



Conduit
Medium Flexibility – Fatigue Life

Construction
Nylon Covered Galvanised Steel



Metallic TYPE SN

Applications Industrial
Food Industry
Manufacturing Areas

Fittings
IP68 n/a
IP66 n/a
IP65 Type SP Fittings – Type M & C90
IP54 Type SP Fittings – Type A, B, C, E & F

Characteristics High UV Resistance
Medium Flexibility
Medium Fatigue Life
Self Extinguishing
Halogen Free

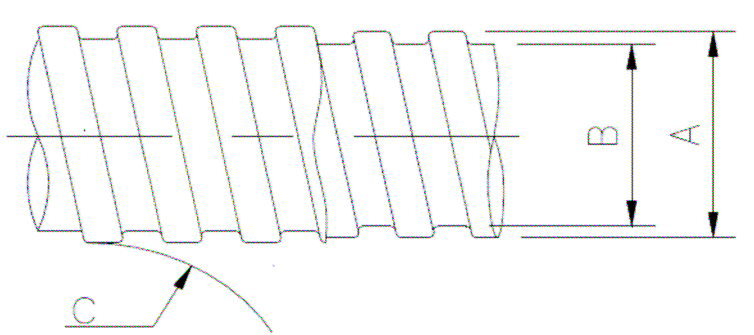
Approvals
CE LVD
IEC61386

Material Nylon Covered Galvanised Steel



IEC 61386

Part No.	Conduit Size			Dimensions				
	NC	NW	Pitch	(B) Inside Diameter	(A) Outside Diameter	Reel Length	(C) Min Bend Radius	Colour
SN12	12	-	-	10.3	14.0	25, 50	30	BL
SN16	16	-	-	13.0	17.0	25, 50	35	BL
SN20	20	-	-	16.9	21.5	25, 50	45	BL
SN25	25	-	-	21.4	26.0	25, 50	55	BL
SN32	32	-	-	28.1	34.0	25	60	BL





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Mechanical Properties

Test Type	Method/Standards	Requirements	Value
Crush Strength @ 23°C	IEC61386-1	<25% crush >90% recovery	1250N
Crush Strength @ 23°C	AFX norm C1989	10% Crush, Instantaneous Value	2200N
Impact Strength @ 23°C	IEC61386-1	No Cracks. <20% deformation	20 J
Impact Strength @ -25°C	IEC61386-1	No Cracks. <20% deformation	6 J
Tensile Strength @ 23°C	IEC61386-1	With M Type Fitting	1000 N
Tensile Strength @ 23°C	AFX norm T1987	Ultimate pull-out of M-type fitting	1450 N
Static Bend Radius @ 23°C	AFX norm S1985	-	45mm
Dynamic Bend radius @ -5°C	IEC61386-2-3	5000 cycles minimum @ 50mm	Pass

Thermal Properties

Test Type	Method/Standards	Requirements	Value
Minimum Temperature	-	Permanent use	-25°C
Maximum Temperature	-	Permanent use	150°C

Flammability, Smoke and Toxicity (FST) Performance

Test Type	Method/Standard	Requirement	Result	Unit
Halogen Free	LUL	<0.5%	Yes	Yes/No
Phosphorus Free	LUL	<0.5%	Yes	Yes/No
Sulphur Free	LUL	<0.5%	Yes	Yes/No
Oxygen Index	ISO 4589	% Oxygen to support combustion	22	%
Glow Wire rating	IEC 695	No ignition, Extinguish withing 2 s	750	°C
Flammability	UL94	Vertical (V0, V2) or Horizontal (HB)	V2	
Flammability	IEC61386-1	1kW burner @ 45°	Pass	Pass/Fail
I Classification	NFF16-101	Oxygen Index & Glow Wire	-	
F Classification	NFF16-101102	Smoke density & toxicity	-	
Smoke Density	ATS1000	In Flaming mode <100 @ 4 mins	Pass	Pass/Fail
	ATS1000	In Non-Flaming mode <100 @ 4mins	Pass	Pass/Fail
Smoke Density	BS6853 App. B5.1	A ₀ <0.02		A ₀
Toxicity	NES713 Issue 3	Smoke Toxicity ≤5.0 or ≤ 10	Pass	Pass/Fail

Pre test Conditions

Duration	Standard	Temperature	Relative Humidity
168 (Hours)	EN50086/IEC61386	23 (°C)	50 (%)



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Chemical Properties

Suitable

Limited Suitability

Astm No.1		Methanol	
Astm No.2		Methyl Bromide	UNSUITABLE
Astm No.3		MEK	
Acetic Acid (10%)		Nitric Acid (10%)	UNSUITABLE
Acetone		Nitric Acid (70%)	UNSUITABLE
Aluminium Chloride		Oxalic Acid	
Aniline		Ozone (Gas)	UNSUITABLE
Benzaldehyde		Paraffin oil	
Benzene		Petrol	
Carbon tetrachloride		Phenol	UNSUITABLE
Chlorine water	UNSUITABLE	Sea Water	
Chloroform	UNSUITABLE	Silver Nitrate	
Citric Acid		Skydrol	
Copper Sulphate		Sodium Chloride	
Cresol	UNSUITABLE	Sodium Hydroxide (10%)	
Diesel oil		Sodium Hydroxide (60%)	
Diethylamine		Sulphur Dioxide (Gas)	UNSUITABLE
Ethanol		Sulphuric Acid (10%)	UNSUITABLE
Ether		Sulphuric Acid (70%)	UNSUITABLE
Ethylamine		Toluene	
Ethylene Glycol		Transformer Oil	
Ethyl Ethanoate		1,1,1-Trichloroethane	
Freon 32		Trichloroethylene	
Hydrochloric Acid (10%)	UNSUITABLE	Turpentine	
Hydrochloric Acid (36%)	UNSUITABLE	Vegetable Oil	
Hydrogen Peroxide (35%)		Vinyl Acetate	
Hydrogen Peroxide (87%)	UNSUITABLE	Water	
Lactic Acid	UNSUITABLE	White Spirit	
Lubricating oil		Zinc Chloride	UNSUITABLE

The information above is given as a guide only and is based on published technical data and experience. The chemical resistance of the above products is dependant on factors such as chemical exposure, concentration of the chemical and temperature. The above chemicals are valid for a temperature of 23°C. Use of the above table is at the users own discretion and risk. Those using it must satisfy themselves that their application presents no health and safety risks. The end user should assess compatibility with their application and contact Adaptaflex for further information.

IEC 61386 CLASSIFICATION

	Fitting	Compression	Impact	Min temp	Max temp	Bending	Electrical	IP Solids	IP Water	Corrosion	Tensile	Non-Flame Propagation	Suspended Load



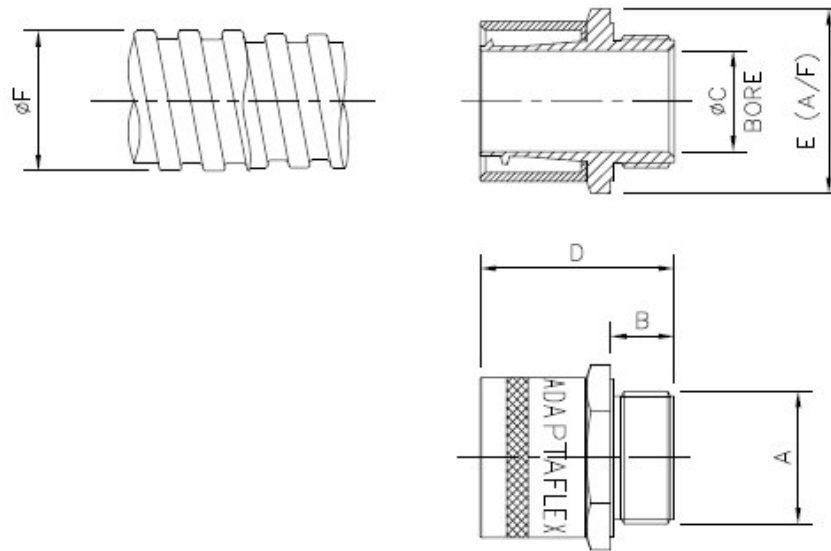
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**Dimension charts for associated fittings
TYPE A SP Fittings**



METRIC THREADS

PART No.	THREAD A	NOMINAL DIMENSIONS (mm)				NOMINAL CONDUIT ϕF
		B	C	D	E	
SP10/M12/A	M12 x1.5	8.0	5.5	23.0	14.0	10.0
SP12/M16/A	M16 x1.5	8.0	8.5	23.0	17.0	14.0
SP16/M16/A	M16 x1.5	10.0	11.5	25.5	20.0	17.0
SP16/M20/A	M20x1.5	10.0	11.5	25.5	22.0	17.0
SP20/M20/A	M20x1.5	13.0	15.3	29.0	24.0	21.0
SP25/M25/A	M25x1.5	12.0	19.0	36.5	30.0	26.0
SP32/M32/A	M32x1.5	14.0	26.2	39.0	38.0	34.0
SP40/M40/A	M40x1.5	15.0	34.2	43.0	50.0	44.5
SP50/M50/A	M50x1.5	15.0	45.0	45.0	66.5	55.0
SP63/M63/A	M63x1.5	20.0	54.0	57.0	76.5	64.5
SP75/M75/A	M75x1.5	20.0	66.5	60.0	84.0	79.0