ASSEMBLY INSTRUCTIONS FOR FLEXIBLE HOSE FITTINGS

FITTINGS FOR FLEXIBLE HOSES WITHOUT EXTERNAL PEELING - STANDARD SERIES

1. Cut the hose at the desired length at a right angle with the specific disc cutter. Remove any cutting residues from the hose edge (Fig.1).
2. Insert the sleeve on the hose until it stops (Fig.3).
3. Insert the stud of the fitting into the hose until the same fitting comes into contact with the sleeve (Fig.4).
4. Press the sleeve on the hose with the suitable clamps following the directions in the pressing tables (Fig.5).
5. It is imperative to check the collapse of the fitting hole with the appropriate tools. The assembled hoses that are not within the set tolerance can not be used.

FITTINGS FOR FLEXIBLE HOSES WITH EXTERNAL PEELING - STANDARD SERIES

1. Cut the tube at the desired length at a right angle with the specific disc cutter. Remove any cutting residues from the hose edge (Fig.1).
2. Remove the external cover of the hose for the length indicated in the tables for the assembly to the outer diameter of the metal reinforcement, avoiding damaging it (Fig.2).
3. Insert the sleeve on the hose until it stops so to entirely cover the portion of the hose that has no external cover (Fig.3).
4. Insert the hose holder stem of the fitting into the tube until the same fitting comes into contact with the sleeve (Fig.4).
5. Press the sleeve on the hose with the suitable clamps following the directions in the pressing tables (Fig.5).
6. It is imperative to check the collapse of the fitting hole with the appropriate tools. The assembled hoses that are not within the set tolerance can not be used.

Fig. 1

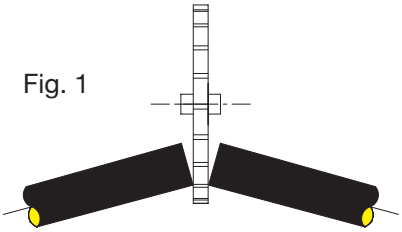


Fig. 2

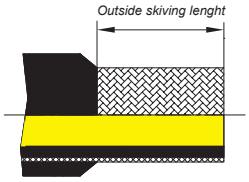


Fig. 3

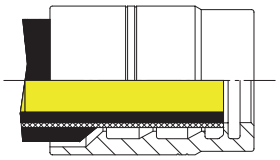


Fig. 4

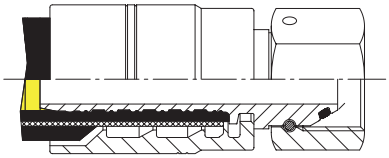
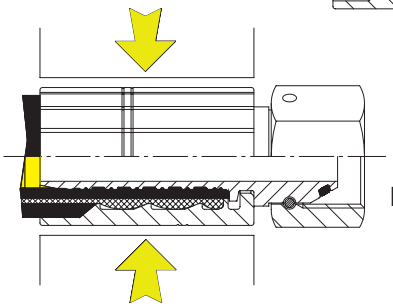


Fig. 5



FITTINGS FOR FLEXIBLE HOSES WITH EXTERNAL AND INTERNAL PEELING - SERIES INTERLOCK

1. Cut the hose at the desired length at a right angle with the specific disc cutter. Remove any cutting residues from the hose edge (Fig.6).
2. Remove the external cover of the hose for the length indicated in the tables for the assembly to the outer diameter of the metal reinforcement, avoiding damaging it (Fig.7).
3. Remove the internal substrate of the hose for the length indicated in the tables for the assembly to the inner diameter of the metal reinforcement, avoiding damaging it and eliminating any machining residue (Fig.8).
4. Insert the sleeve on the hose until it stops so to entirely cover the portion of the hose that has no external cover (Fig.9).
5. Insert the hose holder stem of the fitting into the tube until the same fitting comes into contact with the sleeve (Fig.10).
6. Press the sleeve on the hose with the suitable clamps following the directions in the pressing tables (Fig.11).
7. It is imperative to check the collapse of the fitting hole with the appropriate tools. The assembled hoses that are not within the set tolerance can not be used and must remade.

Fig. 6

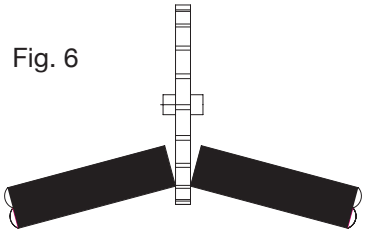


Fig. 7

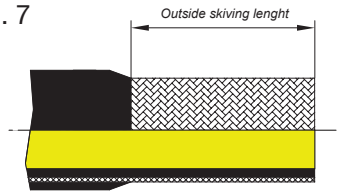


Fig. 8

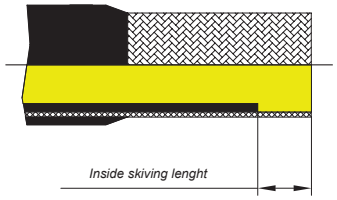


Fig. 9

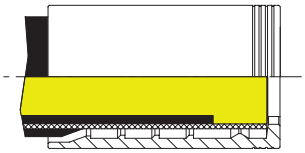


Fig. 10

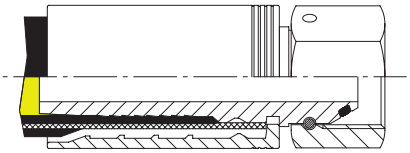
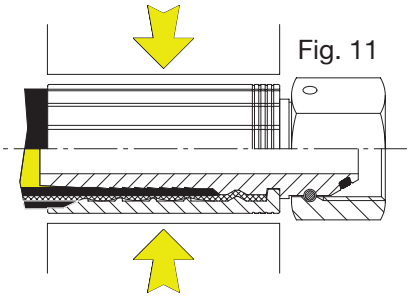
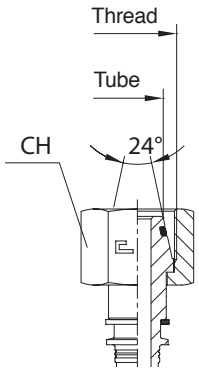


Fig. 11



TIGHTENING TORQUES

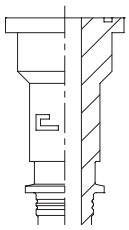
24° CONE FITTINGS ISO 8434-1 (DIN 2353)



Light series "L"			
METRIC PARAL. THREAD	Ø TUBE	KEY (CH)	TORQUE $^{+10\%}_{0}$ [Nm]
M12x1.5	6	14	20
M14x1.5	8	17	38
M16x1.5	10	19	45
M18x1.5	12	22	51
M22x1.5	15	27	74
M26x1.5	18	32	105
M30x2	22	36	135
M36x2	28	41	166
M45x2	35	50	290
M52x2	42	60	330

Heavy series "S"			
METRIC PARAL. THREAD	Ø TUBE	KEY (CH)	TORQUE $^{+10\%}_{0}$ [Nm]
M14x1.5	6	17	38
M16x1.5	8	19	45
M18x1.5	10	22	51
M20x1.5	12	24	58
M22x1.5	14	27	74
M24x1.5	16	30	74
M30x2	20	36	135
M36x2	25	41	166
M42x2	30	50	240
M52x2	38	60	330

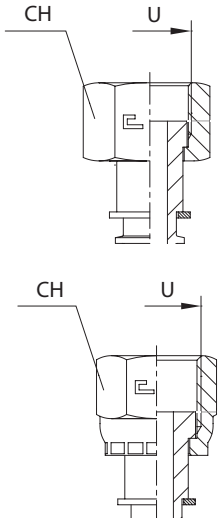
INNER FLANGE - ISO 6162-1/-2, SAE J518



Series 3000				
Ø FLANGE	Metric thread screw		UNC thread screw	
	THREAD	TORQUE [Nm]	THREAD	TORQUE $^{+10\%}_{0}$ [Nm]
1/2	M8	24	5/16-18	24
3/4	M10	50	3/8-16	43
1"	M10	50	3/8-16	43
1.1/4	M10	50	7/16-14	70
1.1/2	M12	92	1/2-13	105
2"	M12	92	1/2-13	105

Series 6000				
Ø FLANGIA	Metric thread screw		UNC thread screw	
	THREAD	TORQUE [Nm]	THREAD	TORQUE $^{+10\%}_{0}$ [Nm]
1/2	M8	20	5/16-18	24
3/4	M10	50	3/8-16	43
1"	M12	92	7/16-14	70
1.1/4	M12	92	1/2-13	105
1.1/2	M16	210	5/8-11	210
2"	M20	400	3/4-10	360

ORFS FITTINGS - ISO 8434-3 (SAE J1453)

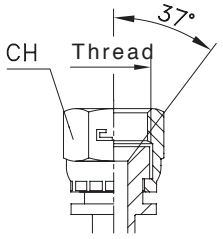
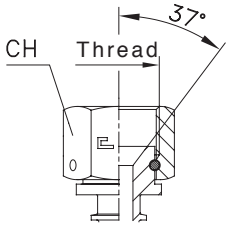
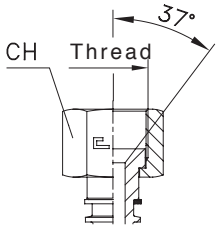


THREAD UNF/UNS/UN-2A		SLIP-ON NUT	STAPLED NUT
	KEY (CH)	TORQUE $^{+10\%}_{0}$ [Nm]	TORQUE $^{+10\%}_{0}$ [Nm]
9/16-18	17	25	25
11/16-16	22	40	40
13/16-16	24	55	55
1-14	30	60	60
1.3/16-12	36	90	90
1.7/16-12	41	125	125
1.11/16-12	50	170	170
2-12	60	200	200

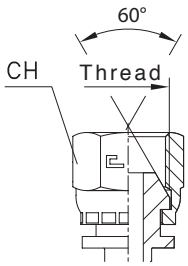
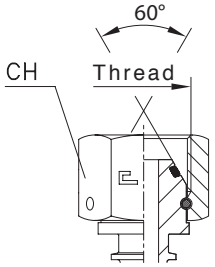
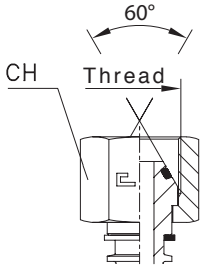
Notes: All the values reported in the above tightening tables are mere indication, and come from a series of practical tests carried out in the technical laboratory of CASALGRASSO (CN). These may vary according to the materials and to the tolerances of the employed components.

TIGHTENING TORQUES

JIC 74° FITTINGS - ISO 8434-2 (SAE J514)

		STAPLED NUT	SWIVEL NUT	SLIP-ON NUT
				
THREAD UNF/UN	**KEY (CH)**	**TORQUE $^{+10\%}_{0}$ [Nm]**	**TORQUE $^{+10\%}_{0}$ [Nm]**	**TORQUE $^{+10\%}_{0}$ [Nm]**
7/16-20	**14**	15	20	20
1/2-20	**17**	20	25	25
9/16-18	**19**	30	35	35
3/4-16	**24**	50	60	60
7/8-14	**27**	69	85	85
1.1/16-12	**32**	98	140	140
1.3/16-12	**36**	118	-	-
1.5/16-12	**41**	140	230	230
1.5/8-12	**50**	-	380	380
1.7/8-12	**60**	-	460	460

60° CONE FITTINGS ISO 8434-6 (BS 5200)

		STAPLED NUT	SWIVEL NUT	SLIP-ON NUT
				
BSPP THREAD	**KEY (CH)**	**TORQUE $^{+10\%}_{0}$ [Nm]**	**TORQUE $^{+10\%}_{0}$ [Nm]**	**COPPIA $^{+10\%}_{0}$ [Nm]**
G 1/8	**14**	15	25	20
G1/4	**19**	20	65	30
G 3/8	**22**	34	85	75
G 1/2	**27**	60	150	130
G 5/8	**30**	69	200	170
G 3/4	**32**	115	260	220
G 1”	**41**	140	320	270
G 1.1/4	**50**	-	500	420
G 1.1/2	**55**	-	600	510
G 2”	**70**	-	700	600
M 12x1,5	**17**	15	35	30
M 14x1,5	**19**	20	45	38
M 16x1,5	**22**	35	55	48
M 18x1,5	**24**	48	70	60
M 20x1,5	**27**	60	80	70
M 22x1,5	**27**	60	100	85
M 26x1,5	**32**	115	170	150
M 30x1,5	**36**	130	250	210
M 38x1,5	**46**	200	310	280
M 45x1,5	**55**	290	380	320

Notes: All the values reported in the above tightening tables are mere indication, and come from a series of practical tests carried out in the technical laboratory of CASALGRASSO (CN). These may vary according to the materials and to the tolerances of the employed components.