H</i>	<i>L</i>	<i>Material</i>
12mm	M6	F179124	-	33	3	30	steel

5.5 Cover plates, single tube clamps one bolt



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>B</i>	<i>H</i>	<i>L</i>	<i>Material</i>
7mm	-	F179125	-	30	3	28	steel

5.6 Single tube clamps, two bolts

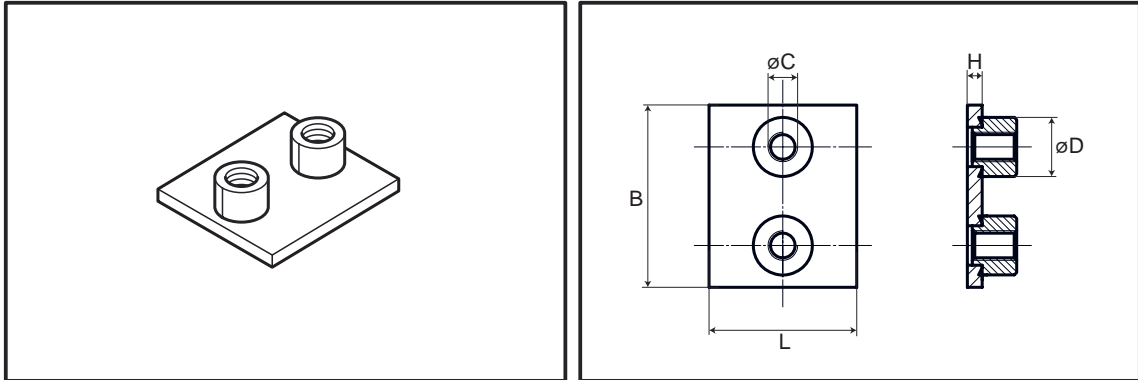


$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>B</i>	<i>H</i>	<i>L</i>	<i>Material</i>
6mm	6.3mm	F174110 <sup>1)</sup>	81502	34	13	30	nylon 6
8mm	6.3mm	F110287 <sup>1)</sup>	81602	34	13	30	nylon 6
10mm	6.3mm	F110288 <sup>1)</sup>	81702	34	13	30	nylon 6
12mm	6.3mm	F110282 <sup>1)</sup>	81802	34	13	30	nylon 6
15mm	6.3mm	F110283 <sup>1)</sup>	81902	40	16.1	30	nylon 6
22mm	6.3mm	F122885 <sup>1)</sup>	83802	50	17	30	nylon 6
25mm	6.3mm	F127807 <sup>1)</sup>	15712	50	17.5	30	nylon 6

<sup>1)</sup> Consists out of two parts.

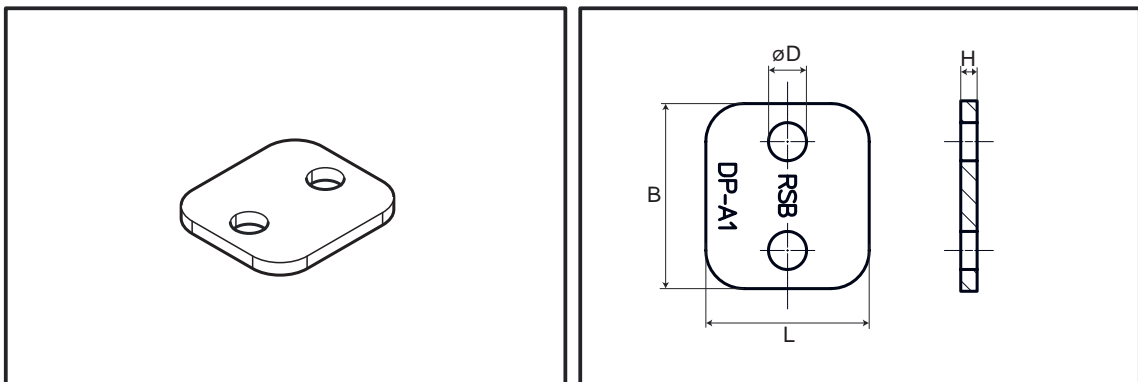
Release date: December 2021

### 5.7 Welding plates, single tube clamps two bolts



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>B</i>	<i>H</i>	<i>L</i>	<i>Material</i>
12mm	M6	F110289	82002	37	3	30	steel
12mm	M6	F110284	82102	42	3	30	steel
12mm	M6	F122884	83902	50	3	30	steel

### 5.8 Cover plates, single tube clamps two bolts

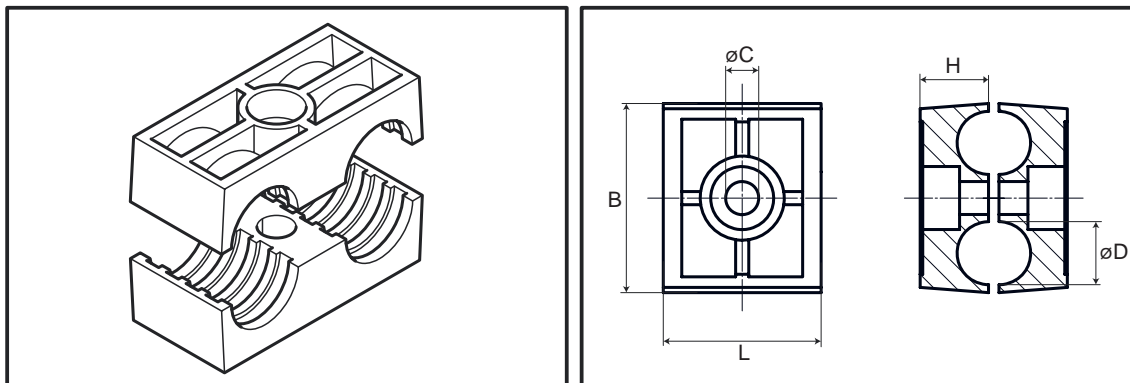


$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>B</i>	<i>H</i>	<i>L</i>	<i>Material</i>
7mm	-	F116549	16012	34	3	30	steel
7mm	-	F120728	21612	34	3	30	inox
7mm	-	F170286	-	40	3	30	steel
7mm	-	F122295	15912	48	3	30	steel

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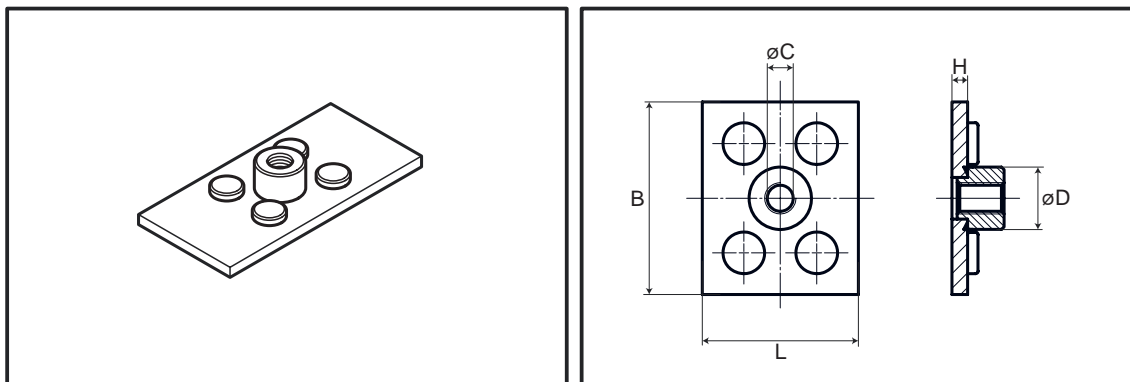
### 5.9 Double tube clamps



$\varnothing D$	$\varnothing C$	p/n new	p/n old	B	H	L	Material
6mm	6.3mm	F116473 <sup>1)</sup>	78401	36	13	30	nylon 6
8mm	6.3mm	F116624 <sup>1)</sup>	78501	36	13	30	nylon 6
10mm	6.3mm	F113533 <sup>1)</sup>	78601	36	13	30	nylon 6
12mm	6.3mm	F113534 <sup>1)</sup>	78701	36	13	30	nylon 6
15mm	9mm	F122886 <sup>1)</sup>	15212	53	13	30	nylon 6
16mm	9mm	F121140 <sup>1)</sup>	15312	53	13	30	nylon 6
22mm	9mm	F116866 <sup>1)</sup>	12912	66	18	30	nylon 6

<sup>1)</sup> Consists out of two parts.

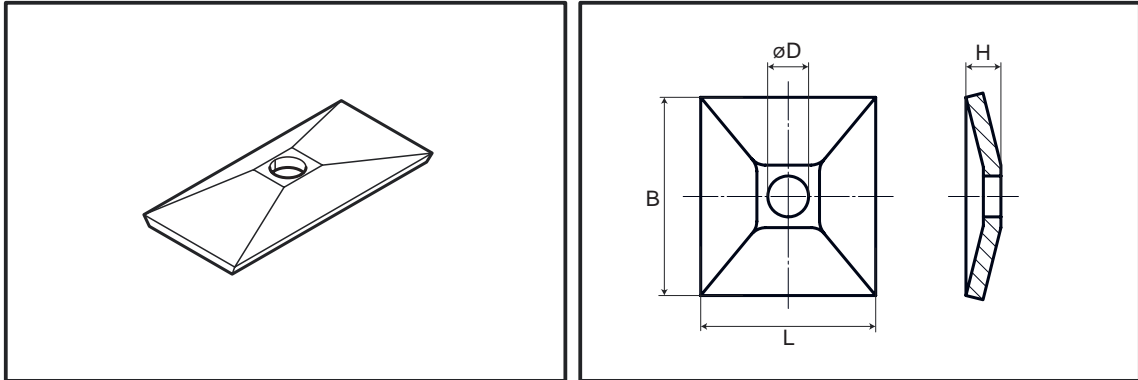
### 5.10 Welding plates, double tube clamps



$\varnothing D$	$\varnothing C$	p/n new	p/n old	B	H	L	Material
12mm	M6	F113451	78801	37	3	30	steel
14mm	M8	F122887	15412	55	5	30	steel
14mm	M8	F122294	13012	70	5	30	steel

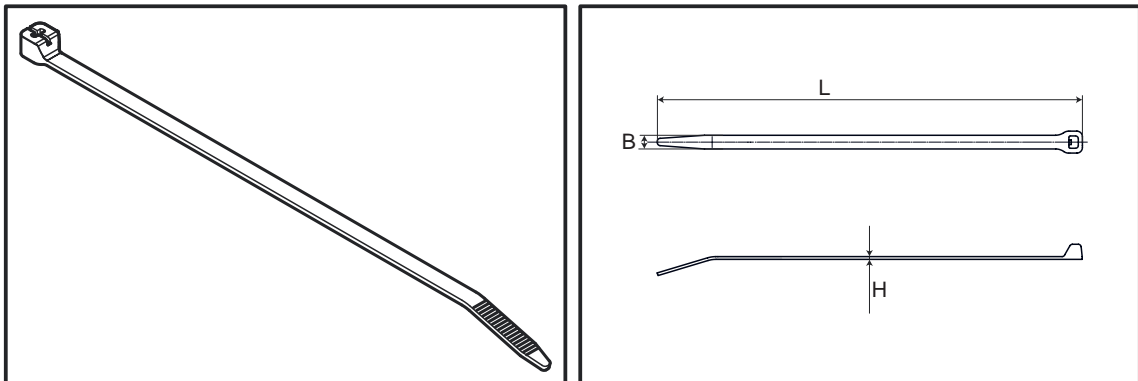
Release date: December 2021

### 5.11 Cover plates, double tube clamps



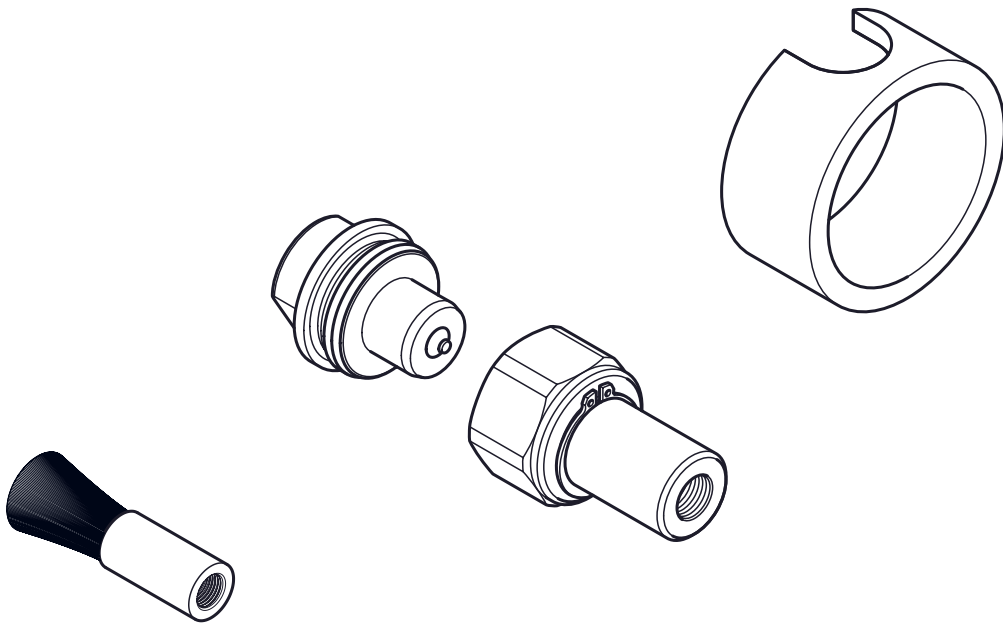
$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>B</i>	<i>H</i>	<i>L</i>	<i>Material</i>
7mm	-	F115932	13312	34	7	30	steel
7mm	-	F120648	21512	34	7	30	inox
9mm	-	F121139	15512	52	7	30	steel
9mm	-	F116867	15612	65	7	30	steel

### 5.12 Cable tie kits



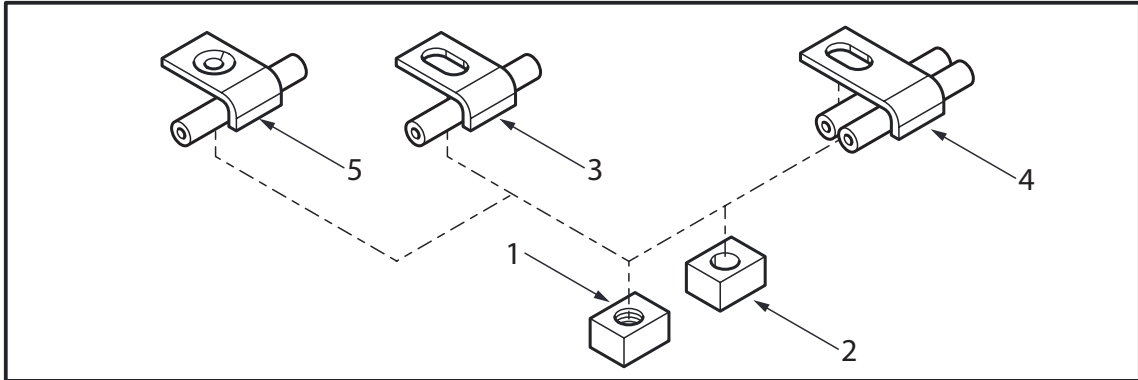
<i>p/n new</i>	<i>p/n old</i>	<i>Description</i>
F116458	-	25 x cable tie 188mm
F113964	-	25 x cable tie 338mm

## 6. SPECIAL PARTS



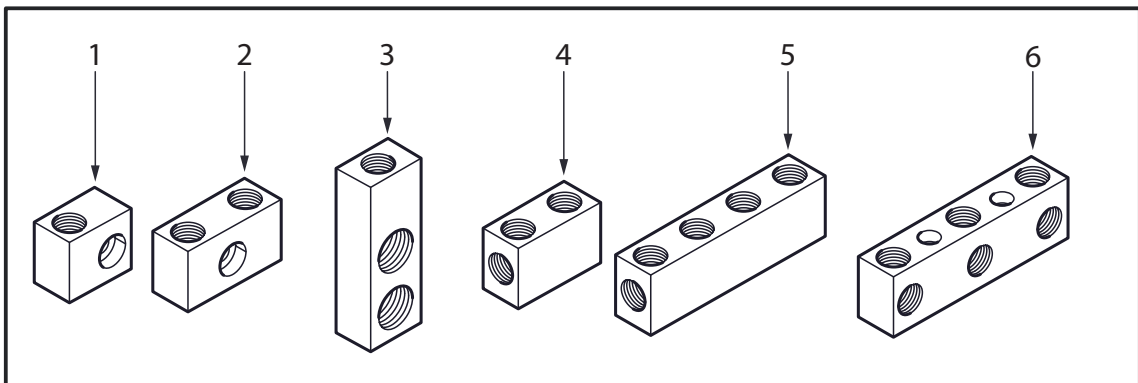
Release date: December 2021

**6.1 Brackets for ø10mm pipes**



Pos.	p/n new	p/n old	Description	Material
1	F176943	-	Welding block M8 (35x18x10)	steel
	F170025	-	Welding block M8 (15x15x10)	steel
2	F173292	-	Filler block	steel
	F177694	-	Filler block	inox
3	F173293	-	Bracket for ø10mm pipe	steel
	F177688	-	Bracket for ø10mm pipe	inox
4	F176944	-	Bracket for two ø10mm pipes	steel
5	F211944		Bracket for ø10mm pipe countersunk	steel

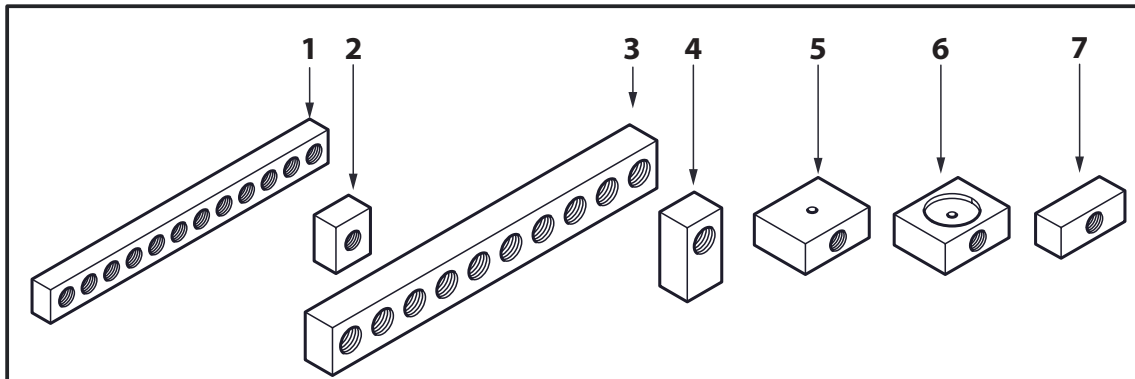
**6.2 Connection blocks**



Pos.	p/n new	p/n old	Description	Material
1	F105394	20901	Connection block 1 channel - G1/8"	aluminium
2	F121135	21001	Connection block 2 channels - G1/8"	aluminium
3	F107980	06812	Connection block 2 channels - G1/4"	steel
4	F170766	-	Connection block 5 ports - G1/8"	brass
5	F170765	-	Connection block 7 ports - G1/8"	brass
6	F109274	14211	Connection block 3 ports-T - G1/8"	steel

Release date: December 2021

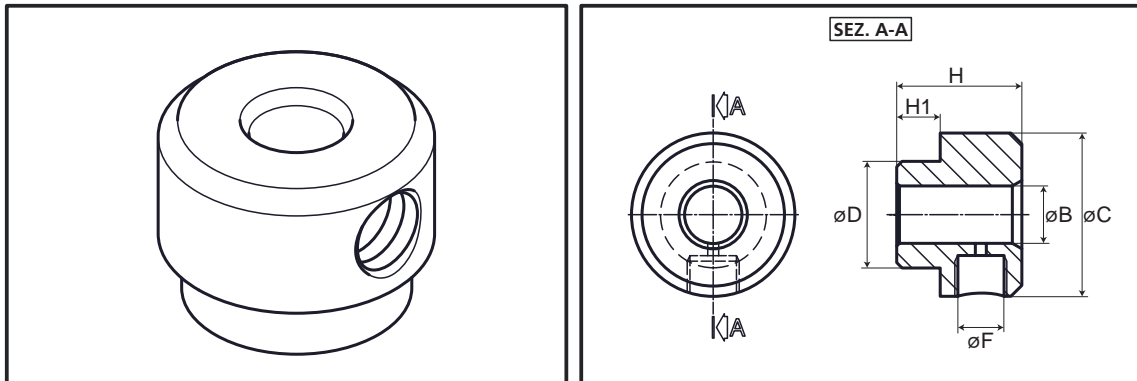
6.3 Welding blocks / strips



Pos.	p/n new	p/n old	Description	Lenght	Material
1	F105978	13101	Welding strip G1/8" x 12	300mm	steel
	F604323	-	Welding strip G1/8" x 10	250mm	steel
	F131137	-	Welding strip G1/8" x 8	200mm	steel
2	F178137	87402	Welding block G1/8"	25mm	steel
3	F105979	13201	Welding strip G1/4" x 10)	300mm	steel
4	F105234	08222	Welding block G1/4"	45mm	steel
5	F102344	87502	Welding block G1/8" - ø4mm	40mm	steel
6	F105199	22502	Welding block G1/8" - ø24mm - ø6.5mm	40mm	steel
7	F108316	-	Welding block M10 (40x20x20)	40mm	steel
	F105232	-	Welding block M6 (10x10x6)	10mm	steel

Release date: December 2021

## 6.4 Banjo bushings



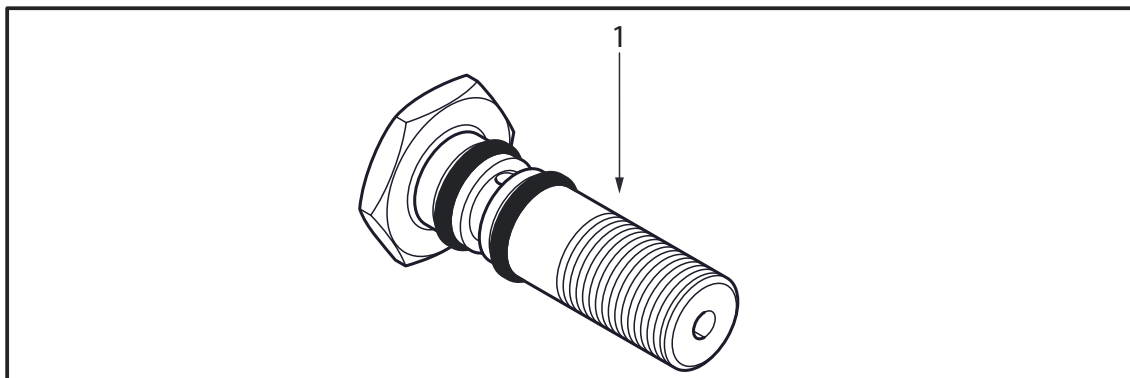
$\varnothing D$	$\varnothing C$	p/n new	p/n old	$\varnothing B$	$\varnothing F$	H	H1	Material
20.1	29	F173114	-	10.5	G1/8"	20	3	steel
30	-	F171390	-	10.5	G1/8"	23	-	steel
18	30	F109515	25912	10.5	G1/8"	30	15	steel
19.6	30	F106744	24922	10.5	G1/8"	23	8	steel
19.6	30	F109187	21812	10.5	G1/8"	23	8	inox
19.6	30	F202185	-	10.5	G1/8"	31	8	steel
19.6	30	F211165		12.5	G1/8"	32	17	steel
19.6	30	F106742	24722	10.5	G1/8"	26	11	steel
20.9	30	F202328	-	10.5	G1/8"	47.5	25	steel
23	30	F202489	-	10.5	G1/8"	32.5	10	steel
23	30	F176941	-	10.5	G1/8"	34	19	steel
24	30	F176942	-	10.5	G1/8"	23	8	steel
24	30	F204004 <sup>1)</sup>	-	10.5	G1/8"	23	8	steel
24	30	F200673	-	10.5	G1/8"	25	10	steel
24	30	F210321	-	10.5	G1/8"	35	18	steel
24	30	F206723	-	10.5	G1/8"	50	33	steel
33	-	F206459	-	10.5	G1/8"	17	-	steel
35	-	F206176	-	10.5	G1/8"	17	-	steel
35	-	F202924	-	10.5	G1/8"	35	-	steel
19	38	F209228 <sup>1)</sup>	-	12.5	1/8"NPT	23	8	steel
23	38	F207252 <sup>1)</sup>	-	10.5	G1/8" + M12x1	29	12	steel
19.6	30x38	F209226 <sup>2)</sup>	-	12.5	G1/8"	30	8	steel
29	45	F202923 <sup>1)</sup>	-	10.5	G1/8" + M12x1	32	14	steel

<sup>1)</sup> This banjo bushing has two holes ( $\varnothing F$ ).

<sup>2)</sup> This banjo bushing is oval ( $\varnothing C$ ).

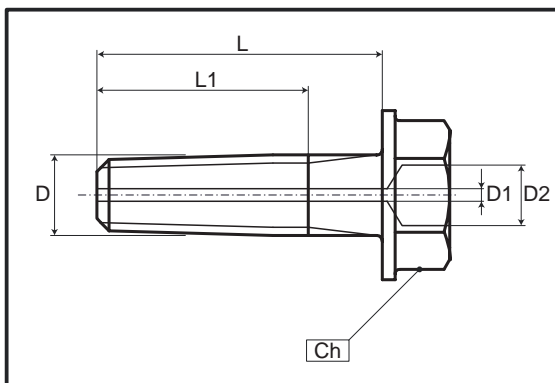
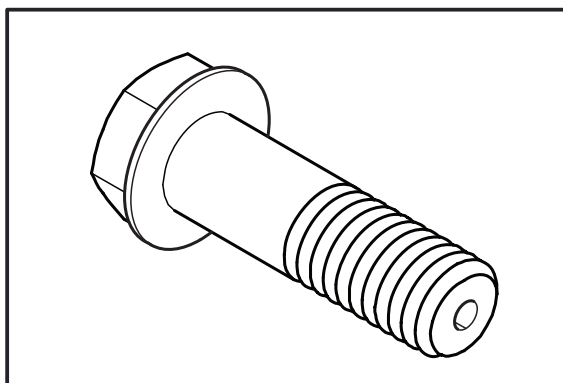
Release date: December 2021

### 6.5 Banjo bolts



Pos.	p/n new	p/n old	Description	Material
1	F124560	-	Banjo bolt G1/8" / L=27mm incl. O-rings	steel
	F206458	-	Banjo bolt G1/8" / L=30mm incl. O-rings	steel
	F617367		Banjo bolt NPT-1/8" L=30mm inc O-rings	steel
	F119055	-	Banjo bolt G1/8" / L=35mm incl. O-rings	steel
	F205084	-	Banjo bolt G1/8" / L=40mm incl. O-rings	steel
	F124313	-	Banjo bolt G1/8" / L=45mm incl. O-rings	steel
	F206722	-	Banjo bolt G1/8" / L=60mm incl. O-rings	steel
	F128520	-	Banjo bolt M12 / L=40mm incl. O-rings	steel
	F128519	-	Banjo bolt M12 / L=55mm incl. O-rings	steel
	F605722	-	Banjo bolt G1/8" / L=35mm incl. O-rings	inox

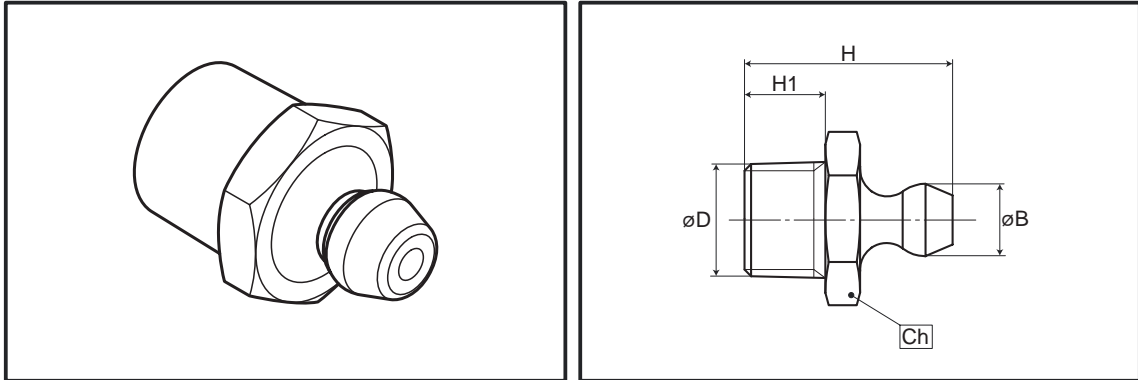
### 6.6 Flange bolts with grease channel



p/n new	D	D1	D2	L	L1	Ch	Material
F109013	M12	3	1/8"NPT	35	30.5	16	steel
F709183	M12	3	1/8"NPT	45	40.5	16	steel
F709184	M12	3	1/8"NPT	50	45.5	16	steel
F108947	M16	3.5	1/8"NPT	60	38	21	steel

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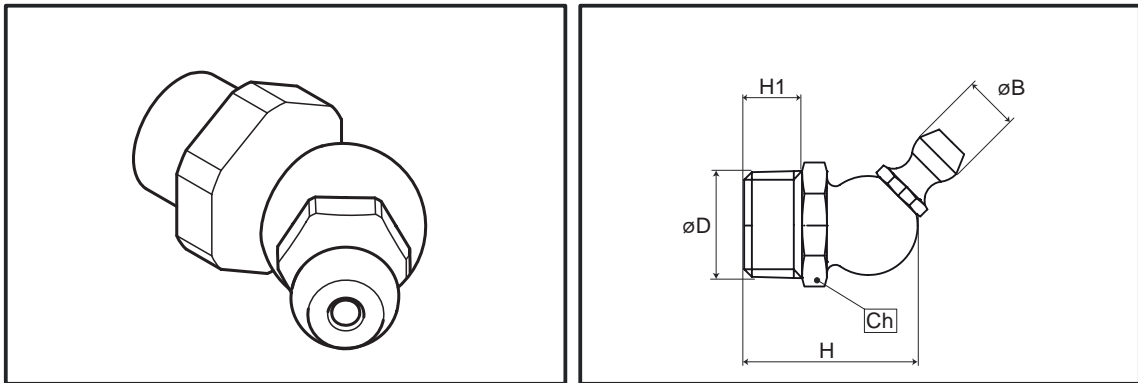
### 6.7 Grease nipples straight



$\varnothing B$	$\varnothing D$	<i>p/n new</i>	<i>p/n old</i>	<i>H</i>	<i>H1</i>	<i>Ch</i>	<i>Material</i>
6.5	M8x1	F117409	-	18	8	9	steel
6.5	R1/8"	F115073	07601	18	8	11	steel
6.5	R1/8	F209170*	-	21.5	8	11	steel
6.5	1/8 NPT	F602630	-	18	8	11	steel
6.5	M10x1	F203593*	-	21.5	9.2	11	steel
6.5	1/8"NPT	F606357		43	6	9	steel
6.5	M8x1	F607050		17	6	9	inox

\*) With non-return valve.

### 6.8 Grease nipples 45°

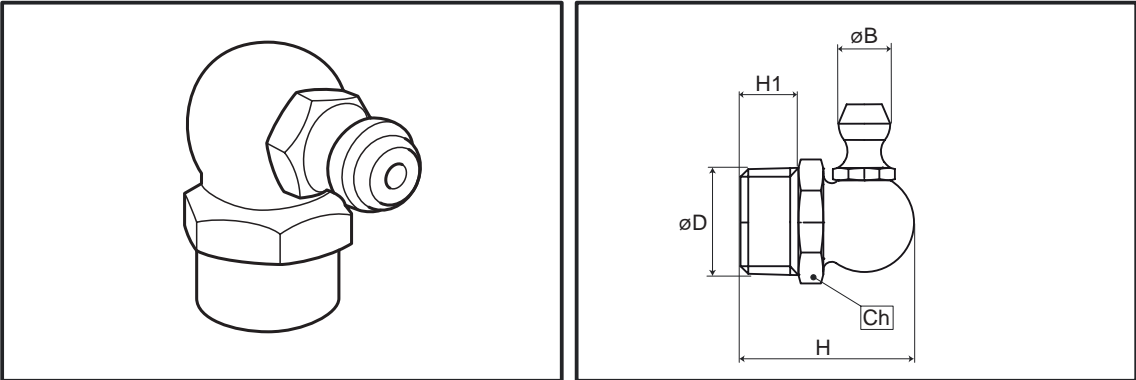


$\varnothing B$	$\varnothing D$	<i>p/n new</i>	<i>p/n old</i>	<i>H</i>	<i>H1</i>	<i>Ch</i>	<i>Material</i>
6.5	G1/4	F114927	87001	21	7	14	steel

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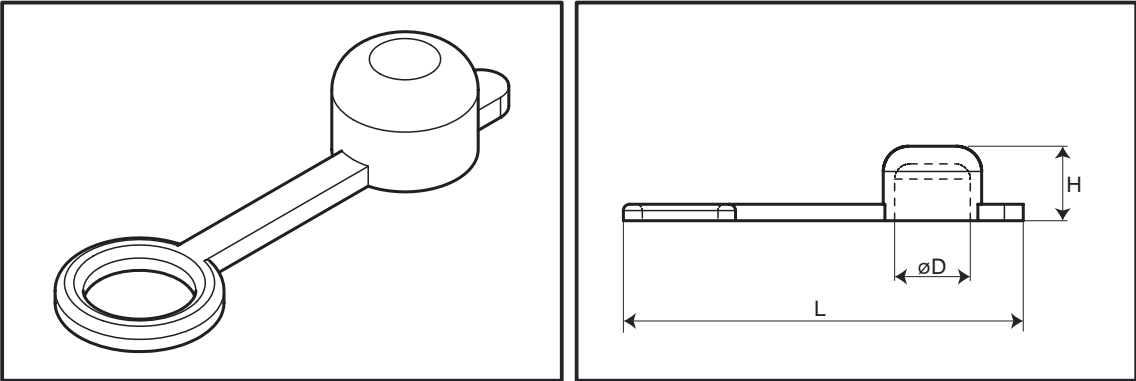


6.10 Grease nipples 90°



$\varnothing B$	$\varnothing D$	<i>p/n new</i>	<i>p/n old</i>	<i>H</i>	<i>H1</i>	<i>Ch</i>	<i>Material</i>
6.5	1/8"NPT	F170944		20	5.5	11	steel
6.5	R1/8"	F601281		20	6.7	11	steel
6.5	R1/4"	F673430		20.5	7	14	steel

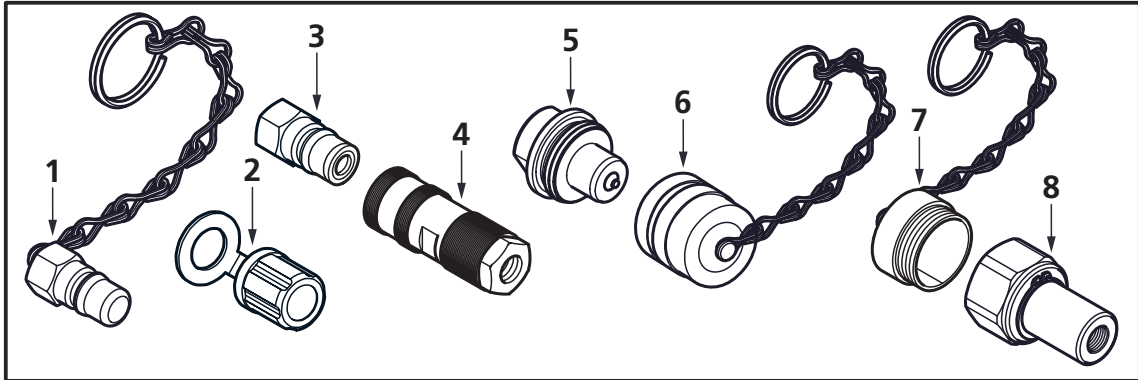
6.9 Grease nipple cover



<i>Pos</i>	<i>p/n new</i>	<i>p/n old</i>	<i>L</i>	<i>H</i>	<i>D</i>	<i>Material</i>
1	F110670	87101	31.7	5	6	polyethylene

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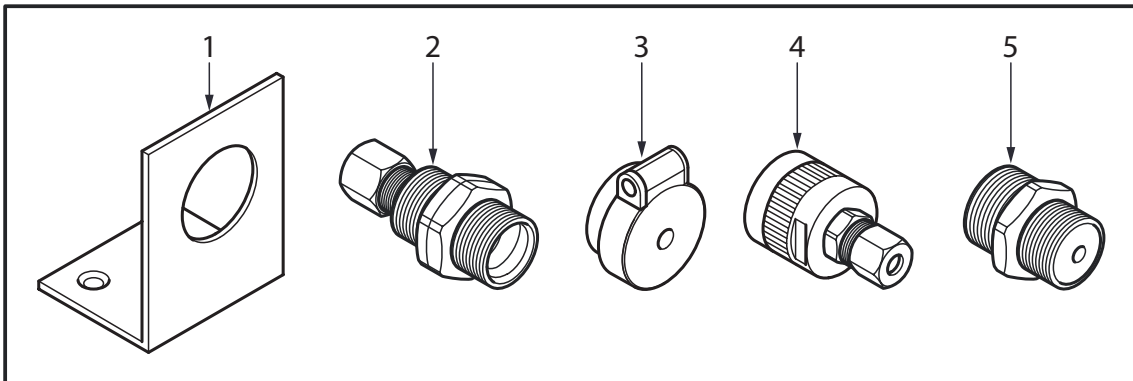
6.11 Quick connectors



Pos.	p/n new	p/n old	Description	Material
1	F120025	-	Quick connector male plug	steel
2	F100258	03501	Dust cap	rubber
3	F100056	02001	Quick connector G1/4" with bullet (male)	steel
	F100359	-	Quick connector G1/4" without bullet (male)	steel
	F606061	-	Quick connector G1/4 without bullet (male)	Inox
	F120622	61902	Quick connector G1/2" with bullet (male)	steel
4	F103083	01901	Quick connector G1/4" with bullet (female)	steel
	F120867	-	Quick connector G1/4" without bullet (female)	steel
	F120621	61802	Quick connector G1/2" with bullet (female)	steel
5	F112627	80101	Quick screw connector G1/4"	steel
	F123739	18417	Quick screw connector G1/2"	steel
6	F113078	80301	Dust cap for F112627	steel
	F120623	62102	Dust cap for F120621	rubber
	F123740	18617	Dust cap for F123739	steel
7	F113077	80201	Dust cap for F112626	steel
	F123741	18717	Dust cap for F123738	steel
8	F112626	80001	Quick screw connector G1/4"	steel
	F123738	18517	Quick screw connector G1/2"	steel

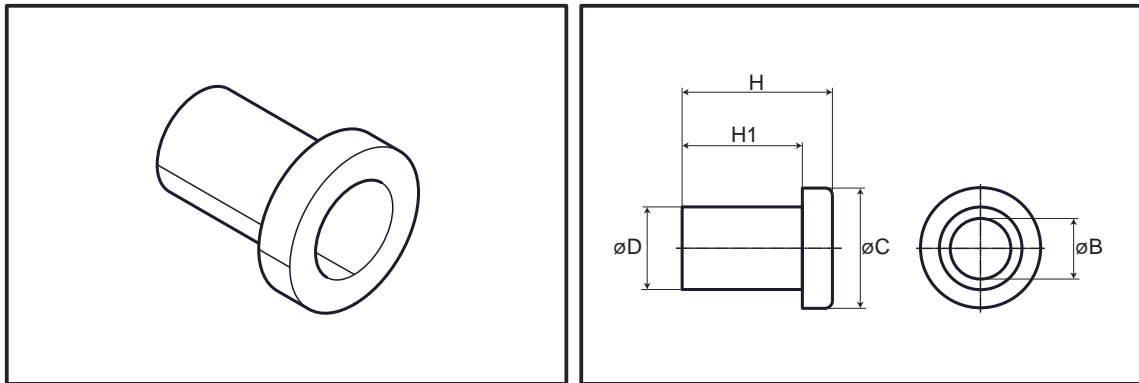
Release date: December 2021

6.12 Quick connector by Argus (high pressure)



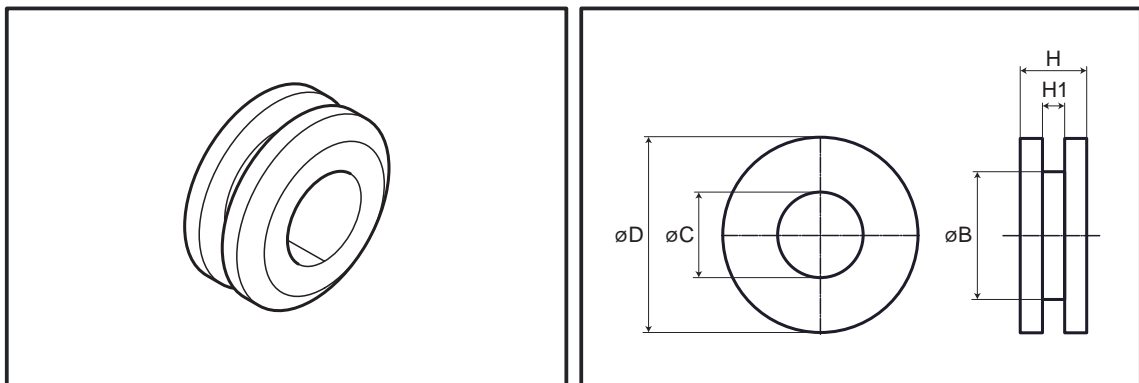
<i>Pos.</i>	<i>p/n new</i>	<i>p/n old</i>	<i>Description</i>	<i>Material</i>
1	F104535	17101	Bracket Argus coupling	steel
2	F104539	18301	Quick connector $\varnothing$ 10mm Argus fixed end	steel
3	F104565	18601	Protection cover for F104539	steel
4	F104540	18501	Quick connector $\varnothing$ 10mm Argus flex end	steel
5	F104542	17801	Protection plug for F104540	steel

### 6.14 Top hat grommets



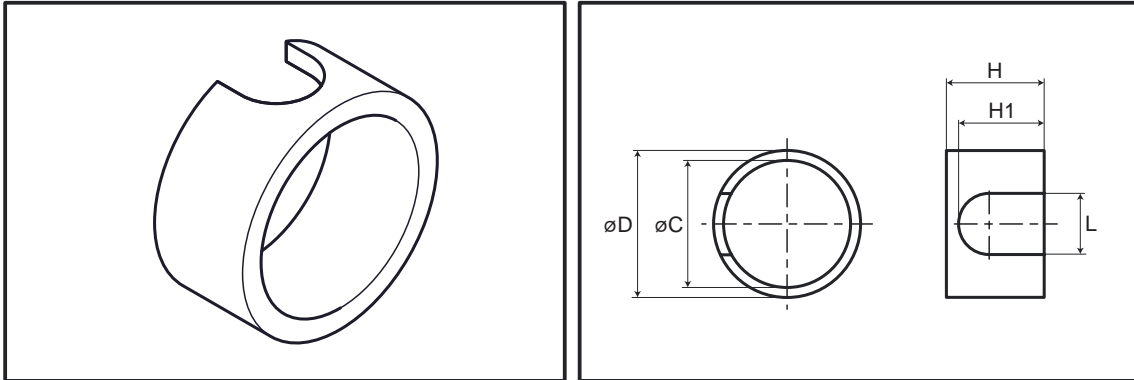
$\varnothing D$	$\varnothing C$	$\varnothing B$	<i>p/n new</i>	<i>p/n old</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
8mm	12mm	5mm	F104616	00608	21	18	-	rubber
11mm	16mm	8mm	F104547	00108	20	16	-	rubber
20mm	28mm	14mm	F205836	-	24.5	20.5	-	rubber

### 6.13 Insulation grommets



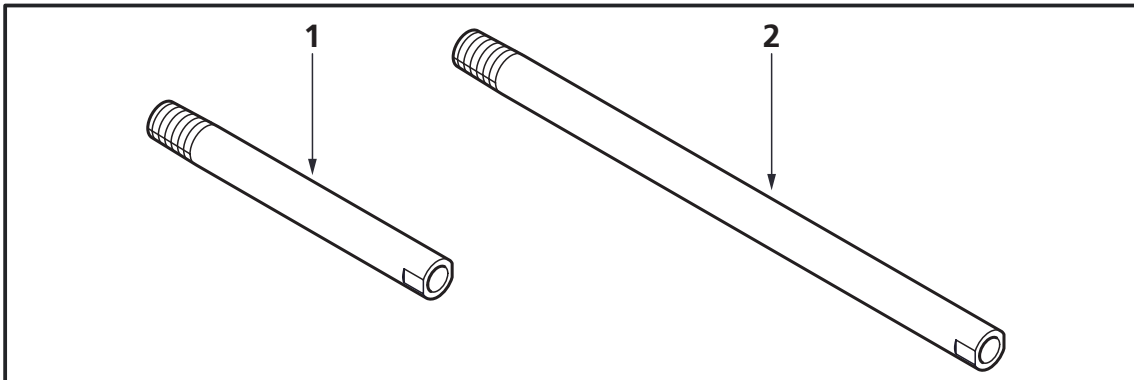
$\varnothing D$	$\varnothing C$	$\varnothing B$	<i>p/n new</i>	<i>p/n old</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
28mm	14mm	20mm	F104517	02108	12	4	-	rubber
35mm	15.5mm	23mm	F178289	03408	12	4	-	rubber

6.15 Protection rings



$\varnothing D$	$\varnothing C$	p/n new	p/n old	H	H1	L	Material
45mm	37mm	F209770	-	40	35	25	steel
60mm	52mm	F105110	39702	40	35	25	steel
70mm	61mm	F105109	39802	40	35	25	steel

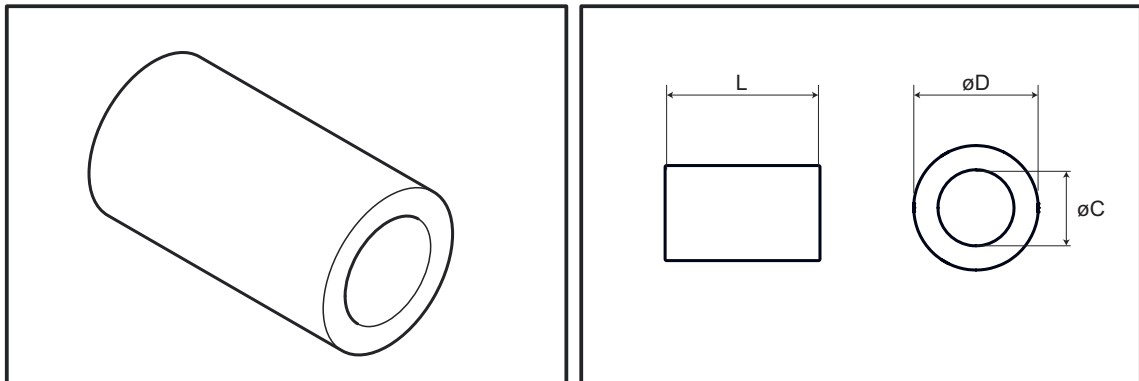
6.16 Extension spindles



Pos.	p/n new	p/n old	Description	Material
1	F120334	65102	Extension spindle M10x1.5 / L=120mm	steel
2	F107414	36722	Extension spindle M10x1.5 / L=300mm	steel

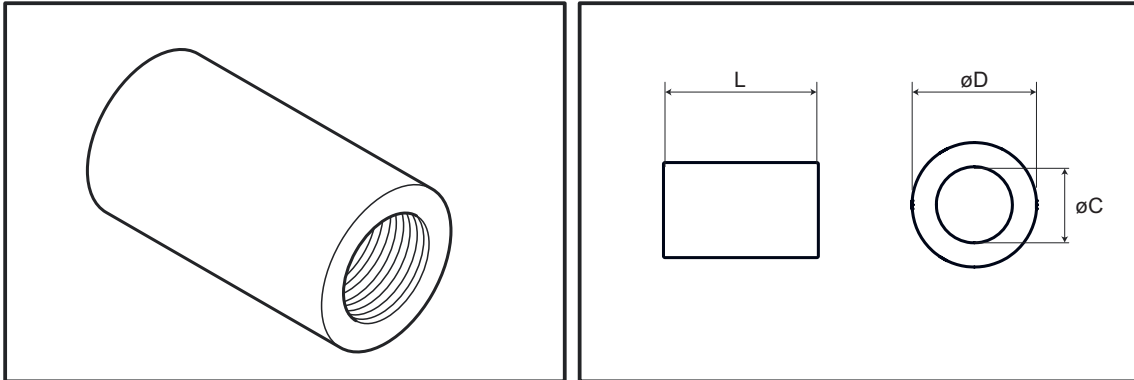
Release date: December 2021

### 6.17 Spacers



$\varnothing D$	$\varnothing C$	$L$	<i>p/n new</i>	<i>p/n old</i>	<i>Material</i>
ø16	ø9	21	F207318	-	steel
ø20	ø10	10	F108946	38908	steel
ø20	ø10	10	F642811	-	inox
ø20	ø10	20	F107532	35808	steel
ø20	ø10	24.5	F214303	-	steel
ø20	ø10.5	25	F205209		steel
ø20	ø10	28	F108374	11612	steel
ø20	ø10	28	F642795	-	inox
ø20	ø10	30	F171322	-	steel
ø20	ø10	40	F174650	-	steel
ø20	ø10	60	F171301	-	steel
ø20	ø10	80	F108971	16512	steel
ø25	ø14	20	F171193	-	steel
ø30	ø12	22	F200897	-	steel

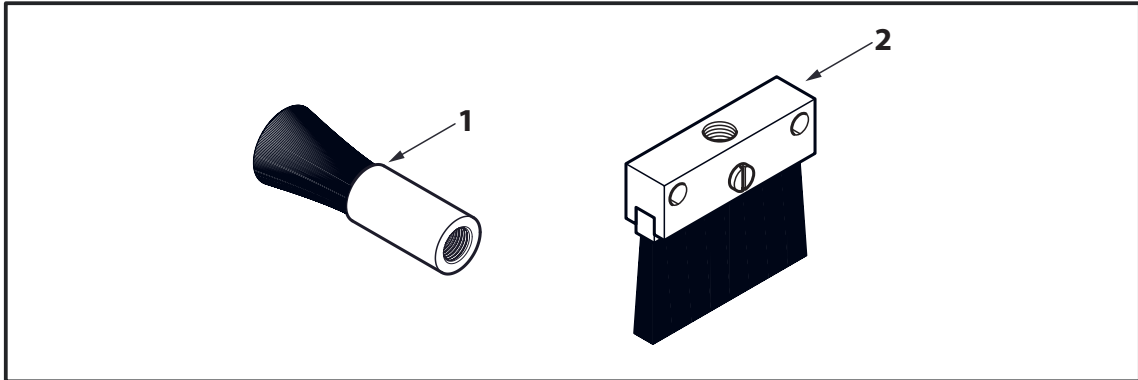
6.18 Threaded bush



$\varnothing D$	$\varnothing C$	L	p/n new	p/n old	Material
$\varnothing 20$	M10	25	F108914	16712	steel
$\varnothing 30$	M10	35	F176940	-	steel

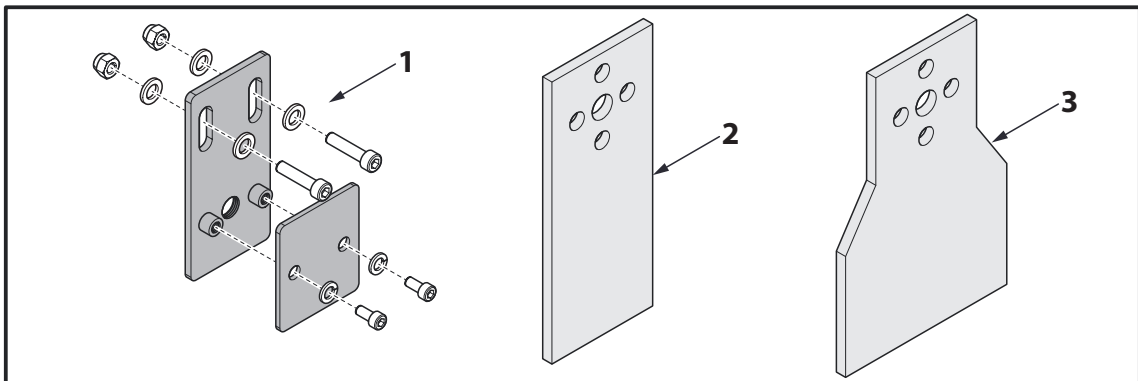
Release date: December 2021

**6.19 Brushes**



Pos.	p/n new	p/n old	Description	Material
1	F127654	65802	Brush round 1/8"NPT	-
2	F110583	65902	Brush flat G1/8"	-

**6.20 Felt clamp & plates**

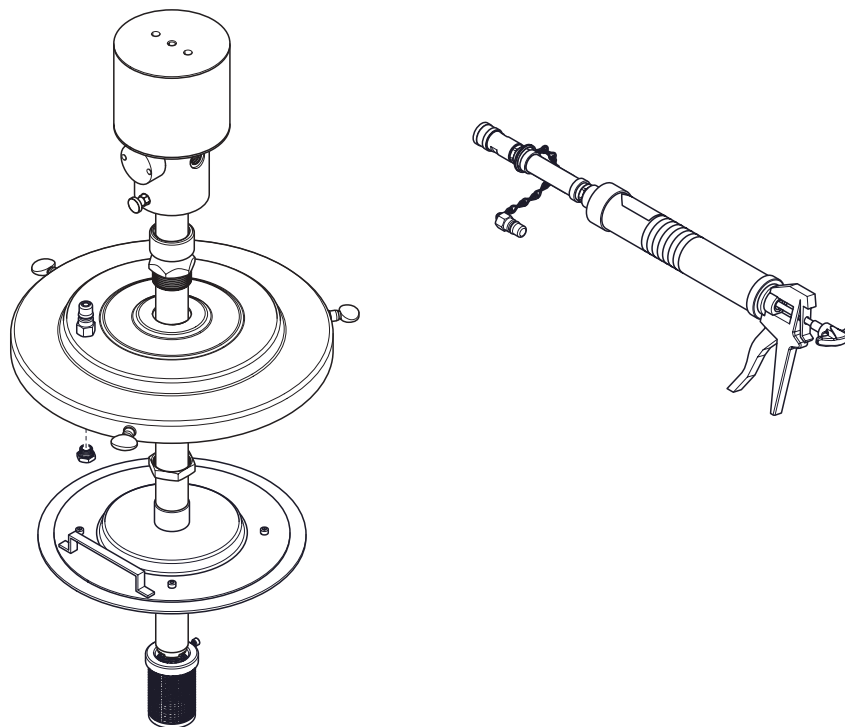


Pos.	p/n new	p/n old	Description	Material
1	F108772	62822	Felt clamp complete	
2	F220212		Replacement felt plate 50x100x10mm	
3	F220211		Replacement felt plate 50/80x100x10mm	

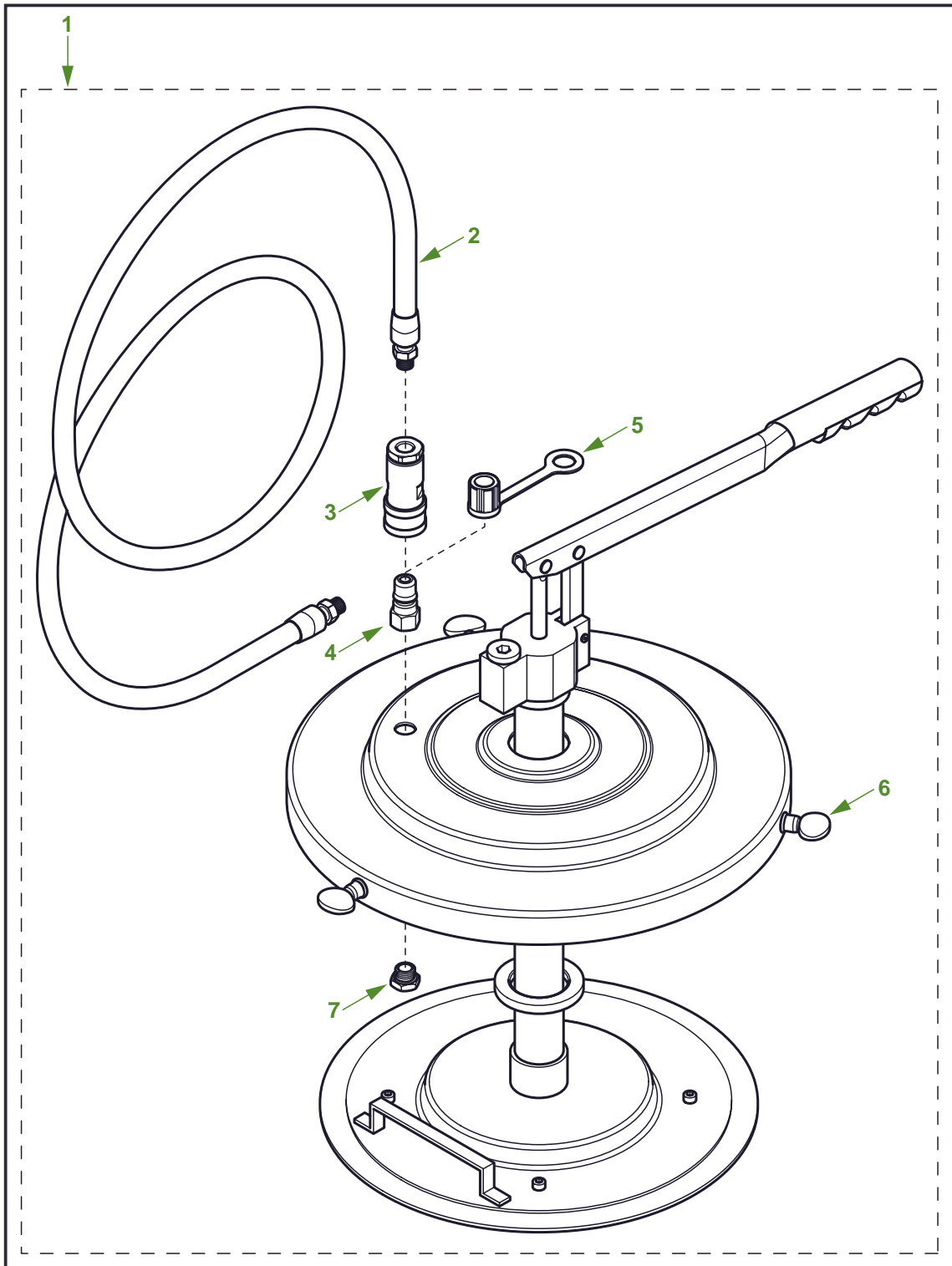
Release date: December 2021



# 7. FILLER PUMPS



Release date: December 2021

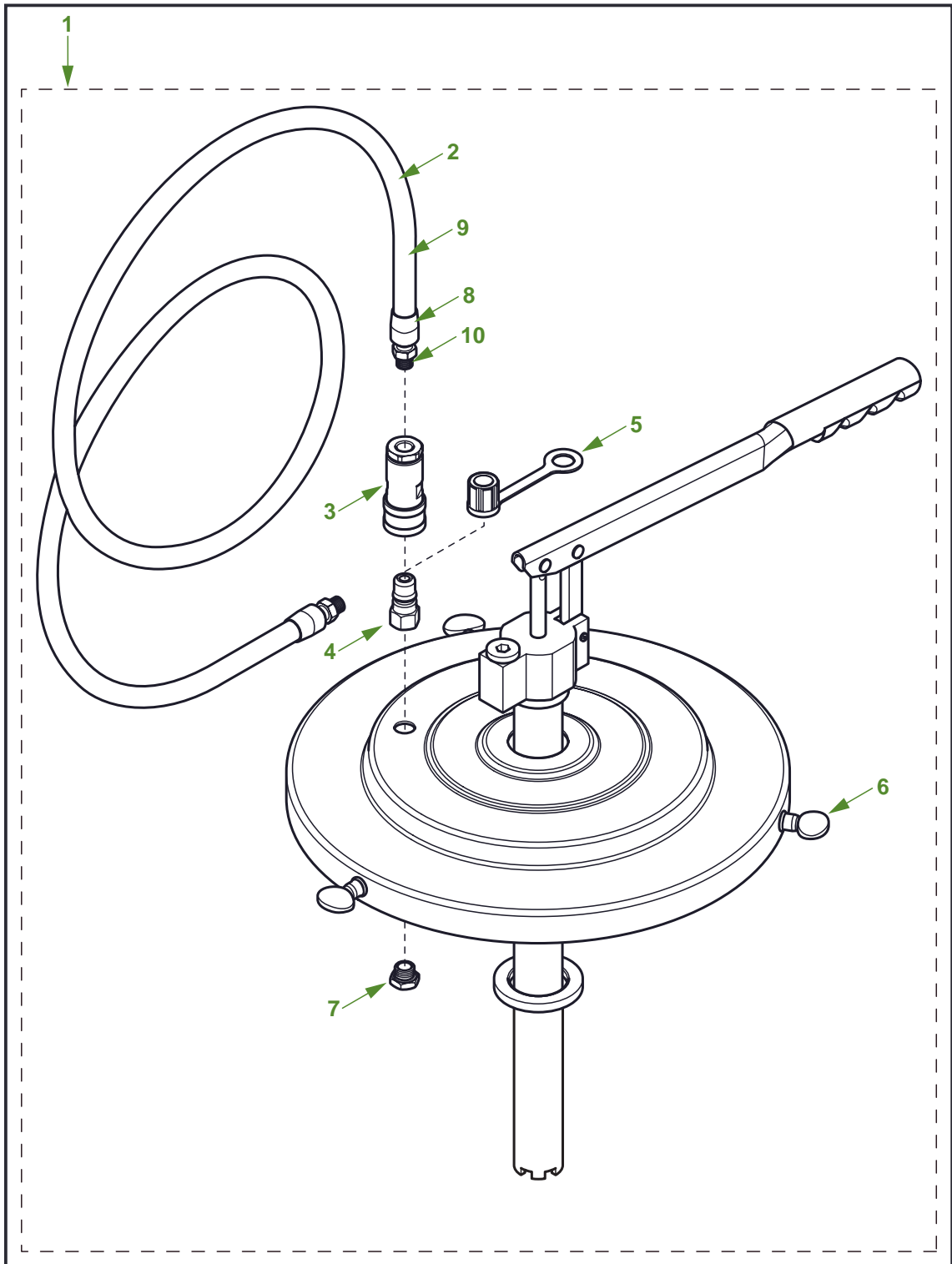


Release date: December 2021

**7.1 Manual filler pump 20L for NLGI-2**

<i>Pos.</i>	<i>p/n new</i>	<i>p/n old</i>	<i>Description</i>
1	F121623	-	Kit manual filler pump 20L for NLGI-2
2	F131650	-	High pressure hose assembly
3	F120542	-	Quick connector M18x1.5 without bullet (female)
4	F100359	-	Quick connector G1/4" without bullet (male)
5	F100258	03501	Dust cap
6	F175187	-	Thumb screw M8x50
7	F000527	08608	Reducing adapter G1/4" - G1/8"

Release date: December 2021

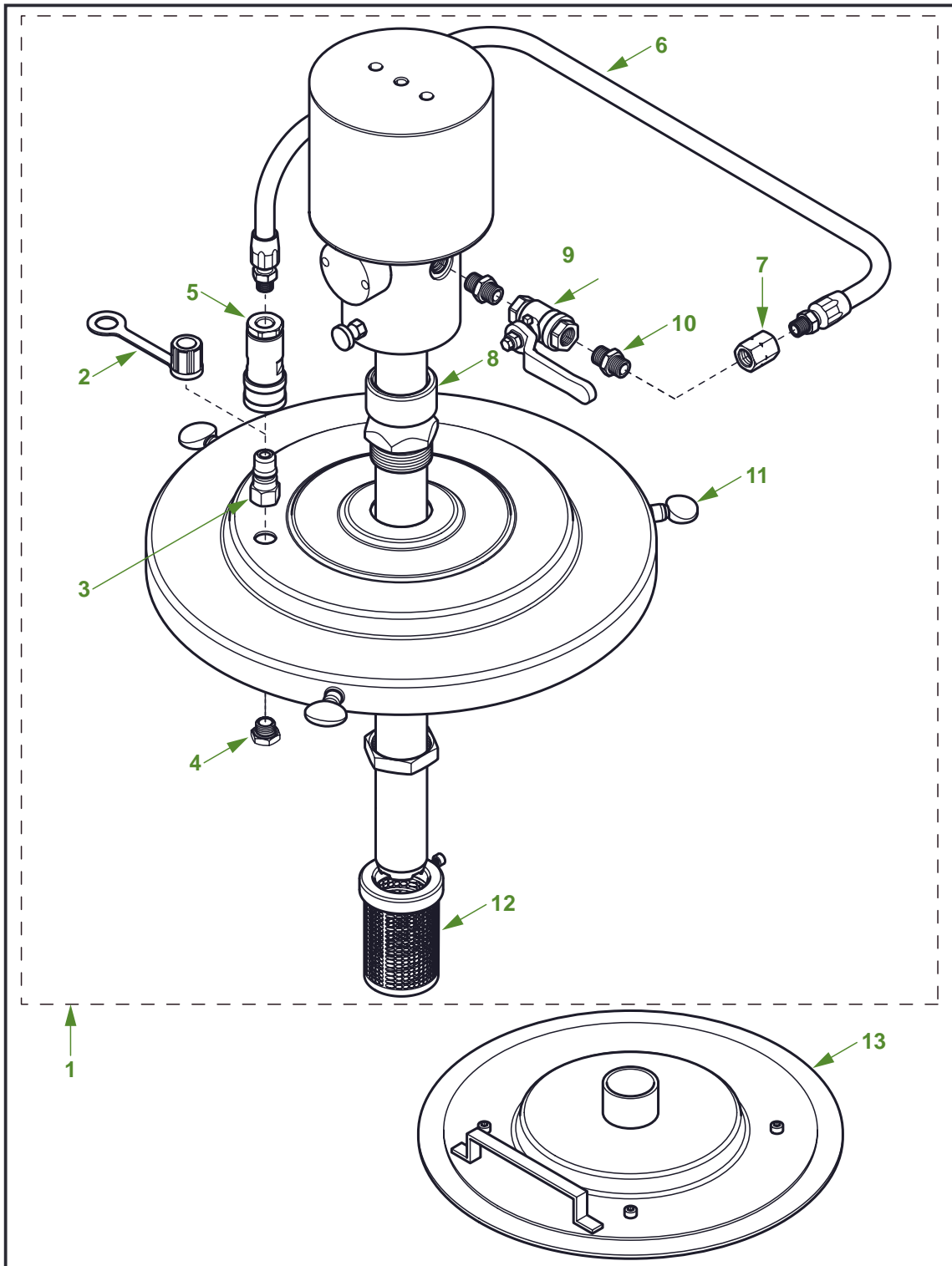


Release date: December 2021

**7.2 Manual filler pump 20L for NLGI-0**

<i>Pos.</i>	<i>p/n new</i>	<i>p/n old</i>	<i>Description</i>
1	F178054	-	Kit manual filler pump 20L for NLGI-0
2	F131652	-	Hose assembly complete
3	F103083	01901	Quick connector G1/4" with bullet (female)
4	F100056	02001	Quick connector G1/4" with bullet (male)
5	F100258	03501	Dust cap
6	F175187	-	Thumb screw M8x50
7	F000527	08608	Reducing adapter G1/4" - G1/8"
8	F122918	53306	Hose clamp 11-17 mm
9	F117177	09508	Hose 3/8" transparent per meter.
10	F107158	12301	Hose coupling 3/8" - 1/4"

Release date: December 2021

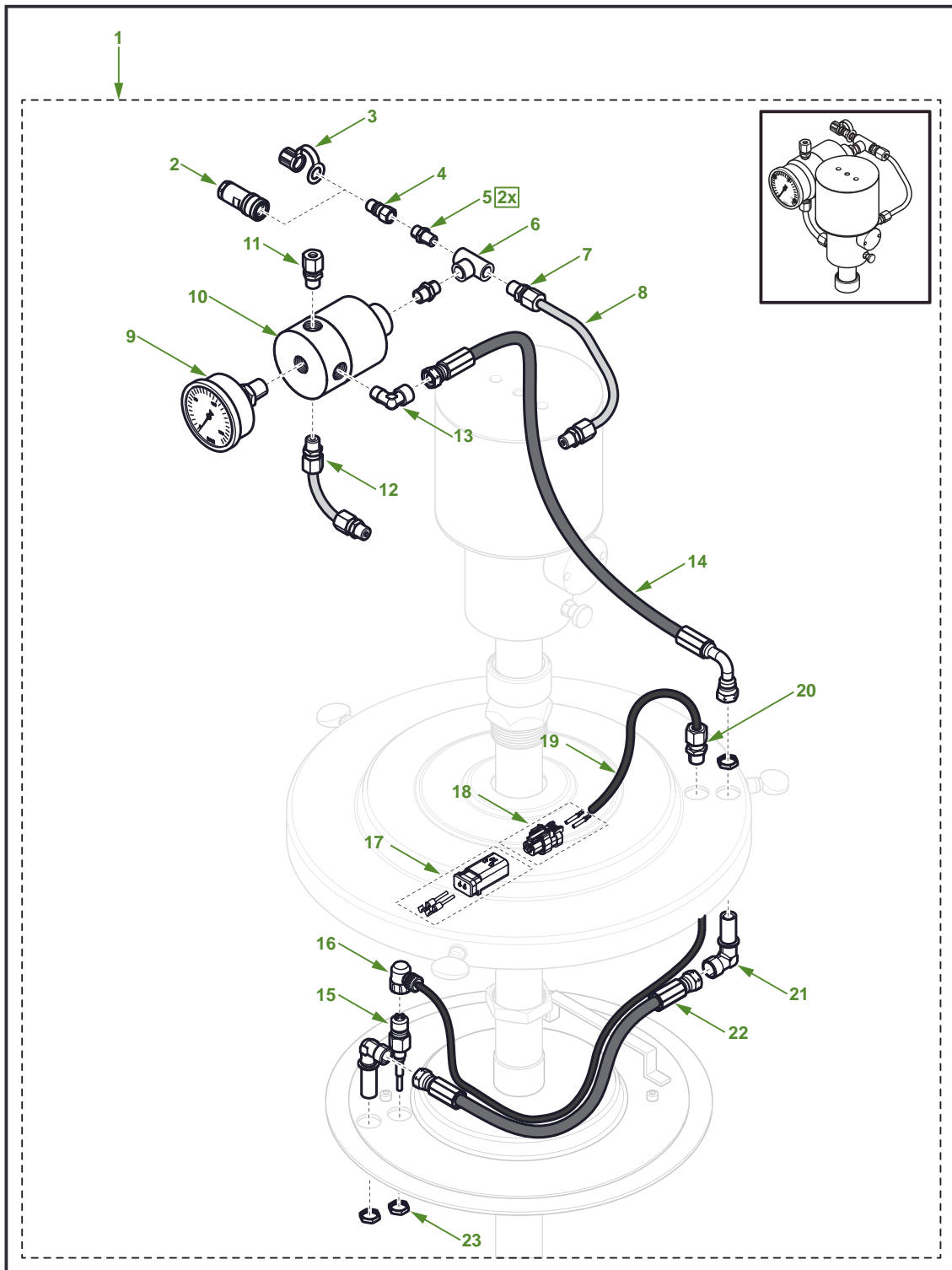


Release date: December 2021

**7.3 Pneumatic pumps 20L / 50L**

<i>Pos.</i>	<i>p/n new</i>	<i>p/n old</i>	<i>Description</i>
1	F123563	0412601	Pneumatic pump kit 20L (60:1 350cc/min)
	F123560	0412602	Pneumatic pump kit 50L (60:1 350cc/min)
	F124624	-	Pneumatic pump kit 20L (10:1 1350cc/min)
	F123013	-	Pneumatic pump kit 50L (10:1 1350cc/min)
2	F100258	03501	Dust cap
3	F100359	-	Quick connector G1/4" without bullet (male)
4	F000527	08608	Reducing adapter G1/4" - G1/8"
5	F120867	-	Quick connector G1/4" without bullet (female)
6	F109735	880001	High pressure hose 3/8" 1/4"-2500-1/4"
7	F118905	65202	Socket adapter R1/4"
8	F100388	05402	Drum pump ring
9	F122369	77802	Ball valve G1/4"
10	F104546	62502	Hex adapter R1/4"
11	F103020	-	Thumb screw M8x45
12	F100387	05302	Grease filter kit
13	F121518	-	Follower plate 20L
	F178112	-	Follower plate 50L

Release date: December 2021



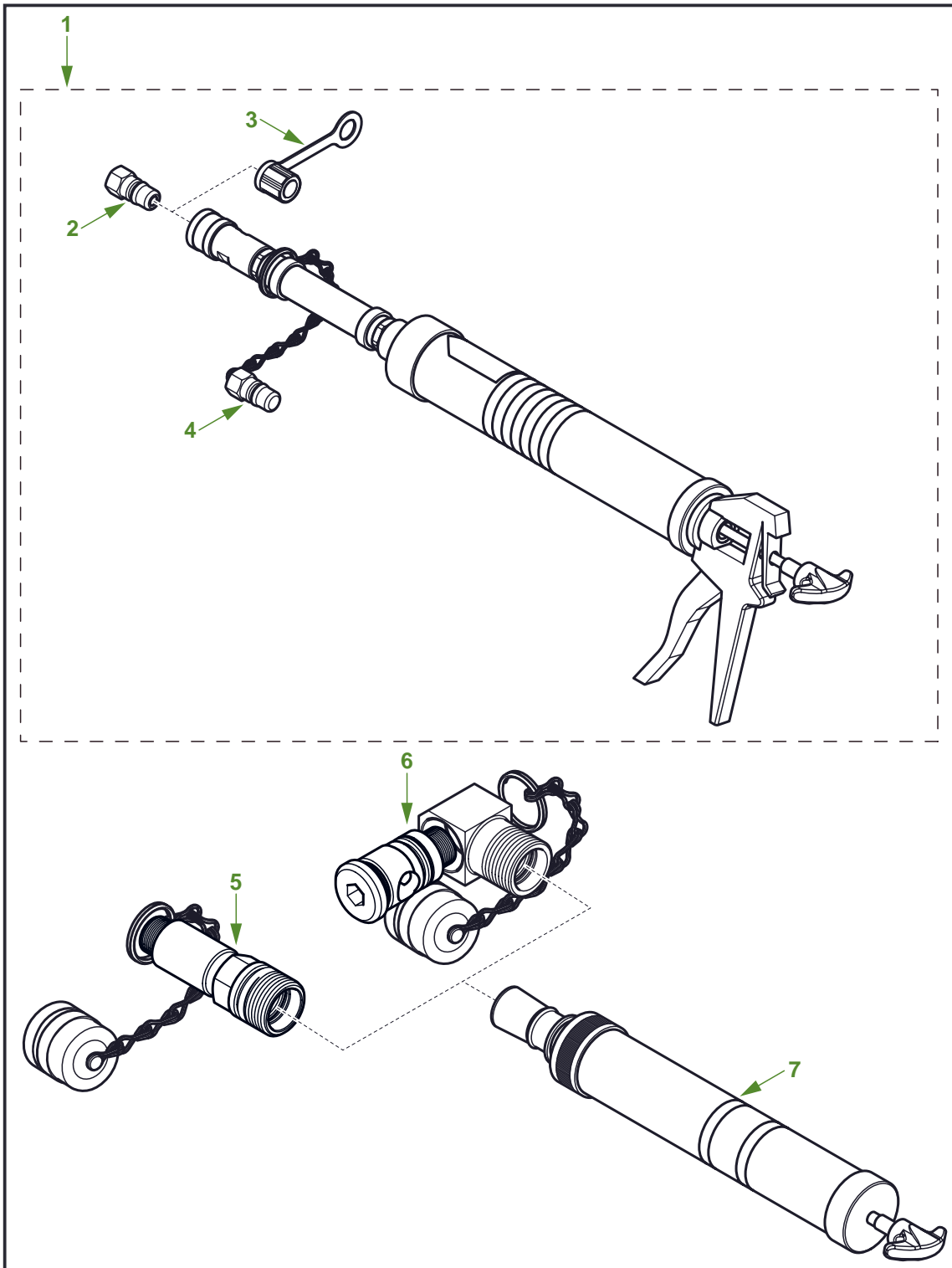
Release date: December 2021



**7.4 Pneumatic system pump 50L**

<i>Pos.</i>	<i>p/n new</i>	<i>p/n old</i>	<i>Description</i>
1	F125366	-	Pneumatic system pump kit
2	F103083	01901	Quick connector G1/4" with bullet (female)
3	F100258	03501	Dust cap
4	F100056	02001	Quick connector G1/4" with bullet (male)
5	F104546	62502	Hex adapter R1/4"
6	F104537	08808	T-adapter 1/4" NPT BR
7	F110240	47202	Male stud coupling R1/4" - ø10mm ST-G
8	F178283	-	Pipe Ø10x1 - 1m
9	F104544	16901	Manometer 0-150 bar G1/4"
10	F102945	77002	Vent valve barrel pump
11	F122363	50002	Male stud coupling 3/8" NPT - ø12mm ST-G
12	F123586	47302	Male stud coupling R3/8" - ø10mm ST-G
13	F104988	72322	Body male stud elbow R1/4" - ø10mm ST-G
14	F125837	-	HPH 3/8" S10-TL0500-E10
15	F112019	84101	Low level switch kit
16	F101156	19008	E-connector kit 2-core
17	F213496	-	Tyco 2-pole connector kit female
18	F127306	-	Tyco 2-pole connector kit male
19	F126841	02908	2-core cable a 1m
20	F117984	84202	PG9 connector
21	F110305	48002	Elbow bulkhead coupling ø10mm ST-G
22	F125838	-	HPH 3/8" S10-TL0800-S10
23	F111534	22201	Contra nut M16
24	F113964	-	Cable tie kit 338mm x 25

Release date: December 2021



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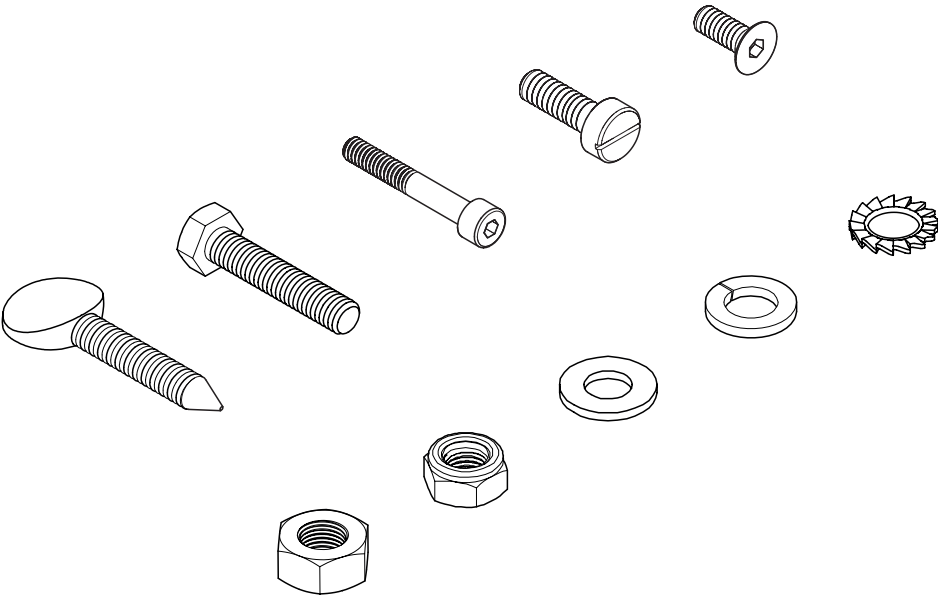
### 7.5 Cartridge filler gun

<i>Pos.</i>	<i>p/n new</i>	<i>p/n old</i>	<i>Description</i>
1	F179724	-	Cartridge filler kit
2	F100359	-	Quick connector G1/4" without bullet (male)
3	F100258	03501	Dust cap
4	F120025	-	Quick connector male plug
5	F124188	-	Straight filler coupling kit Twin 3
	F617553		Straight filler coupling kit Twin 3.1
6	F124626	-	Elbow filler coupling kit Twin 3
	F606511		Elbow filler coupling kit Twin 3.1
7	F125171	-	Cartridge filler

Release date: December 2021

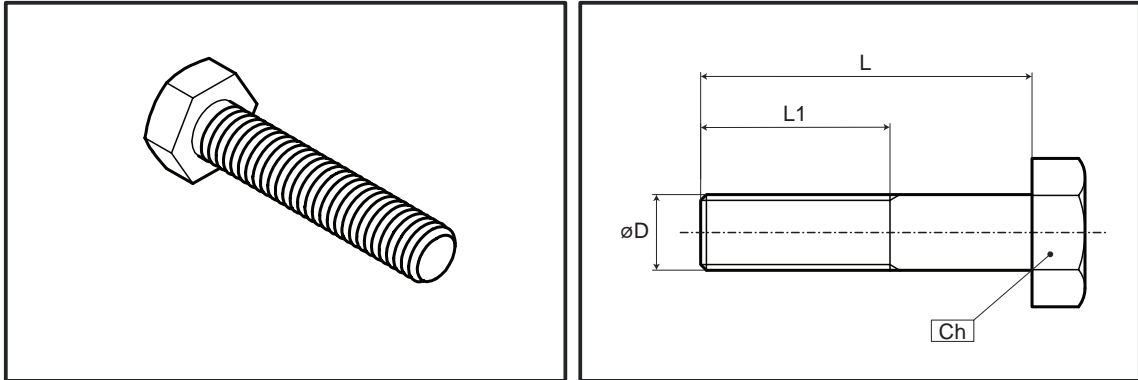


# 8. BOLTS, NUTS AND WASHERS



Release date: December 2021

### 8.1 Hexagonal bolts steel

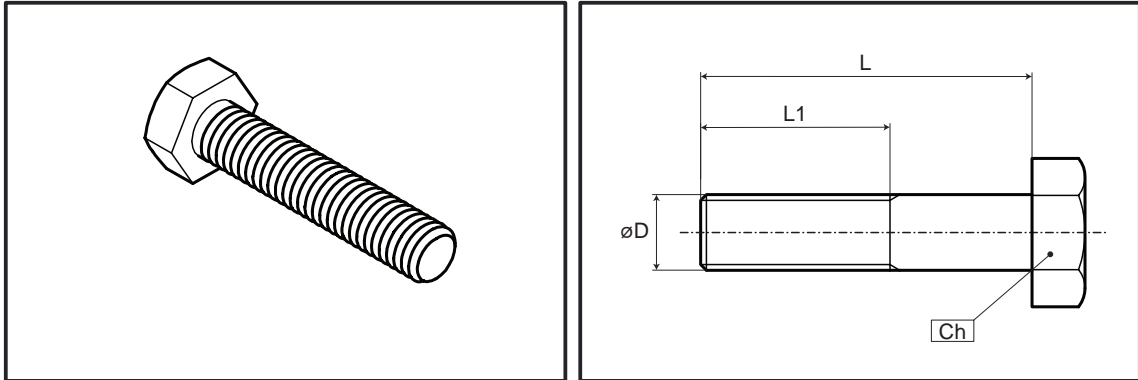


$\varnothing D$	L	L1	p/n new	p/n old	Ch	Thread	Material
3/8	22 (7/8)	-	F175673	-	9/16	3/8-UNC	steel
M4	12	-	F111508	02603	7	0.7	steel
M4	30	-	F177963	104030	7	0.7	steel
M5	10	-	F110866	105010	8	0.8	steel
M5	40	-	F116336	105040	8	0.8	steel
M6	12	-	F114683	106012	10	1.0	steel
M6	16	-	F110869	106016	10	1.0	steel
M6	20	-	F001029	106020	10	1.0	steel
M6	25	-	F122692	106025	10	1.0	steel
M6	30	-	F110879	106030	10	1.0	steel
M6	40	-	F118312	106040	10	1.0	steel
M6	60	-	F114939	106060	10	1.0	steel
M8	16	-	F113433	108016	13	1.25	steel
M8	20	-	F116050	108020	13	1.25	steel
M8	25	-	F110878	108025	13	1.25	steel
M8	30	-	F113434	108030	13	1.25	steel
M8	35	-	F104653	108035	13	1.25	steel
M8	40	-	F113435	108040	13	1.25	steel
M8	45	-	F113436	108045	13	1.25	steel
M8	50	-	F113437	108050	13	1.25	steel
M8	60	-	F113291	108060	13	1.25	steel
M8	65	-	F116921	108065	13	1.25	steel
M8	70	-	F127326	108070	13	1.25	steel
M8	80	-	F113536	108080	13	1.25	steel
M8	100	-	F172850	-	13	1.25	steel
M10	16	-	F113428	101016	17	1.5	steel
M10	20	-	F112232	101020	17	1.5	steel
M10	25	-	F115475	101025	17	1.5	steel
M10	30	-	F112335	101030	17	1.5	steel
M10	35	-	F116633	101035	17	1.5	steel
M10	40	-	F113429	101040	17	1.5	steel
M10	45	-	F113430	101045	17	1.5	steel

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<i><b>øD</b></i>	<i><b>L</b></i>	<i><b>L1</b></i>	<i><b>p/n new</b></i>	<i><b>p/n old</b></i>	<i><b>Ch</b></i>	<i><b>Thread</b></i>	<i><b>Material</b></i>
M10	50	-	F116920	101050	17	1.5	steel
M10	55	-	F116868	101055	17	1.5	steel
M10	60	-	F113431	101060	17	1.5	steel
M10	65	-	F177873	101066	17	1.5	steel
M10	70	-	F113432	101070	17	1.5	steel
M10	80	32	F177953	108080	17	1.5	steel
M10	85	26	F205210	-	17	1.5	steel
M10	90	-	F117322	101090	17	1.5	steel
M10	100	-	F119484	101065	17	1.5	steel
M10	110	-	F116807	101110	17	1.5	steel
M10	150	32	F121018	101150	17	1.5	steel
M10	170	32	F200626	-	17	1.5	steel
M12	30	-	F121913	101230	19	1.75	steel
M16	50	-	F685508		24	2.0	steel 10.9

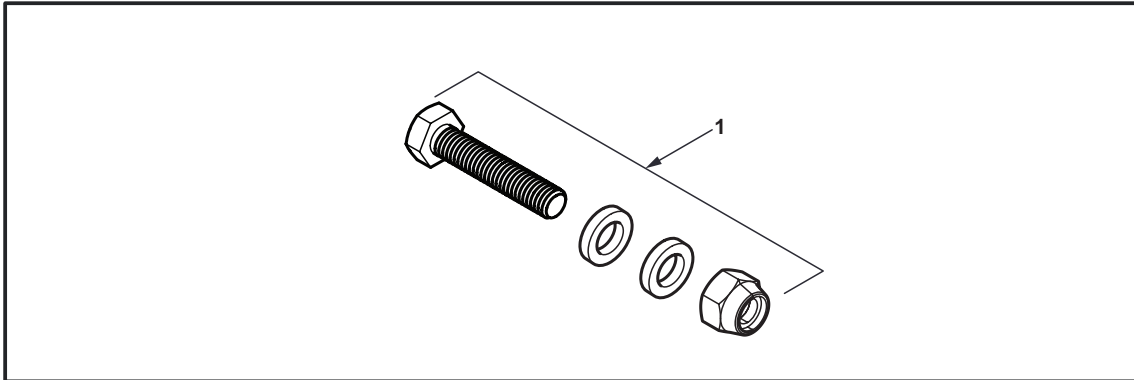
## 8.2 Hexagonal bolts inox



$\varnothing D$	L	L1	p/n new	p/n old	Ch	Thread	Material
M5	10	-	F177865	81402	8	0.8	inox
M6	12	-	F178462	-	10	1.0	inox
M8	20	-	F177958	118020	13	1.25	inox
M8	30	-	F120736	118030	13	1.25	inox
M8	35	-	F123156	118035	13	1.25	inox
M8	40	-	F172823	-	13	1.25	inox
M8	45	-	F122374	118045	13	1.25	inox
M8	50	-	F177868	-	13	1.25	inox
M8	60	-	F120910	-	13	1.25	inox
M8	80	-	F120737	-	13	1.25	inox
M10	16	-	F177954	111016	17	1.5	inox
M10	30	-	F177870	111030	17	1.5	inox
M10	40	-	F120722	111040	17	1.5	inox
M10	50	-	F177957	111050	17	1.5	inox
M10	60	-	F120845	-	17	1.5	inox
M10	90	-	F600695	-	17	1.5	inox
M10	110	-	F177872	111110	17	1.5	inox
M10	160	-	F724862	-	17	1.5	inox

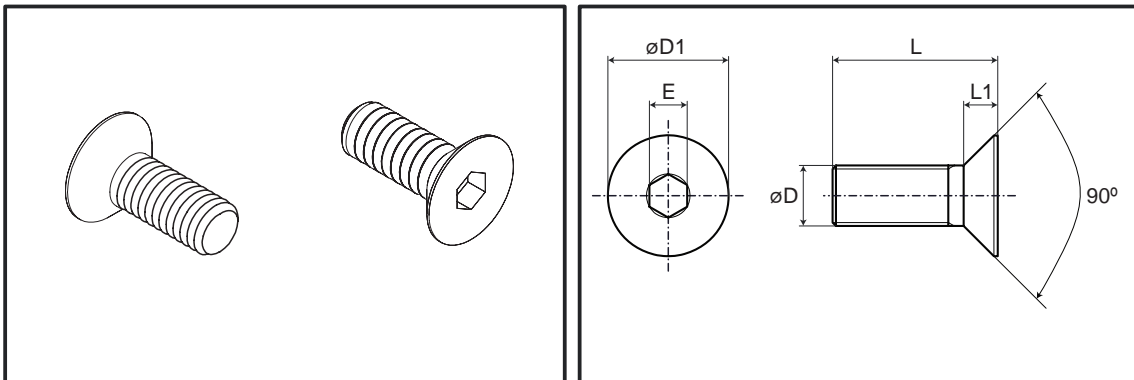


### 8.4 Standard hexagonal bolts kits



Pos.	p/n new	Bolt size	Pcs	Description
1	F213432	M8x35	3	General pump bracket bolt kit
	F214377	M8x50	4	General pump bolt kit
	F214900	M10x30	4	Universal bracket bolt kit

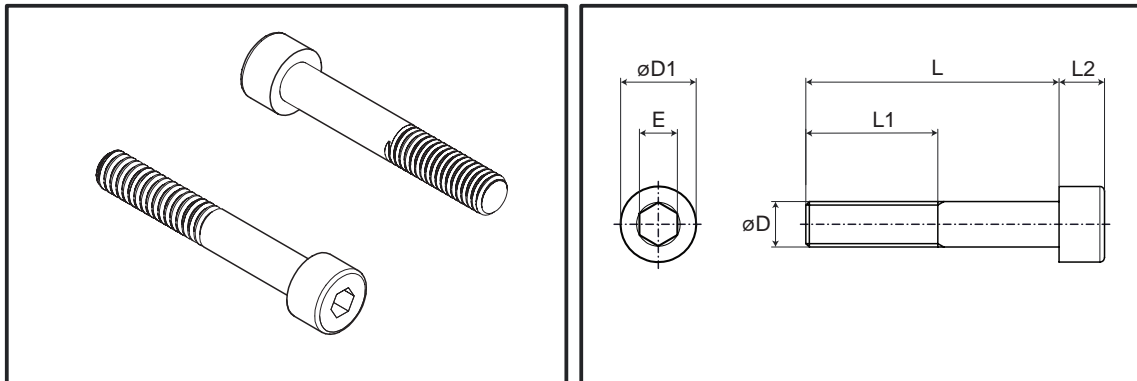
### 8.3 Countersunk allen screws



$\varnothing D$	$\varnothing D1$	L	L1	E	p/n new	p/n old	Thread	Material
M6	12	10	3.3	4	F177955	126010	1	steel
M8	16	10	4.4	5	F129966	128010	1.25	steel
M8	16	16	4.4	5	F121880	128015	1.25	steel
M10	20	20	5.5	6	F177861	121020	1.5	steel

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### 8.5 Allen screws

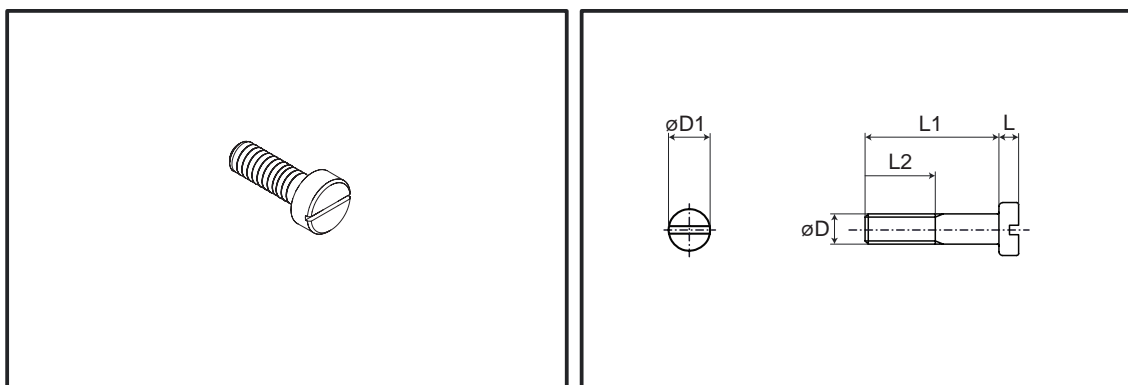


$\varnothing D$	$L$	$\varnothing D1$	$L1$	$L2$	$E$	<i>p/n new</i>	<i>p/n old</i>	Thread	Material
M5	10	8.5	-	5	4	F171811	125010	0.8	steel
M5	16	8.5	-	5	4	F119397	125016	0.8	steel
M5	25	8.5	-	5	4	F112695	-	0.8	inox
M5	30	8.5	16	5	4	F110863	125030	0.8	steel
M5	35	8.5	22	5	4	F116382	125035	0.8	steel
M5	45	8.5	16	5	4	F604962	-	0.8	steel Zn/Ni
M5	50	8.5	16	5	4	F605481	-	0.8	steel Zn/Ni
M5	55	8.5	22	5	4	F605717	-	0.8	steel Zn/Ni
M6	16	10	-	6	5	F113441	126016	1.0	steel
M6	16	10	-	6	5	F129841	-	1.0	inox
M6	20	10	-	6	5	F110296	126020	1.0	steel
M6	20	10	-	6	5	F122373	136020	1.0	inox
M6	25	10	-	6	5	F103068	126025	1.0	steel
M6	25	10		6	5	F113442	126026	1.0 ST	steel
M6	25	10	-	6	5	F177863	136025	1.0	inox
M6	30	10	-	6	5	F101272	126030	1.0	steel
M6	30	10	-	6	5	F117393	136030	1.0	inox
M6	35	10	24	6	5	F115930	126035	1.0	steel
M6	35	10	24	6	5	F177862	136035	1.0	inox
M6	40	10	18	6	5	F104050	126040	1.0	steel
M6	40	10	24	6	5	F177866	136040	1.0	inox
M6	45	10	18	6	5	F118957	126045	1.0	steel
M6	50	10	24	6	5	F117845	126050	1.0	steel
M6	50	10	25	6	5	F171832	136050	1.0	inox
M6	65	10	24	6	5	F111619	126065	1.0	steel
M6	65	10	24	6	5	F724860	-	1.0	inox
M6	70	10	26	6	5	F122694	136070	1.0	inox
M6	80	10	24	6	5	F111620	-	1.0	steel
M6	90	10	24	6	5	F117863	126090	1.0	steel
M6	100	10	24	6	5	F111621	-	1.0	steel
M6	100	10	25	6	5	F724861	-	1.0	inox

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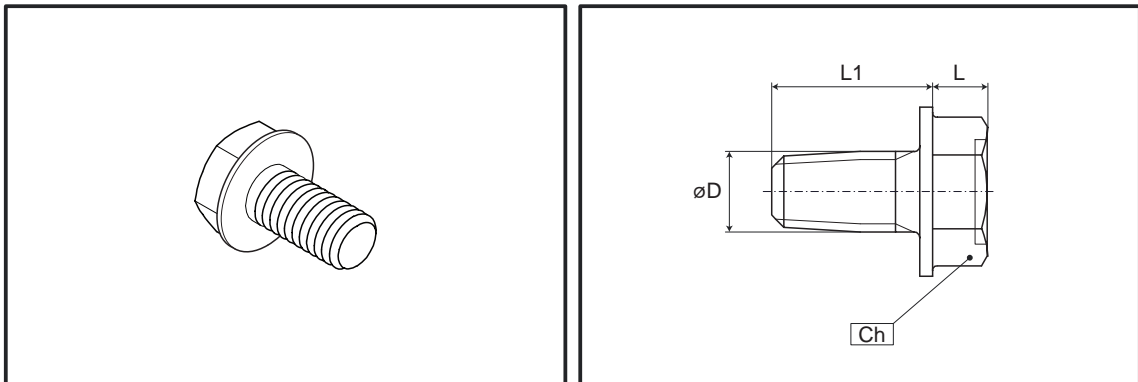
$\varnothing D$	L	$\varnothing D1$	L1	L2	E	p/n new	p/n old	Thread	Material
M8	30	13	-	8	6	F177956	128030	1.25	steel
M8	50	13	28	8	6	F211386	-	1.25	steel
M8	110	13	28	8	6	F121316	128110	1.25	steel
M8	120	13	28	8	6	F116027	128120	1.25	steel
M10	25	16	-	10	8	F102608	31001	1.5	steel
M10	30	16	-	10	8	F177959	-	1.5	steel
M10	35	16	-	10	8	F127881	-	1.5	steel
M10	60	16	-	10	8	F103255	48801	1.5	steel
M10	60	16	-	10	8	F120845	111060	1.5	inox
M10	70	16	-	10	8	F101041	22122	1.5	steel

### 8.6 Slotted head screw



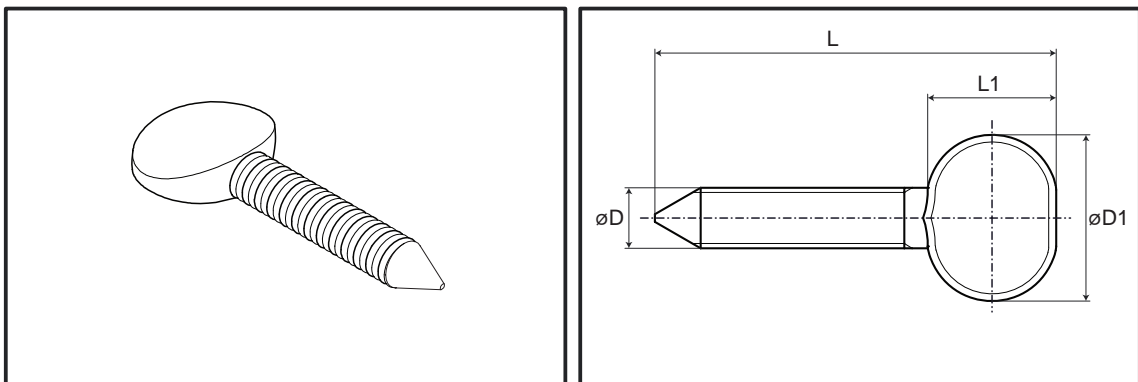
$\varnothing D$	$\varnothing D1$	L	L1	L2	p/n new	p/n old	Thread	Material
M3	5.5	2	16	-	F111506	003016	0.5	steel
M4	7	2.6	20	-	F125288	004020	0.7	steel
M4	7	2.6	25	-	F171956	004025	0.7	steel

### 8.8 Self-tapping hexagonal screws



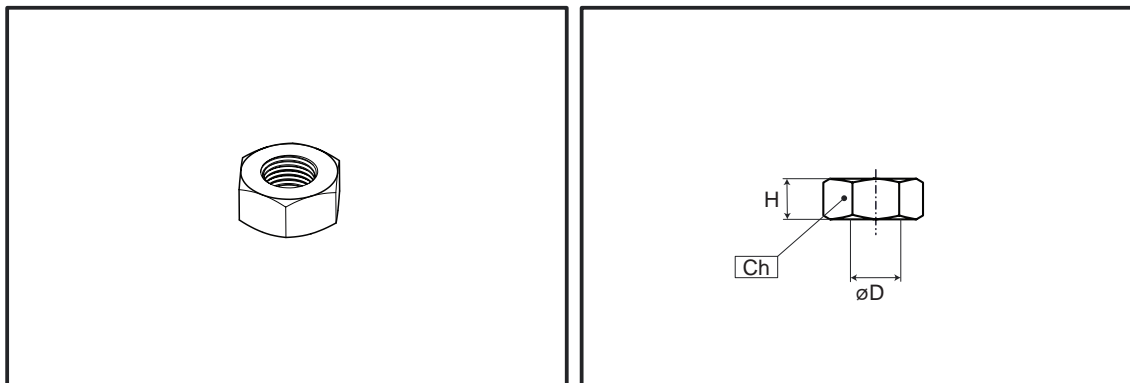
$\phi D$	$L$	$L1$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Thread</i>	<i>Material</i>
M5	3.4	10	F104509	02701	8	0.8	steel
M5	3.4	12	F601112	-	8	0.8	steel

### 8.7 Thumb screws



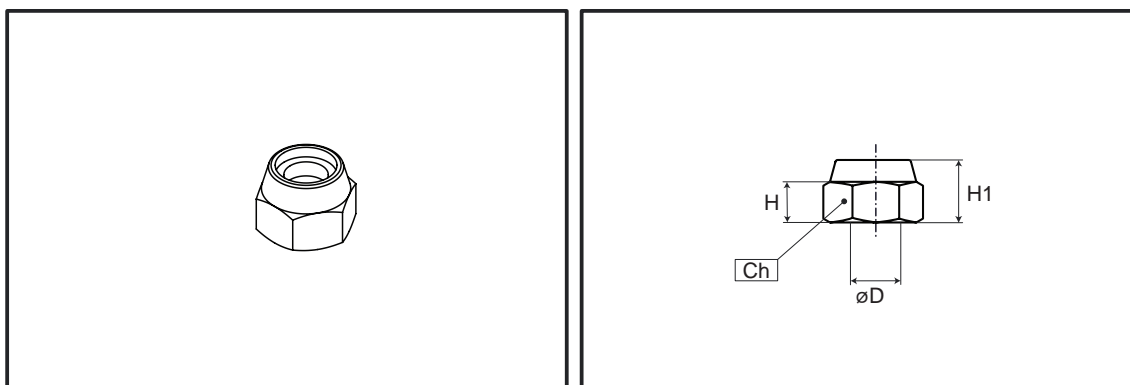
$\phi D$	$\phi D1$	$L$	$L1$	$L2$	<i>p/n new</i>	<i>p/n old</i>	<i>Thread</i>	<i>Material</i>
M8	22	50	16	-	F175187	-	1.25	steel

### 8.9 Hexagonal nuts



$\phi D$	H	H1	p/n new	p/n old	Ch	Thread	Material
M4	3.2	-	F171957	200004	7	1.75	steel
M5	4	-	F604963	-	8	0.8	steel Zn/Ni
M6	5	-	F110880	200006	10	1.0	steel
M6	5	-	F119655	210006	10	1.0	inox
M8	6.5	-	F104585	200008	13	1.25	steel
M10	8	-	F000725	200010	17	1.5	steel
M10	8	-	F000563	210010	17	1.5	inox
M12	10	-	F121939	200012	19	1.75	steel

### 8.10 Self-locking nuts



$\phi D$	H	H1	p/n new	p/n old	Ch	Thread	Material
M6	4.8	7.8	F111806	91303	10	1.0	steel
M6	3	6	F117846	230006	10	1.0	inox
M8	6.4	10.6	F113423	220008	13	1.25	steel
M8	7.3	-	F116046	DIN 980M	13	1.25	steel
M8	6.4	10.6	F120707	230008	13	1.25	inox
M10	8	12.3	F113424	220010	17	1.5	steel
M10	8	12.3	F120708	230010	17	1.5	inox

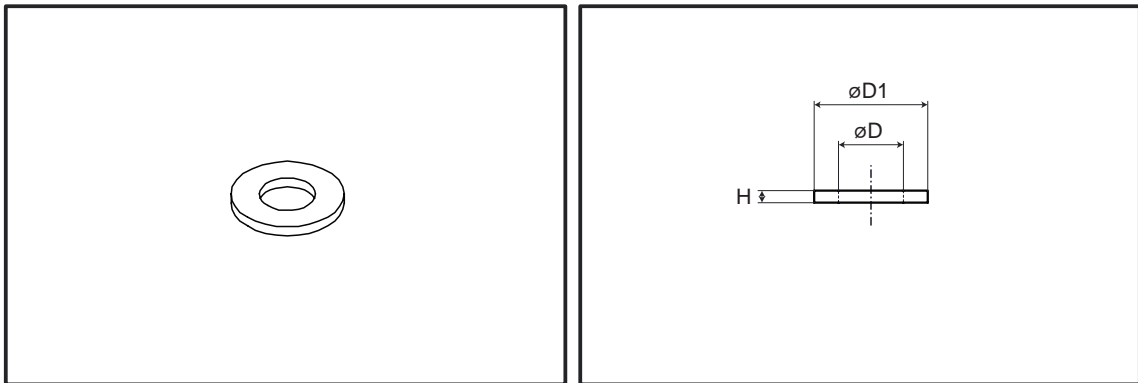
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### 8.12 Hexagonal flange nuts



$\varnothing D$	H	H1	p/n new	p/n old	Ch	Thread	Material
M8	8	-	F170805	-	13	1.25	steel

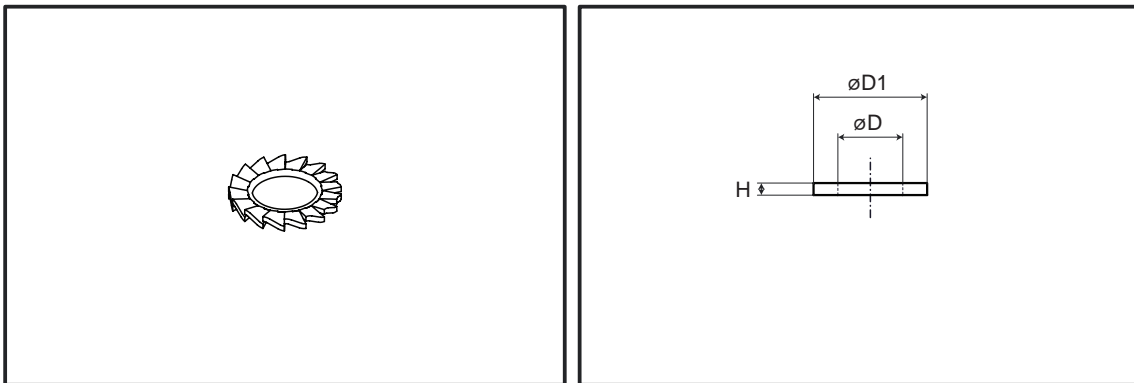
### 8.11 Plain washers



$\varnothing D$	$\varnothing D1$	H	p/n new	p/n old	Ch	Thread	Material
M4	8	0.8	F100016	300004	-	-	steel
M5	10	0.8	F604964	-	-	-	Steel Zn/Ni
M6	12	1.5	F110870	300006	-	-	steel
M6	12	1.6	F117392	310006	-	-	inox
M8	17	1.6	F104586	300008	-	-	steel
M8	17	1.6	F120709	310008	-	-	inox
M10	20	2	F113426	300010	-	-	steel
M10	20	2	F177961	310010	-	-	inox
M12	24	2.5	F117724	300012	-	-	steel
M14	28	2.5	F111012	300014	-	-	steel
M16	30	3	F178043	300016	-	-	steel

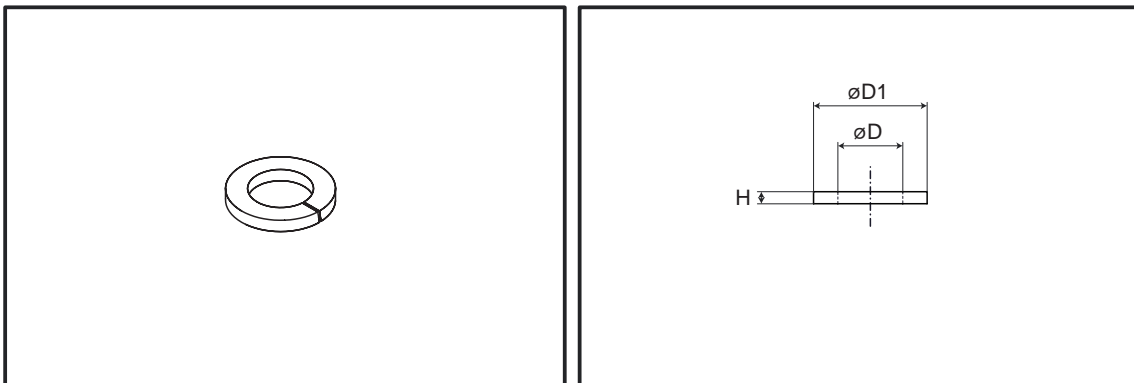
Release date: December 2021

### 8.13 Serrated lock washers



$\varnothing D$	$\varnothing D1$	H	p/n new	p/n old	Ch	Thread	Material
M6	11	2.1	F110297	09202	-	-	steel
M10	18	2.2	F000564	360010	-	-	inox

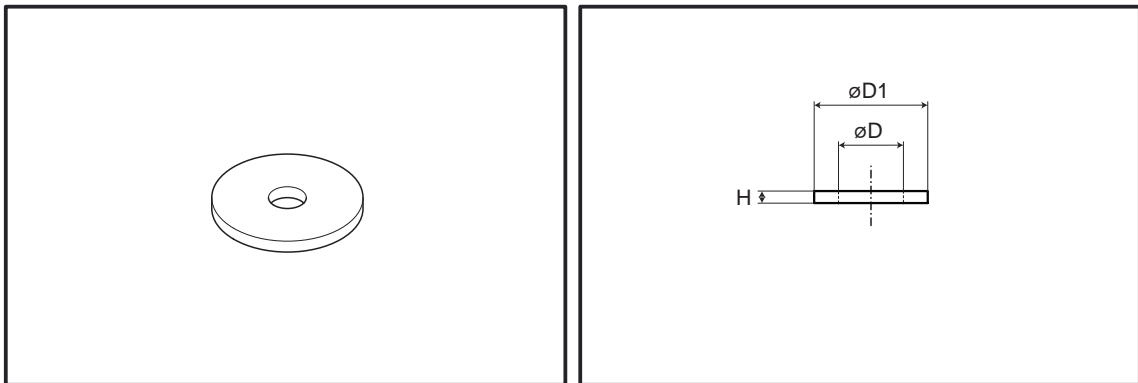
### 8.14 Lock washers



$\varnothing D$	$\varnothing D1$	H	p/n new	p/n old	Ch	Thread	Material
M4	7.3	0.9	F100998	330004	-	-	steel
M5	8.9	0.9	F604965	-	-	-	steel Zn/Ni
M6	11.4	1.6	F110872	330006	-	-	steel
M6	11.4	1.6	F120727	350006	-	-	inox
M8	14.4	2	F104587	330008	-	-	steel
M8	14.8	2	F122662	350008	-	-	inox
M10	17.5	2	F113427	330010	-	-	steel
M10	18.1	2.2	F120773	350010	-	-	inox
M12	21.2	2.5	F121938	330012	-	-	steel

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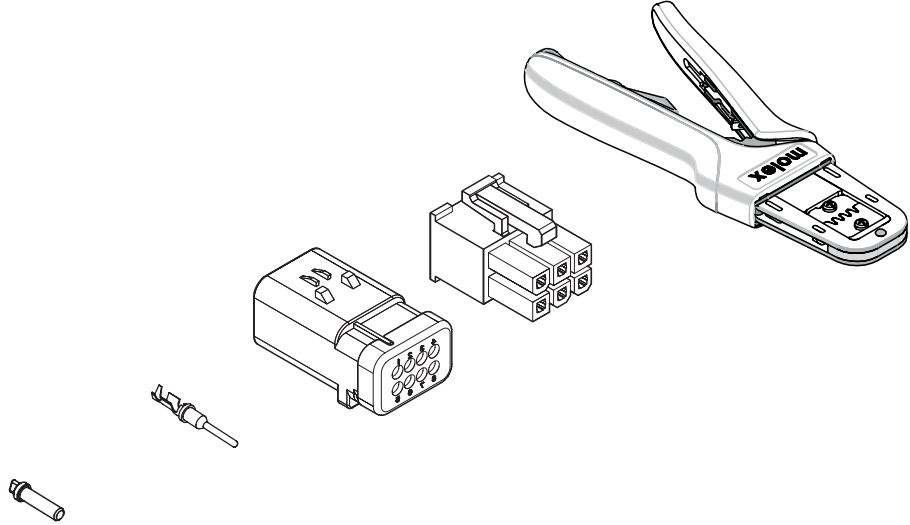
**8.15 Mudwing repair washers**



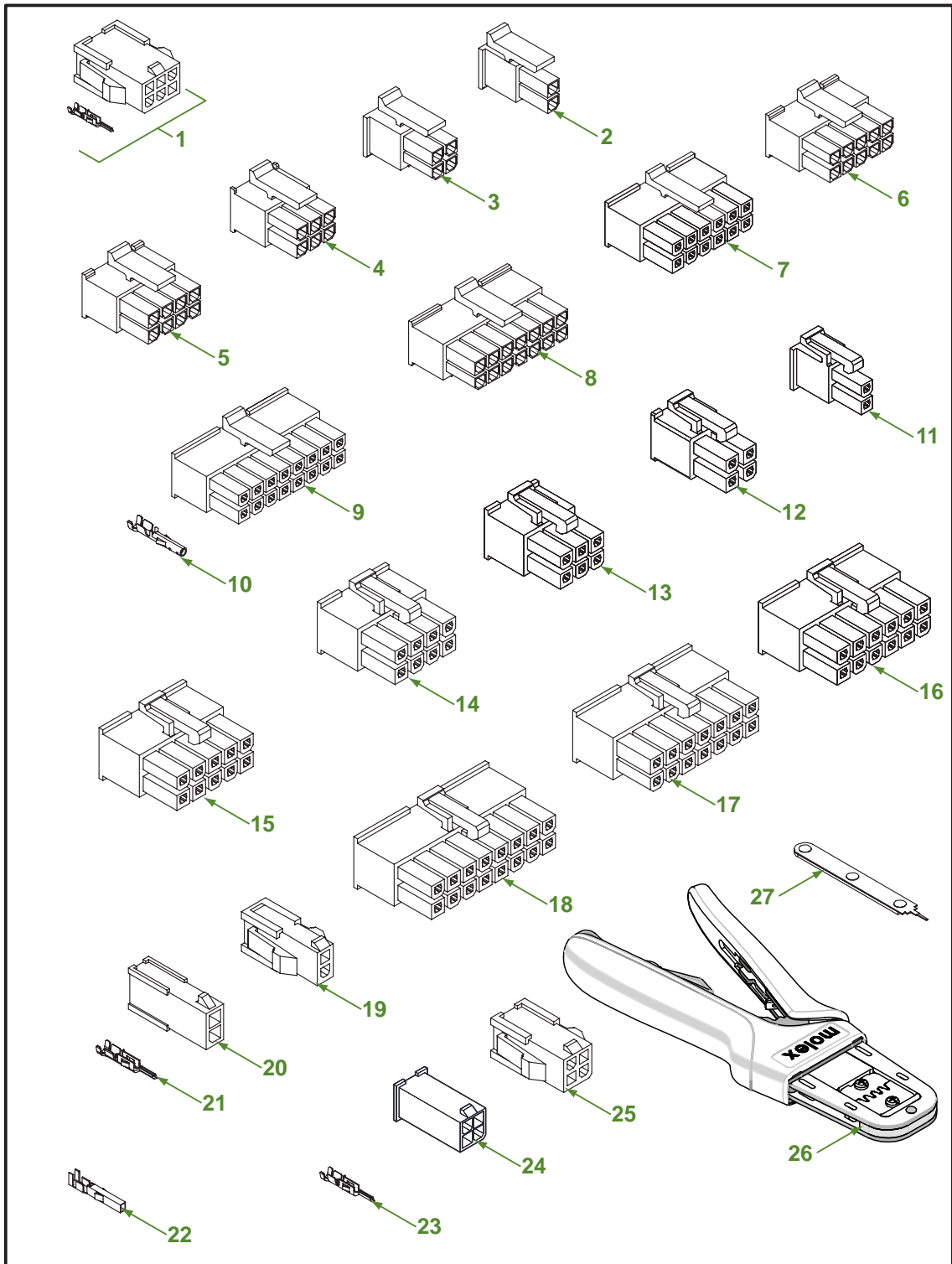
$\varnothing D$	$\varnothing D1$	H	p/n new	p/n old	Ch	Thread	Material
M5	15	1.5	F111648	325015	-	-	steel
M5	30	1.25	F127637	325030	-	-	steel
M6	25	1.5	F200458	326025	-	-	steel
M6	30	1.5	F107157	326030	-	-	steel
M8	30	1.5	F171921	328030	-	-	steel
M8	21	4	F204814	-	-	-	steel
M10	30	2.5	F178041	321030	-	-	steel



# 9. ELECTRICAL PARTS



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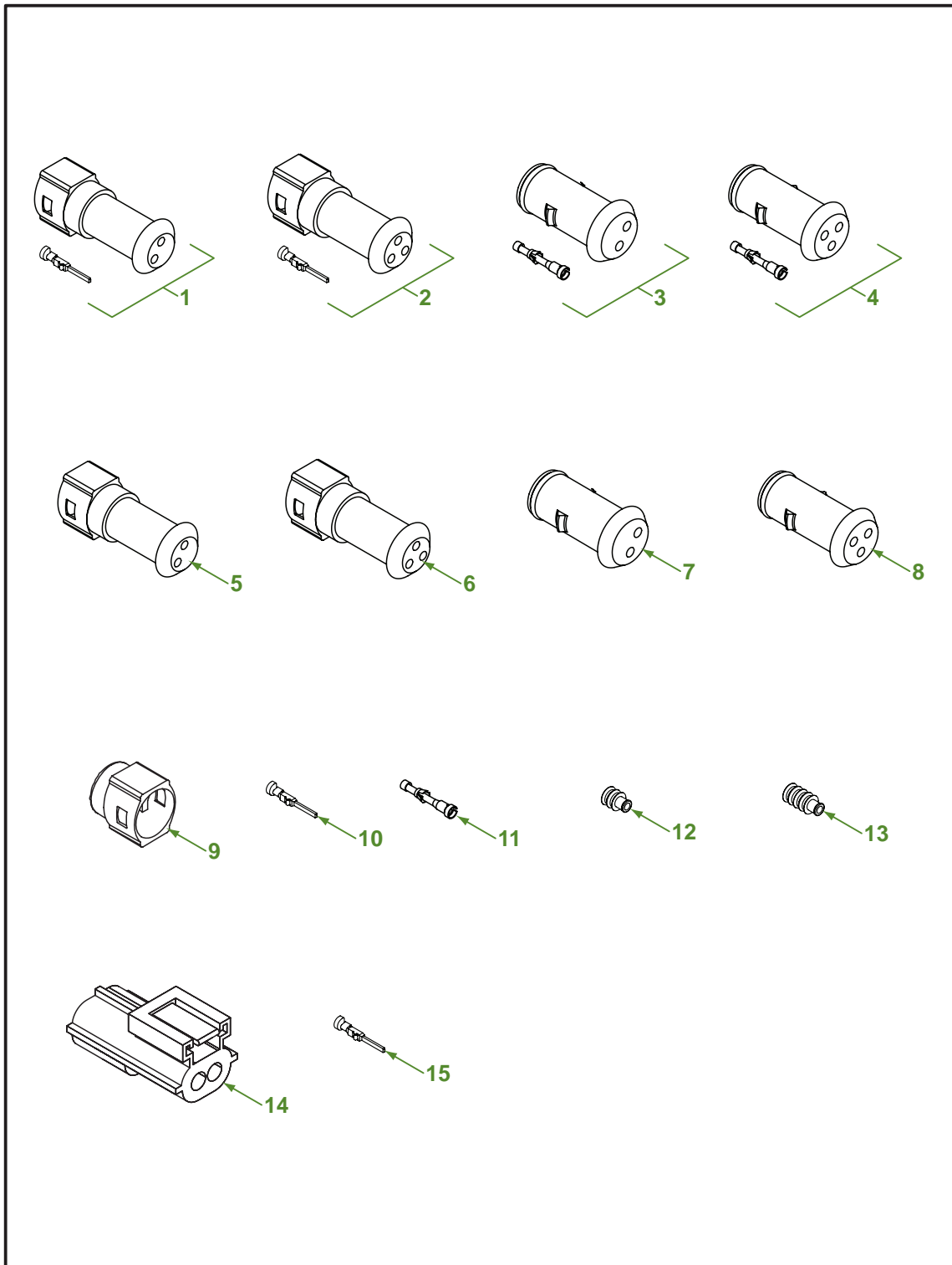
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9.1 Molex electrical parts

<i>Pos.</i>	<i>p/n new</i>	<i>p/n old</i>	<i>Description</i>
1	F121527	-	Display connection kit
2	F121150	-	Microfit connector 2P
3	F121151	-	Microfit connector 4P
4	F121152	-	Microfit connector 6P
5	F121277	-	Microfit connector 8P
6	F121153	-	Microfit connector 10P
7	F121154	-	Microfit connector 12P
8	F121244	-	Microfit connector 14P
9	F123067	-	Microfit connector 16P
10	F121155	-	Terminal microfit - wire range 1.5mm <sup>2</sup>
11	F110586	-	Minifit connector F2x1
12	F119600	-	Minifit connector F2x2
13	F119612	-	Minifit connector F2x3
14	F175129	-	Minifit connector F2x4
15	F171662	-	Minifit connector F2x5
16	F120823	-	Minifit connector F2x6
17	F119622	-	Minifit connector F2x7
18	F120130	-	Minifit connector F2x8
19	F119610	-	Minifit plug connector F2x1
20	F121885	-	Microfit connector 2P (male)
21	F121886	-	Terminal microfit - wire range 1.5mm <sup>2</sup> (male)
22	F110590	-	Terminal minifit - wire range 1.3mm <sup>2</sup>
	F606856		Terminal Minifit - wire range 0.3 - 0.08mm <sup>2</sup>
23	F119611	-	Terminal minifit - wire range 0.3 - 3mm <sup>2</sup>
24	F126344	-	Minifit connector 4P
25	F175941	-	Minifit plug connector F2x2
26*	63819-0000	-	Molex crimp tool for microfit
	63819-0900	-	Molex crimp tool for minifit
27*	11-03-0043	-	Molex extractor for microfit
	11-03-0044	-	Molex extractor for minifit

\* Not available for ordering please order at you local tool supplier.

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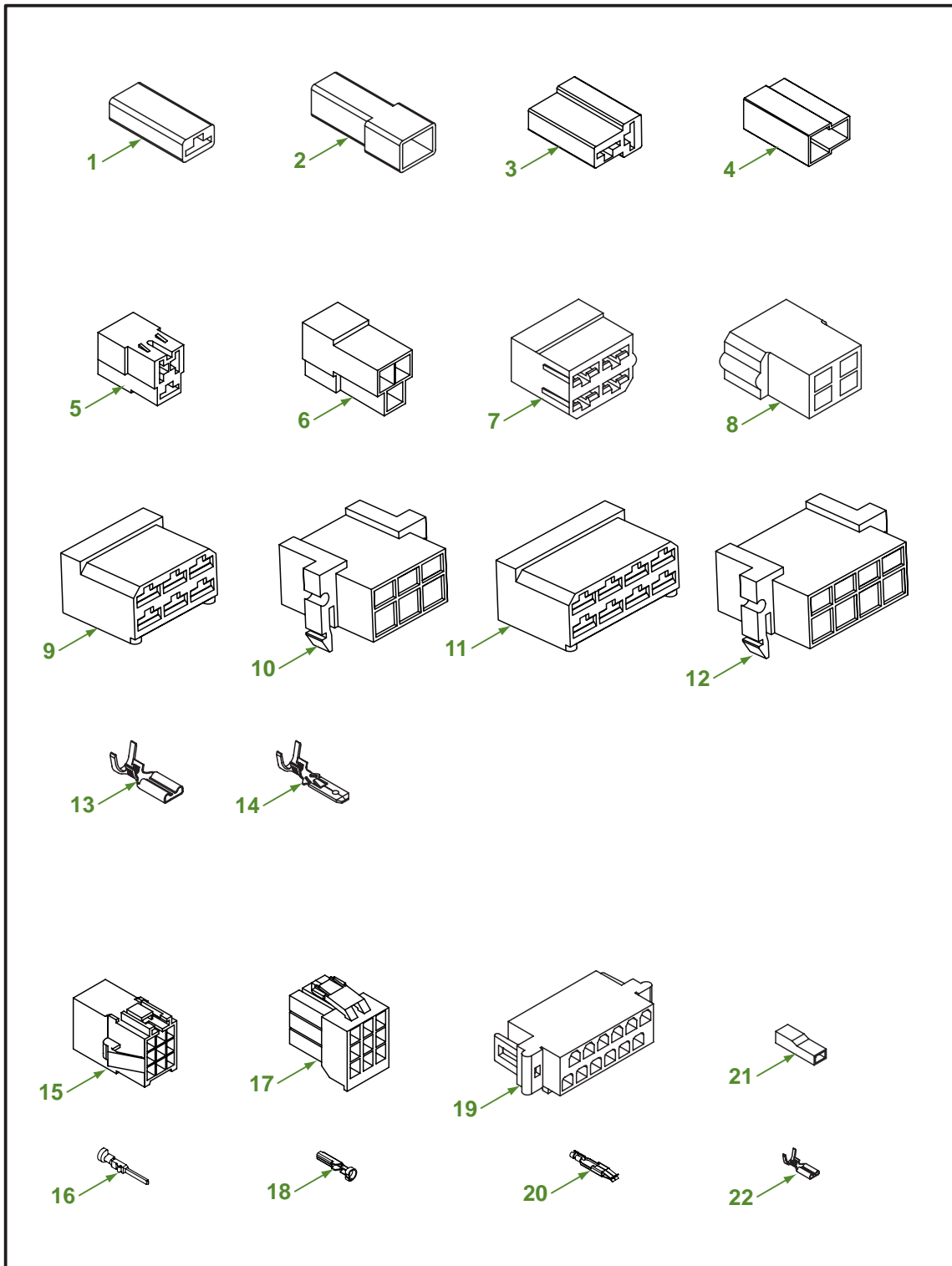


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**9.2 Amp Econoseal electrical parts**

<i>Pos.</i>	<i>p/n new</i>	<i>p/n old</i>	<i>Description</i>
1	F120274	-	Connector kit 2P female
2	F122130	-	Connector kit 3P female
3	F120273	-	Connector kit 2P male
4	F121943	-	Connector kit 3P male
5	F117697	188413	Connector 2P female
6	F110617	39503	Connector 3P female
7	F117698	188498	Connector 2P male
8	F117332	188414	Connector 3P male
9	F117161	188601	Dust plug
10	F114090	188400	Pin contact - wire range 2 - 2.5mm <sup>2</sup>
11	F114091	188441	Socket contact - wire range 2 - 2.5mm <sup>2</sup>
12	F117415	800018	Wire seal isolated diameter 2.6 - 3.3
13	F112745	26033	Cavity plug
14	F206411	-	Connector 2P female (JCB excavator power)
15	F206412	-	Pin contact 1.5 - 2.0mm <sup>2</sup>

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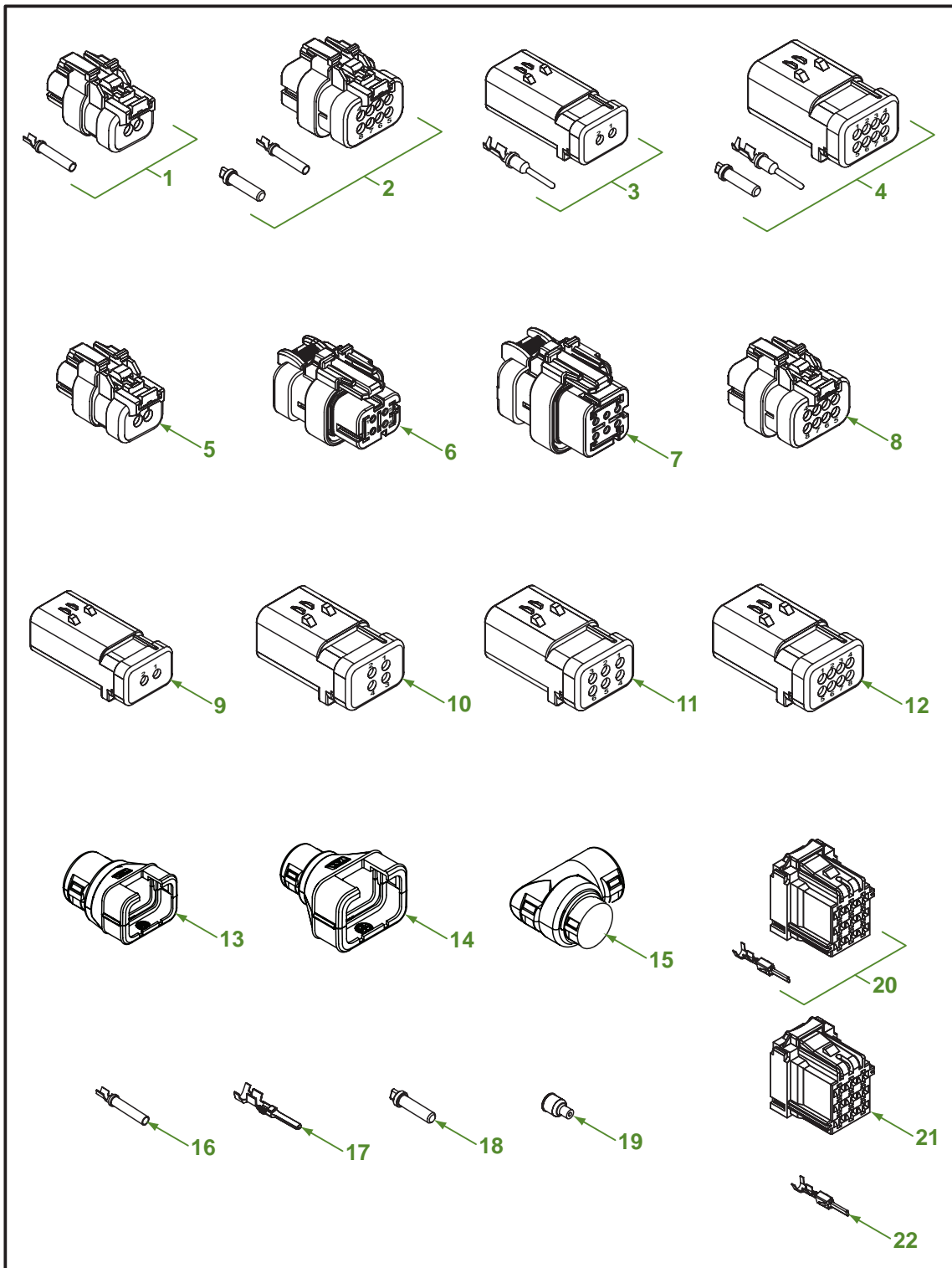


Release date: December 2021

9.3 Amp electrical parts

<i>Pos.</i>	<i>p/n new</i>	<i>p/n old</i>	<i>Description</i>
1	F112758	67606	Connector housing 1P (female)
2	F113466	67706	Connector housing 1P (male)
3	F104543	61106	Connector housing 2P (female)
4	F104582	61006	Connector housing 2P (male)
5	F113852	-	Connector housing 3P (female)
6	F116164	-	Connector housing 3P (male)
7	F110889	13103	Connector housing 4P (male)
8	F112759	67506	Connector housing 4P (female)
9	F602170	-	Connector housing 6P (female)
10	F602171		Connector housing 6P (male)
11	F174162	13003	Connector housing 8P (male)
12	F174161	22603	Connector housing 8P (female)
13	F104635	67806	Receptacle - wire range 1.2 - 1.6mm <sup>2</sup> (female)
	F104529	68606	Receptacle - wire range 2.5mm <sup>2</sup> (female)
14	F112757	61416	Tab contact - wire range 1.2 - 1.6mm <sup>2</sup> (male)
	F117748	68706	Tab contact - wire range 2.5mm <sup>2</sup>
15	F188468	188468	Universal cap housing 9P (GS in-cab display)
16	F188467	188467	Universal tab contact - wire range 1.2 - 2mm <sup>2</sup> (male)
17	F188466	188466	Universal power plug 9P (GS in-cab display)
18	F188465	188465	Universal Receptacle contact -1.2 - 2mm <sup>2</sup> (female)
19	F104581	07701	Connector housing 12P (SingleLine timer)
20	F104579	07801	Junior contact - wire range 0.50 - 1.50mm <sup>2</sup>
	F119657	41701	Junior contact - wire range 1.0 -.2.5mm <sup>2</sup>
21	F113015	00617	Insulating sleeve for F113014
22	F113014	00517	Receptable - wire range 1.5 - 2.8mm <sup>2</sup>

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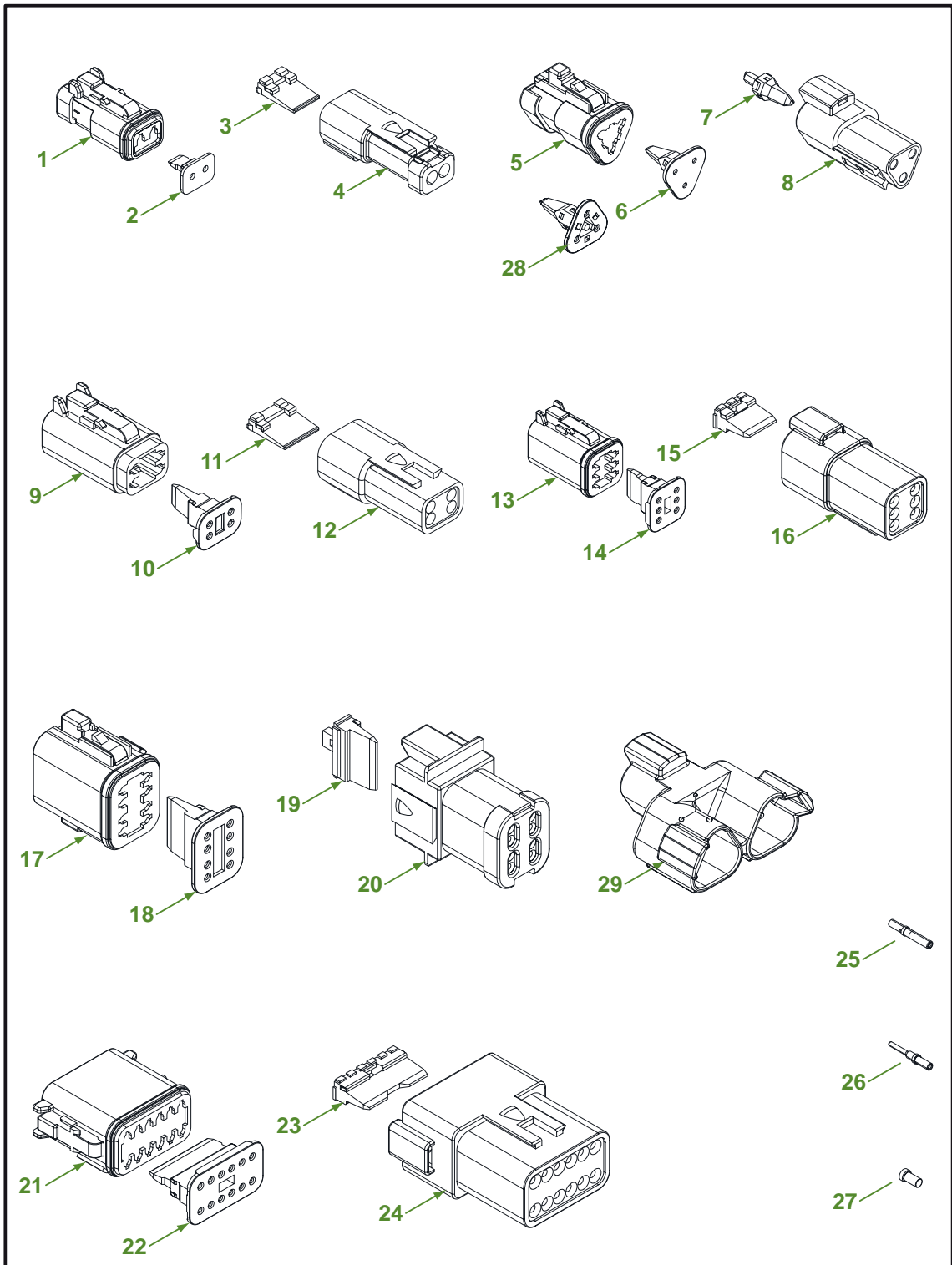
Release date: December 2021



9.4 Tyco electrical parts

<i>Pos.</i>	<i>p/n new</i>	<i>p/n old</i>	<i>Description</i>
1	F127306	-	Connector kit 2P male (pressure switch)
2	F127305	-	Connector kit 8P male (pump)
3	F213496	-	Connector kit 2P female
4	F212619	-	Connector kit 8P female
5	F122246	-	Connector housing 2P male
6	F122249	-	Connector housing 4P male
7	F128975	-	Connector housing 6P male
8	F123389	-	Connector housing 8P male
9	F122247	-	Connector housing 2P female
10	F122250	-	Connector housing 4P female
11	F122248	-	Connector housing 6P female
12	F122251	-	Connector housing 8P female
13	F131454	F128114	Backshell Tyco 8P connector straight (NW10)
14	F131593	-	Backshell Tyco 2P connector straight (NW10)
15	F131455	-	Elbow 90° for Tyco backshell (NW10)
16	F122262	-	Socket contact
17	F122263	-	Contact pin - wire range 1.3mm <sup>2</sup>
18	F122264	-	Sealing plug
19	F206413	-	Single wire seal - wire range 0.5 - 1.5mm <sup>2</sup>
20	F174125	-	Connector kit 9P male (M.B. Actros power)
21	F174126	-	Connector housing 9P (M.B. Actros power)
22	F188476	-	Contact pin 1.2 - 2.1mm <sup>2</sup>

Release date: December 2021



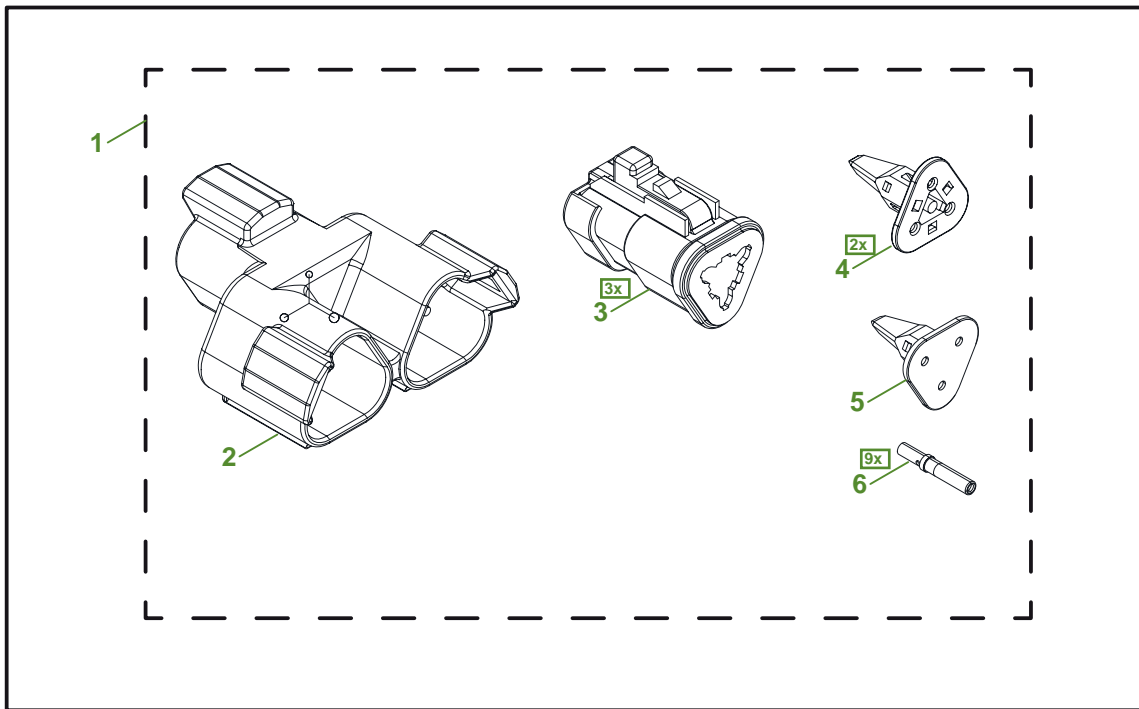
Release date: December 2021

9.5 Deutsch electrical parts

<i>Pos.</i>	<i>p/n new</i>	<i>p/n old</i>	<i>Description</i>
1	F119553	-	Deutsch 2-core connector DT06-2S-EP06
2	F119554	-	Deutsch 2-core wedge lock W2S
3	F174928	-	Deutsch 2-core wedge lock W2P
4	F174927	-	Deutsch 2-core connector DT04-2P-CE03
5	F117501	-	Deutsch 3-core connector DT06-3S-EP04
6	F117502	-	Deutsch 3-core wedge lock W3S
7	F118080	-	Deutsch 3-core wedge lock W3P
8	F118079	-	Deutsch 3-core connector DT04-3P-EP04
9	F200791	-	Deutsch 4-core connector DT06-4S
10	F200792	-	Deutsch 4-core wedge lock W4S
11	F121368	-	Deutsch 4-core wedge lock W4P
12	F121367	-	Deutsch 4-core connector DT04-4P
13	F200793	-	Deutsch 6-core connector DT06-6S
14	F200794	-	Deutsch wedge lock W6S
15	F120848	-	Deutsch wedge lock W6P
16	F120847	-	Deutsch 6-core connector DT04-6P-E004
17	F200795	-	Deutsch 8-core connector DT06-8S
18	F200796	-	Deutsch wedge lock W8S
19	F176729	-	Deutsch wedge lock W8P
20	F176728	F120776	Deutsch 8-core connector DT04-08
21	F118234	-	Deutsch 12-core connector DT06-12SA-P012
22	F118235	-	Deutsch 12-core wedge lock W12S-P012
23	F118233	-	Deutsch wedge lock W12P
24	F118230	-	Deutsch 12-core connector DT04-12PA
25	F206281	-	Deutsch socket contact 0462-201-20141 (0.5mm <sup>2</sup> )
	F117503	-	Deutsch socket contact 0462-201-16141 (1.5mm <sup>2</sup> )
	F118390	-	Deutsch socket contact 0462-209-16141 (2.0mm <sup>2</sup> )
26	F118081	-	Deutsch pin contact 0460-202-16141 (1.5mm <sup>2</sup> )
	F118360	-	Deutsch pin contact 0460-215-16141 (2.0mm <sup>2</sup> )
27	F118232	-	Deutsch plug 114017 TRU 114019
28	F617624		Deutsch 3-core wedge lock W3S-J1939
29	F617620		Deutsch 3-way connector DT04-3P-007

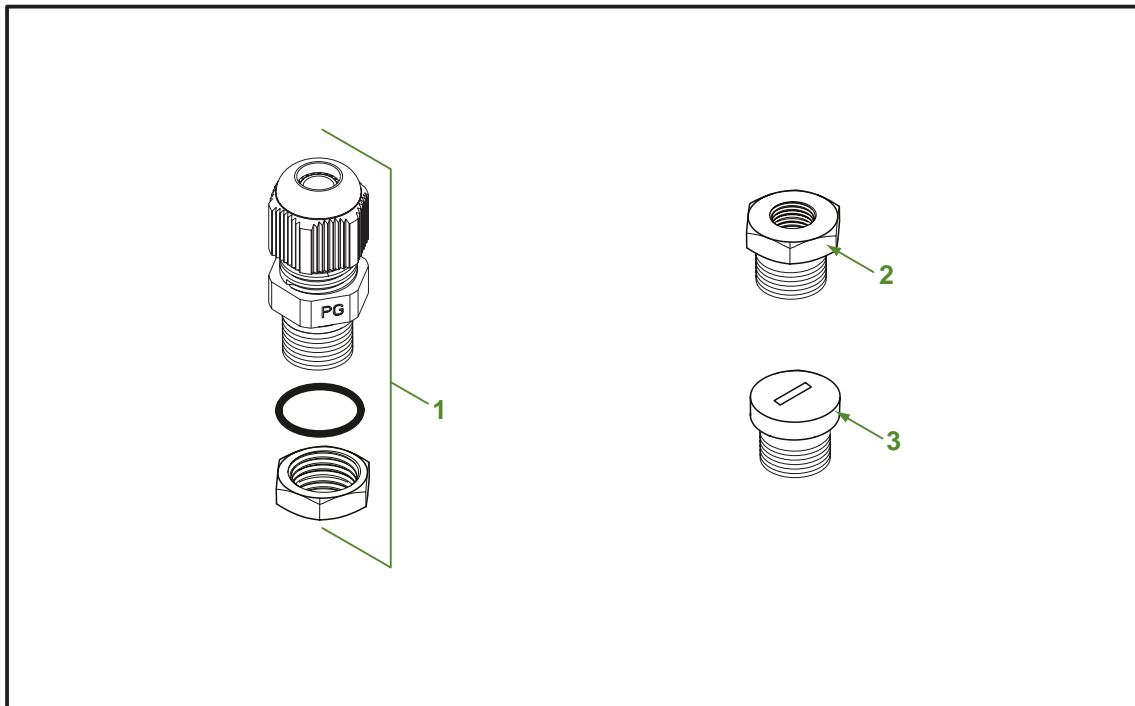
Release date: December 2021

### 9.6 Deutsch 3 way connector kit



Pos.	p/n new	p/n old	Description
1	F617621	-	Deutsch 3-way connection kit
2	F617620	-	Deutsch 3-way connector DT04-3P-007
3	F117501	-	Deutsch 3-core connector DT06-3S-EP04
4	F617624	-	Deutsch 3-core wedge lock W3S-J1939
5	F117502	-	Deutsch 3-core wedge lock W3S
6	F117503	-	Deutsch socket contact 0462-201-16141 (1.5mm <sup>2</sup> )

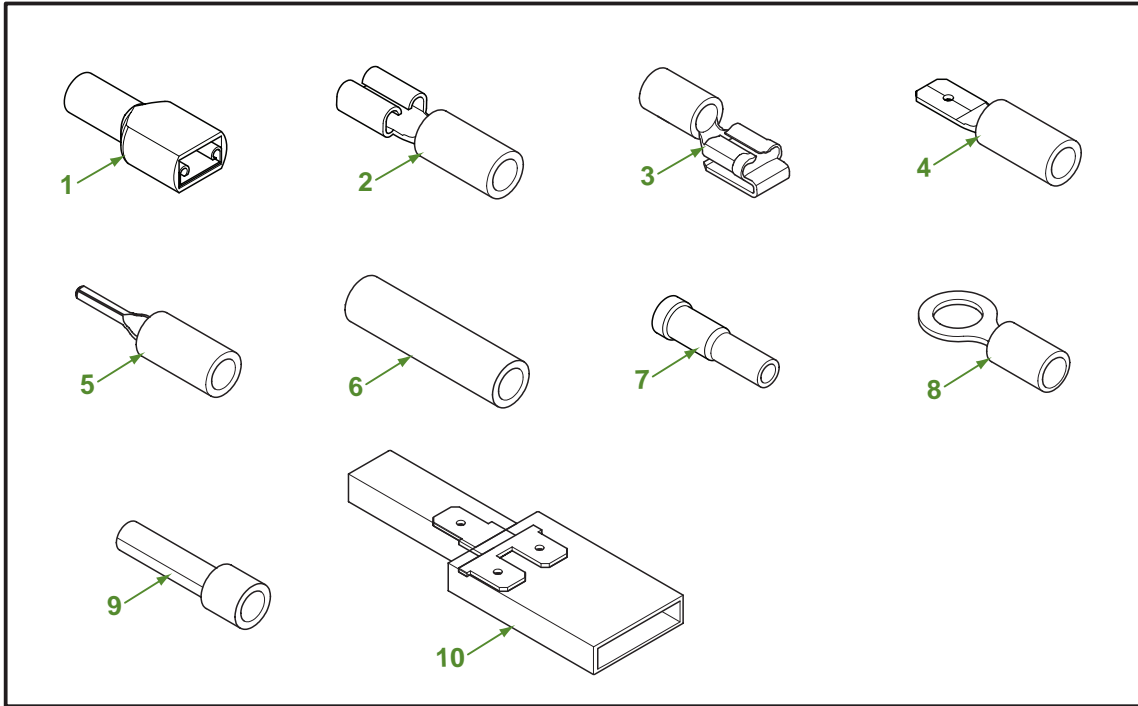
9.7 Cable glands



Pos.	p/n new	p/n old	Description	For diameter	Material
1	F116100	192002	PG-7 Cable gland complete	3 to 6.5 mm	Polyamide
	F827299		PG-9 Cable gland complete	4 to 8 mm	Polyamide
	F827300		PG-11 Cable gland complete	5 to 10 mm	Polyamide
	F827301		PG-13.5 Cable gland complete	6 to 12 mm	Polyamide
	F827302		PG-16 Cable gland complete	10 to 14 mm	Polyamide
	F827303		M12x1.5 cable gland complete	3 to 6.5 mm	Polyamide
	F827304		M16x1.5 Cable gland complete	5 to 10 mm	Polyamide
	F827305		M20x1.5 Cable gland complete	10 to 14mm	Polyamide
2	F117983	77209	Reducing adapter PG-13.5 to PG-9		Polyamide
3	F200046	73722	Plug for PG-13.5		Polyamide

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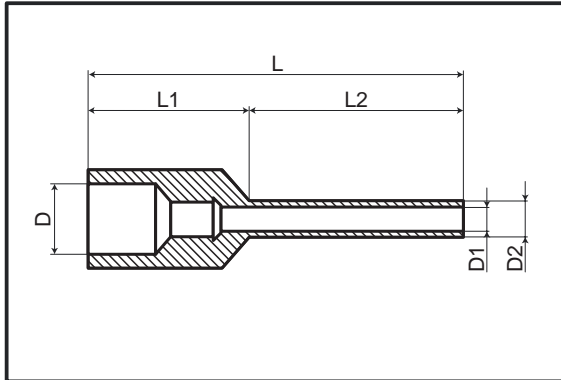
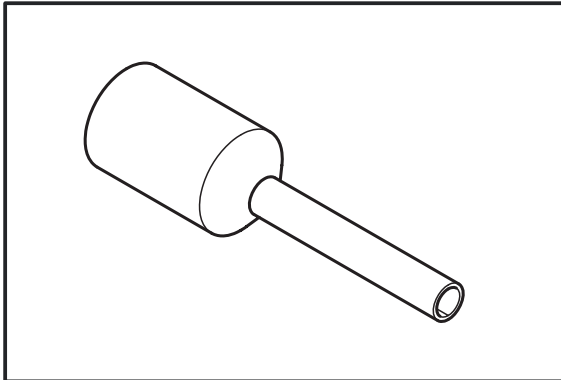
**9.8 Crimp terminals**



Pos.	p/n new	p/n old	Description	
1	F122785	801003	S - Receptable - wire range 0.25 - 1mm <sup>2</sup> (red)	
	F111476	03203	S - Receptable - wire range 1 - 2.5mm <sup>2</sup> (blue)	
2	F170825	801001	Receptable - wire range 1.5 - 2.5mm <sup>2</sup> (blue)	
	F122788	801002	Receptable - wire range 4 - 6mm <sup>2</sup> (yellow)	
3	F176484	890002	Piggy back 1.5 - 2.5mm <sup>2</sup> (blue)	
4	F120218	890003	Blade - wire range 0.5-2.5mm <sup>2</sup> (blue)	
5	F122828	802003	Round pin - wire range 1 - 2.5mm <sup>2</sup> (blue)	
6	F173789	803002	Splice butt - wire range 1 - 2.5mm <sup>2</sup> (blue)	
7	F100870	802002	Female isolated - wire range 0.5 - 1mm <sup>2</sup> (red)	
8	F124093	800001	Contact tingues - wire range 0.25 - 1mm <sup>2</sup> (red) M3	
	F176452	-	Contact tingues - wire range 1 - 2.5mm <sup>2</sup> (blue) M4	
	F104595	800002	Contact tingues - wire range 1 - 2.5mm <sup>2</sup> (blue) M5	
	F104594	03303	Contact tingues - wire range 0.25 - 1mm <sup>2</sup> (red) M6	
	F117986	800004	Contact tingues - wire range 0.25 - 1mm <sup>2</sup> (red) M6	
	F176409	-	Contact tingues - wire range 0.25 - 1mm <sup>2</sup> (red) M8	
	F104596	800003	Contact tingues - wire range 4 - 6mm <sup>2</sup> (yellow) M8	
	F179041	-	Contact tingues - wire range 1 - 2.5mm <sup>2</sup> (blue) M10	
	9	F123086	04412	Bootlace ferrule 1,0mm <sup>2</sup> (yellow)
		F605618	-	Bootlace ferrule 1,5mm <sup>2</sup> (red)
F123087		04612	Bootlace ferrule 2,5mm <sup>2</sup> (blue)	
10	F104403	890007	Splitter connector - wire range max 6mm <sup>2</sup>	

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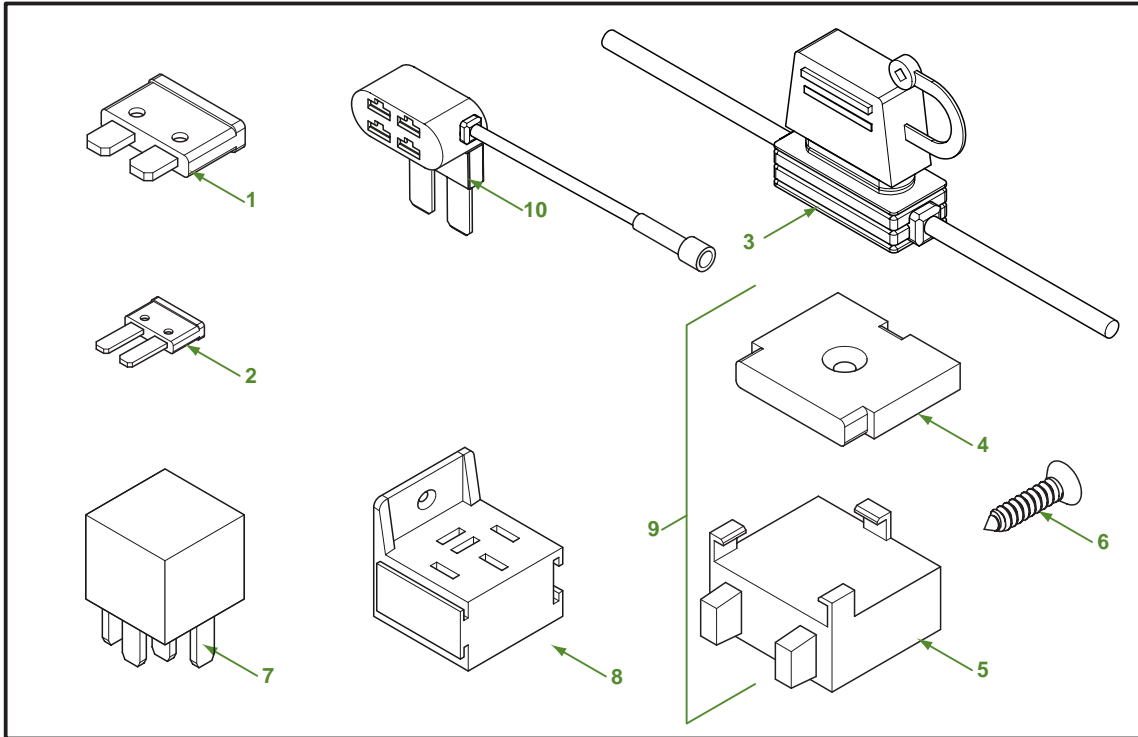
9.9 Bootlace ferrules



<i>p/n new</i>	<i>D</i>	<i>D1</i>	<i>D2</i>	<i>L</i>	<i>L1</i>	<i>L2</i>	<i>Colour</i>
F608205	2.6	1	1.3	14	6	8	Orange
F608206	3	1.2	1.5	14.5	6.5	8	White
F608207 *	2.3/4.5	1.2	1.5	15	7	8	White
F608208 *	3.2/5.1	1.75	2.05	15	7	8	Red
F608209 *	3.5/6.4	2	2.3	20	8	12	Black
F608210 *	4/7.5	2.5	2.9	18.5	8.5	10	Blue

\* Bootlace ferrule for two wires.

9.10 Fuses and relays

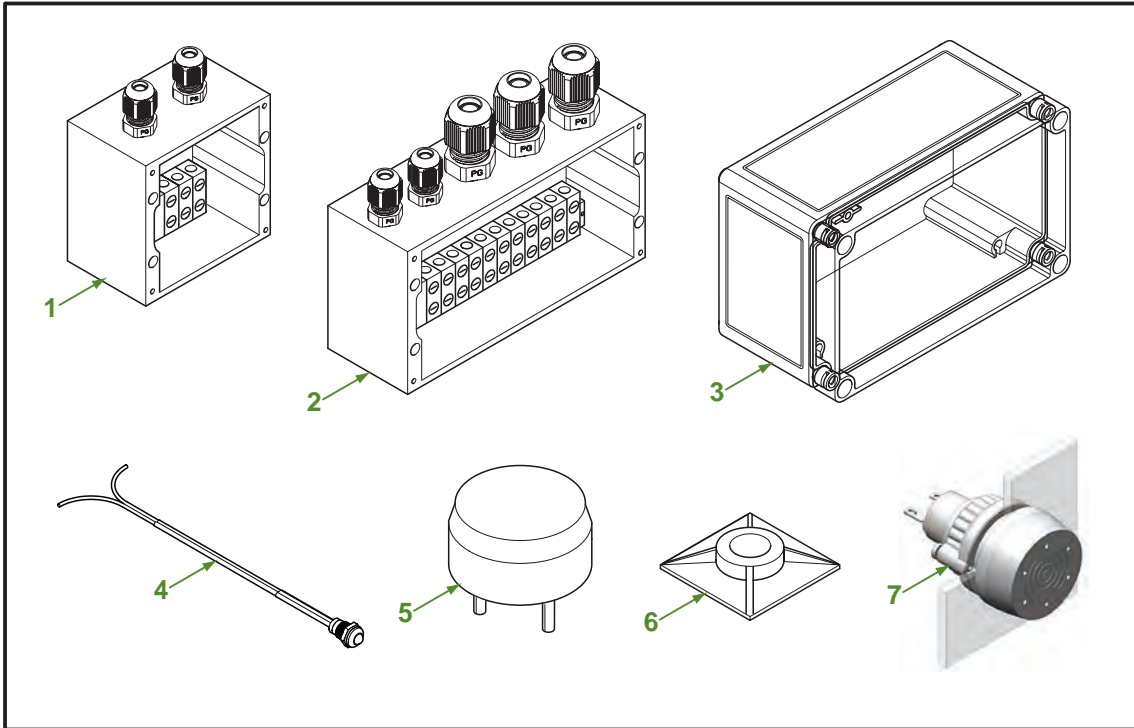


Pos.	p/n new	p/n old	Description
1	F175942	15508	Blade fuse 3 Amp standard
	F113444	15608	Blade fuse 5 Amp standard
	F113603	15708	Blade fuse 7.5 Amp standard
	F113445	19508	Blade fuse 10 Amp standard
	F176485	15808	Blade fuse 15 Amp standard
	F177962	17208	Blade fuse 20 Amp standard
	2	F130472	-
F130473		-	Blade fuse 7.5 Amp mini
F601948		-	Blade fuse 10 Amp mini
F601949		-	Blade fuse 15 Amp mini
3	F117388	03108	Fuse holder IP67 (standard fuse)
4	F117316	17508	Support fuse holder
5	F117315	17408	Fuse holder single (standard fuse)
6	F117317	17608	Allen screw for F117316
7	F120572	70809	Relay 12V 50 Amp
	F113547	97301	Relay 24V 20 Amp with diode
	F175927	-	Relay 24V 20 Amp with mounting
	F111533	35606	Relay 24V 40 Amp
8	F113591	70709	Relay Socket
9	F104528	04408	Fuse holder kit, Inc. 5 Amp standard fuse
	F118847	34208	Fuse holder kit, Inc. 10 Amp standard fuse
10	F617548	-	Extension fuse holder (Mini fuse)

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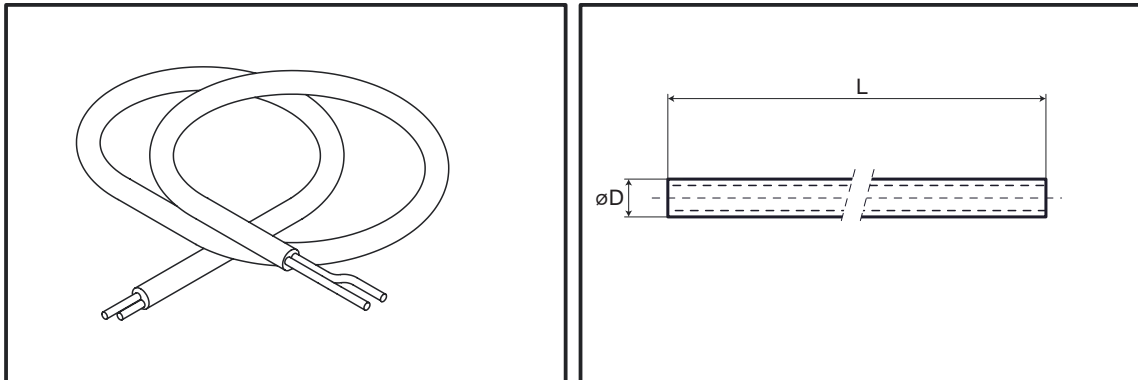
9.11 General electrical parts



Pos.	p/n new	p/n old	Description
1	F127753	17122	Connection box 80x75x55 (5 clamps)
2	F121911	17222	Connection box 190x75x55 (20 clamps)
3	F200141	75802	Box IP66 164x99x67 transparent cover
4	F105890	21103	LED assembly red
	F105891	24009	LED assembly yellow
	F194350		LED assembly green
5	F200164	98502	Flashing beacon red 12-32V IP67
6	F684410	-	Adhesive Cable mount black 27mmx27mm

Release date: December 2021

### 9.12 Electrical wiring



$\varnothing D$	Cores	wire $\varnothing$	Length	p/n new	p/n old	Description
2.2	1	0.75mm <sup>2</sup>	per 1 meter	F112078	08208	1-core black
2.2	1	0.75mm <sup>2</sup>	per 1 meter	F112079	05408	1-core red
2.8	1	1.5mm <sup>2</sup>	per 1 meter	F104617	04908	1-core red/yellow
2.8	1	1.5mm <sup>2</sup>	per 1 meter	F104619	04808	1-core red
2.8	1	1.5mm <sup>2</sup>	per 1 meter	F104620	04708	1-core brown
2.8	1	1.5mm <sup>2</sup>	per 1 meter	F115259	03008	1-core black
2.9	1	2.5mm <sup>2</sup>	per 1 meter	F104618	04508	1-core red
2.9	1	2.5mm <sup>2</sup>	per 1 meter	F104662	04608	1-core yellow
6	2x	0.75mm <sup>2</sup>	per 1 meter	F126841	02908	2-core cable red / brown
6	2x	1.50mm <sup>2</sup>	per 1 meter	F122951	-	2-core cable blue / brown
7	2x	1.00mm <sup>2</sup>	per 1 meter	F124446	57806	2-core cable yellow / red
6	3x	1.00mm <sup>2</sup>	per 1 meter	F104634	02808	3-core cable red / yellow / blue

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