

CNG hose and fittings tech literature

Certified CNG hose and fitting products

EATON

Powering Business Worldwide



Hoses

35NG

High pressure CNG hose



Eaton 35NG CNG hoses are designed to meet the rigorous requirements of high pressure CNG applications. A specially designed conductive layer within the hose dissipates static electricity and provides optimum performance. The black polyurethane cover provides industry leading UV resistance allowing for extended life in outdoor applications. The hose is available in single and twin line options where a vent line is necessary.

# Part number	Hose size	DN	Hose I.D.		Hose O.D.		Max. working pressure		Burst pressure		Min. bend radius		Weight		Length	
			mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft	mm	ft
35NG-04-250BX	-04	6	6,4	0.25	16,0	0.63	345	5,000	1,379	20,000	51,0	2.00	0,16	0.11	76,2	250
35NG-06-250BX	-06	10	9,7	0.38	19,5	0.77	345	5,000	1,379	20,000	102,0	4.00	0,22	0.15	76,2	250
35NG-08-250BX	-08	12	12,8	0.50	22,5	0.89	345	5,000	1,379	20,000	140,0	5.50	0,31	0.21	76,2	250
Twin-Line																
35NG-0404-250BX	04, -04	-	-	-	-	-	345	5,000	1,379	20,000	51,0	2.00	0,32	0.23	76,2	250
35NG-0406-250BX	04, -06	-	-	-	-	-	345	5,000	1,379	20,000	51,0	2.00	0,38	0.27	76,2	250
35NG-0408-250BX	04, -08	-	-	-	-	-	345	5,000	1,379	20,000	51,0	2.00	0,47	0.33	76,2	250

Construction:

Tube: Conductive nylon core

Reinforcement: Synthetic fiber

Cover: Black perforated polyurethane

Temperature range:

Temperature range

-40°C to + 85°C
(-40°F to + 185°F)

Applications:

- CNG refueling dispensers
- CNG transfer lines
- High-pressure CNG lines

Features:

- Dissipates static electricity
- Low volumetric expansion
- UV resistant cover
- Twin-line designs available with vent hose
- Designed for electrically conductive fittings

Agency listings:

ANSI/CSA NGV4.2-2014
(Class A, D)

ANSI/CSA NGV3.1-2014
(Class B)

Conforms to NFPA 52

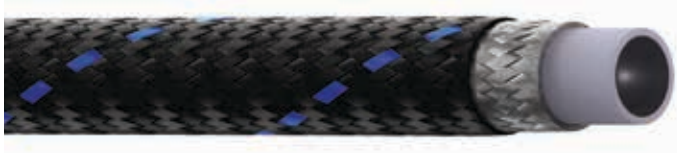
Certified by:



Hoses

NG-TW series

Low pressure CNG hose



Eaton NG-TW CNG hoses are tailored for use in low pressure, on-vehicle CNG applications. The conductive Teflon® inner tube dissipates static electricity for safety. The stainless steel braid and polyester blended outer cover protect against both corrosion and abrasion. In addition, the polyester cover is fire retardant and adds an additional layer of protection.

# Part number	Hose I.D.		Hose O.D.		Max. working pressure		Burst pressure		Min. bend radius		Weight	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft
NG-6TW	7.9	0.31	13.6	0.54	30	435	104	1,508	101.6	4.00	0.18	0.12
NG-8TW	10.6	0.42	16.4	0.65	30	435	120	1,740	133.4	5.25	0.24	0.16
NG-10TW	12.7	0.50	19.1	0.75	30	435	104	1,508	165.1	6.50	0.27	0.18

Construction:

Tube: Conductive Teflon inner tube

Reinforcement: 304 stainless steel wire braid

Cover: Fire resistant black polyester blend cover with a blue tracer

Temperature range:

-40°C to + 120°C
(-40°F to + 248°F)

Application:

- Low pressure CNG lines

Features:

- Dissipates static electricity
- Low volumetric expansion
- UV resistant cover
- Designed for electrically conductive fittings

Agency listings:

ANSI/CSA NGV 3.1
(Class C)

Conforms to NFPA 52

Teflon™ is a trademark of The Chemours Company FC, LLC used under license by Eaton.

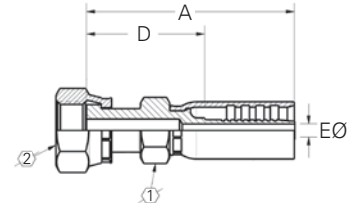
Certified by:



Fittings

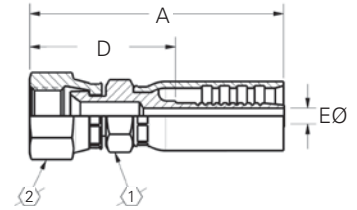
For 35NG

Female ORS Swivel (Approved for NGV 4.2, NGV 3.1)



# Part number	Hose size		Terminal end Dash size	Thread	A		D Cut off factor		Thru hole Ø		Hex 1	Hex 2
	DN	Dash size			mm	in	mm	in	mm	in	in	in
For plated steel												
90H04-044100-0	6	-04	-04	9/16 - 18	63.0	2.48	38.6	1.40	4.1	0.16	9/16	11/16
90H06-064100-0	10	-06	-06	11/16 - 16	70.1	2.76	36.6	1.52	7.1	0.28	11/16	7/8
90H08-084100-0	12	-08	-08	13/16 - 16	79.0	3.11	39.8	1.62	9.9	0.39	7/8	1 - 1/8
For stainless steel												
90L04-044100-0	6	-04	-04	9/16 - 18	63.0	2.48	38.6	1.40	4.1	0.16	9/16	11/16
90L06-064100-0	10	-06	-06	11/16 - 16	70.1	2.76	36.6	1.52	7.1	0.28	11/16	7/8
90L08-084100-0	12	-08	-08	13/16 - 16	79.0	3.11	39.8	1.62	9.9	0.39	7/8	1 - 1/8

Female JIC/SAE 37° Swivel (Approved for NGV 4.2, NGV 3.1)

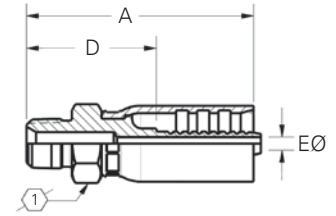


# Part number	Hose size		Terminal end Dash size	Thread	A		D Cut off factor		Thru hole Ø		Hex 1	Hex 2
	DN	Dash size			mm	in	mm	in	mm	in	in	in
For plated steel												
90H04-045400-0	6	-04	-04	7/16 - 20	64.3	2.53	36.6	1.44	4.1	0.16	5/8	5/8
90H06-065500-0	10	-06	-06	9/16 - 18	71.6	2.82	39.6	1.56	7.1	0.28	3/4	3/4
90H08-085400-0	12	-08	-08	3/4 - 16	80.0	3.15	41.4	1.66	9.9	0.39	7/8	15/16
For stainless steel												
90L04-045400-0	6	-04	-04	7/16 - 20	64.3	2.53	36.6	1.44	4.1	0.16	5/8	5/8
90L06-065500-0	10	-06	-06	9/16 - 18	71.6	2.82	39.6	1.56	7.1	0.28	3/4	3/4
90L08-085400-0	12	-08	-08	3/4 - 16	80.0	3.15	41.4	1.66	9.9	0.39	7/8	15/16

Fittings

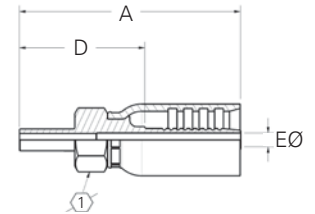
For 35NG

Male Pipe (Approved for NGV 4.2)



# Part number	Hose size		Terminal end	Thread	A		D Cut off factor		Thru hole Ø		Hex 1	Hex 1
	DN	Dash size			Dash size	in	mm	in	mm	in	mm	in
For plated steel												
90H04-041000-0	6	-04	-04	1/4 - 18	58.7	2.31	31.2	1.23	4.1	0.16	11/16	--
90H06-061000-0	10	-06	-06	3/8 - 18	65.8	2.59	34.0	1.34	7.1	0.28	3/4	--
90H08-081000-0	12	-08	-08	1/2 - 14	77.0	3.03	38.9	1.53	9.9	0.39	15/16	--
For stainless steel												
90L04-041000-0	6	-04	-04	1/4 - 18	58.7	2.31	31.2	1.23	4.1	0.16	11/16	--
90L06-061000-0	10	-06	-06	3/8 - 18	65.8	2.59	34.0	1.34	7.1	0.28	3/4	--
90L08-081000-0	12	-08	-08	1/2 - 14	77.0	3.03	38.9	1.53	9.9	0.39	15/16	--

Stand Pipe (Approved for NGV 4.2)

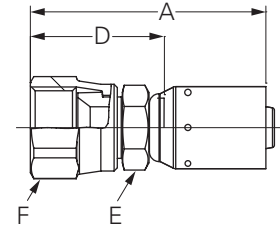


# Part number	Hose size		Terminal end	Thread	A		D Cut off factor		Thru hole Ø		Hex 1	Hex 1
	DN	Dash Size			Dash size	mm	mm	in	mm	in	mm	in
For plated steel												
90H04-04J000-0	6	-04	-04	--	63.4	2.50	36.1	1.42	4.1	0.16	5/8	--
90H06-06J000-0	10	-06	-06	--	69.9	2.75	38.1	1.50	7.1	0.28	3/4	--
90H08-08J000-0	12	-08	-08	--	81.2	3.20	34.2	1.70	9.9	0.39	7/8	--
For stainless steel												
90L04-04J000-0	6	-04	-04	--	63.4	2.50	36.1	1.42	4.1	0.16	5/8	--
90L06-06J000-0	10	-06	-06	--	69.9	2.75	38.1	1.50	7.1	0.28	3/4	--
90L08-08J000-0	12	-08	-08	--	81.2	3.20	34.2	1.70	9.9	0.39	7/8	--

Fittings

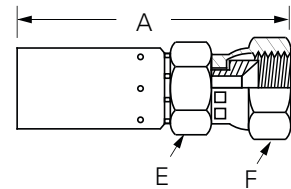
For NG-TW

Female For-Seal® (ORS) Swivel (Approved for NGV 3.1)



# Part number	Hose size (I.D.)			Terminal end Dash size	Thread	A		D Cut off factor		Thru hole Ø		Hex E in	Hex F in
	mm	in	Dash size			mm	in	mm	in	mm	in		
For plated steel													
05E-J66	7.9	0.31	-06	-06	1 ¹ / ₁₆ - 16	42.7	1.68	19.0	0.75	5.6	0.22	1 ¹ / ₁₆	1 ³ / ₁₆
07E-J68	10.5	0.41	-08	-08	1 ³ / ₁₆ - 16	45.6	1.80	21.6	0.85	7.5	0.30	1 ³ / ₁₆	1 ⁵ / ₁₆
08E-J68	12.7	0.50	-10	-08	1 ³ / ₁₆ - 16	50.8	2.00	24.3	0.96	9.1	0.36	1 ³ / ₁₆	1 ⁵ / ₁₆
For stainless steel													
05ER-J66	7.9	0.31	-06	-06	1 ¹ / ₁₆ - 16	42.7	1.68	19.0	0.75	5.6	0.22	1 ¹ / ₁₆	1 ³ / ₁₆
07ER-J68	10.5	0.41	-08	-08	1 ³ / ₁₆ - 16	45.6	1.80	21.6	0.85	7.5	0.30	1 ³ / ₁₆	1 ⁵ / ₁₆
08ER-J68	12.7	0.50	-10	-08	1 ³ / ₁₆ - 16	50.8	2.00	24.3	0.96	9.1	0.36	1 ³ / ₁₆	1 ⁵ / ₁₆

Female JIC/SAE 37° Swivel (Approved for NGV 3.1)

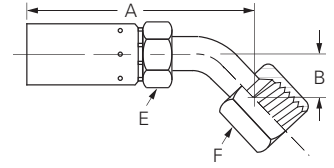


# Part number	Hose size (I.D.)			Terminal end Dash size	Thread	A		D Cut off factor		Thru hole Ø		Hex E in	Hex F in
	mm	in	Dash size			mm	in	mm	in	mm	in		
For plated steel													
05E-606	7.9	0.31	-06	-06	9 ⁹ / ₁₆ - 18	52.8	2.08	28.7	1.13	5.6	0.22	9 ⁹ / ₁₆	1 ¹ / ₁₆
07E-608	10.5	0.41	-08	-08	3 ³ / ₄ - 16	55.9	2.20	31.8	1.25	7.6	0.30	1 ¹ / ₁₆	7 ⁷ / ₈
08E-608	12.7	0.50	-10	-08	3 ³ / ₄ - 16	60.7	2.39	34.3	1.35	9.9	0.39	3 ³ / ₄	7 ⁷ / ₈
For stainless steel													
05ER-606	7.9	0.31	-06	-06	9 ⁹ / ₁₆ - 18	53.8	2.12	30.2	1.19	5.6	0.22	9 ⁹ / ₁₆	1 ¹ / ₁₆
07ER-608	10.5	0.41	-08	-08	3 ³ / ₄ - 16	55.9	2.20	31.8	1.25	7.6	0.30	1 ¹ / ₁₆	7 ⁷ / ₈
08ER-608	12.7	0.50	-10	-08	3 ³ / ₄ - 16	62.2	2.45	34.3	1.35	9.9	0.39	3 ³ / ₄	7 ⁷ / ₈

Fittings

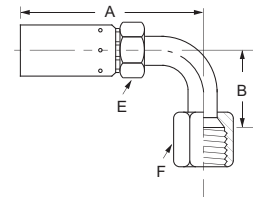
For NG-TW

JIC 37° Female Swivel, 45° Elbow (Approved for NGV 3.1)



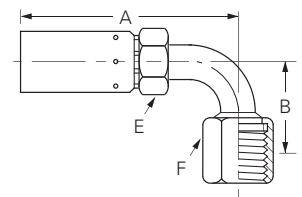
# Part number	Hose size (I.D.)			Terminal end Dash size	Thread	A		B		D Cut off factor		Thru hole Ø		Hex E in	Hex F in
	mm	in	Dash size			mm	in	mm	in	mm	in	mm	in		
05E-686	7.90	0.31	-06	-06	9/16 - 18	67.3	2.65	9.9	0.39	43.7	1.72	5.6	0.22	9/16	11/16
08E-688	12.7	0.50	-10	-08	3/4 - 16	77.2	3.04	14.2	0.56	50.8	2.00	8.5	0.33	3/4	7/8

JIC 37° Female Swivel 90° Tube Elbow (Approved for NGV 3.1)



# Part number	Hose size (I.D.)			Terminal end Dash size	Thread	A		B		D Cut off factor		Thru hole Ø		Hex E in	Hex F in
	mm	in	Dash size			mm	in	mm	in	mm	in	mm	in		
05E-666	7.9	0.31	-06	-06	9/16 - 18	66.0	2.60	21.6	0.85	41.7	1.64	5.6	0.22	9/16	11/16
08E-668	12.7	0.50	-10	-08	3/4 - 16	71.6	2.82	27.7	1.09	45.2	1.78	8.5	0.33	3/4	7/8

Female For-Seal® (ORS) Swivel Short Drop 90° Tube Elbow (Approved for NGV 3.1)



# Part number	Hose size (I.D.)			Terminal end Dash size	Thread	A		B		D Cut off factor		Thru hole Ø		Hex E in	Hex F in
	mm	in	Dash size			mm	in	mm	in	mm	in	mm	in		
05E-A26	7.9	0.31	-06	-06	11/16 - 16	66.5	2.62	22.9	0.90	42.9	1.69	5.6	0.22	9/16	13/16
08E-A28	12.7	0.50	-10	-08	13/16 - 16	73.7	2.90	29.2	1.15	47.2	1.86	8.5	0.33	3/4	15/16

Tools and accessories

For 35NG hose



Swage adapter kit for FT1380, ET1280, ET4020

Part no.: FF16423

The Synflex swage adapter kit was designed with the specific intent to allow swaging of Eaton Synflex fittings to Eaton Synflex thermoplastic hose using existing Synflex pushers and dies and an Eaton Aeroquip® FT1380 or Eaton Weatherhead® ET4020 crimp machine.

The purpose of this manual is to present critical safety information, basic installation, and operating instructions for the Synflex swage adapter kit.



Mark IX swager

Part no.: 45J0-05600

- Fully automatic - opens dies to release completed assembly
- Fast actuation - capable of five-second cycle time
- Three power supply options for a broad range of production needs
- For heavy duty, continuous high-speed production needs the Mark IX can be equipped with a high capacity power unit (see option 3 below)
- Weight: 59.4 kgs (131 lbs)

Option 1

(Part no.: 4530-009S0)

1HP, 60Hz, 115/208/230V single-phase motor; medium duty

Option 2

(Part no.: 4530-009S1)

1HP, 60 Hz, 230/460V three-phase motor; medium duty

Option 3 - A & B

**(Part no.: 453C-00020,
Part no.: 4530-009S4)**

- (A) Mark IX machine without standard power supply.
Part No.: 4530-009S4
- (B) Commercial-duty hydraulic power unit with 5HP, three-phase 230/460V motor, five-gallon reservoir, 4.1 GPM displacement.
Part No.: 453C-00020

Tools and accessories

For 35NG hose



FT1258 Cut off tool

Specifications

FT1258 bench mounted cut off tool. A bench mounted cutter for in-plant production of Thermoplastic hose assemblies and other fabric reinforced hose styles.

Ordering instructions

FT1258 Cut-off tool

FT1258-2-2 Blade kit

Package of three replacement blades for FT1258 tool which are designed to cut all fabric reinforced hose including Kevlar.*

*Kevlar is a trademark of E.I. DuPont.



Twin-line hose separation tool

Part no.: 4574-01000

- Designed for separating Twin-Line hose

Replacement blade

Part no.: 4523-04005

4574-03000-026 (-4-4)

4574-03026-012 (-4-6)

4574-0326-015 (-4-8)



Hand-held hose cutter

Part no.: 4523-04006

- Handy tool for cutting Synflex hose 1/8-inch to 1/2-inch in diameter. Blades are replaceable. Vinyl cushioned grips.

Replacement blade

Part no.: 4523-04005

Tools and accessories

For 35NG hose

Swaged fitting info

Hose	Fitting part number	Die part number	Insertion depth (ref) mm (inch)	Swage diameter mm (inch)	Bell length mm (inch)	Thru hole (min) mm (inch)
35NG-04	90H04-04XXX 90L04-04XXX	4540-H0400	27.7 (1.09)	17.25 ± 0.13 (0.679 ± 0.005)	19.05 ± 0.76 (0.750 ± 0.030)	3.05 (0.120)
35NG-06	90H06-06XXX 90L06-06XXX	4540-HP600	33.3 (1.31)	19.46 ± 0.13 (0.766 ± 0.005)	24.54 ± 0.76 (0.966 ± 0.030)	6.10 (0.240)
35NG-08	90H08-08XXX 90L08-08XXX	4540-H0800	39.6 (1.56)	22.99 ± .013 (0.905 ± 0.005)	19.05 ± 0.76 (0.750 ± 0.030)	8.38 (0.330)

Required assembly components dispensing (NGV 4.2 only)

Hose	Conductive media part number	Spring guard part number	Spring guard retainer	Warning tag part number	Metal hose tag part number
35NG-04	45J0-04209	4521-92005	Not used	0112-23085	FF91358-04
35NG-06	45J0-04211	4521-AA005	45J0-00407 or 45J0-00409	0112-23085	FF91358-06
35NG-08	45J0-04215	4521-AB007	45J0-00408	0112-23085	FF91358-08

Required assembly components vehicle (NGV 3.1 only)

Hose	Conductive media part number	Metal hose tag part numbers
35NG-04	45J0-04209	FF91357-04
35NG-06	45J0-04211	FF91357-06
35NG-08	45J0-04215	FF91357-08

Tools and accessories

For NG-TW hose

Coll-o-crimp tooling

Hose	Fitting part number	Crimp dies	Spacer ring
NG-6TW	05E-XXX 05ER-XXX	T-400-32C	Tan (T-400-112)
NG-8TW	07E-XXX 07ER-XXX	T-400-33C	Yellow (T-400-62, ET1000SR-M115D)
NG-10 TW	08E-XXX 08ER-XXX	T-400-34C	Green (T-400-37)

Variable crimp machines

Hose	Fitting part number	Crimp dies
NG-6TW	05E-XXX 05ER-XXX	T-400-32C
NG-8TW	07E-XXX 07ER-XXX	T-400-33C
NG-10 TW	08E-XXX 08ER-XXX	T-400-34C

Required assembly components

Hose	Metal hose tag part numbers
NG-6TW	FF91356-06
NG-8TW	FF91356-08
NG-10 TW	FF91356-10

Eaton
Hydraulics Group USA
14615 Lone Oak Road
Eden Prairie, MN 55344
USA
Tel: 952-937-9800
Fax: 952-294-7722
www.eaton.com/hydraulics

Eaton
Hydraulics Group Europe
Route de la Longeraie 7
1110 Morges
Switzerland
Tel: +41 (0) 21 811 4600
Fax: +41 (0) 21 811 4601

Eaton
Hydraulics Group Asia Pacific
Eaton Building
No.7 Lane 280 Linhong Road
Changning District,
Shanghai 200335
China
Tel: (+86 21) 5200 0099
Fax: (+86 21) 2230 7240