

SMART conduit

Product Catalogue
July 2013 Ed.



English - Français - Español - Deutsch - Português - Italiano



THE INSTITUTE
OF PETROLEUM



This conduit system has been field tested and approved in service stations worldwide by major international petroleum companies

nupigeco 

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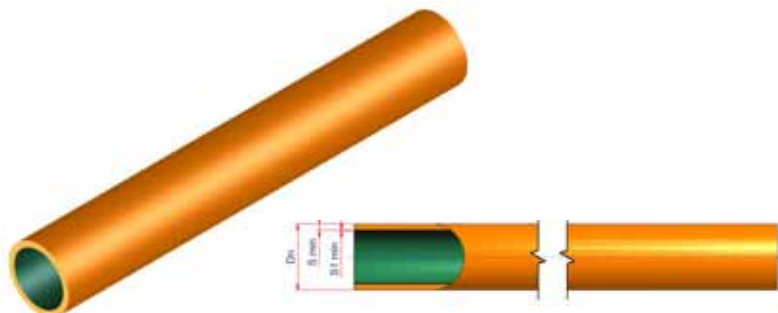
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PIPE



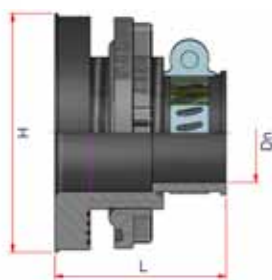
TUYAUTERIE CONDUIT
TUBERÍA CONDUIT
CONDUIT ROHRSYSTEM
TUBO CONDUIT
TUBAZIONE CONDUIT

CONDUIT PIPE

Code	Nominal OD in.	Dn	S	S1	Weight (kg/m)
19TCON32R100	1"	32	2.4	0.4	0.28
19TCON40R100 *	1 ¼"	40	3	0.4	0.42
19TCON50R100 *	1 ½"	50	3.2	0.4	0.62
19TCON63R100 *	2"	63	3.3	0.4	0.98
19TCON90R50 *	3"	90	4.7	0.4	1.90
19TCON100R50 *	4"	110	5.9	0.4	2.78

(*) available upon request - disponible sur demande - disponible a pedido - verfügbar auf Anfrage - disponível a pedido - disponibile su richiesta

ENTRY BOOTS/PENETRATION FITTINGS

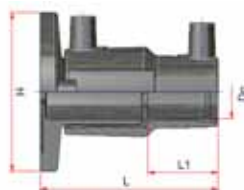


PRESSE-ÉTOUPE
PASAMUROS
ROHRDURCHFÜHRUNG
BOOT EM BORRACHA
PREMI-STOPPA

PENETRATION FITTING

Code	Nominal OD in.	Dn	L	H
19CEB32	1"	32	56	77
19CEB40 *	1 1/4"	40	56	77

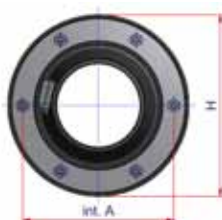
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PRESSE-ÉTOUPE ELECTROSOUDABLE
PASAMUROS ELECTROSOLDABLE
ELEKTROSCHWEISSBARE ROHRDURCHFÜHRUNG
BOOT DE ELETROFUSÃO
PREMI-STOPPA ELETTRISALDABILE

PENETRATION FITTING - ELECTROFUSION

Code	Nominal OD in.	Dn	L1	L	H	Int. A
19CEBE32	1"	32	43	110	98	81,5



PRESSE-ÉTOUPE
PASAMUROS
ROHRDURCHFÜHRUNG
BOOT EM BORRACHA
PREMI-STOPPA

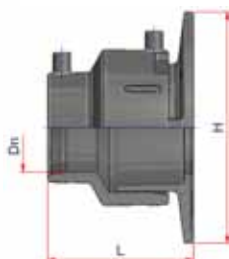
ENTRY BOOT

Code	Nominal OD in.	Dn	L1	L	H	Int. A	Holes
19SEB32	1"	32	43,5	55	128	101.5	4
19SEB40 *	1 1/4"	40	43,5	55	128	101.5	4

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ENTRY BOOTS/PENETRATION FITTINGS

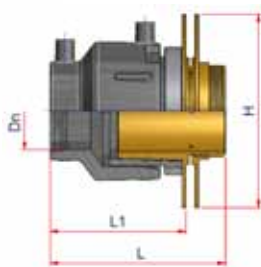


PRESSE-ÉTOUPE ELECTROSOUDABLE
PASAMUROS ELECTROSOLDABLE
ELEKTROSCHWEISSBARE ROHRDURCHFÜHRUNG
BOOT DE ELETROFUSÃO
PREMI-STOPPA ELETROSALDABILE

PENETRATION FITTING - ELECTROFUSION

Code	Nominal OD in.	Dn	L	H
19SEBE32	1"	32	150	170
19SEBE40 *	1 ¼"	40	148.5	170
19SEBE50 *	1 ½"	50	148.5	170
19SEBE63 *	2"	63	112	200
19SEBE75 *	2 ½"	75	126.6	200
19SEBE90 *	3"	90	200	235
19SEBE110 *	4"	110	205	235
19SEBE125 *	5"	125	208	235

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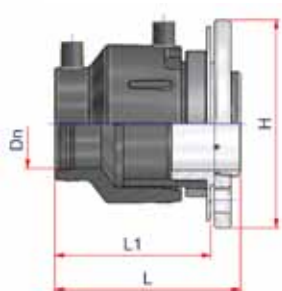
PRESSE-ÉTOUPE POUR CHAMBRE D'ACCES EN FIBRE DE VERRE SIMPLE
ENVELOPPE - BRIDE DE LAITON
PASAMUROS PARA ARQUETAS DE FIBRA DE VIDRIO SIMPLE PARED -
BRIDA DE LATÓN
EINWANDIGE-ROHRDURCHFÜHRUNG FÜR GFK SCHÄCHTE - FLANSCH
AUS MESSING
BOOT PARA SUMP EM FIBRA DE VIDRO DE PAREDE SIMPLES - FLANGE
DE LATÃO
PREMISTOPPA PER POZZETTI IN FIBRA VETRO SINGOLA PARETE -
FLANGIA IN OTTONE

PENETRATION FITTING FOR SW FIBERGLASS SUMPS - BRASS FLANGE

Code	Nominal OD in.	Dn	L1	L	H
19SEBEFM32	1"	32	143	175	125
19SEBEFM40 *	1 ¼"	40	141	173	125
19SEBEFM50 *	1 ½"	50	168	200.5	160
19SEBEFM63 *	2"	63	112.3	144.8	160
19SEBEFM75 *	2 ½"	75	128	161	160
19SEBEFM90 *	3"	90	196.5	221	220
19SEBEFM110 *	4"	110	204	236	220
19SEBEFM125 *	5"	125	198	229.5	220

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ENTRY BOOTS/PENETRATION FITTINGS



PRESSE-ÉTOUPE POUR CHAMBRE D'ACCES EN FIBRE DE VERRE SIMPLE
ENVELOPPE - BRIDE DE ALUMINIUM

PASAMUROS PARA ARQUETAS DE FIBRA DE VIDRIO SIMPLE PARED -
BRIDA DE ALUMINIO

EINWANDIGE-ROHRDURCHFÜHRUNG FÜR GFK SCHÄCHTE - FLANSCH
AUS ALUMINIUM

BOOT PARA SUMP EM FIBRA DE VIDRO PAREDE SIMPLE - FLANGE DE
ALUMINIO

PREMISTOPPA PER POZZETTI IN FIBRA VETRO SINGOLA PARETE -
FLANGIA IN ALLUMINIO

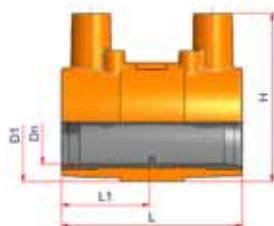
PENETRATION FITTING FOR SW FIBERGLASS SUMPS - ALUMINIUM FLANGE

Code	Nominal OD in.	Dn	L1	L	H
19SEBEFM32A	1"	32	141	162	120
19SEBEFM40A *	1 ¼"	40	141.5	163	120
19SEBEFM50A *	1 ½"	50	168	200.5	160
19SEBEFM63A *	2"	63	112.3	133.8	150
19SEBEFM75A *	2 ½"	75	128	149	150
19SEBEFM90A *	3"	90	196.5	221	220
19SEBEFM110A *	4"	110	196.5	226	220
19SEBEFM125A *	5"	125	198	222.5	220

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ELECTRO-WELDING FITTINGS

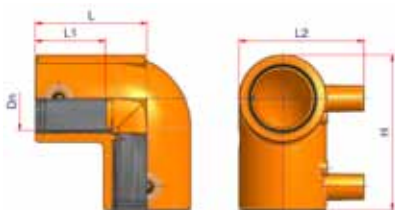


MANCHON ELECTROSOUDABLE
MANGUITO ELECTROSOLDABLE
ELEKTROSCHWEISSBARE MUFFE
UNIÃO ELETROFUSÃO
MANICOTTO ELETTRISALDABILE

STRAIGHT CONNECTOR (COUPLER)

Code	Nominal OD in.	Dn	D1	L1	L	H
19CME32	1"	32	46	34	70	65
19CME40 *	1 ¼"	40	55	41	84	75
19CME50 *	1 ½"	50	67	42	87	86
19CME63 *	2"	63	83	47	97	100
19CME90 *	3"	90	113	72	145	128
19CME110 *	4"	110	134	77	155	150

* available upon request - disponible sur requête - disponibile a pedido - verfügbar auf Anfrage - disponível a pedido - disponibile su richiesta



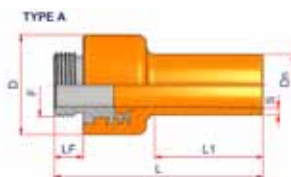
COUDE À 90° ELECTROSOUDABLE
CODO 90° ELECTROSOLDABLE
ELEKTROSCHWEISSBARER WINKEL 90°
COTOVELO 90° ELETROFUSÃO
CURVA A 90° ELETTRISALDABILE

ELBOW 90°

Code	Nominal OD in.	Dn	L1	L2	L	H
19CGE32	1"	32	34	64	57.5	80
19CGE40 *	1 ¼"	40	41	73	65	91,5
19CGE50 *	1 ½"	50	48	84	77	109,5
19CGE63 *	2"	63	53	100	88	129
19CGE90 *	3"	90	78	133	119	176
19CGE110 *	4"	110	83	164	144	214

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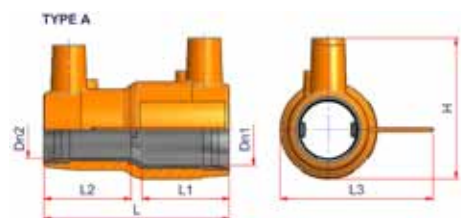
ELECTRO-WELDING FITTINGS



ADAPTATEUR MÂLE NICKELÉ
 ADAPTADOR MACHO NIQUELADO
 GEWINDEÜBERGANG MIT AUSSENGEWINDE - NICKEL LEGIERUNG
 ADAPTADOR MACHO DE PAREDE SIMPLES NIQUELADO
 ADATTATORE MASCHIO NICHELATO

ADAPTER MALE NICKEL PLATED

Code	Nominal OD in.	Dn	S	F	LF min	D	L1	L	CH	LCH
19CAM2534P	3/4" x 3/4"	25	3	3/4"	14.5	41	44.5	86	-	-
19CAM321P	1" x 1"	32	3	1"	16.8	50	48	110	34	10



RÉDUCTION
 REDUCCIÓN
 REDUZIERSTÜCK
 REDUÇÃO
 RIDUZIONE

REDUCER

Code	Nominal OD in.	Dn1	Dn2	L1	L2	L3	L	H
19CRDE3225	1" x 1/2"	32	25	39,5	39.5	70	84.5	64.5
19CRDE5032	1 1/2" x 1"	32	32	49,5	41.5	-	100	85



ELECTRO-WELDING FITTINGS

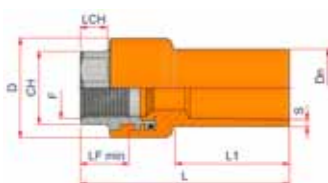


BOUCHON DE MISE À TERRE
TAPÓN DE PUESTA A TIERRA
VERSCHLUSS FÜR ERDUNG
CAP PONTA DE LIGAÇÃO A TERRA
TAPPO PER MESSA A TERRA

EARTHING END CAP

Code	Nominal OD in.	Dn	L1	L2	L	H
19CETH32	1"	32	36	67	65,5	65

NEW

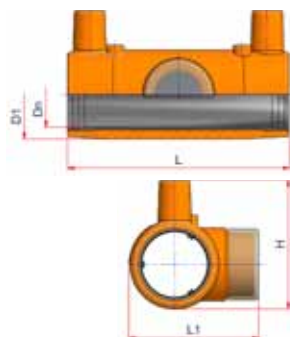


ADAPTATEUR FEMELLE NICKELÉ
ADAPTADOR HEMBRA NIQUELADO
GEWINDEÜBERGANG MIT INNENGEWINDE - NICKEL LEGIERUNG
ADAPTADOR FÊMEA NIQUELADO
ADATTATORE FEMMINA NICHELATO

ADAPTER FEMALE NICKEL PLATED

Code	Nominal OD in.	Dn	S	F	LF min	D	L1	L	CH	LCH
19CAF32M20	1"	32	3	M20 x 1.5	18	41	47	85	25	11
19CAF32M25	1"	32	3	M25 x 1.5	20	41	47	86	30	12

NEW

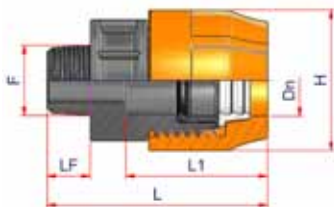


MANCHON ELECTROSODABLE LONG
MANGUITO ELECTROSOLDABLE LARGO
ELEKTROSCHWEISSBARE LANGE MUFFE
UNIÃO ELETROFUSÃO LONGA
MANICOTTO ELETROSALDABILE LUNGO

LONG ELECTROFUSION COUPLER

Code	Nominal OD in.	Dn	D1	L1	L	H
19CMEL32	1"	32	44	110	64	64

MECHANICAL FITTINGS

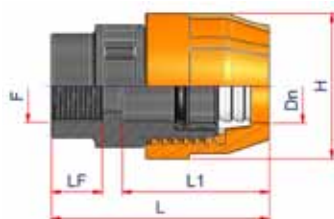


ADAPTATEUR MÂLE
ADAPTADOR MACHO
GEWINDEÜBERGANG MIT AUSSENGEWINDE
ADAPTADOR MACHO
ADATTATORE MASCHIO

ADAPTER MALE

Code	Nominal OD in.	Dn	F	LF	L1	L	H
19CRMP321	1" x 1"	32	1"	19.1	62,5	102	64.5
19CRMP40114*	1¼"x1¼"	40	1¼"	21.4	80	111	83.5
19CRMP50112*	1½"x1½"	50	1½"	21.4	90	118.5	96
19CRMP632*	2" x 2"	63	2"	25.7	110	145	113
19CRMP903*	3" x 3"	90	3"	33	144	198	150.5
19CRMP1104*	4" x 4"	110	4"	39	175.5	242	177

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ADAPTATEUR FEMELLE
ADAPTADOR HEMBRA
GEWINDEÜBERGANG MIT INNENGEWINDE
ADAPTADOR FÊMEA
ADATTATORE FEMMINA

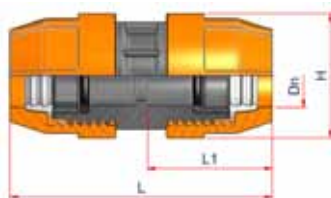
ADAPTER FEMALE

Code	Nominal OD in.	Dn	F	LF	L1	L	H
19CRFP321	1" x 1"	32	1"	20	62.5	88	64.5
19CRFP40114*	1¼"x1¼"	40	1¼"	22.5	80	92.5	83.5
19CRFP50112*	1½"x1½"	50	1½"	22.5	90	113.5	96
19CRFP632*	2" x 2"	63	2"	22.5	110	137	113
19CRFP903*	3" x 3"	90	3"	33	144	184.5	150.5
19CRFP1104*	4" x 4"	110	4"	39	175.5	237	177

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MECHANICAL FITTINGS

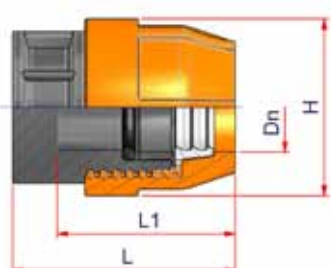


MANCHON
MANGUITO
MUFFE
UNIÃO
MANICOTTO

STRAIGHT CONNECTOR (COUPLER)

Code	Nominal OD in.	Dn	L1	L	H
19CMP32	1"	32	62.5	138	64.5
19CMP40*	1 ¼"	40	80	167.5	83.5
19CMP50*	1 ½"	50	90	184	96
19CMP63*	2"	63	110	224.5	113
19CMP90*	3"	90	144	298	150.5
19CMP110*	4"	110	175.5	364	177

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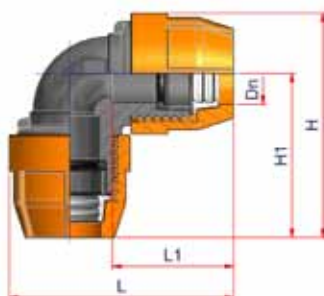
BOUCHON
TAPÓN
VERSCHLUSS
CAP PONTA
TAPPO

END CAP

Code	Nominal OD in.	Dn	L1	L	H
19CECP32	1"	32	62.5	83	54.5
19CECP40*	1 ¼"	40	80	89.5	83.5
19CECP50*	1 ½"	50	90	97	96
19CECP63*	2"	63	110	119.5	113
19CECP90*	3"	90	144	162	150.5
19CECP110*	4"	110	175.5	200	177

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MECHANICAL FITTINGS

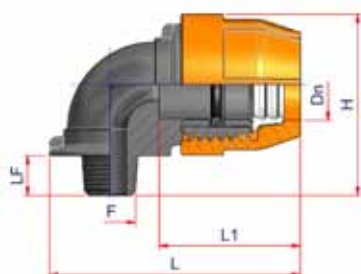


COUDE 90°
CODO 90°
WINKEL 90°
COTOVELO 90°
CURVA A 90°

ELBOW 90°

Code	Nominal OD in.	Dn	L1	L	H1	H
19CGP32	1"	32	62,5	120	86	120
19CGP40 *	1 ¼"	40	80	152	109	152
19CGP50 *	1 ½"	50	90	168	122	168
19CGP63 *	2"	63	110	201	147	201
19CGP90 *	3"	90	144	282	207	282
19CGP110 *	4"	110	175.5	331.5	243	331.5

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COUDE MALE 90°
CODO MACHO 90°
WINKEL MIT AUSSENGEWINDE 90°
COTOVELO MACHO 90°
CURVA MASCHIO A 90°

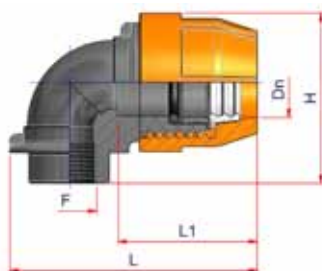
ELBOW MALE 90°

Code	Nominal OD in.	Dn	F	L fil	L1	L	H
19CGMP321	1" x 1"	32	1"	19.1	62.5	114	84
19CGMP40114 *	1 ¼" x 1 ¼"	40	1 ¼"	21.4	80	128.5	103
19CGMP50112 *	1 ½" x 1 ½"	50	1 ½"	21.4	90	150	117.5
19CGMP632 *	2" x 2"	63	2"	25.7	110	186	144
19CGMP903 *	3" x 3"	90	3"	33	144	260	185
19CGMP1104 *	4" x 4"	110	4"	39	175.5	338	232

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MECHANICAL FITTINGS



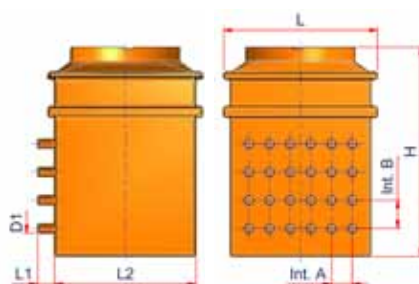
COUDE FEMELLE 90°
 CODO HEMBRA 90°
 WINKEL MIT INNENGEWINDE 90°
 COTOVELO FÊMEA 90°
 CURVA FEMMINA A 90°

ELBOW FEMALE 90°

Code	Nominal OD in.	Dn	F	L1	L	H
19CGFP321	1" x 1"	32	1"	62.5	105.5	79.5
19CGFP40114 *	1¼" x 1¼"	40	1¼"	80	128.5	95
19CGFP50112 *	1½" x 1½"	50	1½"	90	150	109.5
19CGFP632 *	2" x 2"	63	2"	110	186	134.5
19CGPF903 *	3" x 3"	90	3"	144	260	170
19CGFP1104 *	4" x 4"	110	4"	175.5	338	230

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PIT, MANHOLE AND TOOLING

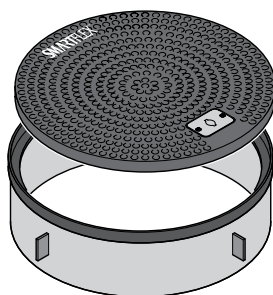


BAC ELECTRIQUE
TANQUE ELECTRICO
ELEKTRISCHER SCHACHT
SUMP ELECTRICO
POZZETTO ELETTRICO

ELECTRICAL PIT

Code	D1	L1	L2	L	Int. A	Int. B	H
19CEPK7575	50	90	750	820	110	150	1115

Dimensions: 820mm L x 820mm W x 950mm H 24 spigots Requires CRDE5032 to seal to conduit pipe Ø 32

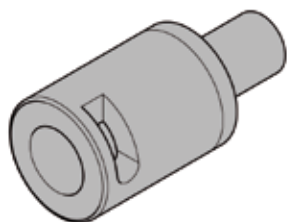


TAMPON DE PISTE AVEC VERROU CAM LOCK - HYDROFUGÉ
TAMPÓN PARA PASO DE HOMBRE CON CIERRE CAM LOCK - IMPERMEABLE
SCHACHTDECKEL MIT CAM LOCK SCHLOSS - WASSERDICHT
TAMPA PARA POÇO DE INSPEÇÃO COM FECHO CAM LOCK - IMPERMEÁVEL
CHIUSINO PER PASSO D'UOMO CON CHIUSURA CAM LOCK - IMPERMEABILE

MANHOLE COVER WITH CAM LOCK - RAIN-TIGHT

Code	Nominal OD in.	Nominal OD mm.	Package (pcs)	Notes
19STAM24WTCL	24"	670	1	

- class C250 / EN124 - classe C250 / EN 124 - clase C250 / EN124 - klasse C250 / EN 124 - classe C250 / EN 124 - classe C250 / EN 124



GRATTEUR POUR ERGOTS DU CEP7575
RASCADOR PARA ESPIGAS DEL CEP7575
SCHABER FÜR ZAPFEN DEM CEP7575
RASPADOR PARA ESPICHOS DO CEP7575
RASCHIETTO PER CODOLI DEL CEP7575

SCRAPER FOR CEP7575 SPIGOTS

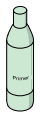


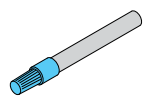
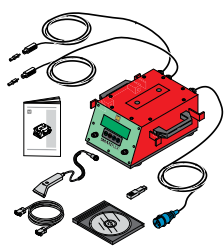
Code	Nominal OD in.	Ø mm.	Package (pcs)	Notes
19CEPRAT50	1 ½"	50	1	

* available upon request - disponible sur requête - disponibile a pedido - verfügbar auf Anfrage - disponível a pedido - disponibile su richiesta



ELECTRO-WELDING FITTING ASSEMBLY INSTRUCTIONS

Tools and equipment necessary for electrofusion assembly:

1		Primer 00LID1
2		Soft cloth
3		Conduit cutter 00SCUT
4		Marker 00MARK
5		Welding unit 19SSEL8404 + manual scraper 00RAM1 + revolving scraper 00RATOR25075

WARNING: Electro – welding is not permitted where vapour is present.

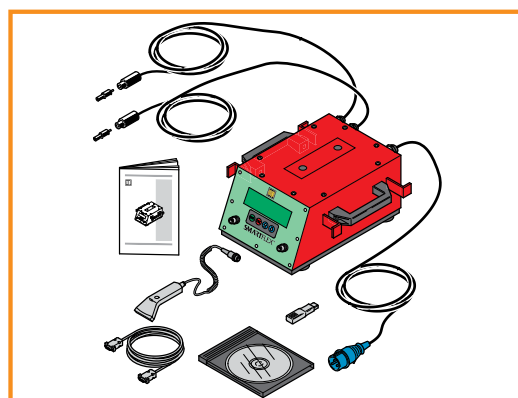
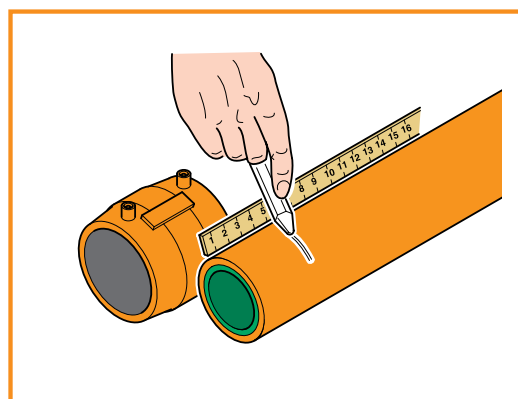
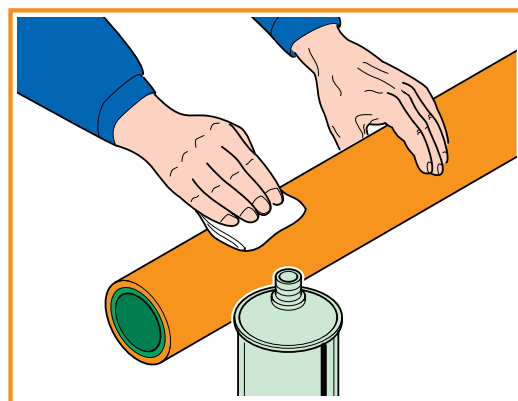
Check that the conduit ends have been protected by the caps.

If this is not the case, remove the first 2" (5 cm) of the conduit. This should be carried out using the correct conduit cutter to ensure a clean, burr-free cut at 90° to the conduit.

WARNING: a non-perpendicular cut prevents the complete insertion of the conduit. Consequently, molten material will enter the conduit interior during welding.

- 1 - Clean the parts to be welded; eliminate any traces of dust, mud, grease or anything else using a clean natural fibre (cotton) cloth. Never, under any circumstances, use sand paper, files, knives or makeshift tools.
- 2 - Mark the insertion length on both conduit ends.
- 3 - Clean the conduit ends and the fitting with recommended cleaning solvent and avoid any contact of the cleaned surfaces to be welded with bare or gloved hands or dirty rags.
- 4 - Insert the coupler, elbow or tee onto the conduit until it reaches its stop point.
- 5 - A loose fit between the conduit and the fitting should be of no concern. The thermal expansion occurring during welding will accommodate tolerances.
- 6 - Insert the other conduit, or spigot fitting, into the electrofusion fitting, check the assembly with the insertion lengths previously marked. It is important to align assemblies. It is also advisable to level the conduits where possible.
- 7 - You can now commence welding. Connect the leads to the electrofusion fitting, swipe the barcode hand scanner on the fitting bar code and proceed according to the instructions shown on the welding unit display.
- 8 - Do not move the assembly till the cooling time is reached.

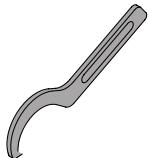
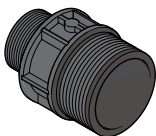


Warning: Avoid touching the assembly during and immediately after the fusion process as the fitting surface can be very hot.


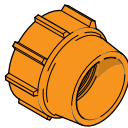


MECHANICAL FITTING ASSEMBLY INSTRUCTIONS



Component description:

1		Wrench
2		Fitting body
3		O-Ring
4		Thrust ring

5		Circular conduit retainer
6		Retaining nut

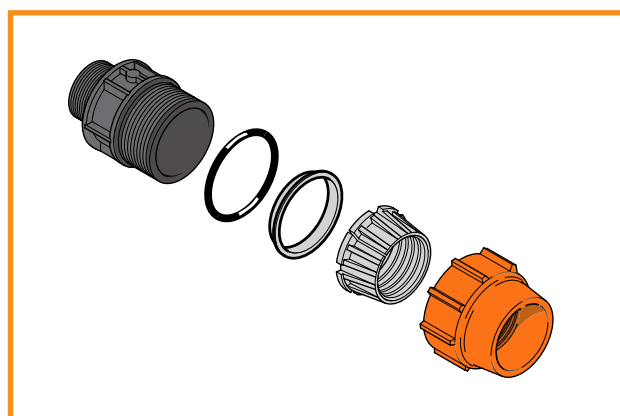


Fig.1



Shown here as fully assembled.
Loosen the retaining nut and the circular conduit retainer.

Fig.2

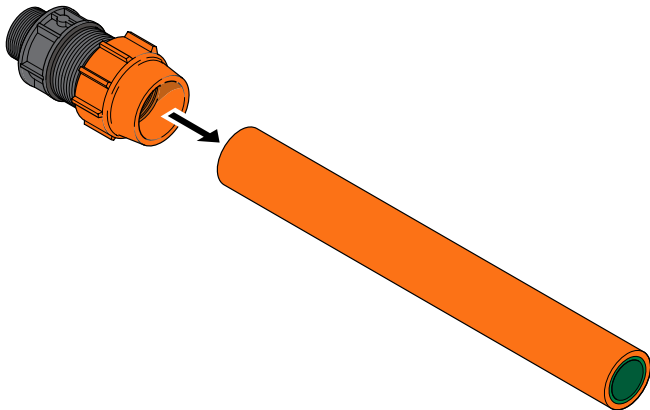


Shown here as loosened on fitting body.



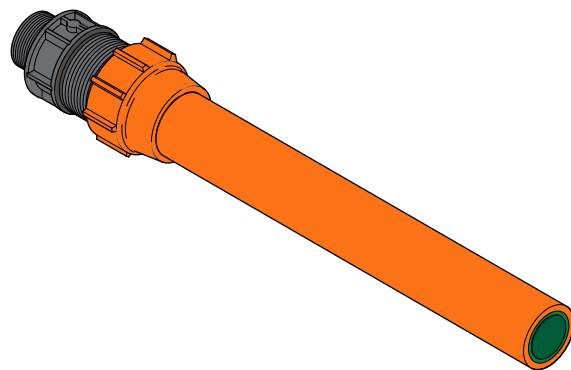
MECHANICAL FITTING ASSEMBLY INSTRUCTIONS

Fig.3



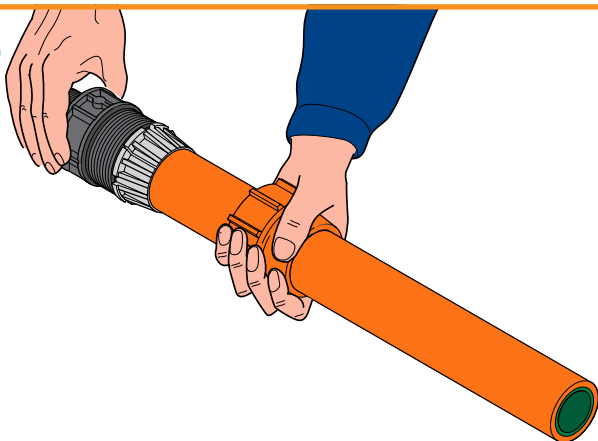
Push fitting firmly onto the conduit past the o-ring until it reaches the stop inside the fitting body.

Fig.4



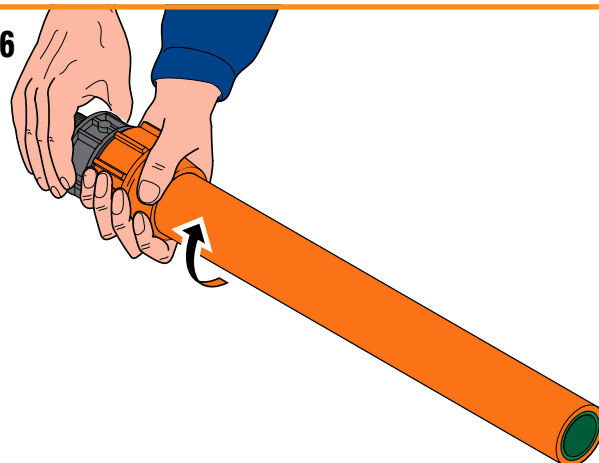
Fitting inserted into conduit.

Fig.5



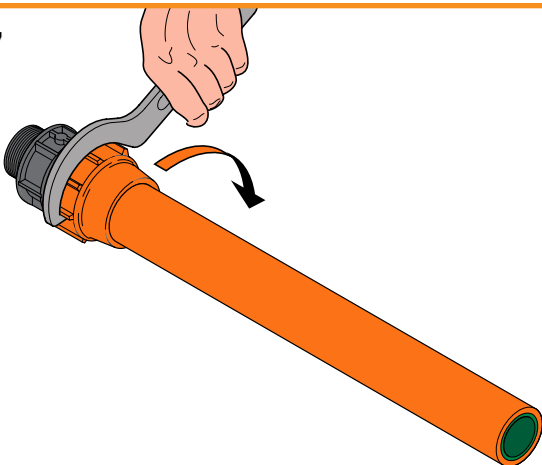
Undo the retaining nut completely and slide back along conduit to confirm that the circular conduit retainer is seated on the fitting body.

Fig.6



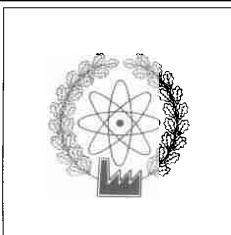
Tighten the retaining nut by hand as far as it will go.

Fig.7



Use a standard wrench or special tool as shown to tighten the retaining nut.

CERTIFICATES



ISTITUTO GIORDANO s.p.a.

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Registro Imprese Rimini n. 00549540409
Cap. Soc. € 516.000,00 i.v.

RICONOSCIMENTI UFFICIALI:

- MINISTERO LAVORI PUBBLICI Legge 1086/71 con D.M. 27/11/82 e 22/13 "Prove sui materiali da costruzione"
- MINISTERO INDUSTRIA COMMERCIO ARTIGIANATO D.M. 09/11/99 "Certificazione CEE per le unità da diporto"
- MINISTERO INDUSTRIA COMMERCIO ARTIGIANATO D.M. 31/10/91 "Certificazione CEE delle emissioni sonore di macchine da cantiere"
- MINISTERO INDUSTRIA COMMERCIO ARTIGIANATO D.L. 27/01/92 N. 135 "Certificazione CEE delle emissioni sonore di macchine di movimento terra"
- MINISTERO INDUSTRIA COMMERCIO ARTIGIANATO D.M. 08/07/93 "Certificazione CEE concernente la sicurezza dei giocattoli"
- MINISTERO INDUSTRIA COMMERCIO ARTIGIANATO D.M. 30/07/97 "Certificazioni ed attestati di conformità CEE per il riscaldamento delle caldaie ad acqua calda, al metano e con combustibili liquidi o gassosi"
- MINISTERO INDUSTRIA COMMERCIO ARTIGIANATO. Nota n. 757890 del 15/12/98 "Certificazione CEE per gli apparecchi a gas"
- MINISTERO INDUSTRIA COMMERCIO ARTIGIANATO e MINISTERO LAVORO e PREVIDENZA SOCIALE D.M. 09/07/93 "Certificazione CEE in materia di recipienti semplici a pressione"
- MINISTERO INDUSTRIA COMMERCIO ARTIGIANATO e MINISTERO LAVORO e PREVIDENZA SOCIALE D.M. 04/08/94 "Certificazione CEE sulle macchine"
- MINISTERO INDUSTRIA COMMERCIO ARTIGIANATO "Incendi di verifica della sicurezza e conformità dei prodotti nell'ambito della sorveglianza sul mercato e tutela dei consumatori"
- MINISTERO INDUSTRIA COMMERCIO ARTIGIANATO D.M. 02/04/98 "Rilascio di attestazioni di conformità delle caratteristiche e prestazioni energetiche dei componenti degli edifici e degli impianti"
- MINISTERO INTERNO Legge 818/84 e D.M. 26/03/85 con autorizzazione del 21/03/86 "Prove di reazione a fuoco secondo D.M. 26/06/84"
- MINISTERO INTERNO Legge 818/84 e D.M. 26/03/85 con autorizzazione del 10/07/86 "Prove di resistenza al fuoco secondo Circolare n. 91 del 14/09/91"
- MINISTERO INTERNO Legge 818/84 e D.M. 26/03/85 con autorizzazione del 03/07/92 "Prove di resistenza al fuoco secondo Circolare n. 7 del 02/04/91 e norma CNVVF-CCI UNI 9725"
- MINISTERO INTERNO Legge 818/84 e D.M. 26/03/85 con autorizzazione del 12/04/88 "Prove su estintori a incendio portatili secondo D.M. 20/12/87"
- MURIST (MINISTERO UNIVERSITA E RICERCA SCIENTIFICA E TECNOLOGICA) Legge 48/82 con D.M. 09/10/85 "Immissione nell'elenco dei laboratori autorizzati a svolgere ricerche di carattere applicativo a favore delle piccole e medie industrie"
- MINISTERO PUBBLICA ISTRUZIONE Protocollo n. 116 del 27/03/87 "Iscrizione alla Schede Anagrafe Nazionale delle ricerche con codice N. EM90191"
- SINCERT (Accreditamento Organismi Certificazione) Accreditemento n. 057A del 19/12/00 "Organismo di certificazione di sistemi qualità"
- SINAL (Sistema Nazionale per l'Accreditamento di Laboratori) Accreditemento n. 0007 del 14/11/93
- SIT (Servizio di Taratura in Italia) Accreditemento n. 20 "Centro SIT di taratura per grandezze termometriche ed elettriche"
- ICIM (Istituto di Certificazione Industriale per la Meccanica) "Prove di laboratorio nell'ambito degli schemi di Certificazione di Prodotto"
- IMQ (Istituto per il Marchio Qualità) "Prove di laboratorio nell'ambito degli schemi di Certificazione di Prodotto per carne lunnare"
- UNCSAAL (Unione Nazionale Costruttori Serenamente Abbinato Acciao Leghe) "Riconoscimento dei 26/03/85 Laboratori per le prove di certificazione UNCSAAL su serramenti e facciate continue"
- UNI (Ente Nazionale Italiano di Unificazione - Settore Certificazione) "Prove di laboratorio nell'ambito degli schemi di Certificazione di Prodotto per termocammetti a tegola con fuso a circolazione forzata e serramenti esterni"

PARTECIPAZIONI ASSOCIATIVE:

- AIA Associazione Italiana di Acustica
- AICARR Associazione Italiana Condizionamento dell'Aria Riscaldamento Refrigerazione
- AICO Associazione Italiana per la Qualità
- AIPND Associazione Italiana Prove non Distruttive
- ALF Associazione Laboratori Italiani Fuoco
- SITP Associazione Laboratori di Prova Independent
- ASHRAE American Society of Heating, Refrigerating and Air-Conditioning Engineers Inc.
- ASSINDUSTRIA Associazione degli industriali di Rimini
- ASTM American Society for Testing and Materials
- ATG Associazione Tecnica Italiana del Gas
- CTE Collegio dei Tecnici della Industrializzazione Edilizia
- CTI Comitato Termotecnico Italiano
- EARM European Association of Research Managers and Administrators
- EARTO European Association of Research and Technology Organisation
- EGOLF European Group of Official Laboratories for Fire Testing
- UNI Ente Nazionale Italiano di Unificazione

CLAUSE

Il presente documento si riferisce solamente al campione o materiale sottoposto a prova.
Il presente documento non può essere riprodotto parzialmente, salvo approvazione scritta del laboratorio.

TEST CERTIFICATE No. 165561

Place and date of issue: Bellaria, 31/10/2002

Customer: NUPI S.p.A. - Via dell'Artigianato, 13 - 40023 CASTEL GUELFO (BO)

Date test requested: 06/09/2002

Order number and date: 20404, 09/09/2002

Date specimen received: 09/09/2002

Date test effected: from 23/09/2002 to 10/10/2002

Purpose of test: Testing compression, impact, collapse, pull-out strength of joints and bending requirements on lengths of plastic multilayer conduits for electrical installations in accordance with standard AS/NZS 2053.1:1995

Test site: Istituto Giordano S.p.A. - Blocco 4 - Via Rossini, 2 - 47814 Bellaria (RN)

Specimen origin: supplied by Customer

Identification of specimen received: No. 2002/2513

Description of specimen.

The test specimen comprises various lengths of conduit both with and without fittings, nominal diameter 32 mm.

Normative references.

Tests have been conducted in accordance with standard AS/NZS 2053.1:1995 "AUSTRALIAN/NEW ZEALAND STANDARD. Conduits and fittings for electrical installations. Part 1: General requirements".

Test results.

Compression test, (Appendix A of standard AS/NZS 2053.1:1995) category: heavy	Pass
Impact test, (Appendix B of standard AS/NZS 2053.1:1995) category: very heavy	Pass
Collapse test, (Appendix C of standard AS/NZS 2053.1:1995)	Pass
Pull-out strength of joints, (Appendix D of standard AS/NZS 2053.1:1995)	Pass
Bending test	Max. load 759,12 N

Conclusions.

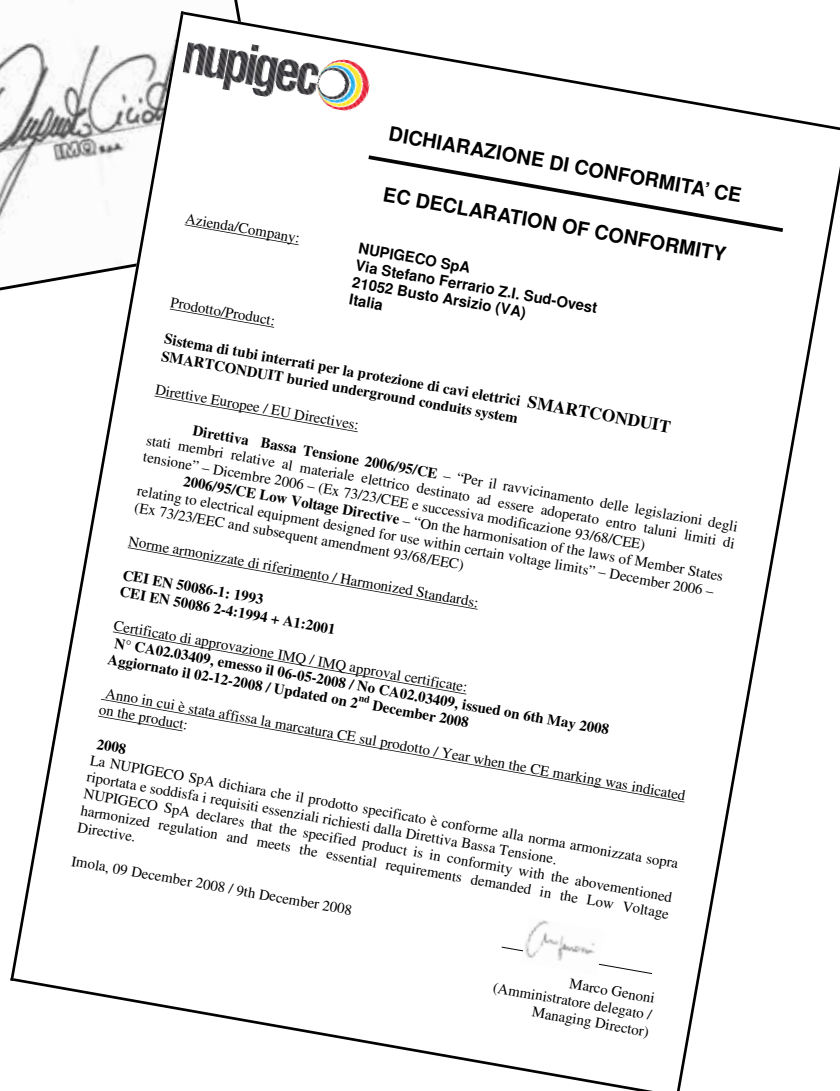
As regards the tests performed, the specimen complies with the requirements of standard AS/NZS 2053.1:1995.

As regards the description of the specimen, test equipment, test methods, test results and everything else necessary for the identification of the work carried out, please see Test Report Nos. 165104, 165105, 165106, 165107 and 165108 issued by this Institute on 22/10/2002.

Test Technician (Geom. Roberto Porta) Manager, Applied Physics Laboratory (Dott. Ing. Vincenzo Iommi) Chairman or Managing Director (Dott. Ing. Vincenzo Iommi)

Comp. AV Revis. This test certificate consists of 1 sheet Sheet 1 of 1

CERTIFICATES



GENERAL SALES TERMS



1 PROVISIONS OF THE CONTRACT

The purchase and sale of the goods and services relating to the SMARTFLEX, SmartConduit and SmartCA Piping Systems, (collectively, "Products") by NUPIGECO S.p.A. is governed by, and subject to, the following terms, covenants and conditions.

2 TERMS AND MEANS OF PAYMENT

The purchase price shown on the invoice issued by NUPIGECO in connection with the purchase and sale of the products described therein is due and payable by the purchaser on or before the date, and in the manner, provided for under such invoice. Interest shall accrue on all past due balances at the annual rate equal to the EURIBOR current at the time, plus 2%, until such invoice amounts, and accrued previously unpaid interest, have been paid in full.

All prices on any document or correspondence issued by NUPIGECO shall be understood to be in Euro. Any and all sums due and payable hereunder, or under any invoice, shall be due and payable at the offices of NUPIGECO in Castel Guelfo di Bologna, Italy.

3 TERMS OF DELIVERY

The products covered by the terms of an order accepted and confirmed in accordance with the provisions of Paragraph 5 hereof, shall be shipped to the purchaser on the terms and conditions set forth and established on the order confirmation issued by NUPIGECO. While NUPIGECO will undertake reasonable efforts to comply with purchaser's requested shipping dates, no provision of these terms of sale, the order confirmation, or any other agreement between purchaser and NUPIGECO be interpreted to (i) constitute NUPIGECO's guarantee of specific shipping dates; or (ii) impose any liability for damages, including without limitation any consequential and/or exemplary damages, on the part of NUPIGECO in the event of NUPIGECO's delayed performance under this agreement or in connection with the delayed shipment, or delivery, of the products.

4 RESERVATION OF SECURITY INTEREST

NUPIGECO hereby reserves a purchase money security interest in the products provided hereunder, or any other agreement between purchaser and NUPIGECO, to secure the payment and performance of purchaser's payment obligations hereunder.

Any provision of these terms of sale, the order confirmation or any other agreement between purchaser and NUPIGECO to the contrary notwithstanding, any and all risks of loss of the products, and any and all other risks associated with the products, are, and shall be, transferred to, and assumed by, the purchaser on the date of shipping of such products by NUPIGECO.

In the event of purchaser's payment default, NUPIGECO may, in addition to any other remedies at law or otherwise, reclaim the products and / or retain any and all sums previously paid by, or on behalf of, purchaser for such products.

Any default by purchaser under the terms hereof shall, at NUPIGECO's option, constitute an event of default under any other agreement to which purchaser and NUPIGECO are parties.

5 ORDER ACCEPTANCE

No order from a purchaser shall become binding upon NUPIGECO unless expressly accepted, and confirmed, in writing by NUPIGECO, within five (5) days after receipt of order. Orders and/or modifications of orders which have been made orally or by telephone must be confirmed in writing by the purchaser and the same shall not become binding upon NUPIGECO unless approved and confirmed, in writing, by NUPIGECO.

6 HANDLING FEE

A 50 Euro handling fee will be applied to any purchase order of less than 1,000 Euro in value.

7 PRODUCT ACCEPTANCE

Any claim or objection concerning one or more product acquired pursuant to these terms of sale, the order confirmation or any other agreement between the purchaser and NUPIGECO must be in writing, and received by NUPIGECO within ten days after delivery of such products to purchaser, otherwise the products shall be deemed to have been accepted.

8 PRODUCT COMPLIANCE AND WARRANTY

Subject to the provisions of paragraphs 9 and 10 hereof, NUPIGECO guarantees that the products comply with the technical specifications stipulated in the order confirmation, and the technical specifications published by NUPIGECO covering the products in effect on the shipping date of such products.

9 PRODUCT INSTALLATION AND LIABILITY

The performance and the cost for product installation is the responsibility of the purchaser. Accordingly, the purchaser assumes all responsibility for compliance with (and liability for failure to comply with) any and all applicable statutes, laws, rules and regulations relating to the suitability, compliance and safety of the products and the installation, the use of the products, the site at which the products will be installed and utilized, and the ultimate user of the products. Installation of the products must be performed by qualified installers who have been trained and certified by NUPIGECO and whose work complies in all respects with the specifications and installation standards promulgated by NUPIGECO. Accordingly, the purchaser further assumes all liability resulting from the purchaser's failure to provide copies of such specifications and installation standards and the brochures and other written materials covering the same to such installation personnel. Purchaser shall defend, indemnify and hold NUPIGECO harmless from and against any and all claim, actions, damages, costs (including costs of litigation and settlement) arising, or alleged to have arisen in connection with any and all damages caused by, or resulting from any improper installation, lack of maintenance or improper use of the products.



GENERAL SALES TERMS

10 WARRANTY

NUPIGECO warrants that products sold by it which are incorporated in its SMARTFLEX Piping System shall be of good materials and workmanship and free from functional defects for a period of thirty (30) years from the date of sale, excepting valves, flex connectors, entry, terminating and test rubber boots, gaskets and o-rings, and products containing electrical components, which shall be of good materials and workmanship and free from functional defects for a period of one (1) year from the date of sale; provided that such products are properly installed in accordance with NUPIGECO's specifications and published instructions by qualified installers who have been trained and certified by NUPIGECO. These respective warranties shall become immediately null and void if the products to which they apply: (i) are employed in above-ground applications; (ii) are installed by anyone other than an installer trained by NUPIGECO; or (iii) are installed in a manner which fails to comply with NUPIGECO's written installation instructions.

AS THE SOLE AND EXCLUSIVE REMEDY FOR ANY BREACH OF THE LIMITED WARRANTIES SET FORTH ABOVE, NUPIGECO WILL REPLACE NON-CONFORMING GOODS OR REFUND THE PURCHASE PRICE. THESE LIMITED WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE CONCERNING MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THESE LIMITED WARRANTIES ARE ALSO IN LIEU OF ANY OTHER POSSIBLE LIABILITIES OF NUPIGECO, WHETHER ALLEGED TO HAVE ARISEN BY AGREEMENT OR BY OPERATION OF LAW, RESPECTING THE SALE, INSTALLATION, USE OR FUNCTION OF NUPIGECO'S PRODUCTS, INCLUDING, WITHOUT LIMITATION, CLAIMS OF NEGLIGENCE, GROSS NEGLIGENCE, STRICT LIABILITY OR ANY OTHER TORT. IN NO EVENT SHALL NUPIGECO BE LIABLE FOR PERSONAL INJURY OR DAMAGE TO REAL OR PERSONAL PROPERTY ATTRIBUTED TO ITS PRODUCTS, NOR FOR ANY EXCAVATION, REMOVAL, DOWNTIME, CLEANUP, REMEDIATION, LOSS OF USE, LOSS OF OPPORTUNITY, LOSS OF MARKET VALUE, LOSS OF RENTAL VALUE, LOSS OF PROFITS, LOSS OF PRODUCTION, OR OTHER SPECIAL, INCIDENTAL, RESULTING, CONSEQUENTIAL OR EXEMPLARY DAMAGES.

No person is authorized by NUPIGECO to accept for it any other liability of any kind in connection with the sale or use of products sold and/or marketed by it.

11 RETURN MATERIALS POLICY

Any provision of these terms of sale to the contrary notwithstanding, no purchaser shall be authorized to return any products to NUPIGECO unless:

- * NUPIGECO authorizes the return of the products in writing;
- * The products are returned to such address specified by NUPIGECO prepaid freight in original packaging and accompanied by copy of the return authorization and
- * The return of the products will result in the issuance by NUPIGECO of a credit which may be utilized by the purchaser for future purchases of products, from which credit shall be deducted a restocking charge in an amount equal to twenty per cent (20%) of the purchase price of the returned products.

12 GOVERNING LAW

All disputes arising in relation to the relations between the parties to this contract, except for those involving payment of the amounts under the supply invoices, shall be settled under the Arbitration Rules and Internal Rules (current at the time the request is submitted) of the European Court of Arbitration, which is part of the European Arbitration Centre, with offices in Strasbourg, without any right to review the first level decision taken by an Arbitration Court of Appeal.

STORAGE

Store in a dry place out of direct sunlight at temperatures between -20°C and +50°C.

RECOMMENDATIONS FOR WASTE DISPOSAL

Metal and plastic material must be disposed of by authorized companies only. Dispose of responsibly.

NUPIGECO S.p.A. obtained a certification of quality in compliance to international standards EN ISO 9001:2008 and EN ISO 14001:2004. This prestigious certification proves that NUPIGECO S.p.A. fulfils specific quality management and environmental management requirements.

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