



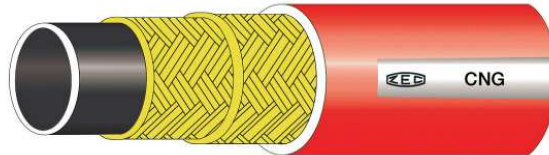
Since 1961

TUBI TERMOPLASTICI - THERMOPLASTIC HOSES



THERMOPLASTIC HOSES CNG SERIES

Constant Pressure 345 bar



DATA SHEET – CONDUCTIVE THERMOPLASTIC HOSES CNG SERIES

HOSE REFERENCE	ID INSIDE DIAMETER		OD OUTSIDE DIAMETER		BP MIN. BURST PRESSURE @ 23°C		WP MAX. WORKING PRESSURE		MIN. BEND RADIUS		WEIGHT		FERRULE CODE
	inch	mm	mm	inch	bar	psi	bar	psi	mm	inch	g/m	lbs/ft	
CNG30105	1/4"	6.4 ^{+0.2} _{-0.1}	12.5 ^{+0.2} _{-0.1}	0.492	1380	20000	345	5000	45	1.77	105	0.071	BP14MT1
CNGM30105	1/4"	6.4 ^{+0.2} _{-0.1}	15.0 ± 0.2	0.591	1380	20000	345	5000	50	1.97	162	0.109	BP14MT2
CNG40105	5/16"	8.0 ^{+0.2} _{-0.1}	15.0 ± 0.2	0.591	1380	20000	345	5000	60	2.36	142	0.095	BP516R7V
CNG50105	3/8"	9.7 ^{+0.2} _{-0.1}	16.5 ± 0.2	0.650	1380	20000	345	5000	75	2.95	155	0.104	BP38R7V
CNG60105	1/2"	13.0 ± 0.2	22.0 ± 0.2	0.866	1380	20000	345	5000	95	3.74	245	0.165	BP12R9R (*)
CNG80105	3/4"	19.2 ^{+0.3} _{-0.2}	29.0 ^{+0.3} _{-0.2}	1.142	1380	20000	345	5000	185	7.28	360	0.242	BP34MTKM (*)
CNG90105	1"	25.6 ± 0.3	38.5 ± 0.3	1.515	1380	20000	345	5000	230	9.06	510	0.343	BP1MTKM (*)

Technical features

- **Technical-constructive features:** Internal core in electrically conductive polyamide, reinforcement in high tenacity textile fiber braids, exterior covering in micro perforated anti abrasion RED polyurethane.

On request, TWIN-LINE or MULTI-LINE construction available.

- **Conductivity:** Electrical resistance lower than 0,12 MΩ/m according to ISO 8031.

- **Applications:** CNG series hoses have been specifically designed for high pressure conduction of CNG GAS.

- **Utilization temperature:** from -40°C to +82°C (-40°F to +180°F).

- **Working pressure:** safety ratio 1:4

- **Vacuum rating:** 13,5 psi; 27,5 inch Hg

- **Length Variation:** ±1.5 %

- **Specifications:** These hoses meet or exceeds standards ISO 15500-17, SAE 100R8.

(*) We recommend the use of FITTINGS ZEC type MULTISPIRAL.

Quality System Tests

Each production lot is subjected to the following tests according to specification SAE J517:

- Dimensional check
- Proof test at 2X the maximum working pressure
- Change in length test at the maximum working pressure
- Burst pressure test

For each lot the results of the above tests are summarized in an inspection certificate according to EN 10204 type 3.1.

All the test results are saved and one samples for each production lot is stored for at least 5 years in the warehouse.

ZEC S.p.A. THERMOPLASTIC HOSES		COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001 =		
COLORNO (PARMA) ITALY - Tel. (0521) 816831				
CERTIFICATO DI CONTROLLO 3.1 n° 5662				
INSPECTION CERTIFICATE 3.1				
TIPO DI TUBO: TYPE OF HOSE	5/16 CNG	CODICE: CODE	CNG40105	
LOTTO DI PROD.: LOT OF MANUFACTURER	15071715	METODO ANALISI: SPECIFICATION	SAE 100R8	
TIPO DI CONTROLLO: TYPE OF CONTROL	PRODOTTO FINITO FINISHED PRODUCT			
CLIENTE: CUSTOMER	MAGAZZINO			
TIPO PROVA TYPE TEST	U.M.	VALORE STANDARD VALUE	TOLLERANZE TOLERANCE	VALORE RISCONTRATI TEST VALUE
DIAMETRO ESTERNO OUTSIDE DIAMETER	mm.	15.0	+/- 0.20	14.97
DIAMETRO INTERNO INSIDE DIAMETER	mm.	8.0	+0.20 -0.10	8.0
RAGGIO MIN. DI CURVATURA BENDING RADIUS	mm.	60	-----	60
PRESSIONE D'ESERCIZIO WORKING PRESSURE	bar	345	-----	-----
PRESSIONE DI COLLAUDO TESTING PRESSURE	bar	690	-----	-----
PRESSIONE DI SCOPPIO BURSTING PRESSURE	bar	1380	-----	1417
LUNGHEZZA INIZIALE TUBO INITIAL LENGTH OF THE HOSE	mm.	600	+60.0 -0.0	606
LUNGHEZZA TUBO ALLA PRESSIONE D'ESERCIZIO LENGTH OF THE HOSE AT THE WORKING PRESSURE	mm.	-----	-----	610.3
VARIAZIONE DI LUNGHEZZA LENGTH VARIATION	%	0.00	+/- 1.5	0.71
DIAMETRO ESTERNO ALLA PRESSIONE DI ESERCIZIO OUTSIDE DIAMETER AT THE WORKING PRESSURE	mm.	-----	-----	-----
VARIAZIONE DI DIAMETRO DIAMETER VARIATION	%	-----	-----	-----
TEMPERATURA DI PROVA TEMPERATURE OF TEST	°C	23	+/- 5	27
NOTE: NOTES				
IL TUBO RISULTA: CONFORME THE HOSE IS: CONFORMING				
IN ACCORDO CON EN 10204 TIPO 3.1 ACCORDING TO EN 10204 TYPE 3.1				
DATA: 17/07/2015 DATE	TIMBRO E FIRMA C.G. STAMP AND SIGNATURE QUALITY CONTROL			

Crimping table

HOSE CRIMPING TABLE			
HOSE		FERRULE CODE	CRIMPING Ø mm
CNG30105	1/4"	BP14MT1	15.5
CNGM30105	1/4" M	BP14MT2	16.7
CNG40105	5/16"	BP516R7V	17.5
CNG50105	3/8"	BP38R7V	18.8
CNG60105	1/2"	BP12R9R	25.7
CNG90105	1"	BP1MTKM	41.8

Manufacturing process


The constructive process follows the steps below:


1. Extrusion of the inner core
 - Dimensional check of the inner core
2. Braiding of the reinforcement
 - Dimensional check, burst pressure test and elongation test
3. Extrusion of the cover
 - Dimensional check, burst pressure test and elongation test

Marking

The hose marking follows the scheme below. The marking length is 480 mm +/- 20 mm with a blank space between two markings of 150 mm +/- 30 mm.

 CNG30105 CNG HOSE ISO 15500-17 1/4" MAX W.P. 345 BAR *trimester-year-lot* MADE IN ITALY

 CNGM30105 CNG HOSE ISO 15500-17 1/4" MAX W.P. 345 BAR *trimester-year-lot* MADE IN ITALY

 CNG40105 CNG HOSE ISO 15500-17 5/16" MAX W.P. 345 BAR *trimester-year-lot* MADE IN ITALY

 CNG50105 CNG HOSE ISO 15500-17 3/8" MAX W.P. 345 BAR *trimester-year-lot* MADE IN ITALY

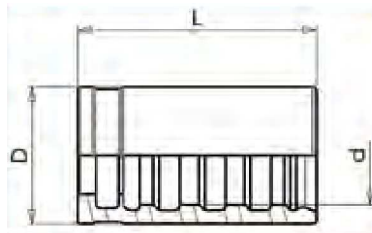
 CNG60105 CNG HOSE ISO 15500-17 1/2" MAX W.P. 345 BAR *trimester-year-lot* MADE IN ITALY

 CNG80105 CNG HOSE ISO 15500-17 3/4" MAX W.P. 345 BAR *trimester-year-lot* MADE IN ITALY

 CNG90105 CNG HOSE ISO 15500-17 1" MAX W.P. 345 BAR *trimester-year-lot* MADE IN ITALY

Ferrule datasheet

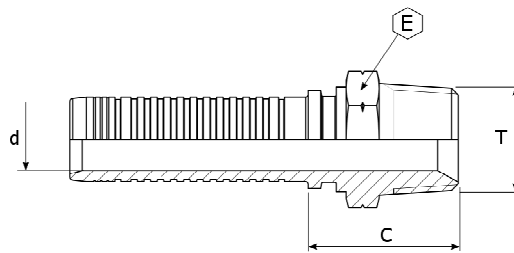
Ferrule material: AVP steel



FERRULE DATASHEET					
FERRULE CODE	HOSE	FERRULE DIMENSIONS			CRIMPING Ø mm
		d	D	L	
BP14MT1	1/4	13.0	18.0	30.0	15.5
BP14MT2	1/4	15.4	20.0	30.0	16.7
BP516R7V	5/16	15.4	20.0	30.0	17.5
BP38R7V	3/8	17.0	22.0	32.0	18.8
BP12R9R	1/2	23.0	30.0	45.0	25.7
BP34MTKM	3/4	32.5	42.0	55.0	
BP1MTKM	1	40.5	50.0	75.0	

Insert datasheet

Insert material: AVP steel.

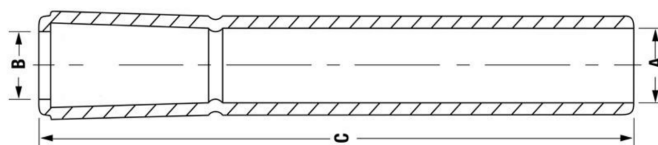


INSERT DATASHEET							
INSERT CODE	HOSE ID			THREAD	d	E	C
	inch	mm	size	T			
RGPM14NC14C	1/4"	6.4	04	1/4"-18	3.5	15	27.5
RGPM14NC516C	5/16"	8.0	05	1/4"-18	5.0	15	27.5
RGPM38NC38C	3/8"	9.7	06	3/8"-18	6.5	19	28.0
RGPM12NC12L	1/2"	13.0	08	1/2"-14	9.0	22	35.3
RGPM34NC34L	3/4"	19.2	12	3/4"-14	14.0	27	38.7
RGPM1NC1L	1"	25.6	16	1"-11.1/2	19.0	36	45.5

Hose-bend restrictor



- **Technical features:** Made in black Vinyl, suitable for the reduction of stress when bending the hose in the fitting area.
- **Working Temperature:** +5°C to +80°C (41°F to +176°F).



HOSE-BEND RESTRICTOR DATASHEET				
CODE	HOSE	A mm	B mm	C mm
HBR20	5/16" – 1/4" M	15.6	16.0	138.0
HBR60	3/8"	19.0	19.3	170.0
HBR120	1"	41.3	41.3	235.0

ZEC S.p.A.

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COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV GL
= ISO 9001 =

Rev. 2 – 04/07/16