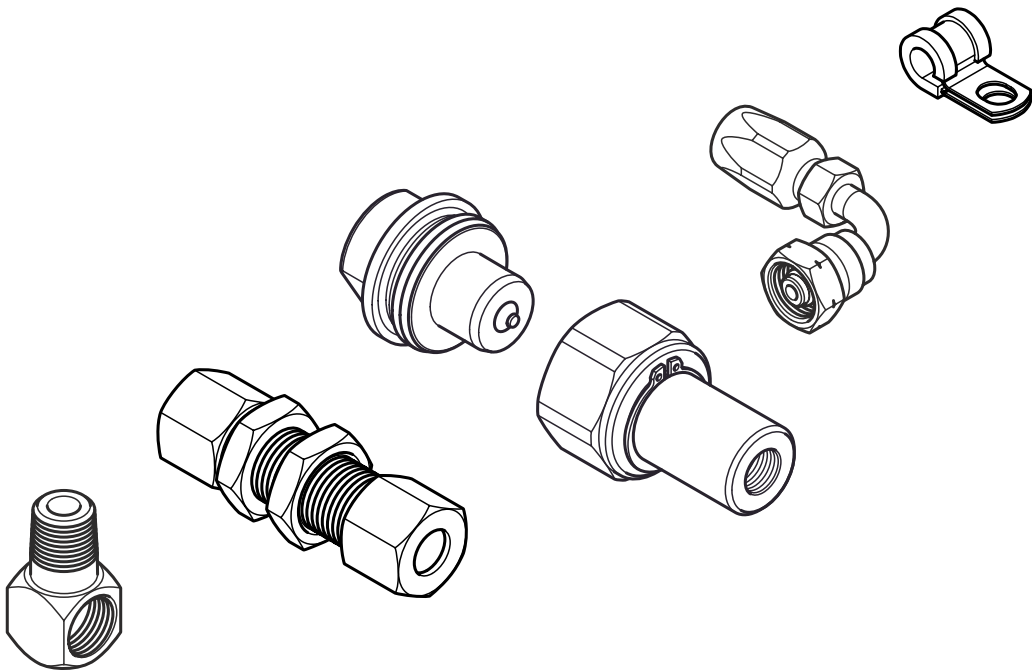


# ***General Parts Manual***



## **Automatic Greasing Systems**

F213861R08



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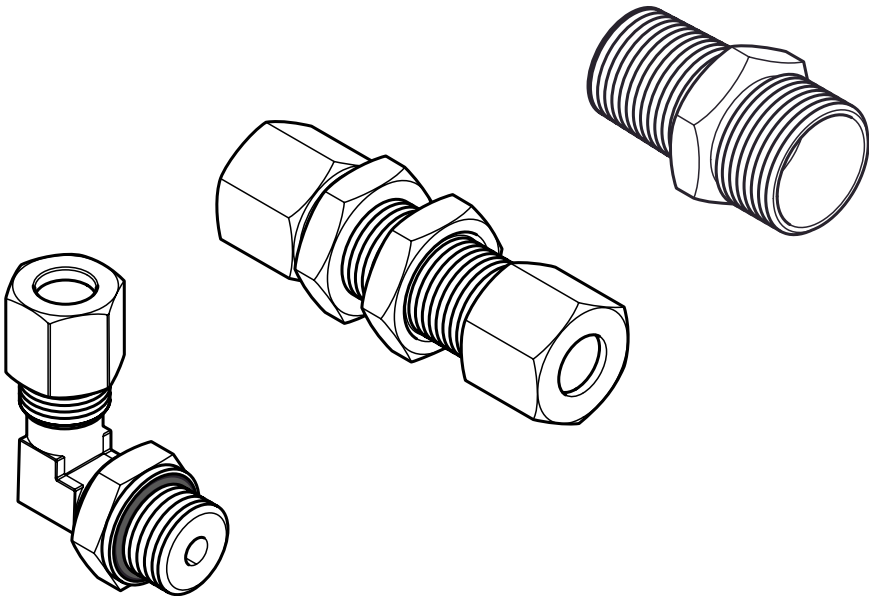
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# 1. FITTINGS

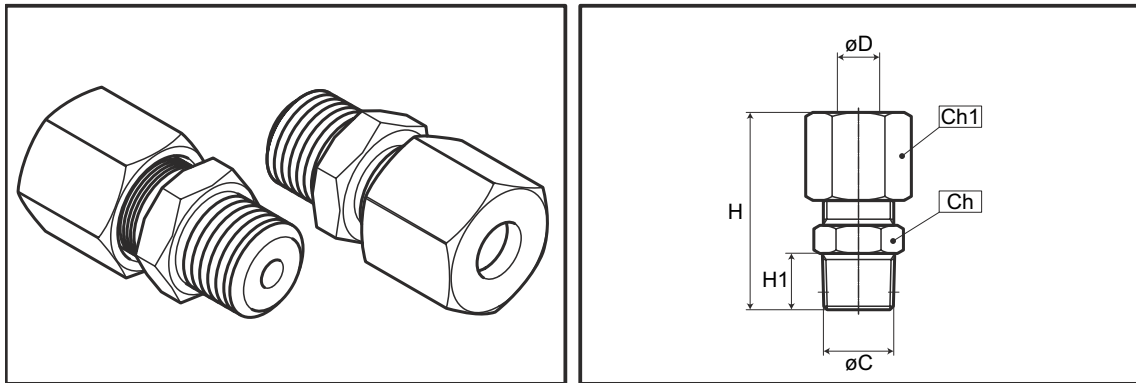


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1.1 Male stud couplings



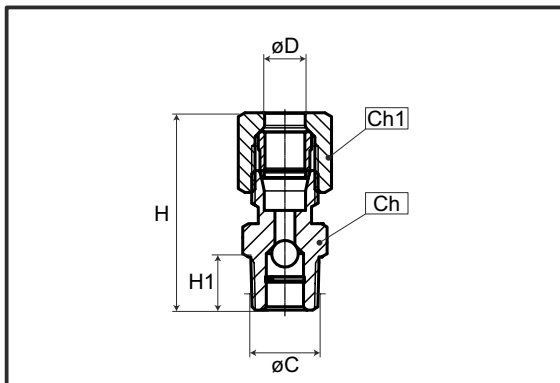
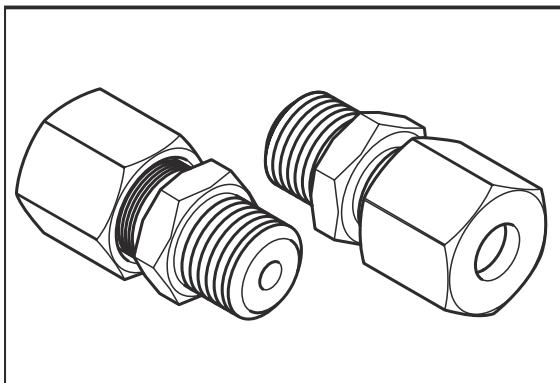
$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
3/16"	M6x1	F103440	21201	10	12	25	5.5	-	steel
3/16"	M6x1	F102455	65701	12	12	25	7	-	steel
3/16"	M7x1	F000601	10101	11	12	25	6.5	-	brass
3/16"	M8x1	F000436	21901	11	12	27.5	9	-	brass
3/16"	M8x1	F103224	23501	11	12	50	30	-	brass
3/16"	M8x1	F104169	58501	10	12	25	5.5	-	steel
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"	1/8"NPT	F104096	42101	11	12	25	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	R1/8"	F113779	07908	11	13	28	8	-	brass
6mm	R1/8"	F104513	43402	11	12	28	8	-	steel
6mm	G1/8"	F122063	98702	11	12	26	8	-	inox
6mm	R1/8"	F213317	-	12	14	32	10	-	steel
6mm	1/8"NPTF	F112162	98101	13	13	28	8	-	brass
6mm	1/8"NPT	F119573	-	13	13	28	8	-	inox
6mm	1/8"NPTF	F604324	-	11	12	28	8	-	steel
6mm	M10x1	F113773	13417	11	13	28	8	-	brass
6mm	M10x1	F114874	43502	11	12	28	8	-	steel
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

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$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
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	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	R1/4"	F117778	-	19	22	41	12	-	steel
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

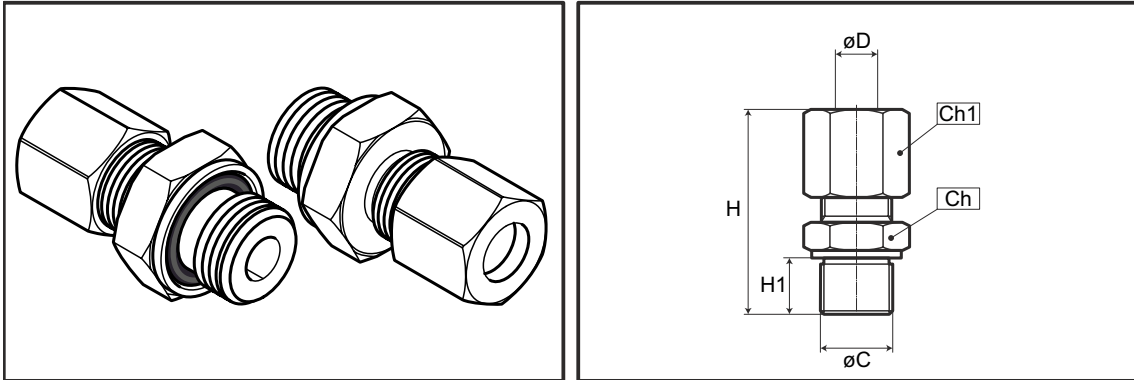
### 1.2 Male stud couplings non-return



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

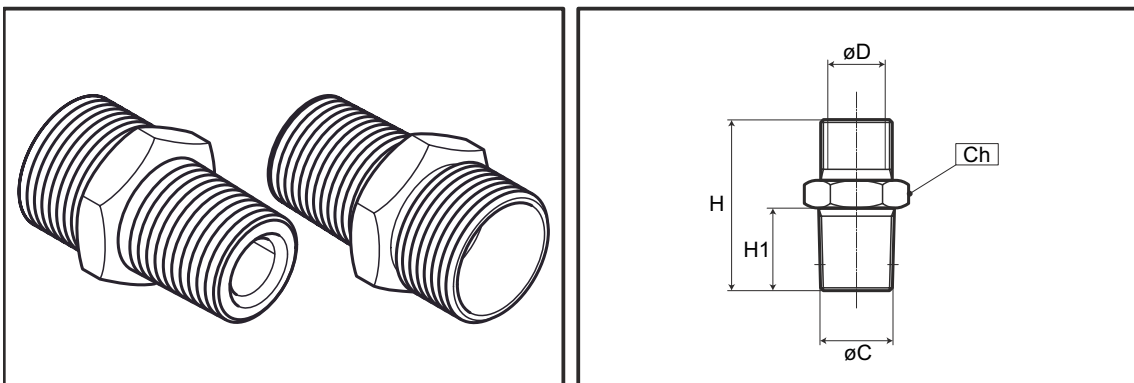
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**1.3 Male stud couplings with O-ring**



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

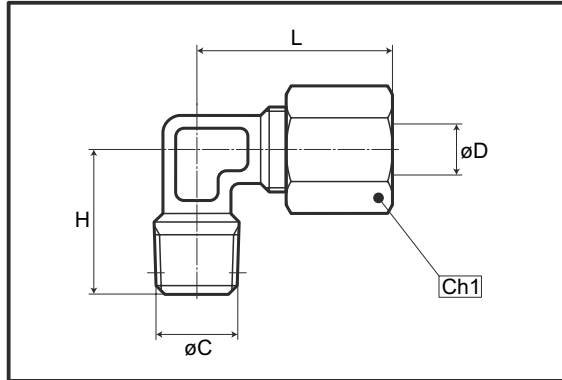
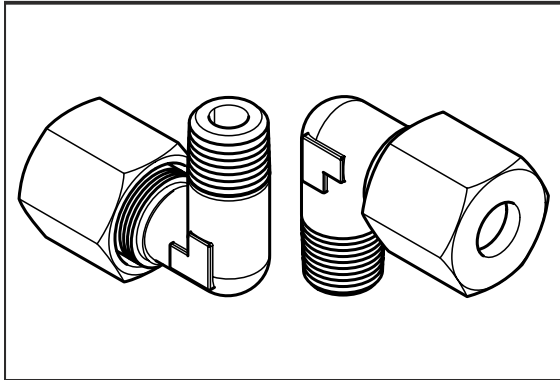
**1.4 Body male stud couplings**



$\varnothing D$	$\varnothing C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
8mm	R1/4"	F115487	72022	17	-	28	12	-	steel
8mm	R1/4"	F170899	-	17	-	30	14	-	inox
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
12mm	G1/4"	F170785	-	19	-	31	12	-	steel
12mm	R1/4"	F125432	-	19	-	21	12	-	steel

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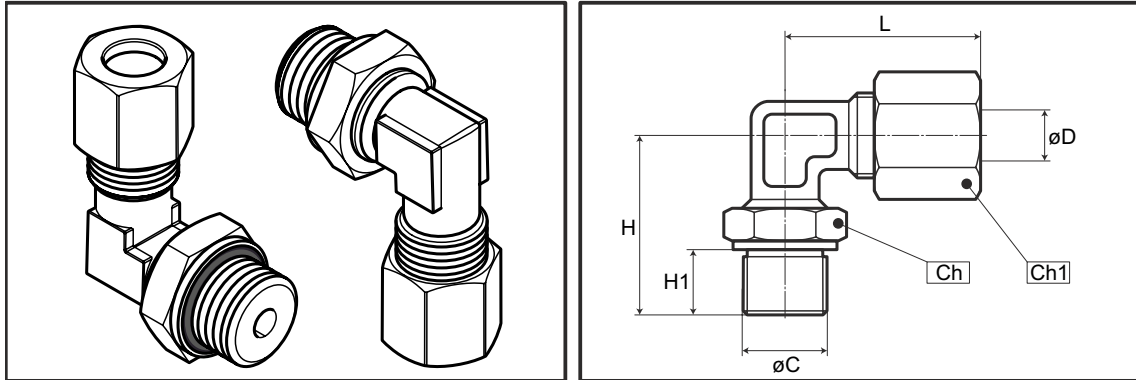
1.5 Male stud elbows



$\varnothing D$	$\varnothing C$	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	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	M10x1	F113769	13217	-	13	17	-	23	brass
6mm	M10x1	F114877	43902	-	12	18	-	24	steel
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

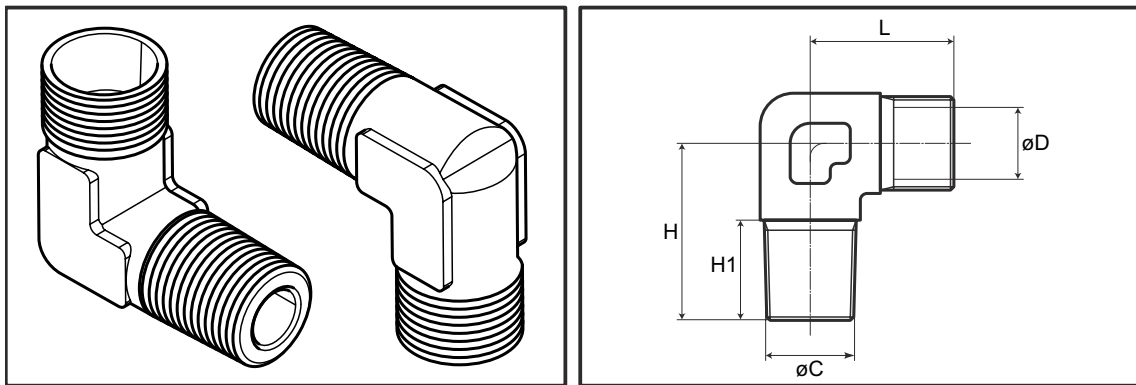
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**1.6 Adjustable elbows with O-ring**



$\varnothing D$	$\varnothing C$	<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

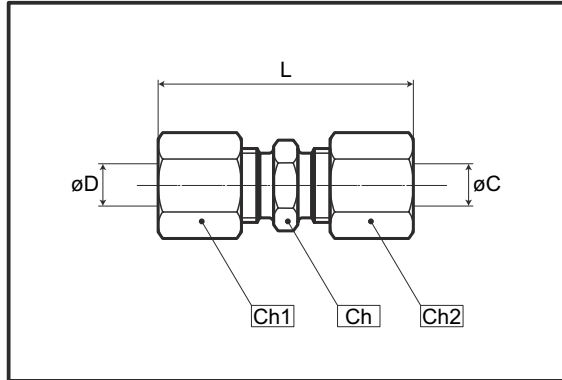
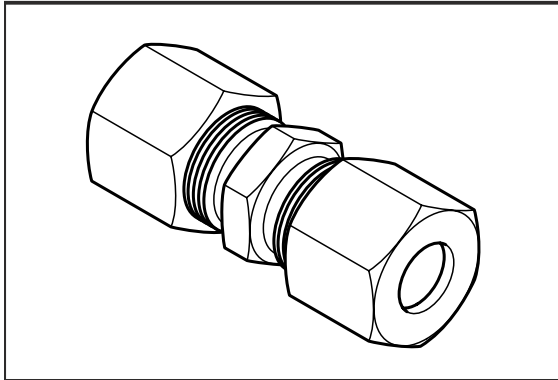
**1.7 Body male stud elbows**



$\varnothing D$	$\varnothing C$	<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

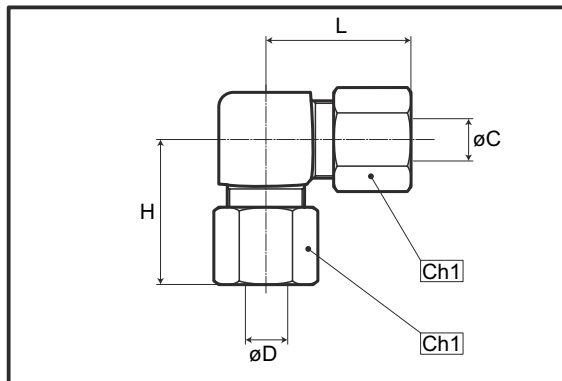
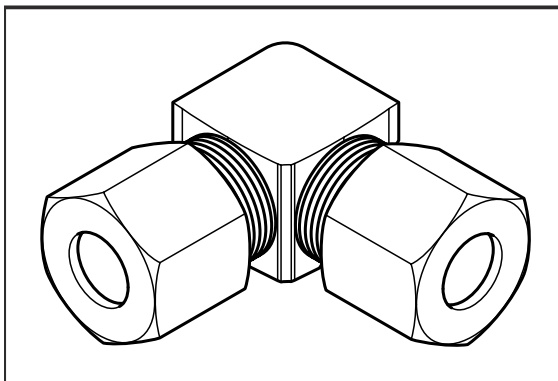
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### 1.8 Straight connecting couplings



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>Ch2</i>	<i>H</i>	<i>L</i>	<i>Material</i>
3/16"	3/16"	F000222	10601	11	12	12	-	33	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
15mm	12mm	F204146	-	24	27	22	-	46	steel
15mm	15mm	F104669	24208	24	27	27	-	46	steel

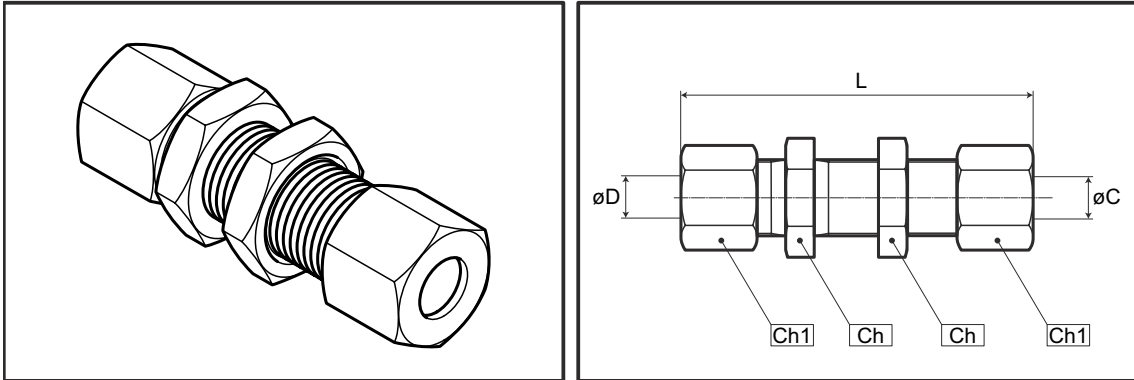
### 1.9 Equal connecting elbow couplings



$\varnothing D$	$\varnothing C$	<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	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

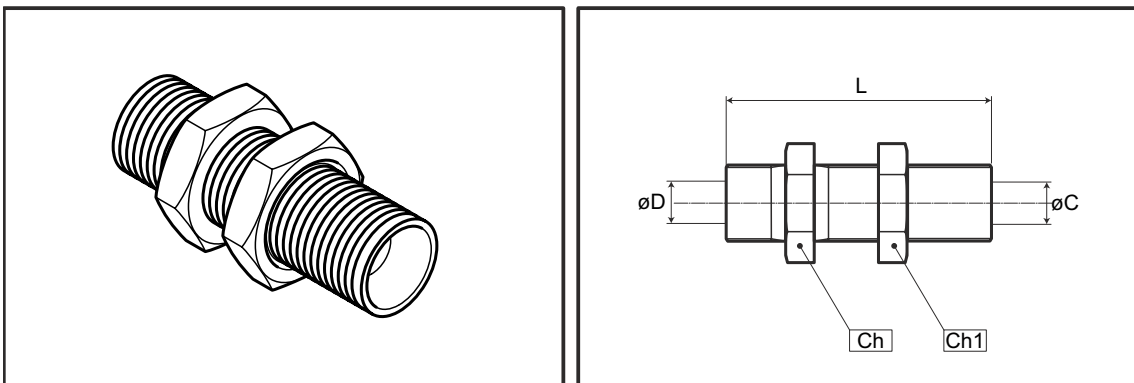
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**1.10 Straight screw bulkhead couplings**



$\varnothing D$	$\varnothing C$	<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>
5/16"	5/16"	F104501	11601	17	14	-	-	49	brass
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

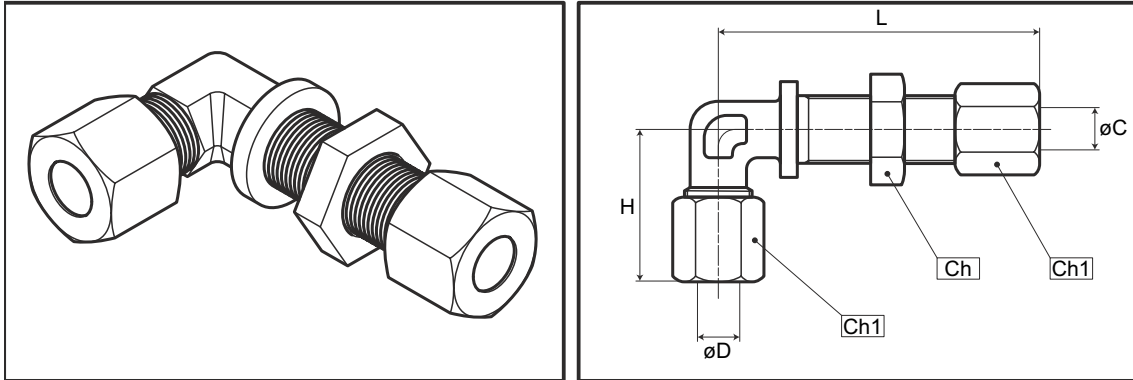
**1.11 Body straight screw bulkhead couplings**



$\varnothing D$	$\varnothing C$	<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>
10mm	10mm	F601493	-	22	22	-	-	52	steel
12mm	12mm	F601492	-	24	24	-	-	53	steel

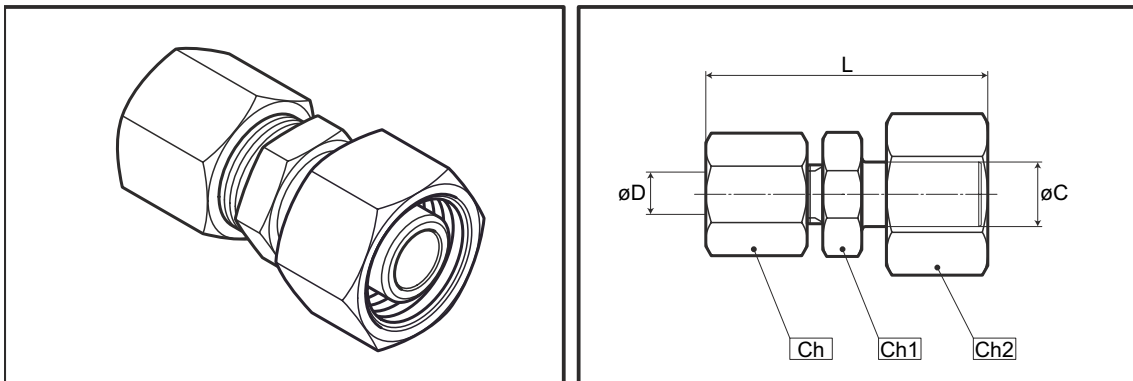
Release date: September 2016

### 1.12 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

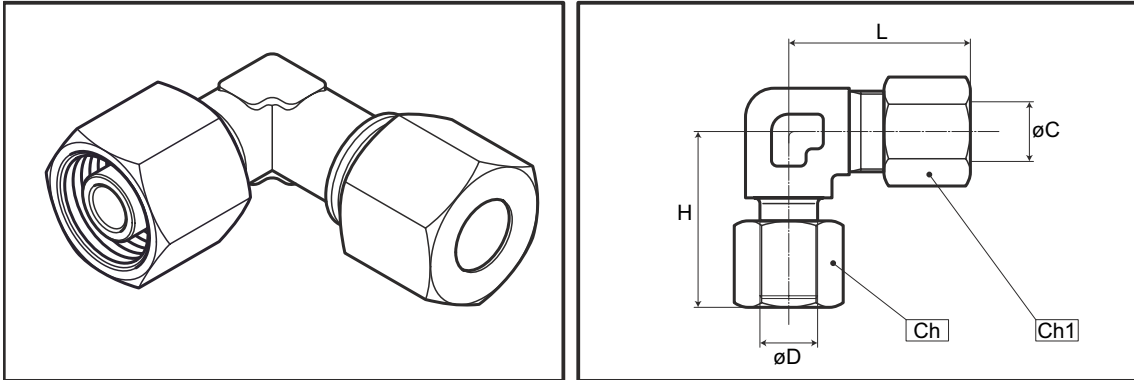
### 1.13 Reducing couplings



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>Ch2</i>	<i>H</i>	<i>L</i>	<i>Material</i>
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	22mm	F122955	46702	22	24	36	-	50	steel

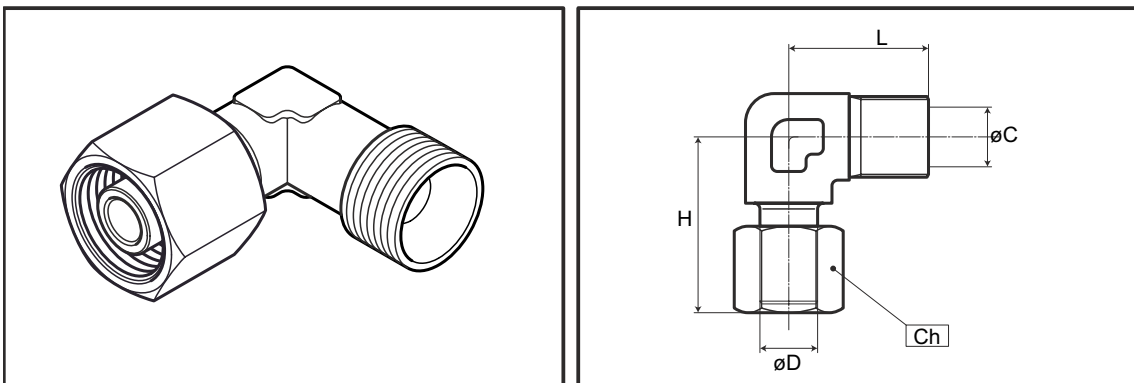
Release date: September 2016

**1.14 Adjustable elbow 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	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

**1.15 Adjustable body elbow couplings**

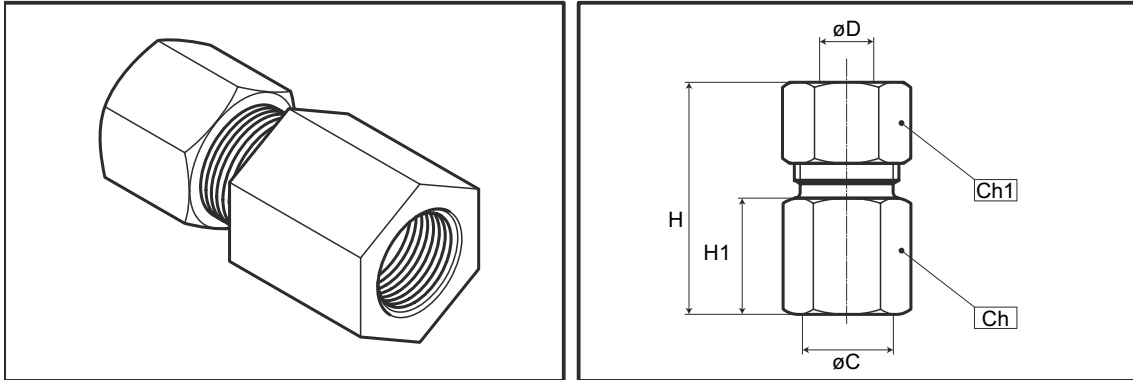


$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
10mm	10mm	F120522	-	19	-	32	-	22.5	steel
12mm	12mm	F601490	-	22	-	30	-	35	steel

Release date: September 2016

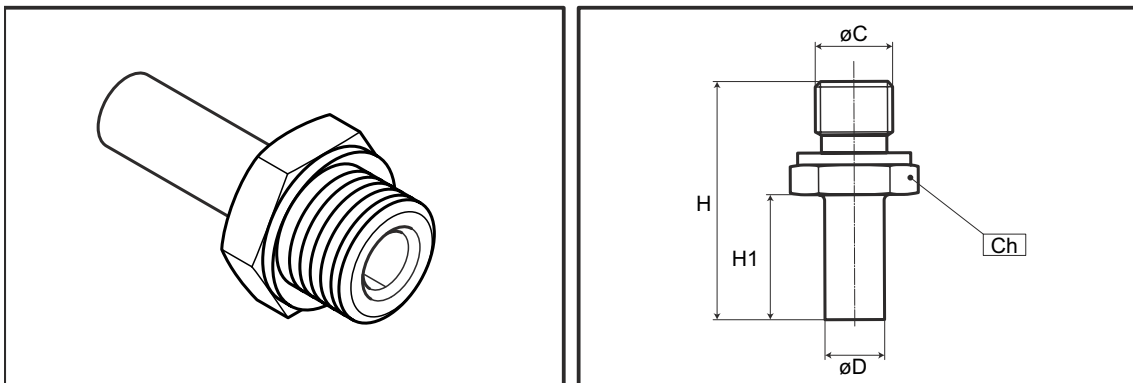


1.16 Female stud couplings



$\phi D$	$\phi C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
6mm	M10x1	F116775	28912	14	14	37	16	-	steel
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

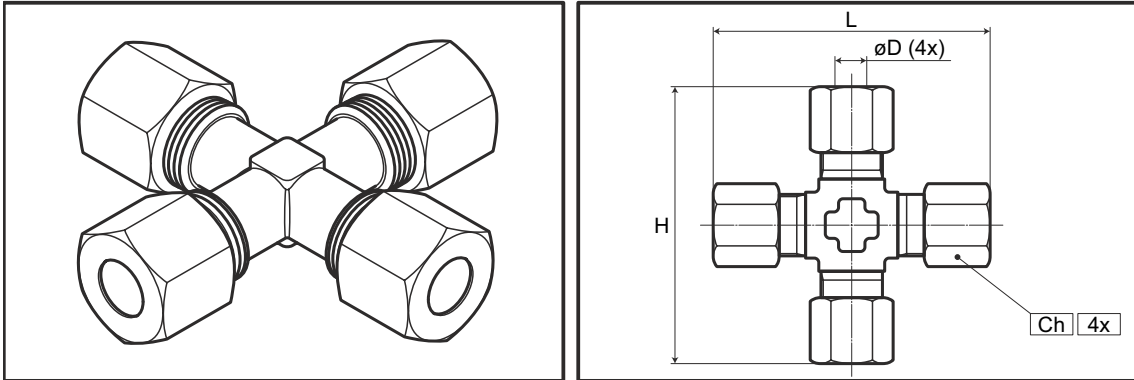
1.17 Stud standpipe couplings



$\phi D$	$\phi C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
6mm	R1/8"	F170774	-	13	-	45	30	-	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

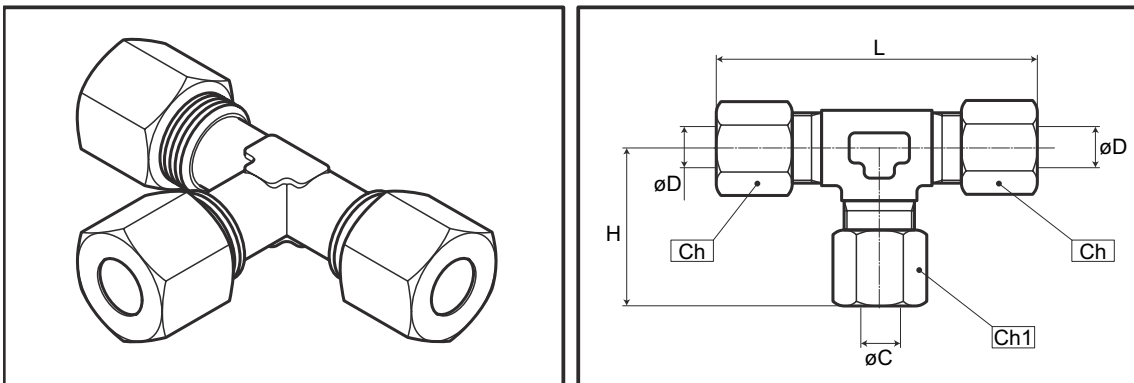
Release date: September 2016

**1.18 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	-	56	-	56	brass
8mm	-	F127228	46002	17	-	60	-	60	steel
10mm	-	F122637	47902	19	-	65	-	65	steel

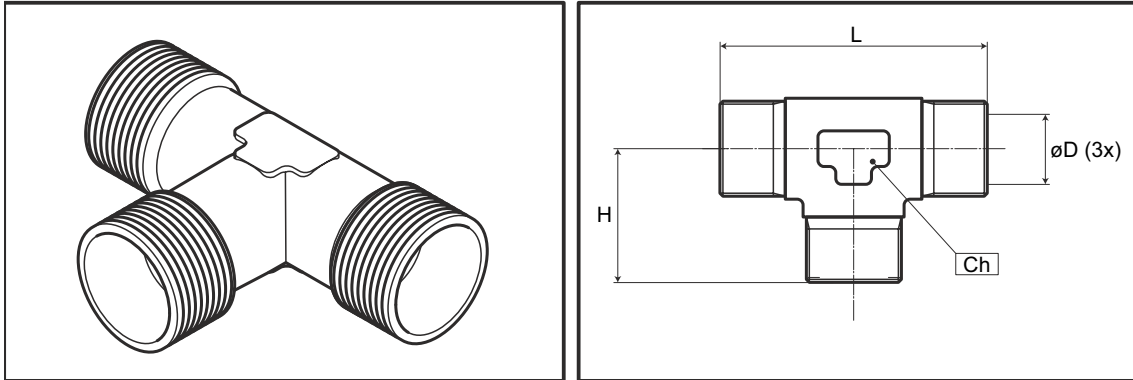
**1.19 T-equal couplings**



$\varnothing D$	$\varnothing C$	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
15mm	12mm	F203887	-	27	22	36	-	72	steel
15mm	15mm	F122336	30608	27	-	36	-	72	steel

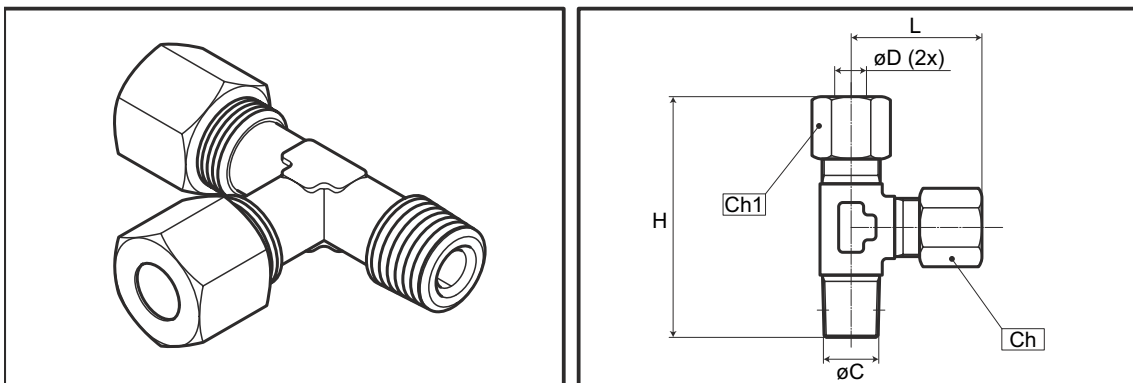
Release date: September 2016

1.20 Body T-equal couplings



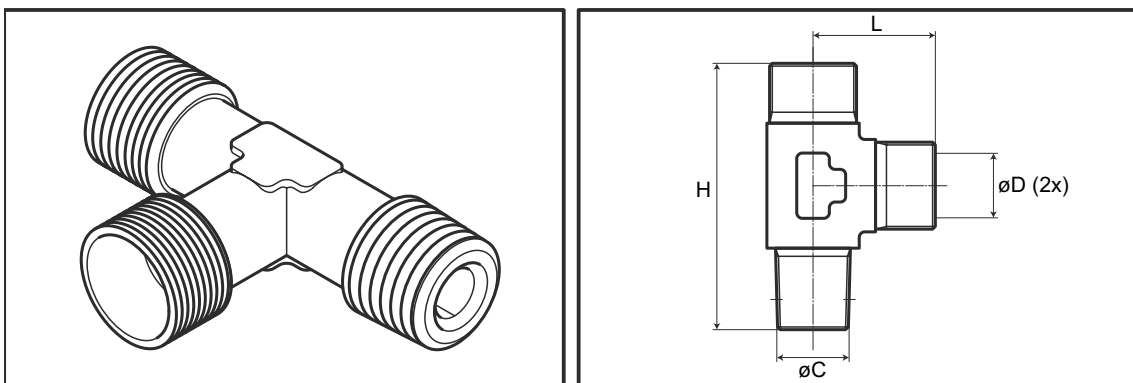
$\phi D$	$\phi C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
10mm	-	F601488	-	14	-	48	-	22	steel

1.21 L-male stud couplings



$\phi D$	$\phi C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
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

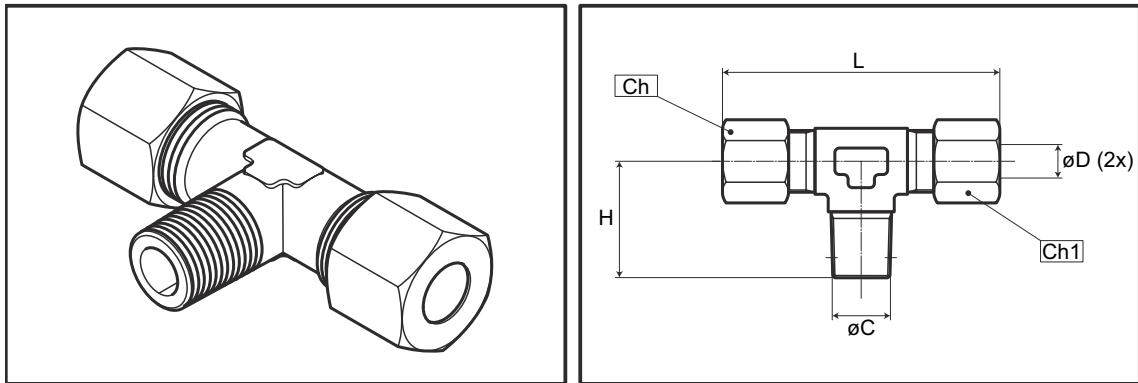
1.22 Body L-male stud couplings



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

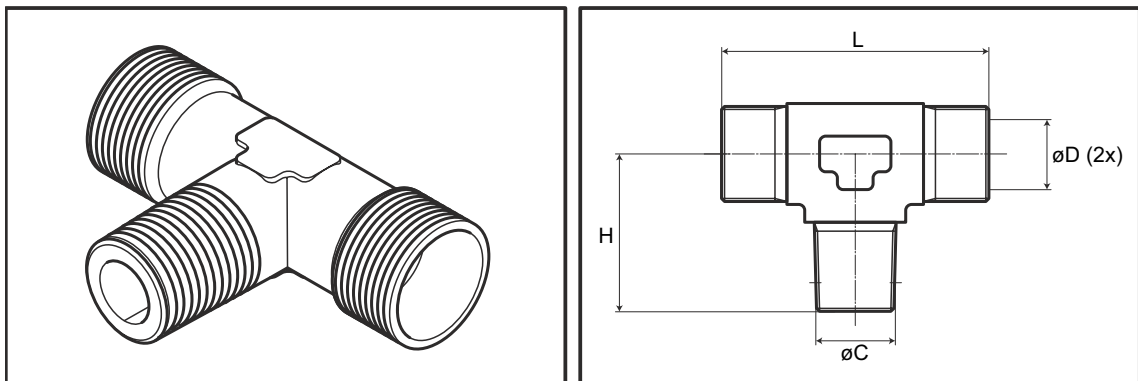
Release date: September 2016

### 1.23 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

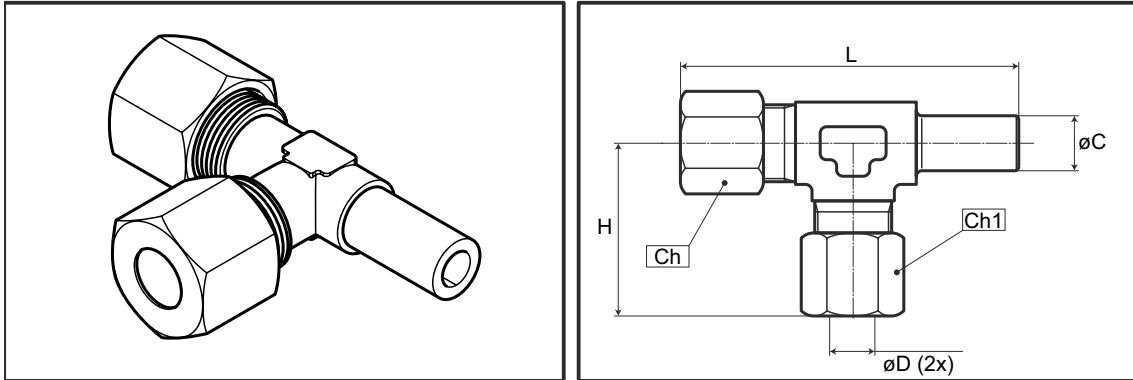
### 1.24 Body T-male stud couplings



$\varnothing D$	$\varnothing C$	<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

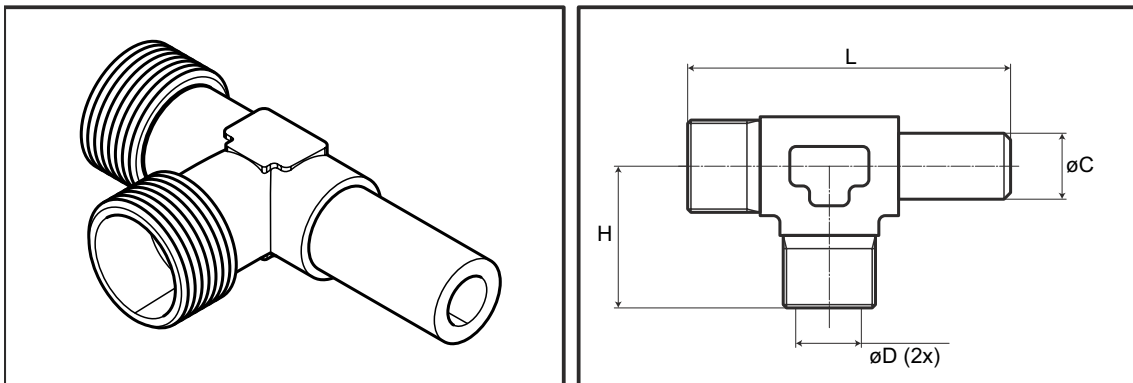
Release date: September 2016

1.25 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

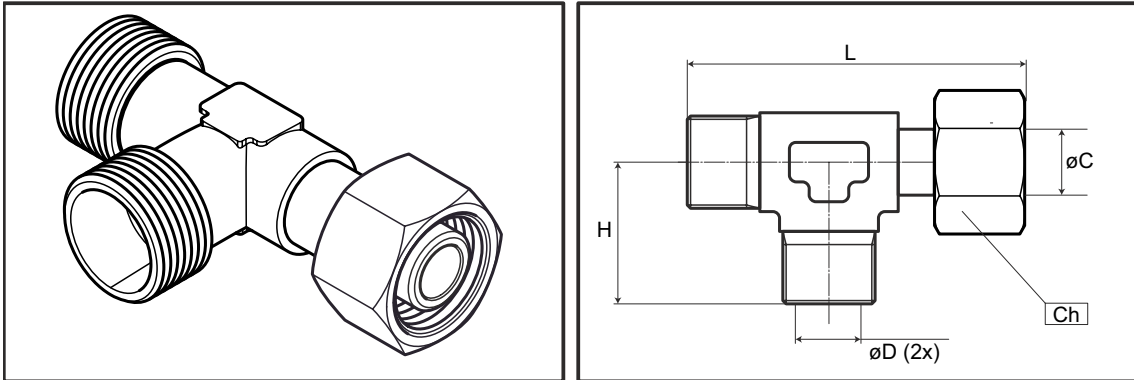
1.26 Body adjustable L-couplings



$\varnothing D$	$\varnothing C$	<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

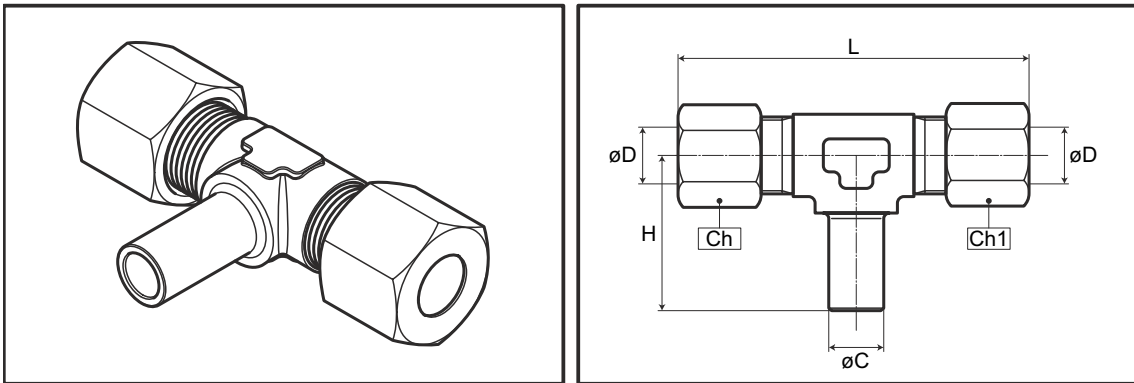
Release date: September 2016

**1.27 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

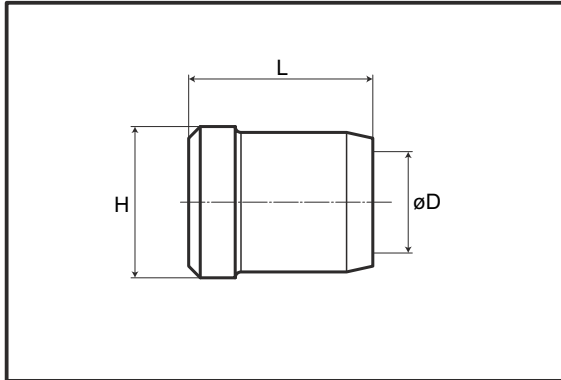
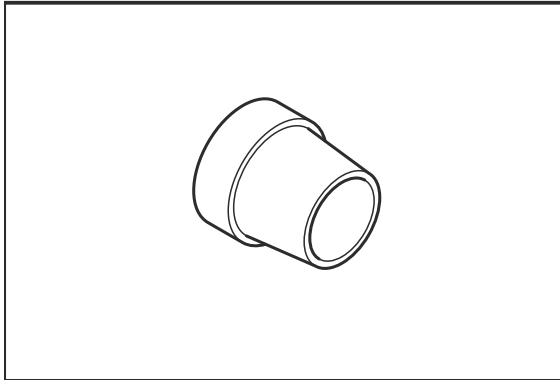
**1.28 Adjustable T-couplings**



$\varnothing D$	$\varnothing C$	<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
8mm	8mm	F121910	47222	17	17	28	-	68	inox
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

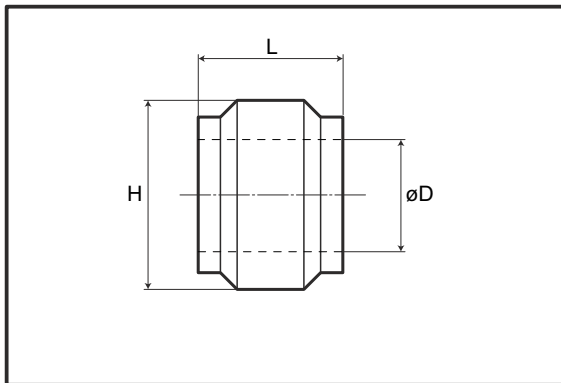
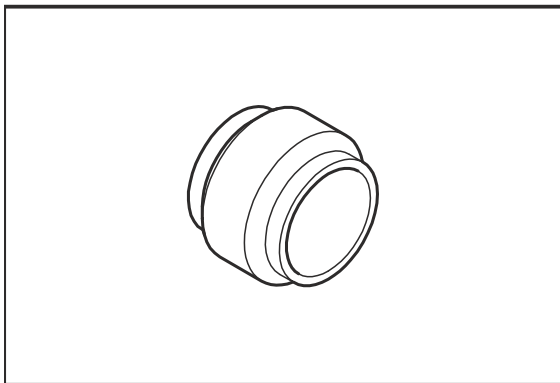
Release date: September 2016

1.29 Cutting rings (single sided)



$\phi D$	$\phi C$	<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	-	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	-	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

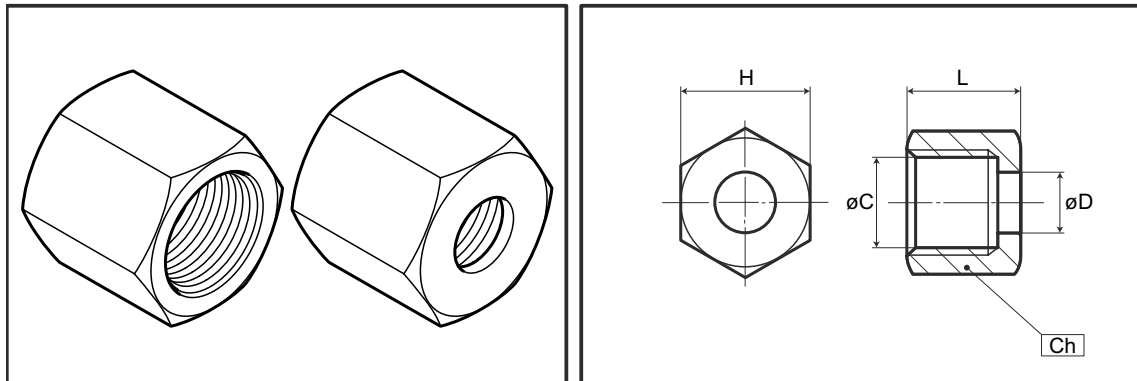
1.30 Cutting rings (double sided)



$\phi D$	$\phi C$	<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>
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
5/16"	-	F000580	11901	-	-	10.5	-	7	brass

Release date: September 2016

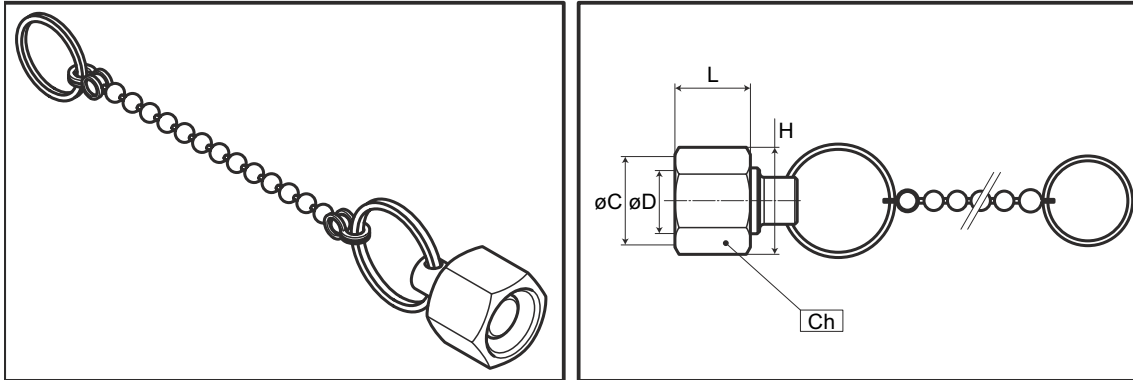
**1.31 Hexagonal nuts**



$\varnothing D$	$\varnothing C$	<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
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

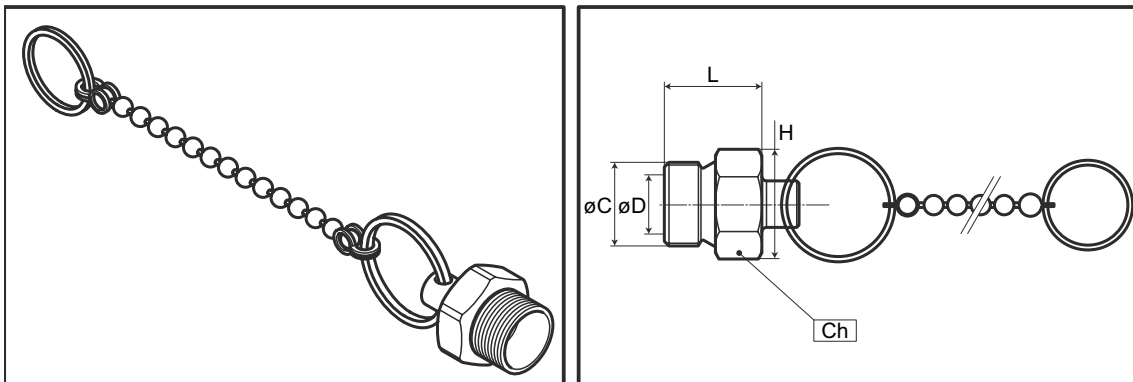


### 1.32 Plugs female



$\varnothing D$	$\varnothing C$	<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	F113621	50701	19	-	19	-	16	steel
12mm	M18x1.5	F207768	-	22	-	22	-	15.5	steel

### 1.33 Plugs male

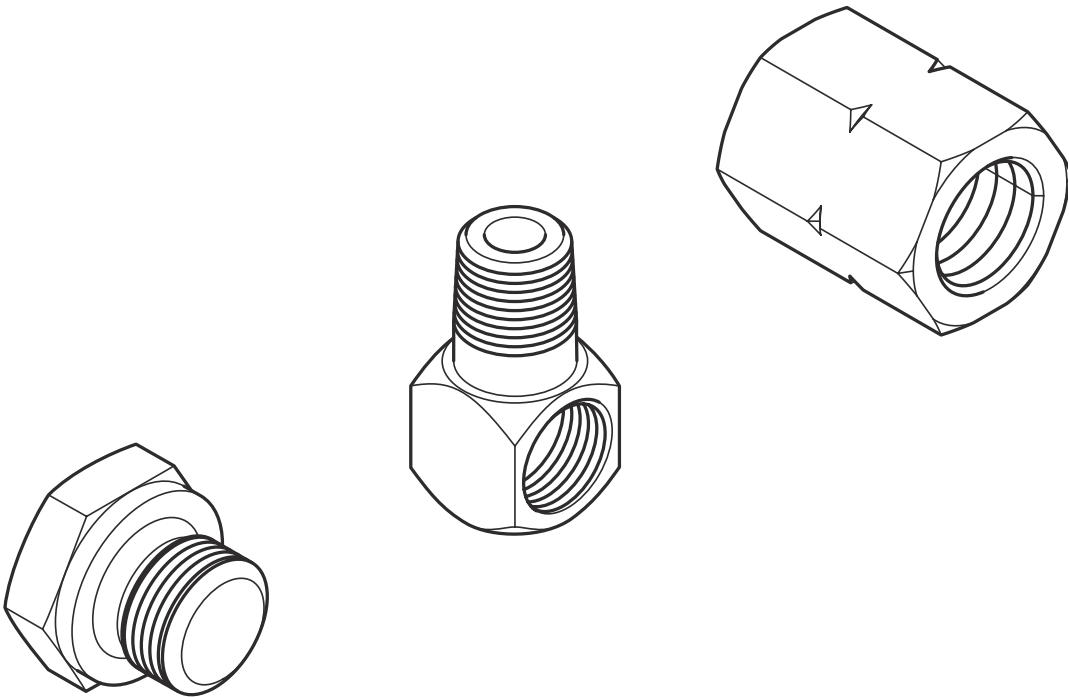


$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
10mm	M16x1.5	F113622	50601	19	-	19	-	21	steel
12mm	M18x1.5	F207767	-	21	-	21	-	21	steel

Release date: September 2016



# 2. ADAPTERS & PLUGS

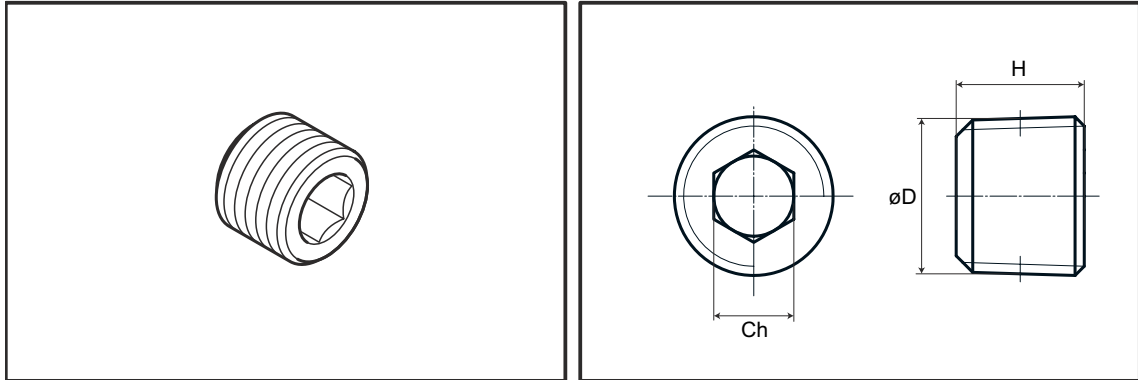


Release date: September 2016



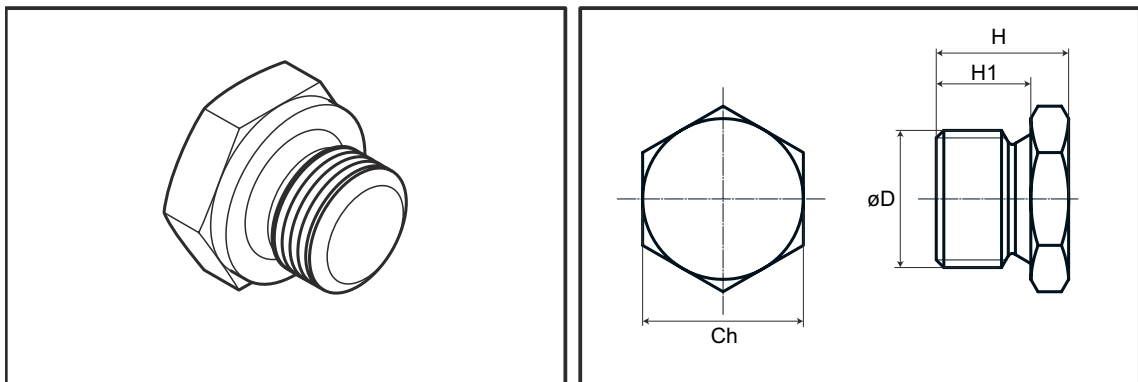
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## 2.1 Allen plugs



$\varnothing D$	$\varnothing C$	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
R1/4"	-	F129278	18512	6	-	10	-	-	brass

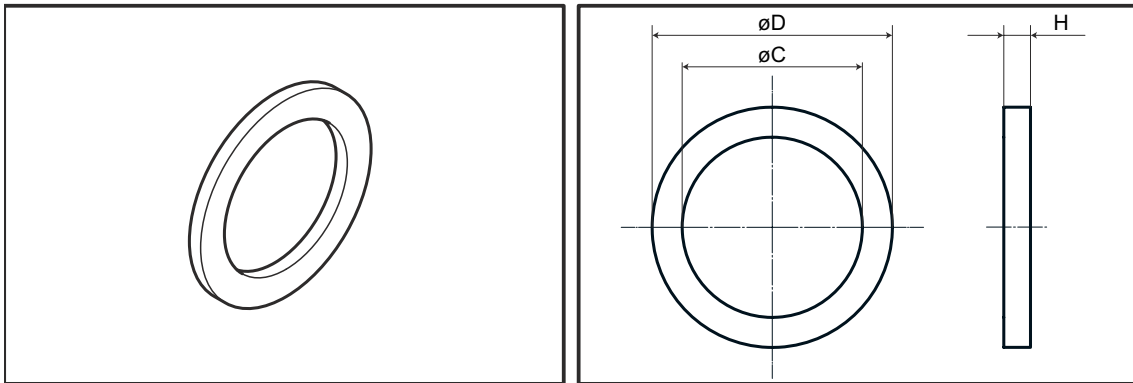
## 2.2 Hexagonal plugs



$\varnothing D$	$\varnothing C$	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

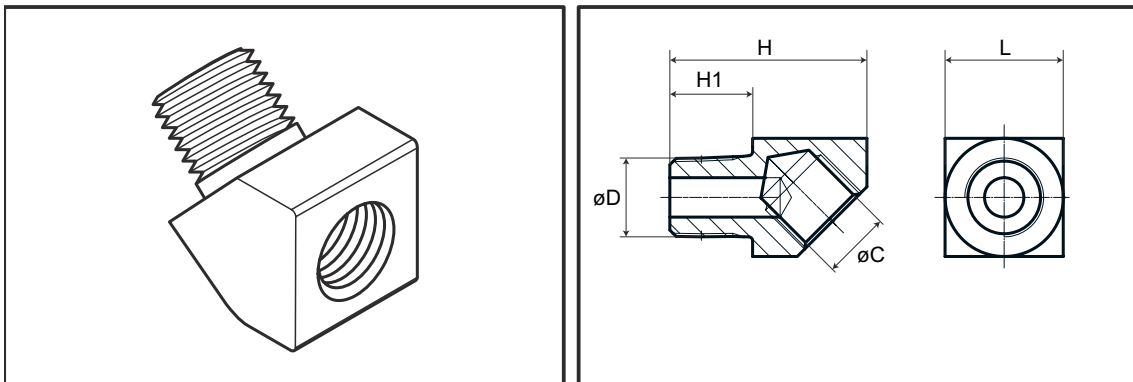
\*Plug is with O-ring

**2.3 O-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

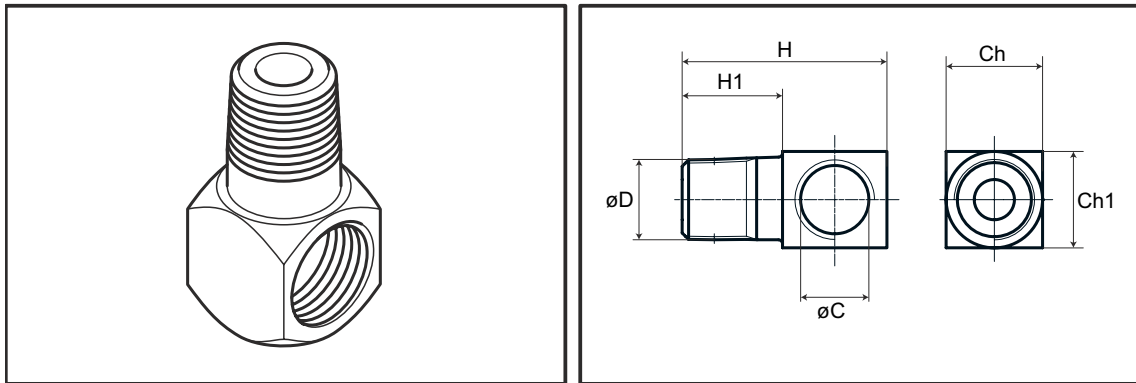
**2.4 Stud elbow adapters 45°**



$\varnothing D$	$\varnothing C$	<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: September 2016

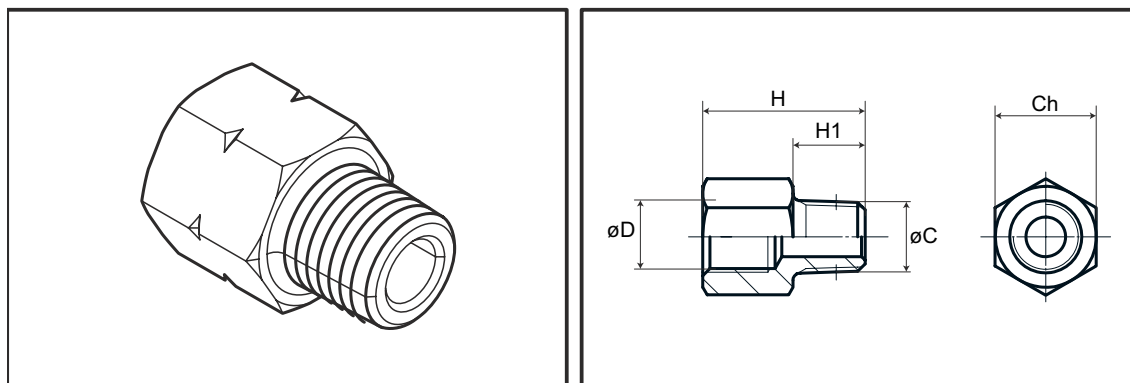
## 2.5 Stud elbow adapters 90°



$\varnothing D$	$\varnothing C$	<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	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: September 2016

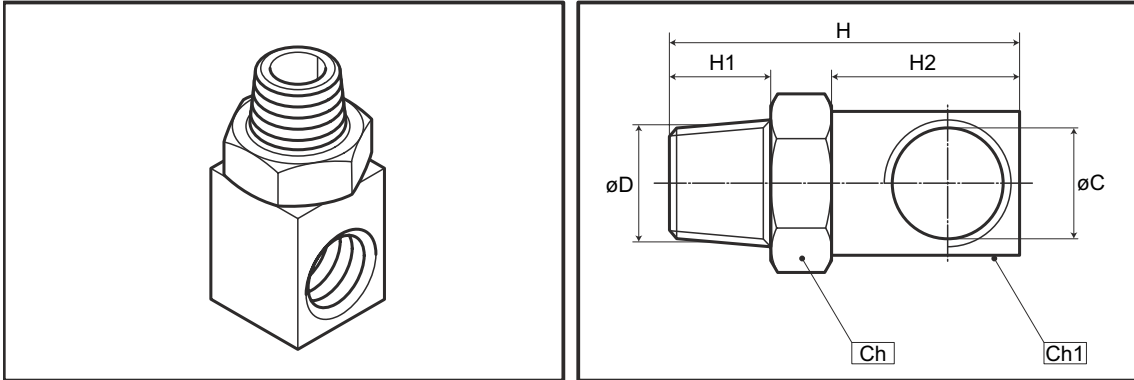
## 2.6 Straight adapters



$\varnothing C$	$\varnothing D$	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	F600884	-	11	-	15	6	-	steel
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
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"	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"	G1/4"	F126738	02901	17	-	21	5	-	brass
G1/8"	G1/4"	F117731	63202	19	-	31	8	-	steel
1/8"NPT	1/8"NPT	F111784	98001	14	-	22.5	10	-	steel
1/8"NPT	1/8"NPT	F119570	-	14	-	22.5	10	-	inox
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	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
M10x1	M10x1	F170064	16111	14	-	22.5	10	-	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

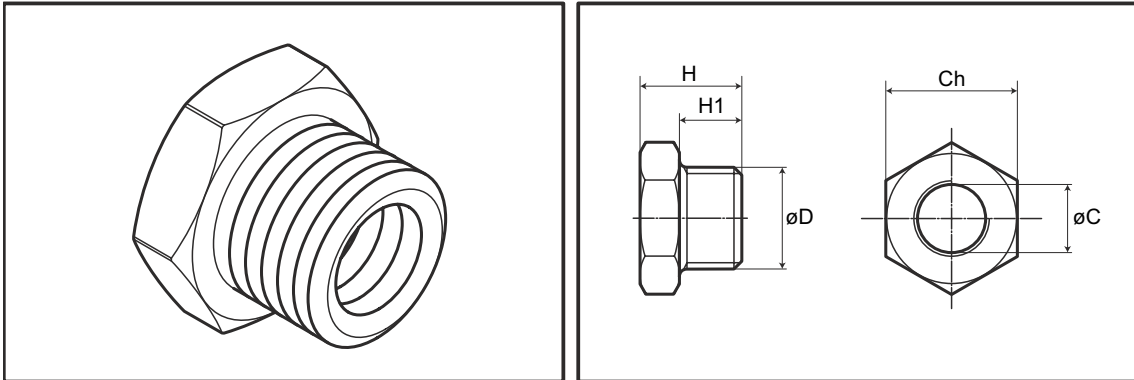
Release date: September 2016

## 2.7 Elbow swivels



$\varnothing D$	$\varnothing C$	<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>
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

## 2.8 Reducing adapters

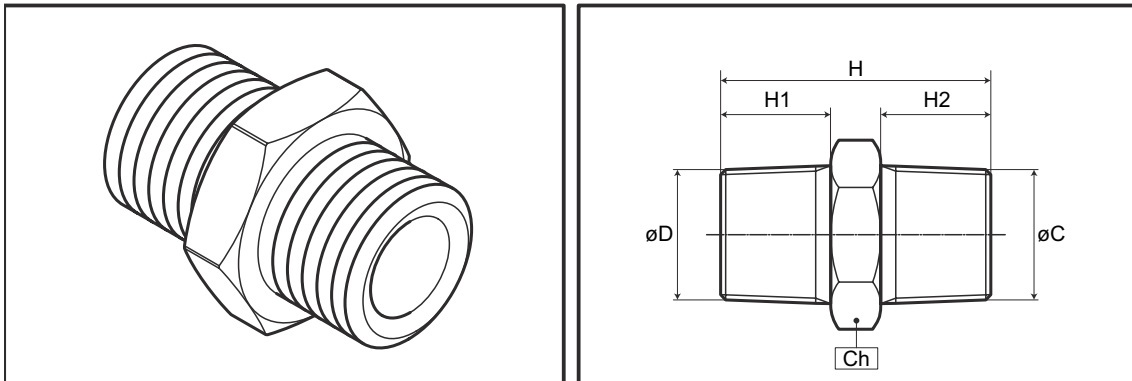


$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
G1/4"	G1/8"	F000527	08608	17	-	13	8	-	brass
G1/2"	G1/4"	F119473	10308	27	-	24	14	-	steel

Release date: September 2016

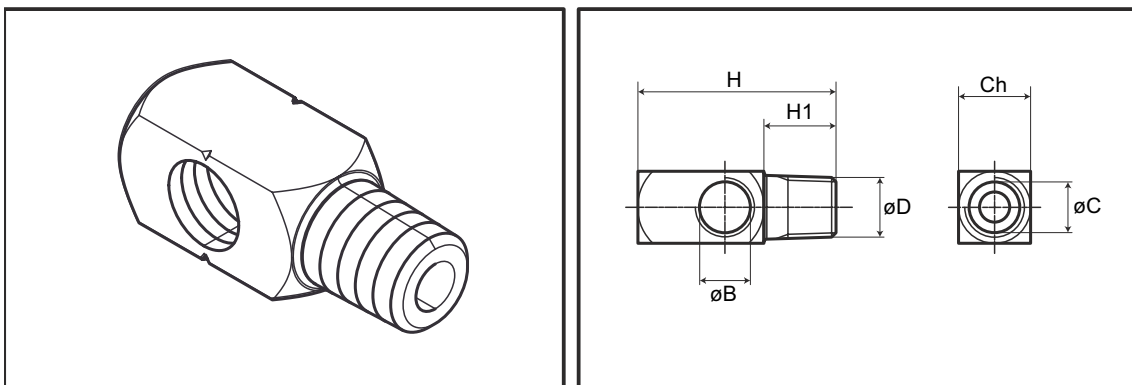


## 2.9 Hex adapters



$\varnothing D$	$\varnothing C$	<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	steel

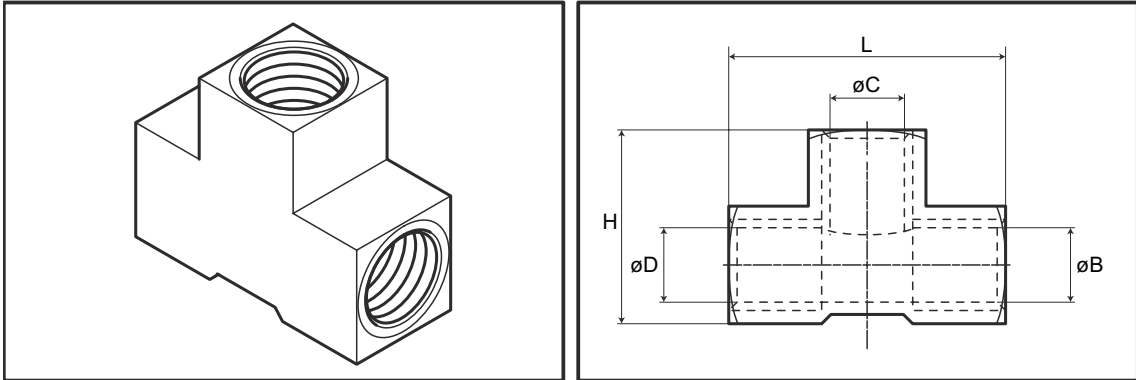
## 2.10 L-adapters



$\varnothing D$	$\varnothing C$	$\varnothing B$	<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
M10x1	M10x1	M10x1	F103243	23901	12	33	12	brass

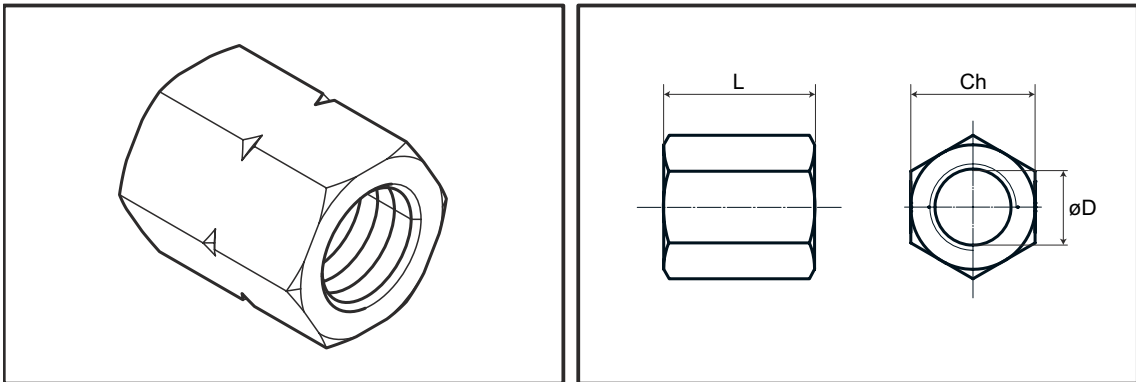
Release date: September 2016

**2.11 T-adapters**



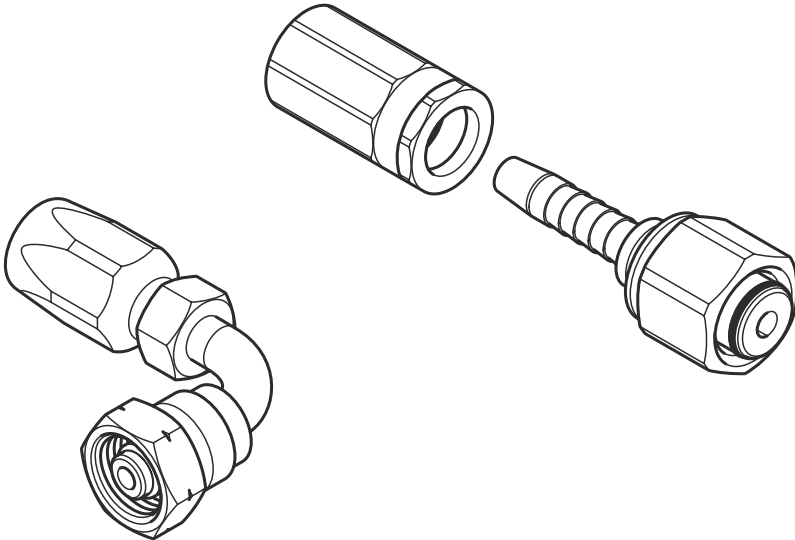
$\varnothing D$	$\varnothing C$	$\varnothing B$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>H</i>	<i>L</i>	<i>Material</i>
1/8"NPT	1/8"NPT	1/8"NPT	F104538	08708	-	21	28	brass
1/4"NPT	1/4"NPT	1/4"NPT	F104537	08808	-	28	40	brass

**2.12 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

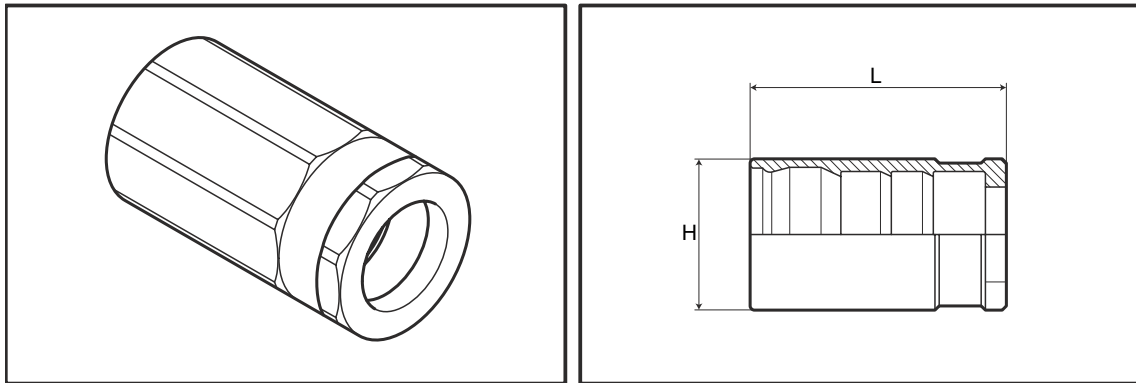


Release date: September 2016



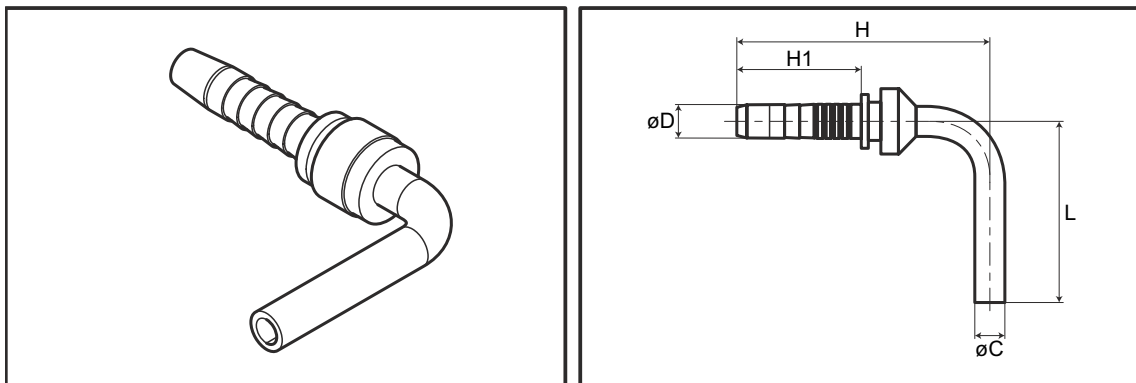
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### 3.1 Crimp sockets



HPH	p/n new	p/n old	H	L	Crimping diameter	Material
5/32"	F115311	11916	ø13	20	ø11.1mm 0/-0.2	steel
1/4"	F113941	00917	ø18	30.5	ø14.5mm 0/-0.2	steel
1/4"	F113717	12217	ø17	27.5	ø15.0mm 0/-0.2	inox
1/4" marine	F128332	-	ø17	30	ø14.1mm 0/-0.2	steel
1/4" marine	F128331	-	ø18	28.2	ø15.0mm 0/-0.2	inox
3/8"	F121037	32822	ø25	32	ø20.4mm 0/-0.2	steel
3/8"	F178069	80822	ø24.6	31	ø20.6mm 0/-0.2	inox
1/2"	F117830	15112	ø29	34	ø24.4mm 0/-0.2	steel

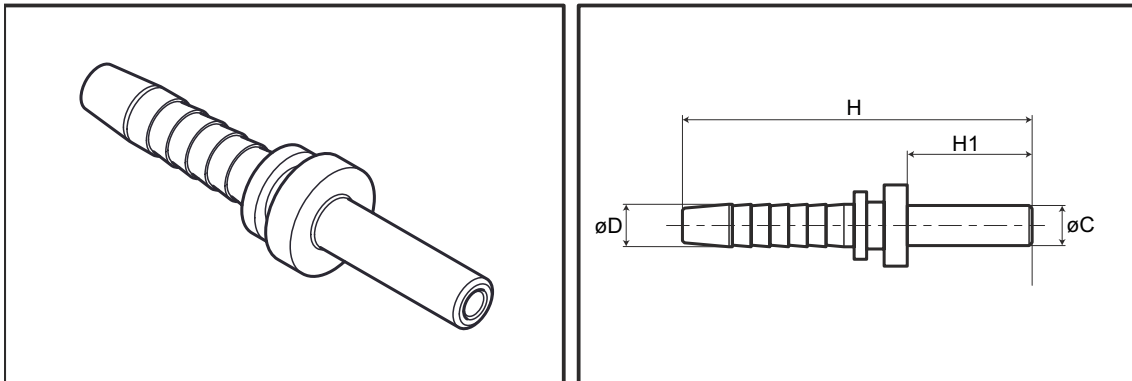
### 3.2 Hose end fittings elbow



øD	øC	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

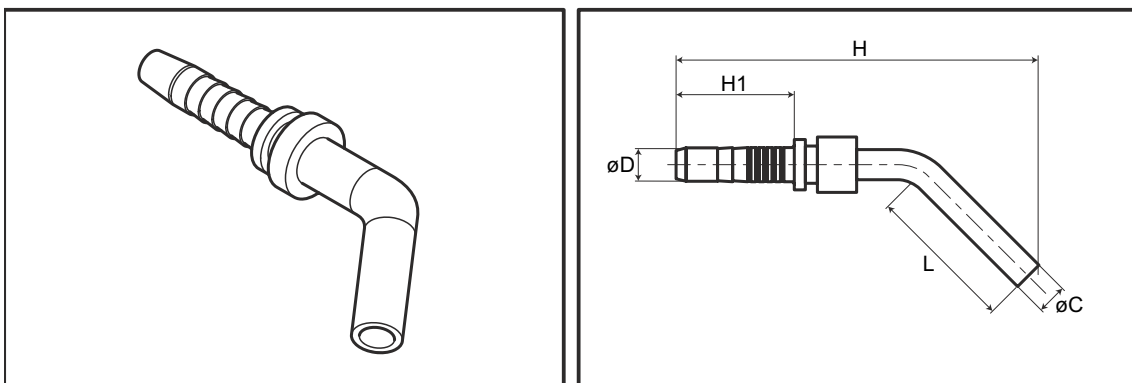
Release date: September 2016

### 3.3 Hose end fittings straight



$\phi D$	$\phi C$	p/n new	p/n old	Ch	Ch1	H	H1	L	Material
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	-	-	56	22.2	-	steel
1/4"	6mm	F113711	10717	-	-	57.5	25	-	inox
1/4"	8mm	F113712	10817	-	-	58	25.5	-	inox
1/4"	10mm	F113713	10917	-	-	60.5	28	-	inox
1/4"	12mm	F117706	05317	-	-	60	27.5	-	steel
1/4"	12mm	F113714	11017	-	-	59	24	-	inox
3/8"	10mm	F120679	81022	-	-	59.6	23	-	inox
1/2"	12mm	F117831	14912	-	-	66	25	-	steel
1/2"	15mm	F178073	15012	-	-	66	25	-	steel

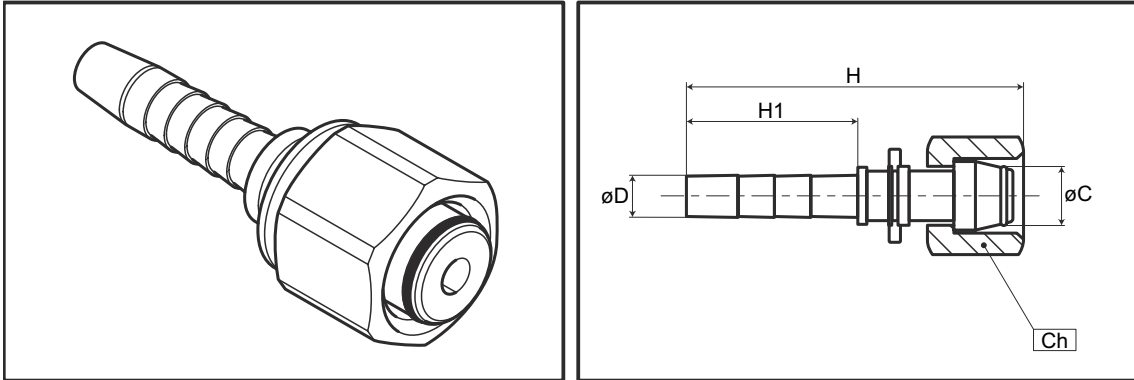
### 3.4 Hose end fittings 45°



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

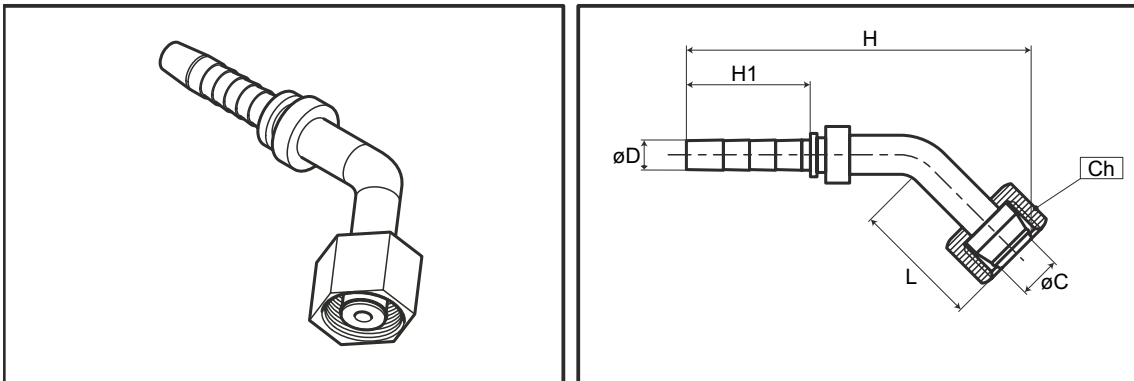
Release date: September 2016

### 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	-	53.5	27.5	-	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"	12mm	F170782	-	22	-	56.5	29	-	steel
1/2"	12mm	F200113	-	22	-	62	31	-	steel
1/2"	15mm	F204067	-	27	-	60.5	29.5	-	steel

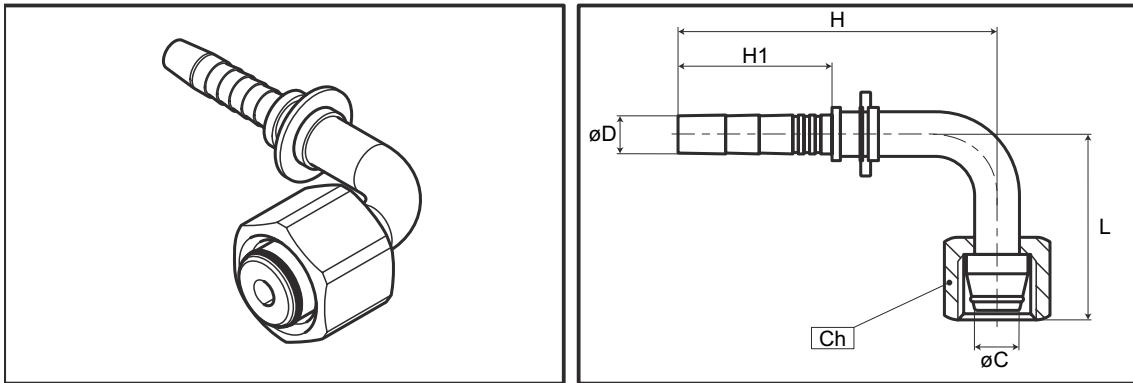
### 3.6 Hose end fittings 45° with nut



$\varnothing D$	$\varnothing C$	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

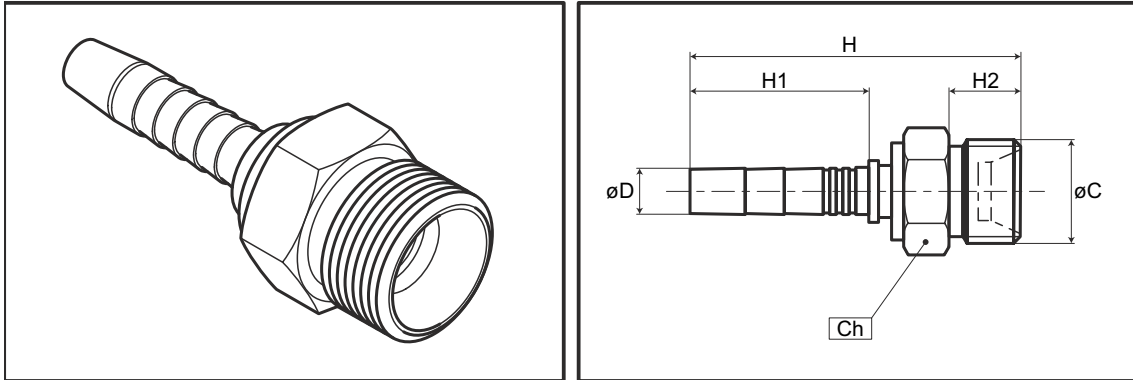
Release date: September 2016

### 3.7 Hose end fittings elbow with nut



$\phi D$	$\phi C$	<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>
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	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

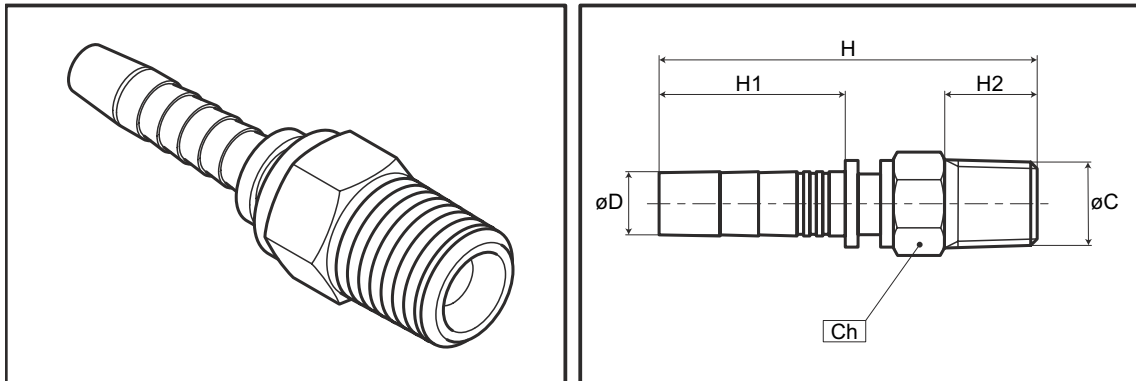
### 3.8 Hose end fittings male thread metric



$\phi D$	$\phi C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>H2</i>	<i>Material</i>
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

Release date: September 2016

### 3.9 Hose end fittings male thread BSP

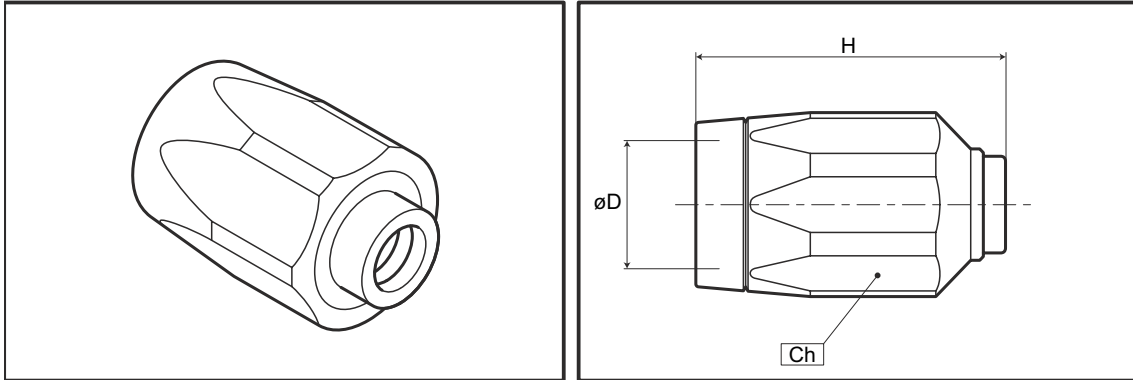


$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Ch1</i>	<i>H</i>	<i>H1</i>	<i>H2</i>	<i>Material</i>
1/4"	1/8"NPT	F115913	05617	12	-	51.6	27.5	10	steel
1/4"	1/8"NPT	F113715	11117	14	-	51	27.5	9.5	inox
1/4"	R1/8"	F195613 *)	-	14	-	51.6	27.5	10	steel
1/4"	1/8"NPT	F122648 *)	-	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
3/8"	1/4"NPT	F116668	32722	14	-	59.1	29	14.5	steel

\*) Adjustable swivel version.

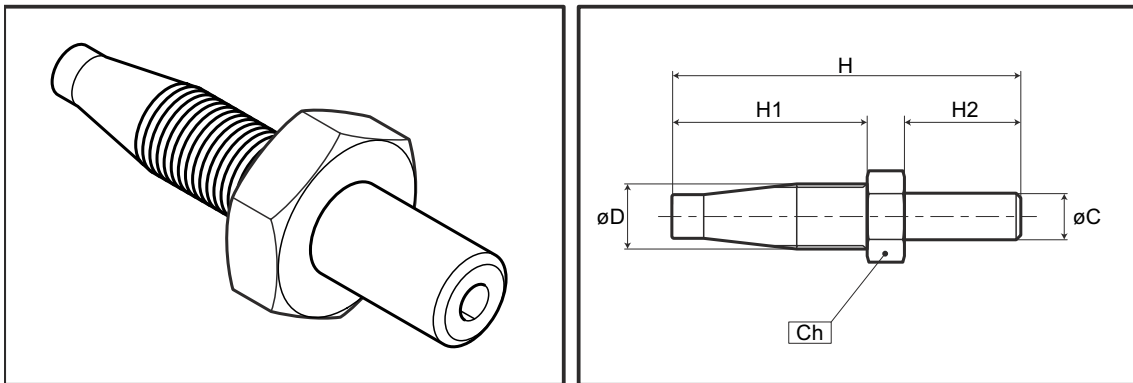


3.10 Re-usable sockets



$\varnothing D$	$\varnothing C$	<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>
3/8"	-	F119475	35902	24	-	42	-	-	steel

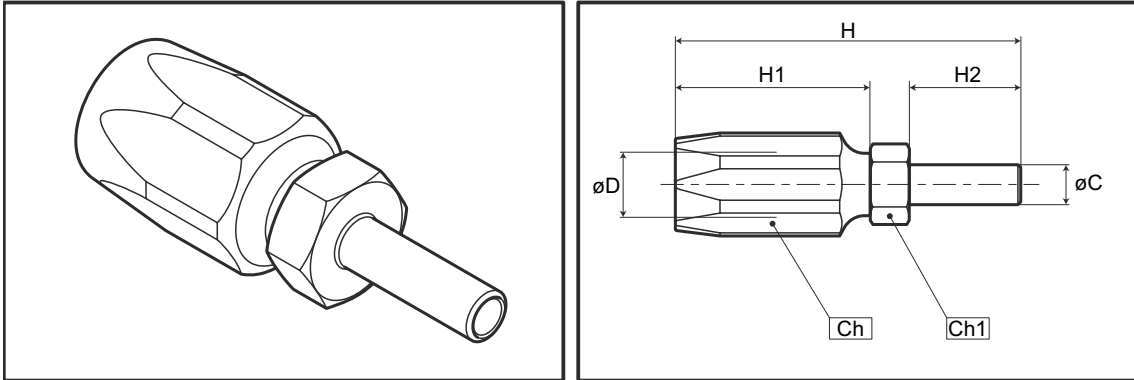
3.11 Re-usable hose end fittings straight (without socket)



$\varnothing D$	$\varnothing C$	<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>
3/8"	10mm	F178063	35802	17	-	75	42	25	steel
3/8"	10mm	F178068	54102	17	-	80	47	25	inox
3/8"	12mm	F119474	36402	17	-	75	42	24	steel

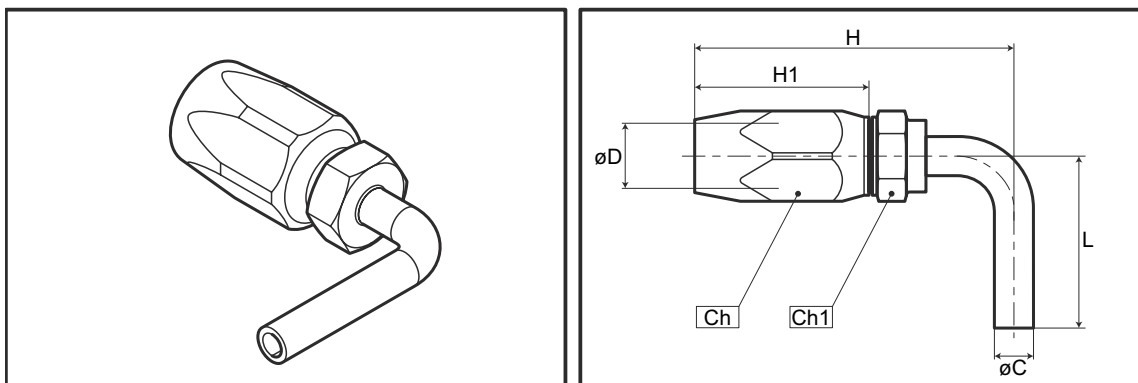
Release date: September 2016

### 3.12 Re-usable 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>H2</i>	<i>Material</i>
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

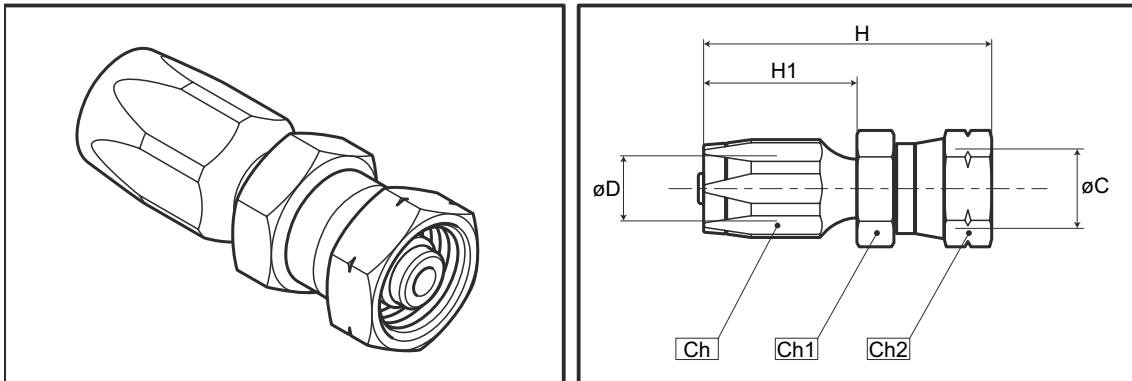
### 3.13 Re-usable hose end fittings elbow



$\varnothing D$	$\varnothing C$	<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	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

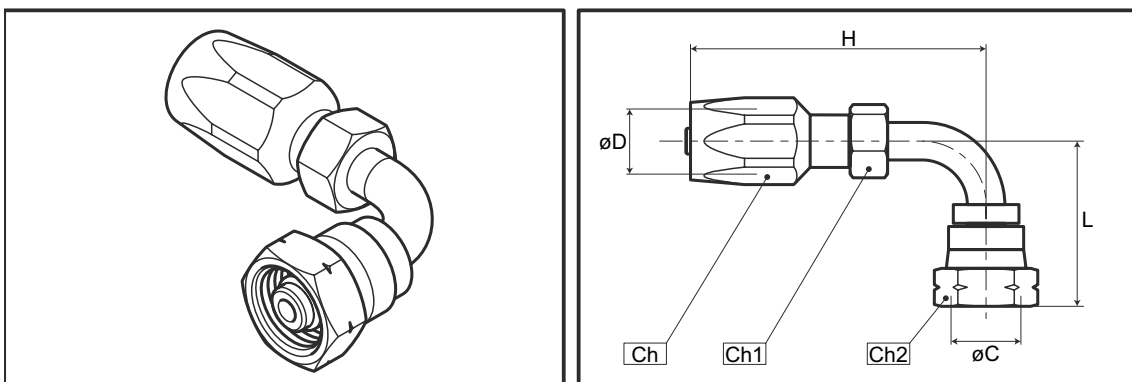
Release date: September 2016

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



$\phi D$	$\phi C$	p/n new	p/n old	Ch	Ch1	Ch2	H	H1	Material
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

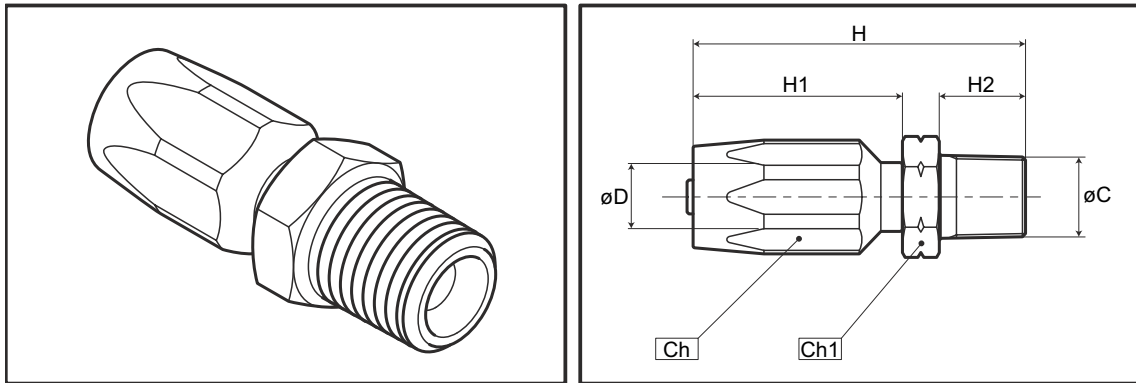
### 3.15 Re-usable hose end fittings elbow with nut



$\phi D$	$\phi C$	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

Release date: September 2016

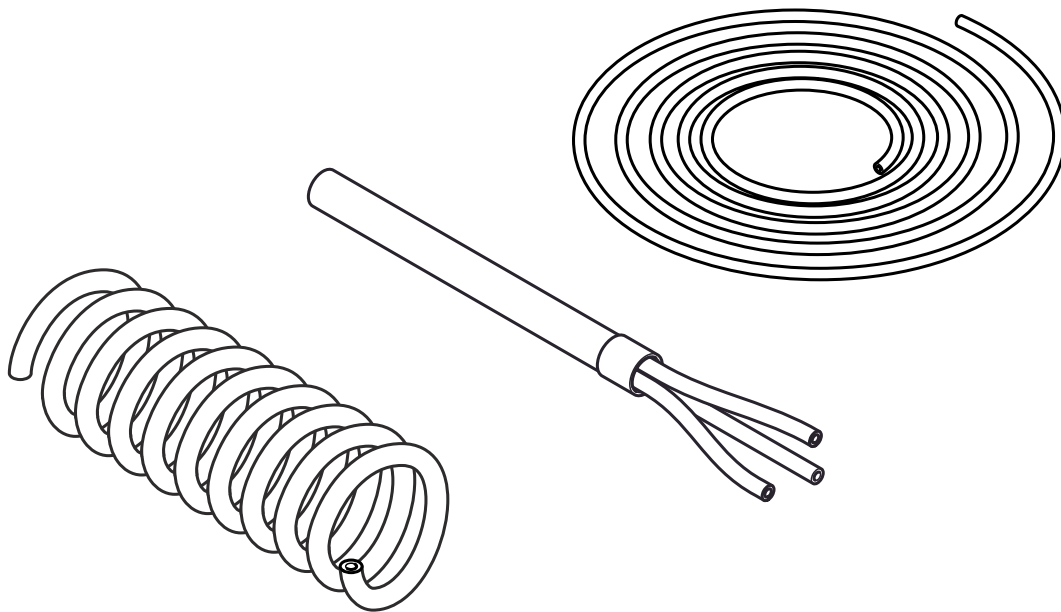
**3.16 Re-usable hose end fittings male thread BSP**



$\varnothing D$	$\varnothing C$	<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: September 2016

## 4. HOSES, PIPES & TUBES

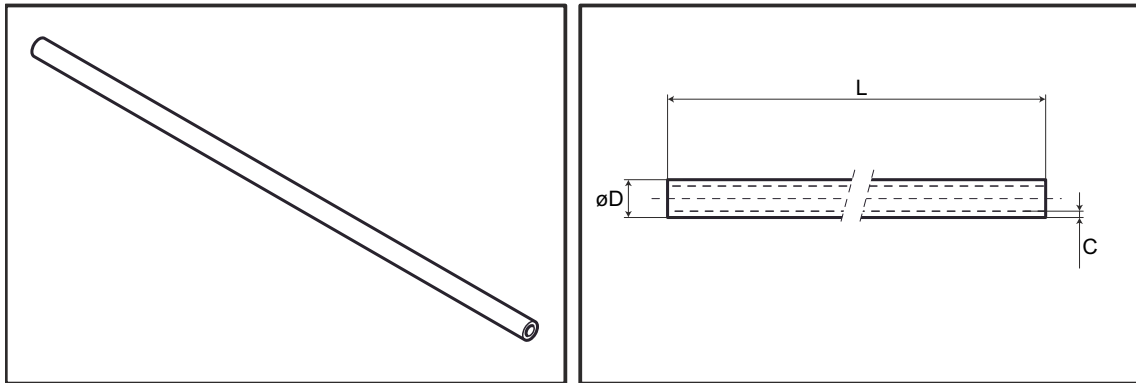


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4.1 PA tubes single (1/1)



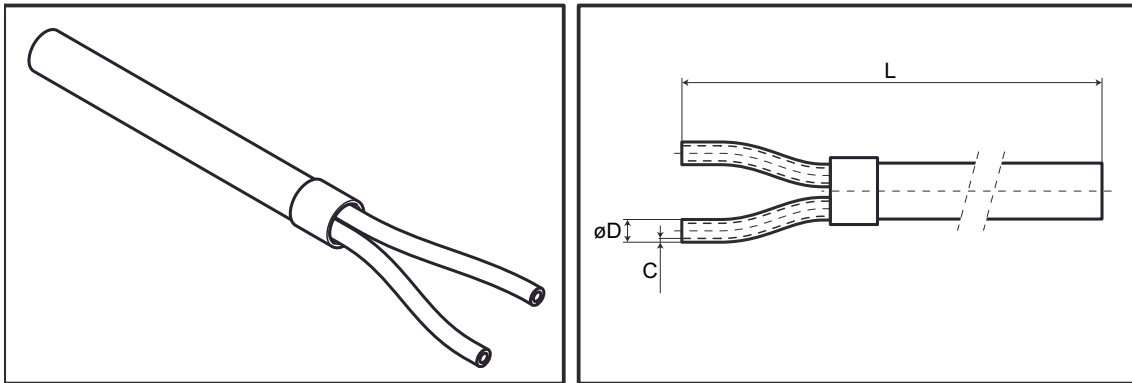
$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>L</i>	<i>Material</i>
3/16"	1.2mm	F118246 <sup>1)</sup>	02201	per 1 meter <sup>3)</sup>	PA 12 H/W
3/16"	1.2mm	F103434 <sup>1)</sup>	02211	3 meter	PA 12 H/W
3/16"	1.2mm	F116105 <sup>1)</sup>	02207	5 meter	PA 12 H/W
3/16"	1.2mm	F120726 <sup>1)</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	per 5 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
10mm (black)	2.5mm	F104599	17201	per 1 meter <sup>3)</sup>	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)

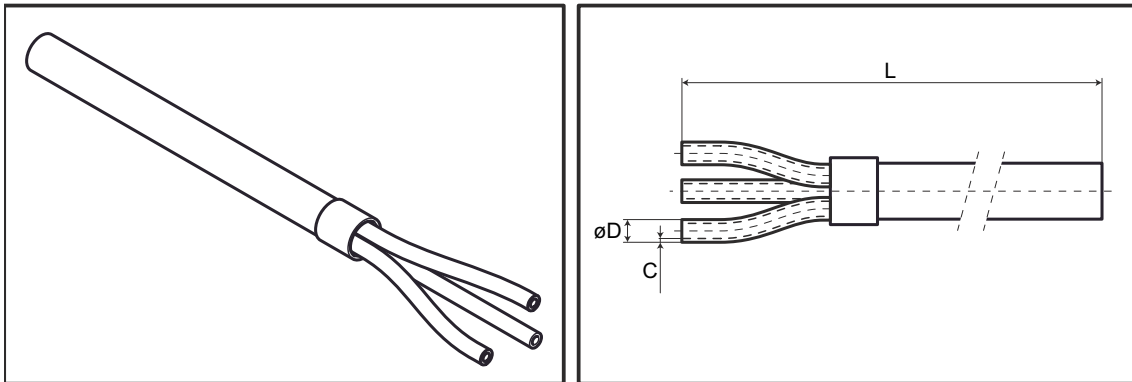


$\varnothing D$	C	p/n new	p/n old	L	Material
3/16"	1.2mm	F118247 <sup>1)</sup>	02301	per 1 meter <sup>2)</sup>	PA 12 H/W
3/16"	1.2mm	F103432 <sup>1)</sup>	02311	3 meter	PA 12 H/W
3/16"	1.2mm	F112980 <sup>1)</sup>	02307	5 meter	PA 12 H/W
3/16"	1.2mm	F120791 <sup>1)</sup>	-	7 meter	PA 12 H/W
6mm	1.5mm	F110662 <sup>1)</sup>	77401	per 1 meter <sup>2)</sup>	PA 12 H/W
6mm	1.5mm	F112584 <sup>1)</sup>	72301	per 3 meter	PA 12 H/W
6mm	1.5mm	F115806 <sup>1)</sup>	72317	per 5 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)



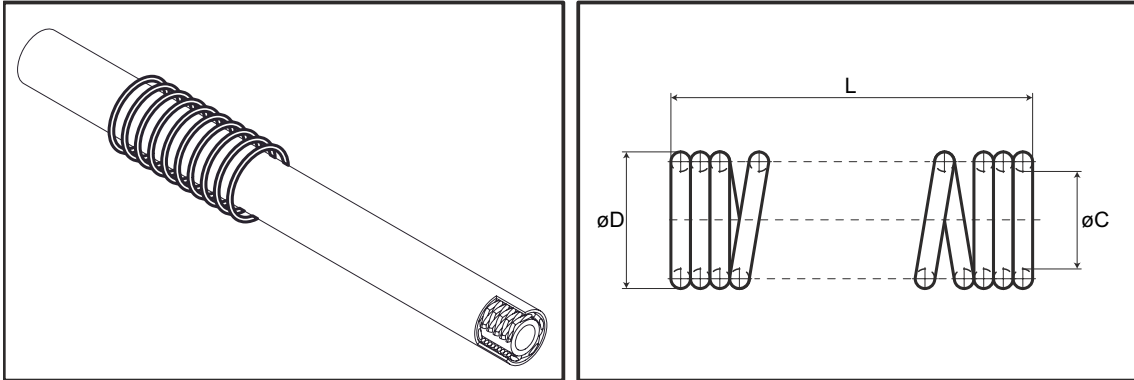
$\varnothing D$	$\varnothing C$	p/n new	p/n old	L	Material
3/16"	1.2mm	F118248 <sup>1)</sup>	02401	per 1 meter <sup>2)</sup>	PA 12 H/W
3/16"	1.2mm	F103430 <sup>1)</sup>	02411	3 meter	PA 12 H/W
3/16"	1.2mm	F114298 <sup>1)</sup>	02407	5 meter	PA 12 H/W
6mm	1.5mm	F110663 <sup>1)</sup>	77501	per 1 meter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

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

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

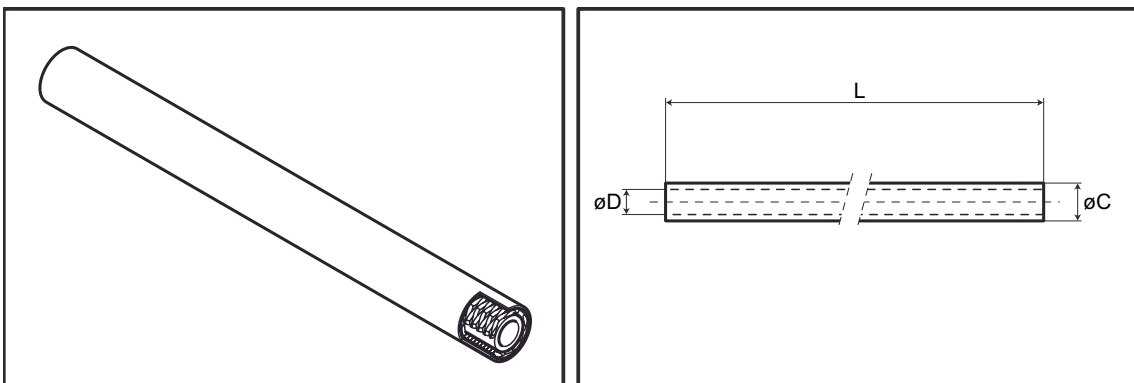
Release date: September 2016

#### 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	F208964	-	per 1 meter	inox
23mm	19mm	F173798	36902	per 1 meter	steel
23mm	19mm	F175878	-	2.35 meter	steel

#### 4.5 High pressure hoses

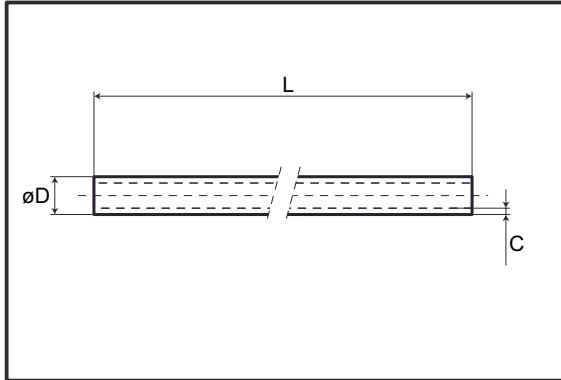
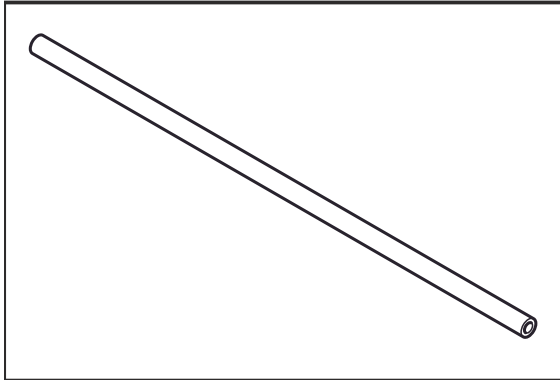


$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>L</i>	<i>Max. working pressure</i>	<i>Material</i>
5/32"	8.6mm	F115307	05716	per 1 meter	350 bar	thermoplastic
5/32"	8.6mm	F123414 <sup>1)</sup>	-	per 1 meter	350 bar	thermoplastic
1/4"	11.9mm	F128330	-	per 1 meter	300 bar	thermoplastic
1/4"	12.2mm	F113422	00817	per 1 meter	225 bar	synthetic rubber
3/8"	17.1mm	F121011	35702	per 1 meter	180 bar	synthetic rubber
1/2'	21.8mm	F117821	14812	per 1 meter	275 bar	synthetic rubber

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

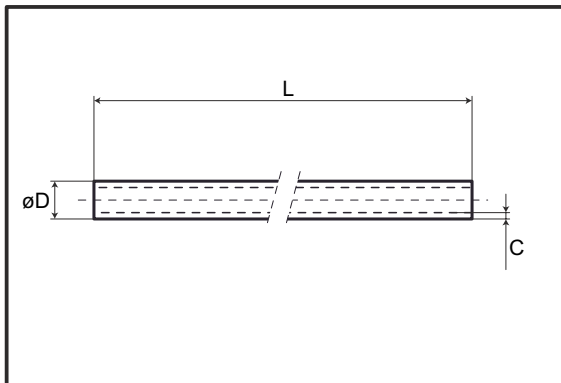
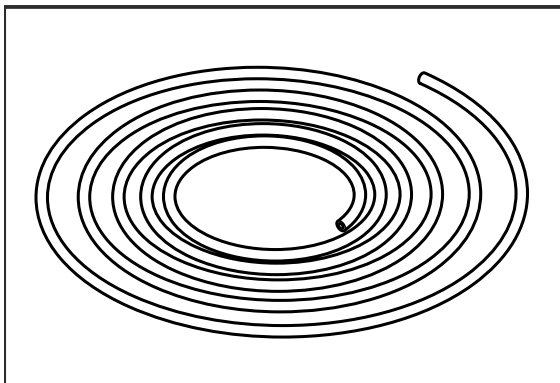


4.6 Pipes



$\varnothing D$	C	p/n new	p/n old	L	Material
3/16"	0.89mm	F123416	32802	per 2 meter	inox
6mm	1mm	F120758	31902	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
15mm	1.5mm	F123228	32302	per 2 meter	steel

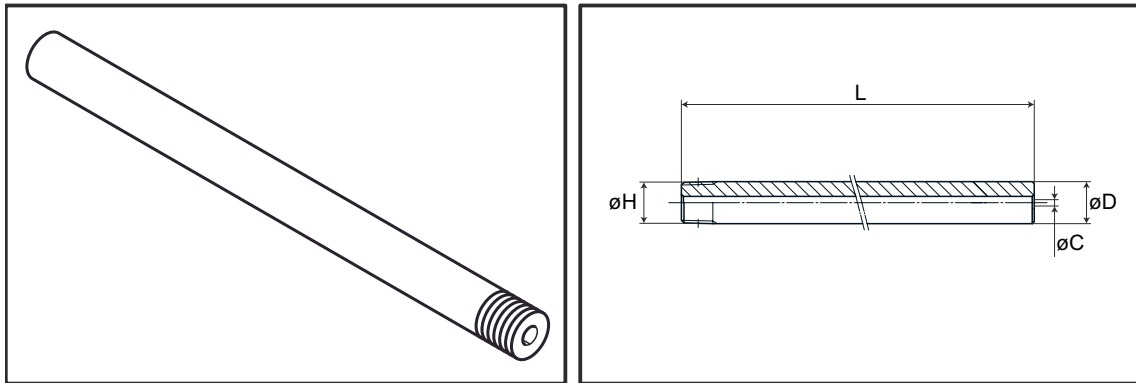
4.7 Cunifer tubes



$\varnothing D$	C	p/n new	p/n old	L	Material
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

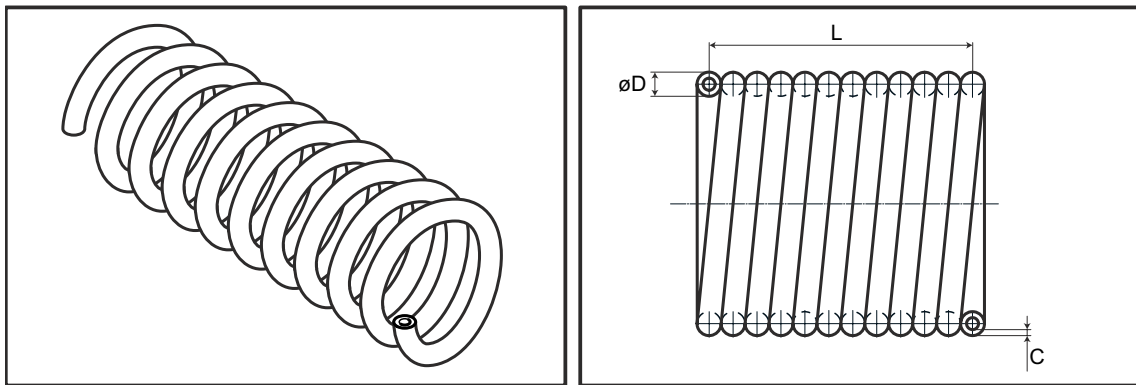
Release date: September 2016

#### 4.8 Thick-walled pipes



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	$\varnothing H$	<i>L</i>	<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"	2500mm	steel
10mm	3mm	F108884	65322	R1/8"	3000mm	steel

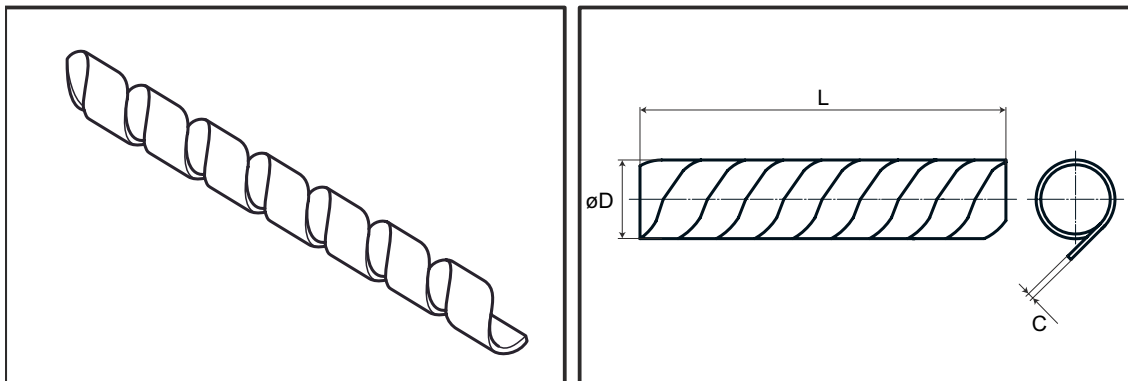
#### 4.9 Spiral tubes



$\varnothing D$	$\varnothing C$	<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
10mm	2.5mm	F104612	17301	per 1 meter	PA 12 H

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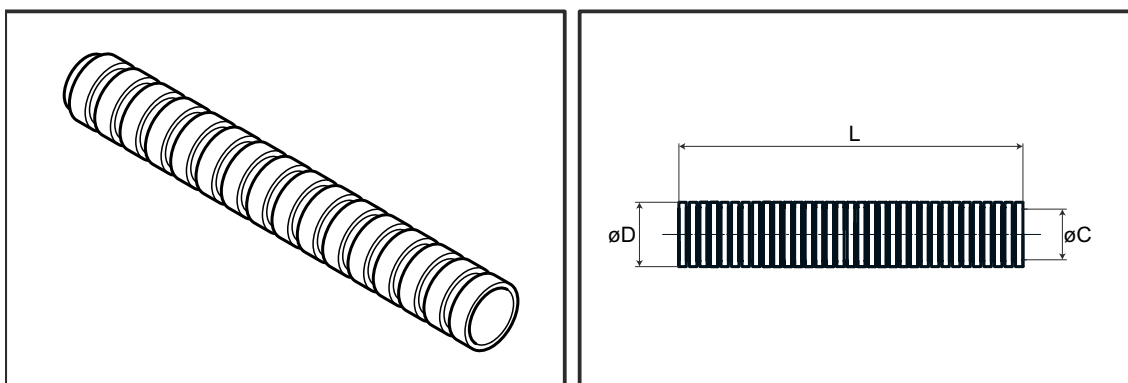
### 4.10 Spiral protective wrap



øD	C	Capacity	p/n new	p/n old	L	Material
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.

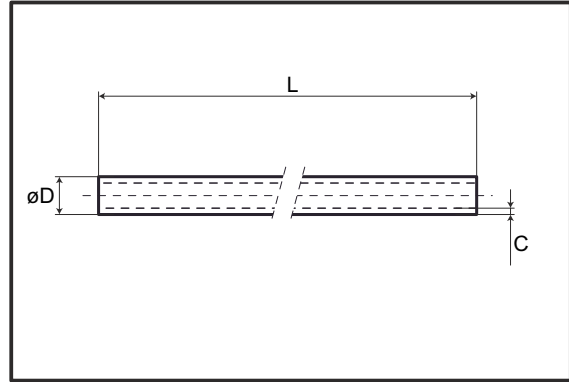
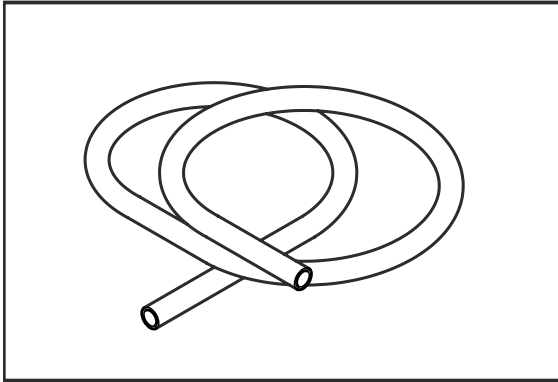
### 4.11 Corrugated tubes



øD	øC	p/n new	p/n old	L	Material
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
15.8mm	13mm	F113068	-	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
28mm	23mm	F115081	-	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

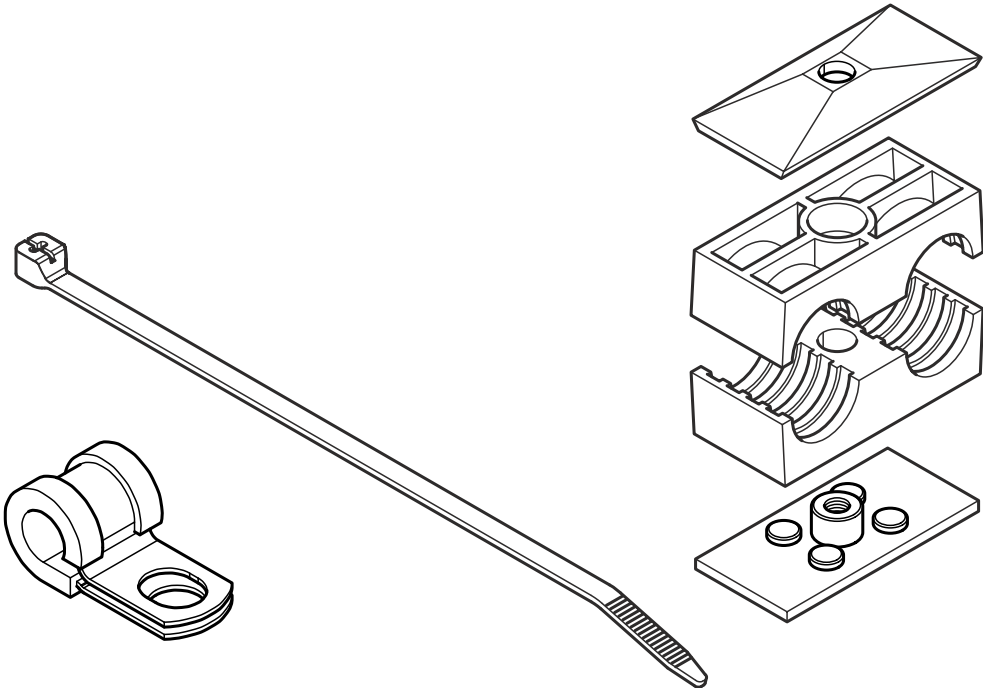
Release date: September 2016

**4.12 Protection sleeves**



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

# 5. FASTENERS

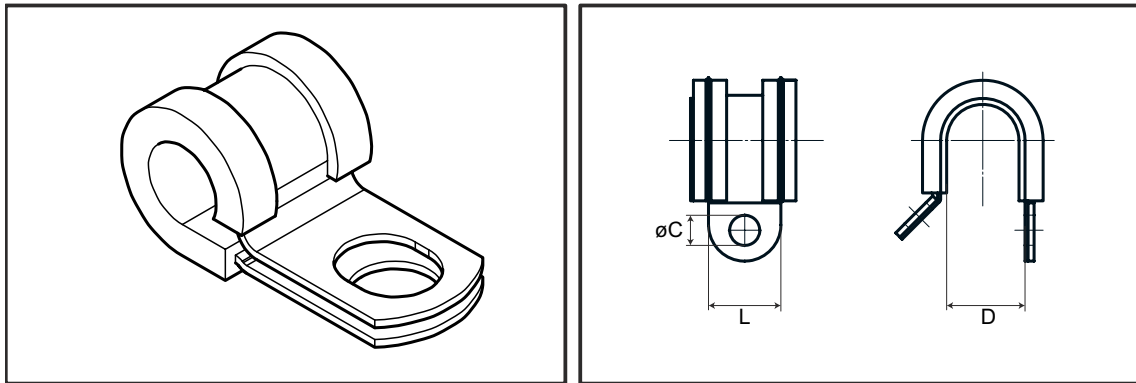


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5.1 Clamps lined

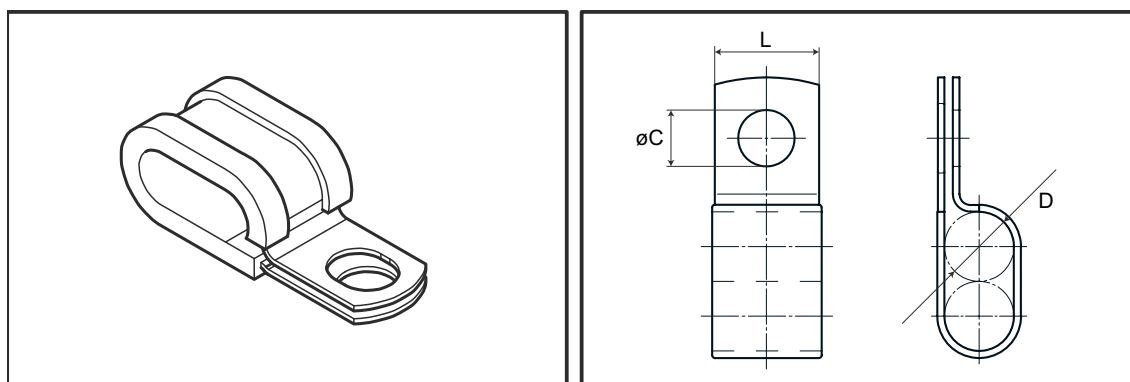


$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>L</i>	<i>Material</i>
4mm	5mm	F104575	00908	12	steel
6mm	5mm	F104573	01008	12	steel
6mm	5mm	F122062	81102	12	inox
8mm	5mm	F104637	01108	12	steel
8mm	5mm	F120657	81202	12	inox
10mm	5mm	F104571	01208	12	steel
10mm	5mm	F122796	81302	12	inox
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
10mm	6mm	F117114	14208	12	steel
13mm	6mm	F206150	-	12	steel
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	F202094	-	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
8mm	10mm	F202038	-	16	inox
9.5mm	10mm	F191591	-	19.05	steel
12mm	10mm	F171197	-	20	steel
12.7mm	10mm	F191592	-	19.05	steel

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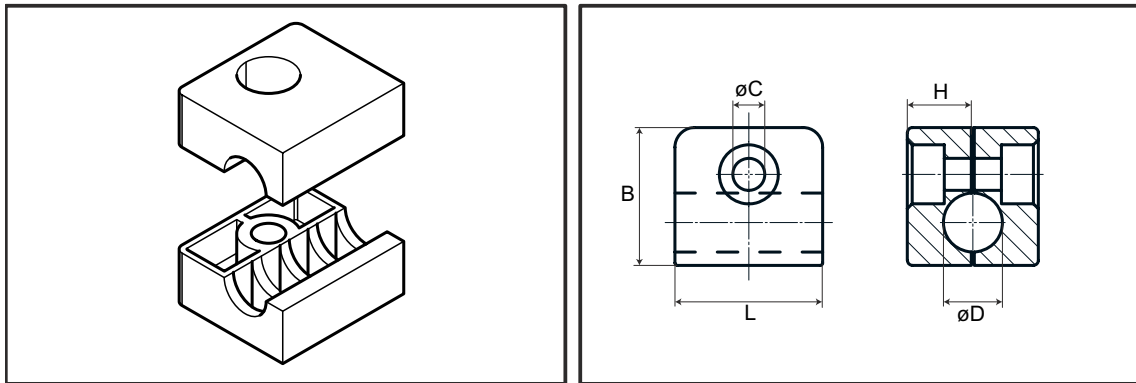
$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>L</i>	<i>Material</i>
14mm	10mm	F116460	39008	16	steel
14mm	10mm	F171185	-	16	inox
23.8mm	10mm	F191583	-	19.05	steel
25.4mm	10mm	F191584	-	19.05	steel
27mm	10mm	F191585	-	19.05	steel
28mm	10mm	F171192	-	25	steel
12.7mm	12mm	F211204	-	19.05	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>
12.7mm	10mm	F205295	-	19.05	steel
18mm	10mm	F125824	-	20	inox
22.2mm	8mm	F203984	-	15	inox

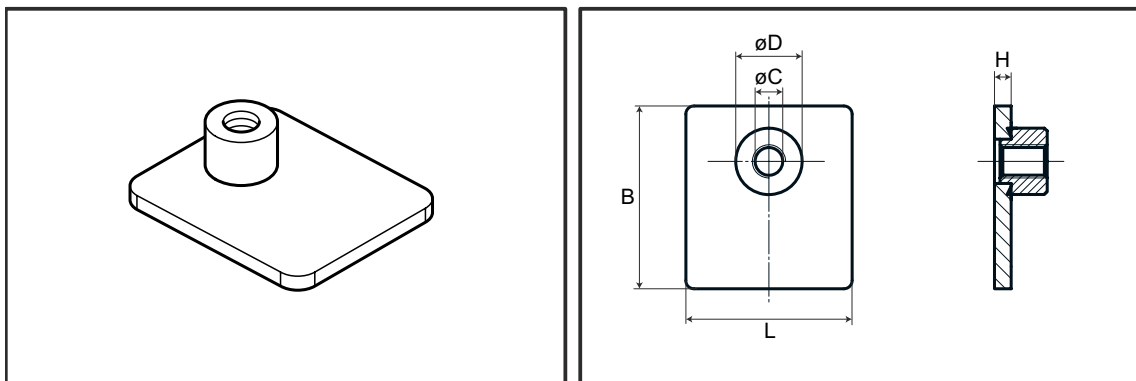
### 5.3 Single tube clamps, one bolt



$\varnothing D$	$\varnothing C$	<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.

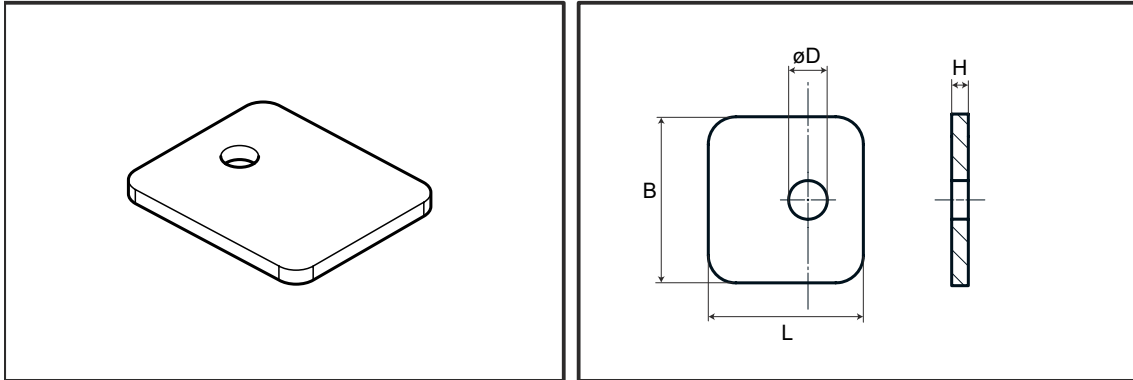
### 5.4 Welding plates, single tube clamps one bolt



$\varnothing D$	$\varnothing C$	<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

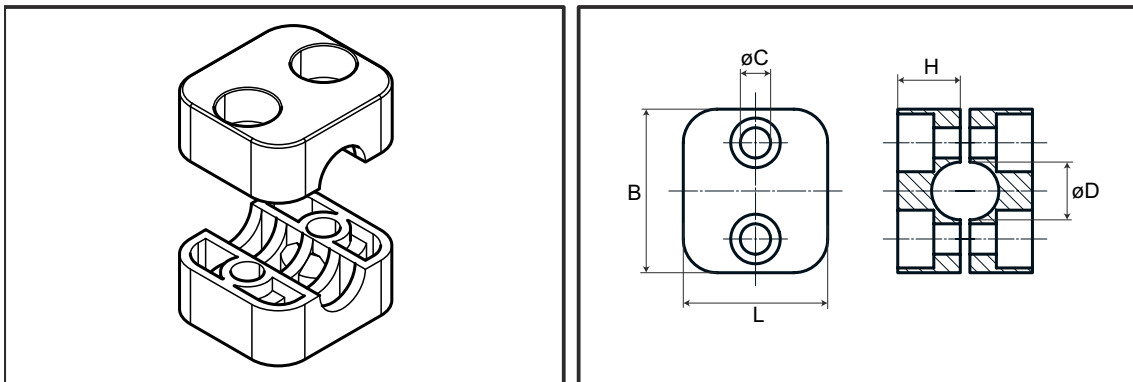


5.5 Cover plates, single tube clamps one bolt



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

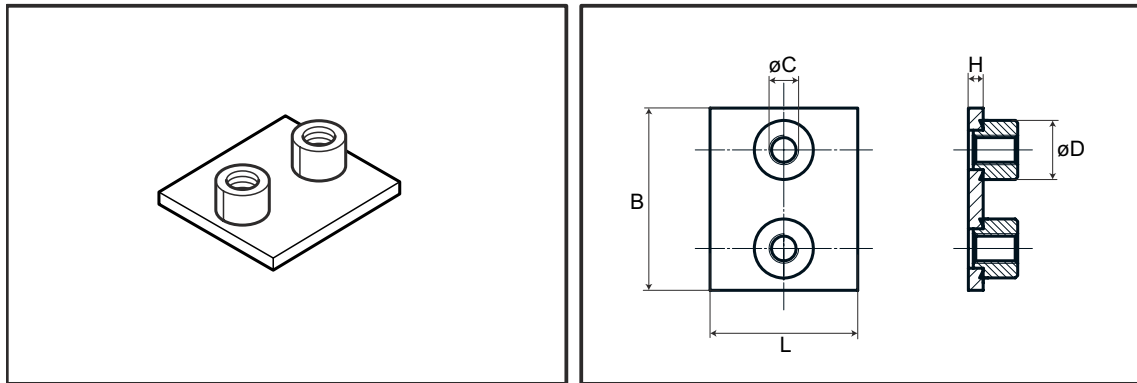
5.6 Single tube clamps, two bolts



$\varnothing D$	$\varnothing C$	p/n new	p/n old	B	H	L	Material
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

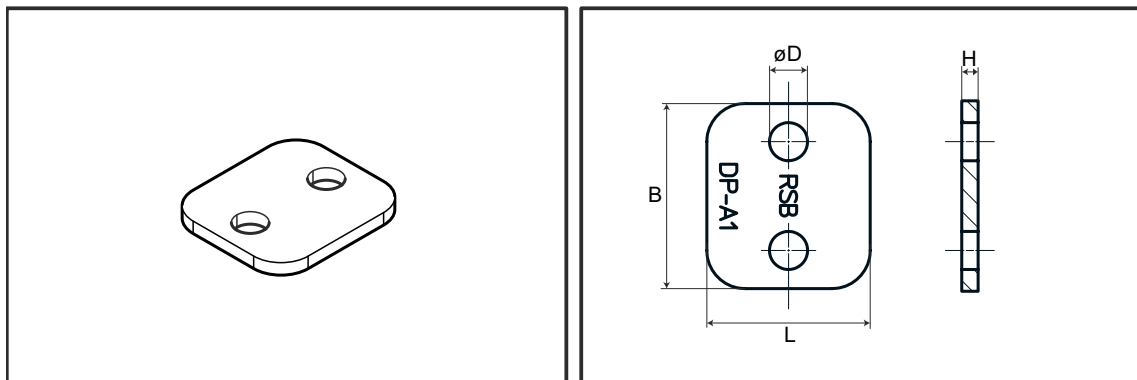
<sup>1)</sup> Consists out of two parts.

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



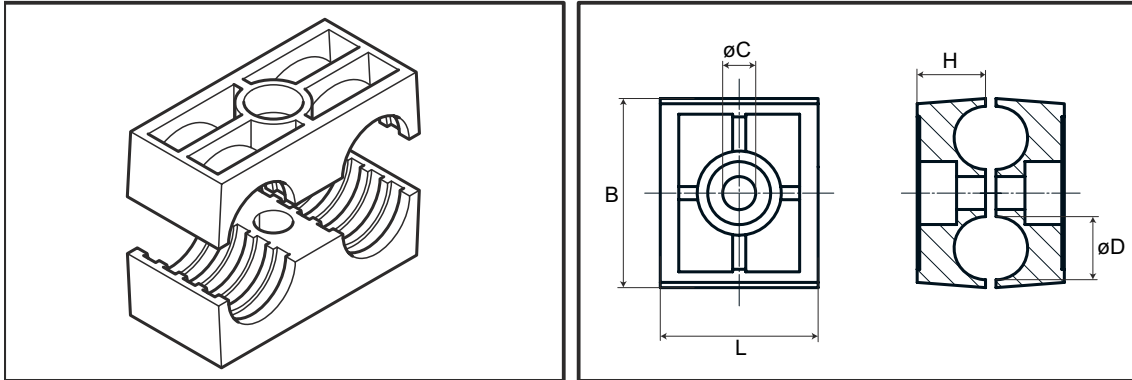
$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>B</i>	<i>H</i>	<i>L</i>	<i>Material</i>
12mm	M6	F110289	82002	37	3	30	steel
12mm	M6	F110284	82102	42	3	30	steel
12mm	M6	F122884	83902	50	3	30	steel

### 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

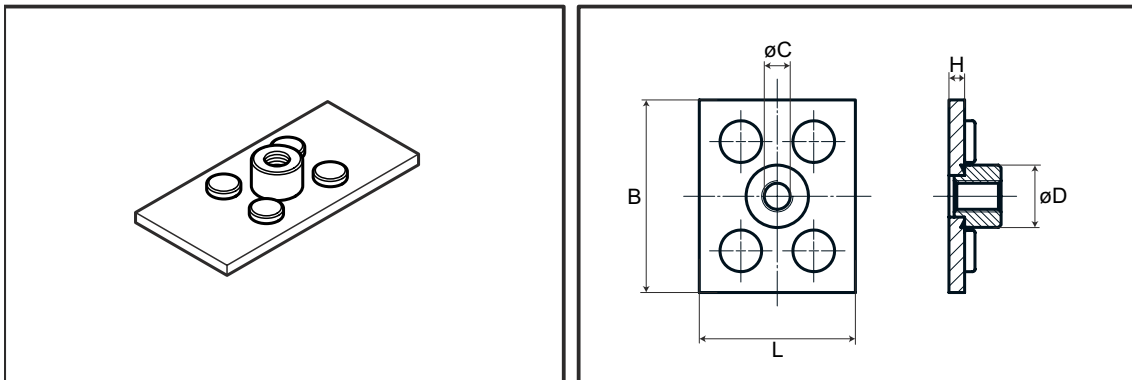
### 5.9 Double tube clamps



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>B</i>	<i>H</i>	<i>L</i>	<i>Material</i>
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.

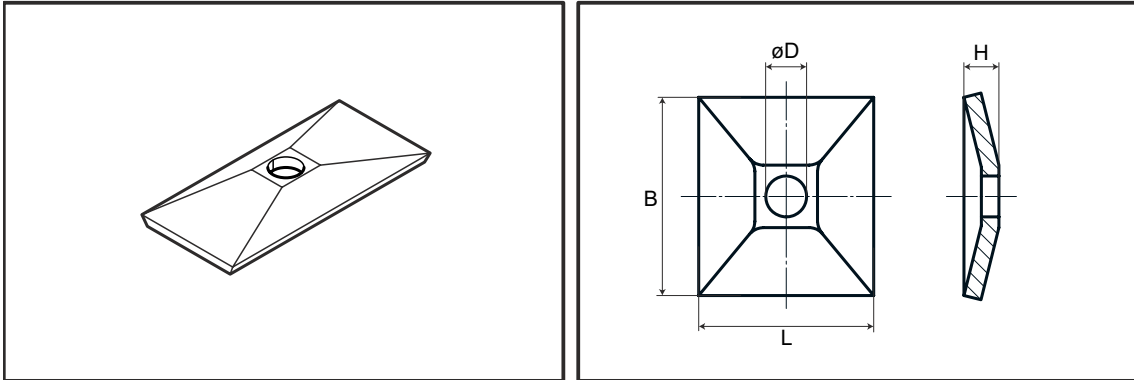
### 5.10 Welding plates, double tube clamps



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

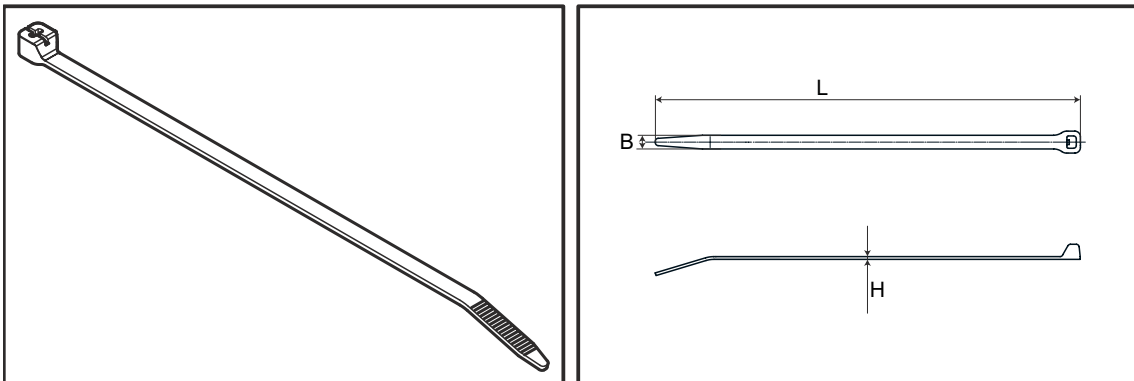
Release date: September 2016

**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	6	30	steel
7mm	-	F120648	21512	34	6	30	inox
9.5mm	-	F121139	15512	51.5	6	30	steel
8.5mm	-	F116867	15612	65	7.5	30	steel

**5.12 Cable ties**



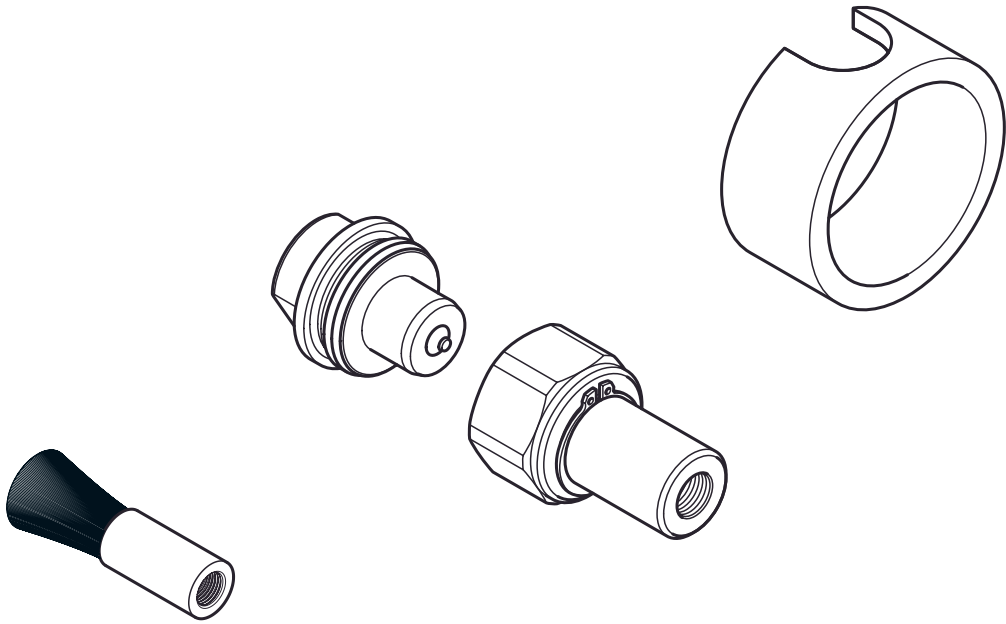
$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>B</i>	<i>H</i>	<i>L</i>	<i>Material</i>
-	-	F111891	00208	5	1	188	nylon black
-	-	F104556	11107	7	1.6	340	nylon black
-	-	F177860	890012	-	-	200	nylon white

**5.13 Cable tie kits**

<i>p/n new</i>	<i>p/n old</i>	<i>Description</i>
F213429	-	200 x F111891 cable tie 188mm + 50 x F104556 cable tie 340mm
F213927	-	100 x F111891 cable tie 188mm + 25 x F104556 cable tie 340mm

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# 6. SPECIAL PARTS

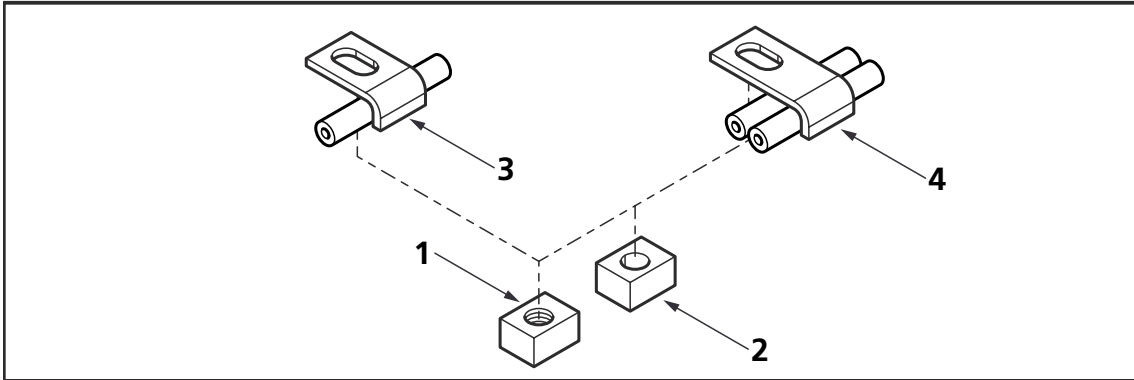


Release date: September 2016



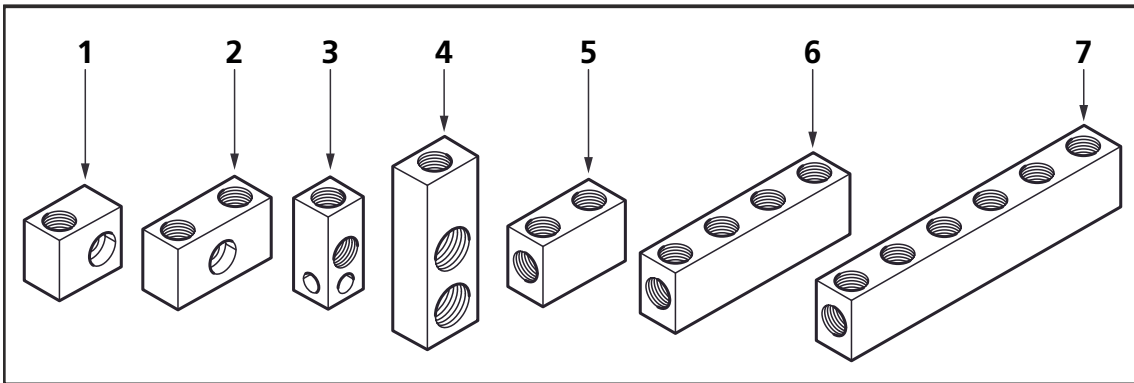
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**6.1 Brackets for ø10mm pipes**



Pos.	p/n new	p/n old	Description	Material
1	F176943	-	Welding block M8	steel
2	F173292	-	Filler block	steel
3	F173293	-	Bracket for ø10mm pipe	steel
4	F176944	-	Bracket for two ø10mm pipes	steel

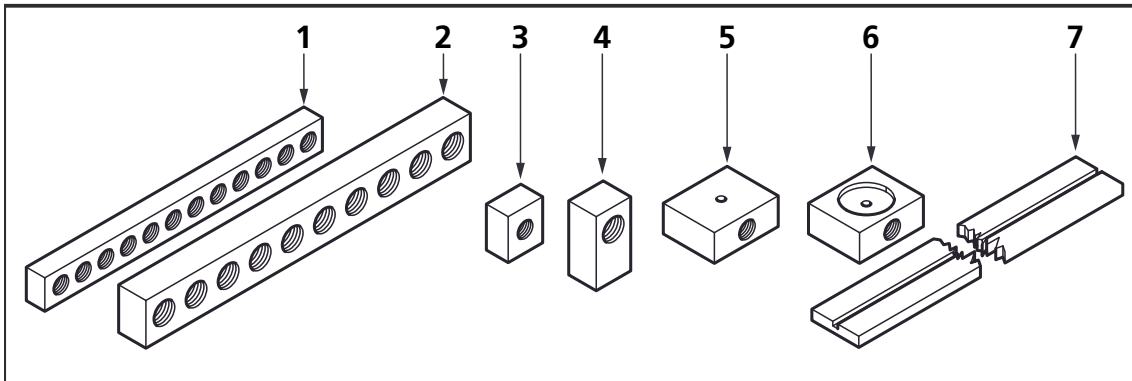
**6.2 Connection blocks**



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	F128974	-	Connection block 1 channel - G1/8"	steel
4	F107980	06812	Connection block 2 channels - G1/4"	steel
5	F170766	-	Connection block 5 ports - G1/8"	brass
6	F170765	-	Connection block 7 ports - G1/8"	brass
7	F170763	-	Connection block 9 ports - G1/8"	brass

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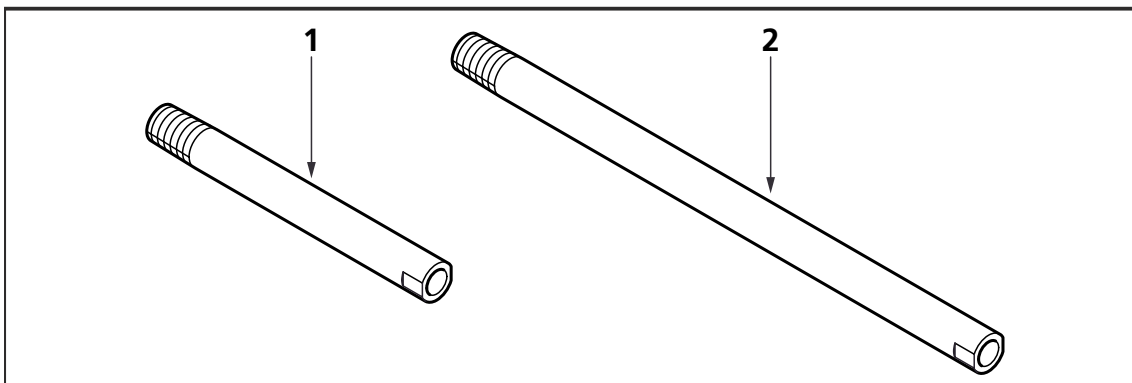
### 6.3 Welding blocks / strips



Pos.	p/n new	p/n old	Description	Material
1	F105978 <sup>1)</sup>	13101	Welding strip G1/8" holes (12 holes)	steel
2	F105979 <sup>1)</sup>	13201	Welding strip G1/4" holes (10 holes)	steel
3	F178137	87402	Welding block G1/8"	steel
4	F105234	08222	Welding block G1/4"	steel
5	F102344	87502	Welding block G1/8" - ø4mm	steel
6	F105199	22502	Welding block G1/8" - ø24mm - ø6.5mm	steel
7	F107593	36002	Welding strip + channel 1500x6x30mm	steel

<sup>1)</sup> Order per hole.

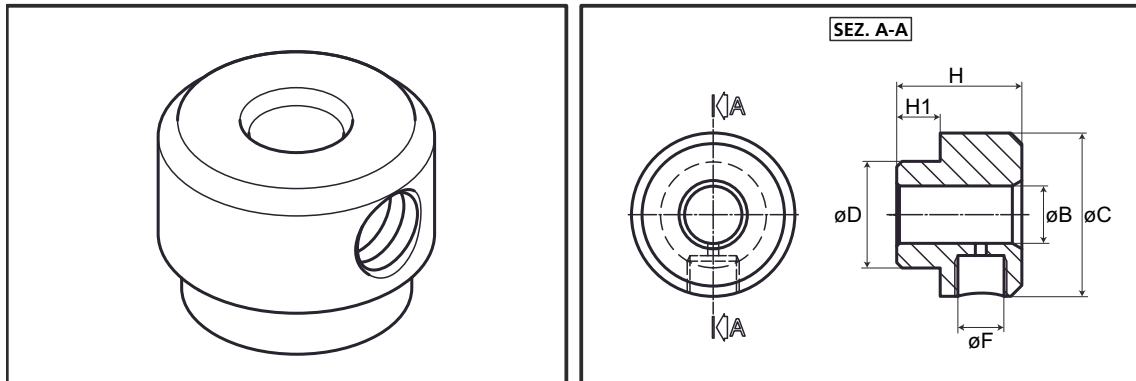
### 6.4 Extension spindles



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

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### 6.5 Banjo bushings



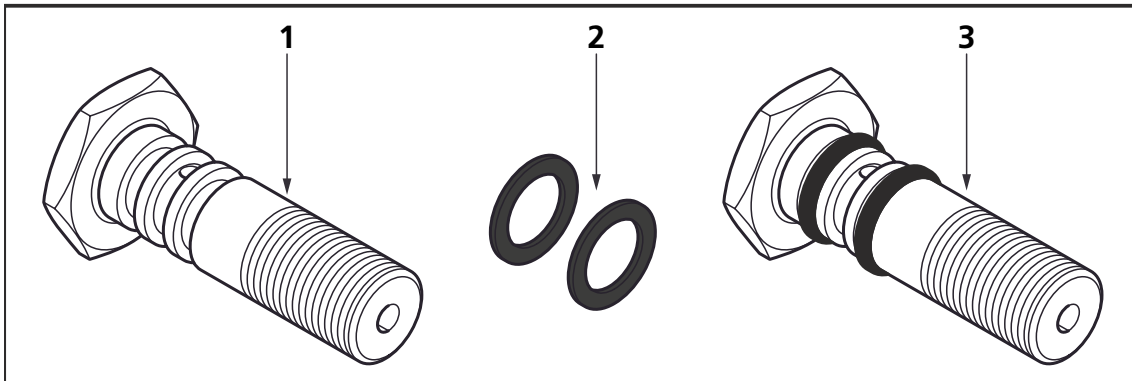
$\varnothing D$	$\varnothing C$	p/n new	p/n old	$\varnothing B$	$\varnothing F$	H	H1	Material
20.1	29	F173114	-	10.5	G1/8"	20	3	steel
30	-	F171390	-	10.5	G1/8"	23	-	steel
18	30	F109515	25912	10.5	G1/8"	30	15	steel
19.6	30	F106744	24922	10.5	G1/8"	23	8	steel
19.6	30	F109187	21812	10.5	G1/8"	23	8	inox
19.6	30	F202185	-	10.5	G1/8"	31	8	steel
19.6	30	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>2)</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 ( $\varnothing C$ ).



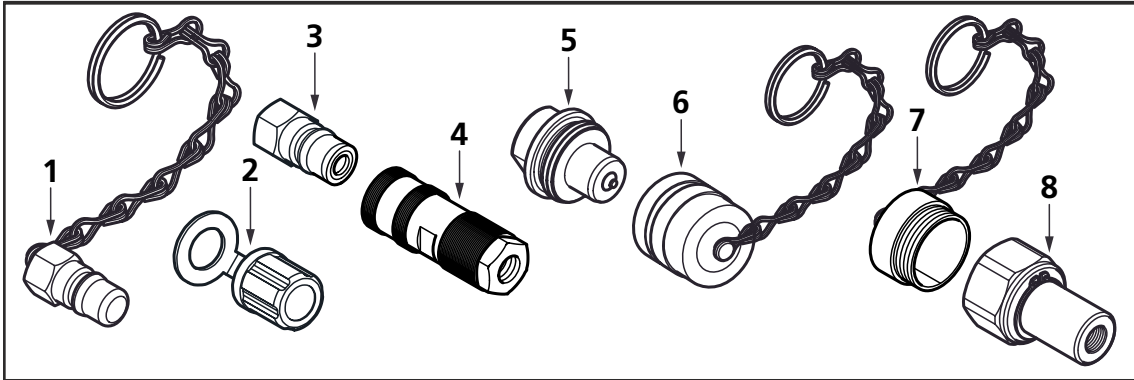
6.6 Banjo bolts



Pos.	p/n new	p/n old	Description	Material
1	F106741	24822	Banjo bolt G1/8" / L=35mm	steel
	F109186	21712	Banjo bolt G1/8" / L=35mm	inox
	F205085	-	Banjo bolt G1/8" / L=40mm	steel
	F108212	52322	Banjo bolt G1/8" / L=45mm	steel
	F202490	-	Banjo bolt G1/8" / L=55mm	steel
	2	F100107	26022	O-ring 6.07 x 1.78
3	F124560	-	Banjo bolt G1/8" / L=27mm incl. O-rings	steel
	F206458	-	Banjo bolt G1/8" / L=30mm incl. 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

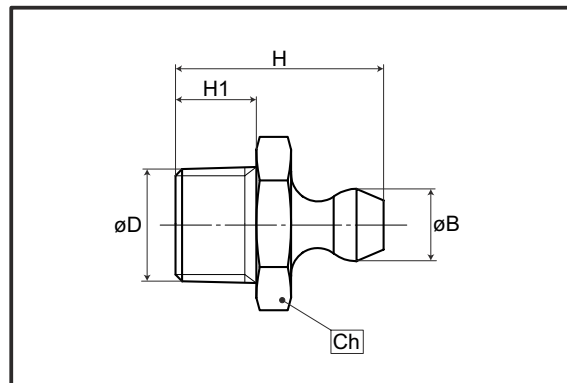
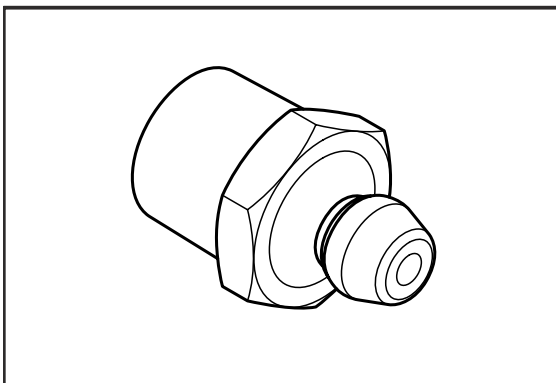
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**6.7 Quick connectors**



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
4	F103083	01901	Quick connector G1/4" with bullet (female)	steel
	F120867	-	Quick connector G1/4" without 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
	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

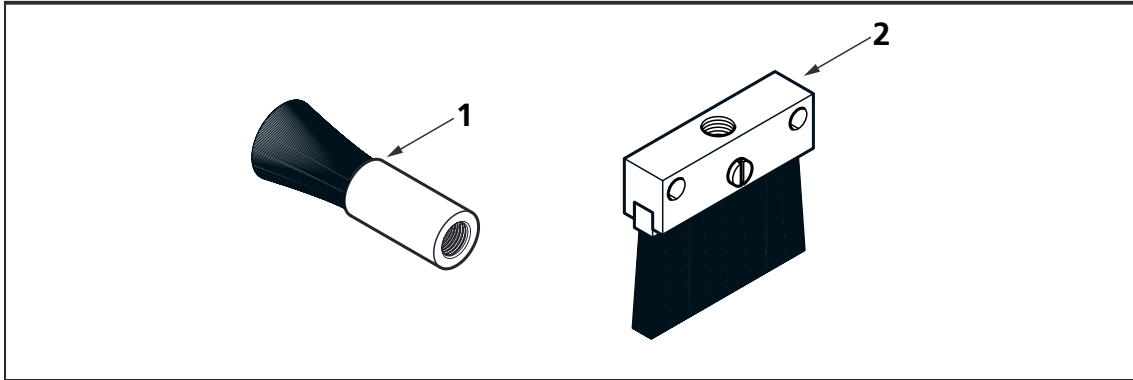
**6.8 Grease nipples straight**



øB	øD	p/n new	p/n old	H	H1	Ch	Material
6.5	M8x1	F117409	-	18	8	9	steel
6.5	R1/8"	F115073	07601	18	8	11	steel

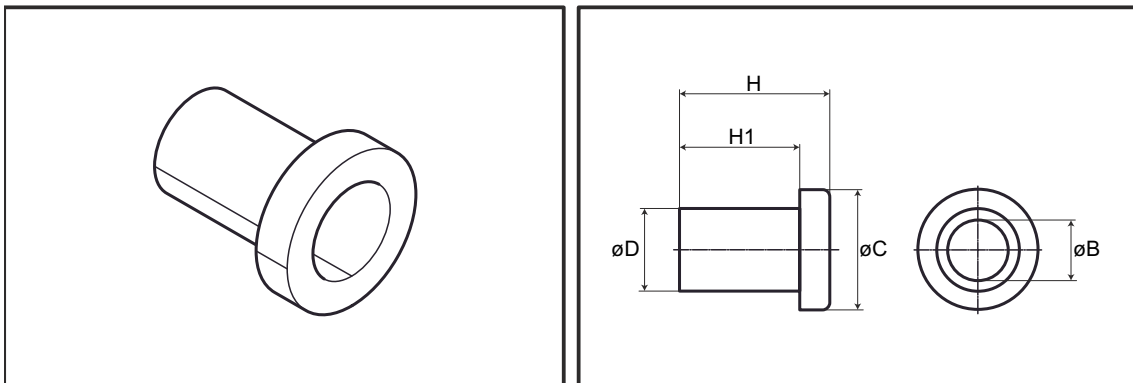
Release date: September 2016

6.9 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"	-

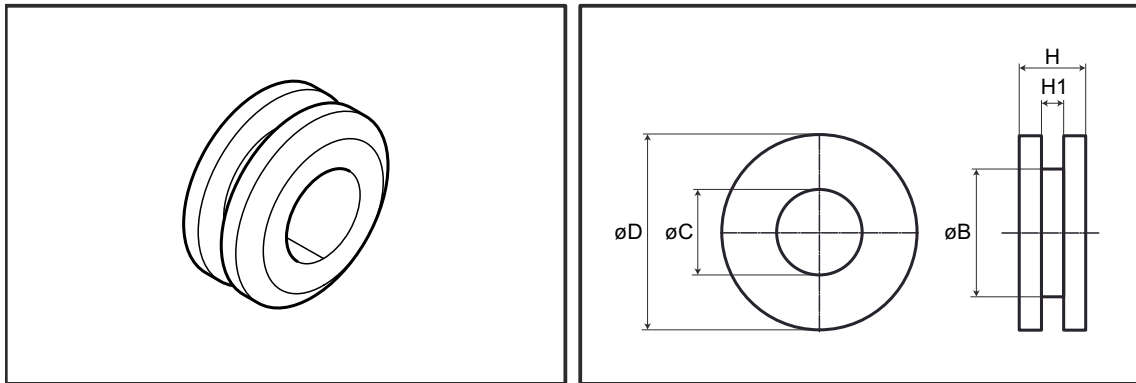
6.10 Top hat grommets



øD	øC	øB	p/n new	p/n old	H	H1	L	Material
8mm	12mm	5mm	F104616	00608	21	18	-	rubber
11mm	16mm	8mm	F104547	00108	20	16	-	rubber
14mm	18.5mm	10mm	F103347	24401	20	16	-	rubber
20mm	28mm	14mm	F205836	-	24.5	20.5	-	rubber

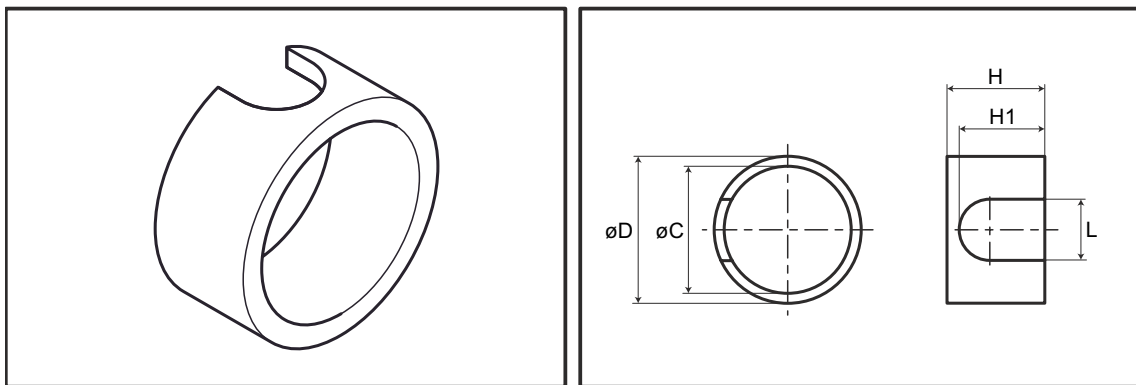
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### 6.11 Insulation grommets



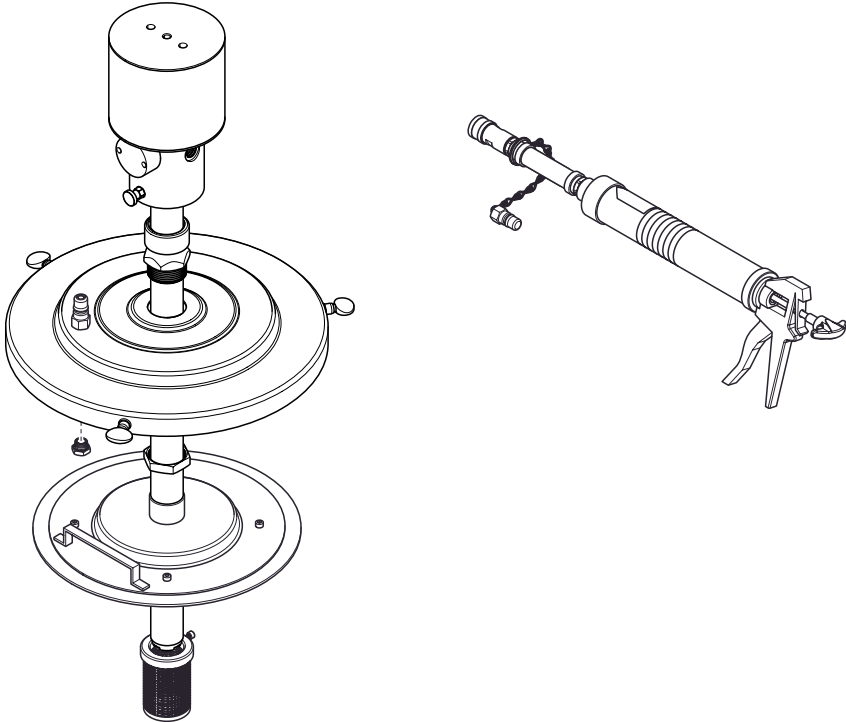
$\varnothing D$	$\varnothing C$	$\varnothing B$	<i>p/n new</i>	<i>p/n old</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
28mm	14mm	20mm	F104517	02108	12	4	-	rubber
35mm	15.5mm	23mm	F178289	03408	12	4	-	rubber

### 6.12 Protection rings



$\varnothing D$	$\varnothing C$	<i>p/n new</i>	<i>p/n old</i>	<i>H</i>	<i>H1</i>	<i>L</i>	<i>Material</i>
60mm	52mm	F105110	39702	40	35	25	steel
70mm	61mm	F105109	39802	40	35	25	steel

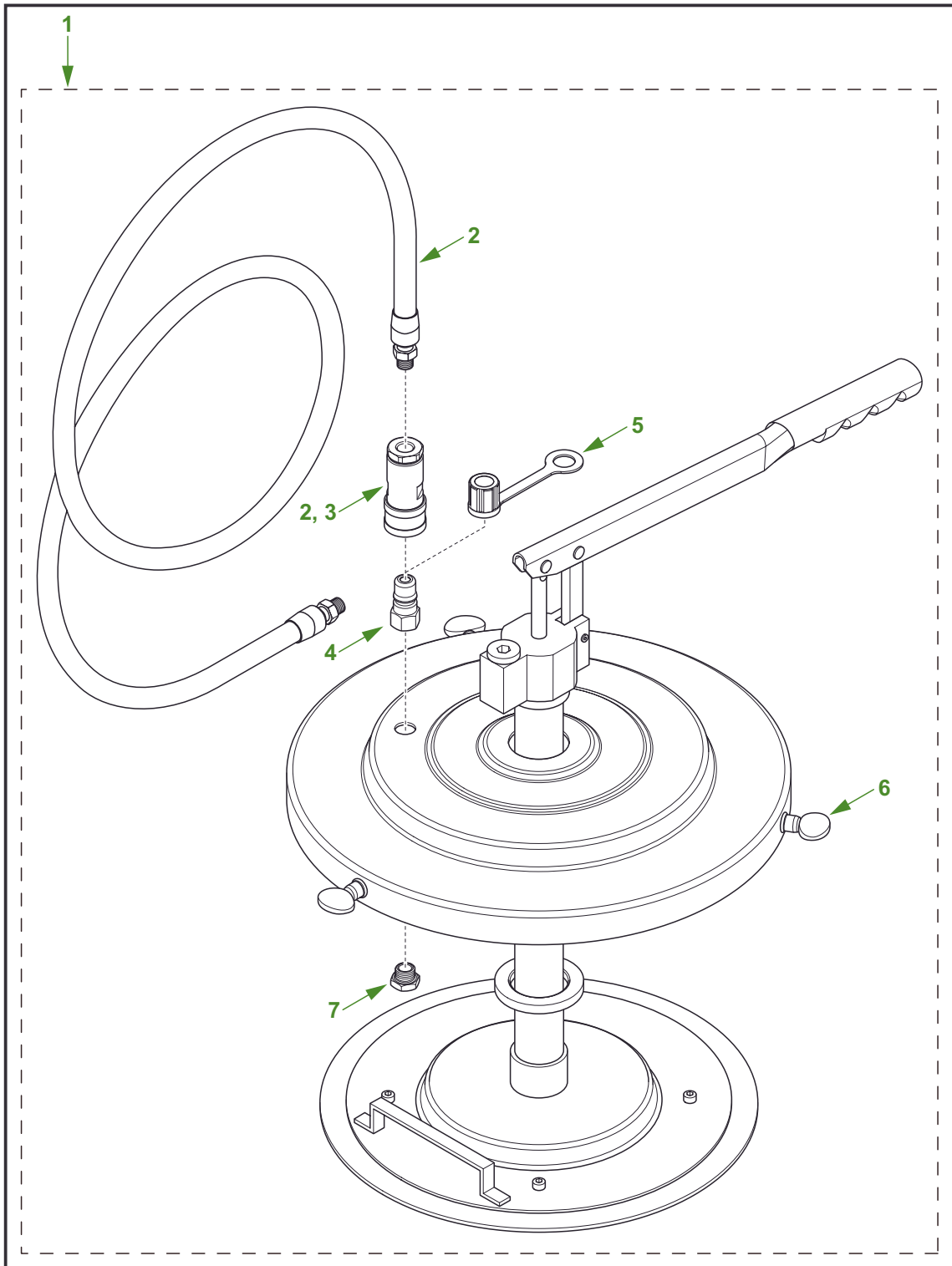
# 7. FILLER PUMPS



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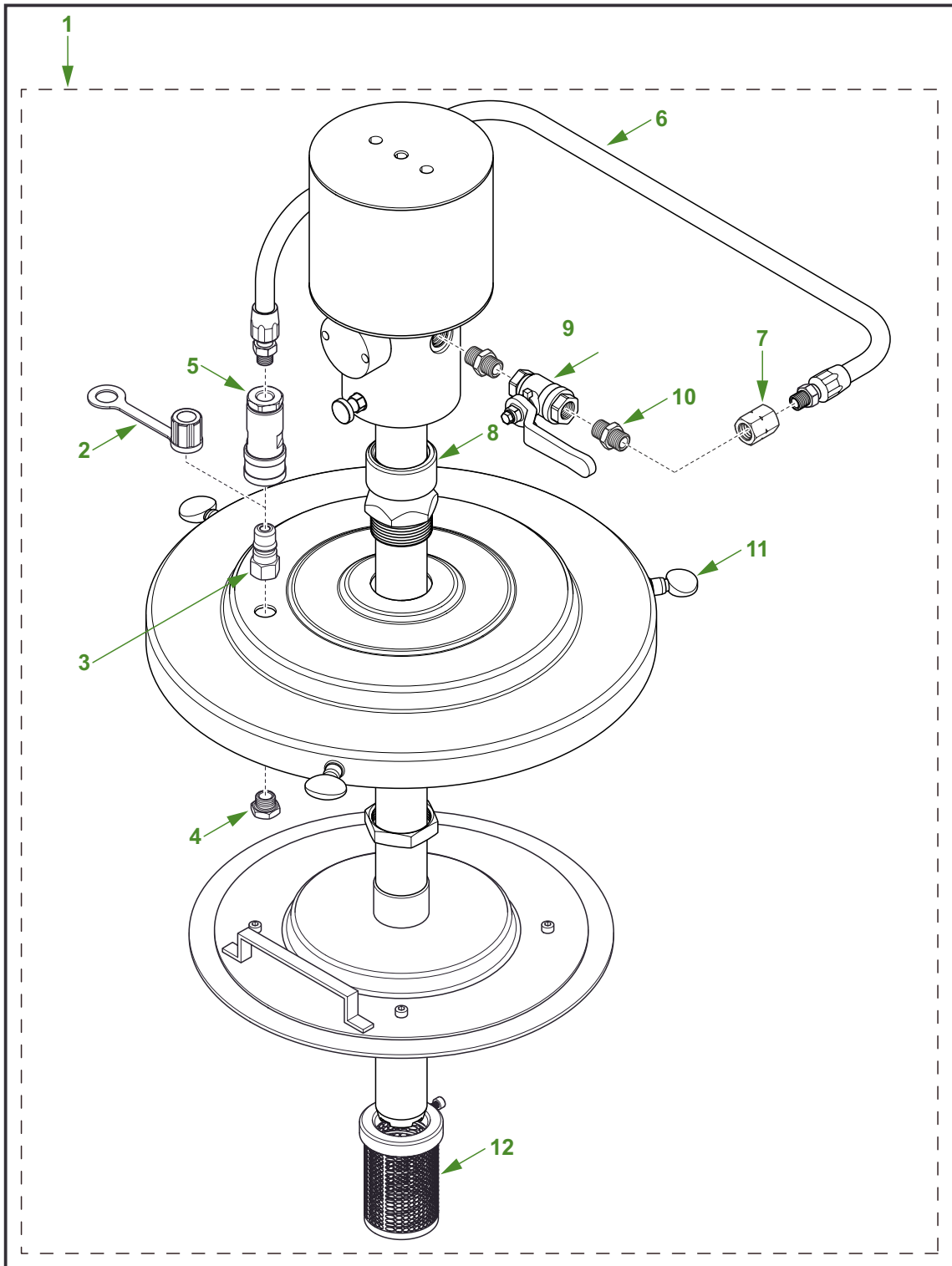
**7.1 Manual filler pump 20L for NLGI-2**

<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"

**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
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"

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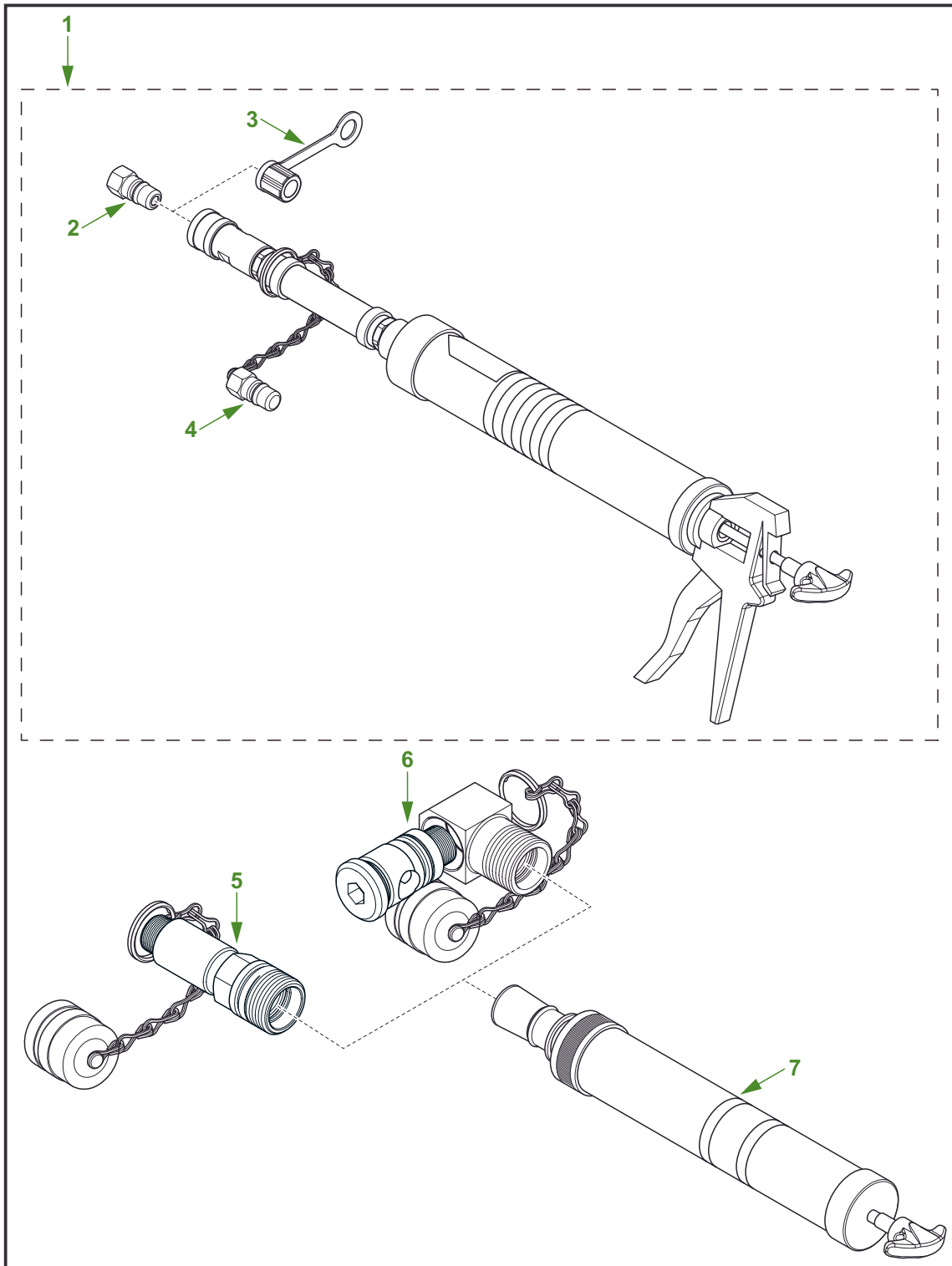


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### 7.3 Pneumatic filler pump 20L / 50L

<i>Pos.</i>	<i>p/n new</i>	<i>p/n old</i>	<i>Description</i>
1	F123563	0412601	Pneumatic filler pump kit 20L
	F123560	0412602	Pneumatic filler pump kit 50L
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



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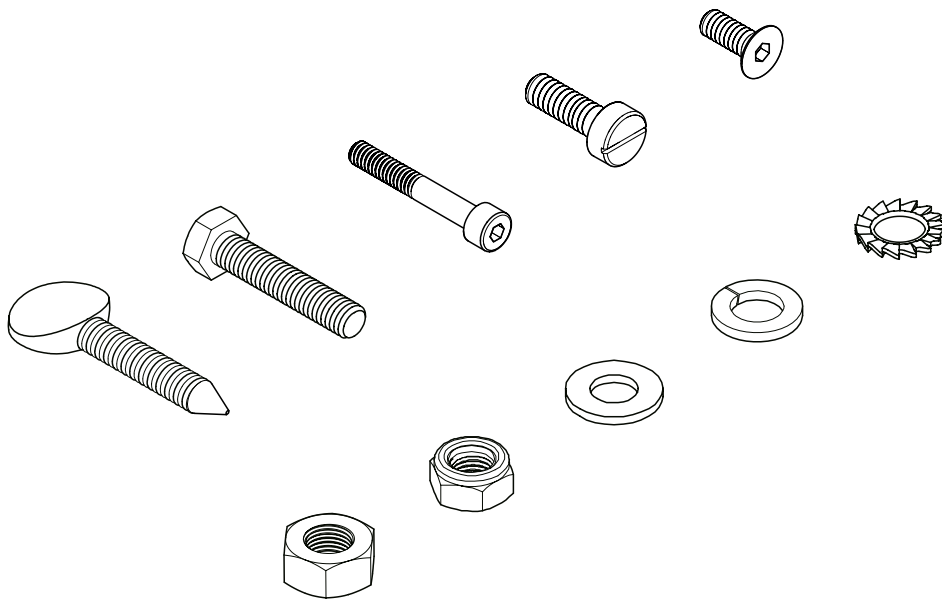
**7.4 Cartridge filler pump**

<i>Pos.</i>	<i>p/n new</i>	<i>p/n old</i>	<i>Description</i>
1	F179724	-	Cartridge filler pump 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
6	F124626	-	Elbow filler coupling kit
7	F125171	-	Cartridge filler pump

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## 8. BOLTS, NUTS AND WASHERS

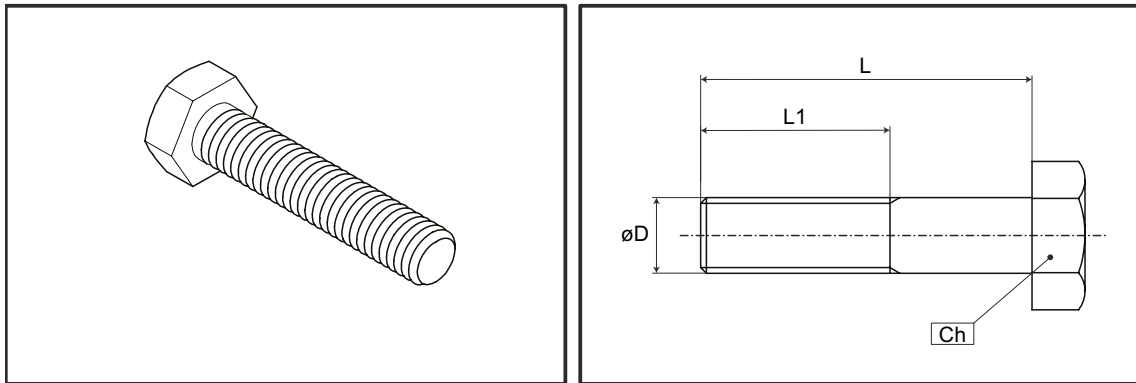


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### 8.1 Hexagonal bolts

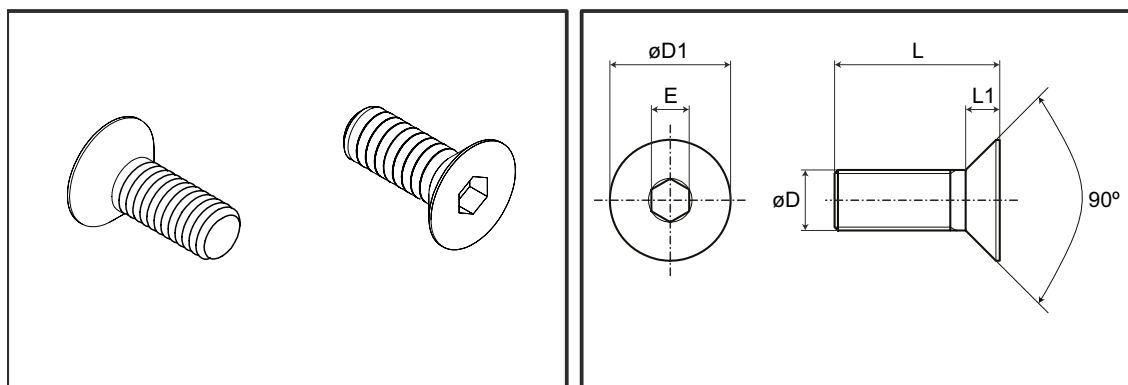


$\varnothing D$	L	L1	p/n new	p/n old	Ch	Thread	Material
M4	30	-	F177963	104030	7	0.7	steel
M5	10	-	F110866	105010	8	0.8	steel
M5	10	-	F177865	81402	8	0.8	inox
M5	40	-	F116336	105040	8	0.8	steel
M6	12	-	F114683	106012	10	1.0	steel
M6	16	-	F110869	106016	10	1.0	steel
M6	20	-	F001029	106020	10	1.0	steel
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	20	-	F177958	118020	13	1.25	inox
M8	25	-	F110878	108025	13	1.25	steel
M8	30	-	F113434	108030	13	1.25	steel
M8	30	-	F120736	118030	13	1.25	inox
M8	35	-	F104653	108035	13	1.25	steel
M8	35	-	F123156	118035	13	1.25	inox
M8	40	-	F113435	108040	13	1.25	steel
M8	40	-	F172823	-	13	1.25	inox
M8	45	-	F113436	108045	13	1.25	steel
M8	45	-	F122374	118045	13	1.25	inox
M8	50	-	F113437	108050	13	1.25	steel
M8	50	-	F177868	-	13	1.25	inox
M8	60	-	F113291	108060	13	1.25	steel
M8	65	-	F116921	108065	13	1.25	steel
M8	80	-	F113536	108080	13	1.25	steel
M8	100	-	F172850	-	13	1.25	steel

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$\phi D$	L	L1	p/n new	p/n old	Ch	Thread	Material
M10	16	-	F113428	101016	17	1.5	steel
M10	16	-	F177954	111016	17	1.5	inox
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	30	-	F177870	111030	17	1.5	inox
M10	35	-	F116633	101035	17	1.5	steel
M10	40	-	F113429	101040	17	1.5	steel
M10	40	-	F120722	111040	17	1.5	inox
M10	45	-	F113430	101045	17	1.5	steel
M10	50	-	F116920	101050	17	1.5	steel
M10	50	-	F177957	111050	17	1.5	inox
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	90	-	F117322	101090	17	1.5	steel
M10	90	-	F600695	-	17	1.5	inox
M10	100	-	F119484	101065	17	1.5	steel
M10	110	-	F116807	101110	17	1.5	steel
M10	110	-	F177872	111110	17	1.5	inox
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

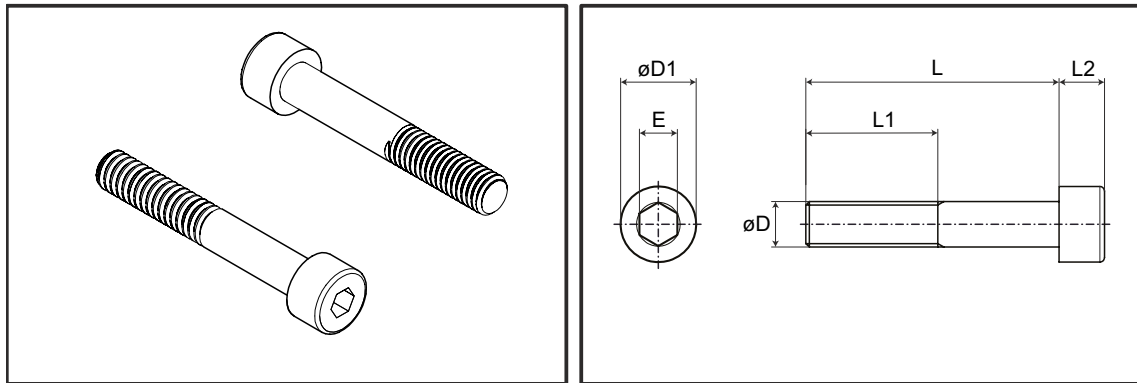
## 8.2 Countersunk socket head screws



$\phi D$	$\phi D1$	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

Release date: September 2016

### 8.3 Allen screws



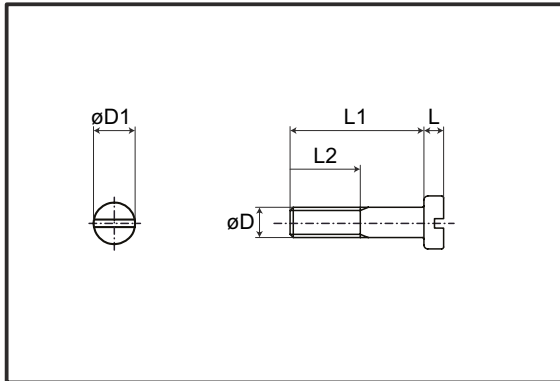
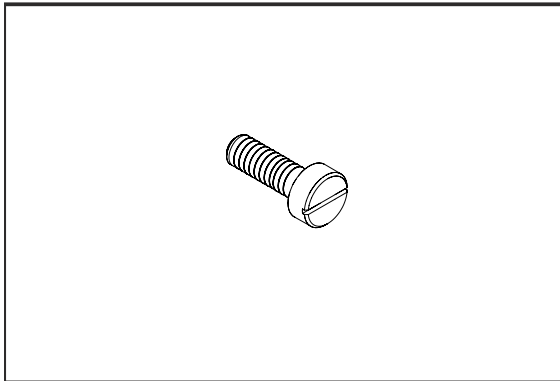
$\phi D$	$L$	$\phi D1$	$L1$	$L2$	$E$	<i>p/n new</i>	<i>p/n old</i>	Thread	Material
M5	10	8.5	-	5	4	F171811	125010	0.8	steel
M5	16	8.5	-	5	4	F119397	125016	0.8	steel
M5	30	8.5	16	5	4	F110863	125030	0.8	steel
M5	35	8.5	22	5	4	F116382	125035	0.8	steel
M5	45	8.5	16	5	4	F110864	125045	0.8	steel
M5	50	8.5	16	5	4	F111740	125050	0.8	steel
M5	55	8.5	22	5	4	F213345	125055	0.8	steel
M6	16	10	-	6	5	F113441	126016	0.8	steel
M6	20	10	-	6	5	F110296	126020	0.8	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	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	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	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	140	10	24	6	5	F114686	126140	1.0	steel
M6	190	10	24	6	5	F114685	20414	1.0	steel
M8	10	13	-	8	6	F129966	128010	1.25	steel
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

Release date: September 2016



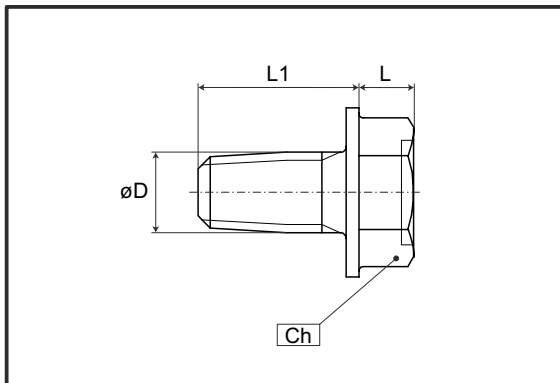
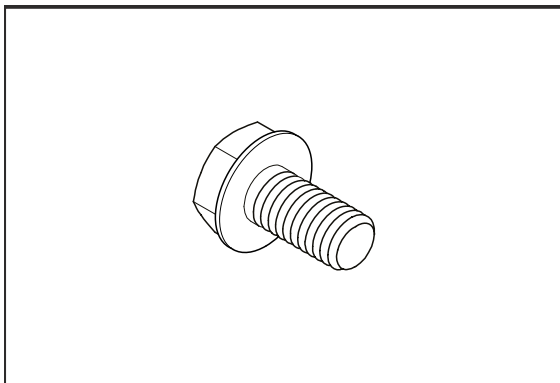
$\phi D$	L	$\phi D1$	L1	L2	E	p/n new	p/n old	Thread	Material
M10	30	16	-	10	8	F177959	-	1.5	steel
M10	35	16	-	10	8	F127881	-	1.5	steel
M10	60	16	-	10	8	F103255	48801	1.5	steel
M10	70	16	-	10	8	F101041	22122	1.5	steel

#### 8.4 Slotted screws head cap



$\phi D$	$\phi D1$	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

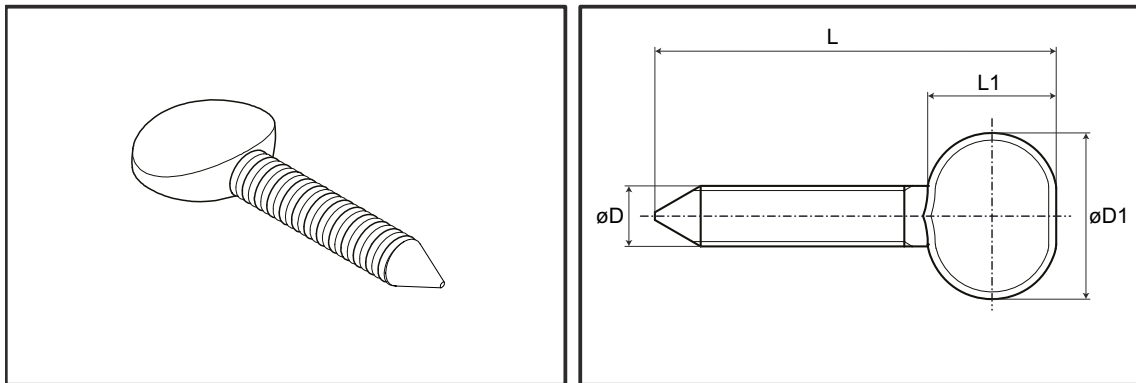
#### 8.5 Self tapping screws for clamps



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

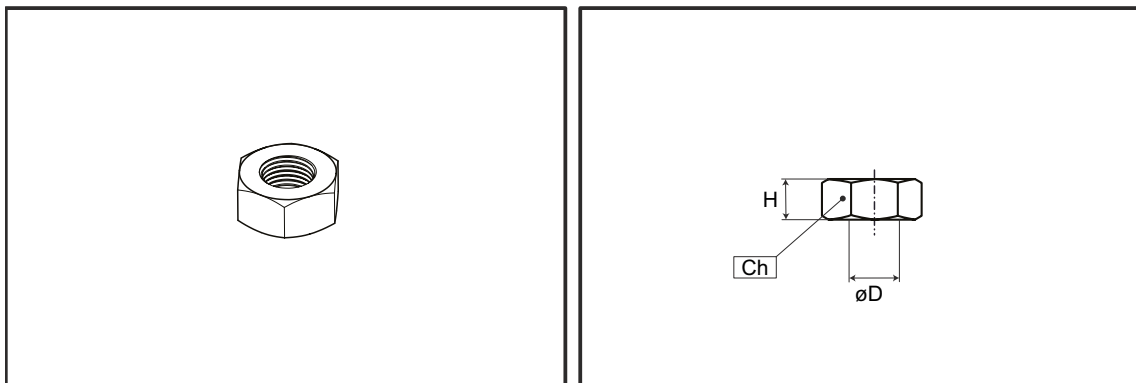
Release date: September 2016

### 8.6 Thumb screws



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

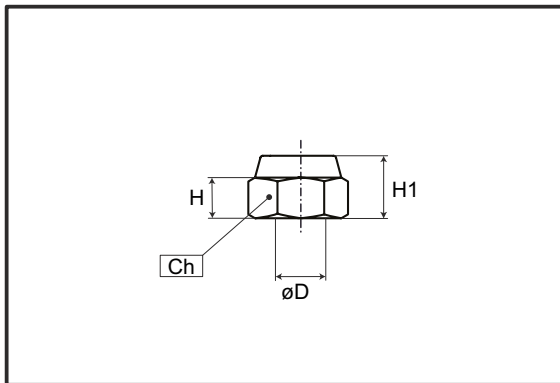
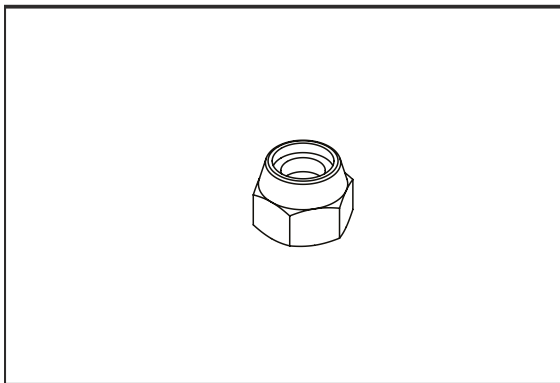
### 8.7 Hexagonal nuts



$\phi D$	H	H1	p/n new	p/n old	Ch	Thread	Material
M4	3.2	-	F171957	200004	7	1.75	steel
M5	4	-	F101724	200005	8	0.8	steel
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

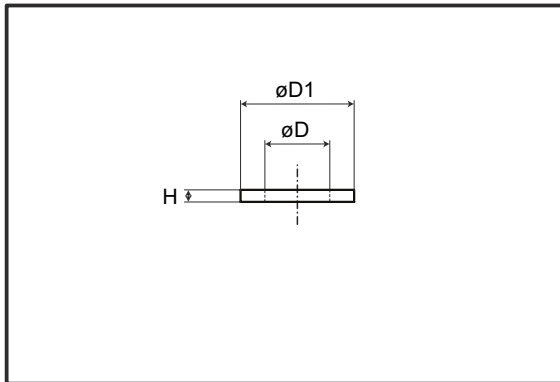
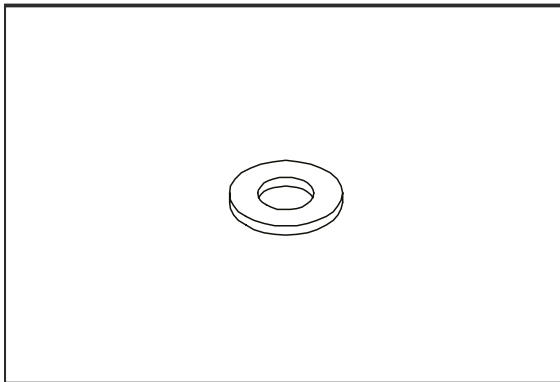
Release date: September 2016

### 8.8 Self-locking nuts



$\varnothing D$	$H$	$H1$	<i>p/n new</i>	<i>p/n old</i>	$Ch$	<i>Thread</i>	<i>Material</i>
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	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

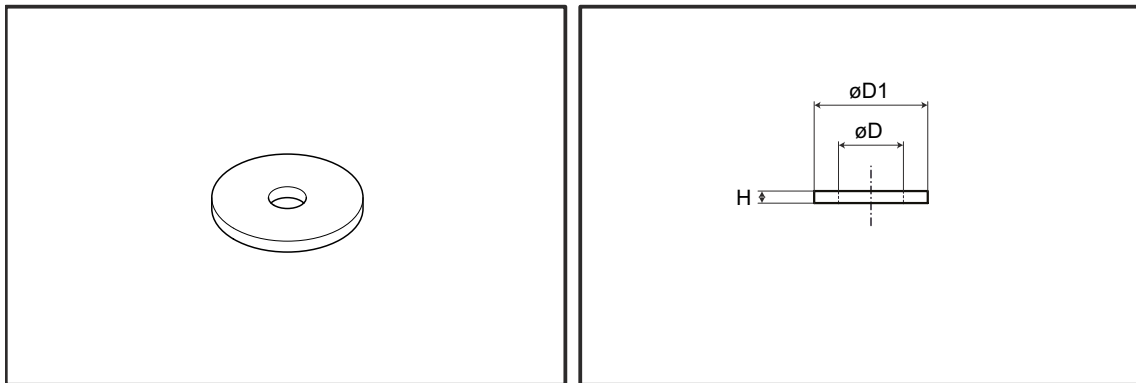
### 8.9 Plain washers



$\varnothing D$	$\varnothing D1$	$H$	<i>p/n new</i>	<i>p/n old</i>	$Ch$	<i>Thread</i>	<i>Material</i>
M4	8	0.8	F100016	300004	-	-	steel
M5	10	0.8	F173771	300005	-	-	steel
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

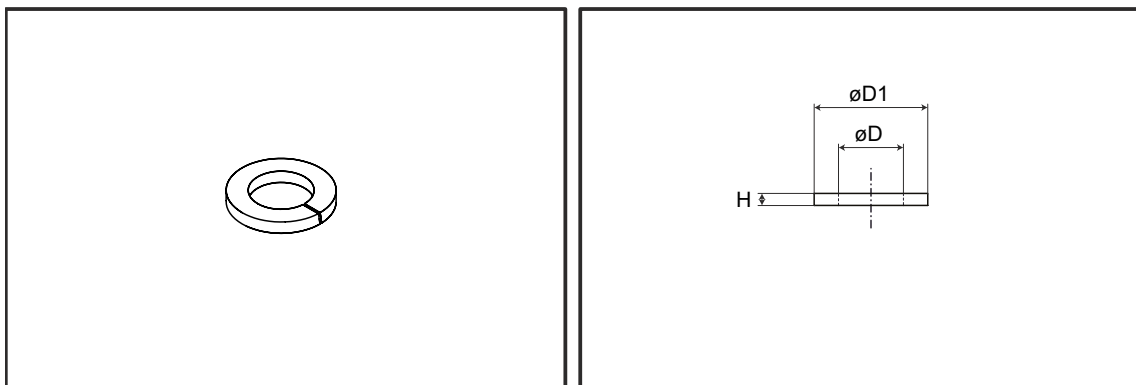
Release date: September 2016

### 8.10 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

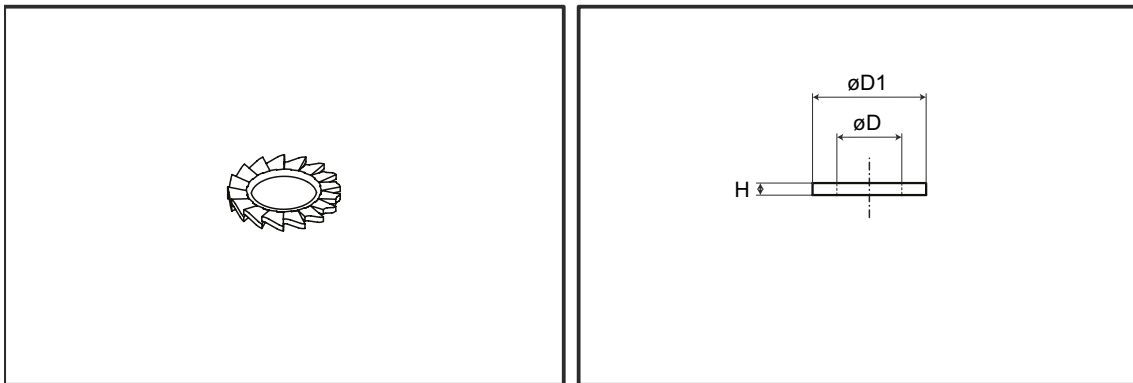
### 8.11 Lock washers



$\varnothing D$	$\varnothing D1$	H	p/n new	p/n old	Ch	Thread	Material
M4	7.3	0.9	F100998	330004	-	-	steel
M5	8.9	0.9	F110867	330005	-	-	steel
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

Release date: September 2016

8.12 Serrated lock washers

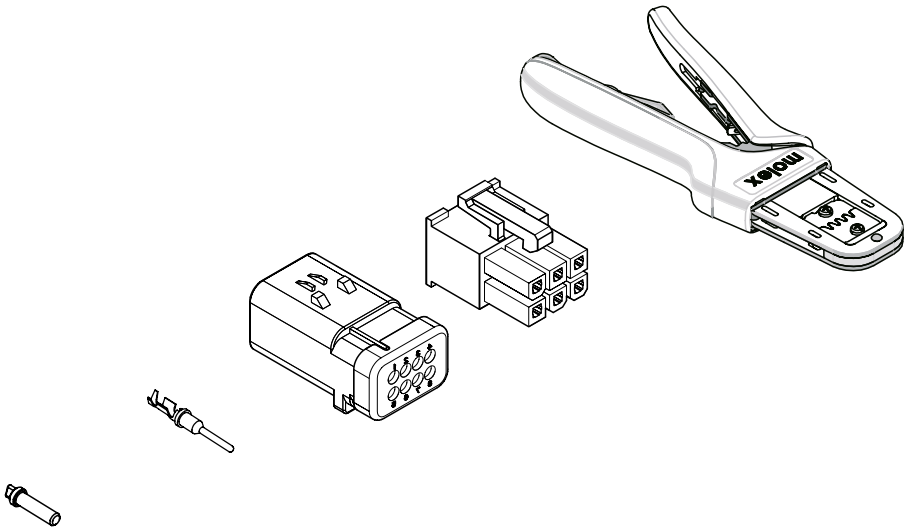


$\varnothing D$	$\varnothing D1$	$H$	<i>p/n new</i>	<i>p/n old</i>	<i>Ch</i>	<i>Thread</i>	<i>Material</i>
M6	11	2.1	F110297	09202	-	-	steel
M10	18	2.2	F000564	360010	-	-	inox

Release date: September 2016



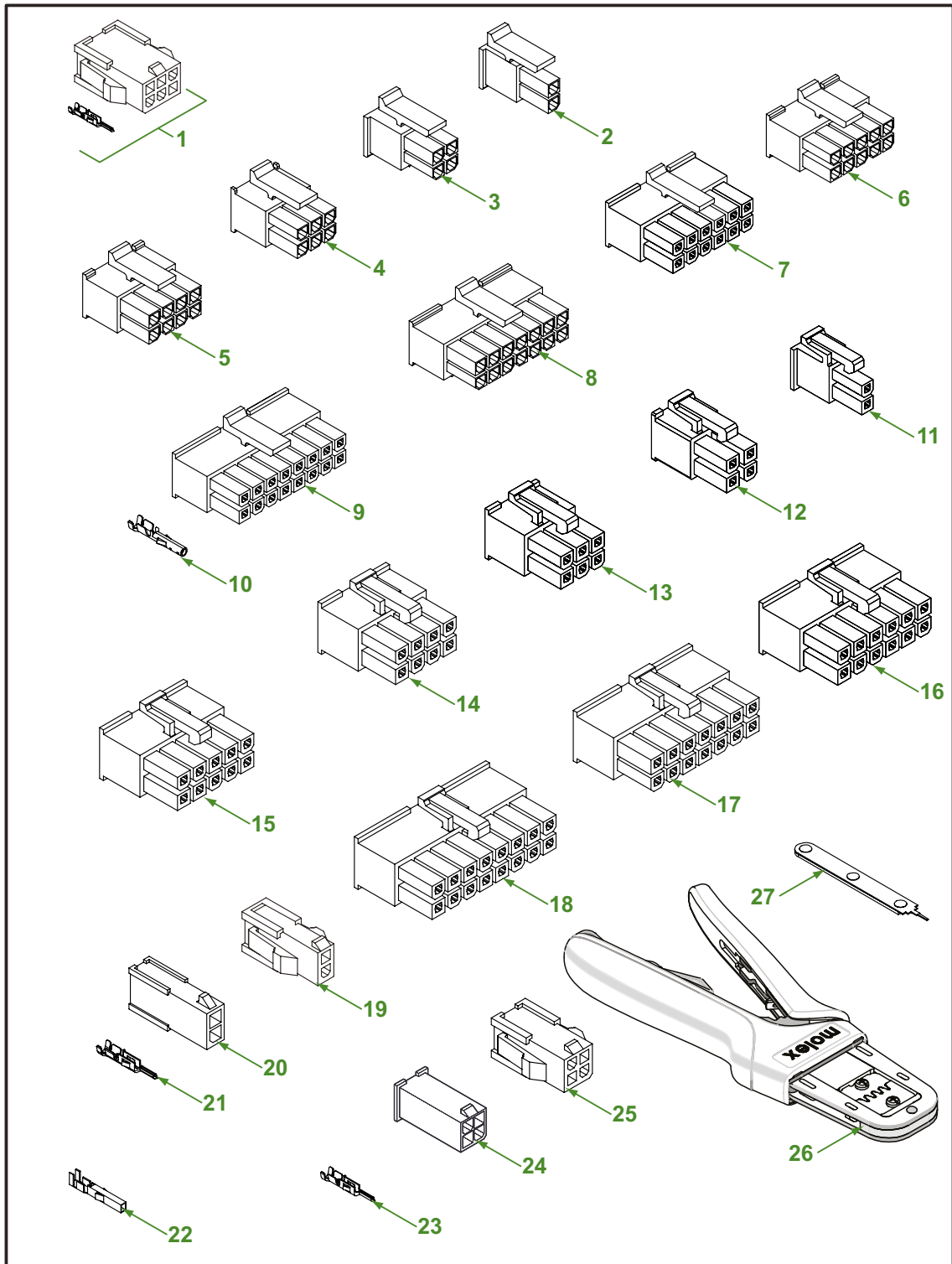
# 9. ELECTRICAL PARTS



Release date: September 2016



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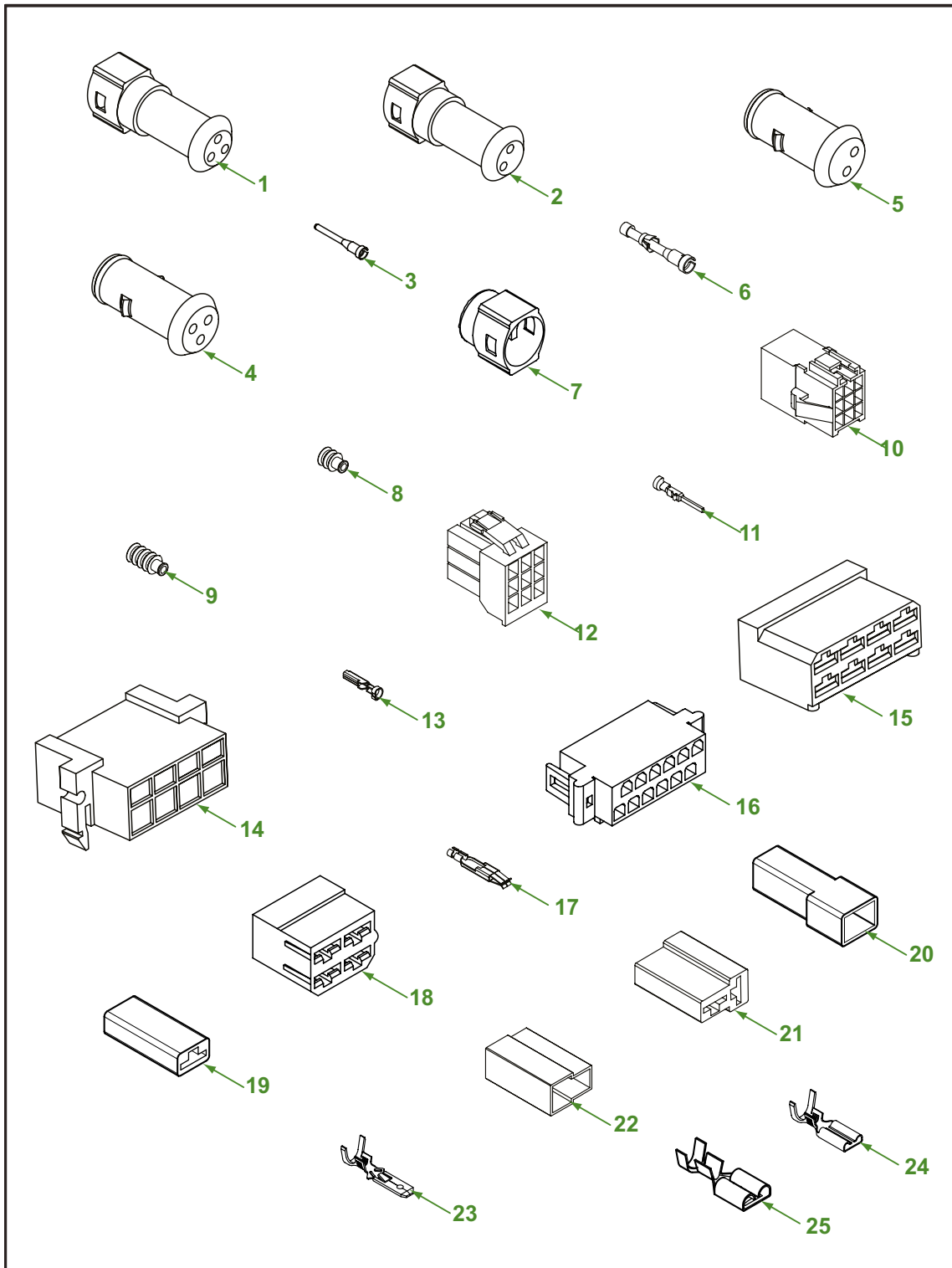
Release date: September 2016



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>
23	F119611	-	Terminal minifit - wire range 0.3 - 3mm <sup>2</sup>
24	F126344	-	Minifit connector 4P
25	F175941	-	Minifit plug connector F2x2
26	F179543	-	Molex crimp tool for microfit
	F121902	951000	Molex crimp tool for minifitfit
27	F179542	-	Molex extractor for micro fit
	F175498	-	Molex extractor for mini fit

Release date: September 2016



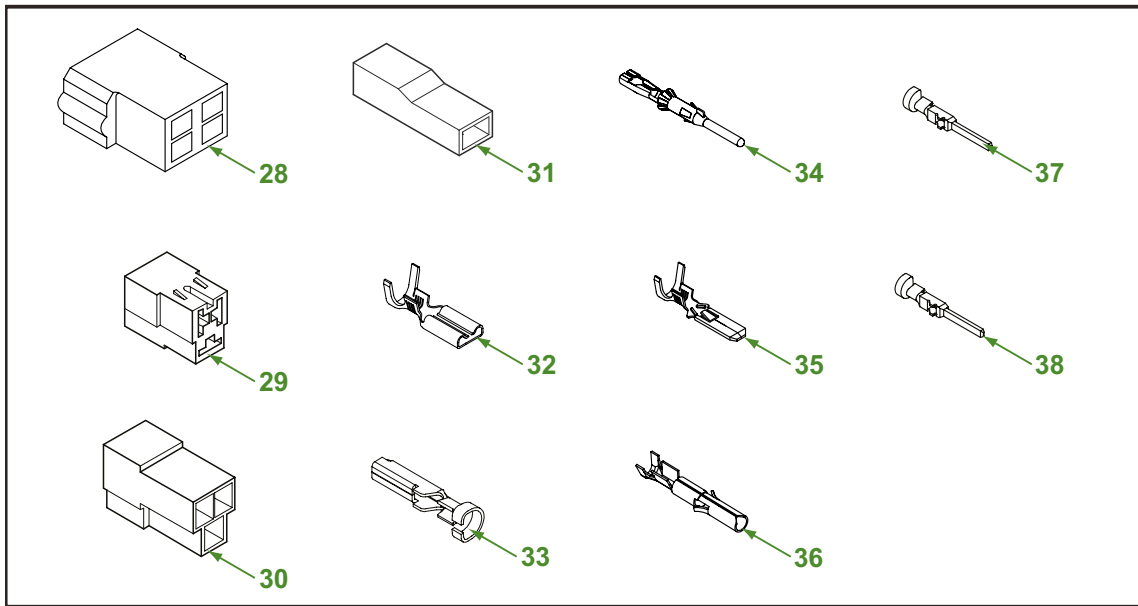
Release date: September 2016

9.2 Amp electrical parts

<i>Pos.</i>	<i>p/n new</i>	<i>p/n old</i>	<i>Description</i>
1	F110617	39503	3P econoseal pin housing (female)
2	F117697	188413	2P Econoseal pin housing (female)
3	F114090	188400	Pin contact - wire range 2 - 2.5mm <sup>2</sup>
4	F117332	188414	3P econoseal socket housing (male)
5	F117698	188498	2P econoseal socket housing (male)
6	F114091	188441	Socket contact - wire range 2 - 2.5mm <sup>2</sup>
7	F117161	188601	Dust plug
8	F117415	800018	Wire seal isolated diameter 2.6 - 3.3
9	F112745	26033	Econoseal caviti plug
10	F188468	188468	Universal cap housing 9P
11	F188467	188467	Universal tab contact - wire range 1.2 - 2mm <sup>2</sup> (male)
12	F188466	188466	Universal power plug 9P
13	F188465	188465	Universal Receptable contact - wire range 1.2 - 2mm <sup>2</sup> (female)
14	F174161	22603	Tab housing 8P (female)
15	F174162	13003	Receptable housing 8P (male)
16	F104581	07701	Connector housing 12P
17	F104579	07801	Junior contact - wire range 0.50 - 1.50mm <sup>2</sup>
18	F110889	13103	Connector housing 4P (male)
19	F112758	67606	Connector housing 1P (female)
20	F113466	67706	Connector housing 1P (male)
21	F104543	61106	Connector housing 2P (female)
22	F104582	61006	Connector housing 2P (male)
23	F112757	61416	Tab contact - wire range 1.2 - 1.6mm <sup>2</sup> (male)
24	F104635	67806	Receptable - wire range 1.2 - 1.6mm <sup>2</sup> (female)
25	F104529	68606	Receptable - wire range 2.5mm <sup>2</sup> (female)

Release date: September 2016

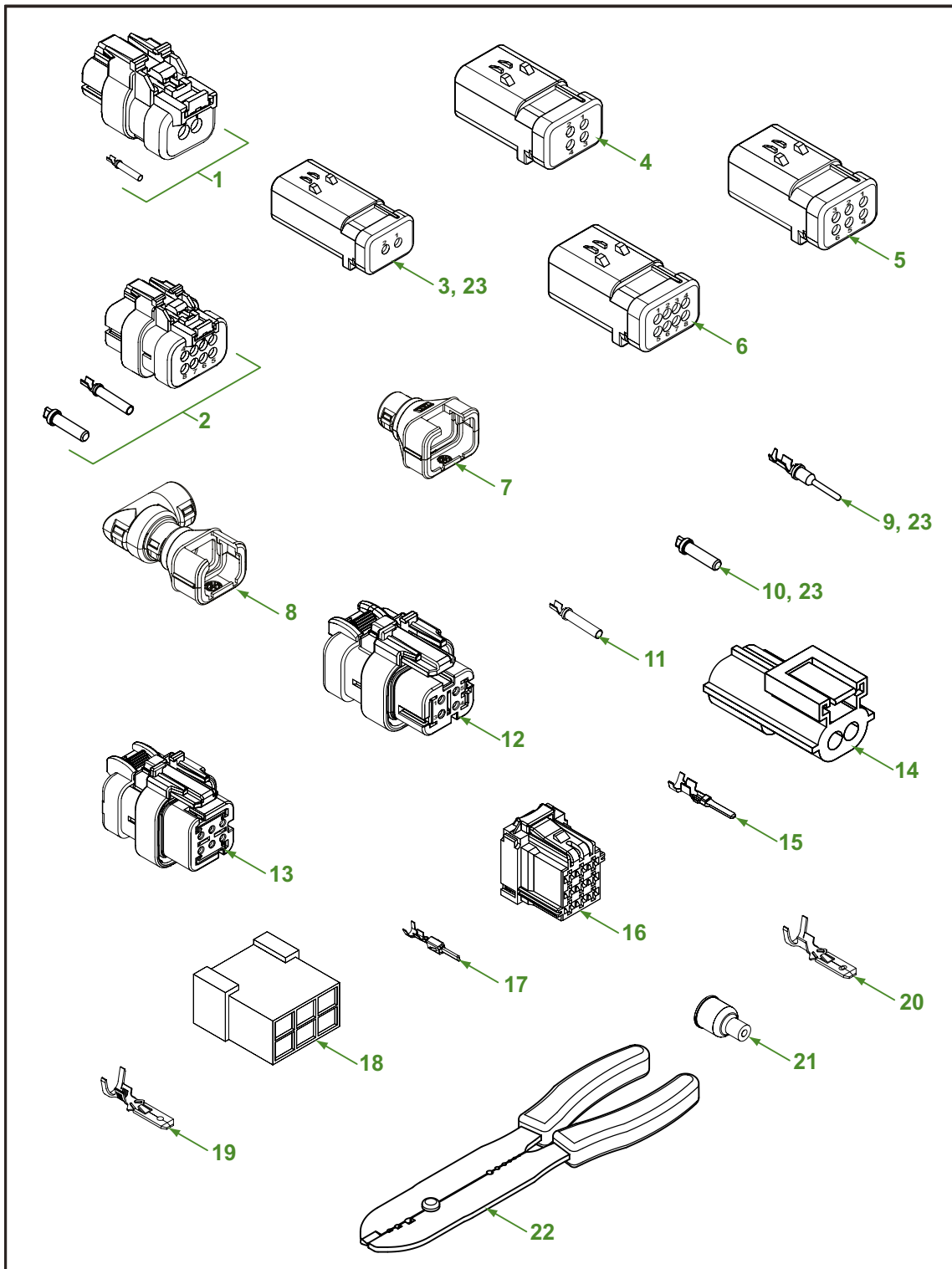
# Automatic Greasing Systems



Release date: September 2016

<b>Pos.</b>	<b>p/n new</b>	<b>p/n old</b>	<b>Description</b>
28	F112759	67506	Connector housing 4P (female)
29	F113852	-	Connector housing 3P (female)
30	F116164	-	Connector housing 3P (male)
31	F113015	00617	Insulating sleeve for F113014
32	F113014	00517	Receptable - wire range 1.5 - 2.8mm <sup>2</sup>
33	F178062	800016	Mini receptable contact - wire range 0.75 - 1.5mm <sup>2</sup>
34	F111937	14114	Contact pin - wire range 1.5mm <sup>2</sup>
35	F117748	68706	Tab contact - wire range 1.5mm <sup>2</sup>
36	F171831	-	Receptable pin - wire range 1.00 - 2.5mm <sup>2</sup>
37	F178059	800013	Mini tab contact - wire range 0.35 - 0.5mm <sup>2</sup>
	F178060	800014	Mini tab contact - wire range 0.75 - 1.5mm <sup>2</sup>
38	F178061	800015	Mini receptable contact - wire range 0.35 - 0.5mm <sup>2</sup>

Release date: September 2016

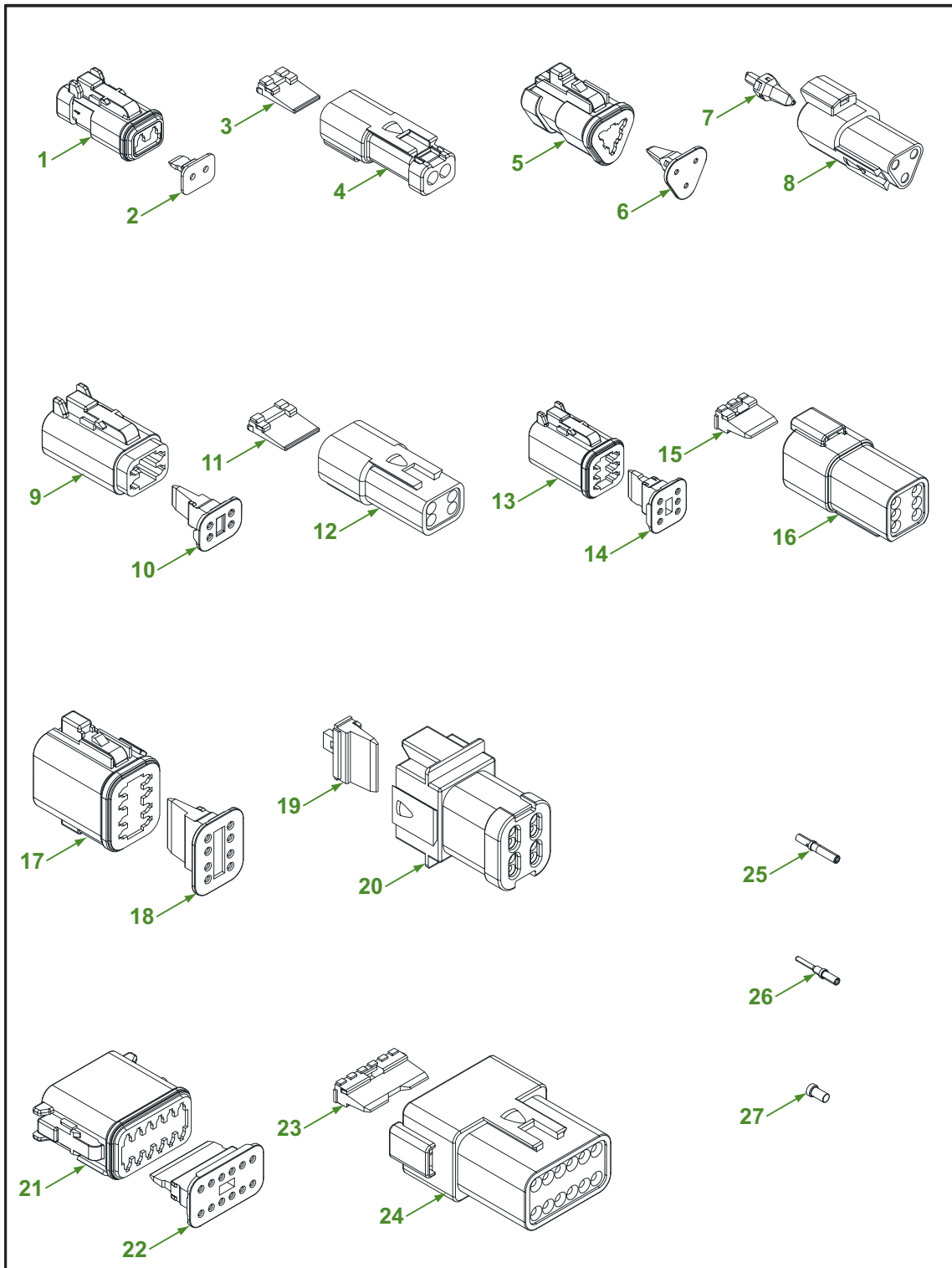


Release date: September 2016

9.3 Tyco electrical parts

<i>Pos.</i>	<i>p/n new</i>	<i>p/n old</i>	<i>Description</i>
1	F127306	-	Tyco pressure switch connection kit
2	F127305	-	Tyco pump connector kit
3	F122247	-	Connector housing 2P
4	F122250	-	Connector housing 4P
5	F122248	-	Connector housing 6P
6	F122251	-	Connector housing 8P
7	F128114	-	Backshell TYCO
8	F128115	-	Backshell TYCO
9	F122263	-	Contact pin - wire range 1.3mm <sup>2</sup>
10	F122264	-	Sealing plug
11	F122262	-	Socket contact
12	F122249	-	Connector housing 4P
13	F128975	-	Connector housing 6P
14	F206411	-	2 way tab housing
15	F206412	-	Tab contact - wire range 1.5 - 2mm <sup>2</sup>
16	F174126	-	Connector housing 9P
17	F188476	188476	Contact pin - wire range 1.2 - 2.1mm <sup>2</sup>
18	F127574	-	Connector housing 6P
19	F112757	-	Receptable - wire range 0.75mm <sup>2</sup> (male)
20	F128538	-	Tab contact - wire range 1.4 - 2.3mm <sup>2</sup> (male)
21	F206413	-	Single wire seal - wire range 0.5 - 1.5mm <sup>2</sup>
22	F178021	-	Connector pin tool
23	F213496	-	Tyco 2-pins connection kit (female)

Release date: September 2016



Release date: September 2016

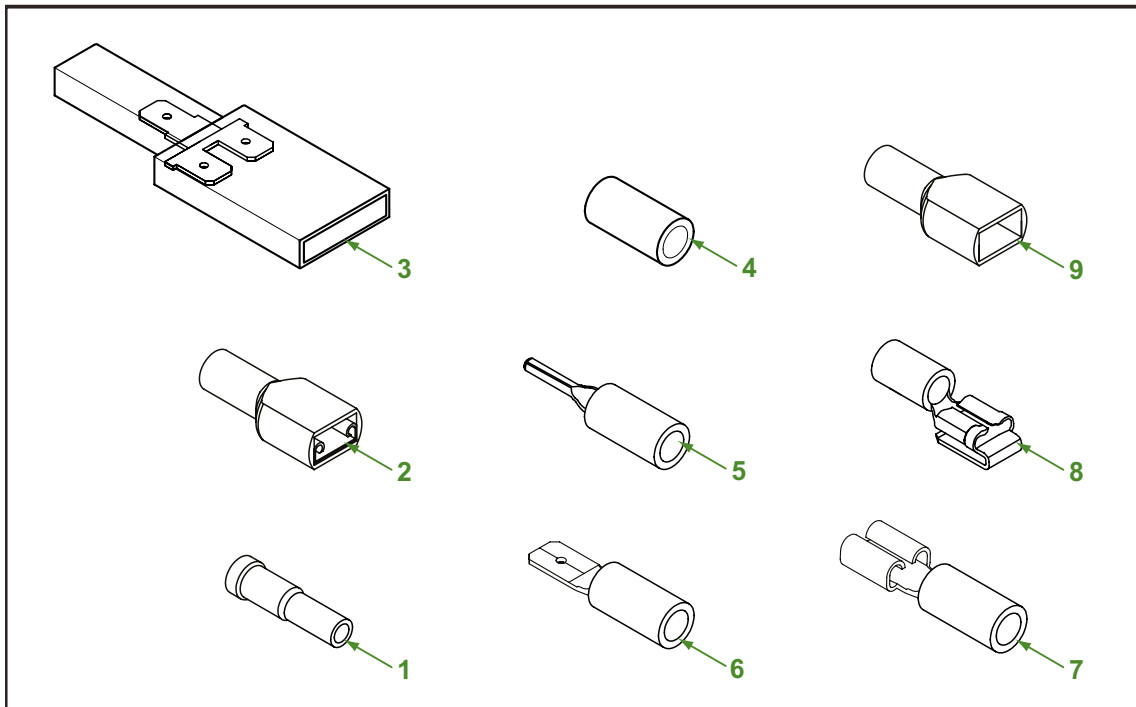


9.4 Deutsch electrical parts

<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	F120776	-	Deutsch 8-core connector DT04-08PA-E005
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	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

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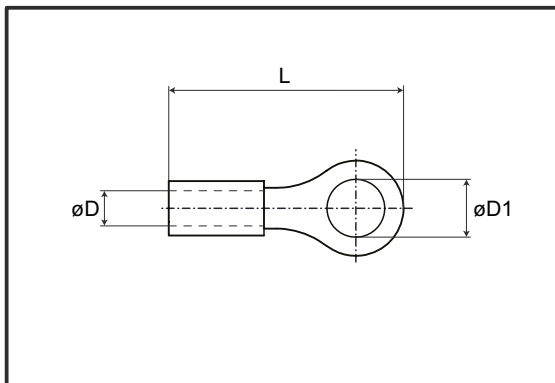
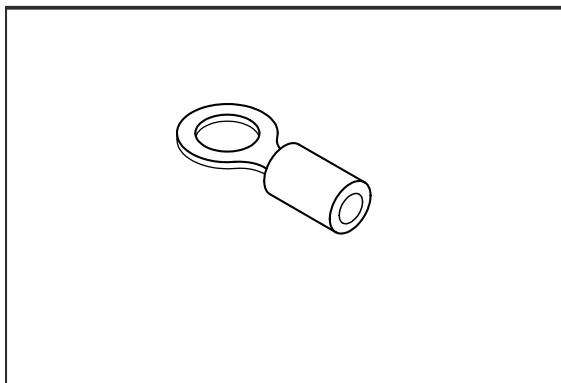
**9.5 General electrical parts**



Pos.	p/n new	p/n old	Description
1	F100870	802002	Female isolated - wire range 0.5 - 1mm <sup>2</sup> (RED)
2	F122785	801003	S - Receptable - wire range 0.25 - 1mm <sup>2</sup> (RED)
3	F104403	890007	Splitter connector - wire range max 6mm <sup>2</sup>
4	F173789	803002	Splice butt - wire range 1 - 2.5mm <sup>2</sup> (BLUE)
5	F122828	802003	Round pin - wire range 1 - 2.5mm <sup>2</sup> (BLUE)
6	F120218	890003	Blade - wire range 0.5-2.5mm <sup>2</sup> ((6.3) BLUE)
7	F122788	801002	Receptable - wire range 4 - 6mm <sup>2</sup> (YELLOW)
	F170825	801001	Receptable - wire range 1.5 - 2.5mm <sup>2</sup> (BLUE)
8	F176484	890002	Piggy back 1.5 - 2.5mm <sup>2</sup> (BLUE)
9	F111476	03203	S - Receptable - wire range 1 - 2.5mm <sup>2</sup> (BLUE)

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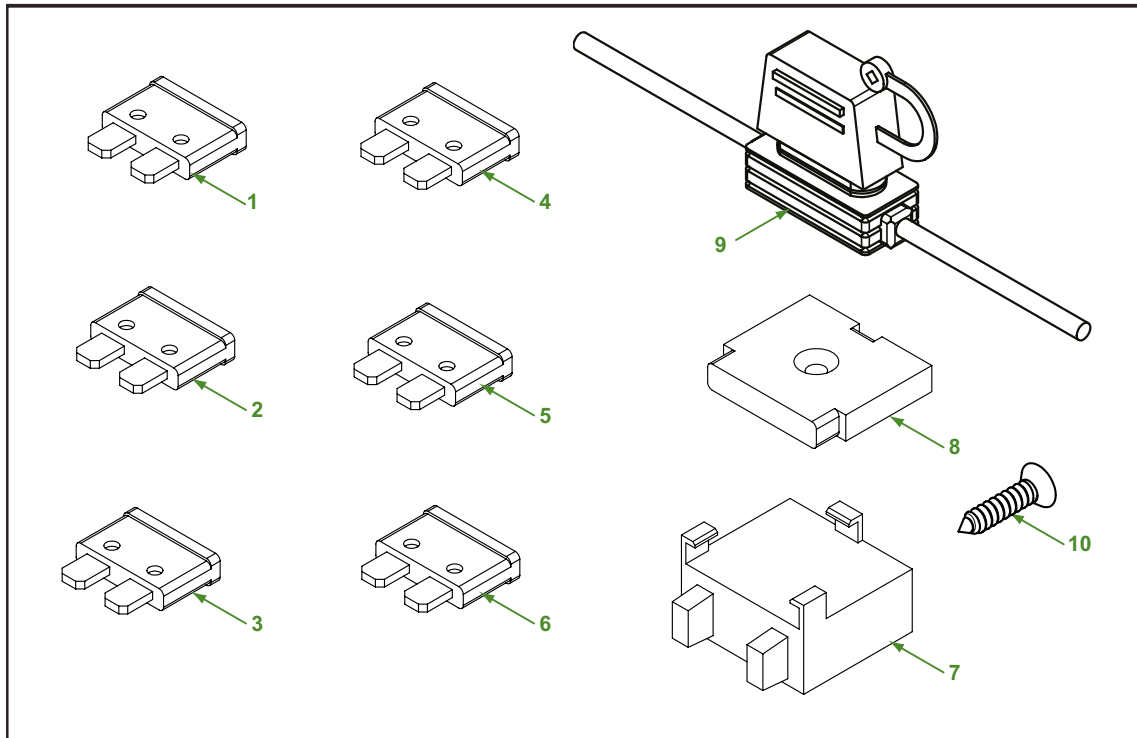
9.6 Contact tongues



$\varnothing D$	$\varnothing D1$	H	p/n new	p/n old	Description
2.5	3.3	20	F124093	800001	Contact tongues (red PVC insulation)
4.3	4.4	22.1	F176452	-	Contact tongues (blue PVC insulation)
2.5	5.3	25	F104595	800002	Contact tongues (blue PVC insulation)
3.6	6.4	2.8	F117986	800004	Contact tongues (red PVC insulation)
3.6	8	29.3	F176409	-	Contact tongues (red PVC insulation)
4	8.5	34.5	F104596	800003	Contact tongues (yellow PVC insulation)
4.3	10.5	33.5	F179041	-	Contact tongues (blue PVC insulation)

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9.7 Wurth fuse electrical parts



Pos.	p/n new	p/n old	Description
1	F175942	15508	Blade type fuse 3Amp
2	F113444	15608	Blade type fuse 5Amp
3	F113603	15708	Blade type fuse 7.5Amp
4	F113445	19508	Blade type fuse 10Amp
5	F176485	15808	Blade type fuse 15Amp
6	F177962	17208	Blade type fuse 20Amp
7	F117315	17408	Fuse holder single
8	F117316	17508	Support fuse holder
9	F117388	03108	Fuse holder IP67
10	F117317	17608	Allen screw for F117316

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